FEASIBILITY STUDY DATA GAPS REPORT

GLACIER NORTHWEST, INC. SITE

5900 W Marginal Way SW, Seattle, WA

Agreed Order No. DE 6000

Prepared for

Glacier Northwest, Inc.

Project Number

25006-02

Date

June 1, 2026 | Agency Review Draft

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DRAFT

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Contents

Contents i
Acronyms & Abbreviations iv
1 Introduction 1
2 Site Background 2
2.1 Operational History 2
2.2 Geology/Hydrogeology 4
2.2.1 Site Geology 4
2.2.2 Site Hydrogeology 6
3 Summary of Historical Data and Data Gaps 7
3.1 Primary Site COPCs 7
3.2 Summary of Data Gaps 8
3.3 Preliminary SLs 10
3.3.1 Preliminary SLs for Site COPCs 10
3.3.2 Preliminary SLs for PFAS 11
4 Data Gaps Investigations 11
4.1 Initial FS Data Gaps Investigation 11
4.1.1 Soil Borings 12
4.1.2 Monitoring Well Installation and Development 13
4.1.3 Aquifer Characterization 14
4.1.4 Groundwater Sampling 14
4.1.5 Porewater Sampling 14
4.1.6 Investigation-Derived Waste Disposal 15
4.1.7 Deviations from the FS Data Gaps WP 16
4.2 PFAS Investigation 16
4.2.1 Groundwater Sampling 16
4.2.2 Investigation-Derived Waste Disposal 17
4.2.3 Deviations from the PFAS Sampling WP 17

5 Results 18
5.1 Soil 18
5.1.1 Geologic Interpretation 18
5.1.2 Soil Analytical Results 19
5.2 Groundwater 22
5.2.1 Groundwater Elevations and Gradient 22
5.2.2 Groundwater Analytical Results 23
5.3 Porewater 24
6 Evaluation of FS Data Gaps 25
6.1 Refinement of Soil Source Areas 25
6.2 Empirical Correlation of Soil/Groundwater Data 26
6.3 Characterization of Hydraulic Properties of Both Aquifers 26
6.4 Characterization of Shoreline Groundwater Quality 26
6.5 Characterization of Sediment Porewater 27
6.6 Designation of Dangerous Waste 27
6.7 Potential PFAS Sources at the Site 28
7 Conclusion 29
8 References 30
9 Report Limitations and Use Guidelines 31

List of Tables

1 Monitoring Well Construction Details
2 Calculated Hydraulic Conductivity from Slug Testing
3 Investigation-Derived Waste Designation
4 Vadose Zone Soil Analytical Results
5 Saturated Zone Soil Analytical Results
6 Groundwater Elevations for Paired Wells – December 2024 and January 2026
7 Groundwater Analytical Results
8 PFAS Groundwater Analytical Results
9 Porewater Analytical Results
10 Toxicity Characteristic Leaching Procedure Analytical Results

List of Figures

1 Site Location Map
2 Site Plan and FS DG Explorations Map
3 PFAS Sampling Locations
4 Groundwater Elevation Contours
5 Arsenic in Vadose Zone Soil
6 Arsenic in Saturated Zone Soil
7 PCP in Vadose Zone Soil
8 PCP in Saturated Zone Soil
9 Arsenic in Shallow Groundwater
10 Arsenic in Deep Groundwater
11 PCP in Shallow Groundwater
12 PCP in Deep Groundwater
13 Arsenic and PCP in Porewater

List of Appendices

A Preliminary Screening Level Derivations
B Cultural Resources Monitoring Report
C Boring Logs
D Graphs of Head Displacement During Slug Tests
E Investigation-Derived Waste Disposal Manifests
F Laboratory Analytical Reports and Data Validation Reports

Acronyms & Abbreviations

AO	Agreed Order No. DE 6000
Ash Grove	Ash Grove West, Inc.
Aspect	Aspect Consulting
bgs	below ground surface
Black River	Black River Environmental, LLC
CAP	Cleanup Action Plan
Carlisle	Carlisle Lumber Company
COPCs	contaminants of potential concern
cPAHs	carcinogenic polycyclic aromatic hydrocarbons
CWS	Chemical Warfare Service
DSI	Duwamish Shipyards, Inc.
Ecology	Washington State Department of Ecology
ERM	ERM-West, Inc.
foc	fraction of organic carbon
FS	Feasibility Study
ft/d	feet per day
gal	gallon
Glacier	Glacier Northwest, Inc.
HDPE	high density polyethylene
IDW	investigation-derived waste
LDW	Lower Duwamish Waterway
Lone Star	Lone Star Industries, Inc.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
Mineralized-Cell	Mineralized Cell Wood Preserving Company
MTCA	Model Toxics Control Act
NTU	nephelometric turbidity units
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PCP	pentachlorophenol
PCUL	preliminary cleanup level
PFAS	per- and polyfluoroalkyl substances
PFHxS	perfluorohexane sulfonic acid
PFHpA	perfluoroheptanoic acid
PID	photoionization detector
PLPs	potentially liable parties
Reichhold	Reichhold, Inc.
RI	Remedial Investigation
SAP/QAPP	Sampling and Analysis Plan / Quality Assurance Project Plan
SiREM	SiREM Laboratories
Site	Glacier Northwest, Inc. Site
SLs	screening levels
SVOCs	semivolatile organic compounds
TCLP	toxicity characteristic leaching procedure
TEE	terrestrial ecology evaluation

TEQ	toxic equivalency
TPHd/o	diesel- and oil-range total petroleum hydrocarbons
ug/L	micrograms per liter
VOC	volatile organic compound
WAC	Washington Administrative Code
WP	Work Plan
WillametteCRA	Willamette Cultural Resources Associates, LTD
XRF	X-ray fluorescence

1 Introduction

In accordance with Agreed Order No. DE 6000 (the Agreed Order; AO), executed on July 28, 2009, between the Washington State Department of Ecology (Ecology) and Potentially Liable Parties (PLPs) Glacier Northwest, Inc. (Glacier) and Reichhold, Inc. (Reichhold), a Feasibility Study (FS) is being conducted for the Glacier Northwest, Inc. Site (Site). The Site, as defined by the Model Toxics Control Act (MTCA) is "any area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located" and is associated with King County Tax Parcel No. 1924049292, located at 5900 West Marginal Way SW in Seattle, Washington (the Property). The FS is intended to develop and evaluate cleanup action alternatives to enable the selection of a permanent cleanup action for the Site, in accordance with Washington Administrative Code (WAC) 173-340-351.

A Draft FS Report (titled as Volume 2 of the Remedial Investigation [RI] / FS Report) was previously prepared by ERM-West, Inc. (ERM) on behalf of Glacier and provided to Ecology for review on April 30, 2020 (ERM, 2020). As part of comments provided on that document, Ecology identified several data gaps which had the potential to substantially change the development and evaluation of cleanup action alternatives in the FS. To address these data gaps, an FS Data Gaps Work Plan (WP) was prepared by Aspect Consulting (Aspect, 2024b) and reviewed and approved by Ecology. Aspect conducted the investigations outlined in the FS Data Gaps WP in December 2024 through January 2025.

Additionally, Ecology transmitted a letter in June 2025 that required Glacier to conduct an investigation of per- and polyfluoroalkyl substances (PFAS) in potentially affected media as part of the Site's RI being conducted under the AO. The letter recommended a phased approach, beginning with collection and analysis of groundwater from existing Site monitoring wells. Black River Environmental, LLC (Black River) prepared the PFAS Sampling WP (Black River, 2025) that included groundwater sampling at select shallow monitoring wells to provide an initial assessment of the nature and occurrence of PFAS compounds in groundwater at the Site. The PFAS Sampling WP also included groundwater sampling at select shallow and deep wells for other Site contaminants of potential concern (COPCs) to confirm the results of the initial FS data gaps investigation. Black River conducted the investigations outlined in the PFAS Sampling WP in January 2026.

This FS Data Gaps Memorandum summarizes the work conducted during both the initial FS data gaps investigation and the PFAS investigation, reports the results of those investigations, and makes recommendations for how this information could be used in the revised FS.

2 Site Background

This section summarizes the operational history of the Property and the geologic/hydrogeologic conceptual site model.

2.1 Operational History

Site background information, including the Site location, land use, operational history, regulatory history, infrastructure, and a description of adjacent sites, is provided in the RI Report (ERM, 2024).

Between 1913 and 1922, the U.S. Army Corps of Engineers conducted initial dredging of the Lower Duwamish Waterway (LDW) to straighten and deepen the waterway. A wooden bulkhead was constructed along the shore on the Property before 1922 and was likely constructed on top of the original land surface, now referred to as the silt aquitard, with the bulkhead posts driven into the aquitard to an unknown depth. The bulkhead would have served to retain dredged material placed over the silt aquitard on the upland portion of the Property.

There is no documentation of operations occurring on the Property between the time dredged fill was placed and approximately 1936, when the Mineralized Cell Wood Preserving Company (Mineralized-Cell) began wood preserving operations. Mineralized-Cell operated a wood preserving facility on a portion of the Property between approximately 1936 and 1939. Historical records, including a copy of the U.S. Patent issued to Mineralized-Cell, indicate that the wood preservation process involved “the forcing into logs under pressure of a solution consisting of arsenic, copper sulfate, zinc sulfate and eight other unnamed chemicals.” Surface releases of preservative are likely to have occurred in the log treatment area based on the patent description for the treatment process, knowledge of practices typical at that time, and a photograph taken of the operation during this period.

In April 1940, Carlisle Lumber Company (Carlisle) was awarded Educational Contract No. W266 CWS4 by the Chemical Warfare Service (CWS), a division of the Army. The Educational Contract required that Carlisle construct a plant to make charcoal and activated carbon impregnated with copper or copper, silver, and chromium (known as whetlerite) for use in gas masks. Carlisle constructed the charcoal and whetlerite plant in the northern portion of the Property beginning in 1940 or 1941 and completed in early 1942. The plant became known as the Seattle CWS Plant and included a manufacturing area, laboratories, warehouses, offices, chemical storage, underground storage tanks, and railroad spurs. A Pollution Control Commission report from 1945 notes that they were disposing of waste charcoal on the southern portion of the Property, and this waste charcoal could have included spent charcoal from quality control testing, which utilized several chemicals including arsine gas, which was conducted in the laboratories. When the Educational

Contract ended, the CWS awarded a production contract to Carlisle that ran from August 1942 to February 1943. At the end of the Carlisle production contract, the U.S. purchased the Property, modified the Seattle CWS Plant, and awarded a new production contract to the Crown Zellerbach Corporation, who operated the Seattle CWS Plant until November 1944, at which time the Seattle CWS Plant was placed on standby status.

Reichhold leased the Property from the U.S. between 1946 and 1961. Reichhold used the Property to manufacture resins, glues, formaldehyde, pentachlorophenol (PCP), and sodium pentachlorophenate; however, PCP was only manufactured between 1953 and 1956. Former operational features during Reichhold's lease included two aboveground storage tank farms, a washwater impoundment, a plywood animal glue production area, a resin production area, a process water outfall, and PCP and sodium pentachlorophenate production areas. A Pollution Control Commission memorandum dated September 27, 1961, indicates Reichhold had terminated production activities and was using the Property only for office and laboratory functions.

The north-adjacent Duwamish Shipyards, Inc. (DSI) used the Embayment[1] for log and vessel mooring between 1960 and 1964. The Port of Seattle owned the Embayment at that time. In 1964, the Port of Seattle acquired the upland portion of the Property and leased the Property (including both the upland and Embayment) to Kaiser, which was obligated under the terms of the lease to redevelop the Property. Kaiser demolished all existing buildings on the Property and conducted substantial earthwork in the northern portion of the Property where the facilities utilized by the Seattle CWS Plant and Reichhold were located. Kaiser completed construction of the cement terminal by 1969, which included 19 storage silos, a scale house, a conveyor system, a shop building, and a dock.

Changes to the shoreline of the Property are also evident during construction of the cement terminal as shown in aerial photographs from 1966 and 1968. The photographs show the upland portion of the Property was expanded to the east into the LDW as part of the redevelopment. The 1967 aerial photographs appear to show stockpiled soil in the central portion of the Property, presumably from the excavation to support the construction of the cement terminal.

The cement terminal became operational around 1968 or 1969 and continues to be operated in substantially the same form through present day. In 1973, the Port of Seattle sold the Property to Kaiser. Kaiser replaced the original dock sometime between 1976 and 1980 with the dock as is

[1] The Embayment is generally the in-water portion of the Property between the upland and the dock (Figure 4 of Attachment B).

currently configured. Kaiser operated the cement terminal until it sold the Property to Lone Star Industries, Inc. (Lone Star) in 1987.

Between April 1987 and October 1991, Ash Grove West, Inc. (Ash Grove) leased the Property from Lone Star for continued use as a cement terminal. Glacier acquired the Property in April 1991. Glacier terminated the lease held by Ash Grove in October 1991, and Glacier's ownership and operations at the Property continue through the present day.

2.2 Geology/Hydrogeology

The hydrogeologic conditions at the Site provide the framework for understanding groundwater flow and the nature and extent of contamination in subsurface media at the Site.

2.2.1 Site Geology

The Site has been well characterized, and the following interpretation of the Site geology is based on the numerous borings conducted as part of Site characterization during the RI (Figure 2), as well as the recent FS data gaps investigation described in Section 4. The soil at the Site includes the following distinct stratigraphic units, some of which are subdivided by lithology and the understanding of the operational history at the Site (from top to bottom):

- **Fill:** Fill soil is distributed throughout the Site and was anthropogenically placed atop the native landform over numerous periods starting prior to 1913 through 1967-1969. The Fill Soil is further subdivided based on time of placement (from youngest to oldest, top to bottom):
    - **Bank Fill:** Bank Fill soil is present along the eastern upland shoreline and is armored by riprap, consisting of concrete rubble. The original source of the Bank Fill soil was likely a combination of construction debris from the demolition of the CWS/Reichhold plant and Dredged Fill material (originally placed between 1913 and 1922 and later redistributed to expand the shoreline of the Property eastward during redevelopment between 1964 and 1968). Therefore, the Bank Fill soil has similar physical properties to the Dredged Fill material, generally consisting of sandy to silty sand intermixed with construction debris such as bricks, wood, and concrete. However, the southern bank of the Property, which was created during the Port of Seattle's construction of Terminal 115 in 1969 and 1970, contains gravels varying in diameter armored with engineered shore protection consisting of rock. Bank Fill varies in thickness between 1.25 and 14 feet bgs, overlying the Dredged Fill or native Silt Aquitard.
    - **Shallow Fill:** Shallow Fill was placed over the Dredged Fill in the upland portion of the Site as it was redeveloped over various periods of its operational history. The

Shallow Fill material consists of silt, sand, gravel, brick, carbon/charcoal, and concrete debris. The northern portion of the Site contains Shallow Fill to depths of 2 to 5 feet bgs, while the southern portion of the Site contains Shallow Fill material to depths of 3 to 7 feet bgs. Various anthropogenic materials including, but not limited to, carbon/charcoal, reddish-brown vesicular fragments, and sawdust ranging from thin discontinuous lenses to nearly 2 feet thick, are present in the Shallow Fill.

  - **Dredge Fill:** Dredge Fill material was placed over the native landform as the LDW was straightened between 1913 and 1922. The Dredge Fill material consists of gray to black, well to poorly graded, fine to medium sand to sandy silt. The Dredge Fill is approximately 4 to 9 feet thick and is continuous throughout the upland portion of the Site, before truncating under Bank Fill, riprap, and/or the riverbank to the east towards the LDW. The lower portion of the Dredged Fill (below approximately 6 feet below ground surface [bgs]) is typically saturated.

- **Native Soil:** Native Soil consisting of gray, interbedded, fine to medium sands and silts are present in the western portion of the Site at depths ranging between 1.5 to 12.5 feet bgs. The Native Soil overlies and is interbedded with the Silt Aquitard. Based on the Site's proximity to the adjacent steep hillside on the western side of West Marginal Way, the Native Soils are interpreted to be alluvial deposits or colluvial deposits from the hillside that were deposited at the edges of the intertidal wetlands represented by the Silt Aquitard. The thickness and presence of Native Soil increases towards the western portion of the Site.
- **Silt Aquitard:** The Silt Aquitard overlies the Lower Alluvial Sand and consists of clayey silt to sandy silt, generally containing organic material, with low to medium plasticity. The Silt Aquitard is a native floodplain/tidal deposit, and the top of the Silt Aquitard represents the exposed intertidal wetland ground surface prior to modern development via placement of Dredged Fill between 1913 and 1922. The Silt Aquitard has been documented across the Site, except in a few select locations along the eastern riverbank, at thicknesses of 3.5 to 12 feet and depths of 6.5 to 20 feet bgs. At those locations along the eastern shoreline where the Silt Aquitard was not present and was presumably removed during dredging and straightening of the LDW, Bank Fill material overlies the Lower Alluvial Sand deposits.
- **Lower Alluvial Sand:** The Lower Alluvial Sand soils are typified by a black, poorly to well graded, fine- to coarse-grained, subangular sand with a trace to little fines. The top of the Lower Alluvial Sand has been documented at depths of 15 to 22 feet bgs. The thickness of the Lower Alluvial Sand increases from west to east across the Site from approximately 40 to 110 feet near the eastern riverbank.
- **Tidal Flat Deposits:** Tidal Flat Deposits are present below the Lower Alluvial Sand and extend to depths ranging between 85 and 165 feet bgs. Like the overlying coarse-grained

alluvium, the Tidal Flat Deposits also increase in thickness between 25 and 40 feet from west to east across the Site. The Tidal Flat Deposits are typically identified by the presence of shell fragments and consist of a fine-grained subunit that is consistent with a mudflat deposit and a coarse-grained subunit that is consistent with a sandflat deposit. The fine-grained subunit typically consists of low plasticity to non-plastic silt with varying amounts of sand and overlies the coarse-grained subunit. The coarse-grained subunit below consists of sand with varying amounts of silt and gravel. The Tidal Flat Deposits range in density between very soft to stiff.

- **Glacially Consolidated Soil:** Glacially Consolidated Soil is present below the Tidal Flat Deposits and extends to the maximum depth explored, approximately 182 feet bgs. Like the Lower Alluvial Sand and Tidal Flat Deposits, the top of the Glacially Consolidated Soil increases in depth from approximately 85 to 165 feet bgs from west to east. The Glacially Consolidated Soil typically consists of low plasticity silt and low to medium plasticity clay (CL) with varying amounts of sand and scattered sand and gravel-sized dropstones, consistent with a glaciolacustrine deposit.

2.2.2 Site Hydrogeology

Groundwater at the Site occurs in two of the stratigraphic units described above. Shallow, unconfined groundwater is present in the Fill and is separated by the Silt Aquitard from deep, confined groundwater in the Lower Alluvial Sand. The Silt Aquitard limits transmission of groundwater between the two zones.

The saturated thickness of the shallow, unconfined aquifer ranges between 2 and 11 feet above the Silt Aquitard depending on location on the Site and the tidal stage. In the shallow aquifer, tidal influence extends approximately 200 feet inland from the LDW. Groundwater in the shallow aquifer generally flows to the east-northeast in the northern portion of the Site, to the south and east in the central portion of the Site, and to the south-southeast in the southern portion of the Site, all toward the Embayment. Along the southern portion of the Property, groundwater elevations are lower due to increased drainage through the backfill surrounding the 48-inch diameter Seattle Public Utilities stormwater line that runs parallel to the Property boundary and discharges to the LDW. At the shoreline, higher tidal cycles result in short-term groundwater flow reversals inland; however, the long-term average horizontal hydraulic gradient in the shallow aquifer in the middle, inland portion of the Site has been calculated at 0.002 to 0.004 ft/ft, towards the LDW.

The vertical hydraulic gradient between the shallow, unconfined and the deep, confined aquifers as measured in co-located wells varies between -0.21 to -0.34 ft/ft, indicative of a net downward gradient. However, the Silt Aquitard limits flow between the two groundwater zones. While both

aquifers are tidally influenced, greater variations in groundwater elevation, conductance, and temperature have been measured in the deep groundwater monitoring wells, consistent with a confined aquifer. Accounting for short-term flow reversals during higher tides, the net average horizontal gradient in the deep aquifer in the inland portion of the Site is 0.00075 ft/ft, with flow towards the LDW.

Horizontal hydraulic gradient in both the shallow and deep aquifers was evaluated following the installation of shoreline monitoring wells as described further in Section 5.2.1 below.

3 Summary of Historical Data and Data Gaps

The following subsections summarize the Site COPCs identified in the RI (ERM, 2024), summarize the data gaps identified for the FS, and describe the development of preliminary screening levels (SLs) that will be used to evaluate data in this report and will form the basis for refining proposed cleanup levels in the FS.

3.1 Primary Site COPCs

As described in the RI Report (ERM, 2024), COPCs are defined as analytes that exceeded one or more screening levels in one or more media at the Site. A total of 28 COPCs in vadose zone soil, 46 COPCs in saturated soil, 12 COPCs in groundwater, and 29 COPCs in sediment were identified. To facilitate discussion of the magnitude and extent of contamination at the Site in the RI and evaluation of remedial technologies and alternatives in the FS, the COPCs were further evaluated and distilled to a set of Primary COPCs. The primary COPCs met one or both of the following criteria:

1. They were detected in all sampled Site media (i.e., vadose zone soil, saturated soil, groundwater, and sediment); and/or
2. They meet all the following criteria:
    a. They were reported at concentrations exceeding the screening levels in more than one media
    b. The frequency of screening level exceedances in one or more media is greater than 10 percent
    c. The maximum screening level exceedance ratio in one or more media is greater than or equal to 2

The Primary COPCs and affected media are shown in Table A:

Table A: Primary COPCs and Affected Media

Analyte	Screening Level Exceedances			
	Vadose Soil	Saturated Soil	Groundwater	Sediment
Arsenic	X	X	X	X
Copper	X	X	X	X
Zinc	X	X	X	X
TBT	X			X
TPHd/o	X	X	X	
PCP	X	X	X	X
2,4,6-Trichlorophenol	X	X	X	
2,4-Dichlorophenol	X	X	X	
Hexachlorobenzene	X	X		X
bis(2-ethylhexyl)phthalate		X	X	
Phenol	X	X		X
cPAHs	X	X	X	X
Total PCB Aroclors	X	X	X	X
Total Dioxin/Furan TEQ	X	X	X	X

Notes: TBT = tributyl tin; TPHd/o = Diesel- and Oil-range Total Petroleum Hydrocarbons; cPAHs = carcinogenic polycyclic aromatic hydrocarbons including benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and total cPAH toxic equivalency (TEQ); PCB = polychlorinated biphenyls.

3.2 Summary of Data Gaps

The FS Data Gaps WP identified the following data gaps that affected uncertainty in the scope, costing, and performance of cleanup alternatives to be considered in the FS:

1. **Refinement of soil source areas:** Additional analytical data was required to refine both the lateral and vertical extents of soil contamination in areas of the Site where concentrations of Primary COPCs are present at orders of magnitude above the preliminary SLs. There are two primary soil source areas which required further evaluation: (a) the occurrence of arsenic in soil in the southern portion of the Site near the former log area associated with Mineralized-Cell operations and (b) the occurrence of PCP in soil in the central eastern portion of the Site near the former washwater impoundment associated with Reichhold operations. The objectives of refining the source soil areas were twofold:
    a. Understanding the lateral extents of these hot spots of contamination will be crucial to accurate volume estimation for remedial design in the FS.
    b. Understanding the vertical distribution of Primary COPC concentrations within the Lower Alluvial Sand unit at the Site is fundamental to assessing if remedial alternatives should include active components for the deeper system.
2. **Empirical correlation of soil/groundwater data:** Additional co-located soil and groundwater data, particularly in the soil source areas and at the shoreline, was necessary to bolster the dataset used in various parts of the FS evaluation including partitioning, development of remediation levels, and calibration of models.

3. **Characterization of hydraulic properties of the shallow and deep aquifers:** Several of the remedial alternatives for the Draft FS (ERM, 2020) were developed using models to predict concentrations of Primary COPCs discharging from the Site in groundwater to surface water and/or sediment past the shoreline. Characterization of the shallow and deep aquifer systems has been conducted in the upland and showed large variability. Understanding the hydraulic properties of both the shallow and deep aquifer at the shoreline was necessary to refine the conceptual site model related to transport pathways and contaminant distribution and to refine modeling using Site-specific aquifer properties.
4. **Characterization of shoreline groundwater quality:** There is uncertainty regarding attenuation of Primary COPCs in both the shallow and deep aquifers as groundwater migrates and discharges to surface water/sediment. Prior to the FS data gaps investigation, characterization of groundwater has focused on source areas of contamination and modeling of discharging groundwater relies on attenuation between the source zone and nearshore wells installed at the Site. A conditional point of compliance for groundwater may need to be established based on the practical limits of remedial technologies and/or restoration time frames to be applied at the Site. MTCA requires demonstrating that meeting the standard point of compliance for groundwater (throughout the Site) is impracticable before a COPC can be utilized as either part of developing remedial alternatives in the FS or as part of the final remedy as selected in the Cleanup Action Plan (CAP). Characterization of groundwater quality at the shoreline, particularly in the lower aquifer, was warranted to determine if the groundwater cleanup level could potentially be met by a conditional point of compliance at the shoreline or if alternative conditional points of compliance, such as discharge of groundwater at the mudline, would be more appropriate for the Site. Likewise, groundwater quality at the shoreline will be invaluable in other analyses throughout the FS, including calibration of models and refinement of interpolated source zone treatment areas.
5. **Characterization of sediment porewater:** In order to assess the deep groundwater discharge pathways to surface water and sediment, characterization of sediment porewater at the mudline was recommended.
6. **Designation of dangerous waste:** Designation as either nonhazardous or dangerous waste of soil and groundwater to be generated during select FS alternatives can affect both cost of the alternatives and implementation scoring. The soil and/or groundwater generated during a cleanup could be designated as dangerous waste due to either being a listed waste based on process/source or due to being a characteristic waste due to potential leaching (soil) or concentration (groundwater). Additional toxicity characteristic leaching procedure (TCLP) testing was conducted for select soil samples as part of the FS data gaps investigation.

In addition to the above identified data gaps, collecting sufficient soil for treatability testing as identified in the Treatability Testing Work Plan (Aspect, 2024a) was an objective of the FS Data Gaps WP. The results of treatability testing are reported in the Revised Draft Permeable Reactive Barrier Treatability Testing Memorandum (Black River, 2026a) and Draft Solidification/Stabilization Treatability Testing Memorandum (Black River, 2026c).

Additionally, the PFAS Sampling WP (Black River, 2025) established another data gap based on Ecology's June 23, 2025 letter:

7. **Assessment of Potential PFAS Sources at the Site:** The primary objective of the PFAS Sampling WP was to collect groundwater samples as an initial screening to assess whether a potential source of PFAS is associated with the Site and/or if PFAS is present at concentrations that could be a risk to human health or the environment.

3.3 Preliminary SLs

3.3.1 Preliminary SLs for Site COPCs

Ecology's *Lower Duwamish Waterway Preliminary Cleanup Level Workbook* and *Supplemental Information* (PCUL Workbook; Ecology, 2026) was used to develop preliminary SLs for this FS Data Gaps Report and will form the basis for developing the proposed cleanup levels in the FS. The PCUL Workbook includes all potential transport and exposure pathways for soil and groundwater, some of which are not applicable to the Site. The most recently updated version of the PCUL Workbook (February 2026) was used to establish the preliminary SLs, with the following Site-specific modifications:

- A simplified terrestrial ecological evaluation (TEE) conducted as part of the RI (ERM, 2024) established that the Site is unlikely to pose a risk to terrestrial ecological receptors due to the lack of undeveloped land, the industrial land use, and low habitat quality. Therefore, the TEE pathway in the PCUL Workbook (SL-9) was removed from soil screening.
- As described in the PFAS Sampling WP (Black River, 2025), the Property is an industrial property as defined by MTCA; therefore, the direct contact pathway in the PCUL Workbook (SL-1) was adjusted to Method C direct contact values for soil screening.
- Additionally, the PFAS Sampling WP established that groundwater at the Site is nonpotable, and the highest beneficial use of groundwater at the Site is discharge to LDW surface water (Black River, 2025). Therefore, the groundwater drinking water pathway (GW-1) and leaching to groundwater for protection of drinking water pathways for vadose and saturated soil (SL-2 and SL-5) were removed from screening.
- Total organic carbon data reported in the RI (ERM, 2024) for soil samples in the Bank Fill, Dredge Fill, and Silt Aquitard geologic units was used to calculate an average fraction of

organic carbon (foc) of 0.015. A Site-specific foc of 0.015 is consistent with the average foc of 0.019 reported for sediments in the LDW, given that much of the soil above the Silt Aquitard at the Site was originally dredged from the LDW. The default foc of 0.001 in the PCUL Workbook was updated to the Site-specific foc of 0.015.

These modifications apply to all Site COPCs, and these preliminary SLs do not consider analyte-specific adjustments such as practical quantitation limits, background concentrations, or empirical demonstrations of cross-media transport pathways that may be made to establish the proposed cleanup levels in the FS. Preliminary SLs for soil and groundwater are shown in Tables A.1 and A.2, respectively, of Appendix A.

3.3.2 Preliminary SLs for PFAS

As described in the PFAS Sampling WP (Black River, 2025), the highest beneficial use of groundwater at the Site is discharge to the LDW. Within the LDW surface water, two potential receptors must be considered: marine organisms and humans consuming seafood. As described in Ecology's PFAS guidance (2023), cleanup levels under MTCA have not been developed for the human consumption of seafood because chemical-specific bioconcentration factors are not available. Preliminary SLs for five compounds were developed based on the most stringent of the marine aquatic life protection values from multiple sources. Additionally, Ecology's guidance (2023) recommends applying potable groundwater cleanup levels at sites with non-potable groundwater for preliminary site screening when surface water quality screening criteria for marine ecological receptors are not available. For five additional PFAS compounds without marine aquatic life protection values, the most stringent drinking water value from multiple sources was selected. The preliminary SLs for these ten PFAS compounds are shown in Table A.3 of Appendix A.

4 Data Gaps Investigations

The following subsections provide a timeline and description of activities completed during implementation of the FS Data Gaps WP and the PFAS Sampling WP. Analytical results from these investigations are discussed in Section 5.

4.1 Initial FS Data Gaps Investigation

Implementation of the field activities in the FS Data Gaps WP was completed by Aspect in November and December 2024. Field activities at the Site included soil boring advancement, monitoring well installations/development, aquifer characterization testing, groundwater sampling, and porewater sampling. All field activities were completed in accordance with the

Sampling and Analysis Plan / Quality Assurance Project Plan (SAP/QAPP; Appendix D of the FS Data Gaps WP) unless otherwise noted below.

4.1.1 Soil Borings

The Site is within an area considered sensitive for precontact archaeological resources. Therefore, the subsurface exploration work was conducted with archaeological monitoring by a professional archaeologist in accordance with the Site-specific Monitoring and Inadvertent Discovery Plan approved by Ecology (Willamette Cultural Resources Associates, LTD [WillametteCRA], 2024). No evidence of potential cultural resources or human skeletal remains were encountered during the field investigations. The Cultural Resources Monitoring Report is included as Appendix B (WillametteCRA, 2025).

Between November 18 and 25, 2024, a total of twelve soil borings (nine of which were completed as monitoring wells) were advanced at locations GP-81, GP-82, GP-83, MW-13D, MW-19D, MW-33D, MW-46S, MW-46D, MW-47S, MW-47D, MW-48S, and MW-48S (Figure 2). Soil borings were advanced by Cascade Drilling, LP of Woodinville, Washington using a TSi 150CC sonic drill rig. For the borings that penetrated the Silt Aquitard (all borings except MW-46S, MW-47S, and MW-48S), a 10-inch conductor casing was set into the top of the Silt Aquitard and a bentonite seal was placed before advancing the boring using a 6-inch conductor casing to minimize the potential for carry-down of contaminants into the deeper units. All borings were advanced to their planned depth of 40 feet bgs (except co-located shallow monitoring wells).

During drilling, soil samples were collected continuously in 5- to 10-foot intervals using a 4- or 8-inch diameter sampling core barrel inside the outer conductor casing. Soil cores were logged using the United Soil Classification System by a qualified individual under the direction of a Licensed Geologist and were field screened. Field screening included visual observations, sheen testing, measurements of headspace volatiles using a photoionization detector (PID), and measurements of metals concentrations in soil via X-ray fluorescence (XRF). Field screening results are included on the boring logs in Appendix C.

Soil samples were collected from each boring for laboratory analysis in accordance with the FS Data Gaps WP and analyzed for a variety of compounds as discussed further in Section 5. Except for the samples submitted for volatile organic compounds (VOCs) and TPHg analysis, soil samples were homogenized over 2-foot intervals for lab analysis as described in the SAP/QAPP. Between four and eight soil samples from each boring (excluding the co-located shallow monitoring wells) were submitted for laboratory analysis, as discussed further in Section 5.

4.1.2 Monitoring Well Installation and Development

Monitoring wells were constructed at nine of the boring locations. All monitoring wells were constructed using 2-inch-diameter Schedule 40 PVC blank casing and five foot-long, 0.010-inch slotted well screens. The bottom of the three shallow monitoring well (MW-46S, MW-47S, and MW-48S) screens were set at or near the top of the of the Silt Aquitard observed at the time of drilling (from 8 to 12 feet bgs). The well screens for deep, inland wells (MW-13D and MW-19D) were set at 35 to 40 feet bgs to assess groundwater concentrations at greater depths in the deep, confined aquifer. The screens for the deep, nearshore and shoreline wells (MW-33D, MW-46D, MW-47D, and MW-48D) were set so that the top of the screen was placed in the Lower Alluvial Sand at or near the bottom of the Silt Aquitard (from 17 to 20 feet bgs). The monitoring wells were surveyed by a licensed surveyor on December 4, 2025. Well construction details, including locations, are included in Table 1. Well construction as-builts are included on boring logs in Appendix C.

Following installation, each new monitoring well was developed on November 26 or 27, 2024 to remove fine-grained material from inside the well casing and filter pack, to the extent practicable. Wells were developed using a surge block and 12-volt submersible pump (except for MW-47S, as noted in Section 4.1.6 below). During development, the surge block was gently surged along the entire length of the well screen between rounds of pumping to improve hydraulic communication between the well and surrounding water-bearing formation. Each well was developed until turbidity had been reduced to below 10 nephelometric turbidity units (NTU) or until at least 15 well casing volumes had been removed. The amount of water, number of well casing volumes, and final turbidity following development are summarized for each of the new wells in Table B.

Table B: Monitoring Well Development

Monitoring Well	Total Volume Removed (gal)	Total Casing Volumes Removed	Final Turbidity (NTU)
MW-13D	71	15	19.1
MW-19D	40	8.9	7.63
MW-33D	35	17.5	9.81
MW-46D	34	15	326
MW-46S	8.5	16.5	> 1,000
MW-47D	37.5	15.5	253
MW-47S	20	15	> 1,000
MW-48D	40	15	58.4
MW-48S	15.6	15	24.9

Following development, monitoring wells were allowed to equilibrate for at least two weeks before groundwater sampling or aquifer characterization testing was conducted. No issues related to turbidity were identified during groundwater sampling.

4.1.3 Aquifer Characterization

Hydrogeologic testing was conducted on December 9, 2024, at co-located shallow and deep monitoring wells MW-13S, MW-13D, MW-19S, MW-19D, MW-33S, and MW-33D. Slug tests were completed to estimate horizontal hydraulic conductivity of the saturated soil within each monitoring well screen. At each of the six monitoring wells, at least one falling head test (when the slug is lowered into the water column) and one rising head test (when the slug is removed) were completed. Based on the observed results, additional rising head tests were completed at shallow monitoring wells MW-13S, MW-19S, and MW-33S, as falling head tests may be less representative in unconfined aquifers.

The recovery data of the slug tests was used to estimate the hydraulic conductivity of the formation adjacent to the screened interval of each monitoring well through the comparison of the data to the Bouwer and Rice (1976) theoretical model. Graphs showing the normalized water level displacement in each well over the two slug tests used for estimating hydraulic conductivity is presented in Appendix D. Calculated values of hydraulic conductivity for each monitoring well are presented in Table 2. In the shallow zone, hydraulic conductivity was calculated to be between 9.6 feet per day (ft/d) at MW-13S to 92 ft/d at MW-19S. In the deep zone, hydraulic conductivity was calculated to be between 1.8 ft/d at MW-13D to 32 ft/d at MW-19D.

4.1.4 Groundwater Sampling

Groundwater sampling was conducted between December 16 and December 20, 2024, at the following locations (Figure 2), which included the newly installed monitoring wells:

- **Shallow Aquifer:** MW-1S, MW-2S, MW-6S, MW-10S, MW-13S, MW-14S, MW-16S, MW-17S, MW-19S, MW-21S, MW-33S, MW-45S, MW-46S, MW-47S, MW-48S, INJ-1, and PP-1
- **Deep Aquifer:** MW-1D, MW-2D, MW-13D, MW-14D, MW-43D, MW-45D, MW-46D, MW-47D, and MW-48D

Generally, monitoring wells in the nearshore and shoreline areas of the Property were sampled during an outgoing tide or shortly following a lower tide. Monitoring wells were sampled using a peristaltic pump, new dedicated tubing, and low-flow sampling techniques as specified in the SAP/QAPP.

4.1.5 Porewater Sampling

Four porewater samples, PW-01 through PW-04, were collected from within the Embayment (Figure 2). At each of the locations, an SPeepers™ sampler to measure dissolved metals and an SP3™ sampler to measure PCP were deployed. Both passive samplers are designed and built by SiREM Laboratories (SiREM) in Guelph, Ontario, Canada. The passive samplers were installed

approximately 10 centimeters below the mudline at each location during the lowest monthly tide on December 1, 2024. The passive samplers were allowed to equilibrate with sediment porewater and were retrieved on December 30, 2024.

As prescribed in the FS Data Gaps WP, porewater sampling locations were adjusted based on the bathymetry of the Embayment and the tide cycles at the time of deployment and forecasted throughout the equilibration period before retrieval. PW-01 had to be located farther north than originally proposed due to the slope of the shore/Embayment coming from Terminal 115. The other porewater locations were adjusted slightly north to provide coverage along the shoreline. All of the porewater samplers were installed at approximately the same elevation. Porewater sample locations are shown on Figure 2.

4.1.6 Investigation-Derived Waste Disposal

Investigation-derived waste (IDW) includes soil, decontamination water, and groundwater generated as part of the FS Data Gaps WP implementation. Potential soil for treatability testing was temporarily stored in five-gallon buckets and stored on Site, pending receipt of analytical results and selection of soil for treatability testing. All other soil, decontamination water, and groundwater that was generated was placed into 55-gallon drums and stored on a concrete pad at the Site. Following selection of soil for treatability testing, the excess soil was added to the existing 55-gallon drums. Additionally, soils treated with cement were returned to the Site following the treatability testing and placed into 55-gallon drums. A total of 18 soil and 6 water drums of IDW were generated as part of the FS Data Gaps WP implementation.

Ecology's Hazardous Waste Toxics Reduction program was consulted for designation of the IDW drums prior to off-site disposal. The designation of IDW was based on analytical results and the known historical operations at the Site and is detailed in the Investigation-Derived Waste Characterization Memorandum (Black River, 2026b). Twenty-three of the 24 drums were designated as dangerous waste based on being from a listed source (F021 and F035), exceeding the characteristic toxicity criteria (D004), or under the state-only dangerous waste criteria (WT02); the one other drum contained groundwater that was designated as nonhazardous. Waste designations for each drum are shown in Table 3. Following profiling, the IDW drums were removed from the Site on May 14, 2026. The dangerous waste IDW drums were disposed of at Waste Management's Chemical Waste Management of the Northwest facility in Arlington, OR, which is a permitted Subtitle C disposal facility. The one nonhazardous waste IDW drum was disposed of at Waste Management's Columbia Ridge facility in Arlington, OR (which is a Subtitle D disposal facility). Disposal manifests are included as Appendix E.

4.1.7 Deviations from the FS Data Gaps WP

Two deviations were noted during implementation of the FS Data Gaps WP and communicated to Ecology in the December 2024 and April 2025 Progress Reports:

- Only a limited amount of groundwater (less than 1.5 feet at high tides) was present in MW-47S following installation. The screen interval for MW-47S was selected based on the observed lithology in soil cores at the time of drilling. Due to the limited amount of groundwater within the well casing, MW-47S was developed using a bailer rather than the surge/purge method described in the SAP/QAPP. This deviation did not affect the data quality for samples collected from MW-47S.
- After reviewing analytical results from the groundwater samples collected in December 2024, an error in which wells were sampled and reported as MW-3S/MW-3D was discovered. There were (at least) three wells on the Site that were not included in the GIS database: INJ-1, PP-1, and PP-2. These were from a 1998 pilot test that Fluor Daniel, GTI, Inc. conducted in the southern portion of the Site. After reviewing the groundwater sampling field forms and revisiting the Site, it was determined that INJ-1 and PP-1 were sampled instead of MW-3S and MW-3D, respectively. MW-3S and MW-3D were subsequently sampled during the PFAS investigation described in Section 4.2 below.

4.2 PFAS Investigation

To evaluate the likelihood of a potential source of PFAS on the Property, groundwater samples were collected from fifteen locations across the existing monitoring well network, as shown on Figure 3. The PFAS groundwater assessment focused on the shallow zone, as concentrations of Site COPCs are significantly higher in the shallow zone as compared to the deep zone, and any source of PFAS originating from the Site would be expected to have greater impacts to the shallow zone. Additionally, select monitoring wells were sampled for metals and semivolatile organic compounds (SVOCs) to bolster the dataset generated from implementing the FS Data Gaps WP.

4.2.1 Groundwater Sampling

Groundwater sampling was completed between January 6 and 8, 2026, by Black River at the following locations:

- **Shallow Aquifer:** MW-3S, MW-7S, MW-13S, MW-28S, MW-29S, MW-30S, MW-31S, MW-32S, MW-33S, MW-35S, MW-36S, MW-45S, MW-46S, MW-47S, and MW-48S
- **Deep Aquifer:** MW-13D, MW-33D, MW-45D, MW-46D, MW-47D, and MW-48D

Generally, monitoring wells in the nearshore and shoreline areas of the Property were sampled during an outgoing tide or shortly following a lower tide. Monitoring wells were sampled using a

peristaltic pump, new dedicated high density polyethylene (HDPE) tubing, and low-flow sampling techniques as specified in the SAP/QAPP for the PFAS Sampling WP (Appendix A).

4.2.2 Investigation-Derived Waste Disposal

Groundwater and decontamination water generated as IDW as part of the PFAS Sampling WP implementation was placed into two 55-gallon drums and stored on the Site with the other IDW drums. The two drums were designated as listed dangerous waste (Table 3). Following profiling, the IDW drums were removed from the Site on May 14, 2026. The dangerous waste IDW drums were disposed of at Waste Management's Chemical Waste Management of the Northwest facility in Arlington, OR, which is a permitted Subtitle C disposal facility. The disposal manifest is included as Appendix E.

4.2.3 Deviations from the PFAS Sampling WP

Two deviations were noted during implementation of the PFAS Sampling WP and communicated to Ecology in the January and February 2026 Progress Report:

- During implementation of the PFAS Sampling WP, monitoring well MW-24S in the southwest corner of the Property could not be located. The area has become severely overgrown with briars and ivy, as well as covered with large-diameter steel pipes. The area was cleared, but MW-24S could not be located and therefore was not sampled. This deviation was communicated to Ecology on January 8, 2026, via email, and Ecology agreed with not sampling MW-24S in a reply on January 9, 2026.
- The PFAS Sampling WP prescribed a gauging event across all shallow and deep monitoring wells at the Site. During the gauging event, 6 of the 37 shallow monitoring wells were not gauged:
    - MW-5S and MW-22S were covered by equipment/eco-blocks and were inaccessible.
    - MW-27S is located within the Transportation Worker Identification Credential area of the T115 terminal and could not be accessed.
    - MW-18S, MW-21S, and MW-24S could not be located; they may be buried under equipment/overgrown brush.

Neither of these deviations affected data quality or the objectives outlined in the PFAS Sampling WP.

5 Results

This section describes observations and the analytical results for both investigations described in Section 4 above by media. Section 6 below discusses how these results address the data gaps identified for the FS. The following laboratories provided analytical services:

- Friedman & Bruya, Inc. of Seattle, Washington: Analysis of TPH, metals, VOCs, and SVOCs for soil and groundwater samples; analysis of metals for porewater samples
- Eurofins Environment Testing Northern California, LLC of Sacramento, CA: Analysis of PFAS for groundwater samples
- TestAmerica Laboratories, Inc. of Knoxville, TN: Analysis of SVOCs for porewater samples
- Eurofins Environment Testing Northeast, LLC of Pittsburgh, PA: Analysis of performance reference compounds for porewater samples
- SiREM: Evaluation of porewater analytical results for freely dissolved concentrations in sediment porewater

Validation of analytical results was performed by Laboratory Data Consultants, Inc. of Carlsbad, CA. Laboratory analytical reports are included as Appendix F.1, and data validation reports are included as Appendix F.2.

5.1 Soil

This section described the lithology observed in the borings completed as part of the FS Data Gaps WP implementation, as well as the soil analytical results.

5.1.1 Geologic Interpretation

The lithology observed at GP-81, GP-82, GP-83, MW-13D, MW-19D, and MW-33D (Appendix C) was generally consistent with nearby historical borings and co-located shallow monitoring wells as reported in the RI Report (ERM, 2024):

- **Shallow Fill** material, presumably from the regrading efforts at the Property following demolition of the chemical plant circa 1964-1969, was readily distinguishable from the Dredge Fill material above the Silt Aquitard at each location. The depth of Shallow Fill varied between 4 feet bgs (GP-81) to 7.5 feet bgs (GP-82). In addition to other anthropogenic debris in the Shallow Fill material, potential spent carbon was noted in shallow soils at GP-81, MW-13D, and MW-19D.
- **Dredge Fill** material was observed at all of the borings beneath the Shallow Fill and down to depths between 10.5 feet bgs (MW-33D) and 12 feet bgs (GP-81 and MW-19D).
- **Silt Aquitard** was likewise observed in all borings beginning between 10.5 and 12 feet bgs and extending to depths of 17.5 feet bgs (GP-83) to 24 feet bgs (GP-82). The thickness of the

Silt Aquitard was consistent with previous investigations, varying between 6 and 13 feet thick (GP-83 and GP-82, respectively).

- **Alluvial Sands** extended from below the Silt Aquitard to the maximum depth of each boring, 40 feet bgs.

At the shoreline wells MW-46D, MW-47D, and MW-48D, Dredge Fill material was not observed. Bank Fill material (which is similar to Shallow Fill material but generally contains more construction debris) was observed to depths of 8.5 feet bgs (MW-48D) to 16.5 feet bgs (MW-47D), directly overlying the Silt Aquitard. In addition to other anthropogenic debris in the Bank Fill material, potential spent carbon was noted at a depth of 12 feet bgs at MW-46D. The Silt Aquitard was observed to extend to depths of 16 feet bgs (MW-48D) to 20 feet bgs (MW-46D), and Alluvial Sands were observed below the Silt Aquitard to the maximum depth at each location, 40 feet bgs. The thickness of the Silt Aquitard at MW-46D and MW-48D, 7.5 and 8 feet, respectively, was consistent with other explorations across the Site. However, the thickness of the Silt Aquitard was thinner at MW-47D. Poor recovery limited direct observation of the transition from the Silt Aquitard to Alluvial Sands, but the Silt Aquitard at this location is limited in thickness to between 1.5 and 3.5 feet based on the soil that was recovered (Appendix C).

5.1.2 Soil Analytical Results

Analytical results for vadose soil and saturated soil are presented in Tables 4 and 5, respectively and screened against the Preliminary SLs developed in Section 3.3 above. One of the primary objectives of the FS Data Gaps WP was better resolution of the vertical distribution of Site COPCs in soil. This section focuses on the vertical delineation of Site COPCs at each boring location; a discussion of the lateral extents of Site COPCs based on these results and historical results in the context of the FS data gaps is presented in Section 6 below.

- **GP-81:** Arsenic, copper, and zinc exceeded the Preliminary SLs in soil samples from 1-3 feet bgs down to samples collected at 10-12 feet bgs. Copper and zinc were below the Preliminary SLs in soil samples collected between depths of 12 and 23 feet bgs (the Silt Aquitard and Alluvial Sands). Arsenic was detected at concentrations exceeding the Preliminary SLs down to depths of 19 feet bgs and was below the Preliminary SL in a sample collected from 21 to 23 feet bgs. However, the concentrations of arsenic within the Silt Aquitard (up to 24 mg/kg) were within the same order of magnitude as the Preliminary SL and an order of magnitude less than those detected in Fill soils. The only other soil exceedance at GP-81 was benzo(a)pyrene and total cPAHs TEQ in the sample collected from 10-12 feet bgs that also contained elevated arsenic, copper, and zinc.
- **GP-82:** Arsenic and copper only exceeded the Preliminary SLs in one sample from 7 to 9 feet bgs in Fill soil and did not exceed the Preliminary SLs in deeper samples from the Silt

Aquitard and Alluvial Sands. A limited number of PAHs exceeded Preliminary SLs in the vadose soil sample at 2-4 feet bgs, but only total cPAHs TEQ exceeded the Preliminary SLs in saturated soil and was vertically delineated.

- **GP-83:** Arsenic and copper exceeded the Preliminary RI SLs in a vadose soil sample and in saturated soil samples at depths up to 14 feet bgs, with the highest concentration of each detected in the Fill material at the top of the Silt Aquitard at a depth of 9.5.-11.5 feet bgs. Likewise, select PAHs and SVOCs exceeded in the Preliminary SLs in the same 9.5-11.5 feet bgs sample, including PCP, which also exceeded the Preliminary SL in a sample collected from within the Silt Aquitard at a depth of 15-17 feet bgs. All metals, PAHs, and SVOCs were not detected or were detected below the Preliminary SL in a sample collected from the Alluvial Sands at 23-25 feet bgs.
- **MW-13D:** Arsenic, copper, and zinc exceeded the Preliminary SLs in a vadose zone soil sample. Arsenic and copper also exceeded the Preliminary SLs in saturated soil at depths up to 21 feet bgs and 16.5 feet bgs, respectively. Both arsenic and copper were below the Preliminary SLs in samples collected from the Alluvial Sands at depths of 23-25 and 38-40 feet bgs. Similarly, benzo(a)pyrene, total cPAHs TEQ, and PCP were detected above the Preliminary SLs at depths up to 21 feet bgs but were not detected in the Alluvial Sands at a depth of 23-25 feet bgs.
- **MW-19D:** Arsenic, copper, and zinc exceeded the Preliminary SLs in a vadose zone sample. Arsenic and zinc also exceeded the Preliminary SLs in saturated soil at depths up to 16 feet bgs and 12 feet bgs, respectively, in the Silt Aquitard. Arsenic, copper, and zinc did not exceed the Preliminary SLs in samples collected from the Alluvial Sands at depths of 20-22 and 38-40 feet bgs.
- **MW-33D:** Arsenic, copper, and zinc exceeded the Preliminary SLs in a vadose zone sample collected from 3-5 feet bgs, but did not exceed the Preliminary SLs in any of the saturated soil samples collected from the Silt Aquitard or Alluvial Sands. Benzo(a)pyrene and total cPAHs TEQ also exceeded the Preliminary SLs in the vadose zone sample, and total cPAHs TEQ exceeded the Preliminary SL in samples collected at 7-9 and 10.5-12.5, though at concentrations that were orders of magnitude lower. cPAHs were not detected in the sample collected from the Alluvial Sands at a depth of 23-25 feet bgs.
- **MW-46D:** Arsenic and copper exceeded the Preliminary SLs in the vadose zone sample collected from 3-5 feet bgs. Arsenic exceeded the Preliminary SL in saturated samples at depths down to 22 feet bgs, and copper and zinc exceeded the Preliminary SL in saturated samples at depths to 14.5 feet bgs. The highest concentrations of each were detected in the samples collected from the bottom of the Bank Fill material and top of Silt Aquitard, where potential spent carbon was observed (Appendix C). None of these three metals

exceeded the Preliminary SLs in samples collected from the Alluvial Sands at depths of 28-30 and 36-38 feet bgs.

- **MW-47D:** Arsenic and copper exceed the Preliminary SLs in a vadose zone soil sample collected from 2-4 feet bgs. Arsenic also exceeded the Preliminary SL in saturated zone soil to depths up to 22 feet bgs, and copper and zinc exceeded the Preliminary SLs in saturated zone soil at depths up to 14.5 feet bgs. Similar to shoreline monitoring well MW-46D, the highest concentrations of arsenic, copper, and zinc were observed in and near the base of the Bank Fill material and top of the Silt Aquitard. Arsenic and zinc did exceed the Preliminary SLs in Alluvial Sands in the sample from 22-24 feet bgs, which may be due to the limited thickness of the Silt Aquitard observed at this location. PCP and phenol also exceeded the Preliminary SLs in select soil samples from the vadose and saturated zone, and were both were vertically delineated to depths of 4 and 24 feet bgs, respectively. Benzo(a)pyrene and total cPAHs TEQ also exceeded the Preliminary SLs in both vadose and saturated soil samples, including the deepest sample analyzed for PAHs at 25-27 feet bgs in the Alluvial Sands.
- **MW-48D:** Arsenic and copper exceeded the Preliminary SLs in a vadose zone soil sample collected from 1-3 feet bgs. Arsenic also exceeded the Preliminary SL in samples collected from 8.5-10.5 and 14.5-16 feet bgs in the Silt Aquitard, though the concentrations were nearly equivalent to the Preliminary SL (9.5 and 8.7 milligrams per kilogram [mg/kg] vs. the Preliminary SL of 7.3 mg/kg). Neither metal exceeded the Preliminary SLs in a sample collected from the Alluvial Sands at a depth of 16-18 feet bgs. Benzo(a)pyrene and total cPAHs TEQ exceeded the Preliminary SLs in a single sample collected from the Silt Aquitard at 14.5-16 feet bgs. Neither was detected in the Bank Fill material above or the Alluvial Sands below this sample, and the detections in the Silt Aquitard may be due to the greater sorptive capacity of the naturally occurring organic materials within the Silt Aquitard.

Analytical results from the inland borings were consistent with historical results presented in the RI Report (ERM, 2024). Analytical results from both the inland borings and the shoreline borings were consistent with the conceptual site model of historical operations at the Site and the associated lithologies (i.e., metals concentrations were highest in samples with potential spent carbon and in the Bank Fill and Shallow Fill materials). Additionally, field screening of metals using XRF was consistent with analytical results from the homogenized samples, which allows for greater resolution of the vertical distribution of arsenic in the subsurface at these borings. In general, Site COPCs were vertically delineated at every boring location (with the exception of total cPAHs TEQ at MW-47D).

5.2 Groundwater

This section presents the results of groundwater monitoring and sampling conducted over the two events as part of implementing the FS Data Gaps WP and PFAS Sampling WP.

5.2.1 Groundwater Elevations and Gradient

Groundwater elevations and contour lines for shallow and deep groundwater at the Site during the December 2024 and January 2026 gauging events are shown on Figure 4. Groundwater elevations in both the shallow and deep zone during both gauging events were consistent with groundwater elevations measured during the rainy season as part of the RI (ERM, 2024).

In the shallow zone, the horizontal hydraulic gradient in the central portion of the Property was measured at approximately 0.01 foot/foot during both gauging events near the infiltration area in the vicinity MW-4S/MW-7S/MW-16S. Groundwater flow direction in the shallow zone was to the south, southeast, and east-northeast from the local high in the vicinity of the infiltration area (Figure 4). Near shoreline monitoring wells MW-46S, MW-47S, and MW-48S, the horizontal hydraulic gradient in the shallow aquifer varied between approximately 0.02 and 0.05 foot/foot during both gauging events, with the steepest gradient in the vicinity of MW-47S. The higher horizontal hydraulic gradients observed at the shoreline are likely due to the drainage of the shallow aquifer during the lower tides at the time of each groundwater gauging event.

In the deep zone, the horizontal hydraulic gradient was much flatter, and the deep monitoring wells along the shoreline were heavily influenced by the tide cycle compared to monitoring wells further inland, including apparent flow reversals at the shoreline during the December 2024 gauging event. During the January 2026 gauging event, the horizontal hydraulic gradient through the northern and central portion of the Site was approximately 0.001 to 0.002 foot/foot with a flow direction to the west southwest from the highest groundwater elevation observed at MW-31D in the northeast corner of the Property. At the shoreline in the central and southern portions of the Property, the flow direction was towards the LDW to the southeast with a horizontal hydraulic gradient of approximately 0.005 to 0.009 foot/foot (Figure 4).

Groundwater elevations for paired wells gauged during each event are presented in Table 6. Groundwater elevations at paired wells during the December 2024 event varied between 2.0 feet and 5.2 feet higher in the shallow zone compared to the deep zone, indicating a strong downward gradient. This downward vertical gradient is consistent with measurements made at paired monitoring wells over multiple events as part of the RI (ERM, 2024). Likewise, groundwater elevations during the January 2026 gauging event were 3.4 to 10.5 feet higher in the shallow zone than in the deep zone, with the exception of MW-31S/31D in the northeast corner of the Site. At

those wells, the measured groundwater elevation in the shallow zone was 0.08 feet below the groundwater elevation in the deep zone (Table 6).

5.2.2 Groundwater Analytical Results

Analytical results for groundwater are presented in Table 7 and Table 8 (PFAS compounds) and screened against the Preliminary SLs developed in Section 3.3 above. Groundwater samples from both monitoring events were submitted for analysis for metals, PAHs, SVOCs, and/or PFAS compounds.

The following is a summary of the number of samples and locations analyzed, exceedances of the Site COPCs, grouped by analyte class and zone, that exceeded the Preliminary SLs during one or both events:

- **Metals (Table 7):**
  - Shallow Zone: 20 samples were collected from 15 locations
    - arsenic exceeded the Preliminary SL at 14 of the 15 locations
    - copper exceeded the Preliminary SL at 5 of 15 locations
    - zinc exceeded the Preliminary SL at 2 of 15 locations
  - Deep Zone: 17 samples were collected from 11 locations
    - arsenic exceeded the Preliminary SL at 9 of 11 locations
    - copper exceeded the Preliminary SL at 3 of 11 locations
- **PAHs (Table 7):**
  - Shallow Zone: 18 samples were collected from 12 locations
    - 1-methylnaphthalene exceeded the Preliminary SL at 1 of 12 locations
    - cPAHs, including total cPAHs TEQ, exceeded the Preliminary SL at 1 of 12 locations
  - Deep Zone: 15 samples were collected from 9 locations and there were no exceedances of the Preliminary SLs
- **SVOCs (Table 7)**:
  - Shallow Zone: 18 samples were collected from 12 locations
    - PCP exceeded the Preliminary SL at 12 of 12 locations, though at 5 of the locations, the concentration was below the standard method reporting limit and was estimated
  - Deep Zone: 15 samples were collected from 9 locations
    - PCP exceeded the Preliminary SL at 9 of 9 locations, though at 5 of the locations, the concentration was below the standard method reporting limit and was estimated
- **PFAS (Table 8):**

- Shallow Zone: 15 samples were collected from 15 locations
  - perfluorohexane sulfonic acid (PFHxS) exceeded the Preliminary SL at 10 of 15 locations
  - 39 additional PFAS compounds were analyzed from each sample; only 8 PFAS compounds were detected in any sample, and none of those 8 PFAS compounds exceeded the Preliminary SLs
- Deep Zone: No samples were collected

Generally, for samples collected at paired shallow and deep zone monitoring wells, the concentration of Site COPCs in the shallow zone was one to two orders of magnitude greater than in the deep zone, with the following exceptions:

- MW-46S/D and MW-48S/D: Arsenic concentrations were similar between the shallow and deep zone monitoring wells. PCP concentrations were higher in the shallow wells than the deep wells.
- MW-47S/D: Arsenic concentrations were approximately 2-3x higher in the deep zone than the shallow zone during the two sampling events. PCP concentrations in the shallow zone were an order of magnitude higher than the detected concentration in the deep zone. Relatively high concentrations of arsenic were detected at MW-13S, MW-14S, and MW-45S (650 to 5,800 micrograms per liter [ug/L]) in the shallow zone upgradient of MW-47s, where arsenic was detected a concentrations of 180-190 ug/L. The lower concentrations along the shoreline may be due to attenuation and/or dilution with surface water in the LDW during changing tide cycles. In the deep zone at MW-47D, arsenic was detected at concentrations of 350-530 ug/L, which is equivalent to concentrations of arsenic in deep wells in the source zone area of 300-540 ug/L at MW-14D and MW-43D. However, arsenic concentrations at MW-13D, immediately upgradient of MW-47D were only measured at 25-28 ug/L. The higher concentrations at MW-47D compared to MW-13D may indicate that there is some northerly component of flow in deep groundwater at the shoreline, as evidenced by the difference in groundwater elevations measured at MW-45D and MW-47D during the December 2024 gauging event (Figure 4).

5.3 Porewater

Analytical results for porewater samples are presented in Table 9 and are compared to the surface water SLs in the PCUL Workbook (Ecology, 2026). Following deployment and laboratory analysis, concentrations of dissolved arsenic in the SPeepers™ samplers and PCP in the SP3™ samplers were reported to SiREM, as well as concentrations of performance reference compounds (which are reverse tracers that were added to each sampler). The concentrations of the performance

reference compounds were analyzed to evaluate diffusion and equilibrium of the samplers with porewater.

Water collected from the SPeepers™ samplers was analyzed for arsenic and the bromide tracer. The bromide tracer was measured at a concentration of 61.0 to 61.5 milligrams per liter (mg/L), as compared to initial concentrations of 94 to 120 mg/L prior to deployment of the samplers. Measured arsenic concentrations in the water collected from the SPeepers™ samplers after they had been deployed for a month was between 8 and 32 micrograms per liter. Based on the analysis of diffusion equilibrium performed by SiREM, the freely dissolved concentrations of arsenic in porewater were calculated to be between 39 ug/L at PW-04 and 210 ug/L at PW-03 (Table 9), which exceeds the surface water SL of 8 ug/L (based on natural background of arsenic in groundwater).

The polyethylene membrane of the SP3™ samplers was similarly analyzed for PCP and ten performance reference compound tracers (unique PCB congeners). The performance reference compound tracers were measured at concentrations between approximately 10% to 50% of their initial concentrations prior to deployment of the samplers. PCP concentrations in the polyethylene membranes of the SP3™ samplers after they had been deployed for a month varied between non-detect and 8.4 nanograms per gram. Based on the analysis of diffusion equilibrium performed by SiREM, the freely dissolved concentration of PCP in porewater varied from less than 1.4E-05 ug/L at PW-02 to 1.4E-04 ug/L at PW-01 (Table 9), which is well below the surface water SL of 2E-03 ug/L. Calculations of the freely dissolved concentrations of arsenic and PCP in porewater are provided in SiREM's reports, included as part of Appendix F.

6 Evaluation of FS Data Gaps

This section discusses how each of the identified FS data gaps have been addressed by the data collected as part of implementing the FS Data Gaps WP and PFAS Sampling WP.

6.1 Refinement of Soil Source Areas

Analytical data from soil samples, as well as the XRF field screening, have further refined the understanding of the vertical distribution of Site COPCs at the Site, particularly within the Silt Aquitard and Alluvial Sand geologic units. The vertical distribution of arsenic in vadose and saturated soil is displayed alongside the maximum detected concentration of arsenic from historical data at each location at the Site on Figures 5 and 6, respectively. Similarly, the vertical distribution of PCP in vadose and saturated soil is displayed alongside the maximum detected concentration of PCP from historical data at each location at the Site on Figures 7 and 8, respectively.

At each boring location, Site COPCs were vertically delineated. Additionally, the lateral extents of soil hot spots (areas of relatively higher concentrations) were further refined, particularly with respect to arsenic and PCP, which will be two of the primary drivers in developing cleanup alternatives in the FS:

- Arsenic (Figures 5 and 6): The source area was further defined to the north by GP-82, GP-83, MW-33D and MW-48D. Hot spots of arsenic were confirmed by borings MW-19D and MW-46D. Notably, the results of GP-81 confirm that concentrations of arsenic in the southern central portion of the Site and along the shoreline should be treated as a continuous rather than distinct areas.
- PCP (Figures 7 and 8): The PCP hot spot was horizontally refined to the west by GP-82, to the north by MW-33D, to the east by MW-47D and MW-48D, and to the south by GP-81. The vertical extents of the PCP hot spot source area were further refined by GP-83 and MW-13D.

This data will be used to refine the estimated volumes of soil that will be targeted for treatment under various cleanup alternatives in the FS.

6.2 Empirical Correlation of Soil/Groundwater Data

Co-located soil and groundwater data was collected from various geologic units and both the shallow and deep groundwater zones. This data bolsters the historical data collected in the source areas and also provides insight into the correlation between soil and groundwater data along the shoreline in the Bank Fill material. The combined data will be used in various parts of the FS evaluation including (but not limited to) partitioning calculations, development of remediation levels, and calibration of models.

6.3 Characterization of Hydraulic Properties of Both Aquifers

Slug tests conducted in both the shallow and deep aquifers provide additional estimates of horizontal hydraulic conductivity at the Site. Likewise, the new monitoring wells in both the shallow and deep zone provide valuable insight into the hydraulic gradient along the shoreline prior to the point of discharge into the LDW. These hydraulic properties will be used to evaluate transport of Site COPCs in groundwater under various remedial alternatives.

6.4 Characterization of Shoreline Groundwater Quality

Concentrations of two Primary COPCs measured during the two groundwater sampling events are shown on Figures 9 and 10 for arsenic and Figures 11 and 12 for PCP for the shallow and deep zones, respectively. The analytical results from the December 2024 and January 2026 sampling events were comparable at each monitoring well, and groundwater quality in both the shallow

and deep aquifers at the shoreline has now been characterized. This data will be used in the FS to evaluate potential conditional points of compliance for groundwater. The shoreline groundwater analytical results will also be used in model calibration to evaluate attenuation of Site COPCs between treated areas and discharge to the LDW.

6.5 Characterization of Sediment Porewater

The concentrations of freely dissolved arsenic and PCP in sediment porewater are shown on Figure 13. Concentrations of free dissolved PCP in sediment porewater were well below the applicable protection of surface water SLs. Concentrations of free dissolved arsenic in porewater were relatively consistent across the four porewater sampling locations, varying between 105 and 210 ug/L, and exceeded the protection of surface water SL (but were lower than the SL for protection of sediment of 220 ug/L). These concentrations are higher than those measured in both shallow and deep groundwater at shoreline/nearshore wells MW-33S/D, MW-46S/D, and MW-48S/D; however concentrations of arsenic in groundwater at MW-47S/D were either equivalent or higher than the concentrations measured in porewater.

Arsenic has been detected in sediment samples collected throughout the Embayment and off-Property at levels exceeding the cleanup level (natural background, 7 mg/kg) set In the Record of Decision for the LDW (EPA, 2014), whereas PCP has only exceeded the Record of Decision cleanup level (0.36 mg/kg) at a relatively few number of sediment samples (Appendix GG of the RI Report; ERM, 2024). The elevated concentrations of freely dissolved arsenic in porewater may be due to equilibrium conditions with concentrations of arsenic in sediment in the Embayment rather than indicative of deep groundwater discharge to surface water.

As described in the Record of Decision for the LDW (EPA, 2014), sediments in the Embayment will be remediated under EPA's cleanup through a combination of dredging and capping (underneath the existing dock). However, remedial design for the Lower Reach of the LDW has not yet begun. Remedial alternatives developed in the FS will need to consider that attenuation of Site COPCs in groundwater between shoreline wells and the point of discharge in the LDW may be limited and whether additional characterization of sediment porewater will be necessary as part of engineering design for the selected cleanup action.

6.6 Designation of Dangerous Waste

Dangerous waste designation for the IDW drums was reviewed with Ecology's Hazardous Waste Toxics Reduction program as detailed in the IDW Characterization Memorandum (Black River, 2026b). As part of the FS Data Gaps WP implementation, seven soil samples that could potentially have had concentrations of metals that exceeded the toxicity characteristic of a dangerous waste were analyzed using TCLP. The TCLP results from those samples are shown on Table 10. Only one

of the samples contained a TCLP concentration of arsenic that required management as D004 dangerous waste.

Additionally, two listed sources of dangerous waste were identified based on the Site's operational history – F035 and F021. As described in the IDW Characterization Memorandum, the F035 listing only applies to known sources of arsenic that originated from wood preserving operations. Therefore, soil contaminated with arsenic that is either from a period which post-dates Mineralized-Cell's operations (i.e., Shallow Fill or Bank Fill) or is upgradient of Mineralized-Cell's operational area will not need to be designated as F035 listed waste. The F021 listing applies to wastes resulting from the production or manufacturing use of PCP, except as part of hydrogen chloride purification. Reichhold also produced hydrogen chloride in addition to manufacturing PCP, and therefore detections of PCP in and downgradient of the washwater impoundment may be from non-listed sources. However, soil and groundwater in areas upgradient of the washwater impoundment (i.e., near the former PCP production area) containing PCP were designated as F021 listed waste.

The potential for dangerous waste designation will need to be considered for remedial alternatives in the FS, particularly those that involve off-Site treatment and disposal of soil. The IDW Characterization Memorandum (Black River, 2026b) establishes the rationale for management of future wastes that may be generated as part of remedial alternatives. Likewise, the remedial alternatives developed for the FS will need to consider whether wastes generated could potentially exhibit a toxicity characteristic at either the state or federal level.

6.7 Potential PFAS Sources at the Site

There have not been any documented uses or releases of PFAS at the Site. However, Ecology identified the potential for PFAS compounds "due to historical site uses, including chemical manufacturing". Groundwater samples were collected as an initial screening to assess whether a potential source of PFAS is associated with the Site and/or if PFAS was present at concentrations that could be a risk to human health or the environment. The groundwater assessment for PFAS focused on the shallow zone, as concentrations of Site COPCs are significantly higher in the shallow zone as compared to the deep zone, and any source of PFAS originating from the Site would be expected to have greater impacts to the shallow zone.

Based on the sampling results, no evidence of a PFAS release at the Site was identified. PFAS analytical results are summarized in Table 8. Only 9 of the 40 PFAS compounds that were analyzed were detected in any of the 15 samples collected, and of those 9, only one exceeded the Preliminary SL – PFHxS. As described in the PFAS Sampling WP, the Preliminary SL for PFHxS is based on human ingestion of potable groundwater. This Preliminary SL was selected based on

Ecology's guidance (2023) to use the potable groundwater screening value if a surface water screening value is not available. However, groundwater at the Site is nonpotable, and therefore these exceedances don't represent an actual threat to human health. While marine aquatic life criteria for PFHxS have not been developed, aquatic life criteria are generally much higher than drinking water standards – for the four detected PFAS compounds with surface water screening levels, all detected concentrations were 3-7 orders of magnitude lower than the applicable surface water screening level for the protection of marine aquatic life.

Additionally, concentrations of all detected PFAS compounds are consistent with global background concentrations. Likewise, concentrations of the 9 detected PFAS compounds at the upgradient monitoring wells were similar to or greater than concentrations detected at wells near the former Reichhold operations and on the downgradient side of the Site, with two exceptions:

- PFHxS was detected at a higher concentration at MW-47S than at the upgradient wells, but only at approximately twice the concentration. However, PFHxS was not detected at MW-13S, immediately upgradient of MW-47S, suggesting the concentration of PFHxS at MW-47S may be influenced by its proximity to surface water. In addition, the average concentration in downgradient wells was less than the average concentration in upgradient wells.
- Perfluoroheptanoic acid (PFHpA) was only detected in two wells near the former Reichhold operations and at a shoreline well. Both detections were only slightly above the method reporting limit. Additionally, no promulgated screening value was identified for PFHpA.

Based on the concentrations of PFAS in groundwater across the Site, there does not appear to be any substantial source of PFAS associated with the Site and PFAS compounds should not be retained as COPCs in the FS.

7 Conclusion

The data gaps identified for the FS have been addressed by the results of the two investigations summarized above. These results will be used in conjunction with the results of the two treatability studies completed for the Site (Black River, 2026a and 2026c) to develop cleanup alternatives to be included in the FS.

The Draft FS Report will be submitted to Ecology within 90 days of approval of this FS Data Gaps Report and the two treatability testing memoranda.

8 References

Aspect Consulting, a Geosyntec Company (Aspect), 2024a, Treatability Testing Work Plan, Glacier Northwest, Inc. Site, Final, dated August 5, 2024.

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Black River Environmental, LLC (Black River), 2026a, Permeable Reactive Barrier (PRB) Treatability Testing Memorandum, Glacier Northwest, Inc. Site, REVISED DRAFT, dated March 3, 2026

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Willamette Cultural Resource Associates, LTD (WillametteCRA), 2024, Archeological Monitoring and Inadvertent Discovery Plan, Glacier Northwest, Inc. Site, dated October 2024.

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9 Report Limitations and Use Guidelines

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TABLES

FIGURES

APPENDIX A
PRELIMINARY SCREENING LEVEL DERIVATIONS

APPENDIX B
CULTURAL RESOURCES MONITORNG REPORT

APPENDIX C
BORING LOGS

APPENDIX D

GRAPHS OF HEAD DISPLACEMENT DURING SLUG TESTS

APPENDIX E
INVESTIGATION-DERIVED WASTE DISPOSAL MANIFESTS

APPENDIX F
LABORATORY ANALYTICAL REPORTS AND DATA VALIDATION REPORTS

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TABLES

Table 1 - Monitoring Well Locations and Construction Details

FS Data Gaps Report | Glacier Northwest, Inc. Site

Monitoring Well	Northing	Easting	TOC Elevation	Screen Interval (ft bgs)	Screen Interval Elevation (Approx.)
MW-13D	203847.44	1267706.62	15.96	35 to 40	-18.3 to -23.3
MW-19D	203770.97	1267457.54	16.80	35 to 40	-17.6 to -22.6
MW-33D	204016.00	1267860.72	15.58	19 to 24	-3.0 to -8.0
MW-46D	203686.60	1267683.16	16.32	20 to 25	-3.0 to -8.0
MW-46S	203692.06	1267685.36	16.16	7 to 12	9.9 to 4.9
MW-47D	203815.91	1267769.00	16.72	21 to 26	-3.6 to -8.6
MW-47S	203821.12	1267770.81	16.78	6 to 11	11.6 to 6.6
MW-48D	203906.33	1267804.86	12.87	16 to 21	-2.3 to -7.3
MW-48S	203911.38	1267806.73	12.93	3 to 8	5.6 to 0.6

Notes:

Horizontal Datum = NAD83/2011 Washington North Zone
Vertical Datum = NAVD88
TOC = top of casing
ft bgs = feet below ground surface

Table 2 - Calculated Hydraulic Conductivities from Slug Testing

FS Data Gaps Report | Glacier Northwest, Inc. Site

	Shallow Zone Monitoring Wells						Deep Zone Monitoring Wells					
Monitoring Well	**MW-13S**		**MW-19S**		**MW-33S**		**MW-13D**		**MW-19D**		**MW-33D**	
Well Depth in Feet	11.5		13		11		40		40		24	
Screen Length in Feet	7		10		7		5		5		5	
Depth to Screen in Feet	4.5		3		4		35		35		19	
Depth to Aquitard in Feet	12		14		12		60		60		100	
Depth to Water in Feet	5.13		6.88		4.67		9.43		10.98		8.48	
Depth to Sandpack in Feet	2.5		1		3		33		33		17	
Slug Displacement (Ho) in Feet	1.10	0.92	1.91	0.89	0.92	0.27	1.80	2.31	1.75	1.67	1.03	1.55
Porosity (n)	0.30		0.30		0.30		0.30		0.30		0.30	
Radius of Casing (rc) in Feet	0.08		0.08		0.08		0.08		0.08		0.08	
Radius of Borehole (rw) in Feet	0.34		0.34		0.34		0.25		0.25		0.25	
Saturated Aquifer Thickness (H) in Fee	**6.9**		**7.1**		**7.3**		**50.6**		**49.0**		**91.5**	
Saturated Well Thickness (Lw) in Feet	**6.4**		**6.1**		**6.3**		**30.6**		**29.0**		**15.5**	
Effective Radius (reff) in Feet	**0.201**		**0.201**		**0.201**		**0.083**		**0.083**		**0.083**	
Effective Screen Length (Le) in Feet	**6.4**		**6.1**		**6.3**		**5.0**		**5.0**		**5.0**	
Slug Size	*2.5' x 1"*	*1' x 1"*	*2.5' x 1"*	*1' x 1"*	*2.5' x 1"*	*1' x 1"*	*2.5' x 1"*	*2.5' x 1"*	*5' x 1"*	*5' x 1"*	*5' x 1"*	*5' x 1"*
Rising/Falling Head Test	*Rising*	*Rising*	*Rising*	*Rising*	*Rising*	*Rising*	*Falling*	*Rising*	*Rising*	*Rising*	*Falling*	*Rising*
Fully Submerged Sandpack	*No*	*No*	*No*	*No*	*No*	*No*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Transiently Exposed Sandpack	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*No*	*No*	*No*	*No*	*No*	*No*
Transiently Exposed Screen	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*No*	*No*	*No*	*No*	*No*	*No*
Partially Submerged Screen	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*No*	*No*	*No*	*No*	*No*	*No*
Bouwer and Rice Analysis Parameters												
Normalized Head at t1 (y1) in Feet	**0.40**	**0.30**	**0.36**	**0.28**	**0.09**	**0.19**	**0.40**	**0.40**	**0.40**	**0.40**	**0.57**	**0.51**
Time - t1 in Seconds	**40.5**	**9.5**	**2.0**	**2.0**	**16.5**	**9.0**	**32.5**	**18.0**	**4.0**	**3.5**	**2.0**	**2.5**
Normalized Head at t2 (y2) in Feet	**0.15**	**0.15**	**0.10**	**0.14**	**0.02**	**0.02**	**0.13**	**0.10**	**0.10**	**0.10**	**0.08**	**0.08**
Time - t2 in Seconds	**106**	**43**	**9**	**6**	**58**	**59**	**119**	**139**	**10**	**9**	**12**	**10**
Le/rw	**19**		**18**		**18**		**20**		**20**		**20**	
Coefficient A[(1)]	**2.10**		**2.07**		**2.09**		**2.15**		**2.15**		**2.15**	
Coefficient B[(1)]	**0.33**		**0.33**		**0.33**		**0.34**		**0.34**		**0.34**	
Coefficient C[(1)]	**1.51**		**1.48**		**1.51**		**1.57**		**1.57**		**1.57**	
ln(Re/rw) b	**2.01**		**1.93**		**1.96**		**2.44**		**2.42**		**2.12**	
Calculated Hydraulic Conductivity												
Calculated K in cm/sec	**2.9E-03**	**4.0E-03**	**3.2E-02**	**3.3E-02**	**5.9E-03**	**8.2E-03**	**6.8E-04**	**5.9E-04**	**1.1E-02**	**1.2E-02**	**8.7E-03**	**1.1E-02**
Calculated K in ft/day	**8.2**	**11**	**91**	**93**	**17**	**23**	**1.9**	**1.7**	**32**	**33**	**25**	**32**
Geometric Mean K in ft/day	**9.6**		**92**		**20**		**1.8**		**32**		**28**	

Notes:

Data analysis by method of Bouwer and Rice (1976; 1989).

Bold values are calculated values.

All depths are below ground surface.

(1) - The Bouwer and Rice A, B, and C coefficients are calculated using regression equations of Van Rooy (1988).

Table 3 - Investigation-Derived Waste Designation

FS Data Gaps Report | Glacier Northwest, Inc. Site

					Waste Designation				
Event	Drum #	Matrix	Boring(s)	Depth (ft bgs)	F035	F021	D004	WT02	Non-Hazardous
Feasibility Study Data Gaps Work Plan Implementation	1	Soil	GP-82	~0 - 20	X			X	
	2	Soil	GP-82	~20 - 40	X			X	
	3	Soil	GP-81	~0 - 20	X			X	
	4	Soil	GP-81	~20 - 40	X			X	
	5	Soil	GP-83 MW-33D	~30 - 40 ~0 - 10				X	
	6	Soil	GP-83	~0 - 30				X	
	7	Soil	MW-33D	~10 - 40				X	
	8	Soil	MW-46S MW-46D	~ 0 - 20	X			X	
	9	Soil	MW-48S MW-48D	~ 0 - 20				X	
	10	Soil	MW-48S MW-48D	~ 20 - 40				X	
	11	Soil	MW-47S MW-47D	~ 0 - 20	X			X	
	12	Soil	MW-46S MW-46D	~ 20 - 40	X			X	
	13	Soil	MW-13D MW-47D	~ 20 - 40	X			X	
	14	Soil	MW-13D	~ 0 - 20	X			X	
	15	Soil	MW-19D	~ 0 - 20	X		X	X	
	16	Soil	MW-19D	~ 20 - 40	X			X	
	17	Soil	GP-81 GP-82 GP-83	7 - 11, 12 - 15 5 - 10, 11 - 15 1 - 5, 8 - 11	X			X	
	18	Soil	MW-46D MW-47D MW-48D	0 - 5, 8 - 12 3 - 11 5 - 12	X			X	
	19	Groundwater	MW-19D MW-33D	--					X
	20	Groundwater	MW-46S MW-46D MW-47D	--	X				
	21	Groundwater	MW-47S MW-48S MW-48D	--	X				
	22	Groundwater	MW-13S MW-14S MW-16S MW-17S MW-19S MW-21S MW-43D	--	X	X	X		
	23	Groundwater	INJ-1 PP-1 MW-1S MW-1D MW-2S MW-2D MW-6S MW-10S MW-21S MW-33S	--	X	X			
	24	Groundwater	MW-19D MW-45S MW-45D MW-46S MW-46D MW-47S MW-47D MW-48S MW-48D	--	X				
PFAS Sampling Work Plan Implementation	25	Groundwater	MW-3D MW-3S MW-7S MW-13S MW-13D MW-47S MW-47D MW-48S MW-48D	--	X	X			
	26	Groundwater	MW-28S MW-29S MW-30S MW-31S MW-32S MW-33S MW-33D MW-35S MW-36S MW-45S MW-45D MW-46S	--	X	X			

Table 4 - Vadose Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			GP-81		GP-82	GP-83	MW-13D	MW-19D	MW-33D	MW-46D	MW-47D	MW-48D
Date			11/18/24		11/18/24	11/19/24	11/25/24	11/25/24	11/19/24	11/20/24	11/22/24	11/21/24
Sample Code			GP-81-1-3	GP-81-2	GP-82-2-4	GP-83-3-5	MW-13D-2.5-4.5	MW-19D-2.5-5	MW-33D-3-5	MW-46D-3-5	MW-47D-2-4	MW-48D-1-3
Depth (ft bgs)			1 - 3	2 - 2	2 - 4	3 - 5	2.5 - 4.5	2.5 - 5	3 - 5	3 - 5	2 - 4	1 - 3
Soil Lithologic Unit			Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Bank Fill	Bank Fill	Bank Fill	Bank Fill
Analyte	Unit	Vadose Soil SL										
Metals												
Arsenic	mg/kg	7.3	**42**	--	--	**83**	**200**	**1,200**	**180**	**120**	**50**	**95**
Chromium	mg/kg	260	**22**	--	--	**27**	**27**	**10**	**38**	**33**	**28**	**11**
Copper	mg/kg	36	**63**	--	--	**990**	**330**	**780**	**500**	**310**	**180**	**95**
Zinc	mg/kg	100	**95**	--	--	**31**	**99**	**250**	**1,700**	**73**	**65**	**29**
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)												
Benzene	mg/kg	0.037	--	**0.0088**	--	--	--	--	--	--	--	--
Toluene	mg/kg	4.7	--	<0.02 U	--	--	--	--	--	--	--	--
Ethylbenzene	mg/kg	1.4	--	<0.002 U	--	--	--	--	--	--	--	--
Xylene (o)	mg/kg		--	<0.002 U	--	--	--	--	--	--	--	--
Xylenes (m&p)	mg/kg		--	<0.004 U	--	--	--	--	--	--	--	--
Xylenes, Total	mg/kg	7.9	--	<0.004 U	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)												
Diesel Range Organics	mg/kg	2,000	--	<5 U	--	--	--	--	--	--	--	--
Oil Range Organics	mg/kg	2,000	--	<250 U	--	--	--	--	--	--	--	--
Sum of Diesel and Oil Range Organics	mg/kg	2,000	--	<250 U	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)												
1,1-Dichloroethane	mg/kg	23,000	--	<0.002 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	mg/kg	99	--	<0.002 U	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	mg/kg	2,300	--	<0.002 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	mg/kg	0.024	--	<0.05 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg	0.0083	--	<0.05 U	--	--	--	--	--	--	--	--
1,1-Dichloropropene	mg/kg		--	<0.05 U	--	--	--	--	--	--	--	--
1,1,1,2-Tetrachloroethane	mg/kg	5,000	--	<0.05 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	mg/kg	66	--	<0.005 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.035	--	<0.05 U	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
1,2-Dichloroethane (EDC)	mg/kg	1.1	--	<0.003 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	mg/kg	0.056	--	<0.05 U	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	mg/kg	160	--	<0.5 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg	0.019	--	<0.25 U	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
1,2,4-Trimethylbenzene	mg/kg	35,000	--	<0.05 U	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	mg/kg	2,800	--	<0.25 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	mg/kg	0.23	--	<0.05 U	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
1,2,3-Trichloropropane	mg/kg	4.4	--	<0.05 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg	35,000	--	<0.05 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	mg/kg	0.11	--	<0.05 U	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
1,3-Dichloropropane	mg/kg	0.031	--	<0.05 U	--	--	--	--	--	--	--	--
2-Chlorotoluene	mg/kg	70,000	--	<0.05 U	--	--	--	--	--	--	--	--

Table 4 - Vadose Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	GP-81		GP-82	GP-83	MW-13D	MW-19D	MW-33D	MW-46D	MW-47D	MW-48D
		Date	11/18/24		11/18/24	11/19/24	11/25/24	11/25/24	11/19/24	11/20/24	11/22/24	11/21/24
		Sample Code	GP-81-1-3	GP-81-2	GP-82-2-4	GP-83-3-5	MW-13D-2.5-4.5	MW-19D-2.5-5	MW-33D-3-5	MW-46D-3-5	MW-47D-2-4	MW-48D-1-3
		Depth (ft bgs)	1 - 3	2 - 2	2 - 4	3 - 5	2.5 - 4.5	2.5 - 5	3 - 5	3 - 5	2 - 4	1 - 3
		Soil Lithologic Unit	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Bank Fill	Bank Fill	Bank Fill	Bank Fill
Analyte	Unit	Vadose Soil SL										
2-Hexanone (MBK)	mg/kg	18,000	--	<1 U	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	mg/kg	280,000	--	<1 U	--	--	--	--	--	--	--	--
2,2-Dichloropropane	mg/kg		--	<0.05 U	--	--	--	--	--	--	--	--
4-Chlorotoluene	mg/kg	70,000	--	<0.05 U	--	--	--	--	--	--	--	--
Pyridine	mg/kg	3,500	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Acetone	mg/kg	3,200,000	--	<5 U	--	--	--	--	--	--	--	--
Bromodichloromethane	mg/kg	0.038	--	<0.05 U	--	--	--	--	--	--	--	--
Bromoform	mg/kg	0.5	--	<0.05 U	--	--	--	--	--	--	--	--
Bromobenzene	mg/kg	28,000	--	<0.05 U	--	--	--	--	--	--	--	--
Bromomethane	mg/kg	1.9	--	<0.5 U	--	--	--	--	--	--	--	--
Carbon Tetrachloride	mg/kg	0.018	--	<0.05 U	--	--	--	--	--	--	--	--
Chlorobenzene	mg/kg	14	--	<0.05 U	--	--	--	--	--	--	--	--
Chlorodibromomethane	mg/kg	0.03	--	<0.05 U	--	--	--	--	--	--	--	--
Chloroethane	mg/kg		--	<0.1 U	--	--	--	--	--	--	--	--
Chloroform	mg/kg	3.1	--	<0.05 U	--	--	--	--	--	--	--	--
Chloromethane	mg/kg		--	<0.5 U	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene (cDCE)	mg/kg	7,000	--	<0.002 U	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	mg/kg	0.015	--	<0.05 U	--	--	--	--	--	--	--	--
Dibromomethane	mg/kg	35,000	--	<0.05 U	--	--	--	--	--	--	--	--
Dichloromethane	mg/kg	0.71	--	<0.4 U	--	--	--	--	--	--	--	--
Hexane	mg/kg	210,000	--	<0.25 U	--	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.00012	--	--	<0.01 U	**0.18**	**0.98**	--	**0.18**	--	**0.27**	--
Hexachlorocyclopentadiene	mg/kg	0.42	--	--	<0.03 U	<0.03 U	<0.03 U	--	<0.03 U	--	<0.3 U	--
Hexachloroethane	mg/kg	0.0013	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Hexachlorobutadiene	mg/kg	0.0026	--	<0.25 U	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Isopropylbenzene (Cumene)	mg/kg	350,000	--	<0.05 U	--	--	--	--	--	--	--	--
Methyl Ethyl Ketone (2-Butanone)	mg/kg	2,100,000	--	<1 U	--	--	--	--	--	--	--	--
Methyl Tert-Butyl Ether (MTBE)	mg/kg	73,000	--	<0.002 U	--	--	--	--	--	--	--	--
n-Propylbenzene	mg/kg	350,000	--	<0.05 U	--	--	--	--	--	--	--	--
p-Isopropyltoluene	mg/kg	14,000	--	<0.05 U	--	--	--	--	--	--	--	--
sec-Butylbenzene	mg/kg	350,000	--	<0.05 U	--	--	--	--	--	--	--	--
Styrene	mg/kg	700,000	--	<0.05 U	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.24	--	**0.0027**	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.023	--	<0.002 U	--	--	--	--	--	--	--	--
tert-Butylbenzene	mg/kg	350,000	--	<0.05 U	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	mg/kg	16	--	<0.002 U	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	mg/kg	0.015	--	<0.05 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane	mg/kg	1,100,000	--	<0.5 U	--	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0022	--	<0.002 U	--	--	--	--	--	--	--	--

Table 4 - Vadose Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	GP-81		GP-82	GP-83	MW-13D	MW-19D	MW-33D	MW-46D	MW-47D	MW-48D
		Date	11/18/24		11/18/24	11/19/24	11/25/24	11/25/24	11/19/24	11/20/24	11/22/24	11/21/24
		Sample Code	GP-81-1-3	GP-81-2	GP-82-2-4	GP-83-3-5	MW-13D-2.5-4.5	MW-19D-2.5-5	MW-33D-3-5	MW-46D-3-5	MW-47D-2-4	MW-48D-1-3
		Depth (ft bgs)	1 - 3	2 - 2	2 - 4	3 - 5	2.5 - 4.5	2.5 - 5	3 - 5	3 - 5	2 - 4	1 - 3
		Soil Lithologic Unit	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Bank Fill	Bank Fill	Bank Fill	Bank Fill
Analyte	Unit	Vadose Soil SL										
Polycyclic Aromatic Hydrocarbons (PAHs)												
1-Methylnaphthalene	mg/kg	2,600	--	--	**0.077**	**0.019**	**0.0046**	--	**0.0026**	--	**0.016**	--
2-Chloronaphthalene	mg/kg	75	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
2-Methylnaphthalene	mg/kg	0.67	--	--	**0.11**	**0.033**	**0.0056**	--	**0.0045**	--	**0.031**	--
Acenaphthene	mg/kg	0.5	--	--	**0.33**	<0.0005 U	<0.0005 U	--	**0.0013**	--	<0.005 U	--
Acenaphthylene	mg/kg	1.3	--	--	<0.0005 U	**0.0055**	<0.0005 U	--	**0.0053**	--	**0.025**	--
Anthracene	mg/kg	0.96	--	--	**0.29**	<0.0005 U	<0.0005 U	--	**0.0035**	--	**0.0077**	--
Benz(a)anthracene	mg/kg	1.3	--	--	**0.25**	**0.0052**	**0.0036**	--	**0.026**	--	**0.17**	--
Benzo(a) pyrene	mg/kg	0.0047	--	--	**0.087 J**	**0.002 J**	**0.0056 J**	--	**0.048**	--	**0.24 J**	--
Benzo(b)fluoranthene	mg/kg		--	--	**0.23 J**	**0.0052 J**	**0.009 J**	--	**0.062**	--	**0.32 J**	--
Benzo(g,h,i)perylene	mg/kg	0.67	--	--	**0.012 J**	**0.0011 J**	**0.003 J**	--	**0.014**	--	**0.072 J**	--
Benzo(k)fluoranthene	mg/kg		--	--	**0.08 J**	**0.0012 J**	**0.0025 J**	--	**0.023**	--	**0.11 J**	--
Chrysene	mg/kg	1.4	--	--	**0.23**	**0.011**	**0.011**	--	**0.038**	--	**0.22**	--
Dibenz(a,h)anthracene	mg/kg	0.23	--	--	**0.0037 J**	<0.001 U	**0.0013 J**	--	**0.0026**	--	**0.013 J**	--
Fluoranthene	mg/kg	1.7	--	--	**1.9**	**0.026**	**0.01**	--	**0.052**	--	**0.25**	--
Fluorene	mg/kg	0.54	--	--	**0.19**	**0.0038**	<0.0005 U	--	**0.0023**	--	**0.0057**	--
Indeno(1,2,3-c,d)pyrene	mg/kg	0.6	--	--	**0.013 J**	<0.001 U	**0.0025 J**	--	**0.012**	--	**0.057 J**	--
Naphthalene	mg/kg	0.51	--	<0.01 U	**0.024**	**0.069**	**0.014**	--	**0.007**	--	**0.05**	--
Phenanthrene	mg/kg	1.5	--	--	**3.8**	**0.063**	**0.012**	--	**0.026**	--	**0.034**	--
Pyrene	mg/kg	2.6	--	--	**1.1**	**0.03**	**0.021**	--	**0.055**	--	**0.41**	--
Total cPAHs TEQ (ND = 1/2)	mg/kg	0.0047	--	--	**0.147 J**	**0.00337 J**	**0.0076 J**	--	**0.0609**	--	**0.309 J**	--
Semivolatile Organic Compounds (SVOCs)												
3&4-Methylphenol (m&p-cresol)	mg/kg		--	--	<0.2 UJ	<0.2 U	<0.2 U	--	<0.2 U	--	<2 U	--
2-Chlorophenol	mg/kg	2	--	--	<0.1 UJ	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
2-Methylphenol	mg/kg	0.063	--	--	<0.1 UJ	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
2-Nitrophenol	mg/kg		--	--	<0.1 UJ	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
2,4-Dichlorophenol	mg/kg	0.48	--	--	<0.1 UJ	**0.13**	<0.1 U	--	<0.1 U	--	<1 U	--
2,4-Dimethylphenol	mg/kg	0.029	--	--	<0.1 UJ	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
2,4-Dinitrophenol	mg/kg	0.4	--	--	<0.3 UJ	<0.3 U	<0.3 U	--	<0.3 U	--	<3 U	--
2,4-Dinitrotoluene	mg/kg	0.032	--	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	--	<0.5 U	--
2,4,5-Trichlorophenol	mg/kg	290	--	--	<0.1 UJ	**0.19 J**	<0.1 U	--	<0.1 U	--	<1 U	--
2,4,6-Trichlorophenol	mg/kg	0.033	--	--	<0.1 UJ	**0.28 J**	<0.1 U	--	<0.1 U	--	<1 U	--
2,6-Dinitrotoluene	mg/kg	88	--	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	--	<0.5 U	--
2-Nitroaniline	mg/kg	35,000	--	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	--	<0.5 U	--
3-Nitroaniline	mg/kg		--	--	<1 U	<1 U	<1 U	--	<1 U	--	<10 U	--
4-Chloroaniline	mg/kg	660	--	--	<1 U	<1 U	<1 U	--	<1 U	--	<10 U	--
4-Chlorophenyl phenyl ether	mg/kg		--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
4-chloro-3-methylphenol	mg/kg	5.5	--	--	<0.1 UJ	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
4-Nitroaniline	mg/kg	6,600	--	--	<1 U	<1 U	<1 U	--	<1 U	--	<10 U	--

Table 4 - Vadose Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			GP-81		GP-82	GP-83	MW-13D	MW-19D	MW-33D	MW-46D	MW-47D	MW-48D
Date			11/18/24		11/18/24	11/19/24	11/25/24	11/25/24	11/19/24	11/20/24	11/22/24	11/21/24
Sample Code			GP-81-1-3	GP-81-2	GP-82-2-4	GP-83-3-5	MW-13D-2.5-4.5	MW-19D-2.5-5	MW-33D-3-5	MW-46D-3-5	MW-47D-2-4	MW-48D-1-3
Depth (ft bgs)			1 - 3	2 - 2	2 - 4	3 - 5	2.5 - 4.5	2.5 - 5	3 - 5	3 - 5	2 - 4	1 - 3
Soil Lithologic Unit			Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Shallow Fill	Bank Fill	Bank Fill	Bank Fill	Bank Fill
Analyte	Unit	Vadose Soil SL										
4-Nitrophenol	mg/kg		--	--	<0.3 UJ	<0.3 U	<0.3 U	--	<0.3 U	--	<3 U	--
4,6-Dinitro-2-methylphenol	mg/kg	1.6	--	--	<0.3 UJ	<0.3 U	<0.3 U	--	<0.3 U	--	<3 U	--
Benzoic Acid	mg/kg	0.65	--	--	<0.5 UJ	<0.5 U	<0.5 U	--	<0.5 U	--	<5 U	--
Benzyl alcohol	mg/kg	0.057	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Bis(2-chloroethoxy) methane	mg/kg	11,000	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Bis(2-chloroethyl)ether	mg/kg	0.0016	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Bis(2-chloroisopropyl) ether	mg/kg	3	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Bis(2-ethylhexyl) phthalate	mg/kg	1.3	--	--	<0.16 U	<0.16 U	<0.16 U	--	<0.16 U	--	<1.6 U	--
Butyl benzyl phthalate	mg/kg	0.053	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Carbazole	mg/kg		--	--	**0.13**	<0.0005 U	<0.0005 U	--	**0.0031**	--	<0.005 U	--
Dibenzofuran	mg/kg	0.54	--	--	**0.44**	**0.015**	**0.0029**	--	**0.0024**	--	<0.005 U	--
Diethyl Phthalate	mg/kg	0.2	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Dimethyl phthalate	mg/kg	0.071	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Phenol	mg/kg	0.42	--	--	<0.05 UJ	<0.05 U	<0.05 U	--	<0.05 U	--	<0.5 U	--
Di-n-butyl phthalate	mg/kg	1.4	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Di-n-octyl phthalate	mg/kg	6.2	--	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	--	<1 U	--
Isophorone	mg/kg	2.6	--	--	<0.01 U	<0.01 U	<0.01 U	--	**0.011**	--	<0.1 U	--
Nitrobenzene	mg/kg	4	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
N-Nitrosodi-n-Propylamine	mg/kg	0.005	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
n-Nitrosodiphenylamine	mg/kg	0.028	--	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	--	<0.1 U	--
Pentachlorophenol	mg/kg	0.00036	--	--	<0.05 UJ	**23**	**1**	--	**0.17**	--	**0.87**	--

Notes:

SL = Screening Level
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
U = Analyte not detected at or above the reporting limit shown
J = Value estimated
UJ = Analyte not detected at or above the estimated reporting limit shown
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			GP-81					GP-82			GP-83			
Date			11/18/24				11/19/24	11/18/24			11/19/24			
Sample Code			GP-81-8-10	GP-81-10-12	GP-81-12-14	GP-81-17-19	GP-81-21-23	GP-82-7-9	GP-82-11-13	GP-82-21-23	GP-83-9.5-11.5	GP-83-12-14	GP-83-15-17	GP-83-23-25
Depth (ft bgs)			8 - 10	10 - 12	12 - 14	17 - 19	21 - 23	7 - 9	11 - 13	21 - 23	9.5 - 11.5	12 - 14	15 - 17	23 - 25
Soil Lithologic Unit			Dredge Fill	Native Soil	Silt Aquitard	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL												
Metals														
Arsenic	mg/kg	7.3	**240**	**390**	**24**	**12**	**2.6**	**36**	**6.7**	**2**	**41**	**7.4**	--	**3.4**
Chromium	mg/kg	260	**5.3**	**8**	**11**	**8.8**	**9.1**	**9.7**	**9.7**	**9.3**	**3.7**	**8.7**	--	**7**
Copper	mg/kg	36	**17**	**37**	**23**	**16**	**11**	**51**	**20**	**13**	**56**	**22**	--	**7.4**
Zinc	mg/kg	85	**140**	**210**	**13**	**23**	**19**	**35**	**16**	**21**	<5 U	**14**	--	**17**
Volatile Organic Compounds (VOCs)														
1,2-Dichlorobenzene	mg/kg	0.027	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
1,2,4-Trichlorobenzene	mg/kg	0.00093	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
1,3-Dichlorobenzene	mg/kg	0.012	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
1,4-Dichlorobenzene	mg/kg	0.085	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Pyridine	mg/kg	3,500	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Hexachlorobenzene	mg/kg	0.000006	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	**0.01**	--	**0.032**	<0.01 U
Hexachlorocyclopentadiene	mg/kg	0.021	--	<0.03 U	--	<0.03 U	<0.03 U	--	<0.03 U	<0.03 U	<0.03 U	--	<0.03 U	<0.03 U
Hexachloroethane	mg/kg	0.000065	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Hexachlorobutadiene	mg/kg	0.00013	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Polycyclic Aromatic Hydrocarbons (PAHs)														
1-Methylnaphthalene	mg/kg	2,600	--	**0.0014**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.0027**	--	**0.00076**	<0.0005 U
2-Chloronaphthalene	mg/kg	3.7	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
2-Methylnaphthalene	mg/kg	0.53	--	**0.0015**	--	**0.00051**	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.003**	--	**0.00079**	<0.0005 U
Acenaphthene	mg/kg	0.39	--	**0.003**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U
Acenaphthylene	mg/kg	1.3	--	<0.0005 U	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U
Anthracene	mg/kg	0.76	--	**0.00074**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.00064**	--	<0.0005 U	<0.0005 U
Benz(a)anthracene	mg/kg	1.3	--	**0.0012**	--	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U	**0.0024**	--	<0.001 U	<0.001 U
Benzo(a)pyrene	mg/kg	0.00023	--	**0.0017**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.002**	--	<0.0005 U	<0.0005 U
Benzo(b)fluoranthene	mg/kg		--	**0.0018**	--	<0.0005 U	<0.0005 U	--	**0.00057**	<0.0005 U	**0.0031**	--	<0.0005 U	<0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	--	<0.001 U	--	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U	**0.0022**	--	<0.001 U	<0.001 U
Benzo(k)fluoranthene	mg/kg		--	**0.0007**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.00081**	--	<0.0005 U	<0.0005 U
Chrysene	mg/kg	1.4	--	**0.0022**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.0037**	--	<0.0005 U	<0.0005 U
Dibenz(a,h)anthracene	mg/kg	0.23	--	<0.001 U	--	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U
Fluoranthene	mg/kg	1.3	--	**0.0032**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.0069**	--	**0.00065**	<0.0005 U
Fluorene	mg/kg	0.43	--	**0.0014**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.0012**	--	<0.0005 U	<0.0005 U
Indeno(1,2,3-c,d)pyrene	mg/kg	0.6	--	<0.001 U	--	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U	**0.0019**	--	<0.001 U	<0.001 U

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			GP-81					GP-82			GP-83			
Date			11/18/24				11/19/24	11/18/24			11/19/24			
Sample Code			GP-81-8-10	GP-81-10-12	GP-81-12-14	GP-81-17-19	GP-81-21-23	GP-82-7-9	GP-82-11-13	GP-82-21-23	GP-83-9.5-11.5	GP-83-12-14	GP-83-15-17	GP-83-23-25
Depth (ft bgs)			8 - 10	10 - 12	12 - 14	17 - 19	21 - 23	7 - 9	11 - 13	21 - 23	9.5 - 11.5	12 - 14	15 - 17	23 - 25
Soil Lithologic Unit			Dredge Fill	Native Soil	Silt Aquitard	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL												
Naphthalene	mg/kg	0.025	--	**0.0018**	--	<0.001 U	<0.001 U	--	<0.001 U	<0.001 U	**0.003**	--	**0.0011**	<0.001 U
Phenanthrene	mg/kg	1.5	--	**0.0029**	--	**0.00089**	**0.00096**	--	**0.001**	**0.00099**	**0.009**	--	**0.0019**	**0.0007**
Pyrene	mg/kg	2.1	--	**0.0024**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.0056**	--	**0.00073**	<0.0005 U
Total cPAHs TEQ (ND = 1/2)	mg/kg	0.00023	--	**0.00219**	--	<0.0005 U	<0.0005 U	--	**0.000485**	<0.0005 U	**0.00291**	--	<0.0005 U	<0.0005 U
Semivolatile Organic Compounds (SVOCs)														
3&4-Methylphenol	mg/kg		--	<0.2 U	--	<0.2 U	<0.2 U	--	<0.2 U	<0.2 U	<0.2 U	--	<0.2 U	<0.2 U
2-Chlorophenol	mg/kg	0.1	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
2-Methylphenol	mg/kg	0.048	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
2-Nitrophenol	mg/kg		--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
2,4-Dichlorophenol	mg/kg	0.025	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	**0.11**	--	<0.1 U	<0.1 U
2,4-Dimethylphenol	mg/kg	0.022	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
2,4-Dinitrophenol	mg/kg	0.029	--	<0.3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U
2,4-Dinitrotoluene	mg/kg	0.0016	--	<0.05 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U
2,4,5-Trichlorophenol	mg/kg	15	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
2,4,6-Trichlorophenol	mg/kg	0.0017	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	**0.16 J**	--	<0.1 U	<0.1 U
2,6-Dinitrotoluene	mg/kg	88	--	<0.05 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U
2-Nitroaniline	mg/kg	35,000	--	<0.05 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U
3-Nitroaniline	mg/kg		--	<1 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U	--	<1 U	<1 U
4-Chloroaniline	mg/kg	660	--	<1 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U	--	<1 U	<1 U
4-Chlorophenyl phenyl ether	mg/kg		--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
4-chloro-3-methylphenol	mg/kg	0.28	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
4-Nitroaniline	mg/kg	6,600	--	<1 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U	--	<1 U	<1 U
4-Nitrophenol	mg/kg		--	<0.3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U
4,6-Dinitro-2-methylphenol	mg/kg	0.081	--	<0.3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U
Benzoic Acid	mg/kg	0.31	--	<0.5 U	--	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U
Benzyl alcohol	mg/kg	0.034	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Bis(2-chloroethoxy) methane	mg/kg	11,000	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Bis(2-chloroethyl)ether	mg/kg	0.000086	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Bis(2-chloroisopropyl) ether	mg/kg	0.16	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.077	--	<0.16 U	--	<0.16 U	<0.16 U	--	<0.16 U	<0.16 U	<0.16 U	--	<0.16 U	<0.16 U
Butyl benzyl phthalate	mg/kg	0.0027	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Carbazole	mg/kg		--	<0.0005 U	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U

Table 5 - Saturated Soil Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code			GP-81					GP-82			GP-83			
Date			11/18/24				11/19/24	11/18/24			11/19/24			
Sample Code			GP-81-8-10	GP-81-10-12	GP-81-12-14	GP-81-17-19	GP-81-21-23	GP-82-7-9	GP-82-11-13	GP-82-21-23	GP-83-9.5-11.5	GP-83-12-14	GP-83-15-17	GP-83-23-25
Depth (ft bgs)			8 - 10	10 - 12	12 - 14	17 - 19	21 - 23	7 - 9	11 - 13	21 - 23	9.5 - 11.5	12 - 14	15 - 17	23 - 25
Soil Lithologic Unit			Dredge Fill	Native Soil	Silt Aquitard	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL												
Dibenzofuran	mg/kg	0.43	--	**0.00071**	--	<0.0005 U	<0.0005 U	--	<0.0005 U	<0.0005 U	**0.006**	--	**0.00076**	<0.0005 U
Diethyl Phthalate	mg/kg	0.14	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Dimethyl phthalate	mg/kg	0.045	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Phenol	mg/kg	0.31	--	<0.05 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U
Di-n-butyl phthalate	mg/kg	0.19	--	<0.1 U	--	**0.11**	**0.14**	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Di-n-octyl phthalate	mg/kg	4.9	--	<0.1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U
Isophorone	mg/kg	0.14	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Nitrobenzene	mg/kg	0.21	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
N-Nitrosodi-n-Propylamine	mg/kg	0.00026	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
n-Nitrosodiphenylamine	mg/kg	0.022	--	<0.01 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U
Pentachlorophenol	mg/kg	0.000018	--	<0.05 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	**5.1**	--	**0.9**	<0.05 U

Notes:

SL = Screening Level

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

U = Analyte not detected at or above the reporting limit shown

J = Value estimated

UJ = Analyte not detected at or above the estimated reporting limit shown

Bold = Detected

Grey Shaded = Non-detected value exceeded the SL

Green Shaded = Detected value exceeded the SL

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	MW-13D					MW-19D					MW-33D		
		Date	11/25/24					11/25/24					11/19/24		
		Sample Code	MW-13D-9.5-11.5	MW-13D-14.5-16.5	MW-13D-19-21	MW-13D-23-25	MW-13D-38-40	MW-19D-10-12	MW-19D-12-14	MW-19D-14.5-16	MW-19D-20-22	MW-19D-38-40	MW-33D-7-9	MW-33D-10.5-12.5	MW-33D-23-25
		Depth (ft bgs)	9.5 - 11.5	14.5 - 16.5	19 - 21	23 - 25	38 - 40	10 - 12	12 - 14	14.5 - 16	20 - 22	38 - 40	7 - 9	10.5 - 12.5	23 - 25
		Soil Lithologic Unit	Dredge Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL													
Metals															
Arsenic	mg/kg	7.3	**16**	**84**	**11**	**2.8**	**1.5**	**80**	**730**	**8.6**	**1.6**	<1 U	--	**6.5**	**1.8**
Chromium	mg/kg	260	**7.2**	**11**	**9.3**	**7.1**	**6.4**	**7.1**	**12**	**12**	**8.9**	**5**	--	**13**	**7.4**
Copper	mg/kg	36	**32**	**37**	**11**	**7.6**	**10**	**31**	**22**	**17**	**8.7**	**10**	--	**22**	**7.1**
Zinc	mg/kg	85	**22**	**47**	**18**	**19 J**	**14**	**96**	**21**	**20**	**21**	**12**	--	**42**	**15**
Volatile Organic Compounds (VOCs)															
1,2-Dichlorobenzene	mg/kg	0.027	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
1,2,4-Trichlorobenzene	mg/kg	0.00093	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
1,3-Dichlorobenzene	mg/kg	0.012	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
1,4-Dichlorobenzene	mg/kg	0.085	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Pyridine	mg/kg	3,500	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Hexachlorobenzene	mg/kg	0.000006	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Hexachlorocyclopentadiene	mg/kg	0.021	<0.03 U	<0.03 U	<0.03 U	<0.03 U	--	--	--	--	--	--	<0.03 U	<0.03 U	<0.03 U
Hexachloroethane	mg/kg	0.000065	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Hexachlorobutadiene	mg/kg	0.00013	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Polycyclic Aromatic Hydrocarbons (PAHs)															
1-Methylnaphthalene	mg/kg	2,600	<0.0005 U	**0.00052**	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	**0.00082**	<0.0005 U
2-Chloronaphthalene	mg/kg	3.7	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
2-Methylnaphthalene	mg/kg	0.53	**0.00052**	**0.00074**	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	**0.00066**	<0.0005 U
Acenaphthene	mg/kg	0.39	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	**0.00062**	<0.0005 U	<0.0005 U
Acenaphthylene	mg/kg	1.3	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Anthracene	mg/kg	0.76	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Benz(a)anthracene	mg/kg	1.3	<0.001 U	<0.001 U	<0.001 U	<0.001 U	--	--	--	--	--	--	<0.001 U	<0.001 U	<0.001 U
Benzo(a)pyrene	mg/kg	0.00023	<0.0005 U	**0.0015**	**0.0016**	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Benzo(b)fluoranthene	mg/kg		**0.00077**	**0.0014**	**0.0015**	<0.0005 U	--	--	--	--	--	--	**0.00063**	**0.00067 J**	<0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	<0.001 U	<0.001 U	<0.001 U	<0.001 U	--	--	--	--	--	--	<0.001 U	<0.001 U	<0.001 U
Benzo(k)fluoranthene	mg/kg		<0.0005 U	<0.0005 U	**0.0005**	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Chrysene	mg/kg	1.4	<0.0005 U	**0.00085**	**0.00092**	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Dibenz(a,h)anthracene	mg/kg	0.23	<0.001 U	<0.001 U	<0.001 U	<0.001 U	--	--	--	--	--	--	<0.001 U	<0.001 U	<0.001 U
Fluoranthene	mg/kg	1.3	**0.0017**	**0.0011**	**0.00097**	<0.0005 U	--	--	--	--	--	--	**0.0005**	<0.0005 U	<0.0005 U
Fluorene	mg/kg	0.43	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Indeno(1,2,3-c,d)pyrene	mg/kg	0.6	<0.001 U	<0.001 U	<0.001 U	<0.001 U	--	--	--	--	--	--	<0.001 U	<0.001 U	<0.001 U

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			MW-13D					MW-19D					MW-33D		
Date			11/25/24					11/25/24					11/19/24		
Sample Code			MW-13D-9.5-11.5	MW-13D-14.5-16.5	MW-13D-19-21	MW-13D-23-25	MW-13D-38-40	MW-19D-10-12	MW-19D-12-14	MW-19D-14.5-16	MW-19D-20-22	MW-19D-38-40	MW-33D-7-9	MW-33D-10.5-12.5	MW-33D-23-25
Depth (ft bgs)			9.5 - 11.5	14.5 - 16.5	19 - 21	23 - 25	38 - 40	10 - 12	12 - 14	14.5 - 16	20 - 22	38 - 40	7 - 9	10.5 - 12.5	23 - 25
Soil Lithologic Unit			Dredge Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL													
Naphthalene	mg/kg	0.025	<0.001 U	<0.001 U	<0.001 U	<0.001 U	--	--	--	--	--	--	<0.001 U	**0.0027**	**0.0012**
Phenanthrene	mg/kg	1.5	**0.0013**	**0.0014**	**0.00079**	<0.0005 U	--	--	--	--	--	--	**0.00064**	**0.0013**	**0.0009**
Pyrene	mg/kg	2.1	**0.0012**	**0.0015**	**0.0014**	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Total cPAHs TEQ (ND = 1/2)	mg/kg	0.00023	**0.000504**	**0.00182**	**0.00196**	<0.0005 U	--	--	--	--	--	--	**0.000491**	**0.000495 J**	<0.0005 U
Semivolatile Organic Compounds (SVOCs)															
3&4-Methylphenol	mg/kg		<0.2 U	<0.2 U	<0.2 U	<0.2 U	--	--	--	--	--	--	<0.2 U	<0.2 U	<0.2 U
2-Chlorophenol	mg/kg	0.1	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2-Methylphenol	mg/kg	0.048	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2-Nitrophenol	mg/kg		<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dichlorophenol	mg/kg	0.025	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dimethylphenol	mg/kg	0.022	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dinitrophenol	mg/kg	0.029	<0.3 U	<0.3 U	<0.3 U	<0.3 U	--	--	--	--	--	--	<0.3 U	<0.3 U	<0.3 U
2,4-Dinitrotoluene	mg/kg	0.0016	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	--	--	--	--	<0.05 U	<0.05 U	<0.05 U
2,4,5-Trichlorophenol	mg/kg	15	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2,4,6-Trichlorophenol	mg/kg	0.0017	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
2,6-Dinitrotoluene	mg/kg	88	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	--	--	--	--	<0.05 U	<0.05 U	<0.05 U
2-Nitroaniline	mg/kg	35,000	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	--	--	--	--	<0.05 U	<0.05 U	<0.05 U
3-Nitroaniline	mg/kg		<1 U	<1 U	<1 U	<1 U	--	--	--	--	--	--	<1 U	<1 U	<1 U
4-Chloroaniline	mg/kg	660	<1 U	<1 U	<1 U	<1 U	--	--	--	--	--	--	<1 U	<1 U	<1 U
4-Chlorophenyl phenyl ether	mg/kg		<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
4-chloro-3-methylphenol	mg/kg	0.28	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
4-Nitroaniline	mg/kg	6,600	<1 U	<1 U	<1 U	<1 U	--	--	--	--	--	--	<1 U	<1 U	<1 U
4-Nitrophenol	mg/kg		<0.3 U	<0.3 U	<0.3 U	<0.3 U	--	--	--	--	--	--	<0.3 U	<0.3 U	<0.3 U
4,6-Dinitro-2-methylphenol	mg/kg	0.081	<0.3 U	<0.3 U	<0.3 U	<0.3 U	--	--	--	--	--	--	<0.3 U	<0.3 U	<0.3 U
Benzoic Acid	mg/kg	0.31	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	--	--	--	--	<0.5 U	<0.5 U	<0.5 U
Benzyl alcohol	mg/kg	0.034	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Bis(2-chloroethoxy) methane	mg/kg	11,000	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-chloroethyl)ether	mg/kg	0.000086	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-chloroisopropyl) ether	mg/kg	0.16	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.077	<0.16 U	<0.16 U	<0.16 U	<0.16 U	--	--	--	--	--	--	<0.16 U	<0.16 U	<0.16 U
Butyl benzyl phthalate	mg/kg	0.0027	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Carbazole	mg/kg		<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U

Table 5 - Saturated Soil Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code			MW-13D					MW-19D					MW-33D		
Date			11/25/24					11/25/24					11/19/24		
Sample Code			MW-13D-9.5-11.5	MW-13D-14.5-16.5	MW-13D-19-21	MW-13D-23-25	MW-13D-38-40	MW-19D-10-12	MW-19D-12-14	MW-19D-14.5-16	MW-19D-20-22	MW-19D-38-40	MW-33D-7-9	MW-33D-10.5-12.5	MW-33D-23-25
Depth (ft bgs)			9.5 - 11.5	14.5 - 16.5	19 - 21	23 - 25	38 - 40	10 - 12	12 - 14	14.5 - 16	20 - 22	38 - 40	7 - 9	10.5 - 12.5	23 - 25
Soil Lithologic Unit			Dredge Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Dredge Fill	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL													
Dibenzofuran	mg/kg	0.43	<0.0005 U	<0.0005 U	<0.0005 U	<0.0005 U	--	--	--	--	--	--	<0.0005 U	<0.0005 U	<0.0005 U
Diethyl Phthalate	mg/kg	0.14	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Dimethyl phthalate	mg/kg	0.045	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Phenol	mg/kg	0.31	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	--	--	--	--	<0.05 U	<0.05 U	<0.05 U
Di-n-butyl phthalate	mg/kg	0.19	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Di-n-octyl phthalate	mg/kg	4.9	<0.1 U	<0.1 U	<0.1 U	<0.1 U	--	--	--	--	--	--	<0.1 U	<0.1 U	<0.1 U
Isophorone	mg/kg	0.14	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Nitrobenzene	mg/kg	0.21	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
N-Nitrosodi-n-Propylamine	mg/kg	0.00026	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
n-Nitrosodiphenylamine	mg/kg	0.022	<0.01 U	<0.01 U	<0.01 U	<0.01 U	--	--	--	--	--	--	<0.01 U	<0.01 U	<0.01 U
Pentachlorophenol	mg/kg	0.000018	**4.2**	**0.58**	**0.28**	<0.05 U	--	--	--	--	--	--	<0.05 U	<0.05 U	<0.05 U

Notes:

SL = Screening Level

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

U = Analyte not detected at or above the reporting limit shown

J = Value estimated

UJ = Analyte not detected at or above the estimated reporting limit shown

Bold = Detected

Grey Shaded = Non-detected value exceeded the SL

Green Shaded = Detected value exceeded the SL

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			MW-46D							MW-47D					MW-48D		
Date			11/20/24							11/22/24					11/21/24		
Sample Code			MW-46D-7-9	MW-46D-11-12.5	MW-46D-12.5-14.5	MW-46D-17.5-19.5	MW-46D-20-22	MW-46D-28-30	MW-46D-36-38	MW-47D-11-13	MW-47D-16-18	MW-47D-22-24	MW-47D-25-27	MW-47D-32-34	MW-48D-8.5-10.5	MW-48D-14.5-16	MW-48D-16-18
Depth (ft bgs)			7 - 9	11 - 12.5	12.5 - 14.5	17.5 - 19.5	20 - 22	28 - 30	36 - 38	11 - 13	16 - 18	22 - 24	25 - 27	32 - 34	8.5 - 10.5	14.5 - 16	16 - 18
Soil Lithologic Unit			Bank Fill	Bank Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Bank Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL															
Metals																	
Arsenic	mg/kg	7.3	**67**	**940**	**320**	**46**	**18**	**1**	**1.2**	**460**	**300**	**120**	**8.4**	**4.4**	**9.5**	**8.7**	**1.2**
Chromium	mg/kg	260	**30**	**23**	**13**	**12**	**7.2**	**5.4**	**5.2**	**20**	**14**	**9.7**	**6.5**	**6.3**	**13**	**14**	**9.5**
Copper	mg/kg	36	**350**	**190**	**47**	**18**	**7.9**	**6.5**	**8**	**110**	**77**	**17**	**5.6**	**6.4**	**20**	**22**	**6.1**
Zinc	mg/kg	85	**45**	**120**	**190**	**28**	**18**	**16**	**13**	**85**	**130**	**87**	**17**	**17**	**28**	**35**	**16**
Volatile Organic Compounds (VOCs)																	
1,2-Dichlorobenzene	mg/kg	0.027	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
1,2,4-Trichlorobenzene	mg/kg	0.00093	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
1,3-Dichlorobenzene	mg/kg	0.012	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
1,4-Dichlorobenzene	mg/kg	0.085	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Pyridine	mg/kg	3,500	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Hexachlorobenzene	mg/kg	0.000006	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Hexachlorocyclopentadiene	mg/kg	0.021	--	--	--	--	--	--	--	<0.3 U	--	<0.03 U	<0.03 U	--	<0.03 U	<0.03 U	<0.03 U
Hexachloroethane	mg/kg	0.000065	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Hexachlorobutadiene	mg/kg	0.00013	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Polycyclic Aromatic Hydrocarbons (PAHs)																	
1-Methylnaphthalene	mg/kg	2,600	--	--	--	--	--	--	--	**0.013**	--	**0.0013**	<0.0005 U	--	**0.00073**	**0.00065**	<0.0005 U
2-Chloronaphthalene	mg/kg	3.7	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
2-Methylnaphthalene	mg/kg	0.53	--	--	--	--	--	--	--	**0.025**	--	**0.0021**	<0.0005 U	--	**0.00055**	**0.00068**	<0.0005 U
Acenaphthene	mg/kg	0.39	--	--	--	--	--	--	--	<0.005 U	--	**0.00055**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Acenaphthylene	mg/kg	1.3	--	--	--	--	--	--	--	**0.034**	--	**0.0025**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Anthracene	mg/kg	0.76	--	--	--	--	--	--	--	**0.016**	--	**0.0016**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Benz(a)anthracene	mg/kg	1.3	--	--	--	--	--	--	--	**0.17**	--	**0.013**	<0.001 U	--	<0.001 U	<0.001 U	<0.001 U
Benzo(a)pyrene	mg/kg	0.00023	--	--	--	--	--	--	--	**0.33 J**	--	**0.029**	**0.00087**	--	<0.0005 U	**0.00094**	<0.0005 U
Benzo(b)fluoranthene	mg/kg		--	--	--	--	--	--	--	**0.42 J**	--	**0.027**	**0.00098**	--	<0.0005 U	**0.0012**	<0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	--	--	--	--	--	--	--	**0.091 J**	--	**0.0058**	<0.001 U	--	<0.001 U	<0.001 U	<0.001 U
Benzo(k)fluoranthene	mg/kg		--	--	--	--	--	--	--	**0.14 J**	--	**0.0092**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Chrysene	mg/kg	1.4	--	--	--	--	--	--	--	**0.23**	--	**0.019**	**0.0006**	--	<0.0005 U	**0.00091**	<0.0005 U
Dibenz(a,h)anthracene	mg/kg	0.23	--	--	--	--	--	--	--	**0.018 J**	--	**0.0015**	<0.001 U	--	<0.001 U	<0.001 U	<0.001 U
Fluoranthene	mg/kg	1.3	--	--	--	--	--	--	--	**0.2**	--	**0.019**	**0.00068**	--	<0.0005 U	**0.0013**	<0.0005 U
Fluorene	mg/kg	0.43	--	--	--	--	--	--	--	**0.015**	--	**0.0015**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Indeno(1,2,3-c,d)pyrene	mg/kg	0.6	--	--	--	--	--	--	--	**0.074 J**	--	**0.0059**	<0.001 U	--	<0.001 U	<0.001 U	<0.001 U

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			MW-46D							MW-47D					MW-48D		
Date			11/20/24							11/22/24					11/21/24		
Sample Code			MW-46D-7-9	MW-46D-11-12.5	MW-46D-12.5-14.5	MW-46D-17.5-19.5	MW-46D-20-22	MW-46D-28-30	MW-46D-36-38	MW-47D-11-13	MW-47D-16-18	MW-47D-22-24	MW-47D-25-27	MW-47D-32-34	MW-48D-8.5-10.5	MW-48D-14.5-16	MW-48D-16-18
Depth (ft bgs)			7 - 9	11 - 12.5	12.5 - 14.5	17.5 - 19.5	20 - 22	28 - 30	36 - 38	11 - 13	16 - 18	22 - 24	25 - 27	32 - 34	8.5 - 10.5	14.5 - 16	16 - 18
Soil Lithologic Unit			Bank Fill	Bank Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Bank Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL															
Naphthalene	mg/kg	0.025	--	--	--	--	--	--	--	**0.036**	--	**0.0028**	<0.001 U	--	**0.0012**	<0.001 U	<0.001 U
Phenanthrene	mg/kg	1.5	--	--	--	--	--	--	--	**0.044**	--	**0.0047**	**0.00059**	--	**0.0013**	**0.0018**	<0.0005 U
Pyrene	mg/kg	2.1	--	--	--	--	--	--	--	**0.41**	--	**0.023**	**0.00089**	--	<0.0005 U	**0.0014**	<0.0005 U
Total cPAHs TEQ (ND = 1/2)	mg/kg	0.00023	--	--	--	--	--	--	--	**0.415 J**	--	**0.0349**	**0.00115**	--	<0.0005 U	**0.00124**	<0.0005 U
Semivolatile Organic Compounds (SVOCs)																	
3&4-Methylphenol	mg/kg		--	--	--	--	--	--	--	<2 U	--	<0.2 U	<0.2 U	--	<0.2 U	<0.2 U	<0.2 U
2-Chlorophenol	mg/kg	0.1	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2-Methylphenol	mg/kg	0.048	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2-Nitrophenol	mg/kg		--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dichlorophenol	mg/kg	0.025	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dimethylphenol	mg/kg	0.022	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2,4-Dinitrophenol	mg/kg	0.029	--	--	--	--	--	--	--	<3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U
2,4-Dinitrotoluene	mg/kg	0.0016	--	--	--	--	--	--	--	<0.5 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U
2,4,5-Trichlorophenol	mg/kg	15	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2,4,6-Trichlorophenol	mg/kg	0.0017	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
2,6-Dinitrotoluene	mg/kg	88	--	--	--	--	--	--	--	<0.5 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U
2-Nitroaniline	mg/kg	35,000	--	--	--	--	--	--	--	<0.5 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U
3-Nitroaniline	mg/kg		--	--	--	--	--	--	--	<10 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U
4-Chloroaniline	mg/kg	660	--	--	--	--	--	--	--	<10 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U
4-Chlorophenyl phenyl ether	mg/kg		--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
4-chloro-3-methylphenol	mg/kg	0.28	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
4-Nitroaniline	mg/kg	6,600	--	--	--	--	--	--	--	<10 U	--	<1 U	<1 U	--	<1 U	<1 U	<1 U
4-Nitrophenol	mg/kg		--	--	--	--	--	--	--	<3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U
4,6-Dinitro-2-methylphenol	mg/kg	0.081	--	--	--	--	--	--	--	<3 U	--	<0.3 U	<0.3 U	--	<0.3 U	<0.3 U	<0.3 U
Benzoic Acid	mg/kg	0.31	--	--	--	--	--	--	--	<5 U	--	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U
Benzyl alcohol	mg/kg	0.034	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	**0.13**	<0.1 U
Bis(2-chloroethoxy) methane	mg/kg	11,000	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-chloroethyl)ether	mg/kg	0.000086	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-chloroisopropyl) ether	mg/kg	0.16	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.077	--	--	--	--	--	--	--	<1.6 U	--	<0.16 U	<0.16 U	--	<0.16 U	<0.16 U	<0.16 U
Butyl benzyl phthalate	mg/kg	0.0027	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Carbazole	mg/kg		--	--	--	--	--	--	--	<0.005 U	--	**0.00081**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U

Table 5 - Saturated Soil Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Location Code			MW-46D							MW-47D					MW-48D		
Date			11/20/24							11/22/24					11/21/24		
Sample Code			MW-46D-7-9	MW-46D-11-12.5	MW-46D-12.5-14.5	MW-46D-17.5-19.5	MW-46D-20-22	MW-46D-28-30	MW-46D-36-38	MW-47D-11-13	MW-47D-16-18	MW-47D-22-24	MW-47D-25-27	MW-47D-32-34	MW-48D-8.5-10.5	MW-48D-14.5-16	MW-48D-16-18
Depth (ft bgs)			7 - 9	11 - 12.5	12.5 - 14.5	17.5 - 19.5	20 - 22	28 - 30	36 - 38	11 - 13	16 - 18	22 - 24	25 - 27	32 - 34	8.5 - 10.5	14.5 - 16	16 - 18
Soil Lithologic Unit			Bank Fill	Bank Fill	Silt Aquitard	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Bank Fill	Silt Aquitard	Alluvial Sand	Alluvial Sand	Alluvial Sand	Silt Aquitard	Silt Aquitard	Alluvial Sand
Analyte	Unit	Saturated Soil SL															
Dibenzofuran	mg/kg	0.43	--	--	--	--	--	--	--	**0.0052**	--	**0.00064**	<0.0005 U	--	<0.0005 U	<0.0005 U	<0.0005 U
Diethyl Phthalate	mg/kg	0.14	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Dimethyl phthalate	mg/kg	0.045	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Phenol	mg/kg	0.31	--	--	--	--	--	--	--	**0.51**	--	**0.79**	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U
Di-n-butyl phthalate	mg/kg	0.19	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Di-n-octyl phthalate	mg/kg	4.9	--	--	--	--	--	--	--	<1 U	--	<0.1 U	<0.1 U	--	<0.1 U	<0.1 U	<0.1 U
Isophorone	mg/kg	0.14	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Nitrobenzene	mg/kg	0.21	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
N-Nitrosodi-n-Propylamine	mg/kg	0.00026	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
n-Nitrosodiphenylamine	mg/kg	0.022	--	--	--	--	--	--	--	<0.1 U	--	<0.01 U	<0.01 U	--	<0.01 U	<0.01 U	<0.01 U
Pentachlorophenol	mg/kg	0.000018	--	--	--	--	--	--	--	<0.5 U	--	<0.05 U	<0.05 U	--	<0.05 U	<0.05 U	<0.05 U

Notes:

SL = Screening Level

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

U = Analyte not detected at or above the reporting limit shown

J = Value estimated

UJ = Analyte not detected at or above the estimated reporting limit shown

Bold = Detected

Grey Shaded = Non-detected value exceeded the SL

Green Shaded = Detected value exceeded the SL

Table 6 - Groundwater Elevations for Paired Wells - December 2024 and January 2026

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

December 2024			
Well Pair	Shallow GWE	Deep GWE	Difference in GWE*
MW-13S/D	11.37	6.44	4.94
MW-14S/D	10.98	6.76	4.22
MW-19S/D	10.27	6.51	3.77
MW-2S/D	11.8	6.92	4.88
MW-32S/DR	11.85	6.70	5.15
MW-33S/D	11.03	6.77	4.27
MW-43S/D	11.6	6.89	4.71
MW-45S/D	10.78	7.07	3.71
MW-46S/D	8.62	6.52	2.10
MW-47S/D	8.68	6.65	2.04
MW-48S/D	11.52	6.71	4.82
January 2026			
Well Pair	Shallow GWE	Deep GWE	Difference in GWE*
MW-2S/D	12.79	6.69	6.10
MW-3S/D	10.48	6.87	3.61
MW-13S/D	13.06	7.17	5.89
MW-14S/D	12.21	7.04	5.17
MW-19S/D	11.31	6.64	4.67
MW-20S/D	10.62	6.79	3.83
MW-31S/D	8.17	8.25	-0.08
MW-32S/DR	12.85	6.43	6.42
MW-33S/D	11.52	6.63	4.89
MW-35S/D	11.16	7.72	3.44
MW-43S/D	16.79	6.78	10.01
MW-45S/D	16.40	6.86	9.54
MW-46S/D	16.16	6.68	9.48
MW-47S/D	16.78	6.29	10.49
MW-48S/D	12.93	6.44	6.49

Notes:

GWE = groundwater elevation

* - A positive difference in GWE indicates a downward vertical gradient

Table 7 - Groundwater Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	INJ-1	MW-1D	MW-1S	MW-2D	MW-2S	MW-3D	MW-3S	MW-6S	MW-7S	MW-10S	MW-13D		MW-13S		MW-14D
		Date	12/16/24	12/20/24	12/20/24	12/20/24	12/20/24	01/07/26	01/07/26	12/20/24	01/07/26	12/20/24	12/19/24	01/06/26	12/16/24	01/07/26	12/18/24
		Sample Code	INJ-1-241216	MW-1D-241220	MW-1S-241220	MW-2D-241220	MW-2S-241220	MW-3D-260107	MW-3S-260107	MW-6S-241220	MW-07S-260107	MW-10S-241220	MW-13D-241219	MW-13D-260106	MW-13S-241216	MW-13S-260107	MW-14D-241218
		Aquifer	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Shallow	Shallow	Shallow	Deep		Shallow		Deep
Analyte	Unit	Groundwater SL															
Metals																	
Arsenic	µg/L	8	<2 U	--	**29**	**23**	**100**	**49**	**1,600**	--	--	--	**25**	**28**	**650**	**840**	**300**
Arsenic (filtered)	µg/L	8	**1.8**	--	**25**	**19**	**87**	**46**	**1,700**	--	--	--	**33**	**33**	**590**	**920**	**240**
Chromium	µg/L	27	**1.0 J**	--	<1 UJ	**12 J**	<1 UJ	--	--	--	--	--	**9.8 J**	--	**2.2 J**	--	**4.1 J**
Chromium (filtered)	µg/L	27	<1 U	--	<1 U	**10**	<1 U	--	--	--	--	--	**7.2**	--	**1.8**	--	**2.9**
Copper	µg/L	3.1	<5 UJ	--	<5 UJ	<5 UJ	<5 UJ	<1 U	<2 U	--	--	--	<25 UJ	**3.6**	**5.6 J**	**13**	<5 UJ
Copper (filtered)	µg/L	3.1	<5 U	--	<5 U	<10 U	<5 U	<1 U	<10 U	--	--	--	<25 U	**4.6**	<5 U	**9.5**	<5 U
Zinc	µg/L	81	**25 J**	--	**24 J**	<5 UJ	<5 UJ	<5 U	<10 U	--	--	--	<25 UJ	<10 U	**23 J**	**190**	<5 UJ
Zinc (filtered)	µg/L	81	**9.6**	--	**22**	<10 U	<5 U	<5 U	<20 U	--	--	--	<25 U	<5 U	**17**	**190**	<5 U
Polycyclic Aromatic Hydrocarbons (PAHs)																	
1-Methylnaphthalene	µg/L	0.17	--	<0.025 U	<0.025 U	<0.025 U	<0.025 U	--	--	<0.025 U	--	<0.025 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U
2-Chloronaphthalene	µg/L	100	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
2-Methylnaphthalene	µg/L	14	--	<0.025 U	<0.025 U	<0.025 U	<0.025 U	--	--	<0.025 U	--	<0.025 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U
Acenaphthene	µg/L	5.3	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--	--	<0.005 U	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U
Acenaphthylene	µg/L		--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Anthracene	µg/L	2.1	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Benz(a)anthracene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Benzo(a) pyrene	µg/L	0.000016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Benzo(b)fluoranthene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Benzo(g,h,i)perylene	µg/L		--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Benzo(k)fluoranthene	µg/L	0.0016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Chrysene	µg/L	0.016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Dibenz(a,h)anthracene	µg/L	0.000016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Fluoranthene	µg/L	1.8	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--	--	<0.005 U	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U
Fluorene	µg/L	3.7	--	<0.005 U	**0.010**	<0.005 U	<0.005 U	--	--	<0.005 U	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U
Indeno(1,2,3-c,d)pyrene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Naphthalene	µg/L	1.4	--	<0.025 U	<0.025 U	<0.025 U	<0.025 U	--	--	<0.025 U	--	<0.025 U	<0.025 U	<0.05 U	<0.025 U	<0.05 U	<0.025 U
Phenanthrene	µg/L		--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--	--	<0.005 U	--	<0.005 U	<0.005 U	<0.01 U	<0.0025 U	<0.01 U	<0.005 U
Pyrene	µg/L	2	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Total cPAHs TEQ (ND = 1/2)	µg/L	0.000016	--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Semivolatile Organic Compounds (SVOCs)																	
2-Chlorophenol	µg/L	17	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
2-Methylphenol	µg/L	9.8	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
2-Nitrophenol	µg/L		--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
2,4-Dichlorophenol	µg/L	10	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	**0.54**	<0.5 U	<0.5 UJ
2,4-Dimethylphenol	µg/L	2.9	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
2,4-Dinitrophenol	mg/L	0.1	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--	--	<0.005 U	--	<0.005 U	<0.005 U	<0.004 U	<0.005 U	<0.004 U	<0.005 U
2,4-Dinitrotoluene	µg/L	0.18	--	<0.25 U	<0.25 U	<0.25 U	<0.25 U	--	--	<0.25 U	--	<0.25 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U
2,4,5-Trichlorophenol	µg/L	600	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2,4,6-Trichlorophenol	µg/L	0.28	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U

Table 7 - Groundwater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

		Location Code	INJ-1	MW-1D	MW-1S	MW-2D	MW-2S	MW-3D	MW-3S	MW-6S	MW-7S	MW-10S	MW-13D		MW-13S		MW-14D
		Date	12/16/24	12/20/24	12/20/24	12/20/24	12/20/24	01/07/26	01/07/26	12/20/24	01/07/26	12/20/24	12/19/24	01/06/26	12/16/24	01/07/26	12/18/24
		Sample Code	INJ-1-241216	MW-1D-241220	MW-1S-241220	MW-2D-241220	MW-2S-241220	MW-3D-260107	MW-3S-260107	MW-6S-241220	MW-07S-260107	MW-10S-241220	MW-13D-241219	MW-13D-260106	MW-13S-241216	MW-13S-260107	MW-14D-241218
		Aquifer	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Shallow	Shallow	Shallow	Deep		Shallow		Deep
Analyte	Unit	Groundwater SL															
2,6-Dinitrotoluene	µg/L		--	<0.25 U	<0.25 U	<0.25 U	<0.25 U	--	--	<0.25 U	--	<0.25 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U
2-Nitroaniline	µg/L		--	<0.25 U	<0.25 U	<0.25 U	<0.25 U	--	--	<0.25 U	--	<0.25 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U
3-Nitroaniline	µg/L		--	<5 U	<5 U	<5 U	<5 U	--	--	<5 U	--	<5 U	<5 U	<1 U	<5 U	<1 U	<5 U
3&4-Methylphenol (m&p-cresol)	µg/L		--	<1 U	<1 U	<1 U	<1 U	--	--	<1 U	--	<1 U	<1 U	<0.5 U	<1 U	<0.5 U	<1 UJ
4-Chloroaniline	µg/L		--	<5 U	<5 U	<5 U	<5 U	--	--	<5 U	--	<5 U	<5 U	<1 U	<5 U	<1 U	<5 U
4-Chlorophenyl phenyl ether	µg/L		--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
4-chloro-3-methylphenol	µg/L	36	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
4-Nitroaniline	µg/L		--	<5 U	<5 U	<5 U	<5 U	--	--	<5 U	--	<5 U	<5 U	<1 U	<5 U	<1 U	<5 U
4-Nitrophenol	µg/L		--	<1.5 U	<1.5 U	<1.5 U	<1.5 U	--	--	<1.5 U	--	<1.5 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U
4,6-Dinitro-2-methylphenol	µg/L	7	--	<1.5 U	<1.5 U	<1.5 U	<1.5 U	--	--	<1.5 U	--	<1.5 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U
Benzoic Acid	µg/L	1,100	--	<5 U	<5 U	<5 U	<5 U	--	--	<5 U	--	<5 U	R	<5 U	R	<5 U	R
Benzyl alcohol	µg/L	56	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bis(2-chloroethoxy) methane	µg/L		--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Bis(2-chloroethyl)ether	µg/L	0.06	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Bis(2-chloroisopropyl) ether	µg/L	100	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Bis(2-ethylhexyl) phthalate	µg/L	0.046	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Butyl benzyl phthalate	µg/L	0.013	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Carbazole	µg/L		--	<0.0025 U	<0.0025 U	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	**0.0025**	<0.0025 U	<0.005 U	**0.0044**	<0.005 U	<0.0025 U
Dibenzofuran	µg/L	3.1	--	**0.0093**	**0.2**	<0.0025 U	<0.0025 U	--	--	<0.0025 U	--	<0.0025 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U
Diethyl Phthalate	µg/L	93	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	**0.57**	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dimethyl phthalate	µg/L	59	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Phenol	µg/L	100	--	**1.4**	**0.51**	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 UJ
Di-n-butyl phthalate	µg/L	8	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Di-n-octyl phthalate	µg/L	2.3	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Isophorone	µg/L	110	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Nitrobenzene	µg/L	100	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
N-Nitrosodi-n-Propylamine	µg/L	0.058	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
n-Nitrosodiphenylamine	µg/L	0.55	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Pentachlorophenol	µg/L	0.002	--	**0.024 J**	**0.026 J**	**0.025 J**	**0.031 J**	--	--	**0.035 J**	--	**0.16**	**1.5**	**0.082**	**68**	**88**	**0.024 J**
Volatile Organic Compounds (VOCs)																	
1,2-Dichlorobenzene	µg/L	4.5	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
1,2,4-Trichlorobenzene	µg/L	0.037	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
1,3-Dichlorobenzene	µg/L	2	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
1,4-Dichlorobenzene	µg/L	5	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Pyridine	µg/L		--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	--	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Hexachlorobenzene	µg/L	0.000005	--	<0.05 U	<0.05 U	<0.05 U	<0.05 U	--	--	<0.05 U	--	<0.05 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Hexachlorocyclopentadiene	µg/L	1	--	<0.15 U	<0.15 U	<0.15 U	<0.15 U	--	--	<0.15 U	--	<0.15 U	<0.15 U	<0.3 U	<0.15 U	<0.3 U	<0.15 U
Hexachloroethane	µg/L	0.02	--	<0.05 UJ	<0.05 UJ	<0.05 UJ	<0.05 UJ	--	--	<0.05 UJ	--	<0.05 UJ	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U
Hexachlorobutadiene	µg/L	0.01	--	<0.05 UJ	<0.05 UJ	<0.05 UJ	<0.05 UJ	--	--	<0.05 UJ	--	<0.05 UJ	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U

Table 7 - Groundwater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code			INJ-1	MW-1D	MW-1S	MW-2D	MW-2S	MW-3D	MW-3S	MW-6S	MW-7S	MW-10S	MW-13D		MW-13S		MW-14D
Date			12/16/24	12/20/24	12/20/24	12/20/24	12/20/24	01/07/26	01/07/26	12/20/24	01/07/26	12/20/24	12/19/24	01/06/26	12/16/24	01/07/26	12/18/24
Sample Code			INJ-1-241216	MW-1D-241220	MW-1S-241220	MW-2D-241220	MW-2S-241220	MW-3D-260107	MW-3S-260107	MW-6S-241220	MW-07S-260107	MW-10S-241220	MW-13D-241219	MW-13D-260106	MW-13S-241216	MW-13S-260107	MW-14D-241218
Aquifer			Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Shallow	Shallow	Shallow	Deep		Shallow		Deep
Analyte	Unit	Groundwater SL															
Field Parameters																	
pH	-		**6.67**	**6.46**	**7.15**	**6.73**	**6.65**	--	--	**7.05**	--	**7.33**	**7.17**	--	**6.49**	--	**6.65**
Temperature	°C		**9.63**	**12.97**	**13.6**	**13.29**	**11.98**	--	--	**9.09**	--	**8.82**	**13.69**	--	**12.26**	--	**14.23**
Specific Conductivity	µS/cm		**527.38**	**158.1**	**664.73**	**764.99**	**469.32**	--	--	**455.71**	--	**374.69**	**21,984**	--	**906.14**	--	**1,081.5**
Oxidation Reduction Potential (ORP)	mV		**131.5**	**-0.1**	**-128.7**	**-89**	**-49.2**	--	--	**-7.1**	--	**79.9**	**-133.4**	--	**13.2**	--	**-81**
Dissolved Oxygen	mg/L		**2.29**	**0.15**	**0.13**	**0.17**	**0.12**	--	--	**0.14**	--	**1.03**	**0.11**	--	**0.23**	--	**0.14**
Turbidity	NTU		**12.3**	**0.98**	**6.87**	**6.12**	**1.91**	--	--	**1.44**	--	**1.21**	**1.24**	--	**18.2**	--	**4.21**

Notes:

SL = Screening Level
µg/L = micrograms per liter
°C = degrees Celsius
µS/cm = microseimens per centimeter
mV = millivolts
mg/L = miligrams per liter
NTU = nephelometric turbidity units

U = Analyte not detected at or above the reporting limit shown
J = Value estimated
UJ = Analyte not detected at or above the estimated reporting limit shown
R = Non-detected result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Table 7 - Groundwater Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

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		Location Code	MW-14S	MW-16S	MW-17S	MW-19D	MW-19S	MW-21S	MW-33D		MW-33S		MW-43D	MW-45D		MW-45S	
		Date	12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/19/24	01/07/26	12/19/24	01/07/26	12/16/24	12/18/24	01/07/26	12/18/24	01/08/26
		Sample Code	MW-14S-241216	MW-16S-241216	MW-17S-241216	MW-19D-241216	MW-19S-241216	MW-21S-241216	MW-33D-241219	MW-33D-260107	MW-33S-241219	MW-33S-260107	MW-43D-241216	MW-45D-241218	MW-45D-260108	MW-45S-241218	MW-45S-260108
		Aquifer	Shallow	Shallow	Shallow	Deep	Shallow	Shallow	Deep		Shallow		Deep	Deep		Shallow	
Analyte	Unit	Groundwater SL															
Metals																	
Arsenic	µg/L	8	**5,800**	--	**62**	**3.6**	**320**	**370**	**6.9**	**5.2**	--	**40**	**540**	**65**	**73**	**5,000**	**4,400**
Arsenic (filtered)	µg/L	8	**5,700**	--	**56**	**4.5**	**320**	**340**	**6.1**	**4.9**	--	**34**	**490**	**68**	**70**	**4,500**	**4,300**
Chromium	µg/L	27	<1 UJ	--	<1 UJ	**2.1 J**	<1 UJ	<1 UJ	**4.2 J**	--	--	--	**4.3 J**	**3.2 J**	--	<1 UJ	--
Chromium (filtered)	µg/L	27	<1 U	--	<1 U	**1.7**	<1 U	<1 U	**2.6**	--	--	--	**3.4**	**2.6**	--	<1 U	--
Copper	µg/L	3.1	<5 UJ	--	<5 UJ	<5 UJ	<5 UJ	<5 UJ	<5 UJ	**4.6**	--	**3.3**	<5 UJ	<5 UJ	<1 U	**14 J**	<1 U
Copper (filtered)	µg/L	3.1	<5 U	--	<5 U	<5 U	<5 U	<5 U	<5 U	**1.6**	--	<1 U	<5 U	<5 U	<1 U	<5 U	**8.2**
Zinc	µg/L	81	**6.7 J**	--	<5 UJ	<5 UJ	**35 J**	**59 J**	<5 UJ	<10 U	--	<5 U	<5 UJ	**8.9 J**	<5 U	<5 UJ	<5 U
Zinc (filtered)	µg/L	81	<5 U	--	<5 U	<5 U	**11**	<5 U	<5 U	<10 U	--	<5 U	<5 U	**6.4**	<5 U	<5 U	<5 U
Polycyclic Aromatic Hydrocarbons (PAHs)																	
1-Methylnaphthalene	µg/L	0.17	--	<0.025 U	<0.025 U	--	--	--	<0.025 U	<0.03 U	**0.34**	**0.50**	--	<0.025 U	<0.03 U	**0.074**	**0.050**
2-Chloronaphthalene	µg/L	100	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
2-Methylnaphthalene	µg/L	14	--	<0.025 U	<0.025 U	--	--	--	<0.025 U	<0.03 U	<0.025 U	<0.03 U	--	<0.025 U	<0.03 U	<0.025 U	<0.03 U
Acenaphthene	µg/L	5.3	--	<0.005 U	**0.016**	--	--	--	<0.005 U	<0.005 U	**0.042**	**0.031**	--	<0.005 U	<0.005 U	<0.005 U	**0.0072**
Acenaphthylene	µg/L		--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Anthracene	µg/L	2.1	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	**0.009**	**0.010**	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Benz(a)anthracene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Benzo(a) pyrene	µg/L	0.000016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Benzo(b)fluoranthene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Benzo(g,h,i)perylene	µg/L		--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Benzo(k)fluoranthene	µg/L	0.0016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Chrysene	µg/L	0.016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Dibenz(a,h)anthracene	µg/L	0.000016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Fluoranthene	µg/L	1.8	--	<0.005 U	<0.005 U	--	--	--	<0.005 U	<0.005 U	<0.005 U	**0.0059**	--	<0.005 U	**0.0090**	<0.005 U	<0.005 U
Fluorene	µg/L	3.7	--	<0.005 U	<0.005 U	--	--	--	<0.005 U	<0.005 U	**0.089**	**0.076**	--	<0.005 U	<0.005 U	<0.005 U	<0.005 U
Indeno(1,2,3-c,d)pyrene	µg/L	0.00016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Naphthalene	µg/L	1.4	--	<0.025 U	<0.025 U	--	--	--	<0.025 U	<0.05 U	**0.026**	<0.05 U	--	<0.025 U	<0.05 U	<0.025 U	<0.05 U
Phenanthrene	µg/L		--	<0.0025 U	<0.005 U	--	--	--	<0.005 U	<0.01 U	**0.013**	**0.014**	--	**0.0054**	<0.01 U	<0.005 U	<0.01 U
Pyrene	µg/L	2	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	**0.0026**	<0.005 U	<0.0025 U	<0.005 U
Total cPAHs TEQ (ND = 1/2)	µg/L	0.000016	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Semivolatile Organic Compounds (SVOCs)																	
2-Chlorophenol	µg/L	17	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2-Methylphenol	µg/L	9.8	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2-Nitrophenol	µg/L		--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2,4-Dichlorophenol	µg/L	10	--	**0.85**	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	**2.1**	**7.4**
2,4-Dimethylphenol	µg/L	2.9	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
2,4-Dinitrophenol	mg/L	0.1	--	<0.005 U	<0.005 U	--	--	--	<0.005 U	<0.004 U	<0.005 U	<0.004 U	--	<0.005 U	<0.004 U	<0.005 U	<0.004 U
2,4-Dinitrotoluene	µg/L	0.18	--	<0.25 U	<0.25 U	--	--	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U
2,4,5-Trichlorophenol	µg/L	600	--	**1.3**	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	**1.1**
2,4,6-Trichlorophenol	µg/L	0.28	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U

Table 7 - Groundwater Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	MW-14S	MW-16S	MW-17S	MW-19D	MW-19S	MW-21S	MW-33D		MW-33S		MW-43D	MW-45D		MW-45S	
		Date	12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/19/24	01/07/26	12/19/24	01/07/26	12/16/24	12/18/24	01/07/26	12/18/24	01/08/26
		Sample Code	MW-14S-241216	MW-16S-241216	MW-17S-241216	MW-19D-241216	MW-19S-241216	MW-21S-241216	MW-33D-241219	MW-33D-260107	MW-33S-241219	MW-33S-260107	MW-43D-241216	MW-45D-241218	MW-45D-260108	MW-45S-241218	MW-45S-260108
		Aquifer	Shallow	Shallow	Shallow	Deep	Shallow	Shallow	Deep		Shallow		Deep	Deep		Shallow	
Analyte	Unit	Groundwater SL															
2,6-Dinitrotoluene	µg/L		--	<0.25 U	<0.25 U	--	--	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U
2-Nitroaniline	µg/L		--	<0.25 U	<0.25 U	--	--	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--	<0.25 U	<0.5 U	<0.25 U	<0.5 U
3-Nitroaniline	µg/L		--	<5 U	<5 U	--	--	--	<5 U	<1 U	<5 U	<1 U	--	<5 U	<1 U	<5 U	<1 U
3&4-Methylphenol (m&p-cresol)	µg/L		--	<1 U	<1 U	--	--	--	<1 U	<0.5 U	<1 U	<0.5 U	--	<1 U	<0.5 U	<1 U	<0.5 U
4-Chloroaniline	µg/L		--	<5 U	<5 U	--	--	--	<5 U	<1 U	<5 U	<1 U	--	<5 U	<1 U	<5 U	<1 U
4-Chlorophenyl phenyl ether	µg/L		--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
4-chloro-3-methylphenol	µg/L	36	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
4-Nitroaniline	µg/L		--	<5 U	<5 U	--	--	--	<5 U	<1 U	<5 U	<1 U	--	<5 U	<1 U	<5 U	<1 U
4-Nitrophenol	µg/L		--	<1.5 U	<1.5 U	--	--	--	<1.5 U	<1 U	<1.5 U	<1 U	--	<1.5 U	<1 U	<1.5 U	<1 U
4,6-Dinitro-2-methylphenol	µg/L	7	--	<1.5 U	<1.5 U	--	--	--	<1.5 U	<1 U	<1.5 U	<1 U	--	<1.5 U	<1 U	<1.5 U	<1 U
Benzoic Acid	µg/L	1,100	--	R	R	--	--	--	R	<5 U	**7.5 J**	<5 U	--	R	<5 U	R	<5 U
Benzyl alcohol	µg/L	56	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bis(2-chloroethoxy) methane	µg/L		--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Bis(2-chloroethyl)ether	µg/L	0.06	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Bis(2-chloroisopropyl) ether	µg/L	100	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Bis(2-ethylhexyl) phthalate	µg/L	0.046	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Butyl benzyl phthalate	µg/L	0.013	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Carbazole	µg/L		--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	**0.0036**	<0.005 U	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Dibenzofuran	µg/L	3.1	--	<0.0025 U	<0.0025 U	--	--	--	<0.0025 U	<0.005 U	**0.4**	**0.52**	--	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U
Diethyl Phthalate	µg/L	93	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dimethyl phthalate	µg/L	59	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Phenol	µg/L	100	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	**17**	**9.6**	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Di-n-butyl phthalate	µg/L	8	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Di-n-octyl phthalate	µg/L	2.3	--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Isophorone	µg/L	110	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Nitrobenzene	µg/L	100	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
N-Nitrosodi-n-Propylamine	µg/L	0.058	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
n-Nitrosodiphenylamine	µg/L	0.55	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Pentachlorophenol	µg/L	0.002	--	**110**	**0.048**	--	--	--	**0.063**	<0.07 U	**0.032 J**	<0.1 U	--	**0.027 J**	<0.07 U	**15**	**180**
Volatile Organic Compounds (VOCs)																	
1,2-Dichlorobenzene	µg/L	4.5	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
1,2,4-Trichlorobenzene	µg/L	0.037	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
1,3-Dichlorobenzene	µg/L	2	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
1,4-Dichlorobenzene	µg/L	5	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Pyridine	µg/L		--	<0.5 U	<0.5 U	--	--	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Hexachlorobenzene	µg/L	0.000005	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Hexachlorocyclopentadiene	µg/L	1	--	<0.15 U	<0.15 U	--	--	--	<0.15 U	<0.3 U	<0.15 U	<0.3 U	--	<0.15 U	<0.3 U	<0.15 U	<0.3 U
Hexachloroethane	µg/L	0.02	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U
Hexachlorobutadiene	µg/L	0.01	--	<0.05 U	<0.05 U	--	--	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--	<0.05 U	<0.1 U	<0.05 U	<0.1 U

Table 7 - Groundwater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code			MW-14S	MW-16S	MW-17S	MW-19D	MW-19S	MW-21S	MW-33D		MW-33S		MW-43D	MW-45D		MW-45S	
Date			12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/16/24	12/19/24	01/07/26	12/19/24	01/07/26	12/16/24	12/18/24	01/07/26	12/18/24	01/08/26
Sample Code			MW-14S-241216	MW-16S-241216	MW-17S-241216	MW-19D-241216	MW-19S-241216	MW-21S-241216	MW-33D-241219	MW-33D-260107	MW-33S-241219	MW-33S-260107	MW-43D-241216	MW-45D-241218	MW-45D-260108	MW-45S-241218	MW-45S-260108
Aquifer			Shallow	Shallow	Shallow	Deep	Shallow	Shallow	Deep		Shallow		Deep	Deep		Shallow	
Analyte	Unit	Groundwater SL															
Field Parameters																	
pH	-		**6.61**	**6.55**	**6.67**	**6.95**	**6.71**	**6.52**	**6.76**	--	**6.6**	--	**6.77**	**6.84**	--	**6.53**	--
Temperature	°C		**14.27**	**12.93**	**14.5**	**13.79**	**14.84**	**13.38**	**13.53**	--	**12.98**	--	**14.05**	**14.08**	--	**14.48**	--
Specific Conductivity	µS/cm		**360.88**	**533.04**	**302.99**	**3,008.5**	**413.82**	**434.01**	**344.2**	--	**199.59**	--	**887.95**	**1,590.1**	--	**668.93**	--
Oxidation Reduction Potential (ORP)	mV		**-82.9**	**-91.1**	**-39.1**	**-103.4**	**-80.2**	**50.1**	**-89.6**	--	**-62.9**	--	**-94.7**	**-110.6**	--	**-73.6**	--
Dissolved Oxygen	mg/L		**0.14**	**0.13**	**0.14**	**0.21**	**0.13**	**0.26**	**0.14**	--	**0.12**	--	**0.15**	**0.13**	--	**0.13**	--
Turbidity	NTU		**6.07**	**4.61**	**0.95**	**7.86**	**3.17**	**5.1**	**5.13**	--	**3.36**	--	**3.45**	**1.08**	--	**1.59**	--

Notes:

SL = Screening Level
µg/L = micrograms per liter
°C = degrees Celsius
µS/cm = microseimens per centimeter
mV = millivolts
mg/L = miligrams per liter
NTU = nephelometric turbidity units

U = Analyte not detected at or above the reporting limit shown
J = Value estimated
UJ = Analyte not detected at or above the estimated reporting limit shown
R = Non-detected result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Table 7 - Groundwater Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

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Location Code			MW-46D		MW-46S		MW-47D		MW-47S		MW-48D		MW-48S		PP-1
Date			12/18/24	01/07/26	12/18/24	01/08/26	12/19/24	01/06/26	12/19/24	01/06/26	12/20/24	01/07/26	12/20/24	01/07/26	12/18/24
Sample Code			MW-46D-241218	MW-46D-260108	MW-46S-241218	MW-46S-260108	MW-47D-241219	MW-47D-260106	MW-47S-241219	MW-47S-260106	MW-48D-241220	MW-48D-260107	MW-48S-241220	MW-48S-260107	PP-1-241218
Aquifer			Deep		Shallow		Deep		Shallow		Deep		Shallow		Shallow
Analyte	Unit	Groundwater SL													
Metals															
Arsenic	µg/L	8	**38**	**41**	**36**	**43**	**350**	**530**	**190**	**180**	**28**	**26**	**14**	**19**	**1,000**
Arsenic (filtered)	µg/L	8	**36**	**36**	**34**	**38**	**350**	**520**	**180**	**170**	**23**	**28**	**13**	**19**	**940**
Chromium	µg/L	27	**10 J**	--	<1 UJ	--	**2.4 J**	--	<1 UJ	--	**13 J**	--	<1 UJ	--	<1 UJ
Chromium (filtered)	µg/L	27	**7.0**	--	<1 U	--	<5 U	--	<1 U	--	**12**	--	<1 U	--	<5 U
Copper	µg/L	3.1	<5 UJ	<1 U	<5 UJ	**5.9**	<5 UJ	**2.1**	**18 J**	**25**	<5 UJ	**5.3**	<5 UJ	<1 U	<5 UJ
Copper (filtered)	µg/L	3.1	<5 U	<1 U	<5 U	**1.1**	<25 U	<2 U	**8.8**	**6.0**	<10 U	**2.1**	<5 U	<1 U	<25 U
Zinc	µg/L	81	<5 UJ	<5 U	<5 UJ	<5 U	<5 UJ	<10 U	**180 J**	**160**	<5 UJ	<10 U	<5 UJ	<5 U	<5 UJ
Zinc (filtered)	µg/L	81	<5 U	<5 U	<5 U	<5 U	<25 U	<10 U	**170**	**130**	<10 U	<5 U	<5 U	<5 U	<25 U
Polycyclic Aromatic Hydrocarbons (PAHs)															
1-Methylnaphthalene	µg/L	0.17	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	--
2-Chloronaphthalene	µg/L	100	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
2-Methylnaphthalene	µg/L	14	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	<0.025 U	<0.03 U	--
Acenaphthene	µg/L	5.3	**0.015**	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--
Acenaphthylene	µg/L		<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.0056**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Anthracene	µg/L	2.1	**0.0031**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Benz(a)anthracene	µg/L	0.00016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.014**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Benzo(a) pyrene	µg/L	0.000016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.04**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Benzo(b)fluoranthene	µg/L	0.00016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.036**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Benzo(g,h,i)perylene	µg/L		<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.021**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Benzo(k)fluoranthene	µg/L	0.0016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.01**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Chrysene	µg/L	0.016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.029**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Dibenz(a,h)anthracene	µg/L	0.000016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.0031**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Fluoranthene	µg/L	1.8	**0.012**	<0.005 U	<0.005 U	<0.005 U	**0.0075**	<0.005 U	**0.02**	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--
Fluorene	µg/L	3.7	**0.011**	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	<0.005 U	--
Indeno(1,2,3-c,d)pyrene	µg/L	0.00016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.018**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Naphthalene	µg/L	1.4	<0.025 U	<0.05 U	<0.025 U	<0.05 U	<0.025 U	<0.05 U	<0.025 U	<0.05 U	**0.03**	<0.05 U	<0.025 U	<0.05 U	--
Phenanthrene	µg/L		**0.02**	<0.01 U	**0.0059**	<0.01 U	**0.0066**	<0.01 U	<0.005 U	<0.01 U	**0.0086**	<0.01 U	<0.005 U	<0.01 U	--
Pyrene	µg/L	2	**0.0065**	<0.005 U	**0.0032**	<0.005 U	**0.0076**	<0.005 U	**0.041**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Total cPAHs TEQ (ND = 1/2)	µg/L	0.000016	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.0484**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Semivolatile Organic Compounds (SVOCs)															
2-Chlorophenol	µg/L	17	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2-Methylphenol	µg/L	9.8	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2-Nitrophenol	µg/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2,4-Dichlorophenol	µg/L	10	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2,4-Dimethylphenol	µg/L	2.9	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2,4-Dinitrophenol	mg/L	0.1	<0.005 U	<0.004 U	<0.005 U	<0.004 U	<0.005 U	<0.004 U	<0.005 U	<0.004 U	<0.005 U	<0.004 U	<0.005 U	<0.004 U	--
2,4-Dinitrotoluene	µg/L	0.18	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--
2,4,5-Trichlorophenol	µg/L	600	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
2,4,6-Trichlorophenol	µg/L	0.28	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--

Table 7 - Groundwater Analytical Results

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

		Location Code	MW-46D		MW-46S		MW-47D		MW-47S		MW-48D		MW-48S		PP-1
		Date	12/18/24	01/07/26	12/18/24	01/08/26	12/19/24	01/06/26	12/19/24	01/06/26	12/20/24	01/07/26	12/20/24	01/07/26	12/18/24
		Sample Code	MW-46D-241218	MW-46D-260108	MW-46S-241218	MW-46S-260108	MW-47D-241219	MW-47D-260106	MW-47S-241219	MW-47S-260106	MW-48D-241220	MW-48D-260107	MW-48S-241220	MW-48S-260107	PP-1-241218
		Aquifer	Deep		Shallow		Deep		Shallow		Deep		Shallow		Shallow
Analyte	Unit	Groundwater SL													
2,6-Dinitrotoluene	µg/L		<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--
2-Nitroaniline	µg/L		<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	<0.25 U	<0.5 U	--
3-Nitroaniline	µg/L		<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	--
3&4-Methylphenol (m&p-cresol)	µg/L		<1 U	<0.5 U	<1 U	<0.5 U	<1 U	<0.5 U	<1 U	<0.5 U	<1 U	<0.5 U	<1 U	<0.5 U	--
4-Chloroaniline	µg/L		<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	--
4-Chlorophenyl phenyl ether	µg/L		<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
4-chloro-3-methylphenol	µg/L	36	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
4-Nitroaniline	µg/L		<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	<5 U	<1 U	--
4-Nitrophenol	µg/L		<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	--
4,6-Dinitro-2-methylphenol	µg/L	7	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	<1.5 U	<1 U	--
Benzoic Acid	µg/L	1,100	R	<5 U	R	<5 U	R	<5 U	R	<5 U	<5 U	<5 U	<5 U	<5 U	--
Benzyl alcohol	µg/L	56	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Bis(2-chloroethoxy) methane	µg/L		<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Bis(2-chloroethyl)ether	µg/L	0.06	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Bis(2-chloroisopropyl) ether	µg/L	100	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Bis(2-ethylhexyl) phthalate	µg/L	0.046	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	**2.3**	<0.5 U	<0.5 U	<0.5 U	--
Butyl benzyl phthalate	µg/L	0.013	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Carbazole	µg/L		**0.0028**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	--
Dibenzofuran	µg/L	3.1	**0.0059**	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	<0.0025 U	<0.005 U	**0.0036**	<0.005 U	--
Diethyl Phthalate	µg/L	93	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Dimethyl phthalate	µg/L	59	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Phenol	µg/L	100	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Di-n-butyl phthalate	µg/L	8	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Di-n-octyl phthalate	µg/L	2.3	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Isophorone	µg/L	110	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Nitrobenzene	µg/L	100	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
N-Nitrosodi-n-Propylamine	µg/L	0.058	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
n-Nitrosodiphenylamine	µg/L	0.55	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Pentachlorophenol	µg/L	0.002	**0.047**	<0.07 U	**4.4**	**0.17**	**0.038 J**	<0.07 U	**0.34**	**0.34**	**0.028 J**	<0.07 U	**0.036 J**	<0.07 U	--
Volatile Organic Compounds (VOCs)															
1,2-Dichlorobenzene	µg/L	4.5	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
1,2,4-Trichlorobenzene	µg/L	0.037	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
1,3-Dichlorobenzene	µg/L	2	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
1,4-Dichlorobenzene	µg/L	5	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Pyridine	µg/L		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	--
Hexachlorobenzene	µg/L	0.000005	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	--
Hexachlorocyclopentadiene	µg/L	1	<0.15 U	<0.3 U	<0.15 U	<0.3 U	<0.15 U	<0.3 U	<0.15 U	<0.3 U	<0.15 U	<0.3 U	<0.15 U	<0.3 U	--
Hexachloroethane	µg/L	0.02	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 UJ	<0.1 U	<0.05 UJ	<0.1 U	--
Hexachlorobutadiene	µg/L	0.01	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 U	<0.1 U	<0.05 UJ	<0.1 U	<0.05 UJ	<0.1 U	--

Table 7 - Groundwater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code			MW-46D		MW-46S		MW-47D		MW-47S		MW-48D		MW-48S		PP-1
Date			12/18/24	01/07/26	12/18/24	01/08/26	12/19/24	01/06/26	12/19/24	01/06/26	12/20/24	01/07/26	12/20/24	01/07/26	12/18/24
Sample Code			MW-46D-241218	MW-46D-260108	MW-46S-241218	MW-46S-260108	MW-47D-241219	MW-47D-260106	MW-47S-241219	MW-47S-260106	MW-48D-241220	MW-48D-260107	MW-48S-241220	MW-48S-260107	PP-1-241218
Aquifer			Deep		Shallow		Deep		Shallow		Deep		Shallow		Shallow
Analyte	Unit	Groundwater SL													
Field Parameters															
pH	-		**7.22**	--	**6.52**	--	**6.76**	--	**6.65**	--	**6.82**	--	**6.47**	--	**6.65**
Temperature	°C		**13.59**	--	**12.76**	--	**13.84**	--	**14.41**	--	**13.14**	--	**12.62**	--	**15.17**
Specific Conductivity	µS/cm		**3,055.3**	--	**668.67**	--	**1,044.3**	--	**857.64**	--	**939.84**	--	**351.51**	--	**464.07**
Oxidation Reduction Potential (ORP)	mV		**-156.3**	--	**81**	--	**-108.4**	--	**15.9**	--	**-86.8**	--	**-68.5**	--	**-99.2**
Dissolved Oxygen	mg/L		**0.16**	--	**0.23**	--	**0.18**	--	**1.47**	--	**0.07**	--	**0.06**	--	**0.2**
Turbidity	NTU		**4.65**	--	**1.91**	--	**6.81**	--	**3.11**	--	**6.33**	--	**3.08**	--	**1.06**

Notes:

SL = Screening Level
µg/L = micrograms per liter
°C = degrees Celsius
µS/cm = microseimens per centimeter
mV = millivolts
mg/L = miligrams per liter
NTU = nephelometric turbidity units

U = Analyte not detected at or above the reporting limit shown
J = Value estimated
UJ = Analyte not detected at or above the estimated reporting limit shown
R = Non-detected result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Location Code			MW-3S	MW-7S	MW-13S	MW-28S	MW-29S
Date			01/07/26	01/07/26	01/07/26	01/07/26	01/08/26
Sample Code			MW-3S-260107	MW-07S-260107	MW-13S-260107	MW-28S-260107	MW-29S-260108
Analyte	Unit	Preliminary SL					
Per- and Polyfluoroalkyl Substances (PFAS)							
3-Perfluoroheptyl Propanoic Acid (NFDHA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
6:2 Chloropolyfluoroether Sulfonic Acid (6:2 Cl-PFESA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
8:2 Chloropolyfluoroether Sulfonic Acid (8:2 Cl-PFESA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Fluorotelomer carboxylic acid, 3:3 [3:3 FTCA]	ng/L		<3.5 U	<3.6 U	<3.3 U	<3.3 U	<3.4 U
Fluorotelomer carboxylic acid, 5:3 [5:3 FTCA]	ng/L		<8.8 U	<8.9 U	<8.3 U	<8.3 U	<8.5 U
Perfluoro(2-Ethoxyethane)Sulphonic Acid (PFEESA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorododecanesulfonic Acid (PFDoS)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorononanesulfonic Acid (PFNS)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
PF4OPeA [PFMPA]	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
PF5OHxA [PFMBA]	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluoro(2-Methyl-3-Oxahexanoic)Acid (HFPO-DA)	ng/L	10	<1.3 U	<1.3 U	<1.2 U	<1.2 U	<1.3 U
Perfluorobutane Sulfonic Acid (PFBS)	ng/L	130,000,000	<1.8 U	**1.8**	<1.7 U	**2**	<1.7 U
Perfluoropentane Sulfonic Acid (PFPeS)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	0.032	**0.54 J**	**0.57 J**	<0.42 U	**0.79 J**	<0.43 U
Perfluoroheptane Sulfonic Acid (PFHpS)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorooctane Sulfonic Acid (PFOS)	ng/L	1,100	**6.2**	**2.5**	**2.2**	**3**	**2.4**
Perfluorodecane Sulfonic Acid (PFDS)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorobutanoic Acid (PFBA)	ng/L	80,000	**6.3**	**9.9**	**4.6**	**13**	**14**
Perfluorohexanoic Acid (PFHxA)	ng/L	40,000	<1.8 U	**2.6**	<1.7 U	**3.1**	**1.9**
Perfluoropentanoic Acid (PFPeA)	ng/L		<1.8 U	**3.1**	<1.7 U	**3.3**	<1.7 U
Perfluoroheptanoic Acid (PFHpA)	ng/L		<1.8 U	**2**	<1.7 U	<1.7 U	<1.7 U
Perfluorooctanoic Acid (PFOA)	ng/L	120,000	**3**	**3.5**	**1.9**	**3.5**	**2.4**
Perfluorodecanoic Acid (PFDA)	ng/L	78,000	<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorododecanoic Acid (PFDoDA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorononanoic Acid (PFNA)	ng/L	10,000	<1.8 U	<1.8 U	<1.7 U	**5.2**	<1.7 U
Perfluorotetradecanoic Acid (PFTeDA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluorotridecanoic Acid (PFTrDA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
Perfluoroundecanoic acid (PFUnDA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	ng/L		<3.5 U	<3.6 U	<3.3 U	<3.3 U	<3.4 U
6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	ng/L	16,000	<3.5 U	<3.6 U	<3.3 U	<3.3 U	<3.4 U
8:2 Fluorotelomers Sulfonic Acid (8:2 FTS)	ng/L		<3.5 U	<3.6 U	<3.3 U	<3.3 U	<3.4 U
Perfluorooctane Sulfonamide (FOSA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamide (MeFOSA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamidoacetic Acid (MeFOSAA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamidoethanol (MeFOSE)	ng/L		<8.8 U	<8.9 U	<8.3 U	<8.3 U	<8.5 U
N-Ethyl Perfluorooctane Sulfonamide (EtFOSA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	ng/L		<1.8 U	<1.8 U	<1.7 U	<1.7 U	<1.7 U
N-Ethyl Perfluorooctane Sulfonamidoethanol (EtFOSE)	ng/L		<8.8 U	<8.9 U	<8.3 U	<8.3 U	<8.5 U

Notes:

SL = Screening Level
µg/L = micrograms per liter
U = Analyte not detected at or above the reporting limit shown
J = Value estimated
R = Result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

		Location Code	MW-30S	MW-31S	MW-32S	MW-33S	MW-35S
		Date	01/08/26	01/08/26	01/07/26	01/07/26	01/07/26
		Sample Code	MW-30S-260108	MW-31S-260108	MW-32S-260107	MW-33S-260107	MW-35S-260107
Analyte	Unit	Preliminary SL					
Per- and Polyfluoroalkyl Substances (PFAS)							
3-Perfluoroheptyl Propanoic Acid (NFDHA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
6:2 Chloropolyfluoroether Sulfonic Acid (6:2 Cl-PFESA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
8:2 Chloropolyfluoroether Sulfonic Acid (8:2 Cl-PFESA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Fluorotelomer carboxylic acid, 3:3 [3:3 FTCA]	ng/L		<3.7 U	<3.3 U	<3.6 U	<3 U	<3.3 U
Fluorotelomer carboxylic acid, 5:3 [5:3 FTCA]	ng/L		<9.3 U	<8.2 U	<9.1 U	<7.6 U	<8.2 U
Perfluoro(2-Ethoxyethane)Sulphonic Acid (PFEESA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorododecanesulfonic Acid (PFDoS)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorononanesulfonic Acid (PFNS)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
PF4OPeA [PFMPA]	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
PF5OHxA [PFMBA]	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluoro(2-Methyl-3-Oxahexanoic)Acid (HFPO-DA)	ng/L	10	<1.4 U	<1.2 U	<1.4 U	<1.1 U	<1.2 U
Perfluorobutane Sulfonic Acid (PFBS)	ng/L	130,000,000	<1.9 U	<1.6 U	**3.2**	<1.5 U	<1.6 U
Perfluoropentane Sulfonic Acid (PFPeS)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	0.032	**0.71 J**	<0.41 U	**0.77 J**	**0.39 J**	<0.41 U
Perfluoroheptane Sulfonic Acid (PFHpS)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorooctane Sulfonic Acid (PFOS)	ng/L	1,100	<1.9 U	<1.6 U	**3.6**	**3.5**	<1.6 U
Perfluorodecane Sulfonic Acid (PFDS)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorobutanoic Acid (PFBA)	ng/L	80,000	**11**	**6.5**	**7.7**	<3 U	<3.3 U
Perfluorohexanoic Acid (PFHxA)	ng/L	40,000	**2.3**	<1.6 U	**3.1**	<1.5 U	<1.6 U
Perfluoropentanoic Acid (PFPeA)	ng/L		<1.9 U	<1.6 U	**4.7**	**2.2**	<1.6 U
Perfluoroheptanoic Acid (PFHpA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorooctanoic Acid (PFOA)	ng/L	120,000	**3.9**	<1.6 U	**3.8**	<1.5 U	<1.6 U
Perfluorodecanoic Acid (PFDA)	ng/L	78,000	<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorododecanoic Acid (PFDoDA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorononanoic Acid (PFNA)	ng/L	10,000	<1.9 U	<1.6 U	**5.1**	<1.5 U	<1.6 U
Perfluorotetradecanoic Acid (PFTeDA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluorotridecanoic Acid (PFTrDA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
Perfluoroundecanoic acid (PFUnDA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	ng/L		<3.7 U	<3.3 U	<3.6 U	<3 U	<3.3 U
6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	ng/L	16,000	<3.7 U	<3.3 U	<3.6 U	<3 U	<3.3 U
8:2 Fluorotelomers Sulfonic Acid (8:2 FTS)	ng/L		<3.7 U	<3.3 U	<3.6 U	<3 U	<3.3 U
Perfluorooctane Sulfonamide (FOSA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
N-Methyl Perfluorooctane Sulfonamide (MeFOSA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
N-Methyl Perfluorooctane Sulfonamidoacetic Acid (MeFOSAA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
N-Methyl Perfluorooctane Sulfonamidoethanol (MeFOSE)	ng/L		<9.3 U	<8.2 U	<9.1 U	<7.6 U	<8.2 U
N-Ethyl Perfluorooctane Sulfonamide (EtFOSA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	ng/L		<1.9 U	<1.6 U	<1.8 U	<1.5 U	<1.6 U
N-Ethyl Perfluorooctane Sulfonamidoethanol (EtFOSE)	ng/L		<9.3 U	<8.2 U	R	<7.6 U	<8.2 U

Notes:

SL = Screening Level
µg/L = micrograms per liter
U = Analyte not detected at or above the reporting limit shown
J = Value estimated
R = Result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Table 8 - PFAS Groundwater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

			Location Code	MW-36S	MW-45S	MW-46S	MW-47S	MW-48S
			Date	01/06/26	01/08/26	01/08/26	01/06/26	01/07/26
			Sample Code	MW-36S-260106	MW-45S-260108	MW-46S-260108	MW-47S-260106	MW-48S-260107
Analyte	Unit	Preliminary SL						
Per- and Polyfluoroalkyl Substances (PFAS)								
3-Perfluoroheptyl Propanoic Acid (NFDHA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
6:2 Chloropolyfluoroether Sulfonic Acid (6:2 Cl-PFESA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
8:2 Chloropolyfluoroether Sulfonic Acid (8:2 Cl-PFESA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Fluorotelomer carboxylic acid, 3:3 [3:3 FTCA]	ng/L			<2.9 U	<3.7 U	<3.2 U	<3.2 U	<3.4 U
Fluorotelomer carboxylic acid, 5:3 [5:3 FTCA]	ng/L			<7.2 U	<9.2 U	<8 U	<7.9 U	<8.4 U
Perfluoro(2-Ethoxyethane)Sulphonic Acid (PFEESA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorododecanesulfonic Acid (PFDoS)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorononanesulfonic Acid (PFNS)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
PF4OPeA [PFMPA]	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
PF5OHxA [PFMBA]	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluoro(2-Methyl-3-Oxahexanoic)Acid (HFPO-DA)	ng/L	10		<1.1 U	<1.4 U	<1.2 U	<1.2 U	<1.3 U
Perfluorobutane Sulfonic Acid (PFBS)	ng/L	130,000,000		<1.4 U	<1.8 U	<1.6 U	**1.8**	<1.7 U
Perfluoropentane Sulfonic Acid (PFPeS)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	0.032		<0.36 U	**0.54 J**	**0.57 J**	**1.6**	**0.44 J**
Perfluoroheptane Sulfonic Acid (PFHpS)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorooctane Sulfonic Acid (PFOS)	ng/L	1,100		**1.7**	**3.7**	**3.6 I**	**2.1**	**3.8**
Perfluorodecane Sulfonic Acid (PFDS)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorobutanoic Acid (PFBA)	ng/L	80,000		**5.6**	**11**	**9.4**	**15**	**7.6**
Perfluorohexanoic Acid (PFHxA)	ng/L	40,000		<1.4 U	<1.8 U	**1.9**	<1.6 U	<1.7 U
Perfluoropentanoic Acid (PFPeA)	ng/L			<1.4 U	<1.8 U	**2.2**	**1.8**	<1.7 U
Perfluoroheptanoic Acid (PFHpA)	ng/L			<1.4 U	<1.8 U	**1.6**	<1.6 U	<1.7 U
Perfluorooctanoic Acid (PFOA)	ng/L	120,000		**2**	**2.3**	**4.4**	**2.6**	**2.9**
Perfluorodecanoic Acid (PFDA)	ng/L	78,000		<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorododecanoic Acid (PFDoDA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorononanoic Acid (PFNA)	ng/L	10,000		<1.4 U	<1.8 U	<1.6 U	<1.6 U	**1.8**
Perfluorotetradecanoic Acid (PFTeDA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluorotridecanoic Acid (PFTrDA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
Perfluoroundecanoic acid (PFUnDA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	ng/L			<2.9 U	<3.7 U	<3.2 U	<3.2 U	<3.4 U
6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	ng/L	16,000		<2.9 U	<3.7 U	<3.2 U	<3.2 U	<3.4 U
8:2 Fluorotelomers Sulfonic Acid (8:2 FTS)	ng/L			<2.9 U	<3.7 U	<3.2 U	<3.2 U	<3.4 U
Perfluorooctane Sulfonamide (FOSA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamide (MeFOSA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamidoacetic Acid (MeFOSAA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
N-Methyl Perfluorooctane Sulfonamidoethanol (MeFOSE)	ng/L			<7.2 U	<9.2 U	<8 U	<7.9 U	<8.4 U
N-Ethyl Perfluorooctane Sulfonamide (EtFOSA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	ng/L			<1.4 U	<1.8 U	<1.6 U	<1.6 U	<1.7 U
N-Ethyl Perfluorooctane Sulfonamidoethanol (EtFOSE)	ng/L			<7.2 U	<9.2 U	<8 U	<7.9 U	<8.3 U

Notes:

SL = Screening Level
µg/L = micrograms per liter
U = Analyte not detected at or above the reporting limit shown
J = Value estimated
R = Result rejected during data validation
Bold = Detected
Grey Shaded = Non-detected value exceeded the SL
Green Shaded = Detected value exceeded the SL

Table 9 - Porewater Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

		Location Code	PW-01	PW-02	PW-03	PW-04
		Date	12/30/24	12/30/24	12/30/24	12/30/24
		Sample Code	PW-01-241230	PW-02-241230	PW-03-241230	PW-04-241230
Analyte	Unit	Surface Water SL				
Metals						
Arsenic (filtered)	µg/L	8	**154**	**105**	**210**	**39**
Semivolatile Organic Compounds (SVOCs)						
Pentachlorophenol	pg/L	2,000	**140 J**	14 UJ	**20 J**	**20J**

Notes:

(1) - Porewater concentrations shown are the C_{free} concentrations; refer to the report text for discussion of C_{free} porewater concentrations

SL = Screening Level

µg/L = micrograms per liter

pg/L = picograms per liter

J = Value estimated

UJ = Analyte not detected at or above the estimated reporting limit shown

Bold = Detected

Green Shaded = Detected value exceeded the SL

Table 10 - Toxicity Characteristic Leaching Procedure (TCLP) Analytical Results

DRAFT

FS Data Gaps Report | Glacier Northwest, Inc. Site

Location Code		GP-81		GP-83	MW-19D	MW-33D	MW-46D	
Date		11/18/24		11/19/24	11/25/24	11/19/24	11/20/24	
Sample Code		GP-81-8-10	GP-81-17-19	GP-83-3-5	MW-19D-2.5-5	MW-33D-3-5	MW-46D-11-12.5	MW-46D-12.5-14.5
Depth (ft bgs)		8 - 10	17 - 19	3 - 5	2.5 - 5	3 - 5	11 - 12.5	12.5 - 14.5
Analyte	Unit							
Metals								
Arsenic	µg/L	<1,000 U	<1,000 U	<1,000 U	**7,000**	<1,000 U	<1,000 U	<1,000 U
Chromium	µg/L	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U	<1,000 U
Copper	µg/L	<5,000 U	<5,000 U	<5,000 U	**8,600**	<5,000 U	<5,000 U	<5,000 U
Zinc	µg/L	<5,000 U	<5,000 U	<5,000 U	<5,000 U	**5,400**	<5,000 U	<5,000 U

Notes:

SL = Screening Level

ft bgs = feet below ground surface

µg/L = micrograms per liter

U = Analyte not detected at or above the reporting limit shown

Bold = Detected

FIGURES

Site Location Map

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	May-2026	BY: AY / PM	FIGURE NO. 1
	PROJECT NO. 25006	REVISED BY: --	

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Esri, NASA, NGA, USGS, FEMA, Sources: Esri; U.S. Department of Commerce, Census Bureau; U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS), CHS, Esri, Garmin, NaturalVue, Esri, GEBCO, Garmin, NaturalVue

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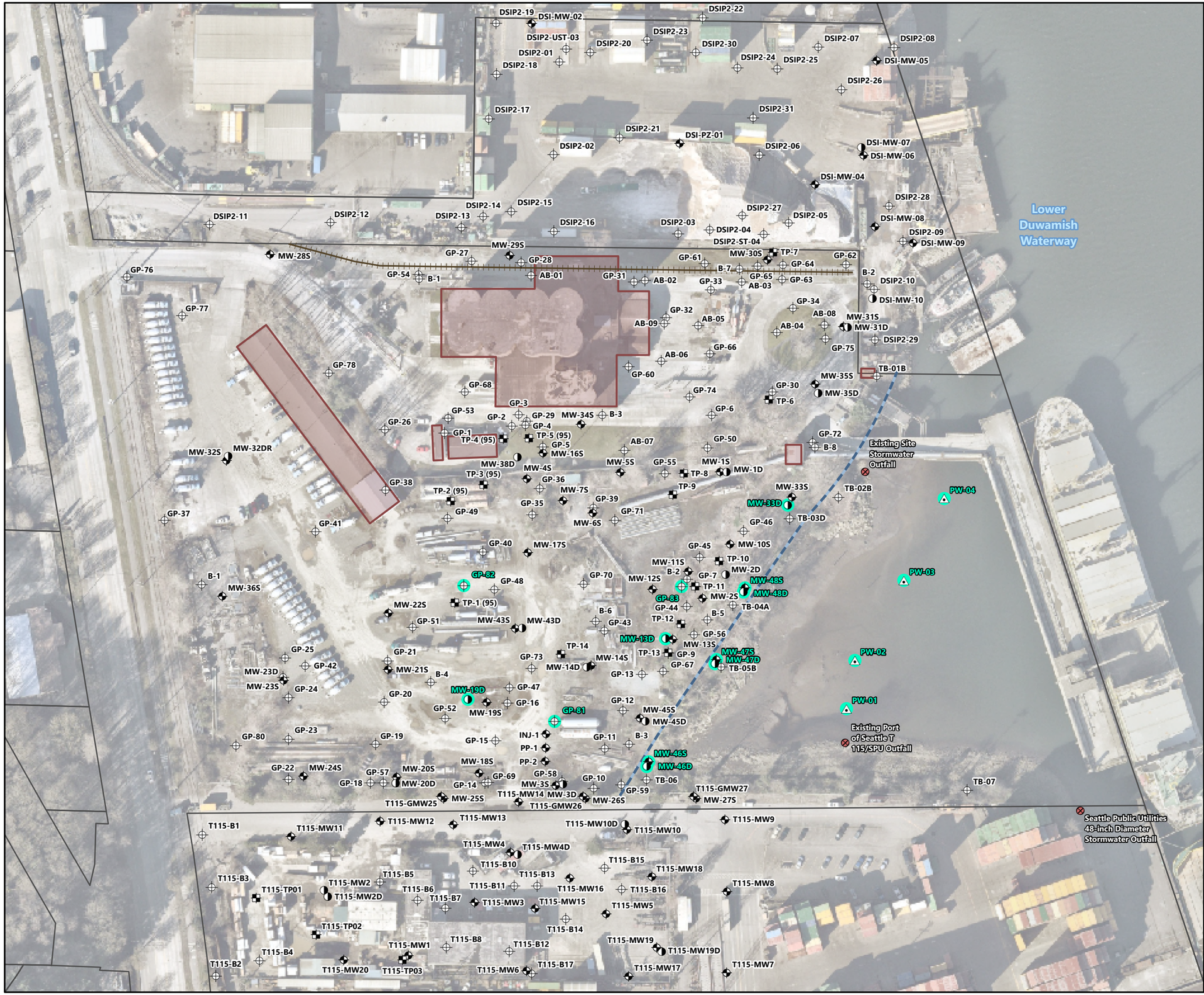

Explorations

- Porewater Sample
- Soil Boring
- Shallow Monitoring Well
- Deep Monitoring Well
- Test Pit
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel

0 60 120 240 Feet

Site Plan and FS Data Gaps Explorations Map

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 2
	PROJECT NO. 25006	REVISED BY: --	

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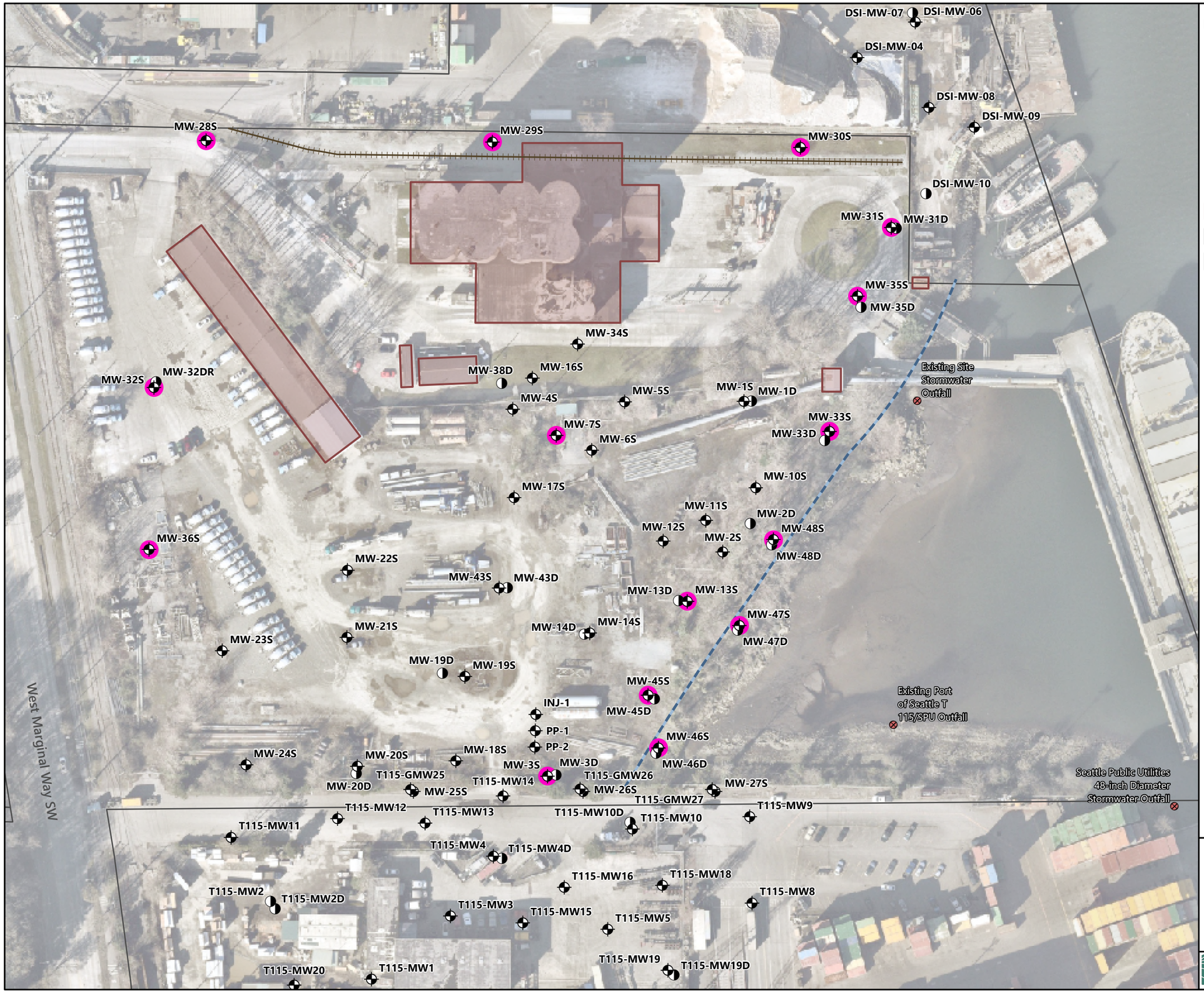


Explorations

- Deep Well
- Shallow Well
- PFAS Sampling Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- Subject Property
- King County Tax Parcel

0 50 100 200 Feet

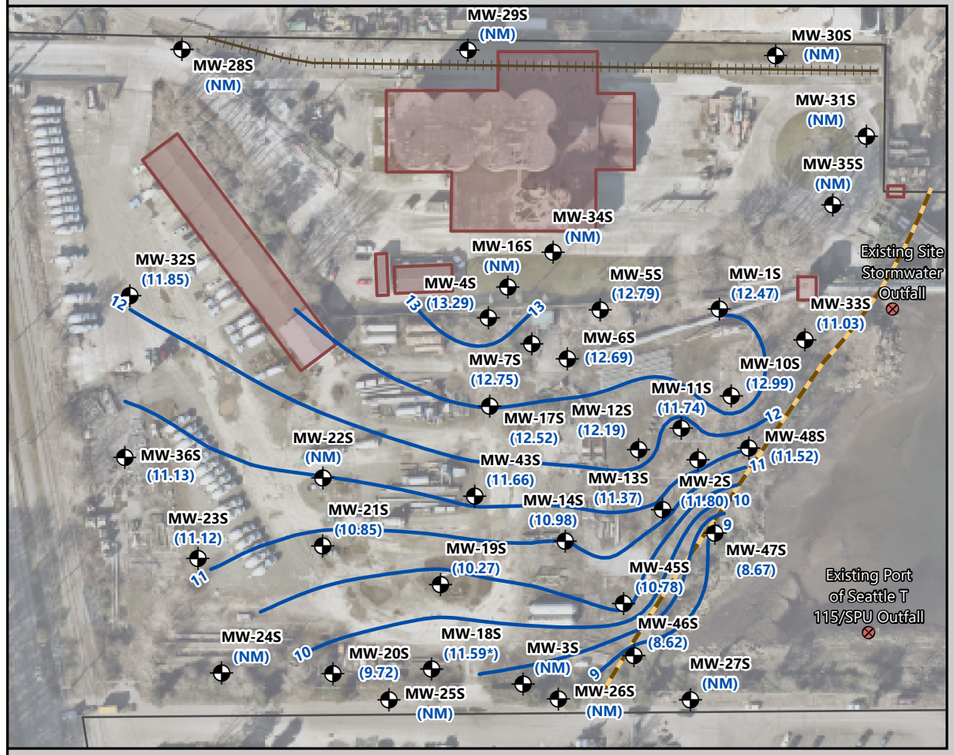
PFAS Sampling Locations

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

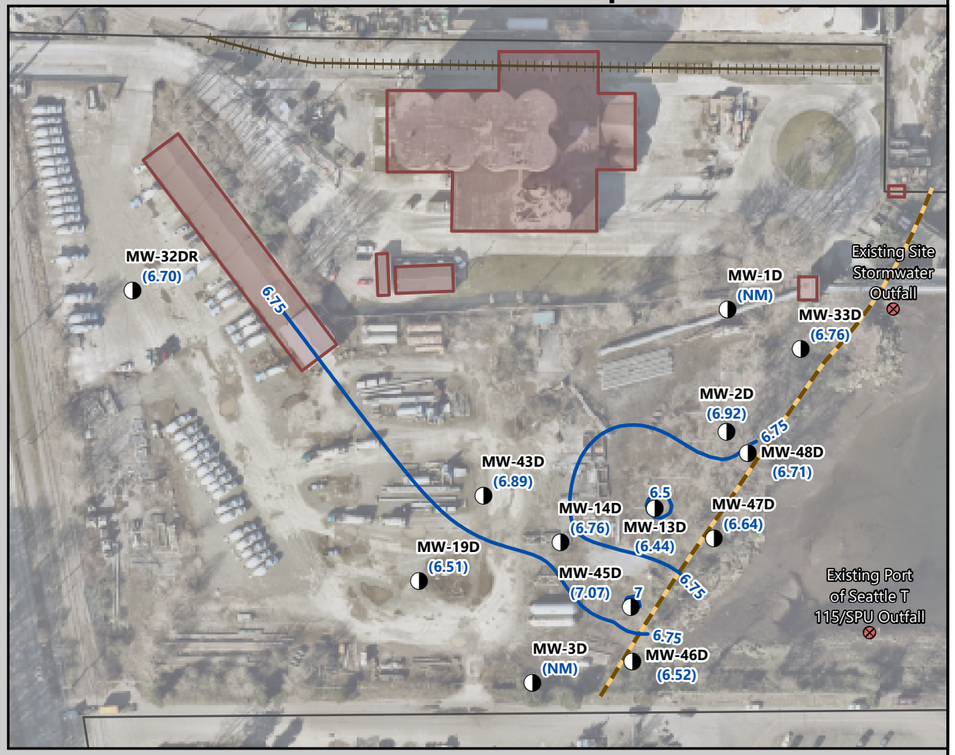
BLACK RIVER environmental	May-2026	BY: AY / PM	FIGURE NO. 3
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudy\DataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG\April2026_F3_PFAS_SamplingLocations || Date Exported: 5/18/2026

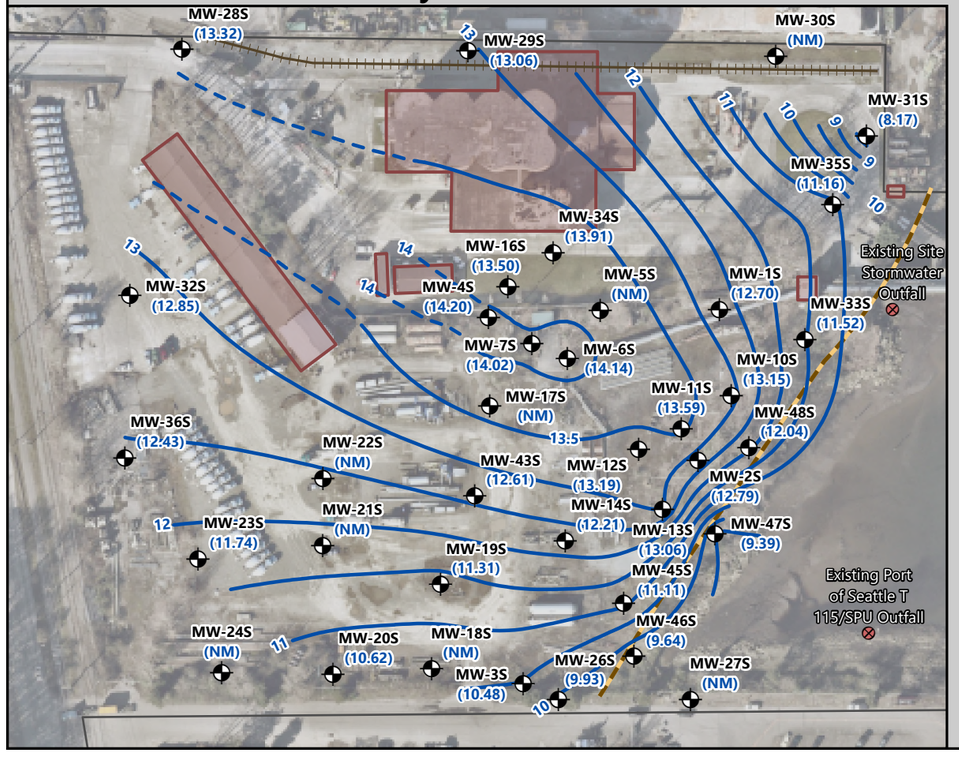
December 2024 Shallow



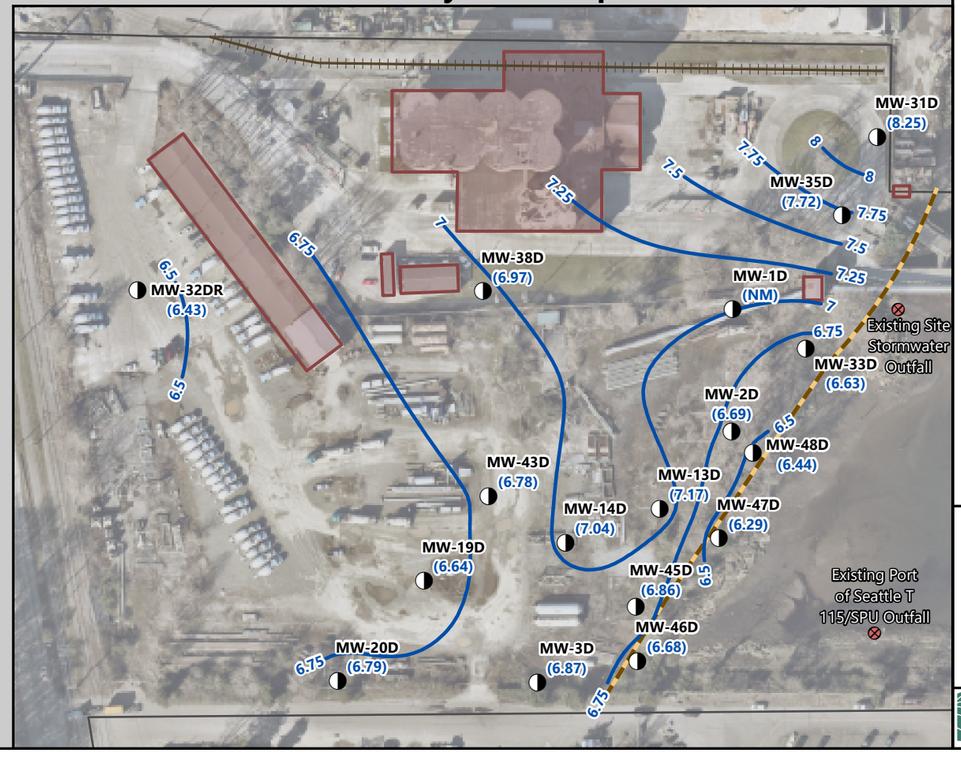
December 2024 Deep



January 2026 Shallow



January 2026 Deep



Explorations

- Deep Well
- Shallow Well
- Groundwater Elevation Contour Line
- (Dashed where inferred)
- Approximate Bulkhead Location
- Railspur
- Outfall
- Building
- Subject Property
- King County Tax Parcel

Notes:
- NM = Not Measured
- * = Measured groundwater elevation was anomalous, consistent with conditions during the November 2014 gauging event documented in the Remedial Investigation Report; data not used for contouring.

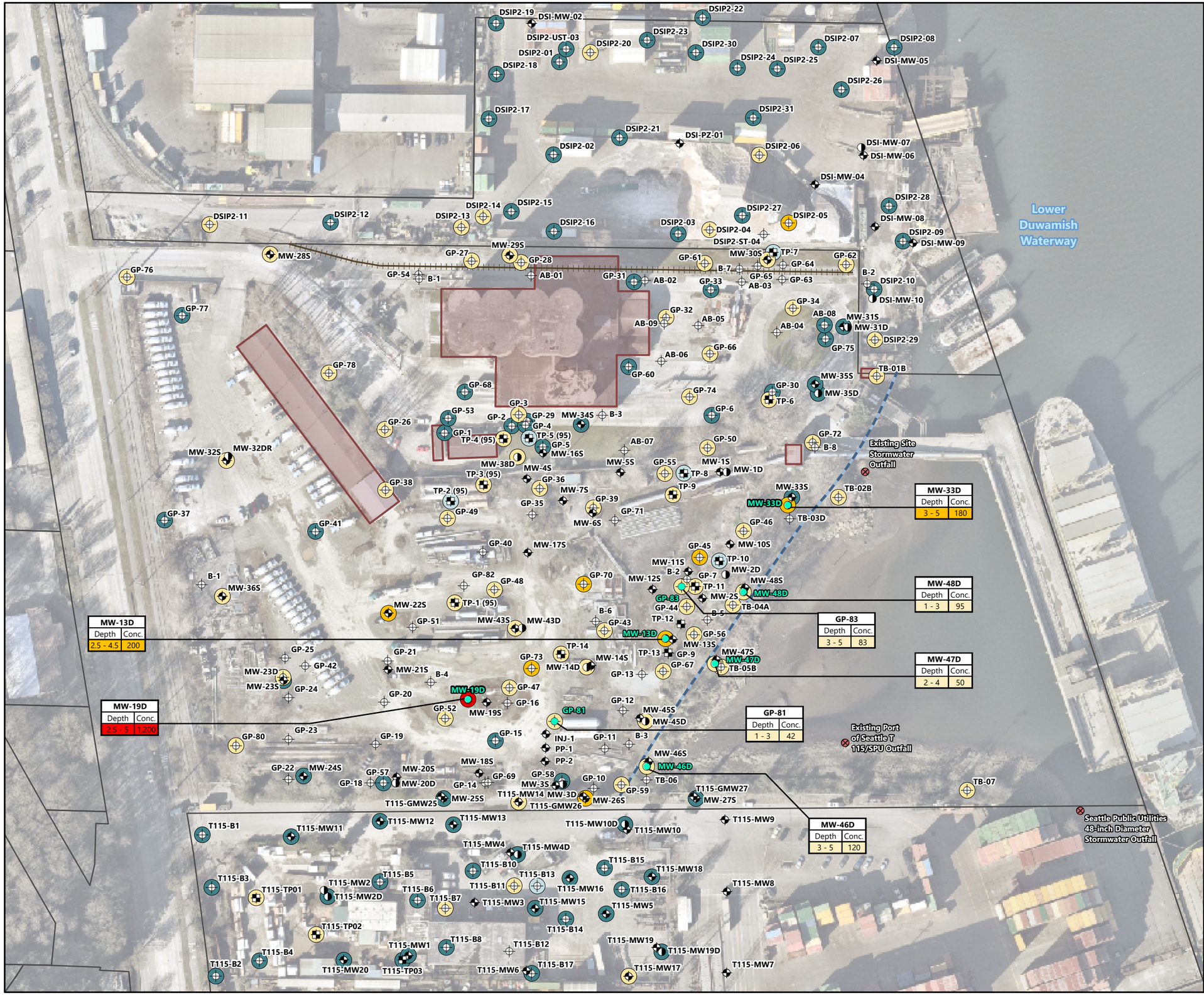
0 80 160 320 Feet

Groundwater Elevation Contours

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	May-2026	BY: AY / PM	FIGURE NO. 4
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudyDataGaps_April2026\GN_SeattleWA_FSDGIApril2026.aprx; Name: GN_SeattleWA_FSDGIApril2026_F4_GWC || Date Exported: 5/18/2026



Explorations

- Soil Boring
- Shallow Monitoring Well
- Deep Monitoring Well
- Test Pit
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- Arsenic detected at a concentration above 5 times the screening level for protection of sediment via leaching to groundwater (650 mg/kg)
- Arsenic detected at a concentration above the screening level for protection of sediment via leaching to groundwater (130 mg/kg)
- Arsenic detected at a concentration above the most stringent preliminary screening level (Natural Background, 7.3 mg/kg)
- Arsenic not detected and non-detect value is greater than the most stringent preliminary screening level (Natural Background, 7.3 mg/kg)
- Arsenic not detected or detected at a concentration less than the most stringent preliminary screening level (Natural Background, 7.3 mg/kg)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Depths are in feet below ground surface.
- Concentrations (Conc.) in milligrams per kilogram (mg/kg).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

Arsenic in Vadose Zone Soil

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental

April 2026	BY: AY / PM	FIGURE NO. 5
PROJECT NO. 25006	REVISED BY: --	

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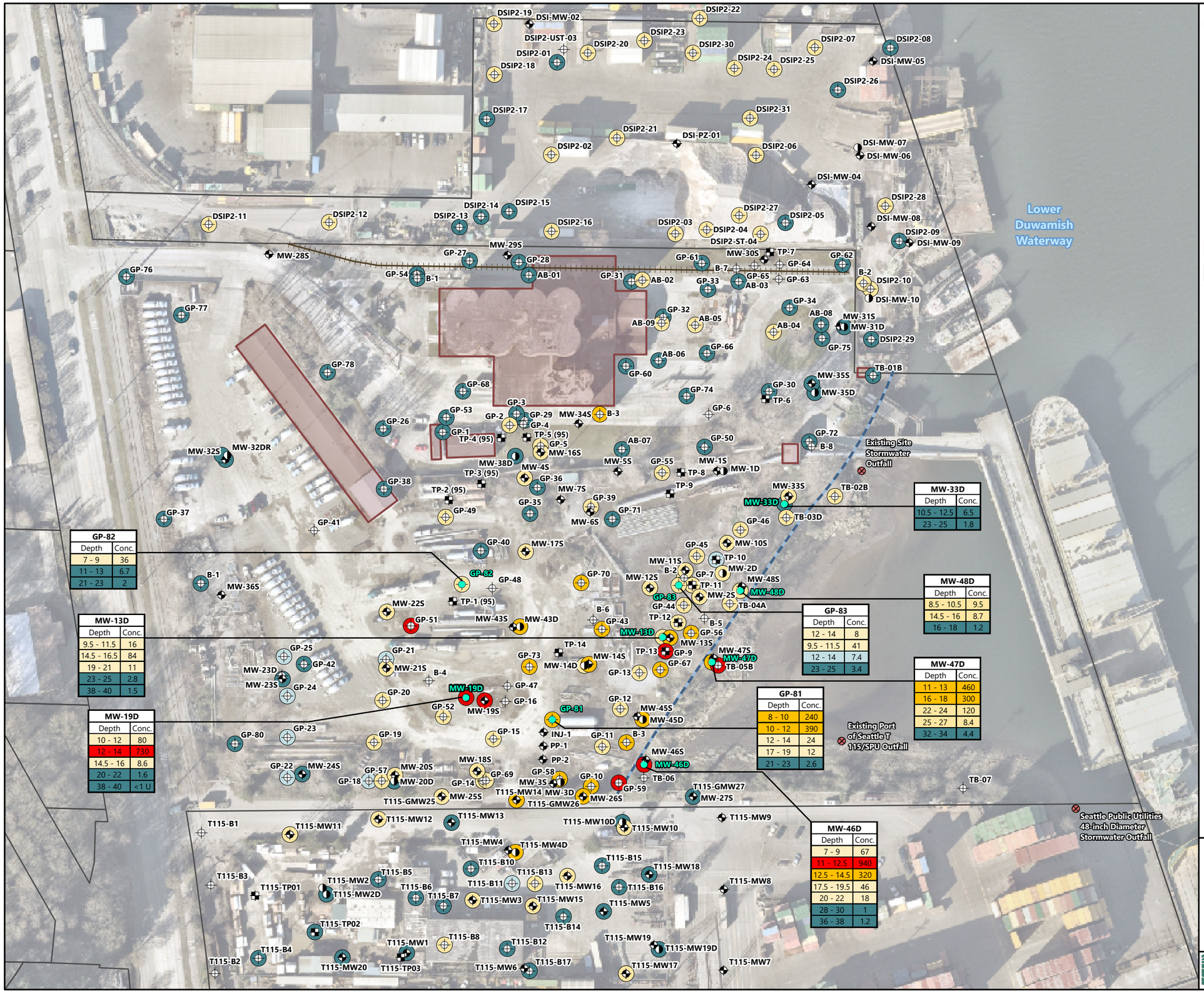

Explorations

- Soil Boring
- Shallow Monitoring Well
- Deep Monitoring Well
- Test Pit
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- Arsenic detected at a concentration greater than 100 times the most stringent preliminary screening level via leaching to groundwater (730 mg/kg)
- Arsenic detected at a concentration greater than 20 times the most stringent preliminary screening level via leaching to groundwater (146 mg/kg)
- Arsenic detected at a concentration above the most stringent preliminary screening level via leaching to groundwater (Natural Background, 7.3 mg/kg)
- Arsenic not detected and non-detect value is greater than the most stringent preliminary screening level (Natural Background, 7.3 mg/kg)
- Arsenic not detected or detected at a concentration less than the most stringent preliminary screening level (Natural Background, 7.3 mg/kg)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Depths are in feet below ground surface.
- Concentrations (Conc.) in milligrams per kilogram (mg/kg).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

Arsenic in Saturated Zone Soil

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental

April 2026	BY: AY / PM	FIGURE NO. 6
PROJECT NO. 25006	REVISED BY: --	

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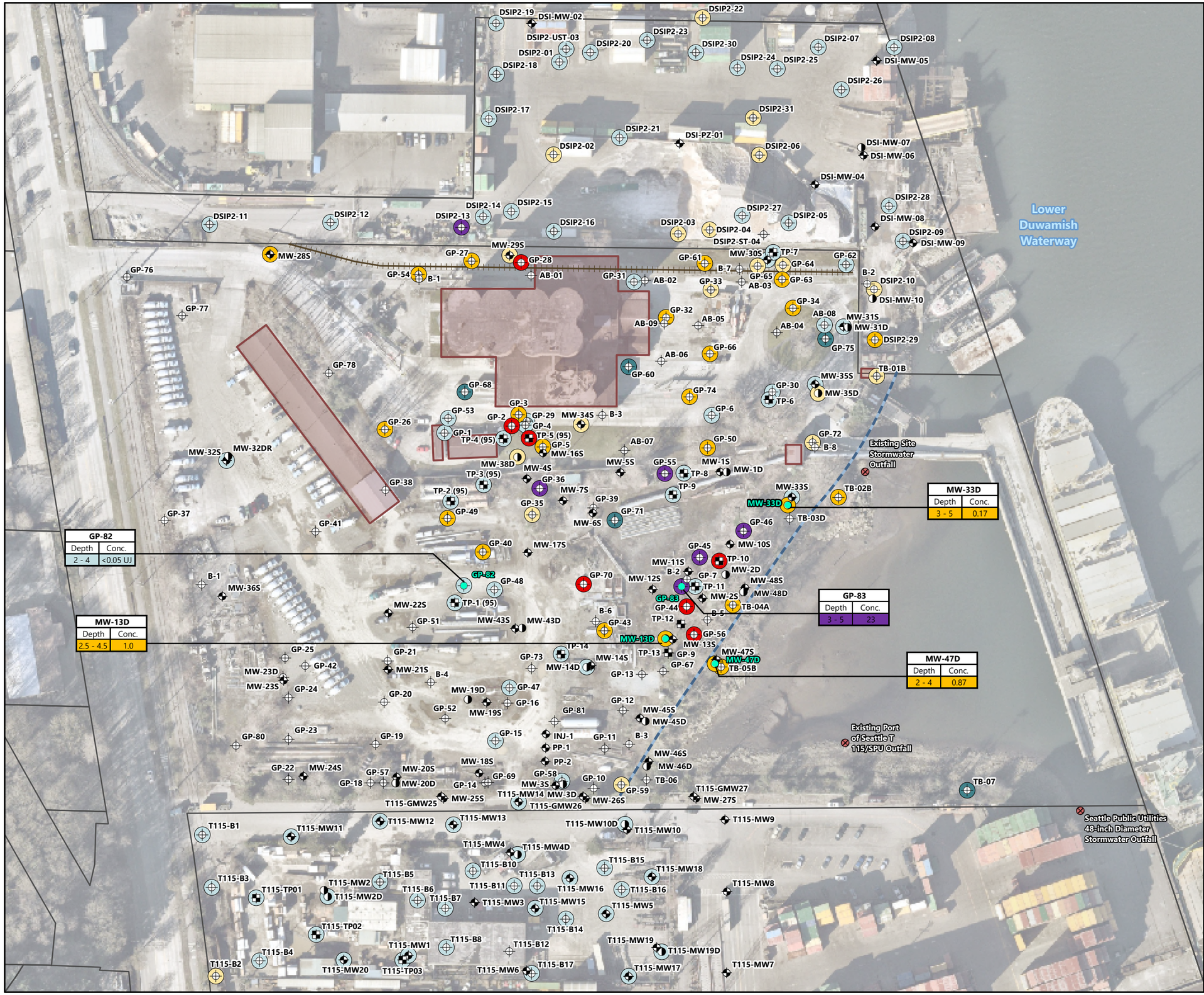

Explorations

- Soil Boring
- Shallow Monitoring Well
- Deep Monitoring Well
- Test Pit
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- PCP detected at a concentration greater than 1,000 times the Practical Quantification Limit (12.5 mg/kg)
- PCP detected at a concentration greater than 100 times the Practical Quantification Limit (1.25 mg/kg)
- PCP detected at a concentration greater than 10 times the Practical Quantification Limit (0.125 mg/kg)
- PCP detected at a concentration greater than the Practical Quantification Limit (0.0125 mg/kg)
- PCP not detected and non-detect value is greater than the Practical Quantification Limit (0.0125 mg/kg)
- PCP not detected or detected at a concentration less than the Practical Quantification Limit (0.0125 mg/kg)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Depths are in feet below ground surface.
- Concentrations (Conc.) in milligrams per kilogram (mg/kg).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

PCP in Vadose Zone Soil

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 7
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudy\DataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG\April2026\F7_PCPVadose\ || Date Exported: 5/18/2026

Lower Duwamish Waterway

Existing Site Stormwater Outfall

Existing Port of Seattle T 115/SPU Outfall

Seattle Public Utilities 48-inch Diameter Stormwater Outfall

GP-82	
Depth	Conc.
11 - 13	<0.05 U
21 - 23	<0.05 U

MW-13D	
Depth	Conc.
9.5 - 11.5	4.2
14.5 - 16.5	0.58
19 - 21	0.28
23 - 25	<0.05 U

MW-33D	
Depth	Conc.
7 - 9	<0.05 U
10.5 - 12.5	<0.05 U
23 - 25	<0.05 U

MW-48D	
Depth	Conc.
8.5 - 10.5	<0.05 U
14.5 - 16	<0.05 U
16 - 18	<0.05 U

GP-83	
Depth	Conc.
9.5 - 11.5	5.1
15 - 17	0.90
23 - 25	<0.05 U

MW-47D	
Depth	Conc.
11 - 13	<0.05 U
22 - 24	<0.05 U
25 - 27	<0.05 U

GP-81	
Depth	Conc.
8 - 10	<0.05 U
12 - 14	<0.05 U
17 - 19	<0.05 U

Explorations

- Soil Boring
- Shallow Monitoring Well
- Deep Monitoring Well
- Test Pit
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- PCP detected at a concentration greater than 1,000 times the Practical Quantification Limit (12.5 mg/kg)
- PCP detected at a concentration greater than 100 times the Practical Quantification Limit (1.25 mg/kg)
- PCP detected at a concentration greater than 10 times the Practical Quantification Limit (0.125 mg/kg)
- PCP detected at a concentration greater than the Practical Quantification Limit (0.0125 mg/kg)
- PCP not detected and non-detect value is greater than the Practical Quantification Limit (0.0125 mg/kg)
- PCP not detected or detected at a concentration less than the Practical Quantification Limit (0.0125 mg/kg)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Depths are in feet below ground surface.
- Concentrations (Conc.) in milligrams per kilogram (mg/kg).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

PCP in Saturated Zone Soil

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 8
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudy\DataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG\April2026-F8_PCP(Sat)] | Date Exported: 5/18/2026

DSI-MW-02
DSI-MW-05
DSI-MW-06
DSI-MW-04
DSI-MW-08
DSI-MW-09
MW-28S
MW-29S
MW-30S
MW-31S
MW-35S
MW-34S
MW-1S
Event | Conc.
Dec '24 | 29
MW-16S
MW-32S
MW-4S
MW-5S
MW-1S
Existing Site Stormwater Outfall
MW-33S
MW-33S
Event | Conc.
Jan '26 | 40
MW-17S
Event | Conc.
Dec '24 | 62
MW-7S
MW-6S
MW-48S
Event | Conc.
Dec '24 | 14
Jan '26 | 19
MW-17S
MW-10S
MW-11S
MW-12S
MW-48S
MW-2S
MW-2S
Event | Conc.
Dec '24 | 100
MW-36S
MW-22S
MW-43S
MW-21S
Event | Conc.
Dec '24 | 370
MW-13S
Event | Conc.
Dec '24 | 650
Jan '26 | 840
MW-13S
MW-47S
MW-47S
Event | Conc.
Dec '24 | 190
Jan '26 | 180
MW-14S
Event | Conc.
Dec '24 | 5,800
MW-14S
MW-21S
MW-23S
MW-19S
MW-19S
Event | Conc.
Dec '24 | 320
MW-45S
MW-45S
Event | Conc.
Dec '24 | 5,000
Jan '26 | 4,400
Existing Port of Seattle T 115/SPU Outfall
INJ-1
PP-1
PP-2
MW-46S
MW-46S
Event | Conc.
Dec '24 | 36
Jan '26 | 43
MW-24S
MW-20S
MW-18S
MW-3S
MW-26S
MW-25S
T115-MW14
MW-27S
Seattle Public Utilities 48-inch Diameter Stormwater Outfall
INJ-1
Event | Conc.
Dec '24 | <2 U
T115-MW11
T115-MW12
T115-MW13
T115-MW10
T115-MW9
T115-MW4
MW-3S
Event | Conc.
Jan '26 | 1,600
PP-1
Event | Conc.
Dec '24 | 1,000
T115-MW16
T115-MW18
T115-MW8
T115-MW3
T115-MW15
T115-MW5
T115-MW19
T115-MW20
T115-MW1
T115-MW6
T115-MW17
T115-MW7

Explorations

- Shallow Monitoring Well
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- Arsenic detected at a concentration greater than 10 times the screening level for protection of sediment (2,200 ug/L)
- Arsenic detected at a concentration greater than the screening level for protection of sediment (220 ug/L)
- Arsenic detected at a concentration greater than 5 times the most stringent preliminary screening level (40 ug/L)
- Arsenic detected at a concentration above the most stringent preliminary screening level (Natural Background, 8 ug/L)
- Arsenic not detected and non-detect value is greater than the most stringent preliminary screening level (Natural Background, 8 ug/L)
- Arsenic not detected or detected at a concentration less than the most stringent preliminary screening level (Natural Background, 8 ug/L)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Concentrations (Conc.) in microgrmas per liter (ug/L).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240
Feet

Arsenic in Shallow Groundwater

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental

	April 2026	BY: AY / PM	FIGURE NO. 9
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudyDataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG\April2026\F9_Arsenic(GW-Shallow) || Date Exported: 5/18/2026

DSI-MW-07

DSI-MW-10

MW-31D

MW-35D

MW-32DR

MW-38D

MW-1D

Existing Site Stormwater Outfall

MW-33D

MW-33D	
Event	Conc. (ug/L)
Dec '24	6.9
Jan '26	5.2

MW-2D

MW-2D	
Event	Conc. (ug/L)
Dec '24	23

MW-43D

MW-43D	
Event	Conc. (ug/L)
Dec '24	540

MW-13D

MW-13D	
Event	Conc. (ug/L)
Dec '24	25
Jan '26	28

MW-2D

MW-48D

MW-48D	
Event	Conc. (ug/L)
Dec '24	28
Jan '26	26

MW-14D

MW-14D	
Event	Conc. (ug/L)
Dec '24	300

MW-43D

MW-13D

MW-19D

MW-19D	
Event	Conc. (ug/L)
Dec '24	3.6

MW-14D

MW-47D

MW-47D	
Event	Conc. (ug/L)
Dec '24	350
Jan '26	530

MW-19D

MW-45D

MW-45D	
Event	Conc. (ug/L)
Dec '24	65
Jan '26	73

Existing Port of Seattle T 115/SPU Outfall

MW-46D

MW-46D	
Event	Conc. (ug/L)
Dec '24	41
Jan '26	36

MW-20D

MW-3D

Seattle Public Utilities 48-inch Diameter Stormwater Outfall

T115-MW10D

MW-3D	
Event	Conc. (ug/L)
Jan '26	49

T115-MW4D

T115-MW2

T115-MW2D

T115-MW19D

Explorations

- Deep Monitoring Well
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- Arsenic detected at a concentration greater than 10 times the screening level for protection of sediment (2,200 ug/L)
- Arsenic detected at a concentration greater than the screening level for protection of sediment (220 ug/L)
- Arsenic detected at a concentration greater than 5 times the most stringent preliminary screening level (40 ug/L)
- Arsenic detected at a concentration above the most stringent preliminary screening level (Natural Background, 8 ug/L)
- Arsenic not detected and non-detect value is greater than the most stringent preliminary screening level (Natural Background, 8 ug/L)
- Arsenic not detected or detected at a concentration less than the most stringent preliminary screening level (Natural Background, 8 ug/L)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Concentrations (Conc.) in microgrmas per liter (ug/L).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

Arsenic in Deep Groundwater

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 10
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudy\DataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG(April2026)-F10_Arsenic(GW-Deep) || Date Exported: 5/18/2026

DSI-MW-02
DSI-MW-05
DSI-MW-06
DSI-MW-04
DSI-MW-08
DSI-MW-09
MW-28S
MW-29S
MW-30S
MW-31S
MW-35S
MW-34S
MW-16S
MW-4S
MW-5S
MW-7S
MW-6S
MW-32S
MW-1S
MW-33S
MW-10S
MW-17S
MW-36S
MW-22S
MW-43S
MW-11S
MW-12S
MW-48S
MW-2S
MW-13S
MW-47S
MW-14S
MW-21S
MW-23S
MW-45S
MW-19S
MW-45S
INJ-1
PP-1
PP-2
MW-46S
MW-24S
MW-20S
MW-18S
MW-3S
MW-26S
MW-25S
T115-MW14
MW-27S
T115-MW11
T115-MW12
T115-MW13
T115-MW10
T115-MW9
T115-MW4
T115-MW16
T115-MW18
T115-MW8
T115-MW3
T115-MW15
T115-MW5
T115-MW19
T115-MW20
T115-MW1
T115-MW6
T115-MW17
T115-MW7

MW-1S

Event	Conc. (ug/L)
Dec '24	0.026 J

MW-16S

Event	Conc. (ug/L)
Dec '24	110

MW-6S

Event	Conc. (ug/L)
Dec '24	0.035 J

MW-17S

Event	Conc. (ug/L)
Dec '24	0.048

MW-33S

Event	Conc. (ug/L)
Dec '24	0.032 J
Jan '26	<0.1 U

MW-10S

Event	Conc. (ug/L)
Dec '24	0.16

MW-48S

Event	Conc. (ug/L)
Dec '24	0.036 J
Jan '26	<0.07 U

MW-2S

Event	Conc. (ug/L)
Dec '24	0.031 J

MW-13S

Event	Conc. (ug/L)
Dec '24	68
Jan '26	88

MW-47S

Event	Conc. (ug/L)
Dec '24	0.34
Jan '26	0.34

MW-45S

Event	Conc. (ug/L)
Dec '24	15
Jan '26	180

MW-46S

Event	Conc. (ug/L)
Dec '24	4.4
Jan '26	0.17

Existing Site Stormwater Outfall

Existing Port of Seattle T 115/SPU Outfall

Seattle Public Utilities 48-inch Diameter Stormwater Outfall

Explorations

- Shallow Monitoring Well
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- PCP detected at a concentration greater than the protection of sediment screening level (42 ug/L)
- PCP detected at a concentration 1,000x greater than the protection of surface water screening level (2 ug/L)
- PCP detected at a concentration 100x greater than the protection of surface water screening level (0.2 ug/L)
- PCP detected at a concentration greater than the protection of surface water screening level (0.002 ug/L)
- PCP not detected and non-detect value is greater than the protection of surface water screening level (0.002 ug/L)
- PCP not detected or detected at a concentration less than the protection of surface water screening level (0.002 ug/L)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Concentrations (Conc.) in microgrmas per liter (ug/L).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

PCP in Shallow Groundwater

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental

	April 2026	BY: AY / PM	FIGURE NO. 11
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudyDataGaps_April2026\GN_SeattleWA_FSDGiApril2026.aprx; Name: GN_SeattleWA_FSDGiApril2026\F11_PCP(GW-Shallow) || Date Exported: 5/18/2026

Explorations

- Deep Monitoring Well
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- PCP detected at a concentration greater than the protection of sediment screening level (42 ug/L)
- PCP detected at a concentration 1,000x greater than the protection of surface water screening level (2 ug/L)
- PCP detected at a concentration 100x greater than the protection of surface water screening level (0.2 ug/L)
- PCP detected at a concentration greater than the protection of surface water screening level (0.002 ug/L)
- PCP not detected and non-detect value is greater than the protection of surface water screening level (0.002 ug/L)
- PCP not detected or detected at a concentration less than the protection of surface water screening level (0.002 ug/L)

MW-12
Exploration Name

Notes:
- Color codes are based on highest detected concentration at each location.
- Concentrations (Conc.) in microgrmas per liter (ug/L).
- Data boxes shown for locations where samples were collected as part of implementing the FS Data Gaps Work Plan or PFAS Sampling Work Plan. Color codes for other locations are based on the highest detected concentration at each location.

0 60 120 240 Feet

PCP in Deep Groundwater

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 12
	PROJECT NO. 25006	REVISED BY: --	

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PW-04	
As Conc. (ug/L)	PCP Conc. (pg/L)
39	20 J

PW-03	
As Conc. (ug/L)	PCP Conc. (pg/L)
210	20 J

PW-02	
As Conc. (ug/L)	PCP Conc. (pg/L)
105	<14 UJ

PW-01	
As Conc. (ug/L)	PCP Conc. (pg/L)
154	140 J

Explorations

- Porewater Sample
- Shallow Monitoring Well
- Deep Monitoring Well
- FS Data Gaps Exploration Location
- Outfall
- Approximate Location of Historical Bulkhead
- Railspur
- Building
- King County Tax Parcel
- Analyte detected at a concentration greater than 100x the protection of surface water screening level (800 ug/L for As)
- Analyte detected at a concentration greater than 20x the protection of surface water screening level (160 ug/L for As)
- Analyte detected at a concentration greater than 5x the protection of surface water screening level (40 ug/L for As)
- Analyte detected at a concentration greater than the protection of surface water screening level (8 ug/L for As)
- Analyte not detected or detected at a concentration less than the protection of surface water screening level (8 ug/L for As and 2,000 pg/L for PCP)

0 60 120 240 Feet

Arsenic and PCP in Porewater

Feasibility Study Data Gaps Report
Glacier Northwest, Inc. Site
5900 West Marginal Way SW
Seattle, Washington

BLACK RIVER environmental	April 2026	BY: AY / PM	FIGURE NO. 13
	PROJECT NO. 25006	REVISED BY: --	

GIS Path: X:\BlackRiverEnvironmental\Washington\Seattle\GlacierNorthwest\Reports\FeasibilityStudy\DataGaps_April2026\GN_SeattleWA_FSDG\April2026.aprx; Name: GN_SeattleWA_FSDG\April2026-F13_Arsenic-PCP\Porewater\ || Date Exported: 5/18/2026

APPENDIX A
PRELIMINARY SCREENING LEVEL DERIVATIONS

Table A.1 - Soil Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

					SL-1	SL-3	SL-4	SL-6	SL-7	SL-8	SL-10
Chemical (all concentrations in mg/kg)	**Most Stringent Soil SL - Vadose Zone**	**Vadose Zone SL Basis**	**Most Stringent Soil SL - Saturated Zone**	**Saturated Zone SL Basis**	**Direct Contact MTCA Method C Industrial** SL-Det	**Protect Surface Water via Ground Water Vadose Zone** Leach	**Protect Sediment via Ground Water Vadose Zone** Leach	**Protect Surface Water via Ground Water Saturated Zone** Leach	**Protect Sediment via Ground Water Saturated Zone** Leach	**Protect Sediment via Erosion** SD-Det	**Natural Background** Ecology (1994)
PCBs											
Total PCB Aroclors	1.6E-04	SL-3	8.2E-06	SL-6	1.0E+01	1.6E-04	3.2E-02	8.2E-06	1.6E-03	2.0E-03	na
Total PCB congeners	1.6E-04	SL-3	8.2E-06	SL-6	1.0E+01	1.6E-04	5.5E-02	8.2E-06	2.8E-03	3.5E-03	na
Total PCB TEQ	1.0E-07	SL-3	5.2E-09	SL-6	1.7E-03	1.0E-07	1.1E-05	5.2E-09	5.5E-07	7.0E-07	na
Dioxins/Furans											
Total dioxin/furan TEQ	5.2E-06	SL-10	5.2E-06	SL-10	1.7E-03	3.8E-07	3.2E-05	1.9E-08	1.6E-06	2.0E-06	5.2E-06
2,3,7,8-TCDD	5.2E-06	SL-10	5.2E-06	SL-10	1.7E-03	3.8E-07	3.7E-04	1.9E-08	1.8E-05	2.3E-05	5.2E-06
Total chlorinated dioxins	na	na	na	na	na	na	na	na	na	na	na
Total chlorinated furans	na	na	na	na	na	na	na	na	na	na	na
Metals											
Aluminum	3.5E+06	SL-1	3.5E+06	SL-1	3.5E+06	na	na	na	na	na	3.3E+04
Antimony	8.1E+01	SL-3	5.2E+00	SL-10	1.4E+03	8.1E+01	na	4.1E+00	na	na	5.2E+00
Arsenic	7.3E+00	SL-10	7.3E+00	SL-10	4.1E+00	4.7E+00	1.3E+02	2.3E-01	6.5E+00	7.0E+00	7.3E+00
Barium	2.5E+02	SL-10	2.5E+02	SL-10	7.0E+05	1.6E+02	na	8.3E+00	na	na	2.5E+02
Beryllium	1.2E+03	SL-3	6.0E+01	SL-6	7.0E+03	1.2E+03	na	6.0E+01	na	na	6.1E-01
Cadmium	7.7E-01	SL-10	7.7E-01	SL-10	3.5E+03	1.1E+00	1.6E-01	5.5E-02	8.3E-03	5.1E+00	7.7E-01
Chromium, total	2.6E+02	SL-8	2.6E+02	SL-8	na	na	na	na	na	2.6E+02	4.8E+01
Chromium, trivalent	5.5E+02	SL-3	2.7E+01	SL-6	5.3E+06	5.5E+02	na	2.7E+01	na	na	na
Chromium, hexavalent	6.2E-01	SL-3	3.1E-02	SL-6	8.2E+02	6.2E-01	na	3.1E-02	na	na	na
Cobalt	1.1E+03	SL-1	1.1E+03	SL-1	1.1E+03	na	na	na	na	na	1.1E+01
Copper	3.6E+01	SL-10	3.6E+01	SL-10	1.4E+05	1.4E+00	6.1E+00	6.9E-02	3.0E-01	3.9E+02	3.6E+01
Iron	2.5E+06	SL-1	2.5E+06	SL-1	2.5E+06	na	na	na	na	na	3.6E+04
Lead	4.5E+02	SL-8	8.1E+01	SL-6	1.0E+03	1.6E+03	3.9E+03	8.1E+01	1.9E+02	4.5E+02	2.4E+01
Manganese	1.1E+03	SL-10	1.1E+03	SL-10	1.6E+05	1.3E+02	na	6.5E+00	na	na	1.1E+03
Mercury, inorganic	7.0E-02	SL-10	7.0E-02	SL-10	na	2.6E-02	2.1E+00	1.3E-03	1.1E-01	4.1E-01	7.0E-02
Methylmercury	3.5E+02	SL-1	3.5E+02	SL-1	3.5E+02	na	na	na	na	na	na
Molybdenum	1.8E+04	SL-1	1.8E+04	SL-1	1.8E+04	na	na	na	na	na	na
Nickel	4.8E+01	SL-10	4.8E+01	SL-10	7.0E+04	1.1E+01	na	5.4E-01	na	na	4.8E+01
Selenium	7.4E+00	SL-3	7.8E-01	SL-10	1.8E+04	7.4E+00	na	3.8E-01	na	na	7.8E-01
Silver	6.1E-01	SL-10	6.1E-01	SL-10	1.8E+04	1.5E-01	9.4E+00	7.8E-03	4.7E-01	6.1E+00	6.1E-01
Thallium	8.8E-02	SL-3	4.4E-03	SL-6	3.5E+01	8.8E-02	na	4.4E-03	na	na	na
Tin	2.1E+06	SL-1	2.1E+06	SL-1	2.1E+06	na	na	na	na	na	na
Vanadium	1.8E+04	SL-1	1.8E+04	SL-1	1.8E+04	na	na	na	na	na	4.5E+01
Zinc	1.0E+02	SL-3	8.5E+01	SL-10	1.1E+06	1.0E+02	9.6E+02	5.0E+00	4.8E+01	4.1E+02	8.5E+01
Metals - Butyltins											
Monobutyltin	na	na	na	na	na	na	na	na	na	na	na
Dibutyltin	na	na	na	na	na	na	na	na	na	na	na
Tributyl tin	1.8E-02	SL-3	9.0E-04	SL-6	na	1.8E-02	na	9.0E-04	na	na	na
Tributyltin oxide	2.1E-03	SL-8	1.7E-03	SL-7	1.1E+03	na	3.3E-02	na	1.7E-03	2.1E-03	na
Tetrabutyltin	na	na	na	na	na	na	na	na	na	na	na

Table A.1 - Soil Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

Chemical (all concentrations in mg/kg)	Most Stringent Soil SL - Vadose Zone	Vadose Zone SL Basis	Most Stringent Soil SL - Saturated Zone	Saturated Zone SL Basis	SL-1 Direct Contact MTCA Method C Industrial SL-Det	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion SD-Det	SL-10 Natural Background Ecology (1994)
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	5.0E-01	SL-8	3.9E-01	SL-7	2.1E+05	4.4E+01	7.9E+00	2.2E+00	3.9E-01	5.0E-01	na
Acenaphthylene	1.3E+00	SL-8	1.3E+00	SL-8	na	na	na	na	na	1.3E+00	na
Anthracene	9.6E-01	SL-8	7.6E-01	SL-7	1.1E+06	7.1E+02	1.5E+01	3.5E+01	7.6E-01	9.6E-01	na
Benzo(a)anthracene	1.3E+00	SL-8	1.3E+00	SL-8	na	na	na	na	na	1.3E+00	na
Benzo(b)fluoranthene	na	na	na	na	na	na	na	na	na	na	na
Benzo(k)fluoranthene	na	na	na	na	na	na	na	na	na	na	na
Total benzofluoranthenes	3.2E+00	SL-8	3.2E+00	SL-8	na	na	na	na	na	3.2E+00	na
Benzo(g,h,i)perylene	6.7E-01	SL-8	6.7E-01	SL-8	na	na	na	na	na	6.7E-01	na
Benzo(a)pyrene	4.7E-03	SL-3	2.3E-04	SL-6	na	4.7E-03	2.5E+01	2.3E-04	1.3E+00	1.6E+00	na
Chrysene	1.4E+00	SL-8	1.4E+00	SL-8	na	na	na	na	na	1.4E+00	na
Dibenz(a,h)anthracene	2.3E-01	SL-8	2.3E-01	SL-8	na	na	na	na	na	2.3E-01	na
Dibenzofuran	5.4E-01	SL-8	4.3E-01	SL-7	3.5E+03	na	8.5E+00	na	4.3E-01	5.4E-01	na
Fluoranthene	1.7E+00	SL-8	1.3E+00	SL-7	1.4E+05	8.8E+01	2.7E+01	4.4E+00	1.3E+00	1.7E+00	na
Fluorene	5.4E-01	SL-8	4.3E-01	SL-7	1.4E+05	2.3E+01	8.5E+00	1.2E+00	4.3E-01	5.4E-01	na
Indeno(1,2,3-cd)pyrene	6.0E-01	SL-8	6.0E-01	SL-8	na	na	na	na	na	6.0E-01	na
Methyl isopropyl phenanthrene (retene)	na	na	na	na	na	na	na	na	na	na	na
1-Methylnaphthalene	2.6E+03	SL-1	2.6E+03	SL-1	2.6E+03	na	na	na	na	na	na
2-Methylnaphthalene	6.7E-01	SL-8	5.3E-01	SL-7	1.4E+04	na	1.1E+01	na	5.3E-01	6.7E-01	na
Naphthalene	5.1E-01	SL-3	2.5E-02	SL-6	7.0E+04	5.1E-01	3.3E+01	2.5E-02	1.6E+00	2.1E+00	na
Phenanthrene	1.5E+00	SL-8	1.5E+00	SL-8	na	na	na	na	na	1.5E+00	na
Pyrene	2.6E+00	SL-8	2.1E+00	SL-7	1.1E+05	1.6E+02	4.1E+01	8.2E+00	2.1E+00	2.6E+00	na
Total LPAHs	5.2E+00	SL-8	5.2E+00	SL-8	na	na	na	na	na	5.2E+00	na
Total HPAHs	1.2E+01	SL-8	1.2E+01	SL-8	na	na	na	na	na	1.2E+01	na
Total PAHs	na	na	na	na	na	na	na	na	na	na	na
Total cPAH TEQ	4.7E-03	SL-3	2.3E-04	SL-6	na	4.7E-03	9.3E+00	2.3E-04	4.7E-01	5.9E-01	na
Semivolatile Organic Compounds											
Aniline	2.3E+04	SL-1	2.3E+04	SL-1	2.3E+04	na	na	na	na	na	na
Azobenzene	1.2E+03	SL-1	1.2E+03	SL-1	1.2E+03	na	na	na	na	na	na
Benzidine	8.3E-06	SL-3	4.2E-07	SL-6	5.7E-01	8.3E-06	na	4.2E-07	na	na	na
Benzoic acid	6.5E-01	SL-8	3.1E-01	SL-7	1.4E+07	na	4.4E+00	na	3.1E-01	6.5E-01	na
Benzyl alcohol	5.7E-02	SL-8	3.4E-02	SL-7	3.5E+05	na	5.9E-01	na	3.4E-02	5.7E-02	na
Bis(2-chloroethoxy)methane	1.1E+04	SL-1	1.1E+04	SL-1	1.1E+04	na	na	na	na	na	na
Bis(2-chloroethyl)ether	1.6E-03	SL-3	8.6E-05	SL-6	1.2E+02	1.6E-03	na	8.6E-05	na	na	na
Bis(chloromethyl)ether	1.2E-04	SL-3	7.3E-06	SL-6	6.0E-01	1.2E-04	na	7.3E-06	na	na	na
Bis(2-chloro-1-methylethyl)ether	3.0E+00	SL-3	1.6E-01	SL-6	1.9E+03	3.0E+00	na	1.6E-01	na	na	na
2,6-Bis(1,1-dimethylethyl) phenol	na	na	na	na	na	na	na	na	na	na	na
Bis(2-ethylhexyl) phthalate	1.3E+00	SL-8	7.7E-02	SL-6	9.4E+03	1.5E+00	2.1E+01	7.7E-02	1.0E+00	1.3E+00	na
4-Bromophenyl phenyl ether	na	na	na	na	na	na	na	na	na	na	na
Butyl benzyl phthalate	5.3E-02	SL-3	2.7E-03	SL-6	6.9E+04	5.3E-02	9.9E-01	2.7E-03	5.0E-02	6.3E-02	na
Butyl diphenyl phosphate	na	na	na	na	na	na	na	na	na	na	na
Carbazole	na	na	na	na	na	na	na	na	na	na	na

Table A.1 - Soil Screening Level Derivations

FS Data Gaps Report | Glacier Northwest, Inc. Site

DRAFT

Chemical (all concentrations in mg/kg)	Most Stringent Soil SL - Vadose Zone	Vadose Zone SL Basis	Most Stringent Soil SL - Saturated Zone	Saturated Zone SL Basis	SL-1 Direct Contact MTCA Method C Industrial SL-Det	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion SD-Det	SL-10 Natural Background Ecology (1994)
4-Chloroaniline	6.6E+02	SL-1	6.6E+02	SL-1	6.6E+02	na	na	na	na	na	na
4-Chloro-3-methylphenol (chlorocresol)	5.5E+00	SL-3	2.8E-01	SL-6	3.5E+05	5.5E+00	na	2.8E-01	na	na	na
2-Chloronaphthalene (beta-)	7.5E+01	SL-3	3.7E+00	SL-6	2.8E+05	7.5E+01	na	3.7E+00	na	na	na
2-Chlorophenol	2.0E+00	SL-3	1.0E-01	SL-6	1.8E+04	2.0E+00	na	1.0E-01	na	na	na
4-Chlorophenyl phenyl ether	na	na	na	na	na	na	na	na	na	na	na
Dibutyl phthalate	1.4E+00	SL-8	1.9E-01	SL-6	3.5E+05	3.8E+00	2.2E+01	1.9E-01	1.1E+00	1.4E+00	na
Dibutyl phenyl phosphate	na	na	na	na	na	na	na	na	na	na	na
1,2-Dichlorobenzene	3.5E-02	SL-8	2.7E-02	SL-7	3.2E+05	9.4E+01	5.3E-01	4.8E+00	2.7E-02	3.5E-02	na
1,3-Dichlorobenzene	2.3E-01	SL-3	1.2E-02	SL-6	na	2.3E-01	na	1.2E-02	na	na	na
1,4-Dichlorobenzene	1.1E-01	SL-8	8.5E-02	SL-7	2.4E+04	1.1E+01	1.7E+00	5.7E-01	8.5E-02	1.1E-01	na
3,3'-Dichlorobenzidine	3.2E-03	SL-3	1.6E-04	SL-6	2.9E+02	3.2E-03	na	1.6E-04	na	na	na
2,4-Dichlorophenol	4.8E-01	SL-3	2.5E-02	SL-6	1.1E+04	4.8E-01	na	2.5E-02	na	na	na
Di(2-ethylhexyl)adipate	1.1E+05	SL-1	1.1E+05	SL-1	1.1E+05	na	na	na	na	na	na
Diethyl phthalate	2.0E-01	SL-8	1.4E-01	SL-7	2.8E+06	5.7E+00	2.6E+00	3.0E-01	1.4E-01	2.0E-01	na
Dimethyl phthalate	7.1E-02	SL-8	4.5E-02	SL-7	na	8.1E+00	8.0E-01	4.6E-01	4.5E-02	7.1E-02	na
2,4-Dimethylphenol	2.9E-02	SL-8	2.2E-02	SL-7	7.0E+04	1.5E+01	4.4E-01	7.4E-01	2.2E-02	2.9E-02	na
1,2-Dinitrobenzene	3.5E+02	SL-1	3.5E+02	SL-1	3.5E+02	na	na	na	na	na	na
1,3-Dinitrobenzene	3.5E+02	SL-1	3.5E+02	SL-1	3.5E+02	na	na	na	na	na	na
1,4-Dinitrobenzene	3.5E+02	SL-1	3.5E+02	SL-1	3.5E+02	na	na	na	na	na	na
4,6-Dinitro-o-cresol (DNOC)	1.6E+00	SL-3	8.1E-02	SL-6	2.8E+02	1.6E+00	na	8.1E-02	na	na	na
2,4-Dinitrophenol	4.0E-01	SL-3	2.9E-02	SL-6	7.0E+03	4.0E-01	na	2.9E-02	na	na	na
2,4-Dinitrotoluene	3.2E-02	SL-3	1.6E-03	SL-6	4.2E+02	3.2E-02	na	1.6E-03	na	na	na
2,6-Dinitrotoluene	8.8E+01	SL-1	8.8E+01	SL-1	8.8E+01	na	na	na	na	na	na
Di-n-octyl phthalate	6.2E+00	SL-8	4.9E+00	SL-7	3.5E+04	na	9.8E+01	na	4.9E+00	6.2E+00	na
1,4-Dioxane	1.3E+03	SL-1	1.3E+03	SL-1	1.3E+03	na	na	na	na	na	na
1,2-Diphenylhydrazine	9.1E-03	SL-3	4.6E-04	SL-6	1.6E+02	9.1E-03	na	4.6E-04	na	na	na
Hexachlorobenzene	1.2E-04	SL-3	6.0E-06	SL-6	8.2E+01	1.2E-04	3.5E-01	6.0E-06	1.7E-02	2.2E-02	na
Hexachlorobutadiene	2.6E-03	SL-3	1.3E-04	SL-6	1.7E+03	2.6E-03	1.7E-01	1.3E-04	8.6E-03	1.1E-02	na
Hexachlorocyclopentadiene	4.2E-01	SL-3	2.1E-02	SL-6	2.1E+04	4.2E-01	na	2.1E-02	na	na	na
Hexachloroethane	1.3E-03	SL-3	6.5E-05	SL-6	2.5E+03	1.3E-03	na	6.5E-05	na	na	na
Isophorone	2.6E+00	SL-3	1.4E-01	SL-6	1.4E+05	2.6E+00	na	1.4E-01	na	na	na
2-Methoxynaphthalene	na	na	na	na	na	na	na	na	na	na	na
2-Methylphenol (o-cresol)	6.3E-02	SL-8	4.8E-02	SL-7	1.8E+05	na	9.4E-01	na	4.8E-02	6.3E-02	na
3-Methylphenol (m-cresol)	1.8E+05	SL-1	1.8E+05	SL-1	1.8E+05	na	na	na	na	na	na
4-Methylphenol (p-cresol)	6.7E-01	SL-8	5.1E-01	SL-7	3.5E+05	na	1.0E+01	na	5.1E-01	6.7E-01	na
2-Nitroaniline	3.5E+04	SL-1	3.5E+04	SL-1	3.5E+04	na	na	na	na	na	na
3-Nitroaniline	na	na	na	na	na	na	na	na	na	na	na
4-Nitroaniline	6.6E+03	SL-1	6.6E+03	SL-1	6.6E+03	na	na	na	na	na	na
Nitrobenzene	4.0E+00	SL-3	2.1E-01	SL-6	7.0E+03	4.0E+00	na	2.1E-01	na	na	na
2-Nitrophenol	na	na	na	na	na	na	na	na	na	na	na
4-Nitrophenol	na	na	na	na	na	na	na	na	na	na	na
n-Nitrosodimethylamine	3.7E-03	SL-3	2.1E-04	SL-6	2.6E+00	3.7E-03	na	2.1E-04	na	na	na

Table A.1 - Soil Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

Chemical (all concentrations in mg/kg)	Most Stringent Soil SL - Vadose Zone	Vadose Zone SL Basis	Most Stringent Soil SL - Saturated Zone	Saturated Zone SL Basis	SL-1 Direct Contact MTCA Method C Industrial SL-Det	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion SD-Det	SL-10 Natural Background Ecology (1994)
n-Nitrosodiphenylamine	2.8E-02	SL-8	2.2E-02	SL-7	2.7E+04	5.5E-01	4.4E-01	2.7E-02	2.2E-02	2.8E-02	na
n-Nitrosodi-n-propylamine	5.0E-03	SL-3	2.6E-04	SL-6	1.9E+01	5.0E-03	na	2.6E-04	na	na	na
Pentachlorophenol	3.6E-04	SL-3	1.8E-05	SL-6	3.3E+02	3.6E-04	7.7E+00	1.8E-05	3.9E-01	3.6E-01	na
Phenol	4.2E-01	SL-8	3.1E-01	SL-7	1.1E+06	4.2E+03	6.1E+00	2.2E+02	3.1E-01	4.2E-01	na
Pyridine	3.5E+03	SL-1	3.5E+03	SL-1	3.5E+03	na	na	na	na	na	na
2,3,4,5-Tetrachlorophenol	na	na	na	na	na	na	na	na	na	na	na
2,3,4,6-Tetrachlorophenol	1.1E+05	SL-1	1.1E+05	SL-1	1.1E+05	na	na	na	na	na	na
1,2,4-Trichlorobenzene	1.9E-02	SL-3	9.3E-04	SL-6	4.5E+03	1.9E-02	4.8E-01	9.3E-04	2.4E-02	3.1E-02	na
2,4,5-Trichlorophenol	2.9E+02	SL-3	1.5E+01	SL-6	3.5E+05	2.9E+02	na	1.5E+01	na	na	na
2,4,6-Trichlorophenol	3.3E-02	SL-3	1.7E-03	SL-6	3.5E+03	3.3E-02	na	1.7E-03	na	na	na
Volatile Organic Compounds											
Acetone	3.2E+06	SL-1	3.2E+06	SL-1	3.2E+06	na	na	na	na	na	na
Acetaldehyde	na	na	na	na	na	na	na	na	na	na	na
Acrolein	4.7E-03	SL-3	3.3E-04	SL-6	1.8E+03	4.7E-03	na	3.3E-04	na	na	na
Acrylonitrile	1.8E-04	SL-3	1.2E-05	SL-6	2.4E+02	1.8E-04	na	1.2E-05	na	na	na
Benzaldehyde	3.3E+04	SL-1	3.3E+04	SL-1	3.3E+04	na	na	na	na	na	na
Benzene	3.7E-02	SL-3	1.9E-03	SL-6	2.4E+03	3.7E-02	na	1.9E-03	na	na	na
Bromobenzene	2.8E+04	SL-1	2.8E+04	SL-1	2.8E+04	na	na	na	na	na	na
Bromochloromethane	na	na	na	na	na	na	na	na	na	na	na
Bromoethane	na	na	na	na	na	na	na	na	na	na	na
Bromoform	5.0E-01	SL-3	2.6E-02	SL-6	1.7E+04	5.0E-01	na	2.6E-02	na	na	na
Bromomethane	1.9E+00	SL-3	1.1E-01	SL-6	4.9E+03	1.9E+00	na	1.1E-01	na	na	na
2-Butoxyethanol (EGBE)	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
n-Butylbenzene	1.8E+05	SL-1	1.8E+05	SL-1	1.8E+05	na	na	na	na	na	na
sec-Butylbenzene	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
tert-Butylbenzene	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
Carbon disulfide	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
Carbon tetrachloride	1.8E-02	SL-3	9.0E-04	SL-6	1.9E+03	1.8E-02	na	9.0E-04	na	na	na
Chlorobenzene	1.4E+01	SL-3	7.3E-01	SL-6	7.0E+04	1.4E+01	na	7.3E-01	na	na	na
Chloroethane	na	na	na	na	na	na	na	na	na	na	na
2-Chloroethyl vinyl ether	na	na	na	na	na	na	na	na	na	na	na
Chloroform	3.1E+00	SL-3	1.7E-01	SL-6	4.2E+03	3.1E+00	na	1.7E-01	na	na	na
Chloromethane	na	na	na	na	na	na	na	na	na	na	na
3-Chloro-1-propene (allyl chloride)	6.3E+03	SL-1	6.3E+03	SL-1	6.3E+03	na	na	na	na	na	na
2-Chlorotoluene	7.0E+04	SL-1	7.0E+04	SL-1	7.0E+04	na	na	na	na	na	na
4-Chlorotoluene	7.0E+04	SL-1	7.0E+04	SL-1	7.0E+04	na	na	na	na	na	na
Dibromochloromethane	3.0E-02	SL-3	1.7E-03	SL-6	1.6E+03	3.0E-02	na	1.7E-03	na	na	na
1,2-Dibromo-3-chloropropane	1.6E+02	SL-1	1.6E+02	SL-1	1.6E+02	na	na	na	na	na	na
Dibromomethane	3.5E+04	SL-1	3.5E+04	SL-1	3.5E+04	na	na	na	na	na	na
Dichlorobromomethane	3.8E-02	SL-3	2.1E-03	SL-6	2.1E+03	3.8E-02	na	2.1E-03	na	na	na
trans-1,4-Dichloro-2-butene	na	na	na	na	na	na	na	na	na	na	na
Dichlorodifluoromethane	7.0E+05	SL-1	7.0E+05	SL-1	7.0E+05	na	na	na	na	na	na

Table A.1 - Soil Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

					SL-1	SL-3	SL-4	SL-6	SL-7	SL-8	SL-10
Chemical (all concentrations in mg/kg)	Most Stringent Soil SL - Vadose Zone	Vadose Zone SL Basis	Most Stringent Soil SL - Saturated Zone	Saturated Zone SL Basis	Direct Contact MTCA Method C Industrial SL-Det	Protect Surface Water via Ground Water Vadose Zone Leach	Protect Sediment via Ground Water Vadose Zone Leach	Protect Surface Water via Ground Water Saturated Zone Leach	Protect Sediment via Ground Water Saturated Zone Leach	Protect Sediment via Erosion SD-Det	Natural Background Ecology (1994)
1,1-Dichloroethane	2.3E+04	SL-1	2.3E+04	SL-1	2.3E+04	na	na	na	na	na	na
1,2-Dichloroethane (EDC)	1.1E+00	SL-3	6.3E-02	SL-6	1.4E+03	1.1E+00	na	6.3E-02	na	na	na
1,1-Dichloroethylene	9.9E+01	SL-3	5.0E+00	SL-6	1.8E+05	9.9E+01	na	5.0E+00	na	na	na
cis-1,2-Dichloroethylene	7.0E+03	SL-1	7.0E+03	SL-1	7.0E+03	na	na	na	na	na	na
trans-1,2-Dichloroethylene	1.6E+01	SL-3	8.6E-01	SL-6	7.0E+04	1.6E+01	na	8.6E-01	na	na	na
1,2-Dichloroethylene (mixed isomers)	na	na	na	na	na	na	na	na	na	na	na
1,2-Dichloropropane	5.6E-02	SL-3	3.1E-03	SL-6	3.5E+03	5.6E-02	na	3.1E-03	na	na	na
1,3-Dichloropropane	3.1E-02	SL-3	1.6E-03	SL-6	7.0E+04	3.1E-02	na	1.6E-03	na	na	na
2,2-Dichloropropane	na	na	na	na	na	na	na	na	na	na	na
1,1-Dichloropropene	na	na	na	na	na	na	na	na	na	na	na
cis-1,3-Dichloropropene	1.5E-02	SL-3	8.3E-04	SL-6	1.3E+03	1.5E-02	na	8.3E-04	na	na	na
trans-1,3-Dichloropropene	1.5E-02	SL-3	8.3E-04	SL-6	1.3E+03	1.5E-02	na	8.3E-04	na	na	na
Diisopropyl ether	na	na	na	na	na	na	na	na	na	na	na
Ethane	na	na	na	na	na	na	na	na	na	na	na
Ethylbenzene	1.4E+00	SL-3	7.0E-02	SL-6	3.5E+05	1.4E+00	na	7.0E-02	na	na	na
Ethylene oxide	4.2E+02	SL-1	4.2E+02	SL-1	4.2E+02	na	na	na	na	na	na
Ethyl ether	7.0E+05	SL-1	7.0E+05	SL-1	7.0E+05	na	na	na	na	na	na
Ethylene dibromide (EDB)	6.6E+01	SL-1	6.6E+01	SL-1	6.6E+01	na	na	na	na	na	na
Formaldehyde	6.3E+03	SL-1	6.3E+03	SL-1	6.3E+03	na	na	na	na	na	na
n-Hexane	2.1E+05	SL-1	2.1E+05	SL-1	2.1E+05	na	na	na	na	na	na
2-Hexanone	1.8E+04	SL-1	1.8E+04	SL-1	1.8E+04	na	na	na	na	na	na
Isopropylbenzene (cumene)	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
4-Isopropyltoluene (p-isopropyltoluene)	1.4E+04	SL-1	1.4E+04	SL-1	1.4E+04	na	na	na	na	na	na
Methane	na	na	na	na	na	na	na	na	na	na	na
Methyl ethyl ketone (2-butanone)	2.1E+06	SL-1	2.1E+06	SL-1	2.1E+06	na	na	na	na	na	na
Methyl iodide	na	na	na	na	na	na	na	na	na	na	na
Methyl isobutyl ketone	2.8E+05	SL-1	2.8E+05	SL-1	2.8E+05	na	na	na	na	na	na
Methyl tert-butyl ether (MTBE)	7.3E+04	SL-1	7.3E+04	SL-1	7.3E+04	na	na	na	na	na	na
Methylene chloride	7.1E-01	SL-3	4.4E-02	SL-6	2.1E+04	7.1E-01	na	4.4E-02	na	na	na
2-Pentanone	na	na	na	na	na	na	na	na	na	na	na
n-Propylbenzene	3.5E+05	SL-1	3.5E+05	SL-1	3.5E+05	na	na	na	na	na	na
Styrene	7.0E+05	SL-1	7.0E+05	SL-1	7.0E+05	na	na	na	na	na	na
1,1,1,2-Tetrachloroethane	5.0E+03	SL-1	5.0E+03	SL-1	5.0E+03	na	na	na	na	na	na
1,1,2,2-Tetrachloroethane	8.3E-03	SL-3	4.4E-04	SL-6	6.6E+02	8.3E-03	na	4.4E-04	na	na	na
Tetrachloroethylene (PCE)	2.4E-01	SL-3	1.2E-02	SL-6	2.1E+04	2.4E-01	na	1.2E-02	na	na	na
Tetrahydrofuran	3.2E+06	SL-1	3.2E+06	SL-1	3.2E+06	na	na	na	na	na	na
Toluene	4.7E+00	SL-3	2.4E-01	SL-6	2.8E+05	4.7E+00	na	2.4E-01	na	na	na
1,2,3-Trichlorobenzene	2.8E+03	SL-1	2.8E+03	SL-1	2.8E+03	na	na	na	na	na	na
1,1,1-Trichloroethane	2.3E+03	SL-3	1.2E+02	SL-6	7.0E+06	2.3E+03	na	1.2E+02	na	na	na
1,1,2-Trichloroethane	2.4E-02	SL-3	1.3E-03	SL-6	2.3E+03	2.4E-02	na	1.3E-03	na	na	na
Trichloroethylene (TCE)	2.3E-02	SL-3	1.2E-03	SL-6	1.8E+03	2.3E-02	na	1.2E-03	na	na	na
Trichlorofluoroethane	na	na	na	na	na	na	na	na	na	na	na

Table A.1 - Soil Screening Level Derivations

FS Data Gaps Report | Glacier Northwest, Inc. Site

					SL-1	SL-3	SL-4	SL-6	SL-7	SL-8	SL-10
Chemical (all concentrations in mg/kg)	**Most Stringent Soil SL - Vadose Zone**	**Vadose Zone SL Basis**	**Most Stringent Soil SL - Saturated Zone**	**Saturated Zone SL Basis**	**Direct Contact MTCA Method C Industrial** SL-Det	**Protect Surface Water via Ground Water Vadose Zone** Leach	**Protect Sediment via Ground Water Vadose Zone** Leach	**Protect Surface Water via Ground Water Saturated Zone** Leach	**Protect Sediment via Ground Water Saturated Zone** Leach	**Protect Sediment via Erosion** SD-Det	**Natural Background** Ecology (1994)
Trichlorofluoromethane	1.1E+06	SL-1	1.1E+06	SL-1	1.1E+06	na	na	na	na	na	na
1,2,3-Trichloropropane	4.4E+00	SL-1	4.4E+00	SL-1	4.4E+00	na	na	na	na	na	na
Trichlorotrifluoroethane	1.1E+08	SL-1	1.1E+08	SL-1	1.1E+08	na	na	na	na	na	na
1,2,3-Trimethylbenzene	3.5E+04	SL-1	3.5E+04	SL-1	3.5E+04	na	na	na	na	na	na
1,2,4-Trimethylbenzene	3.5E+04	SL-1	3.5E+04	SL-1	3.5E+04	na	na	na	na	na	na
1,3,5-Trimethylbenzene	3.5E+04	SL-1	3.5E+04	SL-1	3.5E+04	na	na	na	na	na	na
Vinyl acetate	3.5E+06	SL-1	3.5E+06	SL-1	3.5E+06	na	na	na	na	na	na
Vinyl chloride	2.2E-03	SL-3	1.1E-04	SL-6	8.8E+01	2.2E-03	na	1.1E-04	na	na	na
Total xylenes	7.9E+00	SL-3	4.0E-01	SL-6	7.0E+05	7.9E+00	na	4.0E-01	na	na	na
Petroleum Hydrocarbons											
Gasoline range hydrocarbons, fresh	3.0E+01	SL-3	3.0E+01	SL-3	2.9E+04	3.0E+01	na	3.0E+01	na	na	na
Gasoline range hydrocarbons, weathered	1.0E+02	SL-3	1.0E+02	SL-3	2.9E+04	1.0E+02	na	1.0E+02	na	na	na
Diesel range hydrocarbons, fresh	2.0E+03	SL-3	2.0E+03	SL-3	2.9E+04	2.0E+03	na	2.0E+03	na	na	na
Diesel range hydrocarbons, weathered	2.0E+03	SL-3	2.0E+03	SL-3	2.9E+04	2.0E+03	na	2.0E+03	na	na	na
Oil range hydrocarbons	2.0E+03	SL-3	2.0E+03	SL-3	2.9E+04	2.0E+03	na	2.0E+03	na	na	na
Total diesel & oil range hydrocarbons	2.0E+03	SL-3	2.0E+03	SL-3	2.9E+04	2.0E+03	na	2.0E+03	na	na	na

Table A.2 - Groundwater Screening Level Derivations

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Chemical (all concentrations in ug/L)	Most Stringent Groundwater SL	Groundwater SL Basis	GW-2 Protect Surface Water SW	GW-3 Protect Sediment Partit	GW-4 Protect Ind. Air Unrestricted VI	GW-5 Natural Background
PCBs						
Total PCB Aroclors	7.0E-06	GW-2	7.0E-06	1.3E-03	na	na
Total PCB congeners	7.0E-06	GW-2	7.0E-06	2.4E-03	na	na
Total PCB TEQ	4.4E-09	GW-2	4.4E-09	4.7E-07	na	na
Dioxins/Furans						
Total dioxin/furan TEQ	5.1E-09	GW-2	5.1E-09	4.2E-07	na	na
2,3,7,8-TCDD	5.1E-09	GW-2	5.1E-09	4.9E-06	na	na
Total chlorinated dioxins	na	na	na	na	na	na
Total chlorinated furans	na	na	na	na	na	na
Metals						
Aluminum	na	na	na	na	na	na
Antimony	9.0E+01	GW-2	9.0E+01	na	na	na
Arsenic	8.0E+00	GW-5	1.3E-02	2.2E+02	na	8.0E+00
Barium	2.0E+02	GW-2	2.0E+02	na	na	na
Beryllium	7.6E+01	GW-2	7.6E+01	na	na	na
Cadmium	1.2E+00	GW-3	7.9E+00	1.2E+00	na	na
Chromium, total	na	na	na	na	na	na
Chromium, trivalent	2.7E+01	GW-2	2.7E+01	na	na	na
Chromium, hexavalent	1.6E+00	GW-2	1.6E+00	na	na	na
Cobalt	na	na	na	na	na	na
Copper	3.1E+00	GW-2	3.1E+00	1.4E+01	na	na
Iron	na	na	na	na	na	na
Lead	8.1E+00	GW-2	8.1E+00	1.9E+01	na	na
Manganese	1.0E+02	GW-2	1.0E+02	na	na	na
Mercury, inorganic	2.5E-02	GW-2	2.5E-02	2.0E+00	8.3E-01	na
Methylmercury	na	na	na	na	na	na
Molybdenum	na	na	na	na	na	na
Nickel	8.2E+00	GW-2	8.2E+00	na	na	na
Selenium	7.1E+01	GW-2	7.1E+01	na	na	na
Silver	9.1E-01	GW-2	9.1E-01	5.5E+01	na	na
Thallium	6.2E-02	GW-2	6.2E-02	na	na	na
Tin	na	na	na	na	na	na
Vanadium	na	na	na	na	na	na
Zinc	8.1E+01	GW-2	8.1E+01	7.7E+02	na	na
Metals - Butyltins						
Monobutyltin	na	na	na	na	na	na
Dibutyltin	na	na	na	na	na	na
Tributyl tin	7.4E-03	GW-2	7.4E-03	na	na	na
Tributyltin oxide	4.3E-06	GW-3	na	4.3E-06	na	na
Tetrabutyltin	na	na	na	na	na	na
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	5.3E+00	GW-3	3.0E+01	5.3E+00	na	na
Acenaphthylene	na	na	na	na	na	na
Anthracene	2.1E+00	GW-3	1.0E+02	2.1E+00	na	na
Benzo(a)anthracene	1.6E-04	GW-2	1.6E-04	1.9E-01	na	na
Benzo(b)fluoranthene	1.6E-04	GW-2	1.6E-04	na	na	na
Benzo(k)fluoranthene	1.6E-03	GW-2	1.6E-03	na	na	na
Total benzofluoranthenes	na	na	na	na	na	na
Benzo(g,h,i)perylene	na	na	na	na	na	na
Benzo(a)pyrene	1.6E-05	GW-2	1.6E-05	8.7E-02	na	na
Chrysene	1.6E-02	GW-2	1.6E-02	4.0E-01	na	na
Dibenz(a,h)anthracene	1.6E-05	GW-2	1.6E-05	6.8E-03	na	na
Dibenzofuran	3.1E+00	GW-3	na	3.1E+00	na	na
Fluoranthene	1.8E+00	GW-3	6.0E+00	1.8E+00	na	na
Fluorene	3.7E+00	GW-3	1.0E+01	3.7E+00	na	na
Indeno(1,2,3-cd)pyrene	1.6E-04	GW-2	1.6E-04	1.6E-02	na	na
Methyl isopropyl phenanthrene (retene)	na	na	na	na	na	na
1-Methylnaphthalene	1.7E-01	GW-4	na	na	1.7E-01	na
2-Methylnaphthalene	1.4E+01	GW-3	na	1.4E+01	na	na
Naphthalene	1.4E+00	GW-2	1.4E+00	9.0E+01	8.8E+00	na
Phenanthrene	na	na	na	na	na	na
Pyrene	2.0E+00	GW-3	8.0E+00	2.0E+00	na	na
Total LPAHs	na	na	na	na	na	na
Total HPAHs	na	na	na	na	na	na
Total PAHs	na	na	na	na	na	na
Total cPAH TEQ	1.6E-05	GW-2	1.6E-05	3.2E-02	na	na
Semivolatile Organic Compounds						
Aniline	na	na	na	na	na	na
Azobenzene	na	na	na	na	na	na
Benzidine	2.3E-05	GW-2	2.3E-05	na	na	na
Benzoic acid	1.1E+03	GW-3	na	1.1E+03	na	na
Benzyl alcohol	5.6E+01	GW-3	na	5.6E+01	na	na
Bis(2-chloroethoxy)methane	na	na	na	na	na	na
Bis(2-chloroethyl)ether	6.0E-02	GW-2	6.0E-02	na	na	na
Bis(chloromethyl)ether	1.7E-02	GW-2	1.7E-02	na	na	na

Table A.2 - Groundwater Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

			GW-2	GW-3	GW-4	GW-5
Chemical (all concentrations in ug/L)	**Most Stringent Groundwater SL**	**Groundwater SL Basis**	**Protect Surface Water** SW	**Protect Sediment** Partit	**Protect Ind. Air Unrestricted** VI	**Natural Background**
Bis(2-chloro-1-methylethyl)ether	1.0E+02	GW-2	1.0E+02	na	na	na
2,6-Bis(1,1-dimethylethyl) phenol	na	na	na	na	na	na
Bis(2-ethylhexyl) phthalate	4.6E-02	GW-2	4.6E-02	6.2E-01	na	na
4-Bromophenyl phenyl ether	na	na	na	na	na	na
Butyl benzyl phthalate	1.3E-02	GW-2	1.3E-02	2.4E-01	na	na
Butyl diphenyl phosphate	na	na	na	na	na	na
Carbazole	na	na	na	na	na	na
4-Chloroaniline	na	na	na	na	na	na
4-Chloro-3-methylphenol (chlorocresol)	3.6E+01	GW-2	3.6E+01	na	na	na
2-Chloronaphthalene (beta-)	1.0E+02	GW-2	1.0E+02	na	na	na
2-Chlorophenol	1.7E+01	GW-2	1.7E+01	na	na	na
4-Chlorophenyl phenyl ether	na	na	na	na	na	na
Dibutyl phthalate	8.0E+00	GW-2	8.0E+00	4.6E+01	na	na
Dibutyl phenyl phosphate	na	na	na	na	na	na
1,2-Dichlorobenzene	4.5E+00	GW-3	8.0E+02	4.5E+00	2.5E+03	na
1,3-Dichlorobenzene	2.0E+00	GW-2	2.0E+00	na	na	na
1,4-Dichlorobenzene	5.0E+00	GW-4	6.0E+01	8.9E+00	5.0E+00	na
3,3'-Dichlorobenzidine	3.3E-03	GW-2	3.3E-03	na	na	na
2,4-Dichlorophenol	1.0E+01	GW-2	1.0E+01	na	na	na
Di(2-ethylhexyl)adipate	na	na	na	na	na	na
Diethyl phthalate	9.3E+01	GW-3	2.0E+02	9.3E+01	na	na
Dimethyl phthalate	5.9E+01	GW-3	6.0E+02	5.9E+01	na	na
2,4-Dimethylphenol	2.9E+00	GW-3	9.7E+01	2.9E+00	na	na
1,2-Dinitrobenzene	na	na	na	na	na	na
1,3-Dinitrobenzene	na	na	na	na	na	na
1,4-Dinitrobenzene	na	na	na	na	na	na
4,6-Dinitro-o-cresol (DNOC)	7.0E+00	GW-2	7.0E+00	na	na	na
2,4-Dinitrophenol	1.0E+02	GW-2	1.0E+02	na	na	na
2,4-Dinitrotoluene	1.8E-01	GW-2	1.8E-01	na	na	na
2,6-Dinitrotoluene	na	na	na	na	na	na
Di-n-octyl phthalate	2.3E+00	GW-3	na	2.3E+00	na	na
1,4-Dioxane	4.7E+03	GW-4	na	na	4.7E+03	na
1,2-Diphenylhydrazine	2.0E-02	GW-2	2.0E-02	na	na	na
Hexachlorobenzene	5.0E-06	GW-2	5.0E-06	1.4E-02	2.4E-01	na
Hexachlorobutadiene	1.0E-02	GW-2	1.0E-02	6.6E-01	6.4E-01	na
Hexachlorocyclopentadiene	1.0E+00	GW-2	1.0E+00	na	4.2E+00	na
Hexachloroethane	2.0E-02	GW-2	2.0E-02	na	3.8E+00	na
Isophorone	1.1E+02	GW-2	1.1E+02	na	na	na
2-Methoxynaphthalene	na	na	na	na	na	na
2-Methylphenol (o-cresol)	9.8E+00	GW-3	na	9.8E+00	na	na
3-Methylphenol (m-cresol)	na	na	na	na	na	na
4-Methylphenol (p-cresol)	1.1E+02	GW-3	na	1.1E+02	na	na
2-Nitroaniline	na	na	na	na	na	na
3-Nitroaniline	na	na	na	na	na	na
4-Nitroaniline	na	na	na	na	na	na
Nitrobenzene	1.0E+02	GW-2	1.0E+02	na	na	na
2-Nitrophenol	na	na	na	na	na	na
4-Nitrophenol	na	na	na	na	na	na
n-Nitrosodimethylamine	3.4E-01	GW-2	3.4E-01	na	na	na
n-Nitrosodiphenylamine	5.5E-01	GW-3	6.9E-01	5.5E-01	na	na
n-Nitrosodi-n-propylamine	5.8E-02	GW-2	5.8E-02	na	na	na
Pentachlorophenol	2.0E-03	GW-2	2.0E-03	4.2E+01	na	na
Phenol	1.0E+02	GW-3	7.0E+04	1.0E+02	na	na
Pyridine	na	na	na	na	na	na
2,3,4,5-Tetrachlorophenol	na	na	na	na	na	na
2,3,4,6-Tetrachlorophenol	na	na	na	na	na	na
1,2,4-Trichlorobenzene	3.7E-02	GW-2	3.7E-02	9.6E-01	3.9E+01	na
2,4,5-Trichlorophenol	6.0E+02	GW-2	6.0E+02	na	na	na
2,4,6-Trichlorophenol	2.8E-01	GW-2	2.8E-01	na	na	na
Volatile Organic Compounds						
Acetone	na	na	na	na	na	na
Acetaldehyde	6.2E+02	GW-4	na	na	6.2E+02	na
Acrolein	1.1E+00	GW-2	1.1E+00	na	2.9E+00	na
Acrylonitrile	2.8E-02	GW-2	2.8E-02	na	1.2E+01	na
Benzaldehyde	na	na	na	na	na	na
Benzene	1.6E+00	GW-2	1.6E+00	na	2.4E+00	na
Bromobenzene	6.3E+02	GW-4	na	na	6.3E+02	na
Bromochloromethane	na	na	na	na	na	na
Bromoethane	na	na	na	na	na	na
Bromoform	1.2E+01	GW-2	1.2E+01	na	2.2E+02	na
Bromomethane	1.1E+01	GW-4	2.7E+02	na	1.1E+01	na
2-Butoxyethanol (EGBE)	na	na	na	na	na	na
n-Butylbenzene	na	na	na	na	na	na
sec-Butylbenzene	na	na	na	na	na	na
tert-Butylbenzene	na	na	na	na	na	na

Table A.2 - Groundwater Screening Level Derivations

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FS Data Gaps Report | Glacier Northwest, Inc. Site

			GW-2	GW-3	GW-4	GW-5
Chemical (all concentrations in ug/L)	**Most Stringent Groundwater SL**	**Groundwater SL Basis**	**Protect Surface Water** SW	**Protect Sediment** Partit	**Protect Ind. Air Unrestricted** VI	**Natural Background**
Carbon disulfide	8.4E+02	GW-4	na	na	8.4E+02	na
Carbon tetrachloride	3.5E-01	GW-2	3.5E-01	na	6.2E-01	na
Chlorobenzene	2.0E+02	GW-2	2.0E+02	na	3.4E+02	na
Chloroethane	1.5E+04	GW-4	na	na	1.5E+04	na
2-Chloroethyl vinyl ether	na	na	na	na	na	na
Chloroform	1.2E+00	GW-4	1.5E+02	na	1.2E+00	na
Chloromethane	1.5E+02	GW-4	na	na	1.5E+02	na
3-Chloro-1-propene (allyl chloride)	1.5E+00	GW-4	na	na	1.5E+00	na
2-Chlorotoluene	na	na	na	na	na	na
4-Chlorotoluene	na	na	na	na	na	na
Dibromochloromethane	2.2E+00	GW-2	2.2E+00	na	na	na
1,2-Dibromo-3-chloropropane	4.2E-02	GW-4	na	na	4.2E-02	na
Dibromomethane	9.7E+01	GW-4	na	na	9.7E+01	na
Dichlorobromomethane	1.4E+00	GW-4	2.8E+00	na	1.4E+00	na
trans-1,4-Dichloro-2-butene	na	na	na	na	na	na
Dichlorodifluoromethane	4.2E+00	GW-4	na	na	4.2E+00	na
1,1-Dichloroethane	1.1E+01	GW-4	na	na	1.1E+01	na
1,2-Dichloroethane (EDC)	3.5E+00	GW-4	7.3E+01	na	3.5E+00	na
1,1-Dichloroethylene	1.3E+02	GW-4	4.0E+03	na	1.3E+02	na
cis-1,2-Dichloroethylene	1.8E+02	GW-4	na	na	1.8E+02	na
trans-1,2-Dichloroethylene	7.7E+01	GW-4	1.0E+03	na	7.7E+01	na
1,2-Dichloroethylene (mixed isomers)	na	na	na	na	na	na
1,2-Dichloropropane	3.1E+00	GW-2	3.1E+00	na	1.0E+01	na
1,3-Dichloropropane	1.2E+00	GW-2	1.2E+00	na	na	na
2,2-Dichloropropane	na	na	na	na	na	na
1,1-Dichloropropene	na	na	na	na	na	na
cis-1,3-Dichloropropene	1.2E+00	GW-2	1.2E+00	na	8.0E+00	na
trans-1,3-Dichloropropene	1.2E+00	GW-2	1.2E+00	na	8.0E+00	na
Diisopropyl ether	na	na	na	na	na	na
Ethane	na	na	na	na	na	na
Ethylbenzene	2.1E+01	GW-2	2.1E+01	na	2.8E+03	na
Ethylene oxide	5.4E-02	GW-4	na	na	5.4E-02	na
Ethyl ether	na	na	na	na	na	na
Ethylene dibromide (EDB)	3.0E-01	GW-4	na	na	3.0E-01	na
Formaldehyde	na	na	na	na	na	na
n-Hexane	7.2E+00	GW-4	na	na	7.2E+00	na
2-Hexanone	7.3E+03	GW-4	na	na	7.3E+03	na
Isopropylbenzene (cumene)	9.1E+02	GW-4	na	na	9.1E+02	na
4-Isopropyltoluene (p-isopropyltoluene)	8.8E+01	GW-4	na	na	8.8E+01	na
Methane	na	na	na	na	na	na
Methyl ethyl ketone (2-butanone)	1.7E+06	GW-4	na	na	1.7E+06	na
Methyl iodide	na	na	na	na	na	na
Methyl isobutyl ketone	4.7E+05	GW-4	na	na	4.7E+05	na
Methyl tert-butyl ether (MTBE)	8.6E+02	GW-4	na	na	8.6E+02	na
Methylene chloride	1.0E+02	GW-2	1.0E+02	na	7.8E+02	na
2-Pentanone	na	na	na	na	na	na
n-Propylbenzene	2.3E+03	GW-4	na	na	2.3E+03	na
Styrene	8.5E+03	GW-4	na	na	8.5E+03	na
1,1,1,2-Tetrachloroethane	7.1E+00	GW-4	na	na	7.1E+00	na
1,1,2,2-Tetrachloroethane	3.0E-01	GW-2	3.0E-01	na	5.9E+00	na
Tetrachloroethylene (PCE)	2.9E+00	GW-2	2.9E+00	na	2.5E+01	na
Tetrahydrofuran	5.3E+05	GW-4	na	na	5.3E+05	na
Toluene	1.0E+02	GW-2	1.0E+02	na	1.5E+04	na
1,2,3-Trichlorobenzene	na	na	na	na	na	na
1,1,1-Trichloroethane	5.4E+03	GW-4	5.0E+04	na	5.4E+03	na
1,1,2-Trichloroethane	9.0E-01	GW-2	9.0E-01	na	5.1E+00	na
Trichloroethylene (TCE)	7.0E-01	GW-2	7.0E-01	na	1.4E+00	na
Trichlorofluoroethane	na	na	na	na	na	na
Trichlorofluoromethane	1.2E+02	GW-4	na	na	1.2E+02	na
1,2,3-Trichloropropane	2.0E+01	GW-4	na	na	2.0E+01	na
Trichlorotrifluoroethane	1.7E+02	GW-4	na	na	1.7E+02	na
1,2,3-Trimethylbenzene	4.1E+02	GW-4	na	na	4.1E+02	na
1,2,4-Trimethylbenzene	2.4E+02	GW-4	na	na	2.4E+02	na
1,3,5-Trimethylbenzene	1.7E+02	GW-4	na	na	1.7E+02	na
Vinyl acetate	8.1E+03	GW-4	na	na	8.1E+03	na
Vinyl chloride	1.8E-01	GW-2	1.8E-01	na	3.3E-01	na
Total xylenes	1.1E+02	GW-2	1.1E+02	na	3.2E+02	na
Petroleum Hydrocarbons						
Gasoline range hydrocarbons, fresh	8.0E+02	GW-2	8.0E+02	na	na	na
Gasoline range hydrocarbons, weathered	1.0E+03	GW-2	1.0E+03	na	na	na
Diesel range hydrocarbons, fresh	5.0E+01	GW-2	5.0E+01	na	na	na
Diesel range hydrocarbons, weathered	5.0E+02	GW-2	5.0E+02	na	na	na
Oil range hydrocarbons	5.0E+02	GW-2	5.0E+02	na	na	na
Total diesel & oil range hydrocarbons	5.0E+02	GW-2	5.0E+02	na	na	na

Table A.3 - PFAS Screening Level Derivations

FS Data Gaps Report | Glacier Northwest, Inc. Site

			Preliminary Screening Levels (SLs)						
Applicable Media			Surface Water				Potable Groundwater		
Screening Level Basis			Protective Concentrations for Aquatic Life, Marine			Aquatic Life, Marine / Acute	Maximum Contaminant Level	MTCA Method C Noncancer	MTCA Method C Cancer
Units			ug/L			ug/L	ug/L	ug/L	ug/L
Source(s)			Ecology PFAS Guidance, 2023 Ecology PCUL Workbook, 2025			CLARC	CLARC		
Regulation			[(a)]			WAC 173-201A	40 CFR 141	WAC 173-340	WAC 173-340
Receptor/Exposure Route			Invertebrates	Fish	Other	--	Ingestion		
Analyte	**CAS RN**	**Acronym**							
Fluorotelomer Sulfonic Acid	27619-97-2	6:2 FTS	--	--	--	--	--	**1.6E+01**	--
Hexafluoropropylene Oxide Dimer Acid	13252-13-6	GenX / HFPO-DA	--	--	--	--	**1.0E-02**	2.4E-01	--
Perfluorobutanesulfonic Acid	375-73-5	PFBS	**1.3E+05**	--	--	--	--	2.4E+01	--
Perfluorobutanoic Acid	375-22-4	PFBA	--	--	--	--	--	**8.0E+01**	--
Perfluorodecanoic Acid	335-76-2	PFDA	**7.8E+01**	--	--	--	--	1.6E-04	--
Perfluorohexanesulfonic Acid	355-46-4	PFHxS	--	--	--	--	1.0E-02	**3.2E-05**	--
Perfluorohexanoic Acid	307-24-4	PFHxA	--	--	--	--	--	**4.0E+01**	--
Perfluorononanoic Acid	375-95-1	PFNA	**1.0E+01**	--	--	--	1.0E-02	2.0E-01	--
Perfluorooctanesulfonic Acid	1763-23-1	PFOS	3.3E+01	1.5E+01	**1.1E+00**	5.5E+02	4.0E-03	8.0E-03	2.5E-02
Perfluorooctanoic Acid	335-67-1	PFOA	5.9E+02	1.5E+03	**1.2E+02**	7.0E+03	4.0E-03	2.4E-03	3.4E-05

Notes:

(a) - From Ecology's 2023 guidance - "Protective concentrations were determined by a review of estimated no adverse effects on the protection and propagation of fish, invertebrates, and other aquatic life found in relevant literature. It is important to note that the documented protective concentration is not necessarily the lowest No Observed Adverse Effects Concentration (NOAEC), but instead a value was chosen that would be protective of the individual class of receptors (fish, invertebrates, other) that is also below a Lowest Observed Adverse Effects Concentration (LOAEC)." These values have not been

Bold = Preliminary SL selected based on the lowest surface water marine aquatic life criteria, when available, or the lowest potable groundwater criteria.

ug/L = micrograms per liter

PCUL Workbook = Preliminary Cleanup Level Workbook for the Lower Duwamish Waterway (Ecology, 2025)

CLARC = Cleanup Levels and Risk Calculation (Ecology, 2025)

CFR = Code of Federal Regulations

WAC = Washington Administrative Code

MTCA = Model Toxics Control Act

APPENDIX B
CULTURAL RESOURCES MONITORNG REPORT

CULTURAL RESOURCES REPORT COVER SHEET

DAHP Project Number: 2024-07-05438

Author: Kunas, Julia

Title of Report: Archaeological Monitoring for the Glacier Northwest, Inc. Site Feasibility Study

Date of Report: May 28, 2025

County(ies): King Section: 19 Township: 24N Range: 4E

Quad: Seattle South Acres: 18.18

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:

_____
_____
_____
_____
_____
_____
_____
_____
_____

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

WILLAMETTE
CULTURAL RESOURCES ASSOCIATES, LTD.

Results of Archaeological Monitoring for the Glacier Northwest, Inc. Site Feasibility Study, Seattle, Washington

Results of Archaeological Monitoring for the Glacier Northwest, Inc. Site Feasibility Study, Seattle, Washington

Prepared by
Julia Kunas, M.S.

May 28, 2025

WillametteCRA Report No. 24-173
Seattle, Washington

Prepared for
Aspect Consulting
Seattle, Washington

WILLAMETTE
CULTURAL RESOURCES ASSOCIATES, LTD.

Report Details

Project Name:	Archaeological Monitoring for the Glacier Northwest, Inc. Site Feasibility Study
DAHP Number:	2024-07-05438
Agency:	Washington State Department of Ecology
Client:	Aspect Consulting
Project Undertaking:	Environmental Cleanup
Regulatory Framework:	Executive Order 21-02
County:	King
Legal Description:	Township 24N, Range 4E, Section 19
USGS Quad:	*Seattle South, WA* 7.5-minute
Project Acreage:	18.18
Field Note Location:	WillametteCRA, Seattle Office
Fieldwork Type:	Archaeological Monitoring
Fieldwork Dates:	November 18–25, 2024
Field Personnel:	Julia Kunas, John Montine
Findings:	No archaeological materials observed during monitoring.
Recommendations:	Inadvertent Discovery Plan be in place for construction

Table of Contents

Introduction 1
Regulatory Context 1
Description of Project Area 2
Natural and Cultural Background 6
Environmental Setting 6
Plants and Animals 8
Precontact Background 9
Ethnohistoric Background 10
Post-Contact Background 13
Previous Archaeology 16
Previous Geotechnical Investigations 20
Expectations for Cultural Resources 21
Field Methods 22
Results 23
Interpretation 28
Conclusions and Recommendations 29
References Cited 30
Appendix A: Summary of Geotechnical Boring Results

List of Figures

Figure 1. USGS quad map showing the Project Area location. 3
Figure 2. Aerial photograph of the Project Area. 4
Figure 3. Previous boring locations and proposed WP boring locations (Courtesy of Aspect). 5
Figure 4. Ethnographic named places in the vicinity of the Project Area. 11
Figure 5. 1911 map depicting the Project Area and pre-Waterway Duwamish River. 14
Figure 6. 1944 aerial photo of the Project Area. 14
Figure 7. 1966 aerial photo of the Project Area. 15
Figure 8. 1971 aerial photo of the Project Area. 15
Figure 9. Locations of monitored borings. 24
Figure 10. Southwest overview of GP-82. 24
Figure 11. East overview of MW-33D. 25
Figure 12. GP-81, 0 to 5 fbs, different fill deposits (top is on the right). 25
Figure 13. Alluvium from GP-83, 30–35 fbs (bottom) and 35–40 fbs (top). 26
Figure 14. Closeup of organics in tideflat deposit in GP-82 at about 12.5–13 fbs. 26
Figure 15. Closeup of potential buried surface in MW-48D at about 9 fbs. 27

List of Tables

Table 1. Lushootseed Place Names Within Approx. 1 Mile of the Project. 12
Table 2. Previous Cultural Resource Studies Within 1 Mile of the Project Area. 16
Table 3. Previously Identified Archaeological Sites Within Approx. 1 Mile of the Project Area 18
Table 4. Prev. Identified Historic Properties Extant Within 0.5 Mile of the Project Area. 19

Introduction

In accordance with Agreed Order No. DE 6000 between the Washington State Department of Ecology (Ecology) and the Potentially Liable Parties (PLPs) Glacier Northwest, Inc. (Glacier) and Reichold, Inc. (Reichold), a Feasibility Study is being conducted for the Glacier Northwest, Inc. Site in order to develop and evaluate cleanup action alternatives for contaminated soil and groundwater at the site. The Project Area is located at 5900 West Marginal Way SW in Seattle, Washington (King County parcel 1924049029; Figures 1 and 2). Aspect Consulting (Aspect) created a Work Plan (WP) to address specific data gaps in the Feasibility Study (Aspect 2024; Figure 3).

The WP involves soil boring and monitoring well installation. Twelve soil borings were drilled to depths up to approximately 40 feet below ground surface (bgs) and were placed close to the shoreline of the Project Area. Since the Project is under an Agreed Order and being supervised by Ecology as directed by the Model Toxics Control Act, it is required to comply with Governor's Executive Order 21-02 (EO 21-02). Due to the WP involving subsurface investigations in an archaeologically sensitive area, the Washington Department of Archaeology and Historic Preservation (DAHP) recommended that archaeological monitoring be conducted during Project activities (Witt 2024). Aspect contracted Willamette Cultural Resources Associates, Ltd. (WillametteCRA) to create a Monitoring and Inadvertent Discovery Plan (MIDP) and conduct archaeological monitoring during implementation of the WP.

WillametteCRA monitors observed twelve soil borings November 18 through 25, 2024. These included three geoprobe borings, six deep monitoring wells, and three shallow monitoring wells. No archaeological material was observed during monitoring. This report is a summary of the results of archaeological monitoring during the soil borings.

Regulatory Context

As noted above, the Project is subject to EO 21-02. EO 21-02 requires state agencies funding capital construction projects to determine potential impacts to cultural resources. If a significant cultural resource is likely to be found within the project locale, then the state agency shall: work with DAHP and Affected Tribes on appropriate survey and mitigation strategies; consult with Affected Tribes; take reasonable action to avoid, minimize, or mitigate adverse effects; and notify DAHP and the Governor's Office of Indian Affairs in advance of any meeting with Affected Tribes.

This MIDP defined procedures to ensure compliance with Washington state laws, including the Archaeological Sites and Resources Act (RCW 27.53) which prohibits knowingly excavating or disturbing prehistoric and historic archaeological sites on public or private land, the Indian Graves and Records Act (RCW 27.44), and the Abandoned and Historic Cemeteries and Historic Graves Act (RCW 68.60) which defines care and maintenance of historic burials and

cemeteries, and requires reporting in the event human skeletal remains are observed. If recorded archaeological resources are within the Project Area, an Archaeological Excavation Permit is likely to be required from the state for any ground disturbing activities within the two-dimensional site boundaries.

Description of Project Area

The Project Area is located within Section 19, Township 24 North, Range 4 East at 5900 West Marginal Way SW in Seattle, Washington (King County parcel 1924049029). The property is on the western shore of the Lower Duwamish Waterway within Seattle city limits. The Project Area is an approximately 18.2-acre parcel that has been used for various industrial activities since at least 1936. It is currently being used as a cement storage and distribution facility by Glacier.

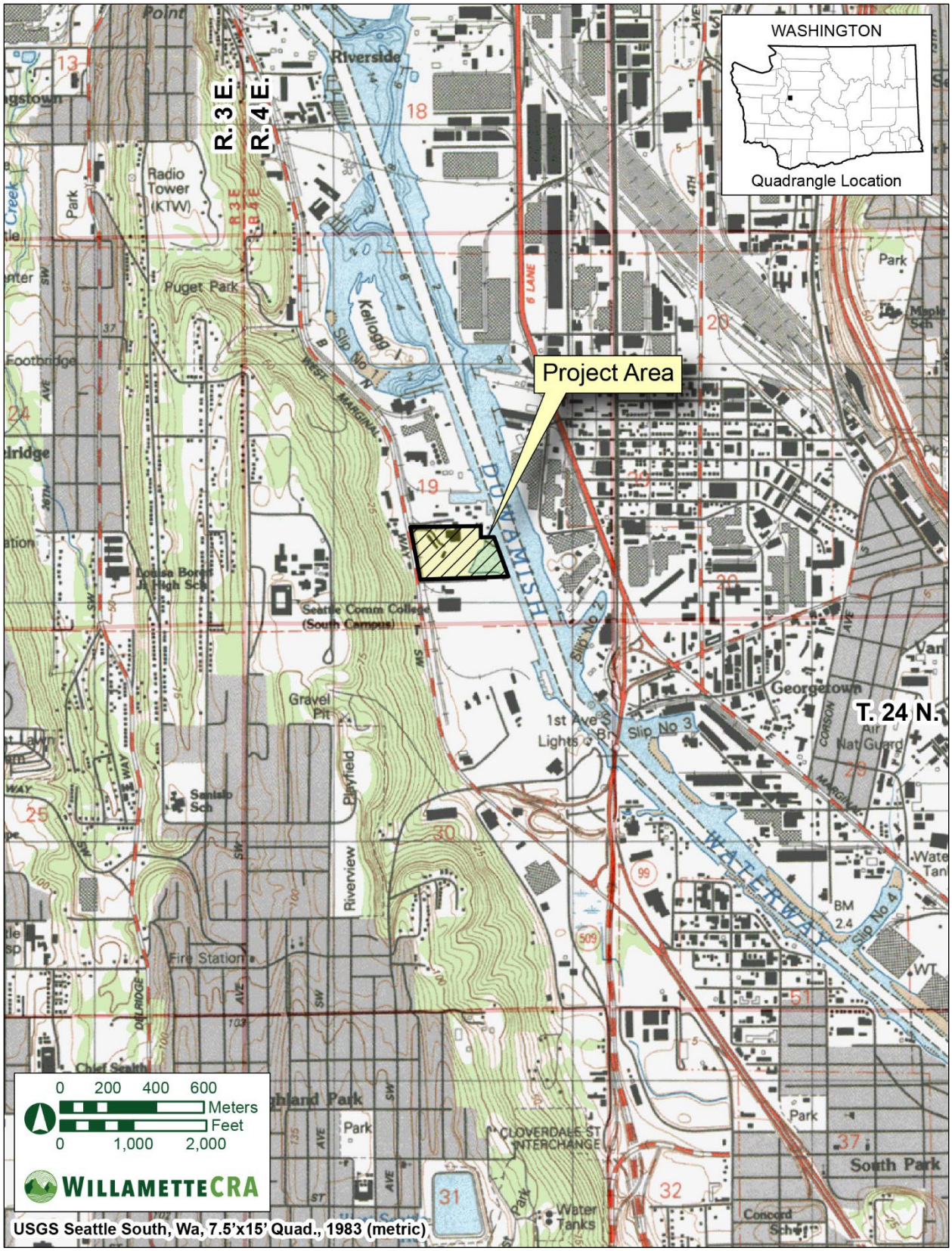

Figure 1. USGS quad map showing the Project Area location.

Figure 2. Aerial photograph of the Project Area.

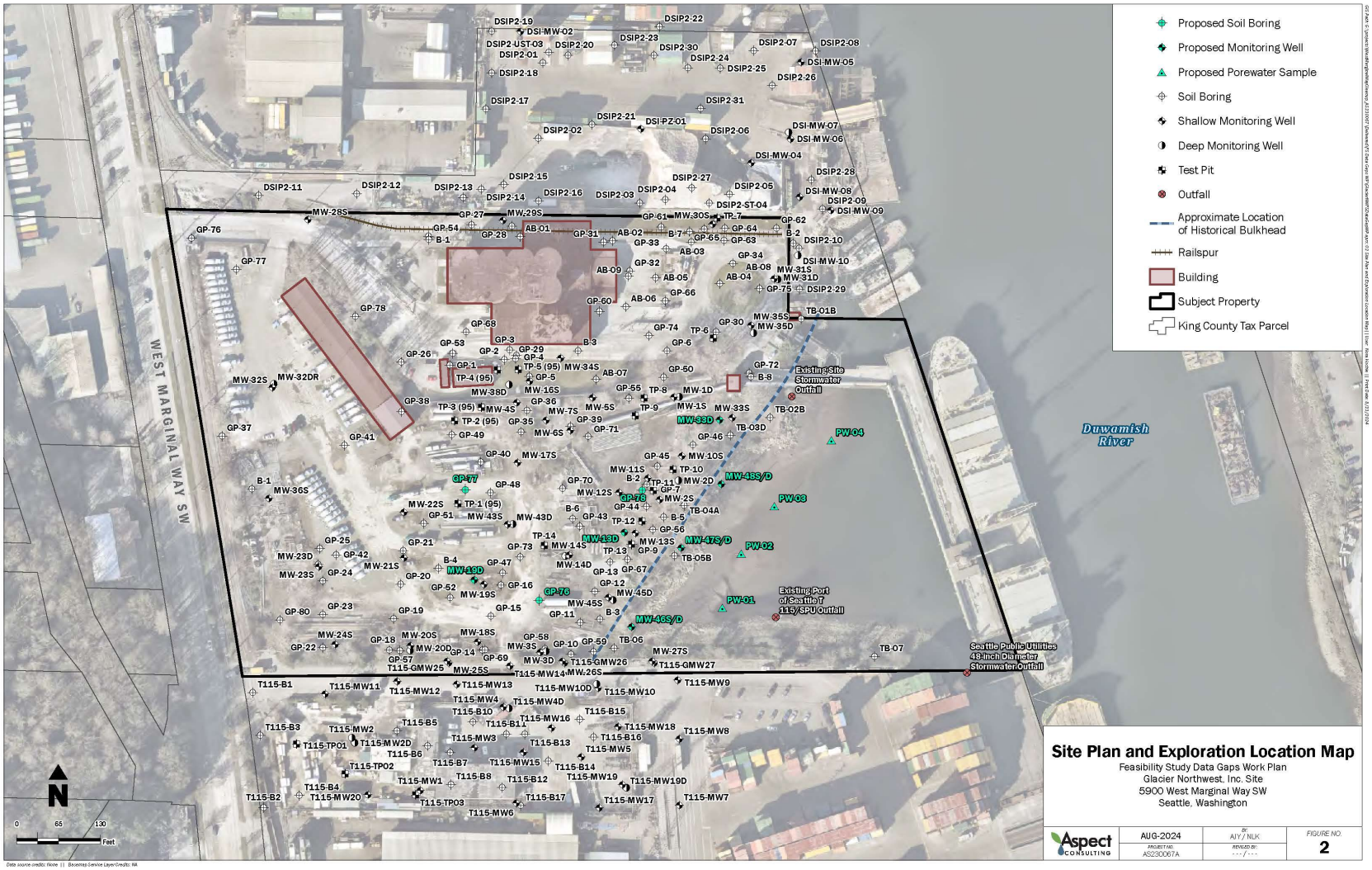

Figure 3. Previous boring locations and proposed WP boring locations (Courtesy of Aspect).

Natural and Cultural Background

The immediate vicinity of the Project is characterized by modern development that obscures many aspects of the natural environment that would have been more readily apparent prior to the mid-twentieth century, most critically the natural configuration of the lower Duwamish River prior to channelization that began in 1913. However, the character and stratigraphic relationships of intact naturally deposited sediments that remain below fill within the Project Area are highly informative of their potential to contain buried archaeological resources. In this section, the geological background is given in general terms.

In addition to the natural setting of the Project, our knowledge of the precontact cultural history and more recent history of Native American and European American settlement of this area also contributes to an assessment of the potential for archaeological remains to be impacted by ground disturbance in the Project Area.

Environmental Setting

The modern topography and surficial geology of the Puget Sound region is the result of multiple widespread continental glaciations that extended southward from British Columbia into the northern Puget Lowland and along the western flanks of the Cascade Range. Originating in the mountains of southwestern British Columbia, thick lobes of ice advanced southward several times during the Pleistocene Epoch between 1.8 million years ago and the beginning of the Holocene about 10,000 years ago. The latest glacial maximum, known in this region as the Vashon Stade of the Fraser glaciation, began about 17,000–18,000 years ago and ended abruptly with the onset of climatic warming about 14,000 years ago (Easterbrook 1993, 2003; Porter and Swanson 1998).

The outwash deposited during the southward advance of the Puget lobe of the Cordilleran ice sheet filled the Puget Sound basin forming an extensive low-lying area bounded on the west by the Olympic Mountains and the Cascade Range on the east. Sometimes called the “great lowland fill”, the surface of this fill rarely rises above 500 feet elevation (Booth and Goldstein 1994). Subglacial incision when the ice sheet overrode the advance outwash, and subglacial incision during the maximum extent and subsequent retreat of the ice sheet, created a number of large deep troughs and meltwater channels. As a result, the regional geomorphology is now dominated by well-defined north-trending troughs separated by extensive fluted drift uplands. At the regional scale, marine waters or freshwater lakes occupy the larger Pleistocene glacial troughs. The largest of these bodies of water in the Seattle metropolitan area include Puget Sound, the Duwamish-Green River valley, Lake Washington, and Lake Sammamish (Liesch et al. 1963; Yount et al. 1993).

Deglaciation of the Cordilleran ice sheet at the end of the Pleistocene was rapid and accompanied by the formation of a complex succession of meltwater channels and ice-marginal

lakes behind the retreating ice. With the rapid melting of the ice sheets at the end of the Pleistocene, global sea level rose rapidly from 390 feet below present sea level (bpsl) at the time of maximum glacial extent and was 30 feet bpsl by 7,000 years ago. By about 5,700 years ago, sea level was 16 feet bpsl but continued to rise, albeit increasingly more slowly to 3,000 years ago. At the same time global sea levels were rising, land formerly depressed under the weight of the ice experienced uplift as local isostatic rebound raised land levels as high as 197 and 262 feet above modern sea level throughout the Puget Lowland; however, the amount of rebound was considerably attenuated in the Seattle area and farther south because the ice was thinner at the southern margin of the ice. Uplift due to rebound appears to have finished by 9,000 years ago, and the rapidly rising global sea-level rise began to drown the early Holocene shorelines (Dethier et al. 1995; Dragovich et al. 1994; Thorson 1989).

In addition to glacial shaping of the Project landscape, eruptive events of Mt. Rainier have also contributed to the evolution of the lower Duwamish landscape. The largest lahar, or mud/debris flow originating on the slopes of a volcano, from Mt. Rainier in the last 10,000 years occurred about 5,700 years ago when a large-scale summit and flank collapse on Mount Rainier flowed down the White River drainage and spilled into the Green and Puyallup river drainages (Dragovich et al. 1994; Palmer 1997; Vallance and Scott 1997). In addition to introducing large amounts of sediment onto the floors of the marine embayments and contributing sediments to the existing bayhead deltas at Auburn and Alderton, erosion of sediments from the Osceola Mudflow and other smaller lahars originating from Mount Rainier contributed to ongoing post-lahar fluvial aggradation (building up) and delta progradation (building out). These deltas eventually filled the ancient Puyallup and Duwamish arms of Puget Sound to their present positions. The rapid fluvial incision and erosion of the Osceola Mudflow resulted in increased sediment loads, delta progradation and burial of the ancient Auburn delta as the White River delta advanced downstream toward the Duwamish Valley at an estimated rate of between 22 and 19 feet per year (Dragovich et al. 1994). The delta advancing down the Auburn embayment arrived near present-day Terminal 107 on the Duwamish River between 1520 and 2120 calibrated years before present (cal. BP) and marsh deposits set into the delta sand began forming by 780–930 cal. BP (Zehfuss et al. 2003).

In the nineteenth century, the Duwamish River exhibited a highly sinuous meandering channel configuration. To increase the commercial value of the river and its deltaic tidelands just south of downtown Seattle, tideland filling of the Duwamish delta in Elliott Bay began when Eugene Semple applied for a contract to fill in the tide lands of Elliott Bay in 1893. In 1894 Semple formed the Seattle and Lake Washington Waterways Company and from June 1895 to July 1897, the company reclaimed 175 acres of tide flats and began straightening the Duwamish River channel. After a hiatus of several years, channelization of the lower Duwamish downstream from the junction with the Black River near Renton commenced again. Between 1913 and 1916 the lower river channel from the mouth of the river and extending south to just below River Mile 6.5 near the East Marginal Way South Bridge was straightened and dredged to

navigable depths for ocean-going ships. The channelized river, now known as the Duwamish Waterway, reduced the length of the highly sinuous lower river from approximately 9 miles to a 4.5-mile-long 50-foot-deep navigation channel (Bagley 1916; Lewarch et al. 1996; Phelps 1978; Williams 2017:92–93, 96–97). The resulting dredge spoils were used to fill lowlands along the Waterway and to create Harbor Island at the entrance of the river into Elliott Bay.

The Project Area is along the modern-day left bank (looking downstream) of the Duwamish Waterway. This same area is shown on historic maps dating to 1862 just south of the tide flats of the meandering channel of the pre-channelized river. This area was in the transition zone within the Duwamish River delta. Delta fronts exhibit a diverse array of geomorphic features that form from the interaction between marine and fluvial processes. The subaerial (above-water) part of the delta is divided into upper and lower segments. The upper deltaic plain lies above the high-tide level and is the oldest part of the delta. This area is dominated by the floodplain of the river, which feeds sediments to the delta and is not affected by coastal processes. The lower deltaic plain occupies the intertidal zone, which is daily submerged by water during high tide and exposed during low tide. Consequently, this portion of the delta is affected by both fluvial and marine processes. The lower deltaic plain is characterized by distributary channels that branch and fan out over the delta surface.

The geological background of the Project Area provides additional context for the history of the landform, including whether there are buried surfaces that are stable enough to contain preserved cultural deposits. Soils throughout the Project are mapped as Urban land, 0 to 5 percent slopes (Natural Resources Conservation Service [NRCS] 2024). The surface geology of the Project has been mapped as Quaternary younger alluvium (Qyal), which consists of sand, silt, gravel, and cobbles deposited by streams and other kinds of running water (Troost et al. 2005).

Plants and Animals

Deltas and delta fronts in Puget Sound were highly productive for Native peoples prior to European American settlement by providing saltwater and freshwater fish, shellfish, waterfowl, terrestrial mammals, and a range of plant species useful for technical, food, and medicinal purposes (Kopperl et al. 2016). As seen in the vegetation growing along the water in the immediate Project vicinity today, the riparian corridor of the original course of the Duwamish River was similar to other vegetation communities across much of the Puget Lowland. These consist of forests of the *Tsuga heterophylla* (western hemlock) zone, which are characterized by western hemlock, western red cedar, and Douglas-fir with a dense shrub and herbaceous understory (Franklin and Dyrness 1988). Bigleaf maple and red alder are common in moist areas subject to disturbance. Stream courses and floodplains are dominated by red alder, black cottonwood, bigleaf maple, and other riparian species. Wetlands are common in river valleys where former stream channels have been filled and typically support willow, alder, cranberries, cattail, reeds, and wapato (Crawford et al. 1981).

The Puget Lowland historically supported substantial populations of large and small mammals including black-tailed deer, elk, black bear, rabbit, fox, wolf, mountain lion, muskrat, and beaver (Ingles 1965; Larrison 1970). Freshwater fish, both native and introduced, are resident in the Duwamish River basin (Wydoski and Whitney 2003). Anadromous salmonids historically used or travelled through the lower Duwamish River to spawn at different times during the spring, summer, and fall, including chinook, chum, and coho (Kerwin and Nelson 2000). Ducks, geese, and swans are seasonally abundant (Wahl and Paulson 1991), as are resident birds (Hunn 1982).

Precontact Background

Little archaeological evidence has been found so far associated with Late Pleistocene and early Holocene human occupation of the Puget Lowlands, although recent investigation at the Bear Creek site (45KI839), about 20 kilometers (km) northeast of the Project near the north end of Lake Sammamish, has contributed a substantial amount of data from intact archaeological deposits dating between about 10,000 and 12,500 years ago (e.g., Kopperl 2016). Aside from the Bear Creek site, knowledge of this period in the Puget Lowlands is limited to several isolated finds of artifacts diagnostic to this period but sparsely distributed across the region and lacking context. More common are Olcott sites, named after the type site in Snohomish County and found mostly on glacial outwash surfaces in the Puget Lowland and inland foothill valleys (e.g., Chatters et al. 2011; Kidd 1964). The distinctive Olcott stone tool assemblage consists of large, leaf-shaped and stemmed points and flake tools manufactured from locally available cobbles. These assemblages are usually interpreted as evidence of an early, highly mobile hunting and gathering adaptation. This pattern may have persisted for over 6,000 years and near its end is marked by increasing reliance on marine and riverine resources.

Prior to the Osceola mudflow and gradual in-filling of the Duwamish embayment starting in the mid-Holocene, the wide valley in which the Project is situated was open water near the mouth of that bay between Duwamish Island (which includes West Seattle) to the west and mainland to the east (Kopperl et al. 2016). The Project vicinity would have provided important fish and sea mammal subsistence resources at that time, for communities that would have been living on either side of the embayment.

Much of the contemporary Duwamish River–Green River Valley was filled with alluvial sediments after about 5,000 years ago, during which time larger human populations in the Puget Lowlands organized in more complex ways to utilize a wide range of locally available resources including large and small mammals, shellfish, fish, berries, roots, and bulbs, with an increasing emphasis on salmon over time. Shell middens containing large quantities of shellfish remains and marine fish and mammal bone are common on the saltwater shoreline. Ground stone, bone, antler, and shell tools became increasingly common and more diversified through time. Full-scale development of marine-oriented cultures on the coast and inland hunting, gathering, and riverine fishing traditions as represented in the ethnographic record are apparent

after about 2,500 years ago. Large semi-sedentary populations occupied cedar plank houses located at river mouths and confluences and on protected shorelines, as seen in several large-scale archaeological excavations completed along the lower Duwamish and former Black River channels (e.g., Campbell 1981; Chatters 1981, 1988; Schultze et al. 2013; URS Corporation and BOAS 1987). Artifacts made of both local and imported materials occur, indicating complex and diversified technologies for fishing, hunting, food processing, and storage. Wealth-status objects, status differentiation in burials, art objects, and ornaments are also represented during this period (e.g., Ames and Maschner 1999; Kopperl et al. 2016).

Ethnohistoric Background

The Project is in the traditional territory of the Duwamish, Lushootseed-speaking peoples that lived much of the year in villages on the shores of Elliott Bay, Lake Washington, Lake Union, and Salmon Bay, and on the banks of the Duwamish, Black, and Cedar rivers (e.g., Haeberlin and Gunther 1930; Thrush 2017). The Project is near several ethnographically recorded landscape features such as the Duwamish River and Elliott Bay. These areas were used as travel corridors, village locations, and seasonal camps for fishing, hunting, and plant gathering. The Green and White River people, ancestors of the present-day Muckleshoot and Suquamish, were neighbors of the Duwamish. The Duwamish also maintained kinship relationships with Native families residing on the east side of Lake Washington referred to in historic census documents as the “Lake Duwamish,” many of whose descendants are part of the contemporary Snoqualmie Tribe.

Like many other Puget Sound groups, the Duwamish traditionally followed a seasonal round that was tied to available resources. During the winter, people lived in villages of cedar plank houses where they held religious ceremonies and manufactured and repaired tools and other objects. Winter subsistence consisted of preserved and stored foods, especially salmon. At the end of winter, people dispersed to harvest seasonally available resources. Salmon, berries, shellfish, and other resources collected throughout the spring, summer, and fall were dried and brought back to the winter villages (Haeberlin and Gunther 1930; Lane 1975; Smith 1940).

A number of ethnographic place names near the Project were recorded by T. T. Waterman in 1920 and first published several years later (Waterman 1922). The following place names in Table 1, and shown in Figure 2, are located along the Duwamish River (*Duxuduwa*) within approximately one mile of the Project and are based on T.T. Waterman’s published manuscript. His work has since updated by Lushootseed speakers and linguists using symbols in the International Phonetic Alphabet (IPA), not available to Waterman during his time (Waterman et al. 2001). The results in the Project vicinity are listed below, using Waterman’s published map reference numbers, spelling and definition, along with the updated version (Figure 4; Table 1). The high amount of named ethnographic places in the Project vicinity and along the Duwamish indicate the importance of this area and the heightened probability of there being associated archaeological sites present.

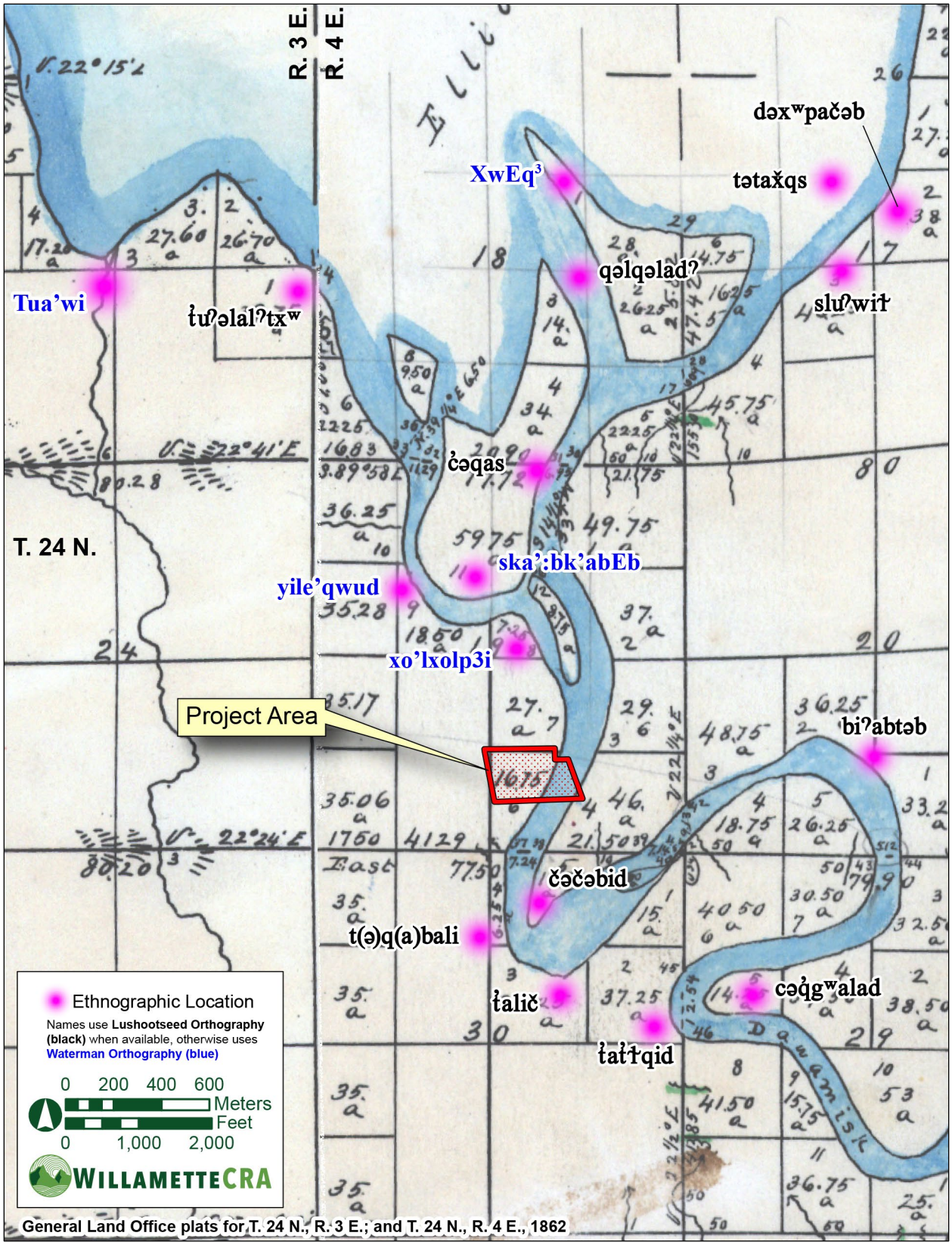

Figure 4. Ethnographic named places in the vicinity of the Project Area.

Table 1. Lushootseed Place Names Within Approx. 1 Mile of the Project.

Place/Location (Waterman 1922)	Waterman (1922) Orthography	Waterman (1922) Translation	Lushootseed (Waterman et al. 2001) Orthography	Lushootseed (Waterman et al. 2001) Translation
A little spit or beach at the edge of the easternmost of the mouths of the Duwamish River.	^{Tux}pa'ctEb	Spit	dəx^{w}pačəb	Place for setting things out
A small promontory on an island, said to have been used as a lookout point and stockade.	Tĕta'lks	-	tətalx̌qs	A little strong point
A slough passing south of #16; a grassy marsh intersected with channels through which canoes could be pushed.	Slu'wĭL	A perforation for a canoe	sluʔwiɬ	A perforation for a canoe; shortcut; canoe pass
Largest of the branches into which the Duwamish River divides at its mouth.	XwEq^{3}	Slough	-	-
A place on the western shore above the slough where many fir logs drifted and lodged, masking the shore.	Q!ulq!ula'di	Shaggy, or Tangled	qəlqəladiʔ	Uprooted tree/stump
A flat surrounded by water courses, rather marshy. Waterman informant lived here on a "float house" with his wife until they starved in 1920.	Ts!E'kas	Muddy	c̓əqas	Something dirty
Old village of Herring's House on the west bank of the Duwamish, at the foot of the bluff.	Tul'a'lt^{u}	Herring's House	t̓uʔələlʔtx^{w}	Same
Place name for Longfellow Creek, plotted over entire drainage.	Tua'wi	Trout	-	-
Old village site on west bank of river.	Yile'qwud	Basket cap	-	-
Spot at the south end of Harbor [Kellog's] Island.	Ska'bk!abEb	Backwater where there is no current	-	-
Level flat on the west side of the Duwamish.	Xo'lxolp3i	Grassy place	-	-
Spot on the western side of the Duwamish where a bend in the river washes the foot of the bluffs.	Tkba'le	Spot where they place an aerial net for trapping ducks	T(ə)q(a)bali	A place of blocking
Point of land on the east side of the river.	TcE'btcEbid	Fir trees on the ground	čəbčəbid	Fir trees
Slough cutting across to a point, where at high tide people made a short cut when going up the river.	TatL!qe'd	Head of the short cut	t̓at̓ɬqid	Across the forehead a little
Bank or cliff on the eastern side of the Duwamish; material is continually falling from the bank here.	Bia'ptEb	Dropping down; to fall	biʔabtəb	Ground dropping down
Sharp curve in the Duwamish R. below Georgetown [near present-day 1st Ave Bridge].	Ts!kwa'lad	Forked house post	cƟq'g^{w}alad	Same
Creek described by Waterman (1922)	-	Frame for drying fish	TaliV	-

Post-Contact Background

Seattle as a European American settlement was established in 1851 when a small group of settlers led by A.A. Denny and Charles Terry moved from Alki Point to a small lagoon in Elliott Bay, in the approximate location of the present-day King Street Station. The group built a store and a sawmill, and by 1853, 17 individuals or families had settled on Donation Land Claims along Elliott Bay and the lower Duwamish Valley. The Donation Land Act of 1850 allowed settlers to claim up to 320 acres of unsurveyed lands in Oregon Territory (and later California) with the expectation that they would live on the land and cultivate it for four years before earning the title. The Homestead Act of 1862 also provided European American settlers an avenue to acquire land cheaply. That legislation allowed any head of household to “prove up” 160 acres by living on the land and improving it for five years. Several settlers made Homestead and Donation Land claims in the Project vicinity. Other settlers purchased land through cash sales, and the State of Washington acquired land for statehood.

The Project Area is located on the west shore of the Duwamish River, a waterway that was channelized into its current alignment between 1913 and 1916. The Project Area was first mapped in a General Land Office (GLO) survey in 1862, which shows the Duwamish River as roughly in its modern location (Figure 3). A c. 1911 map prepared prior to straightening of the river shows the alignment of the river in this location as relatively unchanged (Figure 4). The easternmost monitoring wells for the Project are located at the edge of the shoreline during this time.

The Project Area was purchased by David W. Conklin in 1871 under the authority of the Homestead Act of 1862 (BLM 2024). By 1911 the Project Area was owned by R.S. Bridge & Dredge Co. and Ida A. Gillham (Figure 5). A 1926 atlas of King County depicts the Project Area as owned by Seattle Astoria Iron Works (Kroll 1926), and by 1936 is shown to be under ownership of King County (Metsker 1936).

The Project Area previously had a wood preserving facility, a U.S. Army plant that made activated charcoal for gas masks (and disposed of waste charcoal on the property), and a glue and resin manufacturing facility before being redeveloped as a cement terminal in the late 1960s. The Project Area has been regraded numerous times throughout its history, including as part of channelization and dredging of the Lower Duwamish Waterway in the early 1900s, between historical changes in chemical manufacturing operations in the mid-1940s (Figure 6), for construction of the cement terminal in the late 1960s (Figures 7 and 8), and construction and replacement of the dock. The Project Area itself has no standing historically developed buildings or structures besides the historic bulkhead constructed some time between 1913 and 1922 (Aspect 2024). It still operates as a cement terminal from the late 1960s to present.

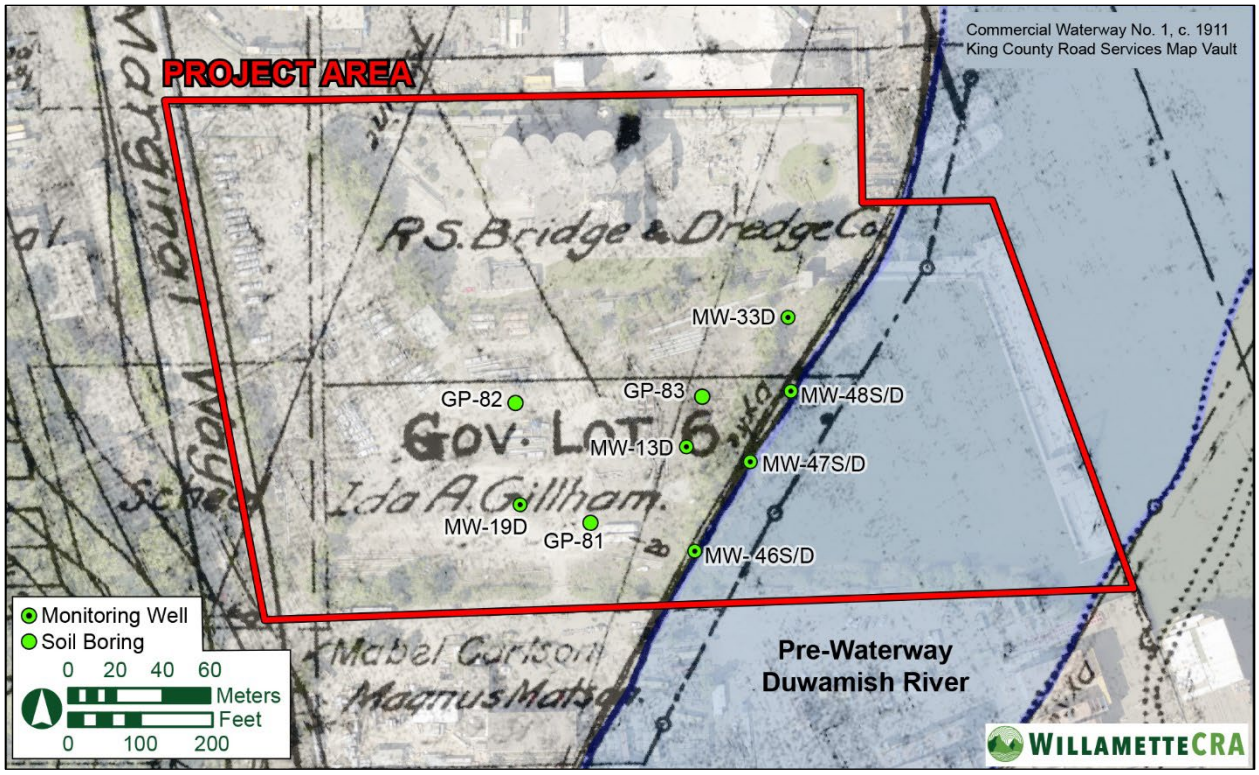

Figure 5. 1911 map depicting the Project Area and pre-Waterway Duwamish River.

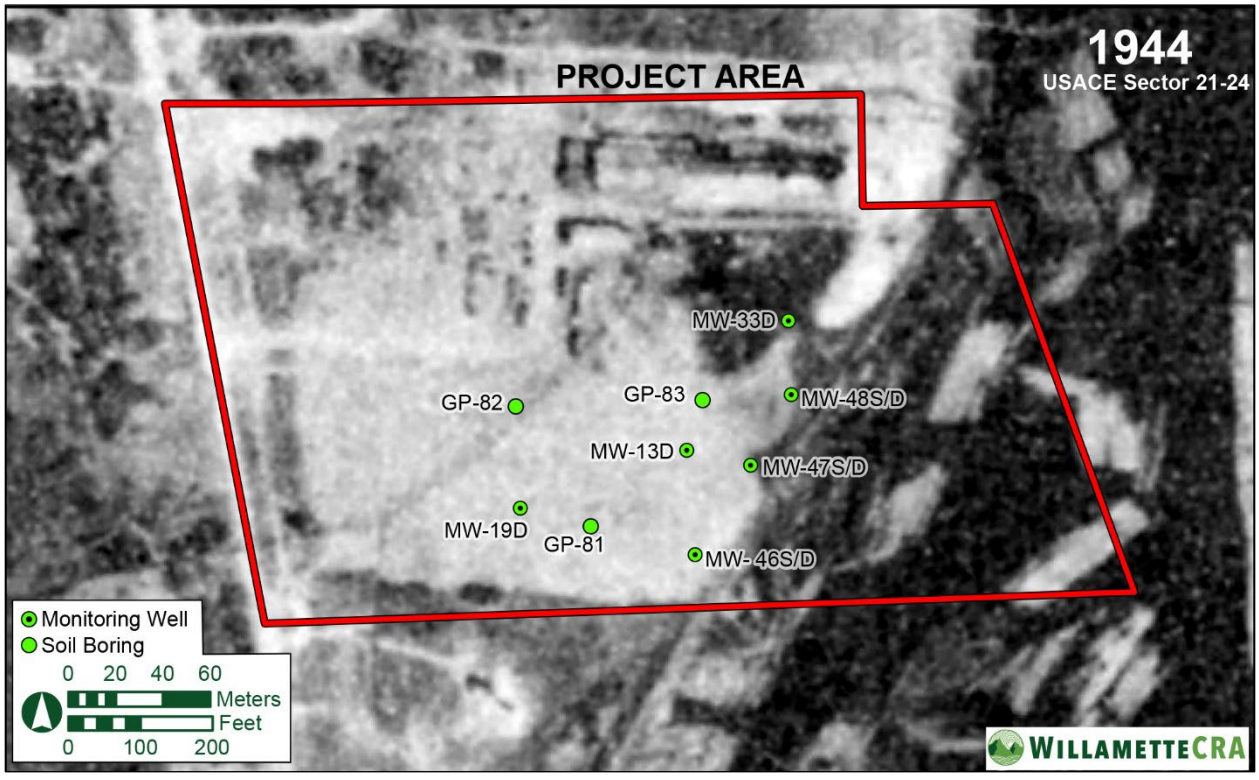

Figure 6. 1944 aerial photo of the Project Area.

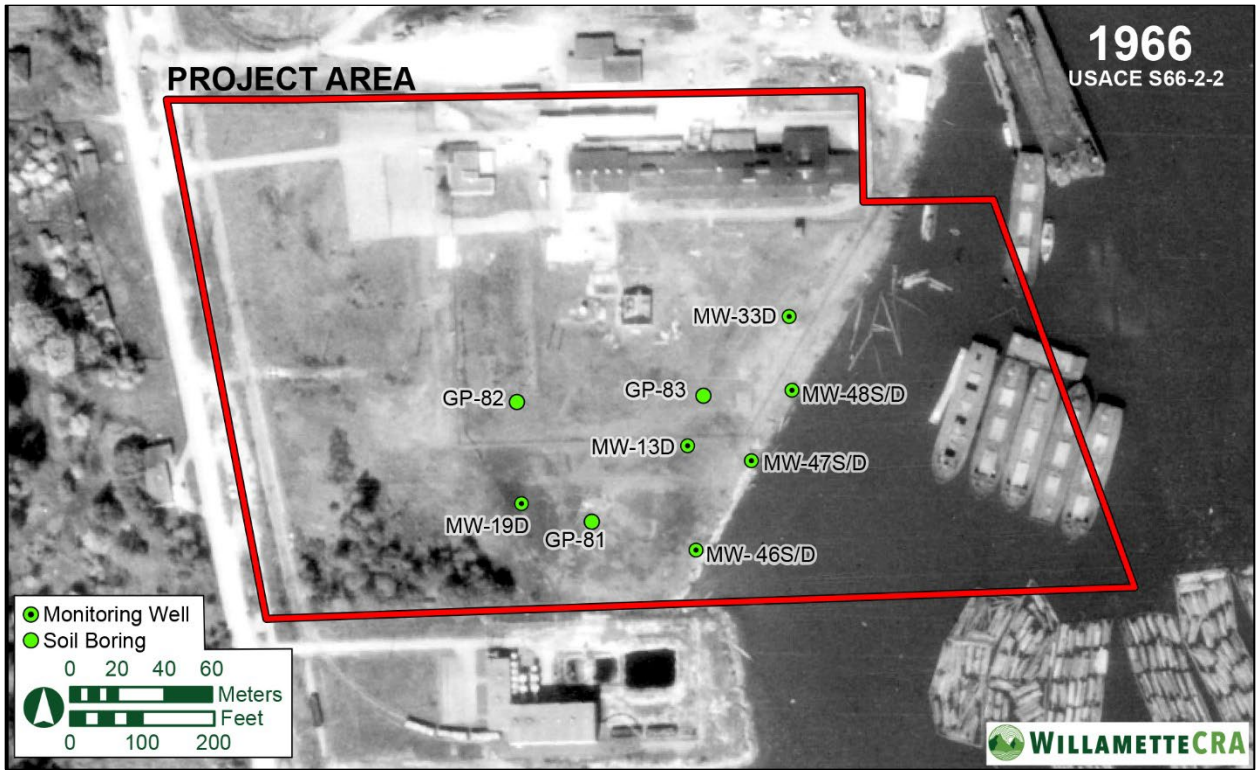

Figure 7. 1966 aerial photo of the Project Area.

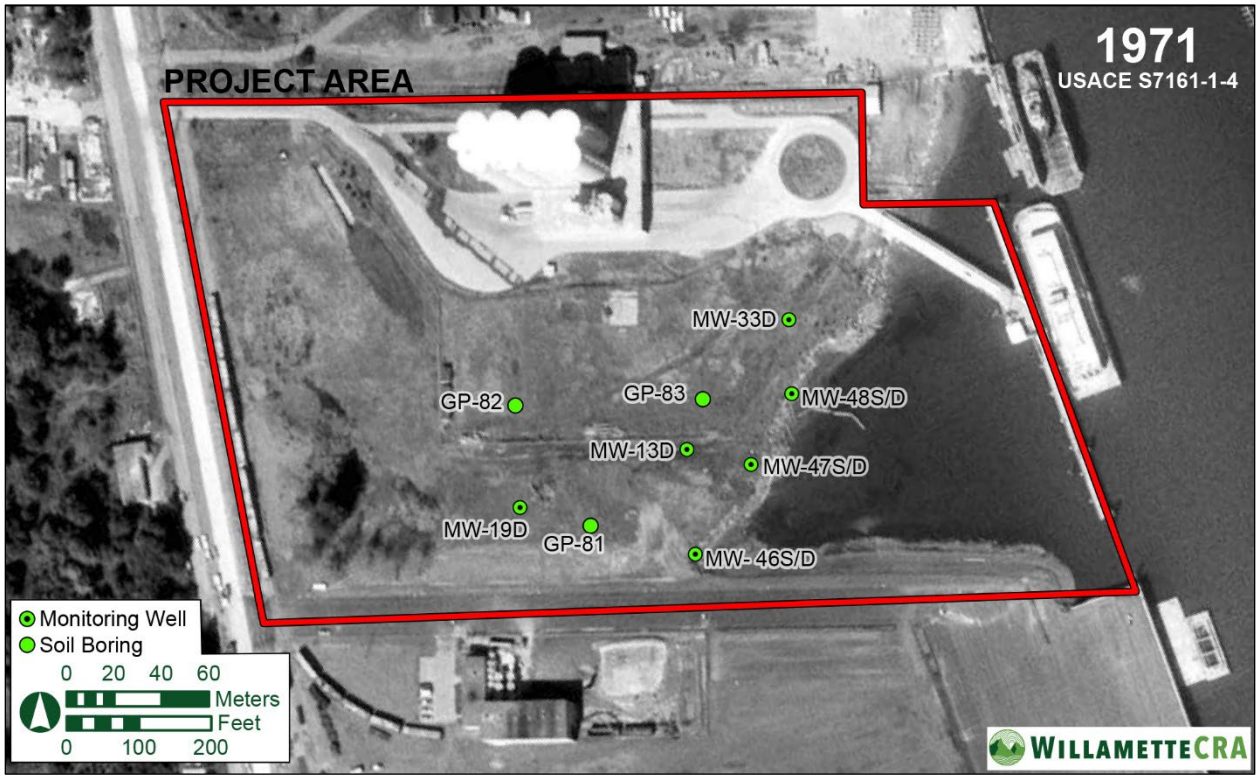

Figure 8. 1971 aerial photo of the Project Area.

Previous Archaeology

WillametteCRA reviewed records on file with the Washington State Department of Archaeology and Historic Preservation (DAHP) online database (WISAARD) to identify previous cultural resources studies and archaeological or historical resources recorded though December 4, 2024, in the Project vicinity. The WISAARD review indicated 22 cultural resources studies within 1 mile of the Project Area (Table 2). Four cemetery sites are within 1 mile of the project area. Eight archaeological sites have been recorded within 1 mile of the Project Area (Table 3). Sixteen historic properties are recorded within 0.5 mile of the Project Area (Table 4).

Twenty-two cultural resource investigations have been conducted within one mile of the Project Area, for various infrastructure, industrial, and residential projects (see Table 2). The closest investigation to the Project was archaeological monitoring of sediment borings for pre-design investigations for remediation in the middle reach of the Lower Duwamish Waterway (Cooper et al. 2024). Cultural materials observed during the monitoring included nondiagnostic glass and debris found in the top 10–30 centimeters (cm) of the probes (Cooper et al. 2024).

Table 2. Previous Cultural Resource Studies Within 1 Mile of the Project Area.

Author	Date	Project and Type of Investigation	Relation to Survey Area
Cagle and Nelson	2015	Survey: Archaeological Survey for Proposed Development at 4745 W Marginal Way SW, Seattle, Washington	0.82 mi. NW
Stipe	2013	Survey: SEA Corson – New Build	0.88 mi. SE
Darby	2014	Survey: Cultural Resources Assessment of the West Seattle WA Site 883094 Proposed Lease Area Expansion	0.48 mi. SW
Robbins et al.	1998	Survey: Seaboard Lumber Aquatic Restoration Project Seattle, King County Washington Cultural Resource Assessment	0.98 mi. N
Lewarch	2000	Monitoring: RE: Archaeological Monitoring for the Terminal 107 Public Shoreline Access Improvements Project and the Terminal 107 Intertidal Fish and Wildlife Habitat Restoration Project, King County, Washington	0.65 mi. NW
Rader	1998	Monitoring: Archaeological Monitoring of Exploratory Trenches Puget Creek Estuary Restoration Port of Seattle King County, Washington	0.61 mi. NW
Stipe	2007	Survey: Cultural Resources Review SEA Georgetown Alt. 2 Cellular Tower	0.55 mi. NE
Silverman et al.	2009	Survey: Cultural Resources Reconnaissance for Norfolk Water Quality Treatment Site and Puget Creek Natural Area City of Seattle, King County, Washington	0.74 mi. W
Silverman et al.	2009	Survey: Cultural Resources Assessment for Puget Creek Natural Area, City of Seattle, King County, Washington	0.65 mi. W

Table 2. Previous Cultural Resource Studies Within 1 Mile of the Project Area. (Cont.)

Author	Date	Project and Type of Investigation	Relation to Survey Area
Kelly	2012	Survey: Cultural Resources Assessment for the Seattle Iron & Metals Wharf Replacement Project, Seattle, WA	0.99 mi. SE
Ostrander et al.	2016	Monitoring & Survey: Georgetown Wet Weather Treatment Station Cultural Resources Assessment	0.34 mi. NE
Cagle	2017	Survey: Archaeological Survey for SDOT 2017 Arterial Asphalt & Concrete Paving (AAC) 005.59 Michigan & Vicinity Project	0.70 mi. SE
Peterson	2018	Monitoring: Results of Archaeological Monitoring of the SPU Drainage and Wastewater South Operations Center Tank Removal	0.96 mi. NW
Johnson	2020	Survey: Cultural Resources Assessment for the Lam Bow Apartments, Seattle, Washington	0.95 mi. SW
Bush and Humphries	2020	Survey: Archaeological Investigation for the East Marginal Way Corridor Design Improvement Project, King County, Washington	0.84 mi. SE
Cooper et al.	2024	Monitoring: Lower Duwamish Waterway Middle Reach Remedial Design Phase I Pre-Design Investigation Archaeological Monitoring Report	0.10 mi. SE
Gerrish and Cooper	2012	Monitoring: Archaeological Monitoring Report Federal Center South Building 1202 Redevelopment Project, King County, Washington	0.66 mi. N
Nelson	2014	Damage Assessment: RE: Monopole installation, 5960 1st Ave. So., Seattle	0.40 mi. E
Bush and Rowland	2013	Monitoring: Archaeological Monitoring Report: SPU Delridge CSO Retrofit Project NPDES 168	0.92 mi SW
Foutch et al	2009	Survey: Cultural Resources Study for the SR 99 Intelligent Transportation System Improvements Project	0.36 mi. E
Peterson	2017	Monitoring: Results of Cultural Resources Monitoring for the SPU Drainage and Wastewater South Operations Center, Seattle, King County, Washington	0.89 mi. NW
Wilson et al.	2024	Monitoring and Survey: West Duwamish Wet Weather Storage Project, Seattle, King County, Washington	0.52 mi. S

There are eight archaeological sites recorded within 1 mile of the Project Area; the closest sites are historic remnants of a cinder-block structure (45KI1419) and a historic debris scatter (45KI1364). The closest precontact site to the Project Area is 45KI23, also known as the Duwamish No. 1 Site. The precontact shell midden was found during monitoring of geotechnical test pits, with cultural deposits associated with 45KI23 generally covered with 50 cm of fill (Robbins et al. 1998). Human remains were also found at 45KI23.

There are four recorded cemeteries within 1 mile of the Project Area. Due to human remains at 45KI23 the site is listed as a cemetery site. 45KI1004 is another human remains cemetery site, found on the bank of the Duwamish near Fox Avenue, 0.71 miles southeast on the east side of the waterway (DAHP 2010). In addition to these two sites, the King County Hospital and Poor Farm (45KI1158) is located 0.86 miles southeast and the King County Crematorium and Columbarium (45KI1159) is located 0.96 miles southeast, both on the east side of the waterway. None of these cemetery sites will be impacted by Project activities.

There are sixteen historic properties within 0.5 miles of the Project Area. One of these properties, Gorst Field, was an airfield used for Boeing Company test flights and by Pacific Air Transport in the early twentieth century (Corley 1969). The site was used by the Ideal Cement Company in 1969, now known as Lafarge Seattle. No historic properties will be impacted as a result of Project activities.

Table 3. Previously Identified Archaeological Sites Within Approx. 1 Mile of the Project Area.

Site No.	Site Name	Site Type	Relation to Project Area	Significance
45KI1364	-	Historic debris scatter/concentration	0.60 mi. SE	Determined Not Eligible
45KI1419	Georgetown Cinder Block Ruin	Historic structures	0.60 mi. SE	Determined Not Eligible
45KI1363	-	Historic debris scatter/concentration	0.61 mi. SE	Determined Not Eligible
45KI1577	Marginal Way Auto Wreckers Site	Historic debris scatter/concentration	0.62 mi. SE	Determined Not Eligible
45KI1019	Diagonal Avenue Medical Waste Refuse Site	Historic debris scatter/concentration	0.68 mi. N	No Determination
45KI1020	Federal Building Ballast Stone Site	Historic Commercial Property, historic debris scatter/concentration	0.73 mi. N	No Determination
45KI23	Duwamish No. 1 Site	Precontact Camp/Shell Midden	0.74 mi. NW	Listed on National Register of Historic Places, Washington Heritage Register
45KI1385	Trotskey Property	Historic debris scatter/concentration, Historic maritime properties, Historic structures	0.75 mi. SE	Determined Not Eligible

Table 4. Prev. Identified Historic Properties Extant Within 0.5 Mile of the Project Area.

Resource ID	Resource Name	Site Type	Relation to Project Area	Significance	Evaluation Date
43952	Chemithon	Building	0.27 mi. NW	No Determination	1979
70056	Gorst Field	Historic airfield	0.34 mi. NW	Listed on Washington Heritage Register	1969
713508	Rainier Hall	Building	0.38 mi. W	Determined Eligible	2017
665874	South Seattle Community College	Building	0.45 mi. SW	Determined Not Eligible	2012
43933	Northwestern Glass Co.	Building	0.30 mi. NE	Determined Not Eligible	2008
732024	Pacific Oil Mills	Building	0.38 mi. NE	No Determination	2023
716094	Manson Construction Company Shed 1	Building	0.45 mi. NE	No Determination	2018
716096	Manson Construction Company Shed 2	Building	0.45 mi. NE	No Determination	2018
537647	Manson Construction Storage Warehouse	Building	0.46 mi. NE	No Determination	2010
732023	-	Building	0.46 mi. NE	No Determination	Unknown
735163	Argo Manufacturing Company	Building	0.42 mi. NE	No Determination	2024
342066	Seattle Oxygen Company	Building	0.40 mi. NE	No Determination	2023
675306	Dawson Machinery Co.	Building	0.44 mi. NE	No Determination	2016
342856	Savage Metal Products Co.	Building	0.48 mi. NE	No Determination	2011
716148	Jordan Terminal	Building	0.50 mi. NE	No Determination	2018
342317	Sears Roebuck & Co. Warehouse	Building	0.47 mi. E	No Determination	2011

Previous Geotechnical Investigations

Previous site characterization borings indicate that there are various fill deposits dating from 1913 to the late 1960s across the Project Area, ranging in thickness from 3 to 14 feet below ground surface (fbs; and often deposited on top of each other; Aspect 2024). Native alluvial or colluvial deposits are present at depths of 1.5 to 12.5 fbs, and overlie a native floodplain/tidal deposit (referred to as the Silt Aquitard), alluvial sands, tidal flat deposits, and a glaciolacustrine deposit (Aspect 2024).

Between 1964 and 1965, 10 geotechnical borings were advanced to depths of 160 fbs. At least 86 temporary soil borings, generally to less than 30 fbs, were conducted between 1990 and 2014. In 1995, 14 test pits up to 5 fbs were excavated. Between 1995 and 2014, 45 monitoring wells were installed to depths between 10 and 26 fbs.

In 2024, a geotechnical investigation was conducted at the Project Area with cone penetration tests (CPT), and two drilled deep borings. The borings extended to approximately 141.5 and 181.5 fbs. These borings encountered fill extending from 8 to 9 fbs overlying alluvium native sediments (Aspect 2024).

Expectations for Cultural Resources

Prior to ground disturbing activities associated with the project, WillametteCRA reviewed archaeological and site inventory records using the Washington Information System for Architectural and Archaeological Records (WISAARD) maintained by the DAHP. The state's Predictive Model classifies the Project parcel as having a very high potential to encounter precontact cultural resources. There are eight archaeological sites recorded within 1 mile of the Project Area; the closest sites are historic remnants of a cinder-block structure (45KI1419) and a historic debris scatter (45KI1364). There are also four recorded cemeteries within 1 mile of the Project Area; all besides 45KI23 are located on the opposite side of the Duwamish River.

Due to the Project Area's location in an area that has been heavily disturbed by historic industrial and commercial activities, expectations for intact precontact cultural materials are low. Due to the Project Area's location in an area previously disturbed for industrial manufacturing, it is expected that Project activities may encounter historic archaeological materials associated with industrial or commercial activities, such as waste charcoal that was disposed of on the property.

Field Methods

WillametteCRA staff followed monitoring protocols described in the MIDP for the site feasibility study (WillametteCRA 2024). Monitoring documentation included recording observations of the environmental setting, field conditions, contacts, boring and sampling methods, and sediments encountered on standard forms. Digital photographs of the location and various stages of the feasibility study were taken and recorded on photograph logs. Staff also used GPS to map the locations of monitored subsurface sampling locations.

Results

Feasibility study drilling was conducted from November 18 to 25, 2024, by Cascade Drilling, L.P. under the direction of Aspect using a sonic JT3Y78 drill. Boreholes ranged from 4 to 8 inches wide, depending on the depth of the desired sample. Aspect staff under the direction of a licensed geologist examined the soil cores, logged information, and collected soil samples as they were retrieved. Nine monitoring wells (MW-13D, 19D, 33D, 46S, 46D, 47S, 47D, 48S, and 48D) and three soil borings (GP-81 through 83) were drilled (Figure 9). Monitoring wells and soil borings used the same drilling and sampling techniques. The environmental boring was monitored by WillametteCRA archaeological monitors Julia Kunas and John Montine. Monitors were onsite during the shallow monitoring well drilling, but only recorded observations for shallow wells that extended into native soils (MW-46S).

The Project Area, which is currently used for parking and storage by Glacier, is mostly cleared and covered with gravel (Figure 10). Closer to the Duwamish Waterway, the shoreline is more vegetated with riparian species although the shoreline is still heavily modified due to historical industrial activities (Figure 11). During monitoring the weather conditions were 40–50 degrees Fahrenheit, and ranged from partly cloudy to rainy.

WillametteCRA reviewed Aspect Consulting boring logs to confirm WillametteCRA field descriptions of each observed boring. Full descriptions of monitored boreholes are included in Appendix A. In general, all boreholes contained several feet of fill at the surface, likely imported fill or redeposited alluvium. In this phase of investigation this fill layer extended from 5 to 8 fbs. Nondiagnostic debris was observed in several boreholes within the fill layer (Figure 12; Appendix A). This fill level typically overlaid a sandy dredge fill deposit to about 11 to 12 fbs with a silty tidal flat deposit extending to about 15–24 fbs. This tidal flat deposit often had trace pieces of non-cultural organic debris, and in the case of MW-48D the remnants of a potential buried surface at about 9–10 fbs (Figures 14 and 15). Underneath the tidal flat deposit was sandy alluvium with occasional interbedded sand (Figure 13). This alluvium appeared to extend to the furthest depth of the probes at 40 fbs, although it tended to become slightly siltier around 35–40 fbs.

Regarding the potential buried surface in MW-48D at about 9–10 fbs, a buried surface is an organic-laden soil layer that indicates a location that may have once been a stable ground surface, which has the potential to contain archaeological deposits. The organics appeared to be moderately decayed vegetation. Although the buried surface did not appear cultural, the buried surface may represent a stable portion of the landform from before the river was straightened.

Besides nondiagnostic debris found within the fill, no archaeological materials were observed during monitoring.

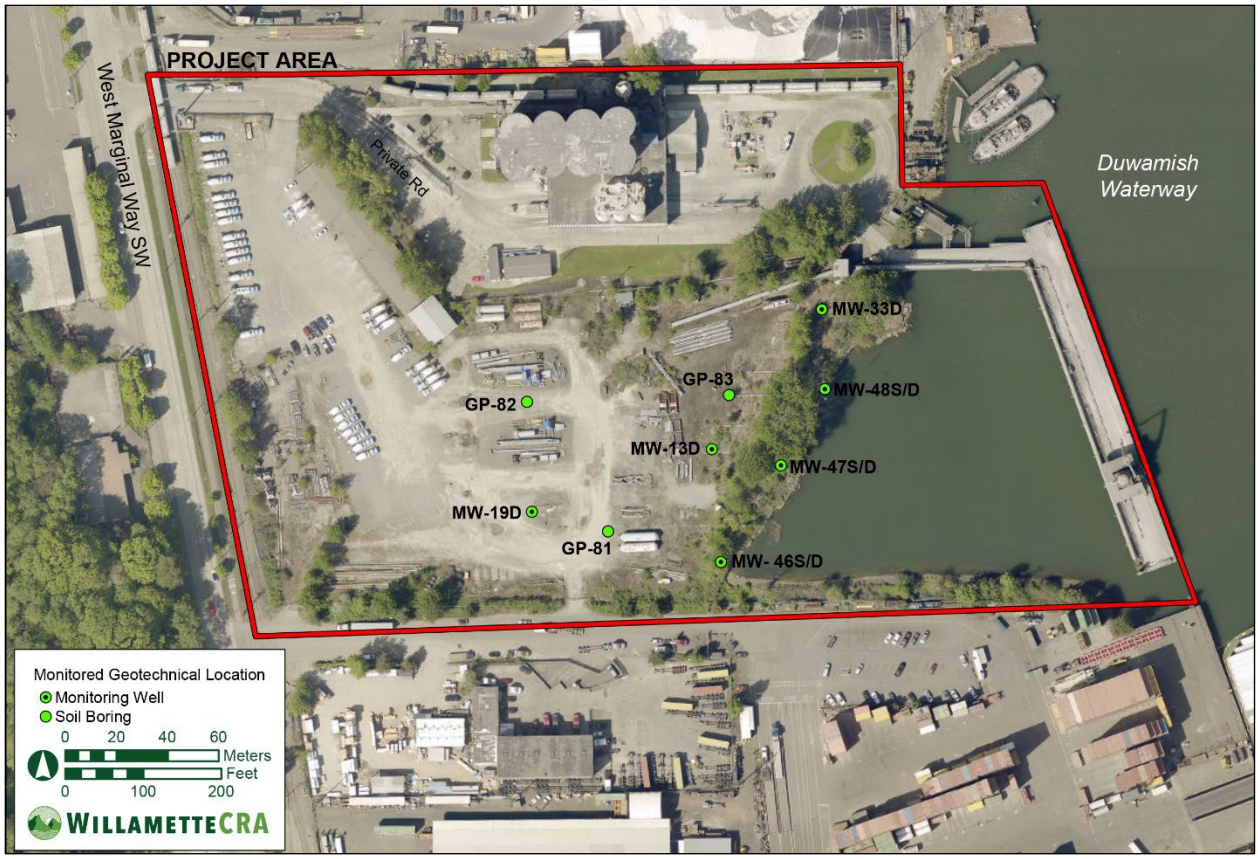

Figure 9. Locations of monitored borings.

Figure 10. Southwest overview of GP-82.

Figure 11. East overview of MW-33D.

Figure 12. GP-81, 0 to 5 fbs, different fill deposits (top is on the right).

Figure 13. Alluvium from GP-83, 30–35 fbs (bottom) and 35–40 fbs (top).

Figure 14. Closeup of organics in tideflat deposit in GP-82 at about 12.5–13 fbs.

Figure 15. Closeup of potential buried surface in MW-48D at about 9 fbs.

Interpretation

Between 8 to 12 feet of historic fill is known to be present across the Project Area based on the results of earlier geotechnical investigations and this archaeological monitoring. The presence of diffuse, nondiagnostic historic debris within the fill is expected and likely represents the use of the property between the 1940s and 1960s by former and current businesses. Absent of diagnostic artifacts, features such as foundations, or any stratification of deposits within the fill, none of the observed materials suggest a historic archaeological site.

Based on the presence of observed buried surfaces in one borehole, it is possible that there are portions of the native landform that have the potential for precontact archaeological resources, although no precontact cultural resources were observed. Nearby precontact archaeological sites have dense, thick deposits containing shell, fishbone, and charcoal. Nothing like this was present in any boreholes. This suggests that either the landform was not utilized—or utilized less intensively—by the people who inhabited the nearby sites, or that if archaeological deposits were present, they were removed during the realignment of the Duwamish River or other historic land modifications.

Conclusions and Recommendations

Generally, WillametteCRA recommends archaeological monitoring of ground disturbing activity expected to reach native soils and/or sand in the Project Area, which is approximately 8 fbs. If historic cultural resources such as an extensive intact brick pavement surface or building foundations are encountered above 8 fbs, work should stop, and an archaeologist should be notified.

Based on the results of the monitored Feasibility Study subsurface investigation, WillametteCRA recommends that remediation tasks within the upper 7 feet of soil can proceed without further cultural review. If remediation and/or ground disturbance is planned to extend deeper than 7 feet, the remediation plans should be reviewed and the MIDP updated if necessary. Additional monitoring and an addendum to the MIDP of any subsequent phases may be recommended during any remedial activities or future investigations depending on the planned activities and input from DAHP and Affected Tribes.

In the unlikely event that human remains are encountered at any time, state law (RCW 27.44.055) requires all activity to cease that may cause further disturbance to those remains, and the area of the find secured and protected from further disturbance. The finding of human skeletal remains will be reported to the King County Medical Examiner in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The Medical Examiner will assume jurisdiction over the human skeletal remains and determine whether those remains are forensic or non-forensic. If the Medical Examiner determines the remains are non-forensic, they will report that finding to the DAHP, who will take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist will determine whether the remains are Indian or Non-Indian, and report that finding to any appropriate cemeteries and the affected tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

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Appendix A:
Summary of Geotechnical Boring Results

Appendix A. Summary of Geotechnical Boring Results.

Boring #	Depth (fbs)	Sediment Characteristics	Cultural Material
GP-81	0–4	Fill	Wood debris at 4–5 fbs
	4–11.5	Sandy dredge fill	None
	11.5–20	Grayish-brown tidal silt, some decayed organics and manure at about 12 fbs	None
	20–33	Dark gray coarse sand with trace pebbles, interbedded silt at about 22–23 fbs	None
	33–40	Dark brownish-gray very fine sandy silt alluvium	None
GP-82	0–7.5	Fill	None
	7.5–11	Sandy dredge fill	None
	11–24	Grayish-brown silt tidal deposit with trace interbedded sand, some decaying organics at 12–13 fbs, tidal deposit	None
	24–38	Dark gray medium sand, non-cultural wood debris at about 27 fbs, alluvium	None
	38–40	Dark gray silty sand, alluvium	None
GP-83	0–5	Fill	Plastic debris at 2 fbs
	5–9.5	Sandy dredge fill	None
	9.5–17.5	Grayish-brown to brown native soil to silt tidal deposits, trace woody debris throughout	None
	17.5–34	Coarse gray sand, alluvium	None
	34–40	Gray sandy silt with trace organics, alluvium/tidal	None
MW-13D	0–6.5	Fill	Wood debris throughout
	6.5–11.5	Sandy dredge fill	None
	11.5–19	Dark gray to yellowish-gray silty fine sand tidal deposit, common decomposing organics	None
	19–40	Dark gray coarse sand alluvium, occasional interbedded silt	None
MW-19D	0–6	Fill	None
	6–12	Sandy dredge fill	None
	12–20	Yellowish-brown silt tidal deposit, lens of organics at 12–12.5 fbs	None
	20–35.5	Dark gray coarse sand alluvium	None
	35.5–40	Dark gray silty fine sand alluvium	None

Appendix A. Summary of Geotechnical Boring Results. (Cont.)

Boring #	Depth (fbs)	Sediment Characteristics	Cultural Material
MW-33D	0–5	Concrete and fill	Styrofoam fragment at 4 fbs
	5–10.5	Sandy dredge fill	None
	10.5–18	Medium brown sandy silt to silt tidal deposit, woody debris at 13–15 fbs	None
	18–34	Gray medium-fine to coarse sand with interbedded silt alluvium	None
	34–40	Very fine sandy silt to sand alluvium	None
MW-46D	0–12.5	Varying fill deposits (poor recovery)	None
	12.5–17	Gray silt, tidal deposit	None
	17–20	Interbedded gray medium coarse sand and silt	None
	20–35	Coarse gray sand alluvium with trace pebbles	None
	35–40	Gray very fine silty sand with trace pebbles, alluvium	None
MW-46S*	0–12.5	Fill	Trace brick fragments
	12.5–17	Gray silt tidal deposit, organic debris throughout (well installed at 13 fbs)	None
MW-47D	0–17	Fill	Nail at 7 fbs
	17–20	Gray silt tidal deposit	None
	20–40	Gray coarse sand with few pebbles, alluvium	None
MW-48D	0–8.5	Fill, potentially mixed in dredge fill at 2-5 fbs	Trace brick debris at 2–3 fbs
	8.5–16	Gray silt tidal deposit, potential buried surface at about 9 fbs, trace rootlets throughout	None
	16–40	Gray coarse sand alluvium, slightly finer at 37.5–40 fbs	None

* shallow well checked due to extending into native

APPENDIX C
BORING LOGS

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, SW corner of site		*Coordinates (NAD83)* E:1267563 N:203742 (est)	*Exploration Number* **GP-81**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 17' (est)	
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/18/2024 to 11/19/2024	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=4 ppm PID=0.1 ppm Sheen=None		**SHALLOW FILL** SILTY SAND WITH GRAVEL (SM); dark gray to gray, slightly moist; fine to coarse sand; fine to coarse, angular gravel; no chemical-like odor.	
					XRF-As=32 ppm PID=0.0 ppm Sheen=Slight		Becomes gray.	
	15			GP-81-1-3	XRF-As=56 ppm PID=0.0 ppm Sheen=Slight		Increased silt content. Becomes black, potential spent carbon.	
		3/8 inch NSF 60 bentonite chips			XRF-As=< 1 ppm PID=0.1 ppm Sheen=None		WOODY DEBRIS; brown to yellow brown, slightly moist; less than 1" diameter wood pieces with sawdust; no chemical-like odor.	
					XRF-As=22 ppm PID=0.1 ppm Sheen=Slight		**DREDGE FILL** SAND WITH SILT (SP-SM); black, slightly moist; fine to medium sand; some fibrous wood debris throughout; no chemical-like odor.	
5					XRF-As=47 ppm PID=0.0 ppm Sheen=None			5
					XRF-As=34 ppm PID=0 ppm Sheen=None			
	10	▽ 11/18/2024			XRF-As=61 ppm PID=0 ppm Sheen=Slight		Becomes wet.	
					XRF-As=288 ppm PID=0.0 ppm Sheen=Slight			
				GP-81-8-10	XRF-As=273 ppm PID=0.0 ppm Sheen=None			
10					XRF-As=118 ppm PID=0.0 ppm Sheen=None			10
				GP-81-10-12	XRF-As=719 ppm PID=0.0 ppm Sheen=Slight			
	5				XRF-As=273 ppm PID=0.0 ppm Sheen=Moderate		**NATIVE SOIL** SILTY SAND (SM); black, wet; fine to medium sand; fine, subrounded to subangular gravel; no chemical-like odor; layer of moisture above silt at 12 ft bgs.	
		10-in diam. conductor casing set at 14 ft bentonite seal set 12-15 ft.		GP-81-12-14	XRF-As=171 ppm PID=0.0 ppm Sheen=None		**SILT AQUITARD** SILT (ML); dark gray brown mottled black, moist; low to medium plasticity; high organic content; no chemical-like odor.	
					XRF-As=9 ppm PID=0.0 ppm Sheen=None		SANDY SILT (ML); gray brown, moist; low plasticity silt; fine sand; no chemical-like odor.	
15					XRF-As=81 ppm PID=0.0 ppm Sheen=None			15
					XRF-As=59 ppm PID=0.0 ppm Sheen=None		SILTY SAND (SM); gray brown, moist; fine sand; no chemical-like odor.	
	0				XRF-As=580 ppm PID=0.0 ppm Sheen=Slight		SANDY SILT (ML); gray brown, moist; low plasticity; no chemical-like odor.	
				GP-81-17-19	XRF-As=3 ppm PID=0.0 ppm Sheen=Slight			
					XRF-As=7 ppm PID=0.0 ppm Sheen=Slight			
20					XRF-As=17 ppm PID=0.0 ppm Sheen=Slight		**ALLUVIAL SAND** SAND WITH SILT (SP-SM); black, wet; fine to medium sand; no chemical-like odor.	20

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-81
Sheet 1 of 2

DRAFT

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, SW corner of site		*Coordinates (NAD83)* E:1267563 N:203742 (est)	*Exploration Number* **GP-81**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 17' (est)	
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/18/2024 to 11/19/2024	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 7' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							SILTY SAND (SM); dark brown, wet; fine to medium sand; no chemical-like odor.	
	-5			GP-81-21-23	XRF-As=5 ppm PID=0.1 ppm Sheen=Slight		SAND (SP); black, wet; fine to medium sand; no chemical-like odor.	
25					XRF-As=3 ppm PID=0.0 ppm Sheen=None			25
	-10				XRF-As=3 ppm PID=0.0 ppm Sheen=None			
				GP-81-28-30				
30					XRF-As=2 ppm PID=0.0 ppm Sheen=None			30
	-15				XRF-As=6 ppm PID=0.0 ppm Sheen=None			
				GP-81-32-34			SILTY SAND (SM); dark gray brown, wet; fine sand; no chemical-like odor.	
35					XRF-As=2 ppm PID=0.0 ppm Sheen=None			35
	-20				XRF-As=< 1ppm PID=0.1 ppm Sheen=None			
				GP-81-38-40	XRF-As=< 1ppm PID=0.1 ppm Sheen=None			
40							Bottom of exploration at 40 ft. bgs.	40

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-81
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center of site		Coordinates (NAD83): E:1267449 N:203913 (est)	Exploration Number: GP-82
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 17' (est)	
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/18/2024	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=17 ppm PID=0.2 ppm Sheen=Slight		**SHALLOW FILL** SILTY SAND WITH GRAVEL (SM); gray brown, slightly moist; fine to coarse sand; fine to coarse, angular gravel; no chemical-like odor. Becomes dark brown.	
	15				XRF-As=5 ppm PID=0.1 ppm Sheen=None		SILTY GRAVEL WITH SAND (GM); gray brown, slightly moist; fine to coarse, subrounded to angular gravel; fine to coarse sand; cobble sized concrete debris; no chemical-like odor.	
		3/8 inch NSF 60 bentonite chips			XRF-As=19 ppm PID=0.7 ppm Sheen=None			
				GP-82-2-4	XRF-As=10 ppm PID=0.4 ppm Sheen=Slight		GRAVEL WITH SILT AND SAND (GP-GM); gray, wet; fine to coarse, angular gravel; fine to coarse sand; no chemical-like odor.	
5					XRF-As=15 ppm PID=0.0 ppm Sheen=Slight		SILTY SAND WITH GRAVEL (SM); black, moist; fine to medium sand; fine to coarse, rounded to subrounded gravel; 20% silt decreasing with depth; no chemical-like odor.	5
					XRF-As=7 ppm PID=0.2 ppm Sheen=Slight			
	10				XRF-As=39 ppm PID=0.2 ppm Sheen=Slight		**DREDGE FILL** SAND (SP); black, very moist to wet; fine sand; no chemical-like odor. Becomes wet.	
		11/18/2024		GP-82-7-9	XRF-As=48 ppm PID=0.2 ppm Sheen=Slight			
					XRF-As=53 ppm PID=0.1 ppm Sheen=Slight			
10					XRF-As=14 ppm PID=0.1 ppm Sheen=None			10
					XRF-As=5 ppm PID=0.2 ppm Sheen=Slight		**SILT AQUITARD** SILT (ML); light brown with black mottling, moist; low to medium plasticity; significant organic content (wood fiber); slight hydrogen sulfide odor.	
	5			GP-82-11-13	XRF-As=6 ppm PID=0.1 ppm Sheen=Slight			
					XRF-As=5 ppm PID=0.3 ppm Sheen=None		0.25 in sand layer.	
		10-in diam. conductor casing set at 14 ft bentonite seal set 12-15 ft.			XRF-As=8 ppm PID=0.4 ppm Sheen=None		SAND WITH SILT (SP-SM); dark brown, wet; fine sand; some less than 0.25 inch silt layers; trace roots; no chemical-like odor.	
15					XRF-As=5 ppm PID=0.3 ppm Sheen=None			15
				GP-82-15-17	XRF-As=4 ppm PID=0.1 ppm Sheen=None			
	0				XRF-As=1 ppm PID=0.0 ppm Sheen=None			
					XRF-As=2 ppm PID=0.0 ppm Sheen=Slight			
					XRF-As=3 ppm PID=0.0 ppm Sheen=None		SANDY SILT (ML); dark brown, wet; low plasticity silt; fine sand with some small sand layers; trace roots; no chemical-like odor.	
20					XRF-As=3 ppm PID=0.1 ppm Sheen=None		SAND WITH SILT (SP-SM); dark gray brown, wet; fine to medium sand; no chemical-like odor.	20

Legend

Sample Type: Continuous core 4" ID; Grab sample

Water Level: Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-82

Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center of site		*Coordinates (NAD83)* E:1267449 N:203913 (est)	*Exploration Number* **GP-82**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 17' (est)	
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/18/2024	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=3 ppm PID=0.1 ppm Sheen=Slight		SAND WITH SILT (SP-SM); dark gray brown, wet; fine to medium sand; no chemical-like odor. (continued)	
	-5			GP-82-21-23	XRF-As=2 ppm PID=0.1 ppm Sheen=None			
					XRF-As=2 ppm PID=0.1 ppm Sheen=None		SANDY SILT (ML); dark brown, wet; fine to medium sand; trace roots; alternating silt and fine sand layers; slight hydrogen sulfide like odor.	
					XRF-As=2 ppm PID=0.1 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; no chemical-like odor.	
25					XRF-As=2 ppm PID=0.1 ppm Sheen=None			25
	-10						Branch and wood fibers.	
					XRF-As=10 ppm PID=0.1 ppm Sheen=None			
				GP-82-28-30				
30					XRF-As=3 ppm PID=0.1 ppm Sheen=None			30
	-15						Becomes fine to coarse sand.	
					XRF-As=3 ppm PID=0.2 ppm Sheen=None			
				GP-82-33-35				
35					XRF-As=4 ppm PID=0.2 ppm Sheen=None			35
	-20						Becomes with trace fine to coarse, rounded gravel.	
					XRF-As=3 ppm PID=0.2 ppm Sheen=None			
				GP-82-37-39			SILTY SAND (SM); dark gray brown, wet; fine sand; no chemical-like odor.	
					XRF-As=3 ppm PID=0.1 ppm Sheen=None			
40							Bottom of exploration at 40 ft. bgs.	40

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-82
Sheet 2 of 2

DRAFT

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center West side of site		Coordinates (NAD83): E:1267723 N:203912 (est)	Exploration Number: **GP-83**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 16' (est)	
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/19/2024	Top of Casing Elev. (NAVD88): NA	Depth to Water (Below GS): 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=42 ppm PID=0.1 ppm Sheen=Slight		**SHALLOW FILL** GRAVEL WITH SILT AND SAND (GW-GM); brown, moist; fine to coarse sand; fine to coarse, angular to subangular gravel; no chemical-like odor. Becomes light gray to gray, slightly moist; trace wood and organic debris; no chemical-like odor.	
	15				XRF-As=30 ppm PID=0.1 ppm Sheen=None			
					XRF-As=64 ppm PID=0.1 ppm Sheen=Moderate			
		3/8 inch NSF 60 bentonite chips			XRF-As=18 ppm PID=0.1 ppm Sheen=Moderate			
				GP-83-3-5	XRF-As=105 ppm PID=0.2 ppm Sheen=Slight		SILTY SAND (SM); black, slightly moist; fine to medium sand; appears loose; no chemical-like odor. Trace red coloring.	
5				GP-83-5	XRF-As=79 ppm PID=0.2 ppm Sheen=Slight		**DREDGE FILL** SAND (SP); black, moist; fine to medium sand; trace rounded to subrounded gravel; trace red and white sand grains; no chemical-like odor.	5
	10				XRF-As=5 ppm PID=0.1 ppm Sheen=None			
					XRF-As=4 ppm PID=0.1 ppm Sheen=None			
		▽ 11/19/2024			XRF-As=2 ppm PID=0.1 ppm Sheen=None		Becomes wet.	
					XRF-As=5 ppm PID=0.2 ppm Sheen=None			
10					XRF-As=3 ppm PID=0.1 ppm Sheen=None		**NATIVE SOIL** SILTY SAND (SM); dark gray brown, wet; fine to medium sand; trace roots; no chemical-like odor.	10
	5			GP-83-9.5-11.5	XRF-As=8 ppm PID=0.1 ppm Sheen=Slight			
					XRF-As=6 ppm PID=0.2 ppm Sheen=None		**SILT AQUITARD** SILT (ML); gray brown black mottling, moist; low to medium plasticity; little organic material and wood fibers; hydrogen sulfide like odor.	
				GP-83-12-14	XRF-As=10 ppm PID=0.0 ppm Sheen=None			
					XRF-As=3 ppm PID=0.0 ppm Sheen=None			
15					XRF-As=3 ppm PID=0.0 ppm Sheen=None		Becomes gray, moist; small sand lenses.	15
	0	10-in diam. conductor casing set at 14 ft bentonite seal set 12-15 ft.		GP-83-15-17	XRF-As=7 ppm PID=0.1 ppm Sheen=None			
					XRF-As=10 ppm PID=0.1 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to coarse sand; trace fine to coarse, rounded gravel; trace red and white sand grains; no chemical-like odor.	
					XRF-As=5 ppm PID=0.1 ppm Sheen=None			
					XRF-As=2 ppm PID=0.2 ppm Sheen=None			
20					XRF-As=5 ppm PID=0.0 ppm Sheen=None			20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ▮▮ Continuous core 4" ID
- Grab sample

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-83

Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Environmental Exploration Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center West side of site		*Coordinates (NAD83)* E:1267723 N:203912 (est)	*Exploration Number* **GP-83**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 16' (est)	
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/19/2024	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* 8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=5 ppm PID=0.0 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to coarse sand; trace fine to coarse, rounded gravel; trace red and white sand grains; no chemical-like odor. (continued)	
				GP-83-23-25				
25	-10				XRF-As=4 ppm PID=0.0 ppm Sheen=Slight			25
					XRF-As=3 ppm PID=0.0 ppm Sheen=None			
				GP-83-28-30				
30	-15				XRF-As=3 ppm PID=0.0 ppm Sheen=None			30
					XRF-As=3 ppm PID=0.2 ppm Sheen=None			
				GP-83-33-35			SILT (ML); dark gray, moist; low to medium plasticity; no chemical-like odor.	
35	-20				XRF-As=3 ppm PID=0.1 ppm Sheen=None		SILTY SAND (SM); dark gray, wet; fine sand; silt content decreasing with depth; no chemical-like odor.	35
					XRF-As=3 ppm PID=0.1 ppm Sheen=None			
				GP-83-38-40				
40	-25				XRF-As=3 ppm PID=0.1 ppm Sheen=None		Bottom of exploration at 40 ft. bgs.	40

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log GP-83
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

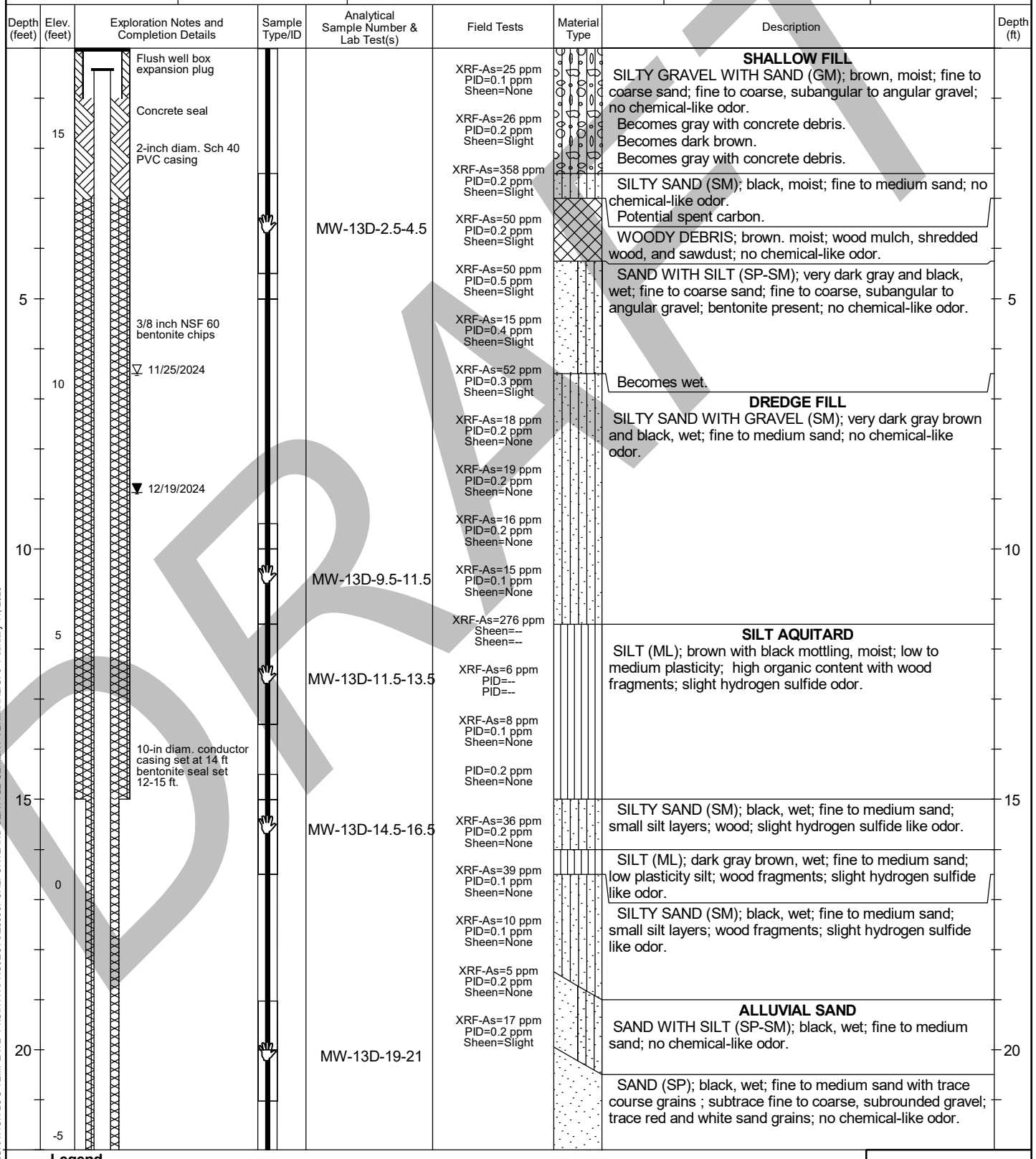
Glacier Northwest - AS230067

Monitoring Well Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates (NAD83)	Exploration Number
5900 West Marginal Way SW Seattle, WA, Center West side of site	E:1267706.62 N:203847.44	**MW-13D**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	Ecology Well Tag No.
Cascade	TSi 150 CC	Rotary core	16.71'	BNV 331
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Chris Baker	Sonic	11/25/2024	15.96'	6.5' (ATD)



Legend

Sample Type: Continuous core 4" ID; Grab sample

Water Level: Static Water Level; Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-13D

Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center West side of site		*Coordinates (NAD83)* E:1267706.62 N:203847.44	*Exploration Number* **MW-13D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 16.71'	Ecology Well Tag No. BNV 331
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/25/2024	*Top of Casing Elev. (NAVD88)* 15.96'	*Depth to Water (Below GS)* 6.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=7 ppm PID=0.2 ppm Sheen=None		SAND (SP); black, wet; fine to medium sand with trace course grains ; subtrace fine to coarse, subrounded gravel; trace red and white sand grains; no chemical-like odor. (continued)	
25					XRF-As=7 ppm PID=0.2 ppm Sheen=Slight			25
	-10				XRF-As=5 ppm PID=0.1 ppm Sheen=None			
				MW-13D-28-30				
30					XRF-As=6 ppm PID=0.2 ppm Sheen=None			30
	-15				XRF-As=3 ppm PID=0.2 ppm Sheen=None			
		2-12 NSF 61 silica sand		MW-13D-33-35	XRF-As=< 1 ppm PID=0.1 ppm Sheen=None		SILT WITH SAND (ML); black, wet; fine sand; no chemical-like odor.	
35								35
							SILTY SAND (SM); black, wet; fine sand; no chemical-like odor.	
	-20						SAND WITH SILT (SP-SM); black, wet; fine sand; no chemical-like odor.	
		Sch 40 PVC screen 0.010 inch slot			XRF-As=2 ppm PID=0.2 ppm Sheen=None		SILTY SAND (SM); black, wet; fine sand; no chemical-like odor.	
							SAND WITH SILT (SP-SM); black, wet; fine sand; no chemical-like odor.	
				MW-13D-38-40				
					XRF-As=3 ppm PID=0.2 ppm Sheen=Slight			
40								40
							Bottom of exploration at 41 ft. bgs.	
	-25							

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
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Exploration Log MW-13D
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Glacier Northwest - AS230067

Monitoring Well Log

Aspect CONSULTING	*Project Address & Site Specific Location*: 5900 West Marginal Way SW Seattle, WA, Center South side of site		*Coordinates (NAD83)*: E:1267457.54 N:203770.97	*Exploration Number*: **MW-19D**
Contractor: Cascade	*Equipment*: TSi 150 CC	*Sampling Method*: Rotary core	*Ground Surface Elev. (NAVD88)*: 17.44'	Ecology Well Tag No. BNV 332
Operator: Chris Baker	*Exploration Method(s)*: Sonic	*Work Start/Completion Dates*: 11/25/2024	*Top of Casing Elev. (NAVD88)*: 16.8'	*Depth to Water (Below GS)*: 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush well box expansion plug					**SHALLOW FILL** SILTY GRAVEL WITH SAND (GM); gray brown, moist; fine to coarse sand; fine to coarse, subangular gravel; cohesive silt; no chemical-like odor.	
		Concrete seal			XRF-As=12 ppm PID=0.3 ppm Sheen=slight		SILTY SAND WITH GRAVEL (SM); gray, moist; fine to coarse sand; fine to coarse, subangular gravel; trace shell and brick fragments; slight hydrocarbon-like odor.	
		2-inch diam. Sch 40 PVC casing			XRF-As=25 ppm PID=0.4 ppm Sheen=slight		SILTY SAND (SM); black. moist; fine to medium sand; no chemical-like odor. Potential spent carbon.	
	15				XRF-As=248 ppm PID=0.3 ppm Sheen=Slight		SAND WITH SILT (SP-SM); very dark grey brown, moist; fine to medium sand; trace wood fragments; trace brick fragments; no chemical-like odor.	
				MW-19D-2.5-5	XRF-As=378 ppm PID=0.3 ppm Sheen=Slight			
5		3/8 inch NSF 60 bentonite chips			XRF-As=1063 ppm PID=0.3 ppm Sheen=None			5
					XRF-As=538 ppm PID=0.1 ppm Sheen=Slight		SILT WITH SAND (ML); black, moist; fine sand; low plasticity silt; trace roots; no chemical-like odor.	
					XRF-As=575 ppm PID=0.1 ppm Sheen=slight		**DREDGE FILL** SAND WITH SILT (SP-SM); black, very moist to wet. Becomes wet.	
	10	11/25/2024			XRF-As=130 ppm PID=0.2 ppm Sheen=Slight			
					XRF-As=67 ppm PID=0.2 ppm Sheen=slight			
10		12/16/2024			XRF-As=37 ppm PID=0.2 ppm Sheen=None			10
				MW-19D-10-12	XRF-As=117 ppm PID=0.2 ppm Sheen=None			
	5				XRF-As=35 ppm PID=0.2 ppm Sheen=None		**SILT AQUITARD** SILT (ML); brown with black mottling, moist; low to medium plasticity silt; wood and organics decomposing throughout; hydrogen sulfide like odor.	
				MW-19D-12-14	XRF-As=1522 ppm PID=0.1 ppm Sheen=None			
		10-in diam. conductor casing set at 14 ft bentonite seal set 12-15 ft.			XRF-As=23 ppm PID=0.2 ppm Sheen=None			
15				MW-19D-14.5-16	XRF-As=3 ppm PID=0.1 ppm Sheen=None			15
	0							
20				MW-19D-20-22			**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; no chemical-like odor.	20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-19D
Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center South side of site		*Coordinates (NAD83)* E:1267457.54 N:203770.97	*Exploration Number* **MW-19D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 17.44'	Ecology Well Tag No. BNV 332
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/25/2024	*Top of Casing Elev. (NAVD88)* 16.8'	*Depth to Water (Below GS)* 7.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	-5				XRF-As=4 ppm PID=0.1 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; no chemical-like odor. (continued)	
25					XRF-As=6 ppm PID=0.1 ppm Sheen=None			25
	-10				XRF-As=2 ppm PID=0.2 ppm Sheen=Slight			
				MW-19D-28-30				
30					XRF-As=3 ppm PID=0.2 ppm Sheen=None		Becomes fine to coarse sand; trace fine, rounded gravel.	30
	-15				XRF-As=5 ppm PID=0.1 ppm Sheen=None			
		2-12 NSF 61 silica sand		MW-19D-33-35				
35					XRF-As=2 ppm PID=0.1 ppm Sheen=None			35
	-20	Sch 40 PVC screen 0.010 inch slot			XRF-As=2 ppm PID=0.4 ppm Sheen=None		SAND WITH SILT (SP-SM); black, wet; fine to very fine sand; interbedded with 0.25 in layers of silt every 0.5 ft; no chemical-like odor.	
				MW-19D-38-40				
40					XRF-As=4 ppm PID=0.4 ppm Sheen=None			40
	-25						Bottom of exploration at 41 ft. bgs.	

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
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Exploration Log MW-19D
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, North side of shorline		*Coordinates (NAD83)* E:1267860.72 N:204016.00	*Exploration Number* **MW-33D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 16.05'	Ecology Well Tag No. BNV 324
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/19/2024	*Top of Casing Elev. (NAVD88)* 15.58'	*Depth to Water (Below GS)* 6.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush well box expansion plug			XRF-As=4 ppm Sheen=None PID=0.1 ppm		**SHALLOW FILL** SILTY SAND WITH GRAVEL (SM); dark brown, moist; fine to coarse sand; fine to coarse angular gravel; few roots; no chemical-like odor.	
	15	Concrete seal			XRF-As=3 ppm PID=0.1 ppm Sheen=None			
					XRF-As=7 ppm PID=0.2 ppm Sheen=None		SILTY GRAVEL WITH COBBLES (GM); concrete debris; fine to coarse gravel; platy fractured rock; no chemical-like odor.	
		2-inch diam. Sch 40 PVC casing			XRF-As=6 ppm PID=0.1 ppm Sheen=None		SILTY SAND WITH GRAVEL (SM); black, very moist; fine to coarse sand; fine to coarse, subangular to angular gravel; trace wood fibers; trace brick fragments; trace foam pieces; no chemical-like odor.	
				MW-33D-3-5	XRF-As=477 ppm PID=0.1 ppm Sheen=None			
5		3/8 inch NSF 60 bentonite chips			XRF-As=161 ppm PID=0.1 ppm Sheen=None		**DREDGE FILL** SAND (SP); black, very moist; fine to medium sand; no chemical-like odor. Becomes wet.	5
	10	▽ 11/18/2024			XRF-As=16 ppm PID=0.4 ppm Sheen=Slight			
					XRF-As=14 ppm PID=0.6 ppm Sheen=Slight			
				MW-33D-7-9	XRF-As=13 ppm PID=0.6 ppm Sheen=Slight			
		▼ 12/19/2024			XRF-As=5 ppm PID=0.3 ppm Sheen=None			
10					XRF-As=7 ppm PID=0.4 ppm Sheen=Slight			10
	5				XRF-As=4 ppm PID=0.4 ppm Sheen=Slight		**SILT AQUITARD** SILT (ML); brown, moist; low to medium plasticity; high organic content; black mottling; wood fiber; hydrogen sulfide like odor.	
				MW-33D-10.5-12.5	XRF-As=4 ppm PID=0.2 ppm Sheen=None			
					XRF-As=4 ppm PID=0.3 ppm Sheen=None			
		10-in diam. conductor casing set at 13.5 ft bentonite seal set 11-15 ft.			XRF-As=4 ppm PID=0.4 ppm Sheen=Slight		Increased wood debris content.	
15					XRF-As=4 ppm PID=0.3 ppm Sheen=Slight		SAND WITH SILT (SP-SM); black, wet; fine to medium sand; trace roots; no chemical-like odor.	15
	0				XRF-As=8 ppm PID=0.2 ppm Sheen=None		SILT (ML); dark gray/brown, wet; low to medium plasticity, cohesive; trace wood fiber; no chemical-like odor.	
				MW-33D-16-18	XRF-As=< 1 ppm PID=0.3 ppm Sheen=Slight			
		2-12 NSF 61 silica sand			XRF-As=4 ppm PID=0.3 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; no chemical-like odor.	
					XRF-As=5 ppm PID=0.5 ppm Sheen=Slight			
20					XRF-As=7 ppm PID=0.3 ppm Sheen=Slight		SAND WITH SILT AND GRAVEL (SP-SM); black with red and white grains, wet; fine to coarse sand; fine to coarse, subrounded to rounded gravel; no chemical-like odor.	20
	-5	Sch 40 PVC screen 0.010 inch slot						

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-33D
Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, North side of shorline		*Coordinates (NAD83)* E:1267860.72 N:204016.00	*Exploration Number* **MW-33D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 16.05'	Ecology Well Tag No. BNV 324
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/19/2024	*Top of Casing Elev. (NAVD88)* 15.58'	*Depth to Water (Below GS)* 6.5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=4 ppm PID=0.3 ppm Sheen=None		SAND WITH SILT AND GRAVEL (SP-SM); black with red and white grains, wet; fine to coarse sand; fine to coarse, subrounded to rounded gravel; no chemical-like odor. (continued)	
				MW-33D-23-25				
25	-10				XRF-As=3 ppm PID=0.3 ppm Sheen=None		SAND WITH GRAVEL (SP); black, wet; fine to coarse sand; fine to coarse, subrounded gravel; no chemical-like odor.	25
					XRF-As=2 ppm PID=0.3 ppm Sheen=None		SAND (SP); black, wet; fine to medium sand; no chemical-like odor.	
		3/8 inch NSF 60 bentonite chips		MW-33D-28-30				
30	-15				XRF-As=4 ppm PID=0.2 ppm Sheen=None			30
					XRF-As=2 ppm PID=0.2 ppm Sheen=None			
				MW-33D-33-35			SAND WITH SILT (SP-SM); black, wet; very fine sand; no chemical-like odor.	
35	-20				XRF-As=2 ppm PID=0.2 ppm Sheen=None			35
					XRF-As=< 1 ppm PID=0.2 ppm Sheen=None		SILT (ML); 0.3 in thick silt layer.	
				MW-33D-38-40				
					XRF-As=2 ppm PID=0.2 ppm Sheen=None			
40	-25						Bottom of exploration at 40 ft. bgs.	40

Legend

Sample Type
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-33D
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, South side of shorline		Coordinates (NAD83): E:1267683.16 N:203686.60	Exploration Number: **MW-46D**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 17.01'	Ecology Well Tag No. BNV 325
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/20/2024	Top of Casing Elev. (NAVD88): 16.32'	Depth to Water (Below GS): 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush well box expansion plug			XRF-As=13 ppm PID=0.4 ppm Sheen=Slight		**BANK FILL** SILTY GRAVEL WITH SAND (GM); gray brown, very moist; fine to coarse sand; fine to coarse, angular gravel; few roots; no chemical-like odor.	
		Concrete seal			XRF-As=14 ppm PID=0.4 ppm Sheen=None			
	15				XRF-As=22 ppm PID=0.4 ppm Sheen=None			
		2-inch diam. Sch 40 PVC casing			XRF-As=32 ppm PID=0.4 ppm Sheen=Slight			
				MW-46D-3-5	XRF-As=417 ppm PID=0.5 ppm Sheen=Slight		SILTY SAND WITH GRAVEL (SM); first 2 inches black then becomes dark gray brown, moist; fine to coarse sand; fine to coarse, subangular gravel; no chemical-like odor.	
5		3/8 inch NSF 60 bentonite chips			XRF-As=82 ppm PID=0.1 ppm Sheen=Slight			5
					XRF-As=109 ppm PID=0.1 ppm Sheen=Slight		SILTY SAND WITH GRAVEL (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, subangular gravel; no chemical-like odor.	
	10				XRF-As=114 ppm PID=0.4 ppm Sheen=Slight		SILTY SAND WITH GRAVEL AND COBBLES (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, subangular gravel; brick fragments; wood, branches, and roots; concrete debris; no chemical-like odor.	
				MW-46D-7-9	XRF-As=102 ppm PID=0.5 ppm Sheen=Moderate			
				MW-46D-9				
		▼ 12/18/2024			XRF-As=77 ppm PID=1.5 ppm Sheen=Moderate		1 ft thick concrete block.	
		▽ 11/20/2024						
10					PID=9.7 ppm Sheen=Moderate		Becomes wet.	10
					XRF-As=1024 ppm PID=0.4 ppm Sheen=Slight		SILTY SAND WITH GRAVEL (SM); black, wet; fine to coarse sand; fine to coarse, subangular to angular gravel; no chemical-like odor. Potential spent carbon.	
	5			MW-46D-11-12.5	XRF-As=1034 ppm PID=0.5 ppm Sheen=Moderate			
							SILT AQUITARD SILT (ML); gray brown with black mottling, moist; low to medium plasticity; cohesive; slight hydrogen sulfide odor. 0.5 ft wood chunk.	
				MW-46D-12.5-14.5	XRF-As=2147 ppm PID=0.4 ppm Sheen=Moderate			
		10-in diam. conductor casing set at 14 ft bentonite seal set 12-15 ft.			XRF-As=138 ppm PID=0.4 ppm Sheen=Slight			
15					XRF-As=159 ppm PID=0.5 ppm Sheen=Slight			15
					XRF-As=16 pppm PID=0.2 ppm Sheen=None			
	0				XRF-As=20 ppm PID=0.5 ppm Sheen=Slight		SILTY SAND (SM); dark gray brown, wet; fine to medium sand; borderline silt; no chemical-like odor.	
					XRF-As=19 ppm PID=0.6 ppm Sheen=Slight		SILT (ML); brown, wet; small silt layer; small to medium sand; no chemical-like odor.	
				MW-46D-17.5-19.5			SILTY SAND (SM); dark gray brown, wet; fine to medium sand; borderline silt; no chemical-like odor.	
		2-12 NSF 61 silica sand			XRF-As=45 ppm PID=0.7 ppm Sheen=Slight			
20					XRF-As=83 ppm PID=0.3 ppm Sheen=Slight		**ALLUVIAL SAND** SAND (SP); black with red and white sand grains, wet; fine to medium sand; no chemical-like odor.	20
		Sch 40 PVC screen 0.010 inch slot		MW-46D-20-22				

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◫ Continuous core 4" ID
- ⊠ Grab sample

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-46D
Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, South side of shorline		*Coordinates (NAD83)* E:1267683.16 N:203686.60	*Exploration Number* **MW-46D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 17.01'	Ecology Well Tag No. BNV 325
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/20/2024	*Top of Casing Elev. (NAVD88)* 16.32'	*Depth to Water (Below GS)* 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					XRF-As=36 ppm PID=0.4 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black with red and white sand grains, wet; fine to medium sand; no chemical-like odor. (continued)	
25					XRF-As=12 ppm PID=0.6 ppm Sheen=None		Becomes with fine to coarse, subrounded gravel.	25
	-10				XRF-As=4 ppm PID=0.5 ppm Sheen=None		Becomes with fine to coarse sand.	
		3/8 inch NSF 60 bentonite chips		MW-46D-28-30				
30					XRF-As=2 ppm PID=0.6 ppm Sheen=None			30
	-15				XRF-As=2 ppm PID=0.1 ppm Sheen=None			
				MW-46D-33-35				
35					XRF-As=8 pppm PID=0.5 ppm Sheen=None		SAND WITH SILT (SP-SM); black, wet; fine sand; trace coarse, rounded gravel; no chemical-like odor.	35
	-20			MW-46D-36-38				
					XRF-As=142 ppm PID=0.4 ppm Sheen=Slight			
					XRF-As=2 ppm PID=0.5 ppm Sheen=Slight			
40							Bottom of exploration at 40 ft. bgs.	40
	-25							

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-46D
Sheet 2 of 2

DRAFT

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Glacier Northwest - AS230067

Monitoring Well Log

Aspect CONSULTING	*Project Address & Site Specific Location*: 5900 West Marginal Way SW Seattle, WA, South side of shorline		*Coordinates (NAD83)*: E:1267685.36 N:203692.06	*Exploration Number*: **MW-46S**
Contractor: Cascade	*Equipment*: TSi 150 CC	*Sampling Method*: Rotary core	*Ground Surface Elev. (NAVD88)*: 16.89'	Ecology Well Tag No. BNV 326
Operator: Chris Baker	*Exploration Method(s)*: Sonic	*Work Start/Completion Dates*: 11/20/2024	*Top of Casing Elev. (NAVD88)*: 16.16'	*Depth to Water (Below GS)*: 10' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
1	16	Flush well box expansion plug Concrete seal					**BANK FILL** SILTY GRAVEL WITH SAND (GM); gray brown, very moist; fine to coarse sand; fine to coarse, angular gravel; few roots; no chemical-like odor.	1
2	15	2-inch diam. Sch 40 PVC casing						2
3	14	3/8 inch NSF 60 bentonite chips						3
4	13						SILTY SAND WITH GRAVEL (SM); first 2 inches black then becomes dark gray brown, moist; fine to coarse sand; fine to coarse, sub-angular gravel; no chemical-like odor.	4
5	12	2-12 NSF 61 silica sand						5
6	11	10 Slot PVC Screen ▼ 12/18/2024					SILTY SAND WITH GRAVEL (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, sub-angular gravel; no chemical-like odor.	6
7	10						SILTY SAND WITH GRAVEL AND COBBLES (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, sub-angular gravel; brick fragments; wood, branches, and roots; concrete debris; no chemical-like odor.	7
8	9							8
9	8	Sch 40 PVC screen 0.010 inch slot					1 ft thick concrete block.	9
10	7	▽ 11/20/2024					Becomes wet.	10
11	6						SILTY SAND WITH GRAVEL (SM); black, wet; fine to coarse sand; fine to coarse, sub-angular to angular gravel; no chemical-like odor. Potential spent carbon.	11
12	5							12
13	4						**SILT AQUITARD** SILT (ML); gray brown with black mottling, moist; low to medium plasticity; cohesive; slight hydrogen sulfide odor. Bottom of exploration at 13 ft. bgs. Note: Lithology copied from co-located monitoring well MW-46D.	13
14	3							14
	2							

Legend

Sample Type

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-46S
Sheet 1 of 1

DRAFT

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Glacier Northwest - AS230067

Monitoring Well Log

Aspect CONSULTING	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center South side of shoreline		Coordinates (NAD83): E:1267769.00 N:203815.91	Exploration Number: **MW-47D**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 17.4'	Ecology Well Tag No. BNV 329
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/22/2024	Top of Casing Elev. (NAVD88): 16.72'	Depth to Water (Below GS): 11' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush well box expansion plug			XRF-As=38 ppm PID=0.2 ppm Sheen=None		**BANK FILL** SILTY SAND WITH GRAVEL (SM); brown, moist; fine to coarse sand; fine to coarse, subrounded to subangular gravel; concrete debris; some roots; no chemical-like odor.	
		Concrete Seal			XRF-As=55 ppm PID=0.4 ppm Sheen=None			
	15				XRF-As=92 ppm PID=0.2 ppm Sheen=None			
		2-inch diam. Sch 40 PVC casing		MW-47D-2-4	XRF-As=66 ppm PID=0.2 ppm Sheen=None		SAND WITH SILT (SP-SM); light brown to brown, slightly moist; fine to medium sand; some subrounded to angular gravel; trace organics; no chemical-like odor.	
					XRF-As=77 ppm PID=0.2 ppm Sheen=None			
5		3/8 inch NSF 60 bentonite chips			XRF-As=22 ppm PID=0.1 ppm Sheen=None			5
					XRF-As=53 ppm PID=0.3 ppm Sheen=None			
	10				XRF-As=51 ppm PID=0.3 ppm Sheen=None			
					XRF-As=28 ppm PID=0.2 ppm Sheen=None		SILTY SAND (SM); light brown to brown, moist; fine to coarse sand; rounded to subrounded gravel; trace concrete debris; no chemical-like odor.	
					XRF-As=18 ppm PID=0.2 ppm Sheen=None			
10		▼ 12/19/2024			XRF-As=44 ppm PID=0.3 ppm Sheen=None			10
		▽ 11/22/2024			XRF-As=42 ppm PID=0.3 ppm Sheen=None		Becomes wet.	
	5			MW-47D-11-13	XRF-As=595 ppm PID=0.2 ppm Sheen=None		SILT WITH SAND (ML); loose, dark gray, wet; fine to medium sand; trace fine to medium, rounded to subrounded gravel; no chemical-like odor.	
					XRF-As=363 ppm PID=0.3 ppm Sheen=Slight		No recovery 13-15 ft bgs; large cobbles.	
15					XRF-As=417 ppm PID=0.5 ppm Sheen=Slight		Construction debris (rebar, concrete, rebar ties)	15
					XRF-As=467 ppm PID=0.4 ppm Sheen=None		SILT WITH SAND (ML); dark brown to brown, moist; low plasticity silt; fine to medium sand; slight hydrogen sulfide like odor.	
		10-in diam. conductor casing set at 16.5 ft bentonite seal set 15-18 ft.					**SILT AQUITARD**	
	0			MW-47D-16-18	XRF-As=69 ppm PID=0.4 ppm Sheen=None		SILT WITH SAND (ML); dark brown to brown, moist; low plasticity silt; fine to medium sand; some organic material (wood and sticks); slight hydrogen sulfide like odor. No recovery 18-20 ft bgs; large cobble.	
					XRF-As=734 ppm PID=0.3 ppm Sheen=None			
20		2-12 NSF 61 silica sand			XRF-As=243 ppm PID=0.3 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; trace fine to medium, rounded to subrounded gravel; trace red and white sand grains; no chemical-like odor.	20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 4" ID
- ▩ Grab sample

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: ECR
Approved by: AJY

Exploration Log MW-47D
Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center South side of shoreline		Coordinates (NAD83): E:1267769.00 N:203815.91	Exploration Number: **MW-47D**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 17.4'	Ecology Well Tag No. BNV 329
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/22/2024	Top of Casing Elev. (NAVD88): 16.72'	Depth to Water (Below GS): 11' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
	-5	Sch 40 PVC screen 0.010 inch slot		MW-47D-22-24	XRF-As=40 ppm PID=0.0 ppm Sheen=Slight		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; trace fine to medium, rounded to subrounded gravel; trace red and white sand grains; no chemical-like odor. (continued)	
25				MW-47D-25-27	XRF-As=13 ppm PID=0.3 ppm Sheen=Slight			25
	-10				XRF-As=5 ppm PID=0.3 ppm Sheen=Slight			
30		3/8 inch NSF 60 bentonite chips			XRF-As=4 ppm PID=0.4 ppm			30
	-15			MW-47D-32-34	XRF-As=7 ppm PID=0.3 ppm			
35					XRF-As=2 ppm PID=0.2 ppm		SAND WITH SILT (SP-SM); black, wet; very fine sand; no chemical-like odor.	35
	-20				XRF-As=< 1 ppm PID=0.2 ppm			
				MW-47D-38-40	XRF-As=< 1 ppm PID=0.2 ppm			
40							Bottom of exploration at 40 ft. bgs.	40
	-25							

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: ECR
Approved by: AJY

Exploration Log MW-47D
Sheet 2 of 2

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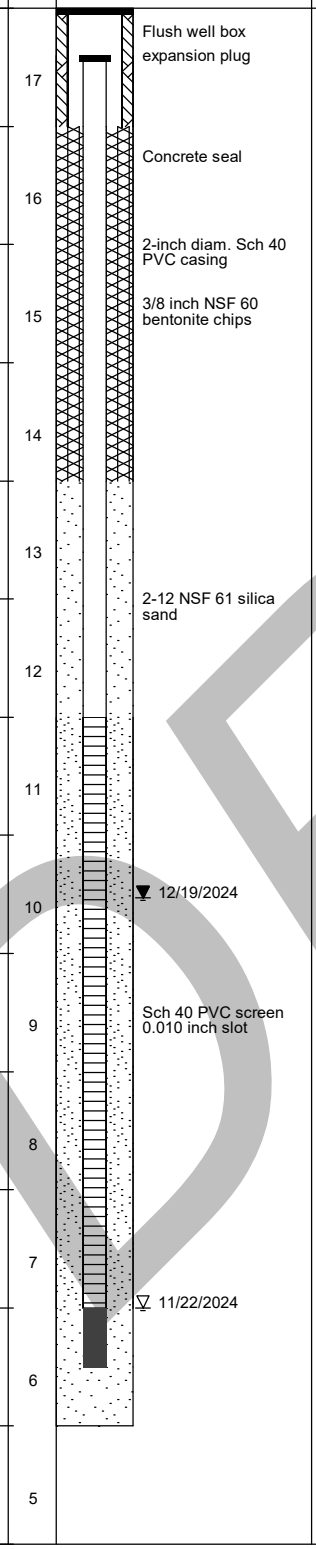
NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center South side of shoreline		Coordinates (NAD83): E:1267770.81 N:203821.12	Exploration Number: **MW-47S**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 17.61'	Ecology Well Tag No. BNV 330
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/22/2024	Top of Casing Elev. (NAVD88): 16.78'	Depth to Water (Below GS): 11' (ATD)



Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	17						**BANK FILL** SILTY SAND WITH GRAVEL (SM); brown, moist; fine to coarse sand; fine to coarse, subrounded to subangular gravel; concrete debris; some roots; no chemical-like odor.	0
1	16							1
2	15						SAND WITH SILT (SP-SM); light brown to brown, slightly moist; fine to medium sand; some subrounded to angular gravel; trace organics; no chemical-like odor.	2
3	14							3
4	13							4
5	12							5
6	11							6
7	10							7
8	9						SILTY SAND (SM); light brown to brown, moist; fine to coarse sand; rounded to subrounded gravel; trace concrete debris; no chemical-like odor.	8
9	8							9
10	7							10
11	6						Becomes wet. SILT WITH SAND (ML); loose, dark gray, wet; fine to medium sand; trace fine to medium, rounded to subrounded gravel; no chemical-like odor.	11
12	5						Bottom of exploration at 12 ft. bgs. Note: Lithology copied from co-located monitoring well MW-47D.	12

Legend

Sample Type

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: ECR
Approved by: AJY

Exploration Log MW-47S
Sheet 1 of 1

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location: 5900 West Marginal Way SW Seattle, WA, Center North side of shoreline		Coordinates (NAD83): E:1267804.86 N:203906.33	Exploration Number: **MW-48D**
Contractor: Cascade	Equipment: TSi 150 CC	Sampling Method: Rotary core	Ground Surface Elev. (NAVD88): 13.73'	Ecology Well Tag No. BNV 327
Operator: Chris Baker	Exploration Method(s): Sonic	Work Start/Completion Dates: 11/21/2024	Top of Casing Elev. (NAVD88): 12.87'	Depth to Water (Below GS): 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Flush well box expansion plug			XRF-As=83 ppm PID=0.1 ppm Sheen=Slight		**BANK FILL** SILTY SAND WITH GRAVEL (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, rounded to angular gravel; brick fragments; some roots and wood; no chemical-like odor.	
		Concrete seal			XRF-As=93 ppm PID=0.2 ppm Sheen=Slight			
				MW-48D-1-3	XRF-As=122 ppm PID=0.3 ppm Sheen=Slight		SAND WITH SILT (SP-SM); dark gray brown, moist; fine to medium sand; trace fine to coarse, subrounded gravel; few roots; no chemical-like odor.	
		3/8 inch NSF 60 bentonite chips			XRF-As=20 ppm PID=0.2 ppm Sheen=Slight			
	10				XRF-As=6 ppm PID=0.3 ppm Sheen=Slight		Becomes very moist.	
5		▽ 11/21/2024			XRF-As=11 ppm PID=0.2 ppm Sheen=Slight		Becomes wet.	5
		▼ 12/20/2024			XRF-As=26 ppm PID=0.2 ppm Sheen=Slight			
		2-inch diam. Sch 40 PVC casing			XRF-As=24 ppm PID=0.2 ppm Sheen=Slight			
					XRF-As=14 ppm PID=0.2 ppm Sheen=None			
	5				XRF-As=10 ppm PID=0.3 ppm Sheen=None		**SILT AQUITARD** SILT (ML); brown with black mottling, moist; low to medium plasticity; little roots; no chemical-like odor.	
				MW-48D-8.5-10.5				
10					XRF-As=8 ppm PID=0.2 ppm Sheen=None			10
		10-in diam. conductor casing set at 11 ft bentonite seal set 8-12 ft.			XRF-As=3 ppm PID=0.4 ppm Sheen=None			
					XRF-As=5 ppm PID=0.4 ppm Sheen=None		Becomes gray. No recovery at 12-14.5 ft bgs; slough and bentonite.	
	0							
15					XRF-As=20 ppm PID=0.1 ppm Sheen=None		SILTY SAND (SM); dark gray, wet; fine to medium sand; hydrogen sulfide like odor. SILT WITH SAND (ML); gray, wet; low plasticity silt; hydrogen sulfide like odor.	15
				MW-48D-14.5-16				
		2-12 NSF 61 silica sand			XRF-As=164 ppm PID=0.2 ppm Sheen=None		**ALLUVIAL SAND** SAND (SP); black, wet; fine to medium sand; trace fine to coarse, rounded gravel; hydrogen sulfide like odor.	
				MW-48D-16-18	XRF-As=3 ppm PID=0.1 ppm Sheen=None			
	-5				XRF-As=2 ppm PID=0.1 ppm Sheen=None		No odor.	
		Sch 40 PVC screen 0.010 inch slot			XRF-As=3 ppm PID=0.1 ppm Sheen=None			
20					XRF-As=3 ppm PID=0.1 ppm Sheen=None			20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 4" ID
- ▩ Grab sample

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-48D
Sheet 1 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center North side of shoreline		*Coordinates (NAD83)* E:1267804.86 N:203906.33	*Exploration Number* **MW-48D**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 13.73'	Ecology Well Tag No. BNV 327
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/21/2024	*Top of Casing Elev. (NAVD88)* 12.87'	*Depth to Water (Below GS)* 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
							ALLUVIAL SAND SAND (SP); black, wet; fine to medium sand; trace fine to coarse, rounded gravel; hydrogen sulfide like odor. (continued)	
					XRF-As=4 ppm PID=0.1 ppm Sheen=None			
	-10			MW-48D-23-25				
25					XRF-As=3 ppm PID=0.3 ppm Sheen=None			25
		3/8 inch NSF 60 bentonite chips						
					XRF-As=< 1 ppm PID=0.2 ppm Sheen=None			
	-15			MW-48D-28-30				
30					XRF-As=4 ppm PID=0.1 ppm Sheen=Slight			30
					XRF-As=6 ppm PID=0.2 ppm Sheen=None			
	-20			MW-48D-33-35				
35					XRF-As=2 ppm PID=0.2 ppm Sheen=None		Becomes fine sand.	35
							SAND WITH SILT (SP-SM); black, wet; very fine sand; no chemical-like odor.	
					XRF-As=2 ppm PID=0.2 ppm Sheen=None			
	-25			MW-48D-38-40				
40					XRF-As=2 ppm PID=0.1 ppm Sheen=None		Bottom of exploration at 40 ft. bgs.	40

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 4" ID
- Grab sample

Water Level
- Static Water Level
- Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-48D
Sheet 2 of 2

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NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

Review Stage:DRAFT Rev.2

Aspect CONSULTING	Glacier Northwest - AS230067		Monitoring Well Log	
	Project Address & Site Specific Location 5900 West Marginal Way SW Seattle, WA, Center North side of shoreline		*Coordinates (NAD83)* E:1267806.73 N:203911.38	*Exploration Number* **MW-48S**
Contractor Cascade	*Equipment* TSi 150 CC	*Sampling Method* Rotary core	*Ground Surface Elev. (NAVD88)* 13.59'	Ecology Well Tag No. BNV 328
Operator Chris Baker	*Exploration Method(s)* Sonic	*Work Start/Completion Dates* 11/21/2024	*Top of Casing Elev. (NAVD88)* 12.93'	*Depth to Water (Below GS)* 5' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	13	Flush well box expansion plug					**BANK FILL** SILTY SAND WITH GRAVEL (SM); dark gray brown, moist; fine to coarse sand; fine to coarse, rounded to angular gravel; brick fragments; some roots and wood; no chemical-like odor.	0
1								1
	12	Concrete seal ▼ 12/20/2024						
2		3/8 inch NSF 60 bentonite chips					SAND WITH SILT (SP-SM); dark gray brown, moist; fine to medium sand; trace fine to coarse, subrounded gravel; few roots; no chemical-like odor.	2
	11	2-inch diam. Sch 40 PVC casing						
3								3
	10							
4		2-12 NSF 61 silica sand					Becomes very moist	4
	9							
5		▽ 11/21/2024					Becomes wet	5
	8	Sch 40 PVC screen 0.010 inch slot						
6								6
	7							
7								7
	6							
8								8
	5						**SILT AQUITARD** SILT (ML); brown with black mottling, moist; low to medium plasticity; little roots; no chemical-like odor.	
9							Bottom of exploration at 9 ft. bgs. Note: Lithology copied from co-located monitoring well MW-48D.	9
	4							

Legend

Sample Type

Water Level
- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: DJM
Approved by: AJY

Exploration Log MW-48S
Sheet 1 of 1

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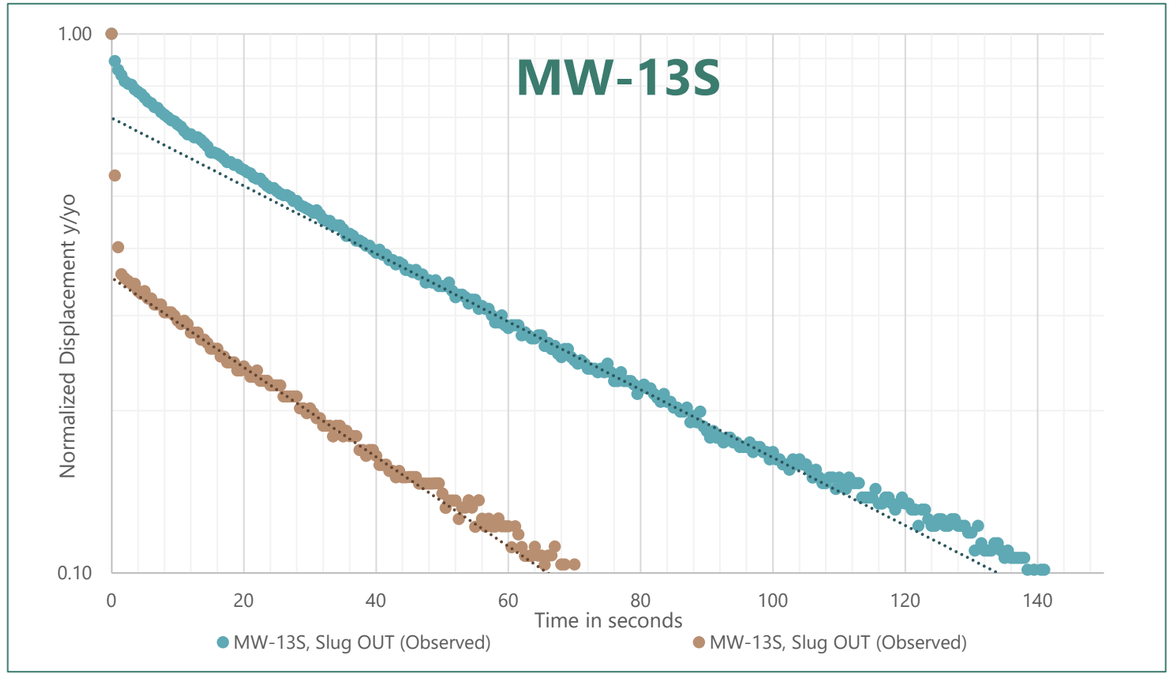
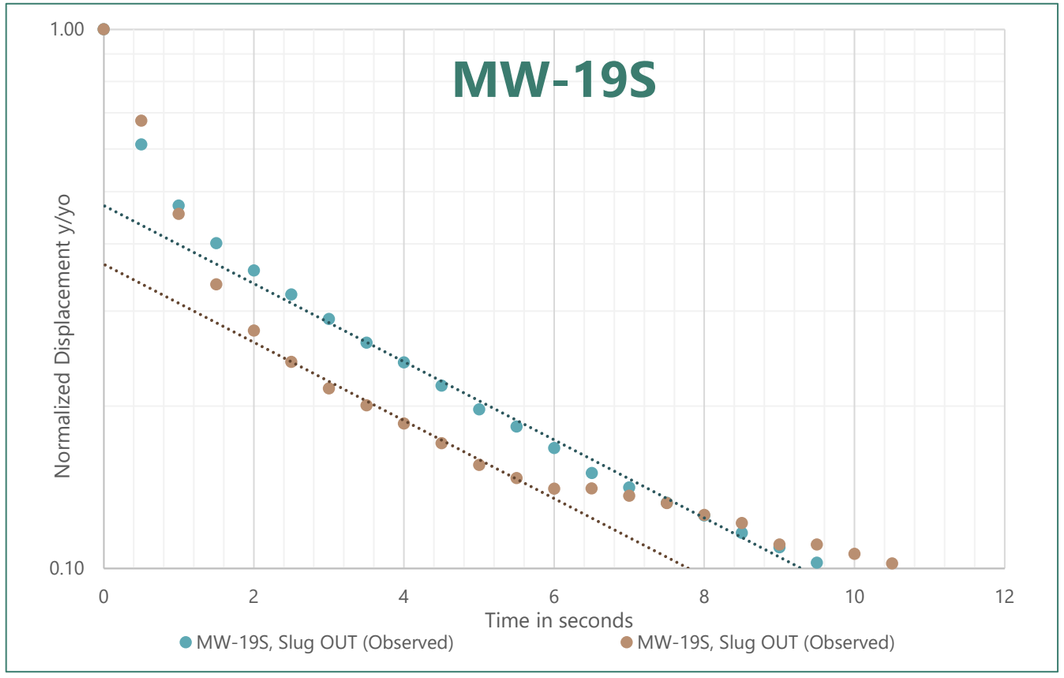
NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\230067 CALPORTLAND SEATTLE CEMENT TERMINAL.GPJ February 11, 2025

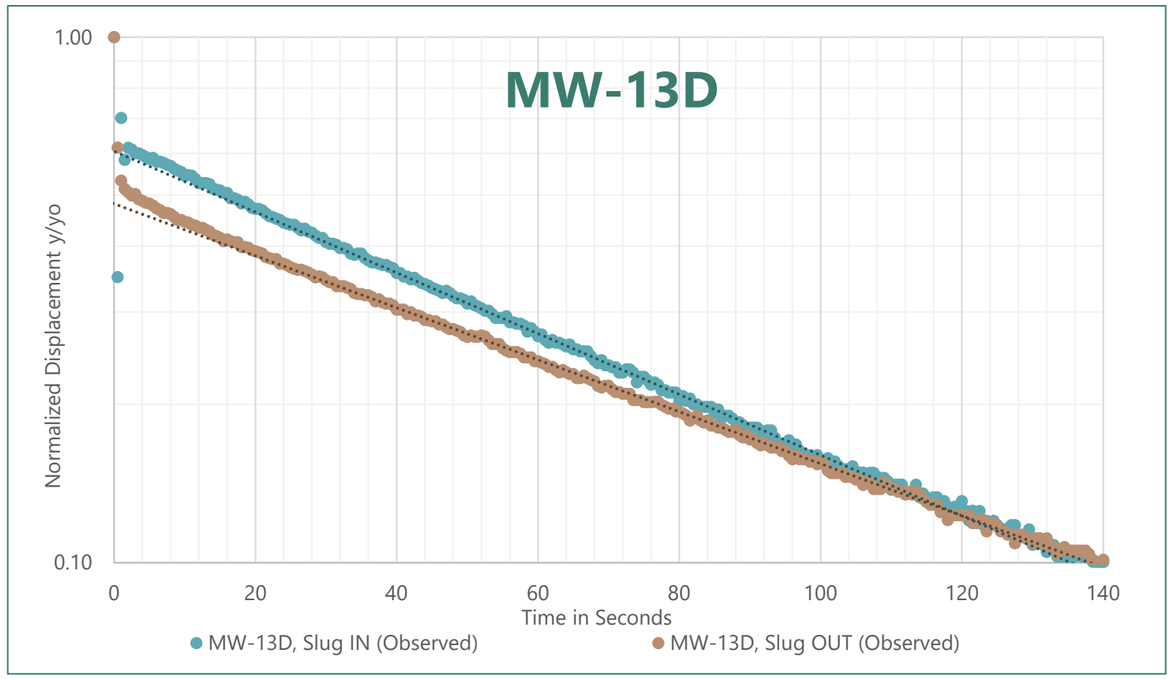
Review Stage:DRAFT Rev.2

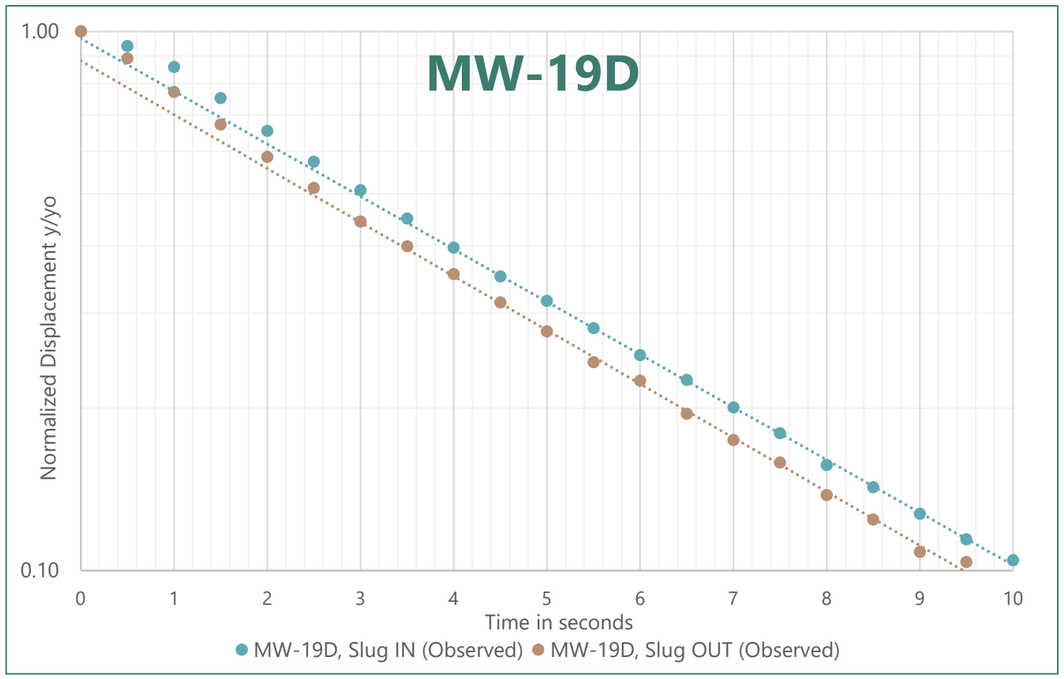
APPENDIX D

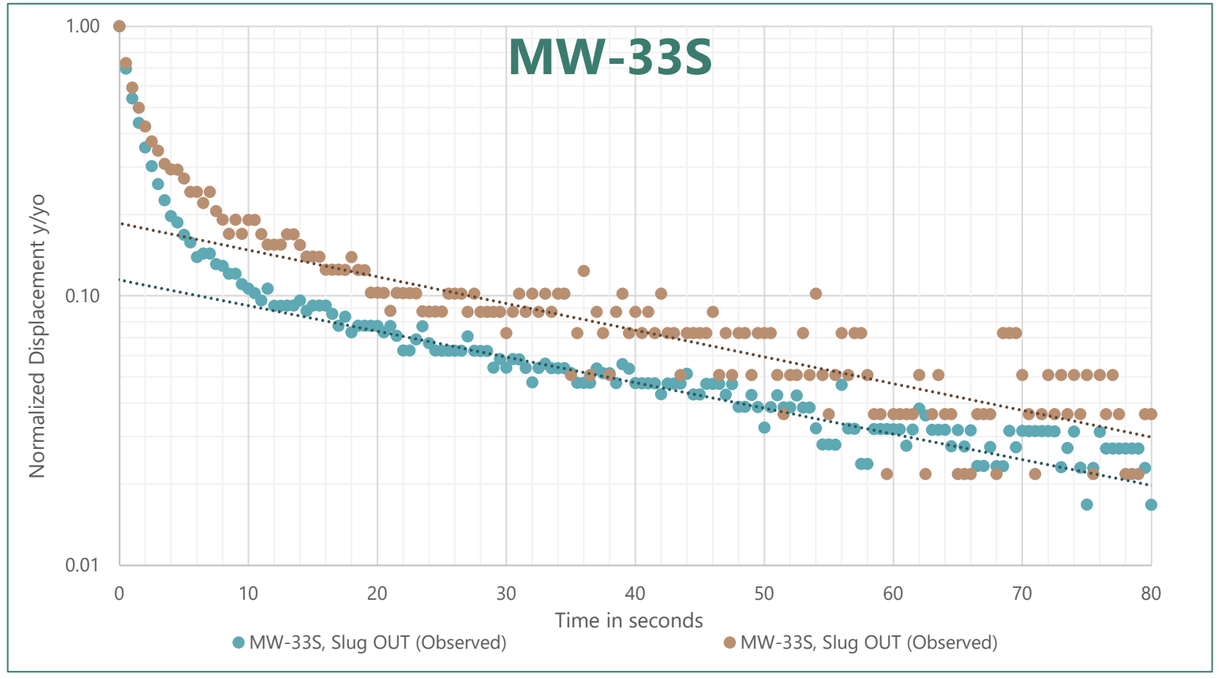
GRAPHS OF HEAD DISPLACEMENT DURING SLUG TESTS

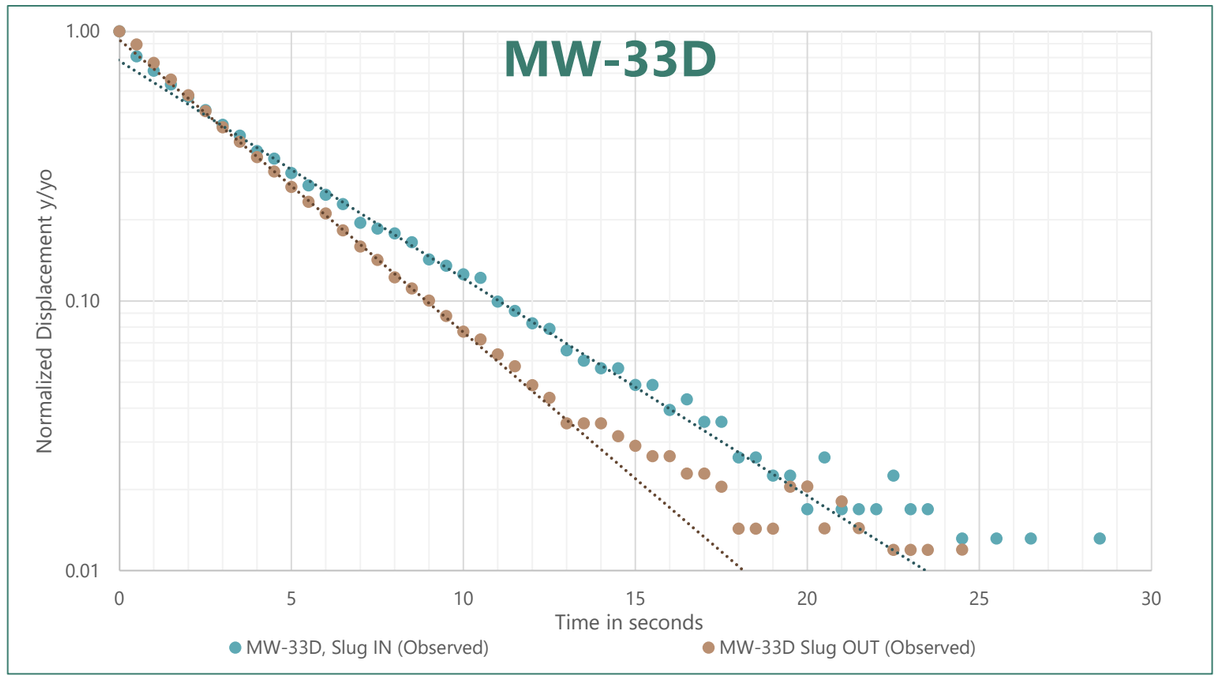

MW-13S
1.00
0.10
Normalized Displacement y/yo
0
20
40
60
80
100
120
140
Time in seconds
MW-13S, Slug OUT (Observed)
MW-13S, Slug OUT (Observed)


MW-19S
1.00
0.10
Normalized Displacement y/yo
0
2
4
6
8
10
12
Time in seconds
MW-19S, Slug OUT (Observed)
MW-19S, Slug OUT (Observed)


MW-13D
1.00
0.10
Normalized Displacement y/yo
0
20
40
60
80
100
120
140
Time in Seconds
MW-13D, Slug IN (Observed)
MW-13D, Slug OUT (Observed)


MW-19D
1.00
0.10
Normalized Displacement y/yo
0
1
2
3
4
5
6
7
8
9
10
Time in seconds
MW-19D, Slug IN (Observed)
MW-19D, Slug OUT (Observed)


MW-33S
1.00
0.10
0.01
Normalized Displacement y/yo
0
10
20
30
40
50
60
70
80
Time in seconds
MW-33S, Slug OUT (Observed)
MW-33S, Slug OUT (Observed)


MW-33D
1.00
0.10
0.01
Normalized Displacement y/yo
0
5
10
15
20
25
30
Time in seconds
MW-33D, Slug IN (Observed)
MW-33D Slug OUT (Observed)

APPENDIX E
INVESTIGATION-DERIVED WASTE DISPOSAL MANIFESTS

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAR 000006221	2	(800)337-7455 Republic	027705455 JJK

GENERATOR

5. Generator's Name and Mailing Address
Glacier NW Reichhold MTCA
3450 S 344th Way
Federal Way, WA 98001
Att: Annie Livengood
Generator's Phone: 253 212-4801

Generator's Site Address (if different than mailing address)
Glacier NW Reichhold MTCA
5904-5906 W Marginal Way SW
Seattle, WA 98106

6. Transporter 1 Company Name
DH Environmental Inc.
U.S. EPA ID Number
WAH000047217

7. Transporter 2 Company Name
Chemical Waste Management
U.S. EPA ID Number
ORD089452353

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: 541 454-2643
U.S. EPA ID Number
ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077, Hazardous waste, solid, n.o.s., (Chromium, Arsenic), 9, PGII	12	DM	8400	P	F035		
X	2. NA3082, Hazardous waste, liquid, n.o.s., (Chromium, Arsenic), 9, PGII	03	DM	1000	P	F021	F035	
	3. Material Not Regulated by DOT (Washington State Dangerous Waste Only, Toxic)	05	DM	3100	P	WT02		
X	4. NA3082, Hazardous waste, liquid, n.o.s., (Chromium, Arsenic), 9, PGII	08	DM	2800	P	F035		

14. Special Handling Instructions and Additional Information
1)(T) Profile# OR367369 ERG#171 2)(H,T) Profile# OR367417 ERG#171 3) Profile# OR367415 4)(T) Profile# OR367416 ERG#171

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Dylan Herrick — Signature — Month: 5 — Day: 14 — Year: 26

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alik Chkhovskiy — Signature — Month: 5 — Day: 14 — Year: 26

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAR000000622 1

22. Page: 2 of 2

23. Manifest Tracking Number: 027705455 JJK

24. Generator's Name: Glacier NW Reichhold MTCA

25. Transporter _____ Company Name: <none>

U.S. EPA ID Number

26. Transporter _____ Company Name

U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	(5) NA3082, Hazardous waste, liquid, n.o.s., (Chromium, Arsenic), 9 PGIII	01	DM	0400	P	D004	F024	F035
	(6) Non-RCRA, non-DOT (IDW Water OR367419)	01	DM	0350	P	NONE		
X	(7) NA3077, Hazardous waste, solid, n.o.s., (Chromium, Arsenic), 9 PGIII	01	DM	0700	P	D004	F035	

32. Special Handling Instructions and Additional Information

(E,H,T) (5) Profile# OR367418 ERG#171 (6) Profile# OR367419(E,T) (7) Profile# OR367414 ERG#171

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

APPENDIX F

LABORATORY ANALYTICAL REPORTS AND DATA VALIDATION REPORTS

F.1
LABORATORY ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

December 16, 2024

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on November 21, 2024 from the Glacier NW Inc AS230067, F&BI 411367 project. There are 18 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Jeremy Porter, Marc Chalfant
ASP1216R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 21, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW Inc AS230067, F&BI 411367 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411367 -01	GP-82-2-4
411367 -02	GP-82-7-9
411367 -03	GP-82-11-13
411367 -04	GP-82-15-17
411367 -05	GP-82-21-23
411367 -06	GP-82-28-30
411367 -07	GP-82-33-35
411367 -08	GP-82-37-39
411367 -09	GP-81-1-3
411367 -10	GP-81-2
411367 -11	GP-81-8-10
411367 -12	GP-81-10-12
411367 -13	GP-81-12-14
411367 -14	GP-81-17-19
411367 -15	GP-81-21-23
411367 -16	GP-81-12.5
411367 -17	GP-81-28-30
411367 -18	GP-81-32-34
411367 -19	GP-81-38-40
411367 -20	GP-83-3-5
411367 -21	GP-83-5
411367 -22	GP-83-9.5-11.5
411367 -23	GP-83-12-14
411367 -24	FD-Soil-241119
411367 -25	GP-83-15-17
411367 -26	GP-83-23-25
411367 -27	GP-83-28-30
411367 -28	GP-83-33-35
411367 -29	GP-83-38-40
411367 -30	MW-33D-3-5
411367 -31	MW-33D-7-9
411367 -32	MW-33D-10.5-12.5
411367 -33	MW-33D-16-18
411367 -34	MW-33D-23-25
411367 -35	MW-33D-28-30
411367 -36	MW-33D-33-35

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting
411367 -37	MW-33D-38-40
411367 -38	MW-46D-3-5
411367 -39	MW-46D-7-9
411367 -40	MW-46D-9
411367 -41	MW-46D-11-12.5
411367 -42	MW-46D-12.5-14.5
411367 -43	MW-46D-20-22
411367 -44	MW-46D-28-30
411367 -45	MW-46D-33-35
411367 -46	MW-46D-36-38
411367 -47	EB-241120
411367 -48	MW-46D-17.5-19.5
411367 -49	MW-48D-1-3
411367 -50	MW-48D-8.5-10.5
411367 -51	MW-48D-14.5-16
411367 -52	MW-48D-16-18
411367 -53	MW-48D-23-25
411367 -54	MW-48D-28-30
411367 -55	MW-48D-33-35
411367 -56	MW-48D-38-40
411367 -57	FD-Soil-241121

The 6020B calibration standard exceeded the acceptance criteria for arsenic. The compound was not detected, therefore this did not represent an out of control condition, and was qualified with a “k” qualifier. The results are not considered estimates.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-1-3	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-09
Date Analyzed:	12/11/24	Data File:	411367-09.216
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	42
Chromium	22
Copper	63
Zinc	95

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-10-12	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-12
Date Analyzed:	12/11/24	Data File:	411367-12.217
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	390
Chromium	8.0
Copper	37
Zinc	210

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-83-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-22
Date Analyzed:	12/11/24	Data File:	411367-22.218
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	41
Chromium	3.7
Copper	56
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-38
Date Analyzed:	12/11/24	Data File:	411367-38.219
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	120
Chromium	33
Zinc	73

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-38 x5
Date Analyzed:	12/12/24	Data File:	411367-38 x5.218
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Copper	310

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-28-30	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-44
Date Analyzed:	12/11/24	Data File:	411367-44.222
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.0
Chromium	5.4
Copper	6.5
Zinc	16

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-17.5-19.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-48
Date Analyzed:	12/11/24	Data File:	411367-48.223
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	46
Chromium	12
Copper	18
Zinc	28

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-8.5-10.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-50
Date Analyzed:	12/11/24	Data File:	411367-50.224
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.5
Chromium	13
Copper	20
Zinc	28

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-14.5-16	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-51
Date Analyzed:	12/11/24	Data File:	411367-51.225
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.7
Chromium	14
Copper	22
Zinc	35

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-16-18	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	411367-52
Date Analyzed:	12/11/24	Data File:	411367-52.226
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.2
Chromium	9.5
Copper	6.1
Zinc	16

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW Inc AS230067
Date Extracted:	12/11/24	Lab ID:	I4-1073 mb
Date Analyzed:	12/11/24	Data File:	I4-1073 mb.210
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	MW-46D-11-12.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/09/24	Lab ID:	411367-41
Date Analyzed:	12/10/24	Data File:	411367-41.110
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1 k	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW Inc AS230067
Date Extracted:	12/09/24	Lab ID:	I4-1058 mb
Date Analyzed:	12/10/24	Data File:	I4-1058 mb.094
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Date of Report: 12/16/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	98	95	80-120	3
Chromium	mg/kg (ppm)	10	110	110	80-120	0
Copper	mg/kg (ppm)	10	103	103	80-120	0
Zinc	mg/kg (ppm)	10	101	104	80-120	3

Date of Report: 12/16/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 412097-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	101	99	75-125	2
Chromium	mg/L (ppm)	2.0	<1	94	93	75-125	1
Copper	mg/L (ppm)	2.0	<5	78	77	75-125	1
Zinc	mg/L (ppm)	5.0	<5	87	85	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	100	80-120
Chromium	mg/L (ppm)	2.0	91	80-120
Copper	mg/L (ppm)	2.0	88	80-120
Zinc	mg/L (ppm)	5.0	89	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

411367

SAMPLE CHAIN OF CUSTODY

11-21-24 / M4 / VS-E4/F2

Page # 1 of 6

Report To Andrew Yonkofski + Jeremy Porter + Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-838-5841 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature) David Mary

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
1. *metals include: As, Cu, Cr, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend hold times
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals* EPA 6020B	metals TCLP EPA 1311/6020B Low-Level PAH/5Vol	EPA 8270E SIM		Notes
GP-82-2-4	01 A-B	11/18/24	1030	SO	2										X		
GP-82-7-9	02	11/18/24	1100	SO	2								X				
GP-82-11-13	03	11/18/24	1115	SO	2								X		X		
GP-82-15-17	04	11/18/24	1200	SO	2												Archive
GP-82-21-23	05	11/18/24	1220	SO	2								X		X		
GP-82-28-30	06	11/18/24	1230	SO	2												Archive
GP-82-33-35	07	11/18/24	1240	SO	2												Archive
GP-82-37-39	08	11/18/24	1250	SO	2												Archive
GP-81-1-3	09	11/18/24	1450	SO	2	X	X			X			X				ER Archive
GP-81-2	10 A-B	11/18/24	1450	SO	8	X	X			X							If additional volume required use from GP-81-1-3

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FBI	11/21/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

411367

SAMPLE CHAIN OF CUSTODY

11-21-24

M4 / VS-E4 / F2

Page # 2 of 6

Report To Andrew Yonkofski + Jeremy Porter + Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (signature)

PROJECT NAME: Glacier NW, Inc.

PO #: AS 230067

REMARKS
1. + metals include: As, Cr, Cu, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals* EPA 6020B	Metals TCLP EPA1311/6020B	Low-Level PAHs	SVOCs EPA 8270 SIM		Notes
GP-81-8-10	11 A-B	11/18/24	~~1450~~ DTM 1510	SO	2								X	X				
GP-81-10-12	12	11/18/24	~~1540~~ DTM 1535		2								X		X			
GP-81-12-14	13	11/18/24	~~1535~~ DTM 1540		2								X					
GP-81-17-19	14	11/18/24	~~1540~~ DTM 1600		2								X	X	X			
GP-81-21-23	15	11/19/24	~~0802~~ DTM 0810		2								X		X			
GP-81-12.5	16 A-H	11/18/24	1540		~~4~~ (8)													
GP-81-28-30	17 A B	11/19/24	0830		2													Archive
GP-81-32-34	18	11/19/24	0845		2													Archive
GP-81-38-40	19	11/19/24	0855		2													Archive
GP-83-3-5	20	11/19/24	1030	↓	2								X	X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Risen	Emily Risen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FDT	11/21/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

411367

SAMPLE CHAIN OF CUSTODY

11-21-24

M4/VS-E4/F2

Page # 3 of 6

Report To Andrew Yonkofski +Jeremy Porter +Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (signature)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
① *metals include: Cu, Cr, As, Zn
② Freeze all archive samples and extra sample volume from primary samples to extend hold times
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA Metals* EPA 6020B	TCLP Metals EPA 1311/6020B	Low-level PAHs/cPAHs EPA 8270C SIM		Notes
GP-83-5	21 A-B	11/19/24	1050	SO	2												Archive
GP-83-9.5-11.5	22	11/19/24	1100	SO	2								X		X		
GP-83-12-14	23	11/19/24	1115	SO	2								X				
FD-SOIL-241119	24	11/19/24		SO	2								X				
GP-83-15-17	25	11/19/24	1130	SO	2										X		
GP-83-23-25	26	11/19/24	1200	SO	2								X		X		
GP-83-28-30	27	11/19/24	1210	SO	2												Archive
GP-83-33-35	28	11/19/24	1230	SO	2												Archive
GP-83-38-40	29	11/19/24	1240	SO	2												Archive
MW-33D-3-5	30	11/19/24	1350	SO	2								X	X	X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	Aspect	11/21/24	1540
Received by:	Anh Phan	FBI	11/22/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

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SAMPLE CHAIN OF CUSTODY

411367

11-21-24

M4/VS E4/F2

Page # 4 of 6

Report To Andrew Yonkofski + Jeremy Porter + marchaitant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (signature)

PROJECT NAME: Glacier NW, Inc.

PO #: AS 230067

INVOICE TO

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1. *metals include: Cu, Cr, As, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals* EPA 6020B	Metals TCLP EPA 1311/6020B	Low-level PAHs / SVOCs EPA 8270E SIM		Notes
MW-33D-7-9	31 A-B	11/19/24	1420	SO	2										X		
MW-33D-10.5-12.5	32	11/19/24	1430	SO	2								X		X		
MW-33D-16-18	33	11/19/24	1500	SO	2												Archive
MW-33D-23-25	34	11/19/24	1520	SO	2								X		X		
MW-33D-28-30	35	11/19/24	1530	SO	2												Archive
MW-33D-33-35	36	11/19/24	1600	SO	2												Archive
MW-33D-38-40	37	11/19/24	1610	SO	2												Archive
MW-46D-3-5	38	11/20/24	1000	SO	2								X				Archive
MW-46D-7-9	39	11/20/24	1020	SO	2								X				
MW-46D-9	40 A-D	11/20/24	1025	SO	4												Archive

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FDI	11/21/24	15:40
Relinquished by:		Samples received at 2 oC		
Received by:				

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411367 + Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11-21-24

~~M4~~ / ~~V5~~ E4 / F2

Page # 5 of 6

Report To Andrew Yonkofski + Marc Chulfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
1. +metals include: As, Cu, Cr, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend holding times
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [X] Standard turnaround
- [ ] RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 metals + EPA 6020B	Metals TCLP EPA 1311/6020B	SVOCs (PAHs) EPA 8270ESIM		Notes
MW-46D-11-12.5	41 A,B	11/20/24	1050	SO	2								X	X			may analyze for TCLP pending sample results.
MW-46D-12.5-14.5	42	11/20/24	1106	SO	2								X	X			
MW-46D-20-22	43	11/20/24	1210	SO	2								X				
MW-46D-28-30	44	11/20/24	1220	SO	2								X				Archive
MW-46D-33-35	45	11/20/24	1240	SO	2												Archive
MW-46D-36-38	46	11/20/24	1250	SO	2								X				
EB-241120	47 A,C	11/20/24	1320	W	3								X		X		
MW-46D-17.5-19.5	48 A,B	11/20/24	1145	SO	2								X				Archive
MW-48D-1-3	49	11/21/24	0915	SO	2								X				
MW-48D-8.5-10.5	50	11/21/24	0950	SO	2								X		X		

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:		Anh Pham	FBI	11/21/24	15:40
Relinquished by:			Samples received at 2 oC		
Received by:					

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Seattle WA 98108
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office@friedmanandbruya.com

X **Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski**

411367 +Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11-21-24

~~MU~~ / VSE4 / F2

Page # 6 of 6

Report To Andrew Yonkofski +Mari Chakrant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
① Metals include: As, Cu, Cr, Zn
② Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	~~RCRA~~ 8 metals EPA 6020B	Metals TCLP EPA 6020B/1311	Lowered PAHs SVOCs EPA 8270E SIM		Notes
MW-48D-14.5-16	51 A-B	11/21/24	1030	SO	2								X		X		
MW-48D-16-18	52		1045										X		X		
MW-48D-23-25	53		1130														Archive
MW-48D-28-30	54		1140														Archive
MW-48D-33-35	55		1150														Archive
MW-48D-38-40	56		1200														Archive
FD-SOIL-241121	57	↓		↓	↓								X		X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Pham	FDI	11/22/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

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office@friedmanandbruya.com

X **Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
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www.friedmanandbruya.com

December 5, 2024

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 21, 2024 from the Glacier NW Inc AS230067, F&BI 411367 project. There are 74 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Jeremy Porter, Marc Chalfant
ASP1205R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 21, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW Inc AS230067, F&BI 411367 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411367 -01	GP-82-2-4
411367 -02	GP-82-7-9
411367 -03	GP-82-11-13
411367 -04	GP-82-15-17
411367 -05	GP-82-21-23
411367 -06	GP-82-28-30
411367 -07	GP-82-33-35
411367 -08	GP-82-37-39
411367 -09	GP-81-1-3
411367 -10	GP-81-2
411367 -11	GP-81-8-10
411367 -12	GP-81-10-12
411367 -13	GP-81-12-14
411367 -14	GP-81-17-19
411367 -15	GP-81-21-23
411367 -16	GP-81-12.5
411367 -17	GP-81-28-30
411367 -18	GP-81-32-34
411367 -19	GP-81-38-40
411367 -20	GP-83-3-5
411367 -21	GP-83-5
411367 -22	GP-83-9.5-11.5
411367 -23	GP-83-12-14
411367 -24	FD-Soil-241119
411367 -25	GP-83-15-17
411367 -26	GP-83-23-25
411367 -27	GP-83-28-30
411367 -28	GP-83-33-35
411367 -29	GP-83-38-40
411367 -30	MW-33D-3-5
411367 -31	MW-33D-7-9
411367 -32	MW-33D-10.5-12.5
411367 -33	MW-33D-16-18
411367 -34	MW-33D-23-25
411367 -35	MW-33D-28-30
411367 -36	MW-33D-33-35

CASE NARRATIVE (continued)

Laboratory ID	Aspect Consulting
411367 -37	MW-33D-38-40
411367 -38	MW-46D-3-5
411367 -39	MW-46D-7-9
411367 -40	MW-46D-9
411367 -41	MW-46D-11-12.5
411367 -42	MW-46D-12.5-14.5
411367 -43	MW-46D-20-22
411367 -44	MW-46D-28-30
411367 -45	MW-46D-33-35
411367 -46	MW-46D-36-38
411367 -47	EB-241120
411367 -48	MW-46D-17.5-19.5
411367 -49	MW-48D-1-3
411367 -50	MW-48D-8.5-10.5
411367 -51	MW-48D-14.5-16
411367 -52	MW-48D-16-18
411367 -53	MW-48D-23-25
411367 -54	MW-48D-28-30
411367 -55	MW-48D-33-35
411367 -56	MW-48D-38-40
411367 -57	FD-Soil-241121

The 8260D and 8270E calibration standard exceeded the acceptance criteria for several compounds. The compounds were not detected, therefore this did not represent an out of control condition, and were qualified with a “k” qualifier. The results are not considered estimates.

The 8260D matrix spike and matrix spike duplicate exceeded the relative percent difference acceptance criteria for several compounds. The analytes were not detected therefore the data were acceptable.

Several compounds in the 8270E water laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The data were flagged accordingly.

Several compounds in the 8270E soil laboratory control sample duplicate exceeded the acceptance criteria. The data were flagged accordingly.

An 8270E internal standard did not meet the acceptance criteria for samples GP-82-2-4, GP-83-3-5. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported.

CASE NARRATIVE (continued)

An 8270E surrogate exceeded the laboratory acceptance criteria in sample MW-33D-10.5-12.5. The associated detection for sample MW-33D-10.5-12.5 was qualified accordingly.

All other quality control requirements were acceptable.

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367
Date Extracted: 11/27/24
Date Analyzed: 11/27/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
GP-81-2 411367-10	<5	94
Method Blank 04-2730 MB	<5	91

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367
Date Extracted: 11/22/24
Date Analyzed: 11/22/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
GP-81-2 411367-10	<50	<250	89
Method Blank 04-2893 MB	<50	<250	92

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	GP-81-2	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-10 1/0.5
Date Analyzed:	12/02/24	Data File:	120214.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	78	126
Toluene-d8	92	84	115
4-Bromofluorobenzene	90	72	130

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	0.0027
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05 k
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	0.0088	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25 k
Toluene	<0.02	Hexachlorobutadiene	<0.25 k
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25 k
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	04-2869 mb 1/0.5
Date Analyzed:	12/02/24	Data File:	120210.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	79	128
Toluene-d8	97	84	121
4-Bromofluorobenzene	94	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05 k
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5 k
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	EB-241120	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-47
Date Analyzed:	11/26/24	Data File:	112609.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	38	11	65
Phenol-d6	30	11	65
Nitrobenzene-d5	92	11	173
2-Fluorobiphenyl	97	25	128
2,4,6-Tribromophenol	117	10	140
Terphenyl-d14	105	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<4 L	Acenaphthylene	<0.02
Phenol	<4	2,6-Dinitrotoluene	<2
Bis(2-chloroethyl) ether	<0.4	3-Nitroaniline	<40
2-Chlorophenol	<4	Acenaphthene	<0.02
1,3-Dichlorobenzene	<0.4	2,4-Dinitrophenol	<40
1,4-Dichlorobenzene	<0.4	Dibenzofuran	<0.02
1,2-Dichlorobenzene	<0.4	2,4-Dinitrotoluene	<2
Benzyl alcohol	<4	4-Nitrophenol	<12
2,2'-Oxybis(1-chloropropane)	<0.4	Diethyl phthalate	<4
2-Methylphenol	<4	Fluorene	<0.02
Hexachloroethane	<0.4	4-Chlorophenyl phenyl ether	<0.4
N-Nitroso-di-n-propylamine	<0.4	N-Nitrosodiphenylamine	<0.4
3-Methylphenol + 4-Methylphenol	<8	4-Nitroaniline	<40
Nitrobenzene	<0.4	4,6-Dinitro-2-methylphenol	<12
Isophorone	<0.4	Hexachlorobenzene	<0.4
2-Nitrophenol	<4	Pentachlorophenol	<0.4
2,4-Dimethylphenol	<4	Phenanthrene	0.022
Benzoic acid	<40 jl	Anthracene	<0.02
Bis(2-chloroethoxy)methane	<0.4	Carbazole	<0.02
2,4-Dichlorophenol	<4	Di-n-butyl phthalate	<4
1,2,4-Trichlorobenzene	<0.4	Fluoranthene	<0.02
Naphthalene	<0.2	Pyrene	<0.02
Hexachlorobutadiene	<0.4 jl	Benzyl butyl phthalate	<4
4-Chloroaniline	<40	Benz(a)anthracene	<0.02
4-Chloro-3-methylphenol	<4	Chrysene	<0.02
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<4
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<4
Hexachlorocyclopentadiene	<1.2	Benzo(a)pyrene	<0.02
2,4,6-Trichlorophenol	<4	Benzo(b)fluoranthene	<0.02
2,4,5-Trichlorophenol	<4	Benzo(k)fluoranthene	<0.02
2-Chloronaphthalene	<0.4	Indeno(1,2,3-cd)pyrene	<0.02
2-Nitroaniline	<2	Dibenz(a,h)anthracene	<0.02
Dimethyl phthalate	<4	Benzo(g,h,i)perylene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	04-2901 mb
Date Analyzed:	11/25/24	Data File:	112507.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	47	10	60
Phenol-d6	31	10	49
Nitrobenzene-d5	109	15	144
2-Fluorobiphenyl	86	25	128
2,4,6-Tribromophenol	75	10	142
Terphenyl-d14	101	41	138

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<4 L	Acenaphthylene	<0.02
Phenol	<4	2,6-Dinitrotoluene	<2
Bis(2-chloroethyl) ether	<0.4	3-Nitroaniline	<40
2-Chlorophenol	<4	Acenaphthene	<0.02
1,3-Dichlorobenzene	<0.4	2,4-Dinitrophenol	<40
1,4-Dichlorobenzene	<0.4	Dibenzofuran	<0.02
1,2-Dichlorobenzene	<0.4	2,4-Dinitrotoluene	<2
Benzyl alcohol	<4	4-Nitrophenol	<12
2,2'-Oxybis(1-chloropropane)	<0.4	Diethyl phthalate	<4 ca
2-Methylphenol	<4	Fluorene	<0.02
Hexachloroethane	<0.4	4-Chlorophenyl phenyl ether	<0.4
N-Nitroso-di-n-propylamine	<0.4	N-Nitrosodiphenylamine	<0.4
3-Methylphenol + 4-Methylphenol	<8	4-Nitroaniline	<40
Nitrobenzene	<0.4	4,6-Dinitro-2-methylphenol	<12
Isophorone	<0.4	Hexachlorobenzene	<0.4
2-Nitrophenol	<4	Pentachlorophenol	<0.4
2,4-Dimethylphenol	<4	Phenanthrene	<0.02
Benzoic acid	<40 jl	Anthracene	<0.02
Bis(2-chloroethoxy)methane	<0.4	Carbazole	<0.02
2,4-Dichlorophenol	<4	Di-n-butyl phthalate	<4 ca
1,2,4-Trichlorobenzene	<0.4	Fluoranthene	<0.02
Naphthalene	<0.2	Pyrene	<0.02
Hexachlorobutadiene	<0.4 jl	Benzyl butyl phthalate	<4 ca
4-Chloroaniline	<40	Benz(a)anthracene	<0.02
4-Chloro-3-methylphenol	<4	Chrysene	<0.02
2-Methylnaphthalene	<0.2	Bis(2-ethylhexyl) phthalate	<4 ca
1-Methylnaphthalene	<0.2	Di-n-octyl phthalate	<4 ca
Hexachlorocyclopentadiene	<1.2 ca	Benzo(a)pyrene	<0.02
2,4,6-Trichlorophenol	<4	Benzo(b)fluoranthene	<0.02
2,4,5-Trichlorophenol	<4	Benzo(k)fluoranthene	<0.02
2-Chloronaphthalene	<0.4	Indeno(1,2,3-cd)pyrene	<0.02
2-Nitroaniline	<2	Dibenz(a,h)anthracene	<0.02
Dimethyl phthalate	<4	Benzo(g,h,i)perylene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-82-2-4	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-01
Date Analyzed:	12/02/24	Data File:	120213.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	11 ip	14	115
Phenol-d6	55	29	121
Nitrobenzene-d5	73	16	137
2-Fluorobiphenyl	87	46	122
2,4,6-Tribromophenol	1 ip	17	154
Terphenyl-d14	103	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	0.33
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.44
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.19
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	1.8 ve
Benzoic acid	<0.5 ca	Anthracene	0.29
Bis(2-chloroethoxy)methane	<0.01	Carbazole	0.13
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	1.1 ve
Naphthalene	0.024	Pyrene	0.83 ve
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.25
4-Chloro-3-methylphenol	<0.1	Chrysene	0.23
2-Methylnaphthalene	0.11	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.077	Di-n-octyl phthalate	<0.1 J
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.087 J
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.23 J
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.080 J
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	0.013 J
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	0.0037 J
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.012 J

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-82-2-4	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-01 1/20
Date Analyzed:	12/03/24	Data File:	120308.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	8 d	14	115
Phenol-d6	55 d	29	121
Nitrobenzene-d5	80 d	16	137
2-Fluorobiphenyl	84 d	46	122
2,4,6-Tribromophenol	0 d	17	154
Terphenyl-d14	80 d	31	167

Compounds:	Concentration mg/kg (ppm)
Phenanthrene	3.8
Fluoranthene	1.9
Pyrene	1.1
Di-n-octyl phthalate	<2
Benzo(a)pyrene	0.070
Benzo(b)fluoranthene	0.14
Benzo(k)fluoranthene	0.052
Indeno(1,2,3-cd)pyrene	0.027
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	0.029

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-82-11-13	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-03
Date Analyzed:	12/03/24	Data File:	120239.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	89	22	119
Phenol-d6	98	38	124
Nitrobenzene-d5	93	10	198
2-Fluorobiphenyl	93	45	117
2,4,6-Tribromophenol	119	11	158
Terphenyl-d14	100	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0010
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.00057
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-82-21-23	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-05
Date Analyzed:	12/03/24	Data File:	120250.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	88	22	119
Phenol-d6	101	38	124
Nitrobenzene-d5	95	10	198
2-Fluorobiphenyl	99	45	117
2,4,6-Tribromophenol	126	11	158
Terphenyl-d14	110	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00099
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-81-10-12	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-12
Date Analyzed:	12/03/24	Data File:	120307.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79	14	115
Phenol-d6	92	29	121
Nitrobenzene-d5	89	16	137
2-Fluorobiphenyl	101	46	122
2,4,6-Tribromophenol	122	17	154
Terphenyl-d14	90	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	0.0030
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.00071
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.0014
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0029
Benzoic acid	<0.5	Anthracene	0.00074
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.0032
Naphthalene	0.0018	Pyrene	0.0024
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.0012
4-Chloro-3-methylphenol	<0.1	Chrysene	0.0022
2-Methylnaphthalene	0.0015	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.0014	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.0017
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.0018
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.00070
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-81-17-19	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-14
Date Analyzed:	12/02/24	Data File:	120215.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79	14	115
Phenol-d6	94	29	121
Nitrobenzene-d5	90	16	137
2-Fluorobiphenyl	103	46	122
2,4,6-Tribromophenol	126	17	154
Terphenyl-d14	97	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00089
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	0.11
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	0.00051	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-81-21-23	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-15
Date Analyzed:	12/03/24	Data File:	120251.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	88	22	119
Phenol-d6	105	38	124
Nitrobenzene-d5	100	10	198
2-Fluorobiphenyl	103	45	117
2,4,6-Tribromophenol	131	11	158
Terphenyl-d14	117	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00096
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	0.14
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-20
Date Analyzed:	12/02/24	Data File:	120216.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	61	14	115
Phenol-d6	73	29	121
Nitrobenzene-d5	89	16	137
2-Fluorobiphenyl	102	46	122
2,4,6-Tribromophenol	119	17	154
Terphenyl-d14	107	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	0.0055
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.015
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.0038
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	0.18
2-Nitrophenol	<0.1	Pentachlorophenol	7.7 ve
2,4-Dimethylphenol	<0.1	Phenanthrene	0.063
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	0.13	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.026
Naphthalene	0.069	Pyrene	0.030
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.0052
4-Chloro-3-methylphenol	<0.1	Chrysene	0.011
2-Methylnaphthalene	0.033	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.019	Di-n-octyl phthalate	<0.1 J
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.0020 J
2,4,6-Trichlorophenol	0.28 jl	Benzo(b)fluoranthene	0.0052 J
2,4,5-Trichlorophenol	0.19 jl	Benzo(k)fluoranthene	0.0012 J
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001 J
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001 J
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.0011 J

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-20 1/25
Date Analyzed:	12/03/24	Data File:	120309.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	58 d	14	115
Phenol-d6	75 d	29	121
Nitrobenzene-d5	95 d	16	137
2-Fluorobiphenyl	100 d	46	122
2,4,6-Tribromophenol	110 d	17	154
Terphenyl-d14	68 d	31	167

Compounds:	Concentration mg/kg (ppm)
Pentachlorophenol	23
Di-n-octyl phthalate	<2.5
Benzo(a)pyrene	<0.012
Benzo(b)fluoranthene	<0.012
Benzo(k)fluoranthene	<0.012
Indeno(1,2,3-cd)pyrene	<0.025
Dibenz(a,h)anthracene	<0.025
Benzo(g,h,i)perylene	<0.025

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-22
Date Analyzed:	12/03/24	Data File:	120242.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	94	22	119
Phenol-d6	107	38	124
Nitrobenzene-d5	104	10	198
2-Fluorobiphenyl	107	45	117
2,4,6-Tribromophenol	131	11	158
Terphenyl-d14	111	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.0060
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.0012
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	0.010
2-Nitrophenol	<0.1 k	Pentachlorophenol	2.9 ca ve
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0090
Benzoic acid	<0.5 k	Anthracene	0.00064
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	0.11	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.0069
Naphthalene	0.0030	Pyrene	0.0056
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.0024
4-Chloro-3-methylphenol	<0.1	Chrysene	0.0037
2-Methylnaphthalene	0.0030	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.0027	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	0.0020
2,4,6-Trichlorophenol	0.16 jl	Benzo(b)fluoranthene	0.0031
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.00081
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	0.0019
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.0022

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-22 1/10
Date Analyzed:	12/03/24	Data File:	120307.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	93 d	22	119
Phenol-d6	107 d	38	124
Nitrobenzene-d5	96 d	10	198
2-Fluorobiphenyl	113 d	45	117
2,4,6-Tribromophenol	147 d	11	158
Terphenyl-d14	115 d	50	124

Compounds:	Concentration mg/kg (ppm)
Pentachlorophenol	5.1

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-15-17	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-25
Date Analyzed:	12/03/24	Data File:	120240.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	87	22	119
Phenol-d6	103	38	124
Nitrobenzene-d5	102	10	198
2-Fluorobiphenyl	105	45	117
2,4,6-Tribromophenol	134	11	158
Terphenyl-d14	117	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.00076
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	0.032
2-Nitrophenol	<0.1 k	Pentachlorophenol	0.90 ca
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0019
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.00065
Naphthalene	0.0011	Pyrene	0.00073
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	0.00079	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.00076	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-15-17	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-25 1/5
Date Analyzed:	12/03/24	Data File:	120306.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86 d	22	119
Phenol-d6	102 d	38	124
Nitrobenzene-d5	93 d	10	198
2-Fluorobiphenyl	112 d	45	117
2,4,6-Tribromophenol	120 d	11	158
Terphenyl-d14	114 d	50	124

Compounds:	Concentration mg/kg (ppm)
Pentachlorophenol	0.91

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GP-83-23-25	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-26
Date Analyzed:	12/03/24	Data File:	120241.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	94	22	119
Phenol-d6	110	38	124
Nitrobenzene-d5	107	10	198
2-Fluorobiphenyl	109	45	117
2,4,6-Tribromophenol	129	11	158
Terphenyl-d14	117	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00070
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-30
Date Analyzed:	12/03/24	Data File:	120320.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	14	115
Phenol-d6	90	29	121
Nitrobenzene-d5	85	16	137
2-Fluorobiphenyl	107	46	122
2,4,6-Tribromophenol	110	17	154
Terphenyl-d14	102	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	0.0053
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	0.0013
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.0024
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.0023
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	0.011	Hexachlorobenzene	0.18
2-Nitrophenol	<0.1	Pentachlorophenol	0.17
2,4-Dimethylphenol	<0.1	Phenanthrene	0.026
Benzoic acid	<0.5	Anthracene	0.0035
Bis(2-chloroethoxy)methane	<0.01	Carbazole	0.0031
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.052
Naphthalene	0.0070	Pyrene	0.055
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.026
4-Chloro-3-methylphenol	<0.1	Chrysene	0.038
2-Methylnaphthalene	0.0045	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.0026	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.048
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.062
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.023
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	0.012
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	0.0026
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.014

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-7-9	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-31
Date Analyzed:	12/03/24	Data File:	120243.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	73	22	119
Phenol-d6	88	38	124
Nitrobenzene-d5	83	10	198
2-Fluorobiphenyl	88	45	117
2,4,6-Tribromophenol	125	11	158
Terphenyl-d14	121	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	0.00062
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00064
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.00050
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.00063
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-10.5-12.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-32
Date Analyzed:	12/03/24	Data File:	120244.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	93	22	119
Phenol-d6	112	38	124
Nitrobenzene-d5	110	10	198
2-Fluorobiphenyl	114	45	117
2,4,6-Tribromophenol	143	11	158
Terphenyl-d14	128 vo	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0013
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	0.0027	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	0.00066	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.00082	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.00067 js
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-23-25	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-34
Date Analyzed:	12/03/24	Data File:	120245.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	84	22	119
Phenol-d6	98	38	124
Nitrobenzene-d5	94	10	198
2-Fluorobiphenyl	96	45	117
2,4,6-Tribromophenol	129	11	158
Terphenyl-d14	115	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00090
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	0.0012	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-8.5-10.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-50
Date Analyzed:	12/03/24	Data File:	120246.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	22	119
Phenol-d6	89	38	124
Nitrobenzene-d5	84	10	198
2-Fluorobiphenyl	87	45	117
2,4,6-Tribromophenol	117	11	158
Terphenyl-d14	97	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0013
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	0.0012	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	0.00055	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.00073	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-14.5-16	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-51
Date Analyzed:	12/03/24	Data File:	120247.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63	22	119
Phenol-d6	77	38	124
Nitrobenzene-d5	73	10	198
2-Fluorobiphenyl	82	45	117
2,4,6-Tribromophenol	118	11	158
Terphenyl-d14	103	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	0.13	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0018
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.0013
Naphthalene	<0.001	Pyrene	0.0014
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	0.00091
2-Methylnaphthalene	0.00068	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.00065	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	0.00094
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.0012
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-16-18	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-52
Date Analyzed:	12/03/24	Data File:	120248.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	22	119
Phenol-d6	90	38	124
Nitrobenzene-d5	85	10	198
2-Fluorobiphenyl	89	45	117
2,4,6-Tribromophenol	121	11	158
Terphenyl-d14	112	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	<0.0005
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	FD-Soil-241121	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	411367-57
Date Analyzed:	12/03/24	Data File:	120249.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	81	22	119
Phenol-d6	97	38	124
Nitrobenzene-d5	91	10	198
2-Fluorobiphenyl	97	45	117
2,4,6-Tribromophenol	126	11	158
Terphenyl-d14	120	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0021
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW Inc AS230067
Date Extracted:	12/02/24	Lab ID:	04-2921 mb
Date Analyzed:	12/03/24	Data File:	120236.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	111	22	119
Phenol-d6	121	38	124
Nitrobenzene-d5	114	10	198
2-Fluorobiphenyl	121 vo	45	117
2,4,6-Tribromophenol	124	11	158
Terphenyl-d14	122	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	<0.0005
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1 k
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB-241120	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-47
Date Analyzed:	11/26/24	Data File:	411367-47.155
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	1.8
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	I4-1021 mb
Date Analyzed:	11/25/24	Data File:	I4-1021 mb.049
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-82-7-9	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-02
Date Analyzed:	11/22/24	Data File:	411367-02.164
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	36
Chromium	9.7
Copper	51
Zinc	35

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-82-11-13	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-03
Date Analyzed:	11/22/24	Data File:	411367-03.165
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.7
Chromium	9.7
Copper	20
Zinc	16

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-82-21-23	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-05
Date Analyzed:	11/22/24	Data File:	411367-05.166
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.0
Chromium	9.3
Copper	13
Zinc	21

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-8-10	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-11
Date Analyzed:	11/22/24	Data File:	411367-11.167
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	240
Chromium	5.3
Copper	17
Zinc	140

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-12-14	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-13
Date Analyzed:	11/22/24	Data File:	411367-13.168
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	24
Chromium	11
Copper	23
Zinc	13

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-17-19	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-14
Date Analyzed:	11/22/24	Data File:	411367-14.169
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12
Chromium	8.8
Copper	16
Zinc	23

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-81-21-23	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-15
Date Analyzed:	11/22/24	Data File:	411367-15.175
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.6
Chromium	9.1
Copper	11
Zinc	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-83-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-20
Date Analyzed:	11/22/24	Data File:	411367-20.178
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	83
Chromium	27
Copper	990
Zinc	31

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-83-12-14	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-23
Date Analyzed:	11/22/24	Data File:	411367-23.180
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.4
Chromium	8.7
Copper	22
Zinc	14

Analysis For Total Metals By EPA Method 6020B

Client ID:	FD-Soil-241119	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-24
Date Analyzed:	11/22/24	Data File:	411367-24.181
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.0
Chromium	9.1
Copper	22
Zinc	15

Analysis For Total Metals By EPA Method 6020B

Client ID:	GP-83-23-25	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-26
Date Analyzed:	11/22/24	Data File:	411367-26.182
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.4
Chromium	7.0
Copper	7.4
Zinc	17

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-33D-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-30 x10
Date Analyzed:	11/25/24	Data File:	411367-30 x10.078
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	180
Chromium	38
Copper	500
Zinc	1,700

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-33D-10.5-12.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-32
Date Analyzed:	11/22/24	Data File:	411367-32.184
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.5
Chromium	13
Copper	22
Zinc	42

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-33D-23-25	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-34
Date Analyzed:	11/22/24	Data File:	411367-34.195
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.8
Chromium	7.4
Copper	7.1
Zinc	15

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-7-9	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-39 x5
Date Analyzed:	11/25/24	Data File:	411367-39 x5.079
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	67
Chromium	30
Copper	350
Zinc	45

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-11-12.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-41
Date Analyzed:	11/22/24	Data File:	411367-41.207
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	940
Chromium	23
Copper	190
Zinc	120

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-12.5-14.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-42
Date Analyzed:	11/22/24	Data File:	411367-42.208
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	320
Chromium	13
Copper	47
Zinc	190

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-20-22	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-43
Date Analyzed:	11/22/24	Data File:	411367-43.219
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	18
Chromium	7.2
Copper	7.9
Zinc	18

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-36-38	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-46
Date Analyzed:	11/22/24	Data File:	411367-46.220
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.2
Chromium	5.2
Copper	8.0
Zinc	13

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-1-3	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-49
Date Analyzed:	11/22/24	Data File:	411367-49.233
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	95
Chromium	11
Copper	95
Zinc	29

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-16-18	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-52
Date Analyzed:	11/22/24	Data File:	411367-52.234
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.0
Chromium	7.0
Copper	<5
Zinc	12

Analysis For Total Metals By EPA Method 6020B

Client ID:	FD-Soil-241121	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	411367-57
Date Analyzed:	11/22/24	Data File:	411367-57.235
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.3
Chromium	8.4
Copper	7.6
Zinc	15

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	I4-1015 mb
Date Analyzed:	11/22/24	Data File:	I4-1015 mb.128
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	Glacier NW Inc AS230067
Date Extracted:	11/22/24	Lab ID:	I4-1018 mb
Date Analyzed:	11/22/24	Data File:	I4-1018 mb.142
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	GP-81-8-10	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-11
Date Analyzed:	11/26/24	Data File:	411367-11.088
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	GP-81-17-19	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-14
Date Analyzed:	11/26/24	Data File:	411367-14.089
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	GP-83-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-20
Date Analyzed:	11/26/24	Data File:	411367-20.090
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	MW-33D-3-5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-30
Date Analyzed:	11/26/24	Data File:	411367-30.091
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	5.4	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	MW-46D-12.5-14.5	Client:	Aspect Consulting
Date Received:	11/21/24	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	411367-42
Date Analyzed:	11/26/24	Data File:	411367-42.092
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	Glacier NW Inc AS230067
Date Extracted:	11/25/24	Lab ID:	I4-1024 mb
Date Analyzed:	11/26/24	Data File:	I4-1024 mb.075
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 411367-10 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	40	82	70-130

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 411383-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	96	96	63-146	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	88	77-123

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 411460-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	43	49	10-142	13
Chloromethane	mg/kg (ppm)	2	<0.5	68	70	10-126	3
Vinyl chloride	mg/kg (ppm)	2	<0.05	78	78	10-138	0
Bromomethane	mg/kg (ppm)	2	<0.5	77	79	10-163	3
Chloroethane	mg/kg (ppm)	2	<0.5	78	76	10-176	3
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	88	93	10-176	6
Acetone	mg/kg (ppm)	10	<5	80	104	10-163	26 vo
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	62	80	10-160	25 vo
Hexane	mg/kg (ppm)	2	<0.25	78	79	10-137	1
Methylene chloride	mg/kg (ppm)	2	<0.5	80	88	10-156	10
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	81	85	21-145	5
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	78	80	14-137	3
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	84	86	19-140	2
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	86	93	10-158	8
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	81	87	25-135	7
Chloroform	mg/kg (ppm)	2	<0.05	83	85	21-145	2
2-Butanone (MEK)	mg/kg (ppm)	10	<1	94	101	19-147	7
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	93	93	12-160	0
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	86	87	10-156	1
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	83	88	17-140	6
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	91	93	9-164	2
Benzene	mg/kg (ppm)	2	<0.03	83	85	29-129	2
Trichloroethene	mg/kg (ppm)	2	<0.02	79	84	21-139	6
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	89	91	30-135	2
Bromodichloromethane	mg/kg (ppm)	2	<0.05	84	87	23-155	4
Dibromomethane	mg/kg (ppm)	2	<0.05	83	86	23-145	4
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	88	93	24-155	6
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	83	88	28-144	6
Toluene	mg/kg (ppm)	2	<0.05	90	92	35-130	2
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	95	99	26-149	4
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	94	97	10-205	3
2-Hexanone	mg/kg (ppm)	10	<1	100	103	15-166	3
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	100	104	31-137	4
Tetrachloroethene	mg/kg (ppm)	2	<0.025	83	87	20-133	5
Dibromochloromethane	mg/kg (ppm)	2	<0.05	84	91	28-150	8
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	89	94	28-142	5
Chlorobenzene	mg/kg (ppm)	2	<0.05	87	92	32-129	6
Ethylbenzene	mg/kg (ppm)	2	<0.05	94	100	32-137	6
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	94	96	31-143	2
m,p-Xylene	mg/kg (ppm)	4	<0.1	89	95	34-136	7
o-Xylene	mg/kg (ppm)	2	<0.05	92	96	33-134	4
Styrene	mg/kg (ppm)	2	<0.05	91	93	35-137	2
Isopropylbenzene	mg/kg (ppm)	2	<0.05	91	94	31-142	3
Bromoform	mg/kg (ppm)	2	<0.05	81	87	21-156	7
n-Propylbenzene	mg/kg (ppm)	2	<0.05	101	98	23-146	3
Bromobenzene	mg/kg (ppm)	2	<0.05	94	90	34-130	4
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	98	96	18-149	2
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	103	97	28-140	6
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	109	108	25-144	1
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	101	96	31-134	5
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	100	98	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	98	97	30-137	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	96	95	10-182	1
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	100	98	23-145	2
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	99	94	21-149	5
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	90	89	30-131	1
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	91	89	29-129	2
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	87	87	31-132	0
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	102	95	11-161	7
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	88	87	22-142	1
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	86	83	10-142	4
Naphthalene	mg/kg (ppm)	2	<0.05	94	93	14-157	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	92	90	20-144	2

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	53	10-146
Chloromethane	mg/kg (ppm)	2	78	27-133
Vinyl chloride	mg/kg (ppm)	2	88	22-139
Bromomethane	mg/kg (ppm)	2	99	10-201
Chloroethane	mg/kg (ppm)	2	91	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	104	10-196
Acetone	mg/kg (ppm)	10	116	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	91	47-128
Hexane	mg/kg (ppm)	2	92	43-142
Methylene chloride	mg/kg (ppm)	2	92	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	90	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	89	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	94	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	102	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	92	64-135
Chloroform	mg/kg (ppm)	2	92	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	115	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	103	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	98	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	96	64-136
Carbon tetrachloride	mg/kg (ppm)	2	105	60-139
Benzene	mg/kg (ppm)	2	93	65-136
Trichloroethene	mg/kg (ppm)	2	87	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	100	61-145
Bromodichloromethane	mg/kg (ppm)	2	98	57-126
Dibromomethane	mg/kg (ppm)	2	95	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	103	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	96	65-143
Toluene	mg/kg (ppm)	2	92	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	102	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	99	62-131
2-Hexanone	mg/kg (ppm)	10	112	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	105	67-128
Tetrachloroethene	mg/kg (ppm)	2	87	68-128
Dibromochloromethane	mg/kg (ppm)	2	95	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	97	66-129
Chlorobenzene	mg/kg (ppm)	2	92	67-128
Ethylbenzene	mg/kg (ppm)	2	101	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	97	64-121
m,p-Xylene	mg/kg (ppm)	4	96	68-128
o-Xylene	mg/kg (ppm)	2	96	67-129
Styrene	mg/kg (ppm)	2	97	67-129
Isopropylbenzene	mg/kg (ppm)	2	98	68-128
Bromoform	mg/kg (ppm)	2	95	56-132
n-Propylbenzene	mg/kg (ppm)	2	107	68-129
Bromobenzene	mg/kg (ppm)	2	99	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	104	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	110	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	120	61-137
2-Chlorotoluene	mg/kg (ppm)	2	104	69-128
4-Chlorotoluene	mg/kg (ppm)	2	108	67-127
tert-Butylbenzene	mg/kg (ppm)	2	103	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	104	69-128
sec-Butylbenzene	mg/kg (ppm)	2	105	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	101	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	95	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	95	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	95	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	107	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	92	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	99	50-153
Naphthalene	mg/kg (ppm)	2	100	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	95	61-126

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	ug/L (ppb)	10	33	37	10-55	11
Phenol	ug/L (ppb)	10	34	35	10-86	3
Bis(2-chloroethyl) ether	ug/L (ppb)	10	91	93	50-103	2
2-Chlorophenol	ug/L (ppb)	10	86	86	10-97	0
1,3-Dichlorobenzene	ug/L (ppb)	10	59	48	46-89	21 vo
1,4-Dichlorobenzene	ug/L (ppb)	10	65	54	47-89	18
1,2-Dichlorobenzene	ug/L (ppb)	10	63	53	50-89	17
Benzyl alcohol	ug/L (ppb)	50	67	68	10-76	1
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	87	86	53-98	1
2-Methylphenol	ug/L (ppb)	10	81	81	11-93	0
Hexachloroethane	ug/L (ppb)	10	57	42	42-94	30 vo
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	94	94	68-109	0
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	73 vo	73 vo	10-66	0
Nitrobenzene	ug/L (ppb)	10	93	92	57-109	1
Isophorone	ug/L (ppb)	10	94	94	64-116	0
2-Nitrophenol	ug/L (ppb)	10	99	99	27-120	0
2,4-Dimethylphenol	ug/L (ppb)	10	97	96	10-106	1
Benzoic acid	ug/L (ppb)	80	9 vo	6 vo	10-102	40 vo
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	96	96	55-117	0
2,4-Dichlorophenol	ug/L (ppb)	10	100	100	23-116	0
1,2,4-Trichlorobenzene	ug/L (ppb)	10	75	62	53-95	19
Naphthalene	ug/L (ppb)	10	74	68	58-93	8
Hexachlorobutadiene	ug/L (ppb)	10	53	37 vo	42-102	36 vo
4-Chloroaniline	ug/L (ppb)	50	83	81	28-121	2
4-Chloro-3-methylphenol	ug/L (ppb)	10	100	102	18-113	2
2-Methylnaphthalene	ug/L (ppb)	10	74	67	63-97	10
1-Methylnaphthalene	ug/L (ppb)	10	75	69	62-99	8
Hexachlorocyclopentadiene	ug/L (ppb)	10	69	52	29-118	28 vo
2,4,6-Trichlorophenol	ug/L (ppb)	10	99	100	16-131	1
2,4,5-Trichlorophenol	ug/L (ppb)	10	104	104	26-129	0
2-Chloronaphthalene	ug/L (ppb)	10	85	78	66-100	9
2-Nitroaniline	ug/L (ppb)	50	103	100	31-168	3
Dimethyl phthalate	ug/L (ppb)	10	103	107	70-130	4
Acenaphthylene	ug/L (ppb)	10	88	85	68-111	3
2,6-Dinitrotoluene	ug/L (ppb)	10	102	107	70-130	5
3-Nitroaniline	ug/L (ppb)	50	87	87	33-128	0
Acenaphthene	ug/L (ppb)	10	85	82	67-104	4
2,4-Dinitrophenol	ug/L (ppb)	20	96	98	10-137	2
Dibenzofuran	ug/L (ppb)	10	92	89	67-114	3
2,4-Dinitrotoluene	ug/L (ppb)	10	119	126	53-132	6
4-Nitrophenol	ug/L (ppb)	20	34	38	10-89	11
Diethyl phthalate	ug/L (ppb)	10	100	104	57-134	4
Fluorene	ug/L (ppb)	10	92	91	70-130	1
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	98	95	70-130	3
N-Nitrosodiphenylamine	ug/L (ppb)	10	99	98	70-130	1
4-Nitroaniline	ug/L (ppb)	50	103	105	32-124	2
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	109	109	14-167	0
Hexachlorobenzene	ug/L (ppb)	10	95	92	58-111	3
Pentachlorophenol	ug/L (ppb)	10	109	110	10-144	1
Phenanthrene	ug/L (ppb)	10	95	95	70-130	0
Anthracene	ug/L (ppb)	10	94	93	70-130	1
Carbazole	ug/L (ppb)	10	100	101	70-130	1
Di-n-butyl phthalate	ug/L (ppb)	10	105	106	28-147	1
Fluoranthene	ug/L (ppb)	10	92	92	70-130	0
Pyrene	ug/L (ppb)	10	88	88	70-130	0
Benzyl butyl phthalate	ug/L (ppb)	10	96	99	34-142	3
Benz(a)anthracene	ug/L (ppb)	10	93	94	70-130	1
Chrysene	ug/L (ppb)	10	92	92	70-130	0
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	106	105	44-140	1
Di-n-octyl phthalate	ug/L (ppb)	10	96	100	33-147	4
Benzo(a)pyrene	ug/L (ppb)	10	97	99	70-130	2
Benzo(b)fluoranthene	ug/L (ppb)	10	94	99	70-130	5
Benzo(k)fluoranthene	ug/L (ppb)	10	95	96	70-130	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	104	97	70-130	7
Dibenz(a,h)anthracene	ug/L (ppb)	10	104	99	70-130	5
Benzo(g,h,i)perylene	ug/L (ppb)	10	102	94	68-131	8

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	mg/kg (ppm)	0.83	62	56	20-82	10
Phenol	mg/kg (ppm)	0.83	99	101	47-128	2
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.83	93	95	35-131	2
2-Chlorophenol	mg/kg (ppm)	0.83	100	101	58-111	1
1,3-Dichlorobenzene	mg/kg (ppm)	0.83	91	90	47-109	1
1,4-Dichlorobenzene	mg/kg (ppm)	0.83	90	94	46-110	4
1,2-Dichlorobenzene	mg/kg (ppm)	0.83	92	92	50-110	0
Benzyl alcohol	mg/kg (ppm)	4.2	102	105	36-147	3
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.83	92	95	54-113	3
2-Methylphenol	mg/kg (ppm)	0.83	96	99	60-114	3
Hexachloroethane	mg/kg (ppm)	0.83	95	98	45-111	3
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.83	102	105	70-130	3
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.83	99	104	66-112	5
Nitrobenzene	mg/kg (ppm)	0.83	106	109	59-111	3
Isophorone	mg/kg (ppm)	0.83	105	106	52-128	1
2-Nitrophenol	mg/kg (ppm)	0.83	116	123 vo	60-121	6
2,4-Dimethylphenol	mg/kg (ppm)	0.83	97	99	53-119	2
Benzoic acid	mg/kg (ppm)	2.5	89	89	13-223	0
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.83	102	106	64-112	4
2,4-Dichlorophenol	mg/kg (ppm)	0.83	104	107	63-111	3
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.83	95	97	56-111	2
Naphthalene	mg/kg (ppm)	0.83	93	94	57-107	1
Hexachlorobutadiene	mg/kg (ppm)	0.83	98	102	49-119	4
4-Chloroaniline	mg/kg (ppm)	6.8	90	89	10-136	1
4-Chloro-3-methylphenol	mg/kg (ppm)	0.83	105	105	70-130	0
2-Methylnaphthalene	mg/kg (ppm)	0.83	94	93	63-112	1
1-Methylnaphthalene	mg/kg (ppm)	0.83	94	92	63-113	2
Hexachlorocyclopentadiene	mg/kg (ppm)	0.83	123	132 vo	46-127	7
2,4,6-Trichlorophenol	mg/kg (ppm)	0.83	112	119 vo	65-116	6
2,4,5-Trichlorophenol	mg/kg (ppm)	0.83	116	122 vo	67-117	5
2-Chloronaphthalene	mg/kg (ppm)	0.83	100	107	67-109	7
2-Nitroaniline	mg/kg (ppm)	4.2	131	137	46-148	4
Dimethyl phthalate	mg/kg (ppm)	0.83	103	109	70-130	6
Acenaphthylene	mg/kg (ppm)	0.83	102	108	70-130	6
2,6-Dinitrotoluene	mg/kg (ppm)	0.83	108	115	70-130	6
Acenaphthene	mg/kg (ppm)	0.83	98	103	66-112	5
2,4-Dinitrophenol	mg/kg (ppm)	1.7	120	118	63-132	2
Dibenzofuran	mg/kg (ppm)	0.83	100	103	63-117	3
2,4-Dinitrotoluene	mg/kg (ppm)	0.83	112	113	52-140	1
4-Nitrophenol	mg/kg (ppm)	1.7	109	109	16-187	0
Diethyl phthalate	mg/kg (ppm)	0.83	102	104	64-120	2
Fluorene	mg/kg (ppm)	0.83	103	105	67-117	2
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.83	102	106	70-130	4
N-Nitrosodiphenylamine	mg/kg (ppm)	0.83	102	106	61-118	4
4-Nitroaniline	mg/kg (ppm)	4.2	86	85	28-121	1
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.83	132	131	51-152	1
Hexachlorobenzene	mg/kg (ppm)	0.83	103	107	70-130	4
Pentachlorophenol	mg/kg (ppm)	0.83	129	128	60-133	1
Phenanthrene	mg/kg (ppm)	0.83	99	101	70-130	2
Anthracene	mg/kg (ppm)	0.83	100	100	70-130	0
Carbazole	mg/kg (ppm)	0.83	92	95	63-122	3
Di-n-butyl phthalate	mg/kg (ppm)	0.83	108	109	48-128	1
Fluoranthene	mg/kg (ppm)	0.83	108	106	70-130	2
Pyrene	mg/kg (ppm)	0.83	97	100	70-130	3
Benzyl butyl phthalate	mg/kg (ppm)	0.83	110	115	64-135	4
Benz(a)anthracene	mg/kg (ppm)	0.83	99	101	70-130	2
Chrysene	mg/kg (ppm)	0.83	96	99	70-130	3
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.83	102	103	59-116	1
Di-n-octyl phthalate	mg/kg (ppm)	0.83	113	114	46-129	1
Benzo(a)pyrene	mg/kg (ppm)	0.83	102	103	68-120	1
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	104	107	67-128	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	105	109	70-130	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	116	113	67-129	3
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	118	116	67-128	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	112	110	65-130	2

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411396-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	104	104	75-125	0
Chromium	ug/L (ppb)	10	<1	82	83	75-125	1
Copper	ug/L (ppb)	10	<5	84	83	75-125	1
Zinc	ug/L (ppb)	10	6.67	83 b	79 b	75-125	5 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	100	80-120
Chromium	ug/L (ppb)	10	86	80-120
Copper	ug/L (ppb)	10	83	80-120
Zinc	ug/L (ppb)	10	86	80-120

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411064-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	1.99	85	82	75-125	4
Chromium	mg/kg (ppm)	10	13.0	107 b	185 b	75-125	53 b
Copper	mg/kg (ppm)	10	9.11	194 b	137 b	75-125	34 b
Zinc	mg/kg (ppm)	10	21.4	167 b	146 b	75-125	13 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	93	80-120
Chromium	mg/kg (ppm)	10	91	80-120
Copper	mg/kg (ppm)	10	89	80-120
Zinc	mg/kg (ppm)	10	90	80-120

Date of Report: 12/05/24
Date Received: 11/21/24
Project: Glacier NW Inc AS230067, F&BI 411367

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 411228-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	96	93	75-125	3
Chromium	mg/L (ppm)	2.0	<1	96	95	75-125	1
Copper	mg/L (ppm)	2.0	<5	95	93	75-125	2
Zinc	mg/L (ppm)	5.0	<5	106	97	75-125	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	96	80-120
Chromium	mg/L (ppm)	2.0	97	80-120
Copper	mg/L (ppm)	2.0	97	80-120
Zinc	mg/L (ppm)	5.0	90	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

411367

SAMPLE CHAIN OF CUSTODY

11-21-24 / M4 / VS-E4/F2

Page # 1 of 6

Report To Andrew Yonkofski + Jeremy Porter + Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-838-5841 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (*signature*): David Mary

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS:
1. *metals include: As, Cu, Cr, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend hold times

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 metals + Ni EPA 6020B	metals TCLP EPA 1311/6020B	Low-Level PAHs/VOCs EPA 8270E SIM		Notes
GP-82-2-4	01 A-B	11/18/24	1030	SO	2										X		
GP-82-7-9	02	11/18/24	1100	SO	2								X				
GP-82-11-13	03	11/18/24	1115	SO	2								X		X		
GP-82-15-17	04	11/18/24	1200	SO	2												Archive
GP-82-21-23	05	11/18/24	1220	SO	2								X		X		
GP-82-28-30	06	11/18/24	1230	SO	2												Archive
GP-82-33-35	07	11/18/24	1240	SO	2												Archive
GP-82-37-39	08	11/18/24	1250	SO	2												Archive
GP-81-1-3	09	11/18/24	1450	SO	2	X	X			X							ER Archive
GP-81-2	10 A-B	11/18/24	1450	SO	8	X	X			X							If additional volume required use from GP-81-1-3

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FBI	11/21/24	15:40
Relinquished by:		Samples received at 2 oC		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

411367

SAMPLE CHAIN OF CUSTODY

11-21-24

M4 / VS-E4 / F2

Page # 2 of 6

Report To Andrew Yonkofski + Jeremy Porter + Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME	PO #
Glacier NW, Inc.	AS 230067

REMARKS

① + metals include: As, Cr, Cu, Zn

② Freeze all archive samples and extra sample volume from primary samples to extend hold times.

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☒ Standard turnaround

☐ RUSH _____

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Archive samples

☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals* EPA 6020B	Metals TCLP EPA 1311/6020B	Low-Level PAHs SVOCs EPA 8270 SIM		Notes
GP-81-8-10	11 A-B	11/18/24	~~1450~~ DTM 1510	SO	2								X	X			
GP-81-10-12	12	11/18/24	~~1540~~ DTM 1535		2										X		
GP-81-12-14	13	11/18/24	~~1535~~ DTM 1540		2								X				
GP-81-17-19	14	11/18/24	~~1540~~ DTM 1600		2								X	X	X		
GP-81-21-23	15	11/19/24	~~0802~~ DTM 0810		2								X		X		
GP-81-12.5	16 A-H	11/18/24	1540		~~4~~ (8)												
GP-81-28-30	17 A B	11/19/24	0830		2												Archive
GP-81-32-34	18	11/19/24	0845		2												Archive
GP-81-38-40	19	11/19/24	0855		2												Archive
GP-83-3-5	20	11/19/24	1030	↓	2								X	X	X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Risen	Emily Risen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FDT	11/21/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

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411367

SAMPLE CHAIN OF CUSTODY

11-21-24

M4/VS-E4/F2

Page # 3 of 6

Report To Andrew Yonkofski + Jeremy Porter + Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

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Phone _____ Email _____

SAMPLERS (signature)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
① * metals include: Cu, Cr, As, Zn
② Freeze all archive samples and extra sample volume from primary samples to extend hold times
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA Metals* EPA 6020B	Metals TCLP EPA 1311/6020B	Low-level PAHs (SIM) EPA 8270C SIM		Notes
GP-83-5	21 A-B	11/19/24	1050	SO	2												Archive
GP-83-9.5-11.5	22	11/19/24	1100	SO	2										X		
GP-83-12-14	23	11/19/24	1115	SO	2								X				
FD-SOIL-241119	24	11/19/24		SO	2								X				
GP-83-15-17	25	11/19/24	1130	SO	2										X		
GP-83-23-25	26	11/19/24	1200	SO	2								X		X		
GP-83-28-30	27	11/19/24	1210	SO	2												Archive
GP-83-33-35	28	11/19/24	1230	SO	2												Archive
GP-83-38-40	29	11/19/24	1240	SO	2												Archive
MW-33D-3-5	30	11/19/24	1350	SO	2								X	X	X		

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Rusen	Emily Rusen	Aspect	11/21/24	1540
Received by:		Anh Phan	FBI	11/22/24	15:40
Relinquished by:			Samples received at 2 °C		
Received by:					

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411367

SAMPLE CHAIN OF CUSTODY

11-21-24

M4/VS E4/F2

Page # 4 of 6

Report To Andrew Yonkofski + Jeremy Porter + marchaitant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

INVOICE TO

REMARKS
(1) *metals include: Cu, Cr, As, Zn
(2) Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals* EPA 6020B	Metals TCLP EPA 1311/6020B	Low-level PAHs / SVOCs EPA 8270E SIM		Notes
MW-33D-7-9	31 A-B	11/19/24	1420	SO	2										X		
MW-33D-10.5-12.5	32	11/19/24	1430	SO	2								X		X		
MW-33D-16-18	33	11/19/24	1500	SO	2												Archive
MW-33D-23-25	34	11/19/24	1520	SO	2								X		X		
MW-33D-28-30	35	11/19/24	1530	SO	2												Archive
MW-33D-33-35	36	11/19/24	1600	SO	2												Archive
MW-33D-38-40	37	11/19/24	1610	SO	2												Archive
MW-46D-3-5	38	11/20/24	1000	SO	2												Archive
MW-46D-7-9	39	11/20/24	1020	SO	2								X				
MW-46D-9	40 A-D	11/20/24	1025	SO	4												Archive

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FDI	11/21/24	15:40
Relinquished by:		Samples received at 2 oC		
Received by:				

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411367 + Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11-21-24

M4/V5 E4/F2

Report To Andrew Yonkofski + Marc Chulfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
1. +metals include: As, Cu, Cr, Zn
2. Freeze all archive samples and extra sample volume from primary samples to extend holding times
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 metals + EPA 6020B	Metals TCLP EPA 1311/6020B	SVOCs (Level) PAHs EPA 8270ESIM		Notes
MW-46D-11-12.5	41 A,B	11/20/24	1050	SO	2								X				may analyze for TCLP pending sample results.
MW-46D-12.5-14.5	42	11/20/24	1106	SO	2								X	X			
MW-46D-20-22	43	11/20/24	1210	SO	2								X				
MW-46D-28-30	44	11/20/24	1220	SO	2												Archive
MW-46D-33-35	45	11/20/24	1240	SO	2												Archive
MW-46D-36-38	46	11/20/24	1250	SO	2								X				
EB-241120	47 A,C	11/20/24	1320	W	3								X		X		
MW-46D-17.5-19.5	48 A,B	11/20/24	1145	SO	2												Archive
MW-48D-1-3	49	11/21/24	0915	SO	2								X				
MW-48D-8.5-10.5	50	11/21/24	0950	SO	2										X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Pham	FBI	11/21/24	15:40
Relinquished by:		Samples received at 2 oC		
Received by:				

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411367 +Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11-21-24

~~MH~~ / VSE4 / F2

Page # 6 of 6

Report To Andrew Yonkofski +Mari Chakrant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS
① Metals include: As, Cu, Cr, Zn
② Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	~~RCRA~~ 8 metals EPA 6020B	Metals TCLP EPA 6020B/1311	Lowered PAHs SVOCs EPA 8270E SIM		Notes
MW-48D-14.5-16	51 A-B	11/21/24	1030	SO	2										X		
MW-48D-16-18	52		1045										X		X		
MW-48D-23-25	53		1130														Archive
MW-48D-28-30	54		1140														Archive
MW-48D-33-35	55		1150														Archive
MW-48D-38-40	56		1200														Archive
FD-SOIL-241121	57	↓		↓	↓								X		X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Emily Rusen	Emily Rusen	ASPECT	11/21/24	1540
Received by:	Anh Phan	FDI	11/21/24	15:40
Relinquished by:		Samples received at 2 °C		
Received by:				

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SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411367 CLIENT Aspect INITIALS/ DATE: AP 11/21/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: (NP) 11/22
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 > 3 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No		☐ Not on COC/label
Date Sampled	☑ Yes ☐ No		☐ Not on COC/label
Time Sampled	☑ Yes ☐ No		☐ Not on COC/label
# of Containers	☐ Yes ☑ No		
Relinquished	☑ Yes ☐ No		
Requested analysis	☑ Yes ☐ On Hold		

Other comments (use a separate page if needed)
Received 8 VOAs for Sample GP-8L 12.5

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
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www.friedmanandbruya.com

December 16, 2024

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on November 26, 2024 from the Glacier NW, Inc. AS230067, F&BI 411429 project. There are 15 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data
ASP1216R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 26, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW, Inc. AS230067, F&BI 411429 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411429 -01	MW-13D-14.5-16.5
411429 -02	MW-13D-19-21
411429 -03	MW-13D-23-25
411429 -04	MW-13D-28-30
411429 -05	MW-13D-33-35
411429 -06	MW-13D-38-40
411429 -07	MW-19D-2.5-5
411429 -08	MW-19D-10-12
411429 -09	MW-19D-12-14
411429 -10	MW-19D-14.5-16
411429 -11	MW-47D-2-4
411429 -12	MW-47D-11-13
411429 -13	MW-47D-16-18
411429 -14	MW-47D-22-24
411429 -15	MW-47D-25-27
411429 -16	MW-47D-32-34
411429 -17	MW-47D-38-40
411429 -18	MW-13D-2.5-4.5
411429 -19	MW-13D-9.5-11.5
411429 -20	MW-13D-11.5-13.5
411429 -21	MW-19D-20-22
411429 -22	MW-19D-28-30
411429 -23	MW-19D-33-35
411429 -24	MW-19D-38-40
411429 -25	EB-241125
411429 -26	FD-241125

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-23-25	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/09/24	Lab ID:	411429-03
Date Analyzed:	12/09/24	Data File:	120911.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	80	22	119
Phenol-d6	87	38	124
Nitrobenzene-d5	82	10	198
2-Fluorobiphenyl	86	45	117
2,4,6-Tribromophenol	91	11	158
Terphenyl-d14	91	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	<0.0005
Benzoic acid	<0.5	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/09/24	Lab ID:	04-2998 mb2
Date Analyzed:	12/09/24	Data File:	120910.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	84	22	119
Phenol-d6	91	38	124
Nitrobenzene-d5	91	10	198
2-Fluorobiphenyl	97	45	117
2,4,6-Tribromophenol	90	11	158
Terphenyl-d14	90	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	<0.0005
Benzoic acid	<0.5	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-19-21	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/11/24	Lab ID:	411429-02
Date Analyzed:	12/11/24	Data File:	411429-02.180
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	11
Chromium	9.3
Copper	11
Zinc	18

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-14.5-16	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/11/24	Lab ID:	411429-10
Date Analyzed:	12/11/24	Data File:	411429-10.181
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.6
Chromium	12
Copper	17
Zinc	20

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-16-18	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/11/24	Lab ID:	411429-13
Date Analyzed:	12/11/24	Data File:	411429-13.182
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	300
Chromium	14
Copper	77
Zinc	130

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-32-34	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/11/24	Lab ID:	411429-16
Date Analyzed:	12/11/24	Data File:	411429-16.183
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.4
Chromium	6.3
Copper	6.4
Zinc	17

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/11/24	Lab ID:	I4-1066 mb2
Date Analyzed:	12/11/24	Data File:	I4-1066 mb2.160
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	MW-19D-2.5-5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/09/24	Lab ID:	411429-07
Date Analyzed:	12/10/24	Data File:	411429-07.111
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	7.0	5.0
Chromium	<1	5.0
Copper	8.6	
Zinc	<5	

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/09/24	Lab ID:	I4-1058 mb
Date Analyzed:	12/10/24	Data File:	I4-1058 mb.094
Matrix:	Soil/Solid	Instrument:	ICPMS3
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Chromium	<1	5.0
Copper	<5	
Zinc	<5	

Date of Report: 12/16/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 412105-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	mg/kg (ppm)	0.83	<0.5	3 vo	4 vo	10-108	29 vo
Phenol	mg/kg (ppm)	0.83	<0.25	85	93	36-118	9
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.83	<0.05	81	88	24-116	8
2-Chlorophenol	mg/kg (ppm)	0.83	<0.5	90	94	24-125	4
1,3-Dichlorobenzene	mg/kg (ppm)	0.83	<0.05	83	85	17-116	2
1,4-Dichlorobenzene	mg/kg (ppm)	0.83	<0.05	84	88	18-118	5
1,2-Dichlorobenzene	mg/kg (ppm)	0.83	<0.05	85	88	22-117	3
Benzyl alcohol	mg/kg (ppm)	4.2	<0.5	90	95	36-121	5
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.83	<0.05	84	89	20-126	6
2-Methylphenol	mg/kg (ppm)	0.83	<0.5	88	92	38-120	4
Hexachloroethane	mg/kg (ppm)	0.83	<0.05	85	87	10-207	2
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.83	<0.05	89	97	10-176	9
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.83	<1	88	94	39-121	7
Nitrobenzene	mg/kg (ppm)	0.83	<0.05	94	98	10-186	4
Isophorone	mg/kg (ppm)	0.83	<0.05	90	94	29-155	4
2-Nitrophenol	mg/kg (ppm)	0.83	<0.5	103	109	16-148	6
2,4-Dimethylphenol	mg/kg (ppm)	0.83	<0.5	83	88	17-130	6
Benzoic acid	mg/kg (ppm)	2.5	<2.5	61	62	10-101	2
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.83	<0.05	91	94	37-121	3
2,4-Dichlorophenol	mg/kg (ppm)	0.83	<0.5	94	100	19-144	6
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.83	<0.05	89	91	35-116	2
Naphthalene	mg/kg (ppm)	0.83	<0.005	85	88	28-125	3
Hexachlorobutadiene	mg/kg (ppm)	0.83	<0.05	88	91	25-126	3
4-Chloroaniline	mg/kg (ppm)	6.8	<5	88	91	21-117	3
4-Chloro-3-methylphenol	mg/kg (ppm)	0.83	<0.5	87	94	36-138	8
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.0025	86	92	10-192	7
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.0025	85	92	10-163	8
Hexachlorocyclopentadiene	mg/kg (ppm)	0.83	<0.15	102	103	10-136	1
2,4,6-Trichlorophenol	mg/kg (ppm)	0.83	<0.5	96	99	16-151	3
2,4,5-Trichlorophenol	mg/kg (ppm)	0.83	<0.5	101	103	20-139	2
2-Chloronaphthalene	mg/kg (ppm)	0.83	<0.05	94	94	42-117	0
2-Nitroaniline	mg/kg (ppm)	4.2	<0.25	89	91	50-150	2
Dimethyl phthalate	mg/kg (ppm)	0.83	<0.5	89	97	50-150	9
Acenaphthylene	mg/kg (ppm)	0.83	<0.0025	94	96	45-128	2
2,6-Dinitrotoluene	mg/kg (ppm)	0.83	<0.25	92	99	11-182	7
3-Nitroaniline	mg/kg (ppm)	4.2	<5	84	93	36-110	10
Acenaphthene	mg/kg (ppm)	0.83	<0.0025	92	93	36-125	1
2,4-Dinitrophenol	mg/kg (ppm)	1.7	<1.5	96	109	10-135	13
Dibenzofuran	mg/kg (ppm)	0.83	<0.0025	92	94	44-125	2
2,4-Dinitrotoluene	mg/kg (ppm)	0.83	<0.25	99	102	37-149	3
4-Nitrophenol	mg/kg (ppm)	1.7	<1.5	87	101	24-159	15
Diethyl phthalate	mg/kg (ppm)	0.83	<0.5	88	92	48-126	4
Fluorene	mg/kg (ppm)	0.83	<0.0025	92	96	48-121	4
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.83	<0.05	93	94	50-150	1
N-Nitrosodiphenylamine	mg/kg (ppm)	0.83	<0.05	92	95	10-190	3
4-Nitroaniline	mg/kg (ppm)	4.2	<5	65	73	10-150	12
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.83	<1.5	104	119	10-148	13
Hexachlorobenzene	mg/kg (ppm)	0.83	<0.05	95	98	50-150	3
Pentachlorophenol	mg/kg (ppm)	0.83	<0.25	106	116	18-159	9
Phenanthrene	mg/kg (ppm)	0.83	<0.0025	90	92	46-122	2
Anthracene	mg/kg (ppm)	0.83	<0.0025	92	95	30-144	3
Carbazole	mg/kg (ppm)	0.83	<0.0025	95	101	50-150	6
Di-n-butyl phthalate	mg/kg (ppm)	0.83	<0.5	97	103	43-124	6
Fluoranthene	mg/kg (ppm)	0.83	<0.0025	95	99	50-150	4
Pyrene	mg/kg (ppm)	0.83	<0.0025	87	94	40-134	8
Benzyl butyl phthalate	mg/kg (ppm)	0.83	<0.5	92	103	14-187	11
Benz(a)anthracene	mg/kg (ppm)	0.83	<0.005	88	92	50-150	4
Chrysene	mg/kg (ppm)	0.83	<0.0025	86	90	50-150	5
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.83	<0.8	87	98	45-130	12
Di-n-octyl phthalate	mg/kg (ppm)	0.83	<0.5	90	102	25-161	12
Benzo(a)pyrene	mg/kg (ppm)	0.83	<0.0025	91	96	50-150	5
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	<0.0025	90	94	50-150	4
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	<0.0025	93	99	50-150	6
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	<0.005	97	95	40-140	2
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.005	102	100	41-136	2
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	<0.03	98	95	29-139	3

Date of Report: 12/16/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Pyridine	mg/kg (ppm)	0.83	71	20-82
Phenol	mg/kg (ppm)	0.83	111	47-128
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.83	94	35-131
2-Chlorophenol	mg/kg (ppm)	0.83	100	58-111
1,3-Dichlorobenzene	mg/kg (ppm)	0.83	94	47-109
1,4-Dichlorobenzene	mg/kg (ppm)	0.83	94	46-110
1,2-Dichlorobenzene	mg/kg (ppm)	0.83	93	50-110
Benzyl alcohol	mg/kg (ppm)	4.2	101	36-147
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.83	95	54-113
2-Methylphenol	mg/kg (ppm)	0.83	99	60-114
Hexachloroethane	mg/kg (ppm)	0.83	95	45-111
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.83	99	70-130
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.83	100	66-112
Nitrobenzene	mg/kg (ppm)	0.83	106	59-111
Isophorone	mg/kg (ppm)	0.83	100	52-128
2-Nitrophenol	mg/kg (ppm)	0.83	108	60-121
2,4-Dimethylphenol	mg/kg (ppm)	0.83	100	53-119
Benzoic acid	mg/kg (ppm)	2.5	74	13-223
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.83	102	64-112
2,4-Dichlorophenol	mg/kg (ppm)	0.83	105	63-111
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.83	97	56-111
Naphthalene	mg/kg (ppm)	0.83	95	57-107
Hexachlorobutadiene	mg/kg (ppm)	0.83	99	49-119
4-Chloroaniline	mg/kg (ppm)	6.8	94	10-136
4-Chloro-3-methylphenol	mg/kg (ppm)	0.83	99	70-130
2-Methylnaphthalene	mg/kg (ppm)	0.83	97	63-112
1-Methylnaphthalene	mg/kg (ppm)	0.83	96	63-113
Hexachlorocyclopentadiene	mg/kg (ppm)	0.83	115	46-127
2,4,6-Trichlorophenol	mg/kg (ppm)	0.83	100	65-116
2,4,5-Trichlorophenol	mg/kg (ppm)	0.83	110	67-117
2-Chloronaphthalene	mg/kg (ppm)	0.83	102	67-109
2-Nitroaniline	mg/kg (ppm)	4.2	95	46-148
Dimethyl phthalate	mg/kg (ppm)	0.83	100	70-130
Acenaphthylene	mg/kg (ppm)	0.83	104	70-130
2,6-Dinitrotoluene	mg/kg (ppm)	0.83	101	70-130
Acenaphthene	mg/kg (ppm)	0.83	99	66-112
2,4-Dinitrophenol	mg/kg (ppm)	1.7	113	63-132
Dibenzofuran	mg/kg (ppm)	0.83	99	63-117
2,4-Dinitrotoluene	mg/kg (ppm)	0.83	103	52-140
4-Nitrophenol	mg/kg (ppm)	1.7	98	16-187
Diethyl phthalate	mg/kg (ppm)	0.83	92	64-120
Fluorene	mg/kg (ppm)	0.83	100	67-117
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.83	99	70-130
N-Nitrosodiphenylamine	mg/kg (ppm)	0.83	105	61-118
4-Nitroaniline	mg/kg (ppm)	4.2	75	28-121
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.83	117	51-152
Hexachlorobenzene	mg/kg (ppm)	0.83	104	70-130
Pentachlorophenol	mg/kg (ppm)	0.83	117	60-133
Phenanthrene	mg/kg (ppm)	0.83	99	70-130
Anthracene	mg/kg (ppm)	0.83	102	70-130
Carbazole	mg/kg (ppm)	0.83	98	63-122
Di-n-butyl phthalate	mg/kg (ppm)	0.83	100	48-128
Fluoranthene	mg/kg (ppm)	0.83	106	70-130
Pyrene	mg/kg (ppm)	0.83	96	70-130
Benzyl butyl phthalate	mg/kg (ppm)	0.83	95	64-135
Benz(a)anthracene	mg/kg (ppm)	0.83	98	70-130
Chrysene	mg/kg (ppm)	0.83	95	70-130
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.83	92	59-116
Di-n-octyl phthalate	mg/kg (ppm)	0.83	97	46-129
Benzo(a)pyrene	mg/kg (ppm)	0.83	102	68-120
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	102	67-128
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	101	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	111	67-129
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	112	67-128
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	108	65-130

Date of Report: 12/16/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	98	95	80-120	3
Chromium	mg/kg (ppm)	10	104	101	80-120	3
Copper	mg/kg (ppm)	10	97	95	80-120	2
Zinc	mg/kg (ppm)	10	97	95	80-120	2

Date of Report: 12/16/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 412097-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	101	99	75-125	2
Chromium	mg/L (ppm)	2.0	<1	94	93	75-125	1
Copper	mg/L (ppm)	2.0	<5	78	77	75-125	1
Zinc	mg/L (ppm)	5.0	<5	87	85	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	100	80-120
Chromium	mg/L (ppm)	2.0	91	80-120
Copper	mg/L (ppm)	2.0	88	80-120
Zinc	mg/L (ppm)	5.0	89	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

41142 9 Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11/26/24 F2/M4

Page # 1 of 3

Report To Andrew Yonkofski, Marc Chalfant
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone 206-413-5403 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature): Emily Rissen
PROJECT NAME: Glacier NW, Inc.
PO #: AS230067
REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No
INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311/6020B	Low-level PAHs/SVOCs EPA 8270 SIM		Notes
MW-13D-14.5-16.5	01 A-B	11/25/24	1000	SO	2								X		X		
MW-13D-19-21	02	11/25/24	1010	SO	2								X		X		
MW-13D-23-25	03	11/25/24	1100	SO	2										X		Archive
MW-13D-28-30	04	11/25/24	1110	SO	2												Archive
MW-13D-33-35	05	11/25/24	1120	SO	2												Archive
MW-13D-38-40	06	11/25/24	1130	SO	2								X				
MW-19D-2.5-5	07	11/25/24	1310	SO	2								X	X			
MW-19D-10-12	08	11/25/24	1340	SO	2								X				
MW-19D-12-14	09	11/25/24	1350	SO	2								X				
MW-19D-14.5-16	10	11/25/24	1400	SO	2								X				Archive

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Parke Babcock	Aspect	11/26/24	12:30
Received by: VNH	VINH	FBI	11-26-24	1230
Relinquished by:		Samples received at 4 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

411429

Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11/26/24 F2/M4

Report To Andrew Yonkofski, Marc Chultant

Company ASpect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature) Emily Riser

PROJECT NAME: Glacier NW, Inc.

PO # AS230067

REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times. Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311 / 6020B	Low-Level PAHs SVOCs EPA 8270SIM		Notes
MW-47D-2-4	11A-B	11/22/24	0855	SO	2												
MW-47D-11-13	12	11/22/24	0935	SO	2								X		X		
MW-47D-16-18	13	11/22/24	1015	SO	2								X		X		
MW-47D-22-24	14	11/22/24	1115	SO	2								X				Archive
MW-47D-25-27	15	11/22/24	1125	SO	2								X		X		Labeled AP 11/26 MW-47D-20-22
MW-47D-32-34	16	11/22/24	1135	SO	2								X		X		
MW-47D-38-40	17	11/22/24	1140	SO	2								X				Archive
MW-13D-2.5-4.5	18	11/25/24	0900	SO	2												Archive
MW-13D-9.5-11.5	19	11/25/24	0940	SO	2								X		X		
MW-13D-11.5-12.5	20	11/25/24	0950	SO	2								X		X		
																	Archive

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Blood	Aspect	11/26/24	1230
Received by: VH	VINH	FBI	11-26-24	12:30
Relinquished by:		Samples received at 4 °C		
Received by:				

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

411429 Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11/26/24 F2/M4

Report To Andrew Yonkofski, marc Chalfant
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone 206-413-5407 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature): Emily Rusen
PROJECT NAME: Glacier NW, Inc.
PO #: AS230067
REMARKS: 1) Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No
INVOICE TO

Page # 3 of 3

TURNAROUND TIME
X Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311/6020B	Low-Level PAHs SVOCs EPA 8270E SIM		Notes
MW-19D-20-22	21 A-b	11/25/24	1420	SO	2								X				
MW-19D-28-30	22	11/25/24	1430	SO	2												Archive
MW-19D-33-35	23	11/25/24	1440	SO	2												Archive
MW-19D-38-40	24	11/25/24	1450	SO	2								X				
EB-241125	25 A-C	11/25/24	1520	~~SO~~ WER	3												Water sample media
FD-241125	26 A-b	11/25/24		SO	2												labeled AP 11/26 FD-Soil-241125

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Babcock	Aspect	11/26/24	1230
Received by:	JINH	FBI	11-26-24	12:30
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 8, 2025

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on November 26, 2024 from the Glacier NW, Inc. AS230067, F&BI 411429 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Marc Chalfant, Jeremy Porter
ASP0108R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 26, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW, Inc. AS230067, F&BI 411429 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411429 -01	MW-13D-14.5-16.5
411429 -02	MW-13D-19-21
411429 -03	MW-13D-23-25
411429 -04	MW-13D-28-30
411429 -05	MW-13D-33-35
411429 -06	MW-13D-38-40
411429 -07	MW-19D-2.5-5
411429 -08	MW-19D-10-12
411429 -09	MW-19D-12-14
411429 -10	MW-19D-14.5-16
411429 -11	MW-47D-2-4
411429 -12	MW-47D-11-13
411429 -13	MW-47D-16-18
411429 -14	MW-47D-22-24
411429 -15	MW-47D-25-27
411429 -16	MW-47D-32-34
411429 -17	MW-47D-38-40
411429 -18	MW-13D-2.5-4.5
411429 -19	MW-13D-9.5-11.5
411429 -20	MW-13D-11.5-13.5
411429 -21	MW-19D-20-22
411429 -22	MW-19D-28-30
411429 -23	MW-19D-33-35
411429 -24	MW-19D-38-40
411429 -25	EB-241125
411429 -26	FD-241125

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-23-25	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	01/03/25	Lab ID:	411429-03
Date Analyzed:	01/03/25	Data File:	411429-03.088
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.8
Chromium	7.1
Copper	7.6
Zinc	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	01/03/25	Lab ID:	I5-6 mb
Date Analyzed:	01/03/25	Data File:	I5-6 mb.073
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Date of Report: 01/08/25
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411429-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.50	92 b	90 b	75-125	2 b
Chromium	mg/kg (ppm)	10	6.32	90 b	91 b	75-125	1 b
Copper	mg/kg (ppm)	10	6.80	80 b	78 b	75-125	3 b
Zinc	mg/kg (ppm)	10	17.1	70 b	57 b	75-125	20 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	95	80-120
Chromium	mg/kg (ppm)	10	102	80-120
Copper	mg/kg (ppm)	10	100	80-120
Zinc	mg/kg (ppm)	10	99	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

41142 9 Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11/26/24 F2/M4

Page # 1 of 3

Report To Andrew Yonkofski, Marc Chalfant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email Andrew.yonkofski@aspectconsulting.com

SAMPLERS (*signature*): Emily Rissen

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times. Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [X] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311/6020B	Low-level PAHs/ SVOCs EPA 8270 SIM		Notes
MW-13D-14.5-16.5	01 A-B	11/25/24	1000	SO	2								X		X		
MW-13D-19-21	02	11/25/24	1010	SO	2								X		X		
MW-13D-23-25	03	11/25/24	1100	SO	2								X		X		Archive
MW-13D-28-30	04	11/25/24	1110	SO	2												Archive
MW-13D-33-35	05	11/25/24	1120	SO	2												Archive
MW-13D-38-40	06	11/25/24	1130	SO	2								X				
MW-19D-2.5-5	07	11/25/24	1310	SO	2								X	X			
MW-19D-10-12	08	11/25/24	1340	SO	2								X				
MW-19D-12-14	09	11/25/24	1350	SO	2								X				
MW-19D-14.5-16	10	11/25/24	1400	SO	2								X				Archive

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Parke Babcock	Aspect	11/26/24	12:30
Received by: VNH	VINH	FBI	11-26-24	1230
Relinquished by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

[X] **Additional sample released for analysis on 01/02/2025 by Andrew Yonkofski**

[X] **Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski**

411429

Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11/26/24 F2/M4

Report To Andrew Yonkofski, Marc Chultant

Company ASpect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature): Emily Riser

PROJECT NAME: Glacier NW, Inc.

PO #: AS230067

REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times. Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311 / 6020B	Low-level PAHs SVOCs EPA 8270SIM		Notes
MW-47D-2-4	11A-B	11/22/24	0855	SO	2								X		X		
MW-47D-11-13	12	11/22/24	0935	SO	2								X		X		
MW-47D-16-18	13	11/22/24	1015	SO	2								X				Archive
MW-47D-22-24	14	11/22/24	1115	SO	2								X		X		Labeled AP 11/26 MW-47D-20-22
MW-47D-25-27	15	11/22/24	1125	SO	2								X		X		
MW-47D-32-34	16	11/22/24	1135	SO	2								X				Archive
MW-47D-38-40	17	11/22/24	1140	SO	2												Archive
MW-13D-2.5-4.5	18	11/25/24	0900	SO	2								X		X		
MW-13D-9.5-11.5	19	11/25/24	0940	SO	2								X		X		
MW-13D-11.5-13.5	20	11/25/24	0950	SO	2												Archive

ANALYSES REQUESTED

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Blood	Aspect	11/26/24	1230
Received by: VNH	VINH	FBI	11-26-24	12:30
Relinquished by:		Samples received at 4 °C		
Received by:				

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

411429 Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11/26/24 F2/M4

Report To Andrew Yonkofski, Marc Chalfant
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone 206-413-5467 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature): Emily Rosen
PROJECT NAME: Glacier NW, Inc.
PO #: AS230067
REMARKS: 1) Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No
INVOICE TO

TURNAROUND TIME
[X] Standard turnaround
[ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
[ ] Archive samples
[ ] Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6010C Cu, Cr, As, Zn	Metals TCLP EPA 1311/6010C	Low-Level PAHs SVOCs EPA 8270SIM		Notes
MW-19D-20-22	21 A-b	11/25/24	1420	SO	2								X				
MW-19D-28-30	22	11/25/24	1430	SO	2												Archive
MW-19D-33-35	23	11/25/24	1440	SO	2												Archive
MW-19D-38-40	24	11/25/24	1450	SO	2								X				
EB-241125	25 A-C	11/25/24	1520	~~SO~~ W ER	3												Water sample media labeled AP 11/26 FD-Soil-241125
FD-241125	26 A-b	11/25/24		SO	2												

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Babcock	Aspect	11/26/24	1230
Received by:	JINH	FBI	11-26-24	12:30
Relinquished by:		Samples received at 4 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

X Additional sample released for analysis on 12/06/2024 by Andrew Yonkofski

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411429 CLIENT ASP INITIALS/ DATE: EMB 11/26

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☐ Over the Counter ☒ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ AP Date: 11/26/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1-4 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below).

Sample ID's	☐ Yes ☒ No		☐ Not on COC/label
Date Sampled	☒ Yes ☐ No		☐ Not on COC/label
Time Sampled	☐ Yes ☒ No	Time on label 11:40 for MW-13D-38-40 (06A-B)	☐ Not on COC/label
# of Containers	☐ Yes ☐ No		
Relinquished	☐ Yes ☐ No		
Requested analysis	☐ Yes ☐ On Hold		

Other comments (use a separate page if needed)
Labeled MW-47D-20-22(14A-B)
Labeled FD-Soil-241125(26A-B)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

December 5, 2024

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 26, 2024 from the Glacier NW, Inc. AS230067, F&BI 411429 project. There are 33 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Jeremy Porter, Marc Chalfant
ASP1205R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 26, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW, Inc. AS230067, F&BI 411429 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
411429 -01	MW-13D-14.5-16.5
411429 -02	MW-13D-19-21
411429 -03	MW-13D-23-25
411429 -04	MW-13D-28-30
411429 -05	MW-13D-33-35
411429 -06	MW-13D-38-40
411429 -07	MW-19D-2.5-5
411429 -08	MW-19D-10-12
411429 -09	MW-19D-12-14
411429 -10	MW-19D-14.5-16
411429 -11	MW-47D-2-4
411429 -12	MW-47D-11-13
411429 -13	MW-47D-16-18
411429 -14	MW-47D-22-24
411429 -15	MW-47D-25-27
411429 -16	MW-47D-32-34
411429 -17	MW-47D-38-40
411429 -18	MW-13D-2.5-4.5
411429 -19	MW-13D-9.5-11.5
411429 -20	MW-13D-11.5-13.5
411429 -21	MW-19D-20-22
411429 -22	MW-19D-28-30
411429 -23	MW-19D-33-35
411429 -24	MW-19D-38-40
411429 -25	EB-241125
411429 -26	FD-241125

The 8270E calibration standard did not meet the acceptance criteria for benzoic acid and hexachlorocyclopentadiene. The data were flagged accordingly.

An 8270E internal standard did not meet the acceptance criteria for samples MW-47D-2-4, MW-47D-11-13, and MW-13D-2.5-4.5. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

The 6020B zinc calibration standard exceeded the acceptance criteria for the method blank. The metal was not detected, therefore this did not represent an out of control condition, and the results are not considered estimates.

All other quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-14.5-16.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-01
Date Analyzed:	12/02/24	Data File:	120207.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	14	115
Phenol-d6	83	29	121
Nitrobenzene-d5	78	16	137
2-Fluorobiphenyl	89	46	122
2,4,6-Tribromophenol	115	17	154
Terphenyl-d14	82	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	0.58
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0014
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.0011
Naphthalene	<0.001	Pyrene	0.0015
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	0.00085
2-Methylnaphthalene	0.00074	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.00052	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.0015
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.0014
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-19-21	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-02
Date Analyzed:	12/02/24	Data File:	120208.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	14	115
Phenol-d6	89	29	121
Nitrobenzene-d5	87	16	137
2-Fluorobiphenyl	99	46	122
2,4,6-Tribromophenol	130	17	154
Terphenyl-d14	89	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	0.28
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00079
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.00097
Naphthalene	<0.001	Pyrene	0.0014
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	0.00092
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.0016
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.0015
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.00050
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-2-4	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-11 1/10
Date Analyzed:	12/02/24	Data File:	120218.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	65 d	14	115
Phenol-d6	77 d	29	121
Nitrobenzene-d5	80 d	16	137
2-Fluorobiphenyl	93 d	46	122
2,4,6-Tribromophenol	89 d	17	154
Terphenyl-d14	101 d	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<1 L	Acenaphthylene	0.025
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<10
2-Chlorophenol	<1	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<3
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<1	4-Nitrophenol	<3
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<1
2-Methylphenol	<1	Fluorene	0.0057
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<2	4-Nitroaniline	<10
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<3
Isophorone	<0.1	Hexachlorobenzene	0.27
2-Nitrophenol	<1	Pentachlorophenol	0.87
2,4-Dimethylphenol	<1	Phenanthrene	0.034
Benzoic acid	<5 ca	Anthracene	0.0077
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<1	Di-n-butyl phthalate	<1
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	0.25
Naphthalene	0.050	Pyrene	0.41
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<1
4-Chloroaniline	<10	Benz(a)anthracene	0.17
4-Chloro-3-methylphenol	<1	Chrysene	0.22
2-Methylnaphthalene	0.031	Bis(2-ethylhexyl) phthalate	<1.6
1-Methylnaphthalene	0.016	Di-n-octyl phthalate	<1 J
Hexachlorocyclopentadiene	<0.3 ca	Benzo(a)pyrene	0.24 J
2,4,6-Trichlorophenol	<1	Benzo(b)fluoranthene	0.32 J
2,4,5-Trichlorophenol	<1	Benzo(k)fluoranthene	0.11 J
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	0.057 J
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	0.013 J
Dimethyl phthalate	<1	Benzo(g,h,i)perylene	0.072 J

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-2-4	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-11 1/20
Date Analyzed:	12/03/24	Data File:	120314.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	67 d	14	115
Phenol-d6	81 d	29	121
Nitrobenzene-d5	82 d	16	137
2-Fluorobiphenyl	84 d	46	122
2,4,6-Tribromophenol	93 d	17	154
Terphenyl-d14	70 d	31	167

Compounds:	Concentration mg/kg (ppm)
Di-n-octyl phthalate	<2
Benzo(a)pyrene	0.23
Benzo(b)fluoranthene	0.23
Benzo(k)fluoranthene	0.071
Indeno(1,2,3-cd)pyrene	0.071
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	0.077

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-11-13	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-12 1/10
Date Analyzed:	12/02/24	Data File:	120219.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63 d	14	115
Phenol-d6	79 d	29	121
Nitrobenzene-d5	81 d	16	137
2-Fluorobiphenyl	94 d	46	122
2,4,6-Tribromophenol	35 d	17	154
Terphenyl-d14	114 d	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<1 L	Acenaphthylene	0.034
Phenol	0.51	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<10
2-Chlorophenol	<1	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<3
1,4-Dichlorobenzene	<0.1	Dibenzofuran	0.0052
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<1	4-Nitrophenol	<3
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<1
2-Methylphenol	<1	Fluorene	0.015
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<2	4-Nitroaniline	<10
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<3
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<1	Pentachlorophenol	<0.5
2,4-Dimethylphenol	<1	Phenanthrene	0.044
Benzoic acid	<5 ca	Anthracene	0.016
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<1	Di-n-butyl phthalate	<1
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	0.20
Naphthalene	0.036	Pyrene	0.41 c
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<1
4-Chloroaniline	<10	Benz(a)anthracene	0.17
4-Chloro-3-methylphenol	<1	Chrysene	0.23
2-Methylnaphthalene	0.025	Bis(2-ethylhexyl) phthalate	<1.6
1-Methylnaphthalene	0.013	Di-n-octyl phthalate	<1 J
Hexachlorocyclopentadiene	<0.3 ca	Benzo(a)pyrene	0.33 J
2,4,6-Trichlorophenol	<1	Benzo(b)fluoranthene	0.42 J
2,4,5-Trichlorophenol	<1	Benzo(k)fluoranthene	0.14 J
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	0.074 J
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	0.018 J
Dimethyl phthalate	<1	Benzo(g,h,i)perylene	0.091 J

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-11-13	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-12 1/50
Date Analyzed:	12/03/24	Data File:	120313.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	57 d	14	115
Phenol-d6	84 d	29	121
Nitrobenzene-d5	85 d	16	137
2-Fluorobiphenyl	85 d	46	122
2,4,6-Tribromophenol	30 d	17	154
Terphenyl-d14	50 d	31	167

Compounds:	Concentration mg/kg (ppm)
Di-n-octyl phthalate	<5
Benzo(a)pyrene	0.20
Benzo(b)fluoranthene	0.18
Benzo(k)fluoranthene	0.049
Indeno(1,2,3-cd)pyrene	0.089
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	0.10

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-22-24	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-14
Date Analyzed:	12/02/24	Data File:	120209.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72	14	115
Phenol-d6	78	29	121
Nitrobenzene-d5	75	16	137
2-Fluorobiphenyl	91	46	122
2,4,6-Tribromophenol	103	17	154
Terphenyl-d14	84	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	0.0025
Phenol	0.79	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	0.00055
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.00064
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	0.0015
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0047
Benzoic acid	<0.5 ca	Anthracene	0.0016
Bis(2-chloroethoxy)methane	<0.01	Carbazole	0.00081
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.019
Naphthalene	0.0028	Pyrene	0.023
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.013
4-Chloro-3-methylphenol	<0.1	Chrysene	0.019
2-Methylnaphthalene	0.0021	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.0013	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.029
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.027
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.0092
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	0.0059
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	0.0015
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.0058

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-25-27	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-15
Date Analyzed:	12/02/24	Data File:	120210.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	77	14	115
Phenol-d6	90	29	121
Nitrobenzene-d5	88	16	137
2-Fluorobiphenyl	101	46	122
2,4,6-Tribromophenol	113	17	154
Terphenyl-d14	87	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	<0.05
2,4-Dimethylphenol	<0.1	Phenanthrene	0.00059
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.00068
Naphthalene	<0.001	Pyrene	0.00089
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	0.00060
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.00087
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.00098
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-2.5-4.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-18
Date Analyzed:	12/02/24	Data File:	120211.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	84	14	115
Phenol-d6	96	29	121
Nitrobenzene-d5	98	16	137
2-Fluorobiphenyl	113	46	122
2,4,6-Tribromophenol	130	17	154
Terphenyl-d14	141	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	0.0029
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	0.98
2-Nitrophenol	<0.1	Pentachlorophenol	1.0
2,4-Dimethylphenol	<0.1	Phenanthrene	0.012
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.010
Naphthalene	0.014	Pyrene	0.021
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	0.0036
4-Chloro-3-methylphenol	<0.1	Chrysene	0.011
2-Methylnaphthalene	0.0056	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	0.0046	Di-n-octyl phthalate	<0.1 J
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	0.0056 J
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.0090 J
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	0.0025 J
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	0.0025 J
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	0.0013 J
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	0.0030 J

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-2.5-4.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-18 1/10
Date Analyzed:	12/03/24	Data File:	120311.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	90 d	14	115
Phenol-d6	106 d	29	121
Nitrobenzene-d5	102 d	16	137
2-Fluorobiphenyl	123 d	46	122
2,4,6-Tribromophenol	121 d	17	154
Terphenyl-d14	102 d	31	167

Compounds:	Concentration mg/kg (ppm)
Di-n-octyl phthalate	<1
Benzo(a)pyrene	0.0052
Benzo(b)fluoranthene	0.0074
Benzo(k)fluoranthene	<0.005
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-19
Date Analyzed:	12/02/24	Data File:	120212.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	83	14	115
Phenol-d6	98	29	121
Nitrobenzene-d5	94	16	137
2-Fluorobiphenyl	107	46	122
2,4,6-Tribromophenol	129	17	154
Terphenyl-d14	95	31	167

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1	Pentachlorophenol	3.0 ve
2,4-Dimethylphenol	<0.1	Phenanthrene	0.0013
Benzoic acid	<0.5 ca	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	0.0017
Naphthalene	<0.001	Pyrene	0.0012
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	0.00052	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1
Hexachlorocyclopentadiene	<0.03 ca	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	0.00077
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	411429-19 1/10
Date Analyzed:	12/03/24	Data File:	120312.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	86 d	14	115
Phenol-d6	104 d	29	121
Nitrobenzene-d5	97 d	16	137
2-Fluorobiphenyl	109 d	46	122
2,4,6-Tribromophenol	127 d	17	154
Terphenyl-d14	96 d	31	167

Compounds:	Concentration mg/kg (ppm)
Pentachlorophenol	4.2

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	12/02/24	Lab ID:	04-2923 mb
Date Analyzed:	12/03/24	Data File:	120237.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	103	22	119
Phenol-d6	113	38	124
Nitrobenzene-d5	105	10	198
2-Fluorobiphenyl	111	45	117
2,4,6-Tribromophenol	120	11	158
Terphenyl-d14	115	50	124

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Pyridine	<0.1 L	Acenaphthylene	<0.0005
Phenol	<0.05	2,6-Dinitrotoluene	<0.05
Bis(2-chloroethyl) ether	<0.01	3-Nitroaniline	<1
2-Chlorophenol	<0.1	Acenaphthene	<0.0005
1,3-Dichlorobenzene	<0.01	2,4-Dinitrophenol	<0.3 k
1,4-Dichlorobenzene	<0.01	Dibenzofuran	<0.0005
1,2-Dichlorobenzene	<0.01	2,4-Dinitrotoluene	<0.05
Benzyl alcohol	<0.1	4-Nitrophenol	<0.3
2,2'-Oxybis(1-chloropropane)	<0.01	Diethyl phthalate	<0.1
2-Methylphenol	<0.1	Fluorene	<0.0005
Hexachloroethane	<0.01	4-Chlorophenyl phenyl ether	<0.01
N-Nitroso-di-n-propylamine	<0.01	N-Nitrosodiphenylamine	<0.01
3-Methylphenol + 4-Methylphenol	<0.2	4-Nitroaniline	<1
Nitrobenzene	<0.01	4,6-Dinitro-2-methylphenol	<0.3
Isophorone	<0.01	Hexachlorobenzene	<0.01
2-Nitrophenol	<0.1 k	Pentachlorophenol	<0.05 k
2,4-Dimethylphenol	<0.1	Phenanthrene	<0.0005
Benzoic acid	<0.5 k	Anthracene	<0.0005
Bis(2-chloroethoxy)methane	<0.01	Carbazole	<0.0005
2,4-Dichlorophenol	<0.1	Di-n-butyl phthalate	<0.1
1,2,4-Trichlorobenzene	<0.01	Fluoranthene	<0.0005
Naphthalene	<0.001	Pyrene	<0.0005
Hexachlorobutadiene	<0.01	Benzyl butyl phthalate	<0.1 k
4-Chloroaniline	<1	Benz(a)anthracene	<0.001
4-Chloro-3-methylphenol	<0.1	Chrysene	<0.0005
2-Methylnaphthalene	<0.0005	Bis(2-ethylhexyl) phthalate	<0.16
1-Methylnaphthalene	<0.0005	Di-n-octyl phthalate	<0.1 k
Hexachlorocyclopentadiene	<0.03 k	Benzo(a)pyrene	<0.0005
2,4,6-Trichlorophenol	<0.1	Benzo(b)fluoranthene	<0.0005
2,4,5-Trichlorophenol	<0.1	Benzo(k)fluoranthene	<0.0005
2-Chloronaphthalene	<0.01	Indeno(1,2,3-cd)pyrene	<0.001
2-Nitroaniline	<0.05 k	Dibenz(a,h)anthracene	<0.001
Dimethyl phthalate	<0.1	Benzo(g,h,i)perylene	<0.001

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-14.5-16.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-01
Date Analyzed:	12/02/24	Data File:	411429-01.054
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	84
Chromium	11
Copper	37
Zinc	47

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-38-40	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-06
Date Analyzed:	12/02/24	Data File:	411429-06.055
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.5
Chromium	6.4
Copper	10
Zinc	14

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-2.5-5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-07 x10
Date Analyzed:	12/02/24	Data File:	411429-07 x10.056
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1,200
Chromium	10
Copper	780
Zinc	250

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-10-12	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-08
Date Analyzed:	12/02/24	Data File:	411429-08.057
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	80
Chromium	7.1
Copper	31
Zinc	96

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-12-14	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-09
Date Analyzed:	12/02/24	Data File:	411429-09.061
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	730
Chromium	12
Copper	22
Zinc	21

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-2-4	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-11
Date Analyzed:	11/27/24	Data File:	411429-11.132
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	28
Copper	180

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-2-4	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-11
Date Analyzed:	12/02/24	Data File:	411429-11.062
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	50
Zinc	65

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-11-13	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-12 x5
Date Analyzed:	12/02/24	Data File:	411429-12 x5.063
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	460
Chromium	20
Copper	110
Zinc	85

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-22-24	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-14
Date Analyzed:	11/27/24	Data File:	411429-14.134
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	9.7
Copper	17

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-22-24	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-14 x5
Date Analyzed:	12/02/24	Data File:	411429-14 x5.064
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	120
Zinc	87

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-25-27	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-15
Date Analyzed:	12/02/24	Data File:	411429-15.065
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.4
Chromium	6.5
Copper	5.6
Zinc	17

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-2.5-4.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-18 x5
Date Analyzed:	12/02/24	Data File:	411429-18 x5.162
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	200
Chromium	27
Copper	330
Zinc	99

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-9.5-11.5	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-19
Date Analyzed:	12/02/24	Data File:	411429-19.163
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	16
Chromium	7.2
Copper	32
Zinc	22

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-20-22	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-21
Date Analyzed:	12/02/24	Data File:	411429-21.164
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.6
Chromium	8.9
Copper	8.7
Zinc	21

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-38-40	Client:	Aspect Consulting
Date Received:	11/26/24	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	411429-24
Date Analyzed:	12/02/24	Data File:	411429-24.165
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	5.0
Copper	10
Zinc	12

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW, Inc. AS230067
Date Extracted:	11/27/24	Lab ID:	I4-1033 mb
Date Analyzed:	11/27/24	Data File:	I4-1033 mb.057
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5 k

Date of Report: 12/05/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	mg/kg (ppm)	0.83	55	62	20-82	12
Phenol	mg/kg (ppm)	0.83	96	97	47-128	1
Bis(2-chloroethyl) ether	mg/kg (ppm)	0.83	90	95	35-131	5
2-Chlorophenol	mg/kg (ppm)	0.83	99	99	58-111	0
1,3-Dichlorobenzene	mg/kg (ppm)	0.83	88	93	47-109	6
1,4-Dichlorobenzene	mg/kg (ppm)	0.83	91	93	46-110	2
1,2-Dichlorobenzene	mg/kg (ppm)	0.83	92	92	50-110	0
Benzyl alcohol	mg/kg (ppm)	4.2	101	103	36-147	2
2,2'-Oxybis(1-chloropropane)	mg/kg (ppm)	0.83	93	94	54-113	1
2-Methylphenol	mg/kg (ppm)	0.83	97	97	60-114	0
Hexachloroethane	mg/kg (ppm)	0.83	93	94	45-111	1
N-Nitroso-di-n-propylamine	mg/kg (ppm)	0.83	102	101	70-130	1
3-Methylphenol + 4-Methylphenol	mg/kg (ppm)	0.83	100	101	66-112	1
Nitrobenzene	mg/kg (ppm)	0.83	103	103	59-111	0
Isophorone	mg/kg (ppm)	0.83	103	103	52-128	0
2-Nitrophenol	mg/kg (ppm)	0.83	116	121	60-121	4
2,4-Dimethylphenol	mg/kg (ppm)	0.83	93	97	53-119	4
Benzoic acid	mg/kg (ppm)	2.5	88	92	13-223	4
Bis(2-chloroethoxy)methane	mg/kg (ppm)	0.83	98	99	64-112	1
2,4-Dichlorophenol	mg/kg (ppm)	0.83	104	104	63-111	0
1,2,4-Trichlorobenzene	mg/kg (ppm)	0.83	95	96	56-111	1
Naphthalene	mg/kg (ppm)	0.83	91	93	57-107	2
Hexachlorobutadiene	mg/kg (ppm)	0.83	94	96	49-119	2
4-Chloroaniline	mg/kg (ppm)	6.8	78	85	10-136	9
4-Chloro-3-methylphenol	mg/kg (ppm)	0.83	102	103	70-130	1
2-Methylnaphthalene	mg/kg (ppm)	0.83	94	98	63-112	4
1-Methylnaphthalene	mg/kg (ppm)	0.83	93	97	63-113	4
Hexachlorocyclopentadiene	mg/kg (ppm)	0.83	117	119	46-127	2
2,4,6-Trichlorophenol	mg/kg (ppm)	0.83	115	107	65-116	7
2,4,5-Trichlorophenol	mg/kg (ppm)	0.83	115	115	67-117	0
2-Chloronaphthalene	mg/kg (ppm)	0.83	102	98	67-109	4
2-Nitroaniline	mg/kg (ppm)	4.2	136	138	46-148	1
Dimethyl phthalate	mg/kg (ppm)	0.83	106	108	70-130	2
Acenaphthylene	mg/kg (ppm)	0.83	105	100	70-130	5
2,6-Dinitrotoluene	mg/kg (ppm)	0.83	108	108	70-130	0
Acenaphthene	mg/kg (ppm)	0.83	100	98	66-112	2
2,4-Dinitrophenol	mg/kg (ppm)	1.7	110	119	63-132	8
Dibenzofuran	mg/kg (ppm)	0.83	100	100	63-117	0
2,4-Dinitrotoluene	mg/kg (ppm)	0.83	111	116	52-140	4
4-Nitrophenol	mg/kg (ppm)	1.7	106	106	16-187	0
Diethyl phthalate	mg/kg (ppm)	0.83	107	107	64-120	0
Fluorene	mg/kg (ppm)	0.83	102	103	67-117	1
4-Chlorophenyl phenyl ether	mg/kg (ppm)	0.83	103	103	70-130	0
N-Nitrosodiphenylamine	mg/kg (ppm)	0.83	99	95	61-118	4
4-Nitroaniline	mg/kg (ppm)	4.2	78	80	28-121	3
4,6-Dinitro-2-methylphenol	mg/kg (ppm)	0.83	125	133	51-152	6
Hexachlorobenzene	mg/kg (ppm)	0.83	107	104	70-130	3
Pentachlorophenol	mg/kg (ppm)	0.83	130	133	60-133	2
Phenanthrene	mg/kg (ppm)	0.83	101	100	70-130	1
Anthracene	mg/kg (ppm)	0.83	98	100	70-130	2
Carbazole	mg/kg (ppm)	0.83	92	83	63-122	10
Di-n-butyl phthalate	mg/kg (ppm)	0.83	111	113	48-128	2
Fluoranthene	mg/kg (ppm)	0.83	110	108	70-130	2
Pyrene	mg/kg (ppm)	0.83	99	101	70-130	2
Benzyl butyl phthalate	mg/kg (ppm)	0.83	119	122	64-135	2
Benz(a)anthracene	mg/kg (ppm)	0.83	99	100	70-130	1
Chrysene	mg/kg (ppm)	0.83	96	97	70-130	1
Bis(2-ethylhexyl) phthalate	mg/kg (ppm)	0.83	103	110	59-116	7
Di-n-octyl phthalate	mg/kg (ppm)	0.83	119	120	46-129	1
Benzo(a)pyrene	mg/kg (ppm)	0.83	100	102	68-120	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	105	105	67-128	0
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	108	106	70-130	2
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	103	109	67-129	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	105	113	67-128	7
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	99	107	65-130	8

Date of Report: 12/05/24
Date Received: 11/26/24
Project: Glacier NW, Inc. AS230067, F&BI 411429

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 411432-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	1.05	102	88	75-125	15
Chromium	mg/kg (ppm)	10	12.2	115 b	76 b	75-125	41 b
Copper	mg/kg (ppm)	10	10.9	102 b	97 b	75-125	5 b
Zinc	mg/kg (ppm)	10	20.4	142 b	68 b	75-125	70 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	98	80-120
Chromium	mg/kg (ppm)	10	107	80-120
Copper	mg/kg (ppm)	10	105	80-120
Zinc	mg/kg (ppm)	10	105	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

41142 9 Jeremy Porter

SAMPLE CHAIN OF CUSTODY

11/26/24 F2/M4

Page # 1 of 3

Report To Andrew YonKotski, Marc Chalfant
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone 206-413-5403 Email andrew.yonkotski@aspectconsulting.com

SAMPLERS (*signature*): Emily Rissen
PROJECT NAME: Glacier NW, Inc.
PO #: AS230067
REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times. Project specific RLs? - Yes / No
INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311/6020B	Low-level PAHs/ SVOCs EPA 8270SIM		Notes
MW-13D-14.5-16.5	01 A-B	11/25/24	1000	SO	2								X		X		
MW-13D-19-21	02	11/25/24	1010	SO	2										X		
MW-13D-23-25	03	11/25/24	1100	SO	2												Archive
MW-13D-28-30	04	11/25/24	1110	SO	2												Archive
MW-13D-33-35	05	11/25/24	1120	SO	2												Archive
MW-13D-38-40	06	11/25/24	1130	SO	2								X				
MW-19D-2.5-5	07	11/25/24	1310	SO	2								X				
MW-19D-10-12	08	11/25/24	1340	SO	2								X				
MW-19D-12-14	09	11/25/24	1350	SO	2								X				
MW-19D-14.5-16	10	11/25/24	1400	SO	2												Archive

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Parke Babcock	Aspect	11/26/24	12:30
Received by:		VINH	FBI	11-26-24	1230
Relinquished by:			Samples received at 4 °C		
Received by:					

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

411429

Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11/26/24 F2/M4

Report To Andrew Yonkofski, Marc Chultant

Company ASpect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature) Emily Riser

PROJECT NAME: Glacier NW, Inc.

PO # AS230067

REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times.

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals EPA 6020B Cu, Cr, As, Zn	Metals TCLP EPA 1311 / 6020B	Low-Level PAHs SVOCs EPA 8270SIM		Notes
MW-47D-2-4	11A-B	11/22/24	0855	SO	2								X		X		
MW-47D-11-13	12	11/22/24	0935	SO	2								X		X		
MW-47D-16-18	13	11/22/24	1015	SO	2												Archive
MW-47D-22-24	14	11/22/24	1115	SO	2								X		X		Labeled AP 11/26 MW-47D-20-22
MW-47D-25-27	15	11/22/24	1125	SO	2								X		X		
MW-47D-32-34	16	11/22/24	1135	SO	2												Archive
MW-47D-38-40	17	11/22/24	1140	SO	2												Archive
MW-13D-2.5-4.5	18	11/25/24	0900	SO	2								X		X		
MW-13D-9.5-11.5	19	11/25/24	0940	SO	2								X		X		
MW-13D-11.5-12.5	20	11/25/24	0950	SO	2												Archive

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Blood	Aspect	11/26/24	1230
Received by: VNH	VINH	FBI	11-26-24	12:30
Relinquished by:		Samples received at 4 °C		
Received by:				

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411429 Jeremy Porter

SAMPLE CHAIN OF CUSTODY 11/26/24 F2/M4

Report To Andrew Yonkofski, marc Chalfant
Company Aspect Consulting
Address 710 2nd Ave, Suite 550
City, State, ZIP Seattle, WA 98104
Phone 206-413-5407 Email andrew.yonkofski@aspectconsulting.com

SAMPLERS (signature): Emily Rusen
PROJECT NAME: Glacier NW, Inc.
PO #: AS230067
REMARKS: ① Freeze all archive samples and extra sample volume from primary samples to extend hold times.
Project specific RLs? - Yes / No
INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	metals EPA 6020B Cu, Cr, As, Zn	metals TCLP EPA 1311/6020B	Low-level PAHs SVOCs EPA 8270E SIM		Notes
MW-19D-20-22	21 A-b	11/25/24	1420	SO	2								X				
MW-19D-28-30	22	11/25/24	1430	SO	2												Archive
MW-19D-33-35	23	11/25/24	1440	SO	2												Archive
MW-19D-38-40	24	11/25/24	1450	SO	2								X				
EB-241125	25 A-C	11/25/24	1520	~~SO~~ WER	3												Water sample media
FD-241125	26 A-b	11/25/24		SO	2												labeled AP 11/26 FD-Soil-241125

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Babcock	Aspect	11/26/24	1230
Received by:	JINH	FBI	11-26-24	12:30
Relinquished by:		Samples received at 4 °C		
Received by:				

Friedman & Bruya, Inc.
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Seattle WA 98108
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SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411429 CLIENT ASP INITIALS/ DATE: EMB 11/26

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☐ Over the Counter ☒ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 11/26/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1-4 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☐ Yes	☒ No	☐ Not on COC/label
Date Sampled	☒ Yes	☐ No	☐ Not on COC/label
Time Sampled	☐ Yes	☒ No	Time on label 11:40 for MW-13D-38-40 (06A-B) ☐ Not on COC/label
# of Containers	☐ Yes	☐ No	
Relinquished	☐ Yes	☐ No	
Requested analysis	☐ Yes	☐ On Hold	

Other comments (use a separate page if needed)
- Labeled MW-47D-20-22(14A-B)
- Labeled FD-Soil-241125(26A-B)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
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office@friedmanandbruya.com
www.friedmanandbruya.com

April 24, 2025

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included is the amended report from the testing of material submitted on December 20, 2024 from the Glacier NW AS230067, F&BI 412428 project. Sample ID MW-3S-241216 and MW-3D-241218 have been amended to INJ-1-241216 and PP-1-241218, respectively.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, David Mackay
ASP0102R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Eric Young, B.S.

5500 4th Ave South
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www.friedmanandbruya.com

January 2, 2025

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on December 20, 2024 from the Glacier NW AS230067, F&BI 412428 project. There are 148 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, David Mackay
ASP0102R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 20, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW AS230067, F&BI 412428 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
412428 -01	MW-19S-241216
412428 -02	MW-19D-241216
412428 -03	MW-43D-241216
412428 -04	MW-14S-241216
412428 -05	MW-16S-241216
412428 -06	MW-17S-241216
412428 -07	INJ-1-241216
412428 -08	MW-21S-241216
412428 -09	MW-13S-241216
412428 -10	MW-46S-241218
412428 -11	MW-46D-241218
412428 -12	MW-45D-241218
412428 -13	MW-45S-241218
412428 -14	PP-1-241218
412428 -15	MW-14D-241218
412428 -16	FD-GW-241218
412428 -17	EB-241218
412428 -18	MW-13D-241219
412428 -19	MW-47D-241219
412428 -20	MW-47S-241219
412428 -21	MW-33D-241219
412428 -22	MW-33S-241219
412428 -23	FD-GW-241219
412428 -24	EB-241219
412428 -25	MW-10S-241220
412428 -26	MW-2S-241220
412428 -27	MW-2D-241220
412428 -28	MW-48D-241220
412428 -29	MW-48S-241220
412428 -30	MW-1D-241220
412428 -31	MW-1S-241220
412428 -32	MW-6S-241220

CASE NARRATIVE (continued)

The 8270E hexachlorocyclopentadiene calibration standard did not meet the acceptance criteria for several samples. The data were flagged accordingly.

Phenanthrene was detected in the 8270E method blank at a level greater than one tenth the concentration reported in several of the samples. The data were flagged accordingly.

Several compounds in the 8270E laboratory control sample and laboratory control sample duplicate did not meet the acceptance criteria. The data were flagged accordingly.

A 6020B internal standard associated with copper did not meet the acceptance criteria for several samples due to matrix interference. The samples were diluted and reanalyzed with acceptable results. Both data sets were reported.

Several metals in the 6020B matrix spike and matrix spike duplicate did not meet the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-16S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-05 1/0.125
Date Analyzed:	12/24/24	Data File:	122407.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	84	11	173
2-Fluorobiphenyl	88	25	128
2,4,6-Tribromophenol	120	10	140
Terphenyl-d14	79	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0079 fb
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	0.85	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	1.3	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-06 1/0.125
Date Analyzed:	12/24/24	Data File:	122408.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	99	11	173
2-Fluorobiphenyl	108	25	128
2,4,6-Tribromophenol	135	10	140
Terphenyl-d14	100	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	0.016
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-09 1/0.125
Date Analyzed:	12/24/24	Data File:	122409.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	13	11	65
Phenol-d6	11	11	65
Nitrobenzene-d5	71	11	173
2-Fluorobiphenyl	84	25	128
2,4,6-Tribromophenol	121	10	140
Terphenyl-d14	73	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.010 fb
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	0.0044
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	0.54	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-46S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-10 1/0.125
Date Analyzed:	12/24/24	Data File:	122413.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	88	11	173
2-Fluorobiphenyl	94	25	128
2,4,6-Tribromophenol	110	10	140
Terphenyl-d14	92	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0059
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0032
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-46D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-11 1/0.125
Date Analyzed:	12/24/24	Data File:	122414.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	10 ip	11	65
Phenol-d6	10 ip	11	65
Nitrobenzene-d5	59	11	173
2-Fluorobiphenyl	70	25	128
2,4,6-Tribromophenol	124	10	140
Terphenyl-d14	79	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	0.015
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	0.0059
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	0.011
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.020
2,4-Dimethylphenol	<0.5	Anthracene	0.0031
Benzoic acid	<5 jl	Carbazole	0.0028
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	0.012
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0065
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-12 1/0.125
Date Analyzed:	12/24/24	Data File:	122415.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	13	11	65
Nitrobenzene-d5	92	11	173
2-Fluorobiphenyl	90	25	128
2,4,6-Tribromophenol	127	10	140
Terphenyl-d14	83	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0054
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0026
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-13 1/0.125
Date Analyzed:	12/24/24	Data File:	122416.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	85	11	173
2-Fluorobiphenyl	75	25	128
2,4,6-Tribromophenol	119	10	140
Terphenyl-d14	65	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	2.1	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	0.074	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-14D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-15 1/0.125
Date Analyzed:	12/24/24	Data File:	122417.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	9 ip	11	65
Phenol-d6	7 ip	11	65
Nitrobenzene-d5	43	11	173
2-Fluorobiphenyl	48	25	128
2,4,6-Tribromophenol	76	10	140
Terphenyl-d14	59	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	FD-GW-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-16 1/0.125
Date Analyzed:	12/24/24	Data File:	122418.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	13	11	65
Nitrobenzene-d5	89	11	173
2-Fluorobiphenyl	95	25	128
2,4,6-Tribromophenol	125	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0059
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0037
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	EB-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-17 1/0.125
Date Analyzed:	12/24/24	Data File:	122419.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	13	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	94	11	173
2-Fluorobiphenyl	97	25	128
2,4,6-Tribromophenol	95	10	140
Terphenyl-d14	110	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-18 1/0.125
Date Analyzed:	12/24/24	Data File:	122420.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	14	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	73	11	173
2-Fluorobiphenyl	74	25	128
2,4,6-Tribromophenol	107	10	140
Terphenyl-d14	81	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	0.57
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-19 1/0.125
Date Analyzed:	12/24/24	Data File:	122423.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	94	11	173
2-Fluorobiphenyl	96	25	128
2,4,6-Tribromophenol	132	10	140
Terphenyl-d14	89	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0066
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	0.0075
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0076
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-20 1/0.125
Date Analyzed:	12/24/24	Data File:	122422.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	16	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	94	11	173
2-Fluorobiphenyl	100	25	128
2,4,6-Tribromophenol	136	10	140
Terphenyl-d14	105	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	0.0056
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	0.020
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.041
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	0.014
4-Chloroaniline	<5	Chrysene	0.029
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	0.040
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	0.036
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	0.010
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	0.018
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	0.0031
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	0.021
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-21 1/0.125
Date Analyzed:	12/24/24	Data File:	122421.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	14	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	71	11	173
2-Fluorobiphenyl	81	25	128
2,4,6-Tribromophenol	121	10	140
Terphenyl-d14	79	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-22 1/0.125
Date Analyzed:	12/24/24	Data File:	122410.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	20	11	65
Phenol-d6	12	11	65
Nitrobenzene-d5	83	11	173
2-Fluorobiphenyl	90	25	128
2,4,6-Tribromophenol	128	10	140
Terphenyl-d14	82	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	9.7 ve	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	0.042
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	0.40
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	0.089
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.013
2,4-Dimethylphenol	<0.5	Anthracene	0.0090
Benzoic acid	7.5 jl	Carbazole	0.0036
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	0.026	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	0.34	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-22 1/0.625
Date Analyzed:	12/26/24	Data File:	122617.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19 d	11	65
Phenol-d6	15 d	11	65
Nitrobenzene-d5	88 d	11	173
2-Fluorobiphenyl	110 d	25	128
2,4,6-Tribromophenol	123 d	10	140
Terphenyl-d14	109 d	50	150

Compounds:	Concentration ug/L (ppb)
Phenol	17

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	FD-GW-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-23 1/0.125
Date Analyzed:	12/24/24	Data File:	122411.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	92	11	173
2-Fluorobiphenyl	96	25	128
2,4,6-Tribromophenol	130	10	140
Terphenyl-d14	87	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0076
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	0.0075
1,2,4-Trichlorobenzene	<0.05	Pyrene	0.0076
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	EB-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-24 1/0.125
Date Analyzed:	12/24/24	Data File:	122412.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	21	11	65
Phenol-d6	13	11	65
Nitrobenzene-d5	88	11	173
2-Fluorobiphenyl	89	25	128
2,4,6-Tribromophenol	91	10	140
Terphenyl-d14	91	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-10S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-25 1/0.125
Date Analyzed:	12/27/24	Data File:	122707.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	89	11	173
2-Fluorobiphenyl	98	25	128
2,4,6-Tribromophenol	110	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-26 1/0.125
Date Analyzed:	12/27/24	Data File:	122708.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	22	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	100	11	173
2-Fluorobiphenyl	111	25	128
2,4,6-Tribromophenol	135	10	140
Terphenyl-d14	98	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-2D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-27 1/0.125
Date Analyzed:	12/27/24	Data File:	122709.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	13	11	65
Phenol-d6	11	11	65
Nitrobenzene-d5	70	11	173
2-Fluorobiphenyl	68	25	128
2,4,6-Tribromophenol	115	10	140
Terphenyl-d14	68	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-28 1/0.125
Date Analyzed:	12/27/24	Data File:	122710.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	18	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	81	11	173
2-Fluorobiphenyl	76	25	128
2,4,6-Tribromophenol	115	10	140
Terphenyl-d14	73	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0086
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	0.030	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	2.3
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-29 1/0.125
Date Analyzed:	12/27/24	Data File:	122711.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	21	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	98	11	173
2-Fluorobiphenyl	105	25	128
2,4,6-Tribromophenol	141 ip	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	0.0036
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-30 1/0.125
Date Analyzed:	12/27/24	Data File:	122712.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	88	11	173
2-Fluorobiphenyl	91	25	128
2,4,6-Tribromophenol	129	10	140
Terphenyl-d14	87	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	1.4	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	0.0093
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-1S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-31 1/0.125
Date Analyzed:	12/27/24	Data File:	122713.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	99	11	173
2-Fluorobiphenyl	113	25	128
2,4,6-Tribromophenol	145 ip	10	140
Terphenyl-d14	92	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	0.51	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	0.20
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	0.010
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-6S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-32 1/0.125
Date Analyzed:	12/27/24	Data File:	122714.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	98	11	173
2-Fluorobiphenyl	106	25	128
2,4,6-Tribromophenol	137	10	140
Terphenyl-d14	100	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	04-3181 mb2 1/0.125
Date Analyzed:	12/24/24	Data File:	122406.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	20	11	65
Phenol-d6	16	11	65
Nitrobenzene-d5	99	11	173
2-Fluorobiphenyl	109	25	128
2,4,6-Tribromophenol	87	10	140
Terphenyl-d14	97	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	0.0097 lc
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	04-3181 mb3 1/0.125
Date Analyzed:	12/24/24	Data File:	122424.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	17	11	65
Phenol-d6	14	11	65
Nitrobenzene-d5	93	11	173
2-Fluorobiphenyl	99	25	128
2,4,6-Tribromophenol	97	10	140
Terphenyl-d14	98	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5 jl	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15 ca	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	04-3183 mb2 1/0.125
Date Analyzed:	12/27/24	Data File:	122706.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	20	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	91	11	173
2-Fluorobiphenyl	93	25	128
2,4,6-Tribromophenol	88	10	140
Terphenyl-d14	96	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.0025
Phenol	<0.5	2,6-Dinitrotoluene	<0.25
Bis(2-chloroethyl) ether	<0.05	3-Nitroaniline	<5
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.05	2,4-Dinitrophenol	<5
1,4-Dichlorobenzene	<0.05	Dibenzofuran	<0.0025
1,2-Dichlorobenzene	<0.05	2,4-Dinitrotoluene	<0.25
Benzyl alcohol	<0.5	4-Nitrophenol	<1.5
2,2'-Oxybis(1-chloropropane)	<0.05	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.05 jl	4-Chlorophenyl phenyl ether	<0.05
N-Nitroso-di-n-propylamine	<0.05	N-Nitrosodiphenylamine	<0.05
3-Methylphenol + 4-Methylphenol	<1	4-Nitroaniline	<5
Nitrobenzene	<0.05	4,6-Dinitro-2-methylphenol	<1.5
Isophorone	<0.05	Hexachlorobenzene	<0.05
2-Nitrophenol	<0.5	Phenanthrene	<0.005
2,4-Dimethylphenol	<0.5	Anthracene	<0.0025
Benzoic acid	<5	Carbazole	<0.0025
Bis(2-chloroethoxy)methane	<0.05	Di-n-butyl phthalate	<0.5
2,4-Dichlorophenol	<0.5	Fluoranthene	<0.005
1,2,4-Trichlorobenzene	<0.05	Pyrene	<0.0025
Naphthalene	<0.025	Benzyl butyl phthalate	<0.5
Hexachlorobutadiene	<0.05 jl	Benz(a)anthracene	<0.0025
4-Chloroaniline	<5	Chrysene	<0.0025
4-Chloro-3-methylphenol	<0.5	Bis(2-ethylhexyl) phthalate	<0.5
2-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
1-Methylnaphthalene	<0.025	Benzo(a)pyrene	<0.0025
Hexachlorocyclopentadiene	<0.15	Benzo(b)fluoranthene	<0.0025
2,4,6-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.0025
2,4,5-Trichlorophenol	<0.5	Indeno(1,2,3-cd)pyrene	<0.0025
2-Chloronaphthalene	<0.05	Dibenz(a,h)anthracene	<0.0025
2-Nitroaniline	<0.25	Benzo(g,h,i)perylene	<0.0025
Dimethyl phthalate	<0.5		

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-16S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-05 1/25
Date Analyzed:	12/27/24	Data File:	122720.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	190 d	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	110

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-06 1/0.25
Date Analyzed:	12/26/24	Data File:	122618.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	118	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.048

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-09 1/12.5
Date Analyzed:	12/26/24	Data File:	122624.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	138 d	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	68

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-46S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-10 1/2.5
Date Analyzed:	12/26/24	Data File:	122621.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	114 d	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	4.4

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-46D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-11 1/0.25
Date Analyzed:	12/26/24	Data File:	122607.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	98	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.047

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-45D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-12 1/0.25
Date Analyzed:	12/26/24	Data File:	122608.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	110	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.027 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-13 1/5
Date Analyzed:	12/26/24	Data File:	122623.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	116 d	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	15

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-14D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-15 1/0.25
Date Analyzed:	12/26/24	Data File:	122620.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	73	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.024 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	FD-GW-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-16 1/2.5
Date Analyzed:	12/26/24	Data File:	122622.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	122 d	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	4.5

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	EB-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-17 1/0.25
Date Analyzed:	12/26/24	Data File:	122609.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	64	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.021 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-18 1/0.25
Date Analyzed:	12/24/24	Data File:	122421.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	94	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	1.5

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-47D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-19 1/0.25
Date Analyzed:	12/26/24	Data File:	122610.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	107	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.038 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-47S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-20 1/0.25
Date Analyzed:	12/24/24	Data File:	122423.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	114	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.34

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-33D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-21 1/0.25
Date Analyzed:	12/26/24	Data File:	122611.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	106	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.063

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-33S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-22 1/0.25
Date Analyzed:	12/26/24	Data File:	122619.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	113	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.032 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	FD-GW-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-23 1/0.25
Date Analyzed:	12/26/24	Data File:	122612.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	113	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.038

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	EB-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-24 1/0.25
Date Analyzed:	12/26/24	Data File:	122617.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	72	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.021 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-10S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-25 1/0.25
Date Analyzed:	12/27/24	Data File:	122709.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	106	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.16

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-2S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-26 1/0.25
Date Analyzed:	12/27/24	Data File:	122710.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	117	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.031 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-2D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-27 1/0.25
Date Analyzed:	12/27/24	Data File:	122711.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	102	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.025 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-48D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-28 1/0.25
Date Analyzed:	12/27/24	Data File:	122712.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	102	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.028 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-48S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-29 1/0.25
Date Analyzed:	12/27/24	Data File:	122713.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	121	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.036 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-1D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-30 1/0.25
Date Analyzed:	12/27/24	Data File:	122714.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	113	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.024 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-1S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-31 1/0.25
Date Analyzed:	12/27/24	Data File:	122715.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	119	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.026 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	MW-6S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	412428-32 1/0.25
Date Analyzed:	12/27/24	Data File:	122716.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	119	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.035 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	04-3182 mb2 1/0.25
Date Analyzed:	12/24/24	Data File:	122406.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	80	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.021 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	04-3182 mb3 1/0.25
Date Analyzed:	12/26/24	Data File:	122606.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	64	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.021 j

Analysis for Semivolatile Phenols By EPA Method 8270E SIM

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/26/24	Lab ID:	04-3184 mb2 1/0.25
Date Analyzed:	12/27/24	Data File:	122708.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	93	35	173

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.021 j

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-01
Date Analyzed:	12/24/24	Data File:	412428-01.152
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	320
Chromium	<1
Copper	<5
Zinc	35

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-19D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-02
Date Analyzed:	12/24/24	Data File:	412428-02.234
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.6
Chromium	2.1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-43D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-03
Date Analyzed:	12/24/24	Data File:	412428-03.195
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	4.3
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-43D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-03 x10
Date Analyzed:	12/26/24	Data File:	412428-03 x10.141
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	540

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-04
Date Analyzed:	12/24/24	Data File:	412428-04.196
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	6.7

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-04 x100
Date Analyzed:	12/26/24	Data File:	412428-04 x100.142
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5,800

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-06
Date Analyzed:	12/24/24	Data File:	412428-06.197
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-06 x10
Date Analyzed:	12/26/24	Data File:	412428-06 x10.145
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	62

Analysis For Total Metals By EPA Method 6020B

Client ID:	INJ-1-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-07
Date Analyzed:	12/24/24	Data File:	412428-07.198
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	1.0
Copper	<5
Zinc	25

Analysis For Total Metals By EPA Method 6020B

Client ID:	INJ-1-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-07 x2
Date Analyzed:	12/26/24	Data File:	412428-07 x2.146
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<2

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-21S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-08
Date Analyzed:	12/24/24	Data File:	412428-08.201
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	59

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-21S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-08 x10
Date Analyzed:	12/26/24	Data File:	412428-08 x10.150
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	370

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-09
Date Analyzed:	12/24/24	Data File:	412428-09.202
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	2.2
Copper	5.6
Zinc	23

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-09 x10
Date Analyzed:	12/26/24	Data File:	412428-09 x10.151
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	650

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-10
Date Analyzed:	12/24/24	Data File:	412428-10.203
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-10 x10
Date Analyzed:	12/26/24	Data File:	412428-10 x10.152
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	36

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-46D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-11
Date Analyzed:	12/24/24	Data File:	412428-11.235
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	38
Chromium	10
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-45D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-12
Date Analyzed:	12/24/24	Data File:	412428-12.236
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	65
Chromium	3.2
Copper	<5
Zinc	8.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-13
Date Analyzed:	12/24/24	Data File:	412428-13.208
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	14
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-13 x100
Date Analyzed:	12/26/24	Data File:	412428-13 x100.153
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5,000

Analysis For Total Metals By EPA Method 6020B

Client ID:	PP-1-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-14
Date Analyzed:	12/24/24	Data File:	412428-14.209
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	PP-1-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-14 x5
Date Analyzed:	12/24/24	Data File:	412428-14 x5.227
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,000

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-14D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-15
Date Analyzed:	12/24/24	Data File:	412428-15.210
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	300
Chromium	4.1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	FD-GW-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-16
Date Analyzed:	12/24/24	Data File:	412428-16.211
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	36
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-17
Date Analyzed:	12/24/24	Data File:	412428-17.212
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.6
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-18
Date Analyzed:	12/24/24	Data File:	412428-18.237
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-18 x5
Date Analyzed:	12/24/24	Data File:	412428-18 x5.228
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	25
Chromium	9.8
Copper	<25
Zinc	<25

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-19
Date Analyzed:	12/24/24	Data File:	412428-19.238
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	350
Chromium	2.4
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-47S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-20
Date Analyzed:	12/24/24	Data File:	412428-20.213
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	190
Chromium	<1
Copper	18
Zinc	180

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-33D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-21
Date Analyzed:	12/24/24	Data File:	412428-21.214
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	6.9
Chromium	4.2
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	FD-GW-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-23
Date Analyzed:	12/24/24	Data File:	412428-23.239
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	340
Chromium	2.1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	EB-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-24
Date Analyzed:	12/24/24	Data File:	412428-24.215
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-26
Date Analyzed:	12/24/24	Data File:	412428-26.216
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	100
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-27
Date Analyzed:	12/24/24	Data File:	412428-27.217
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	23
Chromium	12
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-28
Date Analyzed:	12/24/24	Data File:	412428-28.221
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	28
Chromium	13
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-48S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-29
Date Analyzed:	12/24/24	Data File:	412428-29.222
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	412428-31
Date Analyzed:	12/24/24	Data File:	412428-31.223
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	29
Chromium	<1
Copper	<5
Zinc	24

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	I4-1125 mb
Date Analyzed:	12/24/24	Data File:	I4-1125 mb.041
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/24/24	Lab ID:	I4-1126 mb
Date Analyzed:	12/24/24	Data File:	I4-1126 mb.043
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-19S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-01
Date Analyzed:	12/23/24	Data File:	412428-01.241
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	11

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-19S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-01 x10
Date Analyzed:	12/24/24	Data File:	412428-01 x10.137
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	320

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-19D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-02
Date Analyzed:	12/24/24	Data File:	412428-02.282
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.5
Chromium	1.7
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-43D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-03
Date Analyzed:	12/23/24	Data File:	412428-03.242
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	3.4
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-43D-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-03 x10
Date Analyzed:	12/24/24	Data File:	412428-03 x10.138
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	490

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-14S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-04
Date Analyzed:	12/23/24	Data File:	412428-04.243
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-14S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-04 x100
Date Analyzed:	12/24/24	Data File:	412428-04 x100.139
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5,700

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-06
Date Analyzed:	12/23/24	Data File:	412428-06.244
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-17S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-06
Date Analyzed:	12/24/24	Data File:	412428-06.140
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	56

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	INJ-1-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-07
Date Analyzed:	12/23/24	Data File:	412428-07.247
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.8
Chromium	<1
Copper	<5
Zinc	9.6

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-21S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-08
Date Analyzed:	12/23/24	Data File:	412428-08.248
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-21S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-08 x10
Date Analyzed:	12/24/24	Data File:	412428-08 x10.156
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	340

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-09
Date Analyzed:	12/23/24	Data File:	412428-09.249
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	1.8
Copper	<5
Zinc	17

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13S-241216	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-09 x10
Date Analyzed:	12/24/24	Data File:	412428-09 x10.157
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	590

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-46S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-10
Date Analyzed:	12/23/24	Data File:	412428-10.254
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	34
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-46D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-11
Date Analyzed:	12/24/24	Data File:	412428-11.283
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	36
Chromium	7.0
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-45D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-12
Date Analyzed:	12/24/24	Data File:	412428-12.284
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	68
Chromium	2.6
Copper	<5
Zinc	6.4

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-13
Date Analyzed:	12/23/24	Data File:	412428-13.255
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-45S-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-13 x100
Date Analyzed:	12/24/24	Data File:	412428-13 x100.158
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4,500

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	PP-1-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-14
Date Analyzed:	12/24/24	Data File:	412428-14.285
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	PP-1-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-14 x5
Date Analyzed:	12/24/24	Data File:	412428-14 x5.274
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	940
Chromium	<5
Copper	<25
Zinc	<25

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-14D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-15
Date Analyzed:	12/24/24	Data File:	412428-15.256
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	2.9
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-14D-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-15 x10
Date Analyzed:	12/24/24	Data File:	412428-15 x10.159
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	240

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	FD-GW-241218	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-16
Date Analyzed:	12/24/24	Data File:	412428-16.257
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	37
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-18
Date Analyzed:	12/24/24	Data File:	412428-18.286
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-18 x5
Date Analyzed:	12/24/24	Data File:	412428-18 x5.275
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	33
Chromium	7.2
Copper	<25
Zinc	<25

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-47D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-19
Date Analyzed:	12/24/24	Data File:	412428-19.287
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-47D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-19 x5
Date Analyzed:	12/24/24	Data File:	412428-19 x5.280
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	350
Chromium	<5
Copper	<25
Zinc	<25

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-47S-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-20
Date Analyzed:	12/24/24	Data File:	412428-20.258
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	180
Chromium	<1
Copper	8.8
Zinc	170

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-33D-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-21
Date Analyzed:	12/24/24	Data File:	412428-21.259
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	6.1
Chromium	2.6
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	FD-GW-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-23
Date Analyzed:	12/24/24	Data File:	412428-23.288
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	FD-GW-241219	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-23 x5
Date Analyzed:	12/24/24	Data File:	412428-23 x5.281
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	340
Chromium	<5
Copper	<25
Zinc	<25

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-26
Date Analyzed:	12/24/24	Data File:	412428-26.260
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	87
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-27
Date Analyzed:	12/24/24	Data File:	412428-27.261
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-27 x2
Date Analyzed:	12/24/24	Data File:	412428-27 x2.160
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	19
Chromium	10
Copper	<10
Zinc	<10

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-48D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-28
Date Analyzed:	12/24/24	Data File:	412428-28.262
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<5 J

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-48D-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-28 x2
Date Analyzed:	12/24/24	Data File:	412428-28 x2.161
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	23
Chromium	12
Copper	<10
Zinc	<10

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-48S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-29
Date Analyzed:	12/24/24	Data File:	412428-29.267
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	13
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-1S-241220	Client:	Aspect Consulting
Date Received:	12/20/24	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	412428-31
Date Analyzed:	12/24/24	Data File:	412428-31.268
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	25
Chromium	<1
Copper	<5
Zinc	22

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	I4-1121 mb
Date Analyzed:	12/23/24	Data File:	I4-1121 mb.176
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1 k
Chromium	<1
Copper	<5
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	12/23/24	Lab ID:	I4-1122 mb
Date Analyzed:	12/24/24	Data File:	I4-1122 mb.046
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Chromium	<1
Copper	<5
Zinc	<5

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	ug/L (ppb)	10	39	34	10-55	14
Phenol	ug/L (ppb)	10	40	35	10-86	13
Bis(2-chloroethyl) ether	ug/L (ppb)	10	86	91	50-103	6
2-Chlorophenol	ug/L (ppb)	10	75	81	10-97	8
1,3-Dichlorobenzene	ug/L (ppb)	10	54	55	46-89	2
1,4-Dichlorobenzene	ug/L (ppb)	10	60	61	47-89	2
1,2-Dichlorobenzene	ug/L (ppb)	10	60	63	50-89	5
Benzyl alcohol	ug/L (ppb)	50	68	67	10-76	1
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	89	91	53-98	2
2-Methylphenol	ug/L (ppb)	10	77	74	11-93	4
Hexachloroethane	ug/L (ppb)	10	50	49	42-94	2
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	95	96	68-109	1
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	73 vo	67 vo	10-66	9
Nitrobenzene	ug/L (ppb)	10	90	94	57-109	4
Isophorone	ug/L (ppb)	10	97	97	64-116	0
2-Nitrophenol	ug/L (ppb)	10	78	86	27-120	10
2,4-Dimethylphenol	ug/L (ppb)	10	88	86	10-106	2
Benzoic acid	ug/L (ppb)	80	6 vo	5 vo	10-102	18
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	93	94	55-117	1
2,4-Dichlorophenol	ug/L (ppb)	10	87	92	23-116	6
1,2,4-Trichlorobenzene	ug/L (ppb)	10	60	60	53-95	0
Naphthalene	ug/L (ppb)	10	75	77	58-93	3
Hexachlorobutadiene	ug/L (ppb)	10	53	52	42-102	2
4-Chloroaniline	ug/L (ppb)	50	79	80	28-121	1
4-Chloro-3-methylphenol	ug/L (ppb)	10	93	95	18-113	2
2-Methylnaphthalene	ug/L (ppb)	10	73	72	63-97	1
1-Methylnaphthalene	ug/L (ppb)	10	74	73	62-99	1
Hexachlorocyclopentadiene	ug/L (ppb)	10	71	61	29-118	15
2,4,6-Trichlorophenol	ug/L (ppb)	10	83	95	16-131	13
2,4,5-Trichlorophenol	ug/L (ppb)	10	90	96	26-129	6
2-Chloronaphthalene	ug/L (ppb)	10	88	86	66-100	2
2-Nitroaniline	ug/L (ppb)	50	94	93	31-168	1
Dimethyl phthalate	ug/L (ppb)	10	105	100	70-130	5
Acenaphthylene	ug/L (ppb)	10	98	95	68-111	3
2,6-Dinitrotoluene	ug/L (ppb)	10	118	115	70-130	3
3-Nitroaniline	ug/L (ppb)	50	94	87	33-128	8
Acenaphthene	ug/L (ppb)	10	90	89	67-104	1
2,4-Dinitrophenol	ug/L (ppb)	20	56	86	10-137	42 vo
Dibenzofuran	ug/L (ppb)	10	92	88	67-114	4
2,4-Dinitrotoluene	ug/L (ppb)	10	113	111	53-132	2
4-Nitrophenol	ug/L (ppb)	20	32	38	10-89	17
Diethyl phthalate	ug/L (ppb)	10	110	112	57-134	2
Fluorene	ug/L (ppb)	10	96	93	70-130	3
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	92	91	70-130	1
N-Nitrosodiphenylamine	ug/L (ppb)	10	103	107	70-130	4
4-Nitroaniline	ug/L (ppb)	50	96	99	32-124	3
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	74	103	14-167	33 vo
Hexachlorobenzene	ug/L (ppb)	10	86	87	58-111	1
Phenanthrene	ug/L (ppb)	10	90	91	70-130	1
Anthracene	ug/L (ppb)	10	93	93	70-130	0
Carbazole	ug/L (ppb)	10	115	116	70-130	1
Di-n-butyl phthalate	ug/L (ppb)	10	112	117	28-147	4
Fluoranthene	ug/L (ppb)	10	99	100	70-130	1
Pyrene	ug/L (ppb)	10	92	93	70-130	1
Benzyl butyl phthalate	ug/L (ppb)	10	94	96	34-142	2
Benz(a)anthracene	ug/L (ppb)	10	97	98	70-130	1
Chrysene	ug/L (ppb)	10	98	100	70-130	2
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	95	97	44-140	2
Di-n-octyl phthalate	ug/L (ppb)	10	97	99	33-147	2
Benzo(a)pyrene	ug/L (ppb)	10	105	106	70-130	1
Benzo(b)fluoranthene	ug/L (ppb)	10	103	105	70-130	2
Benzo(k)fluoranthene	ug/L (ppb)	10	98	102	70-130	4
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	100	103	70-130	3
Dibenz(a,h)anthracene	ug/L (ppb)	10	96	99	70-130	3
Benzo(g,h,i)perylene	ug/L (ppb)	10	99	101	68-131	2

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	ug/L (ppb)	10	32	32	10-55	0
Phenol	ug/L (ppb)	10	45	38	10-86	17
Bis(2-chloroethyl) ether	ug/L (ppb)	10	90	94	50-103	4
2-Chlorophenol	ug/L (ppb)	10	87	86	10-97	1
1,3-Dichlorobenzene	ug/L (ppb)	10	70	48	46-89	37 vo
1,4-Dichlorobenzene	ug/L (ppb)	10	76	54	47-89	34 vo
1,2-Dichlorobenzene	ug/L (ppb)	10	75	57	50-89	27 vo
Benzyl alcohol	ug/L (ppb)	50	72	69	10-76	4
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	92	91	53-98	1
2-Methylphenol	ug/L (ppb)	10	81	77	11-93	5
Hexachloroethane	ug/L (ppb)	10	67	39 vo	42-94	53 vo
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	95	97	68-109	2
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	76 vo	70 vo	10-66	8
Nitrobenzene	ug/L (ppb)	10	94	95	57-109	1
Isophorone	ug/L (ppb)	10	98	100	64-116	2
2-Nitrophenol	ug/L (ppb)	10	86	90	27-120	5
2,4-Dimethylphenol	ug/L (ppb)	10	91	88	10-106	3
Benzoic acid	ug/L (ppb)	80	27	15	10-102	57 vo
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	92	94	55-117	2
2,4-Dichlorophenol	ug/L (ppb)	10	98	98	23-116	0
1,2,4-Trichlorobenzene	ug/L (ppb)	10	73	53	53-95	32 vo
Naphthalene	ug/L (ppb)	10	84	74	58-93	13
Hexachlorobutadiene	ug/L (ppb)	10	71	38 vo	42-102	61 vo
4-Chloroaniline	ug/L (ppb)	50	83	79	28-121	5
4-Chloro-3-methylphenol	ug/L (ppb)	10	96	97	18-113	1
2-Methylnaphthalene	ug/L (ppb)	10	81	70	63-97	15
1-Methylnaphthalene	ug/L (ppb)	10	81	72	62-99	12
Hexachlorocyclopentadiene	ug/L (ppb)	10	83	52	29-118	46 vo
2,4,6-Trichlorophenol	ug/L (ppb)	10	102	102	16-131	0
2,4,5-Trichlorophenol	ug/L (ppb)	10	103	102	26-129	1
2-Chloronaphthalene	ug/L (ppb)	10	94	82	66-100	14
2-Nitroaniline	ug/L (ppb)	50	99	101	31-168	2
Dimethyl phthalate	ug/L (ppb)	10	109	107	70-130	2
Acenaphthylene	ug/L (ppb)	10	99	94	68-111	5
2,6-Dinitrotoluene	ug/L (ppb)	10	115	113	70-130	2
3-Nitroaniline	ug/L (ppb)	50	85	84	33-128	1
Acenaphthene	ug/L (ppb)	10	95	88	67-104	8
2,4-Dinitrophenol	ug/L (ppb)	20	100	104	10-137	4
Dibenzofuran	ug/L (ppb)	10	93	88	67-114	6
2,4-Dinitrotoluene	ug/L (ppb)	10	109	109	53-132	0
4-Nitrophenol	ug/L (ppb)	20	44	37	10-89	17
Diethyl phthalate	ug/L (ppb)	10	111	109	57-134	2
Fluorene	ug/L (ppb)	10	99	94	70-130	5
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	100	92	70-130	8
N-Nitrosodiphenylamine	ug/L (ppb)	10	111	107	70-130	4
4-Nitroaniline	ug/L (ppb)	50	96	97	32-124	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	103	105	14-167	2
Hexachlorobenzene	ug/L (ppb)	10	94	89	58-111	5
Phenanthrene	ug/L (ppb)	10	96	94	70-130	2
Anthracene	ug/L (ppb)	10	100	97	70-130	3
Carbazole	ug/L (ppb)	10	114	112	70-130	2
Di-n-butyl phthalate	ug/L (ppb)	10	120	112	28-147	7
Fluoranthene	ug/L (ppb)	10	102	99	70-130	3
Pyrene	ug/L (ppb)	10	94	97	70-130	3
Benzyl butyl phthalate	ug/L (ppb)	10	99	100	34-142	1
Benz(a)anthracene	ug/L (ppb)	10	102	101	70-130	1
Chrysene	ug/L (ppb)	10	104	102	70-130	2
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	97	96	44-140	1
Di-n-octyl phthalate	ug/L (ppb)	10	102	99	33-147	3
Benzo(a)pyrene	ug/L (ppb)	10	107	106	70-130	1
Benzo(b)fluoranthene	ug/L (ppb)	10	106	105	70-130	1
Benzo(k)fluoranthene	ug/L (ppb)	10	102	100	70-130	2
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	100	106	70-130	6
Dibenz(a,h)anthracene	ug/L (ppb)	10	98	103	70-130	5
Benzo(g,h,i)perylene	ug/L (ppb)	10	98	105	68-131	7

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILE PHENOLS BY EPA METHOD 8270E SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 30)
Pentachlorophenol	ug/L (ppb)	2.5	98	108	70-130	10

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILE PHENOLS BY EPA METHOD 8270E SIM

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 30)
Pentachlorophenol	ug/L (ppb)	2.5	102	102	70-130	0

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 412428-07 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	107	104	75-125	3
Chromium	ug/L (ppb)	10	<10	101 b	231 b	75-125	78 b
Copper	ug/L (ppb)	10	<50	101 b	117 b	75-125	15 b
Zinc	ug/L (ppb)	10	<50	99 b	115 b	75-125	15 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	80-120
Chromium	ug/L (ppb)	10	95	80-120
Copper	ug/L (ppb)	10	101	80-120
Zinc	ug/L (ppb)	10	89	80-120

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 412428-23 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	340	0 b	0 b	75-125	nm
Chromium	ug/L (ppb)	10	2.14	65 b	64 b	75-125	2 b
Copper	ug/L (ppb)	10	<5	60 vo	59 vo	75-125	2
Zinc	ug/L (ppb)	10	<5	61 vo	61 vo	75-125	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	106	80-120
Chromium	ug/L (ppb)	10	101	80-120
Copper	ug/L (ppb)	10	96	80-120
Zinc	ug/L (ppb)	10	103	80-120

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 412428-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	61.2	127 b	92 b	75-125	32 b
Chromium	ug/L (ppb)	10	<1	92	91	75-125	1
Copper	ug/L (ppb)	10	<5	87	86	75-125	1
Zinc	ug/L (ppb)	10	<5	89	90	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	99	80-120
Chromium	ug/L (ppb)	10	96	80-120
Copper	ug/L (ppb)	10	95	80-120
Zinc	ug/L (ppb)	10	98	80-120

Date of Report: 01/02/25
Date Received: 12/20/24
Project: Glacier NW AS230067, F&BI 412428

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 412428-31 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	24.8	109 b	118 b	75-125	8 b
Chromium	ug/L (ppb)	10	<1	93	94	75-125	1
Copper	ug/L (ppb)	10	<5	88	89	75-125	1
Zinc	ug/L (ppb)	10	21.9	90 b	95 b	75-125	5 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	103	80-120
Chromium	ug/L (ppb)	10	101	80-120
Copper	ug/L (ppb)	10	99	80-120
Zinc	ug/L (ppb)	10	103	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

412428

12/20/24

LS/JS

Page # 1 of 4

Report To Andrew Yonkofski, David Malky

Company Aspect

Address

City, State, ZIP

Phone 435 714 4571 Email andrew.yonkofski@aspect-consulting-llc.com
david.malky@aspect-consulting-llc.com

SAMPLERS (signature) David Malky

PROJECT NAME ~~AS2~~ Glacier NW

PO # AS230067

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

Sample IDs updated per AY 04/24/25 ME

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	metals* Total	metals* D, Sieved	PAHs SIMS	Low level PeNAchloropheno	* As, Cr, Cu, Zn Notes
MW-195-241216	01 A,B	12/16/24	1459	GW	2								X	X			
MW-190-241216	02	12/16/24	1425	GW	2								X	X			>1000uS/cm
MW-430-241216	03	12/16/24	1537	GW	2								X	X			
MW-145-241216	04	12/16/24	1624	GW	2								X	X			
MW-165-241216	05	12/16/24	1450	GW	2										X	X	
MW-175-241216	06	12/16/24	1610	GW	4	2							X	X	X	X	
~~MW-35-241216~~ INJ-1-241216	07	12/16/24	1440	GW	~~4~~								X	X	~~X~~	~~X~~	2 poly need NO HL
MW-215-241216	08	12/16/24	1535	GW	2								X	X			
MW-135-241216	09 A-D	12/16/24	1640	GW	4								X	X	X	X	
MW-465-241218	10	12/18/24	1025	GW	4								X	X	X	X	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: David Malky	David Malky	Aspect	12/20/24	1855
Received by:	VINIT	FBI	12-20-24	1855
Relinquished by:				
Received by:		Samples received at 5 °C		

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

4/12428

SAMPLE CHAIN OF CUSTODY

12/20/24

LS/JS

Page # 2 of 4

Report To Andrew Yankofski, David Mackay

Company Aspect

Address

City, State, ZIP

Phone 435 714 4531 Email andrew.yankofski@aspectconsulting.com
david.mackay@aspectconsulting.com

SAMPLERS (signature) [signature]

PROJECT NAME: Glacier NW

PO #: AS230067

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals ✱ Total	Metals ✱ Dissolved	PAHs / SIMs	Low level Perchlorate/phenol	✱ As, Cr, Cu, Zn Notes
MW-460-241218	11 A-D	12/18/24	1120	GW	4								X	X	X	X	>1000uS/cm
MW-450-241218	12	12/18/24	1225	GW	4								X	X	X	X	>1000uS/cm
MW-455-241218	13	12/18/24	1310	GW	4								X	X	X	X	
~~MW-30-241218~~ PP-1-241218	14 AB	12/18/24	1550	GW	2								X	X			>1000uS/cm
MW-140-241218	15 A-D	12/18/24	1600	GW	4								X	X	X	X	Time 16:15
FD-GW-241218	16	12/18/24		GW	4								X	X	X	X	
EB-241218 ← 18	17 A-C	12/18/24		GW	3								X		X	X	
MW-130-241219	18 A-D	12/19/24	1020	GW	4								X	X	X	X	>1000uS/cm
MW-470-241219	19	12/19/24	1115	GW	4								X	X	X	X	>1000uS/cm
MW-475 ~~DUP~~ 241218	20	12/19/24	1200	GW	4								X	X	X	X	Labeled MW 470

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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	David Mackay	Aspect	12/20/24	1855
Received by: [signature]	VINH	FBI	12-20-24	1855
Relinquished by:				
Received by:		Samples received at 5 °C		

412428

SAMPLE CHAIN OF CUSTODY

12/20/24

LS/IS

Page # 3 of 4

Report To Andrew Yonkofski, David Mackay

Company Aspect

Address

City, State, ZIP

Phone 435 714 4531 Email andrew.yonkofski@aspect-consulting.com
david.mackay@aspect-consulting.com

SAMPLERS (signature) [signature]

PROJECT NAME: Glacier NW

PO #: AS230067

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals* total	Metals* Dissolved	PAHs/SVOCs	Low level pentachlorophenol	* As, Fe, Cu, Zn Notes
MW-330-241219	21 A-D	12/19/24	1320	GW	4								X	X	X	X	
MW-335-241219	22 A-B	12/19/24	1435	GW	2										X	X	
~~MW-105-241219~~ DSM 12/20/24																	
FD-GW-241219	23 A-D	12/19/24		GW	4								X	X	X	X	>1000uS/cm
EB-241219	24 A-C	12/19/24		W	3								X	X DISS METALS	X	X	
MW-105-241220	25 A-B	12/20/24	0940	GW	2										X	X	
MW-25-241220	26 A-D	12/20/24	1020	GW	4								X	X	X	X	
MW-20-241220	27	12/20/24	1120	GW	4								X	X	X	X	
MW-480-241220	28	12/20/24	1220	GW	4								X	X	X	X	
MW-485-241220	29	12/20/24	1320	GW	4								X	X	X	X	Labeled MW-

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	David Mackay	Aspect	12/20/24	1855
Received by: [signature]	[signature]	FBI	12-20-24	1855
Relinquished by:				
Received by:		Samples received at	5	°C

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SAMPLE CHAIN OF CUSTODY

412428

12/20/24

LS/IS

Page # 4 of 4

Report To Andrew Yonkofski, David Mackay

Company Aspect

Address

City, State, ZIP

Phone 435 714 4531 Email andrew.yonkofski@aspect consulting.com david.mackay@aspect consulting.com

SAMPLERS (signature)

PROJECT NAME: Glacier NW

PO #: AS230067

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals Total *	Metals Dissolved *	PAHs SIM LL	low level perchlorate	* AS, Cr, Cu, Zn Notes
MW-10-241220	30A-B	12/20/24	1430	GW	2										X	X	
~~MW-10-241220~~ DSM 12/20/24 MW-10-241220	31 A-D	12/20/24	1520	GW	4								X	X	X	X	labeled MW-15 DSM 12/21/24
MW-65-241220	32 AB	12/20/24	1630	GW	2										X	X	2lb NO poly

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	David Mackay	Aspect	12/20/24	1855
Received by:	VINH	FBI	12-20-24	1855
Relinquished by:				
Received by:		Samples received at 5 °C		

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SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 412428 CLIENT Aspect INITIALS/ DATE: ZMB 12/23

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 5 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☐ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: 12/23 JB
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 4 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☒ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☐ Yes ☒ No	not match COC noted on COC	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No		☐ Not on COC/label
Time Sampled	☒ Yes ☐ No	not match COC noted on COC	☐ Not on COC/label
# of Containers	☒ Yes ☐ No		
Relinquished	☒ Yes ☐ No		
Requested analysis	☒ Yes ☐ On Hold		

Other comments (use a separate page if needed)
Missing containers -07 -32

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters** _____ Number of unused TO17 tubes _____
**Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
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www.friedmanandbruya.com

March 5, 2025

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on December 31, 2024 from the Glacier NW AS230067, F&BI 412509 project. There are 10 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, David Mackay
ASP0305R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 31, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW AS230067, F&BI 412509 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
412509 -01	PW-01-241230
412509 -02	PW-02-241230
412509 -03	PW-03-241230
412509 -04	PW-04-241230
412509 -05	FD-PW-241230
412509 -06	TB-PW-241230

The initial 6020B arsenic analyses performed at F&B showed the presence of arsenic in the trip blank sample TB-PW-241230 at a concentration of 91 ug/L. To confirm, the samples were sent to Alliance Technical Group (ATG) for 6020B arsenic analysis and the results were discrepant. It was disclosed that potassium bromide, a tracing agent, had been added to all samples, including the trip blank, at a concentration of approximately 100 mg/L.

Review of the data showed that bromine, in the form of the $^{81}BrH^{+}$ cation, interfered with the standard ICP-MS correction equation used for arsenic analysis. A new correction equation not subject to bromine interference was tested using deionized water containing 100 mg/L of potassium bromide. Additional tests were also performed on blank and arsenic control samples with no bromine present to confirm the accuracy of results using the new correction equation.

The tests demonstrated that 1) potassium bromide contributed high bias to the initial arsenic results, 2) the new correction equation accounted for the bromine interference present, and 3) F&B arsenic results were consistent with ATG results in samples fortified with potassium bromide using the new correction equation.

The samples, including TB-PW-241230, were reextracted and reanalyzed using the new correction equation. The F&B reanalysis data and the ATG data are enclosed.

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-01-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-01 x10
Date Analyzed:	03/03/25	Data File:	412509-01 x10.152
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	30

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-02-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-02 x10
Date Analyzed:	03/03/25	Data File:	412509-02 x10.153
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	24

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-03-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-03 x10
Date Analyzed:	03/03/25	Data File:	412509-03 x10.154
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	32

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-04-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-04 x20
Date Analyzed:	03/04/25	Data File:	412509-04 x20.057
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.0

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	FD-PW-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-05 x10
Date Analyzed:	03/03/25	Data File:	412509-05 x10.156
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	27

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	TB-PW-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-06 x3.33
Date Analyzed:	03/03/25	Data File:	412509-06 x3.33.151
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<0.84

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	I5-172 mb
Date Analyzed:	03/03/25	Data File:	I5-172 mb.113
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<0.25

Date of Report: 03/05/25
Date Received: 12/31/24
Project: Glacier NW AS230067, F&BI 412509

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 502368-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	35.4	0 b	0 b	75-125	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	94	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

412509

SAMPLE CHAIN OF CUSTODY 12/31/24 LB

Page # 1 of 1

Report To Andrew Yonkofski, David Mackay

Company Aspect

Address

City, State, ZIP

Phone 435 714 4531 Email andrew.yonkofski@aspectconsulting.com
david.mackay@aspectconsulting.com

SAMPLERS (signature)

PROJECT NAME: Glacier NW

PO #: AS230067

REMARKS: Low sample volume

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	As ATG	Br ATG	Metals As EPA 6020B/200.8	Bromide EPA 9056A/300	As Reanalysis	As reanalysis by ATG	A-per AY 01/13/25 ME Notes B-per AY 02/03/25 ME
PW-01-241230 DSM 12/30	01A-B	12/30/24	2225	W	2						B	B	X	X			
PW-02-241230	02	12/30/24	2235	W	2						B	B	X	X			
PW-03-241230	03	12/30/24	DSM 12/30 2215	W	2						B	B	X	X			only 150mL total
PW-04-241230	04	12/30/24	2200	W	2						B	B	X	X			
DSM 12/30 FD-PW-241230	05	12/30/24	—	W	2						B	B	X	X			
TB-PW-241230	06	12/30/24	2330	W	2						B	B	X	X	A	A	
							Samples received at 2 °C										

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	David Mackay	Aspect	DSM 12/31 #44 12/31/24	11:45
Received by:	Anh Phan	FBI	12/31/24	11:45
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 412509 CLIENT Aspect INITIALS/ DATE: AP 12/31/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ AP Date: 12/31/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2502044

February 11, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 2/4/2025 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *02/11/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2502044

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502044-001	PW-01-241230	12/30/2024 10:25 PM	02/04/2025 4:03 PM
2502044-002	PW-02-241230	12/30/2024 10:35 PM	02/04/2025 4:03 PM
2502044-003	PW-03-241230	12/30/2024 10:15 PM	02/04/2025 4:03 PM
2502044-004	PW-04-241230	12/30/2024 10:00 PM	02/04/2025 4:03 PM
2502044-005	FD-PW-241230	12/30/2024 12:00 AM	02/04/2025 4:03 PM
2502044-006	TB-PW-241230	12/30/2024 11:30 PM	02/04/2025 4:03 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2502044**

Date: **2/11/2025**

CLIENT: Friedman & Bruya

Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.5	60.0	D	mg/L	100	2/7/2025 2:06:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	24.4	0.500		µg/L	1	2/7/2025 5:09:00 PM

Lab ID: 2502044-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.0	60.0	D	mg/L	100	2/7/2025 2:29:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	23.6	0.500		µg/L	1	2/7/2025 5:27:00 PM

Lab ID: 2502044-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.5	60.0	D	mg/L	100	2/7/2025 2:52:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	29.4	0.500		µg/L	1	2/7/2025 5:30:00 PM

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	ND	60.0	D	mg/L	100	2/7/2025 3:15:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	7.26	0.500		µg/L	1	2/7/2025 5:34:00 PM

Lab ID: 2502044-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	66.2	60.0	D	mg/L	100	2/7/2025 3:39:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	26.0	0.500		µg/L	1	2/7/2025 5:44:00 PM

Lab ID: 2502044-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	94.4	60.0	D	mg/L	100	2/7/2025 4:02:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	ND	0.500		µg/L	1	2/7/2025 5:47:00 PM

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **MB-46707**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **MBLKW**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032425**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.600									

Sample ID: **LCS-46707**	SampType: **LCS**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **LCSW**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032426**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	2.40	0.600	2.500	0	96.1	90	110				

Sample ID: **2502091-001ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032434**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	1.20						0		20	D

Sample ID: **2502091-001AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032435**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	5.40	1.20	5.000	0.6100	95.7	80	120				D

Sample ID: **2502091-001AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032438**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	5.39	1.20	5.000	0.6100	95.6	80	120	5.396	0.148	20	D

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Dissolved Metals by EPA 6020B

Sample ID: **MB-46679**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **MBLKW**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031847**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									

Sample ID: **LCS-46679**	SampType: **LCS**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **LCSW**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031848**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.5	0.500	100.0	0	97.5	80	120				

Sample ID: **2502044-001ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031850**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.2	0.500						24.40	0.877	20	

Sample ID: **2502044-001AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031851**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	123	0.500	100.0	24.40	98.7	75	125				

Sample ID: **2502044-001AMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031852**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	122	0.500	100.0	24.40	97.2	75	125	123.1	1.16	20	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502044
Logged by:	Morgan Wilson	Date Received:	2/4/2025 4:03:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☐	No ☑	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Michael Erdahl	Date:	2/4/2025
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Low Preserved Vol, High RL, Hold Time		
Client Instructions:	Okay to proceed		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 074

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 5500 4th Ave S
City, State, ZIP Seattle, WA 98108
Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Aspect EDD	

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03 PM
Relinquished by:					
Received by:					

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2502044

February 11, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 2/4/2025 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *03/10/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2502044

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502044-001	PW-01-241230	12/30/2024 10:25 PM	02/04/2025 4:03 PM
2502044-002	PW-02-241230	12/30/2024 10:35 PM	02/04/2025 4:03 PM
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2502044-005	FD-PW-241230	12/30/2024 12:00 AM	02/04/2025 4:03 PM
2502044-006	TB-PW-241230	12/30/2024 11:30 PM	02/04/2025 4:03 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2502044**

Date: **2/11/2025**

CLIENT: Friedman & Bruya
Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
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III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

3/10/2025: Rev1 reports arsenic data only per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
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J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

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HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	24.4	0.500		µg/L	1	2/7/2025 5:09:00 PM

Lab ID: 2502044-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	23.6	0.500		µg/L	1	2/7/2025 5:27:00 PM

Lab ID: 2502044-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	29.4	0.500		µg/L	1	2/7/2025 5:30:00 PM

Lab ID: 2502044-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	7.26	0.500		µg/L	1	2/7/2025 5:34:00 PM

Analytical Report

Work Order: **2502044**
Date Reported: **2/11/2025**

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	26.0	0.500		µg/L	1	2/7/2025 5:44:00 PM

Lab ID: 2502044-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	ND	0.500		µg/L	1	2/7/2025 5:47:00 PM

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Dissolved Metals by EPA 6020B

Sample ID: **MB-46679**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **MBLKW**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031847**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									

Sample ID: **LCS-46679**	SampType: **LCS**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **LCSW**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031848**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.5	0.500	100.0	0	97.5	80	120				

Sample ID: **2502044-001ADUP**	SampType: **DUP**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031850**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.2	0.500						24.40	0.877	20	

Sample ID: **2502044-001AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031851**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	123	0.500	100.0	24.40	98.7	75	125				

Sample ID: **2502044-001AMSD**	SampType: **MSD**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031852**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	122	0.500	100.0	24.40	97.2	75	125	123.1	1.16	20	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502044
Logged by:	Morgan Wilson	Date Received:	2/4/2025 4:03:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☐	No ☑	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Michael Erdahl	Date:	2/4/2025
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Low Preserved Vol, High RL, Hold Time		
Client Instructions:	Okay to proceed		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 044

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 5500 4th Ave S
City, State, ZIP Seattle, WA 98108
Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Aspect EDD	

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03 PM
Relinquished by:					
Received by:					

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 074

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Edits per M.E. 3/10/2025 -BB Aspect EDD	

TURNAROUND TIME
- ☒ Standard TAT
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03pm
Relinquished by:					
Received by:					

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2412585

January 16, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 12/31/2024 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *03/10/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2412585

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2412585-001	PW-01-241230	12/30/2024 10:25 PM	12/31/2024 2:11 PM
2412585-002	PW-02-241230	12/30/2024 10:35 PM	12/31/2024 2:11 PM
2412585-003	PW-03-241230	12/30/2024 10:15 PM	12/31/2024 2:11 PM
2412585-004	PW-04-241230	12/30/2024 10:00 PM	12/31/2024 2:11 PM
2412585-005	FD-PW-241230	12/30/2024 12:00 AM	12/31/2024 2:11 PM
2412585-006	TB-PW-241230	12/30/2024 11:30 PM	12/31/2024 2:11 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2412585**

Date: **1/16/2025**

CLIENT: Friedman & Bruya
Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

1/16/2025: Rev1 includes additional analysis per client request.
3/10/2025: Rev2 includes only bromide data per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2412585-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	55.3	6.00	D	mg/L	10	1/2/2025 5:30:00 PM

Lab ID: 2412585-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	49.0	6.00	D	mg/L	10	1/2/2025 5:54:00 PM

Lab ID: 2412585-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	64.2	6.00	D	mg/L	10	1/2/2025 6:17:00 PM

Lab ID: 2412585-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	53.3	6.00	D	mg/L	10	1/2/2025 6:40:00 PM

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2412585-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	66.0	6.00	D	mg/L	10	1/2/2025 8:13:00 PM

Lab ID: 2412585-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	92.1	6.00	D	mg/L	10	1/2/2025 8:36:00 PM

Work Order: 2412585
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **MB-46345**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **MBLKW**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017635**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.600									

Sample ID: **LCS-46345**	SampType: **LCS**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **LCSW**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017636**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	2.26	0.600	2.500	0	90.4	90	110				

Sample ID: **2412585-004ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017641**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	51.5	6.00						53.26	3.38	20	D

Sample ID: **2412585-004AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017642**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	75.8	6.00	25.00	53.26	90.0	80	120				D

Sample ID: **2412585-004AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017643**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	75.4	6.00	25.00	53.26	88.5	80	120	75.76	0.503	20	D

Alliance TECHNICAL GROUP

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2412585
Logged by:	Clare Griggs	Date Received:	12/31/2024 2:11:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.	PO #
412509	E-603

REMARKS

AspectEDD

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide										Notes
PW-01-241230		12/30/2024	22:25	water	1	x										
PW-02-241230		12/30/2024	22:35	water	1	x										
PW-03-241230		12/30/2024	22:15	water	1	x										
PW-04-241230		12/30/2024	22:00	water	1	x										
FD-PW-241230		12/30/2024	-	water	1	x										
TB-PW-241230		12/30/2024	23:30	water	1	x										

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:	Briana Ballard	AIG	12/31	2:11PM
Relinquished by:				
Received by:				

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.
412509

PO #
E-603

REMARKS
Additional analysis per M.E. 1/9/2025
AspectEDD

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide	Dissolved As (Field filtered)									Notes
PW-01-241230		12/30/2024	22:25	water	1	x										
PW-02-241230		12/30/2024	22:35	water	1	x										
PW-03-241230		12/30/2024	22:15	water	1	x										
PW-04-241230		12/30/2024	22:00	water	1	x										
FD-PW-241230		12/30/2024	-	water	1	x										
TB-PW-241230		12/30/2024	23:30	water	1	x	X									

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:		Briana Ballard	AIG	12/31	2:11PM
Relinquished by:					
Received by:					

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.	PO #
412509	E-603

REMARKS
Additional analysis per M.E. 1/9/2025
AspectEDD
Edits per M.E. 3/10/2025 -BB

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide	Dissolved As (Field filtered)	Notes
PW-01-241230		12/30/2024	22:25	water	1	x		
PW-02-241230		12/30/2024	22:35	water	1	x		
PW-03-241230		12/30/2024	22:15	water	1	x		
PW-04-241230		12/30/2024	22:00	water	1	x		
FD-PW-241230		12/30/2024	-	water	1	x		
TB-PW-241230		12/30/2024	23:30	water	1	x	X	

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:		Briana Ballard	AIG	12/31	2:11PM
Relinquished by:					
Received by:					

SiREM
Leading Science · Lasting Solutions

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Certificate of Analysis
Concentrations of Freely Dissolved Analytes
Measured via SPeeper™ Passive Samplers

Customer: Aspect Consulting

SiREM Reference: Si-07946-082024

Site Deployment Dates:
December 1, 2024 to December 30, 2024

Report Issued:
March 13, 2025

Introduction

This report represents the results from in situ deployment of SPeeper™ passive samplers in surface sediment at the Glacier Northwest Inc. site in Seattle WA (the Site). The data from nine (9) SPeeper™ passive sampler sets (five [5] SPeeper™ sets deployed in sediment, one [1] field blank, and three [3] tracer blanks) were analyzed to determine the freely dissolved concentrations (C_{free}) of arsenic in sediment porewater. Bromide (Br^-), a reverse tracer, was added to each sampler and analyzed to evaluate diffusion equilibrium.

The sampler sets were deployed on December 1, 2024 and were retrieved on December 30, 2024. Details of the data analysis procedure are provided in Attachment A, the associated diffusion coefficients used in the C_{free} calculations in Attachment B, and Eurofins Environment Testing America and Friedman & Bruya Inc. reports in Attachment C.

Sample Summary

Client Sample ID	Sample Type	Sampler Deployment Date	Sampler Retrieval Date	Analysis
PW-01-241230	Sample	12/1/2024	12/30/2024	Arsenic & bromide
PW-02-241230	Sample	12/1/2024	12/30/2024	Arsenic & bromide
PW-03-241230	Sample	12/1/2024	12/30/2024	Arsenic & bromide
PW-04-241230	Sample	12/1/2024	12/30/2024	Arsenic & bromide
FD-PW-241230	Duplicate	12/1/2024	12/30/2024	Arsenic & bromide
TB-PW-241230	Field Blank	--	--	Arsenic & bromide
Aspect.SPeeper Blk 1	Blank	--	--	Arsenic & bromide
Aspect.SPeeper Blk 2	Blank	--	--	Arsenic & bromide
Aspect.SPeeper Blk 3	Blank	--	--	Arsenic & bromide

Sampler Design, Deployment, and Chemical Analysis

The SPeeper™ sampler design for this project consisted of pre-cleaned and pre-filled 60 mL peeper vials made of polyethylene [PE] with 0.45 micrometer (µm) polyethersulfone (PES) diffusion membranes in the lids of the vials. The SPeeper™ vials were cleaned by washing with a laboratory grade detergent, performing a double rinse with ultrapure water, then using trace

metal grade nitric acid to remove any potential metals followed by a final double rinse with ultrapure water to remove any remaining nitric acid. The ultrapure water for the washing steps was laboratory grade water (RO filtered through a Millipore Sigma Synergy R system).

The vials were filled with deoxygenated ultrapure water that was spiked with a potassium bromide (KBr) salt to target a concentration of 100 mg/L as bromide. After filling, the vials were stored and shipped to the Site in Mylar™ bags that have very low gas permittivity and that were filled with the same solution that was used to fill the SPeeper™ vials.

For deployment, pre-cleaned polyethylene terephthalate glycol (PETG) frames that could hold four (4) SPeeper™ vials each were also prepared. The 3D-printed custom frames were cleaned in the same way as the SPeeper™ vials and shipped to the Site in Mylar™ bags.

In total, 32 SPeeper™ vials and 5 PETG frames were prepared for deployment. Three (3) sets of SPeeper™ vials were designated as tracer blanks and shipped directly to Eurofins Environmental Testing America in Pittsburg, PA for analysis. In the field, all the prepared SPeeper™ vials were removed from their Mylar™ bags and immediately inserted into the pre-cleaned frames. Once inserted, the vials were deployed in the surface sediment at the Site. One (1) frame with 4 vials each were deployed for each sampling location. The remaining four (4) SPeeper™ vials were designated for use as field blanks. These samples remained in their sealed Mylar™ bags until sample processing and were stored at 4°C.

The SPeeper™ vials were deployed on December 1, 2024 and were retrieved on December 30, 2024 . The deployment time for the samplers was 29 days.

Upon retrieval, the SPeeper™ vials for each location were gently, but thoroughly rinsed off to remove excess sediment. The vials were transferred by gently pouring into laboratory supplied bottles. On December 30, the blanks were removed from their Mylar™ bags and sampled in the same way as described above for the deployed SPeepers™. For each sample set, samples were collected in laboratory provided sample bottles for analyses listed above. Collected samples were then shipped to Friedman & Bruya Inc. in Seattle, WA. The analytical report provided by Friedman & Bruya Inc. is attached to this report (Attachment C).

Results

C_{free} values for selected analytes are reported in Table 1. The C_{free} concentrations were calculated as described in Attachment A using a first-order diffusion model (Thomas and Arthur, 2010). Diffusion coefficients used in the calculations for each analyte were sourced from literature and are tabulated in Attachment B. Table A1 presents the concentrations measured by the laboratory prior to application of the first-order diffusion model.

References Cited

Thomas, B. and M.A. Arthur. 2010. Correcting porewater concentration measurements from peepers: Application of a reverse tracer. *Limnol. Oceanogr.: Methods.* 8: 403–413.

TABLE 1

SiREM

Table 1: Freely Dissolved Concentration of Analytes in Sediment Porewater

Aspect Consulting - Glacier Northwest, WA

SPeeper

Client ID	PW-01-241230			PW-02-241230			PW-03-241230			PW-04-241230			FD-PW-241230		
Analyte	Result	Qualifier	MDL	Result	Qualifier	MDL	Result	Qualifier	MDL	Result	Qualifier	MDL	Result	Qualifier	MDL
	µg/L		µg/L	µg/L		µg/L	µg/L		µg/L	µg/L		µg/L	µg/L		µg/L
Arsenic	154		6.7	105		5.7	210		8.5	39		13	187		9.0

Notes

µg/L: Micrograms per liter

MDL: Method detection limit

ND: Not detected

SiREM

ATTACHMENT A:

DATA ANALYSIS METHODS

Attachment A:

Data Analysis Methods
Concentrations of Freely Dissolved Analytes
Measured via SPeeper™ Passive Samplers

The concentration of analytes in the SPeeper™ water (Table A1) obtained from the information provided in the analytical report (Attachment C) are used in a multi-step data process to calculate C_{free} analytes as described below and adapted from Thomas and Arthur (2010).

Step 1:

The concentrations of the bromide reverse tracer in the SPeeper™ water [$Peeper_t$] were used to calculate the site-specific diffusion constant values (K_{mBr}) in each deployed sampler using the following equation:

$$Reverse\ Tracer\ K_{mBr} = \frac{-1}{t_{final}} \cdot \ln\left(\frac{[Peeper_{t=final}]}{[Peeper_{t=0}]}\right)$$

where:

$Peeper_{t=0}$ = the concentration of the bromide reverse tracer present in the peeper water at the beginning of the deployment (obtained from the undeployed blanks)

$Peeper_{t=final}$ = the concentration of the bromide reverse tracer after the deployment (obtained from each deployed peeper sampler)

t_{final} = the deployment time (in days)

K_{mBr} = the site-specific diffusion constant (in days^{-1})

Bromide K_{mBr} values for each sampler are shown in Table A2. The values are also expressed as a percentage of steady state (concentration at equilibrium).

Step 2:

The second step was to estimate K_{mi} values for the primary analytes in each of the deployed samplers. This was accomplished by developing a relationship between the site-specific bromide diffusion constant (K_{mBr}) values (from Table A2) and bromide diffusivity coefficient (D_{iBr}) and the site-specific diffusion constants and diffusivity coefficients for each analyte.

$$\frac{K_{mi}}{K_{mBr}} = \frac{D_i}{D_{Br}}$$

$$K_{mi} = \frac{D_i \cdot K_{mBr}}{D_{Br}}$$

K_{mLi} = the site-specific bromide reverse tracer diffusion constant (in days^{-1})

K_{mi} = the site-specific primary analyte diffusion constant (in days^{-1})

D_{Br} = bromide diffusivity constant (in cm^2/s)

D_i = primary analyte diffusivity constant (in cm^2/s)

Step 3:

This step describes the calculation of sampling rate correction factors (*CF*s) for each primary analyte in each sampler.

$$CF = 1 - e^{(-K_{mi} \cdot t_{final})}$$

where:

K_{mi} = the site-specific primary analyte diffusion constant (in days^{-1}))

t_{final} = the deployment time (in days).

Step 4:

The concentration of primary analyte in the SPeeper™ of each sampler (obtained from Table A1) were divided by the *CF* values to calculate the C_{free} concentration of the primary analytes. These are reported in Table 1. C_{free} Limits of Detection (LODs) were calculated in the approach described above using the LOD concentration from the analysis as reported by Eurofins and shown in Table A1.

References Cited

Thomas, B. and M.A. Arthur. 2010. Correcting porewater concentration measurements from peepers: Application of a reverse tracer. *Limnol. Oceanogr.: Methods.* 8: 403–413.

TABLE A1

SiREM

Table A1: Concentration of Analytes in SPeeper

Aspect Consulting - Glacier Northwest, WA

SPeeper

Client ID		Apect.SPeeper Blk 1			Apect.SPeeper Blk 2			Apect.SPeeper Blk 3			PW-01-241230			PW-02-241230		
Analyte	Diffusion Tracer	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L
Bromide	Tracer	94000		530	120000		270	95000		270	55300		1980	49000		1980
Arsenic		ND		0.68	ND		0.68	ND		0.68	30		1.3	24		1.3

Notes

µg/L: Micrograms per liter

MDL: Method detection limit

ND: Not detected

Table A1: Concentration of Analytes in SPeeper

Aspect Consulting - Glacier Northwest, WA

Client ID		PW-03-241230			PW-04-241230			FD-PW-241230			TB-PW-241230		
Analyte	Diffusion Tracer	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L	Result µg/L	Qualifier	MDL µg/L
Bromide	Tracer	64200		1980	53300		1980	66000		1980	92100		1980
Arsenic		32		1.3	8		2.6	27		1.3	ND		0.4

Notes

µg/L: Micrograms per liter

MDL: Method detection limit

ND: Not detected

TABLE A2

Table A2: Location Specific Bromide Diffusion Constants (KD-Br) and Percentage to Steady State Reached by Tracers During Deployment

Aspect Consulting - Glacier Northwest, WA

Client ID	PW-01-241230		PW-02-241230		PW-03-241230		PW-04-241230		FD-PW-241230	
Diffusion Tracer	K_{D-Br}	Steady State	K_{D-Br}	Steady State	K_{D-Br}	Steady State	K_{D-Br}	Steady State	K_{D-Br}	Steady State
	d^{-1}	%	d^{-1}	%	d^{-1}	%	d^{-1}	%	d^{-1}	%
Bromide	0.0214	46	0.0256	52	0.0163	38	0.0227	48	0.0153	36

Notes

%: Percent

d: Day

K_{D-Br}: Location specific bromide diffusion constant

ATTACHMENT B:

DIFFUSION COEFFICIENTS

SPeeper | siremlab.com

Analyte	D × 10^{-5} (cm^2/s)	Source of D
Bromide (Br-)	2.08	Haynes (2014)
Arsenic ($H_2(AsO_4)^-$)	0.727	Tanaka et al. (2013)

References Cited

Haynes W. M. 2014. CRC handbook of thermophysical and thermochemical data. CRC press Inc. Boca Raton.

Tanaka, M., Takahashi, Y., Yamaguchi, N., Kim, K., Zheng, G., Sakamitsu, M. 2013. The difference of diffusion coefficients in water for arsenic compounds at various pH and its dominant factors implied by molecular simulations. *Geochimica et Cosmochimica Acta*, 105, 360-371.

ATTACHMENT C:

ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

March 5, 2025

Andrew Yonkofski, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on December 31, 2024 from the Glacier NW AS230067, F&BI 412509 project. There are 10 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, David Mackay
ASP0305R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 31, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW AS230067, F&BI 412509 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
412509 -01	PW-01-241230
412509 -02	PW-02-241230
412509 -03	PW-03-241230
412509 -04	PW-04-241230
412509 -05	FD-PW-241230
412509 -06	TB-PW-241230

The initial 6020B arsenic analyses performed at F&B showed the presence of arsenic in the trip blank sample TB-PW-241230 at a concentration of 91 ug/L. To confirm, the samples were sent to Alliance Technical Group (ATG) for 6020B arsenic analysis and the results were discrepant. It was disclosed that potassium bromide, a tracing agent, had been added to all samples, including the trip blank, at a concentration of approximately 100 mg/L.

Review of the data showed that bromine, in the form of the $^{81}BrH^{+}$ cation, interfered with the standard ICP-MS correction equation used for arsenic analysis. A new correction equation not subject to bromine interference was tested using deionized water containing 100 mg/L of potassium bromide. Additional tests were also performed on blank and arsenic control samples with no bromine present to confirm the accuracy of results using the new correction equation.

The tests demonstrated that 1) potassium bromide contributed high bias to the initial arsenic results, 2) the new correction equation accounted for the bromine interference present, and 3) F&B arsenic results were consistent with ATG results in samples fortified with potassium bromide using the new correction equation.

The samples, including TB-PW-241230, were reextracted and reanalyzed using the new correction equation. The F&B reanalysis data and the ATG data are enclosed.

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-01-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-01 x10
Date Analyzed:	03/03/25	Data File:	412509-01 x10.152
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	30

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-02-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-02 x10
Date Analyzed:	03/03/25	Data File:	412509-02 x10.153
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	24

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-03-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-03 x10
Date Analyzed:	03/03/25	Data File:	412509-03 x10.154
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	32

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	PW-04-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-04 x20
Date Analyzed:	03/04/25	Data File:	412509-04 x20.057
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.0

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	FD-PW-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-05 x10
Date Analyzed:	03/03/25	Data File:	412509-05 x10.156
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	27

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	TB-PW-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	412509-06 x3.33
Date Analyzed:	03/03/25	Data File:	412509-06 x3.33.151
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<0.84

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Glacier NW AS230067
Date Extracted:	02/28/25	Lab ID:	I5-172 mb
Date Analyzed:	03/03/25	Data File:	I5-172 mb.113
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<0.25

Date of Report: 03/05/25
Date Received: 12/31/24
Project: Glacier NW AS230067, F&BI 412509

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 502368-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	35.4	0 b	0 b	75-125	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	94	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

412509

SAMPLE CHAIN OF CUSTODY 12/31/24 LB

Page # 1 of 1

Report To Andrew Yonkofski, David Mackay

Company Aspect

Address

City, State, ZIP

Phone 435 714 4531 Email andrew.yonkofski@aspectconsulting.com
david.mackay@aspectconsulting.com

SAMPLERS (signature)

PROJECT NAME: Glacier NW

PO #: AS230067

REMARKS: Low sample volume

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	As ATG	Br ATG	Metals As EPA 6020B/200.8	Bromide EPA 9056A/300	As Reanalysis	As reanalysis by ATG	A-per AY 01/13/25 ME Notes B-per AY 02/03/25 ME
PW-01-241230 DSM 12/30	01A-B	12/30/24	2225	W	2						B	B	X	X			
PW-02-241230	02	12/30/24	2235	W	2						B	B	X	X			
PW-03-241230	03	12/30/24	DSM 12/30 2215	W	2						B	B	X	X			only 150mL total
PW-04-241230	04	12/30/24	2200	W	2						B	B	X	X			
DSM 12/30 FD-PW-241230	05	12/30/24	—	W	2						B	B	X	X			
TB-PW-241230	06	12/30/24	2330	W	2						B	B	X	X	A	A	
							Samples received at 2 °C										

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	David Mackay	Aspect	DSM 12/31 #44 12/31/24	11:45
Received by:	Anh Phan	FBI	12/31/24	11:45
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 412509 CLIENT Aspect INITIALS/ DATE: AP 12/31/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ AP Date: 12/31/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2502044

February 11, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 2/4/2025 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *02/11/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2502044

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502044-001	PW-01-241230	12/30/2024 10:25 PM	02/04/2025 4:03 PM
2502044-002	PW-02-241230	12/30/2024 10:35 PM	02/04/2025 4:03 PM
2502044-003	PW-03-241230	12/30/2024 10:15 PM	02/04/2025 4:03 PM
2502044-004	PW-04-241230	12/30/2024 10:00 PM	02/04/2025 4:03 PM
2502044-005	FD-PW-241230	12/30/2024 12:00 AM	02/04/2025 4:03 PM
2502044-006	TB-PW-241230	12/30/2024 11:30 PM	02/04/2025 4:03 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2502044**

Date: **2/11/2025**

CLIENT: Friedman & Bruya

Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.5	60.0	D	mg/L	100	2/7/2025 2:06:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	24.4	0.500		µg/L	1	2/7/2025 5:09:00 PM

Lab ID: 2502044-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.0	60.0	D	mg/L	100	2/7/2025 2:29:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	23.6	0.500		µg/L	1	2/7/2025 5:27:00 PM

Lab ID: 2502044-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	61.5	60.0	D	mg/L	100	2/7/2025 2:52:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	29.4	0.500		µg/L	1	2/7/2025 5:30:00 PM

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	ND	60.0	D	mg/L	100	2/7/2025 3:15:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	7.26	0.500		µg/L	1	2/7/2025 5:34:00 PM

Lab ID: 2502044-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	66.2	60.0	D	mg/L	100	2/7/2025 3:39:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	26.0	0.500		µg/L	1	2/7/2025 5:44:00 PM

Lab ID: 2502044-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46707		Analyst: OP
Bromide	94.4	60.0	D	mg/L	100	2/7/2025 4:02:00 PM
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	ND	0.500		µg/L	1	2/7/2025 5:47:00 PM

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **MB-46707**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **MBLKW**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032425**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.600									

Sample ID: **LCS-46707**	SampType: **LCS**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **LCSW**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032426**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	2.40	0.600	2.500	0	96.1	90	110				

Sample ID: **2502091-001ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032434**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	1.20						0		20	D

Sample ID: **2502091-001AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032435**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	5.40	1.20	5.000	0.6100	95.7	80	120				D

Sample ID: **2502091-001AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **2/7/2025**		RunNo: **97537**		
Client ID: **BATCH**	Batch ID: **46707**					Analysis Date: **2/7/2025**		SeqNo: **2032438**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	5.39	1.20	5.000	0.6100	95.6	80	120	5.396	0.148	20	D

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Dissolved Metals by EPA 6020B

Sample ID: **MB-46679**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **MBLKW**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031847**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									

Sample ID: **LCS-46679**	SampType: **LCS**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **LCSW**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031848**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.5	0.500	100.0	0	97.5	80	120				

Sample ID: **2502044-001ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031850**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.2	0.500						24.40	0.877	20	

Sample ID: **2502044-001AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031851**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	123	0.500	100.0	24.40	98.7	75	125				

Sample ID: **2502044-001AMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **2/6/2025**	RunNo: **97510**
Client ID: **PW-01-241230**	Batch ID: **46679**		Analysis Date: **2/7/2025**	SeqNo: **2031852**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	122	0.500	100.0	24.40	97.2	75	125	123.1	1.16	20	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502044
Logged by:	Morgan Wilson	Date Received:	2/4/2025 4:03:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☐	No ☑	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Michael Erdahl	Date:	2/4/2025
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Low Preserved Vol, High RL, Hold Time		
Client Instructions:	Okay to proceed		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 074

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 5500 4th Ave S
City, State, ZIP Seattle, WA 98108
Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Aspect EDD	

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03 PM
Relinquished by:					
Received by:					

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2502044

February 11, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 2/4/2025 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *03/10/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2502044

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502044-001	PW-01-241230	12/30/2024 10:25 PM	02/04/2025 4:03 PM
2502044-002	PW-02-241230	12/30/2024 10:35 PM	02/04/2025 4:03 PM
2502044-003	PW-03-241230	12/30/2024 10:15 PM	02/04/2025 4:03 PM
2502044-004	PW-04-241230	12/30/2024 10:00 PM	02/04/2025 4:03 PM
2502044-005	FD-PW-241230	12/30/2024 12:00 AM	02/04/2025 4:03 PM
2502044-006	TB-PW-241230	12/30/2024 11:30 PM	02/04/2025 4:03 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2502044**

Date: **2/11/2025**

CLIENT: Friedman & Bruya
Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

3/10/2025: Rev1 reports arsenic data only per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	24.4	0.500		µg/L	1	2/7/2025 5:09:00 PM

Lab ID: 2502044-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	23.6	0.500		µg/L	1	2/7/2025 5:27:00 PM

Lab ID: 2502044-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	29.4	0.500		µg/L	1	2/7/2025 5:30:00 PM

Lab ID: 2502044-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	7.26	0.500		µg/L	1	2/7/2025 5:34:00 PM

Analytical Report

Work Order: **2502044**
Date Reported: **2/11/2025**

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2502044-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	26.0	0.500		µg/L	1	2/7/2025 5:44:00 PM

Lab ID: 2502044-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA 6020B				Batch ID: 46679		Analyst: ME
Arsenic	ND	0.500		µg/L	1	2/7/2025 5:47:00 PM

Work Order: 2502044
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Dissolved Metals by EPA 6020B

Sample ID: **MB-46679**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **MBLKW**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031847**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									

Sample ID: **LCS-46679**	SampType: **LCS**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **LCSW**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031848**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	97.5	0.500	100.0	0	97.5	80	120				

Sample ID: **2502044-001ADUP**	SampType: **DUP**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031850**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.2	0.500						24.40	0.877	20	

Sample ID: **2502044-001AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031851**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	123	0.500	100.0	24.40	98.7	75	125				

Sample ID: **2502044-001AMSD**	SampType: **MSD**			Units: **µg/L**		Prep Date: **2/6/2025**		RunNo: **97510**		
Client ID: **PW-01-241230**	Batch ID: **46679**					Analysis Date: **2/7/2025**		SeqNo: **2031852**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	122	0.500	100.0	24.40	97.2	75	125	123.1	1.16	20	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502044
Logged by:	Morgan Wilson	Date Received:	2/4/2025 4:03:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☐	No ☑	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Michael Erdahl	Date:	2/4/2025
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Low Preserved Vol, High RL, Hold Time		
Client Instructions:	Okay to proceed		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 044

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 5500 4th Ave S
City, State, ZIP Seattle, WA 98108
Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Aspect EDD	

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03 PM
Relinquished by:					
Received by:					

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2502 074

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER ATG	
PROJECT NAME/NO. 412509	PO # F-54
REMARKS Edits per M.E. 3/10/2025 -BB Aspect EDD	

TURNAROUND TIME
- ☒ Standard TAT
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved As FF	Bromide									Notes
PW-01-241230		12/30/2024	2225	water	1	x	x									
PW-02-241230		12/30/2024	2235	water	1	x	x									
PW-03-241230		12/30/2024	2215	water	1	x	x									
PW-04-241230		12/30/2024	2200	water	1	x	x									
FD-PW-241230		12/30/2024	XXXX	water	1	x	x									
TB-PW-241230		12/30/2024	2330	water	1	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/4/25	0021
Received by:		Payton Cleven		2/4/25	4:03pm
Relinquished by:					
Received by:					

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 412509,
Work Order Number: 2412585

January 16, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 12/31/2024 for the analyses presented in the following report.

Dissolved Metals by EPA 6020B
Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *03/10/2025*

CLIENT: Friedman & Bruya
Project: 412509
Work Order: 2412585

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2412585-001	PW-01-241230	12/30/2024 10:25 PM	12/31/2024 2:11 PM
2412585-002	PW-02-241230	12/30/2024 10:35 PM	12/31/2024 2:11 PM
2412585-003	PW-03-241230	12/30/2024 10:15 PM	12/31/2024 2:11 PM
2412585-004	PW-04-241230	12/30/2024 10:00 PM	12/31/2024 2:11 PM
2412585-005	FD-PW-241230	12/30/2024 12:00 AM	12/31/2024 2:11 PM
2412585-006	TB-PW-241230	12/30/2024 11:30 PM	12/31/2024 2:11 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2412585**

Date: **1/16/2025**

CLIENT: Friedman & Bruya
Project: 412509

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

1/16/2025: Rev1 includes additional analysis per client request.
3/10/2025: Rev2 includes only bromide data per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2412585-001 **Collection Date:** 12/30/2024 10:25:00 PM
Client Sample ID: **PW-01-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	55.3	6.00	D	mg/L	10	1/2/2025 5:30:00 PM

Lab ID: 2412585-002 **Collection Date:** 12/30/2024 10:35:00 PM
Client Sample ID: **PW-02-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	49.0	6.00	D	mg/L	10	1/2/2025 5:54:00 PM

Lab ID: 2412585-003 **Collection Date:** 12/30/2024 10:15:00 PM
Client Sample ID: **PW-03-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	64.2	6.00	D	mg/L	10	1/2/2025 6:17:00 PM

Lab ID: 2412585-004 **Collection Date:** 12/30/2024 10:00:00 PM
Client Sample ID: **PW-04-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	53.3	6.00	D	mg/L	10	1/2/2025 6:40:00 PM

CLIENT: Friedman & Bruya
Project: 412509

Lab ID: 2412585-005 **Collection Date:** 12/30/2024
Client Sample ID: **FD-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	66.0	6.00	D	mg/L	10	1/2/2025 8:13:00 PM

Lab ID: 2412585-006 **Collection Date:** 12/30/2024 11:30:00 PM
Client Sample ID: **TB-PW-241230** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA 300.0				Batch ID: 46345		Analyst: SS
Bromide	92.1	6.00	D	mg/L	10	1/2/2025 8:36:00 PM

Work Order: 2412585
CLIENT: Friedman & Bruya
Project: 412509

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **MB-46345**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **MBLKW**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017635**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.600									

Sample ID: **LCS-46345**	SampType: **LCS**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **LCSW**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017636**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	2.26	0.600	2.500	0	90.4	90	110				

Sample ID: **2412585-004ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017641**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	51.5	6.00						53.26	3.38	20	D

Sample ID: **2412585-004AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017642**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	75.8	6.00	25.00	53.26	90.0	80	120				D

Sample ID: **2412585-004AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **1/2/2025**			RunNo: **96730**		
Client ID: **PW-04-241230**	Batch ID: **46345**					Analysis Date: **1/2/2025**			SeqNo: **2017643**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	75.4	6.00	25.00	53.26	88.5	80	120	75.76	0.503	20	D

Alliance TECHNICAL GROUP

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2412585
Logged by:	Clare Griggs	Date Received:	12/31/2024 2:11:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.	PO #
412509	E-603

REMARKS

AspectEDD

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide										Notes
PW-01-241230		12/30/2024	22:25	water	1	x										
PW-02-241230		12/30/2024	22:35	water	1	x										
PW-03-241230		12/30/2024	22:15	water	1	x										
PW-04-241230		12/30/2024	22:00	water	1	x										
FD-PW-241230		12/30/2024	-	water	1	x										
TB-PW-241230		12/30/2024	23:30	water	1	x										

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:	Briana Ballard	AIG	12/31	2:11PM
Relinquished by:				
Received by:				

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.
412509

PO #
E-603

REMARKS
Additional analysis per M.E. 1/9/2025
AspectEDD

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide	Dissolved As (Field filtered)									Notes
PW-01-241230		12/30/2024	22:25	water	1	x										
PW-02-241230		12/30/2024	22:35	water	1	x										
PW-03-241230		12/30/2024	22:15	water	1	x										
PW-04-241230		12/30/2024	22:00	water	1	x										
FD-PW-241230		12/30/2024	-	water	1	x										
TB-PW-241230		12/30/2024	23:30	water	1	x	X									

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:		Briana Ballard	AIG	12/31	2:11PM
Relinquished by:					
Received by:					

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2412585

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER
Alliance TG

PROJECT NAME/NO.	PO #
412509	E-603

REMARKS
Additional analysis per M.E. 1/9/2025
AspectEDD
Edits per M.E. 3/10/2025 -BB

TURNAROUND TIME
☒ Standard
RUSH__
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Bromide	Dissolved As (Field filtered)	Notes
PW-01-241230		12/30/2024	22:25	water	1	x		
PW-02-241230		12/30/2024	22:35	water	1	x		
PW-03-241230		12/30/2024	22:15	water	1	x		
PW-04-241230		12/30/2024	22:00	water	1	x		
FD-PW-241230		12/30/2024	-	water	1	x		
TB-PW-241230		12/30/2024	23:30	water	1	x	X	

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		~~Mac Goldman~~ Michael Erdahl	Friedman and Bruya	12/31/24	1210
Received by:		Briana Ballard	AIG	12/31	2:11PM
Relinquished by:					
Received by:					

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Brent Pautler
Sirem, div of Geosyntec Consultants
130 Stone Rd West
Guelph, Ontario N1G 3Z2

Generated 12/6/2024 10:39:46 AM

JOB DESCRIPTION

Glacier Northwest, WA

JOB NUMBER

180-182648-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

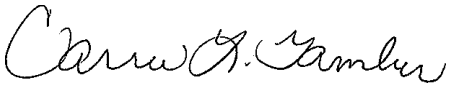
Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



Generated
12/6/2024 10:39:46 AM

Authorized for release by
Carrie Gamber, Senior Project Manager
Carrie.Gamber@et.eurofinsus.com
(412)963-2428

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Definitions/Glossary 5
Certification Summary 6
Sample Summary 7
Method Summary 8
Lab Chronicle 9
Client Sample Results 10
QC Sample Results 11
QC Association Summary 12
Chain of Custody 13
Receipt Checklists 20

CASE NARRATIVE

Client: Sirem, div of Geosyntec Consultants

Project: Glacier Northwest, WA

Report Number: 180-182648-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 11/13/2024; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

9056A IC
All samples were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

METALS
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-28-25
California	State	2891	04-30-24 *
Connecticut	State	PH-0688	09-30-24 *
Florida	NELAP	E871008	06-30-25
Georgia	State	PA 02-00416	04-30-25
Illinois	NELAP	004375	07-31-25
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-25
Kentucky (WW)	State	KY98043	12-31-24
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-25
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-25
New Jersey	NELAP	PA005	06-30-25
New York	NELAP	11182	04-01-25
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24 *
Oregon	NELAP	PA-2151	02-06-25
Pennsylvania	NELAP	02-00416	04-30-25
Rhode Island	State	LAO00362	01-01-25
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-25
US Fish & Wildlife	US Federal Programs	058448	04-30-25
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462024-14	05-31-25
Virginia	NELAP	10043	07-14-24 *
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-11-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-182648-1	ASPECT.SPEEPER BLK 1	Water	11/11/24 11:00	11/13/24 10:00
180-182648-2	ASPECT.SPEEPER BLK 2	Water	11/11/24 11:00	11/13/24 10:00
180-182648-3	ASPECT.SPEEPER BLK 3	Water	11/11/24 11:00	11/13/24 10:00

Method Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	EET PIT
6020B	Metals (ICP/MS)	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Client Sample ID: ASPECT.SPEEPER BLK 1

Lab Sample ID: 180-182648-1
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	484540	11/16/24 15:18	M1D	EET PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:47	LHF4	ELLE
	Instrument ID: E07 - 27813									

Client Sample ID: ASPECT.SPEEPER BLK 2

Lab Sample ID: 180-182648-2
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	484597	11/18/24 14:16	ERP	EET PIT
	Instrument ID: INUVION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:49	LHF4	ELLE
	Instrument ID: E07 - 27813									

Client Sample ID: ASPECT.SPEEPER BLK 3

Lab Sample ID: 180-182648-3
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	484540	11/16/24 14:59	M1D	EET PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:51	LHF4	ELLE
	Instrument ID: E07 - 27813									

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Analyst References:

Lab: EET PIT

Batch Type: Analysis

ERP = Evan Papak

M1D = Maureen Donlin

Lab: ELLE

Batch Type: Prep

UJL8 = James Mertz

Batch Type: Analysis

LHF4 = Diamond Boyer

Client Sample Results

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

Client Sample ID: ASPECT.SPEEPER BLK 1
Lab Sample ID: 180-182648-1
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**94**		1.0	0.53	mg/L			11/16/24 15:18	10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:47	1

Client Sample ID: ASPECT.SPEEPER BLK 2
Lab Sample ID: 180-182648-2
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**120**		0.50	0.27	mg/L			11/18/24 14:16	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:49	1

Client Sample ID: ASPECT.SPEEPER BLK 3
Lab Sample ID: 180-182648-3
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**95**		0.50	0.27	mg/L			11/16/24 14:59	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:51	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: LB 180-484538/1-A
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/16/24 15:36	1

Lab Sample ID: MB 180-484540/6
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/16/24 10:39	1

Lab Sample ID: LCS 180-484540/7
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.50		mg/L		95	80 - 120

Lab Sample ID: MB 180-484597/6
Matrix: Water
Analysis Batch: 484597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/18/24 09:59	1

Lab Sample ID: LCS 180-484597/7
Matrix: Water
Analysis Batch: 484597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.81		mg/L		98	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-581562/1-A
Matrix: Water
Analysis Batch: 582262

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 581562

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:22	1

Lab Sample ID: LCS 410-581562/2-A
Matrix: Water
Analysis Batch: 582262

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 581562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	500	492		ug/L		98	90 - 109

QC Association Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

HPLC/IC

Filtration Batch: 484538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 180-484538/1-A	Method Blank	Total/NA	Water	FILTRATION	

Analysis Batch: 484540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Total/NA	Water	EPA 9056A	
180-182648-3	ASPECT.SPEEPER BLK 3	Total/NA	Water	EPA 9056A	
LB 180-484538/1-A	Method Blank	Total/NA	Water	EPA 9056A	484538
MB 180-484540/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-484540/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 484597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-2	ASPECT.SPEEPER BLK 2	Total/NA	Water	EPA 9056A	
MB 180-484597/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-484597/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 581562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Dissolved	Water	3005A	
180-182648-2	ASPECT.SPEEPER BLK 2	Dissolved	Water	3005A	
180-182648-3	ASPECT.SPEEPER BLK 3	Dissolved	Water	3005A	
MB 410-581562/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-581562/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 582262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Dissolved	Water	6020B	581562
180-182648-2	ASPECT.SPEEPER BLK 2	Dissolved	Water	6020B	581562
180-182648-3	ASPECT.SPEEPER BLK 3	Dissolved	Water	6020B	581562
MB 410-581562/1-A	Method Blank	Total Recoverable	Water	6020B	581562
LCS 410-581562/2-A	Lab Control Sample	Total Recoverable	Water	6020B	581562

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Brent Pautler	Site Contact:	Date:	COC No: 1
SiREM	Email: bpautler@siremlab.com, asweett@siremlab.c	Lab Contact:	Carrier:	1 of 1 COCs
130 Stone Rd. West	Tel/Fax: 519-515-0837			TALS Project #:
Guelph, ON N	Analysis Turnaround Time			Sampler:
(519) 515-0837 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below ____			Walk-in Client:
Project Name: Aspect Consulting SP3s and SPeepers	☐ 2 weeks			Lab Sampling:
Site: Glacier Northwest, WA	☐ 1 week			Job / SDG No.
P O # Quote 18029240	☐ 2 days ☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 9056A for Br	EPA 6020B for As	Sample Specific Notes.
Aspect.SPeeper Blk.1	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide
Aspect.SPeeper Blk.2	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide
Aspect.SPeeper Blk.3	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide

180-182648 Chain of Custody

Preservation Used 1= Ice, 2= HCl; 3= H2SO4, 4=HNO3, 5=NaOH; 6= Other (4 for 6020 and 7470A) — 1

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for Months

Special Instructions/QC Requirements & Comments.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.		Cooler Temp. (°C): Obs'd.	Corr'd:	Therm ID No.
Relinquished by: Brooke Rapien	Company: SiREM Lab	Date/Time: 12/13/24 10am	Received by:	Company: BHTMB	Date/Time: 12/13/24 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev 4.35, dated 10/6/2020

View/Print Label

1 **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialogue box that appears. Note: If your browser does not support this function, select Print from the File menu to print the label.

2. **Customs Invoice** 3 copies of a completed customs invoice are required for shipments with a commercial value.

3 **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label

4. **GETTING YOUR SHIPMENT TO UPS**

Customers without a scheduled Pickup

- Ground, 3 Day Select, and Standard to Canada shipments must be dropped off at an authorized UPS location, or handed to a UPS driver Pickup service is not available for these services To find the nearest UPS location, visit ups.com.
- To Schedule a pickup or find a UPS location, visit ups com

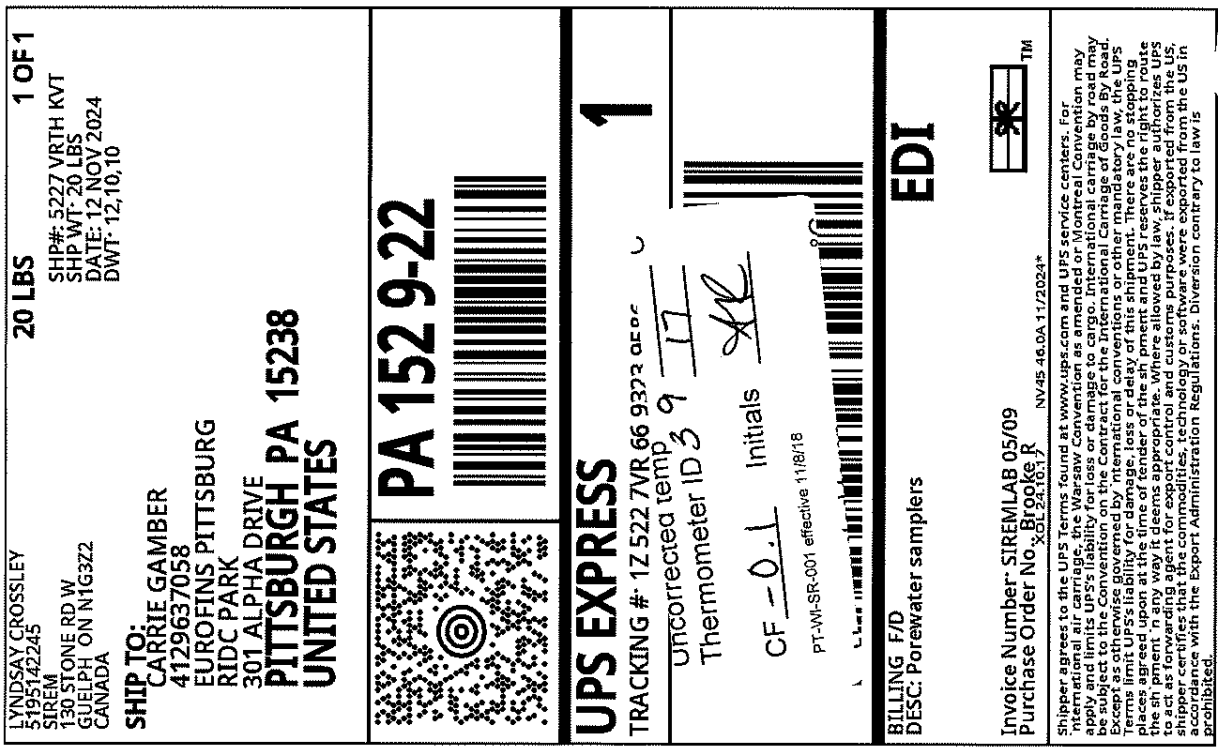
Customers with a scheduled Pickup

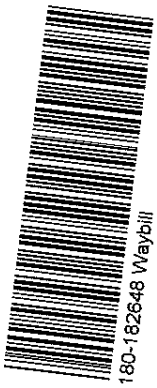
- Your driver will pickup your shipment(s) as usual.

5 To acknowledge your acceptance of the original language of the agreement with UPS as stated on the confirm payment page, and to authorize UPS to act as forwarding agent for export control and custom purposes, **sign and date here.**

Shipper's Signature	Date of Shipment
Brooke Rapien	12Nov24

FOLD HERE





Invoice

FROM

Tax ID/EIN/VAT No

Contact Name Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone 5195142245

Waybill Number 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date: 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm)
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201 90 00.00	CA	6 67	20 01	

Additional Comments:

Declaration Statement.
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brodie Kapus **Date** 12Nov24

Invoice Line Total.	20.01
Discount/Rebate:	0 00
Invoice Sub-Total	20.01
Freight:	0 00
Insurance:	0 00
Other	0 00
Total Invoice Amount.	20 01

Total Number of Packages. 1 **Currency** USD
Total Weight: 20 0 LBS

Invoice

FROM

Tax ID/EIN/VAT No.

Contact Name Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone 5195142245

Waybill Number 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm)
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201.90 00 00	CA	6 67	20 01	

Additional Comments

Declaration Statement.
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brooke Reyes **Date** 12Nov24

Invoice Line Total.	20 01
Discount/Rebate:	0 00
Invoice Sub-Total	20 01
Freight:	0 00
Insurance:	0 00
Other	0 00
Total Invoice Amount:	20 01

Total Number of Packages 1 **Currency** USD
Total Weight. 20 0 LBS

Invoice

FROM

Tax ID/EIN/VAT No.

Contact Name: Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone: 5195142245

Waybill Number: 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date: 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm).
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201 90 00 00	CA	6 67	20 01	

Additional Comments

Declaration Statement:
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brodie Rogers **Date** 12Nov24

Invoice Line Total.	20 01
Discount/Rebate:	0 00
Invoice Sub-Total.	20 01
Freight:	0 00
Insurance:	0 00
Other:	0 00
Total Invoice Amount:	20 01

Total Number of Packages. 1 **Currency:** USD
Total Weight: 20 0 LBS

SiREM
Leading Science Lasting Solutions

130 Stone Rd W
Guelph ON N1G 3Z2
(519) 822-2265

Toxic Substance Control Act (TSCA) Certification

Date. November 12 2024

Positive Certification

☐ I certify that all chemical substances in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order thereunder

Negative Certification

☒ I certify that all chemicals in this shipment are not subject to TSCA

Company Name	Geosyntec Consultants DBA SiREM
Company Address	130 Stone Rd W Guelph ON N1G 3Z2 Canada Tel 519-822-2230
Authorized Name	Brooke Rapien, Laboratory Technician I
UPS Waybill #:	1Z 522 7VR 66 9323 9586

Authorized Signature: Brooke Rapien

IF THE CERTIFIER IS UNSURE THAT THEIR CHEMICAL SUBSTANCE IS SUBJECT TO TSCA COMPLIANCE CONTACT THE ENVIRONMENTAL PROTECTION AGENCY TSCA ASSISTANCE OFFICE WASHINGTON DC
TEL 202-554-1404 BETWEEN 8 30 A M AND 5 00 P M EST

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Gamber, Carrie L	Carrier Tracking No(s): N/A	COC No: 180-527959.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Carrie.Gamber@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Washington		Job #: 180-182648-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 12/5/2024			
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Glacier Northwest, WA	Project #: 18022677			
Site: N/A	SSOW#: N/A			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/FIELD_FLTRD Arsenic	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ASPECT.SPEEPER BLK 1 (180-182648-1)	11/11/24	11:00 Pacific	G	Water			X	1	
ASPECT.SPEEPER BLK 2 (180-182648-2)	11/11/24	11:00 Pacific	G	Water			X	1	
ASPECT.SPEEPER BLK 3 (180-182648-3)	11/11/24	11:00 Pacific	G	Water			X	1	

Preservation Codes: -

Other: N/A

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/14/24 1400	PPFT MT			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	11/15/24 0950	WWA

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
X Yes Δ No		2.30 C02.7

Login Sample Receipt Checklist

Client: Sirem, div of Geosyntec Consultants

Job Number: 180-182648-1

Login Number: 182648
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Sirem, div of Geosyntec Consultants

Job Number: 180-182648-1

Login Number: 182648
List Number: 2
Creator: Burkholder, Conrad

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 11/15/24 02:24 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

SiREM
Leading Science · Lasting Solutions

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Certificate of Analysis
Concentrations of Freely Dissolved Analytes Measured via SP3™ Passive Samplers

Customer: Aspect Consulting

SiREM Reference: Si-07946-082024

Site Sampling Date:

December 1, 2024 to December 30, 2024

Report Issued:

May 7, 2025

Introduction

This report represents the results from the in situ deployment of SP3™ passive samplers in surface sediment at the Glacier Northwest Inc. site in Seattle, WA (the Site). The data from nine (9) SP3™ samplers (five [5] SP3™ deployed in sediment, one [1] field blank, and three [3] Performance Reference Compound [PRC] blanks) were deployed to determine the freely dissolved concentrations (C_{free}) of pentachlorophenol (PCP) in sediment porewater. Each sampler consisted of a polyethylene (PE) sheet spiked with PCB PRCs, which are used in the determination of C_{free}, wrapped in a stainless steel mesh and mounted to a stainless steel support plate. The samplers were deployed on December 1, 2024 and were retrieved on December 30, 2024. Details of the data analysis procedure are provided in Attachment A, the associated polyethylene-water partition coefficients (K_{PE}) used in the C_{free} calculations in Attachment B, and Eurofins Environment Testing America report in Attachment C.

SP3™ Sample Summary

Client Sample ID	Sampler Deployment Date	Sampler Retrieval Date	Sample Type	Analysis
PW-01-241230	12/1/2024	12/30/2024	Sample	PCP & PRCs
PW-02-241230	12/1/2024	12/30/2024	Sample	PCP & PRCs
PW-03-241230	12/1/2024	12/30/2024	Sample	PCP & PRCs
PW-04-241230	12/1/2024	12/30/2024	Sample	PCP & PRCs
FD-PW-241230	12/1/2024	12/30/2024	Sample	PCP & PRCs
TB-PW-241230	--	--	Field Blank	PCP & PRCs
ASPECT.PRC.BLK1	--	--	PRC Blank	PCP & PRCs
ASPECT.PRC.BLK2	--	--	PRC Blank	PCP & PRCs
ASPECT.PRC.BLK3	--	--	PRC Blank	PCP & PRCs

Sampler Design, Deployment, and Chemical Analysis

This deployment used the standard SP3™ sampler design for Organochlorine Pesticides. The standard SP3™ sampler consists of a 4 cm × 10 cm polyethylene sheet housed in a stainless-steel mesh envelope attached to an 8 cm × 18 cm × 0.1 cm stainless steel support plate. Nine (9)

standard SP3™ samplers were prepared for four (4) locations (1 SP3™ per porewater locations) with one location receiving a field duplicate. The SP3™ PE was spiked with rare congener PCB PRCs that are not present in any aroclor mixture and are assumed to: not be present in the media sampled or present at concentrations so low as to be inconsequential; not affect calculations involving PRCs; and be insignificant compared to the concentration of other freely-dissolved PCBs in the media sampled. The PRCs used for this project were: PCB-14, PCB-36, PCB-78, PCB-104, PCB-121, PCB-142, PCB-155, PCB-184, PCB-192, and PCB-204.[1]

The SP3™ samplers were deployed on December 1, 2024 and retrieved on December 30, 2024. The deployment time for the samplers was 29 days. Upon retrieval, the SP3™ samplers were wrapped in aluminum foil and placed in an opaque re-sealable bag. The samplers were then placed in an additional re-sealable plastic bag and packaged in a cooler with ice packs for overnight shipment to Eurofins Environment Testing America in Knoxville, TN.

During the deployment stage 1 field blank (TB-PW-241230) remained in its original packaging under cold storage (approximately 4 degrees Celsius [°C]) except for a period on December 30, 2024 in which it was removed from the packaging by field personnel, exposed to ambient field conditions for approximately 5 minutes, and packaged for shipment in the same manner as the deployed samplers. The blank was then shipped to the laboratory and was processed by the laboratory along with the retrieved field samplers. An additional 3 PRC blanks (ASPECT.PRC.BLK1, ASPECT.PRC.BLK2, & ASPECT.PRC.BLK3) used for initial PRC concentration determination and trace contamination were shipped directly from SiREM to Eurofins Environment Testing America in Knoxville, TN and were processed as a part of this job.

Processing of the samplers by Eurofins Environment Testing America included removal of the PE from the stainless-steel mesh envelope, wiping any visible sediment from the PE using a moist tissue, and determination of the concentrations of PCP and PRCs in PE by the EPA 1699 method. The analytical report provided by Eurofins Environment Testing America is attached to this report (Attachment C).

Results

C_{free} values for PCP are reported in Table 1.

As detailed in Attachment A, concentrations of PRCs in the exposed samplers and trip blanks were used to estimate a compound-specific mass transport rate for each sampler. For example, if 100 ng/g of a PRC is present in a trip blank and 50 ng/g of the same PRC is present in a sampler following retrieval, the data indicate that the PRC is at 50% of its equilibrium concentration upon retrieval. With several different PRC depletion values, a predictive model can be constructed to estimate primary target compound fractional equilibrium, as described in greater detail in Attachment A. A full list of the K_{PE} values used for this analysis are tabulated in Attachment B.

[1] PCB shorthand nomenclature used in this report follows the Chemical Abstract Service (CAS) nomenclature used by USEPA (2003): United States Environmental Protection Agency (USEPA). 2003. Table of PCB Species by Congener Number.

TABLE 1

Table 1. Concentration of Freely-Dissolved (Cfree) Analytes.

Aspect - Glacier Northwest

Client ID	PW-01-241230			PW-02-241230			PW-03-241230			PW-04-241230			PW-FD-241230		
Analyte	Result (pg/L)	Qualifier	EDL (pg/L)	Result (pg/L)	Qualifier	EDL (pg/L)	Result (pg/L)	Qualifier	EDL (pg/L)	Result (pg/L)	Qualifier	EDL (pg/L)	Result (pg/L)	Qualifier	EDL (pg/L)
Pentachlorophenol	140	J	1.6	14	J	0.63	20	J	0.46	20	J	0.39	12	J	0.32

Notes: EDL: Estimated Detection Limit
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
pg/L: picograms per liter

ATTACHMENT A:

DATA ANALYSIS METHODS

SiREM

Attachment A:

Data Analysis Methods
Concentrations of Freely Dissolved Analytes
Measured via SP3™ Passive Samplers

The concentration of analytes (Table A1) in PE obtained from the information provided in the analytical report (Attachment C) are used in a multi-step data process to calculate C_{free} analytes as described below.

Step 1:

The concentrations of the PRCs in PE [PE_t] were used to calculate the elimination rate (k_e) values for the PRCs in each deployed sampler using the following equation (Lohmann, 2012):

$$PRC\ k_e = \ln\left(\frac{[PE_{t=0}]}{[PE_{t=final}]}\right) \div t_{final}$$

where:

$PE_{t=0}$	= the average concentration of the PRC present in the PE at the beginning of the deployment (obtained from an average measurement of the PRC control blanks)
$PE_{t=final}$	= the concentration of the PRC in the PE after the deployment (obtained from each deployed PE sampler)
t_{final}	= the deployment time (in days)
k_e	= the elimination rate (in days^{-1})

PRC k_e values for the PRCs in each sampler are shown in Table A2. The values are also expressed as a percentage of steady state (concentration at equilibrium). Several PRC k_e values were not calculated and were treated as outliers because $PE_{t=final}$ values were equal to or greater than $PE_{t=0}$ values.

Step 2:

The second step was to estimate k_e values for the non-PRC primary analytes (non-PRC PCB) in each of the deployed samplers. This was accomplished by developing a linear regression model using PRC k_e values (dependent variable, from Table A2) and PE-water partition coefficients (K_{PE}) for each PRC PCB (independent variable). K_{PE} values used are provided in Attachment B. Note that regression models were specific to each sampler (i.e. not global to the whole deployment) as local geologic and hydrodynamic conditions can vary greatly within a site.

Values were log_{10}-transformed per Tomaszewski and Luthy (2008). By entering the analyte-specific K_{PE} into the linear regression model developed for each sampler (Attachment B), k_e values for each of the primary analytes for each sampler were calculated.

Step 3:

Concentrations of some non-PRCs (Table A1) in PE were corrected for trace levels of non-PRC PCBs present in the PRC control blanks (due to trace levels present in the PRC spiking solutions). Using the sample specific k_e values, the expected amount of these trace primary analyte PCBs present in the sample at the end of deployment (*Trace PCB* $_{t=final}$) was calculated via the following equation:

$$[Trace\ PCB_{t=final}] = \frac{[Trace\ PCB_{t=0}]}{e^{k_e \times t_{final}}}$$

where:

Trace PCB$_{t=final}$ = the concentration of trace PCBs remaining in the sample at the end of the deployment

Trace PCB$_{t=0}$ = the average concentration of the trace PCB in the PE at the beginning of the deployment (obtained from an average measurement of the trace PCBs in the PRC control blanks)

k_e = the elimination rate value predicted by the sampler-specific regression model (in days^{-1})

t_{final} = the deployment time (in days)

Concentrations of *Trace PCB* $_{t=final}$ values were then subtracted from the measured concentrations of non-PRC pesticides in PE (Table A1).

Step 4:

This step describes the calculation of sampling rate correction factors (*CF*s) for each primary analyte in each sampler. The following equation is used, as adapted from Lohmann (2012):

$$CF = \frac{1}{1 - e^{-k_e \times t_{final}}}$$

where:

k_e = the elimination rate value predicted by the sampler-specific regression model (in days^{-1})

t_{final} = the deployment time (in days).

Step 5:

The concentration of primary analyte in the PE of each sampler (obtained from Table A1) were multiplied by the *CF* values to calculate the steady-state concentration of primary analytes.

Step 6:

In the final step, the steady-state concentrations are divided by K_{PE} values (Attachment B) to obtain the concentrations of C_{free} for the primary analytes. These are reported in Table 1. C_{free} Method Detection Limits (MDLs) were calculated in the approach described above using the estimated MDL concentration in PE, as reported the analytical laboratory and shown in Table A1.

For samples in which the percentage of steady state was indicated to be less than 10% for a primary analyte, C_{free} was calculated and given an "L" qualifier in Table 1. Estimates associated with L-qualified values should be evaluated with caution due to the higher level of uncertainty associated with high CF values (i.e., higher than 10).

References Cited

Lohmann, R. 2012. Critical review of low-density polyethylene's partitioning and diffusion coefficients for trace organic contaminants and implications for its use as a passive sampler. Environ. Sci. Technol.: 46:606-618.

Tomaszewski, J.E., and Luthy, R.G. 2008. Field deployment of polyethylene devices to measure PCB concentrations in pore water of contaminated sediment. Environ. Sci. Technol. 42:6086-6091.

United States Environmental Protection Agency (USEPA). 2003. Table of PCB Species by Congener Number.

TABLE A1

Table A1. Concentration of analytes in polyethylene.

Aspect - Glacier Northwest

Client ID			PW-01-241230			PW-02-241230			PW-03-241230			PW-04-241230			PW-FD-241230		
Analyte	Homolog Group	PRC	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)
Pentachlorophenol			8.4	J	0.095	0.84	J	0.039	1.2	J	0.028	1.2	J	0.024	0.71	J	0.02
PCB-14	Di	PRC	47		0.026	9.9	J	0.011	32		0.023	13	J	0.0086	10	J	0.01
PCB-36	Tri	PRC	61		0.26	20		0.14	45		0.23	22		0.085	15	J	0.11
PCB-78	Tetra	PRC	230	B	0.15	240	B	0.13	230	B	0.16	240	B	0.22	230	B	0.2
PCB-104	Penta	PRC	260	B	0.0024	52	B	0.0019	220	B	0.0025	79	B	0.0017	50	B	0.0023
PCB-121	Penta	PRC	500	B	1.5	380	B	1.1	490	B	1.4	390	B	1.5	340	B	1.3
PCB-142	Hexa	PRC	150	B	0.04	100	B	0.033	140	B	0.043	89	B	0.03	89	B	0.019
PCB-155	Hexa	PRC	110		0.49	100		0.47	120		0.51	97		0.61	100		0.44
PCB-184	Hepta	PRC	250	B	0.013	230	B	0.0053	270	B	0.036	220	B	0.018	240	B	0.0062
PCB-192	Hepta	PRC	1400	B	0.62	1300	B	0.64	1400	B	0.63	1400	B	0.84	1400	B	0.71
PCB-204	Octa	PRC	540	B	0.014	570	B	0.02	560	B	0.028	480	B	0.035	590	B	0.072

Notes:

B: Compound was found in the blank and sample
E: Result exceeded calibration range.
EDL: Estimated Detection Limit
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
ng/g: nanograms per gram
PCB: Polychlorinated Biphenyl
PRC: Performance Reference Compound

Table A1. Concentration of analytes in polyethylene.

Aspect - Glacier Northwest

Client ID			PW-TB-241230			ASPECT.PRC.BLK1			ASPECT.PRC.BLK2			ASPECT.PRC.BLK3		
Analyte	Homolog Group	PRC	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)	Result (ng/g)	Qualifier	EDL (ng/g)
Pentachlorophenol			0.17	J	0.013	0.12	J	0.018	0.2	J	0.013	0.15	J	0.0019
PCB-14	Di	PRC	640		0.015	630		0.011	690		0.015	700	E	0.0051
PCB-36	Tri	PRC	230		0.029	210		0.02	240		0.022	230		0.02
PCB-78	Tetra	PRC	510	B	0.079	460	B	0.054	490	B	0.062	510	E B	0.13
PCB-104	Penta	PRC	570	B	0.0029	560	B	0.0023	630	B	0.0024	570	E B	0.00038
PCB-121	Penta	PRC	730	B	0.18	690	B	0.17	720	B	0.17	670	E B	0.067
PCB-142	Hexa	PRC	210	B	0.076	180	B	0.038	200	B	0.051	180	B	0.025
PCB-155	Hexa	PRC	170		0.3	150		0.21	170		0.25	150		0.088
PCB-184	Hepta	PRC	320	B	0.02	250	B	0.019	330	B	0.0094	270	E B	0.013
PCB-192	Hepta	PRC	1800	B	0.35	1500	B	0.2	1700	B	0.34	1500	E B	0.16
PCB-204	Octa	PRC	710	B	0.018	600	B	0.01	650	B	0.011	540	E B	0.00096

Notes:

B: Compound was found in the blank and sample
E: Result exceeded calibration range.
EDL: Estimated Detection Limit
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
ng/g: nanograms per gram
PCB: Polychlorinated Biphenyl
PRC: Performance Reference Compound

TABLE A2

Table A2. Elimination Rates (ke) and Percentage to Steady State Reached by Performance Reference Compounds (PRCs) During Deployment.
Aspect - Glacier Northwest

Client ID		PW-01-241230		PW-02-241230		PW-03-241230		PW-04-241230		PW-FD-241230	
PRC	Homolog Group	k_e	Steady State	k_e	Steady State	k_e	Steady State	k_e	Steady State	k_e	Steady State
		(d^{-1})	%	(d^{-1})	%	(d^{-1})	%	(d^{-1})	%	(d^{-1})	%
PCB-14	Di	0.0918	93%	0.1455	99%	0.1051	95%	0.1361	98%	0.1452	99%
PCB-36	Tri	0.0453	73%	0.0837	91%	0.0558	80%	0.0804	90%	0.0936	93%
PCB-78	Tetra	0.0258	53%	0.0244	51%	0.0258	53%	0.0244	51%	0.0258	53%
PCB-104	Penta	0.0281	56%	0.0836	91%	0.0338	63%	0.0691	87%	0.0849	91%
PCB-121	Penta	0.0113	28%	0.0207	45%	0.0120	29%	0.0198	44%	0.0246	51%
PCB-142	Hexa	0.0075	20%	0.0215	46%	0.0099	25%	0.0255	52%	0.0255	52%
PCB-155	Hexa	0.0122	30%	0.0155	36%	0.0092	23%	0.0165	38%	0.0155	36%
PCB-184	Hepta	0.0043	12%	0.0072	19%	0.0017	5%	0.0087	22%	0.0057	15%
PCB-192	Hepta	0.0039	11%	0.0064	17%	0.0039	11%	0.0039	11%	0.0039	11%
PCB-204	Octa	0.0034	9%	0.0016	4%	0.0022	6%	0.0075	20%	0.0004	1%

Notes

%: percent
d: day
k_e: elimination rate
PCB: Polychlorinated biphenyl
PRC: Performance Reference Compound

ATTACHMENT B:

POLYETHYLENE-WATER PARTITION COEFFICIENTS (K_{PE}) USED IN THIS ANALYSIS

Analyte	Log_{10} K_{PE}	Source of $Log_{10}K_{PE}$
PCP	4.79	Calculated from Lohmann and Muir (2010) using $Log_{10}K_{OW}$ obtained from Hansch et al. (1995)
PCB-14	4.99	Best empirical values, Table 2 from Jonker (2022)
PCB-36	5.28	Calculated from Jonker (2022) PCB model using $Log_{10}K_{OW}$ obtained from Sabljic et al. (1993)
PCB-78	6.03	Best empirical values, Table 2 from Jonker (2022)
PCB-104	6.00	Best empirical values, Table 2 from Jonker (2022)
PCB-121	6.27	Calculated from Jonker (2022) PCB model using $Log_{10}K_{OW}$ obtained from Sabljic et al. (1993)
PCB-142	6.57	Calculated from Jonker (2022) PCB model using $Log_{10}K_{OW}$ obtained from Sabljic et al. (1993)
PCB-155	6.81	Best empirical values, Table 2 from Jonker (2022)
PCB-184	7.13	Calculated from Jonker (2022) PCB model using $Log_{10}K_{OW}$ obtained from Sabljic et al. (1993)
PCB-192	7.07	Calculated from Jonker (2022) PCB model using $Log_{10}K_{OW}$ obtained from Sabljic et al. (1993)
PCB-204	7.77	Best empirical values, Table 2 from Jonker (2022)

References Cited

Jonker, M.T.O. 2022. Polyethylene-water and polydimethylsiloxane-water partition coefficients for polycyclic aromatic hydrocarbons and polychlorinated biphenyls: Influence of polymer source and proposed best available values. Environ. Toxicol. Chem. 41:1370-1380.

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Sabljic, A., Guesten, H., Hermens, J., Opperhuizen, A. 1993. Modeling octanol/water partition coefficients by molecular topology: chlorinated benzenes and biphenyls. Environ. Sci. Technol. 27:1394-1402.

ATTACHMENT C:

EUROFINS ENVIRONMENT TESTING AMERICA
ANALYTICAL LABORATORY REPORTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Brent Pautler
SiREM, div of Geosyntec Consultants
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Generated 5/7/2025 10:29 AM

JOB DESCRIPTION

Aspect Glacier Northwest

JOB NUMBER

140-40836-1

Eurofins Knoxville
5815 Middlebrook Pike
Knoxville TN 37921

See page two for job notes and contact information.

my EOL

Eurofins Knoxville

Job Notes

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Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Sample Summary 7

Client Sample Results 8

Default Detection Limits 17

QC Sample Results 18

QC Association 19

Chronicle 21

Certification Summary 24

Method Summary 25

Manual Integration Summary 26

Organic Sample Data 37

Dioxin 37

Method 1699 37

Method 1699 QC Summary 38

Method 1699 Sample Data 39

Standards Data 318

Method 1699 ICAL Data 318

Method 1699 CCAL Data 1752

Raw QC Data 2361

Method 1699 Blank Data 2361

Method 1699 Run Logs 2394

Method 1699 Prep Data 2418

Shipping and Receiving Documents 2425

Table of Contents

Client Chain of Custody 2426

Definitions/Glossary

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
140-40836-1

Receipt
The samples were received on 1/2/2025 at 9:15am and arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1º C and 4.7º C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): PW-FD-241230. The container labels list FD-PW-241230, while the COC lists PW-FD-241230. Logged per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): PW-TB-241230. The container labels list TB-PW-241230, while the COC lists PW-TB-241230. Logged per COC.

HRMS
The result for pentachlorophenol is considered estimated. There was no second source verification, no initial demonstrations, no method detection limit studies, and no LCS's performed. The result is based on an internal standard calibration and is not isotope-dilution recovery corrected. However, the stated reporting limit is supported by the low point of the calibration curve.

PW-01-241230, PW-02-241230, PW-03-241230, PW-04-241230, PW-FD-241230, PW-TB-241230, ASPECT.PRC.BLK1, ASPECT.PRC.BLK2 and ASPECT.PRC.BLK3

Method 1699: The sample extraction times were met. The samples were stored frozen which extends the analysis holding times to one year. Therefore, there is no holding time violation and no impact on the data quality.

Method 1699: All analytes which are requested for the jobs associated with the Calibration Standard, CCV 140-97714/1, are within limits.

Method 1699: The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: ASPECT.PRC.BLK3. These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Method 1699: Please note the Pentachlorophenol in method blank MB 140-97186/11-B was not reportable. The 13C6-Pentachlorophenol (IS) was not added to the blank.

Method 1699: An LCS 140-97186/10-B was extracted with this batch; however, no client requested targets are present in the sample.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Methods Passive Sampler, Split: The following samples required a Gel-Permeation clean up, via EPA method 3640A, to reduce matrix interference: PW-01-241230, PW-02-241230, PW-03-241230, PW-04-241230, PW-FD-241230, PW-TB-241230, ASPECT.PRC.BLK1, ASPECT.PRC.BLK2 and ASPECT.PRC.BLK3.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-40836-1	PW-01-241230	PE	12/30/24 22:25	01/02/25 09:15
140-40836-2	PW-02-241230	PE	12/30/24 22:35	01/02/25 09:15
140-40836-3	PW-03-241230	PE	12/30/24 22:15	01/02/25 09:15
140-40836-4	PW-04-241230	PE	12/30/24 22:00	01/02/25 09:15
140-40836-5	PW-FD-241230	PE	12/30/24 00:00	01/02/25 09:15
140-40836-6	PW-TB-241230	PE	12/30/24 00:00	01/02/25 09:15
140-40836-7	ASPECT.PRC.BLK1	PE	11/11/24 11:00	11/13/24 12:30
140-40836-8	ASPECT.PRC.BLK2	PE	11/11/24 11:00	11/13/24 12:30
140-40836-9	ASPECT.PRC.BLK3	PE	11/11/24 11:00	11/13/24 12:30

Client Sample ID: PW-01-241230
Lab Sample ID: 140-40836-1

Date Collected: 12/30/24 22:25
Matrix: PE
Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	47		23	0.026	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-192	1400	B	23	0.62	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-184	250	B	23	0.013	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-155	110		23	0.49	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-142	150	B	23	0.040	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-204	540	B	23	0.014	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-104	260	B	23	0.0024	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-121	500	B	23	1.5	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-78	230	B	23	0.15	ng/g		03/12/25 10:21	03/30/25 16:02	10
PCB-36	61		23	0.26	ng/g		03/12/25 10:21	03/30/25 16:02	10
Pentachlorophenol	8.4	J	23	0.095	ng/g		03/12/25 10:21	05/04/25 17:49	1

Client Sample ID: PW-02-241230
Lab Sample ID: 140-40836-2

Date Collected: 12/30/24 22:35
Matrix: PE
Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	9.9	J	20	0.011	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-192	1300	B	20	0.64	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-184	230	B	20	0.0053	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-155	100		20	0.47	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-142	100	B	20	0.033	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-204	570	B	20	0.020	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-104	52	B	20	0.0019	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-121	380	B	20	1.1	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-78	240	B	20	0.13	ng/g		03/12/25 10:21	03/30/25 16:56	10
PCB-36	20		20	0.14	ng/g		03/12/25 10:21	03/30/25 16:56	10
Pentachlorophenol	0.84	J	20	0.039	ng/g		03/12/25 10:21	05/04/25 18:44	1

Client Sample ID: PW-03-241230
Lab Sample ID: 140-40836-3

Date Collected: 12/30/24 22:15
Matrix: PE
Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	32		24	0.023	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-192	1400	B	24	0.63	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-184	270	B	24	0.036	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-155	120		24	0.51	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-142	140	B	24	0.043	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-204	560	B	24	0.028	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-104	220	B	24	0.0025	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-121	490	B	24	1.4	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-78	230	B	24	0.16	ng/g		03/12/25 10:21	03/30/25 17:51	10
PCB-36	45		24	0.23	ng/g		03/12/25 10:21	03/30/25 17:51	10
Pentachlorophenol	1.2	J	24	0.028	ng/g		03/12/25 10:21	05/04/25 19:38	1

Client Sample ID: PW-04-241230
Lab Sample ID: 140-40836-4

Date Collected: 12/30/24 22:00
Matrix: PE
Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	13	J	20	0.0086	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-192	1400	B	20	0.84	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-184	220	B	20	0.018	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-155	97		20	0.61	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-142	89	B	20	0.030	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-204	480	B	20	0.035	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-104	79	B	20	0.0017	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-121	390	B	20	1.5	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-78	240	B	20	0.22	ng/g		03/12/25 10:21	03/30/25 18:46	10
PCB-36	22		20	0.085	ng/g		03/12/25 10:21	03/30/25 18:46	10
Pentachlorophenol	1.2	J	20	0.024	ng/g		03/12/25 10:21	05/06/25 17:39	1

Client Sample ID: PW-FD-241230
Lab Sample ID: 140-40836-5

Date Collected: 12/30/24 00:00
Matrix: PE

Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	10	J	23	0.010	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-192	1400	B	23	0.71	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-184	240	B	23	0.0062	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-155	100		23	0.44	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-142	89	B	23	0.019	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-204	590	B	23	0.072	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-104	50	B	23	0.0023	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-121	340	B	23	1.3	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-78	230	B	23	0.20	ng/g		03/12/25 10:21	03/30/25 19:40	10
PCB-36	15	J	23	0.11	ng/g		03/12/25 10:21	03/30/25 19:40	10
Pentachlorophenol	0.71	J	23	0.020	ng/g		03/12/25 10:21	05/04/25 21:28	1

Client Sample ID: PW-TB-241230
Lab Sample ID: 140-40836-6

Date Collected: 12/30/24 00:00
Matrix: PE

Date Received: 01/02/25 09:15

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	640		25	0.015	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-192	1800	B	25	0.35	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-184	320	B	25	0.020	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-155	170		25	0.30	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-142	210	B	25	0.076	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-204	710	B	25	0.018	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-104	570	B	25	0.0029	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-121	730	B	25	0.18	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-78	510	B	25	0.079	ng/g		03/12/25 10:21	03/30/25 20:35	10
PCB-36	230		25	0.029	ng/g		03/12/25 10:21	03/30/25 20:35	10
Pentachlorophenol	0.17	J	25	0.013	ng/g		03/12/25 10:21	05/04/25 22:22	1

Client Sample ID: ASPECT.PRC.BLK1
Lab Sample ID: 140-40836-7

Date Collected: 11/11/24 11:00
Matrix: PE
Date Received: 11/13/24 12:30

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	630		22	0.011	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-192	1500	B	22	0.20	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-184	250	B	22	0.019	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-155	150		22	0.21	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-142	180	B	22	0.038	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-204	600	B	22	0.010	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-104	560	B	22	0.0023	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-121	690	B	22	0.17	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-78	460	B	22	0.054	ng/g		03/12/25 10:21	03/30/25 21:30	10
PCB-36	210		22	0.020	ng/g		03/12/25 10:21	03/30/25 21:30	10
Pentachlorophenol	0.12	J	22	0.018	ng/g		03/12/25 10:21	05/04/25 23:17	1

Client Sample ID: ASPECT.PRC.BLK2
Lab Sample ID: 140-40836-8

Date Collected: 11/11/24 11:00
Matrix: PE
Date Received: 11/13/24 12:30

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	690		22	0.015	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-192	1700	B	22	0.34	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-184	330	B	22	0.0094	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-155	170		22	0.25	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-142	200	B	22	0.051	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-204	650	B	22	0.011	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-104	630	B	22	0.0024	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-121	720	B	22	0.17	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-78	490	B	22	0.062	ng/g		03/12/25 10:21	03/30/25 22:24	10
PCB-36	240		22	0.022	ng/g		03/12/25 10:21	03/30/25 22:24	10
Pentachlorophenol	0.15	J	22	0.013	ng/g		03/12/25 10:21	05/05/25 00:12	1

Client Sample ID: ASPECT.PRC.BLK3
Lab Sample ID: 140-40836-9

Date Collected: 11/11/24 11:00
Matrix: PE

Date Received: 11/13/24 12:30

Method: EPA 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	700	E	2.3	0.0051	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-192	1500	E B	2.3	0.16	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-184	270	E B	2.3	0.013	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-155	150		2.3	0.088	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-142	180	B	2.3	0.025	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-204	540	E B	2.3	0.00096	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-104	570	E B	2.3	0.00038	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-121	670	E B	2.3	0.067	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-78	510	E B	2.3	0.13	ng/g		03/12/25 10:21	03/29/25 07:49	1
PCB-36	230		2.3	0.020	ng/g		03/12/25 10:21	03/29/25 07:49	1
Pentachlorophenol	0.15	J	23	0.0019	ng/g		03/12/25 10:21	05/05/25 18:32	1

Default Detection Limits

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Prep: Passive Sampler

Analyte	RL	
PCB-104	0.10 ng/g	ng/g
PCB-121	0.10 ng/g	ng/g
PCB-14	0.10 ng/g	ng/g
PCB-142	0.10 ng/g	ng/g
PCB-155	0.10 ng/g	ng/g
PCB-184	0.10 ng/g	ng/g
PCB-192	0.10 ng/g	ng/g
PCB-204	0.10 ng/g	ng/g
PCB-36	0.10 ng/g	ng/g
PCB-78	0.10 ng/g	ng/g
Pentachlorophenol	1.0 ng/g	ng/g

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Lab Sample ID: MB 140-97186/11-B
Matrix: Sediment
Analysis Batch: 97714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 97186

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-14	ND		1.9	0.0019	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-192	0.0158	J q	1.9	0.00066	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-184	0.00167	J q	1.9	0.00043	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-155	ND		1.9	0.0016	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-142	0.00110	J q	1.9	0.00028	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-204	0.00557	J	1.9	0.00068	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-104	0.00270	J q	1.9	0.00017	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-121	0.0140	J	1.9	0.0016	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-78	0.00624	J	1.9	0.00097	ng/g		03/12/25 10:21	03/28/25 14:57	1
PCB-36	ND		1.9	0.0023	ng/g		03/12/25 10:21	03/28/25 14:57	1

Specialty Organics

Prep Batch: 97186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-1	PW-01-241230	Total/NA	PE	Passive Sampler	
140-40836-2	PW-02-241230	Total/NA	PE	Passive Sampler	
140-40836-3	PW-03-241230	Total/NA	PE	Passive Sampler	
140-40836-4	PW-04-241230	Total/NA	PE	Passive Sampler	
140-40836-5	PW-FD-241230	Total/NA	PE	Passive Sampler	
140-40836-6	PW-TB-241230	Total/NA	PE	Passive Sampler	
140-40836-7	ASPECT.PRC.BLK1	Total/NA	PE	Passive Sampler	
140-40836-8	ASPECT.PRC.BLK2	Total/NA	PE	Passive Sampler	
140-40836-9	ASPECT.PRC.BLK3	Total/NA	PE	Passive Sampler	
MB 140-97186/11-B	Method Blank	Total/NA	Sediment	Passive Sampler	

Cleanup Batch: 97582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-1	PW-01-241230	Total/NA	PE	Split	97186
140-40836-2	PW-02-241230	Total/NA	PE	Split	97186
140-40836-3	PW-03-241230	Total/NA	PE	Split	97186
140-40836-4	PW-04-241230	Total/NA	PE	Split	97186
140-40836-5	PW-FD-241230	Total/NA	PE	Split	97186
140-40836-6	PW-TB-241230	Total/NA	PE	Split	97186
140-40836-7	ASPECT.PRC.BLK1	Total/NA	PE	Split	97186
140-40836-8	ASPECT.PRC.BLK2	Total/NA	PE	Split	97186
140-40836-9	ASPECT.PRC.BLK3	Total/NA	PE	Split	97186
MB 140-97186/11-B	Method Blank	Total/NA	Sediment	Split	97186

Analysis Batch: 97714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-97186/11-B	Method Blank	Total/NA	Sediment	1699	97582

Analysis Batch: 97726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-9	ASPECT.PRC.BLK3	Total/NA	PE	1699	97582

Analysis Batch: 97758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-1	PW-01-241230	Total/NA	PE	1699	97582
140-40836-2	PW-02-241230	Total/NA	PE	1699	97582
140-40836-3	PW-03-241230	Total/NA	PE	1699	97582
140-40836-4	PW-04-241230	Total/NA	PE	1699	97582
140-40836-5	PW-FD-241230	Total/NA	PE	1699	97582
140-40836-6	PW-TB-241230	Total/NA	PE	1699	97582
140-40836-7	ASPECT.PRC.BLK1	Total/NA	PE	1699	97582
140-40836-8	ASPECT.PRC.BLK2	Total/NA	PE	1699	97582

Analysis Batch: 99272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-1	PW-01-241230	Total/NA	PE	1699	97582
140-40836-2	PW-02-241230	Total/NA	PE	1699	97582
140-40836-3	PW-03-241230	Total/NA	PE	1699	97582
140-40836-5	PW-FD-241230	Total/NA	PE	1699	97582
140-40836-6	PW-TB-241230	Total/NA	PE	1699	97582
140-40836-7	ASPECT.PRC.BLK1	Total/NA	PE	1699	97582

Specialty Organics (Continued)

Analysis Batch: 99272 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-8	ASPECT.PRC.BLK2	Total/NA	PE	1699	97582

Analysis Batch: 99273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-9	ASPECT.PRC.BLK3	Total/NA	PE	1699	97582

Analysis Batch: 99325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-40836-4	PW-04-241230	Total/NA	PE	1699	97582

Lab Chronicle

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Client Sample ID: PW-01-241230
Lab Sample ID: 140-40836-1
Date Collected: 12/30/24 22:25
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.043 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 16:02	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.043 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 17:49	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: PW-02-241230
Lab Sample ID: 140-40836-2
Date Collected: 12/30/24 22:35
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.049 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 16:56	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.049 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 18:44	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: PW-03-241230
Lab Sample ID: 140-40836-3
Date Collected: 12/30/24 22:15
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.042 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 17:51	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.042 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 19:38	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: PW-04-241230
Lab Sample ID: 140-40836-4
Date Collected: 12/30/24 22:00
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.050 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 18:46	JMN	EET KNX
	Instrument ID: D3PST									

Lab Chronicle

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Client Sample ID: PW-04-241230
Lab Sample ID: 140-40836-4
Date Collected: 12/30/24 22:00
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.050 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99325	05/06/25 17:39	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: PW-FD-241230
Lab Sample ID: 140-40836-5
Date Collected: 12/30/24 00:00
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.044 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 19:40	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.044 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 21:28	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: PW-TB-241230
Lab Sample ID: 140-40836-6
Date Collected: 12/30/24 00:00
Matrix: PE
Date Received: 01/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.040 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 20:35	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.040 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 22:22	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: ASPECT.PRC.BLK1
Lab Sample ID: 140-40836-7
Date Collected: 11/11/24 11:00
Matrix: PE
Date Received: 11/13/24 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.045 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 21:30	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.045 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/04/25 23:17	JMN	EET KNX
	Instrument ID: D3PST									

Lab Chronicle

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Client Sample ID: ASPECT.PRC.BLK2
Lab Sample ID: 140-40836-8
Date Collected: 11/11/24 11:00
Matrix: PE
Date Received: 11/13/24 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.045 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		10	20 uL	20 uL	97758	03/30/25 22:24	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.045 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99272	05/05/25 00:12	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: ASPECT.PRC.BLK3
Lab Sample ID: 140-40836-9
Date Collected: 11/11/24 11:00
Matrix: PE
Date Received: 11/13/24 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.044 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	97726	03/29/25 07:49	JMN	EET KNX
	Instrument ID: D3PST									
Total/NA	Prep	Passive Sampler			0.044 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	99273	05/05/25 18:32	JMN	EET KNX
	Instrument ID: D3PST									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-97186/11-B
Date Collected: N/A
Matrix: Sediment
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Passive Sampler			0.054 g	20 mL	97186	03/12/25 10:21	CMS	EET KNX
Total/NA	Cleanup	Split			20 mL	20 uL	97582	03/25/25 09:06	RKG	EET KNX
Total/NA	Analysis	1699		1	20 uL	20 uL	97714	03/28/25 14:57	JMN	EET KNX
	Instrument ID: D3PST									

Laboratory References:
EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Laboratory: Eurofins Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-27
ANAB	Dept. of Energy	L2311.01	02-13-27
ANAB	ISO/IEC 17025	L2311	02-13-27
Arkansas DEQ	State	88-0688	06-17-25
Colorado	State	TN00009	02-28-26
Connecticut	State	PH-0223	10-01-26
Florida	NELAP	E87177	06-30-25
Georgia (DW)	State	906	07-27-25
Hawaii	State	NA	07-27-25
Kansas	NELAP	E-10349	10-31-25
Kentucky (DW)	State	90101	12-31-25
Louisiana (All)	NELAP	03079	06-30-25
Louisiana (DW)	State	LA019	12-31-25
Maryland	State	277	03-31-26
Michigan	State	9933	07-27-25
Nevada	State	TN00009	07-31-25
New Hampshire	NELAP	2999	01-18-26
New Jersey	NELAP	TN001	06-30-25
New York	NELAP	10781	04-01-26
North Carolina (DW)	State	21705	07-31-25
North Carolina (WW/SW)	State	64	12-31-25
Oklahoma	State	9415	08-31-25
Oregon	NELAP	TNI0189	01-01-26
Pennsylvania	NELAP	68-00576	12-31-25
Tennessee	State	02014	07-28-25
Texas	NELAP	T104704380	08-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-22-279-18762	10-06-25
Utah	NELAP	TN00009	07-31-25
Virginia	NELAP	460176	09-14-25
Washington	State	C593	01-19-26
West Virginia (DW)	State	9955C	01-31-26
West Virginia DEP	State	345	04-30-26
Wisconsin	State	998044300	08-31-25

Method Summary

Client: SiREM, div of Geosyntec Consultants
Job ID: 140-40836-1
Project/Site: Aspect Glacier Northwest

Method	Method Description	Protocol	Laboratory
1699	Pesticides, Low level (HRGC/HRMS)	EPA	EET KNX
Passive Sampler	Preparation, Passive Sample	None	EET KNX
Split	Split Factor Determination	None	EET KNX

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97380

Lab Sample ID: IC 140-97380/1 Client Sample ID:

Date Analyzed: 03/19/25 17:47 Lab File ID: d3250319ic1_202503191746 GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)		Unspecified		
alpha-BHC	17.43	Incomplete Integration	F9EE	03/20/25 16:11
delta-BHC	19.66	Incomplete Integration	F9EE	03/20/25 16:11
PCB-60L	27.77	Peak assignment corrected	F9EE	03/20/25 14:36
alpha-Chlordane	28.74	Incomplete Integration	F9EE	03/20/25 16:11
trans-Nonachlor	29.08	Incomplete Integration	F9EE	03/20/25 16:12
PCB-78	29.40	Peak assignment corrected	F9EE	03/24/25 12:57
4,4'-DDE	30.22	Incomplete Integration	F9EE	03/20/25 16:12
2,4'-DDD	30.92	Incomplete Integration	F9EE	03/20/25 16:18
Endosulfan II	32.91	Incomplete Integration	F9EE	03/20/25 14:35
4,4'-DDD	33.51	Incomplete Integration	F9EE	03/20/25 14:35
2,4'-DDT	33.79	Peak assignment corrected	F9EE	03/20/25 14:35
4,4'-DDT	36.64	Incomplete Integration	F9EE	03/20/25 14:35
Endrin ketone	40.52	Incomplete Integration	F9EE	03/20/25 14:36
Methoxychlor	42.02	Incomplete Integration	F9EE	03/20/25 16:17

Lab Sample ID: IC 140-97380/2 Client Sample ID:

Date Analyzed: 03/19/25 18:42 Lab File ID: d3250319ic2.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-60L	27.76	Peak assignment corrected	F9EE	03/20/25 15:38
PCB-78	29.39	Peak assignment corrected	F9EE	03/24/25 12:57

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97380

Lab Sample ID: IC 140-97380/3 Client Sample ID:

Date Analyzed: 03/19/25 19:37 Lab File ID: d3250319ic3.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
oxy-Chlordane	26.15	Incomplete Integration	F9EE	03/20/25 15:36
PCB-60L	27.73	Peak assignment corrected	F9EE	03/20/25 15:38
PCB-78	29.35	Peak assignment corrected	F9EE	03/24/25 12:57
Endosulfan II	32.77	Incomplete Integration	F9EE	03/20/25 15:36

Lab Sample ID: IC 140-97380/4 Client Sample ID:

Date Analyzed: 03/19/25 20:32 Lab File ID: d3250319ic4.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-60L	27.75	Peak assignment corrected	F9EE	03/20/25 15:38
PCB-78	29.37	Peak assignment corrected	F9EE	03/24/25 12:56
13C12-Endrin Aldehyde	34.34	Incomplete Integration	F9EE	03/24/25 10:27

Lab Sample ID: IC 140-97380/5 Client Sample ID:

Date Analyzed: 03/19/25 21:26 Lab File ID: d3250319ic5.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-60L	27.73	Peak assignment corrected	F9EE	03/20/25 15:39
PCB-78	29.36	Peak assignment corrected	F9EE	03/24/25 12:56

Lab Sample ID: IC 140-97380/6 Client Sample ID:

Date Analyzed: 03/19/25 22:21 Lab File ID: d3250319ic6.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-60L	27.73	Peak assignment corrected	F9EE	03/20/25 15:39
PCB-78	29.35	Peak assignment corrected	F9EE	03/24/25 12:56

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97380

Lab Sample ID: IC 140-97380/7 Client Sample ID:

Date Analyzed: 03/19/25 23:16 Lab File ID: d3250319ic7.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-60L	27.73	Peak assignment corrected	F9EE	03/20/25 15:39
PCB-78	29.35	Peak assignment corrected	F9EE	03/24/25 12:55
Endosulfan II	32.80	Incomplete Integration	F9EE	03/24/25 10:28

Lab Sample ID: IC 140-97380/8 Client Sample ID:

Date Analyzed: 03/20/25 00:10 Lab File ID: d3250319ic8.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-78	29.36	Peak assignment corrected	F9EE	03/24/25 12:55

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97714

Lab Sample ID: CCV 140-97714/1 Client Sample ID:

Date Analyzed: 03/28/25 10:14 Lab File ID: d3250328c1a.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)	18.50	Peak assignment corrected	TT6I	03/31/25 13:47

Lab Sample ID: MB 140-97186/11-B Client Sample ID:

Date Analyzed: 03/28/25 14:57 Lab File ID: mb140-9718611-b.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-142	27.58	Incomplete Integration	TT6I	03/31/25 13:38

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97726

Lab Sample ID: CCV 140-97726/1 Client Sample ID:

Date Analyzed: 03/28/25 22:12 Lab File ID: d3250329c1a.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C12-2,4'-DDT	33.74	Split Peak	F9EE	03/30/25 12:51

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 97758

Lab Sample ID: 140-40836-5 Client Sample ID: PW-FD-241230

Date Analyzed: 03/30/25 19:40 Lab File ID: 140-40836-a-5-b10x.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-36	22.17	Incomplete Integration	TT6I	03/31/25 19:11
PCB-155	34.00	Incomplete Integration	TT6I	03/31/25 19:11

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 99200

Lab Sample ID: IC 140-99200/1 Client Sample ID:

Date Analyzed: 05/02/25 14:50 Lab File ID: d3250502ip1_202505021447 GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)	18.50	Incomplete Integration	F9EE	05/02/25 16:42
Pentachlorophenol	18.51	Incomplete Integration	F9EE	05/02/25 16:42

Lab Sample ID: IC 140-99200/2 Client Sample ID:

Date Analyzed: 05/02/25 15:45 Lab File ID: d3250502ip2.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)	18.48	Incomplete Integration	F9EE	05/02/25 16:43
Pentachlorophenol	18.50	Incomplete Integration	F9EE	05/02/25 16:44

Lab Sample ID: IC 140-99200/3 Client Sample ID:

Date Analyzed: 05/02/25 16:39 Lab File ID: d3250502ip3.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)	18.48	Incomplete Integration	F9EE	05/04/25 12:23
Pentachlorophenol	18.49	Incomplete Integration	F9EE	05/04/25 12:23

Lab Sample ID: IC 140-99200/4 Client Sample ID:

Date Analyzed: 05/02/25 17:34 Lab File ID: d3250502ip4.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Pentachlorophenol (IS)	18.48	Incomplete Integration	F9EE	05/04/25 12:24
Pentachlorophenol	18.48	Incomplete Integration	F9EE	05/04/25 12:24

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 99200

Lab Sample ID: IC 140-99200/5 Client Sample ID:

Date Analyzed: 05/02/25 18:29 Lab File ID: d3250502ip5.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.46	Peak assignment corrected	F9EE	05/04/25 12:24

Lab Sample ID: IC 140-99200/6 Client Sample ID:

Date Analyzed: 05/02/25 19:23 Lab File ID: d3250502ip6.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.45	Peak assignment corrected	F9EE	05/04/25 12:25

Lab Sample ID: IC 140-99200/7 Client Sample ID:

Date Analyzed: 05/02/25 20:18 Lab File ID: d3250502ip7.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.48	Peak assignment corrected	F9EE	05/04/25 12:25

Lab Sample ID: IC 140-99200/8 Client Sample ID:

Date Analyzed: 05/02/25 21:13 Lab File ID: d3250502ip8.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.46	Peak assignment corrected	F9EE	05/04/25 12:25

Lab Sample ID: IC 140-99200/9 Client Sample ID:

Date Analyzed: 05/02/25 22:08 Lab File ID: d3250502ip9.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.47	Peak assignment corrected	F9EE	05/04/25 12:26

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 99272

Lab Sample ID: 140-40836-1 Client Sample ID: PW-01-241230

Date Analyzed: 05/04/25 17:49 Lab File ID: 140-40836-a-1-a.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.47	Incomplete Integration	F9EE	05/05/25 23:06

Lab Sample ID: 140-40836-2 Client Sample ID: PW-02-241230

Date Analyzed: 05/04/25 18:44 Lab File ID: 140-40836-a-2-a.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.47	Incomplete Integration	F9EE	05/06/25 10:05

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 99273

Lab Sample ID: 140-40836-9 Client Sample ID: ASPECT.PRC.BLK3

Date Analyzed: 05/05/25 18:32 Lab File ID: 140-40836-a-9-a.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.46	Incomplete Integration	TT6I	05/06/25 19:27

1699

PESTICIDES MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Analysis Batch Number: 99325

Lab Sample ID: 140-40836-4 Client Sample ID: PW-04-241230

Date Analyzed: 05/06/25 17:39 Lab File ID: 140-40836-a-4-aa.d GC Column: RTX-5(60x.32 ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	18.44	Incomplete Integration	F9EE	05/06/25 18:55

1699

Method 1699

Pesticides, Low level (HRGC/HRMS) by Method 1699

FORM IV
PESTICIDES METHOD BLANK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab File ID: mb140-9718611-b.d Lab Sample ID: MB 140-97186/11-B

Matrix: Sediment Date Extracted: 03/12/2025 10:21

Instrument ID: D3PST Date Analyzed: 03/28/2025 14:57

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
ASPECT.PRC.BLK3	140-40836-9	140-40836-a-9-b.d	03/29/2025 07:49
PW-01-241230	140-40836-1	140-40836-a-1-b10x.d	03/30/2025 16:02
PW-02-241230	140-40836-2	140-40836-a-2-b10x.d	03/30/2025 16:56
PW-03-241230	140-40836-3	140-40836-a-3-b10x.d	03/30/2025 17:51
PW-04-241230	140-40836-4	140-40836-a-4-b10x.d	03/30/2025 18:46
PW-FD-241230	140-40836-5	140-40836-a-5-b10x.d	03/30/2025 19:40
PW-TB-241230	140-40836-6	140-40836-a-6-b10x.d	03/30/2025 20:35
ASPECT.PRC.BLK1	140-40836-7	140-40836-a-7-b10x.d	03/30/2025 21:30
ASPECT.PRC.BLK2	140-40836-8	140-40836-a-8-b10x.d	03/30/2025 22:24
PW-01-241230	140-40836-1	140-40836-a-1-a.d	05/04/2025 17:49
PW-02-241230	140-40836-2	140-40836-a-2-a.d	05/04/2025 18:44
PW-03-241230	140-40836-3	140-40836-a-3-a.d	05/04/2025 19:38
PW-FD-241230	140-40836-5	140-40836-a-5-a.d	05/04/2025 21:28
PW-TB-241230	140-40836-6	140-40836-a-6-a.d	05/04/2025 22:22
ASPECT.PRC.BLK1	140-40836-7	140-40836-a-7-a.d	05/04/2025 23:17
ASPECT.PRC.BLK2	140-40836-8	140-40836-a-8-a.d	05/05/2025 00:12
ASPECT.PRC.BLK3	140-40836-9	140-40836-a-9-a.d	05/05/2025 18:32
PW-04-241230	140-40836-4	140-40836-a-4-aa.d	05/06/2025 17:39

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-01-241230 | Lab Sample ID: 140-40836-1

Matrix: PE | Lab File ID: 140-40836-a-1-a.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:25

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.043(g) | Date Analyzed: 05/04/2025 17:49

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	8.4	J	23	0.095

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d
Lims ID: 140-40836-A-1-B
Client ID: PW-01-241230
Sample Type: Client
Inject. Date: 04-May-2025 17:49:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

First Level Reviewer: F9EE Date: 05-May-2025 23:02:37

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	37191129	1.65		200.0	200.0				
PCB-14	17:48	56028685	1.65							
* 13C6-Pentachlorophenol (IS)	18:28	9998814	0.66		1000.0	1000.0				
Pentachlorophenol	18:29	185216	0.64	1.0218	18.1	18.1	0.2033	0.2033		M
PCB-36	22:08	68000137	1.05							
* PCB-101L	28:04	9001125	1.57		200.0	200.0				
PCB-104	23:41	94941215	1.66							
* PCB-118L	32:44	9503106	1.61		200.0	200.0				
PCB-121	26:41	155407235	1.65							
* PCB-138L	36:56	5329210	1.30		200.0	200.0				
PCB-142	27:28	33167803	1.27							
* PCB-60L	27:42	19814539	0.82		200.0	200.0				
PCB-78	29:19	110079813	0.79							
* PCB-167L	39:25	5750521	1.28		200.0	200.0				
PCB-155	33:56	14438606	1.26							
PCB-184	34:36	31249476	1.06							
PCB-204	42:13	43977368	0.90							
PCB-192	42:32	125273072	1.06							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
M - Manually Integrated

Reagents:
61L51699PST_00019 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d
Lims ID: 140-40836-A-1-B
Client ID: PW-01-241230
Sample Type: Client
Inject. Date: 04-May-2025 17:49:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

First Level Reviewer: F9EE Date: 05-May-2025 23:02:37

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		23178966	8249878	120	300	68749		
236.0376	19:02	19:02	0		14012163	4884041	76	190	64264	1.65(1.16-1.93)	
PCB-14											
222.0003	17:48	17:49	-1	0.935	34853730	13500836	1541	3852	8761		
223.9974	17:48	17:49	-1	0.935	21174955	8059549	1060	2650	7603	1.65(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		3981481	1184902	54	135	21943		
271.8636	18:28	18:28	0		6017333	1751029	68	170	25750	0.66(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:29	18:28	1	1.001	72270	19547	118	295	166		M
265.8435	18:28	18:28	0	1.000	112946	29633	126	315	235	0.64(0.00-0.00)	M
PCB-36											
255.9613	22:08	22:10	-2	1.162	34894876	10346775	4141	10352	2499		
257.9584	22:08	22:10	-2	1.162	33105261	9821232	3771	9427	2604	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:04	0		5498119	1233612	1	2	1233612		
339.9178	28:04	28:04	0		3503006	794226	3	7	264742	1.57(1.16-1.94)	
PCB-104											
325.8804	23:41	23:43	-2	0.844	59240264	16161004	3	7	5387002		
327.8775	23:41	23:43	-2	0.844	35700951	9702892	11	27	882081	1.66(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		5866353	1171355	130	325	9010		
339.9178	32:44	32:44	0		3636753	726716	82	205	8862	1.61(1.16-1.94)	
PCB-121											
325.8804	26:41	26:42	-1	0.815	96726328	24195573	11893	29732	2034		
327.8775	26:41	26:42	-1	0.815	58680907	14488159	7503	18757	1931	1.65(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	0		3011594	546023	111	277	4919		
373.8788	36:56	36:56	0		2317616	430284	70	175	6147	1.30(1.16-1.94)	
PCB-142											
359.8415	27:28	27:29	-1	0.743	18572051	4427677	203	507	21811		
361.8385	27:28	27:29	-1	0.743	14595752	3454863	165	412	20939	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:42	27:41	0		8921170	2026339	115	287	17620		
303.9597	27:42	27:41	0		10893369	2468680	126	315	19593	0.82(0.58-0.96)	
PCB-78											
289.9224	29:19	29:18	1	1.058	48698298	11012635	3830	9575	2875		
291.9194	29:19	29:18	1	1.058	61381515	14021472	3058	7645	4585	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:25	39:25	0		3233500	584831	171	427	3420		
373.8788	39:25	39:25	0		2517021	454096	105	262	4325	1.28(1.16-1.94)	
PCB-155											
359.8415	33:56	33:59	-2	0.861	8058584	1496350	2408	6020	621		
361.8385	33:56	33:59	-2	0.861	6380022	1201585	1853	4632	648	1.26(1.05-1.43)	
PCB-184											
393.8025	34:36	34:38	-1	0.878	16046662	3044576	82	205	37129		
395.7995	34:36	34:38	-1	0.878	15202814	2887064	89	222	32439	1.06(0.89-1.21)	
PCB-204											
427.7635	42:13	42:15	-1	1.071	20877092	3558907	35	87	101683		
429.7606	42:13	42:15	-1	1.071	23100276	3930545	37	92	106231	0.90(0.76-1.02)	
PCB-192											
393.8025	42:32	42:35	-2	1.079	64371743	11492258	1640	4100	7007		
395.7995	42:32	42:35	-2	1.079	60901329	10898107	1569	3922	6946	1.06(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

61L51699PST_00019 Amount Added: 20.00 Units: uL

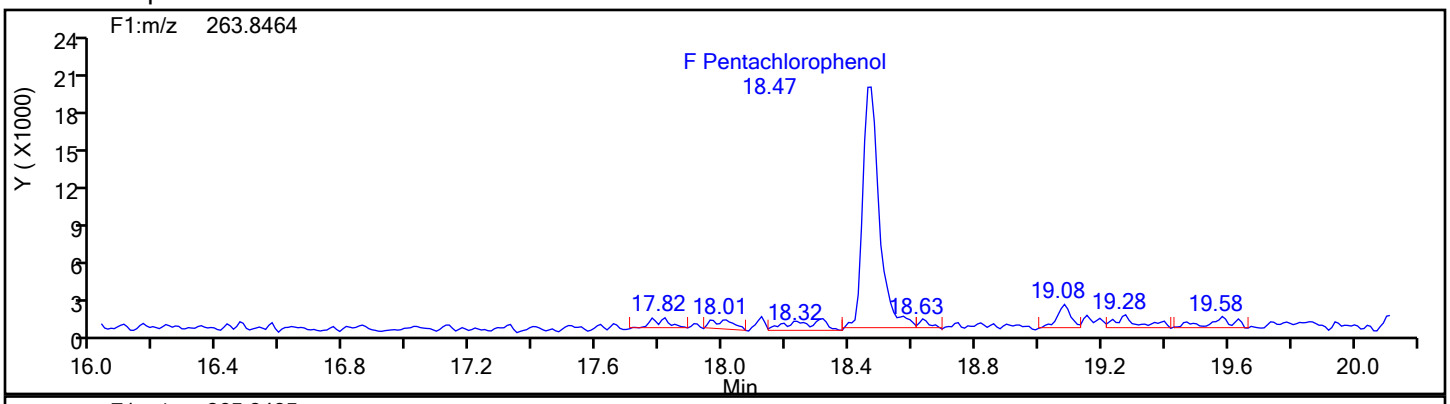
Report Date: 06-May-2025 13:36:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

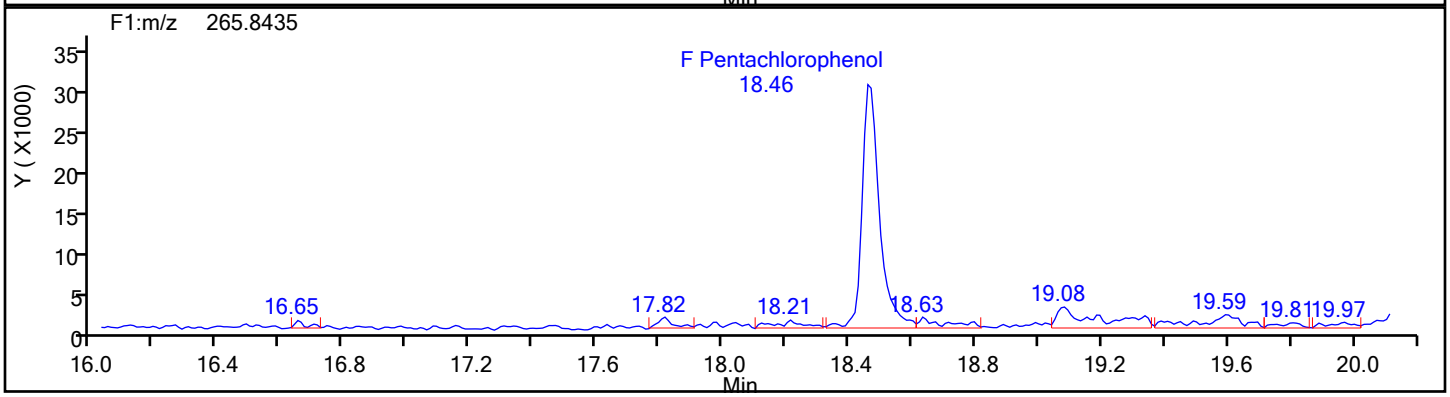
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d

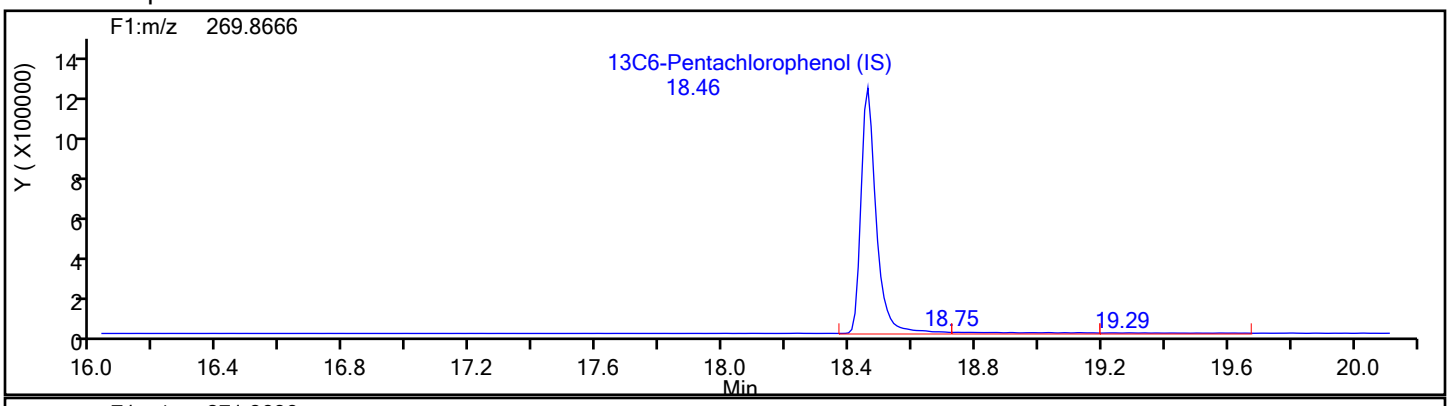
Injection Date:	04-May-2025 17:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	99272	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

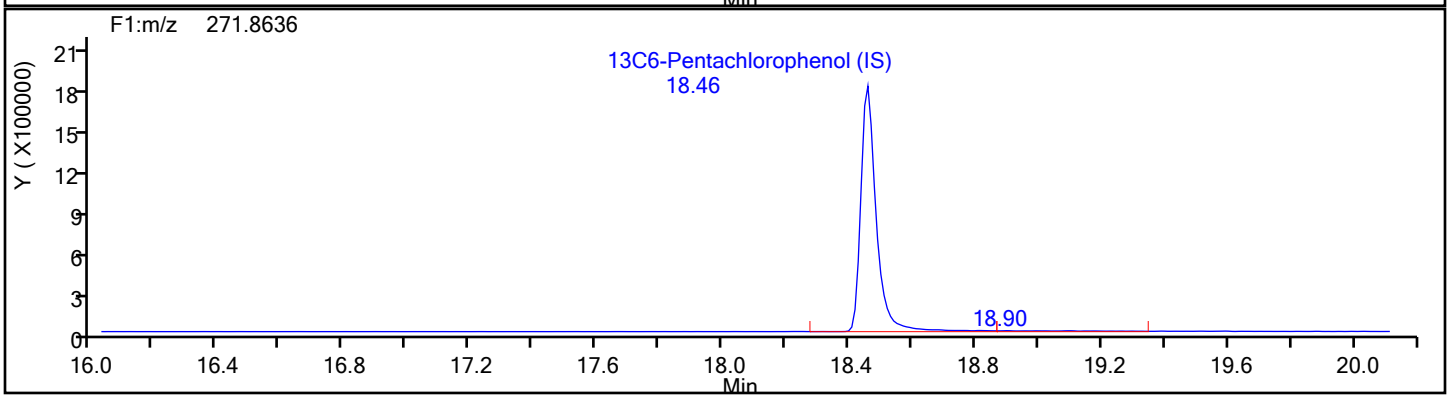
Pentachlorophenol





Pentachlorophenol Standards



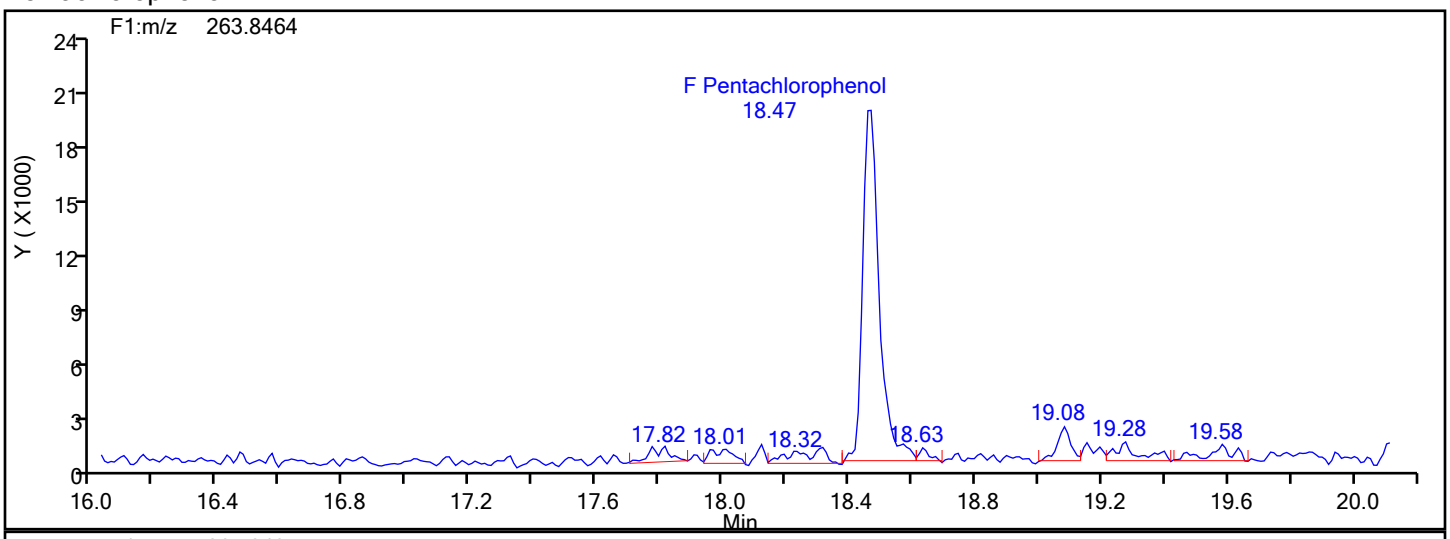


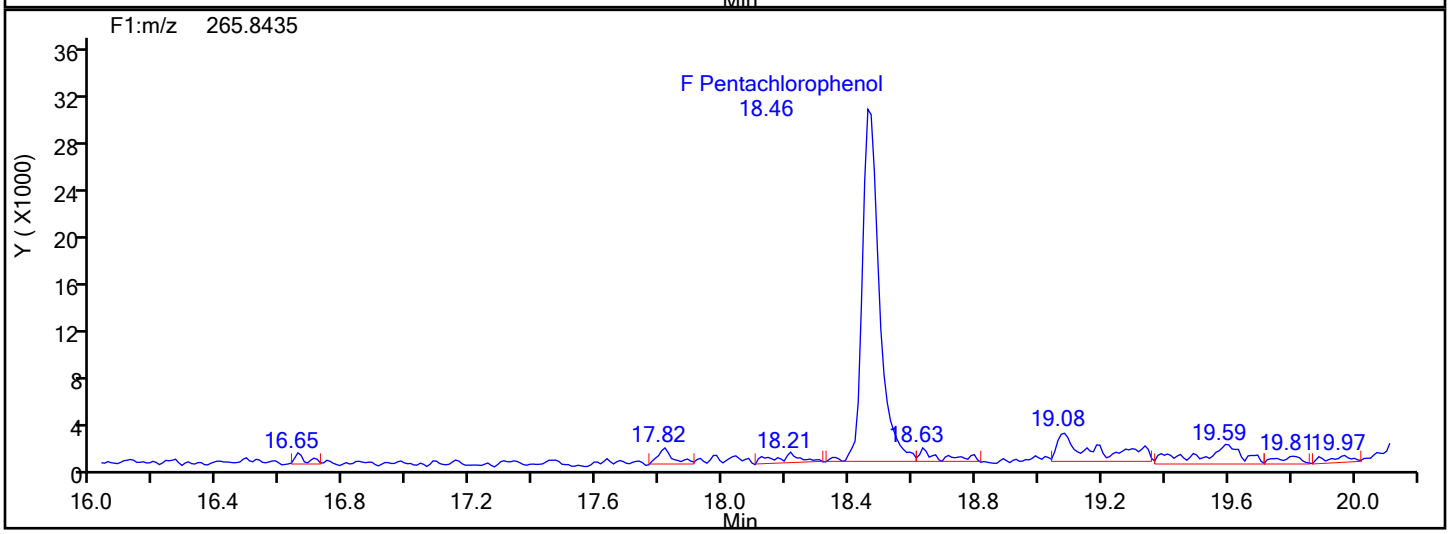
Report Date: 06-May-2025 13:36:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

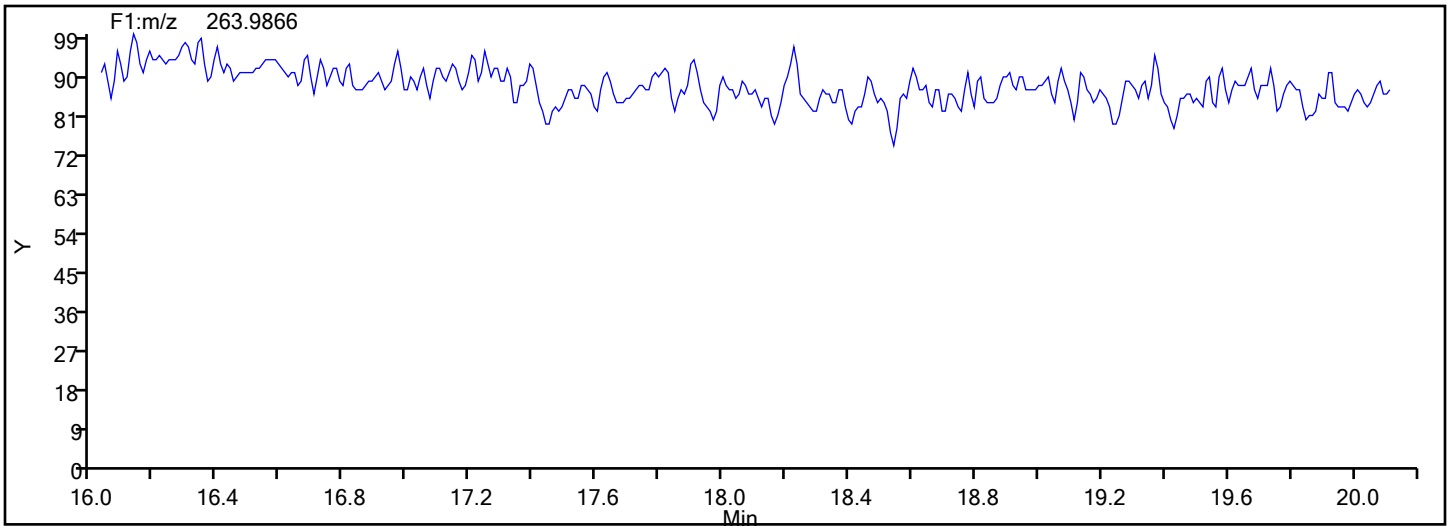
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d		
Injection Date:	04-May-2025 17:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	99272	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

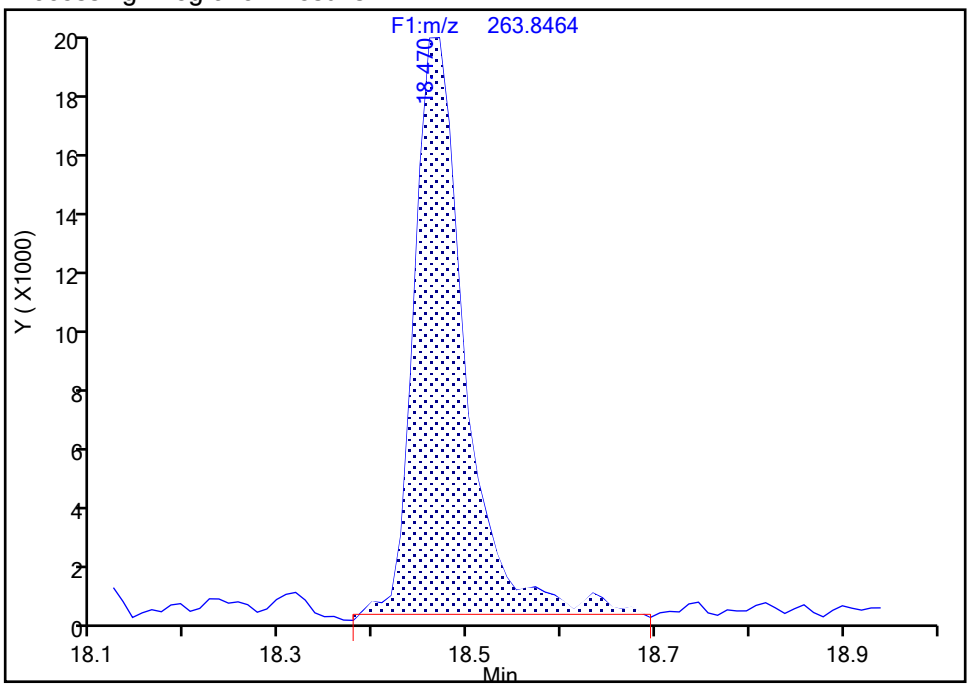
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d				
Injection Date:	04-May-2025 17:49:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-1-B	Lab Sample ID:	140-40836-1		
Client ID:	PW-01-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

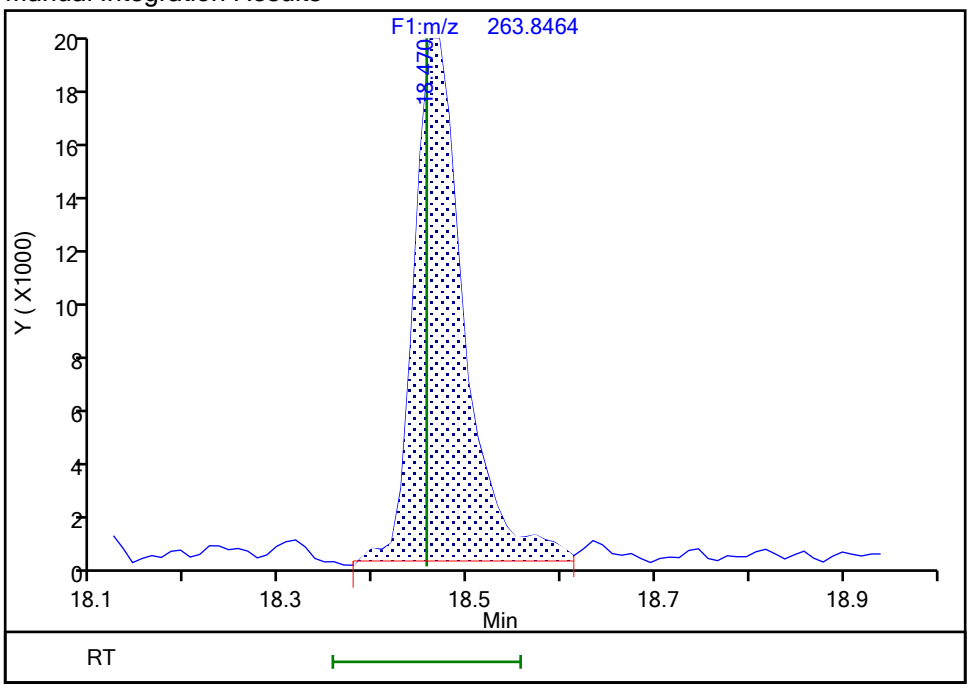
Processing Integration Results

RT: 18.47
Area: 73909
Amount: 9.426624
Amount Units: pg/ul



Manual Integration Results

RT: 18.47
Area: 72270
Amount: 18.128089
Amount Units: pg/ul



Reviewer: F9EE, 05-May-2025 23:06:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

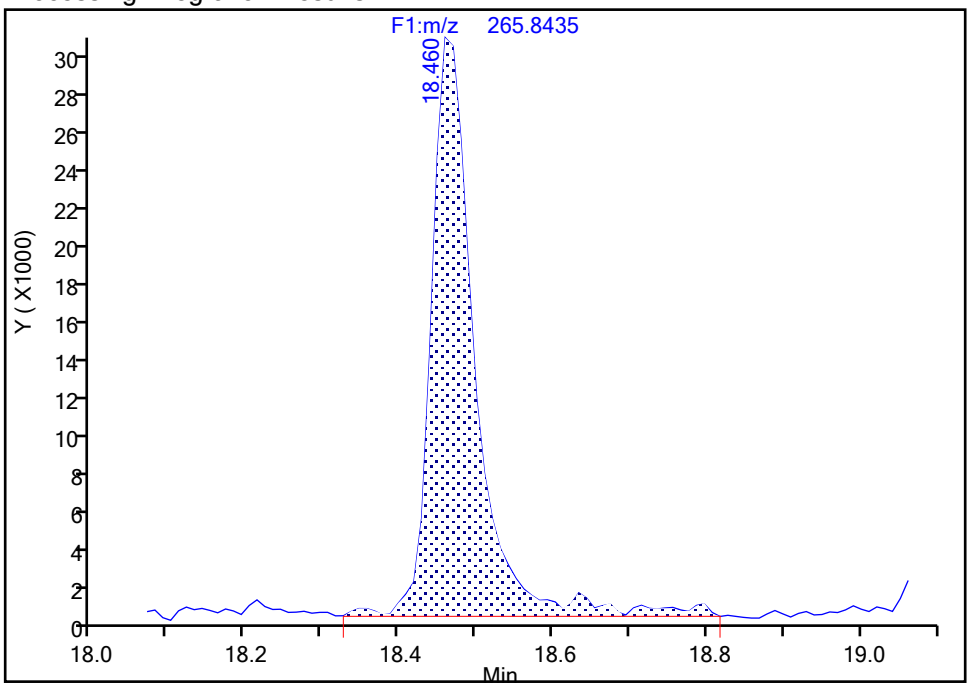
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-1-a.d				
Injection Date:	04-May-2025 17:49:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-1-B	Lab Sample ID:	140-40836-1		
Client ID:	PW-01-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 2

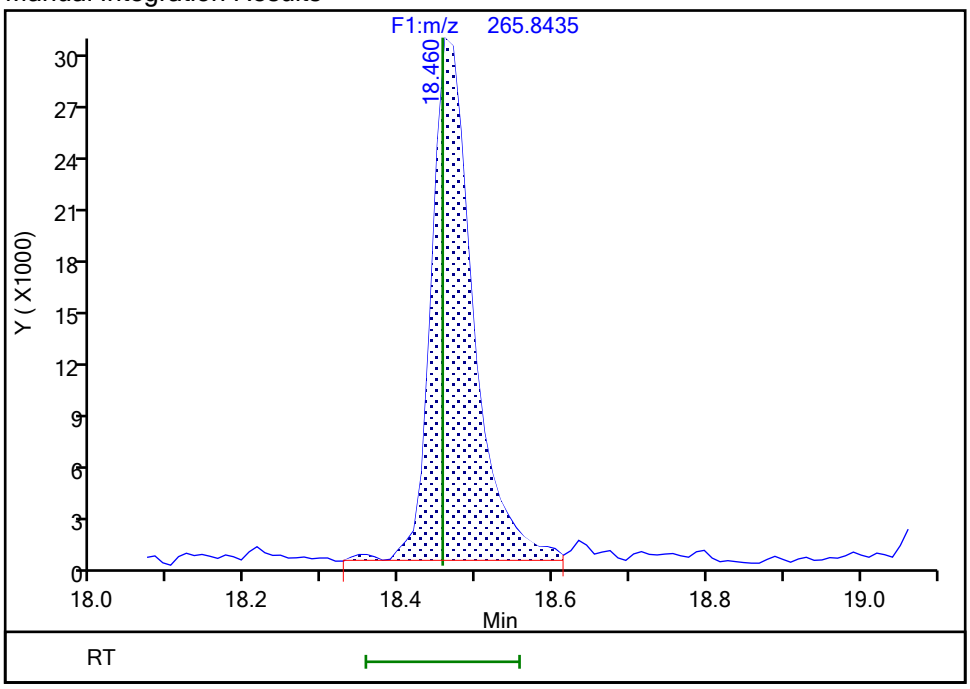
Processing Integration Results

RT: 18.46
Area: 118716
Amount: 9.426624
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 112946
Amount: 18.128089
Amount Units: pg/ul



Reviewer: F9EE, 05-May-2025 23:06:53 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-01-241230 | Lab Sample ID: 140-40836-1

Matrix: PE | Lab File ID: 140-40836-a-1-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:25

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.043(g) | Date Analyzed: 03/30/2025 16:02

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	47		23	0.026
74472-51-8	PCB-192	1400	B	23	0.62
74472-48-3	PCB-184	250	B	23	0.013
33979-03-2	PCB-155	110		23	0.49
41411-61-4	PCB-142	150	B	23	0.040
74472-52-9	PCB-204	540	B	23	0.014
56558-16-8	PCB-104	260	B	23	0.0024
56558-18-0	PCB-121	500	B	23	1.5
70362-49-1	PCB-78	230	B	23	0.15
38444-87-0	PCB-36	61		23	0.26

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d
Lims ID: 140-40836-A-1-B
Client ID: PW-01-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 16:02:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-006
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:06:09 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:08:32

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:04	587823	1.57		10.0	10.0				
PCB-14	17:49	813030	1.58	1.3581	10.2	10.2	0.005497	0.005497		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	791388	1.05	1.0230	13.2	13.2	0.0561	0.0561		
* PCB-101L	28:08	231519	1.72		10.0	10.0				
PCB-104	23:44	2342947	1.57	1.8372	55.1	55.1	0.000517	0.000517		
* PCB-118L	32:48	247137	1.50		10.0	10.0				
PCB-121	26:43	3859297	1.62	1.4622	106.8	106.8	0.3126	0.3126		
* PCB-138L	37:00	146829	1.25		10.0	10.0				
PCB-142	27:30	983652	1.28	2.0271	33.0	33.0	0.008654	0.008654		
* PCB-60L	27:45	383262	0.83		10.0	10.0				
PCB-78	29:23	1714683	0.78	0.9153	48.9	48.9	0.0324	0.0324		
* PCB-167L	39:30	183261	1.33		10.0	10.0				
PCB-155	34:00	407167	1.23	0.9191	24.2	24.2	0.1055	0.1055		
PCB-184	34:39	1128837	1.05	1.1610	53.1	53.1	0.002812	0.002812		
PCB-204	42:17	1574077	0.93	0.7364	116.6	116.6	0.003103	0.003103		
PCB-192	42:38	4129225	1.07	0.7635	295.1	295.1	0.1334	0.1334		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d
Lims ID: 140-40836-A-1-B
Client ID: PW-01-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 16:02:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-006
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:06:09 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:08:32

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:04	19:05	-1		359328	106242	3	7	35414		
236.0376	19:04	19:05	-1		228495	70574	2	5	35287	1.57(1.16-1.93)	
PCB-14											
222.0003	17:49	17:50	-1	0.934	497572	170005	36	90	4722		
223.9974	17:49	17:50	-1	0.934	315458	112325	17	42	6607	1.58(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						42	105			
265.8435	18:31						7	17			
PCB-36											
255.9613	22:11	22:10	0	1.163	405752	106273	210	525	506		
257.9584	22:11	22:10	0	1.163	385636	98381	196	490	502	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	0		146333	33002	1	2	33002		
339.9178	28:08	28:08	0		85186	19641	1	2	19641	1.72(1.16-1.94)	
PCB-104											
325.8804	23:44	23:45	-1	0.844	1430710	379293	1	2	379293		
327.8775	23:44	23:45	-1	0.844	912237	242272	1	2	242272	1.57(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		148394	29203	6	15	4867		
339.9178	32:48	32:48	0		98743	18924	2	5	9462	1.50(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-121											
325.8804	26:43	26:44	0	0.815	2385779	527880	444	1110	1189		
327.8775	26:43	26:44	0	0.815	1473518	328456	436	1090	753	1.62(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	0		81445	14999	3	7	5000		
373.8788	36:59	37:00	-1		65384	11792	4	10	2948	1.25(1.16-1.94)	
PCB-142											
359.8415	27:30	27:31	-1	0.743	552227	130865	10	25	13087		
361.8385	27:30	27:31	-1	0.743	431425	98454	9	22	10939	1.28(1.05-1.43)	
PCB-60L											
301.9626	27:45	27:45	0		173290	37345	2	5	18673		
303.9597	27:45	27:45	0		209972	43624	2	5	21812	0.83(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	753027	154237	43	107	3587		
291.9194	29:23	29:23	0	1.059	961656	195633	53	132	3691	0.78(0.65-0.89)	
PCB-167L											
371.8817	39:30	39:30	0		104606	17672	7	17	2525		
373.8788	39:30	39:30	0		78655	12959	6	15	2160	1.33(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	224641	44705	66	165	677		
361.8385	34:00	34:00	0	0.861	182526	35722	53	132	674	1.23(1.05-1.43)	
PCB-184											
393.8025	34:39	34:40	-1	0.877	576873	108796	3	7	36265		
395.7995	34:39	34:40	-1	0.877	551964	106169	1	2	106169	1.05(0.89-1.21)	
PCB-204											
427.7635	42:17	42:18	-1	1.070	759191	126024	1	2	126024		
429.7606	42:17	42:18	-1	1.070	814886	137231	2	5	68616	0.93(0.76-1.02)	
PCB-192											
393.8025	42:38	42:37	0	1.079	2135026	354006	63	157	5619		
395.7995	42:38	42:37	0	1.079	1994199	328531	62	155	5299	1.07(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

QC Flag Legend

Processing Flags

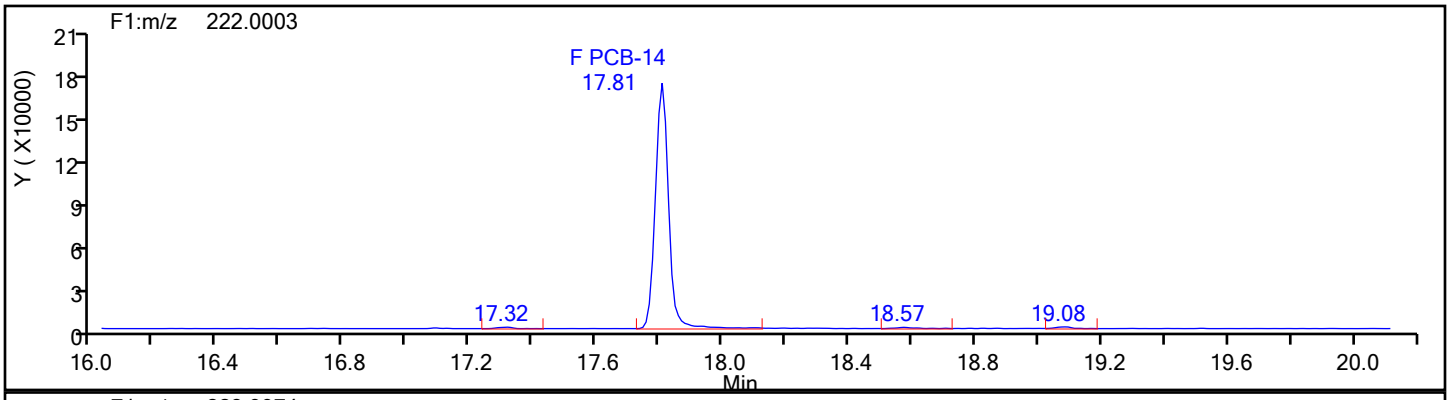
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

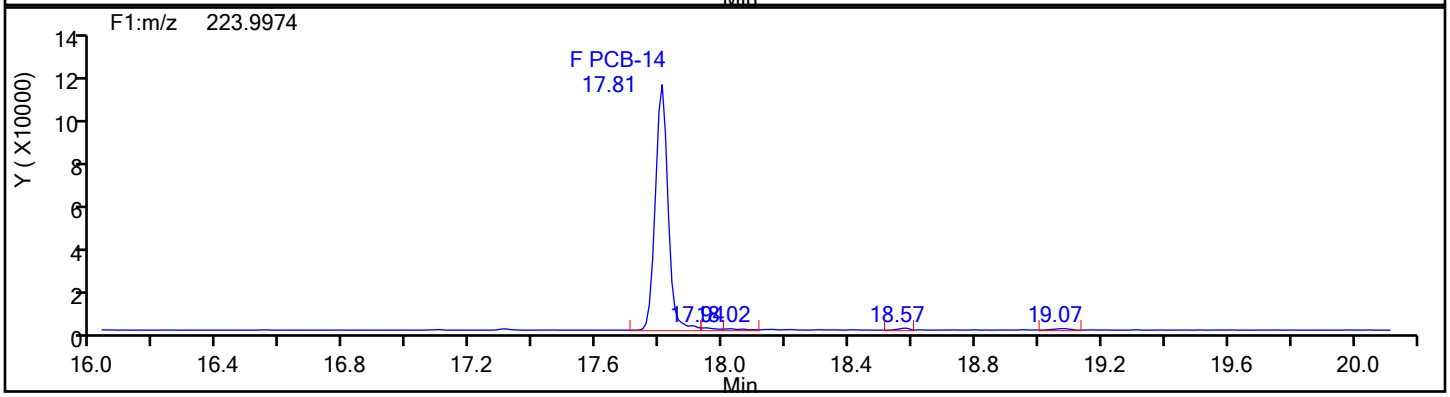
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

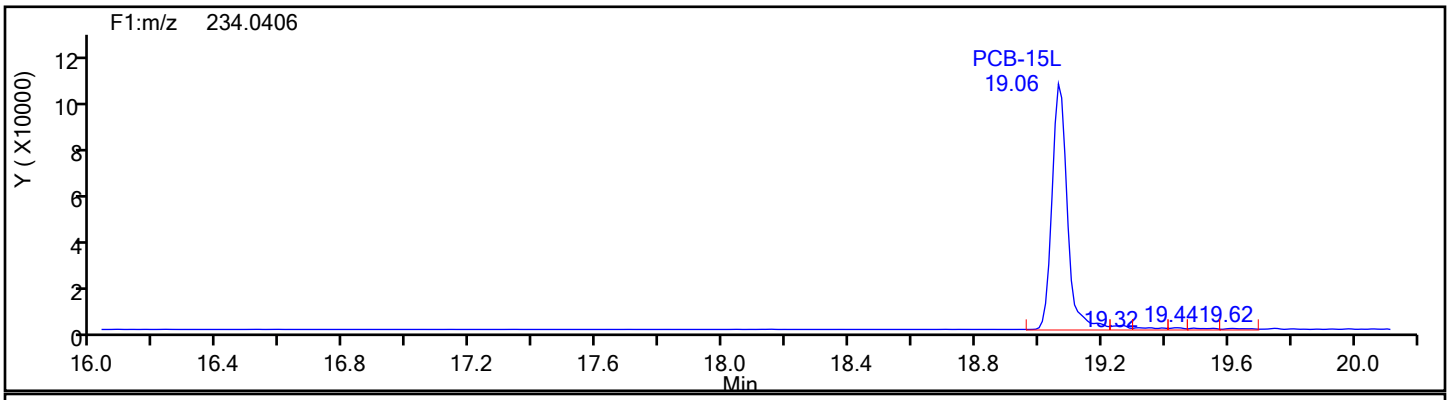
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

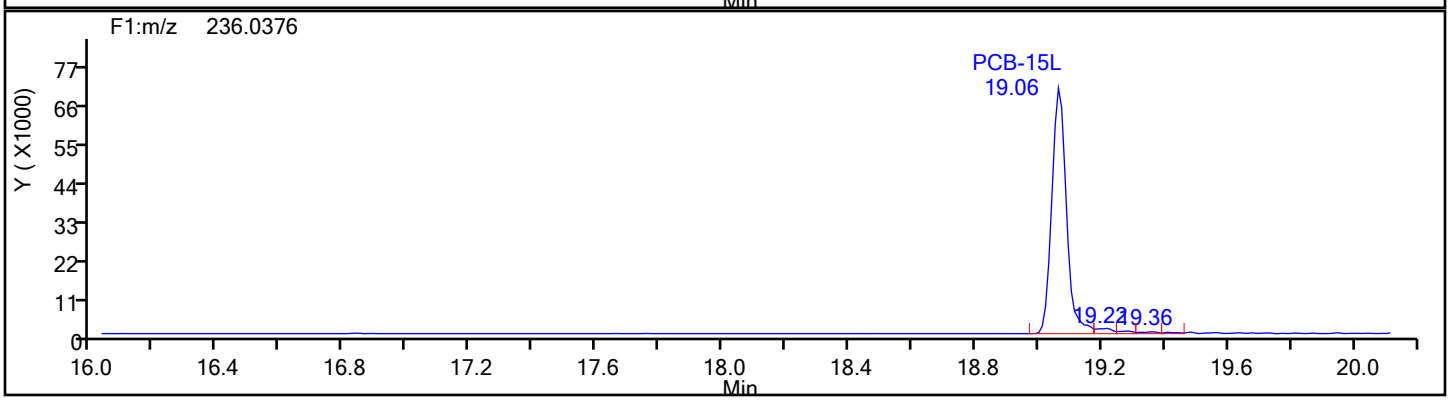
PCB-14





PCB-14 Standards



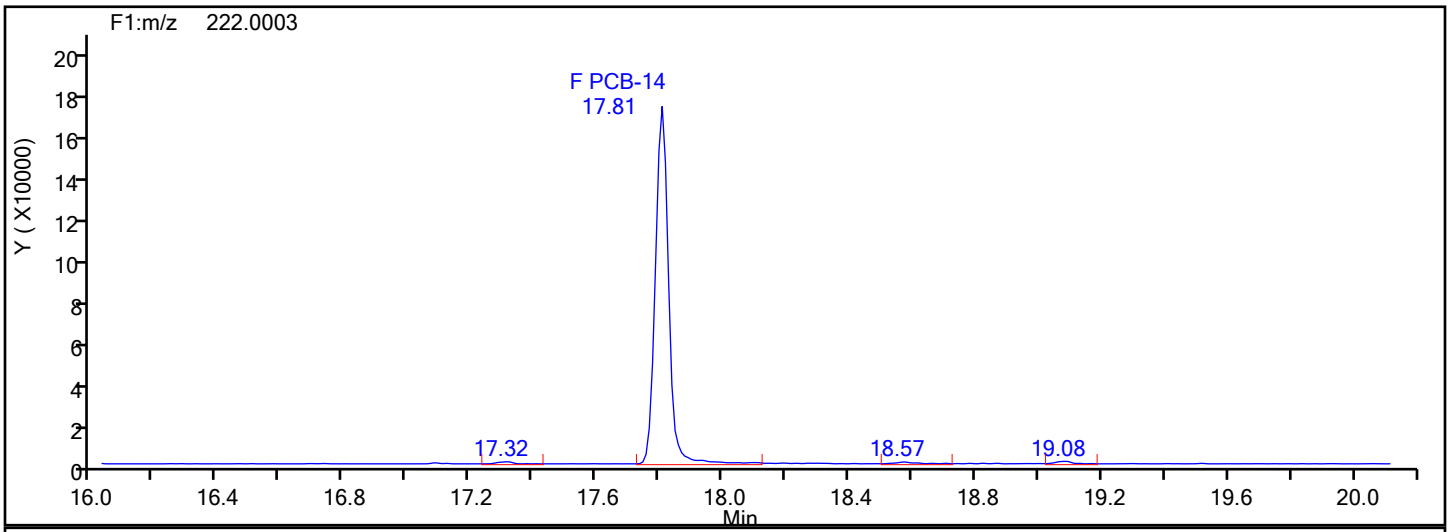


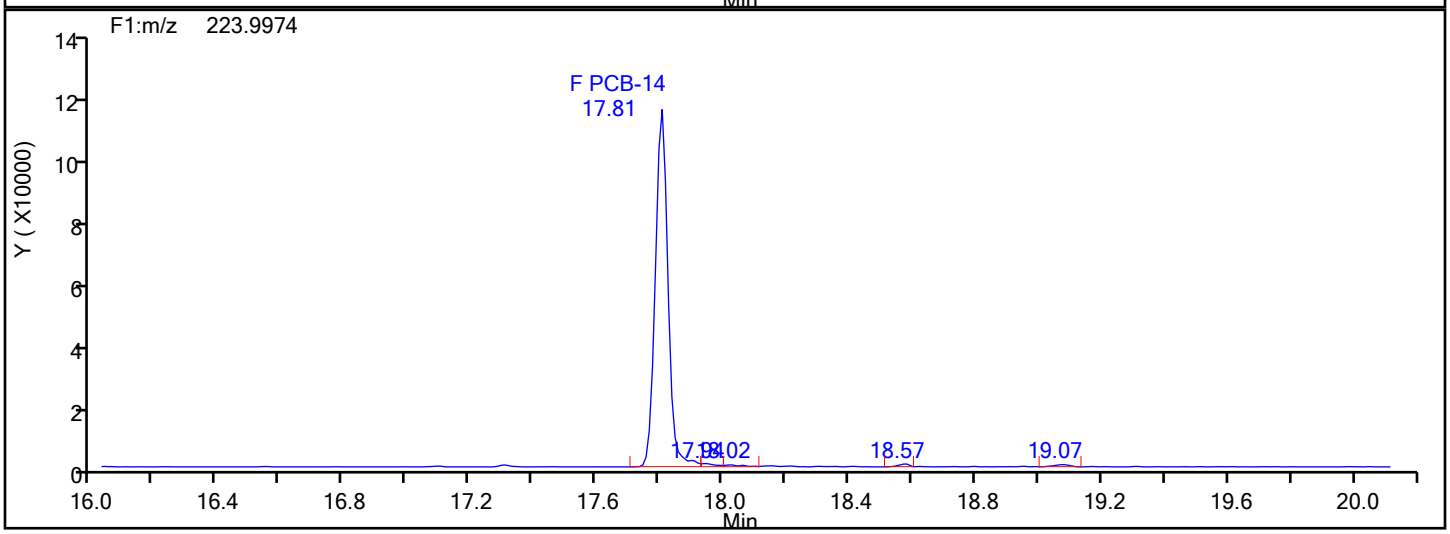
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

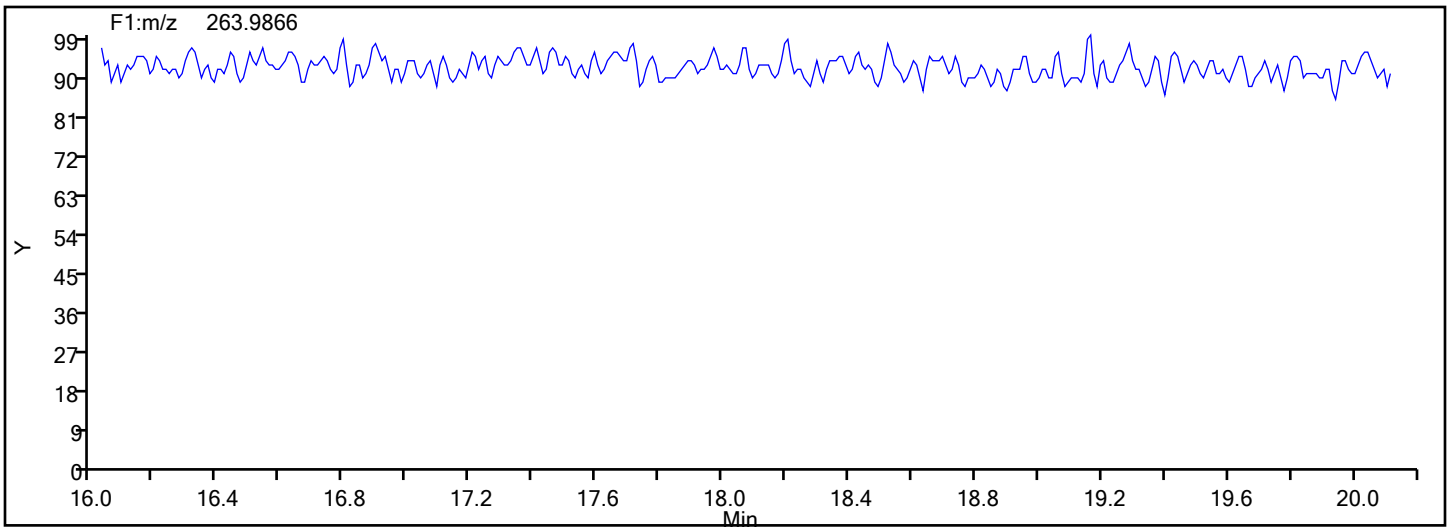
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d
Injection Date: 30-Mar-2025 16:02:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-01-241230
Worklist#: 97758 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



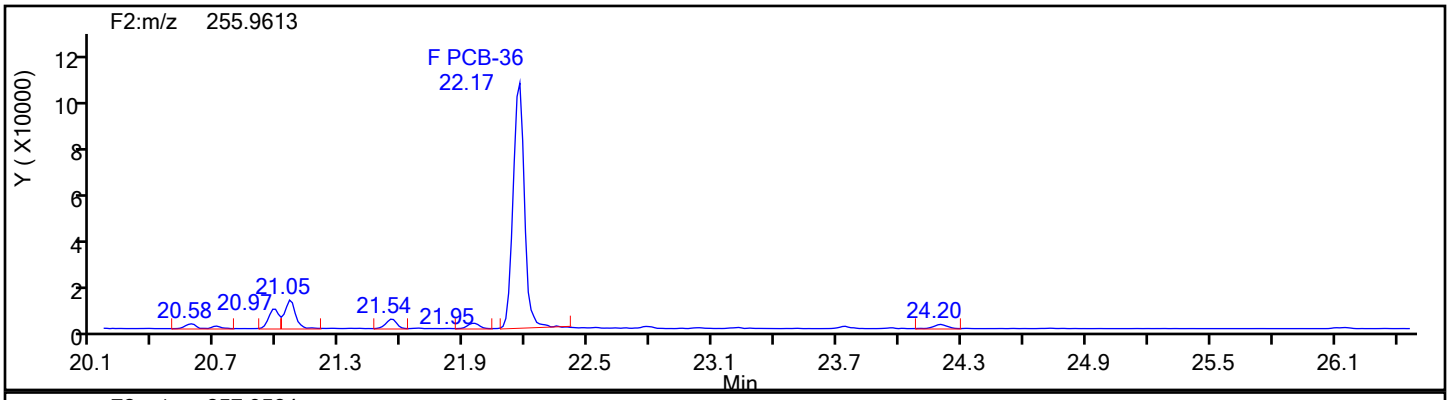
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

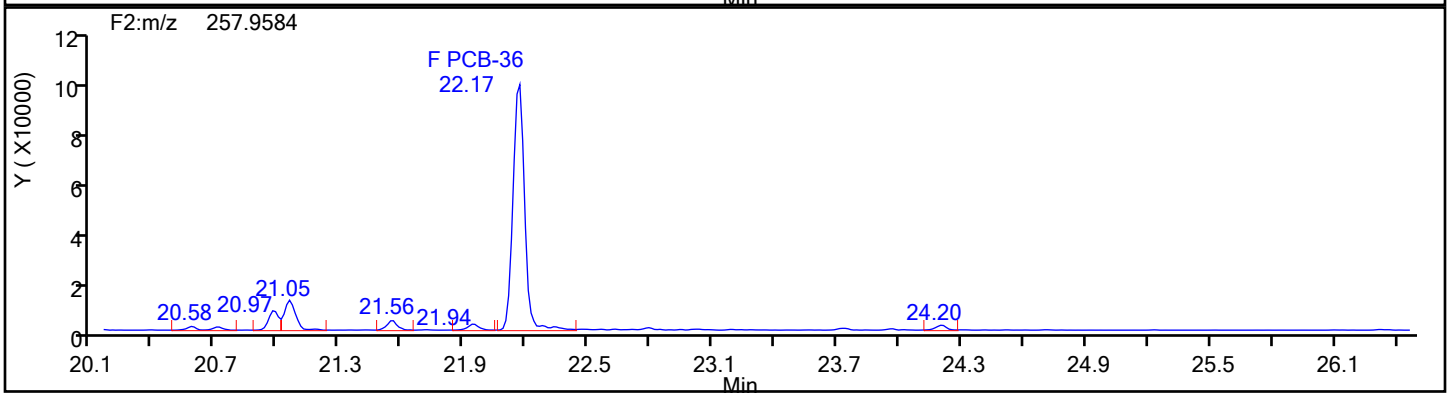
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

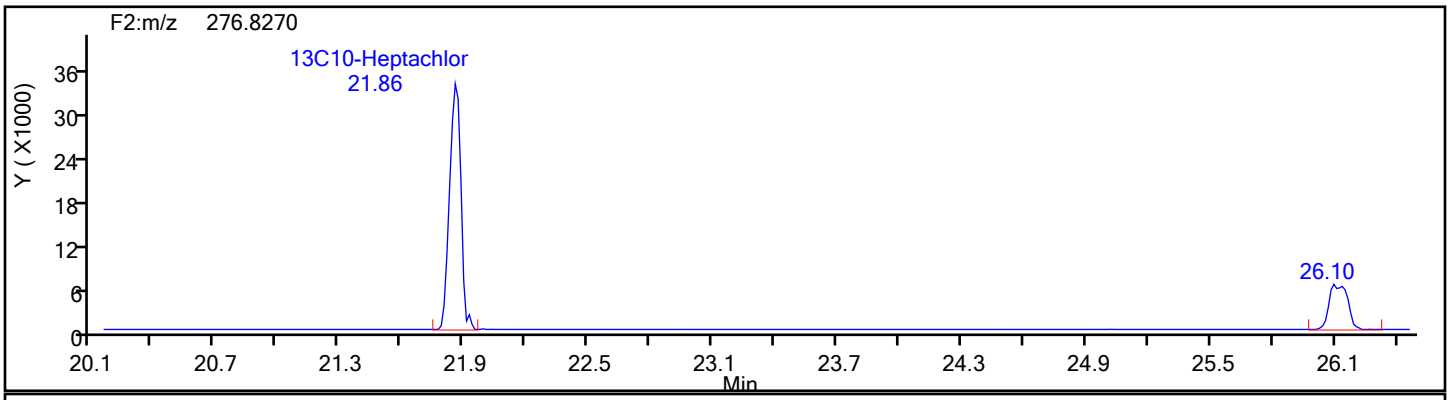
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

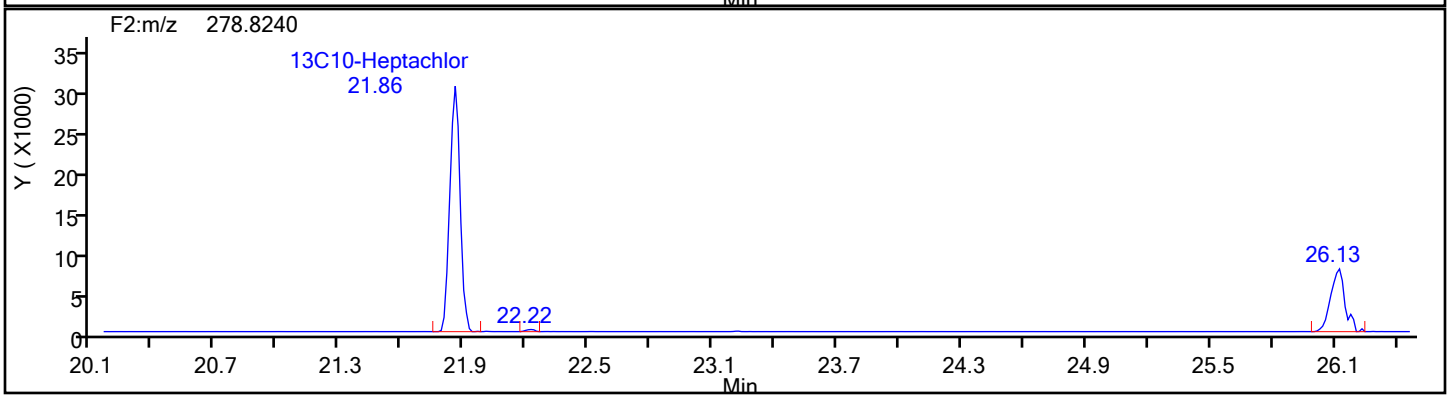
PCB-36





PCB-36 Standards



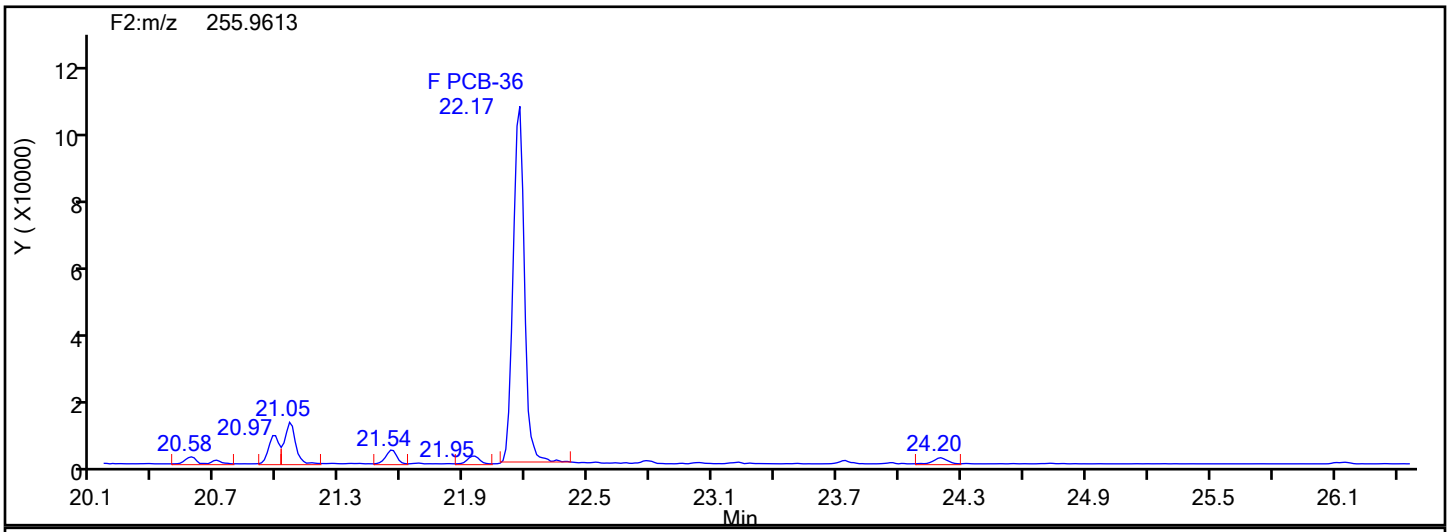


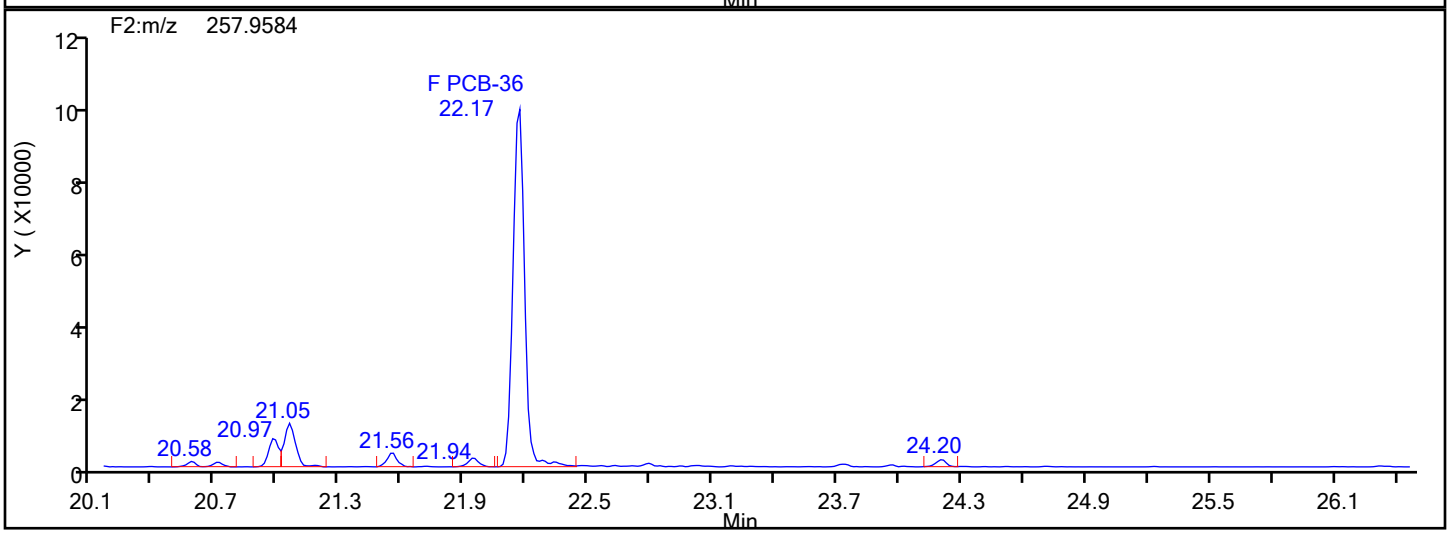
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

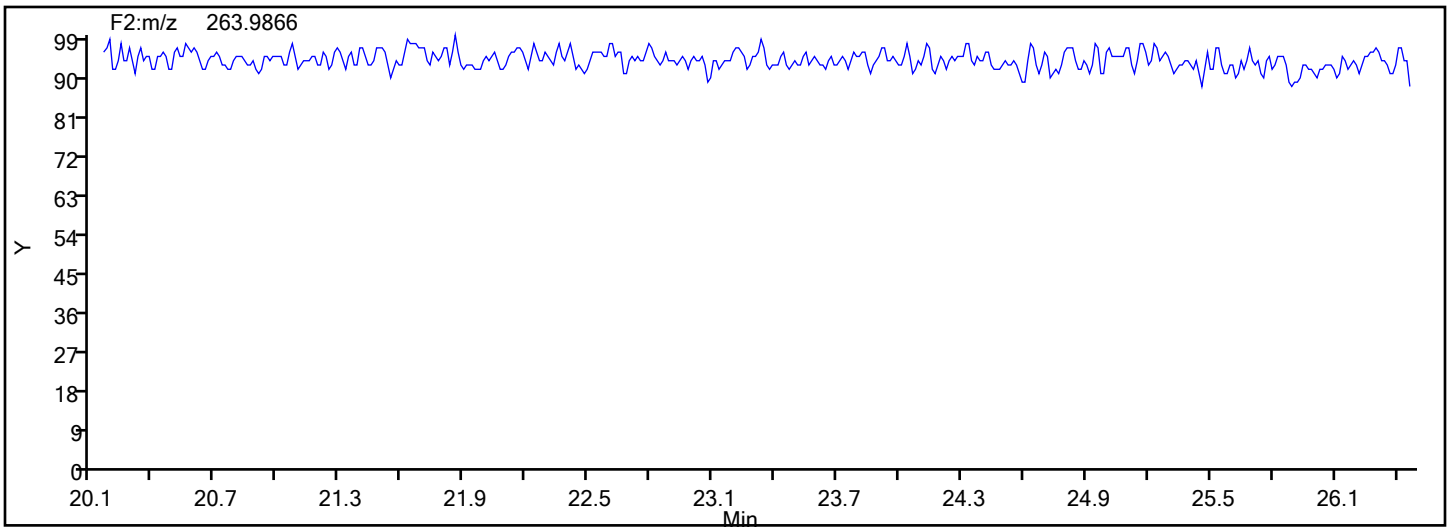
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



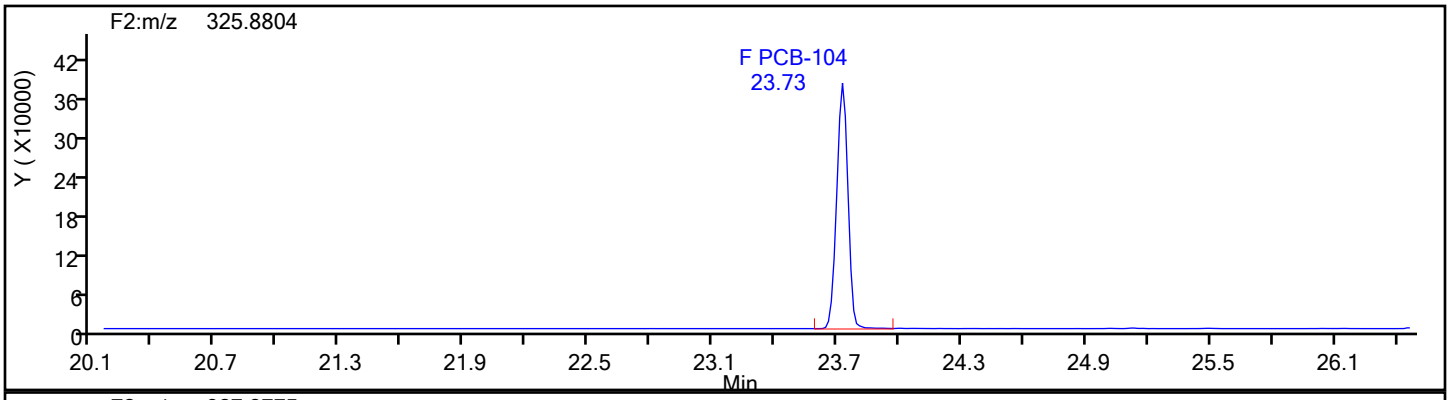
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

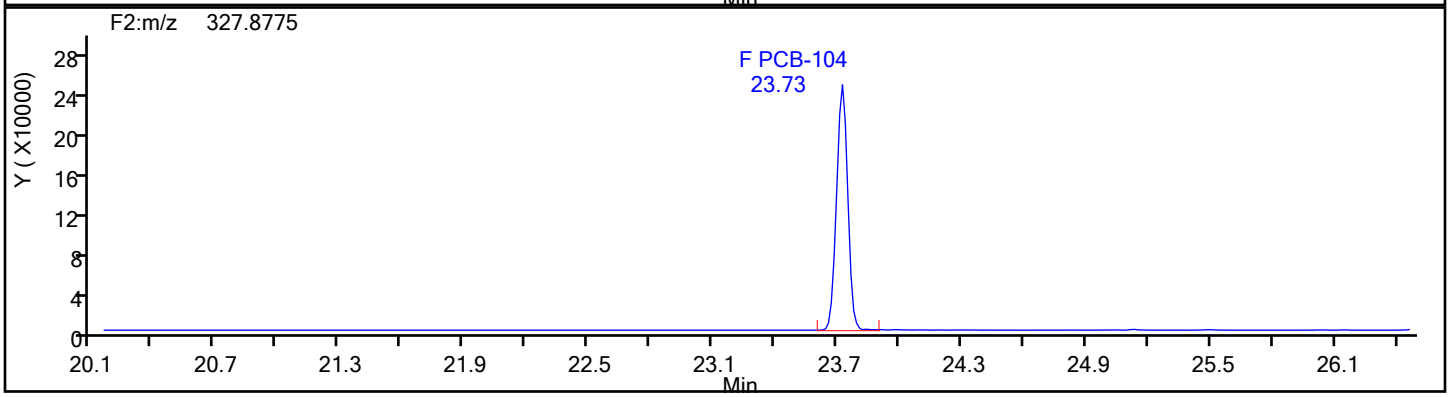
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

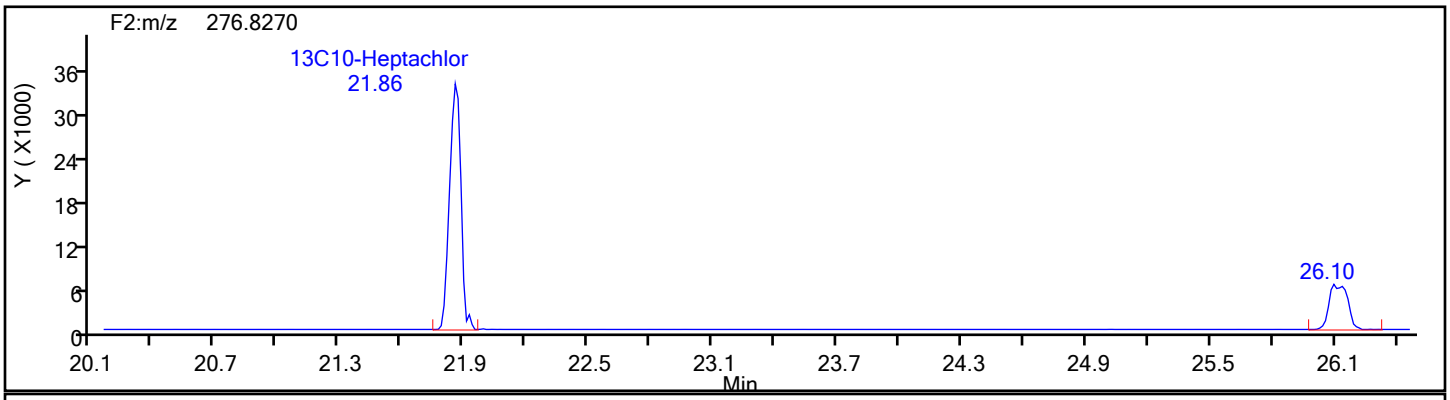
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

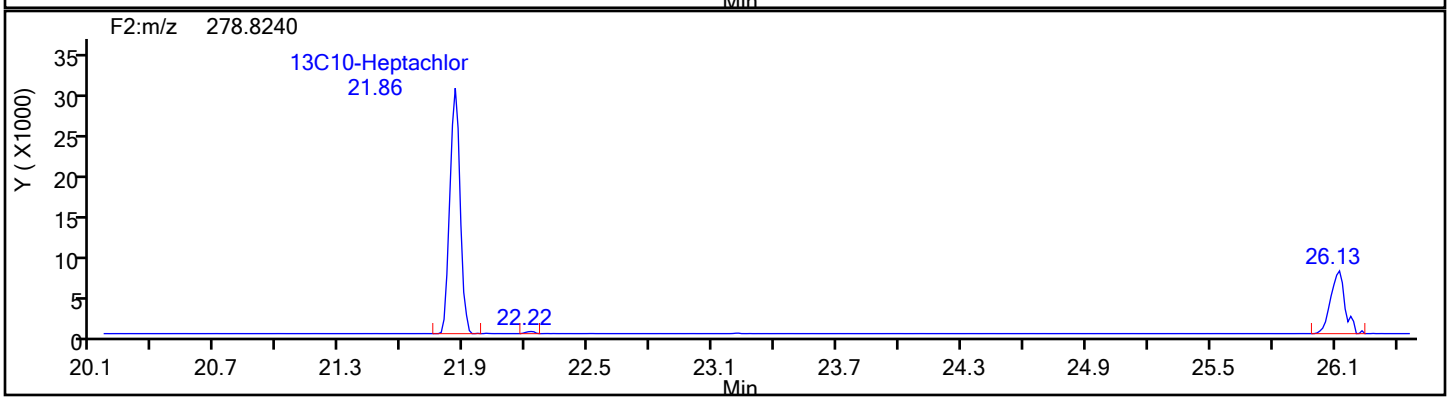
PCB-104





PCB-104 Standards



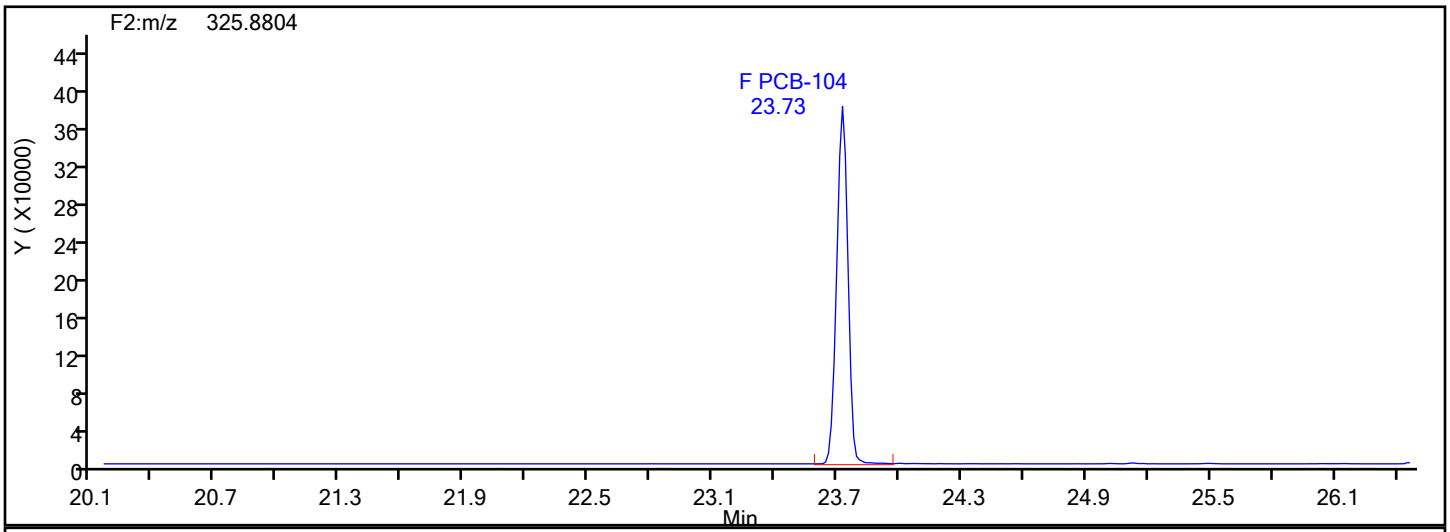


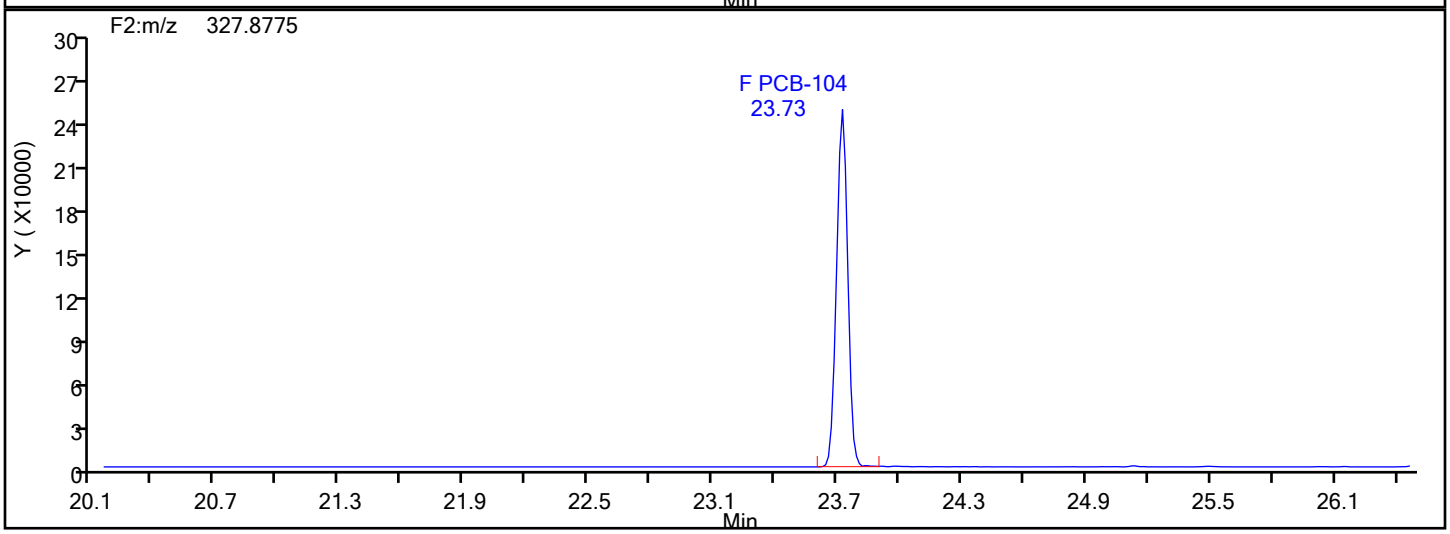
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

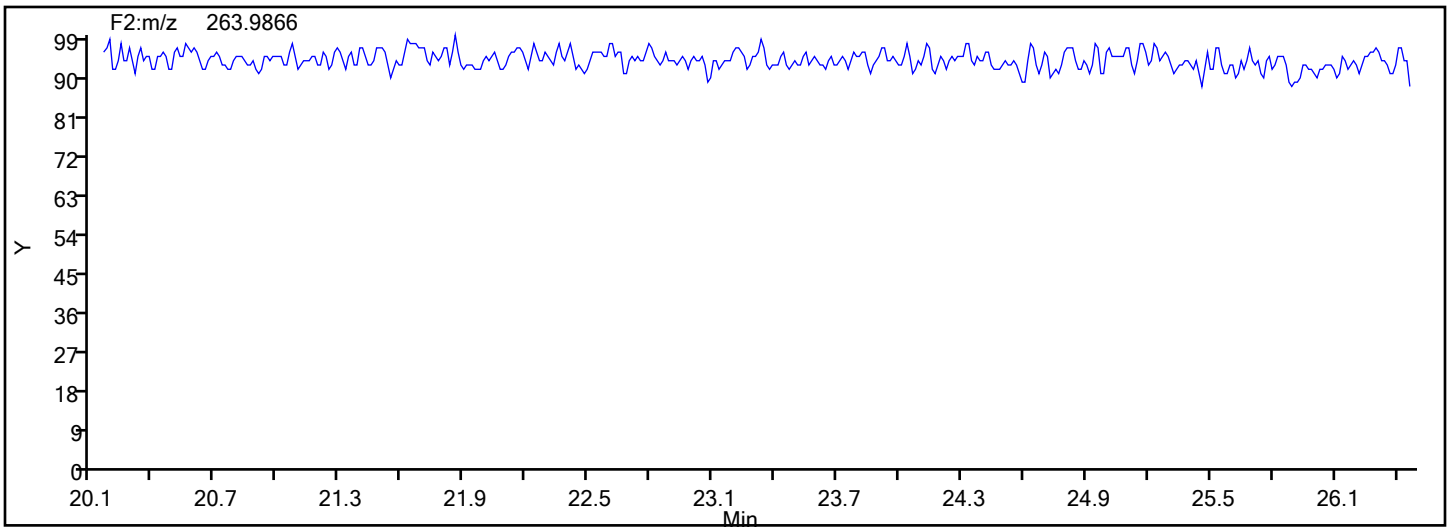
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



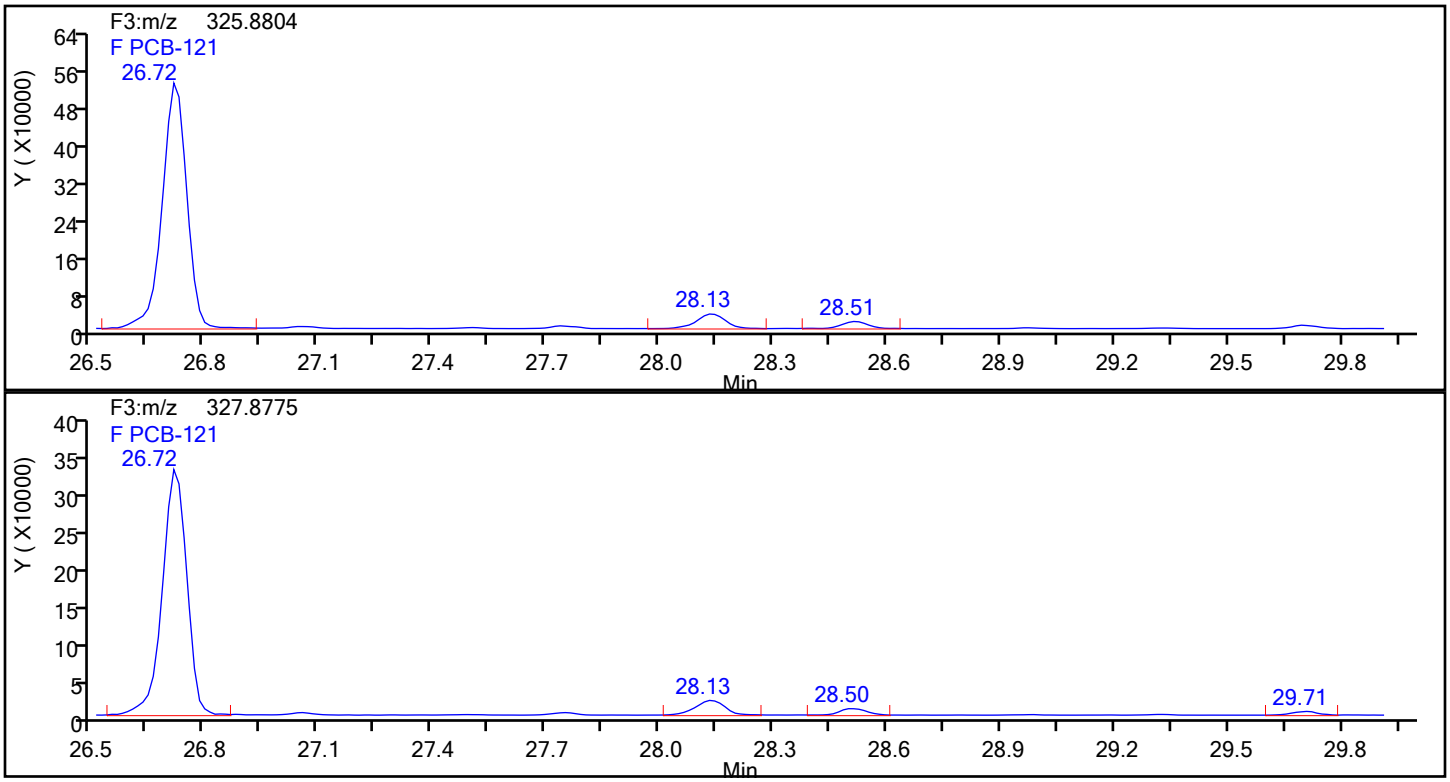
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

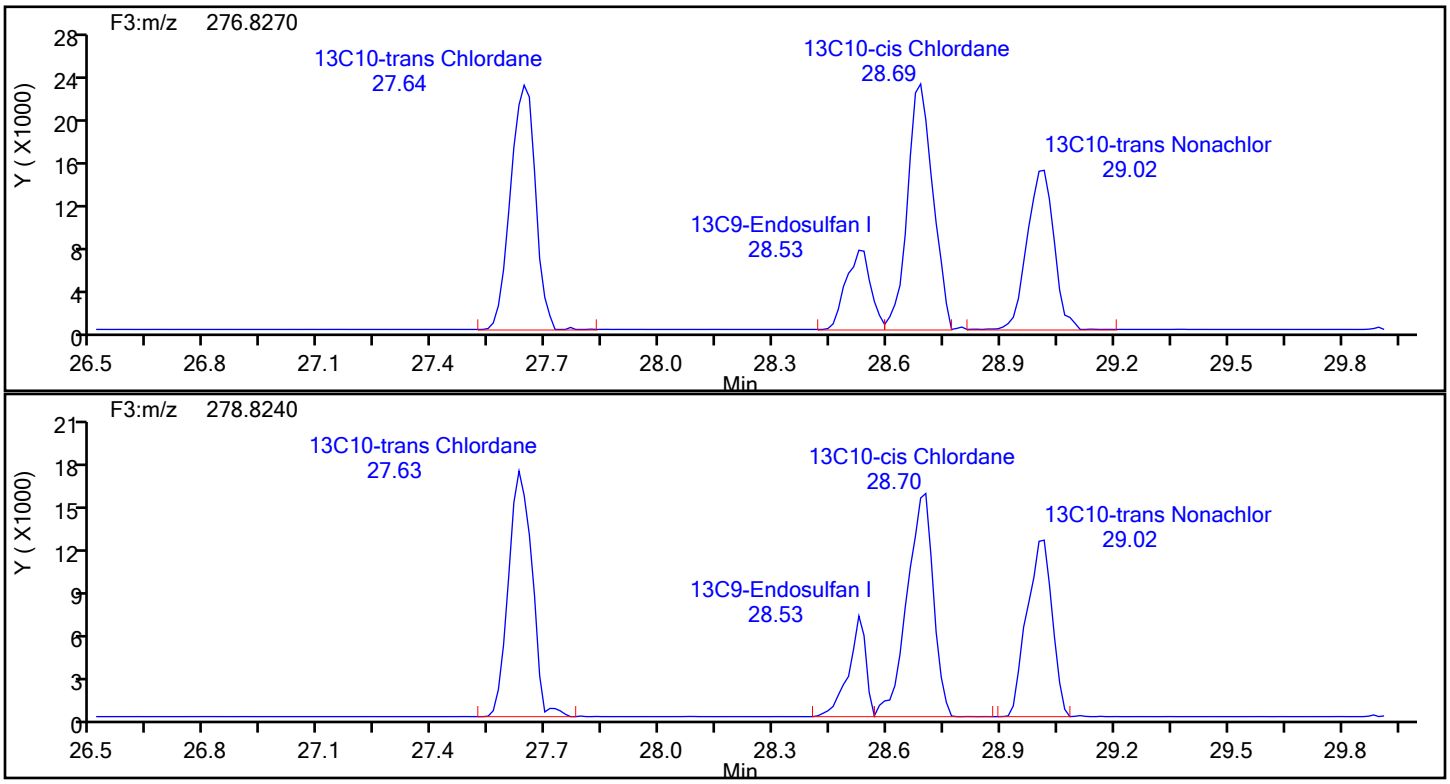
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

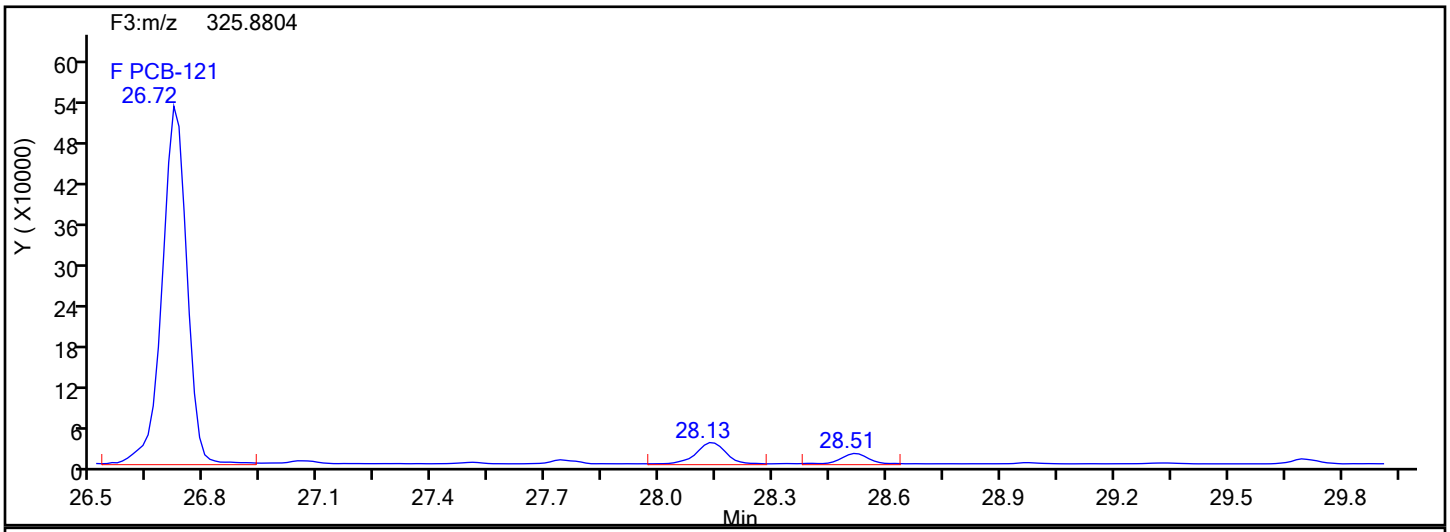


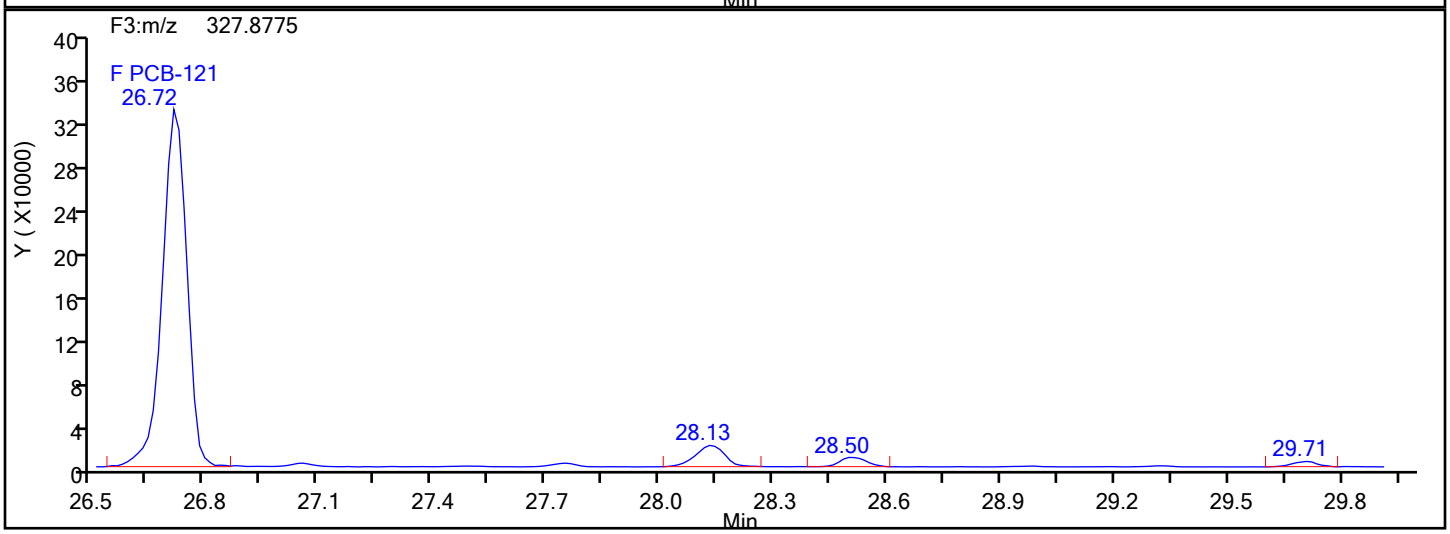
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

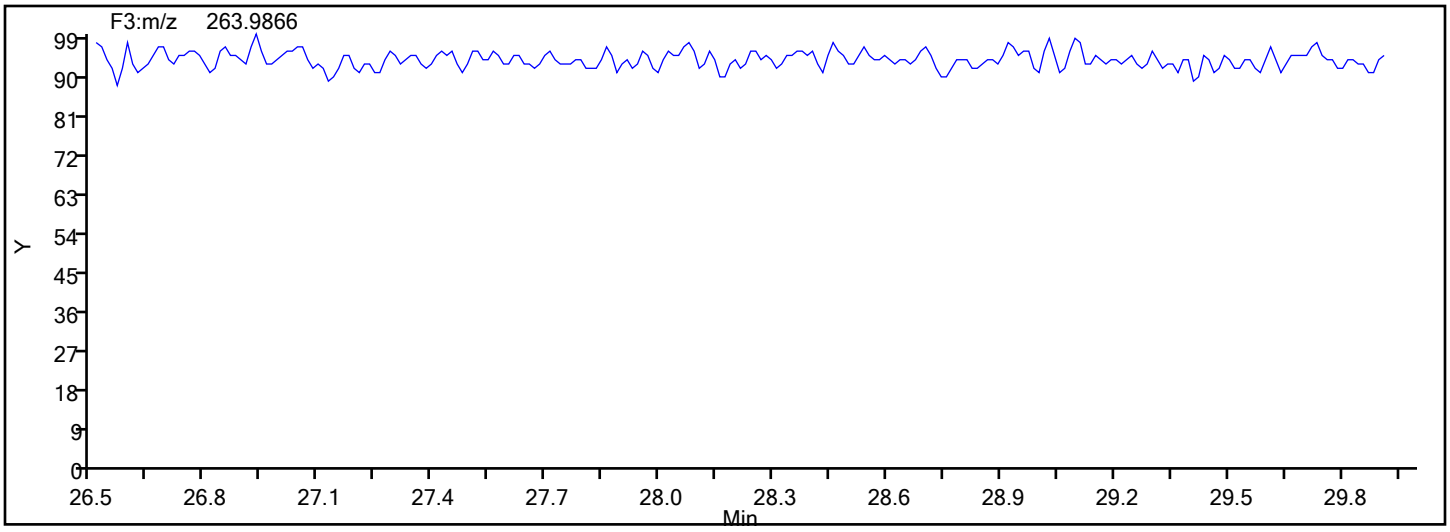
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



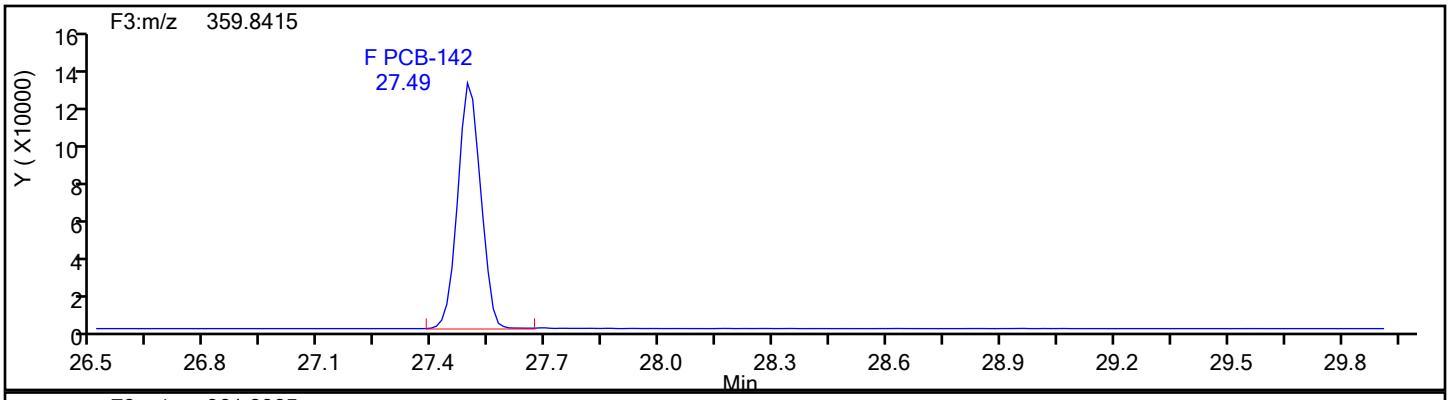
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

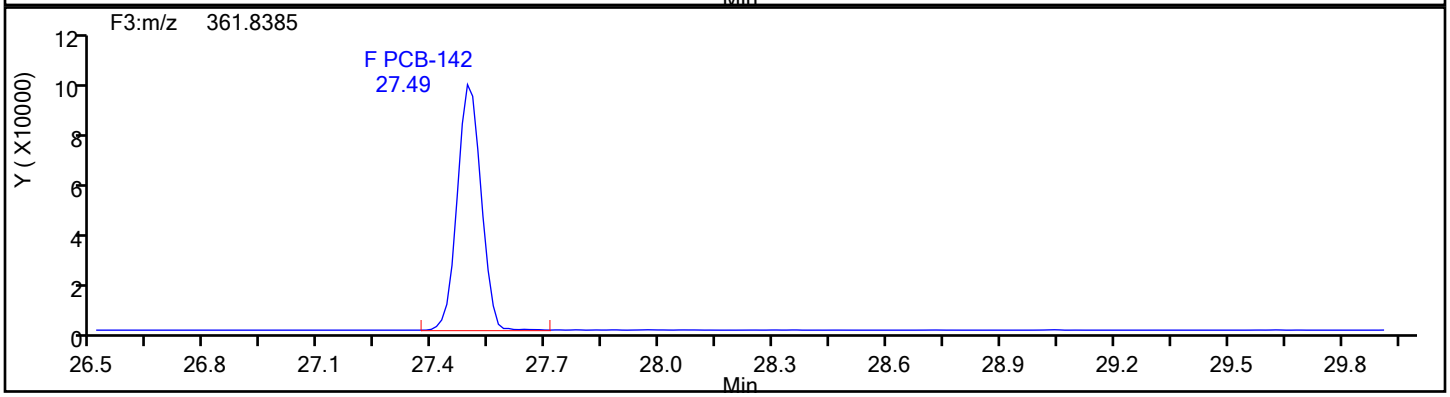
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

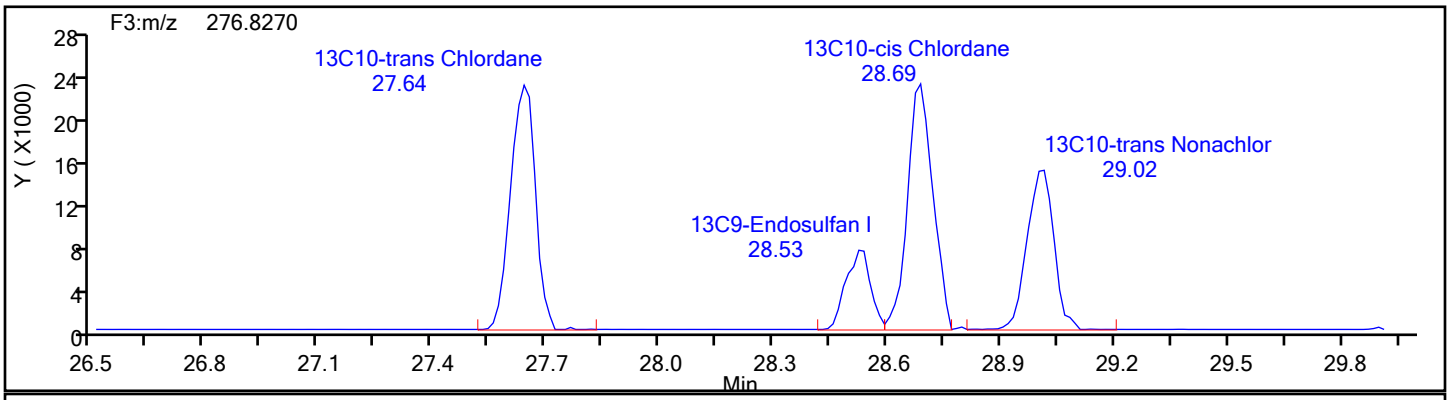
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

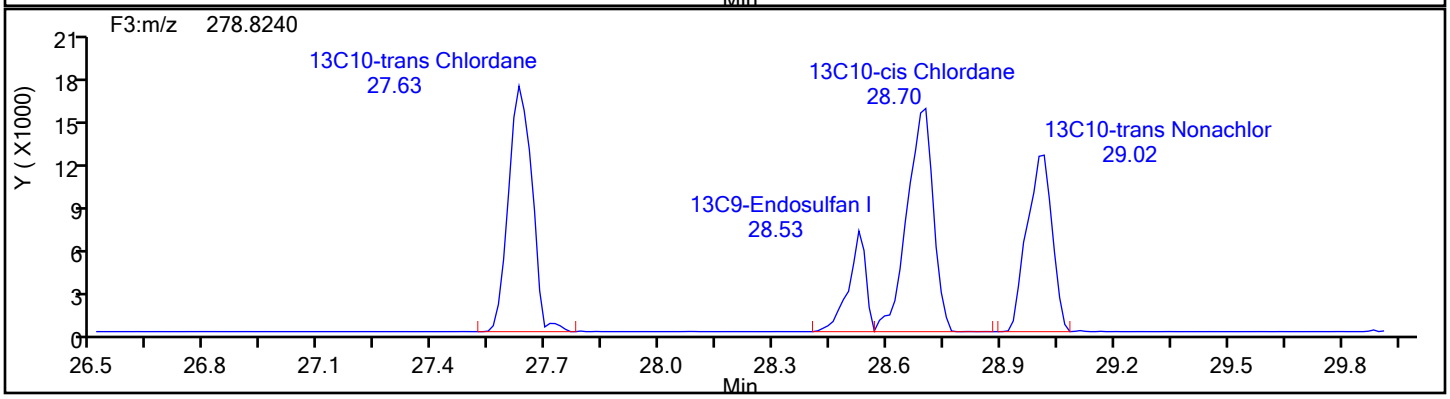
PCB-142





PCB-142 Standards



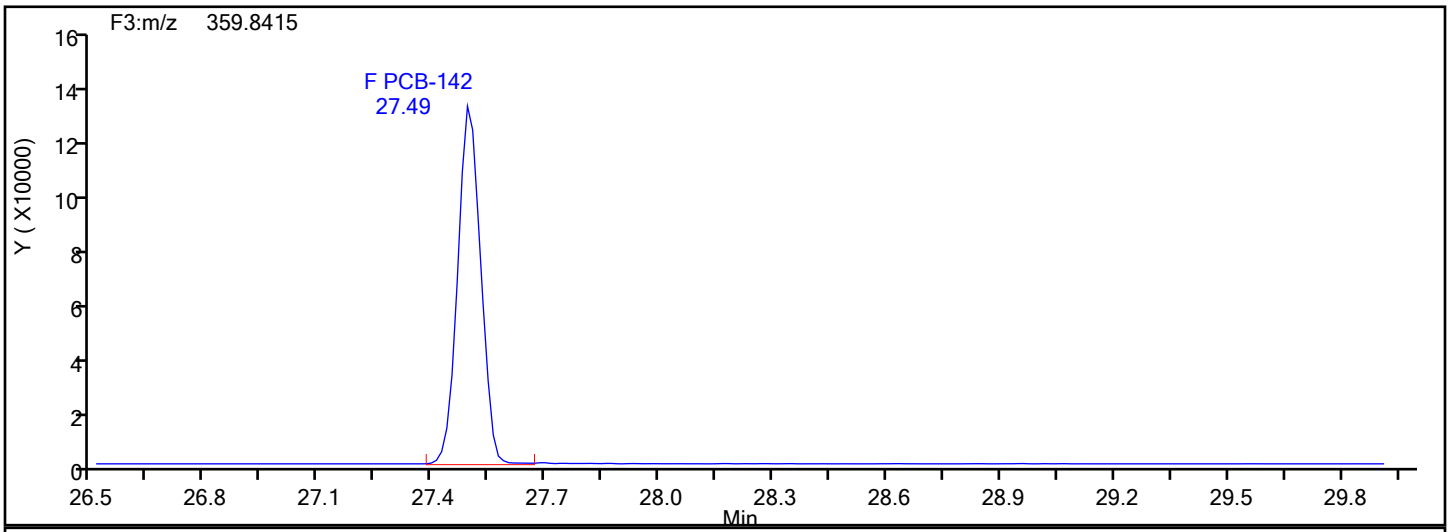


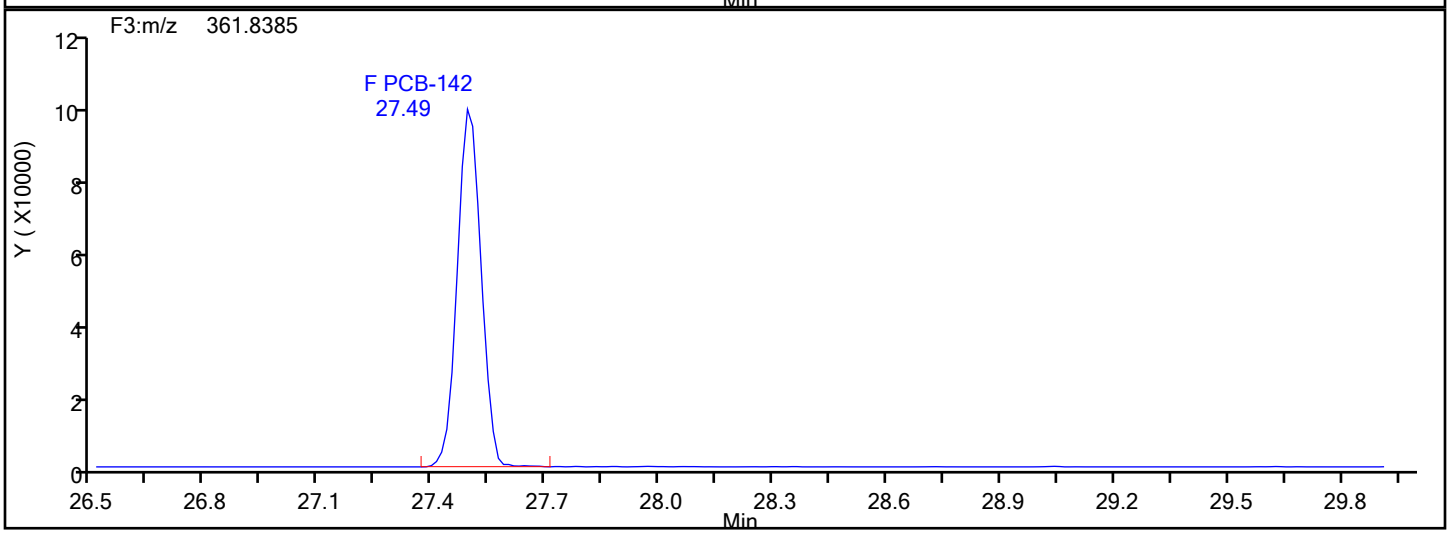
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

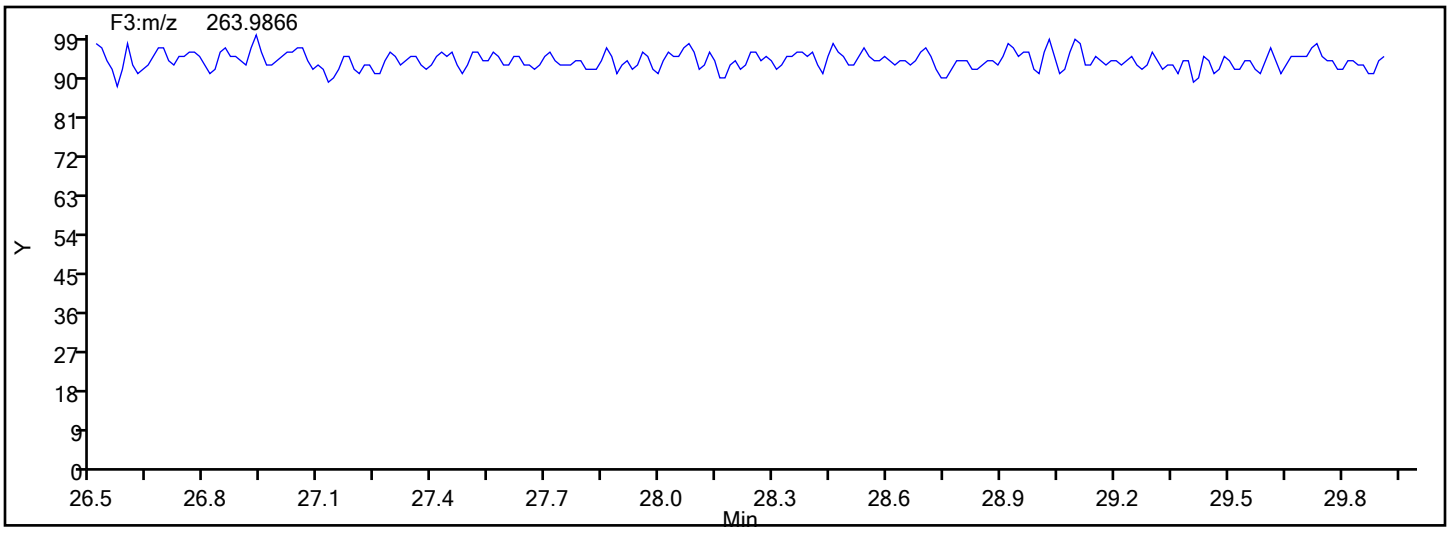
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



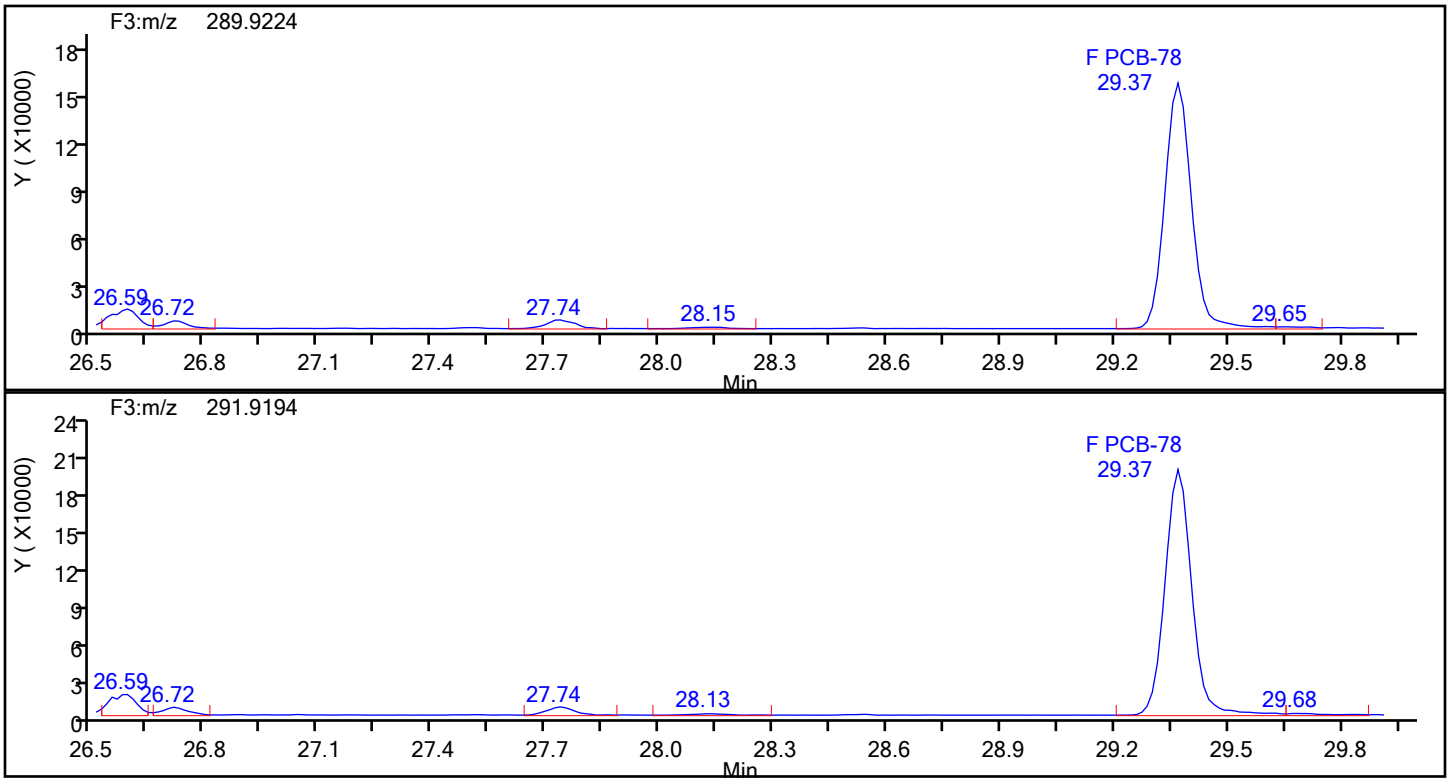
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

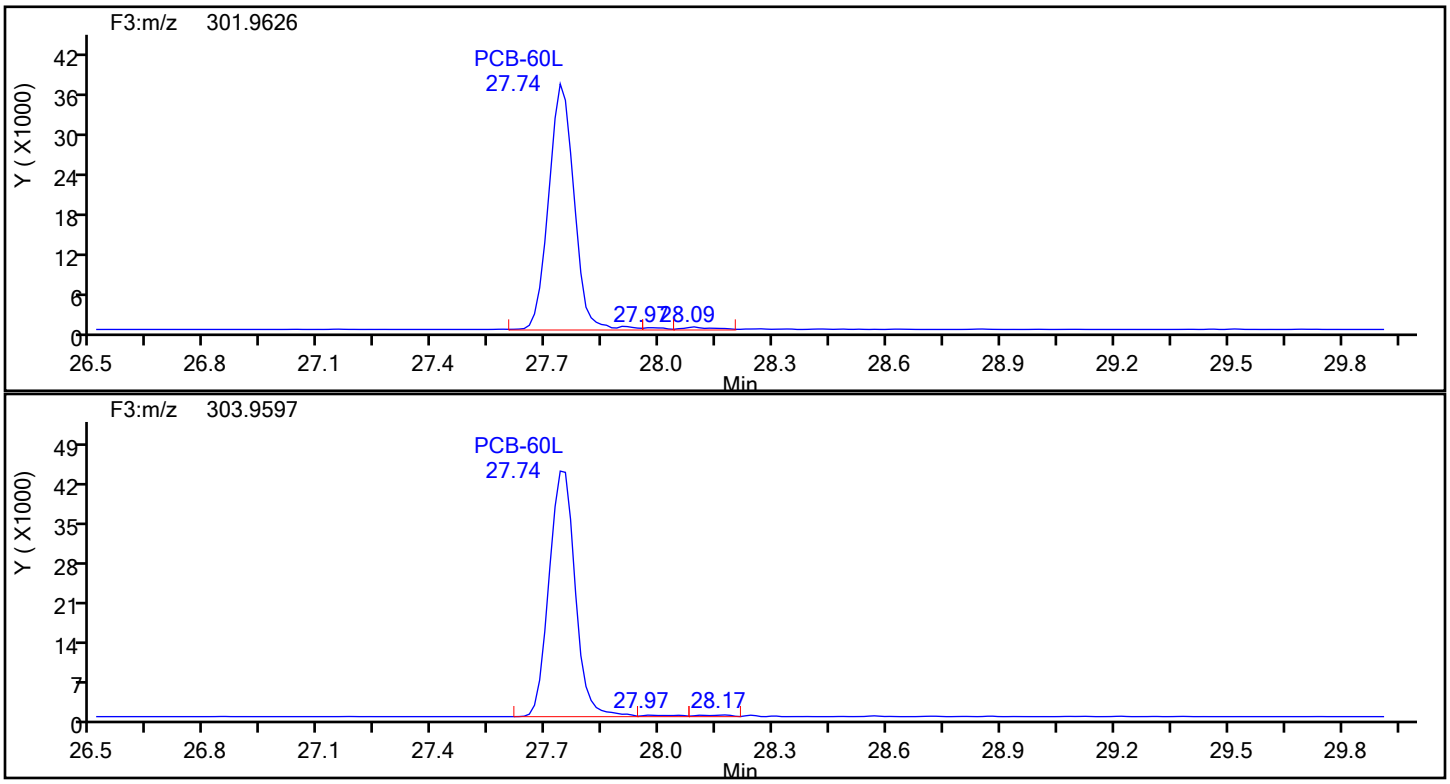
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

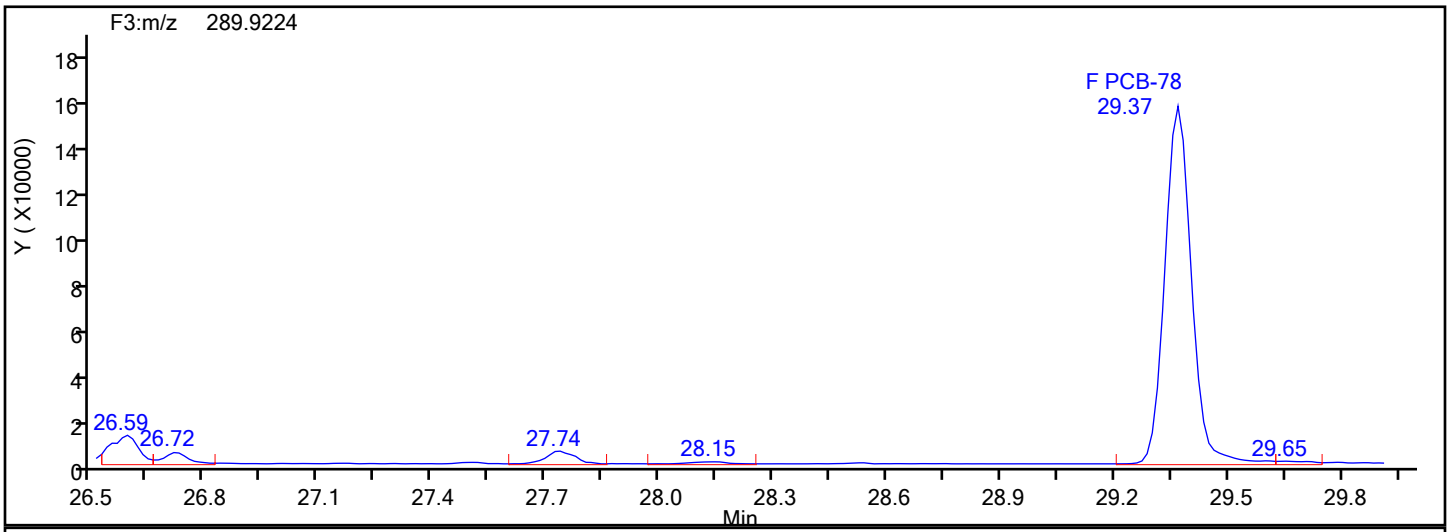


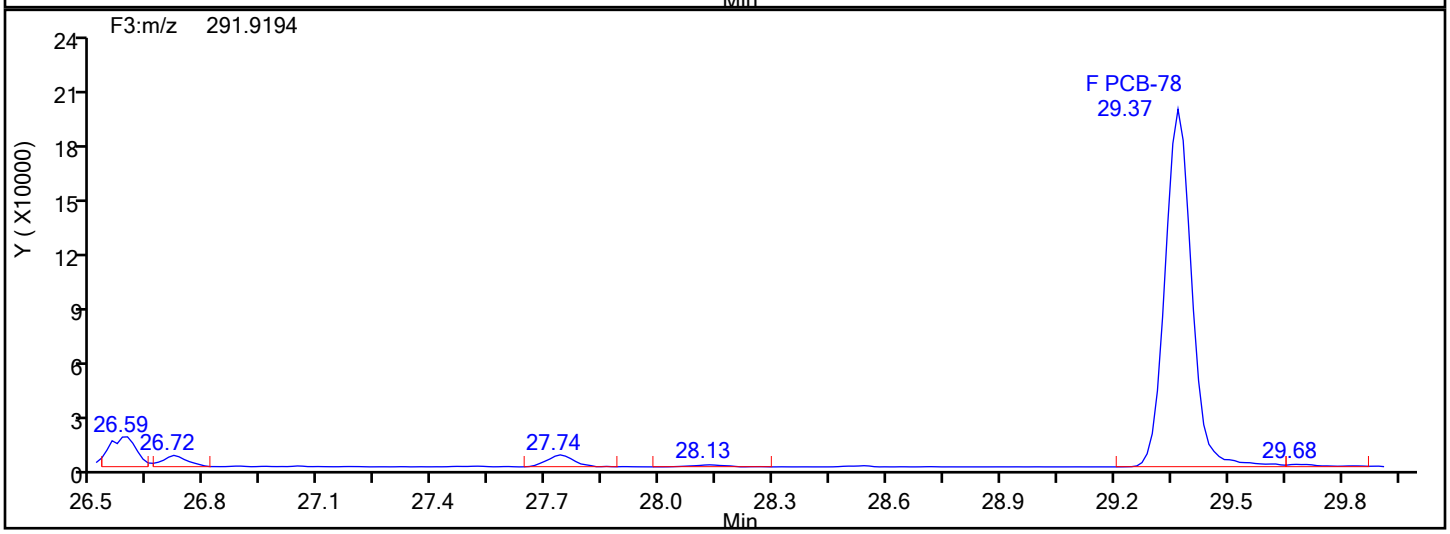
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

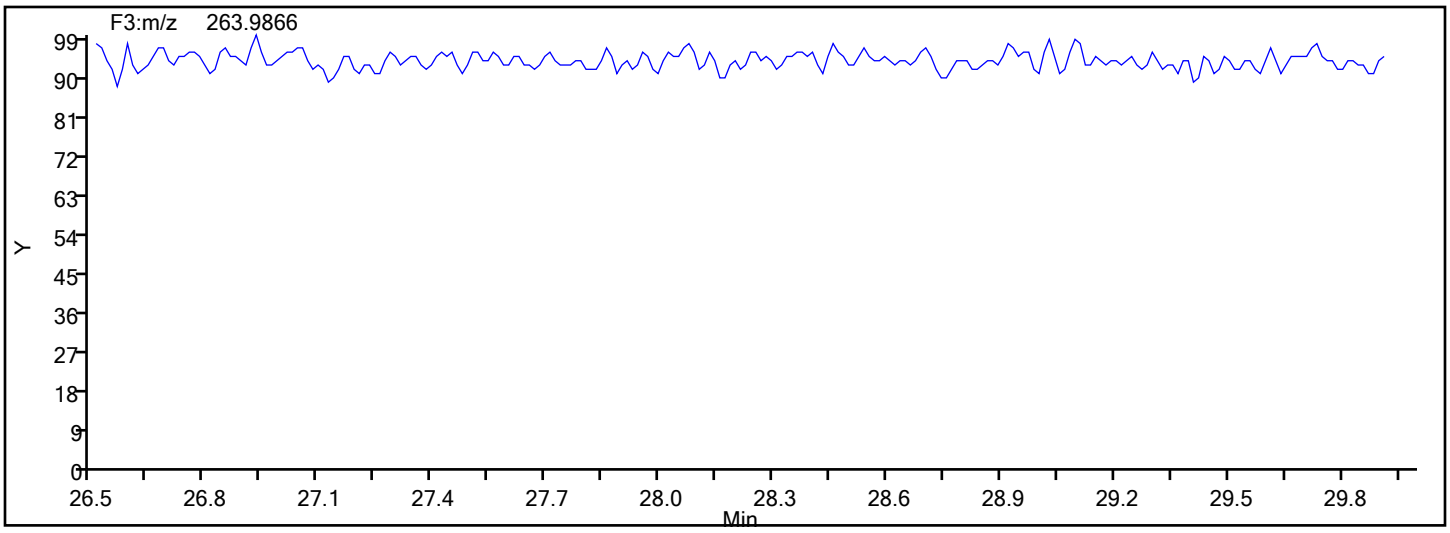
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



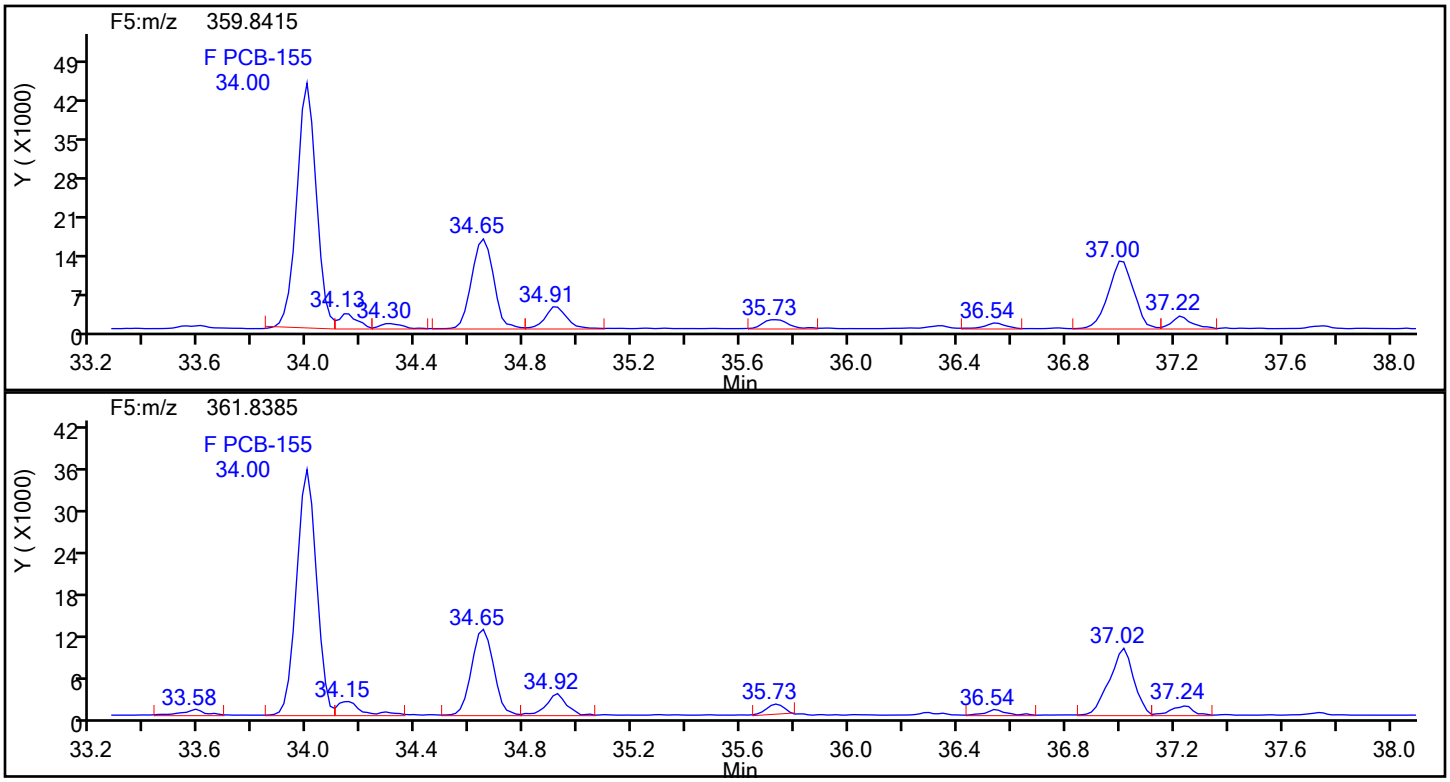
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

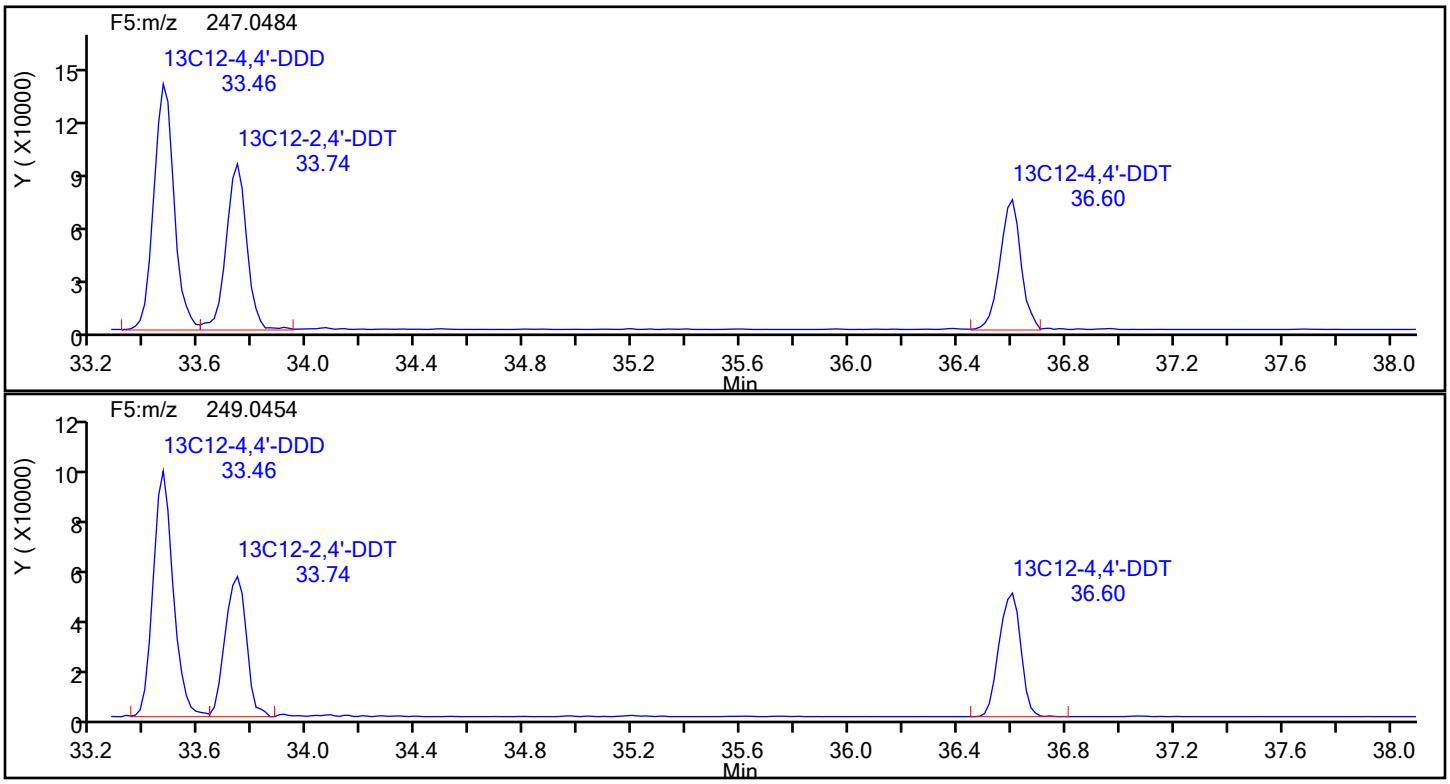
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

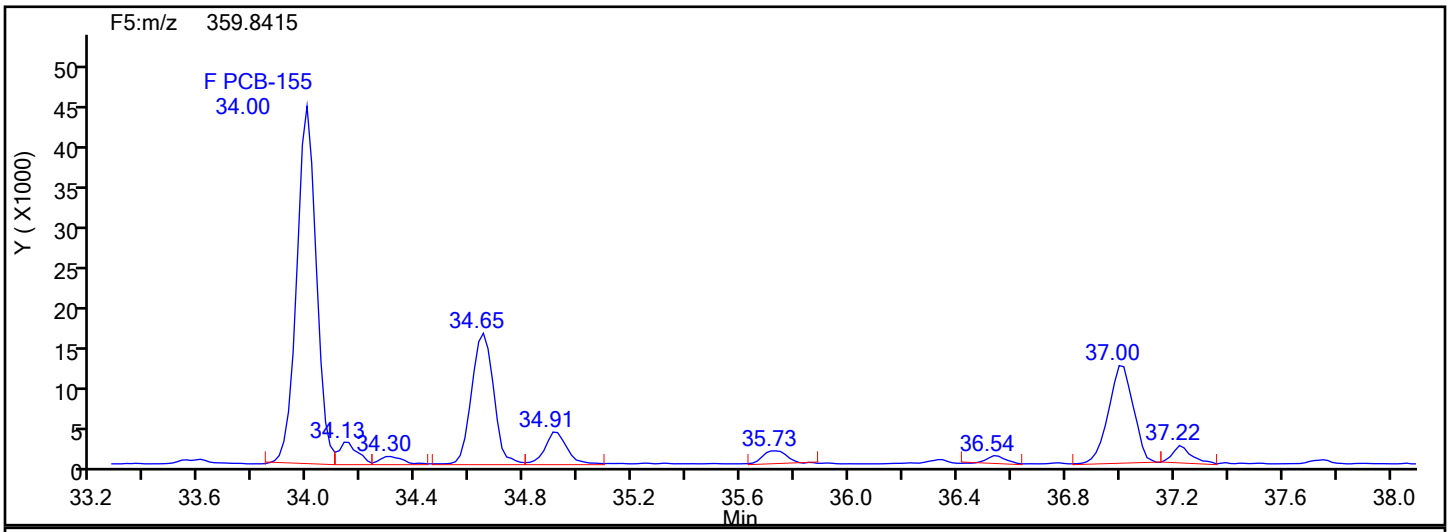


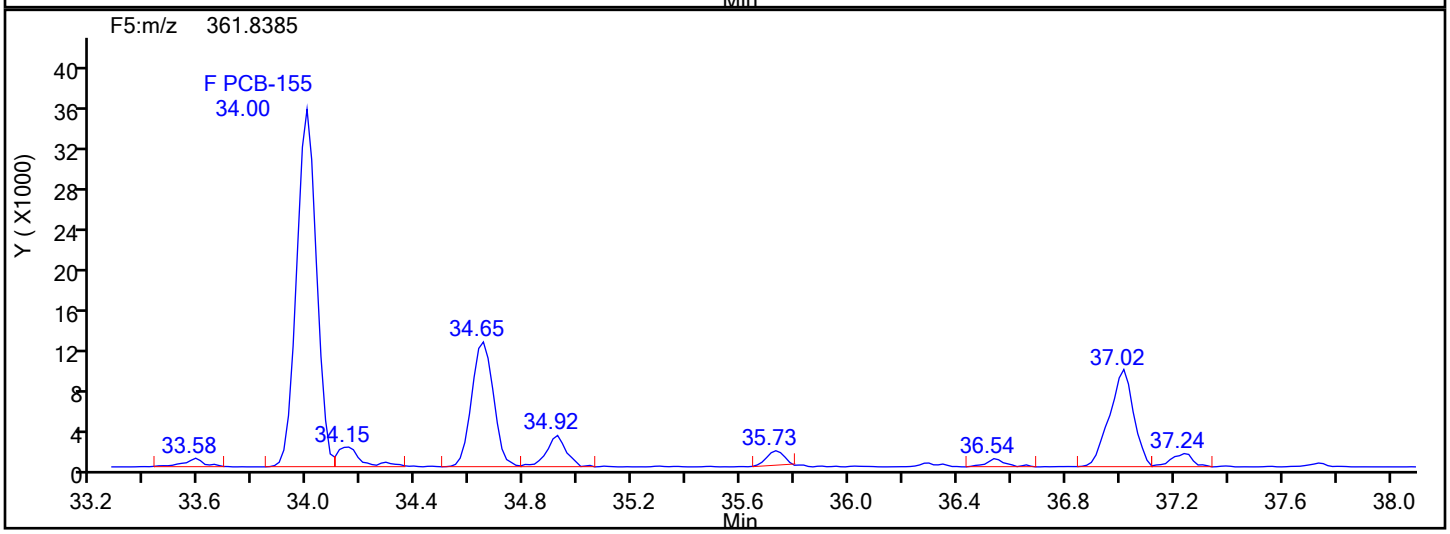
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

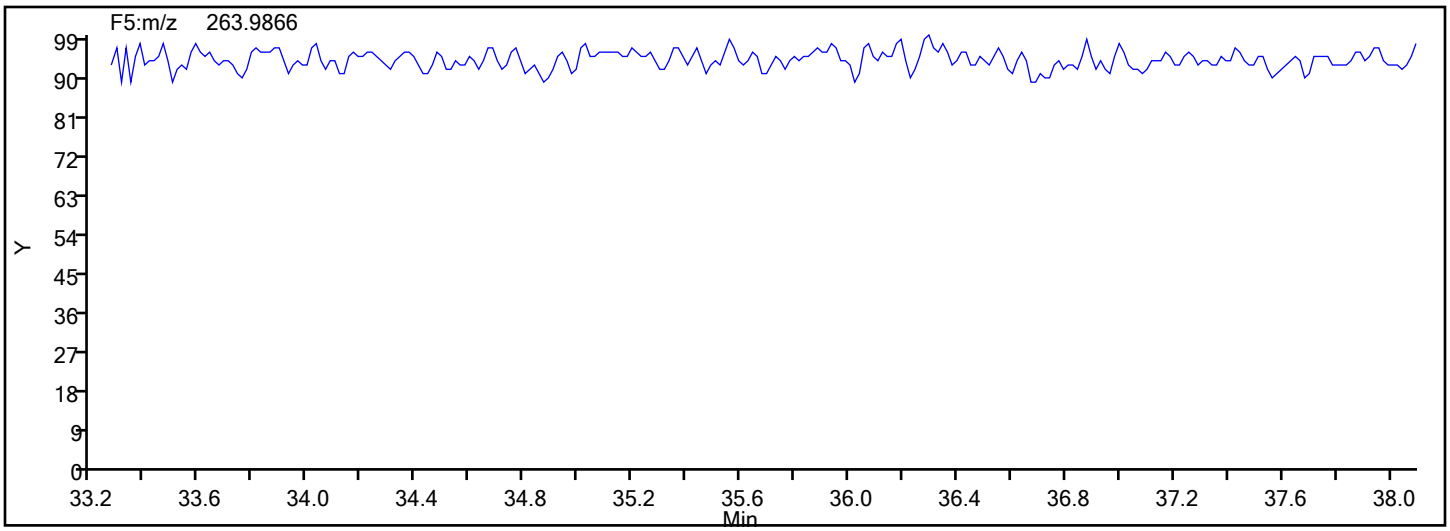
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



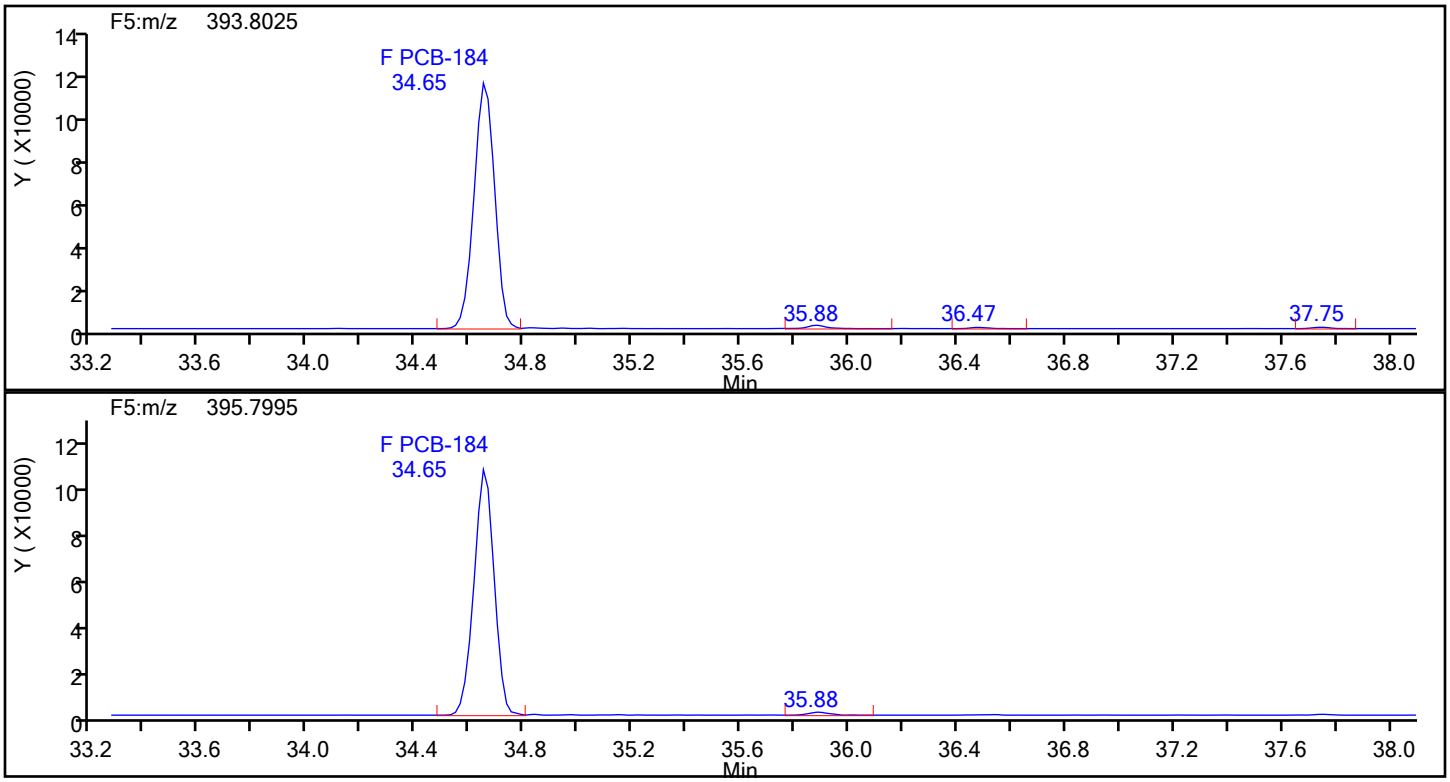
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

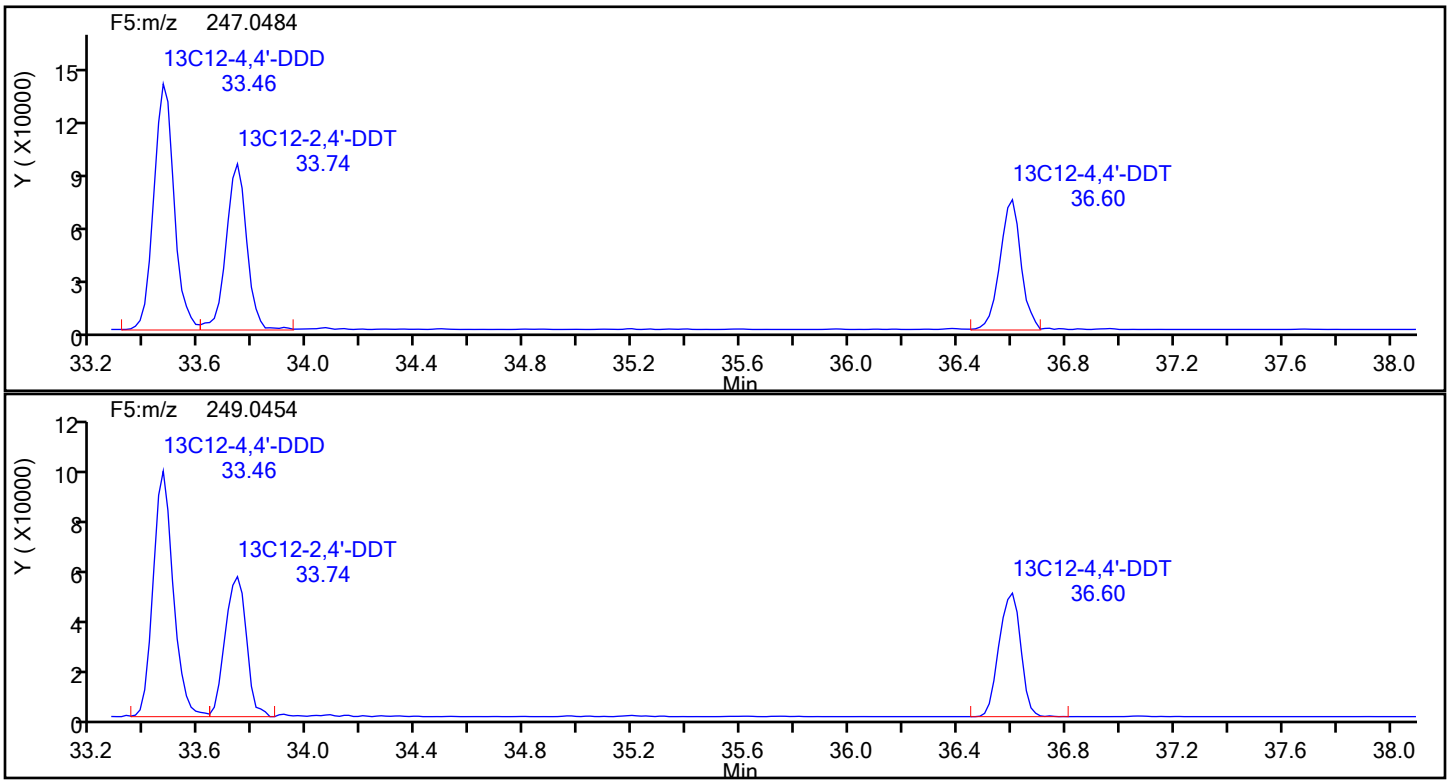
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

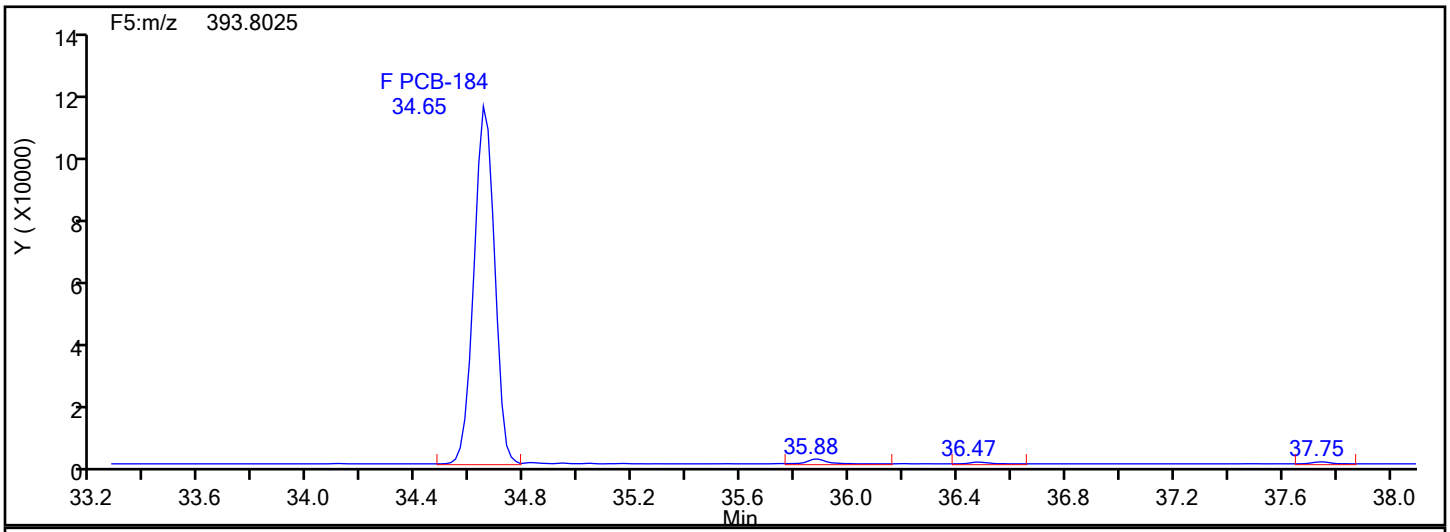


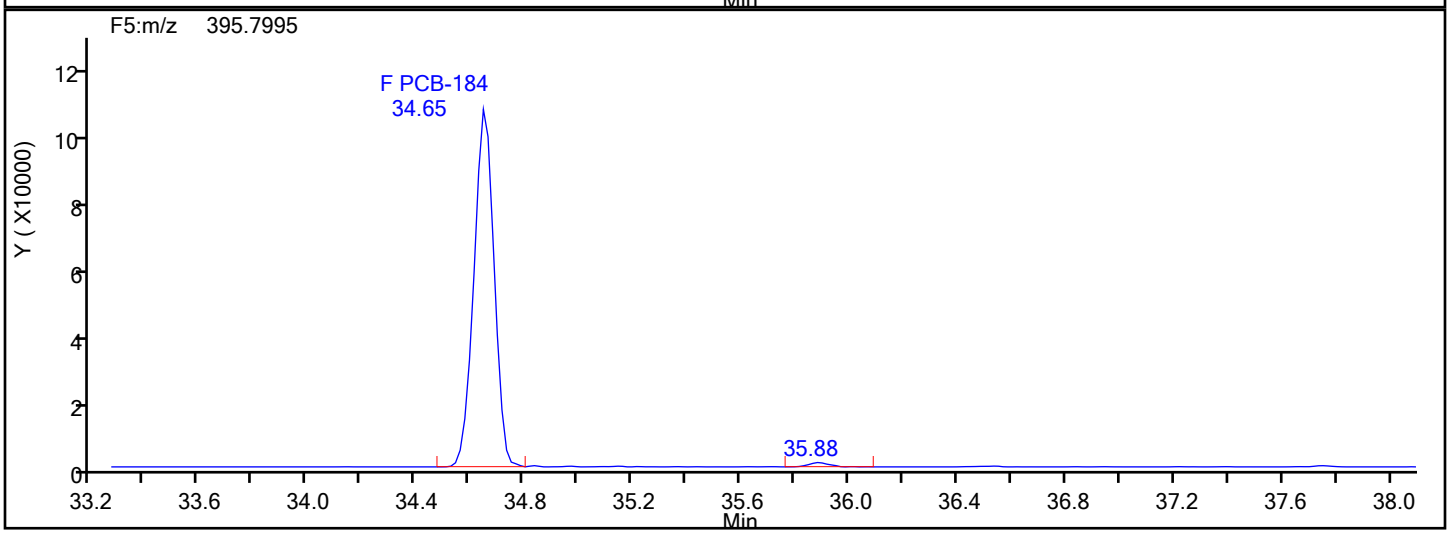
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

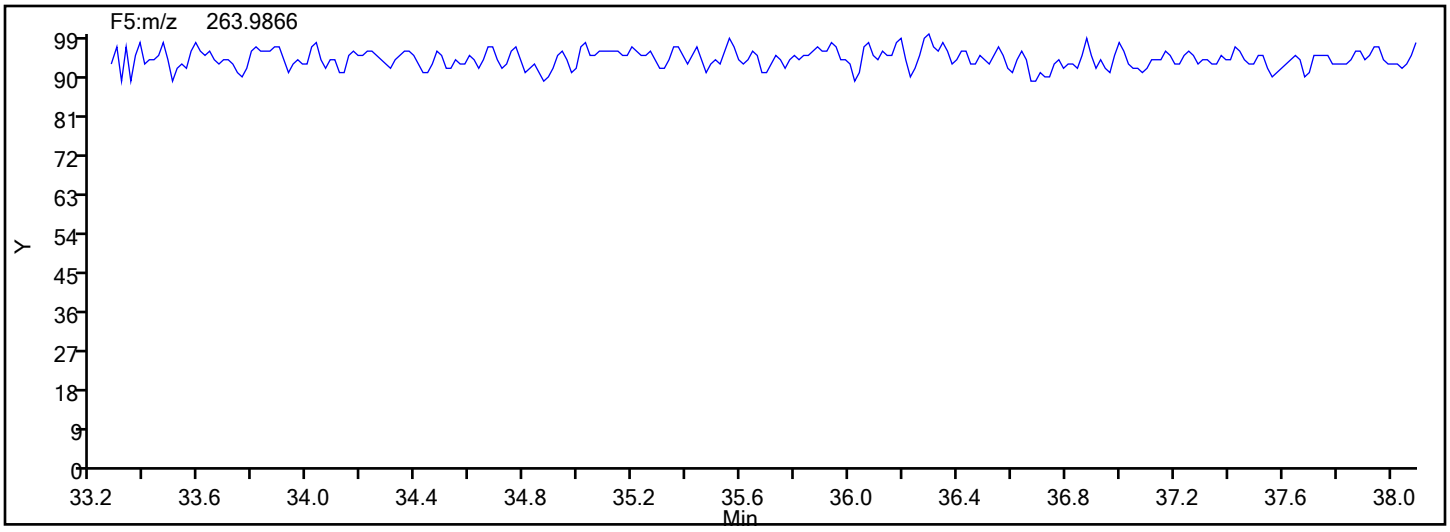
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass

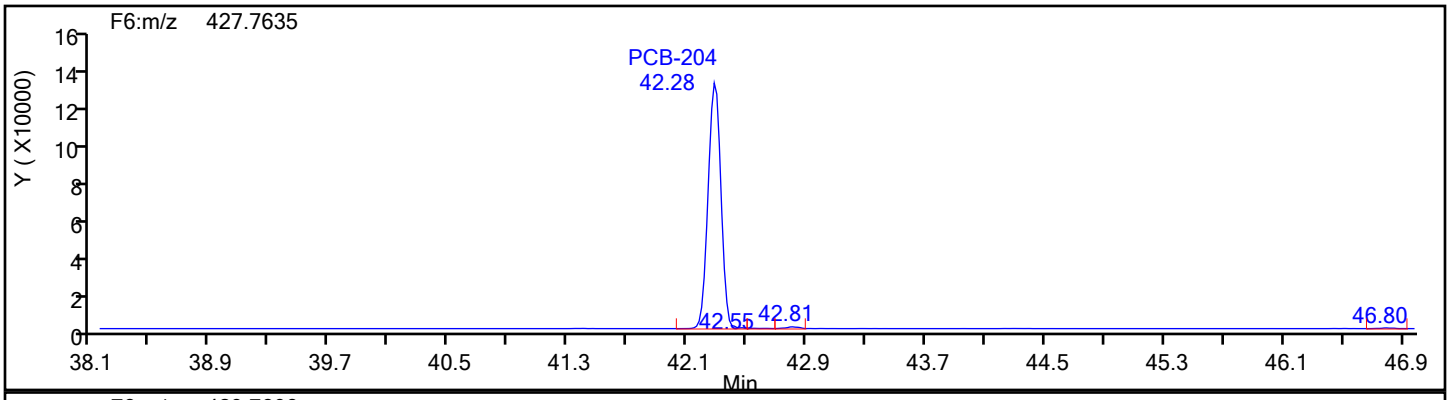


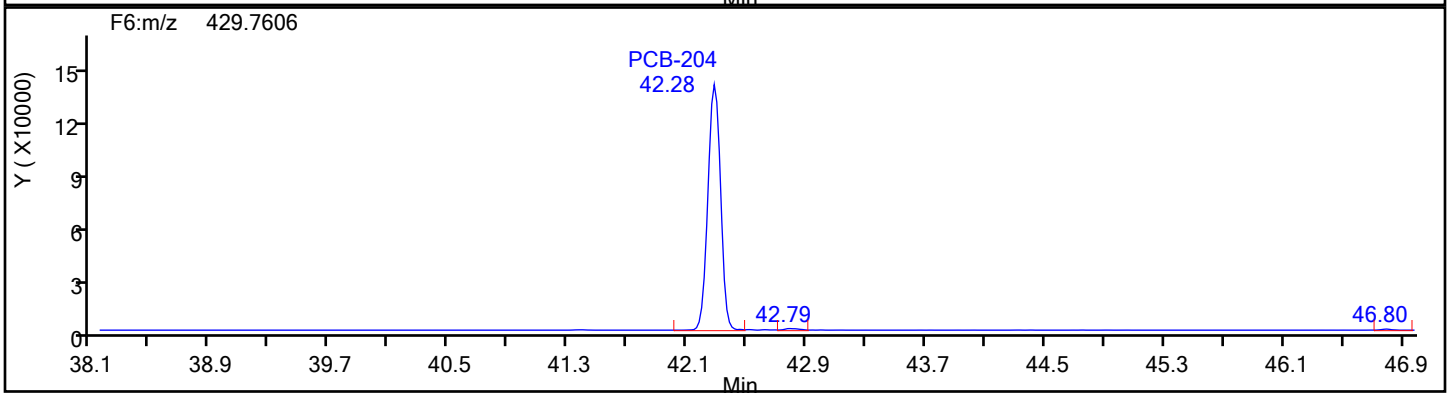
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

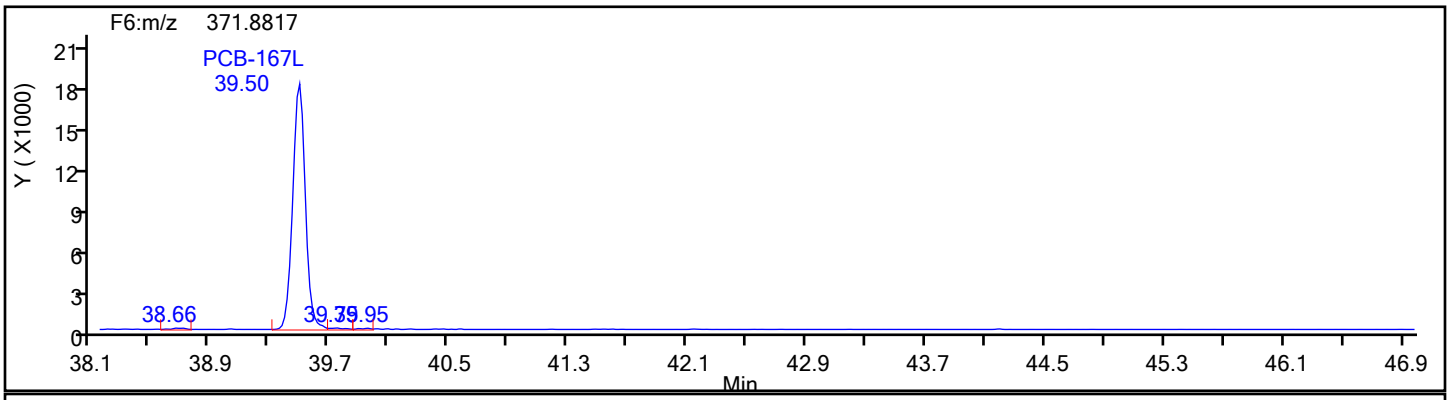
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

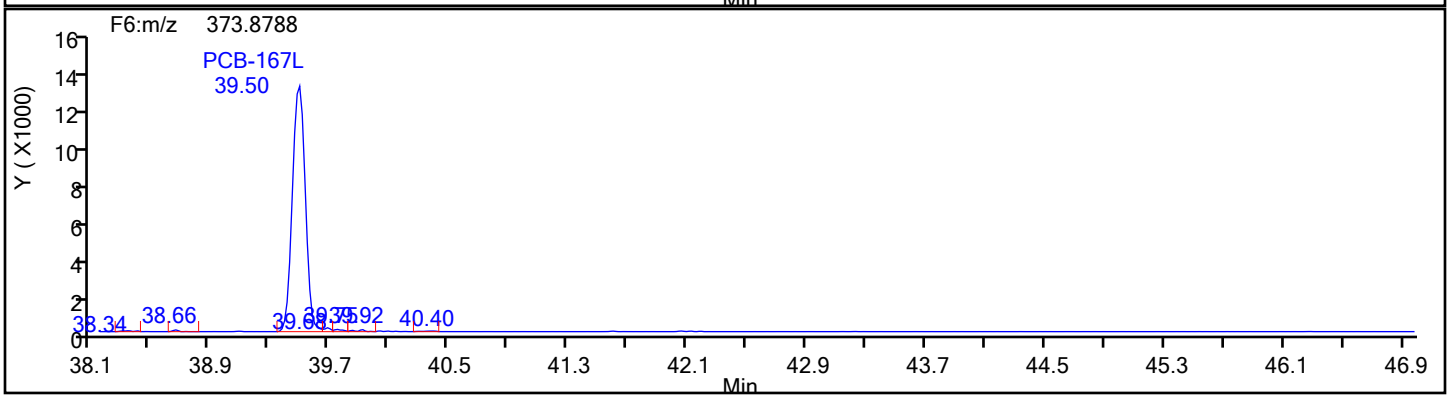
PCB-204





PCB-204 Standards



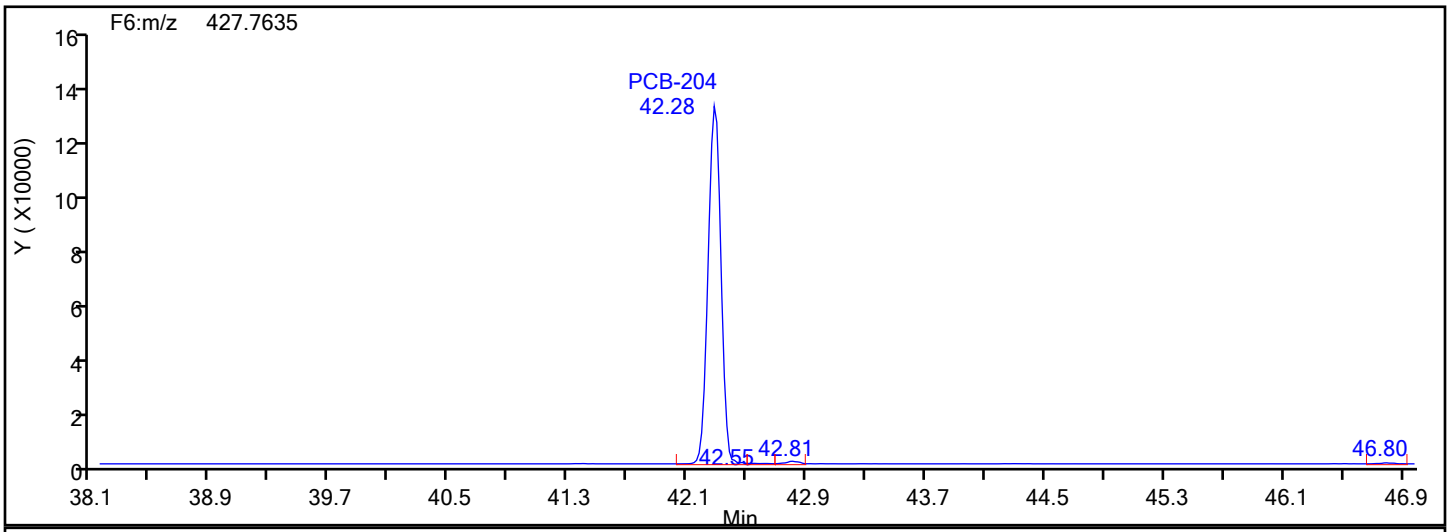


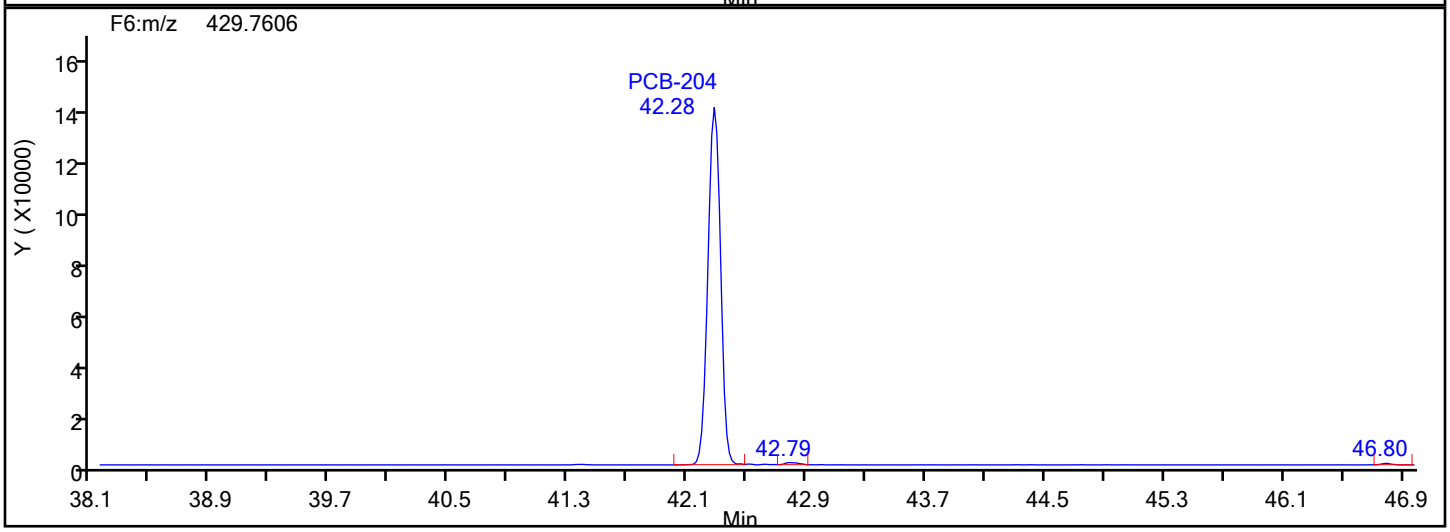
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

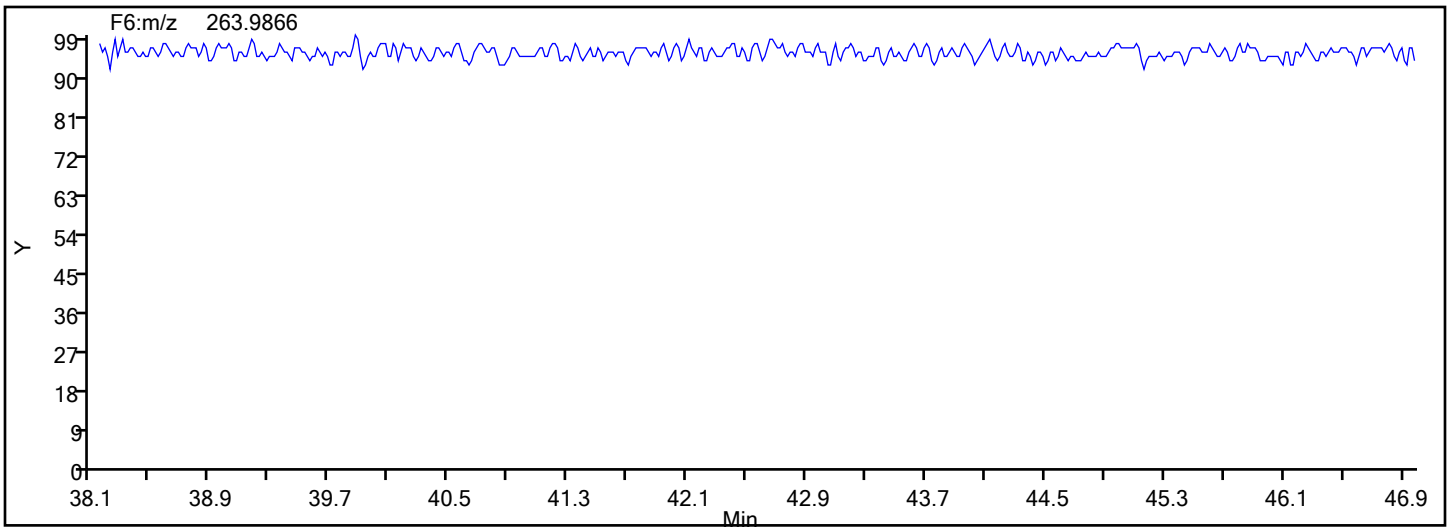
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d		
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



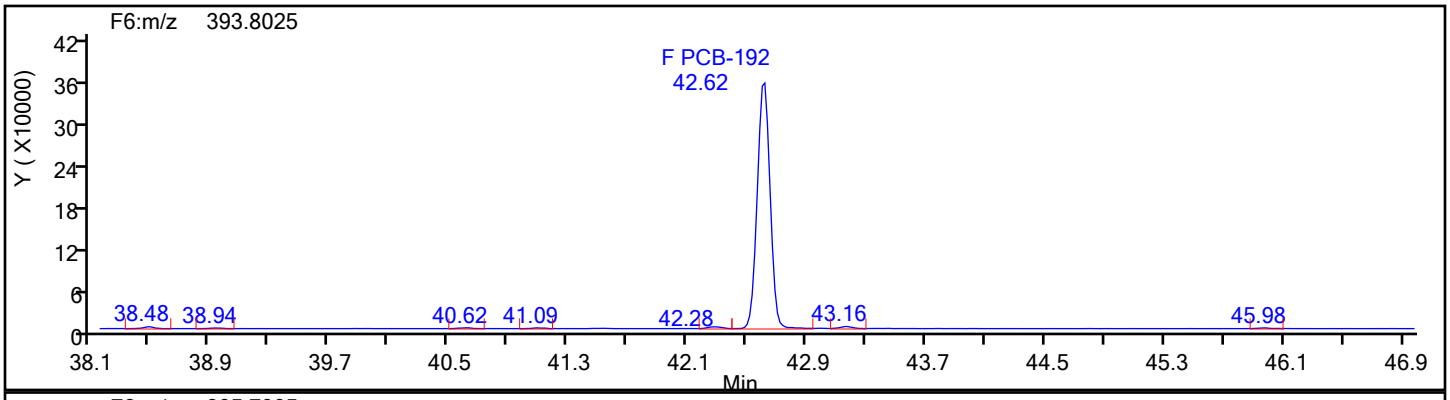
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

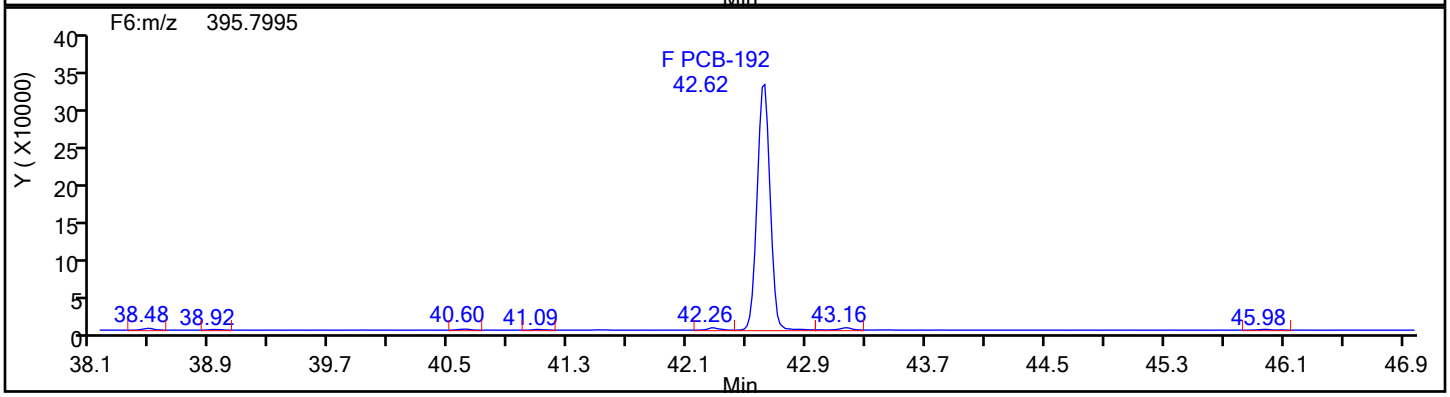
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d

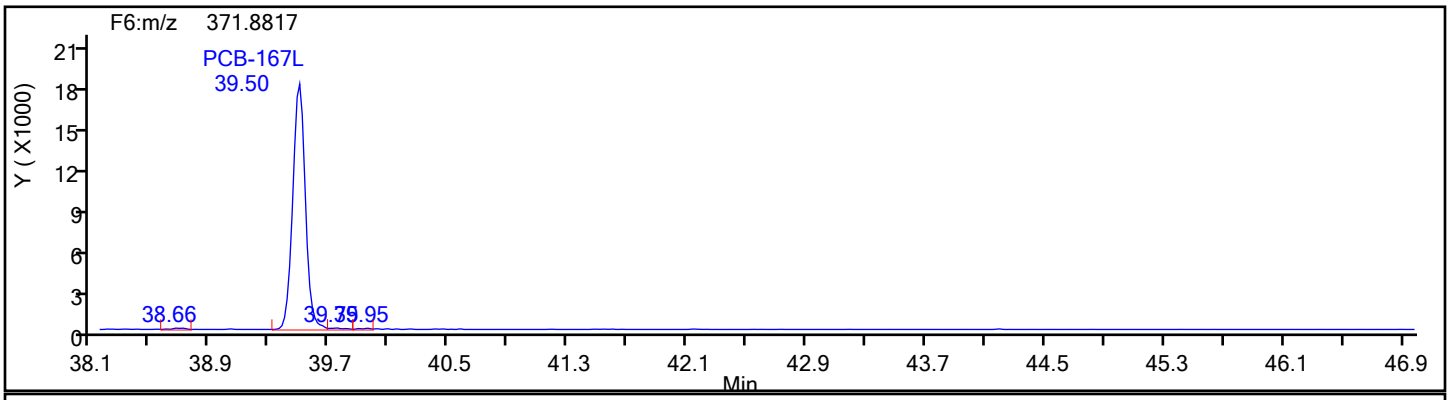
Injection Date:	30-Mar-2025 16:02:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-01-241230		
Worklist#:	97758	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

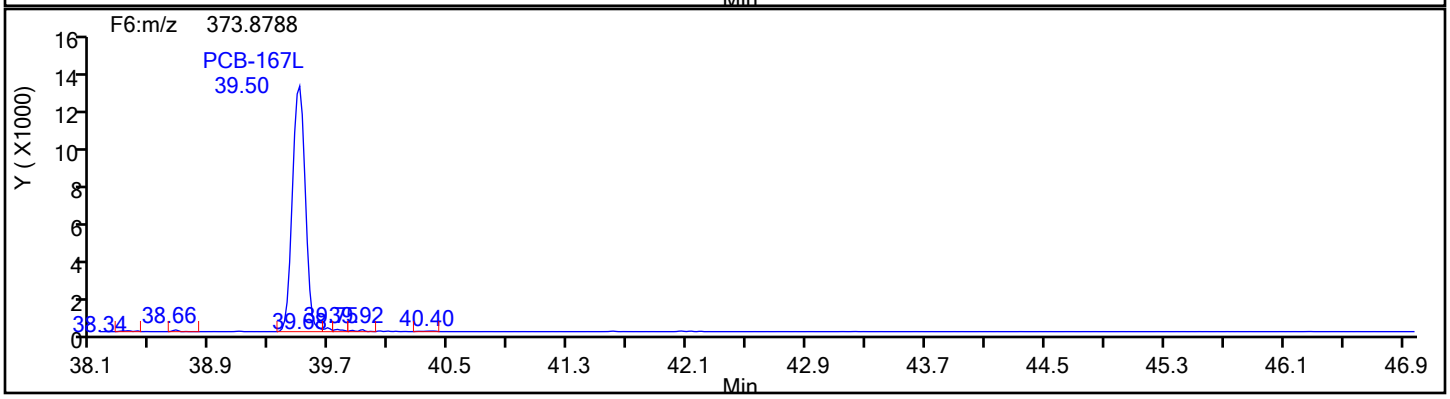
PCB-192





PCB-192 Standards



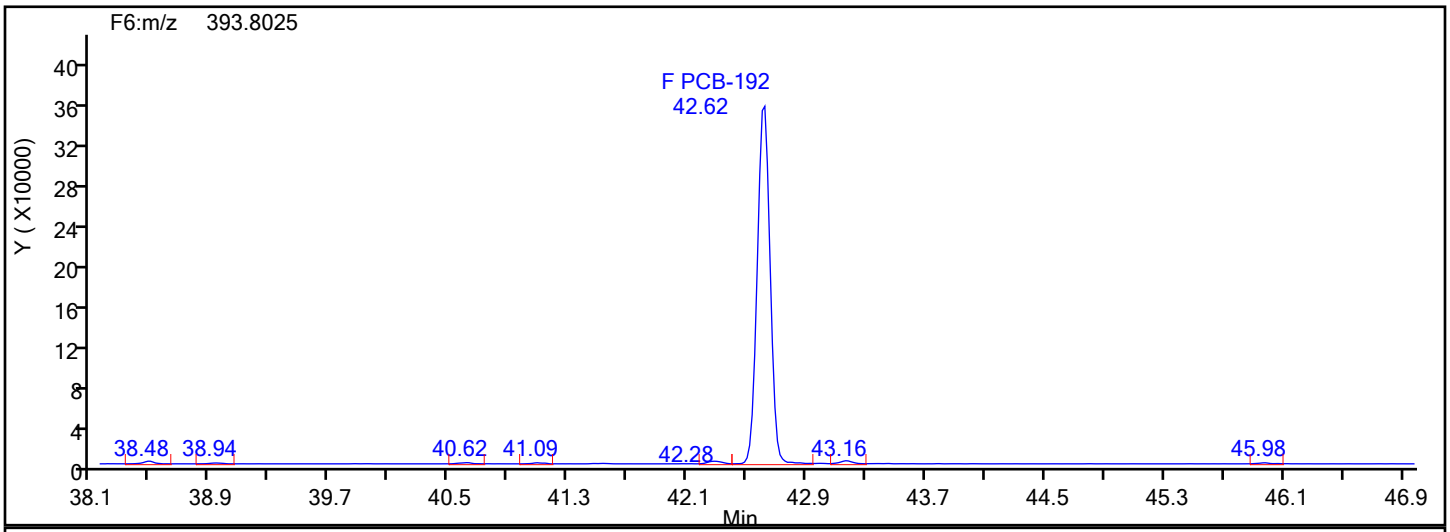


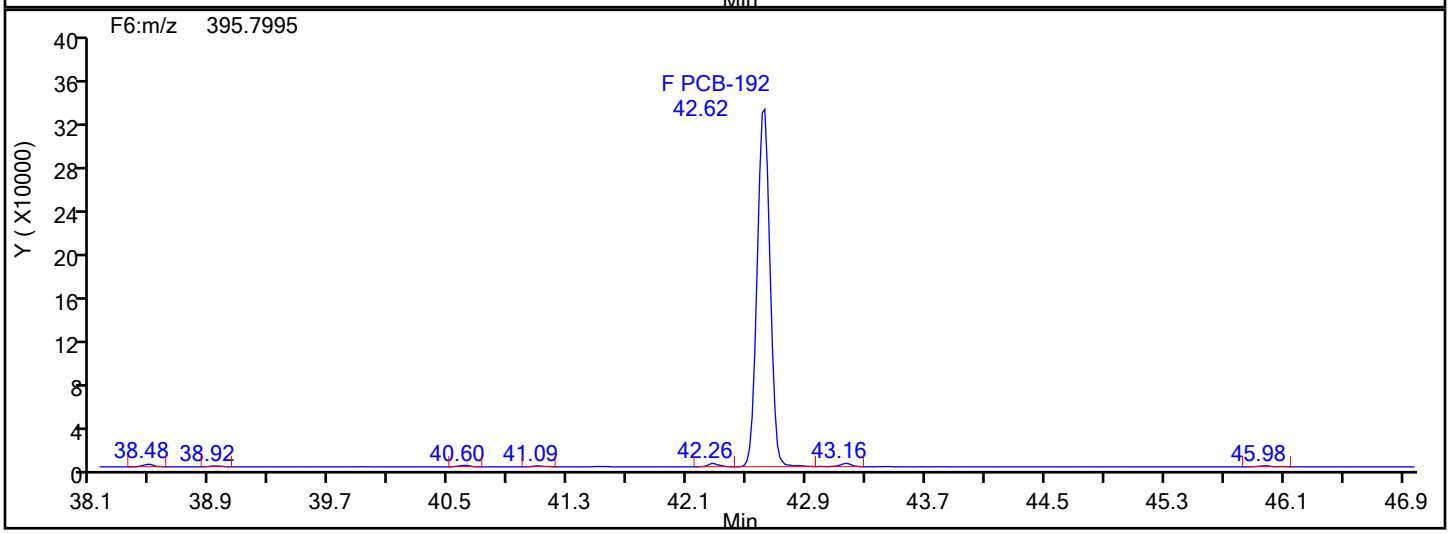
Report Date: 31-Mar-2025 14:08:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

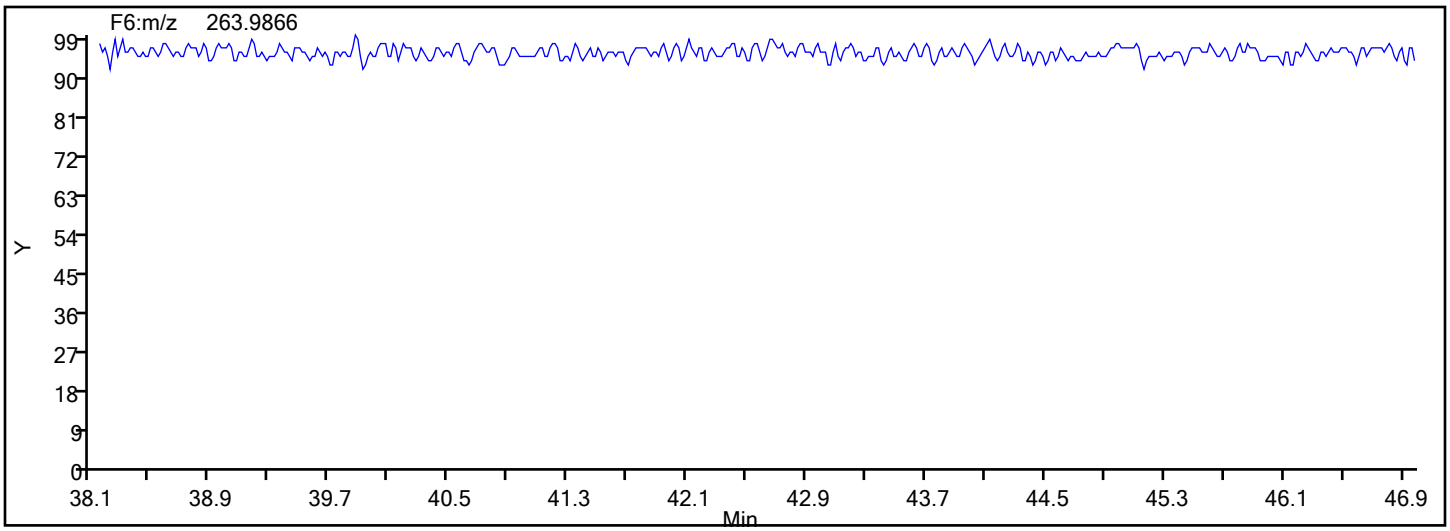
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-1-b10x.d
Injection Date: 30-Mar-2025 16:02:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-01-241230
Worklist#: 97758 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-02-241230 | Lab Sample ID: 140-40836-2

Matrix: PE | Lab File ID: 140-40836-a-2-a.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:35

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.049(g) | Date Analyzed: 05/04/2025 18:44

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.84	J	20	0.039

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d
Lims ID: 140-40836-A-2-B
Client ID: PW-02-241230
Sample Type: Client
Inject. Date: 04-May-2025 18:44:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

First Level Reviewer: F9EE Date: 06-May-2025 10:05:39

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	4754665	1.62		100.0	100.0				
PCB-14	17:48	996831	1.66							
* 13C6-Pentachlorophenol (IS)	18:28	5913084	0.65		500.0	500.0				
Pentachlorophenol	18:29	24837	0.84	1.0218	2.055	2.055	0.0966	0.0966		M
PCB-36	22:08	11195493	1.06							
* PCB-101L	28:04	5615142	1.58		100.0	100.0				
PCB-104	23:41	10467137	1.60							
* PCB-118L	32:44	6559723	1.61		100.0	100.0				
PCB-121	26:40	83019105	1.63							
* PCB-138L	36:56	3623749	1.27		100.0	100.0				
PCB-142	27:27	17166021	1.27							
* PCB-60L	27:41	12160456	0.83		100.0	100.0				
PCB-78	29:19	77661011	0.80							
* PCB-167L	39:26	3900568	1.29		100.0	100.0				
PCB-155	33:56	9956987	1.28							
PCB-184	34:36	22987242	1.05							
PCB-204	42:13	35917017	0.90							
PCB-192	42:33	99882003	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 06-May-2025 13:36:20 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d
Lims ID: 140-40836-A-2-B
Client ID: PW-02-241230
Sample Type: Client
Inject. Date: 04-May-2025 18:44:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

First Level Reviewer: F9EE Date: 06-May-2025 10:05:39

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		2940604	1029007	272	680	3783		
236.0376	19:02	19:02	0		1814061	645043	94	235	6862	1.62(1.16-1.93)	
PCB-14											
222.0003	17:48	17:49	-1	0.935	622260	232890	68	170	3425		
223.9974	17:48	17:49	-1	0.935	374571	145278	95	237	1529	1.66(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		2338341	623246	23	57	27098		
271.8636	18:28	18:28	0		3574743	931227	35	87	26606	0.65(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:29	18:28	1	1.001	11331	1896	78	195	24		M
265.8435	18:28	18:28	0	1.000	13506	3338	45	112	74	0.84(0.00-0.00)	M
PCB-36											
255.9613	22:08	22:10	-2	1.162	5763533	1605069	1026	2565	1564		
257.9584	22:08	22:10	-2	1.162	5431960	1501444	894	2235	1679	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:04	0		3437463	796340	1	2	796340		
339.9178	28:04	28:04	0		2177679	504157	3	7	168052	1.58(1.16-1.94)	
PCB-104											
325.8804	23:41	23:43	-2	0.844	6445135	1723102	26	65	66273		
327.8775	23:41	23:43	-2	0.844	4022002	1078087	12	30	89841	1.60(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		4047370	825104	83	207	9941		
339.9178	32:44	32:44	0		2512353	515302	57	142	9040	1.61(1.16-1.94)	
PCB-121											
325.8804	26:40	26:42	-2	0.815	51438217	12634123	11780	29450	1073		
327.8775	26:40	26:42	-2	0.815	31580888	7645821	7335	18337	1042	1.63(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	1		2028470	368679	55	137	6703		
373.8788	36:56	36:56	1		1595279	290029	46	115	6305	1.27(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	9616145	2258543	178	445	12688		
361.8385	27:27	27:29	-2	0.743	7549876	1763165	140	350	12594	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:41	0		5499108	1249899	119	297	10503		
303.9597	27:41	27:41	0		6661348	1502641	133	332	11298	0.83(0.58-0.96)	
PCB-78											
289.9224	29:19	29:18	1	1.059	34424434	7671882	1967	4917	3900		
291.9194	29:19	29:18	1	1.059	43236577	9662545	1928	4820	5012	0.80(0.65-0.89)	
PCB-167L											
371.8817	39:26	39:25	1		2196408	397692	128	320	3107		
373.8788	39:26	39:25	1		1704160	312118	80	200	3901	1.29(1.16-1.94)	
PCB-155											
359.8415	33:56	33:59	-2	0.861	5584221	1069716	1820	4550	588		
361.8385	33:56	33:59	-2	0.861	4372766	851692	1047	2617	813	1.28(1.05-1.43)	
PCB-184											
393.8025	34:36	34:38	-1	0.878	11779913	2256133	92	230	24523		
395.7995	34:36	34:38	-1	0.878	11207329	2130207	87	217	24485	1.05(0.89-1.21)	
PCB-204											
427.7635	42:13	42:15	-1	1.071	17022418	2850430	72	180	39589		
429.7606	42:13	42:15	-1	1.071	18894599	3201339	52	130	61564	0.90(0.76-1.02)	
PCB-192											
393.8025	42:33	42:35	-1	1.079	51230359	8913238	1421	3552	6273		
395.7995	42:33	42:35	-1	1.079	48651644	8441316	1308	3270	6454	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

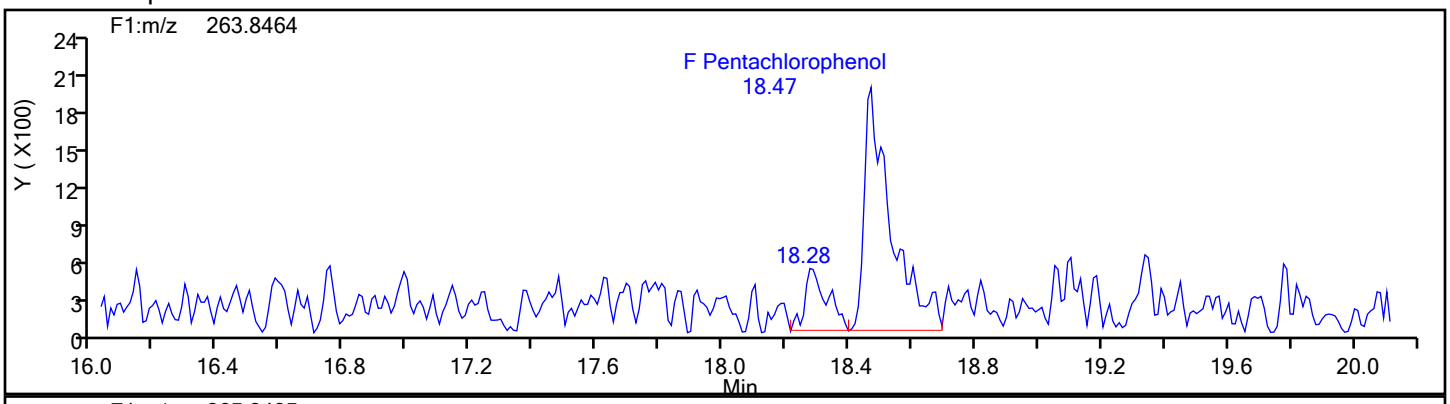
Report Date: 06-May-2025 13:36:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

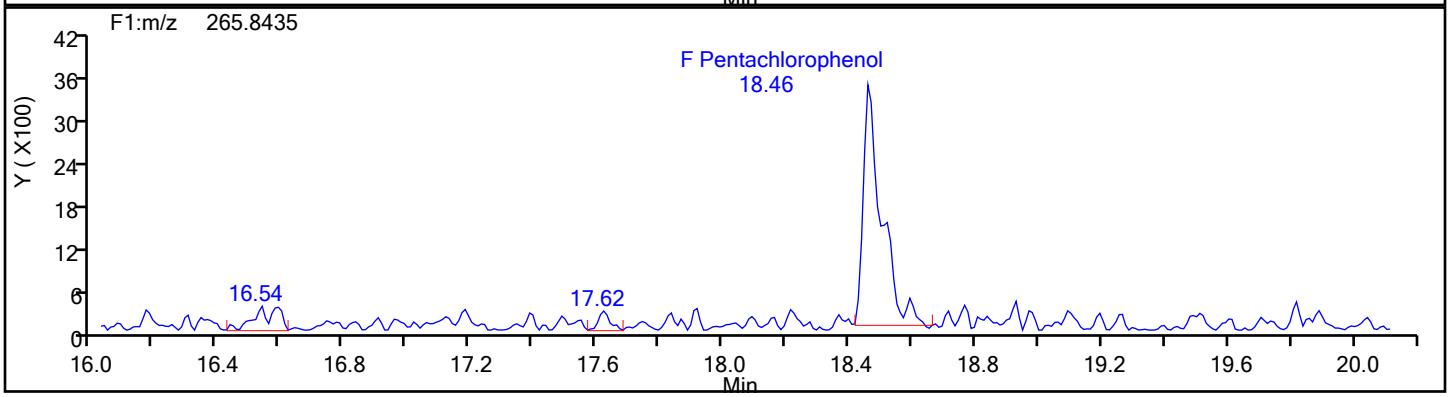
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d

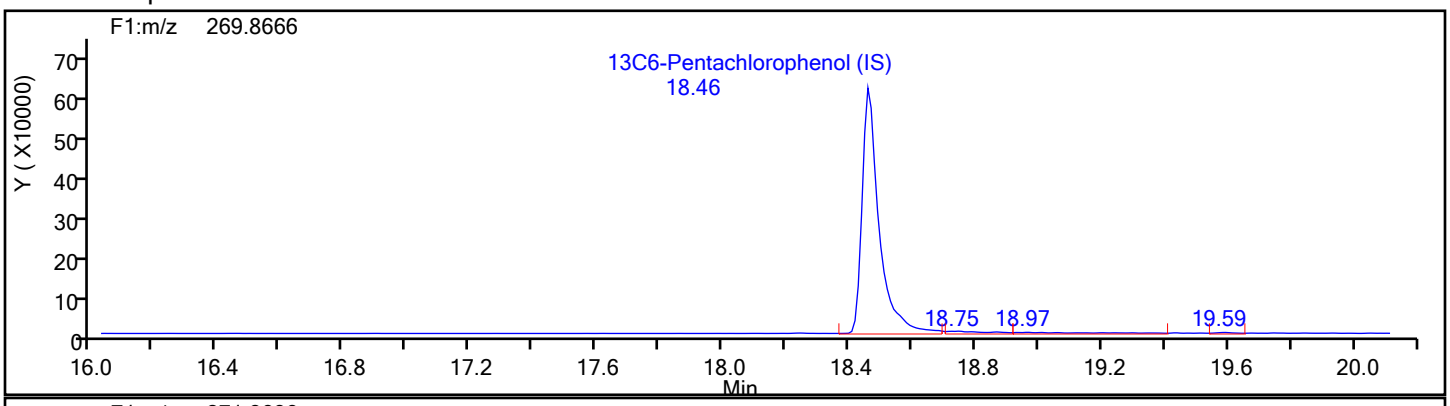
Injection Date:	04-May-2025 18:44:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	99272	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

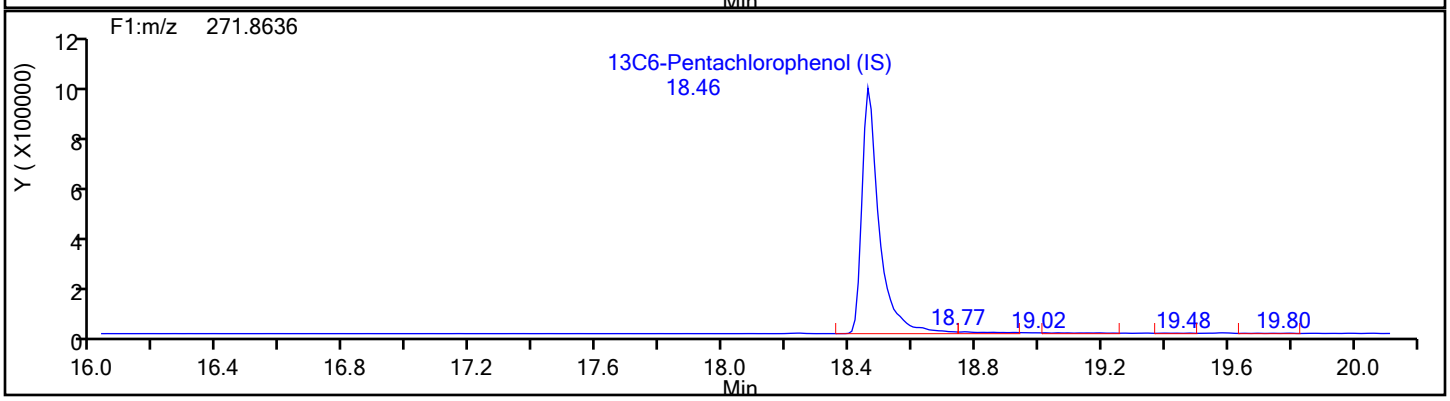
Pentachlorophenol





Pentachlorophenol Standards





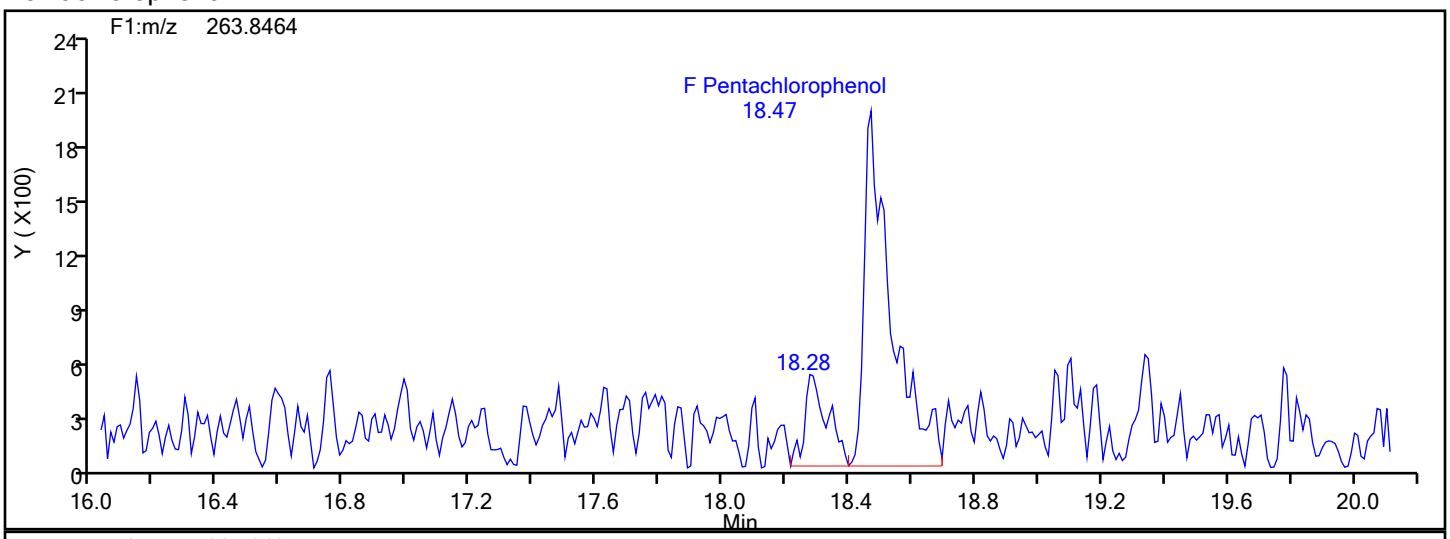
Report Date: 06-May-2025 13:36:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

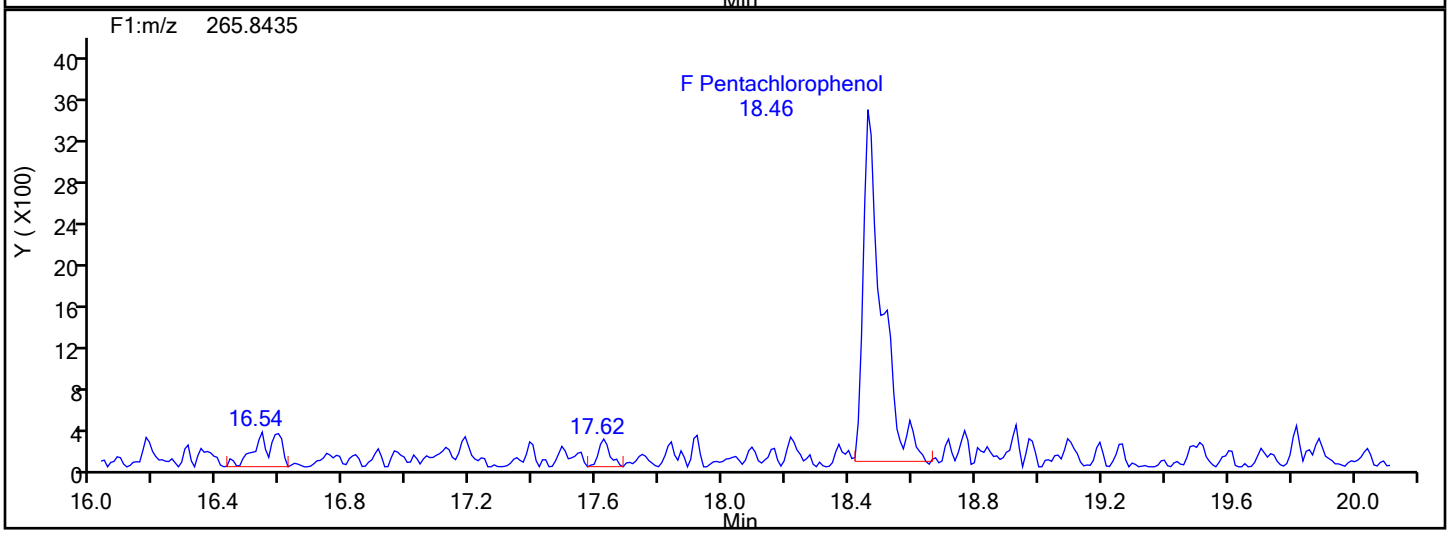
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d

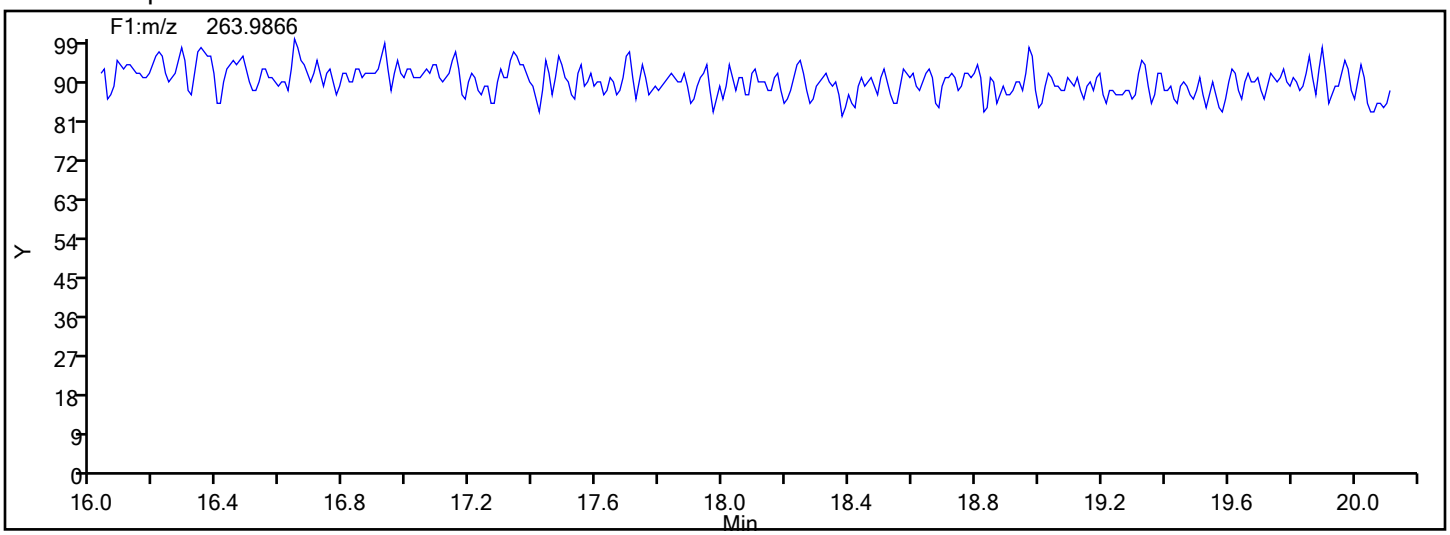
Injection Date:	04-May-2025 18:44:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	99272	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

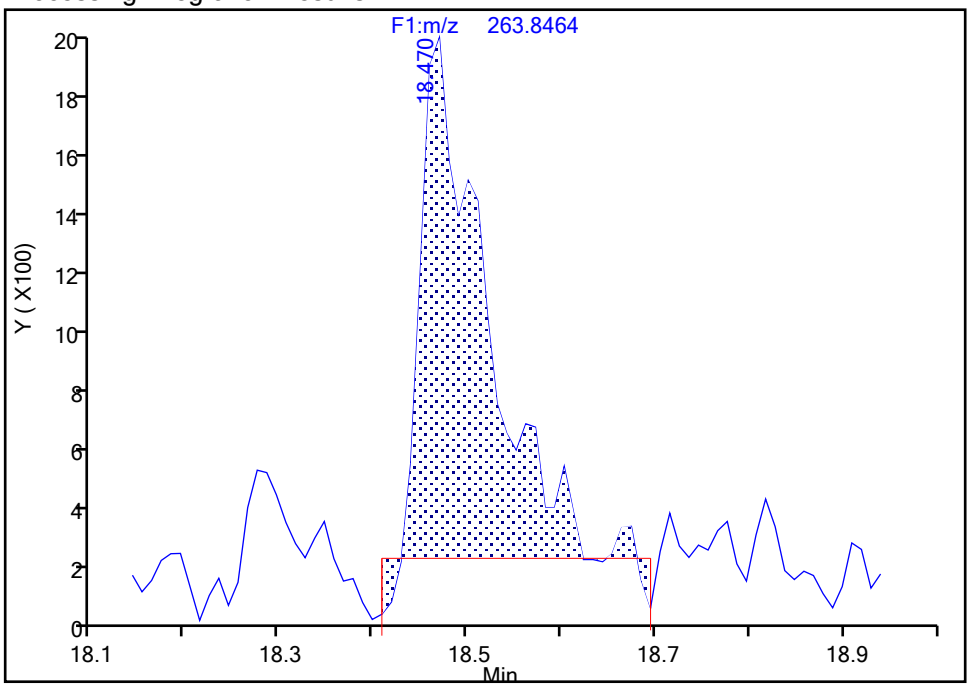
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d				
Injection Date:	04-May-2025 18:44:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-2-B	Lab Sample ID:	140-40836-2		
Client ID:	PW-02-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

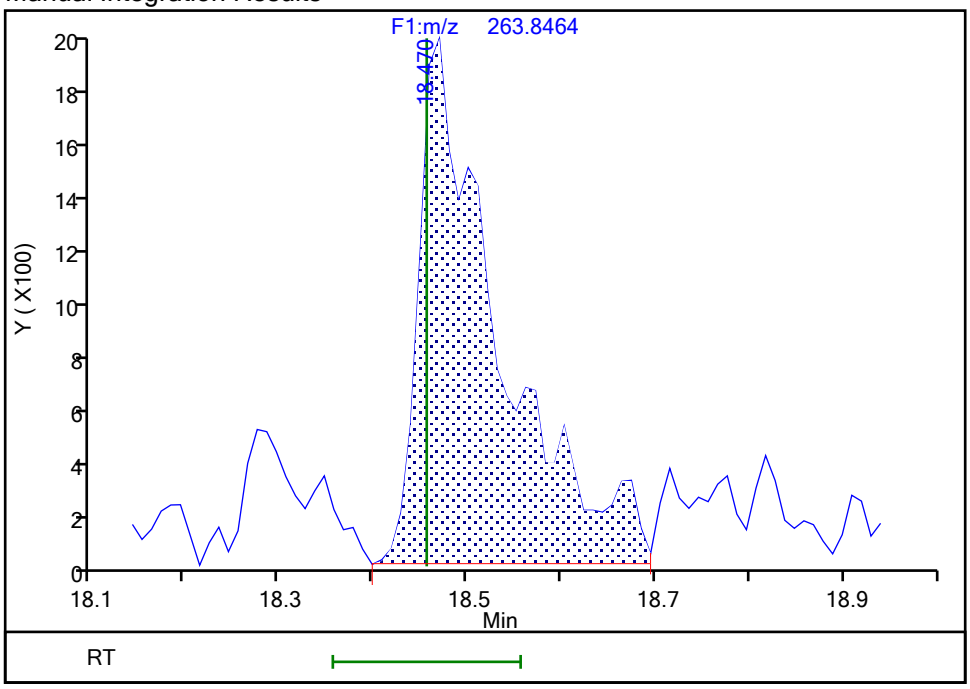
Processing Integration Results

RT: 18.47
Area: 7890
Amount: 0
Amount Units: pg/ul



Manual Integration Results

RT: 18.47
Area: 11331
Amount: 2.055309
Amount Units: pg/ul



Reviewer: F9EE, 06-May-2025 10:05:17 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

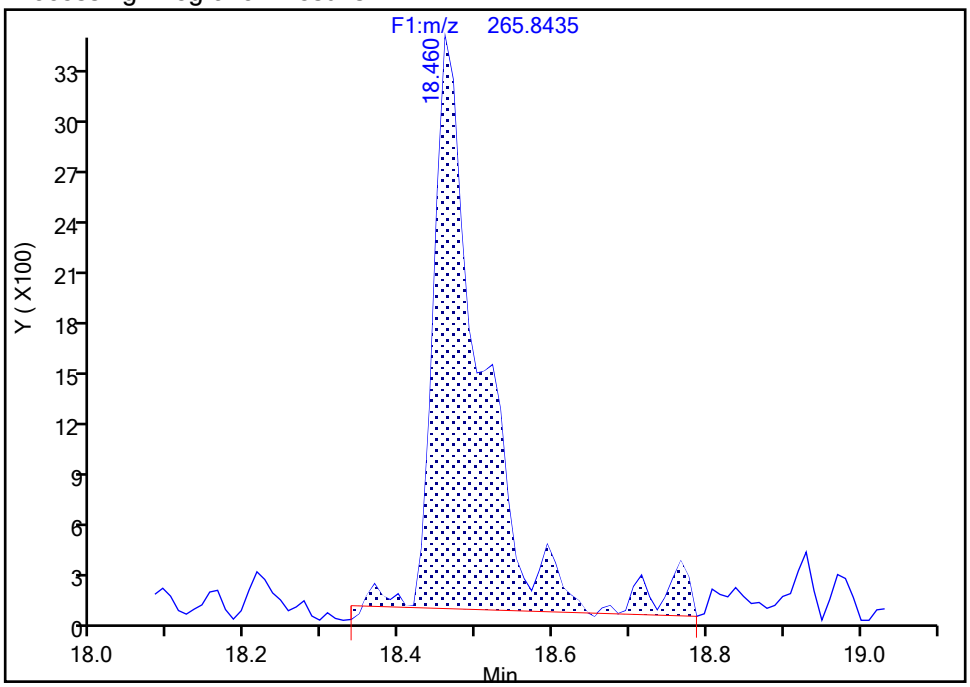
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-2-a.d				
Injection Date:	04-May-2025 18:44:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-2-B	Lab Sample ID:	140-40836-2		
Client ID:	PW-02-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 2

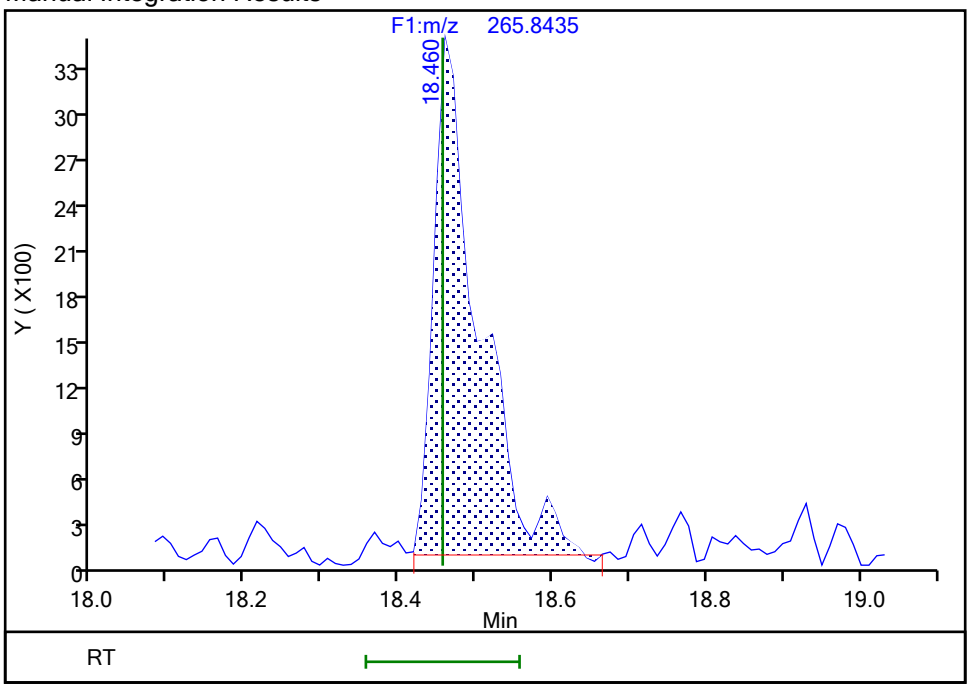
Processing Integration Results

RT: 18.46
Area: 14594
Amount: 0
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 13506
Amount: 2.055309
Amount Units: pg/ul



Reviewer: F9EE, 06-May-2025 10:05:32 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-02-241230 | Lab Sample ID: 140-40836-2

Matrix: PE | Lab File ID: 140-40836-a-2-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:35

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.049(g) | Date Analyzed: 03/30/2025 16:56

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	9.9	J	20	0.011
74472-51-8	PCB-192	1300	B	20	0.64
74472-48-3	PCB-184	230	B	20	0.0053
33979-03-2	PCB-155	100		20	0.47
41411-61-4	PCB-142	100	B	20	0.033
74472-52-9	PCB-204	570	B	20	0.020
56558-16-8	PCB-104	52	B	20	0.0019
56558-18-0	PCB-121	380	B	20	1.1
70362-49-1	PCB-78	240	B	20	0.13
38444-87-0	PCB-36	20		20	0.14

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d
Lims ID: 140-40836-A-2-B
Client ID: PW-02-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 16:56:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-007
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:09:19

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:05	653632	1.64		10.0	10.0				
PCB-14	17:50	216104	1.58	1.3581	2.434	2.434	0.002707	0.002707		
* 13C6-Pentachlorophenol (IS)	18:31									U
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	330356	1.07	1.0230	4.940	4.940	0.0340	0.0340		
* PCB-101L	28:08	254396	1.70		10.0	10.0				
PCB-104	23:45	599656	1.56	1.8372	12.8	12.8	0.000464	0.000464		
* PCB-118L	32:48	271656	1.59		10.0	10.0				
PCB-121	26:44	3690273	1.59	1.4622	92.9	92.9	0.2782	0.2782		
* PCB-138L	37:00	167024	1.24		10.0	10.0				
PCB-142	27:30	832962	1.27	2.0271	24.6	24.6	0.008104	0.008104		
* PCB-60L	27:45	401328	0.80		10.0	10.0				
PCB-78	29:23	2130490	0.78	0.9153	58.0	58.0	0.0330	0.0330		
* PCB-167L	39:31	194187	1.28		10.0	10.0				
PCB-155	34:00	453151	1.31	0.9191	25.4	25.4	0.1164	0.1164		
PCB-184	34:39	1287495	1.06	1.1610	57.1	57.1	0.001298	0.001298		
PCB-204	42:18	1985367	0.90	0.7364	138.8	138.8	0.004909	0.004909		
PCB-192	42:37	4892582	1.07	0.7635	330.0	330.0	0.1559	0.1559		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
U - Marked Undetected

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d
Lims ID: 140-40836-A-2-B
Client ID: PW-02-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 16:56:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-007
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:09:19

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:05	19:05	0		405765	119034	8	20	14879		
236.0376	19:05	19:05	0		247867	76845	2	5	38423	1.64(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	0	0.934	132305	45980	18	45	2554		
223.9974	17:50	17:50	0	0.934	83799	28465	11	27	2588	1.58(1.33-1.79)	
13C6-Pentachlorophenol (IS)											U
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						25	62			
265.8435	18:31						8	20			
PCB-36											
255.9613	22:11	22:10	0	1.162	170943	44389	133	332	334		
257.9584	22:11	22:10	0	1.162	159413	42066	140	350	300	1.07(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	0		160111	37174	1	2	37174		
339.9178	28:08	28:08	0		94285	21534	1	2	21534	1.70(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	0	0.844	365128	93739	1	2	93739		
327.8775	23:45	23:45	0	0.844	234528	62566	1	2	62566	1.56(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		166770	31624	4	10	7906		
339.9178	32:48	32:48	0		104886	20181	2	5	10091	1.59(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-121											
325.8804	26:44	26:44	0	0.815	2267743	521233	518	1295	1006		
327.8775	26:44	26:44	0	0.815	1422530	326186	325	812	1004	1.59(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	0		92414	16591	4	10	4148		
373.8788	37:00	37:00	0		74610	13847	1	2	13847	1.24(1.16-1.94)	
PCB-142											
359.8415	27:30	27:31	-1	0.743	465513	107159	10	25	10716		
361.8385	27:31	27:31	0	0.743	367449	87009	10	25	8701	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:45	27:45	0		177916	37370	1	2	37370		
303.9597	27:45	27:45	0		223412	47014	3	7	15671	0.80(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	935184	189918	40	100	4748		
291.9194	29:23	29:23	0	1.059	1195306	245093	62	155	3953	0.78(0.65-0.89)	
PCB-167L											
371.8817	39:31	39:30	1		109120	18352	6	15	3059		
373.8788	39:31	39:30	1		85067	14840	7	17	2120	1.28(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	257029	50509	90	225	561		
361.8385	34:00	34:00	0	0.861	196122	37196	52	130	715	1.31(1.05-1.43)	
PCB-184											
393.8025	34:39	34:40	-1	0.877	663245	124190	1	2	124190		
395.7995	34:39	34:40	-1	0.877	624250	116671	1	2	116671	1.06(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.070	941015	162712	3	7	54237		
429.7606	42:18	42:18	0	1.070	1044352	175410	2	5	87705	0.90(0.76-1.02)	
PCB-192											
393.8025	42:37	42:37	0	1.079	2524195	416444	79	197	5271		
395.7995	42:37	42:37	0	1.079	2368387	386900	79	197	4897	1.07(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

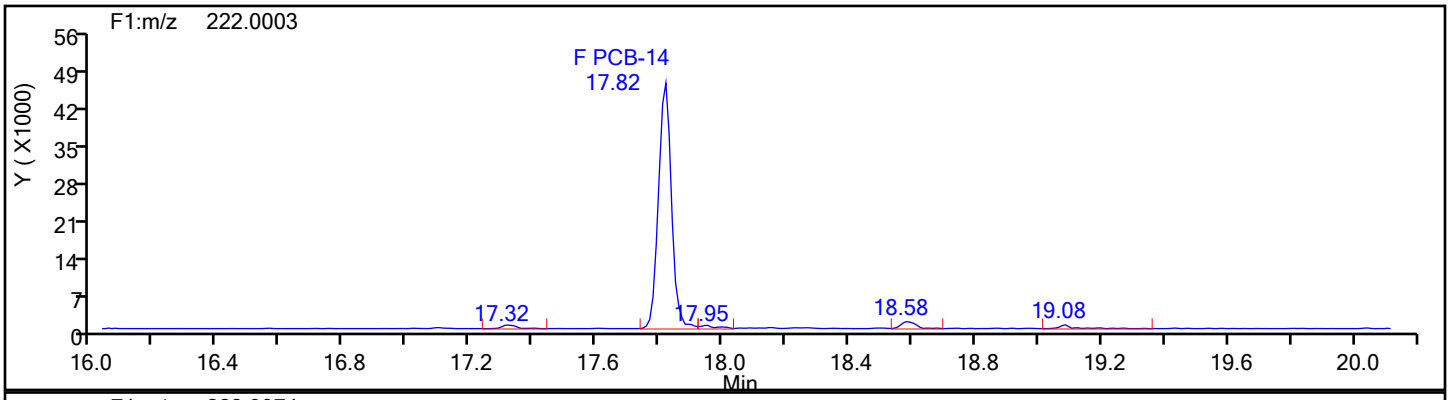
Report Date: 31-Mar-2025 14:10:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

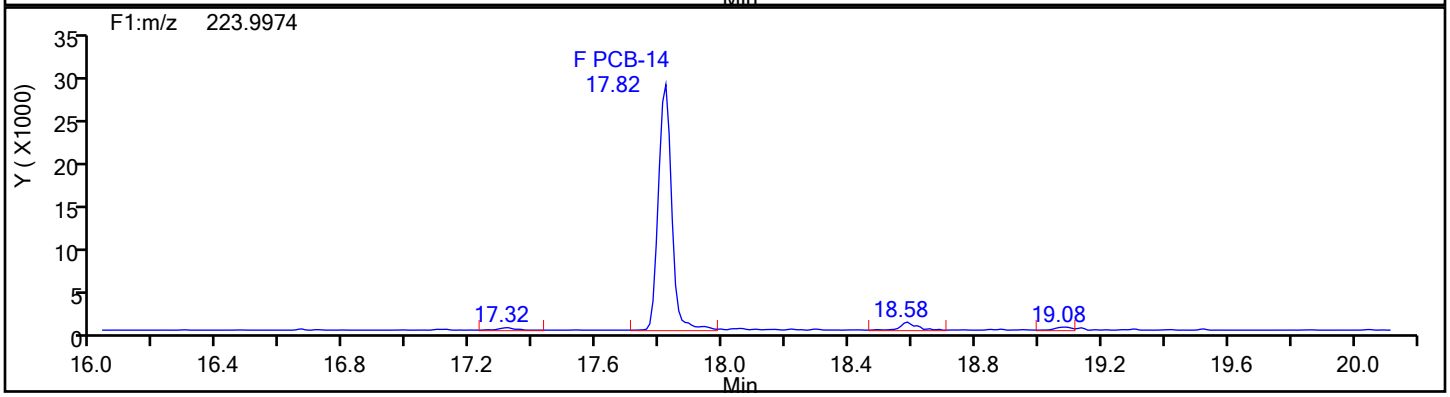
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

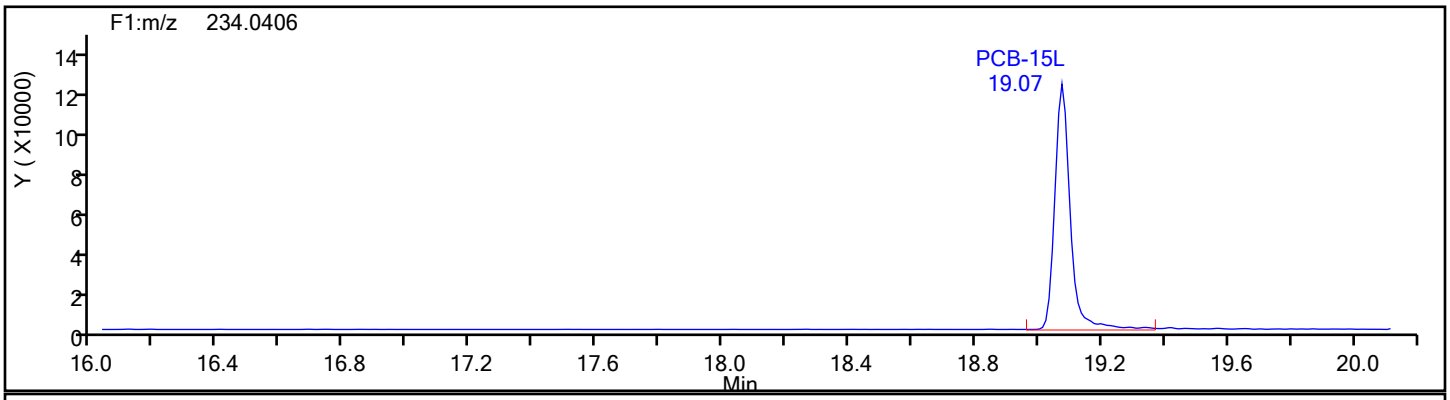
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

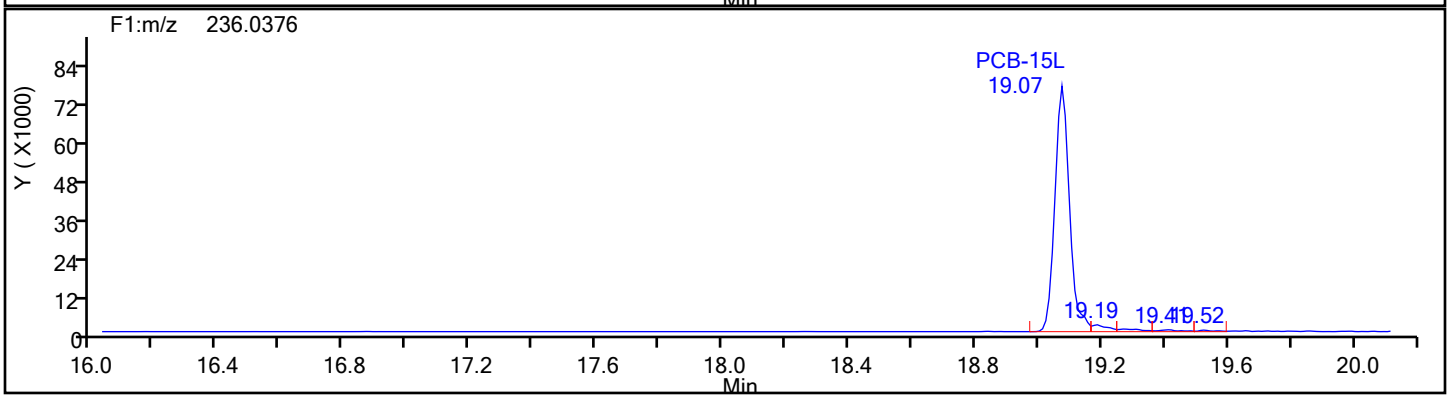
PCB-14





PCB-14 Standards



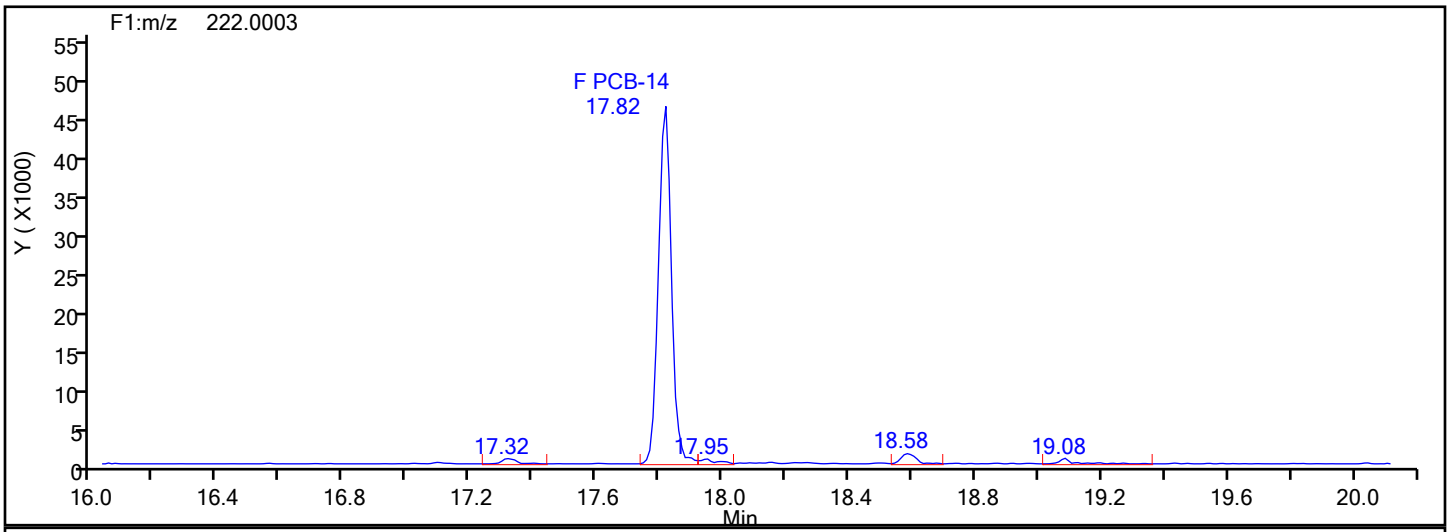


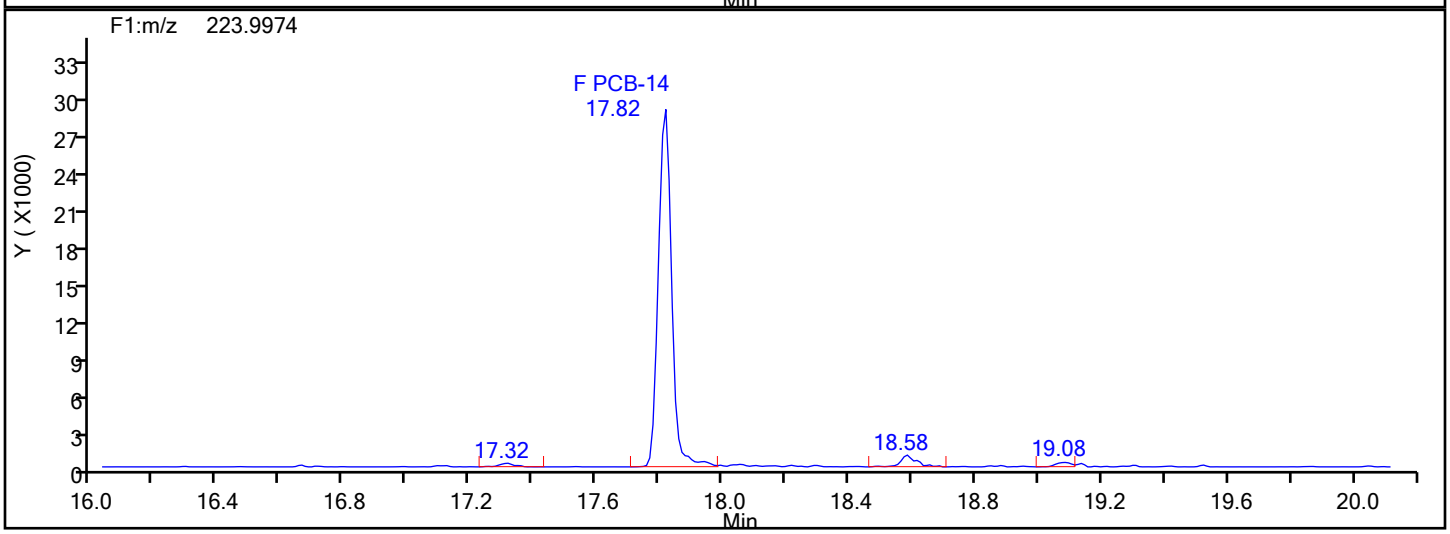
Report Date: 31-Mar-2025 14:10:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

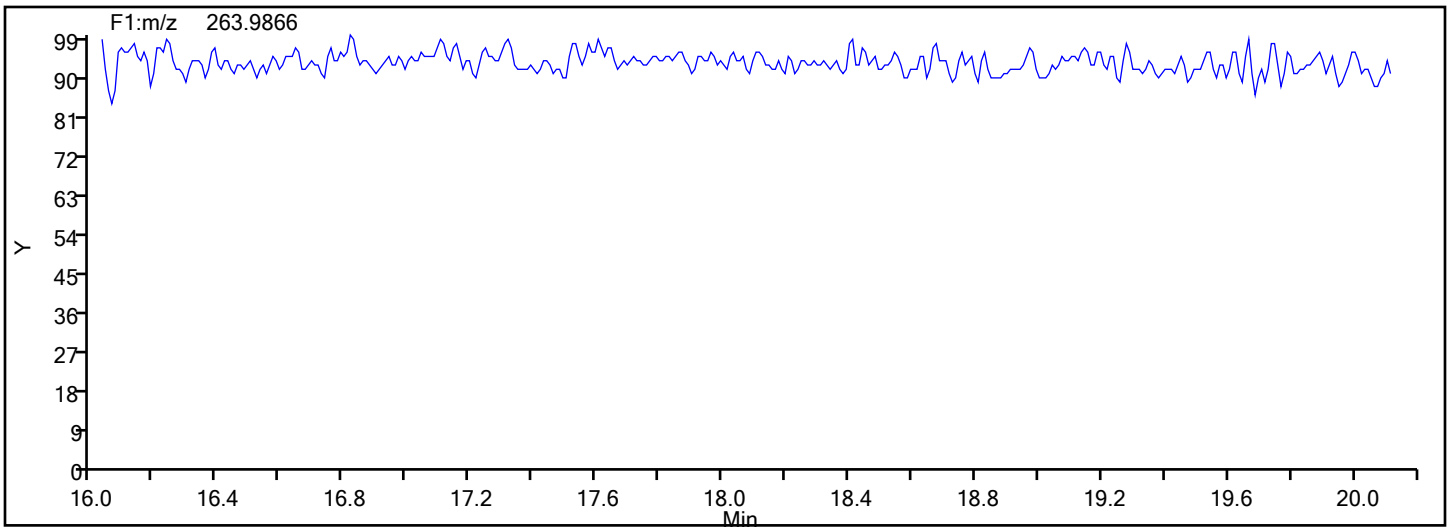
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



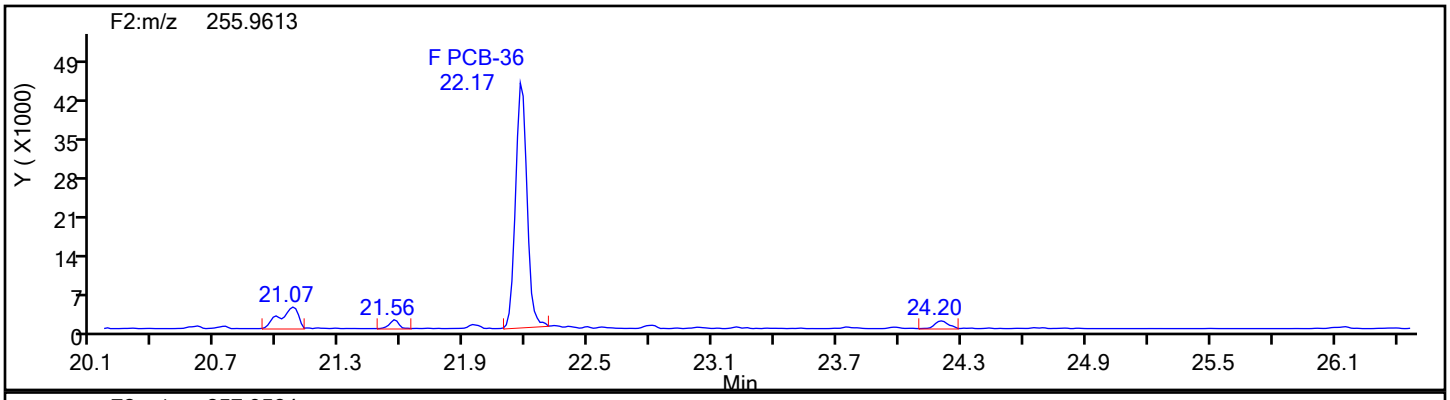
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

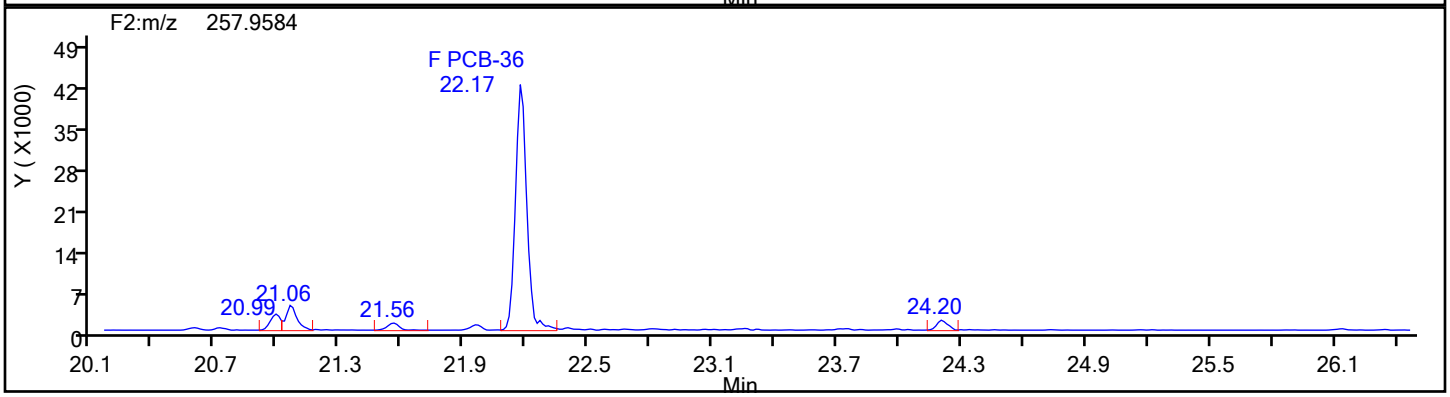
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

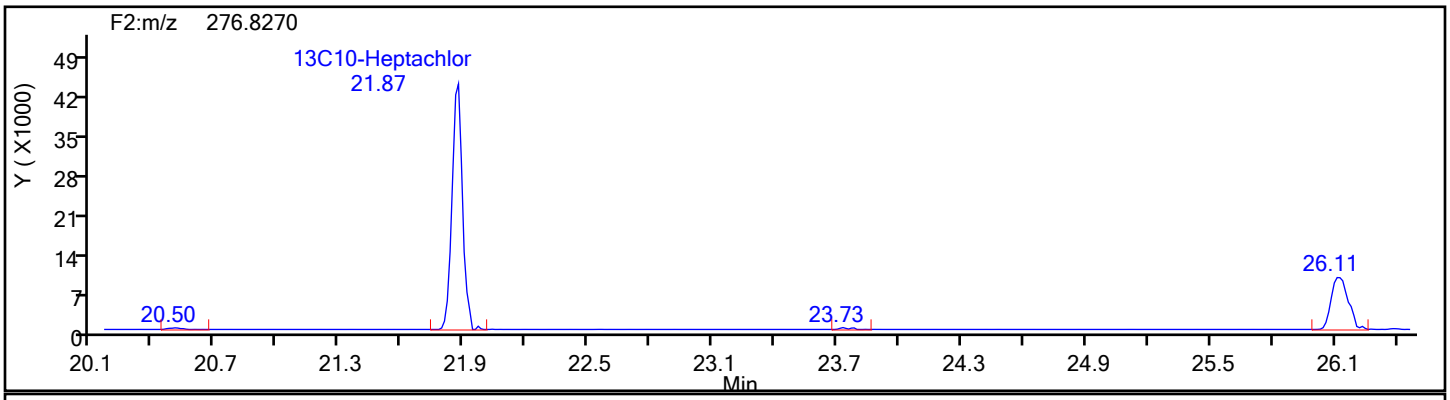
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

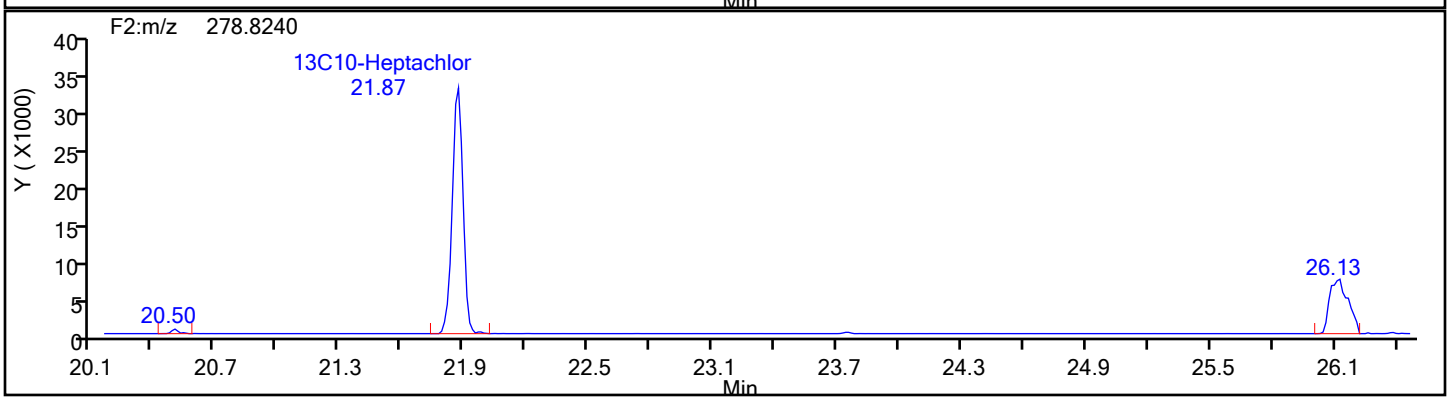
PCB-36





PCB-36 Standards



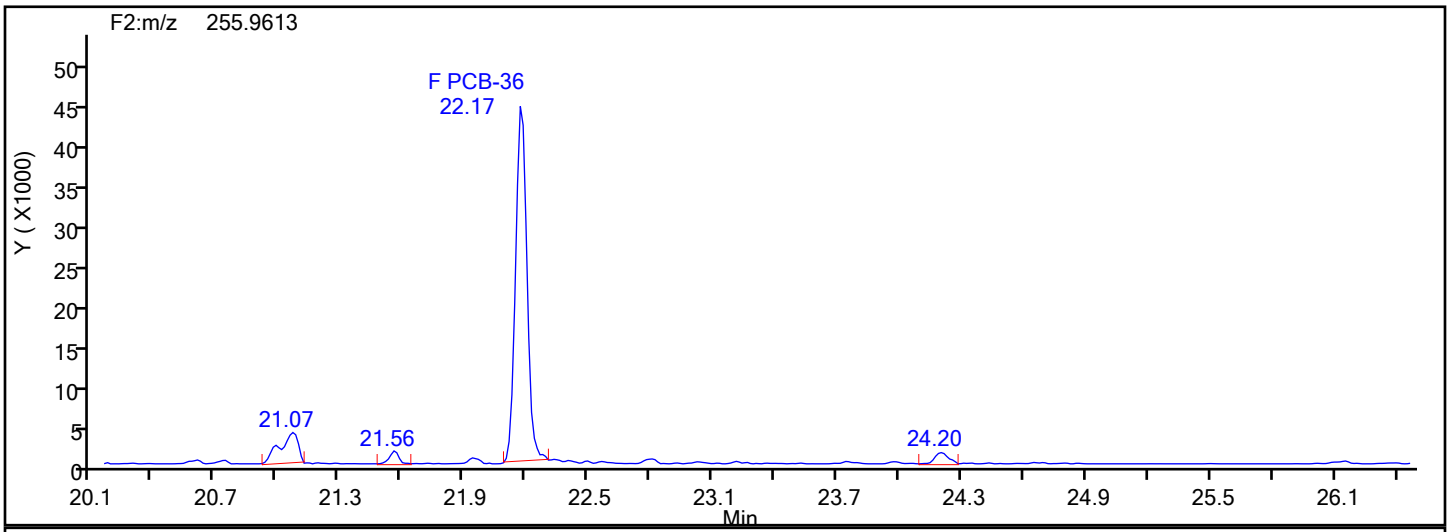


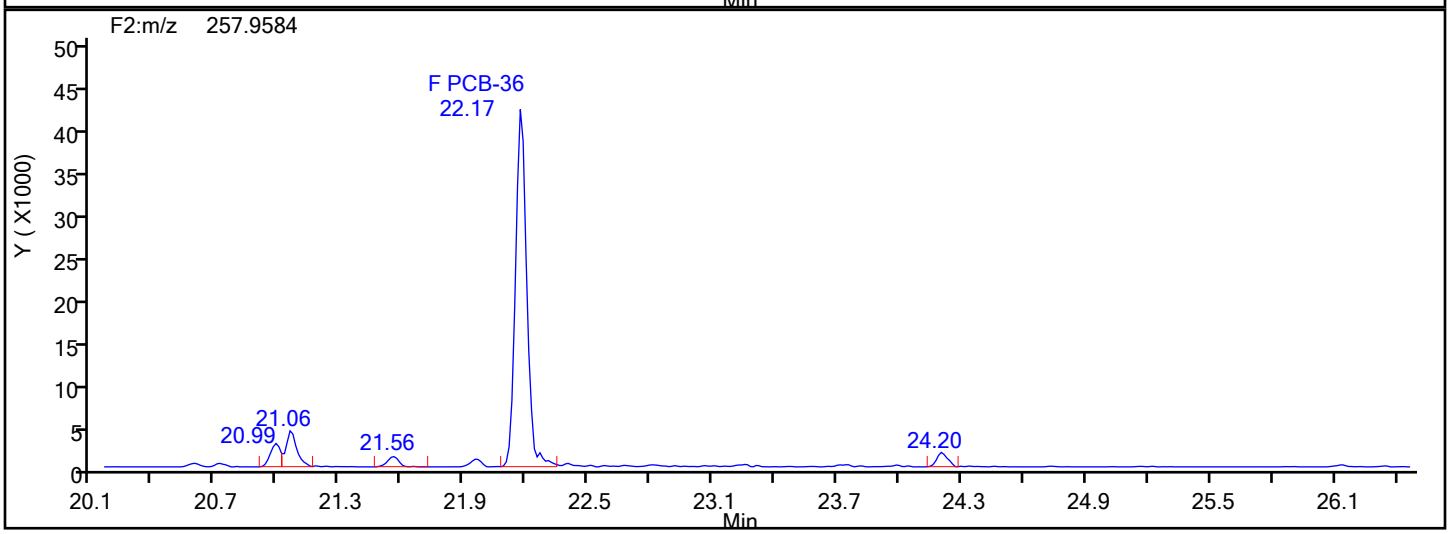
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

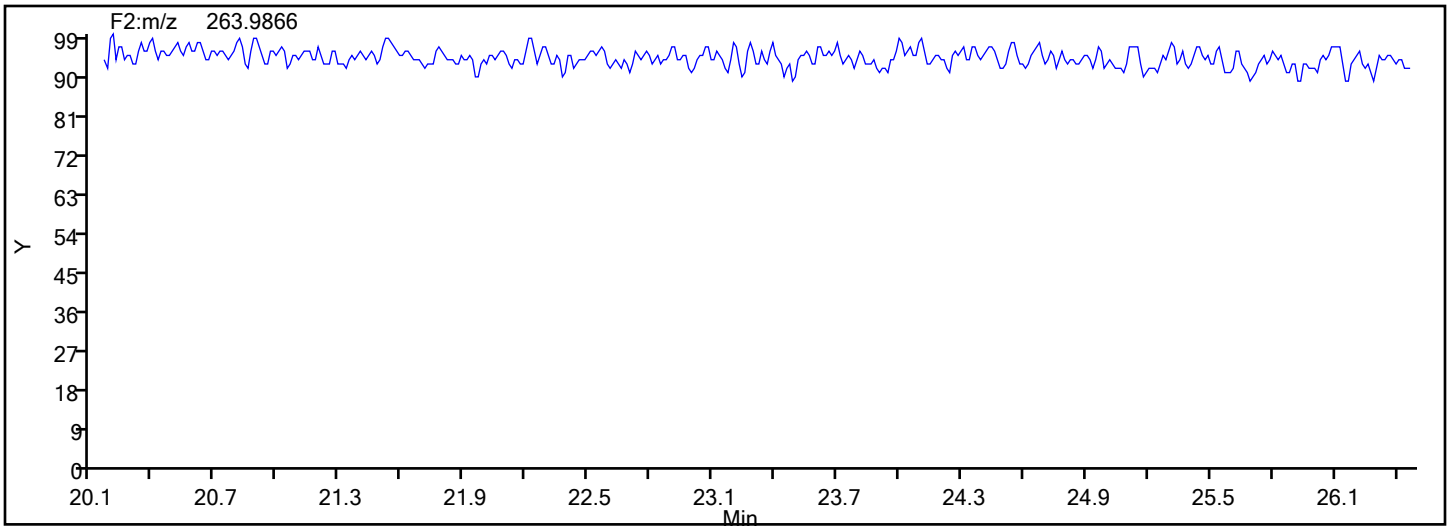
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



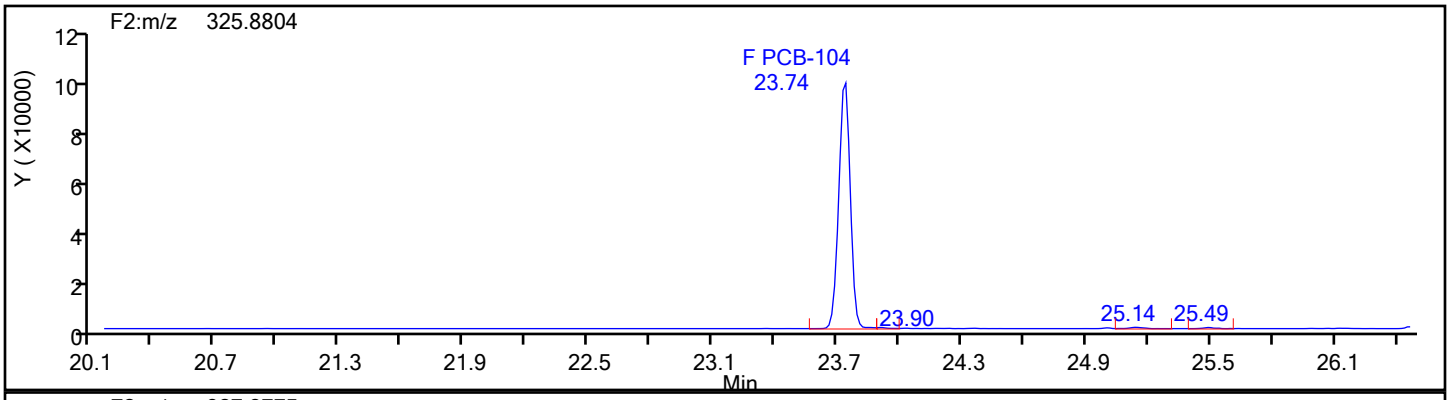
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

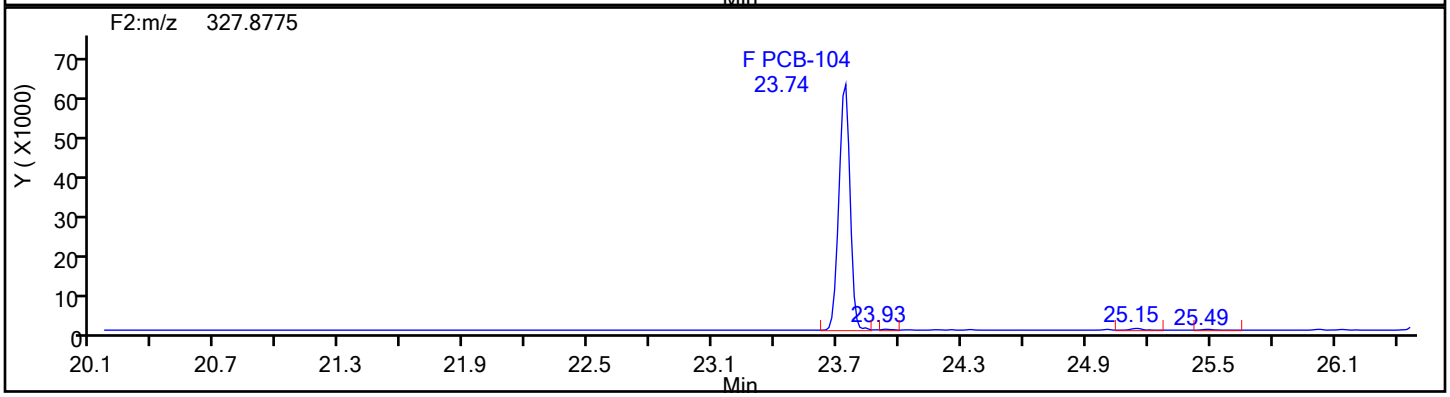
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

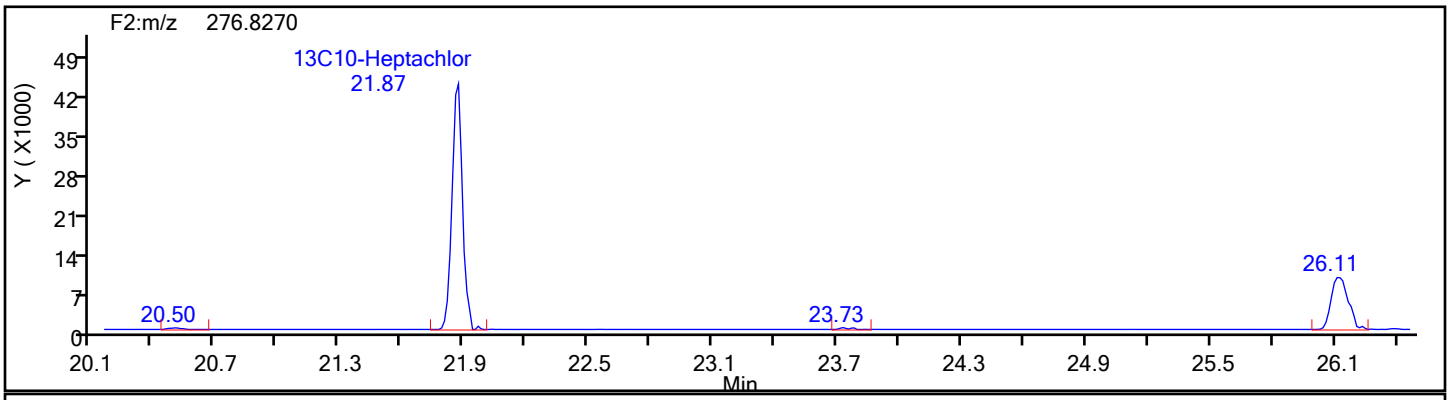
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

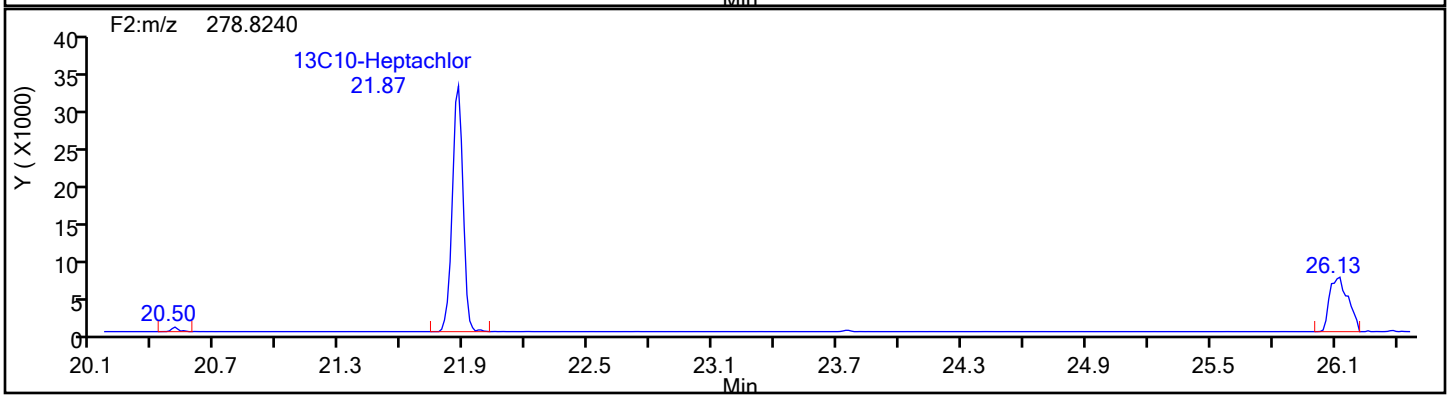
PCB-104





PCB-104 Standards



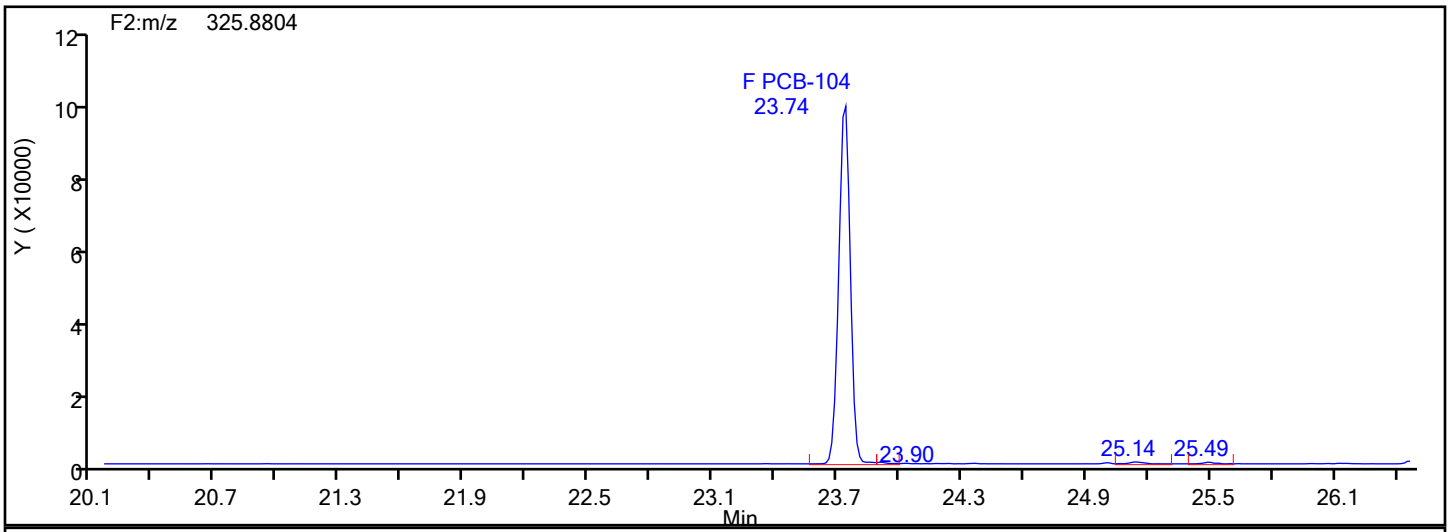


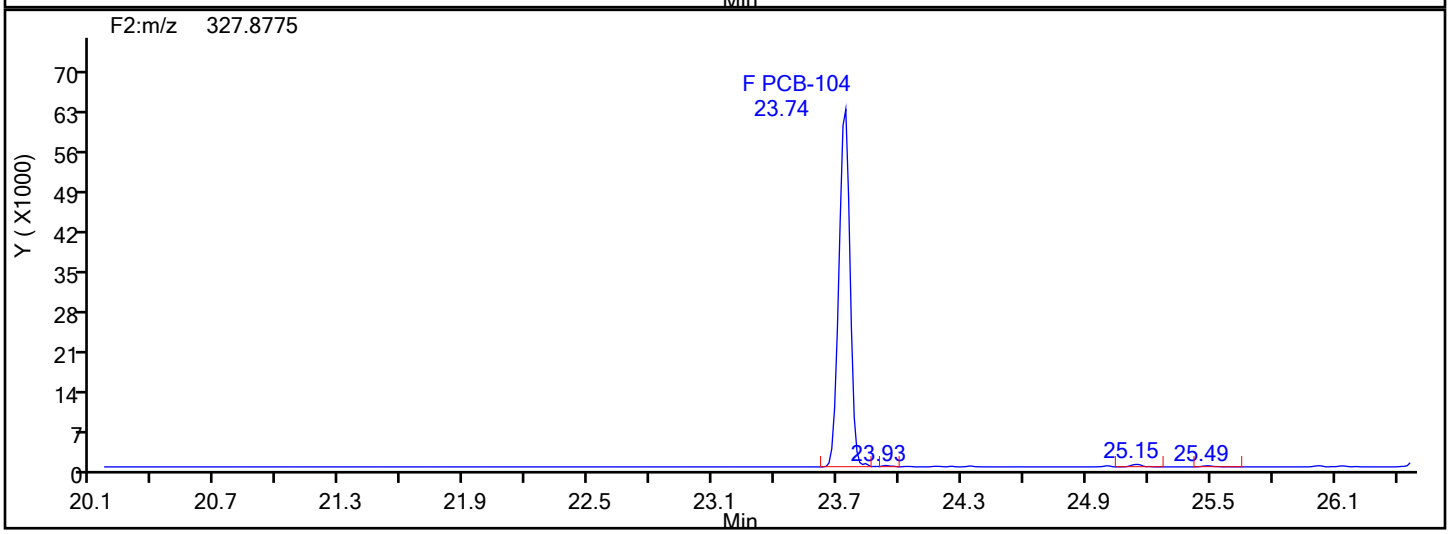
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

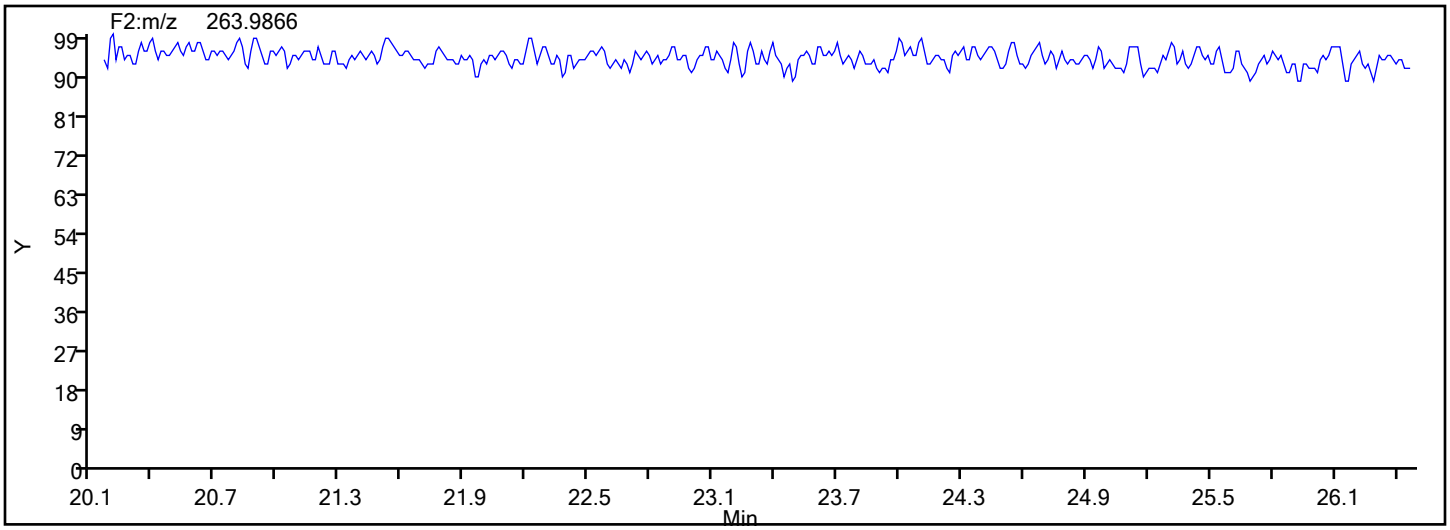
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass

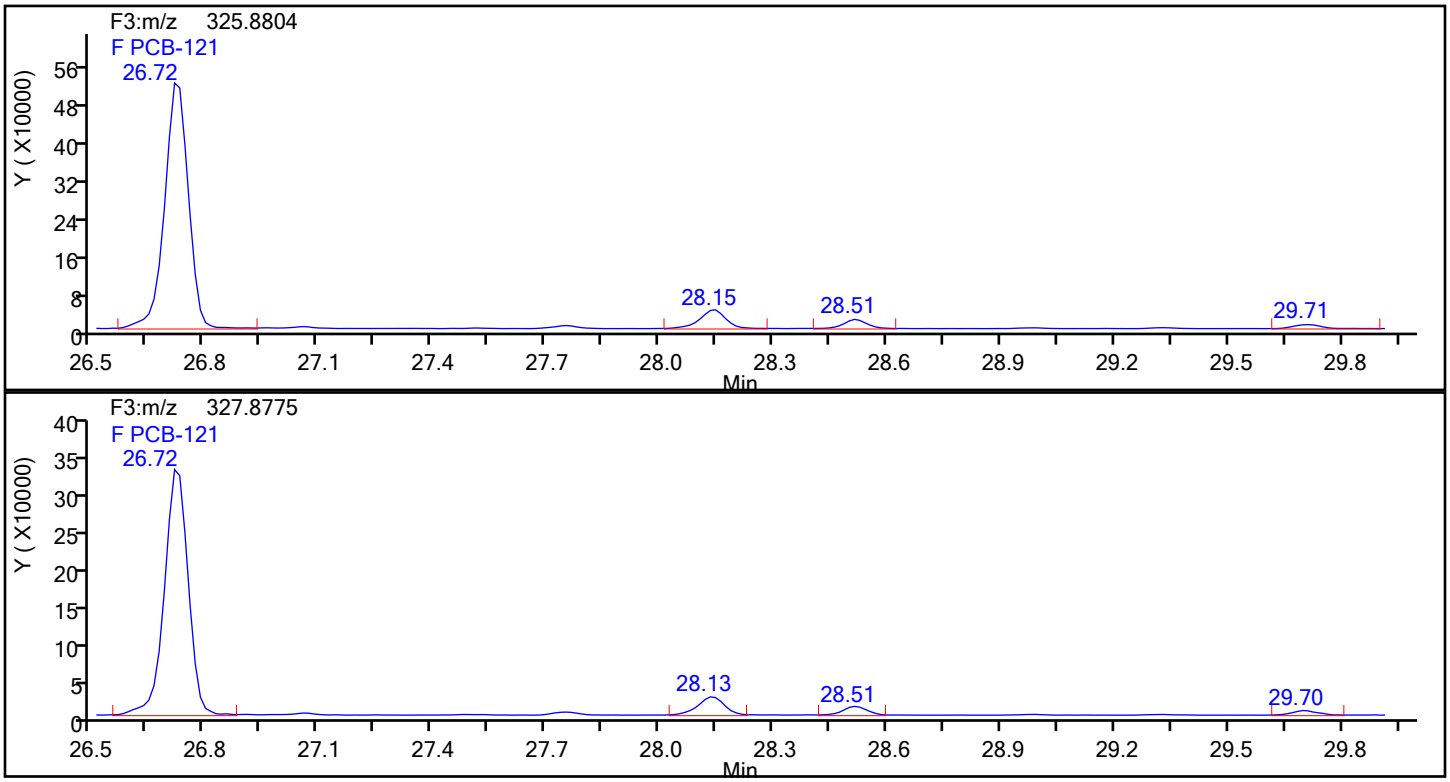


Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

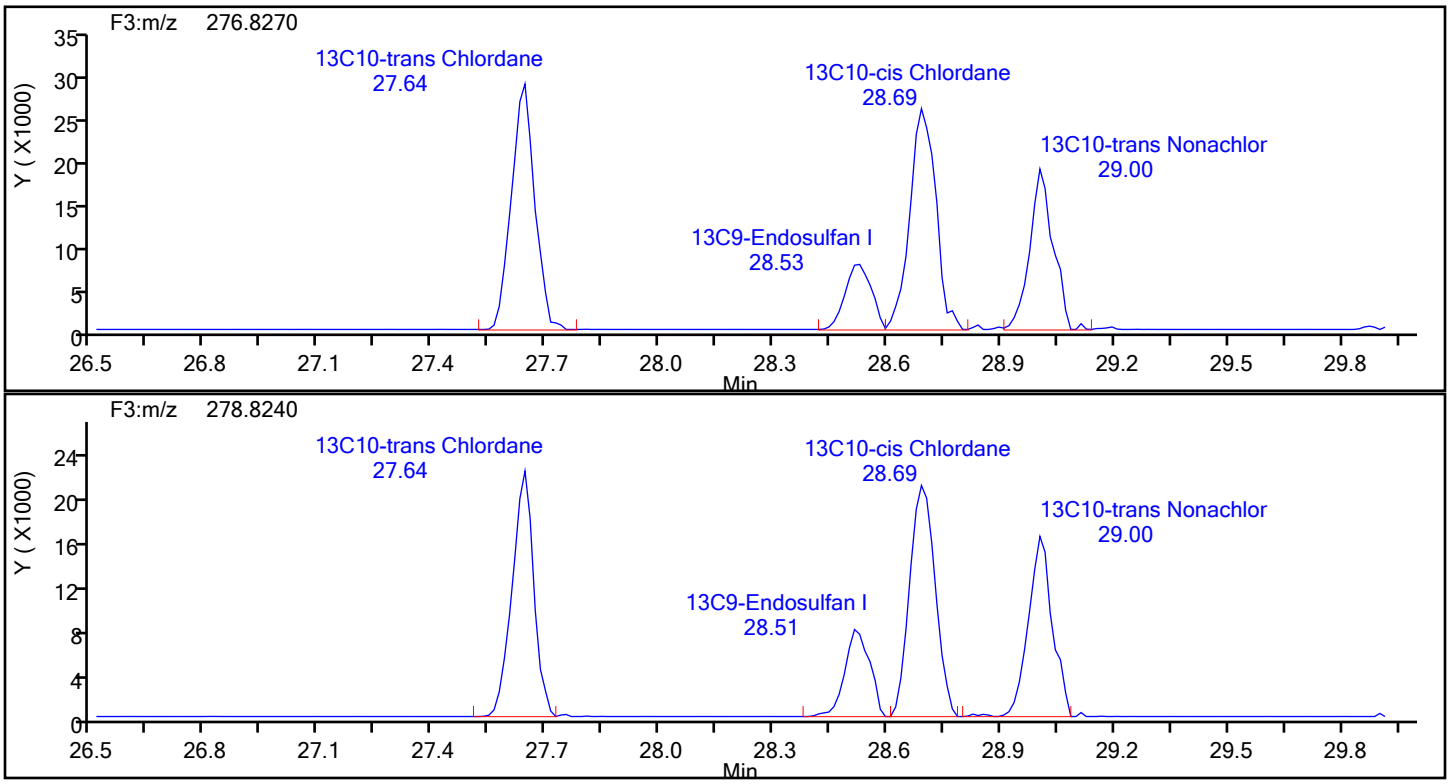
Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

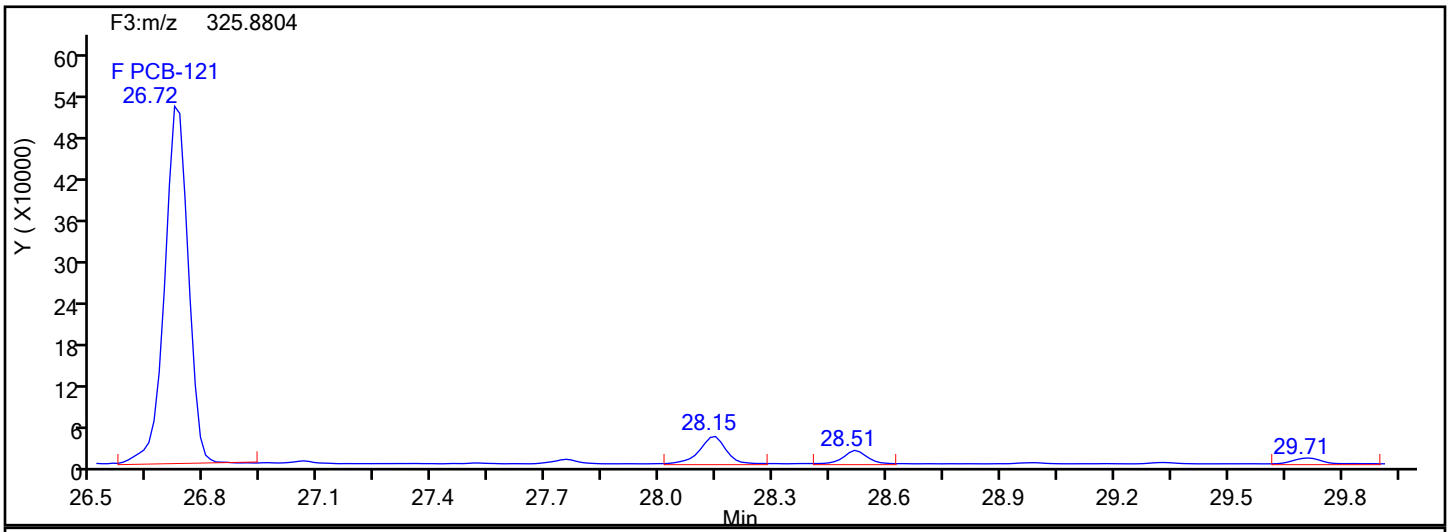


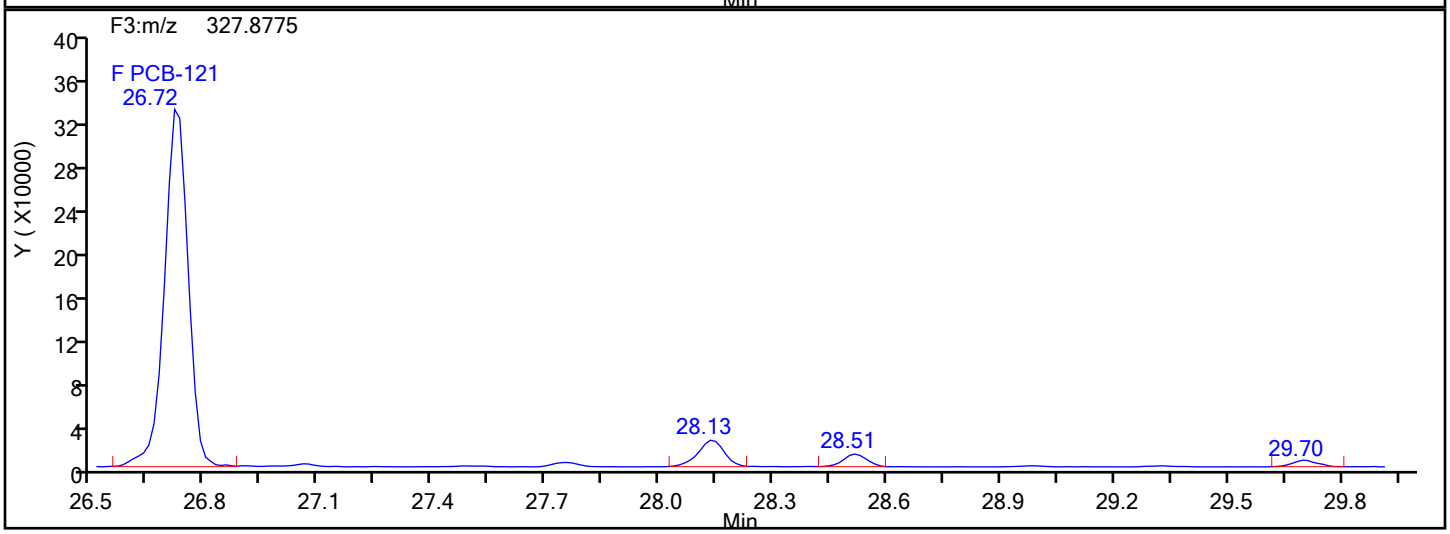
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

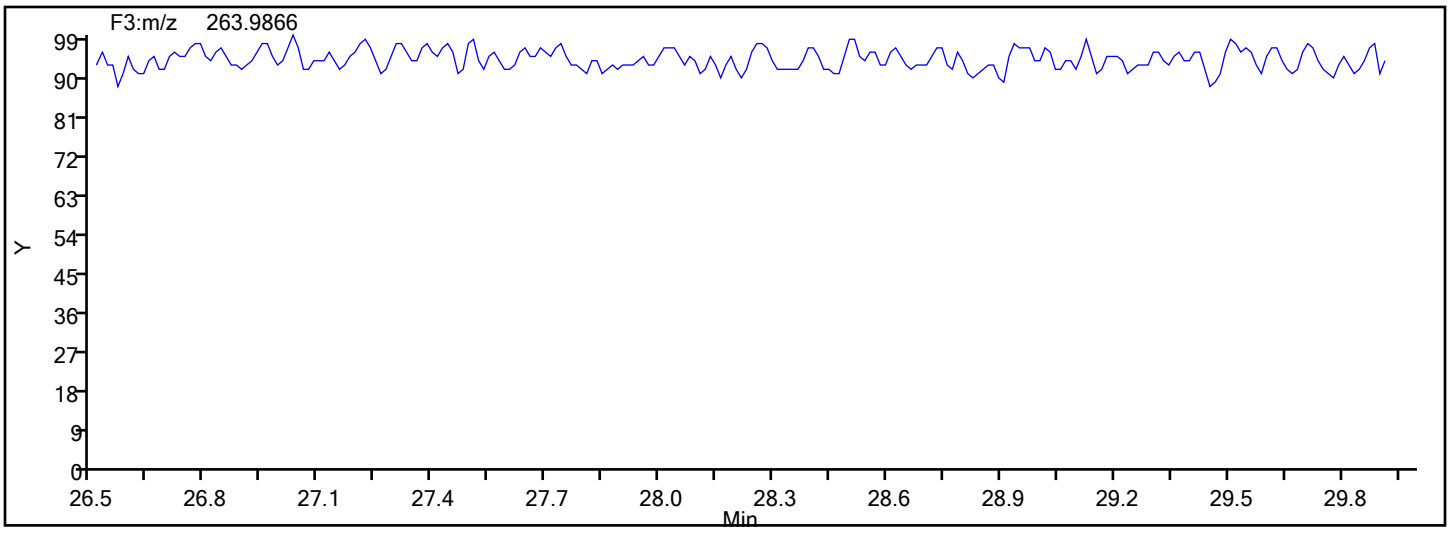
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d
Injection Date: 30-Mar-2025 16:56:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-02-241230
Worklist#: 97758 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



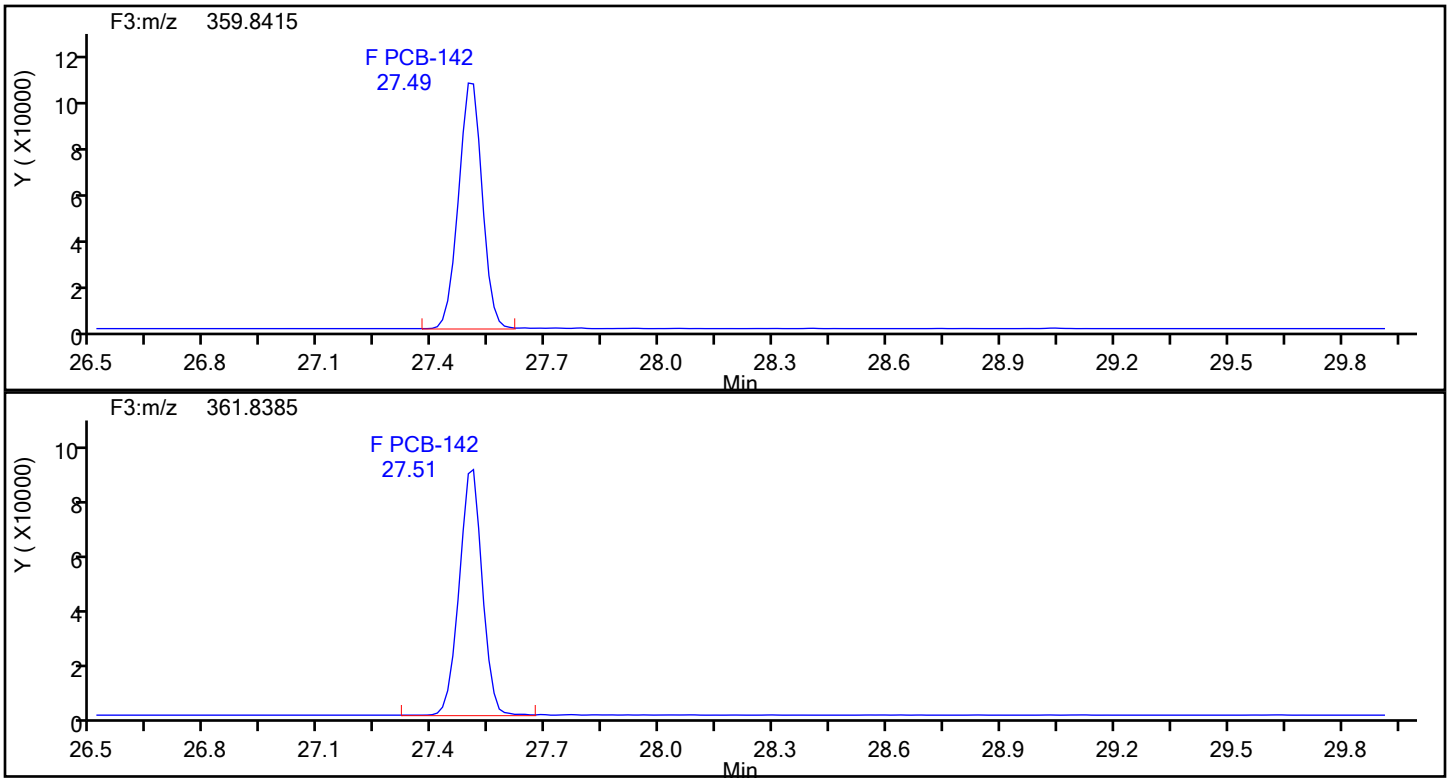
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

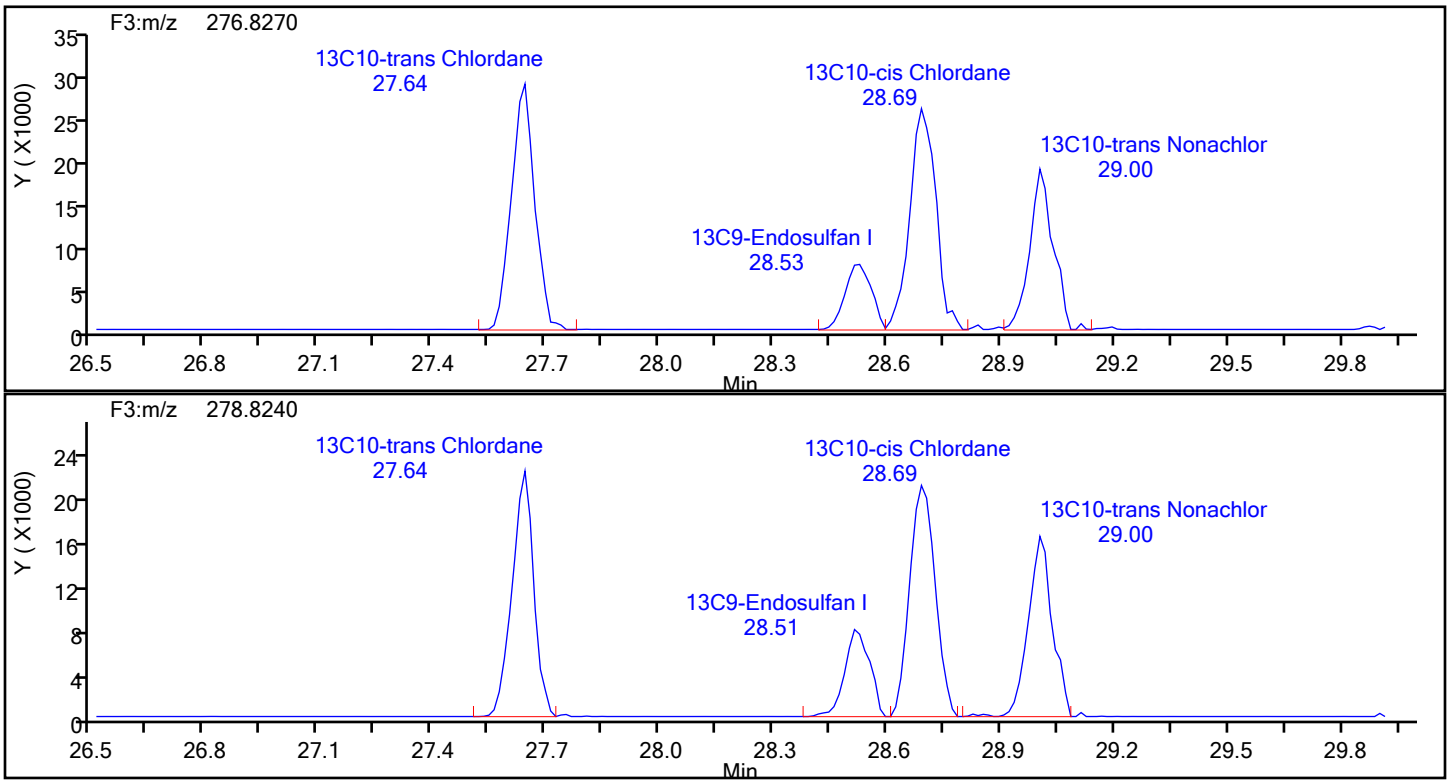
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

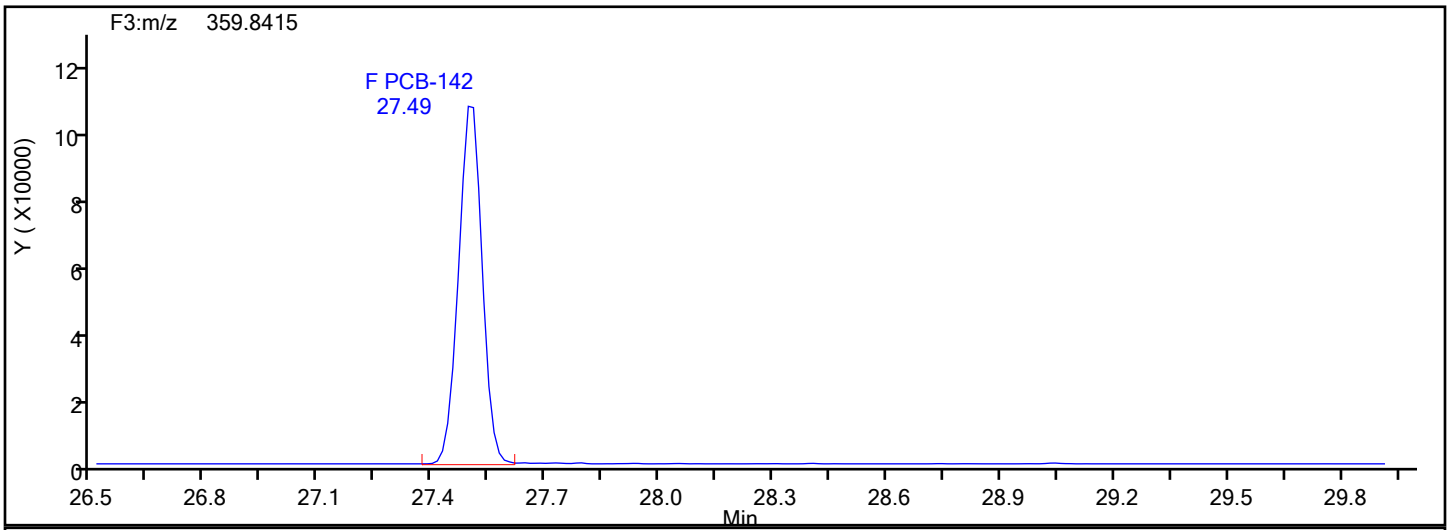


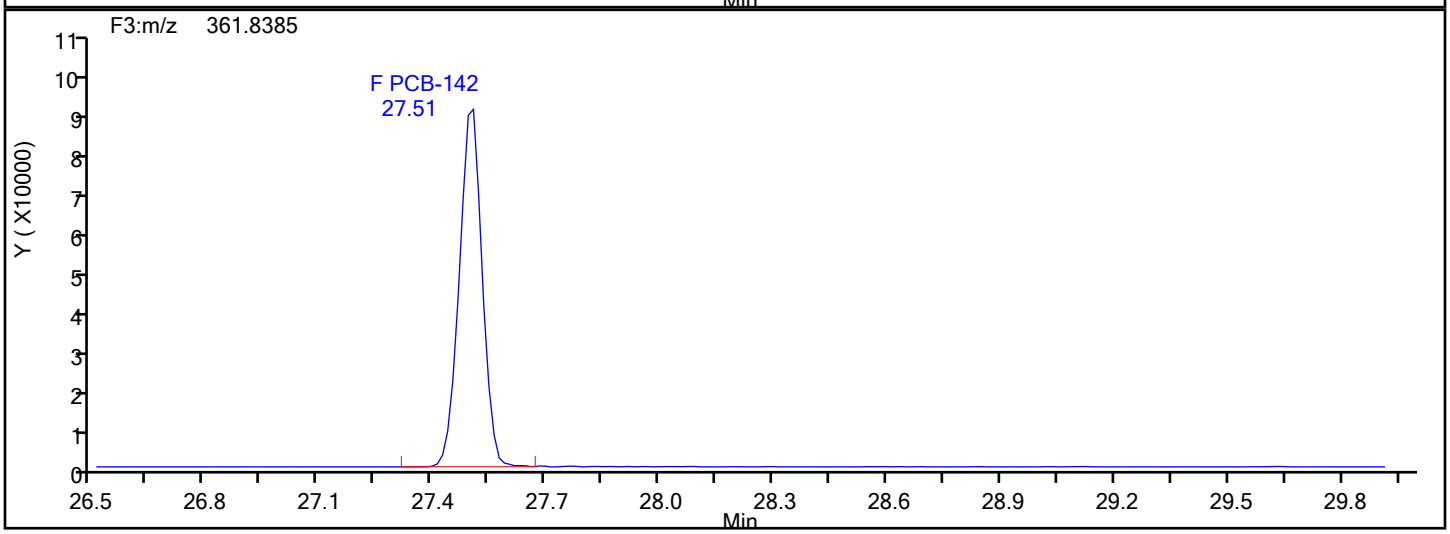
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

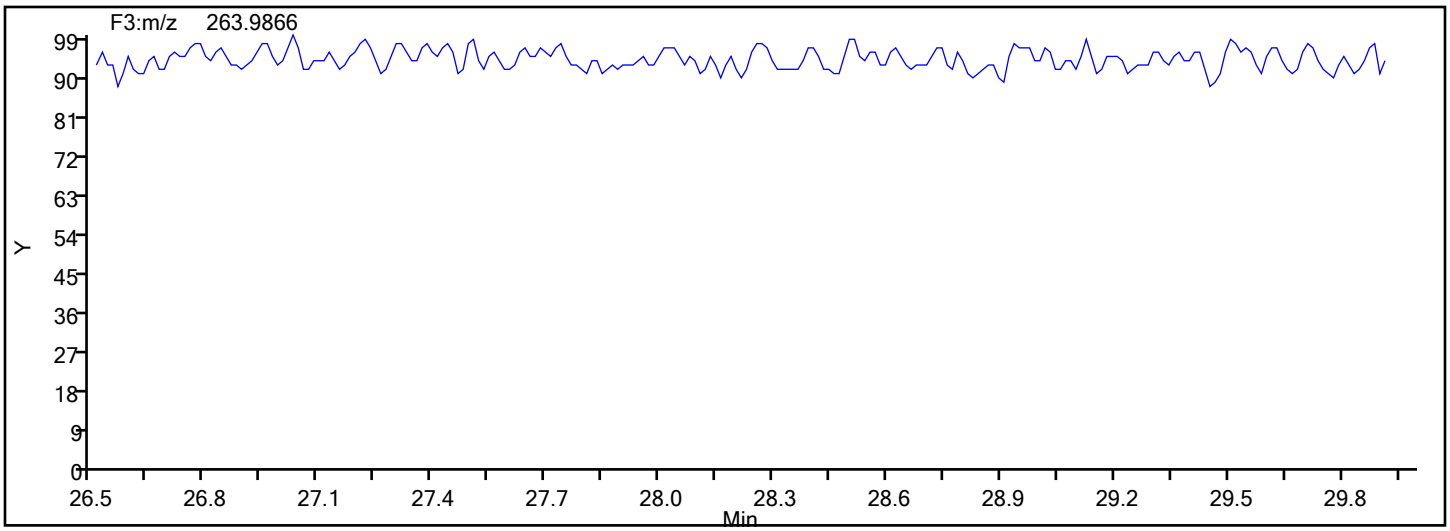
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
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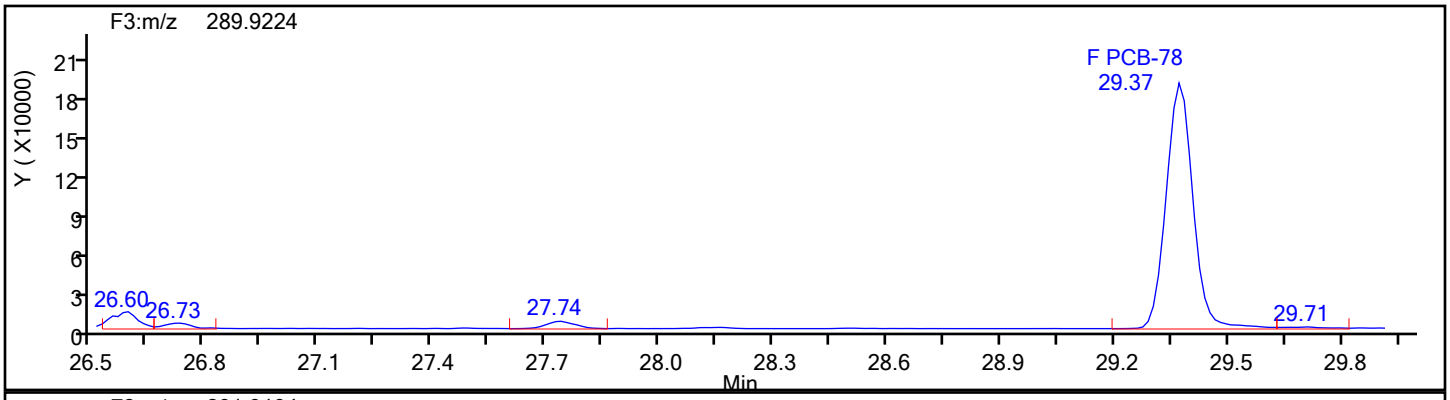
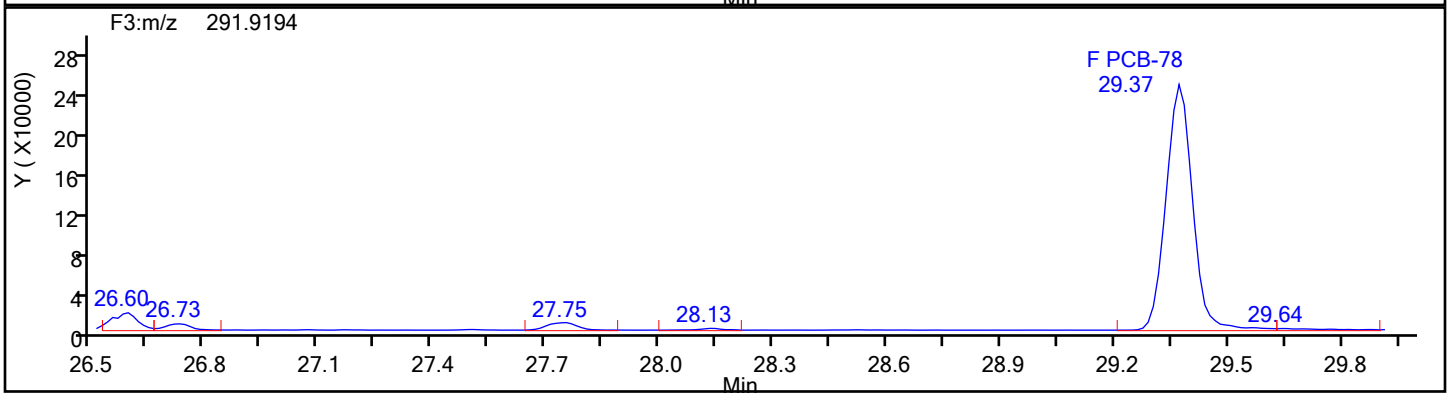
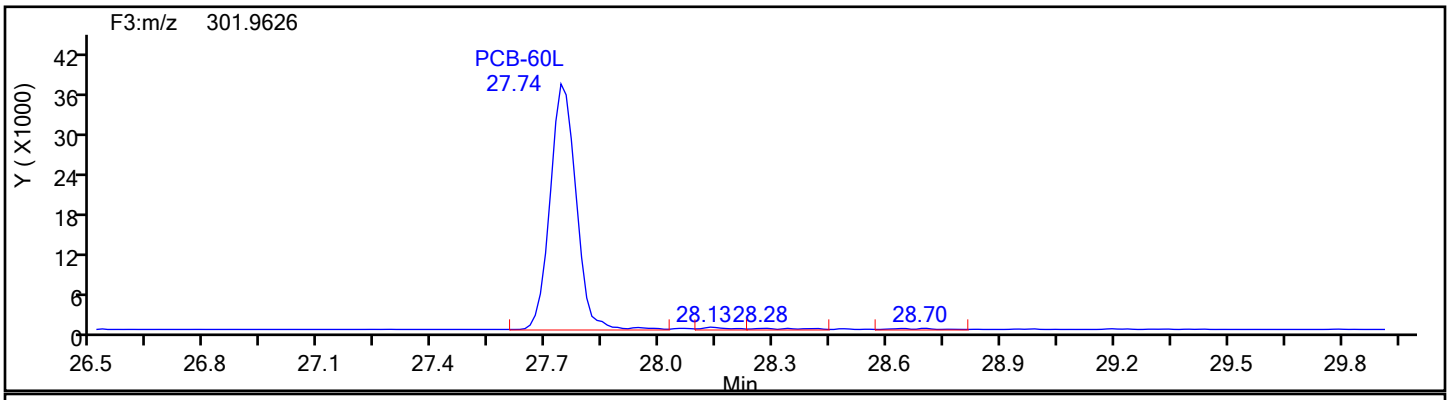
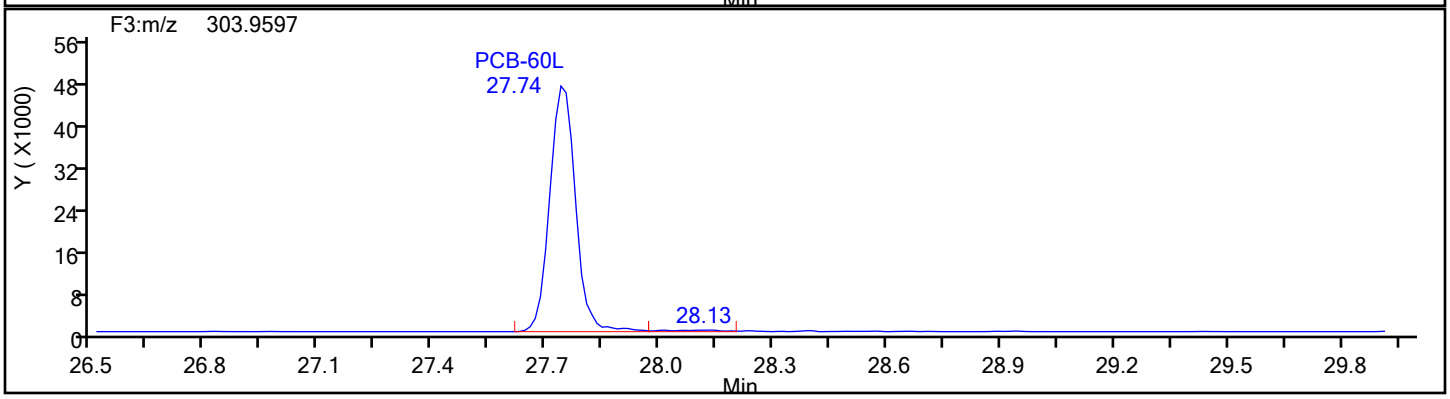
PCB-78





PCB-78 Standards



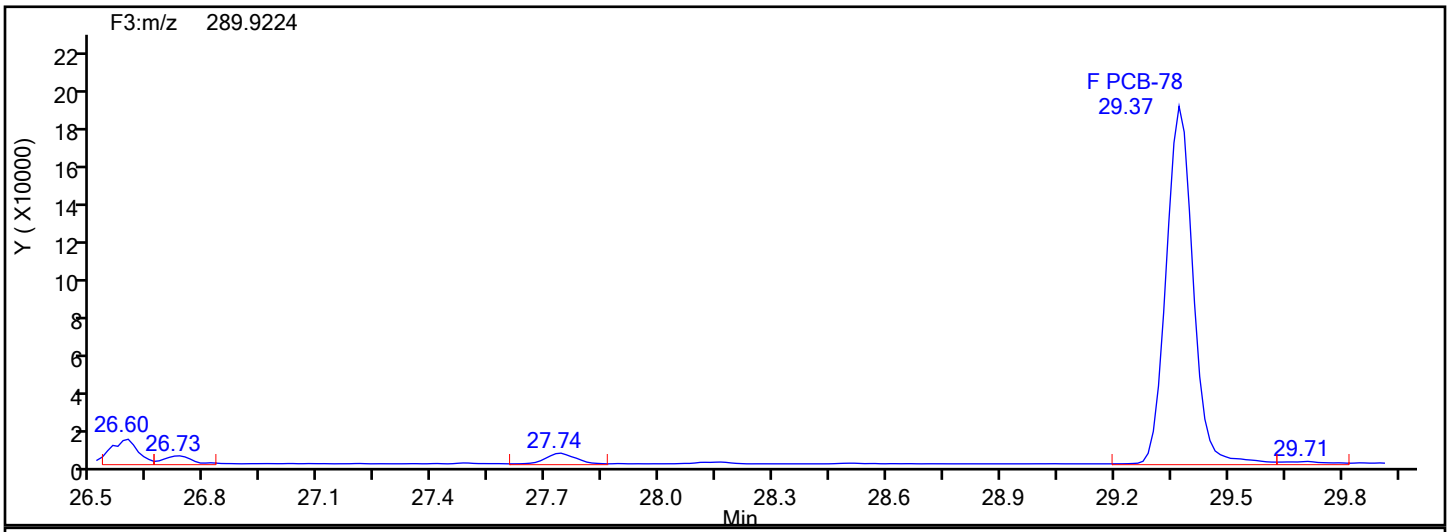


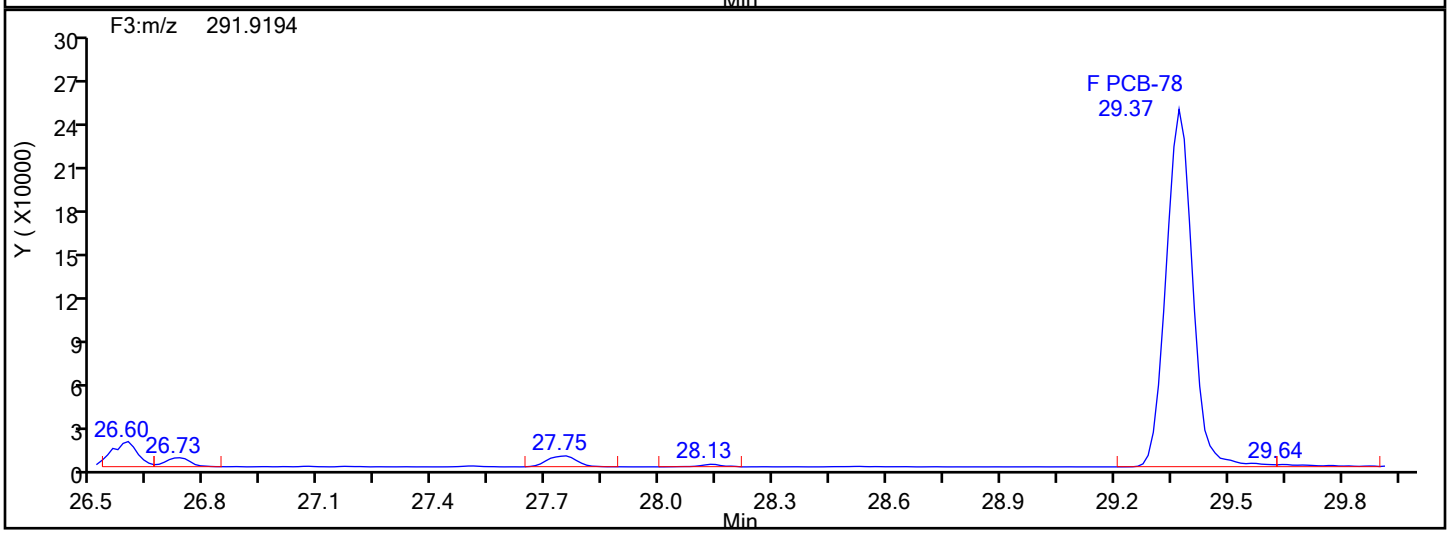
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

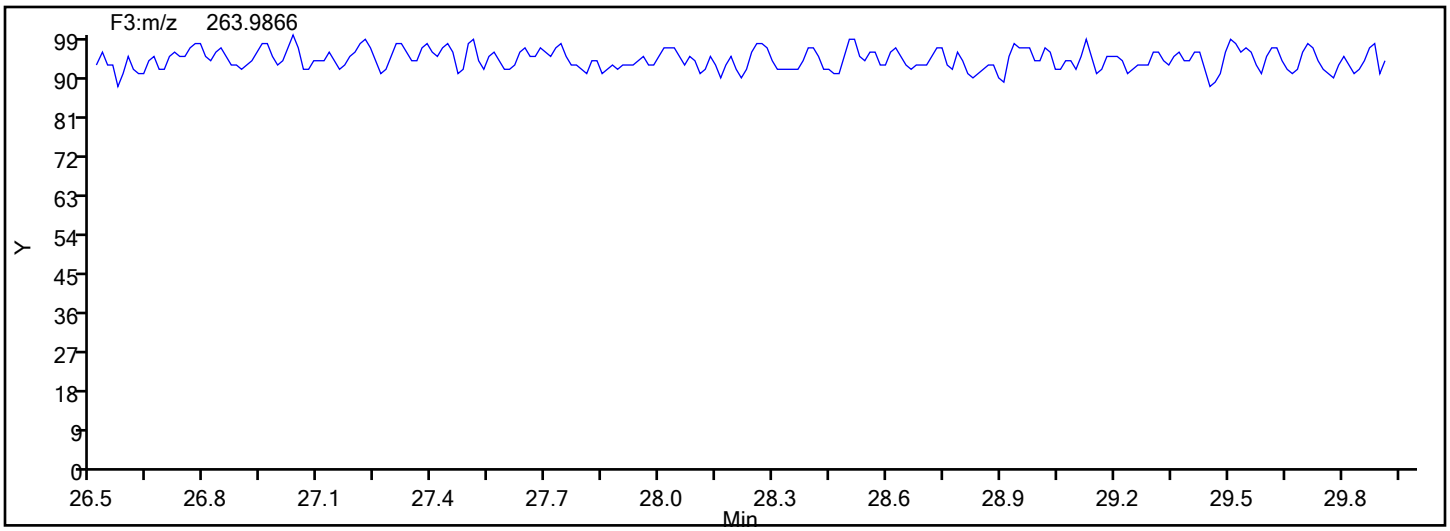
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



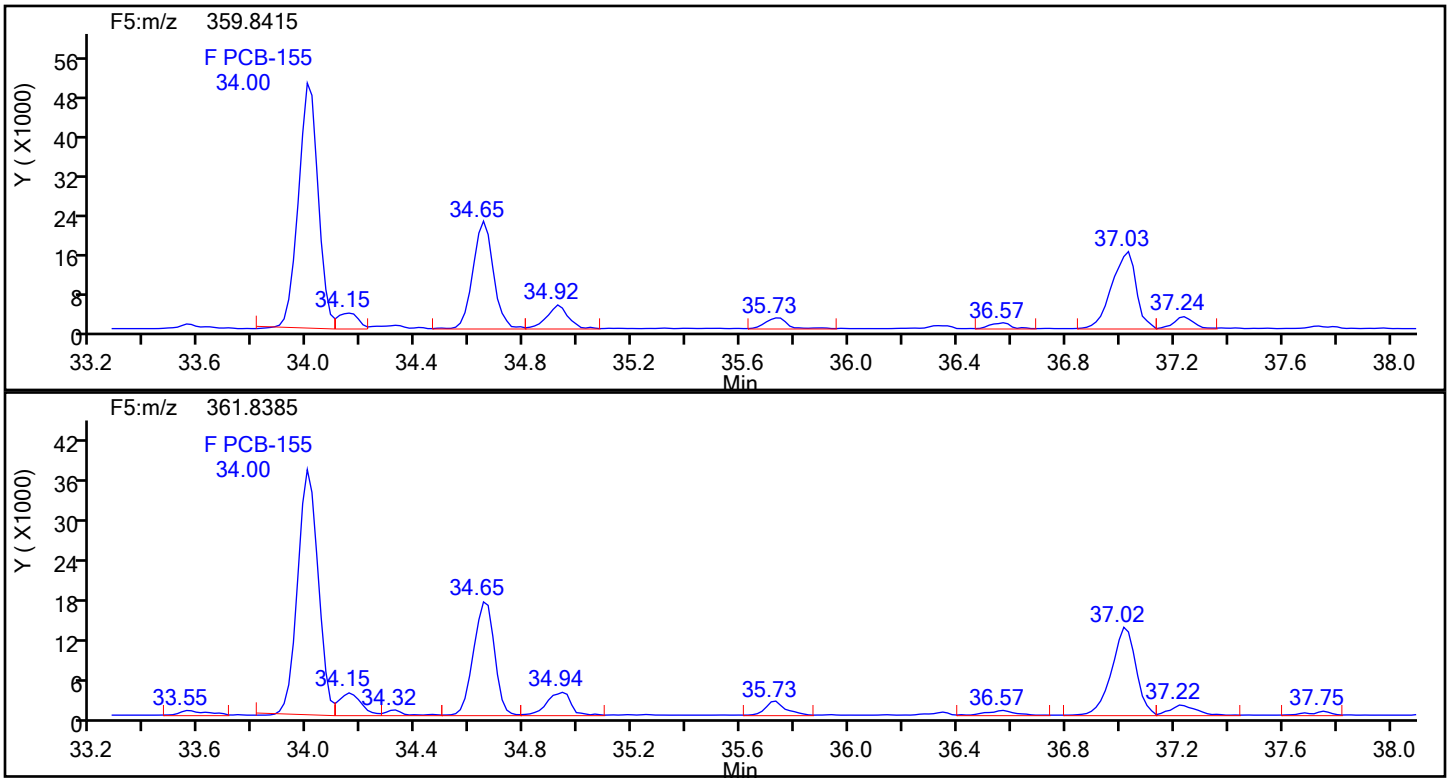
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

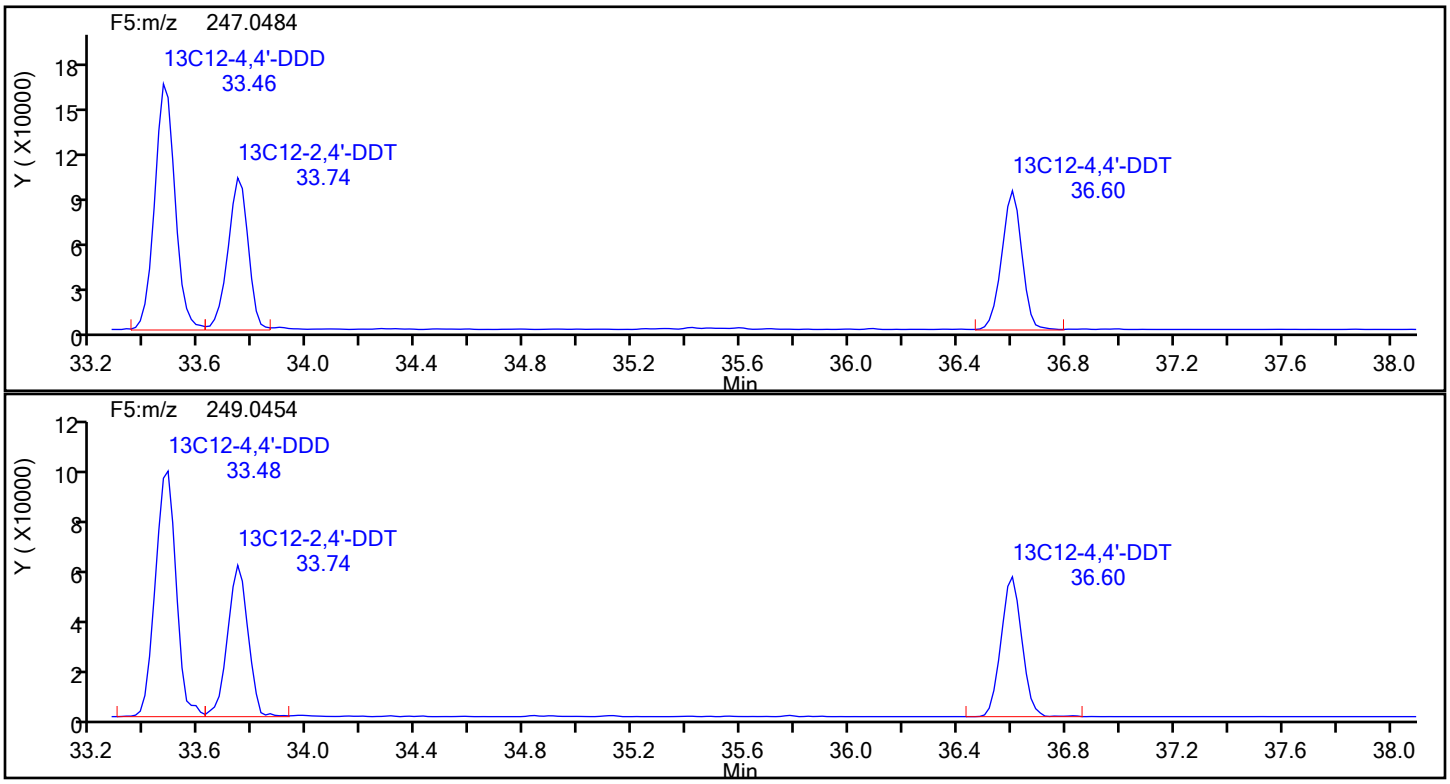
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

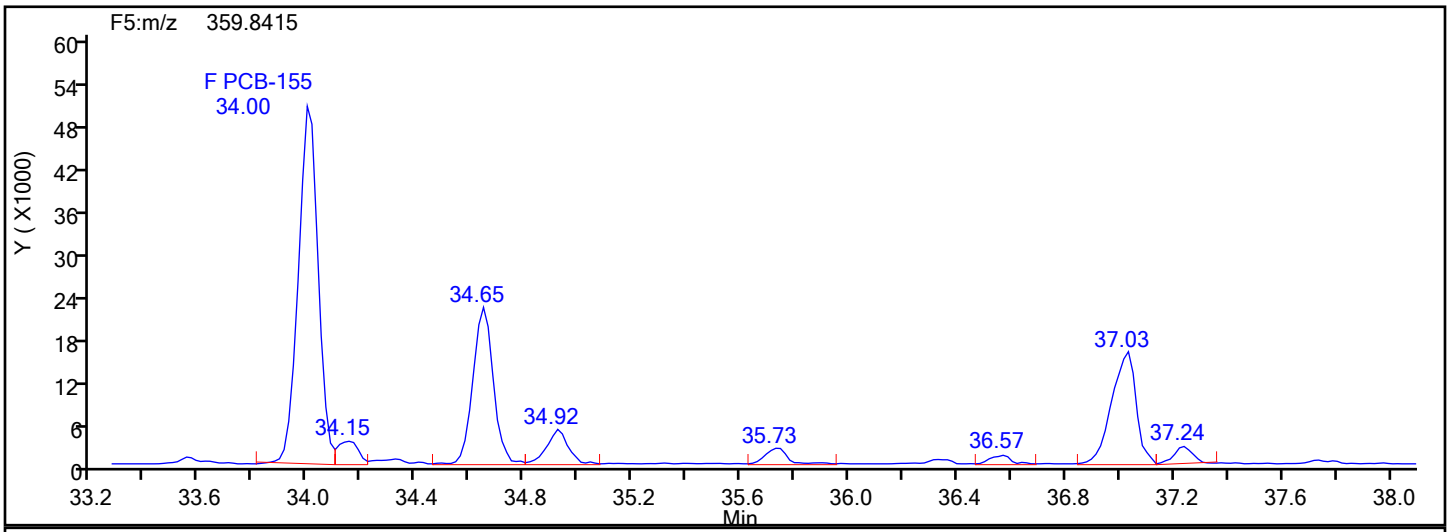


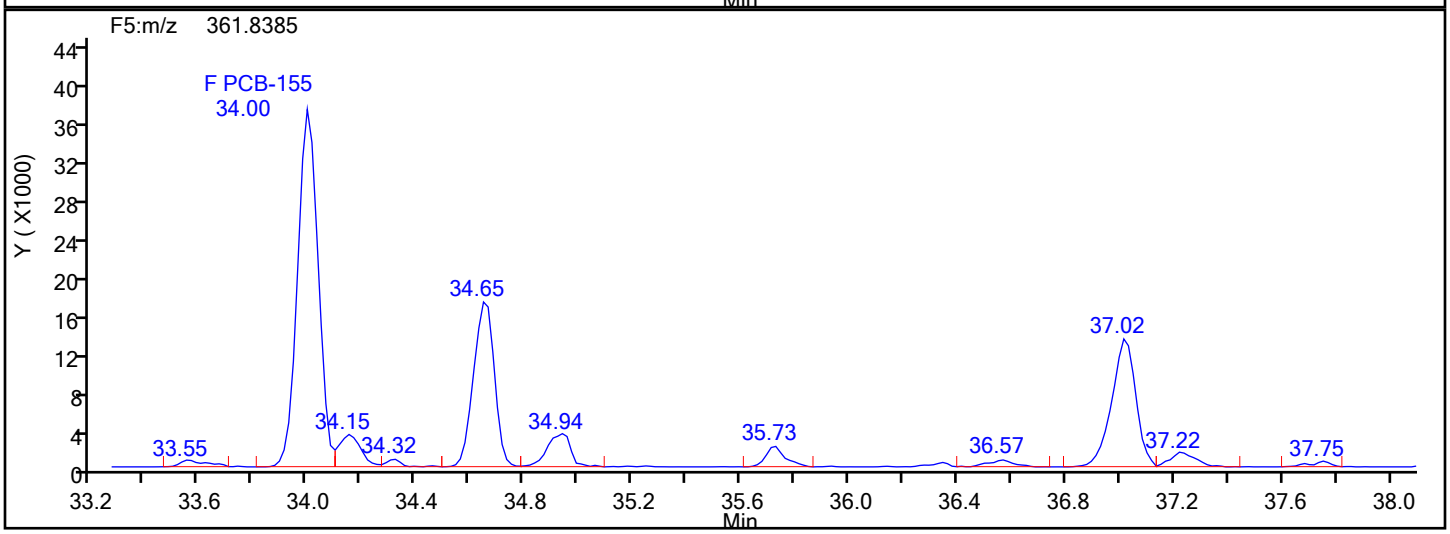
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

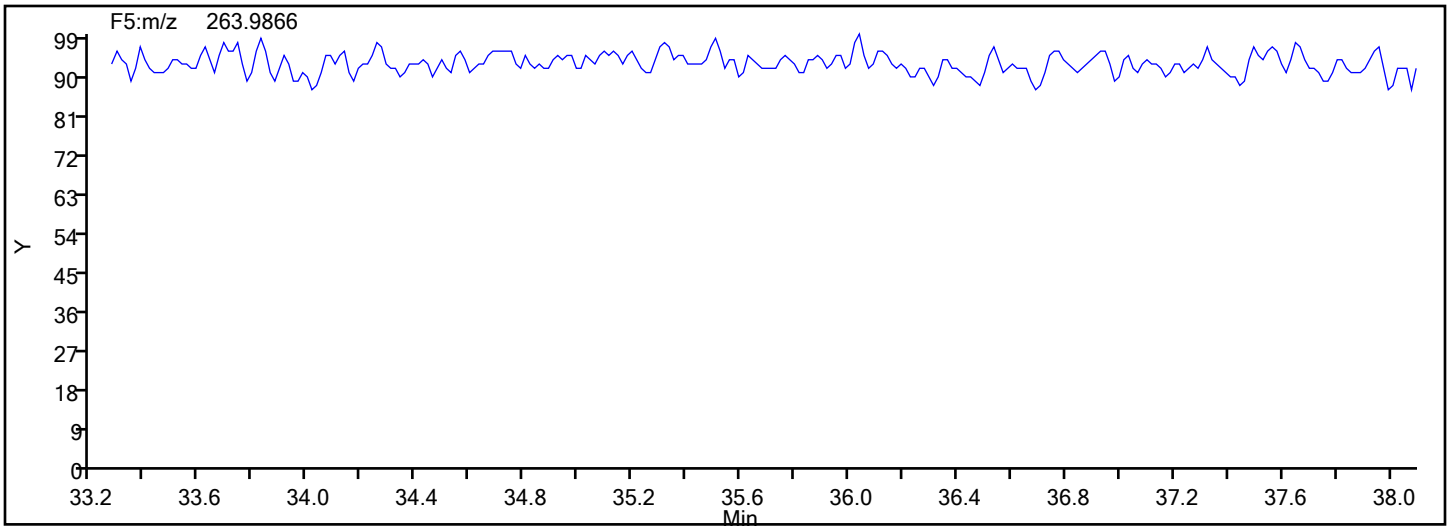
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



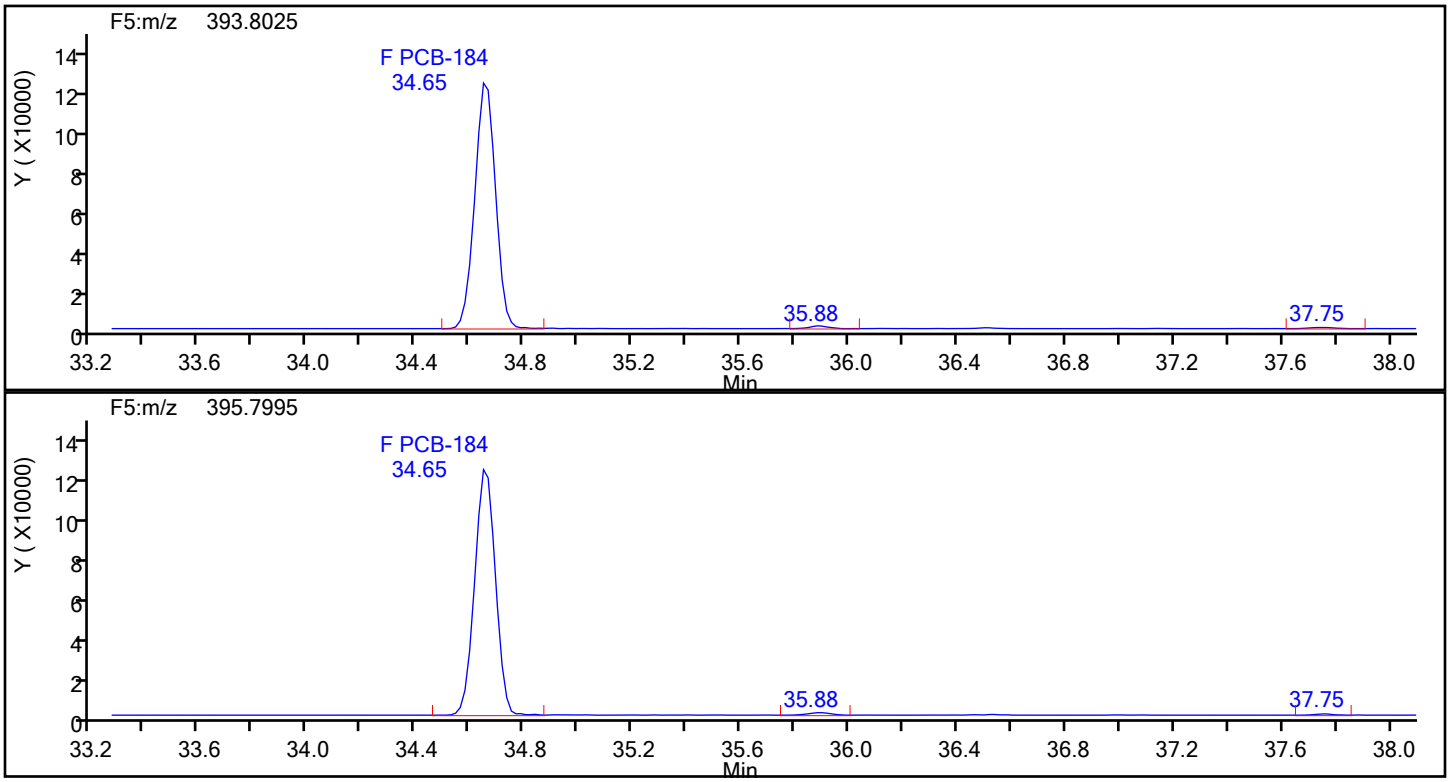
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

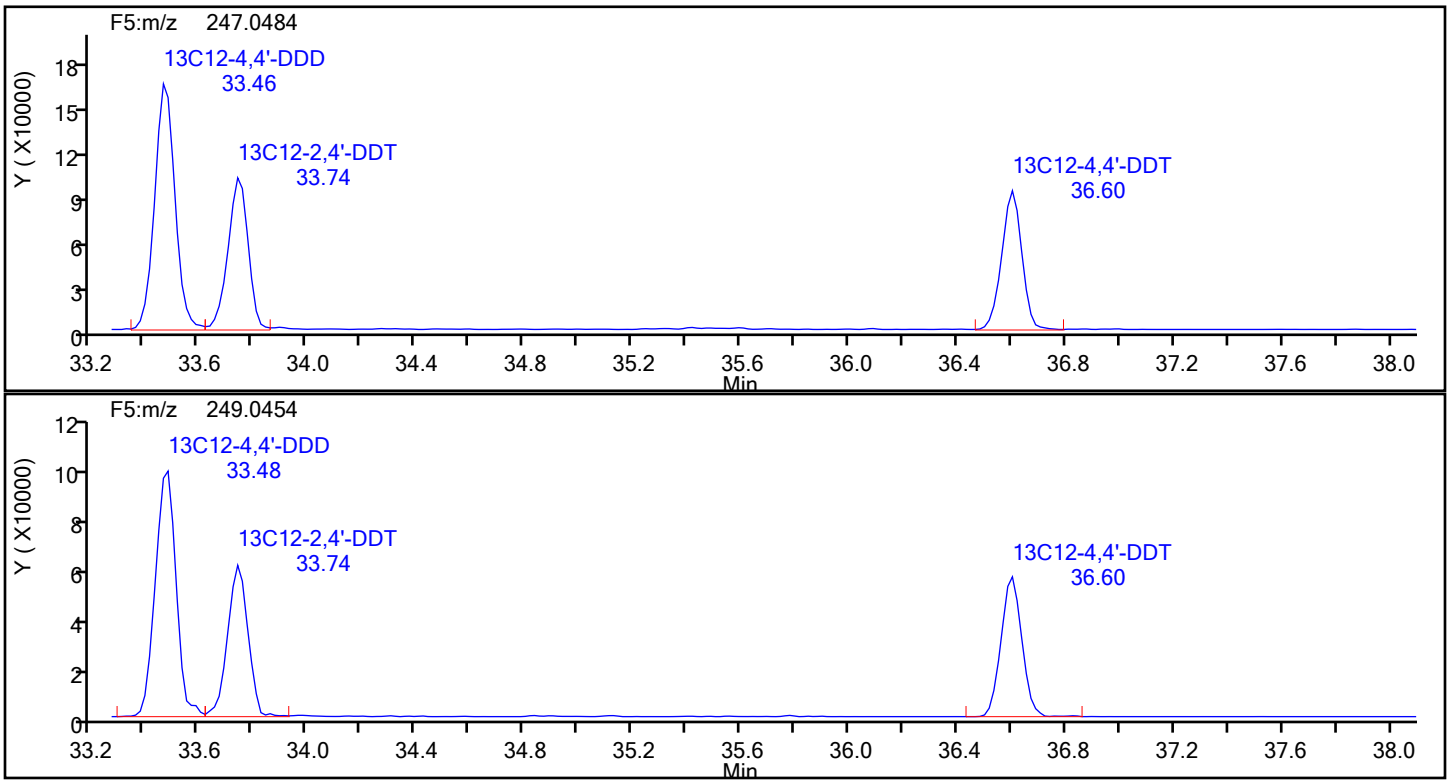
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

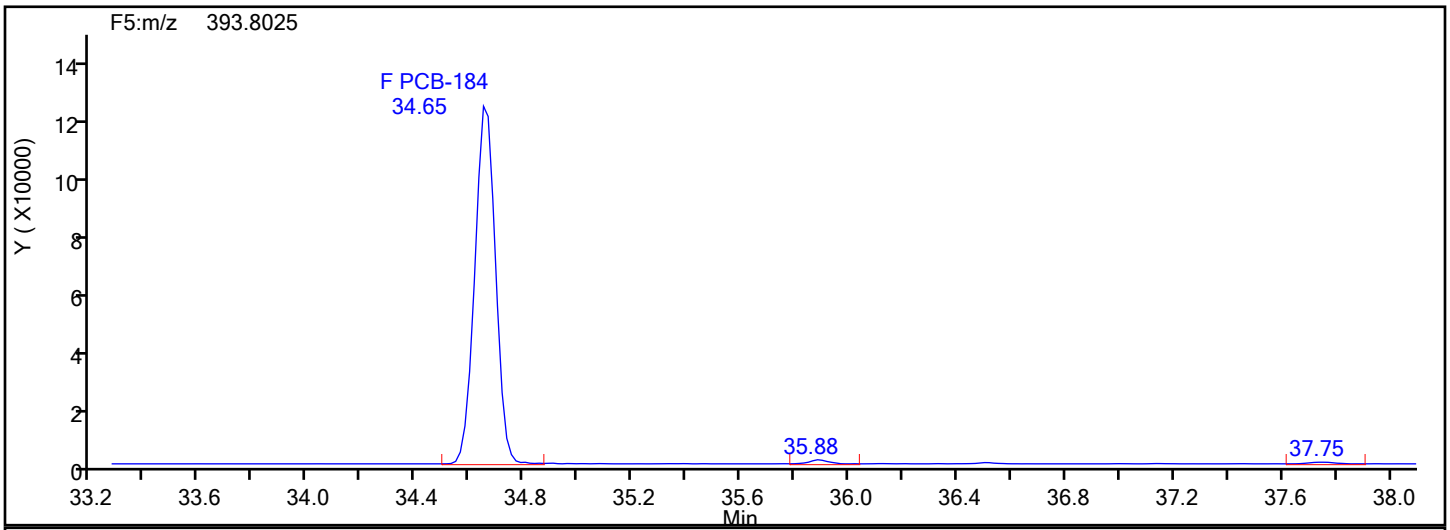


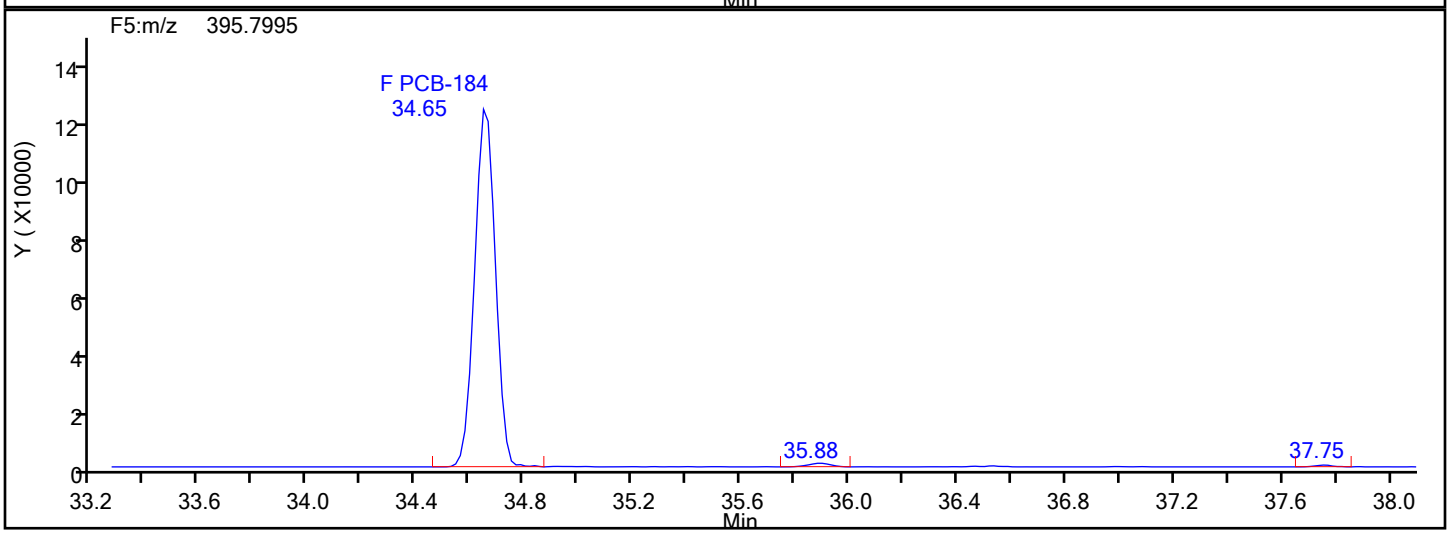
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

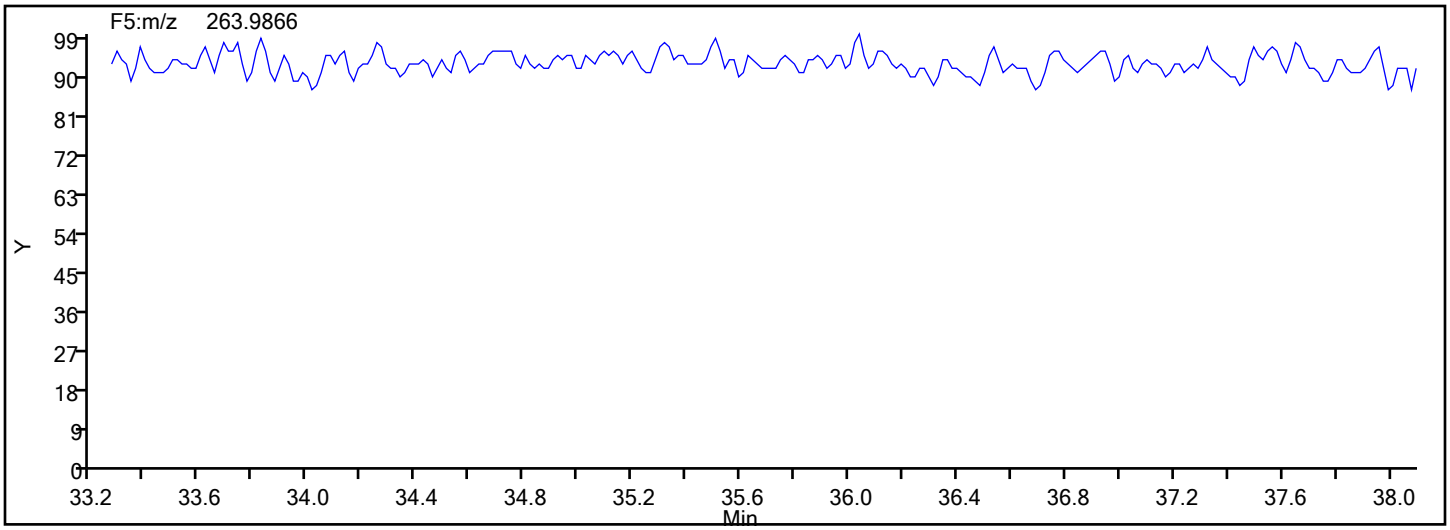
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



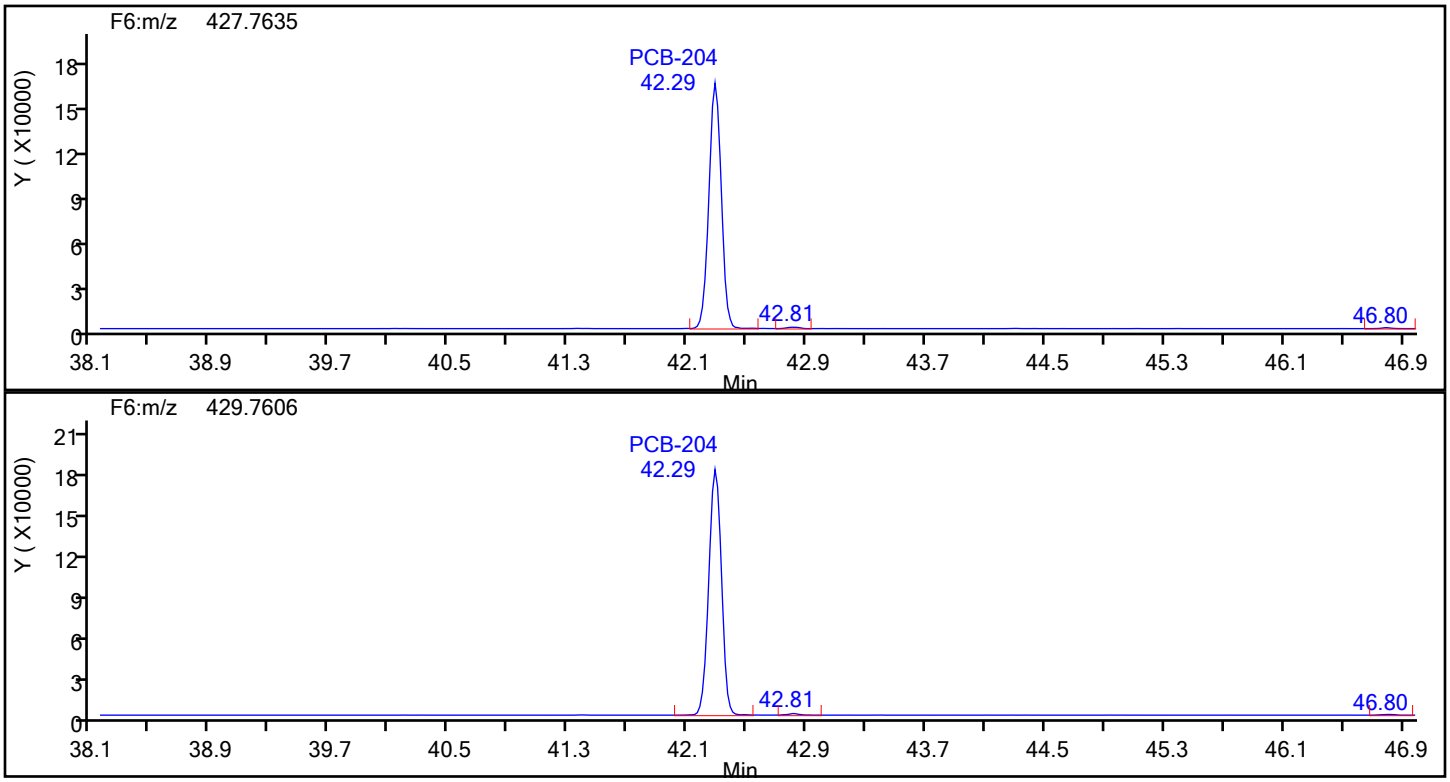
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

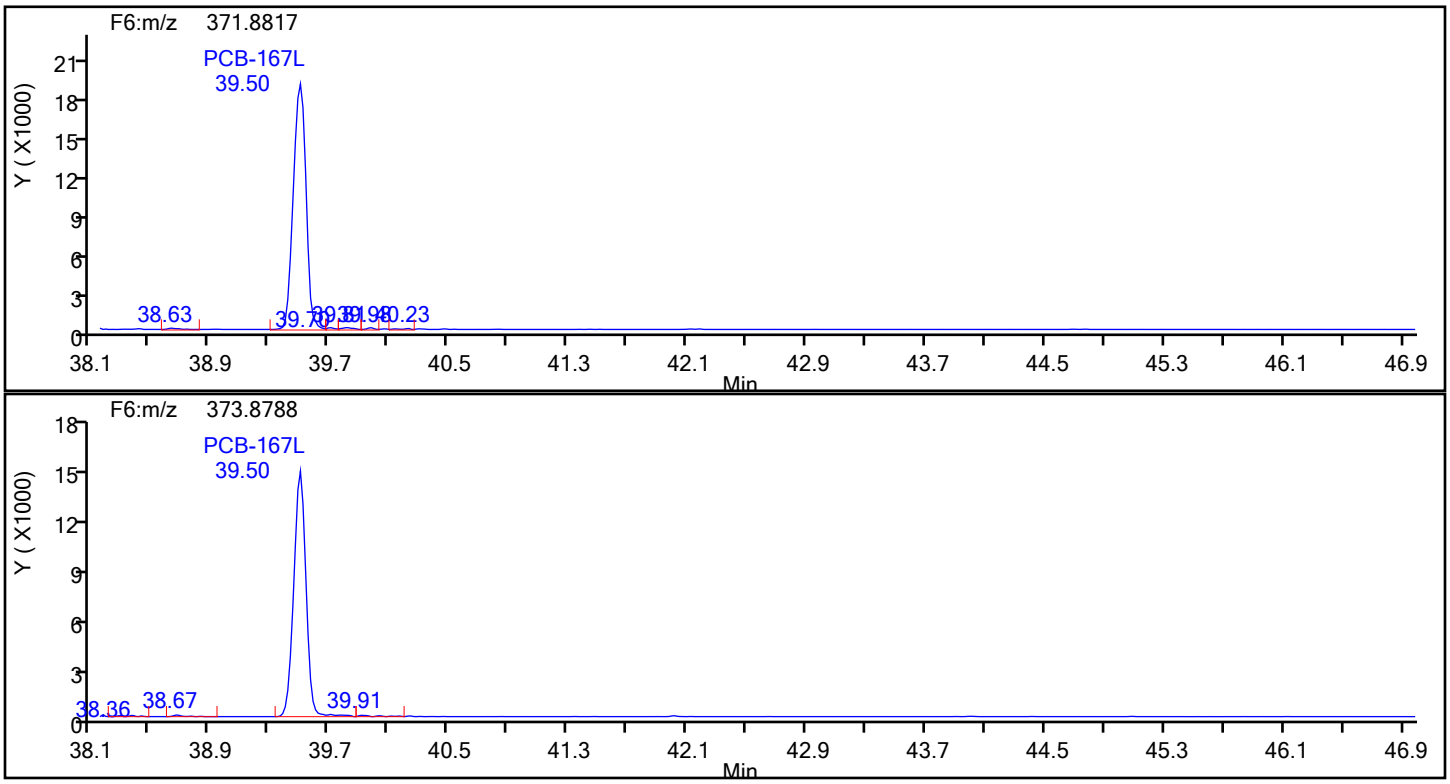
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards

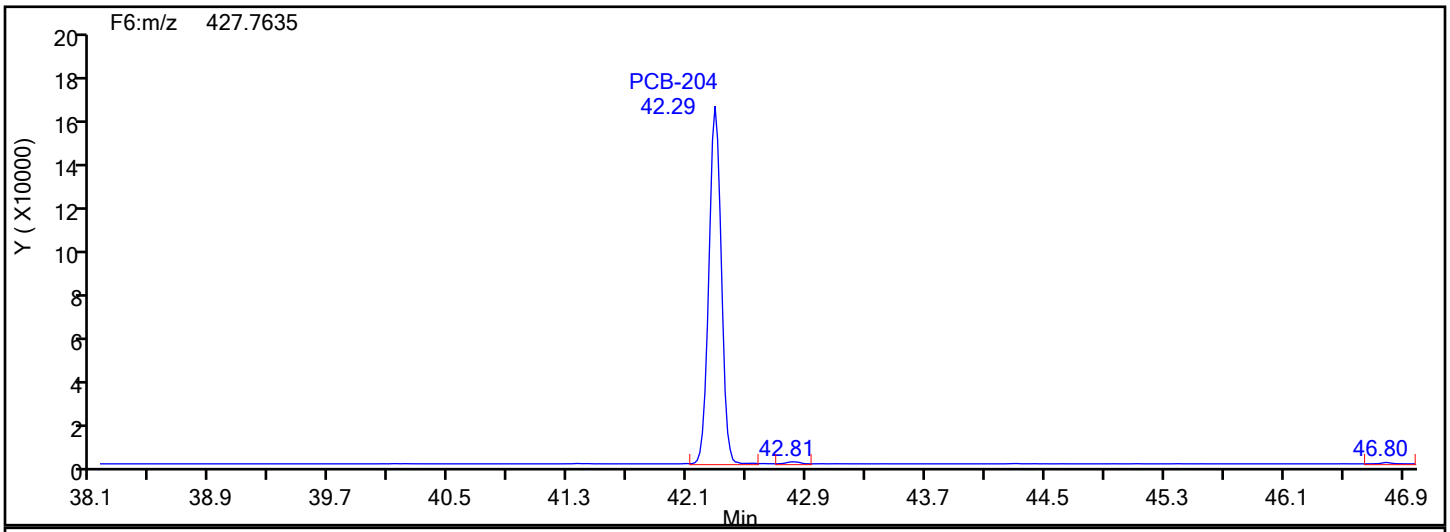


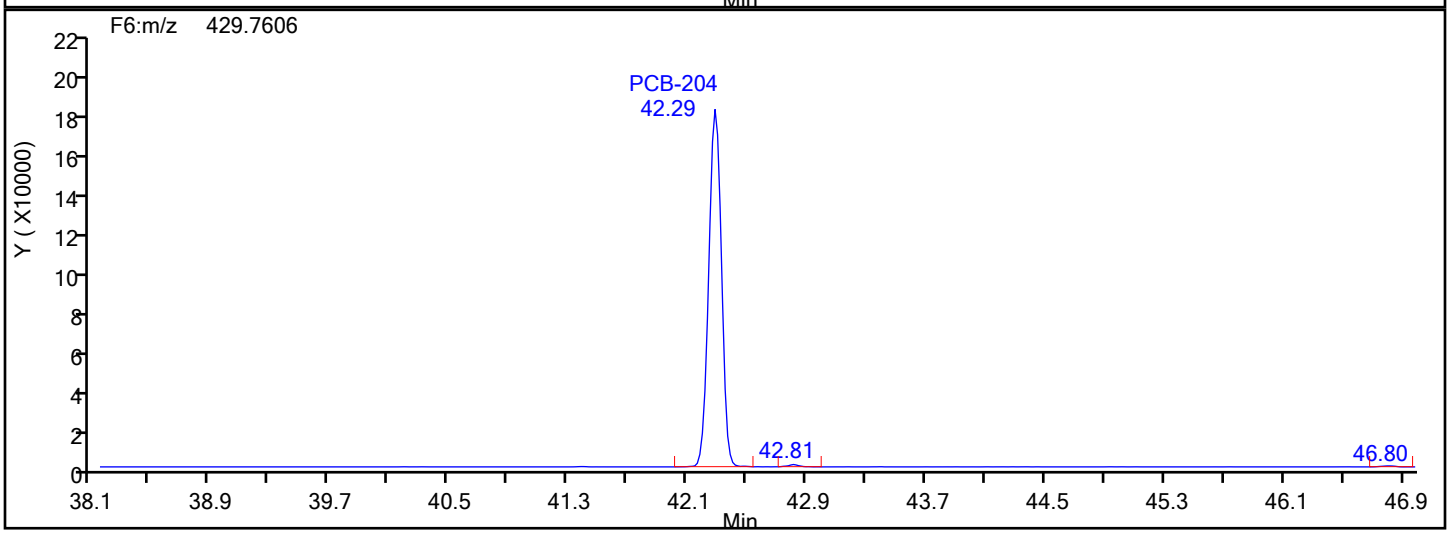
Report Date: 31-Mar-2025 14:10:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

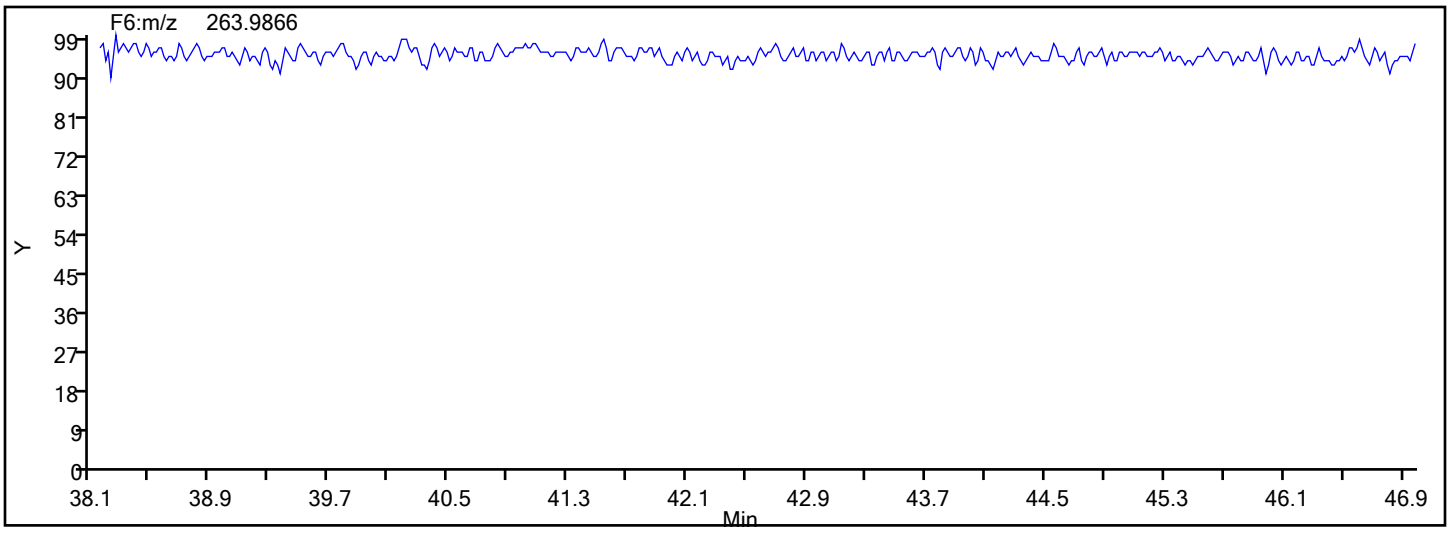
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



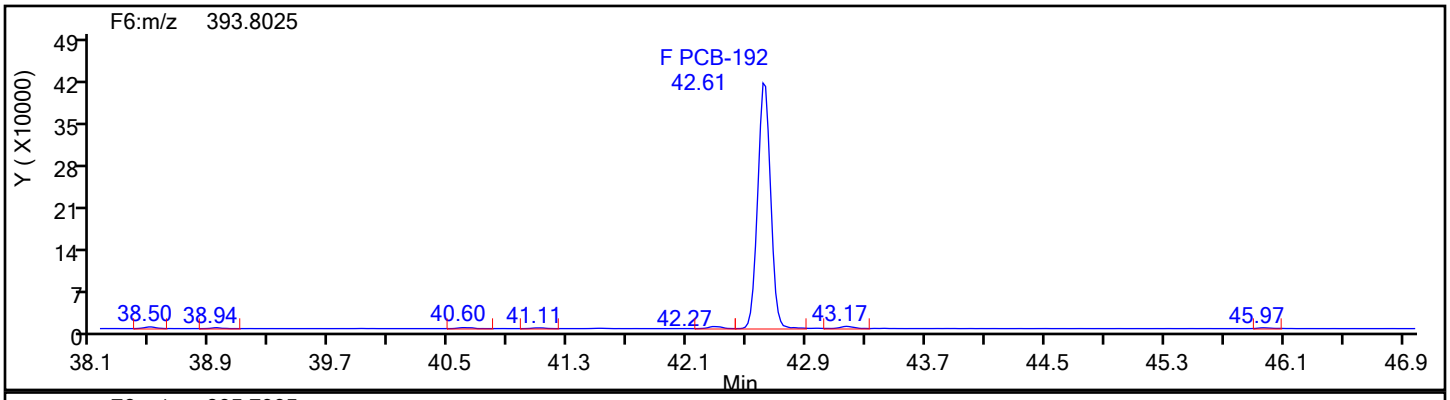
Report Date: 31-Mar-2025 14:10:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

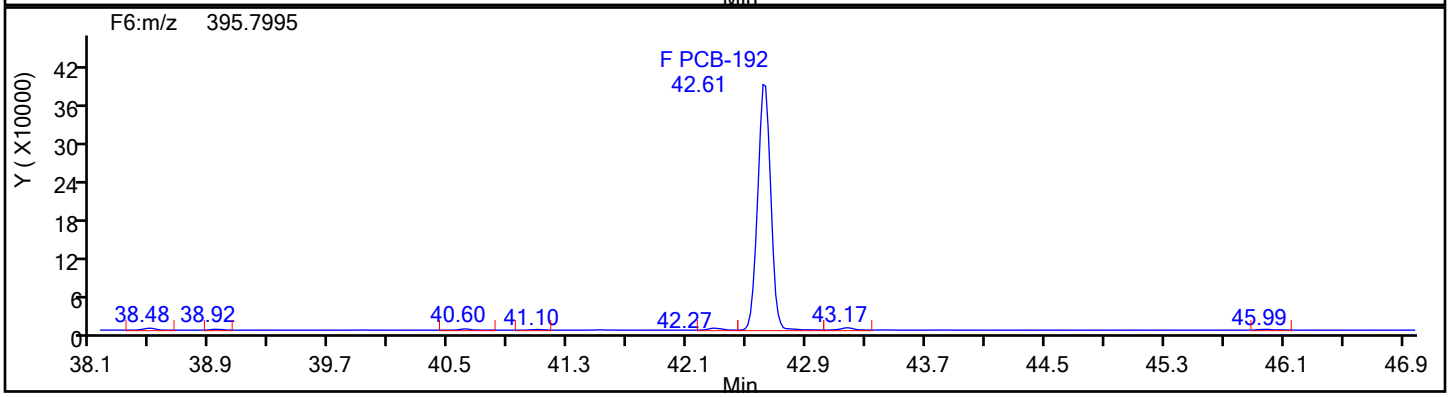
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d

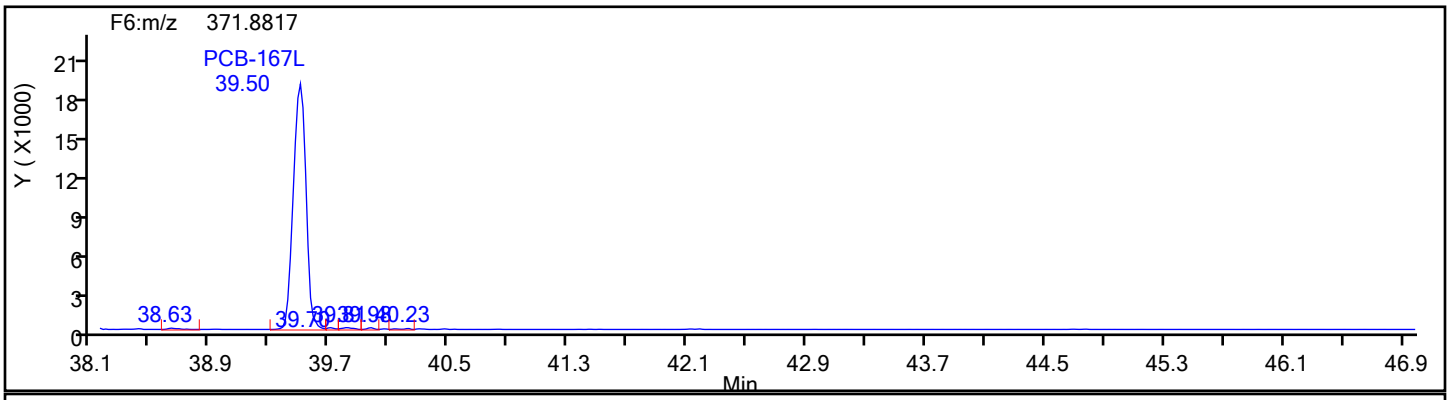
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

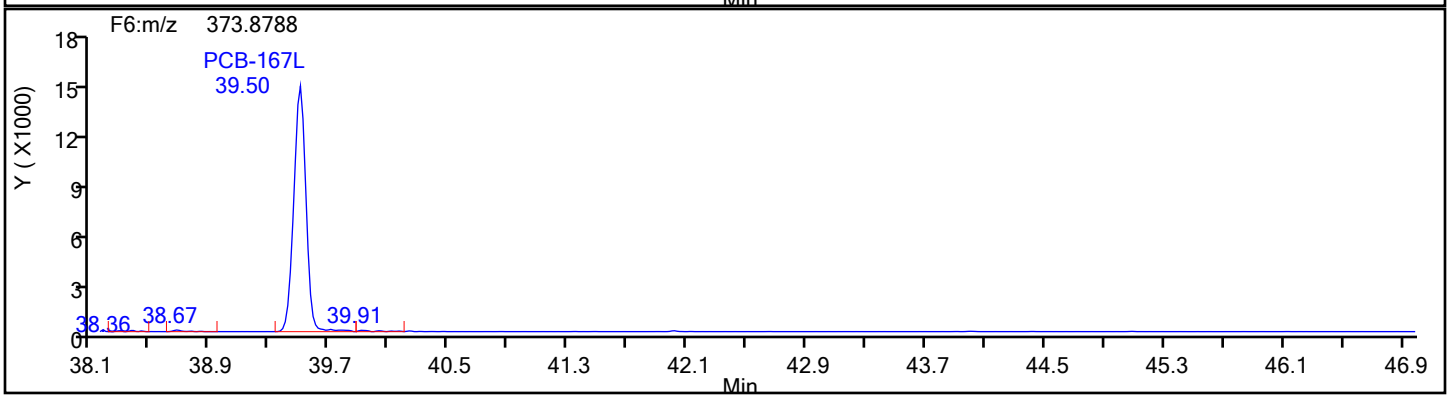
PCB-192





PCB-192 Standards



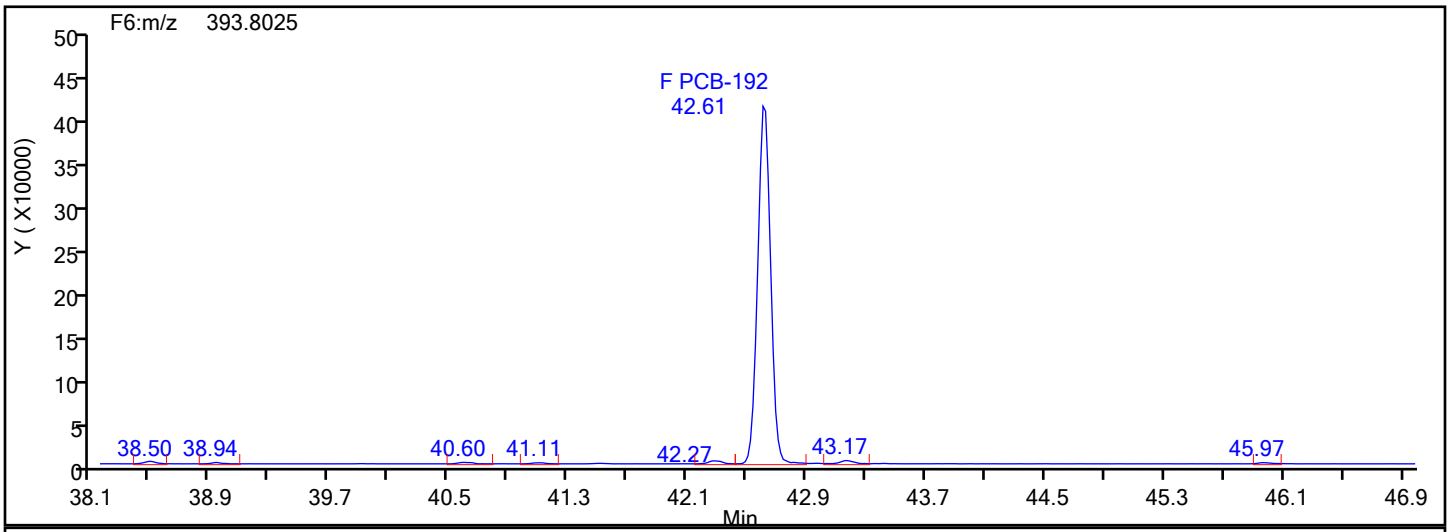


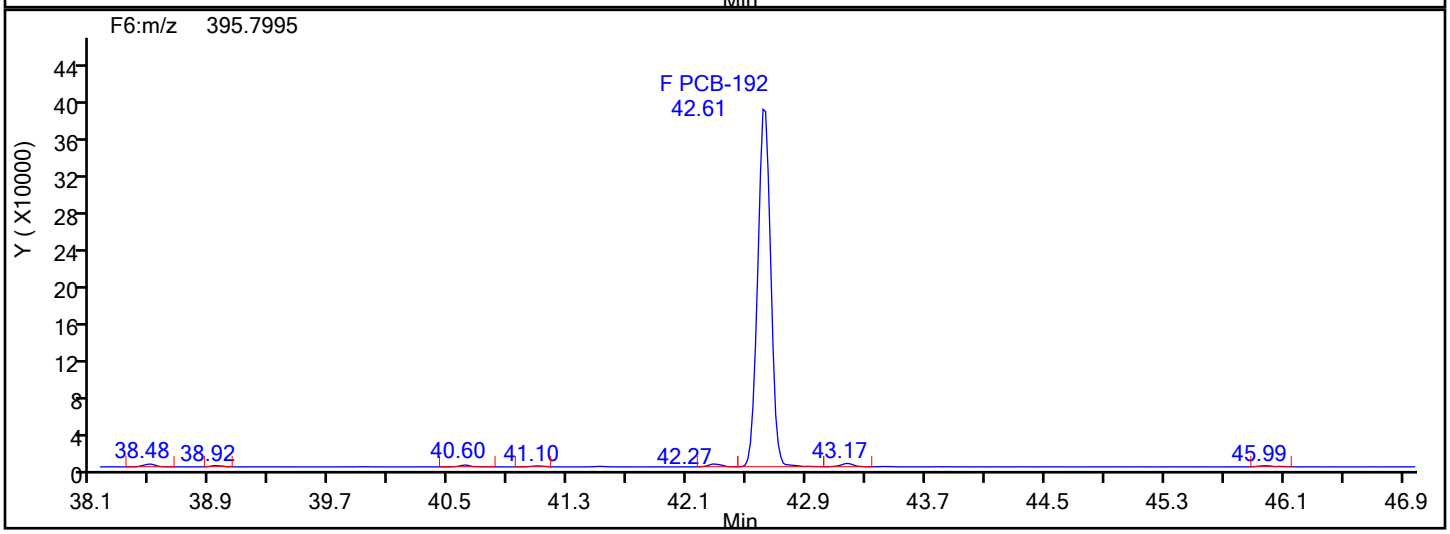
Report Date: 31-Mar-2025 14:10:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

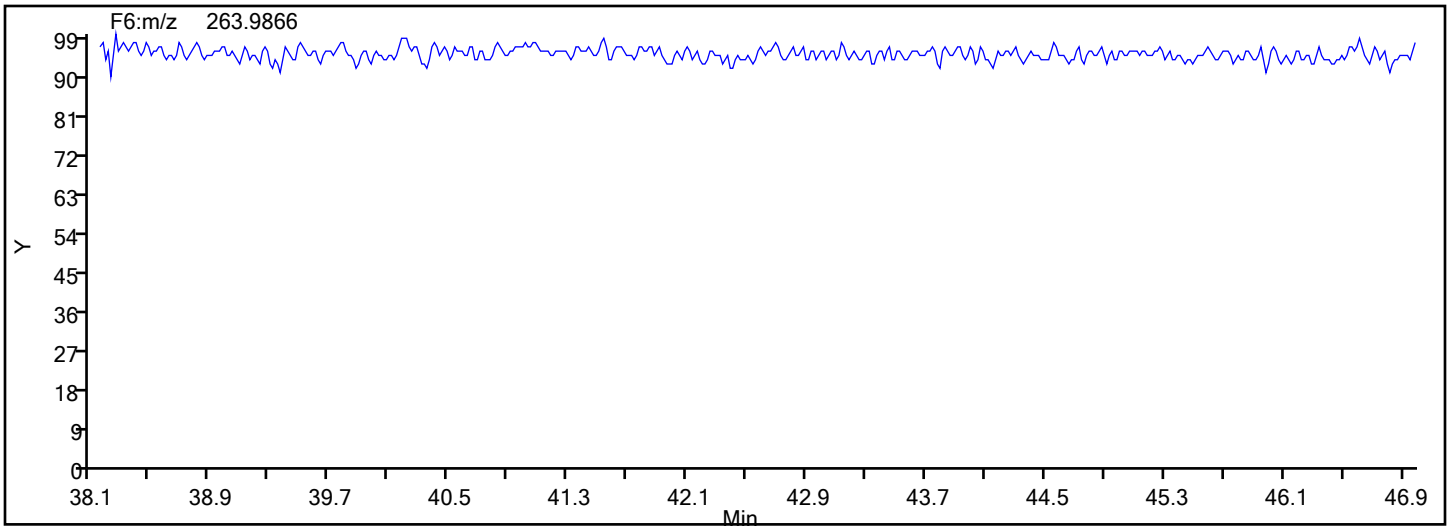
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-2-b10x.d		
Injection Date:	30-Mar-2025 16:56:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-02-241230		
Worklist#:	97758	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-03-241230 | Lab Sample ID: 140-40836-3

Matrix: PE | Lab File ID: 140-40836-a-3-a.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:15

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.042(g) | Date Analyzed: 05/04/2025 19:38

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	1.2	J	24	0.028

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-3-a.d
Lims ID: 140-40836-A-3-B
Client ID: PW-03-241230
Sample Type: Client
Inject. Date: 04-May-2025 19:38:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	3173932	1.62		100.0	100.0				
PCB-14	17:46	1401236	1.65							
* 13C6-Pentachlorophenol (IS)	18:27	8097440	0.67		500.0	500.0				
Pentachlorophenol	18:28	41215	0.61	1.0218	2.491	2.491	0.0594	0.0594		
PCB-36	22:07	21147241	1.06							
* PCB-101L	28:03	7656000	1.60		100.0	100.0				
PCB-104	23:41	35791412	1.61							
* PCB-118L	32:44	9289713	1.59		100.0	100.0				
PCB-121	26:40	119184847	1.65							
* PCB-138L	36:56	5090674	1.30		100.0	100.0				
PCB-142	27:27	24426313	1.28							
* PCB-60L	27:41	15265362	0.83		100.0	100.0				
PCB-78	29:18	93084990	0.80							
* PCB-167L	39:25	5507604	1.26		100.0	100.0				
PCB-155	33:56	13425109	1.26							
PCB-184	34:36	30691697	1.06							
PCB-204	42:14	39598519	0.90							
PCB-192	42:34	126981457	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-3-a.d
Lims ID: 140-40836-A-3-B
Client ID: PW-03-241230
Sample Type: Client
Inject. Date: 04-May-2025 19:38:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		1963305	662216	305	762	2171		
236.0376	19:01	19:02	-1		1210627	412841	86	215	4800	1.62(1.16-1.93)	
PCB-14											
222.0003	17:46	17:49	-2	0.934	871768	332213	87	217	3819		
223.9974	17:46	17:49	-2	0.934	529468	202182	136	340	1487	1.65(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:28	-1		3235534	875640	27	67	32431		
271.8636	18:27	18:28	-1		4861906	1307100	43	107	30398	0.67(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.001	15679	4226	71	177	60		
265.8435	18:28	18:28	0	1.001	25536	5898	35	87	169	0.61(0.00-0.00)	
PCB-36											
255.9613	22:07	22:10	-2	1.162	10872009	3059336	2291	5727	1335		
257.9584	22:07	22:10	-2	1.162	10275232	2882393	1987	4967	1451	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:03	28:04	-1		4710467	1066766	1	2	1066766		
339.9178	28:03	28:04	-1		2945533	671254	1	2	671254	1.60(1.16-1.94)	
PCB-104											
325.8804	23:41	23:43	-2	0.844	22092144	5946725	28	70	212383		
327.8775	23:41	23:43	-2	0.844	13699268	3638877	12	30	303240	1.61(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		5704705	1156289	124	310	9325		
339.9178	32:44	32:44	0		3585008	737671	75	187	9836	1.59(1.16-1.94)	
PCB-121											
325.8804	26:40	26:42	-2	0.815	74253959	18073248	11094	27735	1629		
327.8775	26:40	26:42	-2	0.815	44930888	10804930	4906	12265	2202	1.65(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	0		2878006	523724	85	212	6161		
373.8788	36:56	36:56	0		2212668	407063	56	140	7269	1.30(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	13689549	3124057	210	525	14876		
361.8385	27:27	27:29	-2	0.743	10736764	2446000	164	410	14915	1.28(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:41	-1		6905206	1545392	110	275	14049		
303.9597	27:41	27:41	-1		8360156	1874626	103	257	18200	0.83(0.58-0.96)	
PCB-78											
289.9224	29:18	29:18	1	1.059	41268455	9361720	2601	6502	3599		
291.9194	29:18	29:18	1	1.059	51816535	11796212	2670	6675	4418	0.80(0.65-0.89)	
PCB-167L											
371.8817	39:25	39:25	0		3074127	527614	75	187	7035		
373.8788	39:25	39:25	0		2433477	425610	58	145	7338	1.26(1.16-1.94)	
PCB-155											
359.8415	33:56	33:59	-2	0.861	7474479	1424822	1886	4715	755		
361.8385	33:56	33:59	-2	0.861	5950630	1143330	2078	5195	550	1.26(1.05-1.43)	
PCB-184											
393.8025	34:36	34:38	-1	0.878	15766916	2983650	96	240	31080		
395.7995	34:36	34:38	-1	0.878	14924781	2832392	67	167	42275	1.06(0.89-1.21)	
PCB-204											
427.7635	42:14	42:15	-1	1.071	18750850	3123695	62	155	50382		
429.7606	42:14	42:15	-1	1.071	20847669	3489126	53	132	65833	0.90(0.76-1.02)	
PCB-192											
393.8025	42:34	42:35	-1	1.080	65074577	11318598	2321	5802	4877		
395.7995	42:34	42:35	-1	1.080	61906880	10637493	2337	5842	4552	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

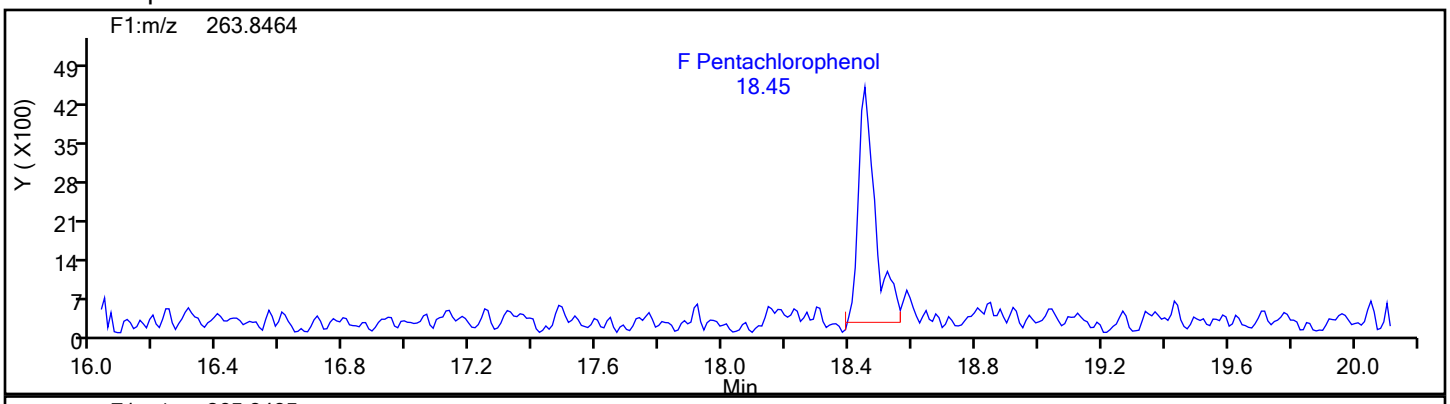
Report Date: 06-May-2025 13:36:26 Chrom Revision: 2.3 18-Apr-2025 15:35:42

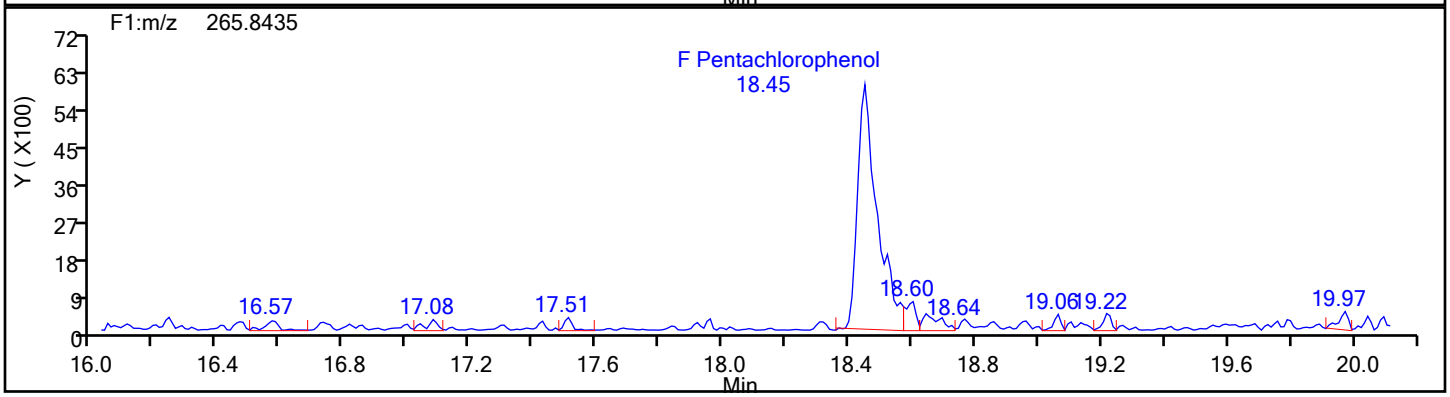
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-3-a.d

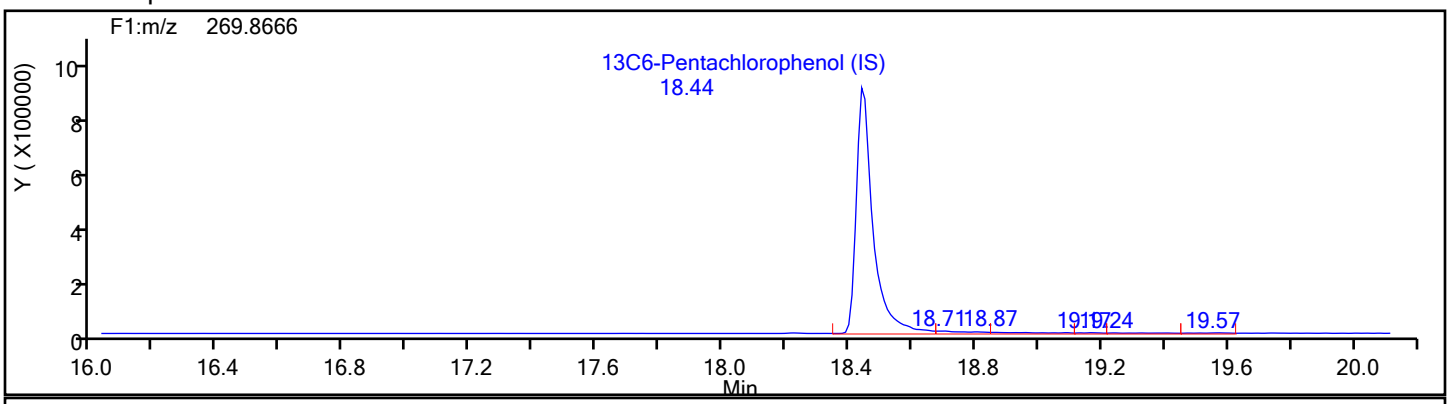
Injection Date:	04-May-2025 19:38:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	99272	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

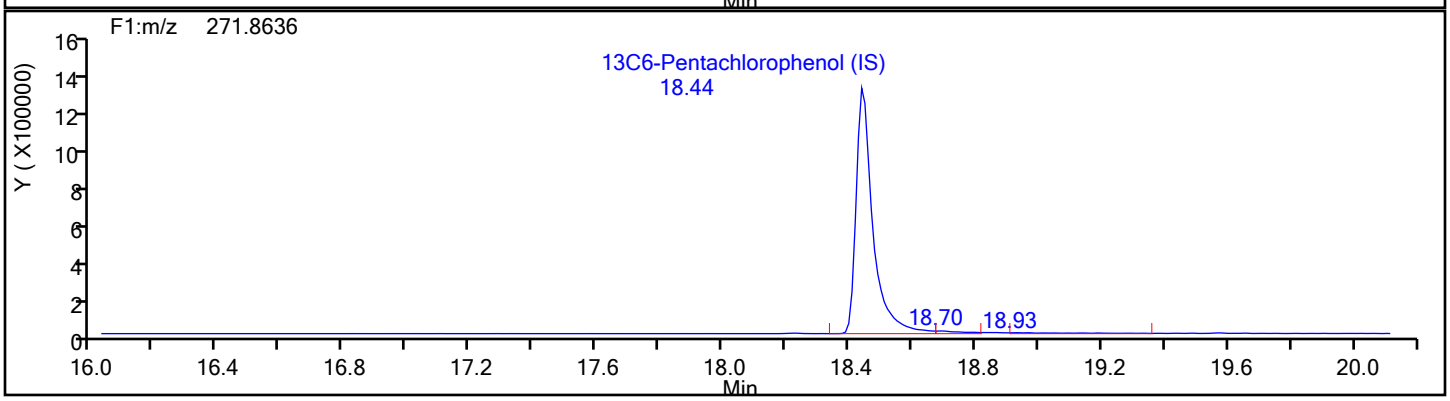
Pentachlorophenol





Pentachlorophenol Standards



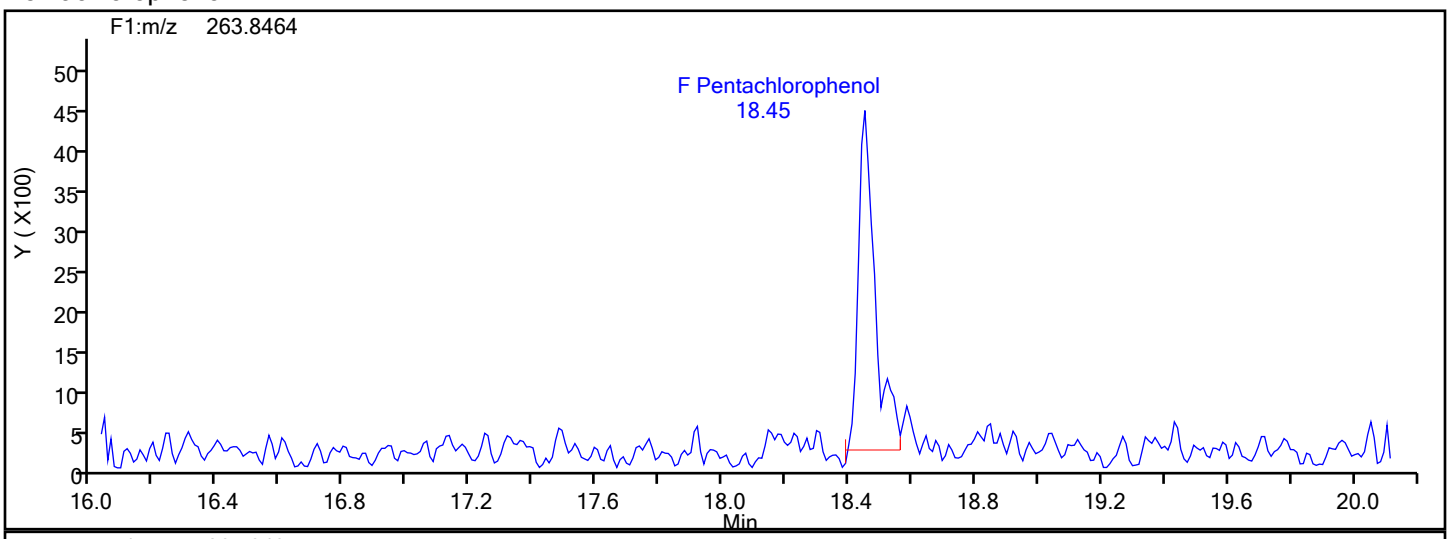


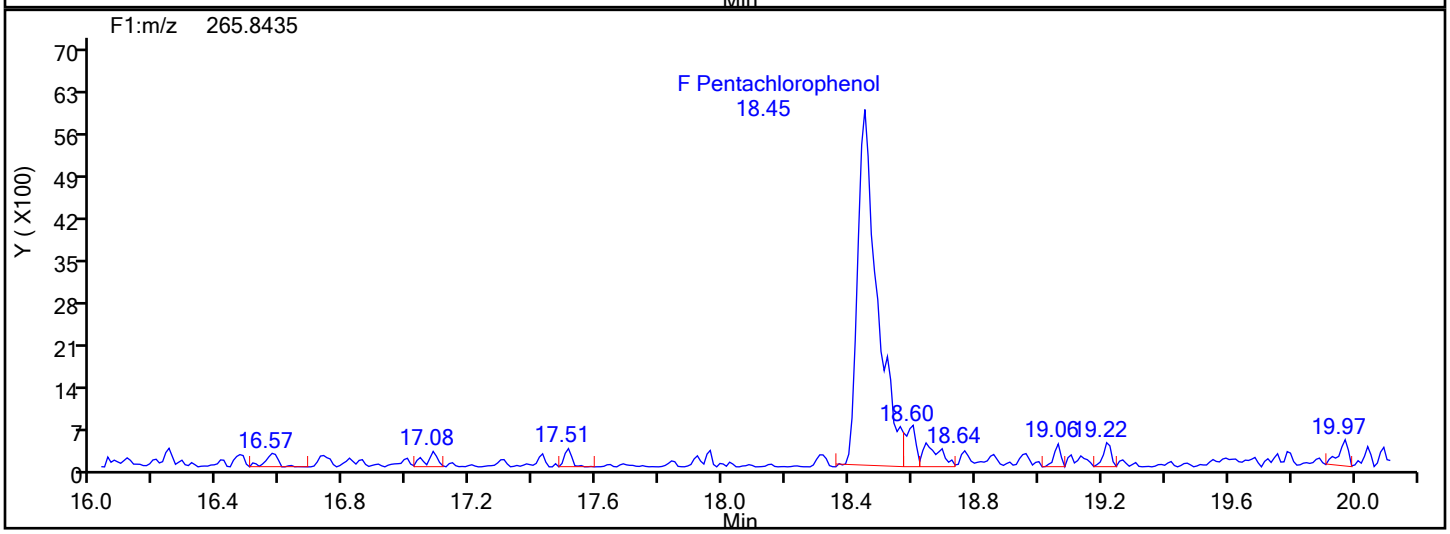
Report Date: 06-May-2025 13:36:26 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

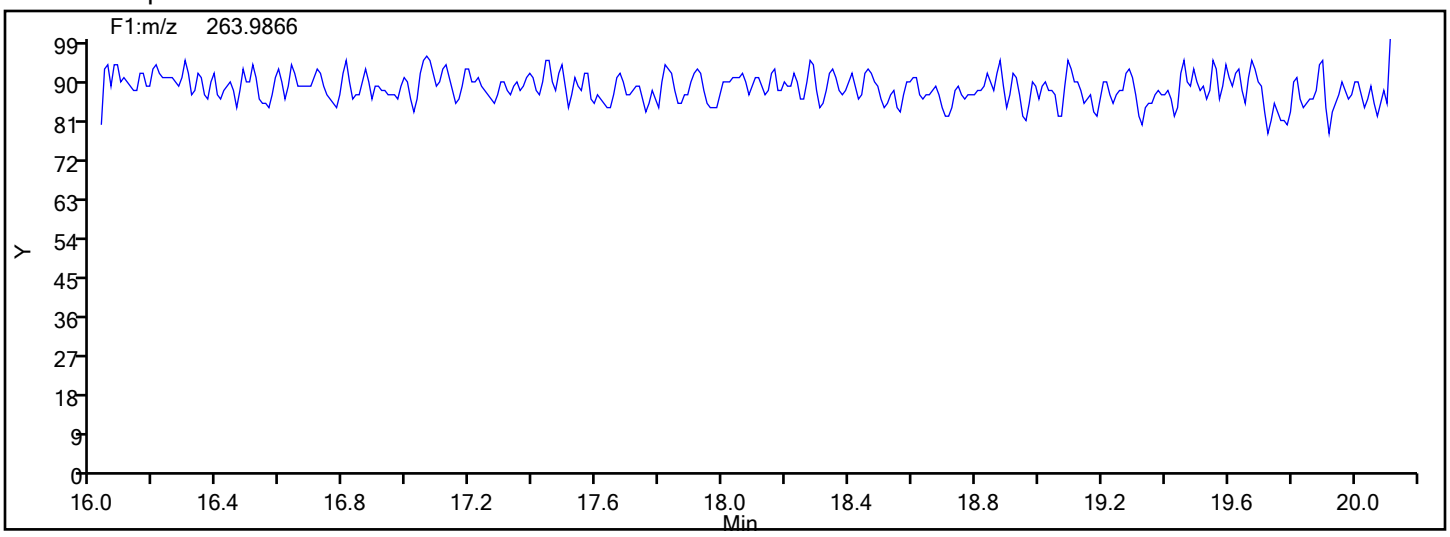
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-3-a.d		
Injection Date:	04-May-2025 19:38:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	99272	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-03-241230 | Lab Sample ID: 140-40836-3

Matrix: PE | Lab File ID: 140-40836-a-3-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:15

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.042(g) | Date Analyzed: 03/30/2025 17:51

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	32		24	0.023
74472-51-8	PCB-192	1400	B	24	0.63
74472-48-3	PCB-184	270	B	24	0.036
33979-03-2	PCB-155	120		24	0.51
41411-61-4	PCB-142	140	B	24	0.043
74472-52-9	PCB-204	560	B	24	0.028
56558-16-8	PCB-104	220	B	24	0.0025
56558-18-0	PCB-121	490	B	24	1.4
70362-49-1	PCB-78	230	B	24	0.16
38444-87-0	PCB-36	45		24	0.23

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d
Lims ID: 140-40836-A-3-B
Client ID: PW-03-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 17:51:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-008
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:09:36

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:05	632768	1.58		10.0	10.0				
PCB-14	17:50	573155	1.58	1.3581	6.670	6.670	0.004803	0.004803		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:10	617169	1.02	1.0230	9.534	9.534	0.0489	0.0489		
* PCB-101L	28:08	233616	1.61		10.0	10.0				
PCB-104	23:44	1944473	1.54	1.8372	45.3	45.3	0.000526	0.000526		
* PCB-118L	32:48	272190	1.63		10.0	10.0				
PCB-121	26:44	4061027	1.59	1.4622	102.0	102.0	0.2991	0.2991		
* PCB-138L	37:01	167446	1.27		10.0	10.0				
PCB-142	27:30	1006918	1.24	2.0271	29.7	29.7	0.009001	0.009001		
* PCB-60L	27:45	403696	0.77		10.0	10.0				
PCB-78	29:23	1822489	0.79	0.9153	49.3	49.3	0.0330	0.0330		
* PCB-167L	39:29	198003	1.25		10.0	10.0				
PCB-155	34:00	452916	1.21	0.9191	24.9	24.9	0.1061	0.1061		
PCB-184	34:40	1284895	1.09	1.1610	55.9	55.9	0.007522	0.007522		
PCB-204	42:17	1704460	0.93	0.7364	116.9	116.9	0.005929	0.005929		
PCB-192	42:37	4591832	1.06	0.7635	303.8	303.8	0.1323	0.1323		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags

Report Date: 31-Mar-2025 14:10:16 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d
Lims ID: 140-40836-A-3-B
Client ID: PW-03-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 17:51:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-008
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

First Level Reviewer: F9EE Date: 31-Mar-2025 14:09:36

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:05	19:05	0		387557	114384	9	22	12709		
236.0376	19:05	19:05	0		245211	72652	2	5	36326	1.58(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	0	0.934	350892	112518	33	82	3410		
223.9974	17:49	17:50	-1	0.934	222263	73399	16	40	4587	1.58(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						40	100			
265.8435	18:31						7	17			
PCB-36											
255.9613	22:10	22:10	0	1.162	310927	78666	195	487	403		
257.9584	22:10	22:10	-1	1.161	306242	77872	179	447	435	1.02(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	0		144190	32408	1	2	32408		
339.9178	28:08	28:08	0		89426	19298	1	2	19298	1.61(1.16-1.94)	
PCB-104											
325.8804	23:44	23:45	-1	0.844	1177905	316186	1	2	316186		
327.8775	23:44	23:45	-1	0.844	766568	194732	1	2	194732	1.54(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		168719	32013	3	7	10671		
339.9178	32:48	32:48	0		103471	20167	2	5	10084	1.63(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-121											
325.8804	26:44	26:44	0	0.815	2490144	563605	571	1427	987		
327.8775	26:44	26:44	0	0.815	1570883	359512	342	855	1051	1.59(1.32-1.78)	
PCB-138L											
371.8817	37:01	37:00	0		93674	16964	1	2	16964		
373.8788	37:01	37:00	0		73772	13180	2	5	6590	1.27(1.16-1.94)	
PCB-142											
359.8415	27:30	27:31	-1	0.743	557732	127896	17	42	7523		
361.8385	27:30	27:31	-1	0.743	449186	102299	5	12	20460	1.24(1.05-1.43)	
PCB-60L											
301.9626	27:45	27:45	0		175465	36159	4	10	9040		
303.9597	27:45	27:45	0		228231	48944	2	5	24472	0.77(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	806320	167434	52	130	3220		
291.9194	29:23	29:23	0	1.059	1016169	208573	51	127	4090	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:29	39:30	-1		110097	19253	7	17	2750		
373.8788	39:29	39:30	-1		87906	15101	4	10	3775	1.25(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	248362	47100	65	162	725		
361.8385	34:00	34:00	0	0.861	204554	39133	69	172	567	1.21(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	-1	0.878	669293	128716	10	25	12872		
395.7995	34:40	34:40	-1	0.878	615602	117140	2	5	58570	1.09(0.89-1.21)	
PCB-204											
427.7635	42:17	42:18	-1	1.071	822168	142515	3	7	47505		
429.7606	42:17	42:18	-1	1.071	882292	149038	3	7	49679	0.93(0.76-1.02)	
PCB-192											
393.8025	42:37	42:37	-1	1.079	2360697	386042	87	217	4437		
395.7995	42:37	42:37	-1	1.079	2231135	369447	52	130	7105	1.06(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

QC Flag Legend

Processing Flags

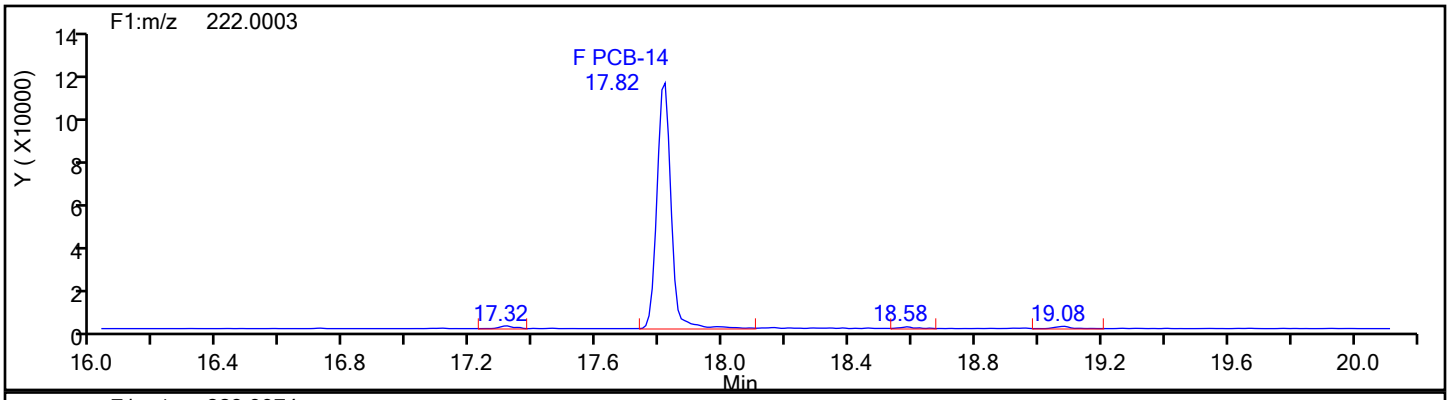
Report Date: 31-Mar-2025 14:10:17 Chrom Revision: 2.3 21-Mar-2025 14:03:38

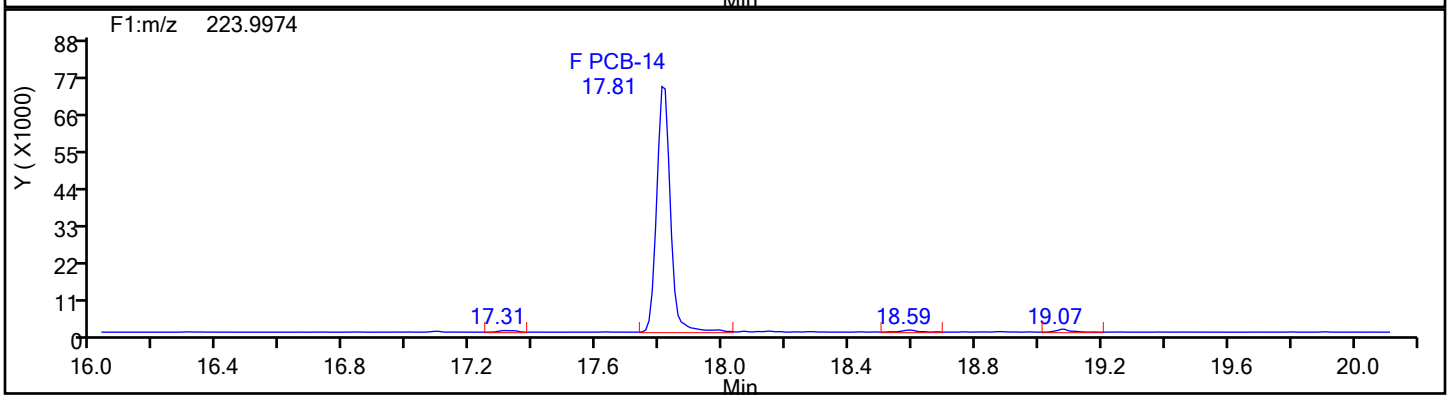
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

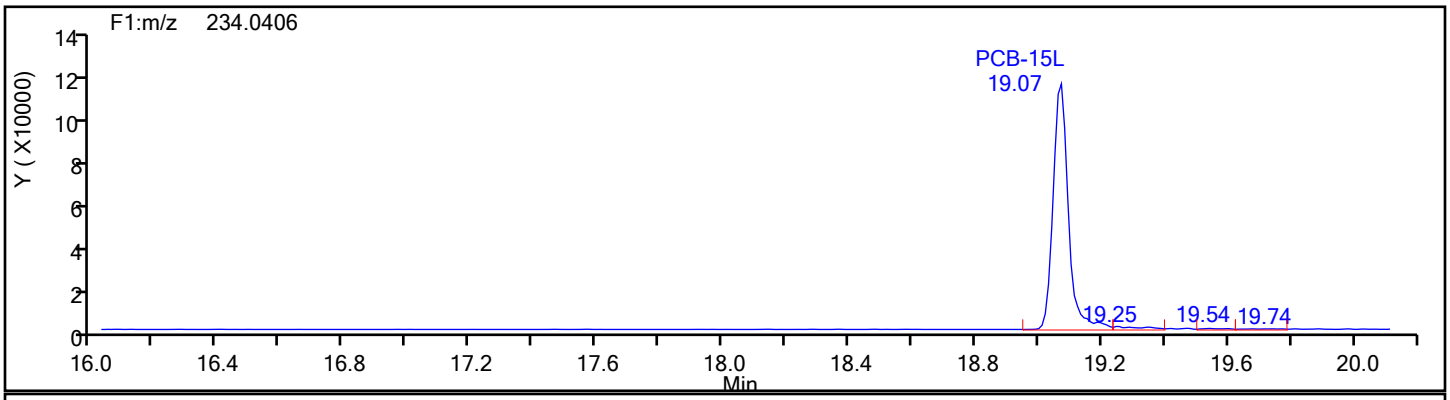
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

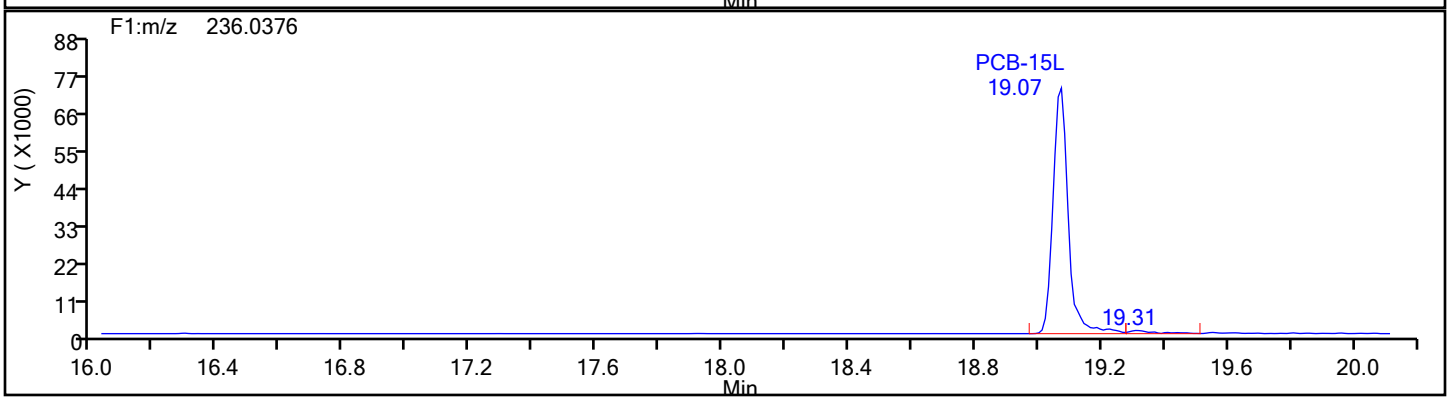
PCB-14





PCB-14 Standards



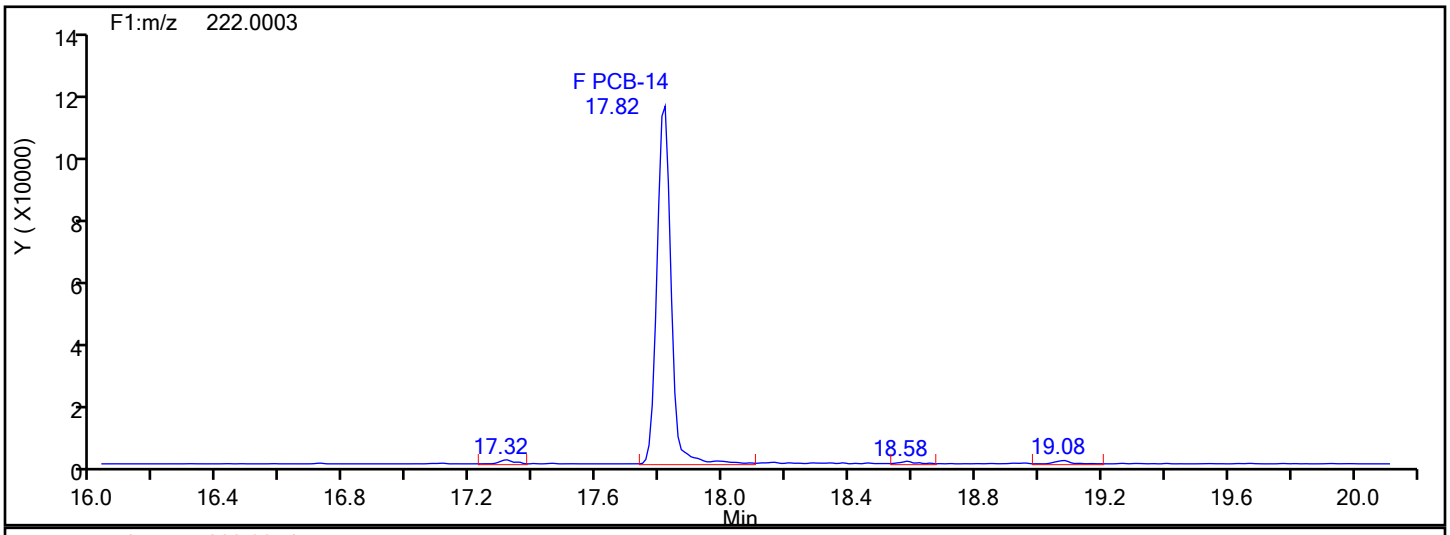


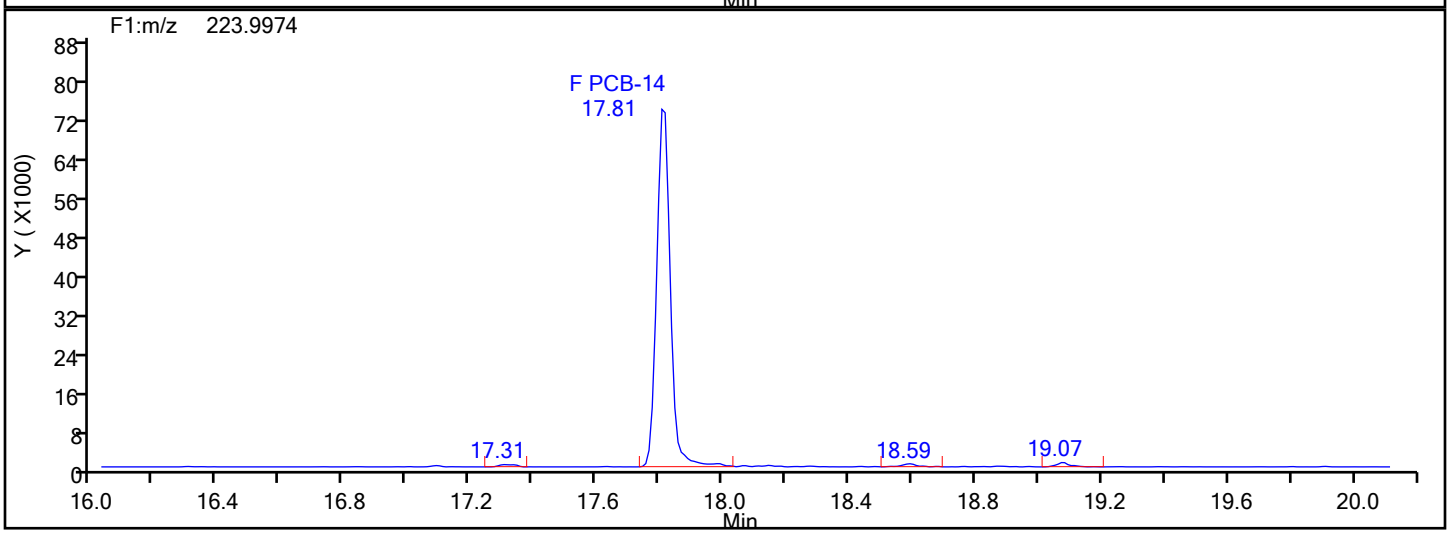
Report Date: 31-Mar-2025 14:10:17 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

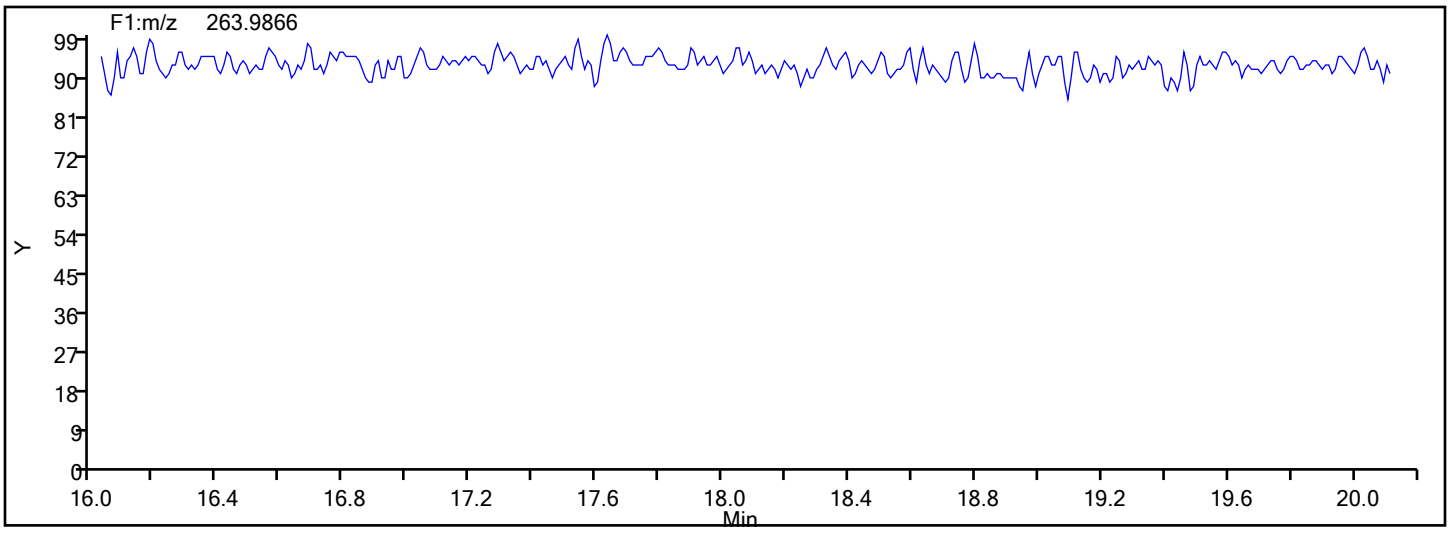
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



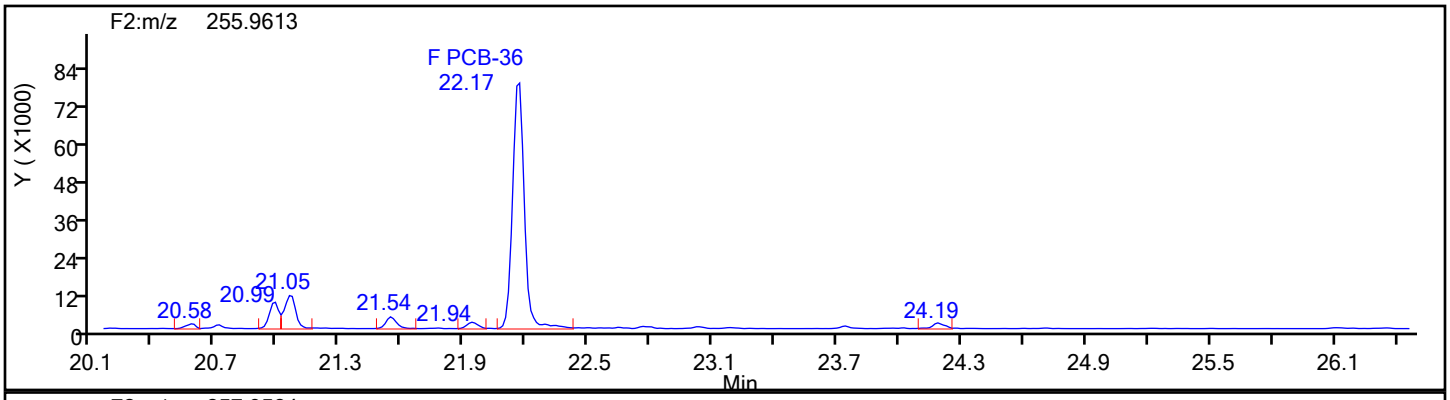
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

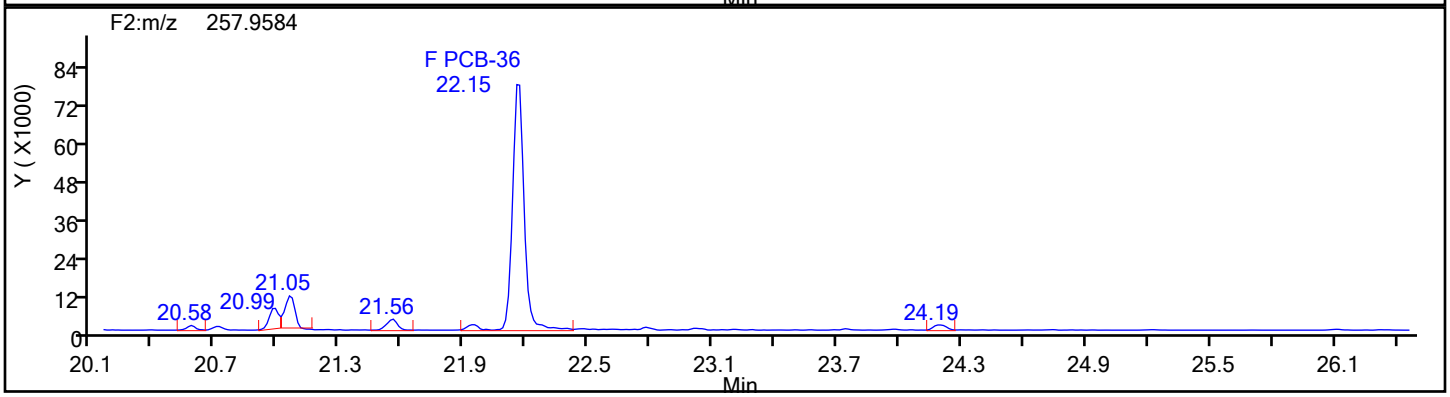
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

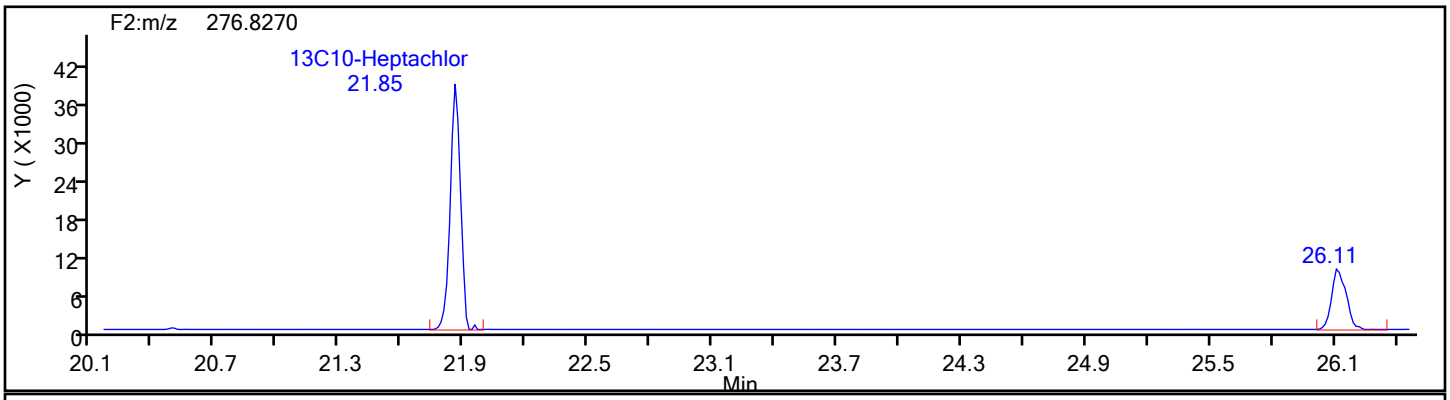
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

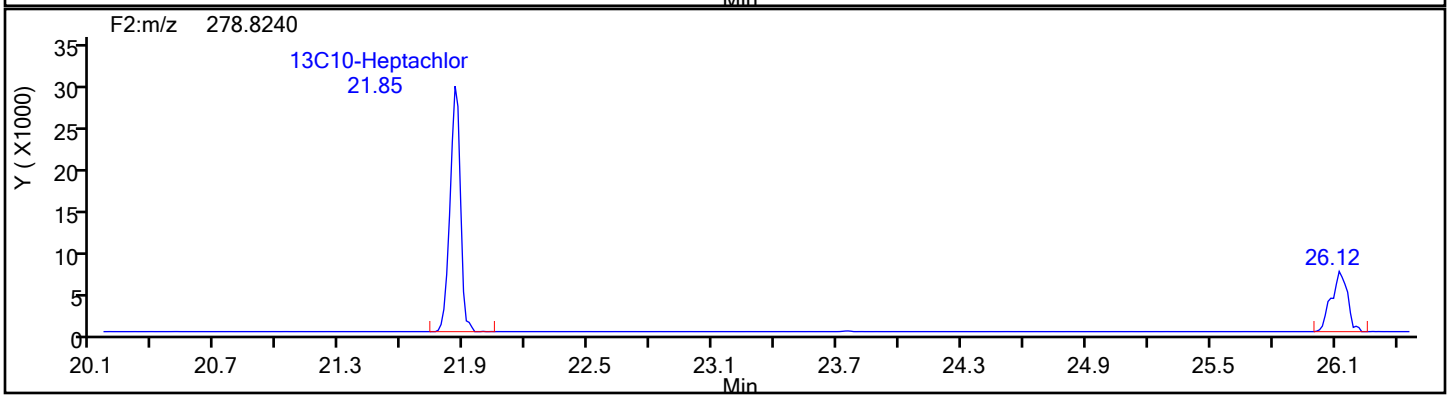
PCB-36





PCB-36 Standards



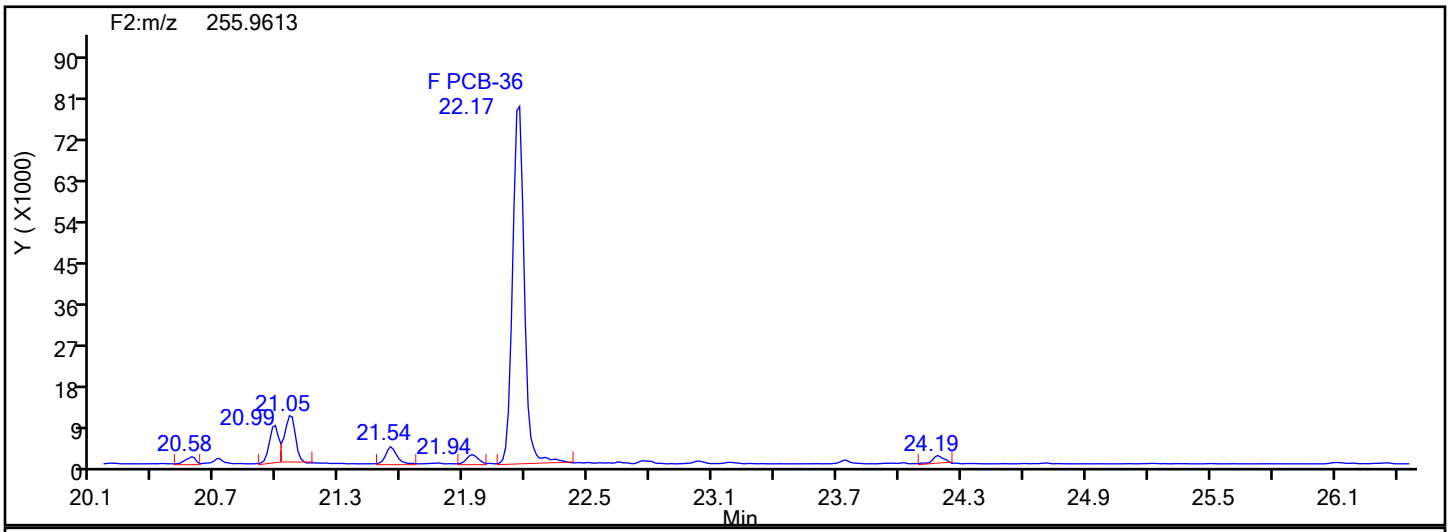


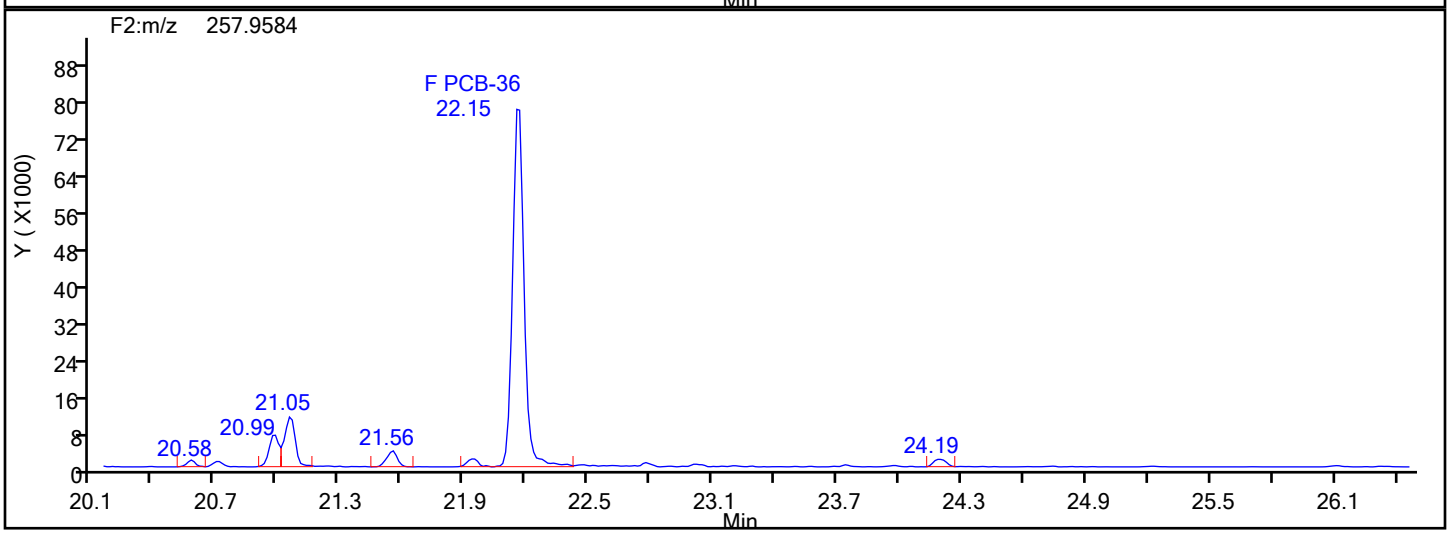
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

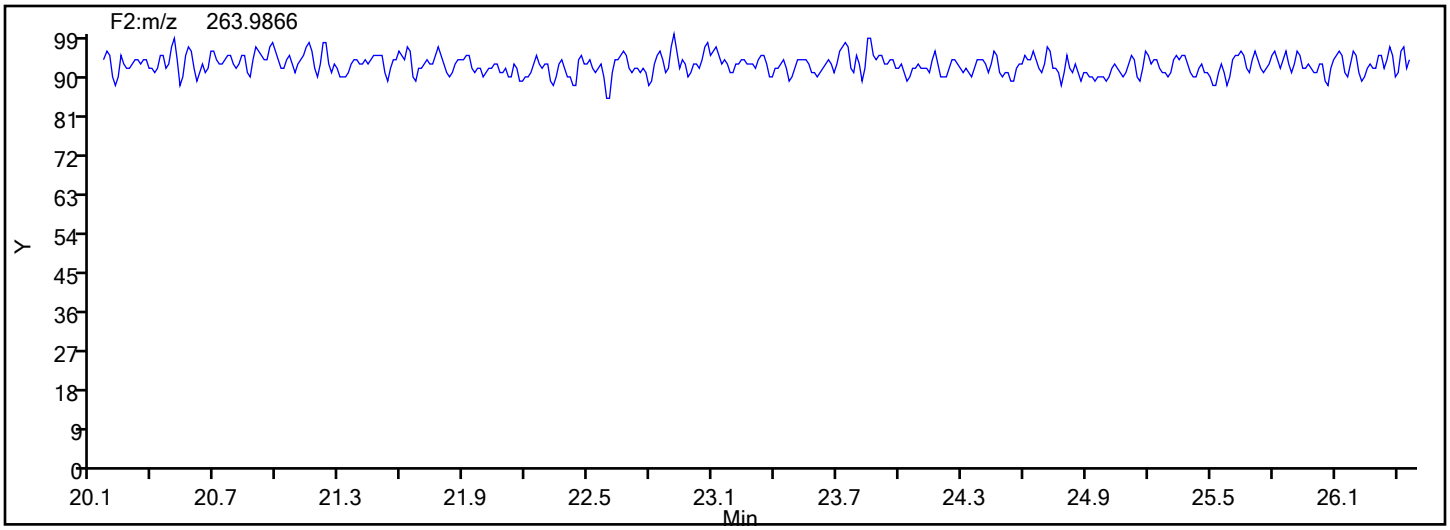
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



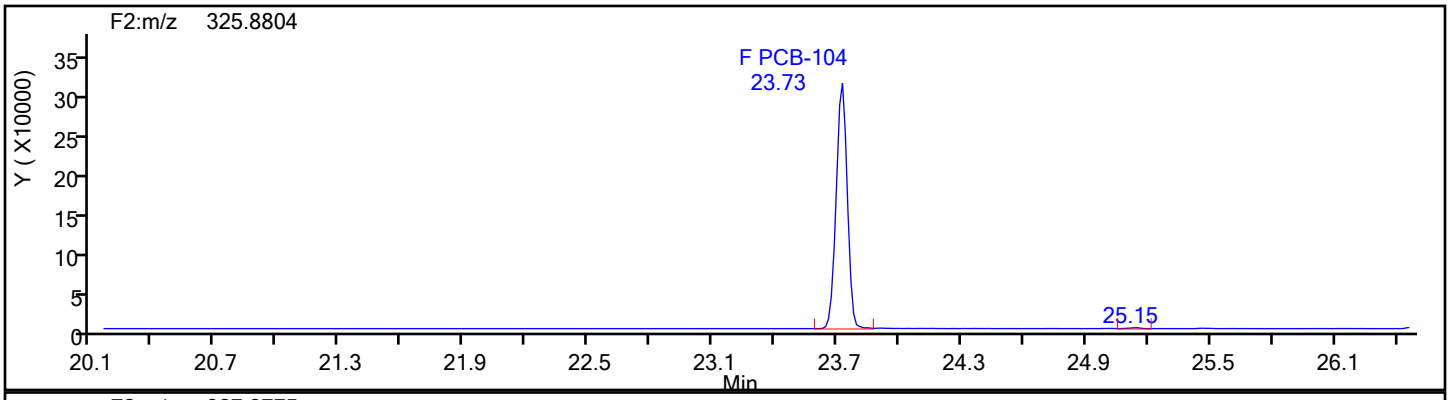
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

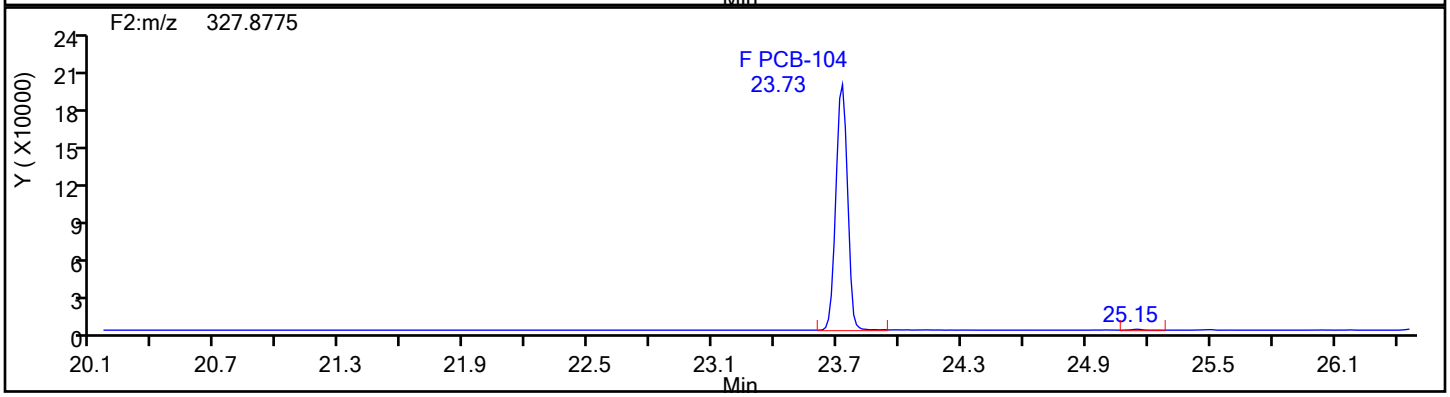
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

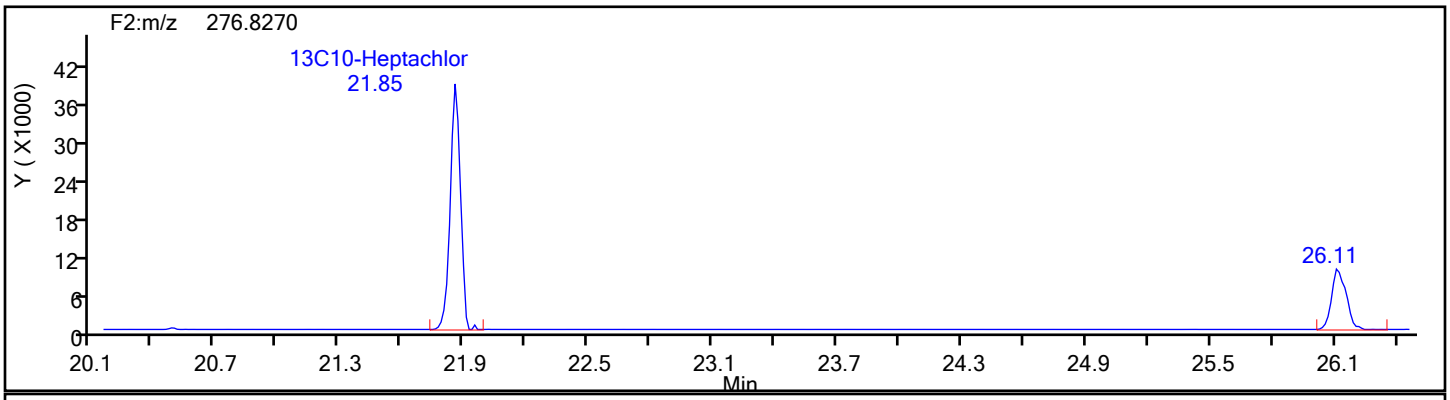
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

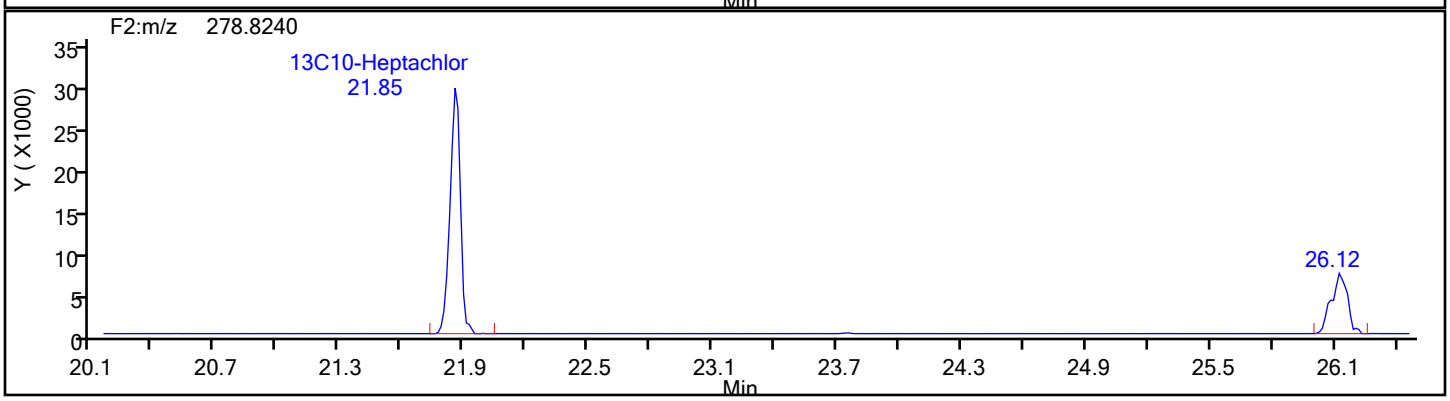
PCB-104





PCB-104 Standards



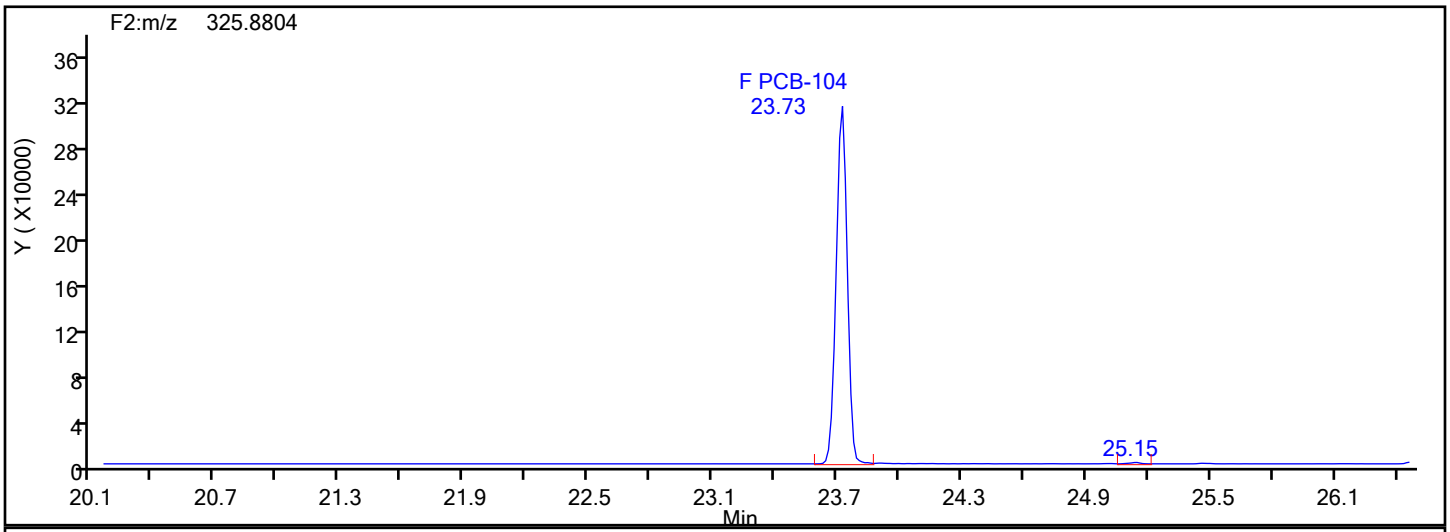


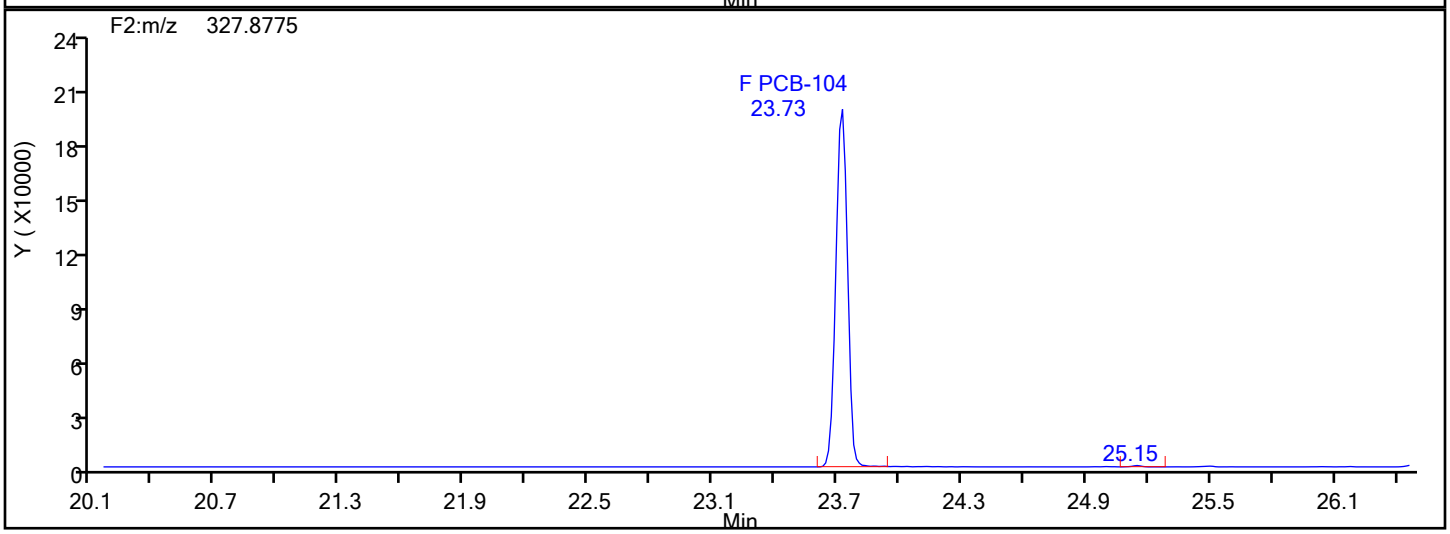
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

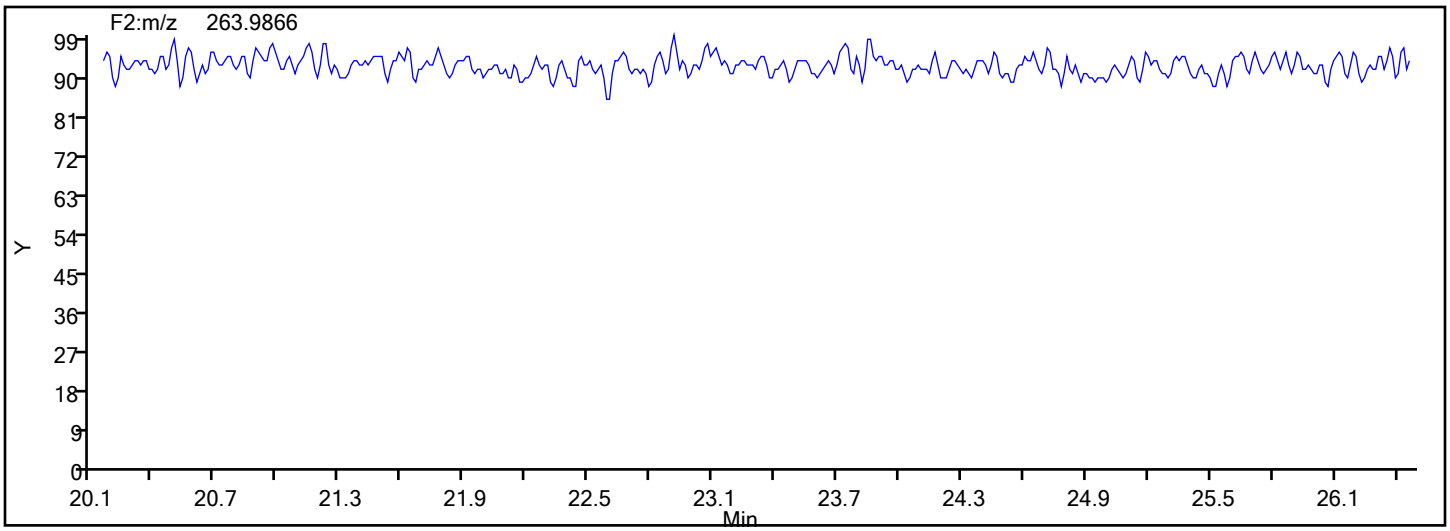
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



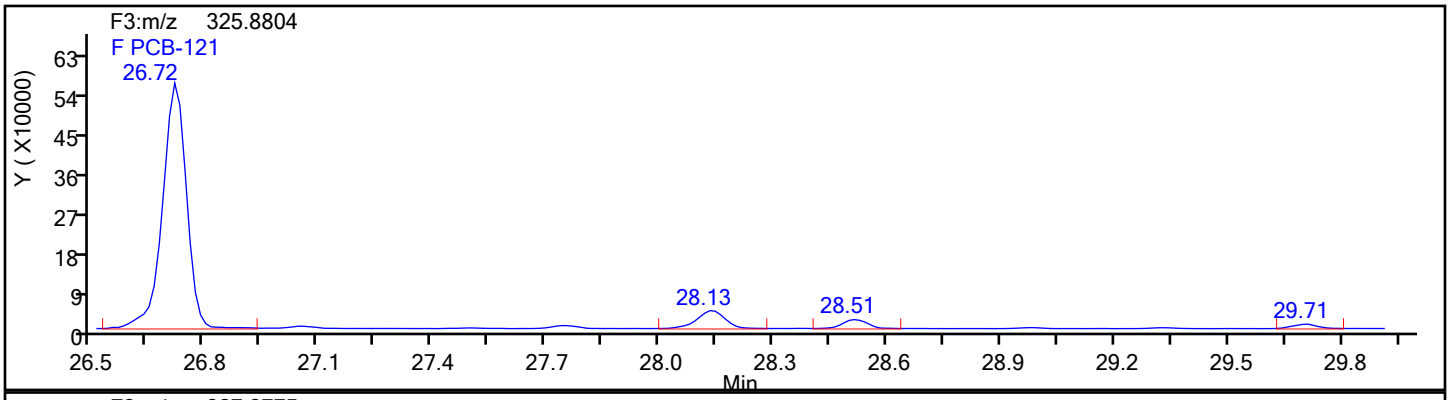
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

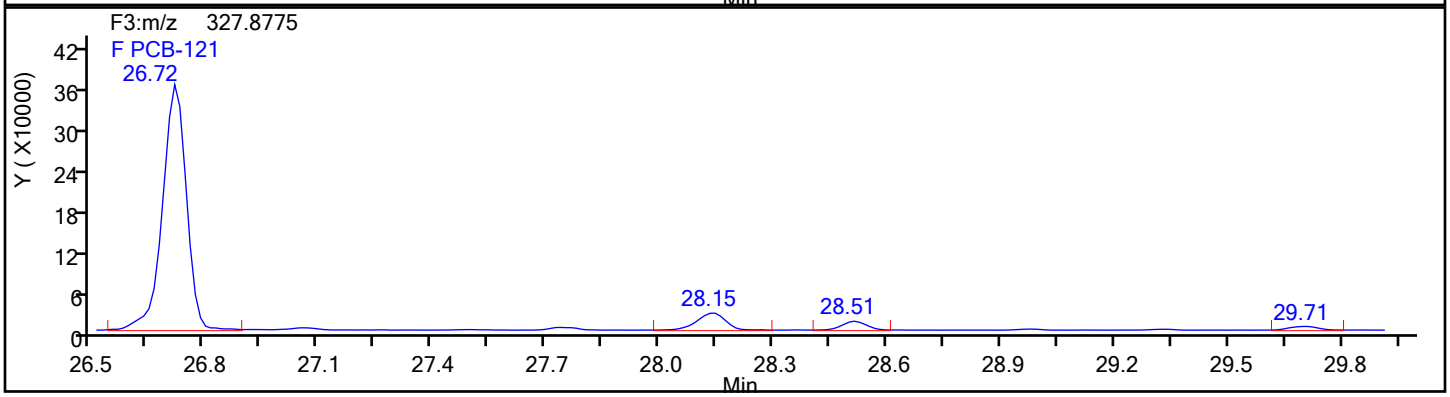
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

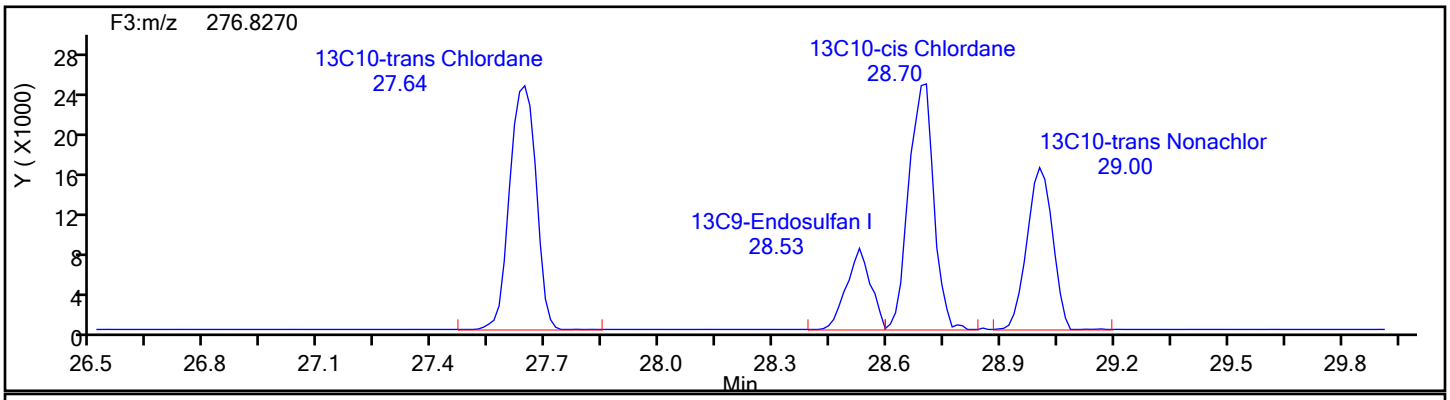
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

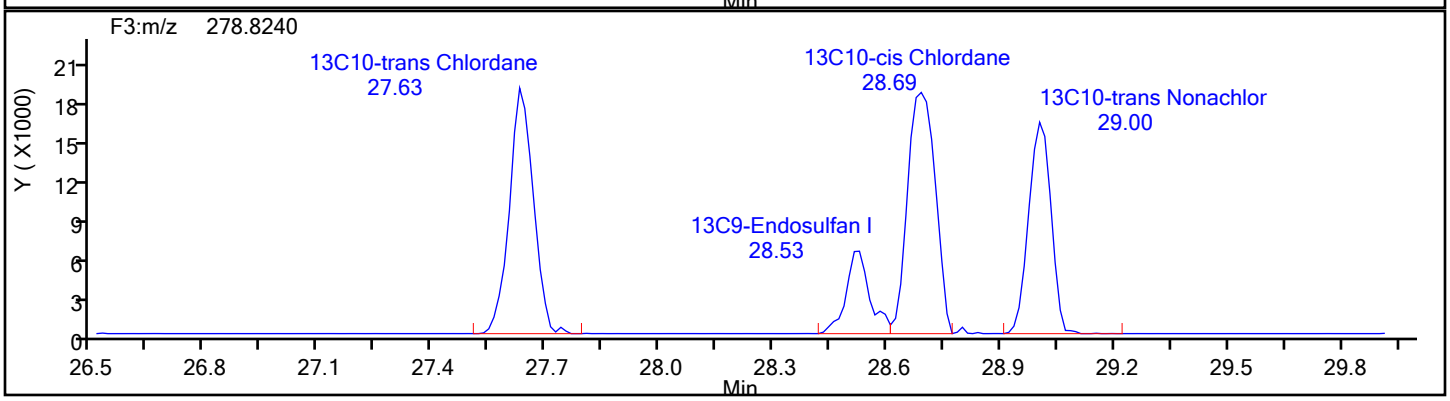
PCB-121





PCB-121 Standards



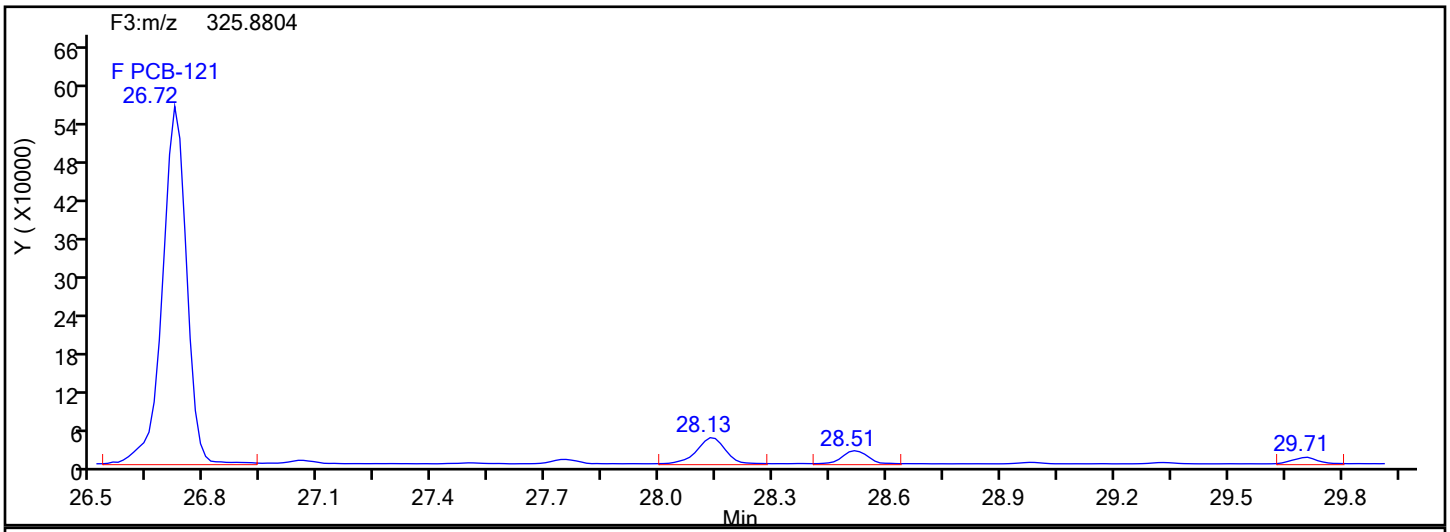


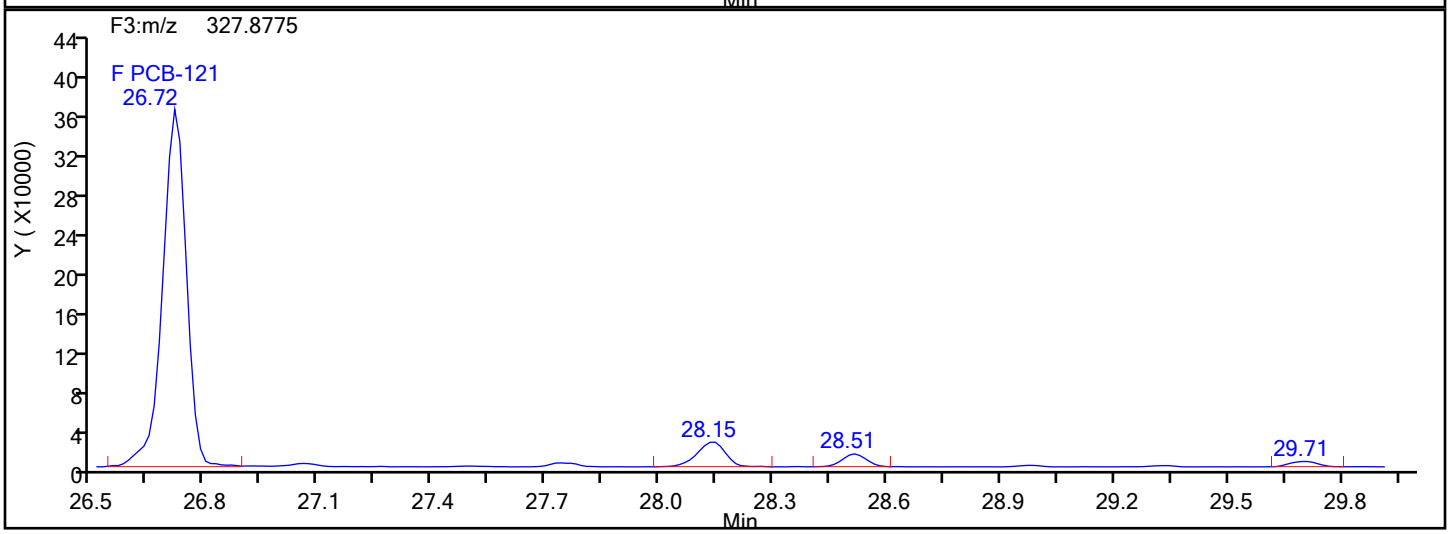
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

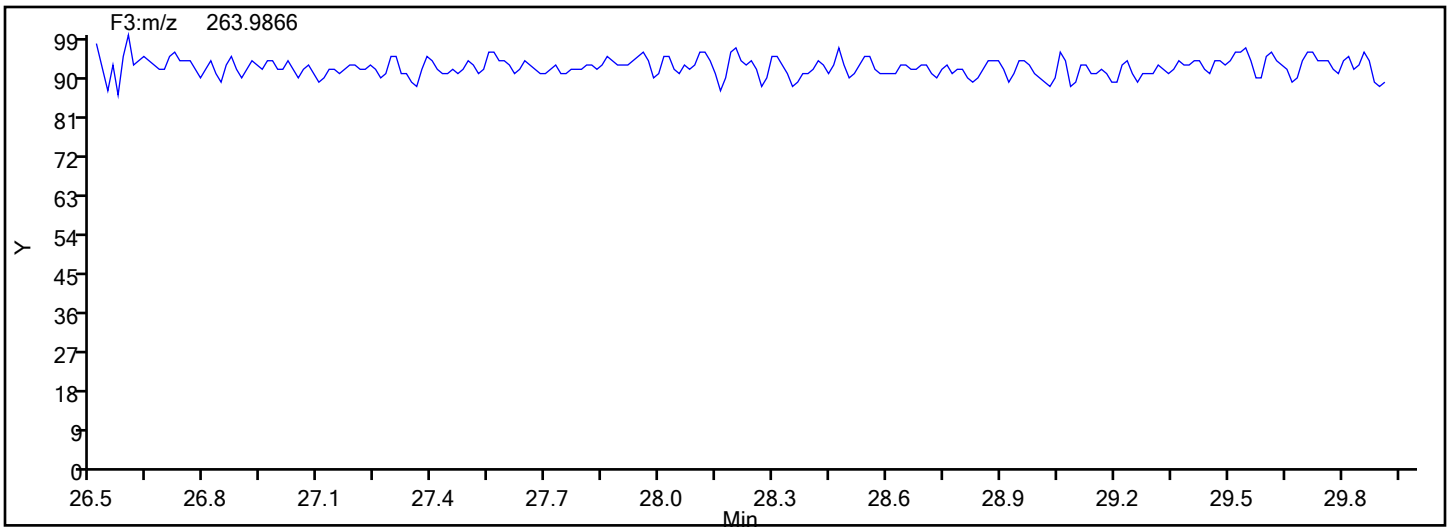
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



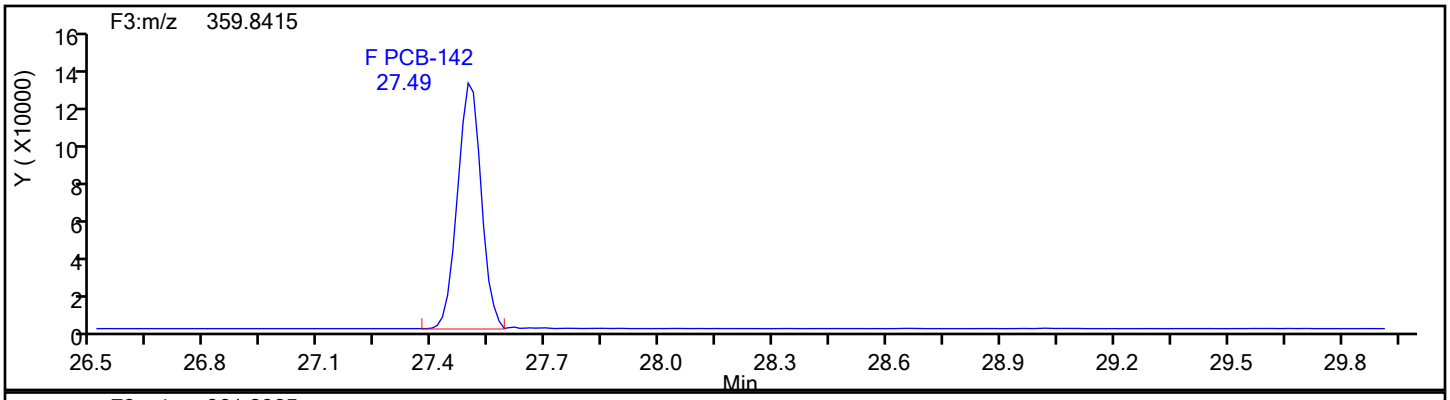
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

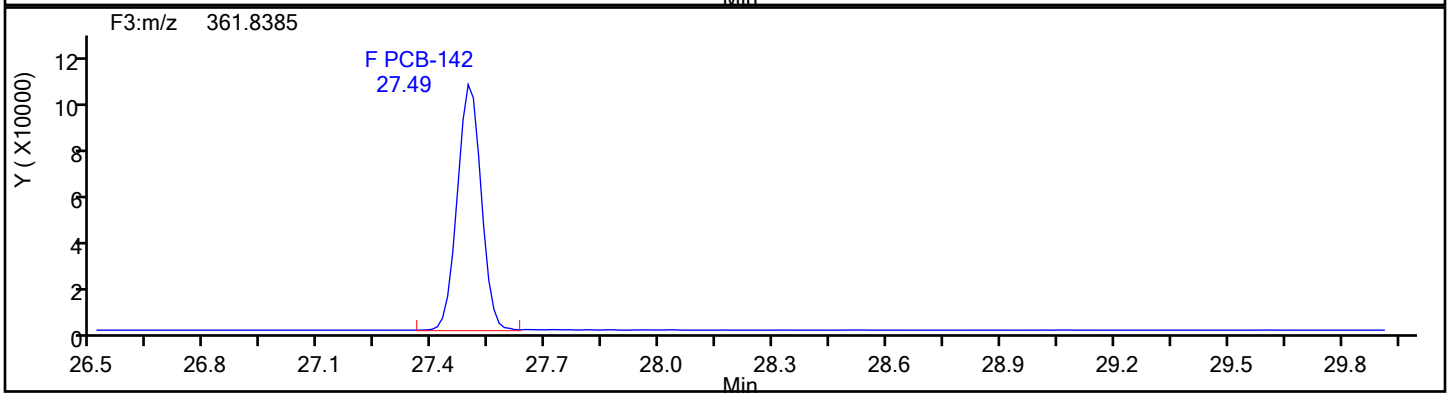
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

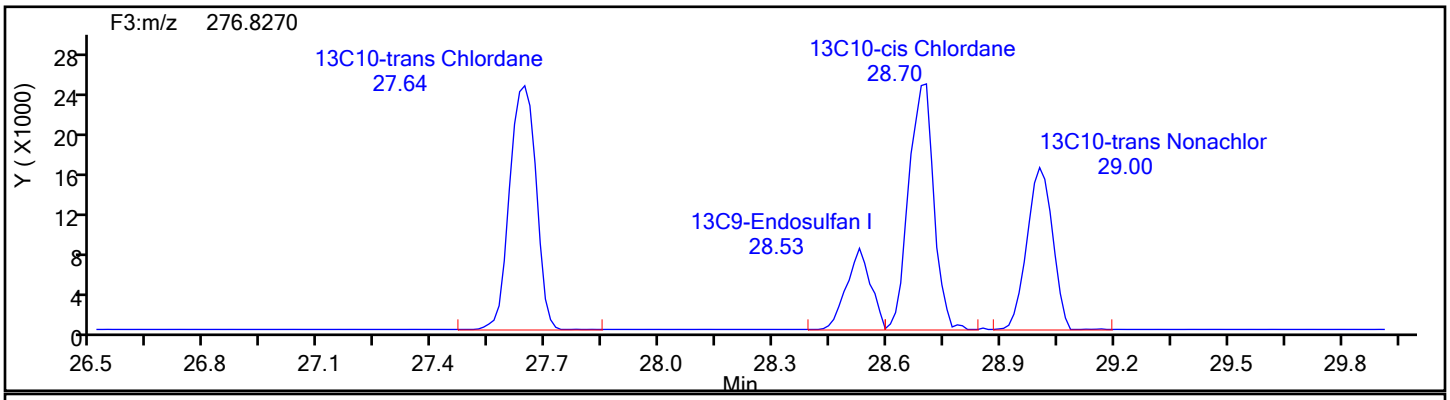
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

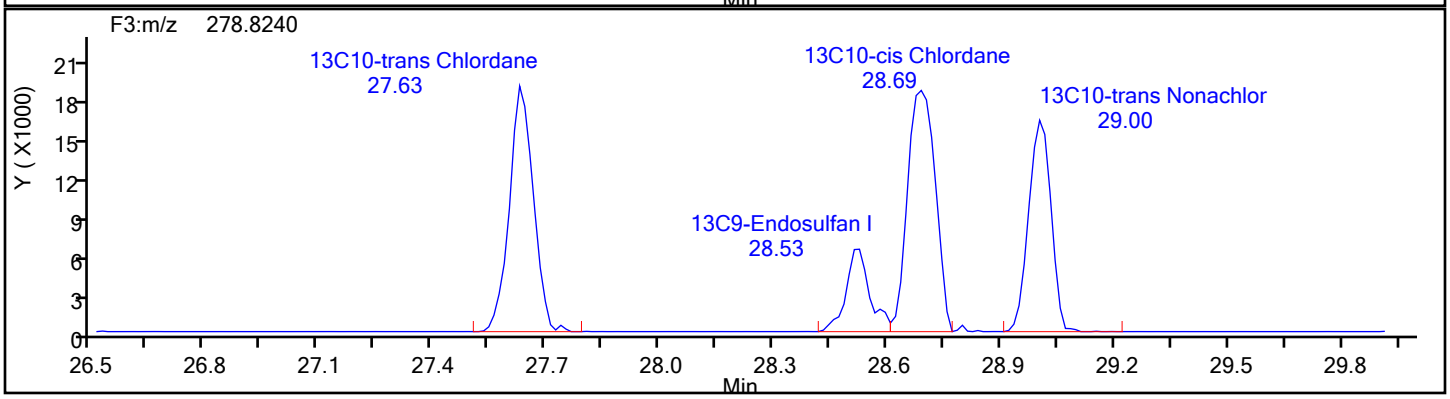
PCB-142





PCB-142 Standards



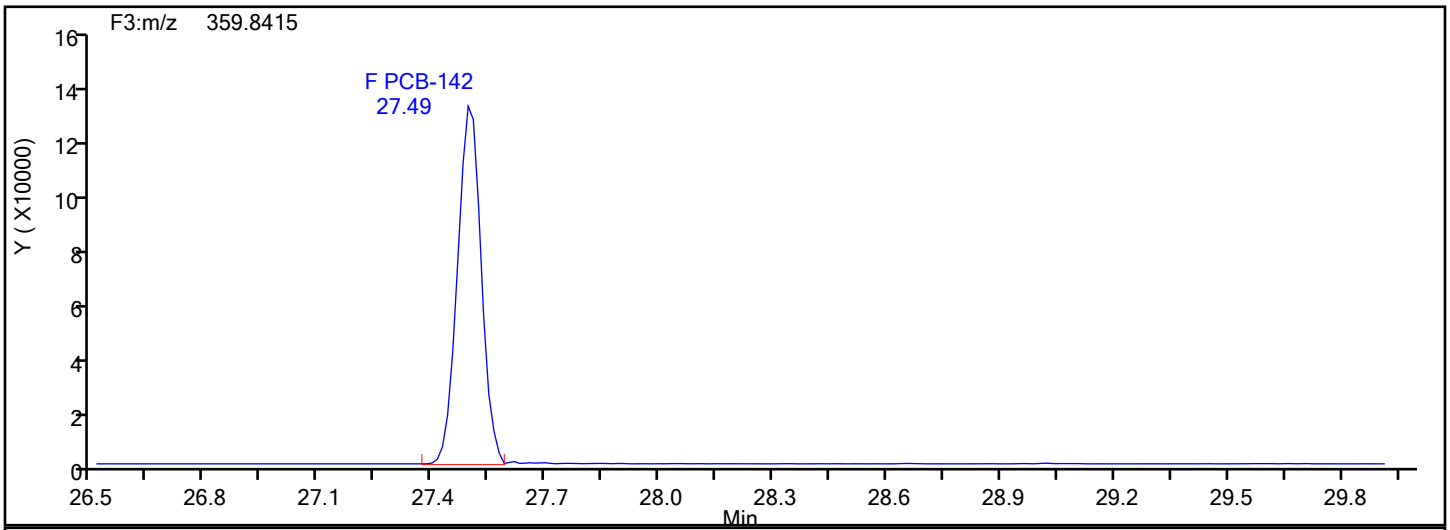


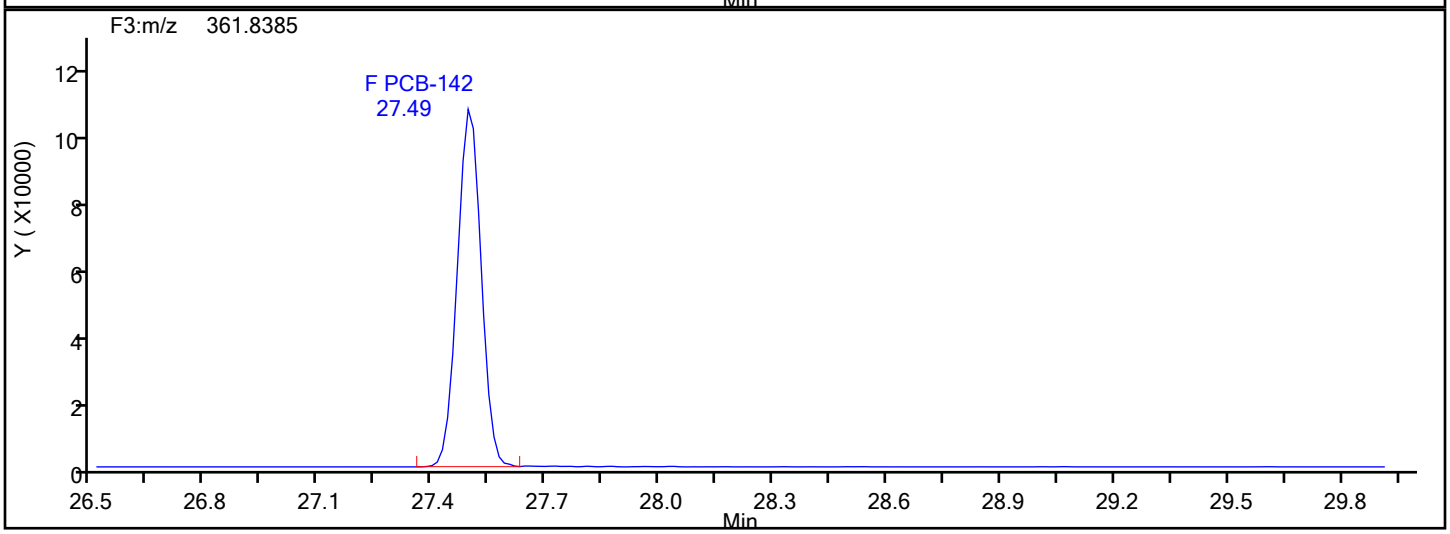
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

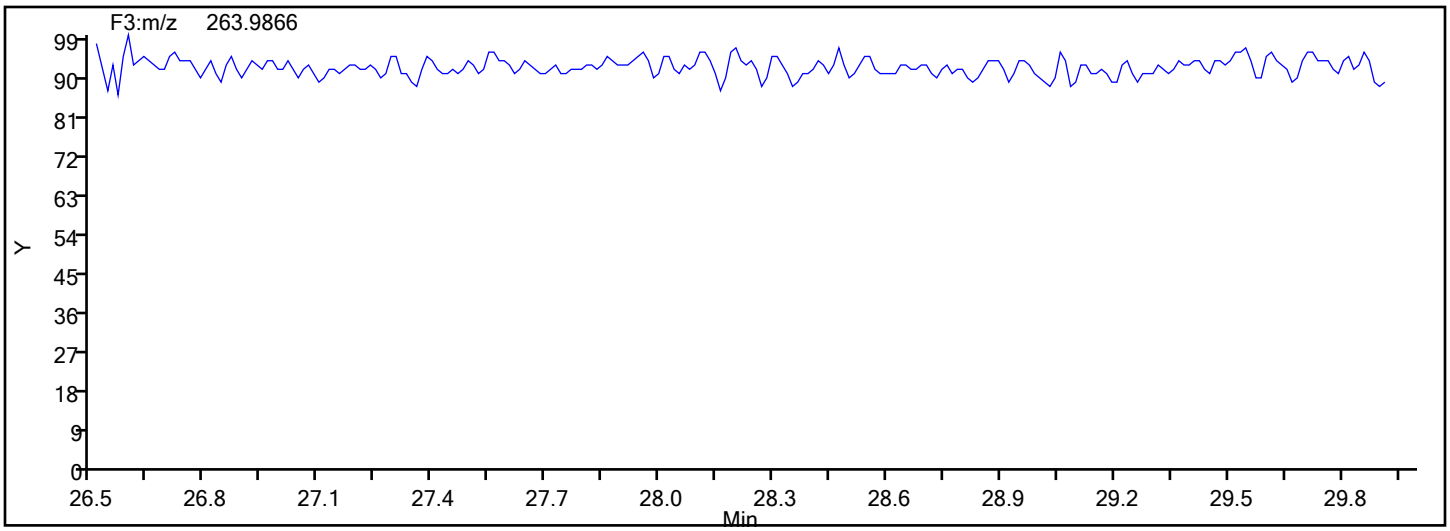
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



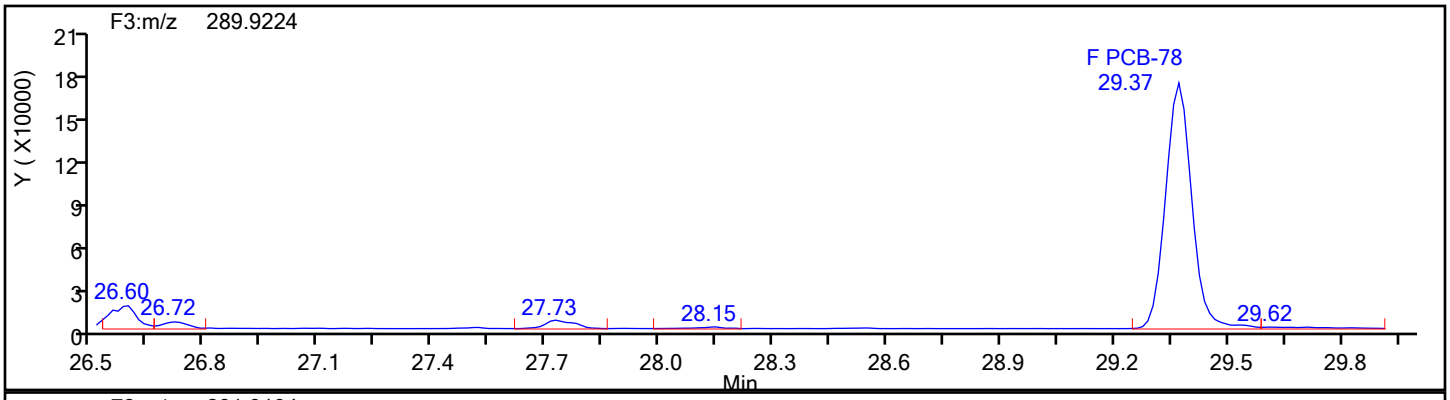
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

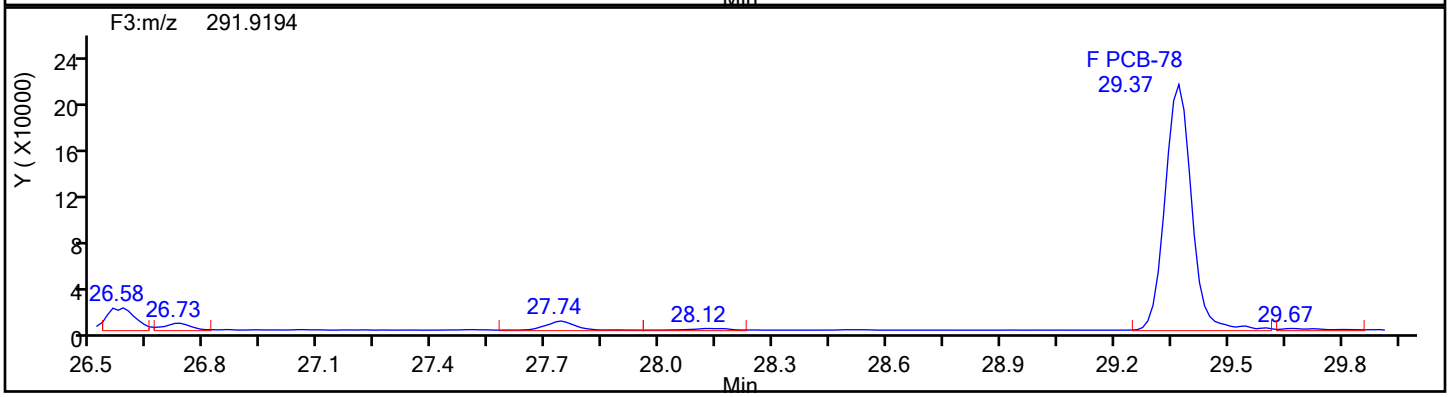
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

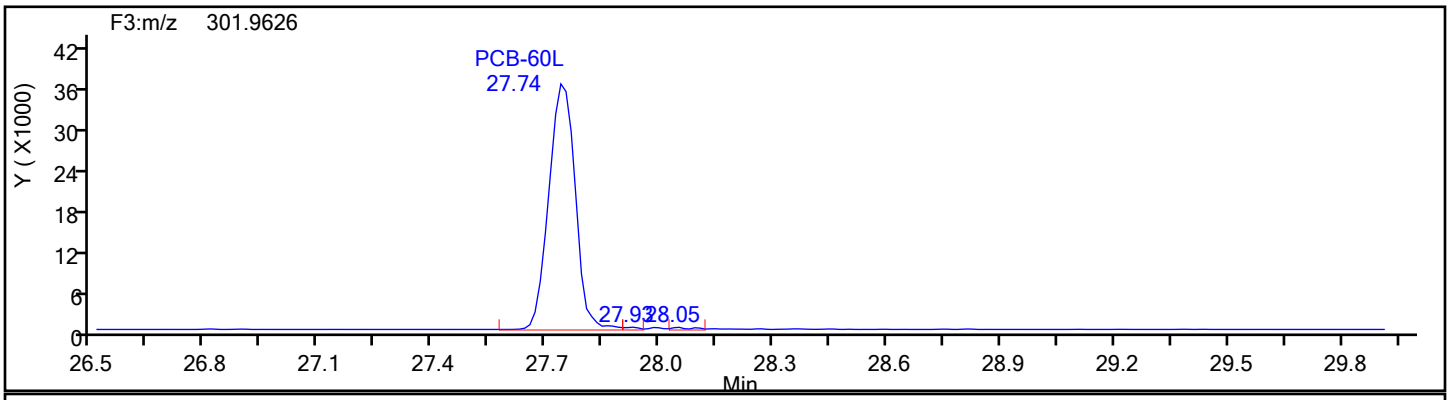
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

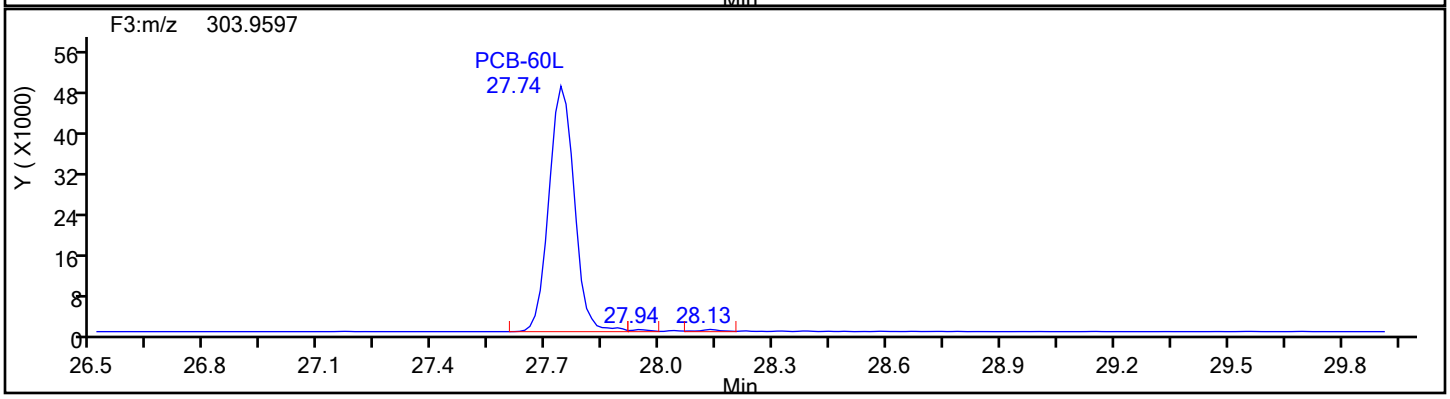
PCB-78





PCB-78 Standards



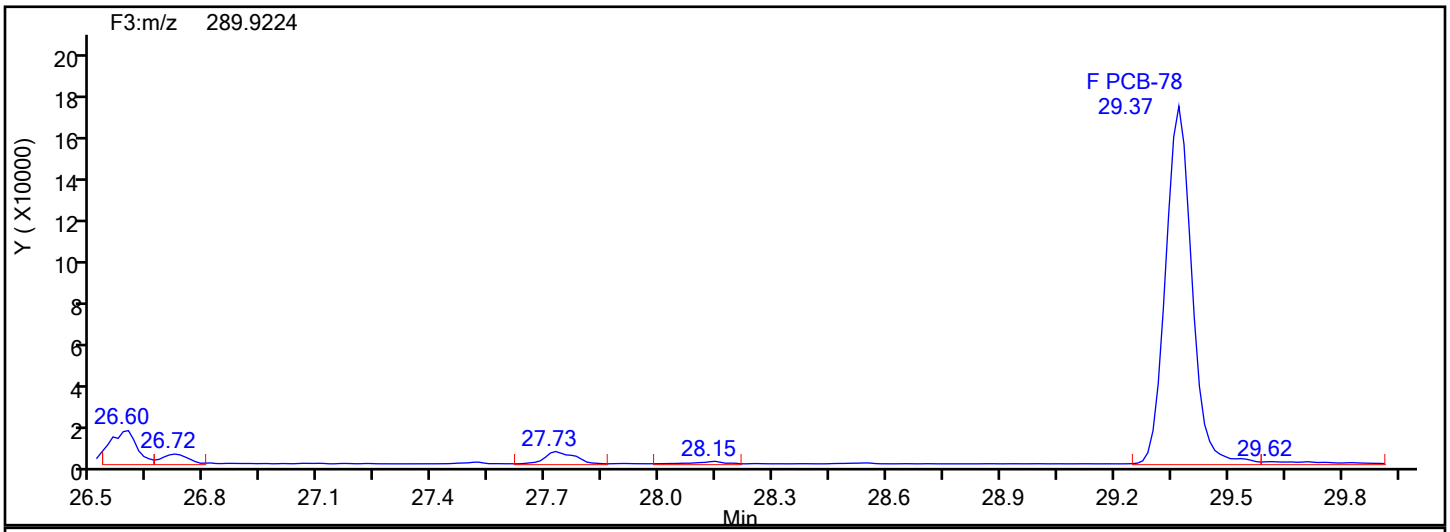


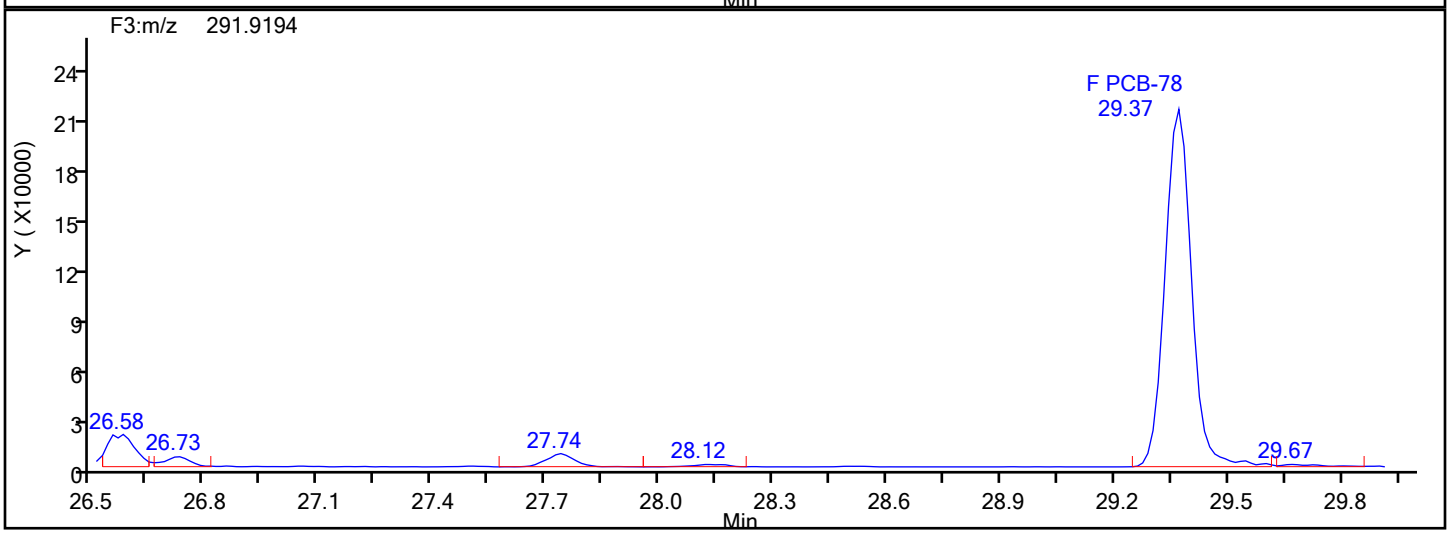
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

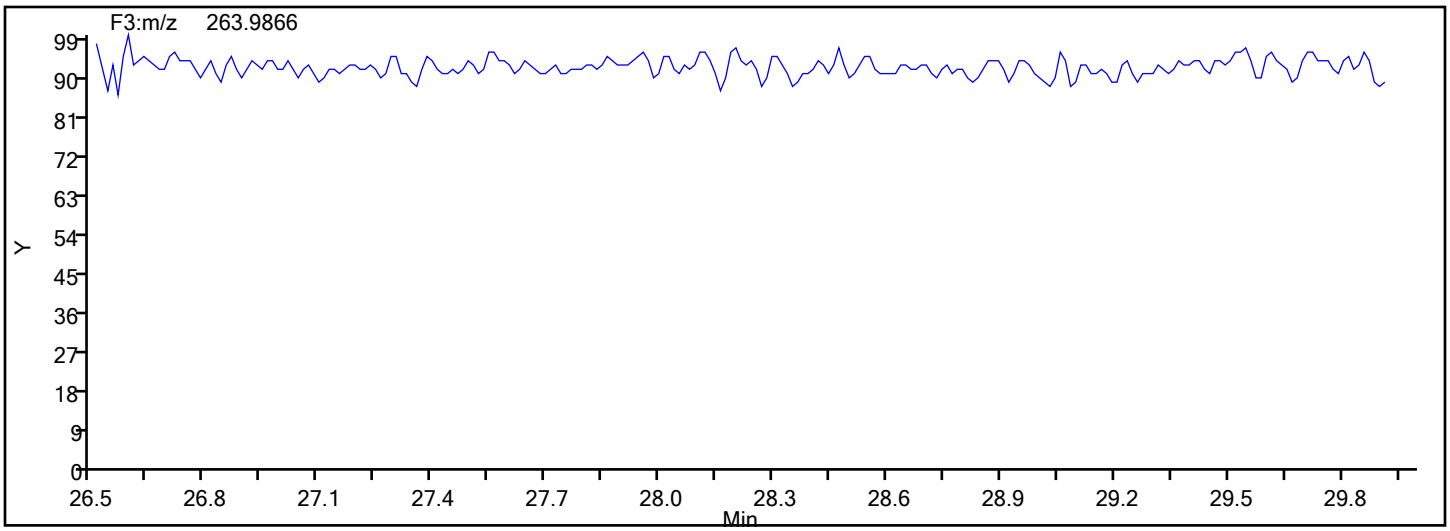
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



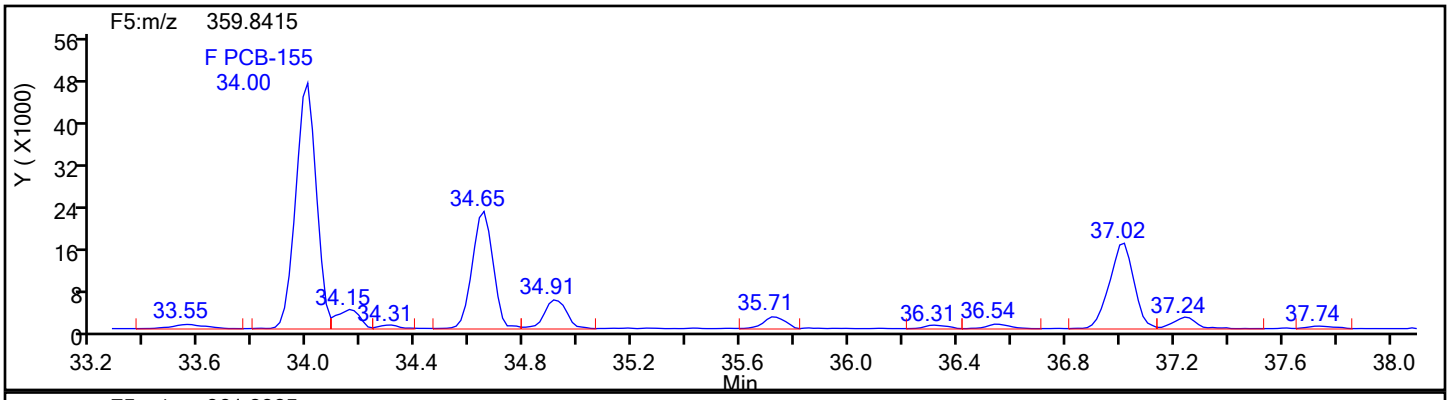
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

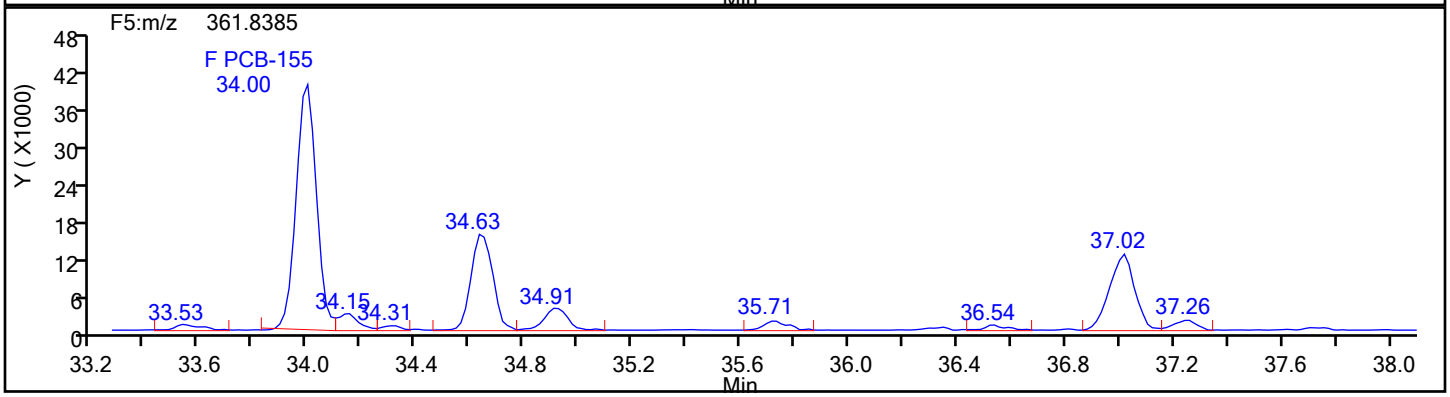
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

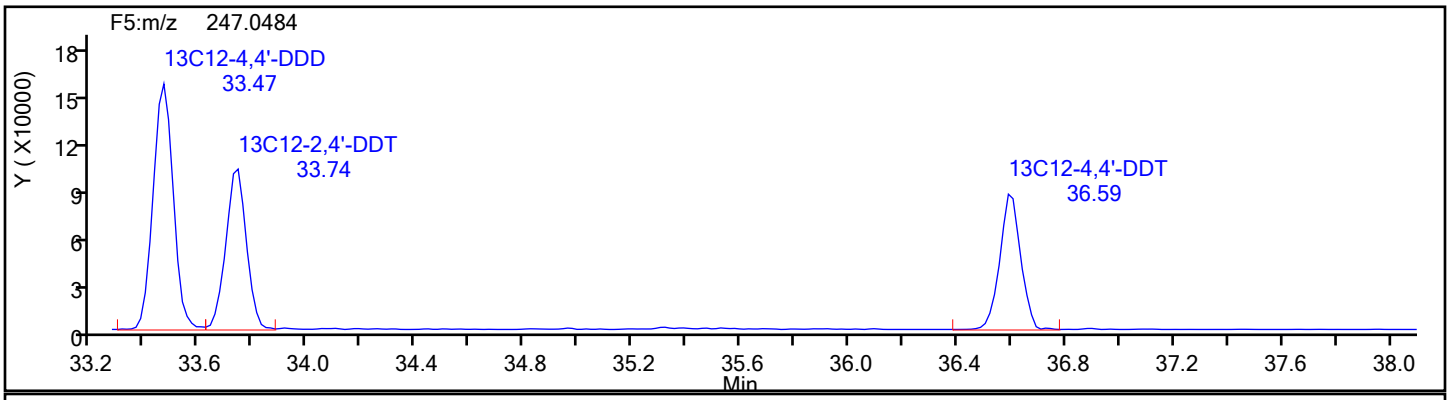
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

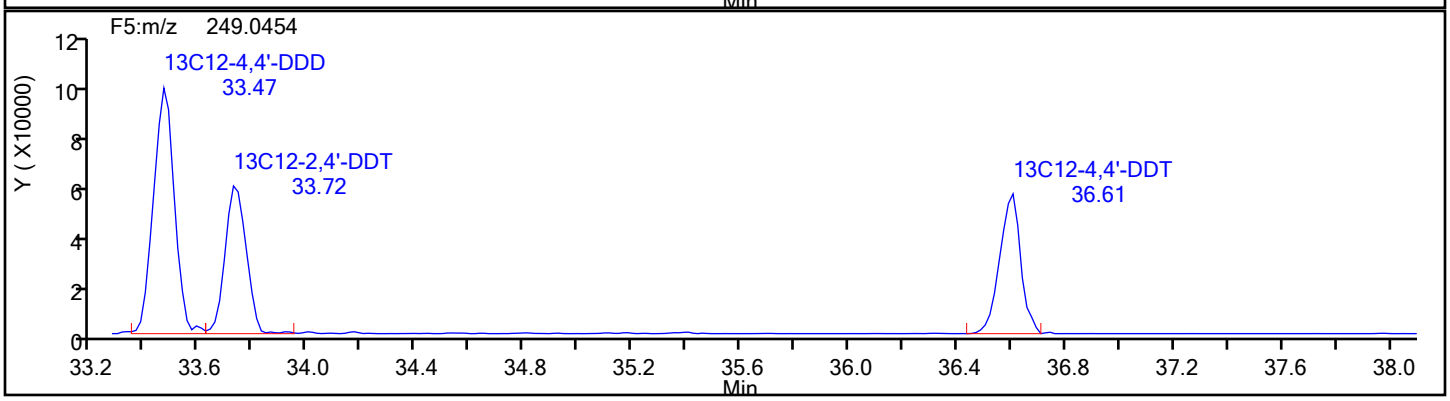
PCB-155





PCB-155 Standards



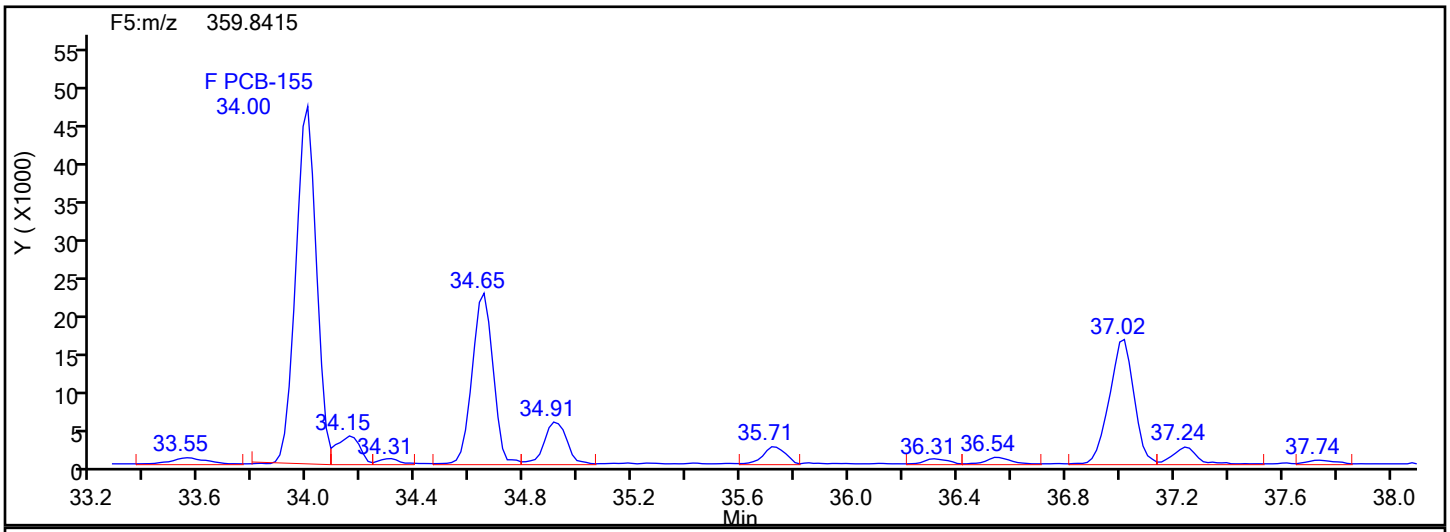


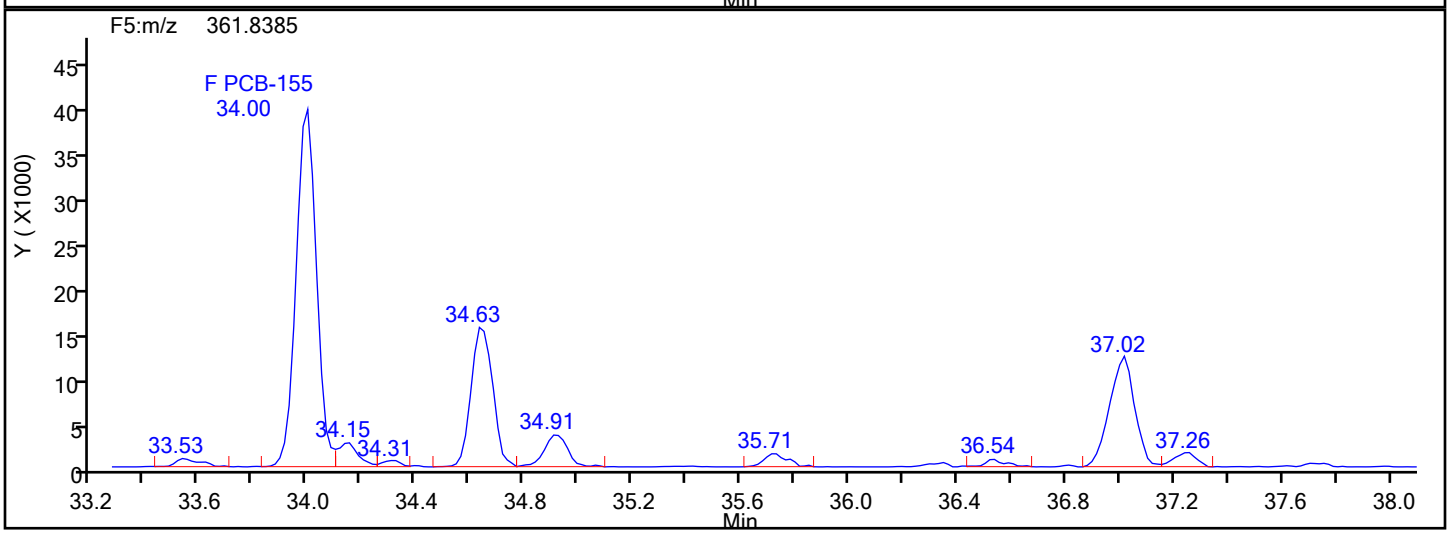
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

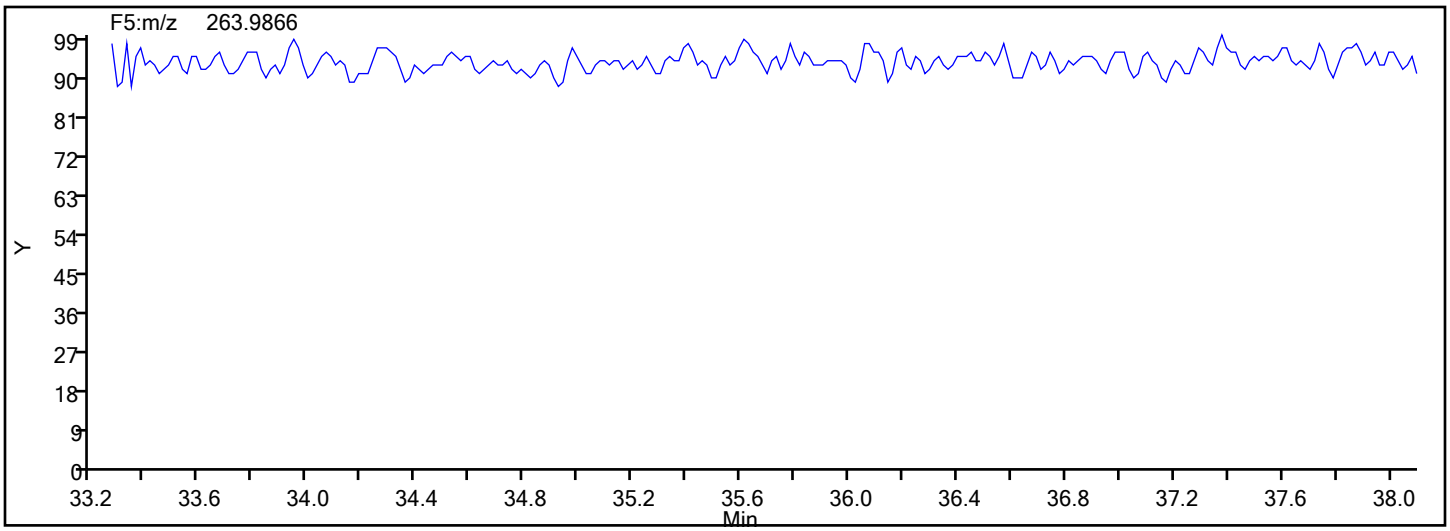
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d
Injection Date: 30-Mar-2025 17:51:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-03-241230
Worklist#: 97758 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



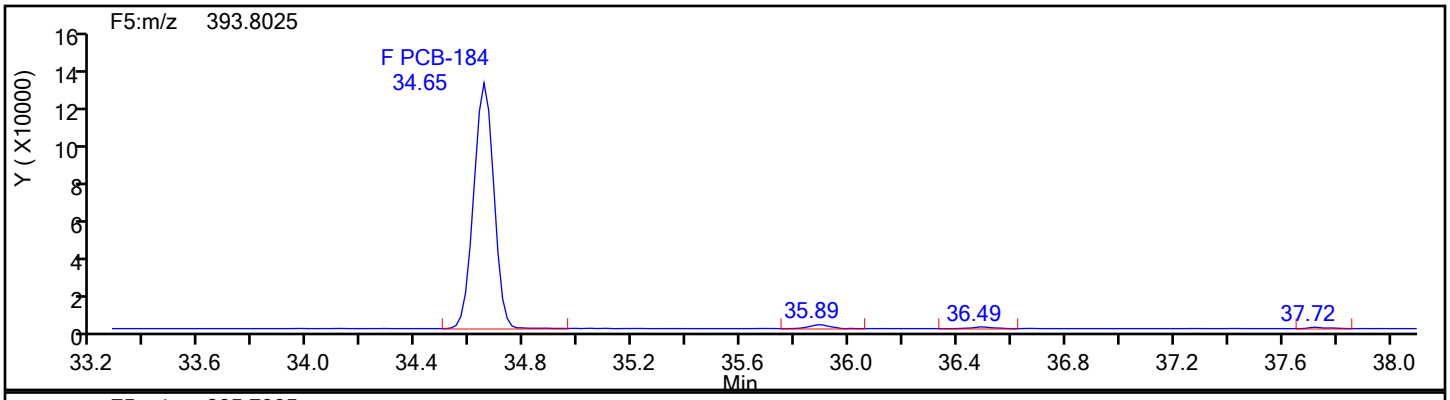
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

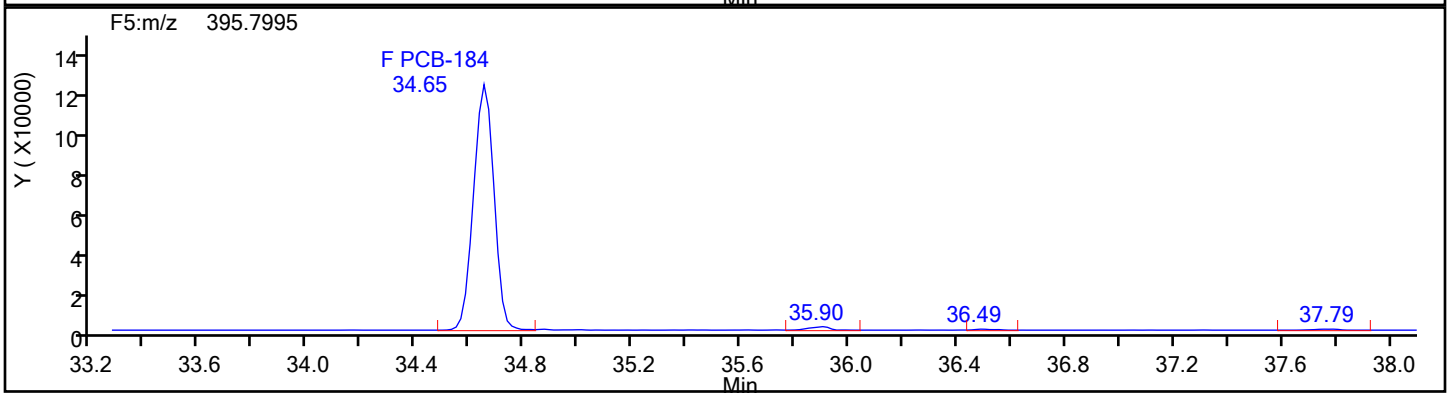
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

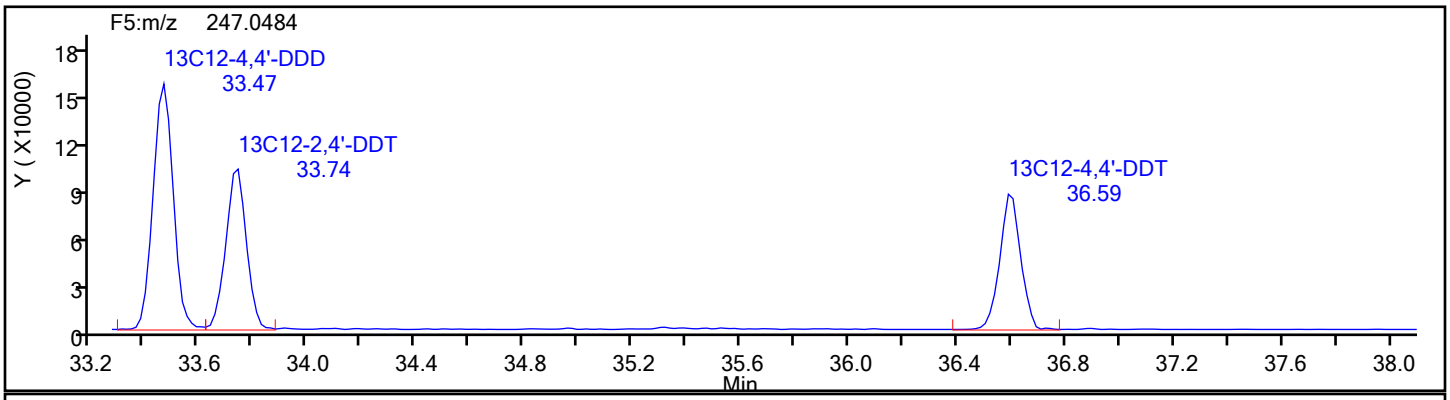
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

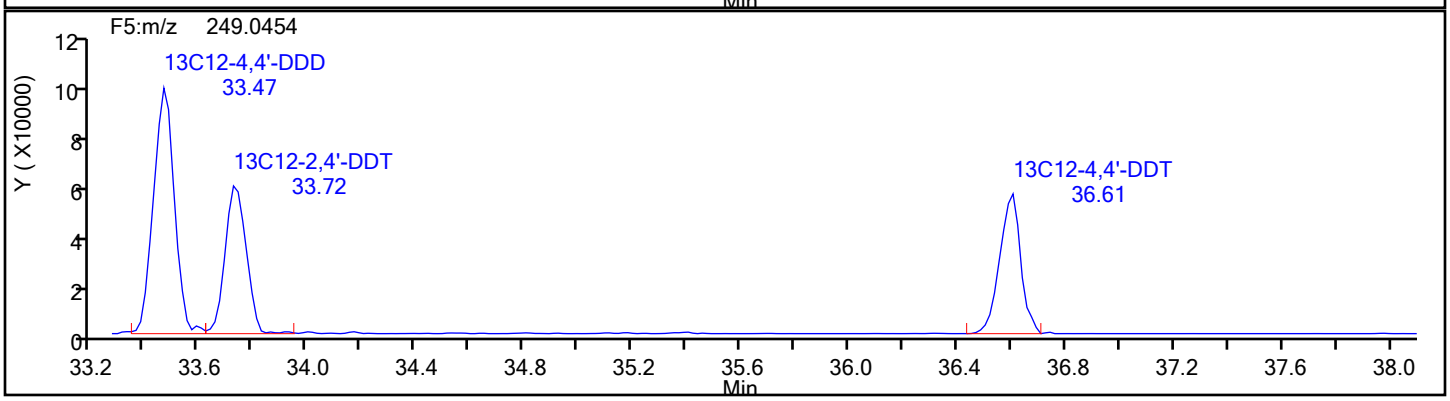
PCB-184





PCB-184 Standards



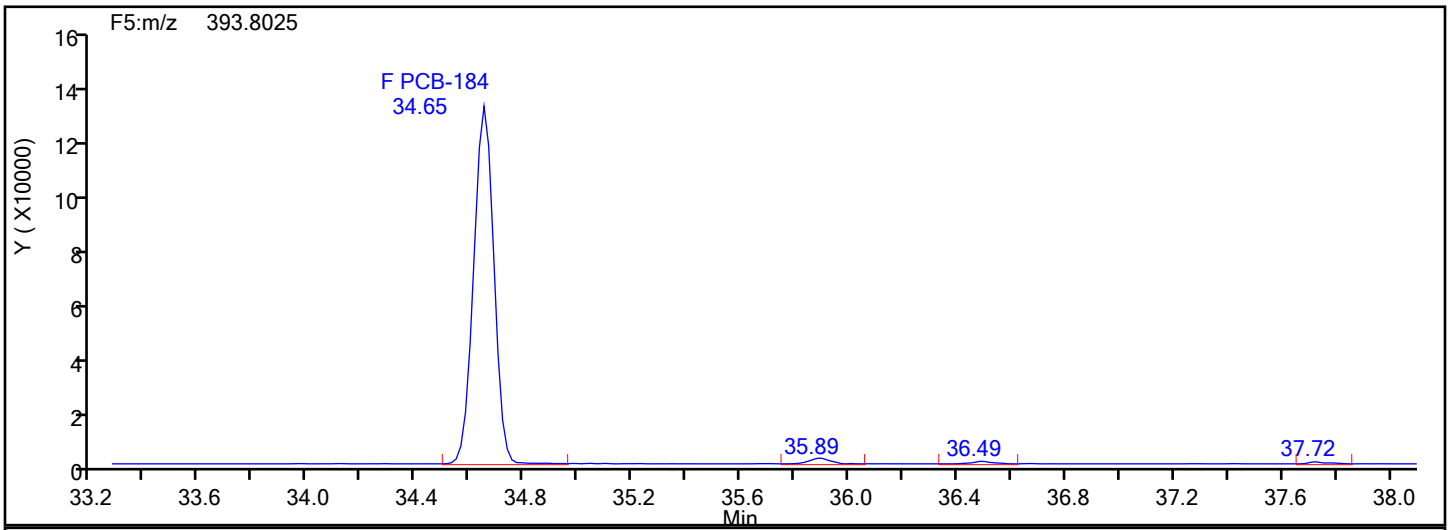


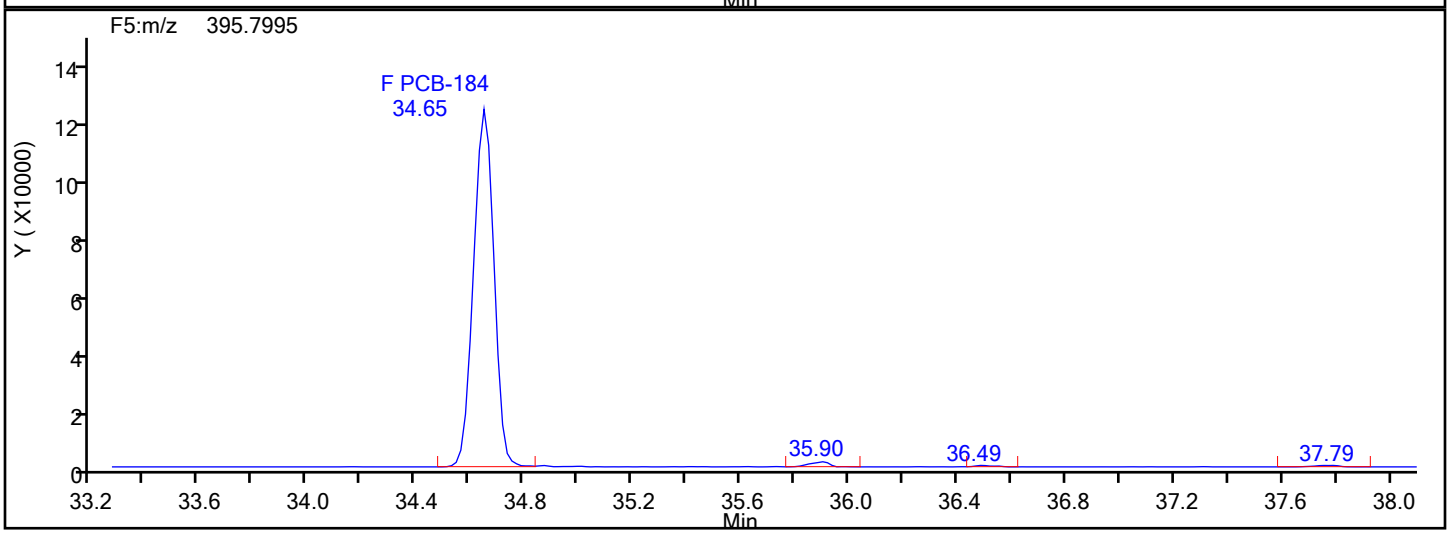
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

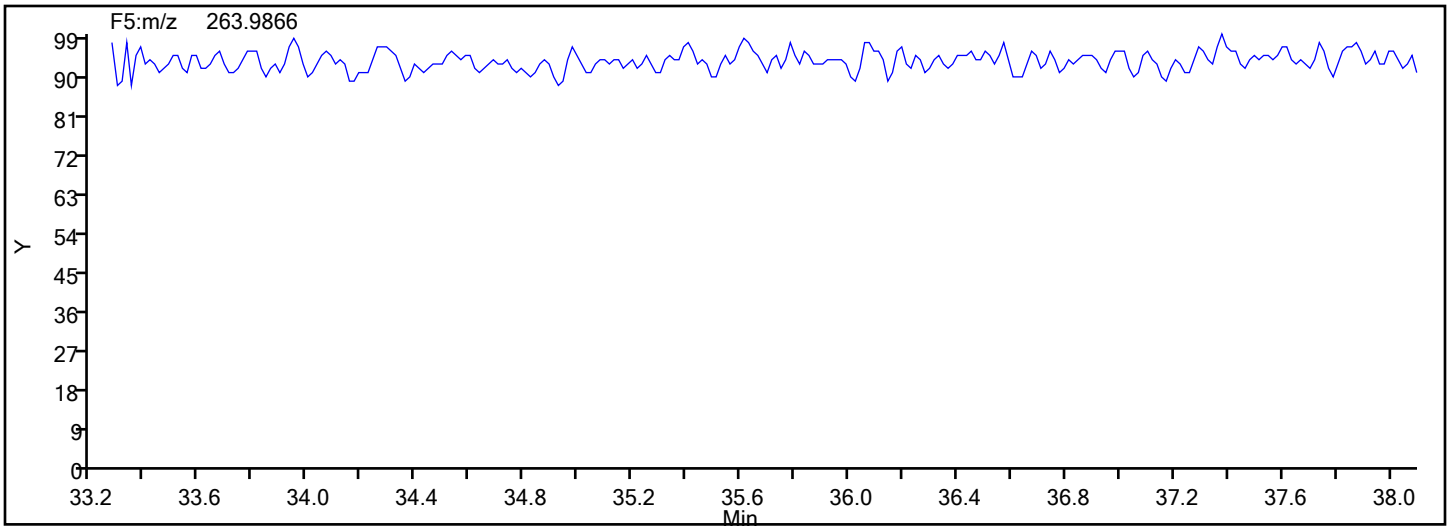
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



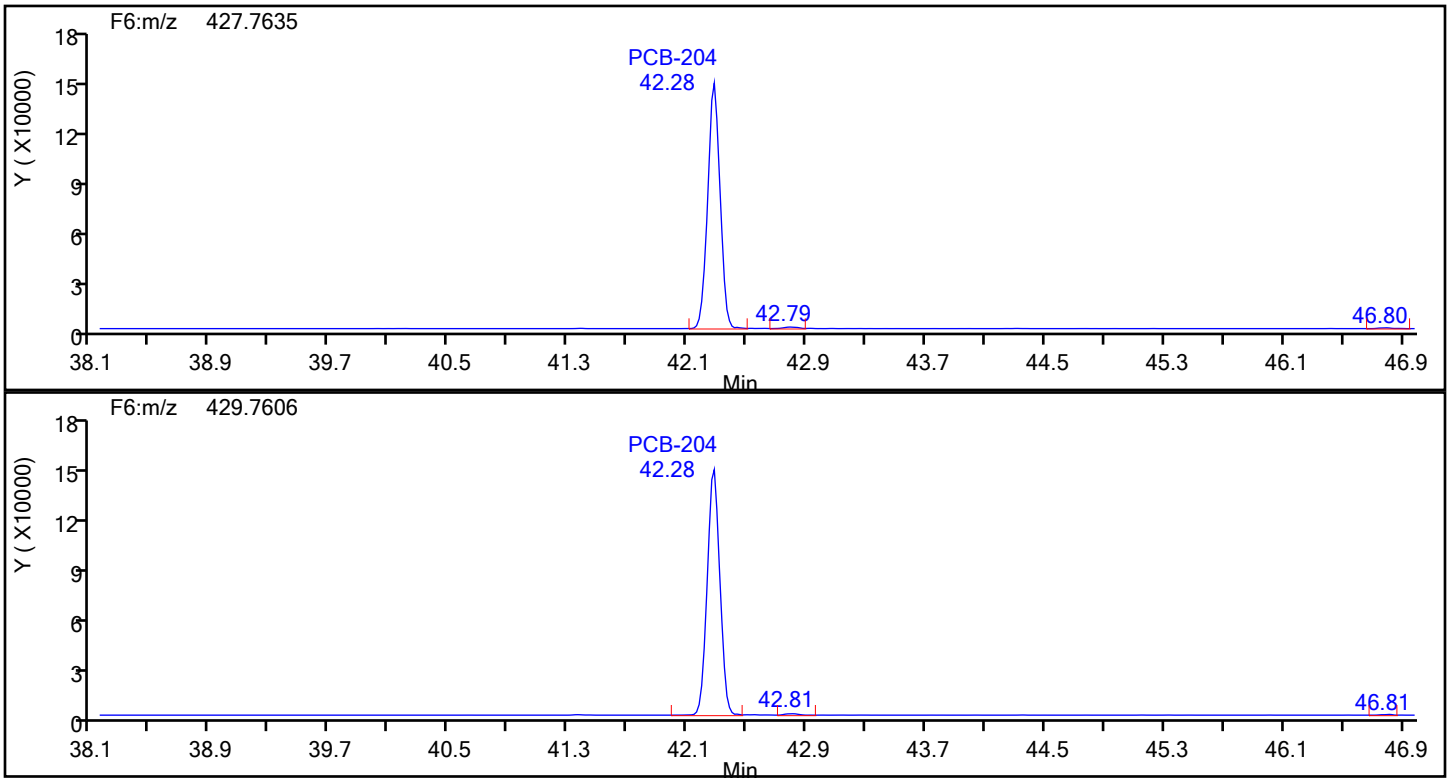
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

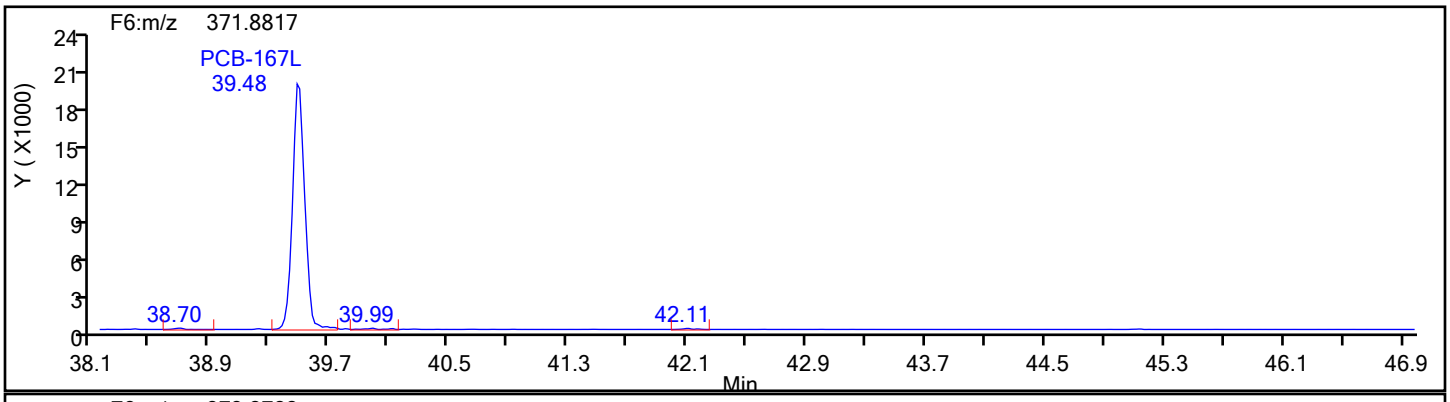
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

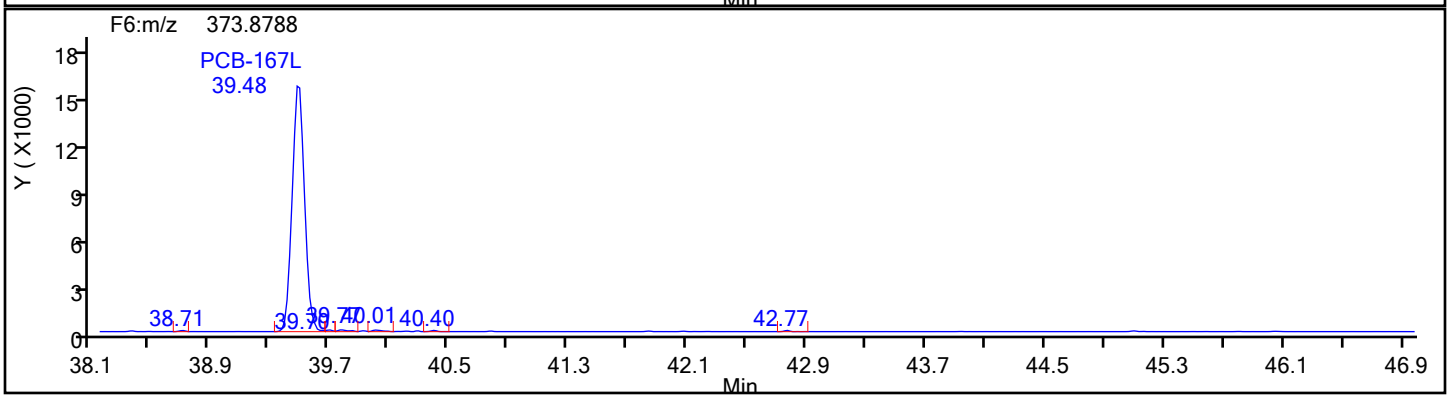
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



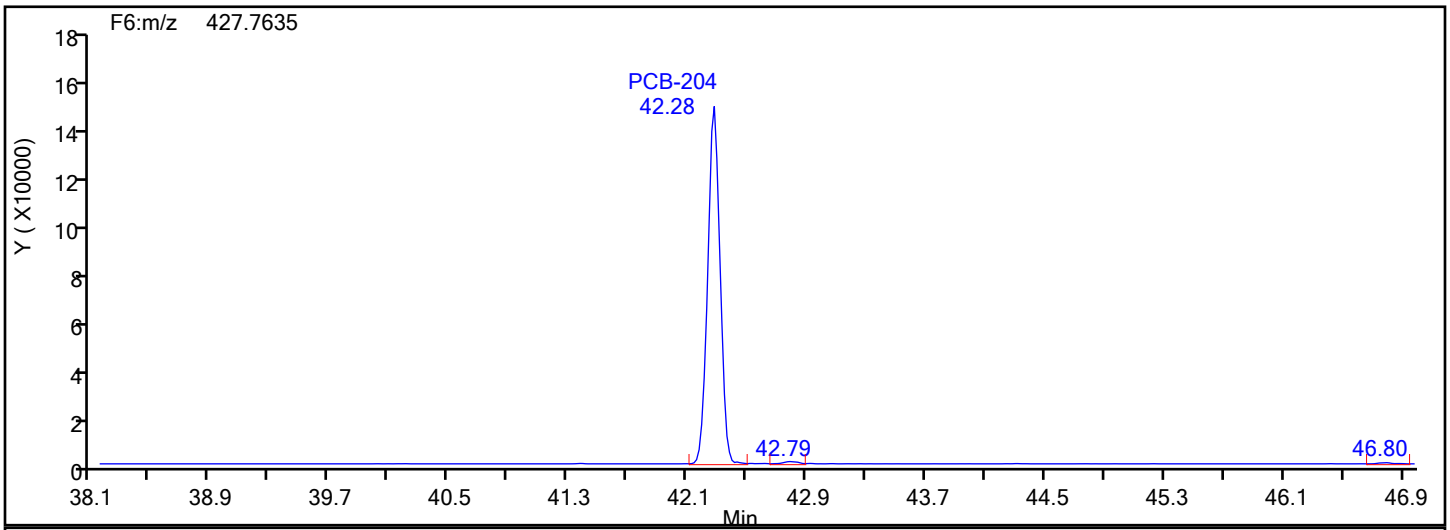


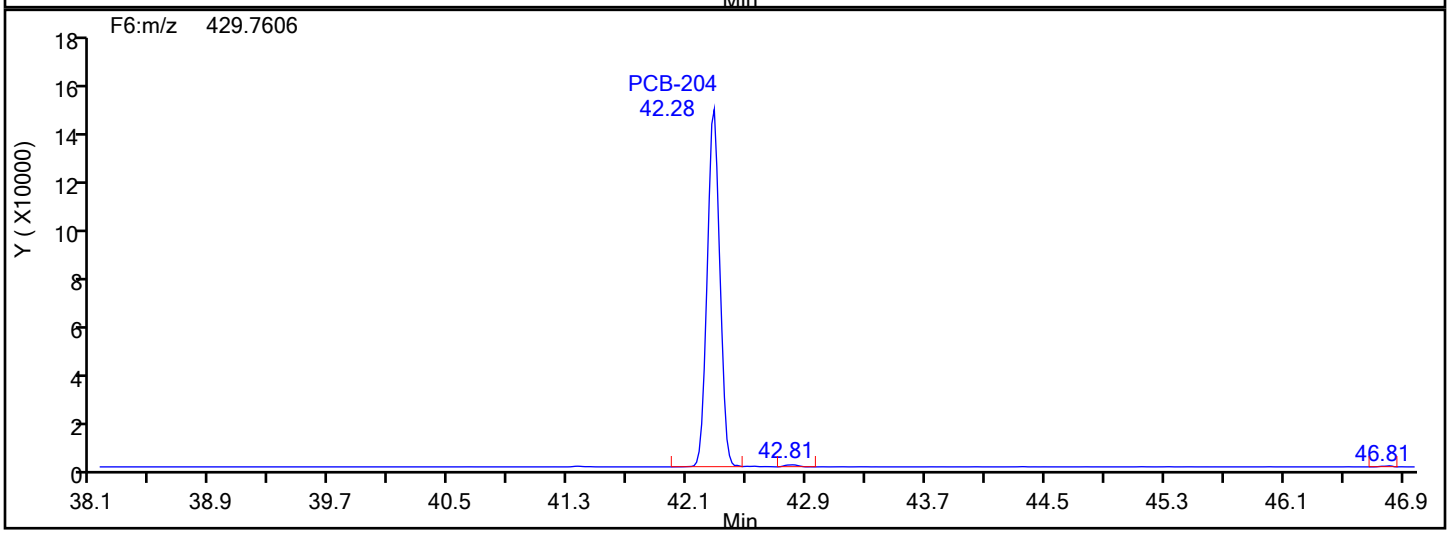
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

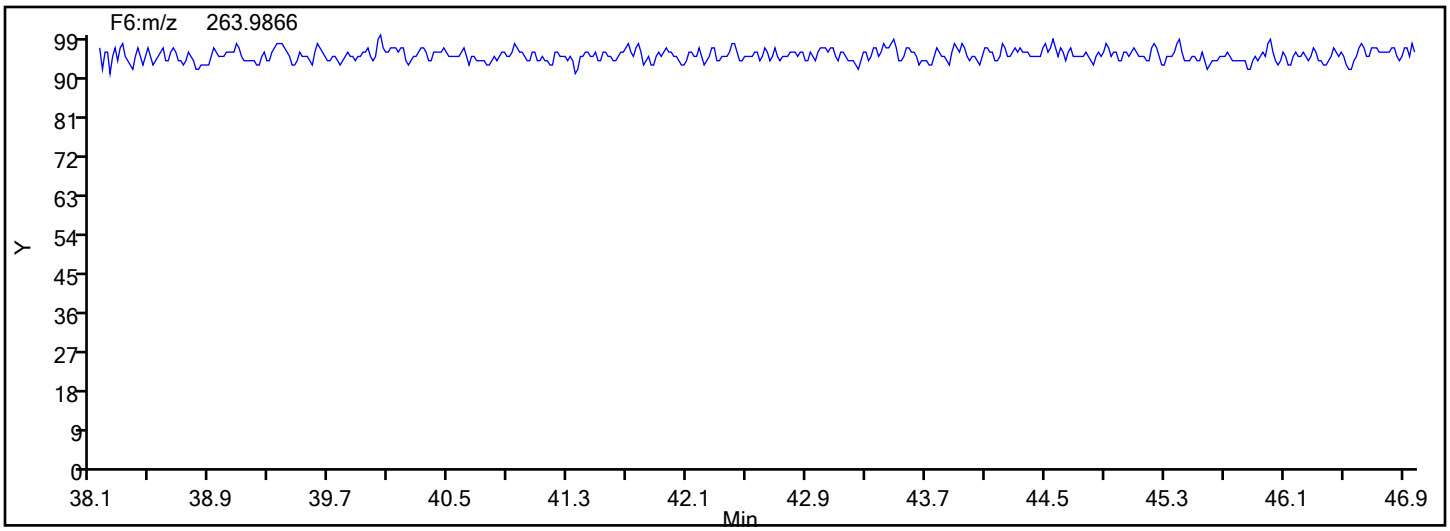
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



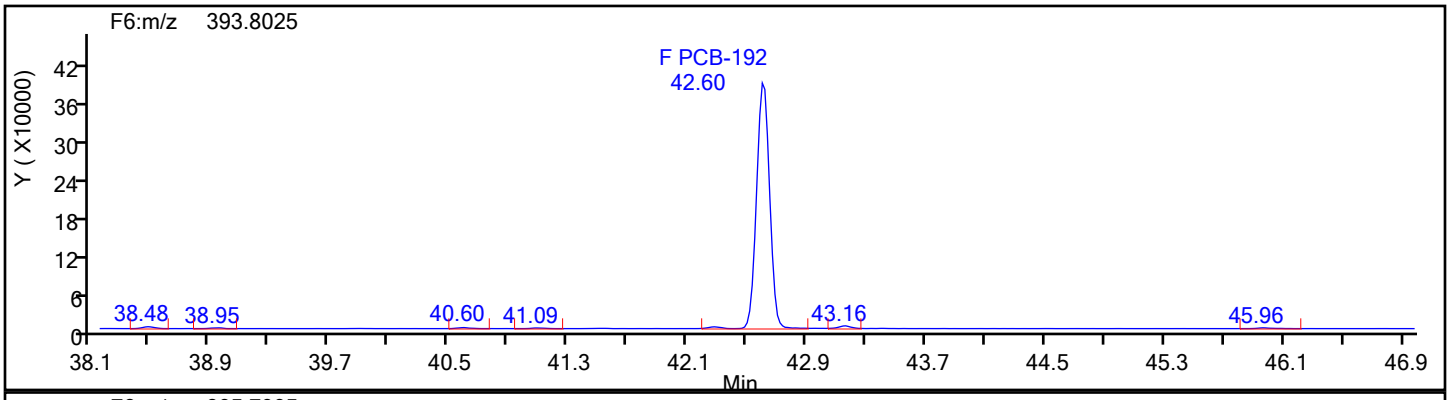
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

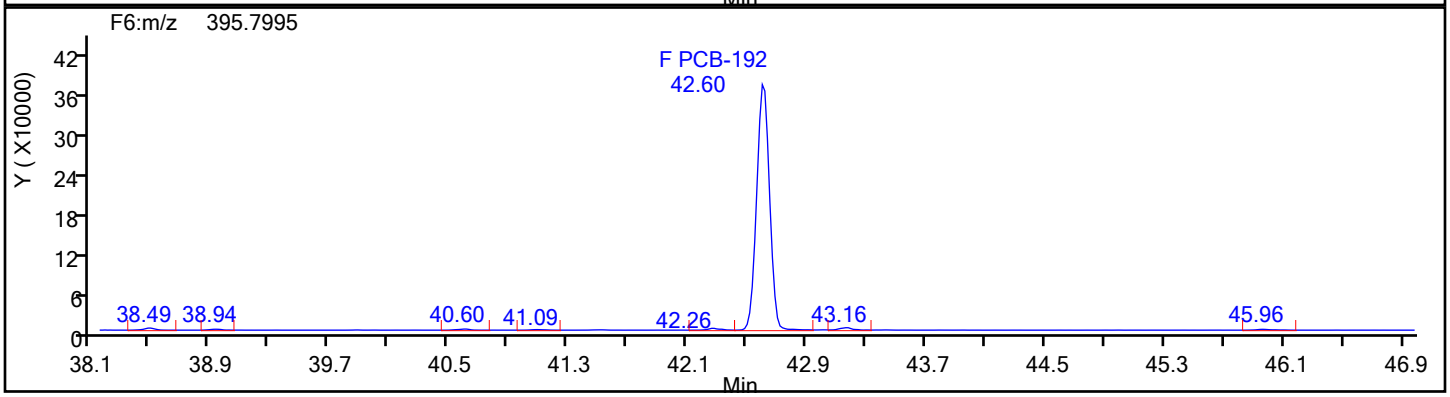
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d

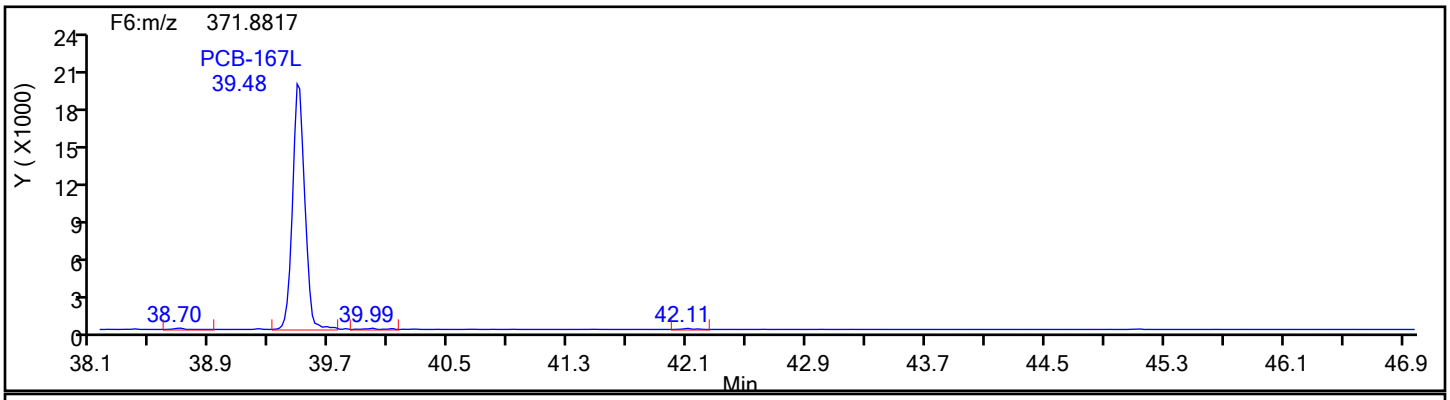
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

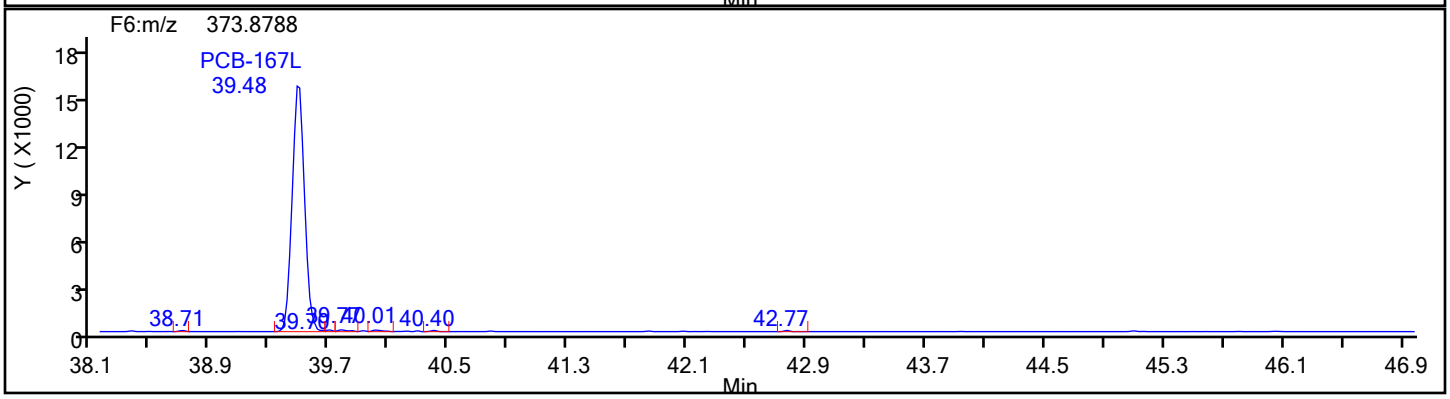
PCB-192





PCB-192 Standards



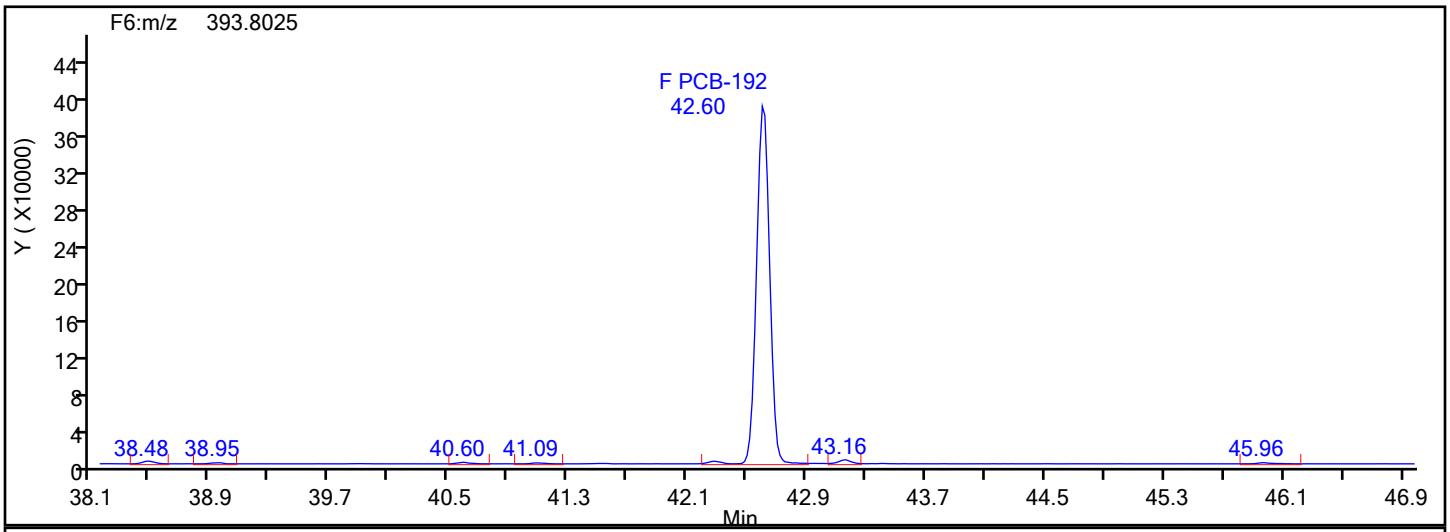


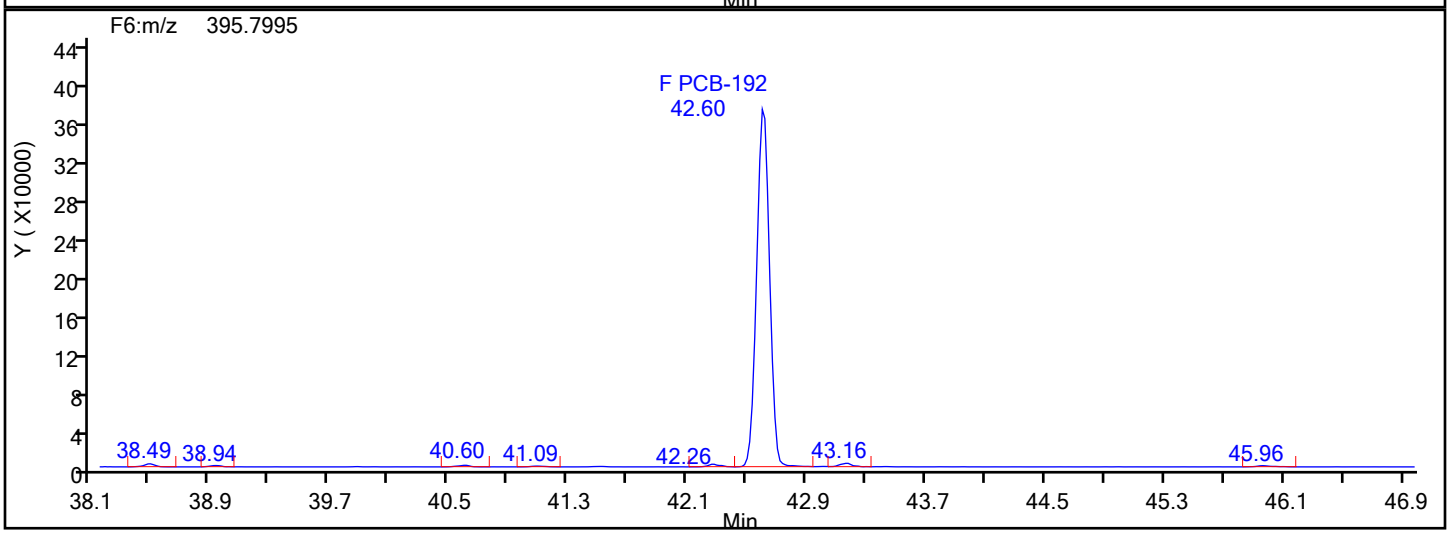
Report Date: 31-Mar-2025 14:10:18 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

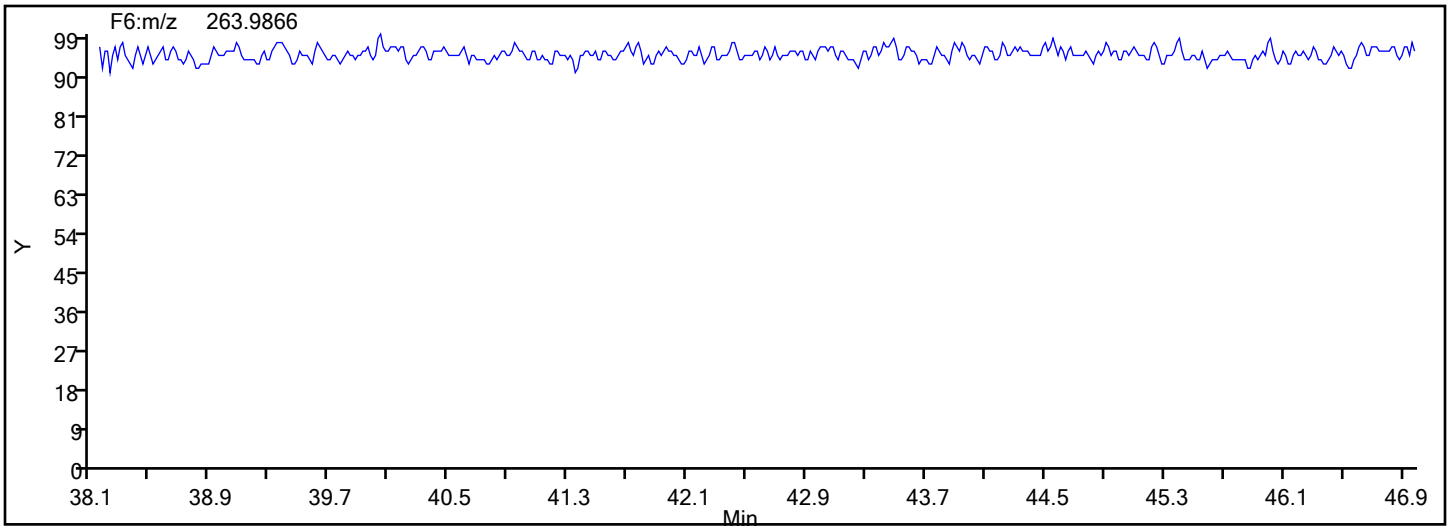
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-3-b10x.d		
Injection Date:	30-Mar-2025 17:51:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-03-241230		
Worklist#:	97758	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-04-241230 | Lab Sample ID: 140-40836-4

Matrix: PE | Lab File ID: 140-40836-a-4-aa.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.050(g) | Date Analyzed: 05/06/2025 17:39

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99325 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	1.2	J	20	0.024

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\140-40836-a-4-aa.d
Lims ID: 140-40836-A-4-B
Client ID: PW-04-241230
Sample Type: Client
Inject. Date: 06-May-2025 17:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 19:06:10 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 19:06:10

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:01	5796264	1.61		100.0	100.0				
PCB-14	17:46	1356845	1.59							
* 13C6-Pentachlorophenol (IS)	18:26	11198289	0.67		500.0	500.0				
Pentachlorophenol	18:27	71197	0.74	1.0218	3.111	3.111	0.0612	0.0612		M
PCB-36	22:06	18402897	1.04							
* PCB-101L	28:04	7656654	1.62		100.0	100.0				
PCB-104	23:40	21603683	1.59							
* PCB-118L	32:44	8613946	1.59		100.0	100.0				
PCB-121	26:39	113275299	1.64							
* PCB-138L	36:55	4816509	1.32		100.0	100.0				
PCB-142	27:26	23441950	1.27							
* PCB-60L	27:41	16257052	0.82		100.0	100.0				
PCB-78	29:18	109215708	0.80							
* PCB-167L	39:25	5131300	1.27		100.0	100.0				
PCB-155	33:56	13452996	1.27							
PCB-184	34:35	30382233	1.05							
PCB-204	42:13	39791729	0.90							
PCB-192	42:33	132541050	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
M - Manually Integrated

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\140-40836-a-4-aa.d
Lims ID: 140-40836-A-4-B
Client ID: PW-04-241230
Sample Type: Client
Inject. Date: 06-May-2025 17:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 19:06:10 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 19:06:10

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:01	19:04	-3		3573952	1231088	104	260	11837		
236.0376	19:01	19:04	-3		2222312	774400	50	125	15488	1.61(1.16-1.93)	
PCB-14											
222.0003	17:46	17:46	-3	0.934	832039	319177	67	167	4764		
223.9974	17:46	17:46	-3	0.934	524806	200900	98	245	2050	1.59(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:26	18:29	-3		4479522	1302054	47	117	27703		
271.8636	18:26	18:29	-3		6718767	1913381	61	152	31367	0.67(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:27	18:27	-3	1.001	30327	8613	101	252	85		M
265.8435	18:27	18:27	-3	1.001	40870	10841	60	150	181	0.74(0.00-0.00)	
PCB-36											
255.9613	22:06	22:06	-3	1.163	9402275	2655104	1191	2977	2229		
257.9584	22:06	22:06	-3	1.163	9000622	2532441	1130	2825	2241	1.04(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:06	-2		4733554	1062271	1	2	1062271		
339.9178	28:04	28:06	-2		2923100	658382	1	2	658382	1.62(1.16-1.94)	
PCB-104											
325.8804	23:40	23:41	-3	0.843	13271028	3448919	1	2	3448919		
327.8775	23:40	23:41	-3	0.843	8332655	2161082	5	12	432216	1.59(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:46	-2		5289563	1044520	106	265	9854		
339.9178	32:44	32:46	-2		3324383	661254	67	167	9869	1.59(1.16-1.94)	
PCB-121											
325.8804	26:39	26:40	-3	0.814	70403972	16198377	22233	55582	729		
327.8775	26:39	26:40	-3	0.814	42871327	9711562	8287	20717	1172	1.64(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:55	36:58	-2		2739207	490769	93	232	5277		
373.8788	36:55	36:58	-2		2077302	373416	67	167	5573	1.32(1.16-1.94)	
PCB-142											
359.8415	27:26	27:27	-3	0.743	13104669	3024729	182	455	16619		
361.8385	27:26	27:27	-3	0.743	10337281	2382282	161	402	14797	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:43	-2		7348215	1648263	92	230	17916		
303.9597	27:41	27:43	-2		8908837	1986398	126	315	15765	0.82(0.58-0.96)	
PCB-78											
289.9224	29:18	29:15	0	1.059	48454461	10691796	4664	11660	2292		
291.9194	29:18	29:15	0	1.059	60761247	13530216	4929	12322	2745	0.80(0.65-0.89)	
PCB-167L											
371.8817	39:25	39:26	-1		2869460	498294	547	1367	911		
373.8788	39:25	39:26	-1		2261840	394527	409	1022	965	1.27(1.16-1.94)	
PCB-155											
359.8415	33:56	33:57	-2	0.861	7518654	1423817	2641	6602	539		
361.8385	33:56	33:57	-2	0.861	5934342	1128609	1634	4085	691	1.27(1.05-1.43)	
PCB-184											
393.8025	34:35	34:36	-2	0.878	15553783	3035016	55	137	55182		
395.7995	34:35	34:36	-2	0.878	14828450	2882187	56	140	51468	1.05(0.89-1.21)	
PCB-204											
427.7635	42:13	42:13	-1	1.071	18860595	3143353	86	215	36551		
429.7606	42:13	42:13	-1	1.071	20931134	3485880	98	245	35570	0.90(0.76-1.02)	
PCB-192											
393.8025	42:33	42:33	-1	1.080	67910915	12083573	2899	7247	4168		
395.7995	42:33	42:33	-1	1.080	64630135	11474974	2754	6885	4167	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

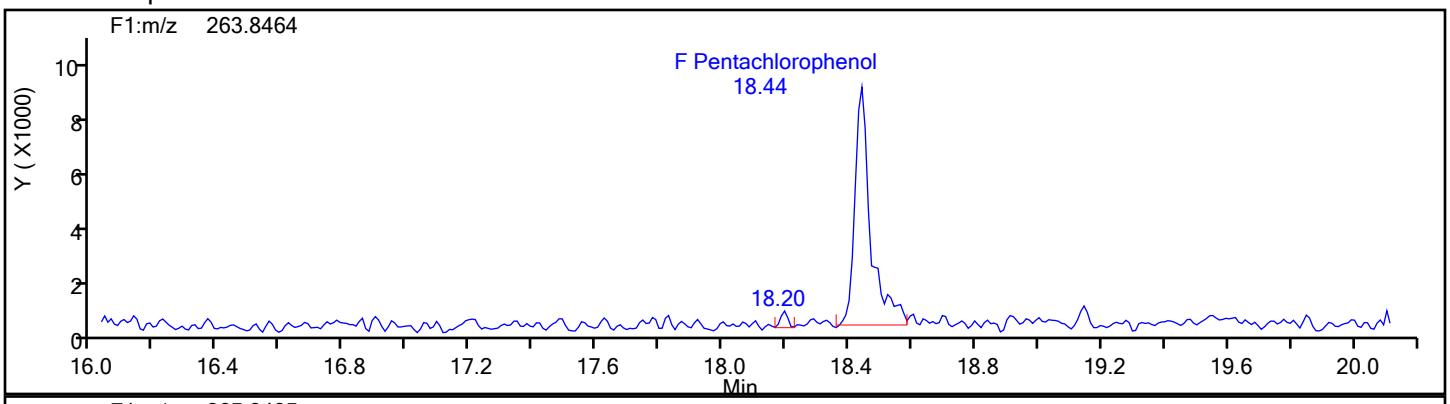
Report Date: 06-May-2025 19:06:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

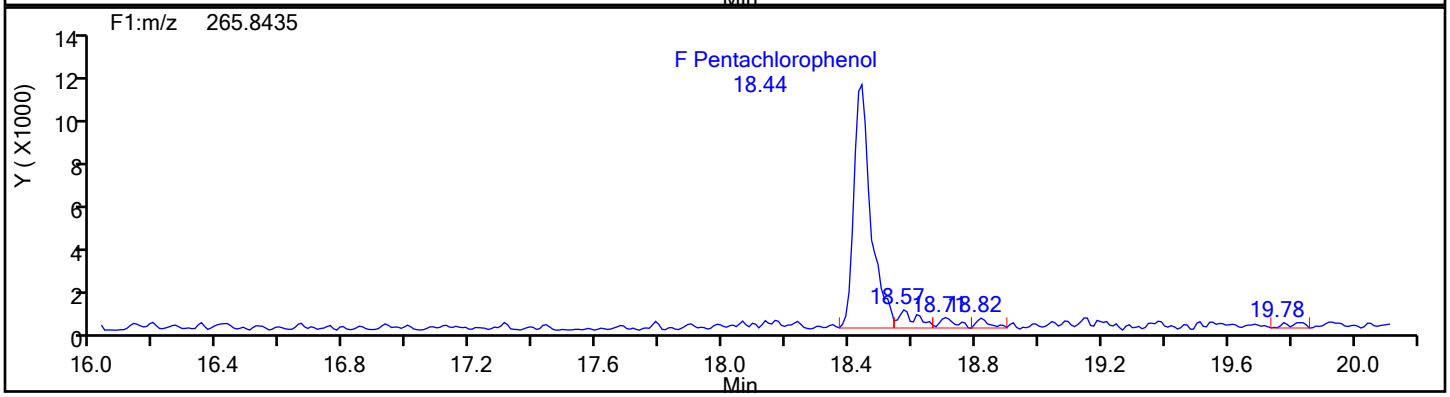
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\140-40836-a-4-aa.d

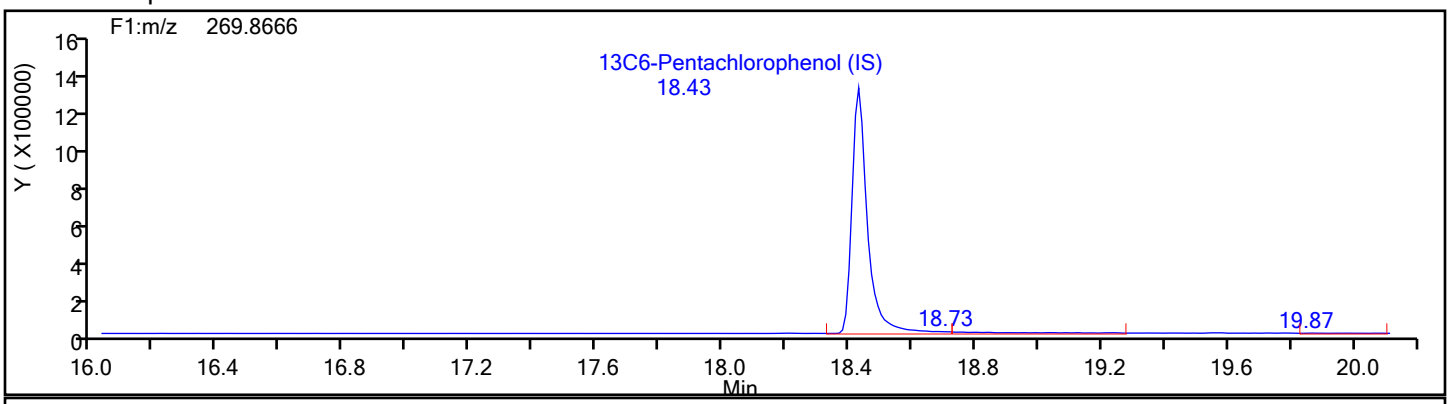
Injection Date:	06-May-2025 17:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	99325	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

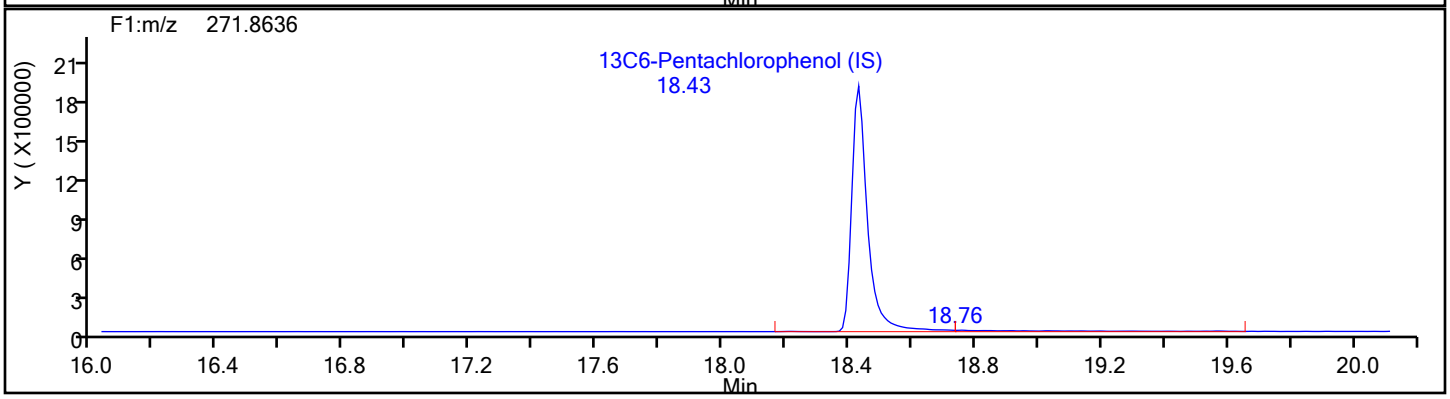
Pentachlorophenol





Pentachlorophenol Standards





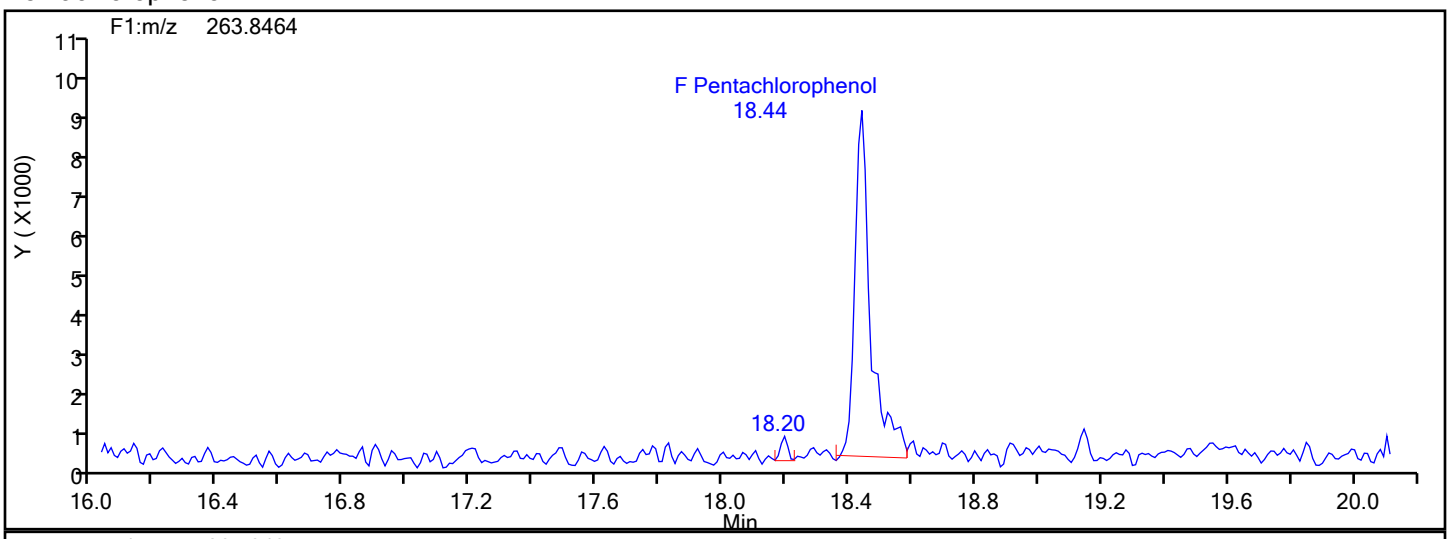
Report Date: 06-May-2025 19:06:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

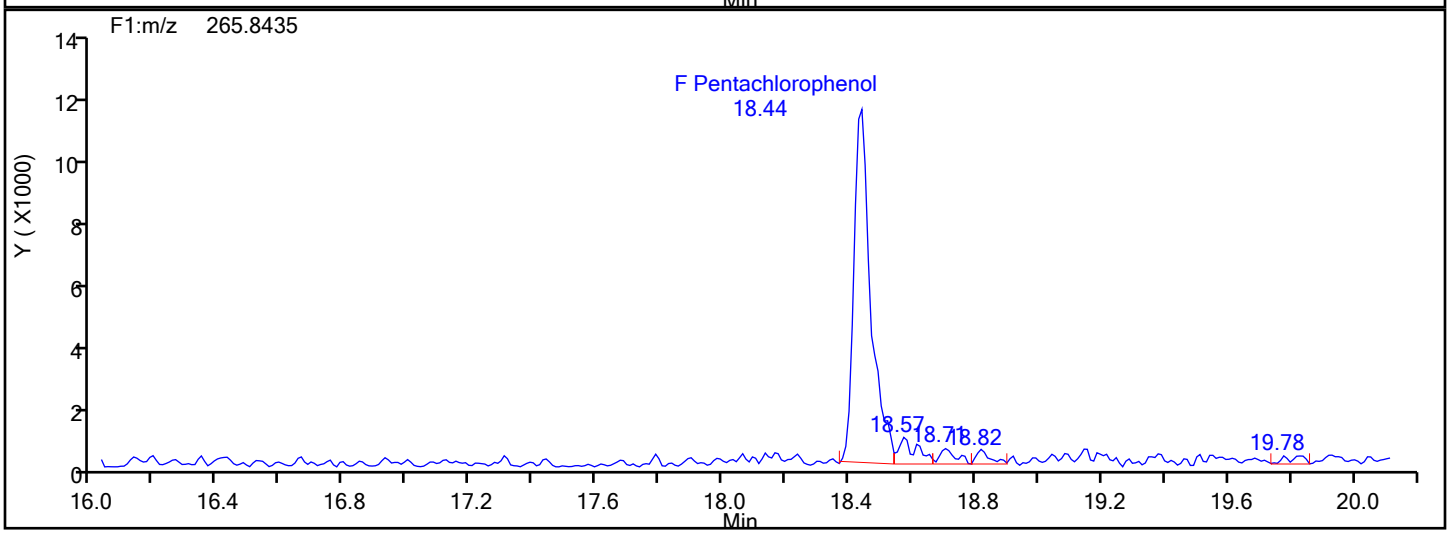
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\140-40836-a-4-aa.d

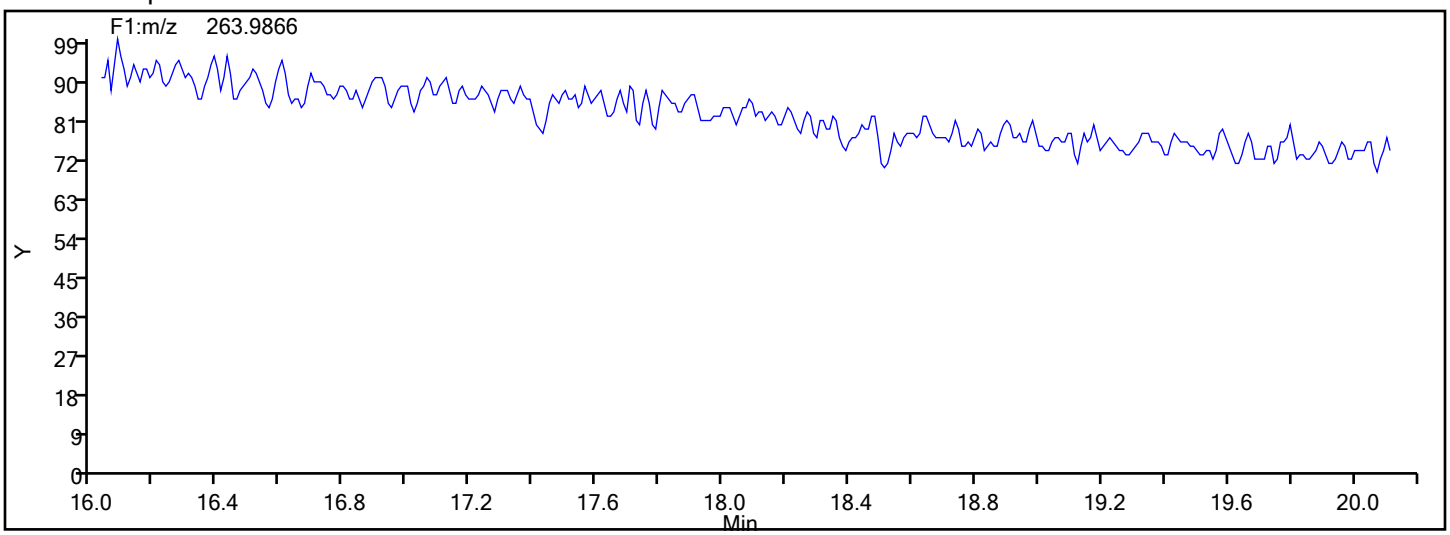
Injection Date:	06-May-2025 17:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	99325	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

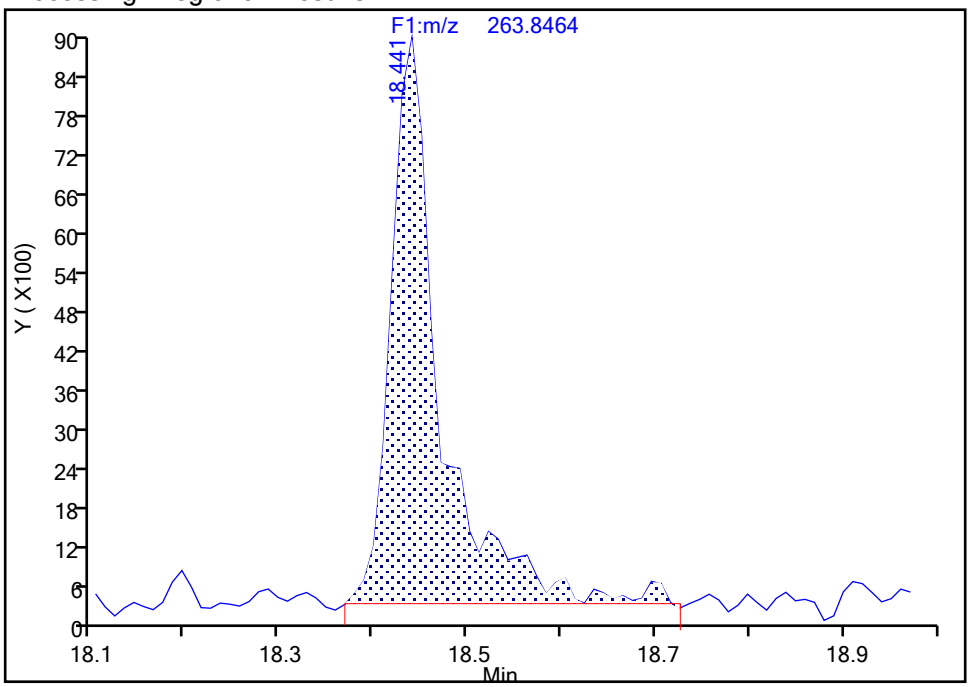
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\140-40836-a-4-aa.d				
Injection Date:	06-May-2025 17:39:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-4-B	Lab Sample ID:	140-40836-4		
Client ID:	PW-04-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

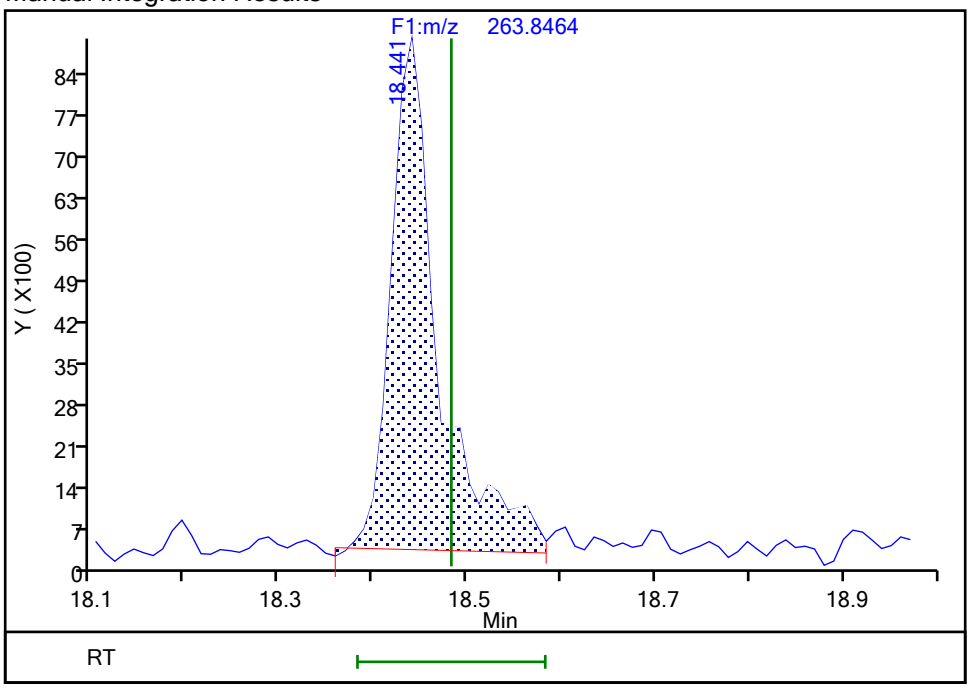
Processing Integration Results

RT: 18.44
Area: 32005
Amount: 3.184336
Amount Units: pg/ul



Manual Integration Results

RT: 18.44
Area: 30327
Amount: 3.111015
Amount Units: pg/ul



Reviewer: F9EE, 06-May-2025 18:55:22 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-04-241230 | Lab Sample ID: 140-40836-4

Matrix: PE | Lab File ID: 140-40836-a-4-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 22:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.050(g) | Date Analyzed: 03/30/2025 18:46

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	13	J	20	0.0086
74472-51-8	PCB-192	1400	B	20	0.84
74472-48-3	PCB-184	220	B	20	0.018
33979-03-2	PCB-155	97		20	0.61
41411-61-4	PCB-142	89	B	20	0.030
74472-52-9	PCB-204	480	B	20	0.035
56558-16-8	PCB-104	79	B	20	0.0017
56558-18-0	PCB-121	390	B	20	1.5
70362-49-1	PCB-78	240	B	20	0.22
38444-87-0	PCB-36	22		20	0.085

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d
Lims ID: 140-40836-A-4-B
Client ID: PW-04-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 18:46:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-009
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:04	764479	1.52		10.0	10.0				
PCB-14	17:49	338051	1.53	1.3581	3.256	3.256	0.002154	0.002154		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:10	438420	1.02	1.0230	5.606	5.606	0.0213	0.0213		
* PCB-101L	28:07	292049	1.57		10.0	10.0				
PCB-104	23:44	1056139	1.57	1.8372	19.7	19.7	0.000418	0.000418		
* PCB-118L	32:48	318912	1.64		10.0	10.0				
PCB-121	26:43	4494497	1.58	1.4622	96.4	96.4	0.3667	0.3667		
* PCB-138L	37:00	207306	1.27		10.0	10.0				
PCB-142	27:29	934877	1.34	2.0271	22.2	22.2	0.007498	0.007498		
* PCB-60L	27:44	459602	0.77		10.0	10.0				
PCB-78	29:22	2497513	0.80	0.9153	59.4	59.4	0.0548	0.0548		
* PCB-167L	39:30	234032	1.24		10.0	10.0				
PCB-155	34:00	519640	1.21	0.9191	24.2	24.2	0.1526	0.1526		
PCB-184	34:39	1475864	1.07	1.1610	54.3	54.3	0.004543	0.004543		
PCB-204	42:17	2078617	0.89	0.7364	120.6	120.6	0.008790	0.008790		
PCB-192	42:37	6173144	1.06	0.7635	345.5	345.5	0.2088	0.2088		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d
Lims ID: 140-40836-A-4-B
Client ID: PW-04-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 18:46:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-009
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:04	19:05	-1		461359	145065	11	27	13188		
236.0376	19:04	19:05	-1		303120	94175	1	2	94175	1.52(1.16-1.93)	
PCB-14											
222.0003	17:49	17:50	-1	0.934	204291	71225	19	47	3749		
223.9974	17:49	17:50	-1	0.934	133760	46972	9	22	5219	1.53(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						34	85			
265.8435	18:31						10	25			
PCB-36											
255.9613	22:10	22:10	0	1.162	221844	60583	115	287	527		
257.9584	22:10	22:10	0	1.162	216576	57966	94	235	617	1.02(0.88-1.20)	
PCB-101L											
337.9207	28:07	28:08	-1		178350	38950	1	2	38950		
339.9178	28:07	28:08	-1		113699	26217	1	2	26217	1.57(1.16-1.94)	
PCB-104											
325.8804	23:44	23:45	-1	0.844	644761	168748	1	2	168748		
327.8775	23:44	23:45	-1	0.844	411378	110558	1	2	110558	1.57(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	-1		198127	38669	4	10	9667		
339.9178	32:48	32:48	-1		120785	23811	3	7	7937	1.64(1.16-1.94)	
PCB-121											
325.8804	26:43	26:44	-1	0.815	2751866	621532	800	2000	777		
327.8775	26:43	26:44	-1	0.815	1742631	389199	540	1350	721	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	37:00	37:00	0		116100	21010	2	5	10505		
373.8788	37:00	37:00	0		91206	16493	2	5	8247	1.27(1.16-1.94)	
PCB-142											
359.8415	27:29	27:31	-2	0.743	535398	120375	15	37	8025		
361.8385	27:29	27:31	-2	0.743	399479	93848	8	20	11731	1.34(1.05-1.43)	
PCB-60L											
301.9626	27:44	27:45	-1		199955	44534	2	5	22267		
303.9597	27:44	27:45	-1		259647	57057	1	2	57057	0.77(0.58-0.96)	
PCB-78											
289.9224	29:22	29:23	-1	1.059	1109268	226585	98	245	2312		
291.9194	29:22	29:23	-1	1.059	1388245	287605	106	265	2713	0.80(0.65-0.89)	
PCB-167L											
371.8817	39:30	39:30	0		129668	24021	32	80	751		
373.8788	39:30	39:30	0		104364	17688	16	40	1106	1.24(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	284116	54091	134	335	404		
361.8385	34:00	34:00	0	0.861	235524	44622	100	250	446	1.21(1.05-1.43)	
PCB-184											
393.8025	34:39	34:40	-1	0.877	761278	147767	3	7	49256		
395.7995	34:39	34:40	-1	0.877	714586	130754	6	15	21792	1.07(0.89-1.21)	
PCB-204											
427.7635	42:17	42:18	-1	1.071	981567	168490	5	12	33698		
429.7606	42:17	42:18	-1	1.071	1097050	188740	6	15	31457	0.89(0.76-1.02)	
PCB-192											
393.8025	42:37	42:37	0	1.079	3180146	547951	136	340	4029		
395.7995	42:37	42:37	0	1.079	2992998	522576	130	325	4020	1.06(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

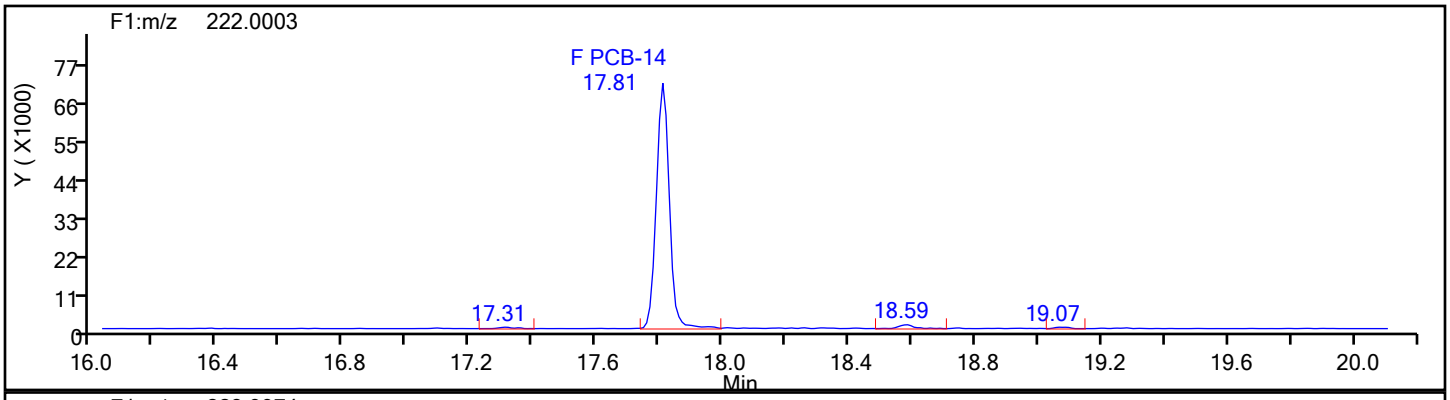
Report Date: 31-Mar-2025 14:10:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

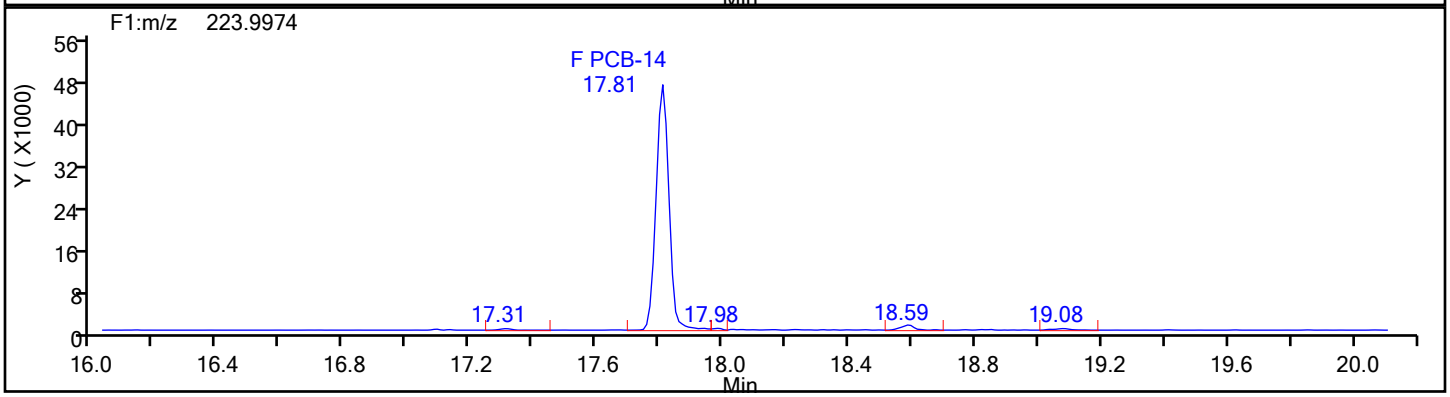
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

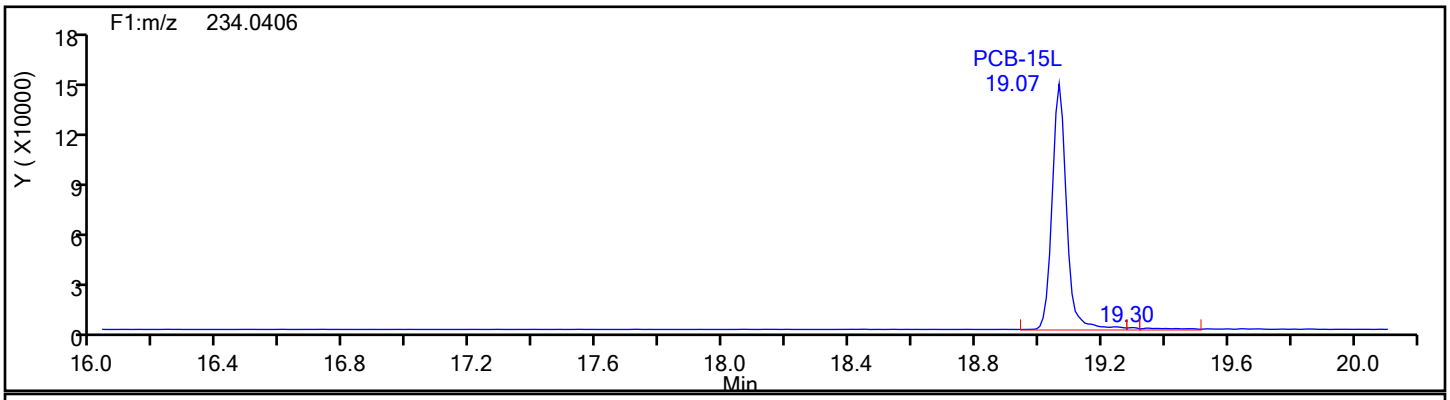
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

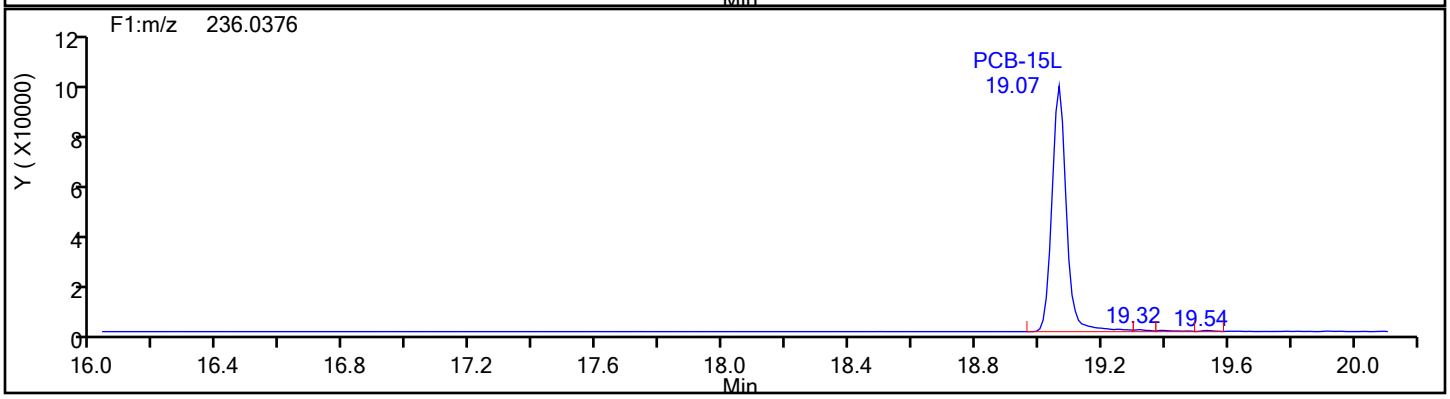
PCB-14





PCB-14 Standards



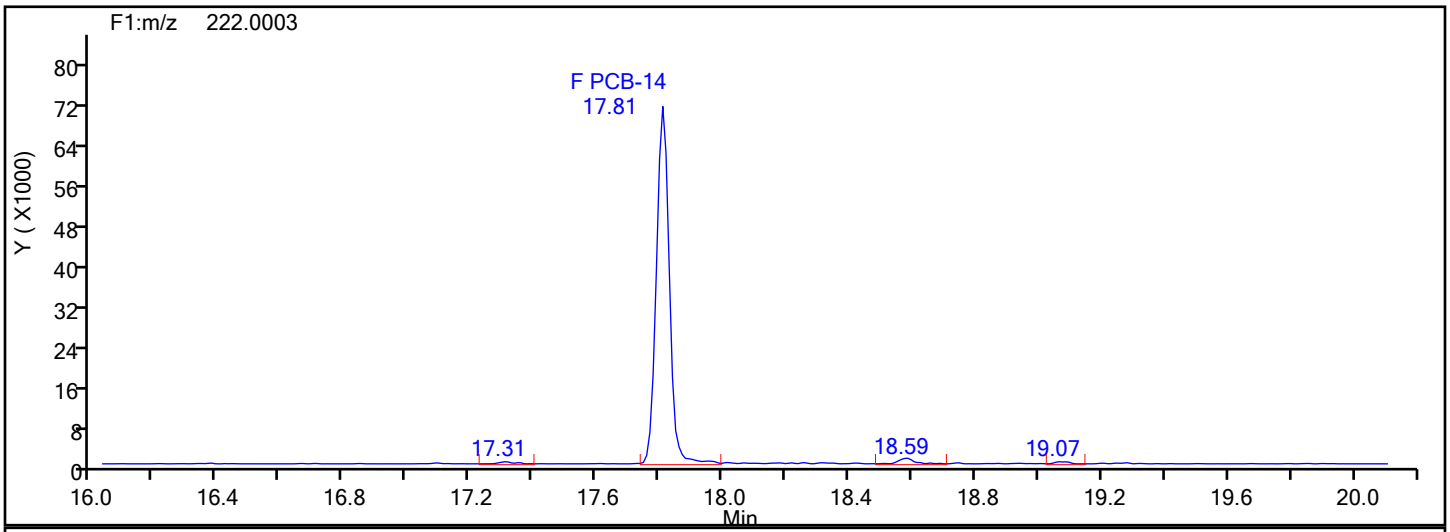


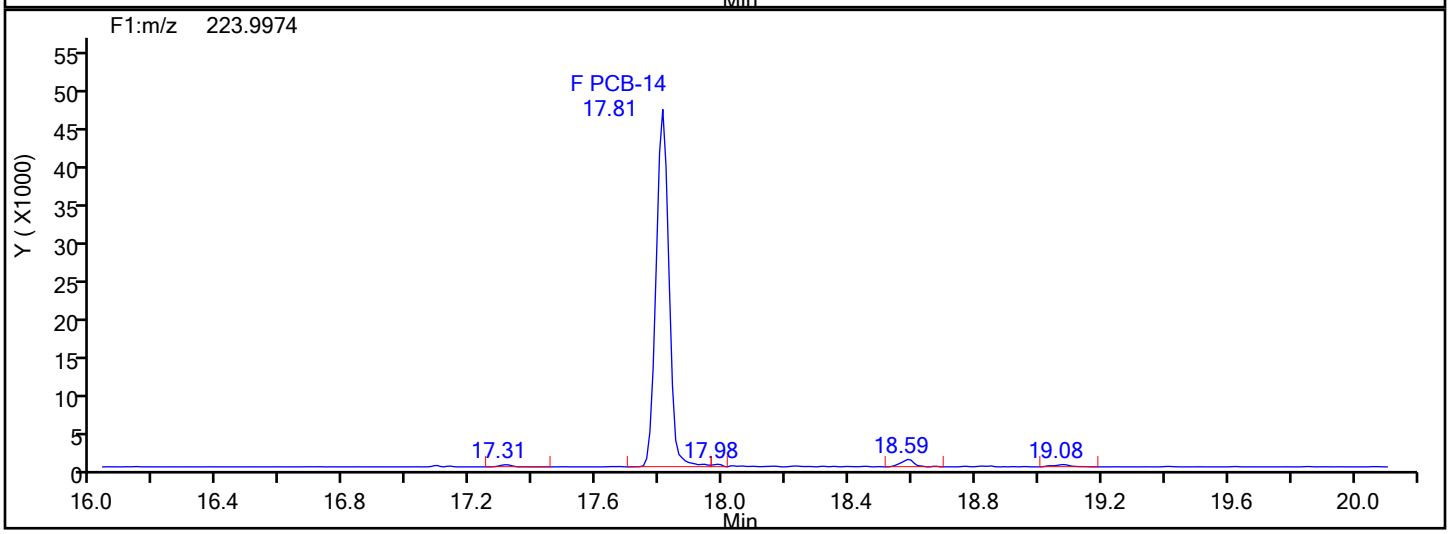
Report Date: 31-Mar-2025 14:10:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

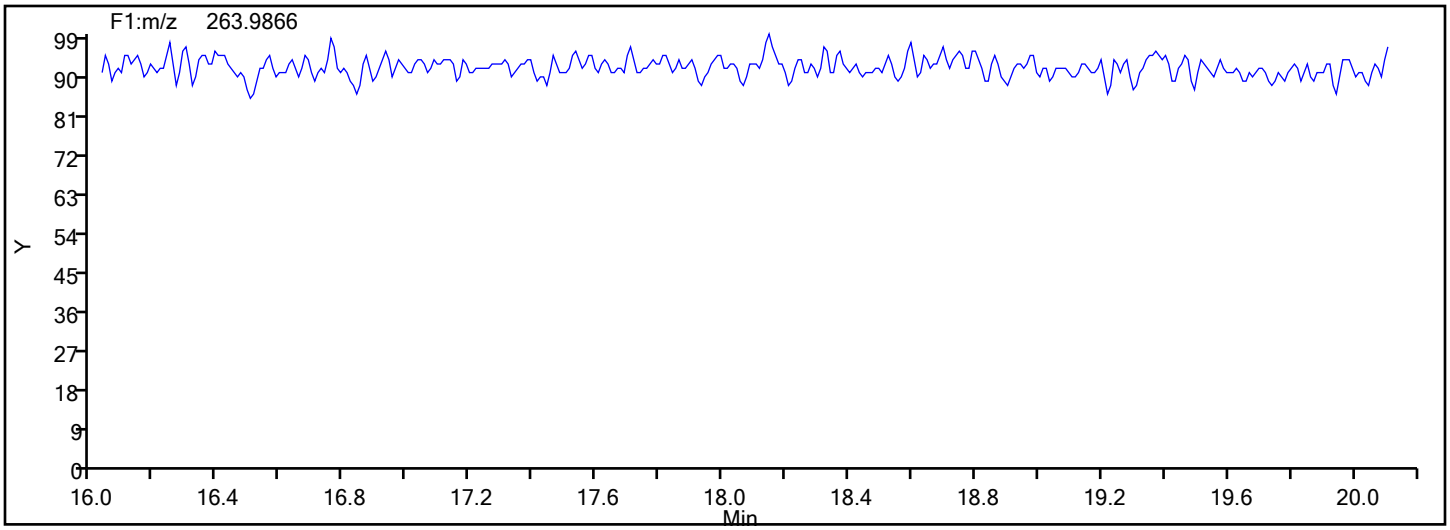
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



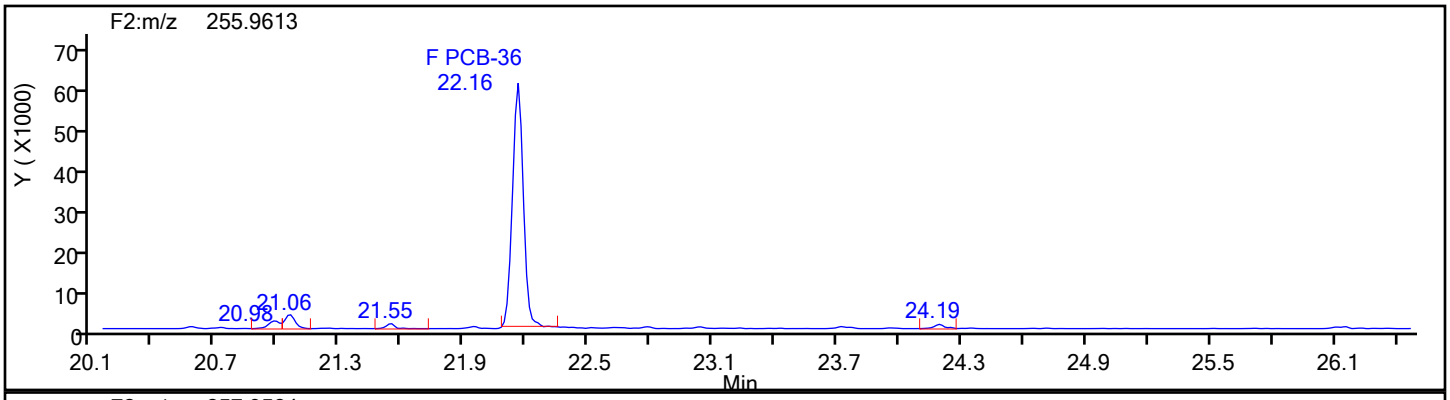
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

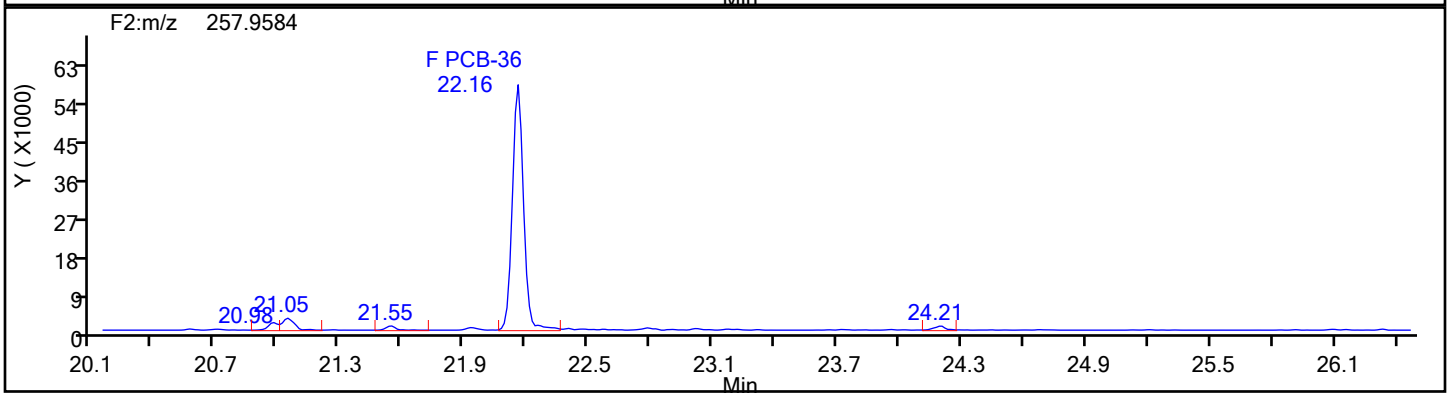
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

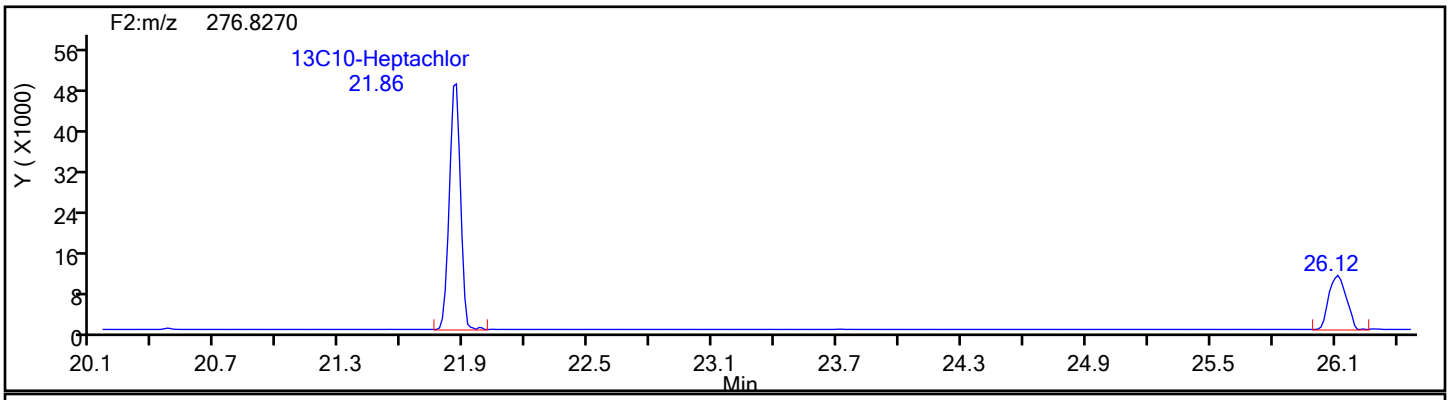
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

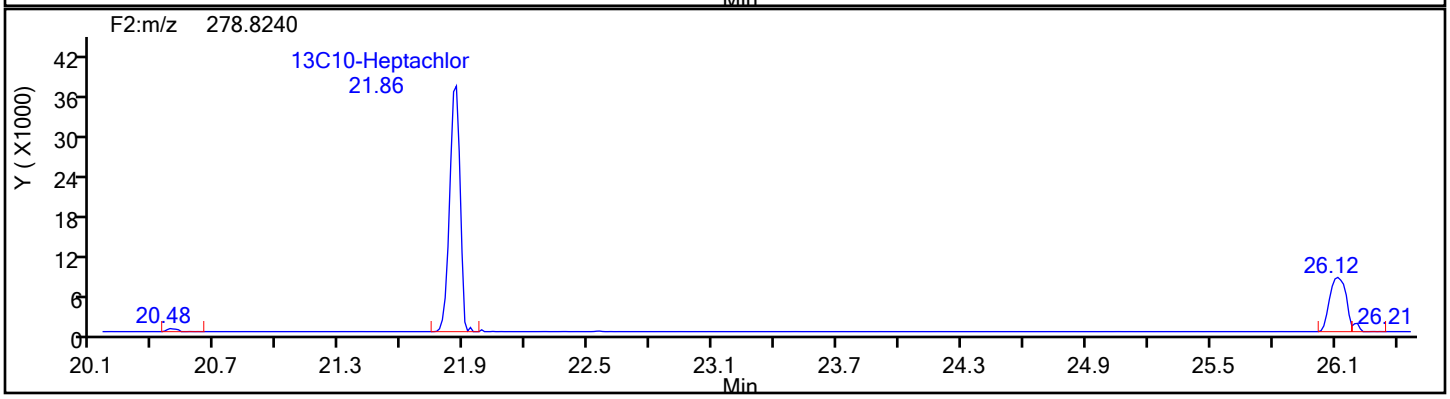
PCB-36





PCB-36 Standards



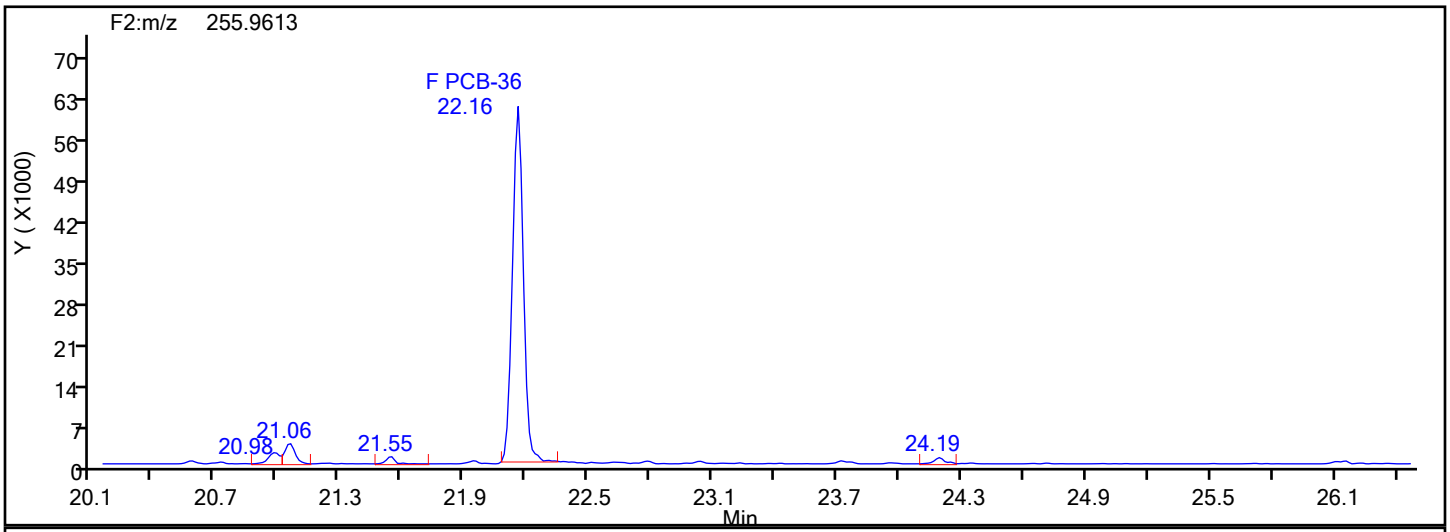


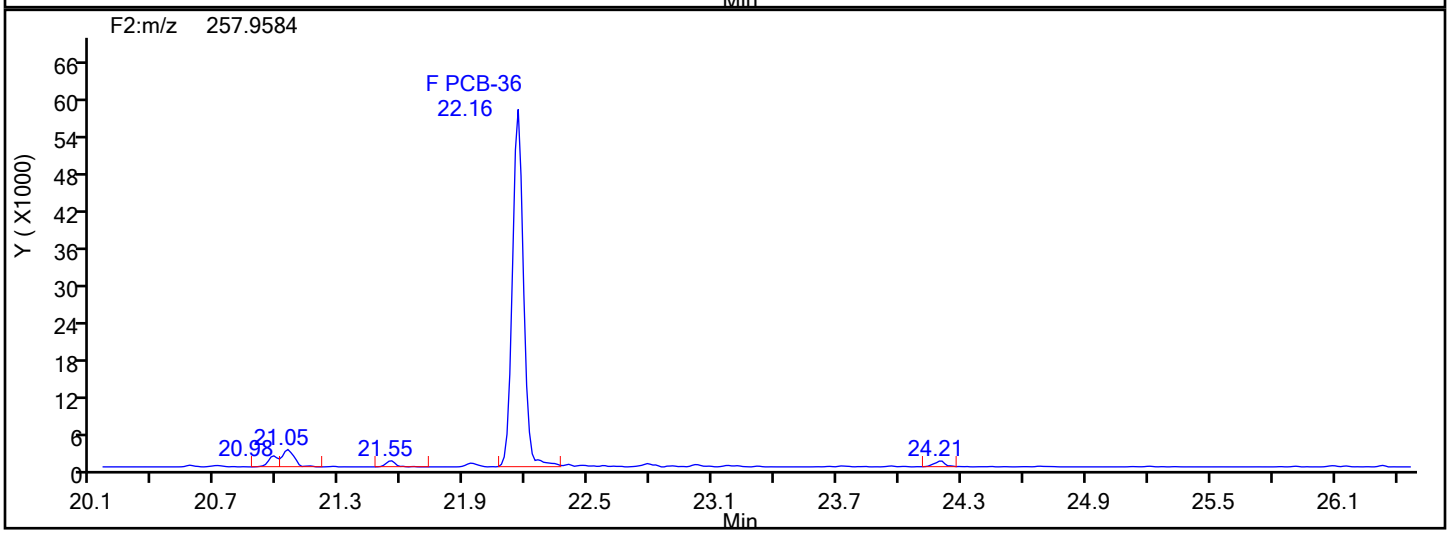
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

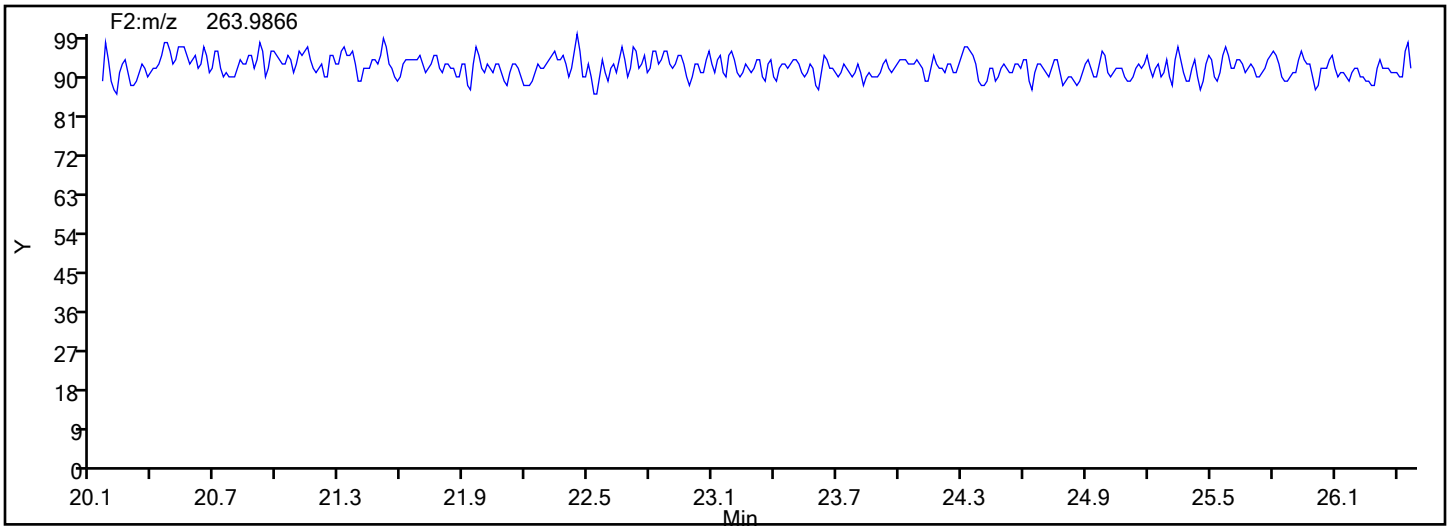
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



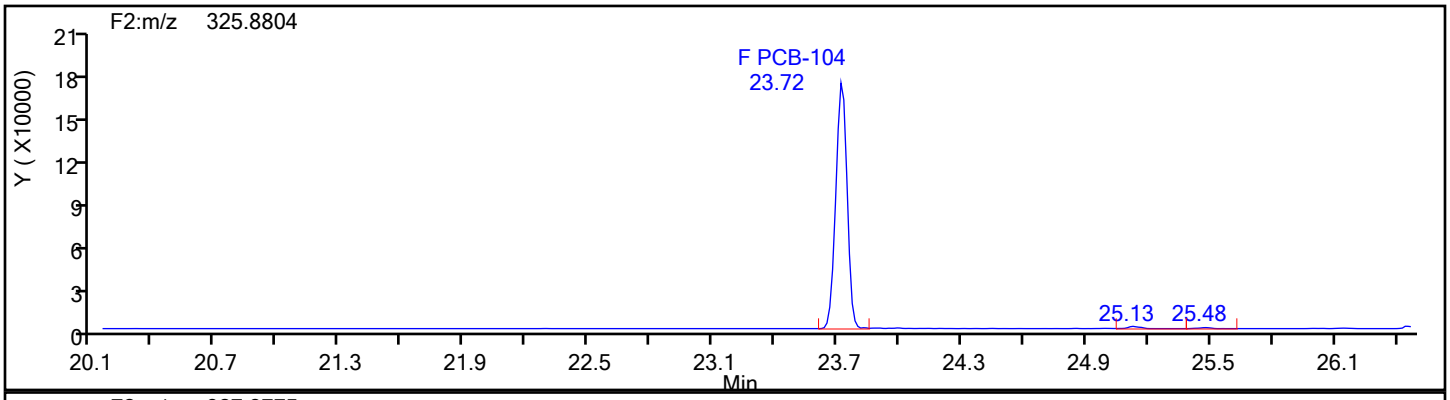
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

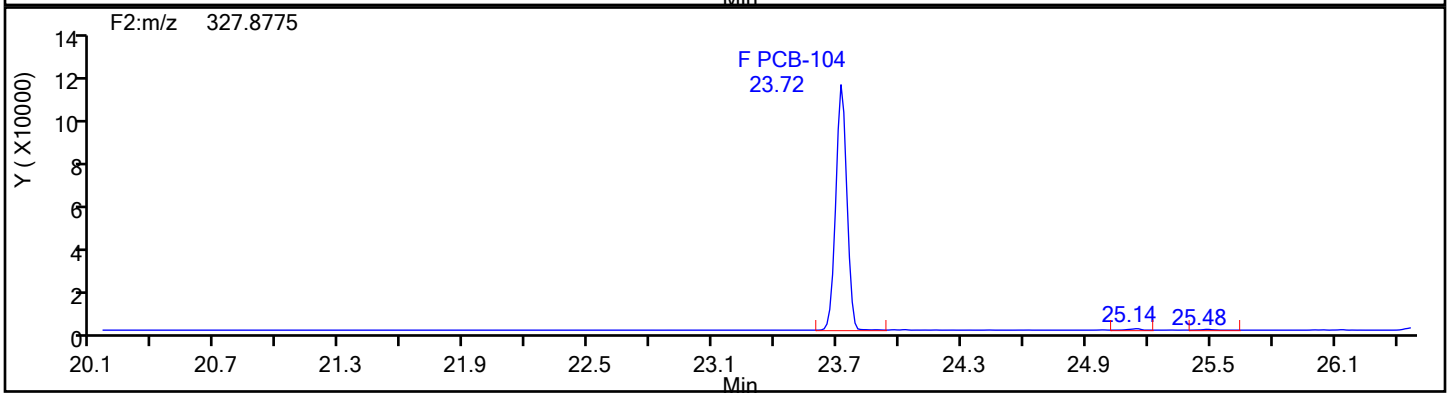
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

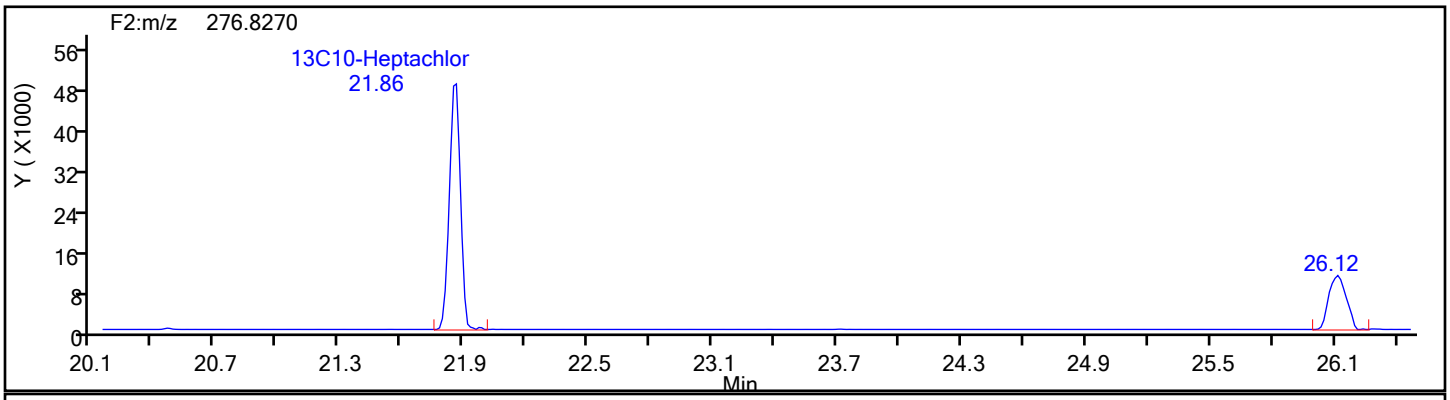
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

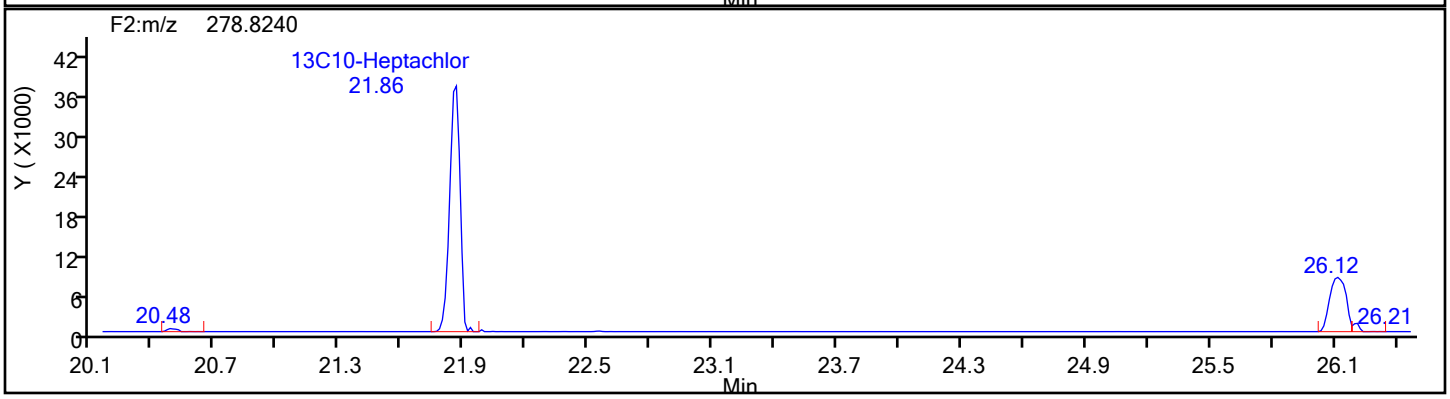
PCB-104





PCB-104 Standards



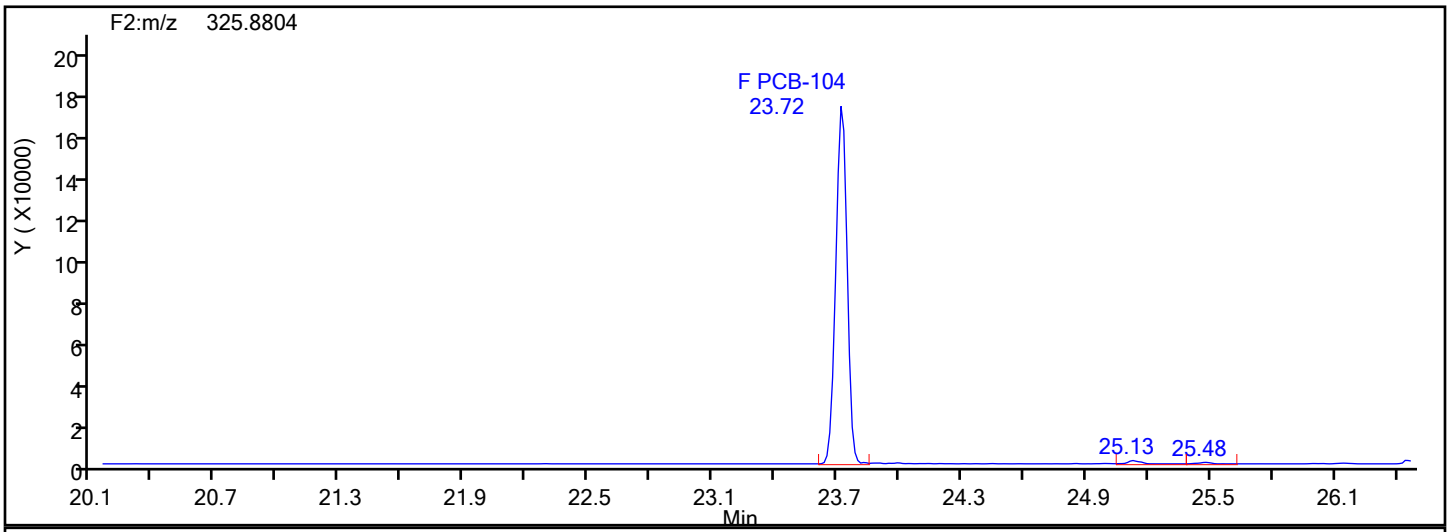


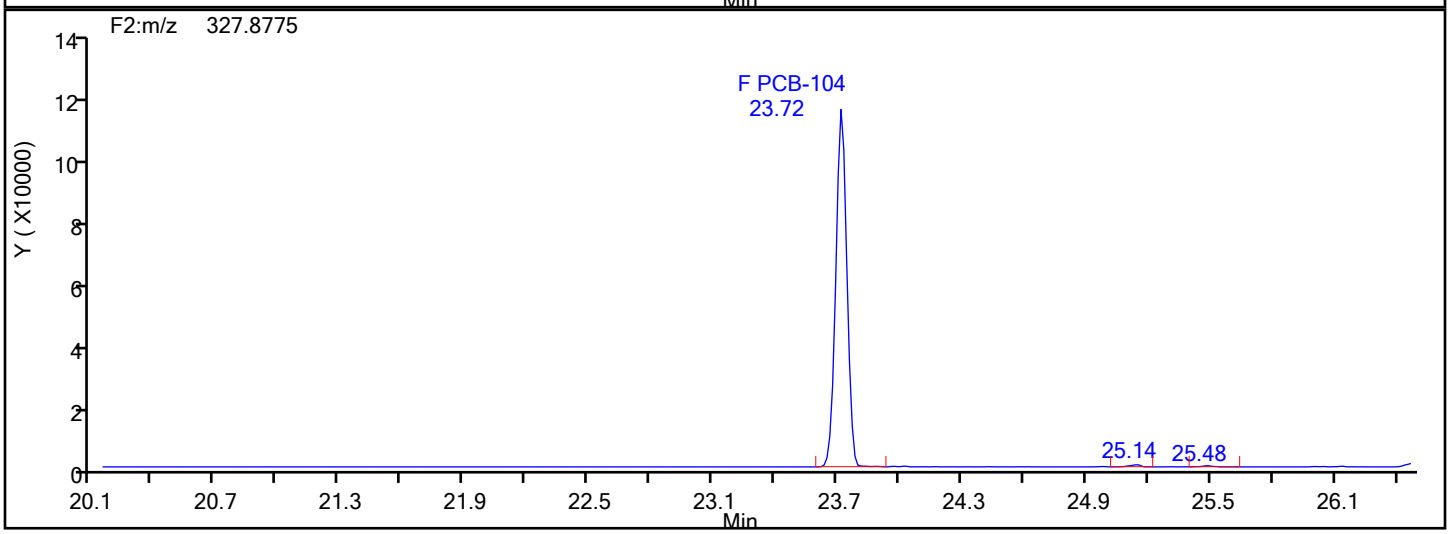
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

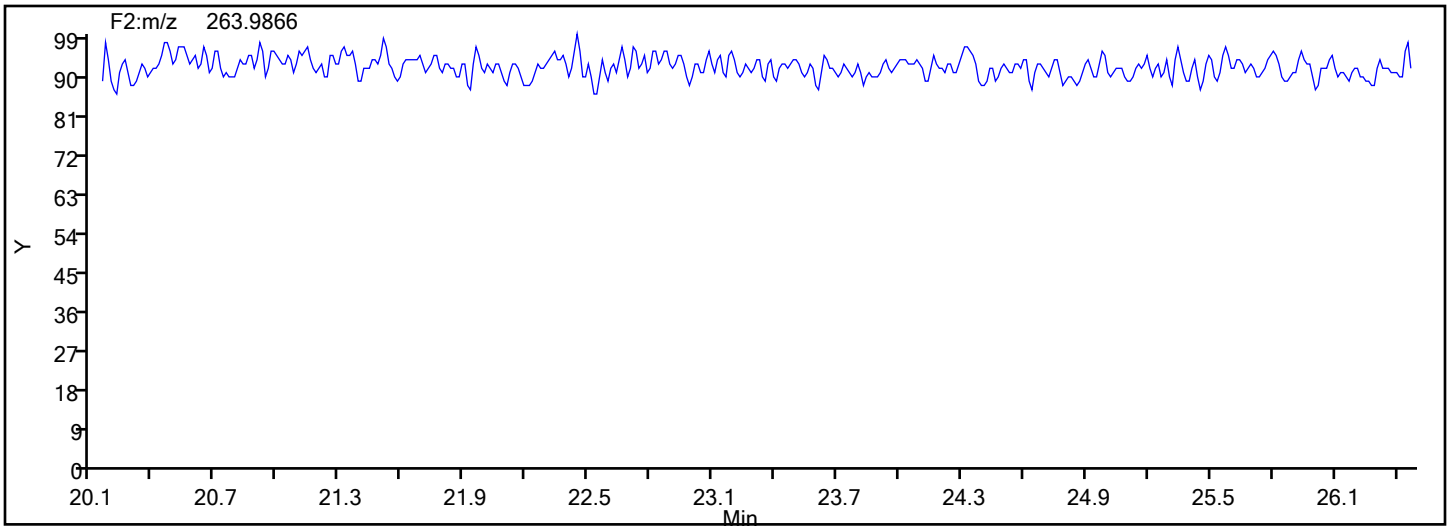
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



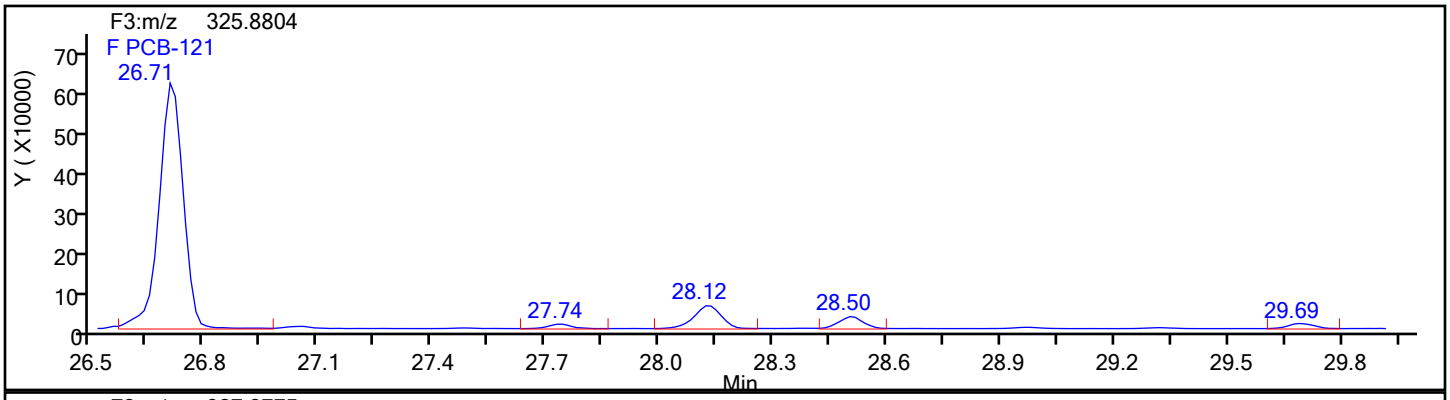
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

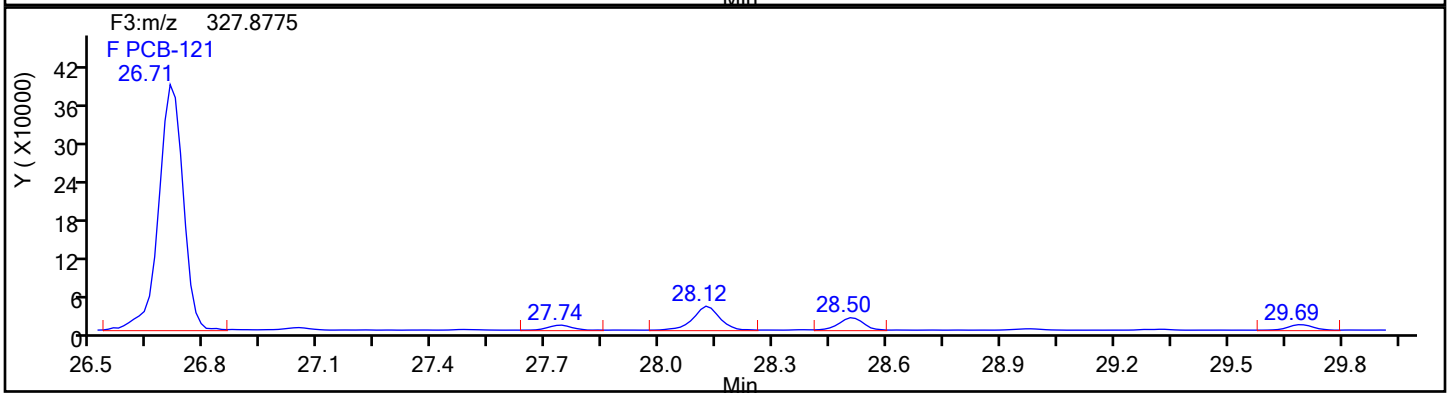
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

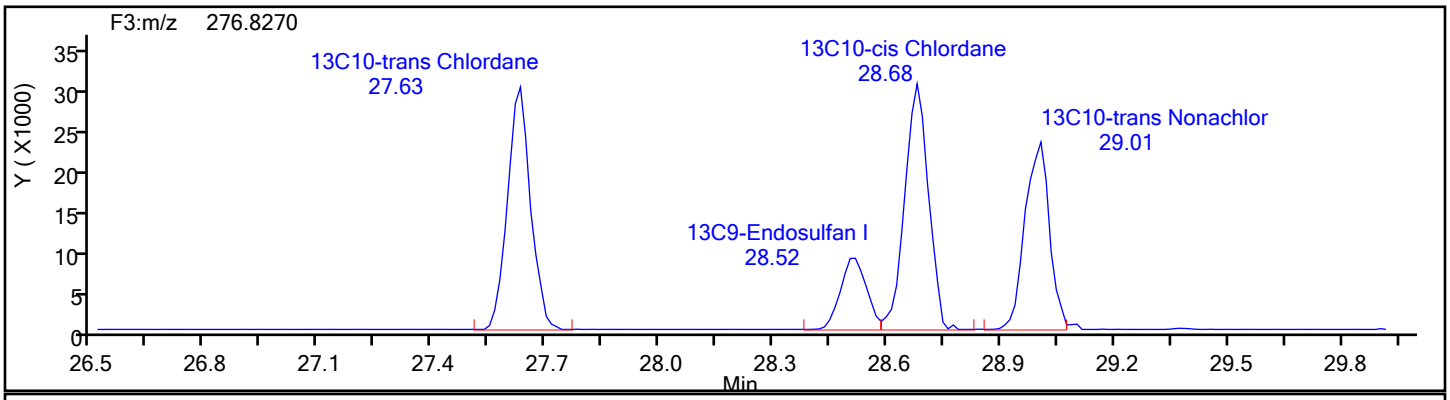
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

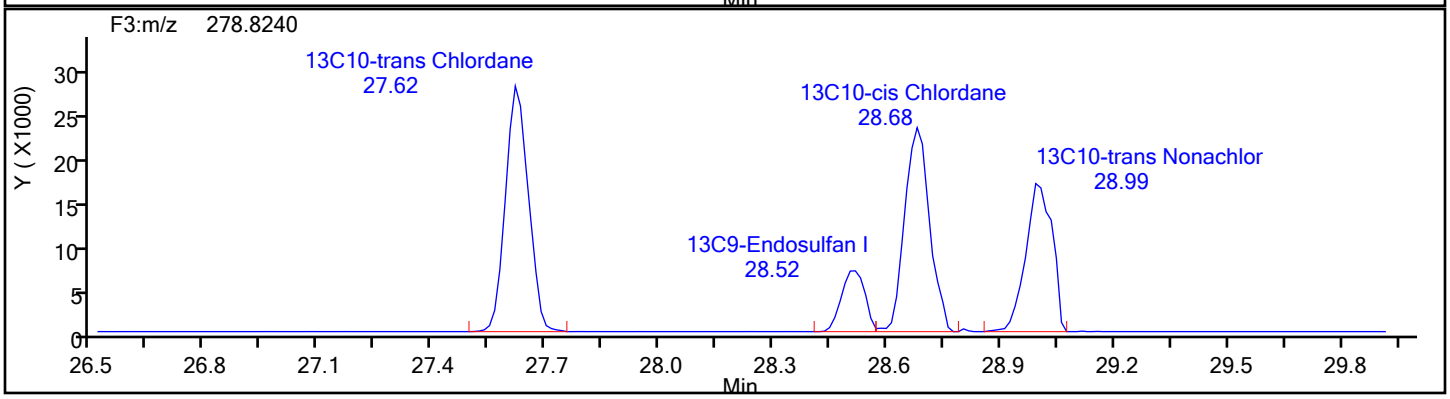
PCB-121





PCB-121 Standards



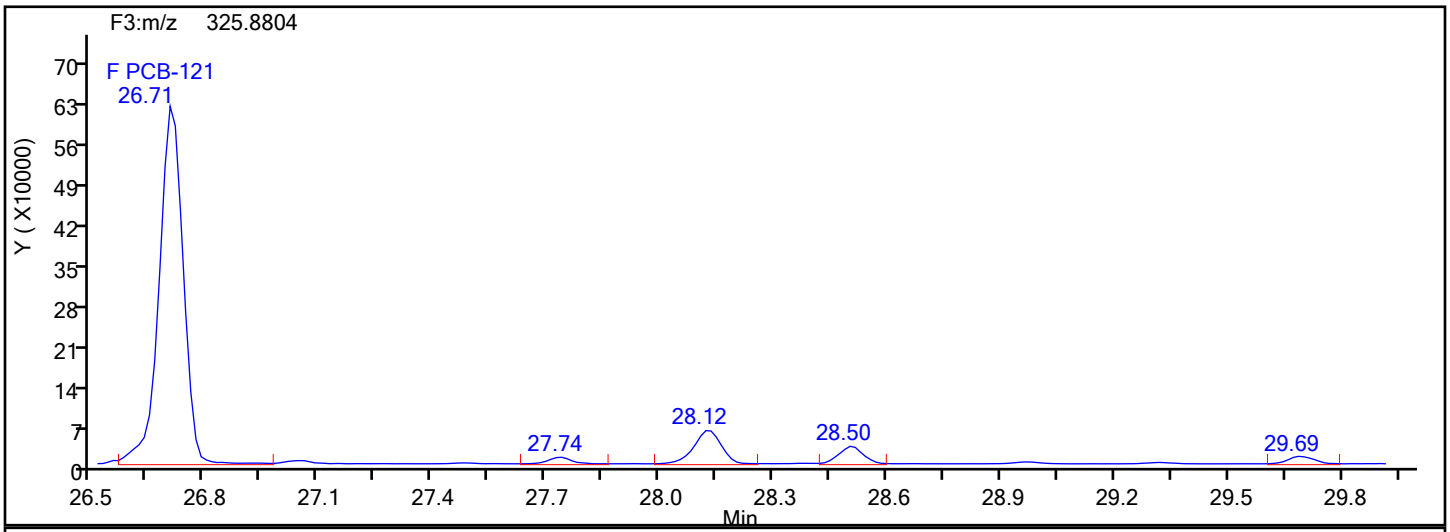


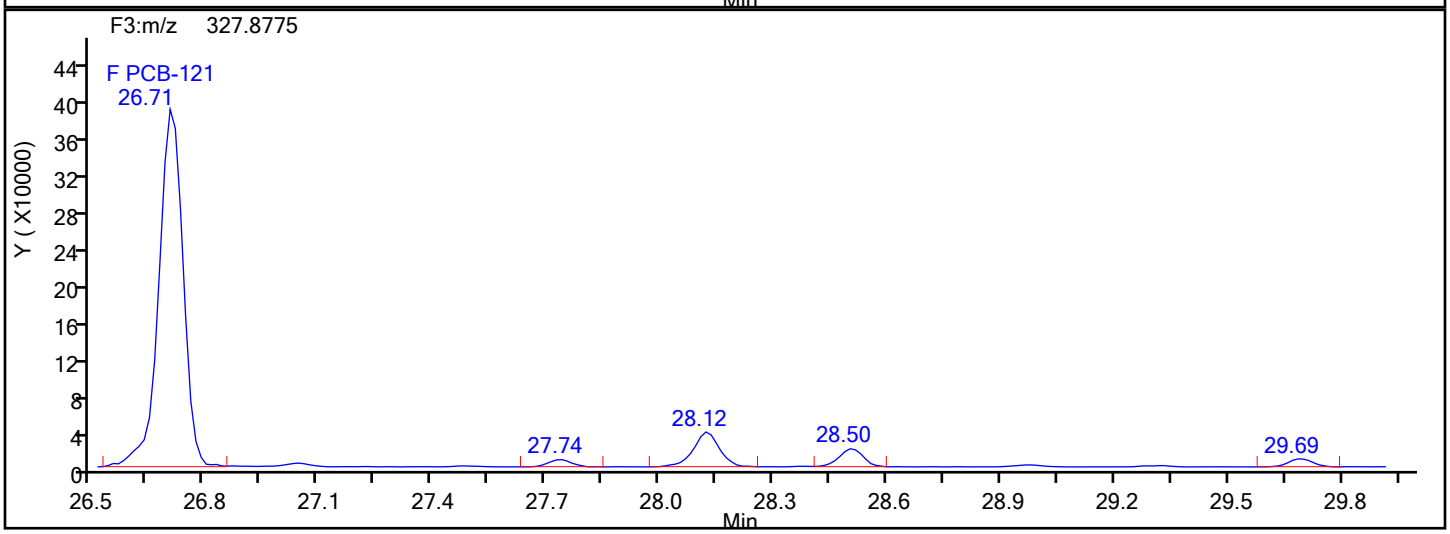
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

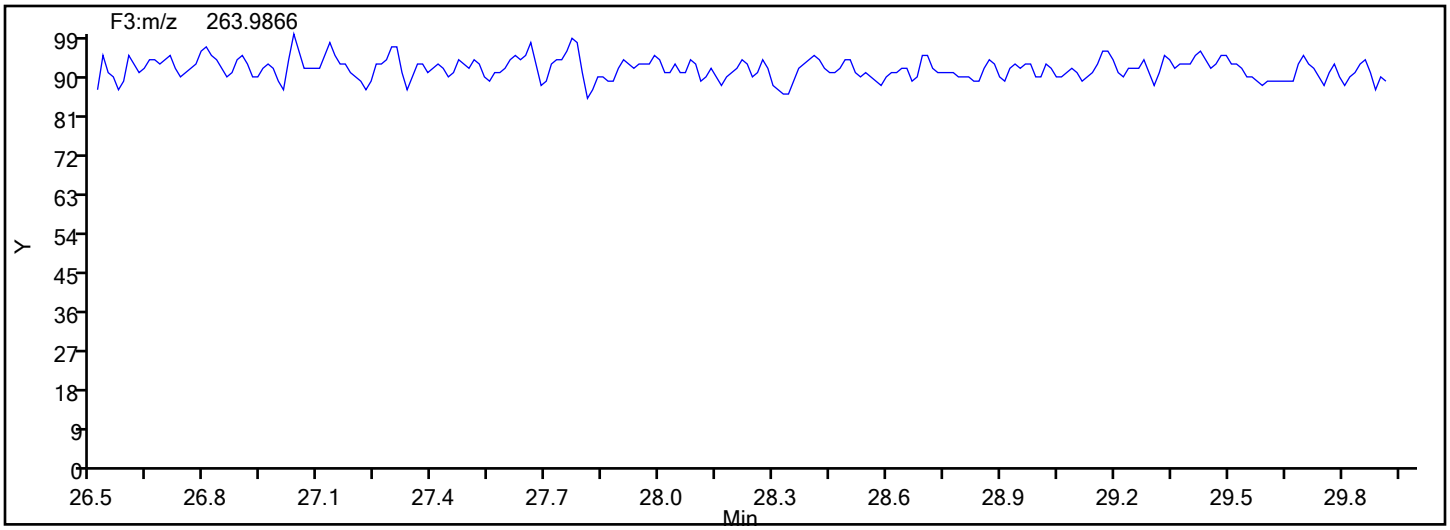
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



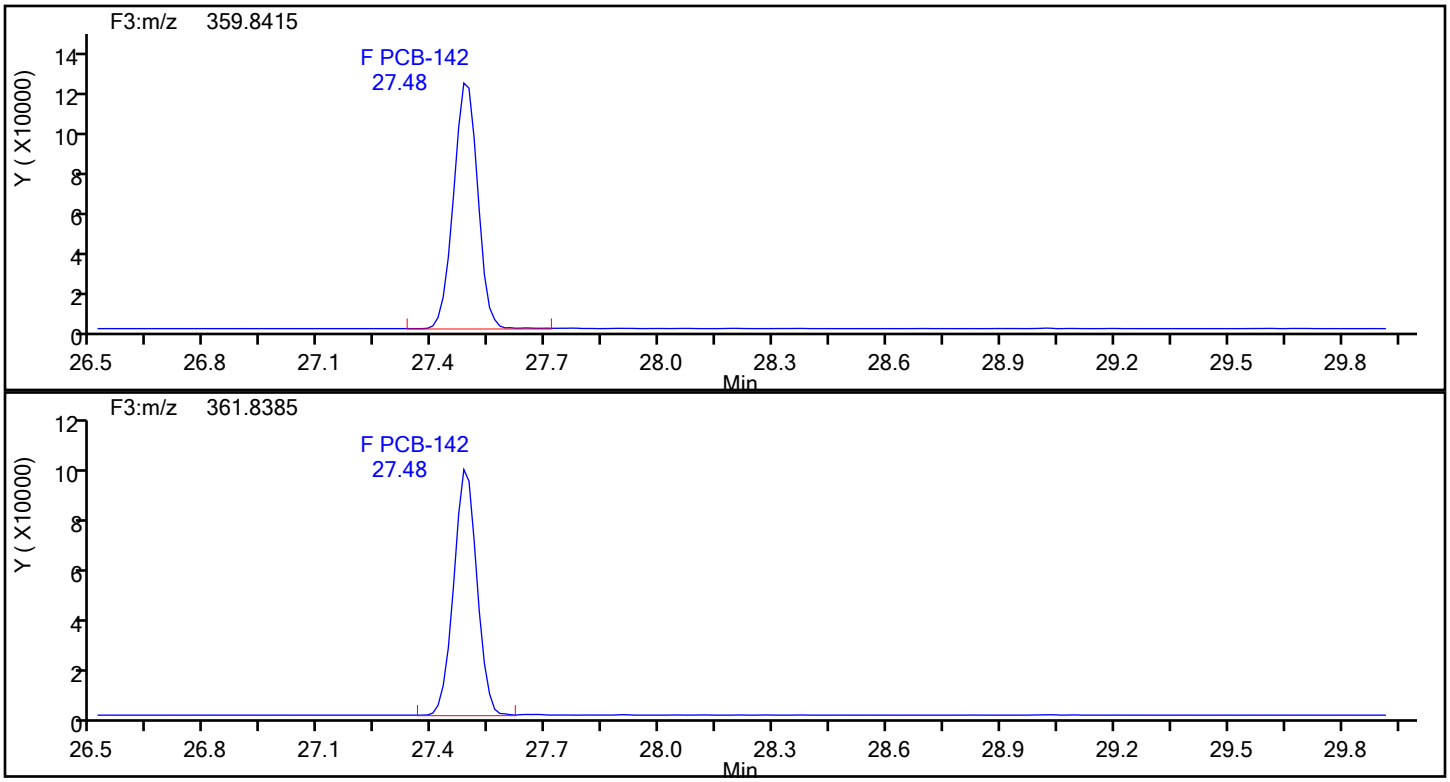
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

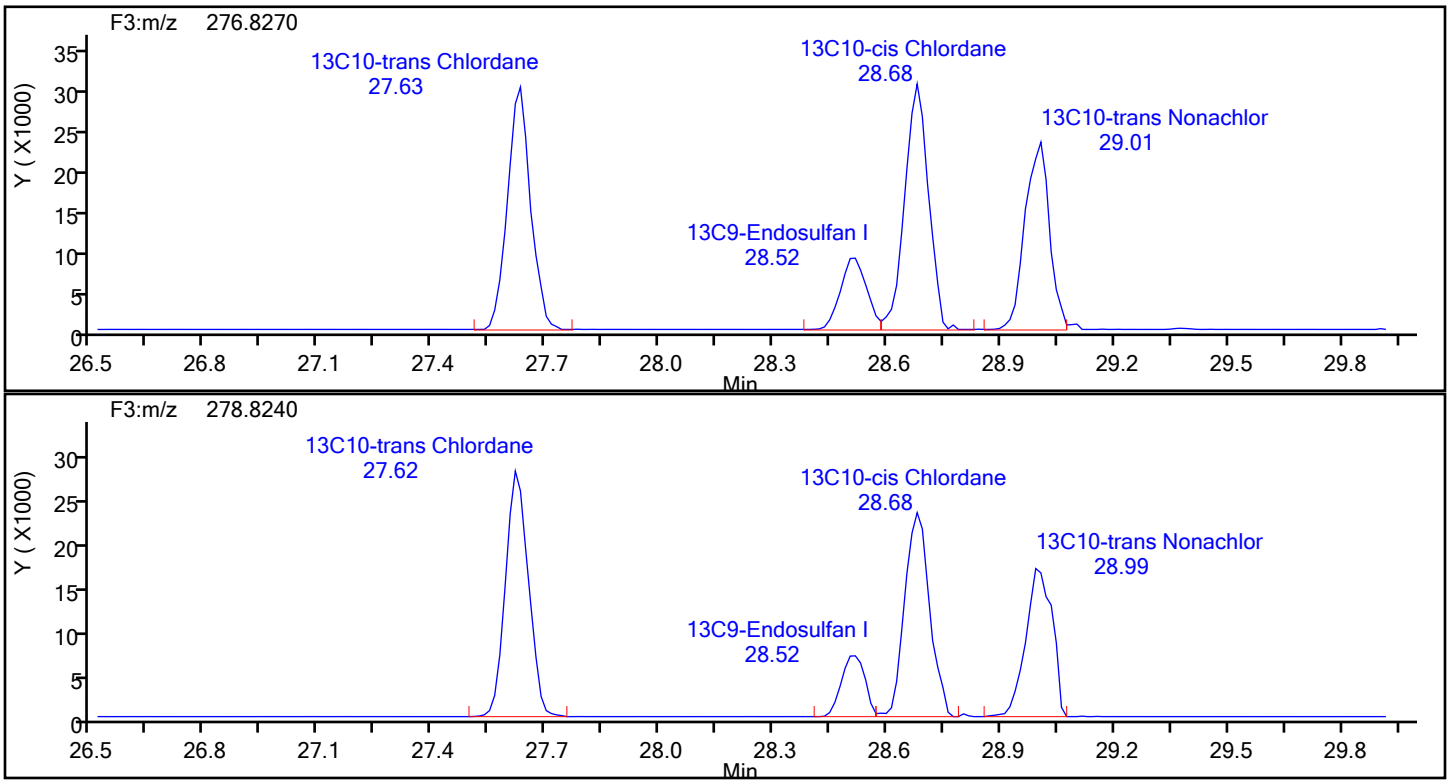
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

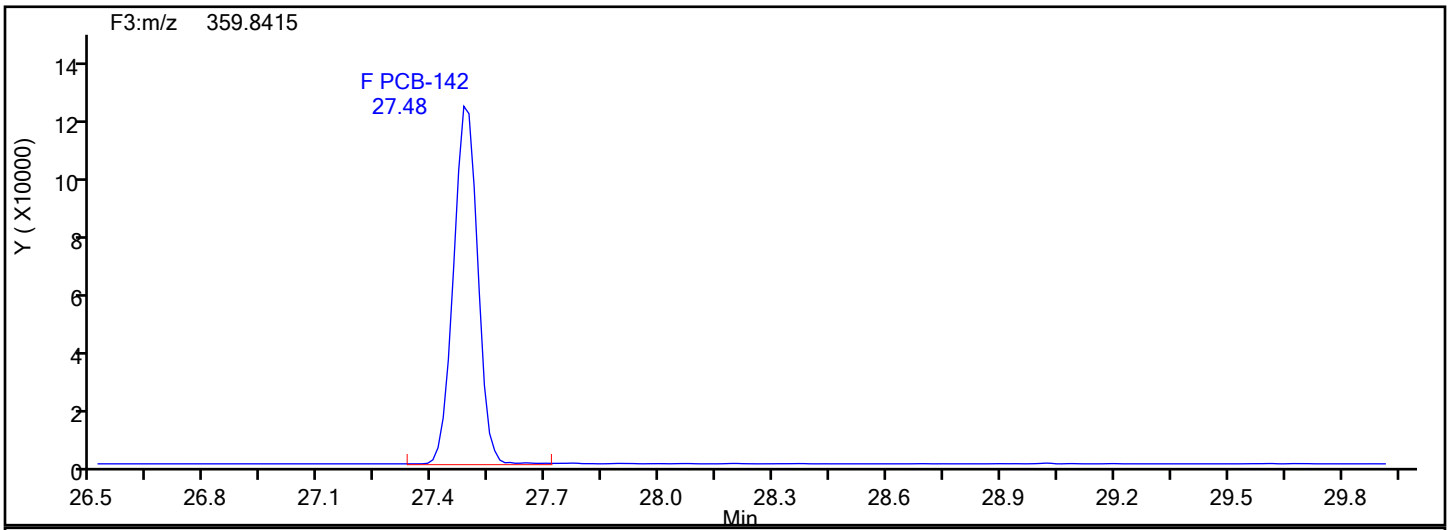


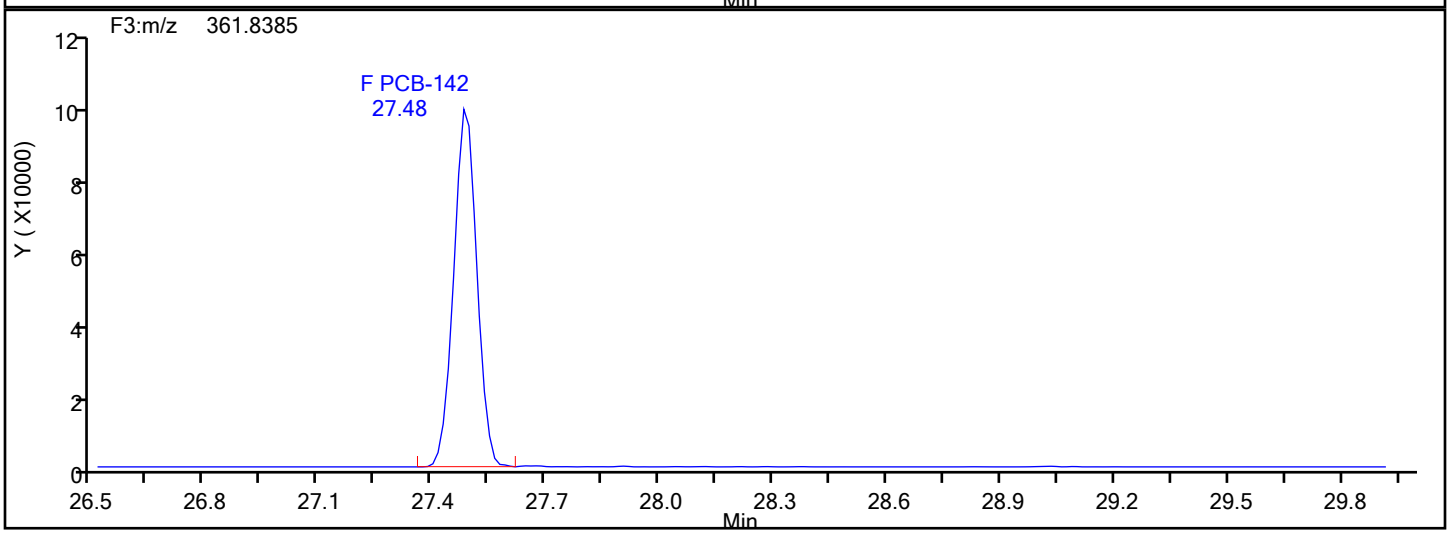
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

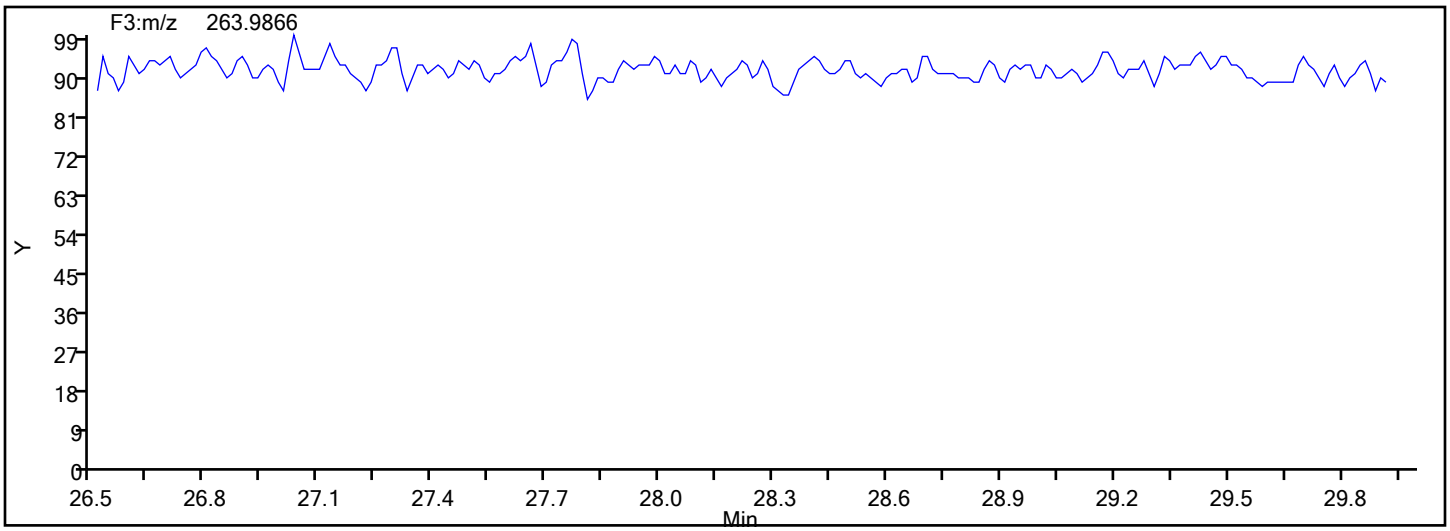
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d
Injection Date: 30-Mar-2025 18:46:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-04-241230
Worklist#: 97758 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



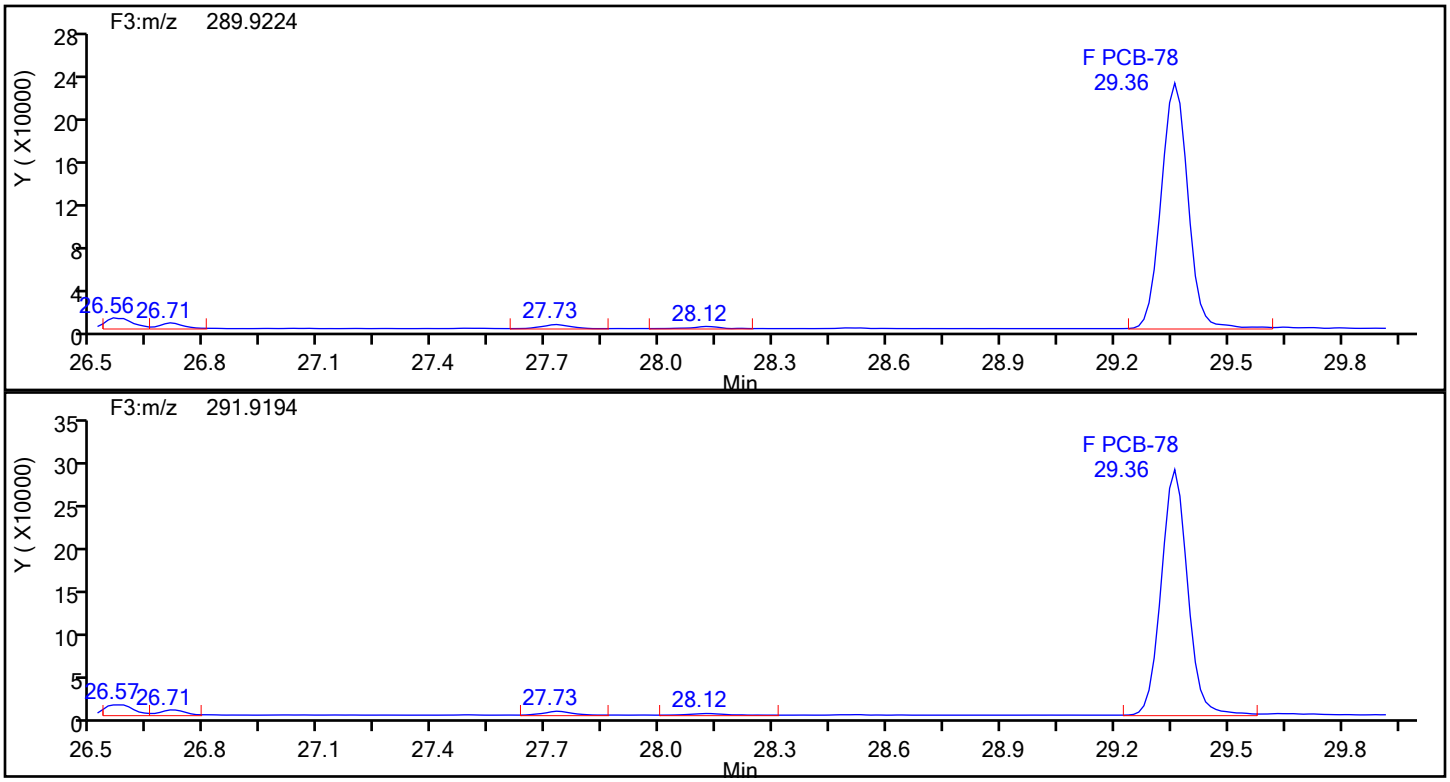
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

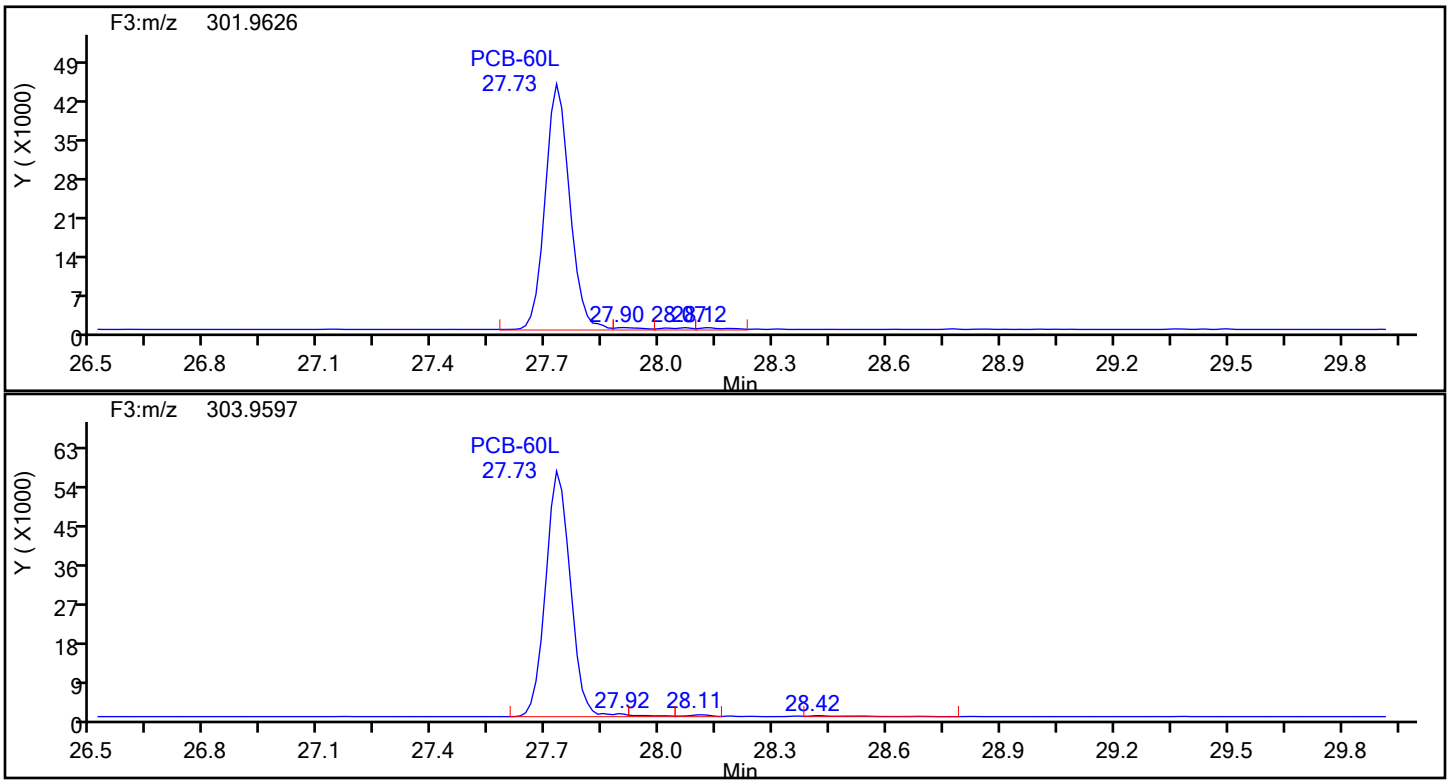
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

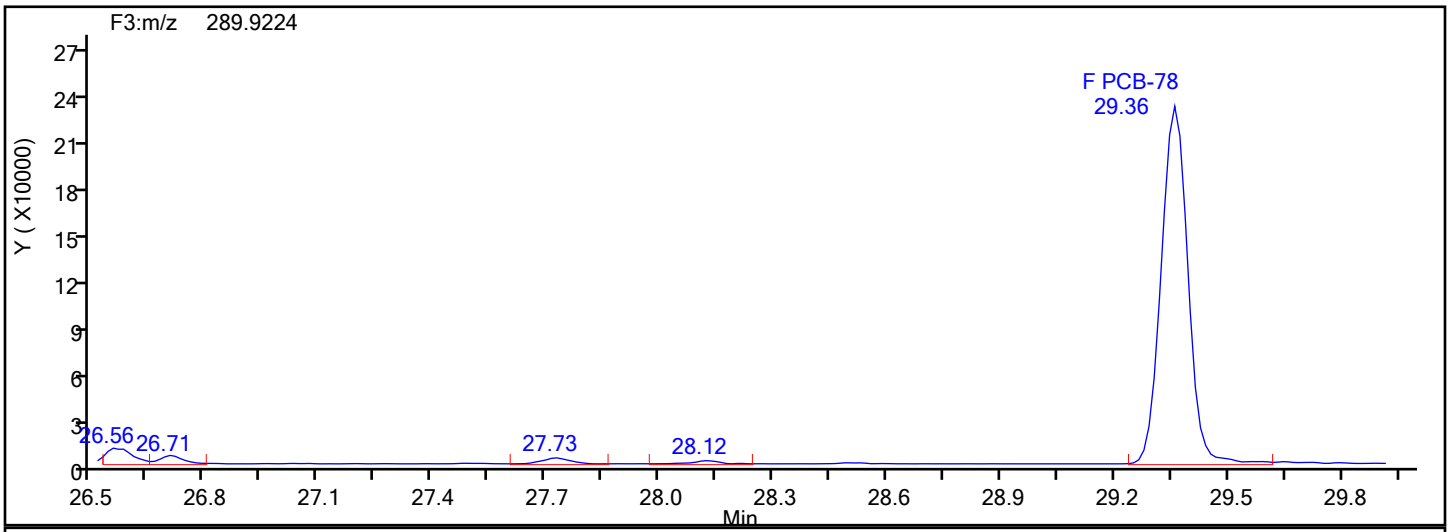


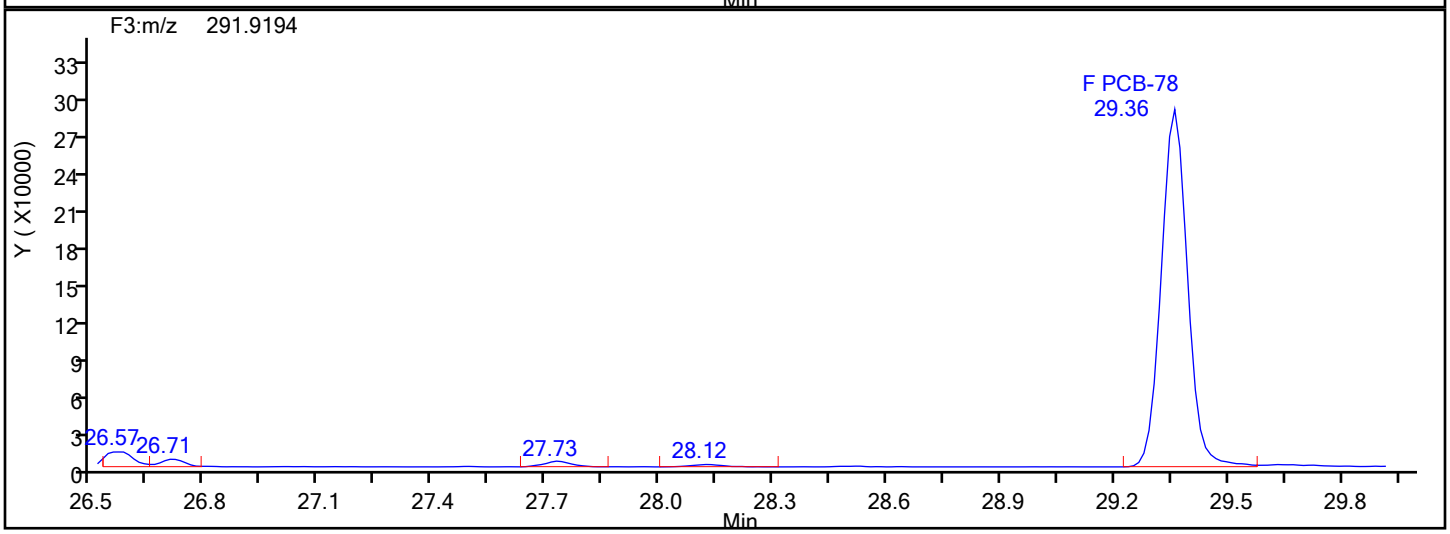
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

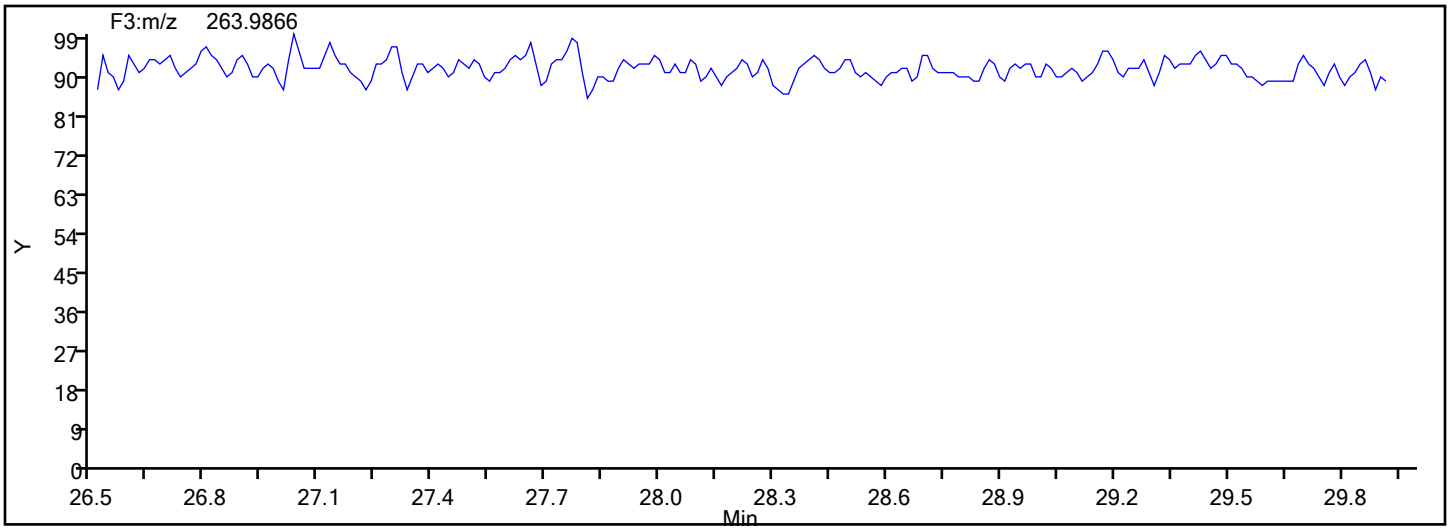
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



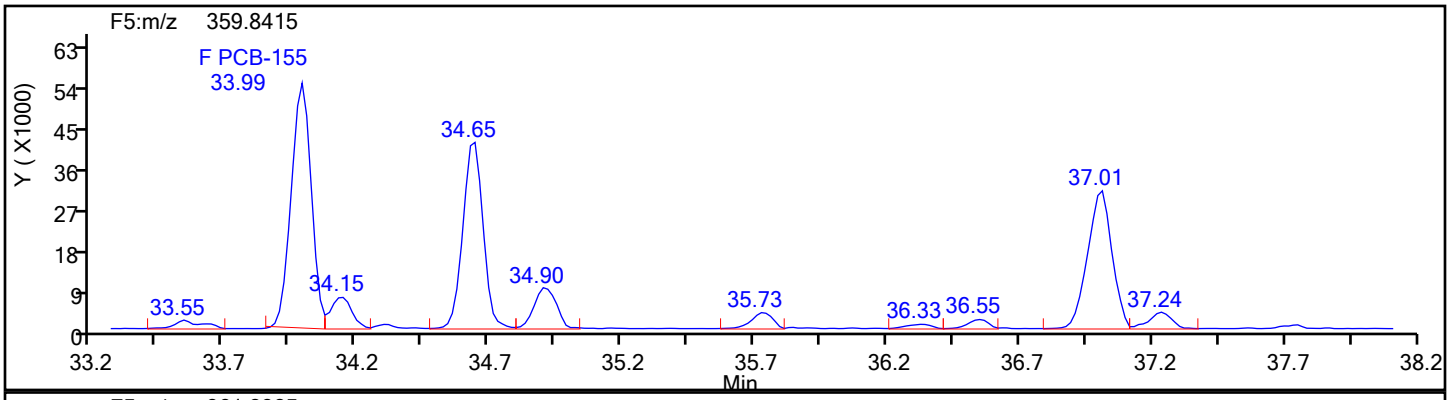
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

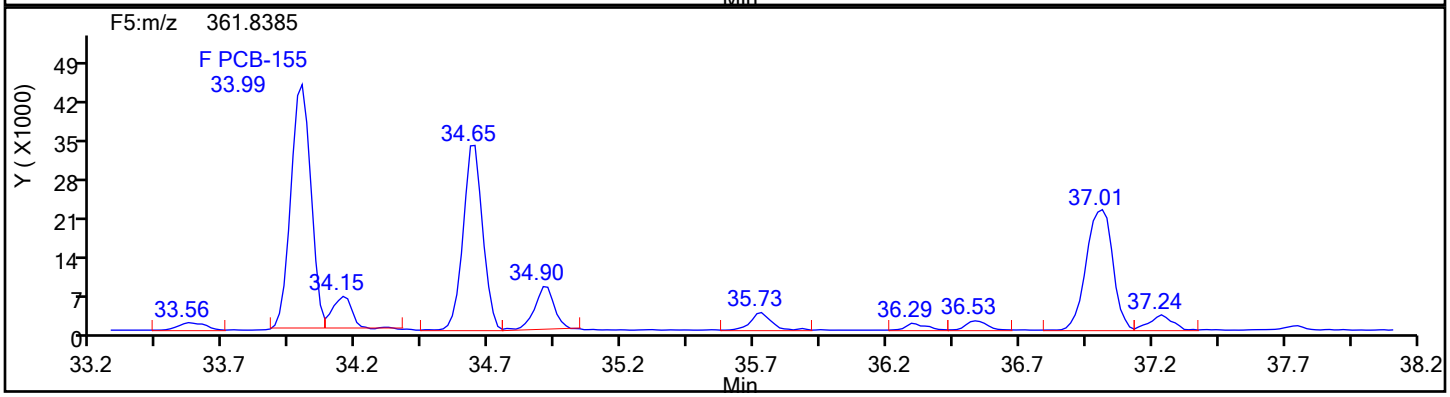
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

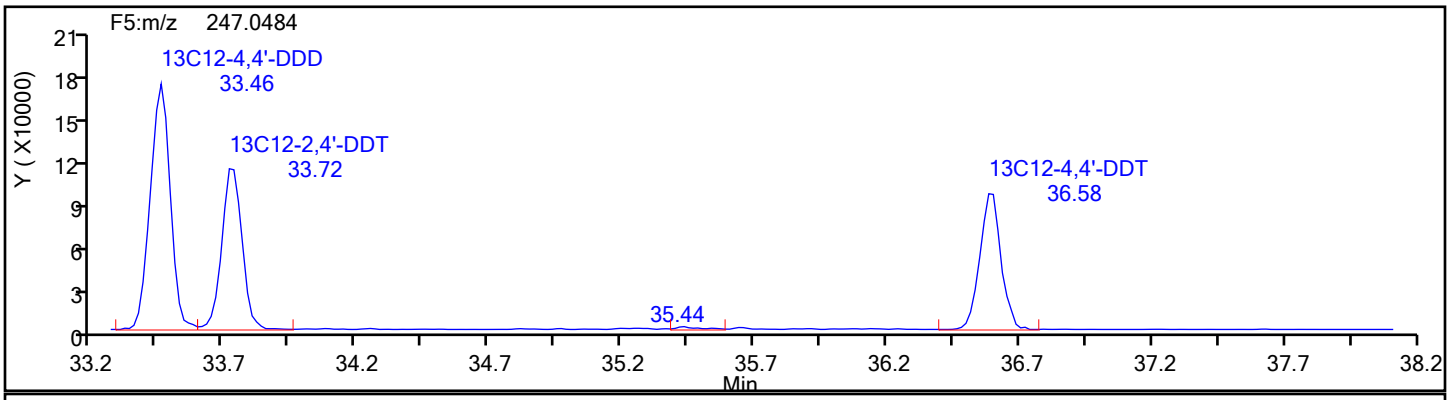
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

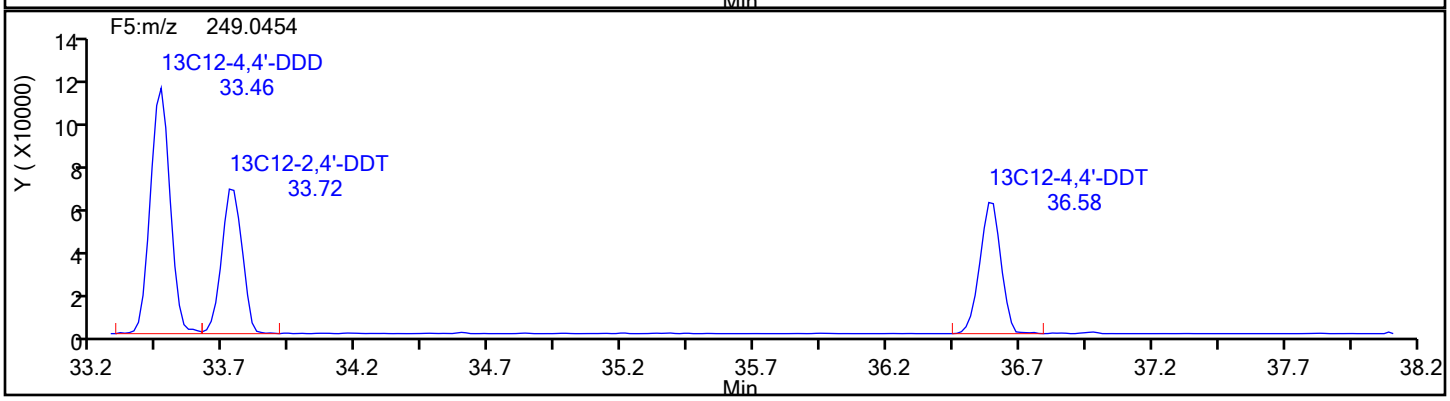
PCB-155





PCB-155 Standards



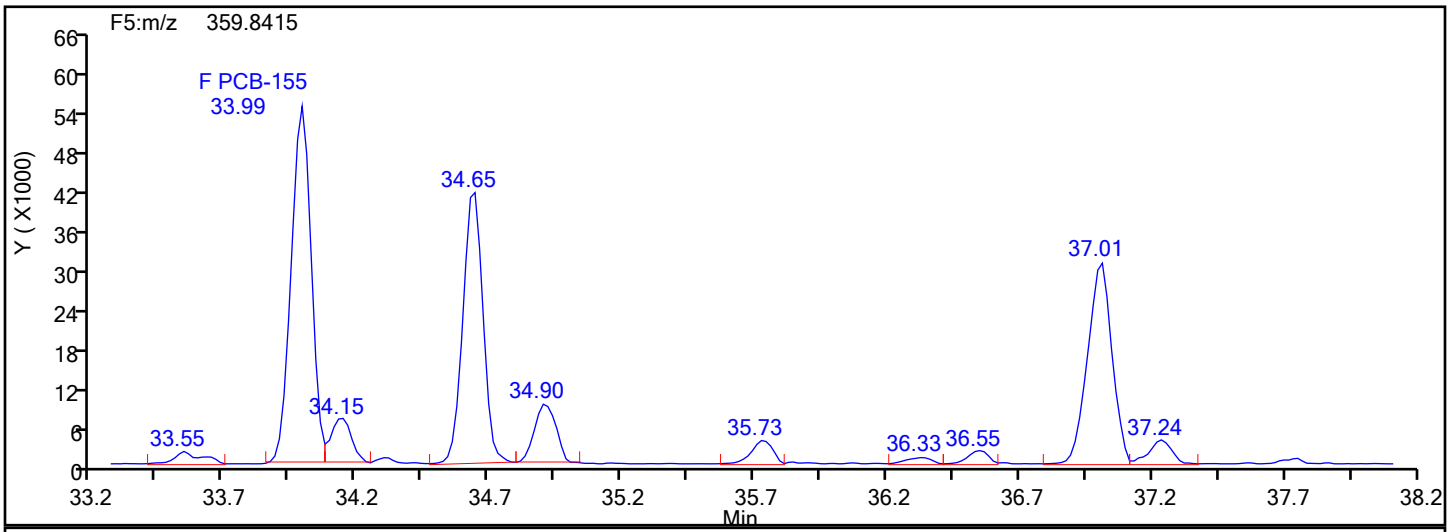


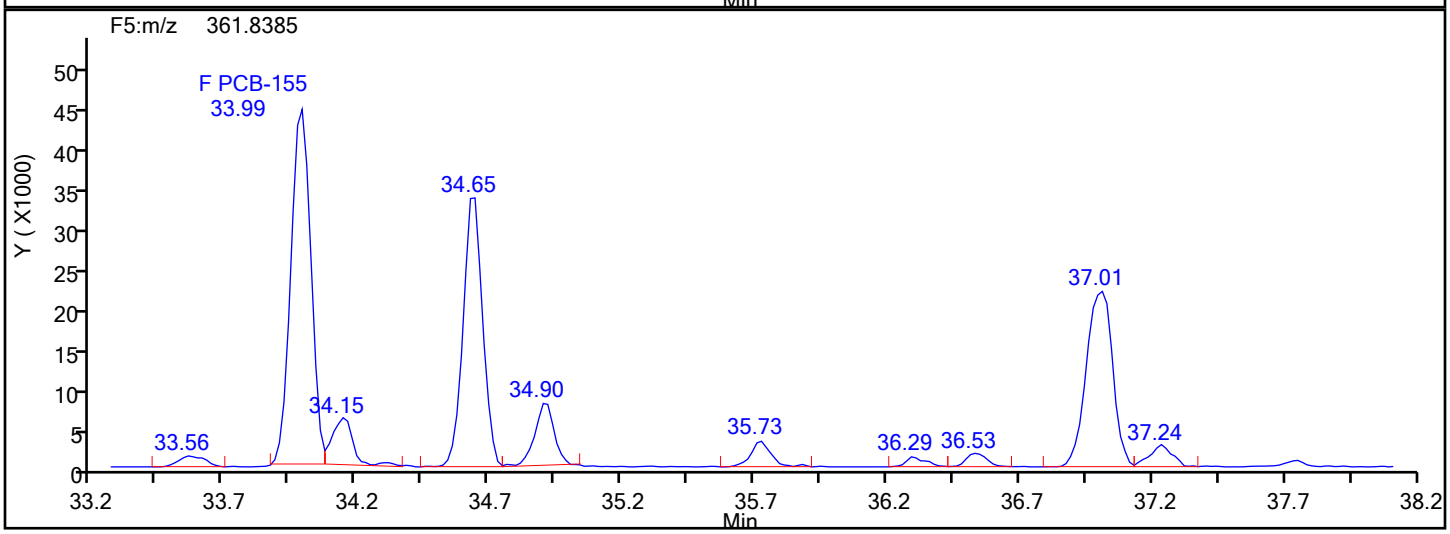
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

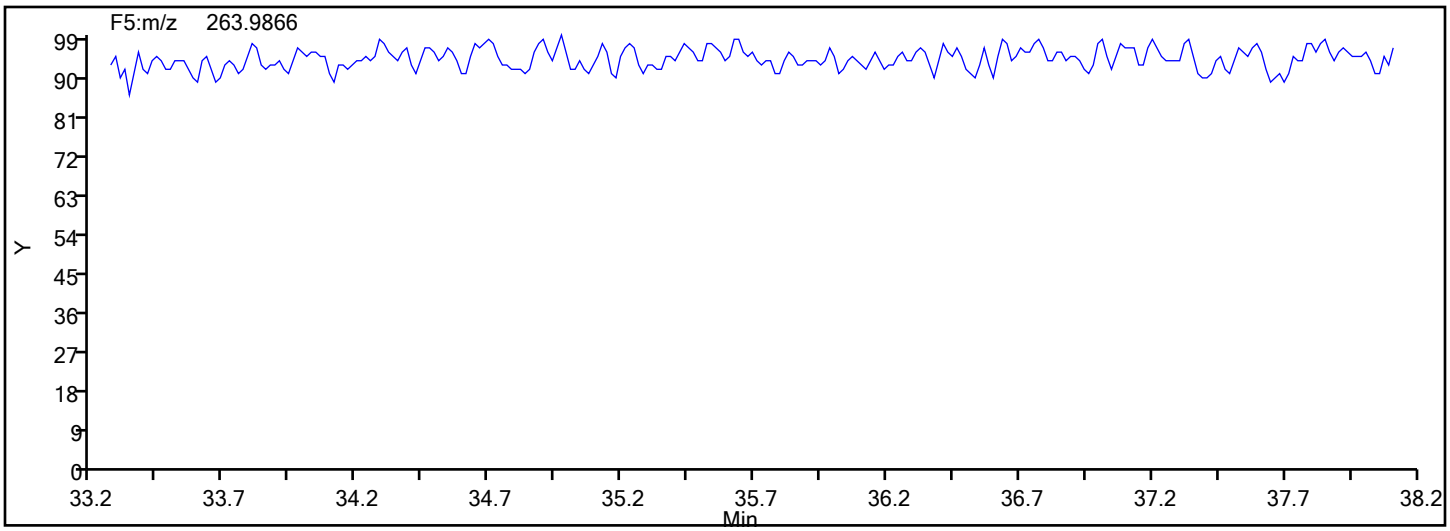
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



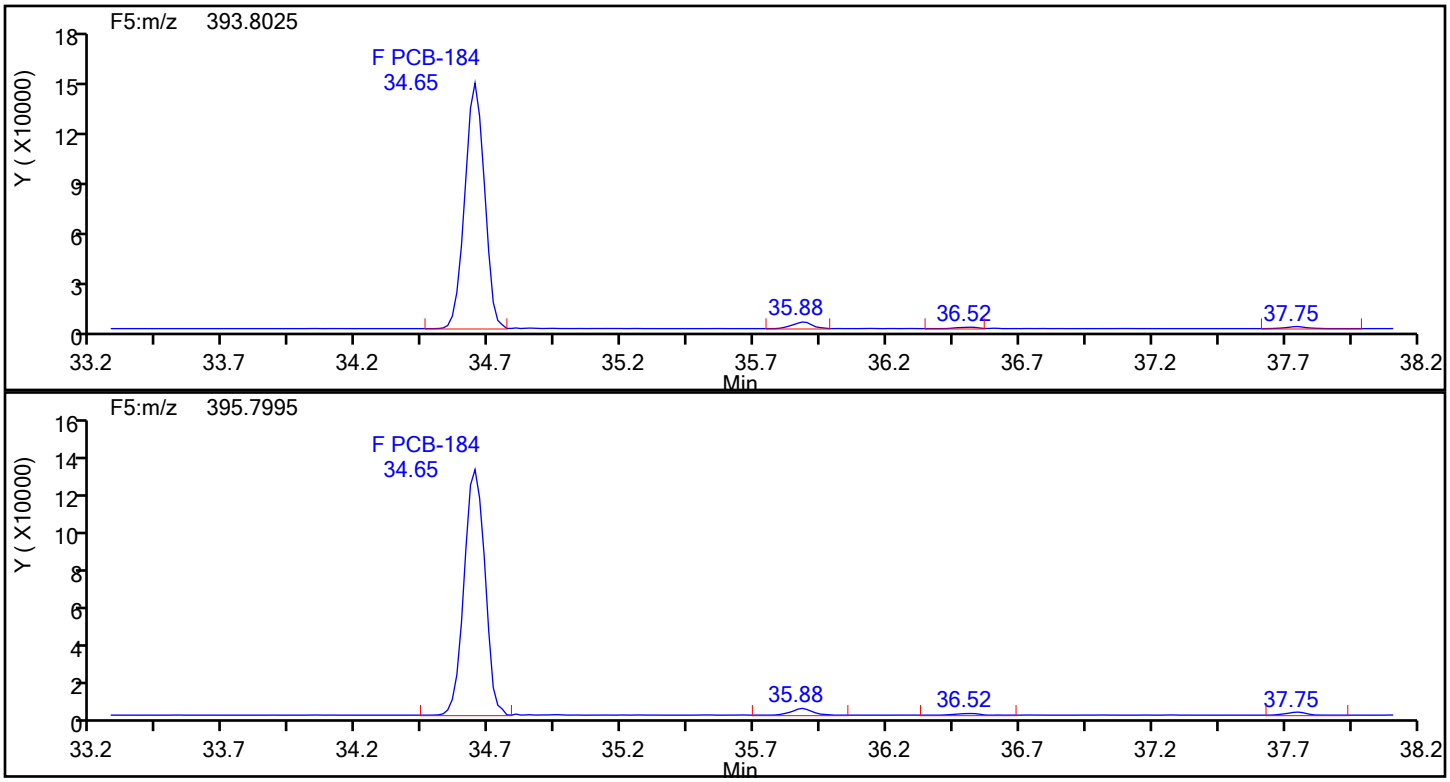
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

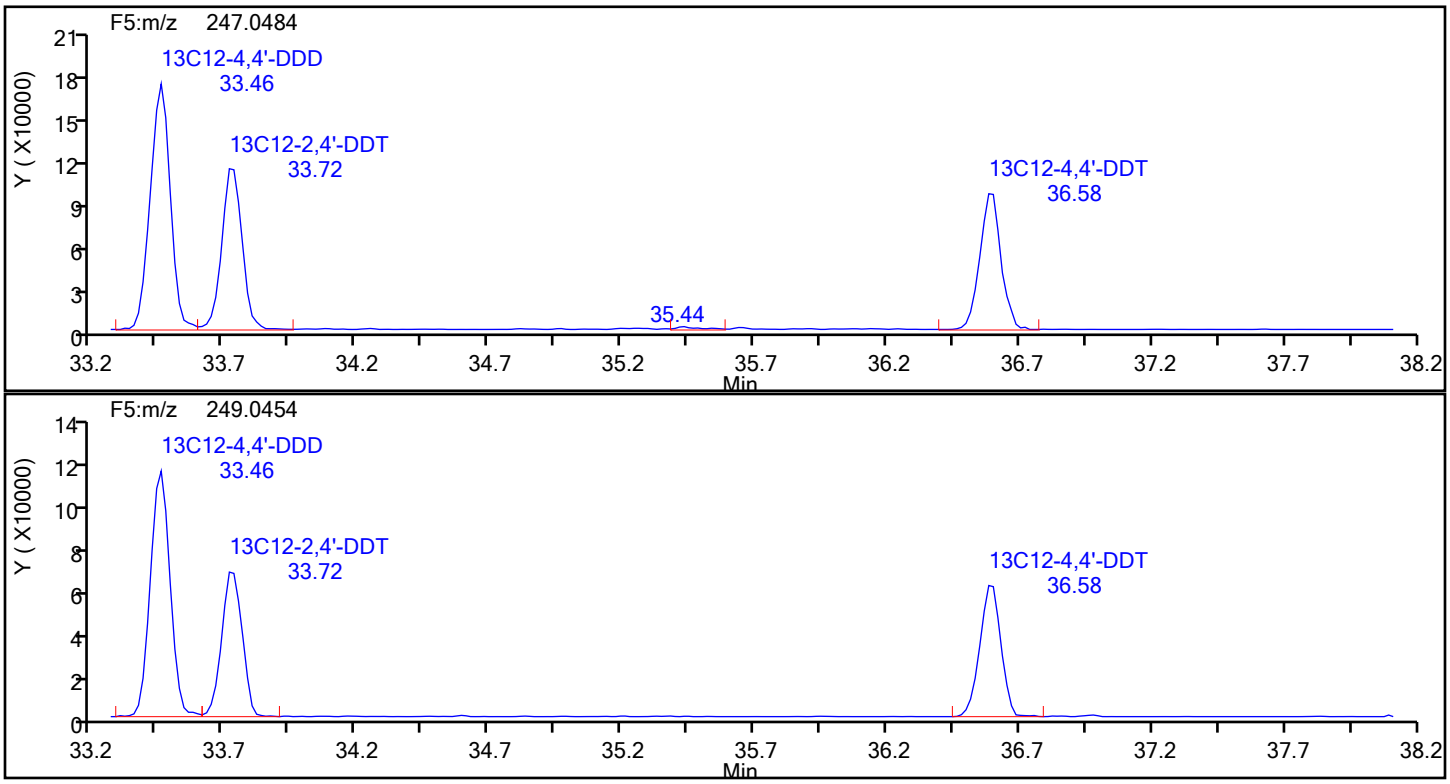
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

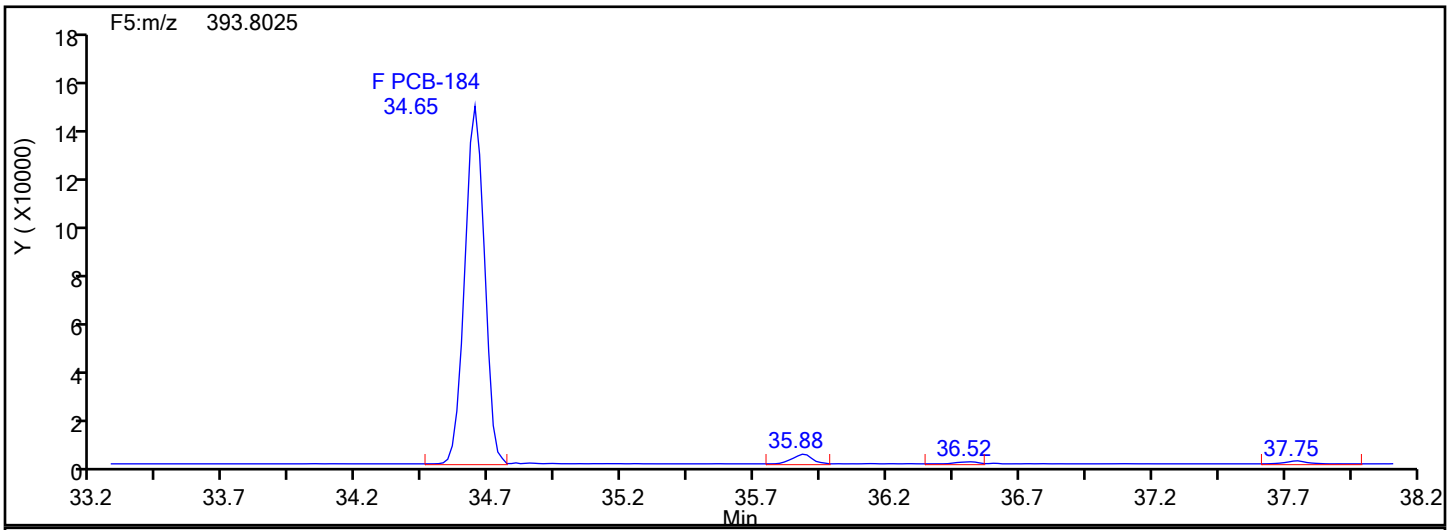


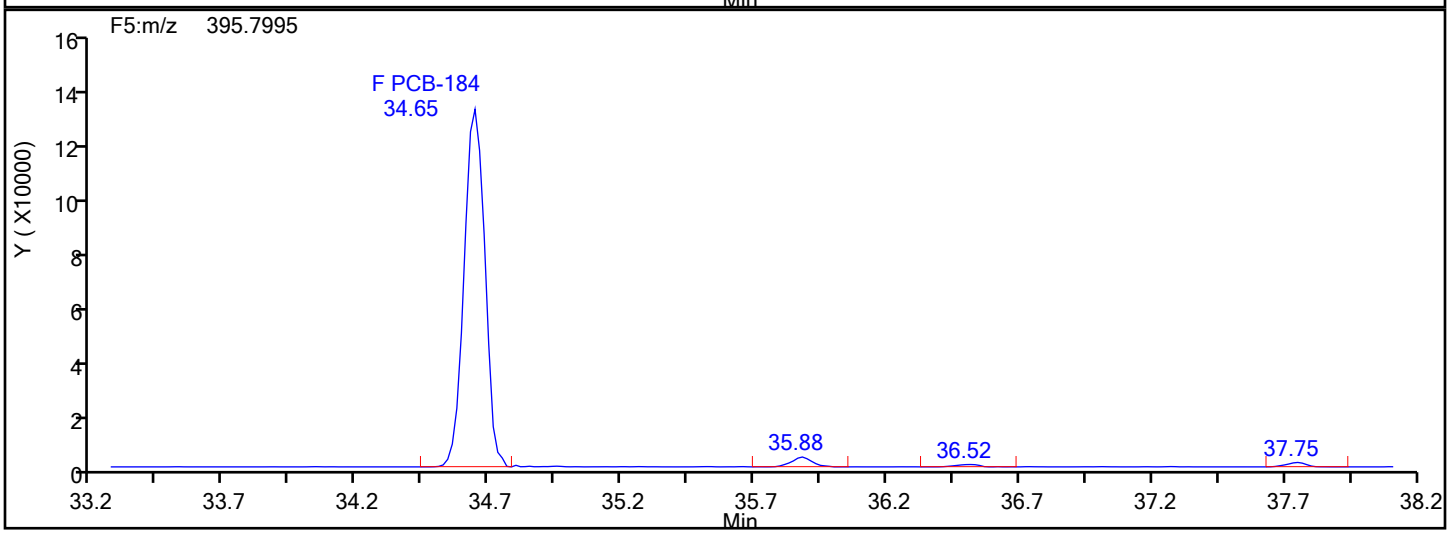
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

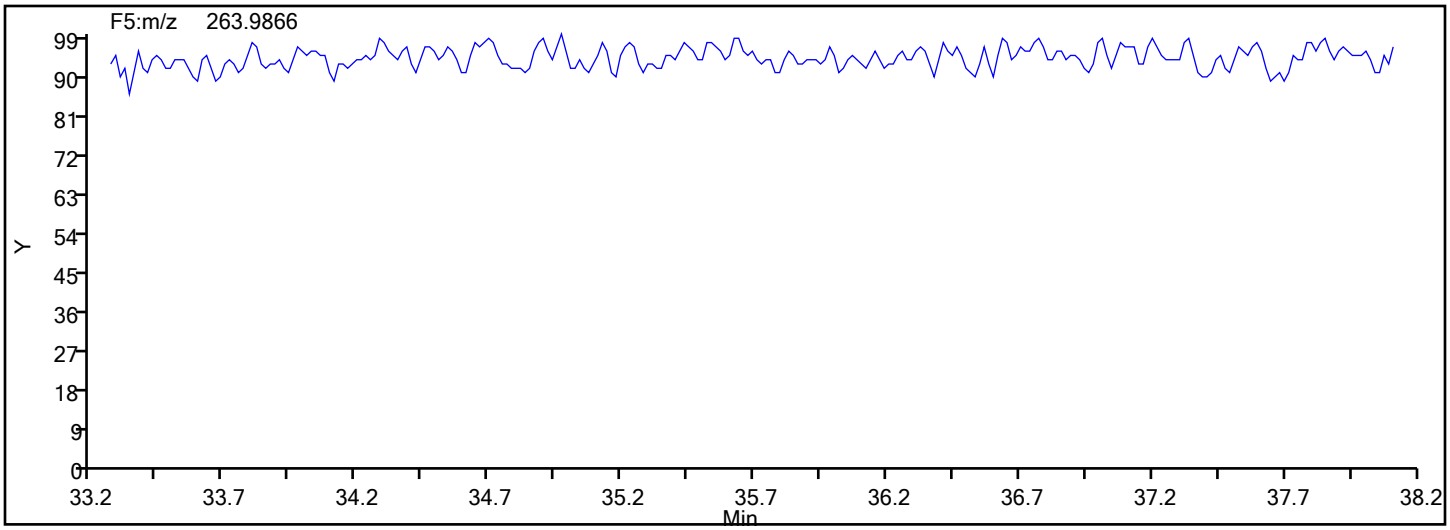
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



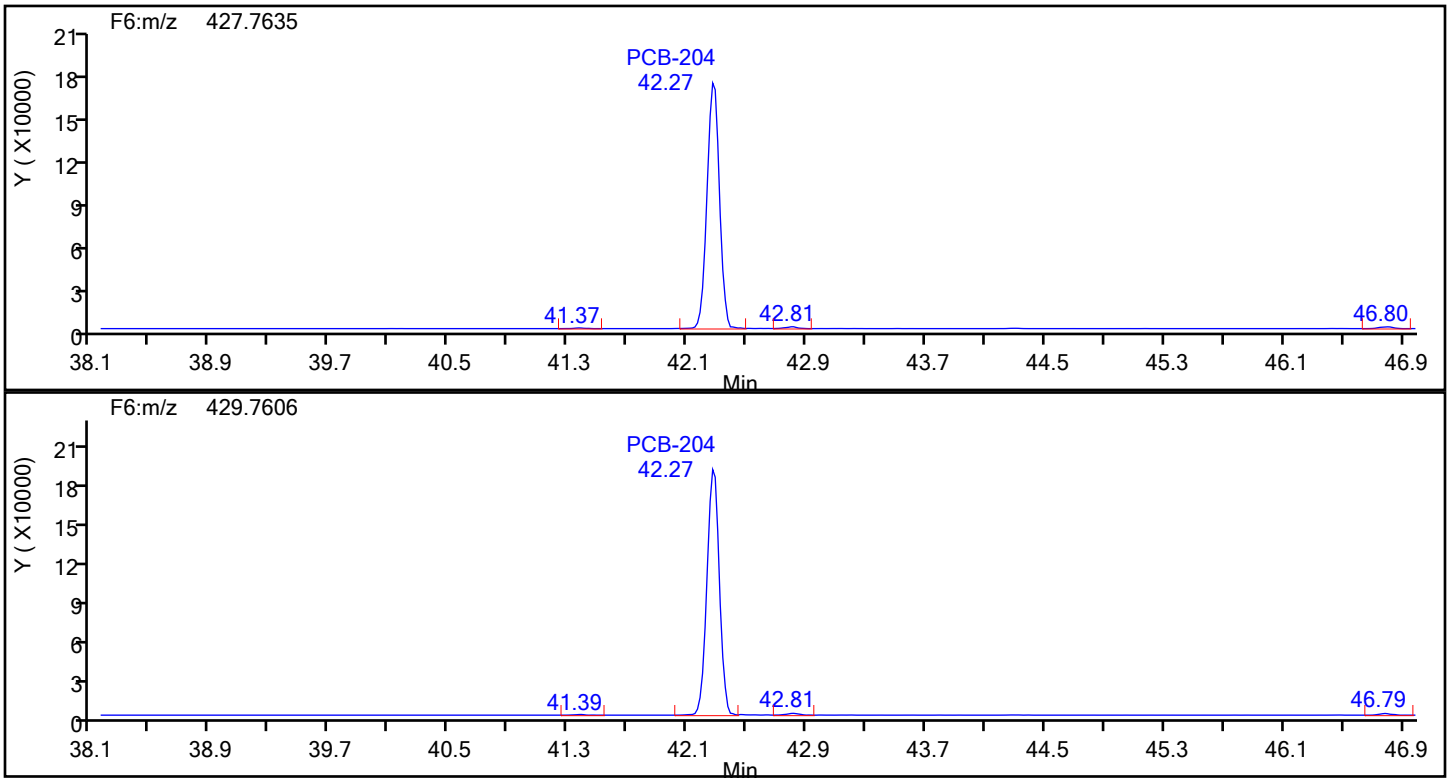
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

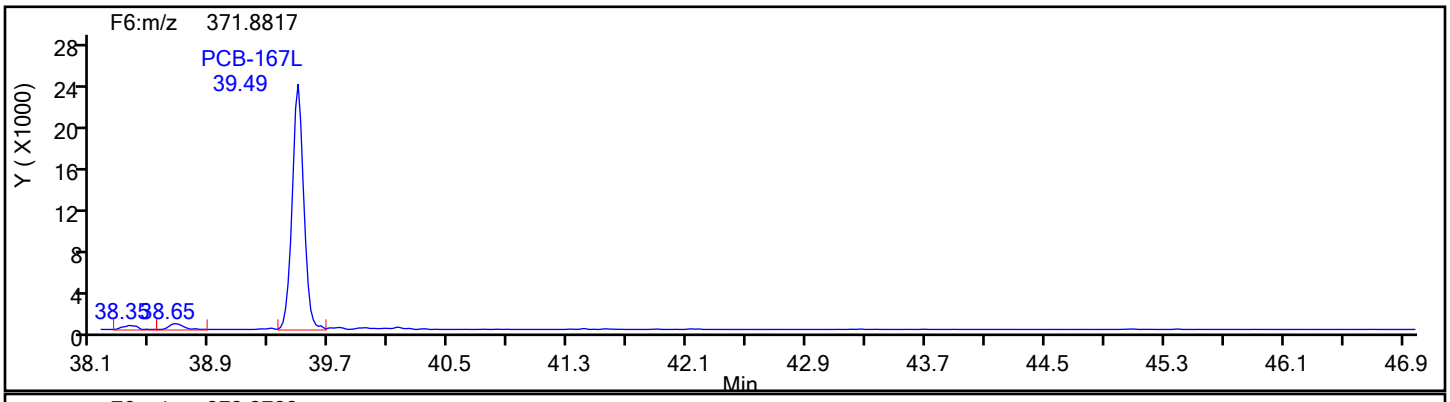
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

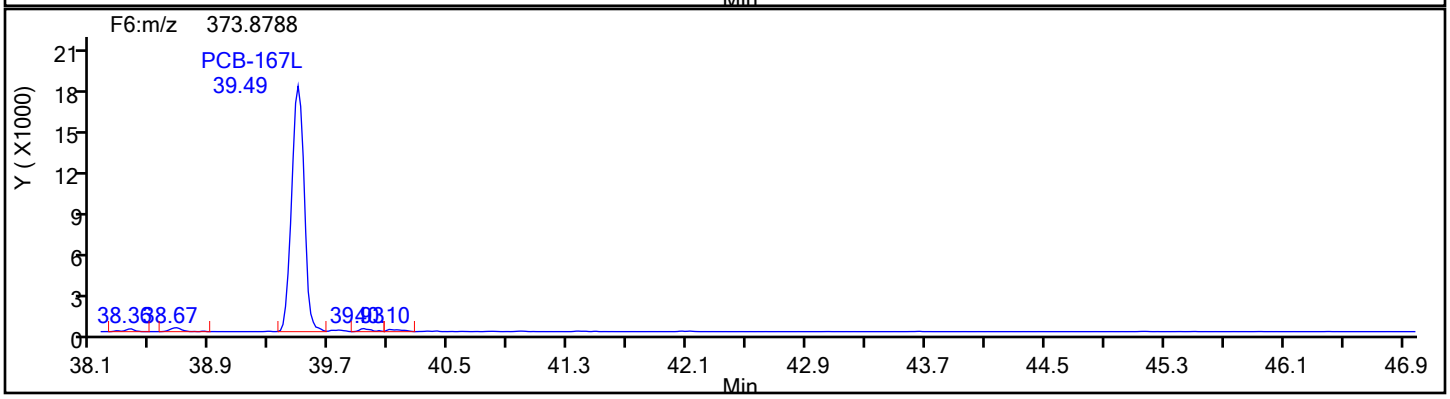
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



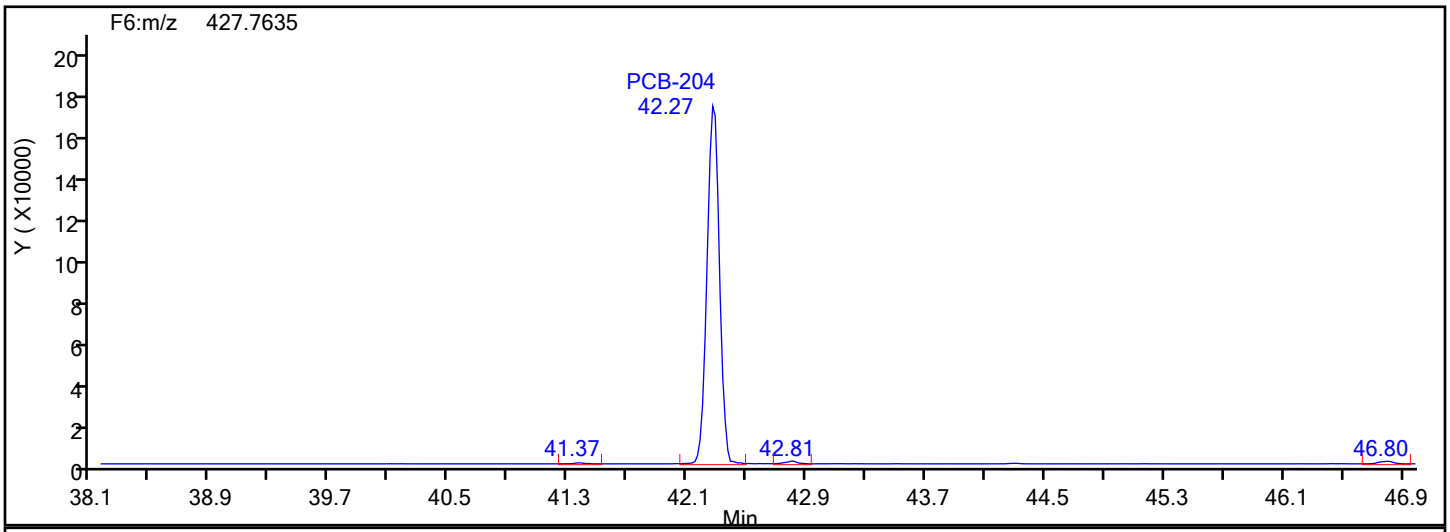


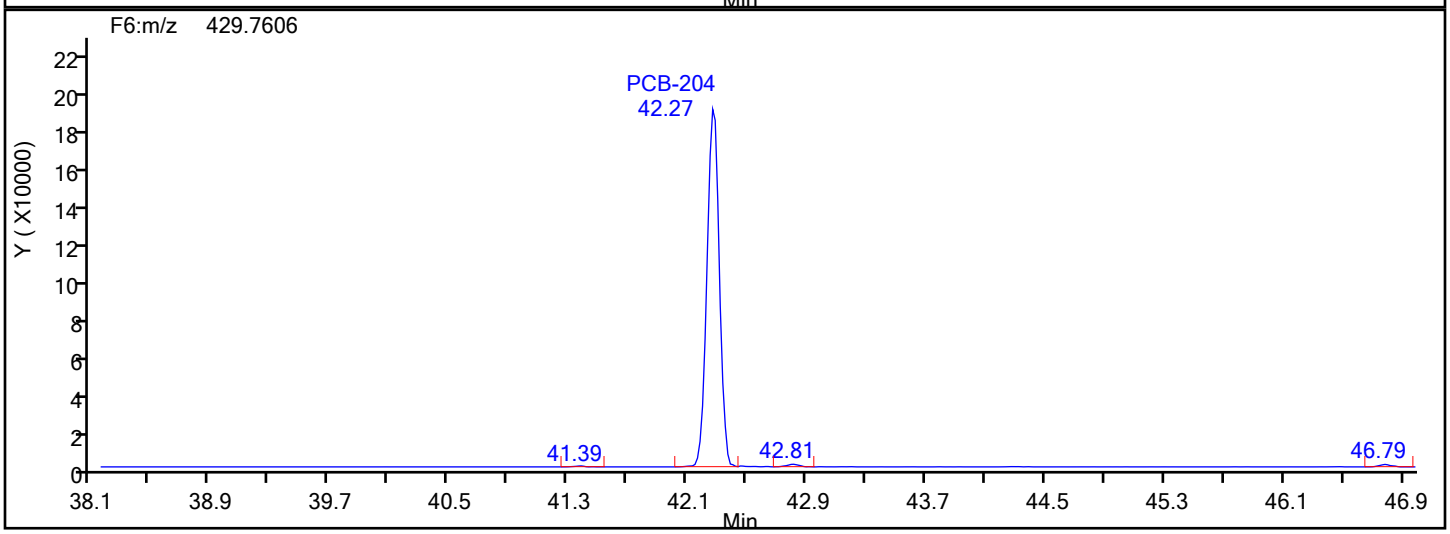
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

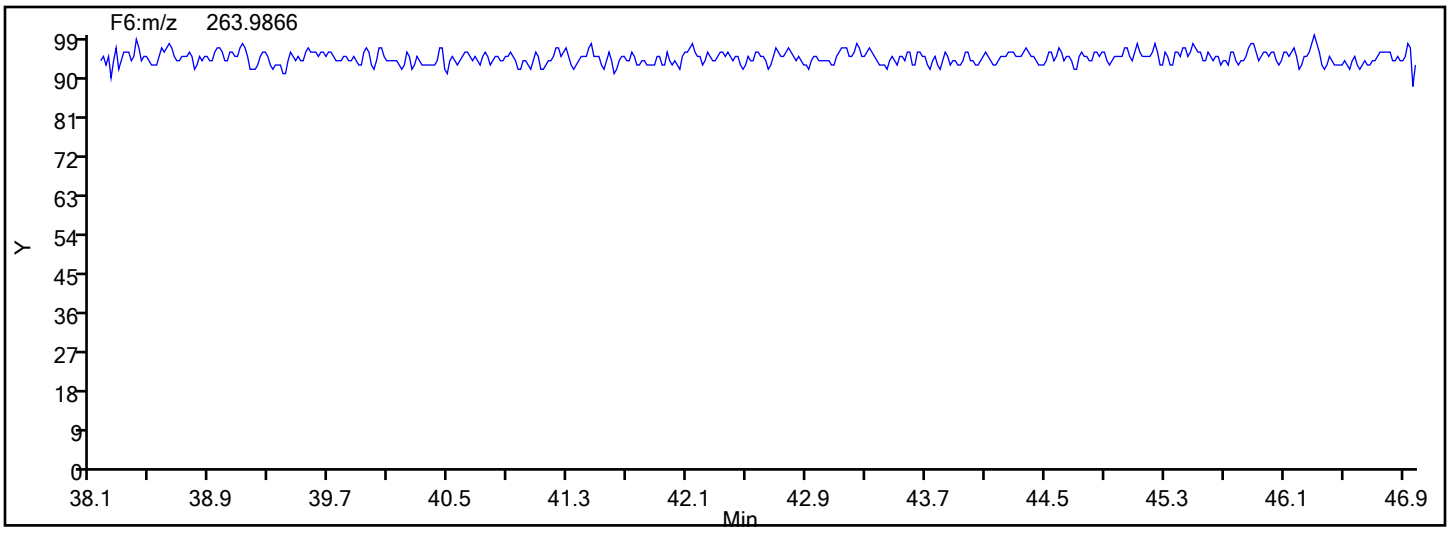
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d		
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



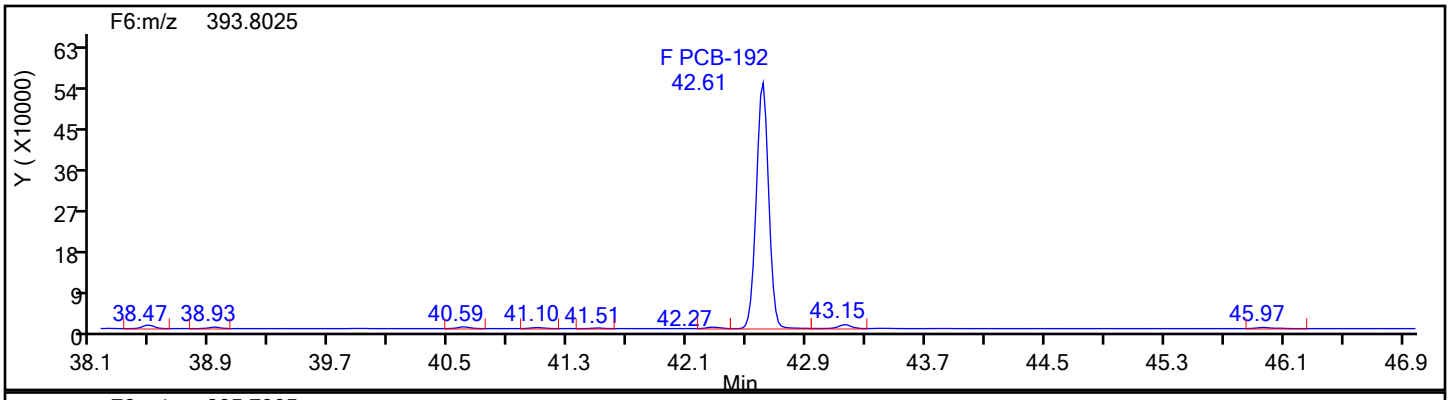
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

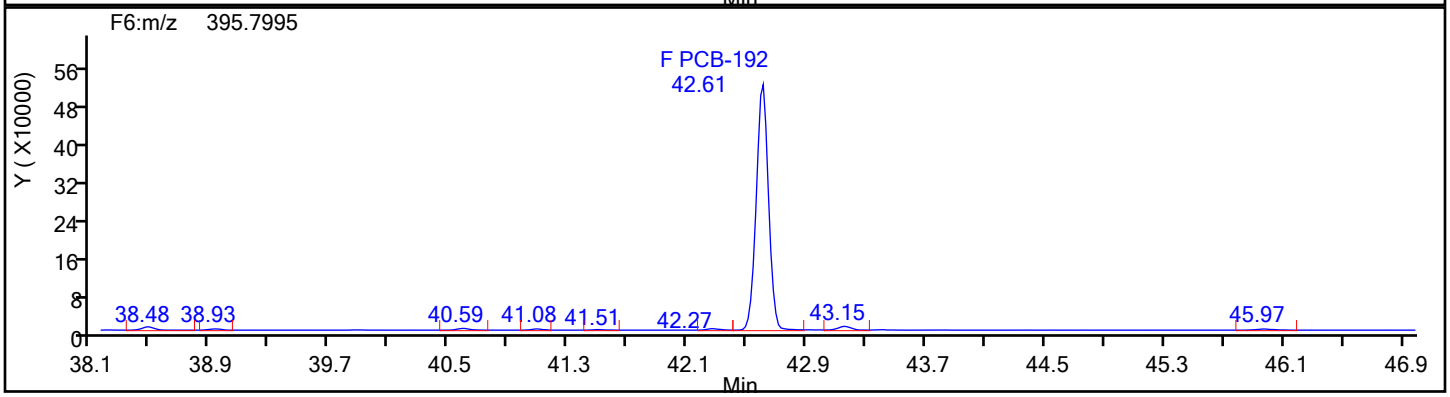
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d

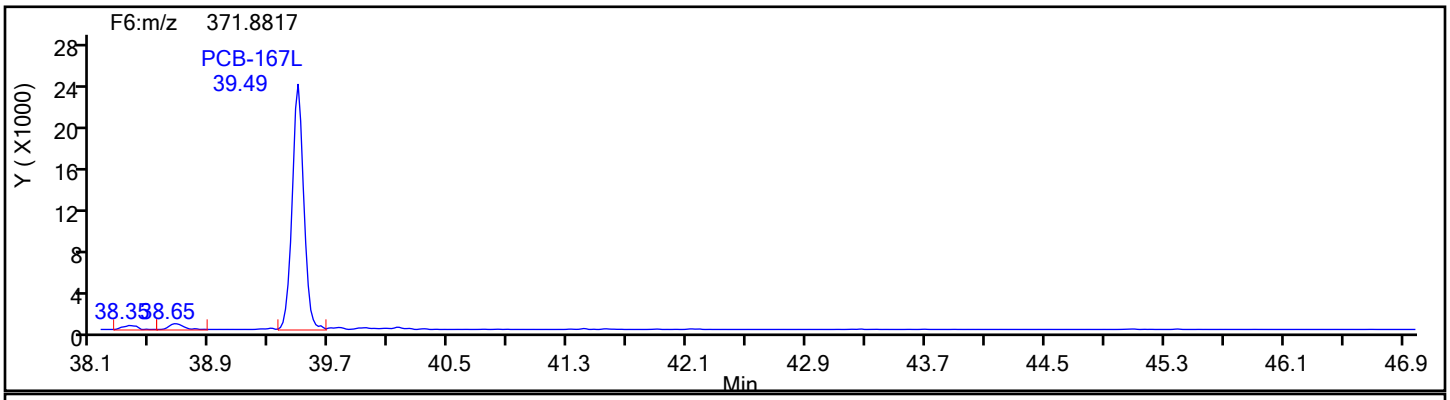
Injection Date:	30-Mar-2025 18:46:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-04-241230		
Worklist#:	97758	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

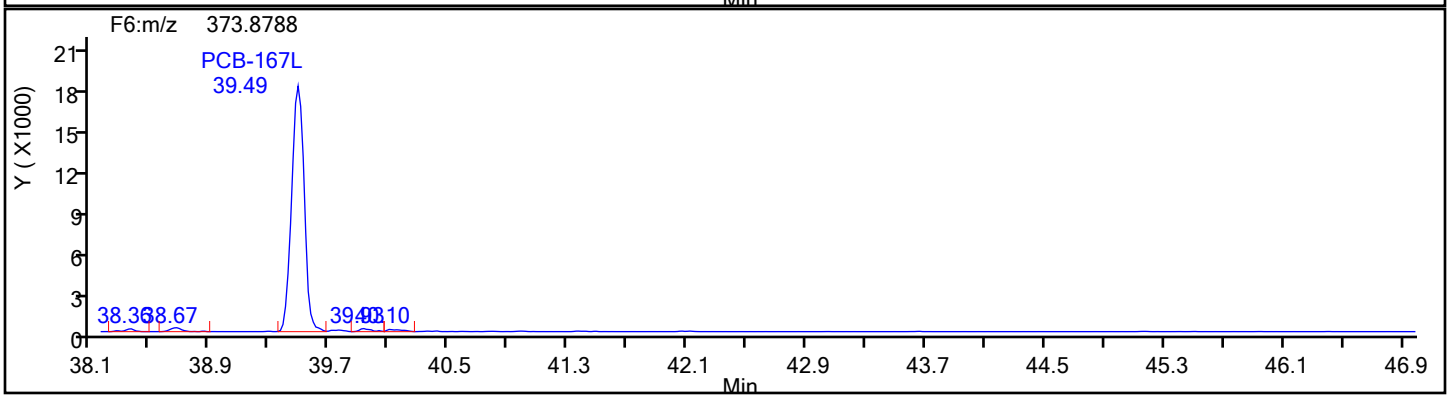
PCB-192





PCB-192 Standards



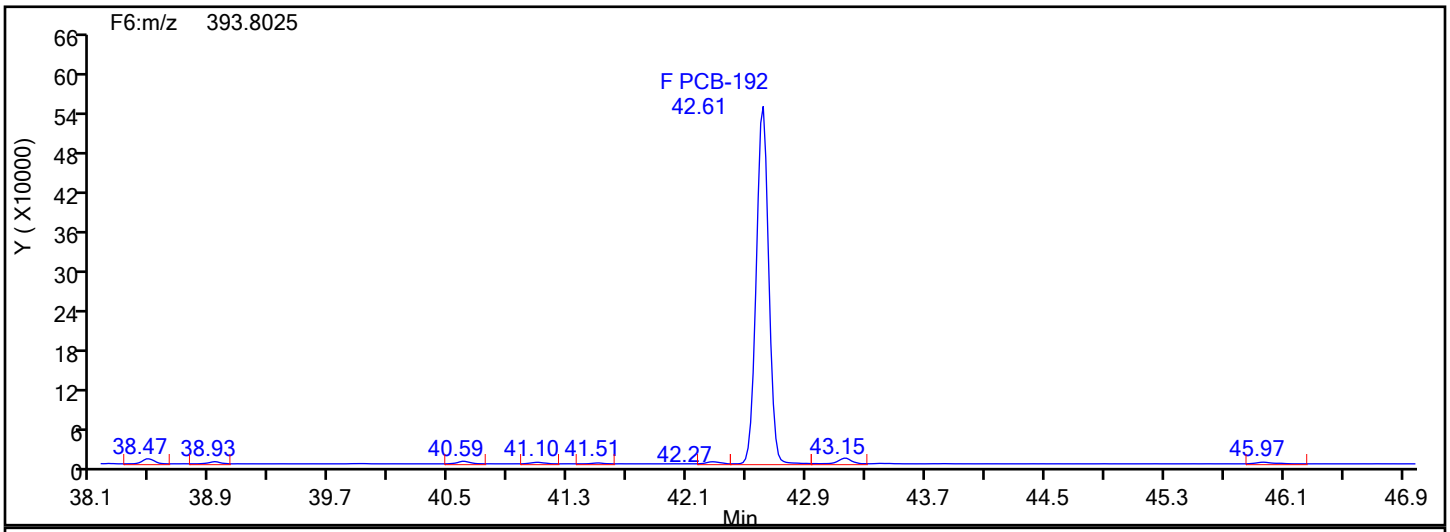


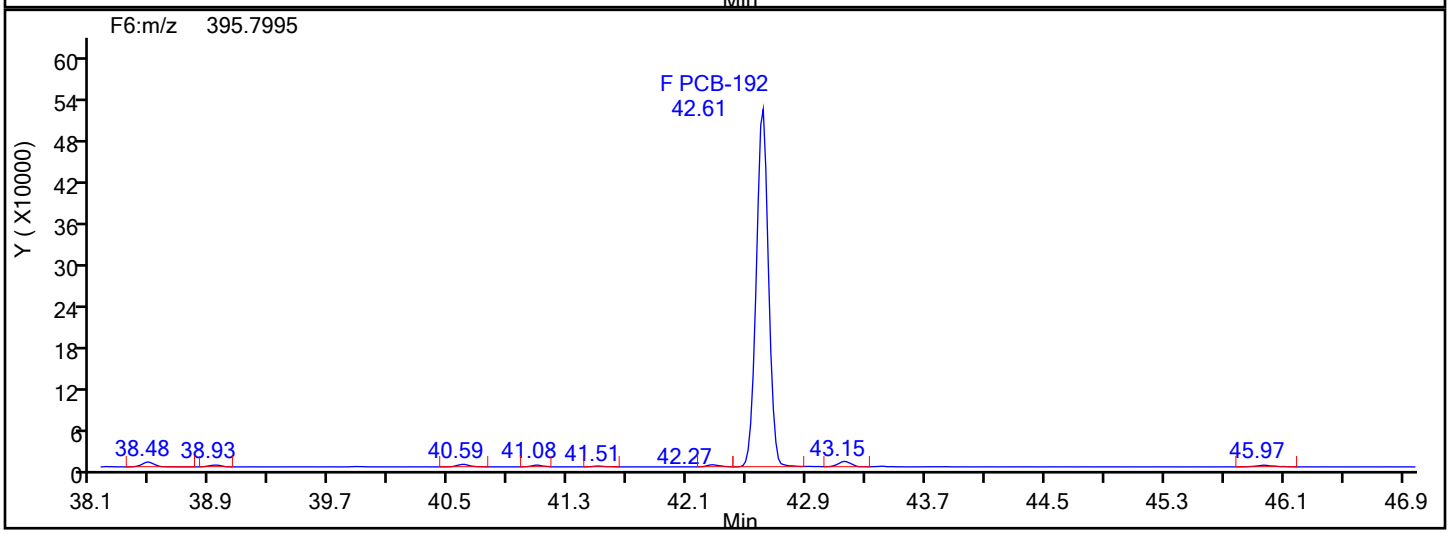
Report Date: 31-Mar-2025 14:10:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

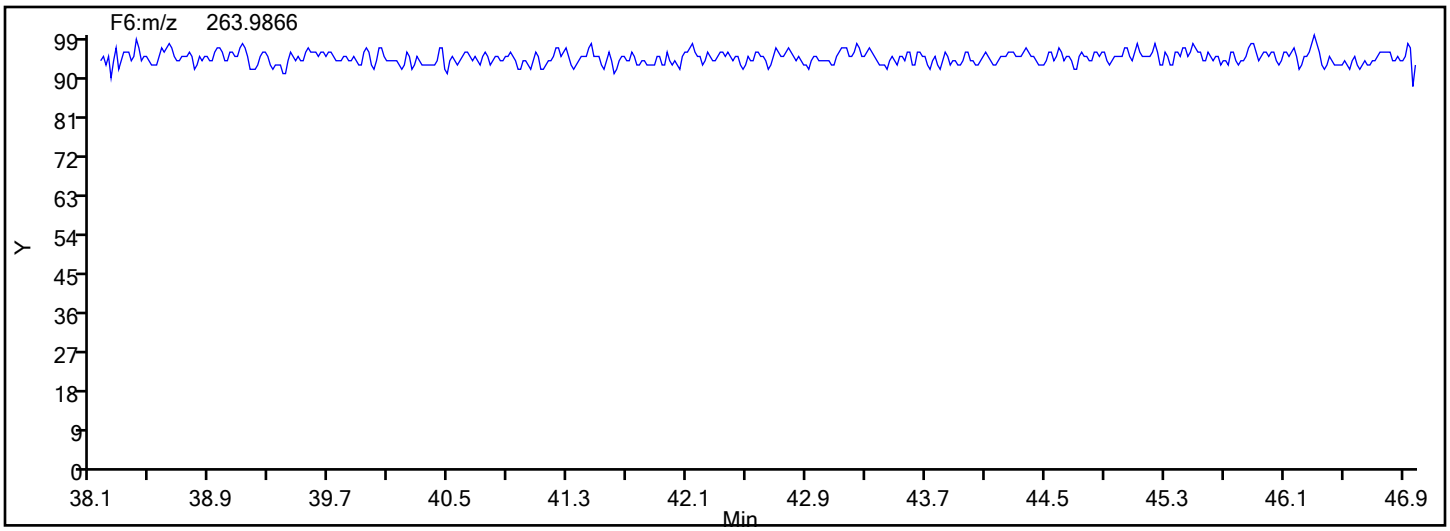
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-4-b10x.d
Injection Date: 30-Mar-2025 18:46:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: PW-04-241230
Worklist#: 97758 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-FD-241230 | Lab Sample ID: 140-40836-5

Matrix: PE | Lab File ID: 140-40836-a-5-a.d

Analysis Method: 1699 | Date Collected: 12/30/2024 00:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.044(g) | Date Analyzed: 05/04/2025 21:28

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.71	J	23	0.020

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-5-a.d
Lims ID: 140-40836-A-5-B
Client ID: PW-FD-241230
Sample Type: Client
Inject. Date: 04-May-2025 21:28:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	3232378	1.66		100.0	100.0				
PCB-14	17:47	455226	1.62							
* 13C6-Pentachlorophenol (IS)	18:28	10587615	0.67		500.0	500.0				
Pentachlorophenol	18:28	33741	0.70	1.0218	1.559	1.559	0.0430	0.0430		
PCB-36	22:07	8556838	1.06							
* PCB-101L	28:04	7408627	1.63		100.0	100.0				
PCB-104	23:42	10054590	1.58							
* PCB-118L	32:45	8504383	1.62		100.0	100.0				
PCB-121	26:40	85853980	1.63							
* PCB-138L	36:56	5002878	1.28		100.0	100.0				
PCB-142	27:27	17539963	1.26							
* PCB-60L	27:42	15567082	0.83		100.0	100.0				
PCB-78	29:19	90987141	0.79							
* PCB-167L	39:26	5487496	1.27		100.0	100.0				
PCB-155	33:57	12246907	1.27							
PCB-184	34:36	28234615	1.05							
PCB-204	42:14	44617564	0.90							
PCB-192	42:34	120946126	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-5-a.d
Lims ID: 140-40836-A-5-B
Client ID: PW-FD-241230
Sample Type: Client
Inject. Date: 04-May-2025 21:28:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		2016089	705080	321	802	2197		
236.0376	19:02	19:02	0		1216289	431964	94	235	4595	1.66(1.16-1.93)	
PCB-14											
222.0003	17:47	17:49	-2	0.935	281686	105854	60	150	1764		
223.9974	17:47	17:49	-2	0.935	173540	66915	121	302	553	1.62(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		4240644	1225675	43	107	28504		
271.8636	18:28	18:28	0		6346971	1813950	44	110	41226	0.67(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.001	13950	3589	76	190	47		
265.8435	18:28	18:28	0	1.001	19791	6924	31	77	223	0.70(0.00-0.00)	
PCB-36											
255.9613	22:07	22:10	-2	1.162	4401644	1277232	696	1740	1835		
257.9584	22:07	22:10	-2	1.162	4155194	1206892	678	1695	1780	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:04	0		4587652	1040599	5	12	208120		
339.9178	28:04	28:04	0		2820975	639901	7	17	91414	1.63(1.16-1.94)	
PCB-104											
325.8804	23:42	23:43	-2	0.844	6164966	1645554	20	50	82278		
327.8775	23:42	23:43	-2	0.844	3889624	1045449	11	27	95041	1.58(1.32-1.78)	
PCB-118L											
337.9207	32:45	32:44	1		5254515	1070699	98	245	10926		
339.9178	32:45	32:44	1		3249868	665060	74	185	8987	1.62(1.16-1.94)	
PCB-121											
325.8804	26:40	26:42	-2	0.814	53168435	12877500	17165	42912	750		
327.8775	26:40	26:42	-2	0.814	32685545	7861572	10652	26630	738	1.63(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	0		2808732	516076	66	165	7819		
373.8788	36:57	36:56	1		2194146	401757	46	115	8734	1.28(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	9790653	2214071	161	402	13752		
361.8385	27:27	27:29	-2	0.743	7749310	1766482	139	347	12709	1.26(1.05-1.43)	
PCB-60L											
301.9626	27:42	27:41	0		7056720	1593943	103	257	15475		
303.9597	27:42	27:41	0		8510362	1927663	119	297	16199	0.83(0.58-0.96)	
PCB-78											
289.9224	29:19	29:18	1	1.058	40235170	8938599	3879	9697	2304		
291.9194	29:19	29:18	1	1.058	50751971	11389697	3774	9435	3018	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:26	39:25	0		3074419	541573	90	225	6017		
373.8788	39:26	39:25	0		2413077	423443	55	137	7699	1.27(1.16-1.94)	
PCB-155											
359.8415	33:57	33:59	-1	0.861	6855050	1286091	1987	4967	647		
361.8385	33:57	33:59	-1	0.861	5391857	1021364	1560	3900	655	1.27(1.05-1.43)	
PCB-184											
393.8025	34:36	34:38	-1	0.878	14488554	2672577	108	270	24746		
395.7995	34:36	34:38	-1	0.878	13746061	2561352	76	190	33702	1.05(0.89-1.21)	
PCB-204											
427.7635	42:14	42:15	-1	1.071	21148191	3768429	105	262	35890		
429.7606	42:14	42:15	-1	1.071	23469373	4207884	89	222	47280	0.90(0.76-1.02)	
PCB-192											
393.8025	42:34	42:35	-1	1.080	62003068	10860984	1592	3980	6822		
395.7995	42:34	42:35	-1	1.080	58943058	10292565	1560	3900	6598	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

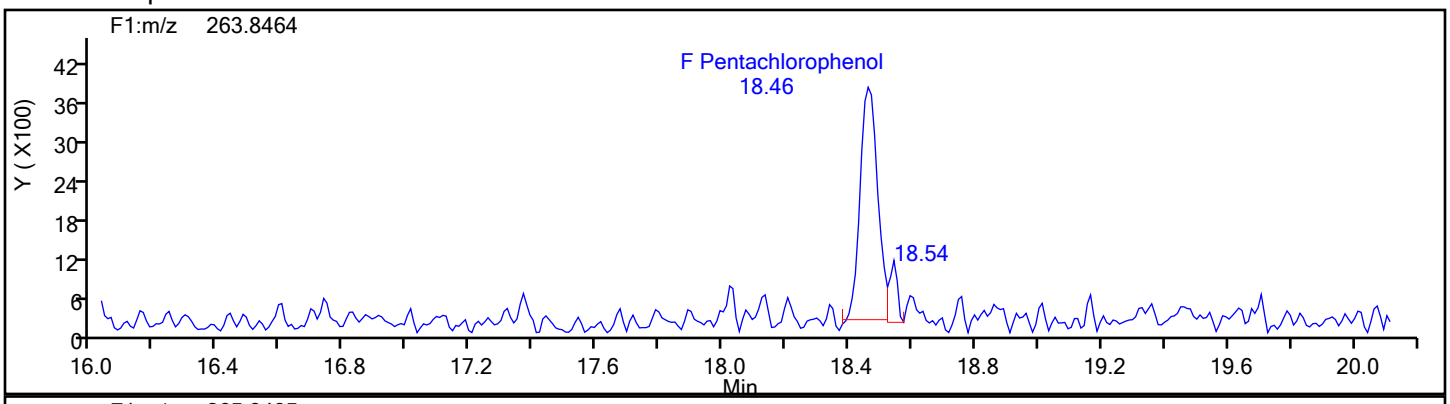
Report Date: 06-May-2025 13:36:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

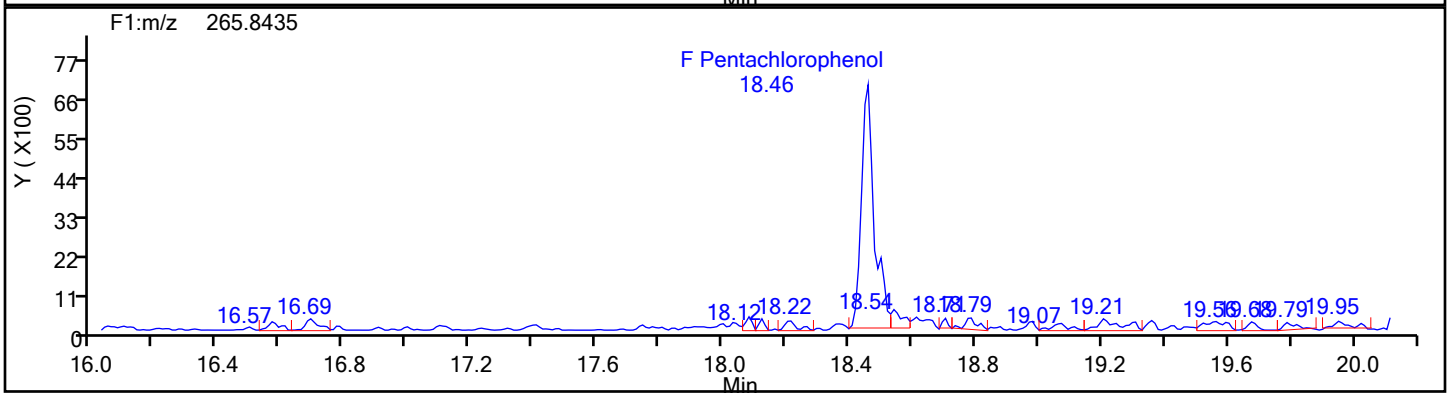
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-5-a.d

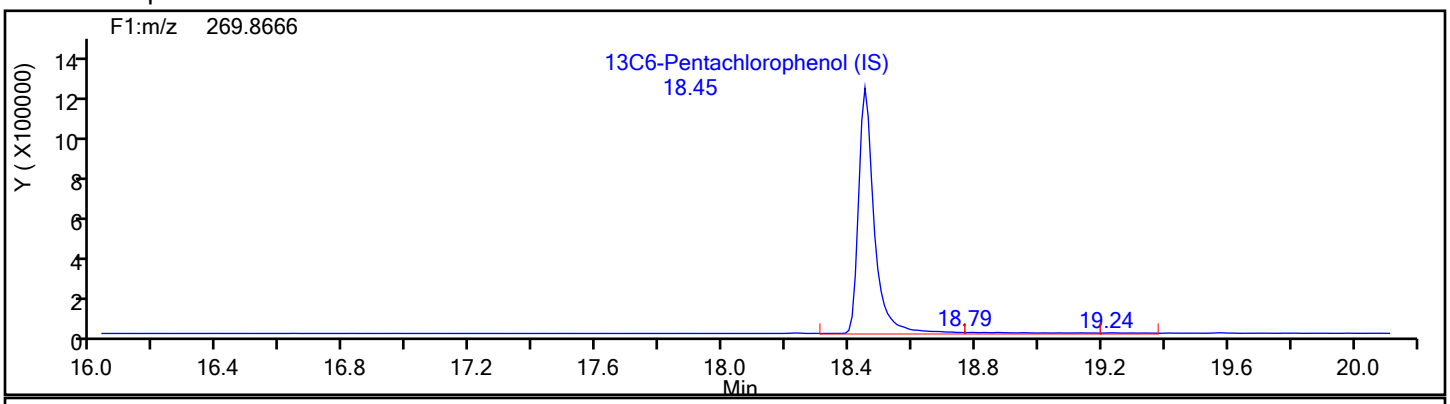
Injection Date:	04-May-2025 21:28:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	99272	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

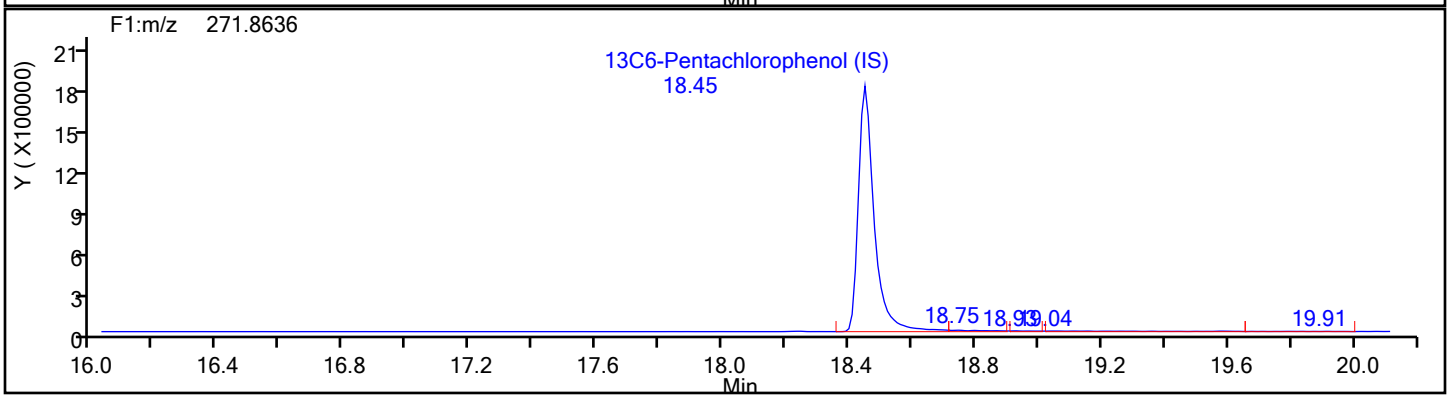
Pentachlorophenol





Pentachlorophenol Standards



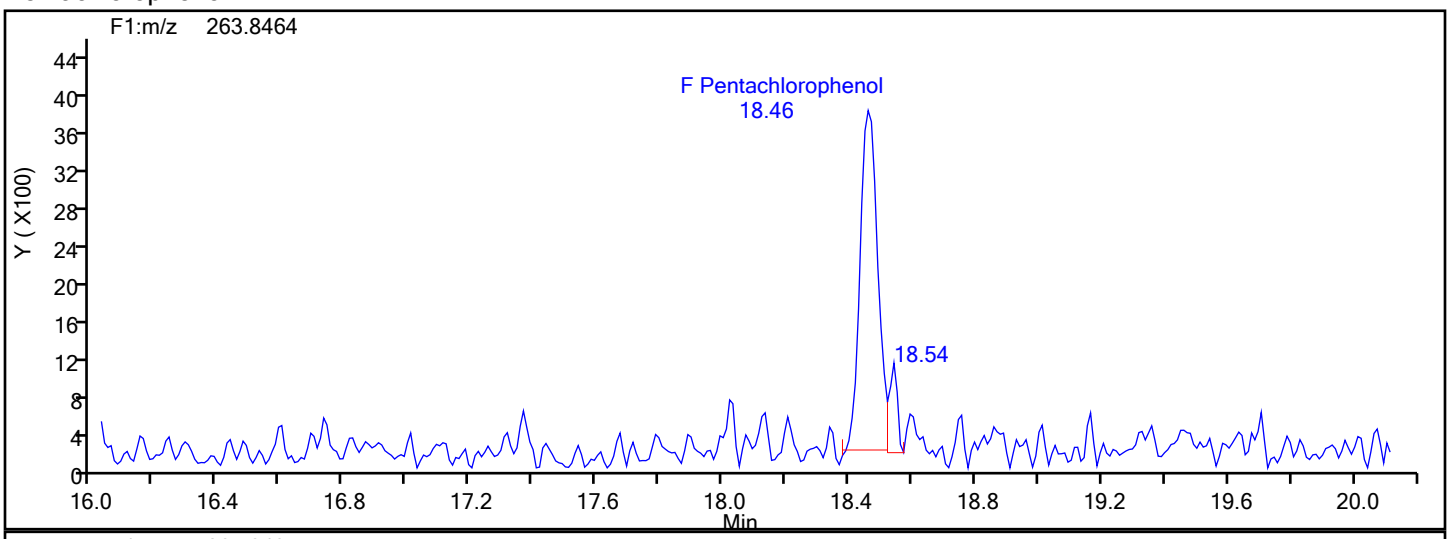


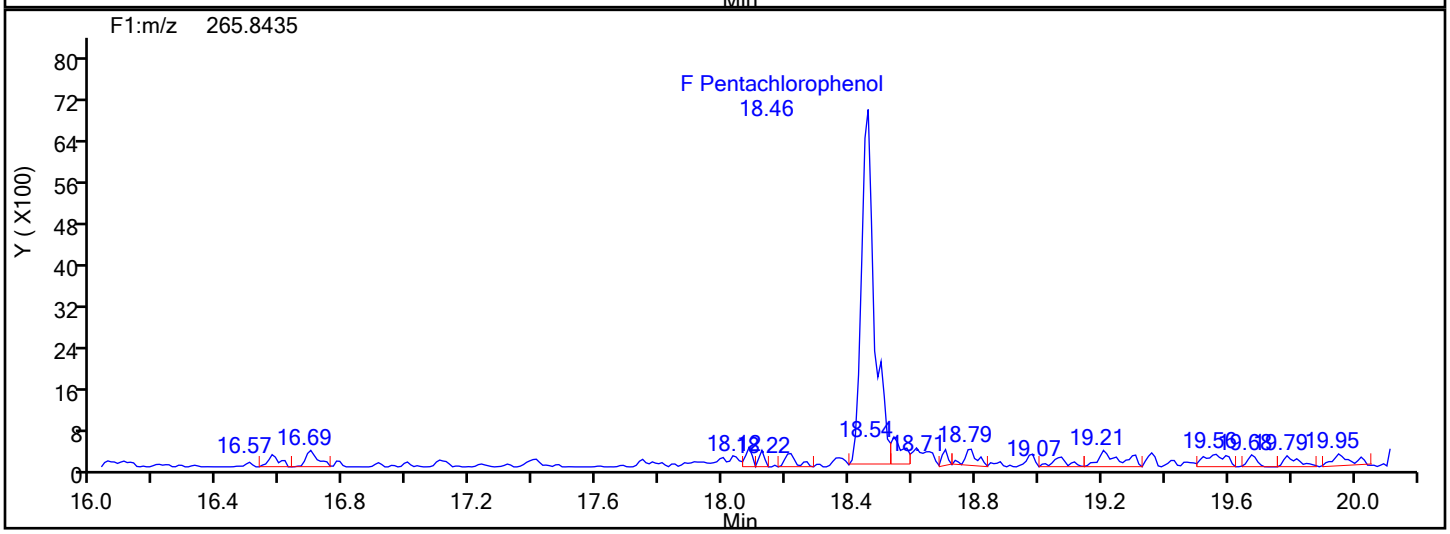
Report Date: 06-May-2025 13:36:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

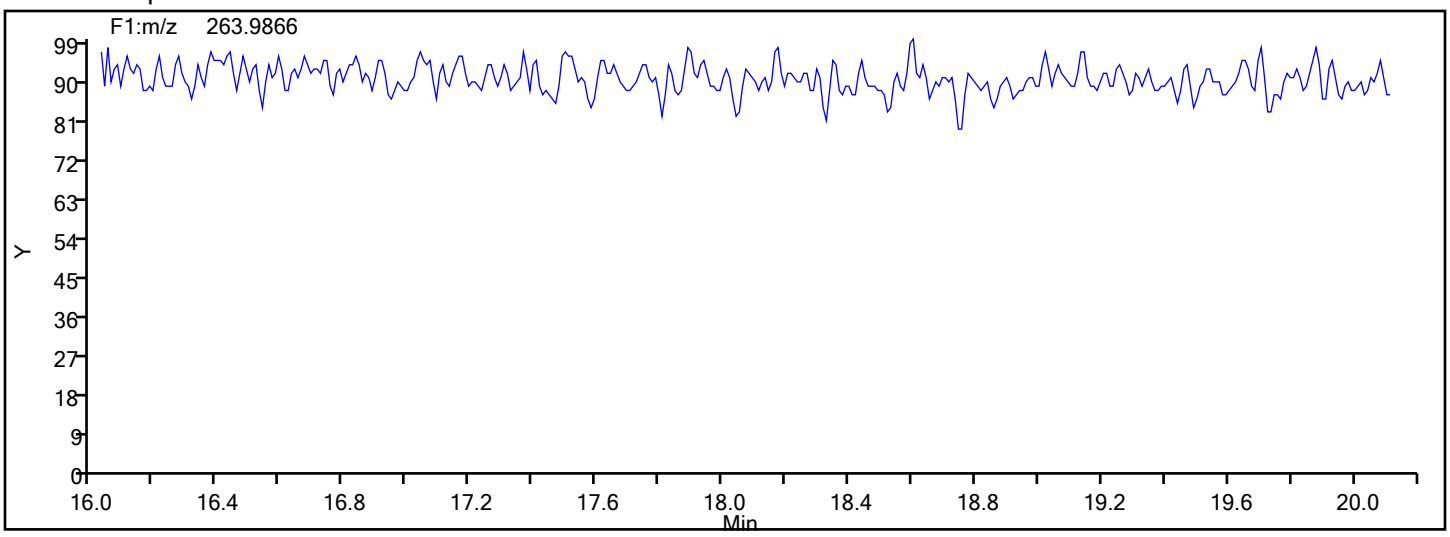
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-5-a.d		
Injection Date:	04-May-2025 21:28:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	99272	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-FD-241230 | Lab Sample ID: 140-40836-5

Matrix: PE | Lab File ID: 140-40836-a-5-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 00:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.044(g) | Date Analyzed: 03/30/2025 19:40

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	10	J	23	0.010
74472-51-8	PCB-192	1400	B	23	0.71
74472-48-3	PCB-184	240	B	23	0.0062
33979-03-2	PCB-155	100		23	0.44
41411-61-4	PCB-142	89	B	23	0.019
74472-52-9	PCB-204	590	B	23	0.072
56558-16-8	PCB-104	50	B	23	0.0023
56558-18-0	PCB-121	340	B	23	1.3
70362-49-1	PCB-78	230	B	23	0.20
38444-87-0	PCB-36	15	J	23	0.11

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d
Lims ID: 140-40836-A-5-B
Client ID: PW-FD-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 19:40:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-010
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 19:12:03 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: TT6I Date: 31-Mar-2025 19:12:03

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:05	623128	1.62		10.0	10.0				
PCB-14	17:50	193412	1.54	1.3581	2.285	2.285	0.002218	0.002218		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	210589	1.13	1.0230	3.303	3.303	0.0249	0.0249		M
* PCB-101L	28:08	231408	1.61		10.0	10.0				
PCB-104	23:44	468029	1.54	1.8372	11.0	11.0	0.000510	0.000510		
* PCB-118L	32:48	258305	1.70		10.0	10.0				
PCB-121	26:44	2865568	1.58	1.4622	75.9	75.9	0.2848	0.2848		
* PCB-138L	37:01	162414	1.32		10.0	10.0				
PCB-142	27:30	642978	1.31	2.0271	19.5	19.5	0.004211	0.004211		
* PCB-60L	27:45	376922	0.78		10.0	10.0				
PCB-78	29:23	1751351	0.80	0.9153	50.8	50.8	0.0450	0.0450		
* PCB-167L	39:29	189408	1.23		10.0	10.0				
PCB-155	34:00	383261	1.24	0.9191	22.0	22.0	0.0958	0.0958		M
PCB-184	34:40	1157830	1.06	1.1610	52.7	52.7	0.001355	0.001355		
PCB-204	42:18	1813235	0.90	0.7364	130.0	130.0	0.0158	0.0158		
PCB-192	42:37	4570575	1.07	0.7635	316.1	316.1	0.1566	0.1566		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
M - Manually Integrated

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d
Lims ID: 140-40836-A-5-B
Client ID: PW-FD-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 19:40:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-010
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 19:12:03 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: TT6I Date: 31-Mar-2025 19:12:03

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:05	19:05	0		384920	117363	12	30	9780		
236.0376	19:05	19:05	0		238208	71850	1	2	71850	1.62(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	0	0.934	117277	40311	14	35	2879		
223.9974	17:50	17:50	0	0.934	76135	27176	9	22	3020	1.54(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						41	102			
265.8435	18:31						5	12			
PCB-36											M
255.9613	22:11	22:11	0	1.162	111573	29842	89	222	335		M
257.9584	22:11	22:11	0	1.162	99016	25205	104	260	242	1.13(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	0		142621	32776	1	2	32776		
339.9178	28:08	28:08	0		88787	20554	1	2	20554	1.61(1.16-1.94)	
PCB-104											
325.8804	23:44	23:45	0	0.844	283797	73343	1	2	73343		
327.8775	23:44	23:45	0	0.844	184232	46373	1	2	46373	1.54(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		162459	31071	3	7	10357		
339.9178	32:48	32:48	0		95846	20321	1	2	20321	1.70(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-121											
325.8804	26:44	26:44	0	0.815	1753699	411020	513	1282	801		
327.8775	26:44	26:44	0	0.815	1111869	261322	343	857	762	1.58(1.32-1.78)	
PCB-138L											
371.8817	37:01	37:00	0		92360	16889	2	5	8445		
373.8788	37:01	37:00	0		70054	12397	2	5	6199	1.32(1.16-1.94)	
PCB-142											
359.8415	27:30	27:31	-1	0.743	364294	86279	7	17	12326		
361.8385	27:30	27:31	-1	0.743	278684	62091	3	7	20697	1.31(1.05-1.43)	
PCB-60L											
301.9626	27:45	27:45	0		165119	33673	3	7	11224		
303.9597	27:45	27:45	0		211803	43983	7	17	6283	0.78(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	775952	156701	60	150	2612		
291.9194	29:23	29:23	0	1.059	975399	197751	68	170	2908	0.80(0.65-0.89)	
PCB-167L											
371.8817	39:29	39:30	0		104529	17599	4	10	4400		
373.8788	39:30	39:30	1		84879	14189	3	7	4730	1.23(1.16-1.94)	
PCB-155											M
359.8415	34:00	34:00	0	0.861	211812	41180	55	137	749		M
361.8385	34:00	34:00	0	0.861	171449	30973	57	142	543	1.24(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	-1	0.878	596237	113723	1	2	113723		
395.7995	34:40	34:40	-1	0.878	561593	106524	1	2	106524	1.06(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.071	861148	145047	10	25	14505		
429.7606	42:18	42:18	0	1.071	952087	161387	5	12	32277	0.90(0.76-1.02)	
PCB-192											
393.8025	42:37	42:37	0	1.079	2362992	391369	80	200	4892		
395.7995	42:37	42:37	0	1.079	2207583	362457	72	180	5034	1.07(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

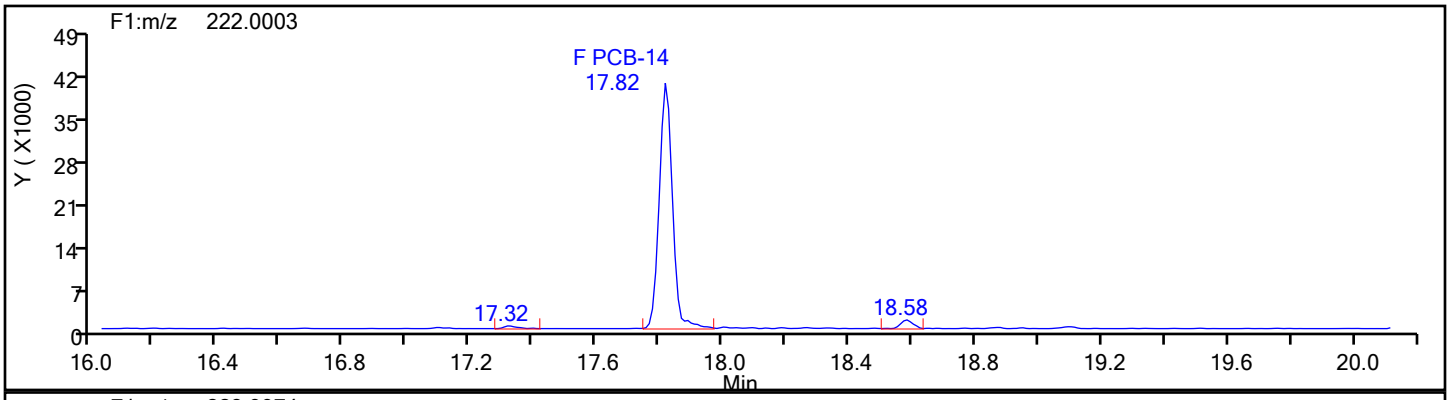
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

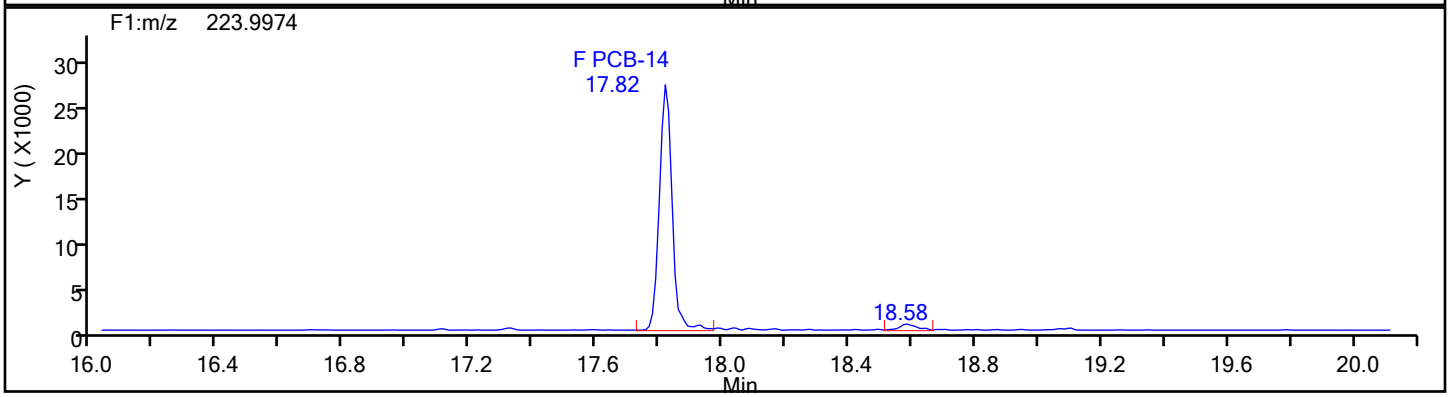
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

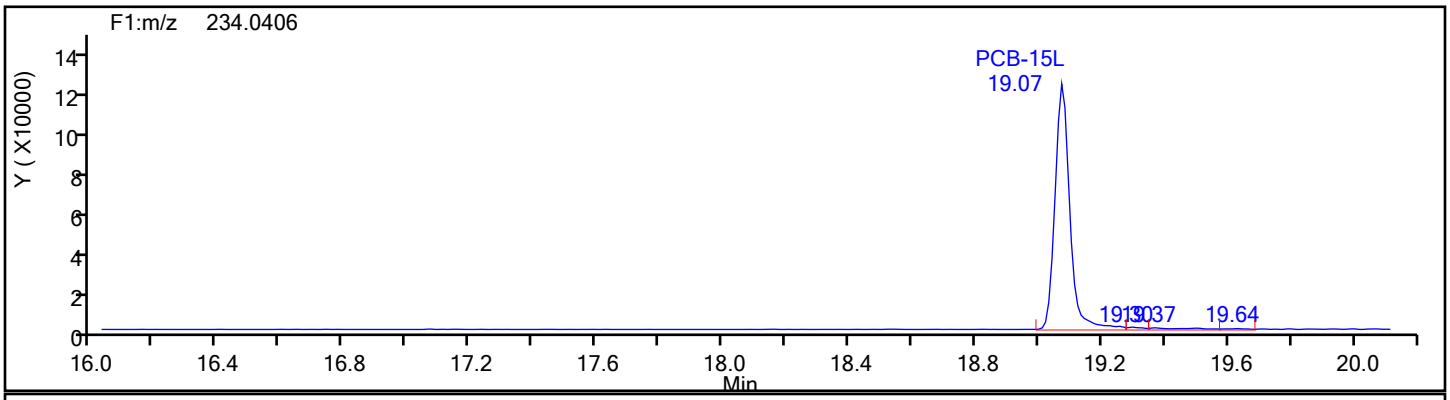
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

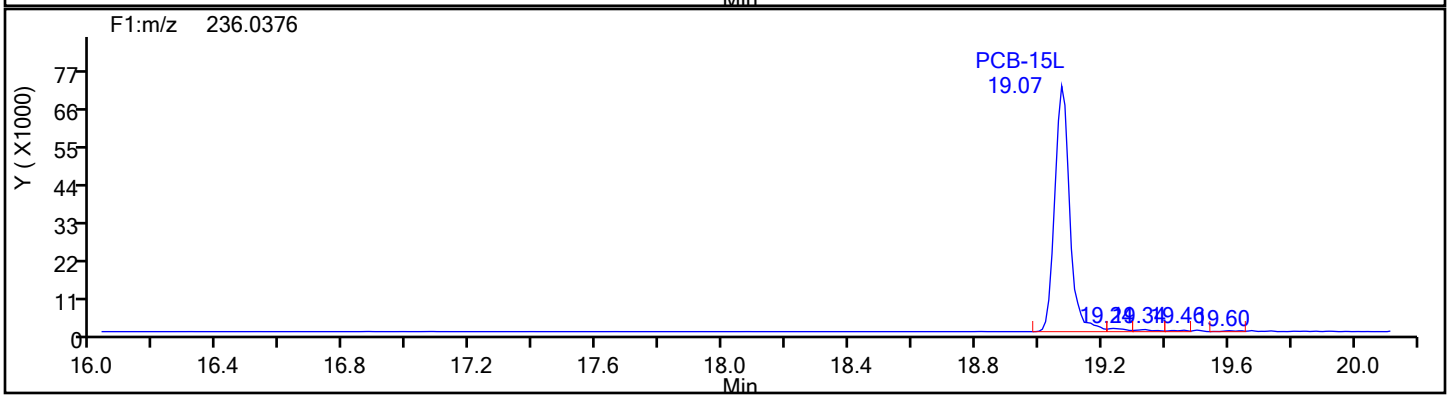
PCB-14





PCB-14 Standards



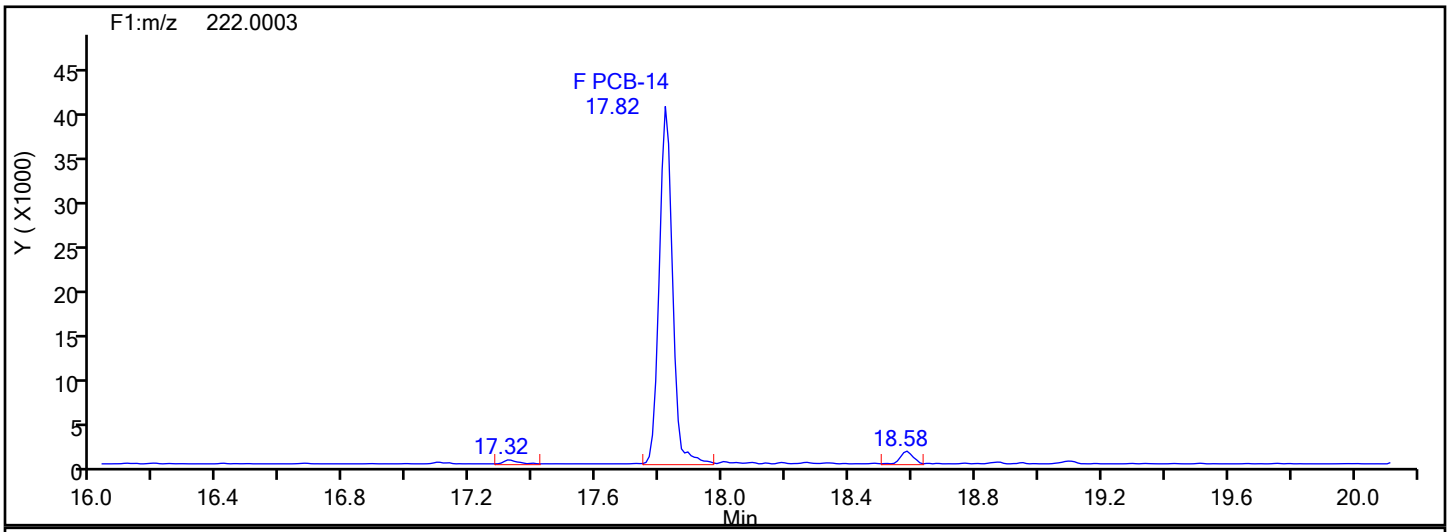


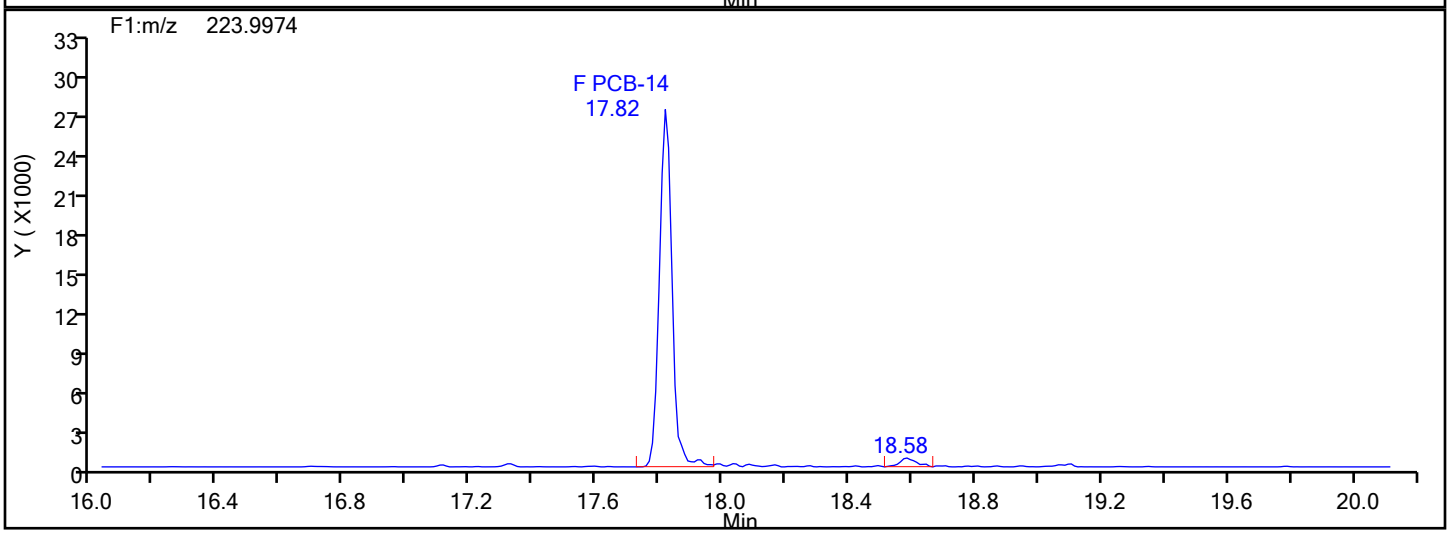
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

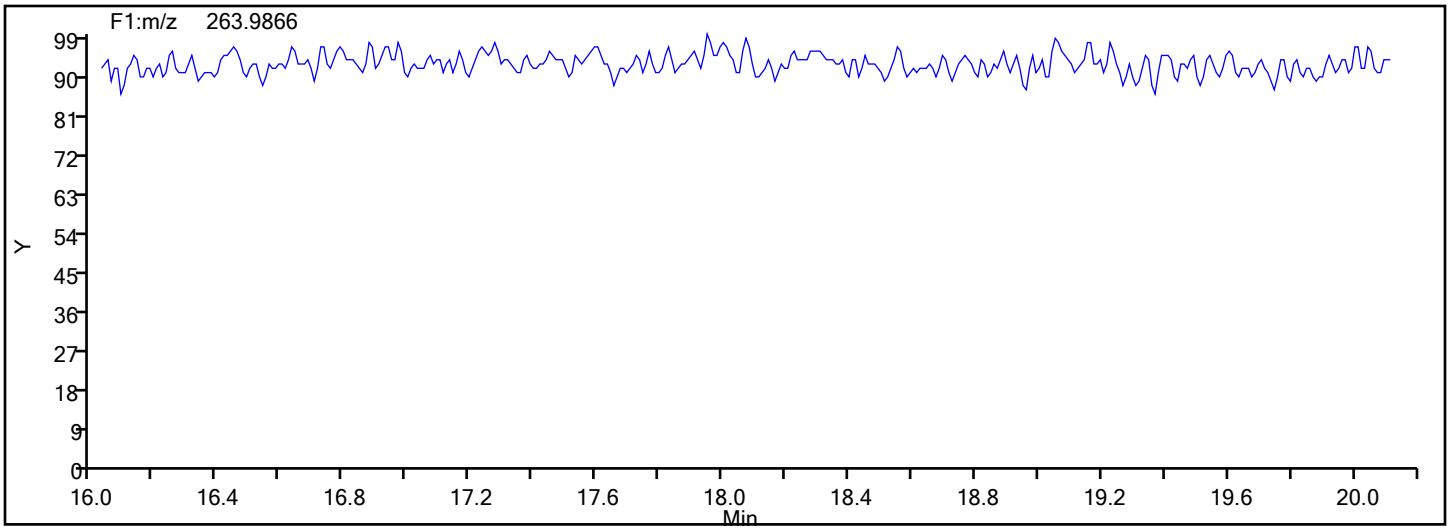
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



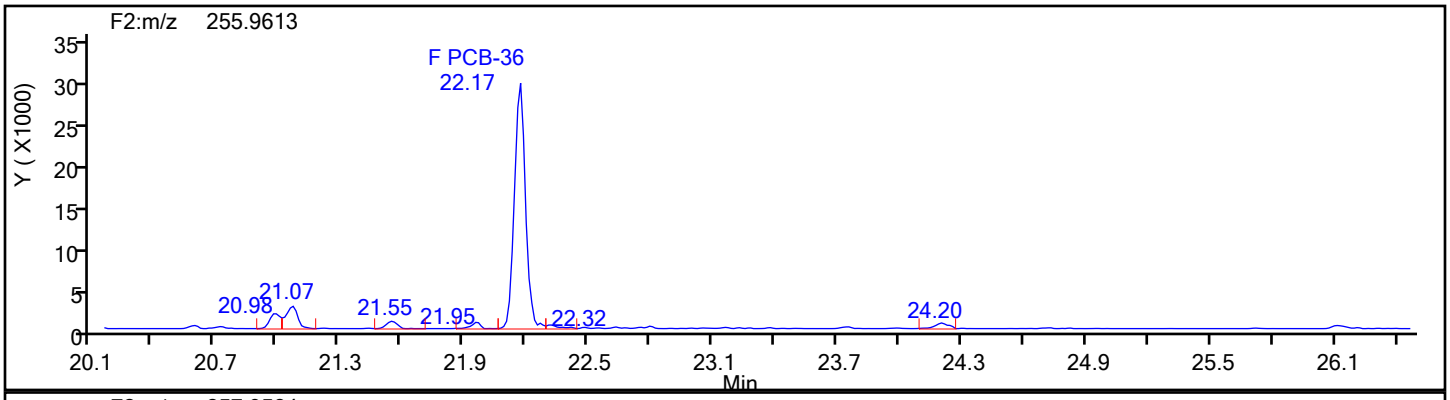
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

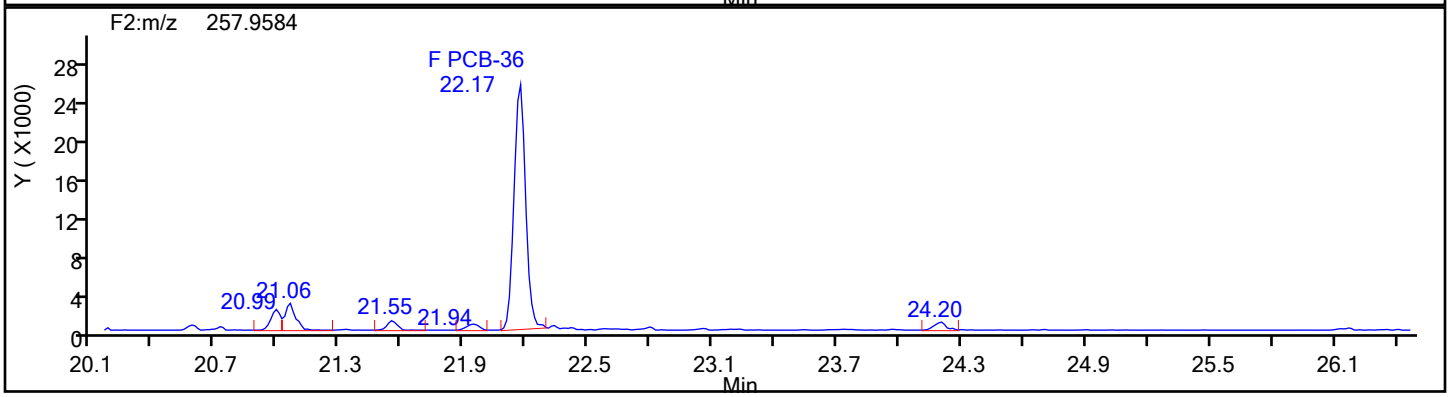
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

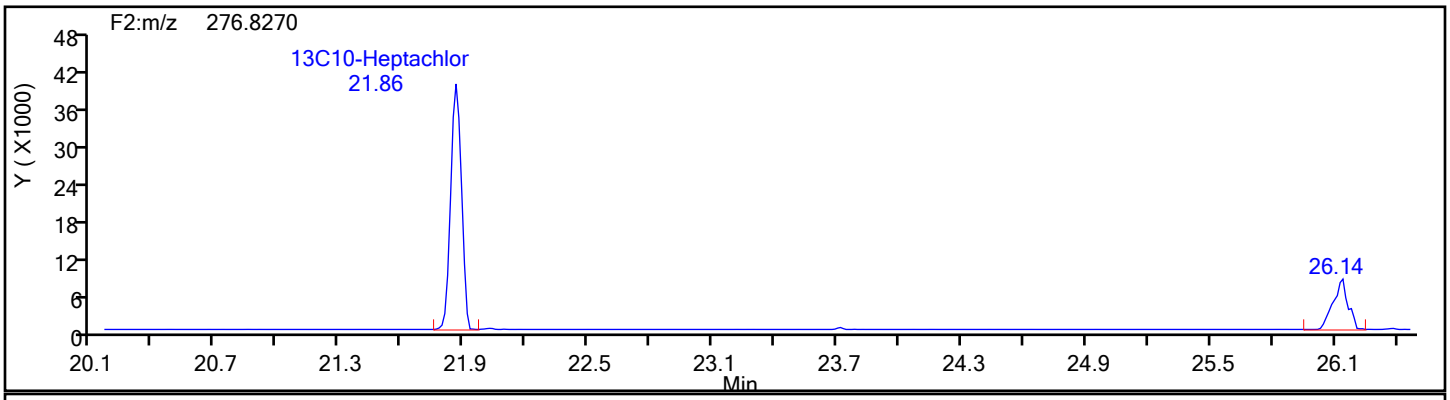
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

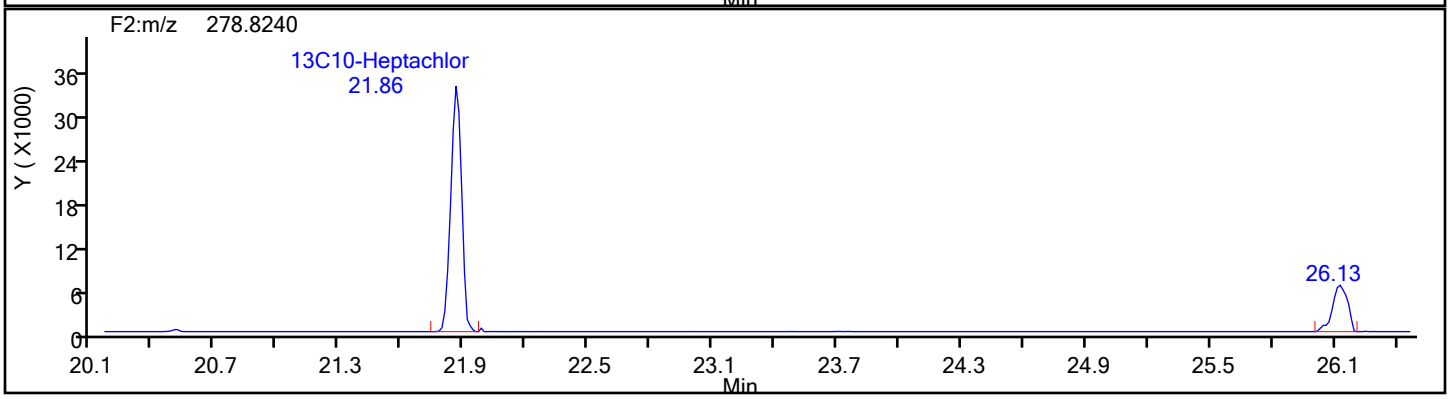
PCB-36





PCB-36 Standards



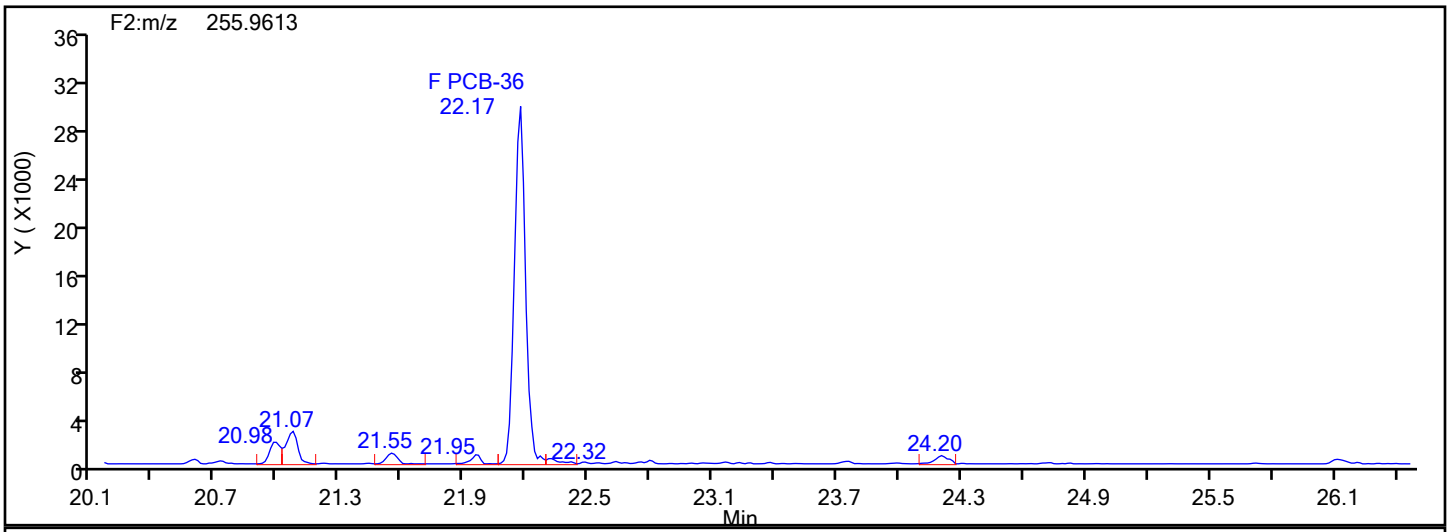


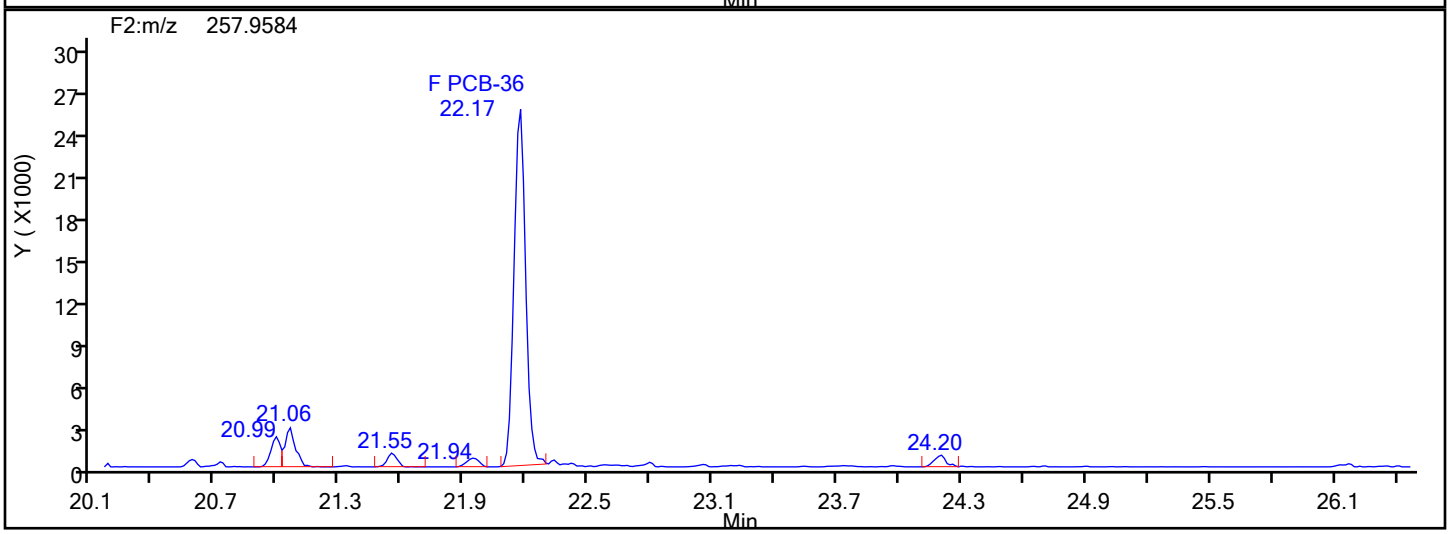
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

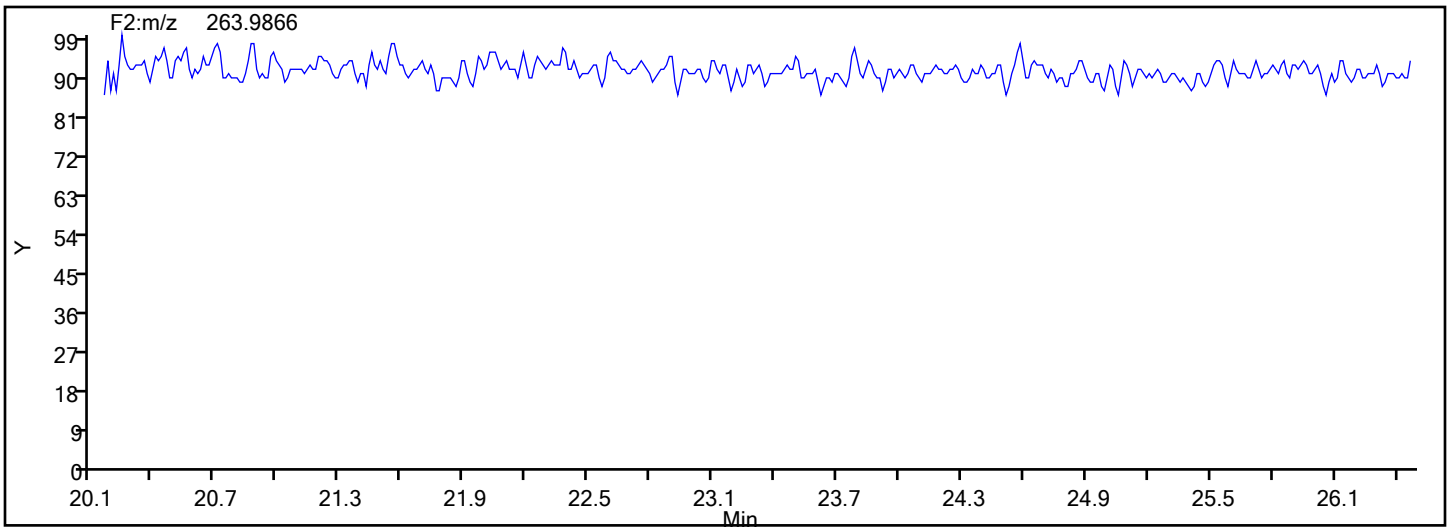
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

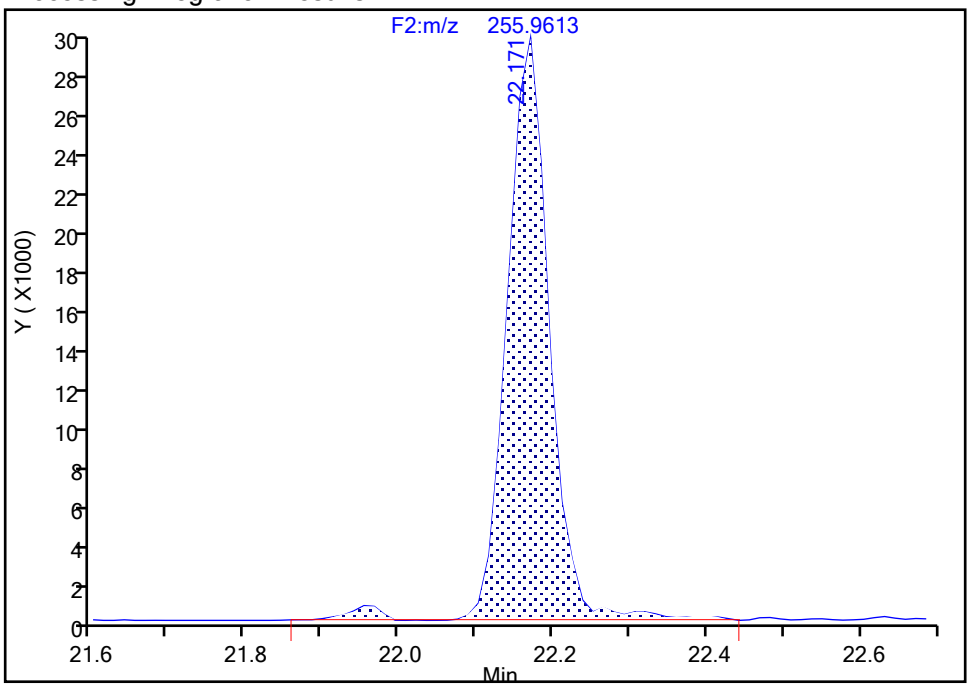
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d				
Injection Date:	30-Mar-2025 19:40:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-5-B	Lab Sample ID:	140-40836-5		
Client ID:	PW-FD-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F2(20.16 :26.47)		

PCB-36, CAS: 38444-87-0

Signal: 1

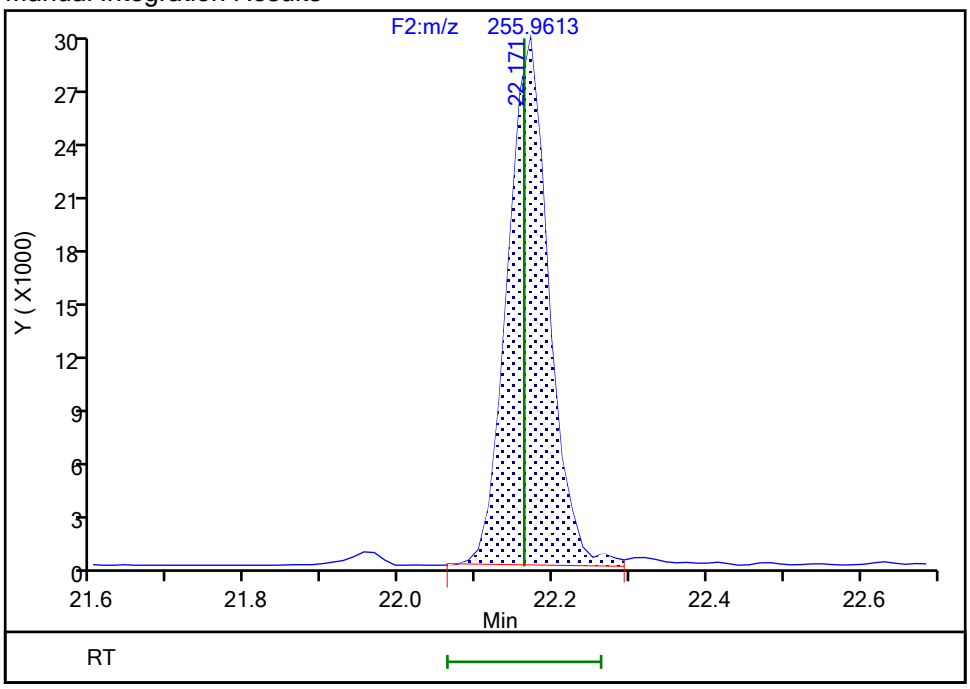
Processing Integration Results

RT: 22.17
Area: 115537
Amount: 3.365593
Amount Units: pg/ul



Manual Integration Results

RT: 22.17
Area: 111573
Amount: 3.303411
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 19:11:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

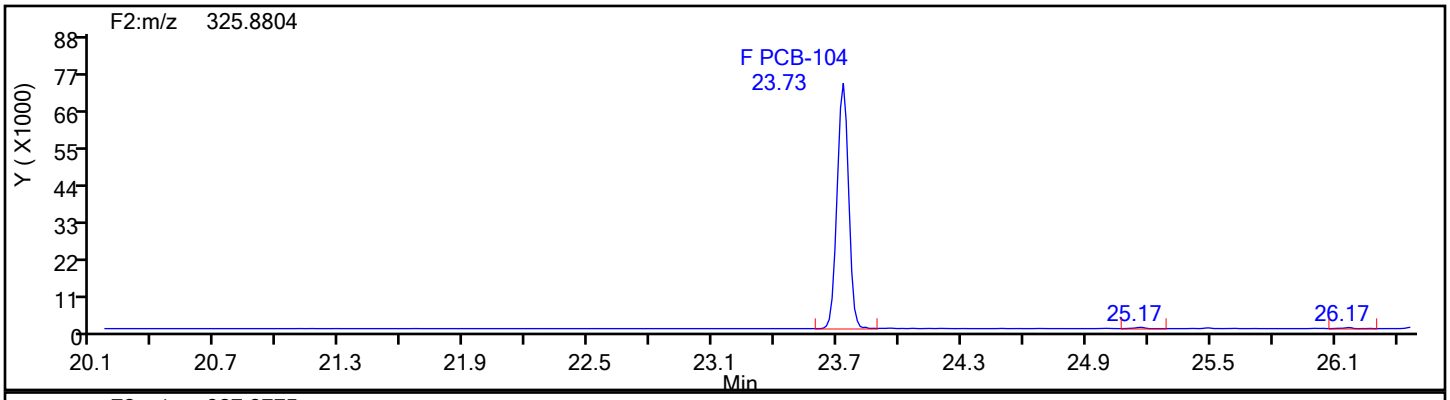
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

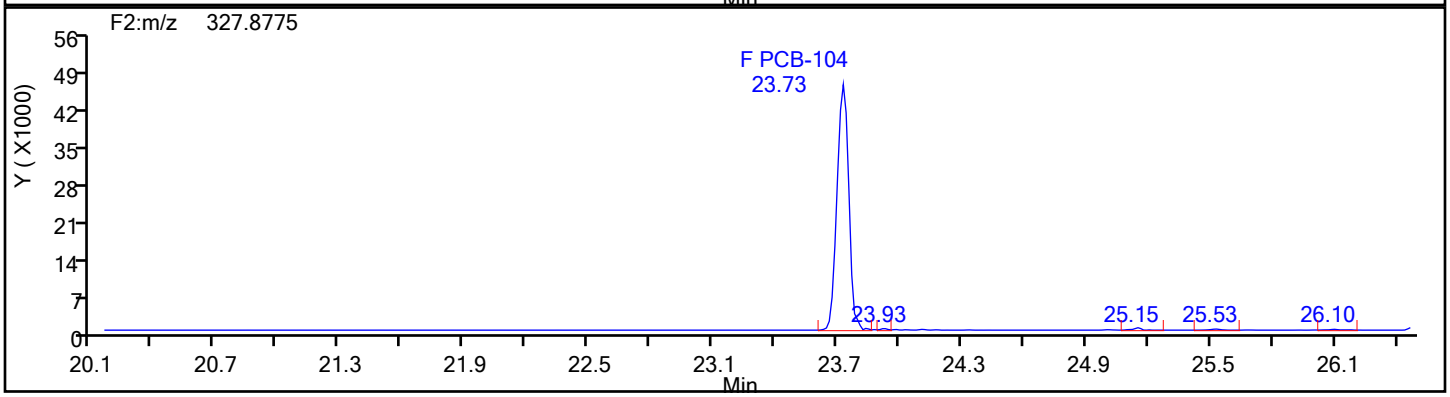
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

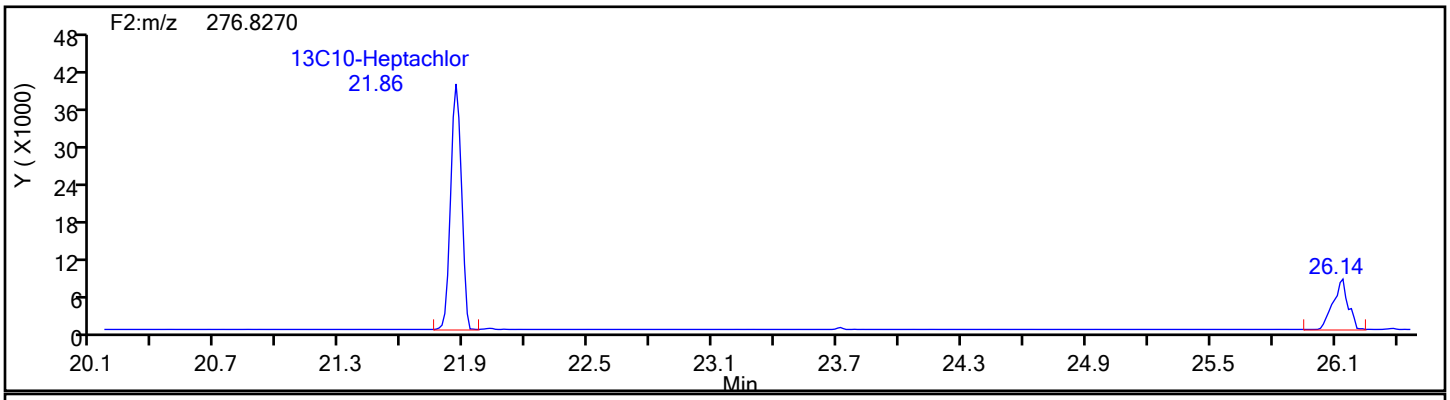
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

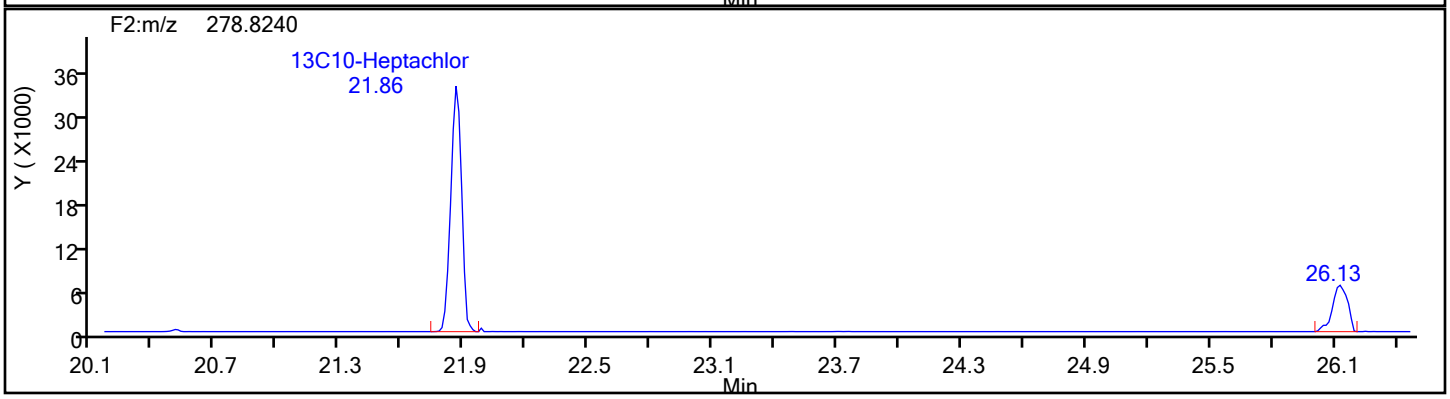
PCB-104





PCB-104 Standards



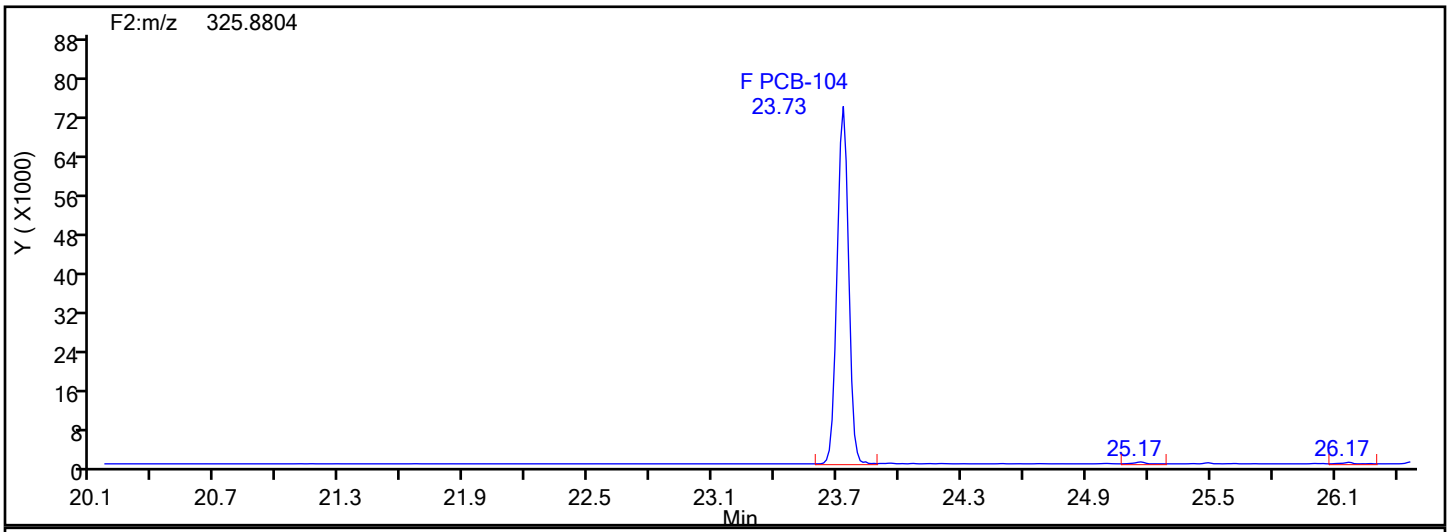


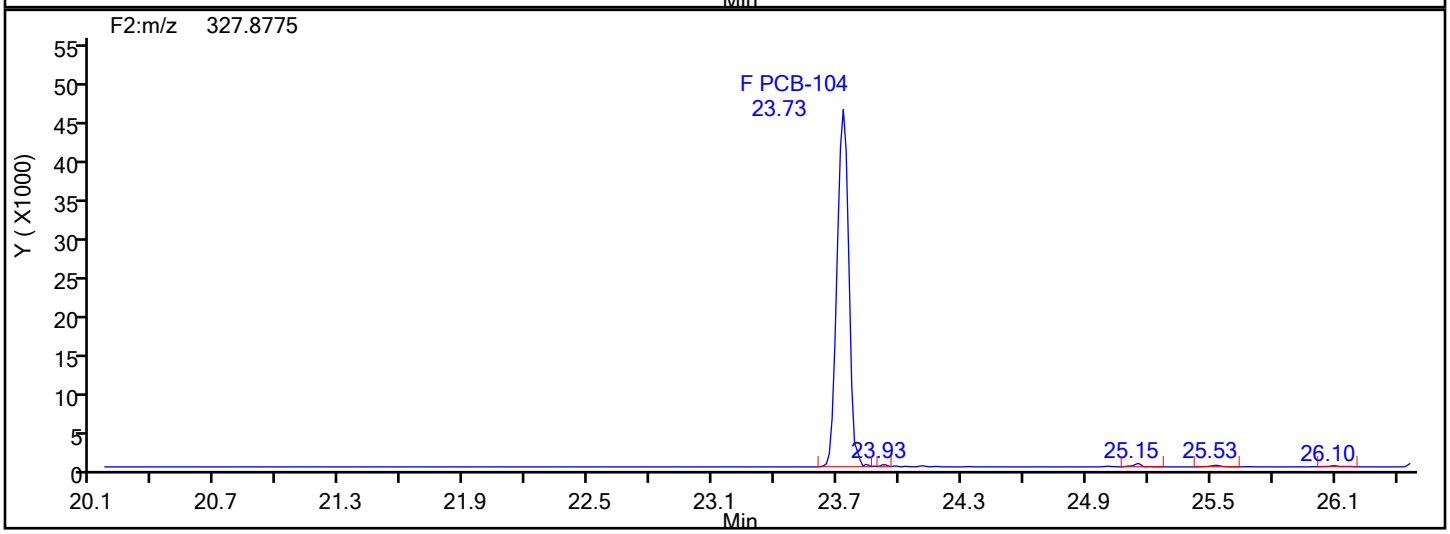
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

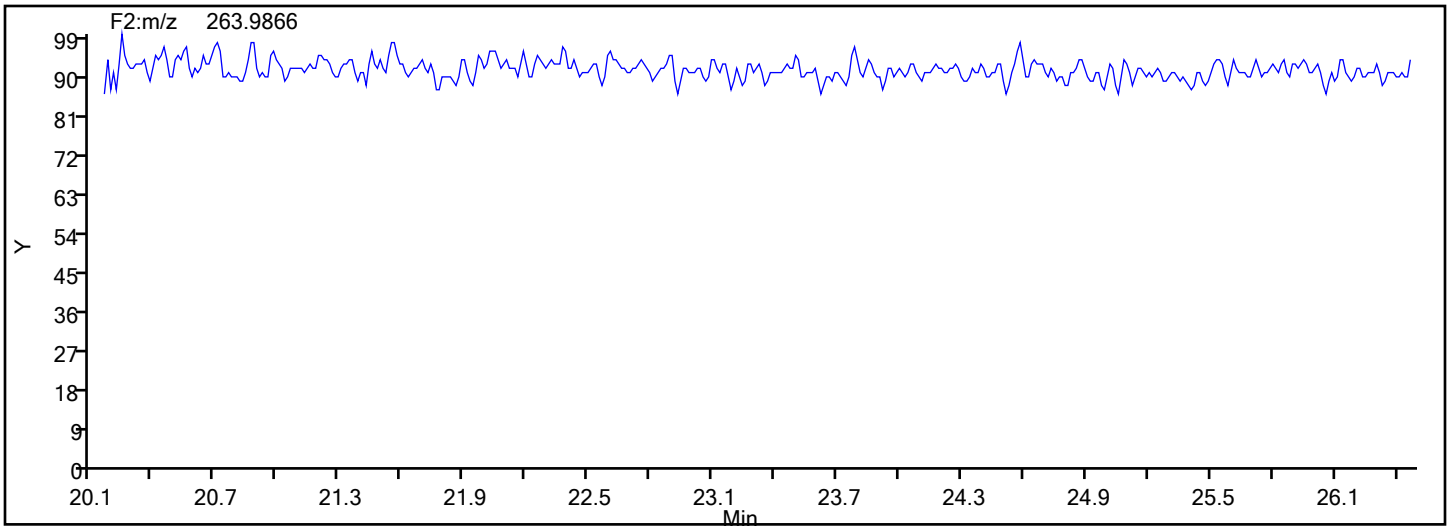
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



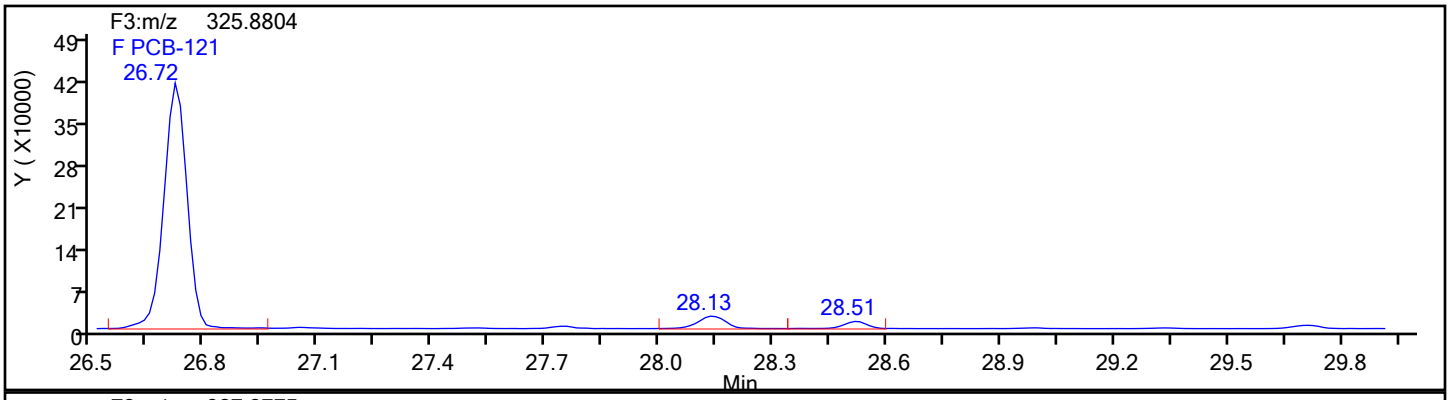
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

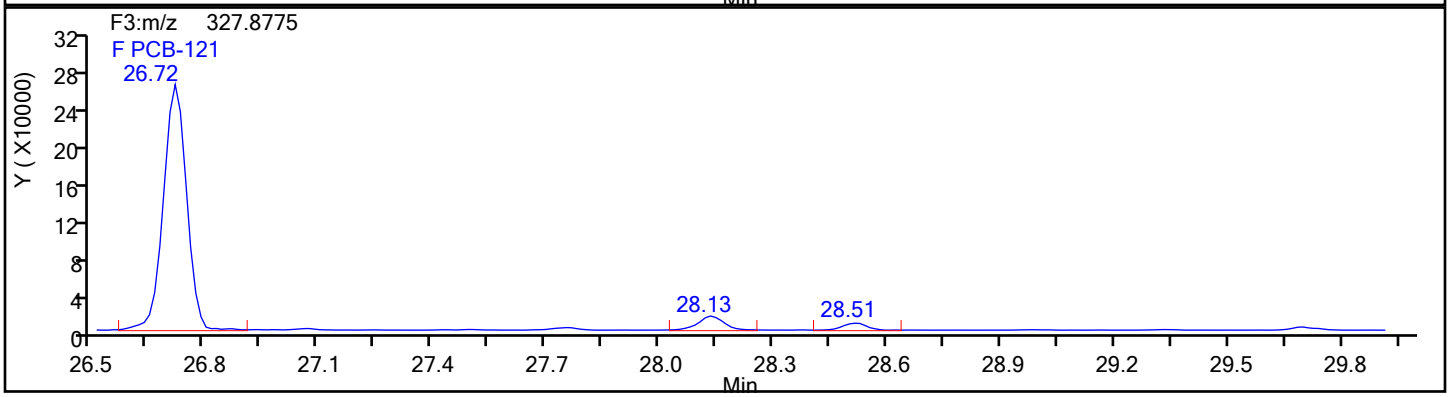
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

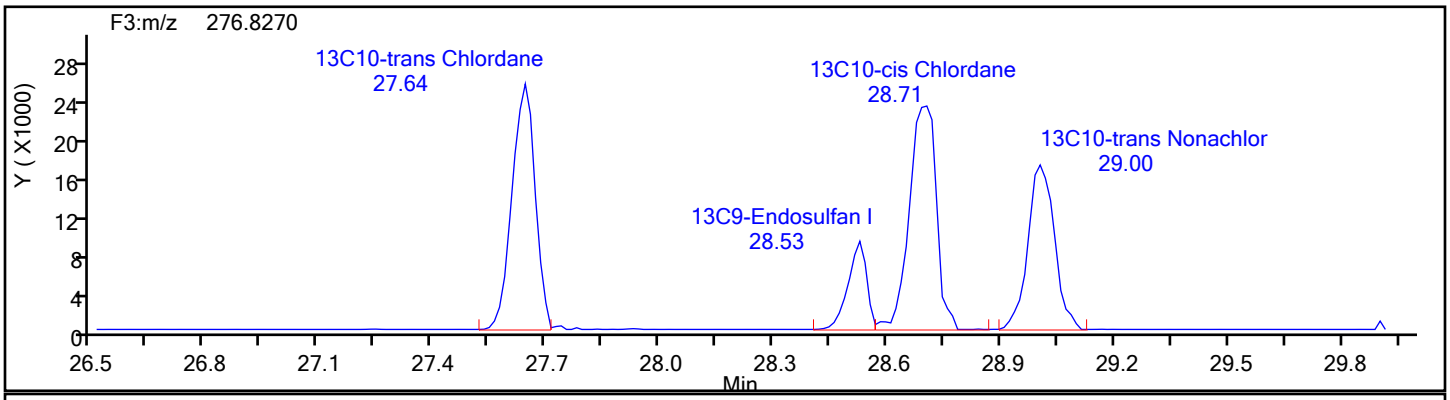
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

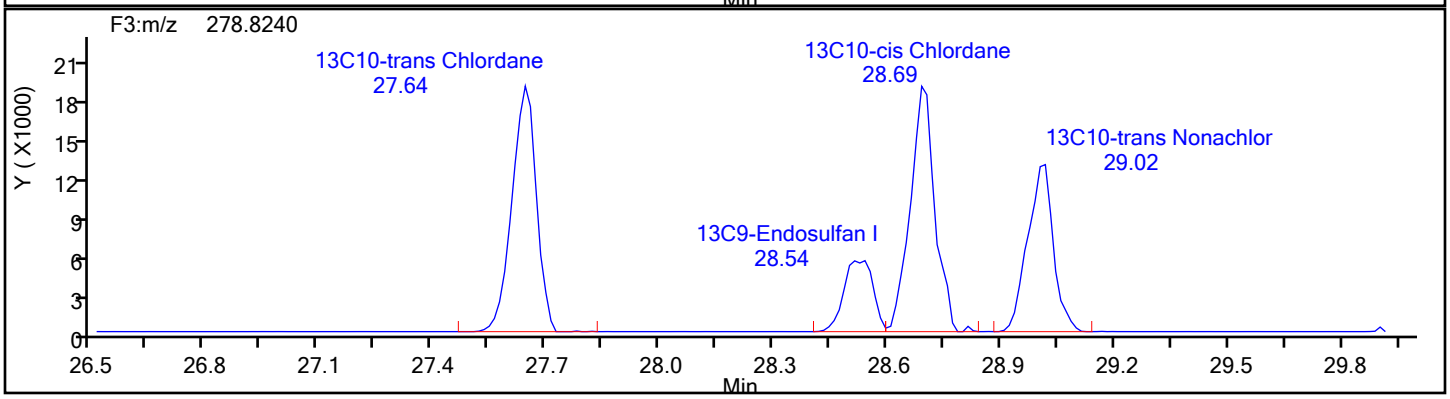
PCB-121





PCB-121 Standards



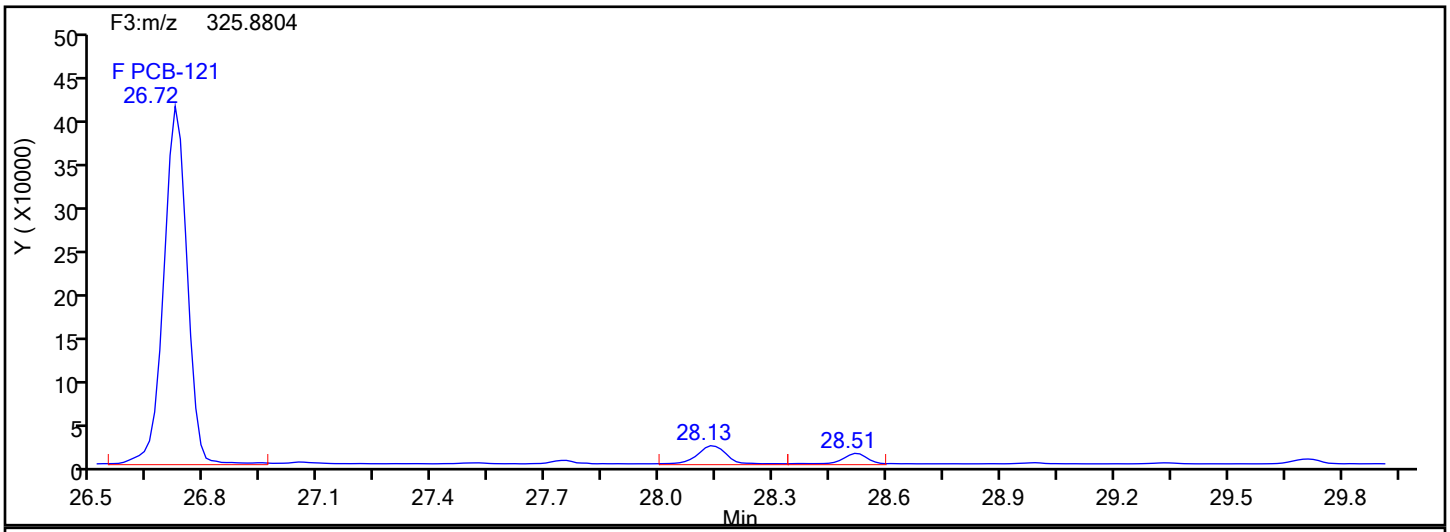


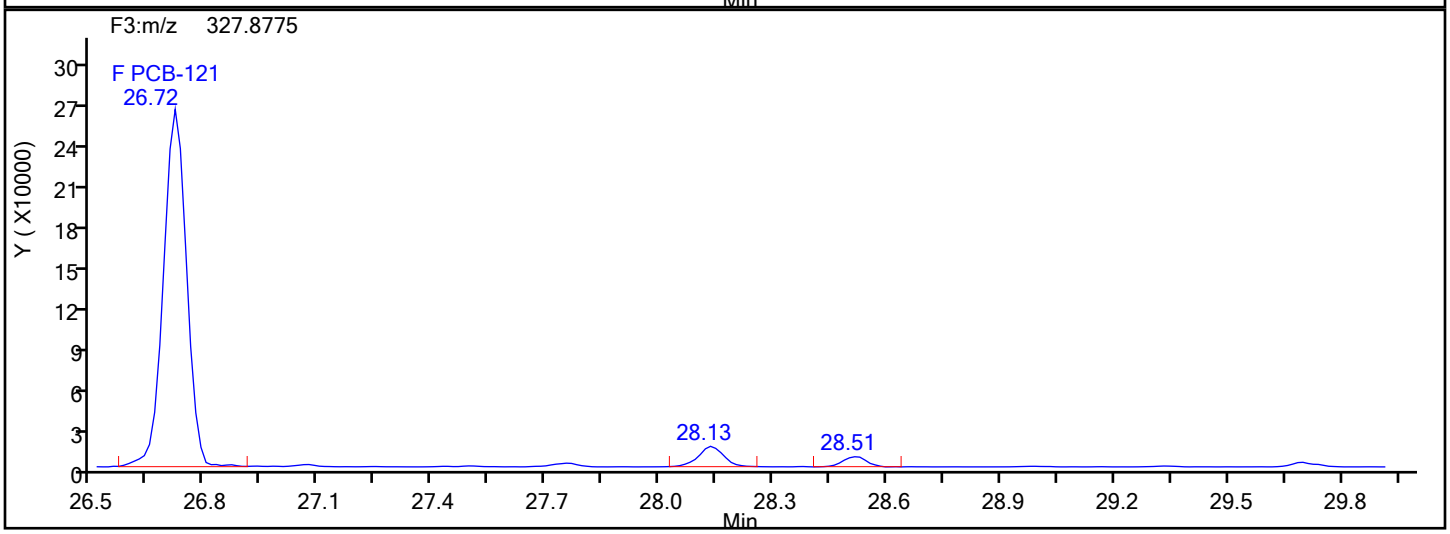
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

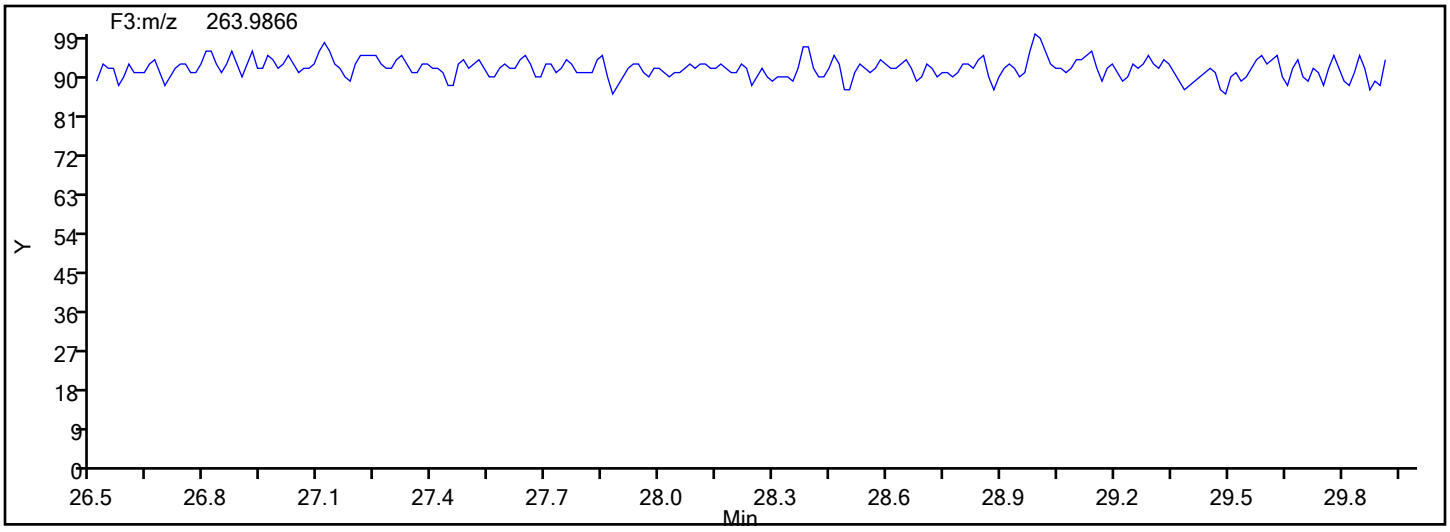
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



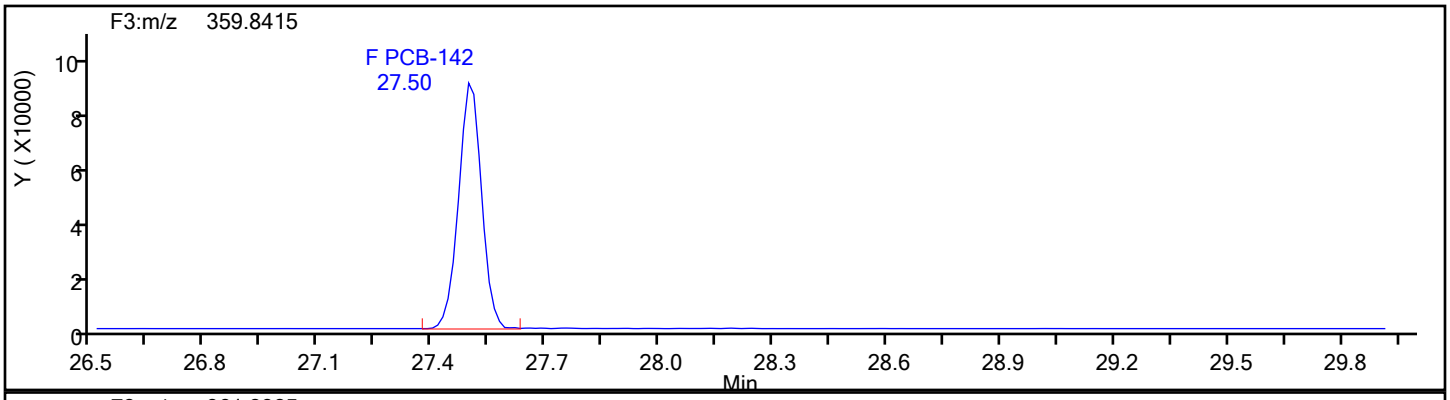
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

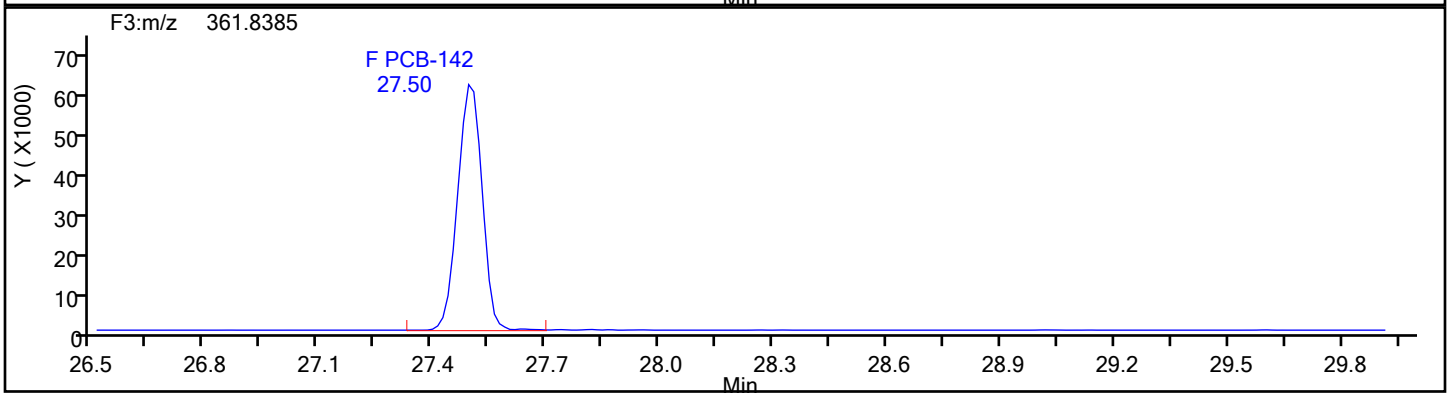
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

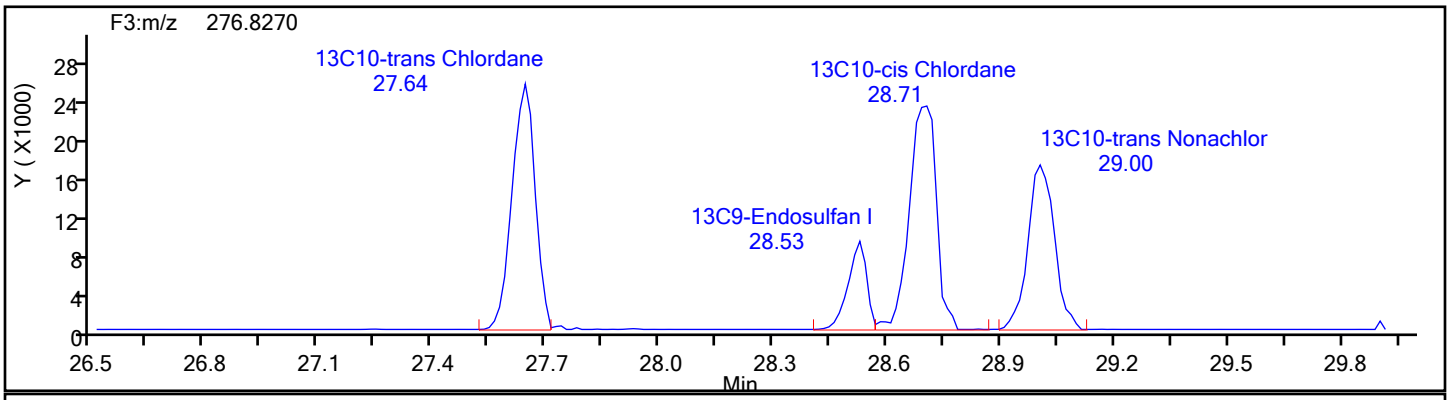
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

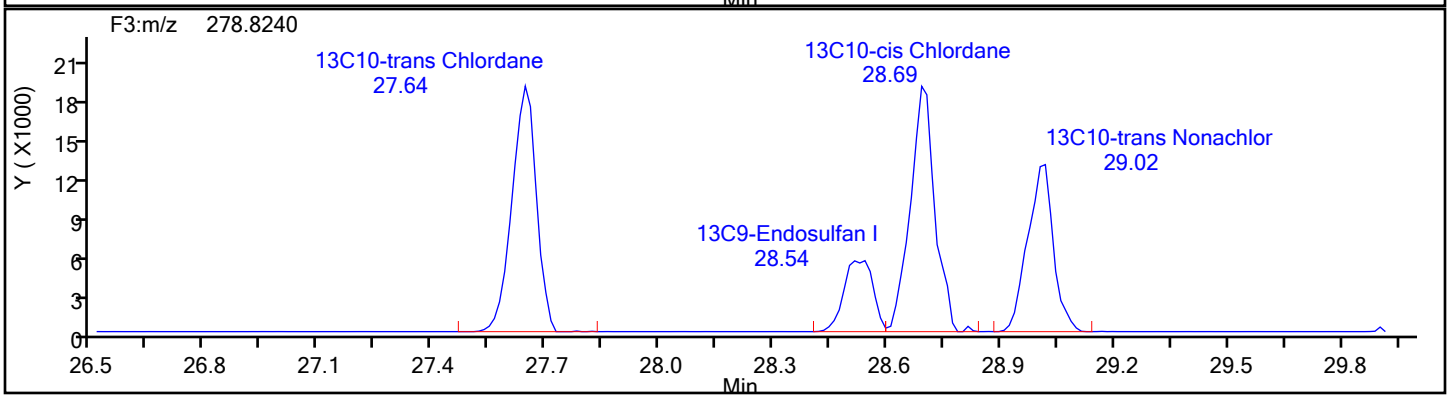
PCB-142





PCB-142 Standards



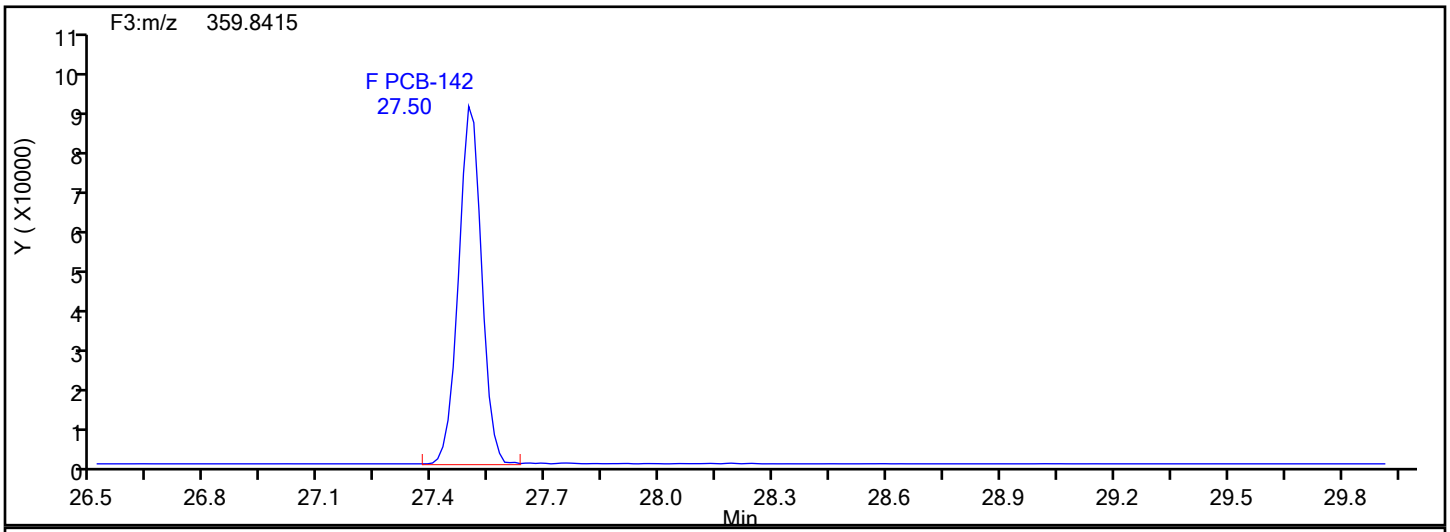


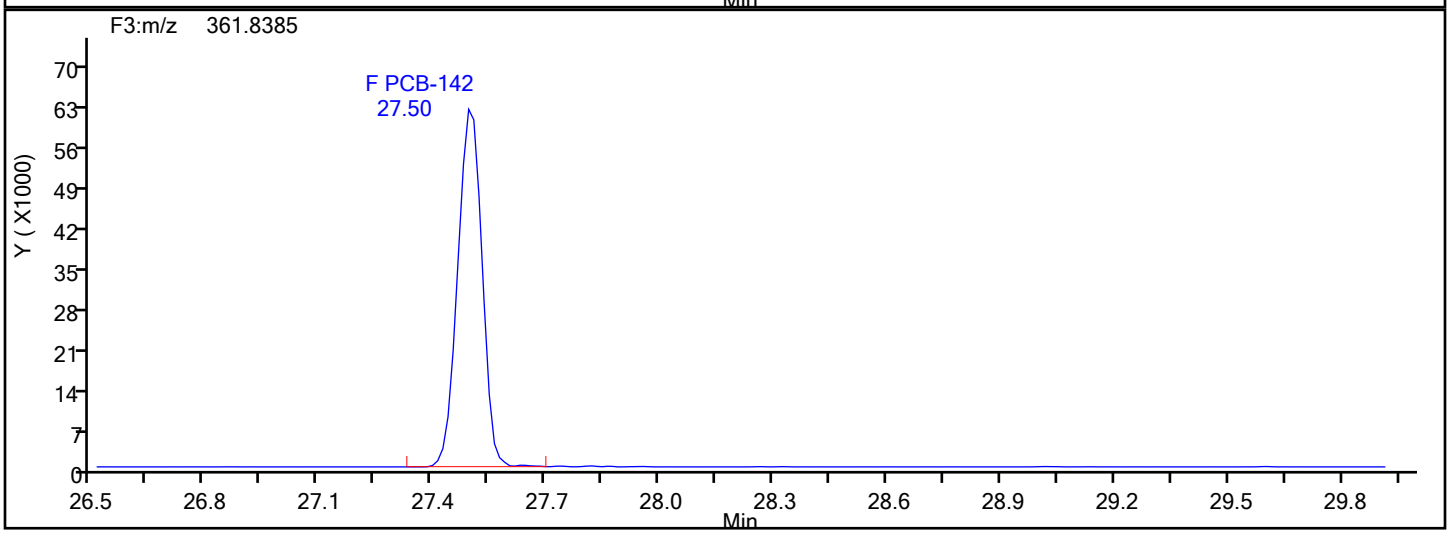
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

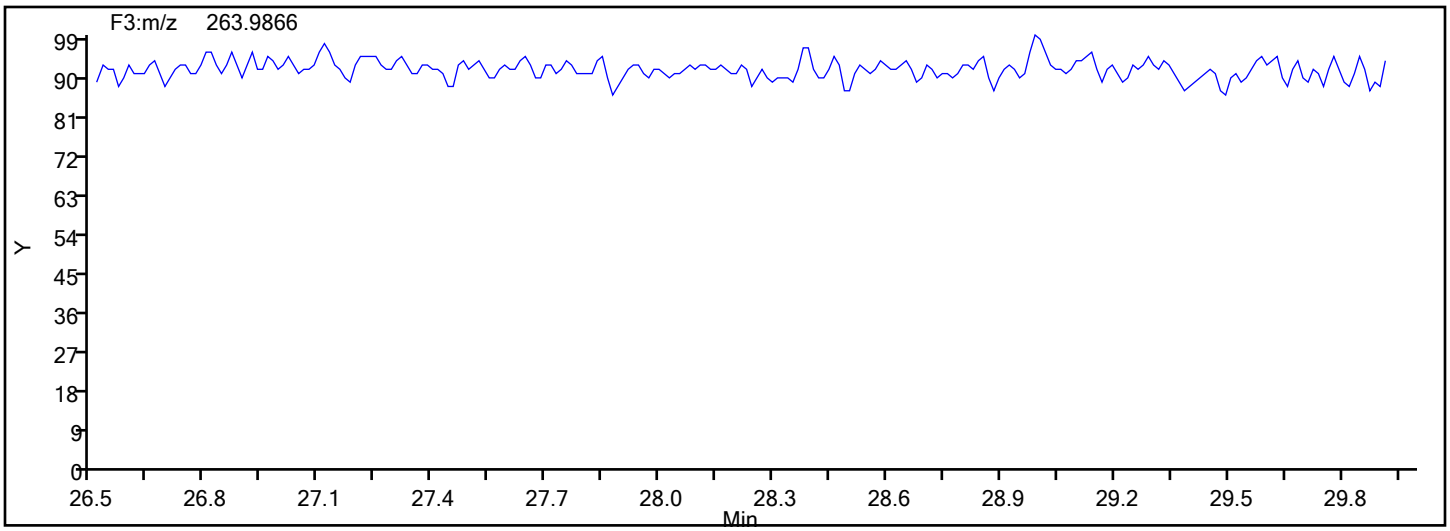
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



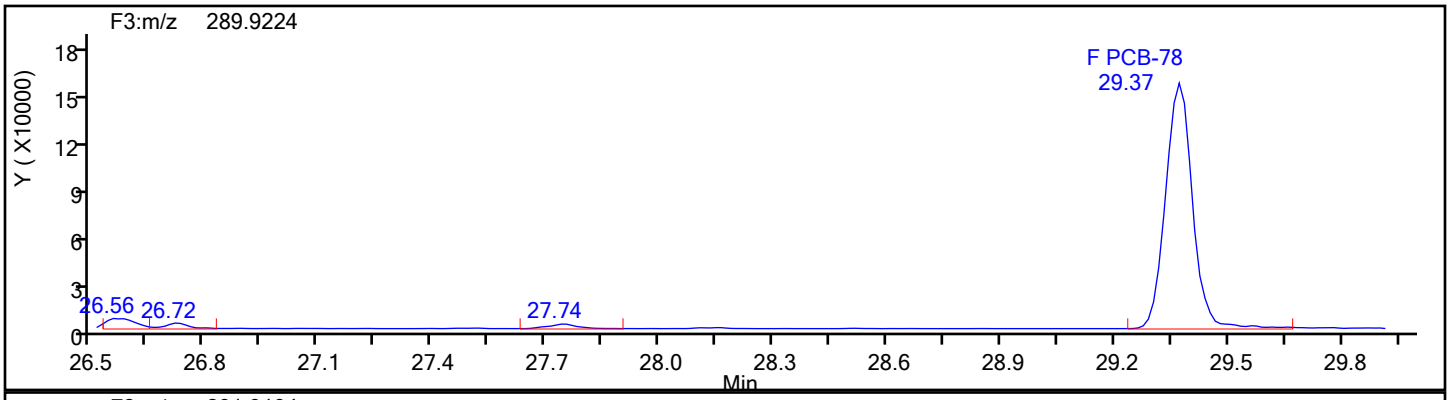
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

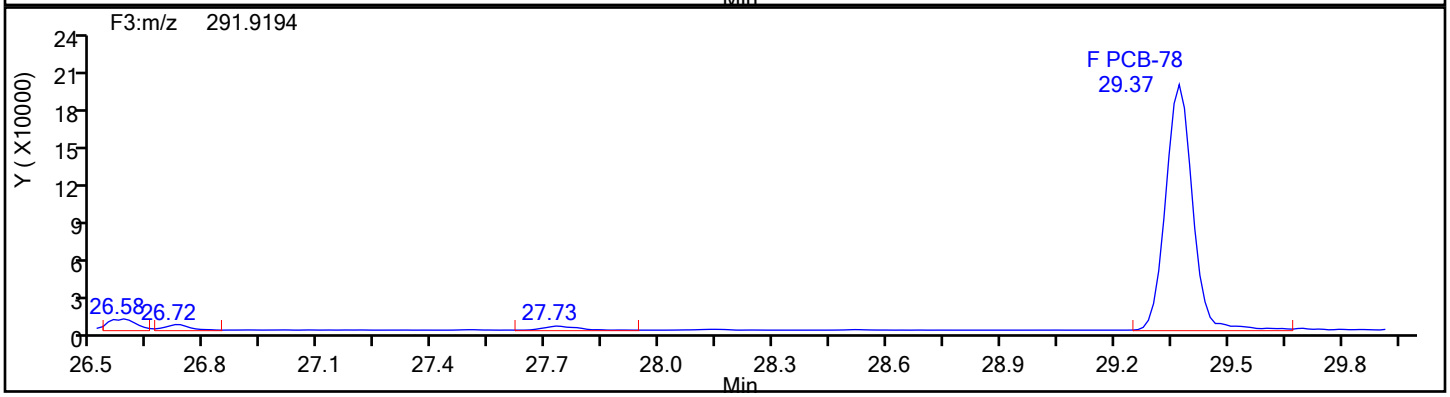
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

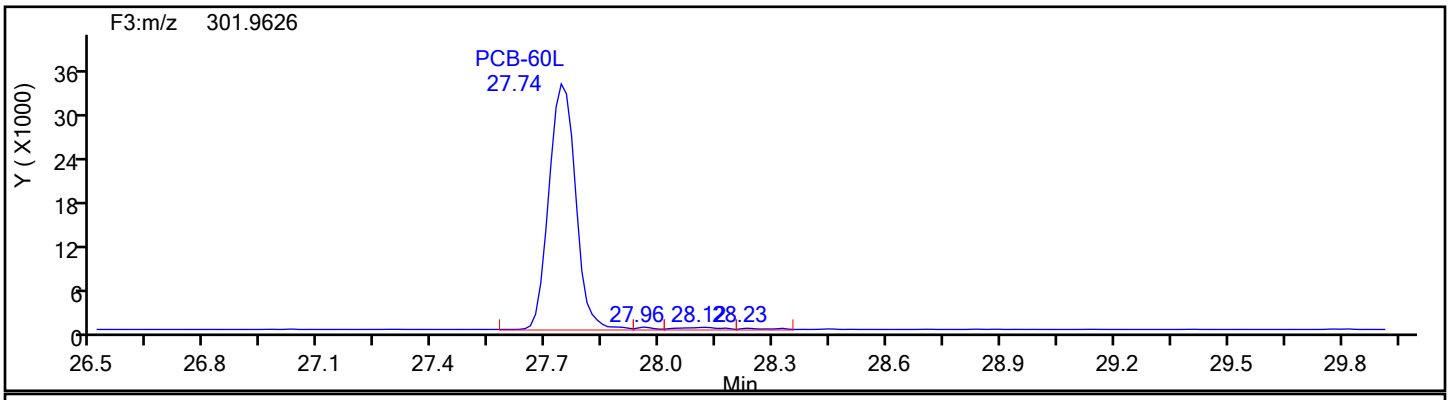
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

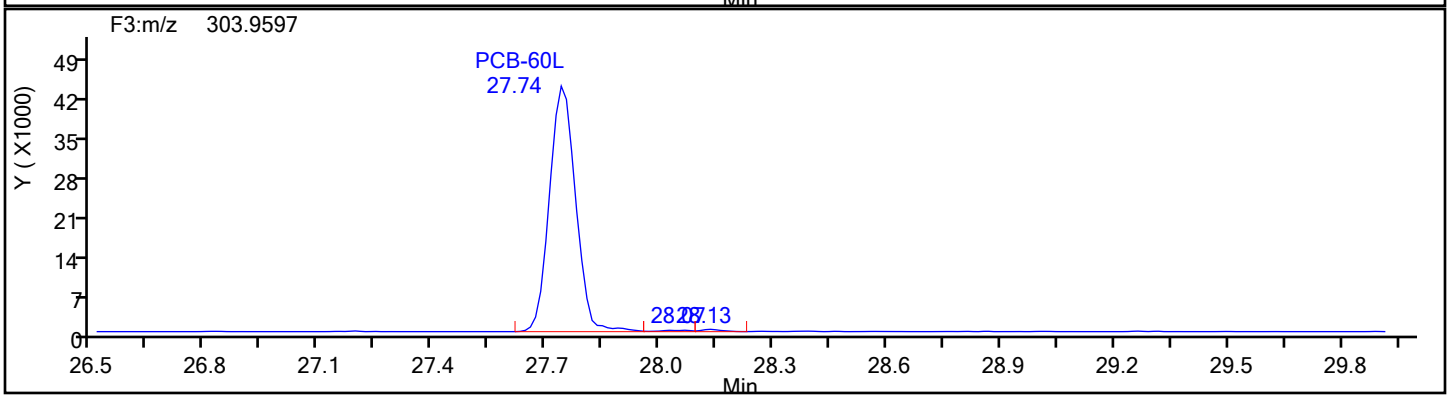
PCB-78





PCB-78 Standards



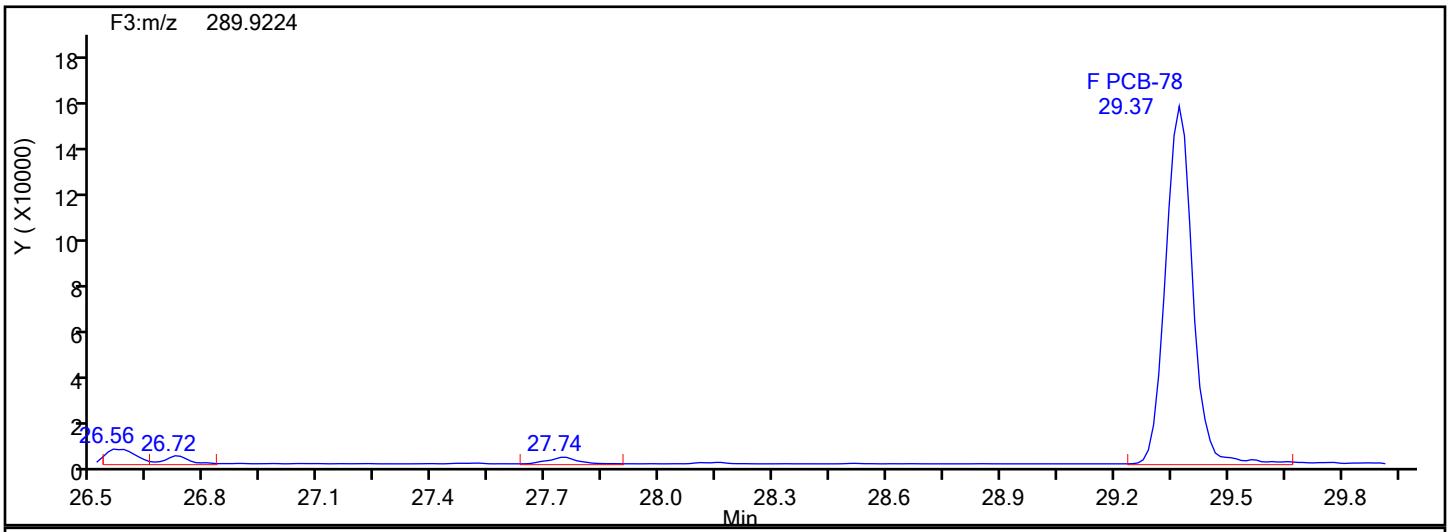


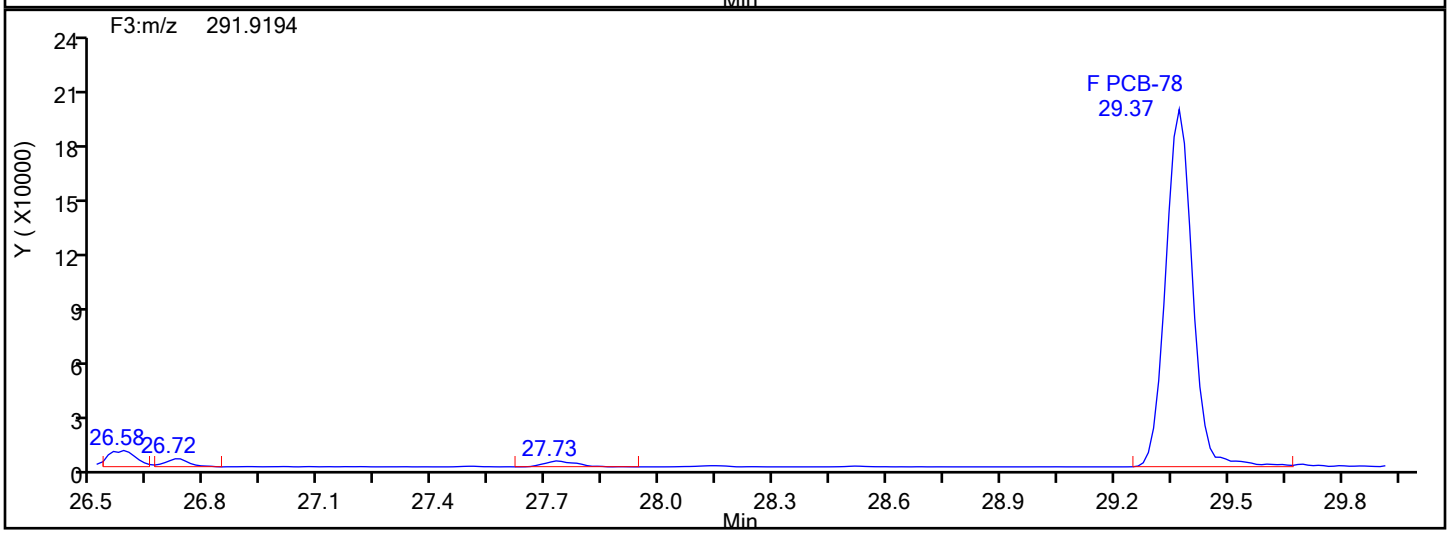
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

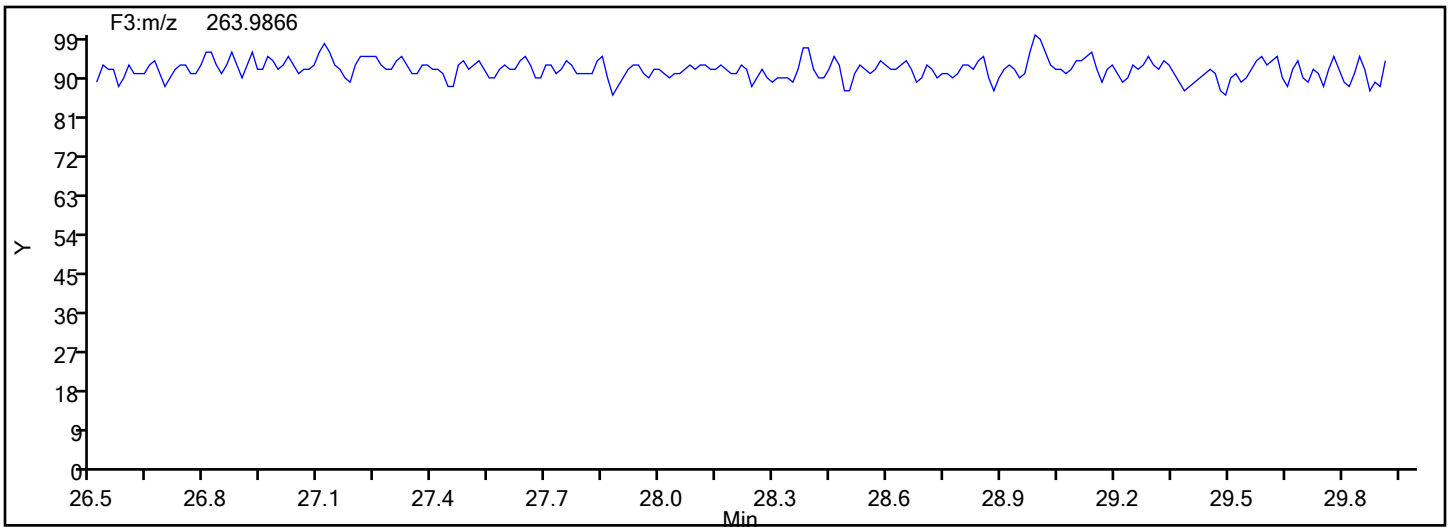
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



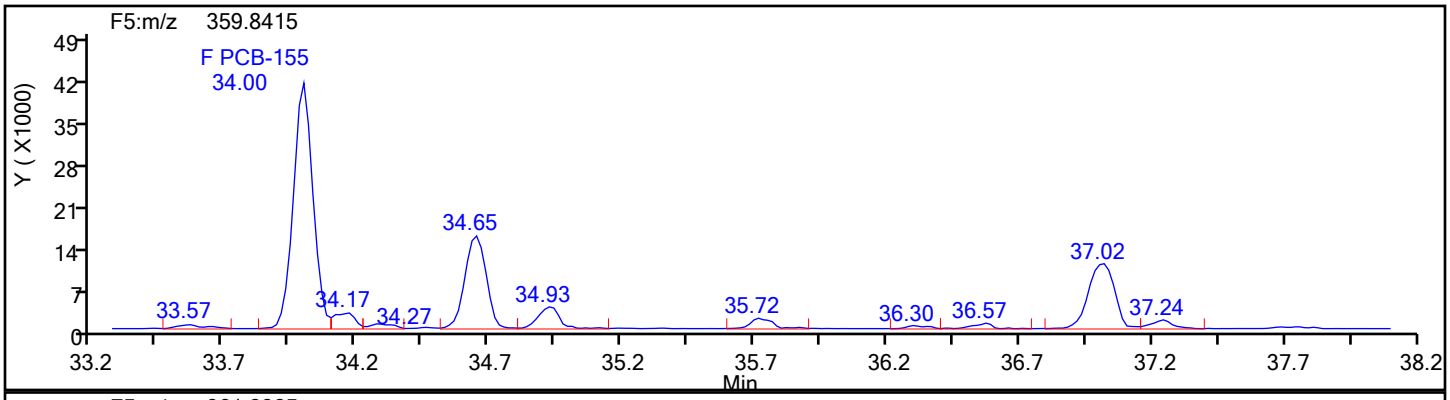
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

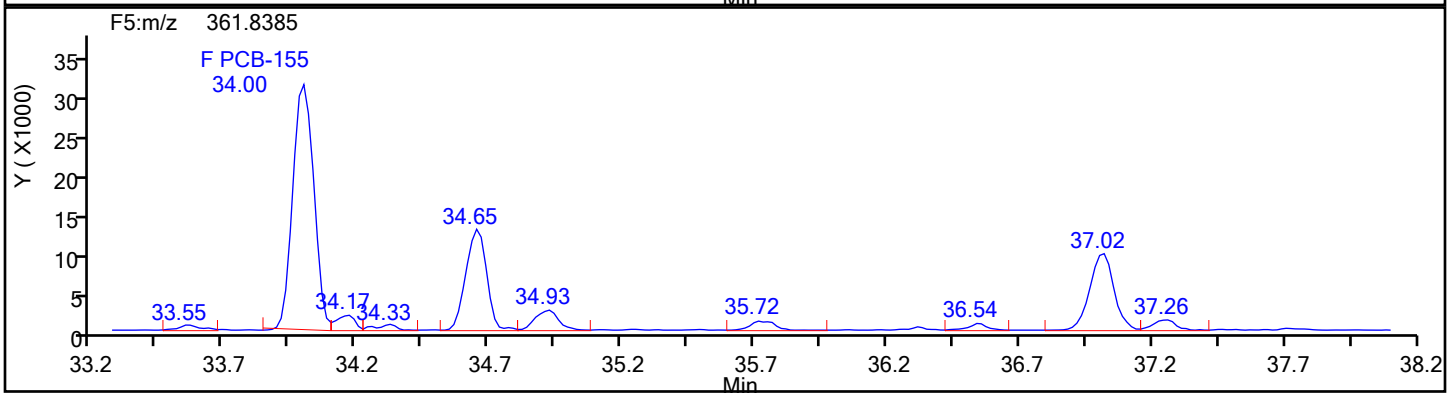
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

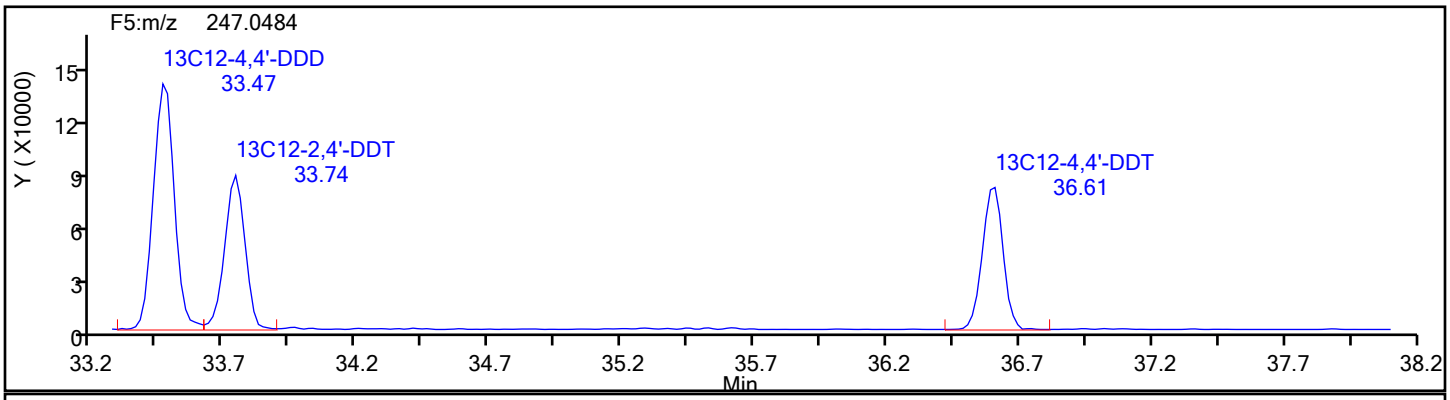
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

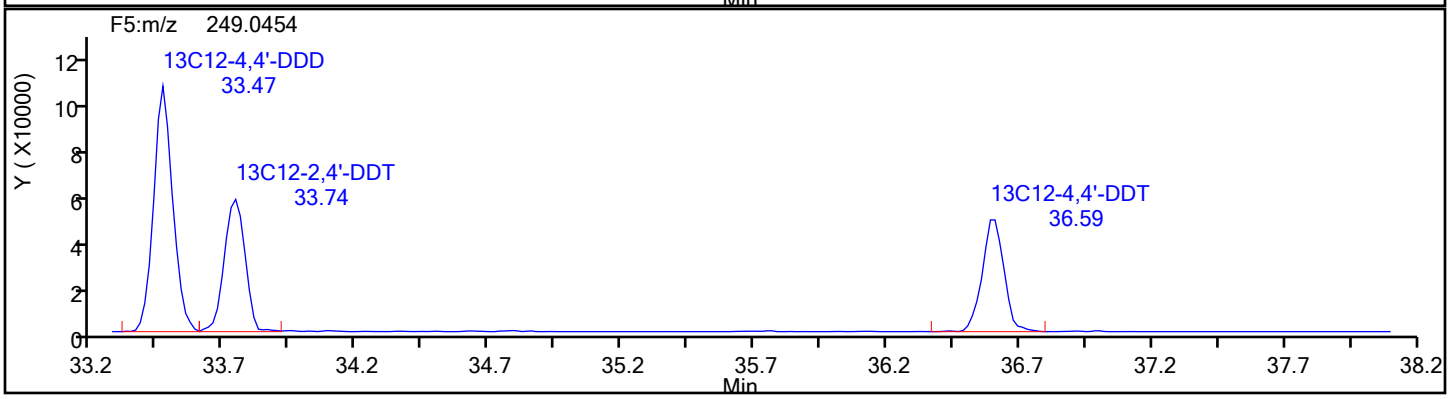
PCB-155





PCB-155 Standards





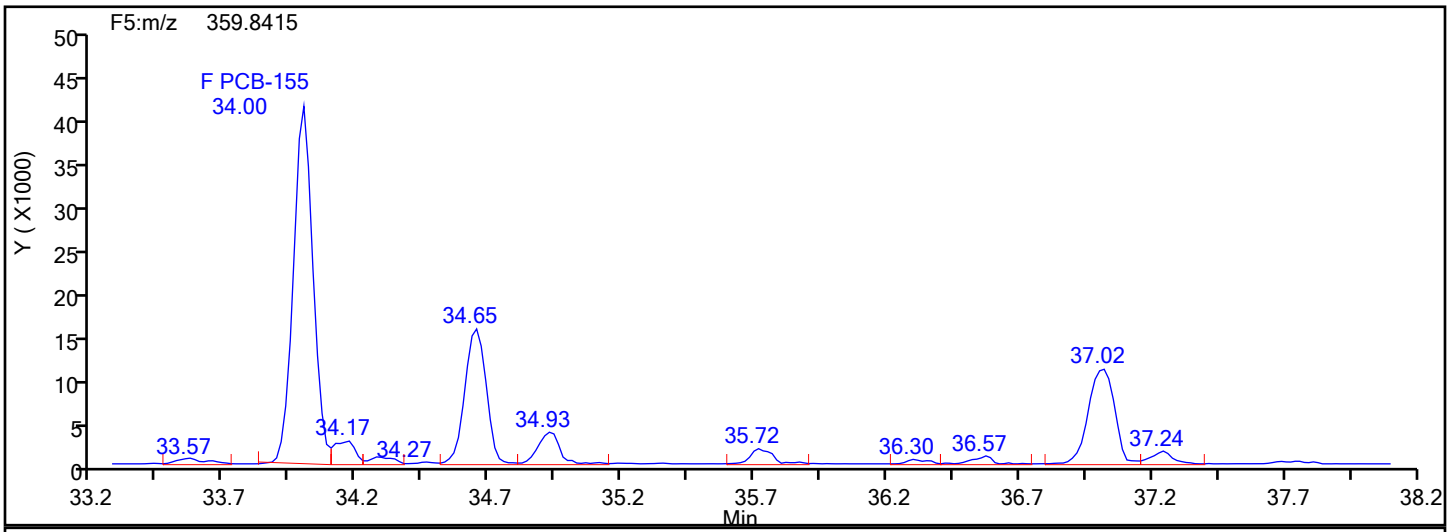
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

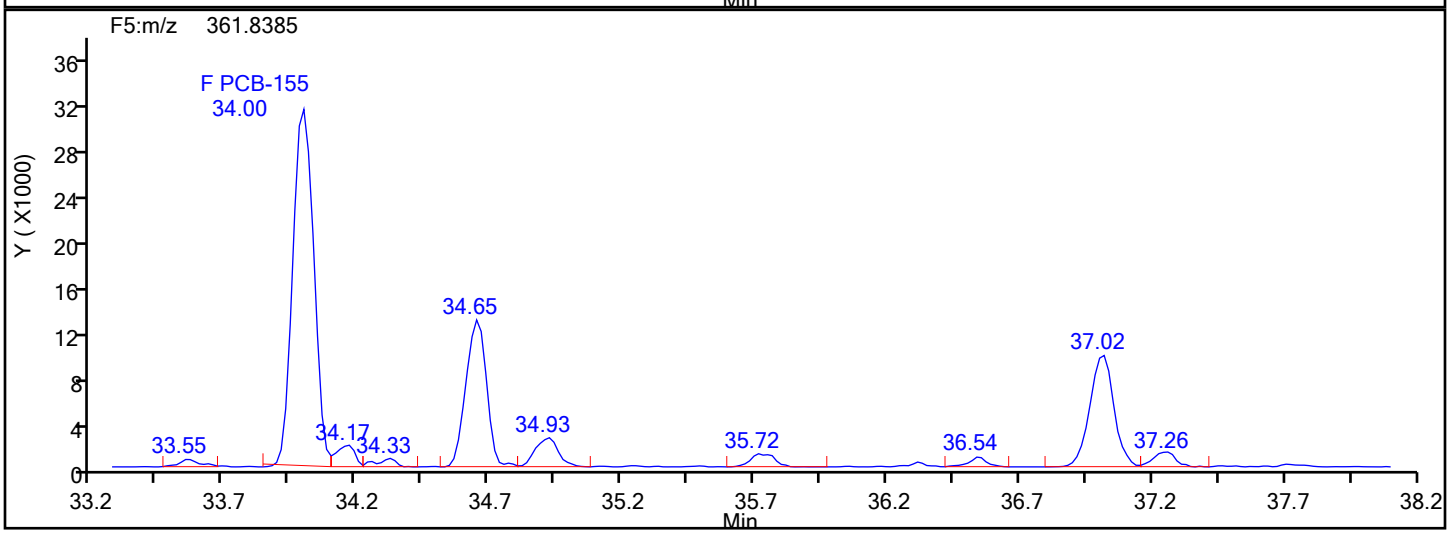
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

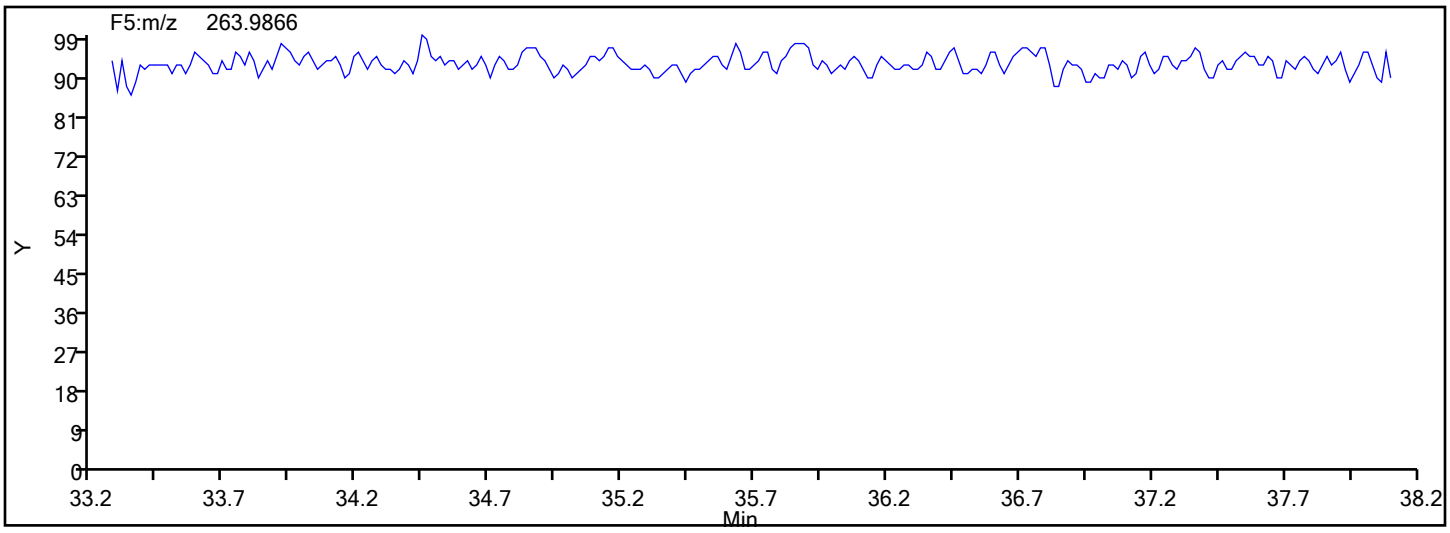
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

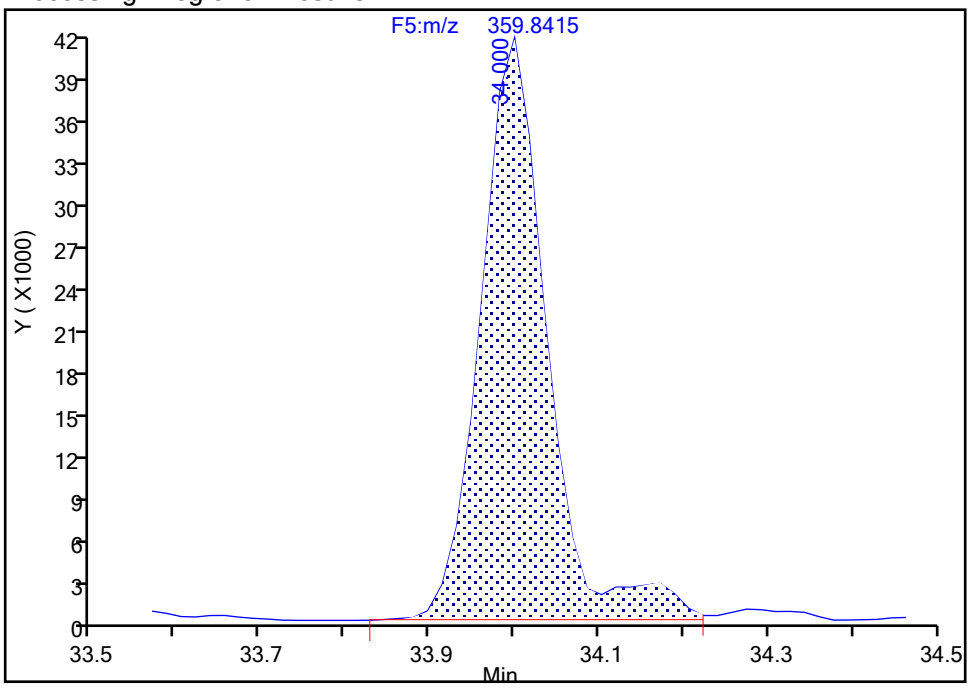
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d				
Injection Date:	30-Mar-2025 19:40:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-5-B	Lab Sample ID:	140-40836-5		
Client ID:	PW-FD-241230				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

PCB-155, CAS: 33979-03-2

Signal: 1

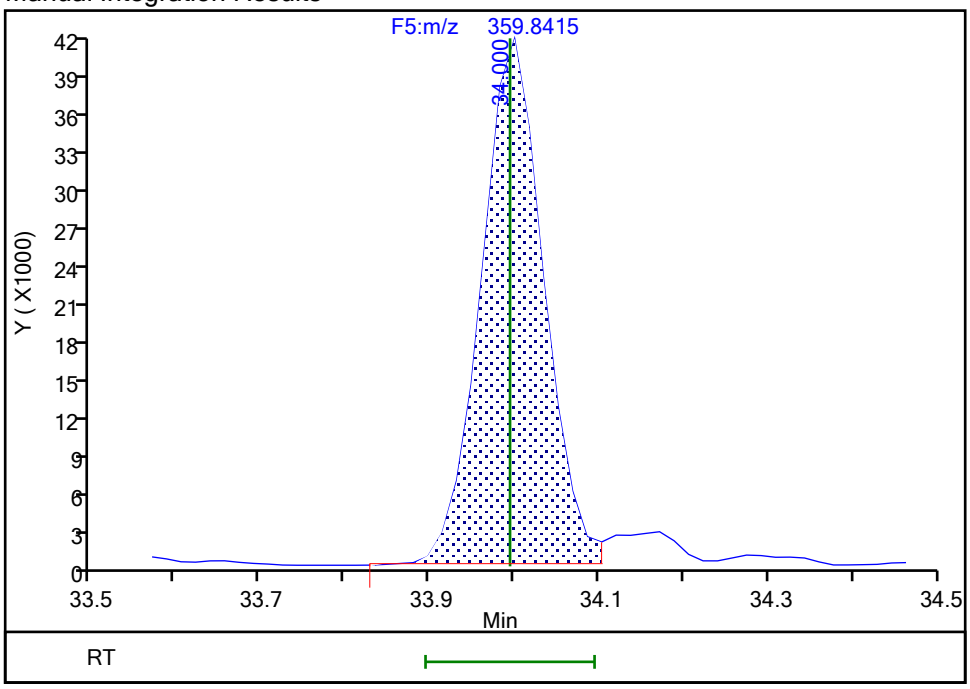
Processing Integration Results

RT: 34.00
Area: 225620
Amount: 22.809153
Amount Units: pg/ul



Manual Integration Results

RT: 34.00
Area: 211812
Amount: 22.015969
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 19:11:57 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

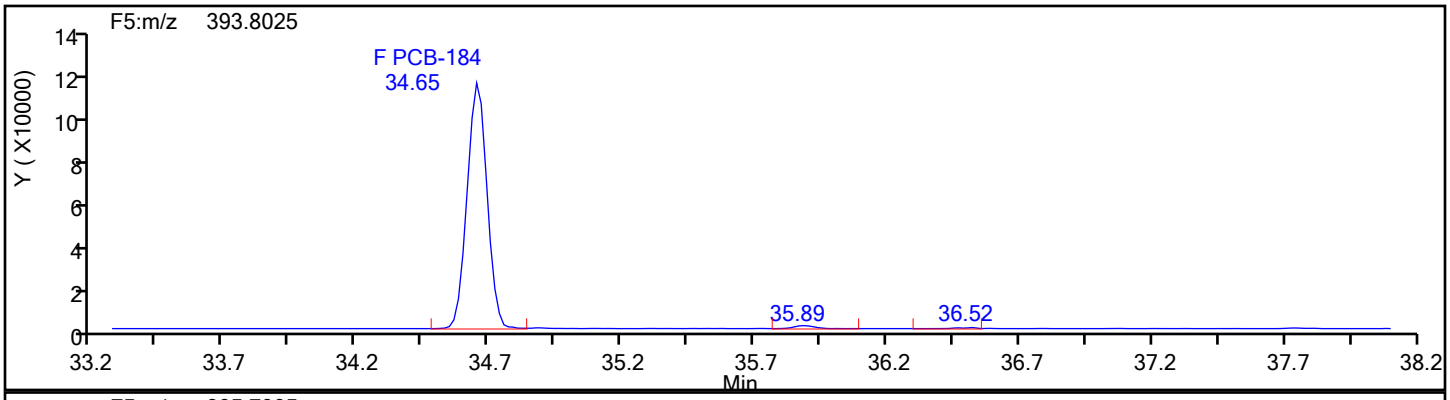
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

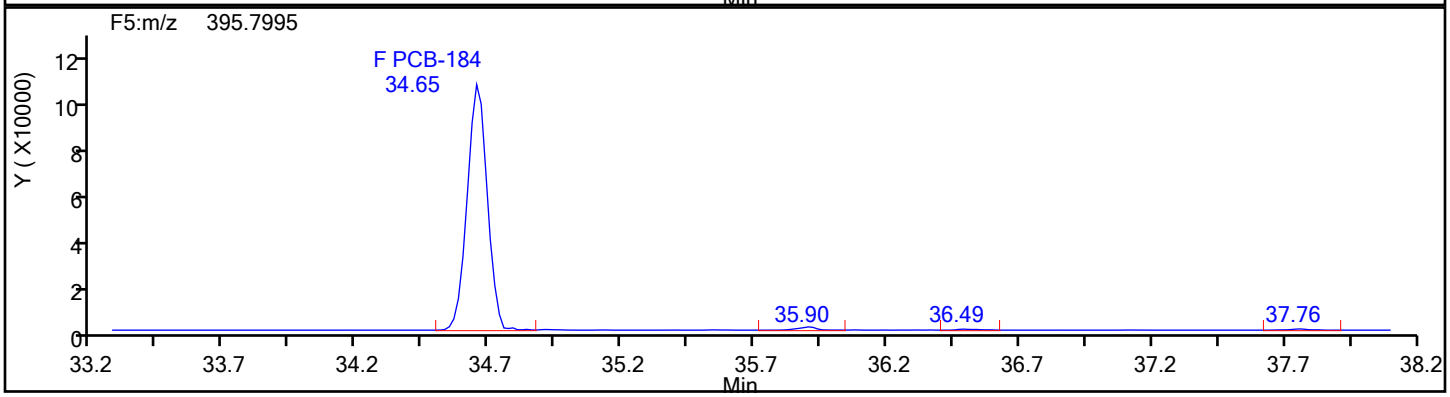
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

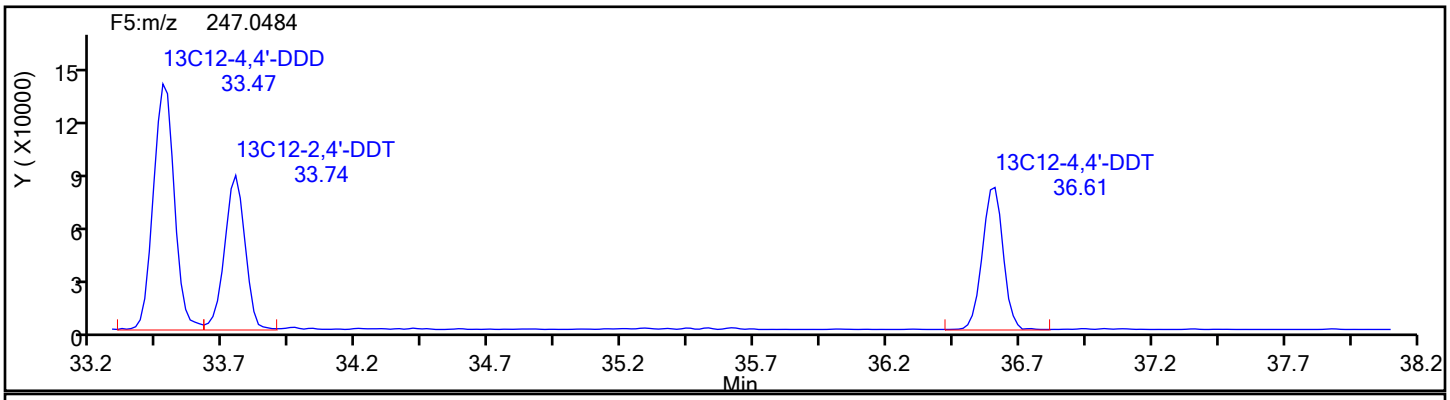
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

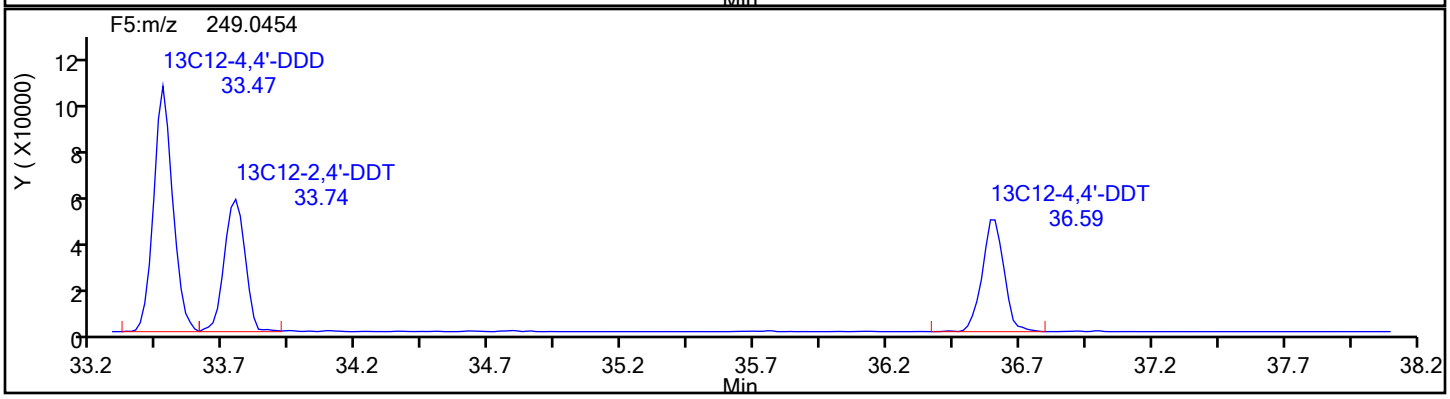
PCB-184





PCB-184 Standards



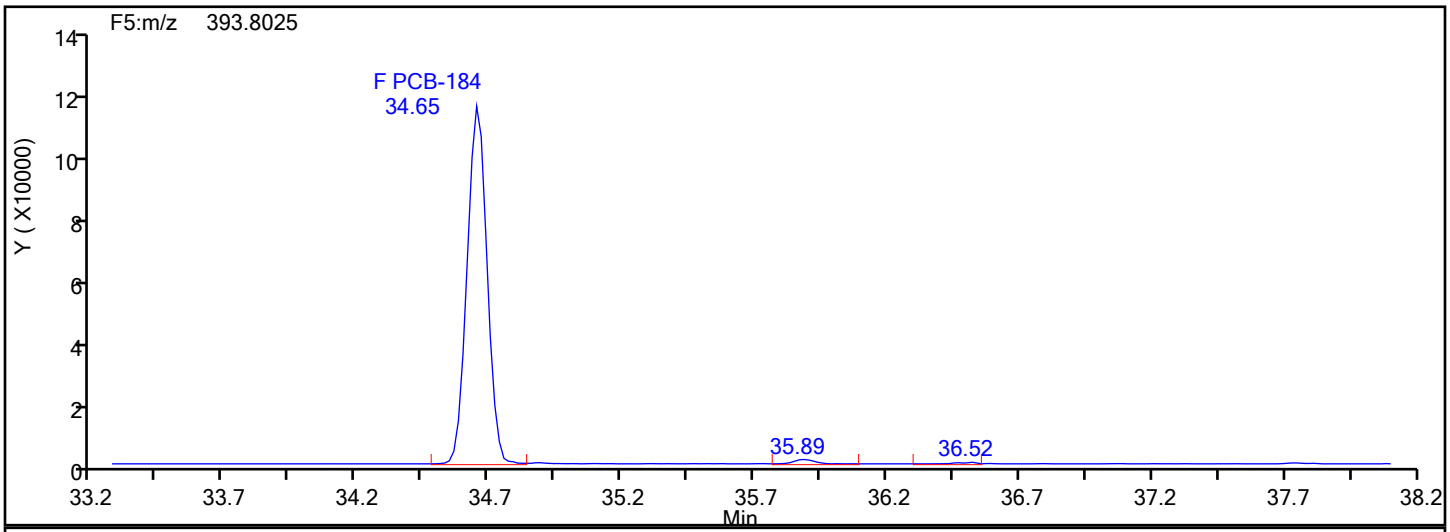


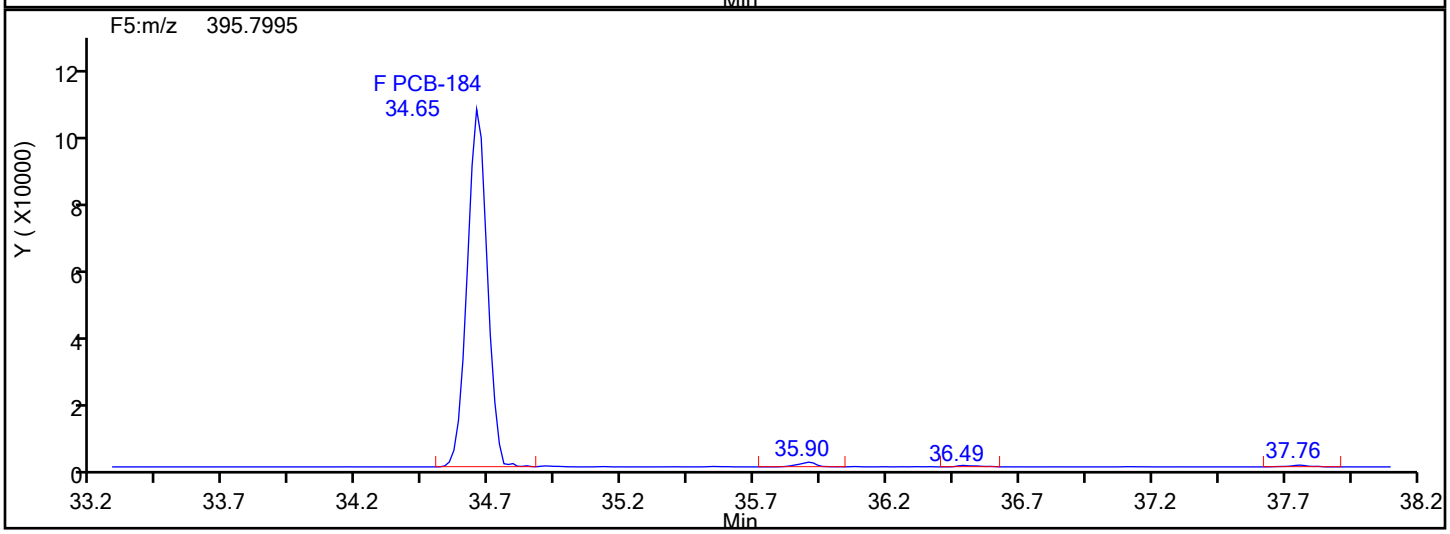
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

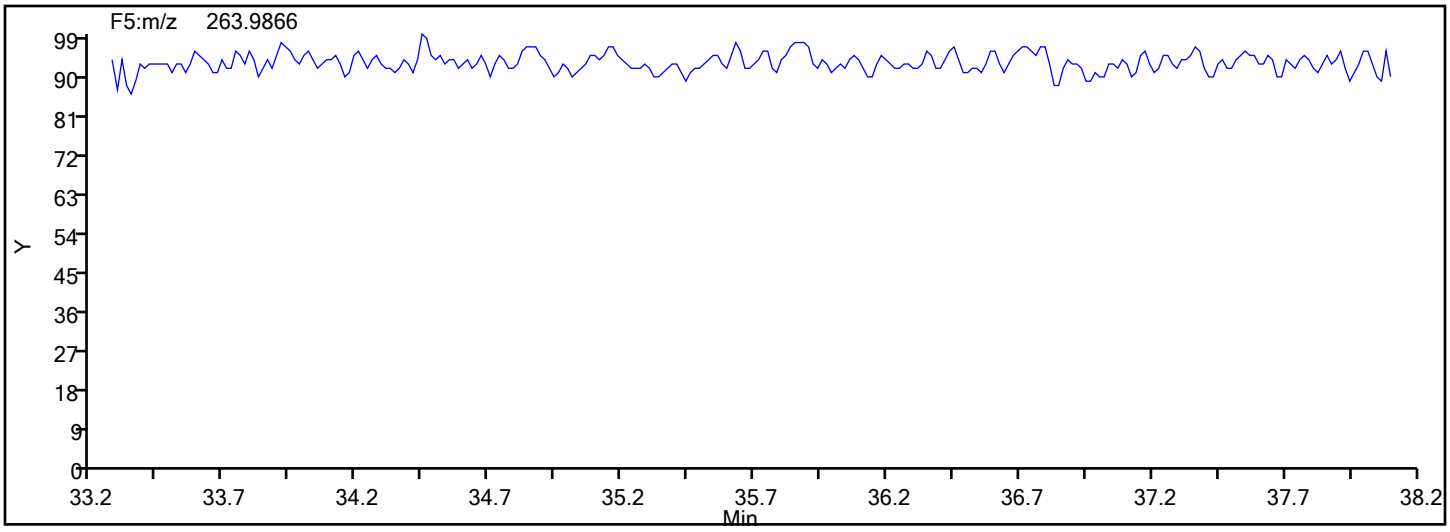
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass

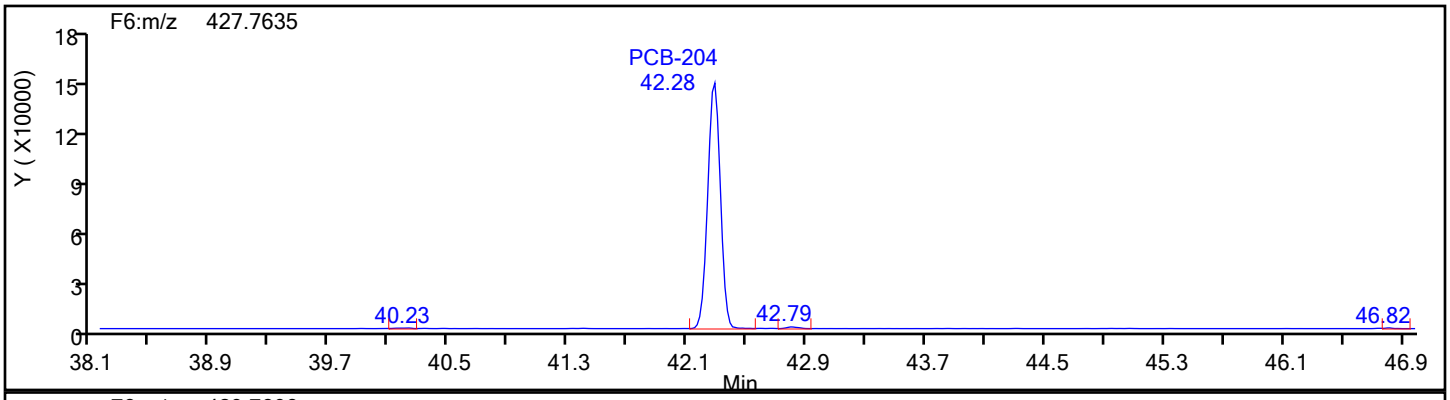


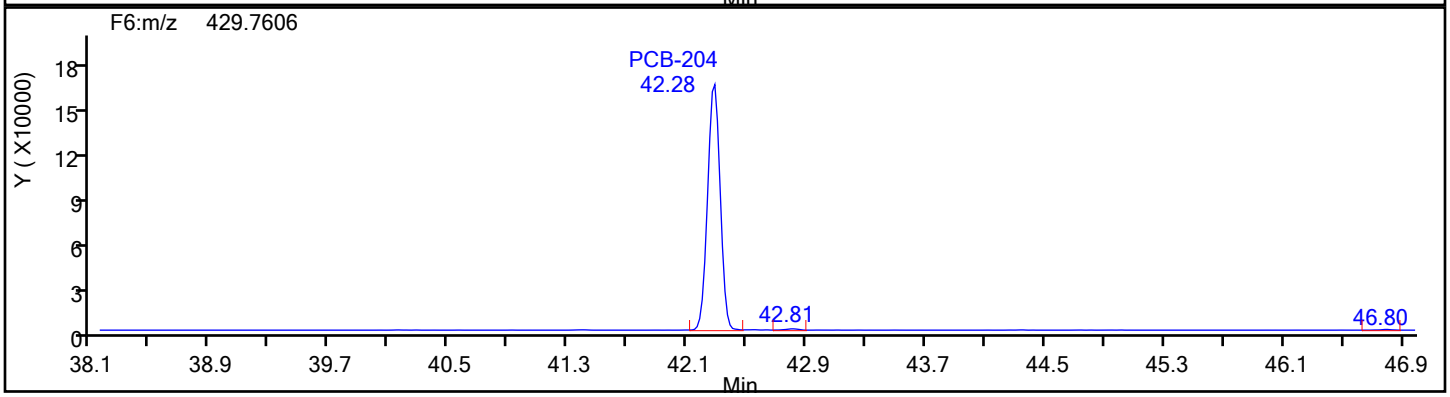
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

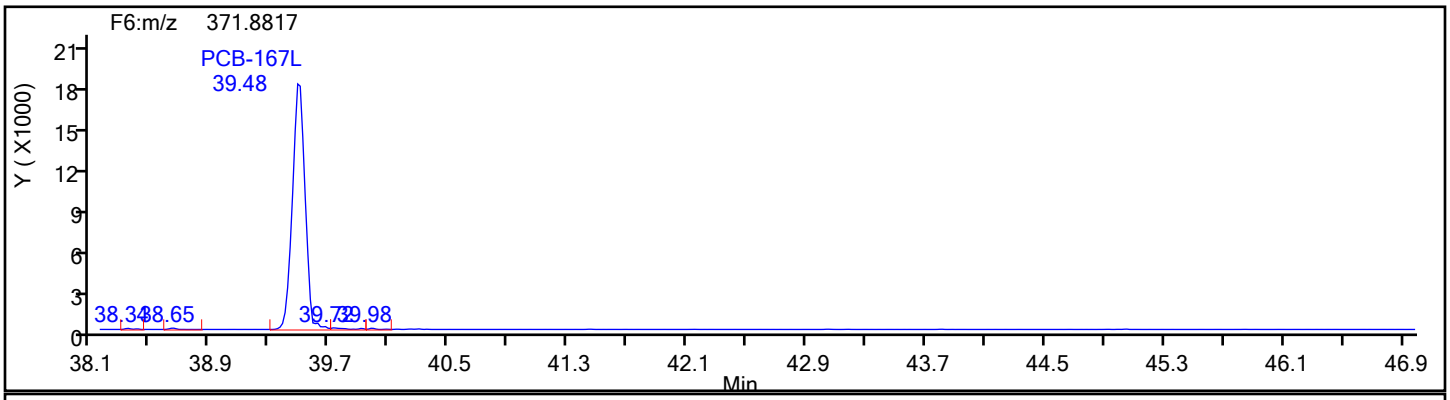
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

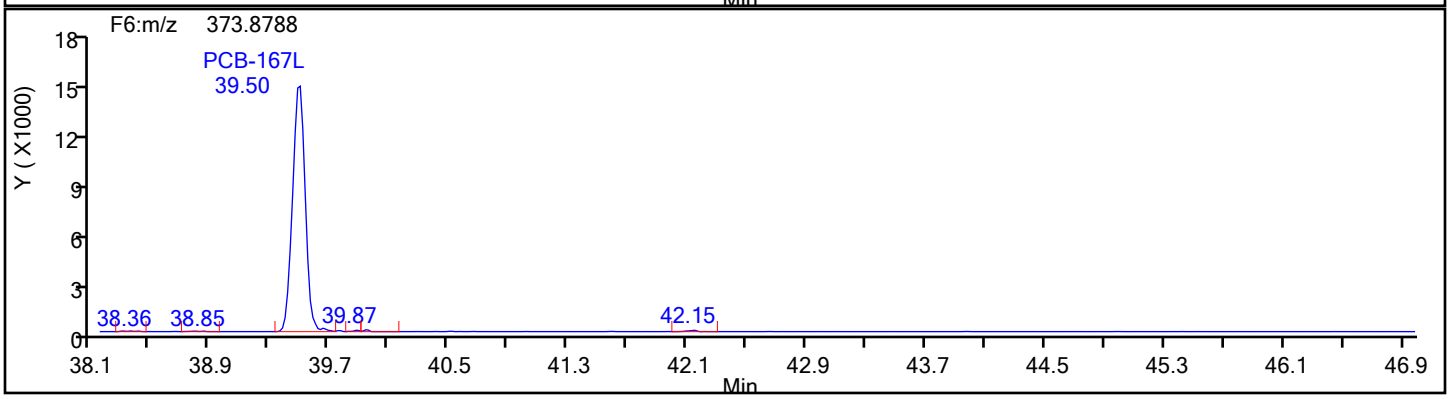
PCB-204





PCB-204 Standards



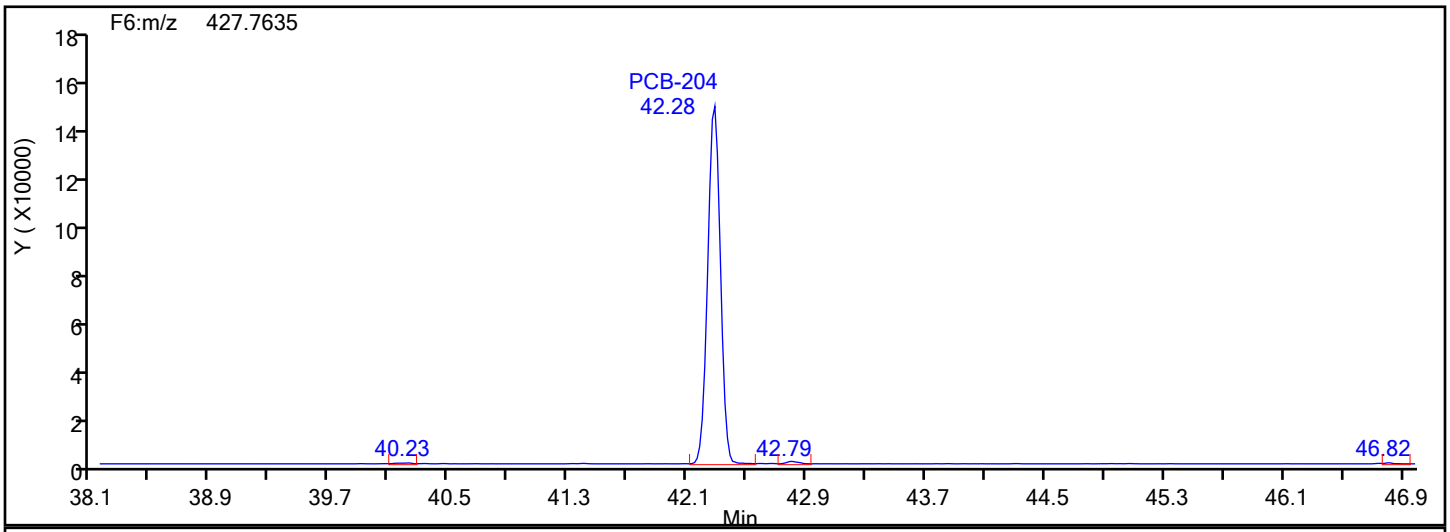


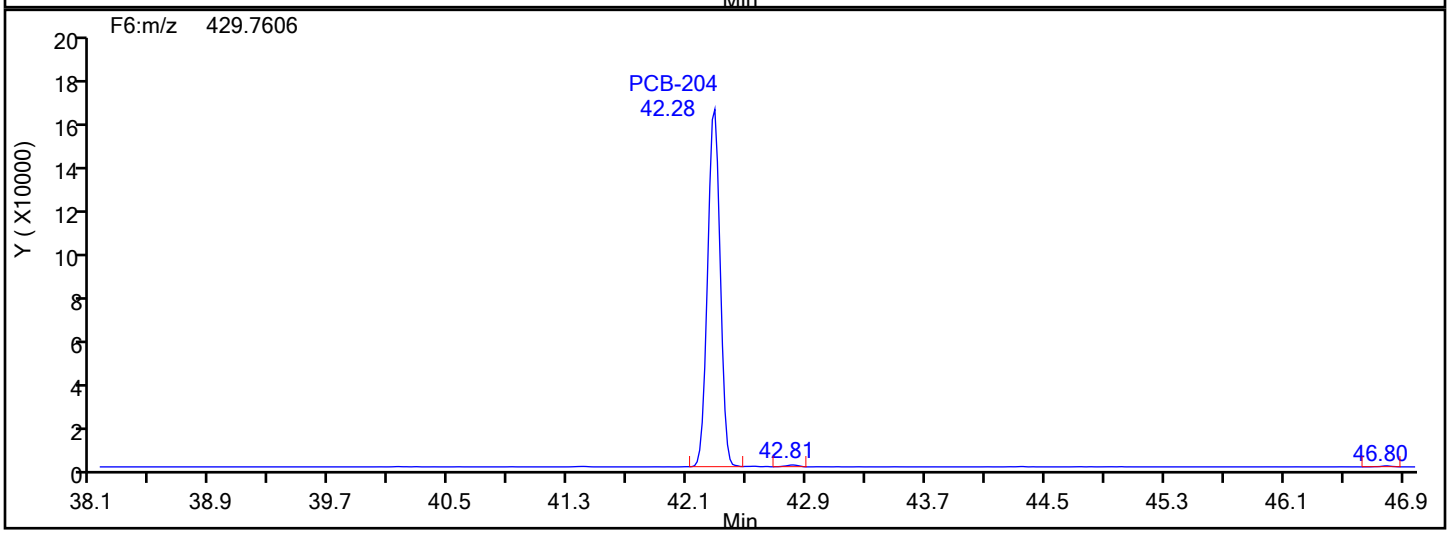
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

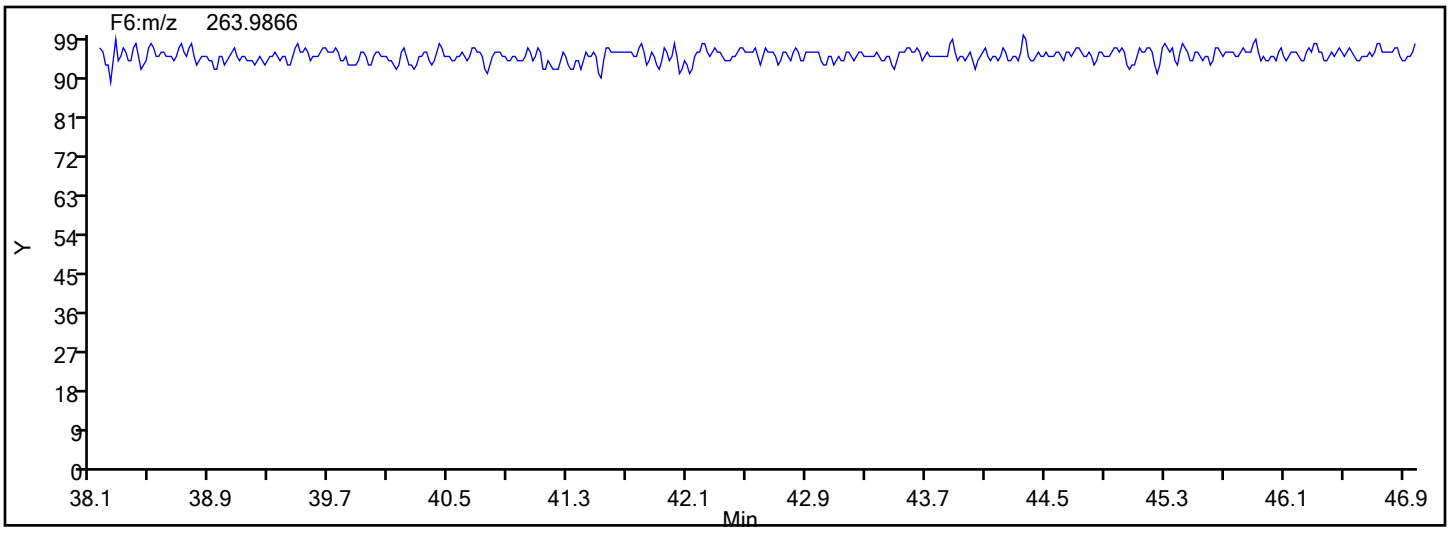
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



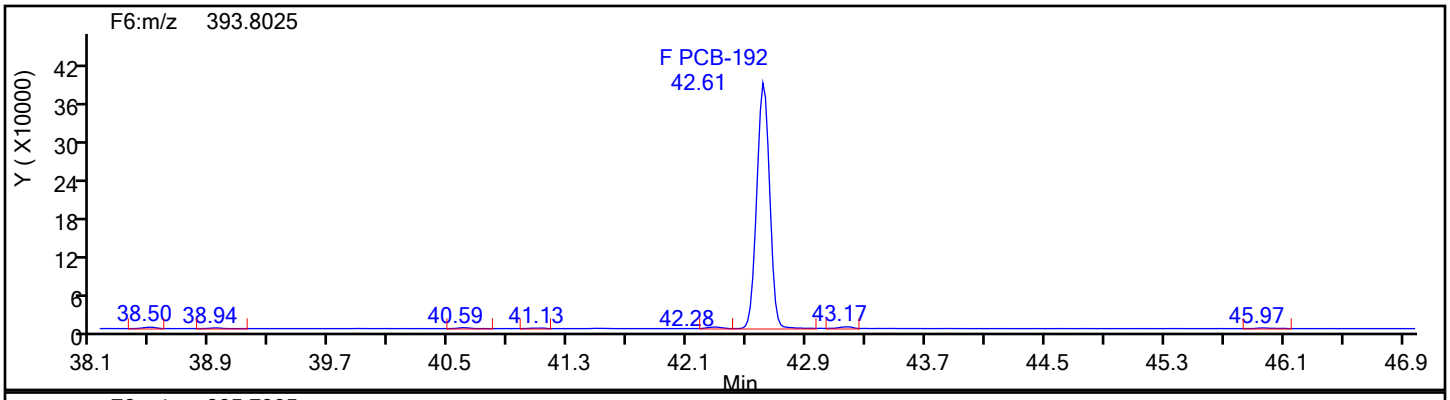
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

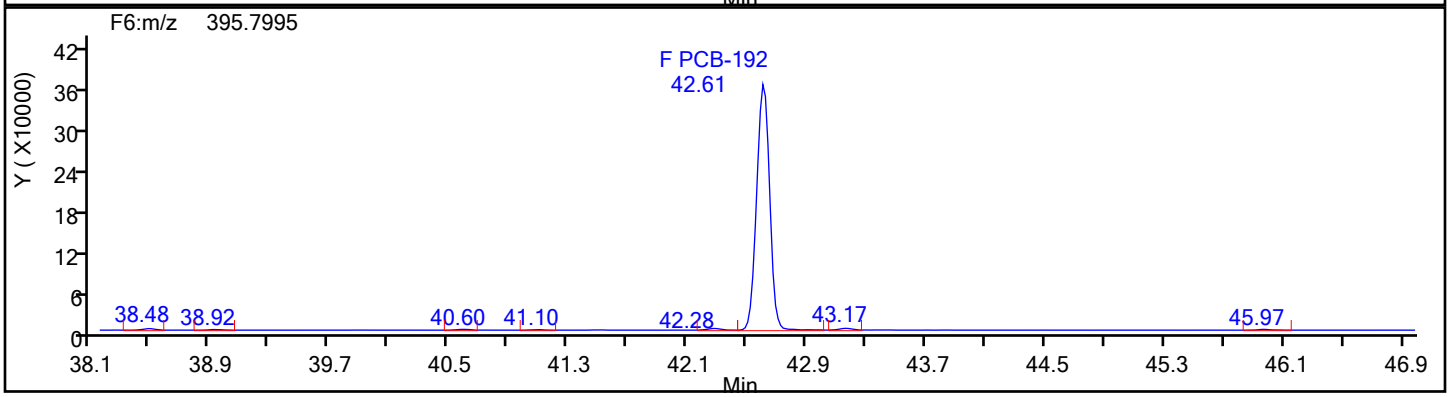
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d

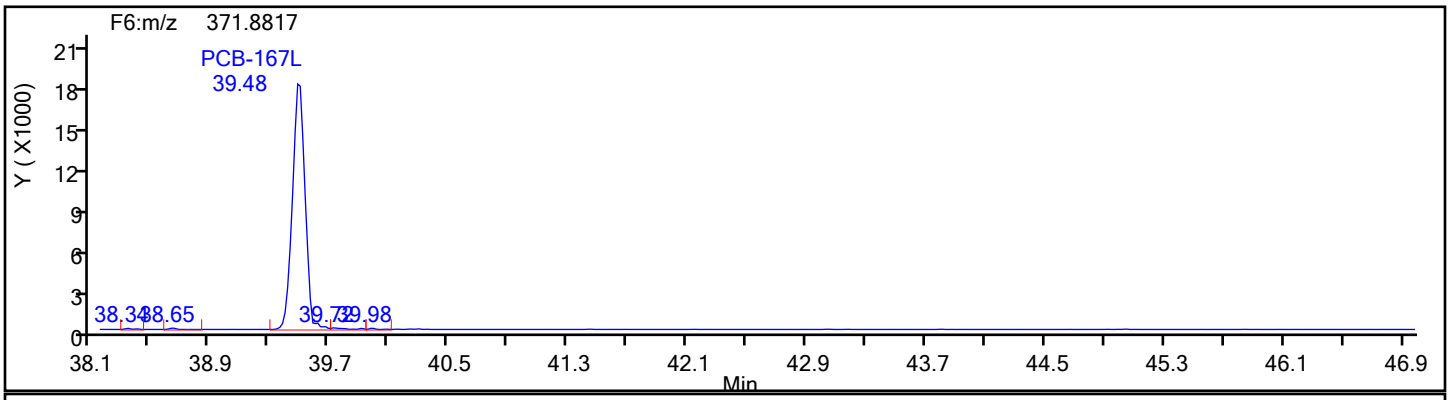
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

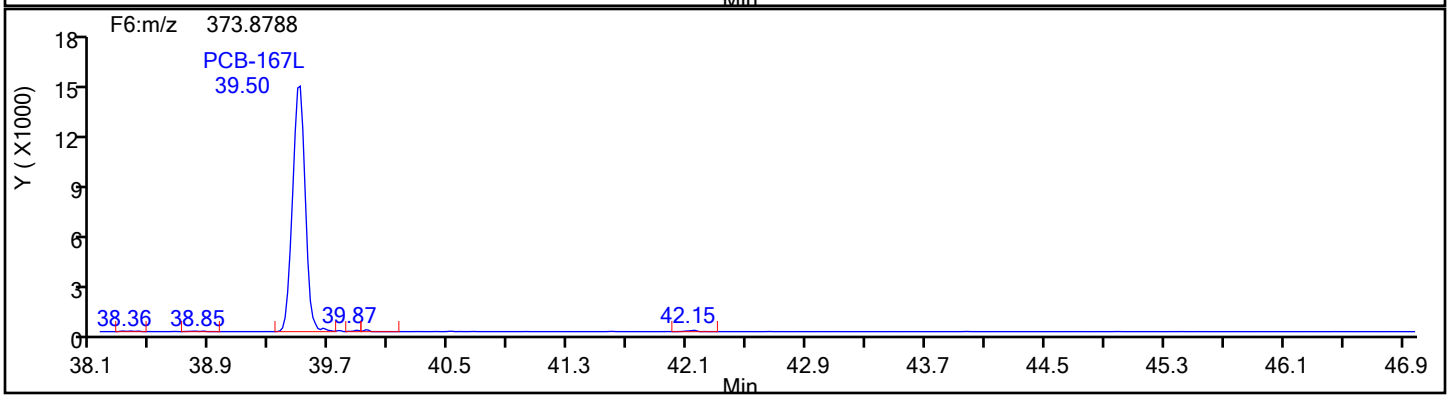
PCB-192





PCB-192 Standards



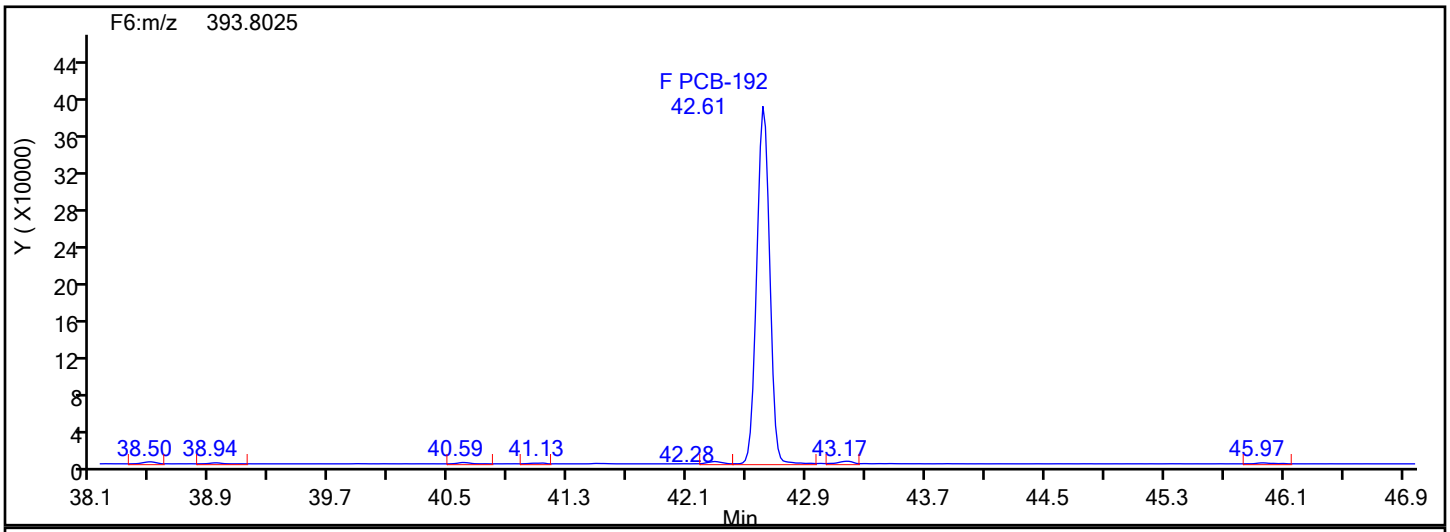


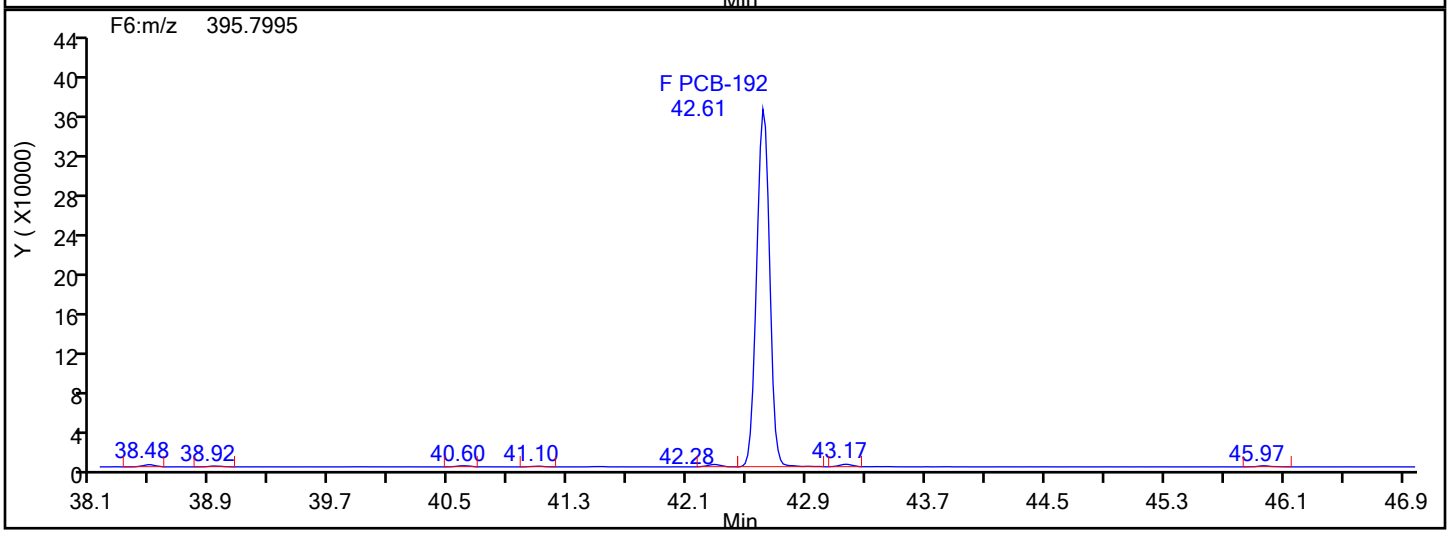
Report Date: 31-Mar-2025 19:12:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

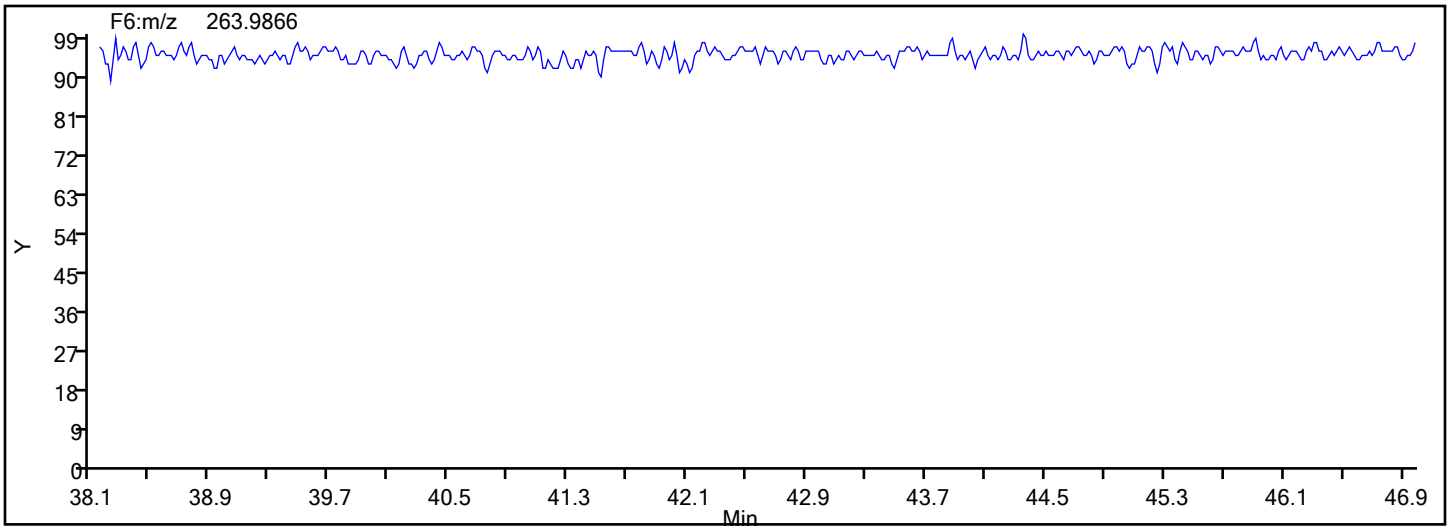
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-5-b10x.d		
Injection Date:	30-Mar-2025 19:40:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-FD-241230		
Worklist#:	97758	Sample Line#:	10
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-TB-241230 | Lab Sample ID: 140-40836-6

Matrix: PE | Lab File ID: 140-40836-a-6-a.d

Analysis Method: 1699 | Date Collected: 12/30/2024 00:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.040(g) | Date Analyzed: 05/04/2025 22:22

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.17	J	25	0.013

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-6-a.d
Lims ID: 140-40836-A-6-B
Client ID: PW-TB-241230
Sample Type: Client
Inject. Date: 04-May-2025 22:22:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	466330	1.68		100.0	100.0				
PCB-14	17:47	4704642	1.59							
* 13C6-Pentachlorophenol (IS)	18:27	13393829	0.68		500.0	500.0				
Pentachlorophenol	18:28	9073	0.82	1.0218	0.3315	0.3315	0.0263	0.0263		
PCB-36	22:07	37199275	1.06							
* PCB-101L	28:04	5693922	1.61		100.0	100.0				
PCB-104	23:41	42063624	1.62							
* PCB-118L	32:44	7849910	1.59		100.0	100.0				
PCB-121	26:40	125568811	1.65							
* PCB-138L	36:55	4500790	1.31		100.0	100.0				
PCB-142	27:27	24176209	1.27							
* PCB-60L	27:41	10540823	0.82		100.0	100.0				
PCB-78	29:18	149941710	0.79							
* PCB-167L	39:24	5044145	1.30		100.0	100.0				
PCB-155	33:55	13974257	1.26							
PCB-184	34:35	27871463	1.06							
PCB-204	42:12	39097872	0.90							
PCB-192	42:33	120033660	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-6-a.d
Lims ID: 140-40836-A-6-B
Client ID: PW-TB-241230
Sample Type: Client
Inject. Date: 04-May-2025 22:22:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		292179	101752	297	742	343		
236.0376	19:02	19:02	0		174151	58752	101	252	582	1.68(1.16-1.93)	
PCB-14											
222.0003	17:47	17:49	-2	0.934	2885984	1076714	42	105	25636		
223.9974	17:47	17:49	-2	0.934	1818658	676344	84	210	8052	1.59(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:28	-1		5398638	1538928	47	117	32743		
271.8636	18:27	18:28	-1		7995191	2280857	70	175	32584	0.68(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.001	4080	967	65	162	15		
265.8435	18:28	18:28	0	1.001	4993	1606	17	42	94	0.82(0.00-0.00)	
PCB-36											
255.9613	22:07	22:10	-2	1.162	19145798	5625395	119	297	47272		
257.9584	22:07	22:10	-2	1.162	18053477	5270954	115	287	45834	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:04	-1		3508287	810305	3	7	270102		
339.9178	28:04	28:04	-1		2185635	507592	1	2	507592	1.61(1.16-1.94)	
PCB-104											
325.8804	23:41	23:43	-2	0.844	26004368	7019003	28	70	250679		
327.8775	23:41	23:43	-2	0.844	16059256	4292980	10	25	429298	1.62(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		4816764	993667	59	147	16842		
339.9178	32:44	32:44	0		3033146	631564	42	105	15037	1.59(1.16-1.94)	
PCB-121											
325.8804	26:40	26:42	-2	0.815	78184782	19882293	825	2062	24100		
327.8775	26:40	26:42	-2	0.815	47384029	11931154	537	1342	22218	1.65(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:55	36:56	0		2549028	467169	25	62	18687		
373.8788	36:55	36:56	0		1951762	357442	32	80	11170	1.31(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	13535693	3152194	140	350	22516		
361.8385	27:27	27:29	-2	0.743	10640516	2475420	113	282	21906	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:41	-1		4752696	1079201	53	132	20362		
303.9597	27:41	27:41	-1		5788127	1310042	53	132	24718	0.82(0.58-0.96)	
PCB-78											
289.9224	29:18	29:18	0	1.058	65983220	15118687	1209	3022	12505		
291.9194	29:18	29:18	0	1.058	83958490	19409717	783	1957	24789	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:24	39:25	-1		2852787	501137	17	42	29479		
373.8788	39:24	39:25	-1		2191358	382204	8	20	47776	1.30(1.16-1.94)	
PCB-155											
359.8415	33:55	33:59	-3	0.861	7791485	1463511	211	527	6936		
361.8385	33:55	33:59	-3	0.861	6182772	1187212	169	422	7025	1.26(1.05-1.43)	
PCB-184											
393.8025	34:35	34:38	-2	0.878	14347527	2743732	75	187	36583		
395.7995	34:35	34:38	-2	0.878	13523936	2582540	77	192	33539	1.06(0.89-1.21)	
PCB-204											
427.7635	42:12	42:15	-2	1.071	18549228	3148589	46	115	68448		
429.7606	42:12	42:15	-2	1.071	20548644	3509896	28	70	125353	0.90(0.76-1.02)	
PCB-192											
393.8025	42:33	42:35	-2	1.080	61531125	10988026	100	250	109880		
395.7995	42:33	42:35	-2	1.080	58502535	10432288	108	270	96595	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

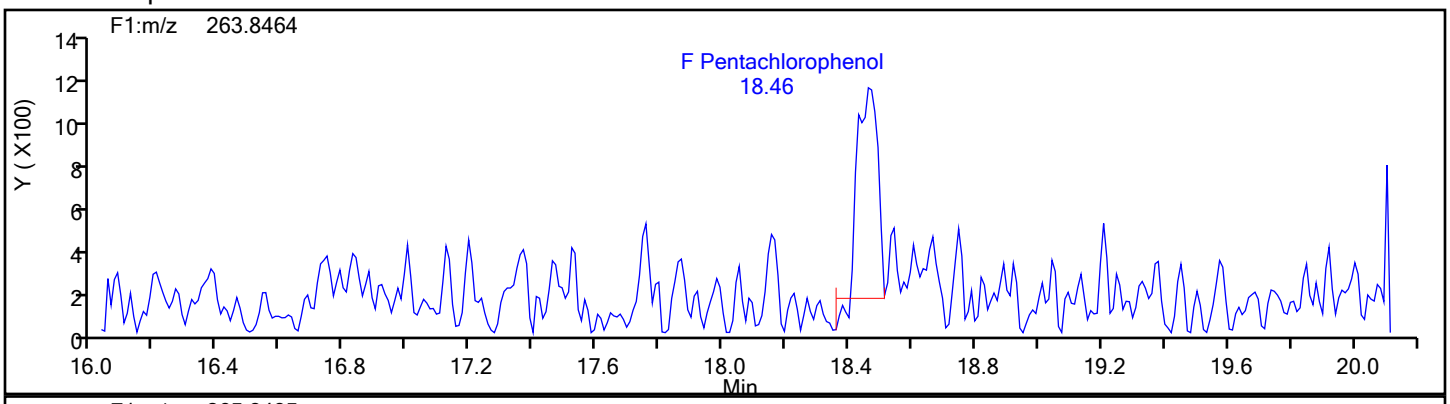
Report Date: 06-May-2025 13:36:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

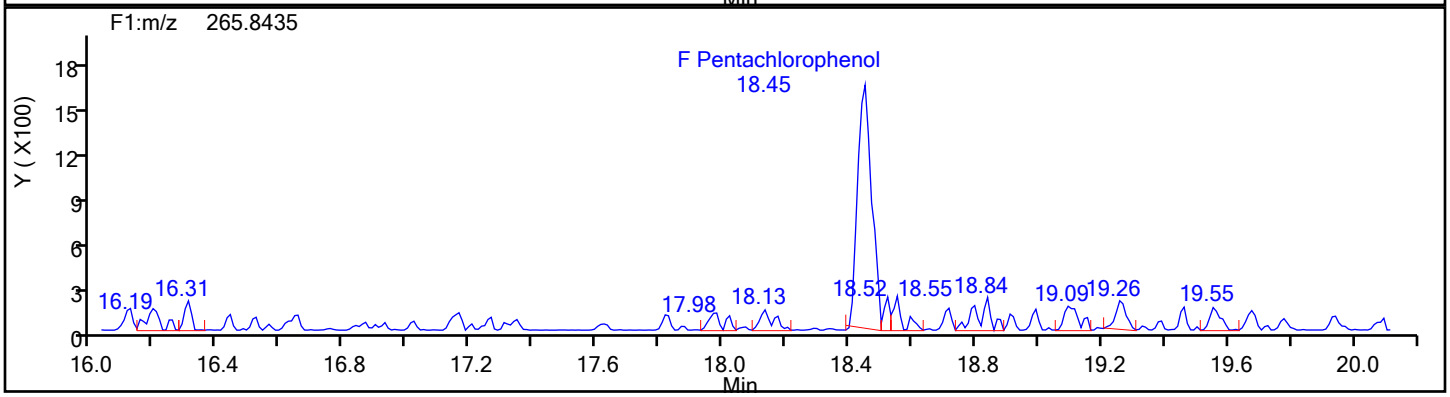
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-6-a.d

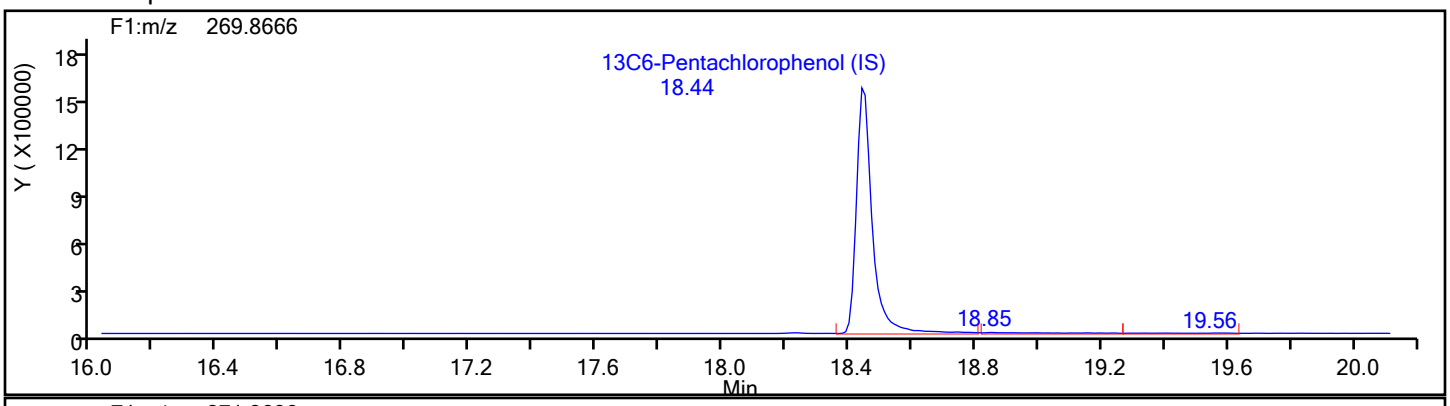
Injection Date:	04-May-2025 22:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	99272	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

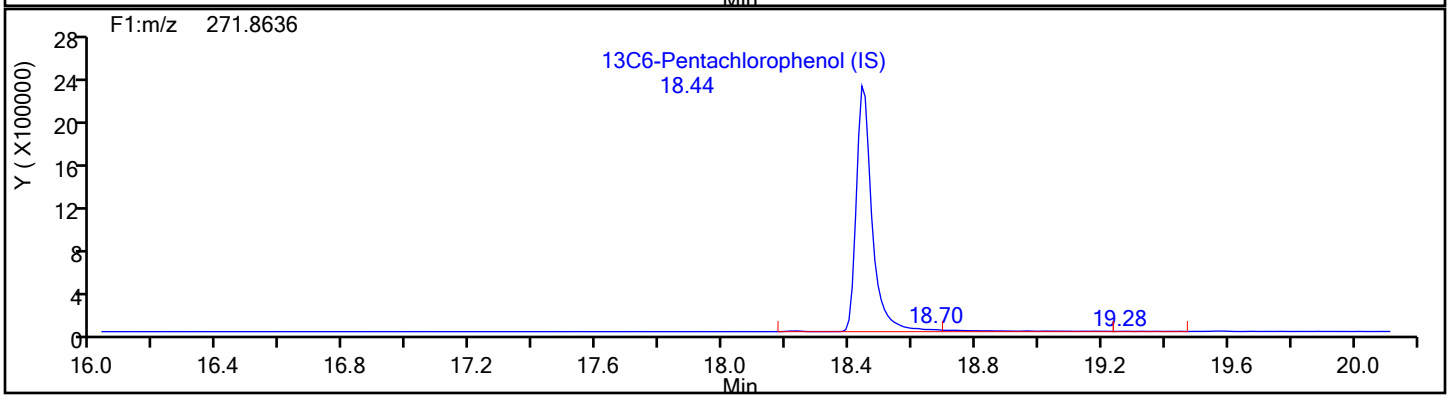
Pentachlorophenol





Pentachlorophenol Standards





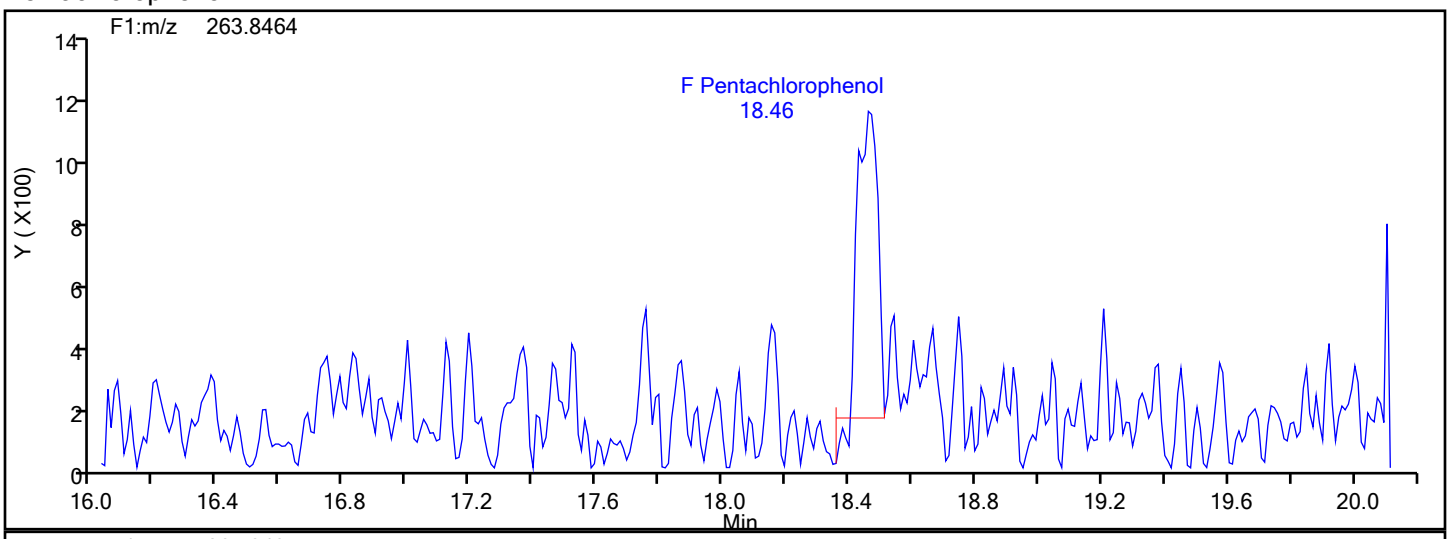
Report Date: 06-May-2025 13:36:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

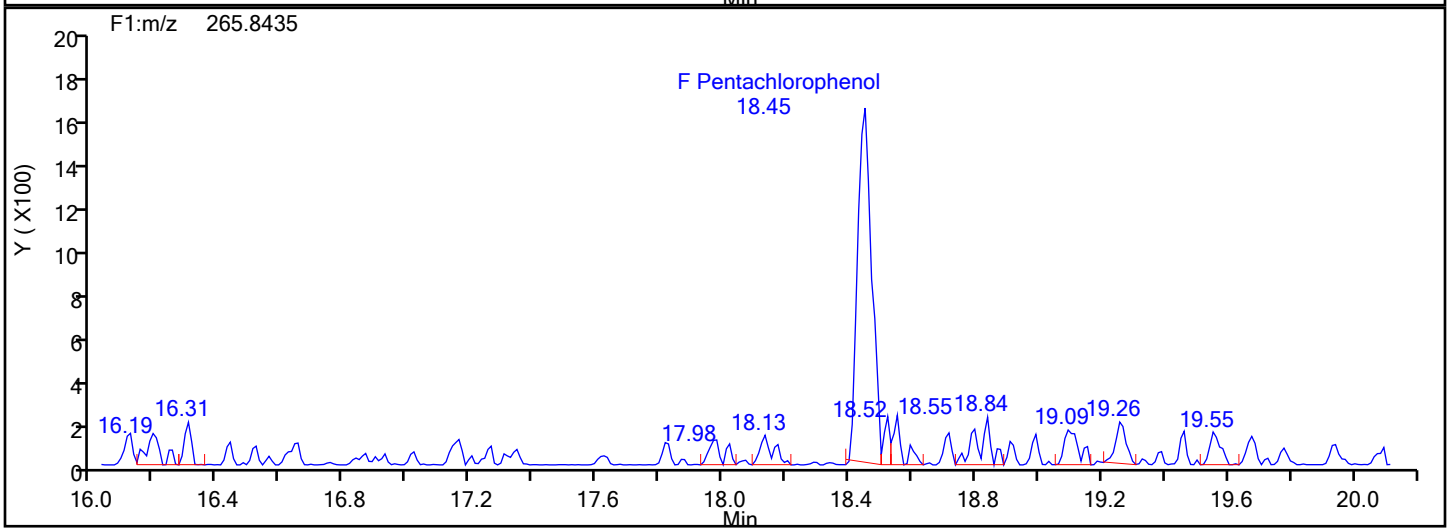
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-6-a.d

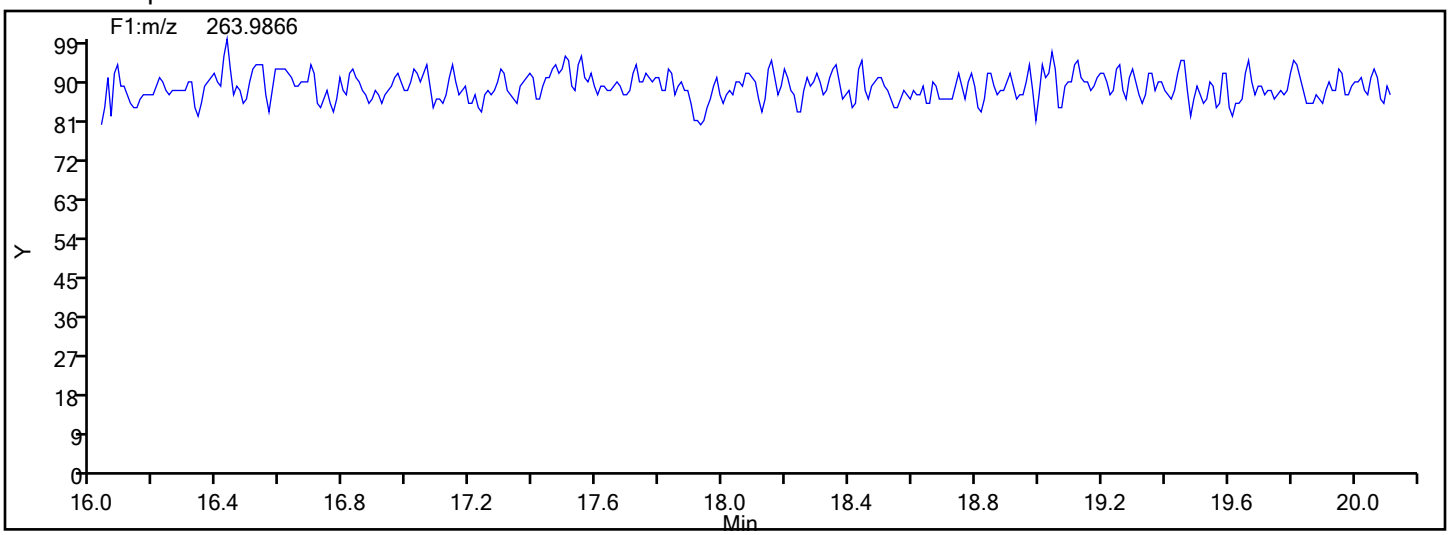
Injection Date:	04-May-2025 22:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	99272	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: PW-TB-241230 | Lab Sample ID: 140-40836-6

Matrix: PE | Lab File ID: 140-40836-a-6-b10x.d

Analysis Method: 1699 | Date Collected: 12/30/2024 00:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.040(g) | Date Analyzed: 03/30/2025 20:35

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	640		25	0.015
74472-51-8	PCB-192	1800	B	25	0.35
74472-48-3	PCB-184	320	B	25	0.020
33979-03-2	PCB-155	170		25	0.30
41411-61-4	PCB-142	210	B	25	0.076
74472-52-9	PCB-204	710	B	25	0.018
56558-16-8	PCB-104	570	B	25	0.0029
56558-18-0	PCB-121	730	B	25	0.18
70362-49-1	PCB-78	510	B	25	0.079
38444-87-0	PCB-36	230		25	0.029

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d
Lims ID: 140-40836-A-6-B
Client ID: PW-TB-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 20:35:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-011
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:06	560608	1.60		10.0	10.0				
PCB-14	17:50	9684228	1.54	1.3581	127.2	127.2	0.003024	0.003024		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	2595709	1.06	1.0230	45.3	45.3	0.005812	0.005812		
* PCB-101L	28:08	221832	1.58		10.0	10.0				
PCB-104	23:45	4682105	1.56	1.8372	114.9	114.9	0.000578	0.000578		
* PCB-118L	32:49	237110	1.56		10.0	10.0				
PCB-121	26:44	5087977	1.61	1.4622	146.8	146.8	0.0364	0.0364		
* PCB-138L	37:01	133633	1.31		10.0	10.0				
PCB-142	27:32	1159718	1.30	2.0271	42.8	42.8	0.0152	0.0152		
* PCB-60L	27:46	344904	0.81		10.0	10.0				
PCB-78	29:23	3218405	0.79	0.9153	101.9	101.9	0.0158	0.0158		
* PCB-167L	39:30	164163	1.24		10.0	10.0				
PCB-155	34:01	501391	1.26	0.9191	33.2	33.2	0.0608	0.0608		
PCB-184	34:40	1224168	1.05	1.1610	64.2	64.2	0.003930	0.003930		
PCB-204	42:18	1713996	0.91	0.7364	141.8	141.8	0.003614	0.003614		
PCB-192	42:38	4534658	1.06	0.7635	361.8	361.8	0.0707	0.0707		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d
Lims ID: 140-40836-A-6-B
Client ID: PW-TB-241230
Sample Type: Client
Inject. Date: 30-Mar-2025 20:35:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-011
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:06	19:05	1		344589	100891	5	12	20178		
236.0376	19:06	19:05	1		216019	62246	1	2	62246	1.60(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	1	0.934	5878062	2046392	18	45	113688		
223.9974	17:50	17:50	1	0.934	3806166	1354067	9	22	150452	1.54(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						41	102			
265.8435	18:31						7	17			
PCB-36											
255.9613	22:11	22:10	1	1.162	1334674	348406	19	47	18337		
257.9584	22:11	22:10	1	1.162	1261035	326447	20	50	16322	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	1		135818	29272	1	2	29272		
339.9178	28:08	28:08	1		86014	17804	1	2	17804	1.58(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	0	0.844	2854220	719368	1	2	719368		
327.8775	23:45	23:45	0	0.844	1827885	470838	1	2	470838	1.56(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	1		144633	27747	1	2	27747		
339.9178	32:49	32:48	1		92477	16773	1	2	16773	1.56(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	1	0.815	3140399	719633	58	145	12407		
327.8775	26:44	26:44	1	0.815	1947578	449509	37	92	12149	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	37:01	37:00	1		75790	13128	1	2	13128		
373.8788	37:01	37:00	1		57843	9586	1	2	9586	1.31(1.16-1.94)	
PCB-142											
359.8415	27:32	27:31	1	0.743	655575	149354	15	37	9957		
361.8385	27:32	27:31	1	0.743	504143	111791	13	32	8599	1.30(1.05-1.43)	
PCB-60L											
301.9626	27:46	27:45	1		154491	32964	1	2	32964		
303.9597	27:46	27:45	1		190413	39692	1	2	39692	0.81(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	1	1.058	1419435	274215	22	55	12464		
291.9194	29:23	29:23	1	1.058	1798970	352329	20	50	17616	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:30	39:30	0		90813	15380	2	5	7690		
373.8788	39:30	39:30	0		73350	10921	1	2	10921	1.24(1.16-1.94)	
PCB-155											
359.8415	34:01	34:00	1	0.861	279746	53266	32	80	1665		
361.8385	34:01	34:00	1	0.861	221645	40537	27	67	1501	1.26(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	0	0.878	625981	120986	3	7	40329		
395.7995	34:40	34:40	0	0.878	598187	113884	2	5	56942	1.05(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.071	815958	137404	1	2	137404		
429.7606	42:18	42:18	0	1.071	898038	149507	2	5	74754	0.91(0.76-1.02)	
PCB-192											
393.8025	42:38	42:37	0	1.079	2329181	391966	28	70	13999		
395.7995	42:38	42:37	0	1.079	2205477	367061	29	72	12657	1.06(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

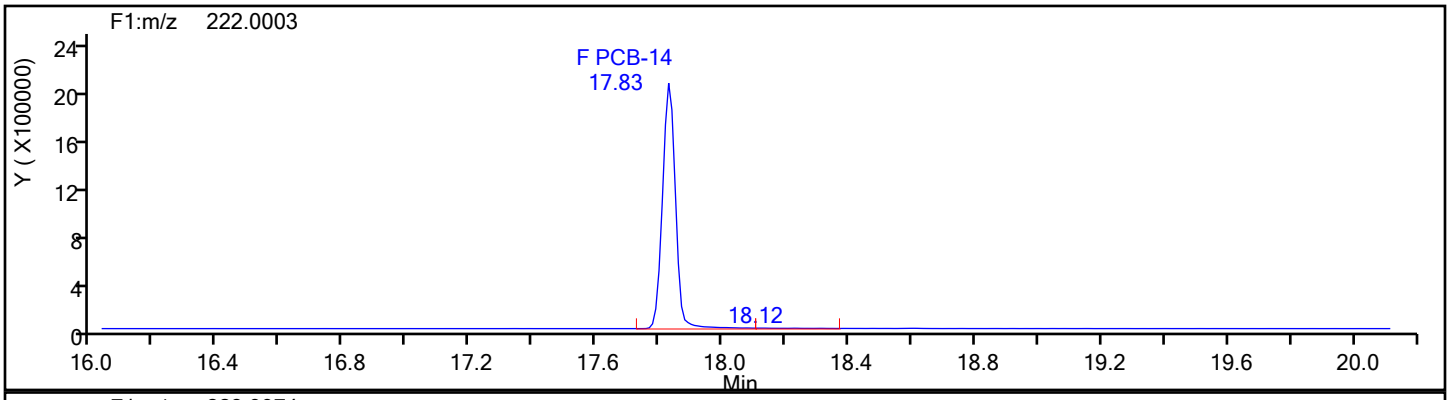
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

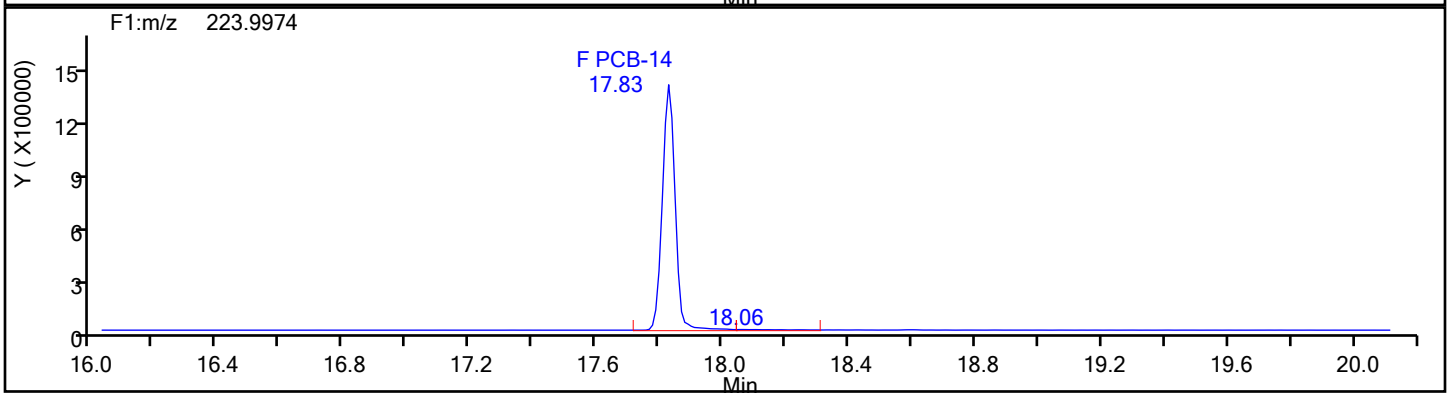
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

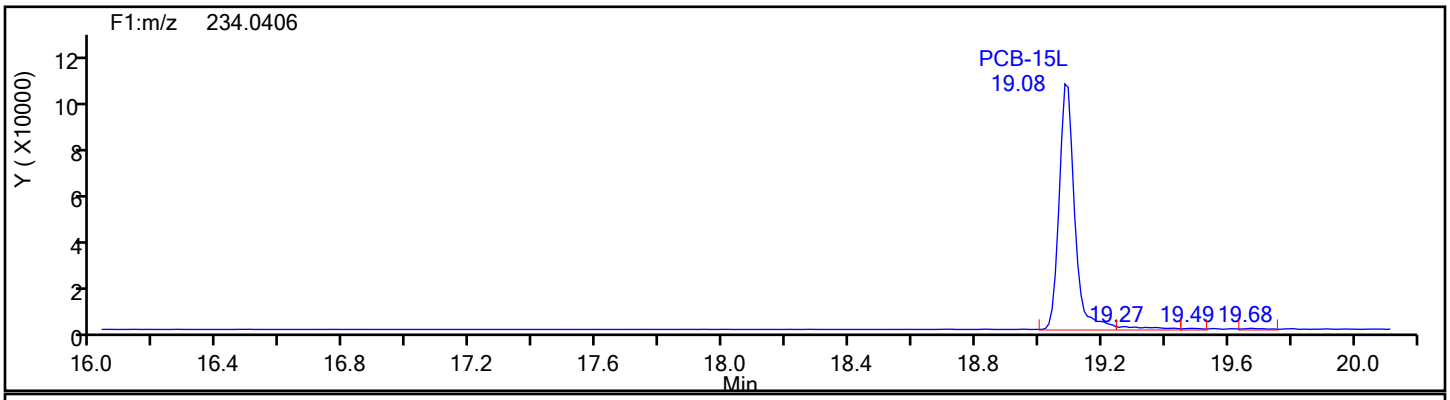
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

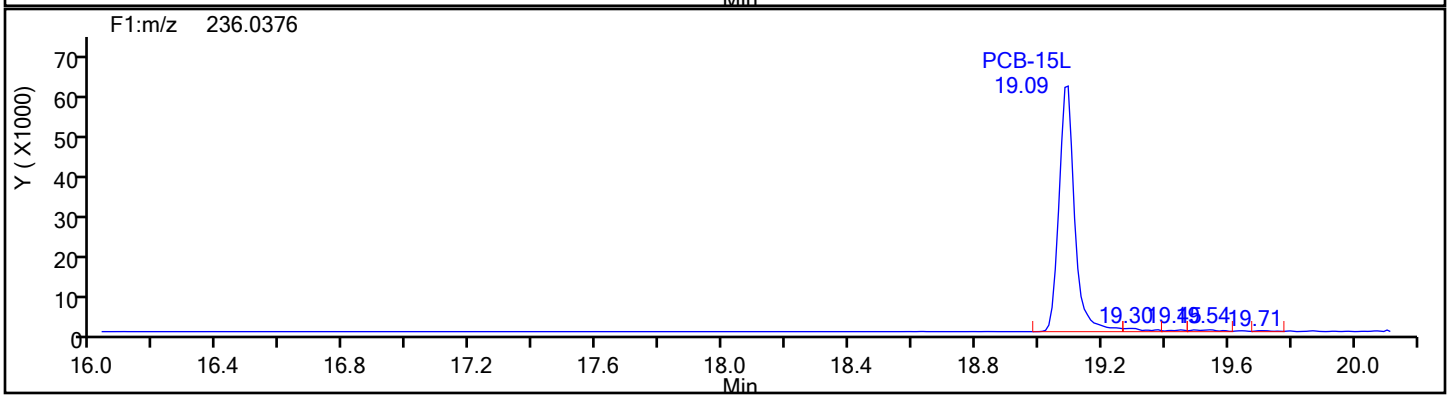
PCB-14





PCB-14 Standards



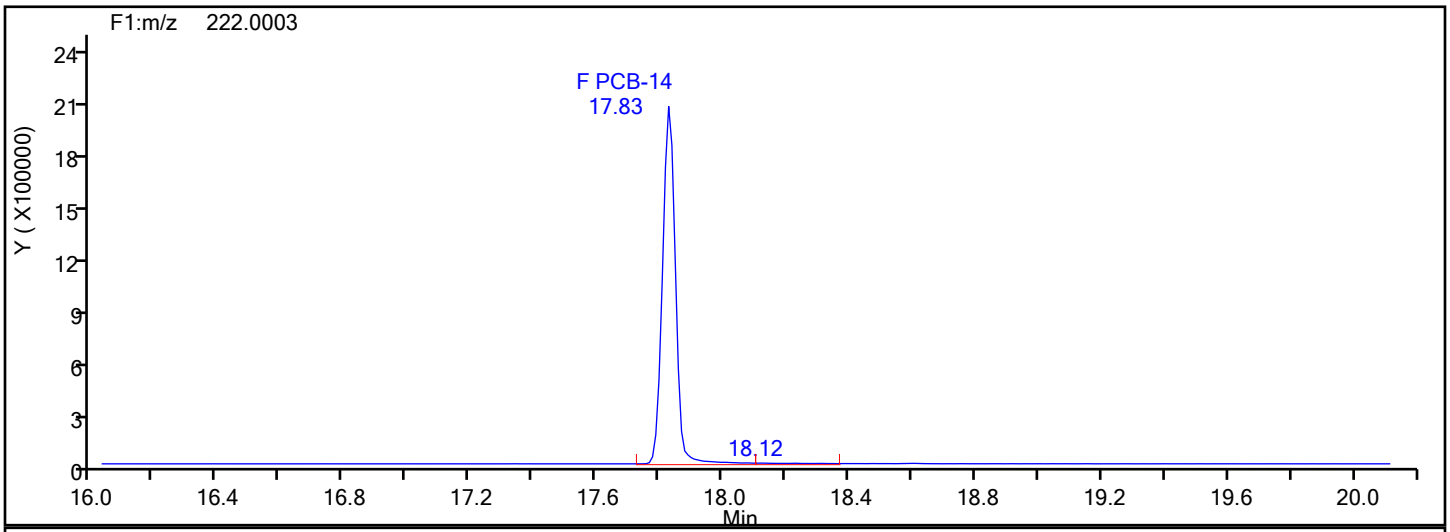


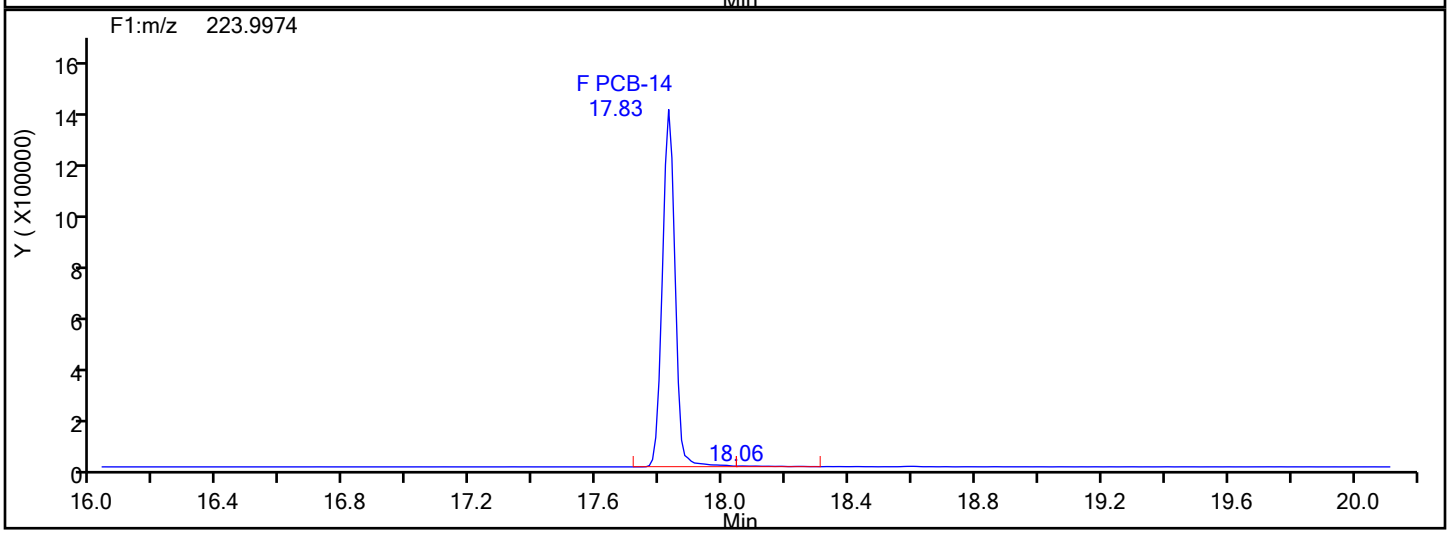
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

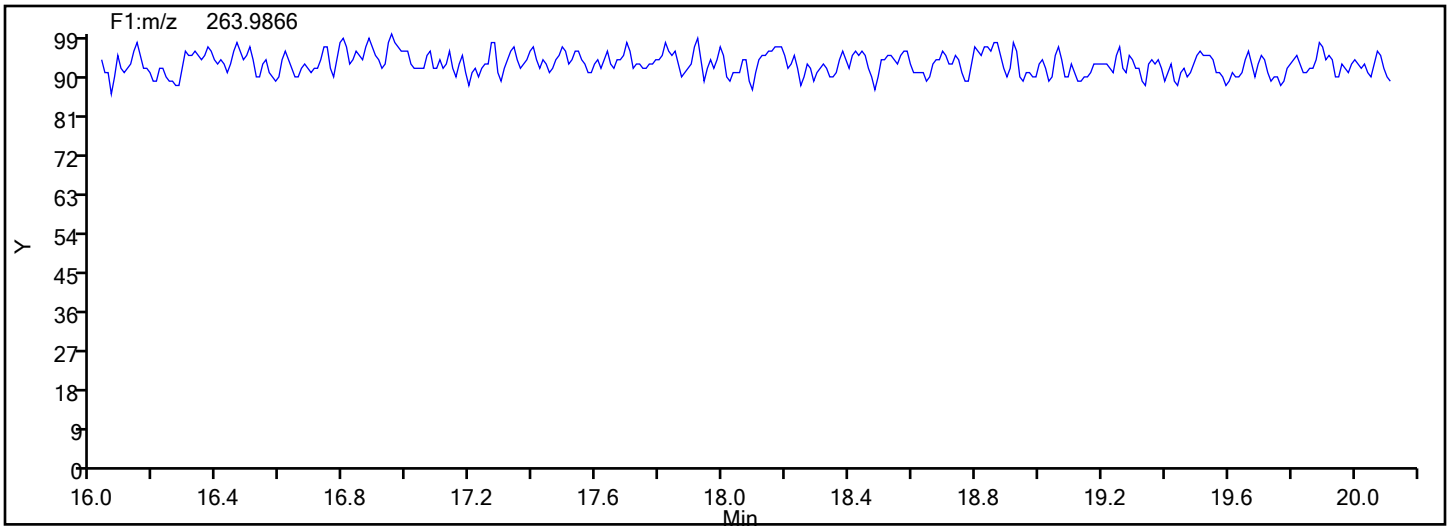
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



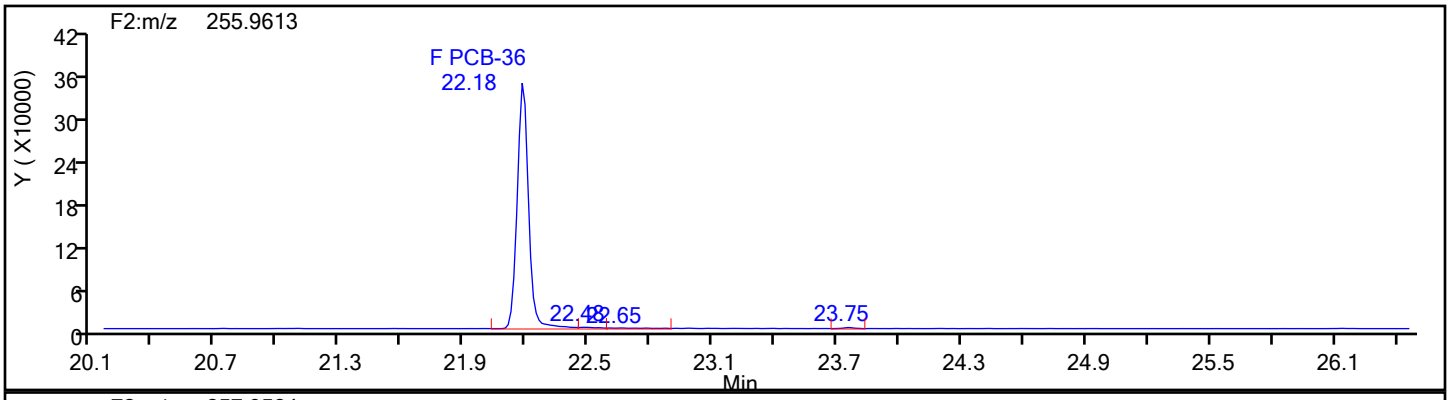
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

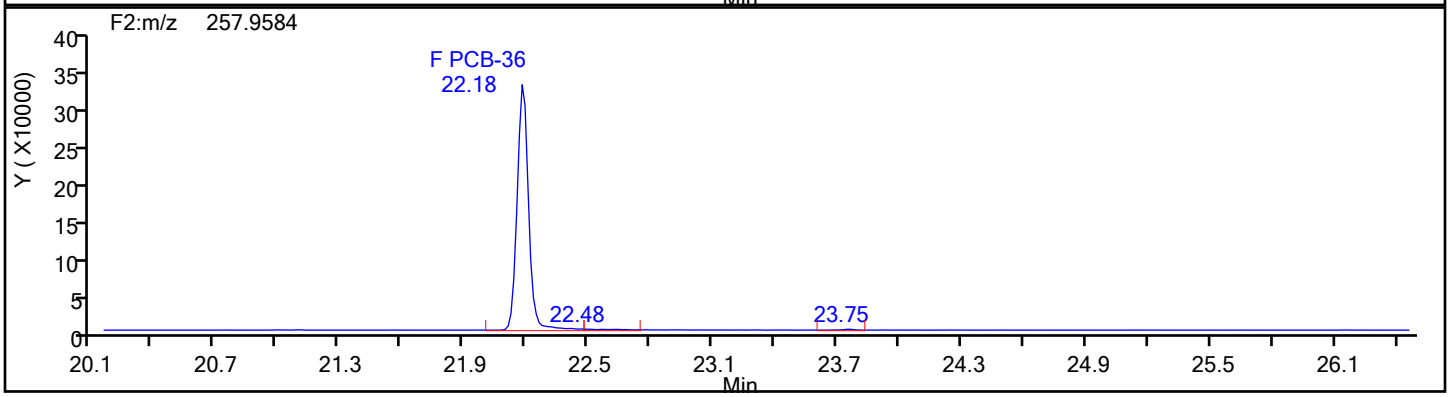
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

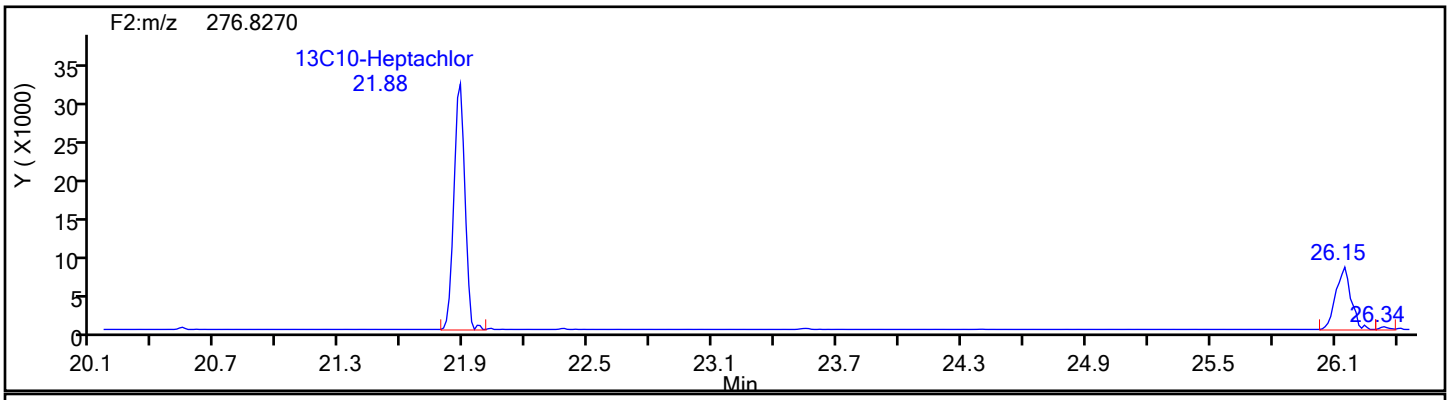
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

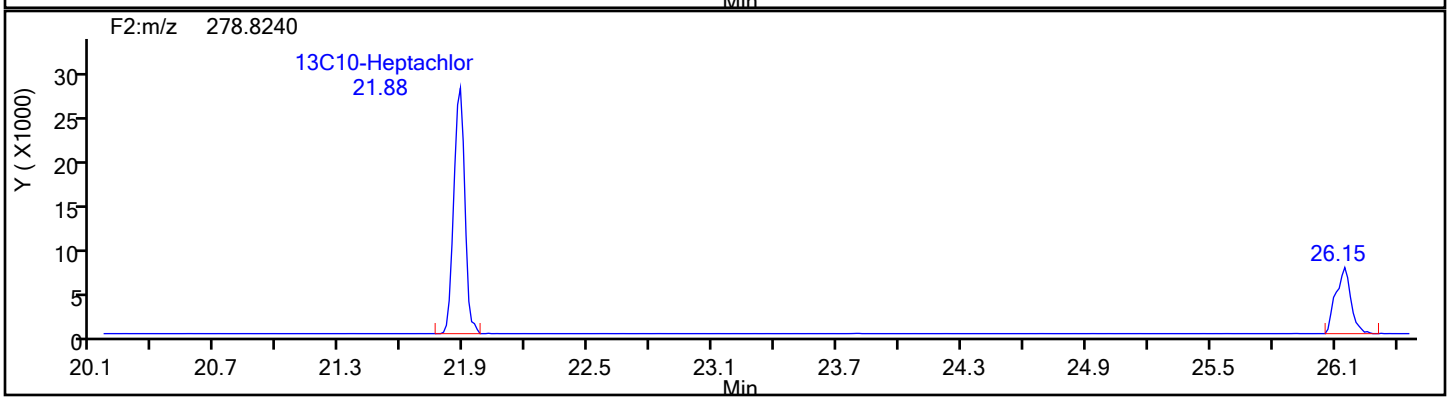
PCB-36





PCB-36 Standards



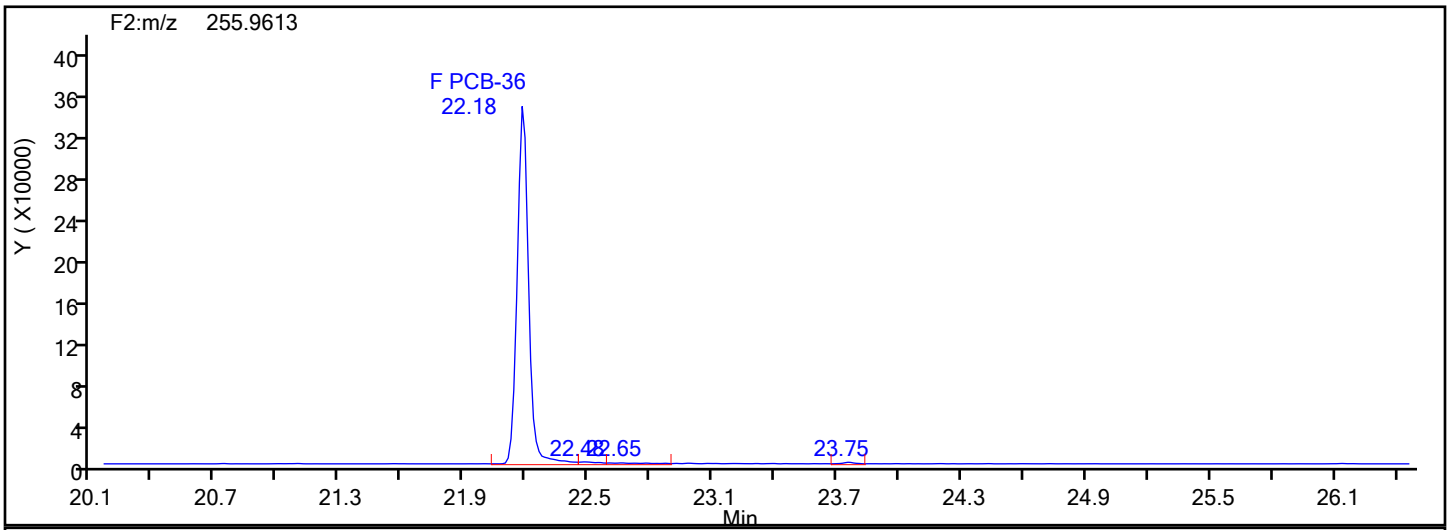


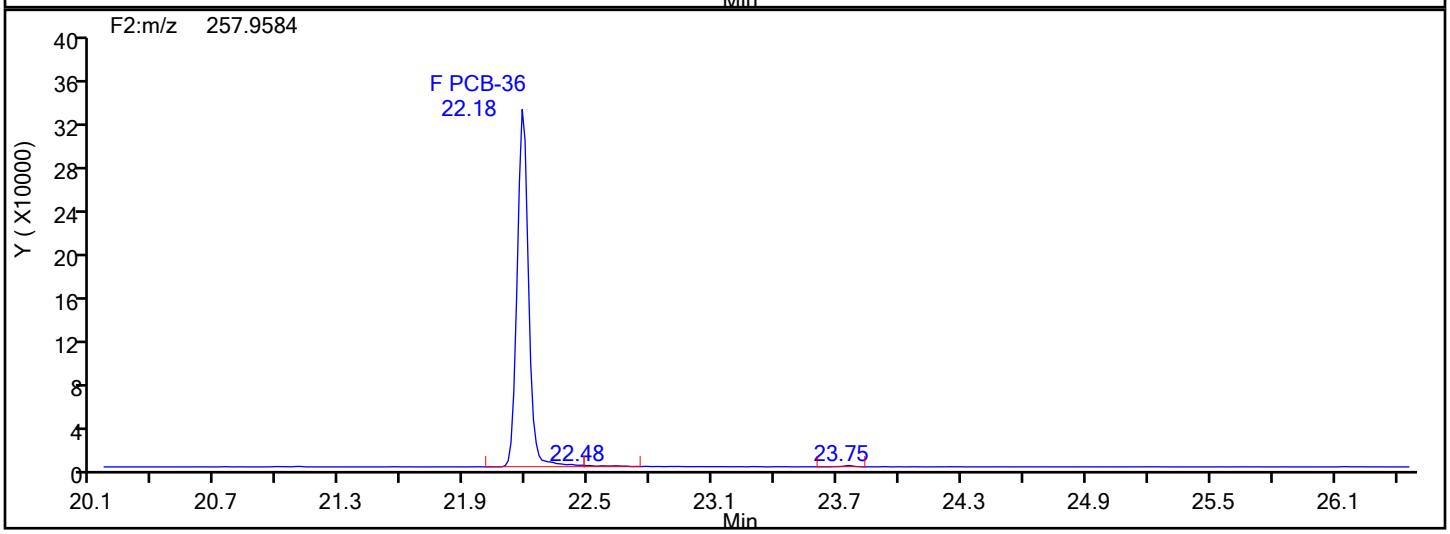
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

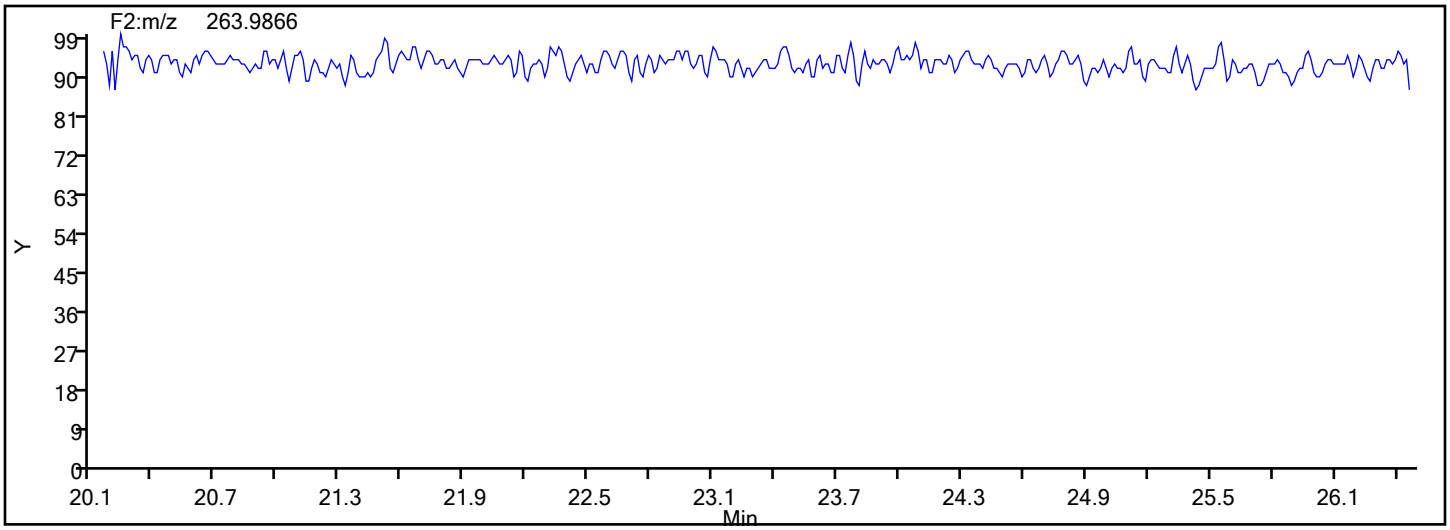
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



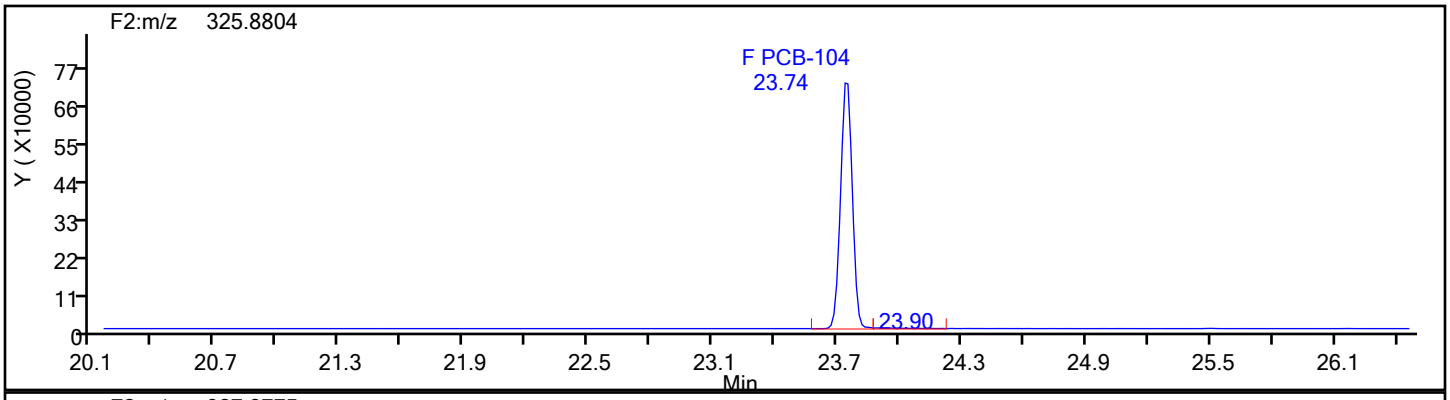
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

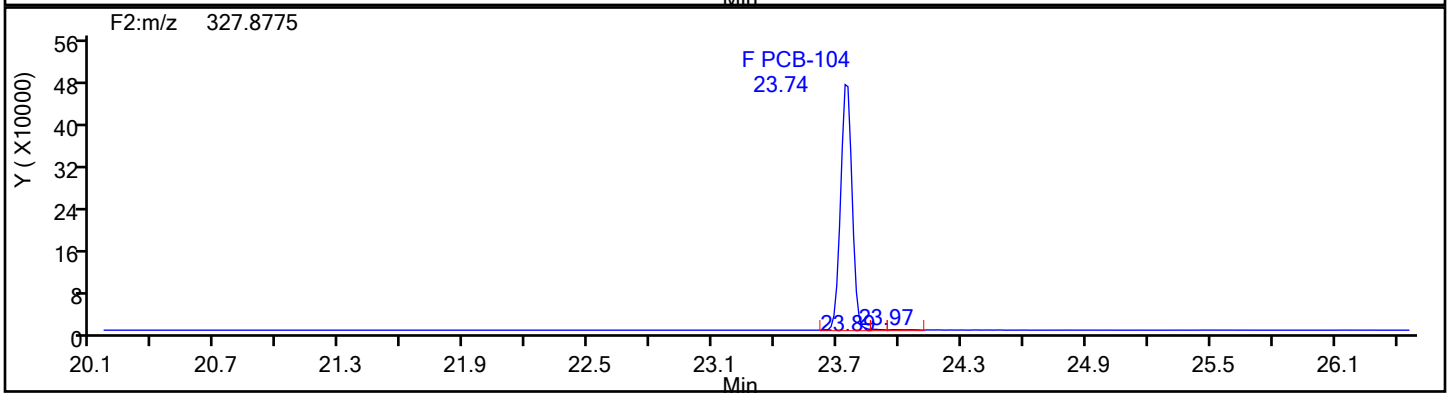
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

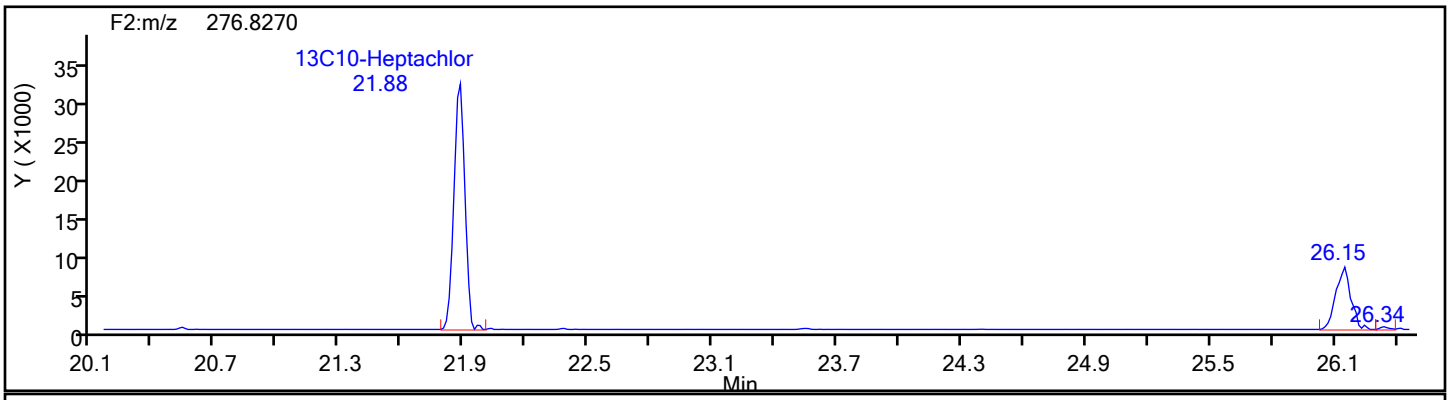
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

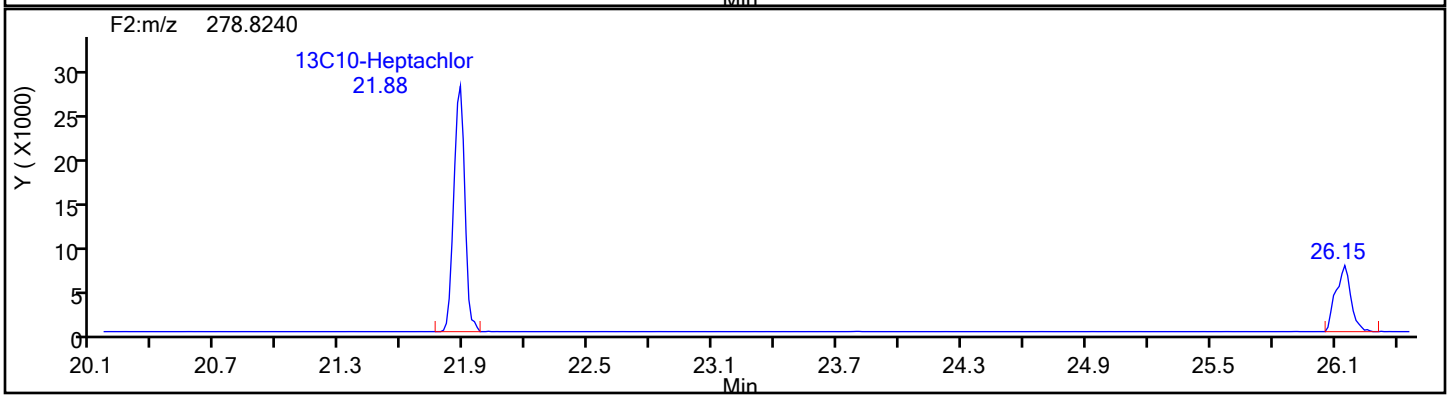
PCB-104





PCB-104 Standards





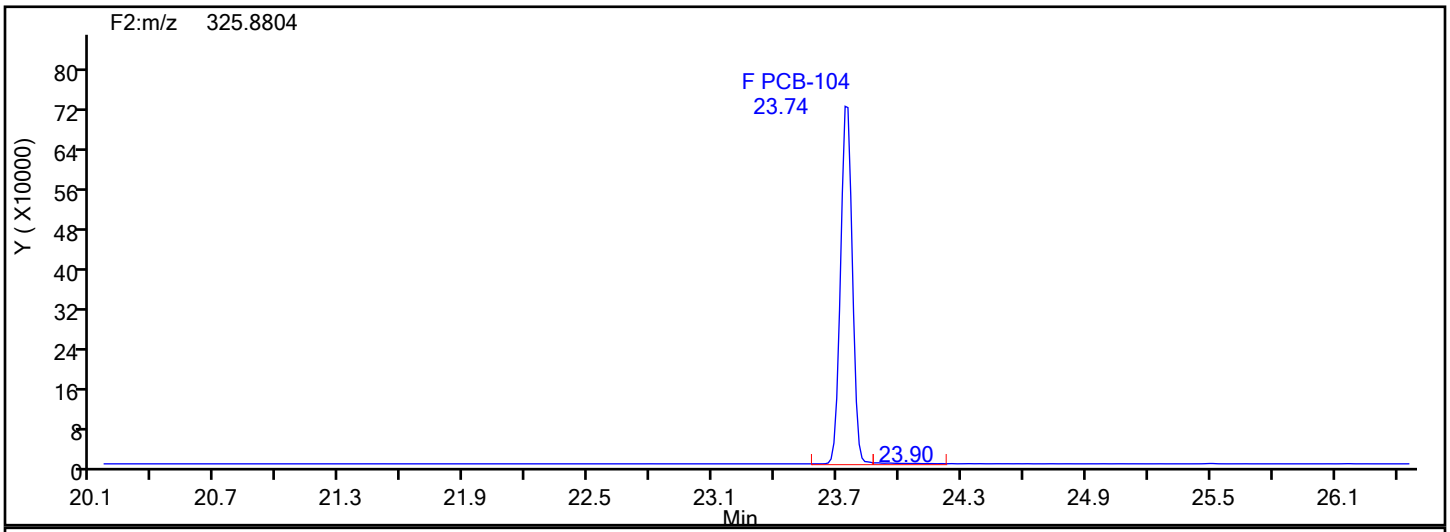
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

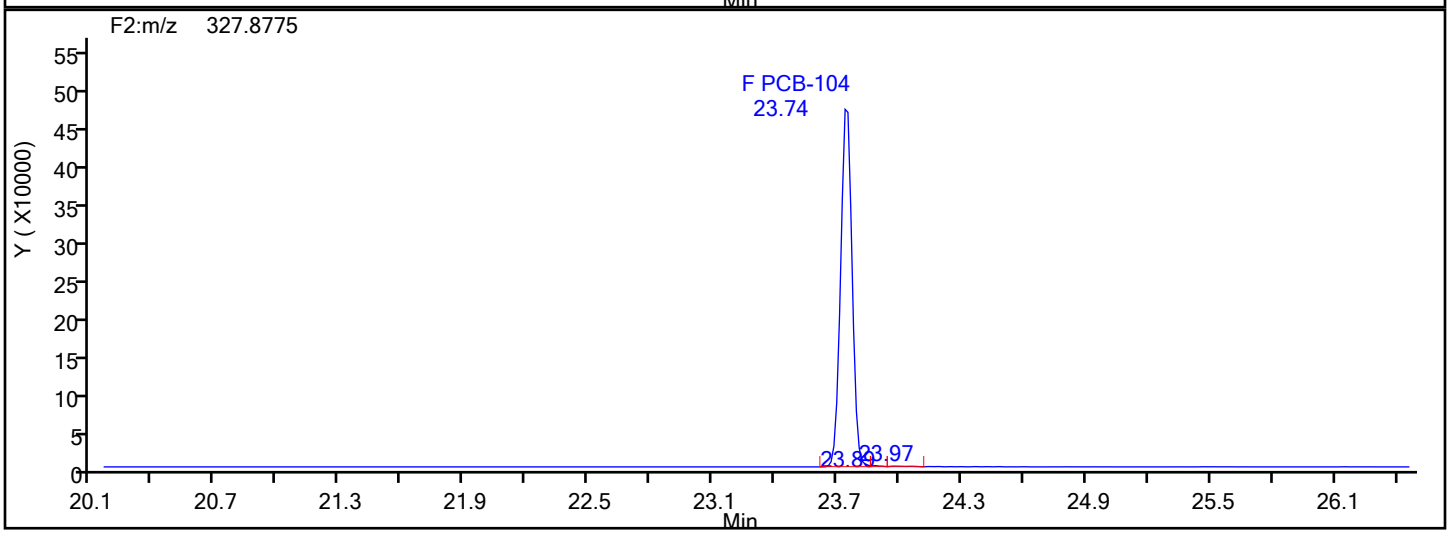
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

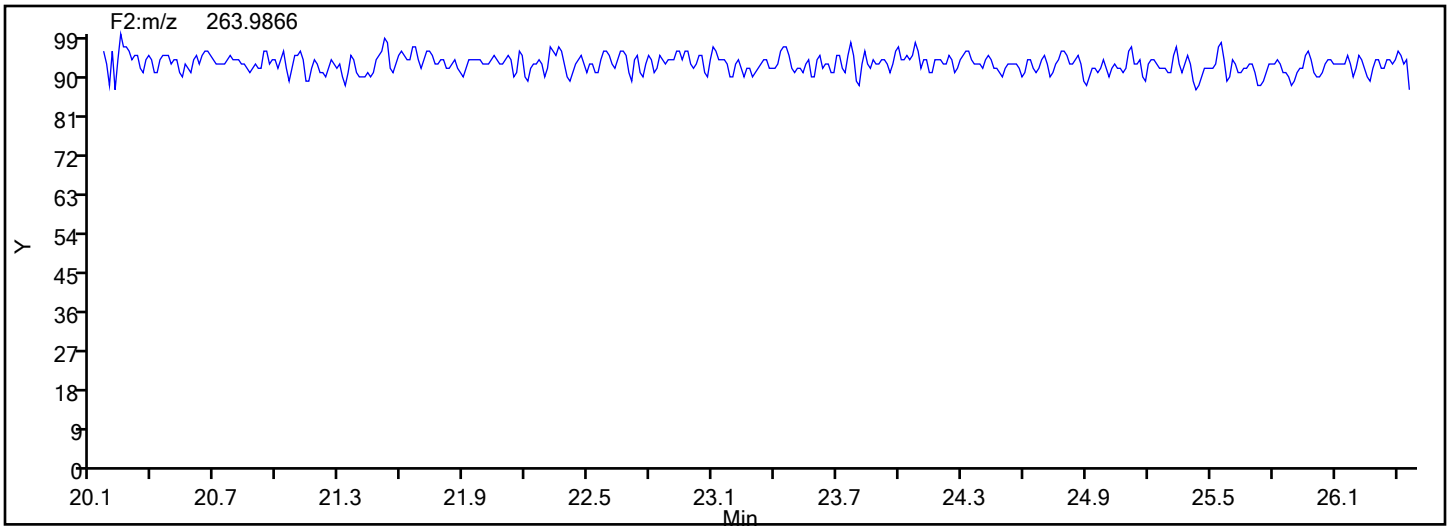
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



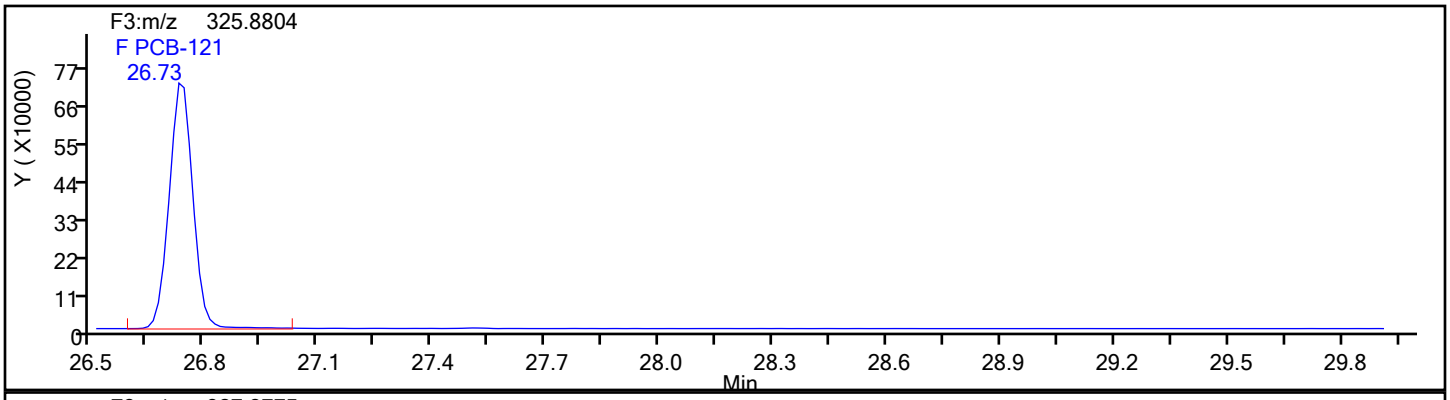
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

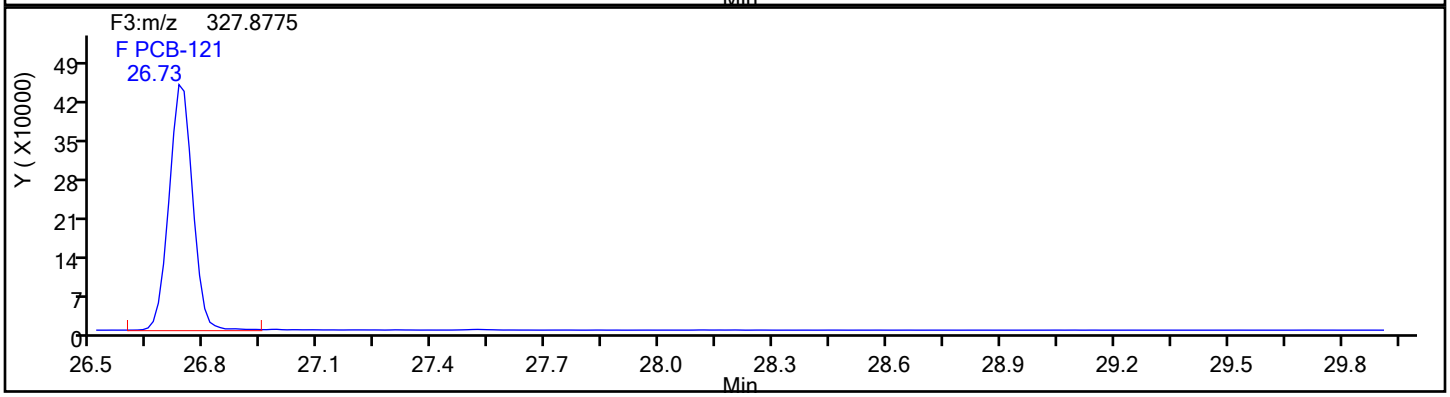
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

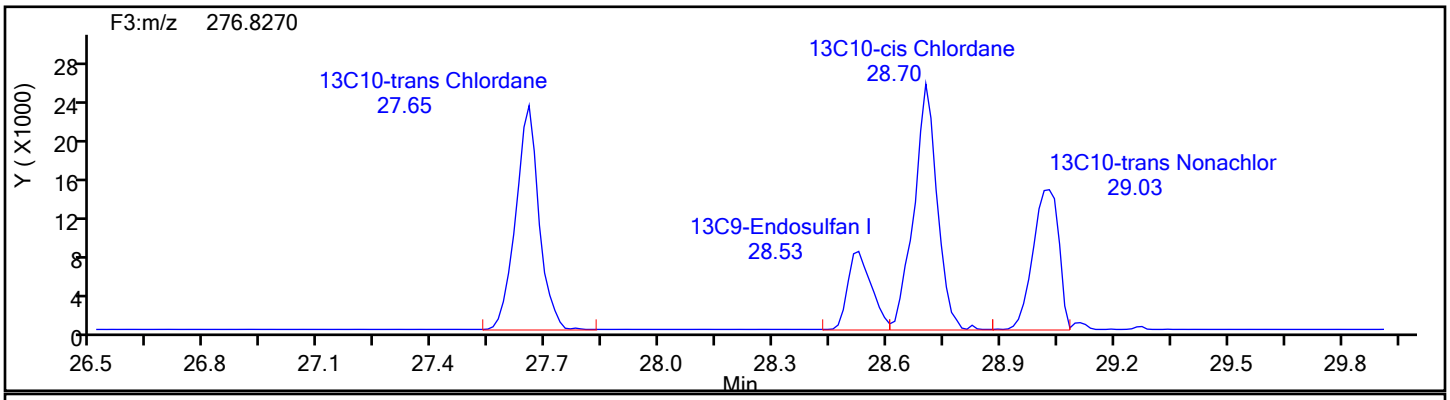
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

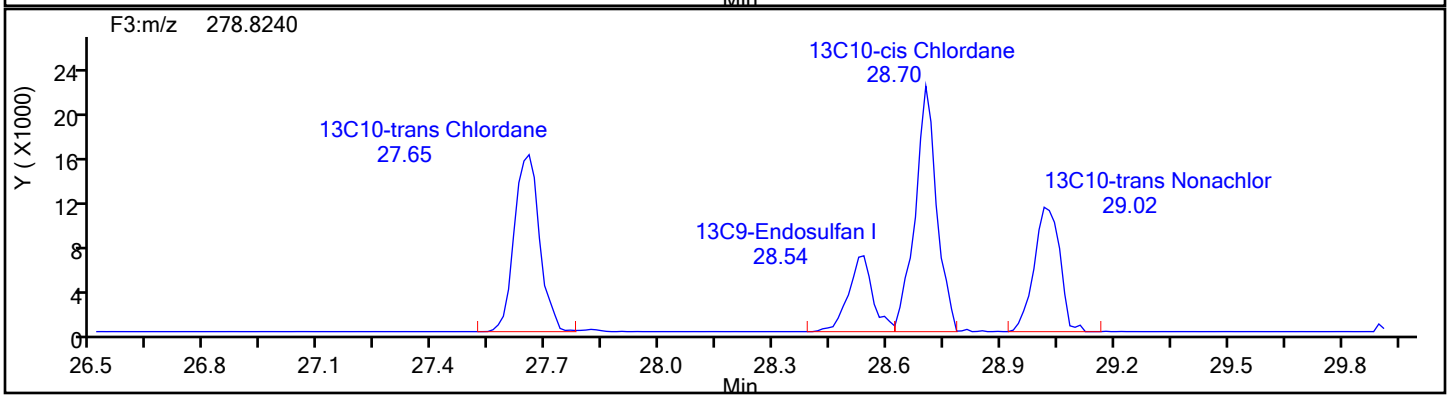
PCB-121





PCB-121 Standards



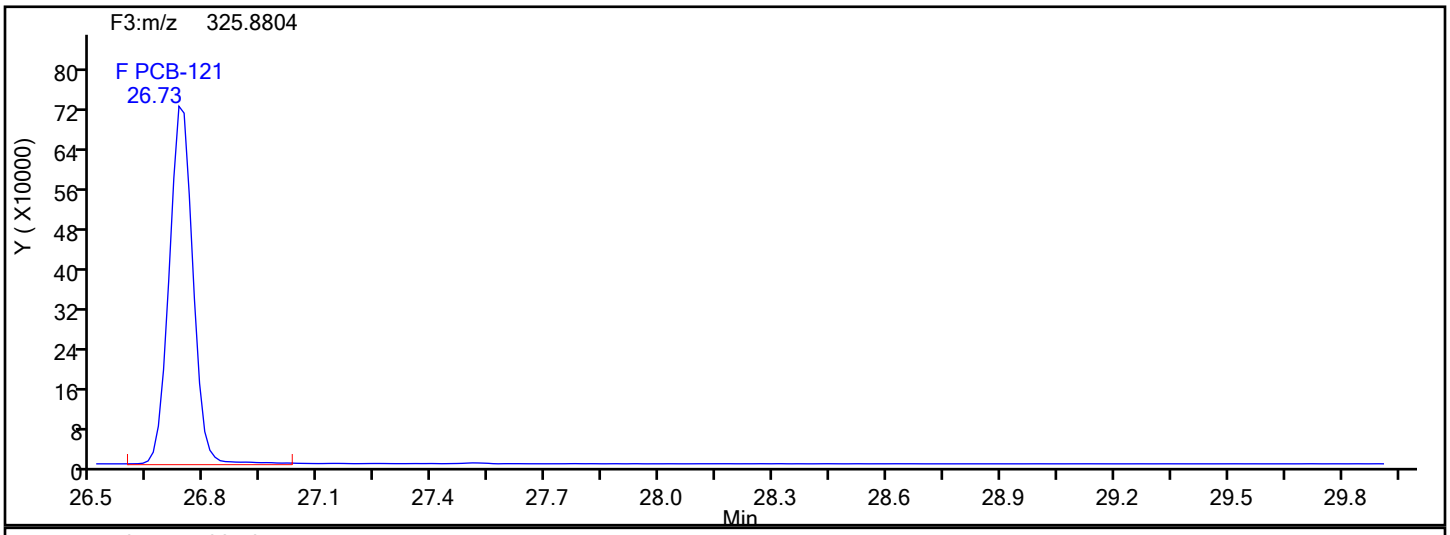


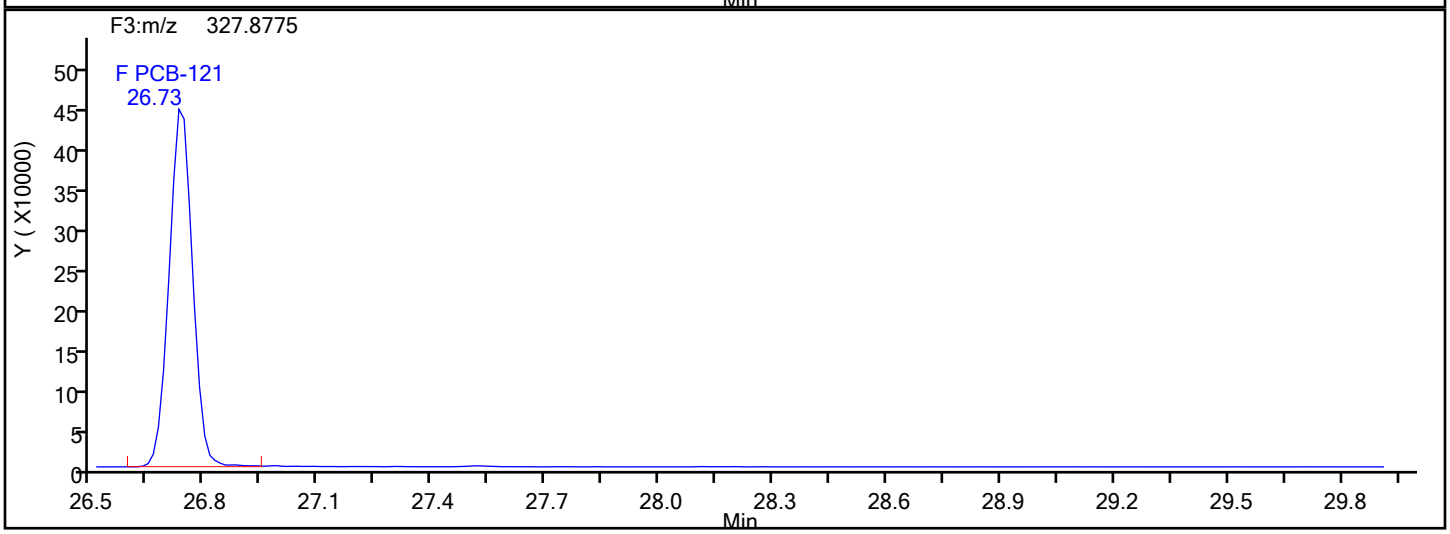
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

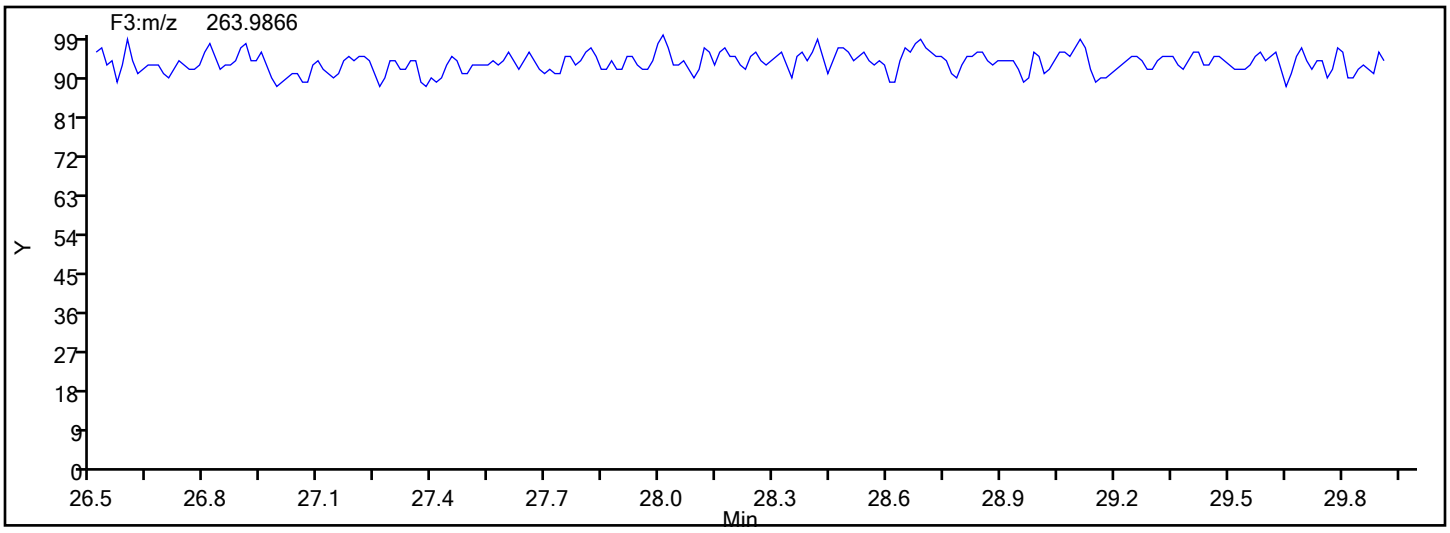
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass

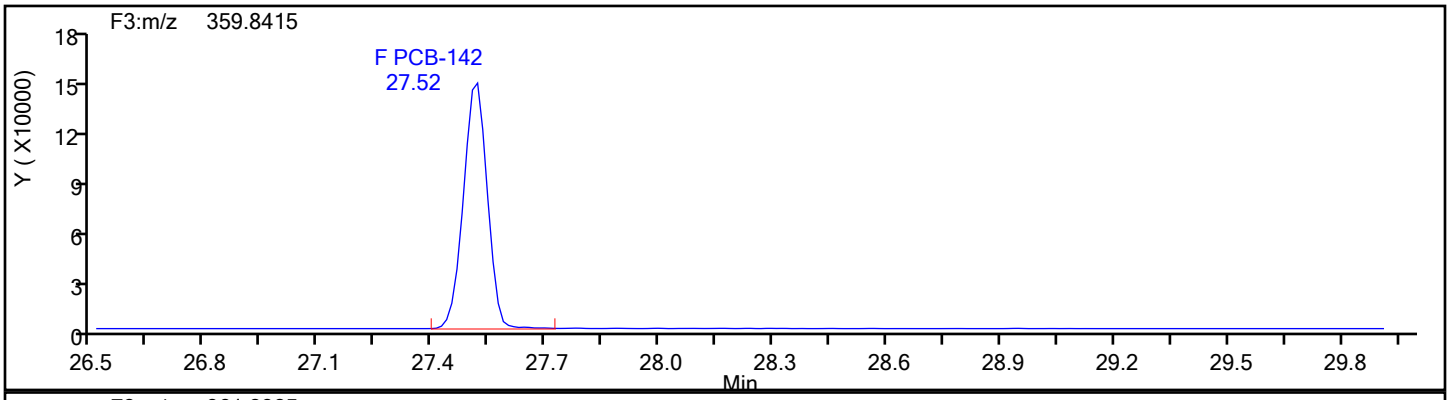


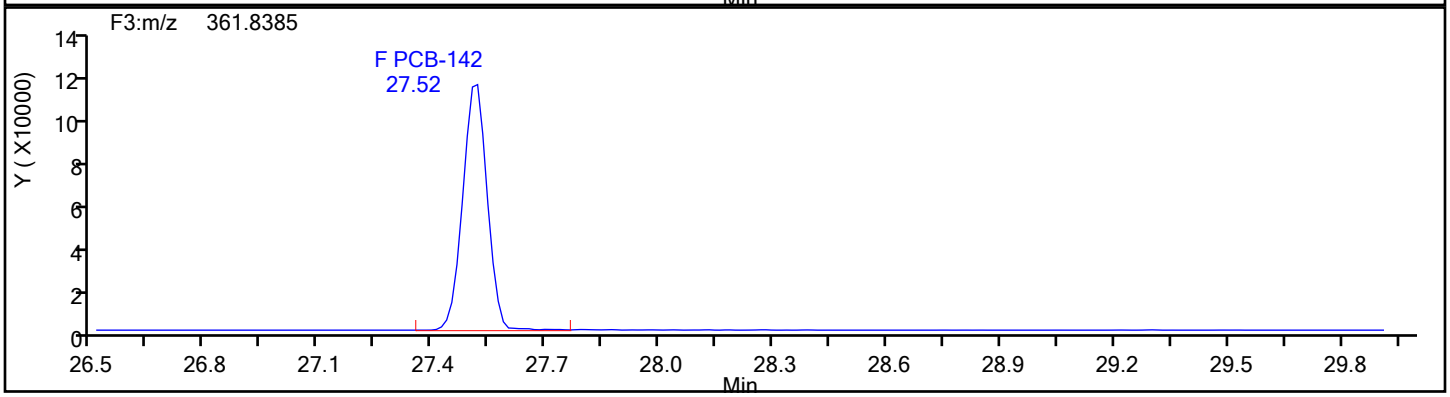
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

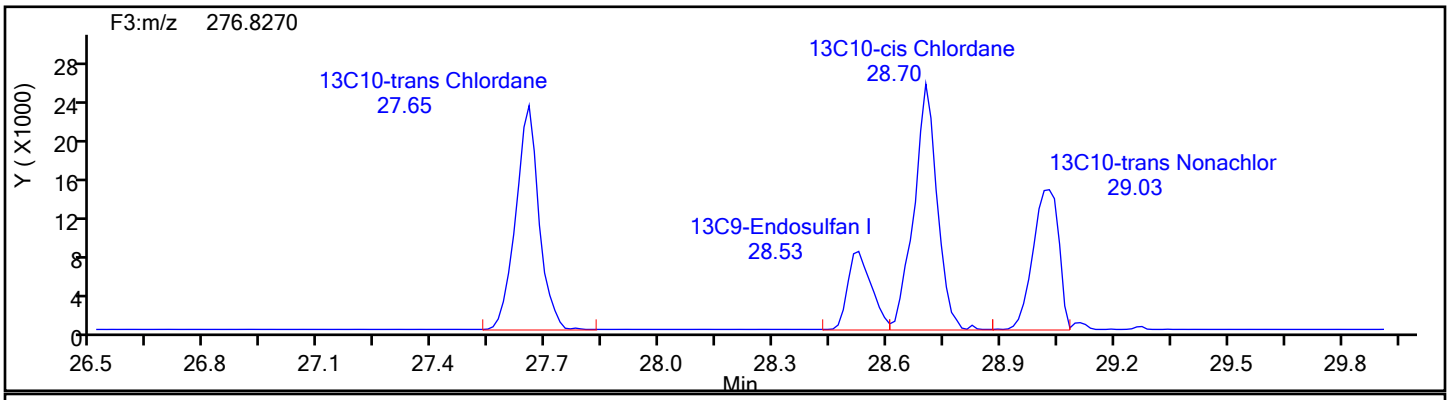
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

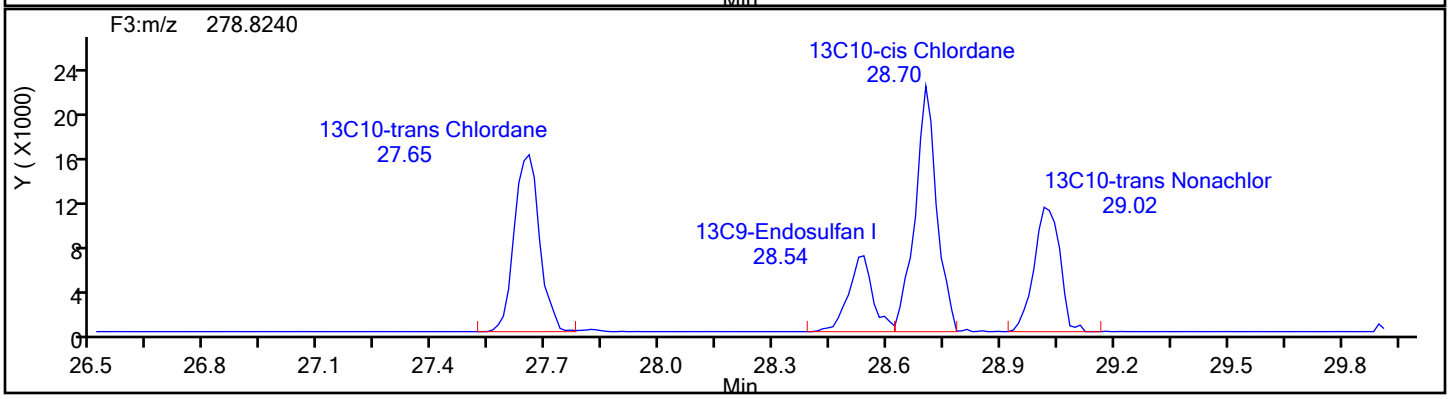
PCB-142





PCB-142 Standards



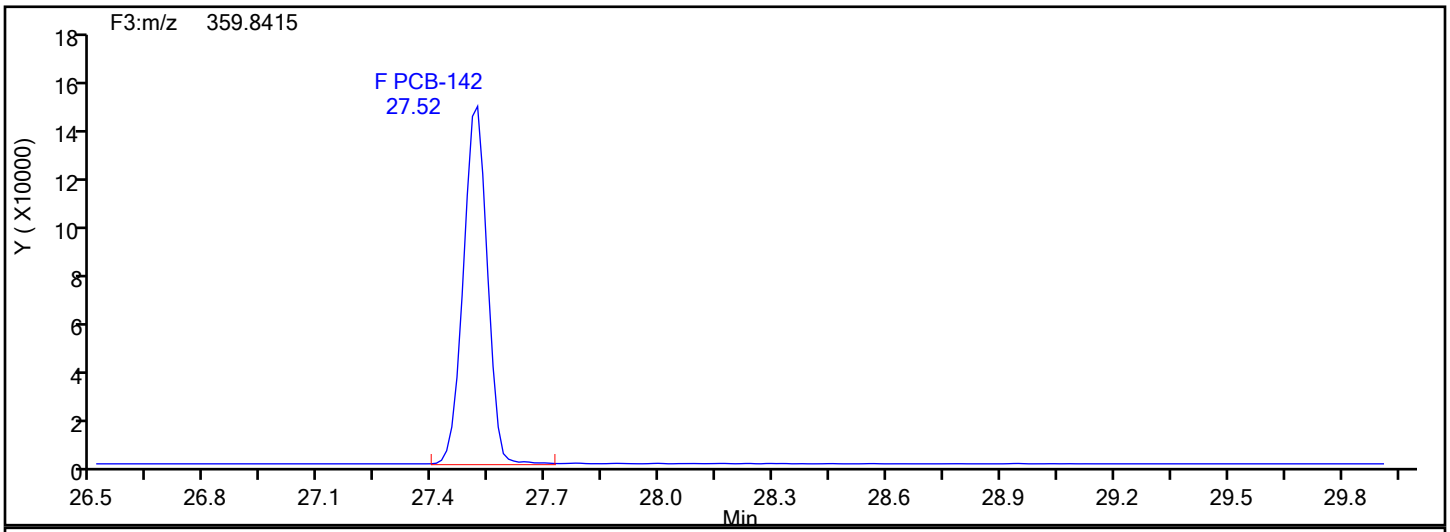


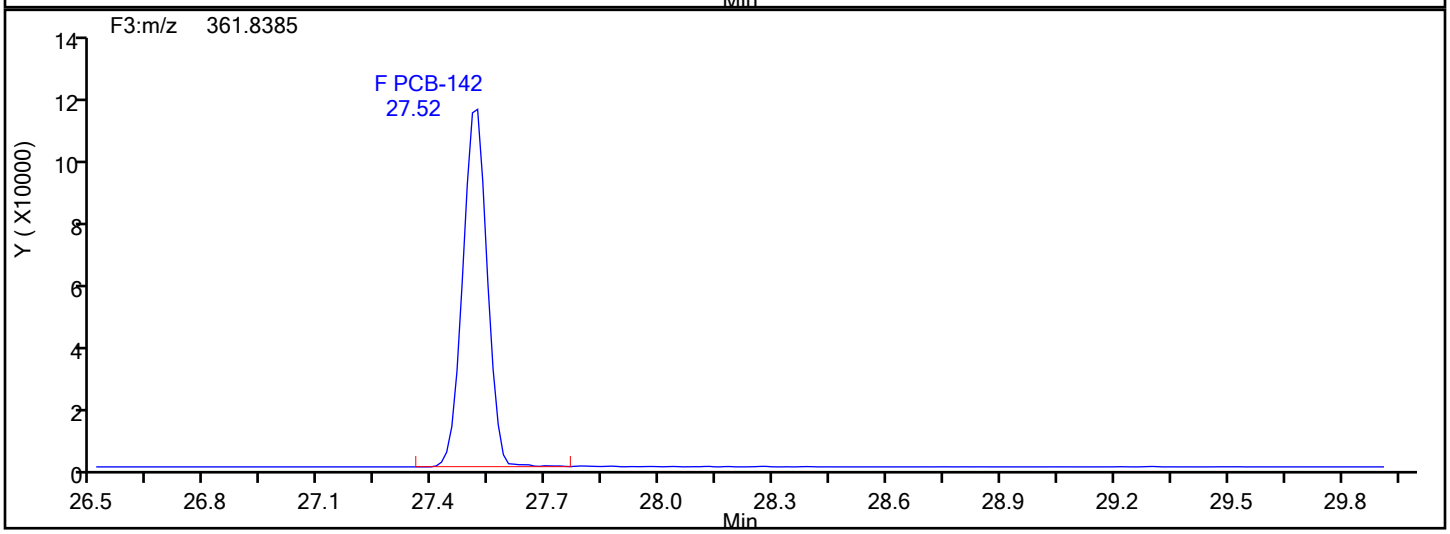
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

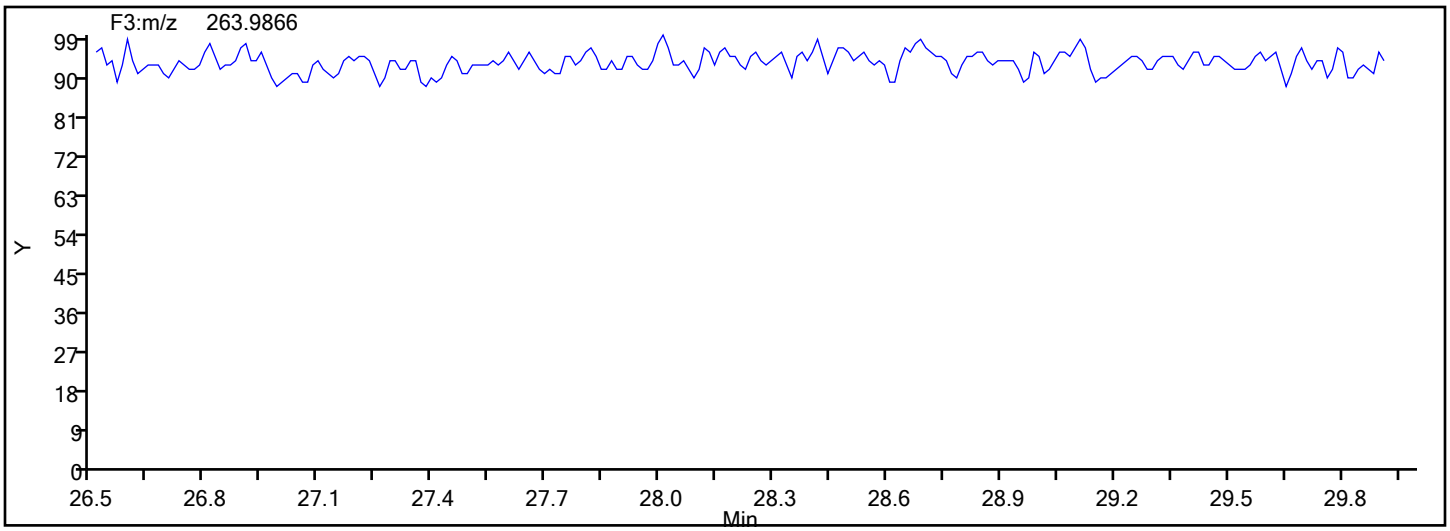
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



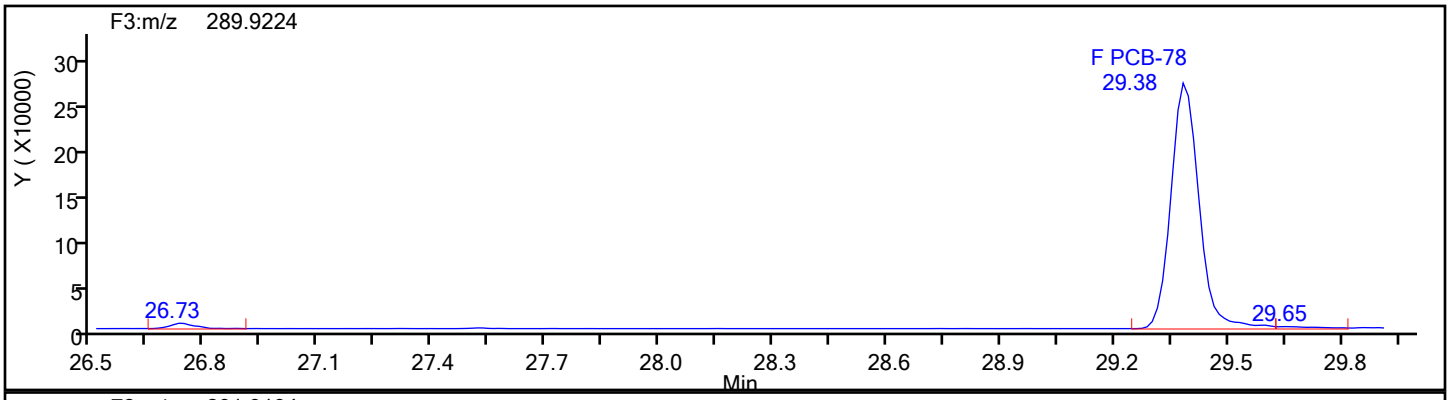
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

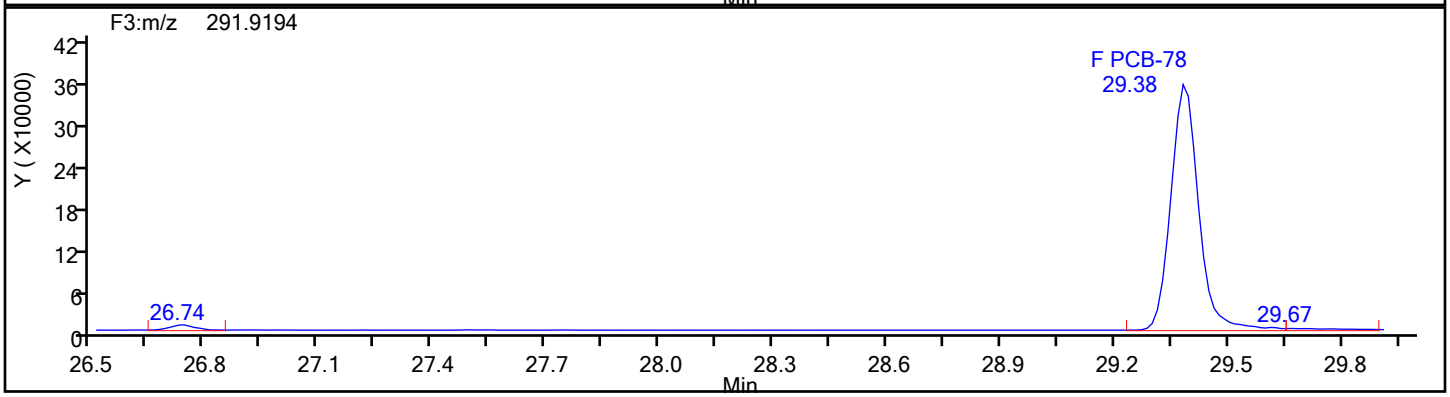
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

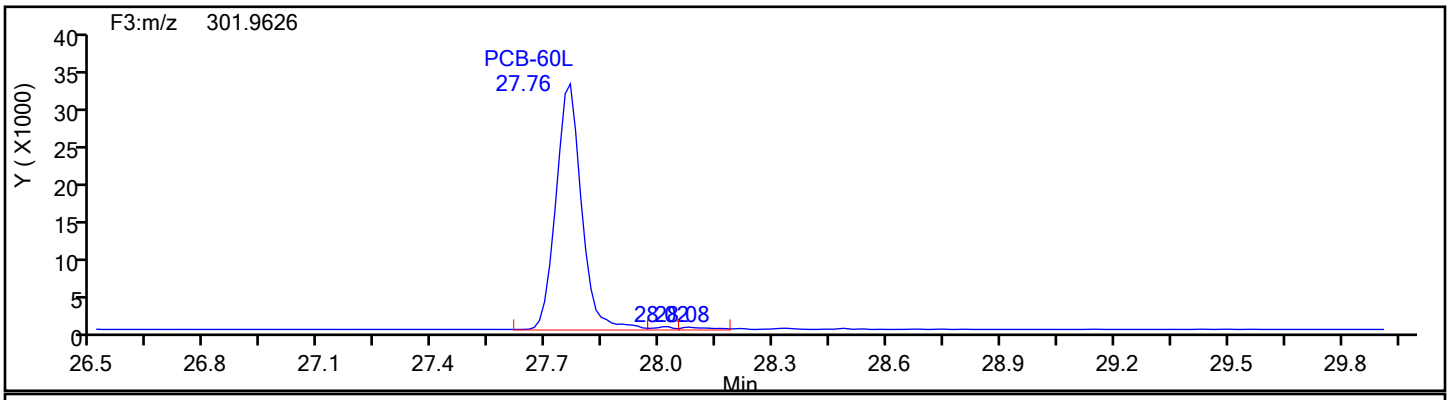
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

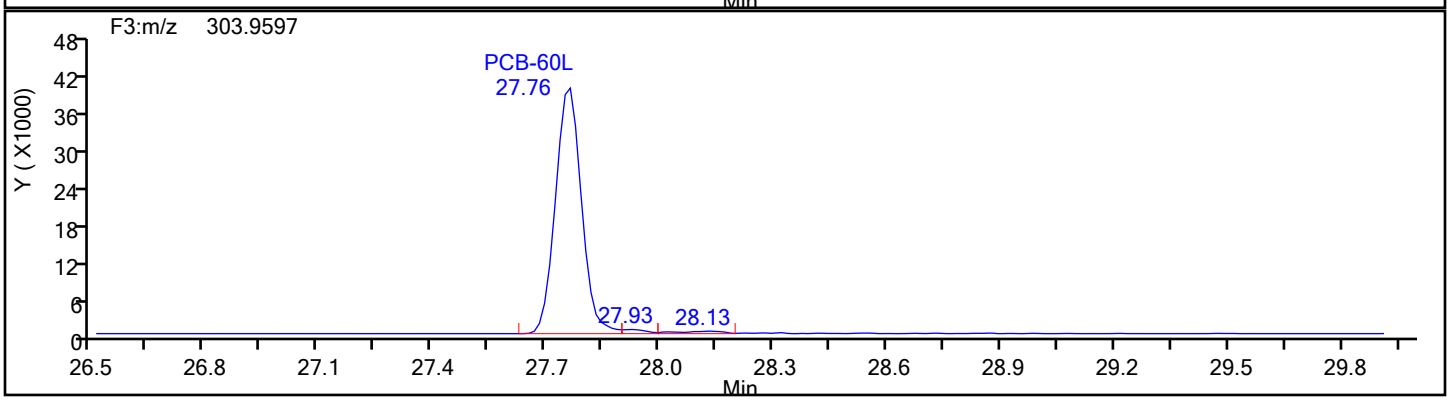
PCB-78





PCB-78 Standards





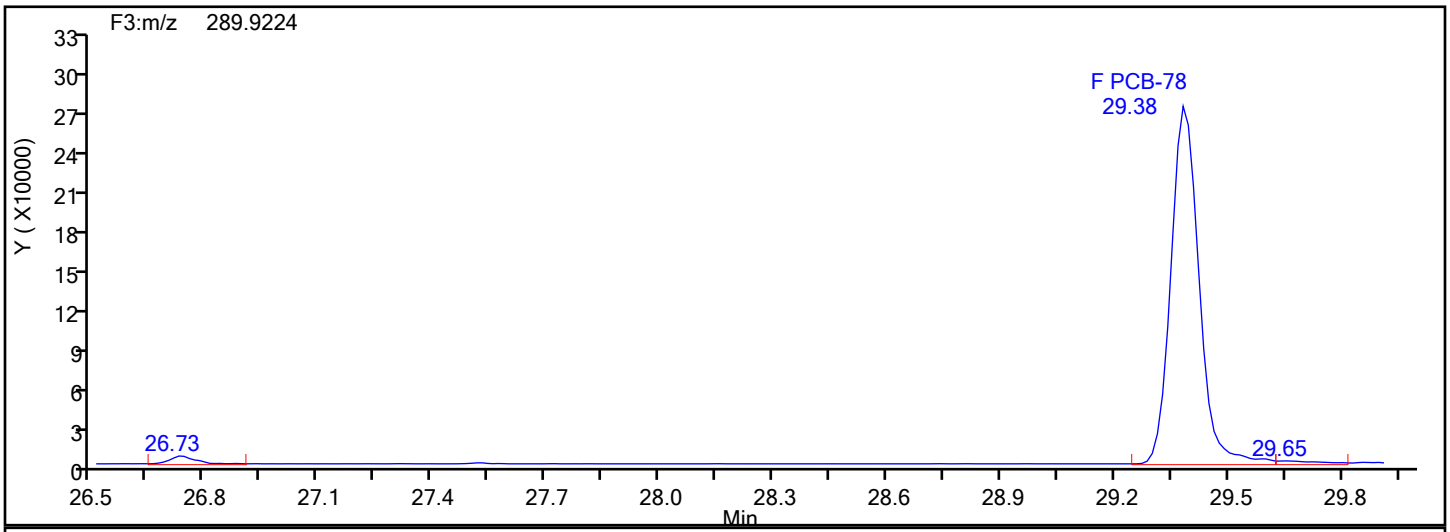
Report Date: 31-Mar-2025 14:10:31 Chrom Revision: 2.3 21-Mar-2025 14:03:38

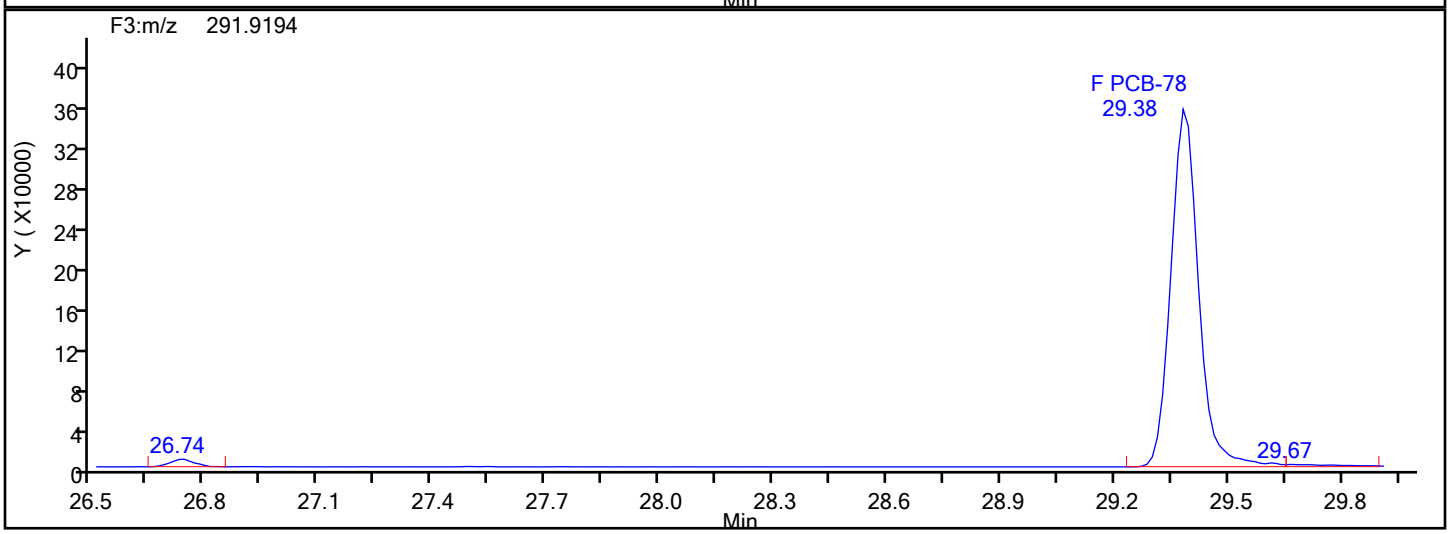
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

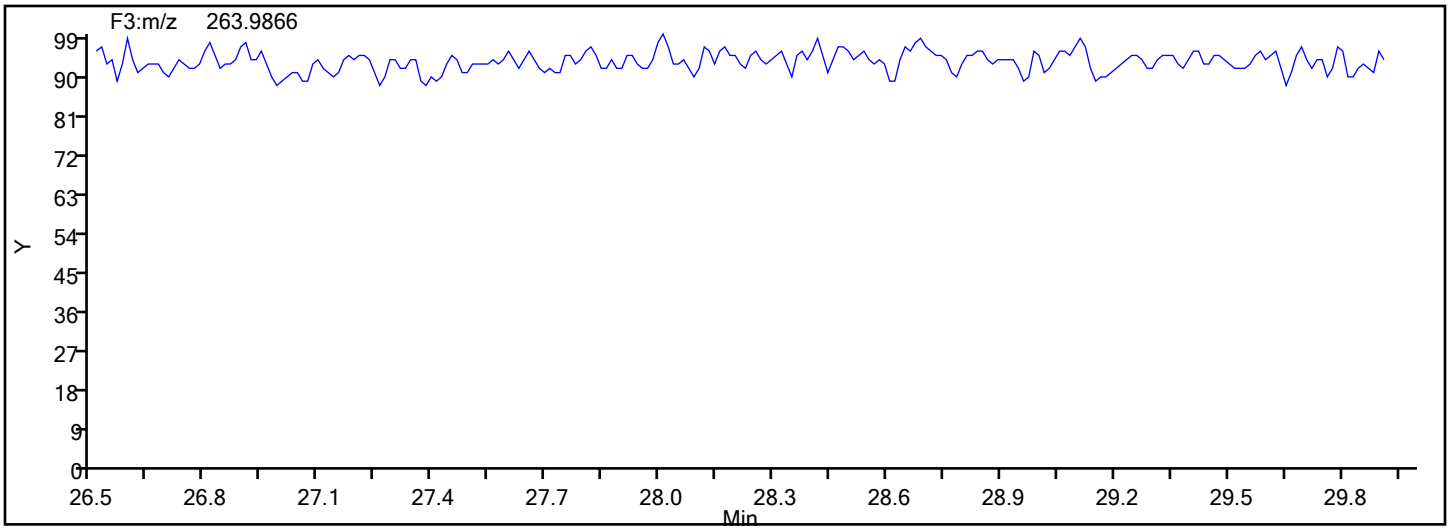
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



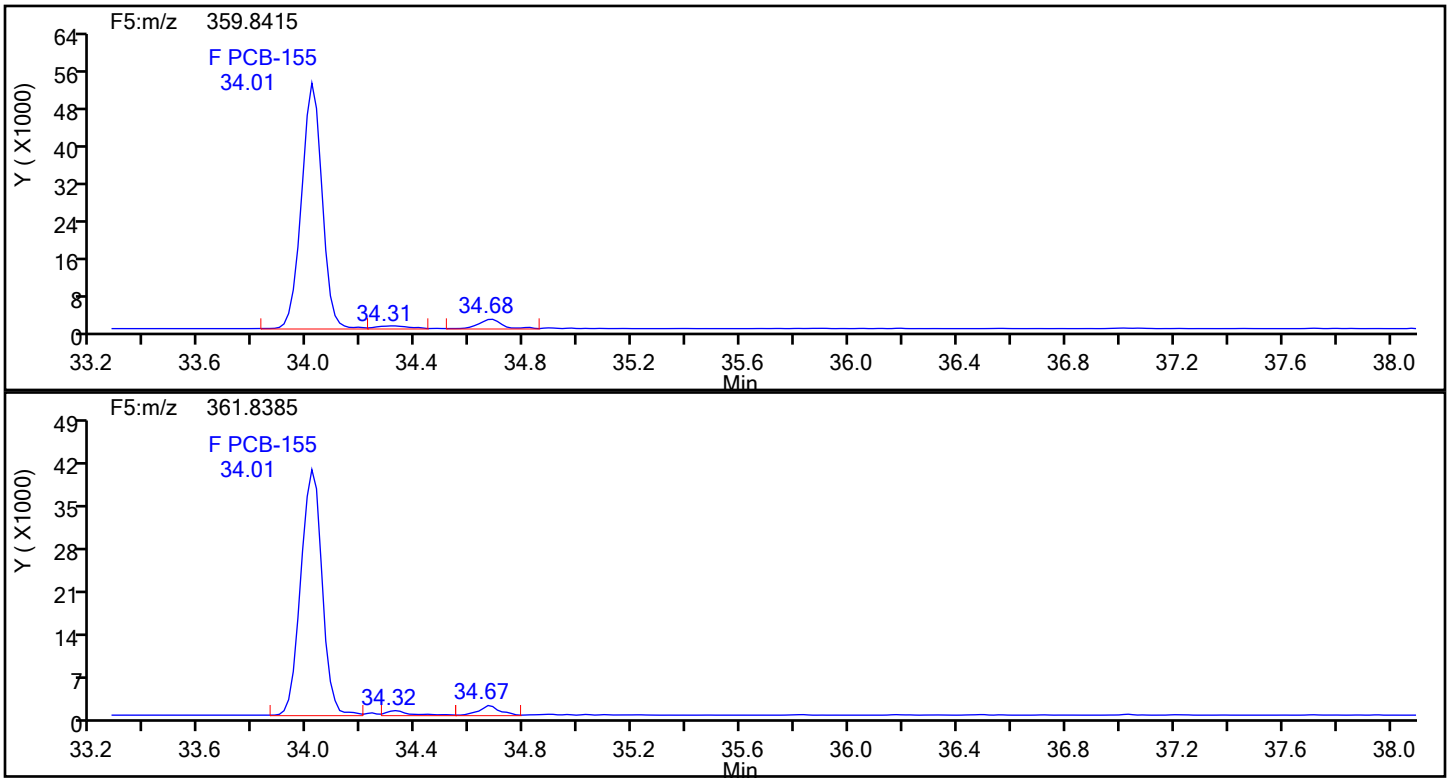
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

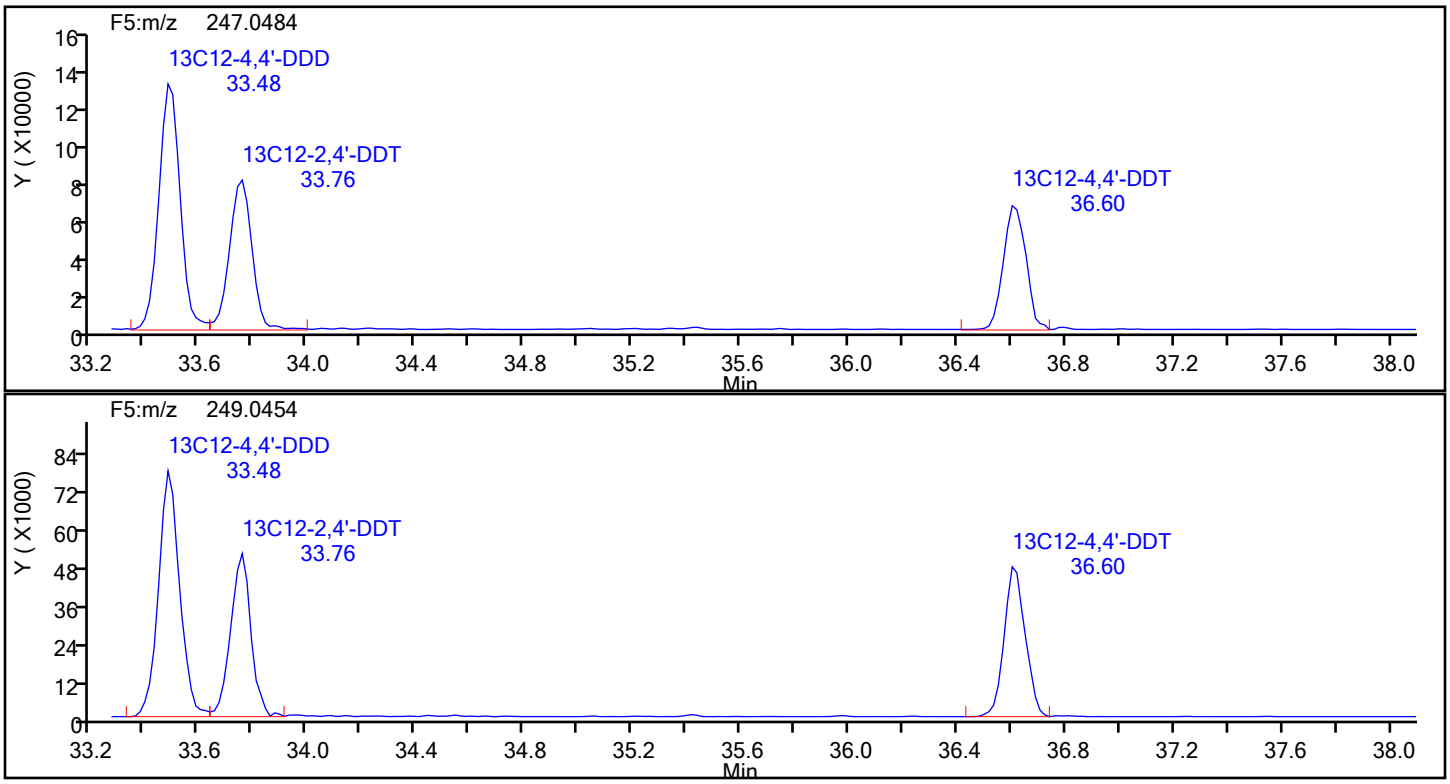
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

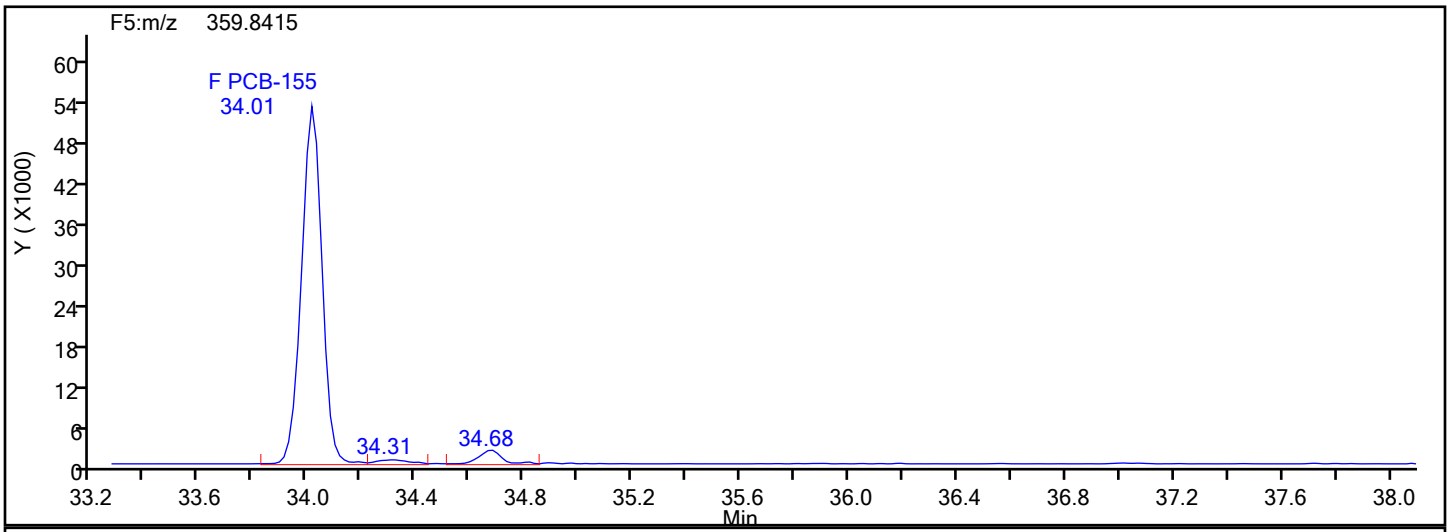


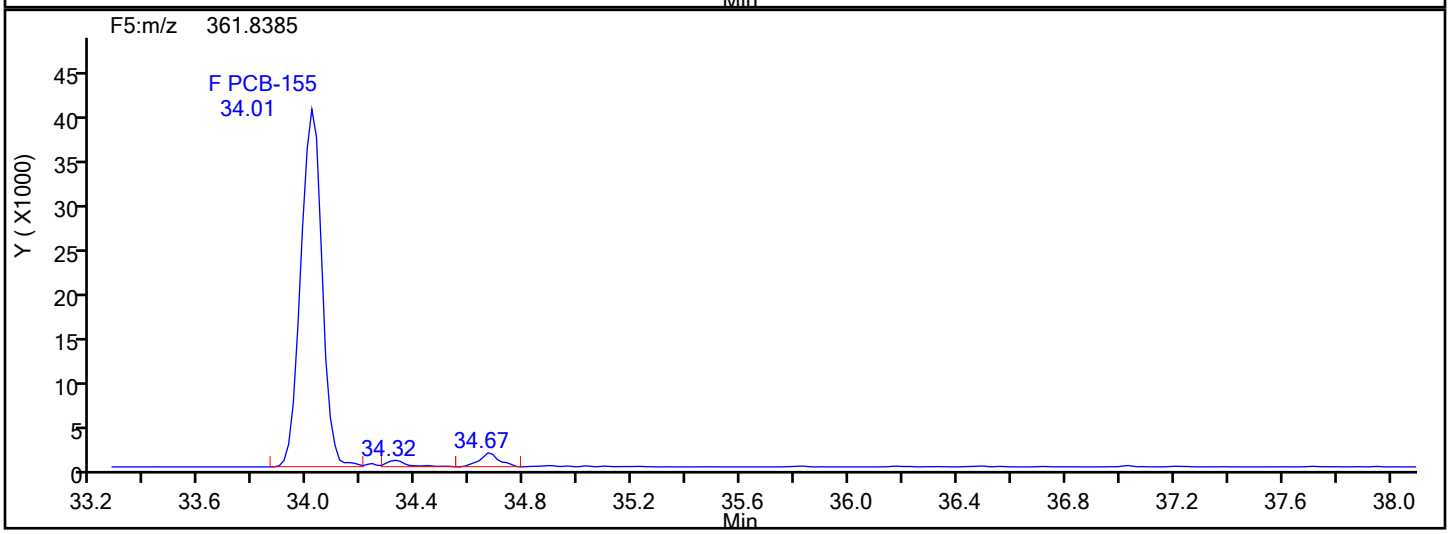
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

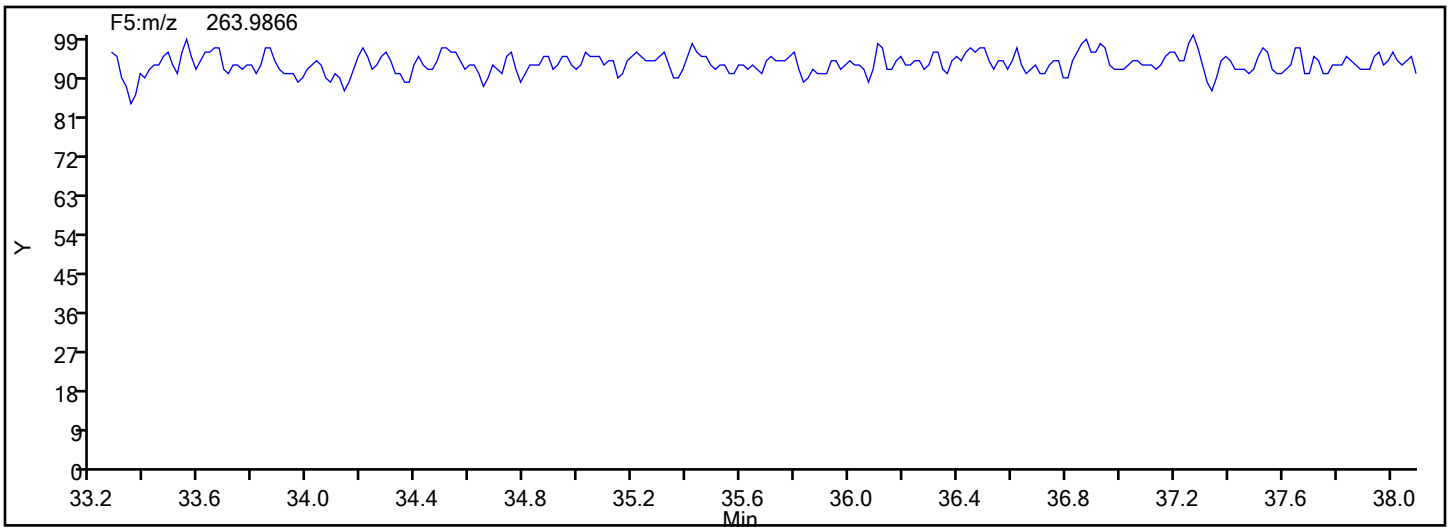
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



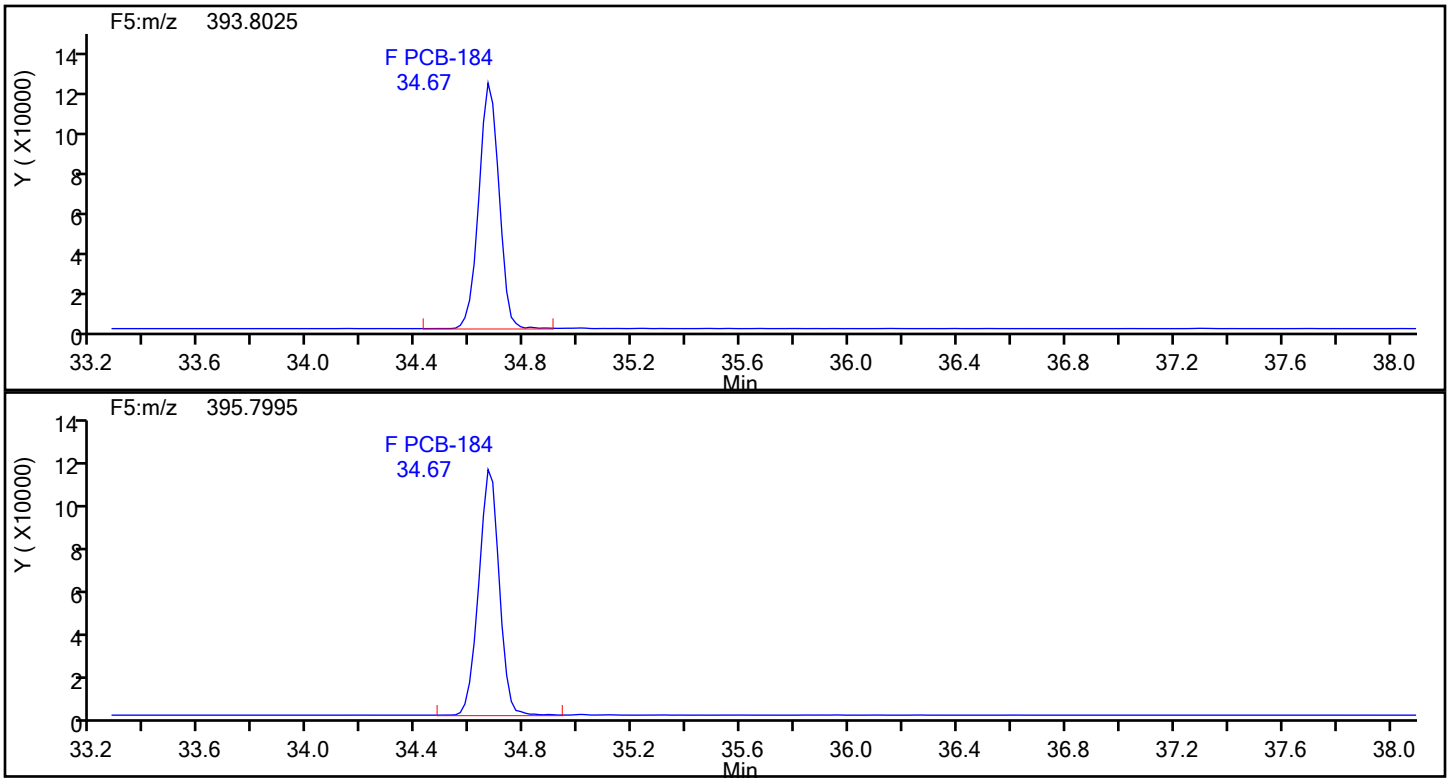
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

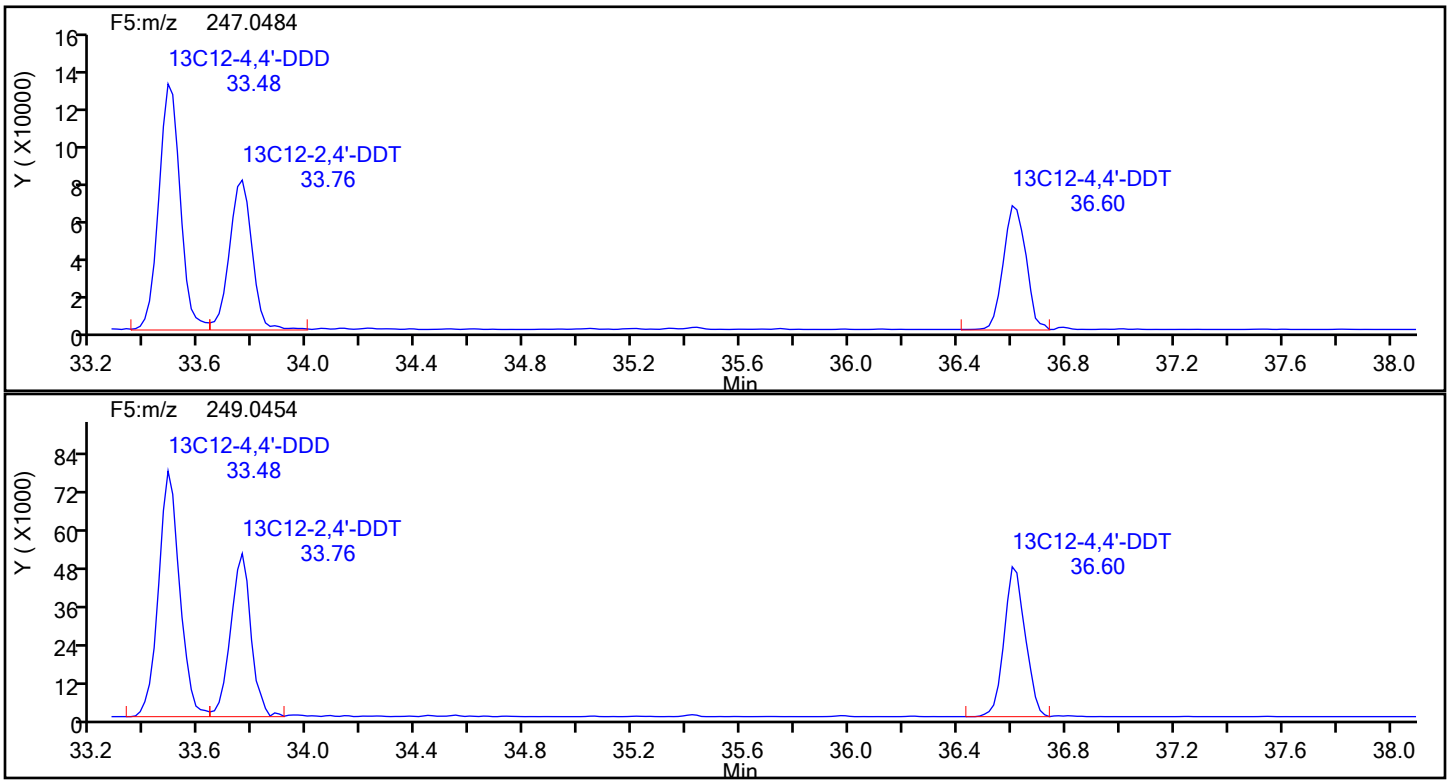
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

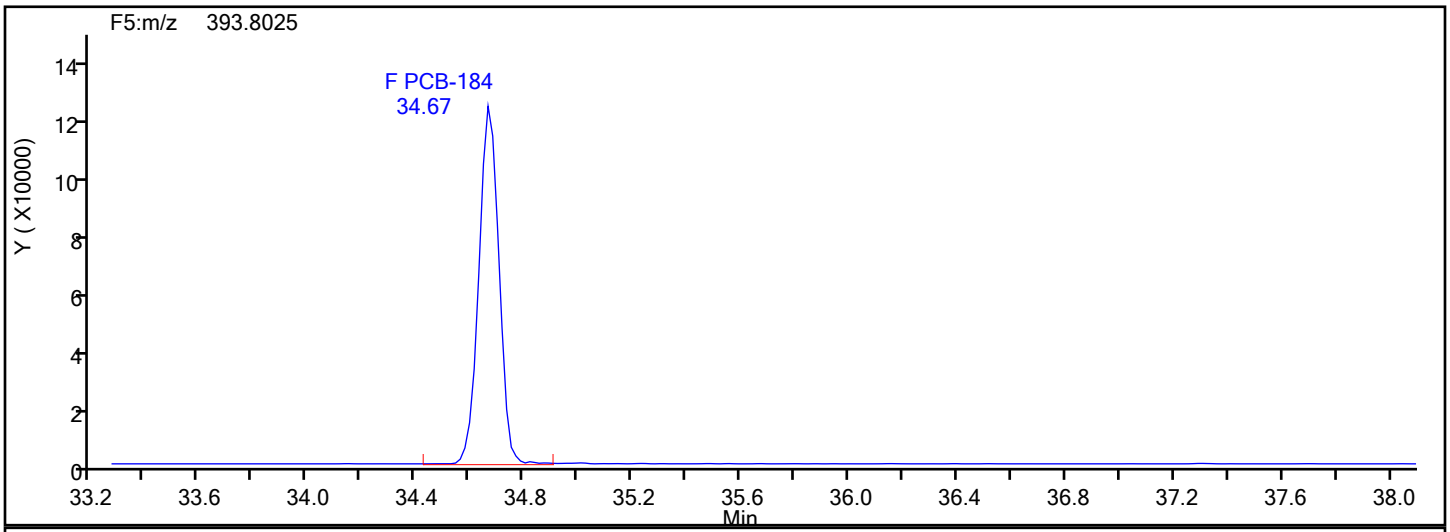


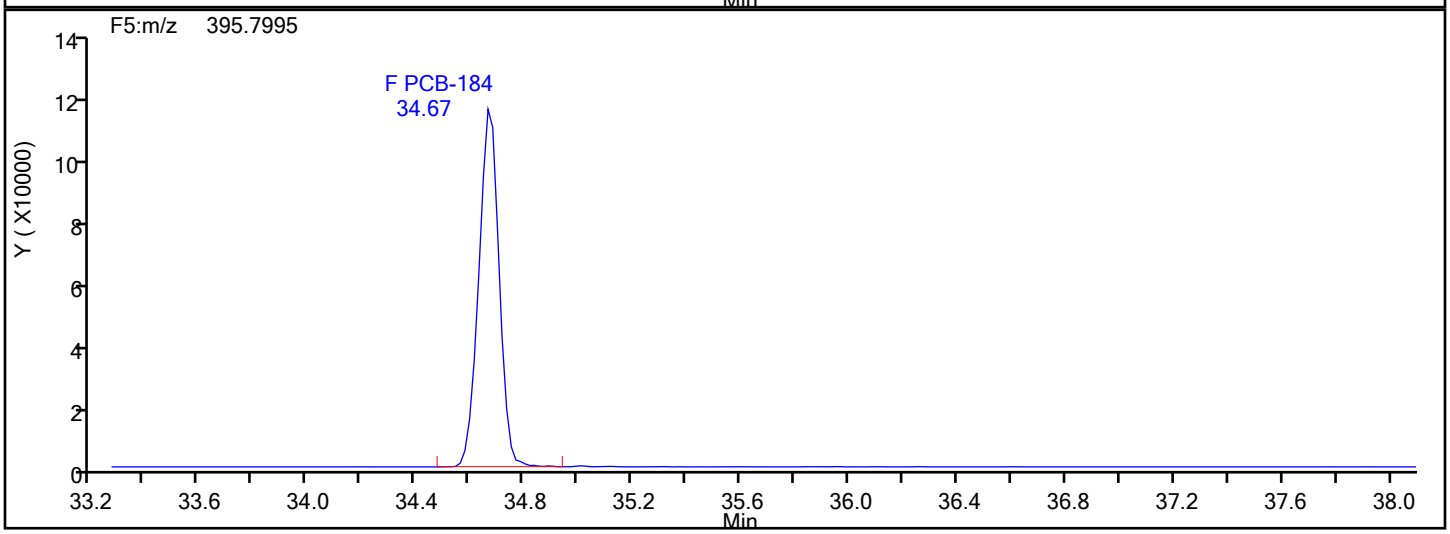
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

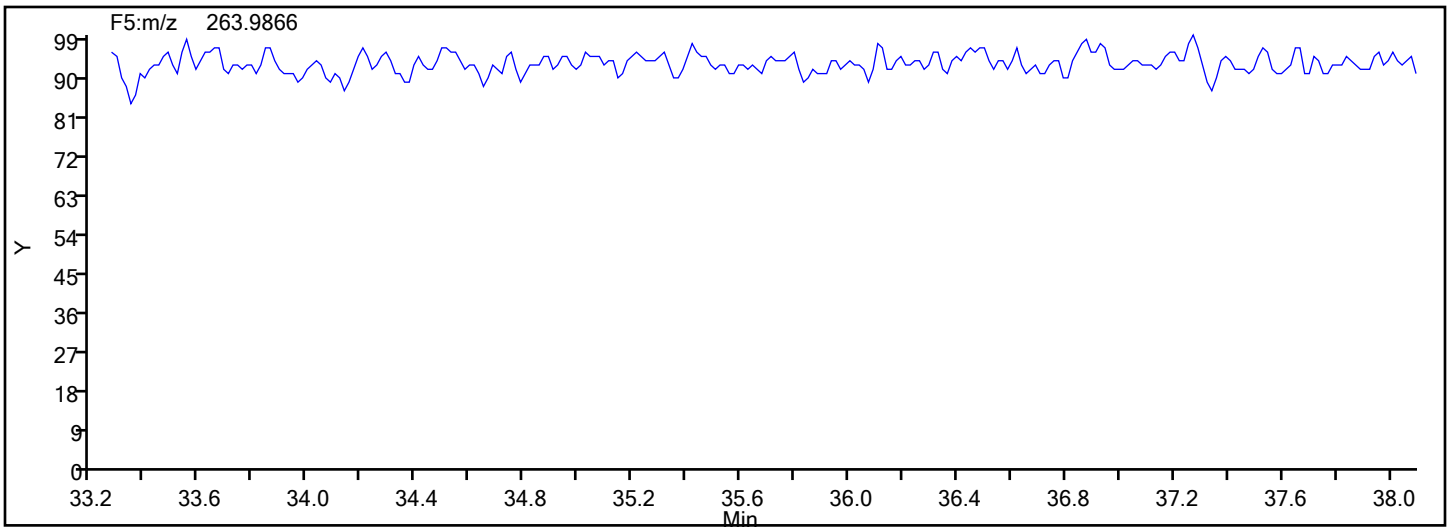
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



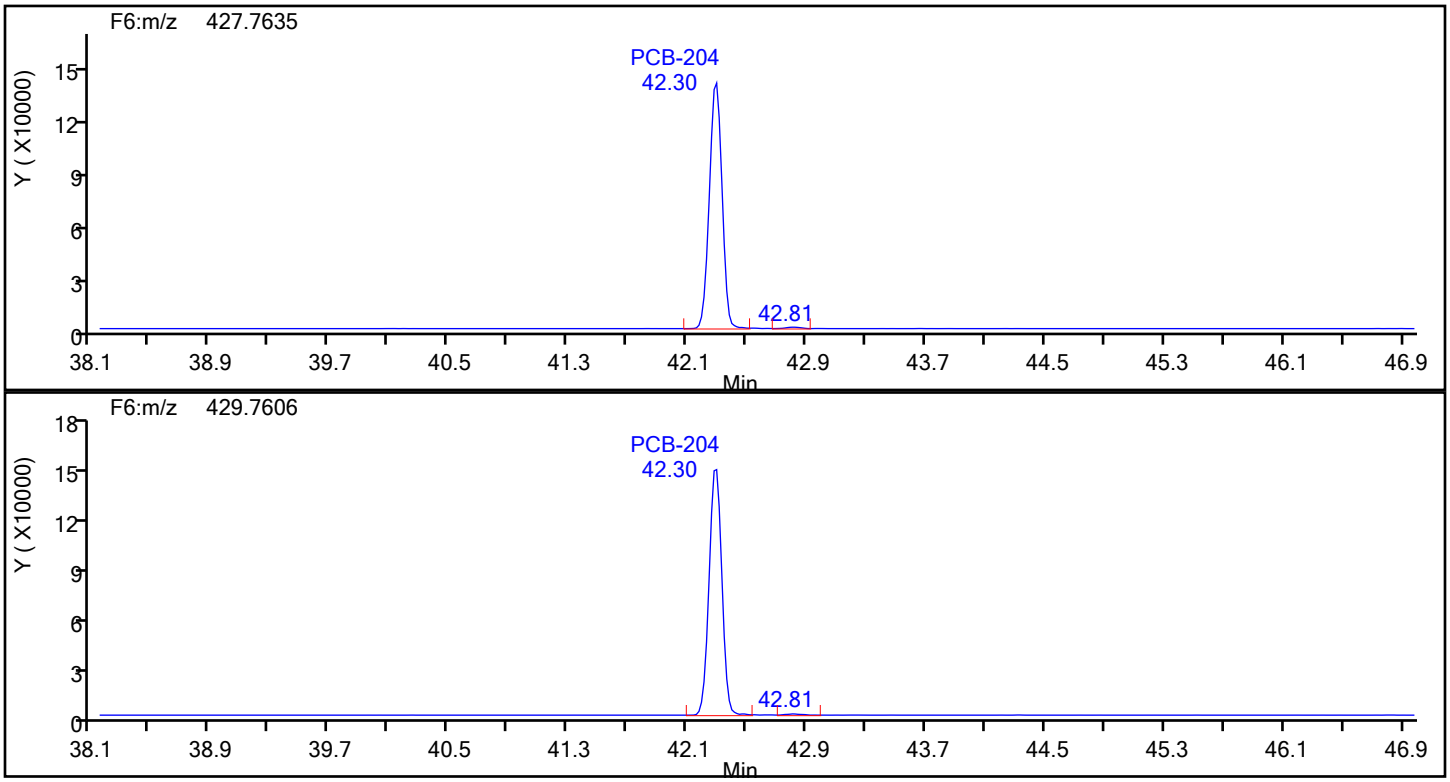
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

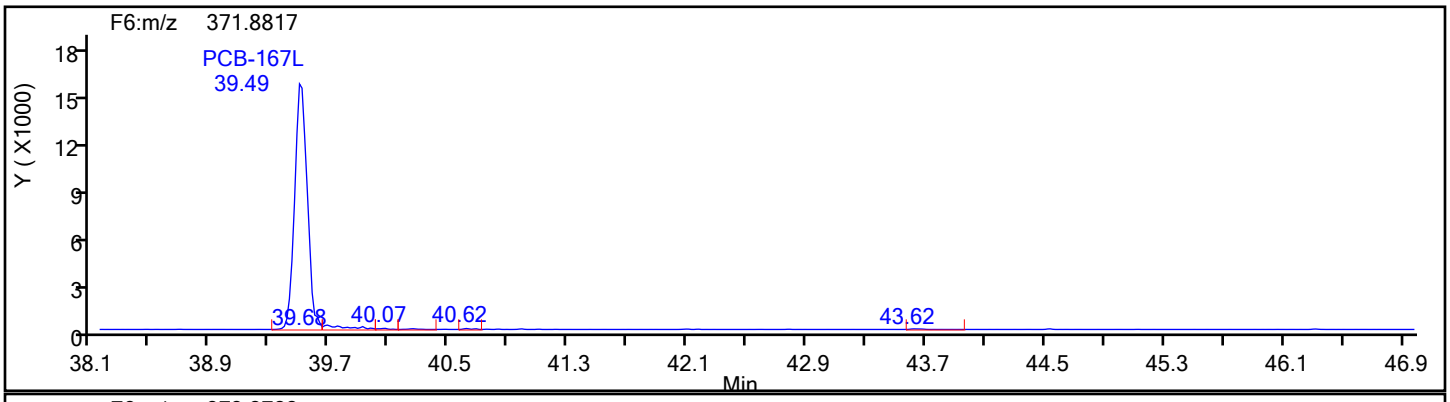
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

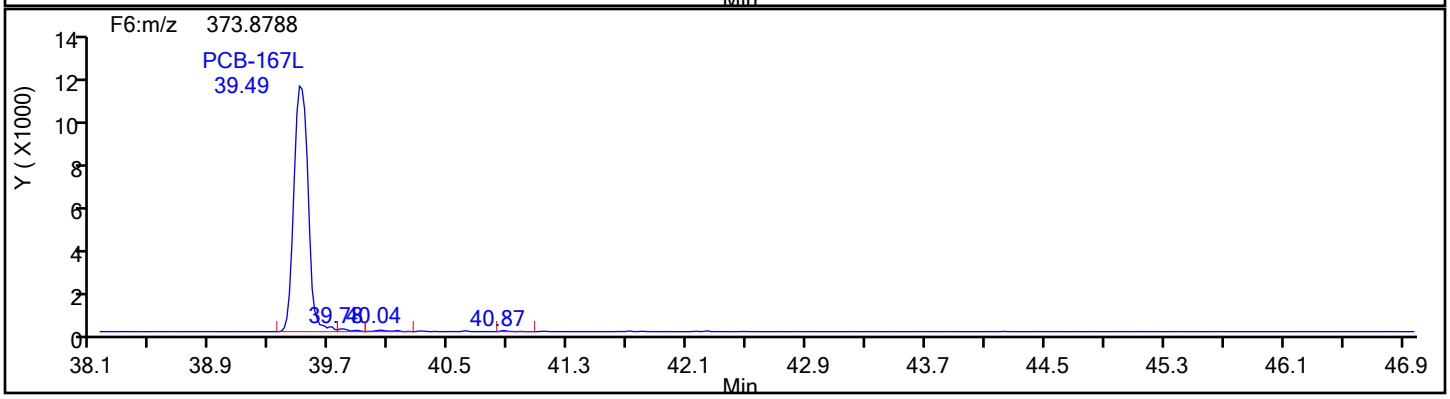
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



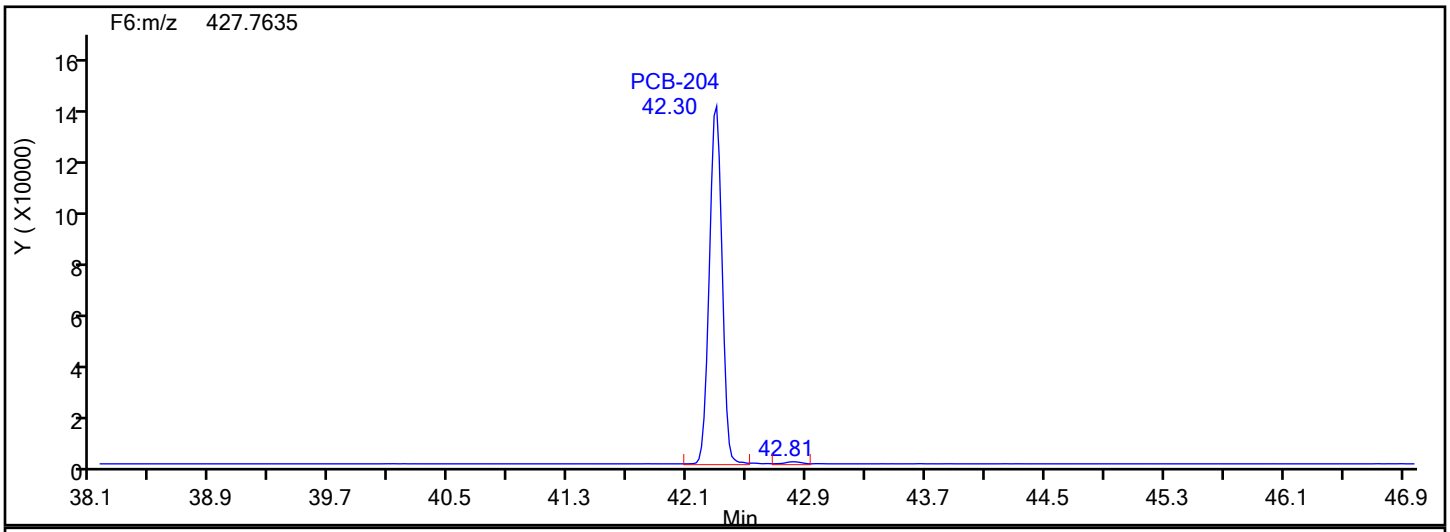


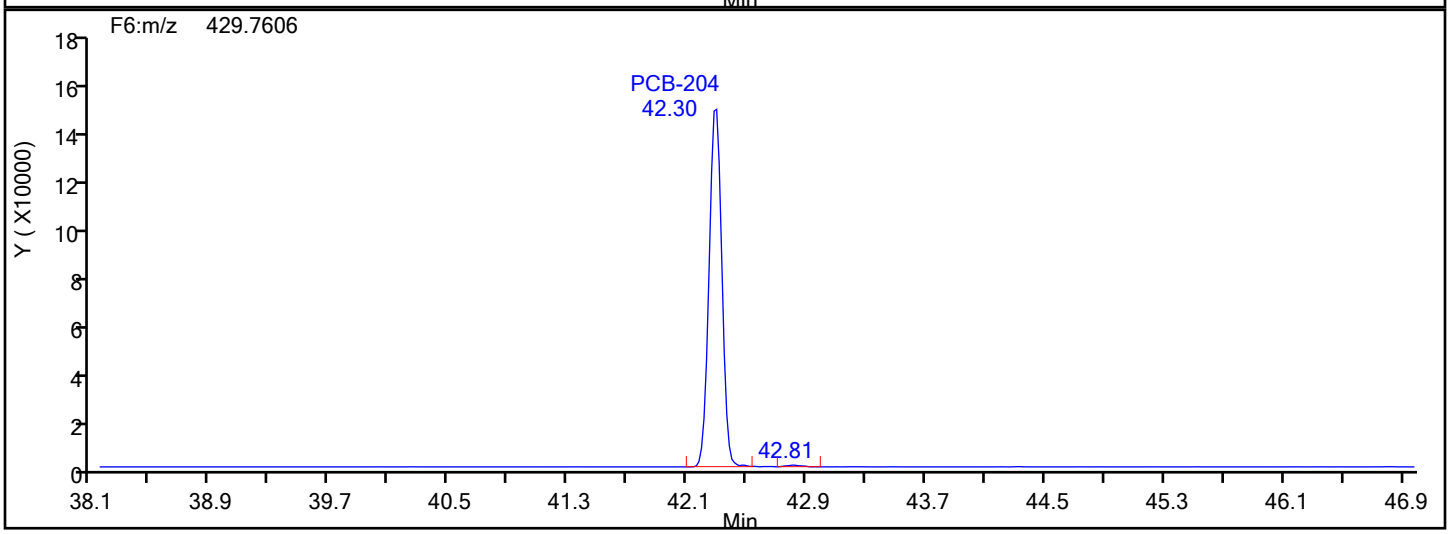
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

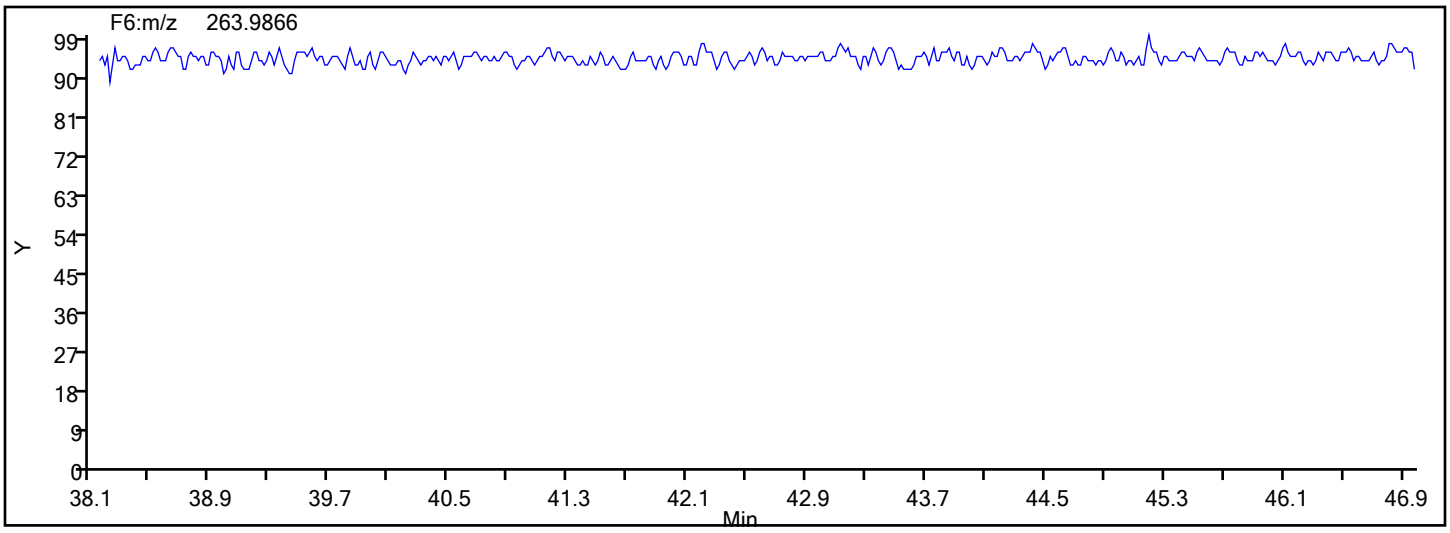
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



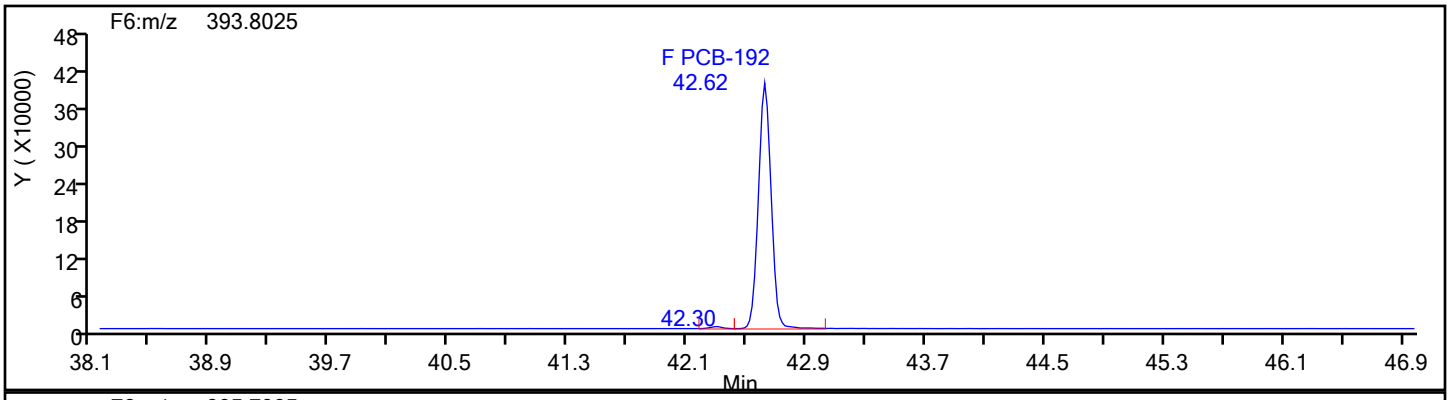
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

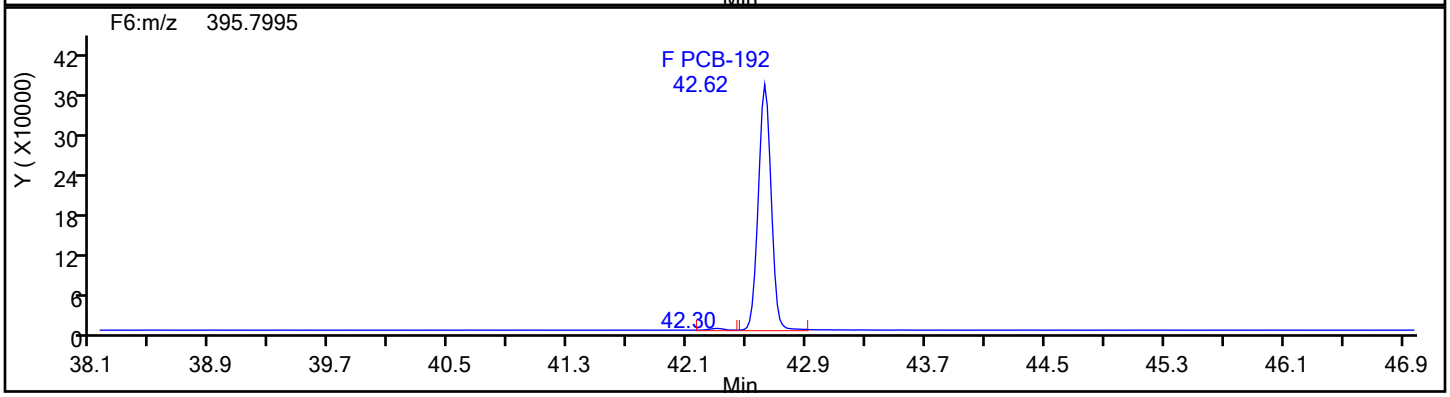
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d

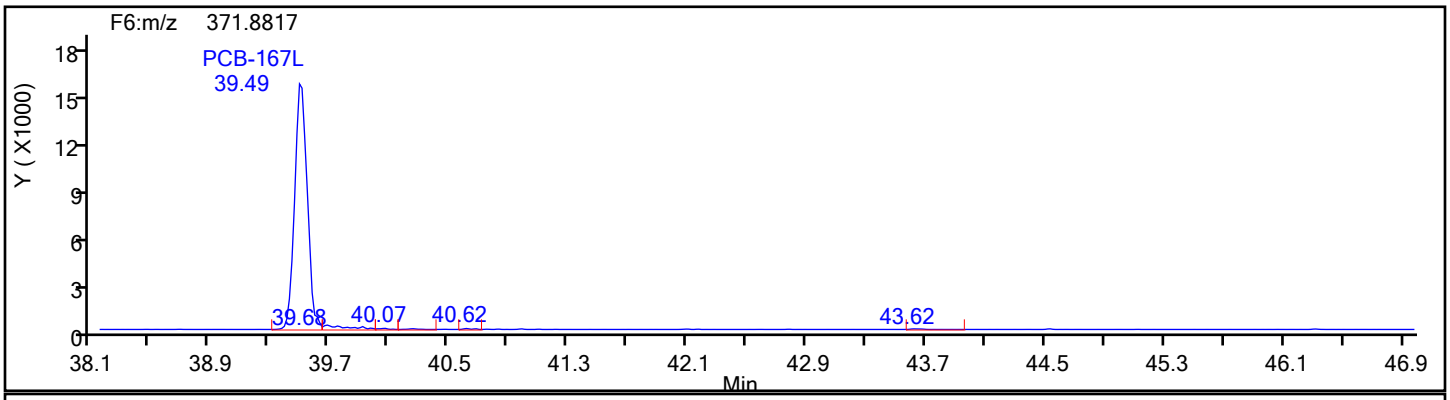
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

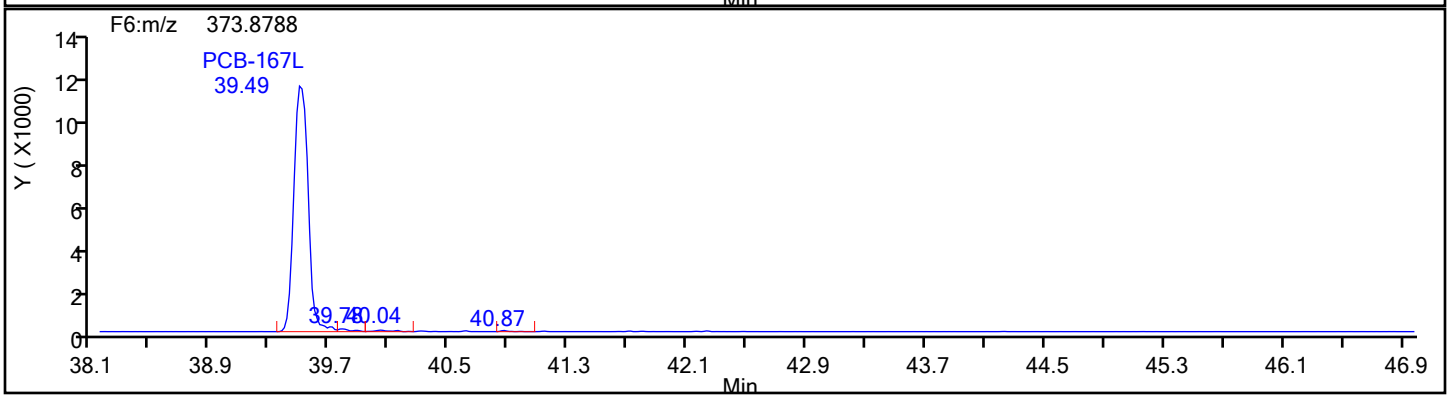
PCB-192





PCB-192 Standards



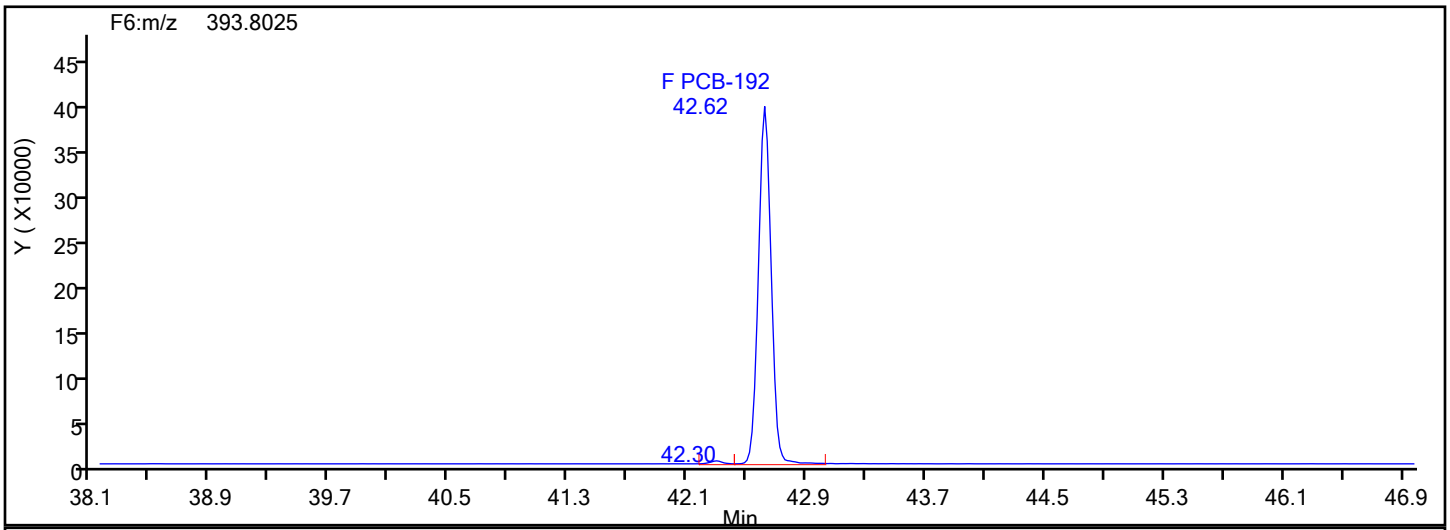


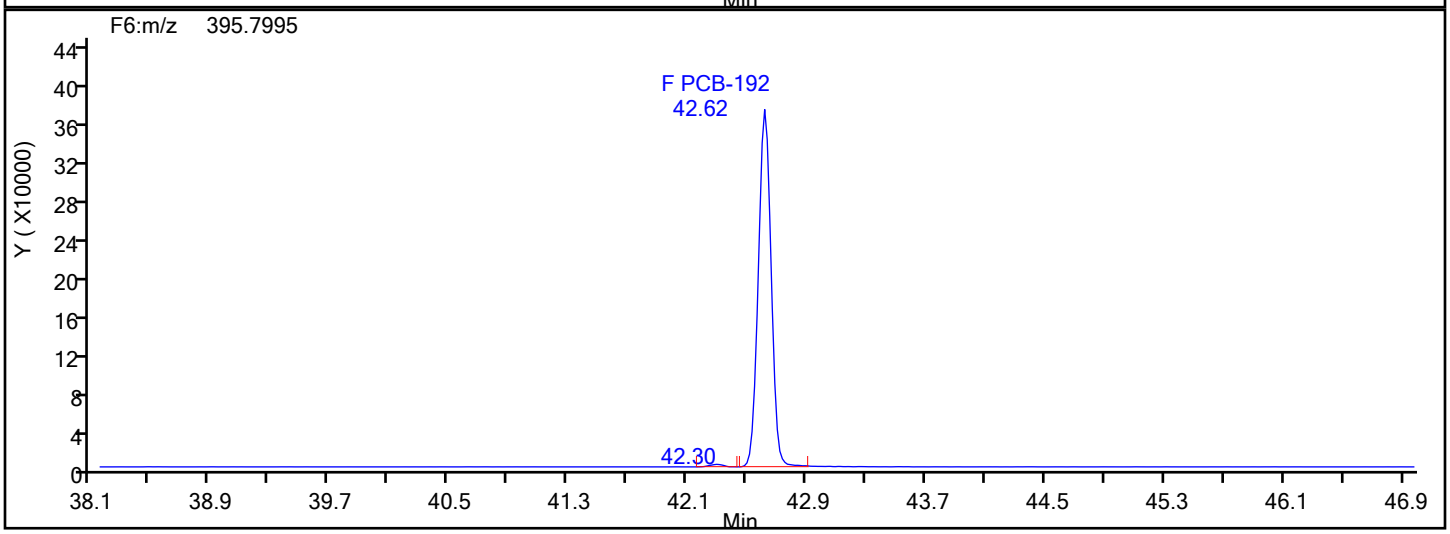
Report Date: 31-Mar-2025 14:10:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

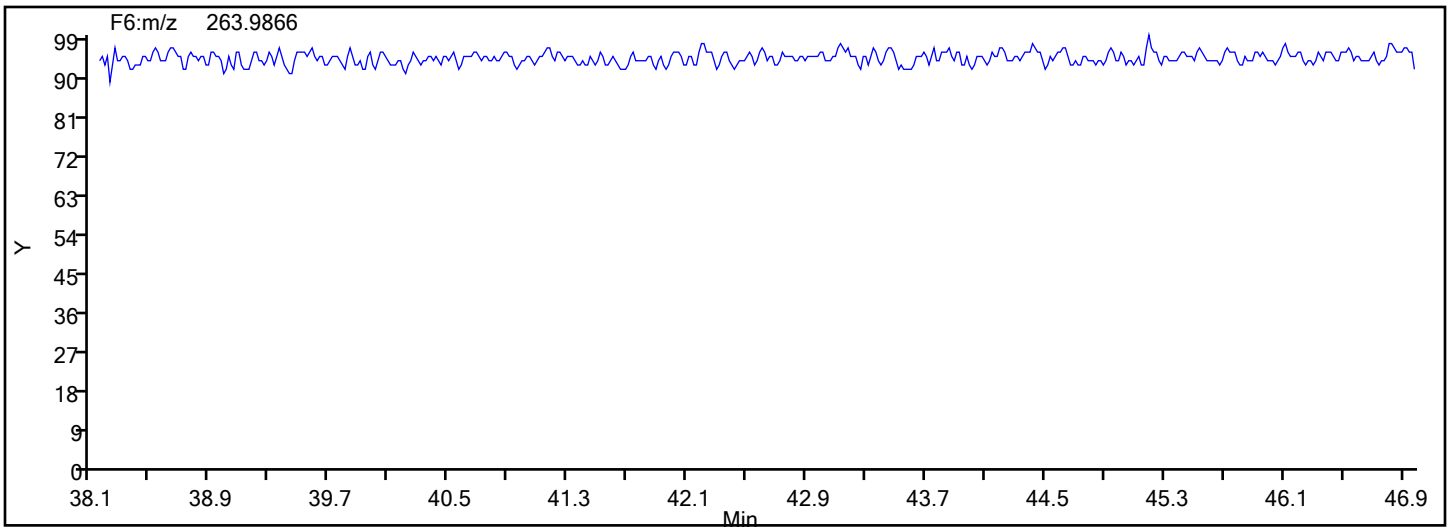
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-6-b10x.d		
Injection Date:	30-Mar-2025 20:35:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	PW-TB-241230		
Worklist#:	97758	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK1 | Lab Sample ID: 140-40836-7

Matrix: PE | Lab File ID: 140-40836-a-7-a.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.045(g) | Date Analyzed: 05/04/2025 23:17

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.12	J	22	0.018

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-7-a.d
Lims ID: 140-40836-A-7-B
Client ID: ASPECT.PRC.BLK1
Sample Type: Client
Inject. Date: 04-May-2025 23:17:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	301391	1.62		100.0	100.0				
PCB-14	17:47	3008026	1.61							
* 13C6-Pentachlorophenol (IS)	18:27	9803624	0.67		500.0	500.0				
Pentachlorophenol	18:28	5343	0.61	1.0218	0.2667	0.2667	0.0397	0.0397		
PCB-36	22:07	18859043	1.05							
* PCB-101L	28:03	4447840	1.63		100.0	100.0				
PCB-104	23:41	25250599	1.60							
* PCB-118L	32:44	6797885	1.60		100.0	100.0				
PCB-121	26:40	99976948	1.65							
* PCB-138L	36:55	4135216	1.30		100.0	100.0				
PCB-142	27:27	21133205	1.26							
* PCB-60L	27:41	7691114	0.81		100.0	100.0				
PCB-78	29:19	122662864	0.79							
* PCB-167L	39:25	4758685	1.28		100.0	100.0				
PCB-155	33:56	13068390	1.26							
PCB-184	34:35	27051830	1.05							
PCB-204	42:13	40517786	0.89							
PCB-192	42:32	122487977	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-7-a.d
Lims ID: 140-40836-A-7-B
Client ID: ASPECT.PRC.BLK1
Sample Type: Client
Inject. Date: 04-May-2025 23:17:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		186210	65902	146	365	451		
236.0376	19:02	19:02	0		115181	42305	48	120	881	1.62(1.16-1.93)	
PCB-14											
222.0003	17:47	17:49	-2	0.934	1857281	713359	44	110	16213		
223.9974	17:47	17:49	-2	0.934	1150745	447359	94	235	4759	1.61(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:28	0		3928719	1044282	46	115	22702		
271.8636	18:27	18:28	0		5874905	1543967	45	112	34310	0.67(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.001	2032	1003	70	175	14		
265.8435	18:27	18:28	0	1.000	3311	744	14	35	53	0.61(0.00-0.00)	
PCB-36											
255.9613	22:07	22:10	-3	1.162	9675158	2800750	63	157	44456		
257.9584	22:07	22:10	-3	1.162	9183885	2645257	59	147	44835	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:03	28:04	-1		2756549	622798	1	2	622798		
339.9178	28:03	28:04	-1		1691291	387877	1	2	387877	1.63(1.16-1.94)	
PCB-104											
325.8804	23:41	23:43	-3	0.844	15533907	4103033	12	30	341919		
327.8775	23:41	23:43	-3	0.844	9716692	2565917	7	17	366560	1.60(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		4183733	849022	47	117	18064		
339.9178	32:44	32:44	0		2614152	527176	37	92	14248	1.60(1.16-1.94)	
PCB-121											
325.8804	26:40	26:42	-2	0.815	62201114	15543922	800	2000	19430		
327.8775	26:40	26:42	-2	0.815	37775834	9337498	511	1277	18273	1.65(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:55	36:56	-1		2340520	438225	23	57	19053		
373.8788	36:55	36:56	-1		1794696	339661	24	60	14153	1.30(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	11785619	2746504	121	302	22698		
361.8385	27:27	27:29	-2	0.743	9347586	2187773	119	297	18385	1.26(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:41	-1		3449900	796494	25	62	31860		
303.9597	27:41	27:41	-1		4241214	982751	56	140	17549	0.81(0.58-0.96)	
PCB-78											
289.9224	29:19	29:18	1	1.059	54188977	12253229	1260	3150	9725		
291.9194	29:19	29:18	1	1.059	68473887	15547725	804	2010	19338	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:25	39:25	0		2667258	473319	7	17	67617		
373.8788	39:25	39:25	0		2091427	375671	10	25	37567	1.28(1.16-1.94)	
PCB-155											
359.8415	33:56	33:59	-2	0.861	7298341	1404459	506	1265	2776		
361.8385	33:56	33:59	-2	0.861	5770049	1115989	445	1112	2508	1.26(1.05-1.43)	
PCB-184											
393.8025	34:35	34:38	-2	0.878	13858078	2689844	85	212	31645		
395.7995	34:35	34:38	-2	0.878	13193752	2545587	96	240	26517	1.05(0.89-1.21)	
PCB-204											
427.7635	42:13	42:15	-2	1.071	19135325	3274958	8	20	409370		
429.7606	42:13	42:15	-2	1.071	21382461	3659798	6	15	609966	0.89(0.76-1.02)	
PCB-192											
393.8025	42:32	42:35	-3	1.079	62677941	11109876	93	232	119461		
395.7995	42:32	42:35	-3	1.079	59810036	10672071	86	215	124094	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

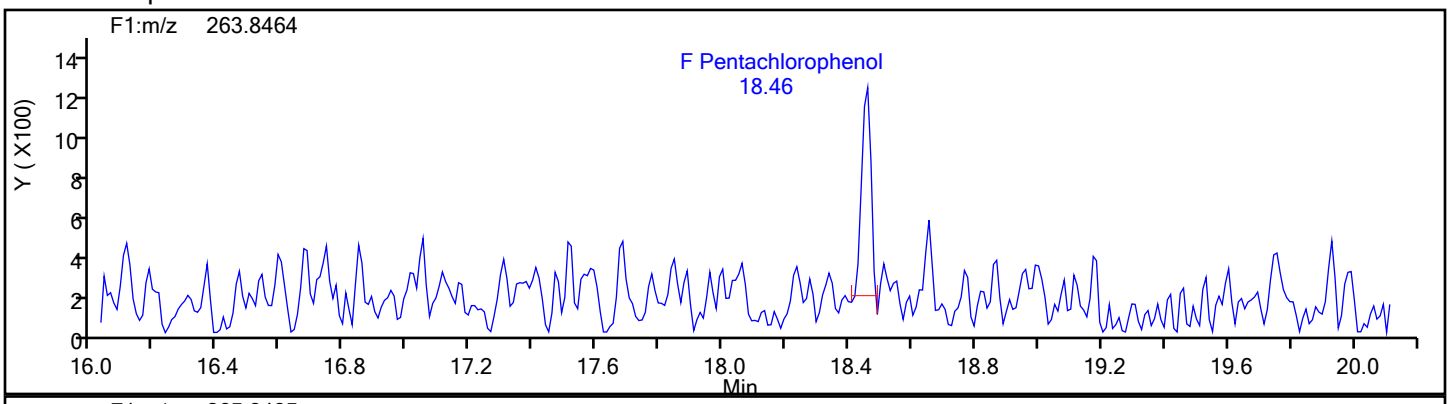
Report Date: 06-May-2025 13:36:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

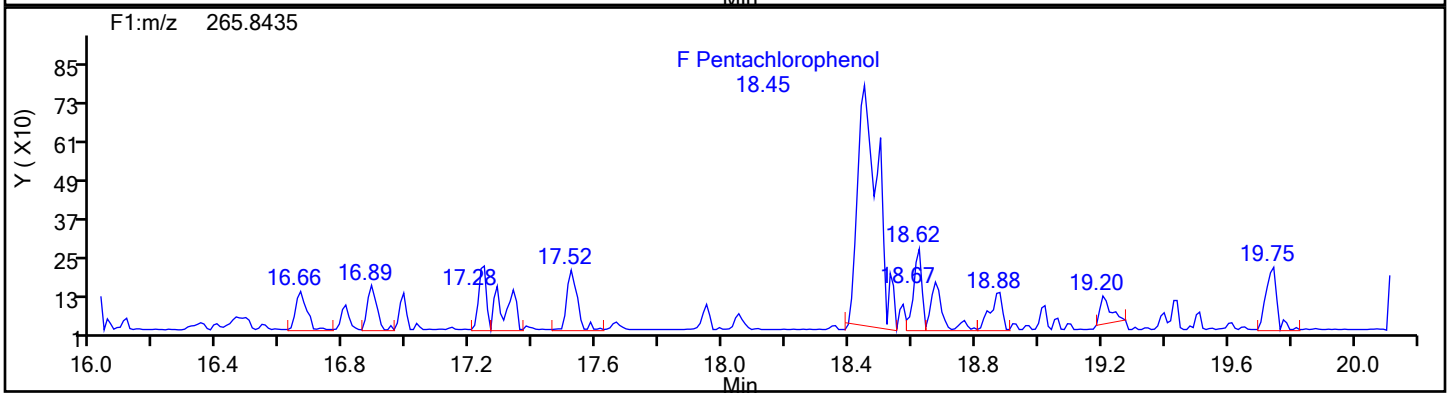
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-7-a.d

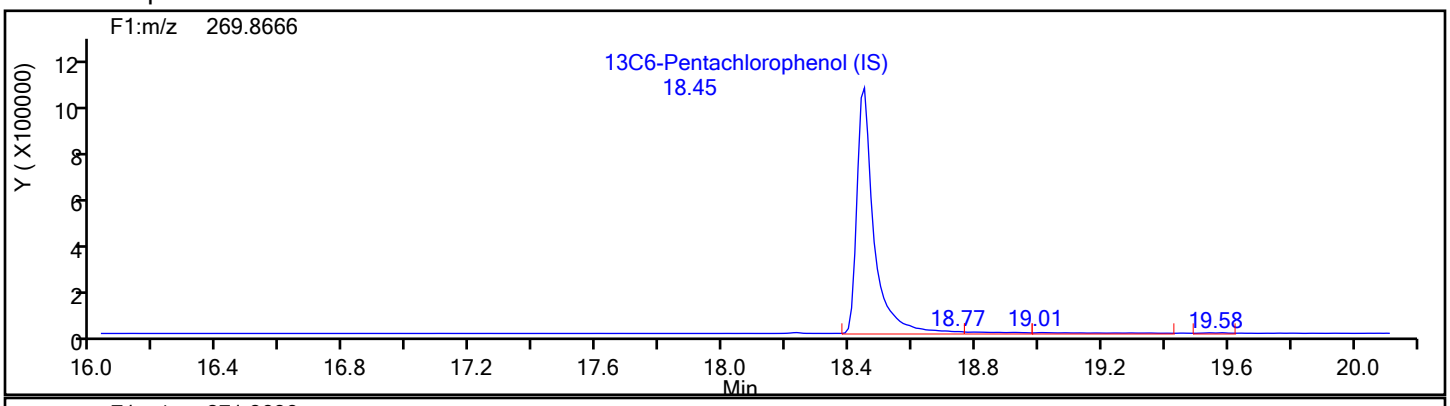
Injection Date:	04-May-2025 23:17:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	99272	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

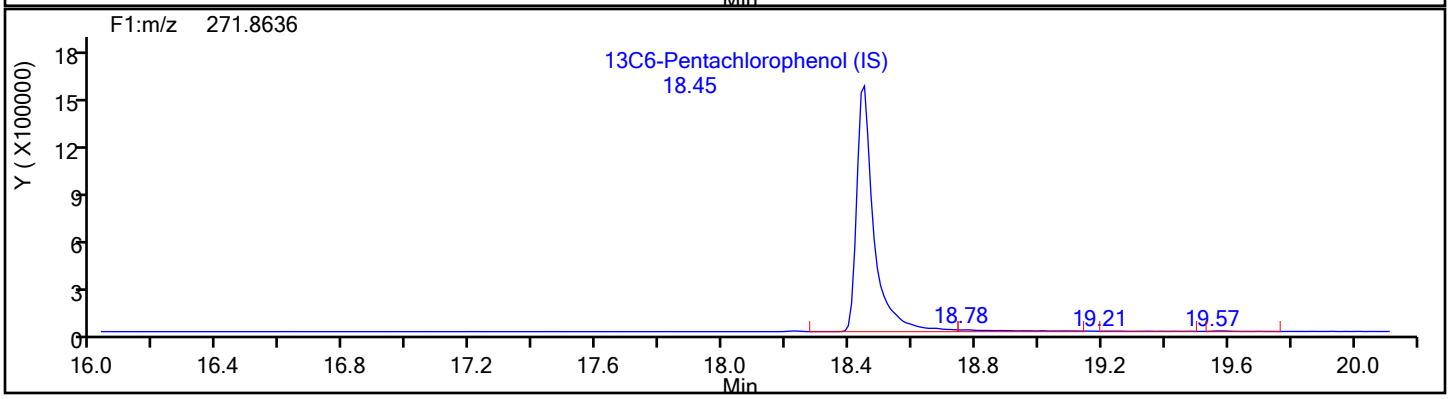
Pentachlorophenol





Pentachlorophenol Standards





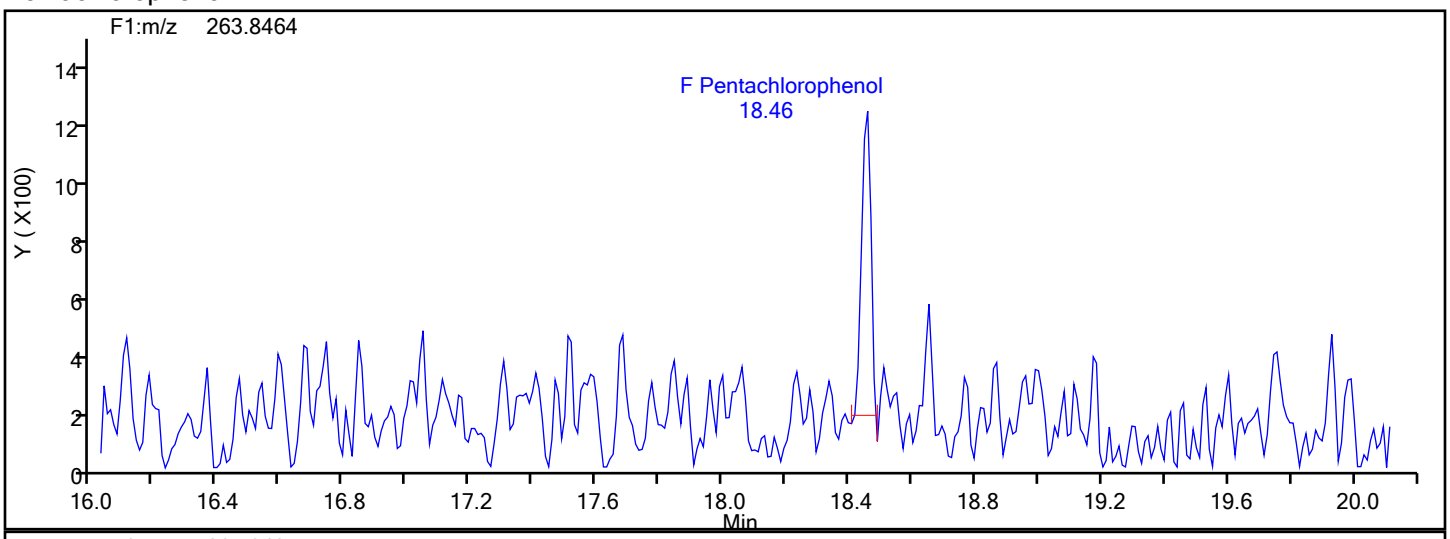
Report Date: 06-May-2025 13:36:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

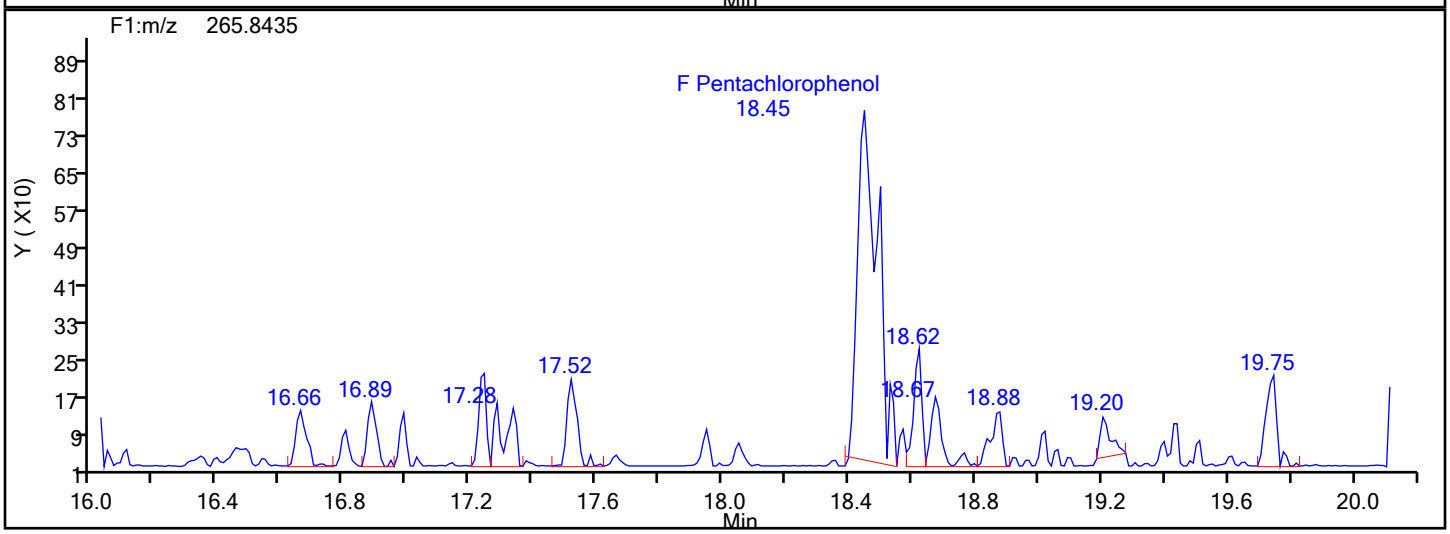
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-7-a.d

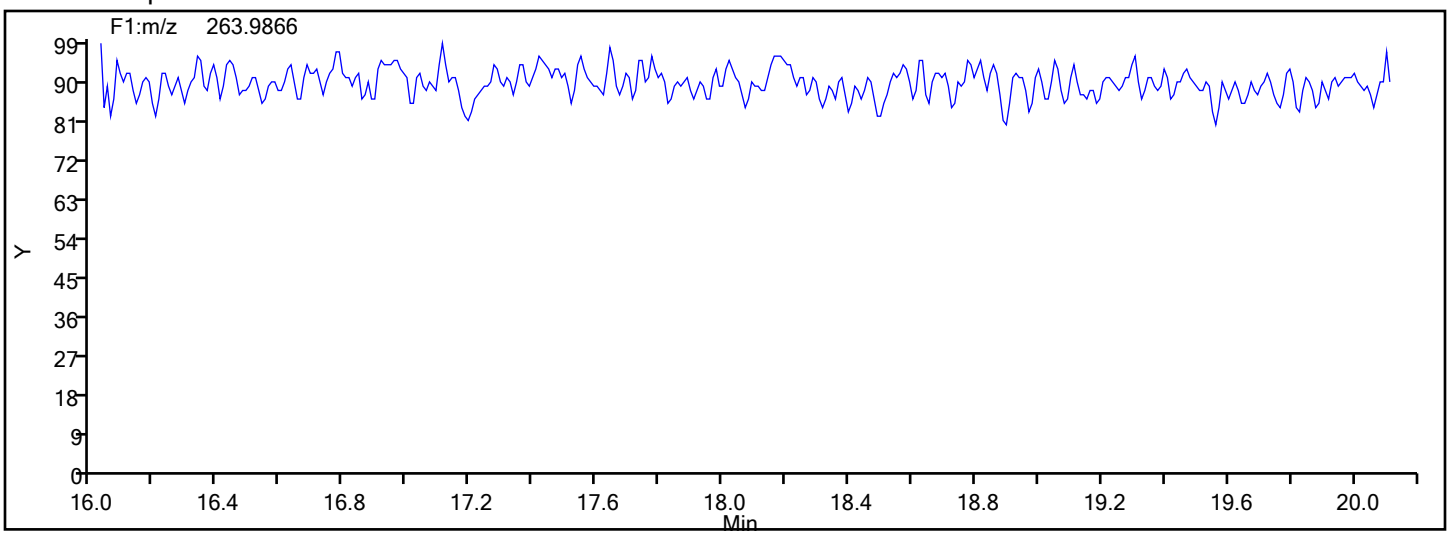
Injection Date:	04-May-2025 23:17:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	99272	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK1 | Lab Sample ID: 140-40836-7

Matrix: PE | Lab File ID: 140-40836-a-7-b10x.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.045(g) | Date Analyzed: 03/30/2025 21:30

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	630		22	0.011
74472-51-8	PCB-192	1500	B	22	0.20
74472-48-3	PCB-184	250	B	22	0.019
33979-03-2	PCB-155	150		22	0.21
41411-61-4	PCB-142	180	B	22	0.038
74472-52-9	PCB-204	600	B	22	0.010
56558-16-8	PCB-104	560	B	22	0.0023
56558-18-0	PCB-121	690	B	22	0.17
70362-49-1	PCB-78	460	B	22	0.054
38444-87-0	PCB-36	210		22	0.020

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d
Lims ID: 140-40836-A-7-B
Client ID: ASPECT.PRC.BLK1
Sample Type: Client
Inject. Date: 30-Mar-2025 21:30:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-012
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:06	620593	1.65		10.0	10.0				
PCB-14	17:50	11890910	1.55	1.3581	141.1	141.1	0.002508	0.002508		
* 13C6-Pentachlorophenol (IS)	18:20	96	0.35		500.0	500.0				
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	3044637	1.07	1.0230	48.0	48.0	0.004565	0.004565		
* PCB-101L	28:09	237251	1.59		10.0	10.0				
PCB-104	23:45	5460984	1.55	1.8372	125.3	125.3	0.000524	0.000524		
* PCB-118L	32:49	243088	1.55		10.0	10.0				
PCB-121	26:44	5505073	1.58	1.4622	154.9	154.9	0.0390	0.0390		
* PCB-138L	37:01	158537	1.19		10.0	10.0				
PCB-142	27:31	1276921	1.28	2.0271	39.7	39.7	0.008589	0.008589		
* PCB-60L	27:46	368753	0.83		10.0	10.0				
PCB-78	29:24	3480951	0.82	0.9153	103.1	103.1	0.0122	0.0122		
* PCB-167L	39:31	179138	1.26		10.0	10.0				
PCB-155	34:01	552050	1.27	0.9191	33.5	33.5	0.0473	0.0473		
PCB-184	34:40	1169876	1.06	1.1610	56.3	56.3	0.004318	0.004318		
PCB-204	42:18	1786976	0.92	0.7364	135.5	135.5	0.002269	0.002269		
PCB-192	42:38	4728179	1.06	0.7635	345.7	345.7	0.0460	0.0460		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Report Date: 31-Mar-2025 14:10:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d
Lims ID: 140-40836-A-7-B
Client ID: ASPECT.PRC.BLK1
Sample Type: Client
Inject. Date: 30-Mar-2025 21:30:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-012
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:06	19:05	1		386364	111176	4	10	27794		
236.0376	19:06	19:05	1		234229	70833	1	2	70833	1.65(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	1	0.934	7222798	2543072	15	37	169538		
223.9974	17:50	17:50	1	0.934	4668112	1657212	10	25	165721	1.55(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:20	18:31	-11		25	13	1	2	13		
271.8636	18:18	18:31	-12		71	33	1	2	33	0.35(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31						17	42			
265.8435	18:31						4	10			
PCB-36											
255.9613	22:11	22:10	1	1.162	1572322	414055	15	37	27604		
257.9584	22:11	22:10	1	1.162	1472315	389685	19	47	20510	1.07(0.88-1.20)	
PCB-101L											
337.9207	28:09	28:08	1		145504	31265	1	2	31265		
339.9178	28:09	28:08	1		91747	20695	1	2	20695	1.59(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	1	0.844	3320292	863385	1	2	863385		
327.8775	23:45	23:45	1	0.844	2140692	557531	1	2	557531	1.55(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	1		147776	29179	1	2	29179		
339.9178	32:50	32:48	1		95312	16460	1	2	16460	1.55(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	1	0.815	3375024	795669	58	145	13718		
327.8775	26:44	26:44	1	0.815	2130049	508211	46	115	11048	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	37:01	37:00	1		86295	14503	1	2	14503		
373.8788	37:01	37:00	1		72242	12491	1	2	12491	1.19(1.16-1.94)	
PCB-142											
359.8415	27:31	27:31	0	0.743	716139	162647	13	32	12511		
361.8385	27:31	27:31	0	0.743	560782	125866	6	15	20978	1.28(1.05-1.43)	
PCB-60L											
301.9626	27:46	27:45	1		166971	34456	4	10	8614		
303.9597	27:46	27:45	1		201782	41908	1	2	41908	0.83(0.58-0.96)	
PCB-78											
289.9224	29:24	29:23	1	1.059	1565951	300399	19	47	15810		
291.9194	29:24	29:23	1	1.059	1915000	372765	15	37	24851	0.82(0.65-0.89)	
PCB-167L											
371.8817	39:31	39:30	1		99980	17231	2	5	8616		
373.8788	39:31	39:30	1		79158	12691	1	2	12691	1.26(1.16-1.94)	
PCB-155											
359.8415	34:01	34:00	1	0.861	308950	58927	34	85	1733		
361.8385	34:01	34:00	1	0.861	243100	44909	18	45	2495	1.27(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	0	0.877	600868	112803	5	12	22561		
395.7995	34:40	34:40	0	0.877	569008	104554	1	2	104554	1.06(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.070	857087	149586	1	2	149586		
429.7606	42:18	42:18	0	1.070	929889	164668	1	2	164668	0.92(0.76-1.02)	
PCB-192											
393.8025	42:38	42:37	1	1.079	2435345	407295	9	22	45255		
395.7995	42:38	42:37	1	1.079	2292834	385308	33	82	11676	1.06(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

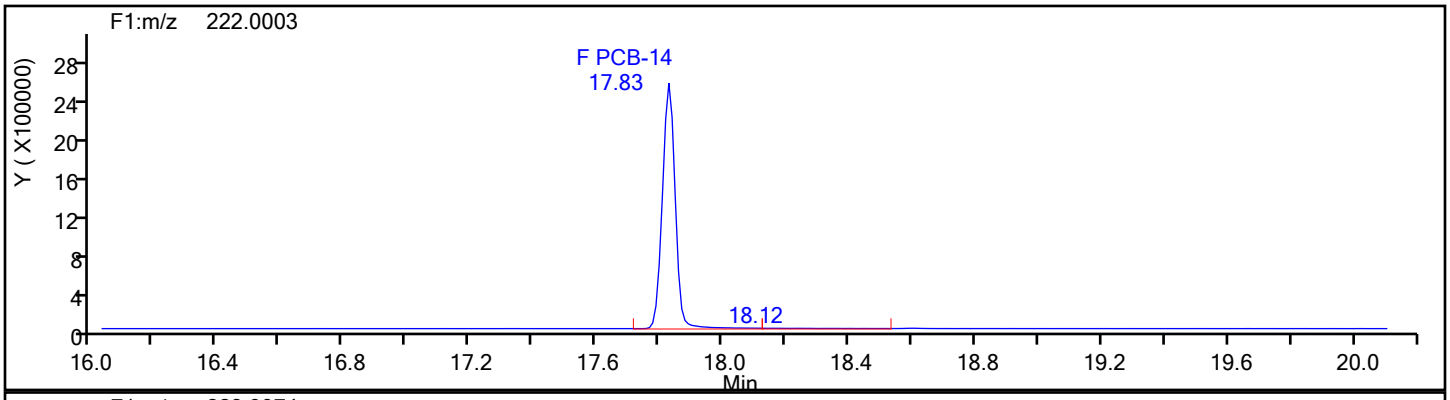
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

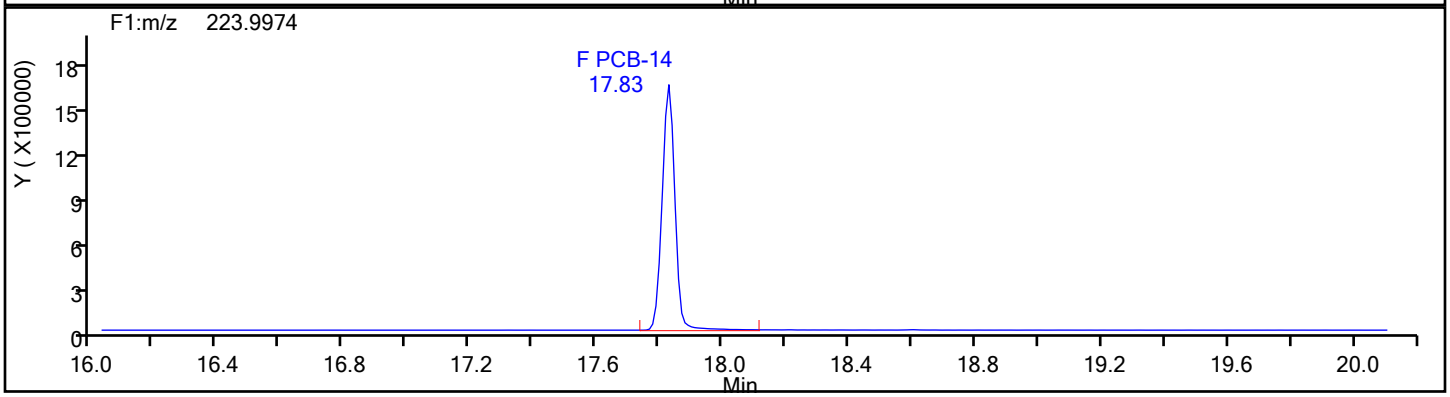
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

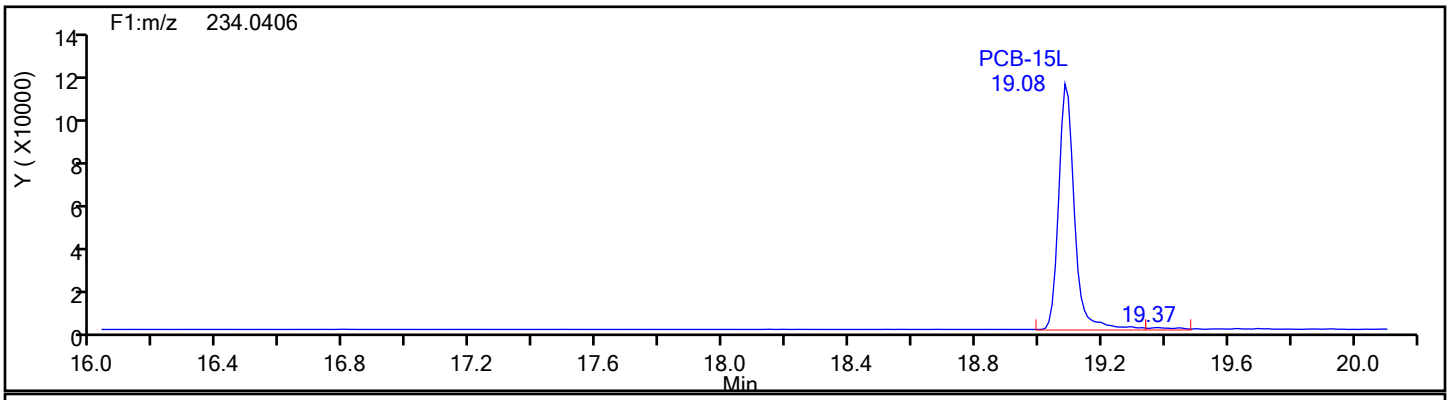
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

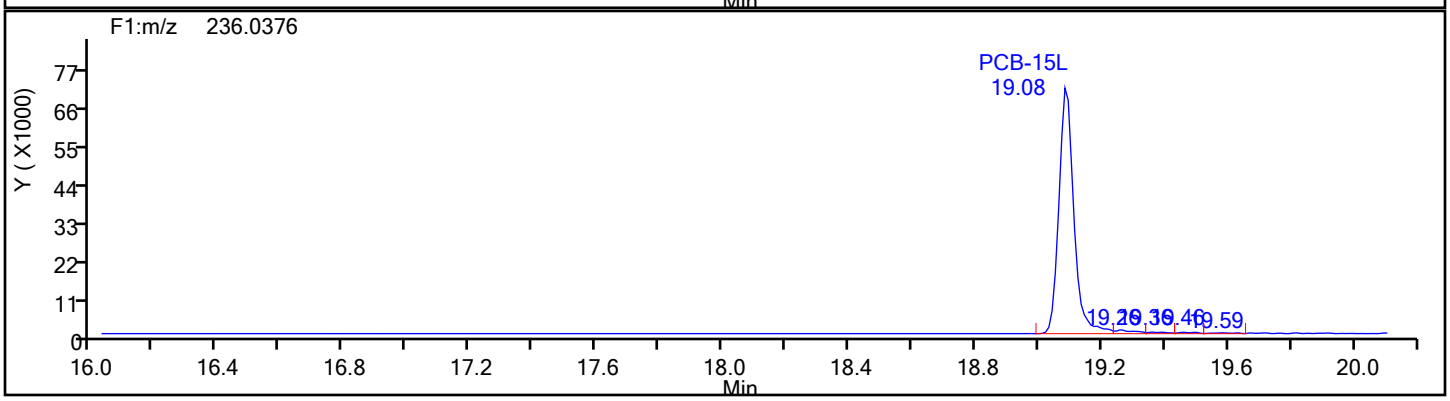
PCB-14





PCB-14 Standards



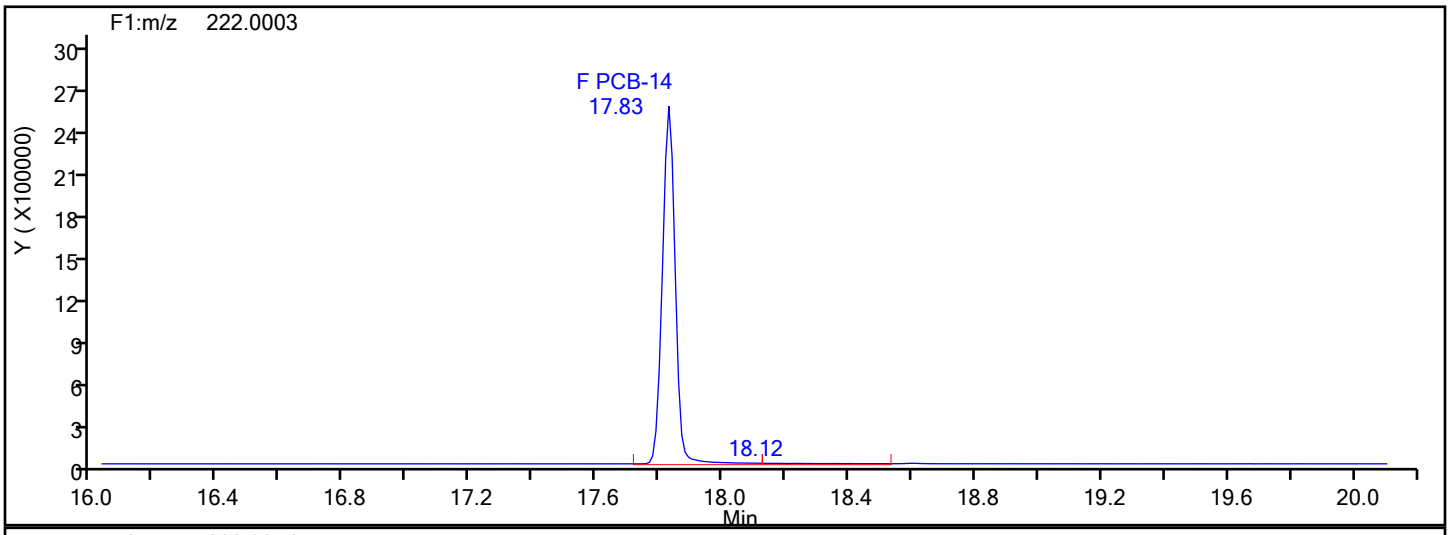


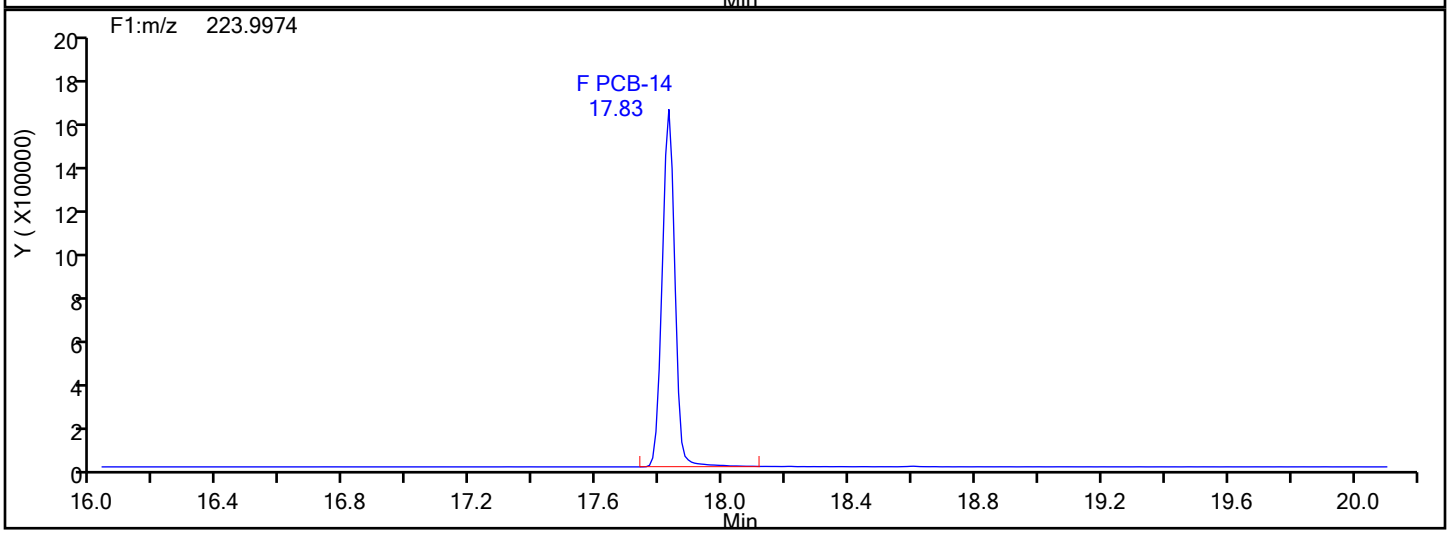
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

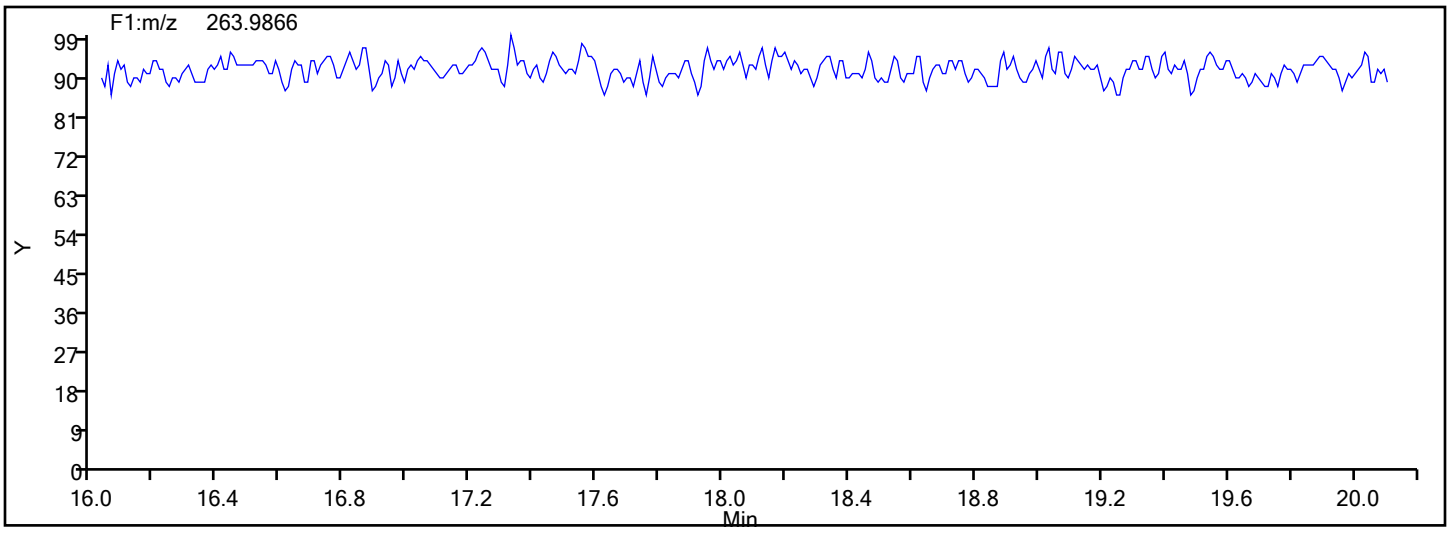
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



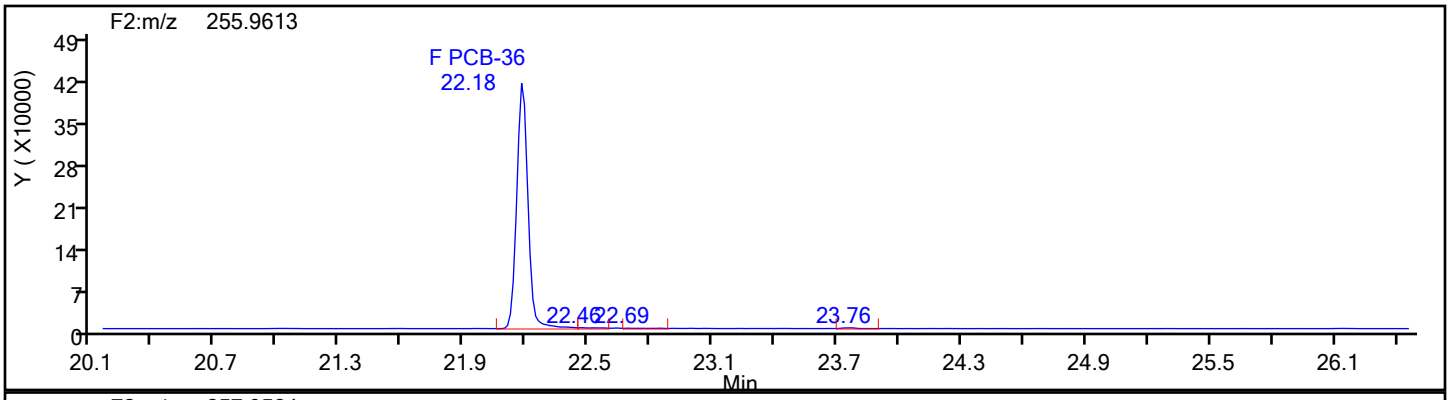
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

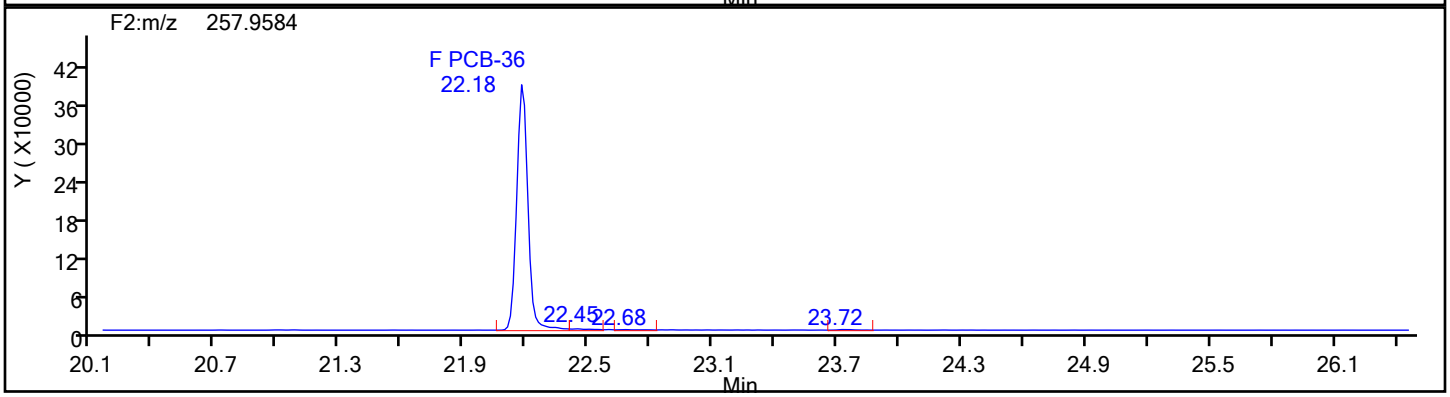
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

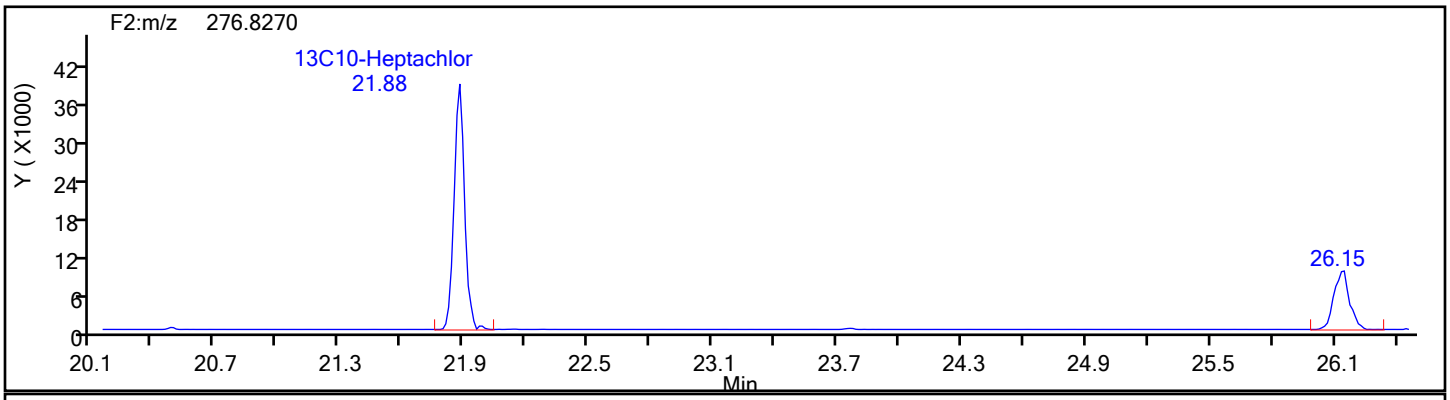
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

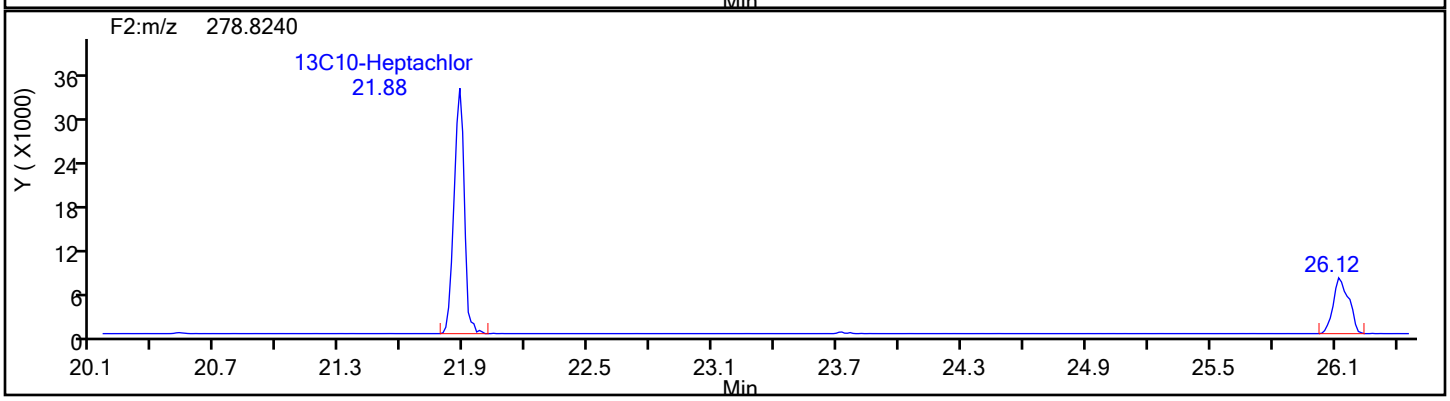
PCB-36





PCB-36 Standards



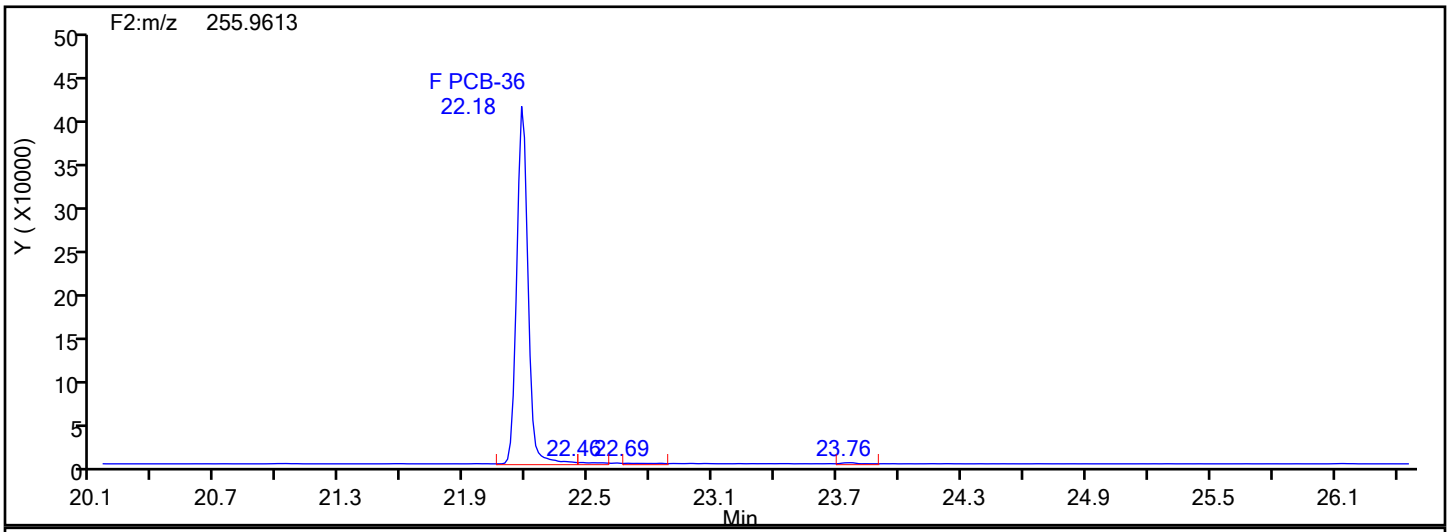


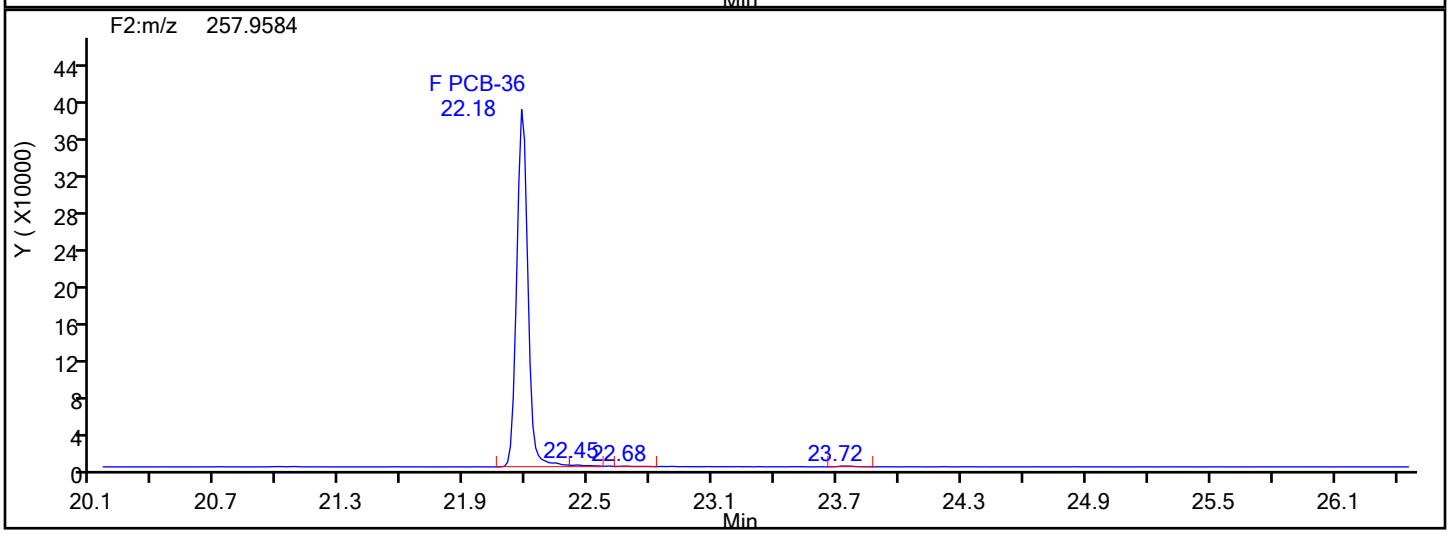
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

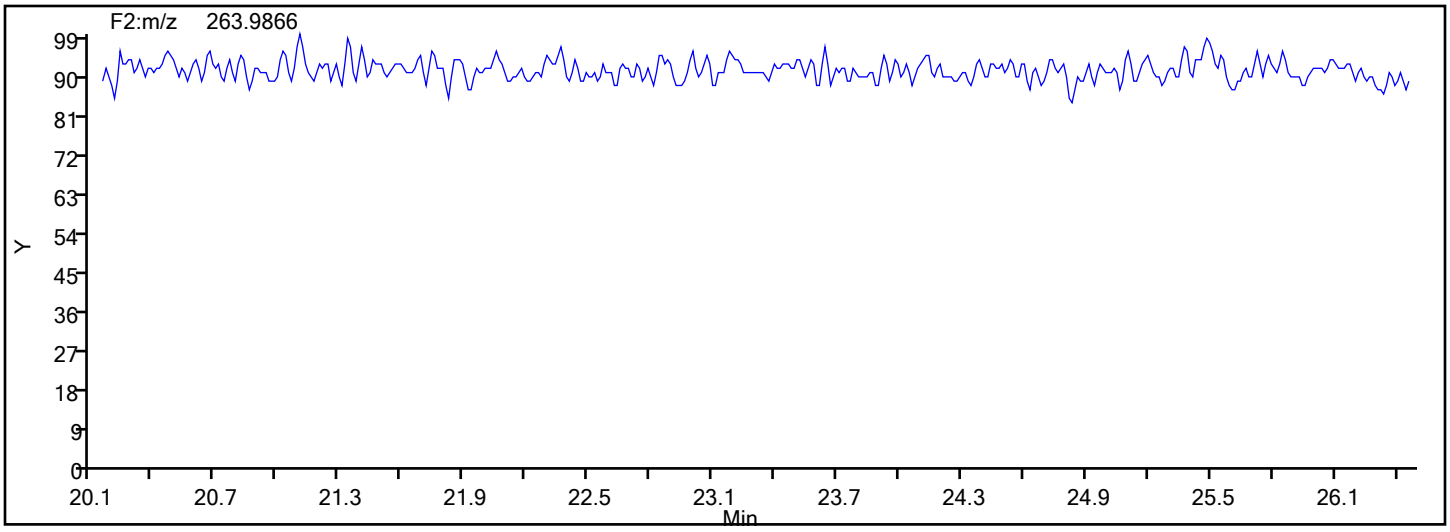
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



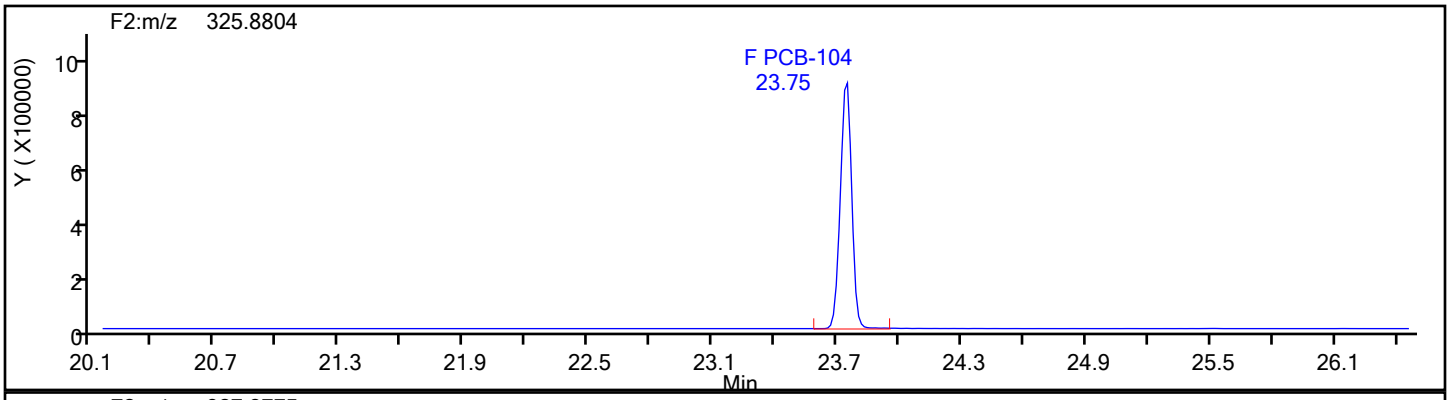
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

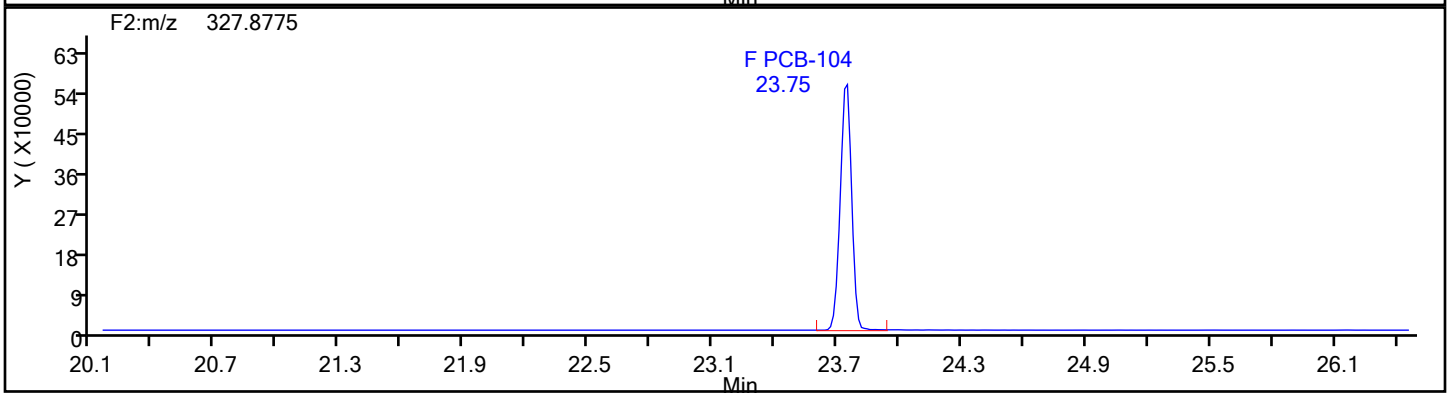
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

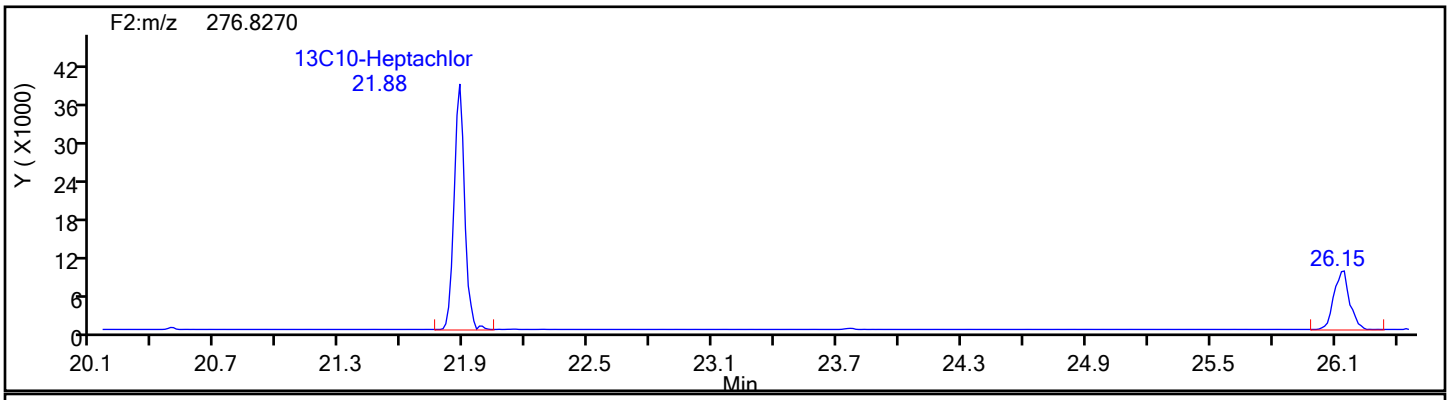
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

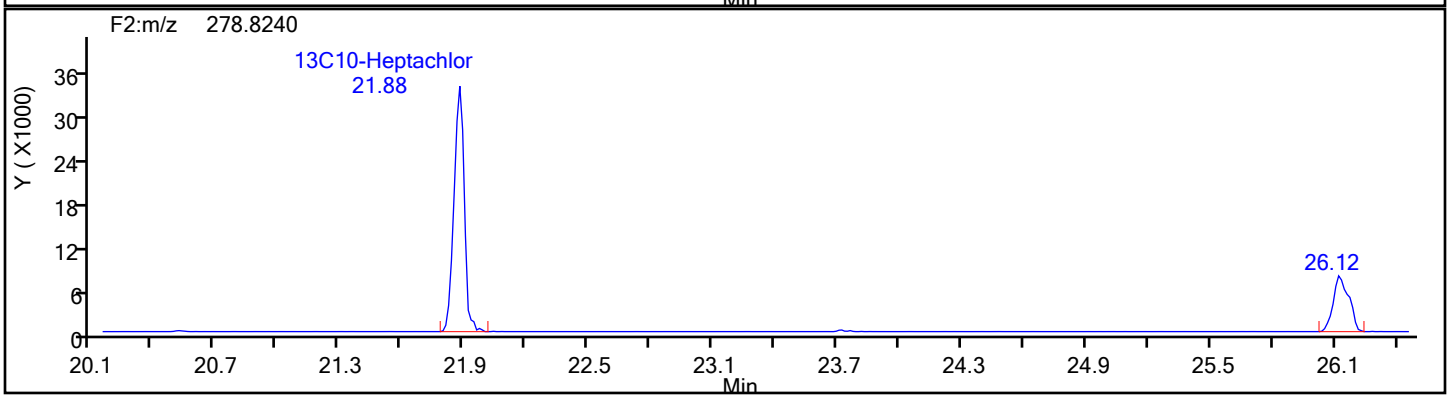
PCB-104





PCB-104 Standards



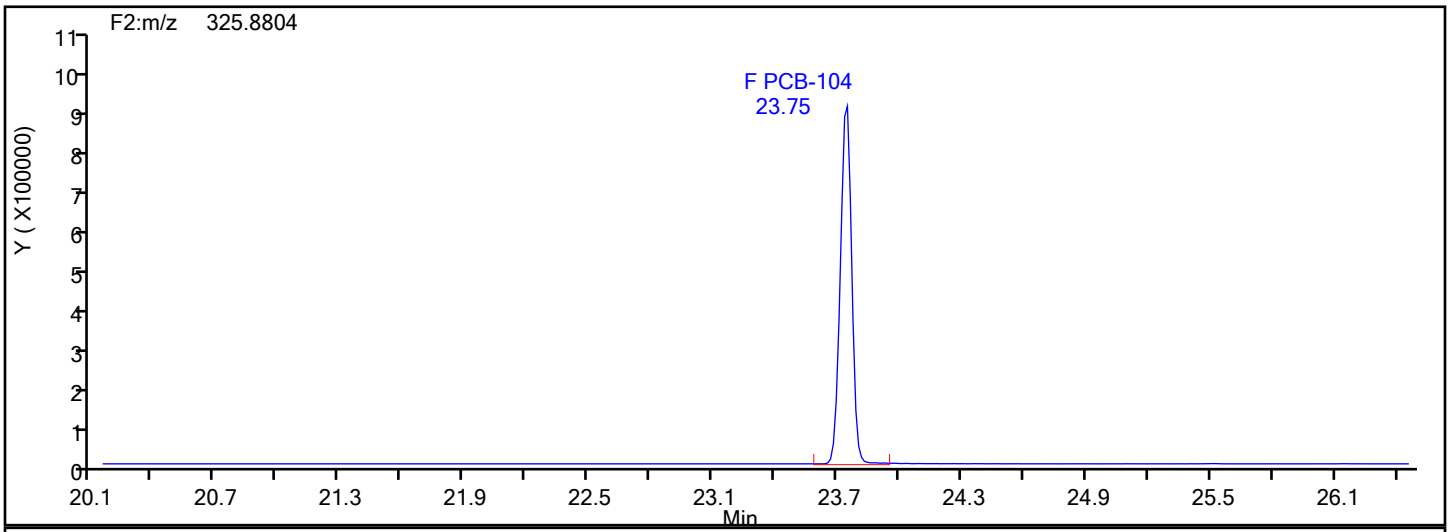


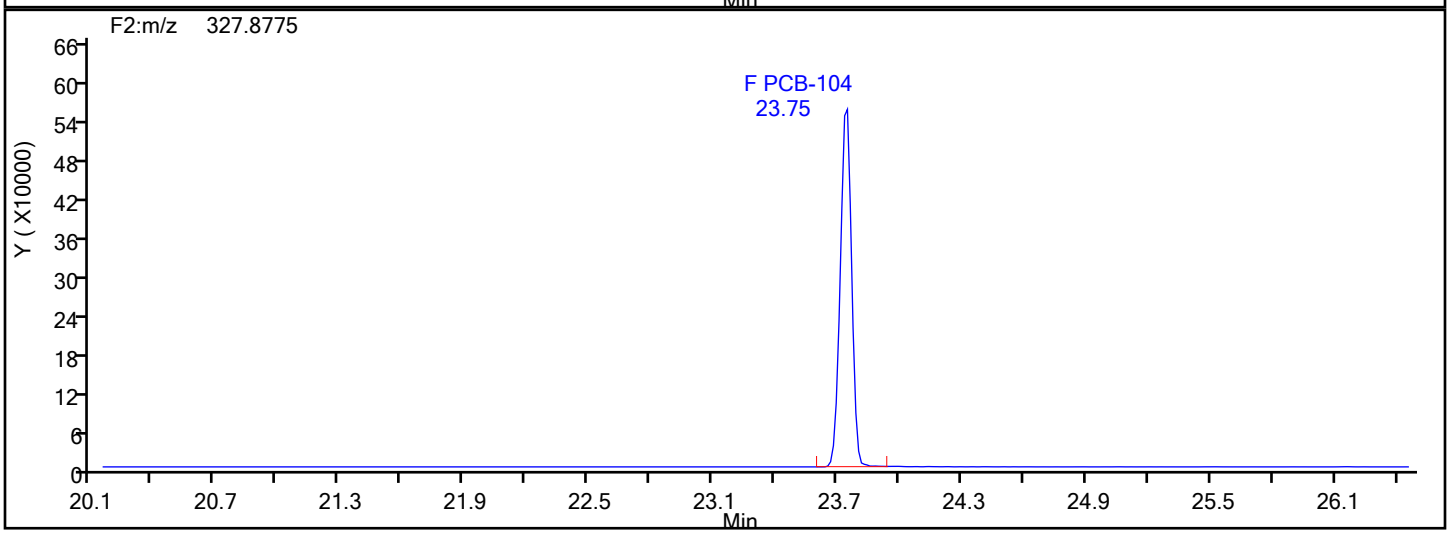
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

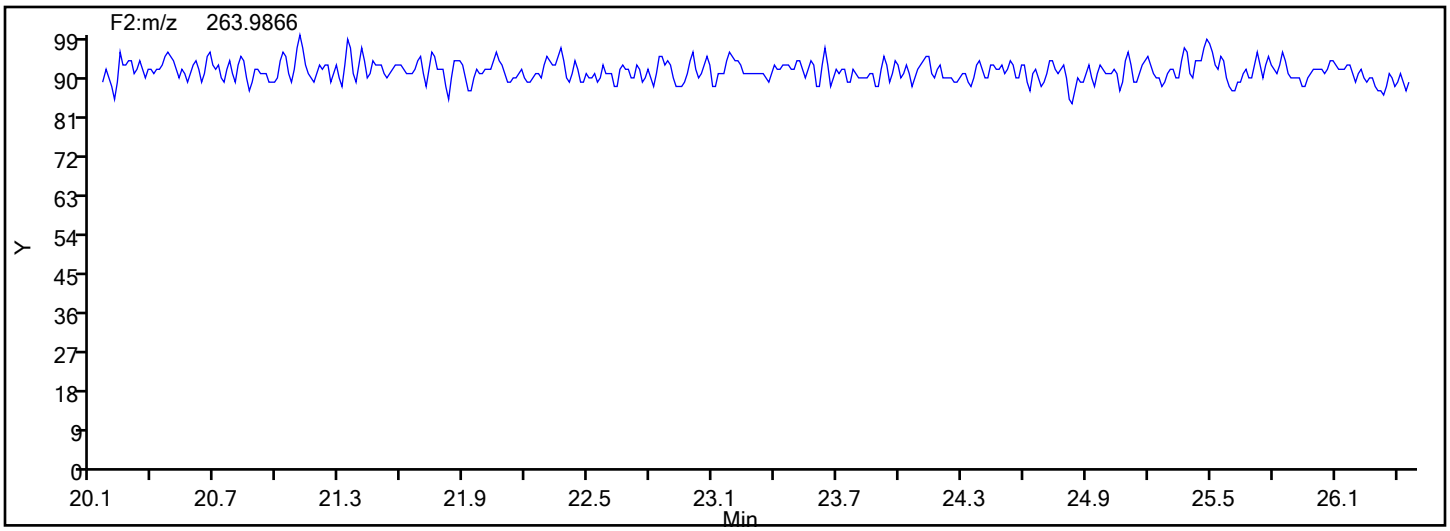
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



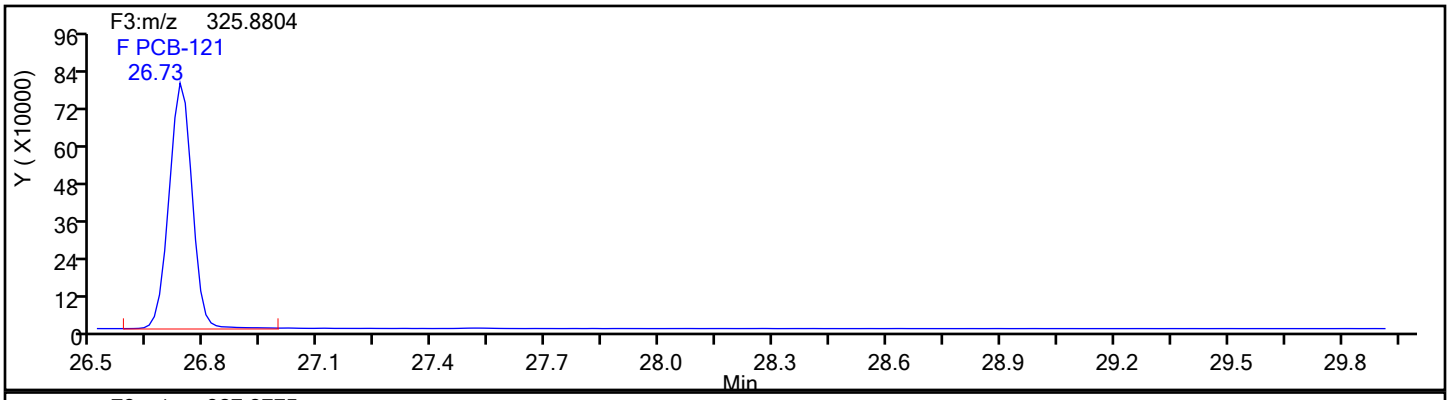
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

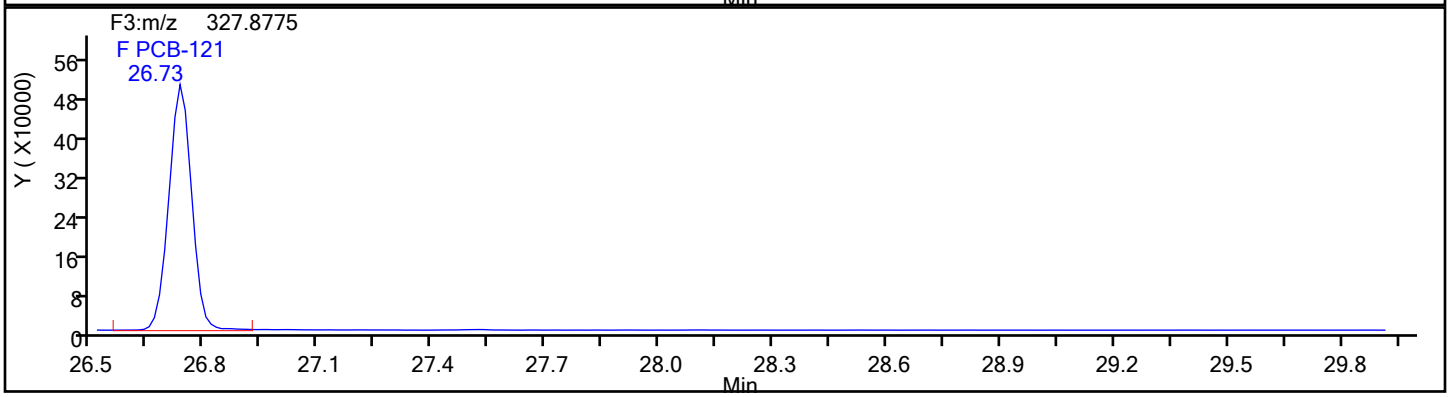
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

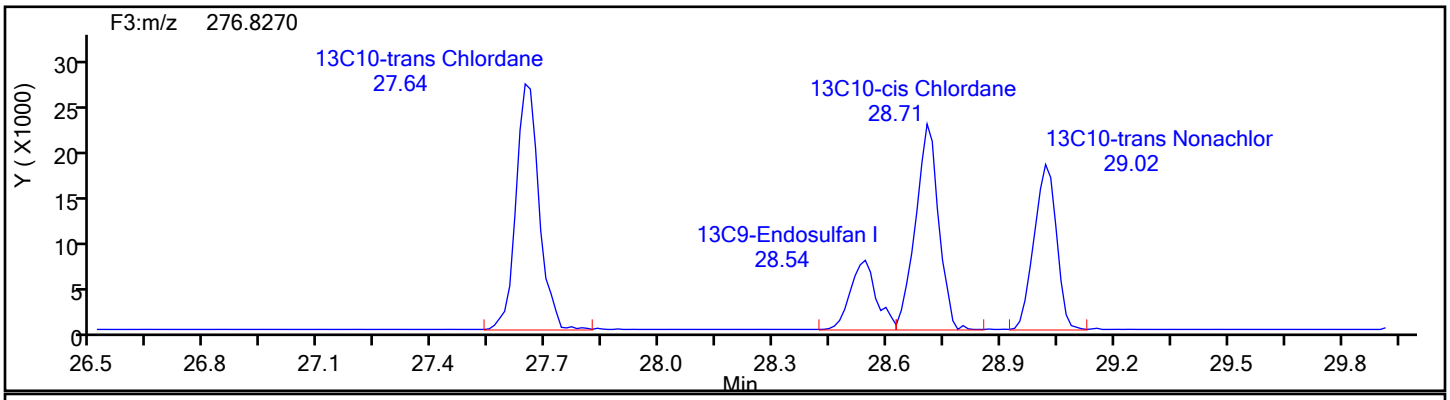
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

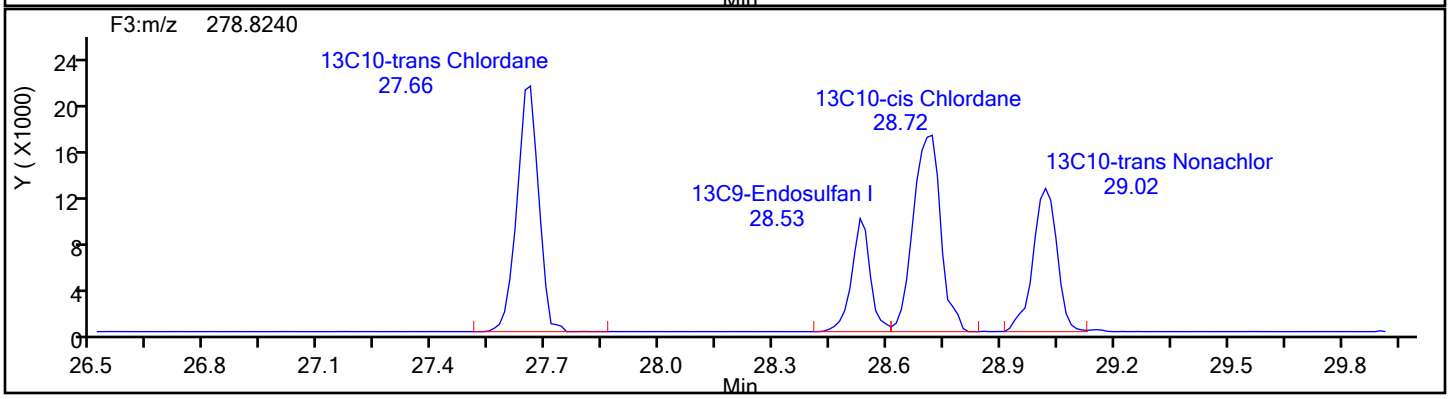
PCB-121





PCB-121 Standards



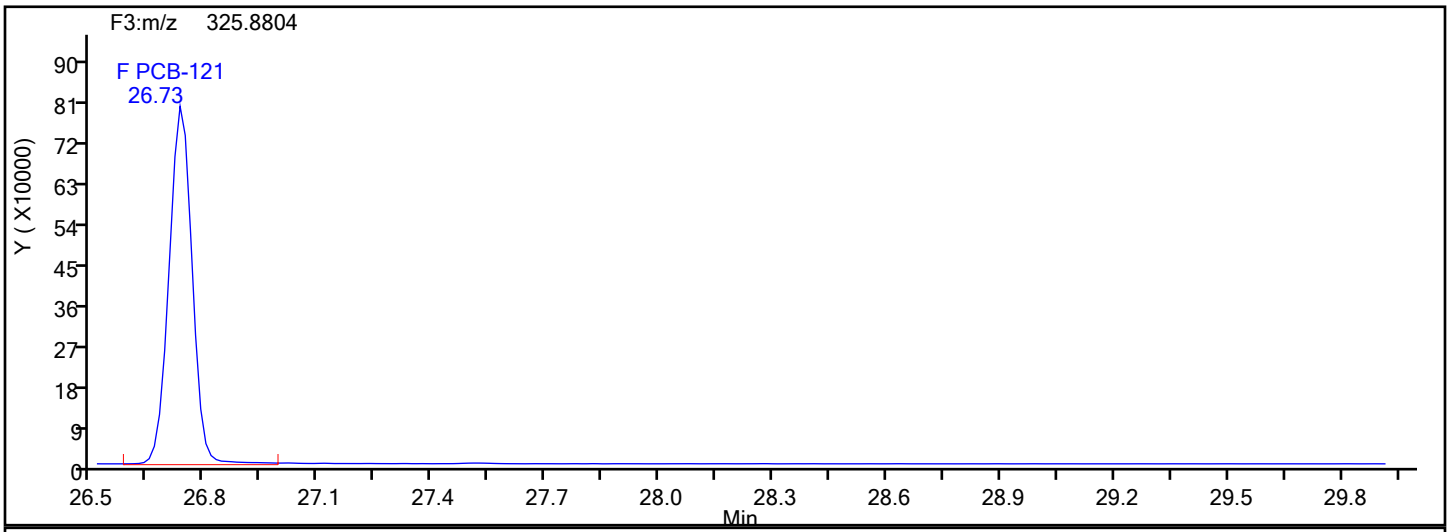


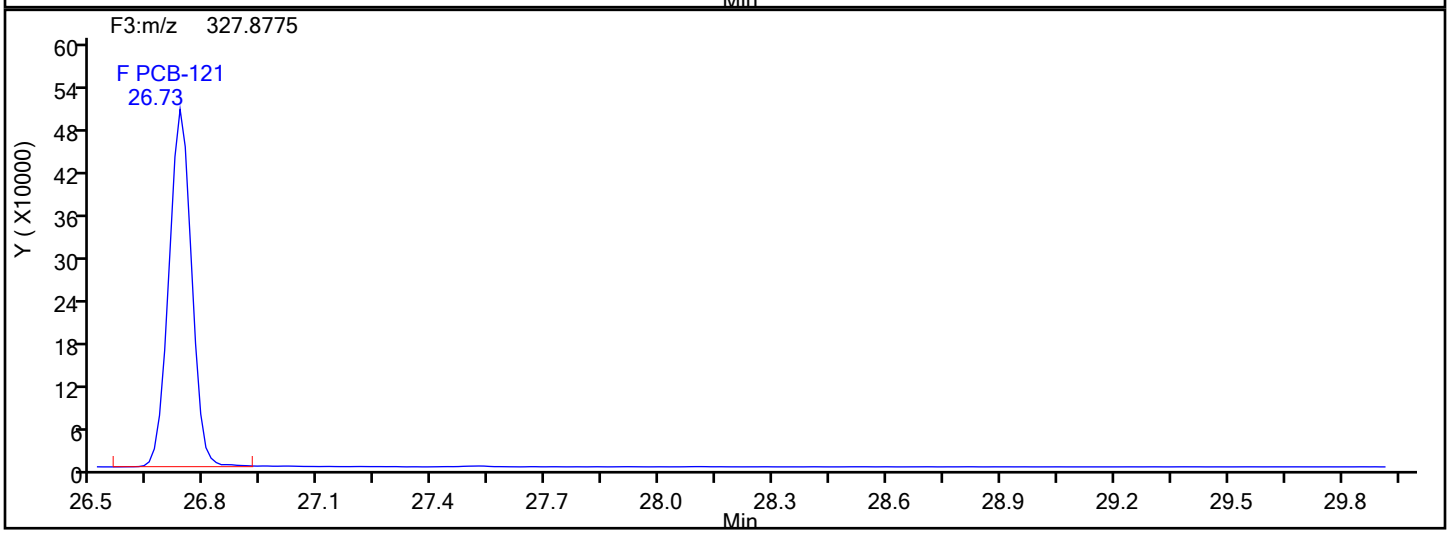
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

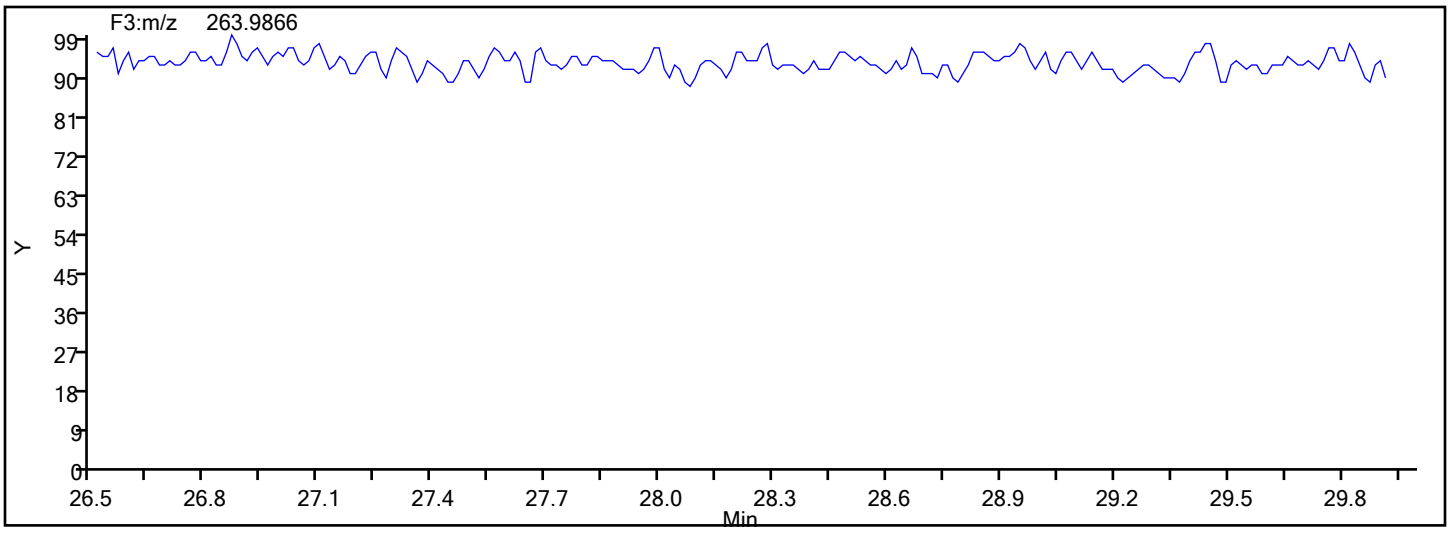
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



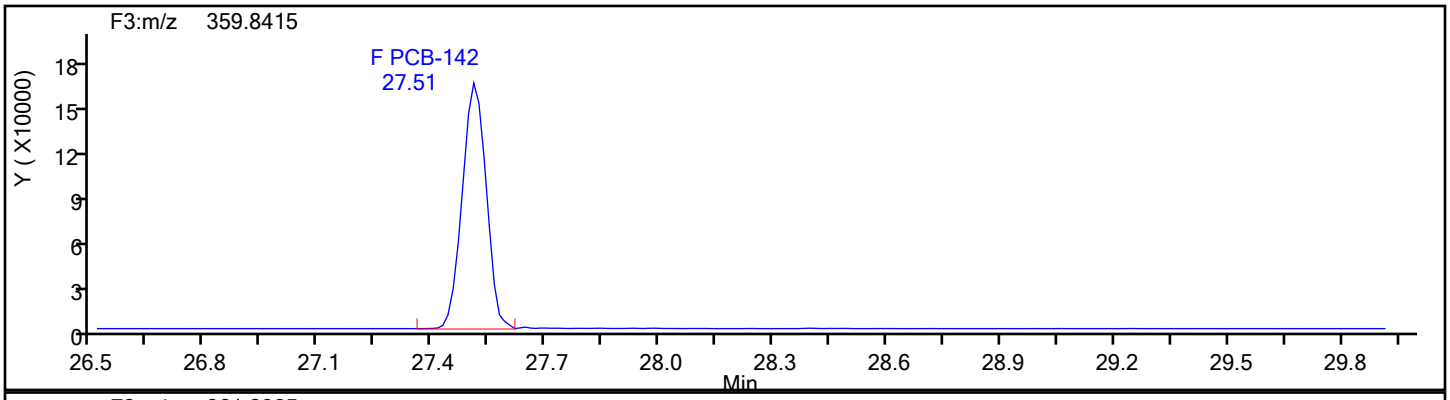
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

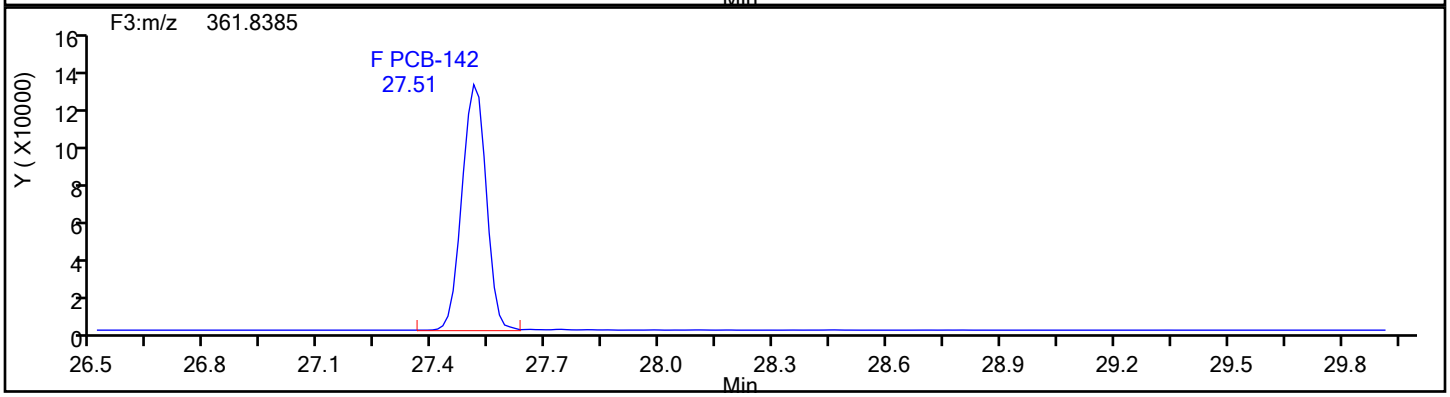
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

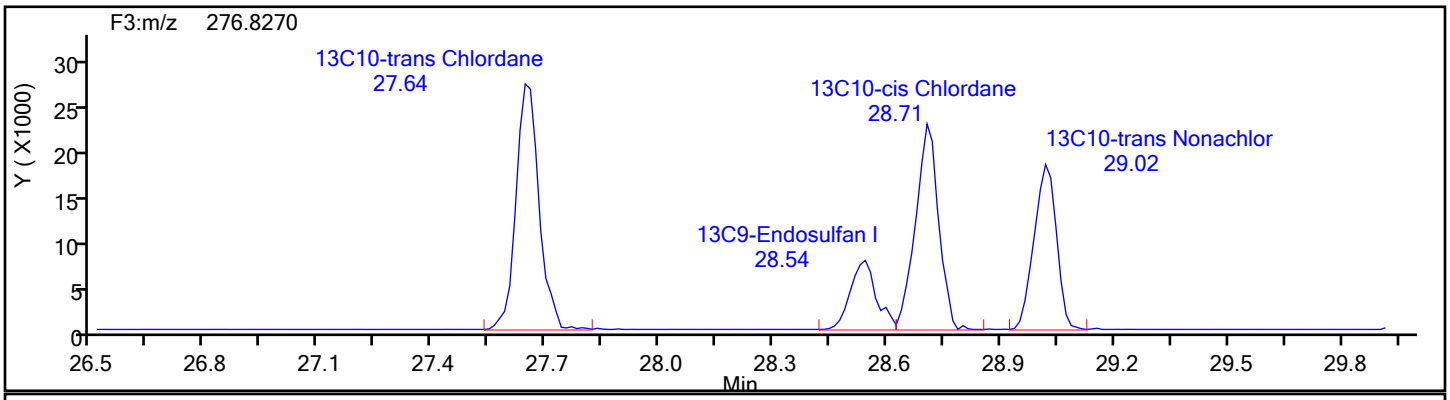
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

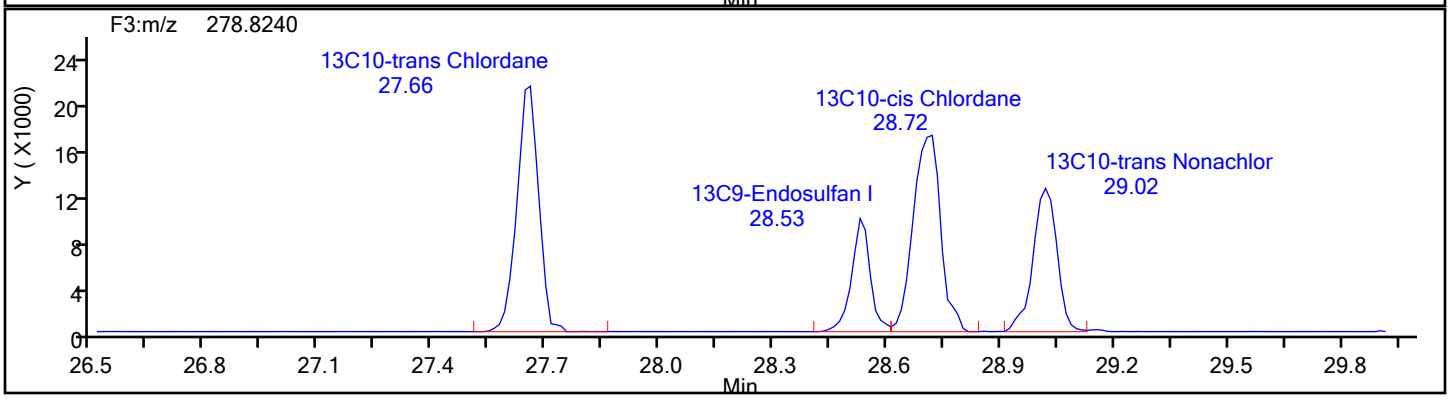
PCB-142





PCB-142 Standards



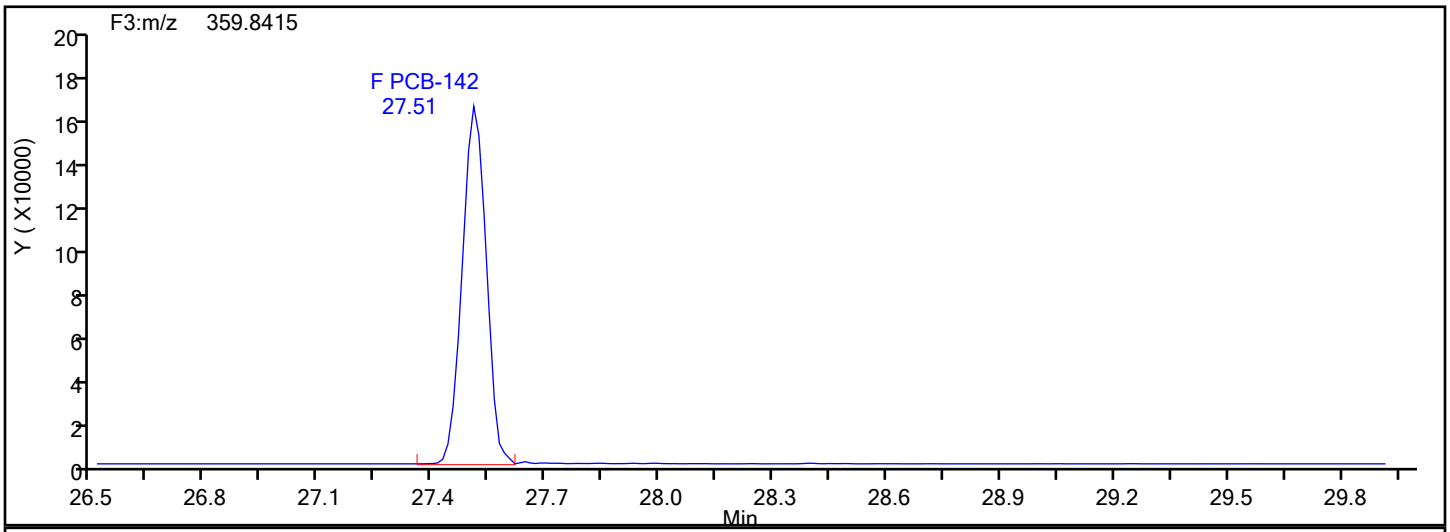


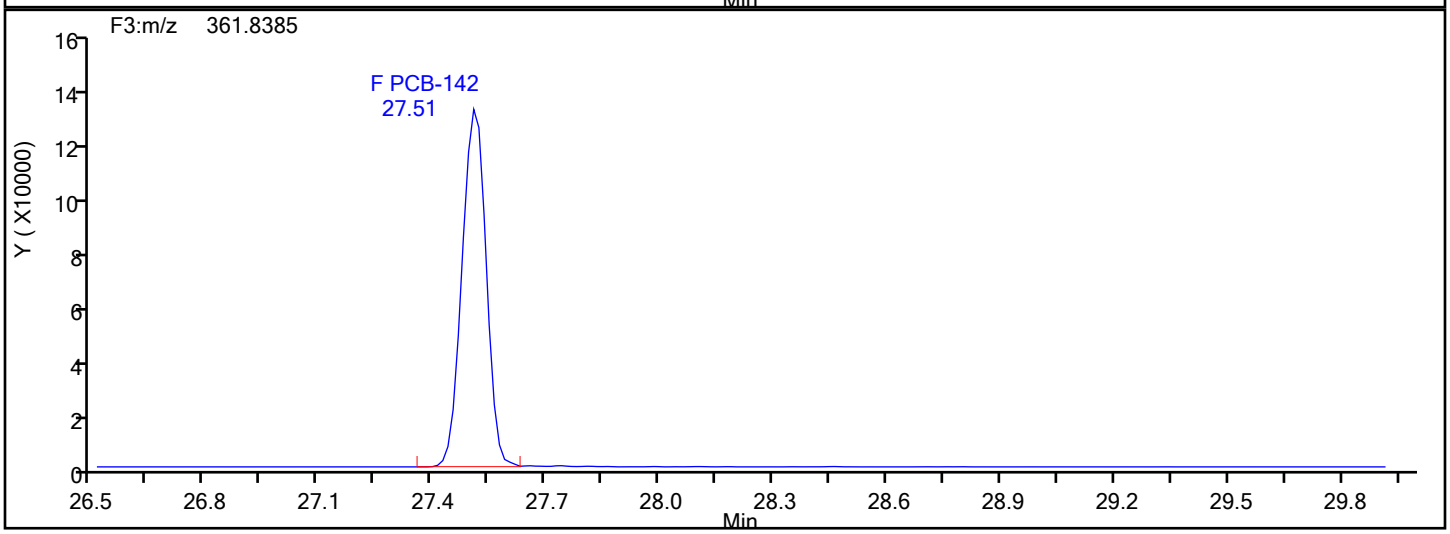
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

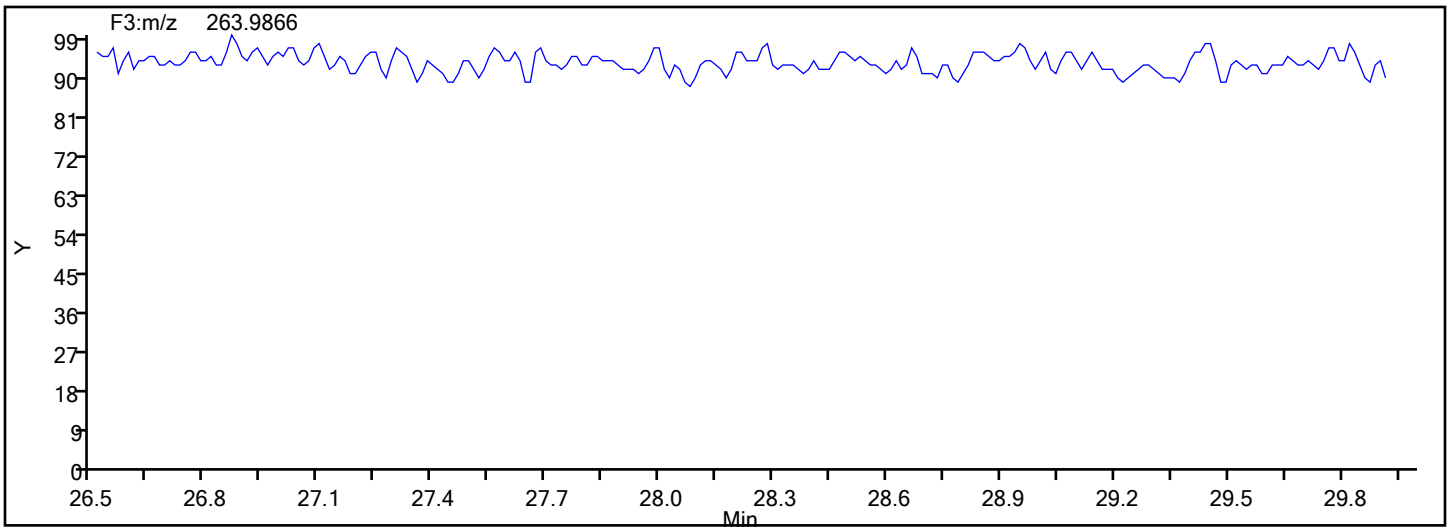
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



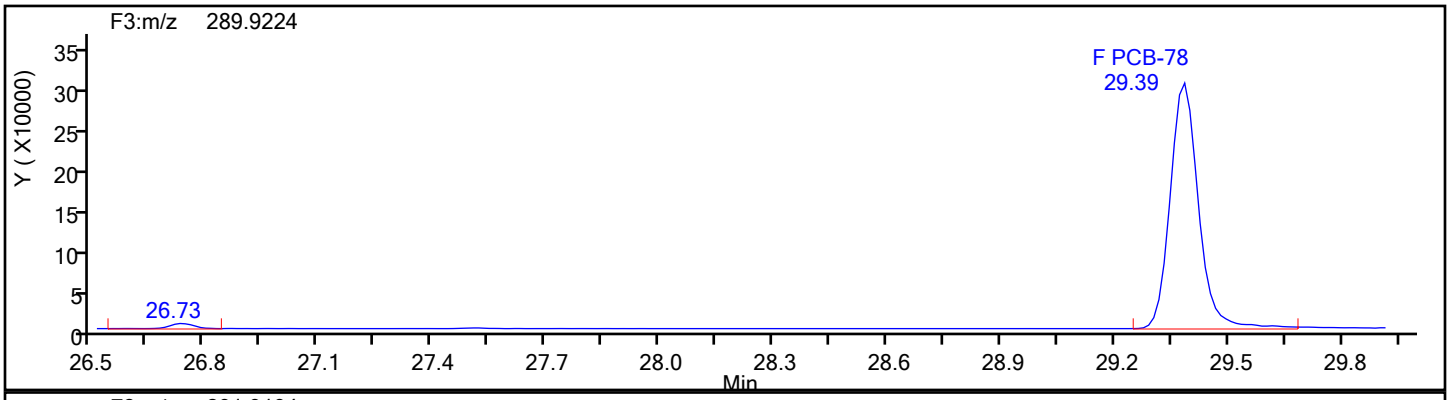
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

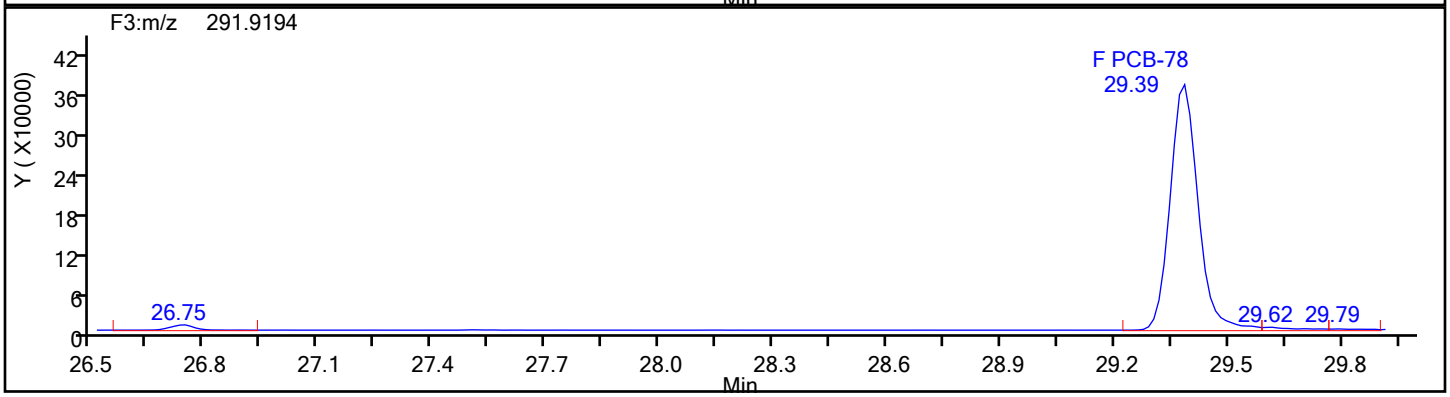
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

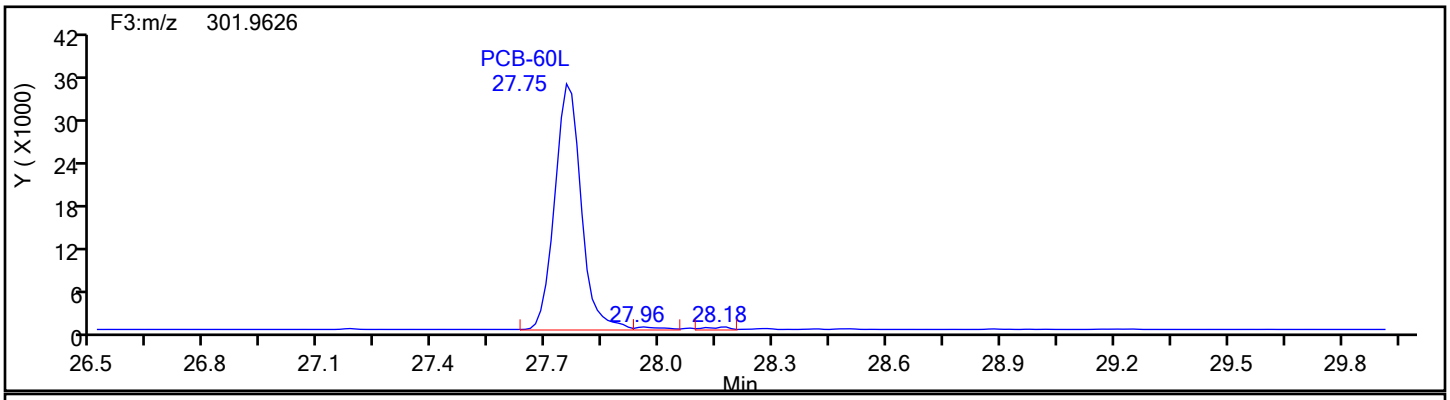
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

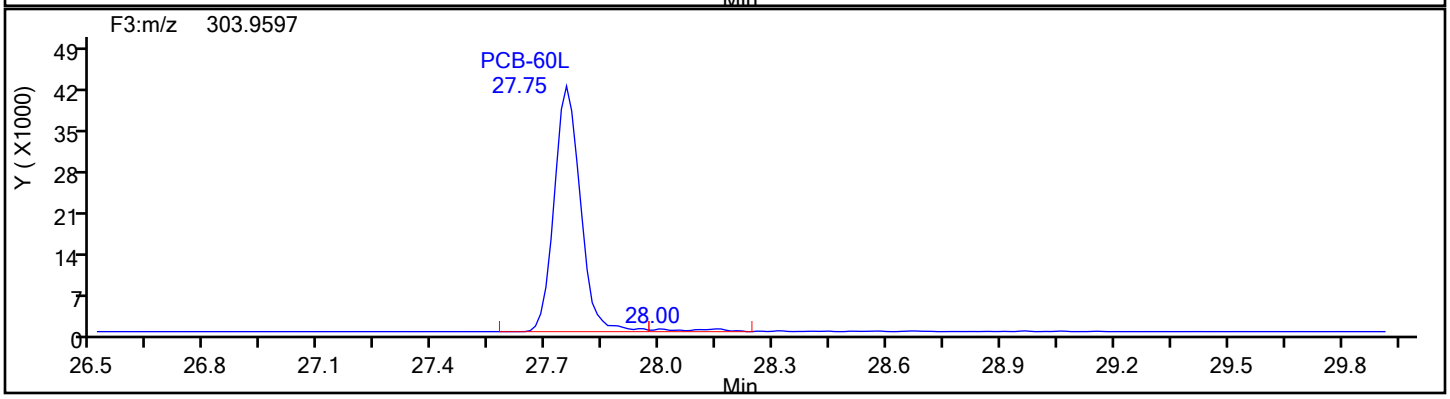
PCB-78





PCB-78 Standards



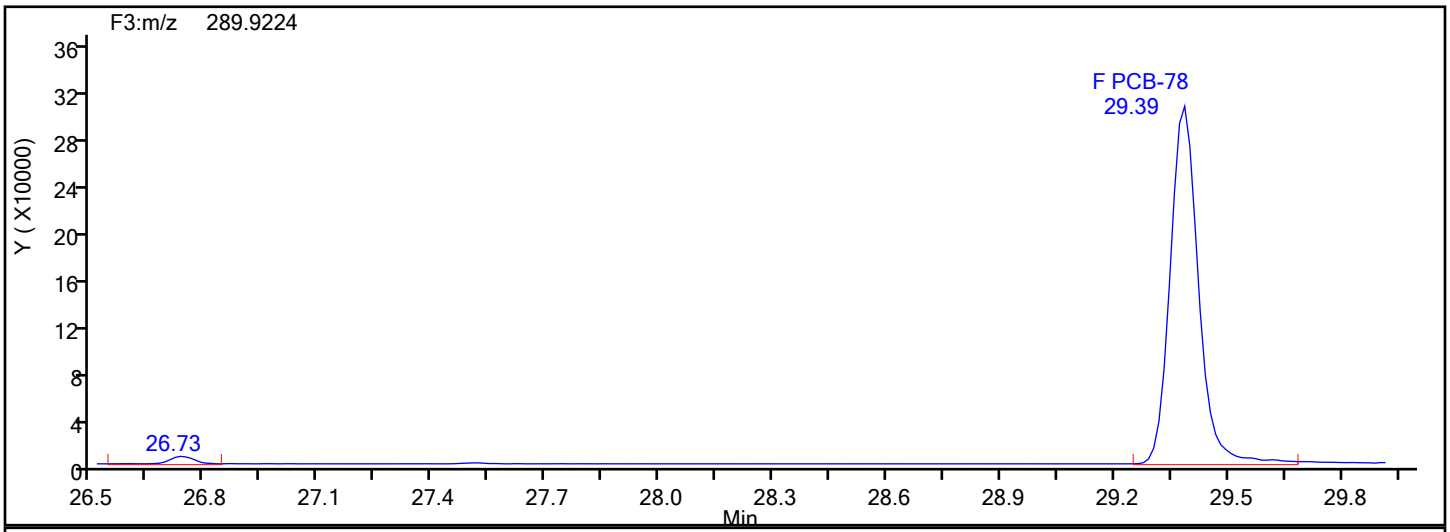


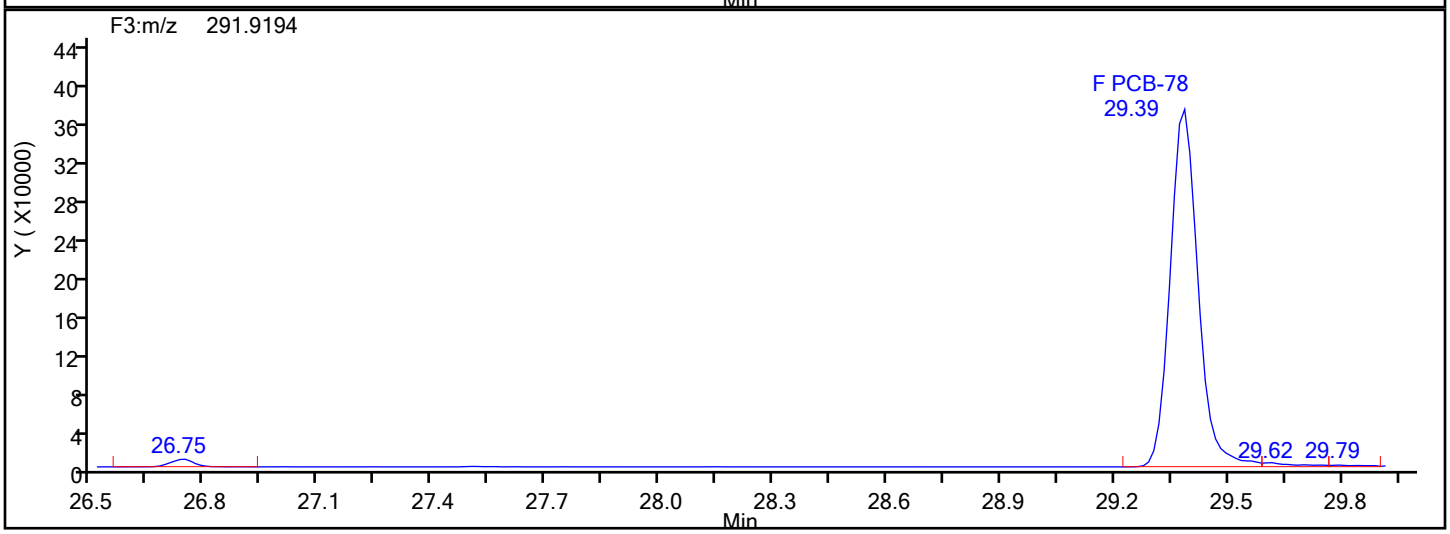
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

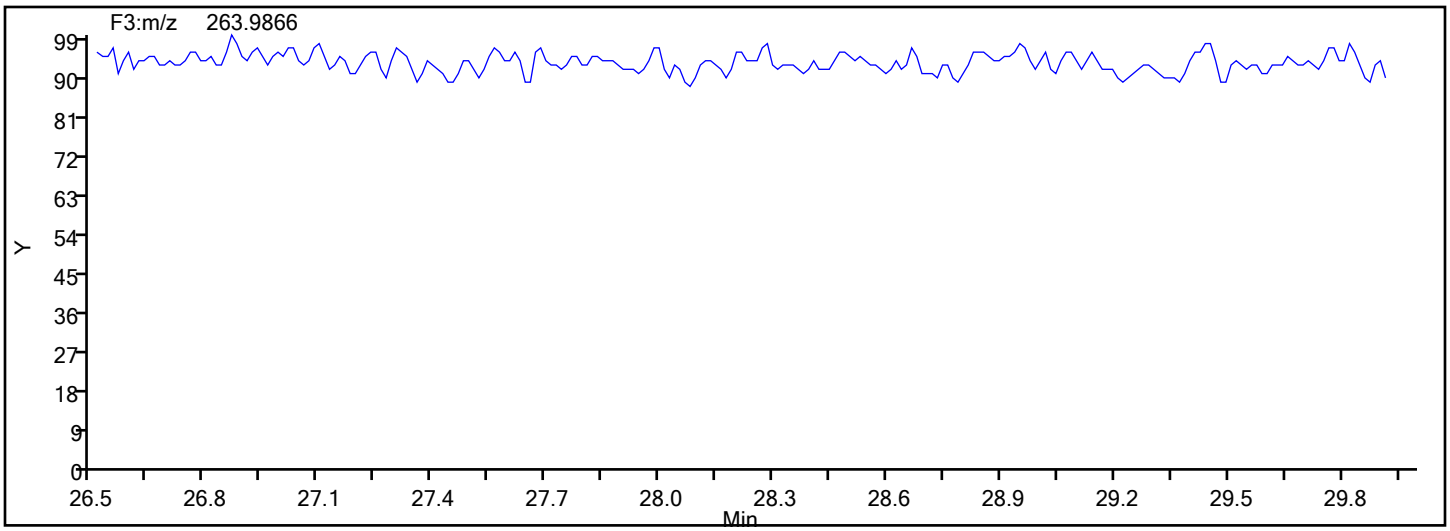
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



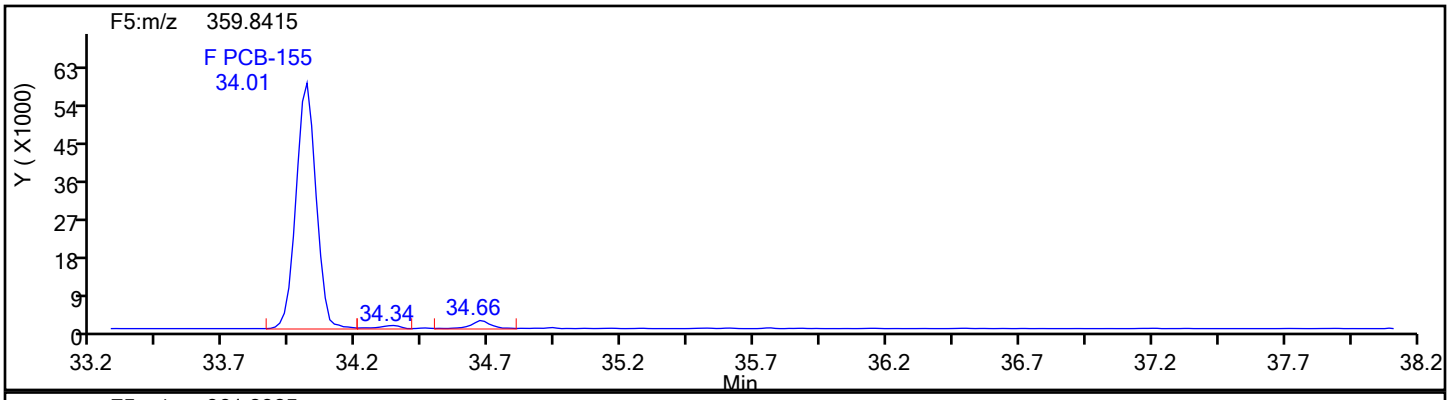
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

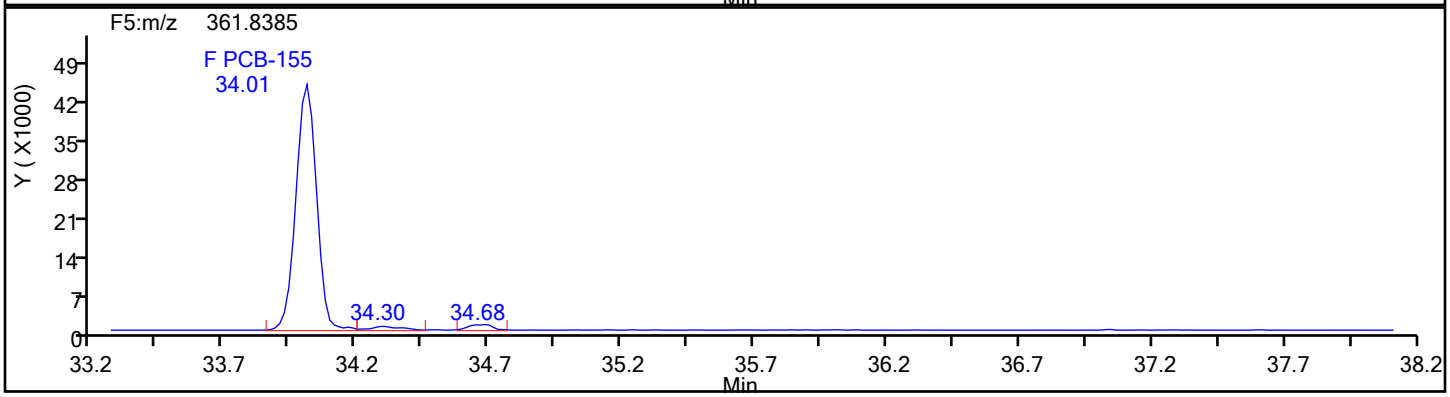
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

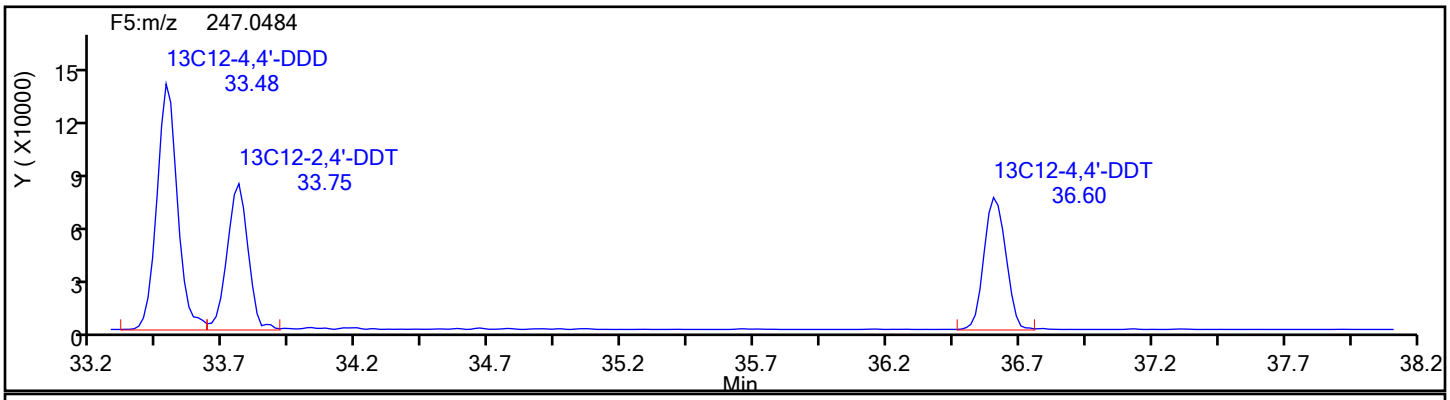
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

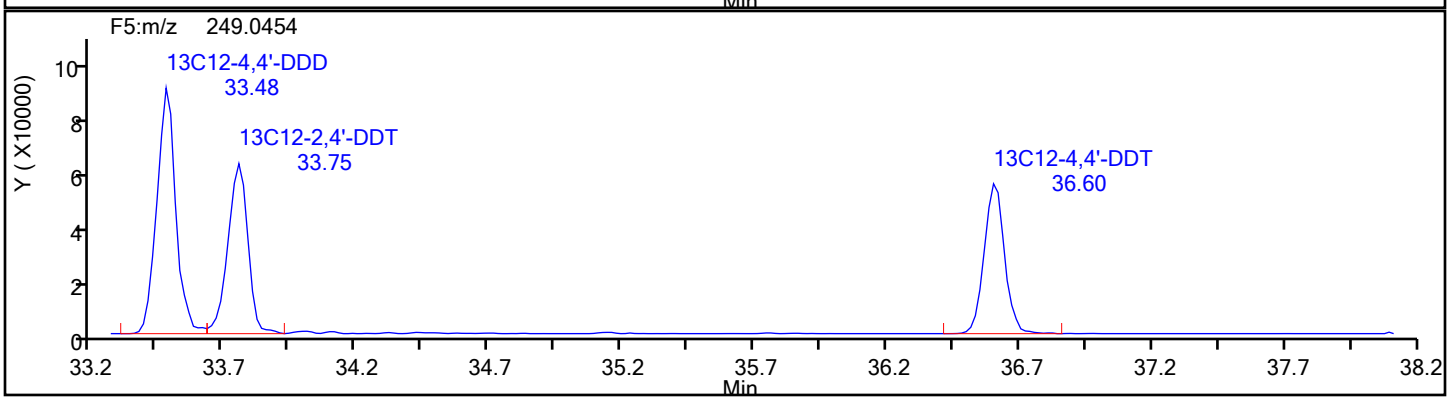
PCB-155





PCB-155 Standards



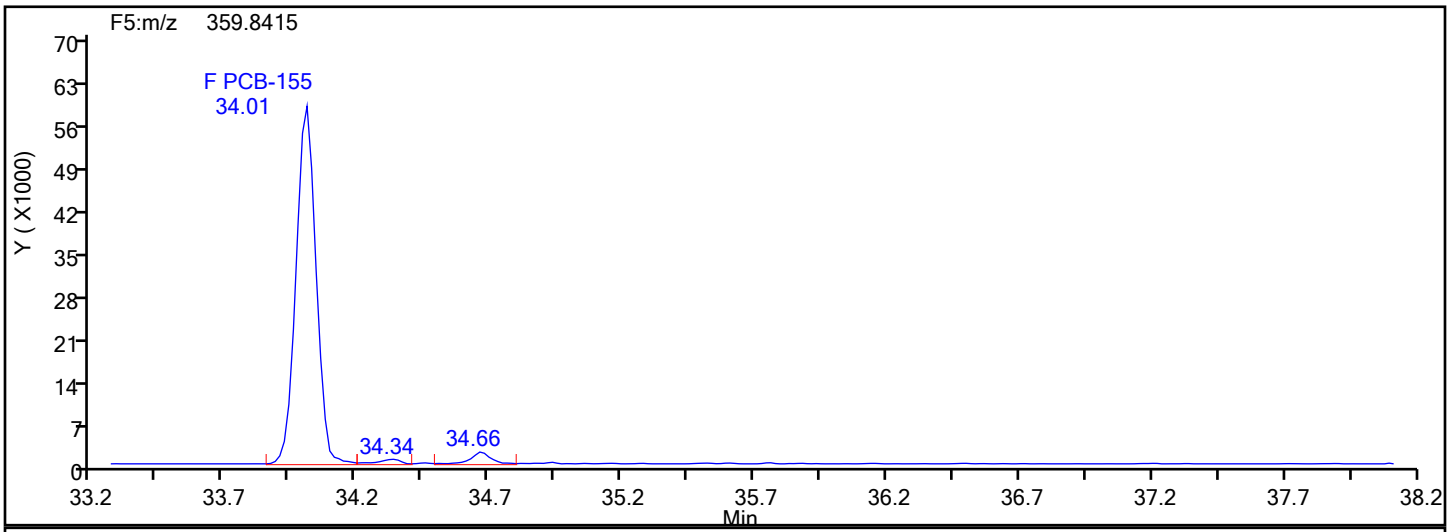


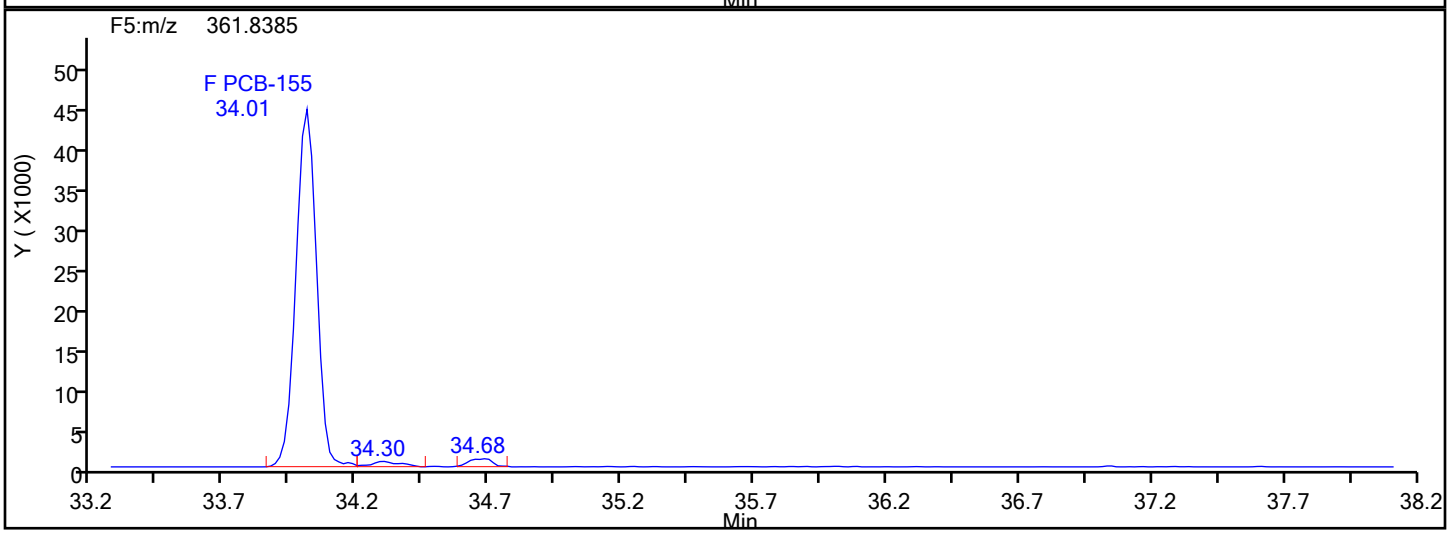
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

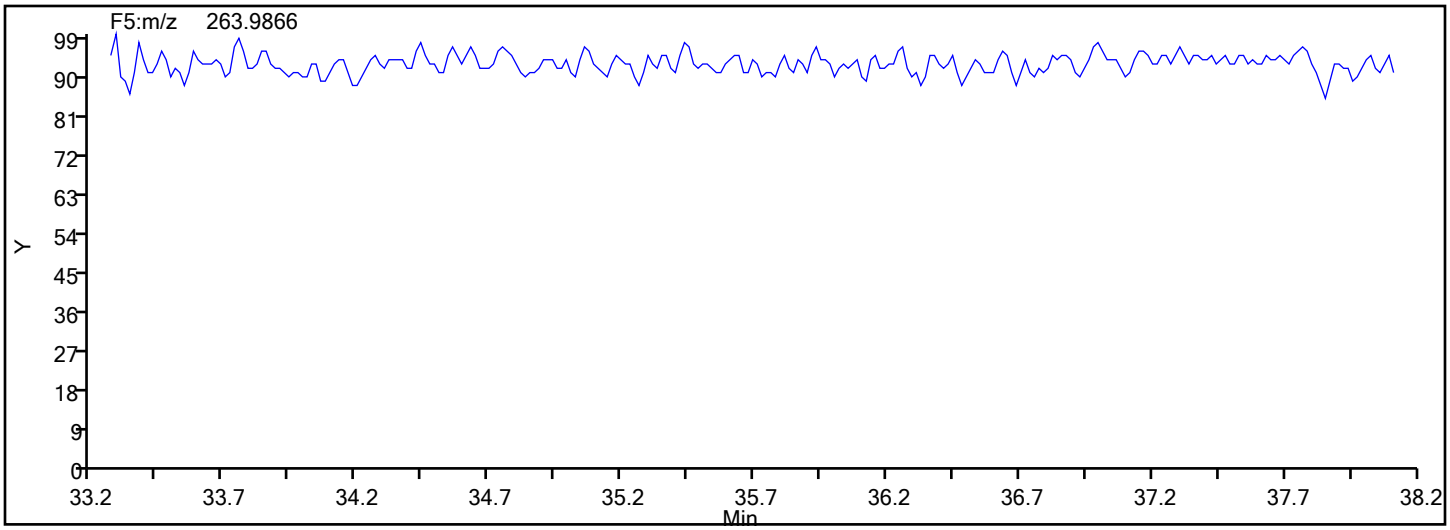
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



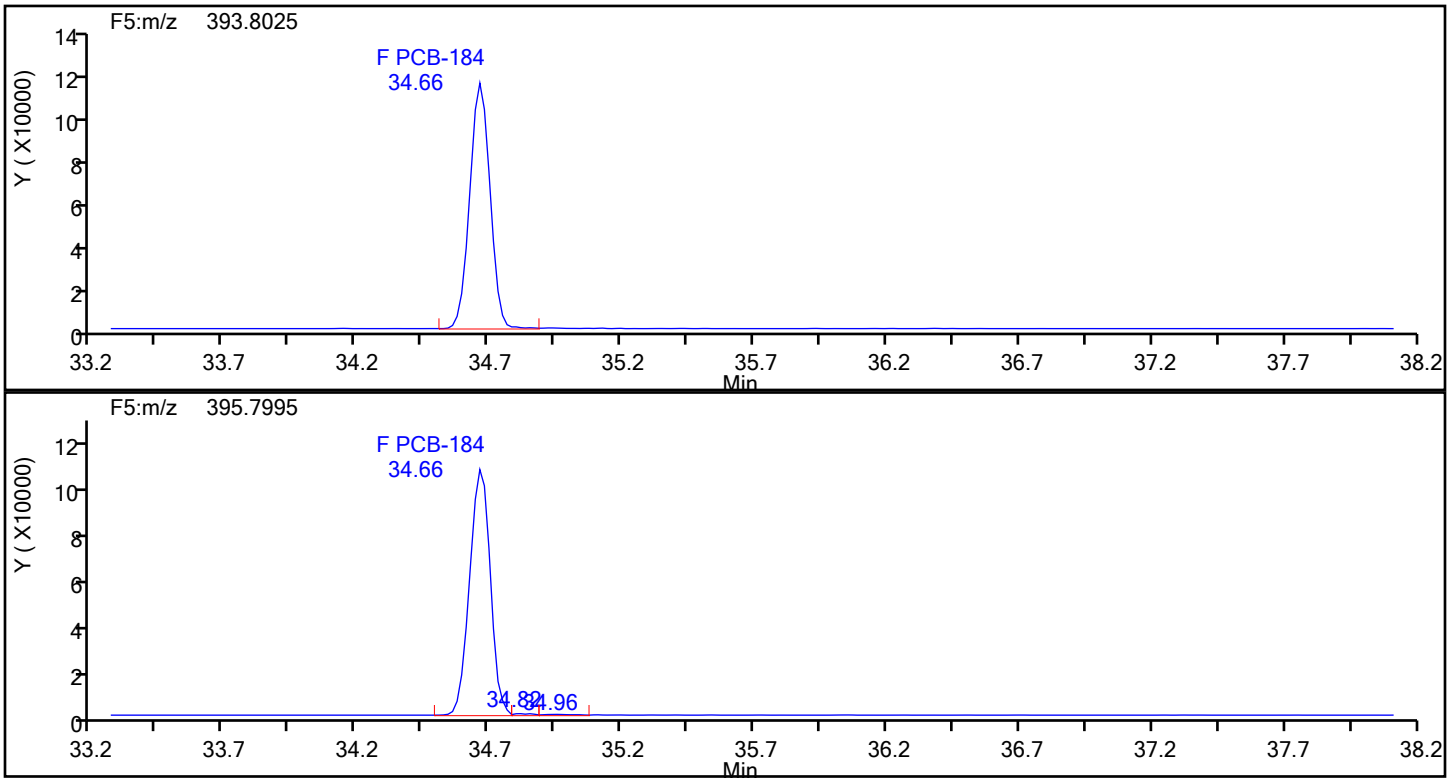
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

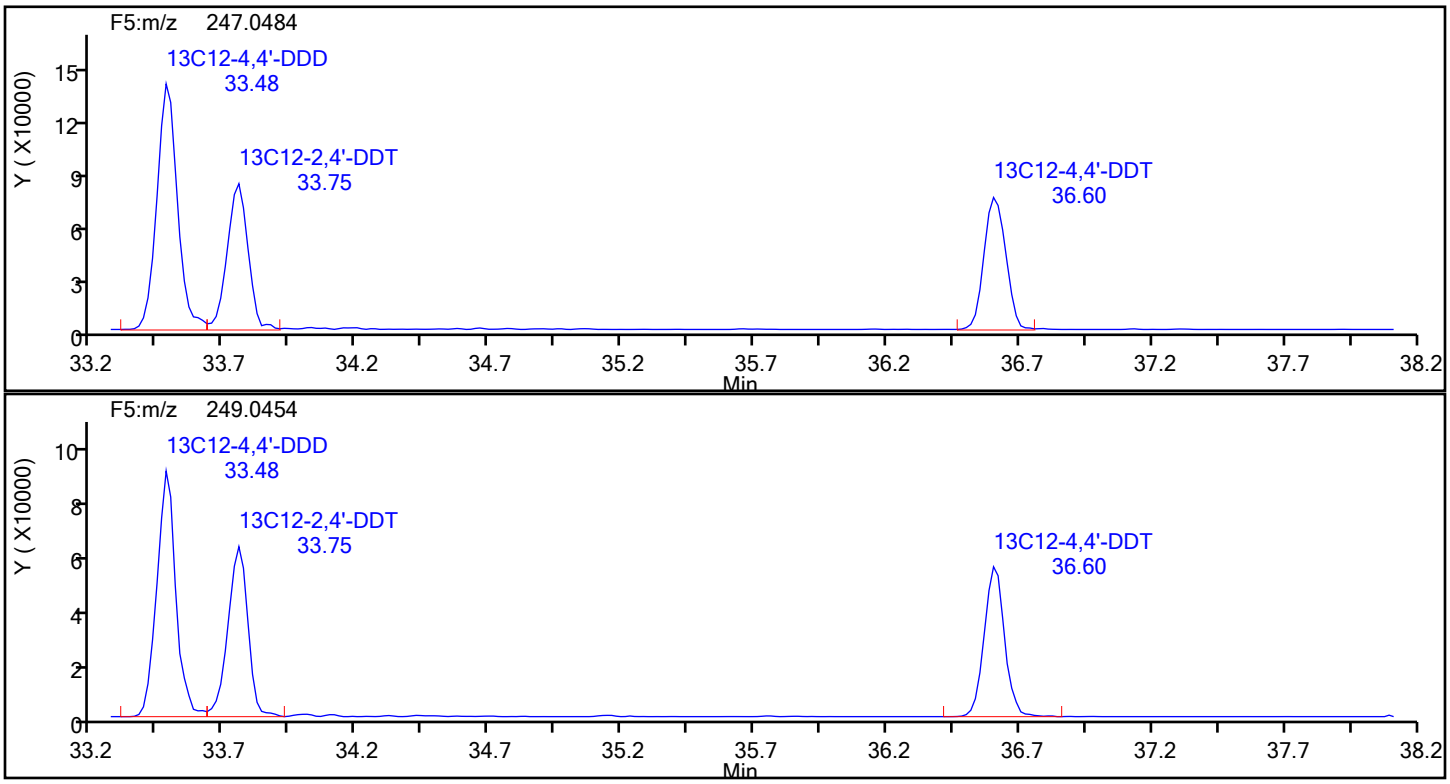
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

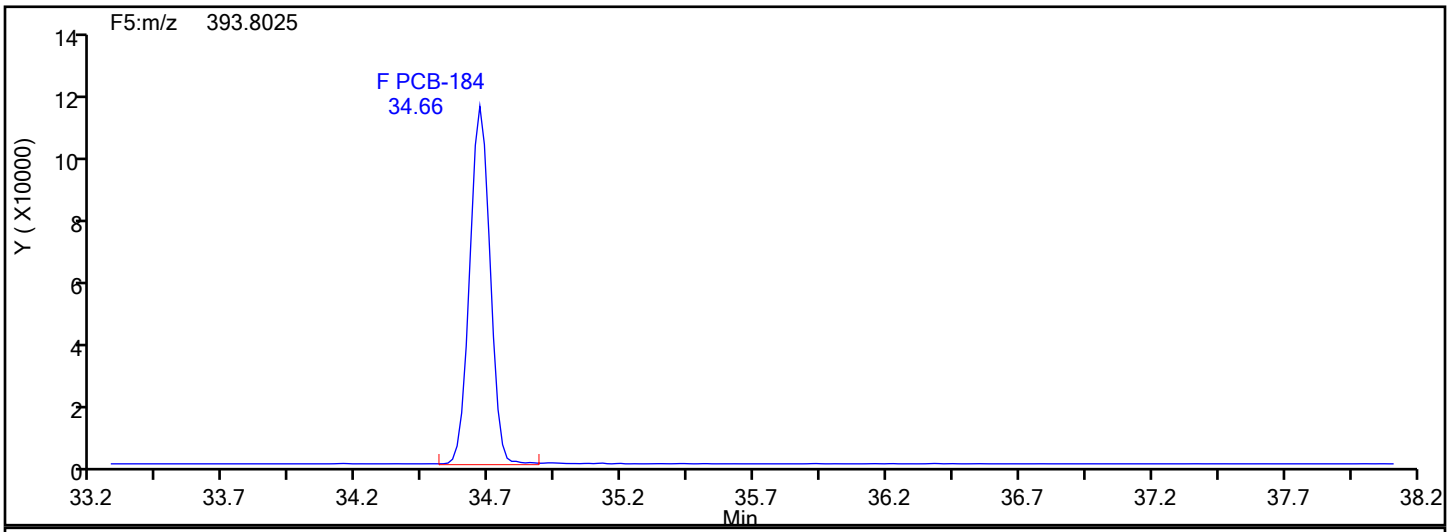


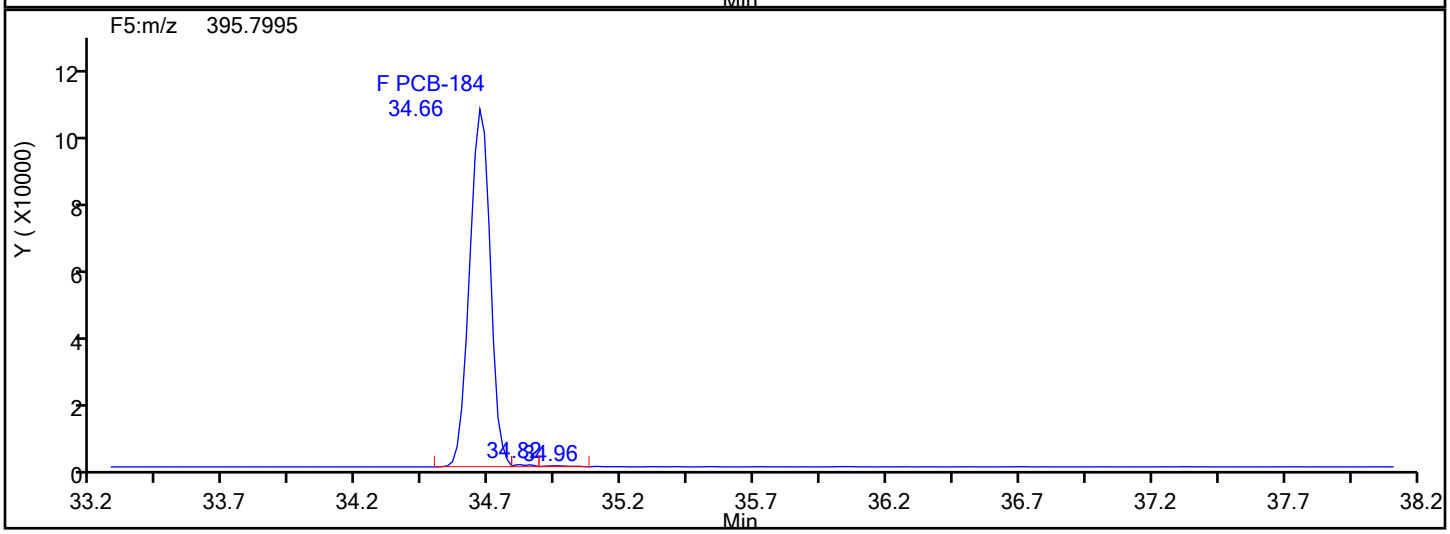
Report Date: 31-Mar-2025 14:10:36 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

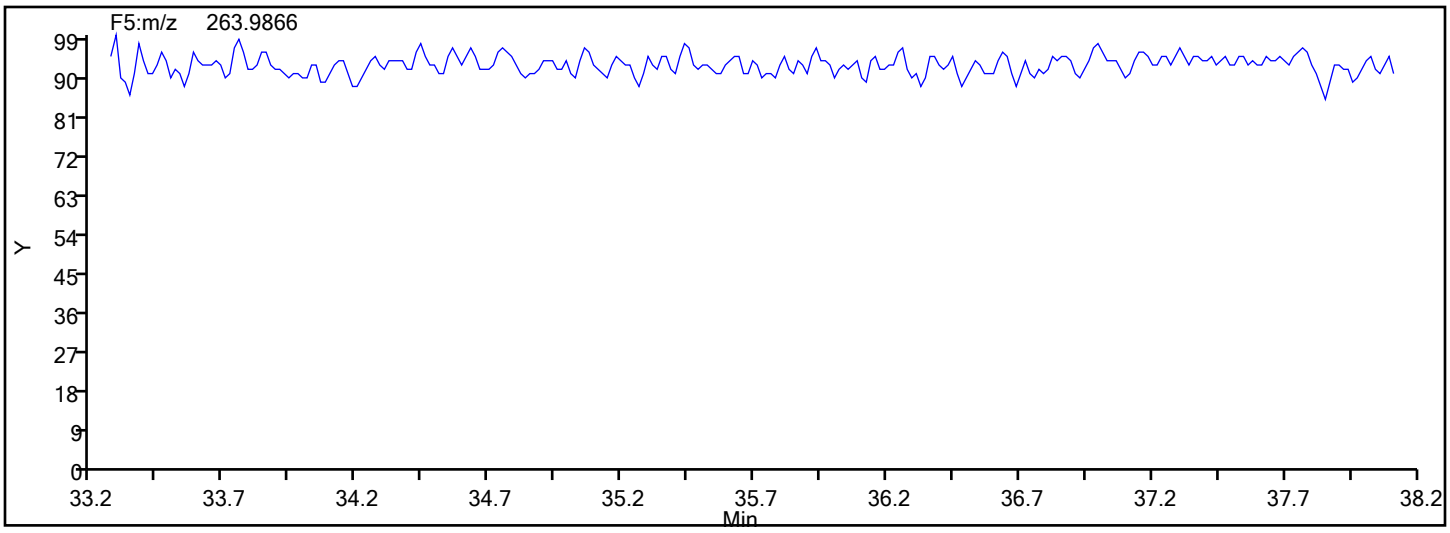
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 31-Mar-2025 14:10:37 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
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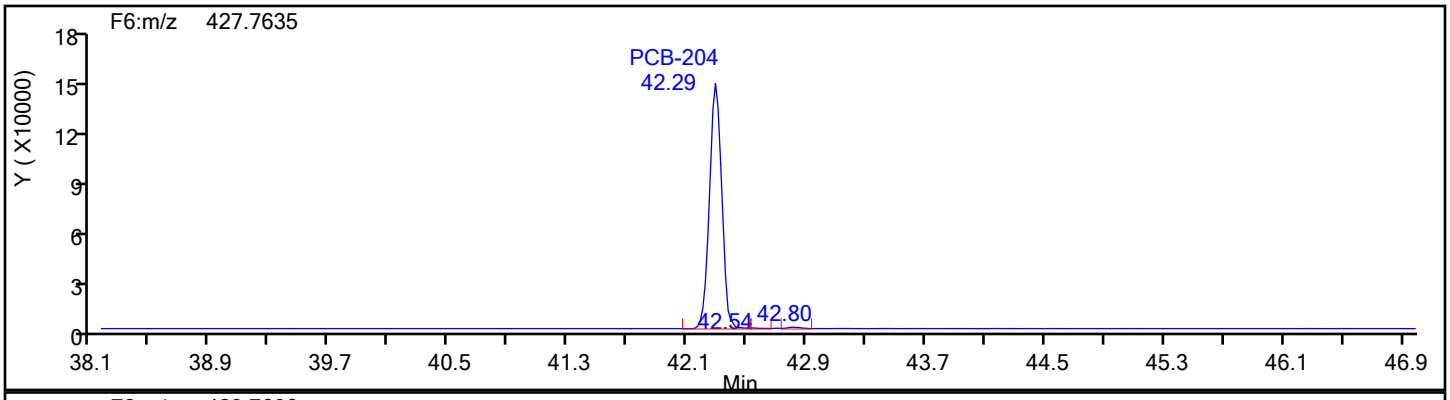
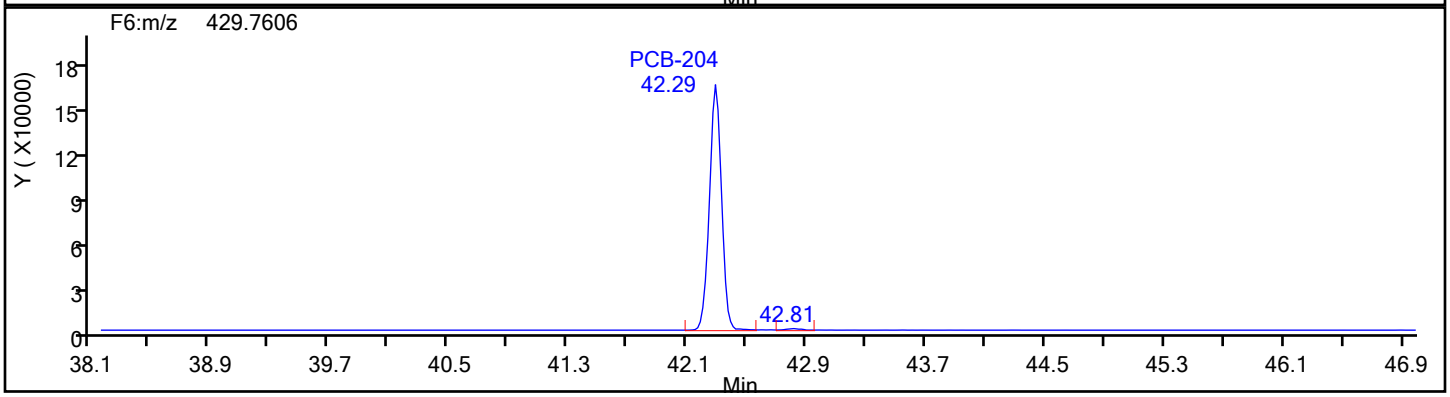
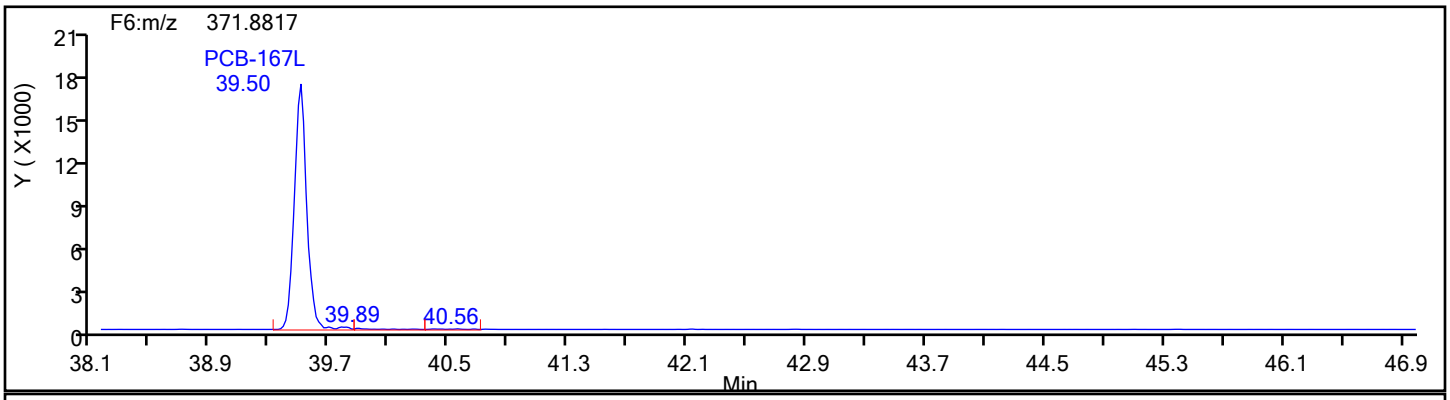
Column Type:	RTX-5	Column Dia:	0.32 mm

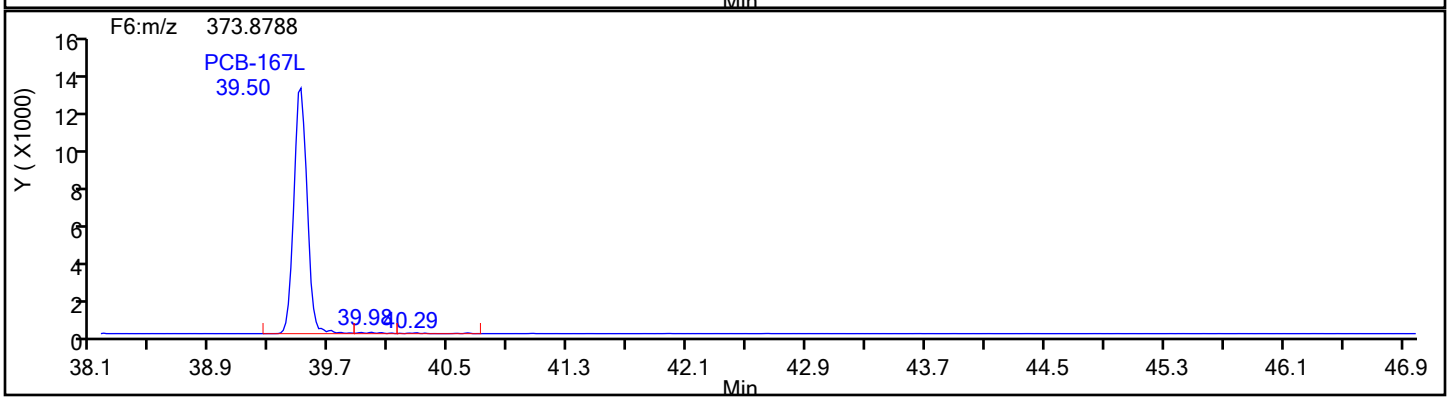
PCB-204





PCB-204 Standards



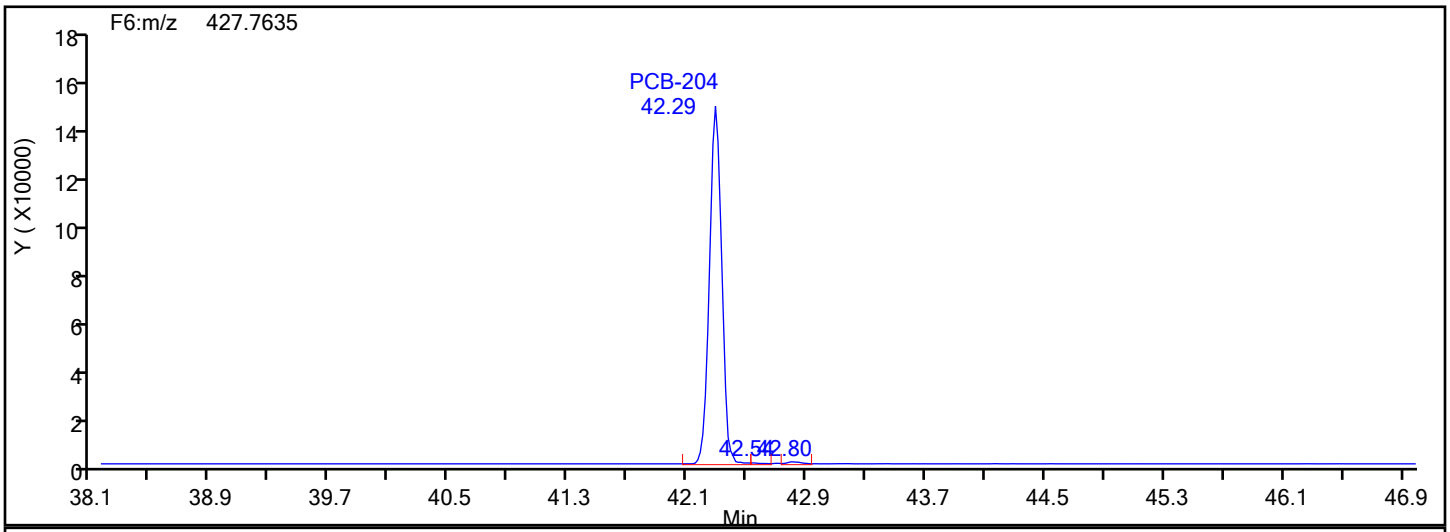


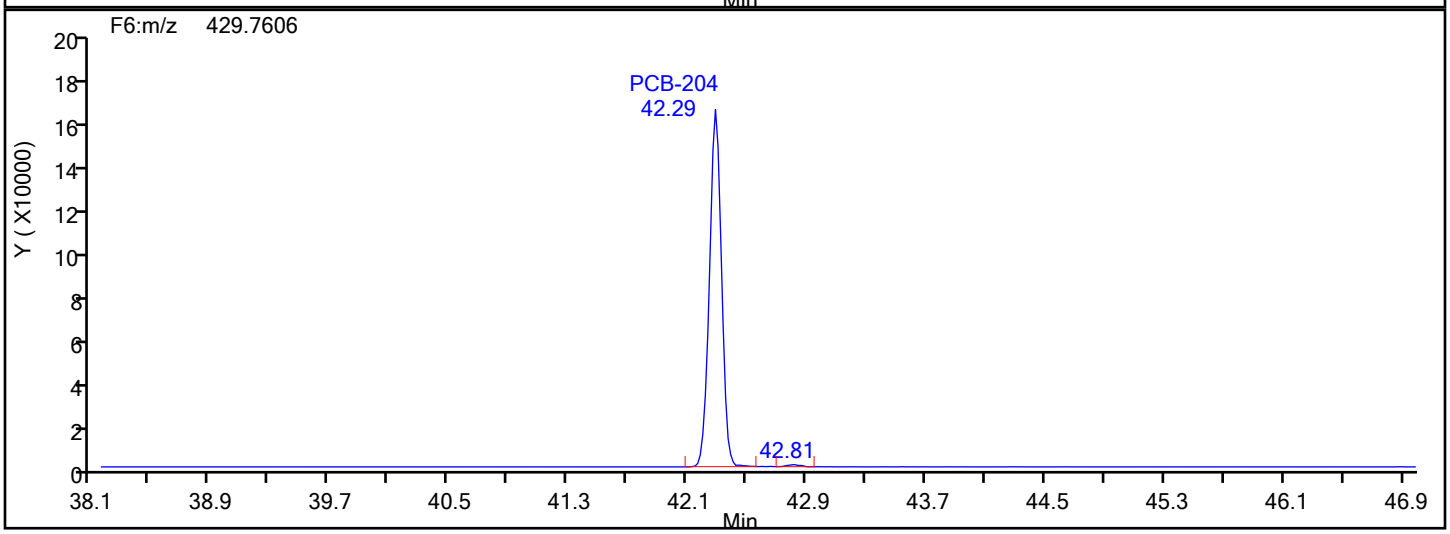
Report Date: 31-Mar-2025 14:10:37 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

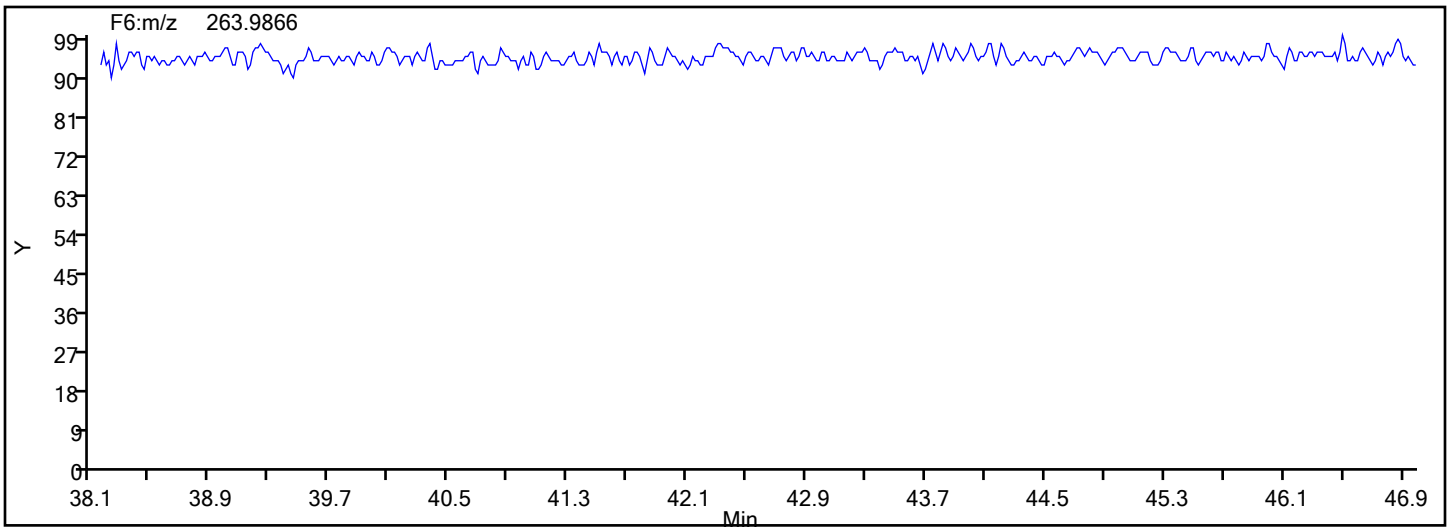
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



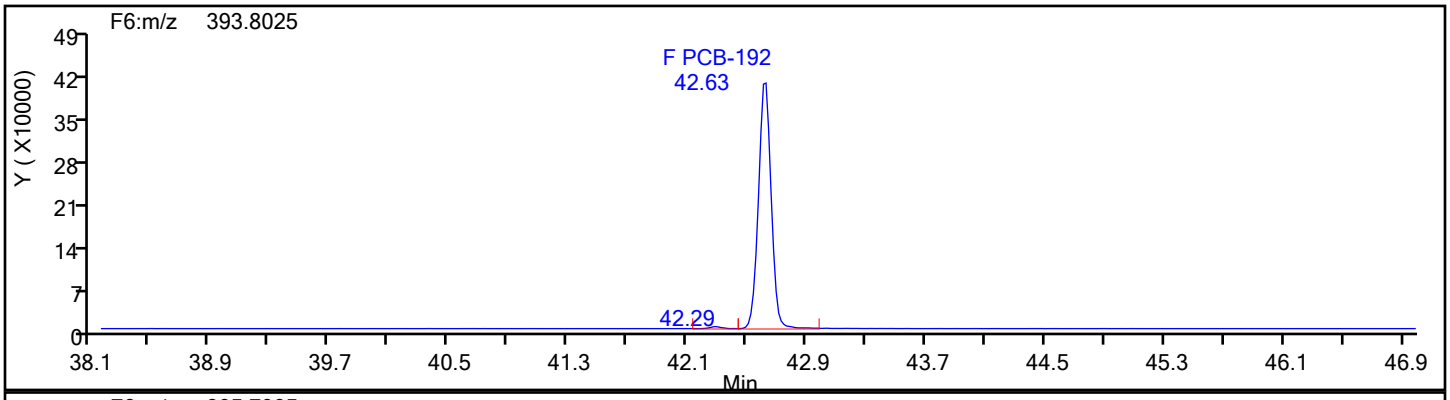
Report Date: 31-Mar-2025 14:10:37 Chrom Revision: 2.3 21-Mar-2025 14:03:38

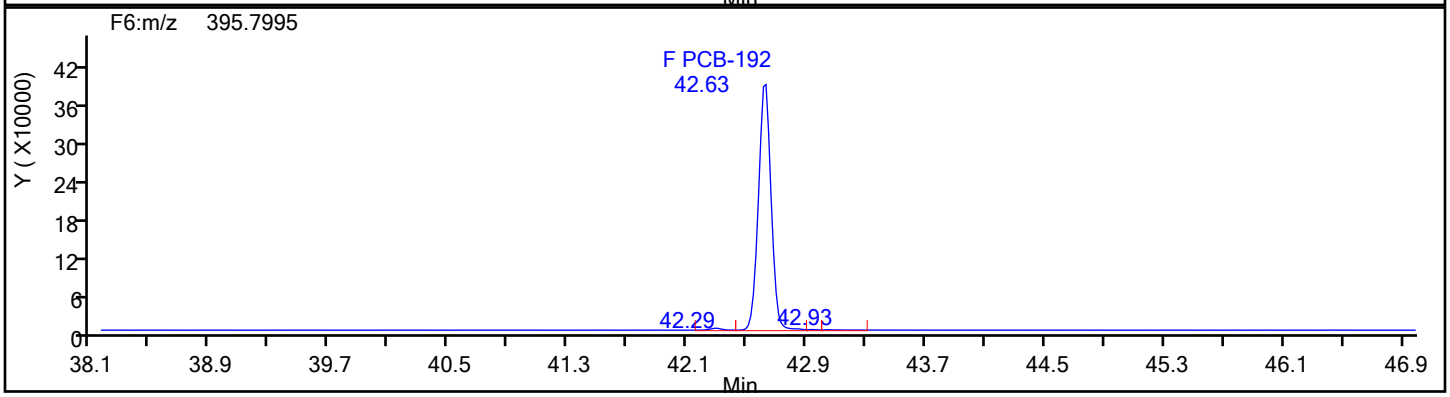
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d

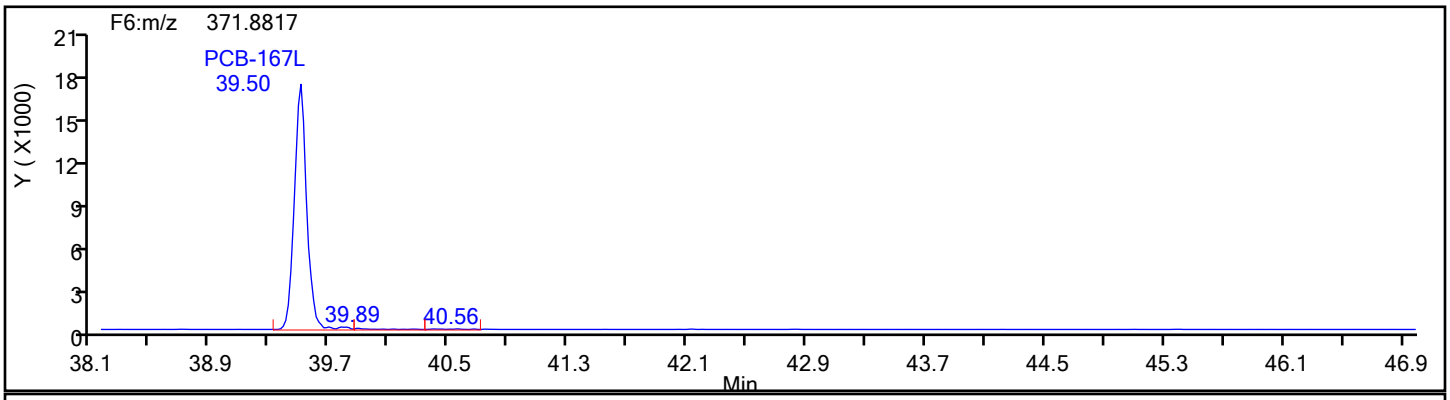
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

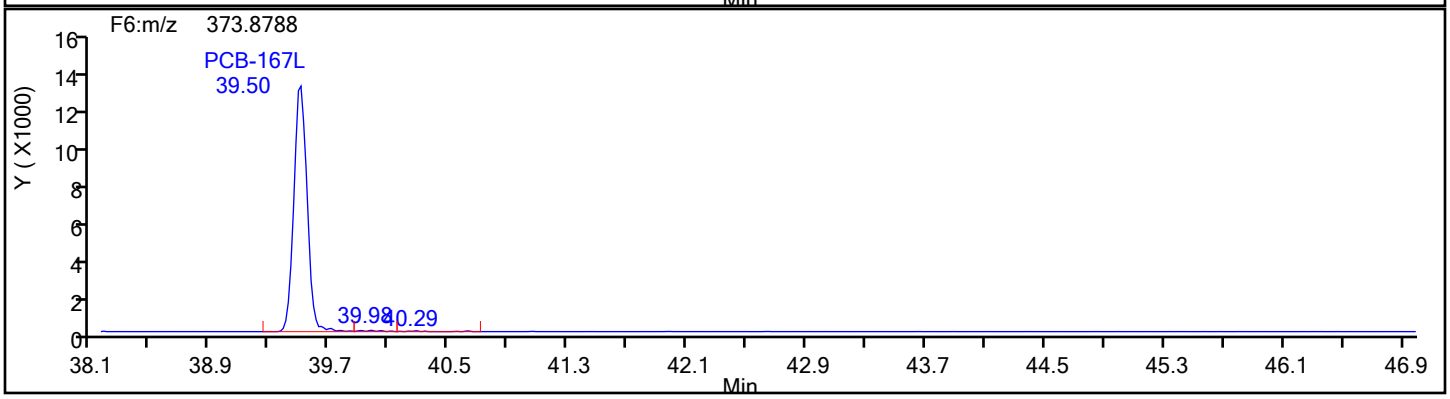
PCB-192





PCB-192 Standards



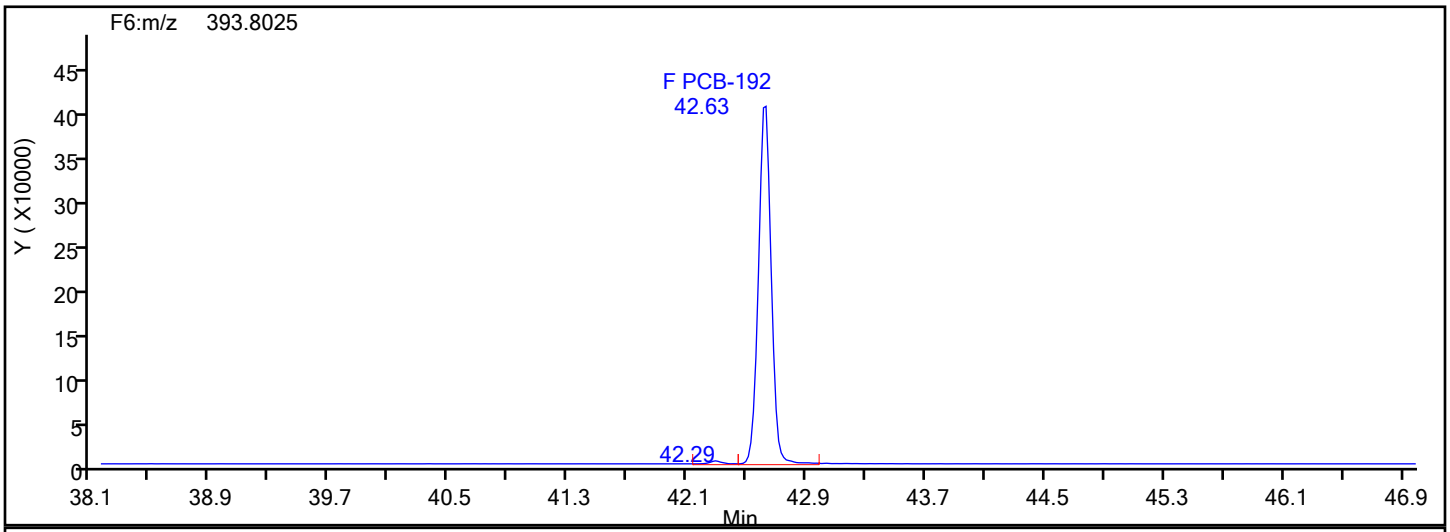


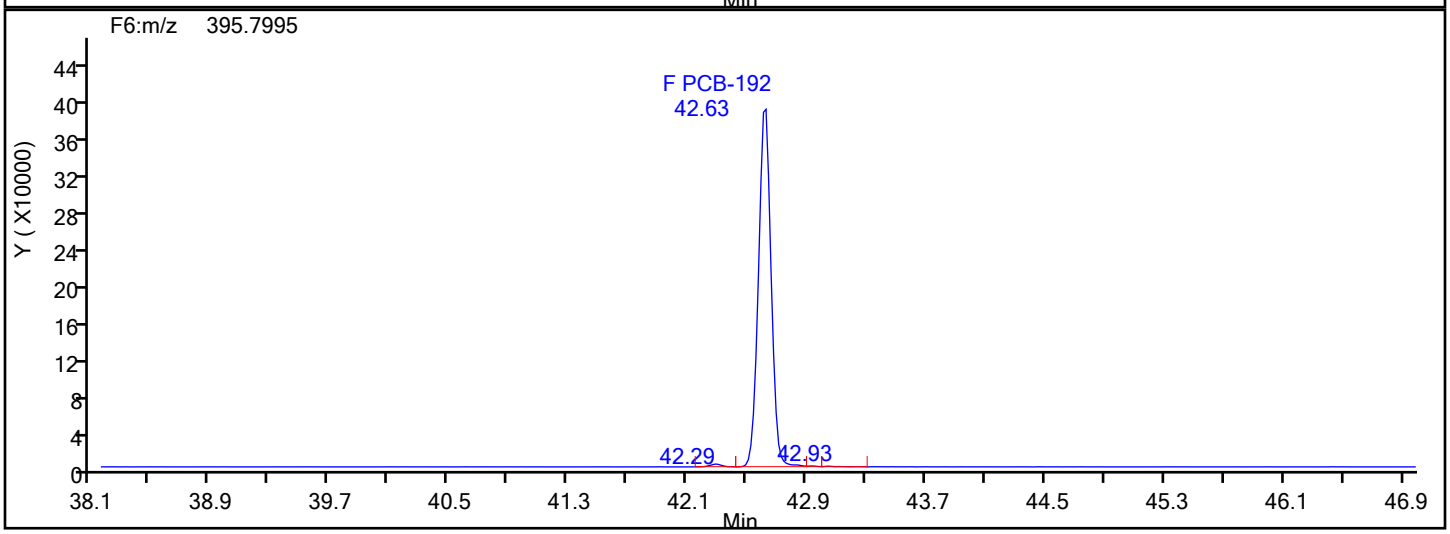
Report Date: 31-Mar-2025 14:10:37 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

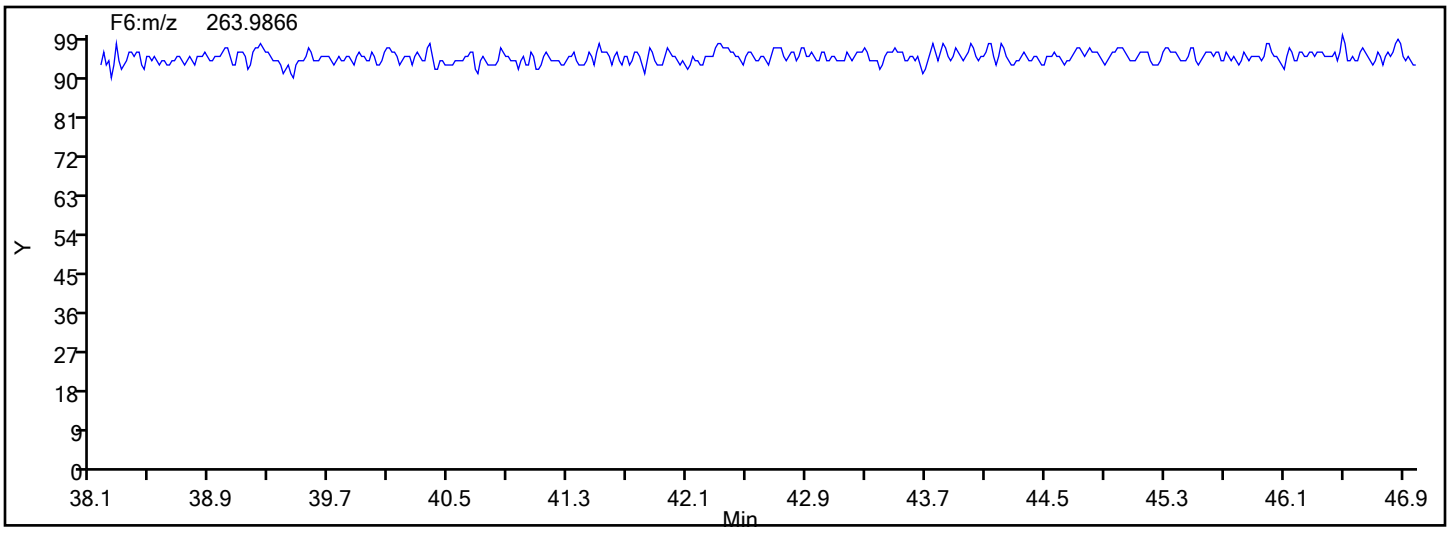
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-7-b10x.d		
Injection Date:	30-Mar-2025 21:30:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK1		
Worklist#:	97758	Sample Line#:	12
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK2 | Lab Sample ID: 140-40836-8

Matrix: PE | Lab File ID: 140-40836-a-8-a.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.045(g) | Date Analyzed: 05/05/2025 00:12

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99272 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.15	J	22	0.013

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-8-a.d
Lims ID: 140-40836-A-8-B
Client ID: ASPECT.PRC.BLK2
Sample Type: Client
Inject. Date: 05-May-2025 00:12:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	284917	1.61		100.0	100.0				
PCB-14	17:47	2911130	1.60							
* 13C6-Pentachlorophenol (IS)	18:28	12313583	0.66		500.0	500.0				
Pentachlorophenol	18:28	8734	0.65	1.0218	0.3471	0.3471	0.0284	0.0284		
PCB-36	22:08	24187775	1.05							
* PCB-101L	28:04	4582807	1.58		100.0	100.0				
PCB-104	23:42	33940885	1.61							
* PCB-118L	32:44	6723134	1.63		100.0	100.0				
PCB-121	26:41	113260694	1.64							
* PCB-138L	36:56	3975450	1.26		100.0	100.0				
PCB-142	27:27	23288828	1.27							
* PCB-60L	27:41	8488342	0.83		100.0	100.0				
PCB-78	29:19	136929173	0.79							
* PCB-167L	39:26	4544953	1.29		100.0	100.0				
PCB-155	33:56	14075352	1.27							
PCB-184	34:36	27856111	1.05							
PCB-204	42:13	39679865	0.91							
PCB-192	42:33	122933062	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-8-a.d
Lims ID: 140-40836-A-8-B
Client ID: ASPECT.PRC.BLK2
Sample Type: Client
Inject. Date: 05-May-2025 00:12:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 13:36:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1649

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:02	0		175662	60183	103	257	584		
236.0376	19:02	19:02	0		109255	37843	40	100	946	1.61(1.16-1.93)	
PCB-14											
222.0003	17:47	17:49	-2	0.934	1792201	667932	32	80	20873		
223.9974	17:47	17:49	-2	0.934	1118929	420031	67	167	6269	1.60(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		4878015	1395539	57	142	24483		
271.8636	18:28	18:28	0		7435568	2089447	74	185	28236	0.66(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.001	3451	1192	67	167	18		
265.8435	18:29	18:28	1	1.001	5283	1391	14	35	99	0.65(0.00-0.00)	
PCB-36											
255.9613	22:08	22:10	-2	1.162	12395282	3483800	73	182	47723		
257.9584	22:08	22:10	-2	1.162	11792493	3303222	79	197	41813	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:04	0		2804602	654188	1	2	654188		
339.9178	28:04	28:04	0		1778205	409347	1	2	409347	1.58(1.16-1.94)	
PCB-104											
325.8804	23:42	23:43	-2	0.844	20952051	5682583	16	40	355161		
327.8775	23:42	23:43	-2	0.844	12988834	3471118	6	15	578520	1.61(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:44	0		4163361	859831	48	120	17913		
339.9178	32:44	32:44	0		2559773	531558	36	90	14766	1.63(1.16-1.94)	
PCB-121											
325.8804	26:41	26:42	-1	0.815	70369207	17453663	829	2072	21054		
327.8775	26:40	26:42	-2	0.815	42891487	10525739	575	1437	18306	1.64(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	0		2219467	409583	26	65	15753		
373.8788	36:56	36:56	0		1755983	329148	22	55	14961	1.26(1.16-1.94)	
PCB-142											
359.8415	27:27	27:29	-2	0.743	13028953	3004988	121	302	24835		
361.8385	27:27	27:29	-2	0.743	10259875	2357856	112	280	21052	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:41	0		3849698	893540	66	165	13538		
303.9597	27:41	27:41	0		4638644	1059267	63	157	16814	0.83(0.58-0.96)	
PCB-78											
289.9224	29:19	29:18	1	1.058	60371815	13773016	1322	3305	10418		
291.9194	29:19	29:18	1	1.058	76557358	17669081	791	1977	22338	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:26	39:25	0		2556615	451310	9	22	50146		
373.8788	39:26	39:25	0		1988338	351266	4	10	87817	1.29(1.16-1.94)	
PCB-155											
359.8415	33:56	33:59	-2	0.861	7872359	1486822	632	1580	2353		
361.8385	33:56	33:59	-2	0.861	6202993	1172892	498	1245	2355	1.27(1.05-1.43)	
PCB-184											
393.8025	34:36	34:38	-1	0.878	14279304	2753081	70	175	39330		
395.7995	34:36	34:38	-1	0.878	13576807	2602692	74	185	35172	1.05(0.89-1.21)	
PCB-204											
427.7635	42:13	42:15	-2	1.071	18879820	3237134	6	15	539522		
429.7606	42:13	42:15	-2	1.071	20800045	3615946	8	20	451993	0.91(0.76-1.02)	
PCB-192											
393.8025	42:33	42:35	-2	1.079	63028226	11197405	101	252	110865		
395.7995	42:33	42:35	-2	1.079	59904836	10693861	691	1727	15476	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

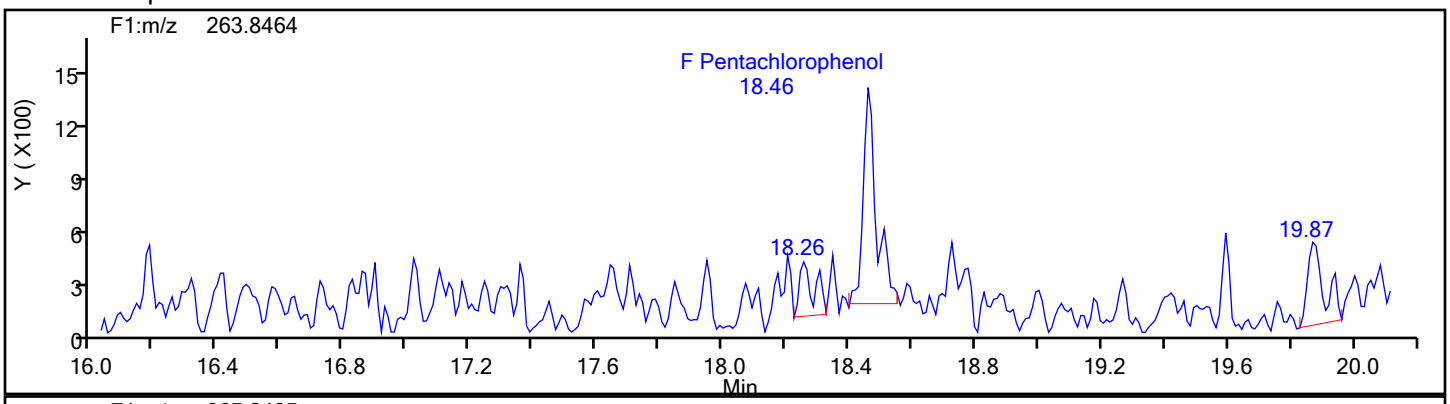
Report Date: 06-May-2025 13:36:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

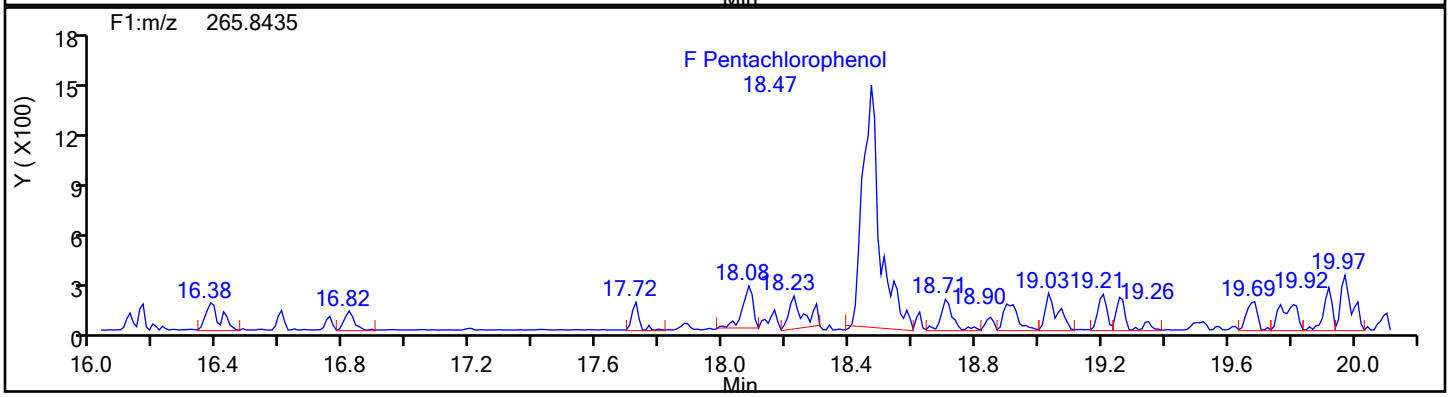
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-8-a.d

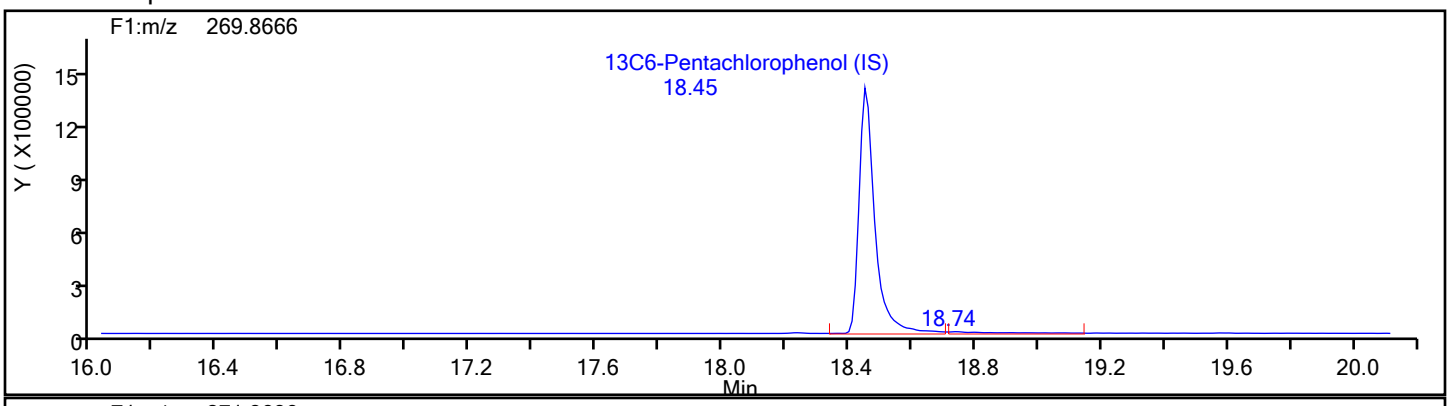
Injection Date:	05-May-2025 00:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	99272	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

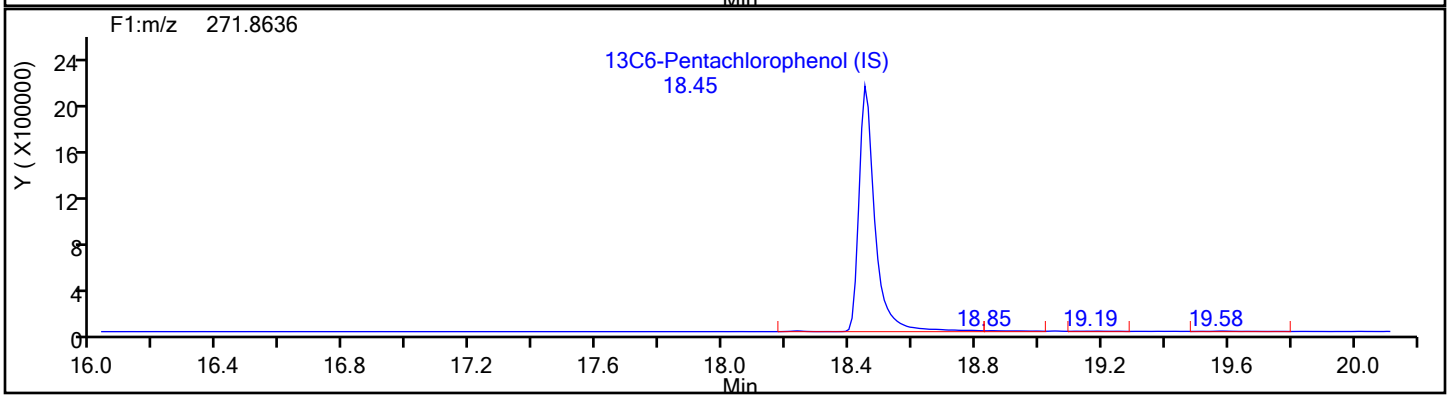
Pentachlorophenol





Pentachlorophenol Standards



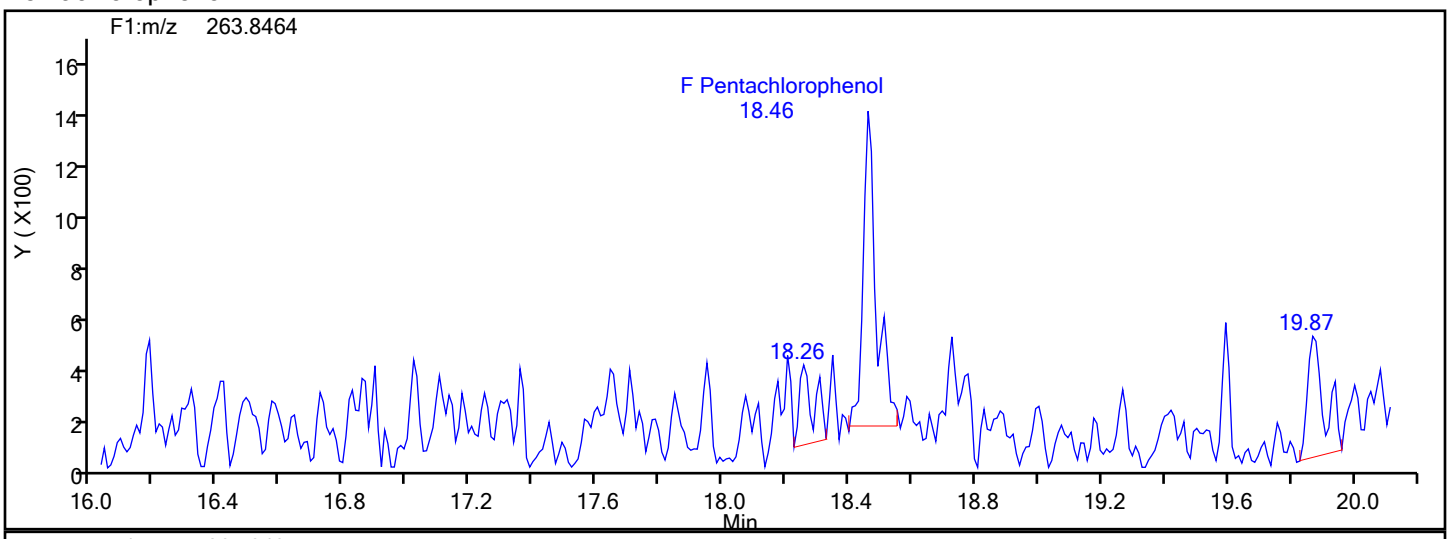


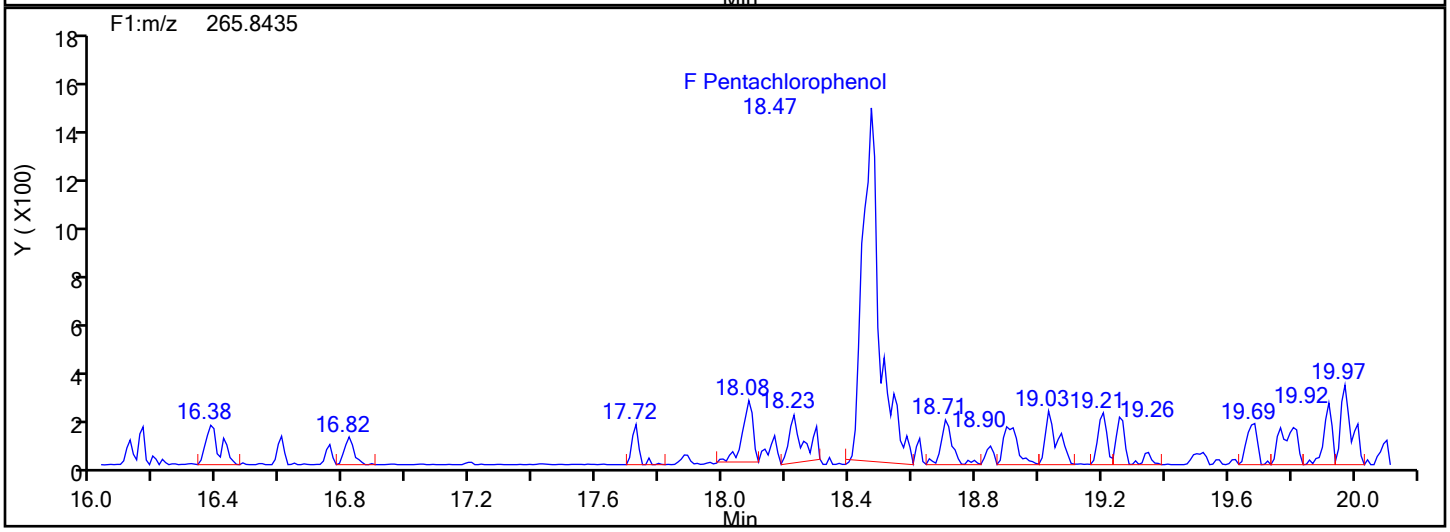
Report Date: 06-May-2025 13:36:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

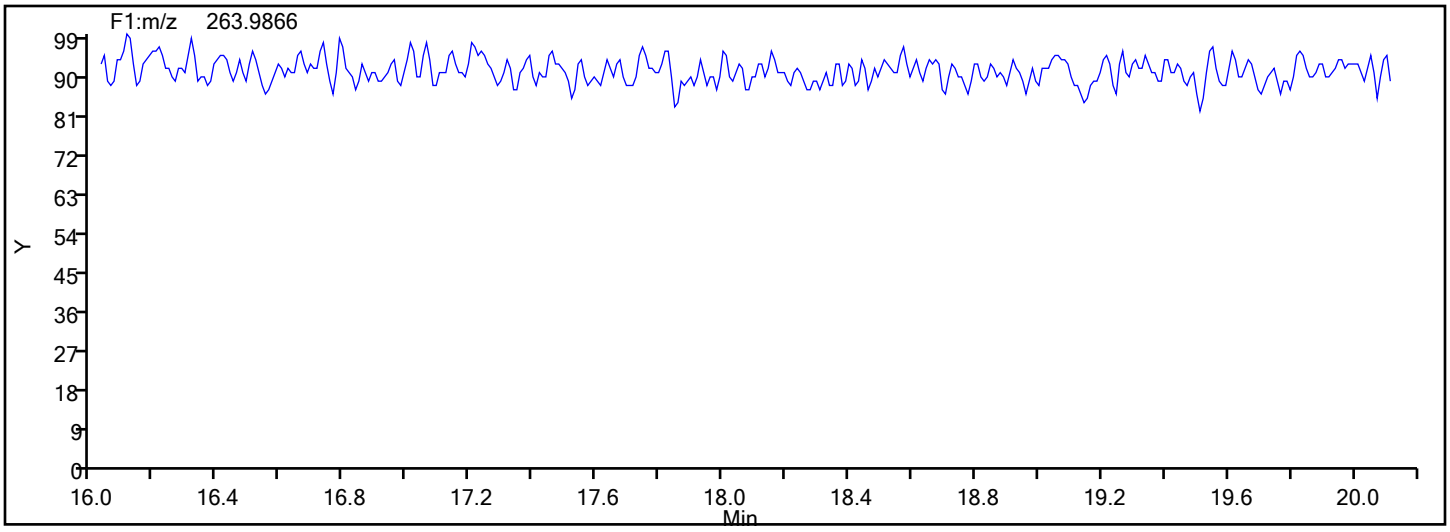
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\140-40836-a-8-a.d		
Injection Date:	05-May-2025 00:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	99272	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK2 | Lab Sample ID: 140-40836-8

Matrix: PE | Lab File ID: 140-40836-a-8-b10x.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.045(g) | Date Analyzed: 03/30/2025 22:24

Con. Extract Vol.: 20(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97758 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	690		22	0.015
74472-51-8	PCB-192	1700	B	22	0.34
74472-48-3	PCB-184	330	B	22	0.0094
33979-03-2	PCB-155	170		22	0.25
41411-61-4	PCB-142	200	B	22	0.051
74472-52-9	PCB-204	650	B	22	0.011
56558-16-8	PCB-104	630	B	22	0.0024
56558-18-0	PCB-121	720	B	22	0.17
70362-49-1	PCB-78	490	B	22	0.062
38444-87-0	PCB-36	240		22	0.022

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d
Lims ID: 140-40836-A-8-B
Client ID: ASPECT.PRC.BLK2
Sample Type: Client
Inject. Date: 30-Mar-2025 22:24:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-013
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:06	603295	1.61		10.0	10.0				
PCB-14	17:50	12699231	1.55	1.3581	155.0	155.0	0.003374	0.003374		
* 13C6-Pentachlorophenol (IS)	18:31									
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:11	3306920	1.07	1.0230	53.6	53.6	0.005026	0.005026		
* PCB-101L	28:09	232638	1.56		10.0	10.0				
PCB-104	23:45	6031806	1.56	1.8372	141.1	141.1	0.000533	0.000533		
* PCB-118L	32:49	249362	1.56		10.0	10.0				
PCB-121	26:44	5921394	1.61	1.4622	162.4	162.4	0.0374	0.0374		
* PCB-138L	37:00	155706	1.33		10.0	10.0				
PCB-142	27:31	1444439	1.29	2.0271	45.8	45.8	0.0115	0.0115		
* PCB-60L	27:46	375045	0.80		10.0	10.0				
PCB-78	29:24	3805771	0.79	0.9153	110.9	110.9	0.0140	0.0140		
* PCB-167L	39:30	174086	1.31		10.0	10.0				
PCB-155	34:00	616122	1.25	0.9191	38.5	38.5	0.0572	0.0572		
PCB-184	34:40	1493873	1.07	1.1610	73.9	73.9	0.002115	0.002115		
PCB-204	42:18	1862124	0.92	0.7364	145.3	145.3	0.002382	0.002382		
PCB-192	42:38	5186743	1.08	0.7635	390.2	390.2	0.0758	0.0758		
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d
Lims ID: 140-40836-A-8-B
Client ID: ASPECT.PRC.BLK2
Sample Type: Client
Inject. Date: 30-Mar-2025 22:24:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info:
Misc. Info.: 140-0037053-013
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:09:18 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:06	19:05	1		372485	110062	1	2	110062		
236.0376	19:06	19:05	1		230810	68868	2	5	34434	1.61(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	1	0.934	7724773	2666521	23	57	115936		
223.9974	17:50	17:50	1	0.934	4974458	1725821	10	25	172582	1.55(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											
263.8464	18:31						36	90			
265.8435	18:31						6	15			
PCB-36											
255.9613	22:11	22:10	1	1.162	1710416	457524	20	50	22876		
257.9584	22:11	22:10	1	1.162	1596504	419849	17	42	24697	1.07(0.88-1.20)	
PCB-101L											
337.9207	28:09	28:08	1		141891	30875	1	2	30875		
339.9178	28:09	28:08	1		90747	20218	1	2	20218	1.56(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	0	0.844	3679304	939782	1	2	939782		
327.8775	23:45	23:45	0	0.844	2352502	607701	1	2	607701	1.56(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	1		152077	28951	1	2	28951		
339.9178	32:49	32:48	1		97285	18574	1	2	18574	1.56(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	1	0.815	3649156	836534	63	157	13278		
327.8775	26:44	26:44	1	0.815	2272238	519247	41	102	12665	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	37:00	37:00	0		88929	15145	1	2	15145		
373.8788	37:00	37:00	0		66777	11430	1	2	11430	1.33(1.16-1.94)	
PCB-142											
359.8415	27:31	27:31	0	0.743	814739	181476	17	42	10675		
361.8385	27:31	27:31	0	0.743	629700	142734	8	20	17842	1.29(1.05-1.43)	
PCB-60L											
301.9626	27:46	27:45	1		166476	34533	3	7	11511		
303.9597	27:46	27:45	1		208569	43524	1	2	43524	0.80(0.58-0.96)	
PCB-78											
289.9224	29:24	29:23	1	1.059	1677241	333190	21	52	15866		
291.9194	29:24	29:23	1	1.059	2128530	425768	19	47	22409	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:30	39:30	0		98584	15762	1	2	15762		
373.8788	39:30	39:30	0		75502	12747	1	2	12747	1.31(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	342360	64590	32	80	2018		
361.8385	34:01	34:00	1	0.861	273762	51168	28	70	1827	1.25(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	0	0.878	771812	143348	1	2	143348		
395.7995	34:40	34:40	0	0.878	722061	135869	2	5	67935	1.07(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.071	893873	151933	1	2	151933		
429.7606	42:18	42:18	0	1.071	968251	161842	1	2	161842	0.92(0.76-1.02)	
PCB-192											
393.8025	42:38	42:37	0	1.079	2687179	459714	33	82	13931		
395.7995	42:38	42:37	0	1.079	2499564	430492	33	82	13045	1.08(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

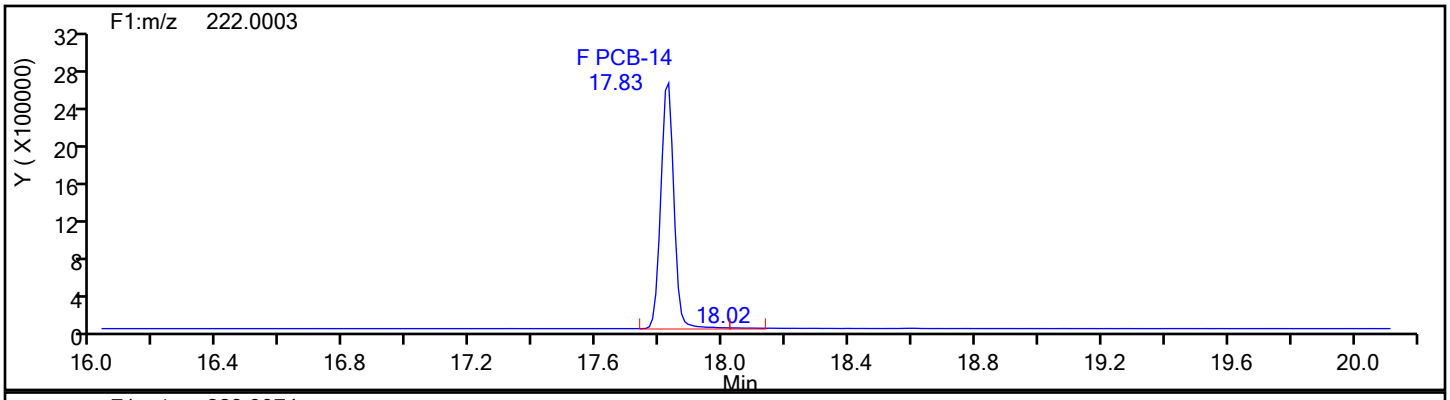
Report Date: 31-Mar-2025 14:10:41 Chrom Revision: 2.3 21-Mar-2025 14:03:38

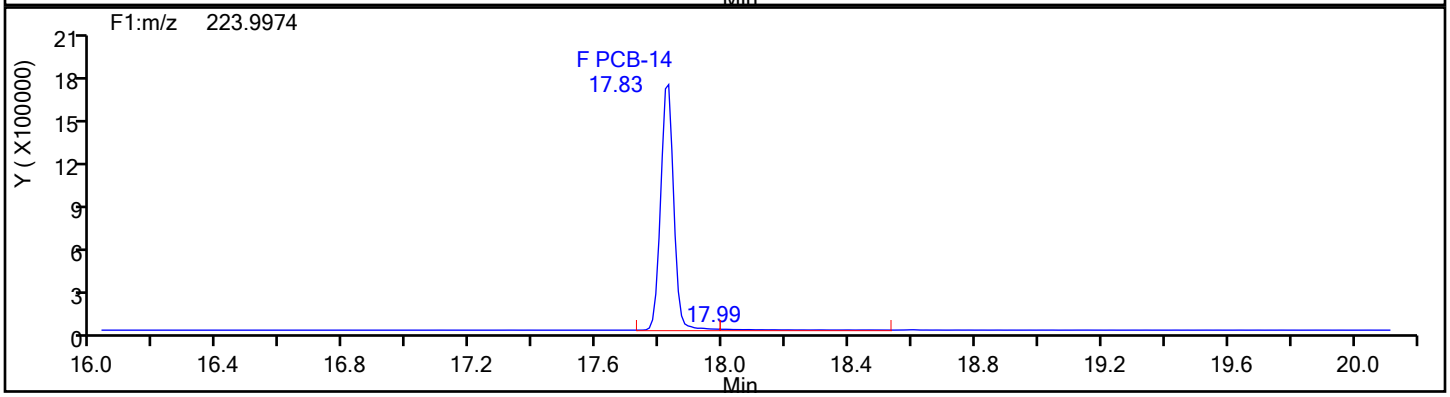
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

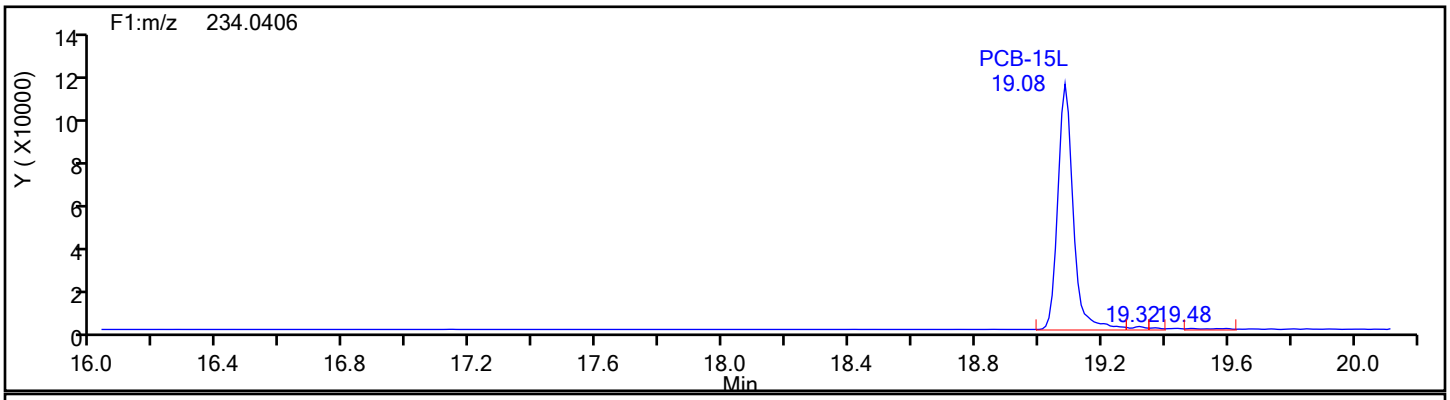
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

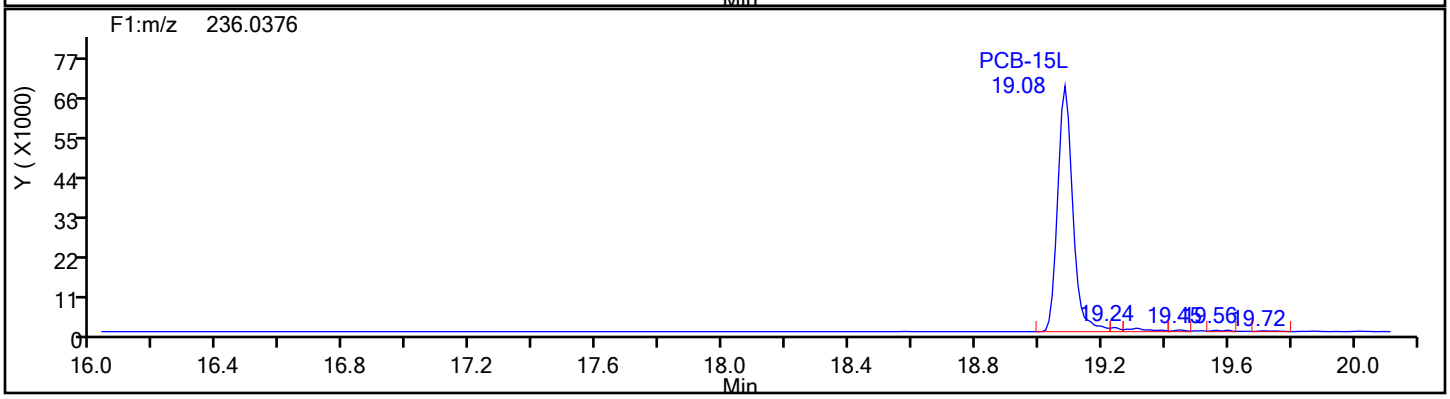
PCB-14





PCB-14 Standards



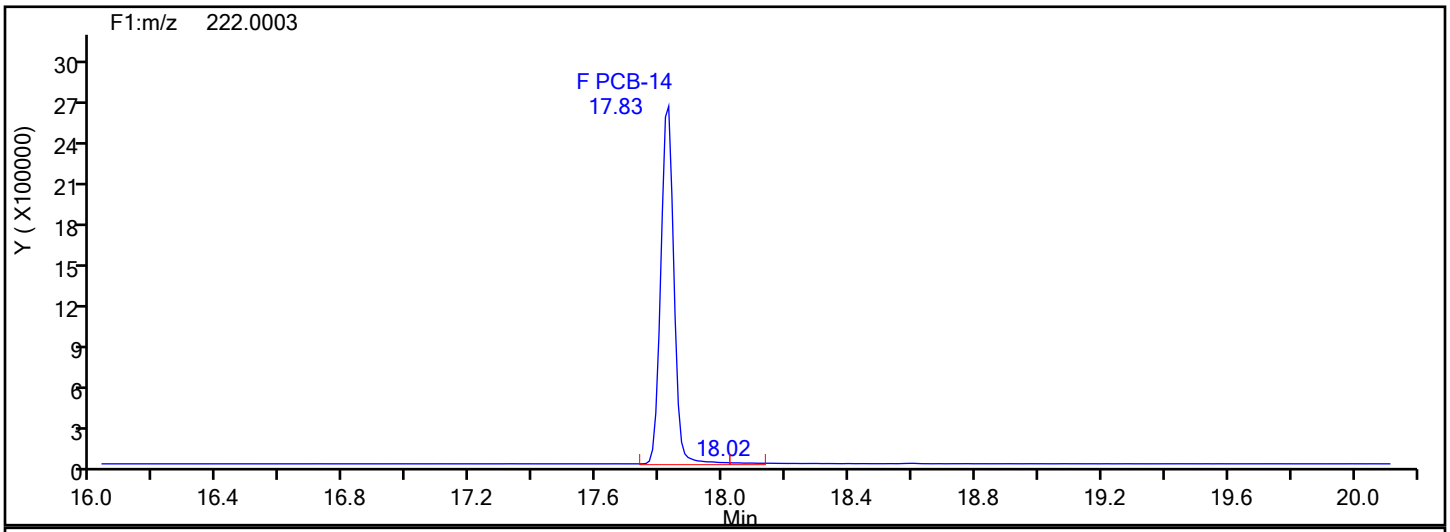


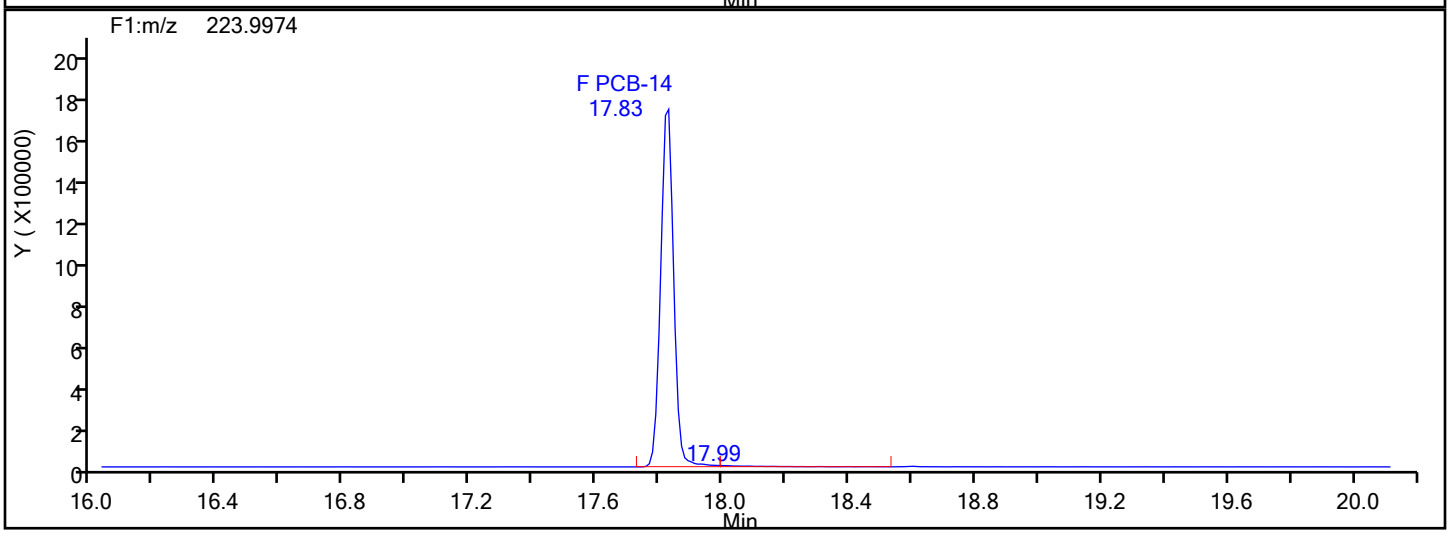
Report Date: 31-Mar-2025 14:10:41 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

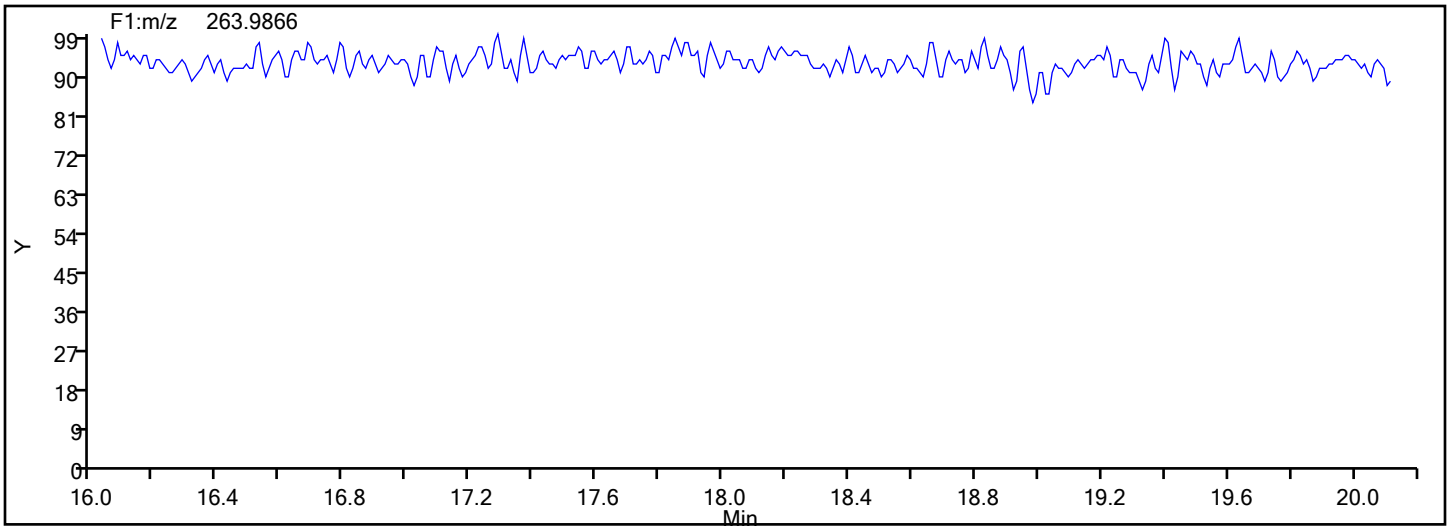
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



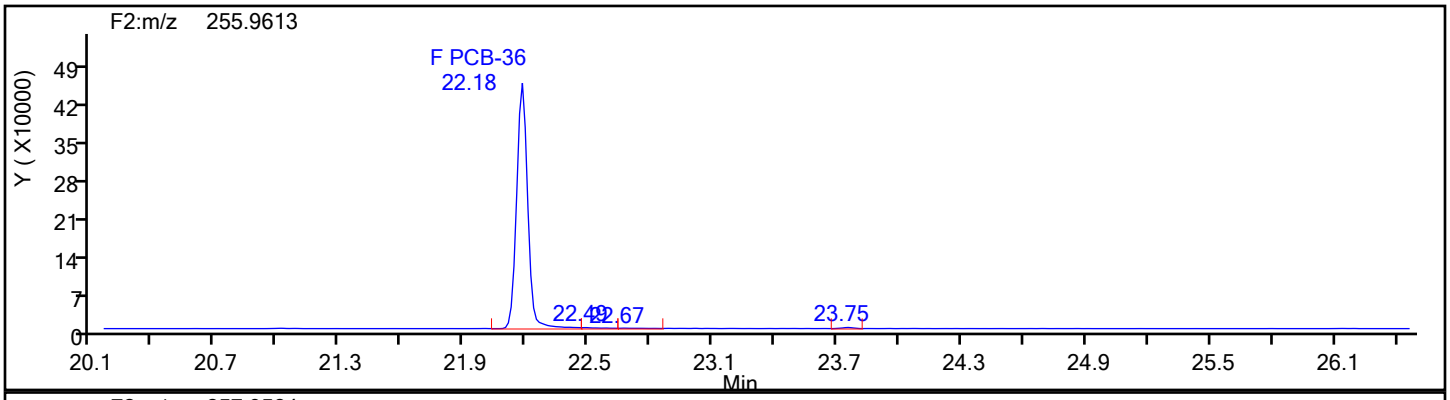
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

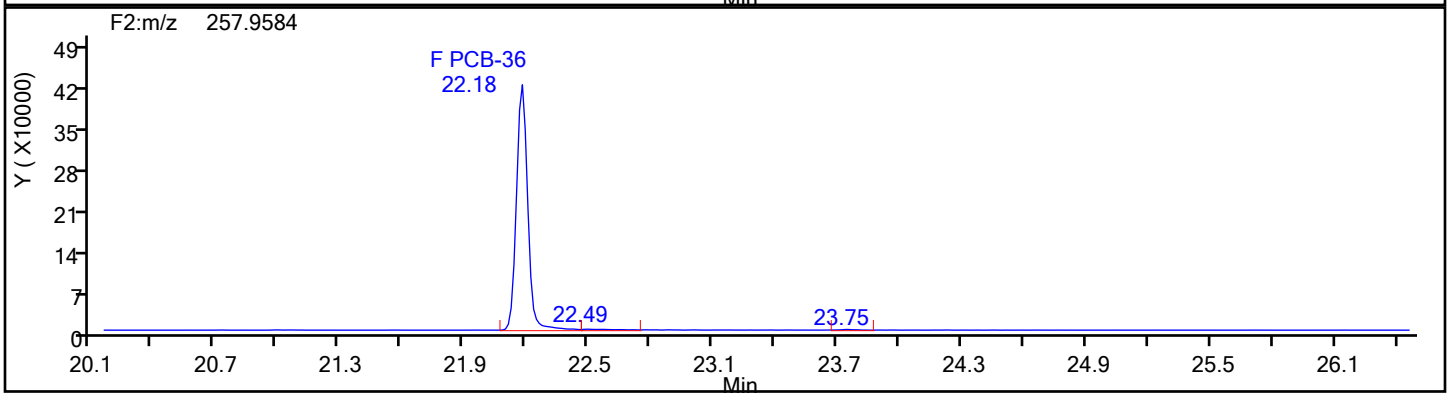
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

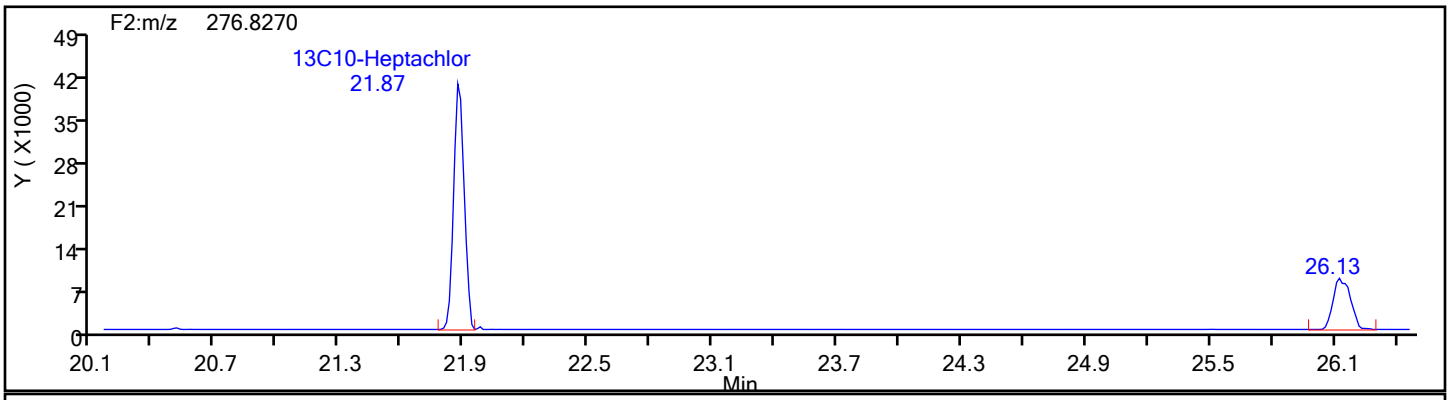
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

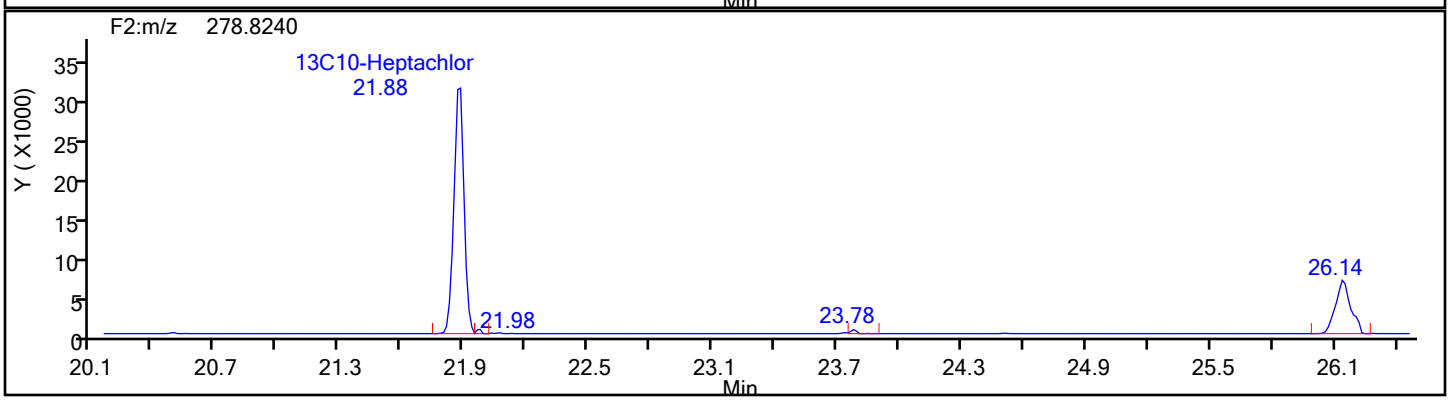
PCB-36





PCB-36 Standards



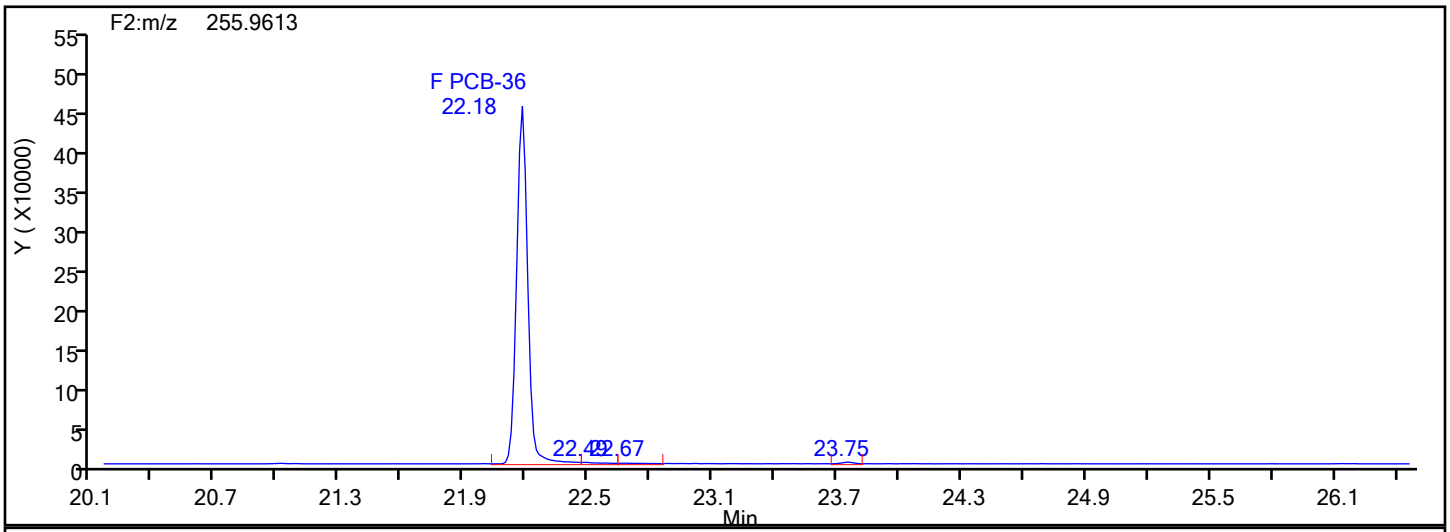


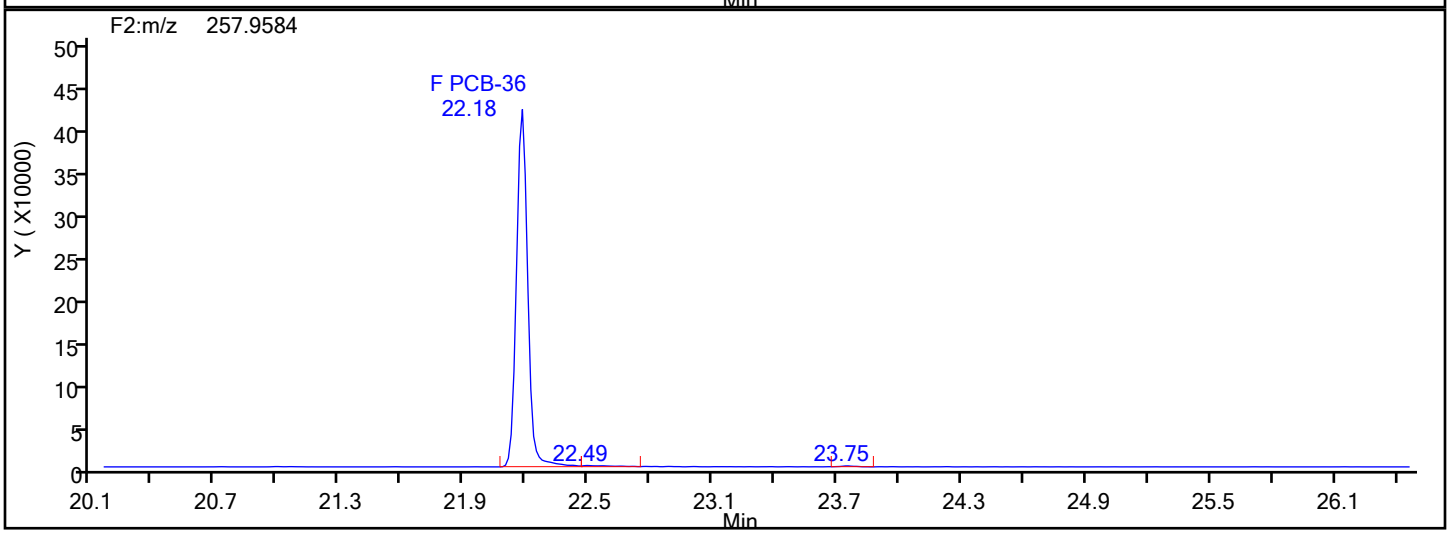
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

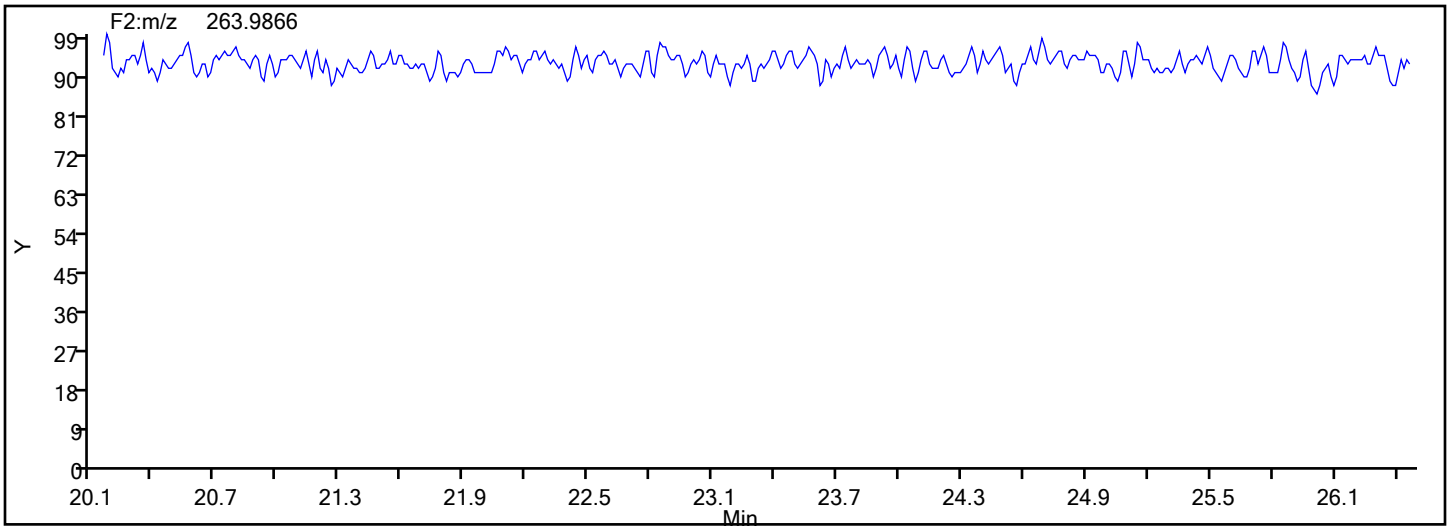
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



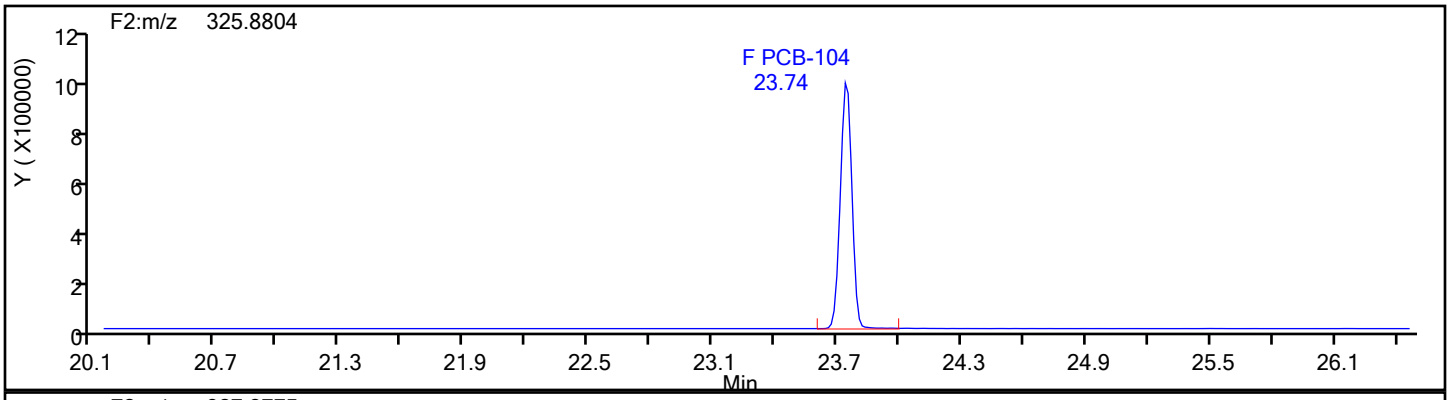
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

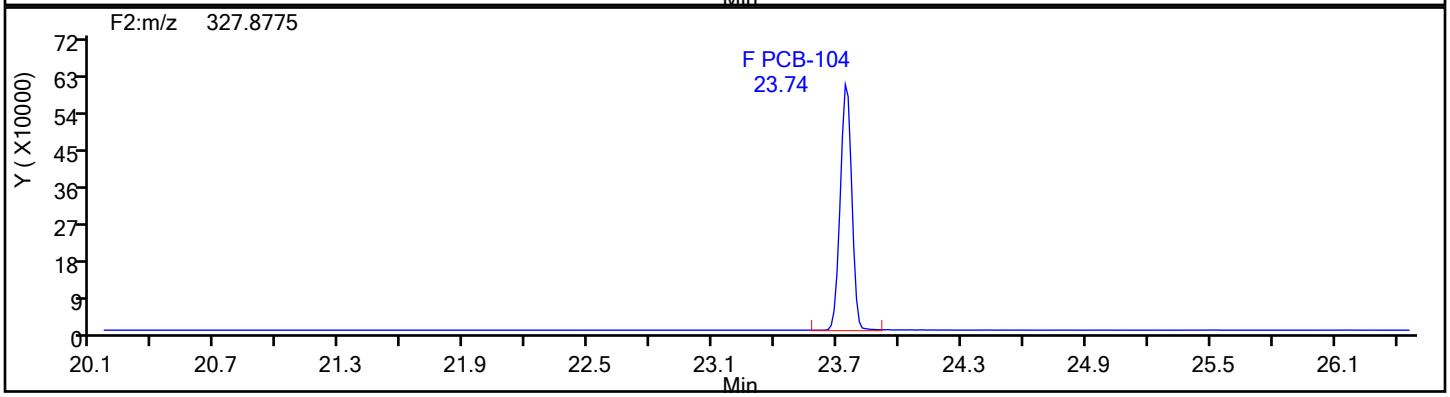
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

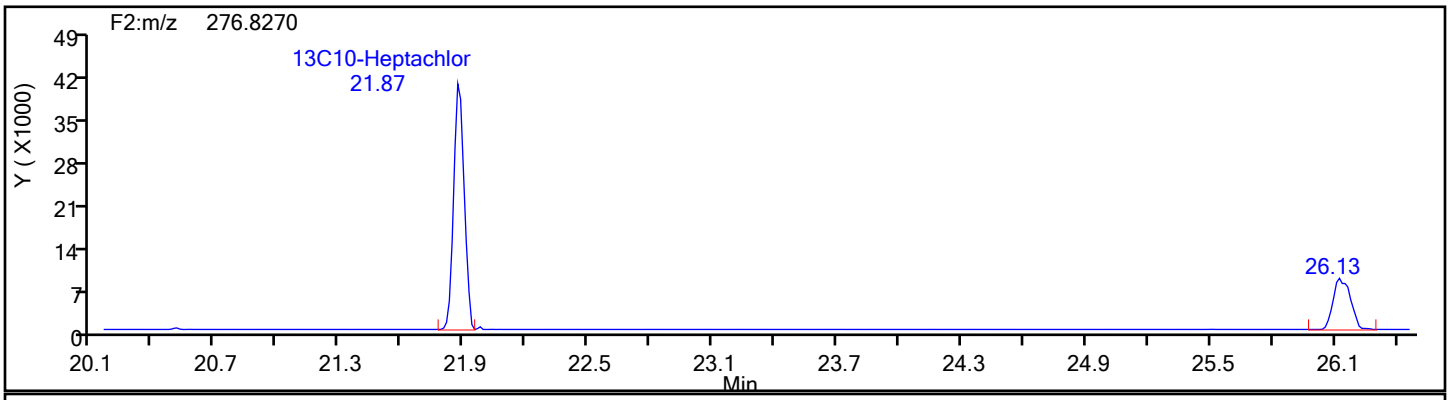
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

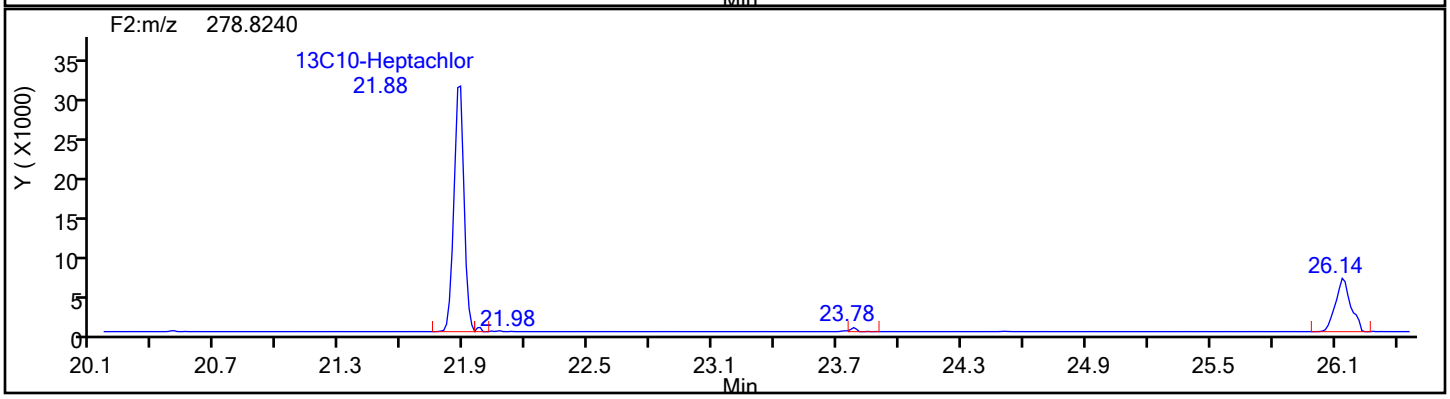
PCB-104





PCB-104 Standards



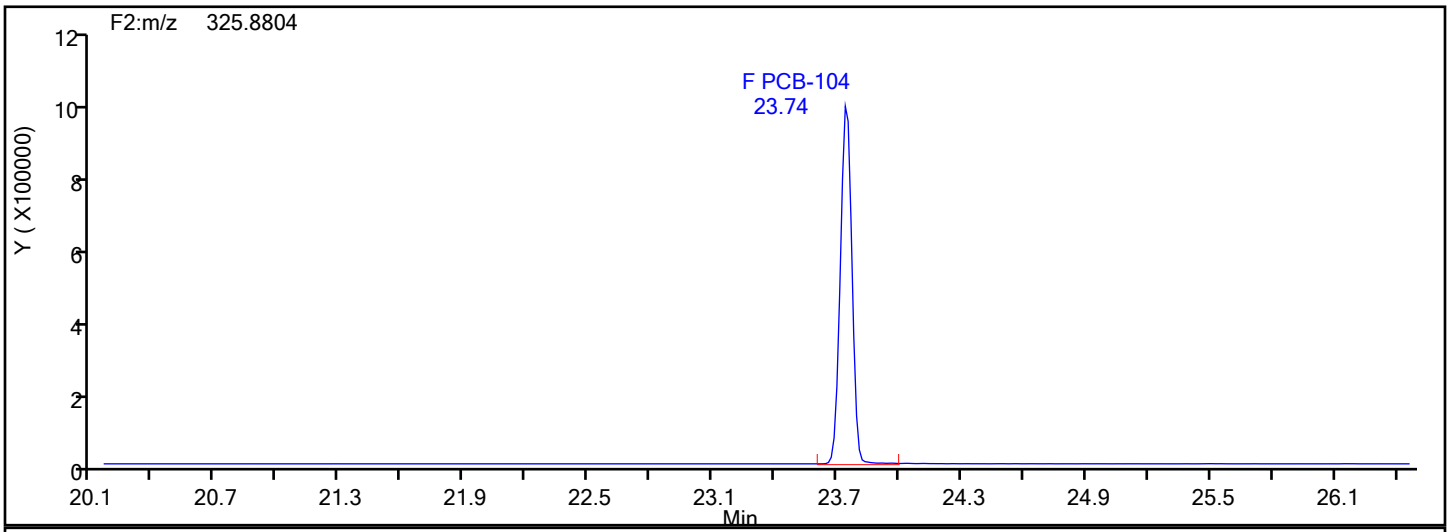


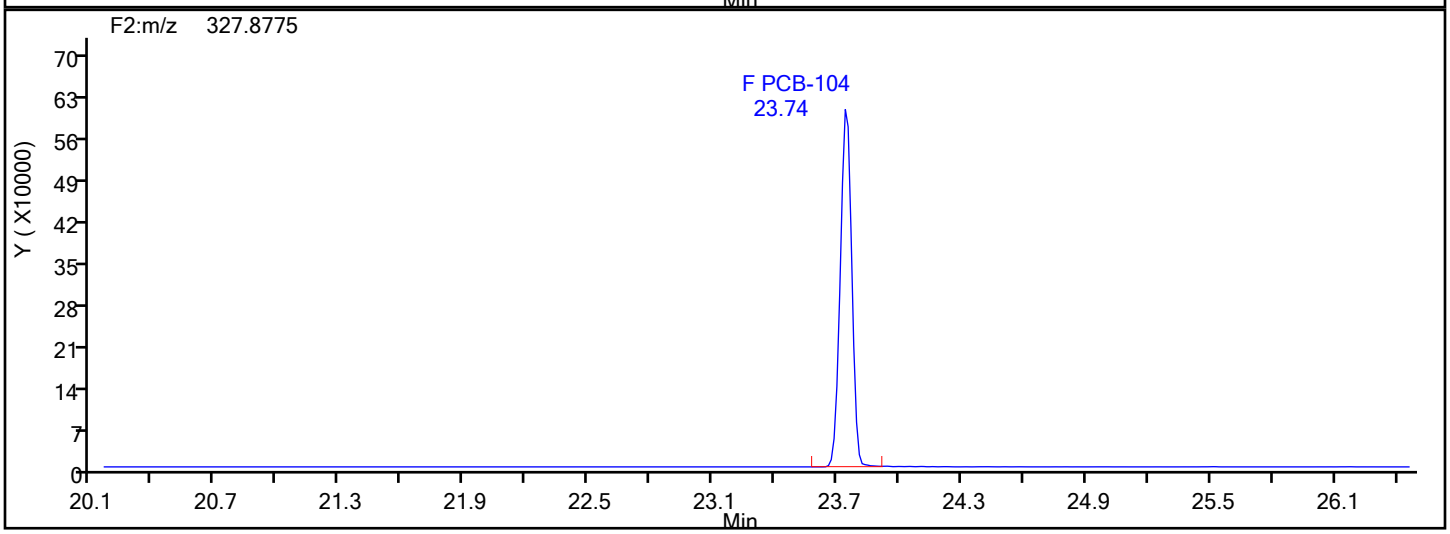
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

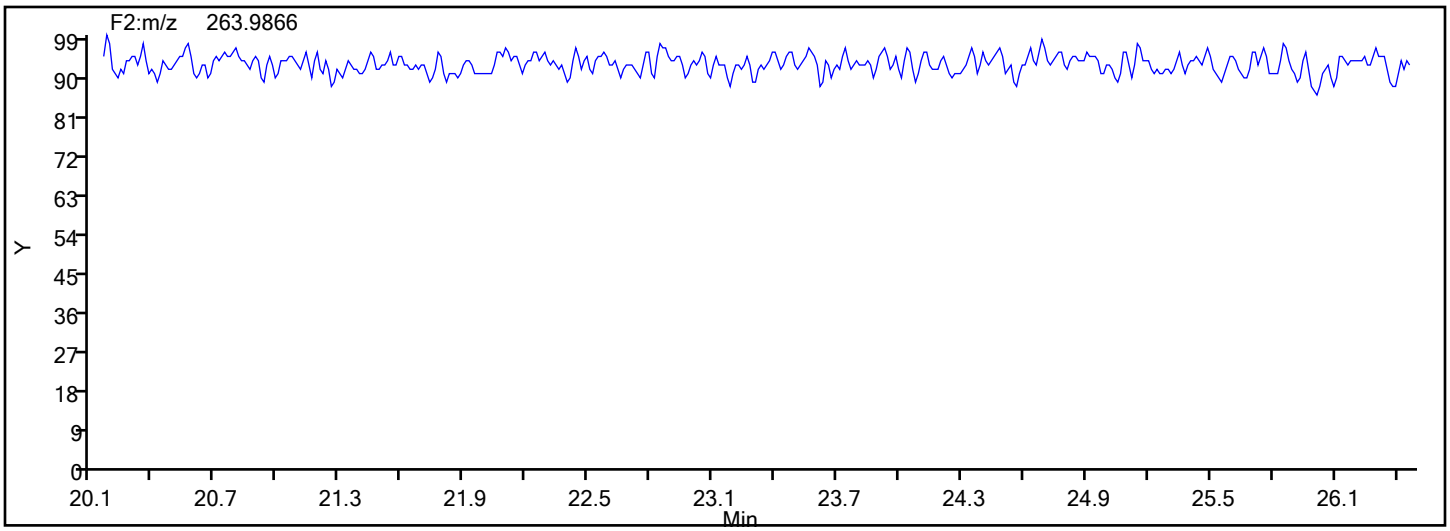
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



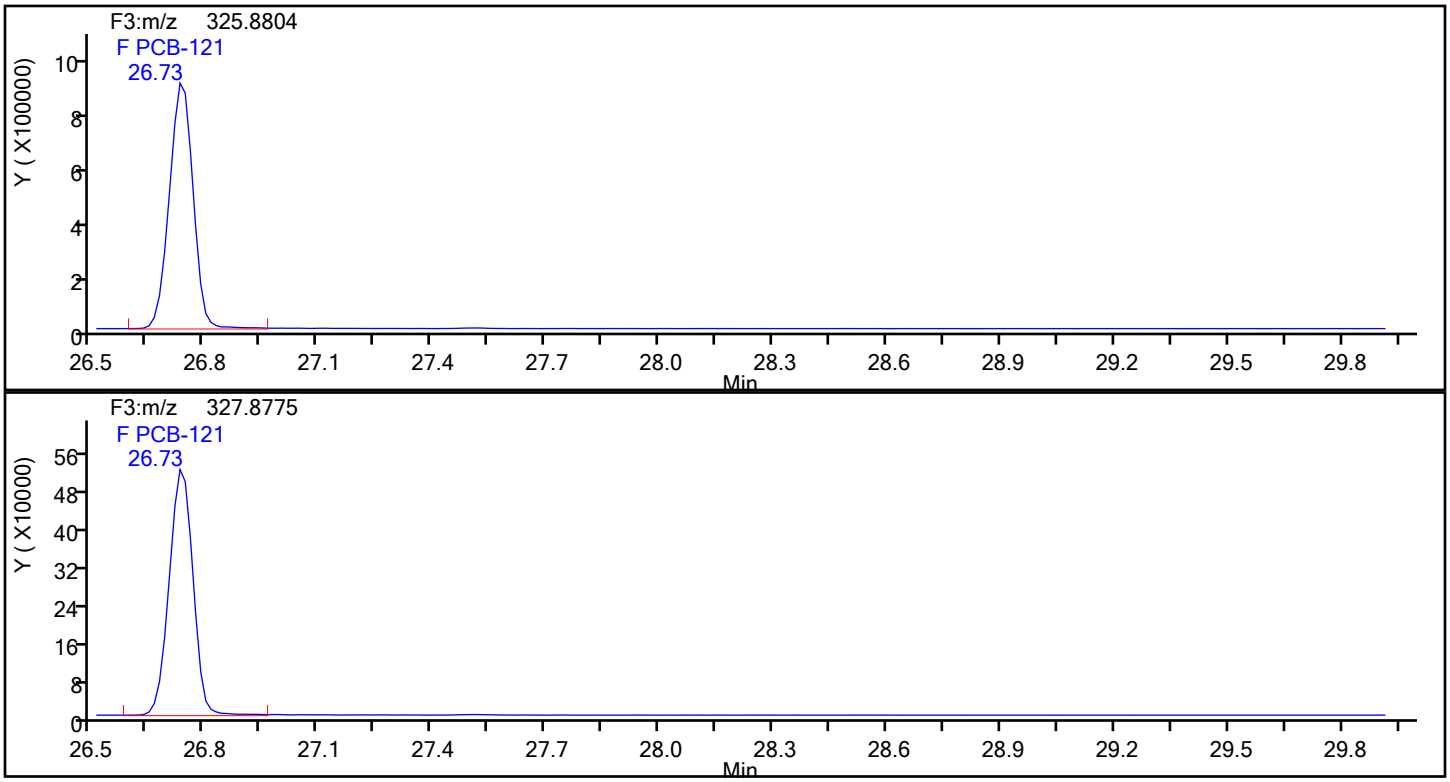
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

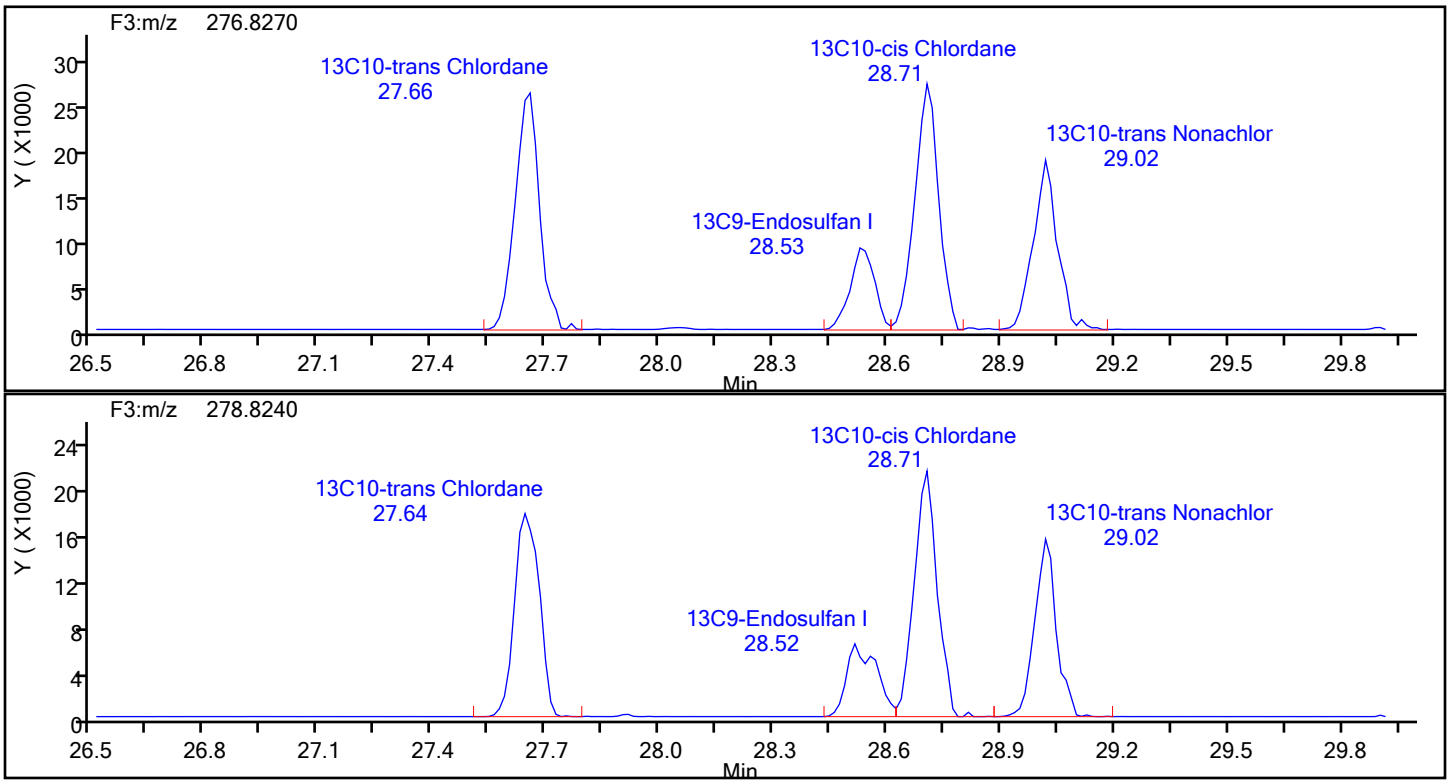
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

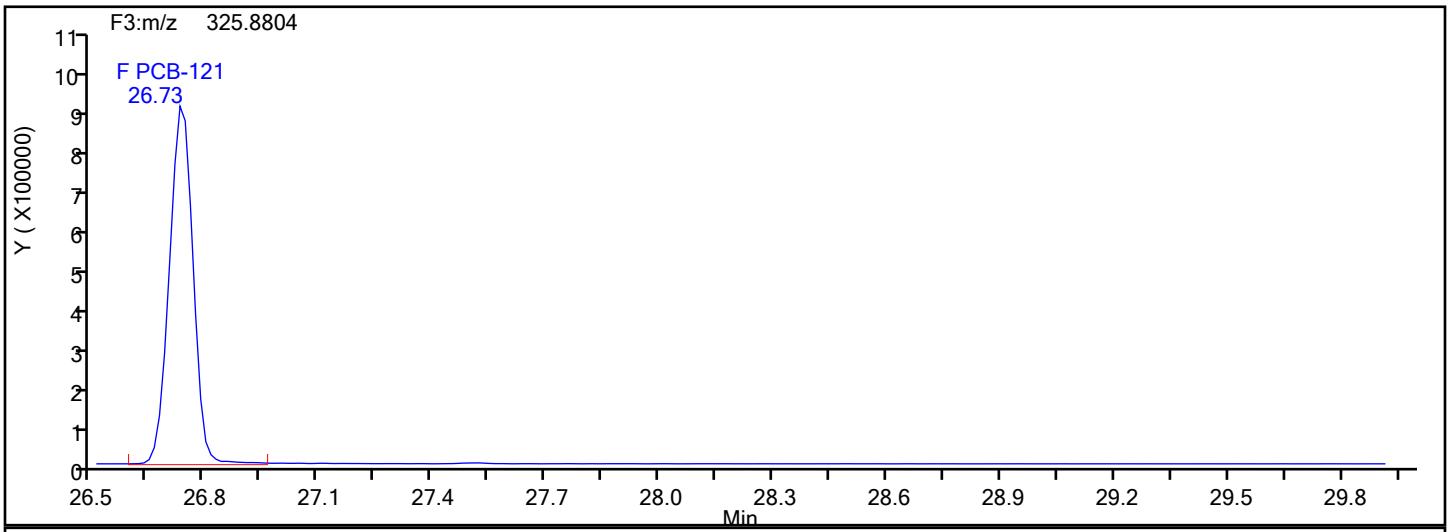


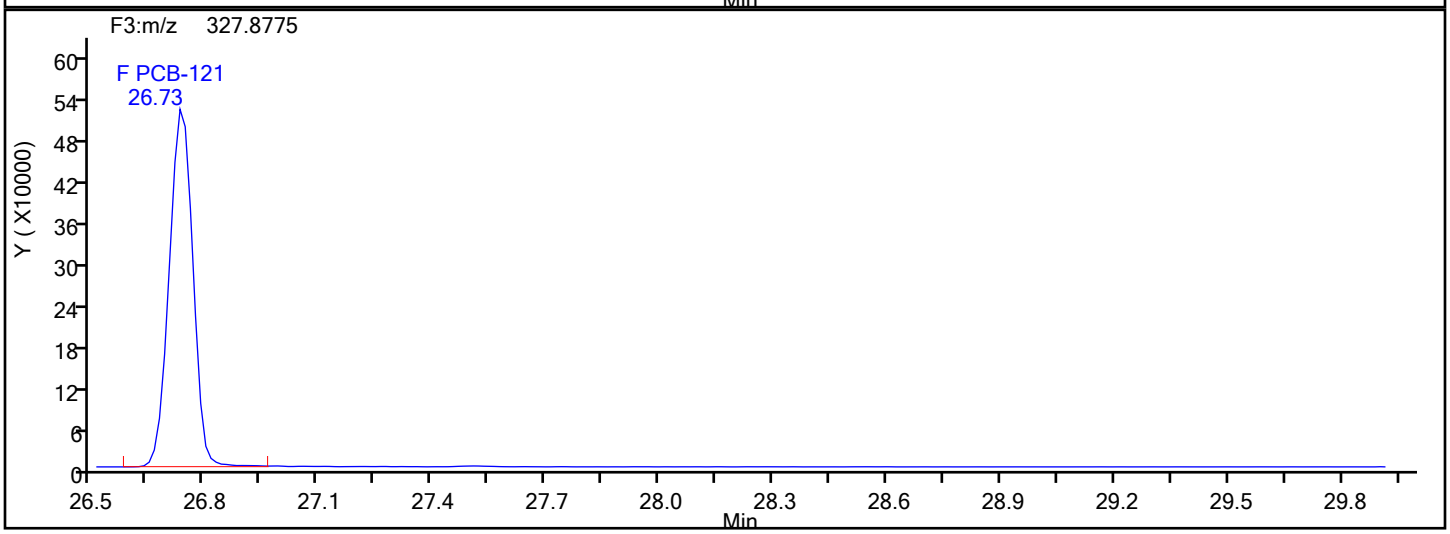
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

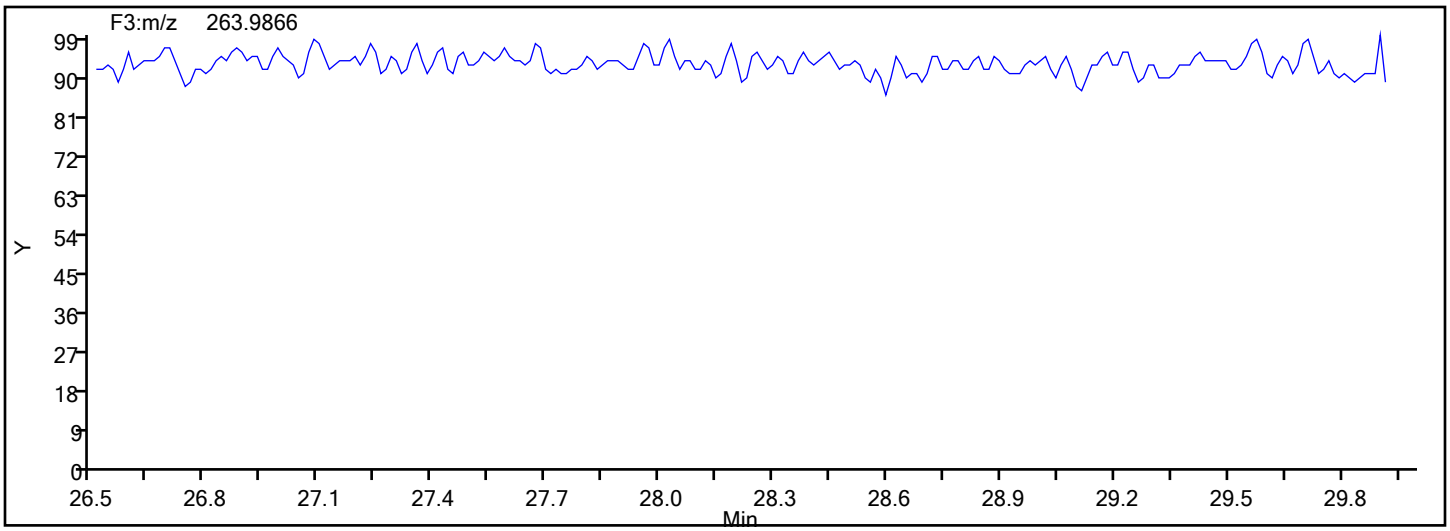
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



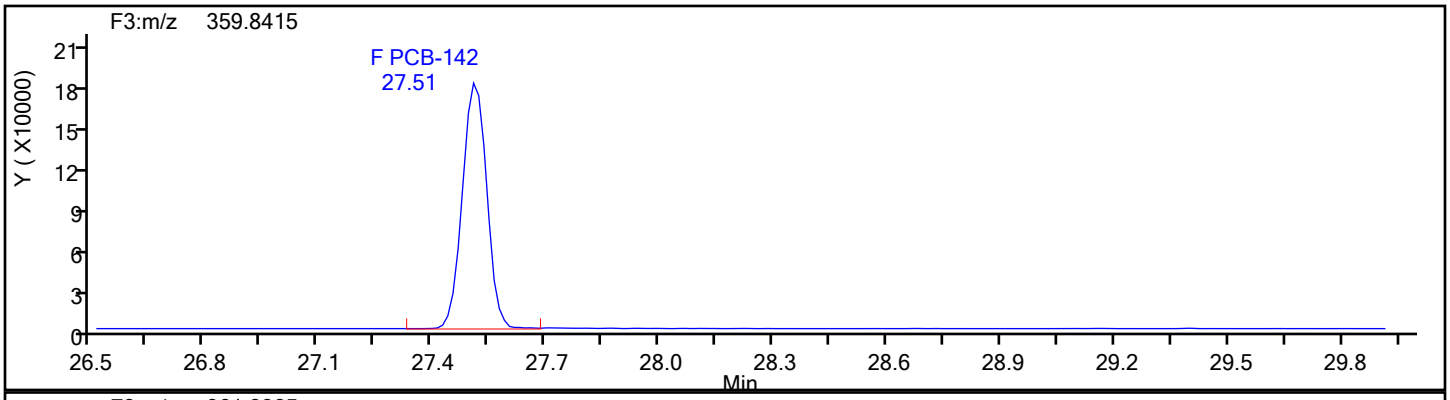
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

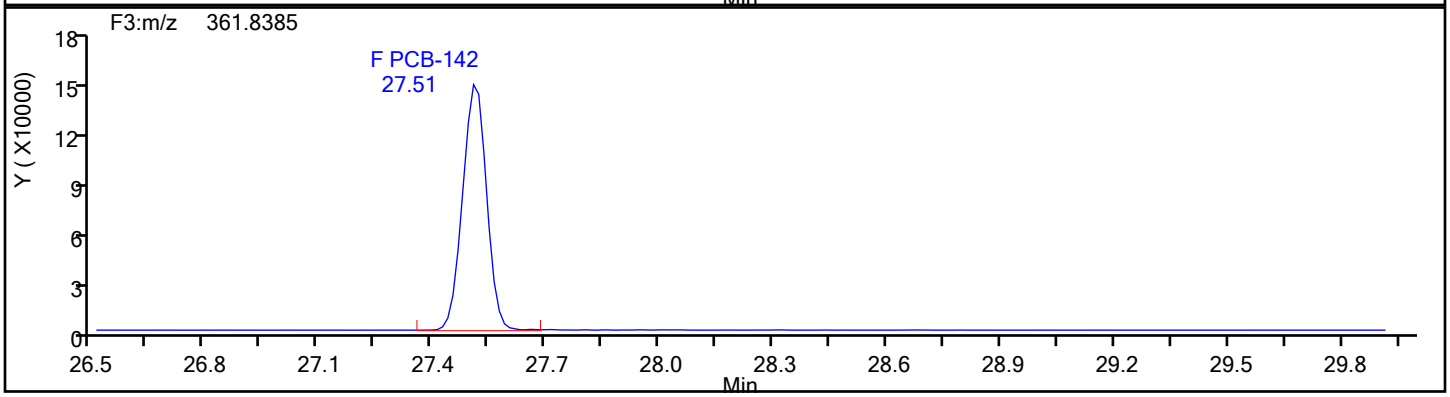
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

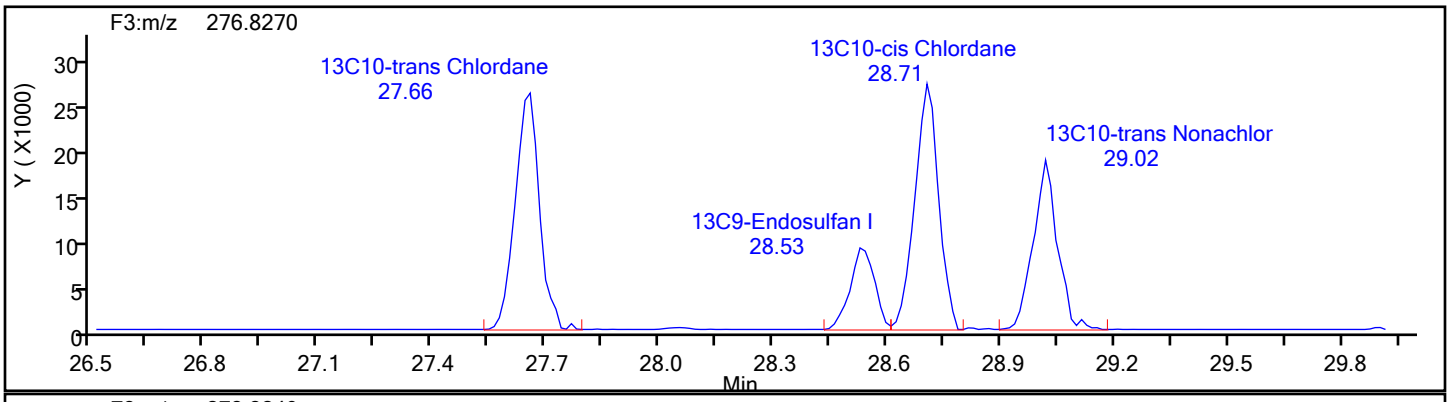
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

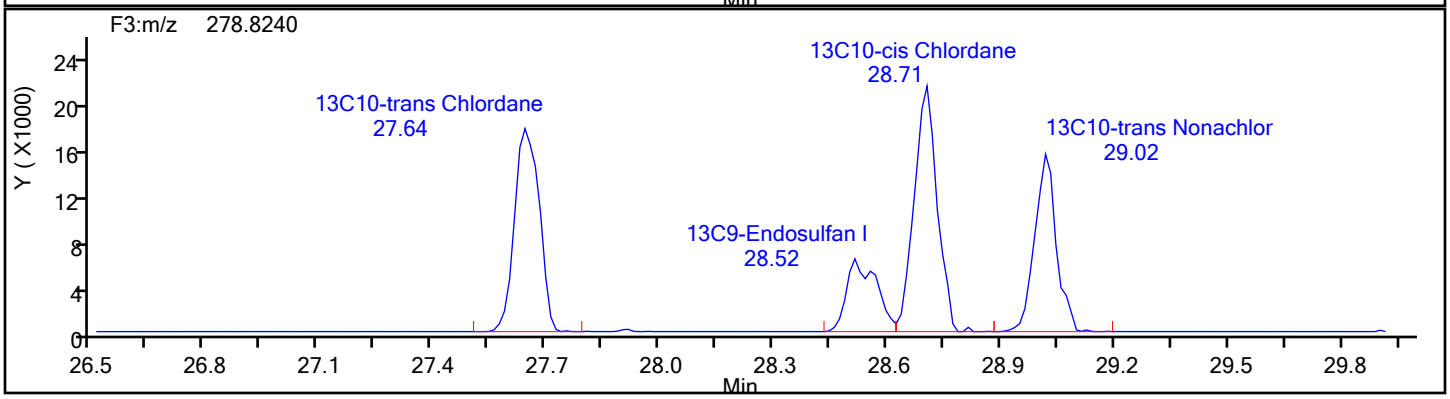
PCB-142





PCB-142 Standards



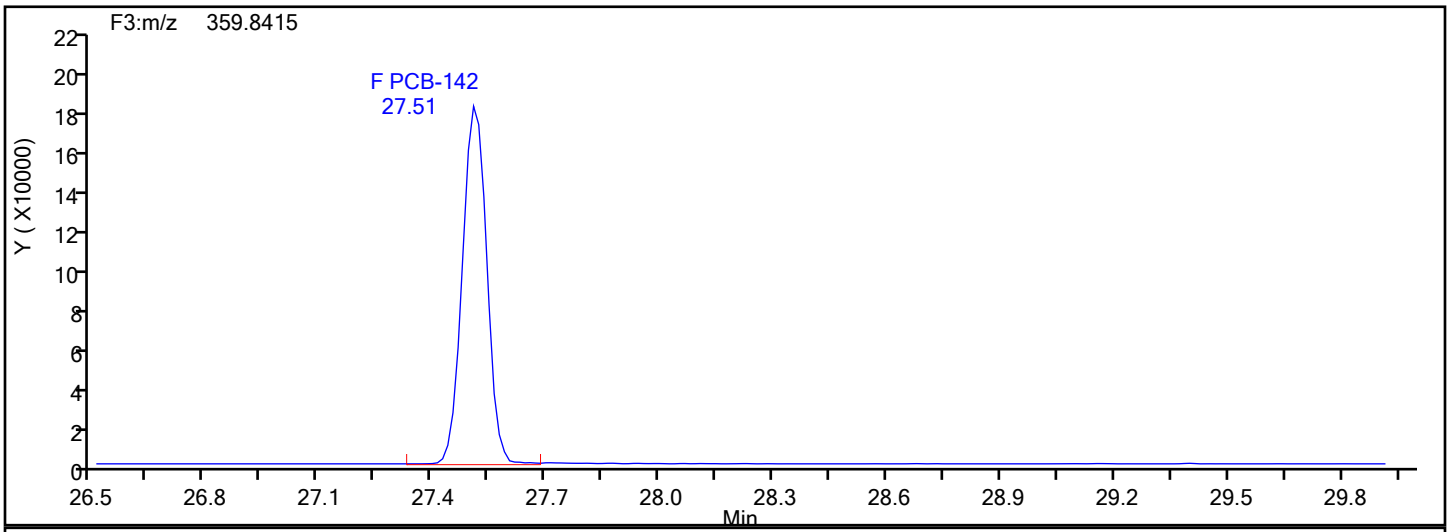


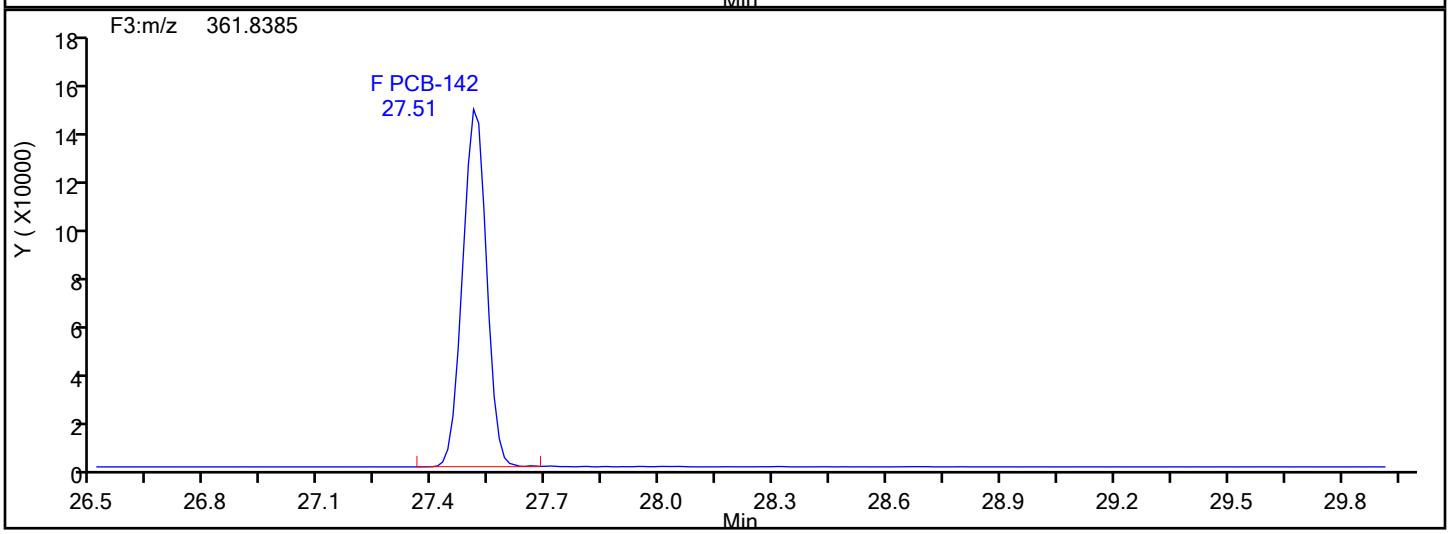
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

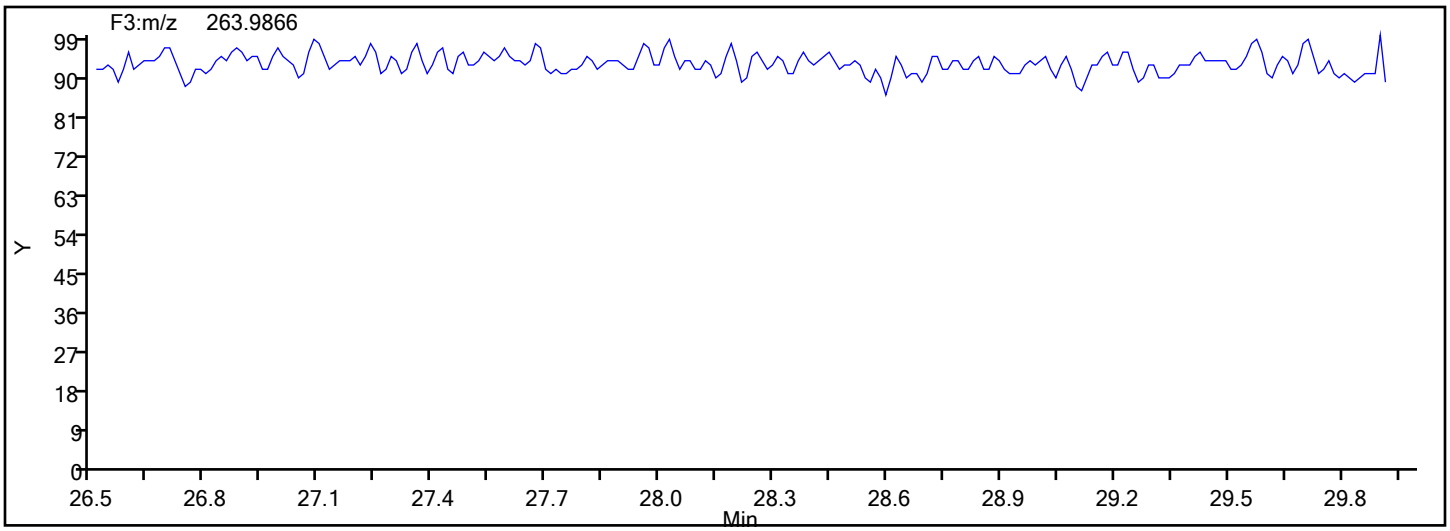
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



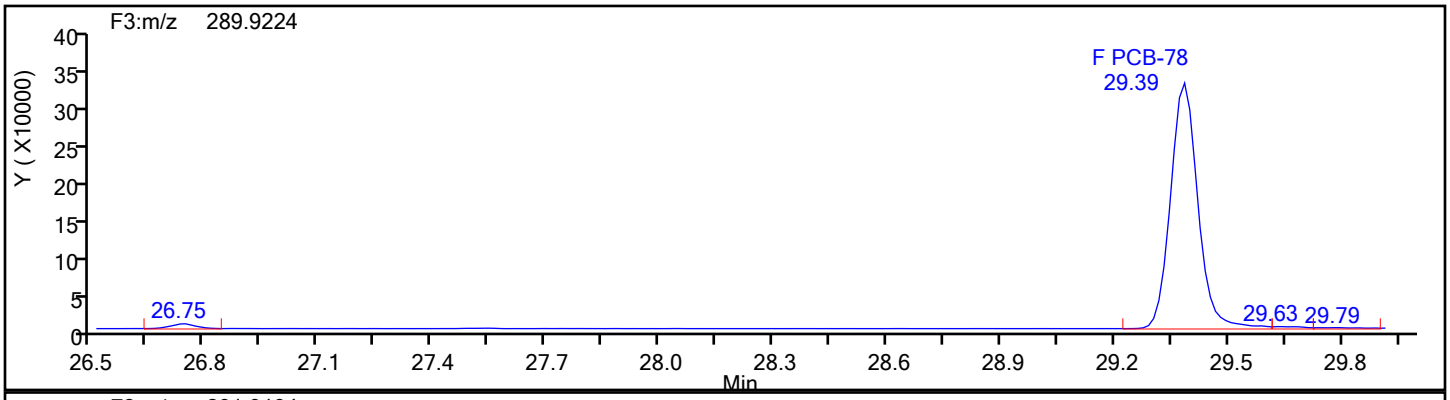
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

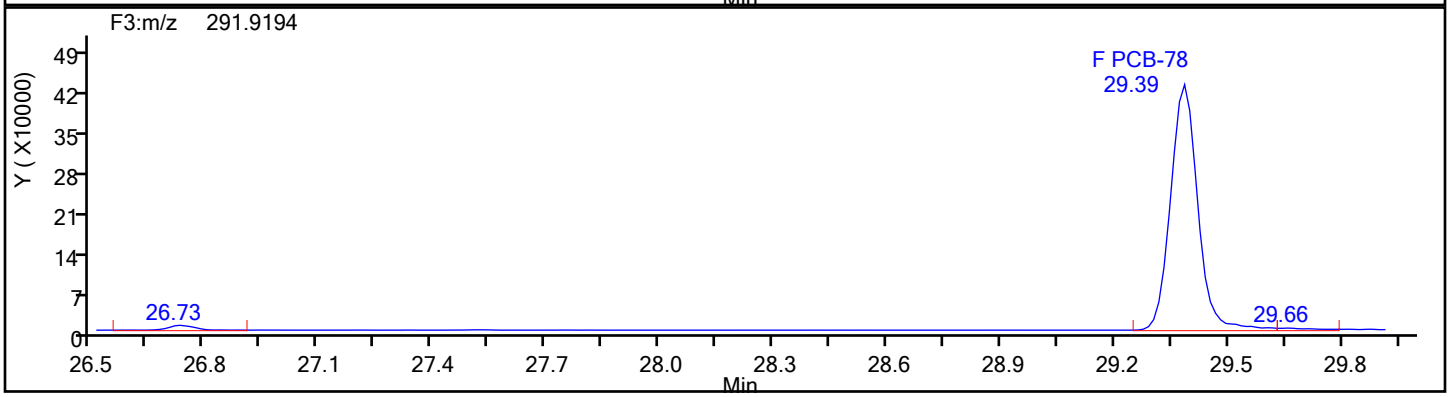
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

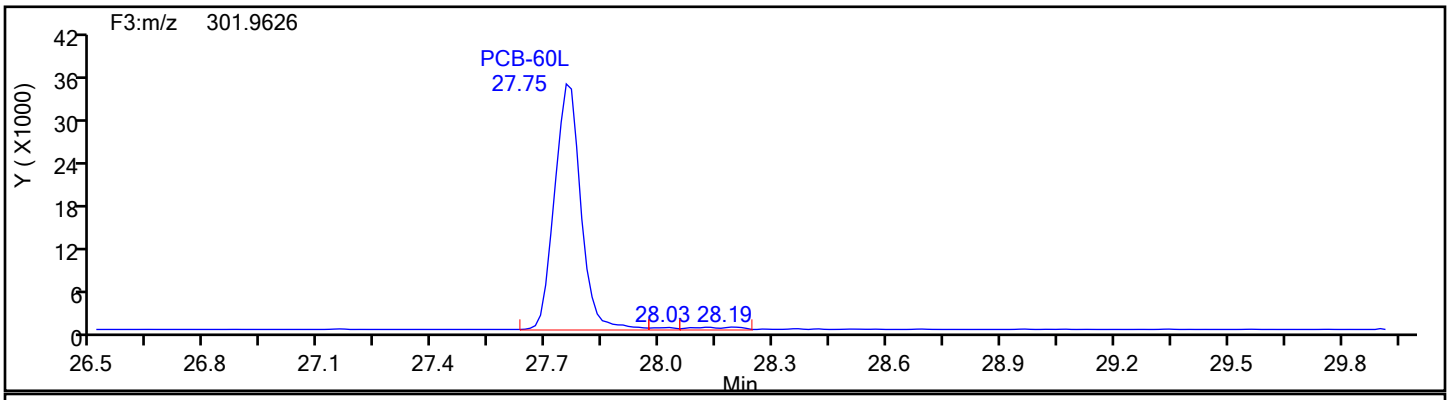
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

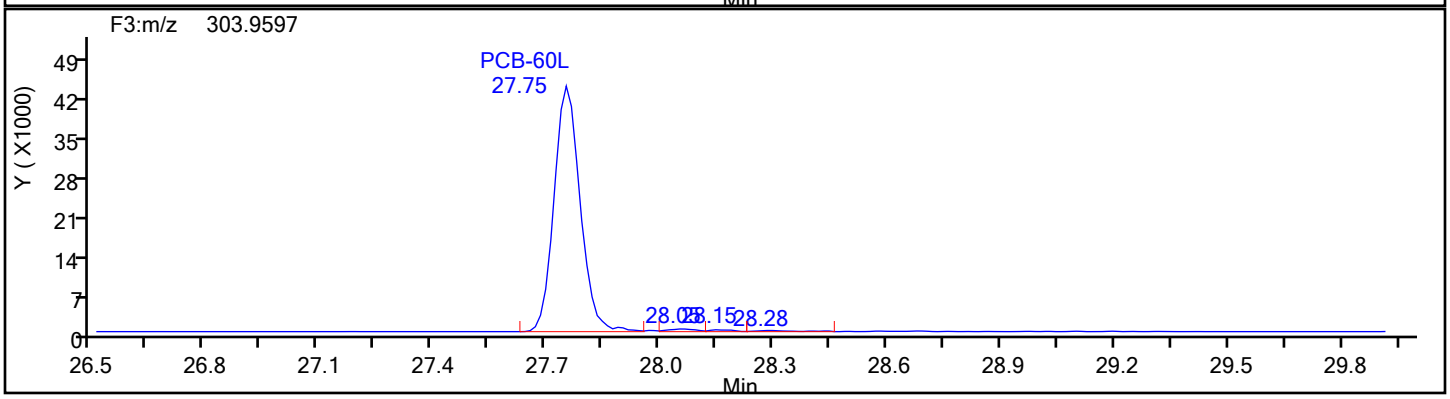
PCB-78





PCB-78 Standards



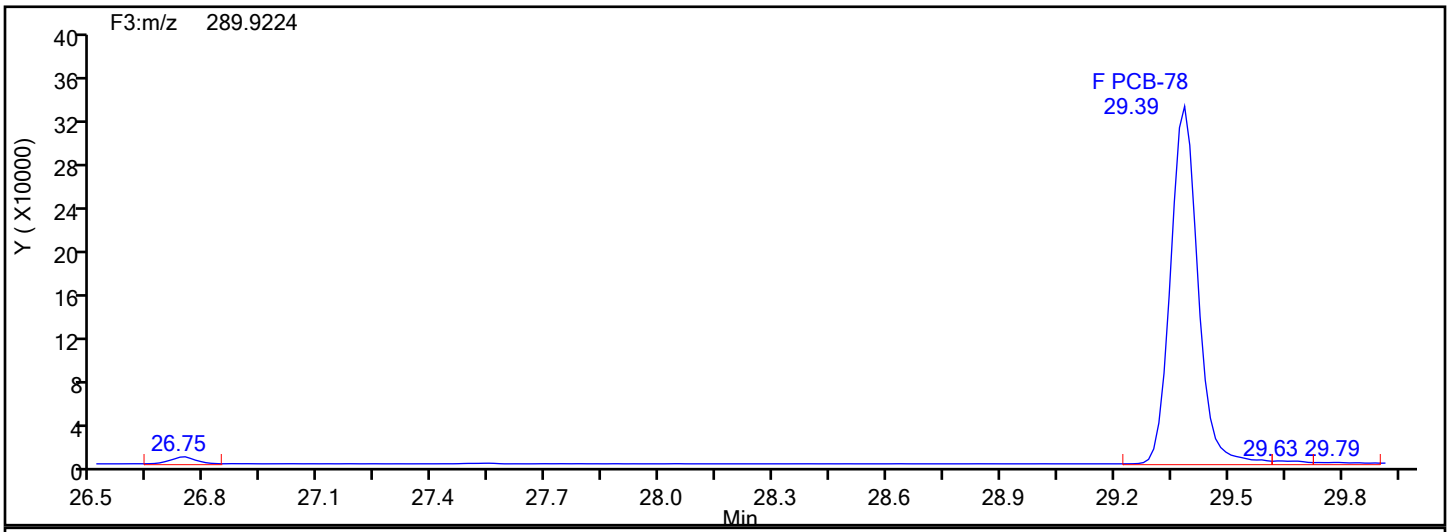


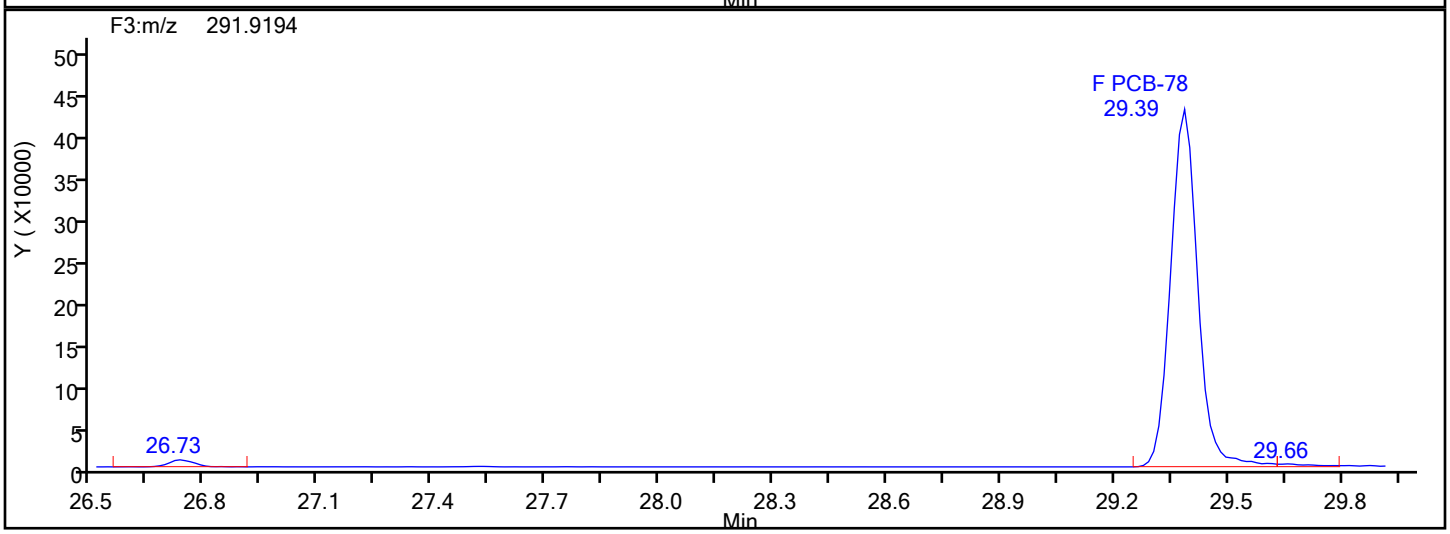
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

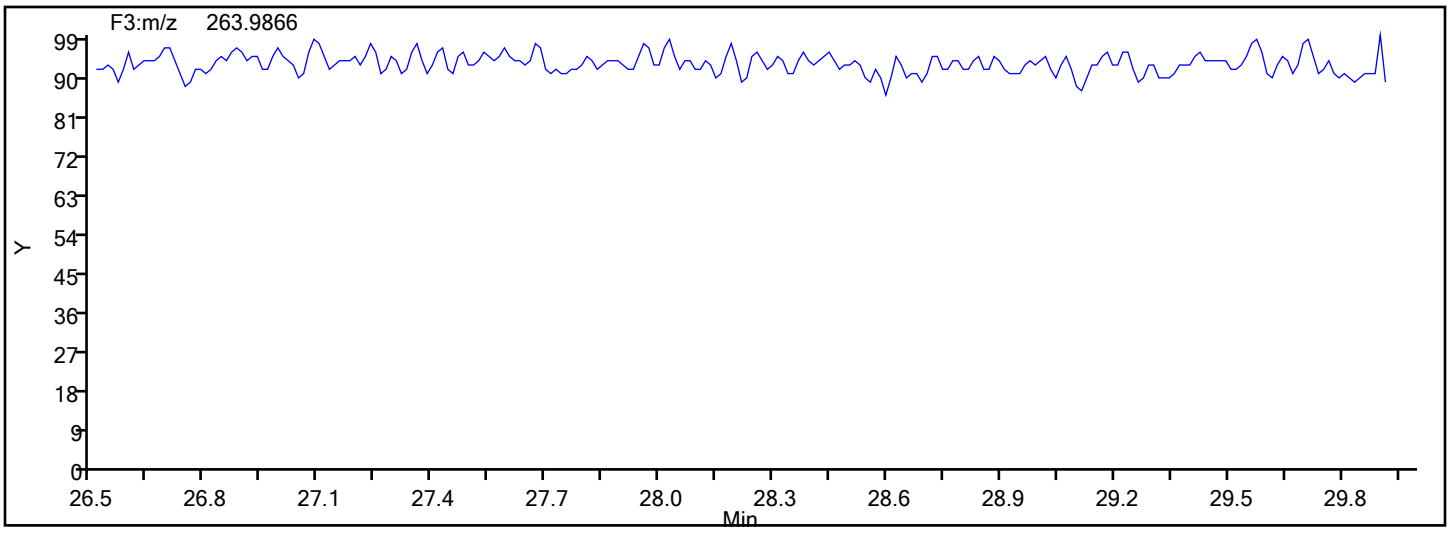
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d
Injection Date: 30-Mar-2025 22:24:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID: ASPECT.PRC.BLK2
Worklist#: 97758 Sample Line#: 13
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



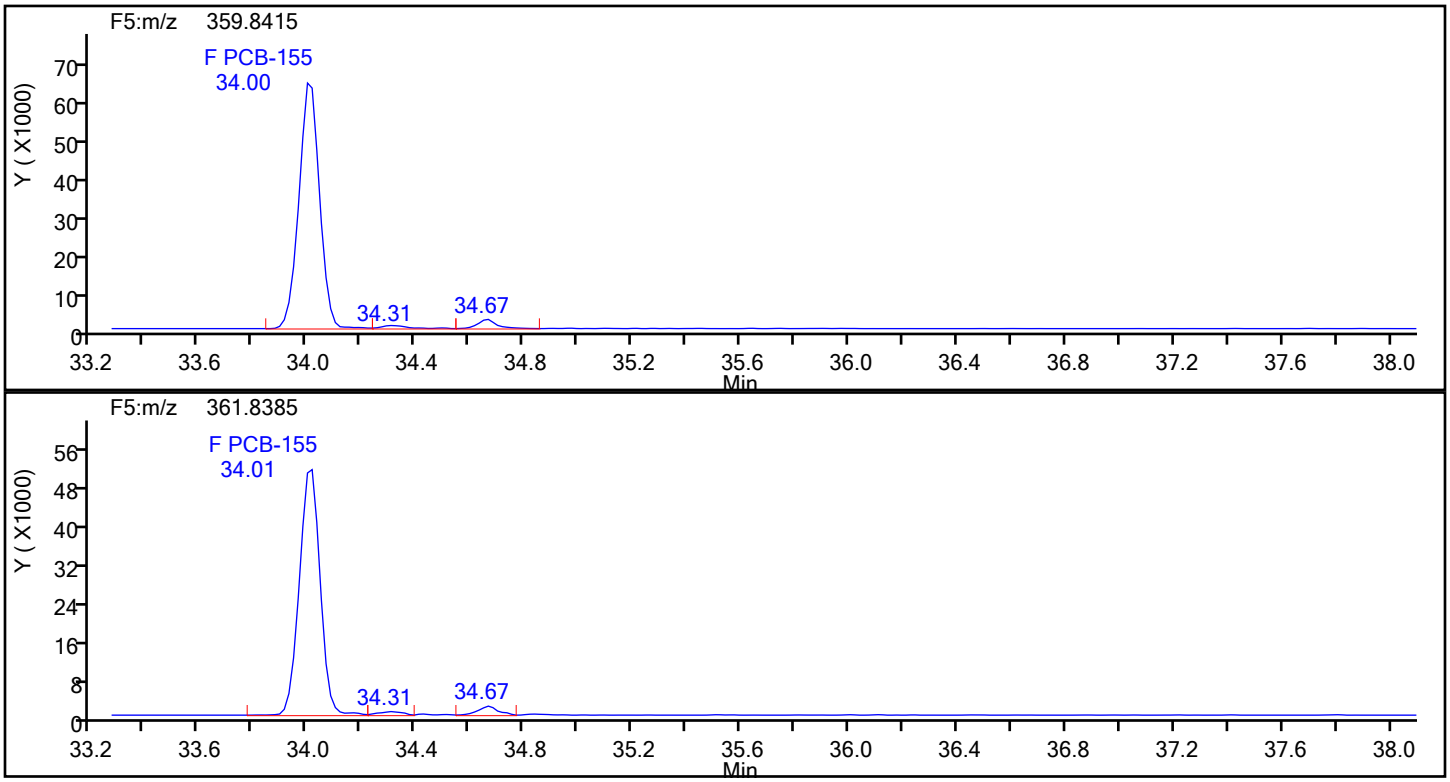
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

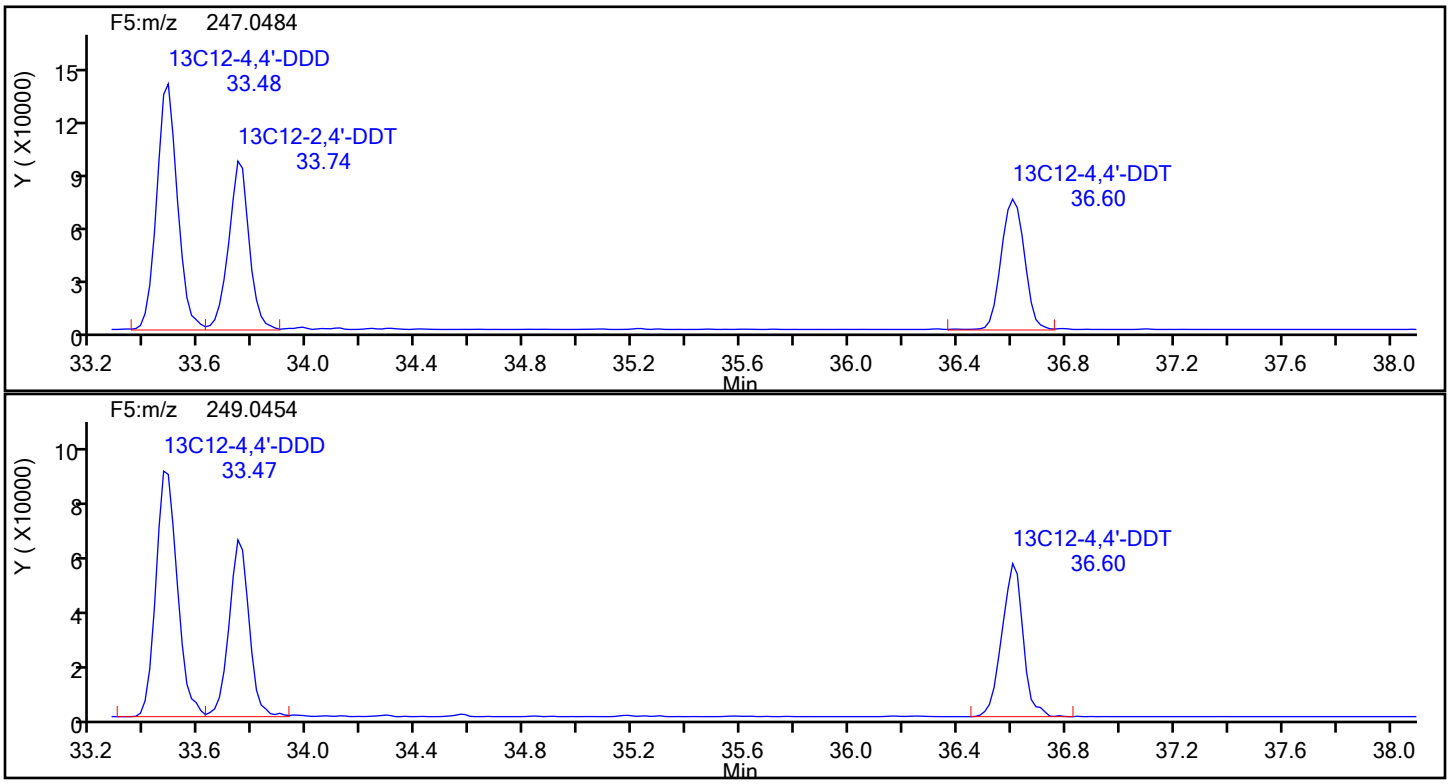
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

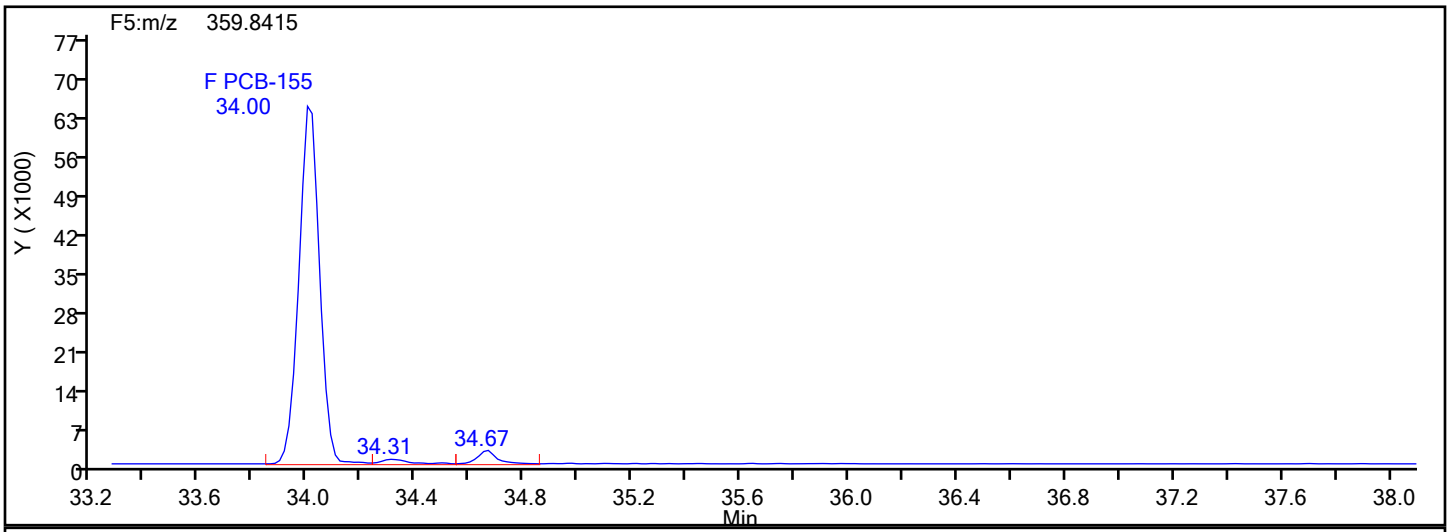


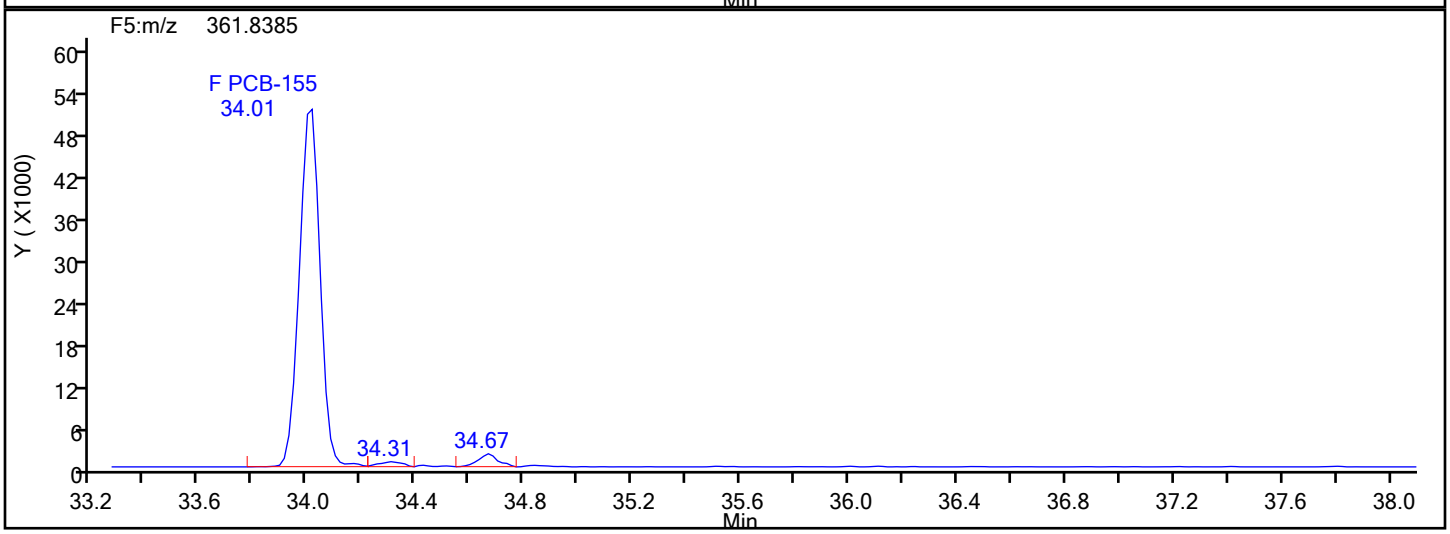
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

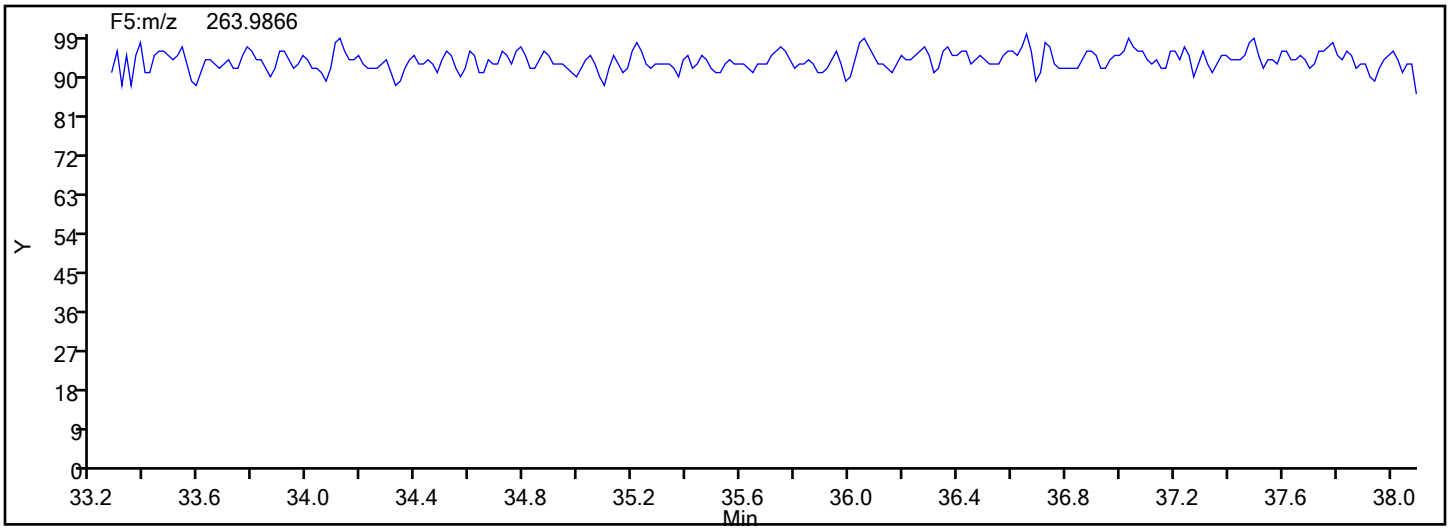
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



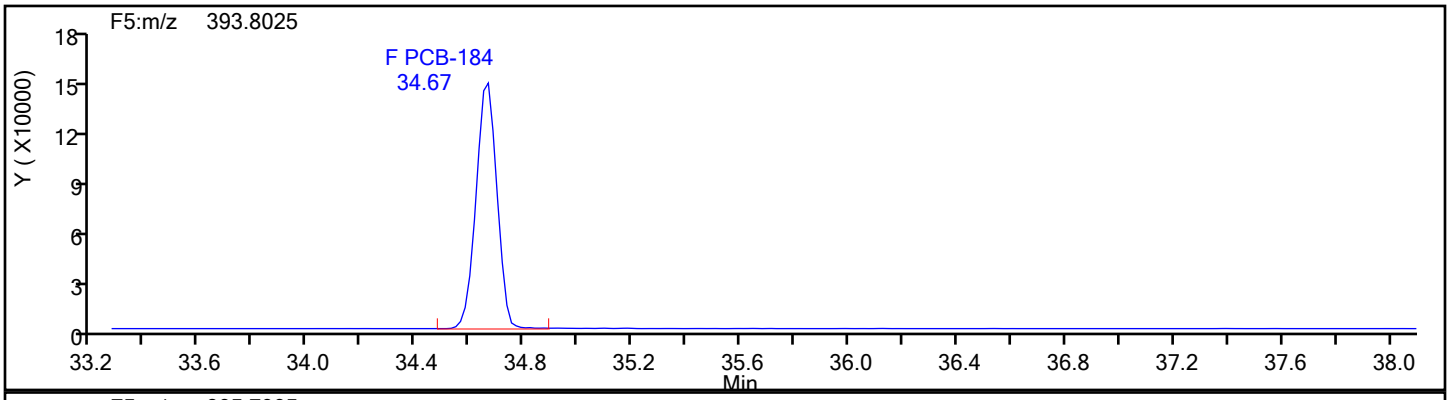
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

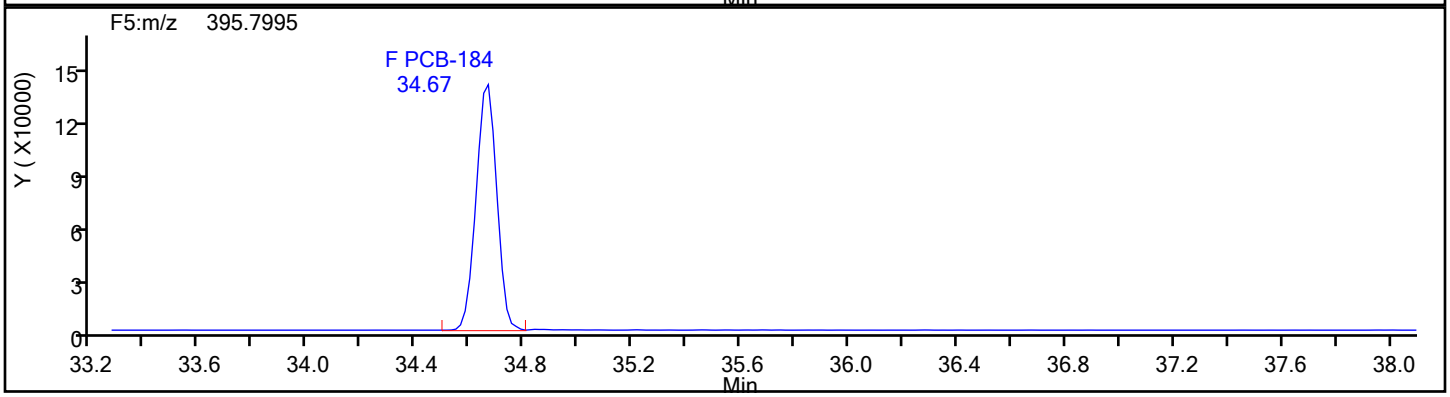
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

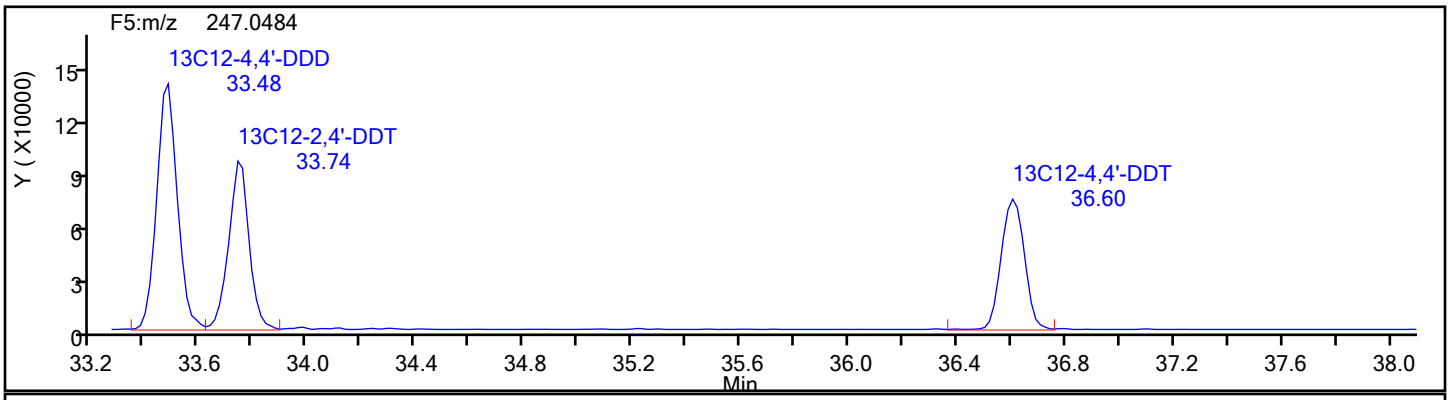
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

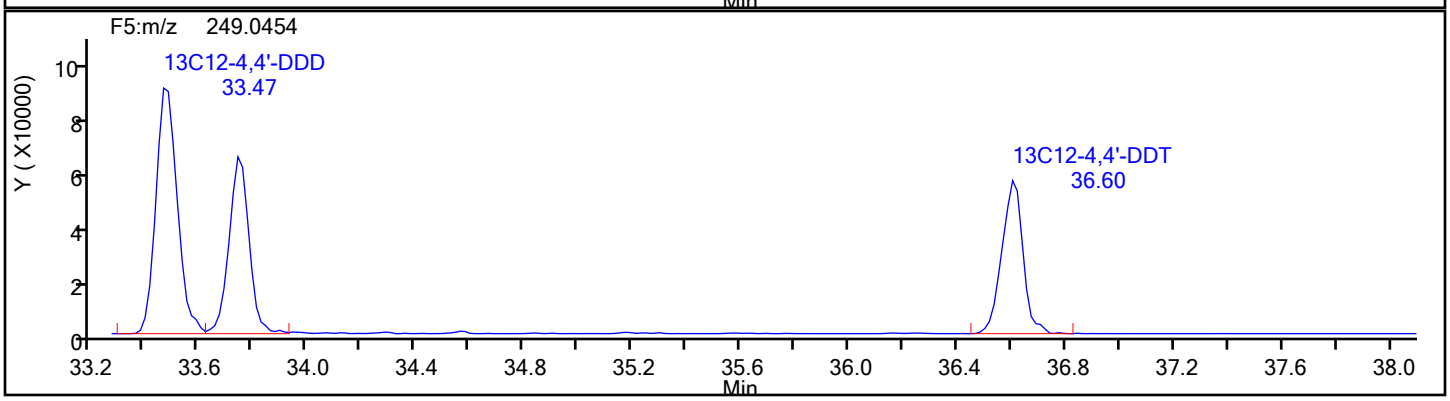
PCB-184





PCB-184 Standards



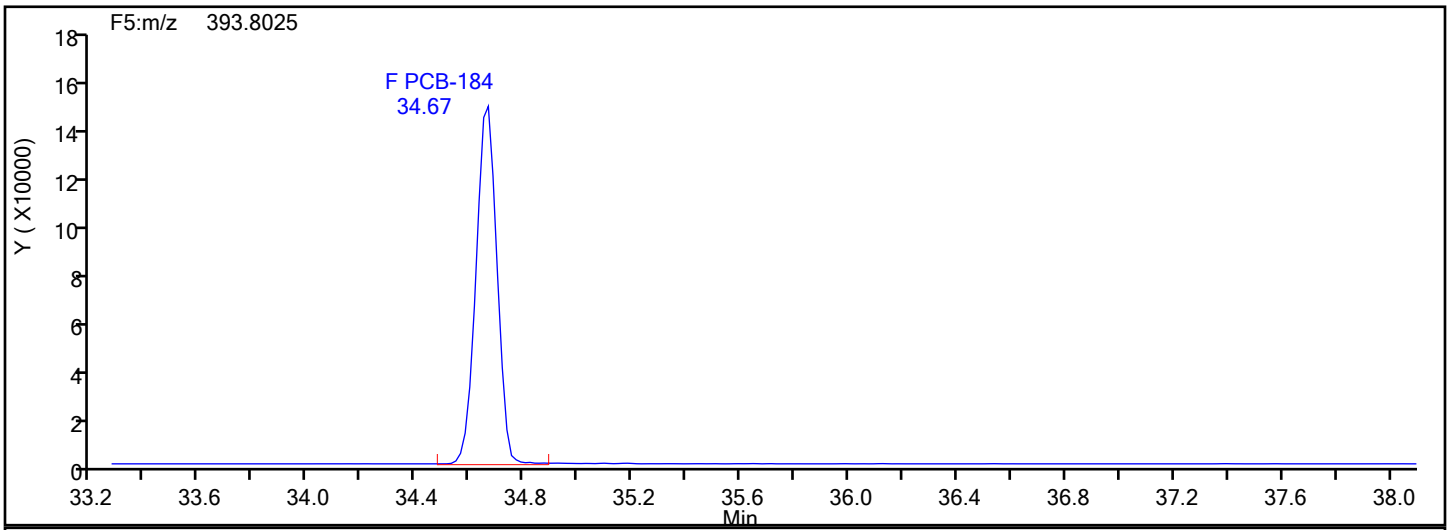


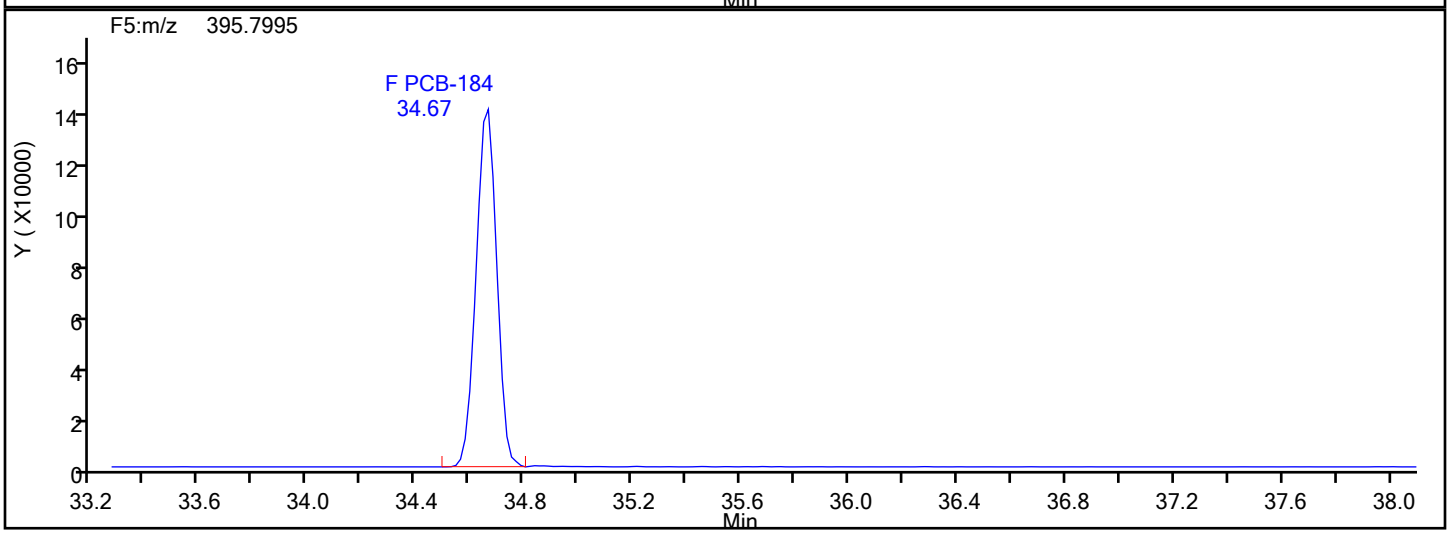
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

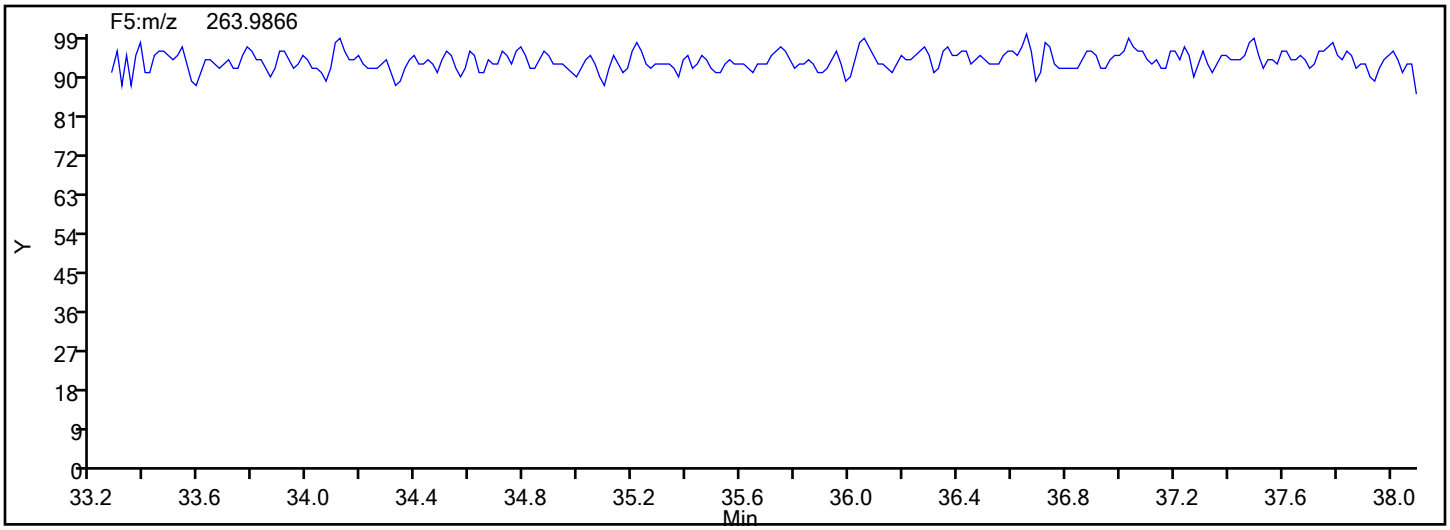
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



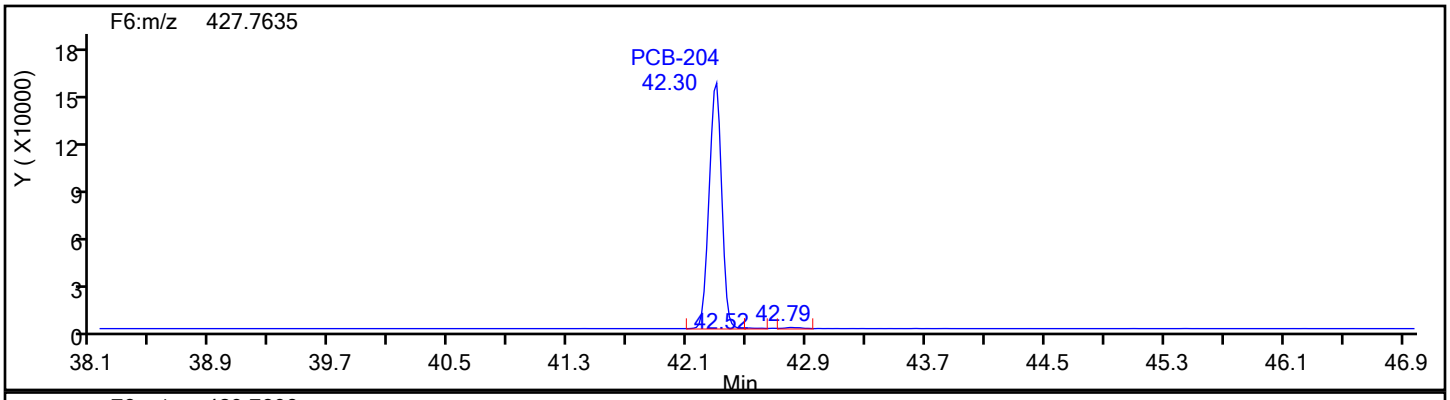
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

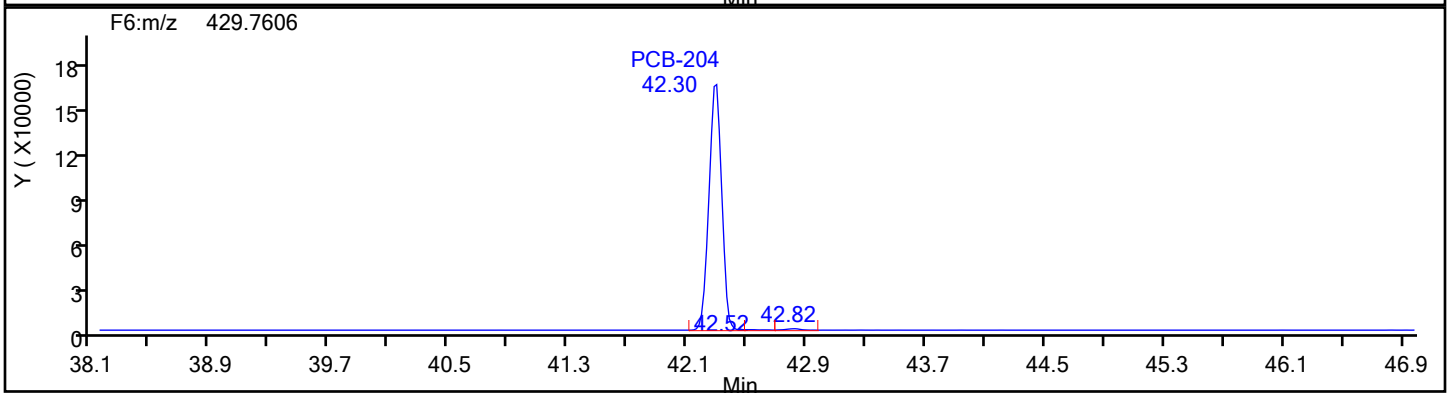
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d

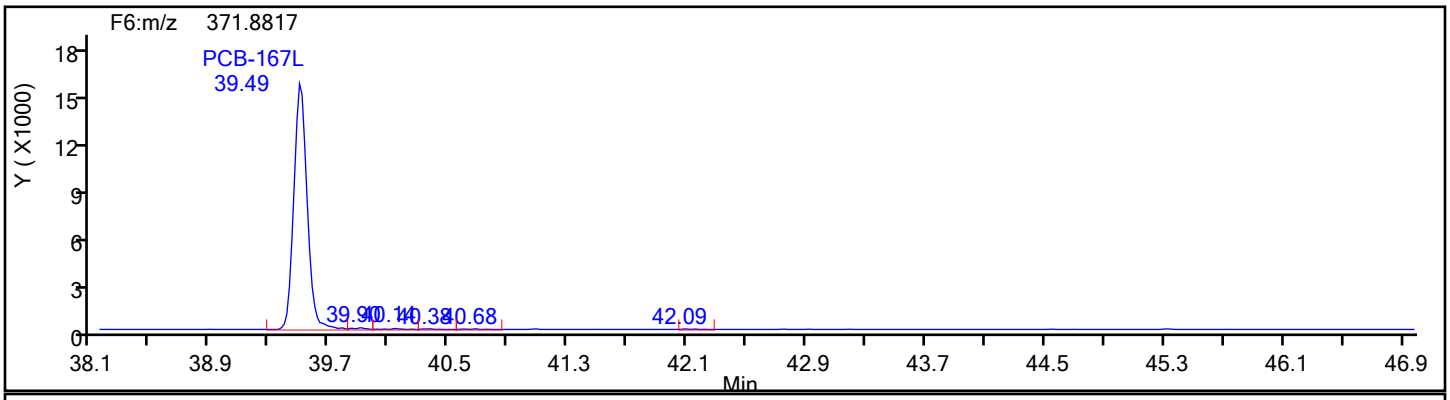
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

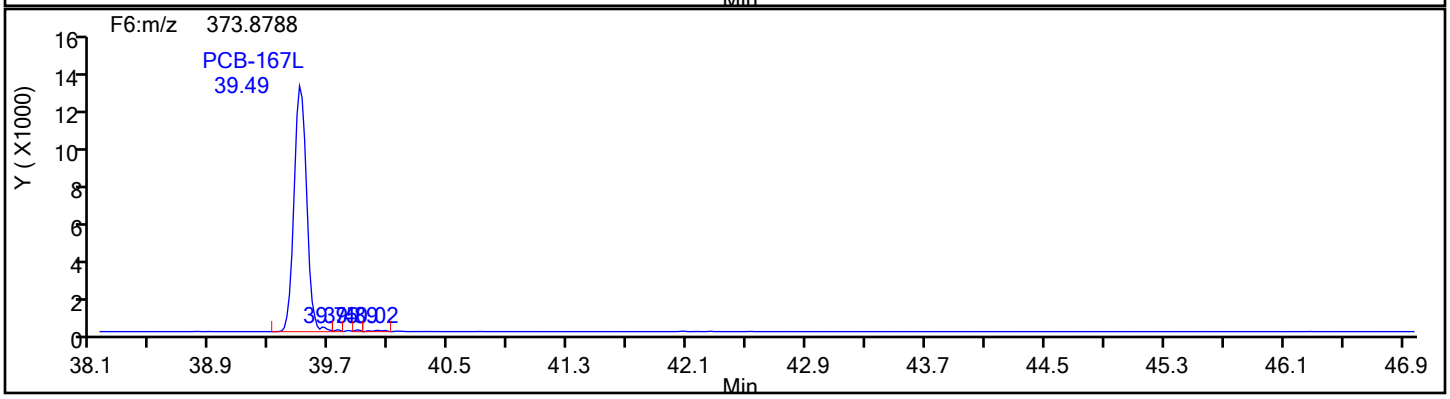
PCB-204





PCB-204 Standards



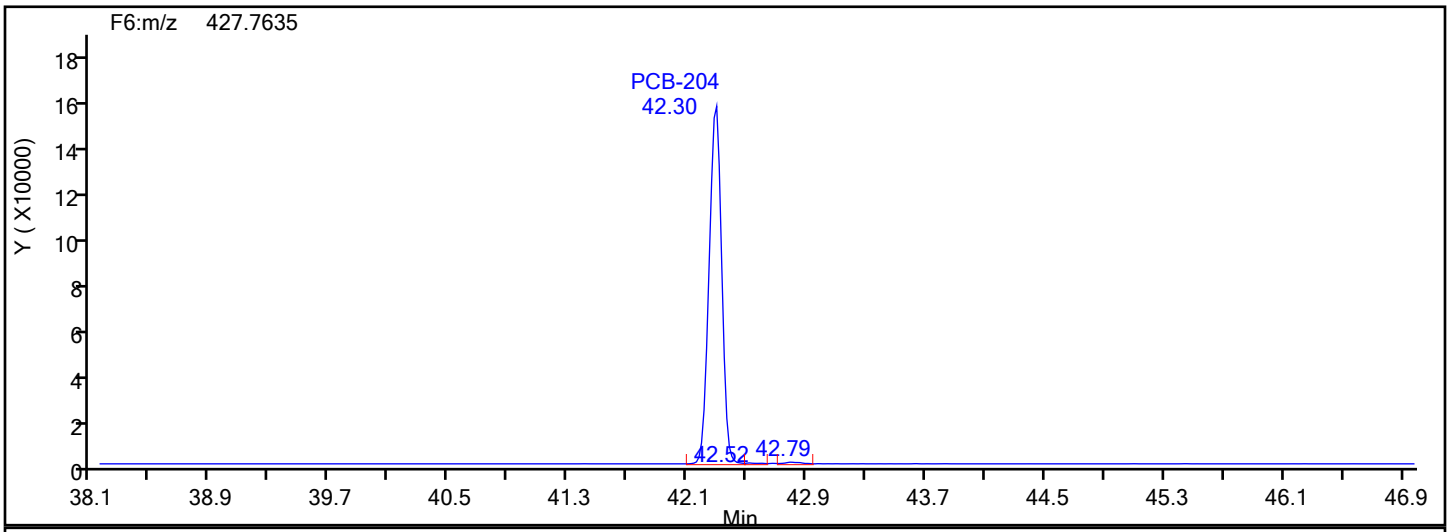


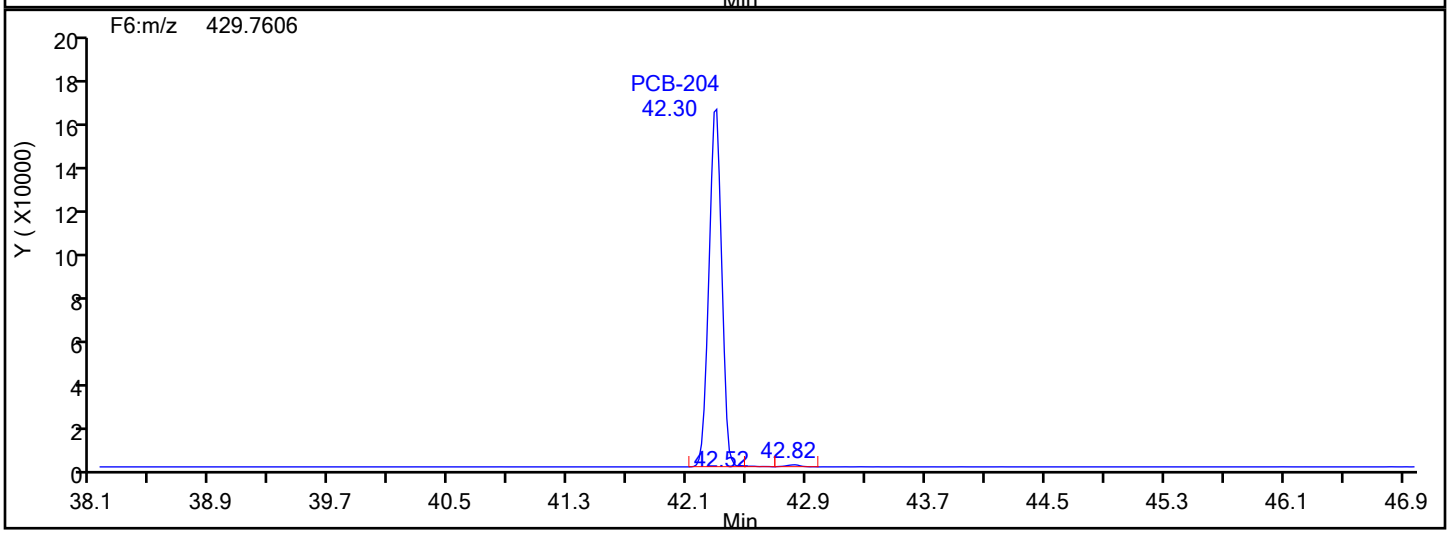
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

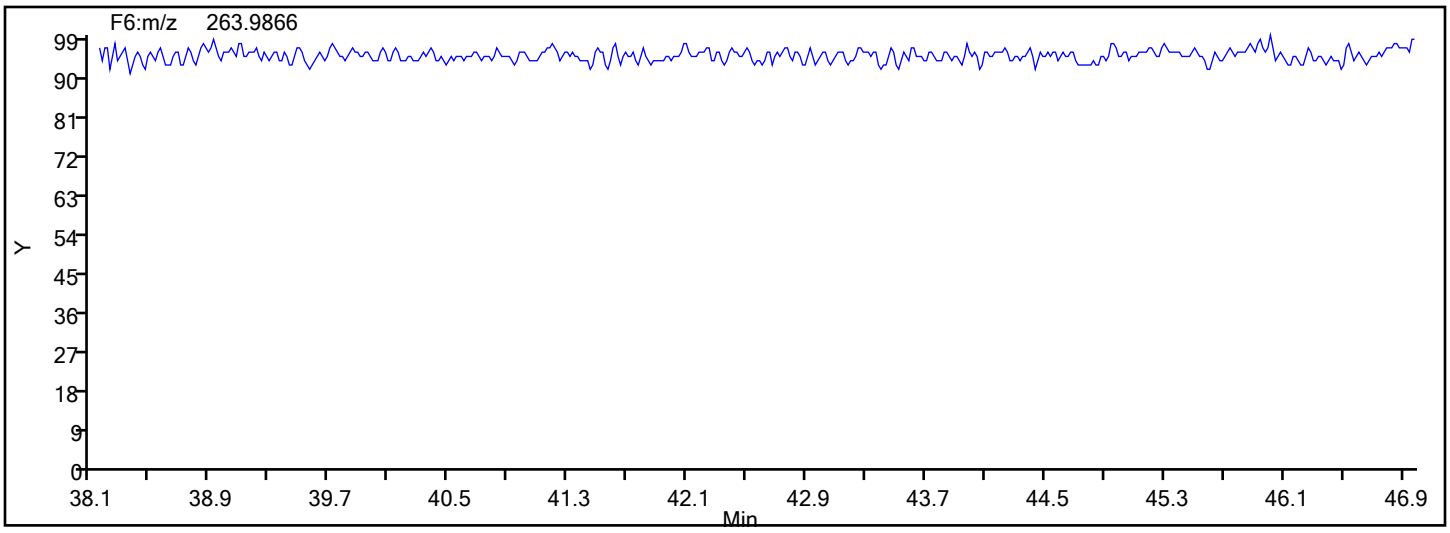
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass

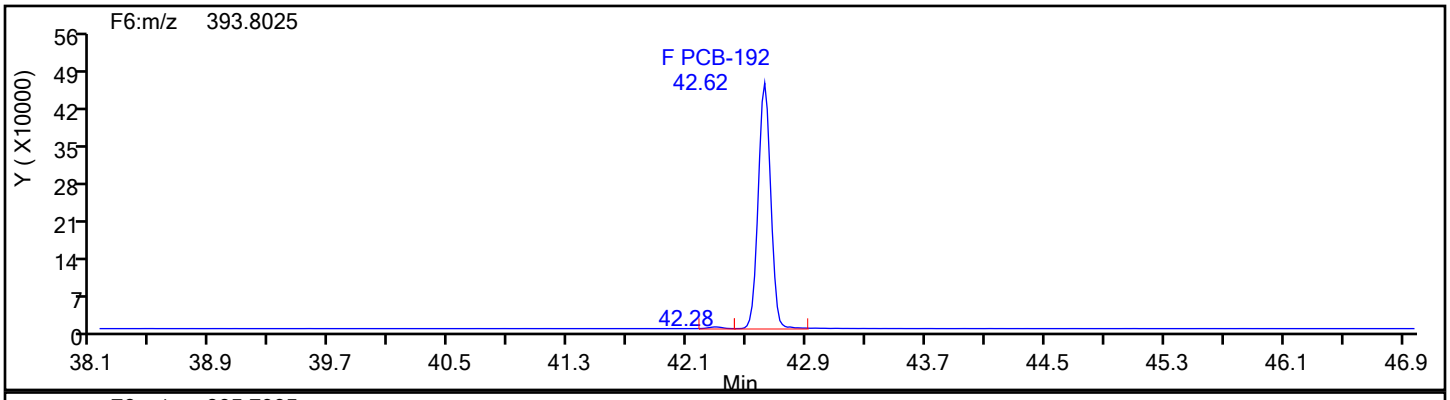


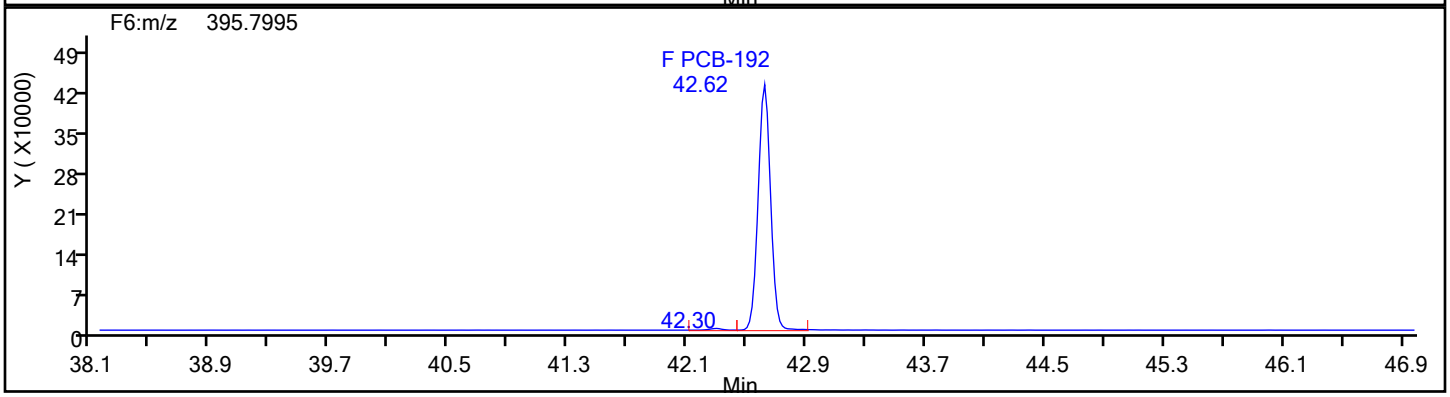
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

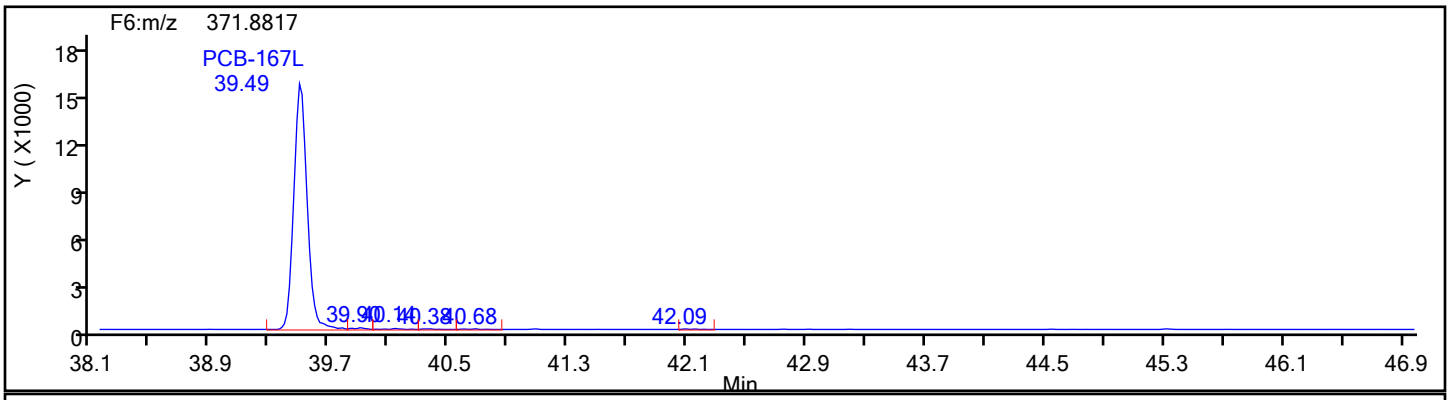
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

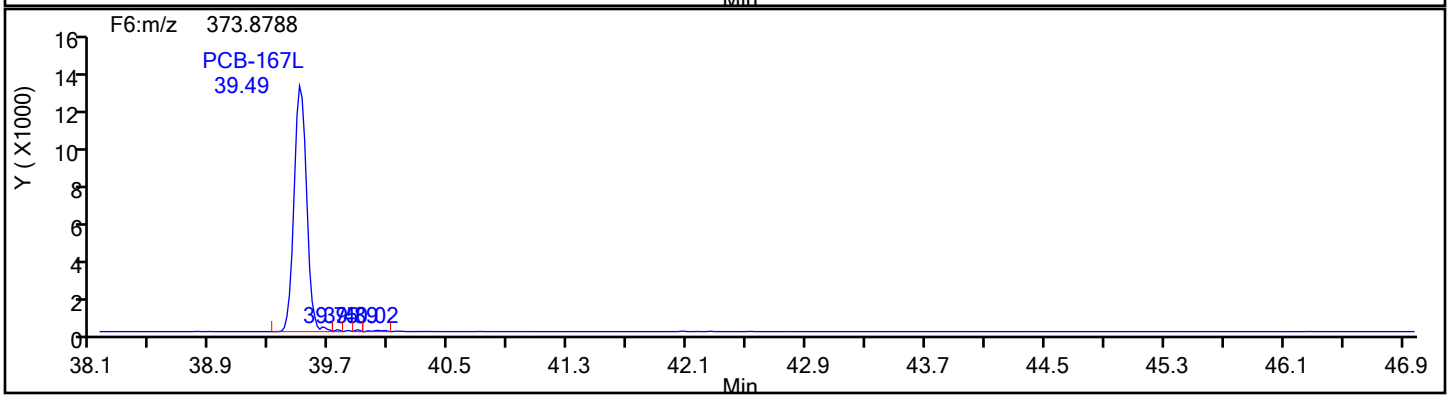
PCB-192





PCB-192 Standards



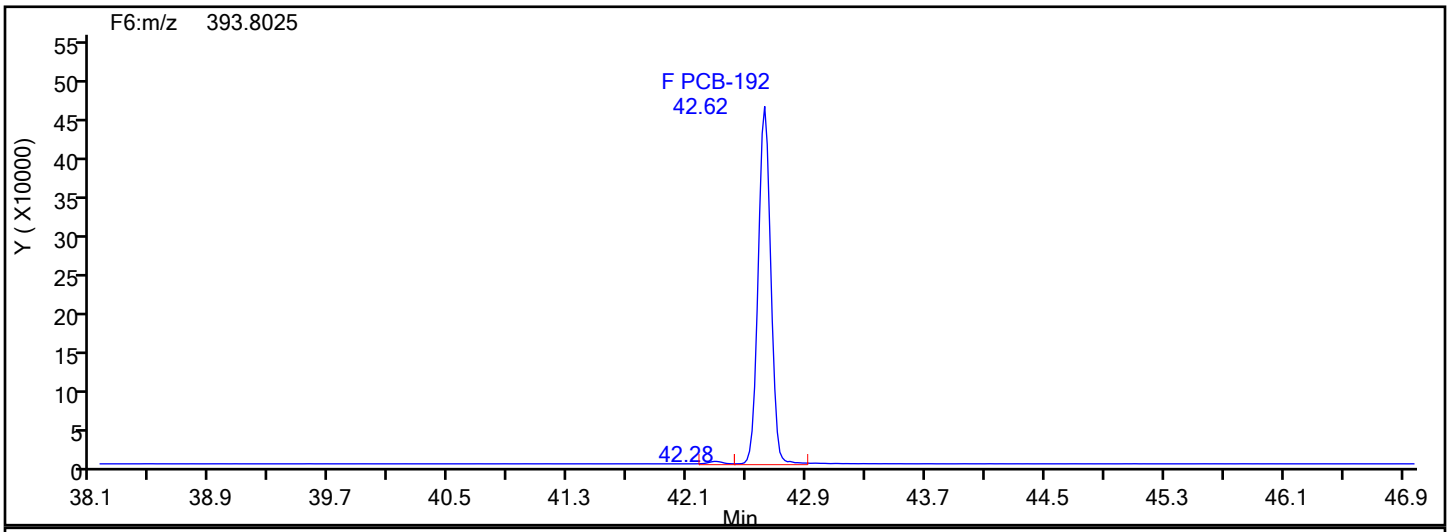


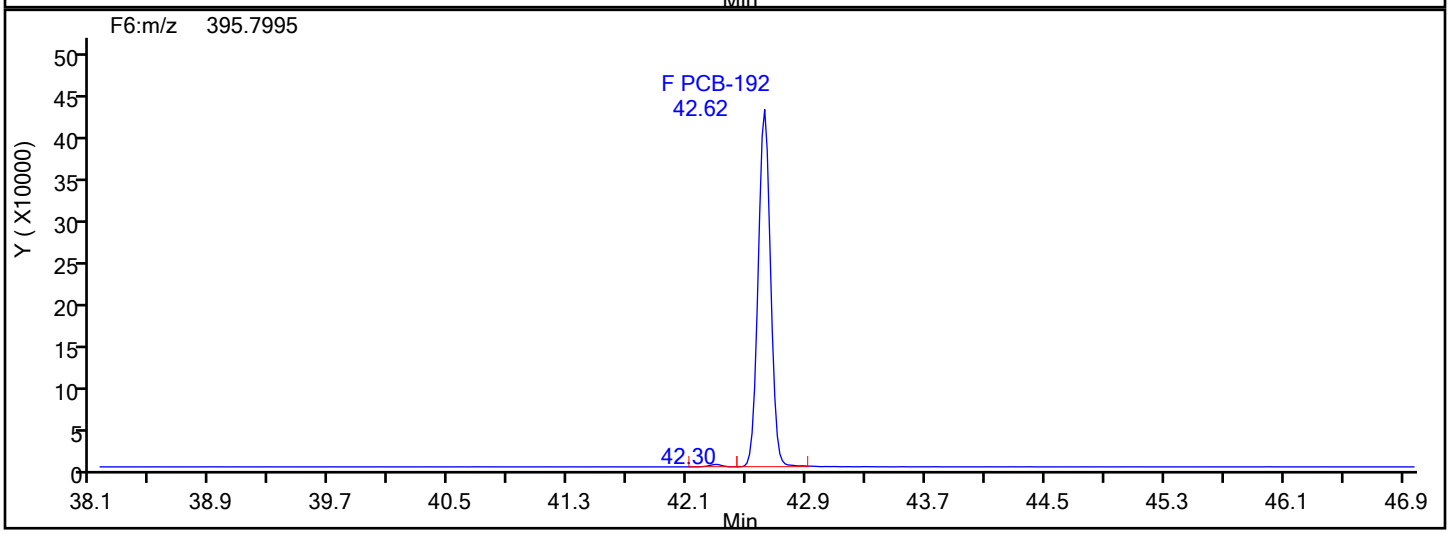
Report Date: 31-Mar-2025 14:10:42 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

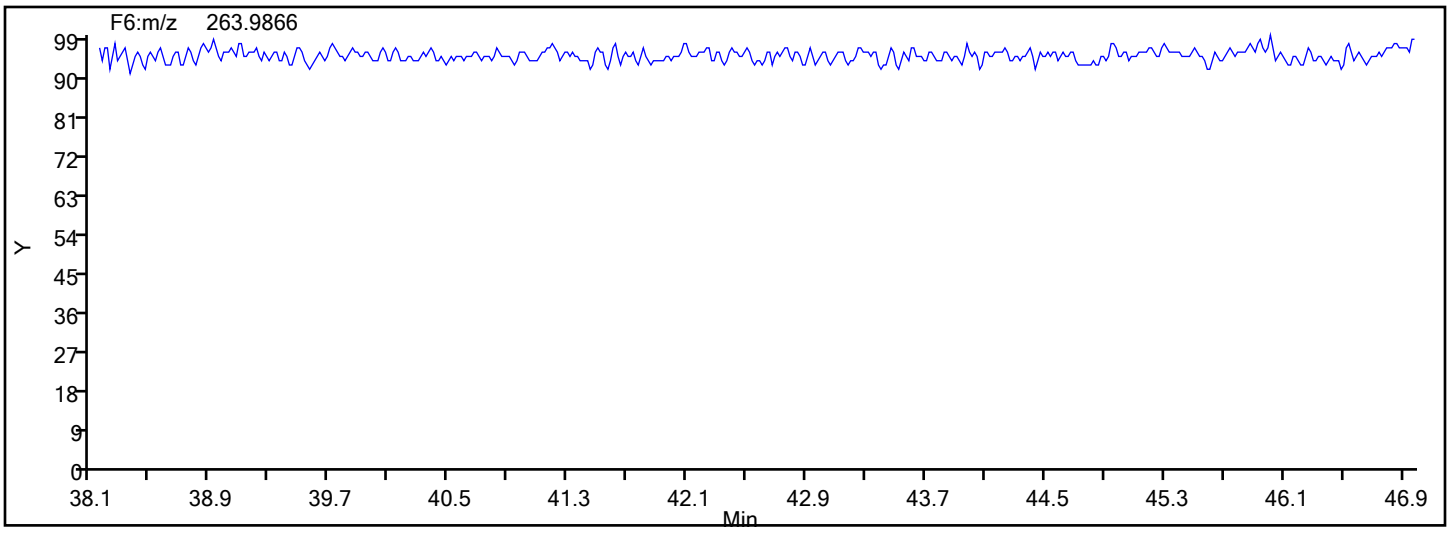
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\140-40836-a-8-b10x.d		
Injection Date:	30-Mar-2025 22:24:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK2		
Worklist#:	97758	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK3 | Lab Sample ID: 140-40836-9

Matrix: PE | Lab File ID: 140-40836-a-9-b.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.044(g) | Date Analyzed: 03/29/2025 07:49

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97726 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	700	E	2.3	0.0051
74472-51-8	PCB-192	1500	E B	2.3	0.16
74472-48-3	PCB-184	270	E B	2.3	0.013
33979-03-2	PCB-155	150		2.3	0.088
41411-61-4	PCB-142	180	B	2.3	0.025
74472-52-9	PCB-204	540	E B	2.3	0.00096
56558-16-8	PCB-104	570	E B	2.3	0.00038
56558-18-0	PCB-121	670	E B	2.3	0.067
70362-49-1	PCB-78	510	E B	2.3	0.13
38444-87-0	PCB-36	230		2.3	0.020

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d
Lims ID: 140-40836-A-9-B
Client ID: ASPECT.PRC.BLK3
Sample Type: Client
Inject. Date: 29-Mar-2025 07:49:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-013
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:48:23 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 17:48:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:04	7599622	1.54		100.0	100.0				
PCB-14	17:50	159924491	1.64	1.3581	1549.5	1549.5	0.0111	0.0111		E
* 13C6-Pentachlorophenol (IS)	18:31									U
Pentachlorophenol	18:31						0.0	0.0		U
PCB-36	22:10	38905339	1.06	1.0230	500.4	500.4	0.0437	0.0437		
* PCB-101L	28:07	2838813	1.58		100.0	100.0				
PCB-104	23:45	65817088	1.59	1.8372	1262.0	1262.0	0.000844	0.000844		E
* PCB-118L	32:49	3429488	1.62		100.0	100.0				
PCB-121	26:44	73497169	1.61	1.4622	1465.7	1465.7	0.1484	0.1484		E
* PCB-138L	37:00	1977776	1.27		100.0	100.0				
PCB-142	27:31	16109497	1.27	2.0271	401.8	401.8	0.0541	0.0541		
* PCB-60L	27:45	4675875	0.79		100.0	100.0				
PCB-78	29:23	48247288	0.79	0.9153	1127.3	1127.3	0.2817	0.2817		E
* PCB-167L	39:30	2556838	1.27		100.0	100.0				
PCB-155	34:01	7631155	1.28	0.9191	324.7	324.7	0.1927	0.1927		
PCB-184	34:40	17328767	1.05	1.1610	583.8	583.8	0.0277	0.0277		E
PCB-204	42:17	22224246	0.90	0.7364	1180.3	1180.3	0.002105	0.002105		E
PCB-192	42:38	65542941	1.06	0.7635	3357.6	3357.6	0.3495	0.3495		E
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
U - Marked Undetected

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d
Lims ID: 140-40836-A-9-B
Client ID: ASPECT.PRC.BLK3
Sample Type: Client
Inject. Date: 29-Mar-2025 07:49:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-013
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:48:23 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 17:48:23

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:04	19:05	-1		4607830	1524535	26	65	58636		
236.0376	19:04	19:05	-1		2991792	1004813	9	22	111646	1.54(1.16-1.93)	
PCB-14											E
222.0003	17:50	17:50	0	0.935	99305864	37074156	90	225	411935		
223.9974	17:49	17:50	-1	0.934	60618627	22573549	63	157	358310	1.64(1.33-1.79)	
13C6-Pentachlorophenol (IS)											U
269.8666	18:31						1	2			
271.8636	18:31						1	2			
Pentachlorophenol											U
263.8464	18:31						38	95			
265.8435	18:31						8	20			
PCB-36											
255.9613	22:10	22:10	0	1.162	20041259	5680670	234	585	24276		
257.9584	22:10	22:10	0	1.162	18864080	5326919	218	545	24435	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:07	28:08	0		1736970	395154	1	2	395154		
339.9178	28:07	28:08	0		1101843	249944	1	2	249944	1.58(1.16-1.94)	
PCB-104											E
325.8804	23:45	23:45	0	0.844	40400365	10962414	3	7	3654138		
327.8775	23:45	23:45	0	0.844	25416723	6859514	1	2	6859514	1.59(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	0		2120621	424088	30	75	14136		
339.9178	32:49	32:48	0		1308867	261387	15	37	17426	1.62(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-121											E
325.8804	26:44	26:44	0	0.815	45298294	11026201	359	897	30714		
327.8775	26:44	26:44	0	0.815	28198875	6779493	236	590	28727	1.61(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	-1		1108387	199051	13	32	15312		
373.8788	37:00	37:00	-1		869389	156667	13	32	12051	1.27(1.16-1.94)	
PCB-142											
359.8415	27:31	27:31	0	0.744	8997973	2067282	86	215	24038		
361.8385	27:31	27:31	0	0.744	7111524	1635199	70	175	23360	1.27(1.05-1.43)	
PCB-60L											
301.9626	27:45	27:45	0		2064350	471111	21	52	22434		
303.9597	27:45	27:45	0		2611525	591411	24	60	24642	0.79(0.58-0.96)	
PCB-78											E
289.9224	29:23	29:23	0	1.059	21286571	4485845	513	1282	8744		
291.9194	29:22	29:23	0	1.058	26960717	5733361	583	1457	9834	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:30	39:30	0		1429951	251666	11	27	22879		
373.8788	39:30	39:30	0		1126887	199964	6	15	33327	1.27(1.16-1.94)	
PCB-155											
359.8415	34:01	34:00	0	0.861	4286182	816433	109	272	7490		
361.8385	34:01	34:00	0	0.861	3344973	635148	211	527	3010	1.28(1.05-1.43)	
PCB-184											E
393.8025	34:40	34:39	0	0.877	8890197	1676935	28	70	59891		
395.7995	34:40	34:39	0	0.877	8438570	1599222	30	75	53307	1.05(0.89-1.21)	
PCB-204											E
427.7635	42:17	42:17	0	1.071	10541214	1793206	1	2	1793206		
429.7606	42:17	42:17	0	1.071	11683032	1991087	2	5	995544	0.90(0.76-1.02)	
PCB-192											E
393.8025	42:38	42:36	1	1.079	33673995	5845005	254	635	23012		
395.7995	42:38	42:36	1	1.079	31868946	5534748	228	570	24275	1.06(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

U - Marked Undetected

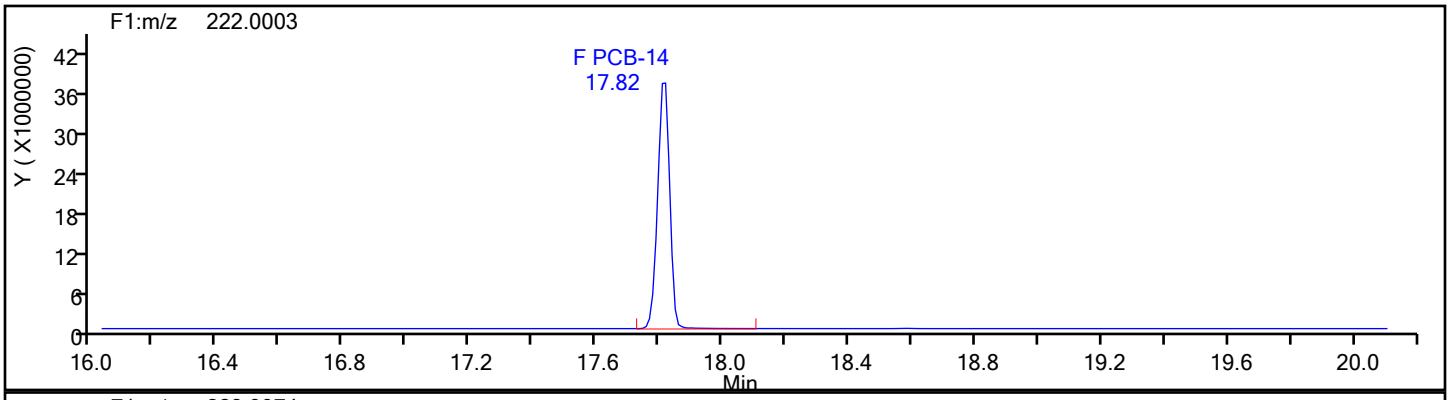
Report Date: 06-May-2025 17:49:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

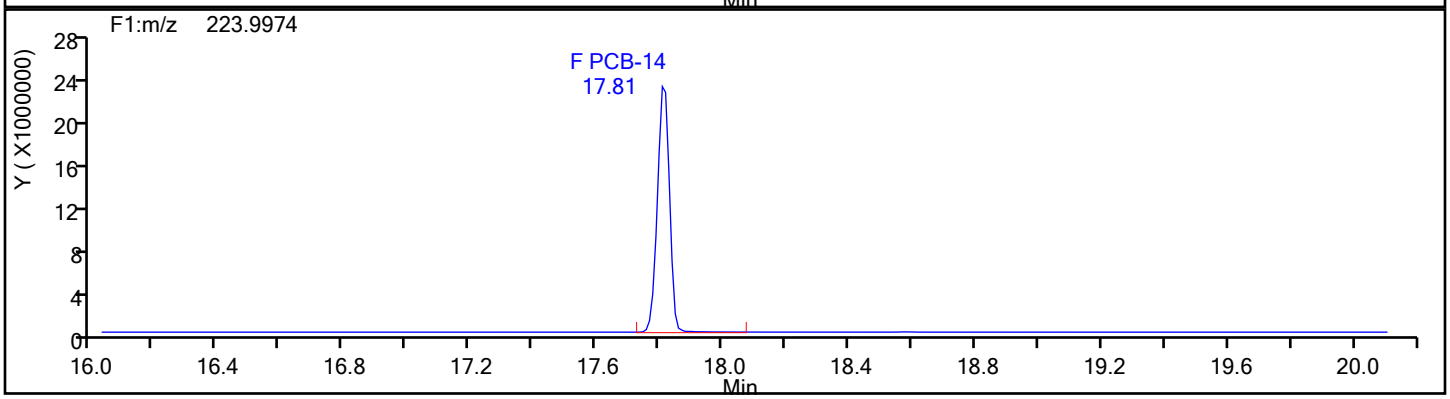
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

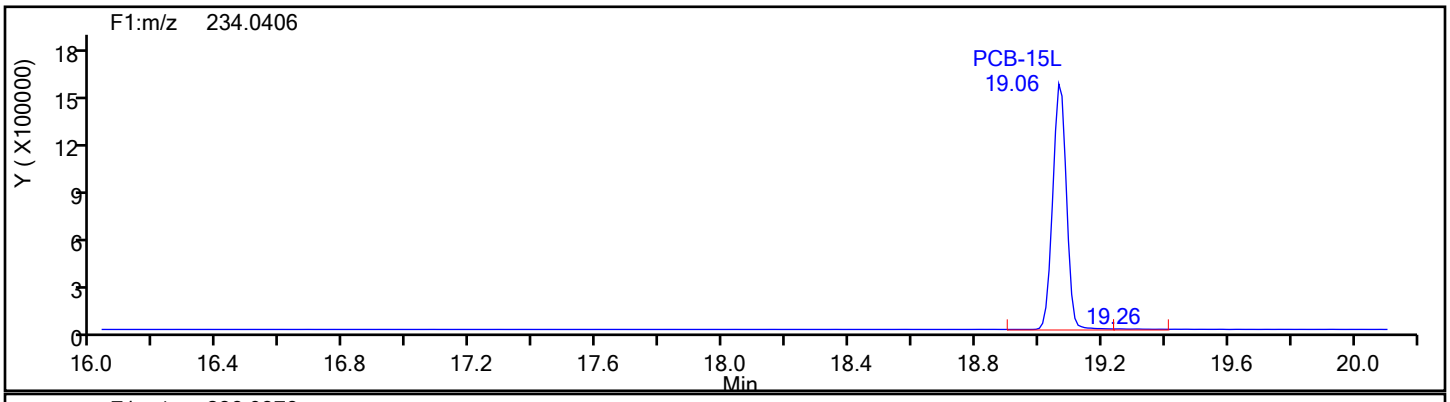
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

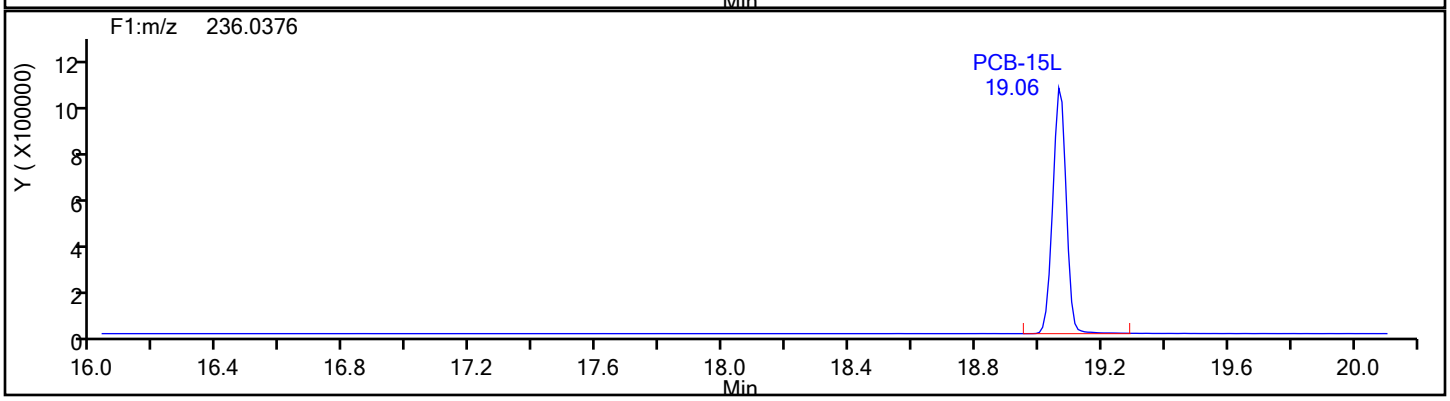
PCB-14





PCB-14 Standards



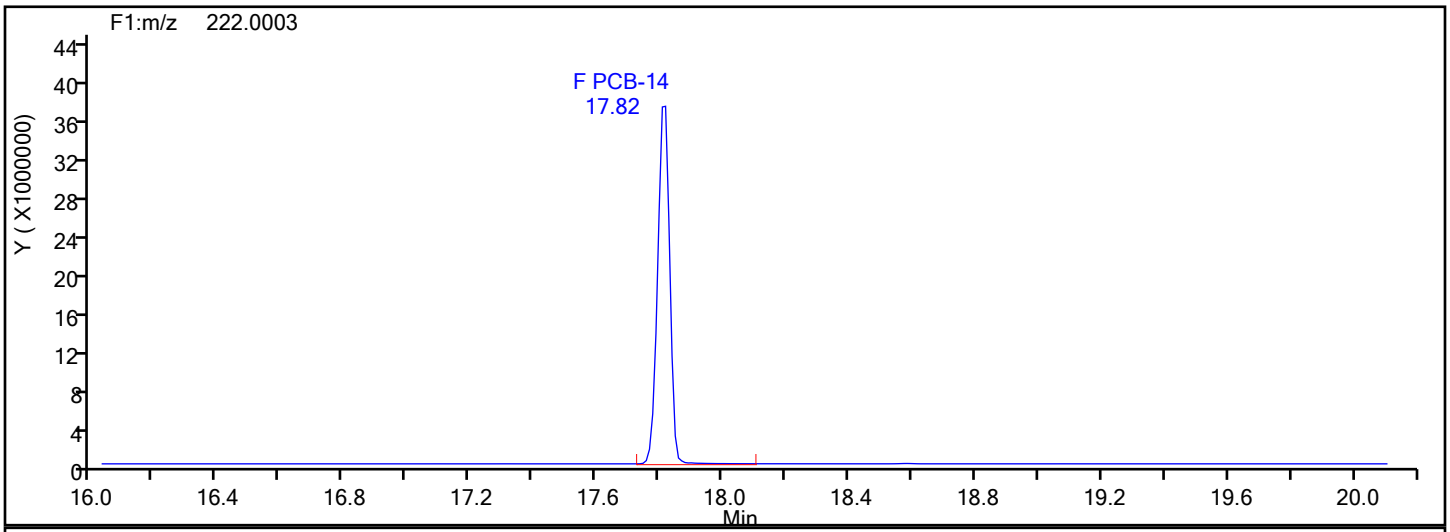


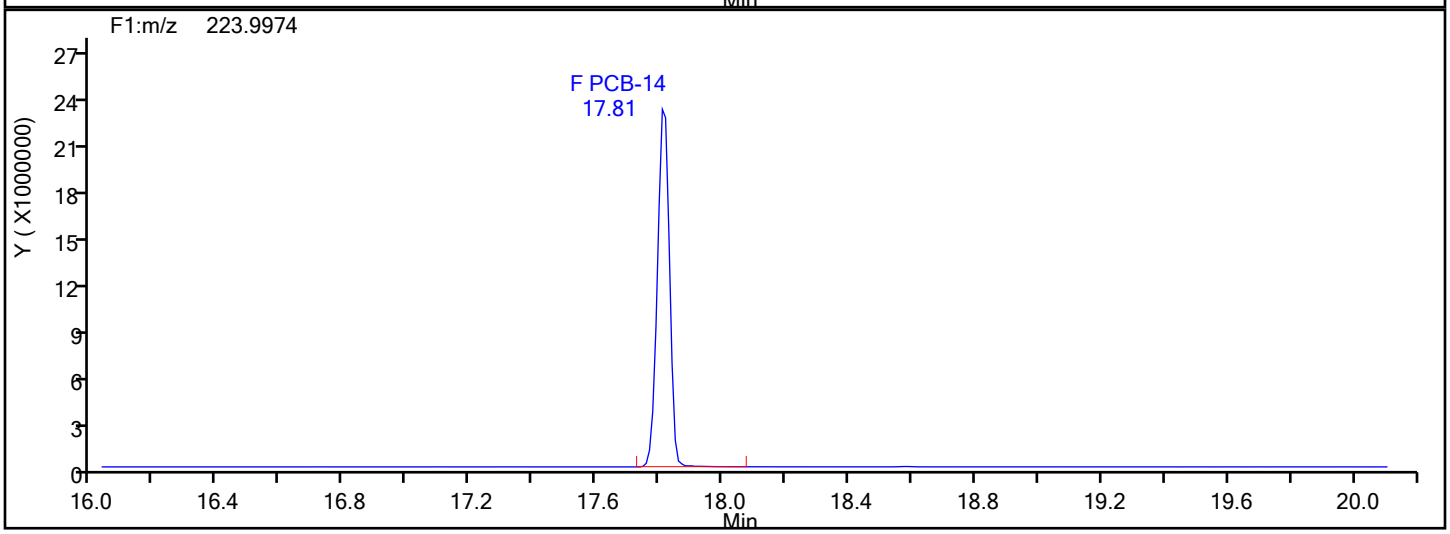
Report Date: 06-May-2025 17:49:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

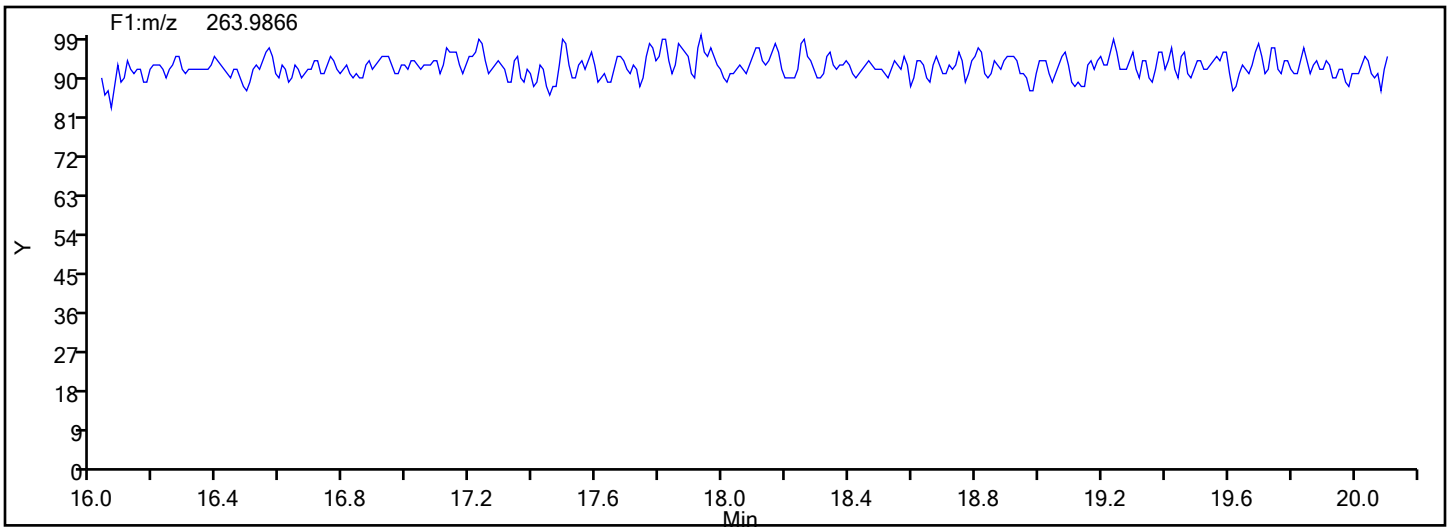
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



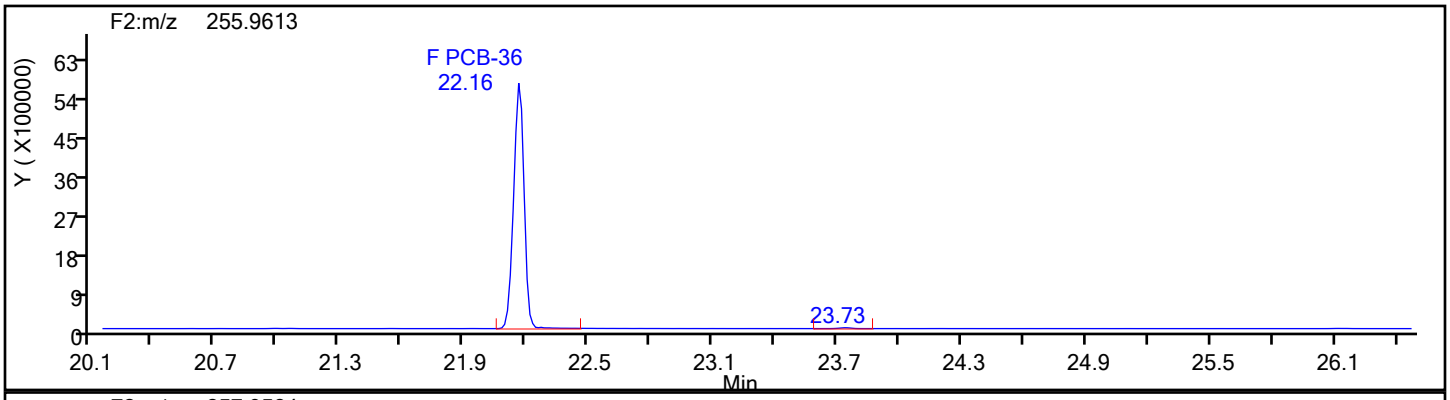
Report Date: 06-May-2025 17:49:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

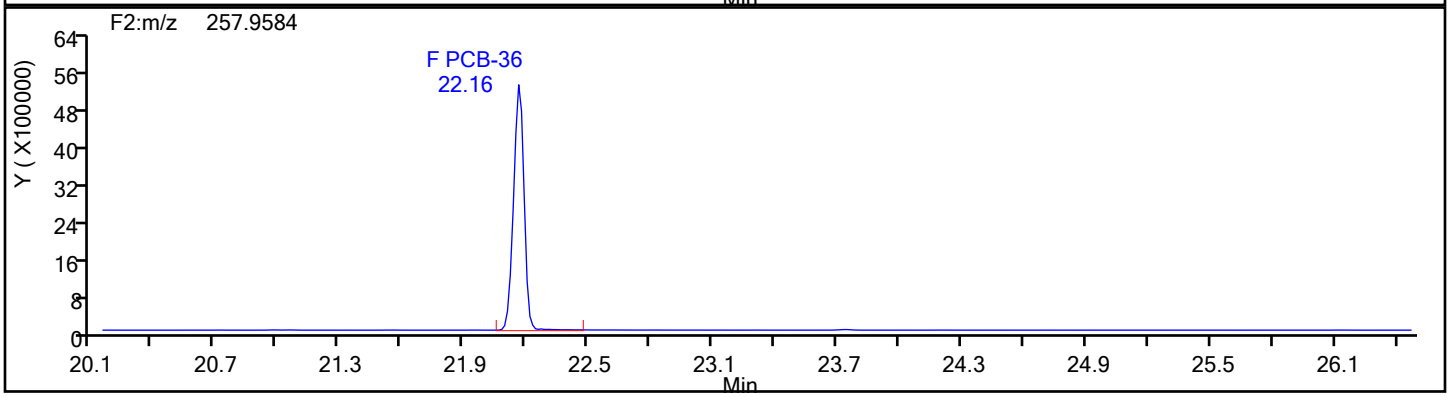
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

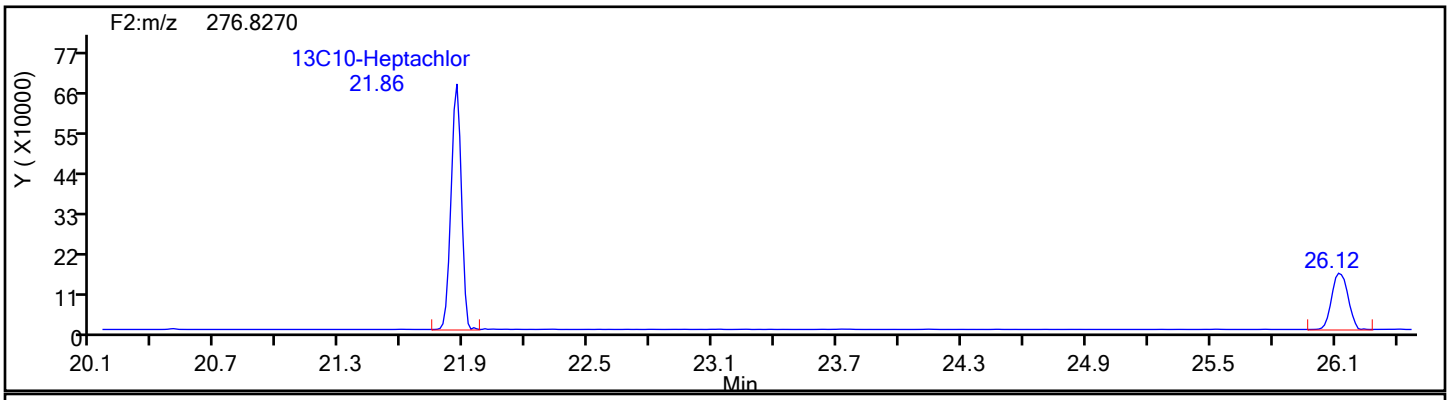
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

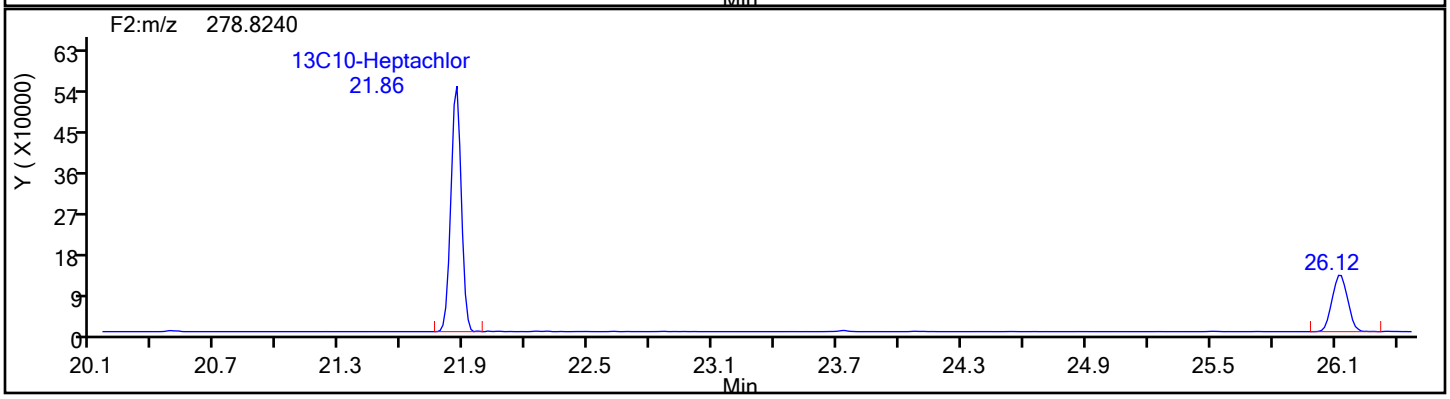
PCB-36





PCB-36 Standards



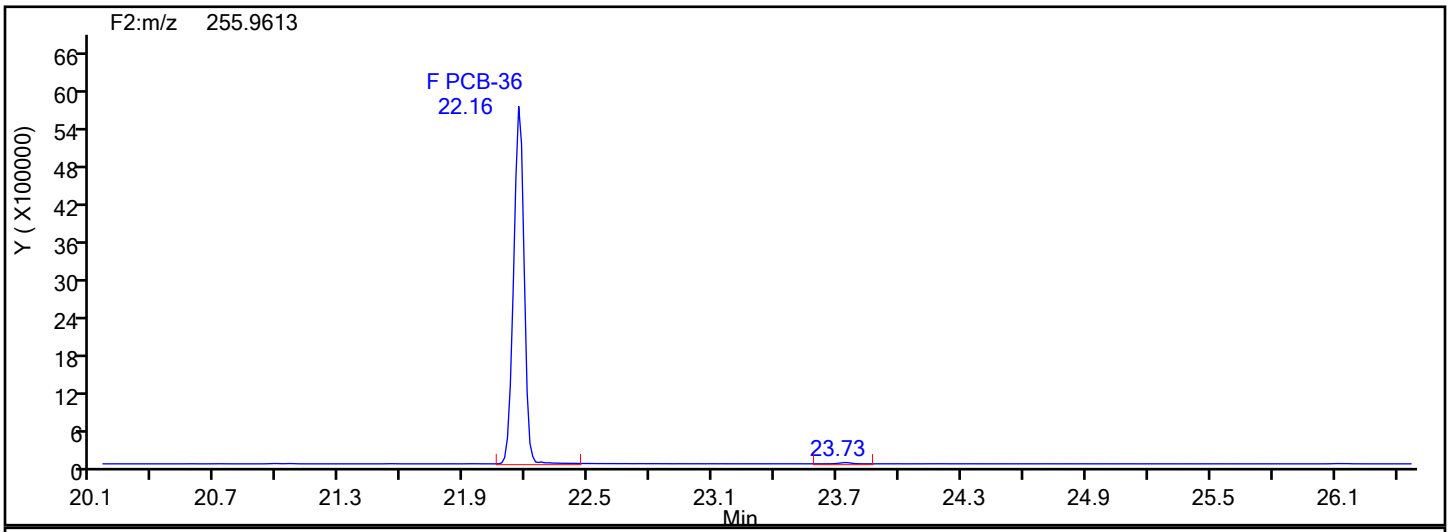


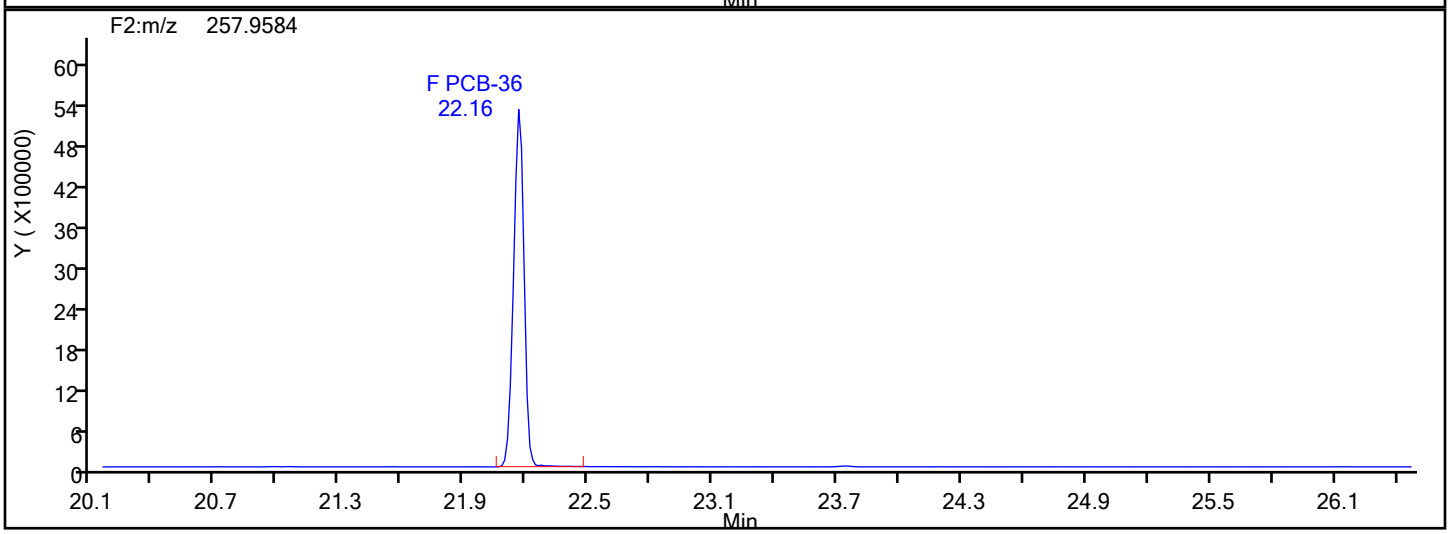
Report Date: 06-May-2025 17:49:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

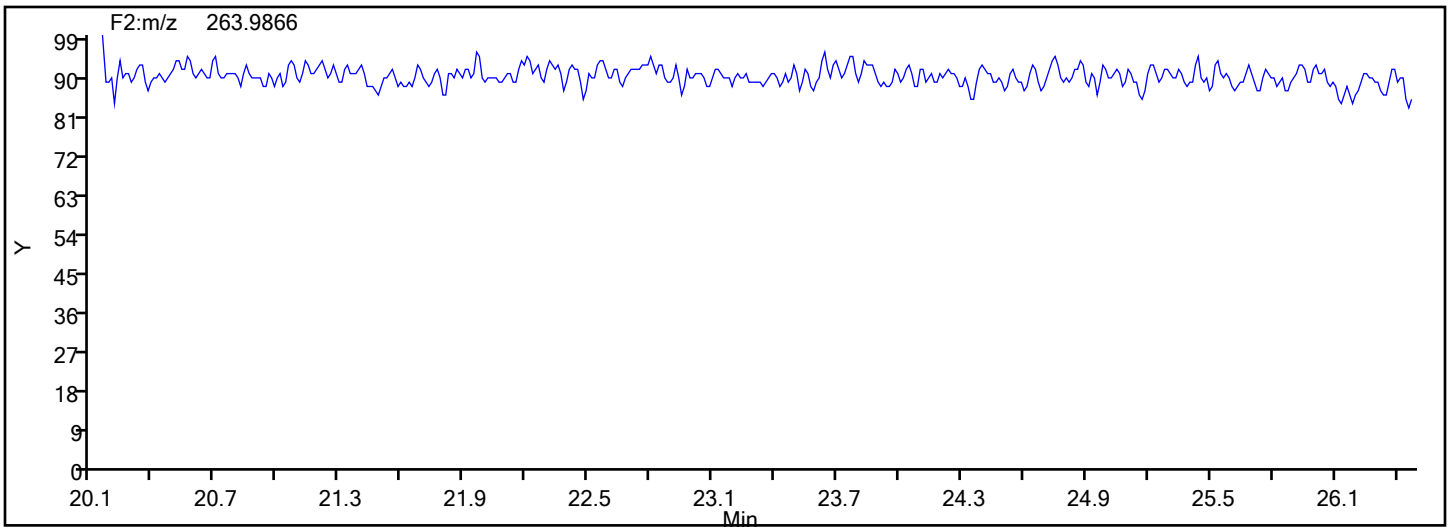
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



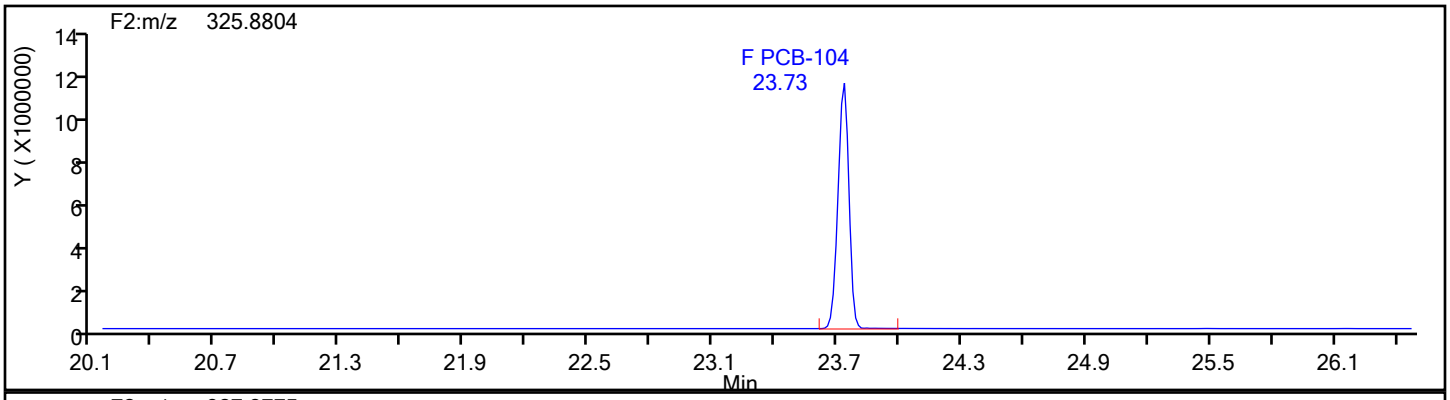
Report Date: 06-May-2025 17:49:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

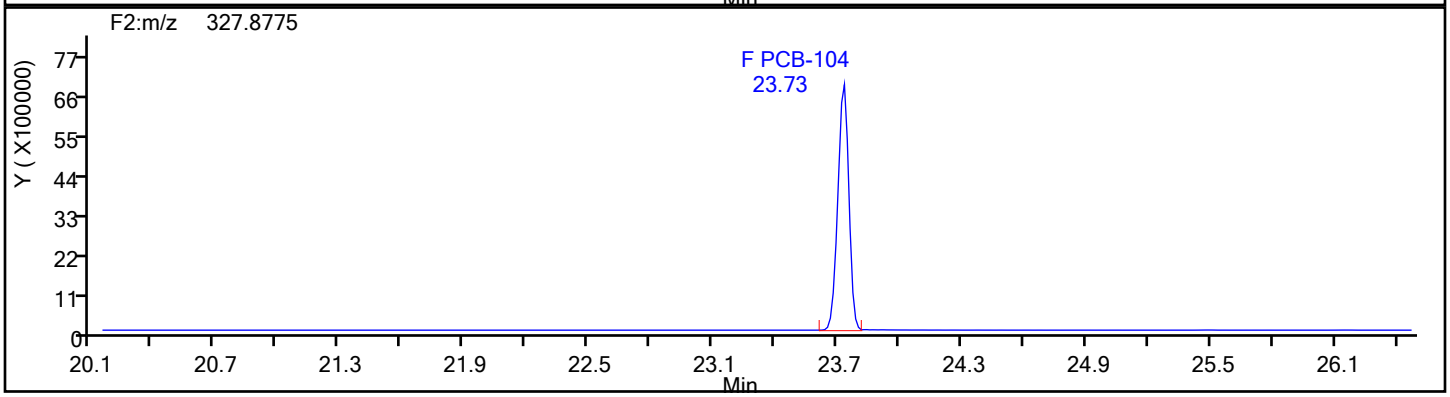
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

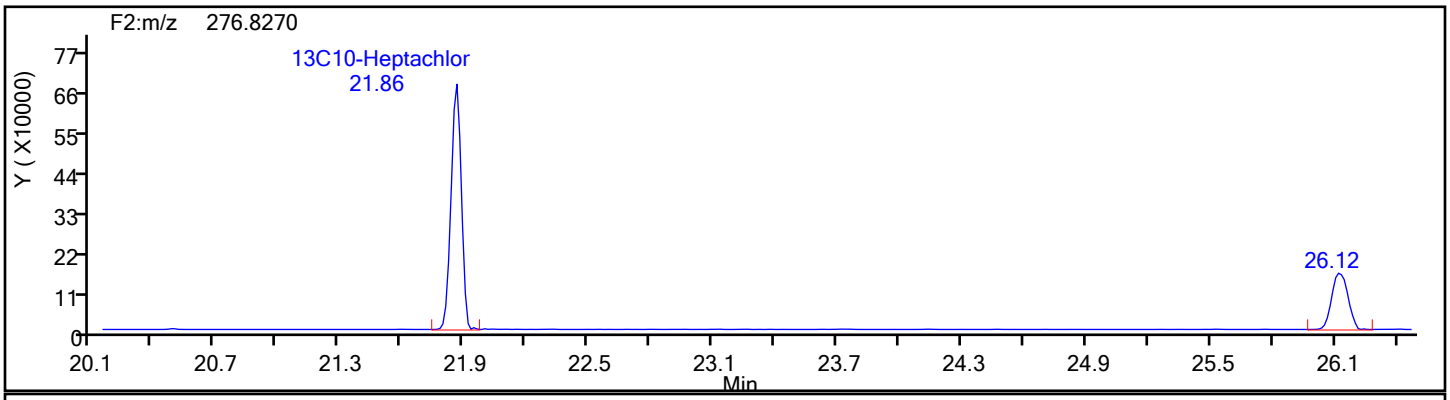
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

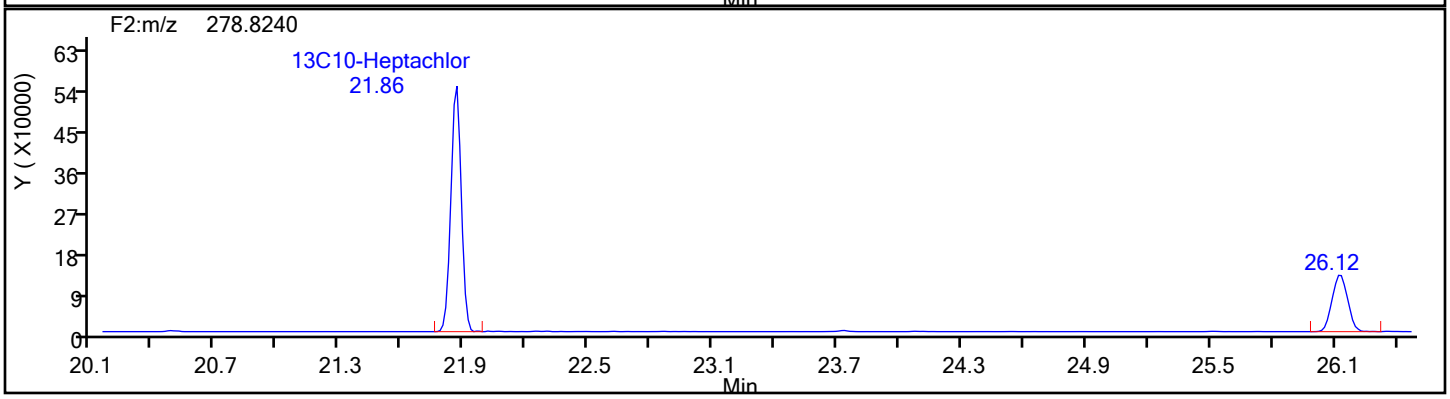
PCB-104





PCB-104 Standards



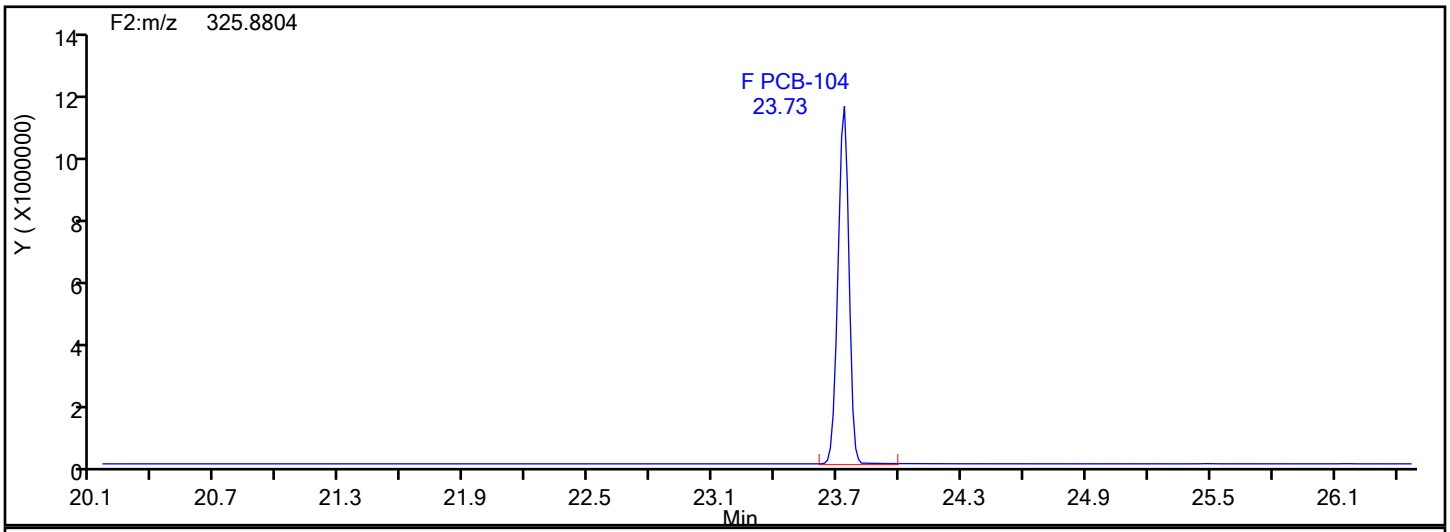


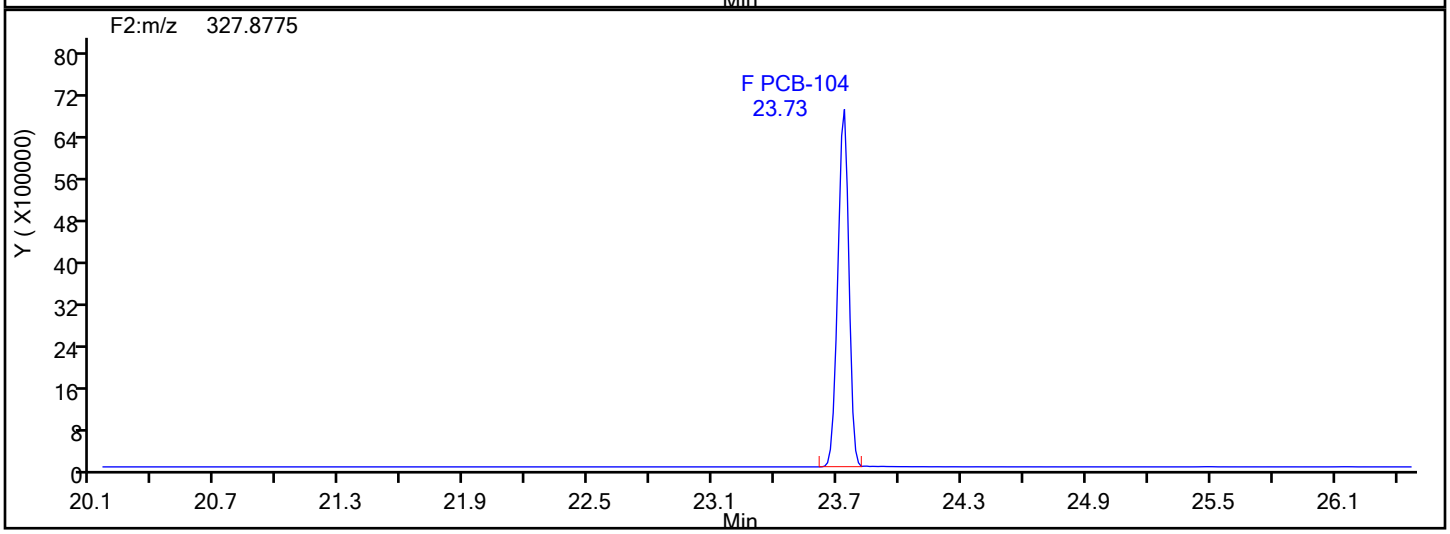
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

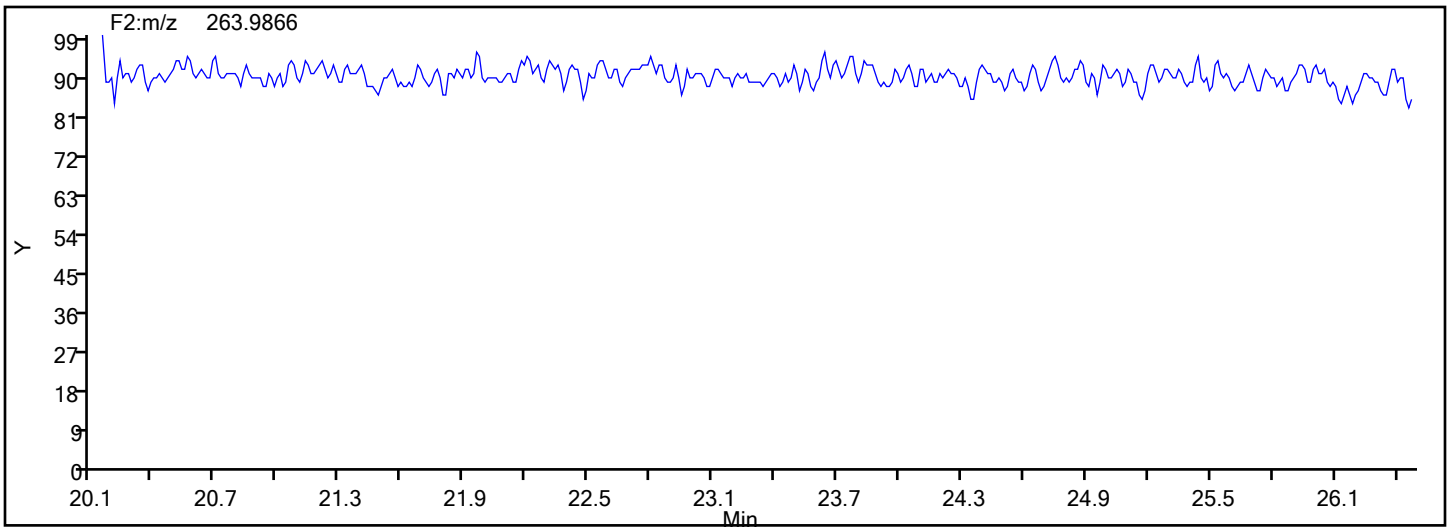
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



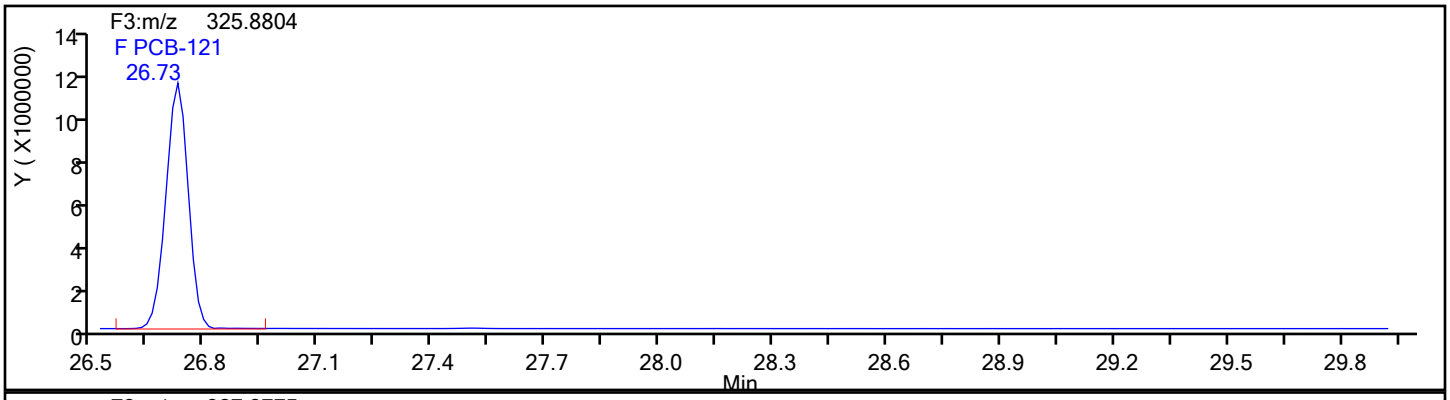
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

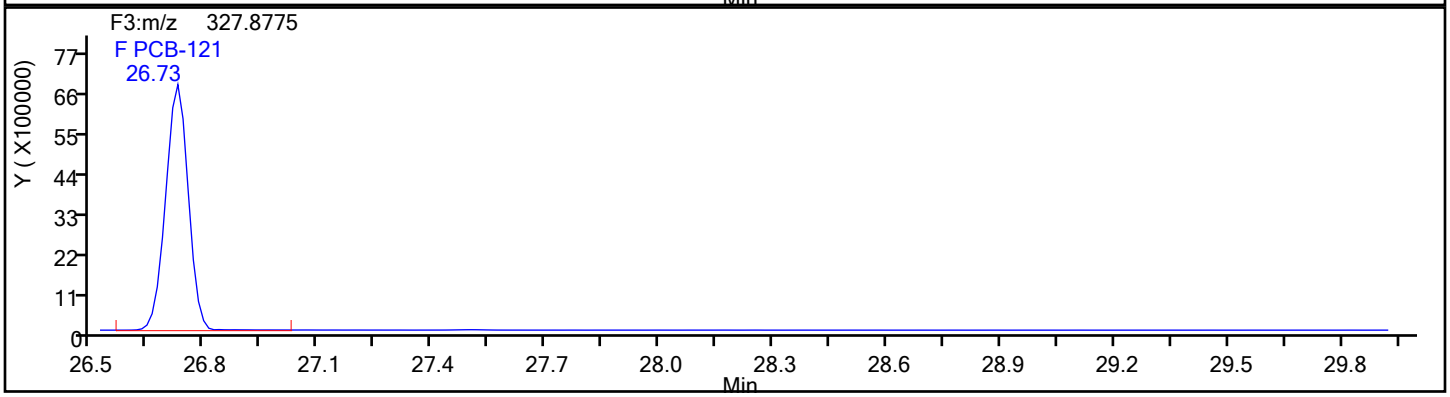
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

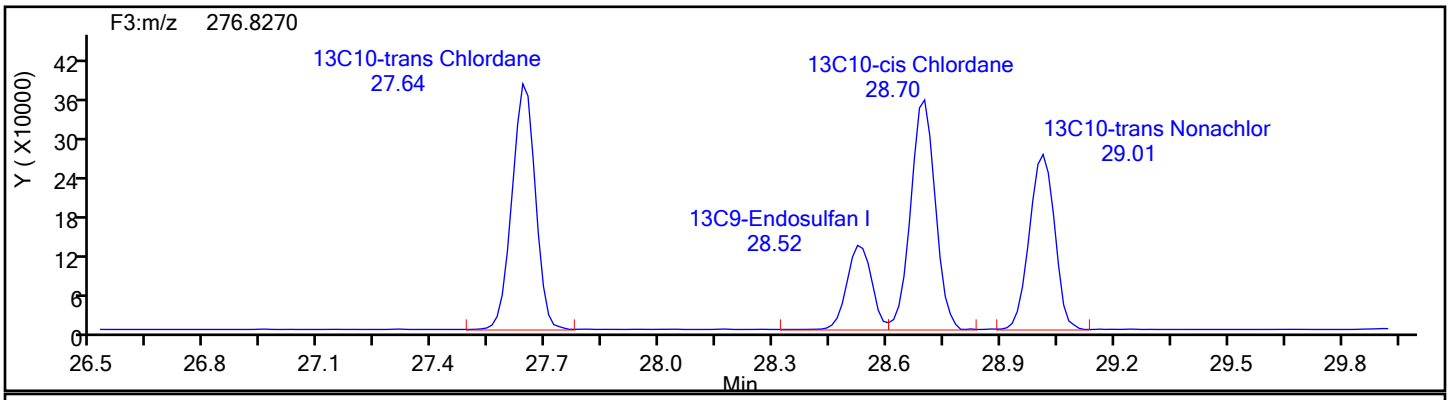
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

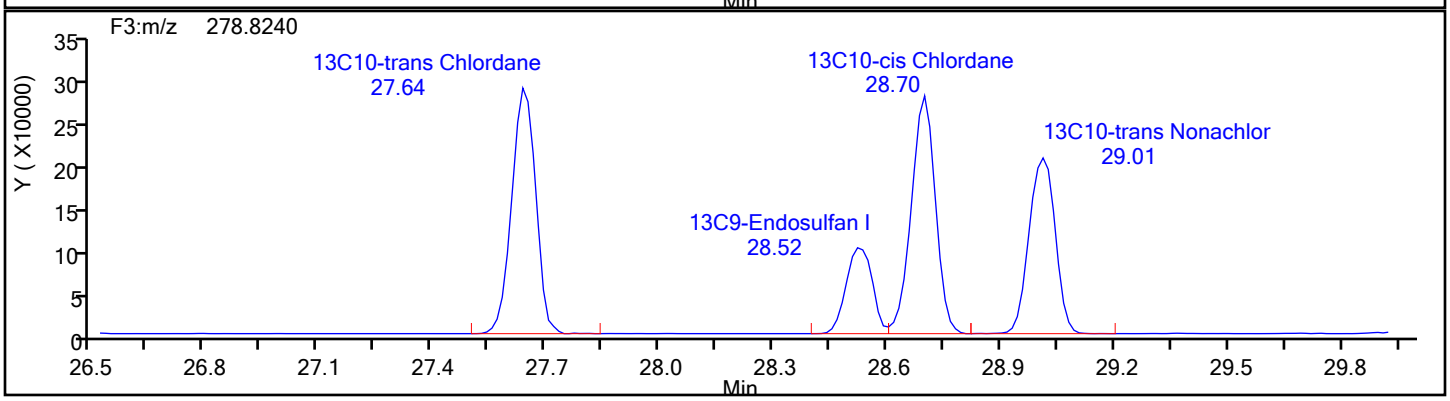
PCB-121





PCB-121 Standards



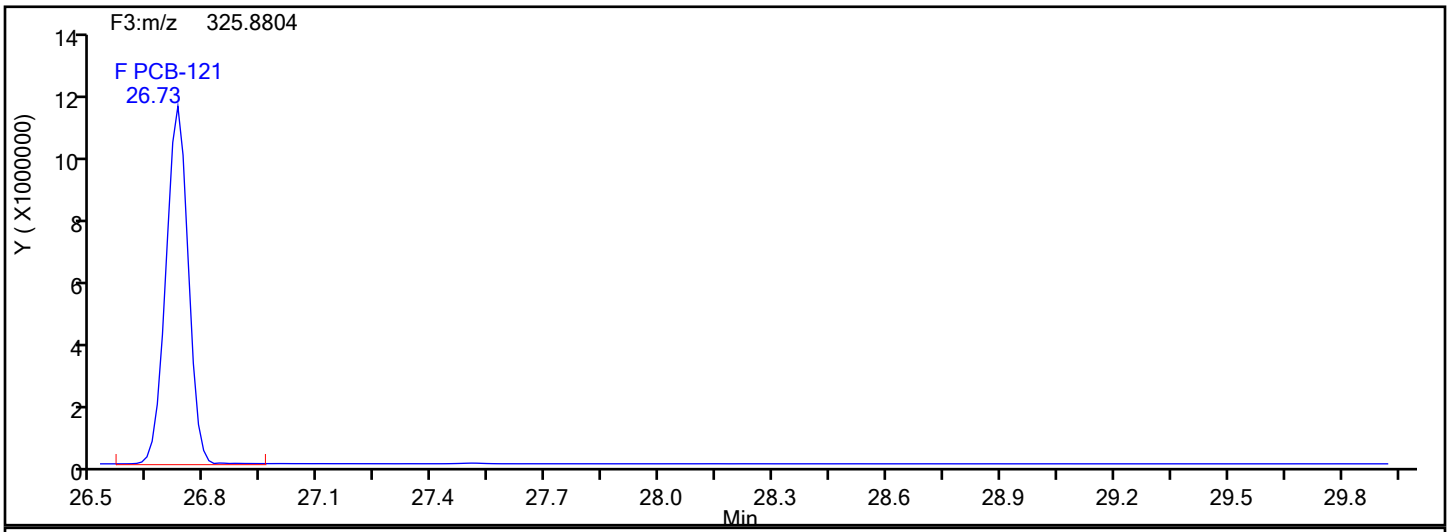


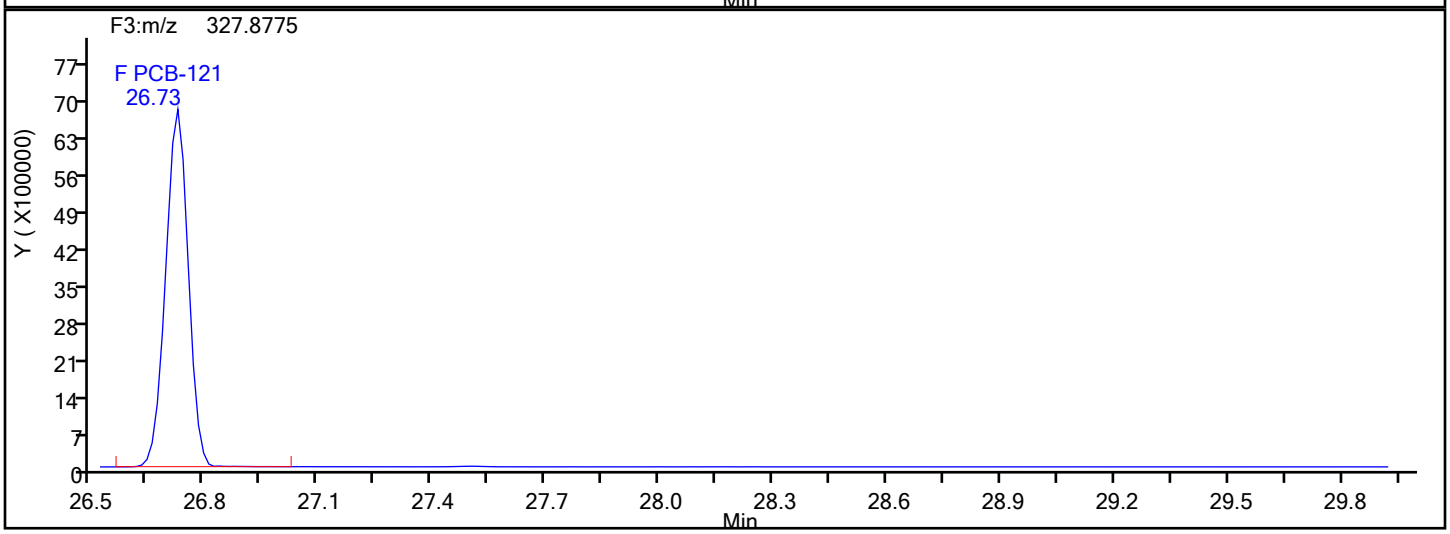
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

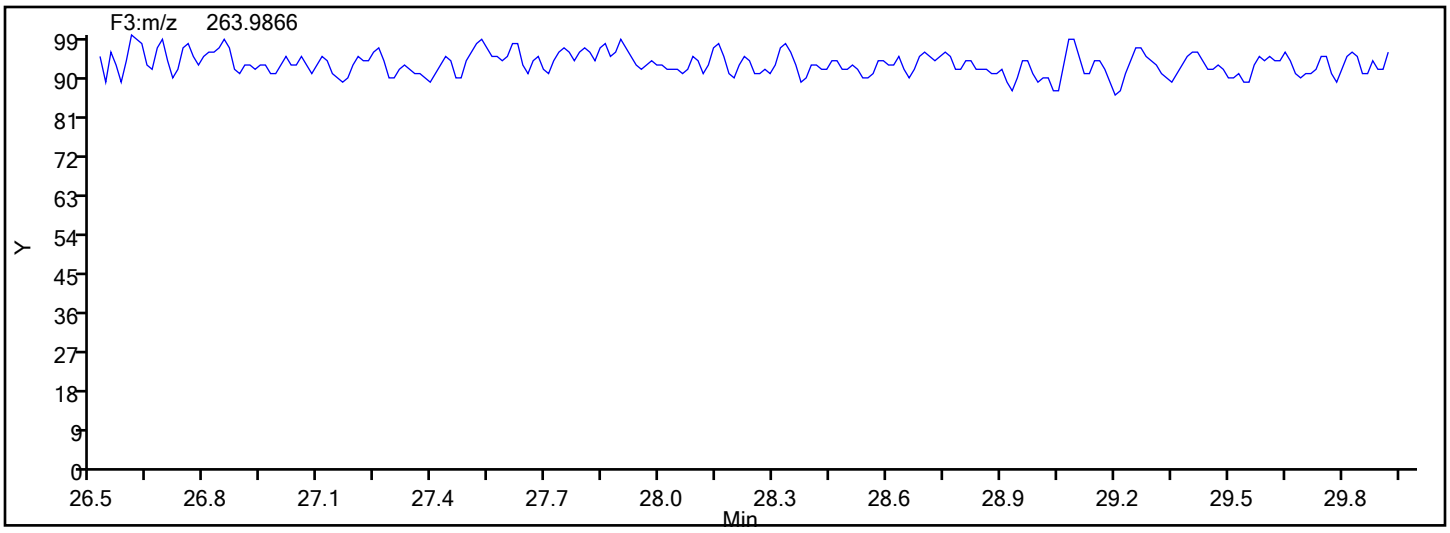
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



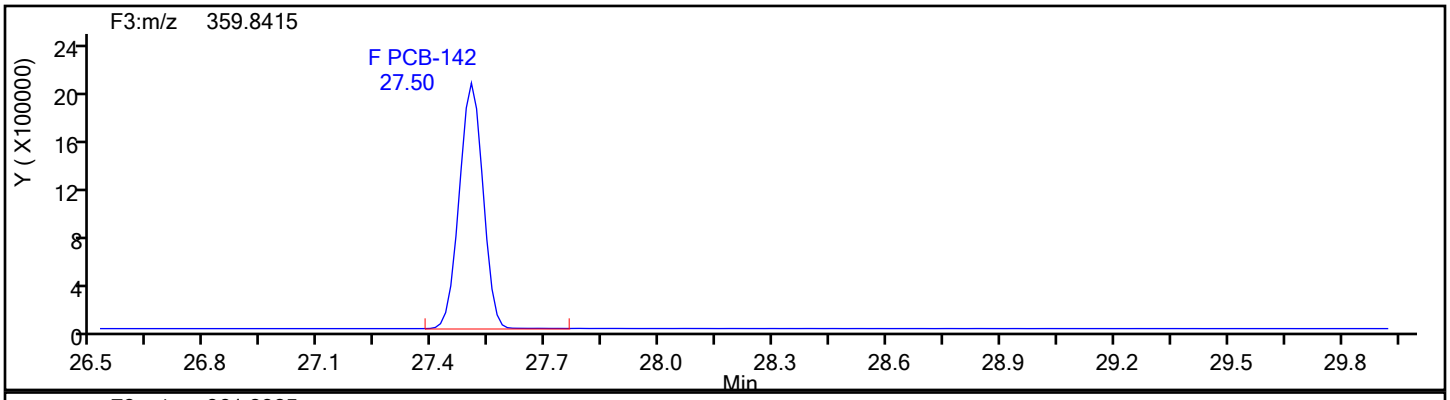
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

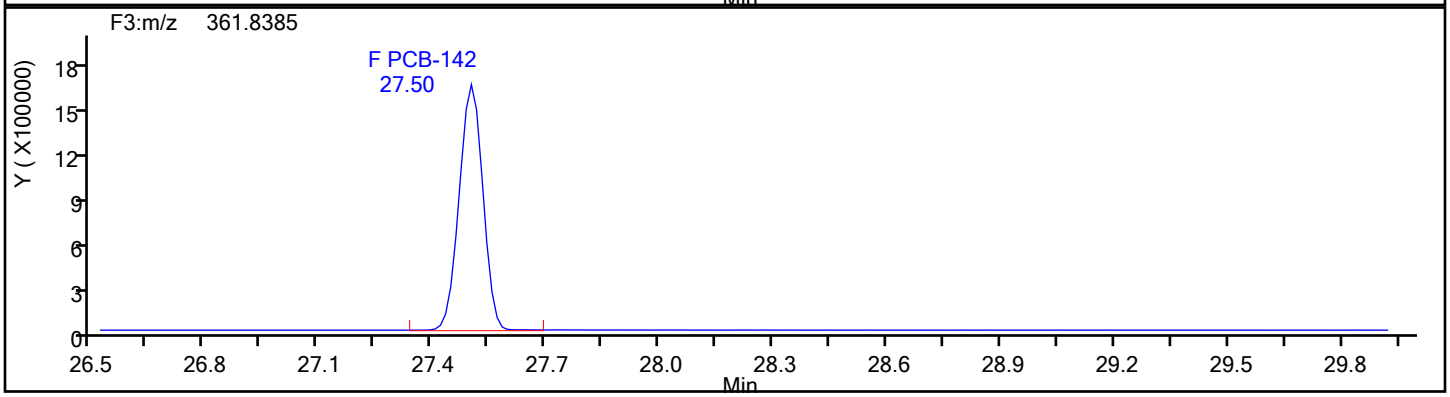
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

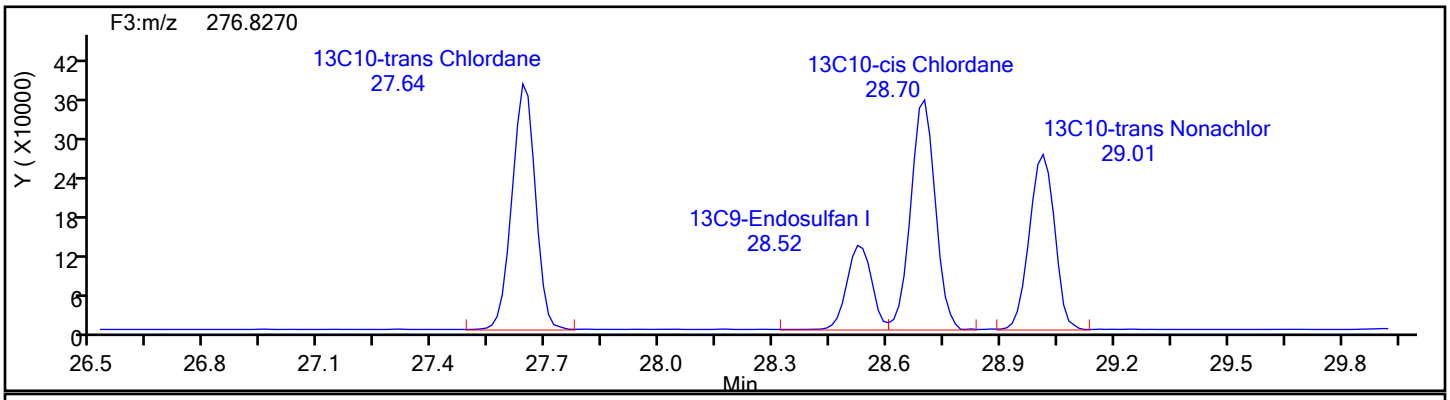
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

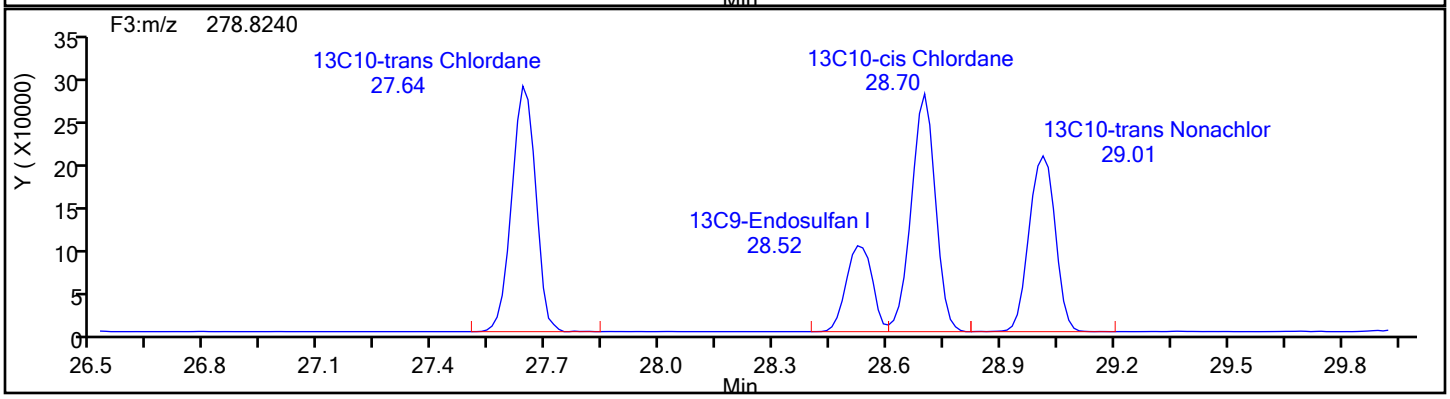
PCB-142





PCB-142 Standards



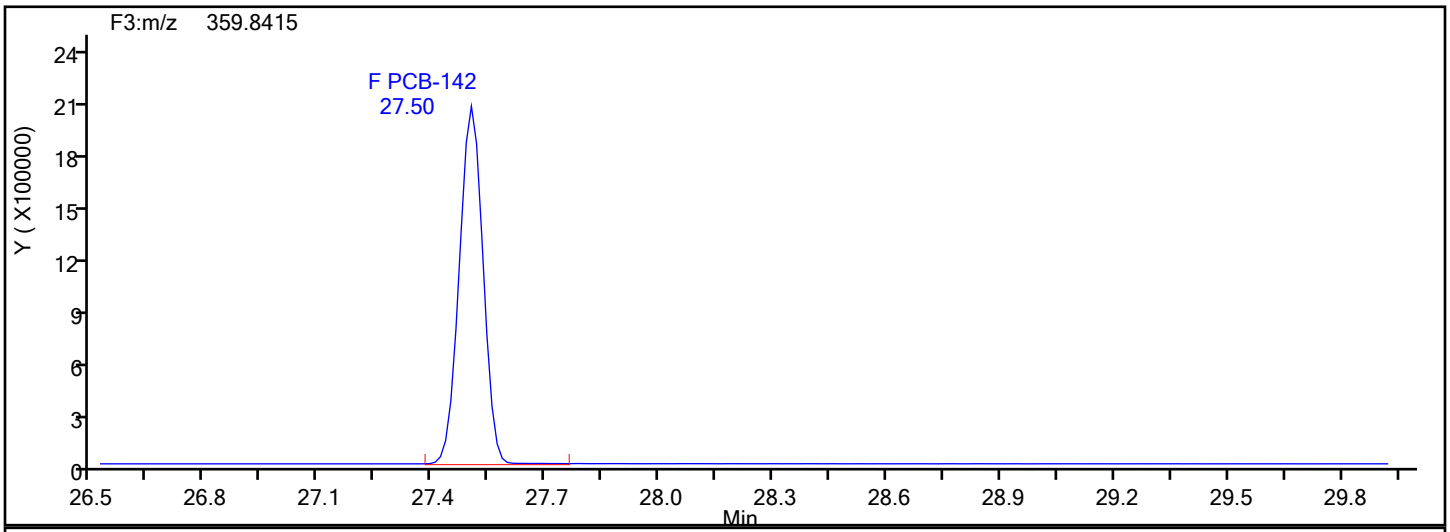


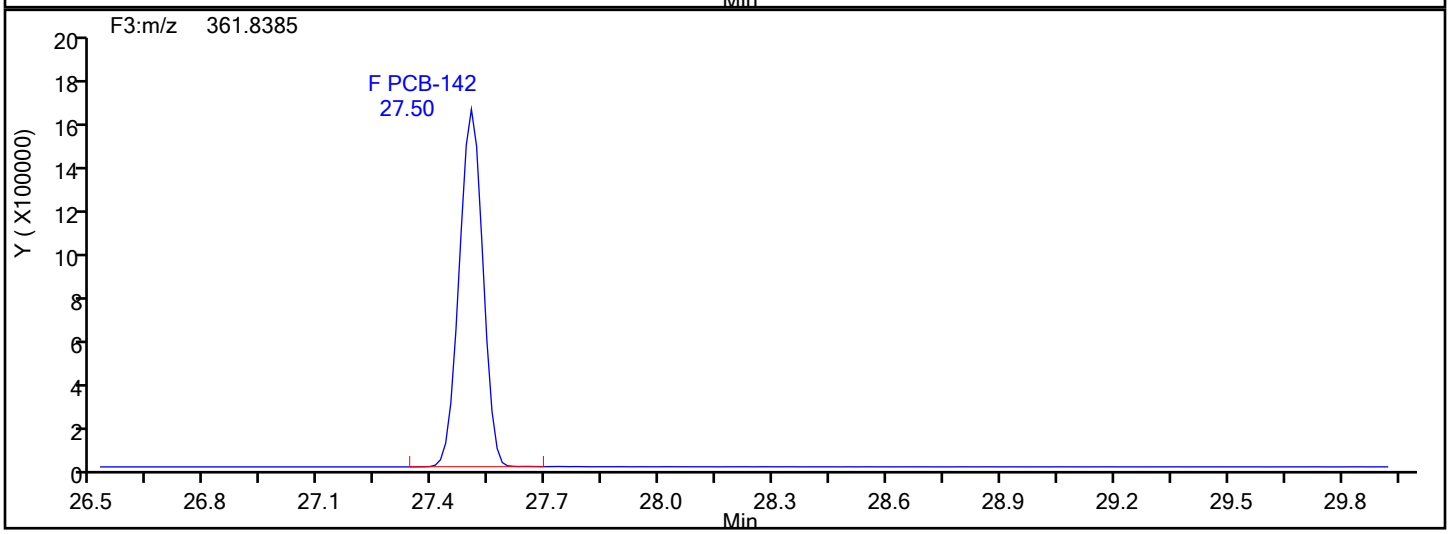
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

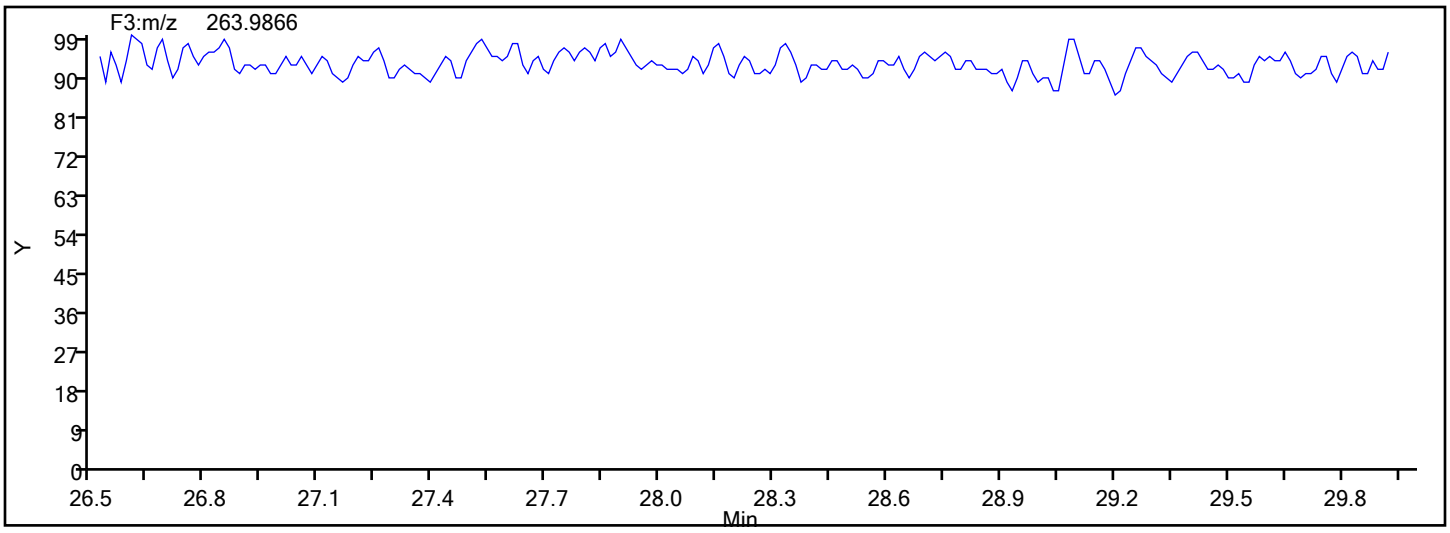
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



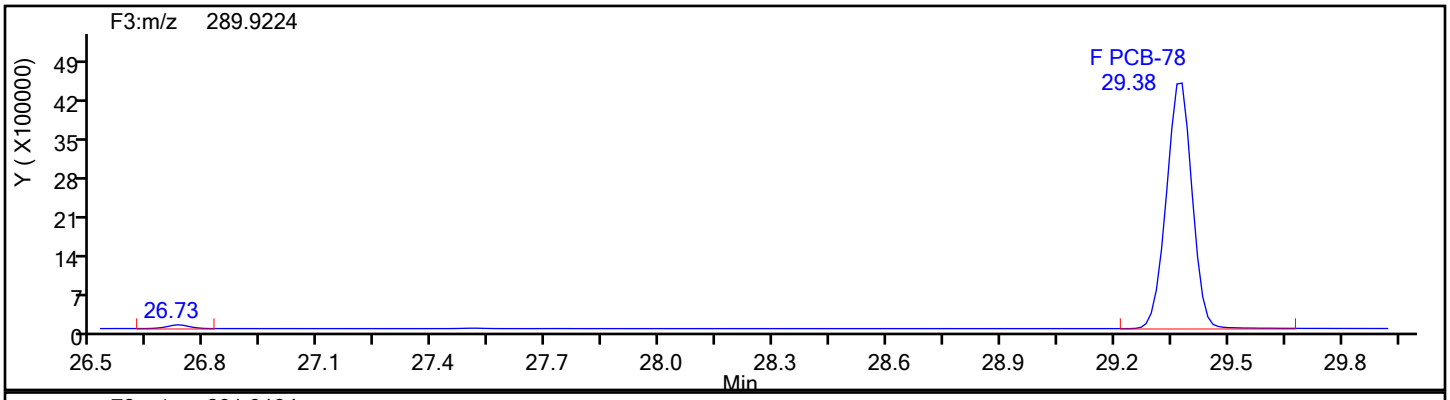
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

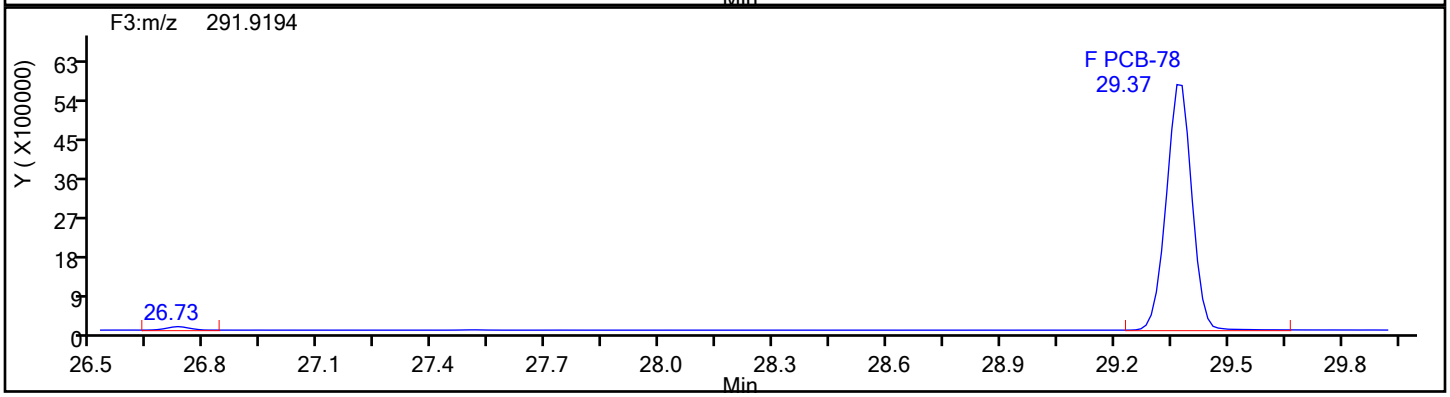
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

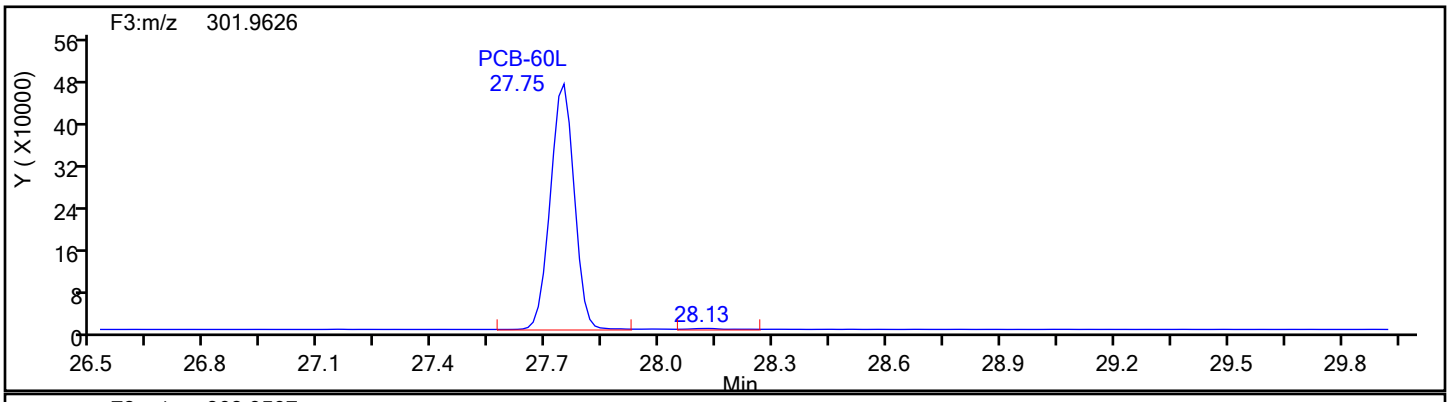
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

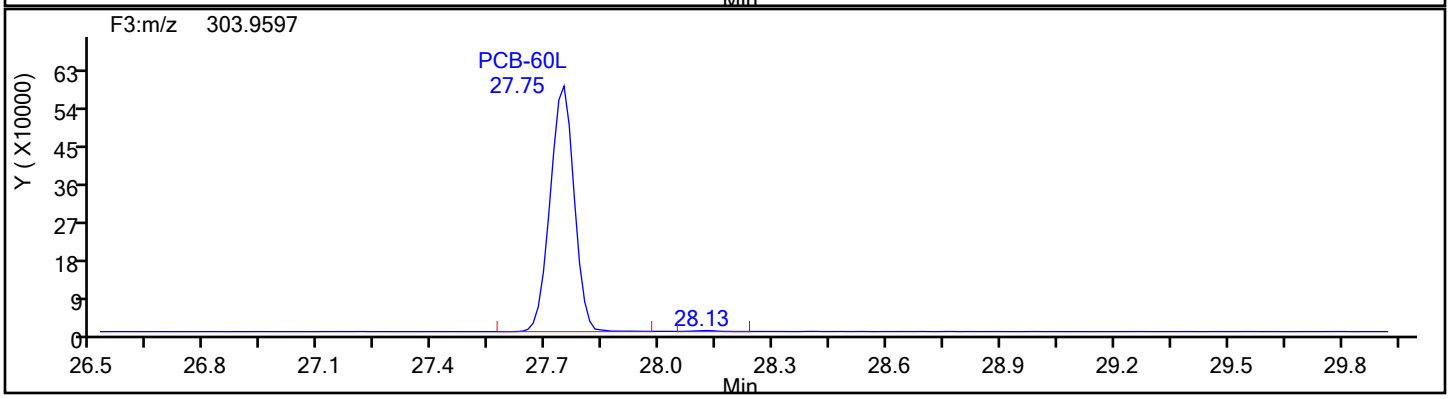
PCB-78





PCB-78 Standards



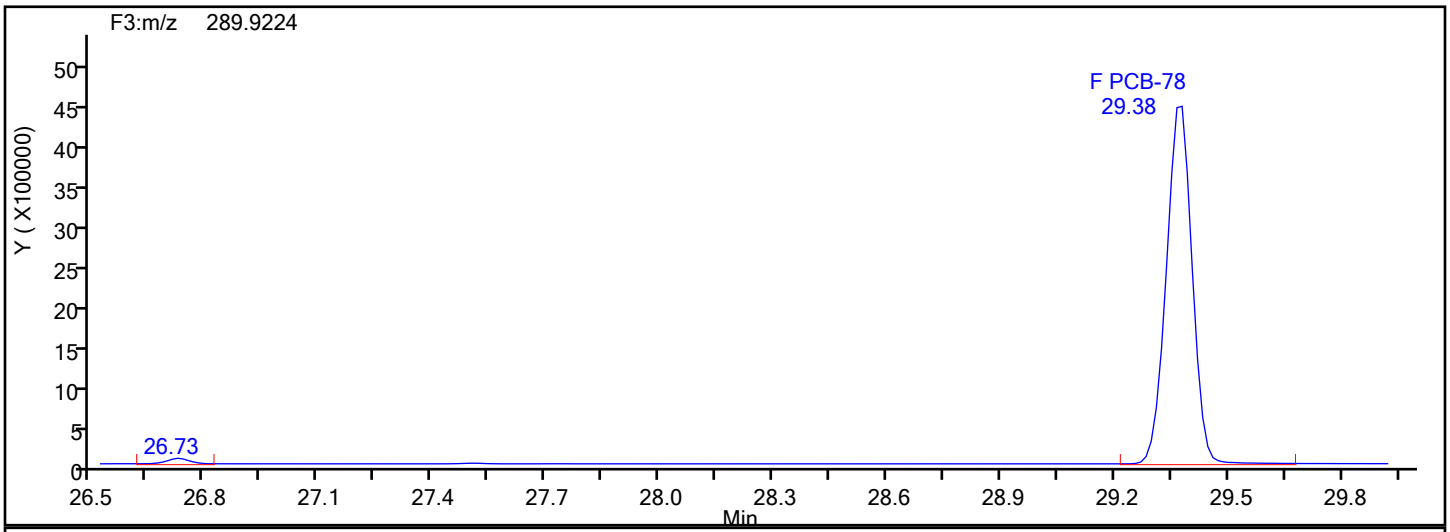


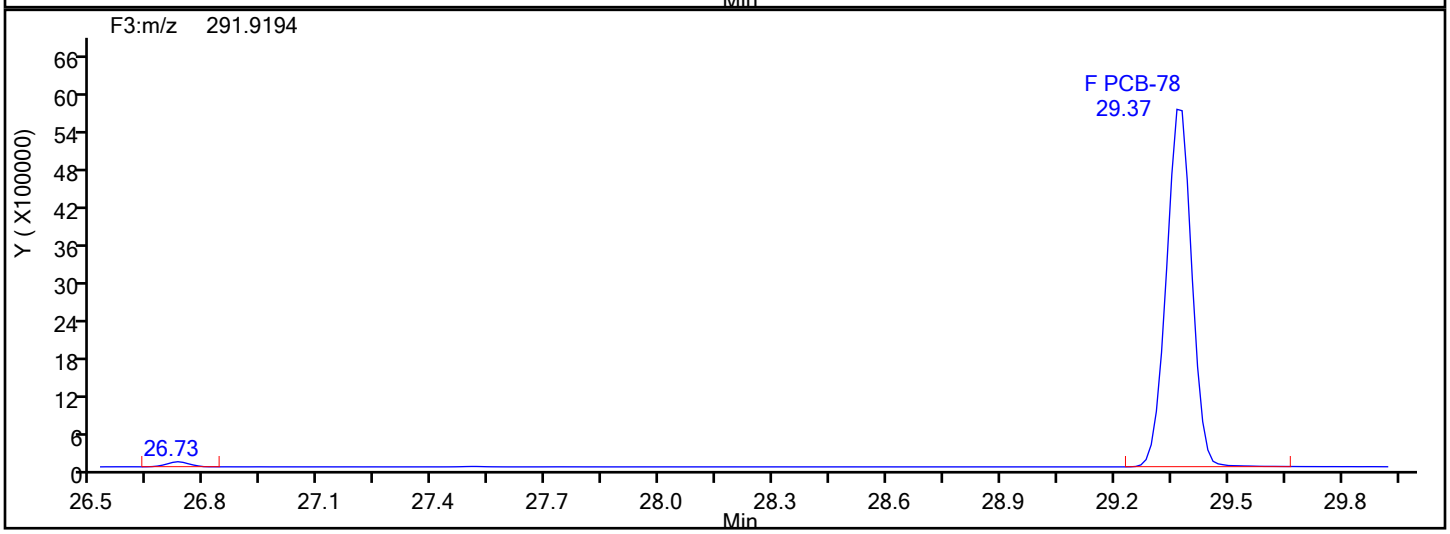
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

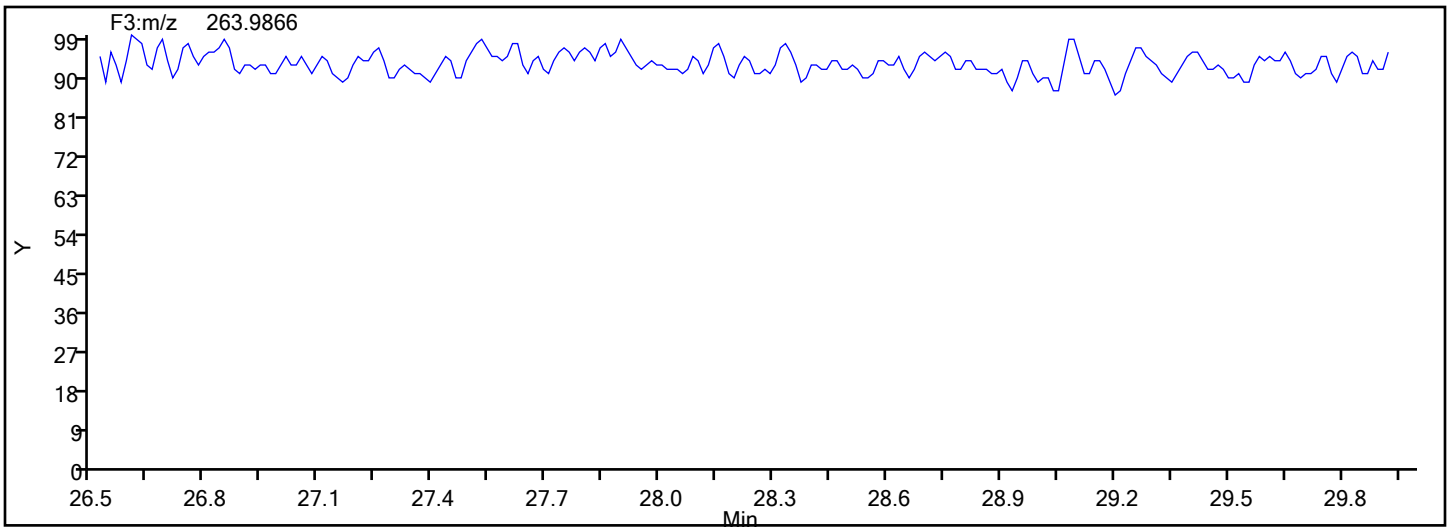
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



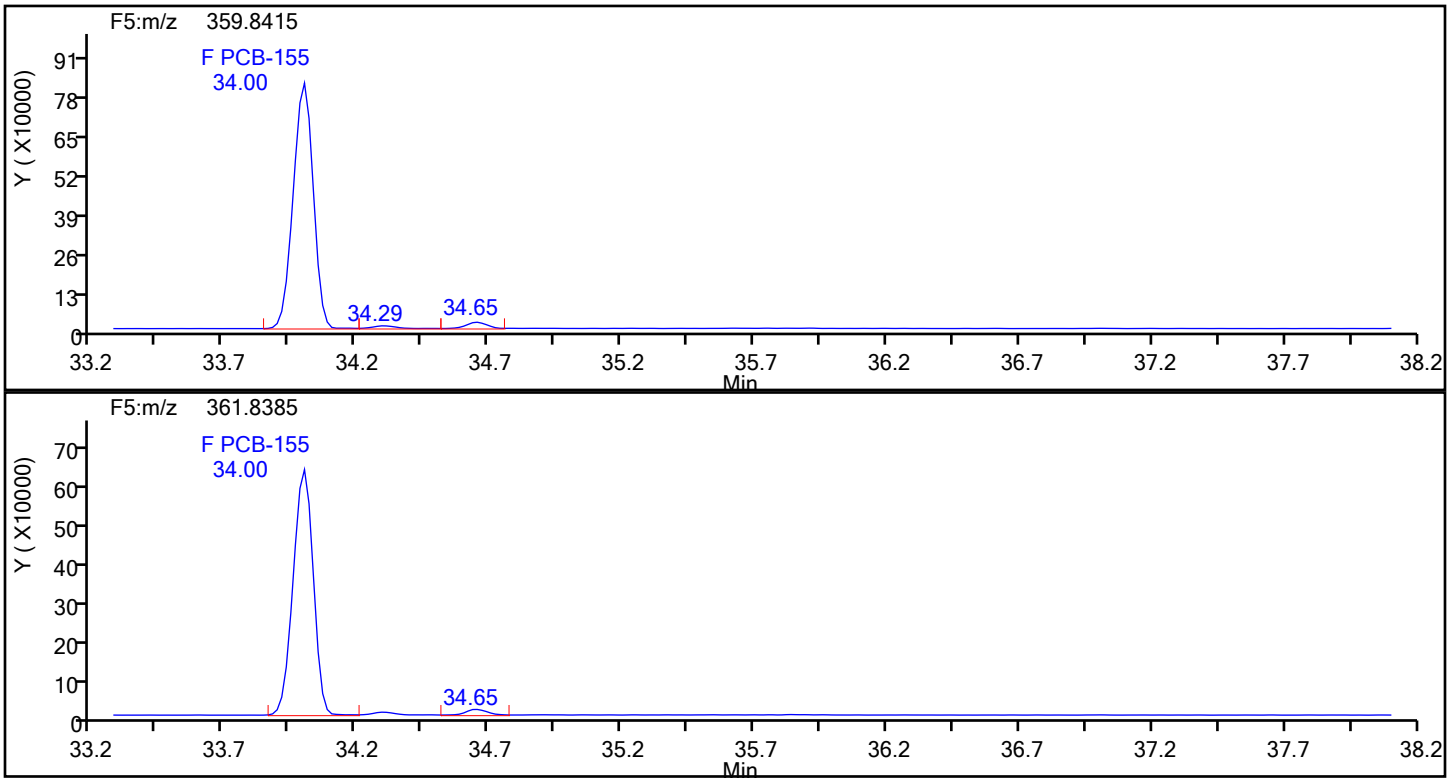
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

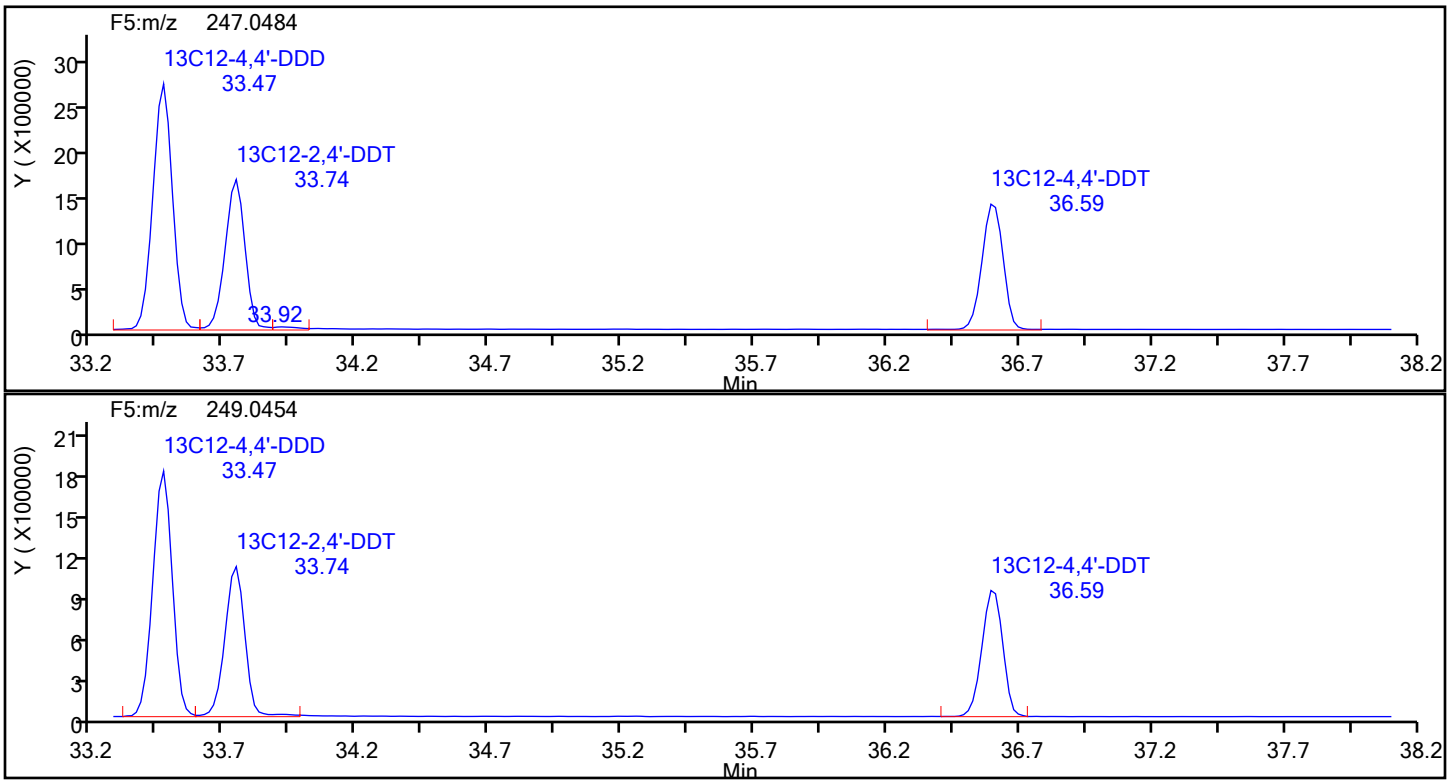
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

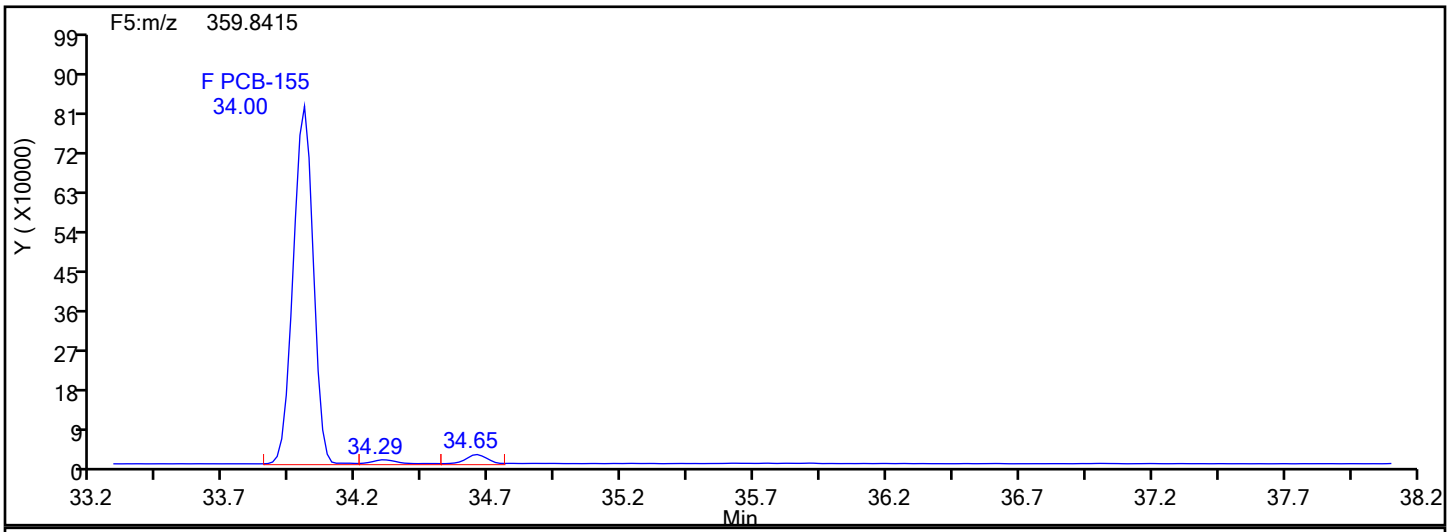


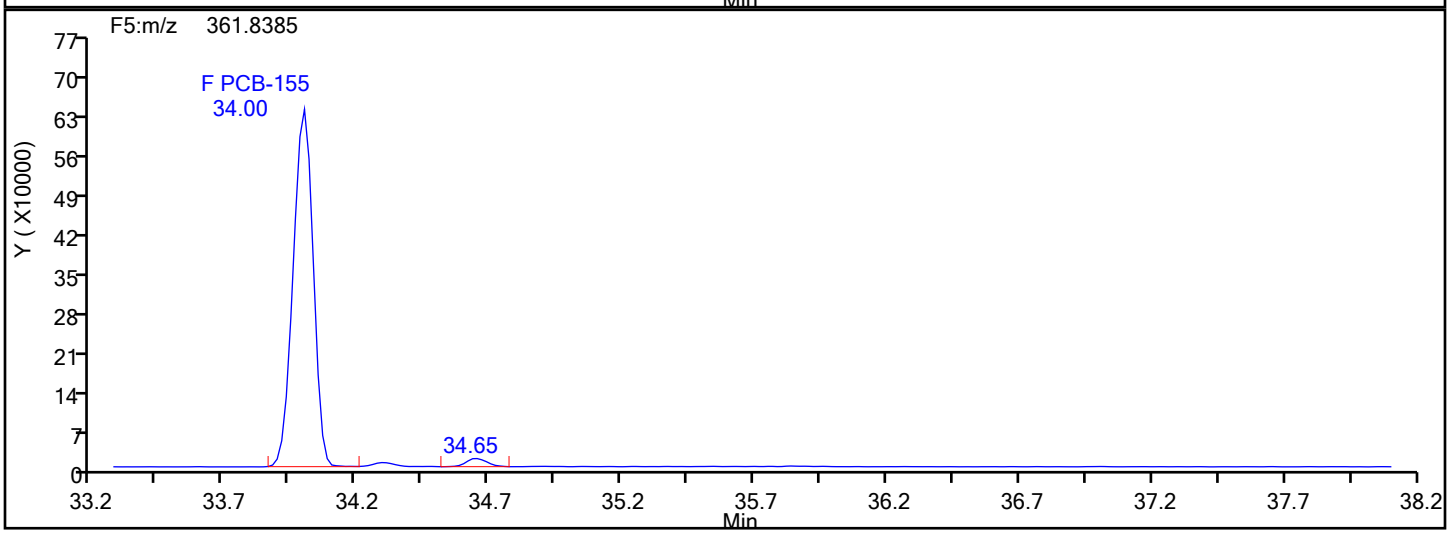
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

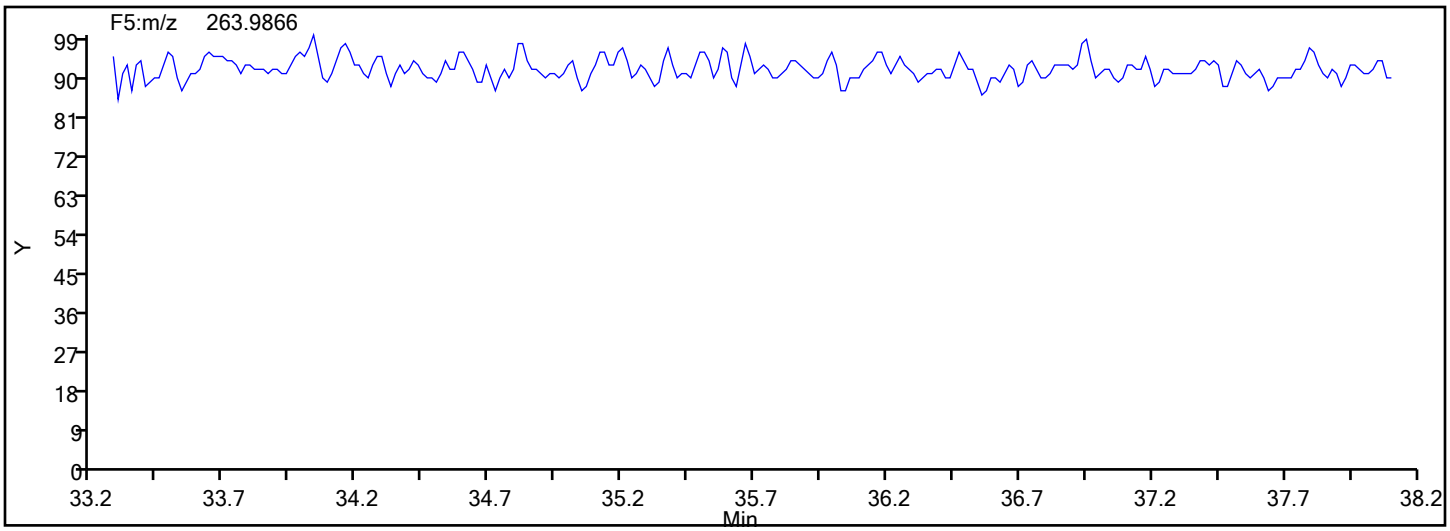
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



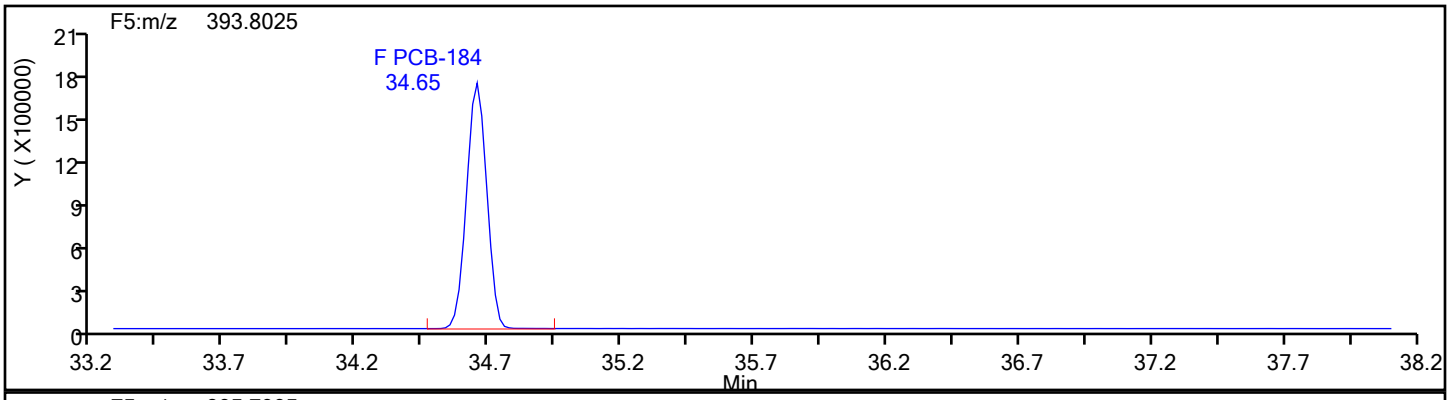
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

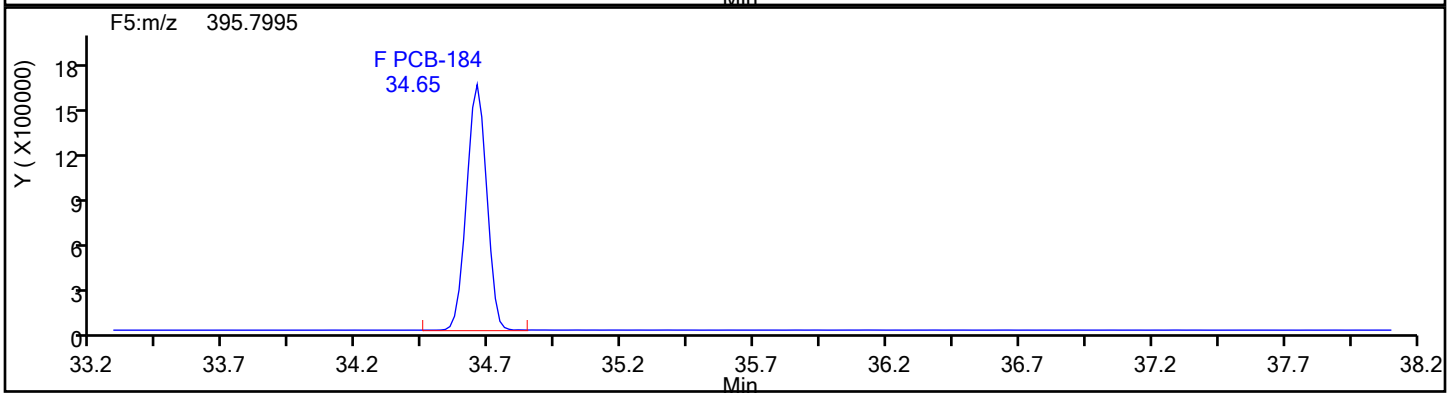
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

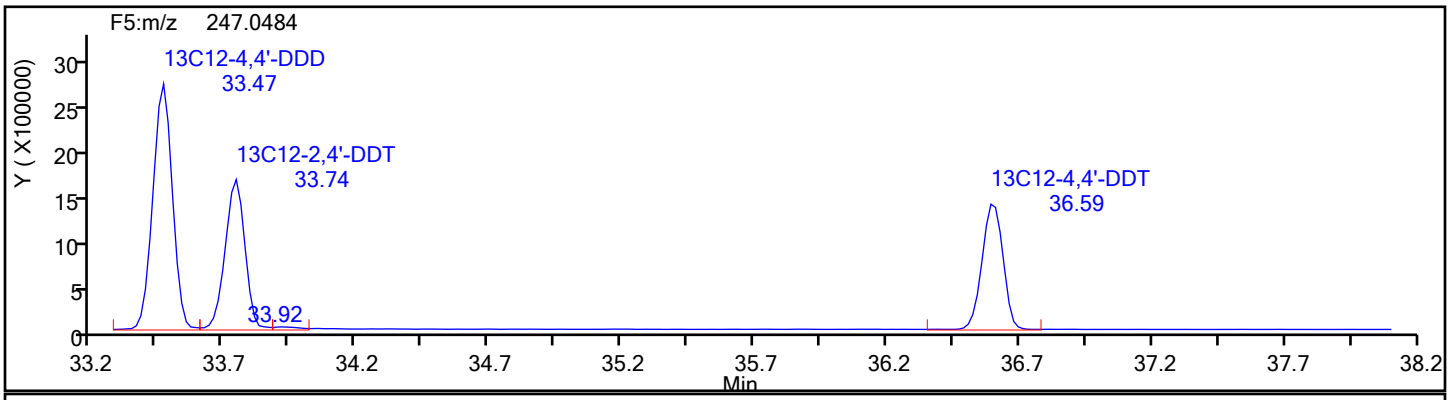
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

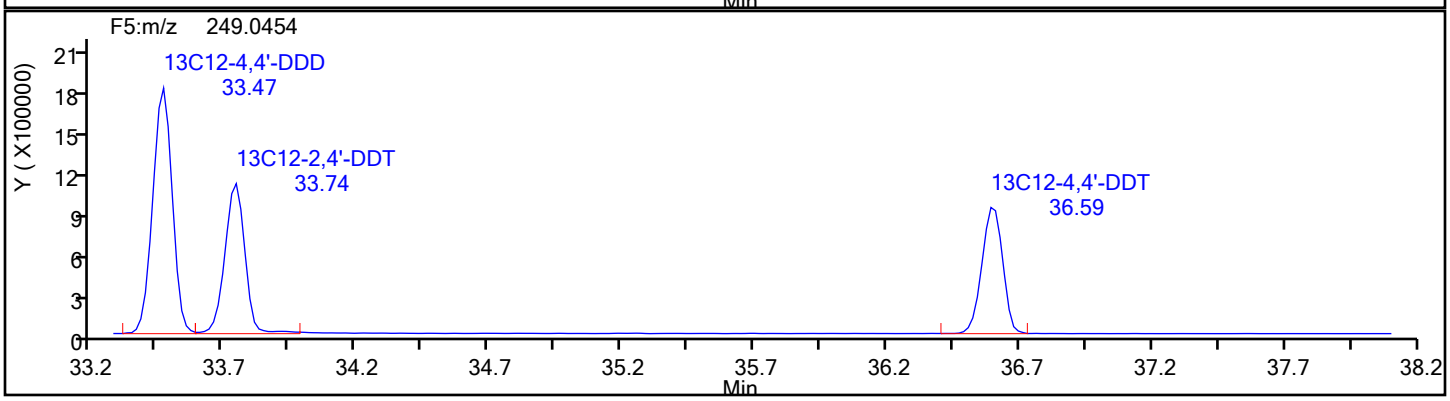
PCB-184





PCB-184 Standards



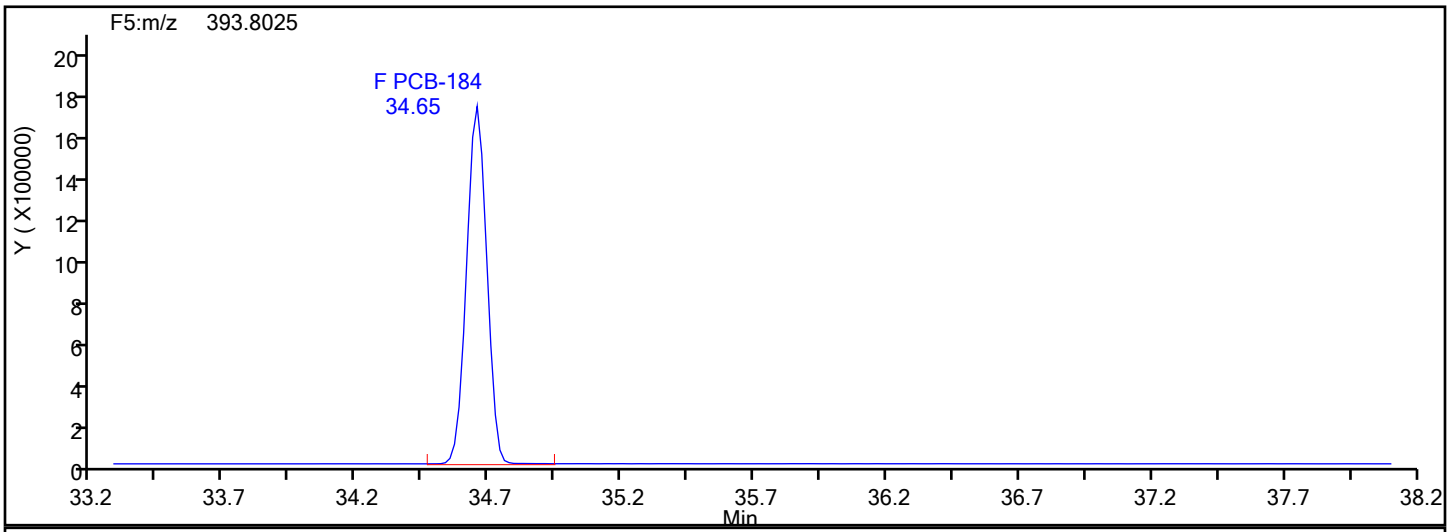


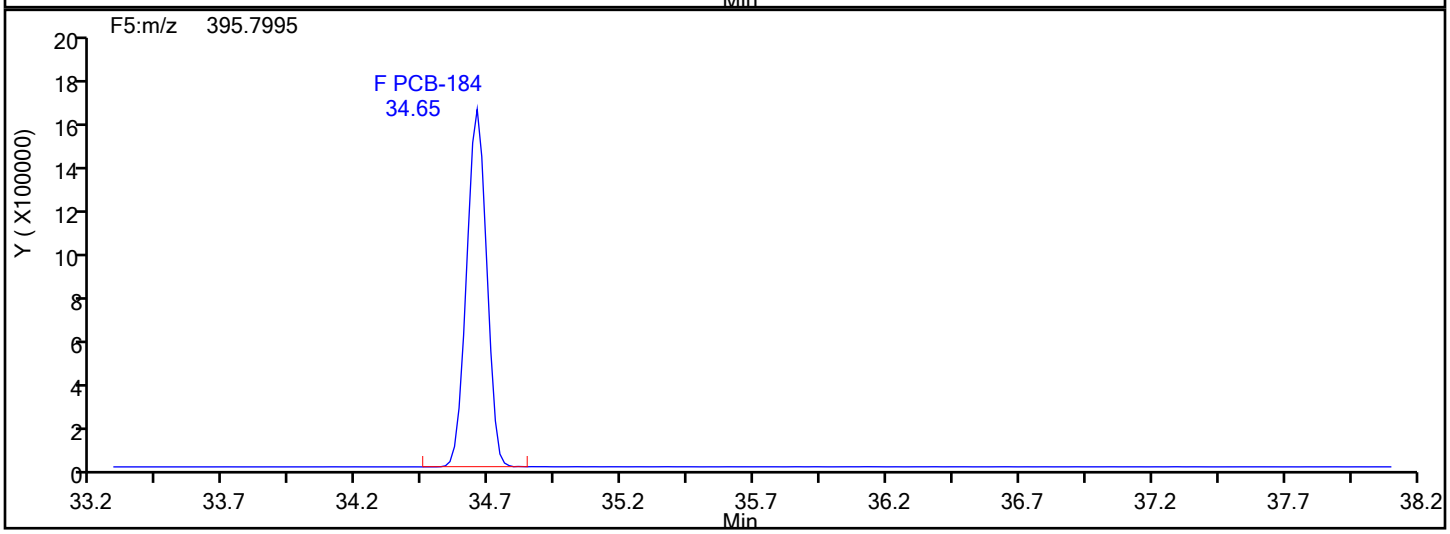
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

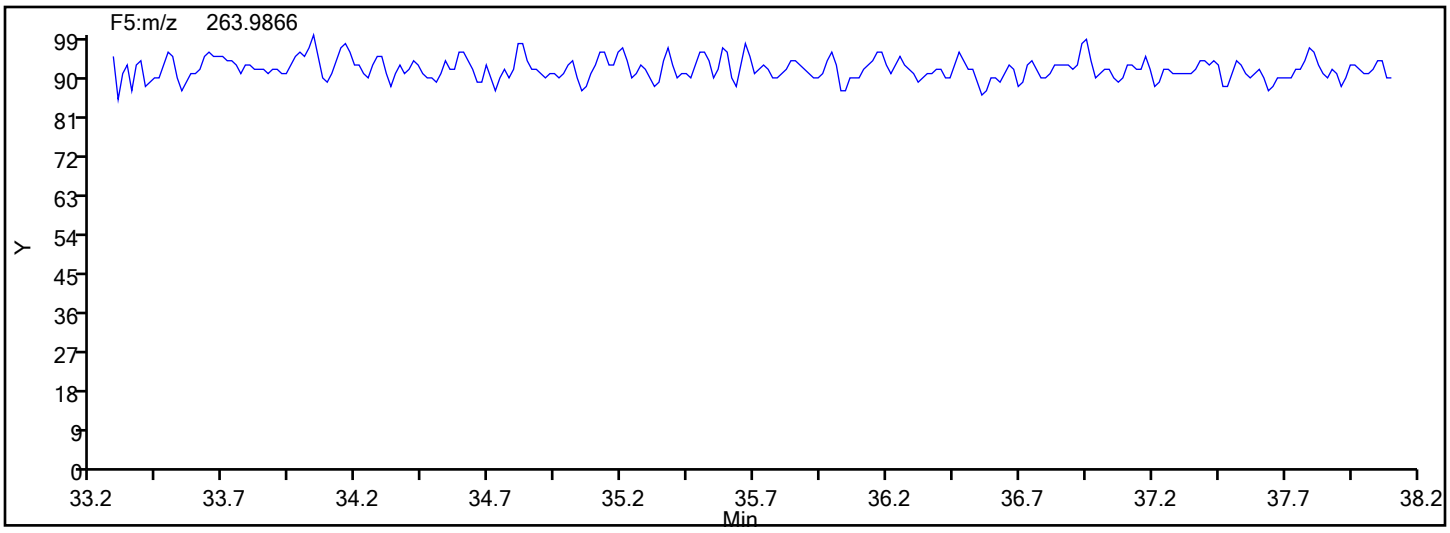
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



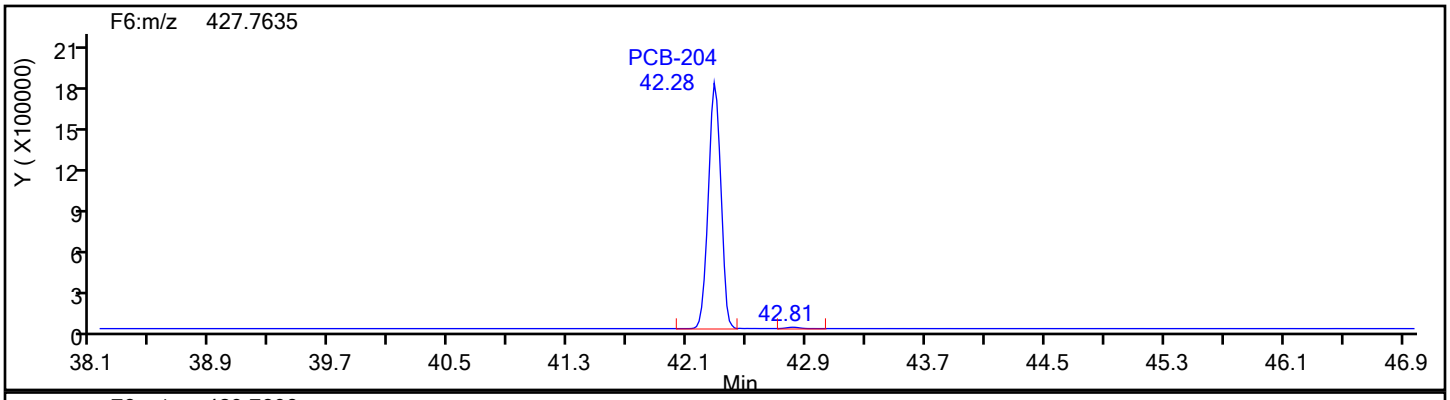
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

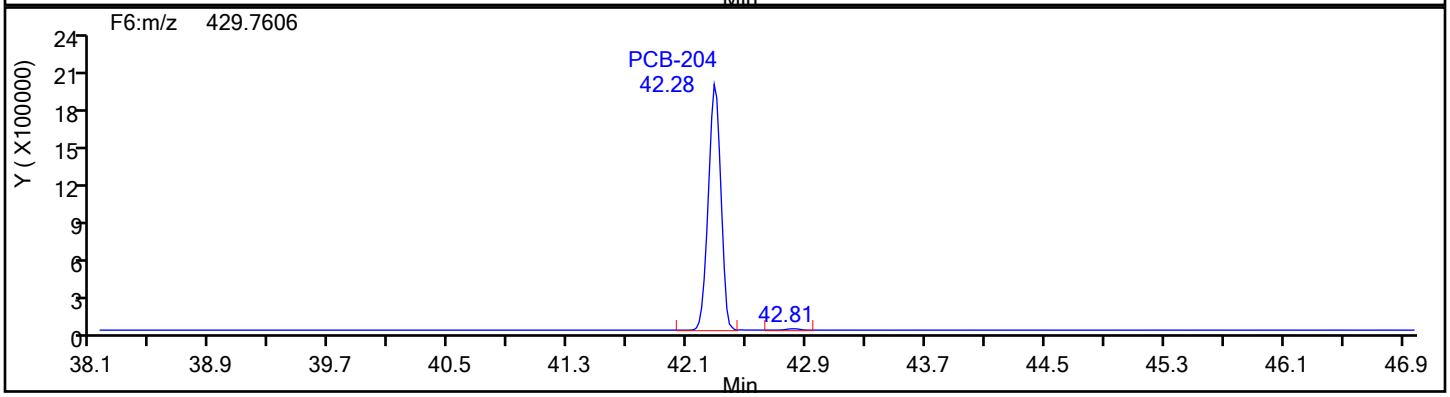
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

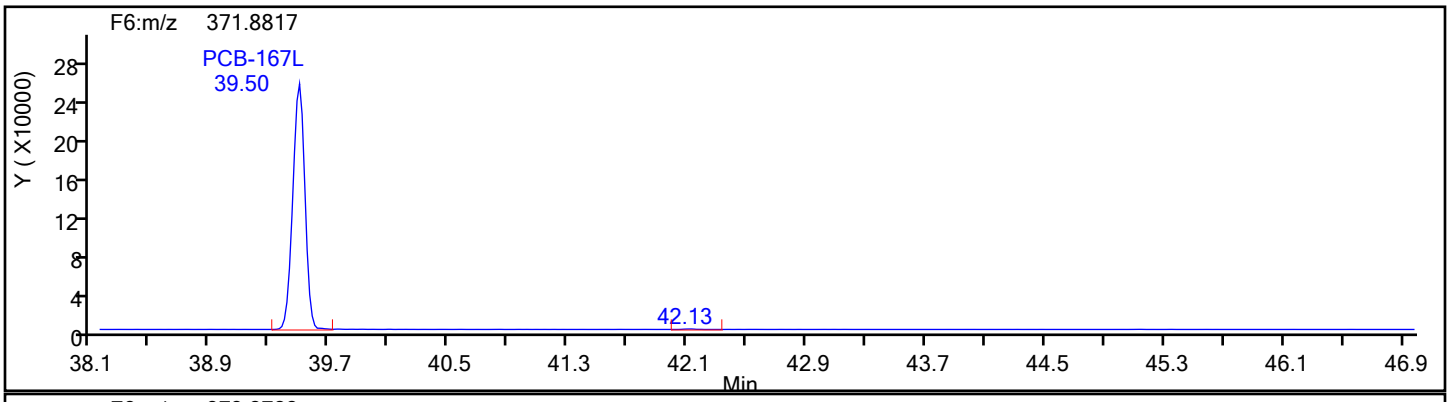
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

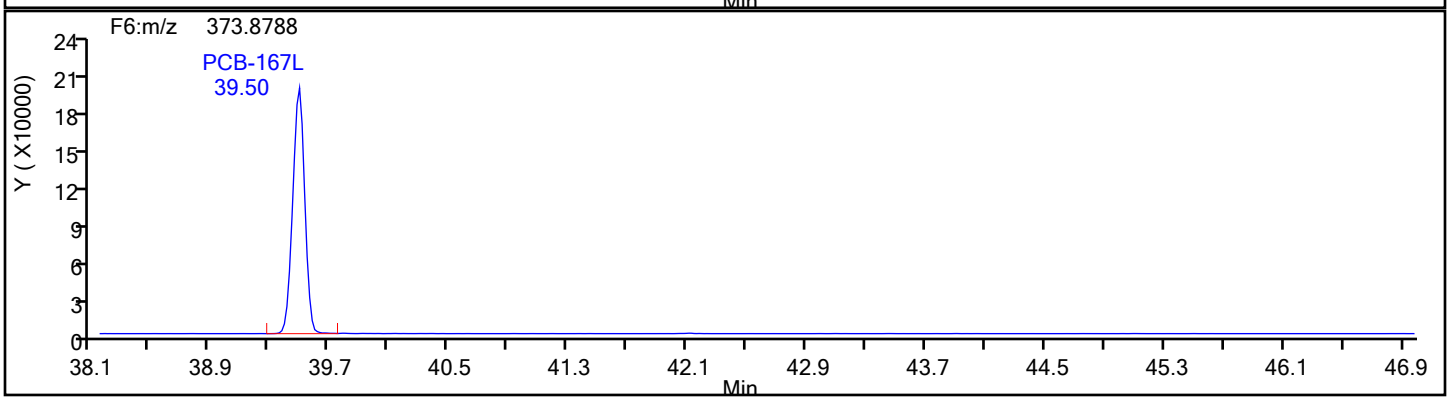
PCB-204





PCB-204 Standards



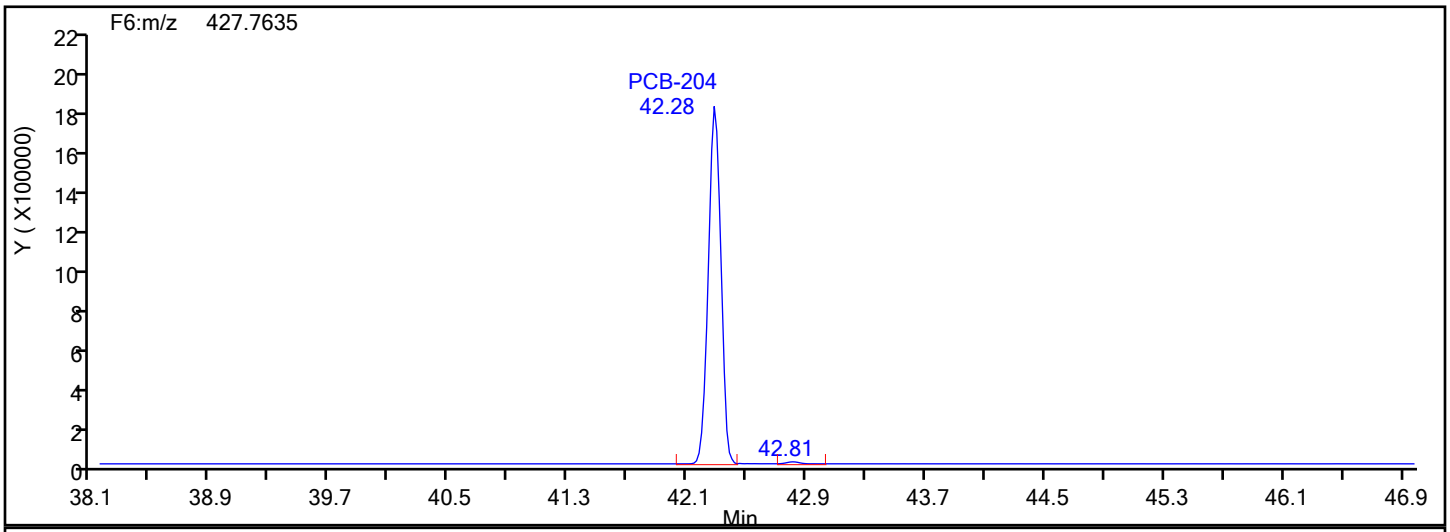


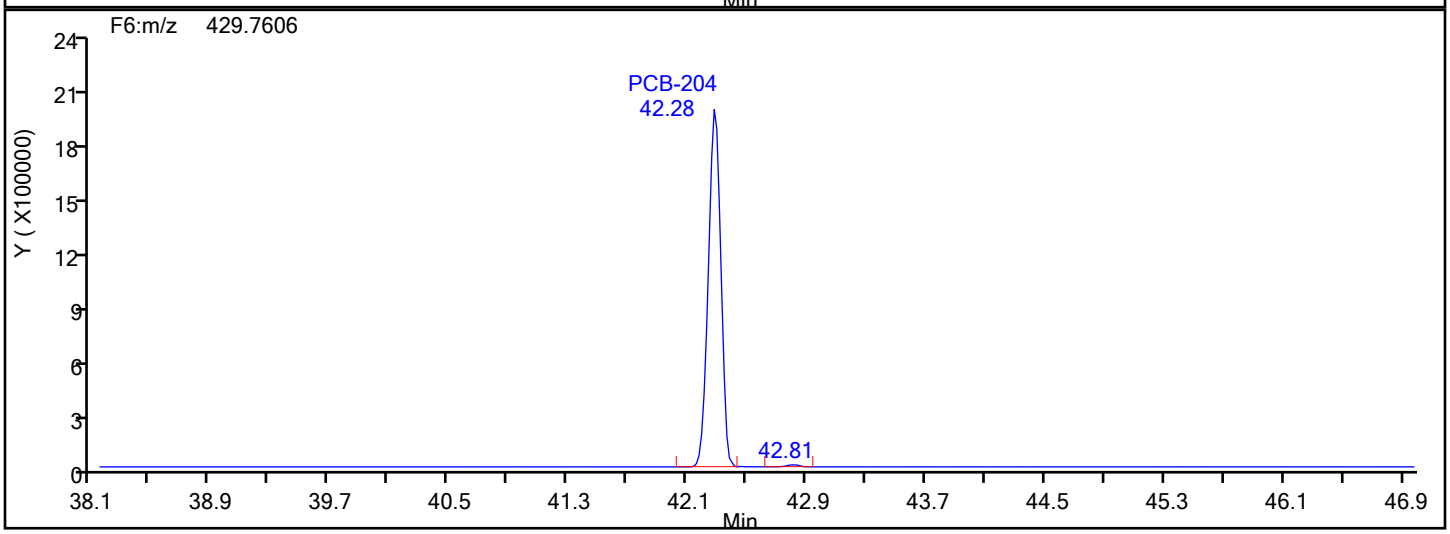
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

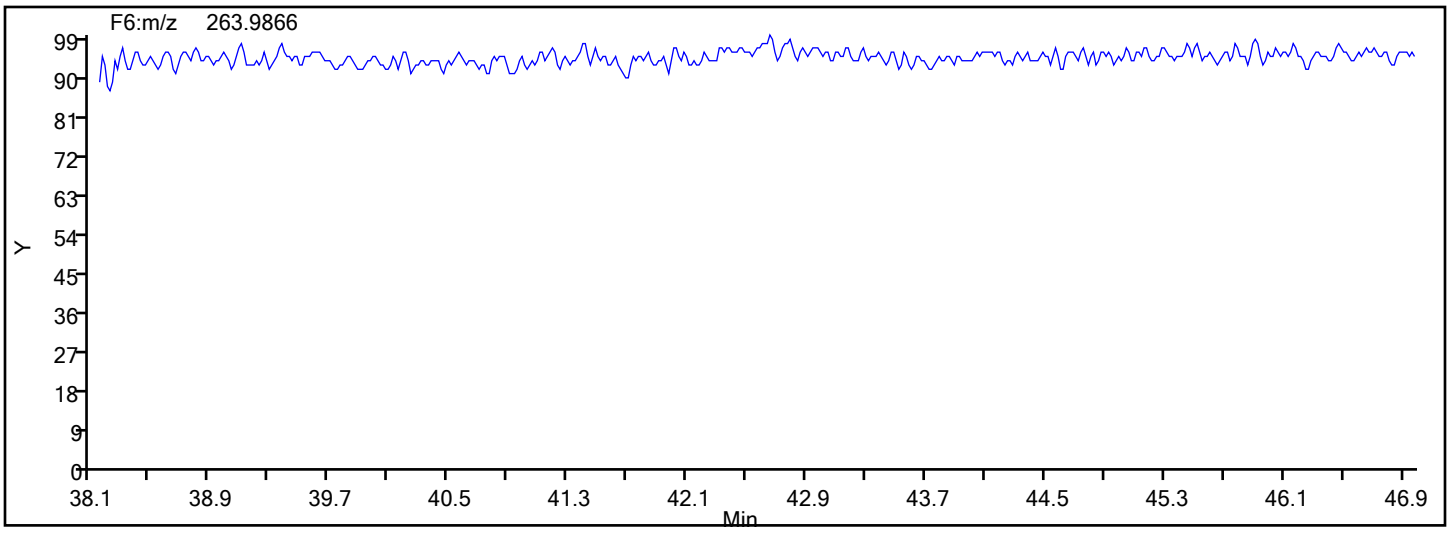
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



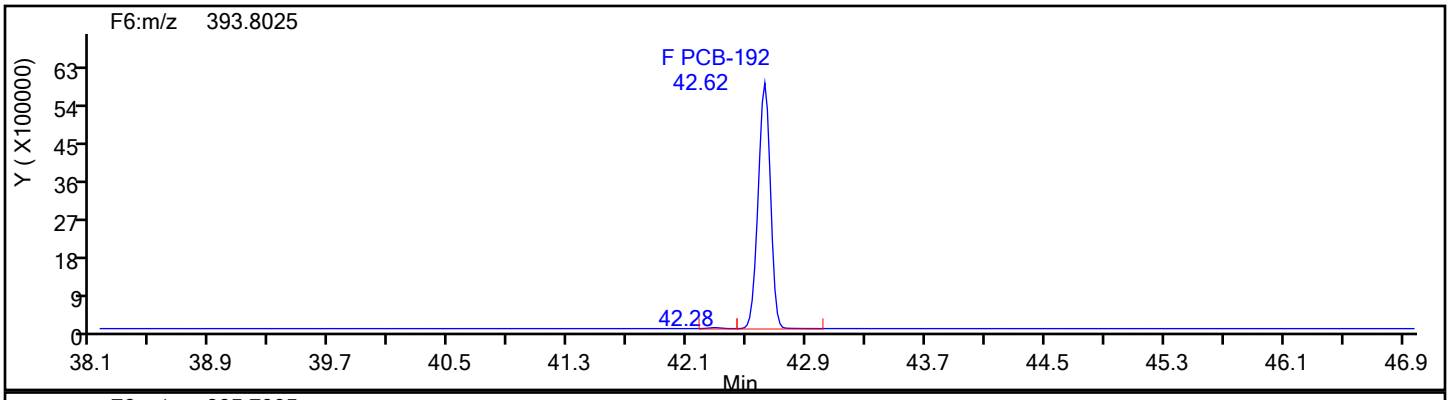
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

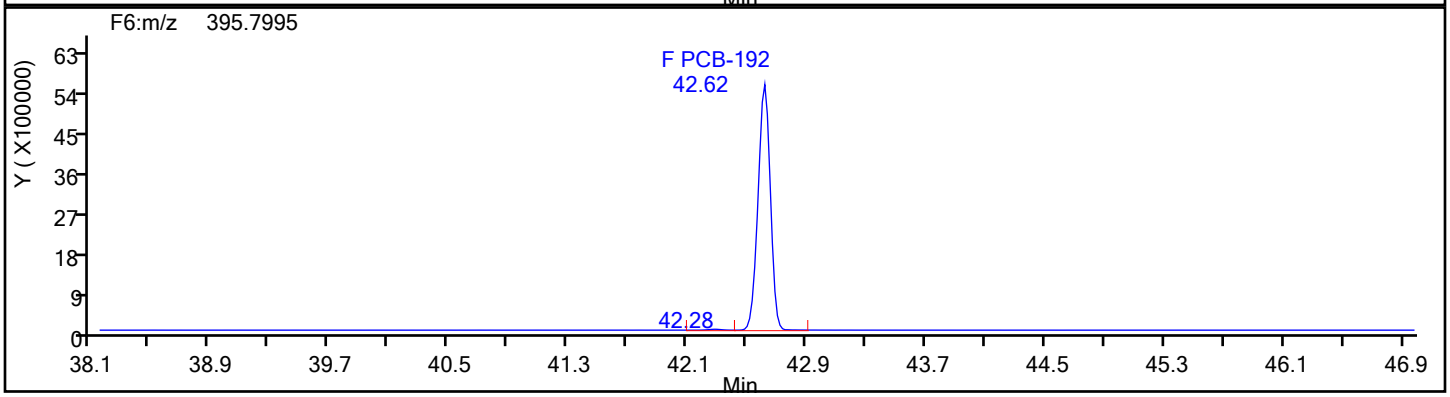
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d

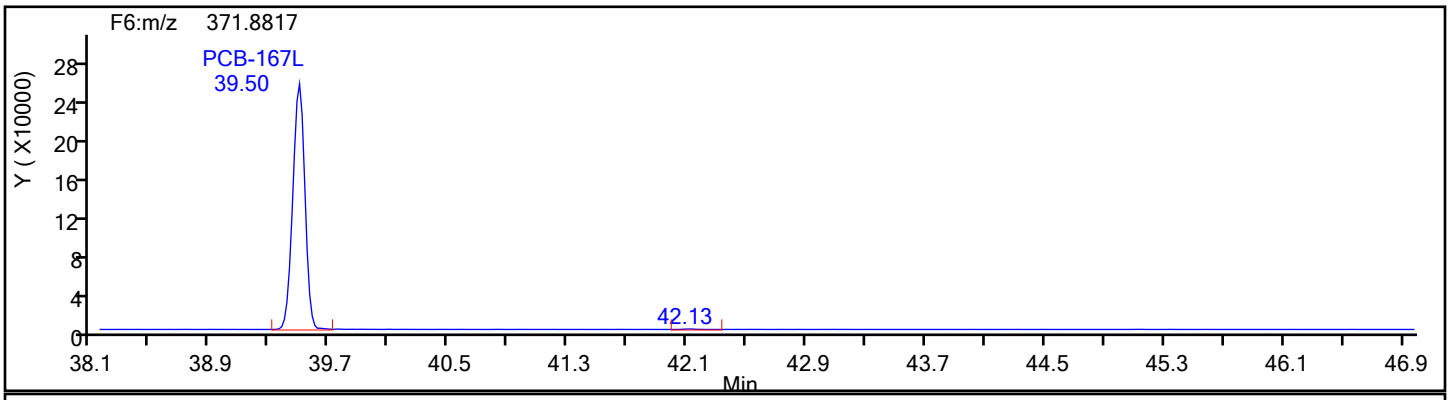
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

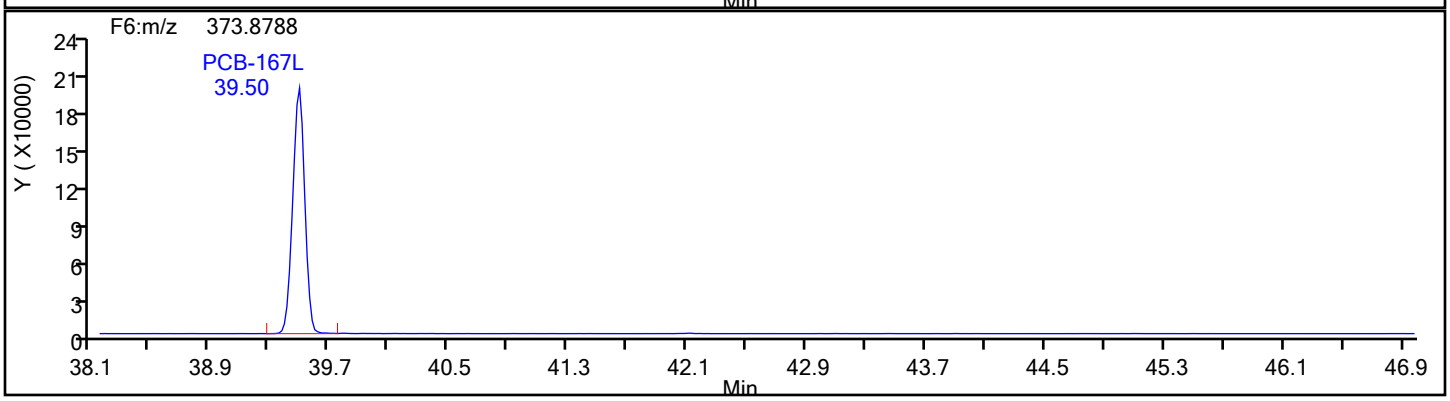
PCB-192





PCB-192 Standards



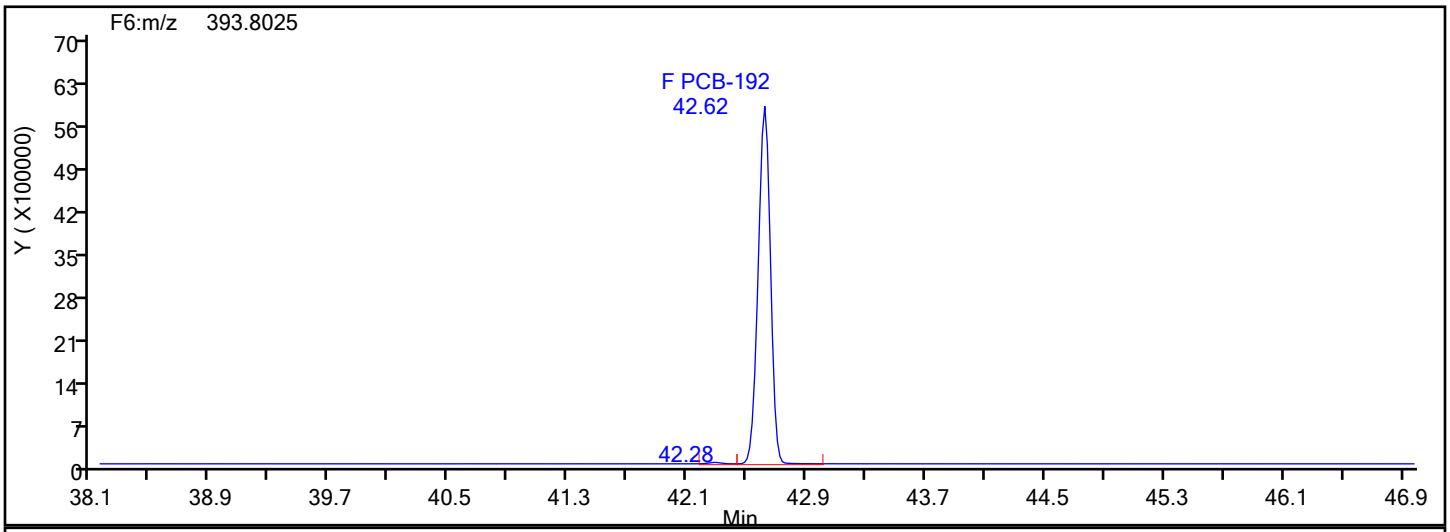


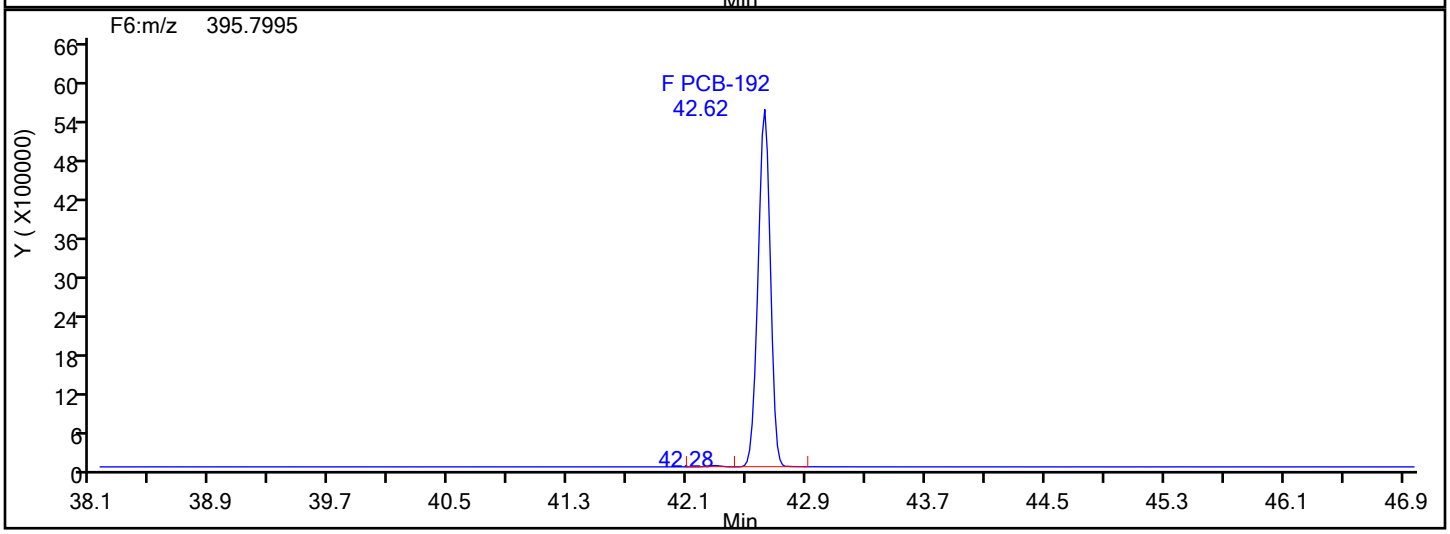
Report Date: 06-May-2025 17:49:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

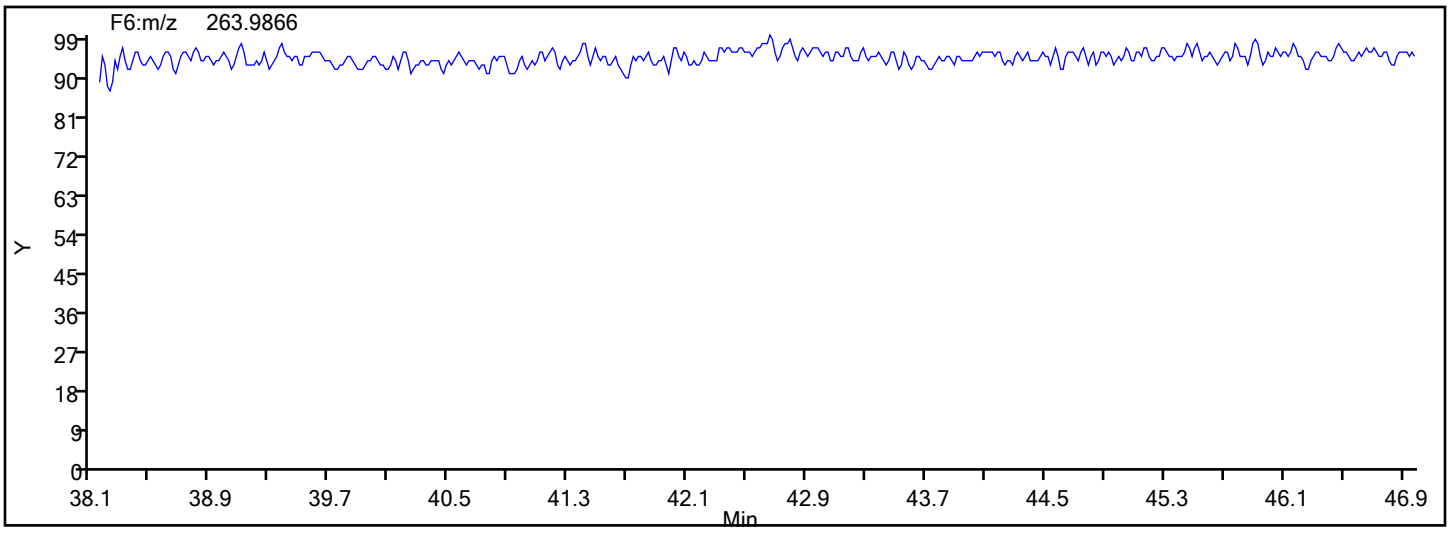
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\140-40836-a-9-b.d		
Injection Date:	29-Mar-2025 07:49:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	97726	Sample Line#:	13
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: ASPECT.PRC.BLK3 | Lab Sample ID: 140-40836-9

Matrix: PE | Lab File ID: 140-40836-a-9-a.d

Analysis Method: 1699 | Date Collected: 11/11/2024 11:00

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.044(g) | Date Analyzed: 05/05/2025 18:32

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 99273 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
87-86-5	Pentachlorophenol	0.15	J	23	0.0019

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d
Lims ID: 140-40836-A-9-B
Client ID: ASPECT.PRC.BLK3
Sample Type: Client
Inject. Date: 05-May-2025 18:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 19:27:44 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1679

First Level Reviewer: TT6I Date: 06-May-2025 19:27:44

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-15L	19:02	306189	1.66		100.0	100.0				
PCB-14	17:47	3171385	1.59							
* 13C6-Pentachlorophenol (IS)	18:27	98575378	0.63		500.0	500.0				
Pentachlorophenol	18:28	65658	0.59	1.0218	0.3259	0.3259	0.004242	0.004242		M
PCB-36	22:08	16846966	1.06							
* PCB-101L	28:04	4094879	1.60		100.0	100.0				
PCB-104	23:41	25310979	1.60							
* PCB-118L	32:44	5811902	1.61		100.0	100.0				
PCB-121	26:40	94583687	1.64							
* PCB-138L	36:56	3342195	1.30		100.0	100.0				
PCB-142	27:28	19497435	1.25							
* PCB-60L	27:41	6854013	0.83		100.0	100.0				
PCB-78	29:19	113667253	0.79							
* PCB-167L	39:26	3347419	1.29		100.0	100.0				
PCB-155	33:56	11299851	1.29							
PCB-184	34:36	22856642	1.05							
PCB-204	42:13	32685911	0.90							
PCB-192	42:33	95518990	1.05							
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 06-May-2025 19:27:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d
Lims ID: 140-40836-A-9-B
Client ID: ASPECT.PRC.BLK3
Sample Type: Client
Inject. Date: 05-May-2025 18:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 19:27:44 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1679

First Level Reviewer: TT6I Date: 06-May-2025 19:27:44

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:02	19:03	-1		191287	68045	80	200	851		
236.0376	19:02	19:03	-1		114902	39870	47	117	848	1.66(1.16-1.93)	
PCB-14											
222.0003	17:47	17:48	-2	0.934	1945943	740833	46	115	16105		
223.9974	17:47	17:48	-2	0.934	1225442	466581	110	275	4242	1.59(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:28	-1		38237140	12261728	64	160	191590		
271.8636	18:27	18:28	-1		60338238	19690739	89	222	221244	0.63(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:28	18:28	-1	1.001	24282	6995	71	177	99		M
265.8435	18:28	18:28	-1	1.001	41376	11240	40	100	281	0.59(0.00-0.00)	M
PCB-36											
255.9613	22:08	22:09	-2	1.163	8666865	2448252	56	140	43719		
257.9584	22:08	22:09	-2	1.163	8180101	2319512	64	160	36242	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:04	28:05	-1		2517686	589625	1	2	589625		
339.9178	28:04	28:05	-1		1577193	364894	4	10	91224	1.60(1.16-1.94)	
PCB-104											
325.8804	23:41	23:42	-2	0.844	15568024	4091492	2	5	2045746		
327.8775	23:41	23:42	-2	0.844	9742955	2553140	1	2	2553140	1.60(1.32-1.78)	
PCB-118L											
337.9207	32:44	32:45	-1		3588312	745908	33	82	22603		
339.9178	32:44	32:45	-1		2223590	455682	24	60	18987	1.61(1.16-1.94)	
PCB-121											
325.8804	26:40	26:41	-2	0.815	58784341	14277885	844	2110	16917		
327.8775	26:40	26:41	-2	0.815	35799346	8643453	548	1370	15773	1.64(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-138L											
371.8817	36:56	36:56	0		1888159	350750	14	35	25054		
373.8788	36:56	36:56	0		1454036	268327	12	30	22361	1.30(1.16-1.94)	
PCB-142											
359.8415	27:28	27:28	-1	0.743	10831598	2504689	108	270	23192		
361.8385	27:28	27:28	-1	0.743	8665837	1977821	95	237	20819	1.25(1.05-1.43)	
PCB-60L											
301.9626	27:41	27:42	-1		3109575	730716	41	102	17822		
303.9597	27:41	27:42	-1		3744438	868351	69	172	12585	0.83(0.58-0.96)	
PCB-78											
289.9224	29:19	29:17	1	1.058	50326734	11488804	1515	3787	7583		
291.9194	29:19	29:17	1	1.058	63340519	14590426	968	2420	15073	0.79(0.65-0.89)	
PCB-167L											
371.8817	39:26	39:26	0		1884453	332482	7	17	47497		
373.8788	39:26	39:26	0		1462966	259365	3	7	86455	1.29(1.16-1.94)	
PCB-155											
359.8415	33:56	33:58	-2	0.861	6362133	1249190	135	337	9253		
361.8385	33:56	33:58	-2	0.861	4937718	976720	123	307	7941	1.29(1.05-1.43)	
PCB-184											
393.8025	34:36	34:37	-1	0.878	11689036	2221021	83	207	26759		
395.7995	34:36	34:37	-1	0.878	11167606	2112475	52	130	40625	1.05(0.89-1.21)	
PCB-204											
427.7635	42:13	42:14	-2	1.071	15489370	2673275	1	2	2673275		
429.7606	42:13	42:14	-2	1.071	17196541	2952099	1	2	2952099	0.90(0.76-1.02)	
PCB-192											
393.8025	42:33	42:35	-2	1.079	48975350	8778723	95	237	92408		
395.7995	42:33	42:35	-2	1.079	46543640	8384325	101	252	83013	1.05(0.89-1.21)	
PCB-52L											
	0.0										
PCB-126L											
	0.0										

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

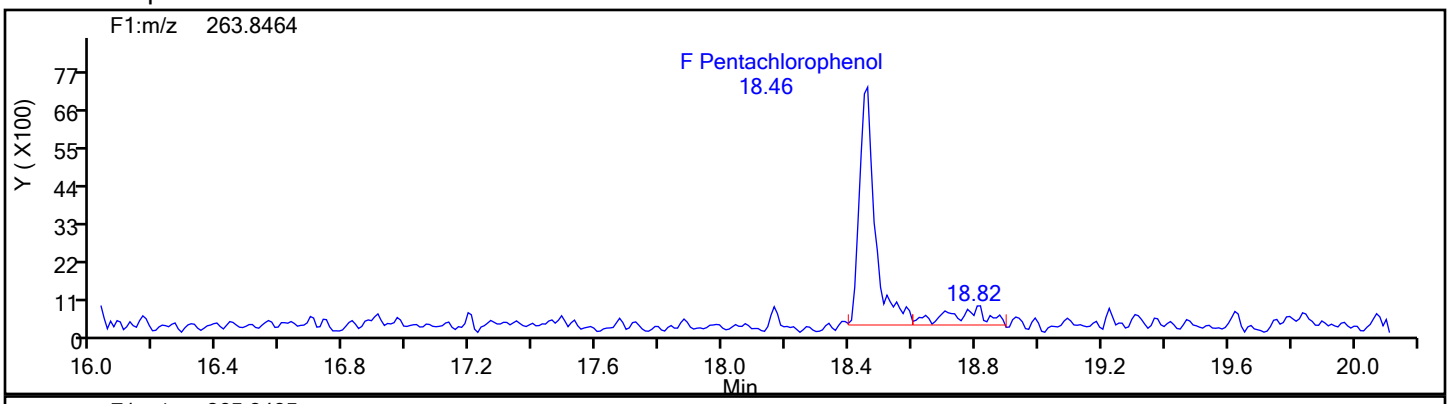
Report Date: 06-May-2025 19:27:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

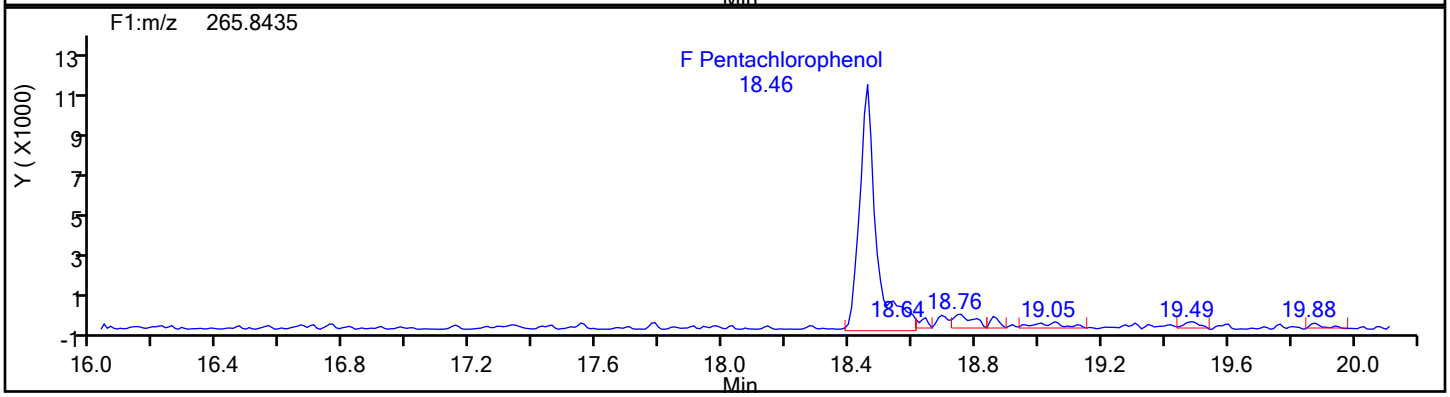
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d

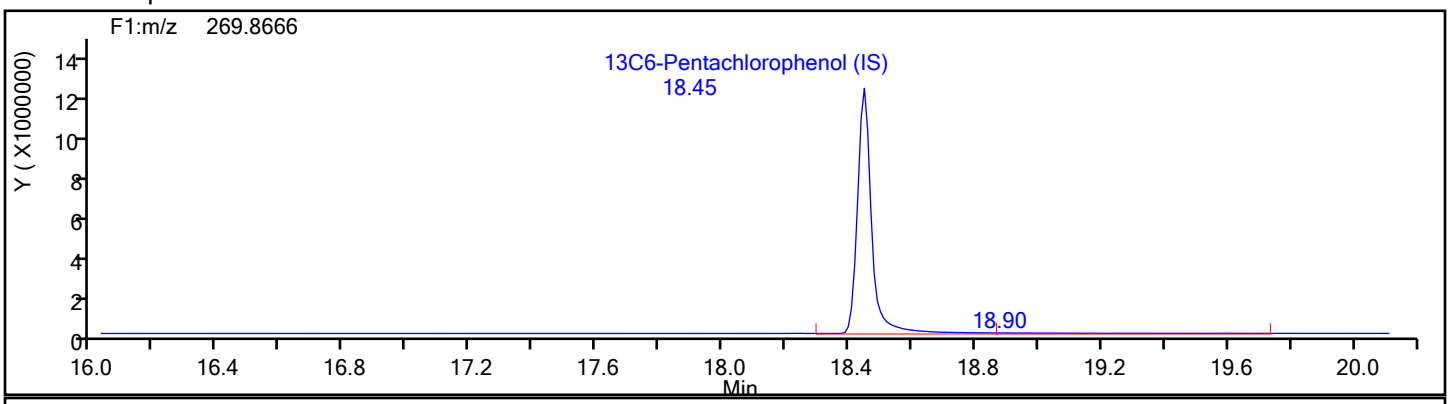
Injection Date:	05-May-2025 18:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	99273	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

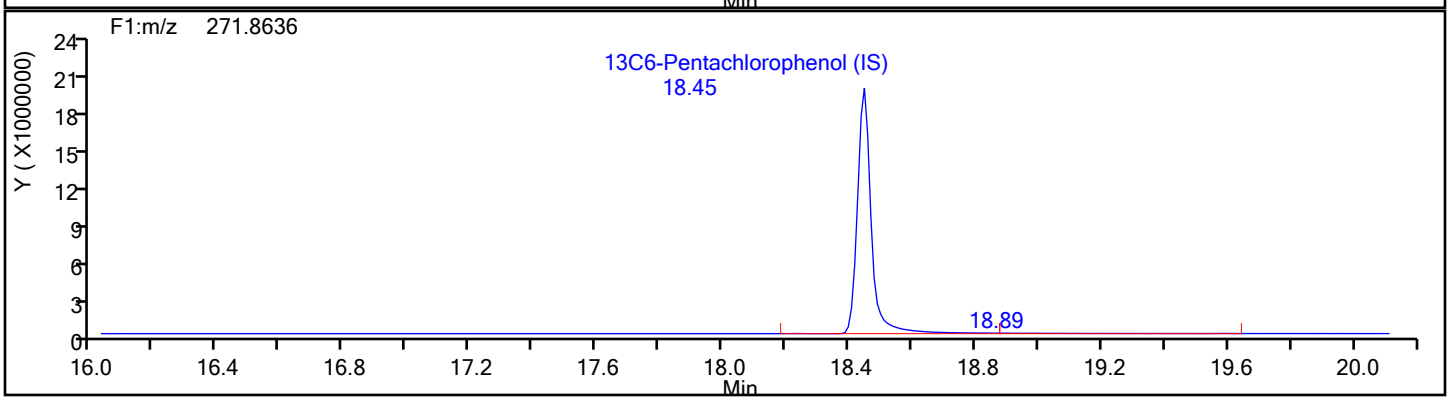
Pentachlorophenol





Pentachlorophenol Standards





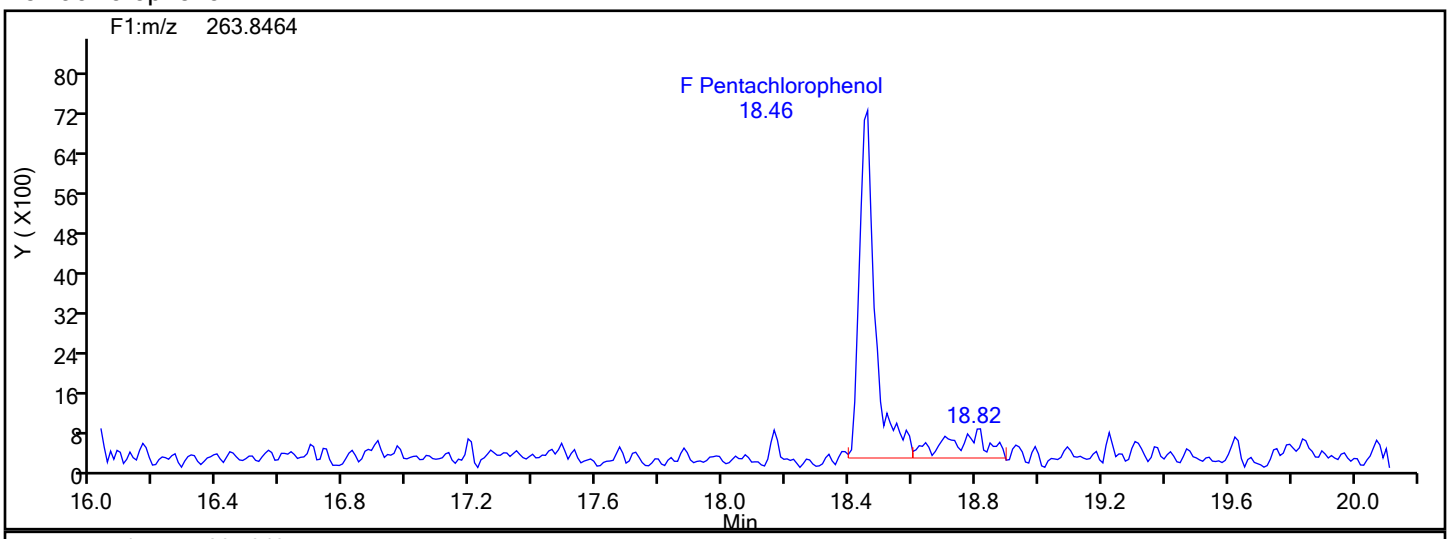
Report Date: 06-May-2025 19:27:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

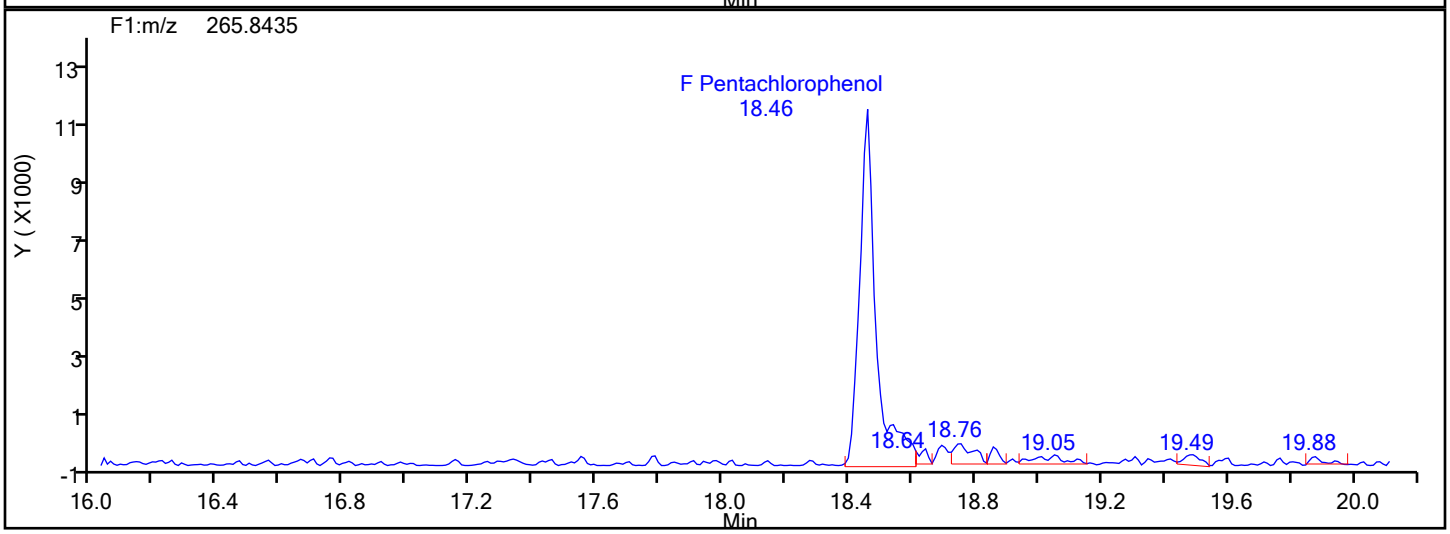
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d

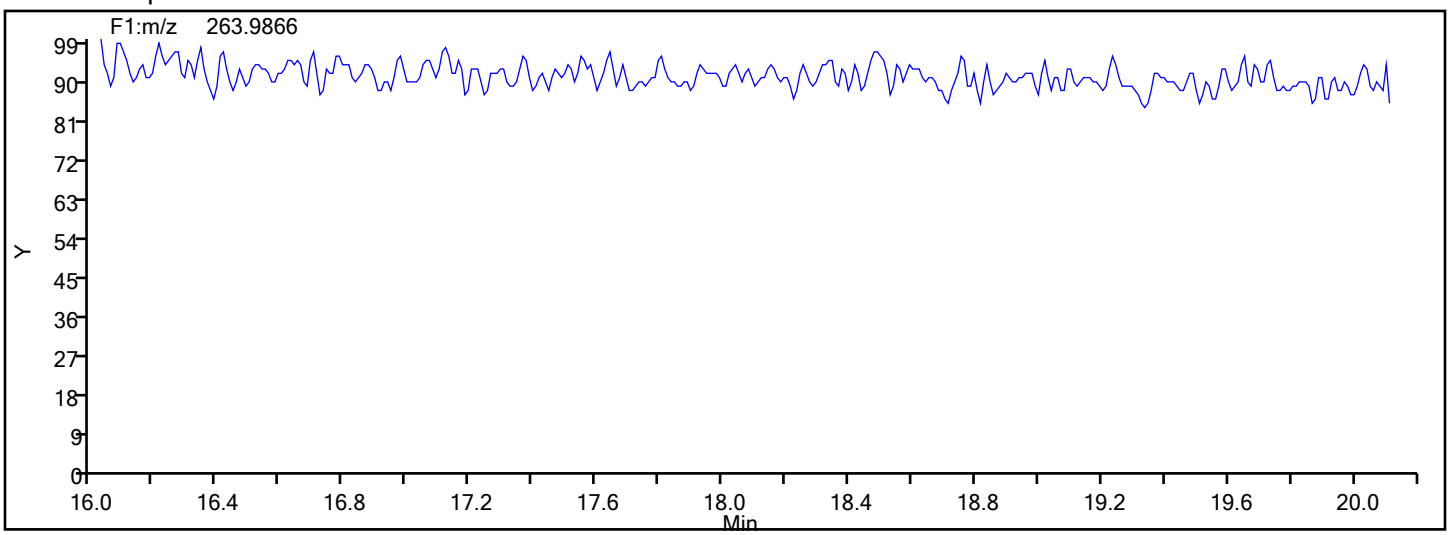
Injection Date:	05-May-2025 18:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:	ASPECT.PRC.BLK3		
Worklist#:	99273	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

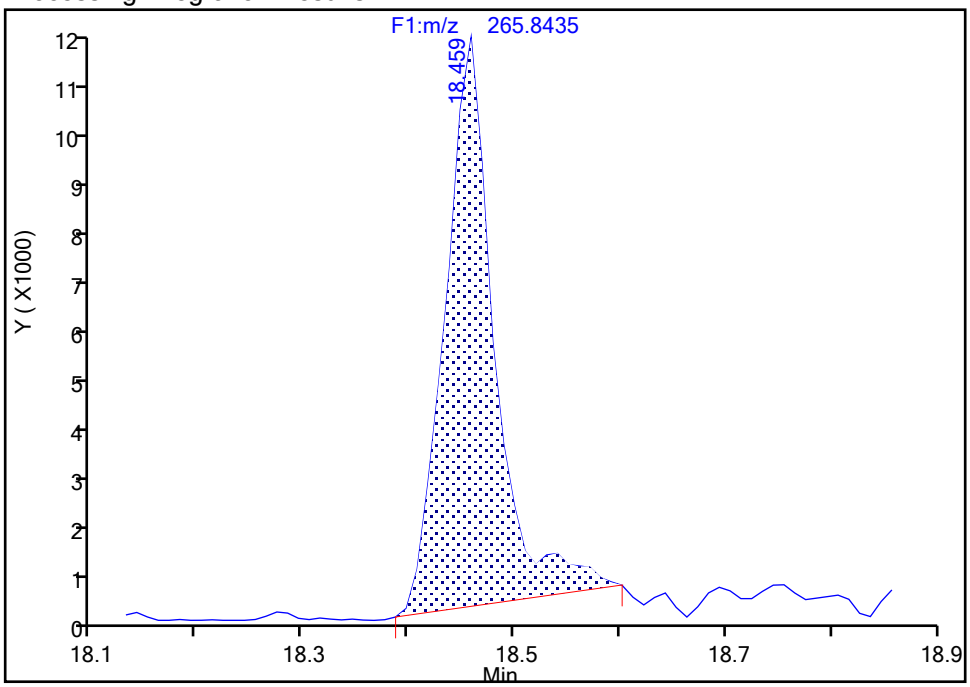
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d				
Injection Date:	05-May-2025 18:32:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-9-B	Lab Sample ID:	140-40836-9		
Client ID:	ASPECT.PRC.BLK3				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 2

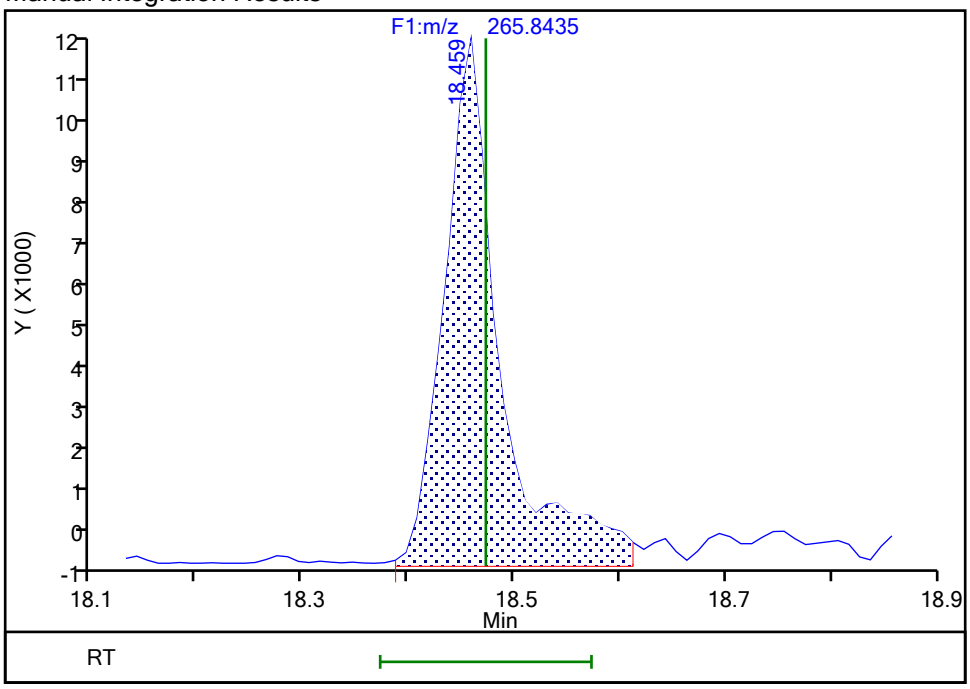
Processing Integration Results

RT: 18.46
Area: 35717
Amount: 0.320390
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 41376
Amount: 0.325920
Amount Units: pg/ul



Reviewer: TT6I, 06-May-2025 19:27:33 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

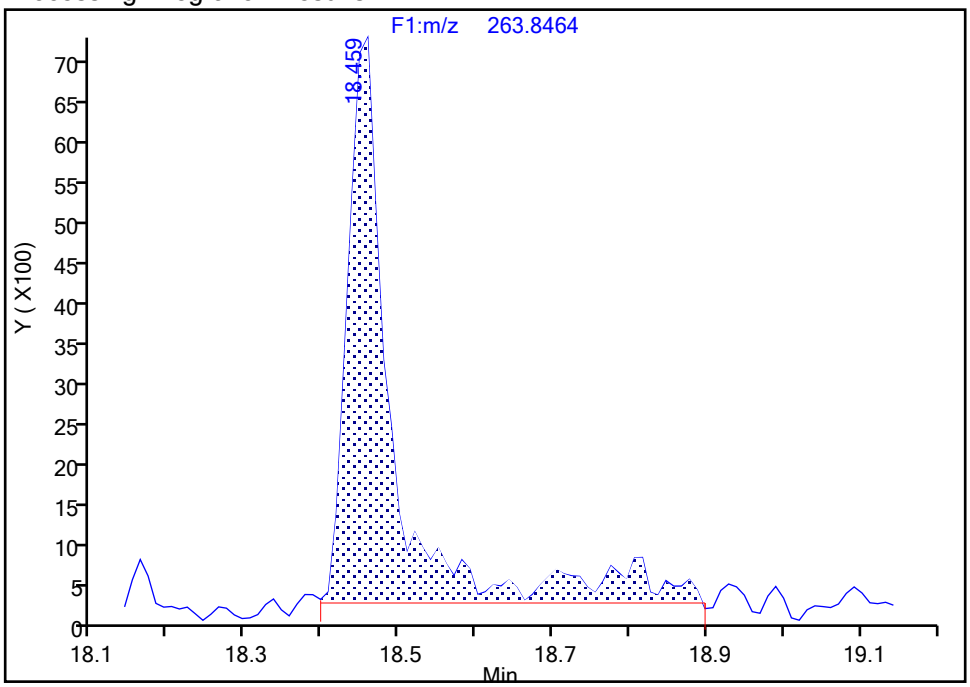
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\140-40836-a-9-a.d				
Injection Date:	05-May-2025 18:32:00	Instrument ID:	D3PST		
Lims ID:	140-40836-A-9-B	Lab Sample ID:	140-40836-9		
Client ID:	ASPECT.PRC.BLK3				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

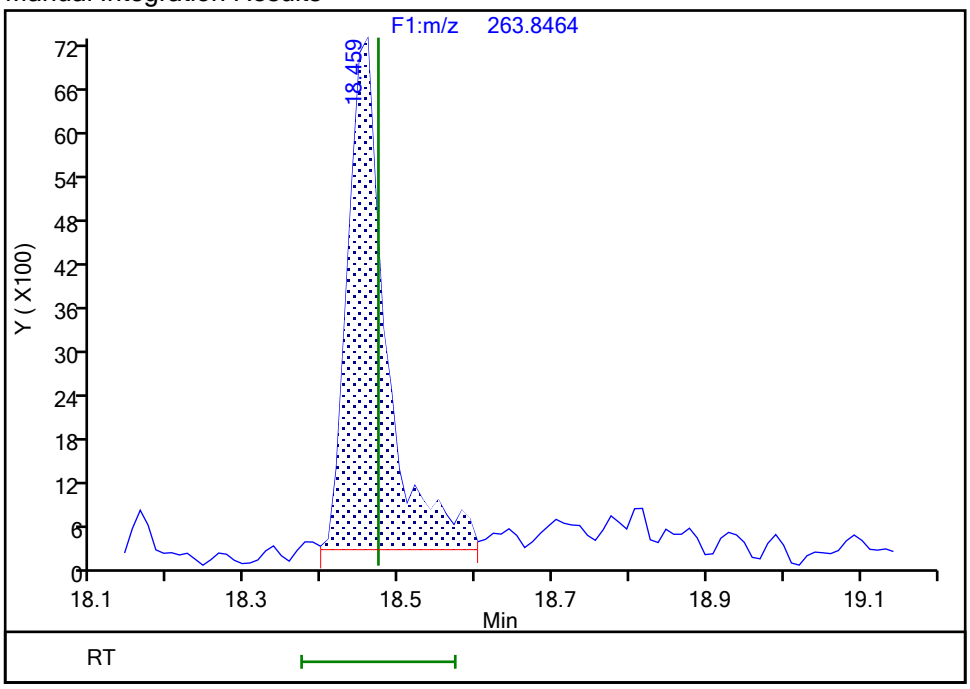
Processing Integration Results

RT: 18.46
Area: 28827
Amount: 0.320390
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 24282
Amount: 0.325920
Amount Units: pg/ul



Reviewer: TT6I, 06-May-2025 19:27:39 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 Calibration End Date: 03/20/2025 01:05 Calibration ID: 6065

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-97380/1	d3250319ic1_20250319174618.d
Level 2	IC 140-97380/2	d3250319ic2.d
Level 3	IC 140-97380/3	d3250319ic3.d
Level 4	IC 140-97380/4	d3250319ic4.d
Level 5	IC 140-97380/5	d3250319ic5.d
Level 6	IC 140-97380/6	d3250319ic6.d
Level 7	IC 140-97380/7	d3250319ic7.d
Level 8	IC 140-97380/8	d3250319ic8.d
Level 9	IC 140-97380/9	d3250319ic9.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
alpha-BHC	+++++ 1.0458	+++++ 1.0319	1.1305 1.0649	1.1384 1.1253	1.1192	AveID		1.0937				4.1		20.0			
Hexachlorobenzene	1.4166 1.0109	1.2325 1.0505	1.1250 1.1092	1.1251 1.2359	1.1055	AveID		1.1568				10.5		20.0			
PCB-14	1.5595 1.3746	1.6391 1.4602	1.1111 +++++	1.1252	1.2369	Ave		1.3581				15.3		35.0			
beta-BHC	+++++ 0.9734	+++++ 0.9828	+++++ 0.9857	+++++ 1.0290	1.0556	AveID		1.0053				3.5		20.0			
Pentachlorophenol	+++++ 0.9428	+++++ 0.0785	+++++ 1.0536	+++++ 0.9622	1.1424	Ave		0.8359				51.5	*	35.0			
gamma-BHC (Lindane)	0.9306	0.8947	0.8982	0.9808	1.0179	AveID		0.9800				7.3		20.0			
delta-BHC	+++++ 1.0729	+++++ 1.0557	1.1361 1.0597	1.2733 +++++	1.1483	AveID		1.1243				7.4		20.0			
Heptachlor	1.0211 1.0992	0.9610 1.1105	1.1539 1.0693	1.1606 1.0825	1.1195	AveID		1.0864				5.8		20.0			
PCB-36	1.2009 0.9830	1.2331 1.0617	0.8711 +++++	0.8842	0.9274	Ave		1.0230				14.4		35.0			
PCB-104	+++++ 1.7801	+++++ 1.7652	1.9536 +++++	1.8045	1.8823	Ave		1.8372				4.3		35.0			
Aldrin	1.1277 1.0476	1.1207 1.0571	1.0551 1.0320	1.1332 1.0968	1.1321	AveID		1.0892				3.8		20.0			
Heptachlor epoxide	+++++ 1.1519	+++++ 1.1256	1.2243 1.1051	1.1358 1.1492	1.1308	AveID		1.1461				3.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 Calibration End Date: 03/20/2025 01:05 Calibration ID: 6065

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
oxy-Chlordane	+++++ 1.0841	1.2808 1.2013	0.6746 1.1321	1.2268 1.1108	1.1211	AveId		1.1040				16.8		20.0			
PCB-121	1.8371 1.3607	1.8289 1.2932	1.3012 +++++	1.2601	1.3541	Ave		1.4622				17.5		35.0			
PCB-142	2.4688 1.8883	2.4552 1.7493	1.9477 +++++	1.7780	1.9026	Ave		2.0271				15.1		35.0			
gamma-Chlordane	+++++ 1.1265	+++++ 1.0733	1.2974 1.0815	1.2324 1.0674	1.1243	AveId		1.1433				7.7		20.0			
2,4'-DDE	1.2869 1.1993	1.2812 1.2571	1.2385 1.3714	1.2863 1.3452	1.2816	AveId		1.2831				4.0		20.0			
Endosulfan I	+++++ 1.0894	+++++ 1.0397	+++++ 1.0886	1.2124 0.9691	1.1593	AveId		1.0931				7.9		20.0			
alpha-Chlordane	1.2381 0.9627	1.3055 0.9745	1.0419 0.9685	1.0684 0.9183	1.0179	AveId		1.0551				12.5		20.0			
trans-Nonachlor	+++++ 1.0702	+++++ 1.0399	1.1283 1.0631	1.1228 1.0341	1.0879	AveId		1.0780				3.4		20.0			
PCB-78	1.1162 0.8452	1.1094 0.8874	0.8146 +++++	0.8048	0.8296	Ave		0.9153				15.0		35.0			
4,4'-DDE	1.1917 1.1552	1.2300 1.1989	1.2290 1.2890	1.2580 1.4611	1.2608	AveId		1.2526				7.0		20.0			
Dieldrin	1.2394 1.0137	1.1226 1.0351	1.0121 0.9983	1.1247 0.9977	1.1030	AveId		1.0718				7.6		20.0			
2,4'-DDD	1.2356 1.1011	1.2613 1.0887	1.2058 1.1382	1.1421 1.2550	1.1591	AveId		1.1763				5.5		20.0			
Endrin	1.1510 1.0072	1.1532 0.9819	1.1409 0.9963	1.1036 0.9761	1.1001	AveId		1.0678				7.1		20.0			
Endosulfan II	+++++ 1.0503	+++++ 1.0304	+++++ 1.0852	1.0813 1.1463	1.1895	AveId		1.0972				5.5		20.0			
4,4'-DDD	+++++ 1.1305	1.3267 1.1268	1.2780 1.1844	1.2823 1.3020	1.2455	AveId		1.2345				6.3		20.0			
2,4'-DDT	+++++ 1.1504	1.2726 1.0929	1.3197 1.0619	1.1819 1.1562	1.2114	AveId		1.1809				7.3		20.0			
cis-Nonachlor	+++++ 0.9894	+++++ 1.0301	1.3306 1.0495	0.9764 1.0307	1.1238	AveId		1.0758				11.3		20.0			
PCB-155	0.9641 0.9156	1.1187 0.9261	0.8000 +++++	0.8054	0.9037	Ave		0.9191				11.7		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 Calibration End Date: 03/20/2025 01:05 Calibration ID: 6065

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Endrin aldehyde	+++++ 1.0815	+++++	0.8264 +++++	1.3668 +++++	1.0498	AveID		1.1278				19.4		20.0			
PCB-184	1.3582 1.1252	1.4255 1.1388	0.9789 +++++	1.0038	1.0962	Ave		1.1610				14.6		35.0			
Endosulfan sulfate	0.7917 1.0670	1.1068 1.1017	1.1658 1.1072	1.1906 1.0979	1.1189	AveID		1.0831				10.7		20.0			
4,4'-DDT	+++++ 1.1614	1.4312 1.1097	1.1855 1.1452	1.2544 1.1668	1.2223	AveID		1.2096				8.3		20.0			
Endrin ketone	+++++ 1.1001	+++++ 1.1589	1.1547 1.1602	1.2110 1.1384	1.1587	AveID		1.1546				2.8		20.0			
Methoxychlor	+++++ 1.2261	1.4642 1.2074	1.3984 1.2474	1.3667 1.3425	1.3454	AveID		1.3248				6.8		20.0			
PCB-204	0.8889 0.7179	0.8080 0.7503	0.6103 +++++	0.6468	0.7327	Ave		0.7364				12.7		35.0			
PCB-192	0.8667 0.7595	0.9216 0.7388	0.6502 +++++	0.6638	0.7437	Ave		0.7635				13.0		35.0			
Mirex	0.9406 1.0337	1.0076 1.0374	0.9637 1.0080	1.0961 1.0314	1.0918	AveID		1.0234				5.0		20.0			
13C6-alpha BHC	+++++ 0.1700	+++++ 0.1655	0.1638 0.1728	0.1636 0.1915	0.1653	Ave		0.1704				5.8		35.0			
13C6-Hexachlorobenzene	0.4924 0.5093	0.4875 0.5120	0.4878 0.5151	0.4835 0.5337	0.5151	Ave		0.5041				3.4		35.0			
13C6-beta BHC	+++++ 0.1207	+++++ 0.1197	+++++ 0.1251	+++++ 0.1383	0.1181	Ave		0.1244				6.6		35.0			
13C6-gamma BHC	+++++ 0.1513	+++++ 0.1568	+++++ 0.1713	+++++ 0.1971	0.1463	Ave		0.1646				12.4		35.0			
13C6-delta BHC	+++++ 0.0975	+++++ 0.1027	0.0921 0.1150	0.0919 +++++	0.0960	Ave		0.0992				8.8		35.0			
13C10-Heptachlor	0.0712 0.0675	0.0731 0.0698	0.0719 0.0711	0.0705 0.0765	0.0721	Ave		0.0715				3.4		35.0			
13C12-Aldrin	0.1314 0.1410	0.1311 0.1397	0.1277 0.1551	0.1258 0.1621	0.1316	Ave		0.1384				9.1		35.0			
13C10-cis Heptachlor Epoxide	+++++ 0.1448	+++++ 0.1461	0.1425 0.1467	0.1496 0.1514	0.1636	Ave		0.1493				4.7		35.0			
13C10-oxy Chlordane	+++++ 0.0479	0.0459 0.0453	0.0531 0.0458	0.0434 0.0522	0.0509	Ave		0.0481				7.5		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 Calibration End Date: 03/20/2025 01:05 Calibration ID: 6065

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
13C10-trans Chlordane	+++++ 0.1527	+++++ 0.1644	0.1656 0.1680	0.1516 0.1809	0.1649	Ave		0.1640				6.0		35.0			
13C12-2,4'-DDE	2.6786 2.6200	2.6420 2.7495	2.7118 2.8812	2.5503 3.0825	2.6941	Ave		2.7345				5.8		35.0			
13C9-Endosulfan I	+++++ 0.0506	+++++ 0.0535	+++++ 0.0538	0.0543 0.0674	0.0535	Ave		0.0555				10.8		35.0			
13C10-cis Chlordane	0.1697 0.1669	0.1695 0.1700	0.1732 0.1781	0.1618 0.2054	0.1725	Ave		0.1741				7.2		35.0			
13C10-trans Nonachlor	+++++ 0.1159	+++++ 0.1207	0.1228 0.1241	0.1170 0.1404	0.1221	Ave		0.1233				6.6		35.0			
13C12-4,4'-DDE	1.9706 1.8828	1.7559 1.8598	1.7744 1.9648	1.7460 2.0070	1.8122	Ave		1.8637				5.3		35.0			
13C12-Dieldrin	0.2039 0.2072	0.1953 0.1918	0.1893 0.2063	0.1883 0.2166	0.1932	Ave		0.1991				4.9		35.0			
13C12-2,4'-DDD	1.4373 1.3579	1.2940 1.2763	1.2621 1.3938	1.2965 1.4742	1.3459	Ave		1.3487				5.5		35.0			
13C12-Endrin	0.1399 0.1129	0.1180 0.1152	0.1181 0.1117	0.1211 0.1130	0.1130	Ave		0.1181				7.4		35.0			
13C9-Endosulfan II	+++++ 0.0269	+++++ 0.0245	+++++ 0.0254	0.0220 0.0258	0.0241	Ave		0.0248				6.9		35.0			
13C12-4,4'-DDD	+++++ 1.1815	1.1139 1.1088	1.0871 1.1614	1.0859 1.2596	1.1155	Ave		1.1392				5.2		35.0			
13C12-2,4'-DDT	+++++ 0.6427	0.6793 0.6611	0.6625 0.6914	0.6851 0.7263	0.6547	Ave		0.6754				3.9		35.0			
13C10-cis Nonachlor	+++++ 0.0996	+++++ 0.0929	0.0850 0.0972	0.0902 0.1045	0.0916	Ave		0.0944				6.8		35.0			
13C12-Endrin Aldehyde	+++++ 0.0336	0.0168 +++++	0.0197 +++++	0.0153 +++++	0.0332	Ave		0.0237				37.8	*	35.0			
13C9-Endosulfan sulfate	0.1689 0.1550	0.1354 0.1495	0.1445 0.1562	0.1355 0.1680	0.1521	Ave		0.1517				8.0		35.0			
13C12-4,4'-DDT	+++++ 0.5389	0.5780 0.5856	0.5896 0.5802	0.5848 0.6350	0.5543	Ave		0.5808				4.8		35.0			
13C11-Endrin Ketone	+++++ 0.0672	+++++ 0.0602	0.0668 0.0618	0.0671 0.0646	0.0659	Ave		0.0648				4.3		35.0			
13C12-Methoxychlor	+++++ 0.6340	0.6643 0.6739	0.6760 0.6765	0.6872 0.7174	0.6382	Ave		0.6709				4.0		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 Calibration End Date: 03/20/2025 01:05 Calibration ID: 6065

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
13C10-Mirex	0.9627 0.9450	0.9743 0.8684	0.9790 0.9036	0.9326 1.0011	0.9467	Ave		0.9459				4.3		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 | Calibration End Date: 03/20/2025 01:05 | Calibration ID: 6065

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-97380/1	d3250319ic1_20250319174618.d
Level 2	IC 140-97380/2	d3250319ic2.d
Level 3	IC 140-97380/3	d3250319ic3.d
Level 4	IC 140-97380/4	d3250319ic4.d
Level 5	IC 140-97380/5	d3250319ic5.d
Level 6	IC 140-97380/6	d3250319ic6.d
Level 7	IC 140-97380/7	d3250319ic7.d
Level 8	IC 140-97380/8	d3250319ic8.d
Level 9	IC 140-97380/9	d3250319ic9.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
alpha-BHC		AveID	+++++ 7534627	+++++ 20014310	81776 48281970	395423 117459794	1945501	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
Hexachlorobenzene		AveID	82062 21822267	134697 63029238	242333 149918916	1155296 359514754	5987858	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
PCB-14	PCB15L	Ave	922154 73092288	1880101 171764524	6164996 +++++	12011854	32650133	2.51 251	5.12 502	25.1 +++++	50.3	126
beta-BHC		AveID	+++++ 4979403	+++++ 13785712	+++++ 32359283	+++++ 77594510	1310739	+++++ 200	+++++ 500	+++++ 1000	+++++ 2000	50.0
Pentachlorophenol	13PCP	Ave	+++++ 397848	+++++ 19750	+++++ 15611001	+++++ 84177392	29004	+++++ 2000	+++++ 3000	+++++ 5000	+++++ 10000	1000
gamma-BHC (Lindane)		AveID	18947 5969448	32978 16435985	60717 40372633	283718 105389023	1566020	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
delta-BHC		AveID	+++++ 4432024	+++++ 12710210	46190 31967615	248412 +++++	1159385	+++++ 200	+++++ 500	2.00 1000	10.0 +++++	50.0
Heptachlor		AveID	8548 3144906	15737 9077309	36635 19935693	173810 45118522	848419	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
PCB-36	PCB15L	Ave	710116 52265824	1414437 124888396	4833603 +++++	9438785	24478909	2.51 251	5.12 502	25.1 +++++	50.3	126
PCB-104	PCB101L	Ave	+++++ 29349310	+++++ 65894705	2880608 +++++	5483049	14454671	+++++ 251	+++++ 502	25.1 +++++	50.3	126
Aldrin		AveID	17437 6261281	32942 17311132	59502 42000143	302802 96935949	1566002	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
Heptachlor epoxide		AveID	+++++ 2192657	+++++ 6117161	20468 13728653	102738 30965962	565856	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
oxy-Chlordane		AveID	+++++ 682225	3692 2023383	4201 4394066	32148 10315219	174732	+++++ 200	1.00 500	2.00 1000	10.0 2000	50.0

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 | Calibration End Date: 03/20/2025 01:05 | Calibration ID: 6065

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
PCB-121	PCB118L	Ave	277258 20443539	571884 47043241	1963014 +++++	3652417	10051172	2.51 251	5.12 502	25.1 +++++	50.3	126
PCB-142	PCB138L	Ave	252877 18415360	474929 41396134	1777063 +++++	3280229	9088814	2.51 251	5.12 502	25.1 +++++	50.3	126
gamma-Chlordane		AveID	+++++ 2260879	+++++ 6563213	25201 15385694	112938 34372204	567165	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
2,4'-DDE		AveID	115229 41298636	212607 128534592	394075 334573524	1983035 738071807	10561861	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
Endosulfan I		AveID	+++++ 724333	+++++ 2067950	+++++ 4963077	39795 11630989	189646	+++++ 200	+++++ 500	+++++ 1000	10.0 2000	50.0
alpha-Chlordane		AveID	7024 2112363	13901 6160483	21172 14606093	104520 33579442	537114	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
trans-Nonachlor		AveID	+++++ 1630658	+++++ 4667906	16261 11168725	79422 25835090	406463	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
PCB-78	PCB60L	Ave	340851 25591629	655231 62605358	2341482 +++++	4512815	11942815	2.51 251	5.12 502	25.1 +++++	50.3	126
4,4'-DDE		AveID	70509 26051353	131971 80800322	261793 210628582	1266617 543141453	6755690	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
Dieldrin		AveID	7587 2516108	13396 7194272	22994 17124900	122103 40022541	630002	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
2,4'-DDD		AveID	53324 17908733	99735 50351279	182702 131947034	853850 342674825	4612671	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
Endrin		AveID	4835 1361647	8316 4098614	16171 9252127	77060 20422729	367590	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
Endosulfan II		AveID	+++++ 338771	+++++ 913391	+++++ 2292627	13699 5485327	84673	+++++ 200	+++++ 500	+++++ 1000	10.0 2000	50.0
4,4'-DDD		AveID	+++++ 15997592	90309 45277301	166787 114402667	802910 303753293	4108130	+++++ 200	1.00 500	2.00 1000	10.0 2000	50.0
2,4'-DDT		AveID	+++++ 8855709	52830 26183745	104956 61056501	466899 155532218	2345348	+++++ 200	1.00 500	2.00 1000	10.0 2000	50.0
cis-Nonachlor		AveID	+++++ 1179864	+++++ 3466489	13583 8479788	50800 19943011	304486	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
PCB-155	PCB167L	Ave	105511 9462059	233859 21720145	837632 +++++	1611112	4394214	2.51 251	5.12 502	25.1 +++++	50.3	126
Endrin aldehyde		AveID	+++++ 434848	+++++ 345875	1956 +++++	12072 +++++	103114	+++++ 200	+++++ 500	2.00 +++++	10.0 +++++	50.0
PCB-184	PCB167L	Ave	148650	297991	1024976	2007886	5329838	2.51	5.12	25.1	50.3	126

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 | Calibration End Date: 03/20/2025 01:05 | Calibration ID: 6065

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
			11628772	26710524	+++++			251	502	+++++		
Endosulfan sulfate		AveID	4014 1980650	9155 5967867	20227 14386772	93024 34166594	503091	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
4,4'-DDT		AveID	+++++ 7496858	50549 23548724	83908 55259453	423025 137226817	2003362	+++++ 200	1.00 500	2.00 1000	10.0 2000	50.0
Endrin ketone		AveID	+++++ 885308	+++++ 2526490	9257 5959702	46885 13610881	225789	+++++ 200	+++++ 500	2.00 1000	10.0 2000	50.0
Methoxychlor		AveID	+++++ 9310222	59442 29486279	113486 70180456	541571 178385511	2538828	+++++ 200	1.00 500	2.00 1000	10.0 2000	50.0
PCB-204	PCB167L	Ave	97287 7419015	168896 17598444	638954 +++++	1293744	3562773	2.51 251	5.12 502	25.1 +++++	50.3	126
PCB-192	PCB167L	Ave	94856 7848643	192648 17327871	680774 +++++	1327827	3615911	2.51 251	5.12 502	25.1 +++++	50.3	126
Mirex		AveID	18451 7594881	37109 21235428	68494 48713034	375213 116070595	1966988	0.500 200	1.00 500	2.00 1000	10.0 2000	50.0
13C6-alpha BHC	PCB15L	Ave	+++++ 3602215	+++++ 3879111	3616931 4533782	3473544 5219117	3476623	+++++ 100	+++++ 100	100 100	100 100	100
13C6-Hexachlorobenzene	PCB15L	Ave	11585363 10793829	10928463 11999536	10769888 13515929	10268098 14544754	10832762	100 100	100 100	100 100	100 100	100
13C6-beta BHC	PCB15L	Ave	+++++ 2557654	+++++ 2805446	+++++ 3282927	+++++ 3770374	2483425	+++++ 100	+++++ 100	+++++ 100	+++++ 100	100
13C6-gamma BHC	PCB15L	Ave	+++++ 3207454	+++++ 3674094	+++++ 4494914	+++++ 5372811	3076879	+++++ 100	+++++ 100	+++++ 100	+++++ 100	100
13C6-delta BHC	PCB15L	Ave	+++++ 2065468	+++++ 2408030	2032901 3016759	1951007 +++++	2019258	+++++ 100	+++++ 100	100 100	100 +++++	100
13C10-Heptachlor	PCB15L	Ave	1674218 1430525	1637626 1634865	1587485 1864412	1497603 2083954	1515692	100 100	100 100	100 100	100 100	100
13C12-Aldrin	PCB15L	Ave	3092518 2988259	2939406 3275250	2819612 4069743	2671987 4419139	2766658	100 100	100 100	100 100	100 100	100
13C10-cis Heptachlor Epoxide	PCB101L	Ave	+++++ 951795	+++++ 1086929	835898 1242301	904552 1347280	1000792	+++++ 100	+++++ 100	100 100	100 100	100
13C10-oxy Chlordane	PCB101L	Ave	+++++	288259	311350	262046	311703	+++++	100	100	100	100

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 | Calibration End Date: 03/20/2025 01:05 | Calibration ID: 6065

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
			314648	336854	388129	464307		100	100	100	100	
13C10-trans Chlordane	PCB101L	Ave	+++++	+++++	971218	916428	1008927	+++++	+++++	100	100	100
			1003496	1222995	1422586	1610060		100	100	100	100	
13C12-2,4'-DDE	PCB101L	Ave	17908052	16594338	15908848	15416392	16482260	100	100	100	100	100
			17217611	20449120	24396662	27432688		100	100	100	100	
13C9-Endosulfan I	PCB101L	Ave	+++++	+++++	+++++	328225	327174	+++++	+++++	+++++	100	100
			332448	397808	455915	600065		100	100	100	100	
13C10-cis Chlordane	PCB101L	Ave	1134598	1064763	1015999	978310	1055383	100	100	100	100	100
			1097051	1264317	1508057	1828268		100	100	100	100	
13C10-trans Nonachlor	PCB101L	Ave	+++++	+++++	720613	707361	747210	+++++	+++++	100	100	100
			761866	897767	1050555	1249144		100	100	100	100	
13C12-4,4'-DDE	PCB118L	Ave	11832887	10729782	10650504	10068209	10716903	100	100	100	100	100
			11275709	13478935	16340962	18586481		100	100	100	100	
13C12-Dieldrin	PCB118L	Ave	1224277	1193257	1135976	1085602	1142360	100	100	100	100	100
			1241069	1390078	1715445	2005741		100	100	100	100	
13C12-2,4'-DDD	PCB118L	Ave	8630963	7907262	7575823	7476238	7959246	100	100	100	100	100
			8132099	9249989	11592132	13652371		100	100	100	100	
13C12-Endrin	PCB118L	Ave	840105	721124	708690	698284	668257	100	100	100	100	100
			675965	834838	928689	1046109		100	100	100	100	
13C9-Endosulfan II	PCB118L	Ave	+++++	+++++	+++++	126689	142362	+++++	+++++	+++++	100	100
			161272	177294	211255	239256		100	100	100	100	
13C12-4,4'-DDD	PCB118L	Ave	+++++	6806981	6525324	6261644	6596906	+++++	100	100	100	100
			7075560	8036142	9659031	11665283		100	100	100	100	
13C12-2,4'-DDT	PCB118L	Ave	+++++	4151353	3976573	3950338	3871977	+++++	100	100	100	100
			3848812	4791427	5749965	6725978		100	100	100	100	
13C10-cis Nonachlor	PCB118L	Ave	+++++	+++++	510427	520255	541902	+++++	+++++	100	100	100
			596251	673057	807977	967451		100	100	100	100	
13C12-Endrin Aldehyde	PCB118L	Ave	+++++	102596	118346	88324	196439	+++++	100	100	100	100
			201048	+++++	+++++	+++++		100	+++++	+++++	+++++	

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 97380

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/19/2025 17:47 | Calibration End Date: 03/20/2025 01:05 | Calibration ID: 6065

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
13C9-Endosulfan sulfate	PCB118L	Ave	1014056 928164	827165 1083345	867490 1299396	781321 1555959	899266	100 100	100 100	100 100	100 100	100
13C12-4,4'-DDT	PCB118L	Ave	+++++ 3227413	3531914 4244185	3539049 4825263	3372321 5880512	3278145	+++++ 100	100 100	100 100	100 100	100
13C11-Endrin Ketone	PCB118L	Ave	+++++ 402379	+++++ 436000	400828 513679	387153 597797	389726	+++++ 100	+++++ 100	100 100	100 100	100
13C12-Methoxychlor	PCB118L	Ave	+++++ 3796730	4059705 4884196	4057830 5626133	3962482 6644020	3773993	+++++ 100	100 100	100 100	100 100	100
13C10-Mirex	PCB138L	Ave	3923375 3673548	3683075 4094120	3553873 4832793	3423063 5626603	3603105	100 100	100 100	100 100	100 100	100

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	19 Mar 2025 16:30
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

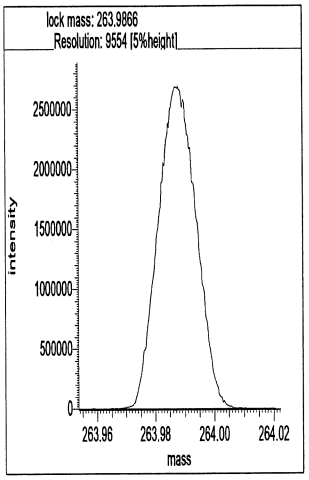
-d3250319ri-2

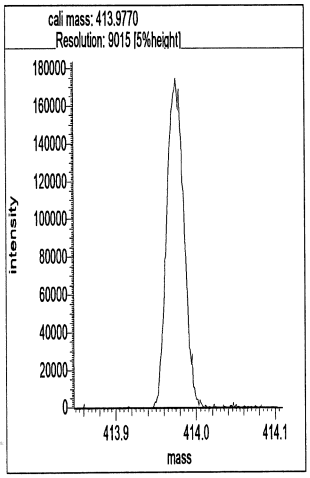
Segment 1

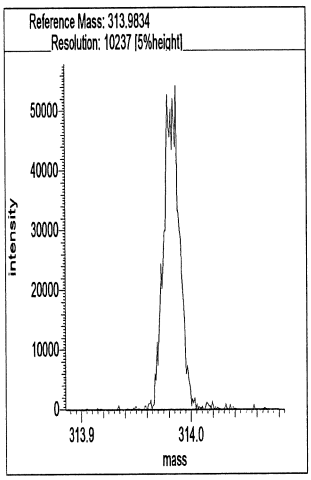
Lock mass 263.9866 [m/z] Resolution: 9554 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9015 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10237 [5%height]





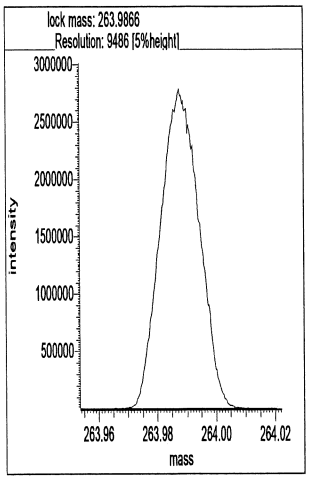


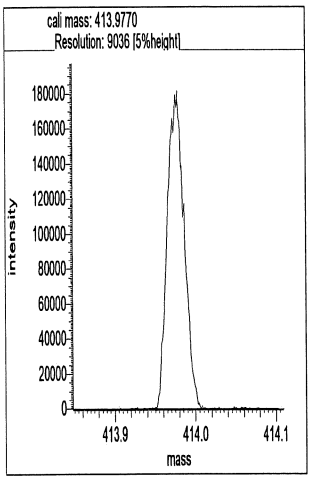
Segment 2

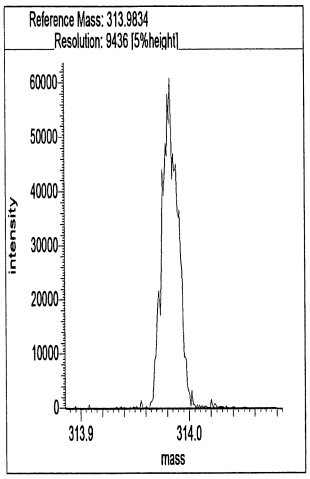
Lock mass 263.9866 [m/z] Resolution: 9486 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9036 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9436 [5%height]





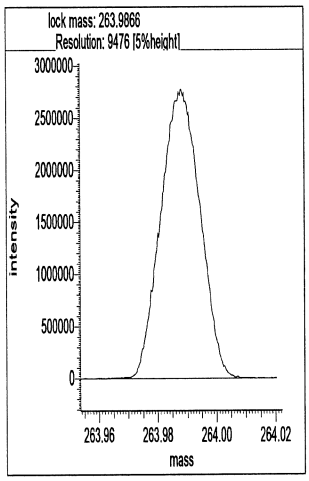


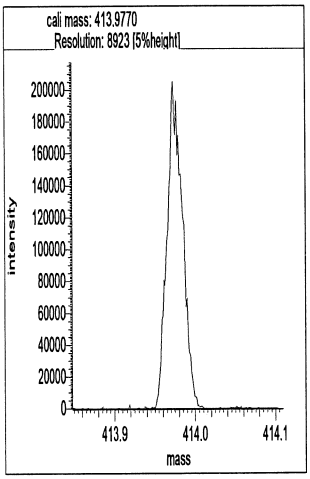
Segment 3

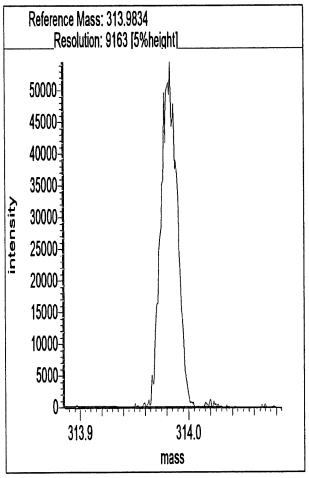
Lock mass 263.9866 [m/z] Resolution: 9476 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8923 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9163 [5%height]





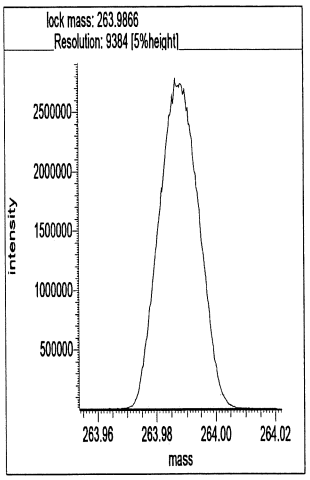


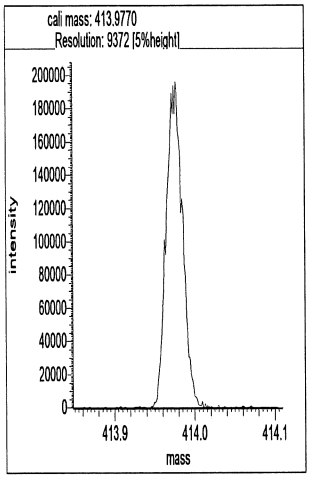
Segment 4

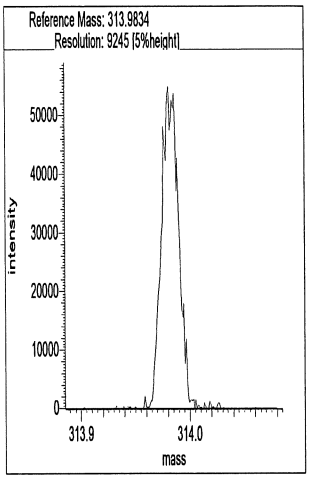
Lock mass 263.9866 [m/z] Resolution: 9384 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9372 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9245 [5%height]





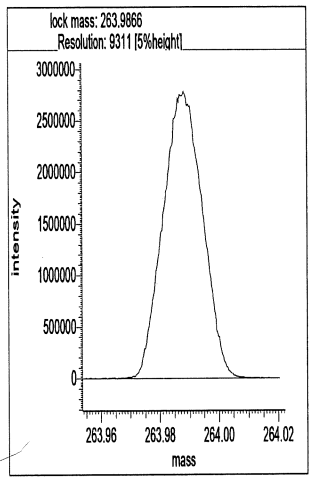


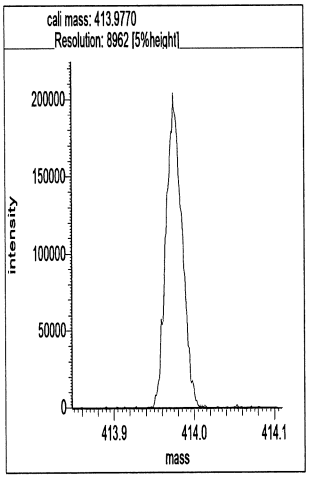
Segment 5

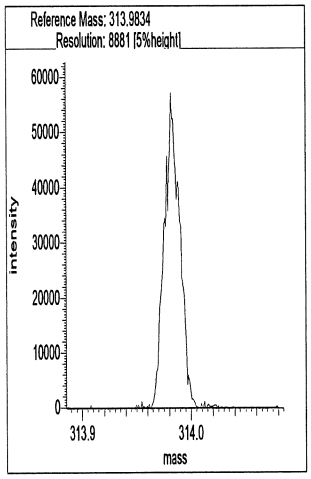
Lock mass 263.9866 [m/z] Resolution: 9311 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8962 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 8881 [5%height]





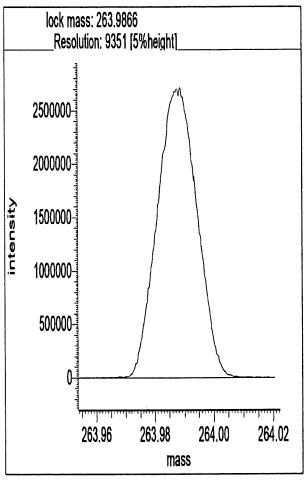


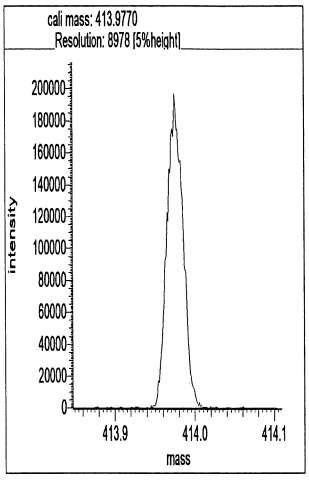
Segment 6

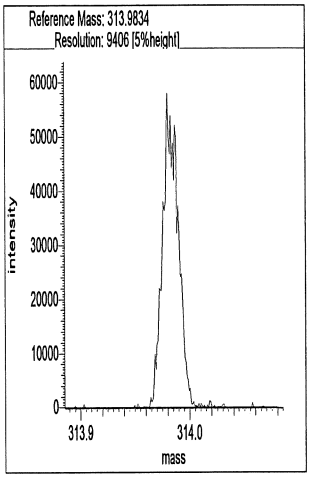
Lock mass 263.9866 [m/z] Resolution: 9351 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8978 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9406 [5%height]


lock mass: 263.9866
Resolution: 9351 [5%height]
intensity
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 8978 [5%height]
intensity
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9406 [5%height]
intensity
60000
50000
40000
30000
20000
10000
0
313.9
314.0
mass

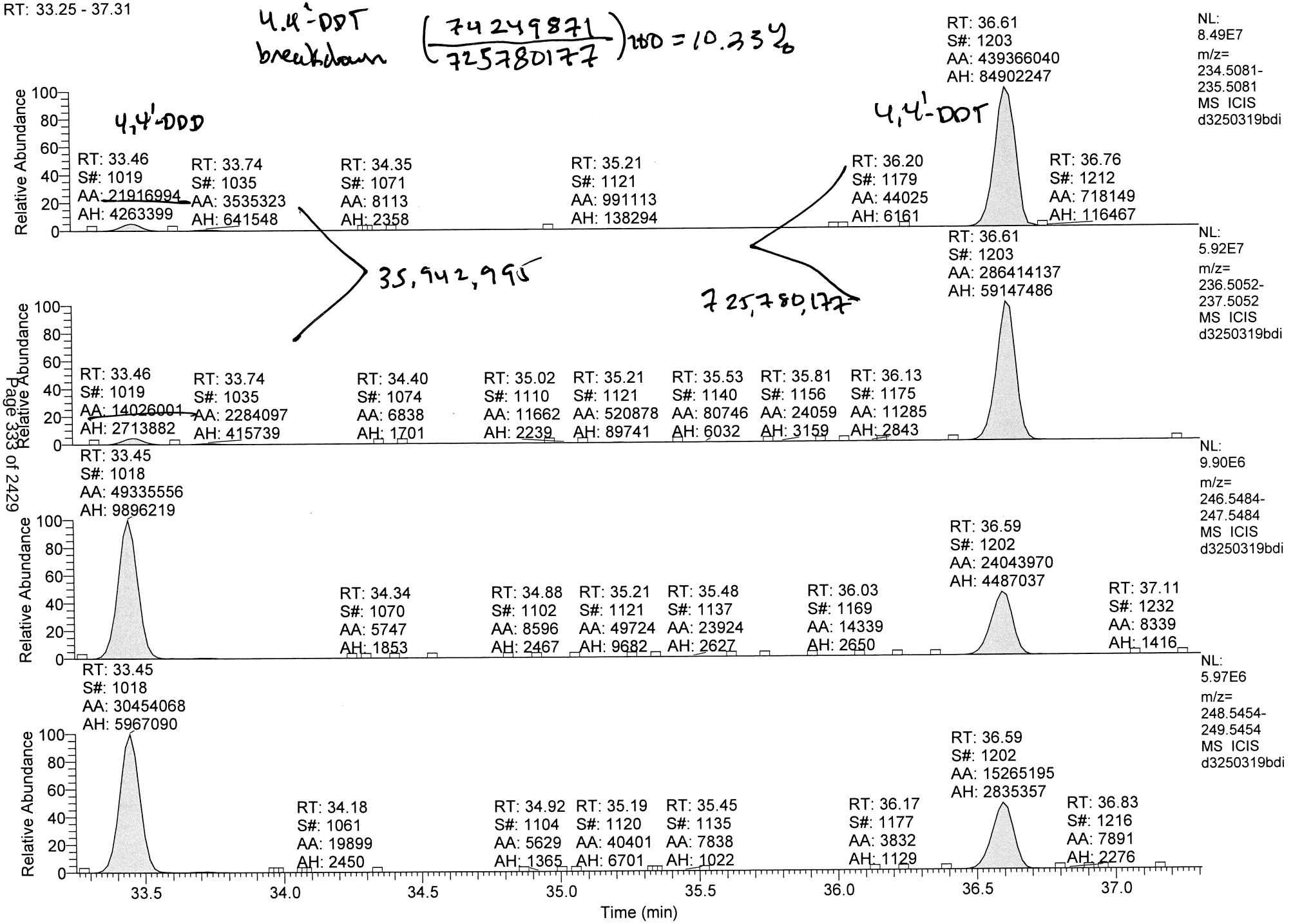
Reports

```
16:43:36:  Peak matching procedure started
16:43:36:
16:43:37:  Reference mass: 263.98656
16:43:37:  Sample mass: 414.0
16:43:38:
16:43:38:  Finding reference mass
16:43:39:  Finding sample mass
16:43:40:
16:43:45:  [1]   413.9683 amu, mean: 413.9683
16:43:49:  [2]   413.9680 amu, mean: 413.9681     SD: 0.25 mmu or: 0.61 ppm
16:43:52:  [3]   413.9688 amu, mean: 413.9683     SD: 0.41 mmu or: 0.98 ppm
16:43:55:  [4]   413.9686 amu, mean: 413.9684     SD: 0.35 mmu or: 0.85 ppm
16:43:58:  [5]   413.9673 amu, mean: 413.9682     SD: 0.58 mmu or: 1.39 ppm
16:44:01:  [6]   413.9671 amu, mean: 413.9680     SD: 0.67 mmu or: 1.62 ppm
16:44:04:  [7]   413.9678 amu, mean: 413.9680     SD: 0.62 mmu or: 1.49 ppm
16:44:08:  [8]   413.9673 amu, mean: 413.9679     SD: 0.62 mmu or: 1.50 ppm
16:44:11:  [9]   413.9668 amu, mean: 413.9678     SD: 0.68 mmu or: 1.65 ppm
16:44:14:  [10]   413.9663 amu, mean: 413.9676     SD: 0.79 mmu or: 1.91 ppm
16:44:17:  [11]   413.9670 amu, mean: 413.9676     SD: 0.77 mmu or: 1.87 ppm
16:44:19:
16:44:19:  Stop requested. Please wait for procedure to finish.
16:44:19:
16:44:20:  [12]   413.9666 amu, mean: 413.9675     SD: 0.79 mmu or: 1.91 ppm
16:44:22:
16:44:22:  Peakmatching stopped
```

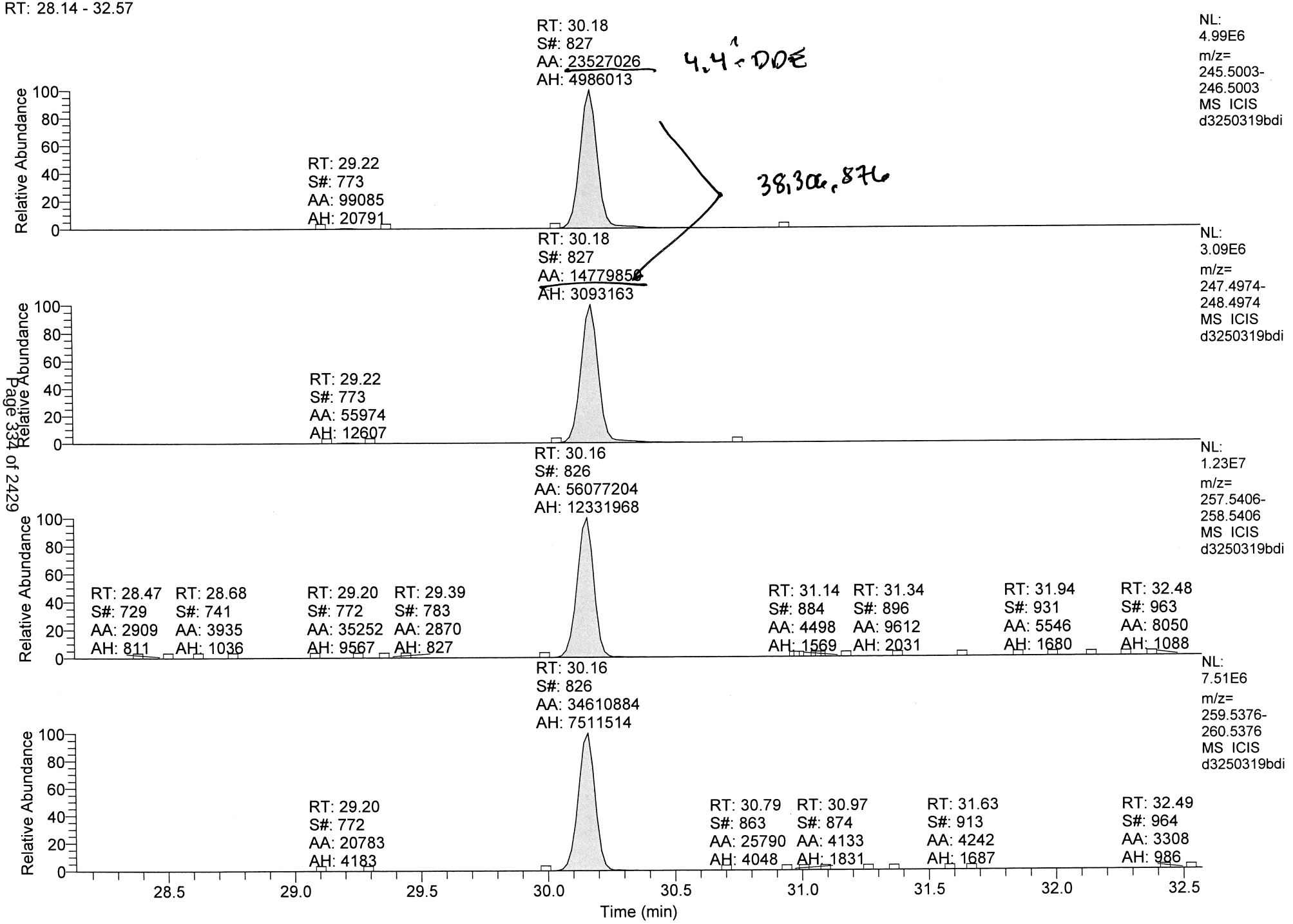
Signature 3/19/25

Xcalibur rev. 4.2, DC rev. 4.2 03/19/25 16:44:26

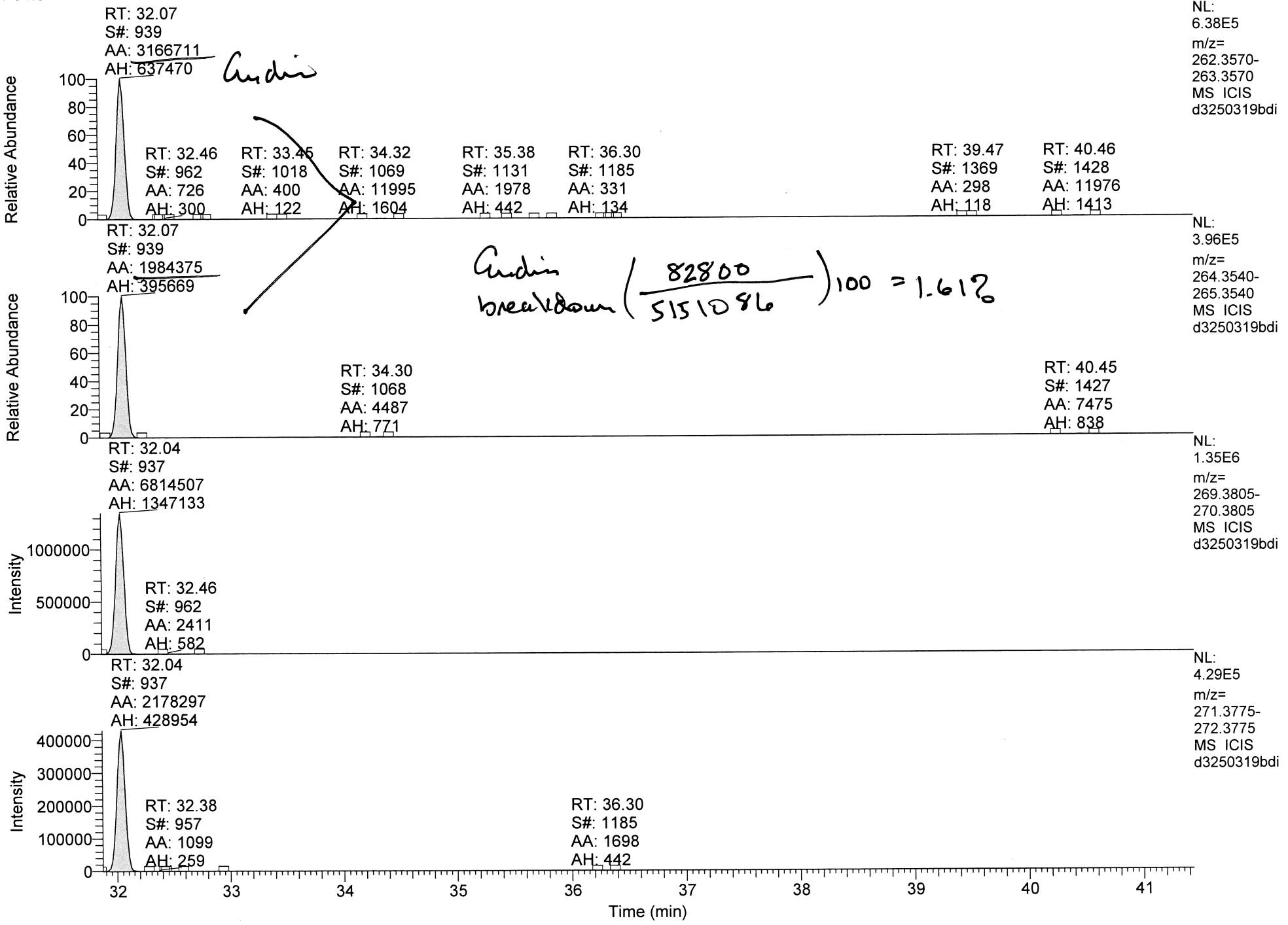
4,4'-DDT breakdown $\left(\frac{74249871}{72578017}\right)100 = 10.33\%$

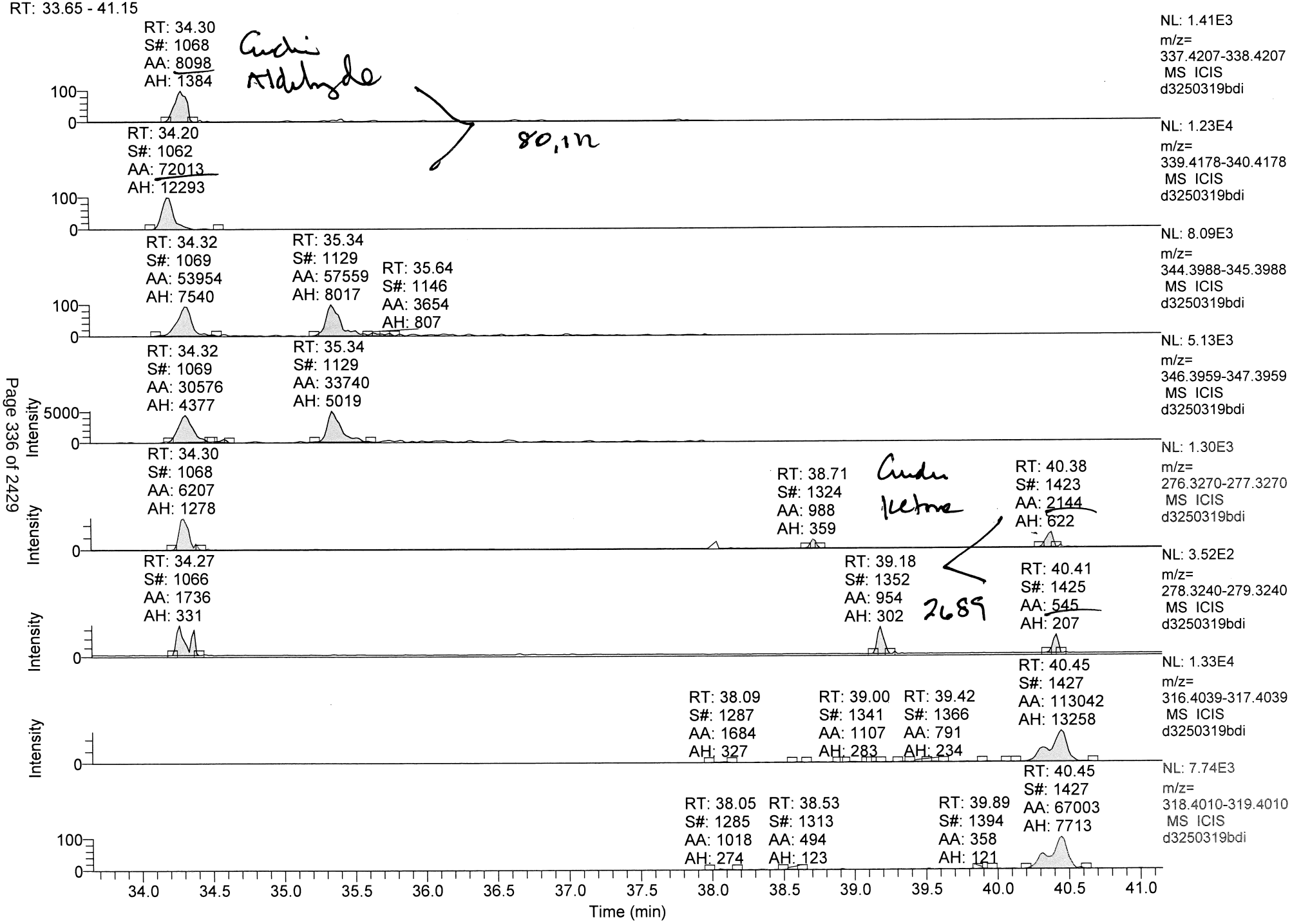


RT: 28.14 - 32.57


RT: 30.18
S#: 827
AA: 23527026
AH: 4986013
4,4'-DDE
38,306,876
NL:
4.99E6
m/z=
245.5003-
246.5003
MS ICIS
d3250319bdi
RT: 29.22
S#: 773
AA: 99085
AH: 20791
Relative Abundance
RT: 30.18
S#: 827
AA: 1477985
AH: 3093163
NL:
3.09E6
m/z=
247.4974-
248.4974
MS ICIS
d3250319bdi
RT: 29.22
S#: 773
AA: 55974
AH: 12607
RT: 30.16
S#: 826
AA: 56077204
AH: 12331968
NL:
1.23E7
m/z=
257.5406-
258.5406
MS ICIS
d3250319bdi
RT: 28.47
S#: 729
AA: 2909
AH: 811
RT: 28.68
S#: 741
AA: 3935
AH: 1036
RT: 29.20
S#: 772
AA: 35252
AH: 9567
RT: 29.39
S#: 783
AA: 2870
AH: 827
RT: 31.14
S#: 884
AA: 4498
AH: 1569
RT: 31.34
S#: 896
AA: 9612
AH: 2031
RT: 31.94
S#: 931
AA: 5546
AH: 1680
RT: 32.48
S#: 963
AA: 8050
AH: 1088
RT: 30.16
S#: 826
AA: 34610884
AH: 7511514
NL:
7.51E6
m/z=
259.5376-
260.5376
MS ICIS
d3250319bdi
RT: 29.20
S#: 772
AA: 20783
AH: 4183
RT: 30.79
S#: 863
AA: 25790
AH: 4048
RT: 30.97
S#: 874
AA: 4133
AH: 1831
RT: 31.63
S#: 913
AA: 4242
AH: 1687
RT: 32.49
S#: 964
AA: 3308
AH: 986
28.5
29.0
29.5
30.0
30.5
31.0
31.5
32.0
32.5
Time (min)

RT: 31.87 - 41.43


RT: 32.07
S#: 939
AA: 3166711
AH: 637470
Gudin
NL:
6.38E5
m/z=
262.3570-
263.3570
MS ICIS
d3250319bdi
Relative Abundance
RT: 32.46
S#: 962
AA: 726
AH: 300
RT: 33.45
S#: 1018
AA: 400
AH: 122
RT: 34.32
S#: 1069
AA: 11995
AH: 1604
RT: 35.38
S#: 1131
AA: 1978
AH: 442
RT: 36.30
S#: 1185
AA: 331
AH: 134
RT: 39.47
S#: 1369
AA: 298
AH: 118
RT: 40.46
S#: 1428
AA: 11976
AH: 1413
RT: 32.07
S#: 939
AA: 1984375
AH: 395669
Gudin breakdown (82800 / 5151086) 100 = 1.61%
NL:
3.96E5
m/z=
264.3540-
265.3540
MS ICIS
d3250319bdi
Relative Abundance
RT: 34.30
S#: 1068
AA: 4487
AH: 771
RT: 40.45
S#: 1427
AA: 7475
AH: 838
RT: 32.04
S#: 937
AA: 6814507
AH: 1347133
NL:
1.35E6
m/z=
269.3805-
270.3805
MS ICIS
d3250319bdi
Intensity
RT: 32.46
S#: 962
AA: 2411
AH: 582
RT: 32.04
S#: 937
AA: 2178297
AH: 428954
NL:
4.29E5
m/z=
271.3775-
272.3775
MS ICIS
d3250319bdi
Intensity
RT: 32.38
S#: 957
AA: 1099
AH: 259
RT: 36.30
S#: 1185
AA: 1698
AH: 442
Time (min)


RT: 34.30
S#: 1068
AA: 8098
AH: 1384
Crude Aldehyde
80,1n
NL: 1.41E3
m/z=
337.4207-338.4207
MS ICIS
d3250319bdi
RT: 34.20
S#: 1062
AA: 72013
AH: 12293
NL: 1.23E4
m/z=
339.4178-340.4178
MS ICIS
d3250319bdi
RT: 34.32
S#: 1069
AA: 53954
AH: 7540
RT: 35.34
S#: 1129
AA: 57559
AH: 8017
RT: 35.64
S#: 1146
AA: 3654
AH: 807
NL: 8.09E3
m/z=
344.3988-345.3988
MS ICIS
d3250319bdi
RT: 34.32
S#: 1069
AA: 30576
AH: 4377
RT: 35.34
S#: 1129
AA: 33740
AH: 5019
NL: 5.13E3
m/z=
346.3959-347.3959
MS ICIS
d3250319bdi
RT: 34.30
S#: 1068
AA: 6207
AH: 1278
RT: 38.71
S#: 1324
AA: 988
AH: 359
Crude Ketone
RT: 40.38
S#: 1423
AA: 2144
AH: 622
NL: 1.30E3
m/z=
276.3270-277.3270
MS ICIS
d3250319bdi
RT: 34.27
S#: 1066
AA: 1736
AH: 331
RT: 39.18
S#: 1352
AA: 954
AH: 302
2689
RT: 40.41
S#: 1425
AA: 545
AH: 207
NL: 3.52E2
m/z=
278.3240-279.3240
MS ICIS
d3250319bdi
RT: 38.09
S#: 1287
AA: 1684
AH: 327
RT: 39.00
S#: 1341
AA: 1107
AH: 283
RT: 39.42
S#: 1366
AA: 791
AH: 234
RT: 40.45
S#: 1427
AA: 113042
AH: 13258
NL: 1.33E4
m/z=
316.4039-317.4039
MS ICIS
d3250319bdi
RT: 38.05
S#: 1285
AA: 1018
AH: 274
RT: 38.53
S#: 1313
AA: 494
AH: 123
RT: 39.89
S#: 1394
AA: 358
AH: 121
RT: 40.45
S#: 1427
AA: 67003
AH: 7713
NL: 7.74E3
m/z=
318.4010-319.4010
MS ICIS
d3250319bdi
Intensity
Time (min)
34.0
34.5
35.0
35.5
36.0
36.5
37.0
37.5
38.0
38.5
39.0
39.5
40.0
40.5
41.0

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	20 Mar 2025 17:06
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

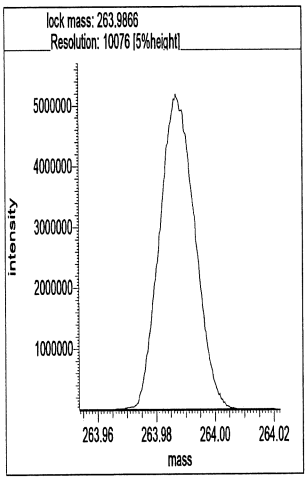
-d3250320:r1

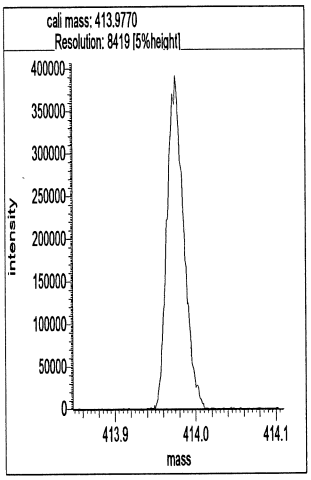
Segment 1

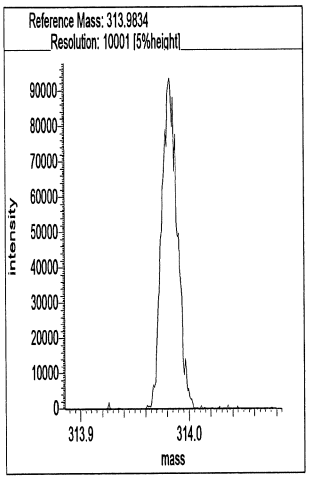
Lock mass 263.9866 [m/z] Resolution: 10076 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8419 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10001 [5%height]





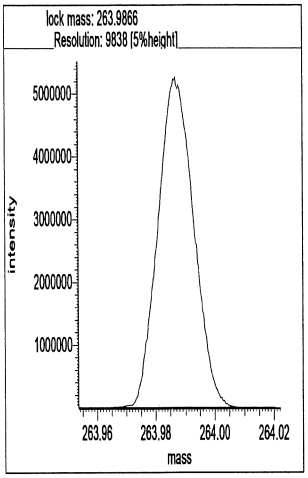


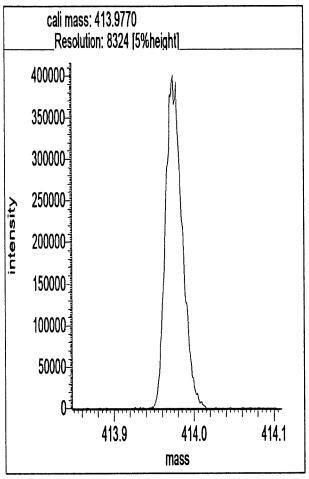
Segment 2

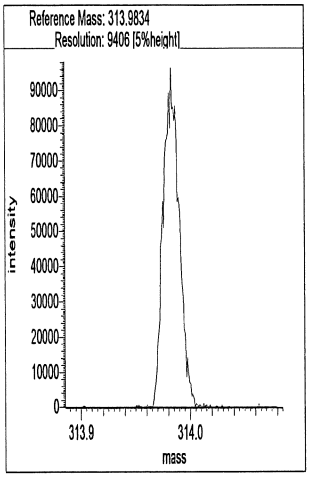
Lock mass 263.9866 [m/z] Resolution: 9838 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8324 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9406 [5%height]





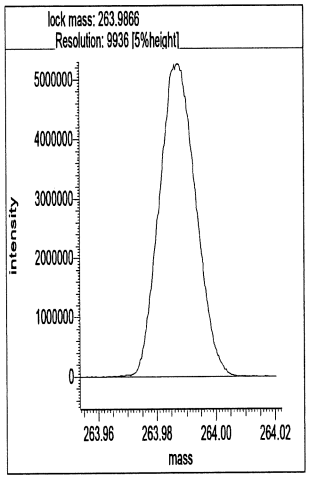


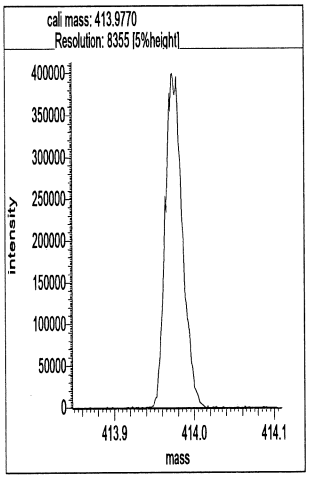
Segment 3

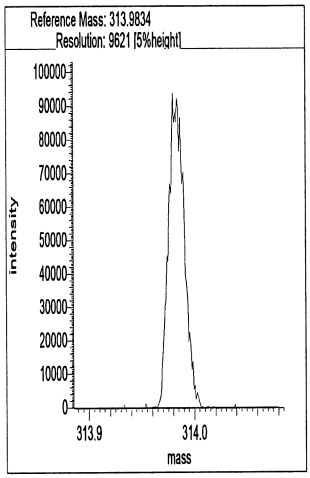
Lock mass 263.9866 [m/z] Resolution: 9936 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8355 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9621 [5%height]





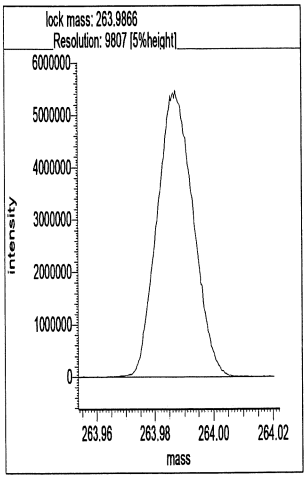


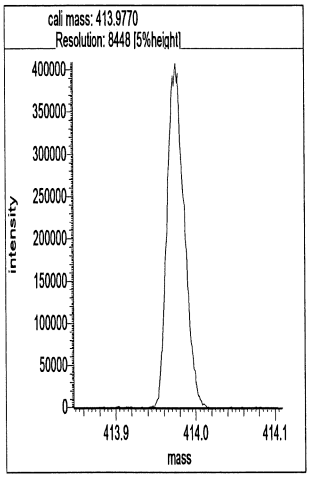
Segment 4

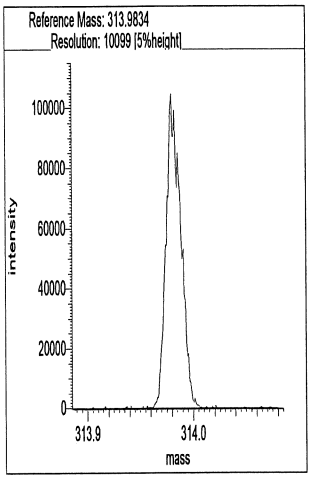
Lock mass 263.9866 [m/z] Resolution: 9807 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8448 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10099 [5%height]





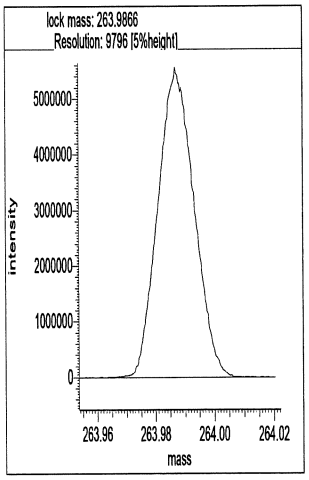


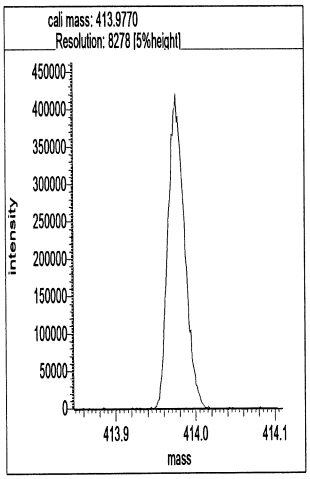
Segment 5

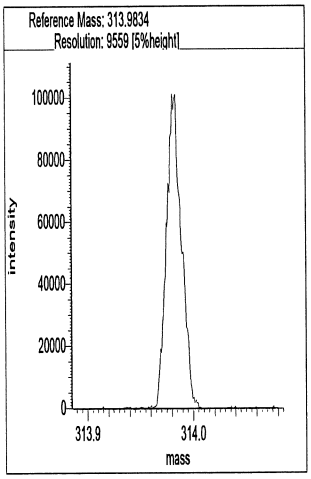
Lock mass 263.9866 [m/z] Resolution: 9796 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8278 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9559 [5%height]





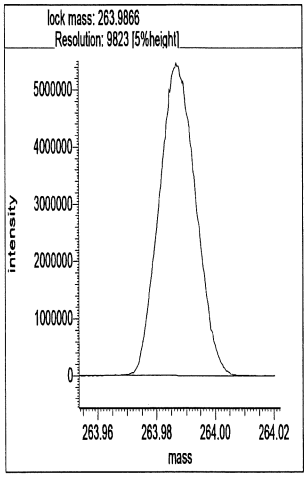


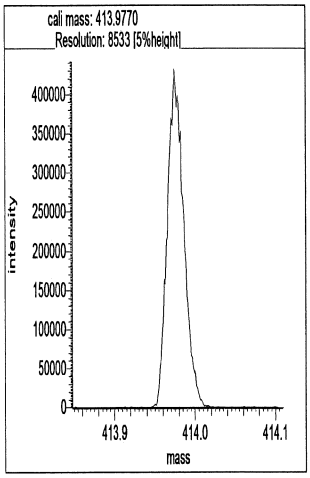
Segment 6

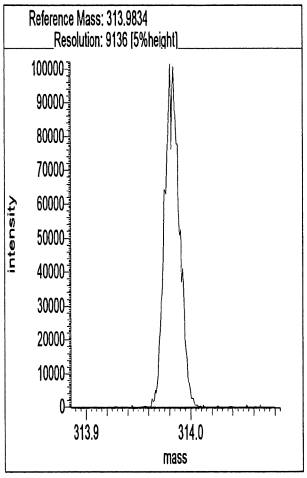
Lock mass 263.9866 [m/z] Resolution: 9823 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8533 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9136 [5%height]


lock mass: 263.9866
Resolution: 9823 [5%height]
intensity
5000000
4000000
3000000
2000000
1000000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 8533 [5%height]
intensity
400000
350000
300000
250000
200000
150000
100000
50000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9136 [5%height]
intensity
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
313.9
314.0
mass

Reports

```
17:19:19:  Peak matching procedure started
17:19:19:
17:19:20:  Reference mass: 263.98656
17:19:20:  Sample mass: 414.0
17:19:21:
17:19:21:  Finding reference mass
17:19:22:  Finding sample mass
17:19:23:
17:19:28:  [1]   413.9602 amu, mean: 413.9602
17:19:31:  [2]   413.9602 amu, mean: 413.9602     SD: 0.02 mmu or: 0.04 ppm
17:19:35:  [3]   413.9591 amu, mean: 413.9598     SD: 0.65 mmu or: 1.58 ppm
17:19:38:  [4]   413.9596 amu, mean: 413.9598     SD: 0.54 mmu or: 1.31 ppm
17:19:41:  [5]   413.9591 amu, mean: 413.9596     SD: 0.55 mmu or: 1.32 ppm
17:19:44:  [6]   413.9593 amu, mean: 413.9596     SD: 0.51 mmu or: 1.23 ppm
17:19:47:  [7]   413.9594 amu, mean: 413.9596     SD: 0.47 mmu or: 1.13 ppm
17:19:50:  [8]   413.9591 amu, mean: 413.9595     SD: 0.47 mmu or: 1.14 ppm
17:19:53:  [9]   413.9587 amu, mean: 413.9594     SD: 0.51 mmu or: 1.22 ppm
17:19:56:  [10]   413.9588 amu, mean: 413.9594     SD: 0.51 mmu or: 1.23 ppm
17:19:59:  [11]   413.9597 amu, mean: 413.9594     SD: 0.49 mmu or: 1.19 ppm
17:20:03:  [12]   413.9598 amu, mean: 413.9594     SD: 0.49 mmu or: 1.18 ppm
17:20:06:  [13]   413.9593 amu, mean: 413.9594     SD: 0.47 mmu or: 1.13 ppm
17:20:09:
17:20:09:  Stop requested. Please wait for procedure to finish.
17:20:09:
17:20:09:  [14]   413.9597 amu, mean: 413.9594     SD: 0.45 mmu or: 1.09 ppm
17:20:12:
17:20:12:  Peakmatching stopped
```

Signature 3/20/25

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-Mar-2025 17:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-001
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:05:45 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 24-Mar-2025 13:05:45

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:25	4011218	0.81	0.1704	100.1	100.1	0.1640	0.1640	100	
alpha-BHC	17:26	22953	0.58	1.0937	0.5232	0.5232	0.0122	0.0122	105	M
D 13C6-beta BHC	18:25	2672621	0.84	0.1244	91.3	91.3	0.2247	0.2247	91.33	
beta-BHC	18:26	15278	0.86	1.0053	0.5686	0.5686	0.0218	0.0218	114	
D 13C6-gamma BHC	18:42	3381714	0.80	0.1646	87.3	87.3	0.1698	0.1698	87.34	
gamma-BHC (Lindane)	18:43	18947	0.64	0.9800	0.5717	0.5717	0.0176	0.0176	114	
D 13C6-delta BHC	19:40	2309279	0.79	0.0992	99.0	99.0	0.2817	0.2817	98.96	
delta-BHC	19:40	12325	0.77	1.1243	0.6151	0.4747	0.0241	0.0241	123	RQM
D 13C10-Heptachlor	21:54	1674218	1.35	0.0715	99.5	99.5	0.0510	0.0510	99.53	
Heptachlor	21:55	8548	1.53	1.0864	0.4700	0.4700	0.000959	0.000959	93.99	
D 13C6-Hexachlorobenzene	17:44	11585363	1.28	0.5041	97.7	97.7	0.000129	0.000129	97.70	
Hexachlorobenzene	17:45	82062	1.38	1.1568	0.6123	0.6123	0.000103	0.000103	122	
D 13C12-Aldrin	23:46	3092518	1.56	0.1384	95.0	95.0	0.0160	0.0160	94.97	
Aldrin	23:47	17437	1.91	1.0892	0.5177	0.5177	0.006037	0.006037	104	
D 13C10-oxy Chlordane	26:11	358309	1.12	0.0481	111.5	111.5	0.006890	0.006890	112	
oxy-Chlordane	26:13	2919	1.18	1.1040	0.7379	0.7379	0.004690	0.004690	148	
D 13C10-cis Heptachlor Epoxide	26:08	1109396	1.20	0.1493	111.2	111.2	0.002218	0.002218	111	
Heptachlor epoxide	26:10	5236	1.42	1.1461	0.4118	0.4118	0.001698	0.001698	82.36	
D 13C12-2,4'-DDE	27:59	17908052	1.59	2.7345	98.0	98.0	0.0170	0.0170	97.96	
2,4'-DDE	28:00	115229	1.79	1.2831	0.5015	0.5015	0.004372	0.004372	100	
D 13C10-trans Chlordane	27:40	1043630	1.29	0.1640	95.2	95.2	0.008075	0.008075	95.17	
trans-Chlordane	27:42	6532	1.16	1.1433	0.5475	0.5475	0.0250	0.0250	109	
D 13C10-cis Chlordane	28:44	1134598	1.33	0.1741	97.5	97.5	0.007606	0.007606	97.46	
cis-Chlordane	28:45	7024	1.06	1.0551	0.5867	0.5867	0.0247	0.0247	117	M
D 13C10-trans Nonachlor	29:03	771801	1.13	0.1233	93.6	93.6	0.0107	0.0107	93.63	
trans-Nonachlor	29:05	3368	1.24	1.0780	0.5049	0.4048	0.0342	0.0342	101	RQM
D 13C9-Endosulfan I	28:34	348881	1.22	0.0555	94.0	94.0	0.0239	0.0239	93.99	
D 13C12-4,4'-DDE	30:13	11832887	1.57	1.8637	105.7	105.7	0.0675	0.0675	106	
4,4'-DDE	30:14	70509	1.60	1.2526	0.4757	0.4757	0.007882	0.007882	95.14	M
D 13C12-4,4'-DDD	33:30	7416196	1.62	1.1392	108.4	108.4	0.0184	0.0184	108	
4,4'-DDD	33:31	43868	1.56	1.2345	0.6051	0.4791	0.0586	0.0586	121	RQM
D 13C12-2,4'-DDT	33:47	4275957	1.63	0.6754	105.4	105.4	0.0310	0.0310	105	
2,4'-DDT	33:48	26580	1.56	1.1809	0.6706	0.5264	0.1028	0.1028	134	RQMa
D 13C12-4,4'-DDT	36:39	3649728	1.54	0.5808	104.6	104.6	0.0361	0.0361	105	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:39	25094	1.79	1.2096	0.5684	0.5684	0.1275	0.1275	114	nMa
D 13C12-Dieldrin	30:26	1224277	1.64	0.1991	102.4	102.4	0.0268	0.0268	102	
Dieldrin	30:27	7587	1.86	1.0718	0.5782	0.5782	0.0363	0.0363	116	
D 13C12-Endrin	32:06	840105	1.69	0.1181	118.5	118.5	0.0452	0.0452	118	
Endrin	32:08	4835	1.35	1.0678	0.5390	0.5390	0.0538	0.0538	108	
D 13C9-Endosulfan II	32:50	145413	1.25	0.0248	97.7	97.7	0.0563	0.0563	97.73	
Endosulfan II	32:55	724	1.24	1.0972	0.7283	0.4538	0.0195	0.0195	146	RQM
D 13C12-Endrin Aldehyde	34:22	188294	1.74	0.0237	132.2	132.2	0.2320	0.2320	132	
Endrin aldehyde	34:16						0.0665	0.0665		
D 13C12-Methoxychlor	41:59	4185881	15.86	0.6709	103.9	103.9	0.0706	0.0706	104	
Methoxychlor	42:01	27362	6.25	1.3248	0.5350	0.4934	0.0169	0.0169	107	RQM
D 13C11-Endrin Ketone	40:28	439963	1.82	0.0648	113.1	113.1	0.0570	0.0570	113	
Endrin ketone	40:32	2531	1.62	1.1546	0.4983	0.4983	0.005990	0.005990	99.65	M
D 13C10-Mirex	45:27	3923375	1.24	0.9459	101.8	101.8	0.0108	0.0108	102	
Mirex	45:29	18451	1.09	1.0234	0.4595	0.4595	0.000779	0.000779	91.91	
* PCB-15L	19:07	23526597	1.60		100.0	100.0				
PCB-14	17:51	922154	1.57	1.3581	2.886	2.886	0.002638	0.002638	115	
* 13C6-Pentachlorophenol (IS)	18:31									U
Pentachlorophenol	18:31						0.0	0.0		
PCB-36	22:12	710116	1.05	1.0230	2.950	2.950	0.000662	0.000662	117	
* PCB-101L	28:10	6685520	1.59		100.0	100.0				
PCB-104	23:46	409757	1.46	1.8372	3.336	3.336	0.000180	0.000180	133	
* PCB-118L	32:50	6004852	1.60		100.0	100.0				
PCB-121	26:46	277258	1.64	1.4622	3.158	3.158	0.001685	0.001685	126	
* PCB-138L	37:02	4075410	1.26		100.0	100.0				
PCB-142	27:32	252877	1.34	2.0271	3.061	3.061	0.000327	0.000327	122	
Endosulfan I	28:34	4232	1.55	1.0931	1.678	1.110	0.0593	0.0593	336	RQ
* PCB-60L	27:47	12150241	0.81		100.0	100.0				a
PCB-78	29:25	340851	0.77	0.9153	3.065	3.065	0.001481	0.001481	122	a
D 13C12-2,4'-DDD	30:54	8630963	1.59	1.3487	106.6	106.6	0.0871	0.0871	107	
2,4'-DDD	30:55	53324	1.90	1.1763	0.5252	0.5252	0.0247	0.0247	105	M
D 13C10-cis Nonachlor	33:51	605490	1.26	0.0944	106.8	106.8	0.0191	0.0191	107	
cis-Nonachlor	33:51	3532	1.22	1.0758	0.5422	0.5422	0.003882	0.003882	108	
D 13C9-Endosulfan sulfate	36:20	1014056	1.30	0.1517	111.3	111.3	0.0119	0.0119	111	
Endosulfan sulfate	36:21	4014	1.05	1.0831	0.3655	0.3655	0.002605	0.002605	73.10	
* PCB-167L	39:32	4354450	1.24		100.0	100.0				
PCB-155	34:02	105511	1.29	0.9191	2.636	2.636	0.001696	0.001696	105	
PCB-184	34:41	148650	1.03	1.1610	2.940	2.940	0.000560	0.000560	117	
PCB-204	42:20	97287	0.99	0.7364	3.034	3.034	0.000882	0.000882	121	
PCB-192	42:39	94856	0.98	0.7635	2.853	2.853	0.001191	0.001191	114	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- n - Failed Sig-To-Noise Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Reagents:

61L0.51699PST_00011 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-Mar-2025 17:47:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-001
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:05:45 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 24-Mar-2025 13:05:45

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:25	17:23	3	0.912	1790561	654154	685	1712	955		
224.9317	17:25	17:23	3	0.912	2220657	812752	173	432	4698	0.81(0.58-0.96)	
alpha-BHC											M
216.9145	17:26	17:23	3	1.001	8468	3360	1	2	3360		
218.9116	17:26	17:23	3	1.001	14485	5210	77	192	68	0.58(0.58-0.96)	M
13C6-beta BHC											
222.9342	18:25	18:22	3	0.964	1216394	405271	685	1712	592		
224.9317	18:25	18:22	3	0.964	1456227	484851	173	432	2803	0.84(0.58-0.96)	
beta-BHC											
216.9145	18:26	18:23	3	1.001	7076	2678	1	2	2678		
218.9116	18:25	18:23	2	1.000	8202	2657	77	192	35	0.86(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:42	18:39	3	0.979	1506214	497667	685	1712	727		
224.9317	18:41	18:39	3	0.978	1875500	630960	173	432	3647	0.80(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:43	18:40	3	1.001	7418	2671	1	2	2671		
218.9116	18:42	18:40	2	1.000	11529	3059	77	192	40	0.64(0.58-0.96)	
13C6-delta BHC											
222.9342	19:40	19:36	3	1.029	1016944	323525	685	1712	472		
224.9317	19:39	19:36	3	1.028	1292335	396843	173	432	2294	0.79(0.58-0.96)	
delta-BHC											RQM
216.9145	19:40	19:38	3	1.001	5362	1808	1	2	1808		
218.9116	19:40	19:38	3	1.001	10609	2826	77	192	37	0.51(0.58-0.96)	M
	Empc Correction				6963	2348	77	192	30		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:54	21:51	3	1.146	960536	274415	56	140	4900		
278.8240	21:54	21:51	3	1.146	713682	205747	56	140	3674	1.35(0.93-1.55)	
Heptachlor											
271.8102	21:55	21:52	3	1.001	5169	1355	1	2	1355		
273.8072	21:56	21:52	4	1.002	3379	835	1	2	835	1.53(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:44	17:42	3	0.928	6503820	2345953	1	2	2345953		
291.8273	17:44	17:42	3	0.928	5081543	1857968	1	2	1857968	1.28(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:45	17:42	3	1.001	47552	18086	1	2	18086		
285.8072	17:45	17:42	3	1.001	34510	12832	1	2	12832	1.38(0.93-1.55)	
13C12-Aldrin											
269.8805	23:46	23:44	3	1.244	1885716	478520	35	87	13672		
271.8775	23:46	23:44	3	1.244	1206802	312347	33	82	9465	1.56(1.16-1.94)	
Aldrin											
262.8569	23:47	23:45	2	1.001	11436	3215	5	12	643		
264.8540	23:48	23:45	3	1.001	6001	1686	16	40	105	1.91(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:11	26:08	3	0.930	189368	50634	1	2	50634		
398.8358	26:11	26:08	3	0.930	168941	45937	1	2	45937	1.12(0.78-1.30)	
oxy-Chlordane											
386.8052	26:13	26:10	3	1.002	1583	658	1	2	658		
388.8023	26:13	26:10	3	1.001	1336	583	1	2	583	1.18(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:08	26:06	3	0.928	606061	140730	1	2	140730		
364.8748	26:08	26:06	3	0.928	503335	116183	1	2	116183	1.20(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:10	26:08	3	1.001	3075	802	1	2	802		
354.8413	26:10	26:08	3	1.001	2161	528	1	2	528	1.42(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:59	27:56	3	0.994	10996275	2447258	194	485	12615		
260.0376	27:59	27:56	3	0.994	6911777	1509905	86	215	17557	1.59(1.17-1.95)	
2,4'-DDE											
246.0003	28:00	27:57	3	1.000	73871	15859	79	197	201		
247.9974	28:00	27:57	3	1.000	41358	10125	10	25	1013	1.79(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:40	27:38	3	0.983	588671	138318	7	17	19760		
278.8240	27:41	27:38	3	0.983	454959	96193	1	2	96193	1.29(0.93-1.55)	
trans-Chlordane											
271.8102	27:42	27:39	3	1.001	3506	1013	16	40	63		
273.8072	27:43	27:39	4	1.002	3026	614	11	27	56	1.16(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:44	28:41	3	1.020	646649	138287	7	17	19755		
278.8240	28:44	28:41	3	1.020	487949	118862	1	2	118862	1.33(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											M
271.8102	28:45	28:43	2	1.000	3612	738	16	40	46		
273.8072	28:45	28:43	2	1.000	3412	714	11	27	65	1.06(0.93-1.55)	M
13C10-trans Nonachlor											
276.8270	29:03	29:00	3	1.031	409013	98775	7	17	14111		
278.8240	29:03	29:00	3	1.031	362788	82735	1	2	82735	1.13(0.93-1.55)	
trans-Nonachlor											RQM
271.8102	29:05	29:02	3	1.001	2697	640	16	40	40		M
	Empc Correction				1864	388	16	40	24		
273.8072	29:04	29:02	3	1.001	1504	313	11	27	28	1.79(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:34	28:31	3	1.015	191638	43886	7	17	6269		
278.8240	28:34	28:31	3	1.015	157243	36403	1	2	36403	1.22(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:13	30:10	3	0.920	7223499	1534274	392	980	3914		
260.0376	30:13	30:10	3	0.920	4609388	997934	221	552	4516	1.57(1.17-1.95)	
4,4'-DDE											M
246.0003	30:14	30:11	3	1.000	43399	9917	82	205	121		M
247.9974	30:14	30:11	3	1.000	27110	5850	18	45	325	1.60(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:30	33:27	3	1.020	4585715	885074	37	92	23921		
249.0454	33:30	33:27	3	1.020	2830481	545891	65	162	8398	1.62(1.17-1.95)	
4,4'-DDD											RQM
235.0081	33:31	33:29	2	1.001	38268	6869	333	832	21		M
	Empc Correction				26732	4823	333	832	14		
237.0052	33:32	33:29	3	1.001	17136	3092	81	202	38	2.23(1.17-1.95)	M
13C12-2,4'-DDT											
247.0484	33:47	33:44	3	1.029	2651885	521402	37	92	14092		
249.0454	33:47	33:44	3	1.029	1624072	331479	65	162	5100	1.63(1.17-1.95)	
2,4'-DDT											RQMa
235.0081	33:48	33:46	2	1.001	23479	4415	333	832	13		M
	Empc Correction				16197	4040	333	832	12		
237.0052	33:48	33:46	2	1.001	10383	2590	81	202	32	2.26(1.17-1.95)	a
13C12-4,4'-DDT											
247.0484	36:39	36:36	3	1.116	2210057	419403	37	92	11335		
249.0454	36:39	36:36	3	1.116	1439671	251711	65	162	3872	1.54(1.16-1.94)	
4,4'-DDT											nMa
235.0081	36:39	36:37	2	1.000	16113	2586	333	832	8		M
237.0052	36:41	36:37	4	1.001	8981	1842	81	202	23	1.79(1.17-1.95)	M
13C12-Dieldrin											
269.8805	30:26	30:23	3	0.927	759688	156984	25	62	6279		
271.8775	30:25	30:23	2	0.926	464589	92525	1	2	92525	1.64(1.16-1.94)	
Dieldrin											
262.8570	30:27	30:25	2	1.000	4938	919	21	52	44		
264.8540	30:28	30:25	3	1.001	2649	615	18	45	34	1.86(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-Endrin											
269.8805	32:06	32:03	3	0.978	528054	112270	25	62	4491		
271.8775	32:06	32:03	3	0.978	312051	56477	1	2	56477	1.69(1.16-1.94)	
Endrin											
262.8570	32:08	32:05	3	1.001	2774	1101	21	52	52		
264.8540	32:08	32:05	3	1.001	2061	436	18	45	24	1.35(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:50	32:47	3	1.000	80807	17978	4	10	4495		
278.8240	32:49	32:47	3	1.000	64606	14736	3	7	4912	1.25(0.93-1.55)	
Endosulfan II											RQM
271.8102	32:55	32:48	7	1.002	401	147	1	2	147		
273.8072	32:53	32:48	4	1.001	761	187	2	5	94	0.53(0.93-1.55)	M
	Empc Correction				323	118	2	5	59		
13C12-Endrin Aldehyde											
356.9391	34:22	34:19	3	1.047	119509	22473	14	35	1605		
358.9361	34:22	34:19	3	1.047	68785	13545	13	32	1042	1.74(1.17-1.95)	
Endrin aldehyde											
344.8988	34:21						6	15			
346.8959	34:21						5	12			
13C12-Methoxychlor											
239.1475	41:59	41:56	3	1.279	3937663	707439	189	472	3743		
240.1510	42:00	41:56	4	1.279	248218	39503	42	105	941	15.86(0.00-0.00)	
Methoxychlor											RQM
227.1072	42:01	41:58	3	1.001	23588	4280	40	100	107		
228.1106	42:00	41:58	2	1.000	6081	1166	27	67	43	3.88(4.69-7.81)	M
	Empc Correction				3774	684	27	67	25		
13C11-Endrin Ketone											
327.9408	40:28	40:25	3	1.232	283683	46940	13	32	3611		
329.9379	40:29	40:25	4	1.233	156280	25351	5	12	5070	1.82(1.19-1.98)	
Endrin ketone											M
316.9039	40:32	40:28	4	1.002	1565	341	1	2	341		
318.9010	40:30	40:28	2	1.001	966	203	1	2	203	1.62(1.16-1.95)	M
13C10-Mirex											
276.8270	45:27	45:25	2	1.227	2168637	349597	19	47	18400		
278.8240	45:27	45:25	2	1.227	1754738	277976	12	30	23165	1.24(0.93-1.55)	
Mirex											
271.8102	45:29	45:27	2	1.001	9624	1398	1	2	1398		
273.8072	45:30	45:27	3	1.001	8827	1199	1	2	1199	1.09(0.93-1.55)	
PCB-15L											
234.0406	19:07	19:04	3		14466657	4763180	41	102	116175		
236.0376	19:07	19:04	3		9059940	2912353	22	55	132380	1.60(1.16-1.93)	
PCB-14											
222.0003	17:51	17:49	3	0.934	563583	203321	21	52	9682		
223.9974	17:51	17:49	3	0.934	358571	128628	89	222	1445	1.57(1.33-1.79)	
13C6-Pentachlorophenol (IS)											U
269.8666	18:31						12	30			
271.8636	18:31						22	55			

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Pentachlorophenol											
263.8464	18:31						65	162			
265.8435	18:31						32	80			
PCB-36											
255.9613	22:12	22:09	3	1.162	362965	97130	15	37	6475		
257.9584	22:12	22:09	3	1.162	347151	94939	6	15	15823	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:10	28:07	3		4109173	927448	1	2	927448		
339.9178	28:10	28:07	3		2576347	582605	2	5	291303	1.59(1.16-1.94)	
PCB-104											
325.8804	23:46	23:44	3	0.844	243300	66938	1	2	66938		
327.8775	23:46	23:44	3	0.844	166457	43819	1	2	43819	1.46(1.32-1.78)	
PCB-118L											
337.9207	32:50	32:48	3		3699541	753117	16	40	47070		
339.9178	32:50	32:48	3		2305311	464494	9	22	51610	1.60(1.16-1.94)	
PCB-121											
325.8804	26:46	26:43	3	0.815	172391	40847	10	25	4085		
327.8775	26:45	26:43	3	0.815	104867	25643	2	5	12822	1.64(1.32-1.78)	
PCB-138L											
371.8817	37:02	36:59	3		2270587	414108	13	32	31854		
373.8788	37:02	36:59	3		1804823	340251	9	22	37806	1.26(1.16-1.94)	
PCB-142											
359.8415	27:32	27:29	3	0.743	144583	34544	1	2	34544		
361.8385	27:32	27:29	3	0.743	108294	23766	1	2	23766	1.34(1.05-1.43)	
Endosulfan I											RQ
262.8570	28:34	28:32	2	1.000	4740	1163	7	17	166		
	Empc Correction				2572	730	7	17	104		
264.8540	28:34	28:32	2	1.000	1660	471	14	35	34	2.86(1.16-1.94)	
PCB-60L											a
301.9626	27:47	27:44	3		5425539	1219507	23	57	53022		a
303.9597	27:47	27:44	3		6724702	1509957	22	55	68634	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:25	29:21	3	1.059	148786	30278	3	7	10093		a
291.9194	29:25	29:21	3	1.059	192065	42564	12	30	3547	0.77(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:54	30:50	3	0.941	5294059	1114050	329	822	3386		
249.0454	30:54	30:50	3	0.941	3336904	703050	243	607	2893	1.59(1.17-1.95)	
2,4'-DDD											M
235.0081	30:55	30:52	3	1.001	34946	6994	145	362	48		M
237.0052	30:54	30:52	2	1.000	18378	3683	66	165	56	1.90(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:51	33:48	3	1.031	337719	70877	8	20	8860		
278.8240	33:51	33:48	3	1.031	267771	48852	1	2	48852	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Nonachlor											
271.8102	33:51	33:50	1	1.000	1939	310	1	2	310		
273.8072	33:52	33:50	2	1.001	1593	380	1	2	380	1.22(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:20	36:17	3	1.107	573523	98820	8	20	12353		
278.8240	36:21	36:17	4	1.107	440533	78422	1	2	78422	1.30(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:21	36:20	1	1.000	2052	278	1	2	278		
273.8072	36:22	36:20	2	1.001	1962	430	1	2	430	1.05(0.93-1.55)	
PCB-167L											
371.8817	39:32	39:29	3		2414248	426883	2	5	213442		
373.8788	39:32	39:29	3		1940202	342756	1	2	342756	1.24(1.16-1.94)	
PCB-155											
359.8415	34:02	33:59	3	0.861	59355	11291	1	2	11291		
361.8385	34:02	33:59	3	0.861	46156	8795	4	10	2199	1.29(1.05-1.43)	
PCB-184											
393.8025	34:41	34:39	2	0.878	75272	14371	1	2	14371		
395.7995	34:42	34:39	3	0.878	73378	14021	1	2	14021	1.03(0.89-1.21)	
PCB-204											
427.7635	42:20	42:17	3	1.071	48314	8489	1	2	8489		
429.7606	42:20	42:17	3	1.071	48973	8840	1	2	8840	0.99(0.76-1.02)	
PCB-192											
393.8025	42:39	42:36	3	1.079	46945	7810	1	2	7810		
395.7995	42:39	42:36	3	1.079	47911	8080	2	5	4040	0.98(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- n - Failed Sig-To-Noise Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Reagents:

61L0.51699PST_00011 Amount Added: 20.00 Units: uL

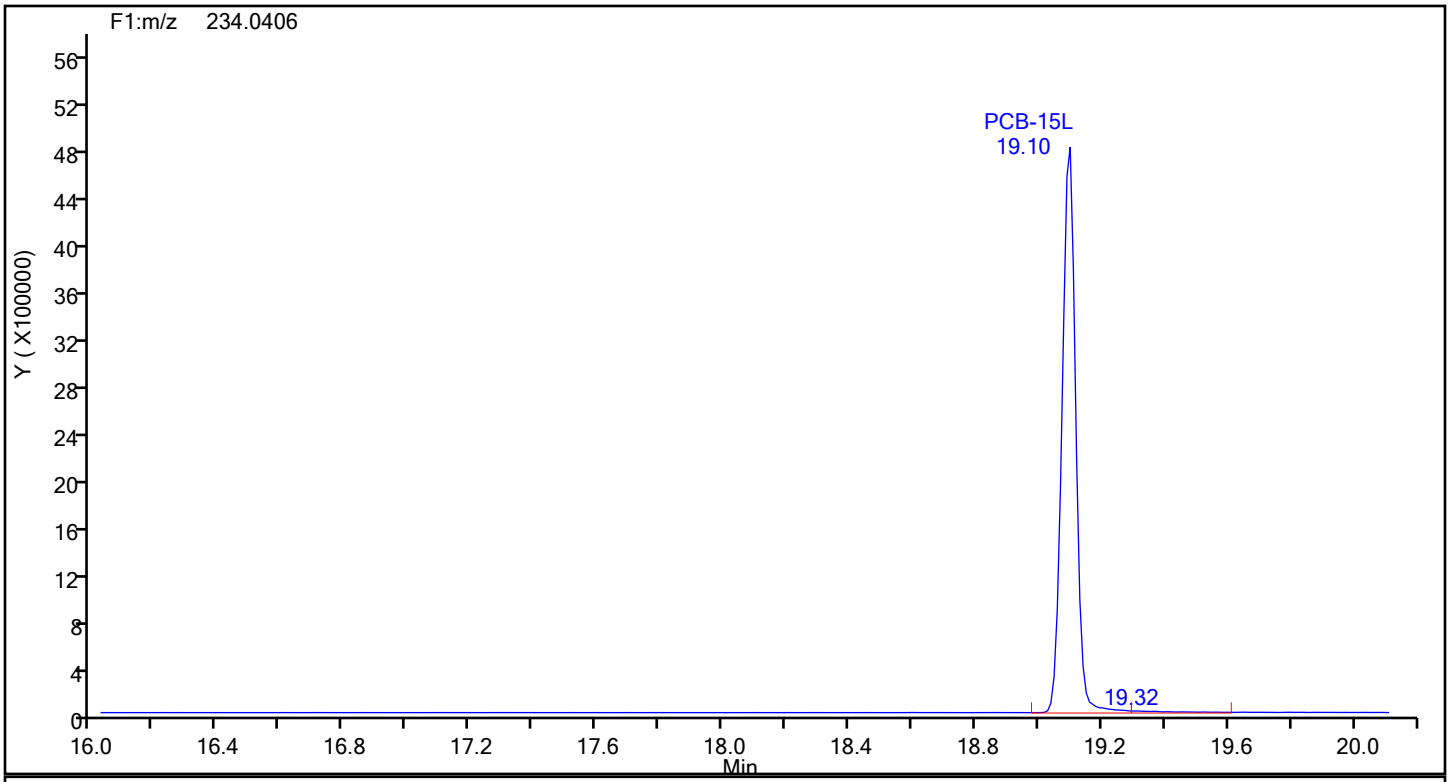
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

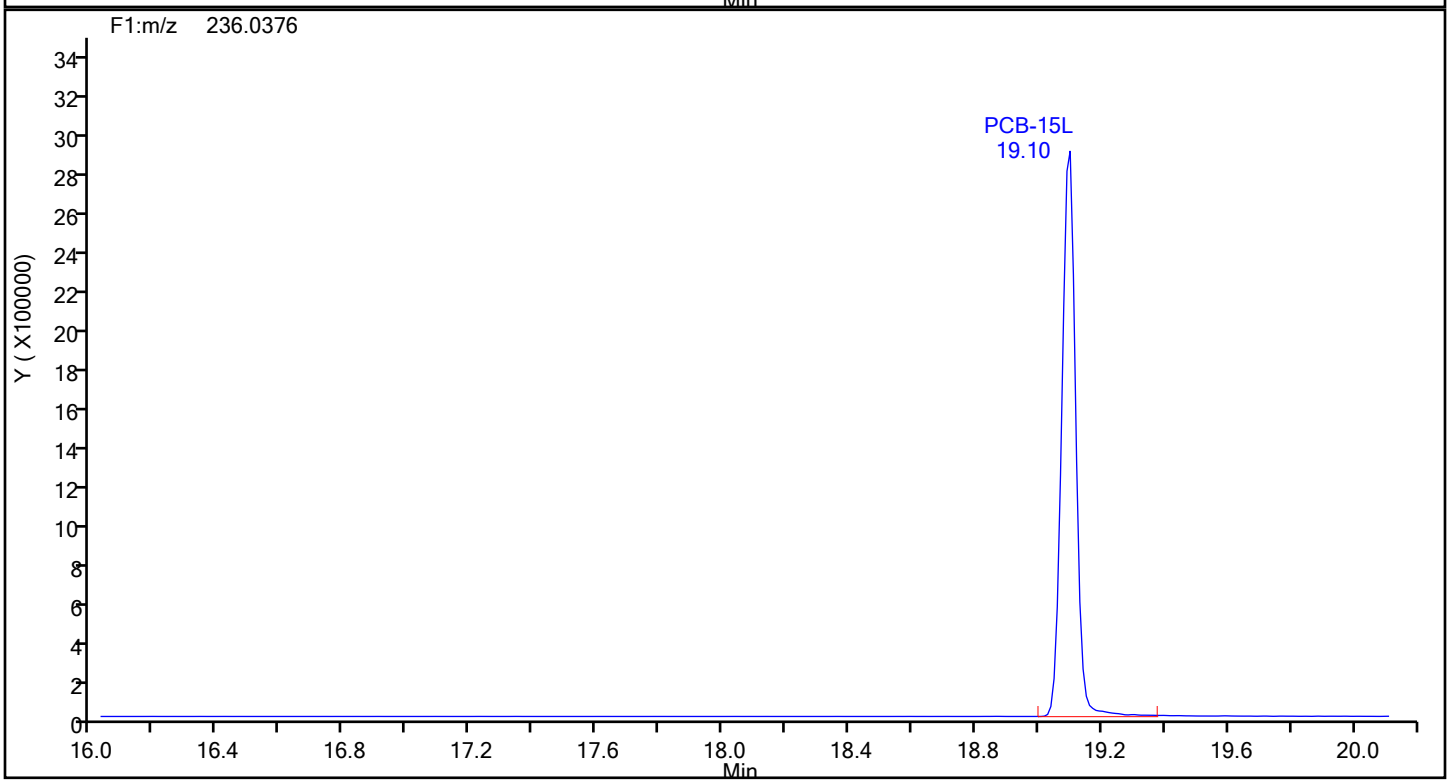
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





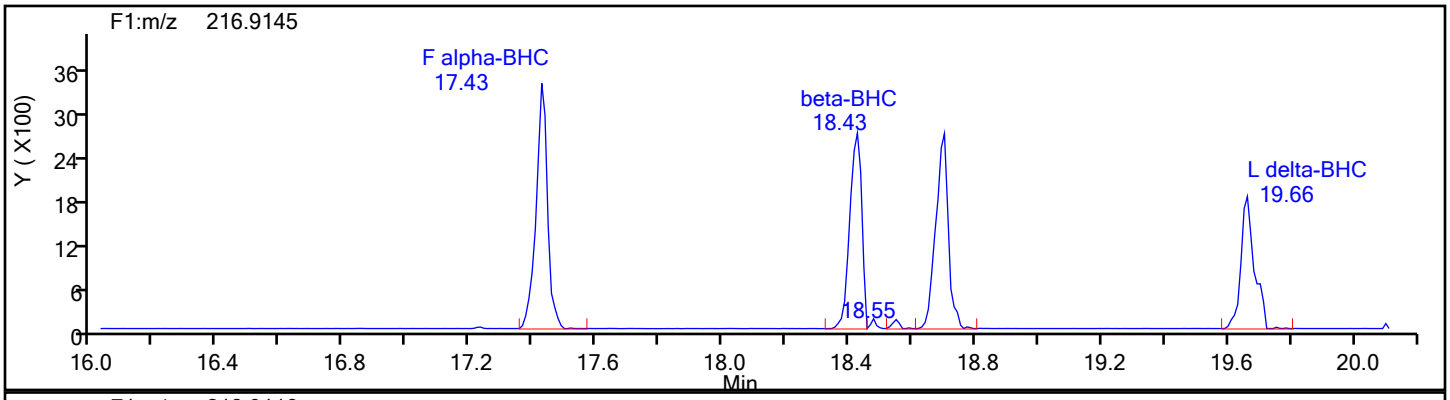
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

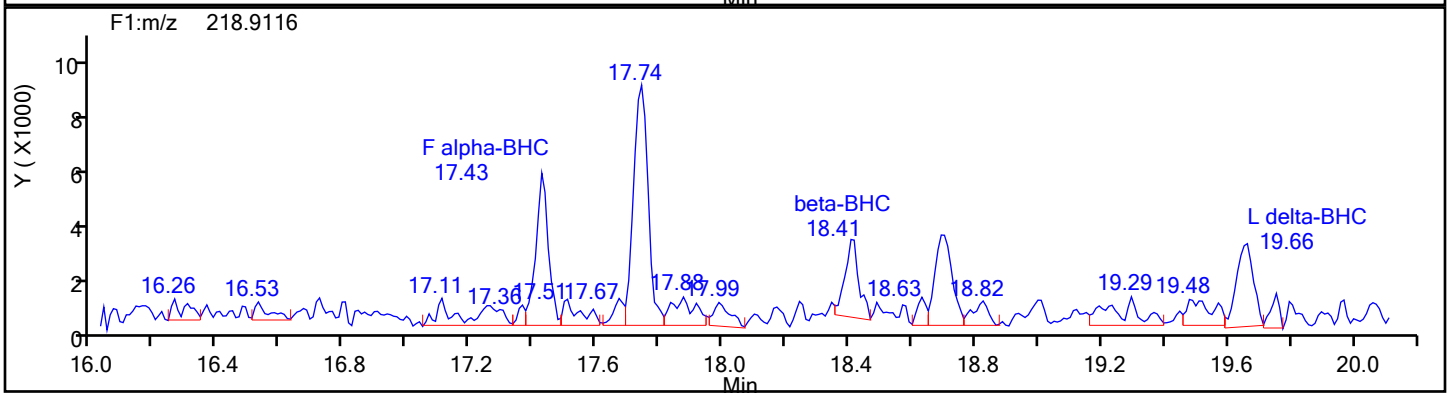
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

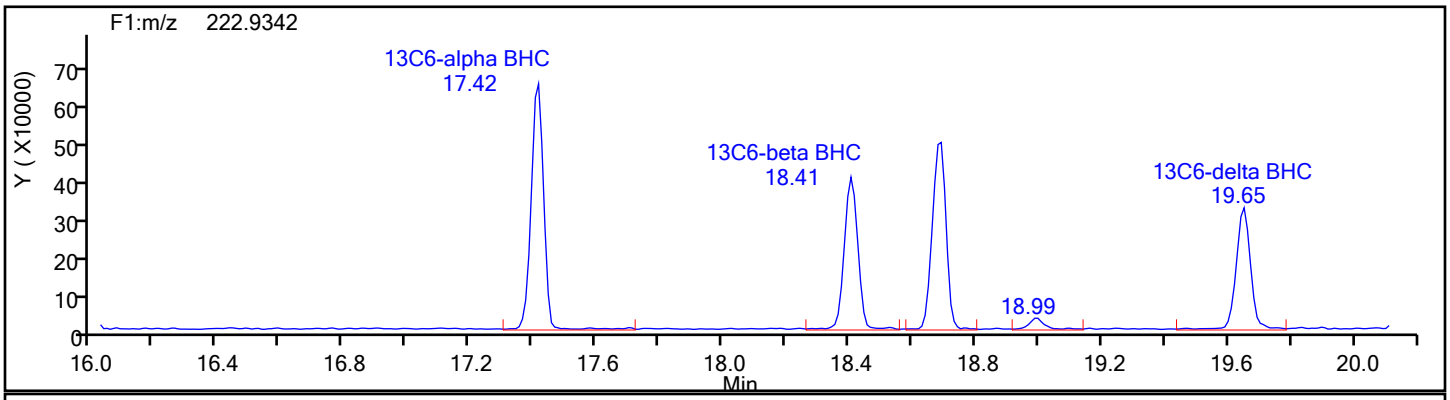
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

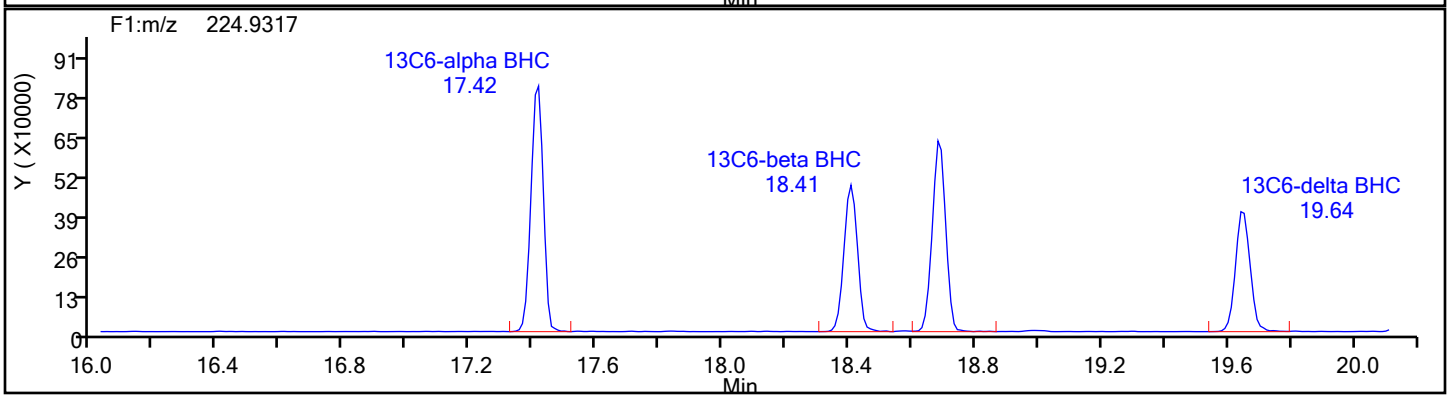
BHC





BHC Standards



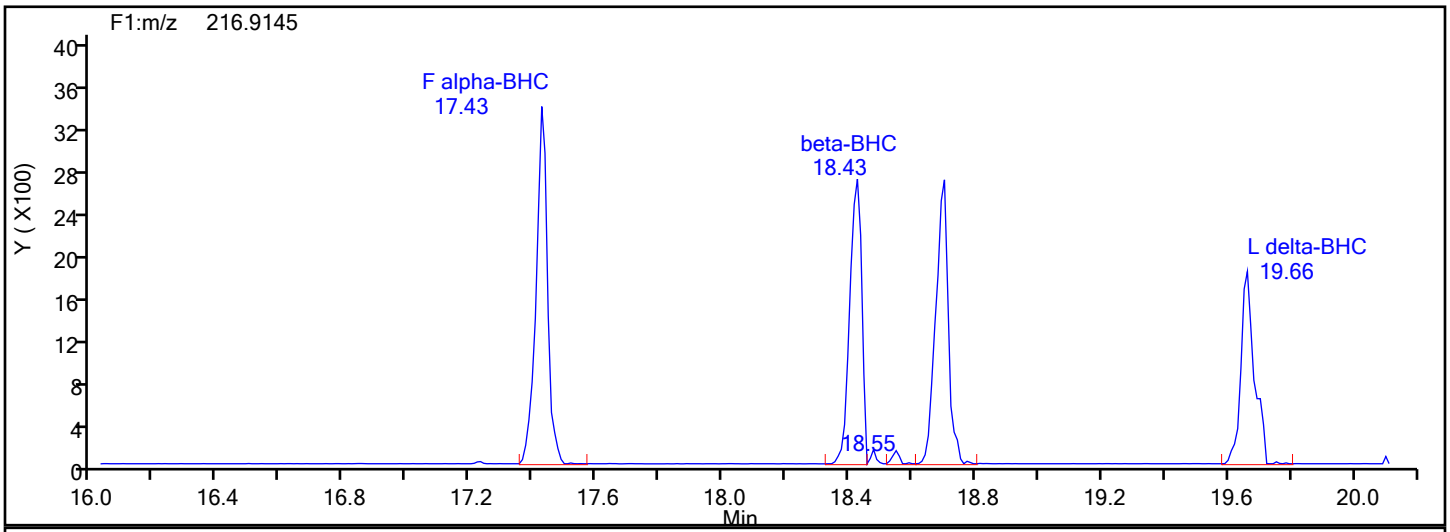


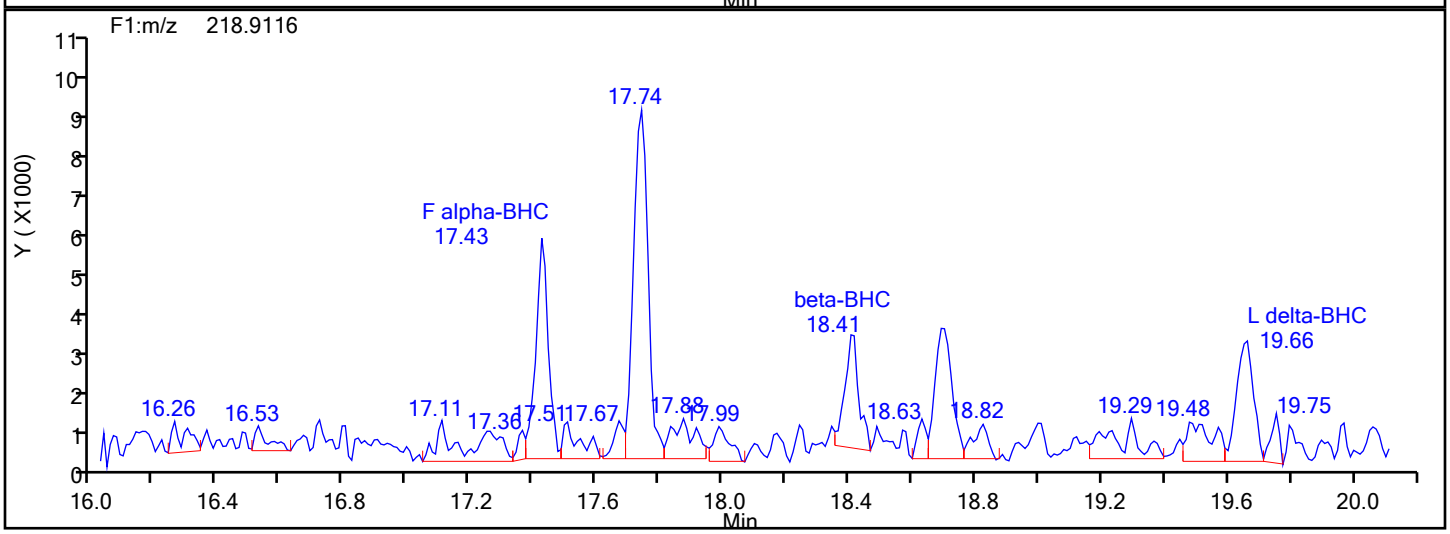
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

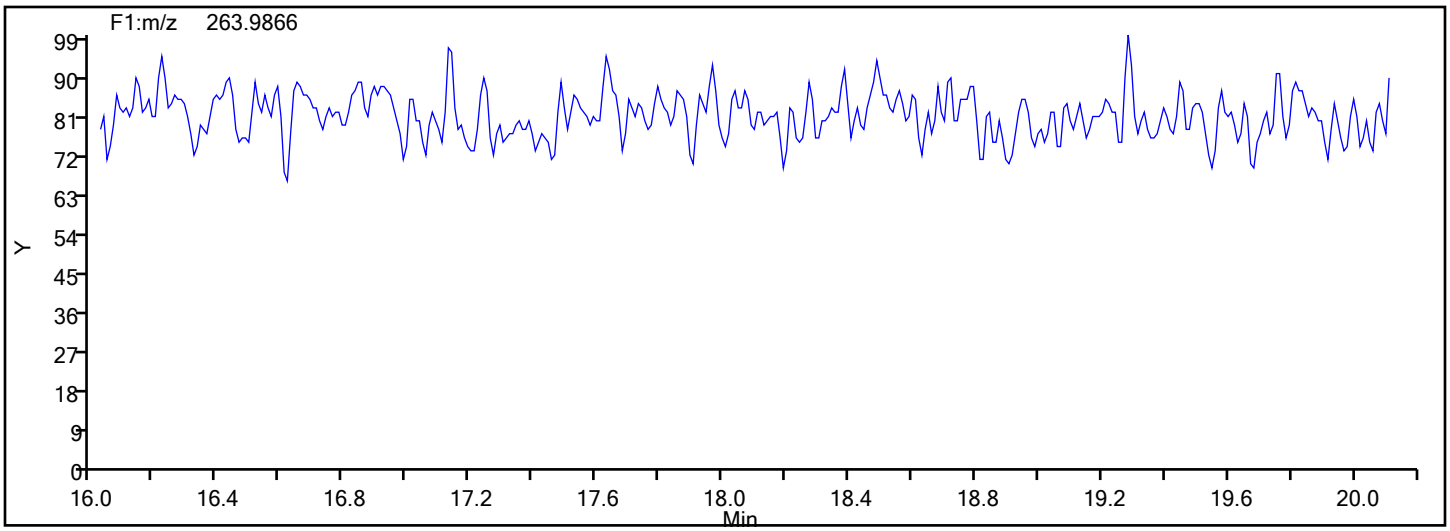
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

BHC





BHC Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

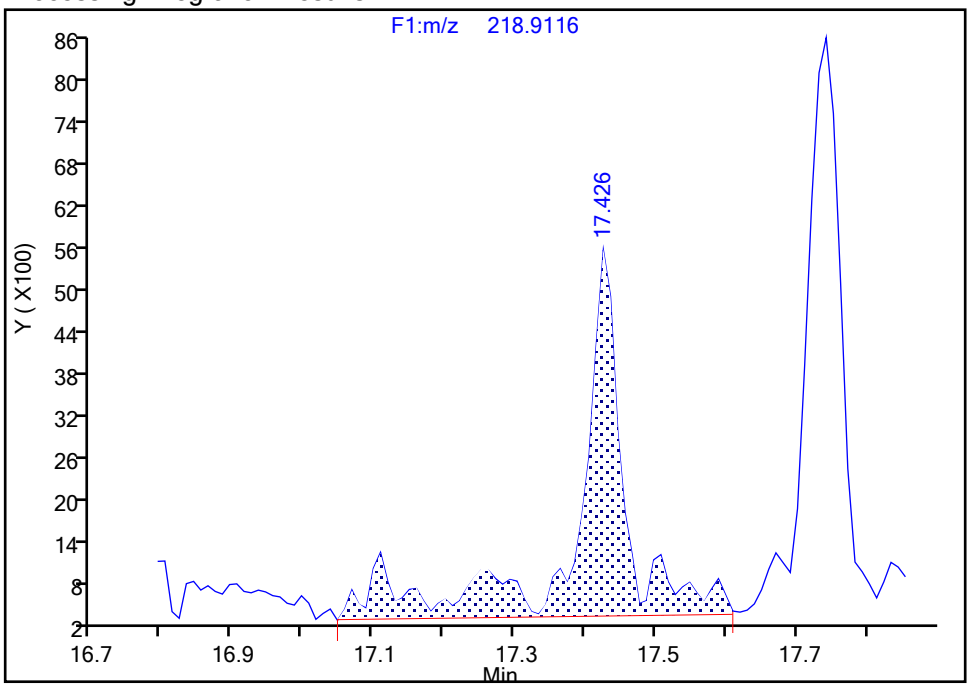
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

alpha-BHC, CAS: 319-84-6

Signal: 2

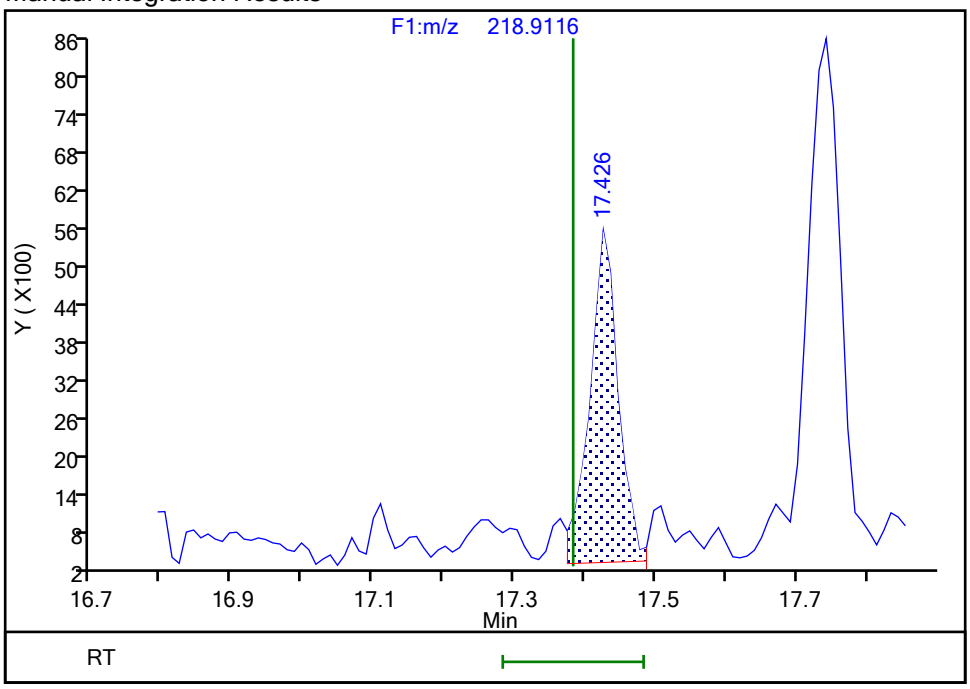
Processing Integration Results

RT: 17.43
Area: 25368
Amount: 0.722149
Amount Units: pg/ul



Manual Integration Results

RT: 17.43
Area: 14485
Amount: 0.523190
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:11:11 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

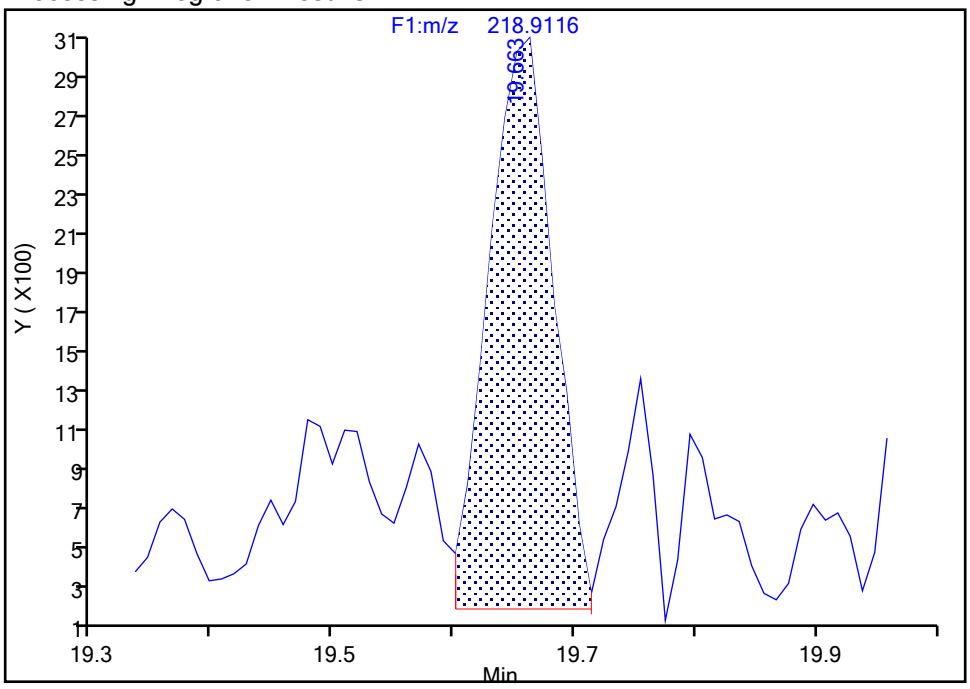
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

delta-BHC, CAS: 319-86-8

Signal: 2

Processing Integration Results

RT: 19.66
Area: 10638
Amount: 0.589917
Amount Units: pg/ul



Manual Integration Results

RT: 19.66
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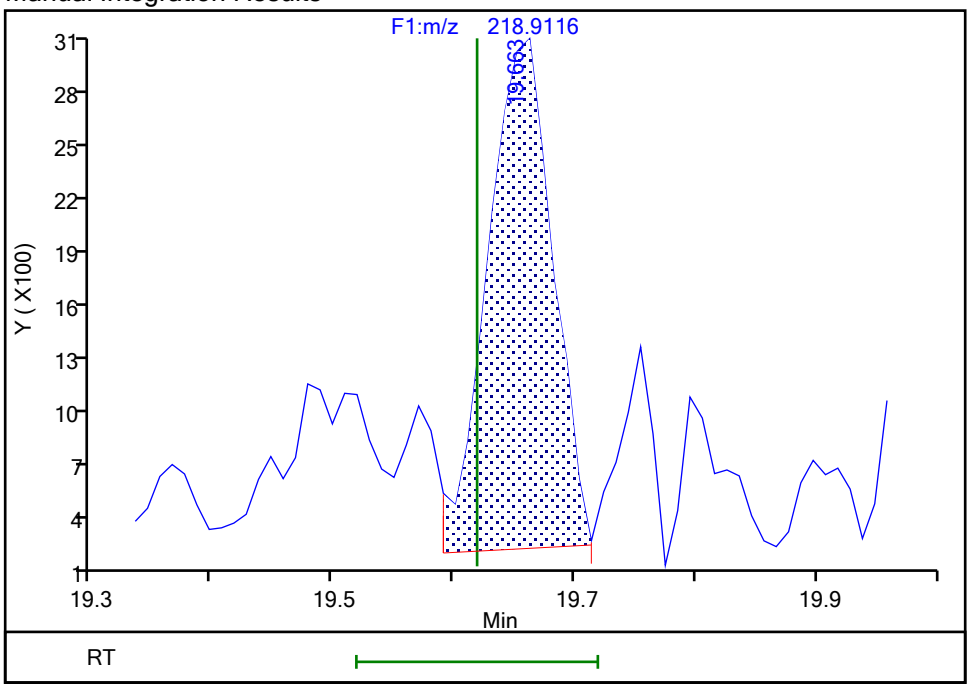
Amount: 0.615135
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:11:29 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

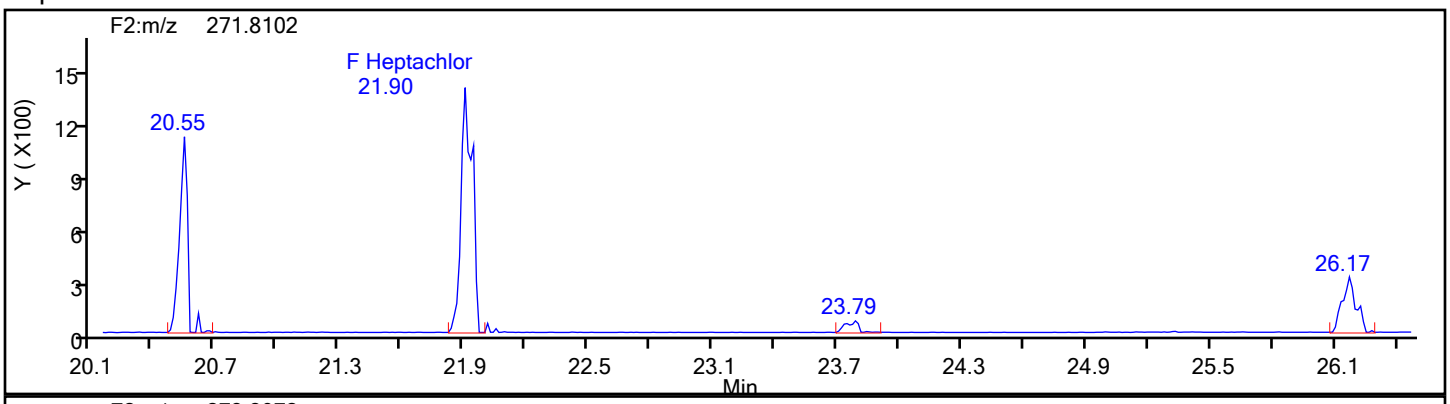
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

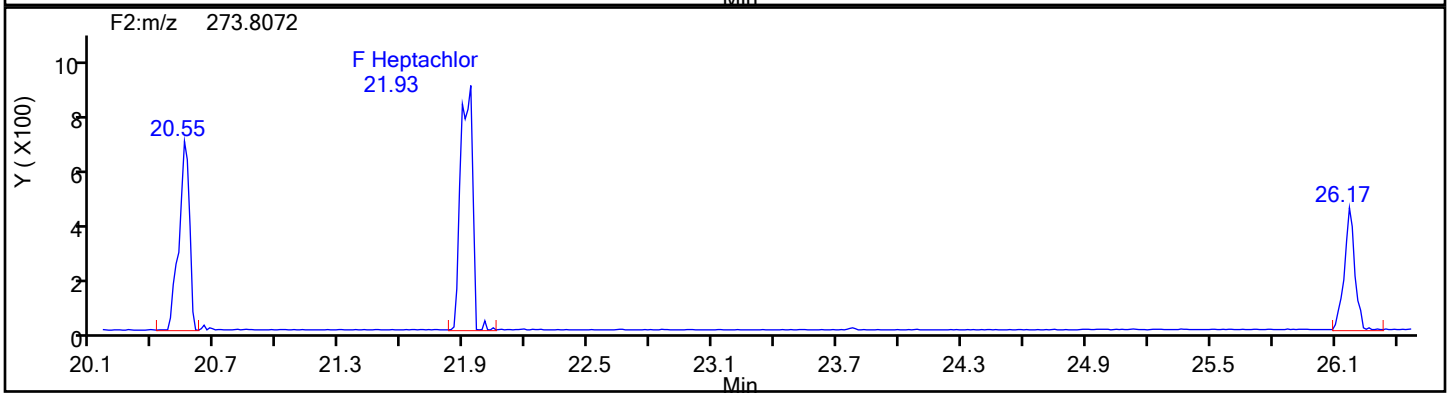
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

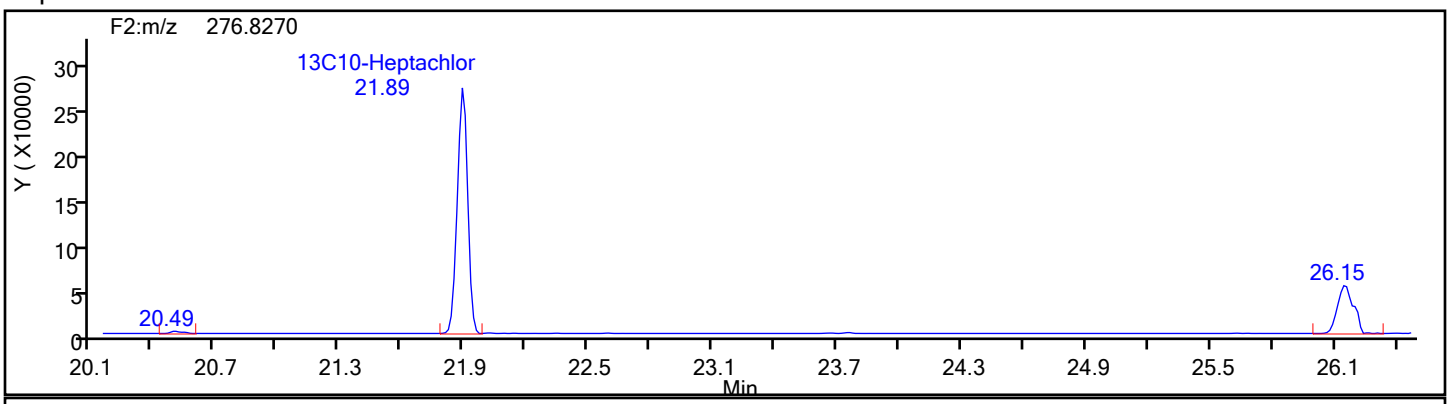
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

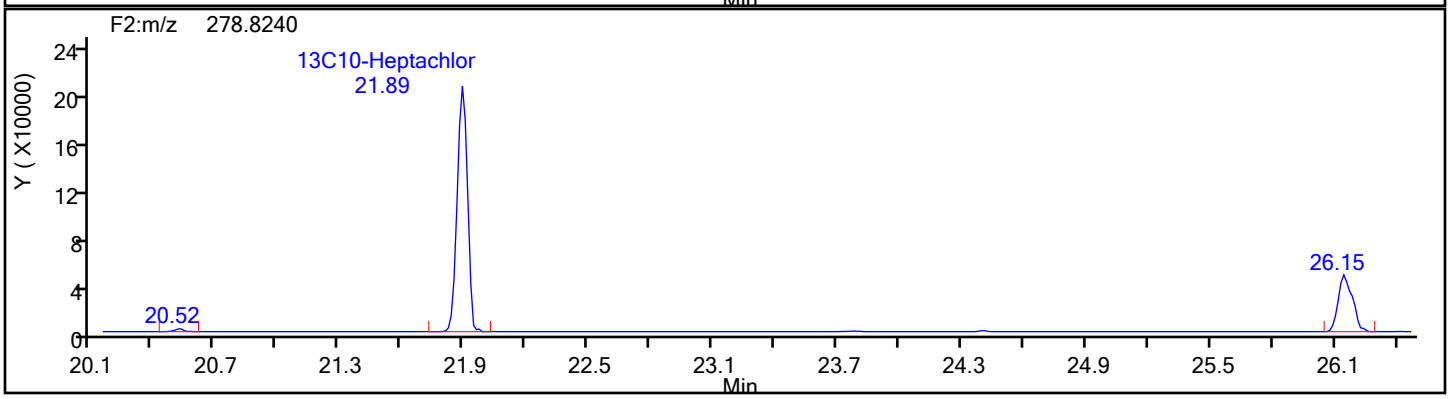
Heptachlor





Heptachlor Standards



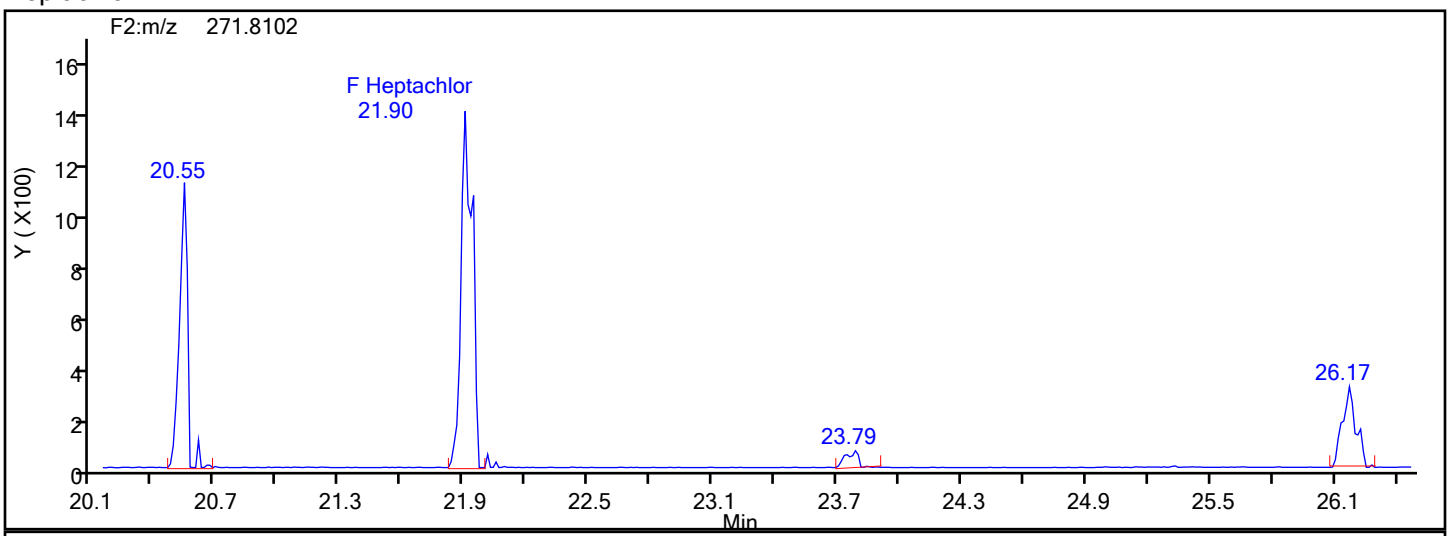


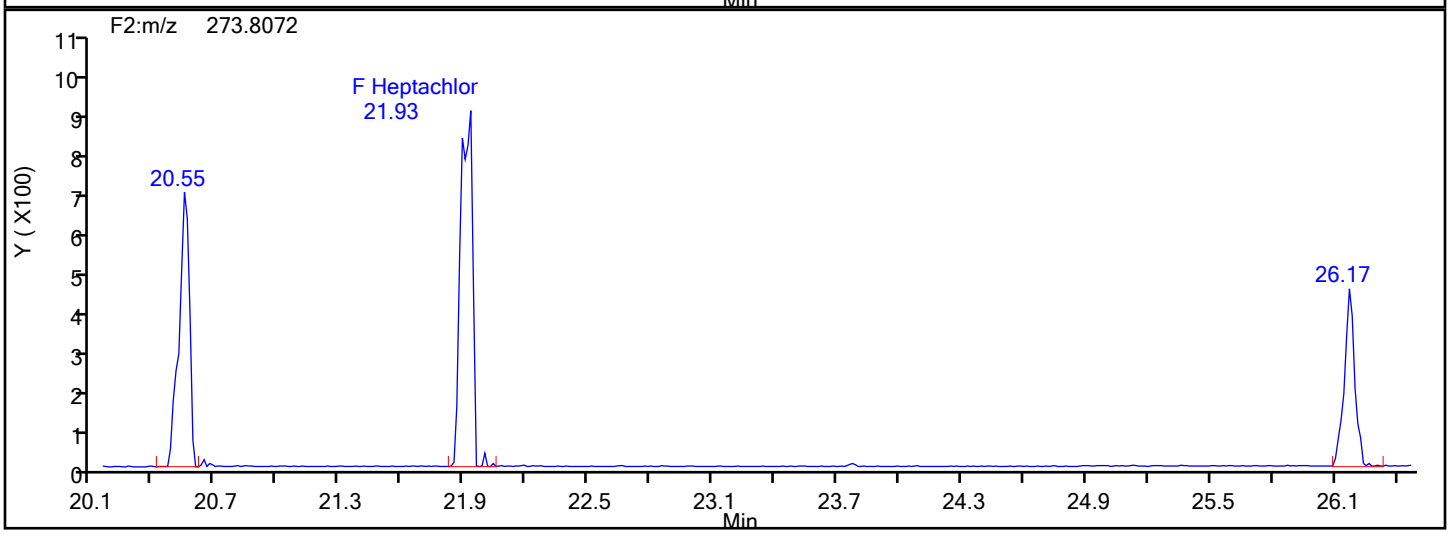
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

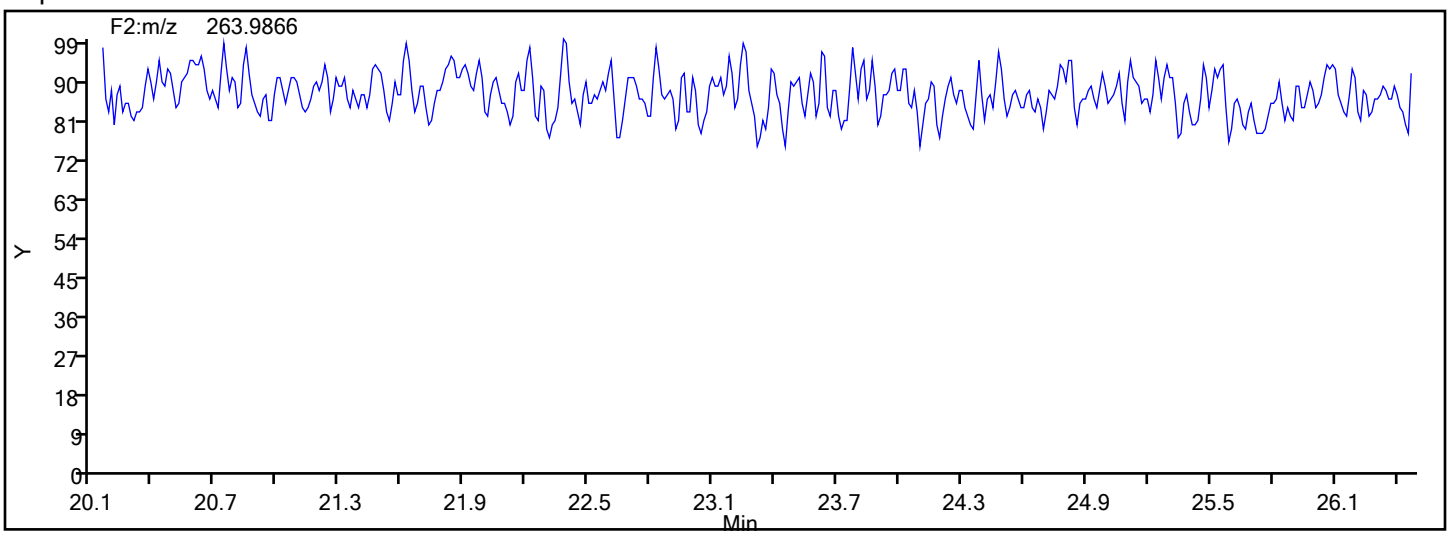
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Heptachlor





Heptachlor Lock Mass



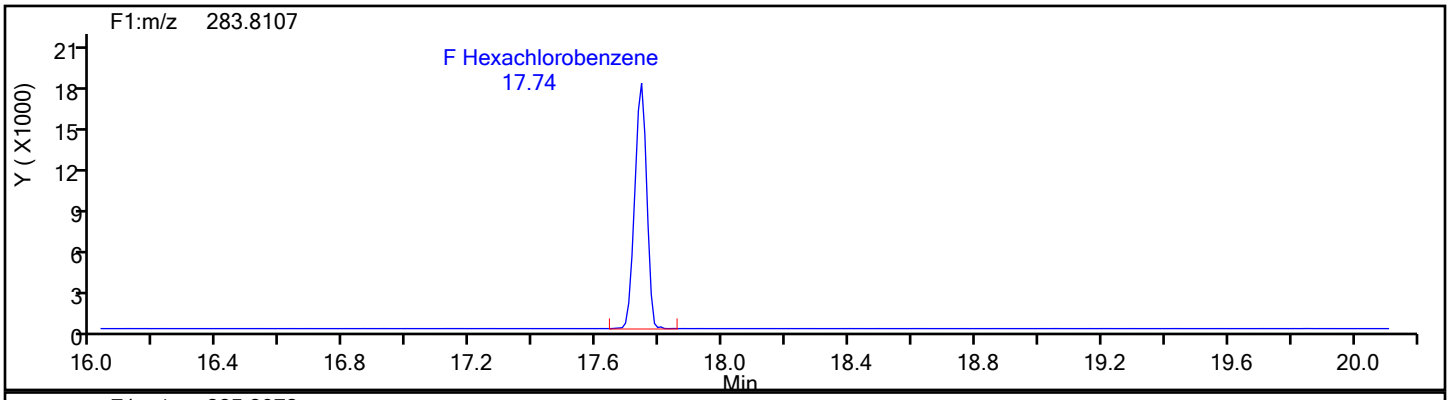
Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

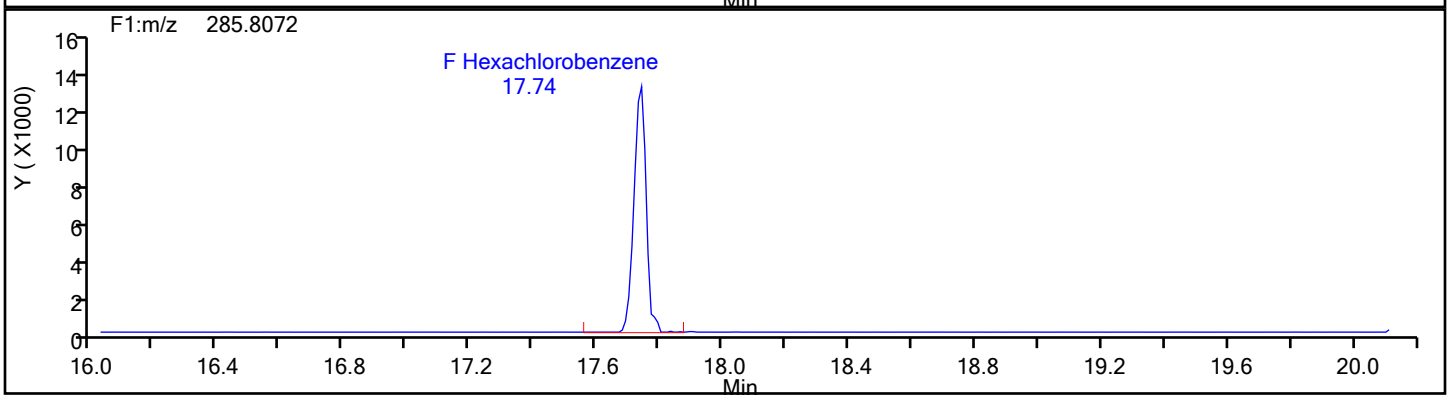
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

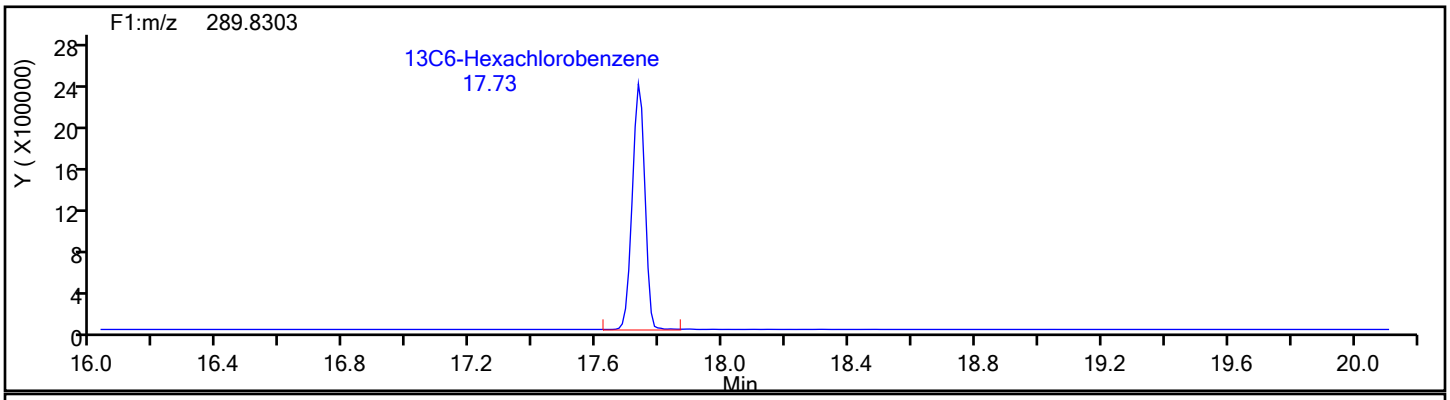
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

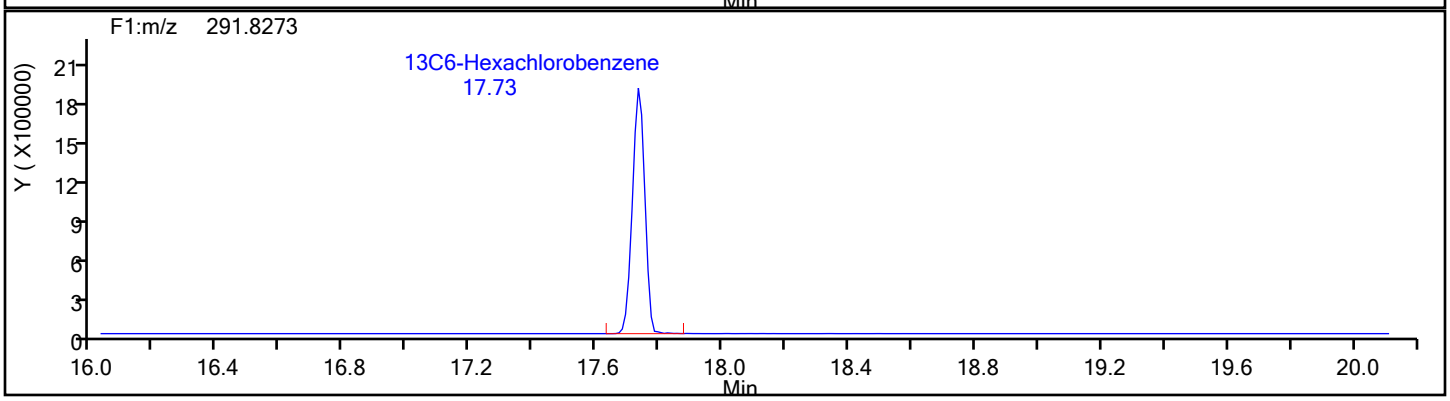
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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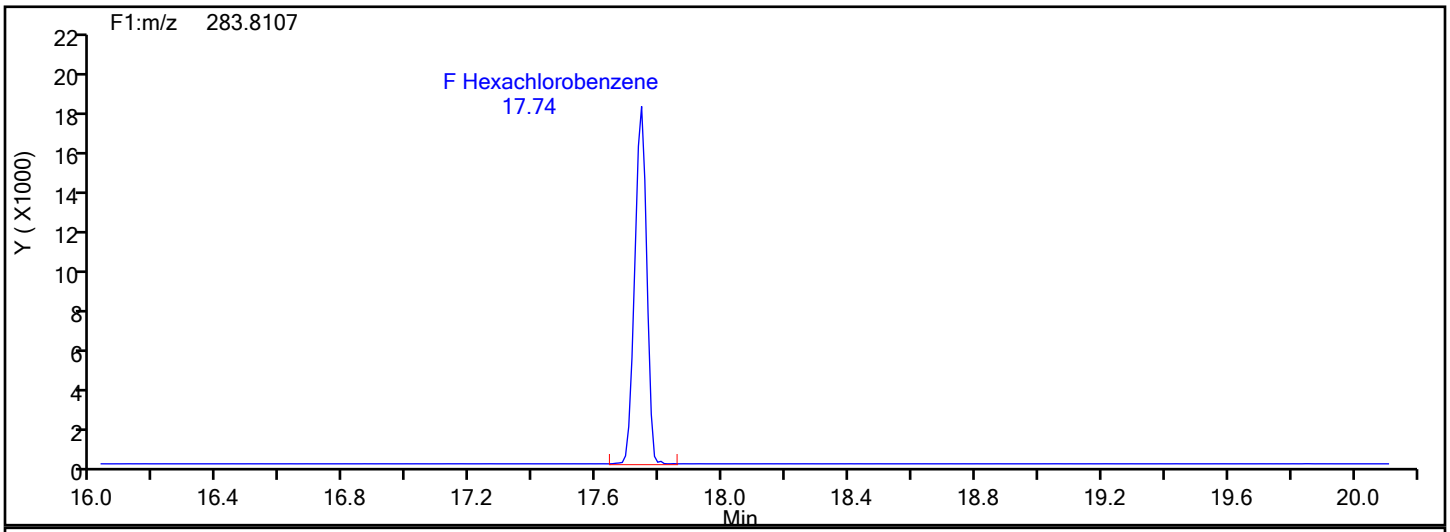
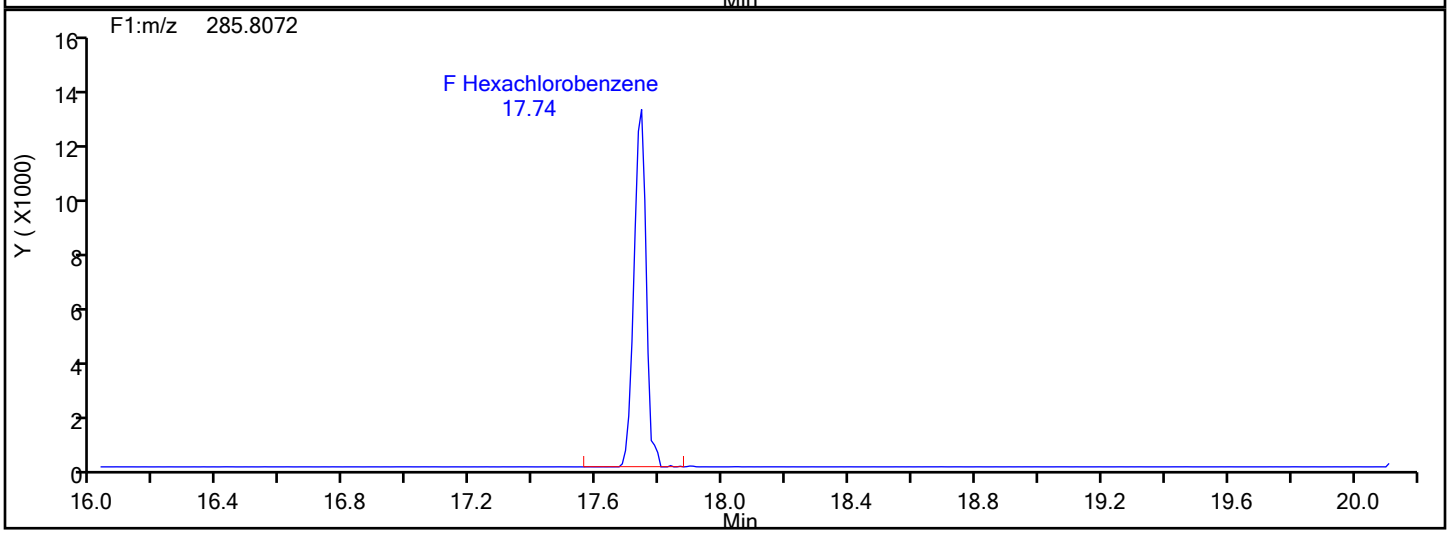
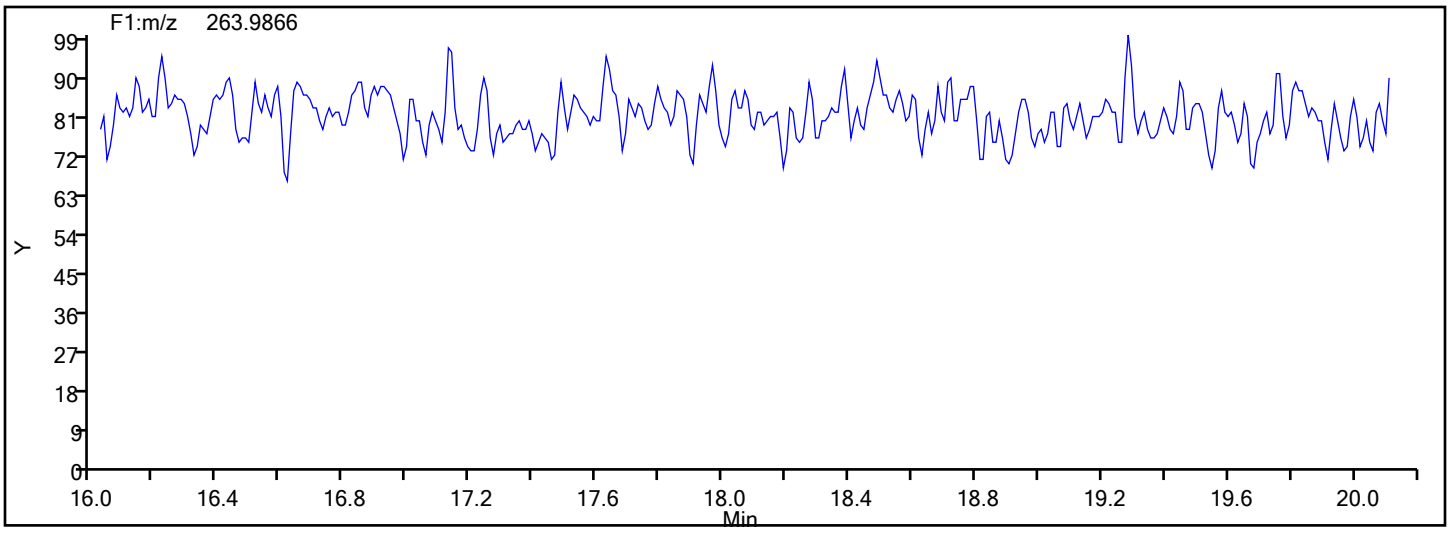
Column Type:	RTX-5	Column Dia:	0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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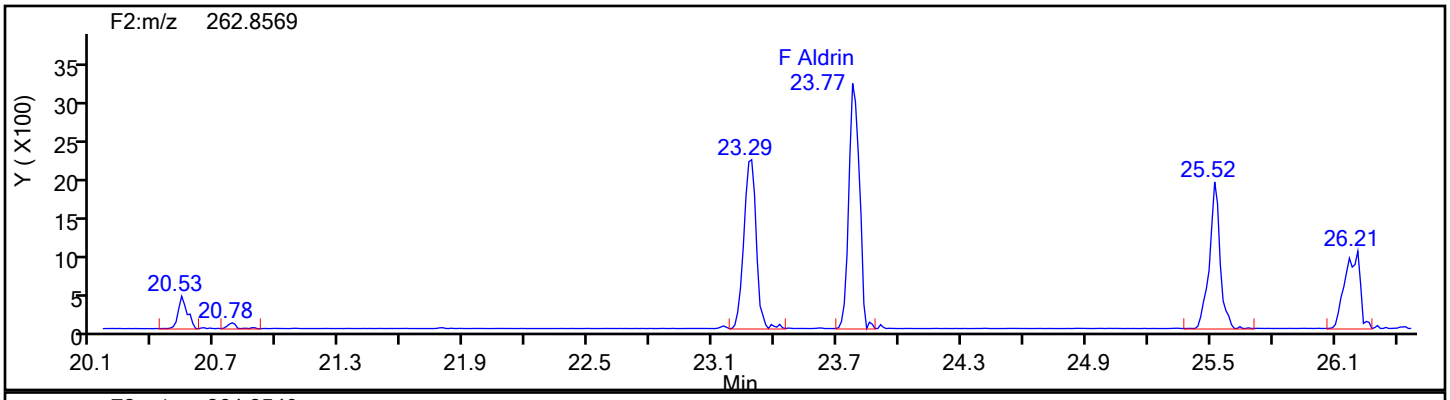
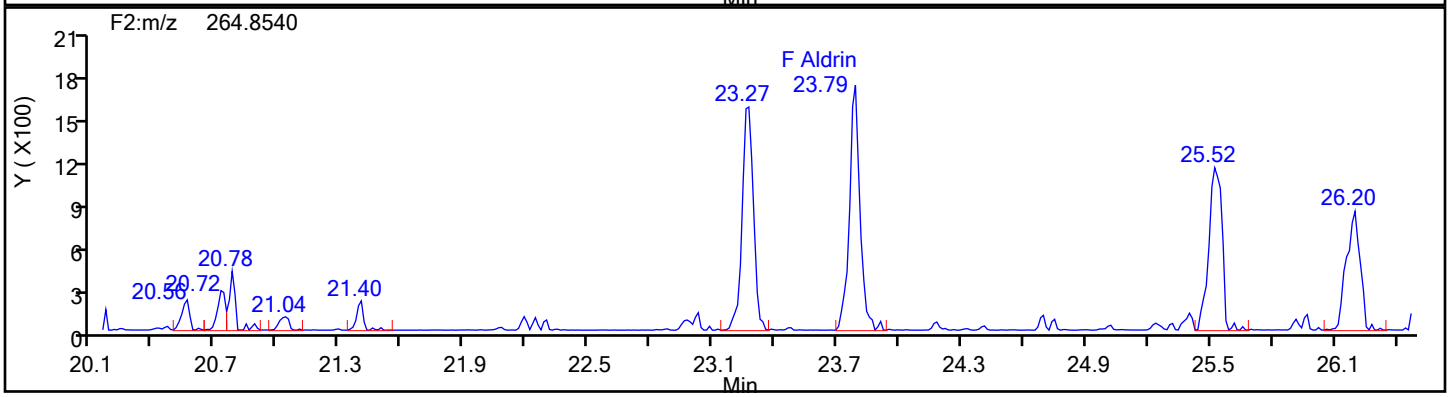
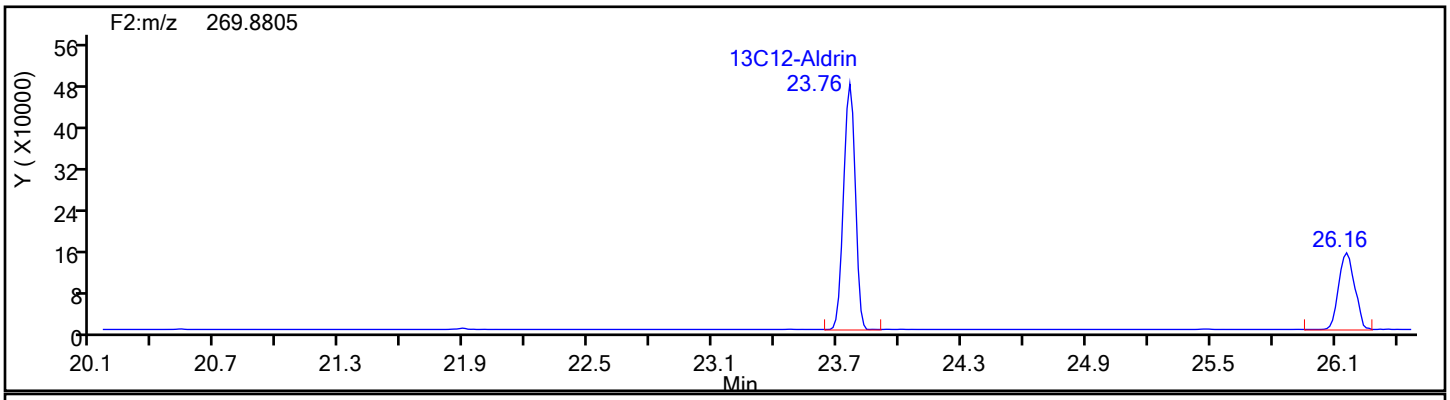
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

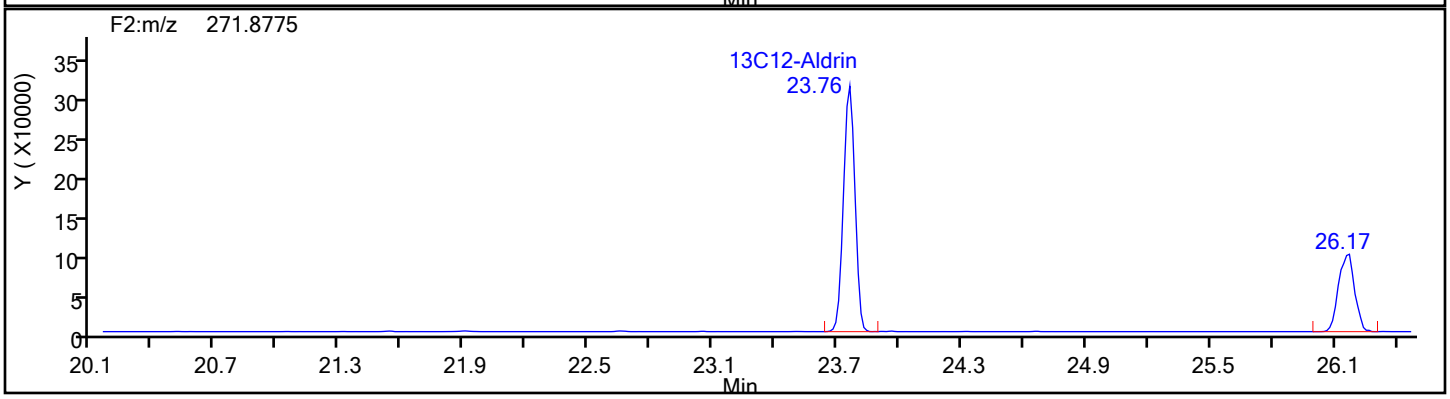
Aldrin





Aldrin Standards





Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
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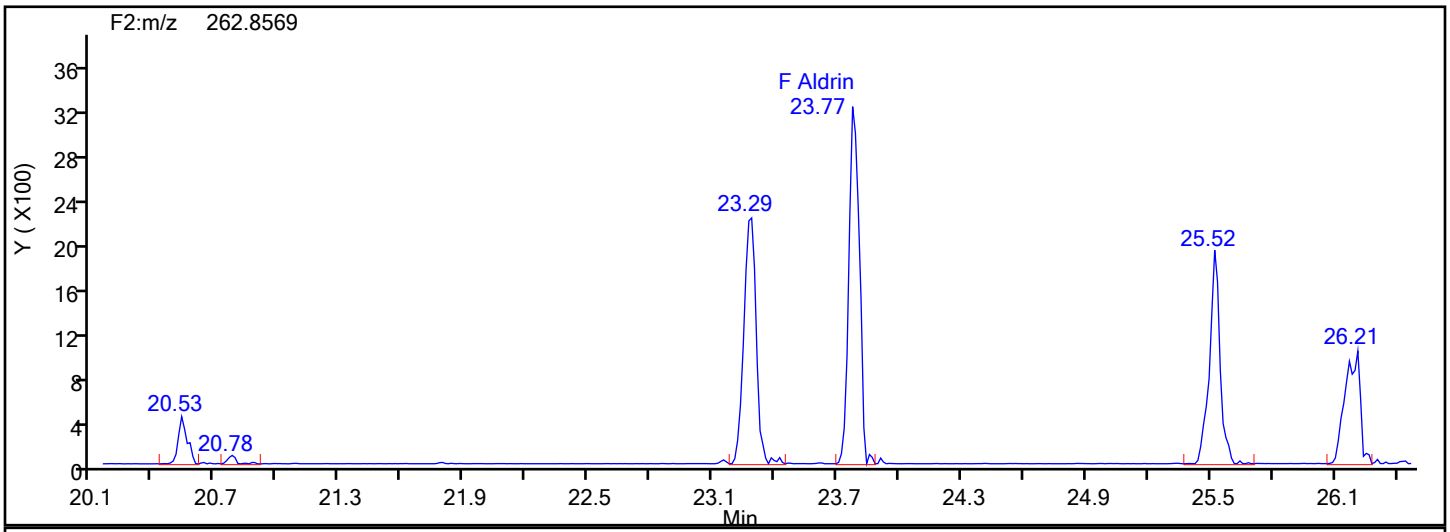
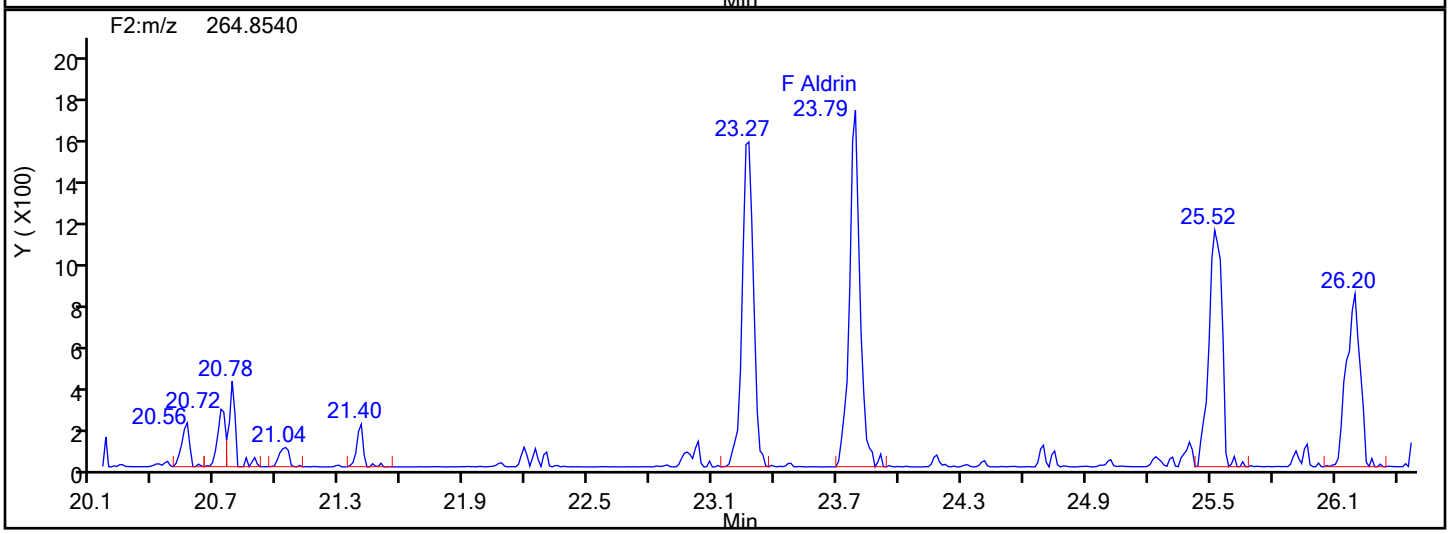
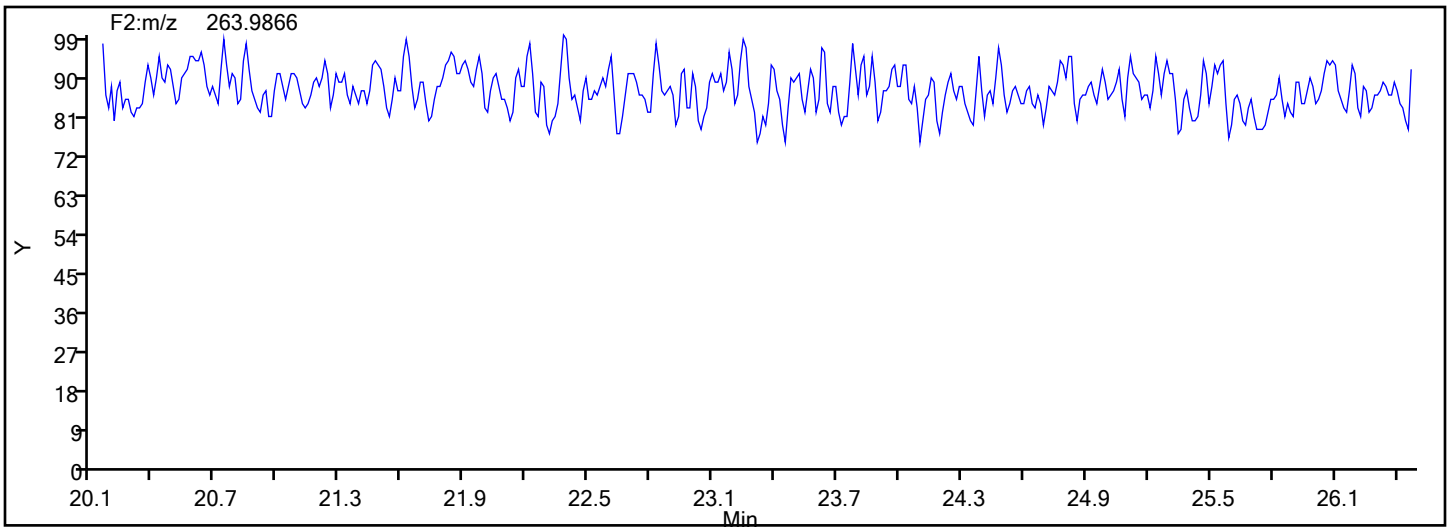
Aldrin





Aldrin Lock Mass



Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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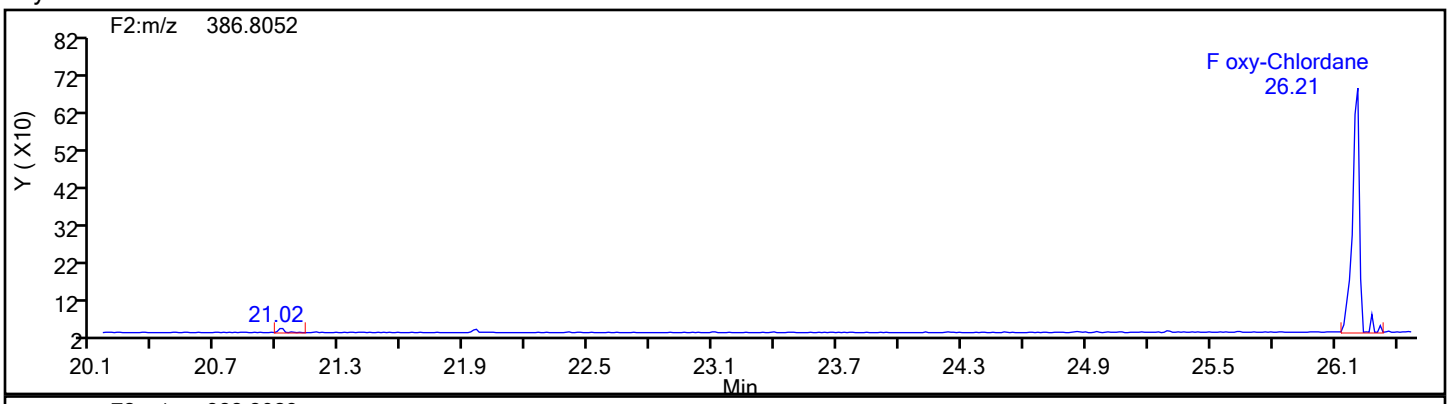
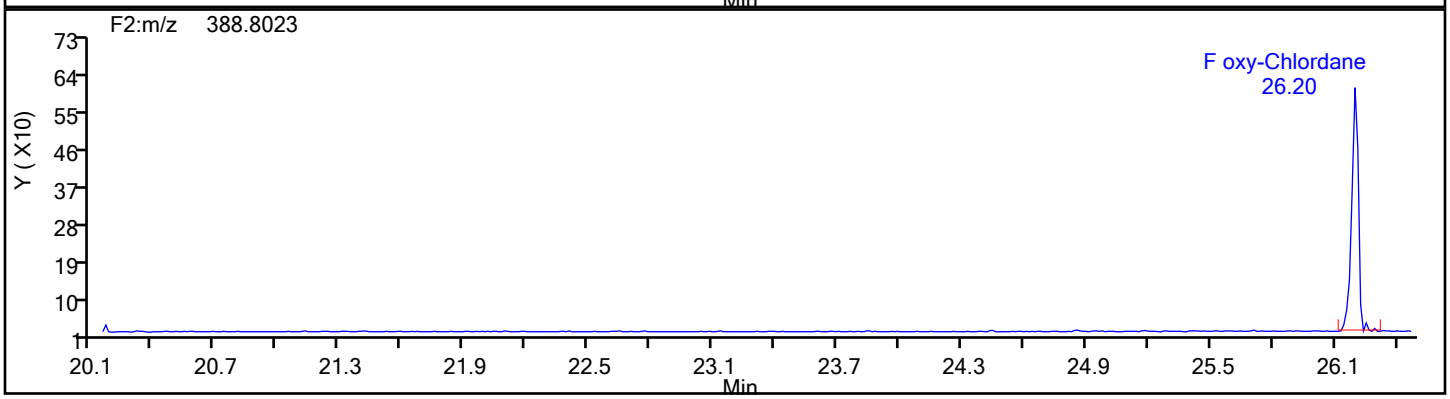
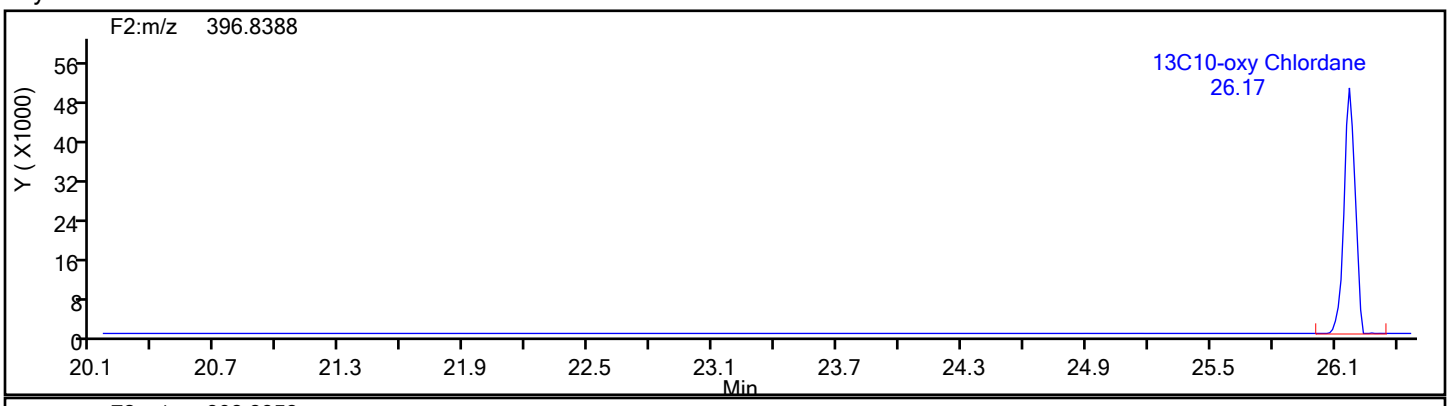
Column Type:	RTX-5	Column Dia:	0.32 mm

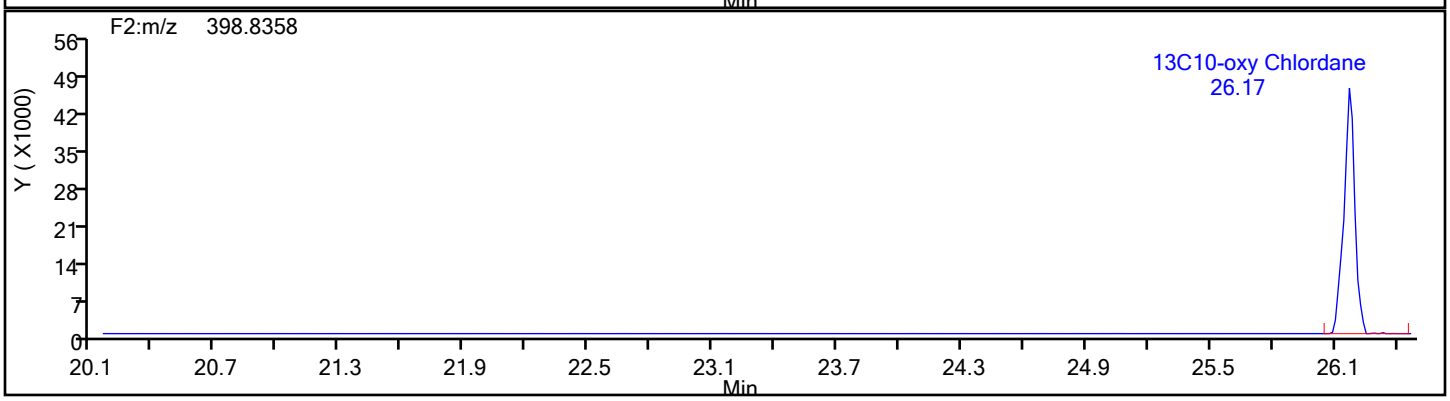
oxy-Chlordane





oxy-Chlordane Standards





Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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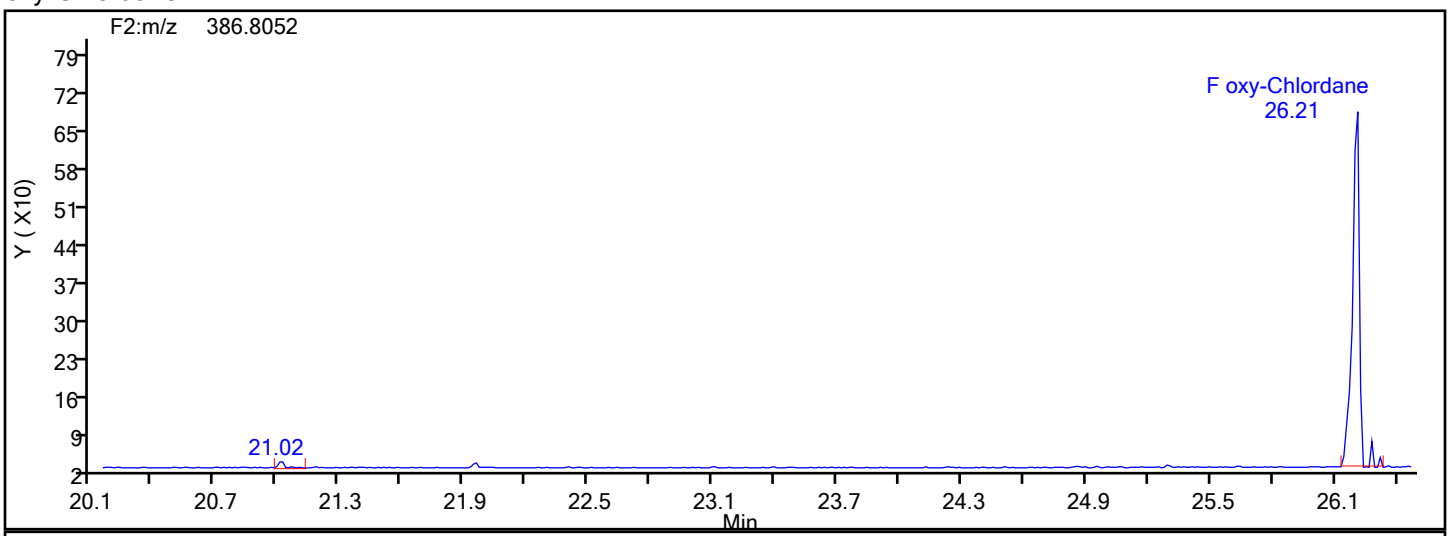
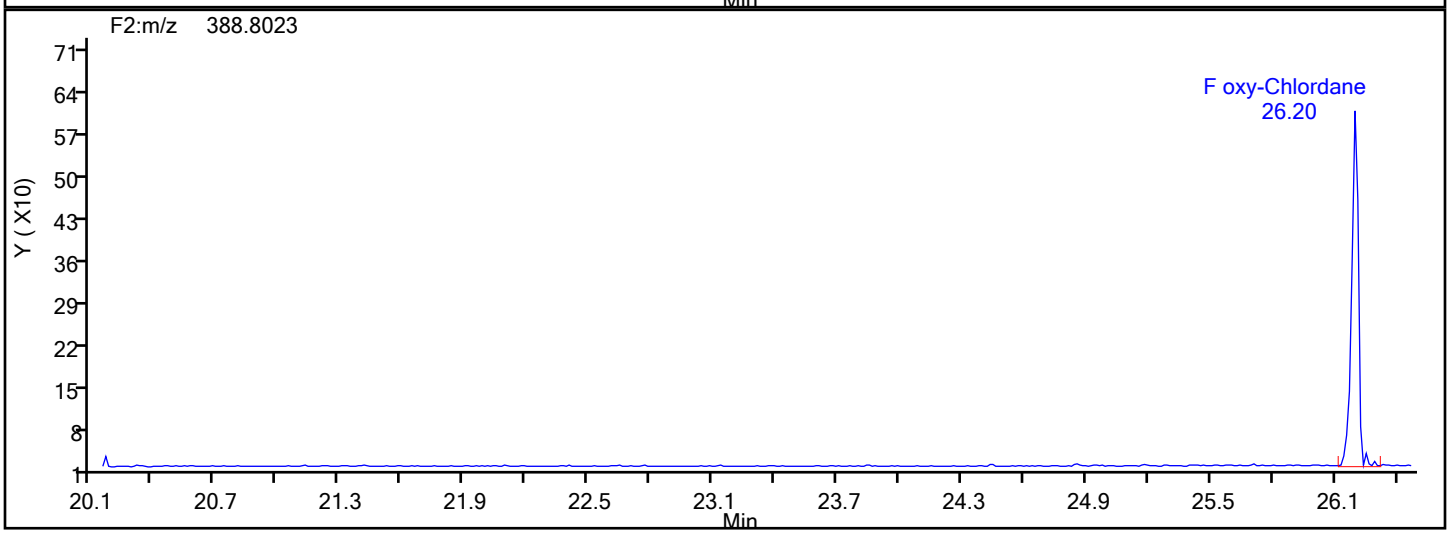
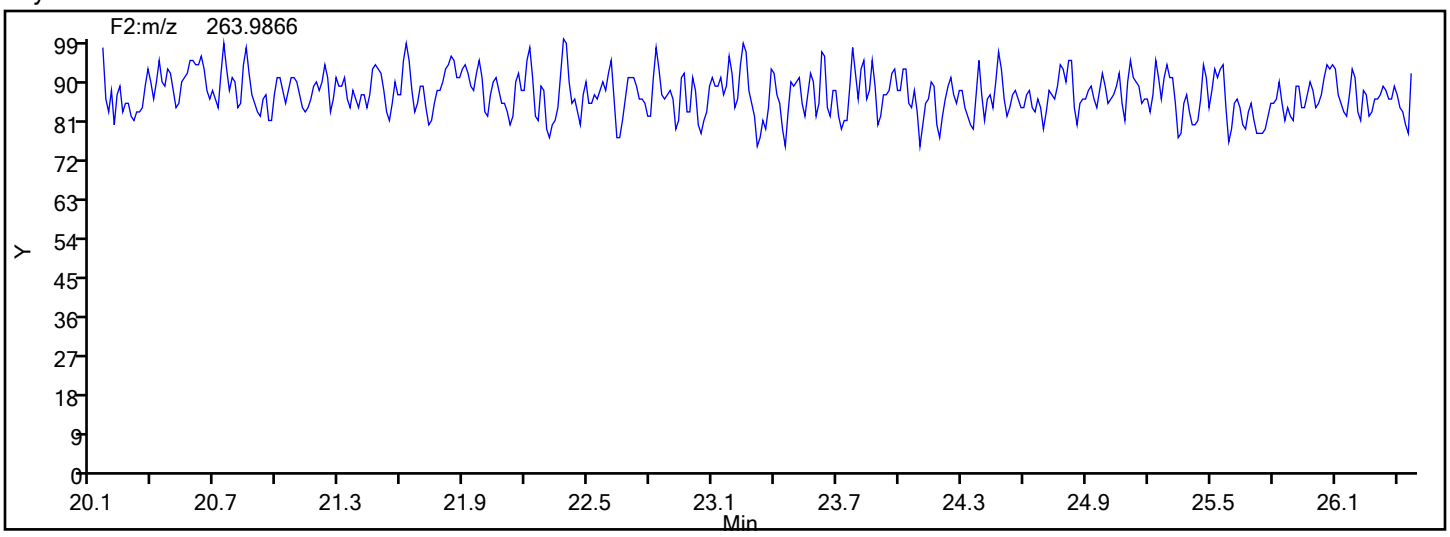
Column Type:	RTX-5	Column Dia:	0.32 mm

oxy-Chlordane





oxy-Chlordane Lock Mass



Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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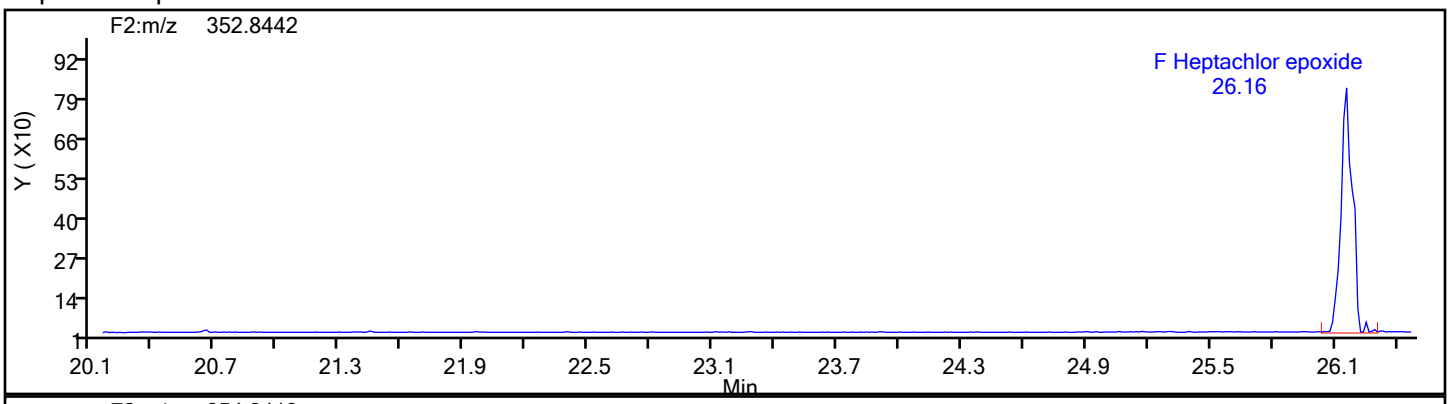
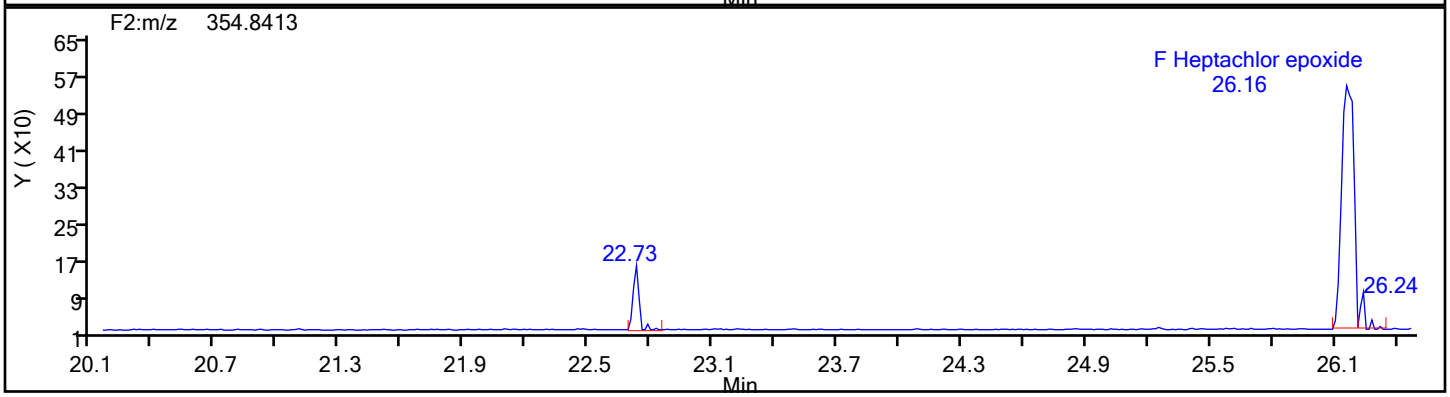
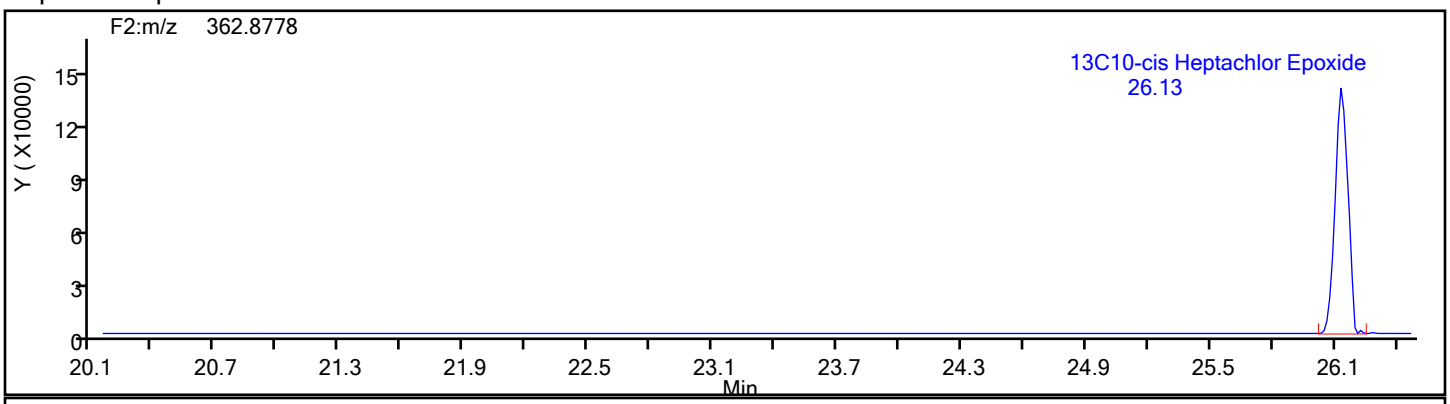
Column Type:	RTX-5	Column Dia:	0.32 mm

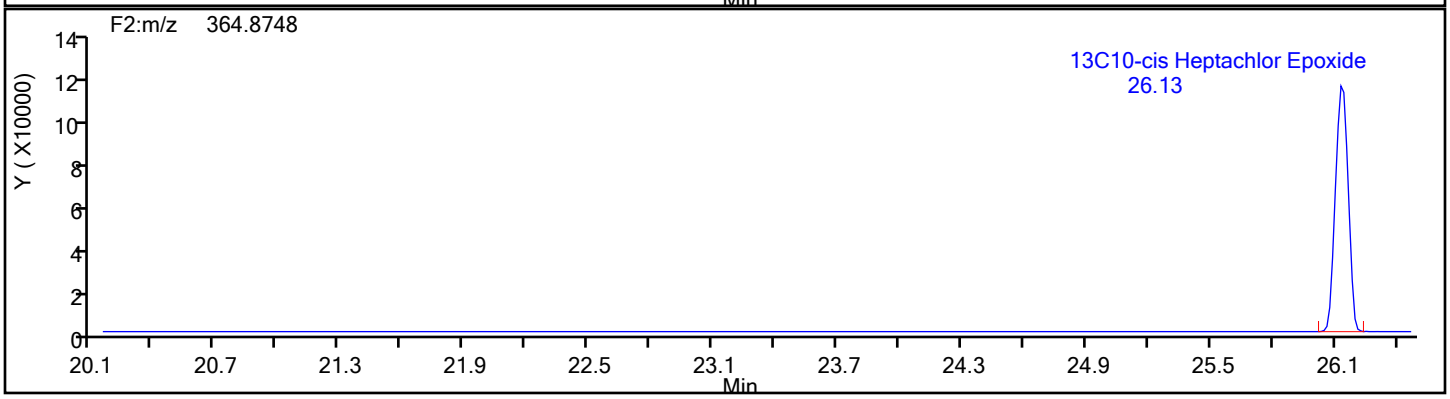
Heptachlor epoxide





Heptachlor epoxide Standards





Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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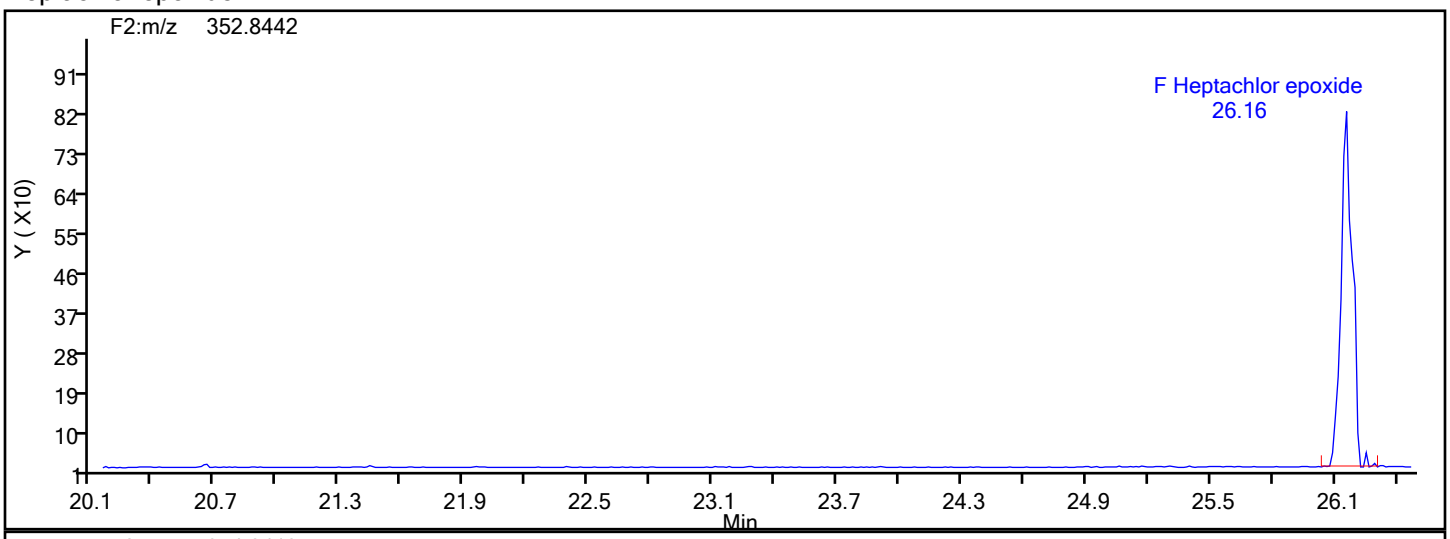
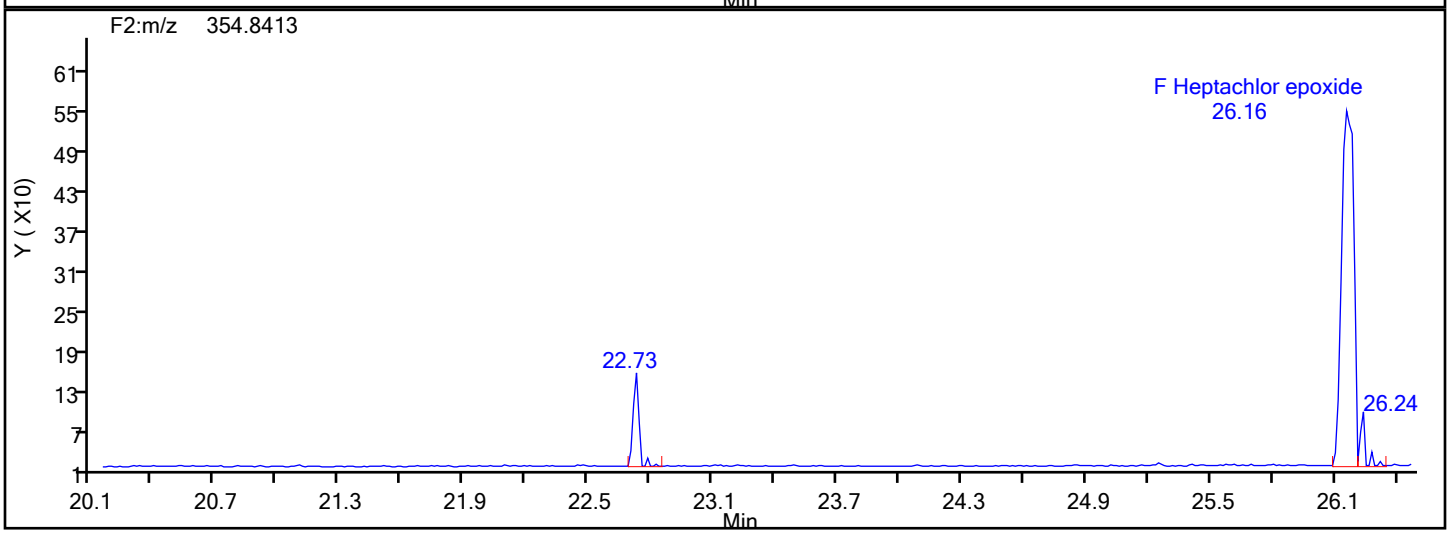
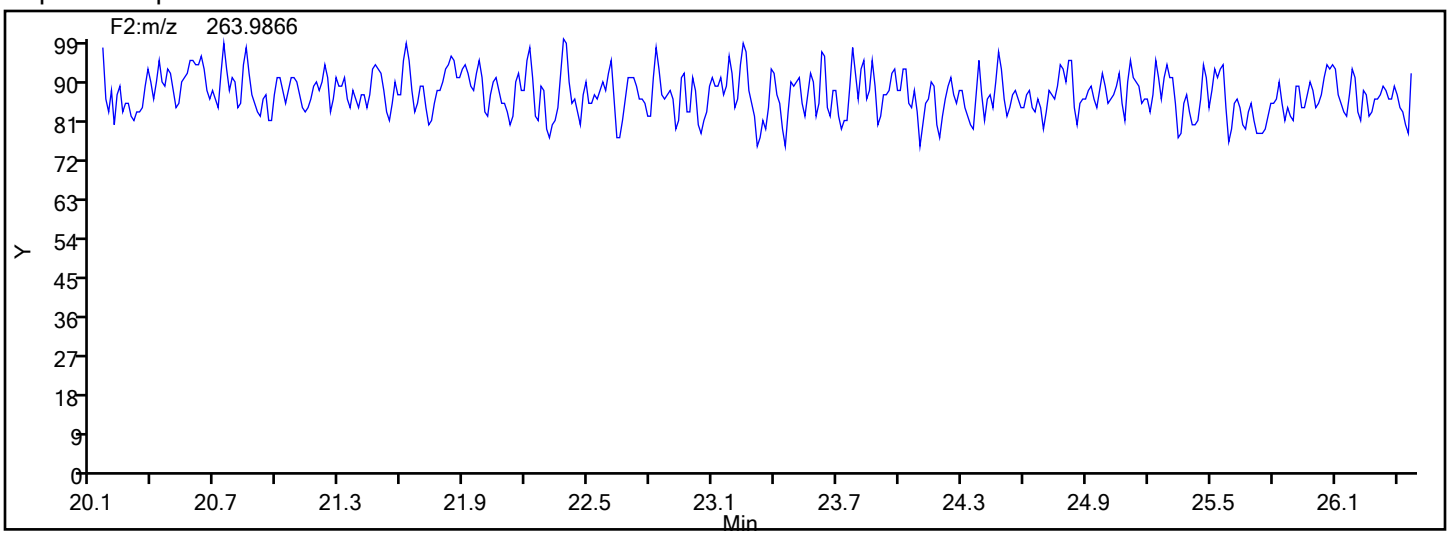
Heptachlor epoxide





Heptachlor epoxide Lock Mass



Report Date: 24-Mar-2025 13:05:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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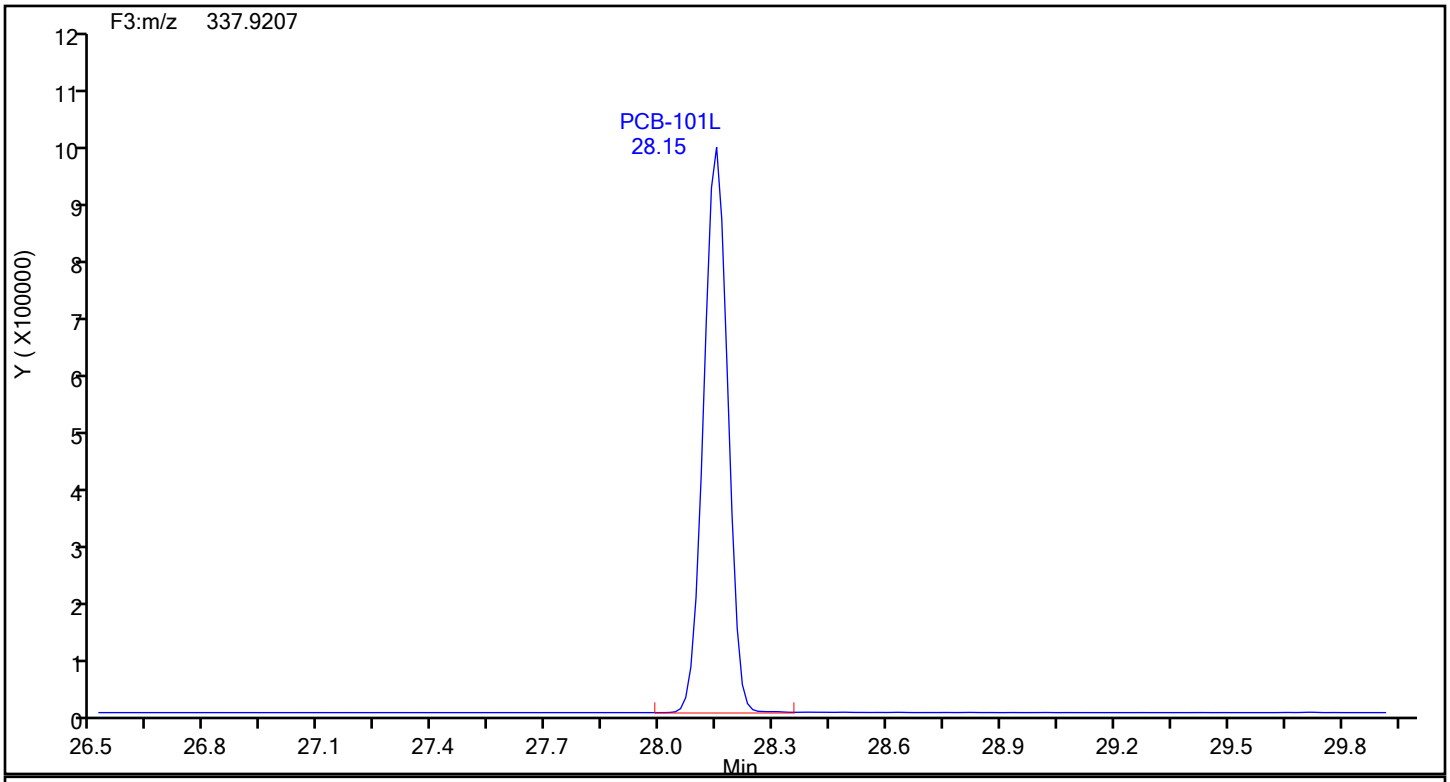
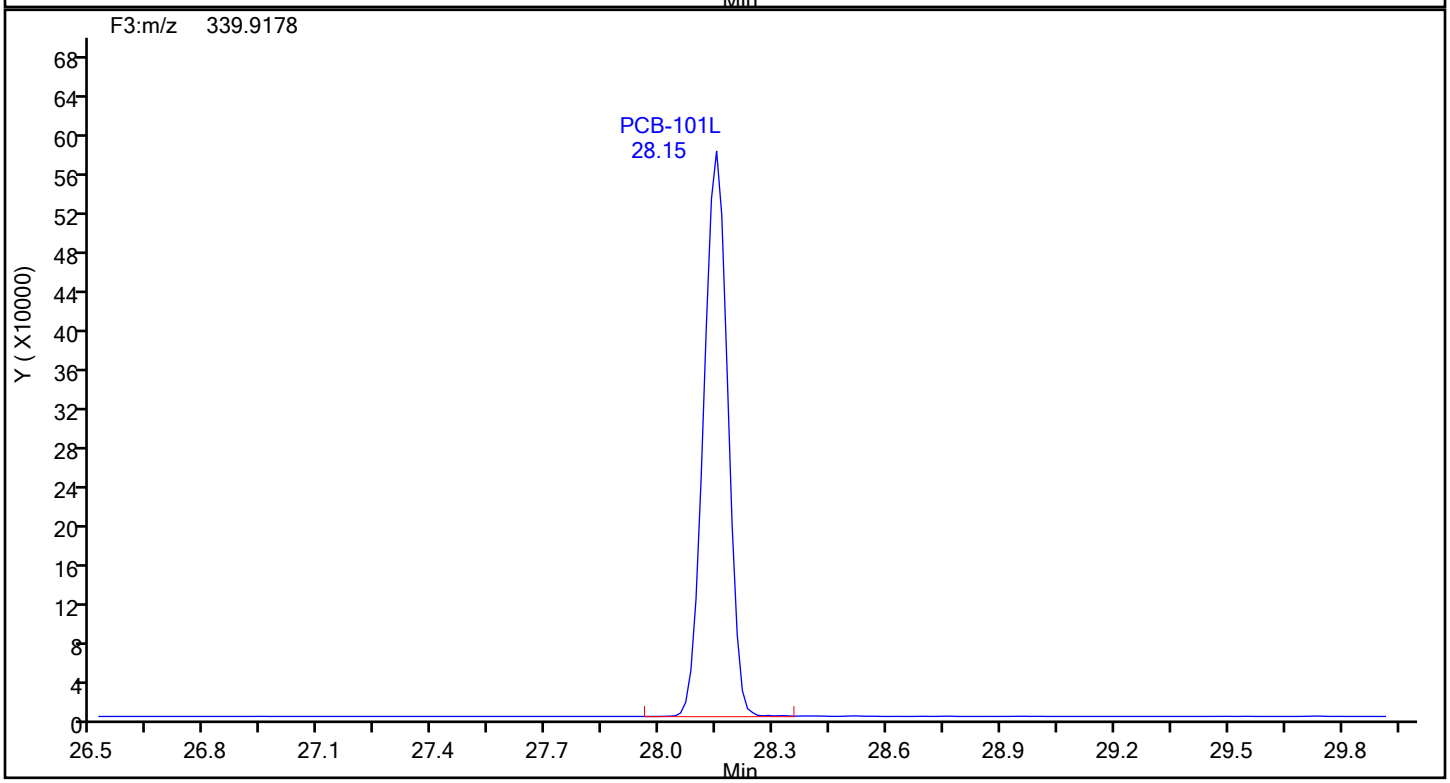
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-101L Standards





Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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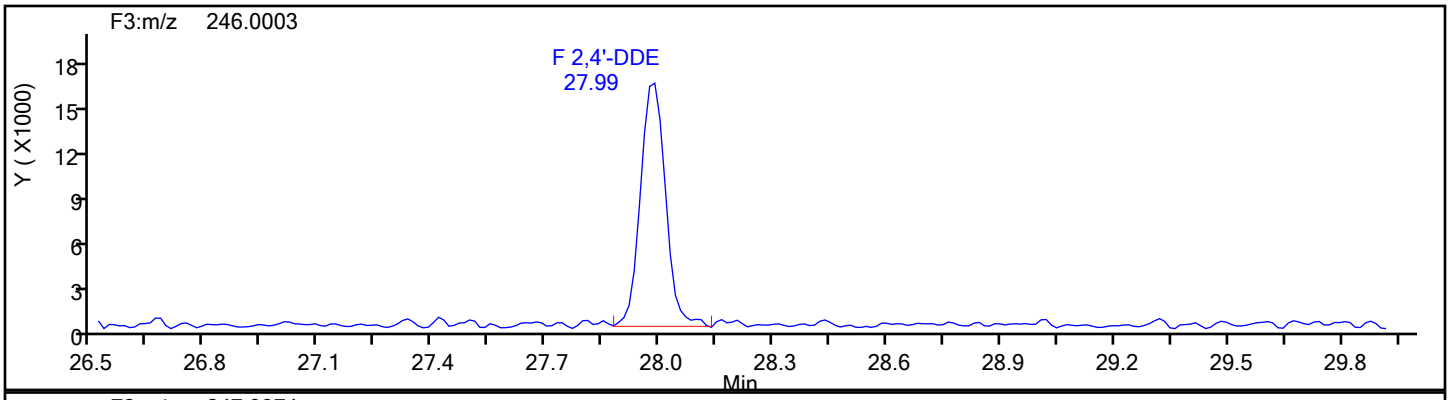
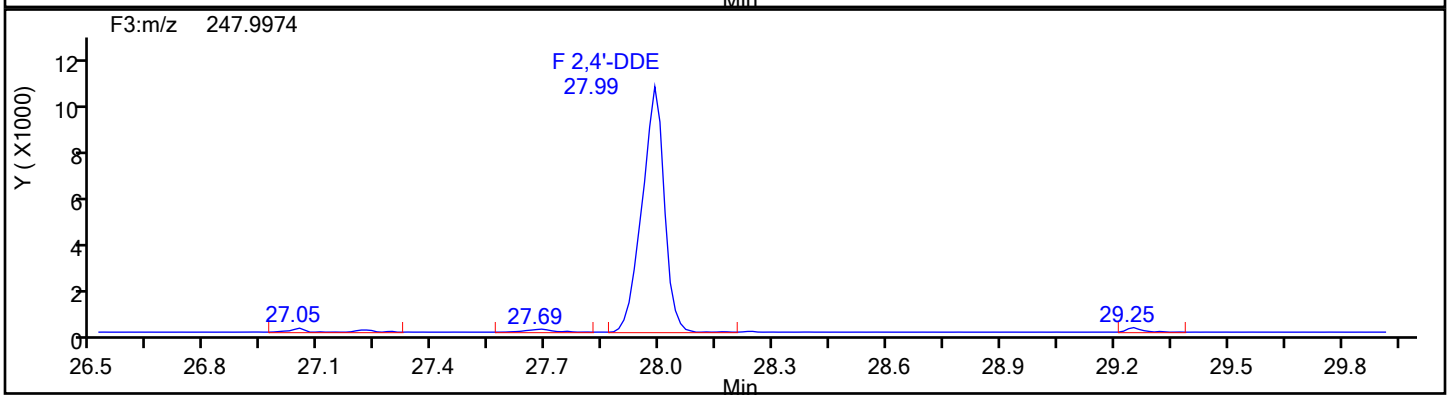
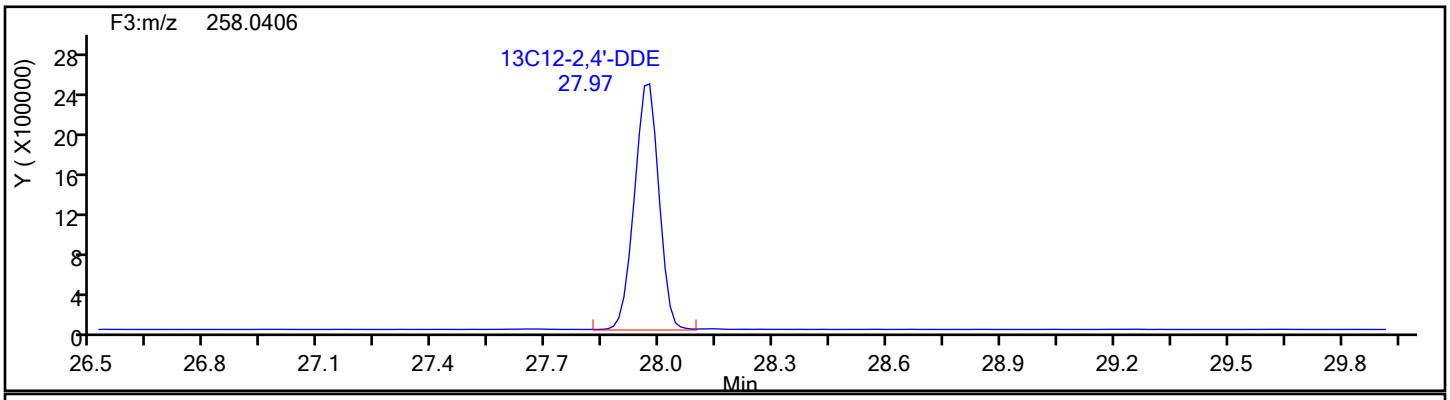
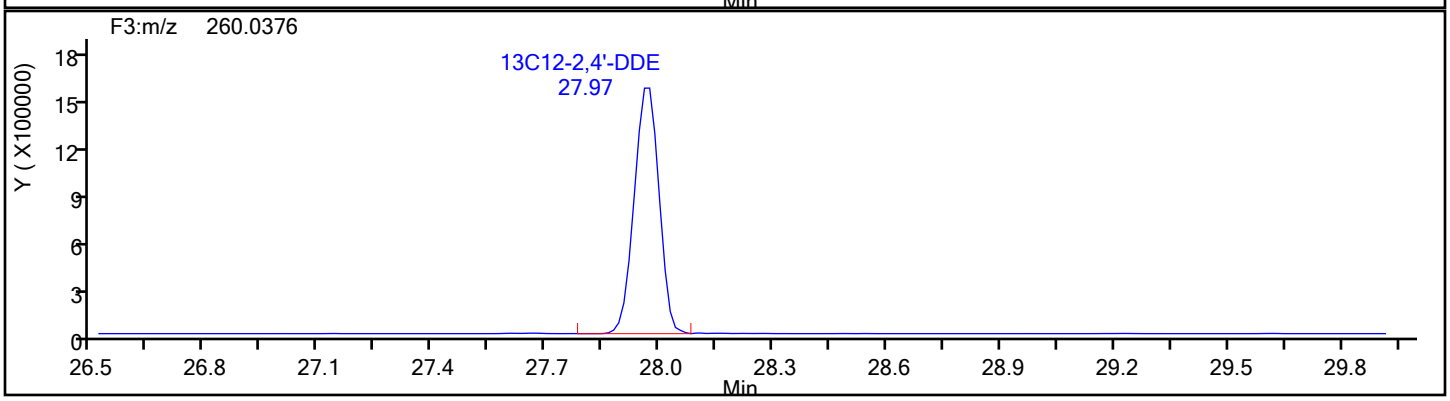
2,4'-DDE





2,4'-DDE Standards





Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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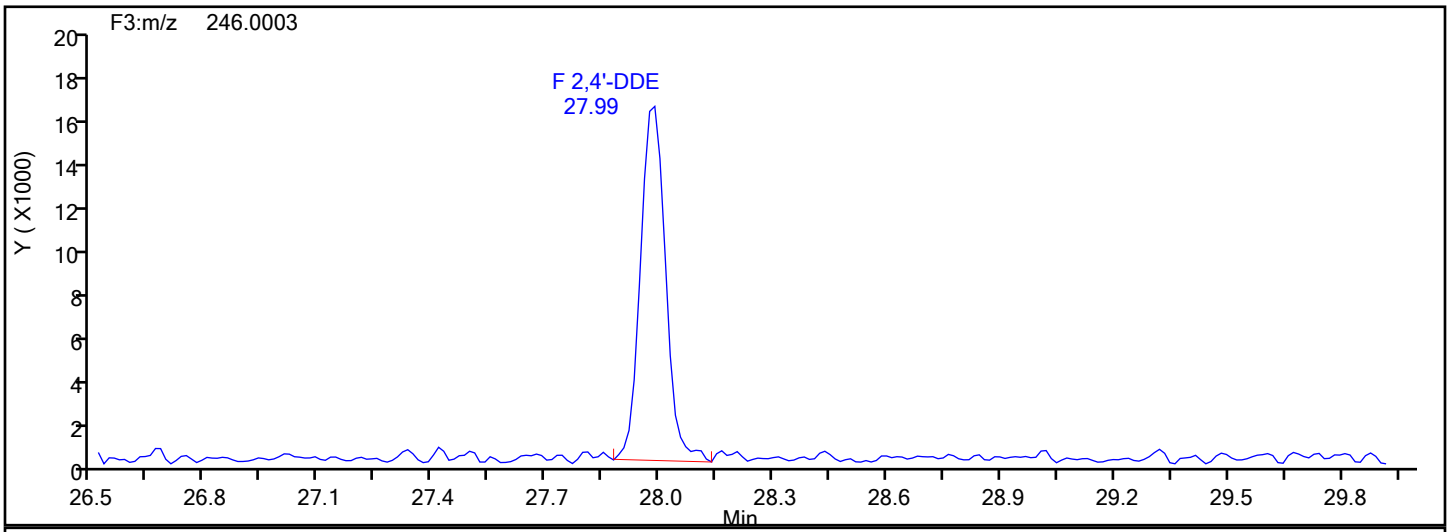
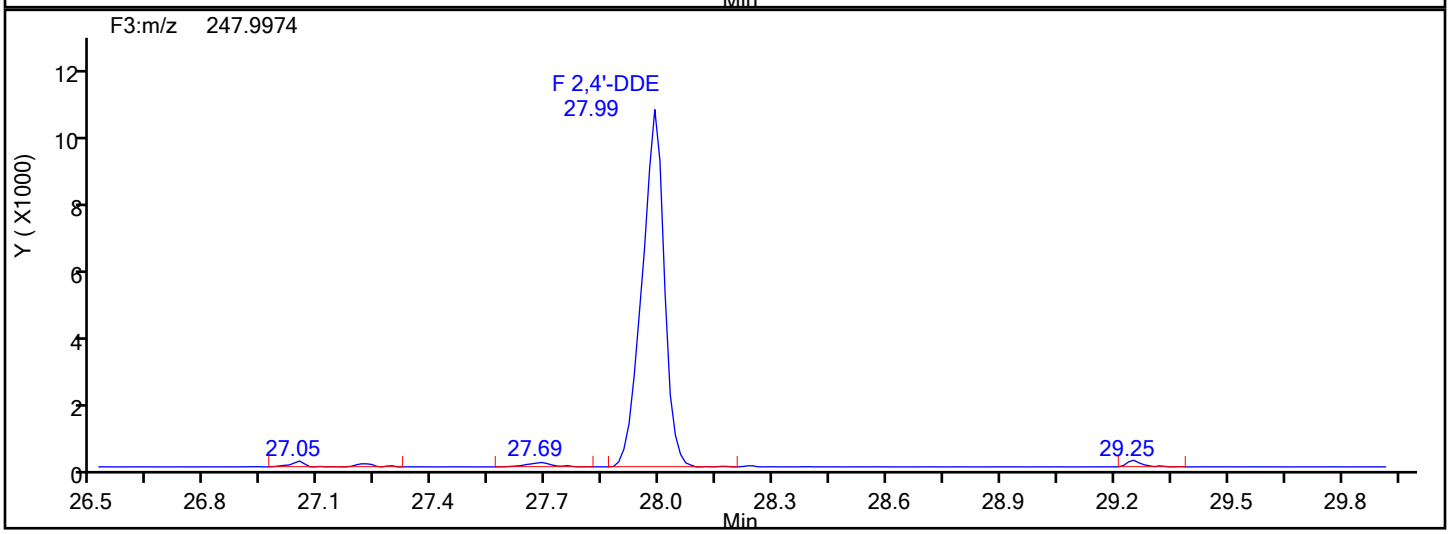
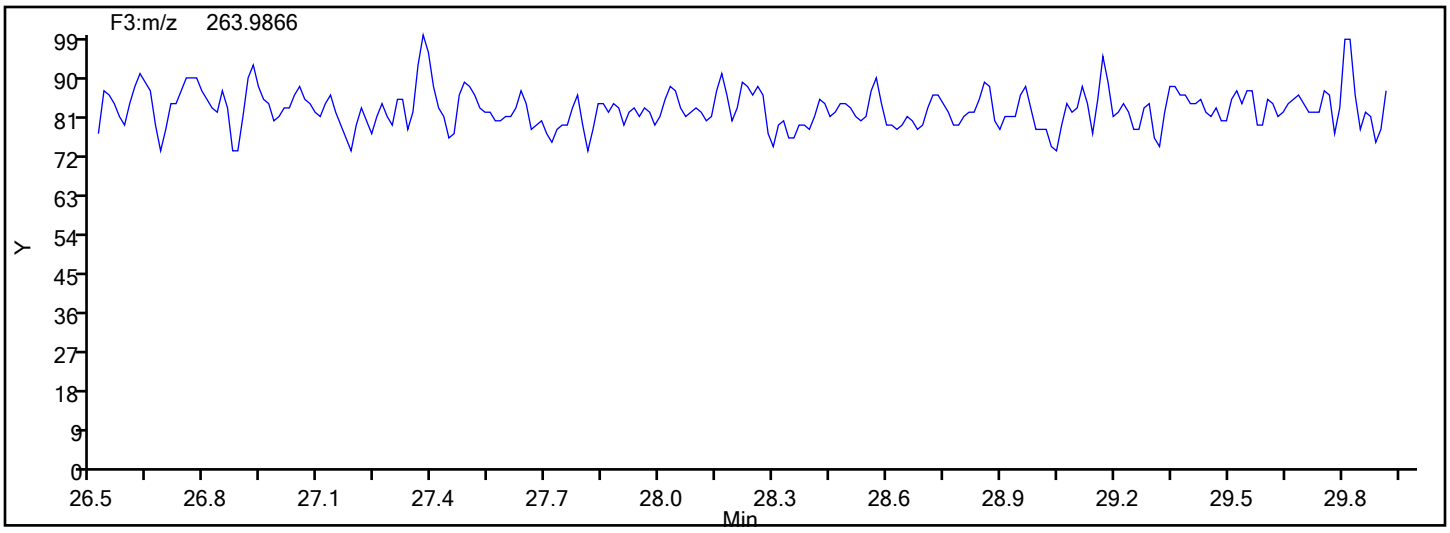
2,4'-DDE





2,4'-DDE Lock Mass



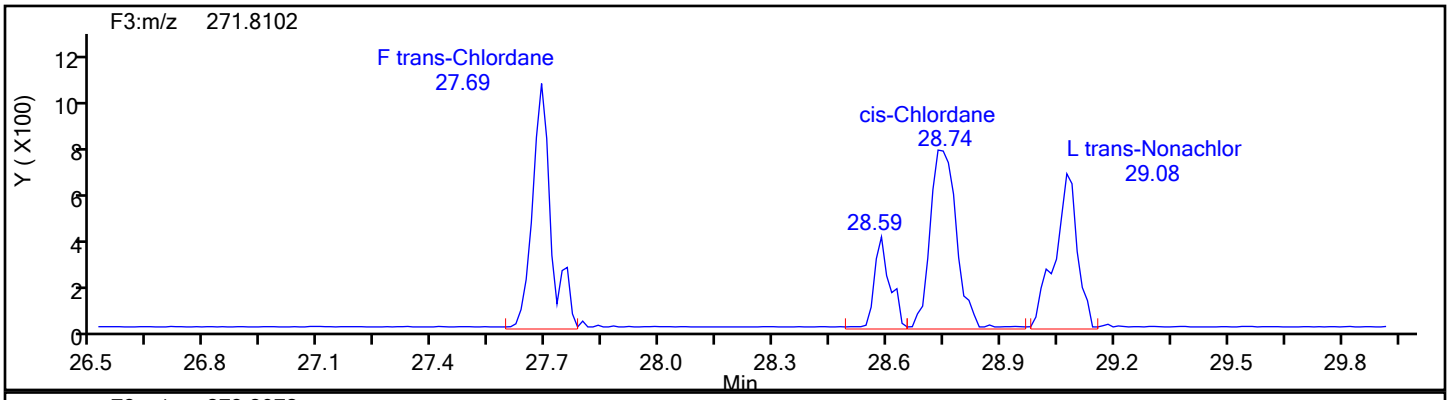
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

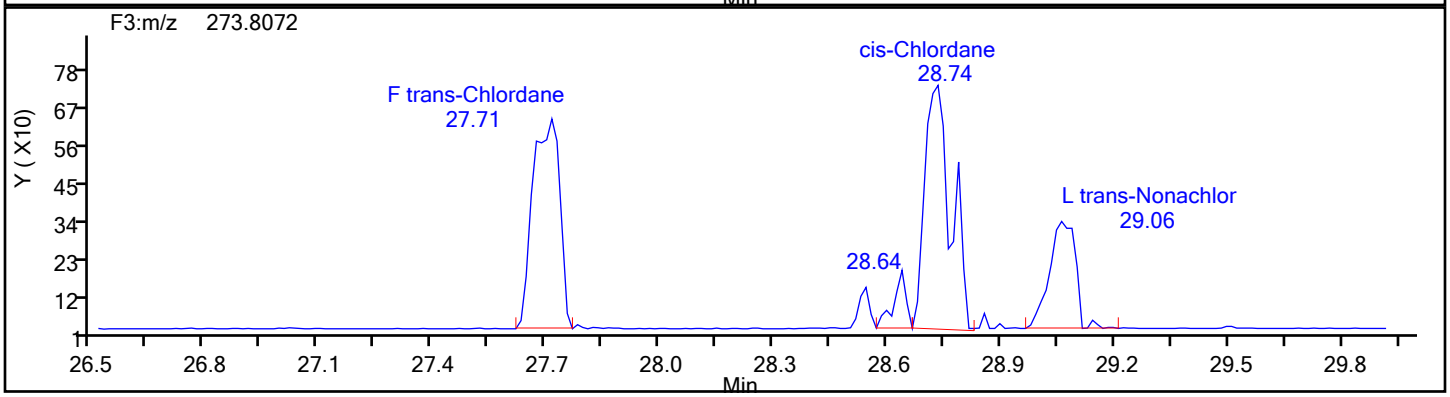
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

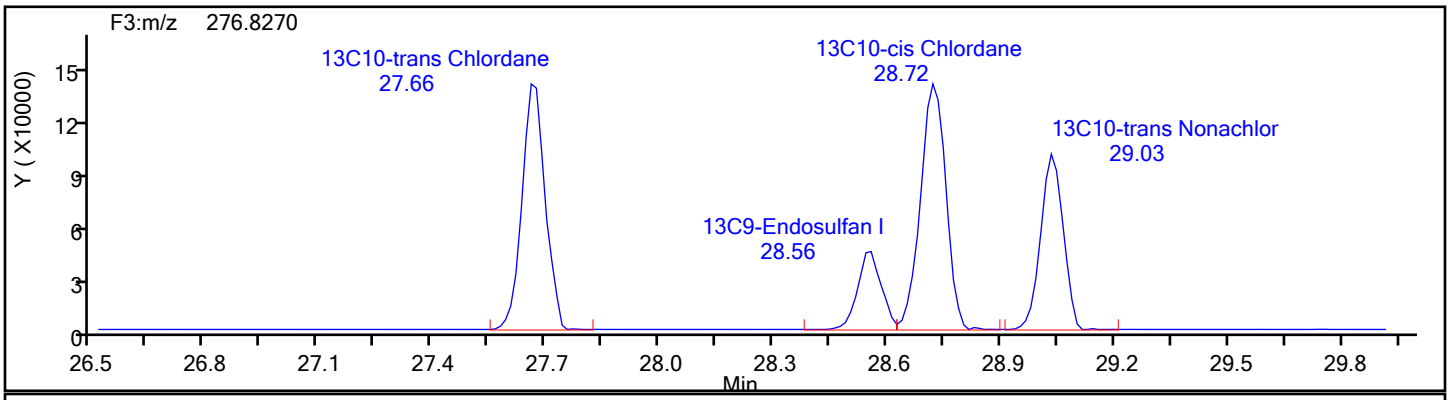
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

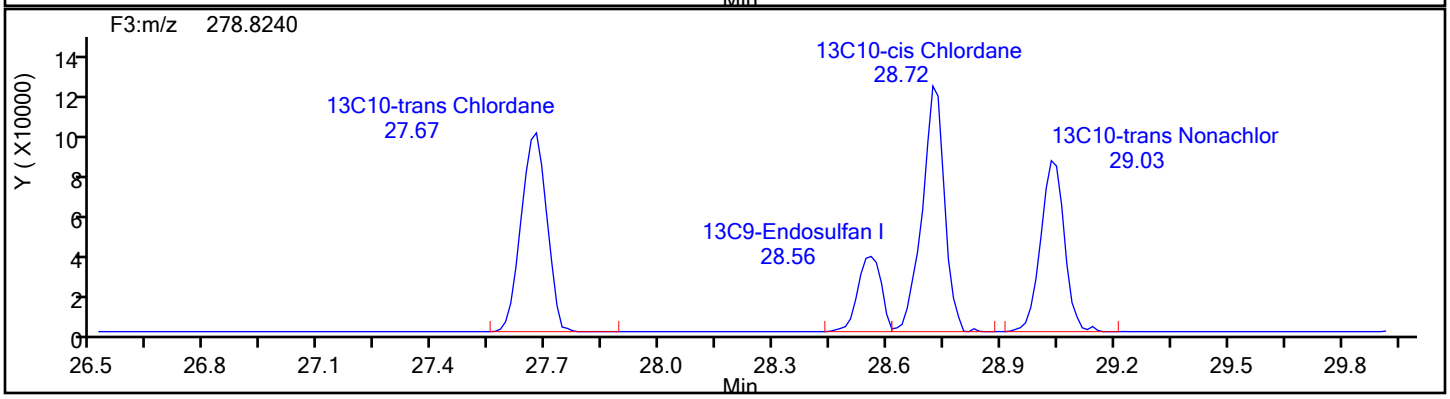
Chlordane





Chlordane Standards





Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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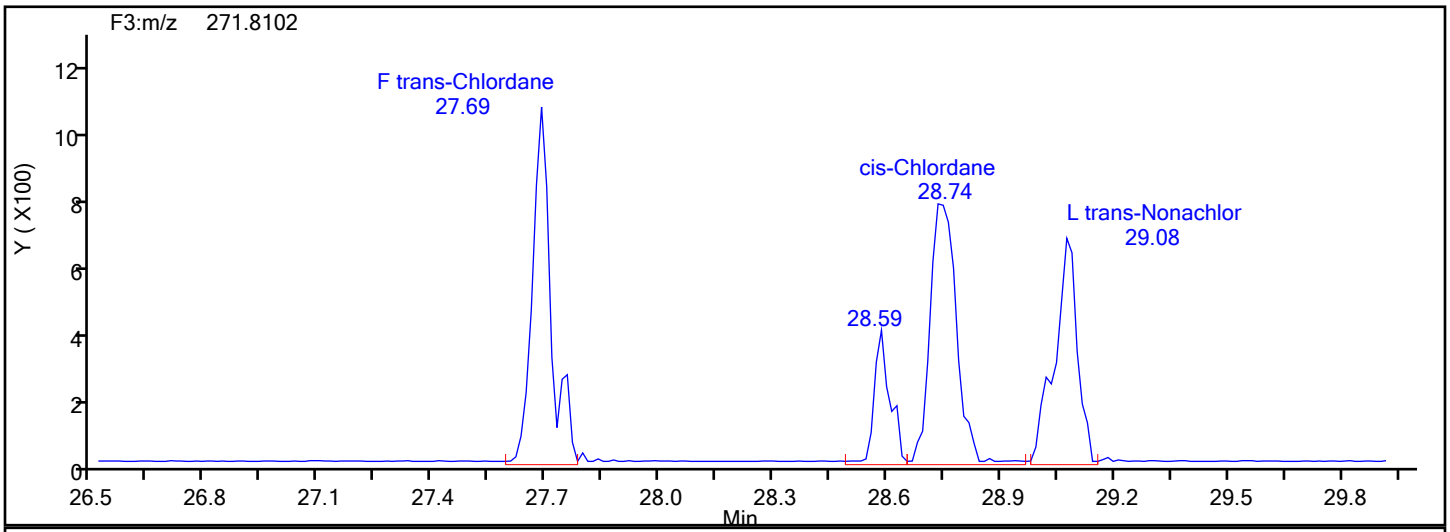
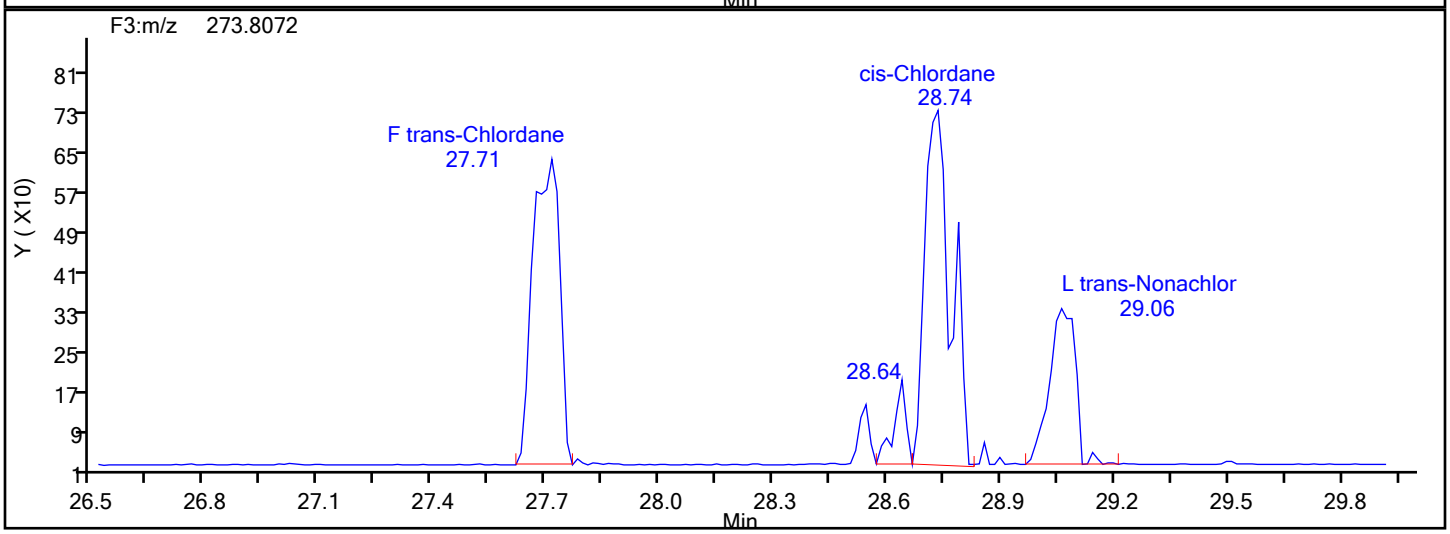
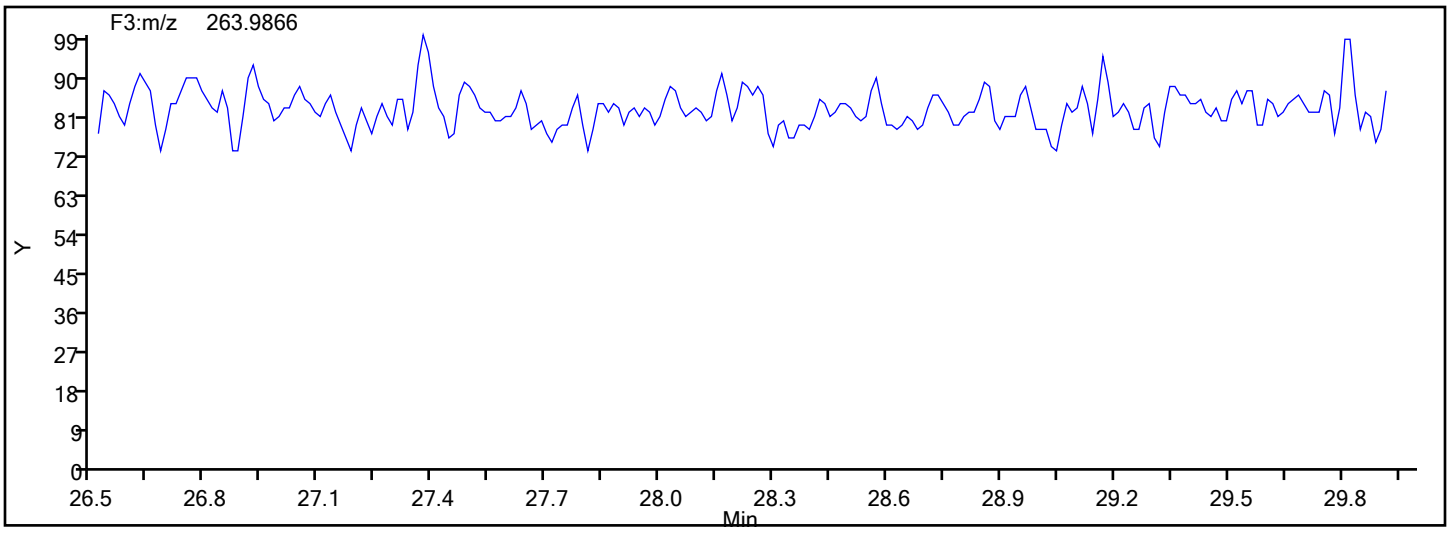
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane





Chlordane Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

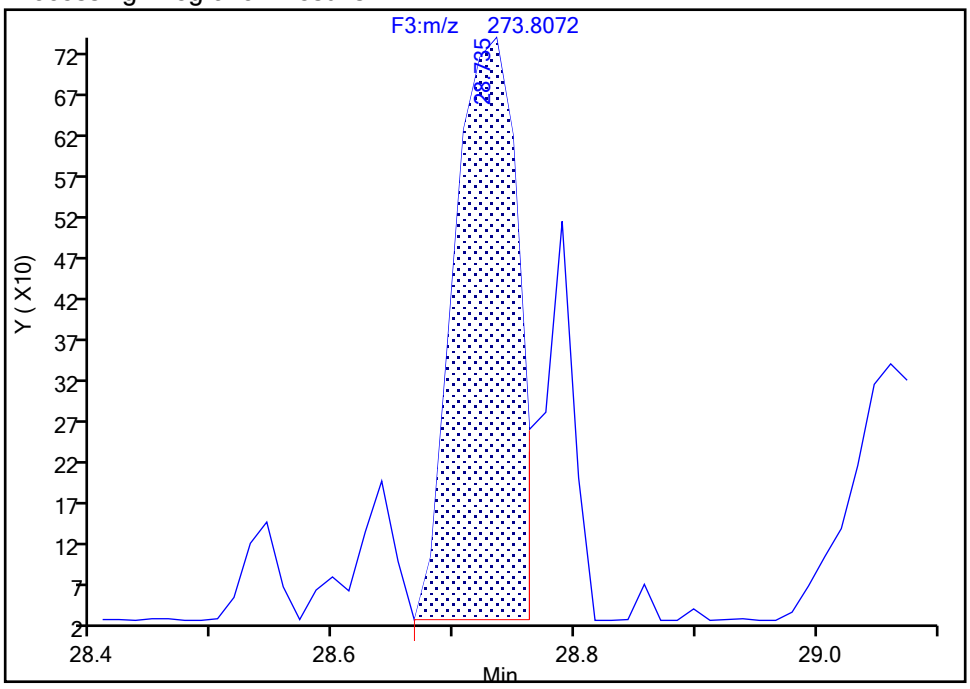
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d				
Injection Date:	19-Mar-2025 17:47:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

cis-Chlordane, CAS: 5103-71-9

Signal: 2

Processing Integration Results

RT: 28.74
Area: 2542
Amount: 0.522503
Amount Units: pg/ul



Manual Integration Results

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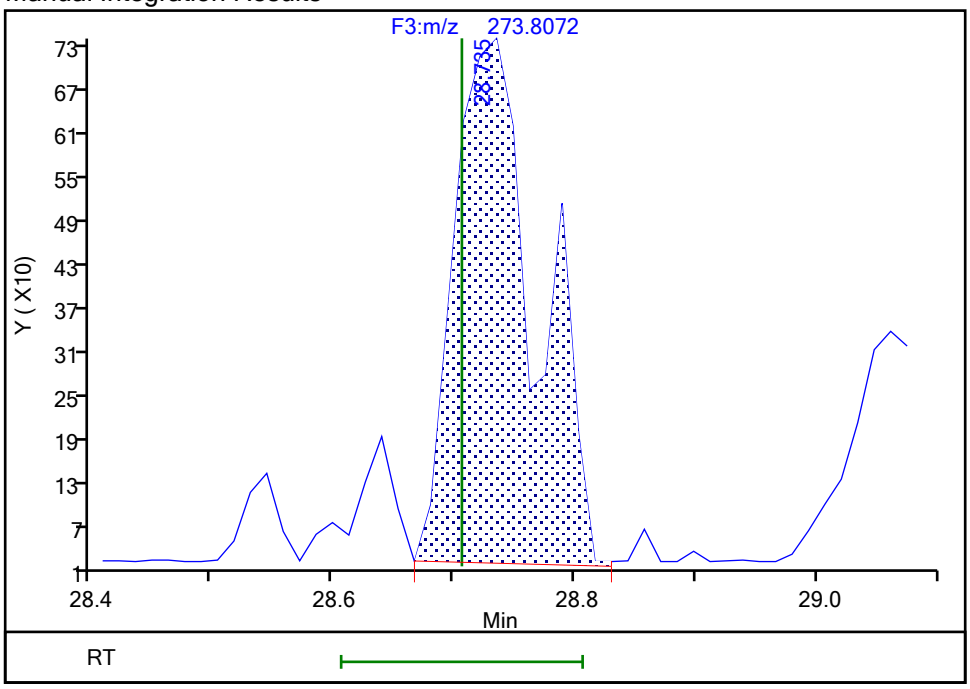
Amount: 0.586738
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:11:50 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

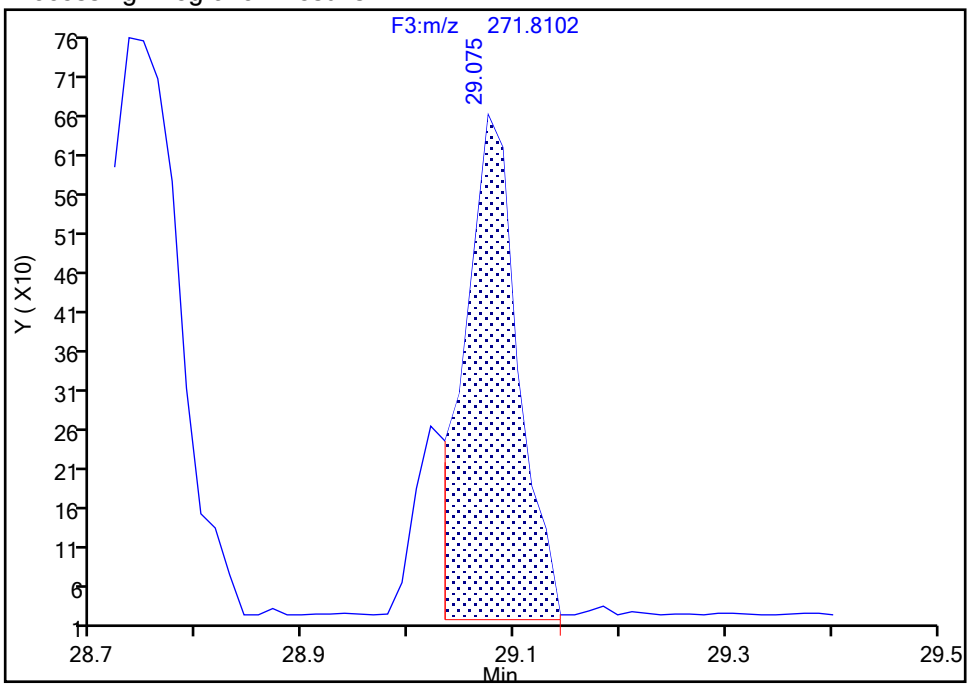
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d				
Injection Date:	19-Mar-2025 17:47:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

trans-Nonachlor, CAS: 39765-80-5

Signal: 1

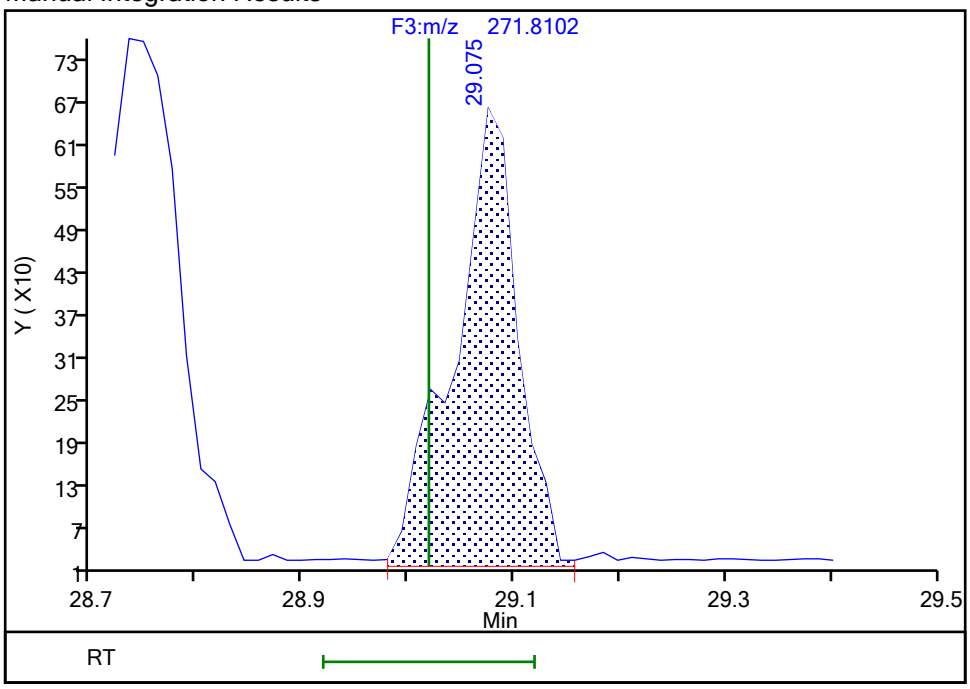
Processing Integration Results

RT: 29.08
Area: 2219
Amount: 0.447854
Amount Units: pg/ul



Manual Integration Results

RT: 29.08
Area: 2697
Amount: 0.504905
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:12:26 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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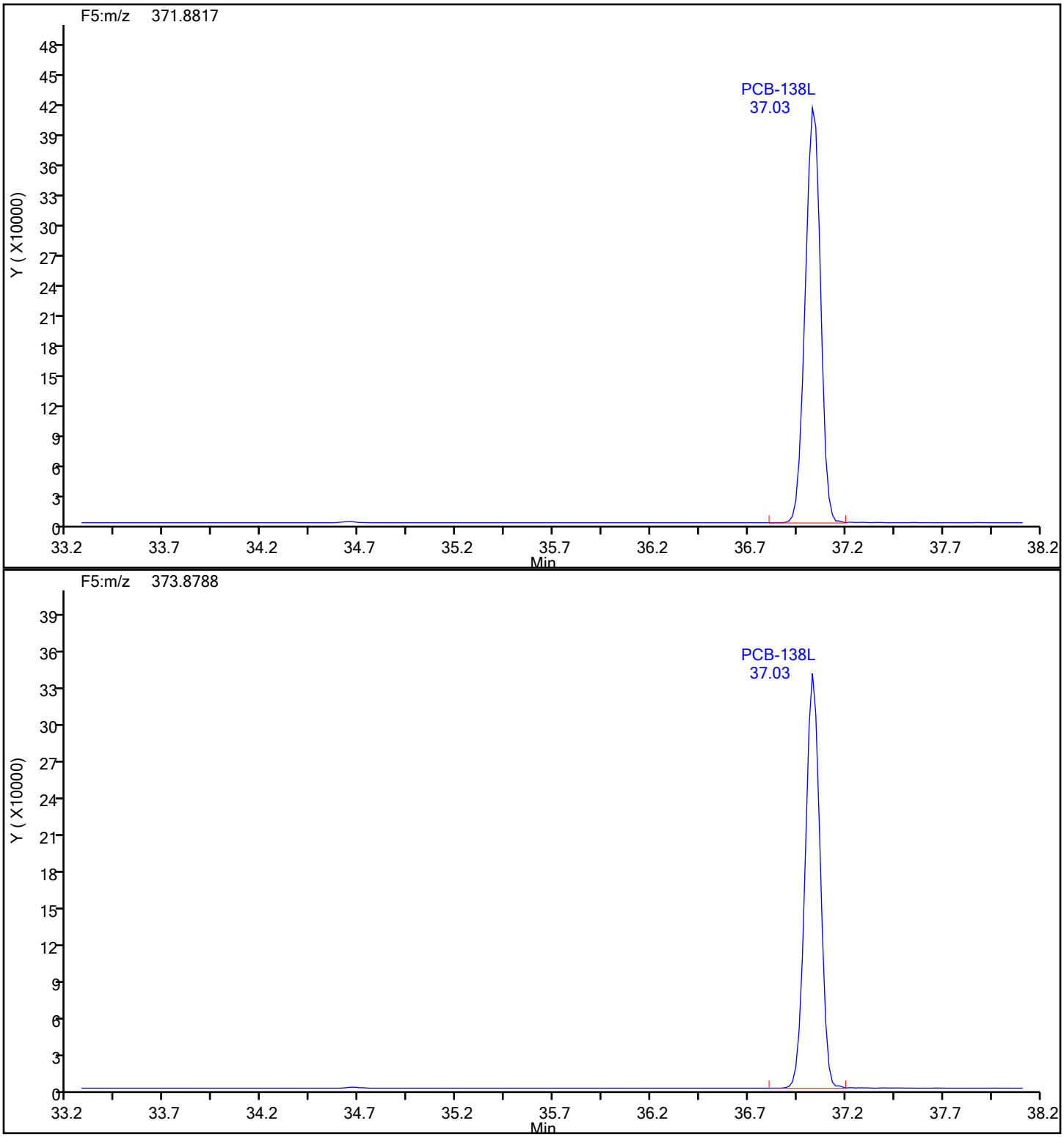
PCB-138L Standards



Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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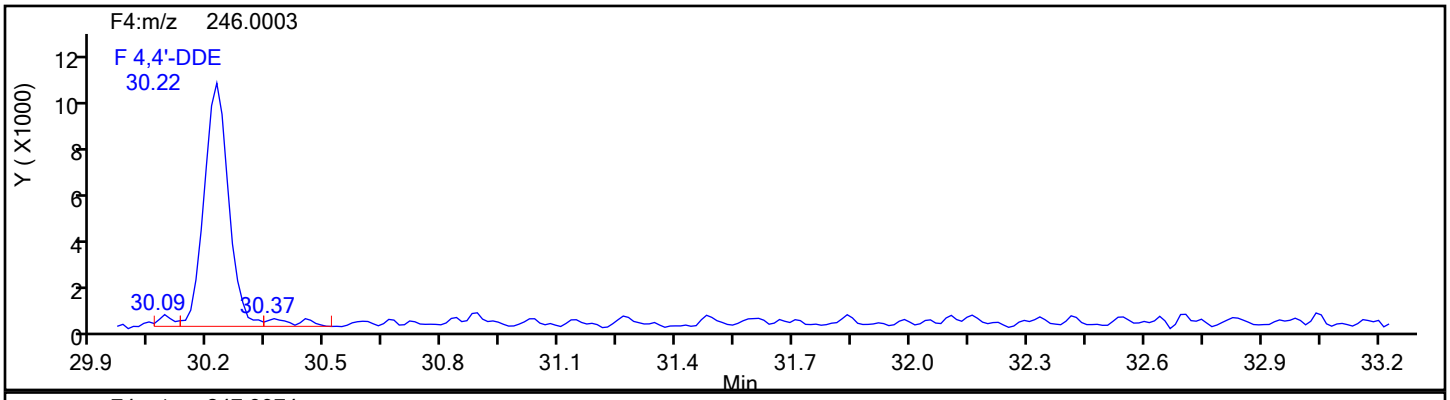
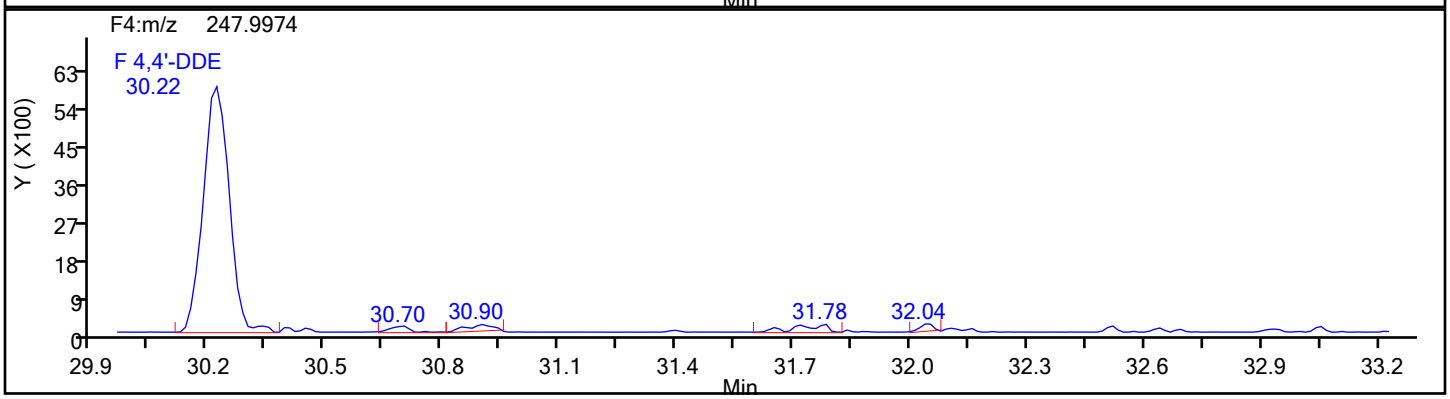
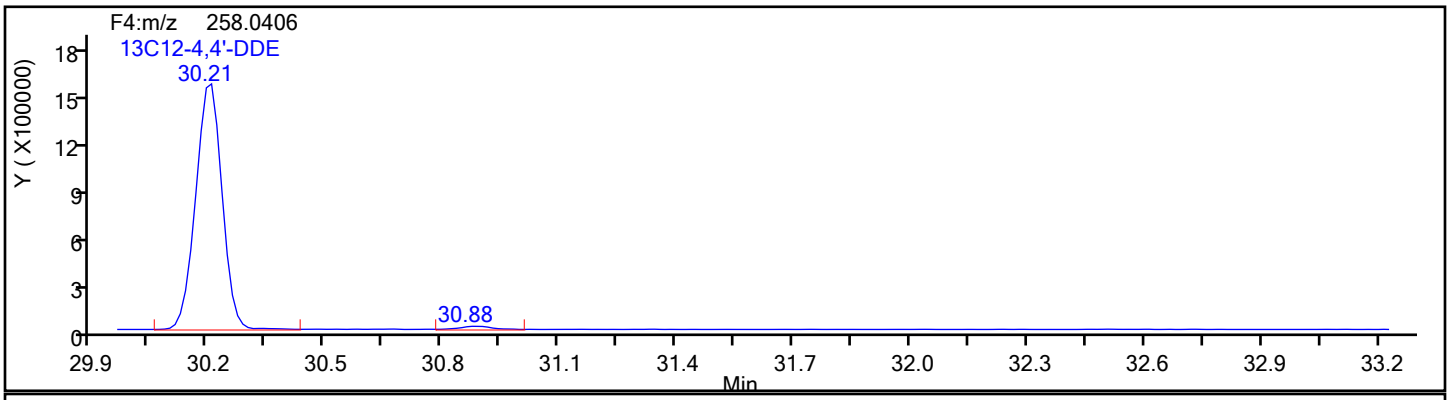
Column Type:	RTX-5	Column Dia:	0.32 mm

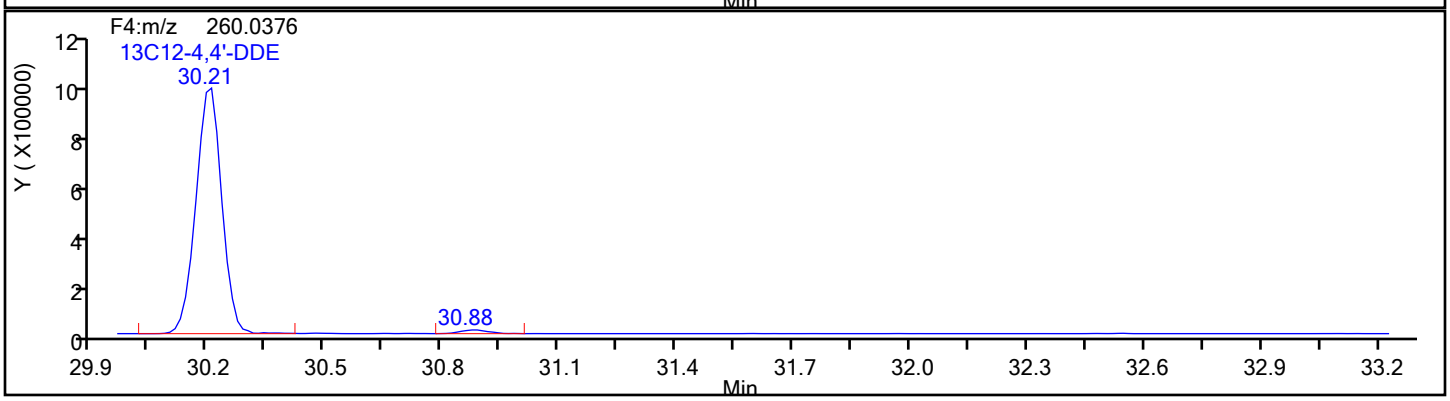
4,4'-DDE





4,4'-DDE Standards





Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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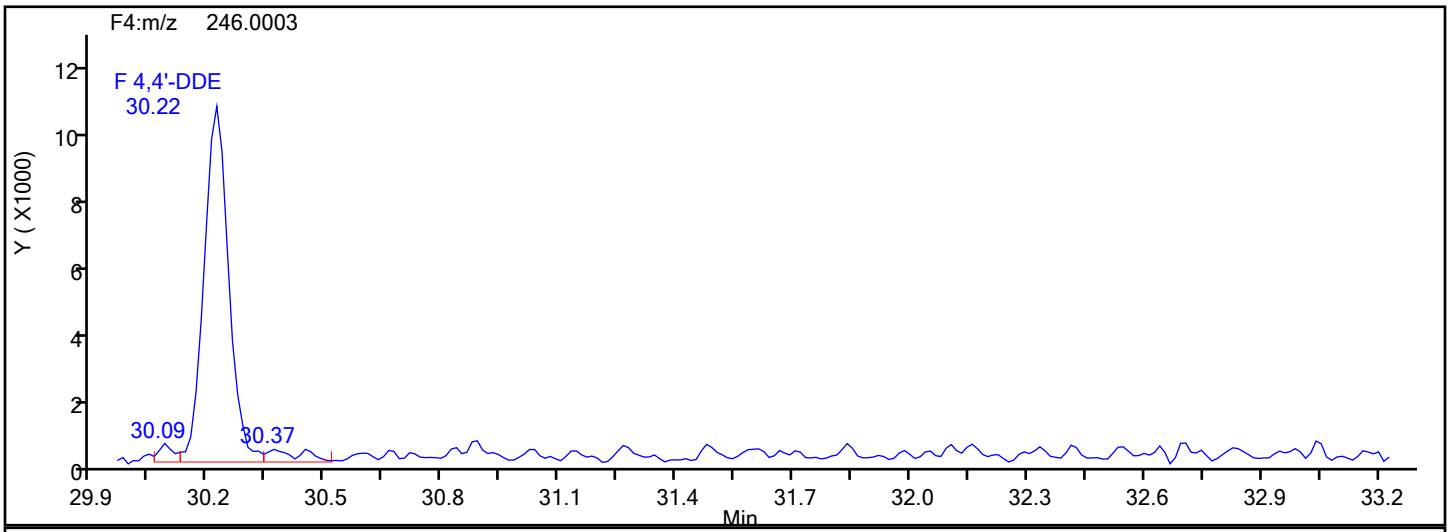
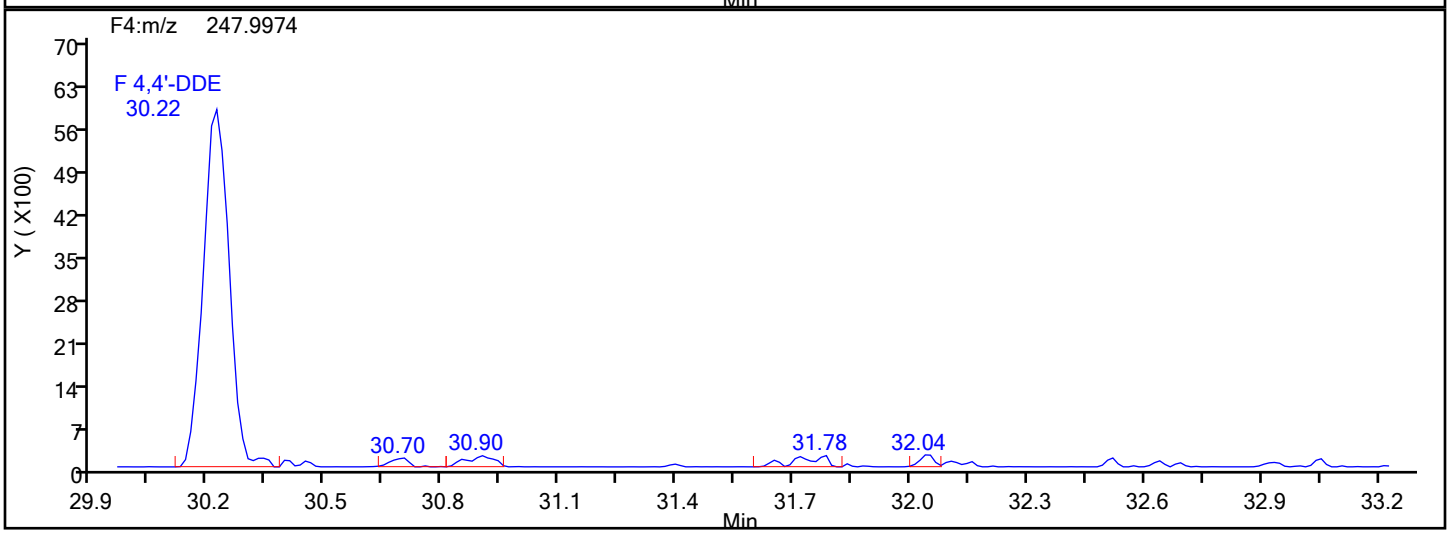
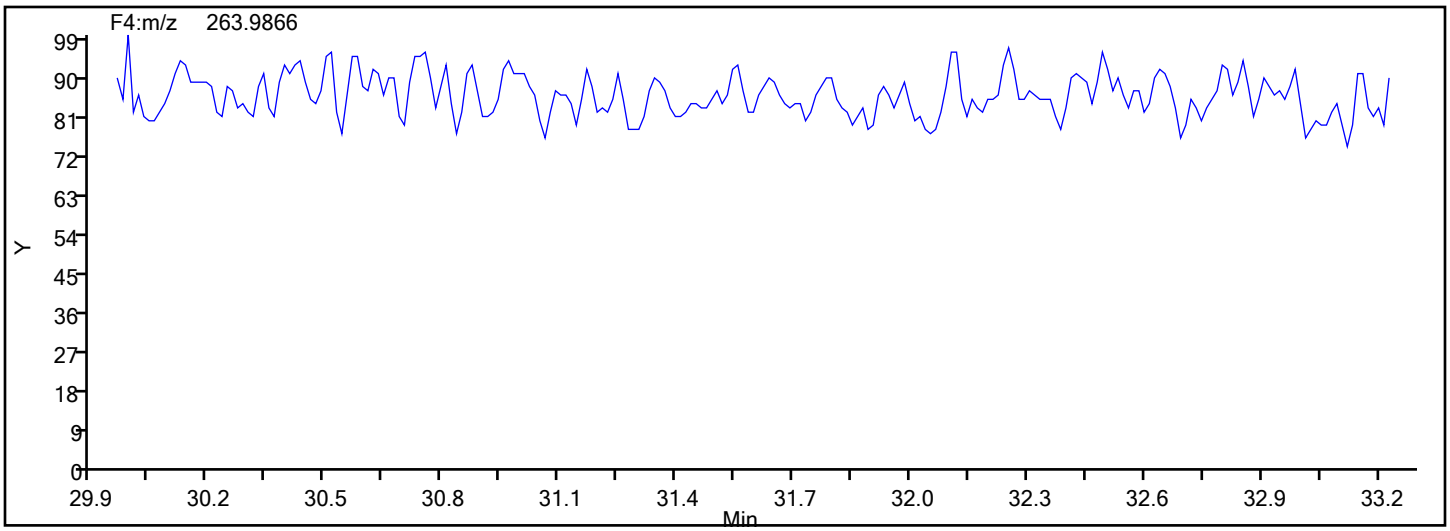
Column Type: RTX-5 Column Dia: 0.32 mm

4,4'-DDE





4,4'-DDE Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

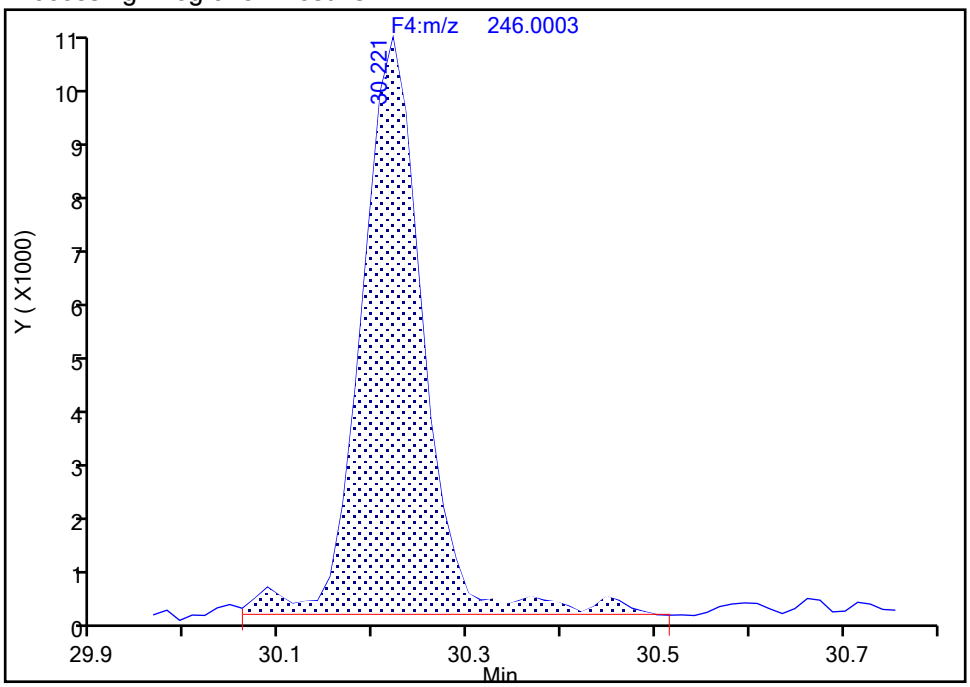
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F4(29.96 :33.23)

4,4'-DDE, CAS: 72-55-9

Signal: 1

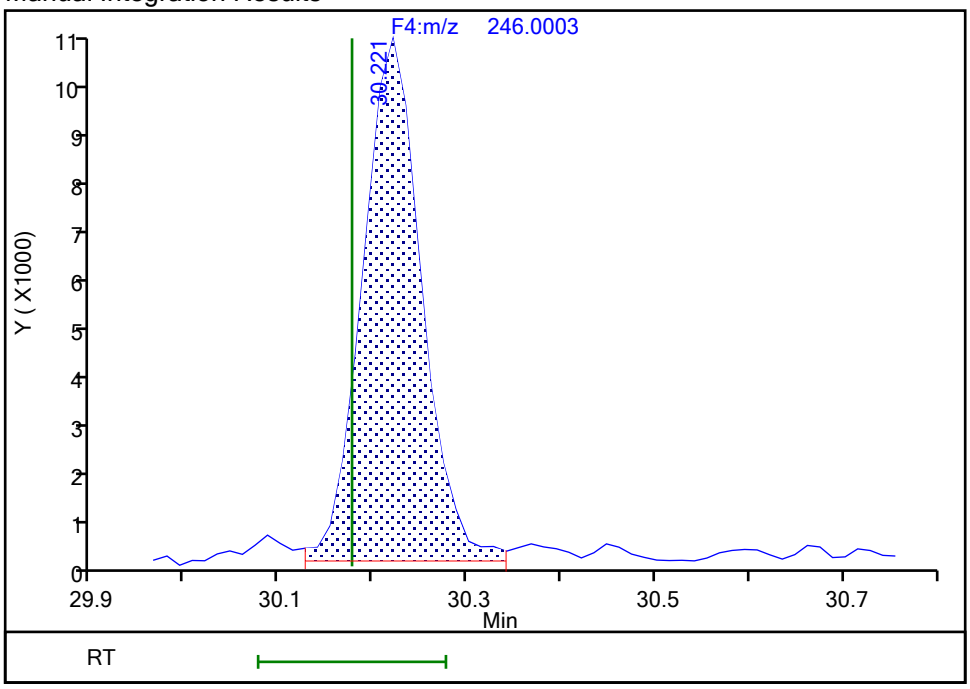
Processing Integration Results

RT: 30.22
Area: 46392
Amount: 0.493674
Amount Units: pg/ul



Manual Integration Results

RT: 30.22
Area: 43399
Amount: 0.475697
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:12:39 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

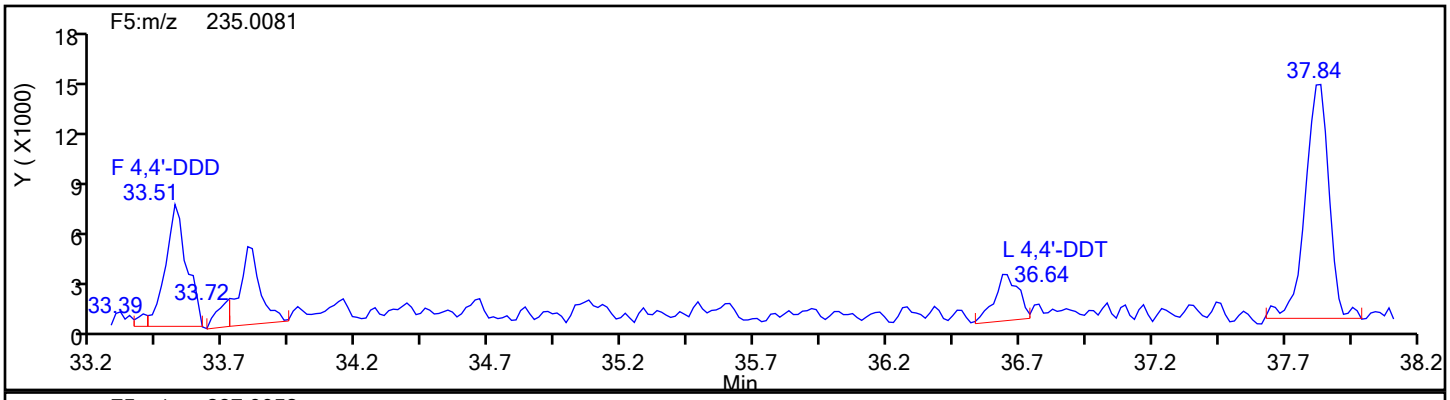
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

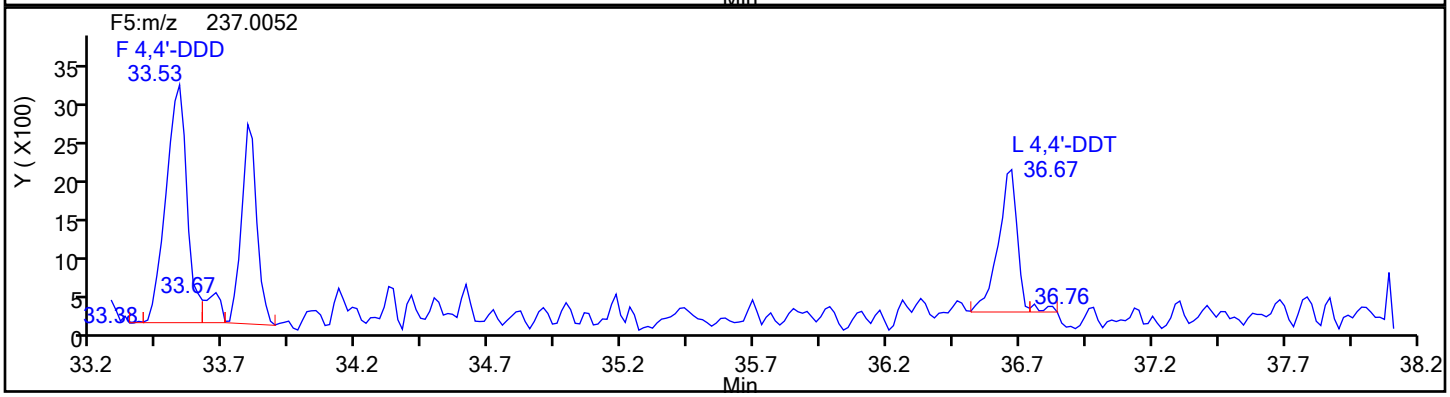
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

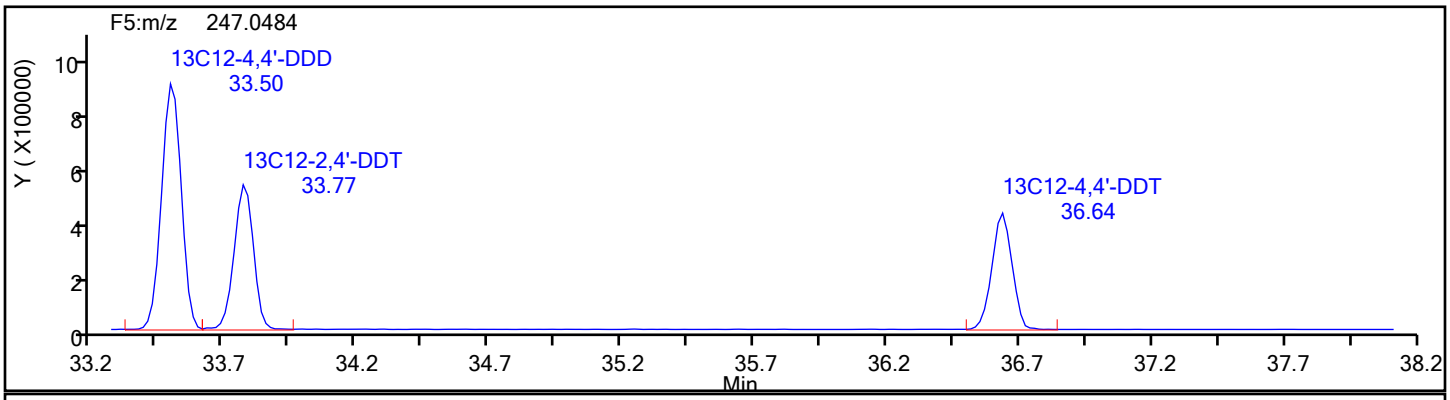
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

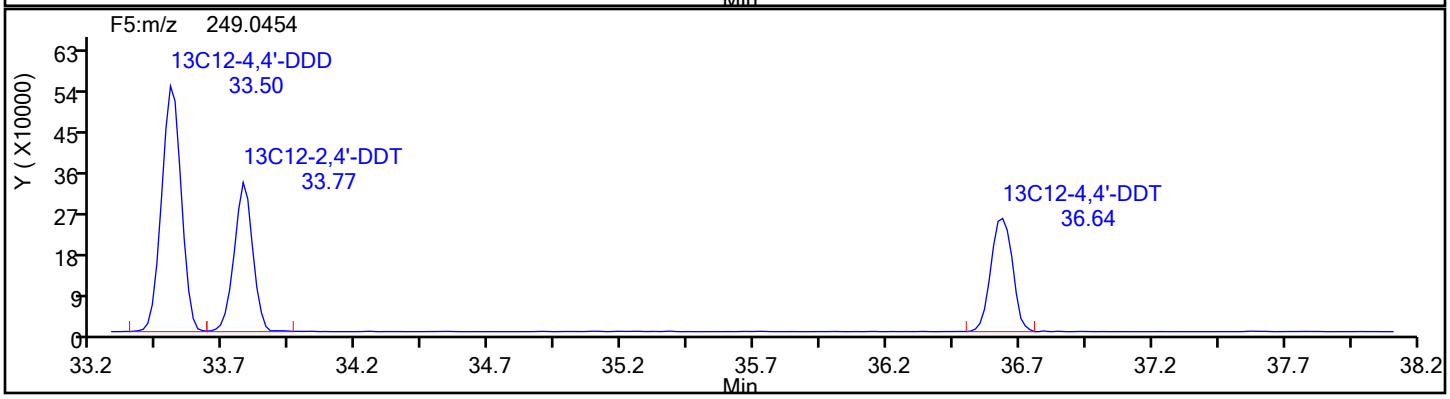
DDD





DDD Standards



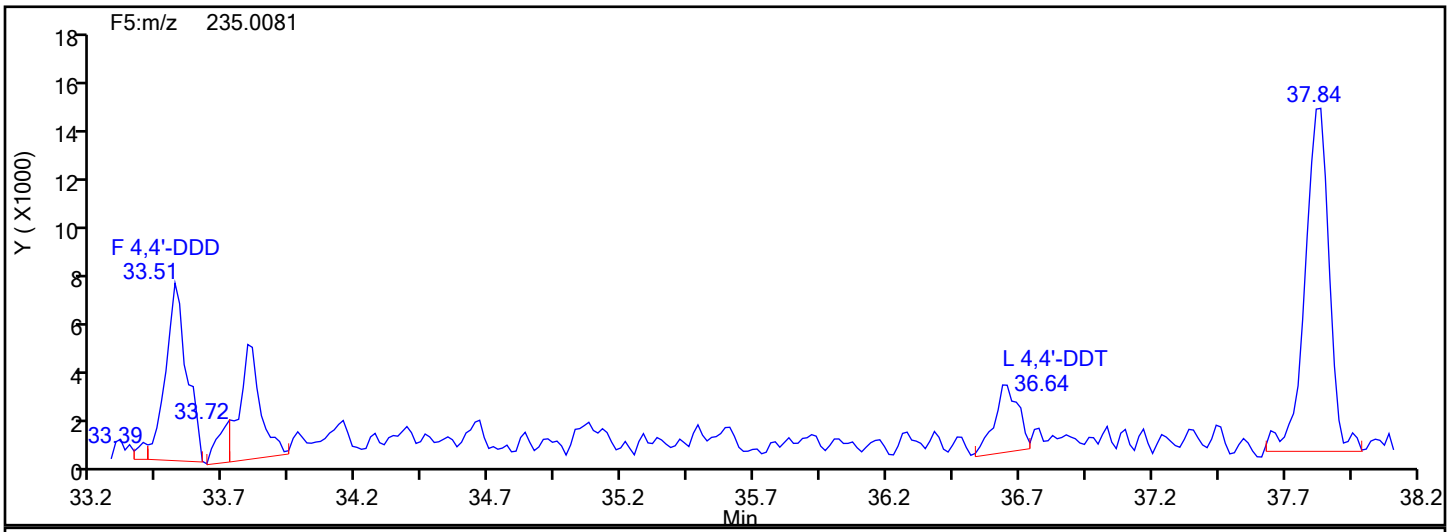


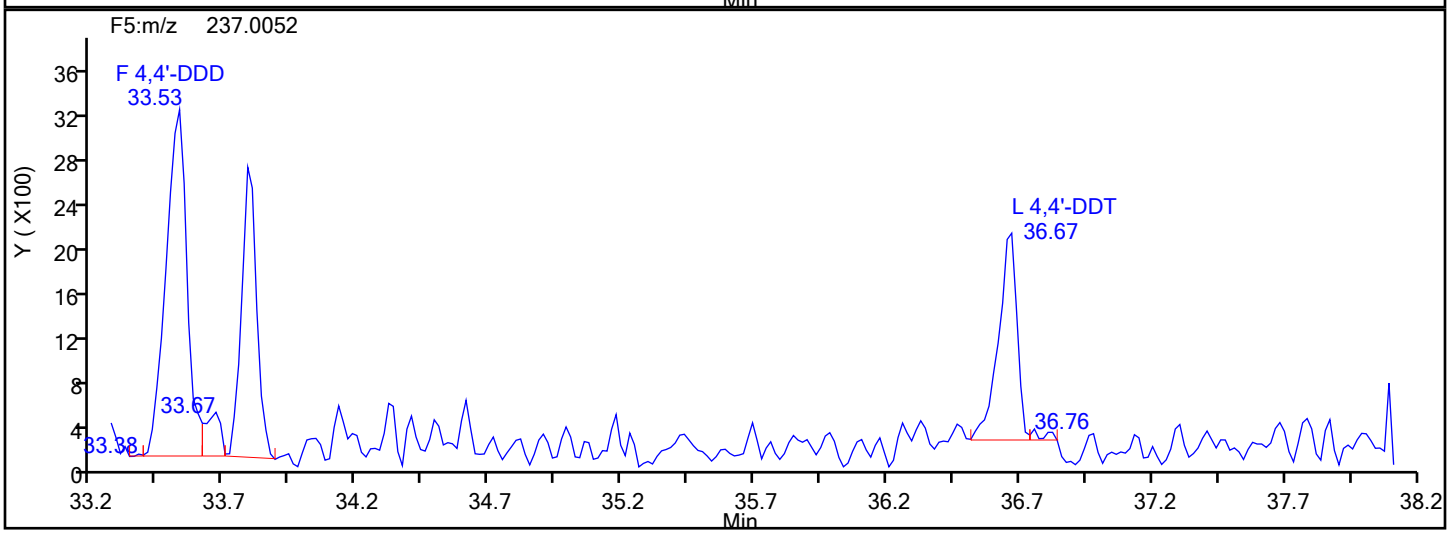
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

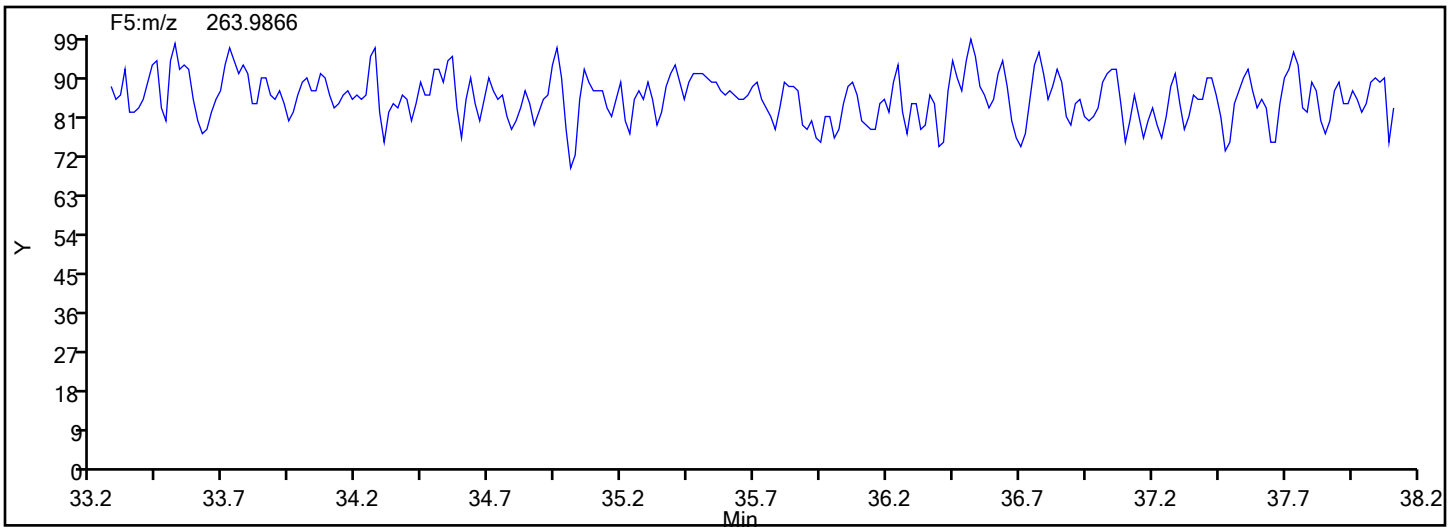
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

DDD





DDD Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

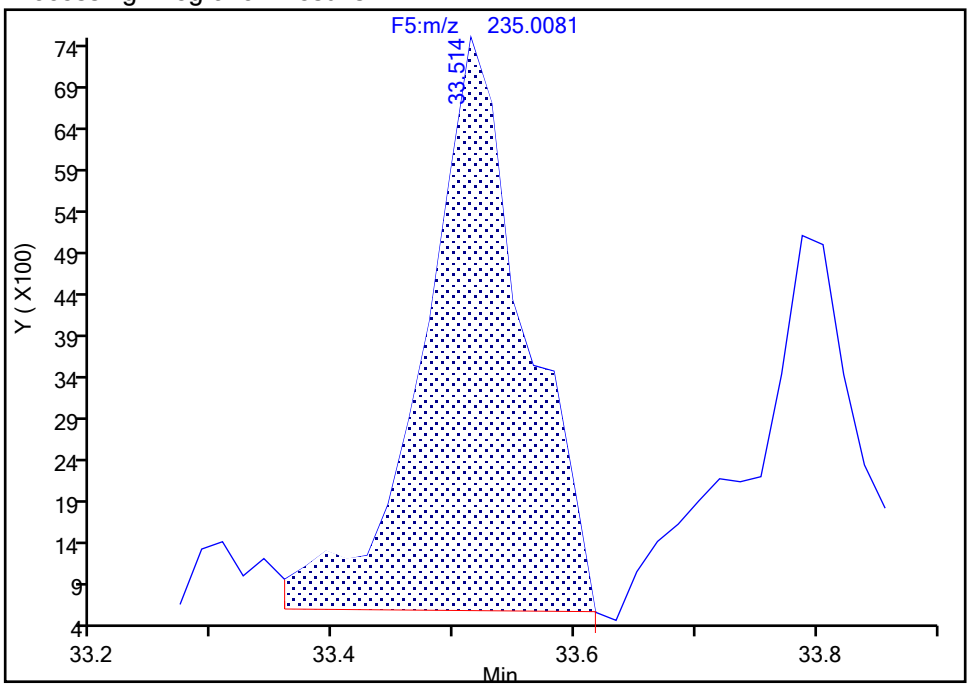
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

4,4'-DDD, CAS: 72-54-8

Signal: 1

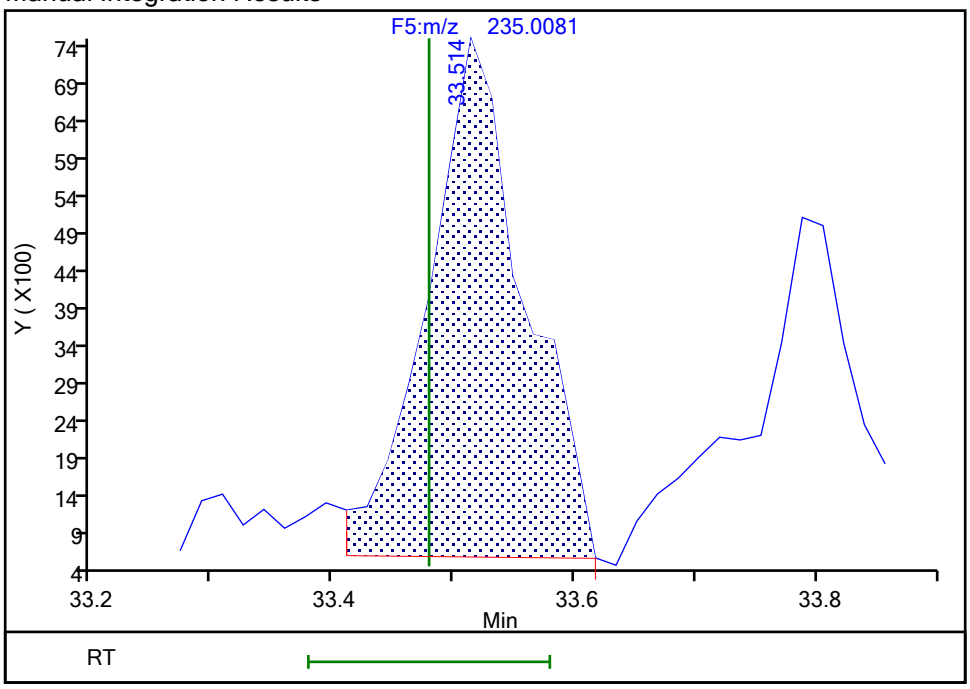
Processing Integration Results

RT: 33.51
Area: 39979
Amount: 0.621405
Amount Units: pg/ul



Manual Integration Results

RT: 33.51
Area: 38268
Amount: 0.605150
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:35:17 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

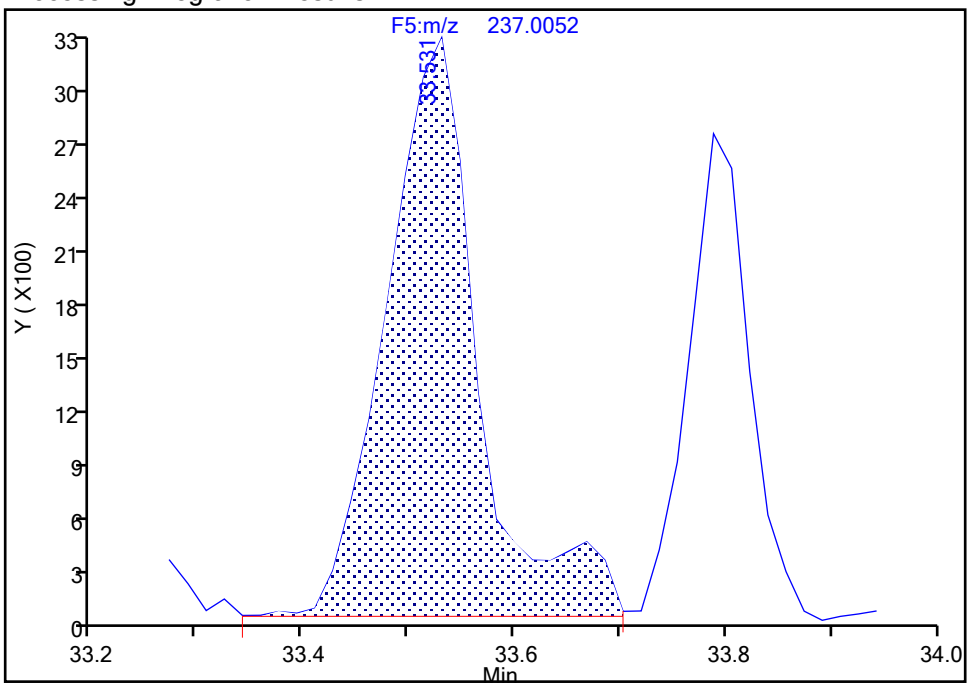
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

4,4'-DDD, CAS: 72-54-8

Signal: 2

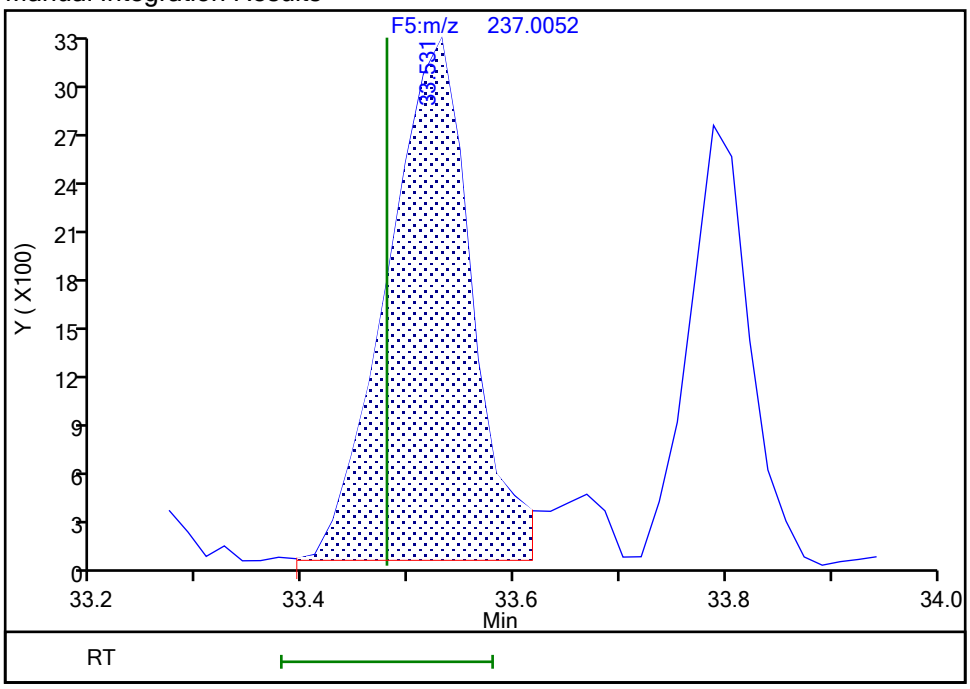
Processing Integration Results

RT: 33.53
Area: 18694
Amount: 0.621405
Amount Units: pg/ul



Manual Integration Results

RT: 33.53
Area: 17136
Amount: 0.605150
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:35:20 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

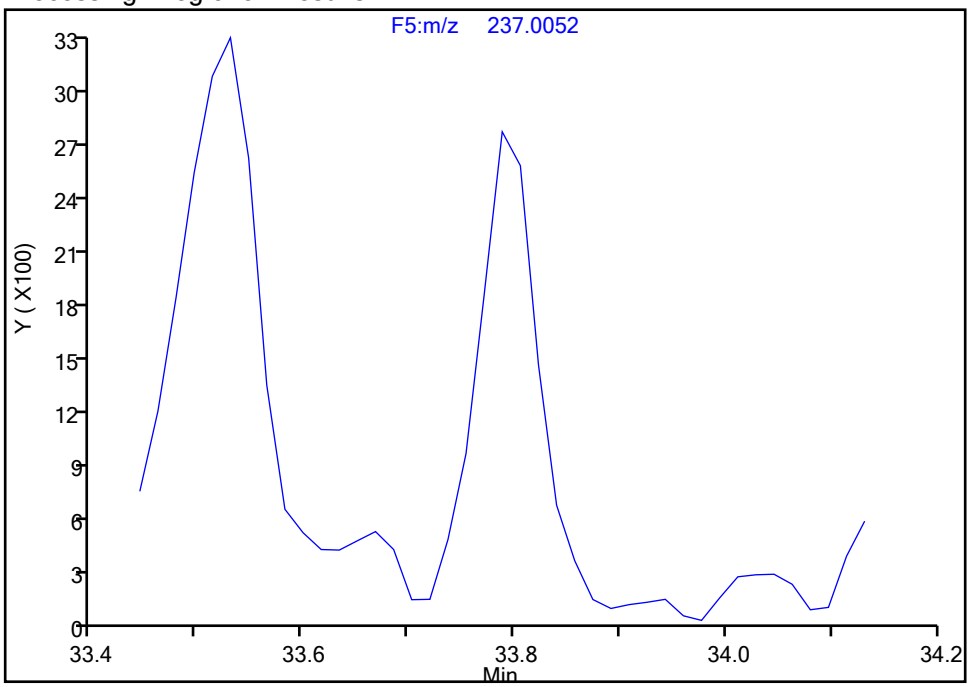
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

2,4'-DDT, CAS: 789-02-6

Signal: 2

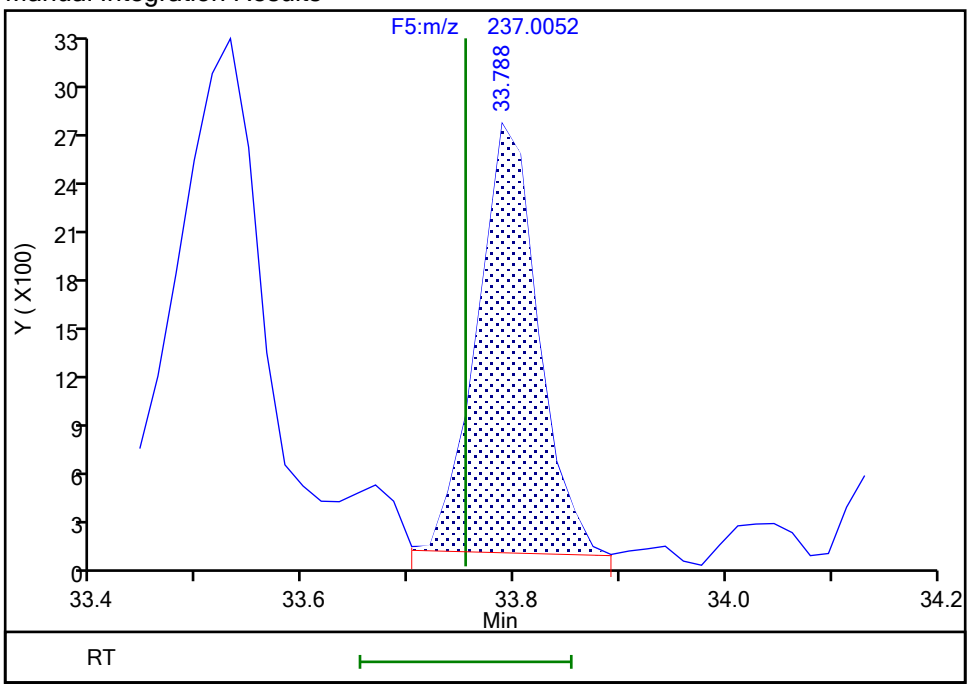
Not Detected
Expected RT: 33.75

Processing Integration Results



Manual Integration Results

RT: 33.79
Area: 10383
Amount: 0.670611
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:35:28 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

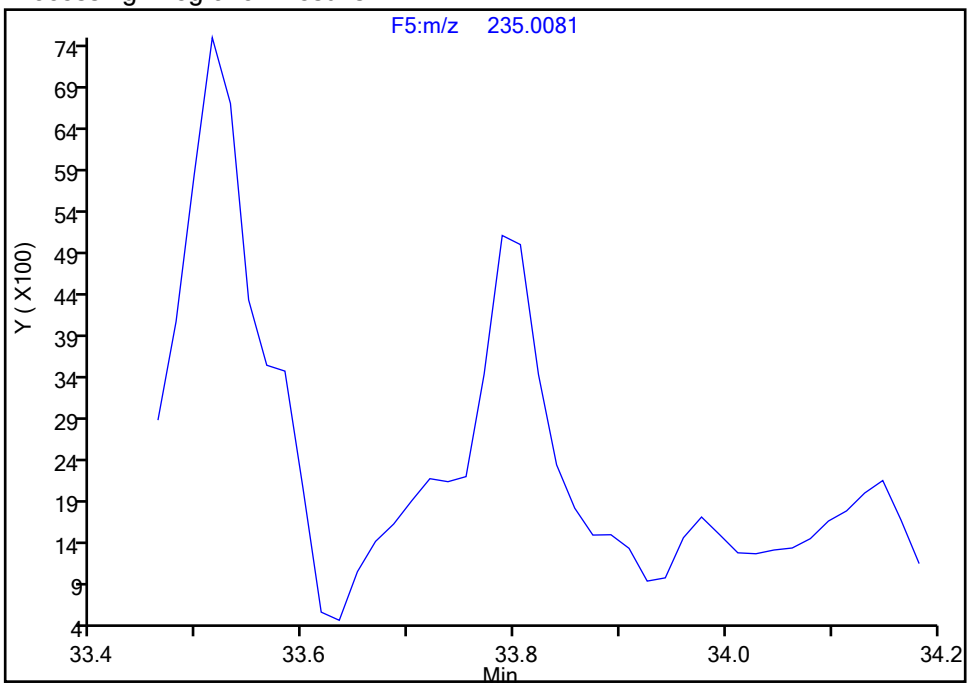
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d				
Injection Date:	19-Mar-2025 17:47:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

2,4'-DDT, CAS: 789-02-6

Signal: 1

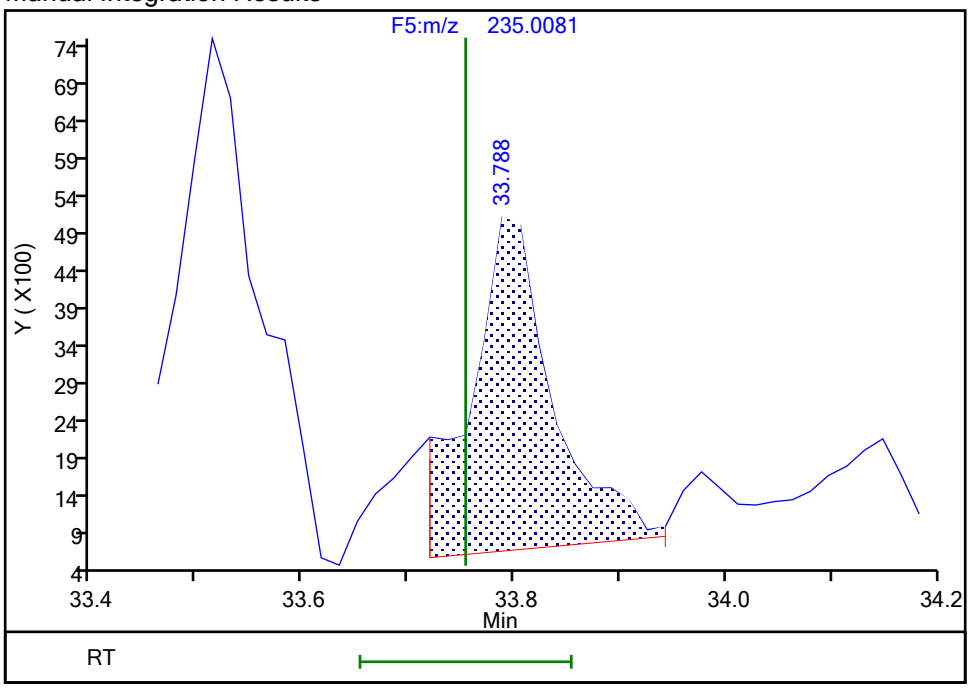
Not Detected
Expected RT: 33.75

Processing Integration Results



Manual Integration Results

RT: 33.79
Area: 23479
Amount: 0.670611
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:12:55 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

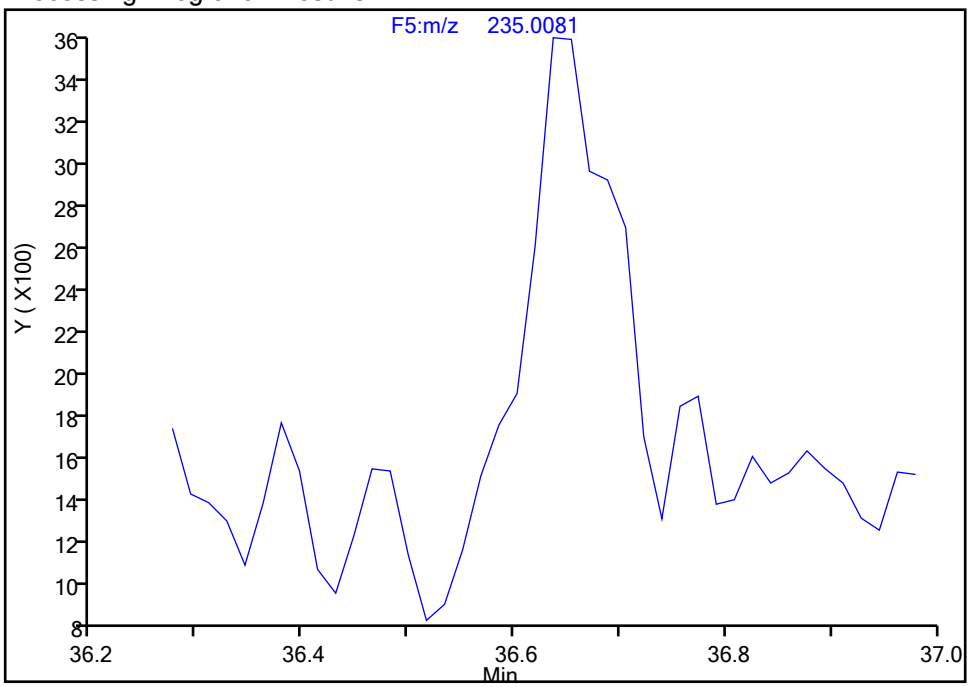
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d				
Injection Date:	19-Mar-2025 17:47:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

4,4'-DDT, CAS: 50-29-3

Signal: 1

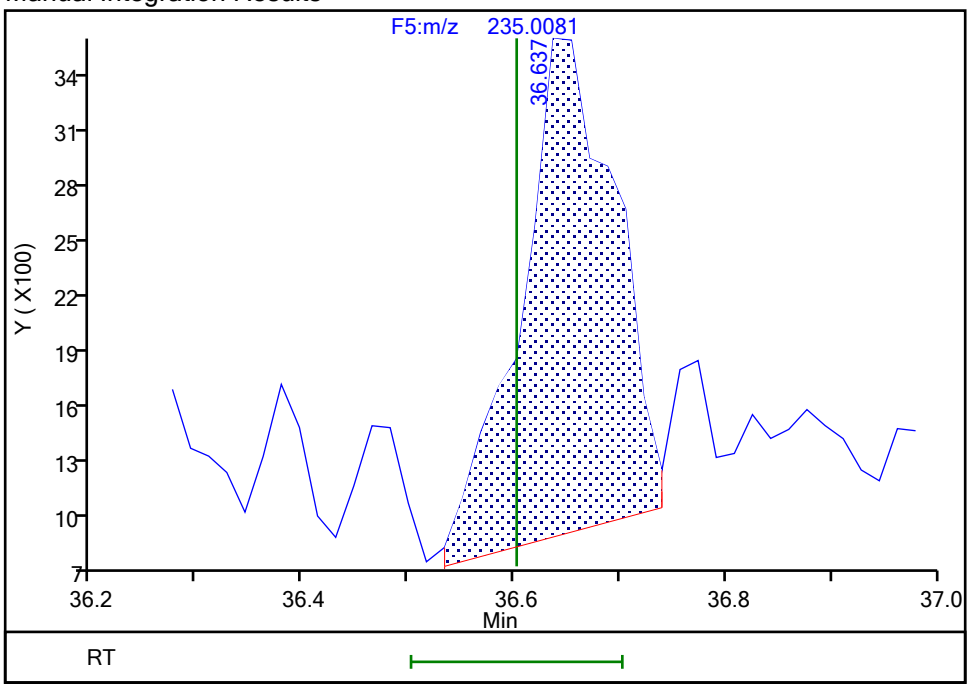
Not Detected
Expected RT: 36.60

Processing Integration Results



Manual Integration Results

RT: 36.64
Area: 16113
Amount: 0.568438
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:35:35 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

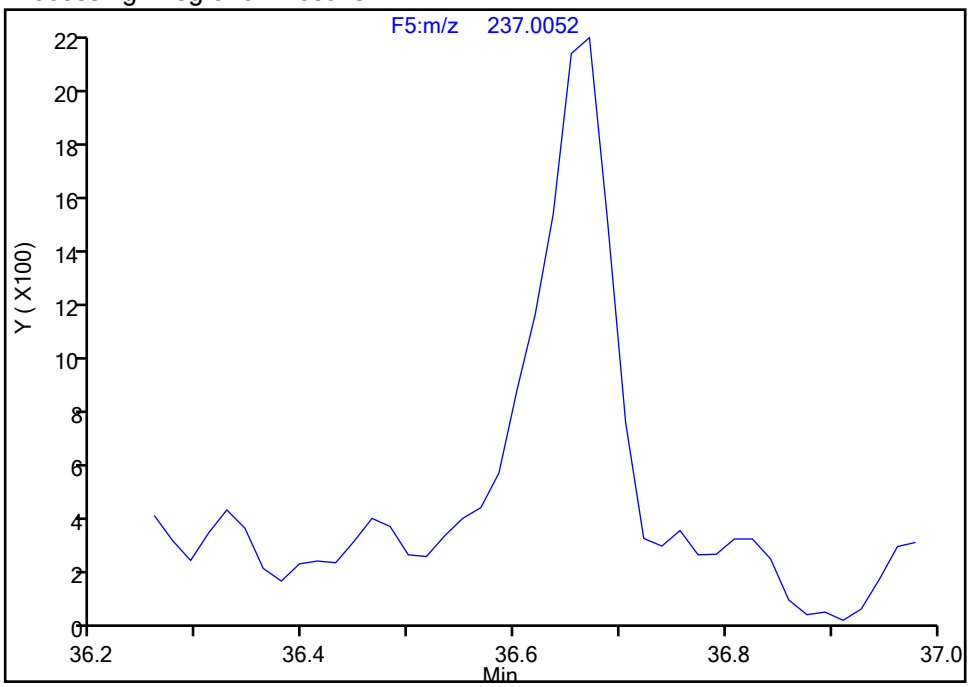
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

4,4'-DDT, CAS: 50-29-3

Signal: 2

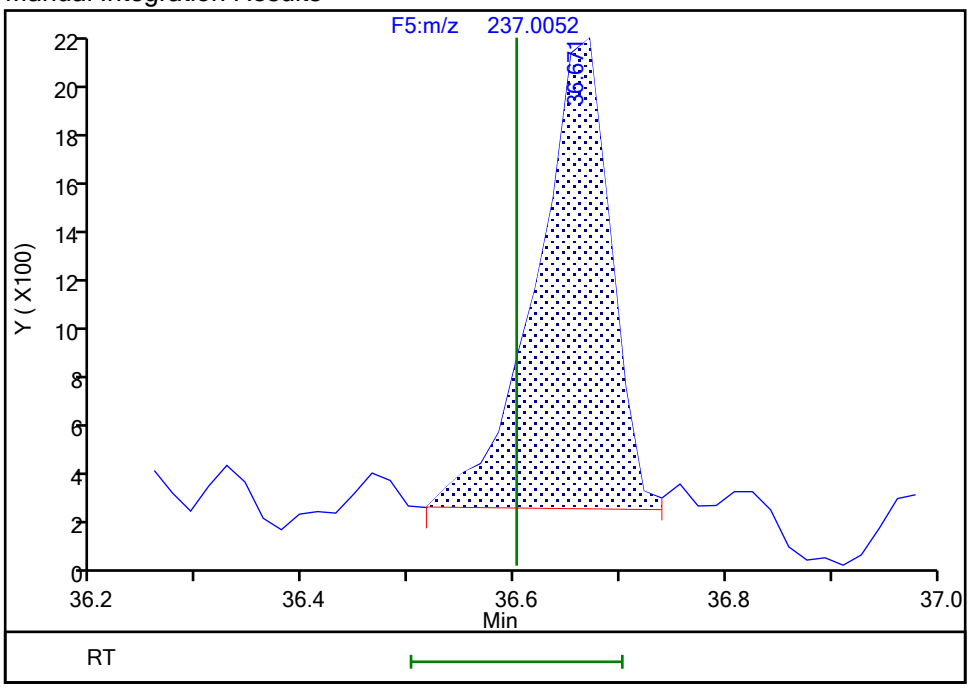
Not Detected
Expected RT: 36.60

Processing Integration Results



Manual Integration Results

RT: 36.67
Area: 8981
Amount: 0.568438
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:13:02 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

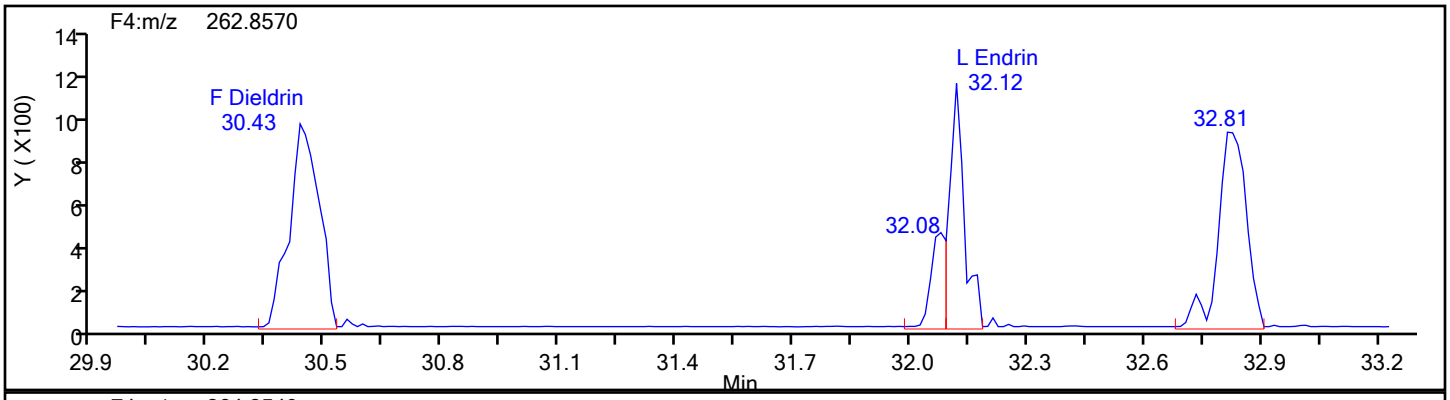
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

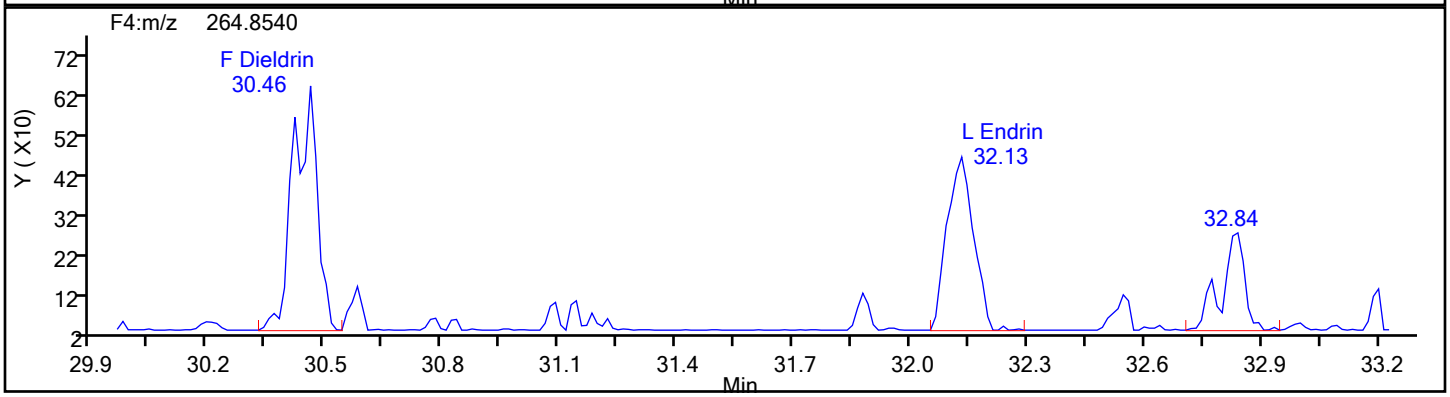
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

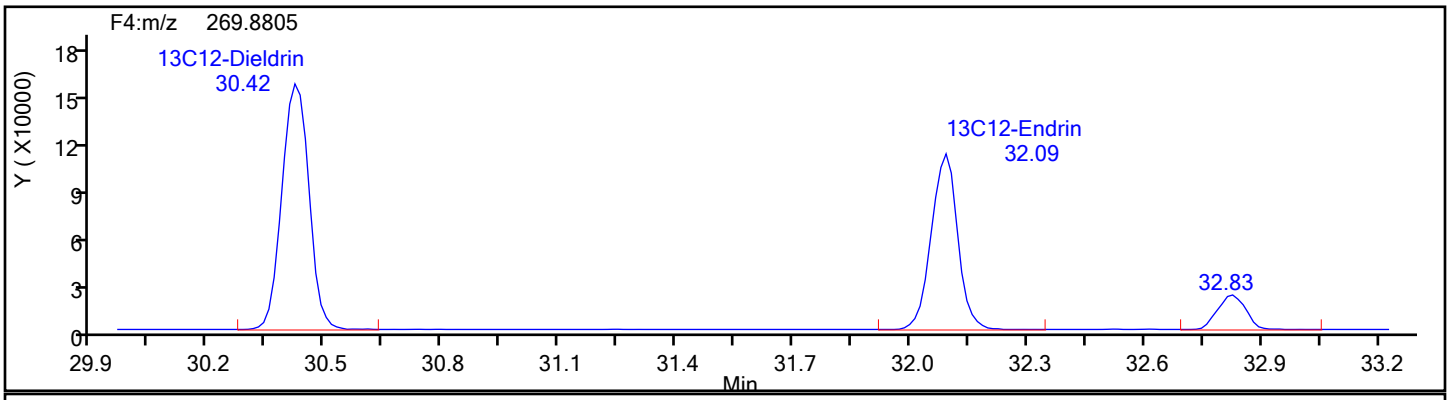
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

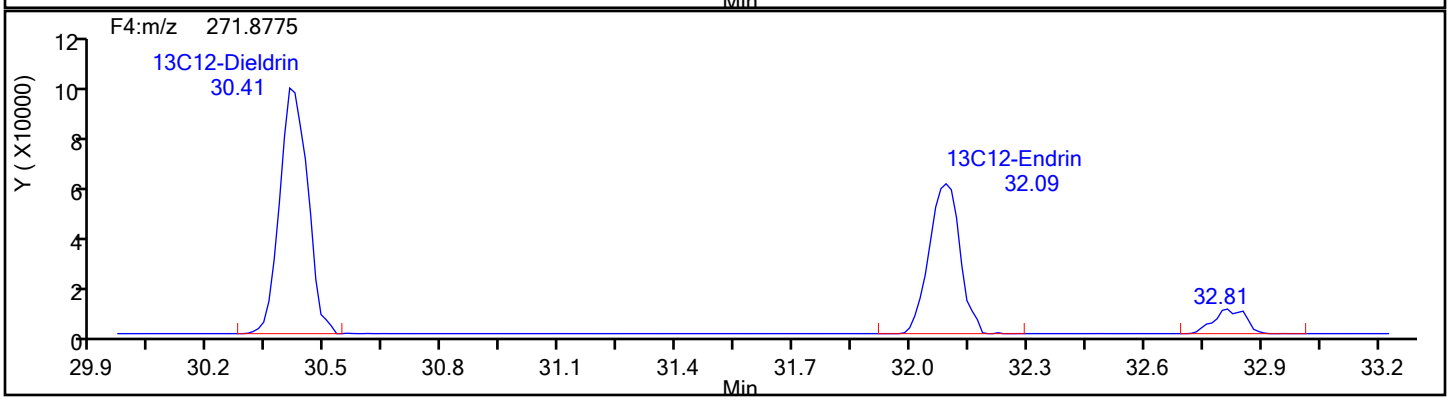
Dieldrin





Dieldrin Standards



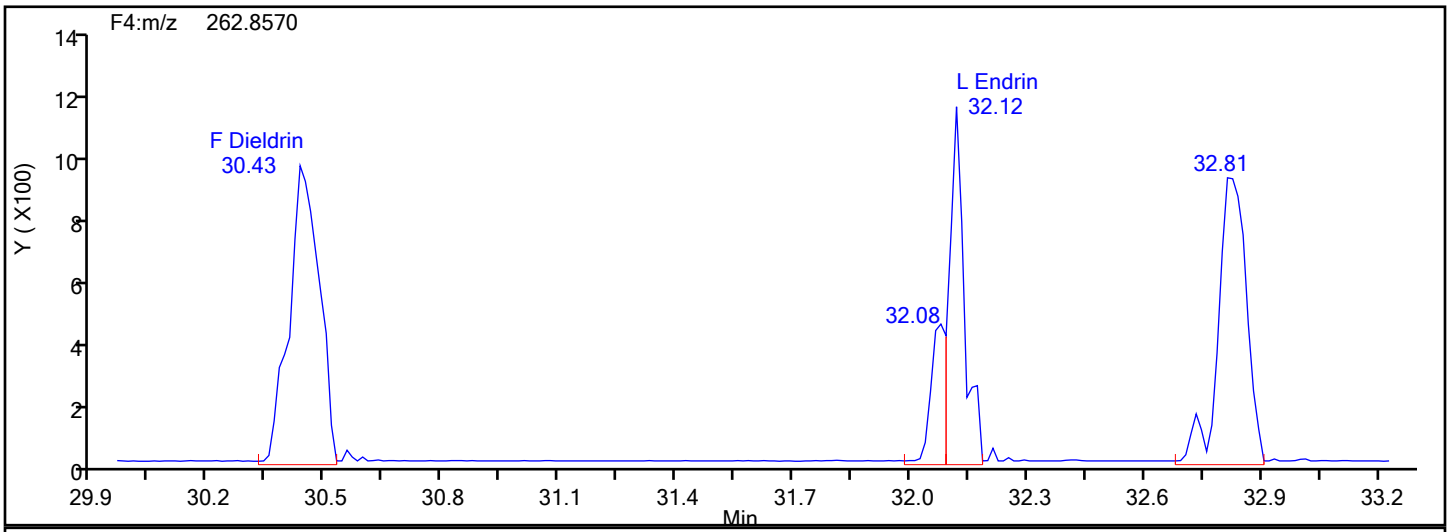


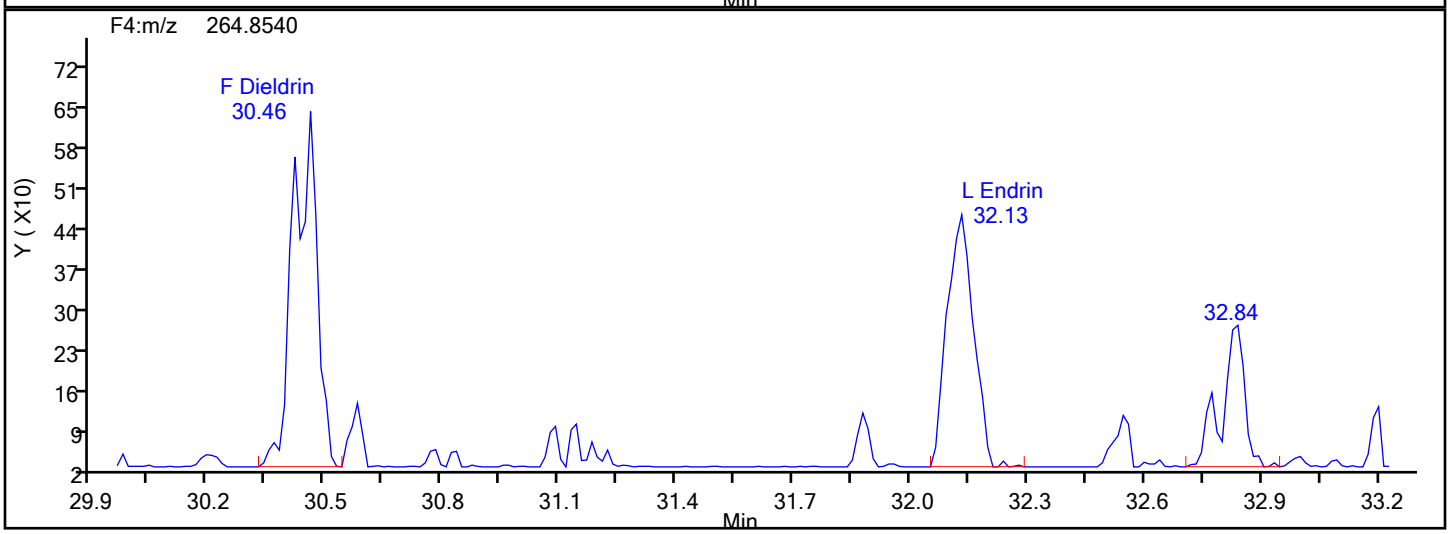
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

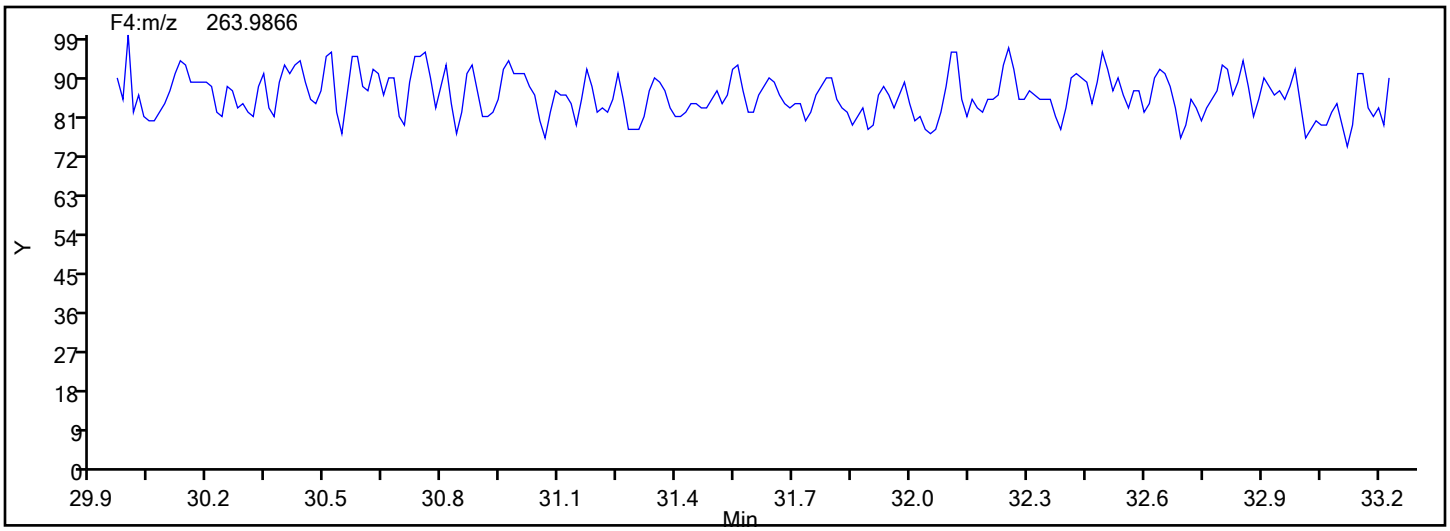
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Dieldrin





Dieldrin Lock Mass



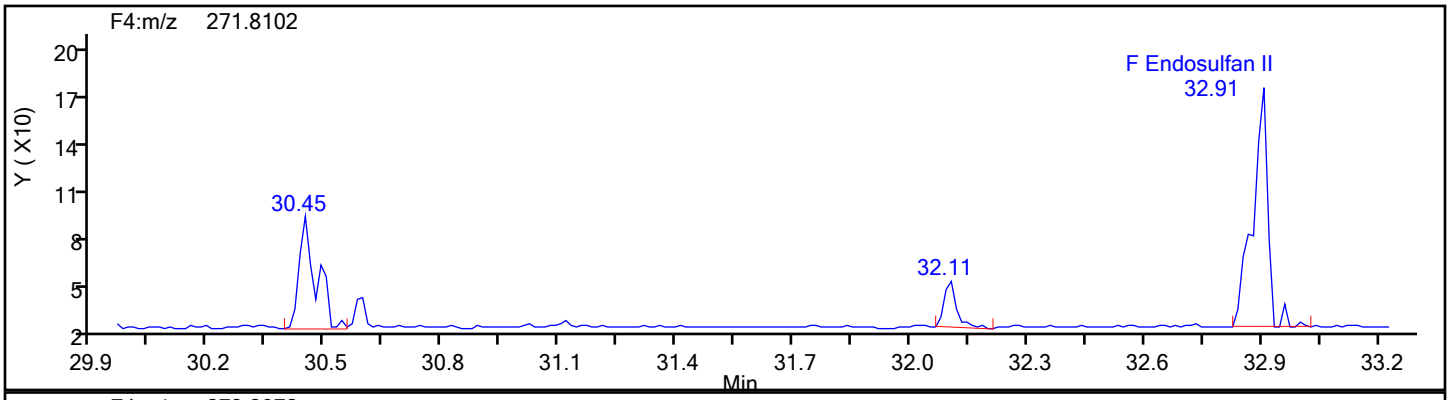
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

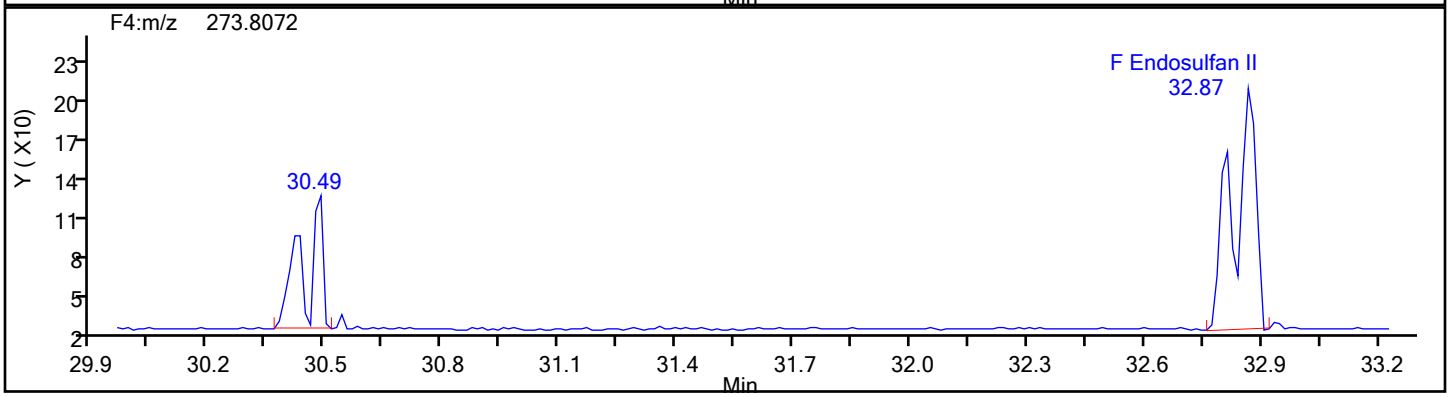
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

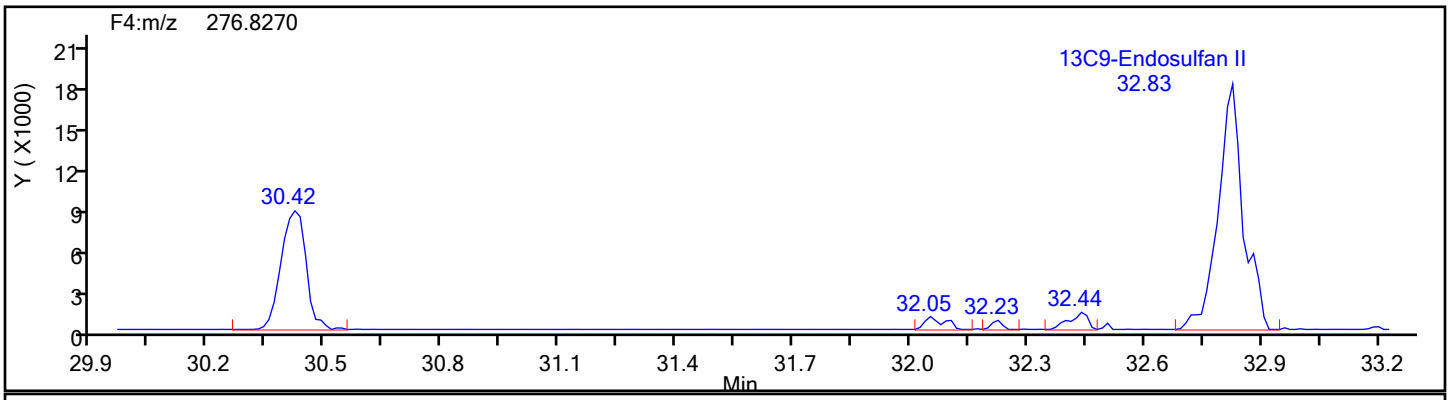
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

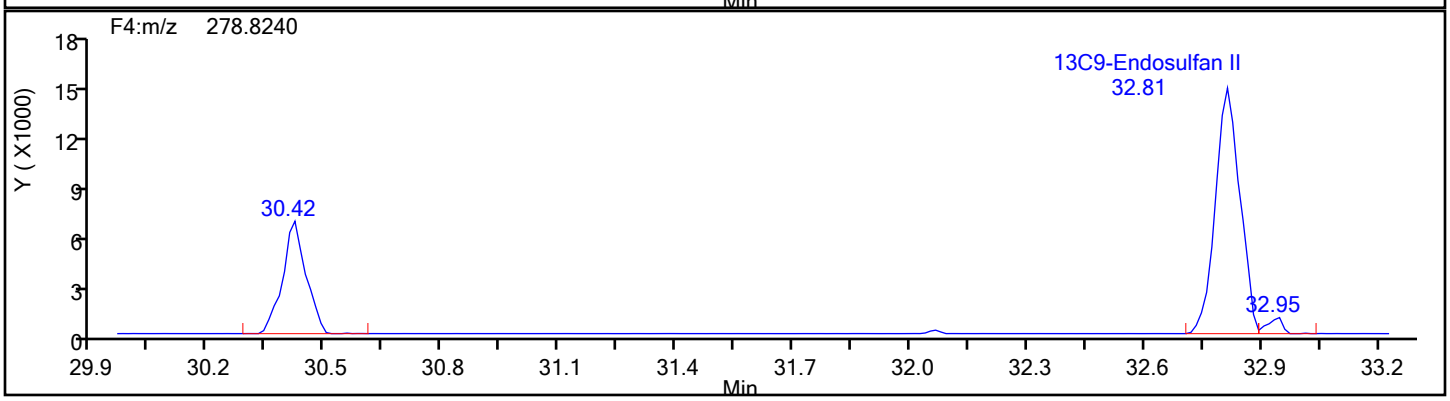
Endosulfan II





Endosulfan II Standards



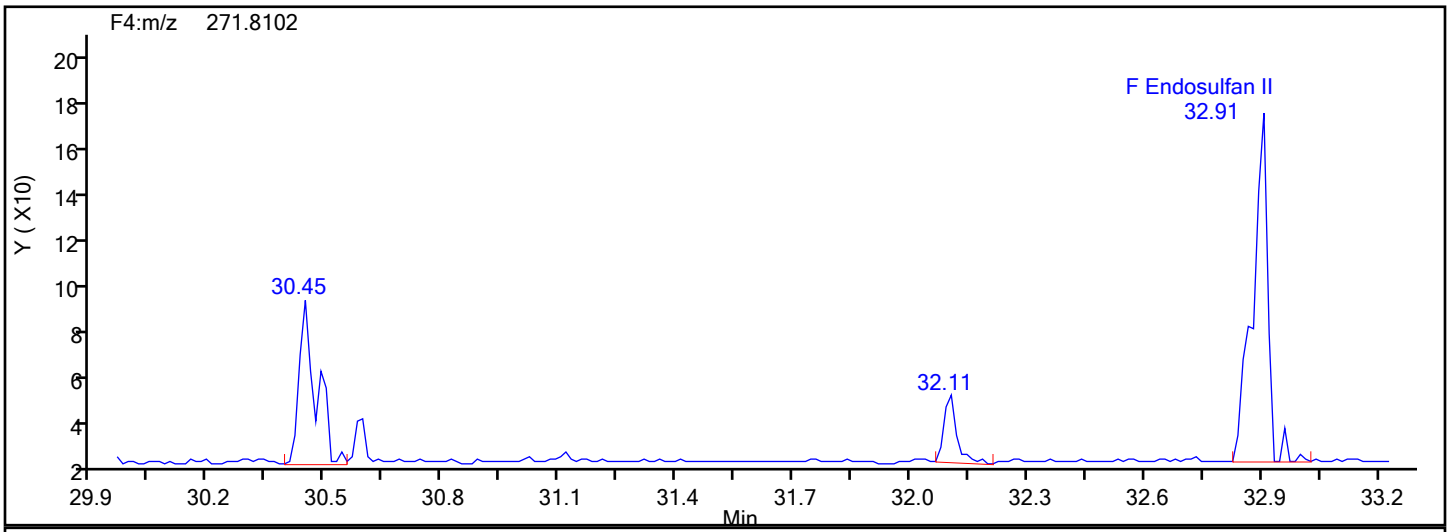


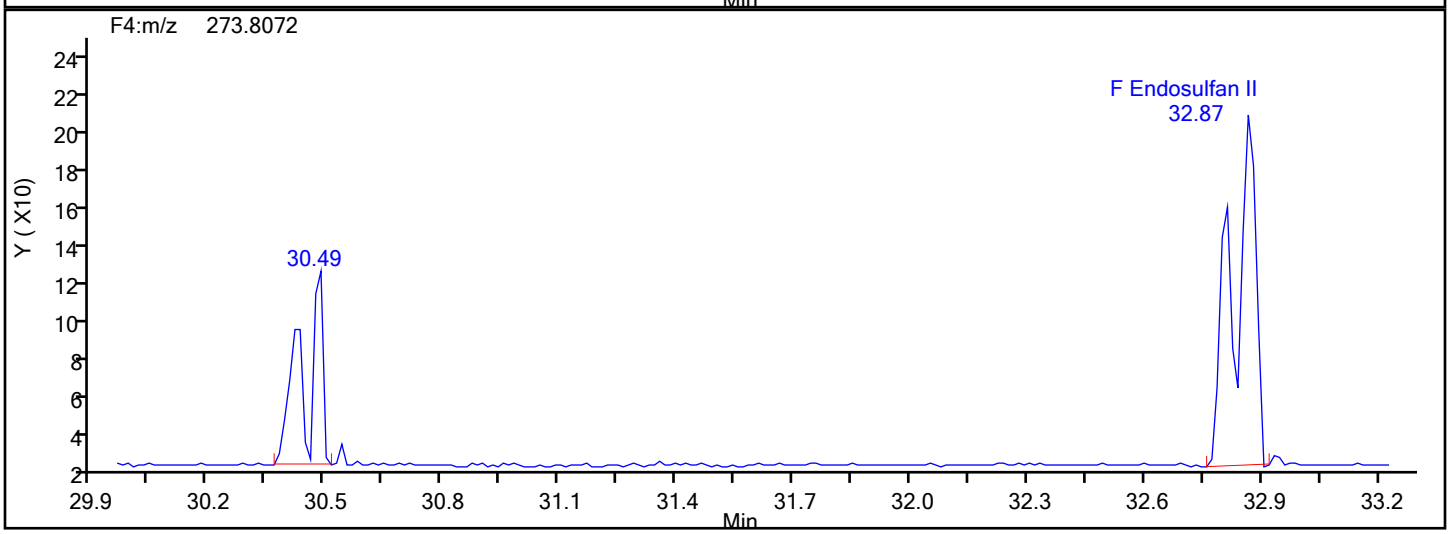
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

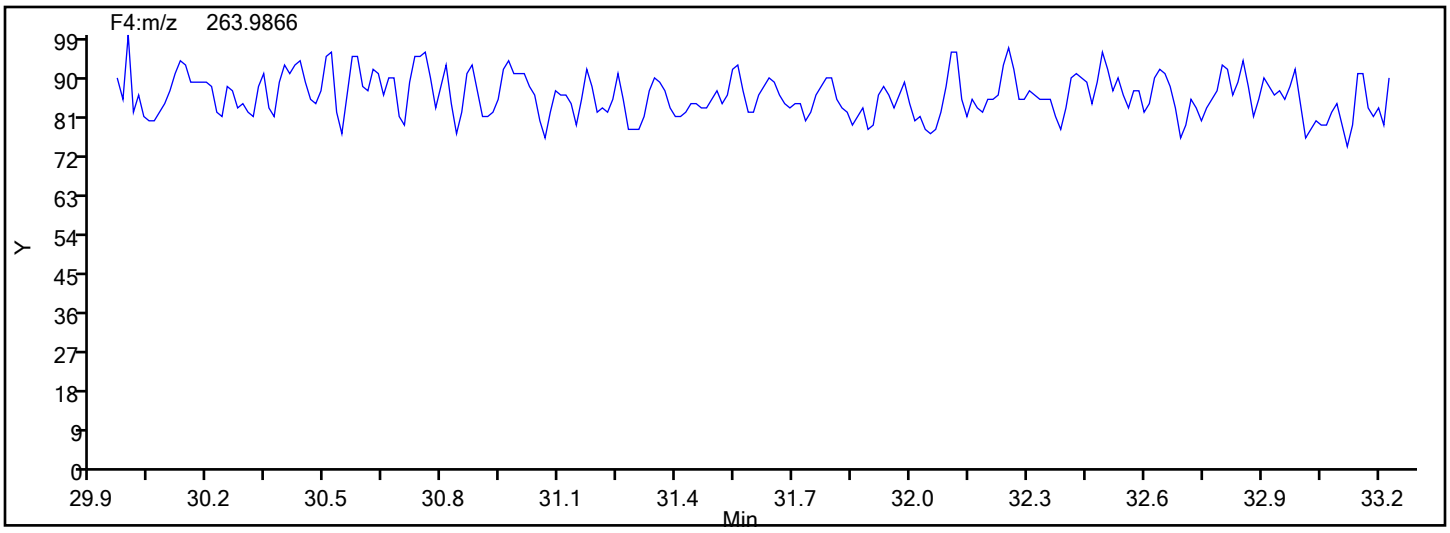
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan II





Endosulfan II Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

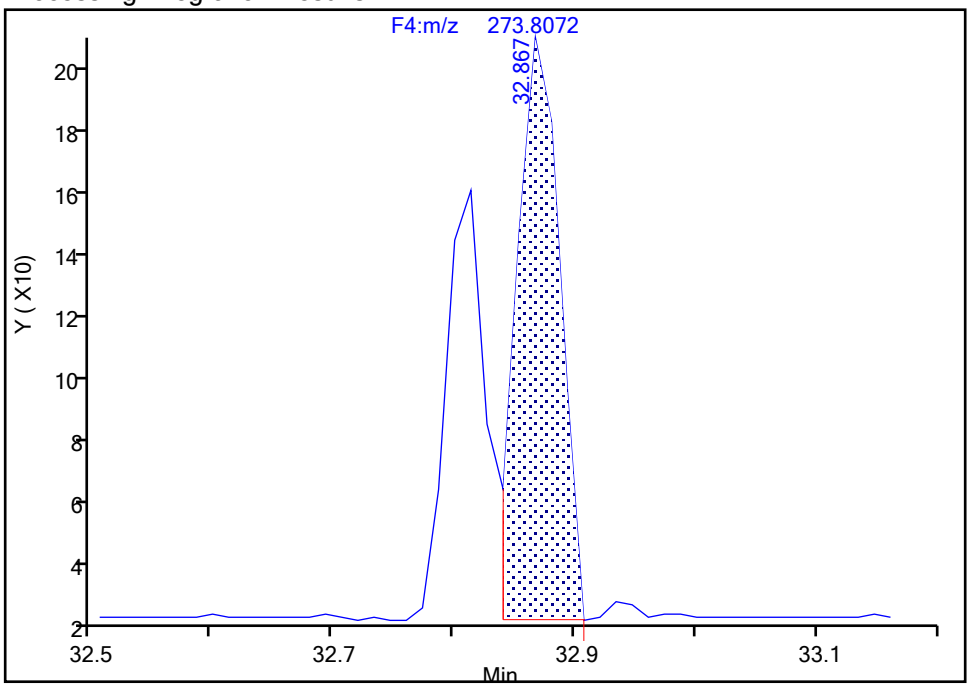
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F4(29.96 :33.23)

Endosulfan II, CAS: 33213-65-9

Signal: 2

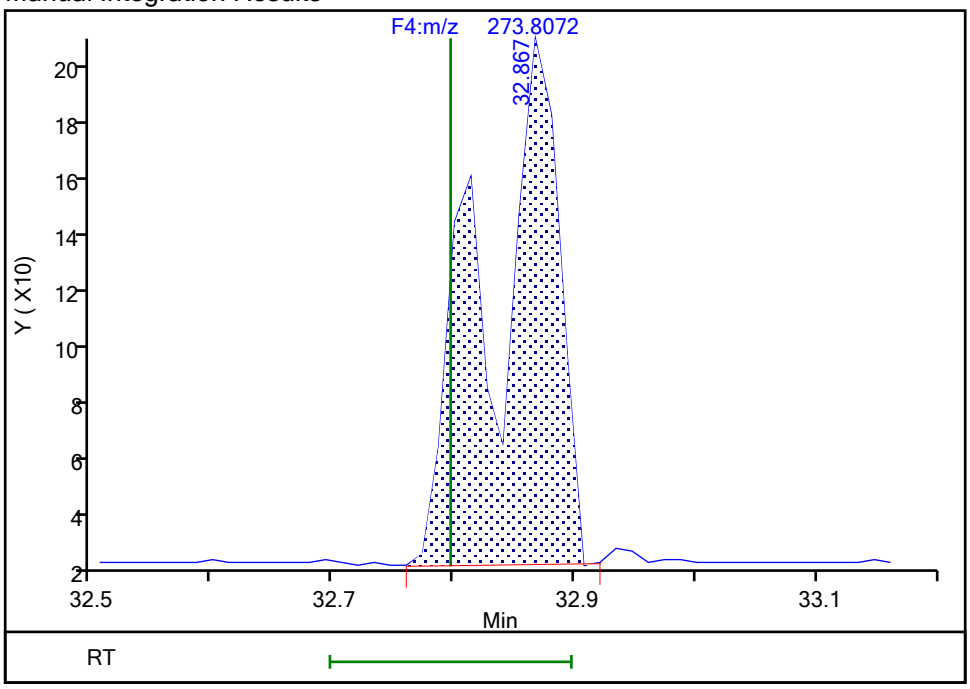
Processing Integration Results

RT: 32.87
Area: 453
Amount: 0.544583
Amount Units: pg/ul



Manual Integration Results

RT: 32.87
Area: 761
Amount: 0.728322
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:35:49 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

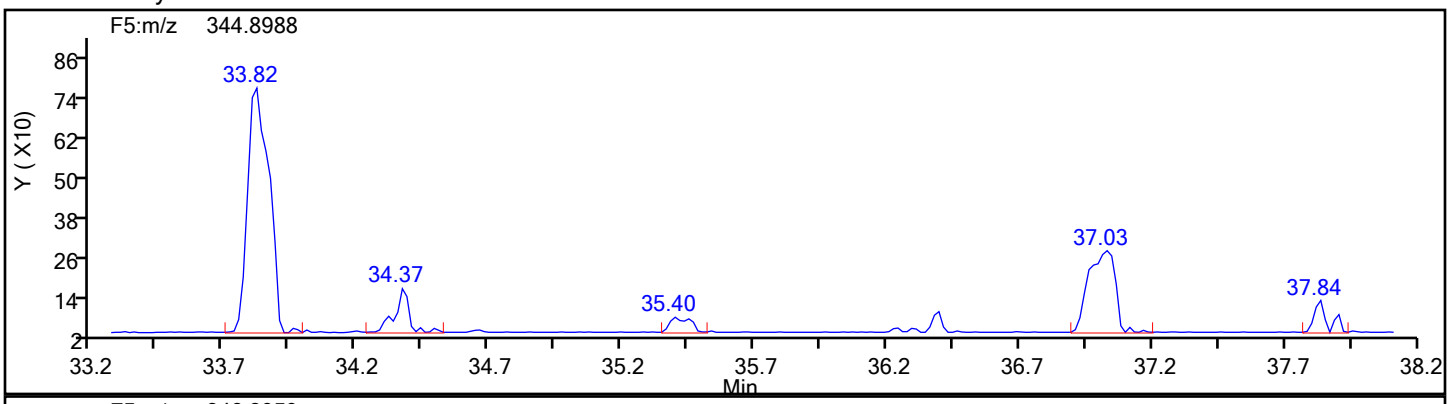
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

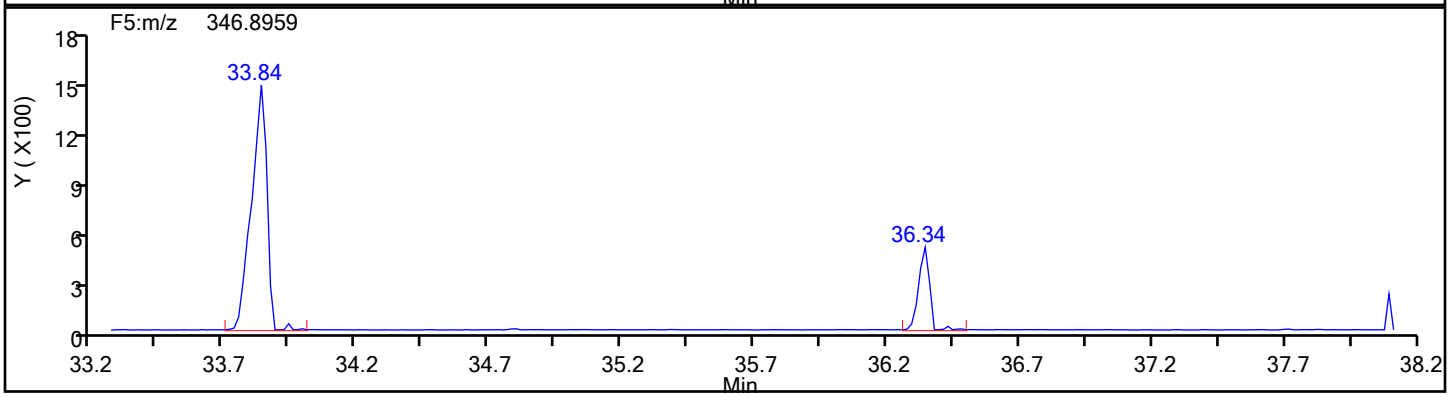
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

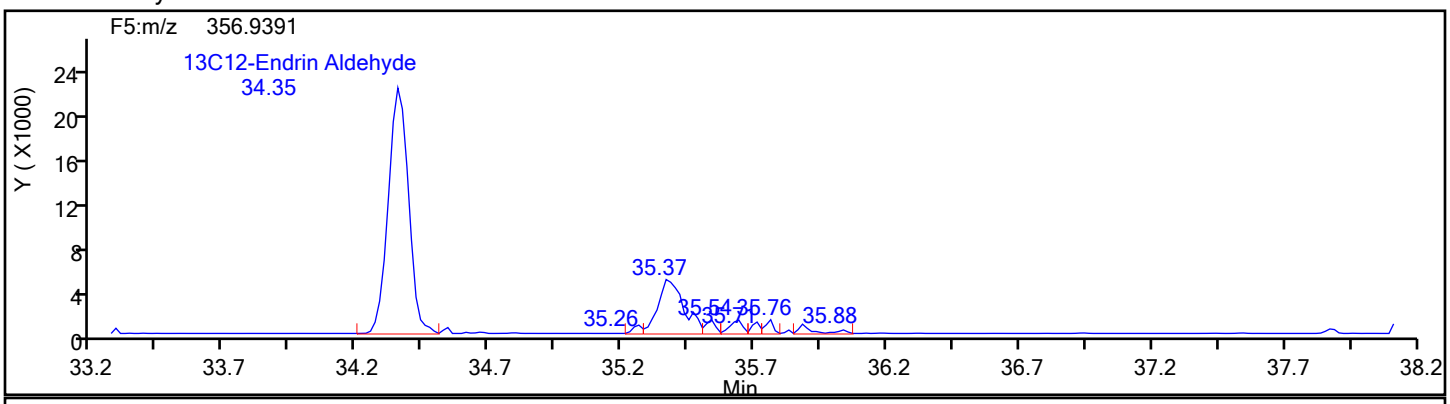
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

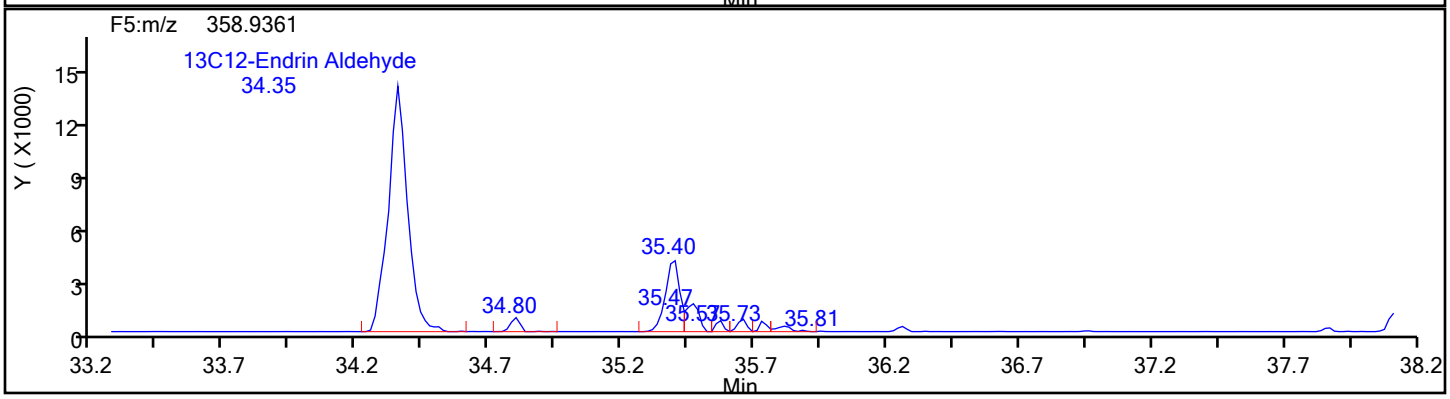
Endrin aldehyde





Endrin aldehyde Standards



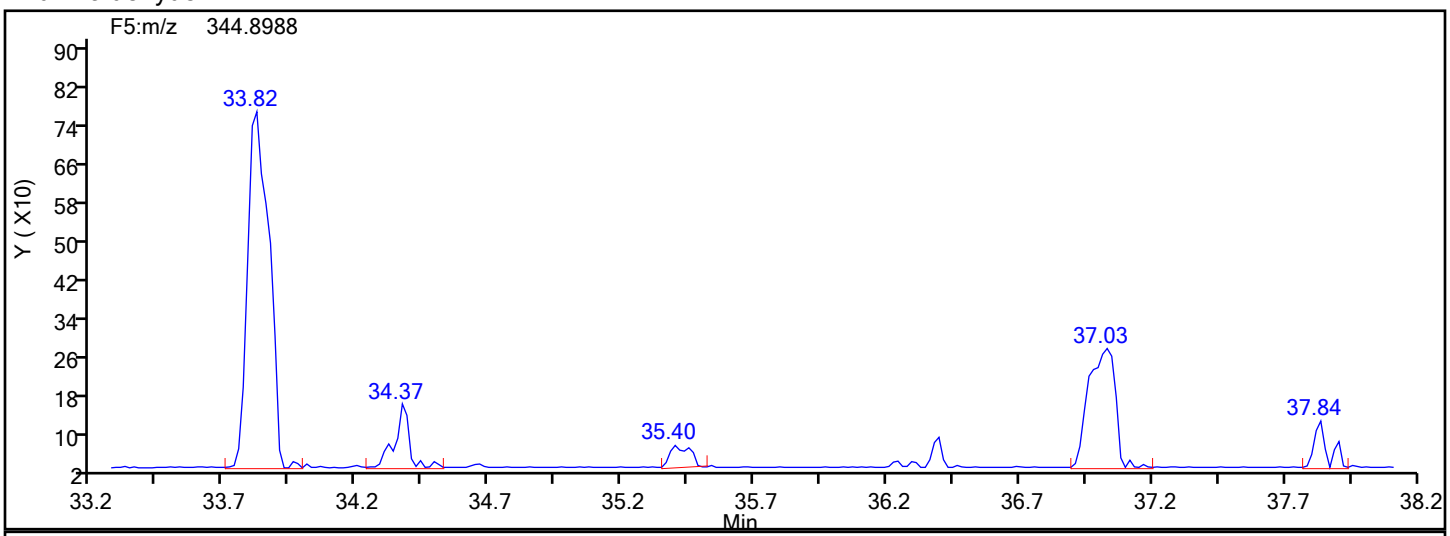


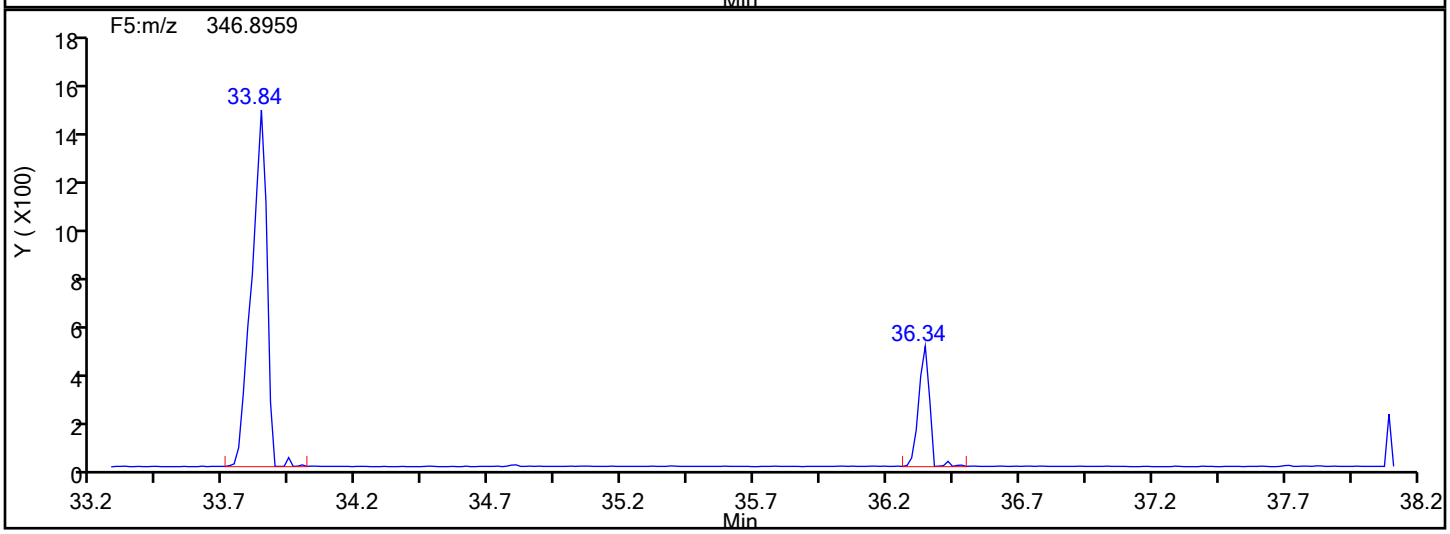
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

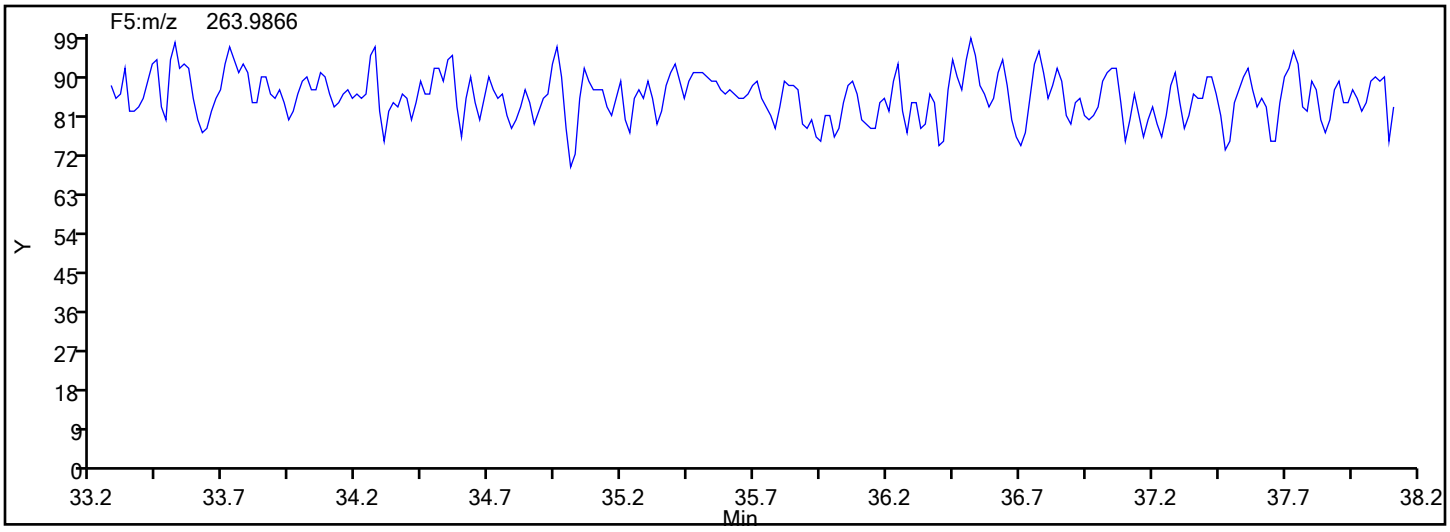
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Endrin aldehyde





Endrin aldehyde Lock Mass



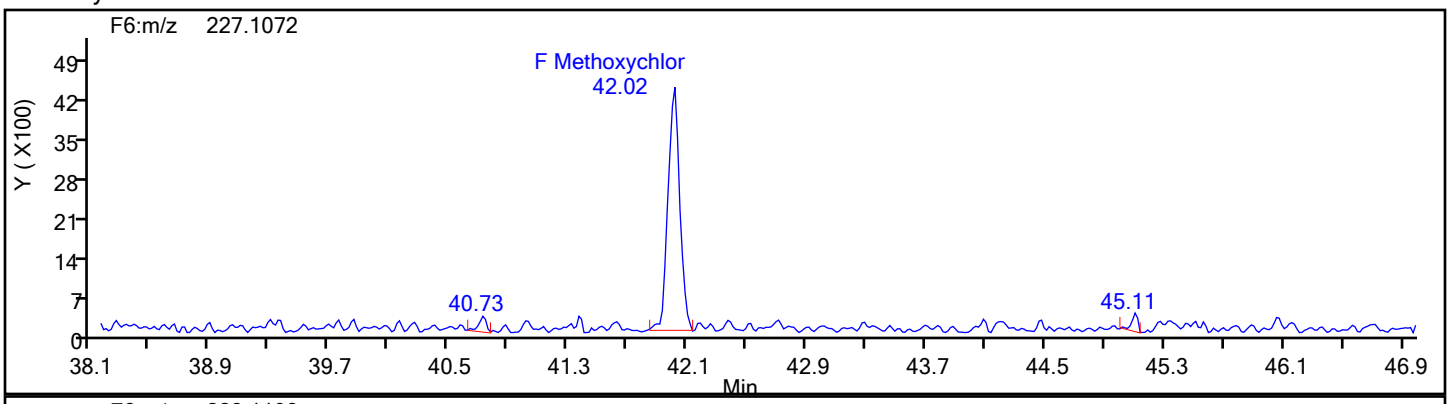
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

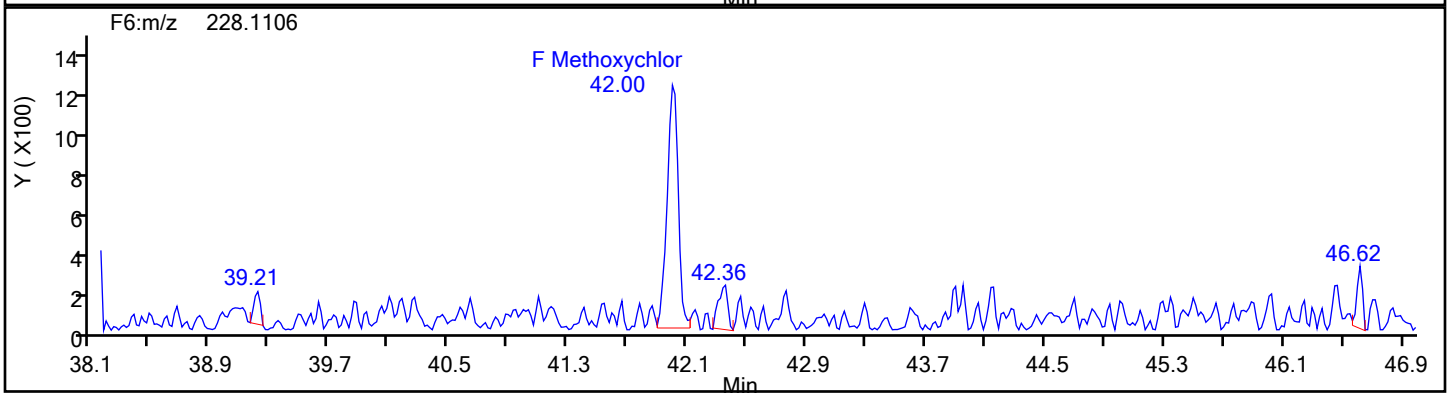
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

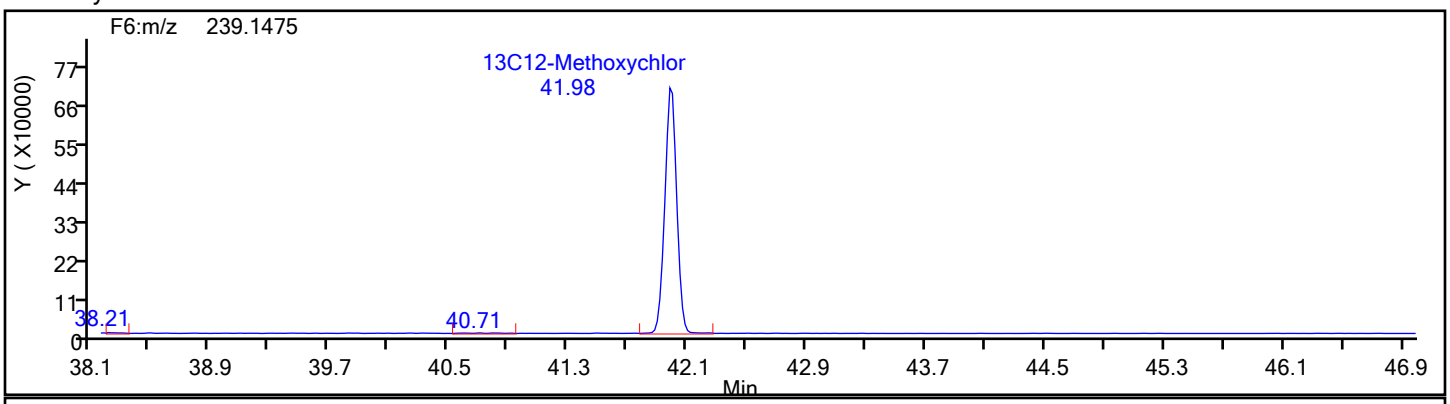
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

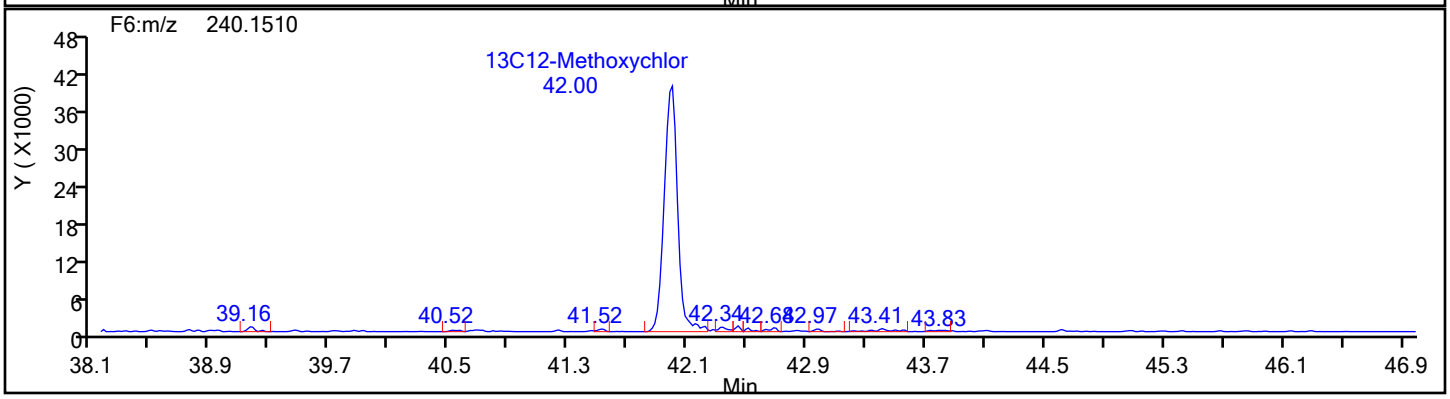
Methoxychlor





Methoxychlor Standards





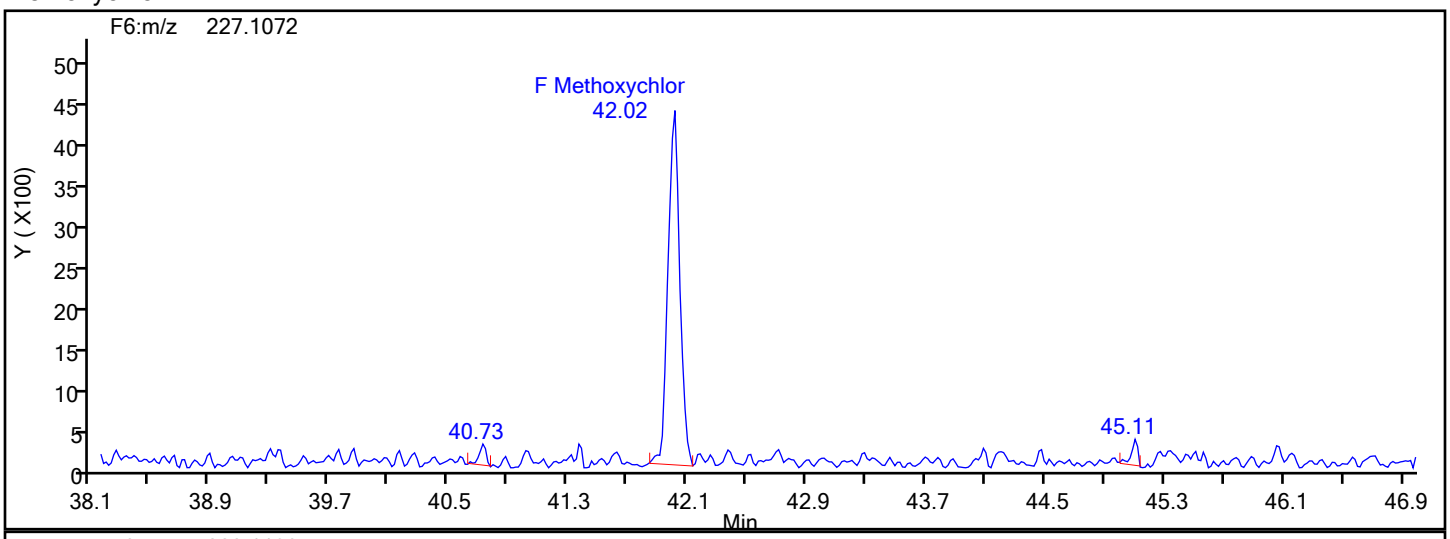
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

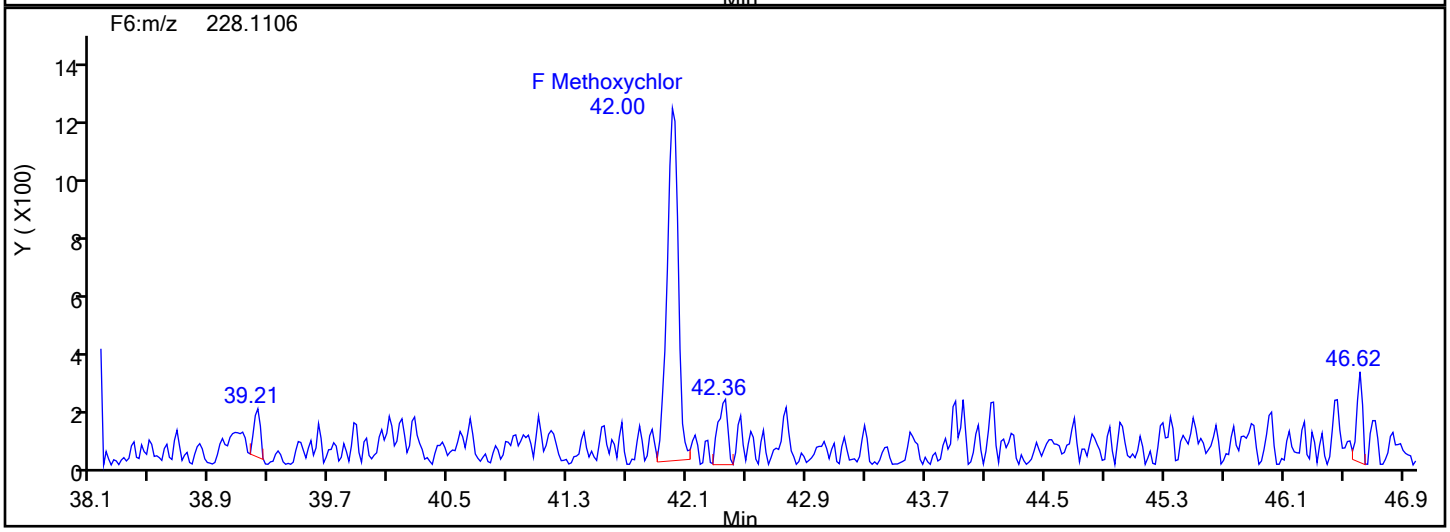
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

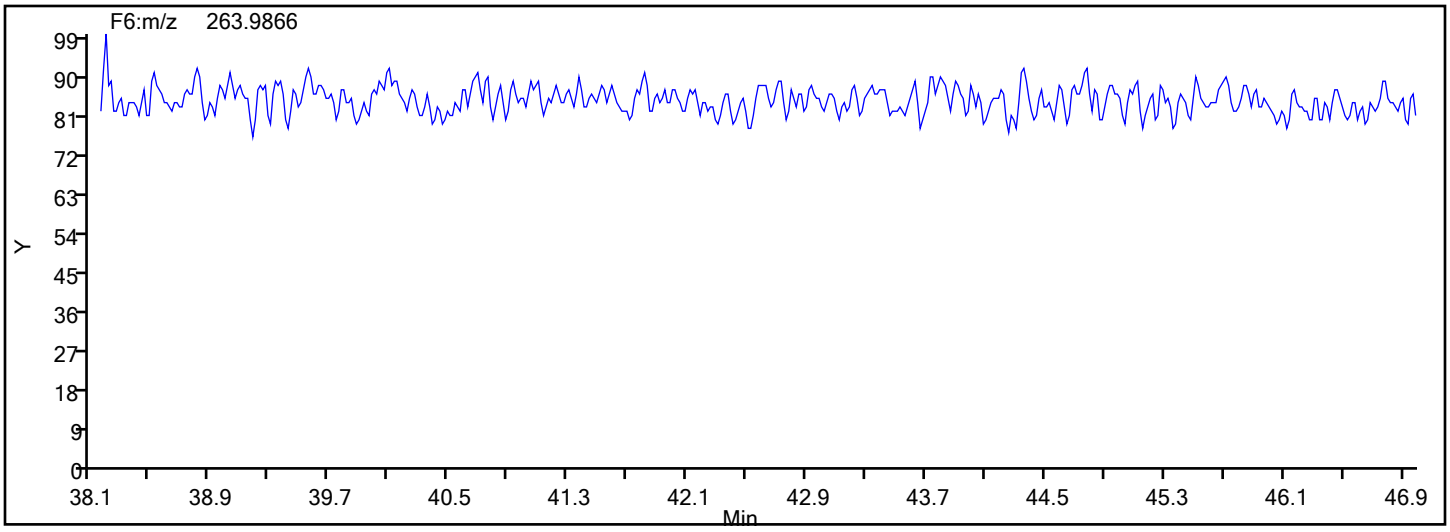
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Methoxychlor





Methoxychlor Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

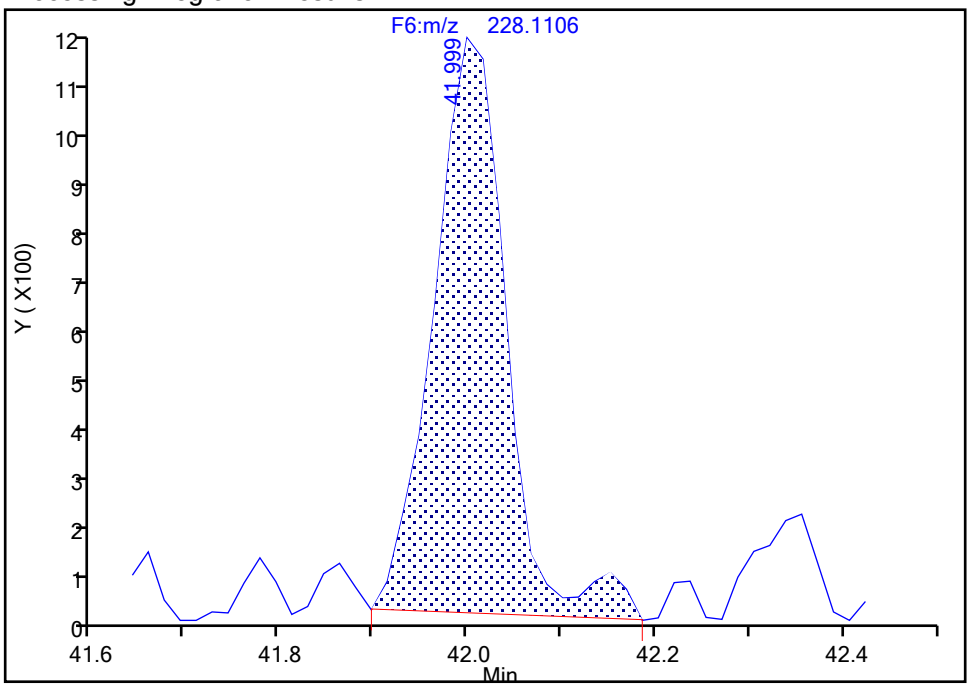
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F6(38.15 :46.98)

Methoxychlor, CAS: 72-43-5

Signal: 2

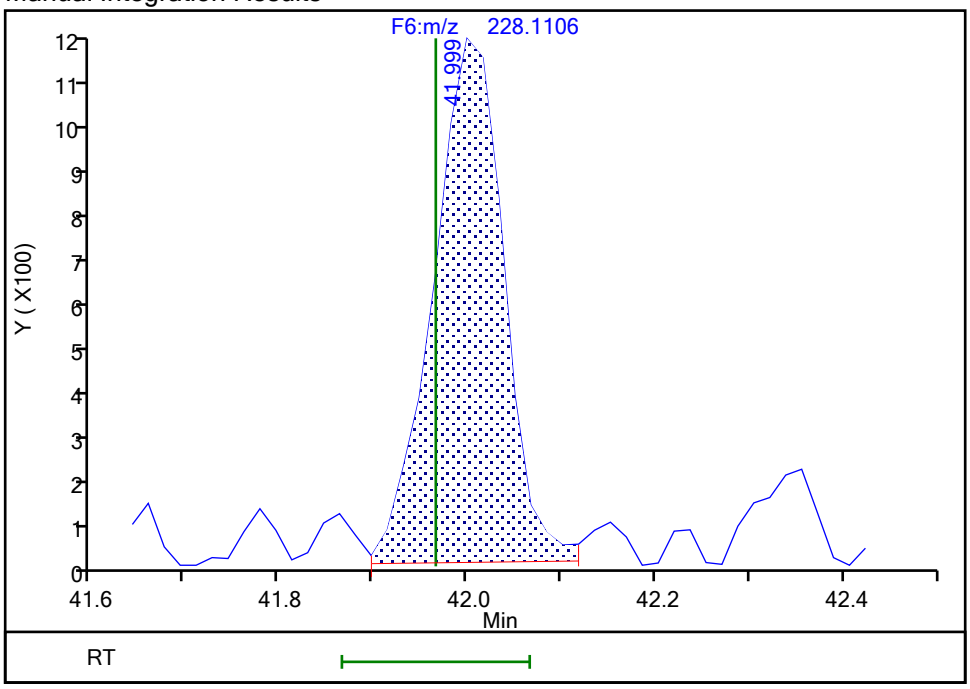
Processing Integration Results

RT: 42.00
Area: 6276
Amount: 0.533973
Amount Units: pg/ul



Manual Integration Results

RT: 42.00
Area: 6081
Amount: 0.535031
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:17:35 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

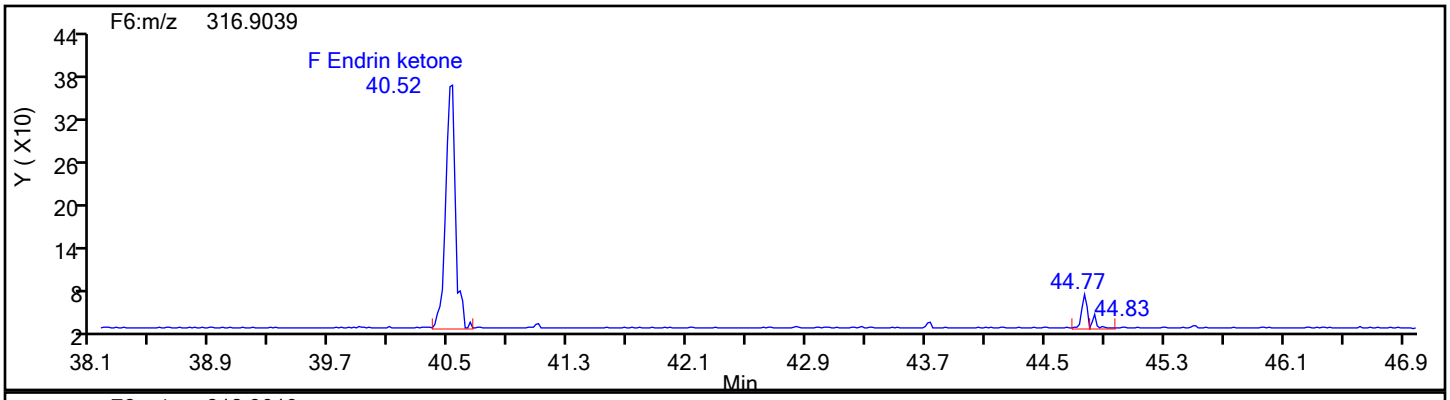
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

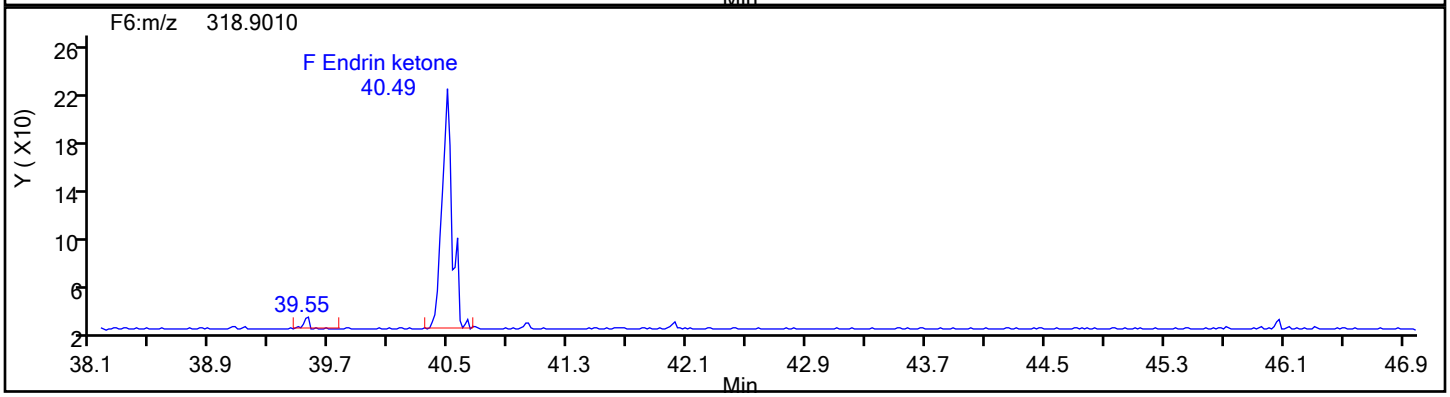
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

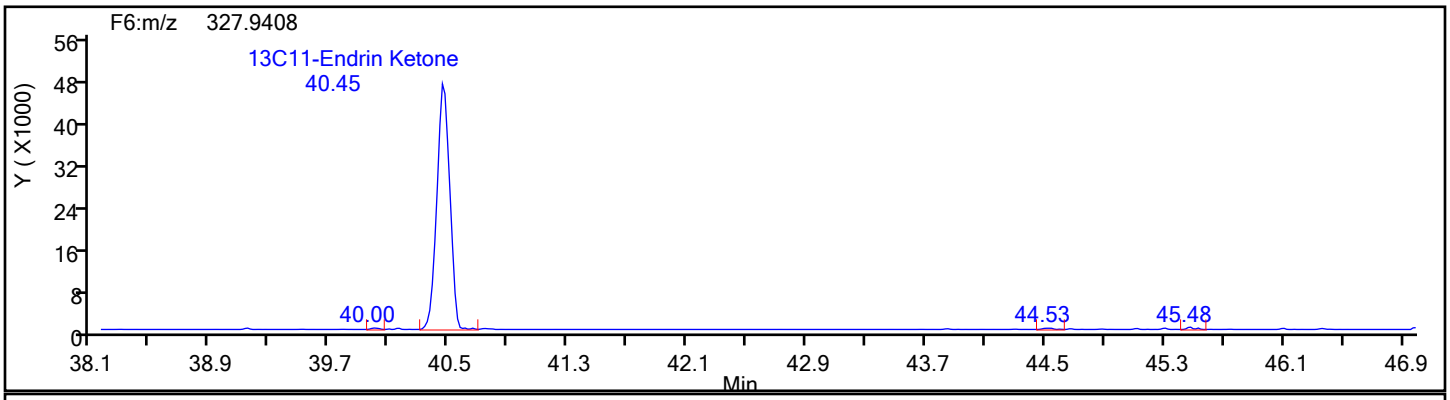
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

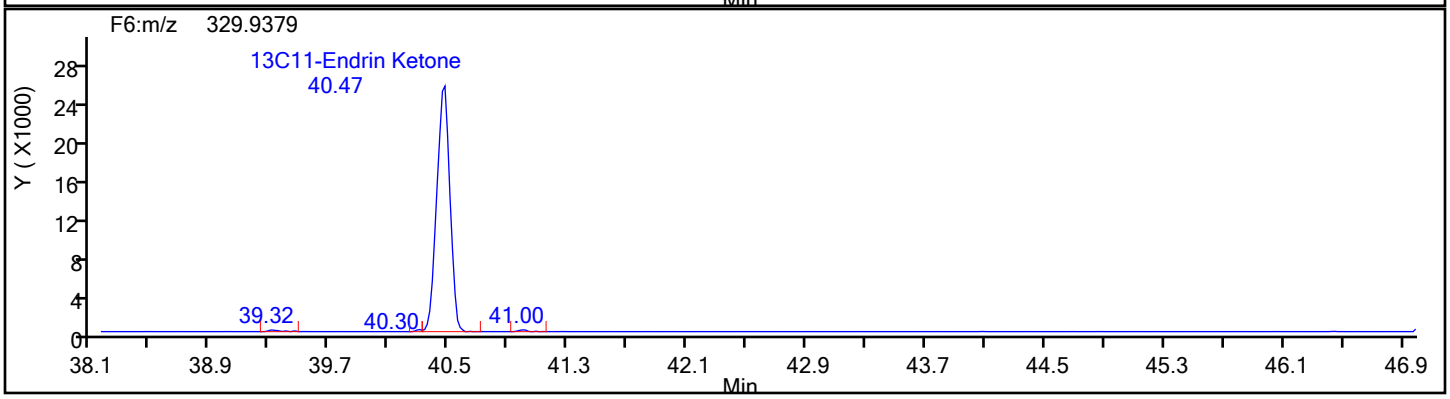
Endrin ketone





Endrin ketone Standards



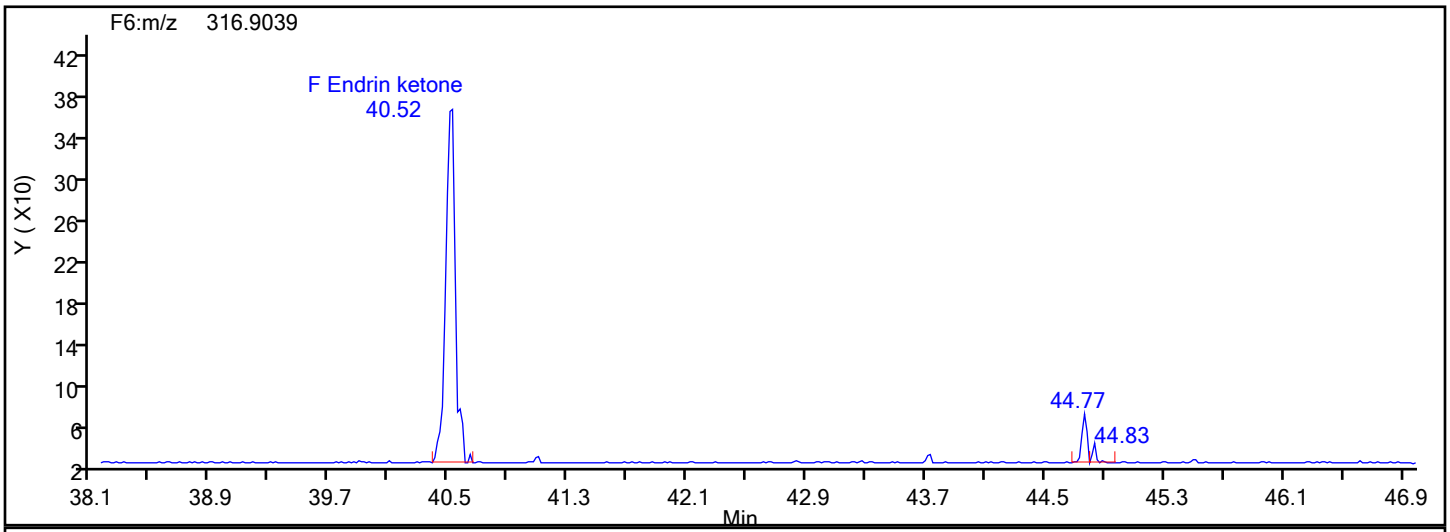


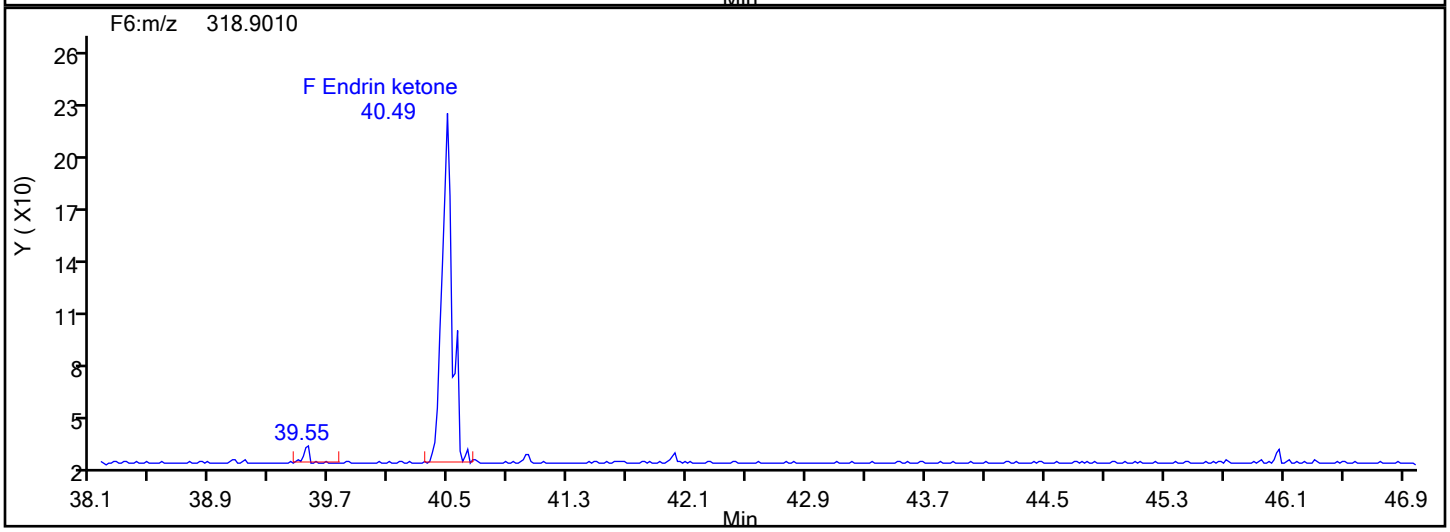
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

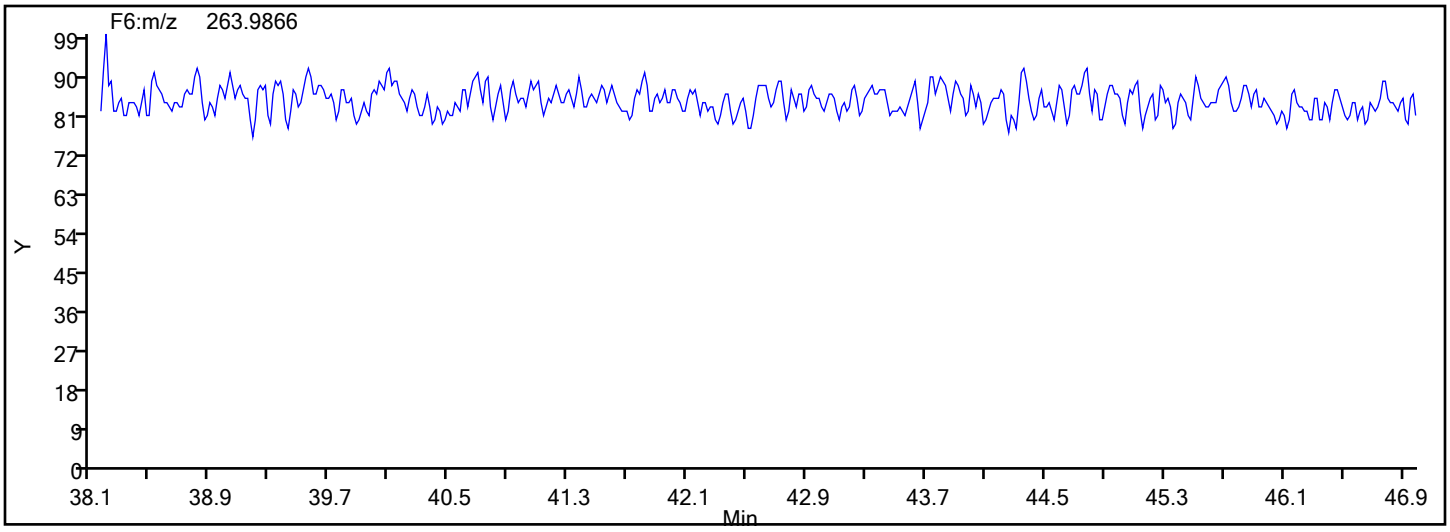
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Endrin ketone





Endrin ketone Lock Mass



Eurofins Knoxville

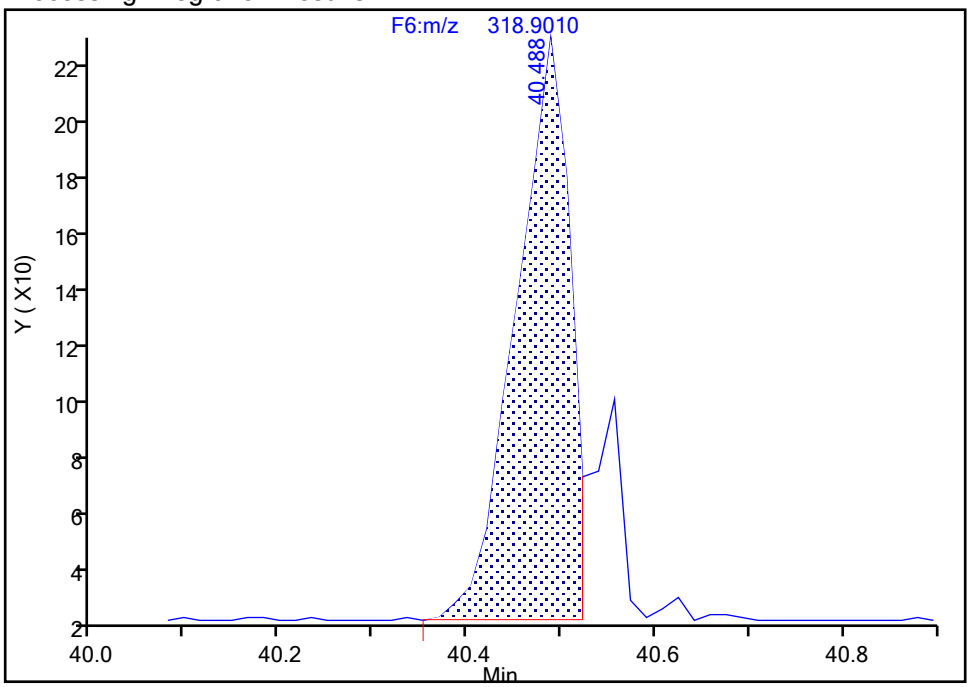
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F6(38.15 :46.98)

Endrin ketone, CAS: 53494-70-5

Signal: 2

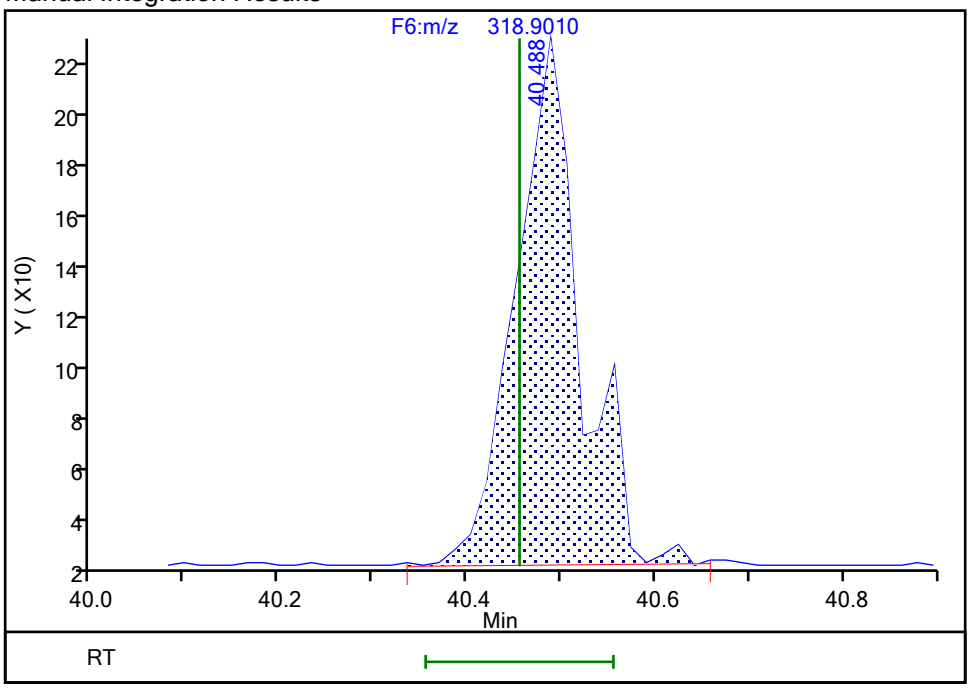
Processing Integration Results

RT: 40.49
Area: 797
Amount: 0.467778
Amount Units: pg/ul



Manual Integration Results

RT: 40.49
Area: 966
Amount: 0.498252
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:36:10 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

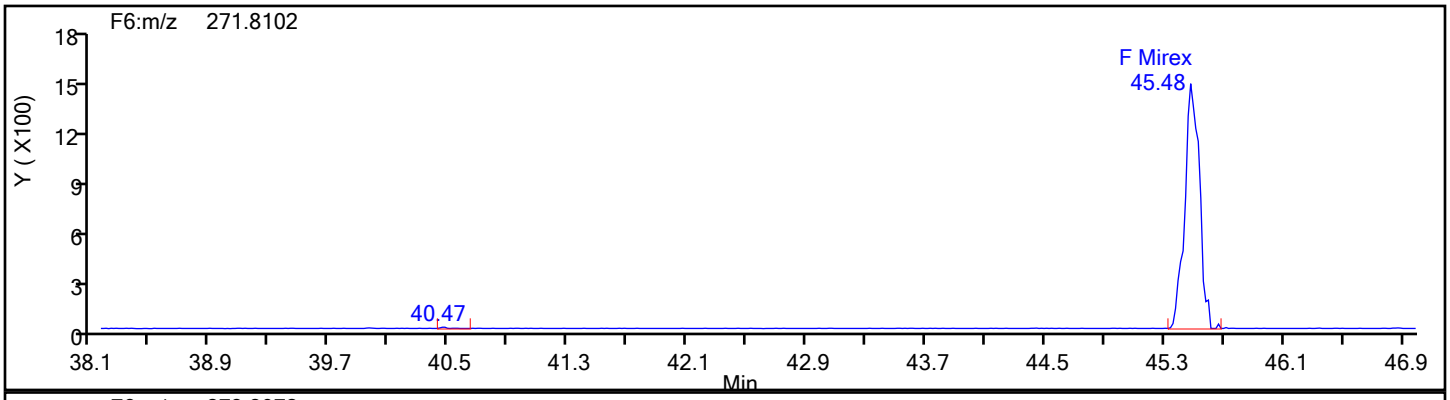
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

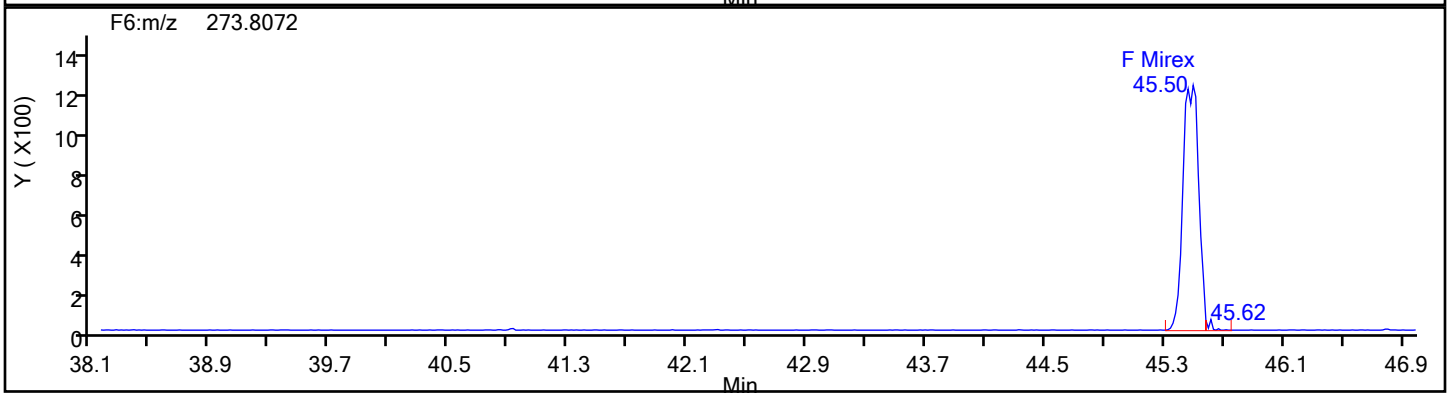
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

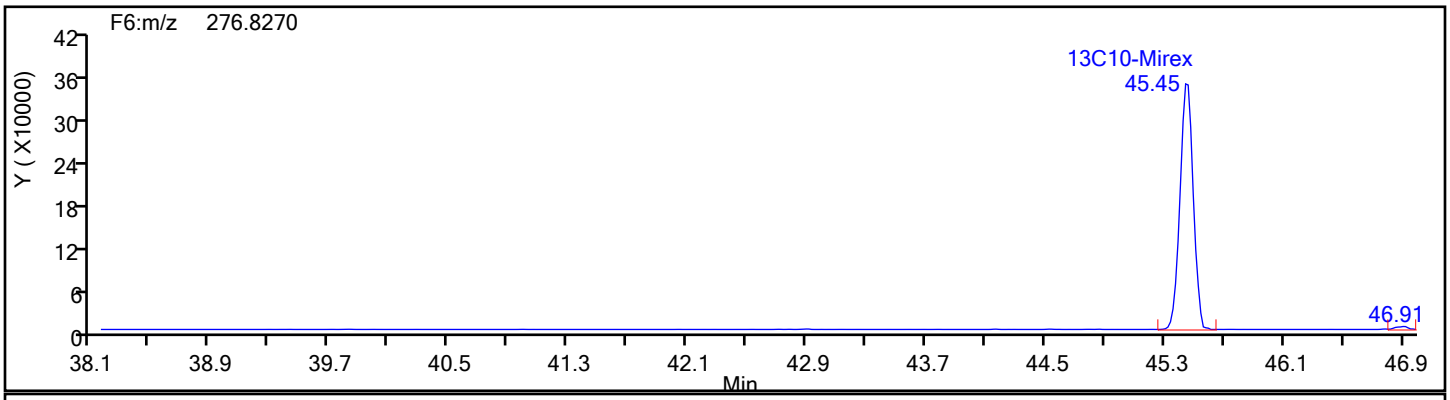
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

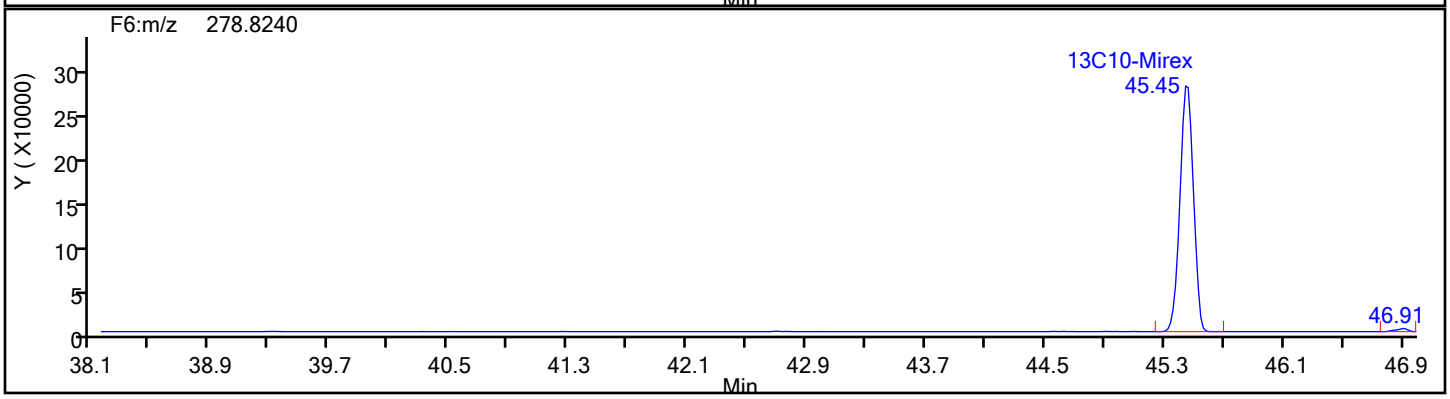
Mirex





Mirex Standards



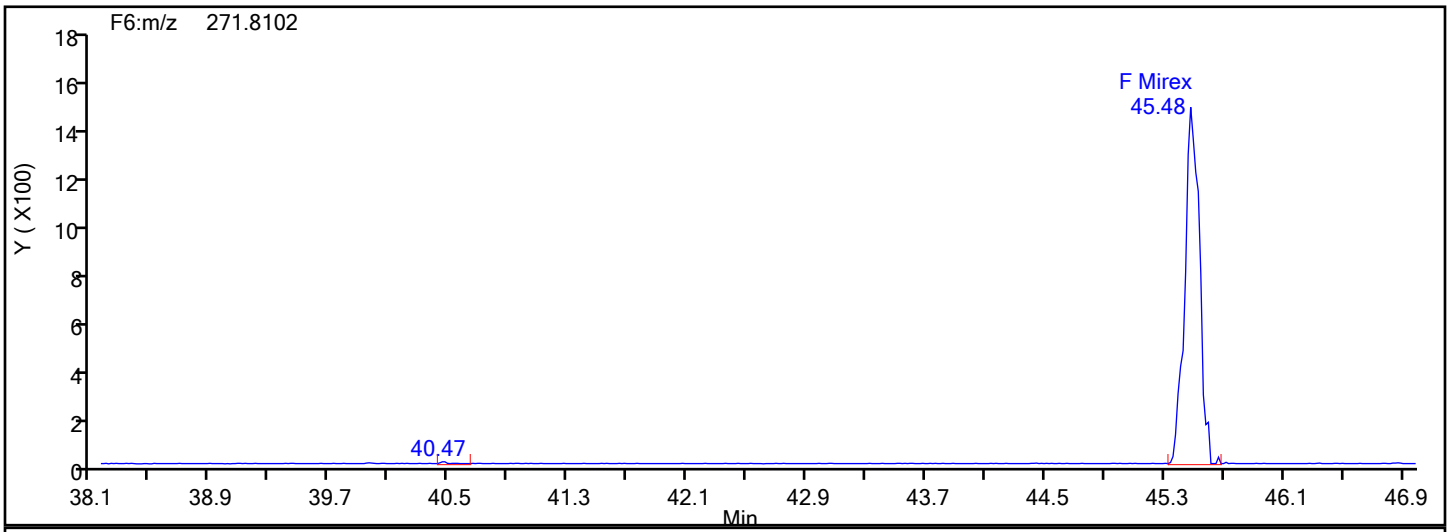


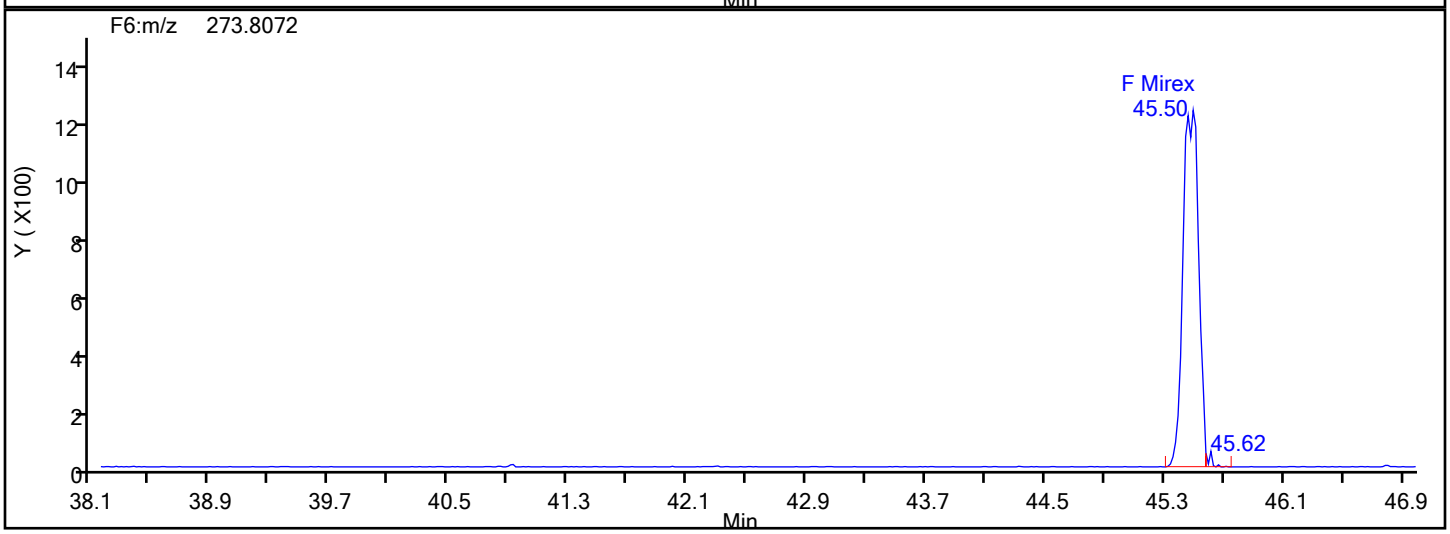
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

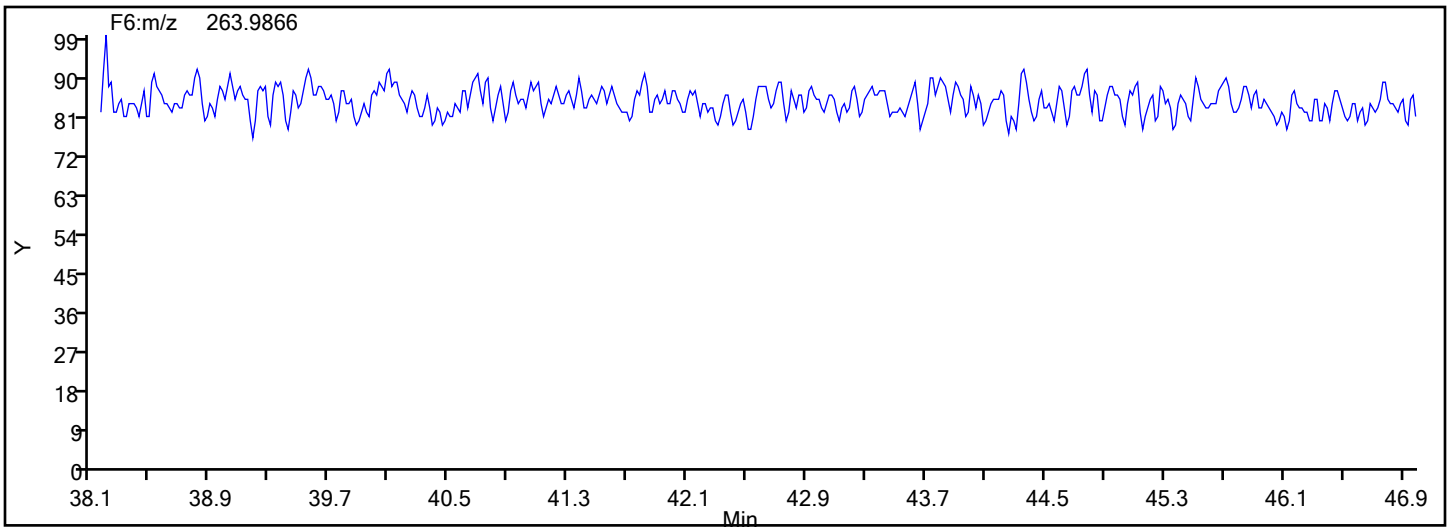
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Mirex





Mirex Lock Mass



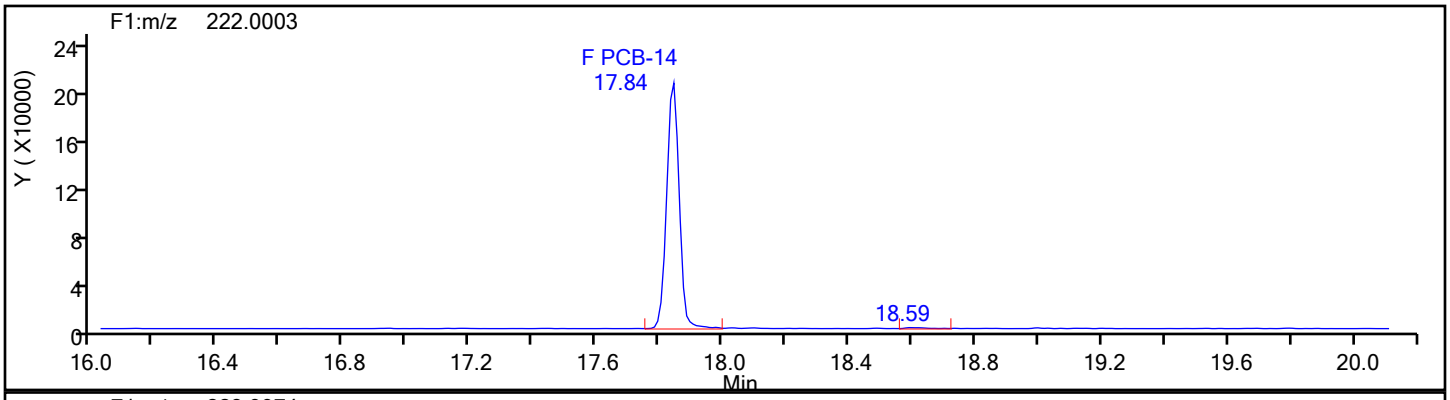
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

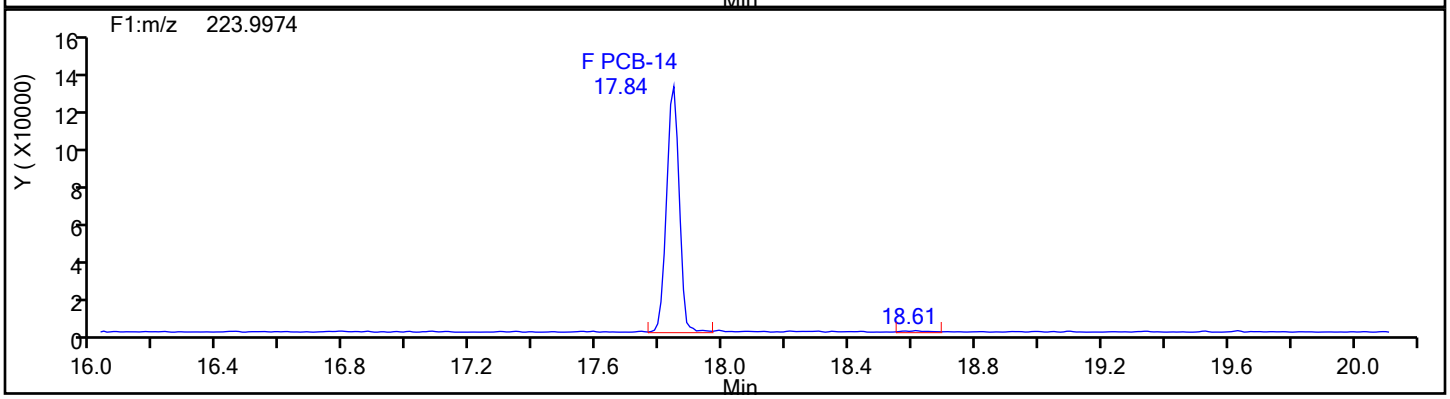
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

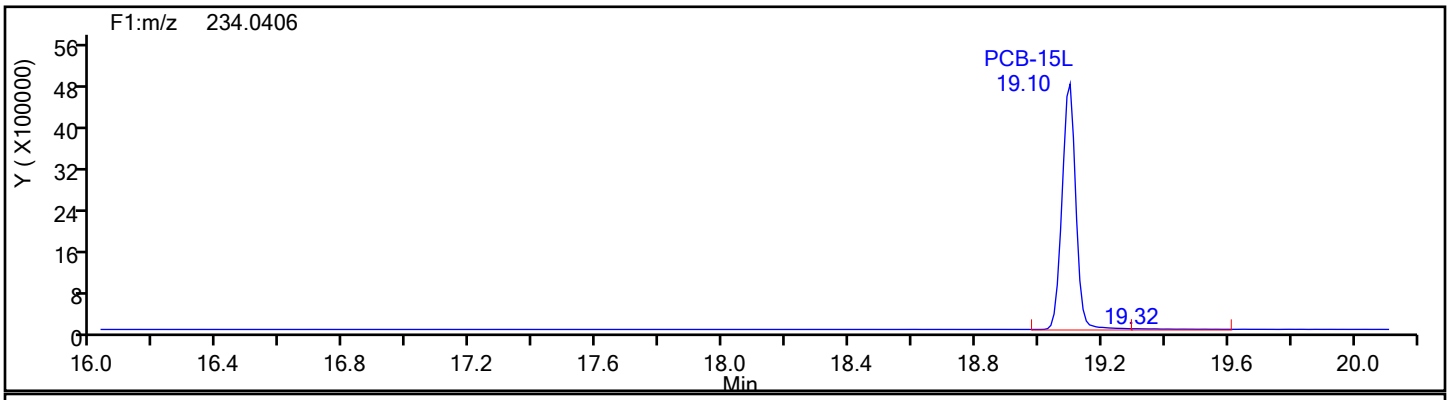
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

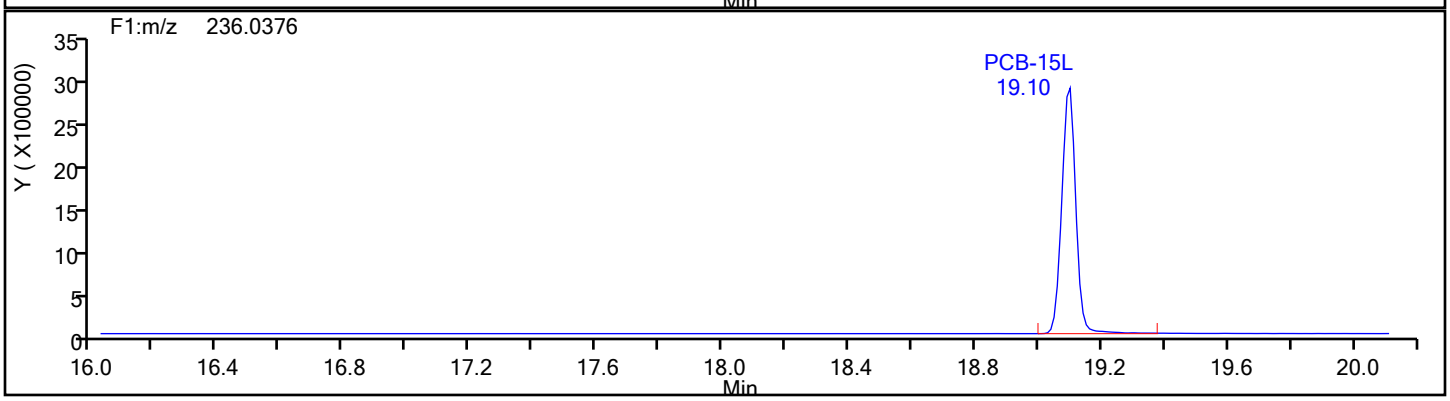
PCB-14





PCB-14 Standards



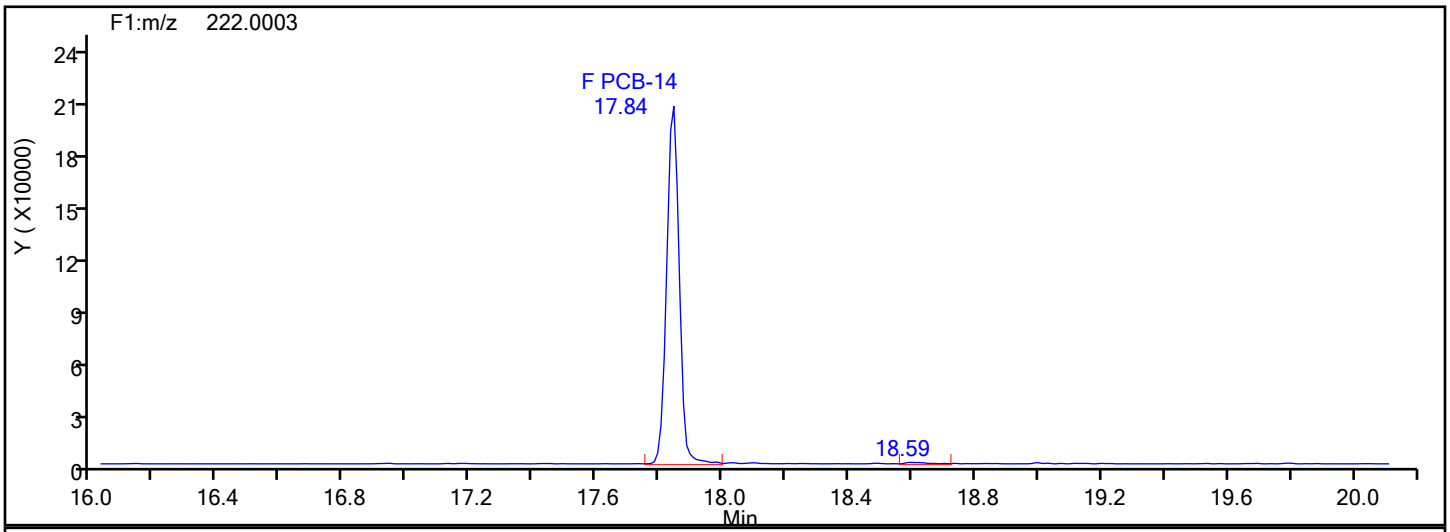


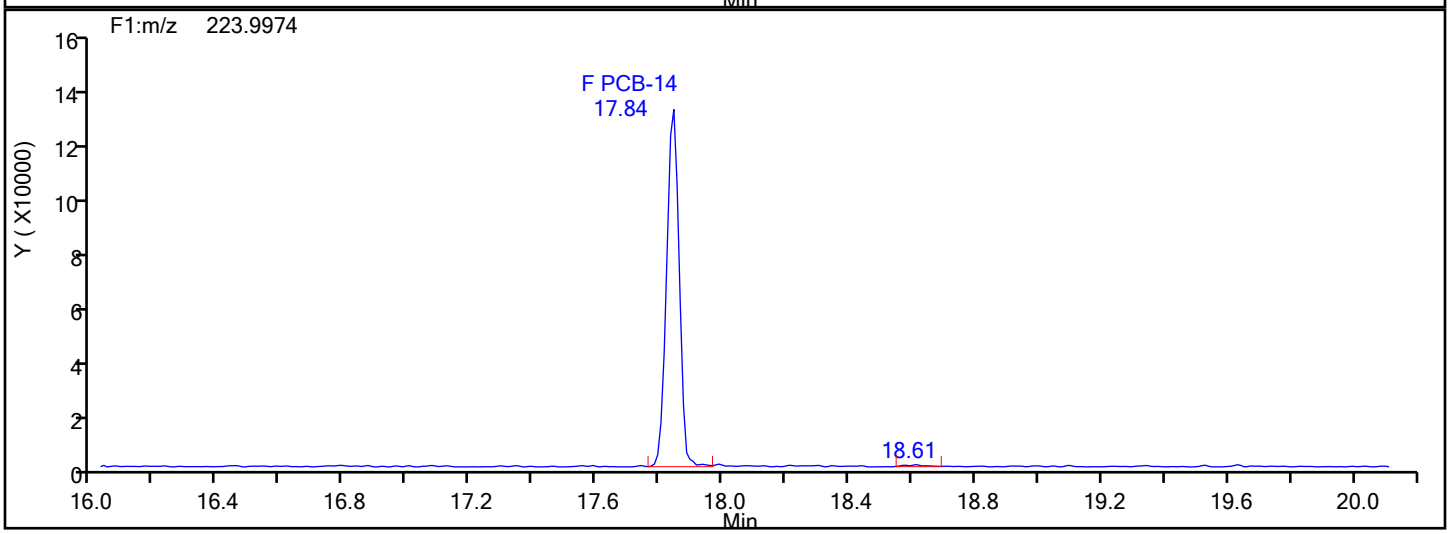
Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

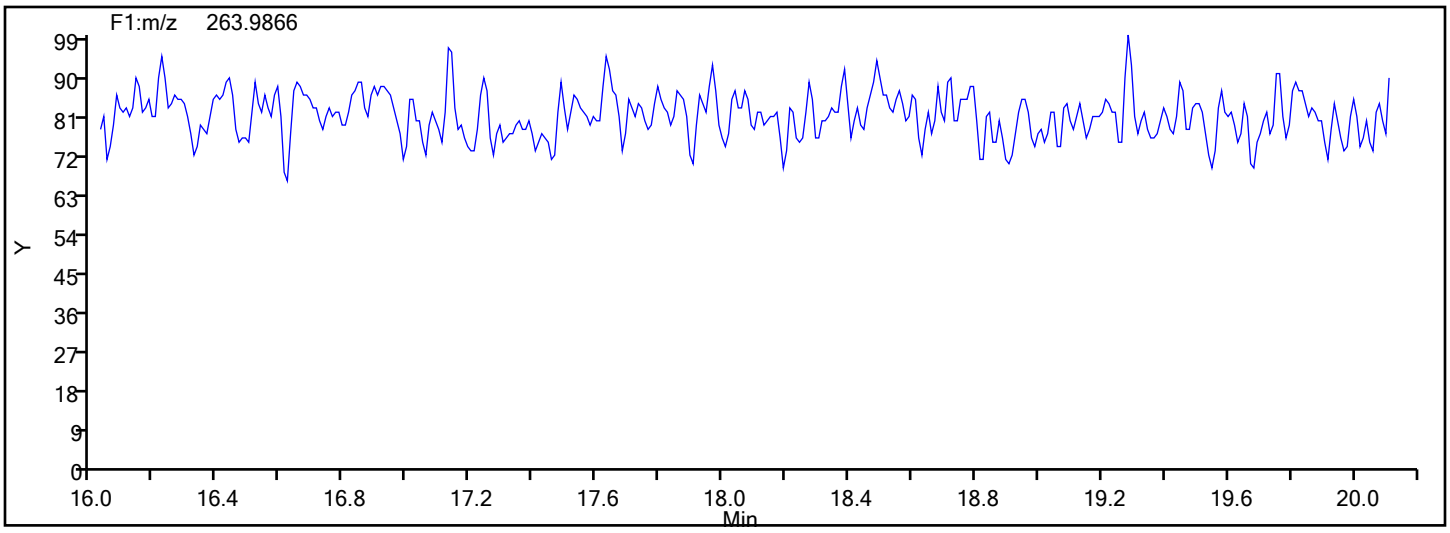
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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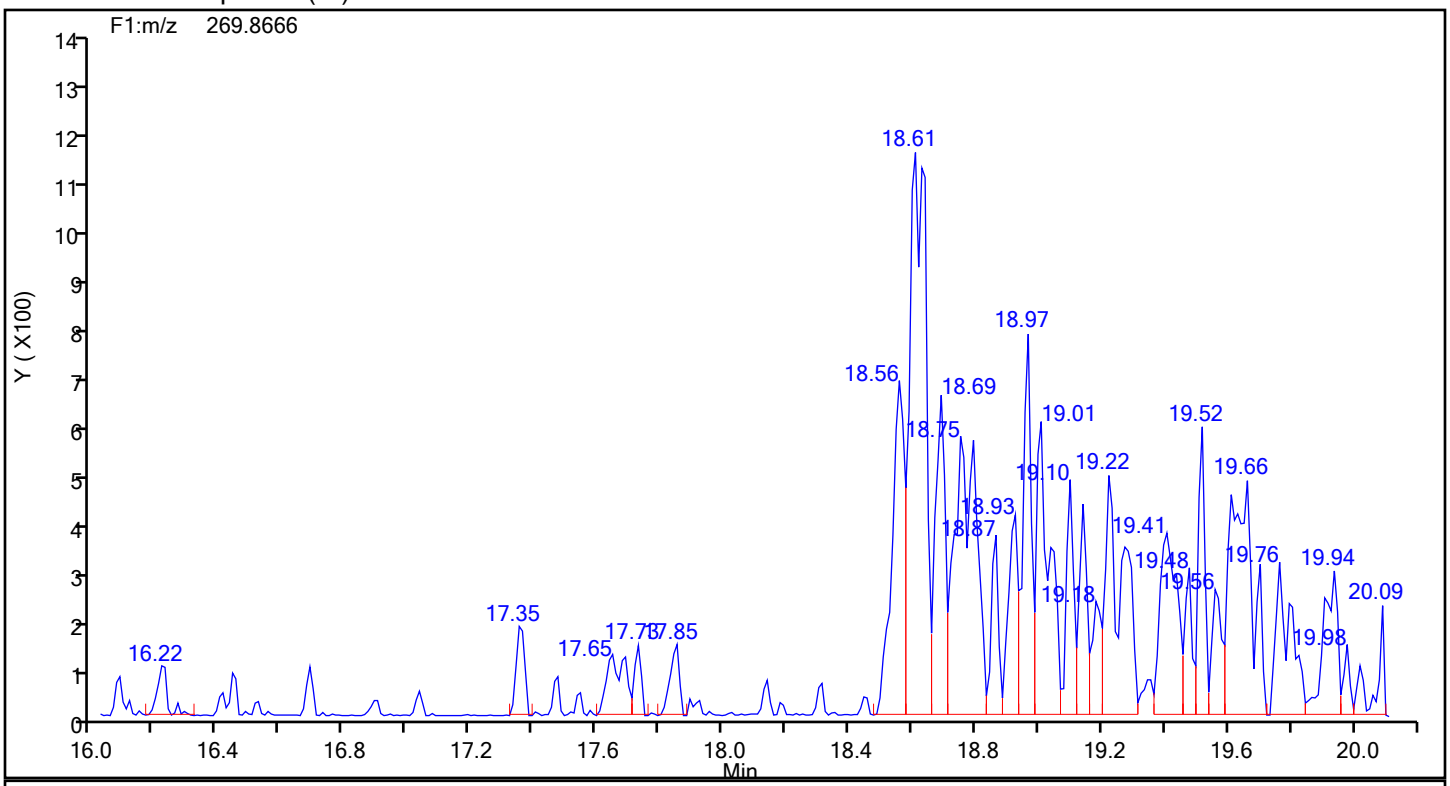
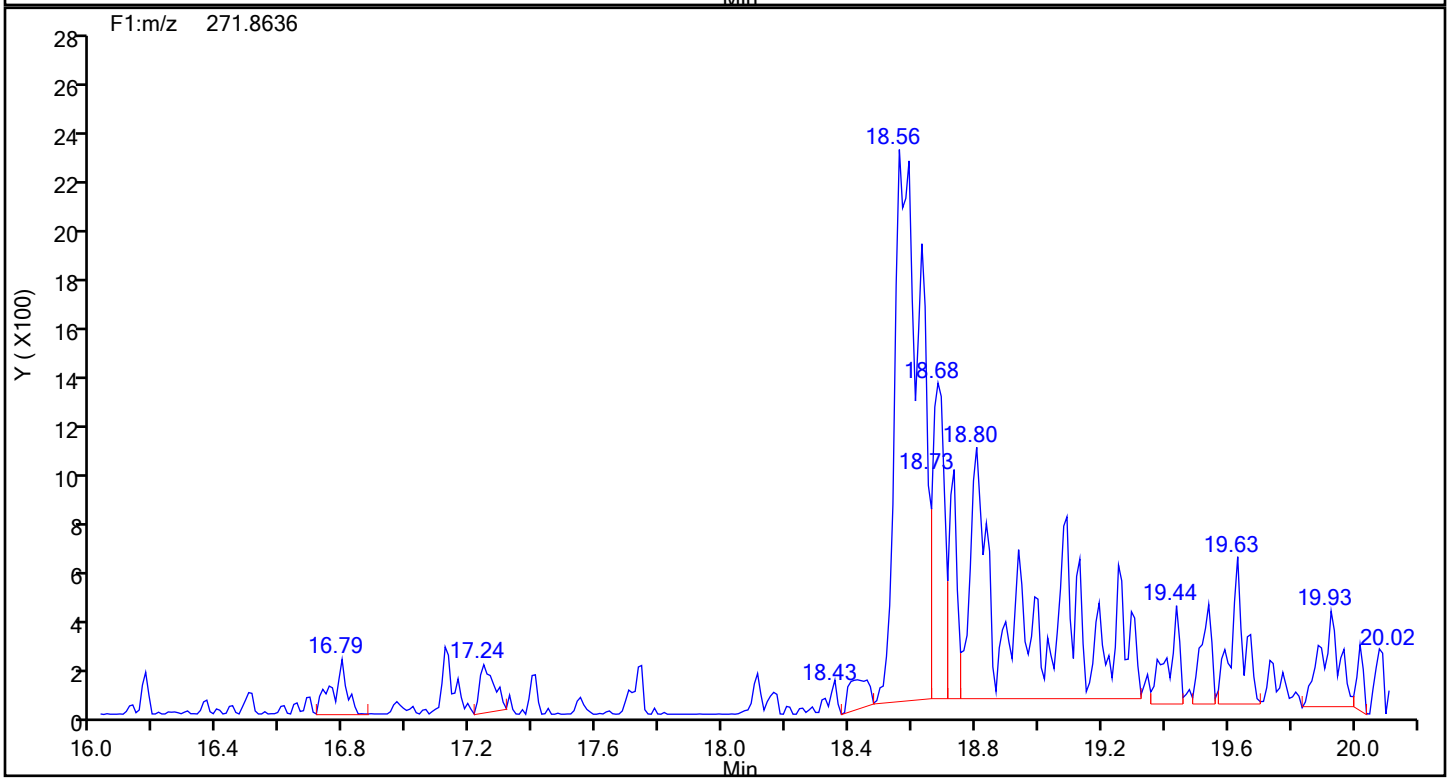
13C6-Pentachlorophenol (IS) Standards





Report Date: 24-Mar-2025 13:05:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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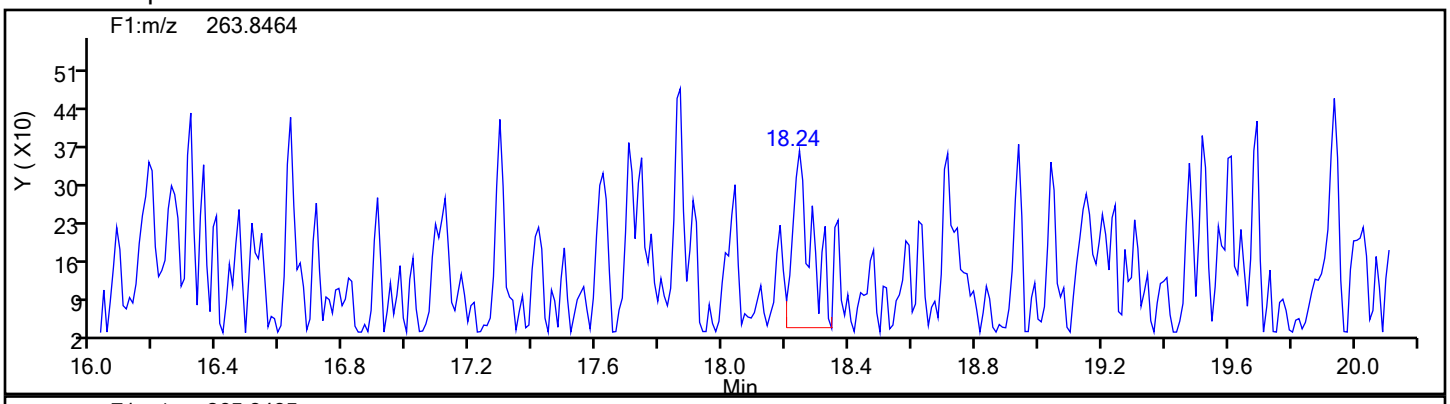
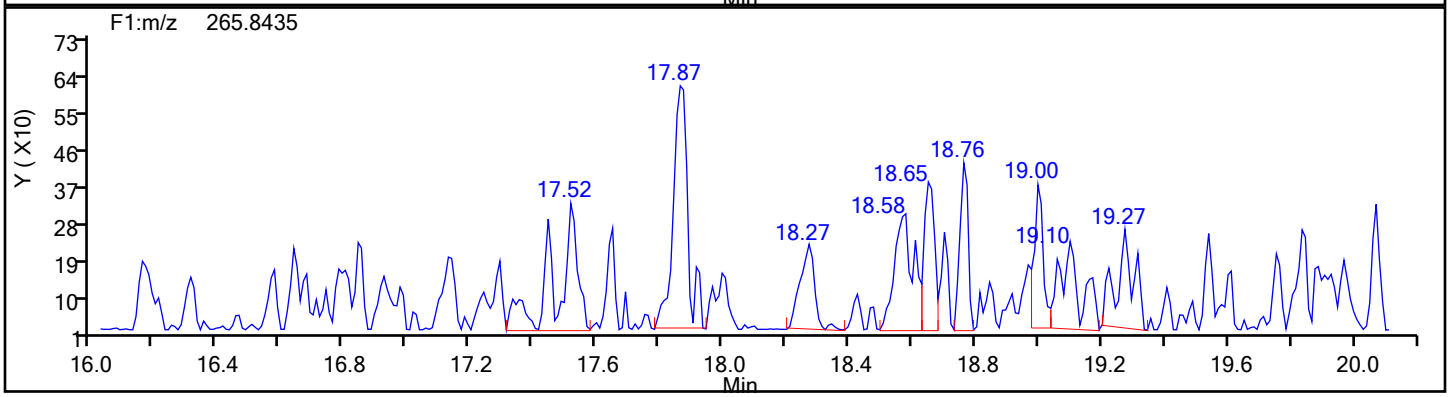
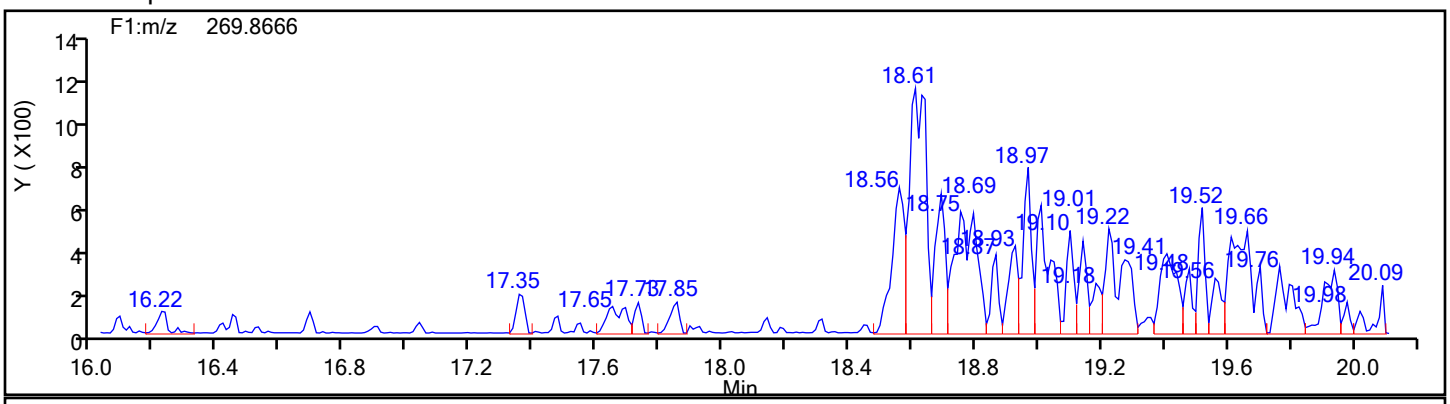
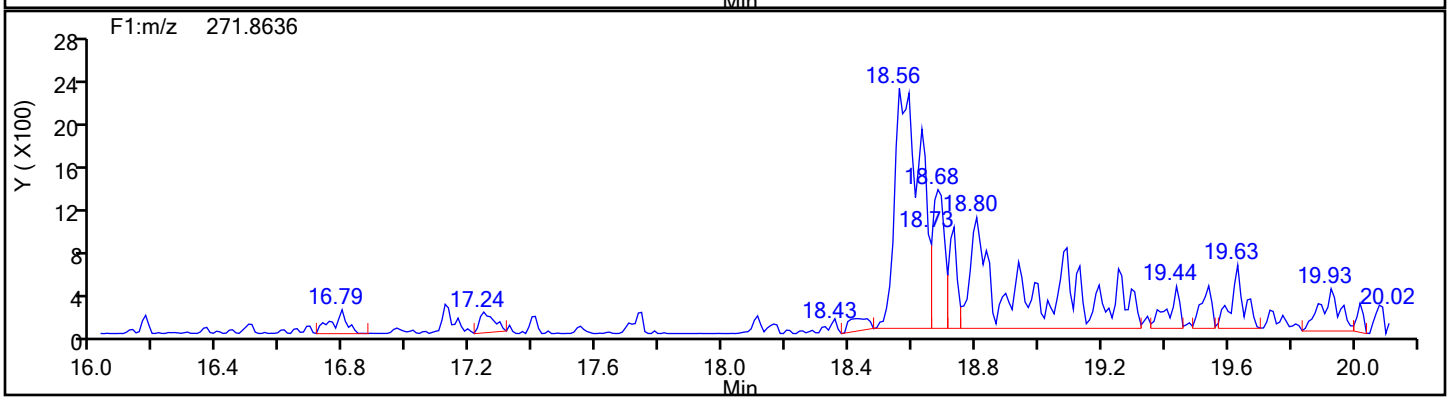
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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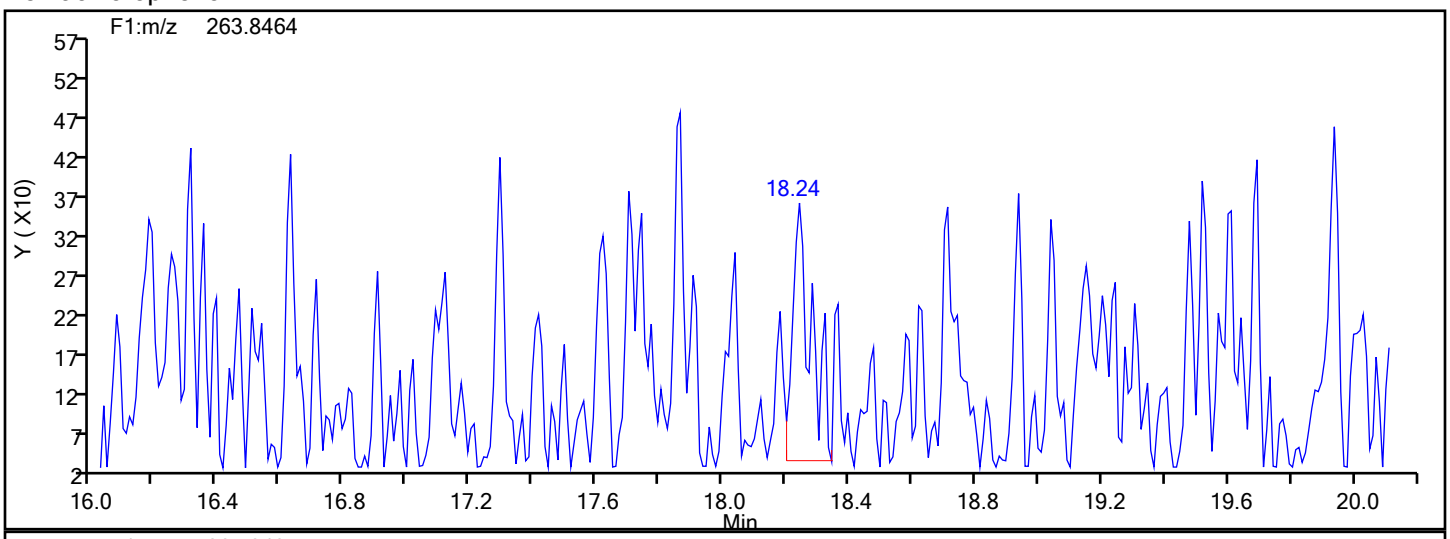
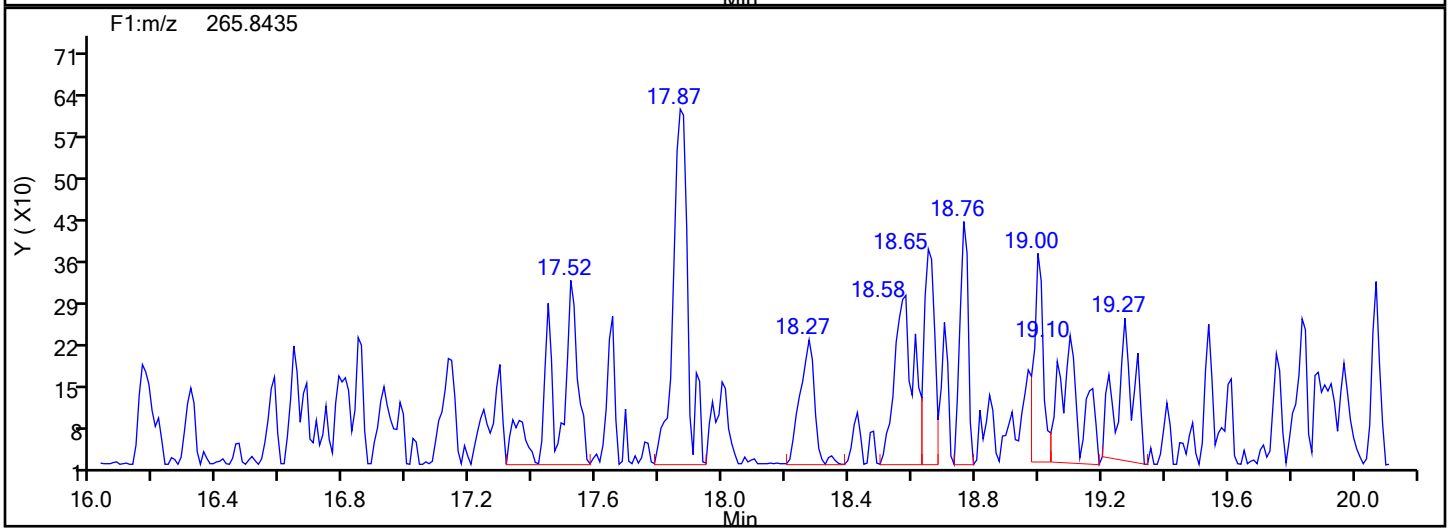
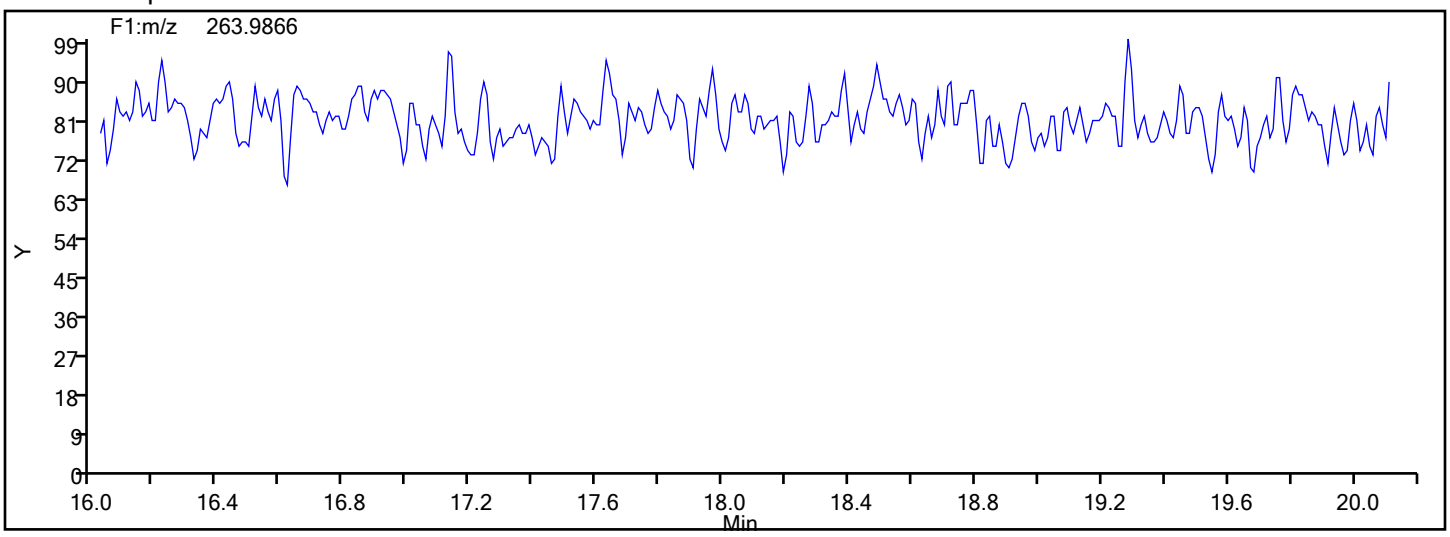
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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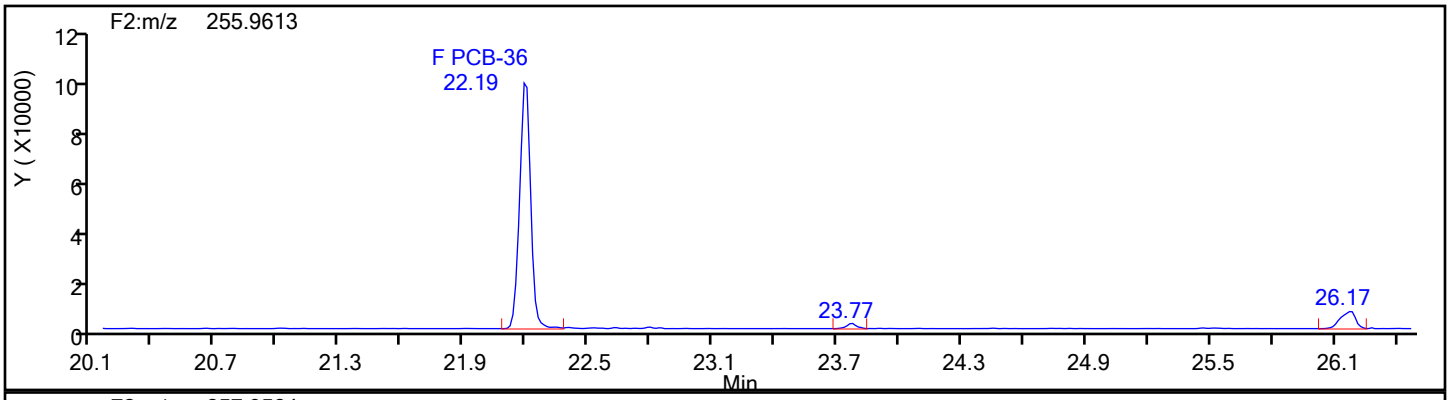
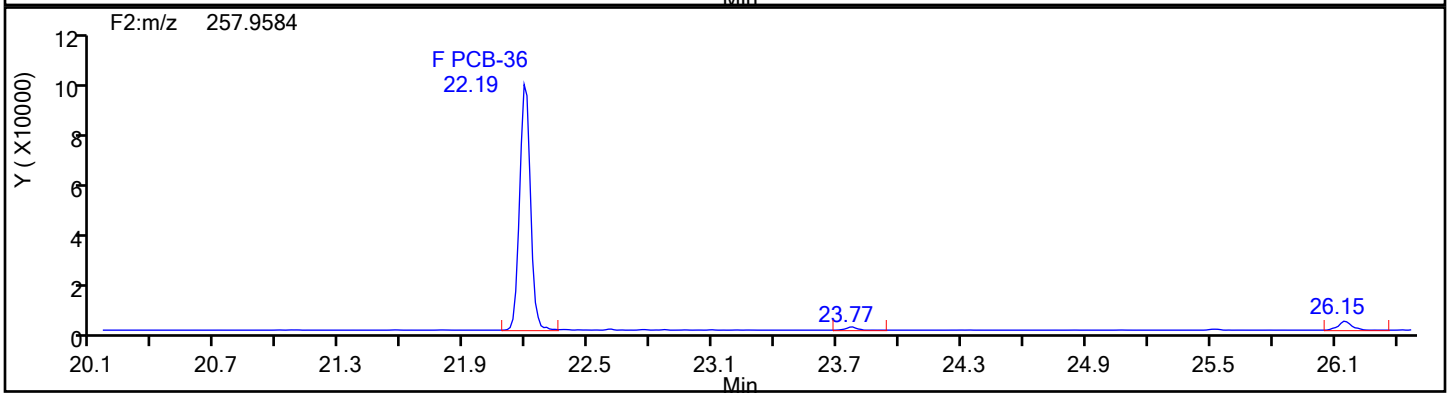
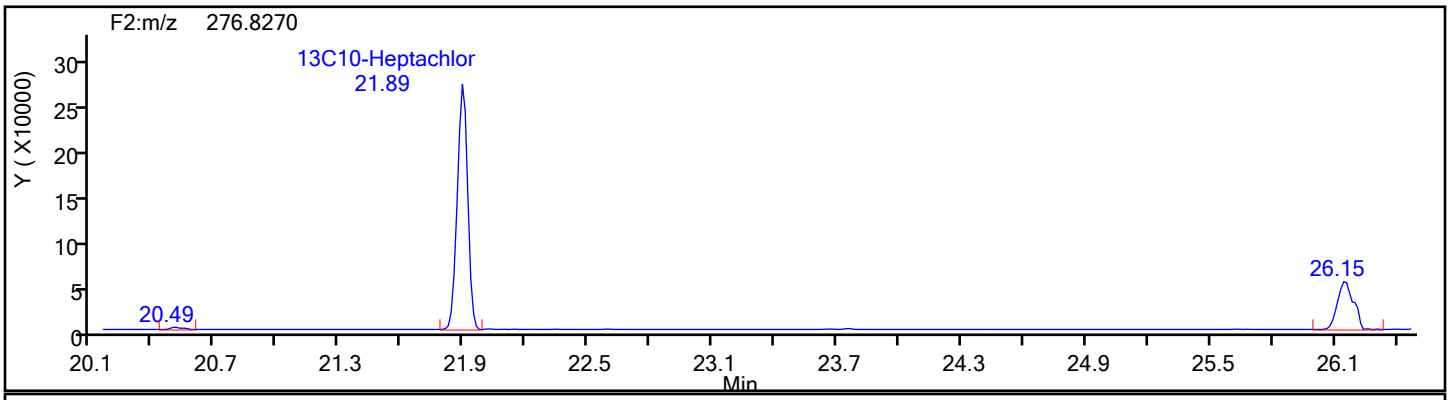
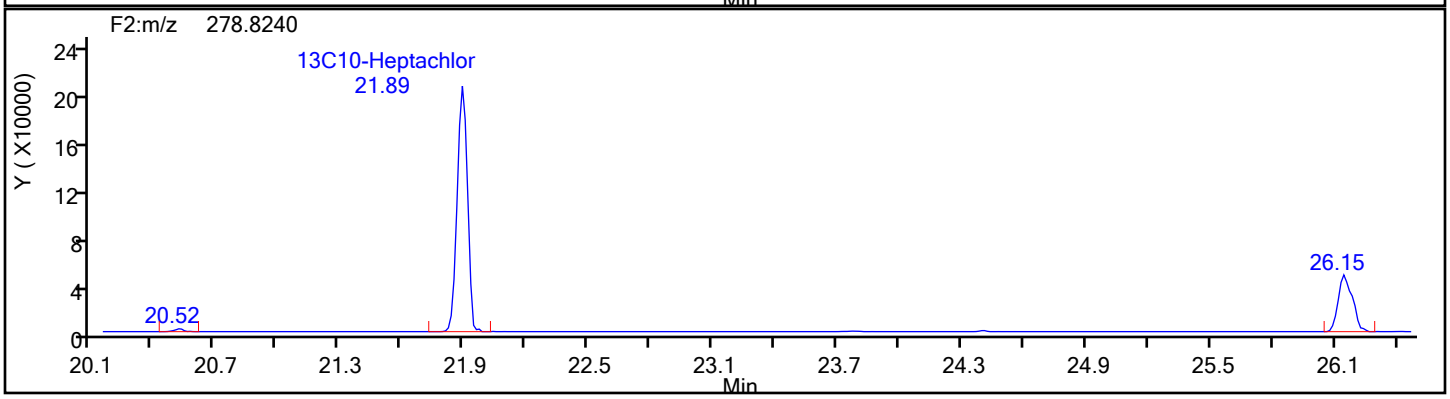
PCB-36





PCB-36 Standards





Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
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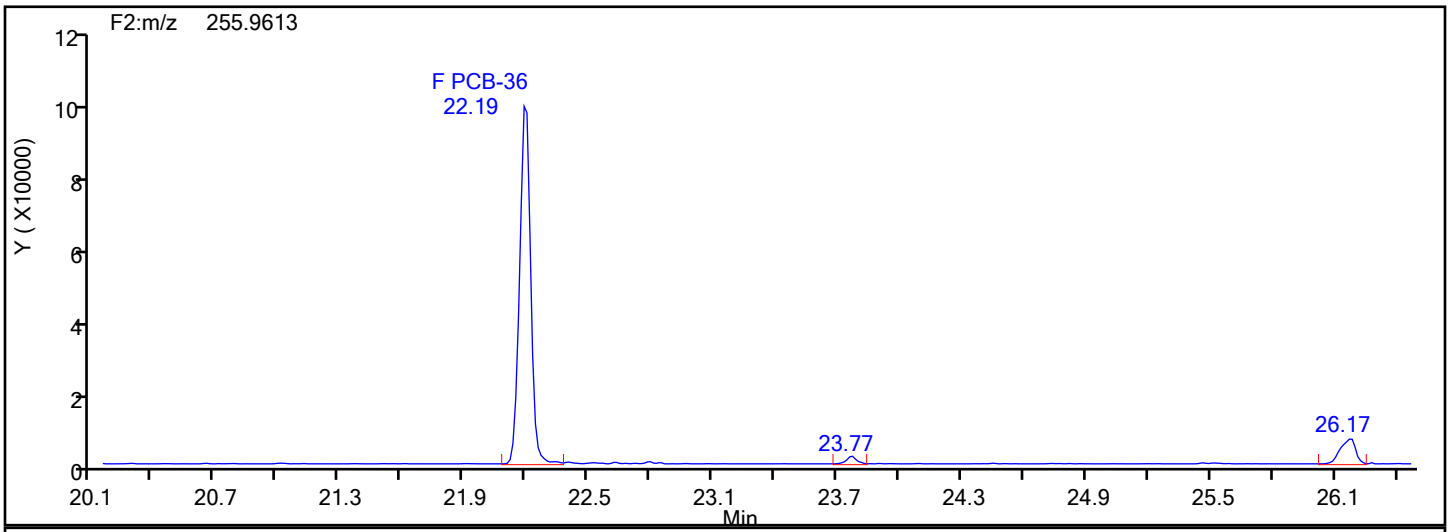
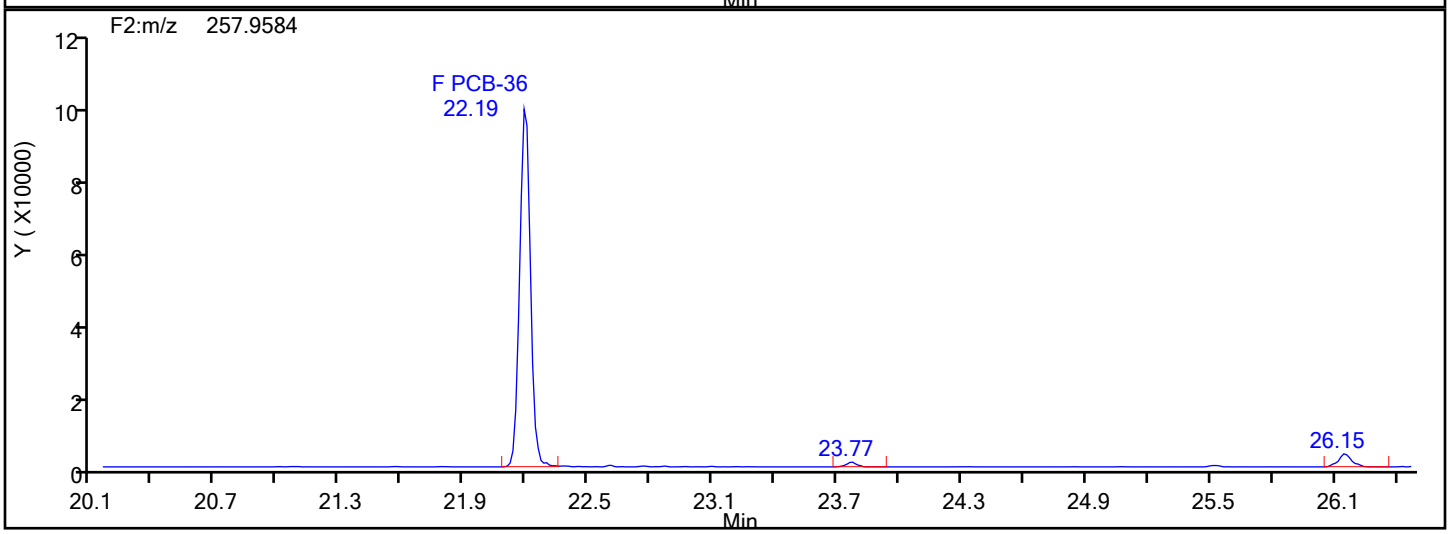
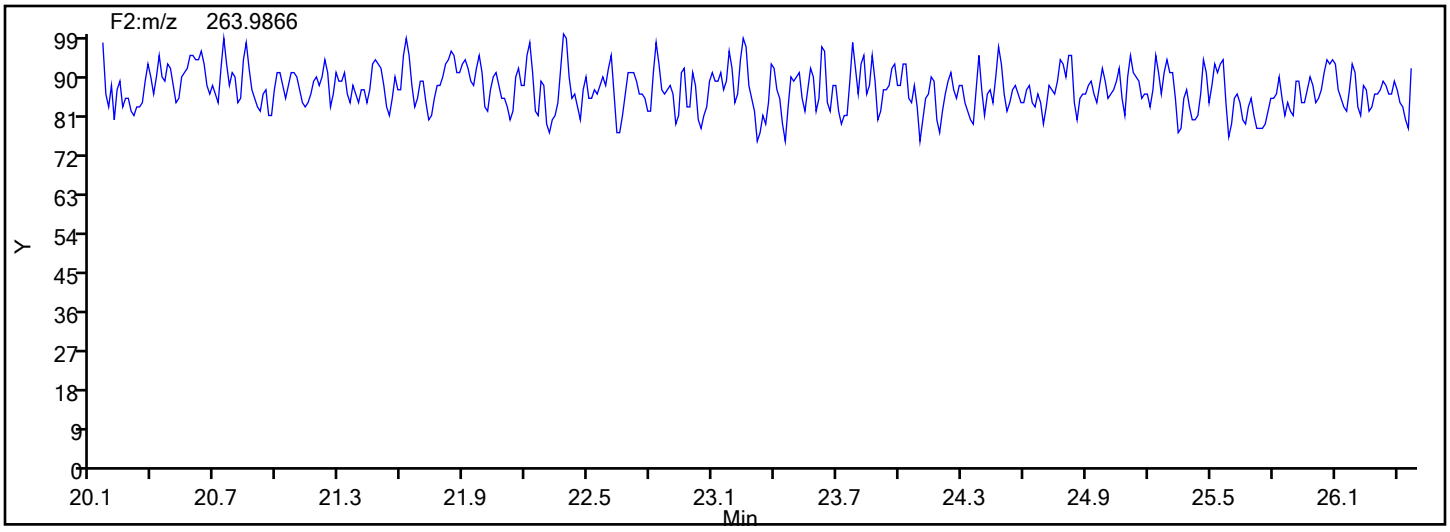
PCB-36





PCB-36 Lock Mass



Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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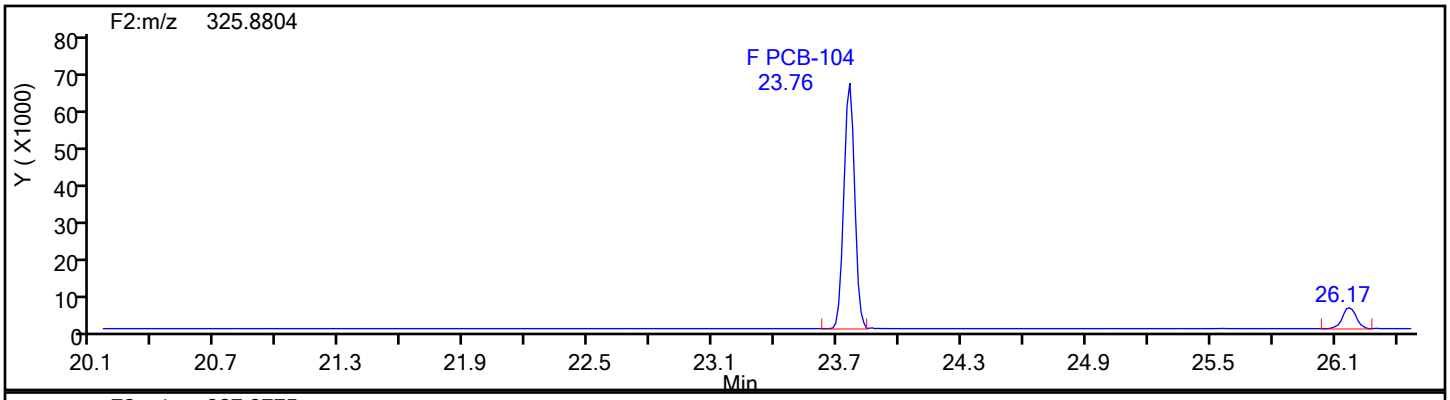
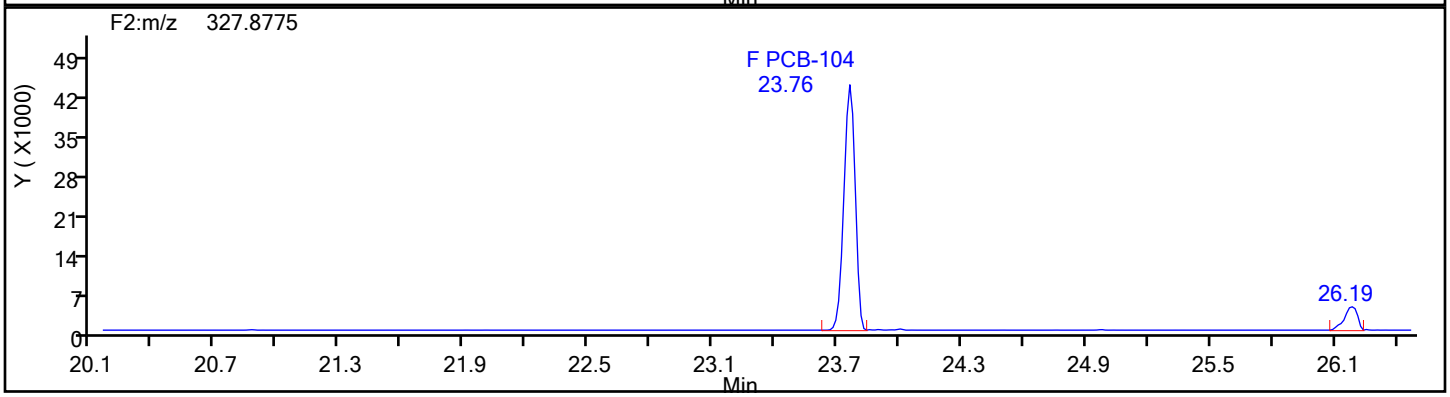
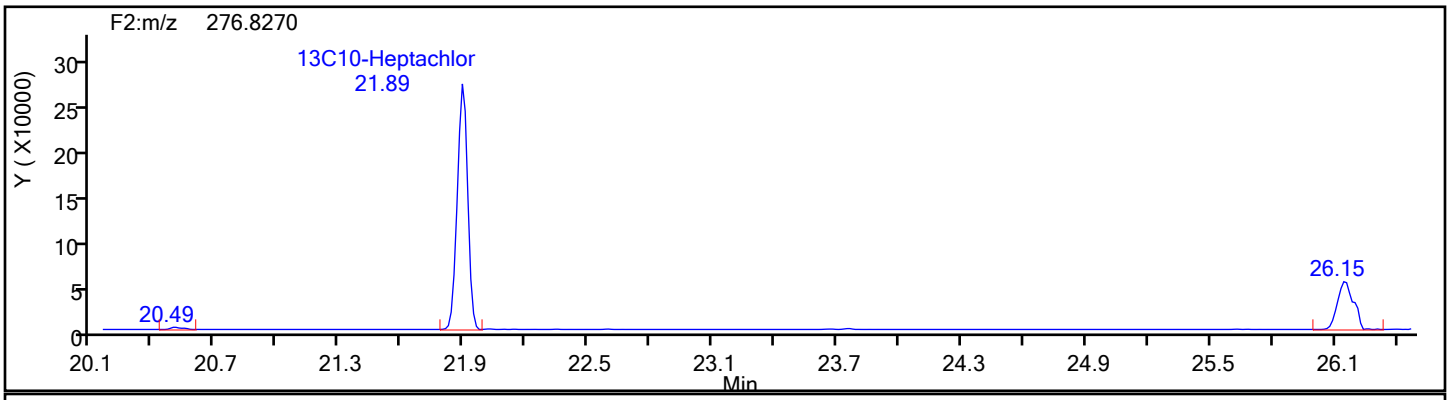
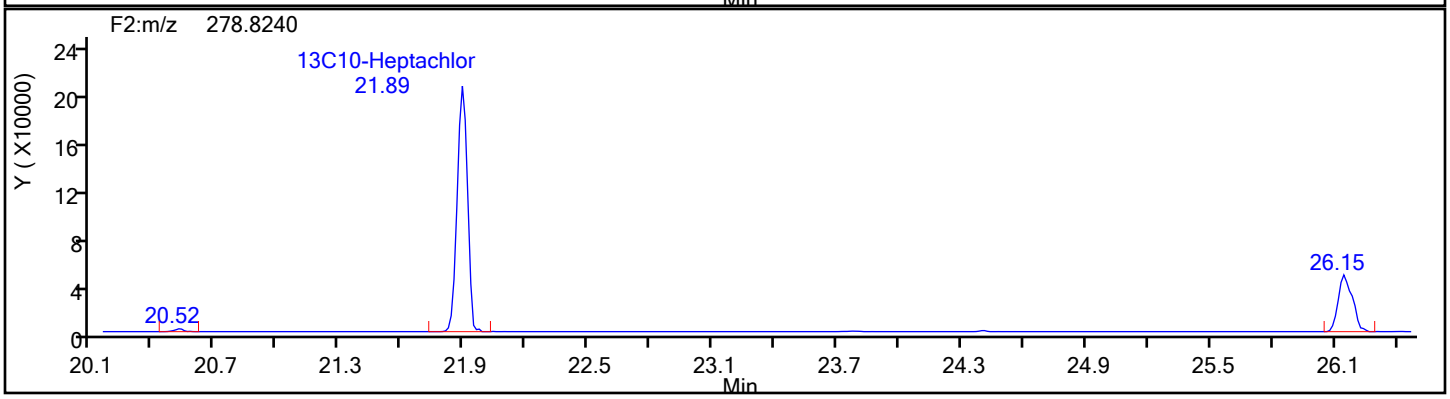
PCB-104





PCB-104 Standards





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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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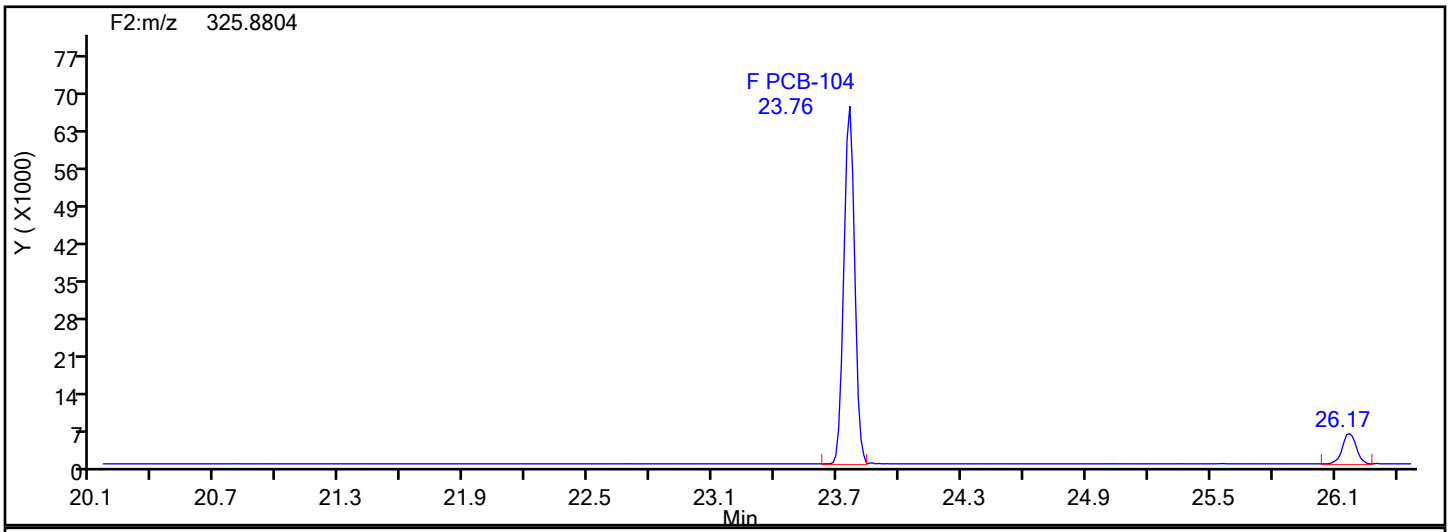
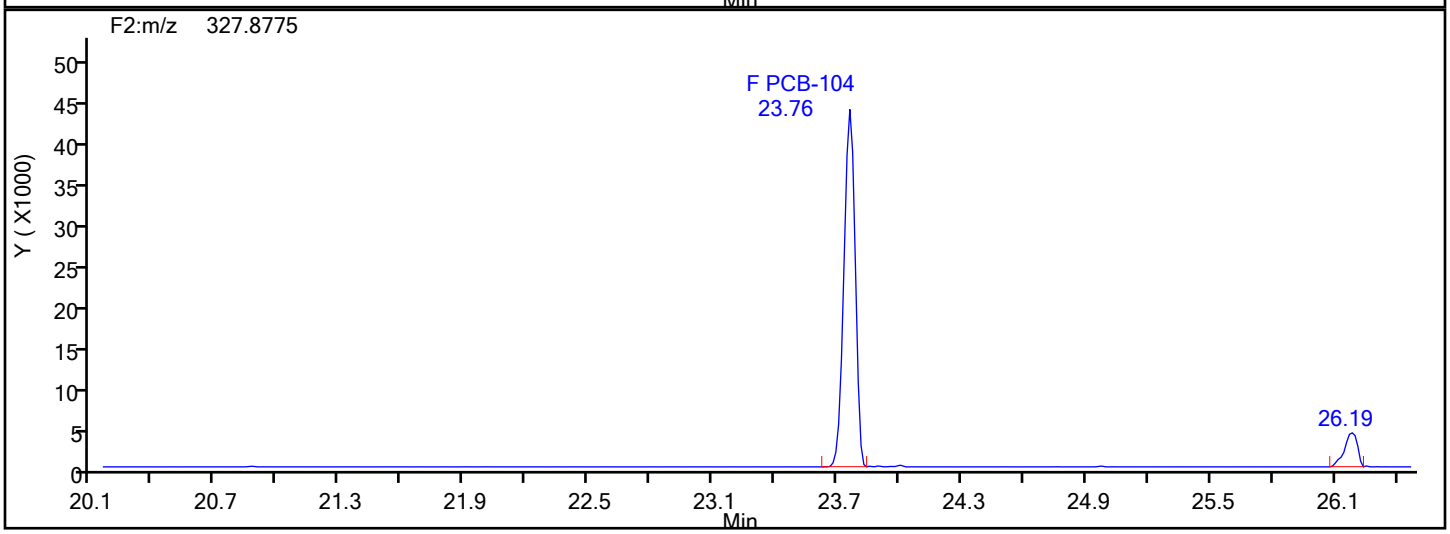
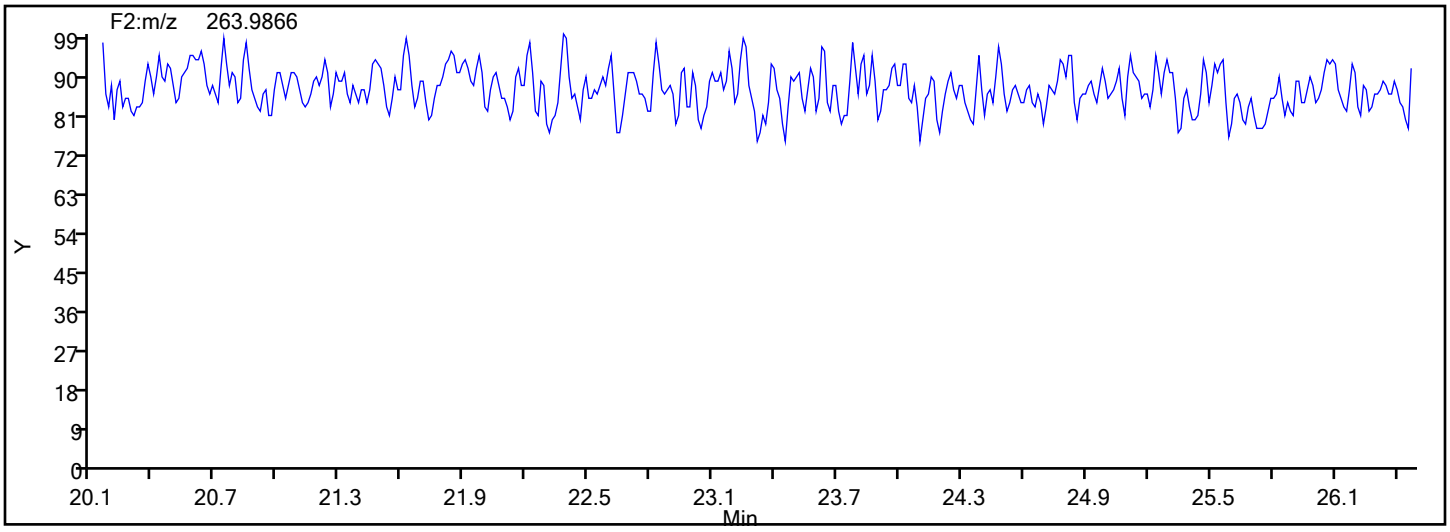
PCB-104





PCB-104 Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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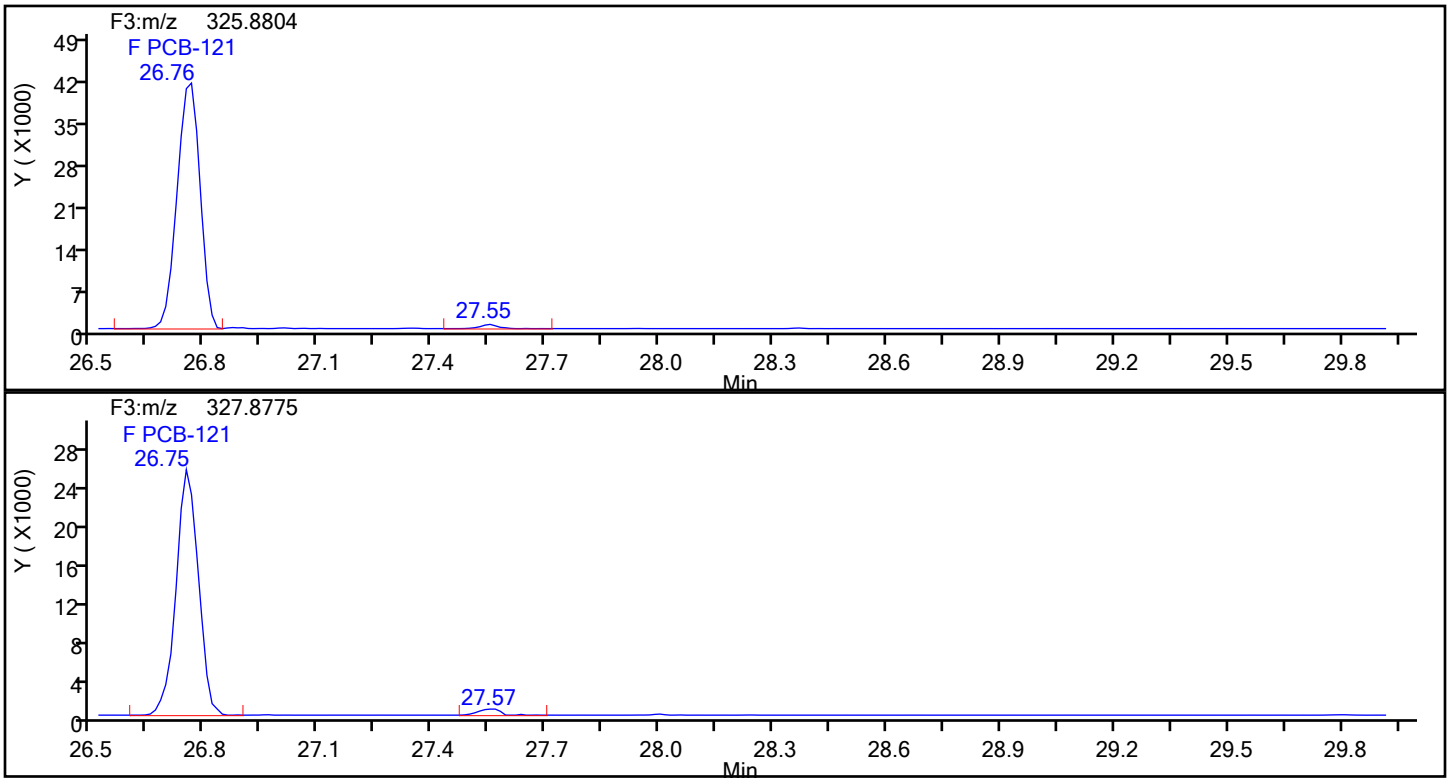
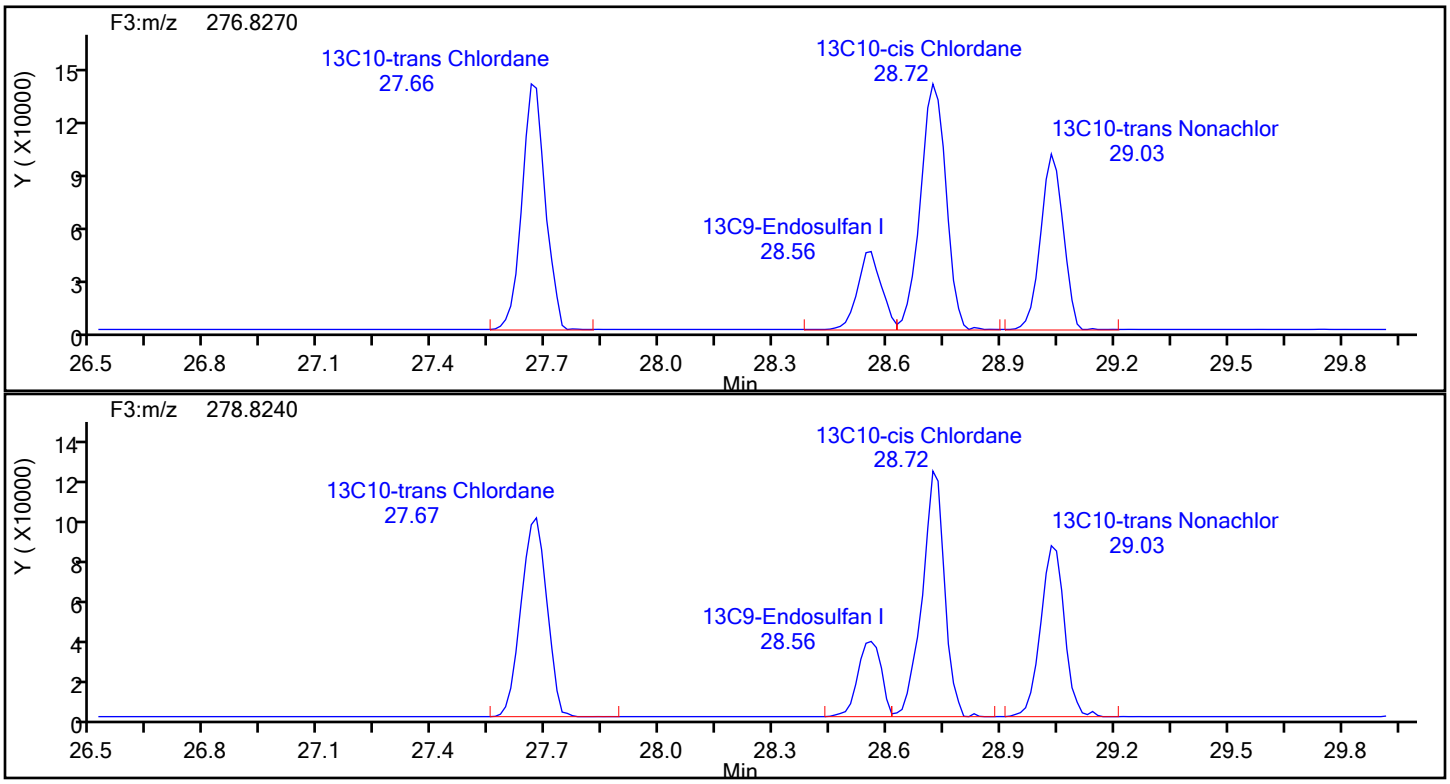
PCB-121



PCB-121 Standards



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Eurofins Knoxville

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Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
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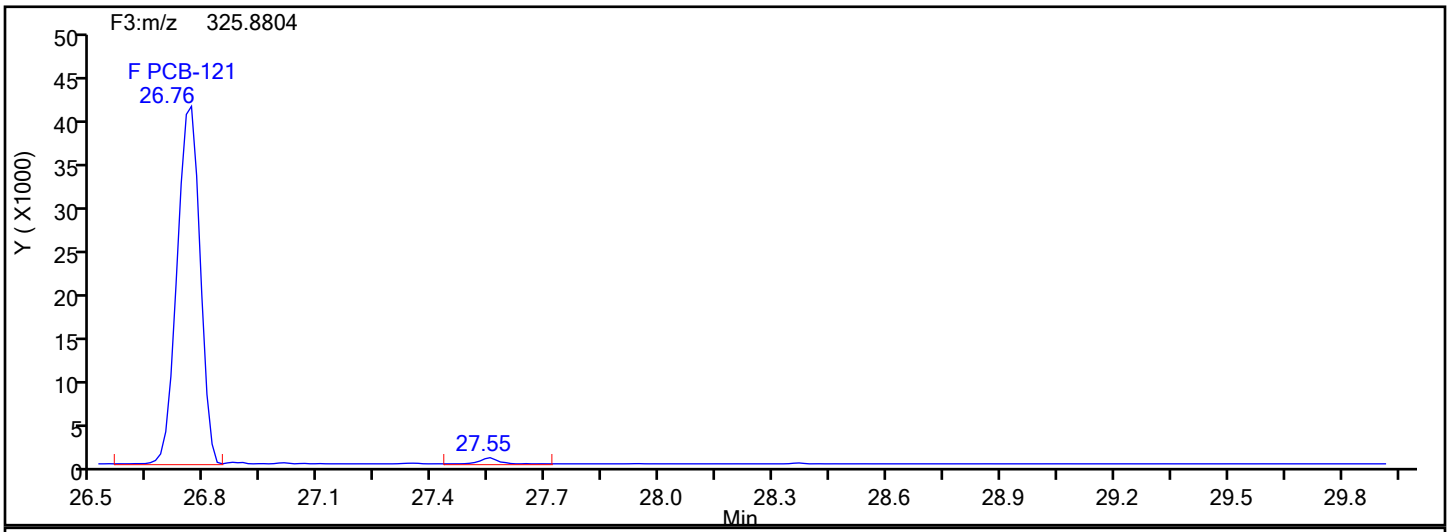
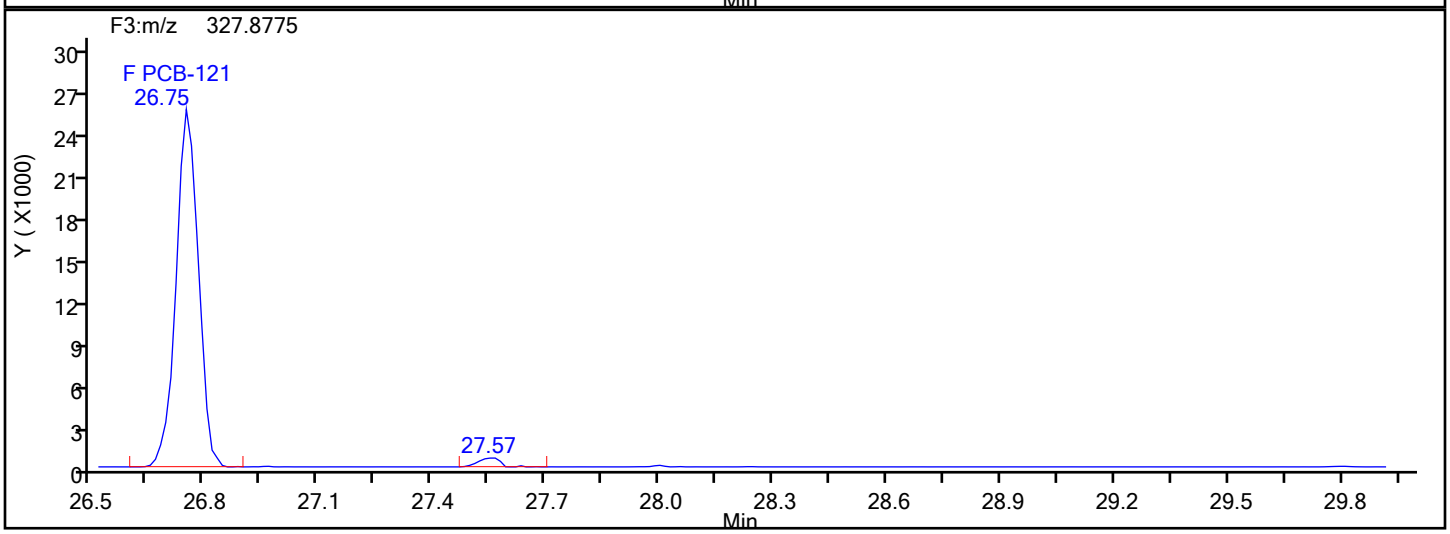
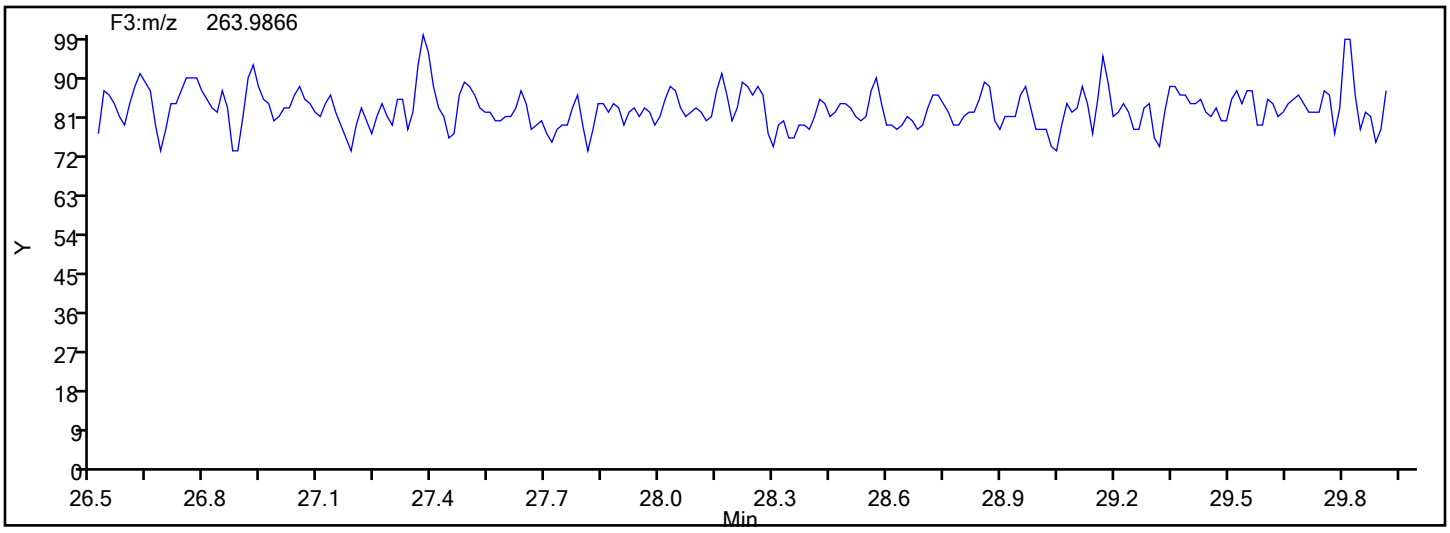
PCB-121





PCB-121 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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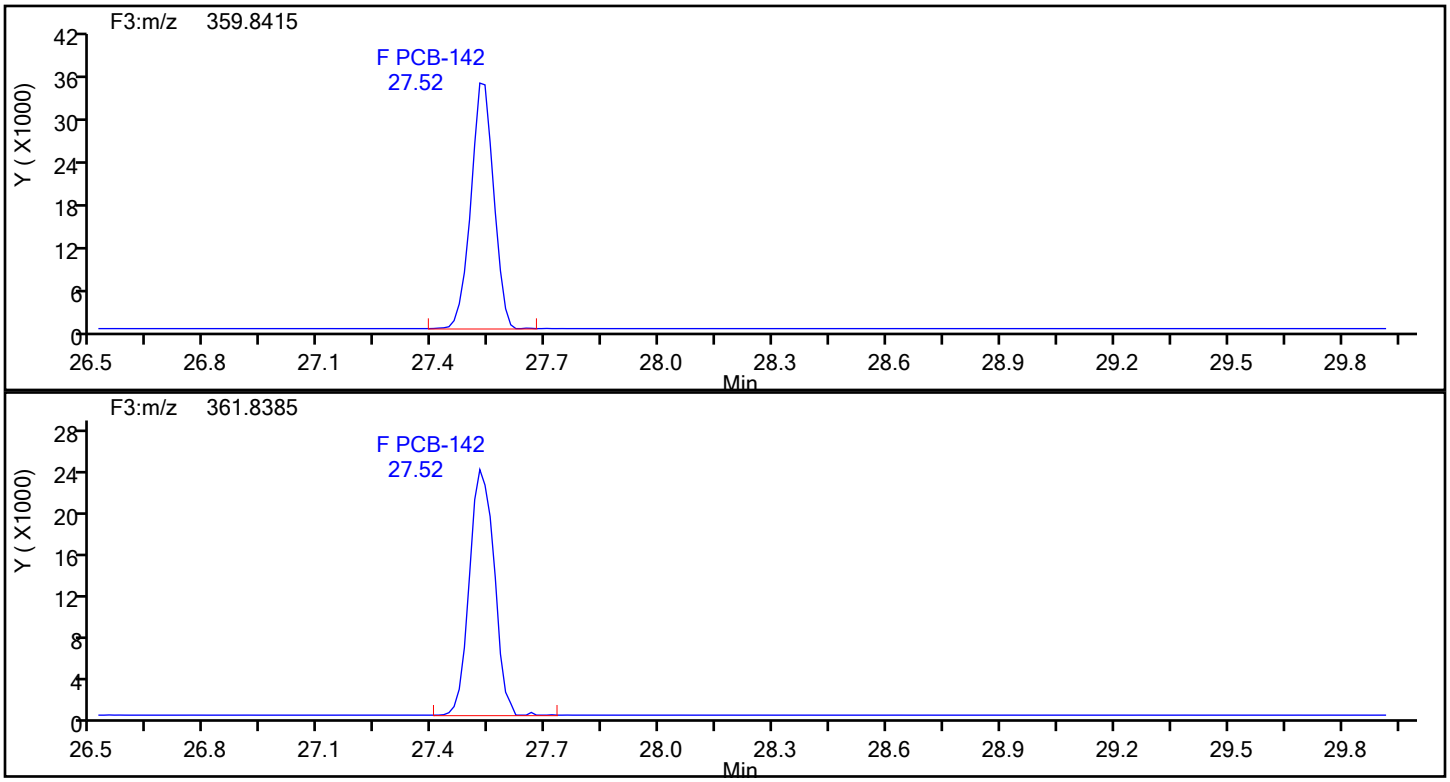
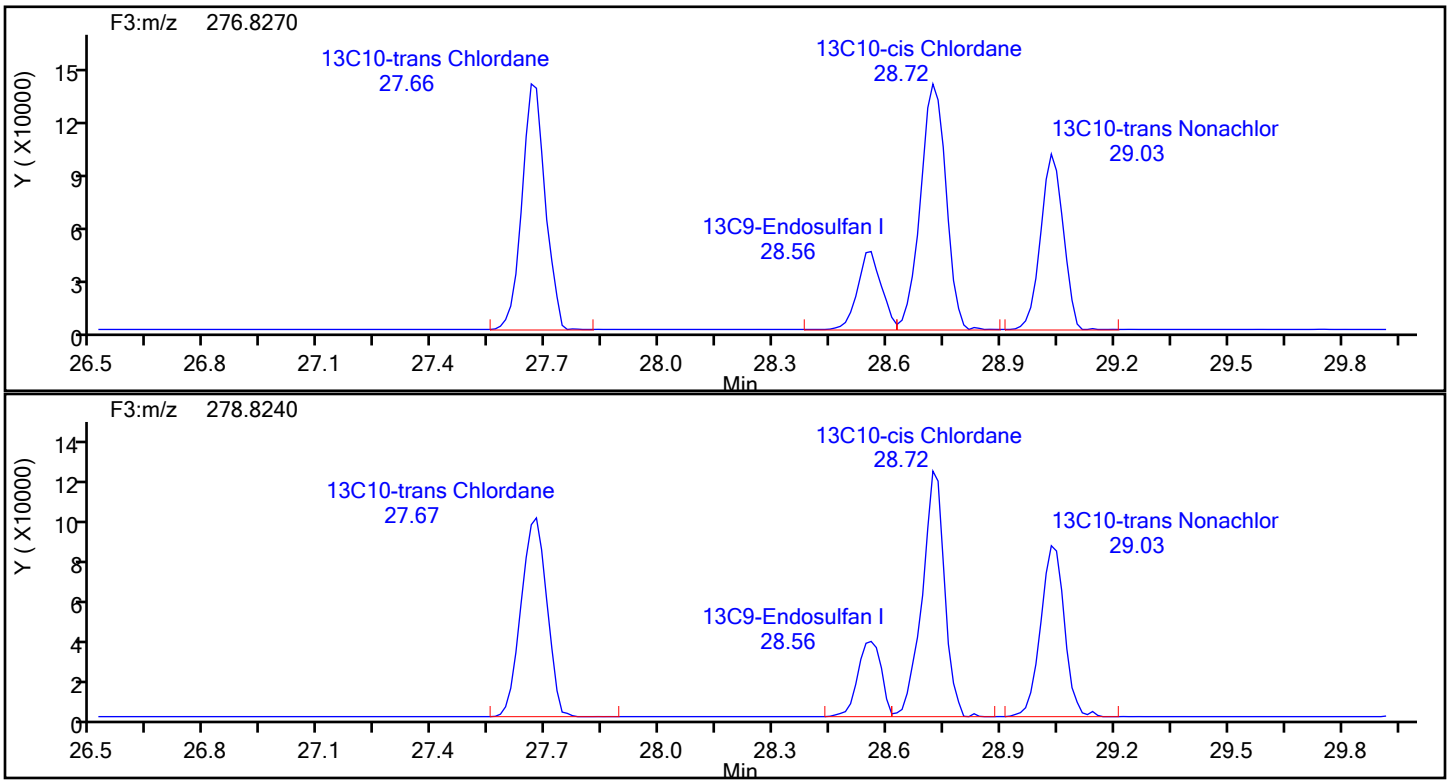
PCB-142



PCB-142 Standards



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
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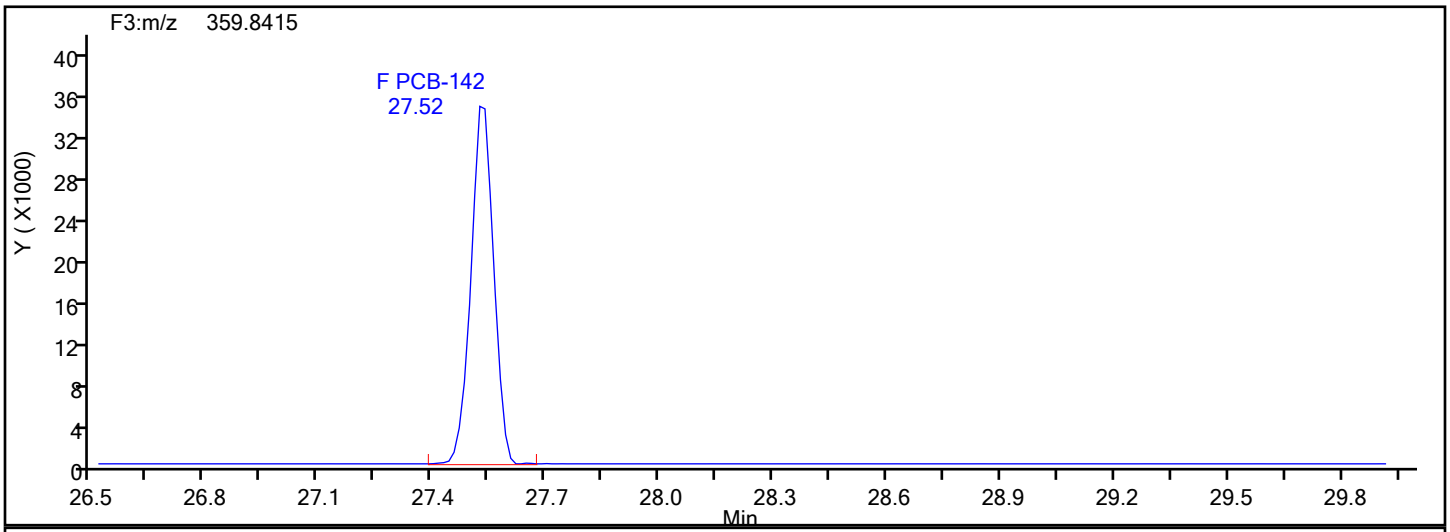
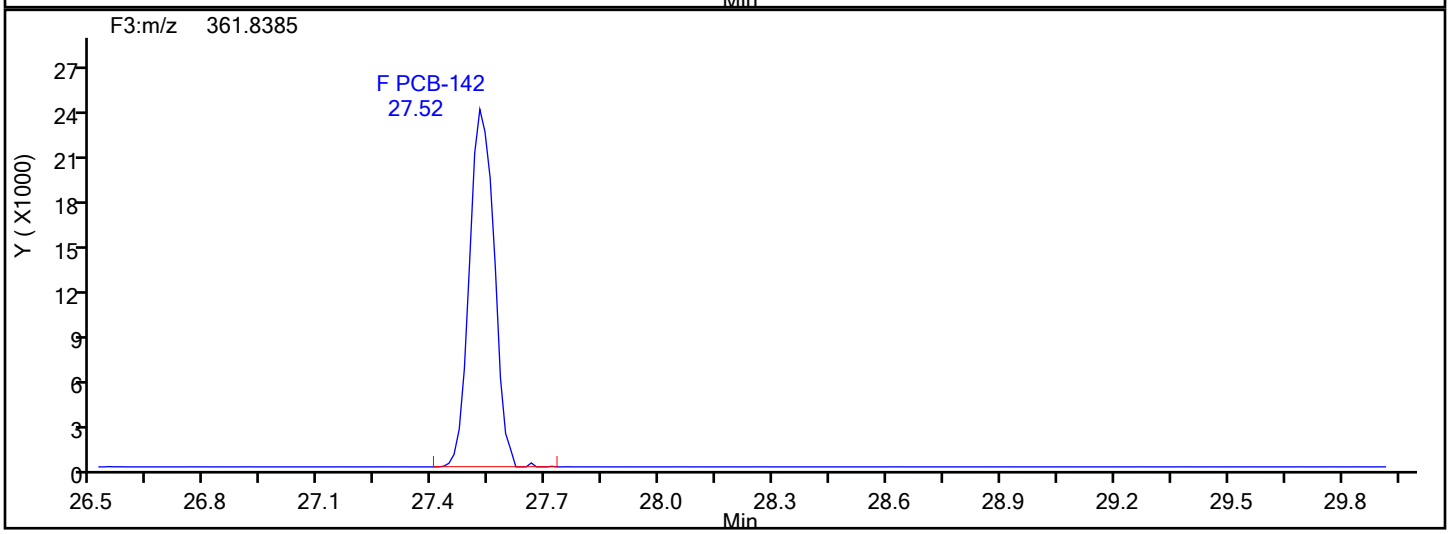
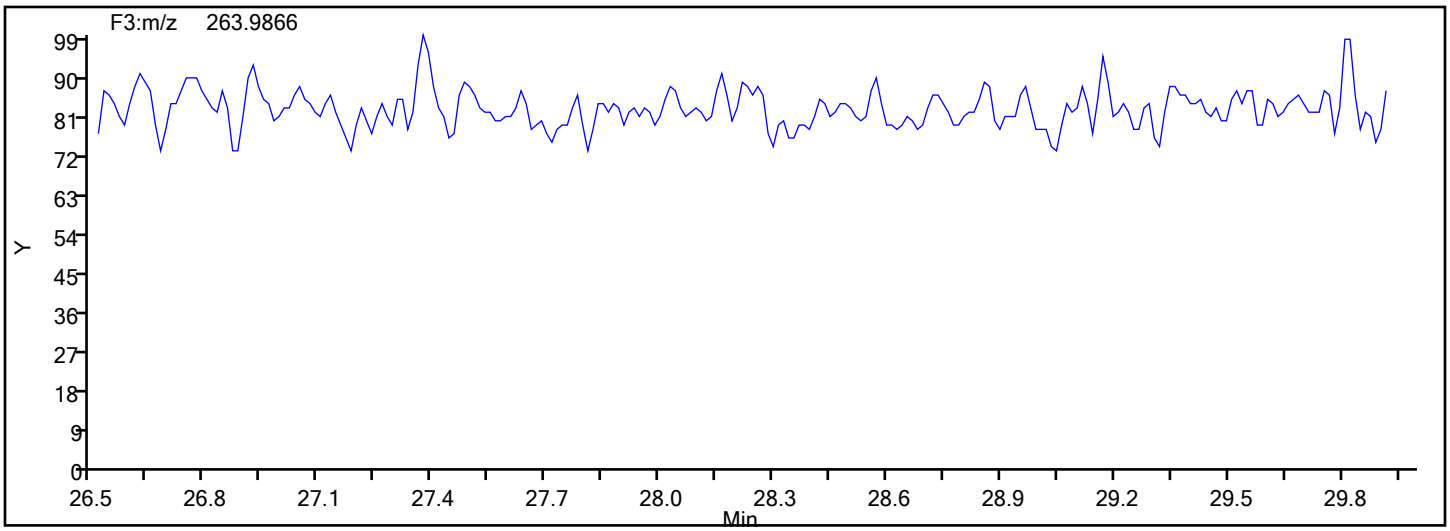
PCB-142





PCB-142 Lock Mass



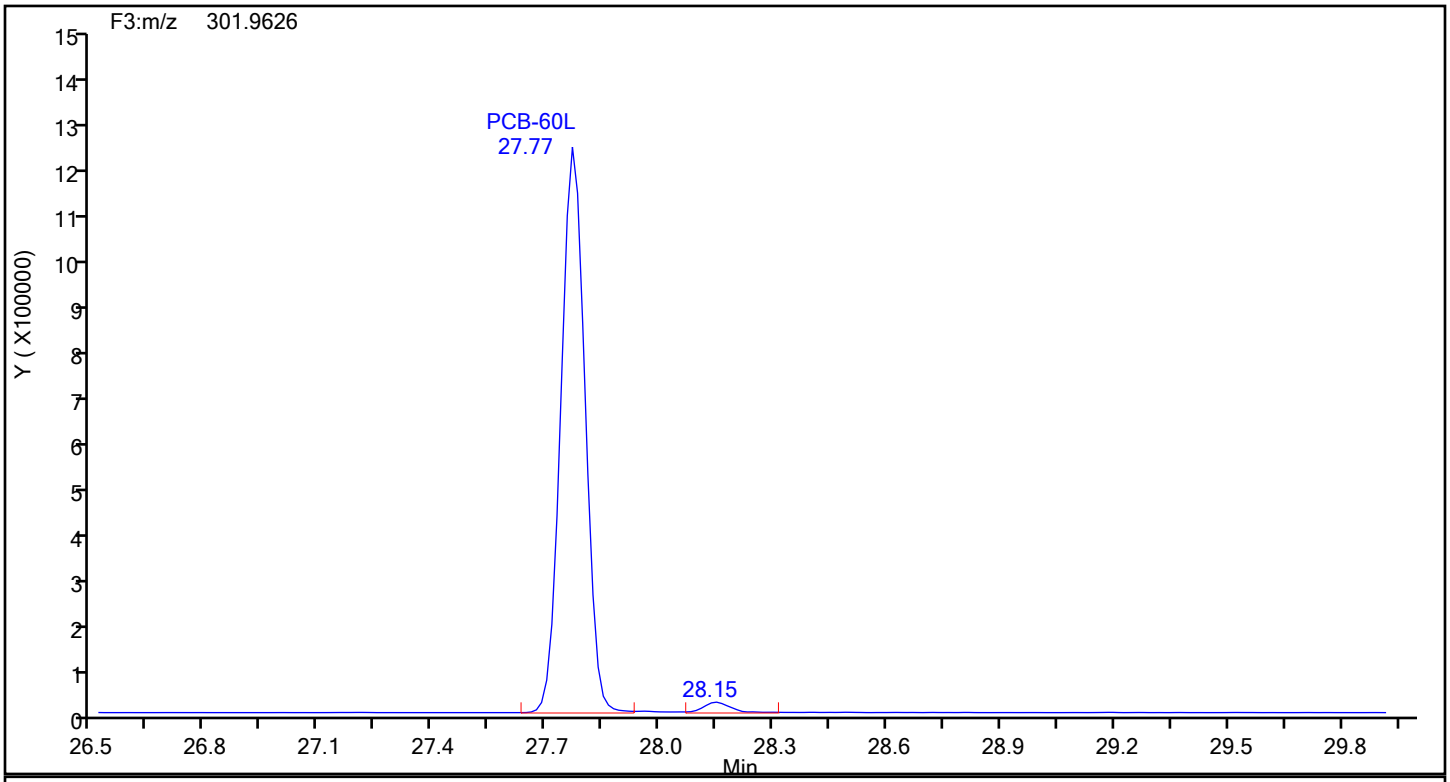
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

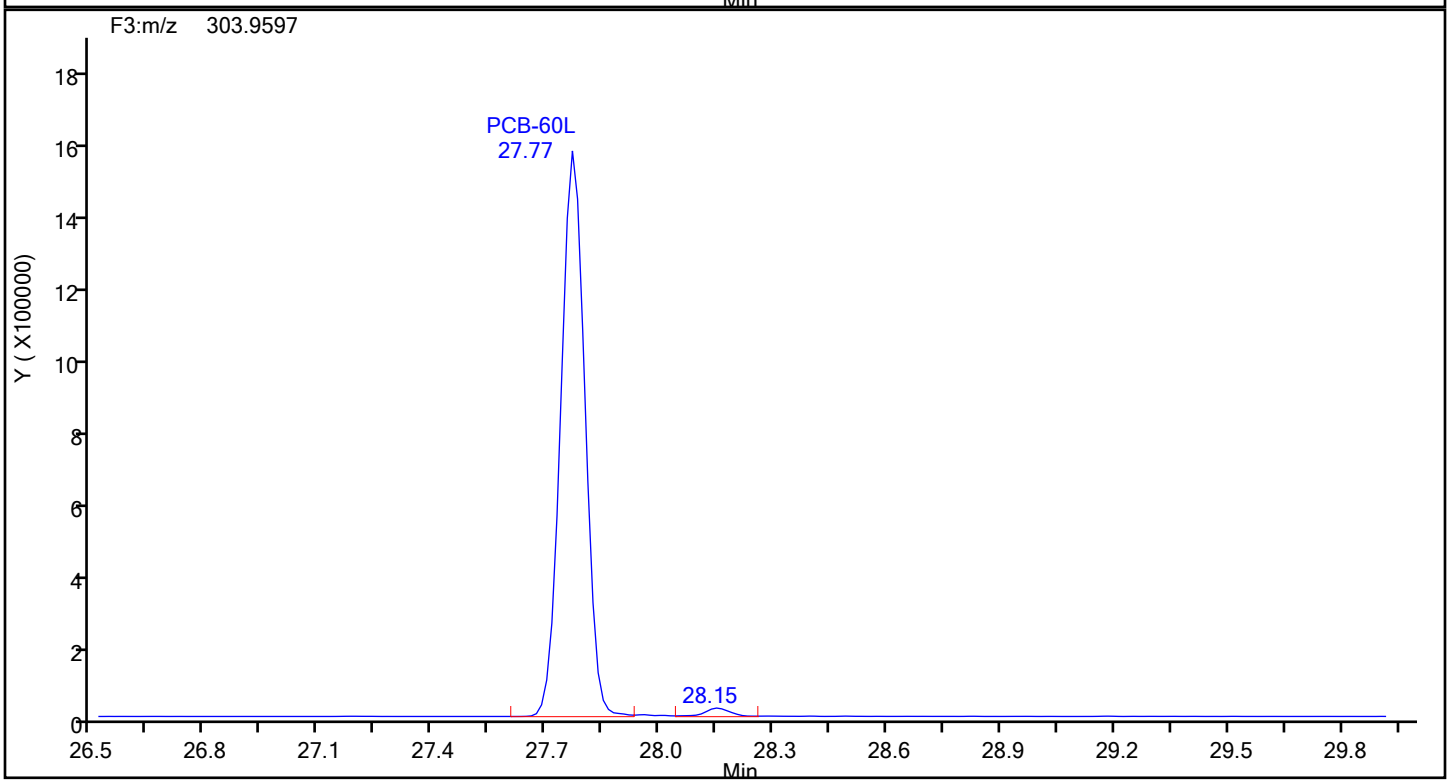
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

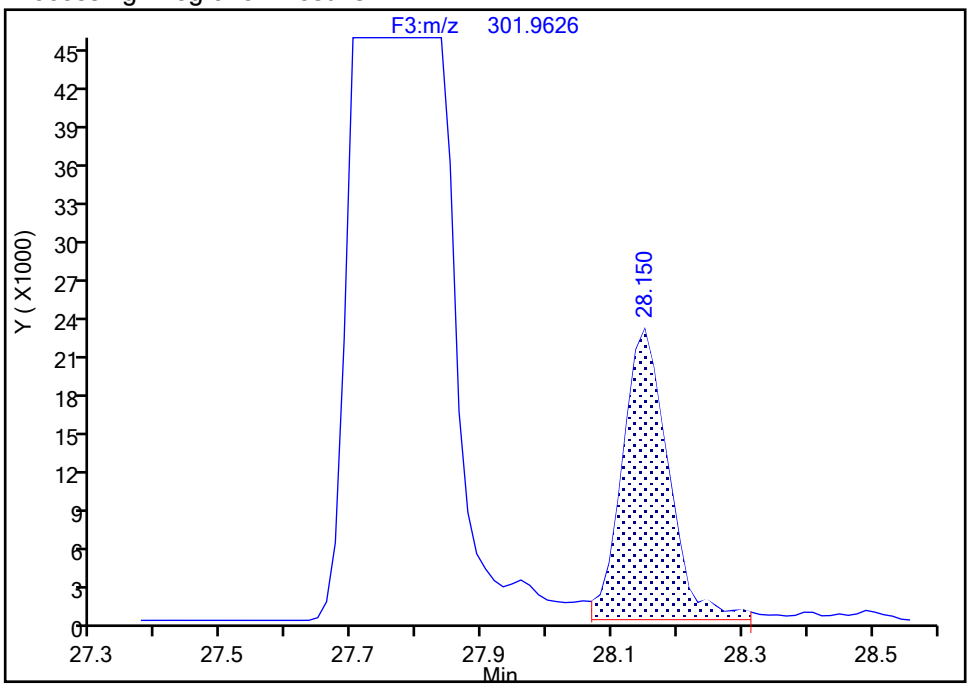
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

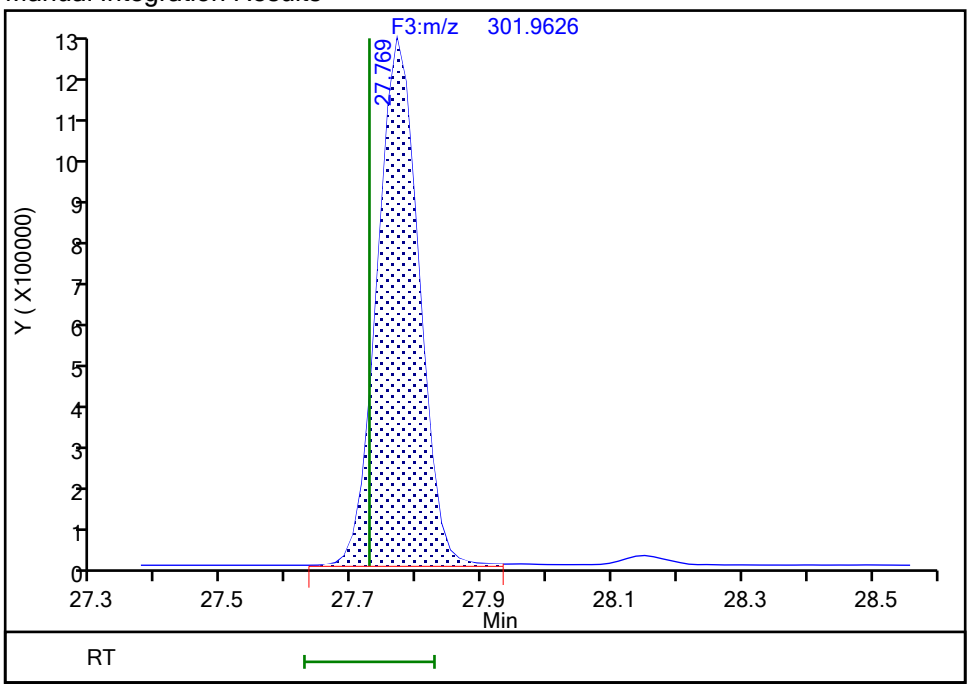
Processing Integration Results

RT: 28.15
Area: 111062
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.77
Area: 5425539
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:36:45 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

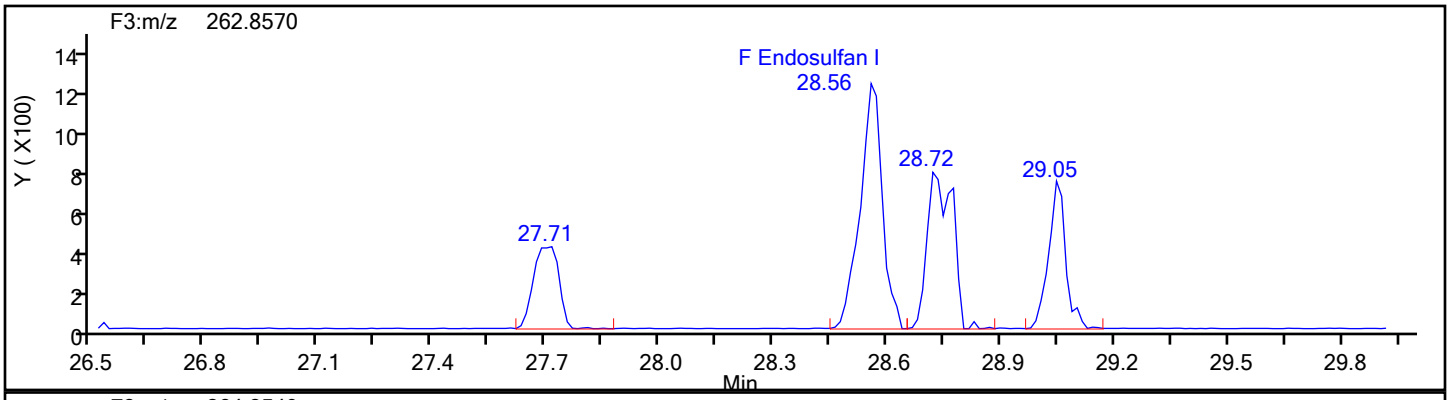
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

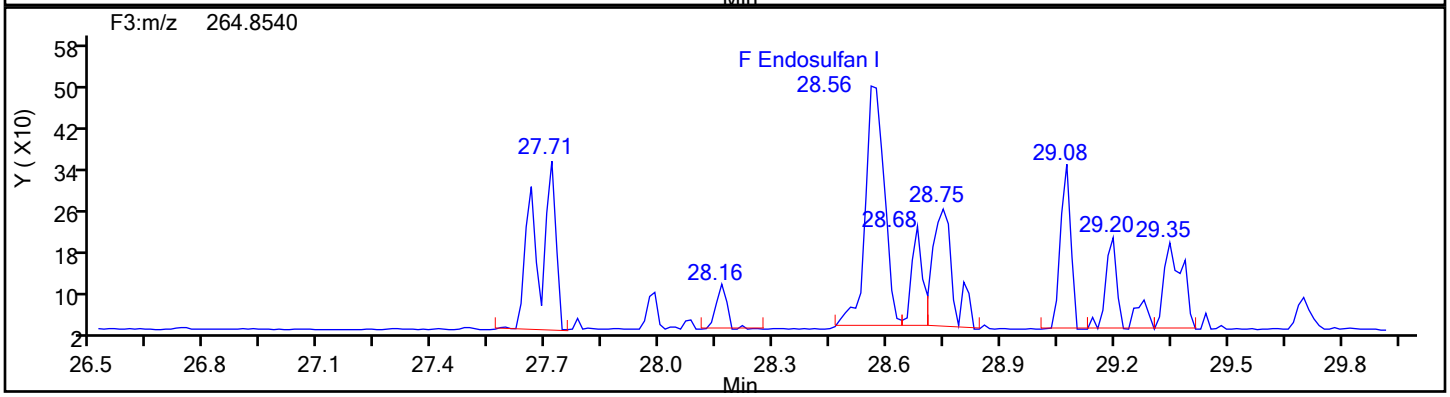
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

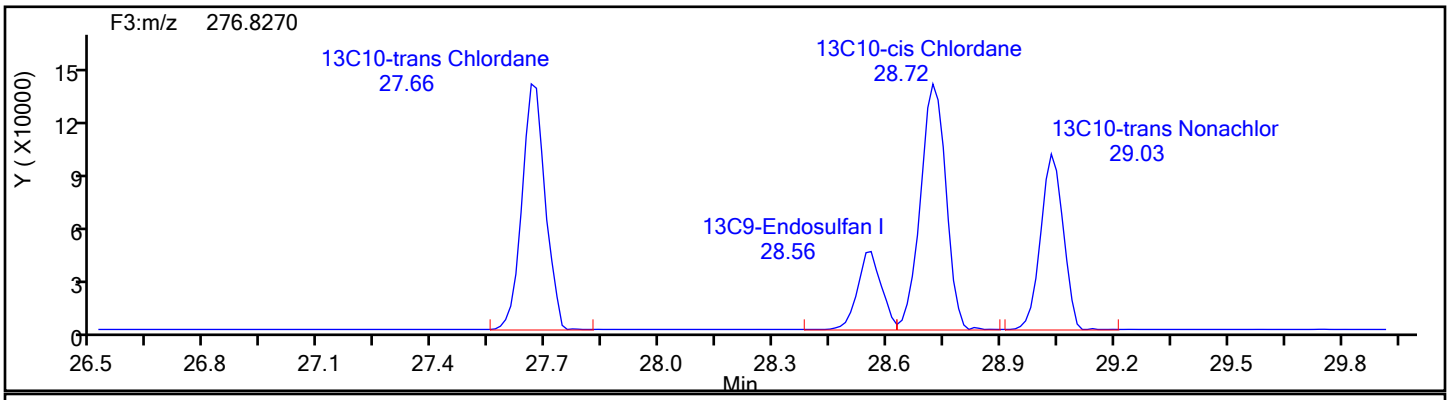
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

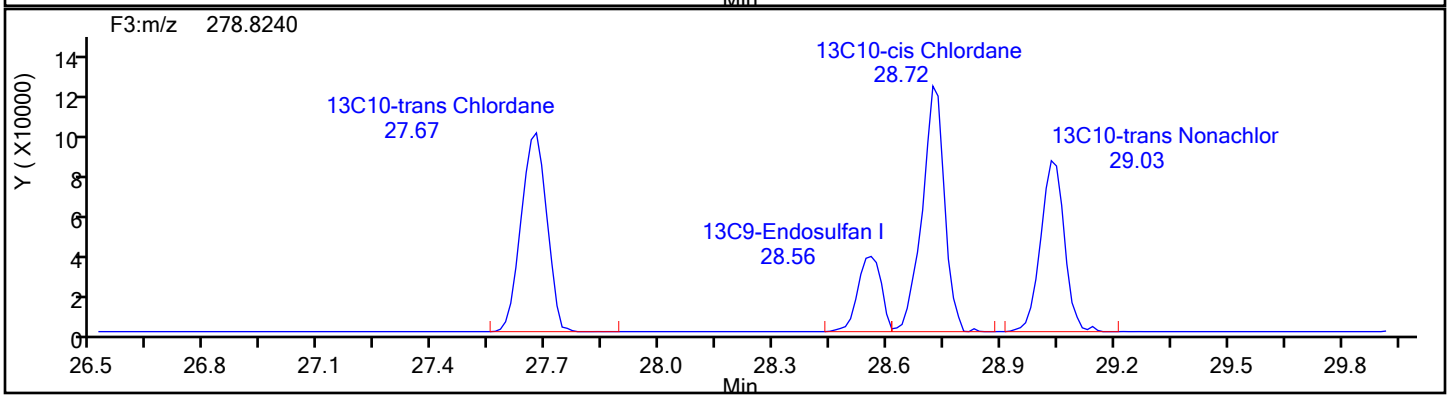
Endosulfan I





Endosulfan I Standards



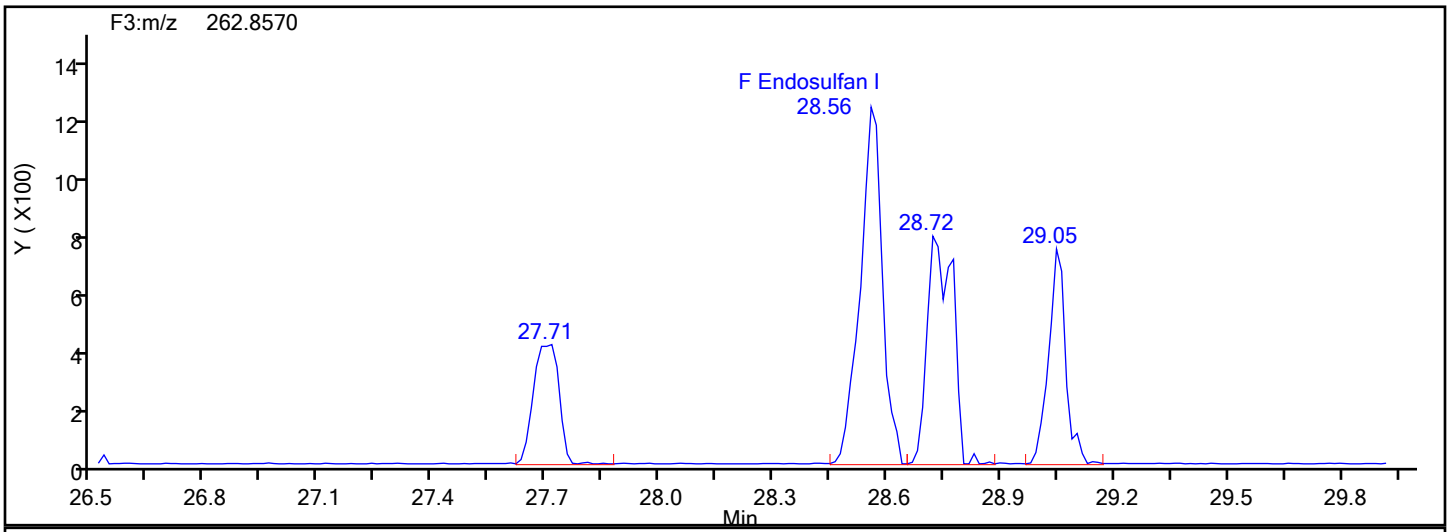


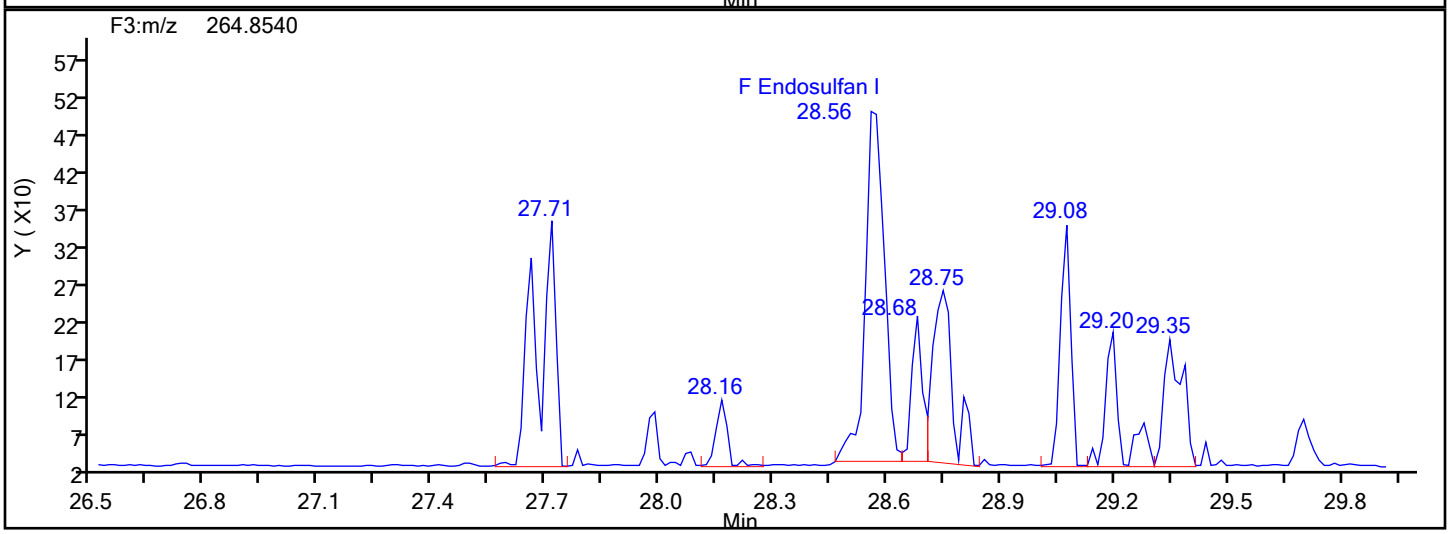
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

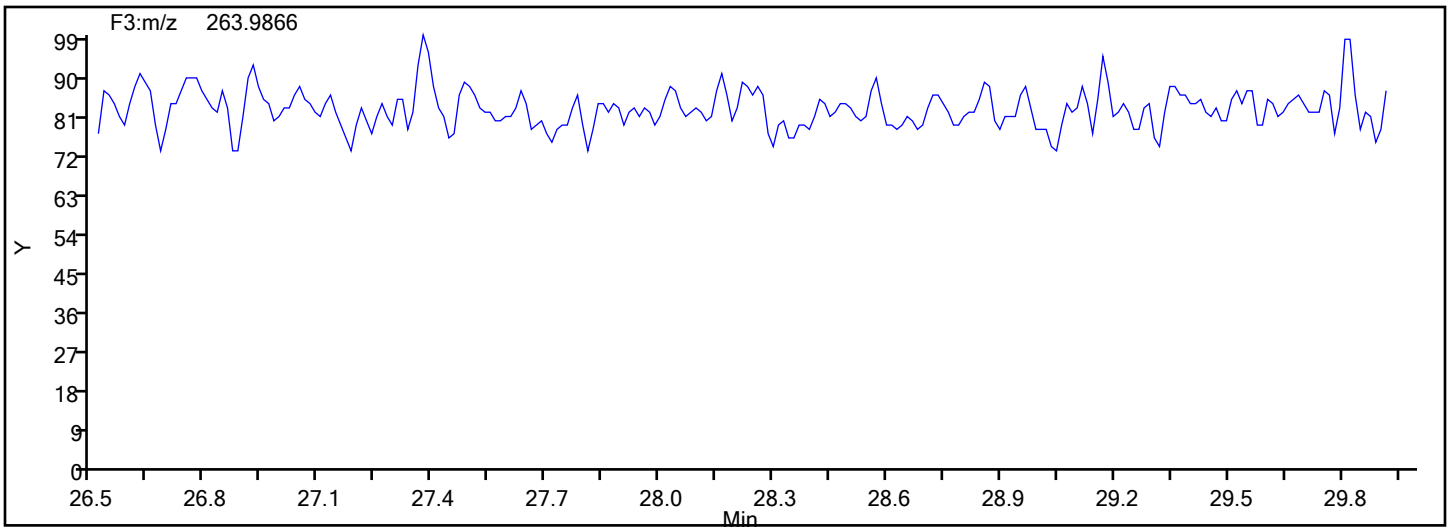
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



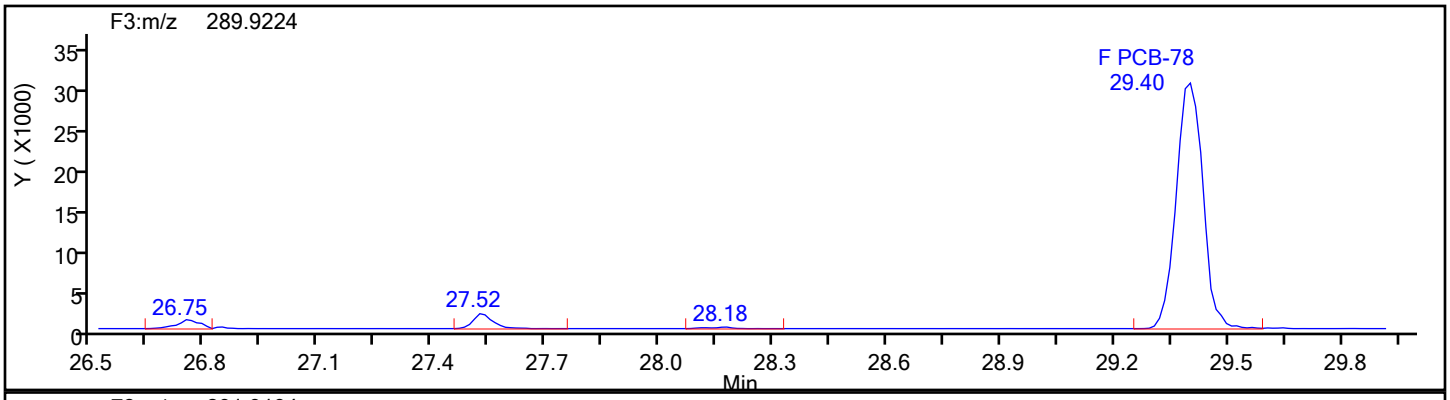
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

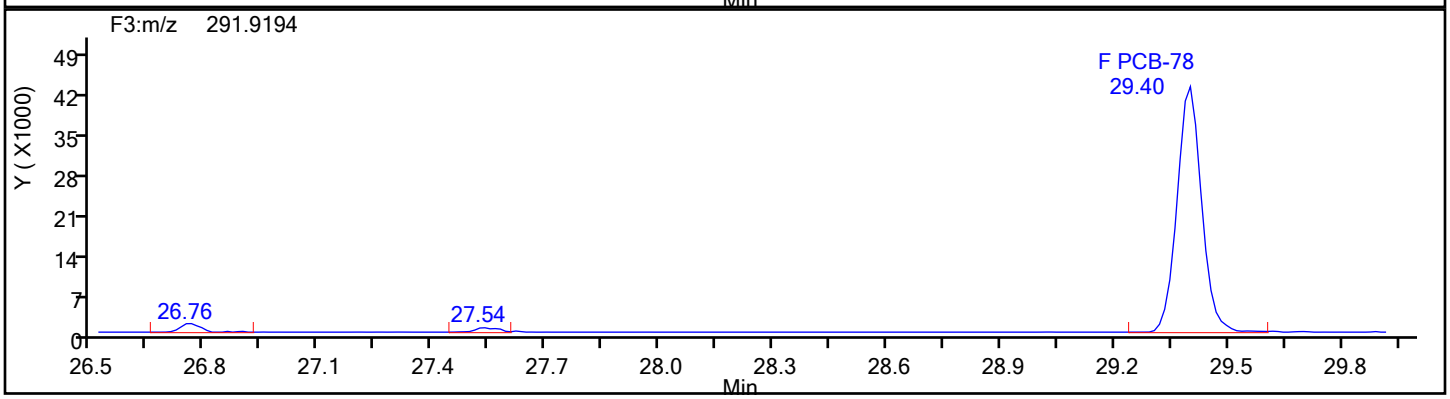
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

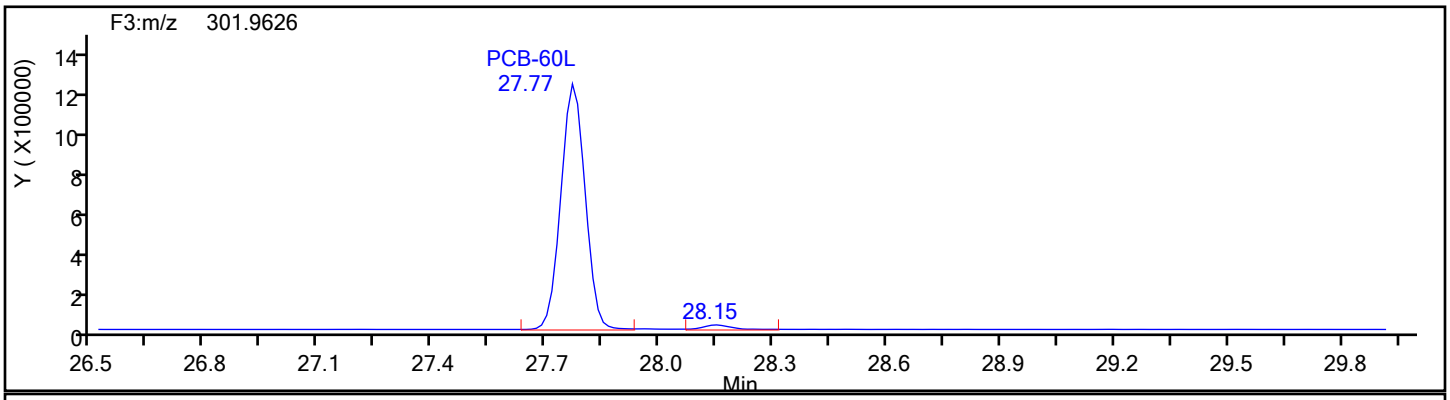
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

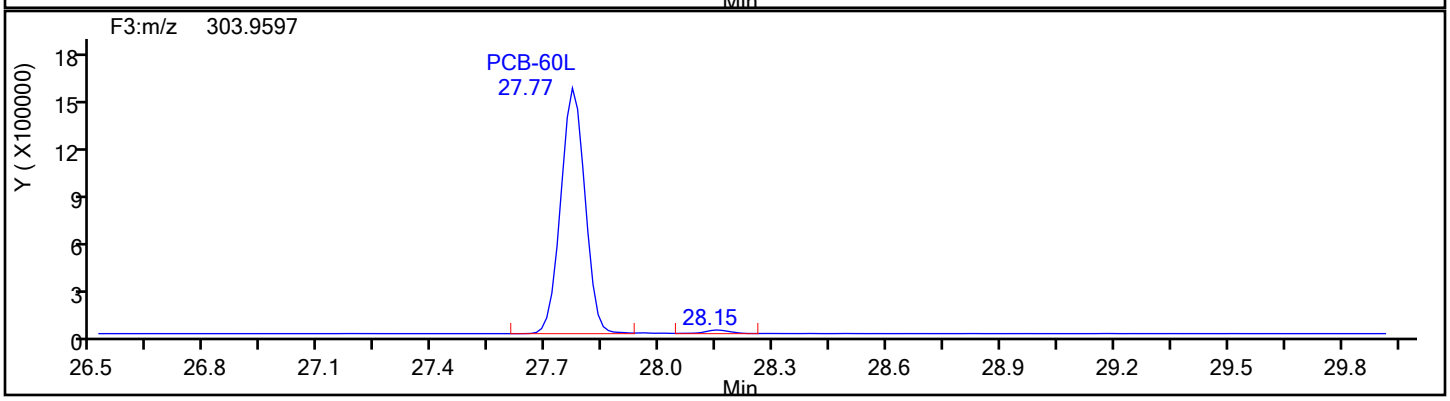
PCB-78





PCB-78 Standards



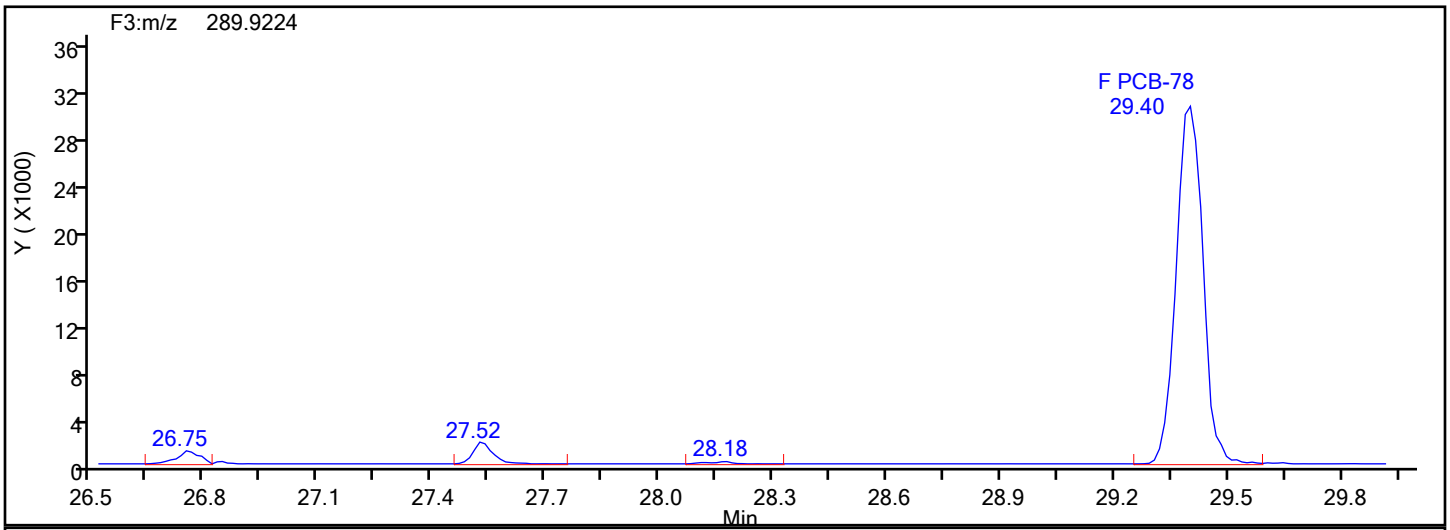


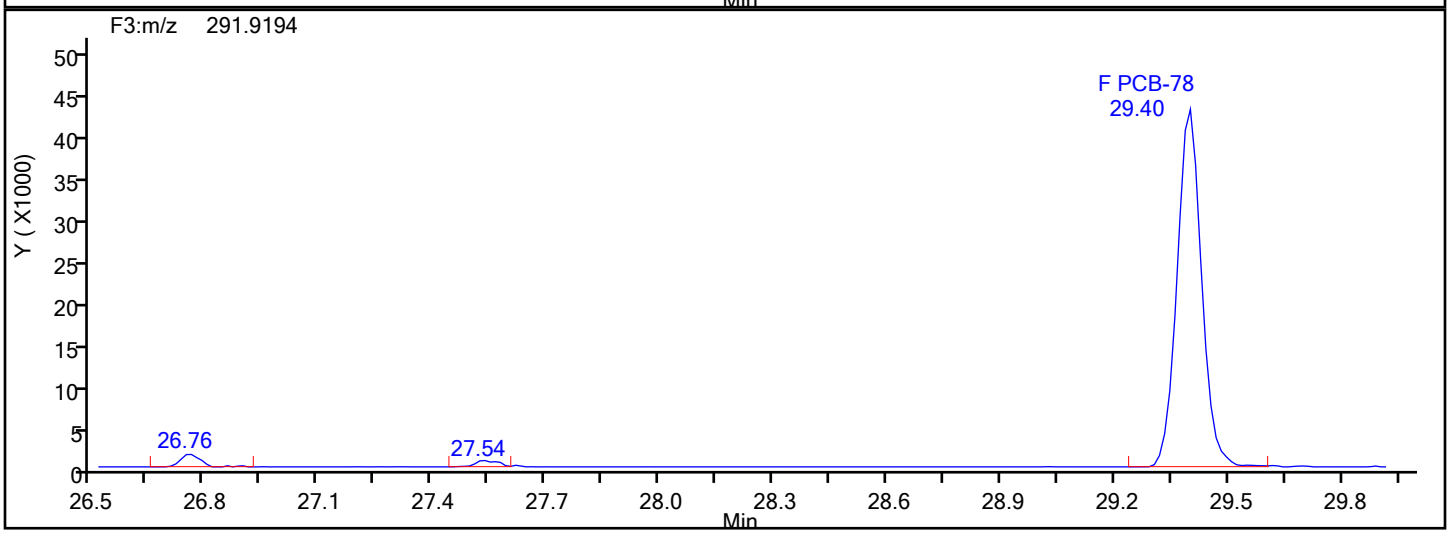
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

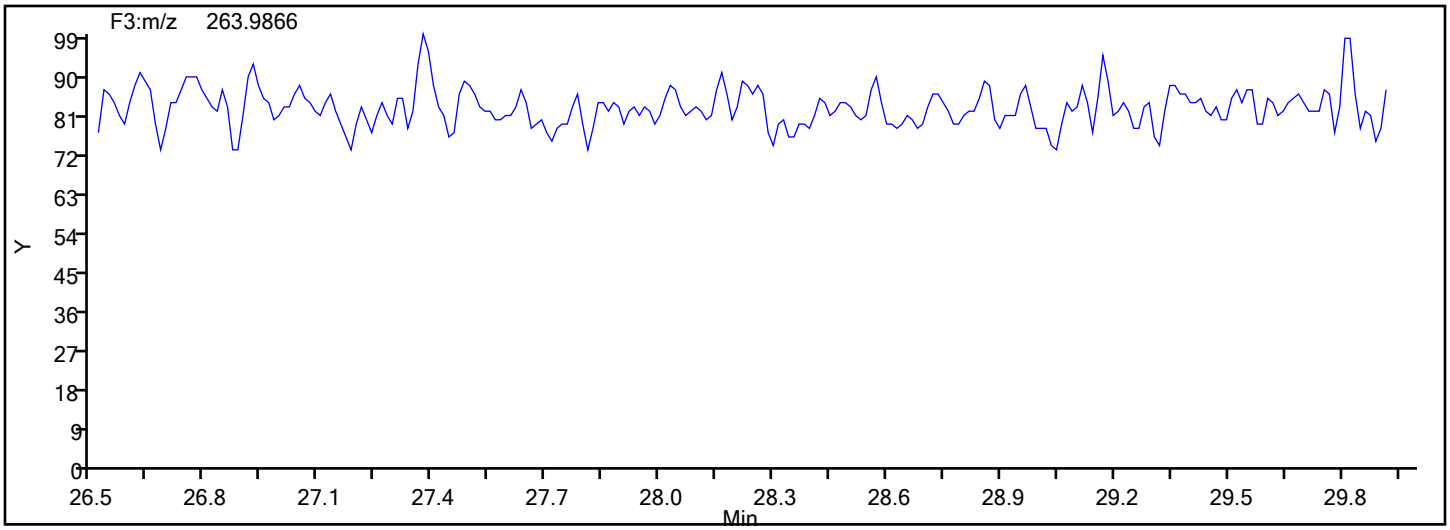
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

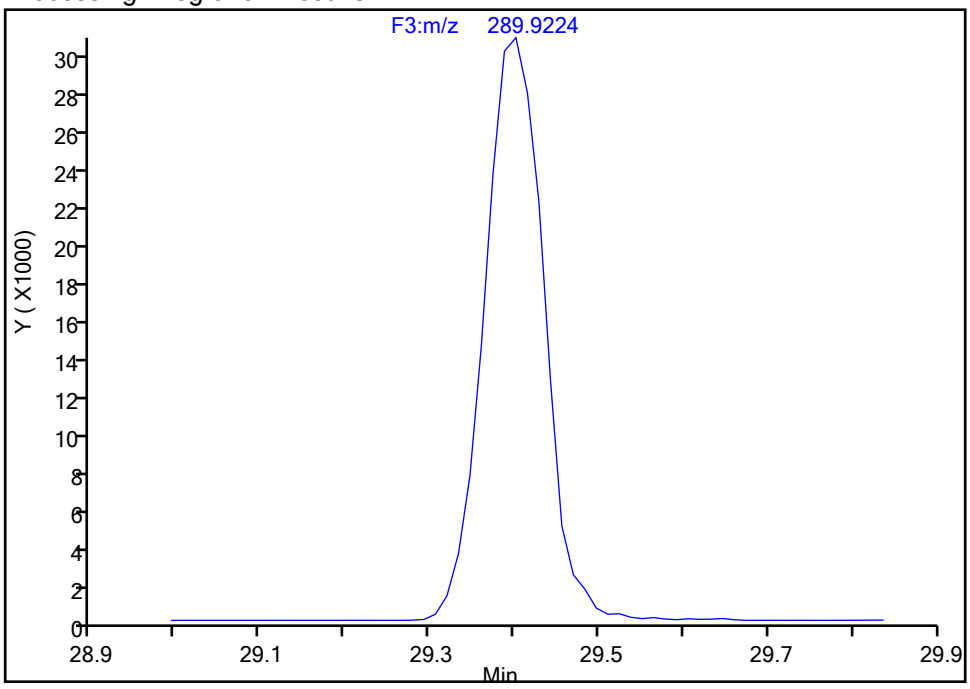
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

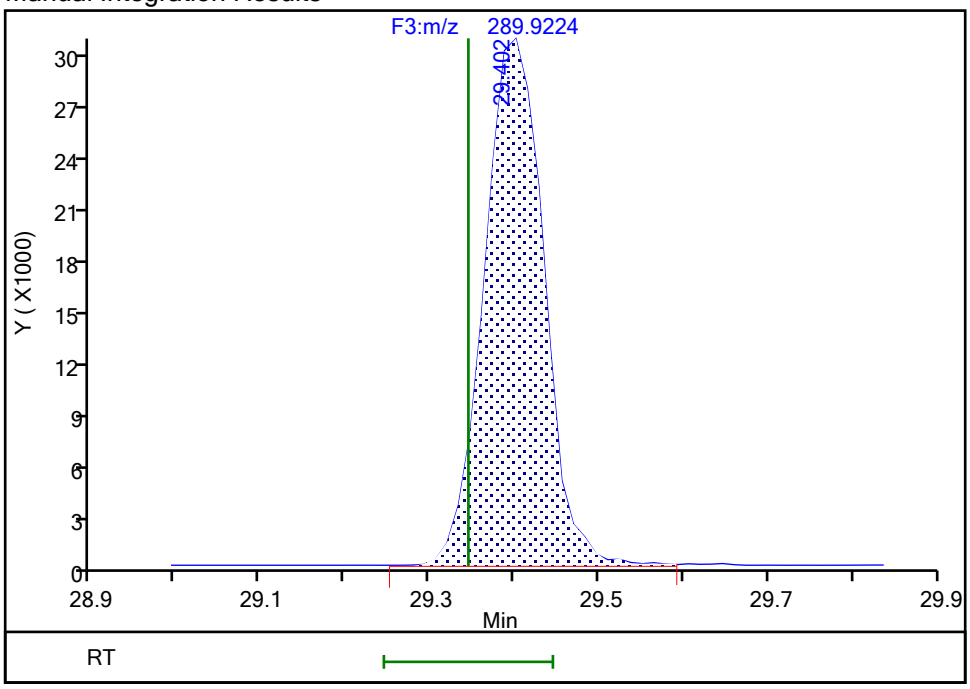
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.40
Area: 148786
Amount: 3.064893
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:57:36 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

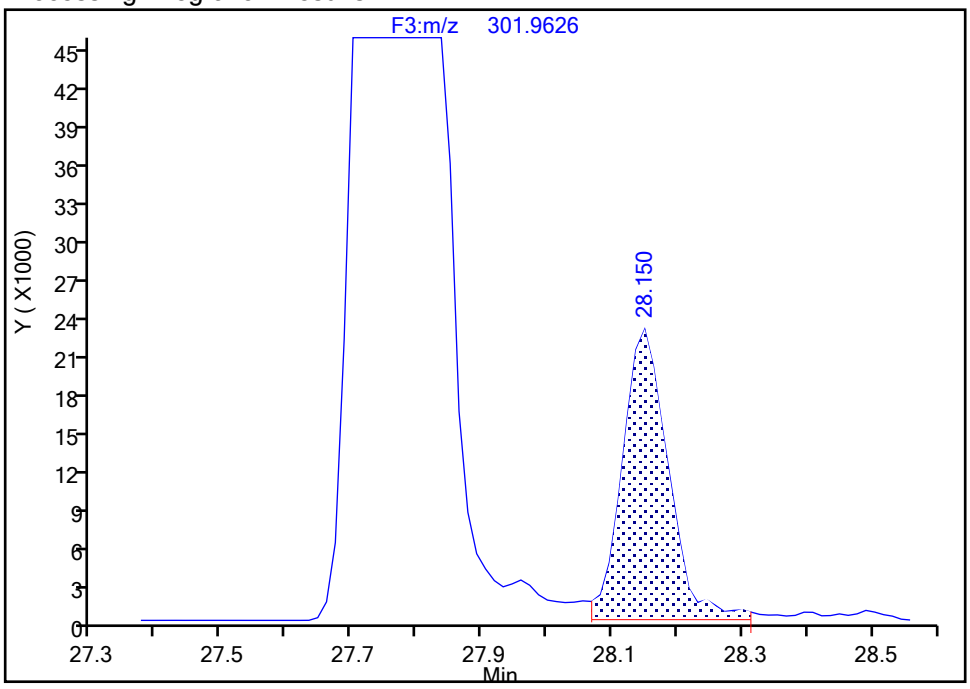
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

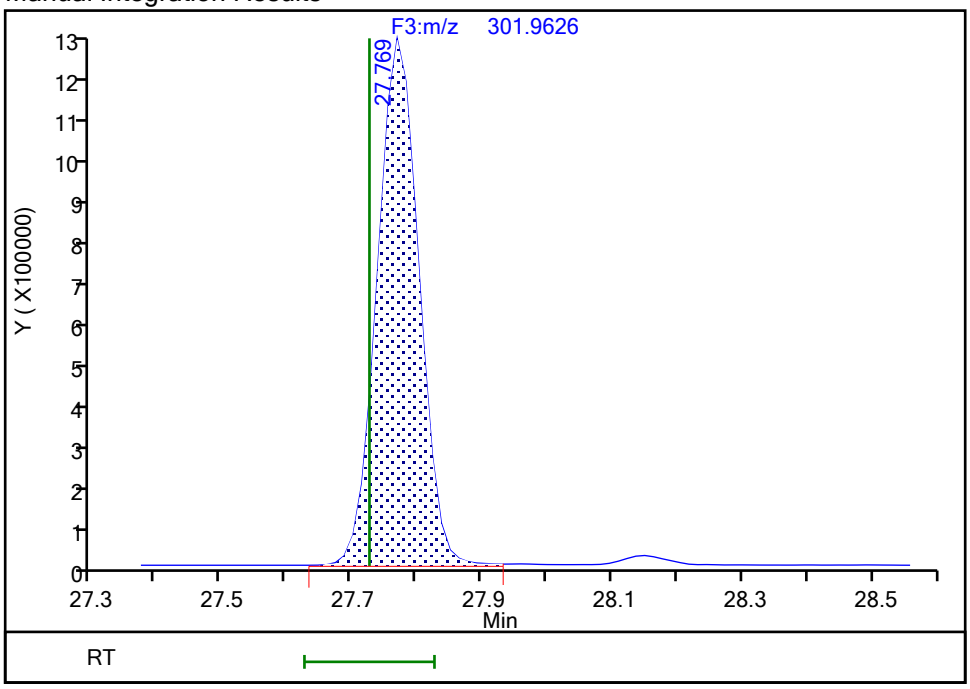
Processing Integration Results

RT: 28.15
Area: 111062
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.77
Area: 5425539
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 14:36:45 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

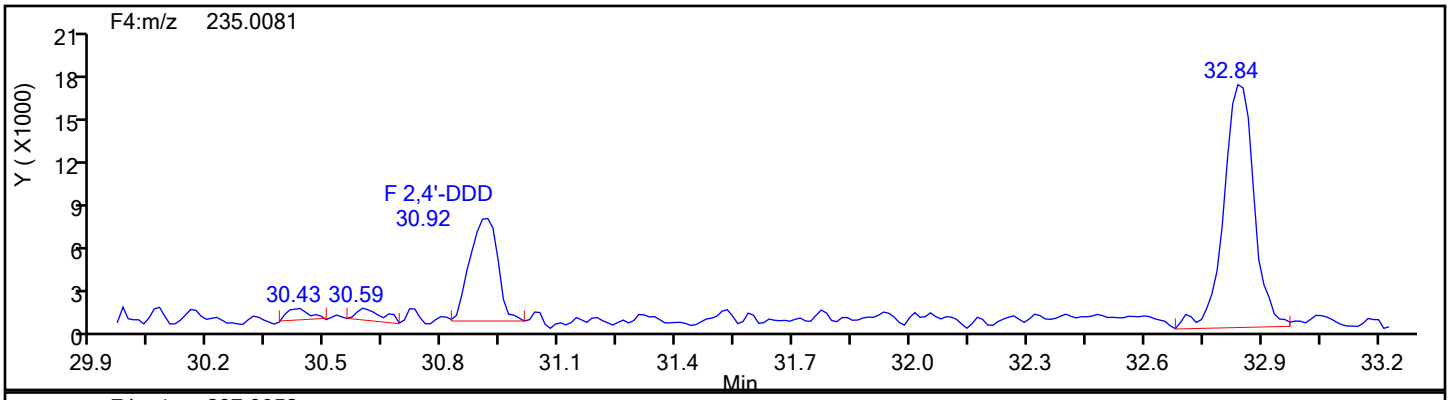
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

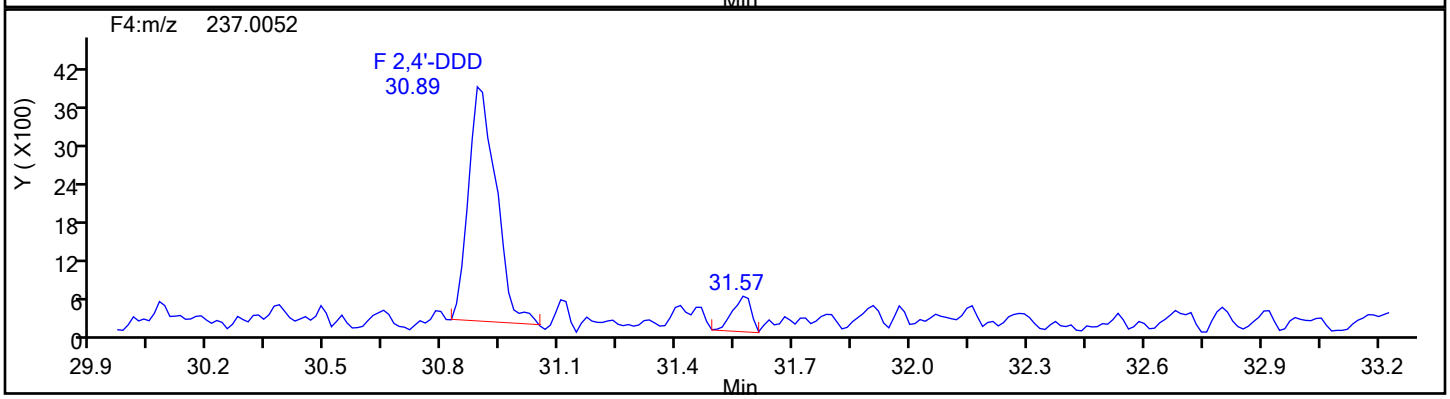
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

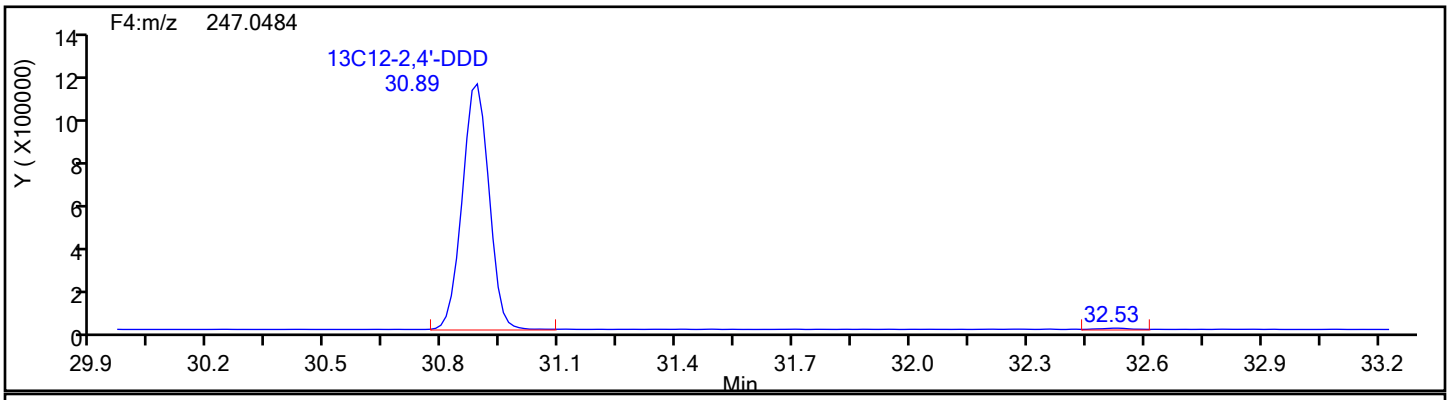
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

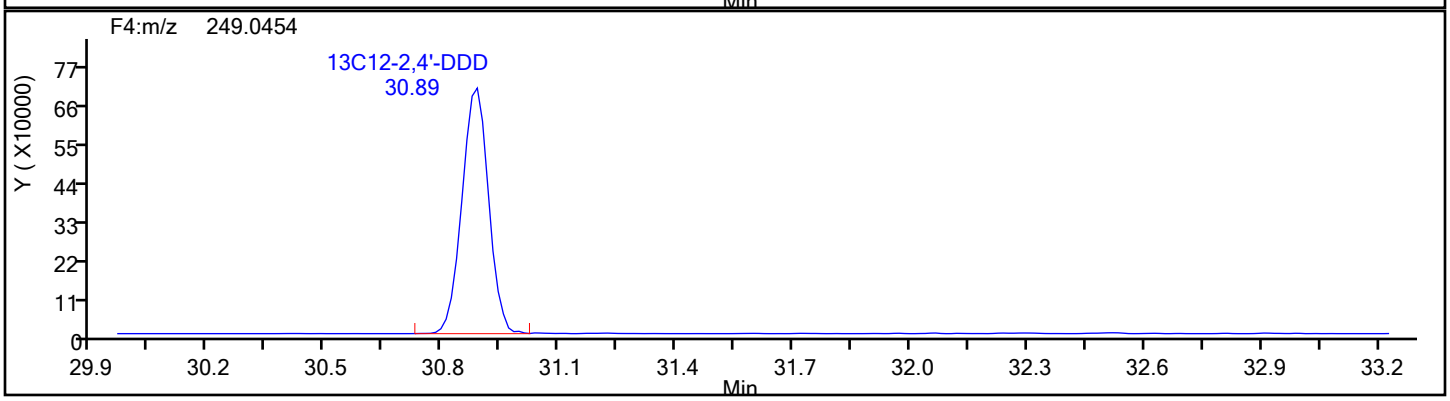
2,4'-DDD





2,4'-DDD Standards





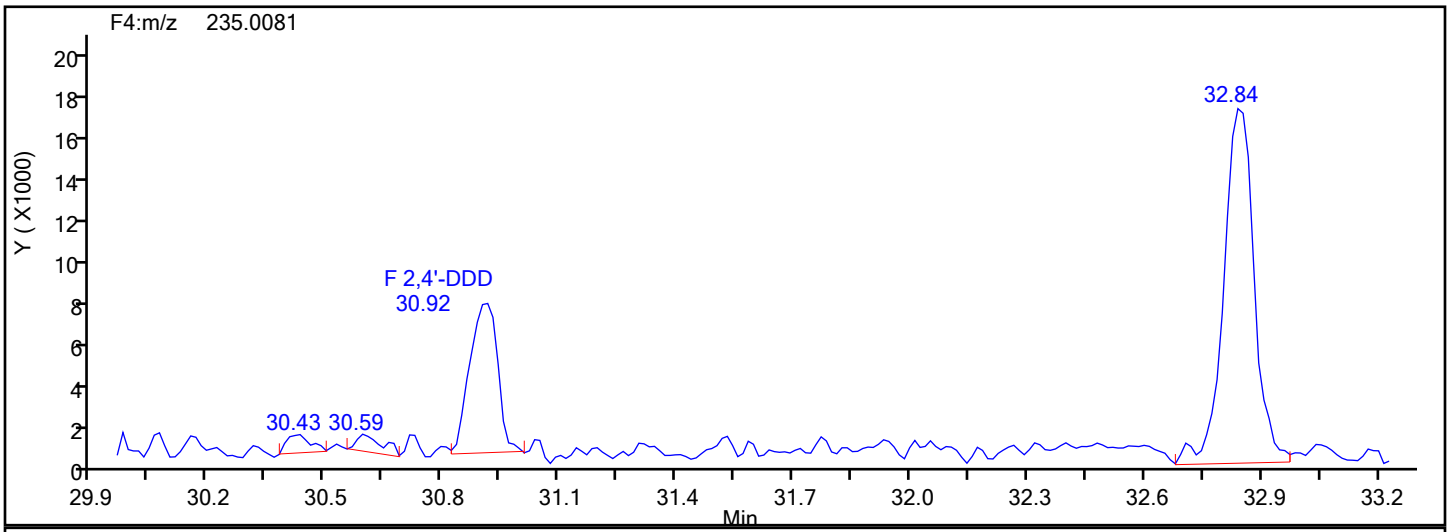
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

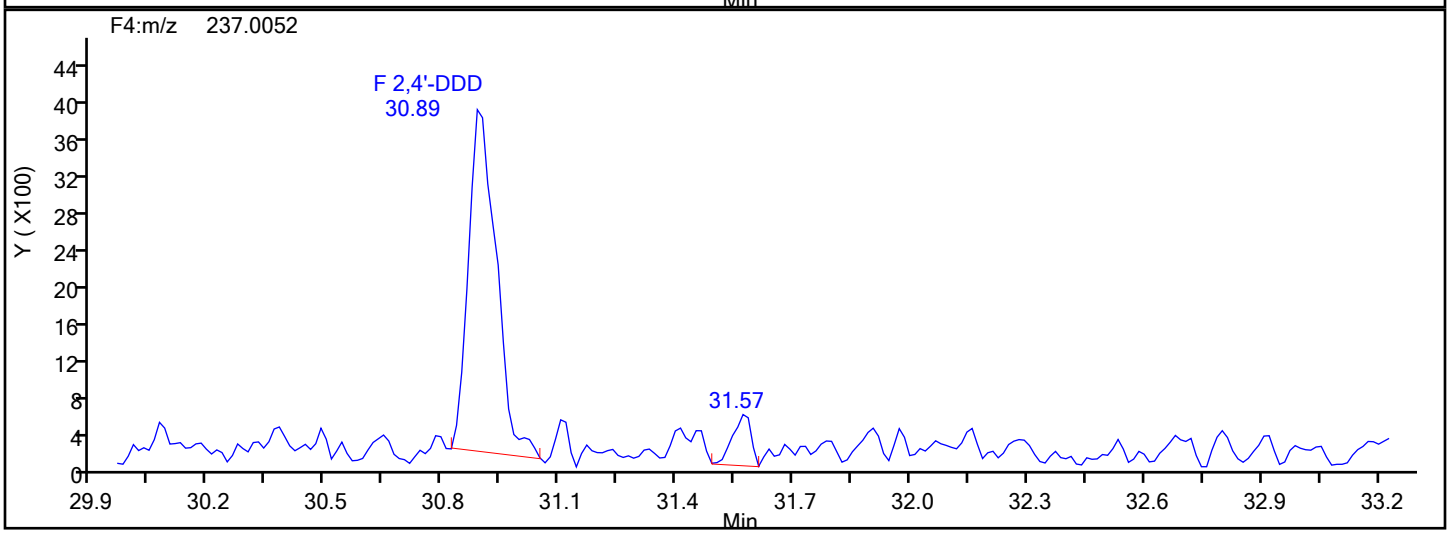
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

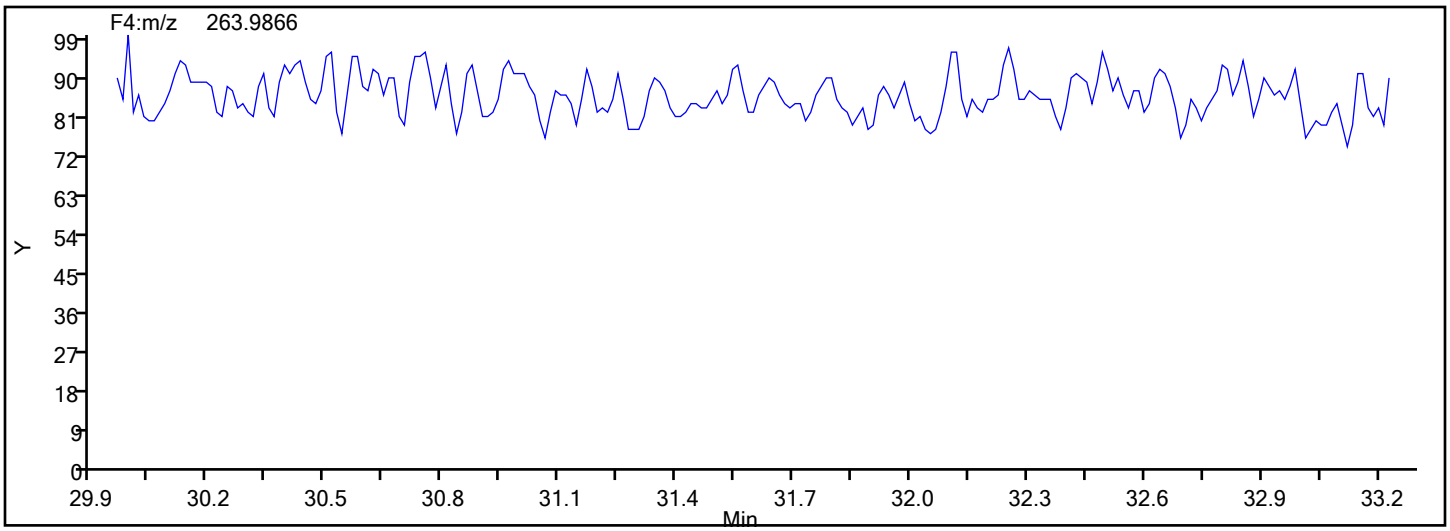
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

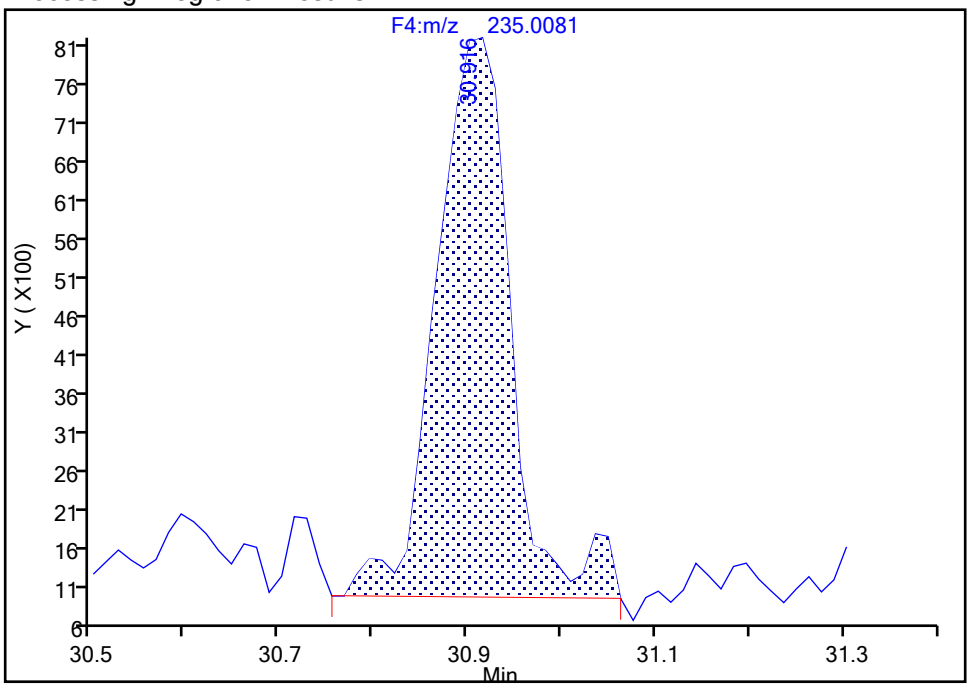
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F4(29.96 :33.23)

2,4'-DDD, CAS: 53-19-0

Signal: 1

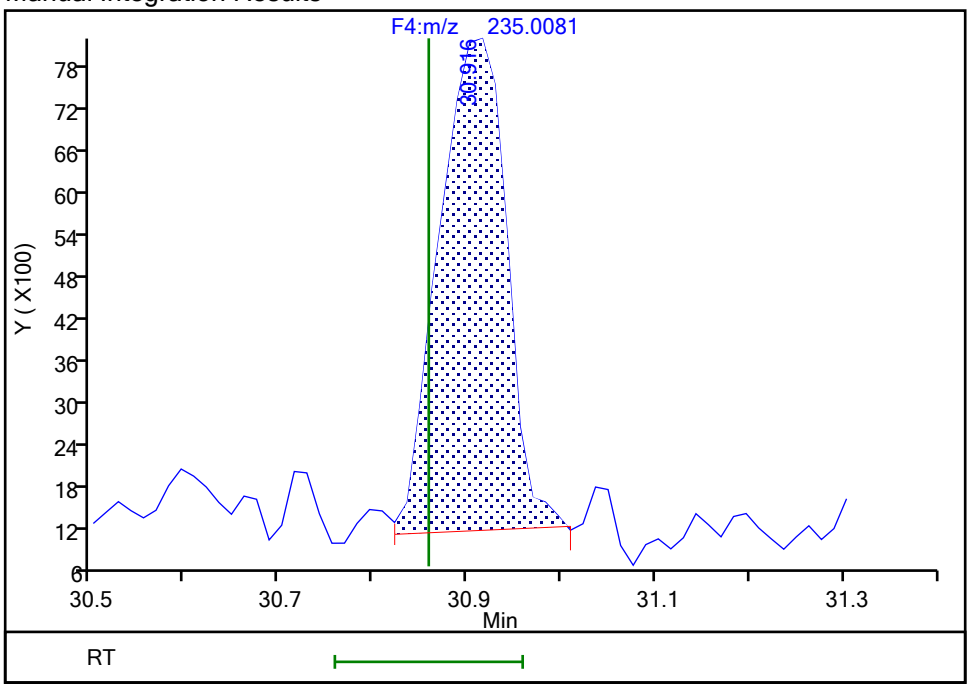
Processing Integration Results

RT: 30.92
Area: 39912
Amount: 0.567950
Amount Units: pg/ul



Manual Integration Results

RT: 30.92
Area: 34946
Amount: 0.525211
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 16:18:07 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

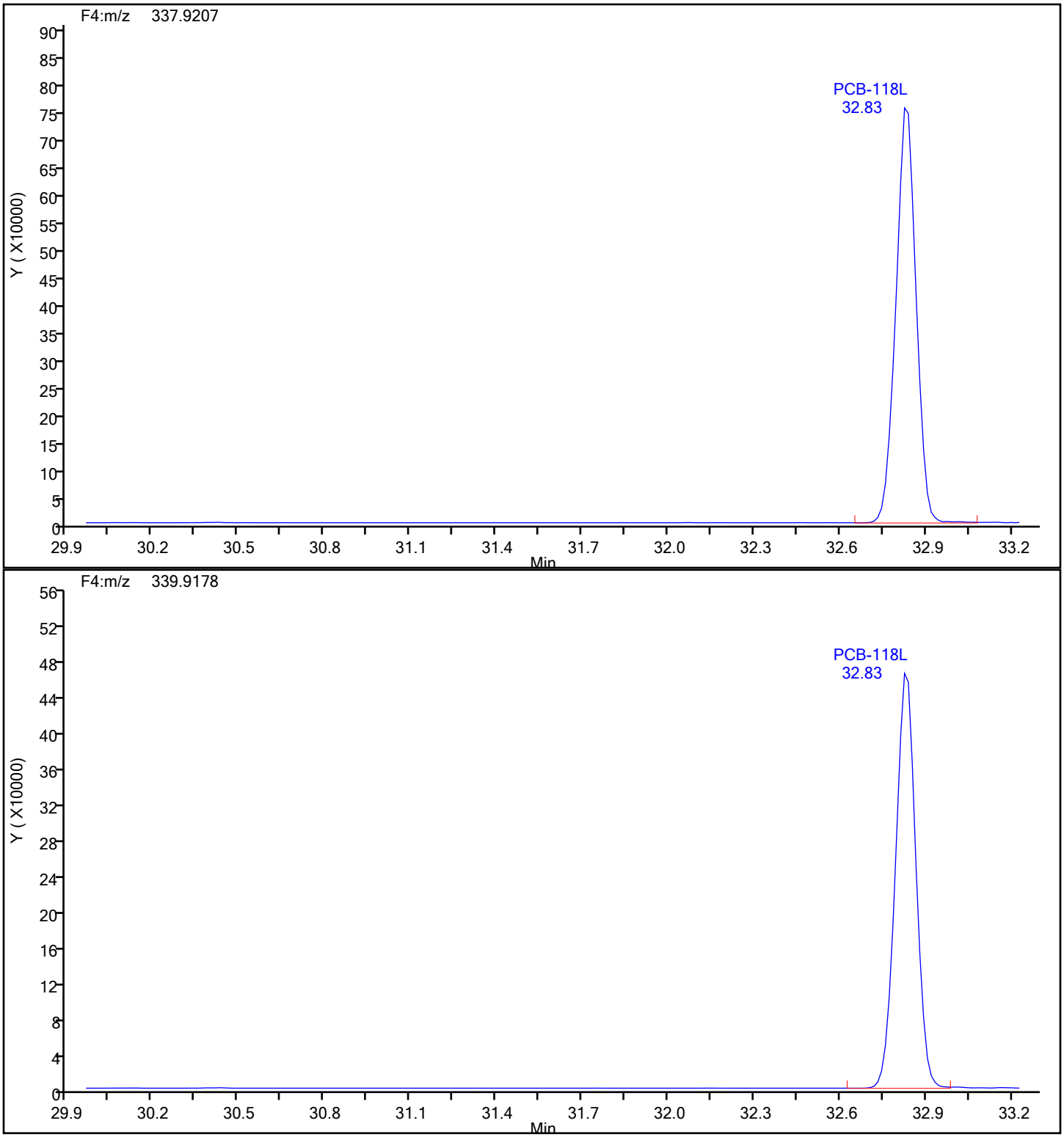
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



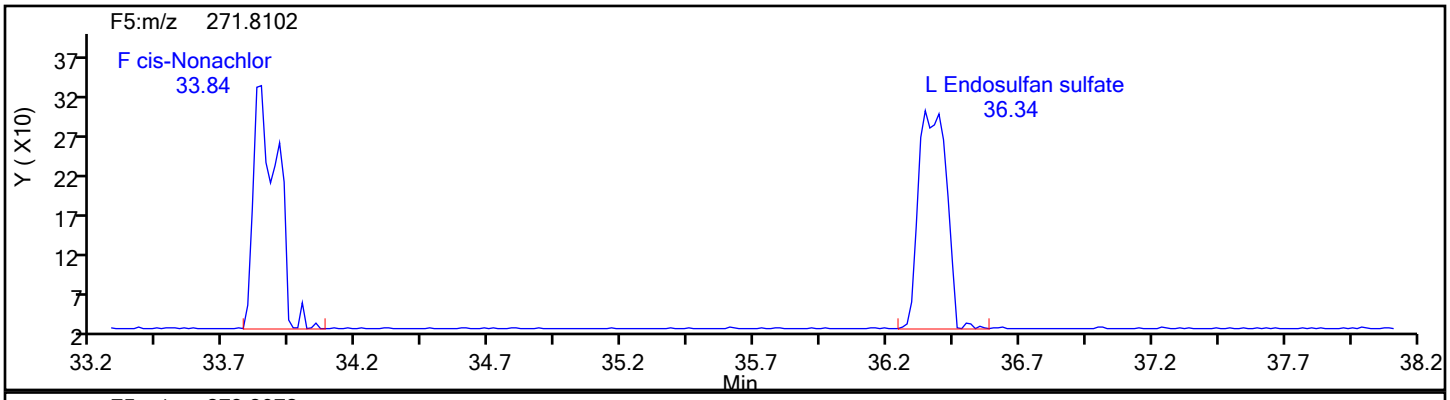
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

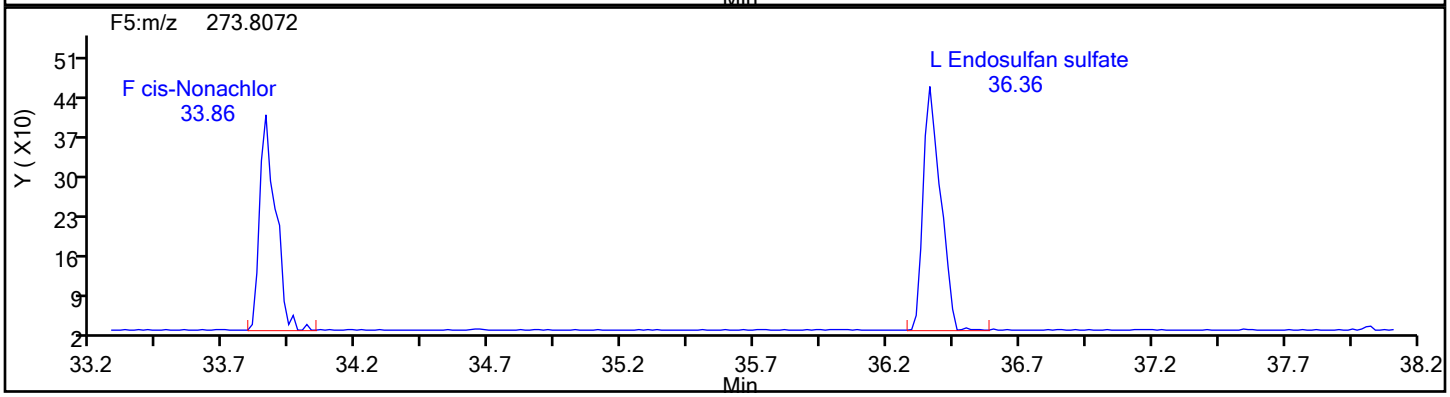
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

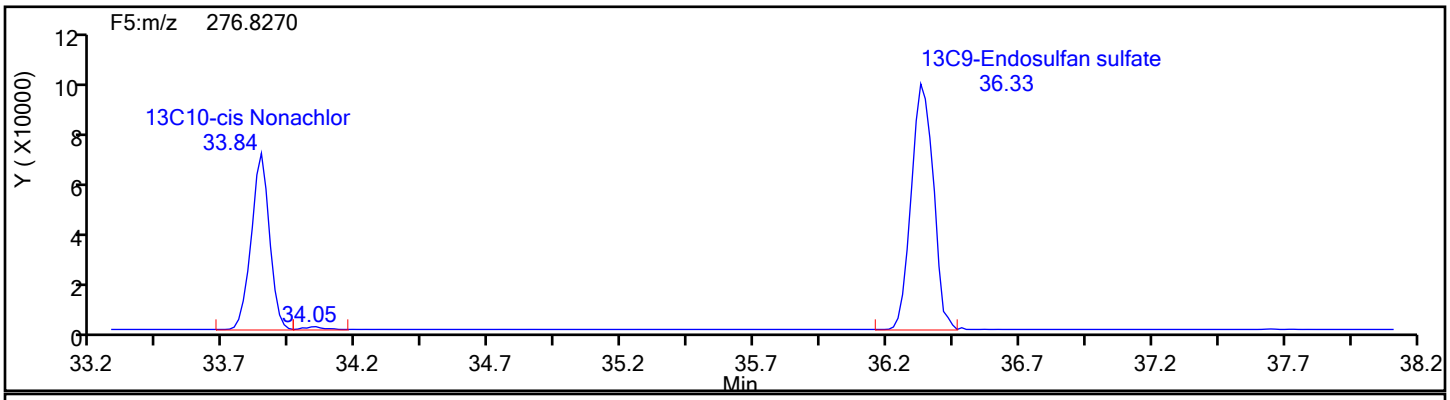
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

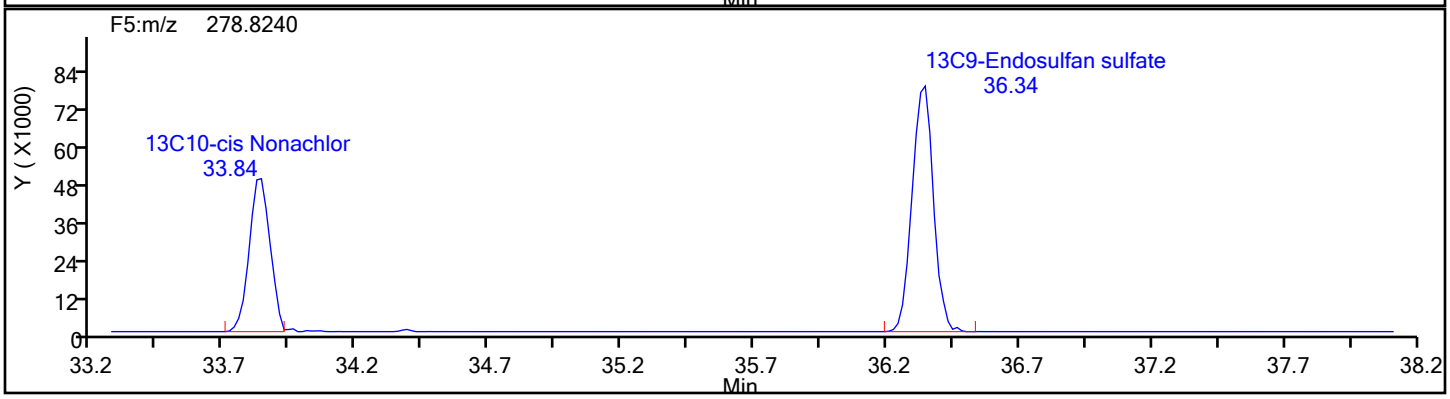
Nonachlor





Nonachlor Standards



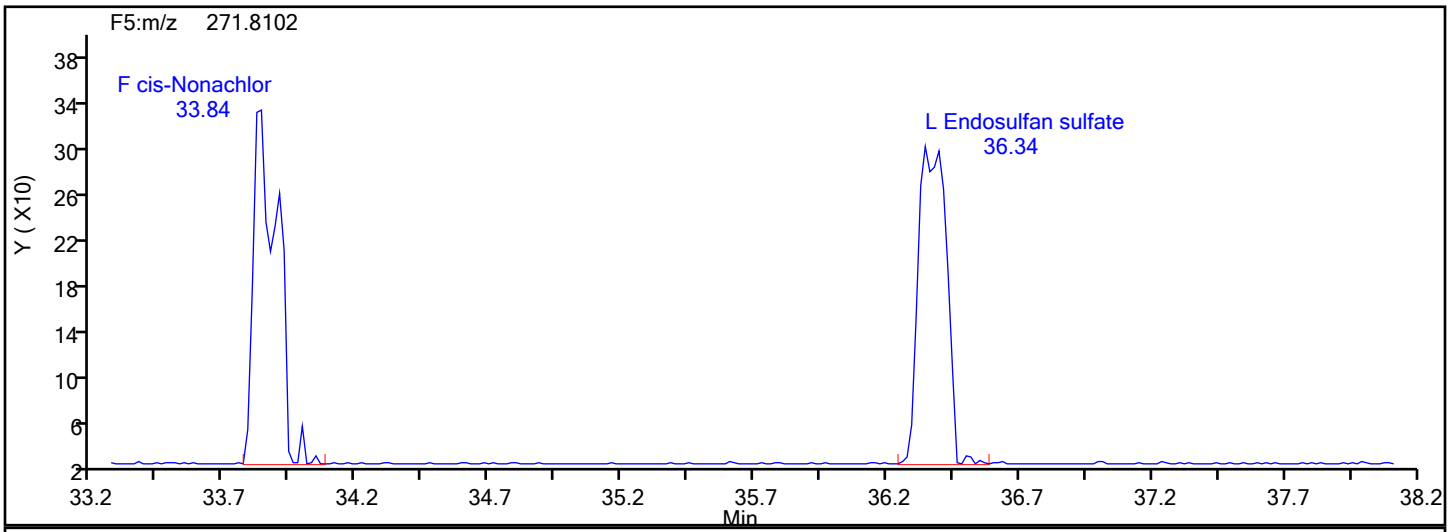


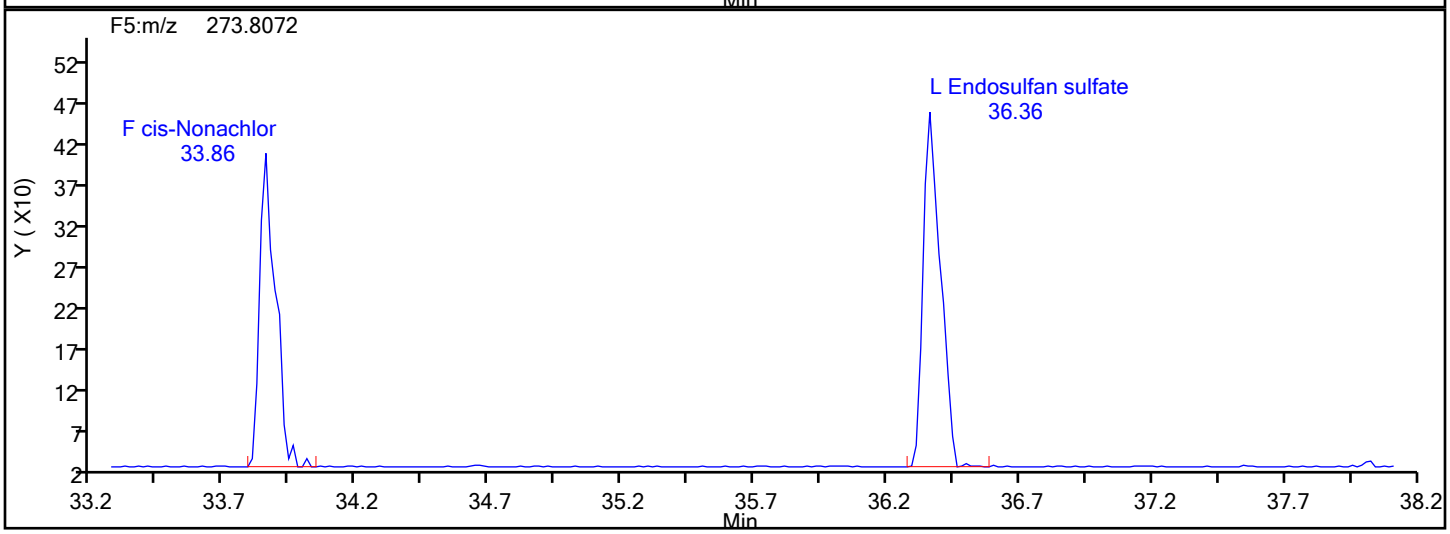
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

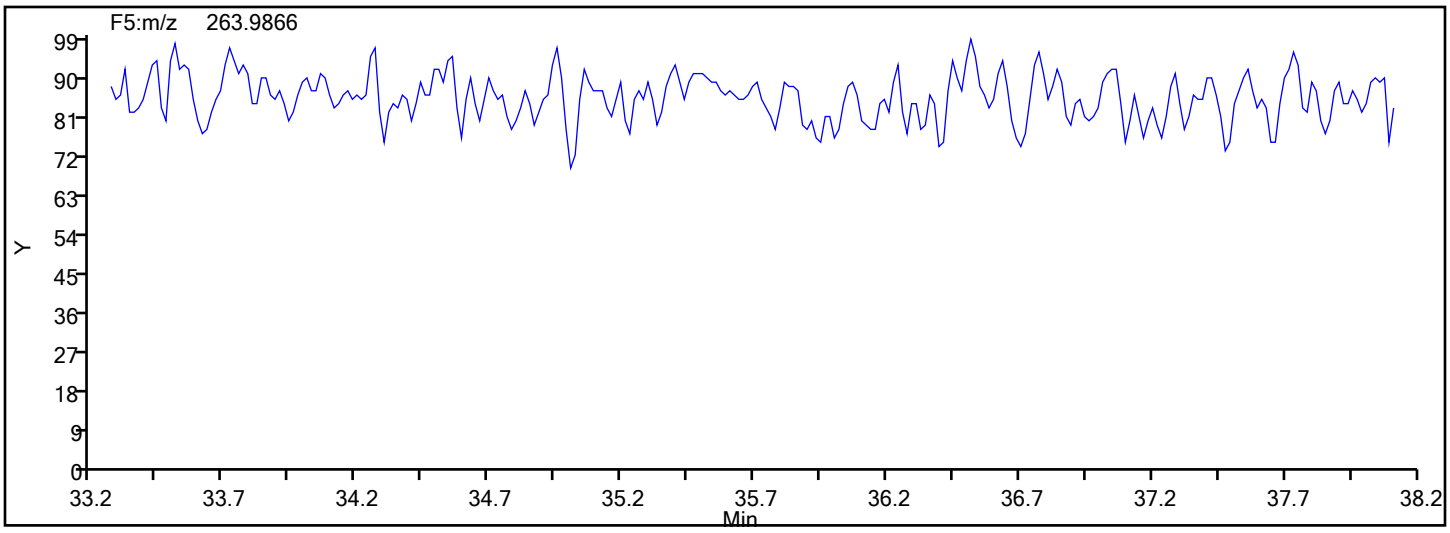
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



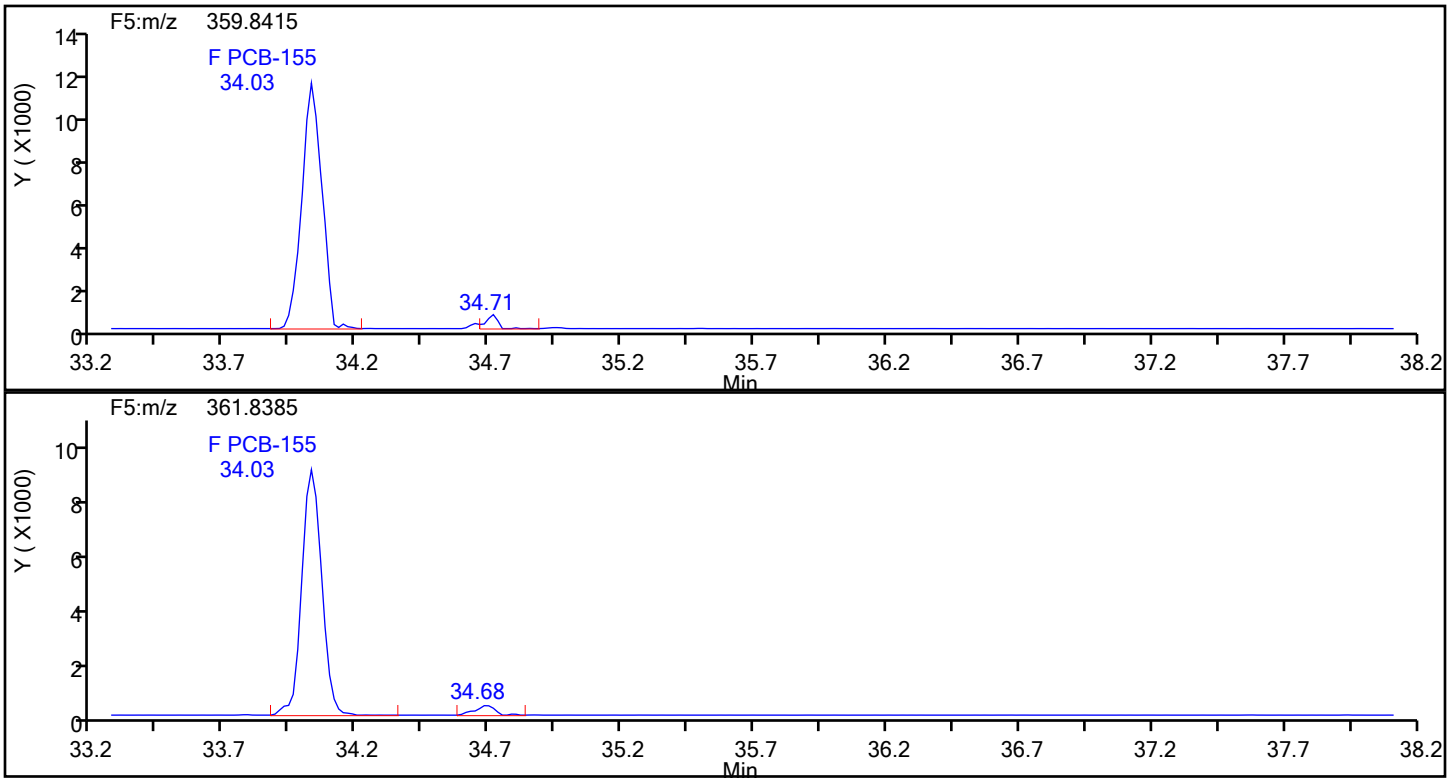
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

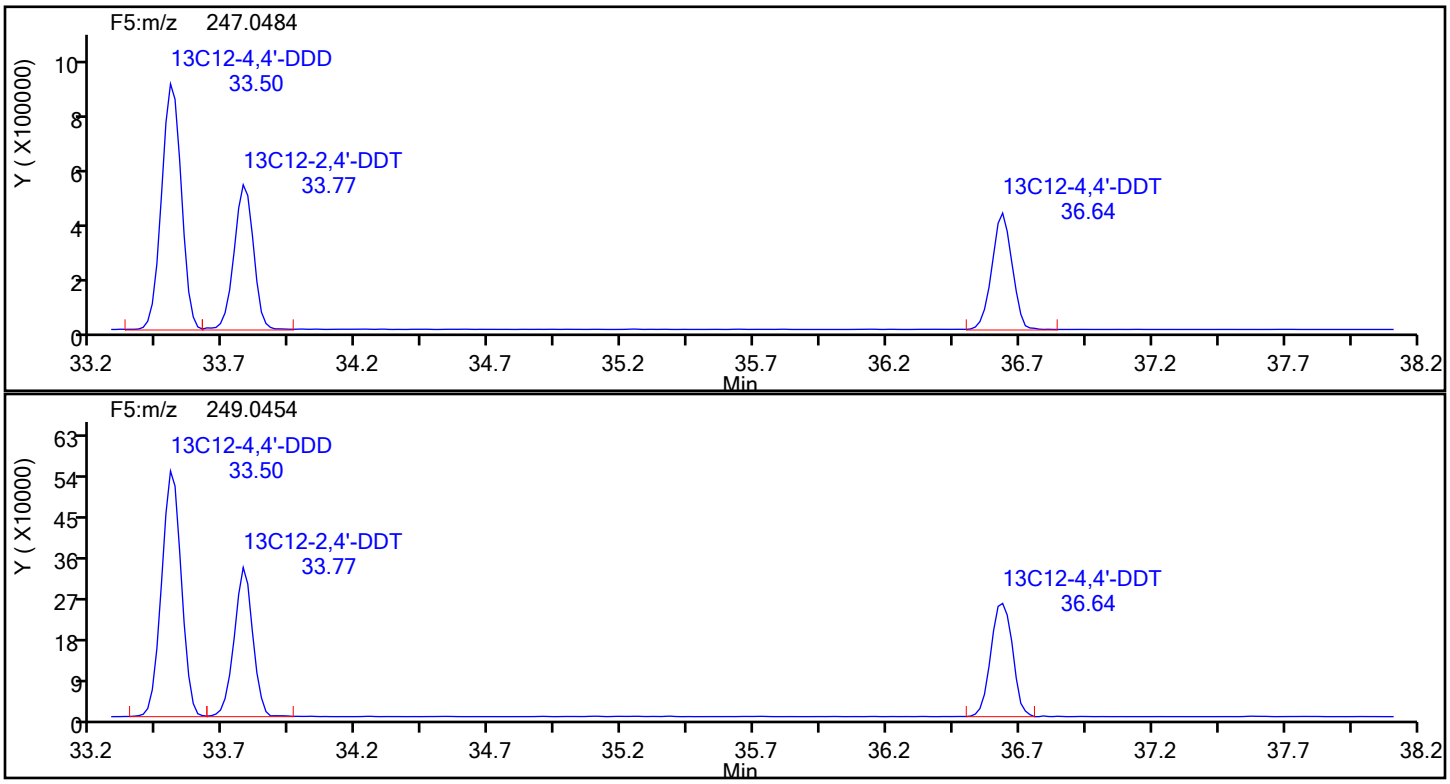
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



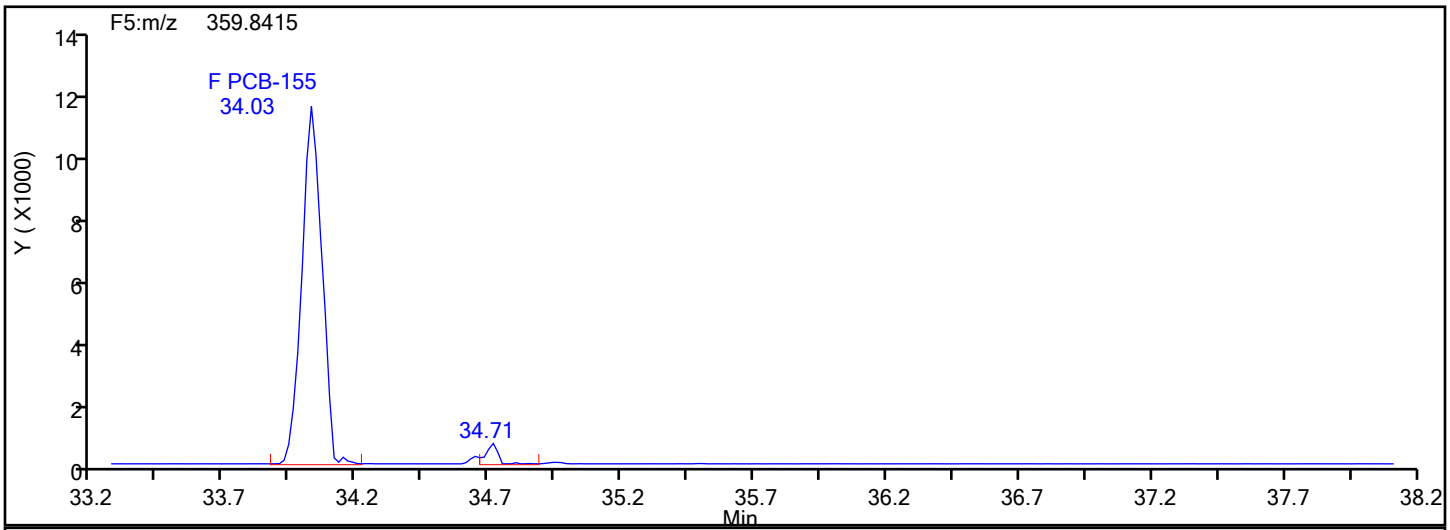
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

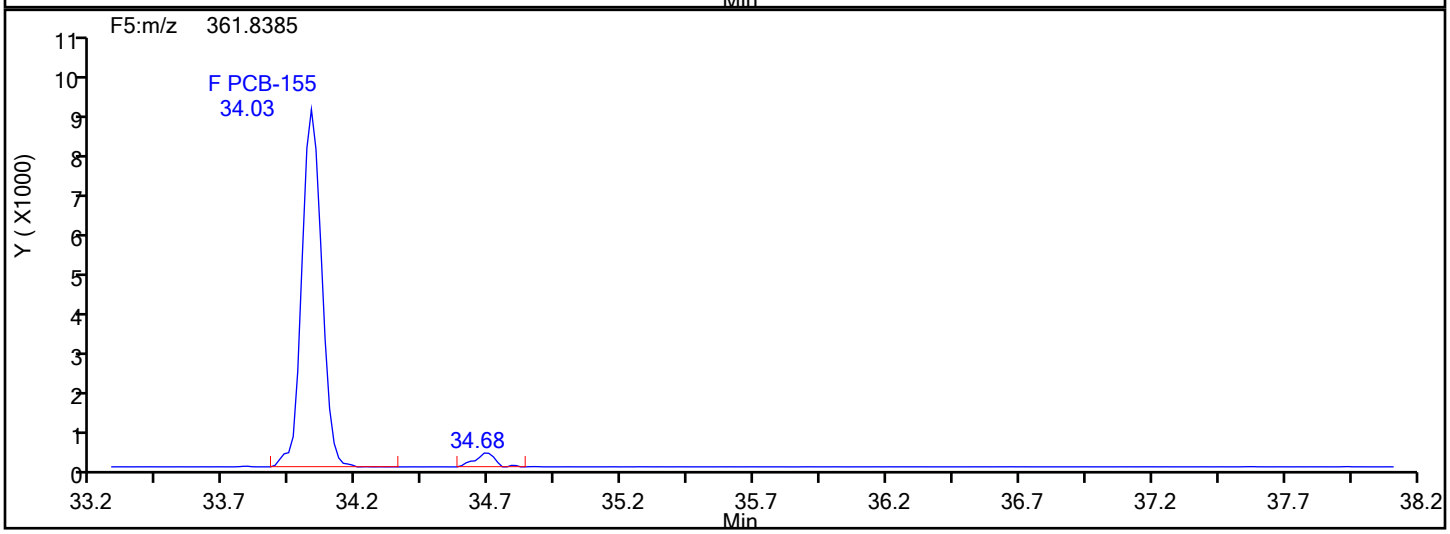
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

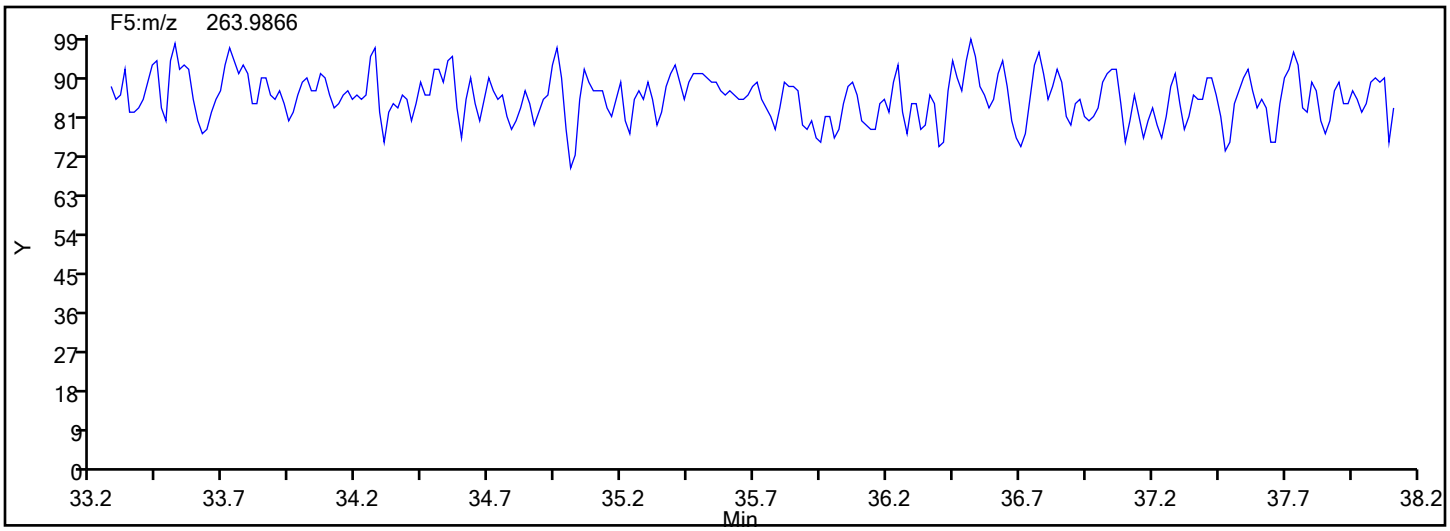
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



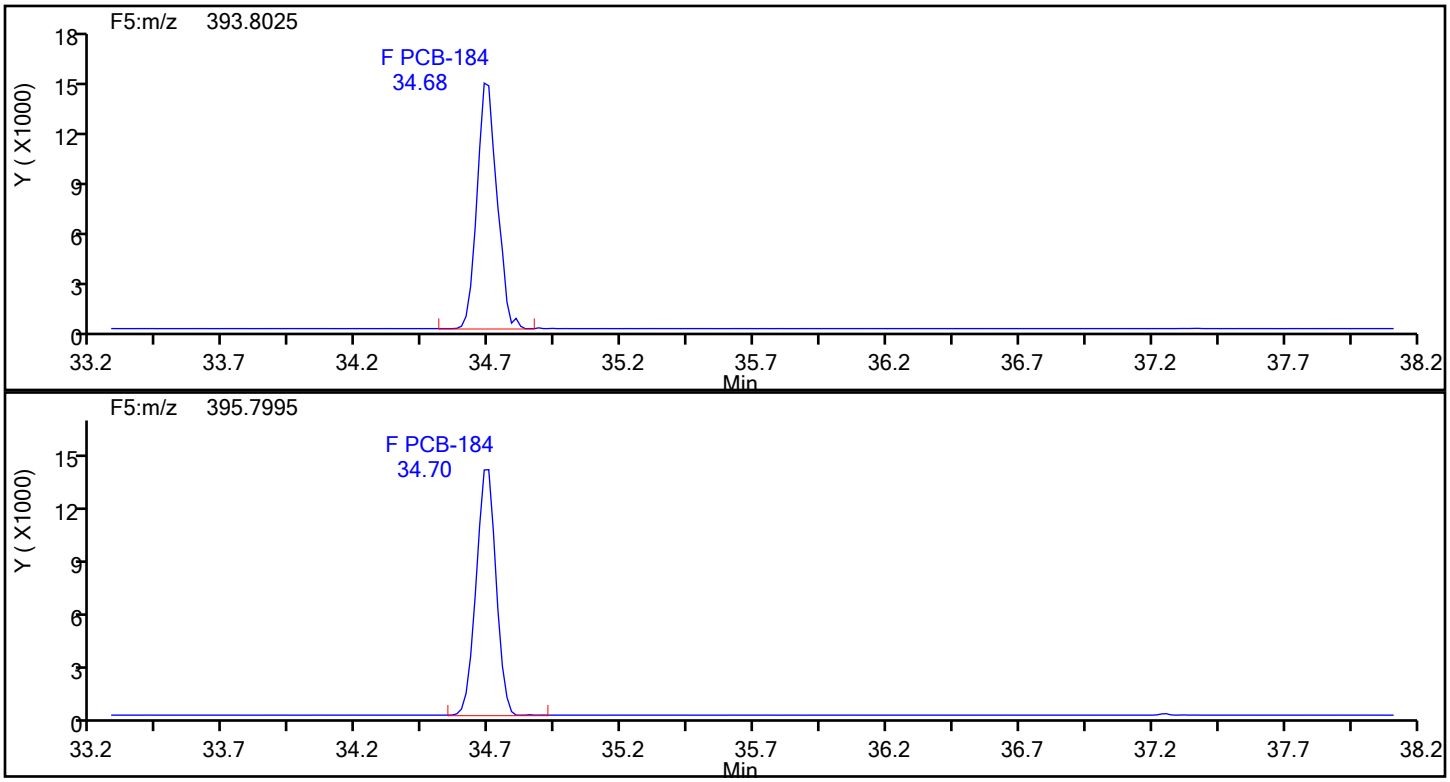
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

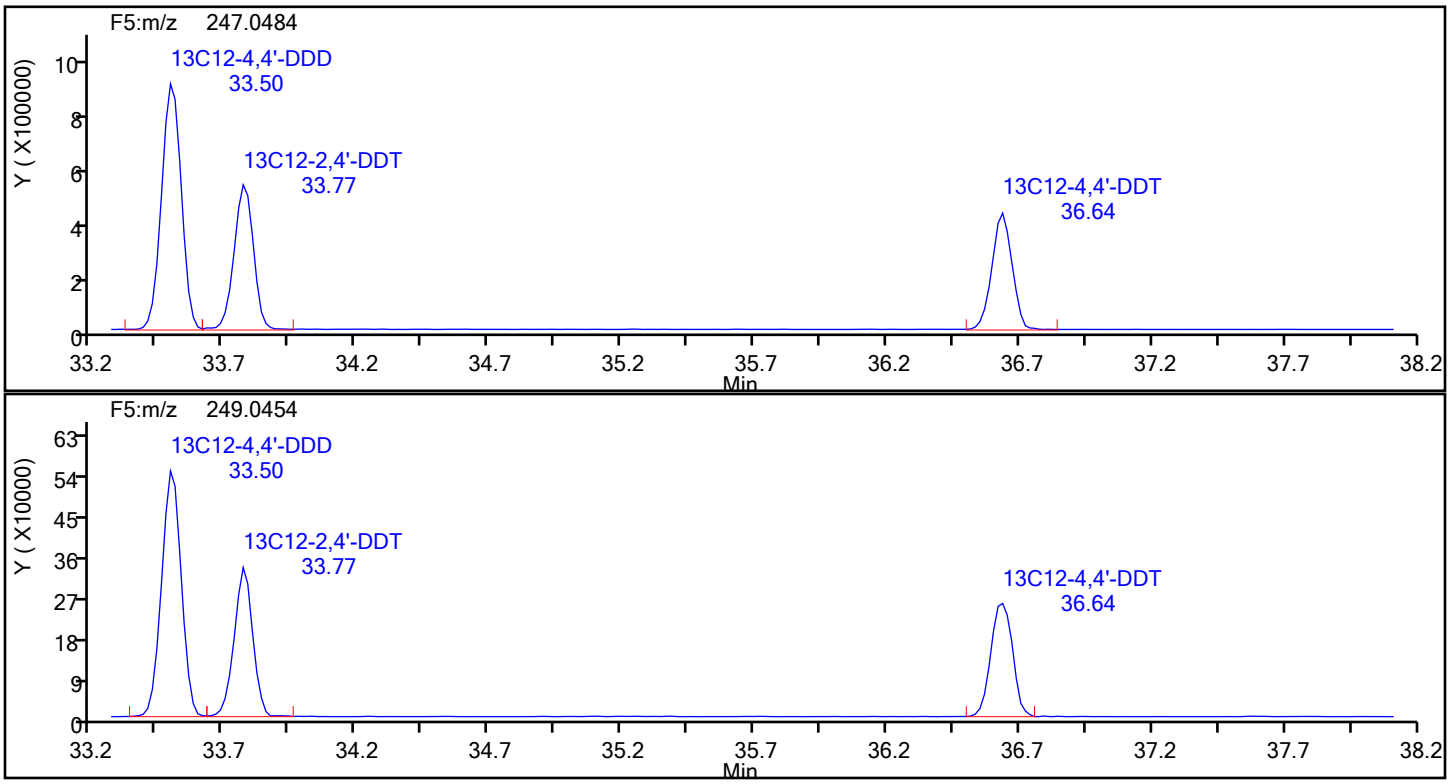
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

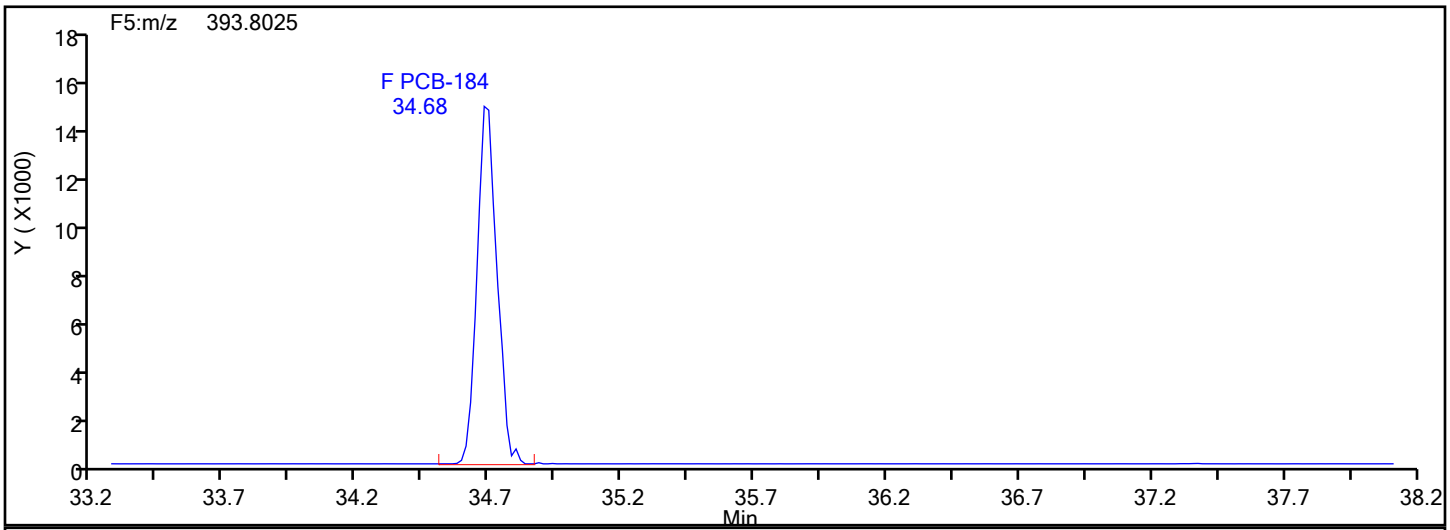


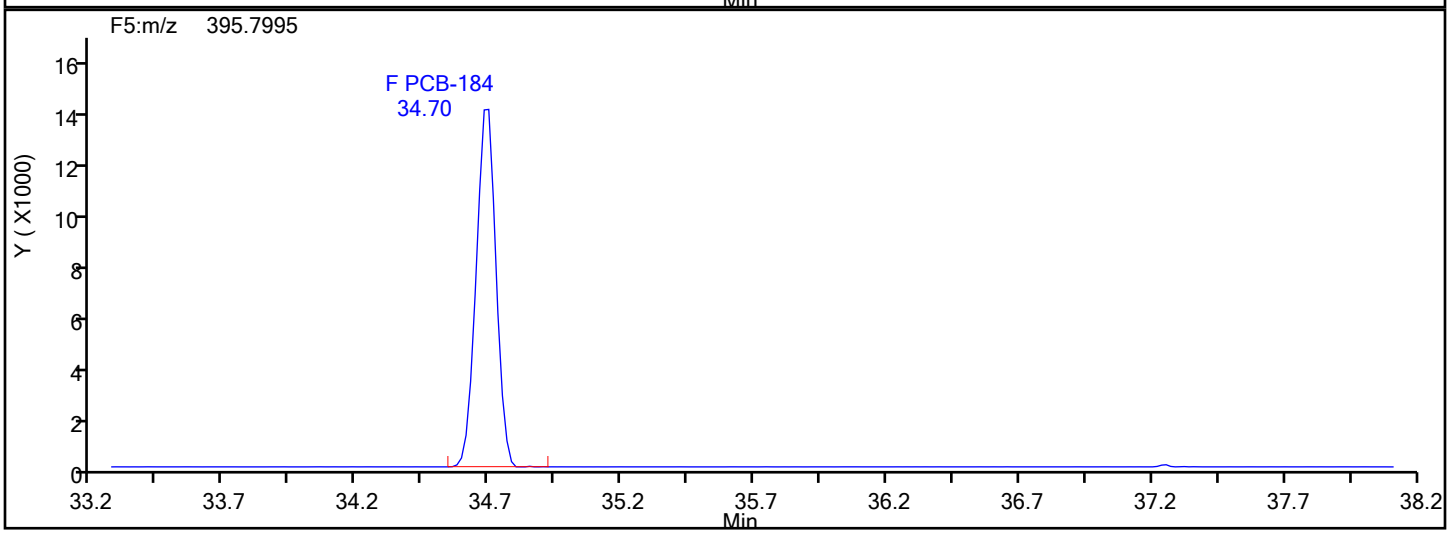
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

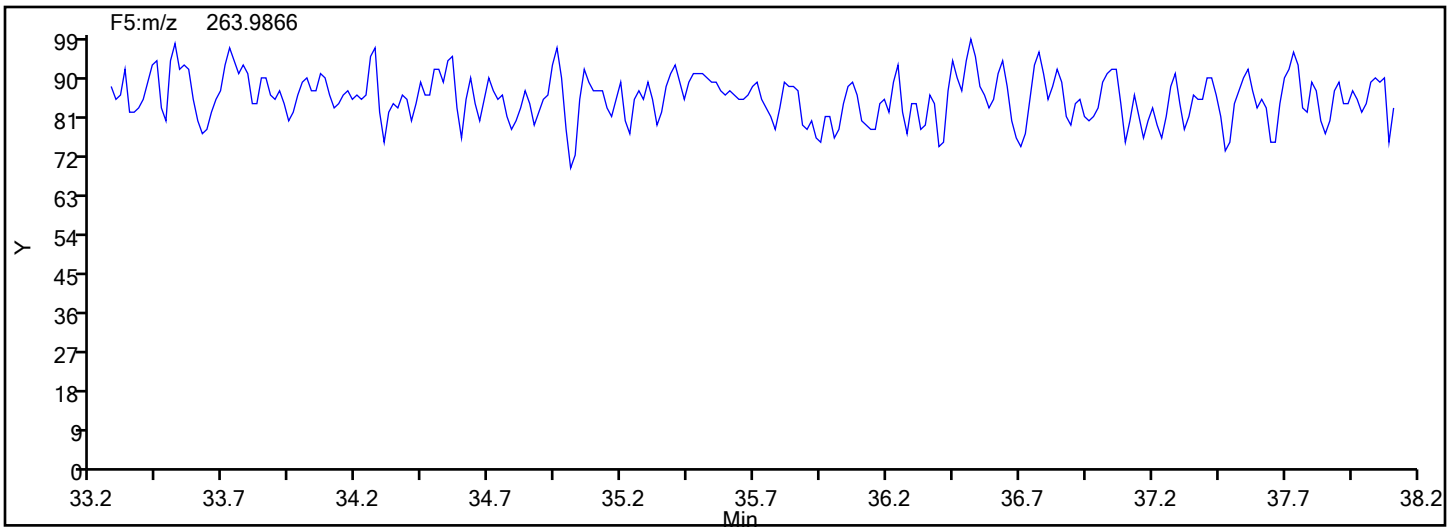
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



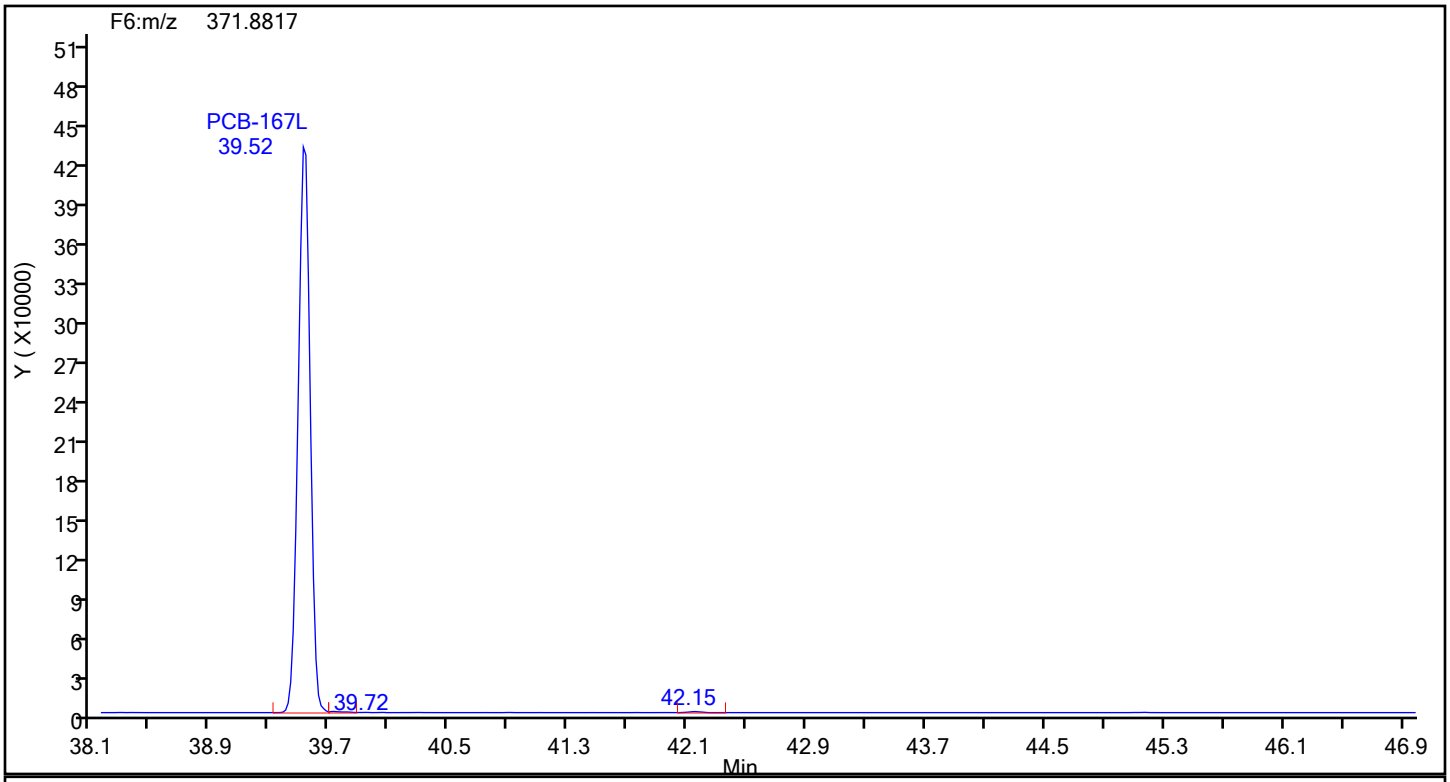
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

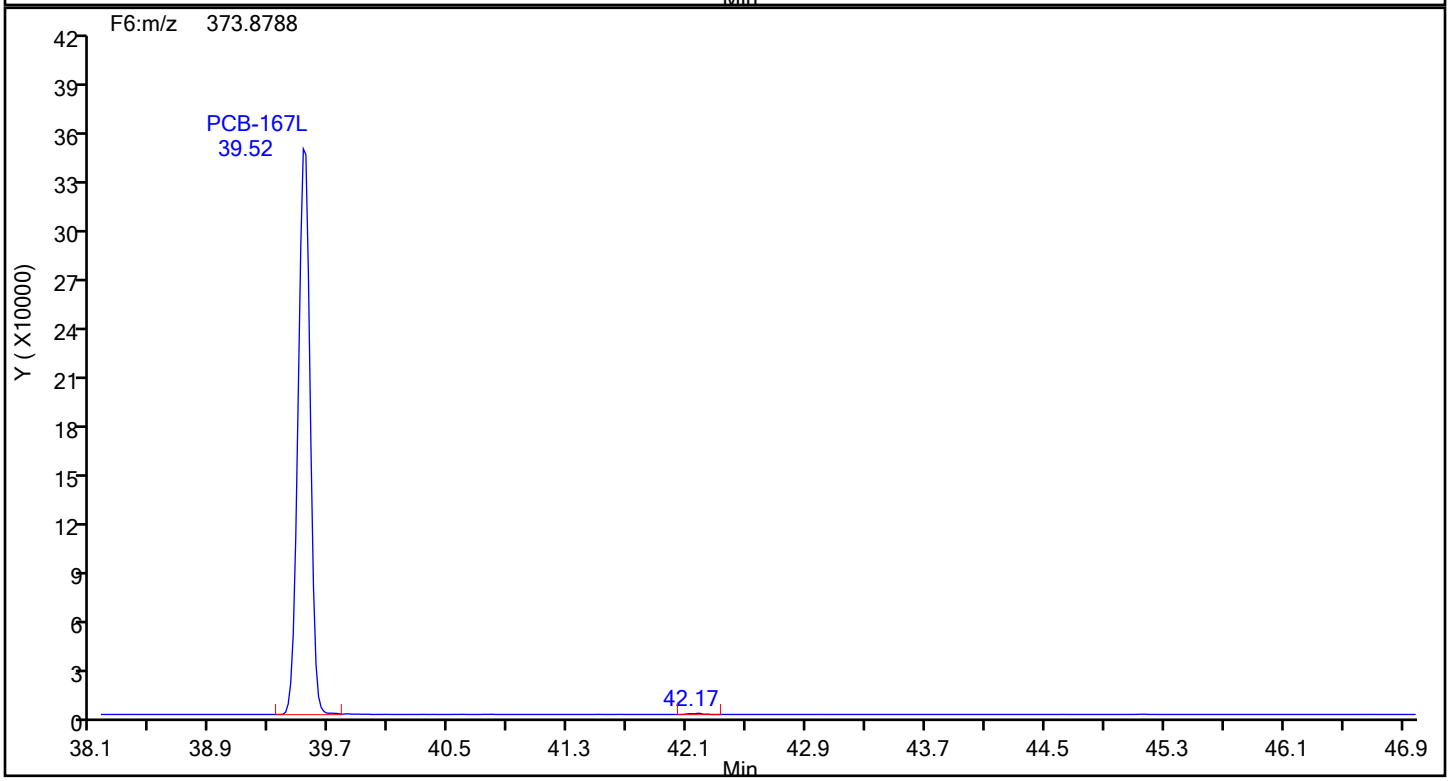
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





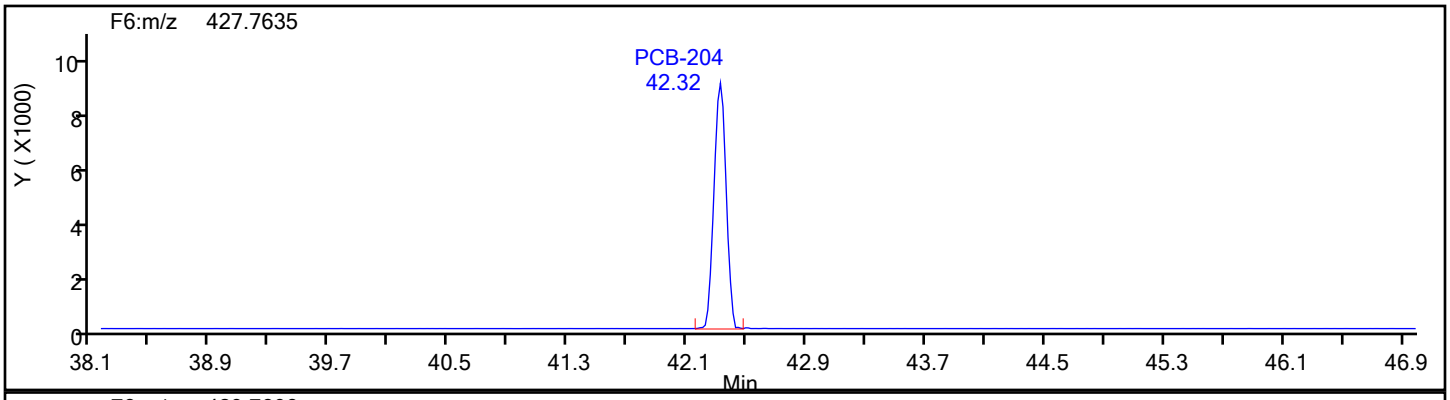
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

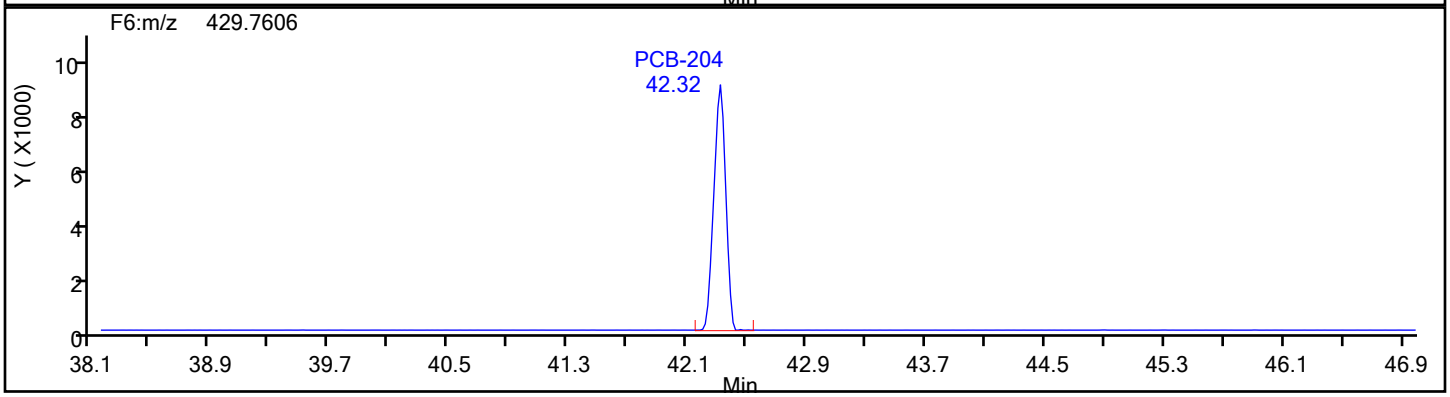
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

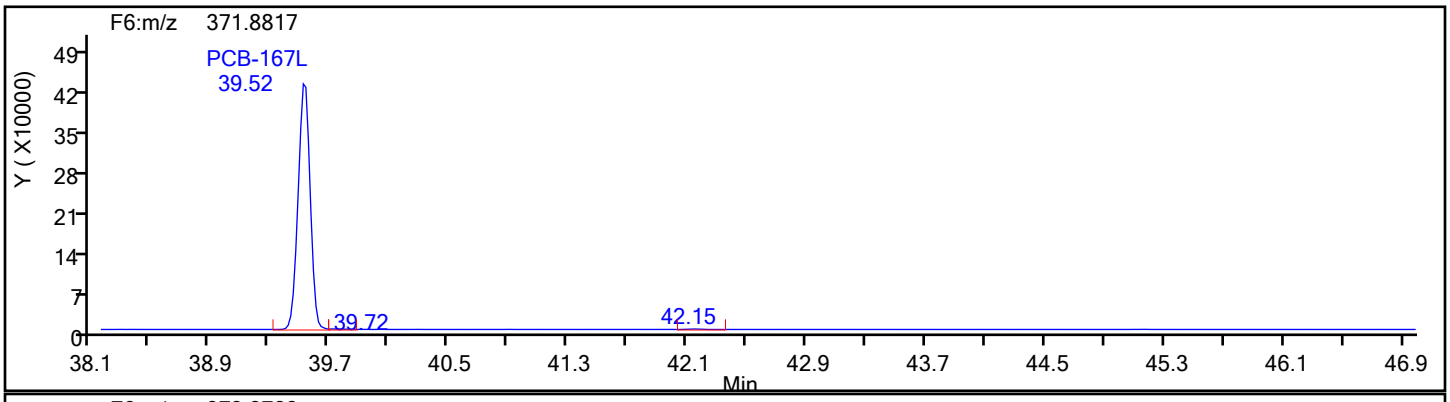
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

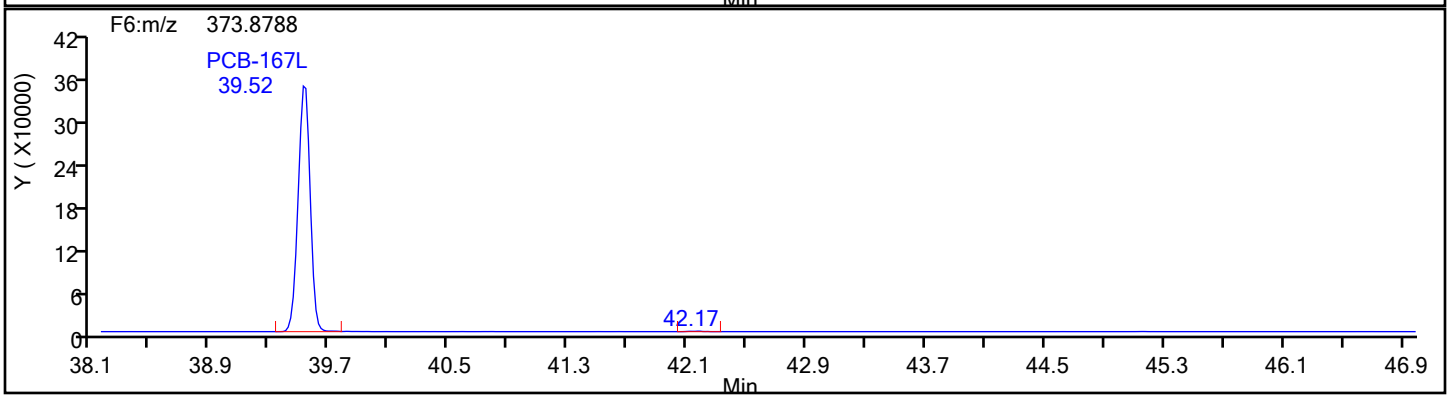
PCB-204





PCB-204 Standards



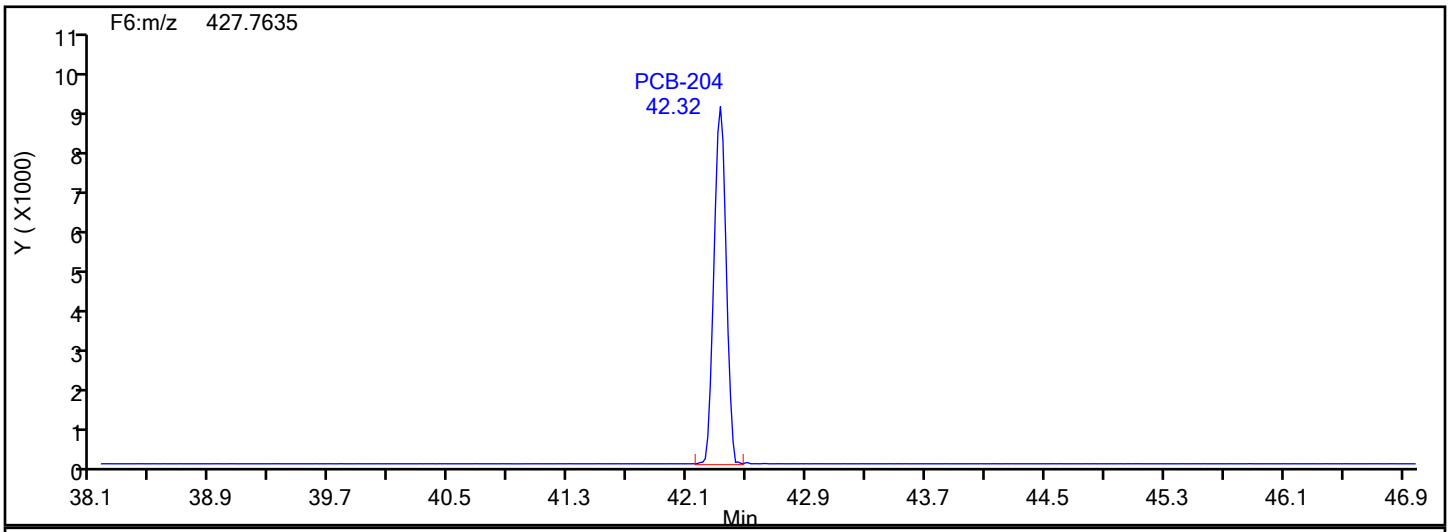


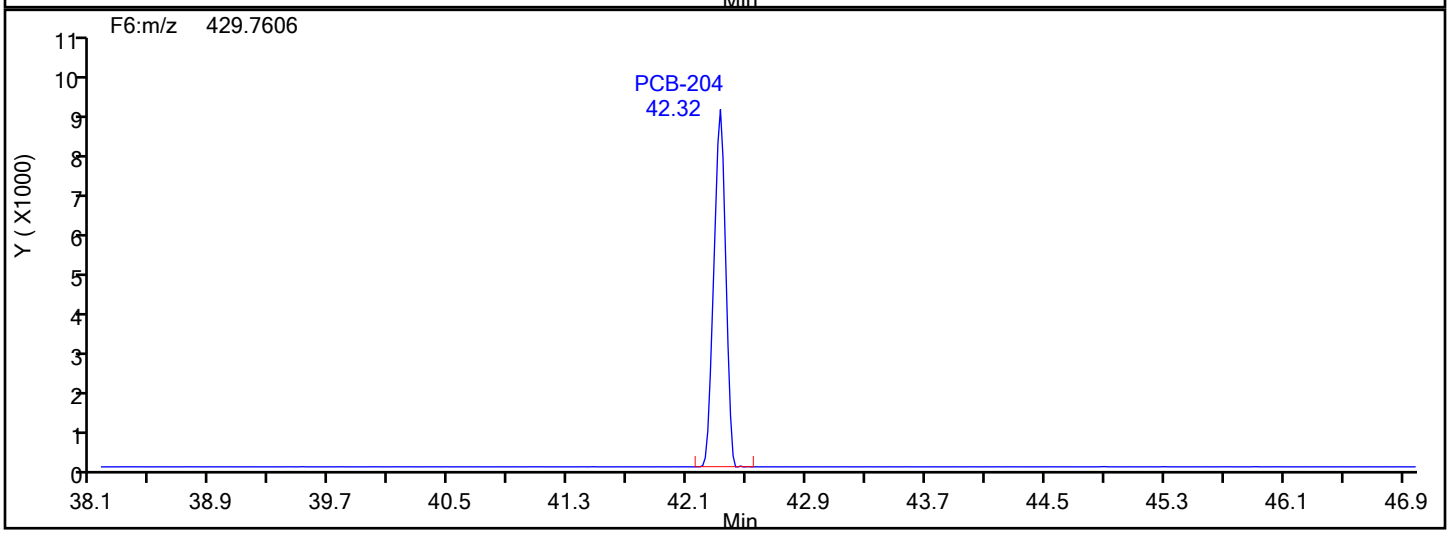
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

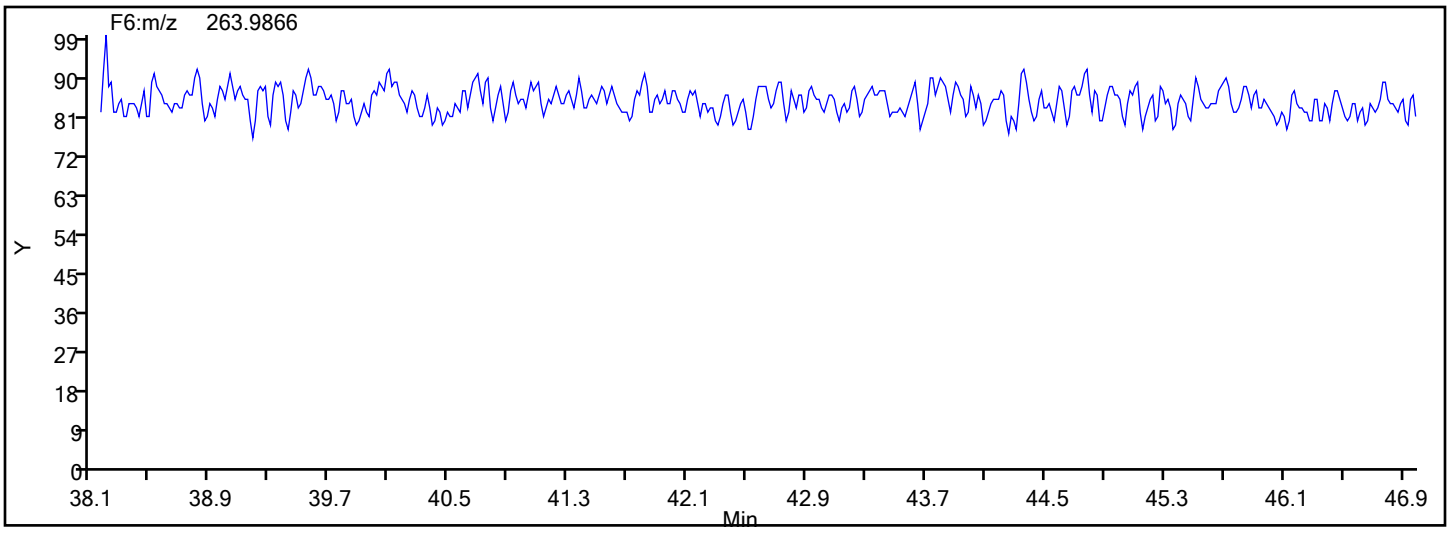
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-204





PCB-204 Lock Mass



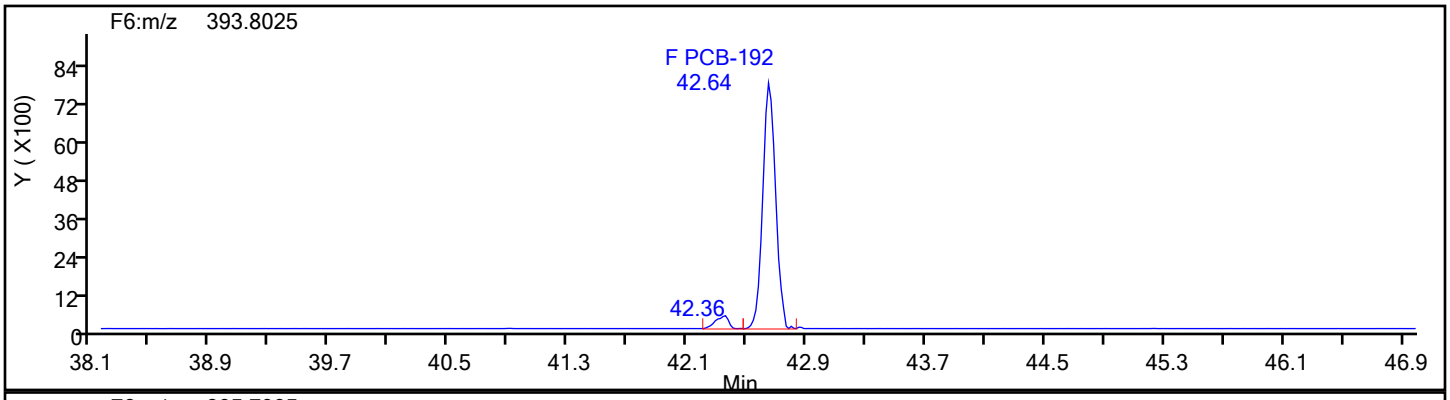
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

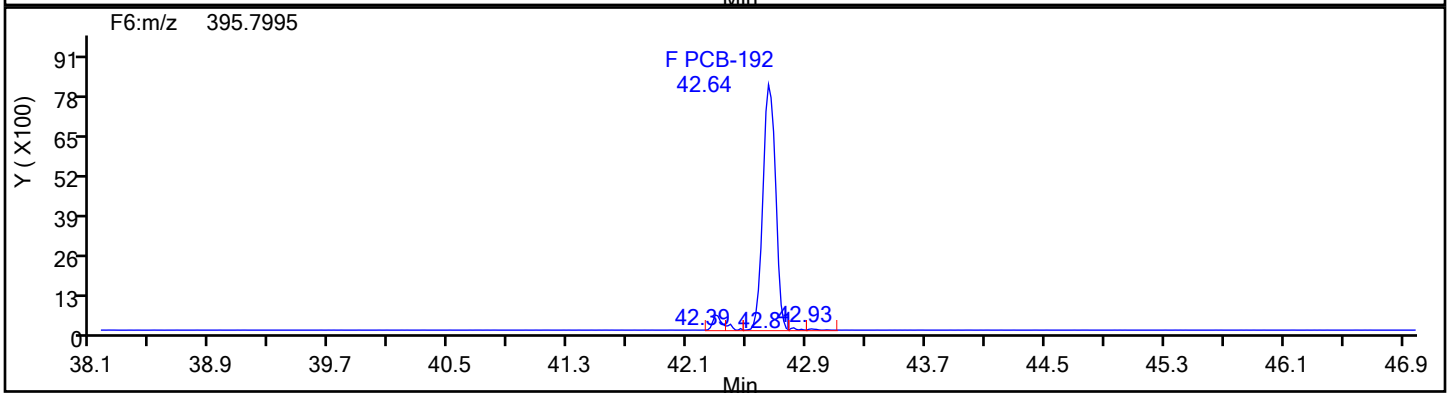
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d

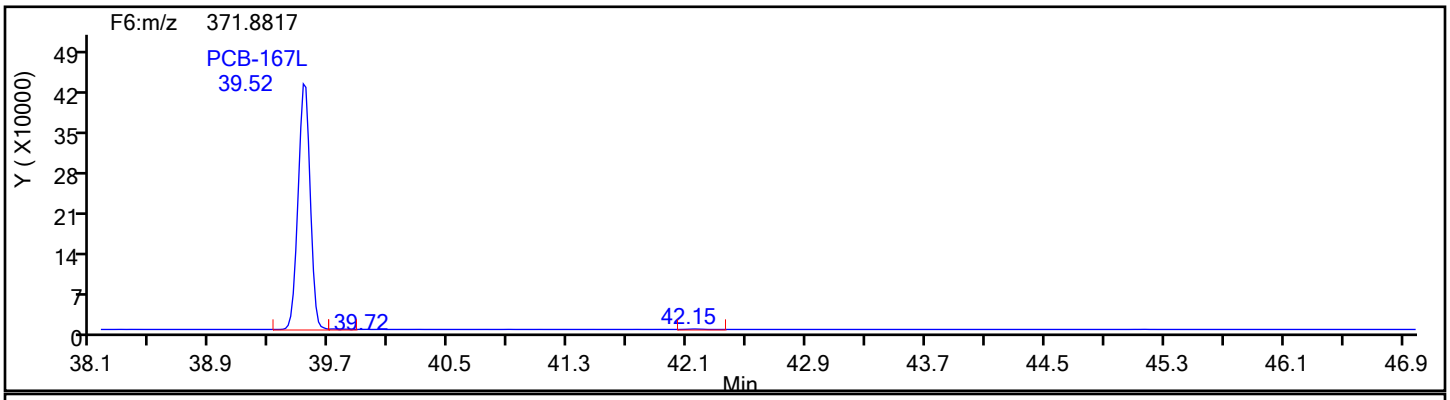
Injection Date:	19-Mar-2025 17:47:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

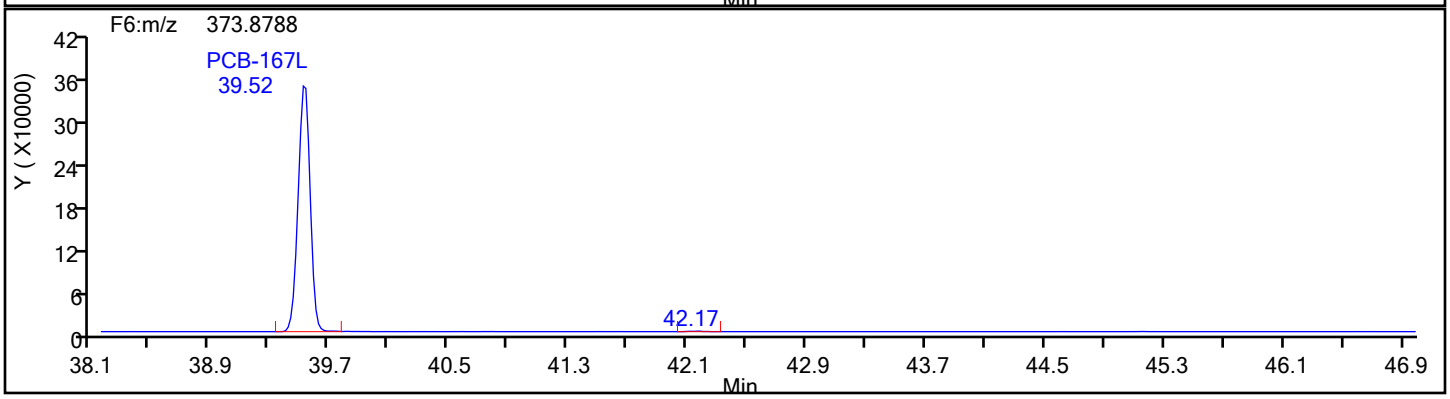
PCB-192





PCB-192 Standards



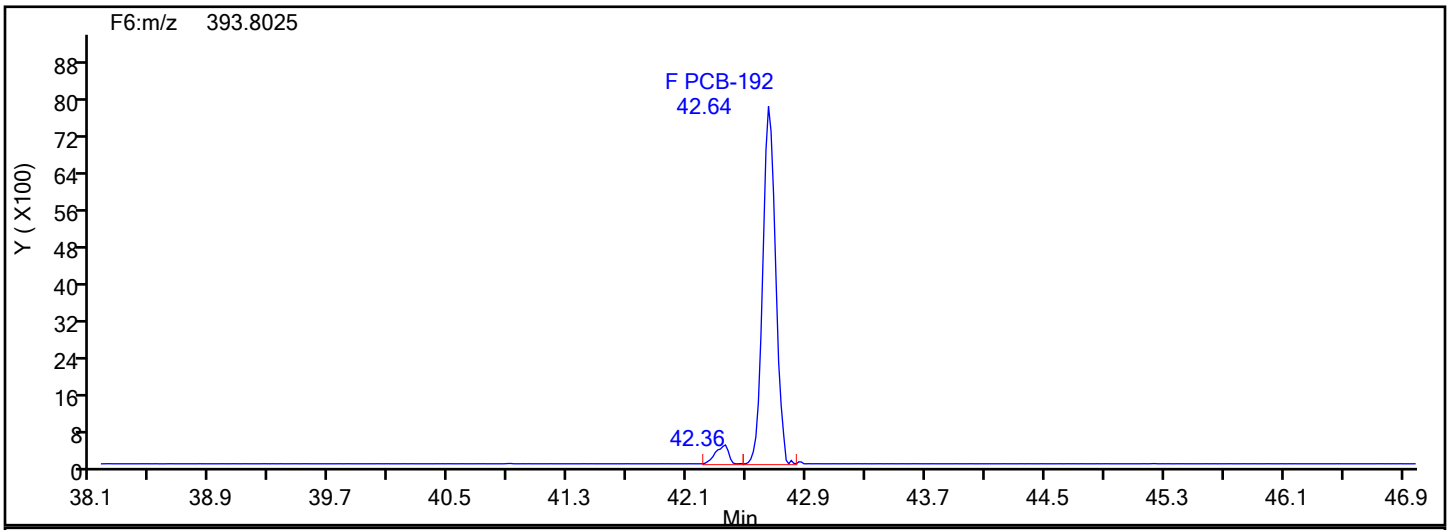


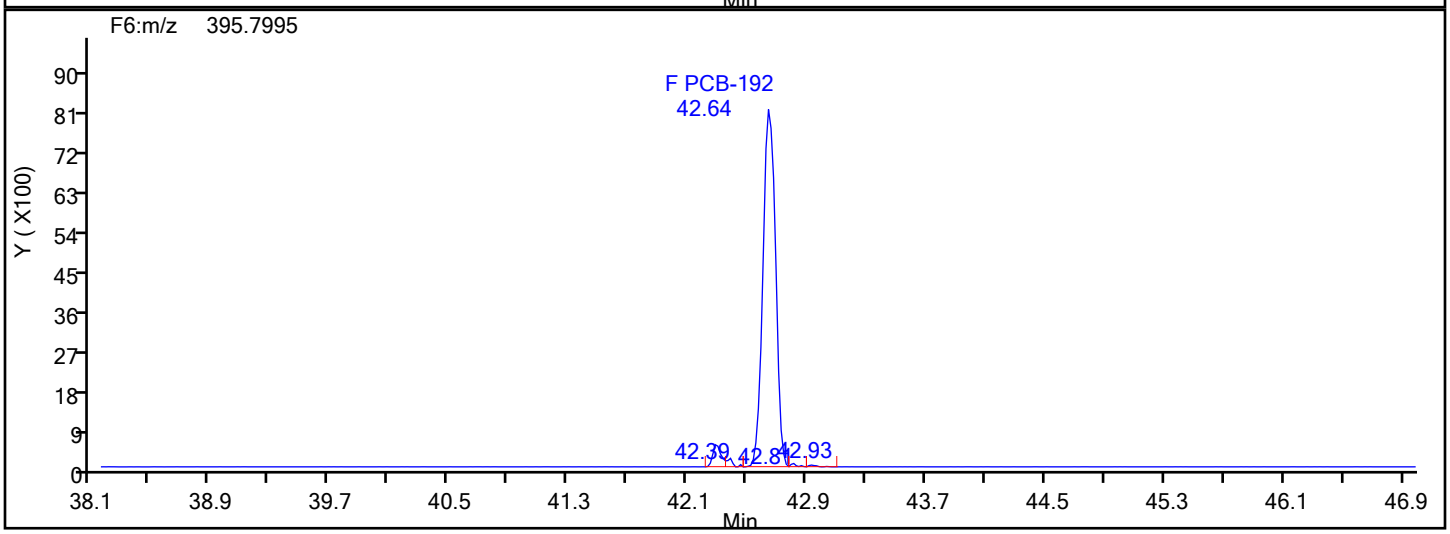
Report Date: 24-Mar-2025 13:05:48 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

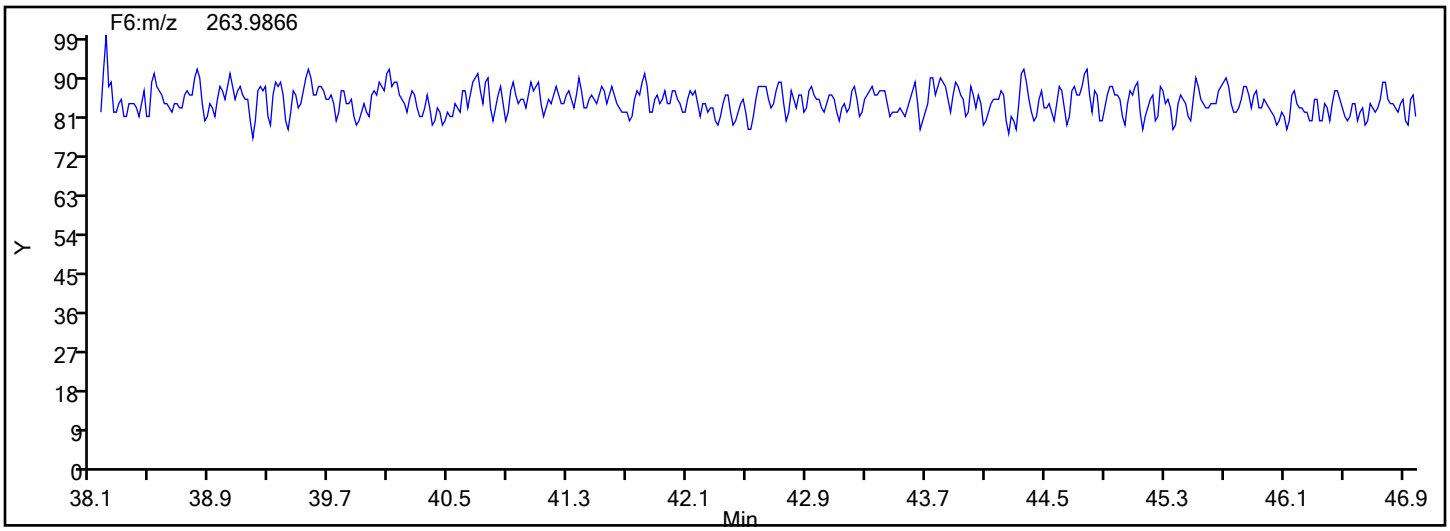
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic1_20250319174618.d
Injection Date: 19-Mar-2025 17:47:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Mar-2025 18:42:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-002
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:05:53 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:38:24

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:25	3607639	0.77	0.1704	94.5	94.5	0.0586	0.0586	94.47	
alpha-BHC	17:25	37093	0.77	1.0937	1.070	0.9401	0.0236	0.0236	107	RQ
D 13C6-beta BHC	18:24	2570881	0.79	0.1244	92.2	92.2	0.0802	0.0802	92.20	
beta-BHC	18:25	22695	0.77	1.0053	1.097	0.8781	0.0392	0.0392	110	RQ
D 13C6-gamma BHC	18:41	3191148	0.85	0.1646	86.5	86.5	0.0606	0.0606	86.50	
gamma-BHC (Lindane)	18:41	32978	0.76	0.9800	1.055	1.055	0.0324	0.0324	105	
D 13C6-delta BHC	19:38	2015411	0.91	0.0992	90.6	90.6	0.1006	0.1006	90.64	
delta-BHC	19:40	22435	0.77	1.1243	1.186	0.990	0.0498	0.0498	119	RQ
D 13C10-Heptachlor	21:53	1637626	1.34	0.0715	102.2	102.2	0.0275	0.0275	102	
Heptachlor	21:54	15737	1.14	1.0864	0.8845	0.8845	0.000972	0.000972	88.45	
D 13C6-Hexachlorobenzene	17:44	10928463	1.27	0.5041	96.7	96.7	0.000139	0.000139	96.72	
Hexachlorobenzene	17:44	134697	1.36	1.1568	1.065	1.065	0.000109	0.000109	107	
D 13C12-Aldrin	23:45	2939406	1.58	0.1384	94.7	94.7	0.0147	0.0147	94.74	
Aldrin	23:46	32942	1.64	1.0892	1.029	1.029	0.003040	0.003040	103	
D 13C10-oxy Chlordane	26:10	288259	1.15	0.0481	95.5	95.5	0.007327	0.007327	95.50	
oxy-Chlordane	26:10	3692	1.18	1.1040	1.160	1.160	0.006725	0.006725	116	
D 13C10-cis Heptachlor Epoxide	26:08	970270	1.27	0.1493	103.5	103.5	0.002359	0.002359	103	
Heptachlor epoxide	26:08	10617	1.24	1.1461	1.125	0.9547	0.001836	0.001836	113	RQ
D 13C12-2,4'-DDE	27:57	16594338	1.58	2.7345	96.6	96.6	0.0183	0.0183	96.62	
2,4'-DDE	27:58	212607	1.61	1.2831	0.999	0.999	0.004176	0.004176	99.85	
D 13C10-trans Chlordane	27:39	1035163	1.22	0.1640	100.5	100.5	0.0202	0.0202	100	
trans-Chlordane	27:41	9905	1.24	1.1433	1.001	0.8370	0.002599	0.002599	100	RQ
D 13C10-cis Chlordane	28:43	1064763	1.21	0.1741	97.3	97.3	0.0190	0.0190	97.35	
cis-Chlordane	28:45	13901	1.27	1.0551	1.237	1.237	0.002810	0.002810	124	
D 13C10-trans Nonachlor	29:02	761471	1.27	0.1233	98.3	98.3	0.0268	0.0268	98.33	
trans-Nonachlor	29:03	6646	1.24	1.0780	1.097	0.8096	0.004035	0.004035	110	RQ
D 13C9-Endosulfan I	28:32	333936	1.41	0.0555	95.8	95.8	0.0596	0.0596	95.76	
D 13C12-4,4'-DDE	30:11	10729782	1.60	1.8637	94.2	94.2	0.0679	0.0679	94.21	
4,4'-DDE	30:13	131971	1.71	1.2526	0.9819	0.9819	0.007154	0.007154	98.19	
D 13C12-4,4'-DDD	33:29	6806981	1.64	1.1392	97.8	97.8	0.0261	0.0261	97.78	
4,4'-DDD	33:31	90309	1.56	1.2345	1.075	1.075	0.0357	0.0357	107	
D 13C12-2,4'-DDT	33:46	4151353	1.56	0.6754	100.6	100.6	0.0440	0.0440	101	
2,4'-DDT	33:47	52830	1.49	1.1809	1.078	1.078	0.0603	0.0603	108	
D 13C12-4,4'-DDT	36:38	3531914	1.57	0.5808	99.5	99.5	0.0512	0.0512	99.51	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:38	50549	1.83	1.2096	1.183	1.183	0.0733	0.0733	118	
D 13C12-Dieldrin	30:25	1193257	1.56	0.1991	98.1	98.1	0.1170	0.1170	98.09	
Dieldrin	30:27	13396	1.70	1.0718	1.047	1.047	0.0190	0.0190	105	
D 13C12-Endrin	32:05	721124	1.75	0.1181	99.9	99.9	0.1972	0.1972	99.93	
Endrin	32:06	8316	1.37	1.0678	1.080	1.080	0.0337	0.0337	108	
D 13C9-Endosulfan II	32:49	133641	1.23	0.0248	88.3	88.3	0.1400	0.1400	88.26	
Endosulfan II	32:49	901	1.24	1.0972	0.9261	0.6145	0.0216	0.0216	92.61	RQ
D 13C12-Endrin Aldehyde	34:20	102596	1.63	0.0237	70.8	70.8	0.2680	0.2680	70.77	
Endrin aldehyde	34:25	416	1.55	1.1278	0.5574	0.3595	0.0757	0.0757	55.74	RQ
D 13C12-Methoxychlor	41:59	4059705	17.72	0.6709	99.0	99.0	0.0679	0.0679	99.02	
Methoxychlor	42:01	59442	4.91	1.3248	1.105	1.105	0.0126	0.0126	111	
D 13C11-Endrin Ketone	40:28	374739	1.68	0.0648	94.7	94.7	0.0663	0.0663	94.66	
Endrin ketone	40:31	2291	1.56	1.1546	1.016	0.5295	0.006675	0.006675	102	RQ
D 13C10-Mirex	45:27	3683075	1.26	0.9459	103.0	103.0	0.008760	0.008760	103	
Mirex	45:29	37109	1.18	1.0234	0.9846	0.9846	0.000836	0.000836	98.46	
* PCB-15L	19:05	22416245	1.59		100.0	100.0				
PCB-14	17:50	1880101	1.62	1.3581	6.176	6.176	0.001034	0.001034	121	
* 13C6-Pentachlorophenol (IS)	19:09	553	0.42		500.0	500.0				
Pentachlorophenol	18:31						486.4	486.4		
PCB-36	22:11	1414437	1.10	1.0230	6.168	6.168	0.000439	0.000439	121	
* PCB-101L	28:09	6281068	1.62		100.0	100.0				
PCB-104	23:45	901369	1.50	1.8372	7.811	7.811	0.000192	0.000192	153	
* PCB-118L	32:49	6110869	1.59		100.0	100.0				
PCB-121	26:45	571884	1.63	1.4622	6.400	6.400	0.002089	0.002089	125	
* PCB-138L	37:01	3780295	1.27		100.0	100.0				
PCB-142	27:31	474929	1.23	2.0271	6.198	6.198	0.000359	0.000359	121	
Endosulfan I	28:33	7498	1.58	1.0931	2.054	2.054	0.0841	0.0841	205	
* PCB-60L	27:46	11542584	0.80		100.0	100.0				a
PCB-78	29:24	655231	0.83	0.9153	6.202	6.202	0.001502	0.001502	121	a
D 13C12-2,4'-DDD	30:53	7907262	1.61	1.3487	95.9	95.9	0.0713	0.0713	95.94	
2,4'-DDD	30:54	99735	1.70	1.1763	1.072	1.072	0.0275	0.0275	107	
D 13C10-cis Nonachlor	33:50	553323	1.30	0.0944	95.9	95.9	0.0262	0.0262	95.90	
cis-Nonachlor	33:52	3348	1.24	1.0758	0.8902	0.5625	0.004573	0.004573	89.02	RQ
D 13C9-Endosulfan sulfate	36:20	827165	1.31	0.1517	89.2	89.2	0.0163	0.0163	89.25	
Endosulfan sulfate	36:22	9155	1.00	1.0831	1.022	1.022	0.003170	0.003170	102	
* PCB-167L	39:31	4085196	1.27		100.0	100.0				
PCB-155	34:01	233859	1.28	0.9191	6.228	6.228	0.004053	0.004053	122	
PCB-184	34:41	297991	1.04	1.1610	6.283	6.283	0.000594	0.000594	123	
PCB-204	42:19	168896	0.87	0.7364	5.614	5.614	0.000937	0.000937	110	
PCB-192	42:38	192648	1.10	0.7635	6.177	6.177	0.001265	0.001265	121	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

a - User Assigned ID

Reagents:

61L11699PST_00013 Amount Added: 20.00 Units: uL

Report Date: 24-Mar-2025 13:05:54 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Mar-2025 18:42:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-002
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:05:53 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:38:24

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:25	17:23	2	0.912	1568550	585962	283	707	2071		
224.9317	17:25	17:23	2	0.912	2039089	776617	1	2	776617	0.77(0.58-0.96)	
alpha-BHC											RQ
216.9145	17:25	17:23	2	1.001	21243	8178	1	2	8178		
	Empc Correction				16136	5731	1	2	5731		
218.9116	17:25	17:23	2	1.001	20957	7443	140	350	53	1.01(0.58-0.96)	
13C6-beta BHC											
222.9342	18:24	18:22	2	0.964	1136158	391976	283	707	1385		
224.9317	18:24	18:22	2	0.964	1434723	501542	1	2	501542	0.79(0.58-0.96)	
beta-BHC											RQ
216.9145	18:25	18:23	2	1.001	9873	3677	1	2	3677		
218.9116	18:25	18:23	2	1.001	18477	5009	140	350	36	0.53(0.58-0.96)	
	Empc Correction				12822	4775	140	350	34		
13C6-gamma BHC											
222.9342	18:41	18:39	2	0.979	1463466	497683	283	707	1759		
224.9317	18:41	18:39	2	0.979	1727682	611262	1	2	611262	0.85(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:41	18:40	1	1.001	14196	5154	1	2	5154		
218.9116	18:41	18:40	1	1.001	18782	5561	140	350	40	0.76(0.58-0.96)	
13C6-delta BHC											
222.9342	19:38	19:36	2	1.029	959811	291713	283	707	1031		
224.9317	19:38	19:36	2	1.029	1055600	336398	1	2	336398	0.91(0.58-0.96)	
delta-BHC											RQ
216.9145	19:40	19:38	2	1.002	9760	3328	1	2	3328		
218.9116	19:39	19:38	2	1.001	17120	4145	140	350	30	0.57(0.58-0.96)	
	Empc Correction				12675	4322	140	350	31		

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:53	21:51	2	1.147	936346	265770	55	137	4832		
278.8240	21:53	21:51	2	1.147	701280	207641	1	2	207641	1.34(0.93-1.55)	
Heptachlor											
271.8102	21:54	21:52	2	1.001	8375	2587	1	2	2587		
273.8072	21:54	21:52	2	1.001	7362	1841	1	2	1841	1.14(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:44	17:42	2	0.929	6120964	2236640	1	2	2236640		
291.8273	17:44	17:42	2	0.929	4807499	1724524	1	2	1724524	1.27(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:44	17:42	2	1.001	77587	29147	1	2	29147		
285.8072	17:44	17:42	2	1.001	57110	20968	1	2	20968	1.36(0.93-1.55)	
13C12-Aldrin											
269.8805	23:45	23:44	2	1.245	1798262	469298	31	77	15139		
271.8775	23:45	23:44	2	1.245	1141144	285791	27	67	10585	1.58(1.16-1.94)	
Aldrin											
262.8569	23:46	23:45	1	1.001	20471	5134	1	2	5134		
264.8540	23:46	23:45	1	1.001	12471	2996	9	22	333	1.64(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:10	26:08	2	0.930	154486	38545	1	2	38545		
398.8358	26:10	26:08	2	0.930	133773	28806	1	2	28806	1.15(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.000	2000	481	1	2	481		
388.8023	26:12	26:10	2	1.001	1692	546	1	2	546	1.18(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:08	26:06	2	0.928	542343	130836	1	2	130836		
364.8748	26:08	26:06	2	0.928	427927	106815	1	2	106815	1.27(0.93-1.55)	
Heptachlor epoxide											RQ
352.8442	26:08	26:08	1	1.001	7774	1939	1	2	1939		
	Empc Correction				5877	1657	1	2	1657		
354.8413	26:09	26:08	2	1.001	4740	1337	1	2	1337	1.64(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:57	27:56	2	0.993	10166468	2359690	180	450	13109		
260.0376	27:57	27:56	2	0.993	6427870	1503356	104	260	14455	1.58(1.17-1.95)	
2,4'-DDE											
246.0003	27:58	27:57	1	1.000	131246	30015	75	187	400		
247.9974	27:58	27:57	1	1.000	81361	18160	8	20	2270	1.61(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:39	27:38	2	0.983	568255	134954	18	45	7497		
278.8240	27:39	27:38	2	0.983	466908	100661	1	2	100661	1.22(0.93-1.55)	
trans-Chlordane											RQ
271.8102	27:41	27:39	2	1.001	7429	1725	1	2	1725		
	Empc Correction				5483	1581	1	2	1581		
273.8072	27:41	27:39	2	1.001	4422	1275	2	5	638	1.68(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:43	28:41	2	1.020	581990	131749	18	45	7319		
278.8240	28:43	28:41	2	1.020	482773	104361	1	2	104361	1.21(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:45	28:43	3	1.001	7766	1704	1	2	1704		
273.8072	28:44	28:43	1	1.000	6135	1060	2	5	530	1.27(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:02	29:00	2	1.031	426066	88549	18	45	4919		
278.8240	29:02	29:00	2	1.031	335405	72364	1	2	72364	1.27(0.93-1.55)	
trans-Nonachlor											RQ
271.8102	29:03	29:02	2	1.001	6039	1479	1	2	1479		
	Empc Correction				3679	701	1	2	701		
273.8072	29:02	29:02	0	1.000	2967	566	2	5	283	2.04(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:32	28:31	1	1.014	195489	44507	18	45	2473		
278.8240	28:33	28:31	2	1.015	138447	28367	1	2	28367	1.41(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:11	30:10	2	0.920	6603515	1399165	389	972	3597		
260.0376	30:11	30:10	2	0.920	4126267	888346	224	560	3966	1.60(1.17-1.95)	
4,4'-DDE											
246.0003	30:13	30:11	2	1.001	83191	17533	73	182	240		
247.9974	30:12	30:11	1	1.000	48780	10143	9	22	1127	1.71(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:29	33:27	2	1.020	4227259	823951	101	252	8158		
249.0454	33:29	33:27	2	1.020	2579722	518680	43	107	12062	1.64(1.17-1.95)	
4,4'-DDD											
235.0081	33:31	33:29	2	1.001	54967	10893	174	435	63		
237.0052	33:31	33:29	2	1.001	35342	7608	63	157	121	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:46	33:44	2	1.029	2530886	504712	101	252	4997		
249.0454	33:46	33:44	2	1.029	1620467	325982	43	107	7581	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:47	33:46	1	1.001	31606	5877	174	435	34		
237.0052	33:47	33:46	1	1.001	21224	3937	63	157	62	1.49(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:38	36:36	2	1.116	2159867	412298	101	252	4082		
249.0454	36:38	36:36	2	1.116	1372047	255350	43	107	5938	1.57(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:37	1	1.000	32656	4474	174	435	26		
237.0052	36:40	36:37	3	1.001	17893	2736	63	157	43	1.83(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:25	30:23	2	0.927	727422	150595	94	235	1602		
271.8775	30:25	30:23	2	0.927	465835	104349	19	47	5492	1.56(1.16-1.94)	
Dieldrin											
262.8570	30:27	30:25	3	1.001	8429	1643	1	2	1643		
264.8540	30:27	30:25	3	1.001	4967	1392	20	50	70	1.70(1.16-1.94)	
13C12-Endrin											
269.8805	32:05	32:03	2	0.978	458859	91127	94	235	969		
271.8775	32:05	32:03	2	0.978	262265	53164	19	47	2798	1.75(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:06	32:05	1	1.000	4806	1118	1	2	1118		
264.8540	32:07	32:05	2	1.001	3510	795	20	50	40	1.37(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:49	32:47	2	1.000	73794	14085	4	10	3521		
278.8240	32:49	32:47	2	1.000	59847	15462	13	32	1189	1.23(0.93-1.55)	
Endosulfan II											RQ
271.8102	32:49	32:48	0	1.000	499	178	2	5	89		
273.8072	32:52	32:48	3	1.002	859	280	1	2	280	0.58(0.93-1.55)	
	Empc Correction				402	143	1	2	143		
13C12-Endrin Aldehyde											
356.9391	34:20	34:19	1	1.046	63634	9847	21	52	469		
358.9361	34:21	34:19	2	1.046	38962	10071	10	25	1007	1.63(1.17-1.95)	
Endrin aldehyde											RQ
344.8988	34:25	34:21	4	1.002	253	55	5	12	11		
346.8959	34:21	34:21	0	1.001	392	79	2	5	40	0.65(1.16-1.94)	
	Empc Correction				163	35	2	5	18		
13C12-Methoxychlor											
239.1475	41:59	41:56	2	1.279	3842832	669378	193	482	3468		
240.1510	41:59	41:56	2	1.279	216873	32872	28	70	1174	17.72(0.00-0.00)	
Methoxychlor											
227.1072	42:01	41:58	2	1.001	49386	8724	29	72	301		
228.1106	41:59	41:58	0	1.000	10056	1455	18	45	81	4.91(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:28	40:25	3	1.233	234840	41780	16	40	2611		
329.9379	40:27	40:25	2	1.232	139899	23093	5	12	4619	1.68(1.19-1.98)	
Endrin ketone											RQ
316.9039	40:31	40:28	3	1.001	3502	639	1	2	639		
	Empc Correction				1396	616	1	2	616		
318.9010	40:32	40:28	4	1.002	895	395	1	2	395	3.91(1.16-1.95)	
13C10-Mirex											
276.8270	45:27	45:25	2	1.228	2054770	324113	13	32	24932		
278.8240	45:27	45:25	2	1.228	1628305	260122	10	25	26012	1.26(0.93-1.55)	
Mirex											
271.8102	45:29	45:27	2	1.001	20122	3502	1	2	3502		
273.8072	45:29	45:27	2	1.001	16987	2911	1	2	2911	1.18(0.93-1.55)	
PCB-15L											
234.0406	19:05	19:04	1		13750651	4368228	15	37	291215		
236.0376	19:05	19:04	1		8665594	2749896	5	12	549979	1.59(1.16-1.93)	
PCB-14											
222.0003	17:50	17:49	2	0.935	1162266	415986	12	30	34666		
223.9974	17:50	17:49	2	0.935	717835	255301	28	70	9118	1.62(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	19:09	18:31	38		164	62	7	17	9		
271.8636	19:08	18:31	37		389	104	15	37	7	0.42(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Pentachlorophenol											
263.8464	18:31						41	102			
265.8435	18:31						13	32			
PCB-36											
255.9613	22:11	22:09	2	1.162	740973	204011	3	7	68004		
257.9584	22:11	22:09	2	1.162	673464	188966	10	25	18897	1.10(0.88-1.20)	
PCB-101L											
337.9207	28:09	28:07	2		3880980	878677	1	2	878677		
339.9178	28:09	28:07	2		2400088	541339	1	2	541339	1.62(1.16-1.94)	
PCB-104											
325.8804	23:45	23:44	2	0.844	540712	140126	1	2	140126		
327.8775	23:45	23:44	2	0.844	360657	97882	1	2	97882	1.50(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	2		3753644	739749	13	32	56904		
339.9178	32:49	32:48	2		2357225	471355	12	30	39280	1.59(1.16-1.94)	
PCB-121											
325.8804	26:45	26:43	2	0.815	354821	86167	5	12	17233		
327.8775	26:45	26:43	2	0.815	217063	52249	10	25	5225	1.63(1.32-1.78)	
PCB-138L											
371.8817	37:01	36:59	2		2111937	382972	9	22	42552		
373.8788	37:01	36:59	2		1668358	304941	7	17	43563	1.27(1.16-1.94)	
PCB-142											
359.8415	27:31	27:29	2	0.743	262025	61582	1	2	61582		
361.8385	27:31	27:29	2	0.743	212904	51945	1	2	51945	1.23(1.05-1.43)	
Endosulfan I											
262.8570	28:33	28:32	1	1.000	4594	1080	1	2	1080		
264.8540	28:33	28:32	1	1.000	2904	738	26	65	28	1.58(1.16-1.94)	
PCB-60L											a
301.9626	27:46	27:44	2		5139690	1132009	17	42	66589		a
303.9597	27:46	27:44	2		6402894	1413996	35	87	40400	0.80(0.58-0.96)	
PCB-78											a
289.9224	29:24	29:21	3	1.059	297401	60888	7	17	8698		a
291.9194	29:24	29:21	3	1.059	357830	73274	7	17	10468	0.83(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:53	30:50	3	0.941	4881628	1009092	287	717	3516		
249.0454	30:52	30:50	2	0.941	3025634	632932	179	447	3536	1.61(1.17-1.95)	
2,4'-DDD											
235.0081	30:54	30:52	2	1.000	62832	12595	151	377	83		
237.0052	30:54	30:52	2	1.000	36903	6902	62	155	111	1.70(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:50	33:48	2	1.031	312996	59459	11	27	5405		
278.8240	33:50	33:48	2	1.031	240327	42181	1	2	42181	1.30(0.93-1.55)	
cis-Nonachlor											RQ
271.8102	33:52	33:50	2	1.001	3804	744	1	2	744		
	Empc Correction				1853	409	1	2	409		
273.8072	33:51	33:50	1	1.001	1495	330	1	2	330	2.54(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C9-Endosulfan sulfate											
276.8270	36:20	36:17	3	1.107	469603	82693	11	27	7518		
278.8240	36:19	36:17	2	1.107	357562	62958	1	2	62958	1.31(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:22	36:20	2	1.001	4585	1190	1	2	1190		
273.8072	36:20	36:20	0	1.000	4570	786	1	2	786	1.00(0.93-1.55)	
PCB-167L											
371.8817	39:31	39:29	2		2285754	402599	2	5	201300		
373.8788	39:31	39:29	2		1799442	322179	1	2	322179	1.27(1.16-1.94)	
PCB-155											
359.8415	34:01	33:59	2	0.861	131109	25823	10	25	2582		
361.8385	34:01	33:59	2	0.861	102750	19215	1	2	19215	1.28(1.05-1.43)	
PCB-184											
393.8025	34:41	34:39	2	0.878	151704	28142	1	2	28142		
395.7995	34:41	34:39	2	0.878	146287	28751	1	2	28751	1.04(0.89-1.21)	
PCB-204											
427.7635	42:19	42:17	2	1.071	78694	13056	1	2	13056		
429.7606	42:19	42:17	2	1.071	90202	15539	1	2	15539	0.87(0.76-1.02)	
PCB-192											
393.8025	42:38	42:36	2	1.079	100957	15744	2	5	7872		
395.7995	42:38	42:36	2	1.079	91691	15061	1	2	15061	1.10(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

a - User Assigned ID

Reagents:

61L11699PST_00013 Amount Added: 20.00 Units: uL

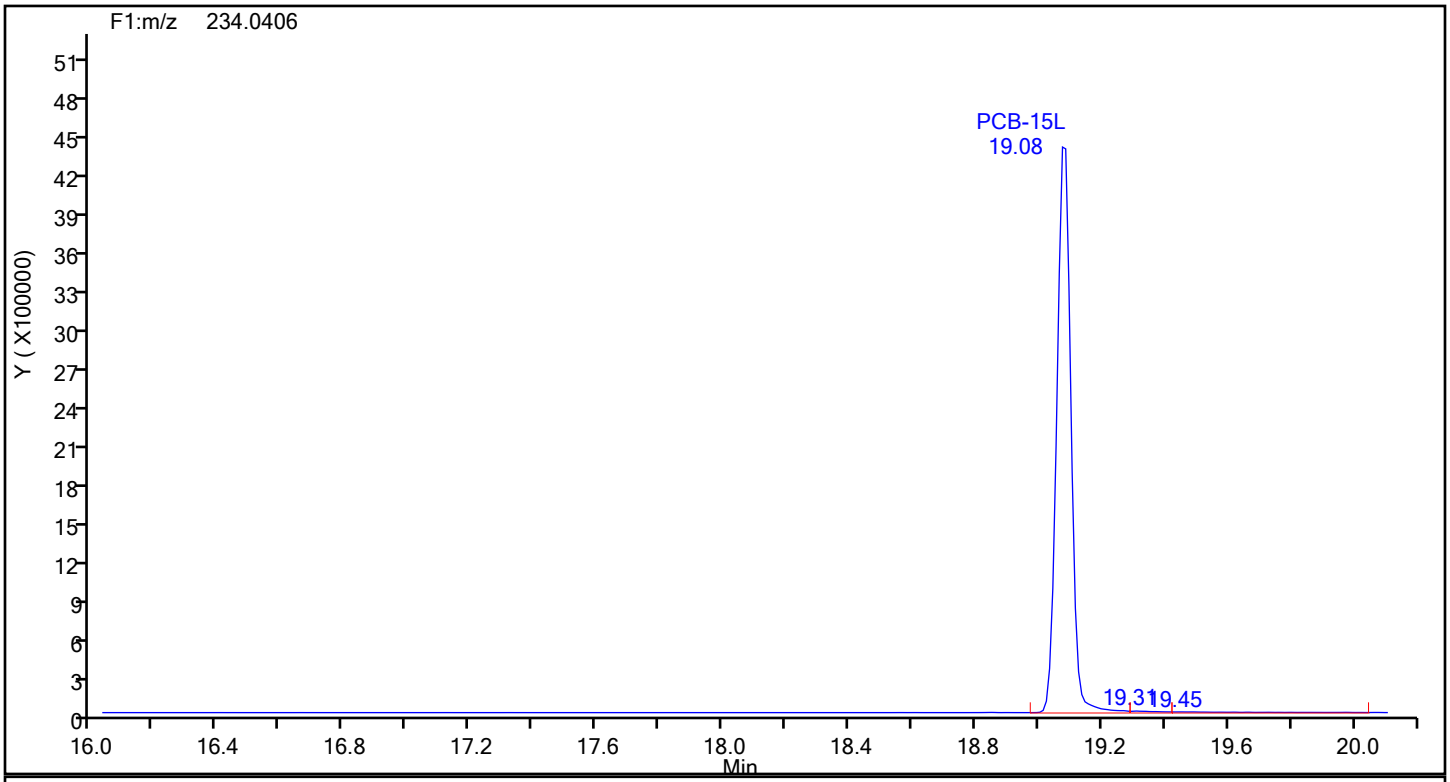
Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

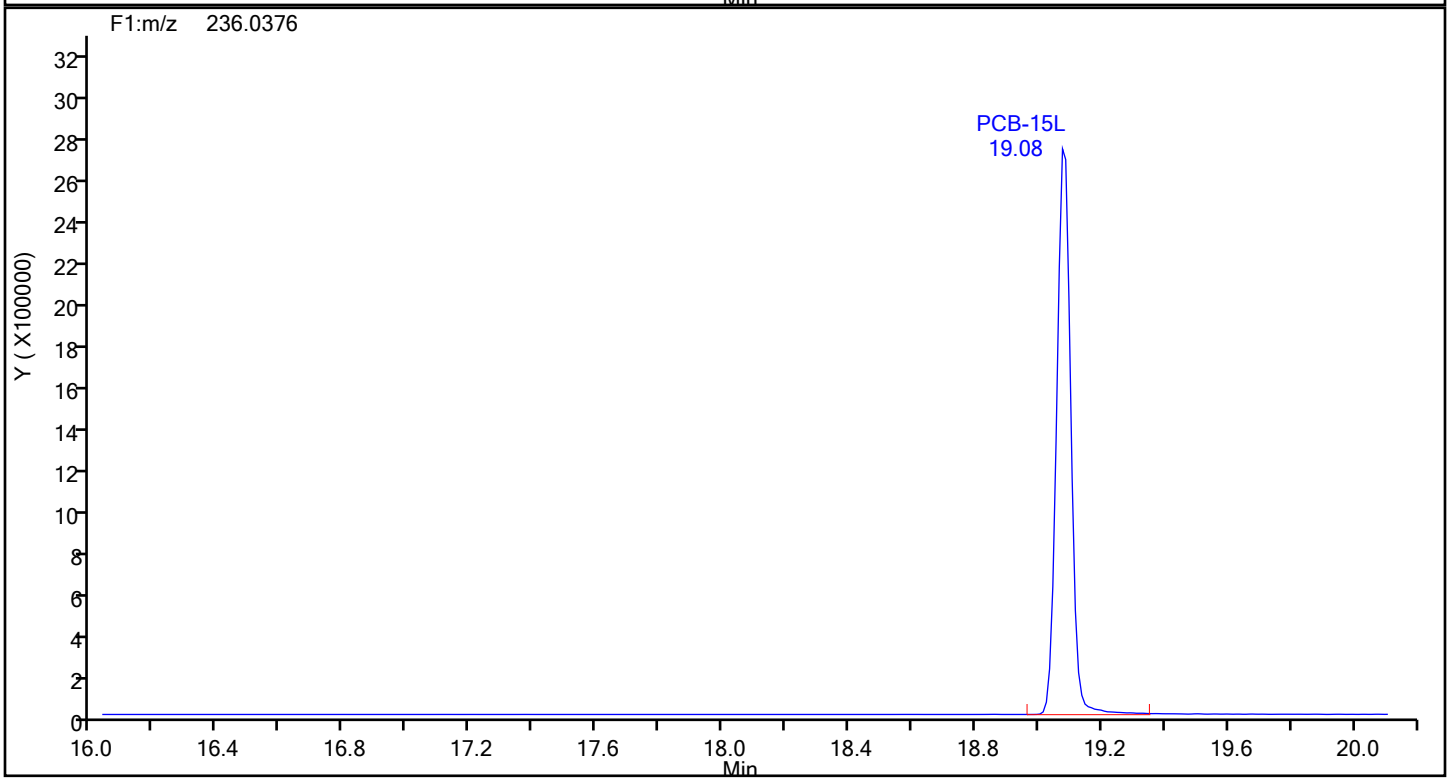
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





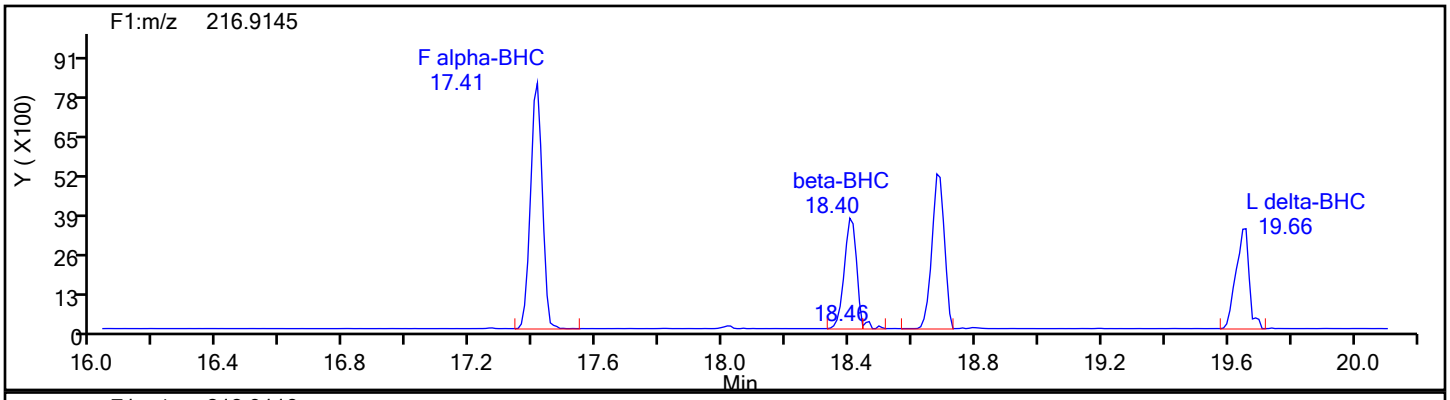
Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

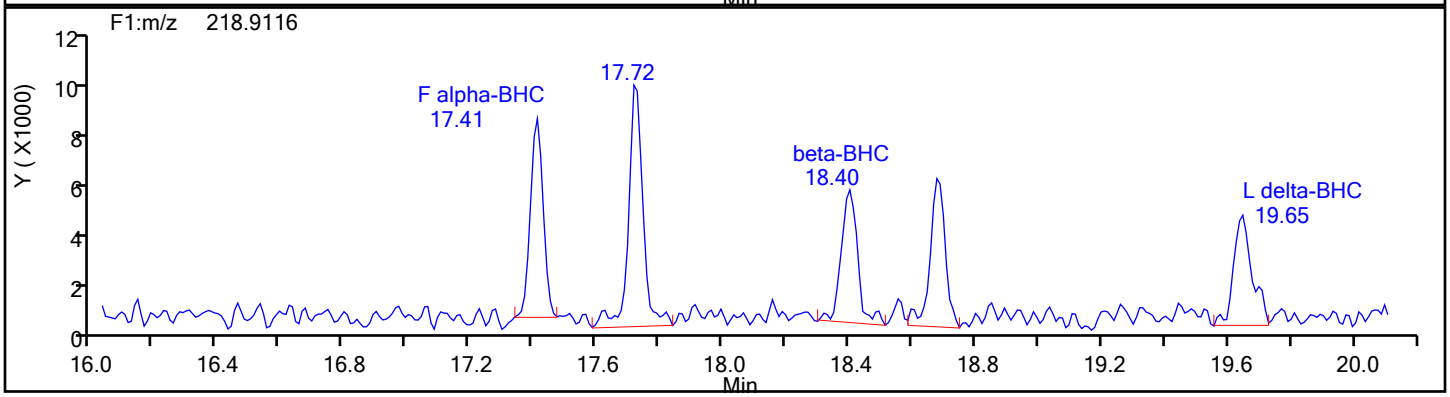
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

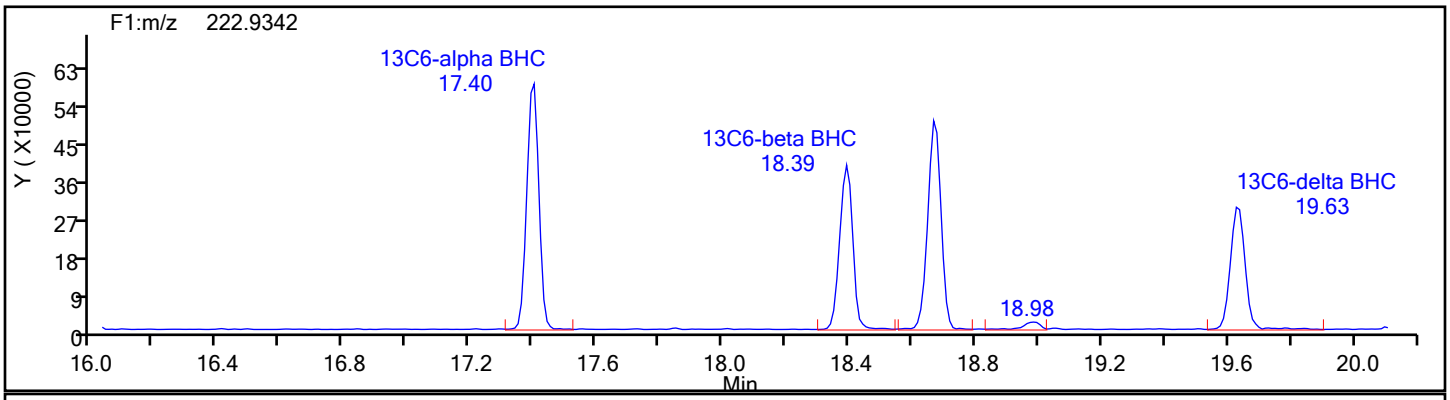
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

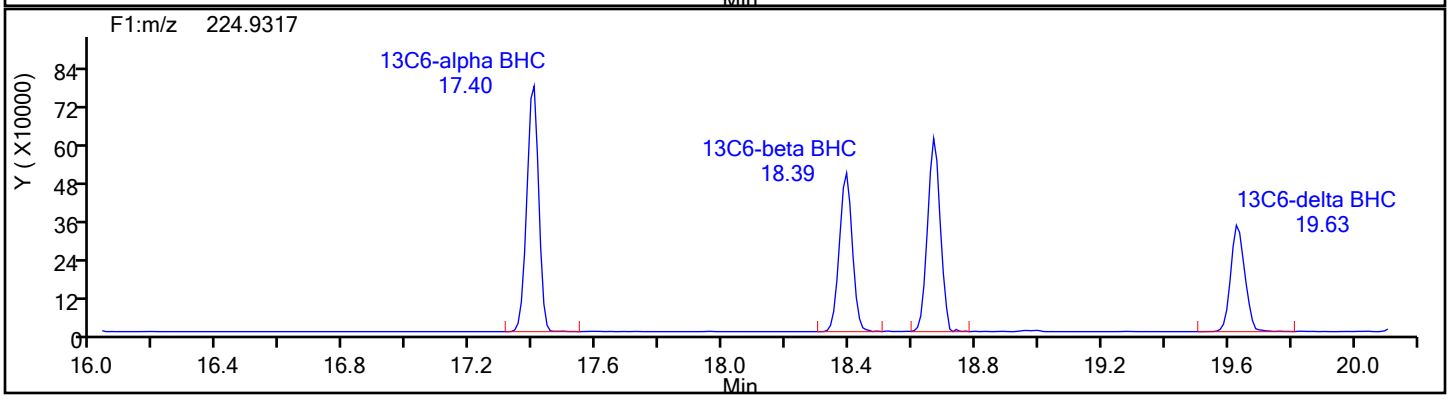
BHC





BHC Standards



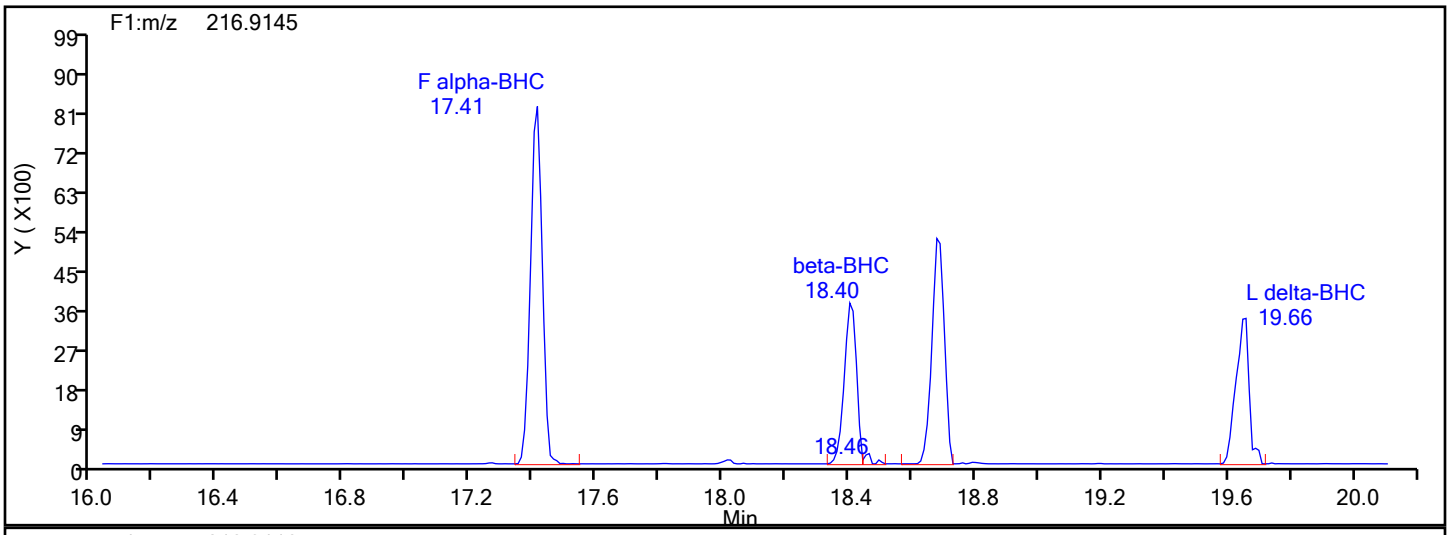


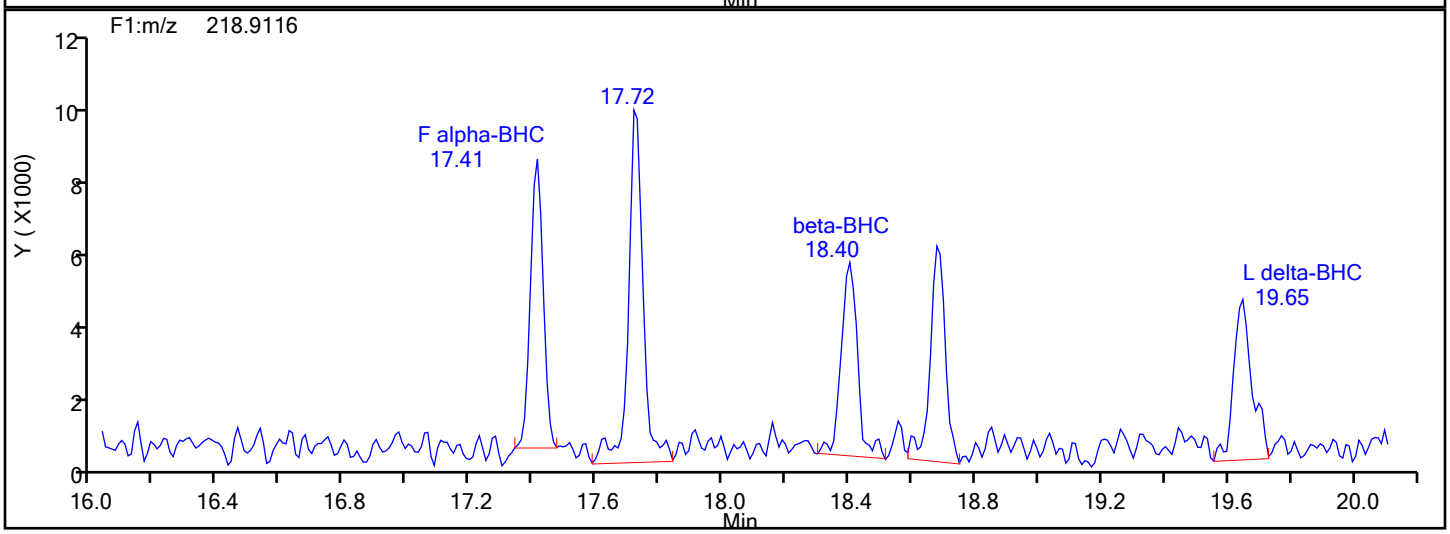
Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

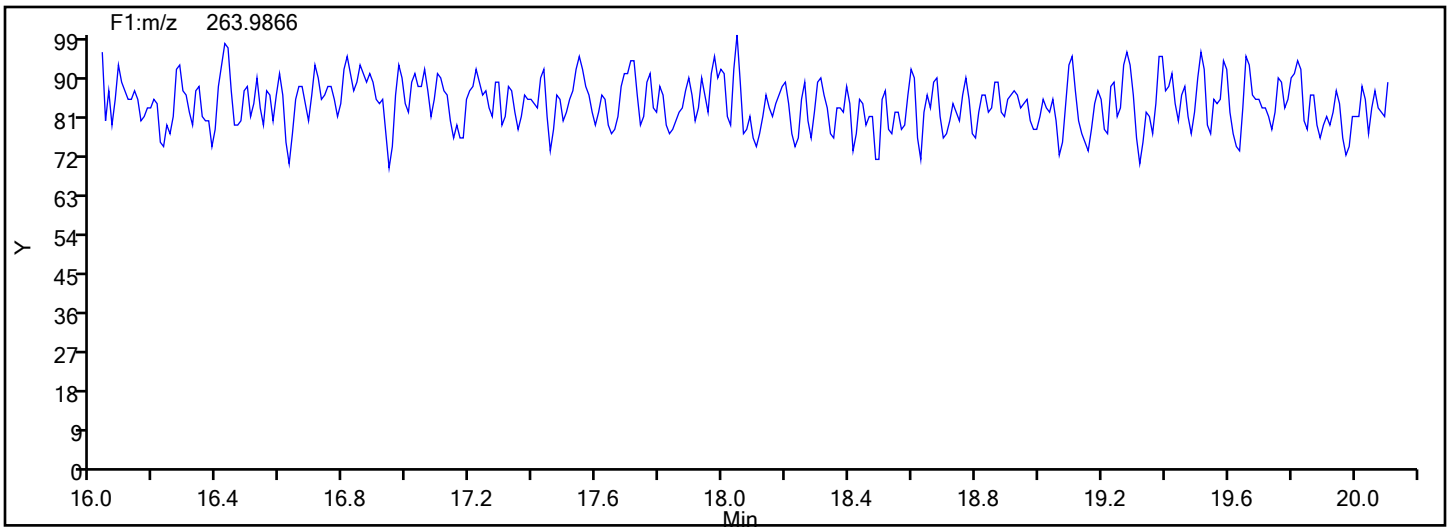
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

BHC





BHC Lock Mass



Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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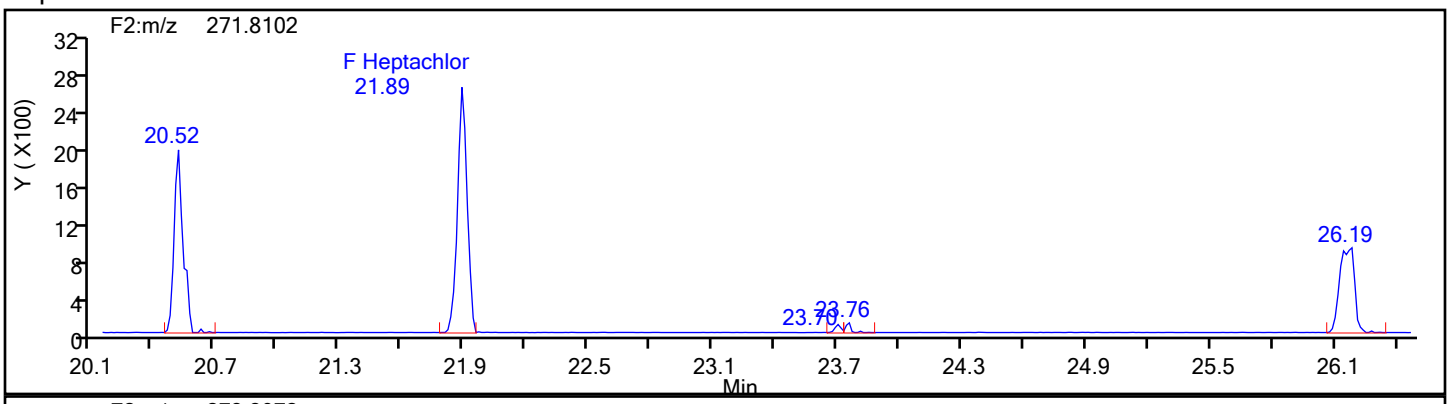
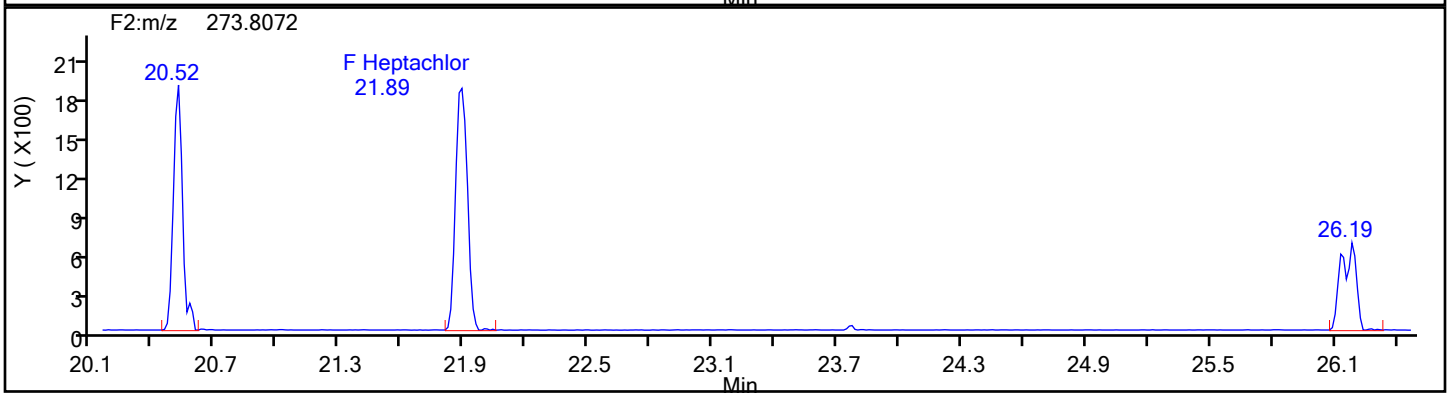
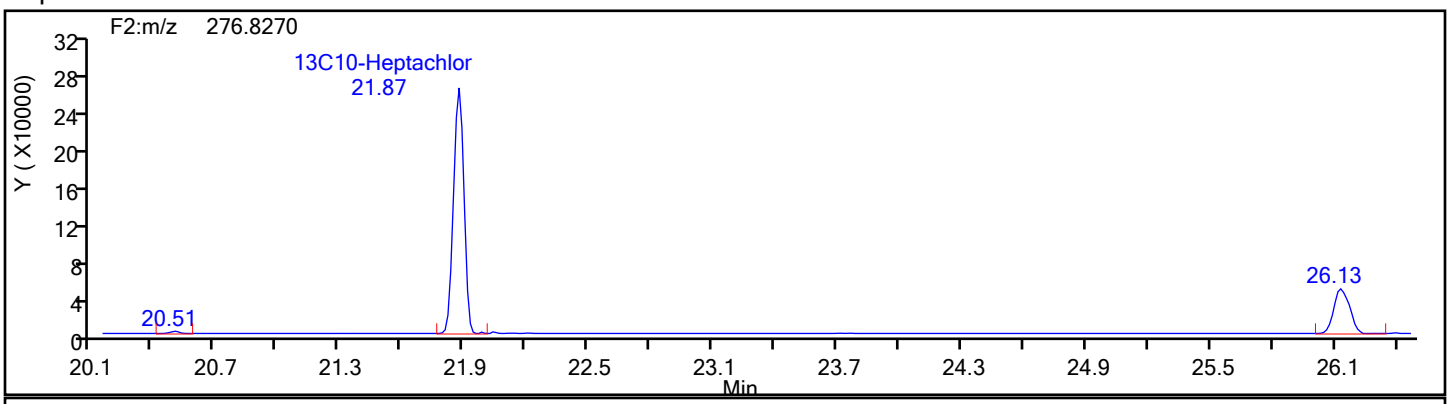
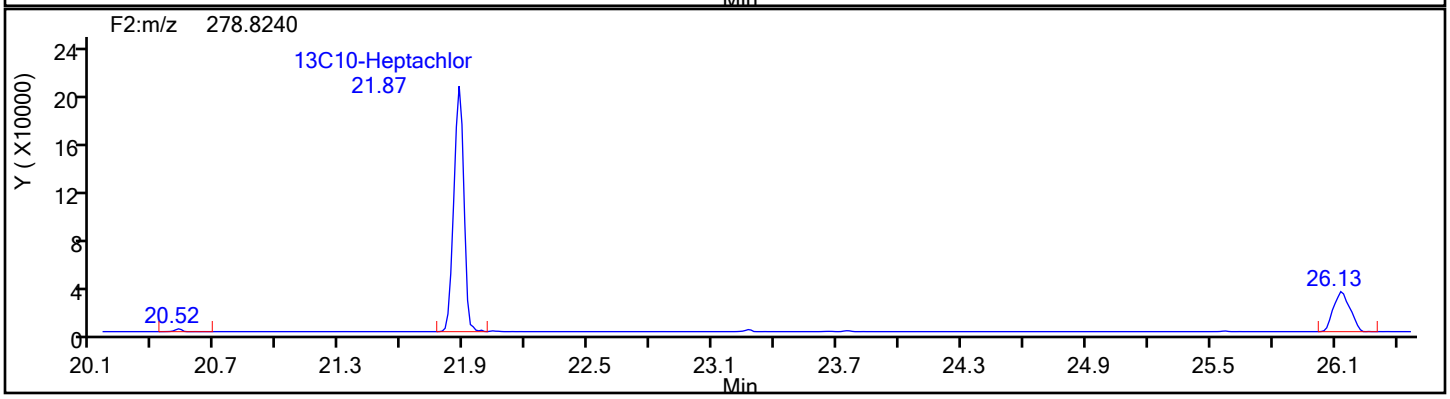
Heptachlor





Heptachlor Standards





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Eurofins Knoxville

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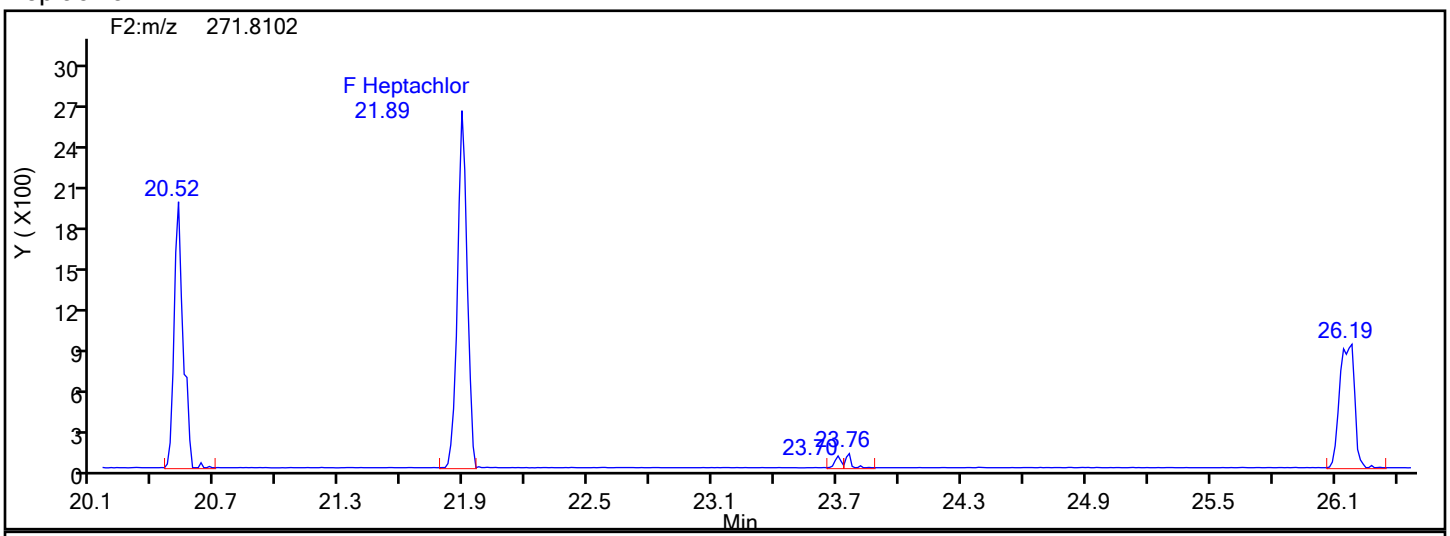
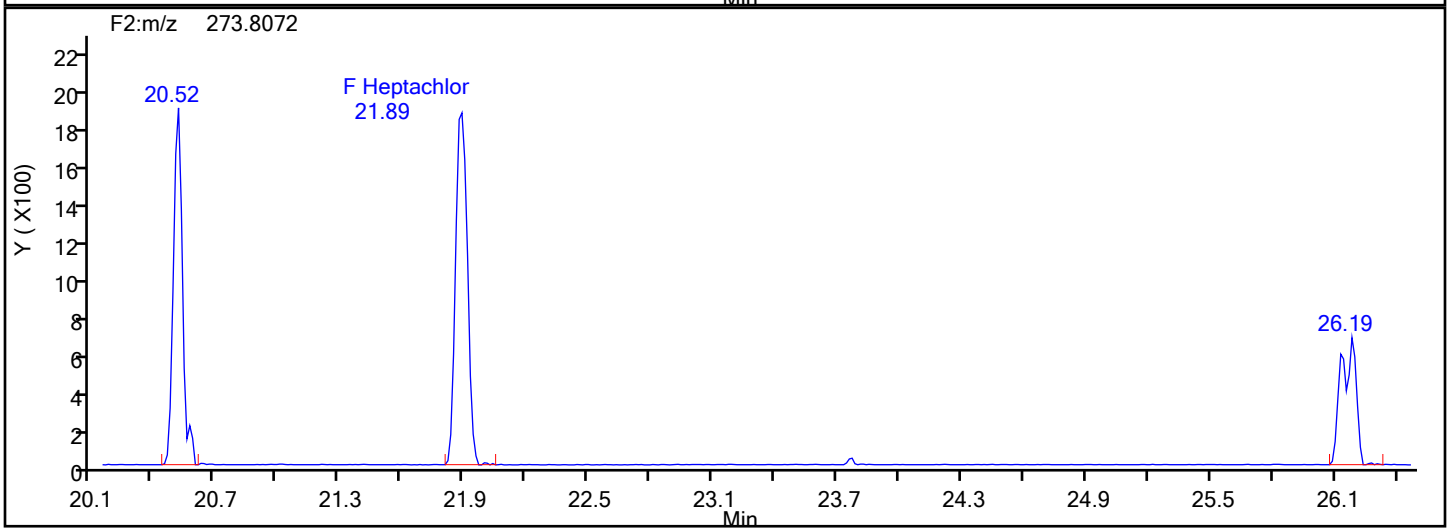
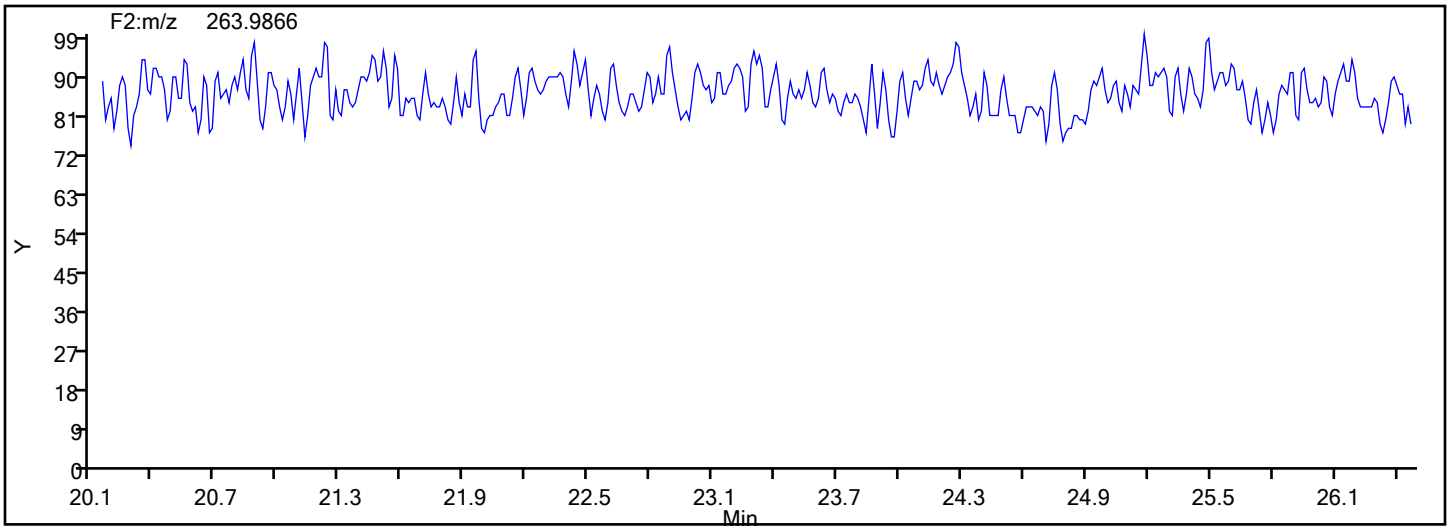
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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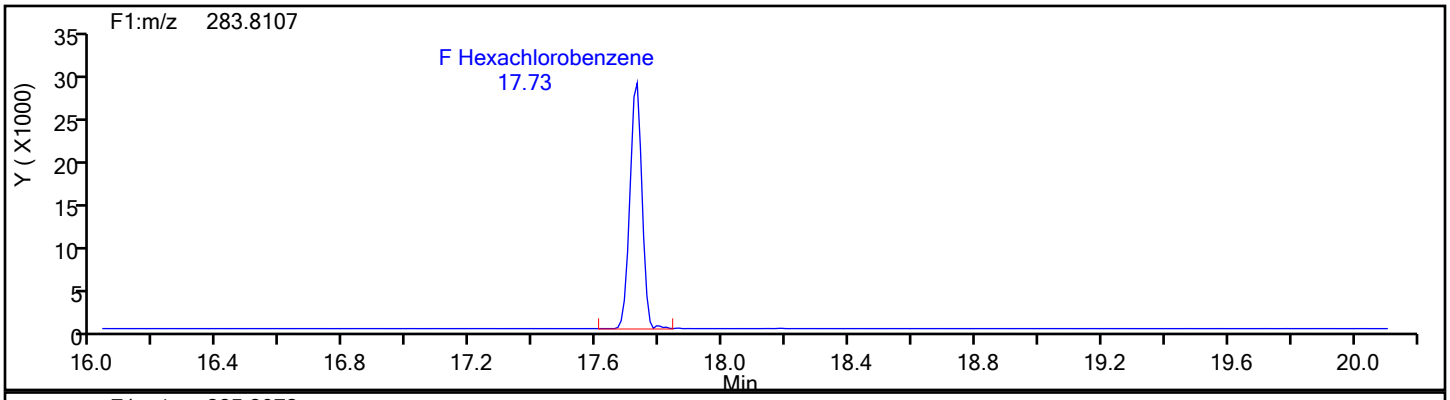
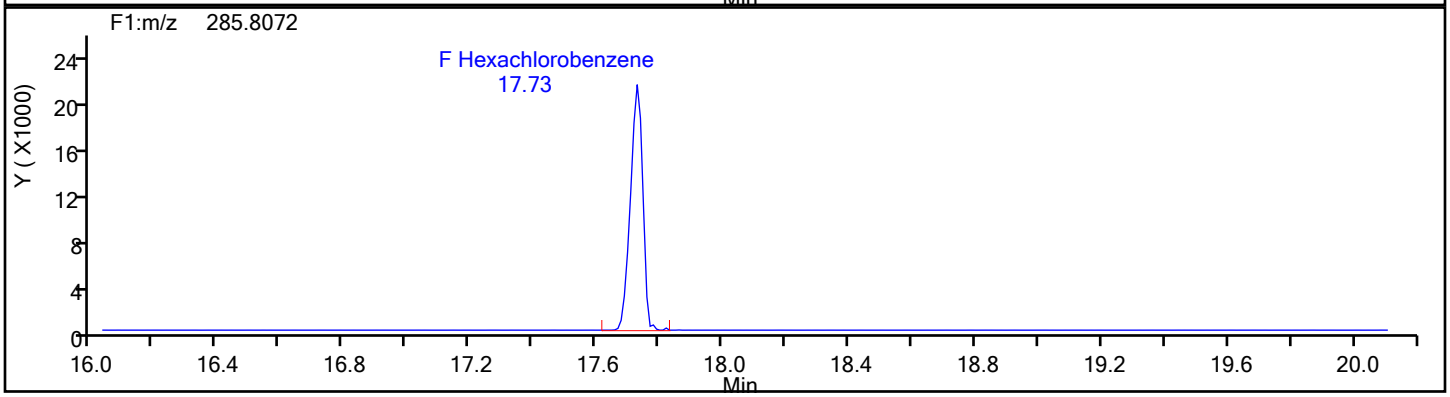
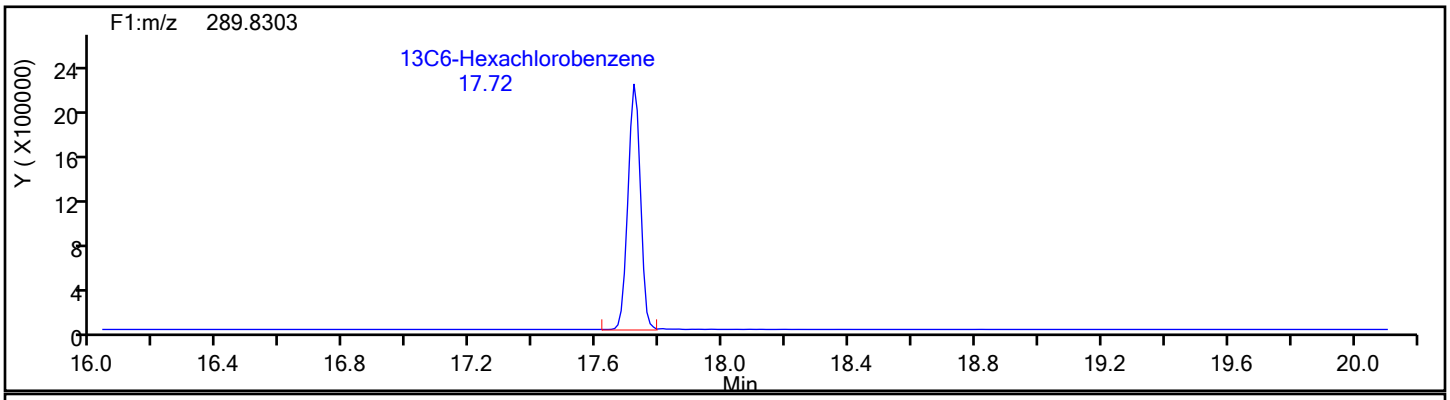
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

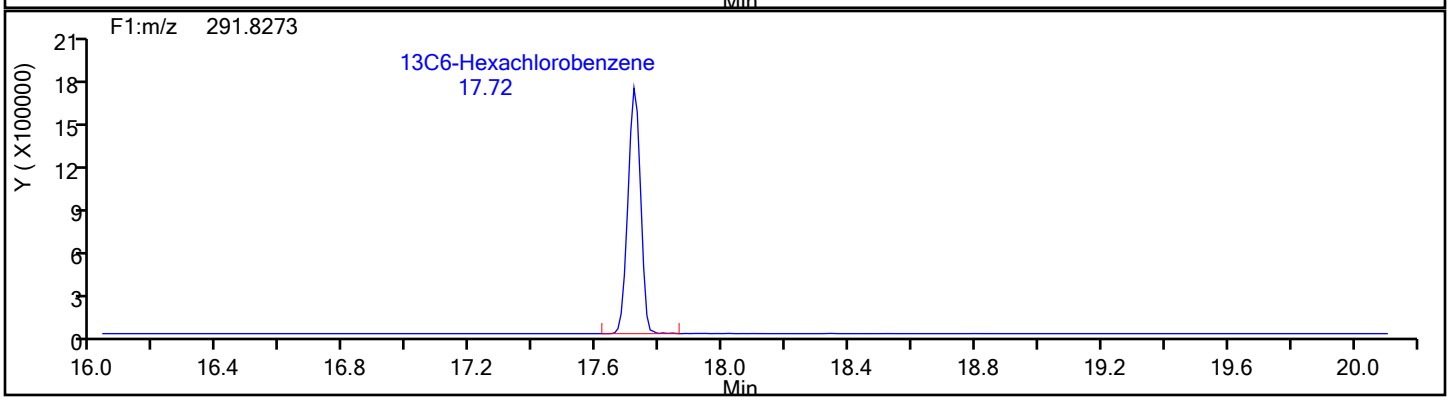
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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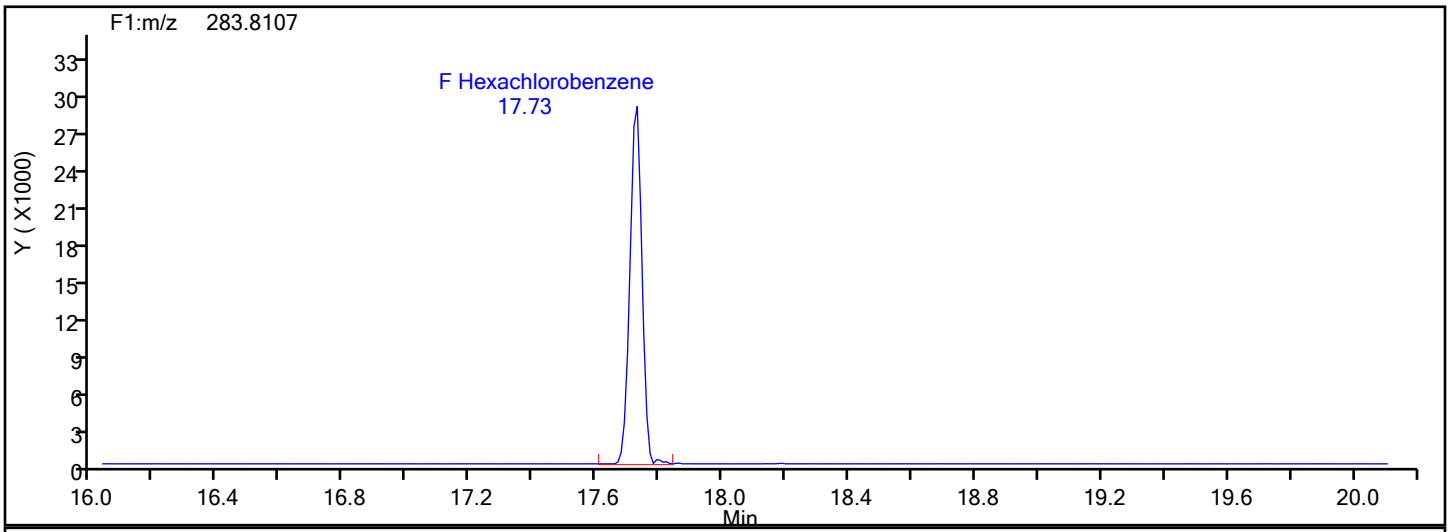
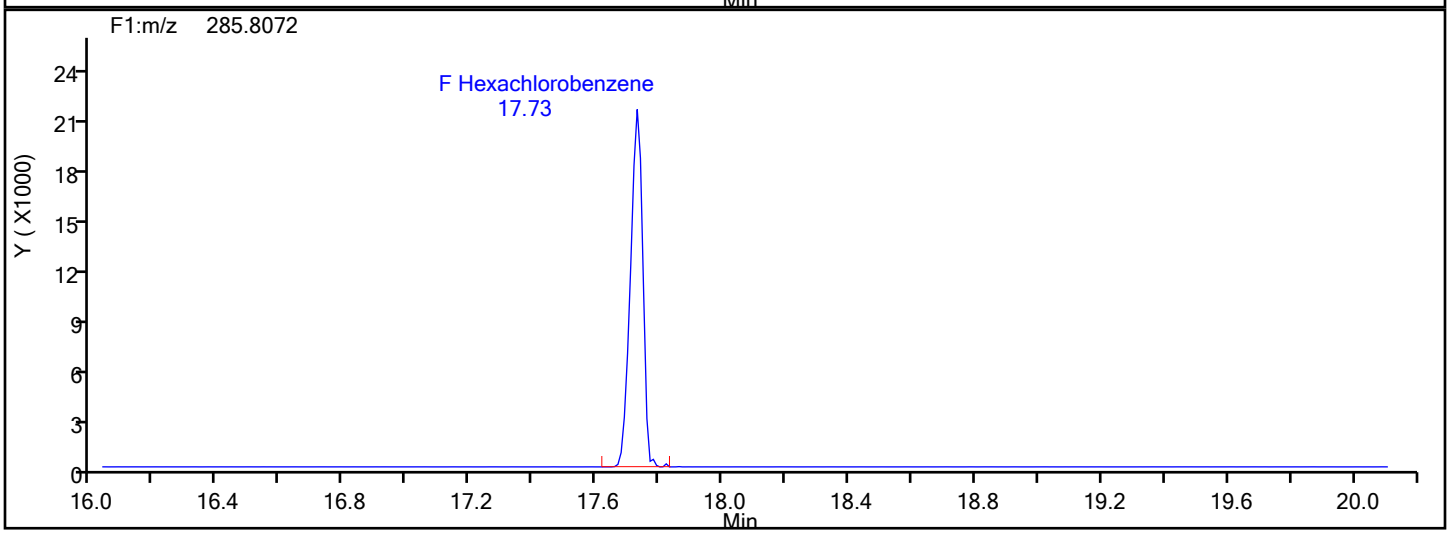
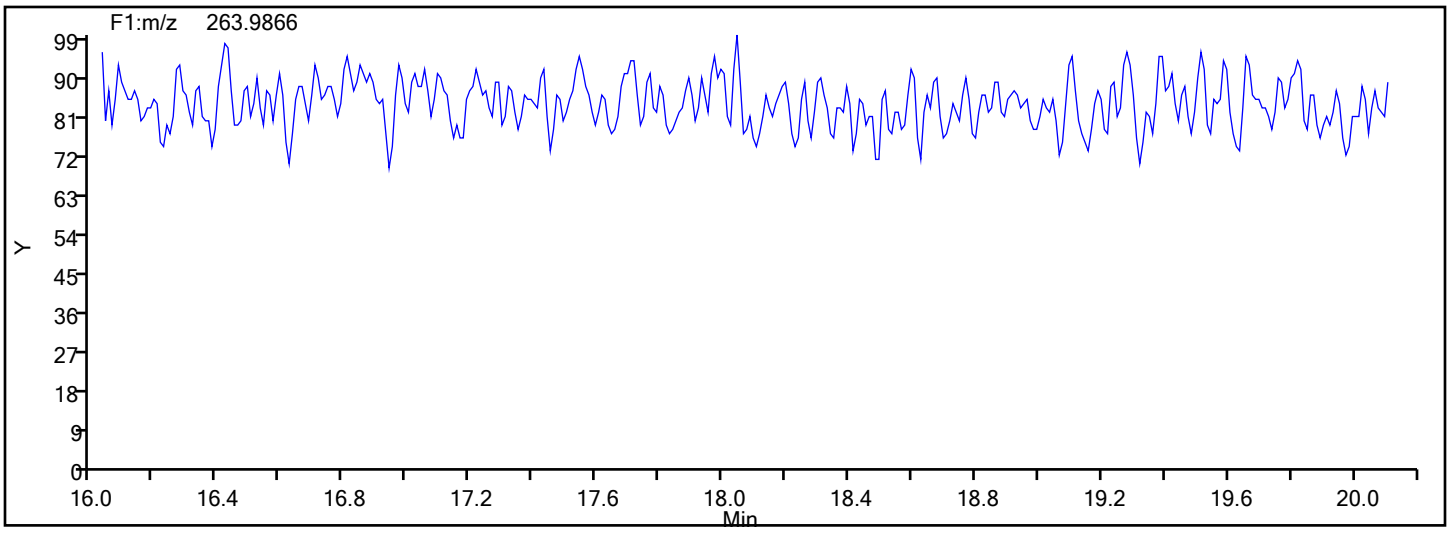
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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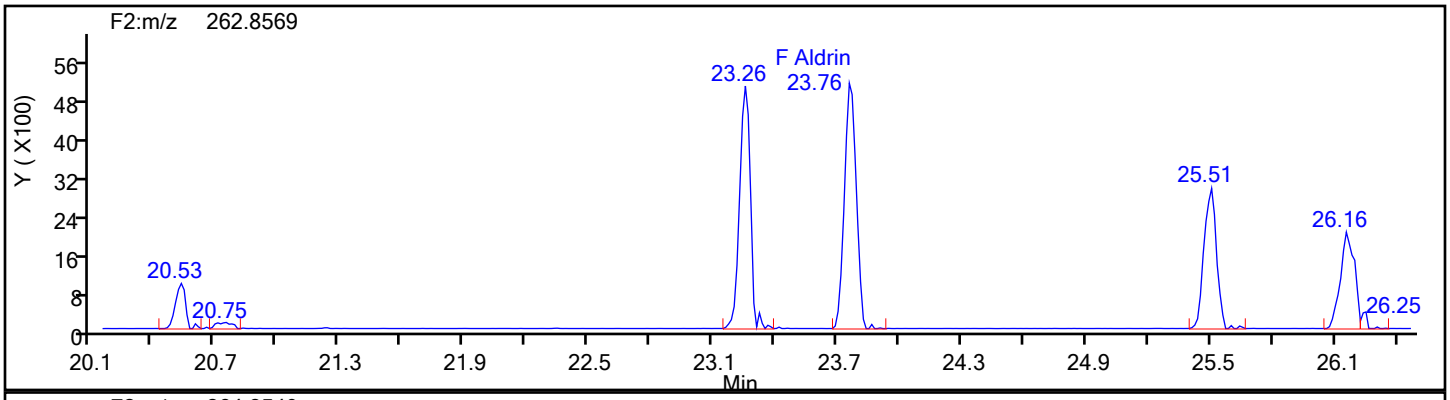
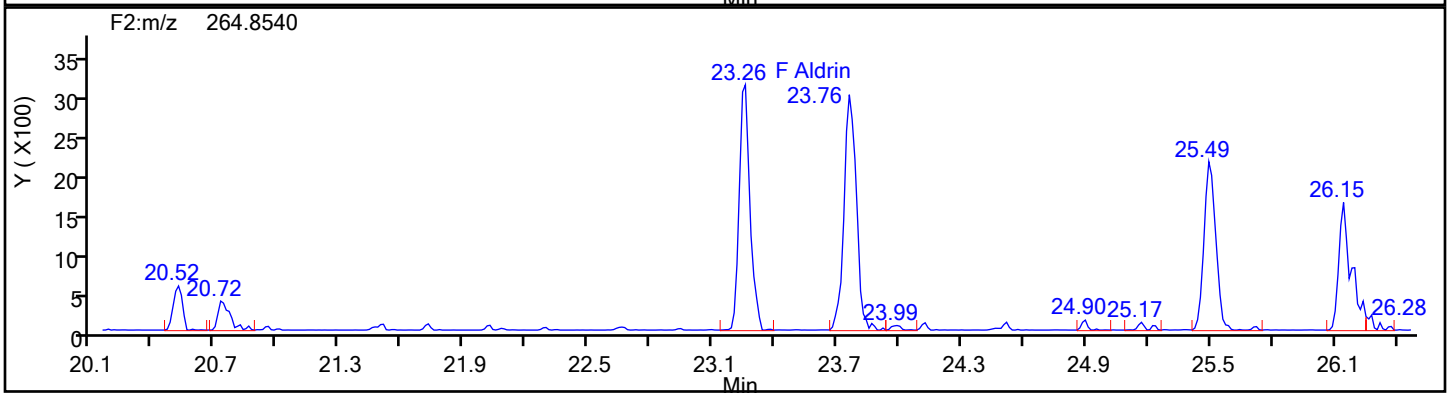
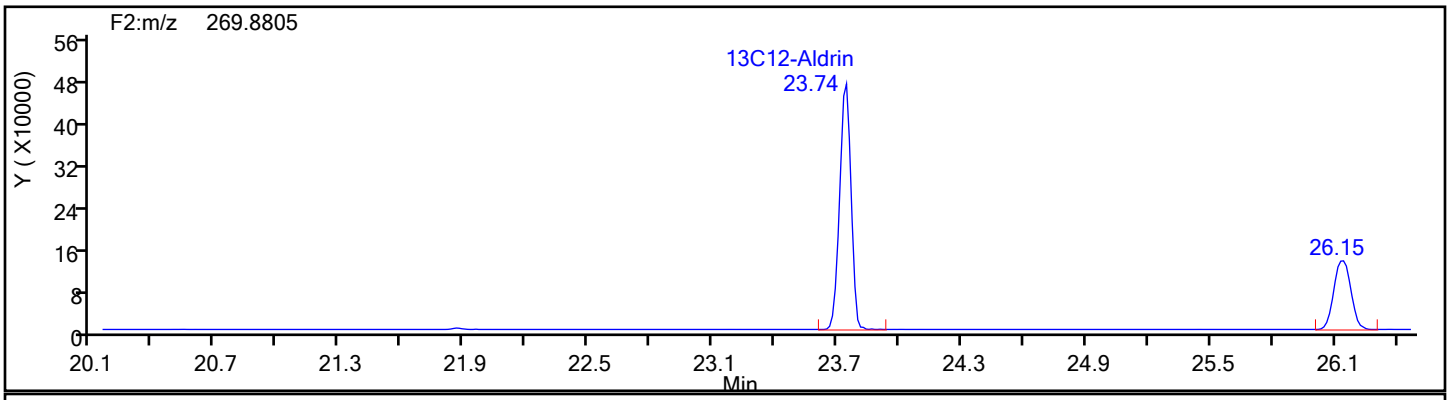
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

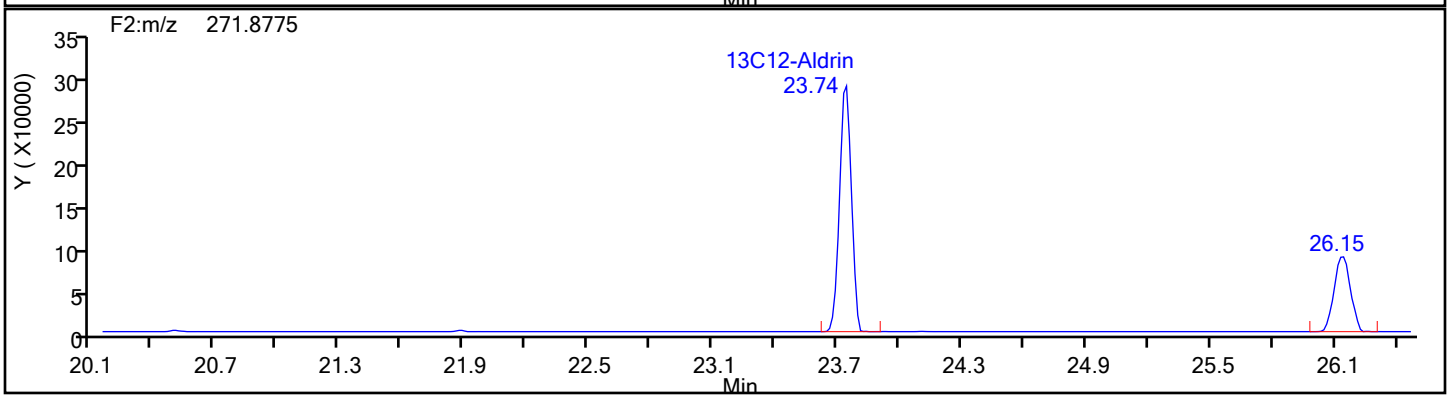
Aldrin





Aldrin Standards





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Eurofins Knoxville

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Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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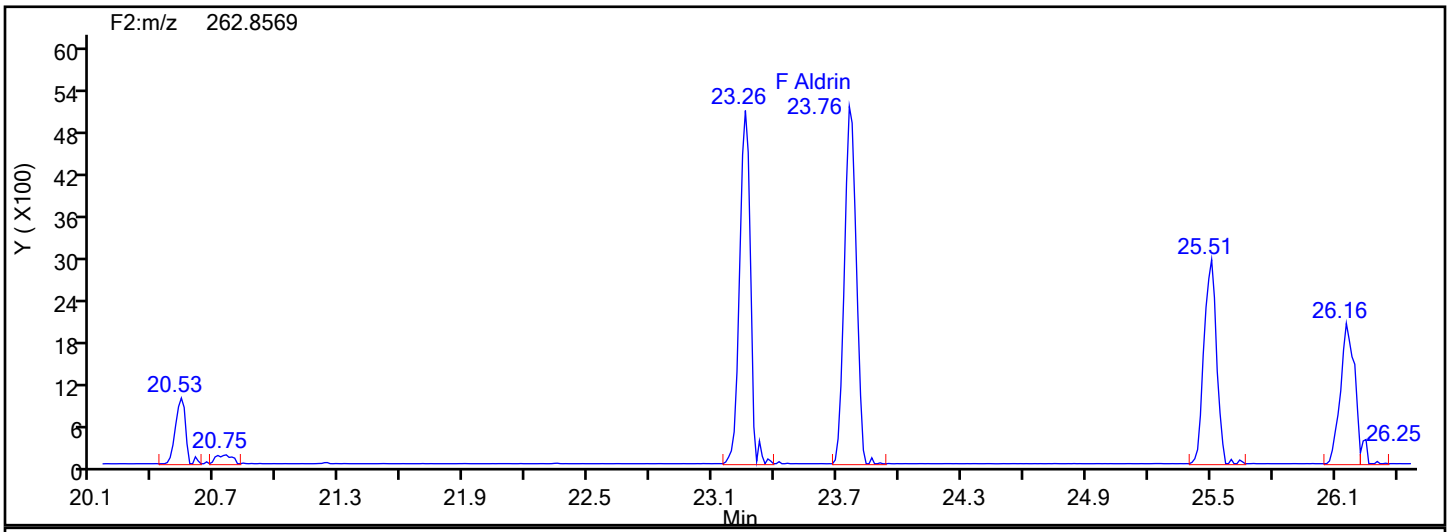
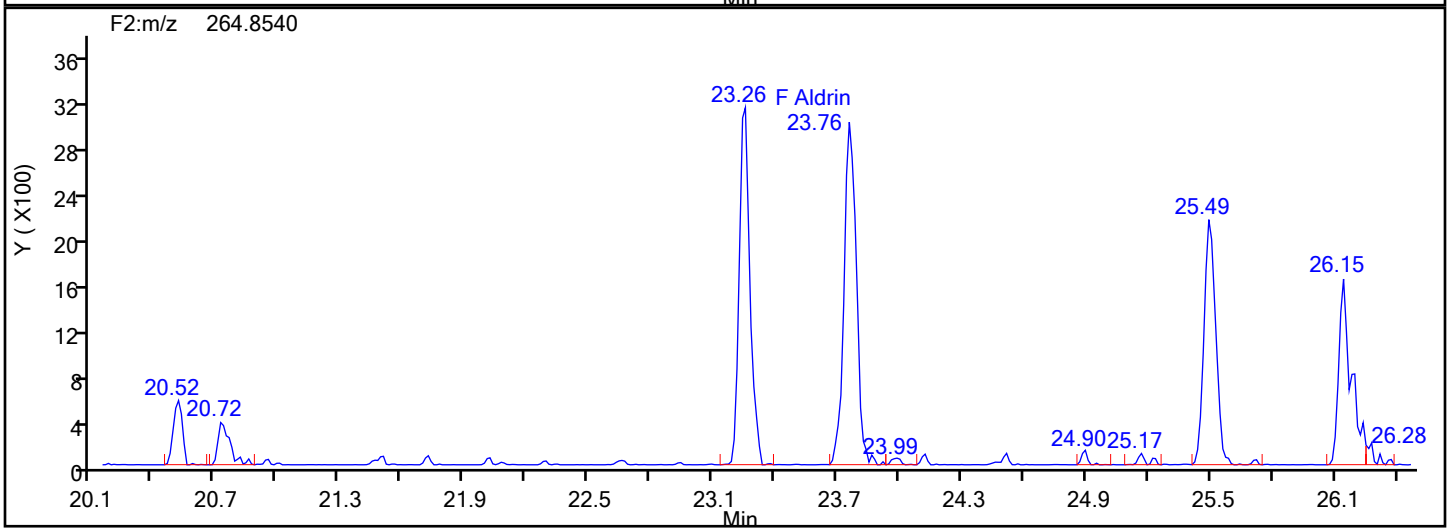
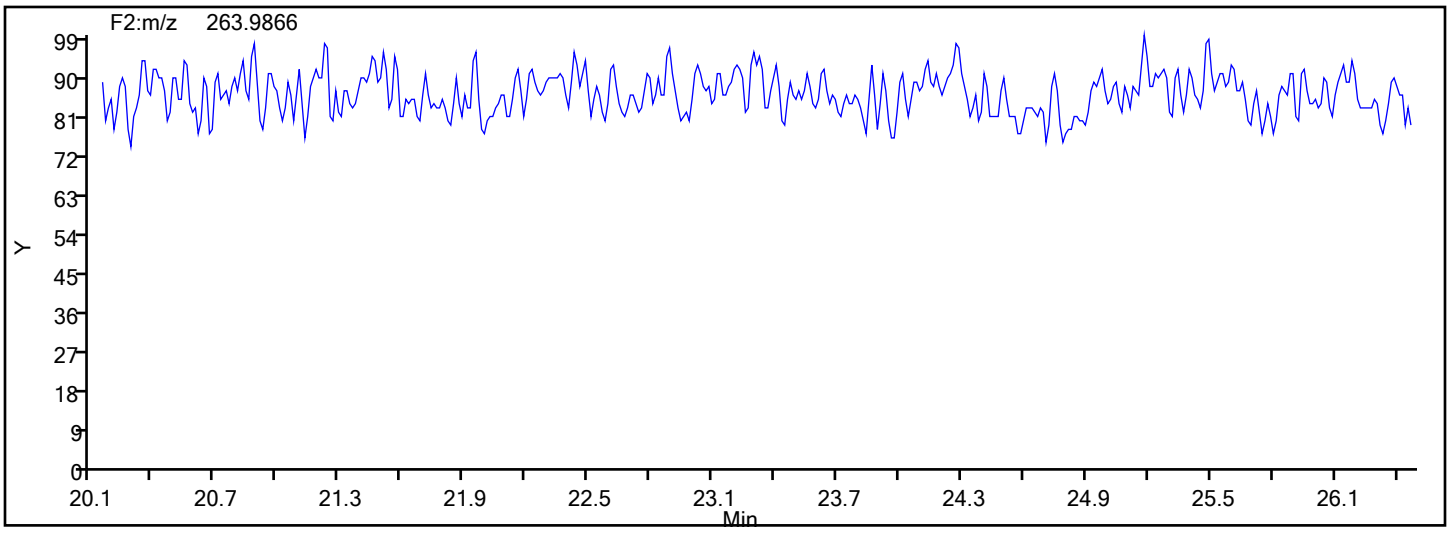




Aldrin Lock Mass



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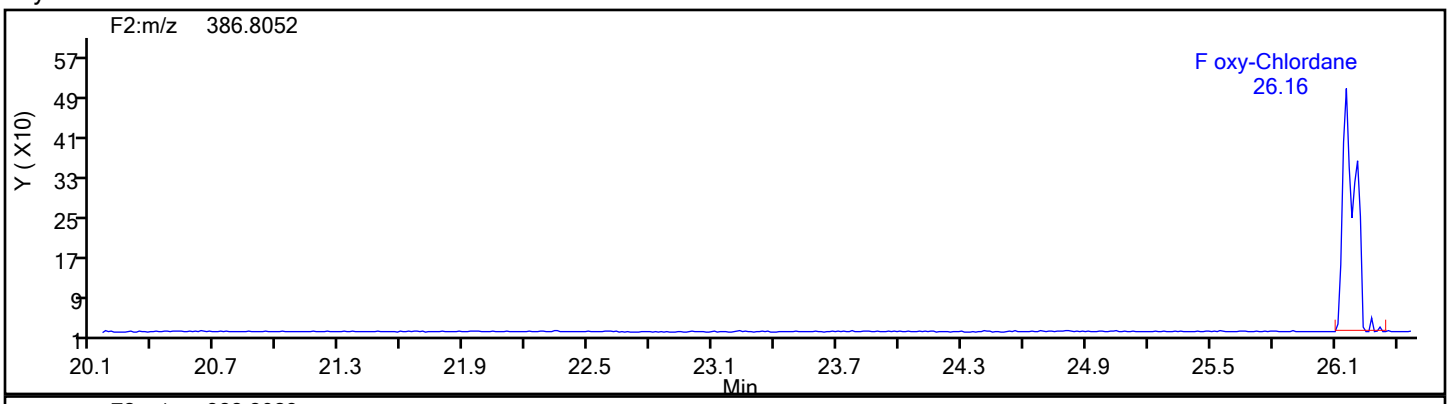
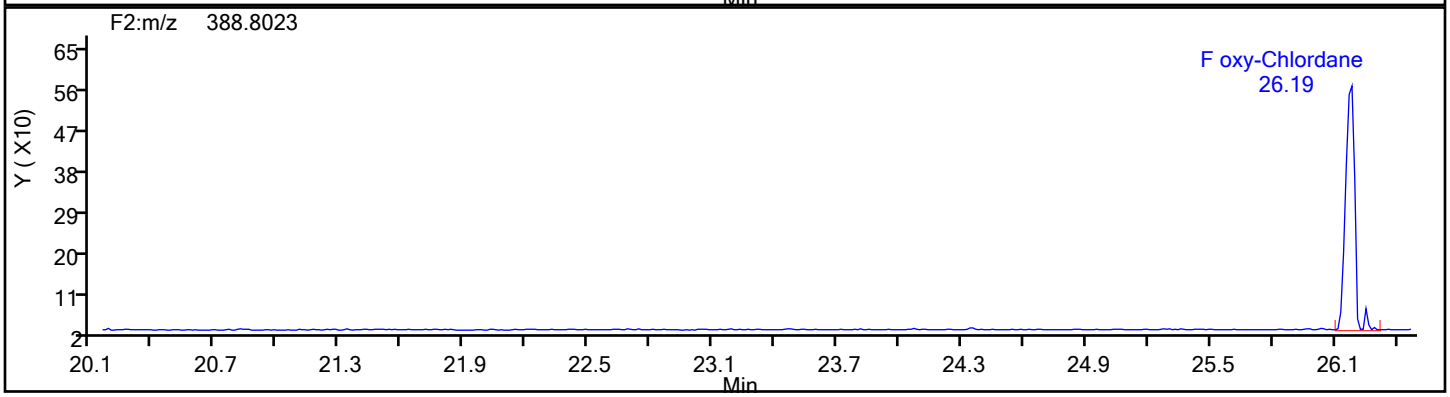
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

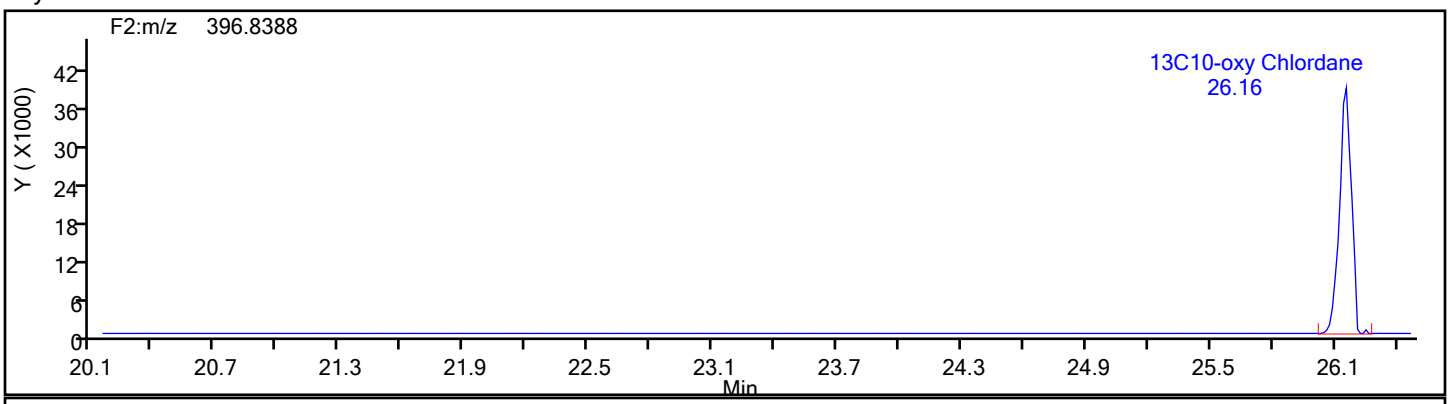
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

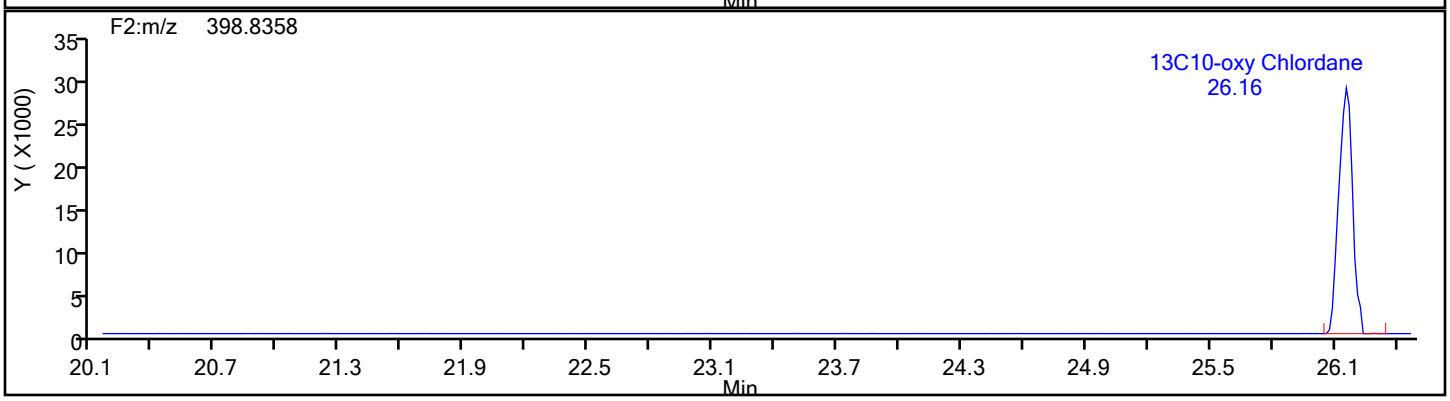
oxy-Chlordane





oxy-Chlordane Standards





Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Client ID:
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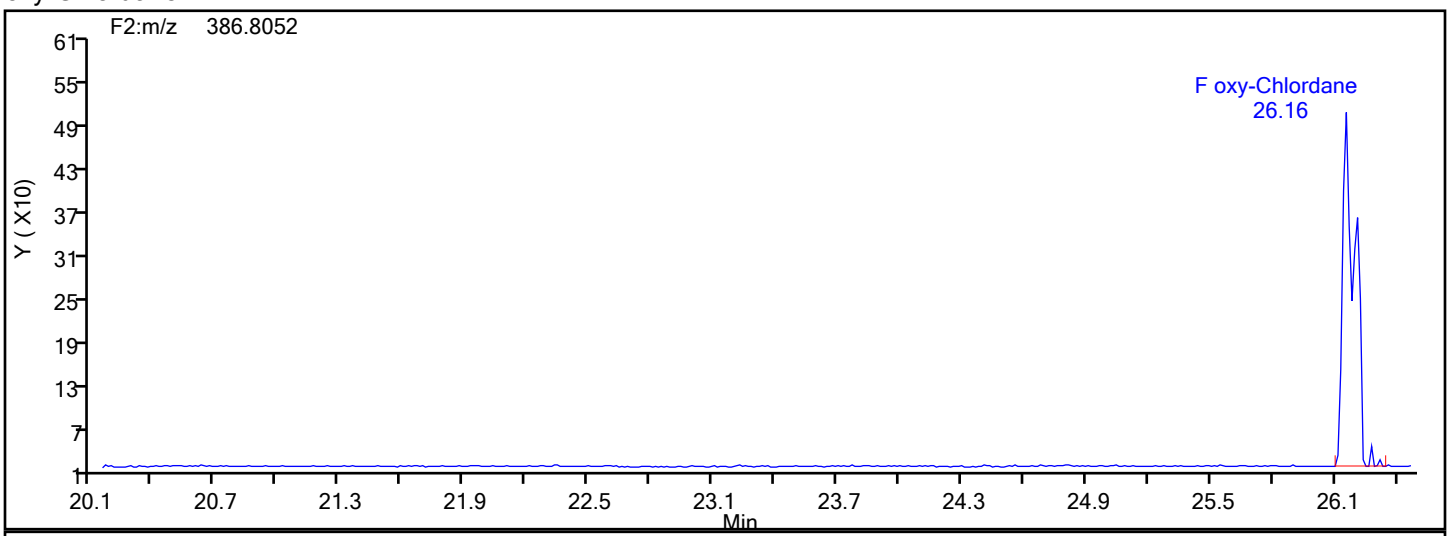
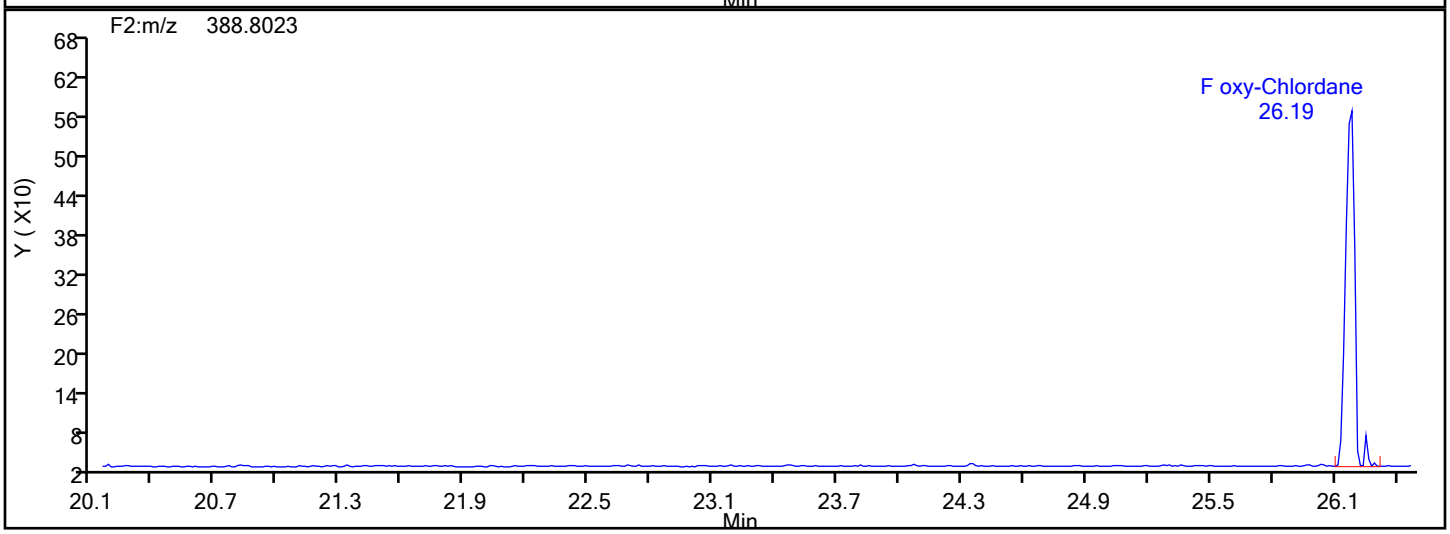
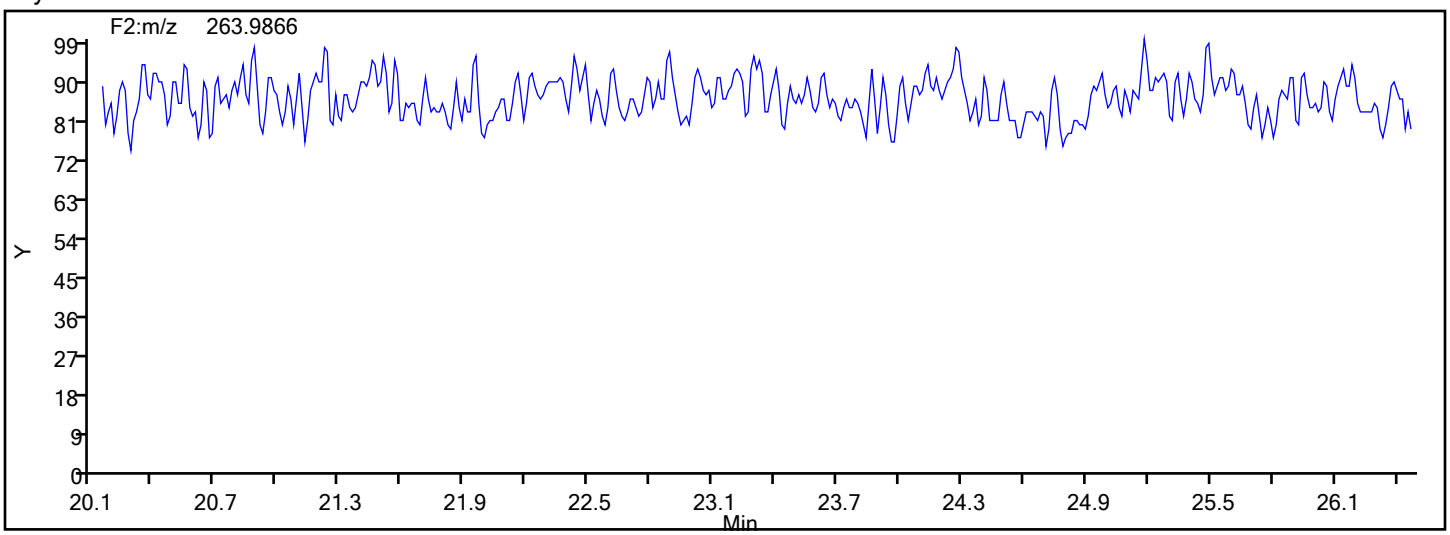
Column Type: RTX-5 Column Dia: 0.32 mm

oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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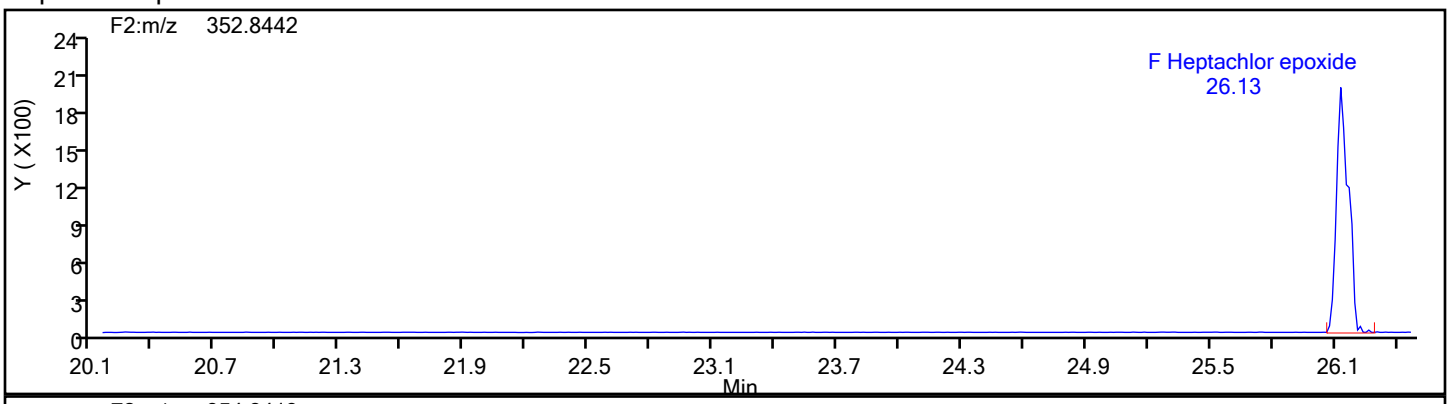
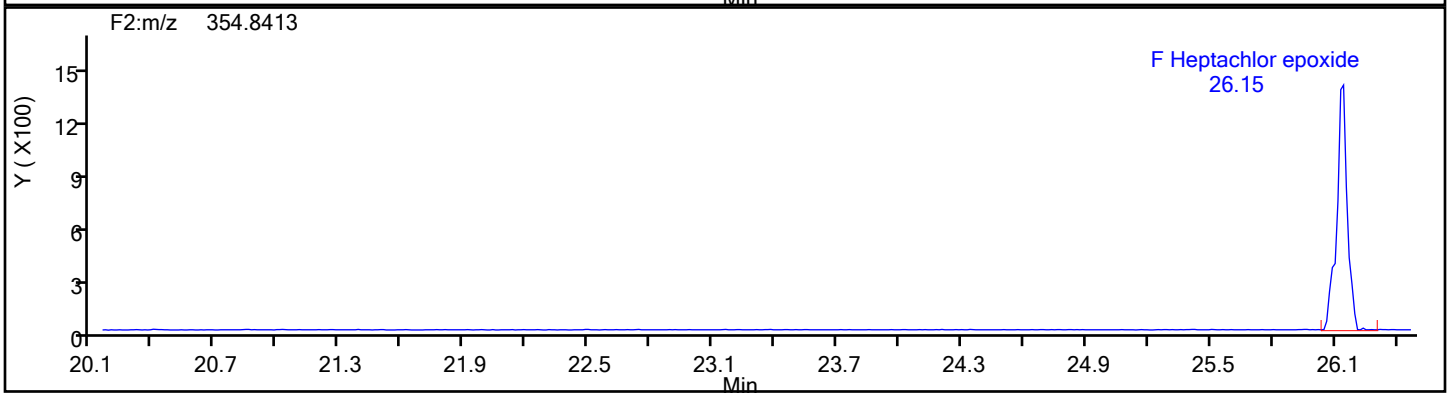
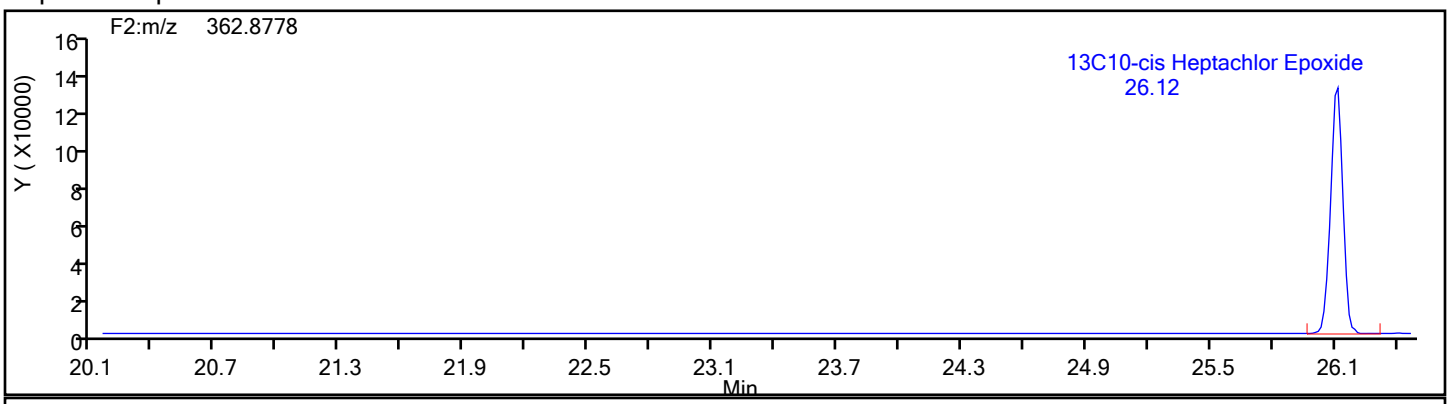
Column Type:	RTX-5	Column Dia:	0.32 mm

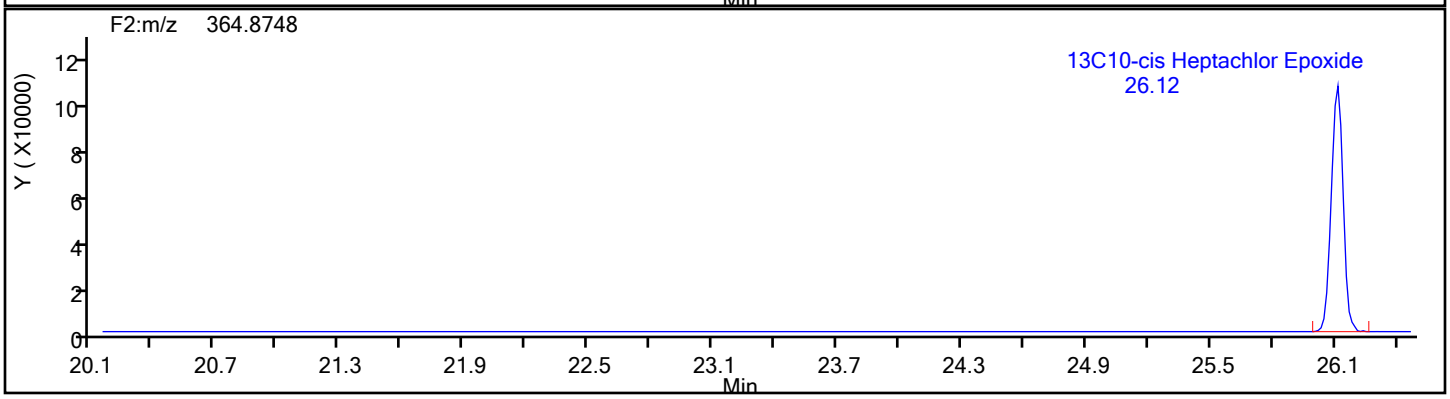
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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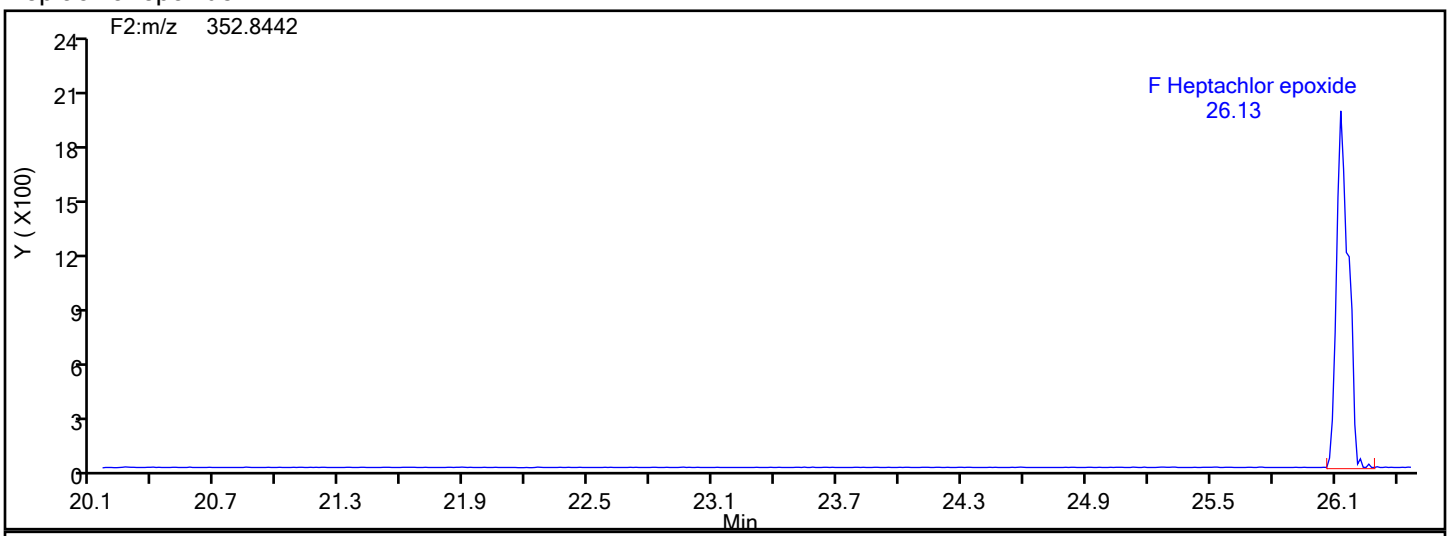
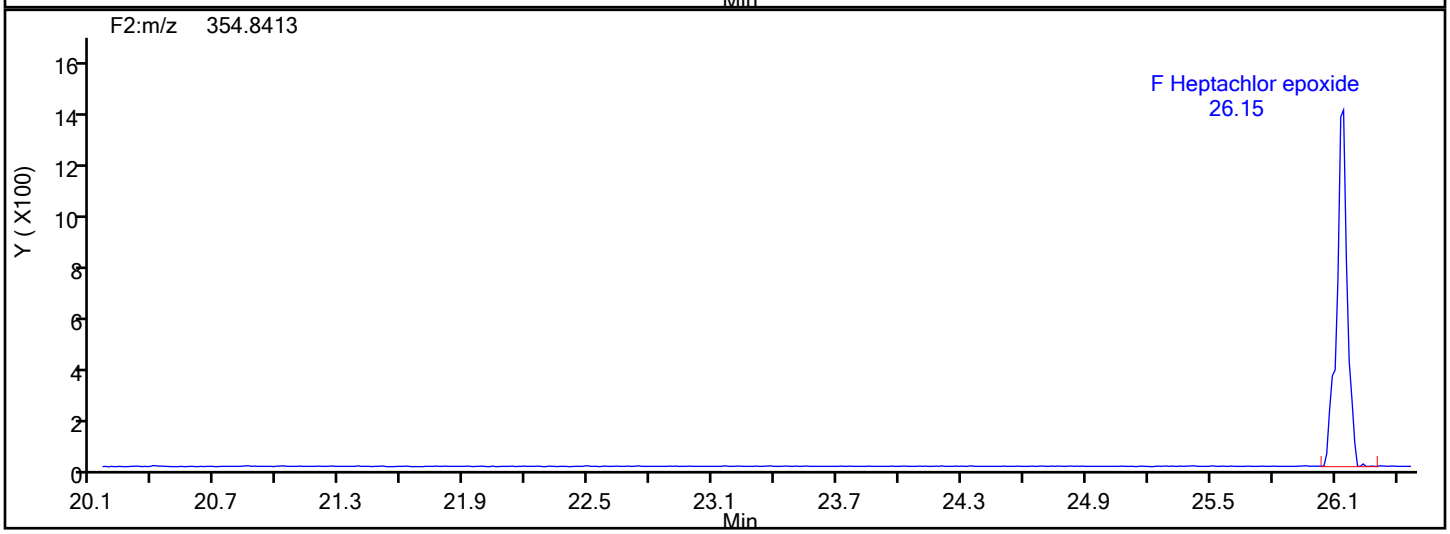
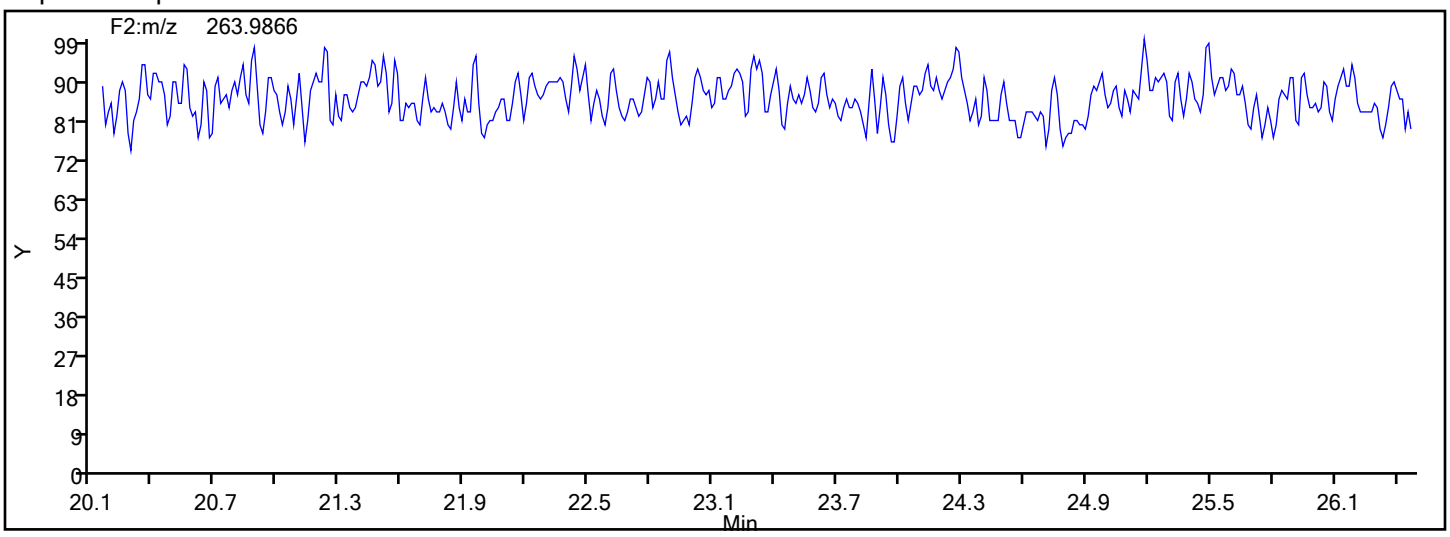
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
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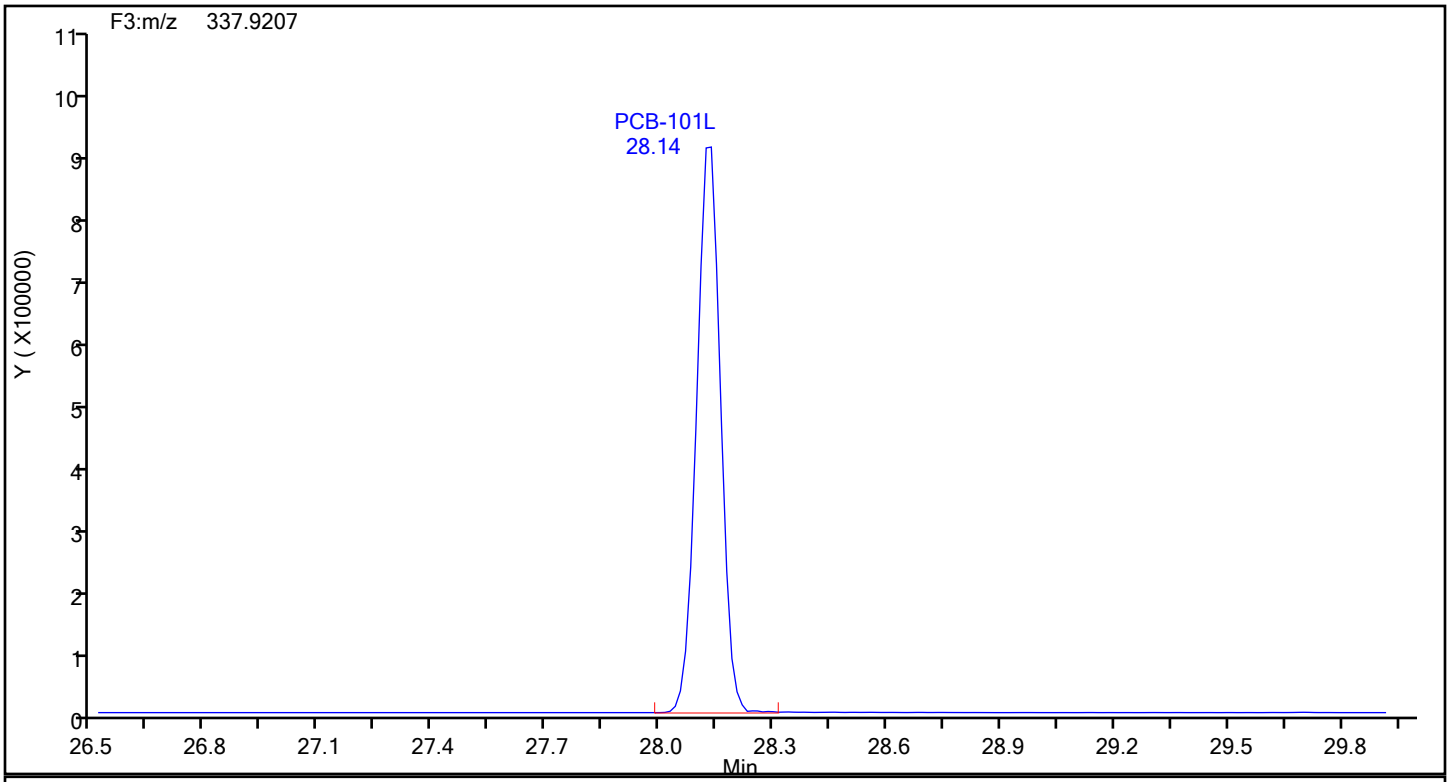
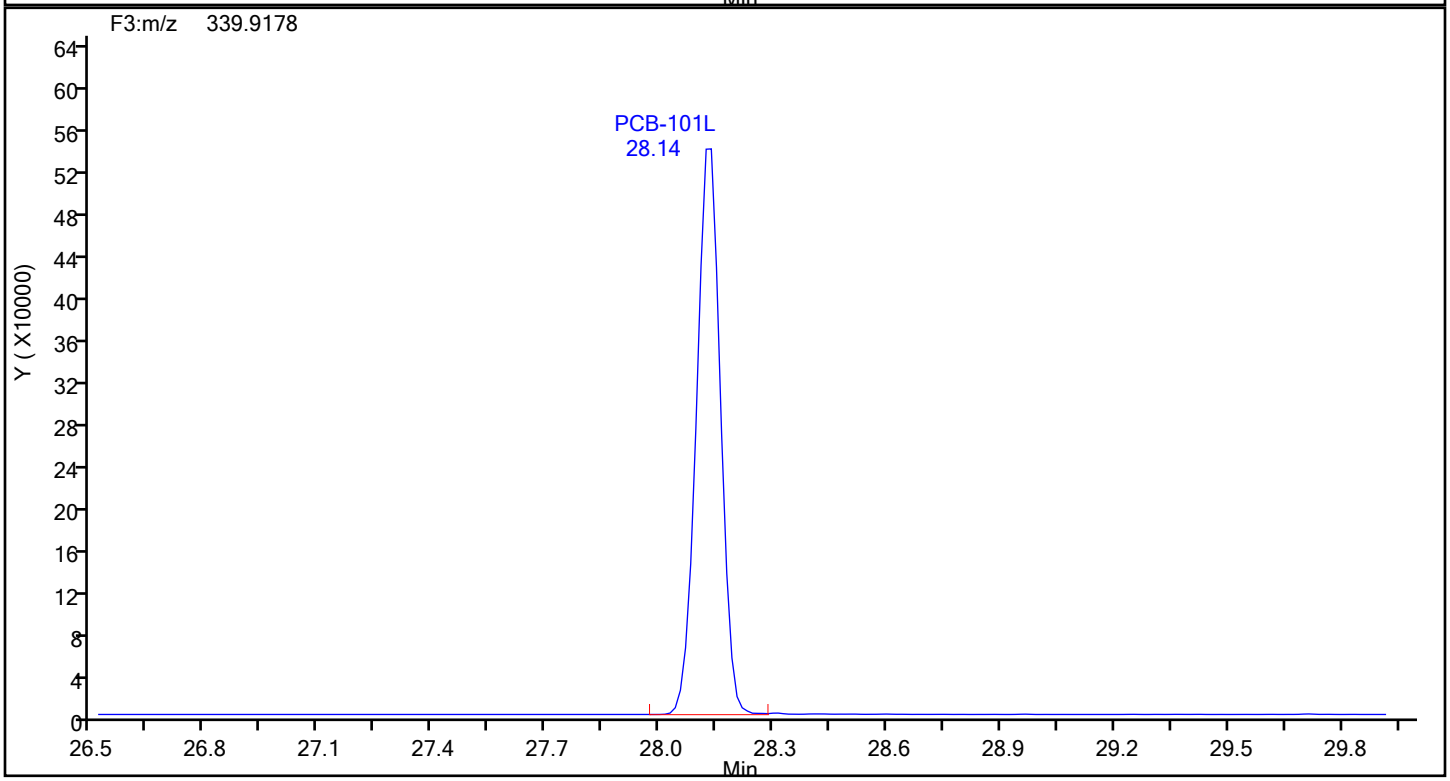
PCB-101L Standards





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Eurofins Knoxville

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Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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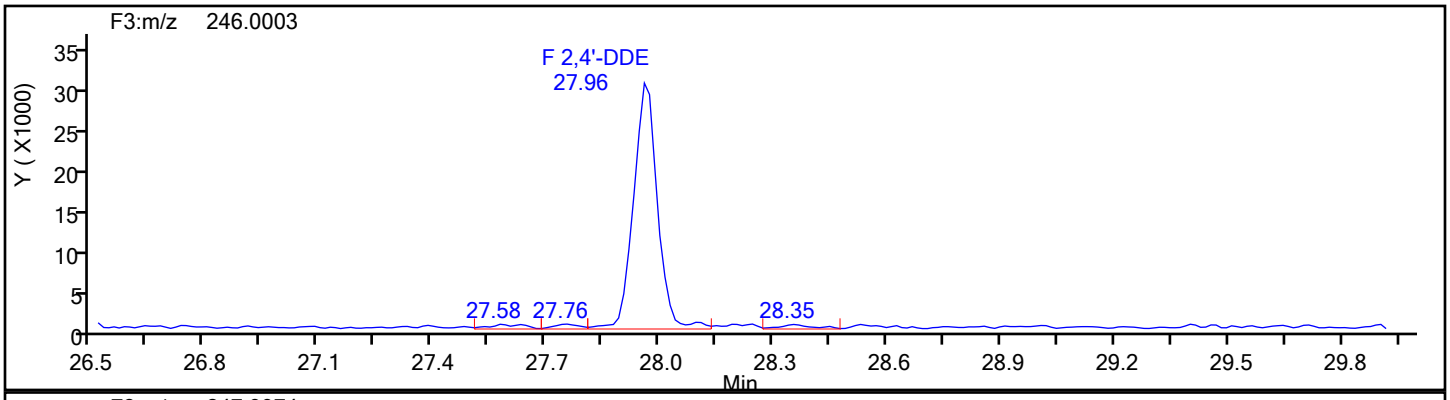
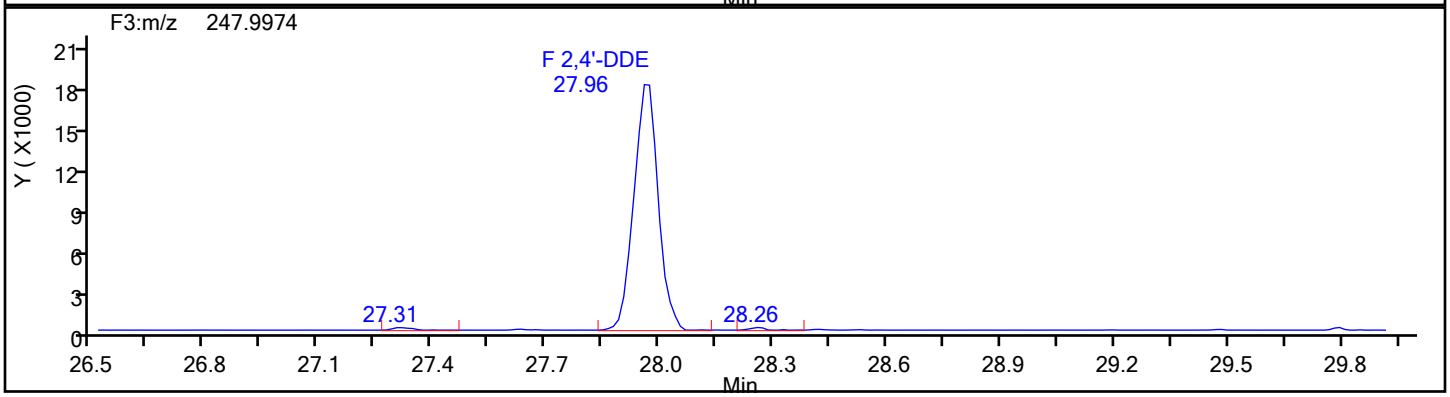
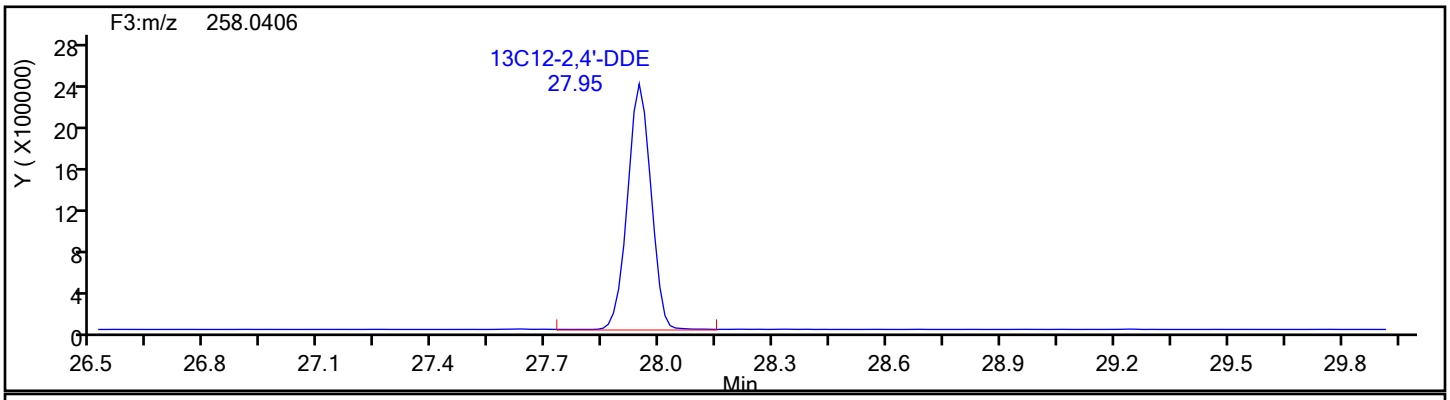
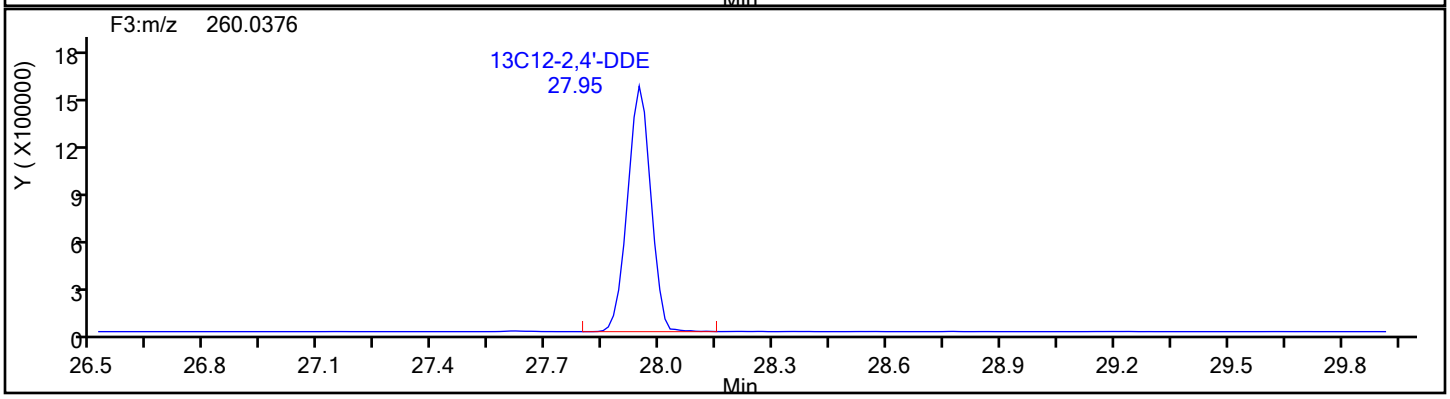
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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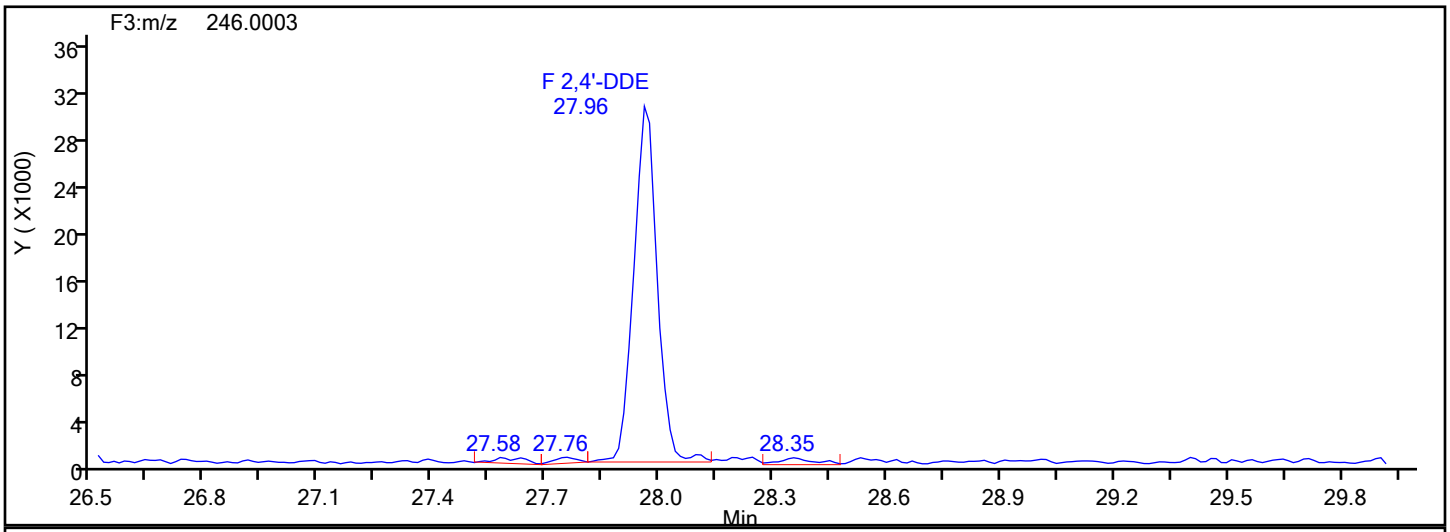
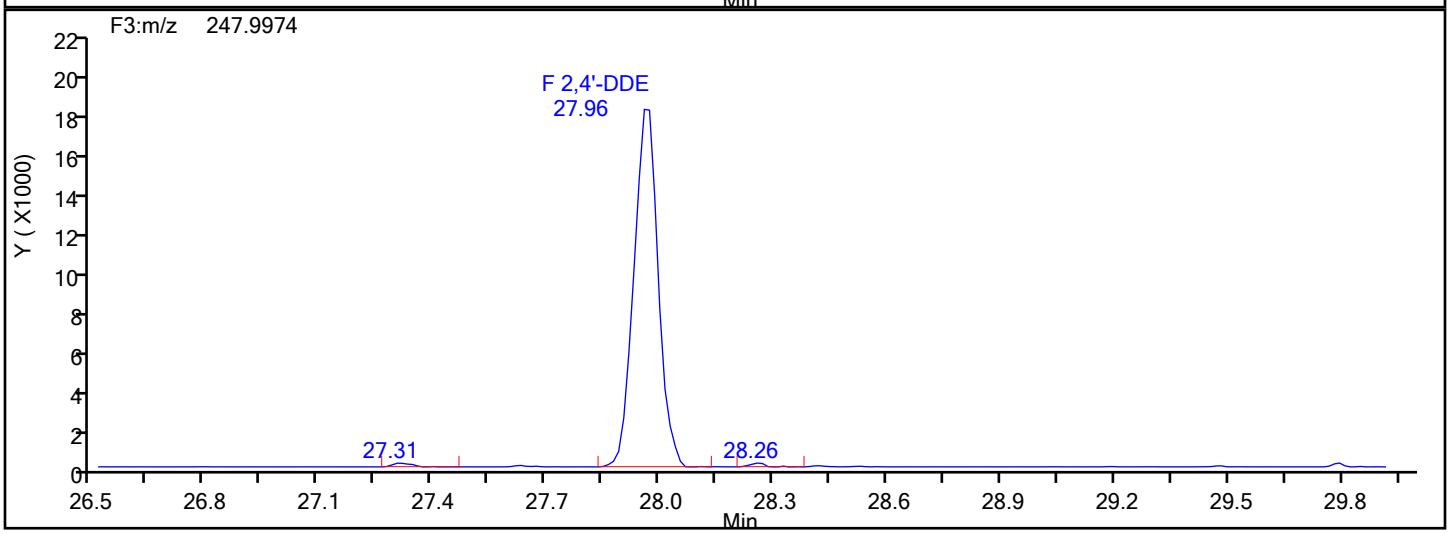
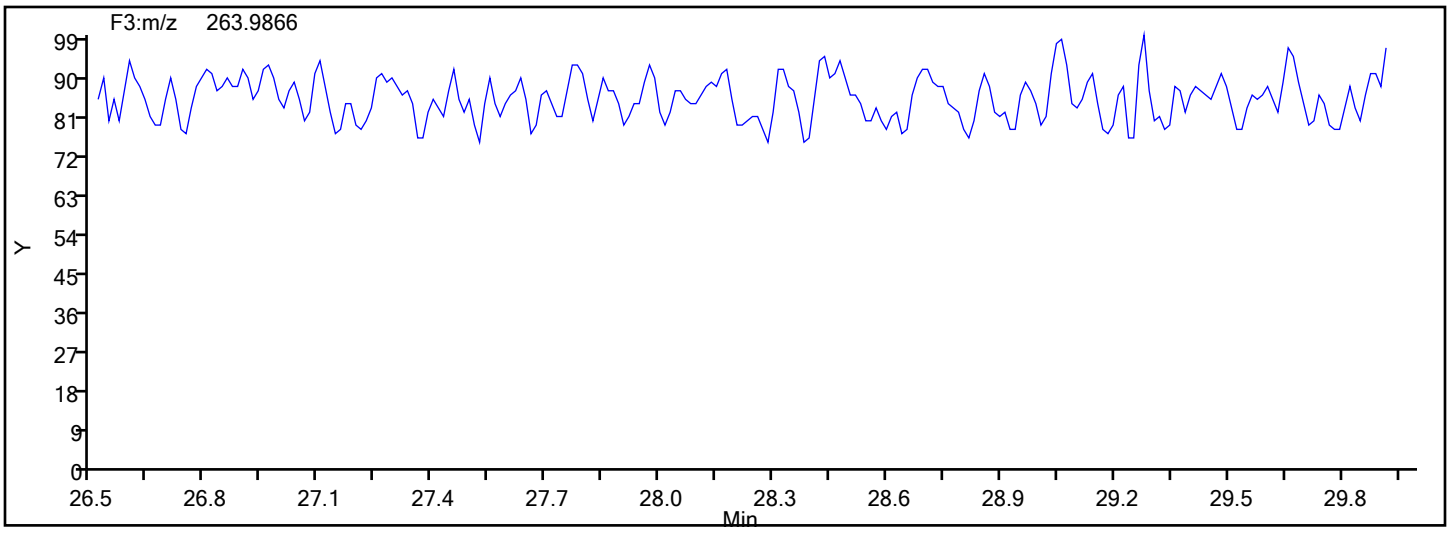
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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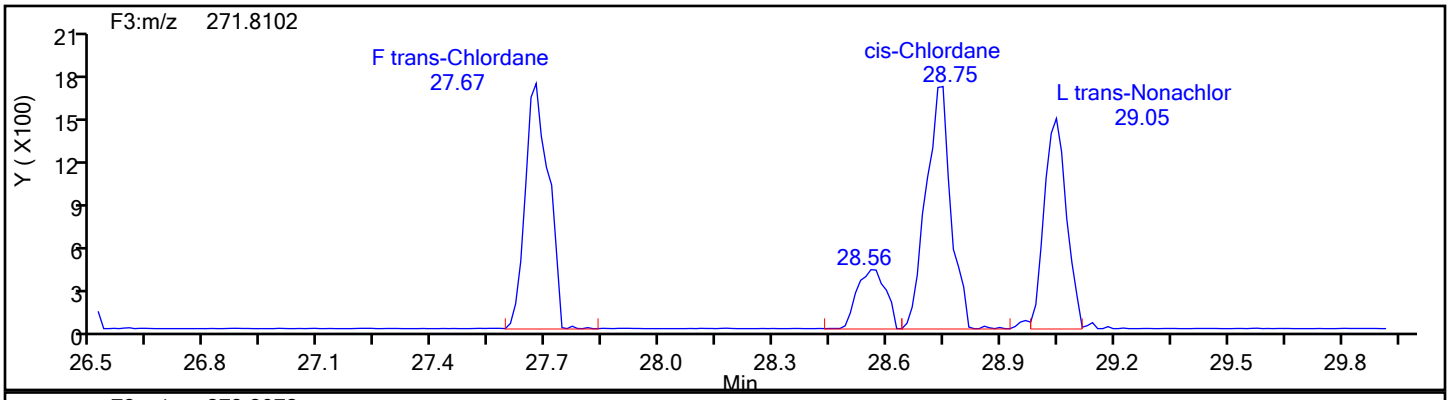
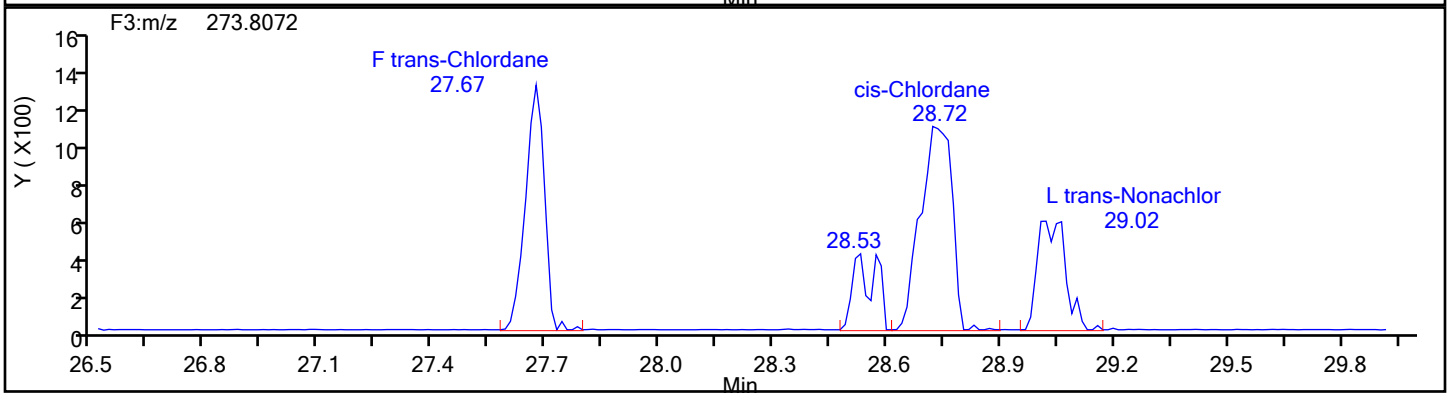
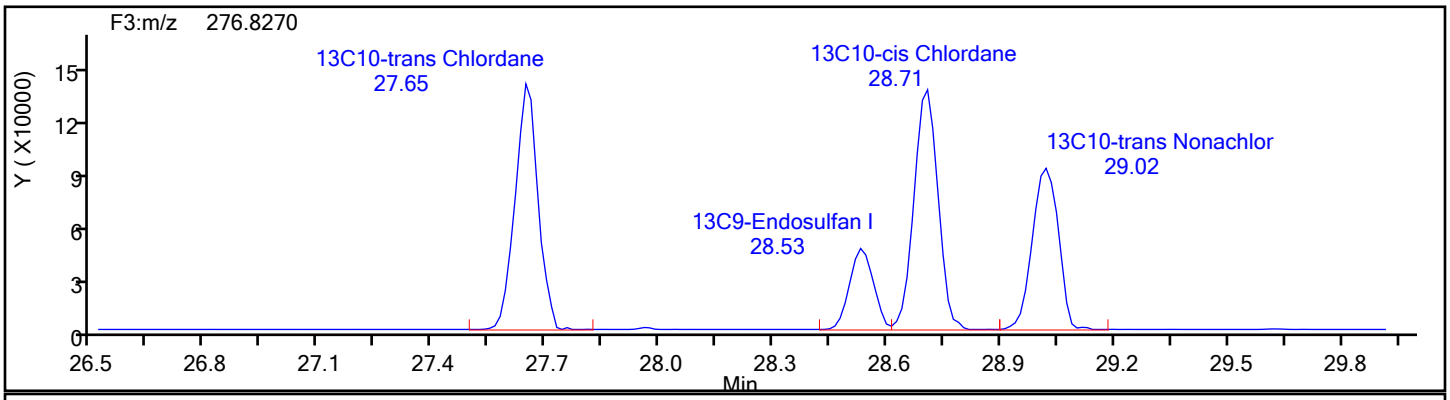
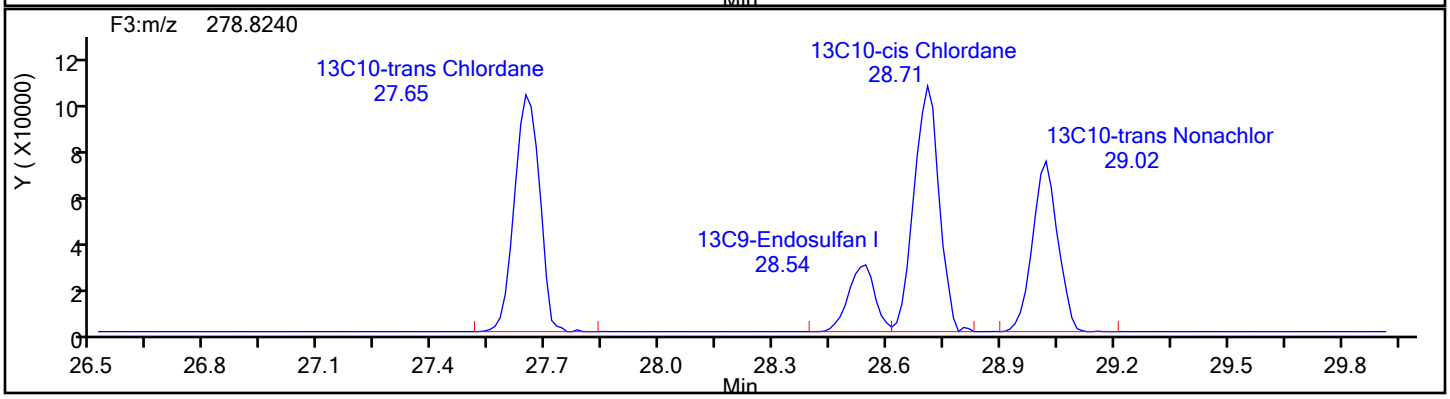
Chlordane





Chlordane Standards





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Eurofins Knoxville

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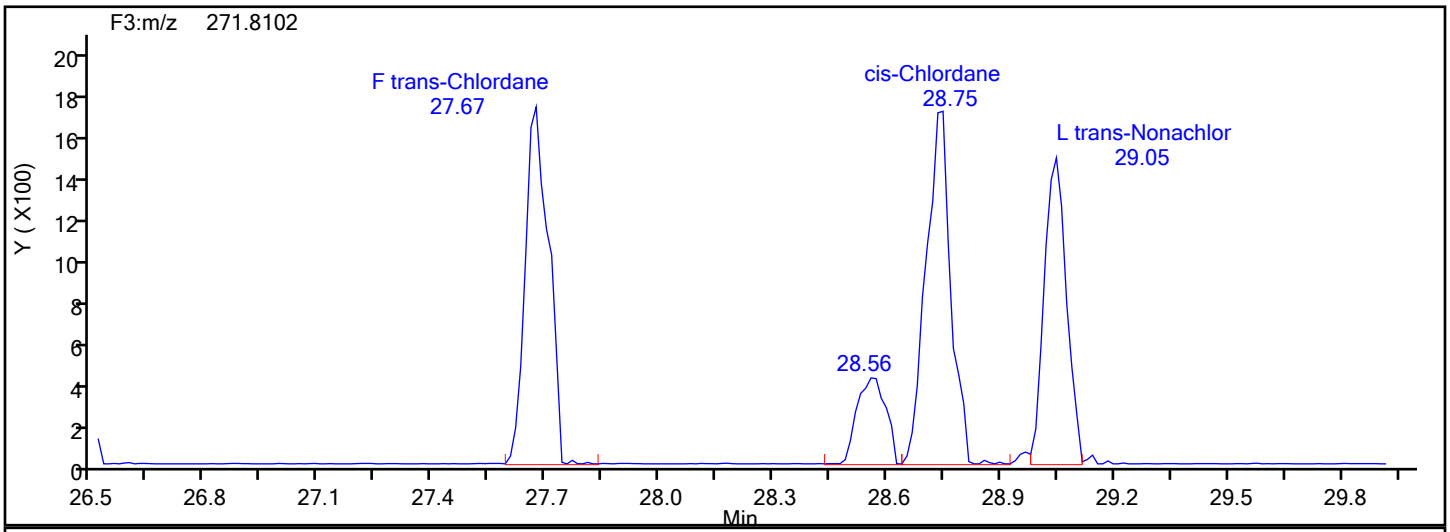
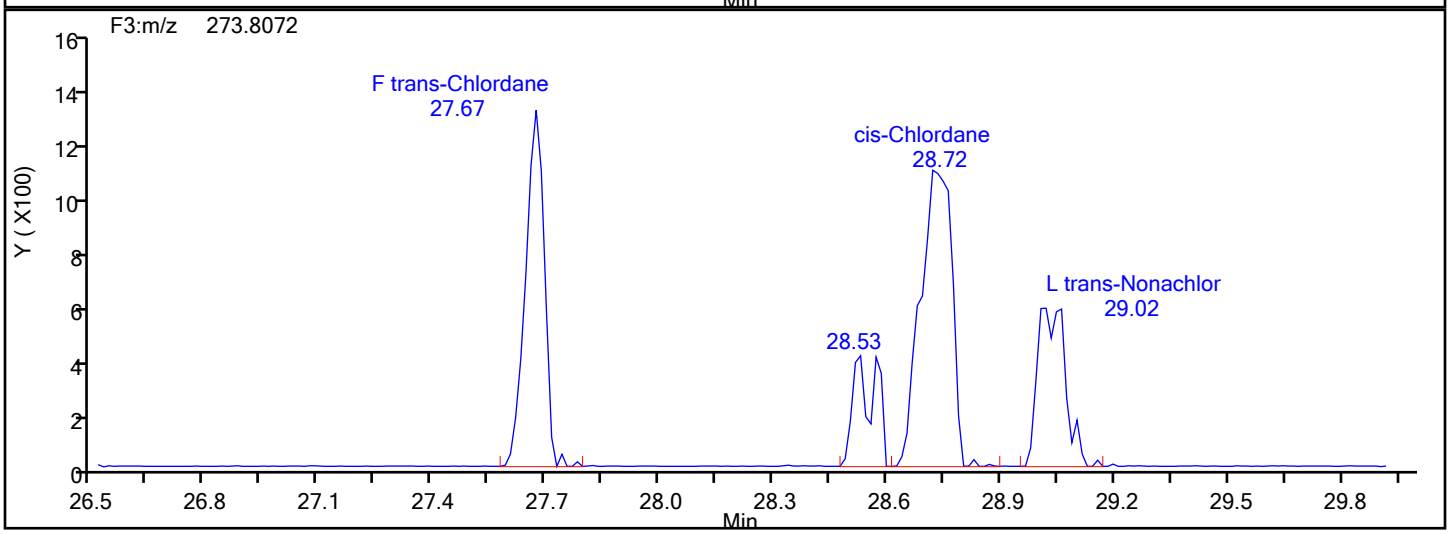
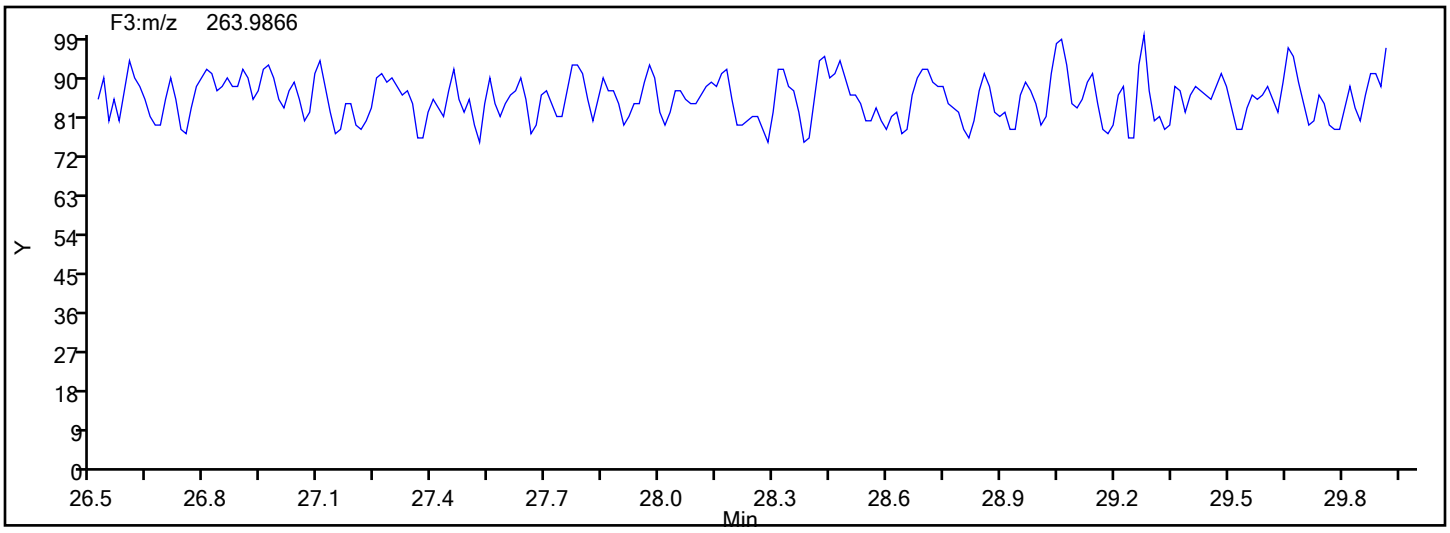
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
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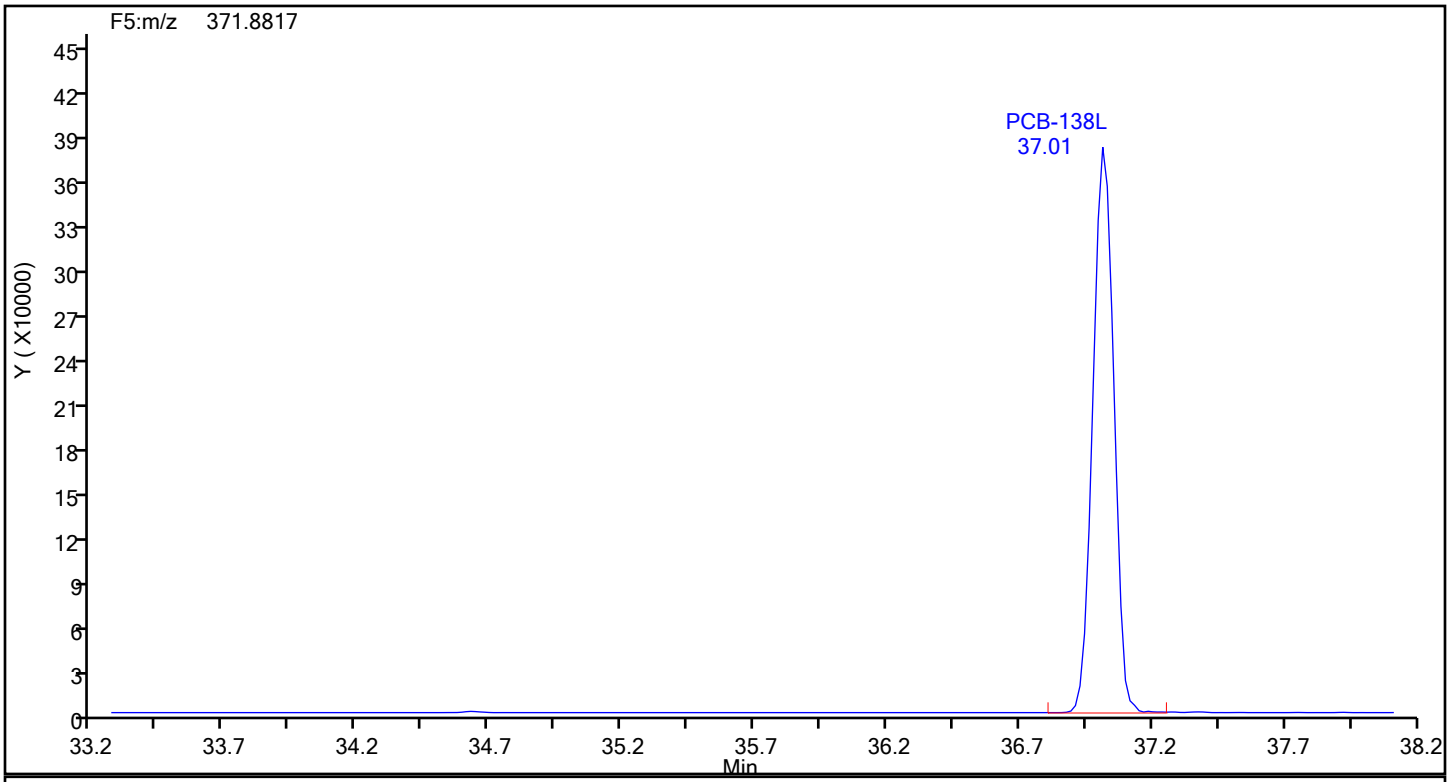
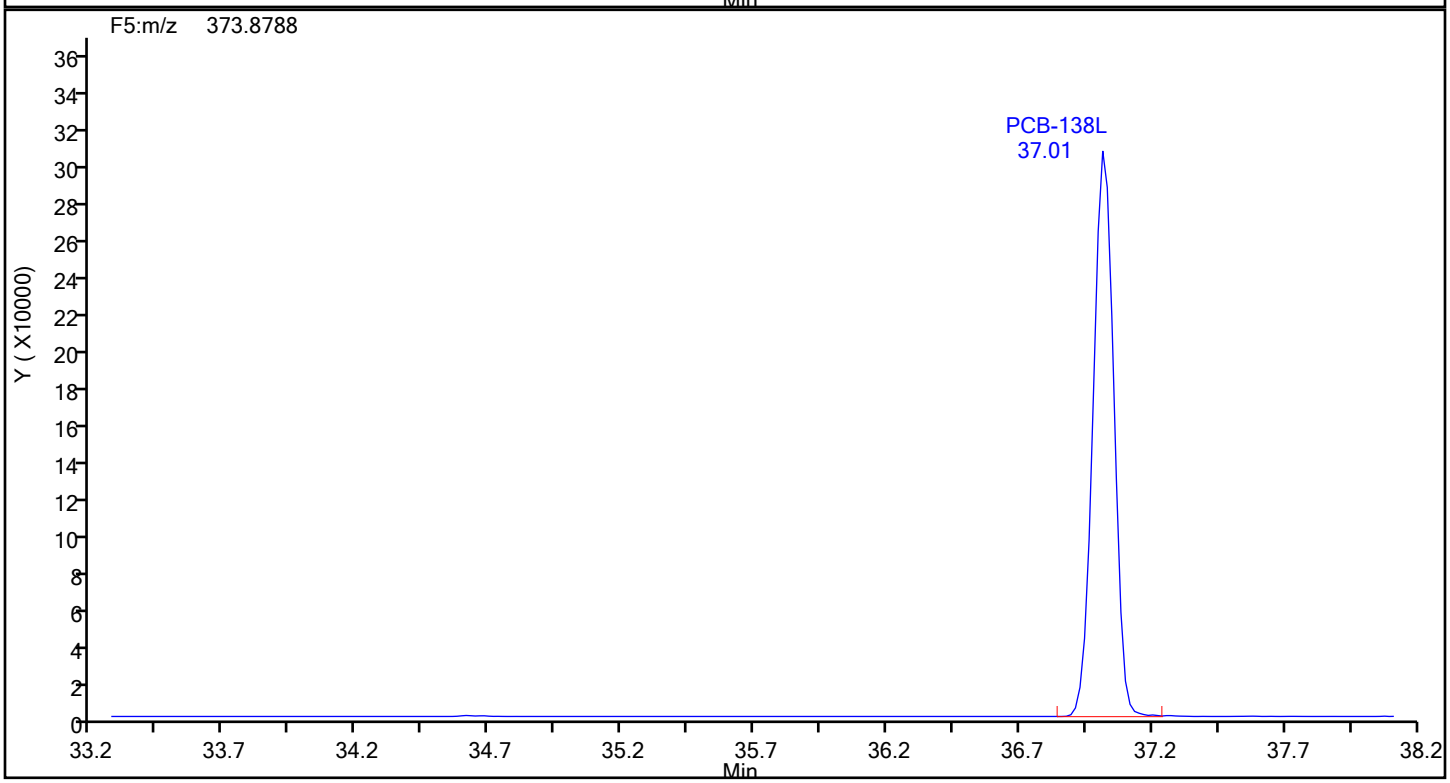
PCB-138L Standards





Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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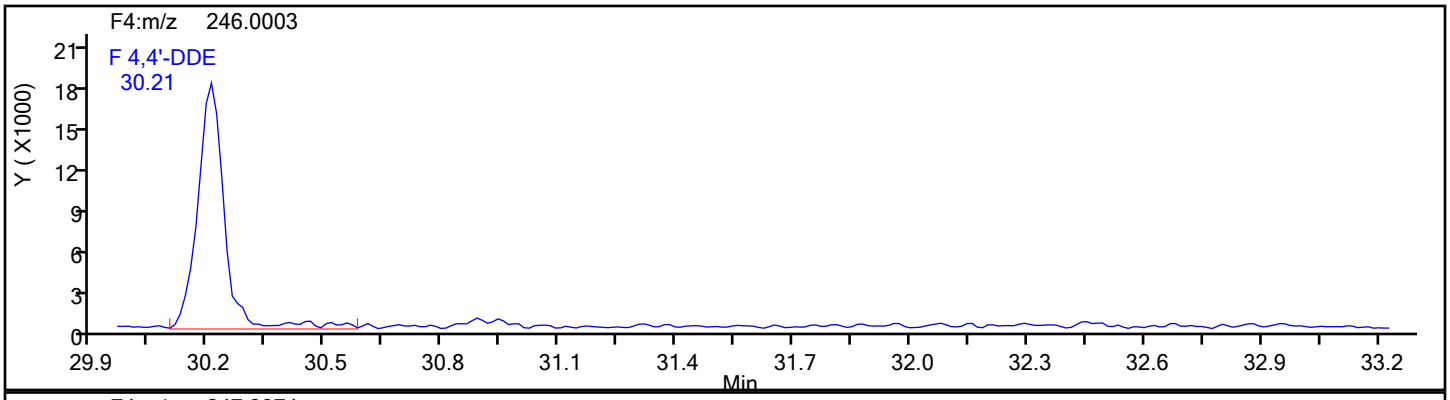
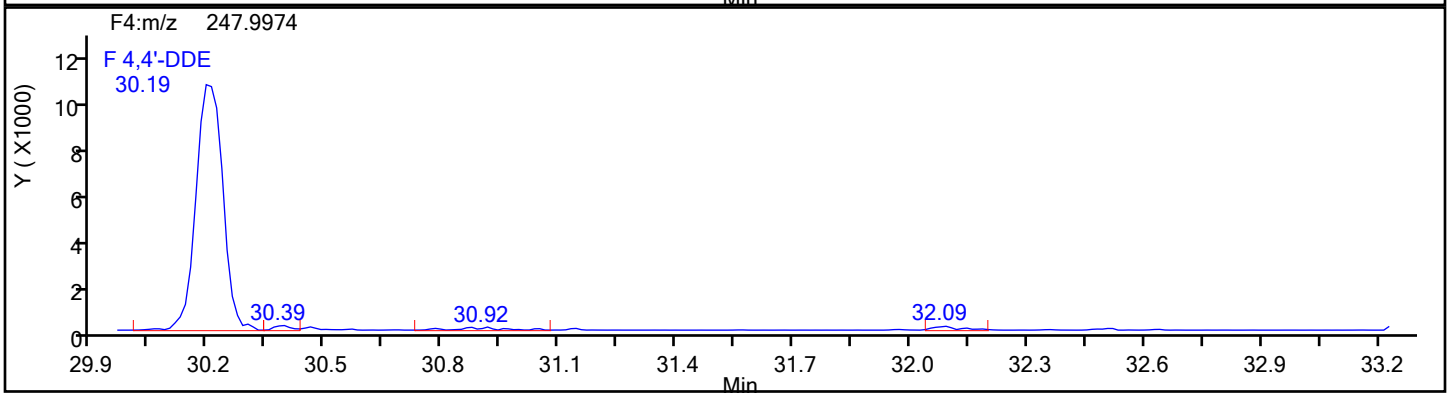
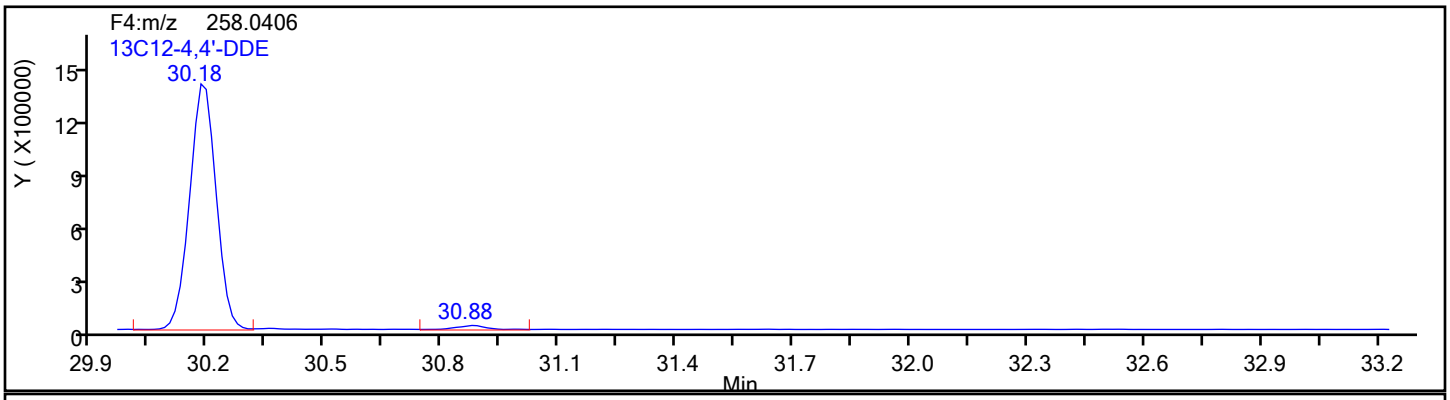
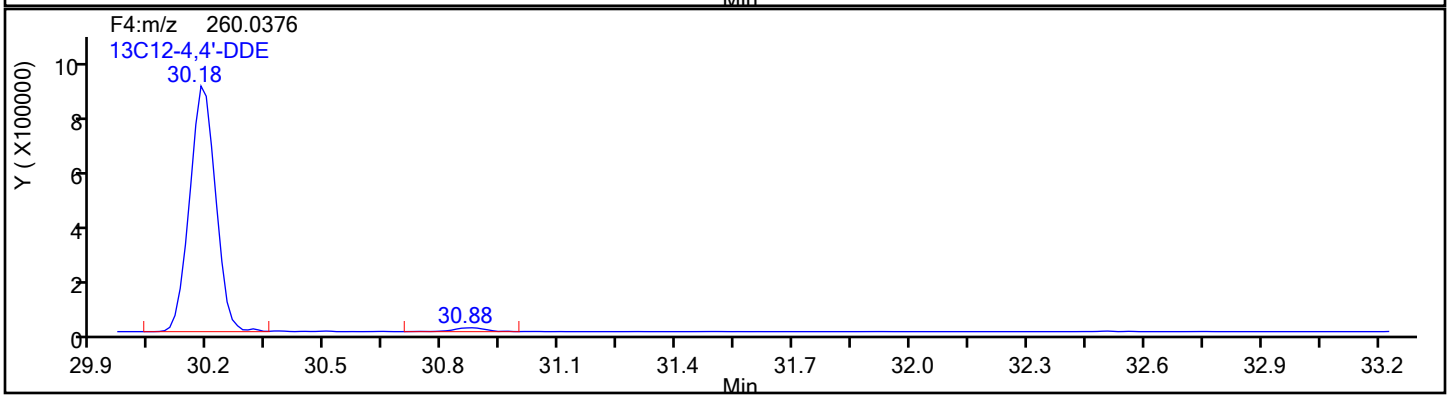
4,4'-DDE





4,4'-DDE Standards





Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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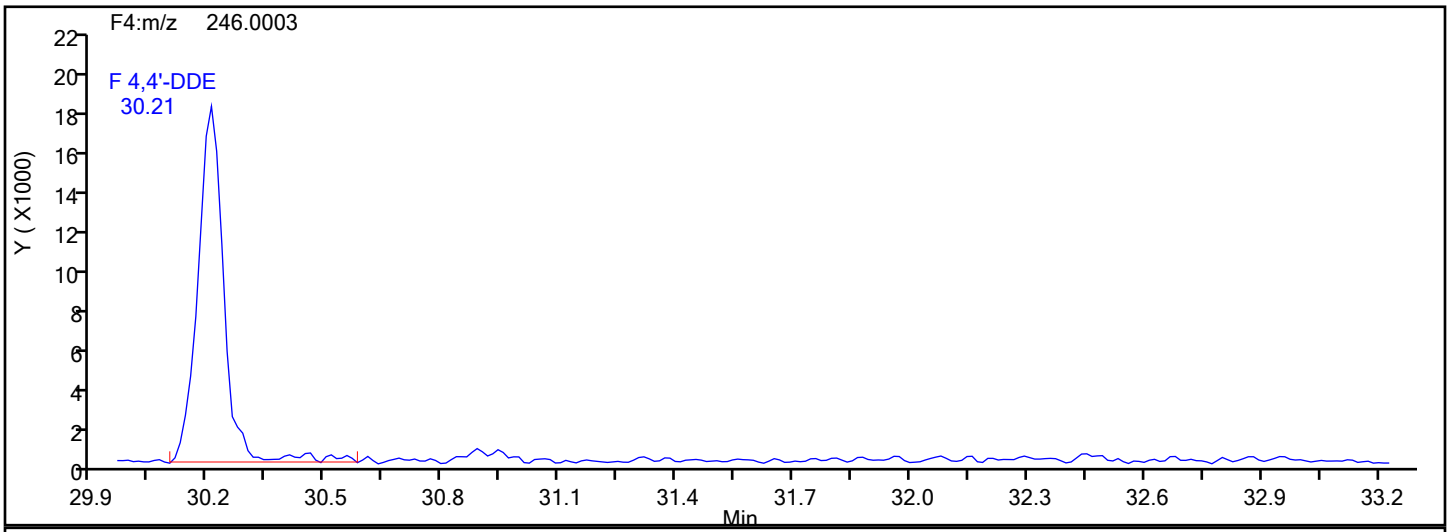
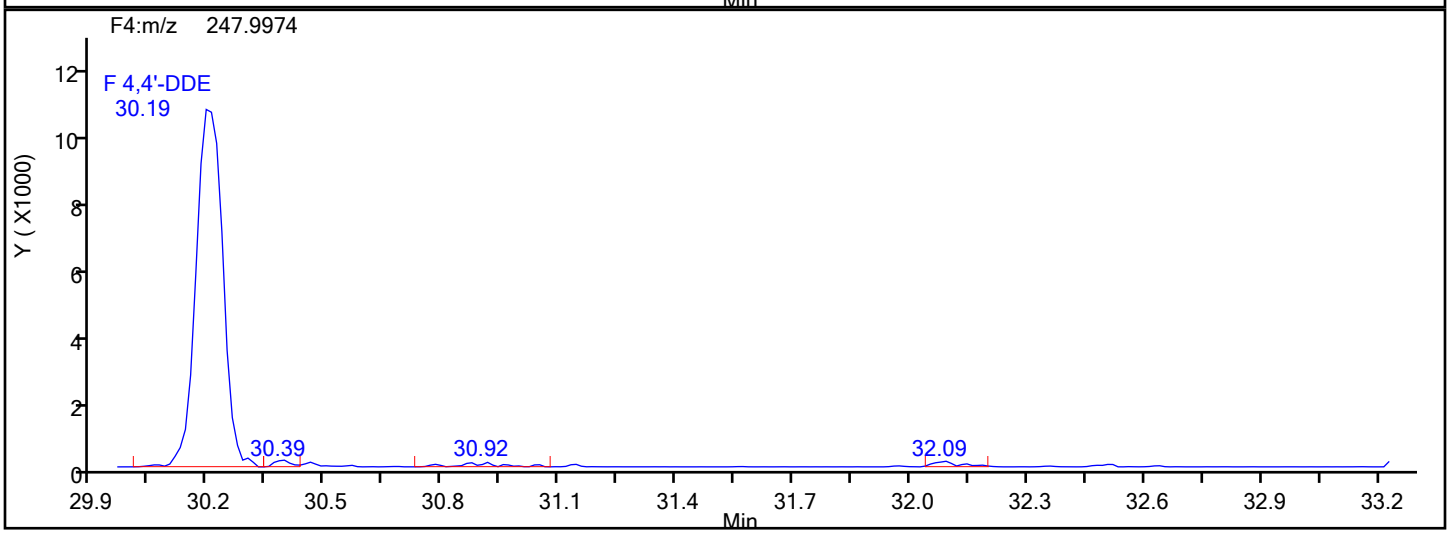
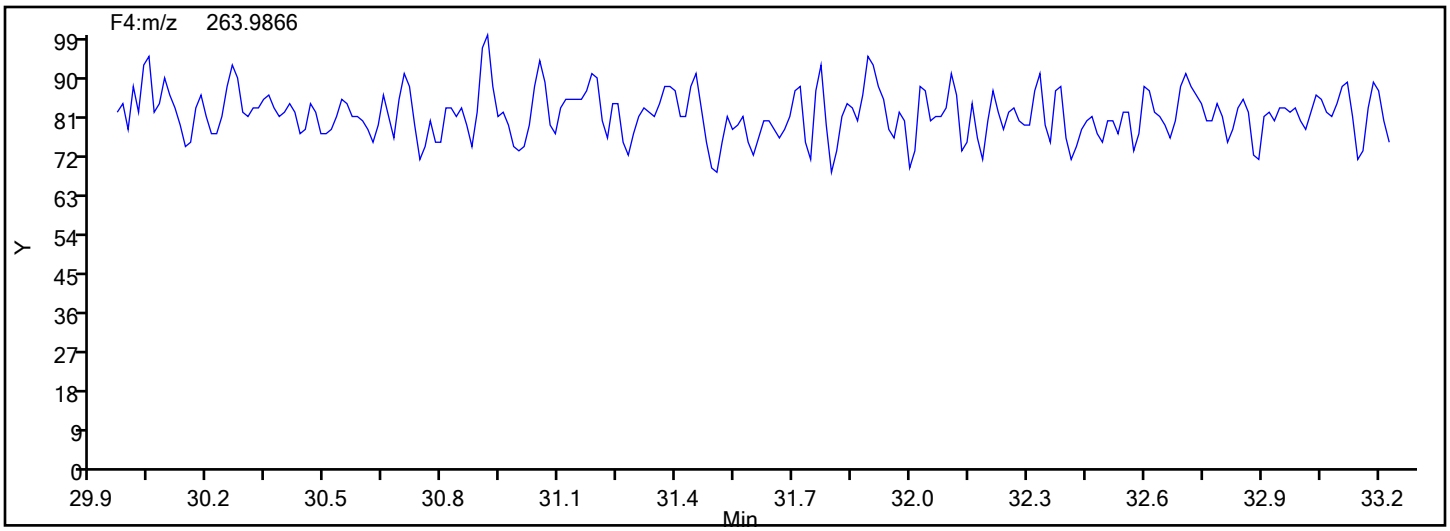
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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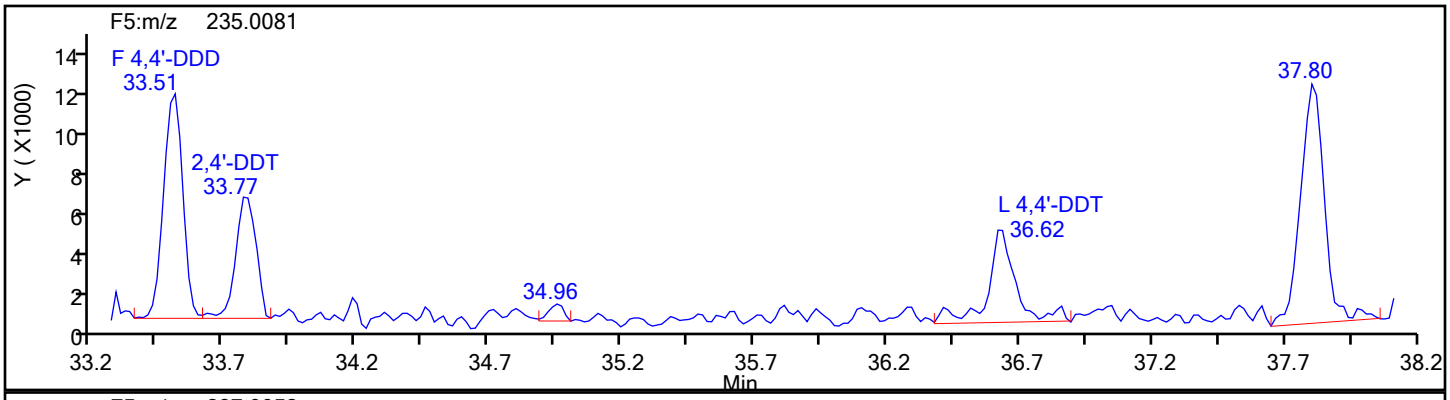
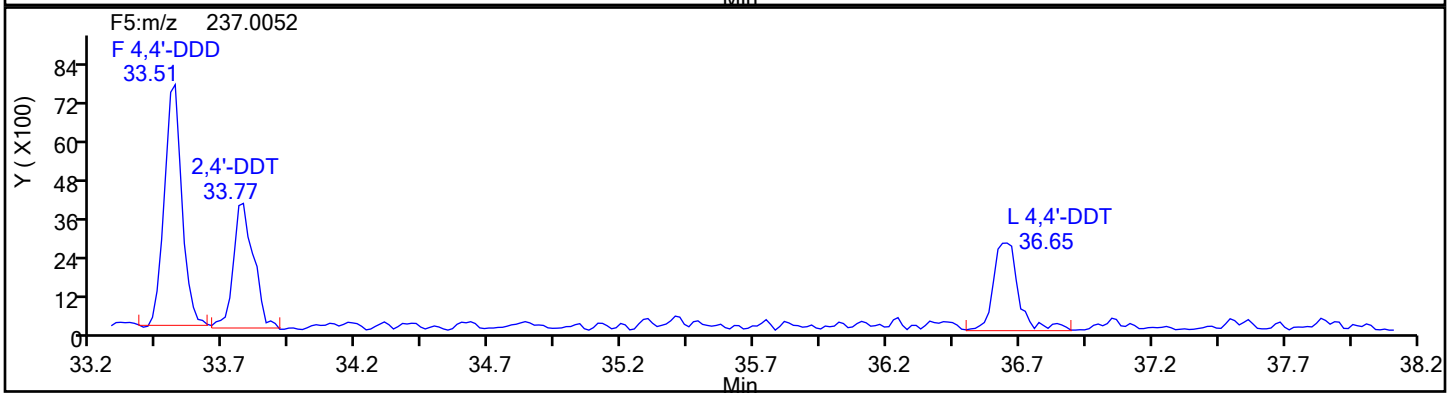
DDD





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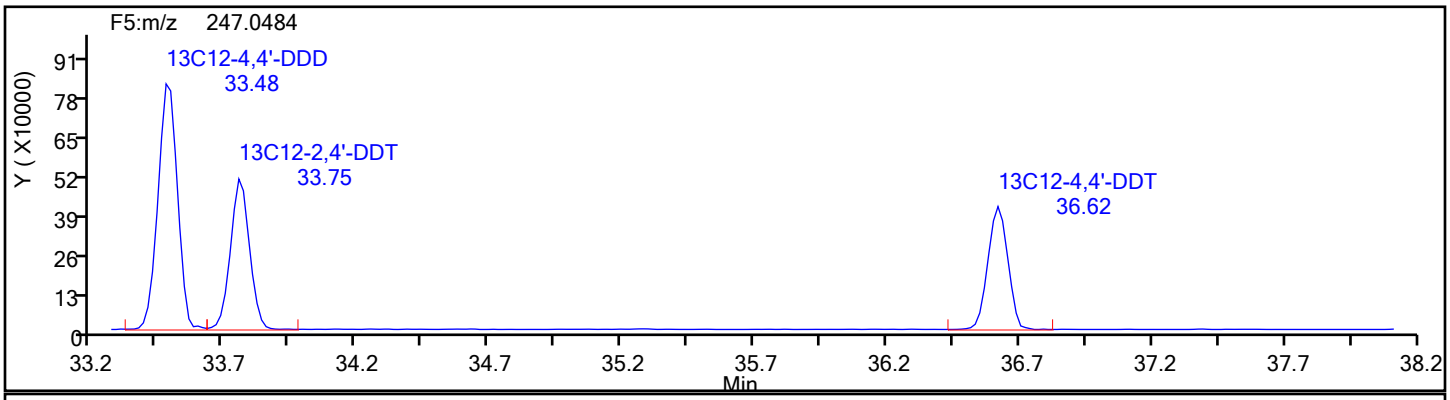

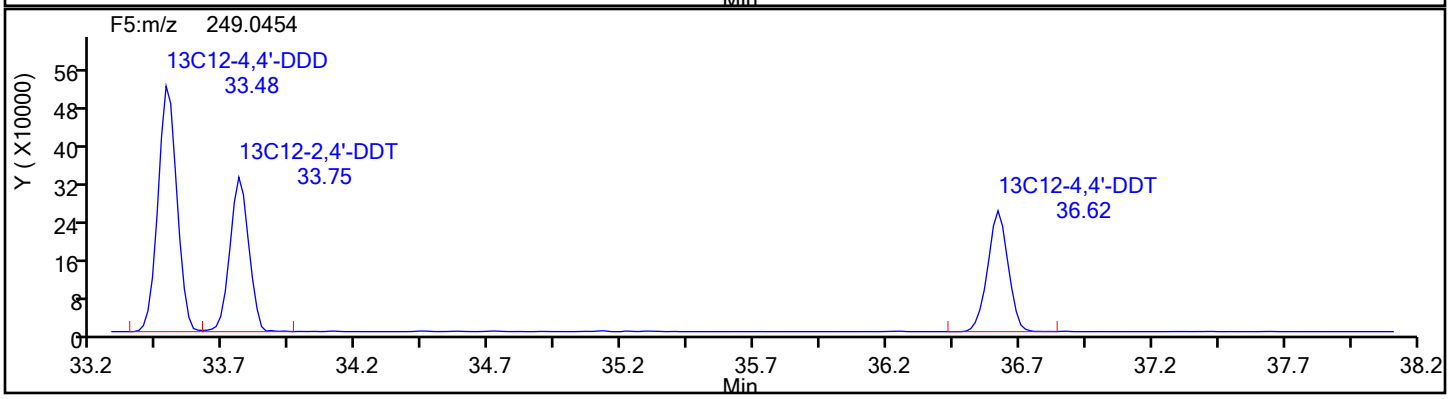

Report Date: 24-Mar-2025 13:05:55 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Client ID:
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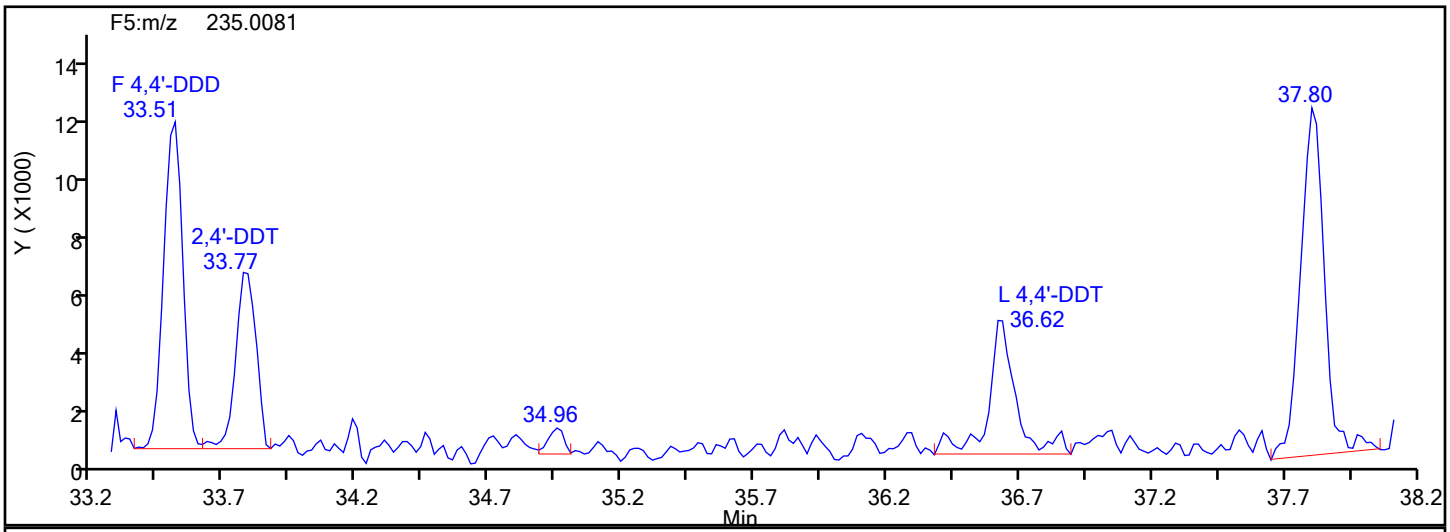

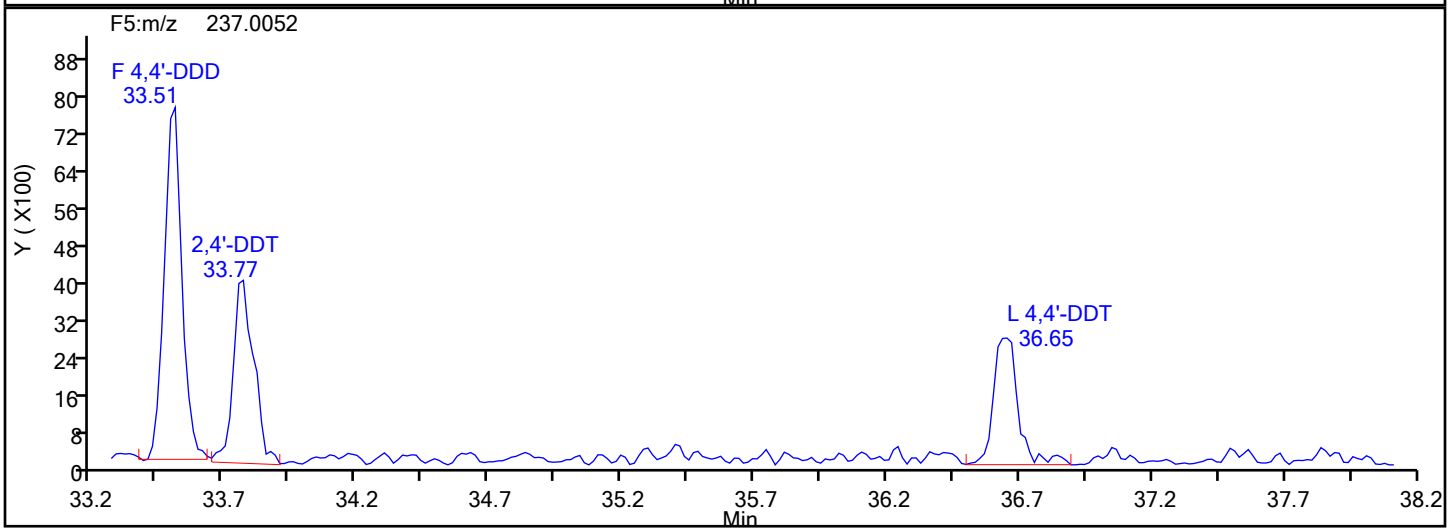

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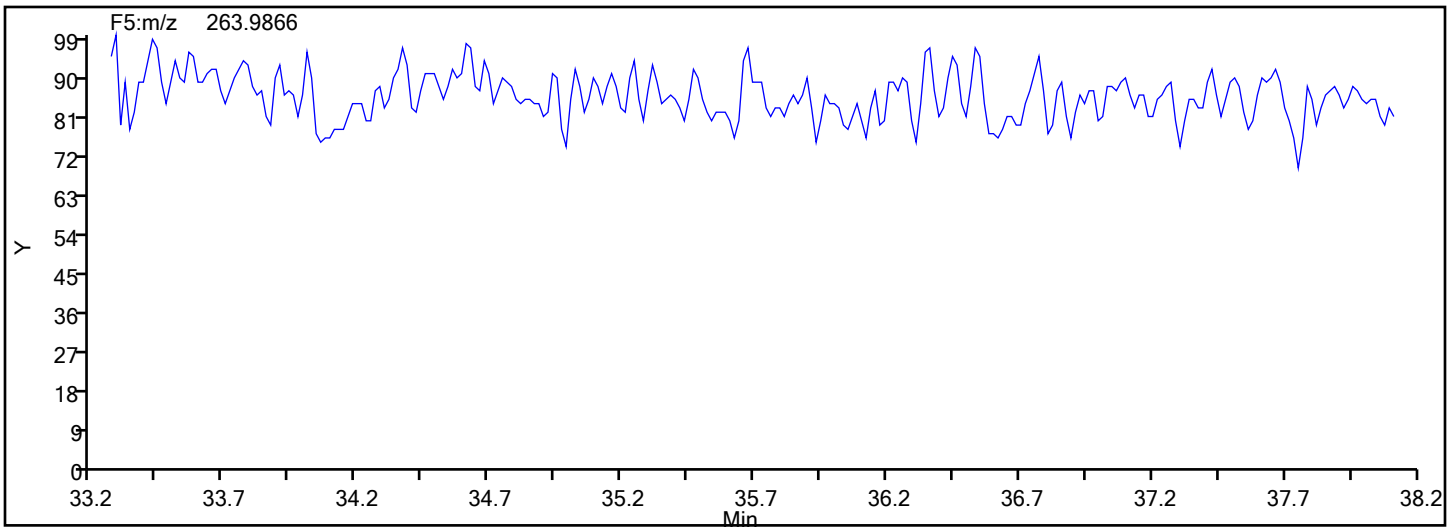

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Eurofins Knoxville

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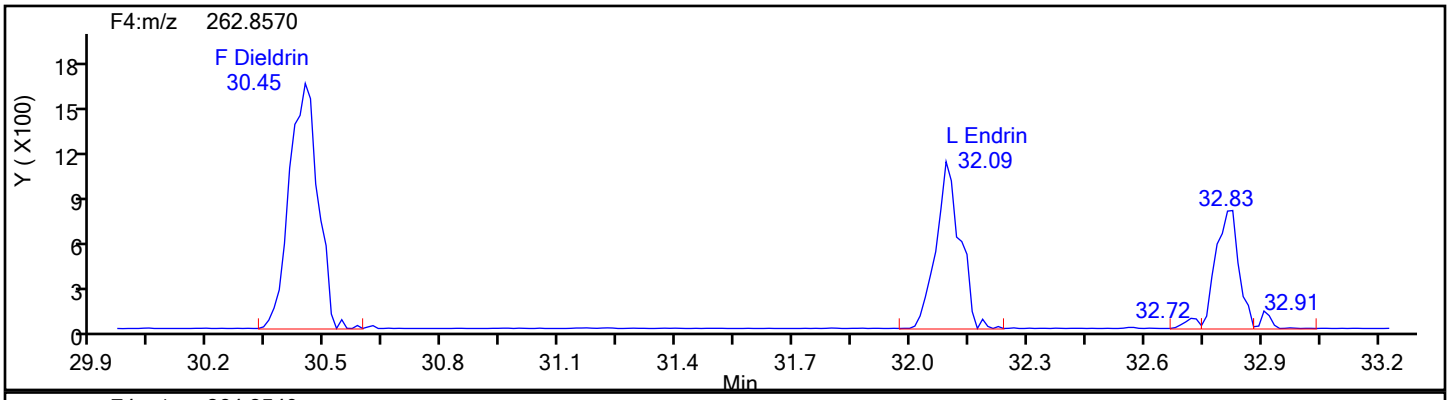

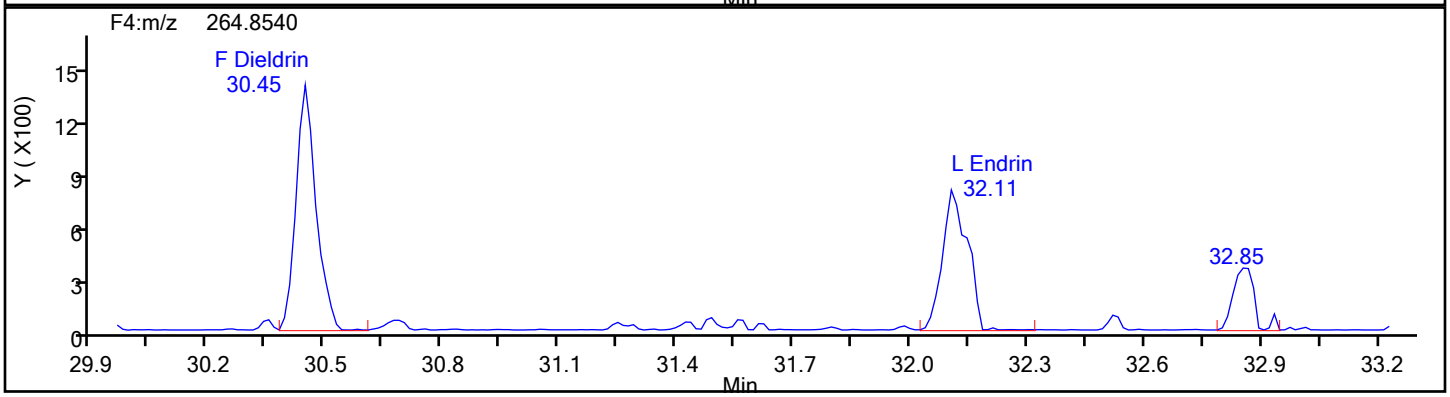

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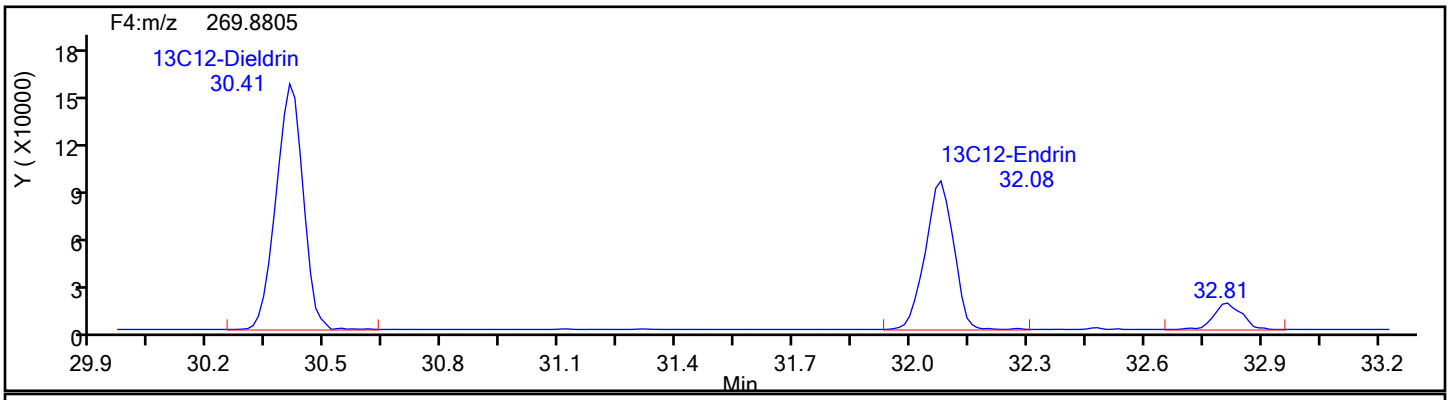

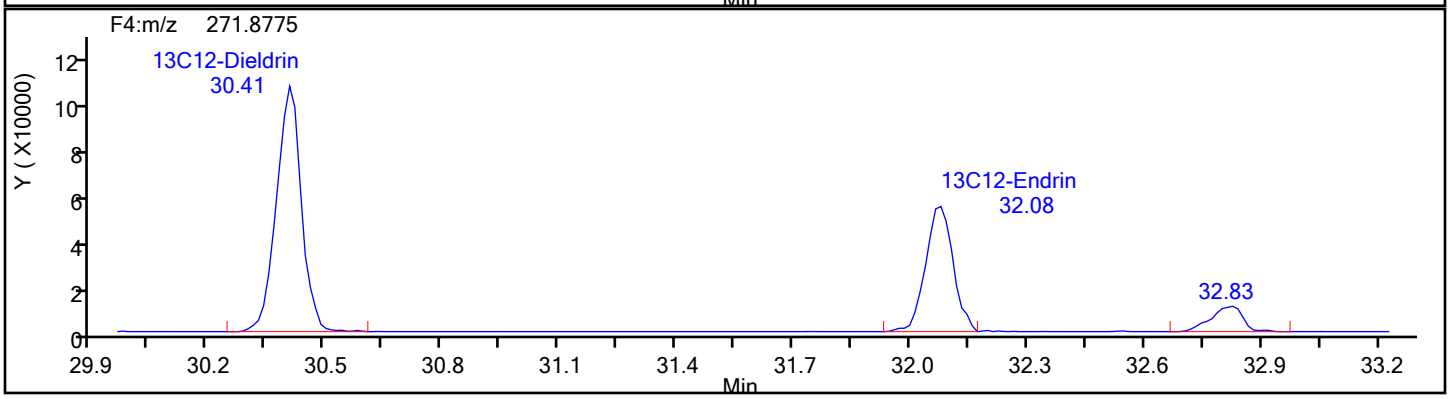

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Eurofins Knoxville

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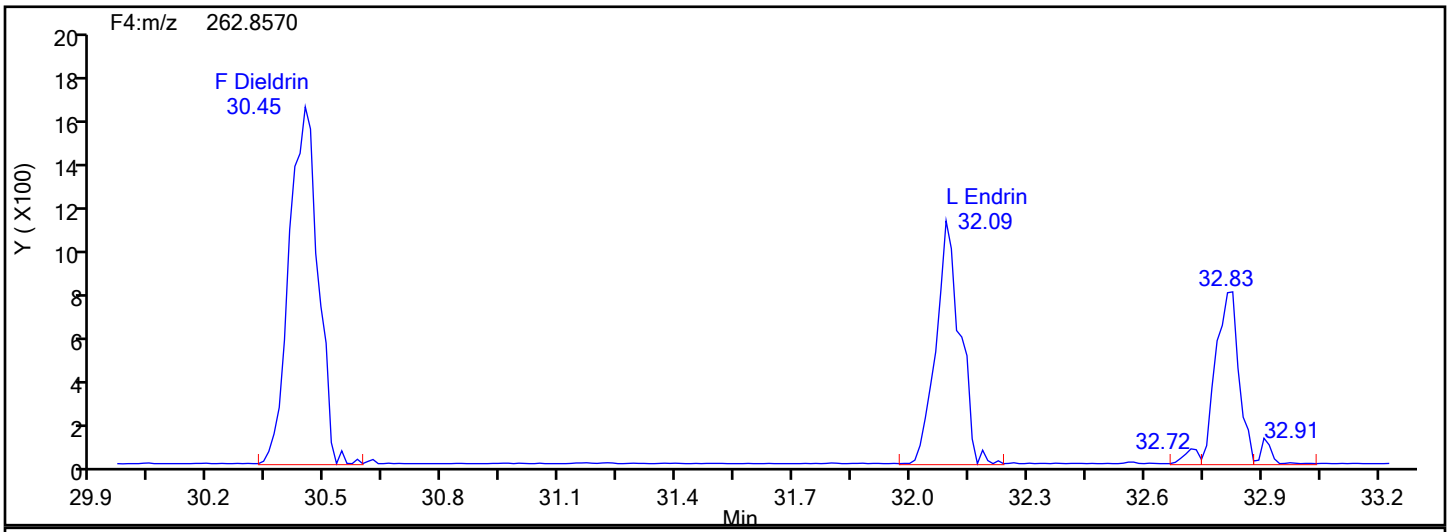

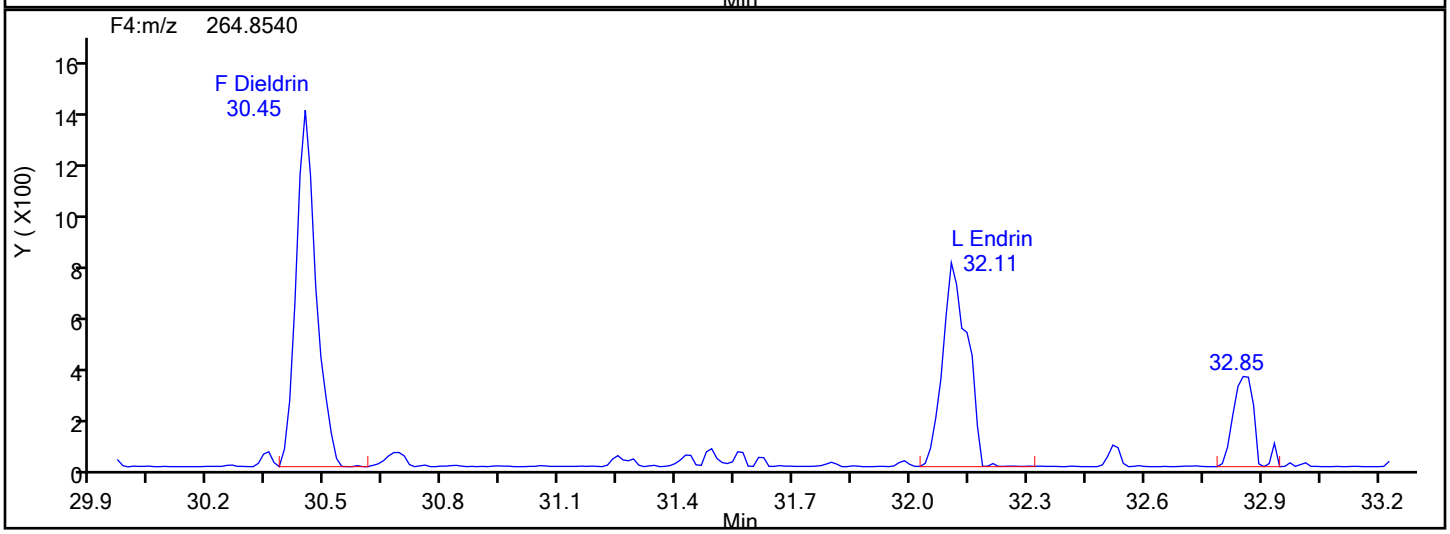

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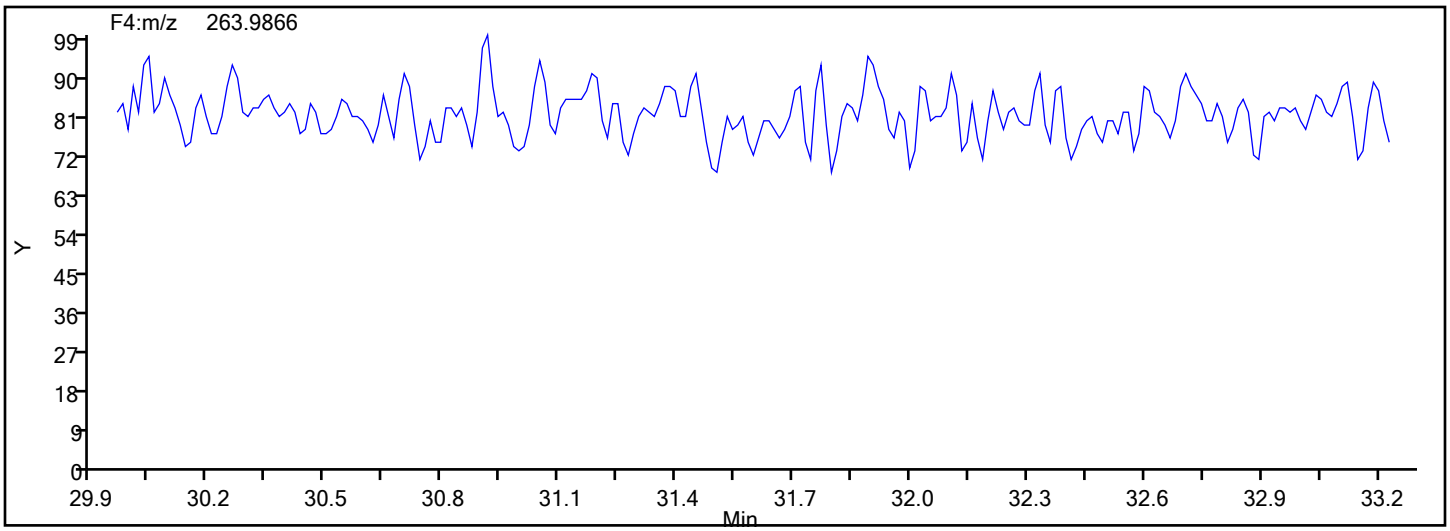

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Eurofins Knoxville

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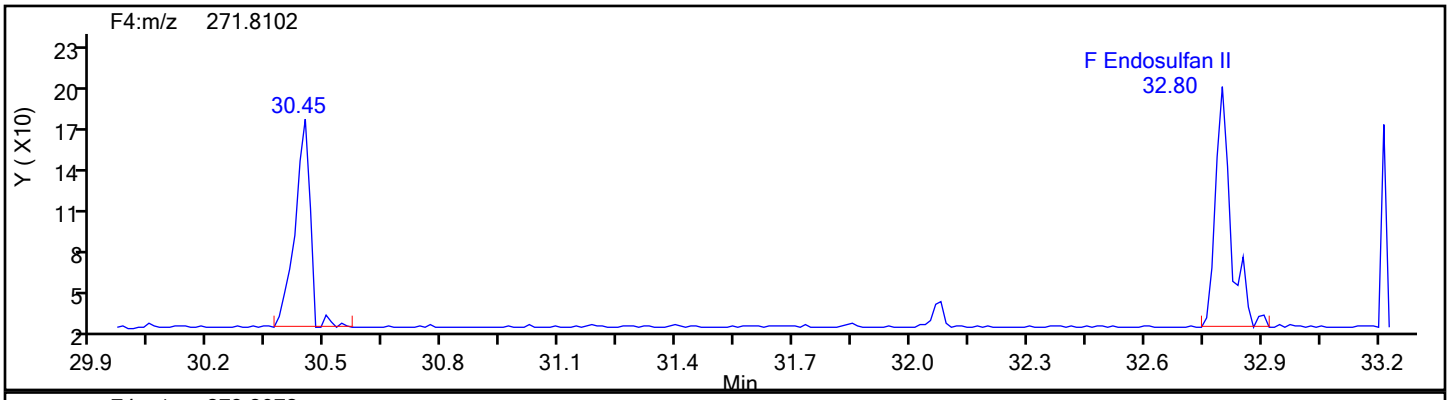

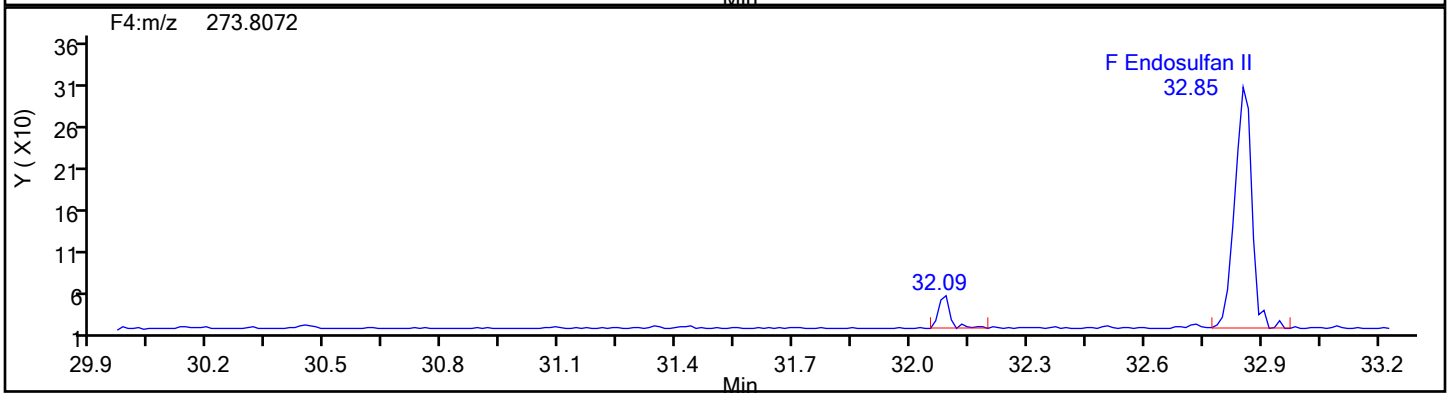

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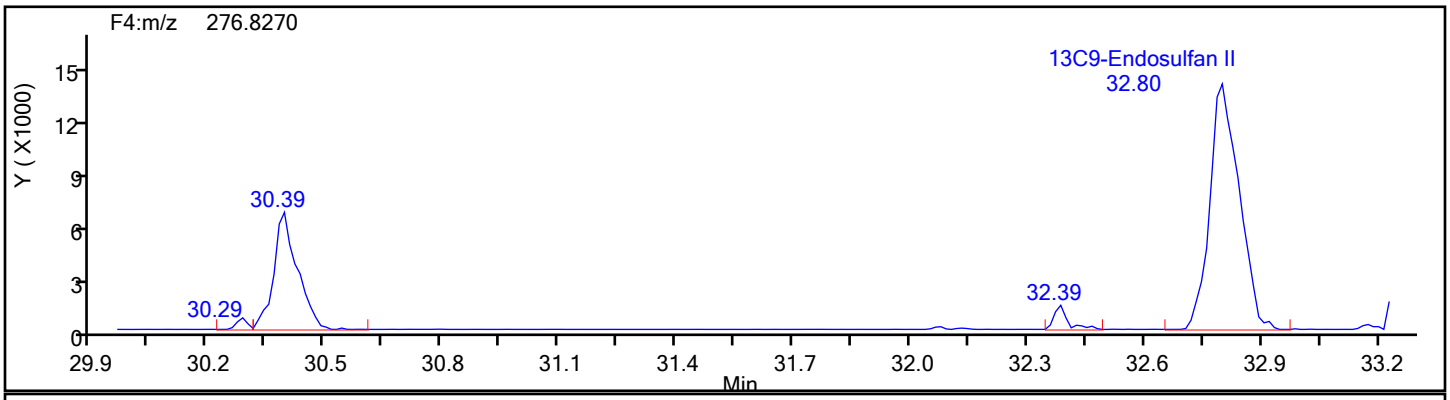

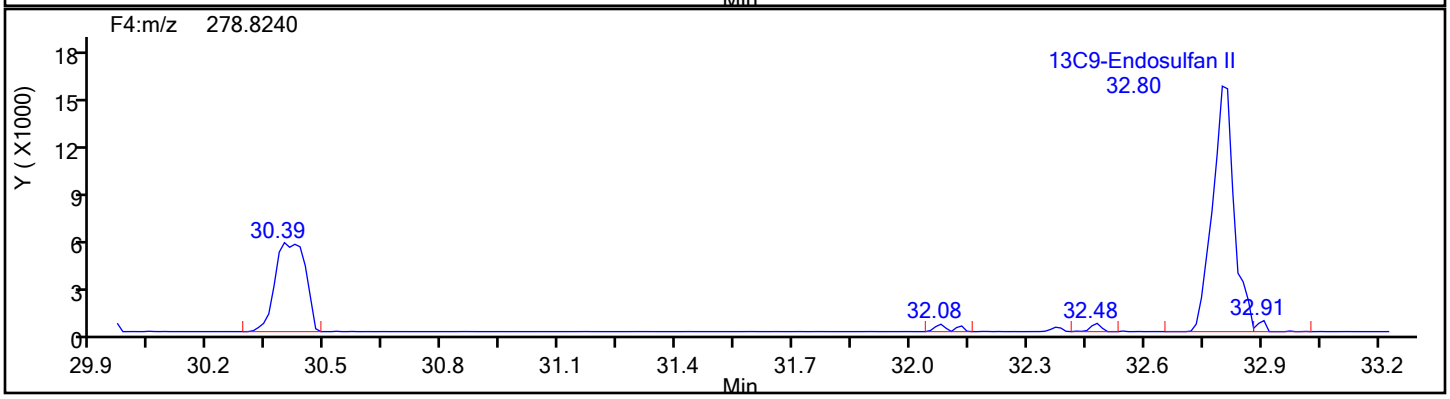

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Eurofins Knoxville

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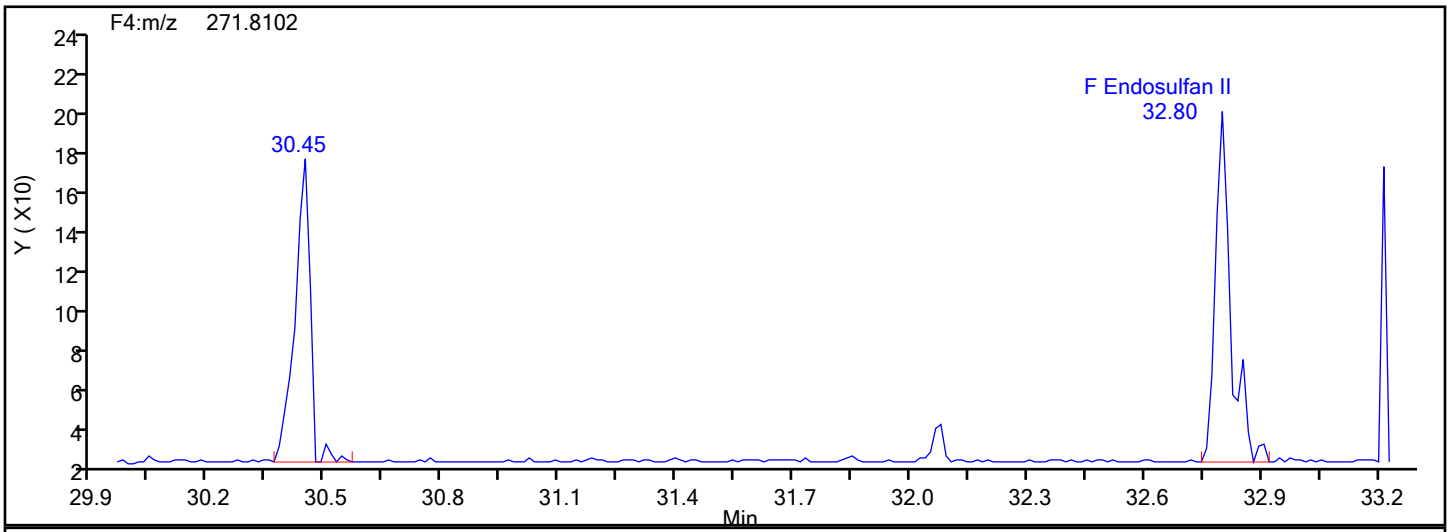

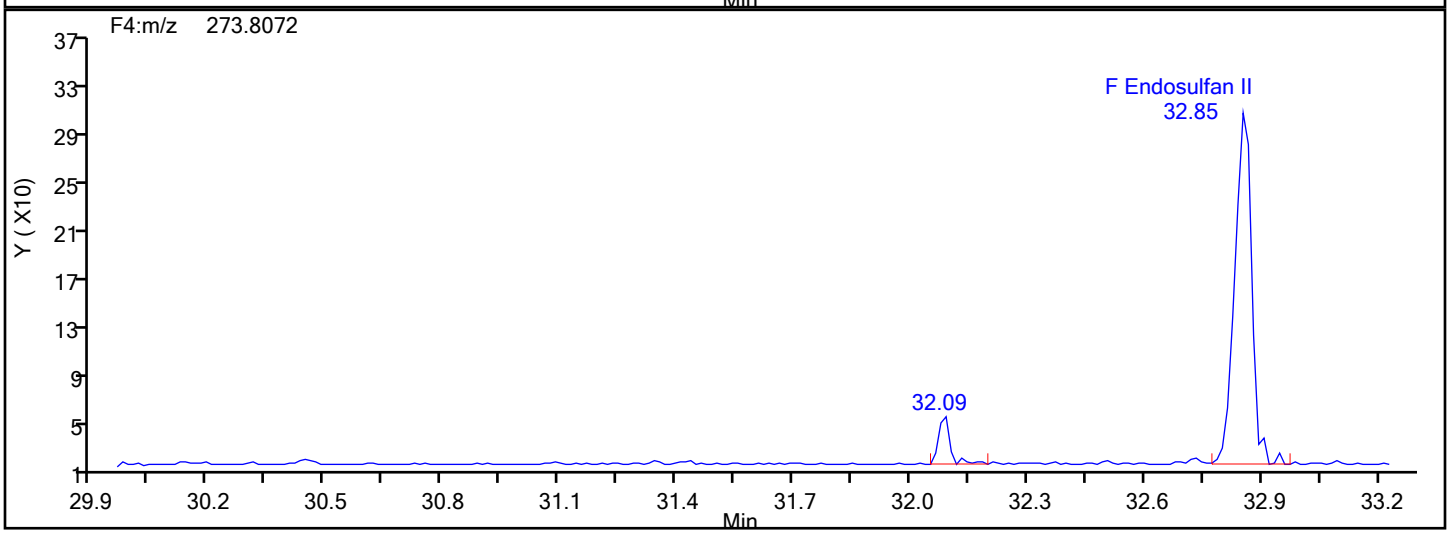

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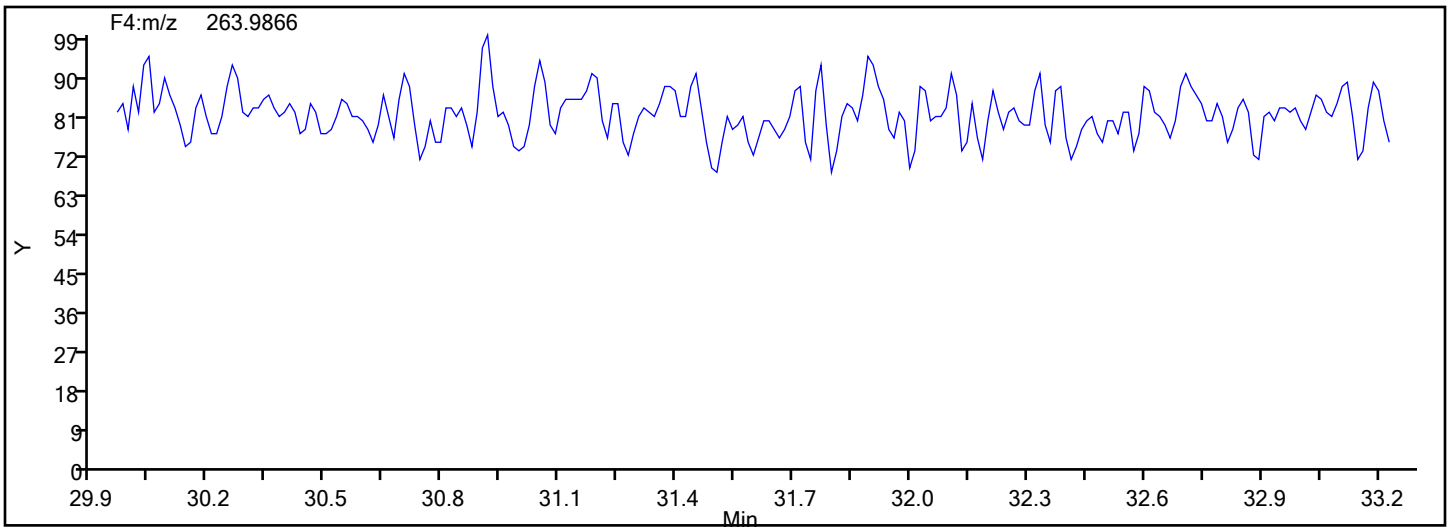

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Eurofins Knoxville

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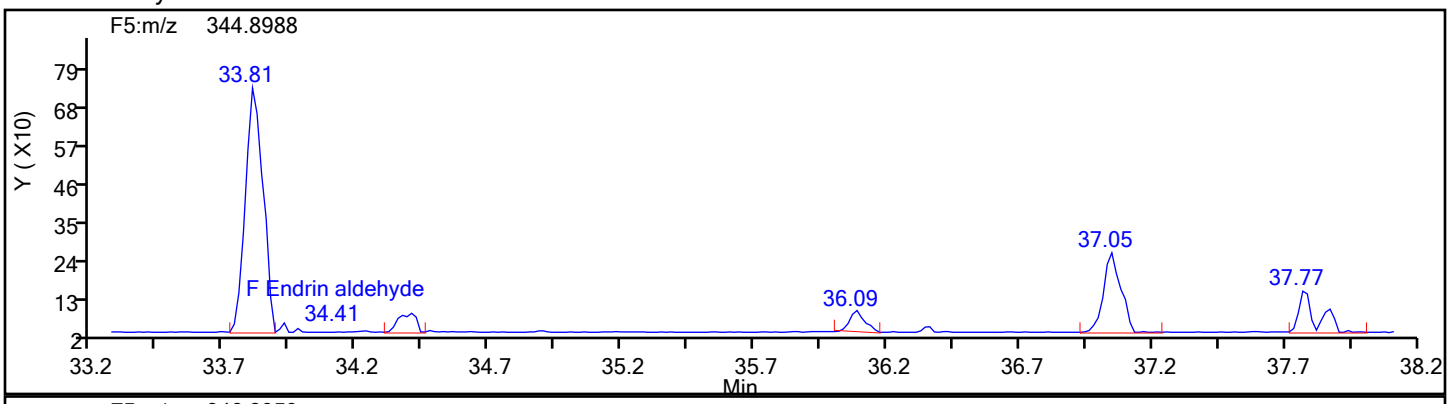

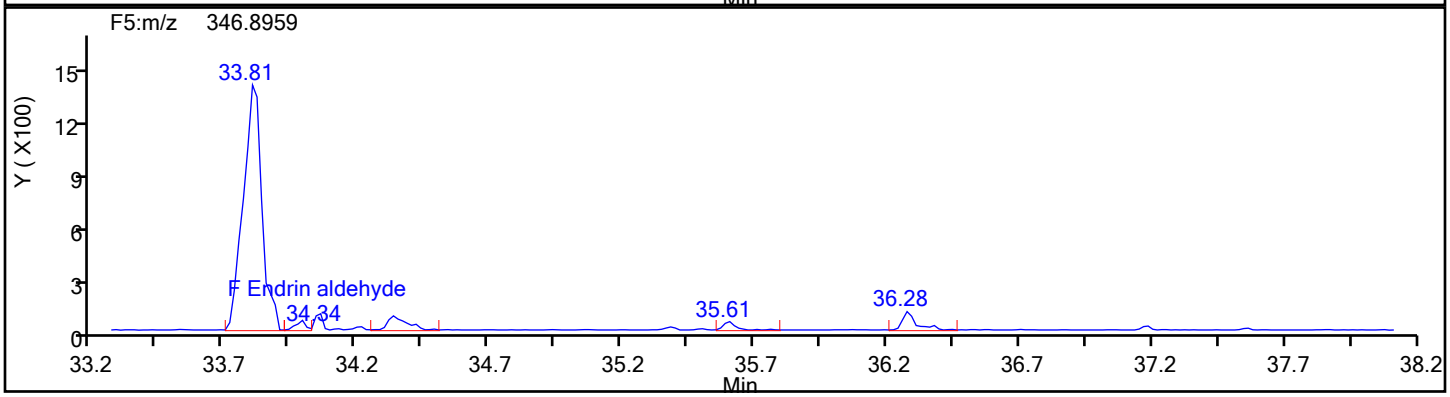

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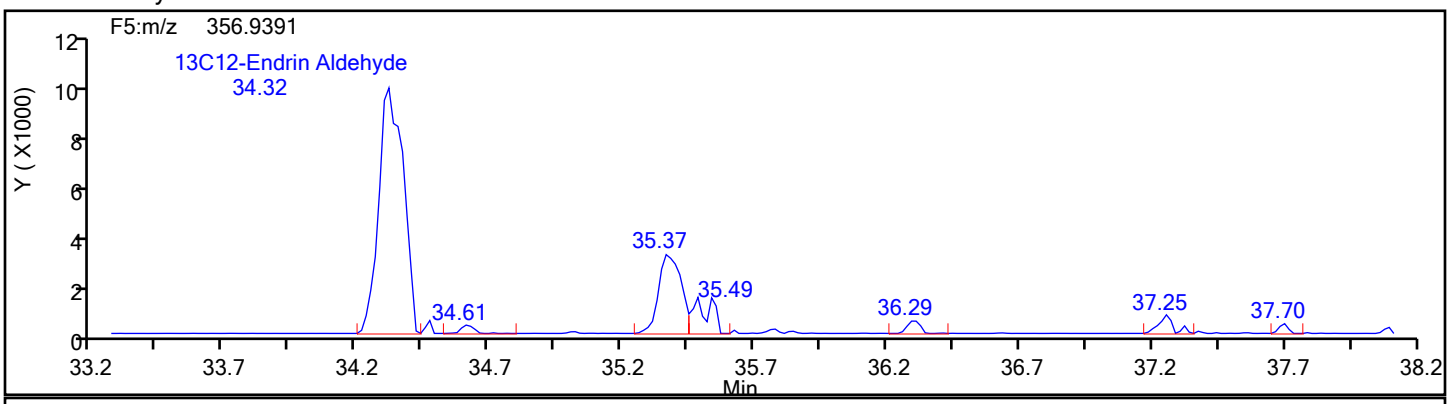

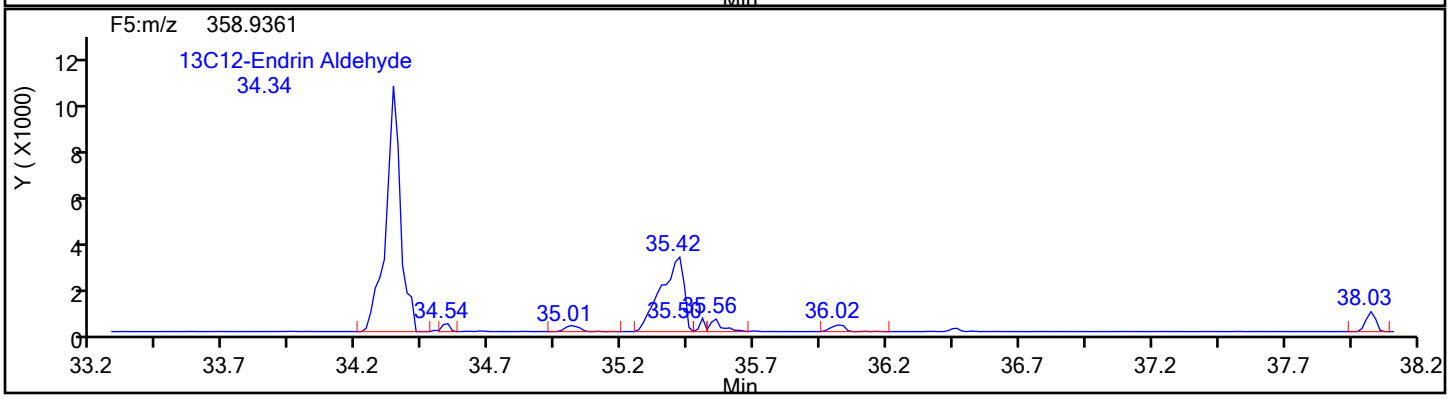

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Eurofins Knoxville

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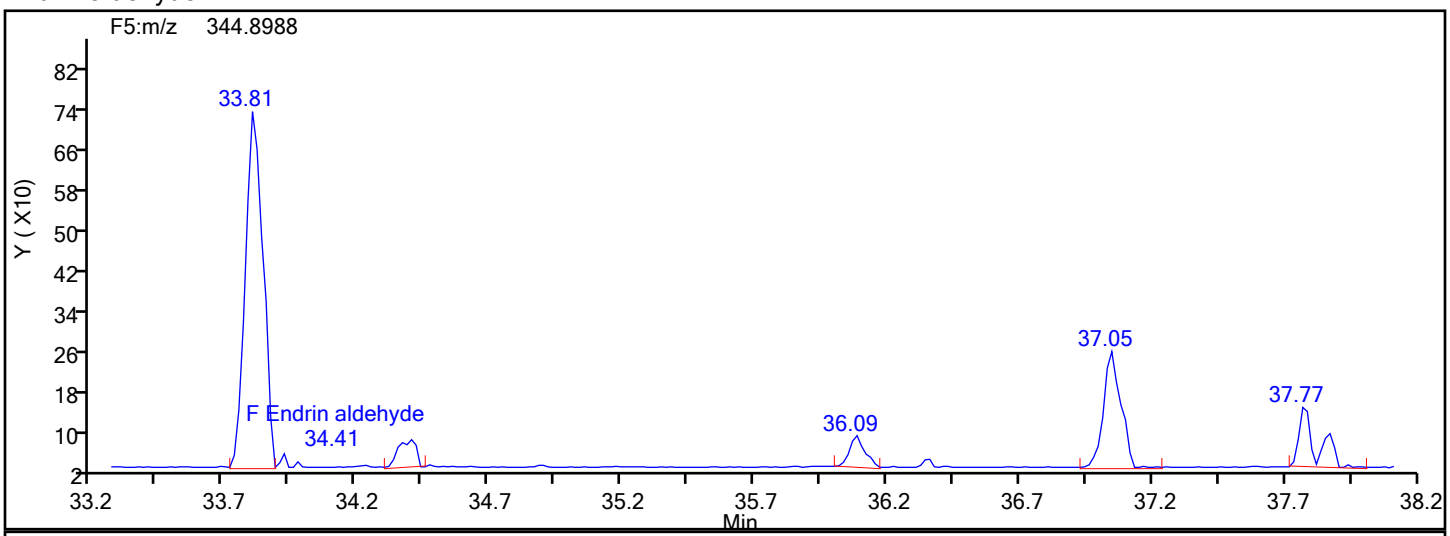

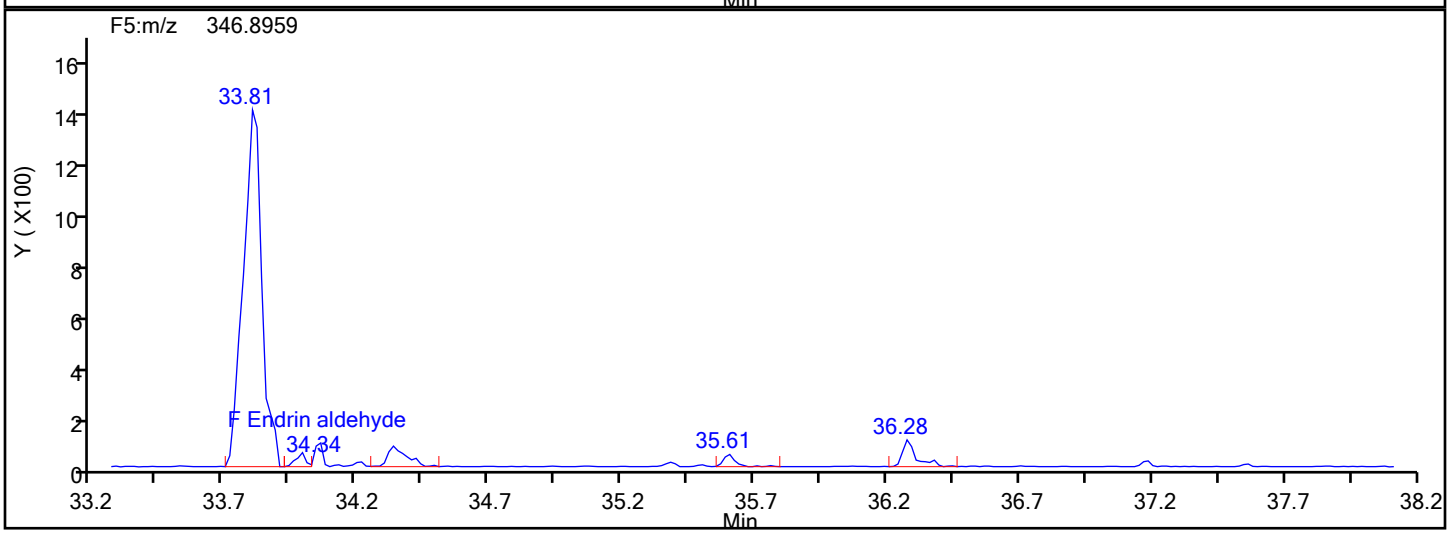

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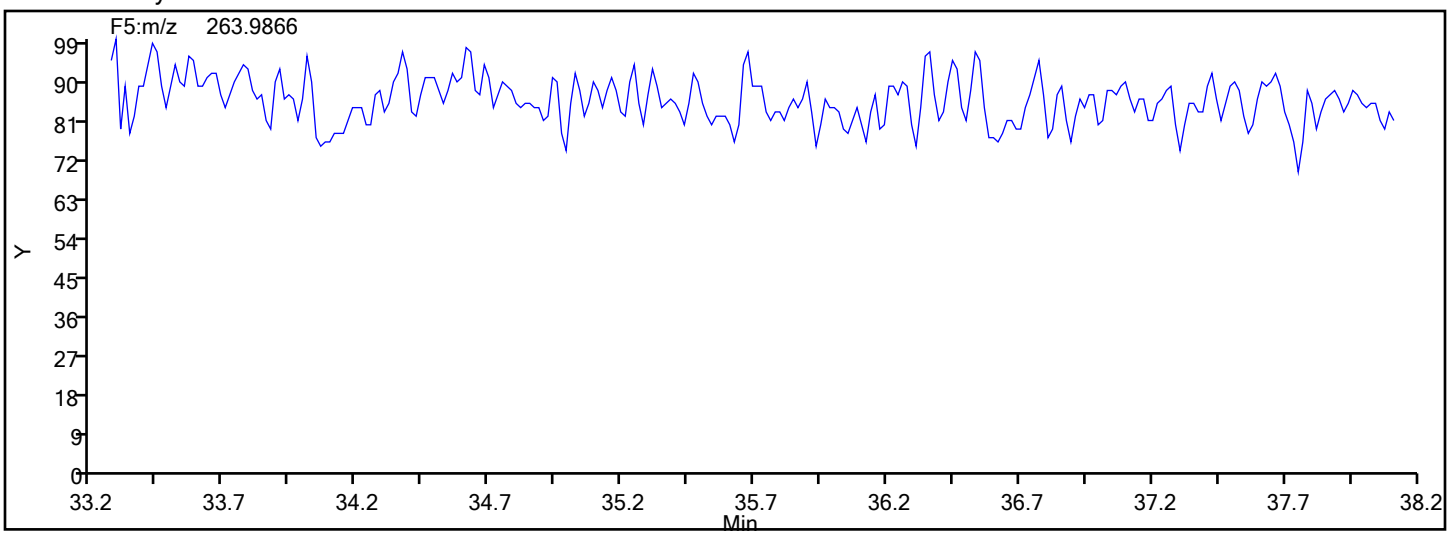

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Eurofins Knoxville

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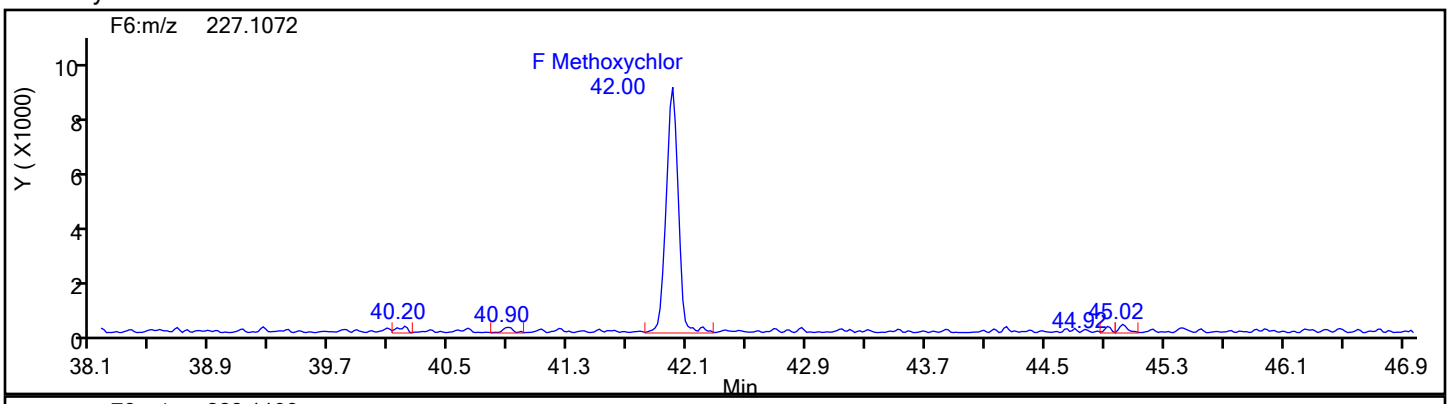
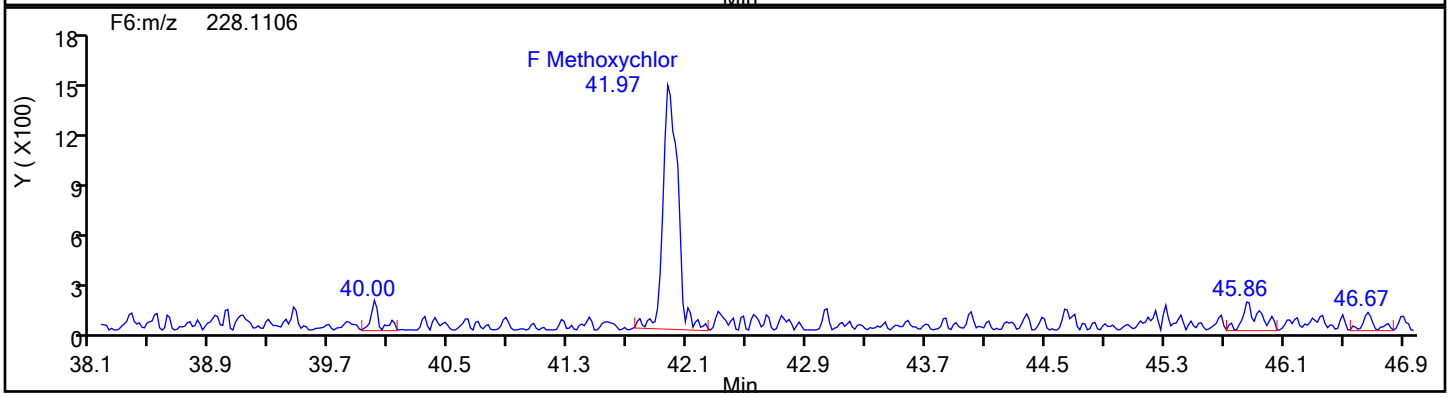
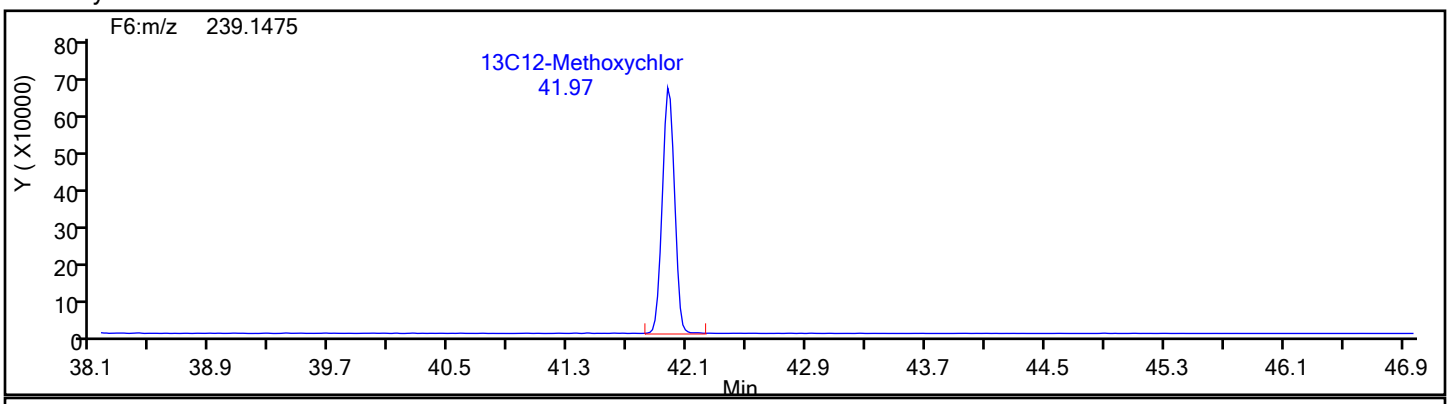
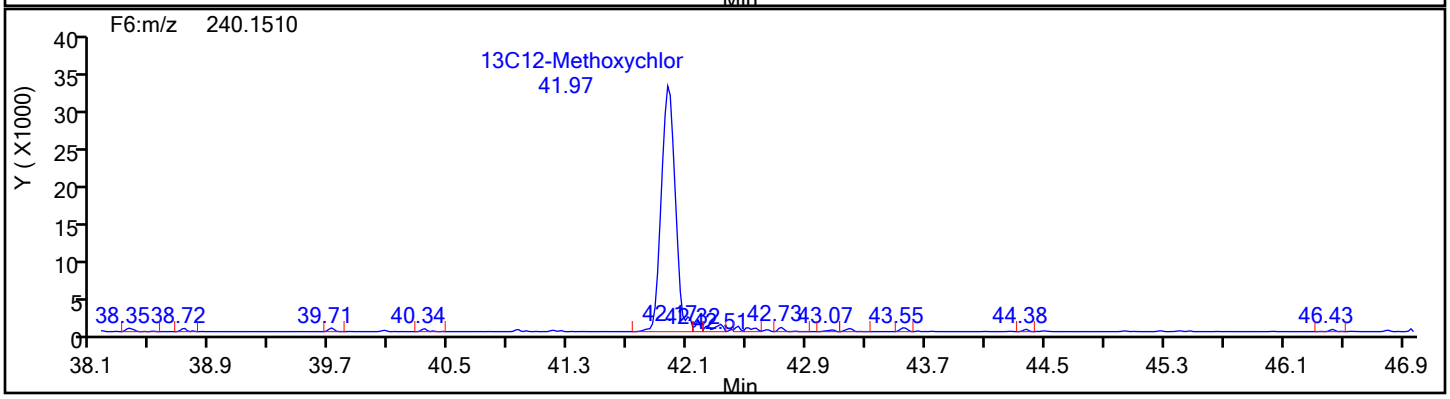




Methoxychlor Standards





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Eurofins Knoxville

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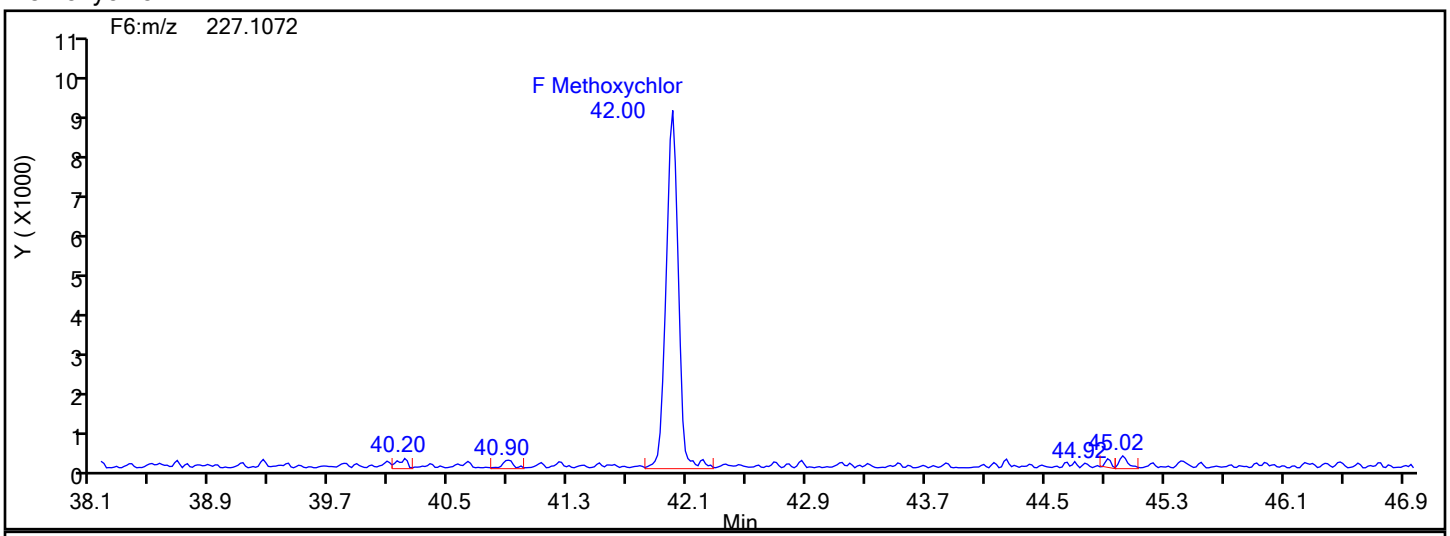
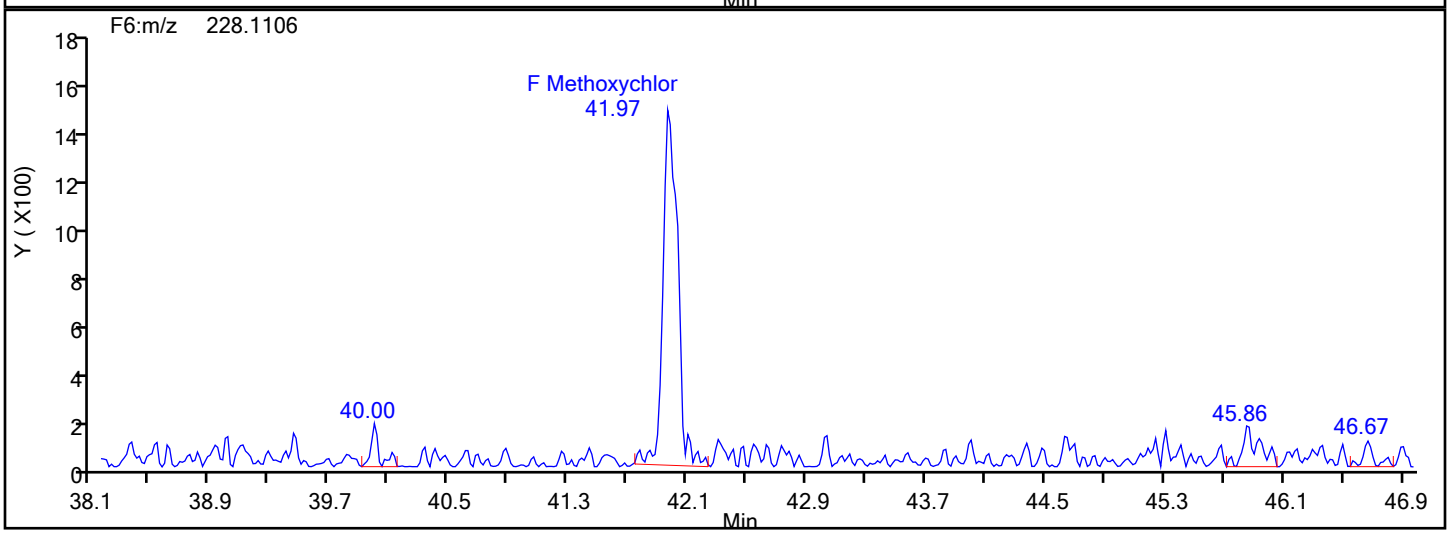
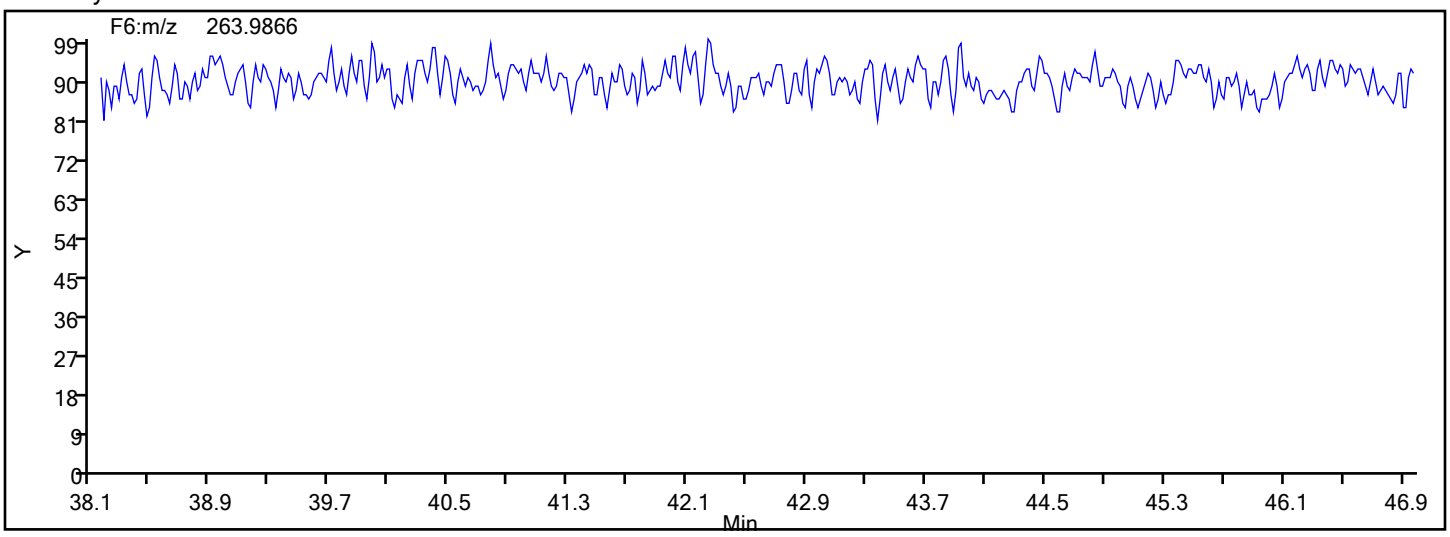




Methoxychlor Lock Mass



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Eurofins Knoxville

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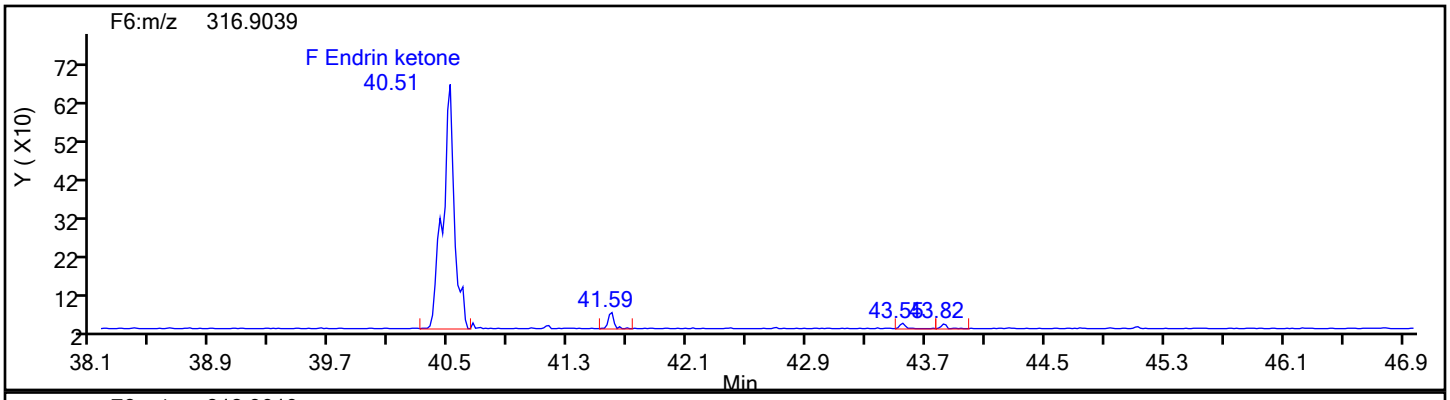
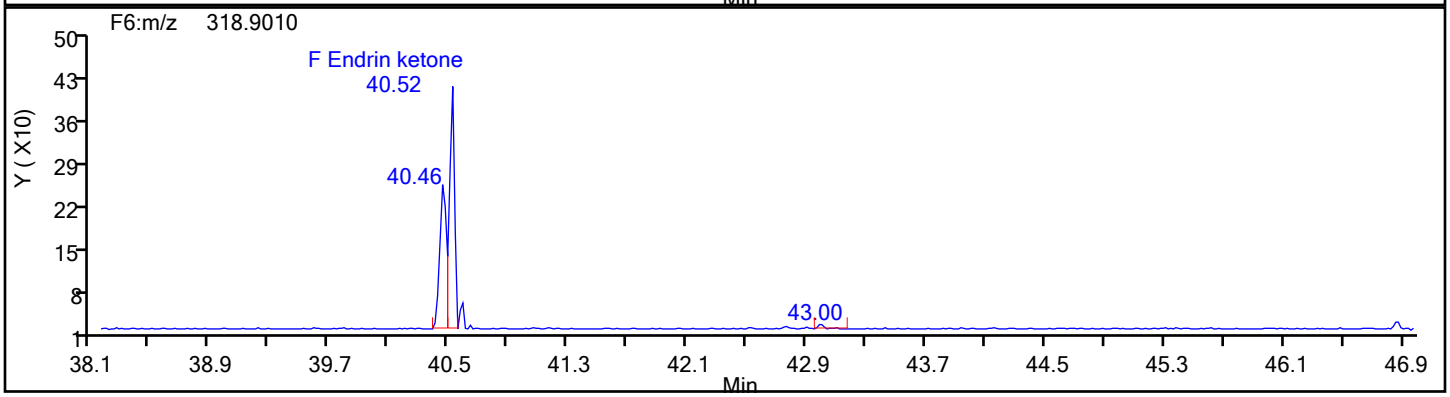
Endrin ketone





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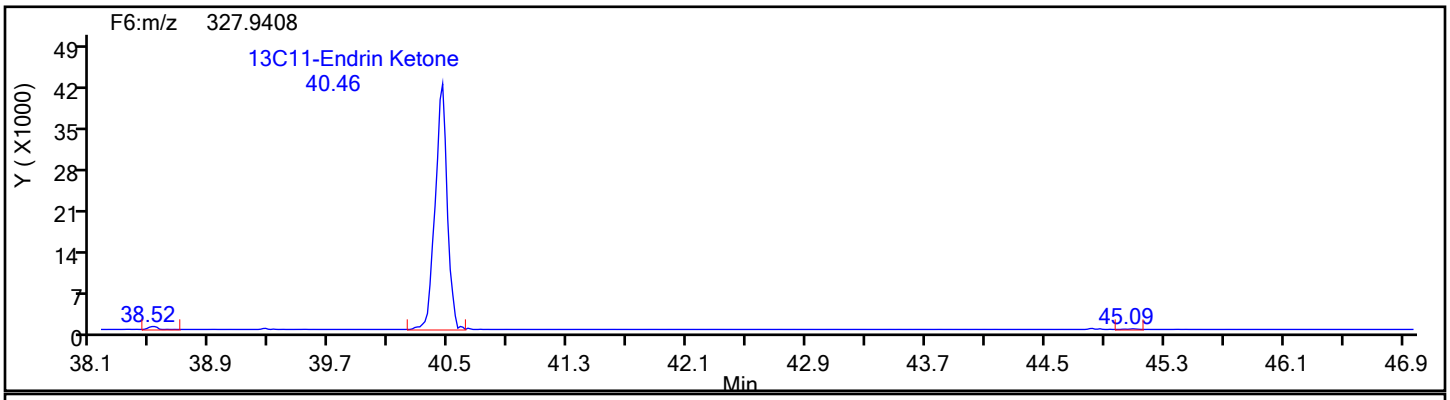

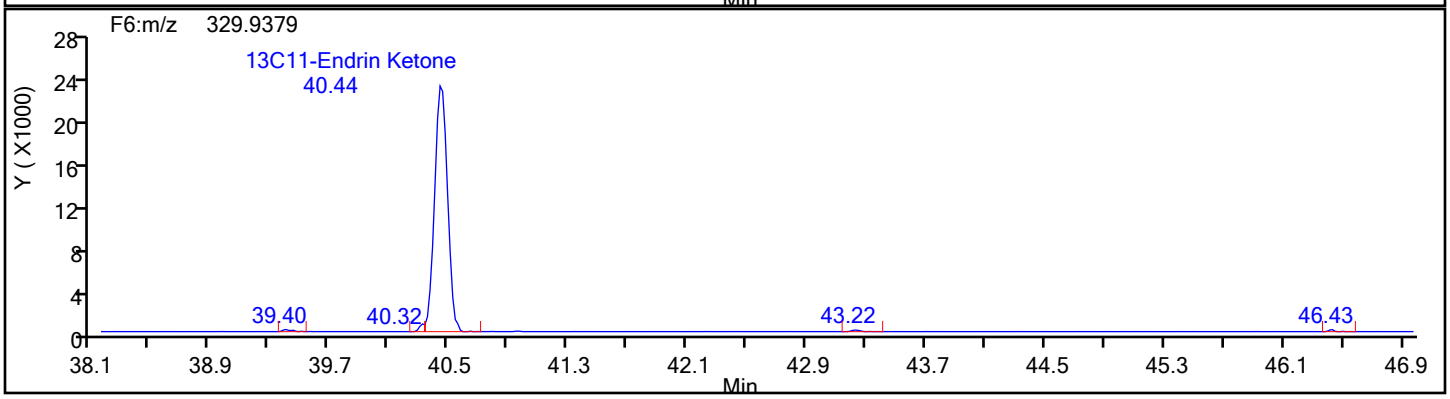

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Eurofins Knoxville

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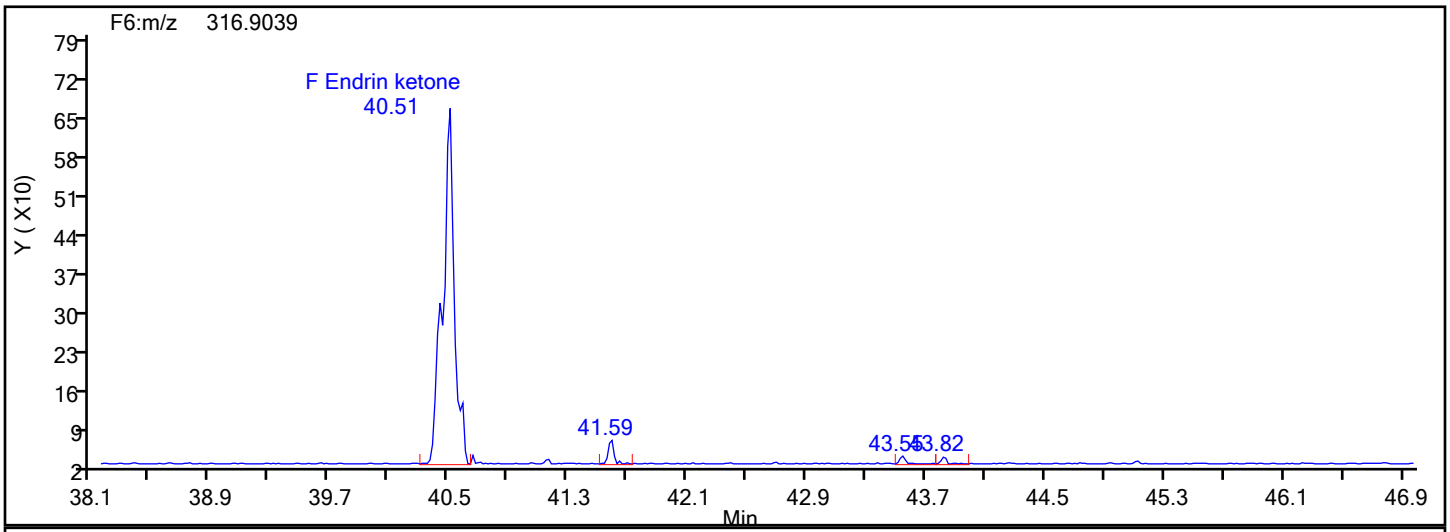

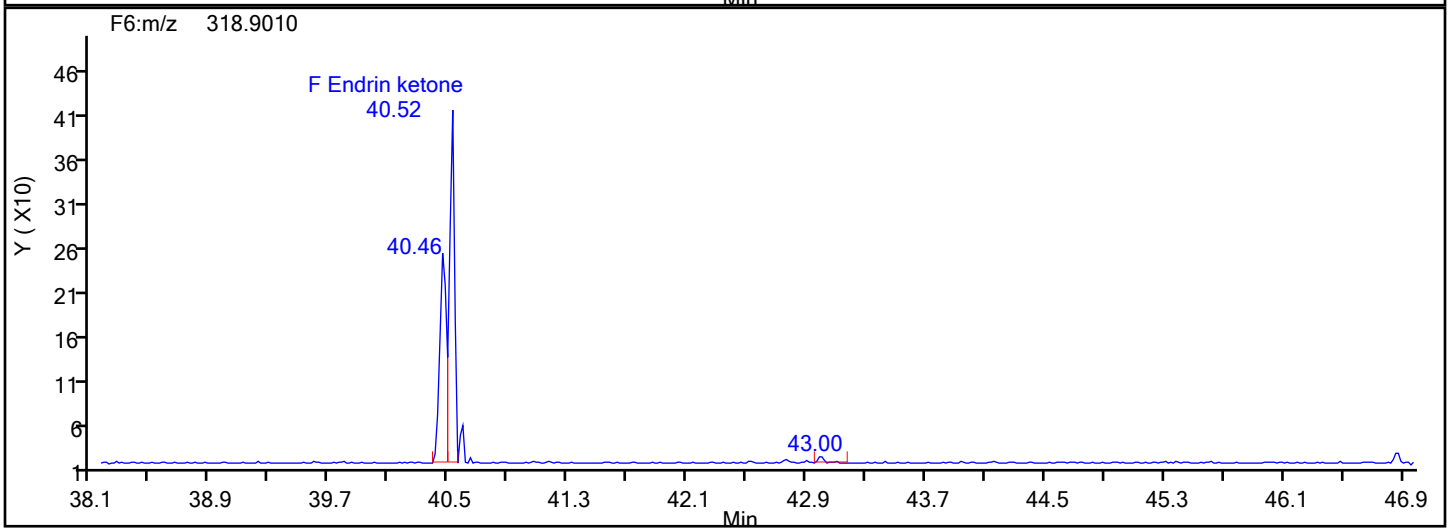

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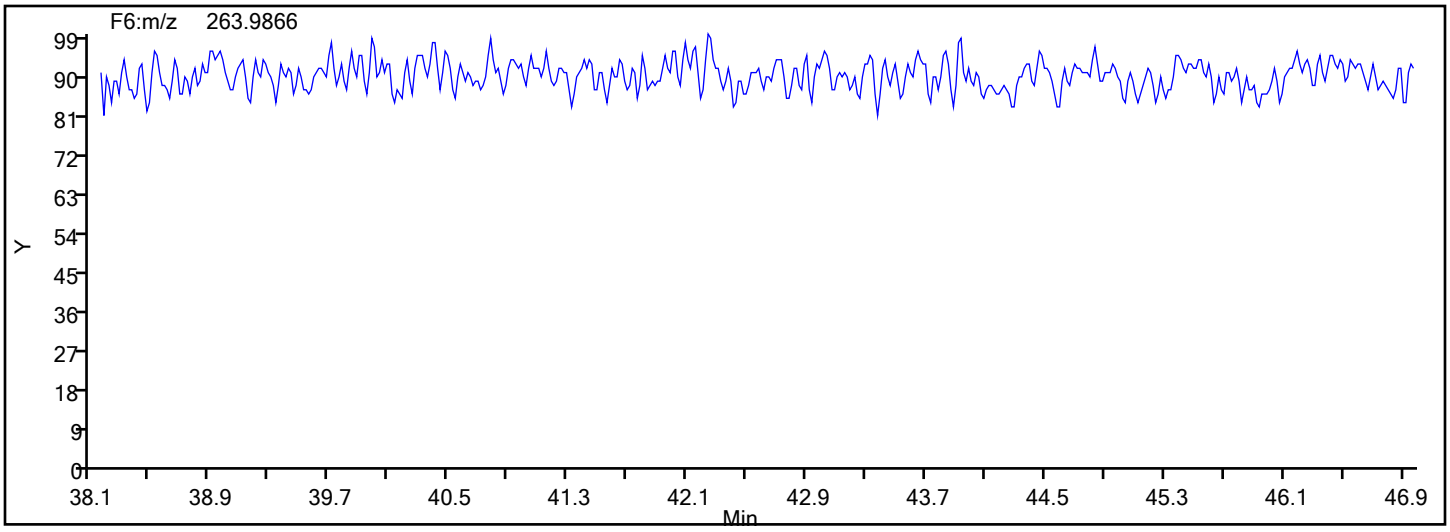

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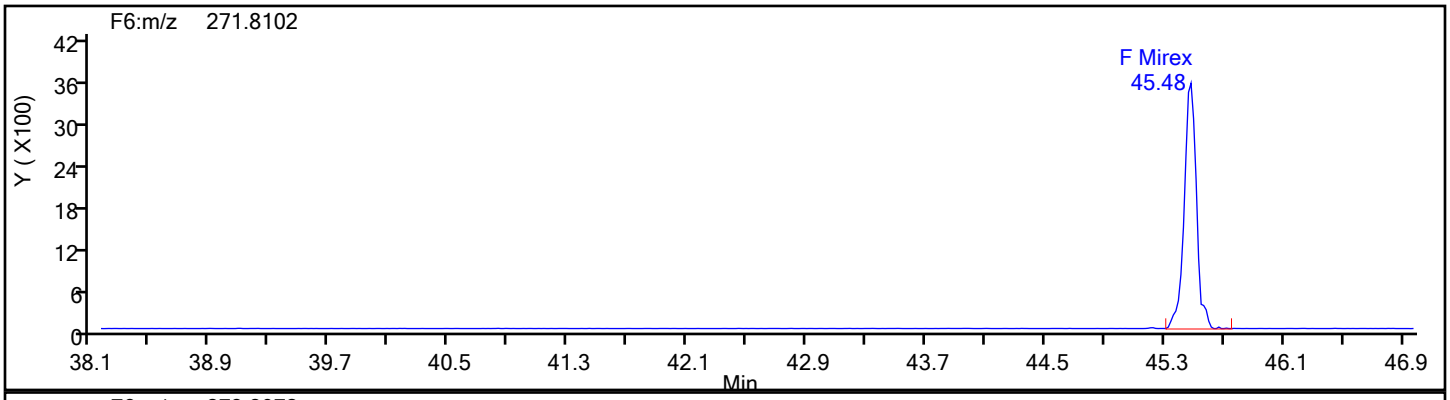
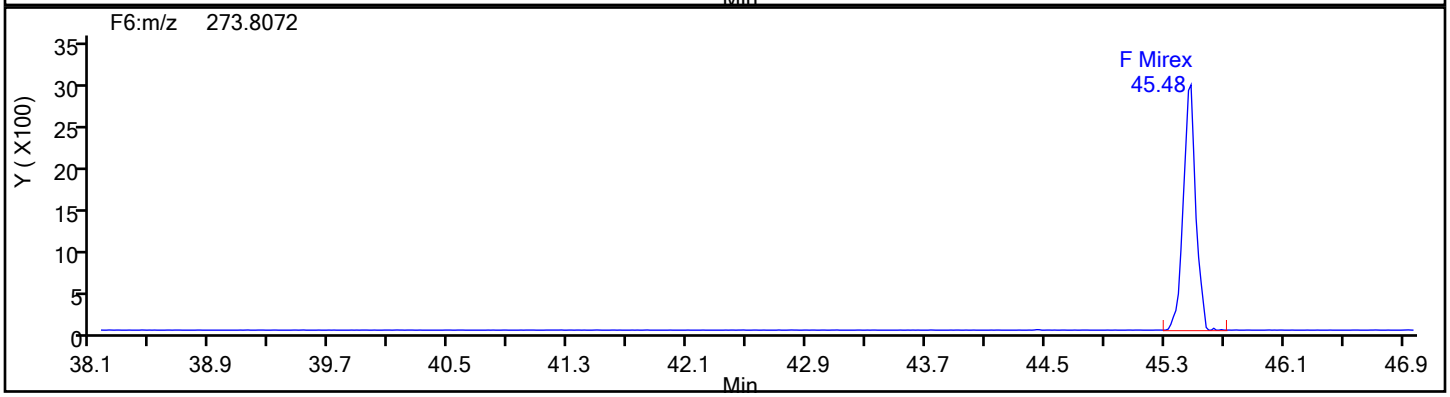
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

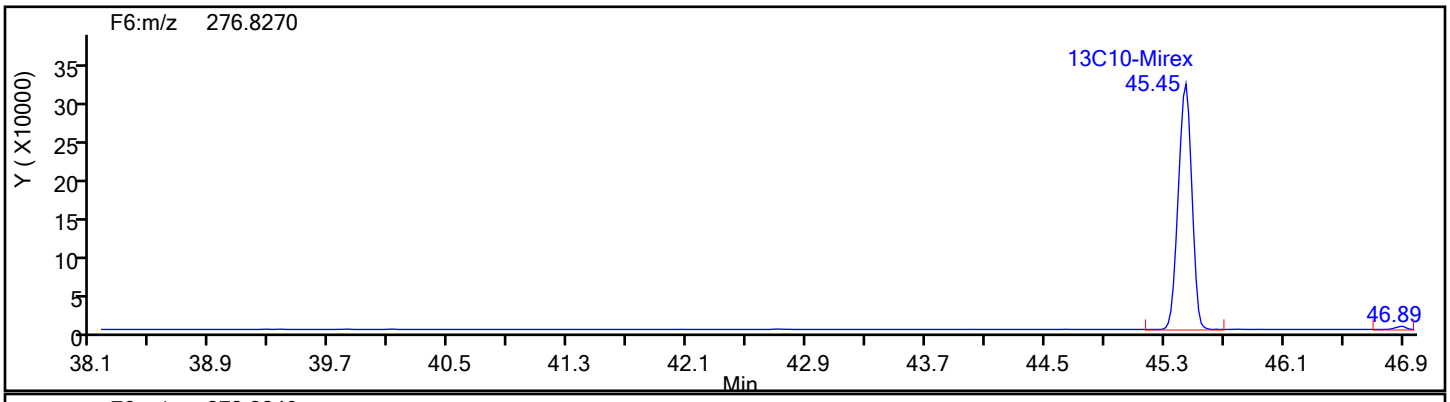
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

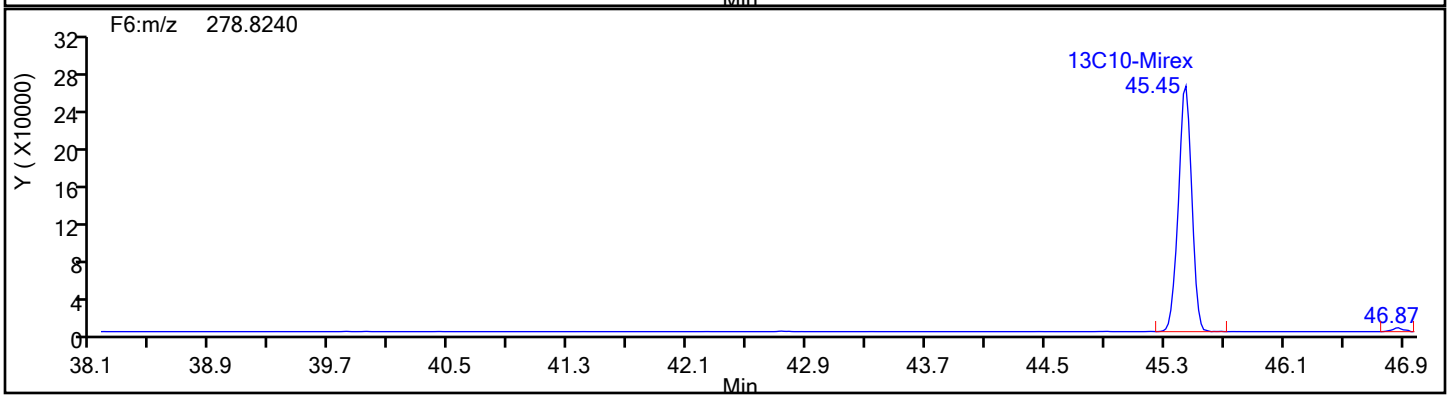
Mirex





Mirex Standards



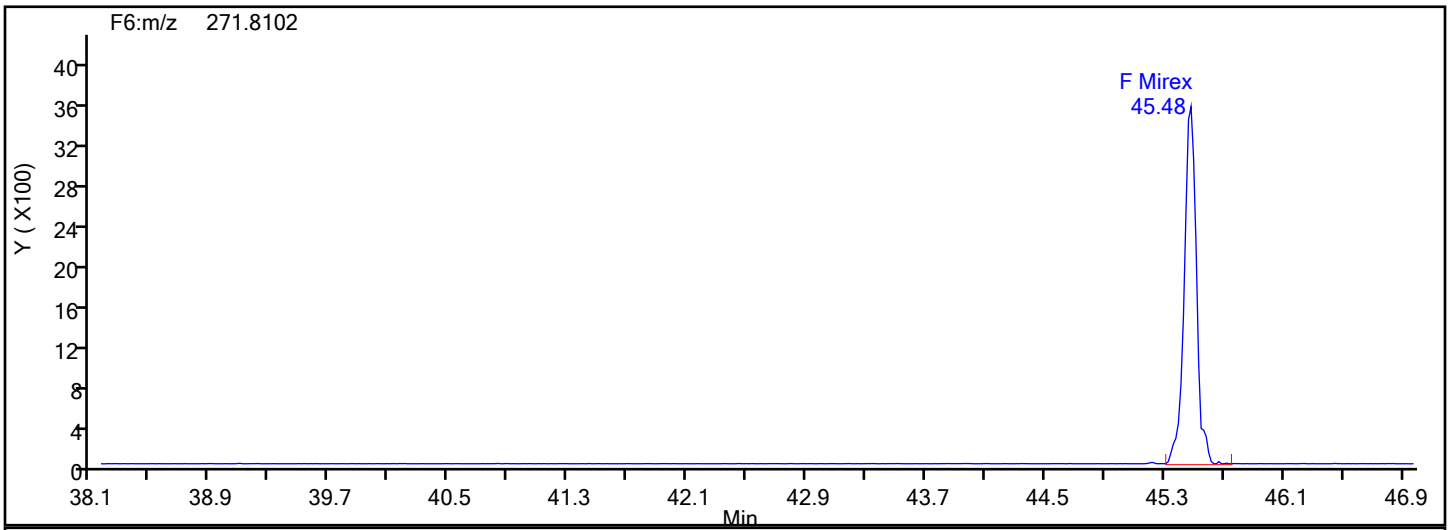


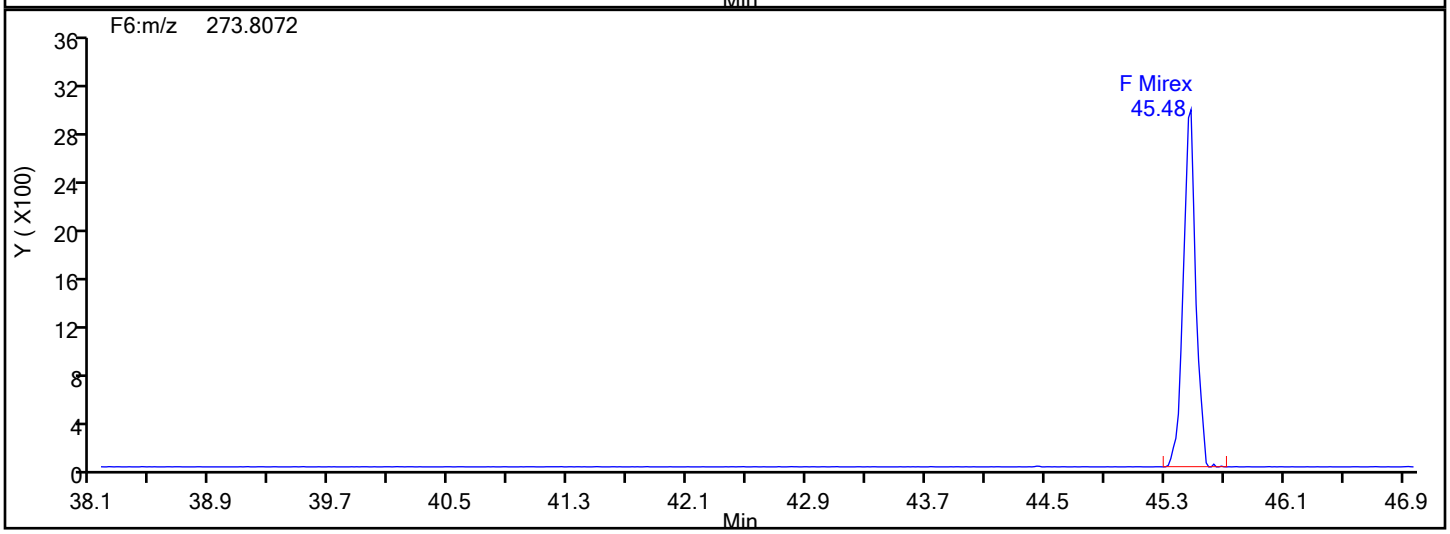
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

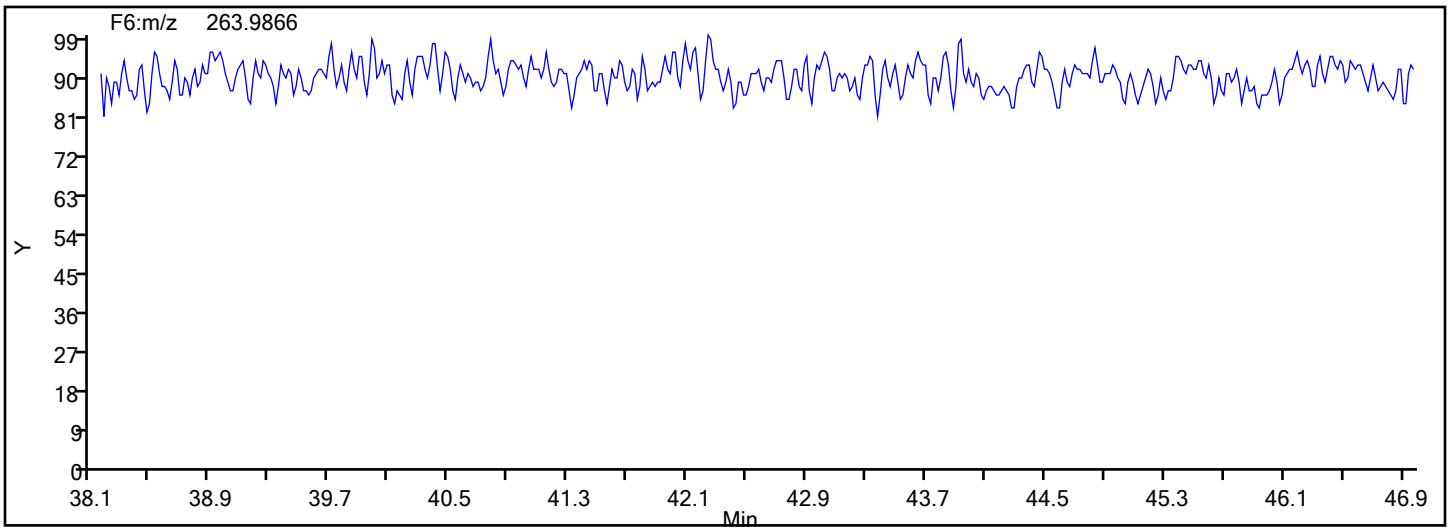
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



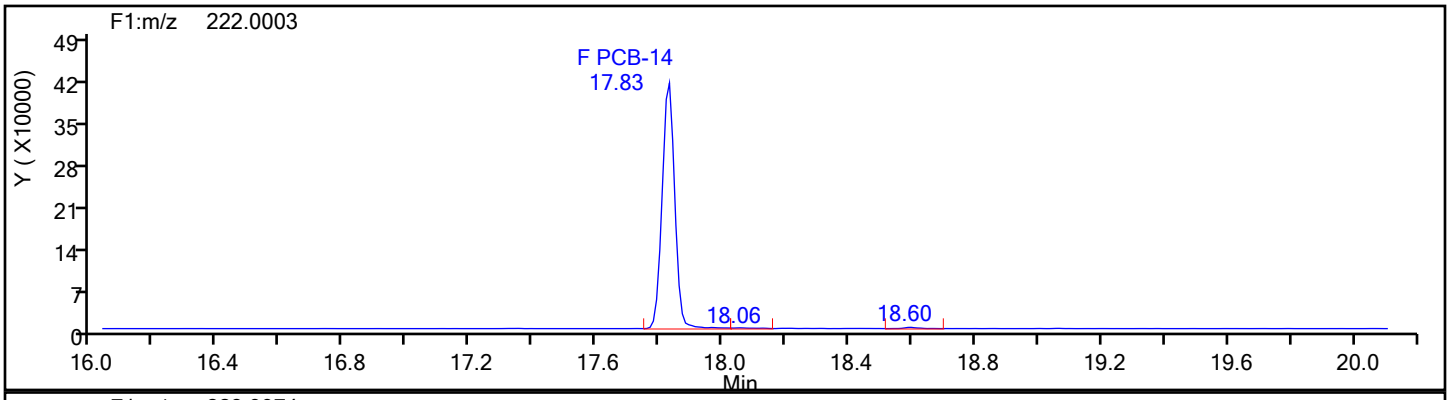
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

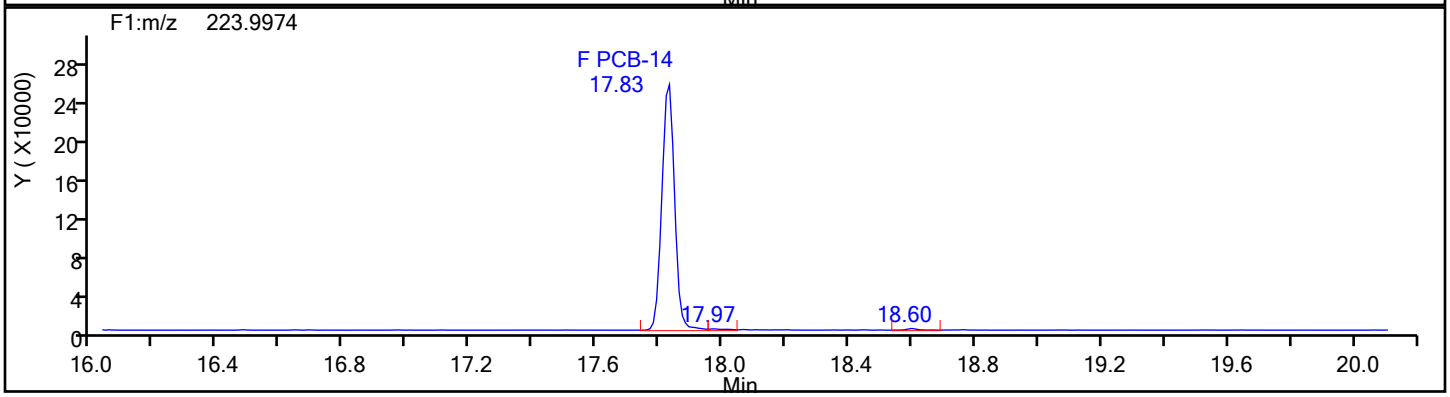
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

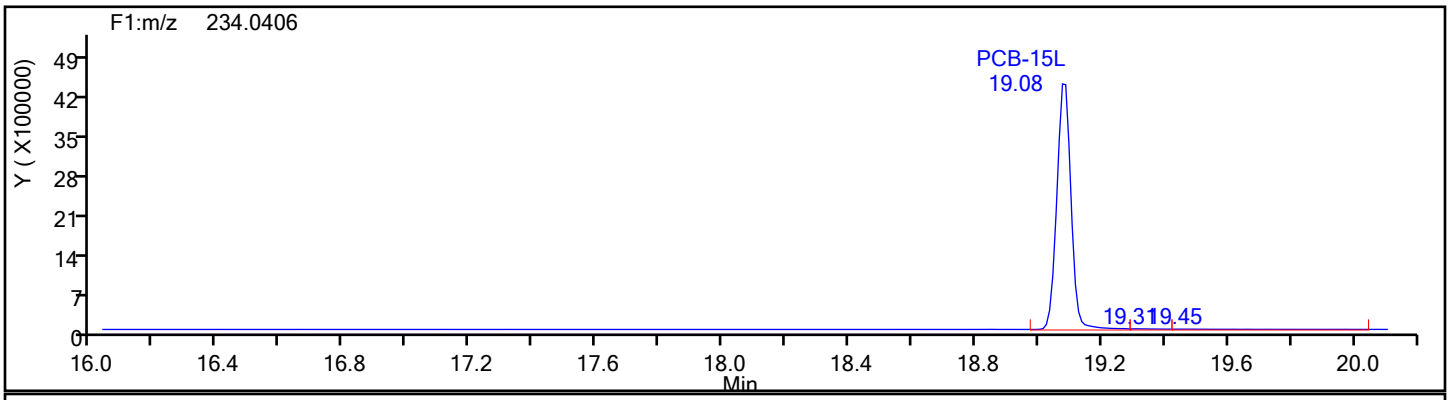
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

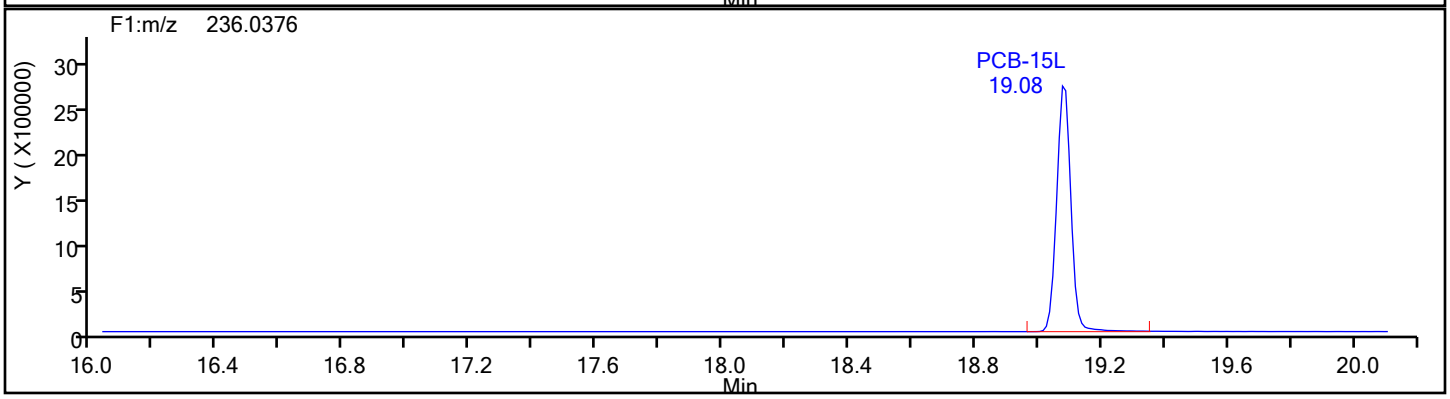
PCB-14





PCB-14 Standards





Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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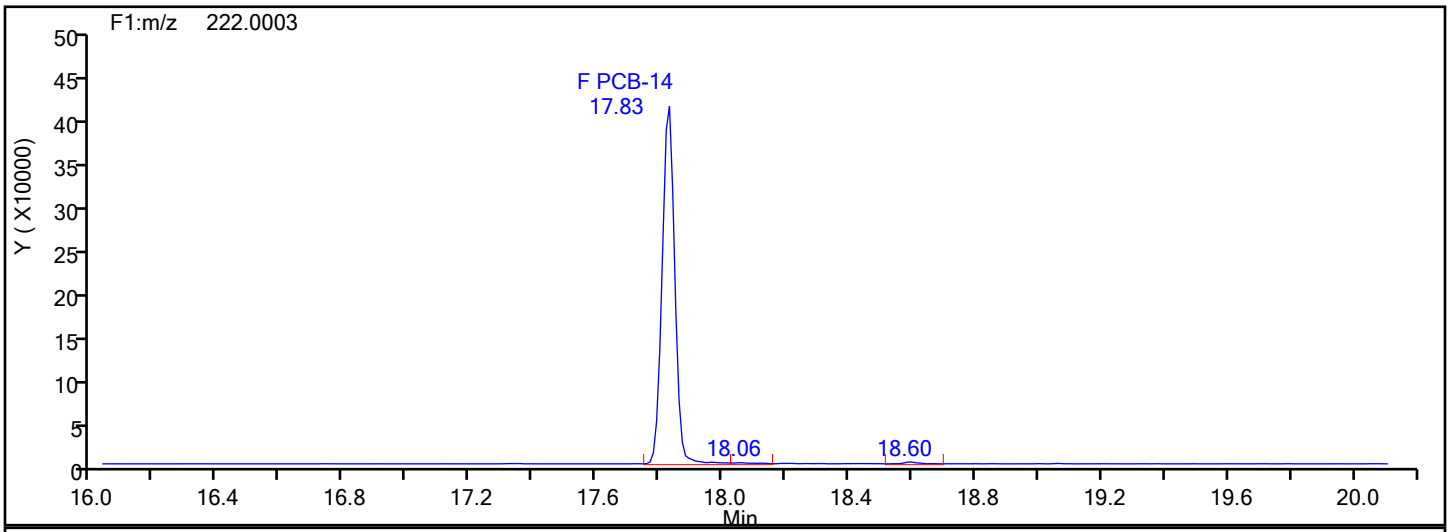
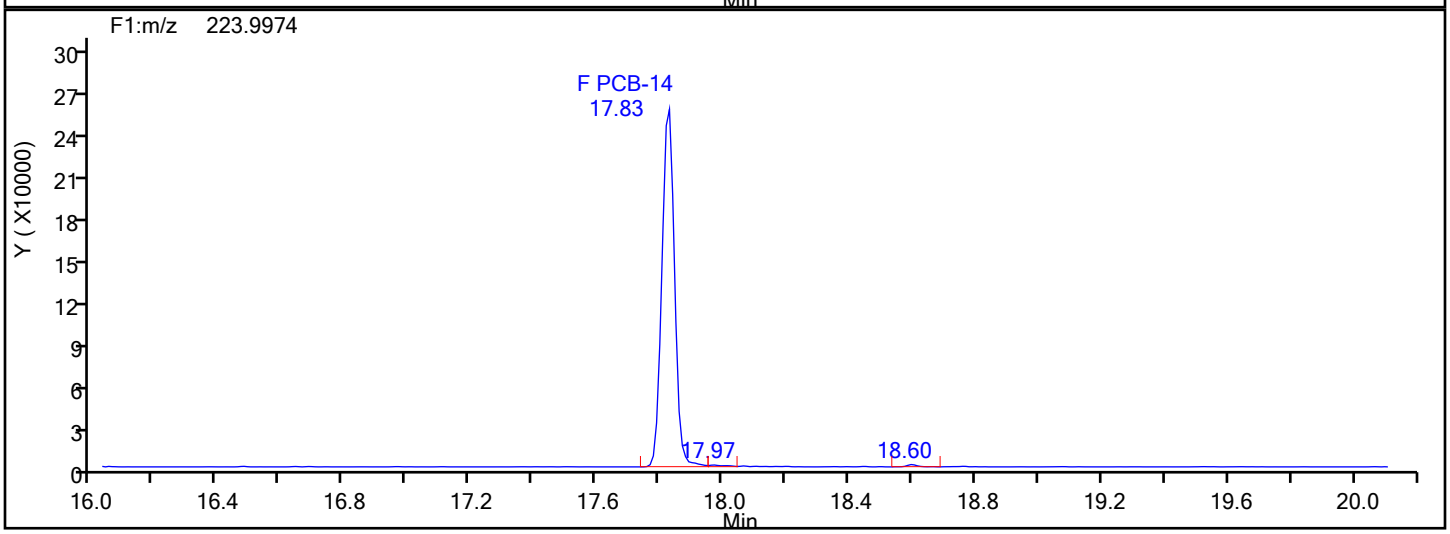
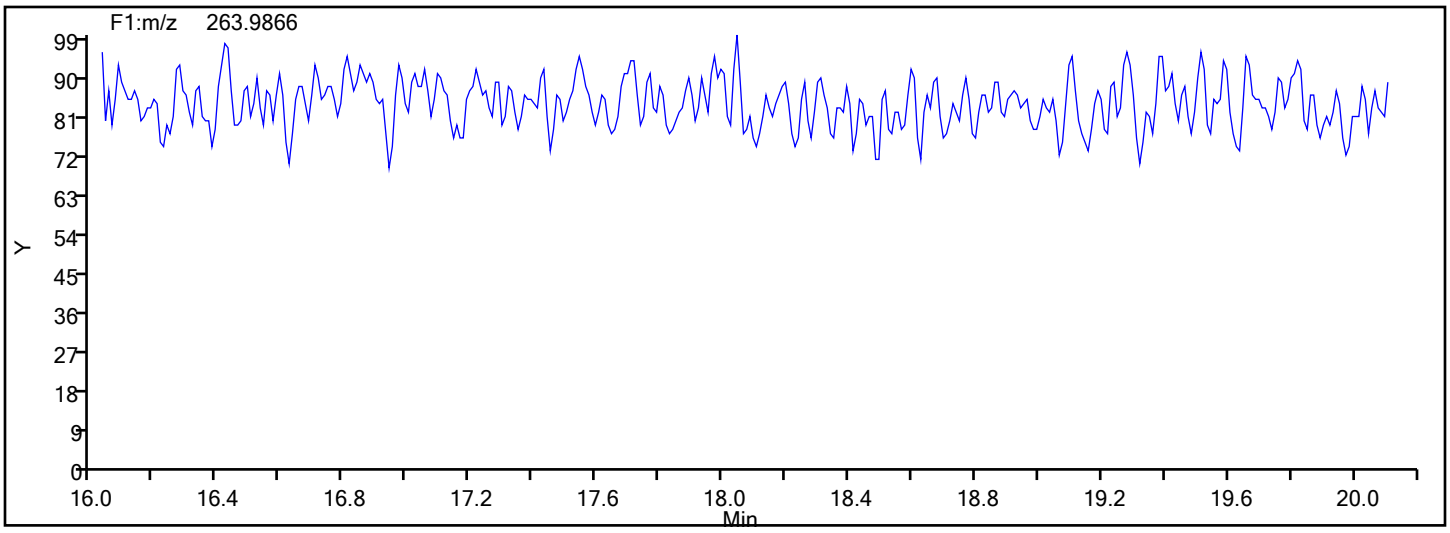
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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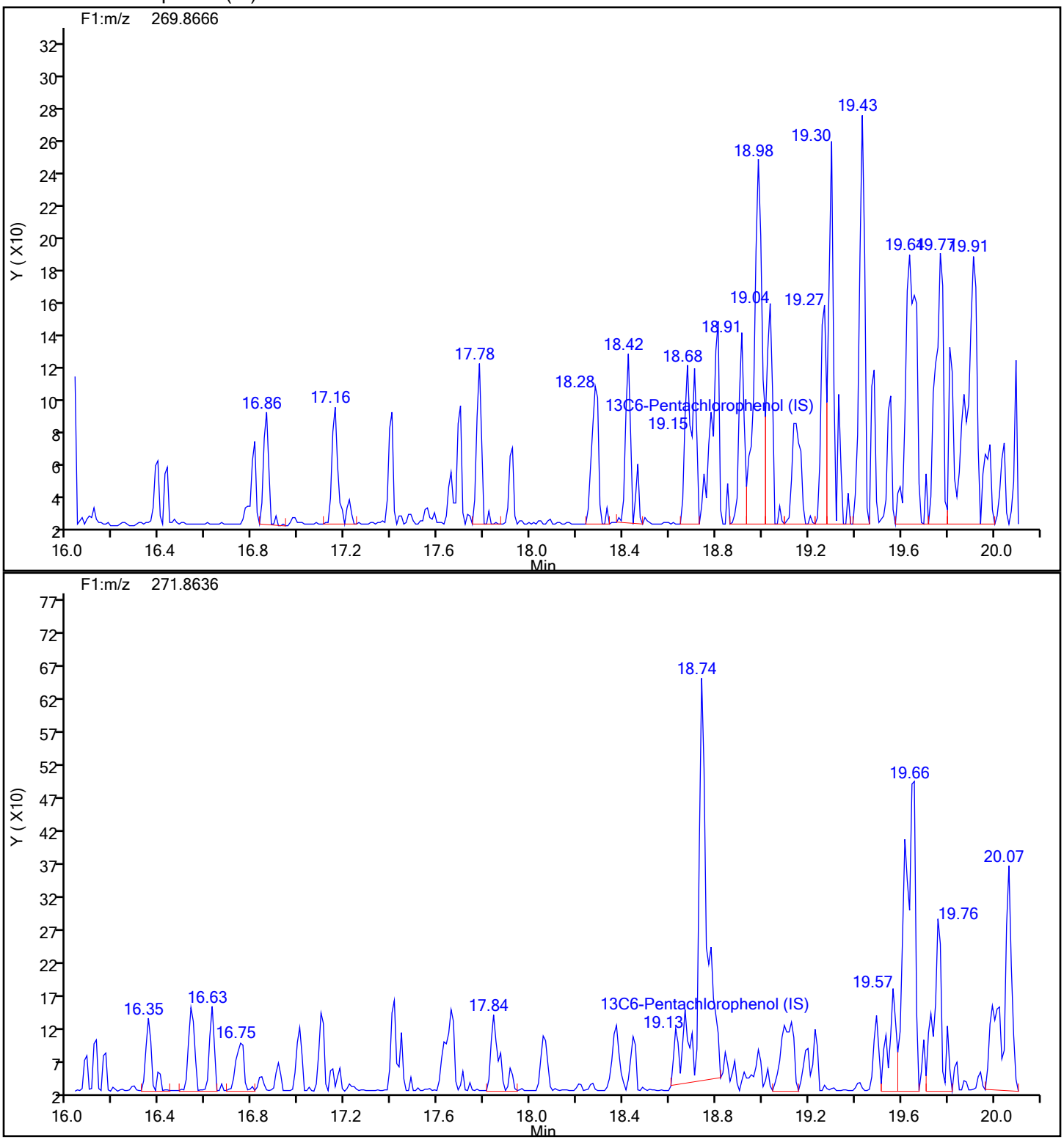
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards



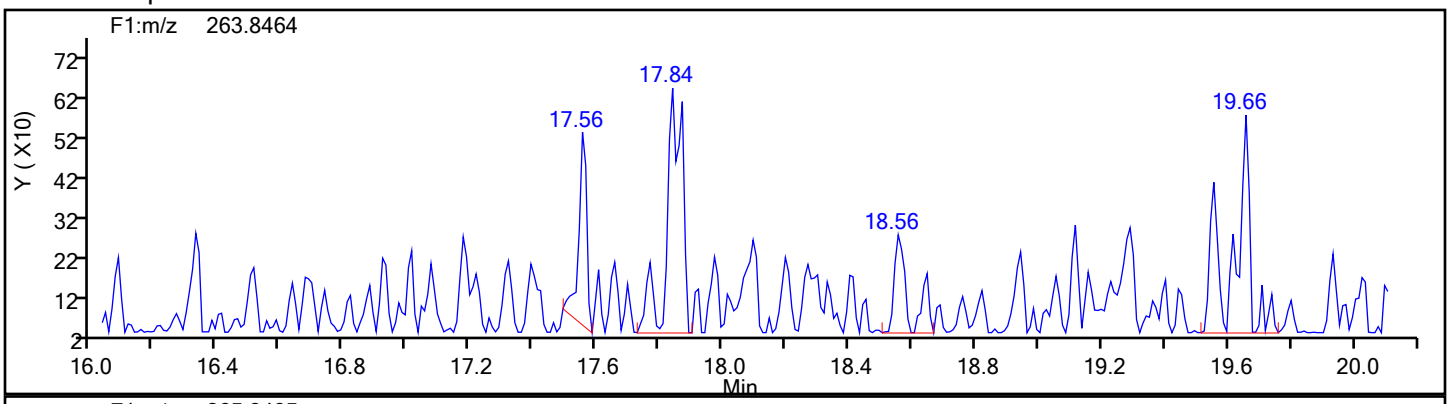
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

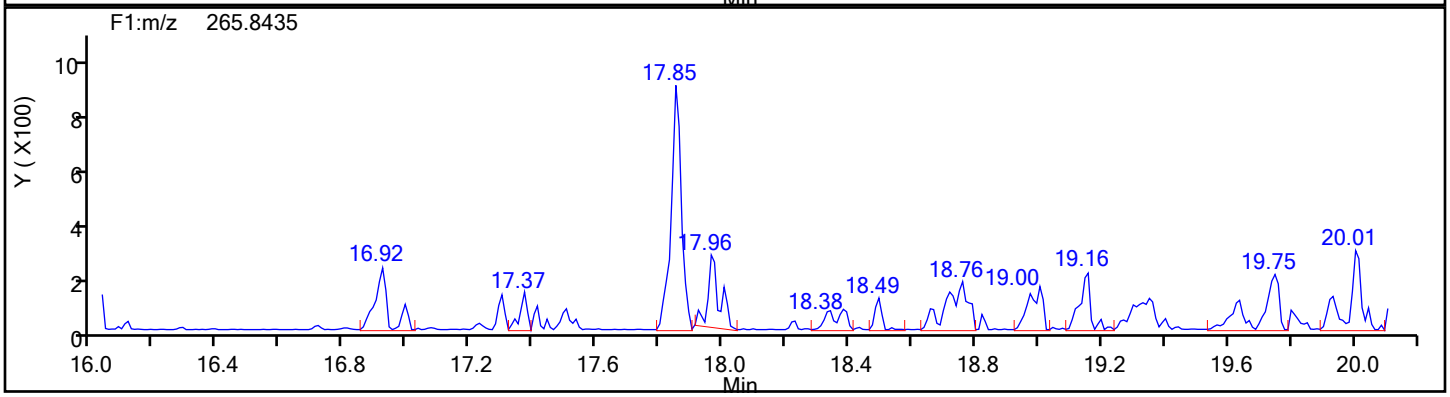
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

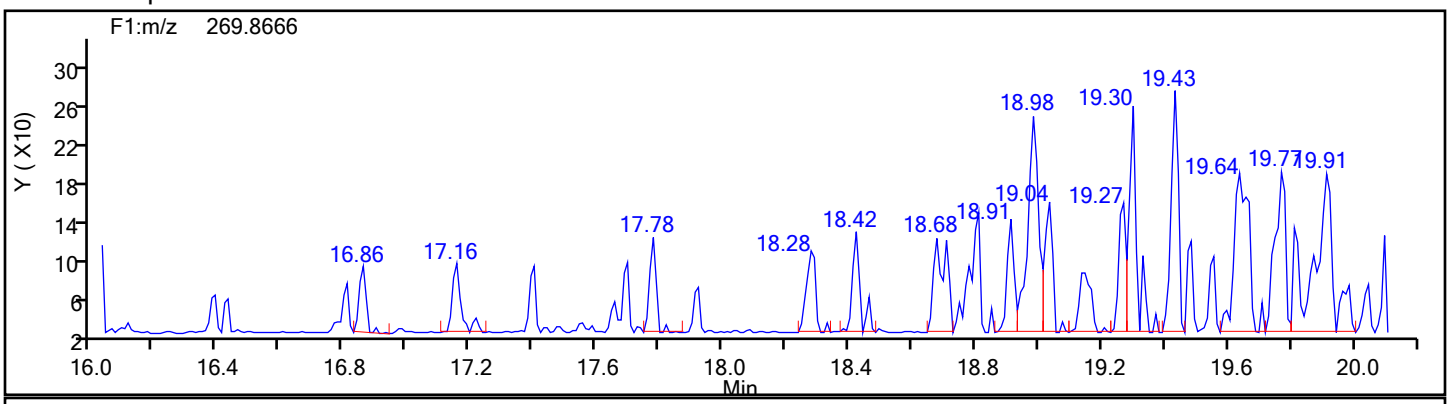
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

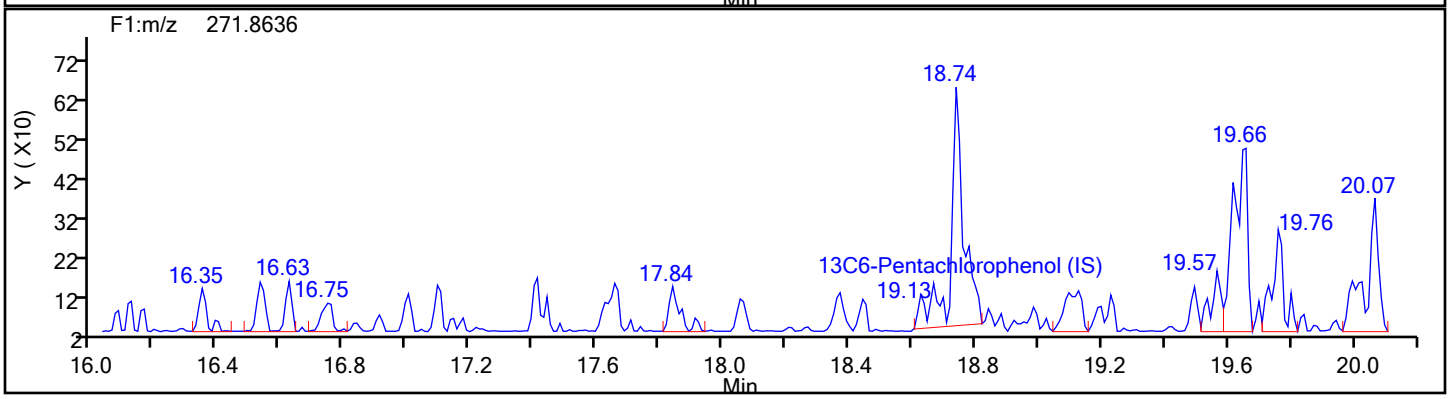
Pentachlorophenol





Pentachlorophenol Standards





Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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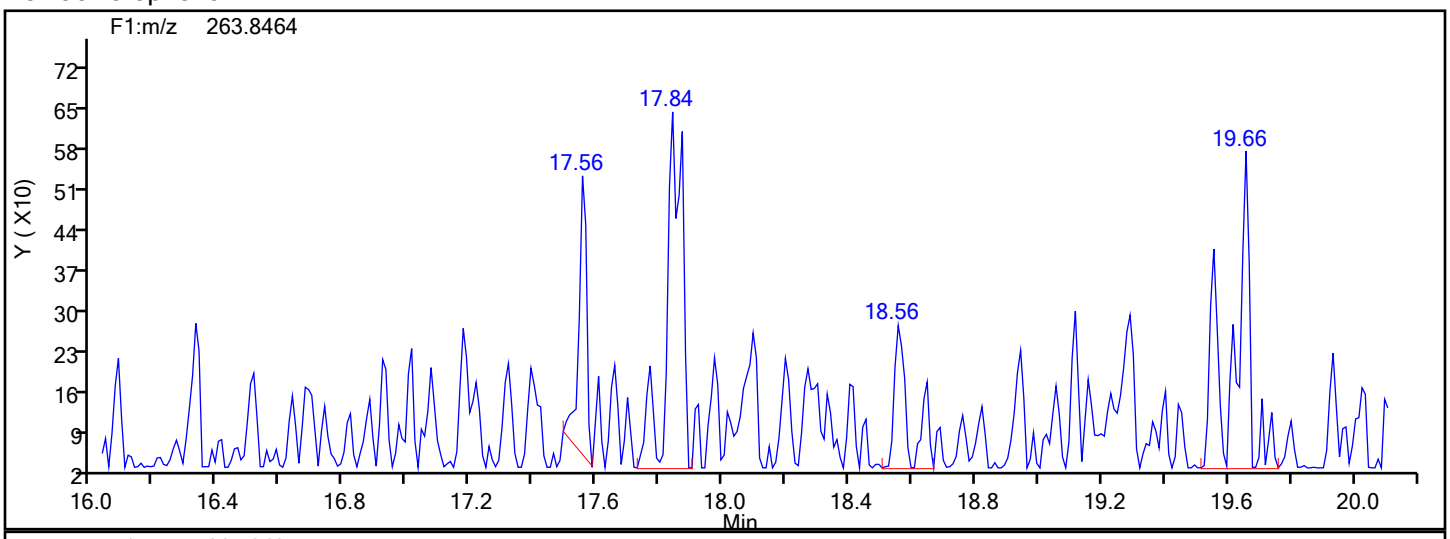
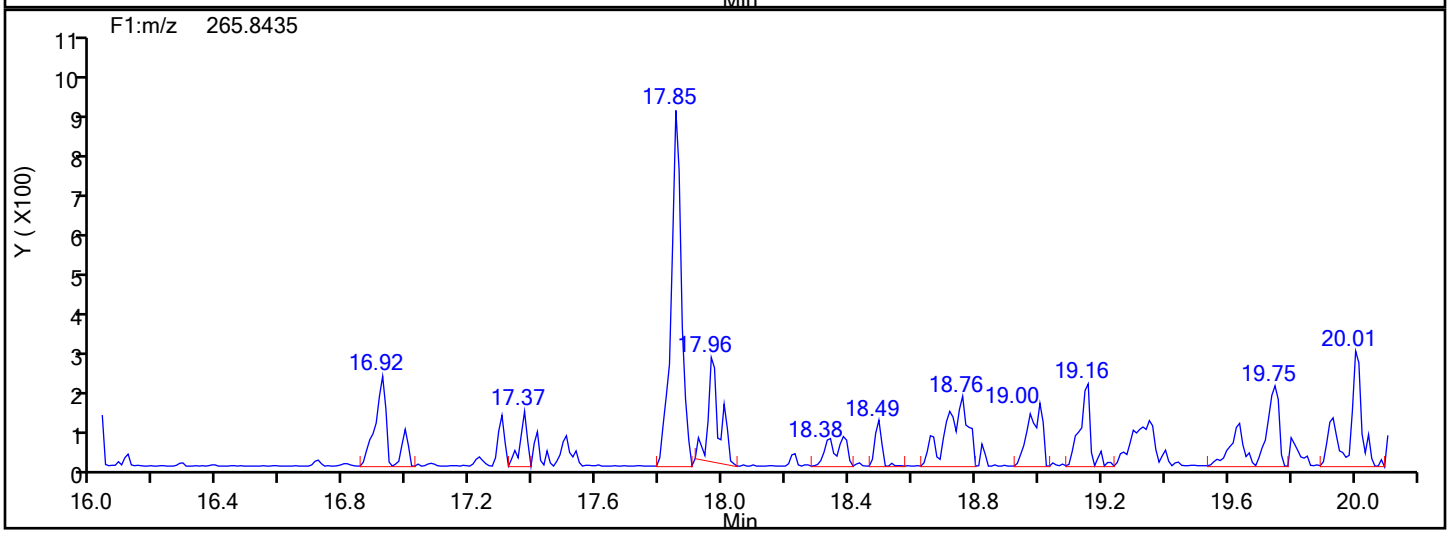
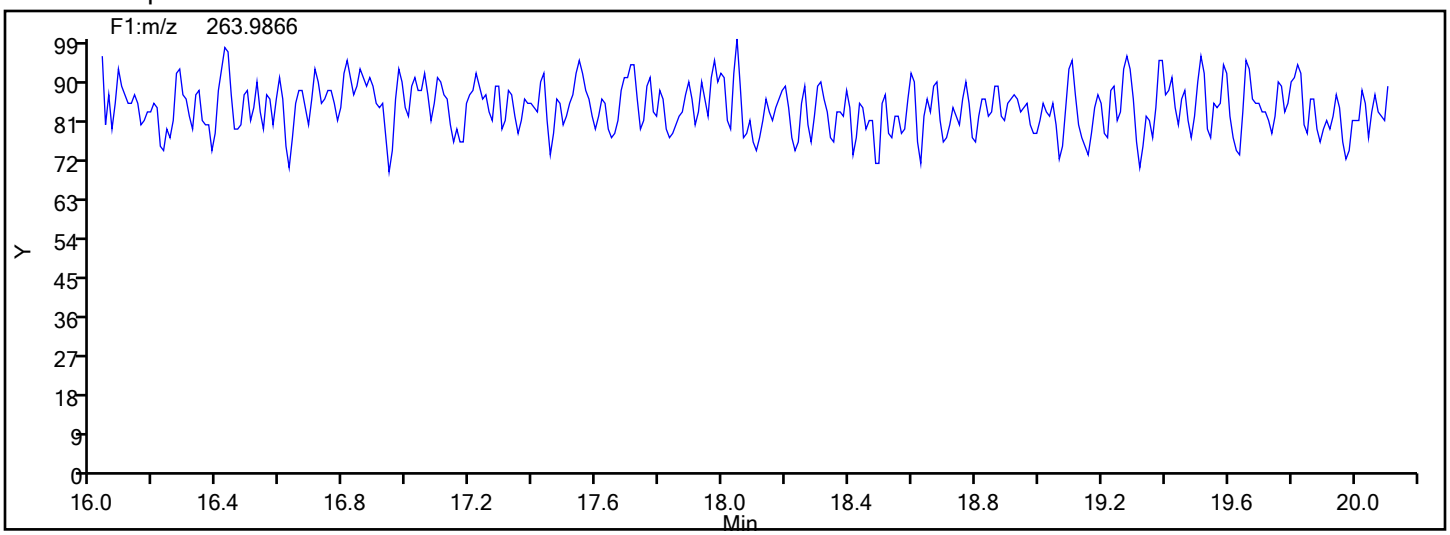
Pentachlorophenol





Pentachlorophenol Lock Mass



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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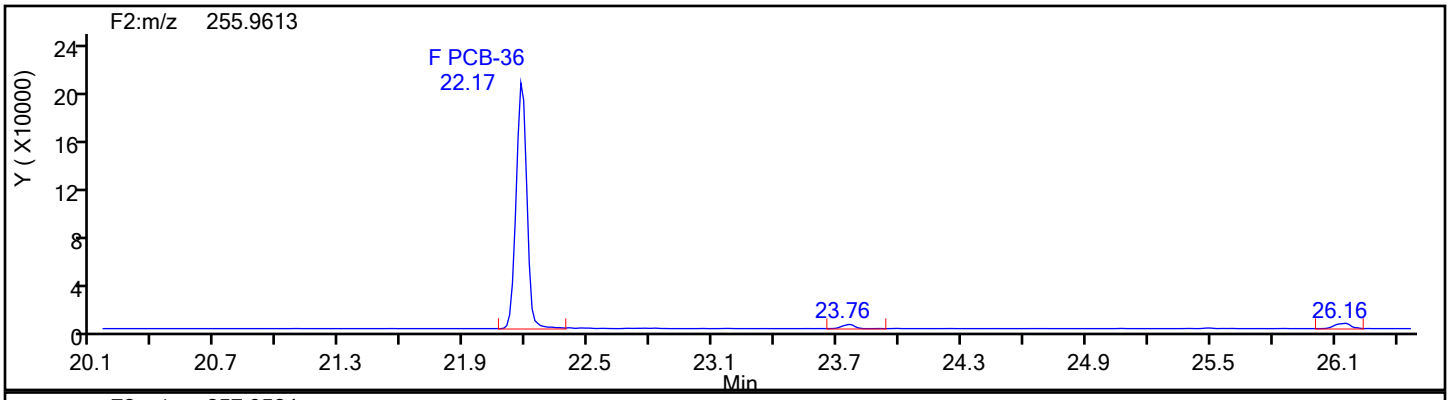
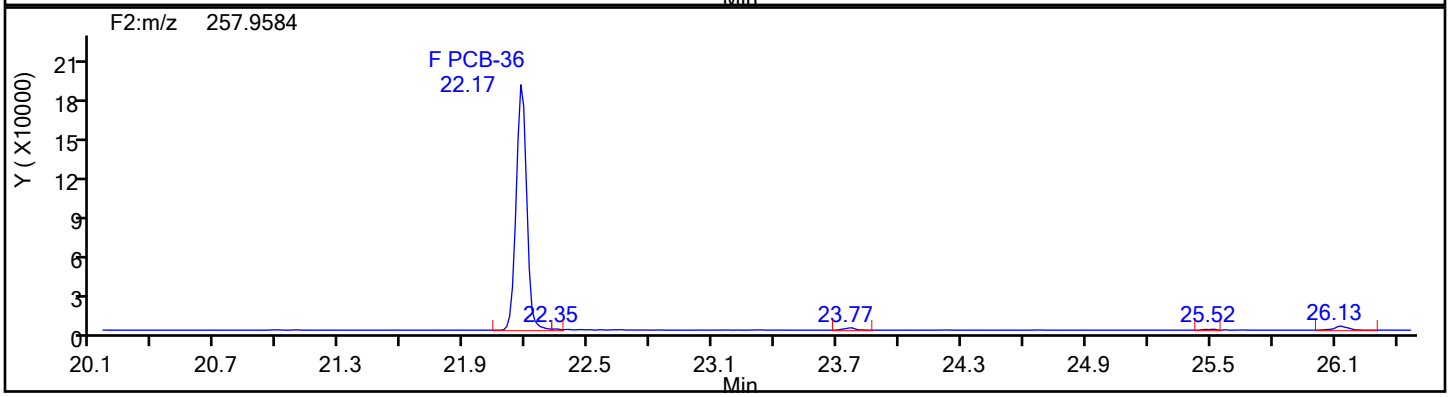
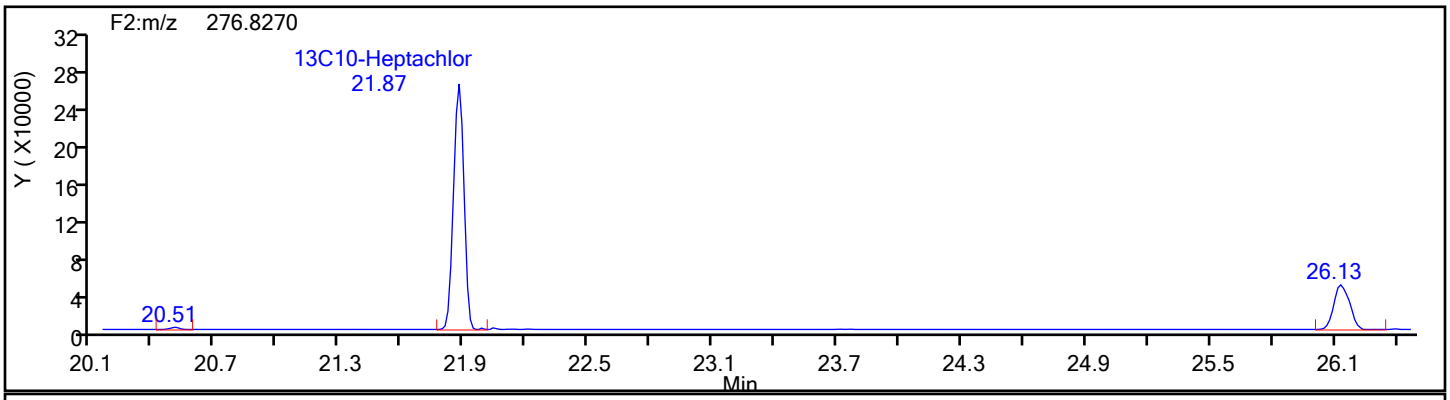
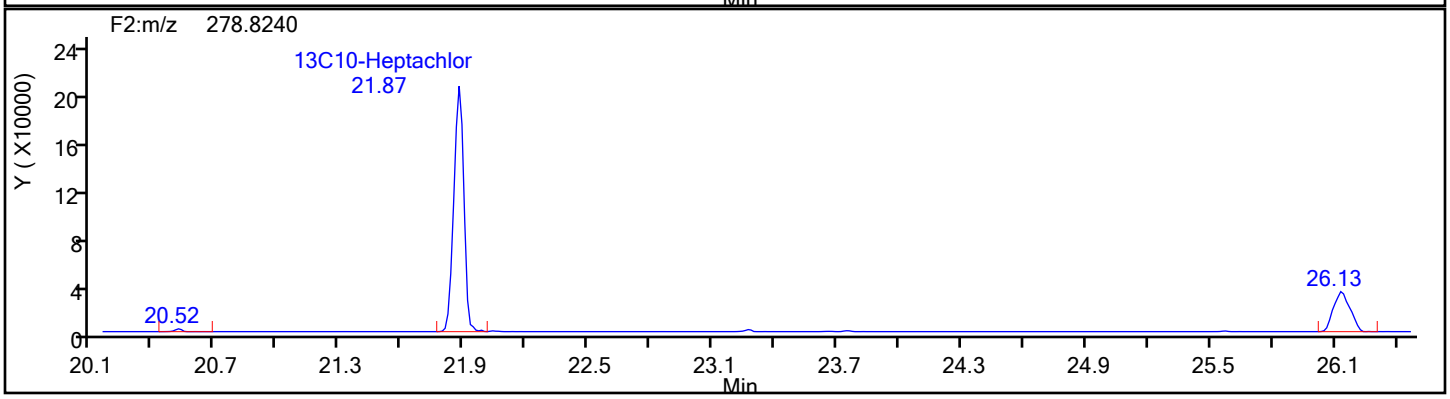
PCB-36





PCB-36 Standards





Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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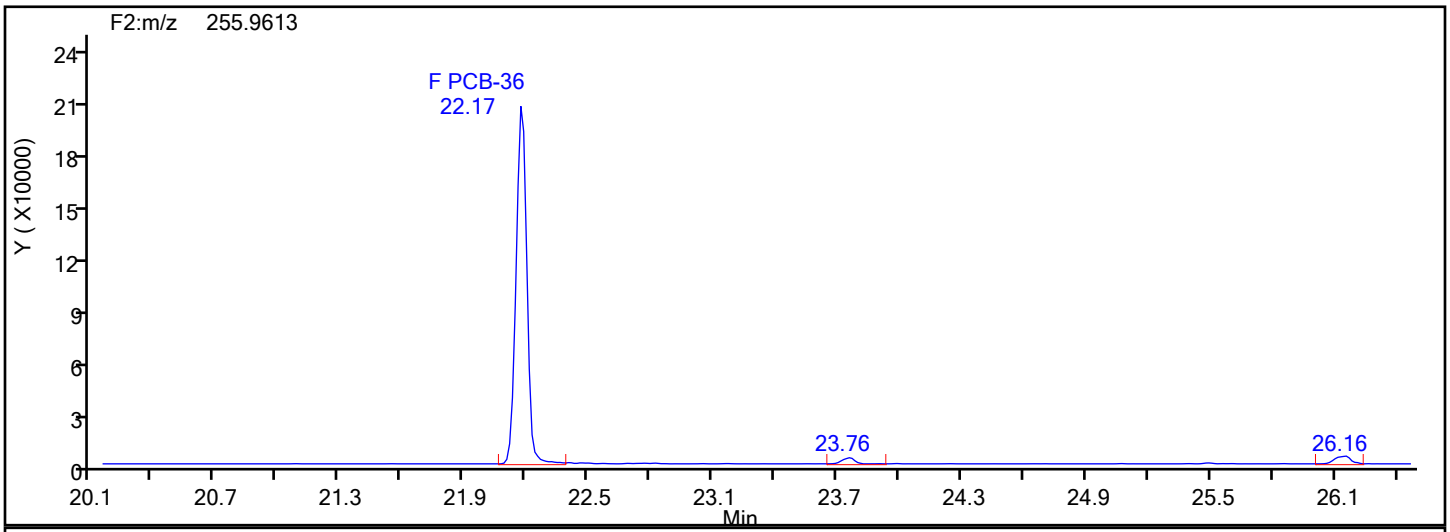
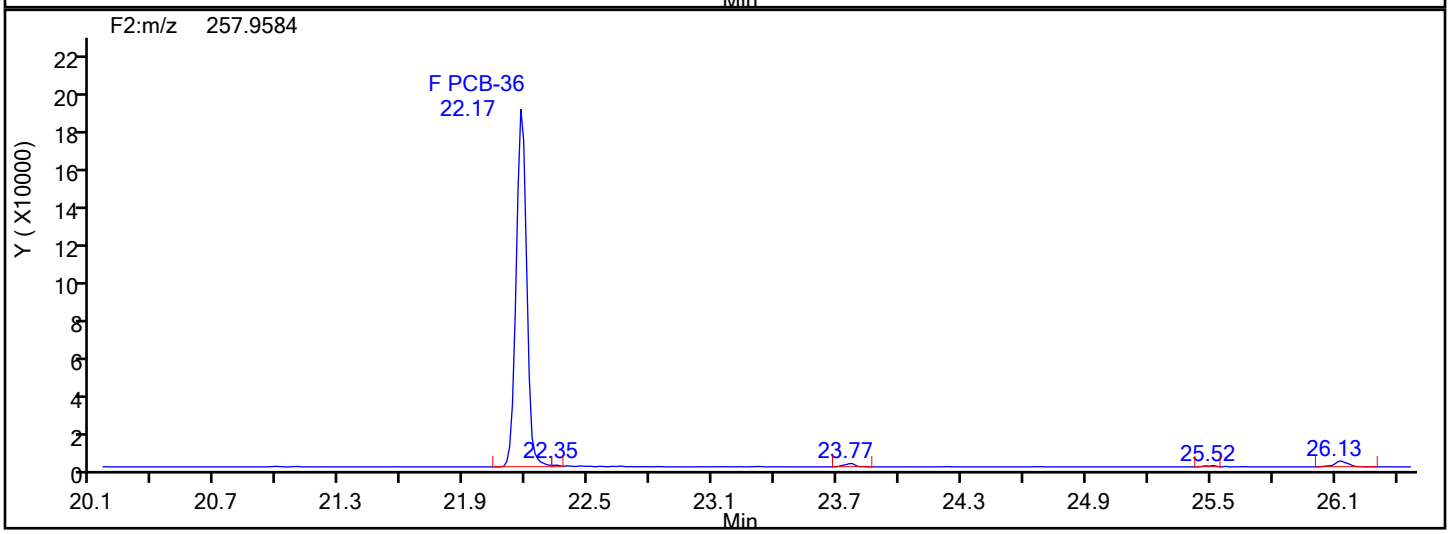
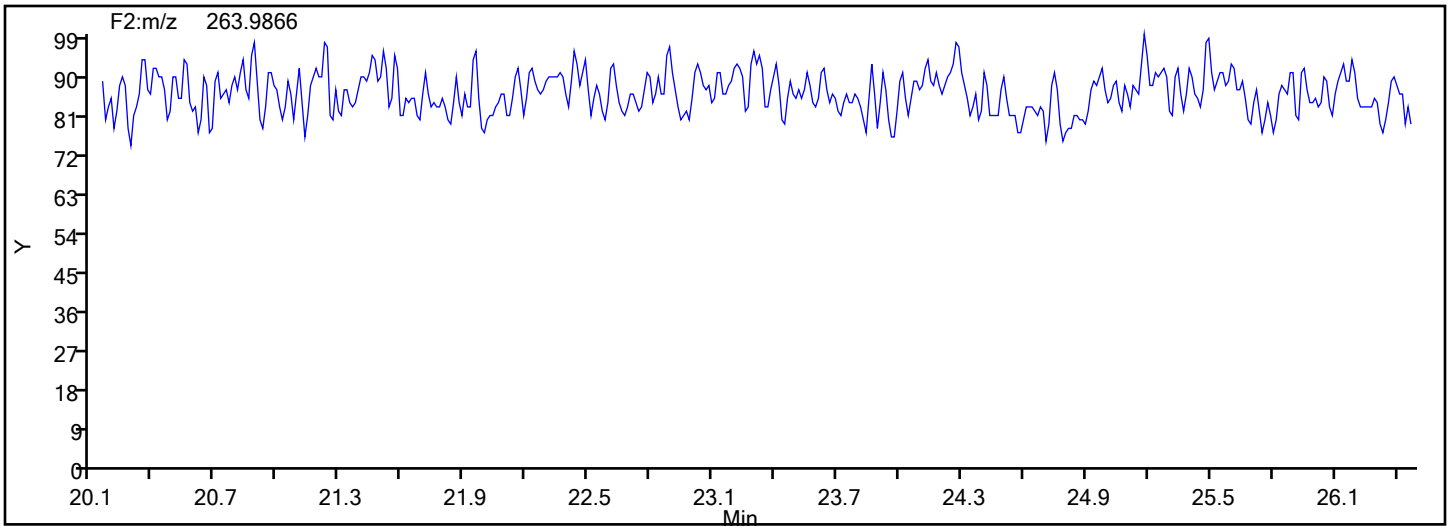
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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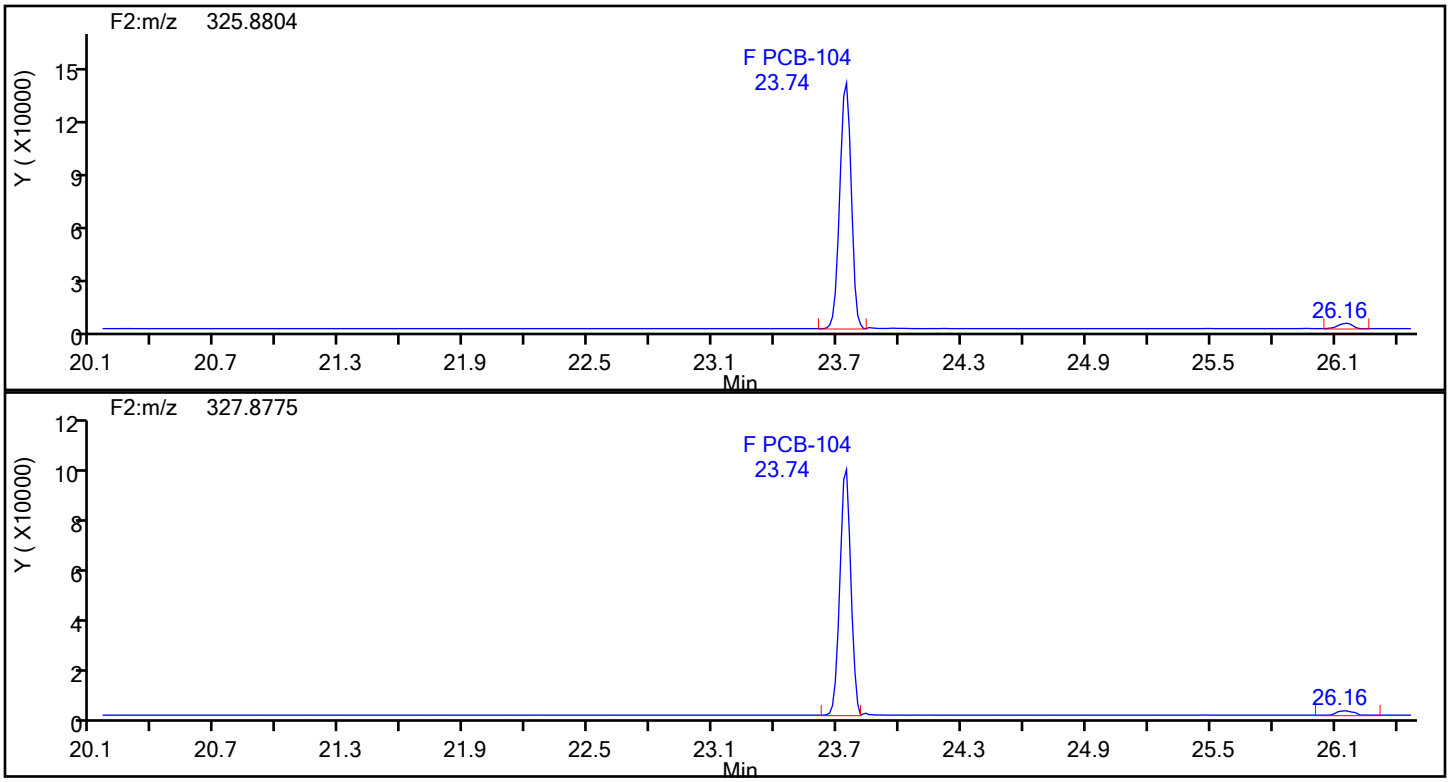
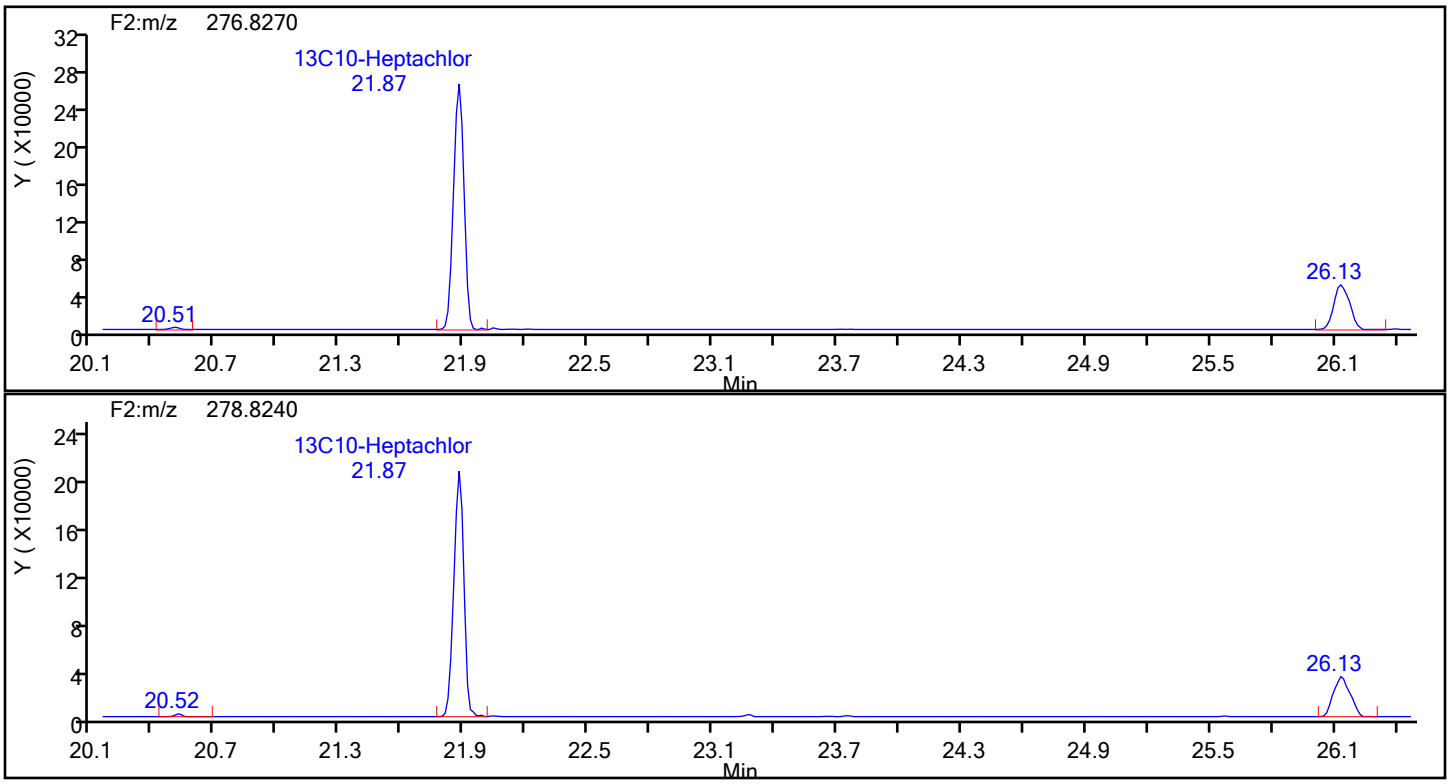
PCB-104



PCB-104 Standards



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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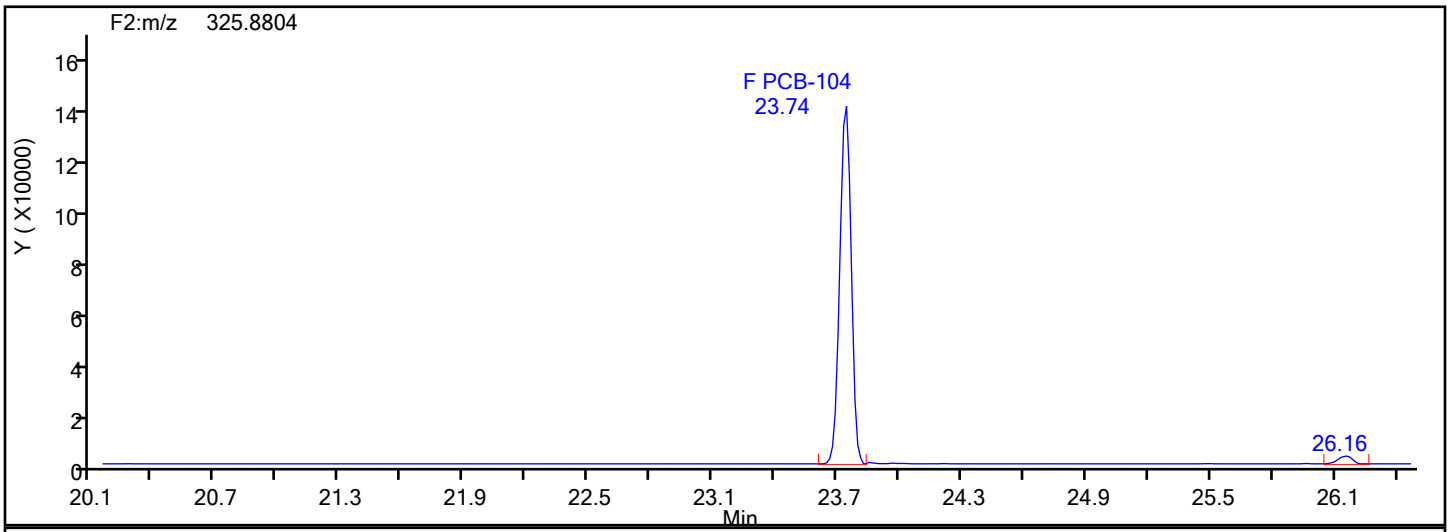
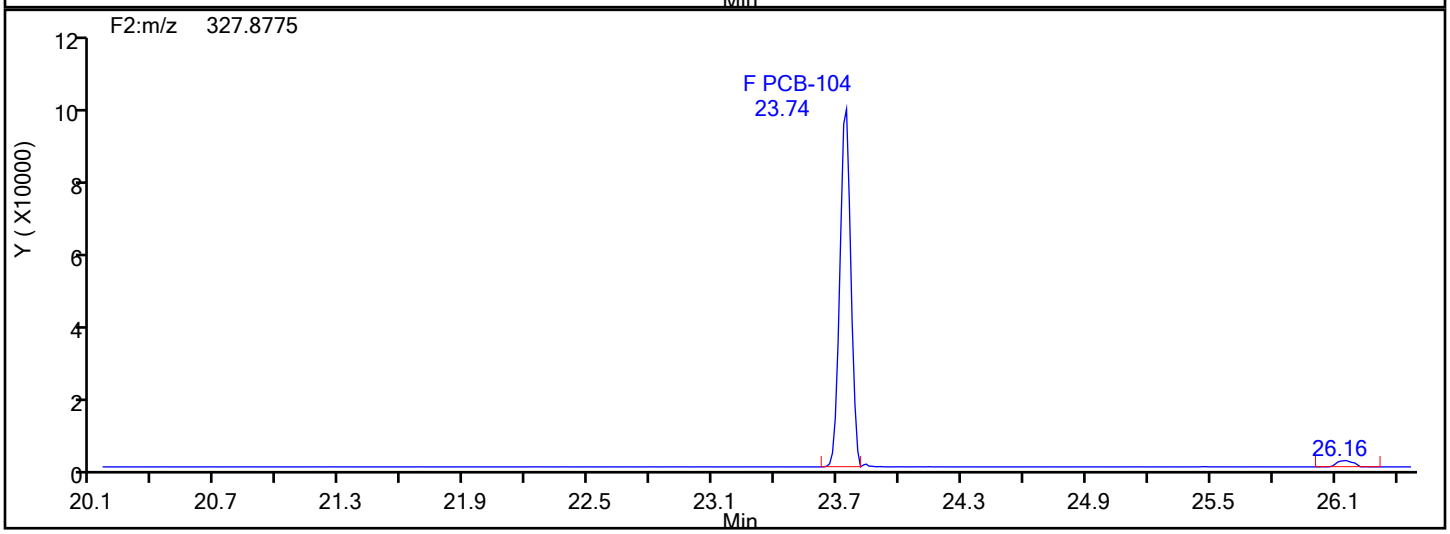
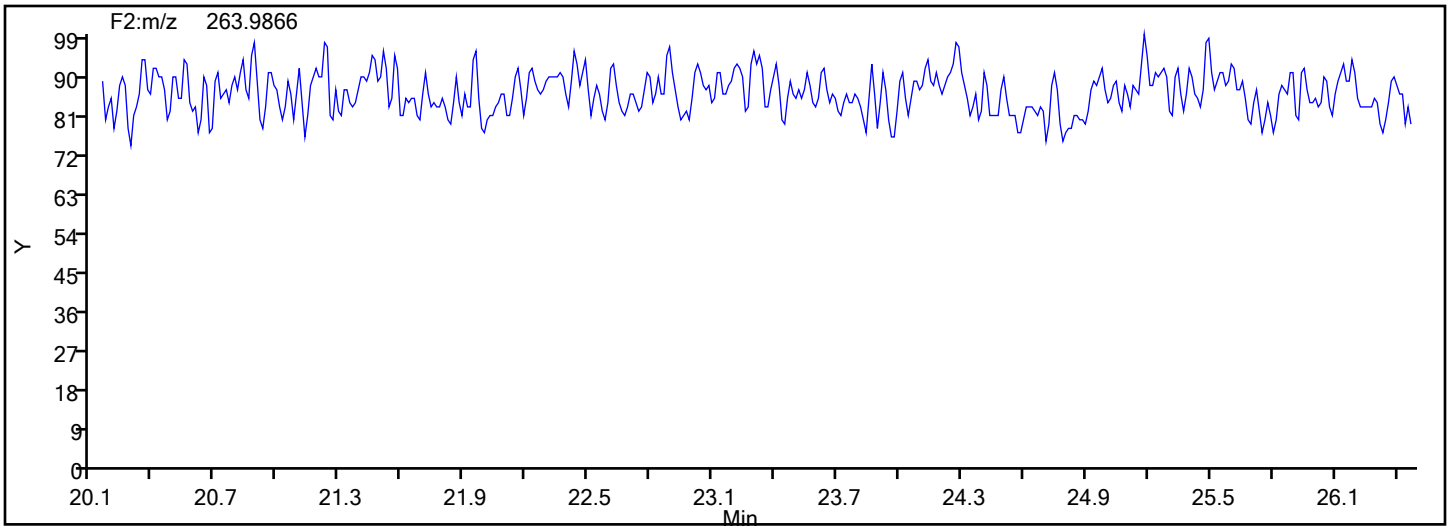
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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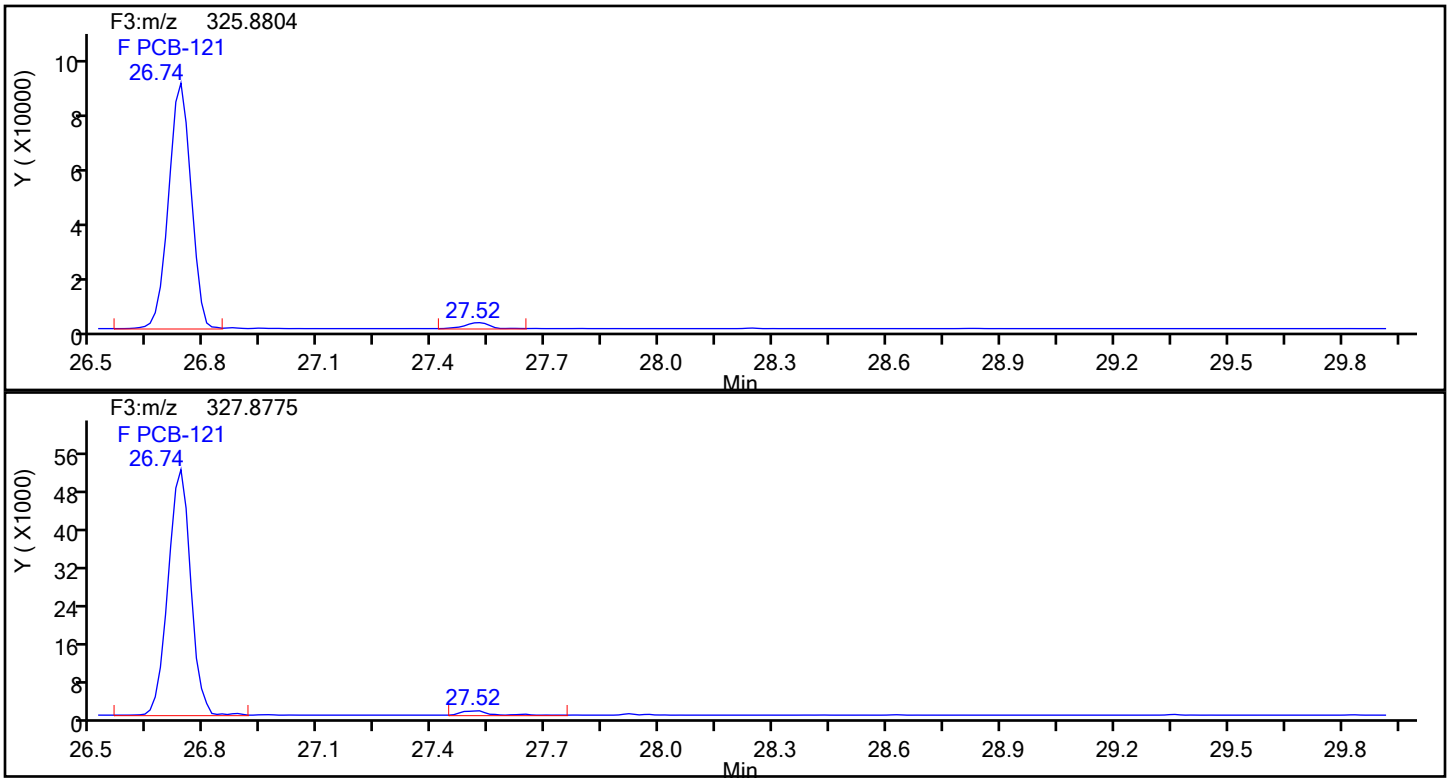
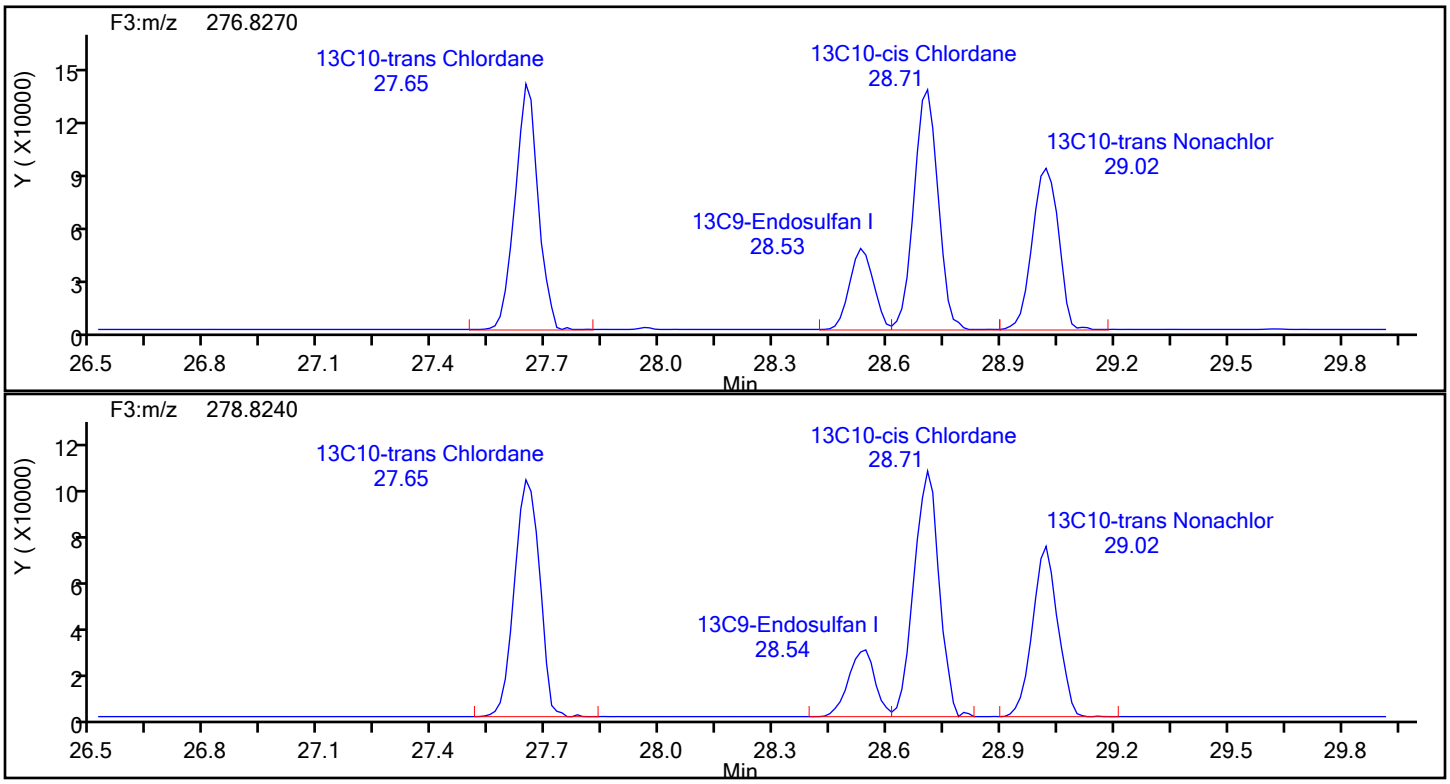
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards



Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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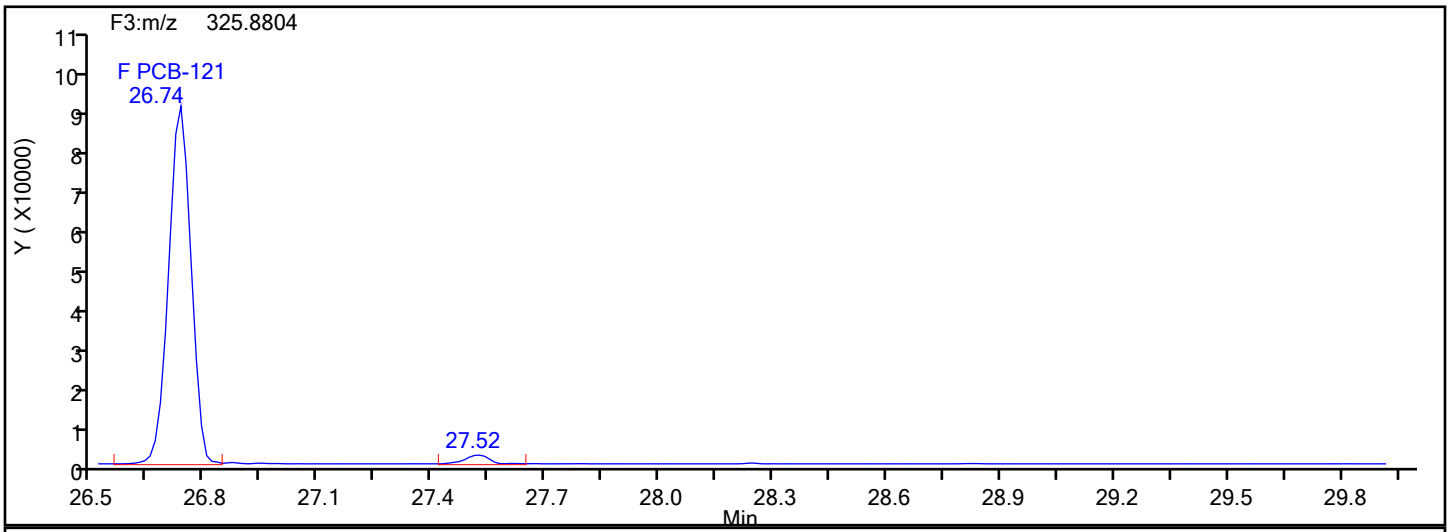
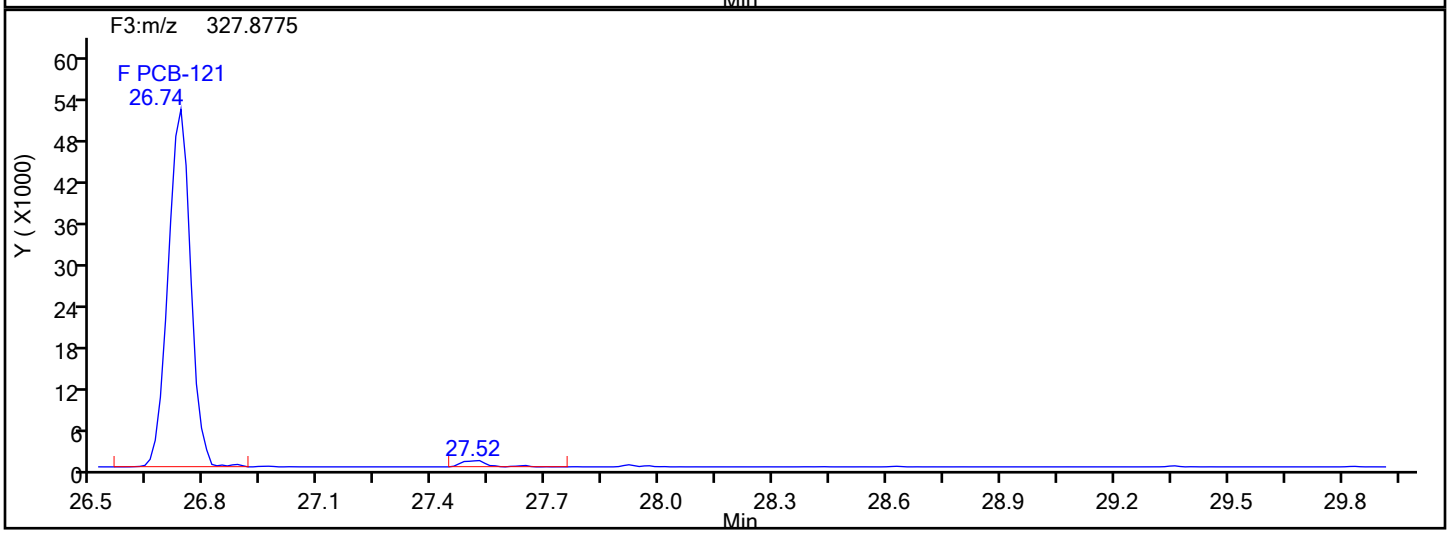
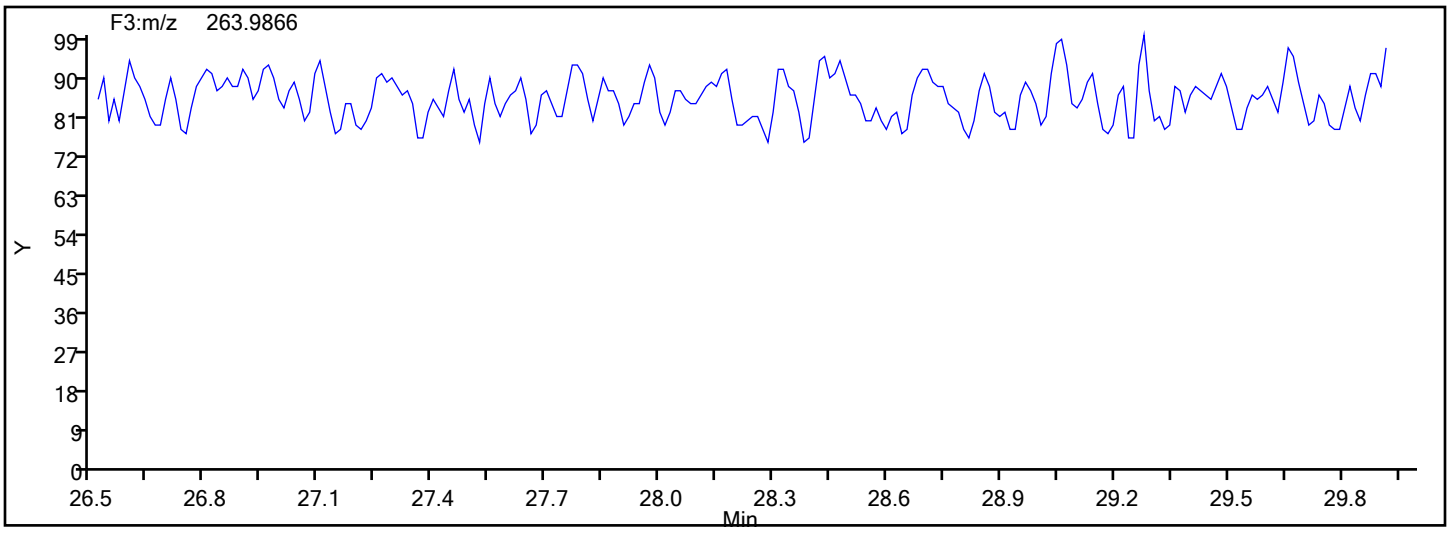
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



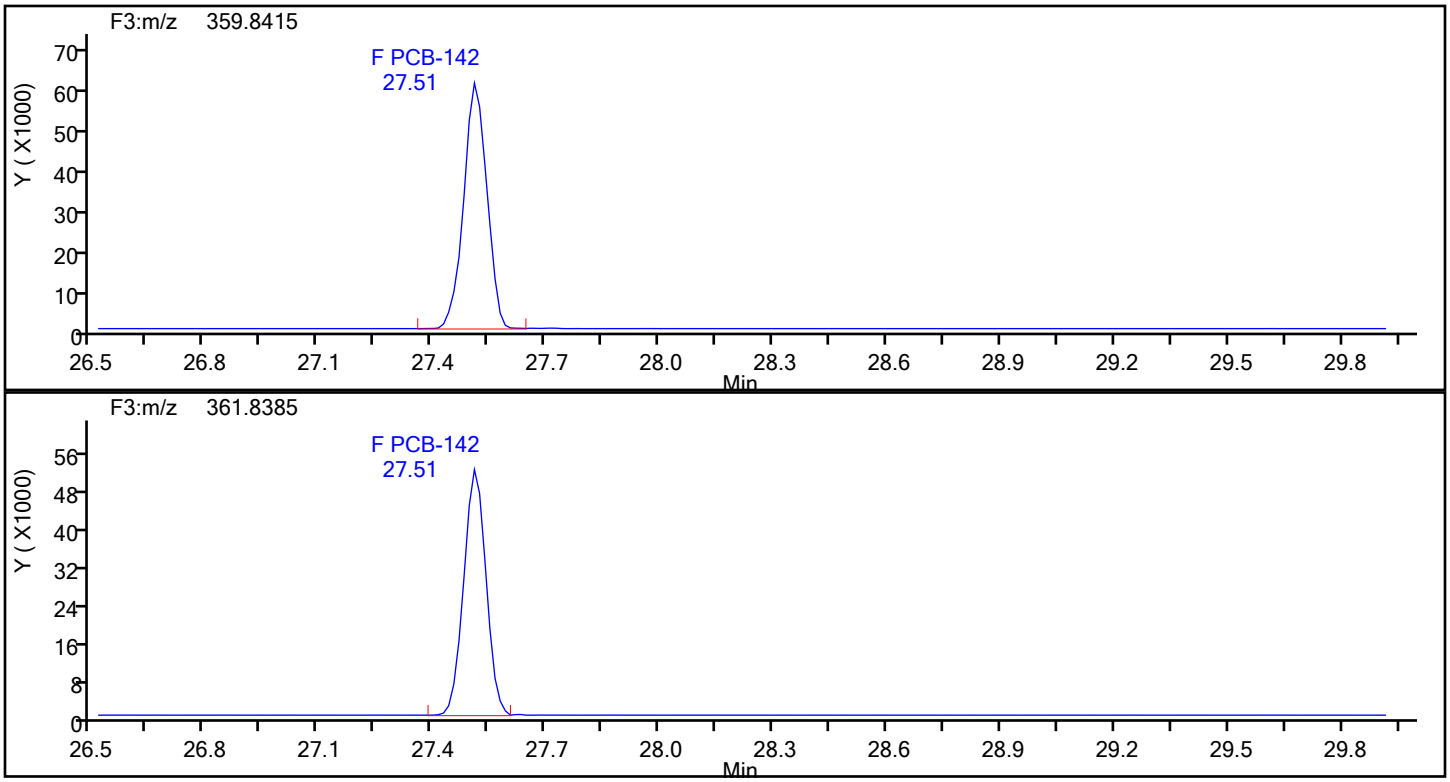
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

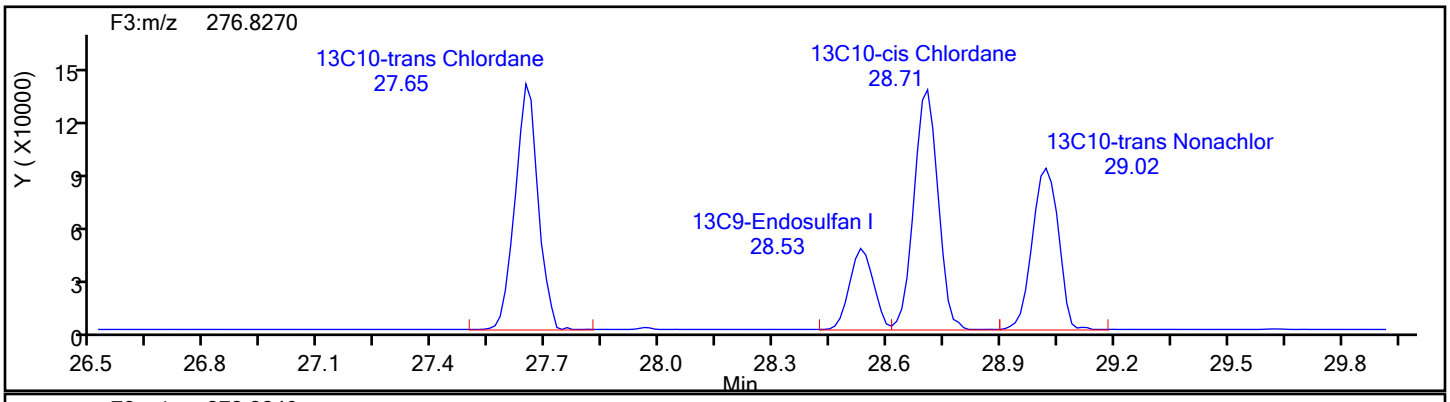
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

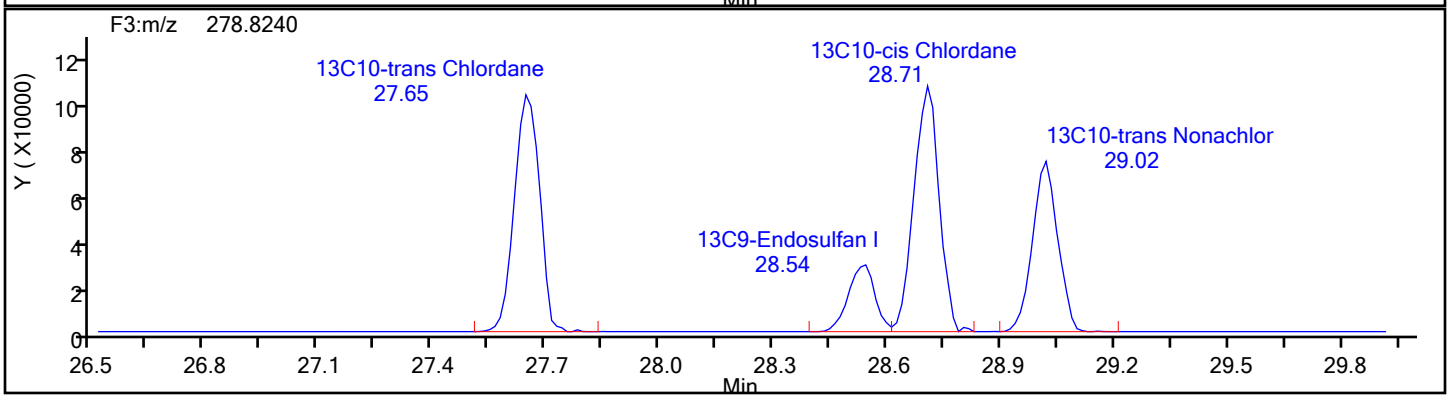
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards



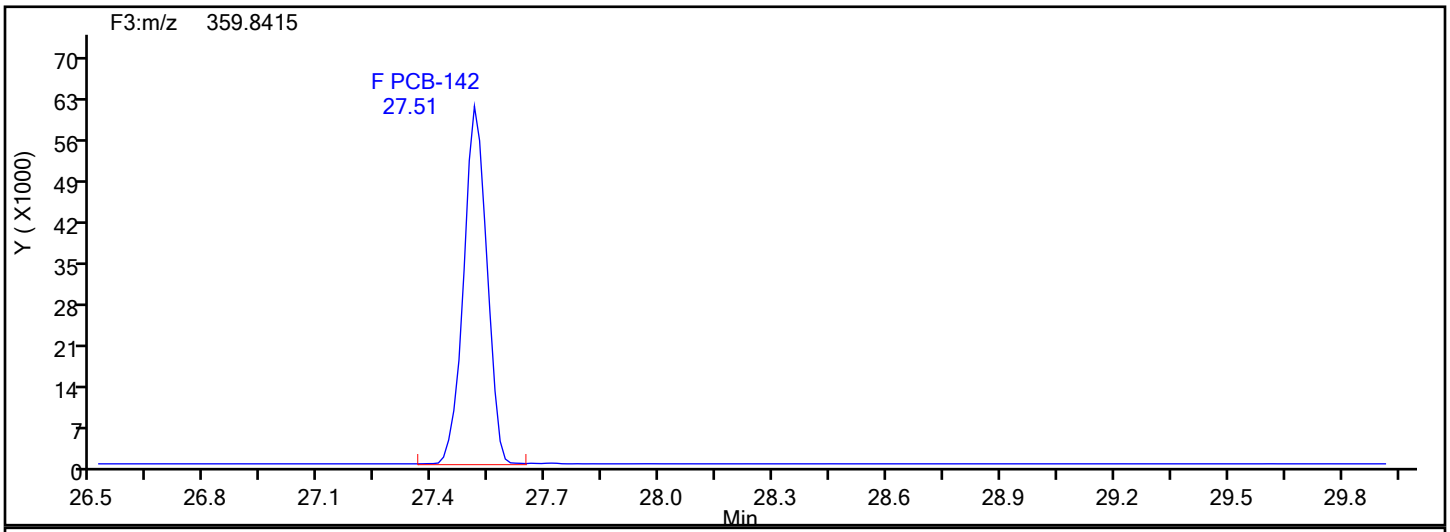


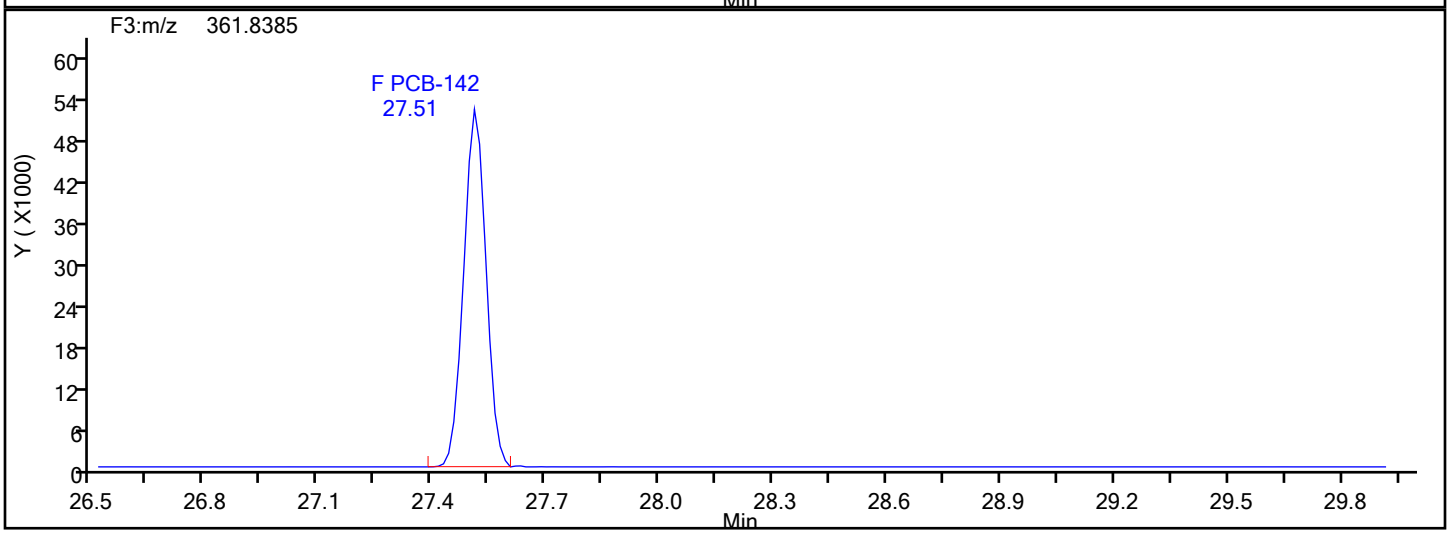
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

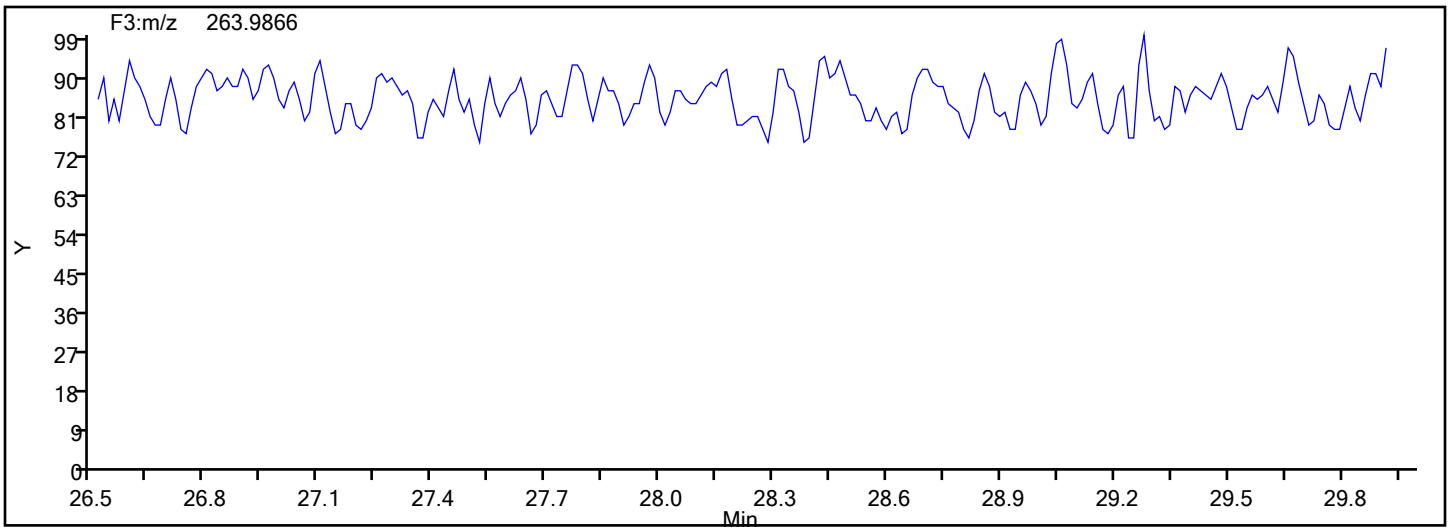
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass

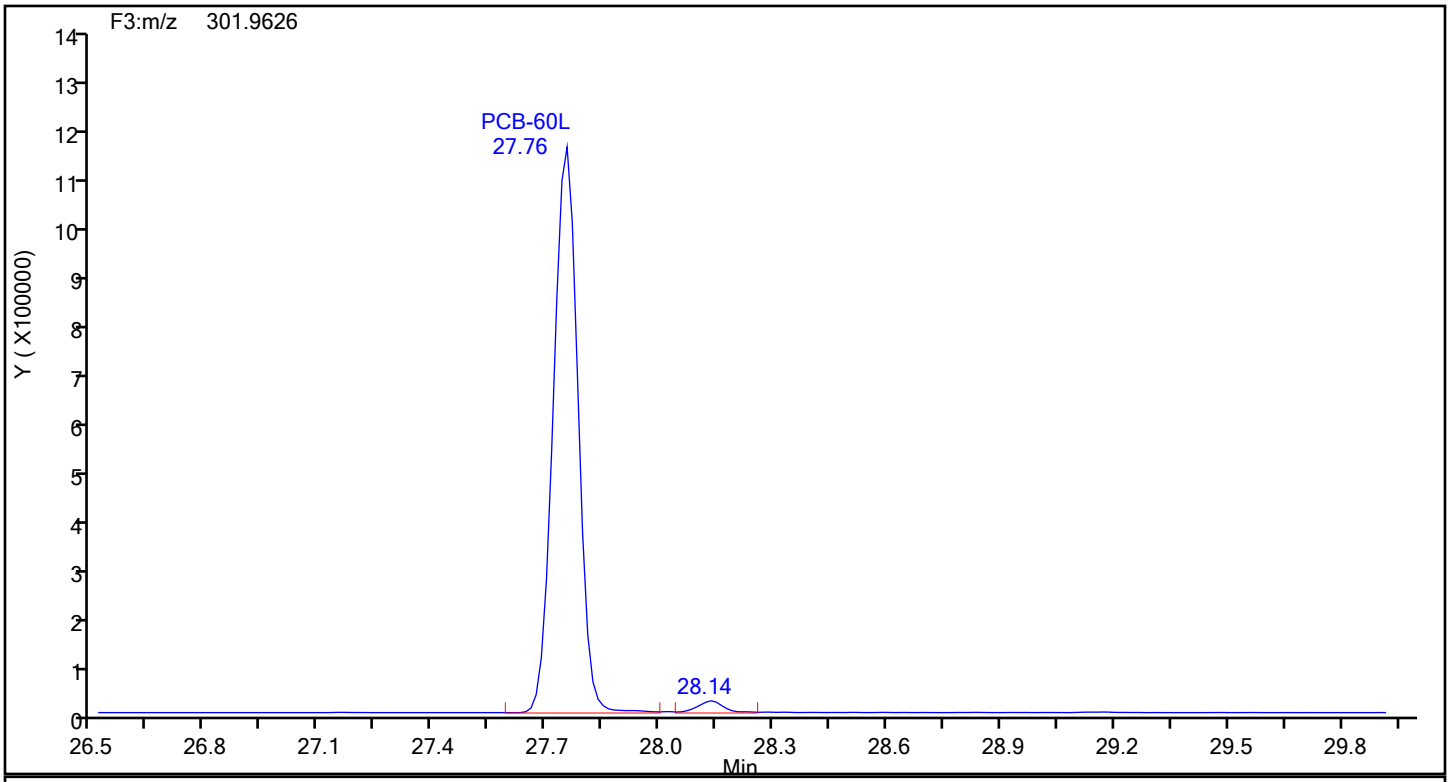


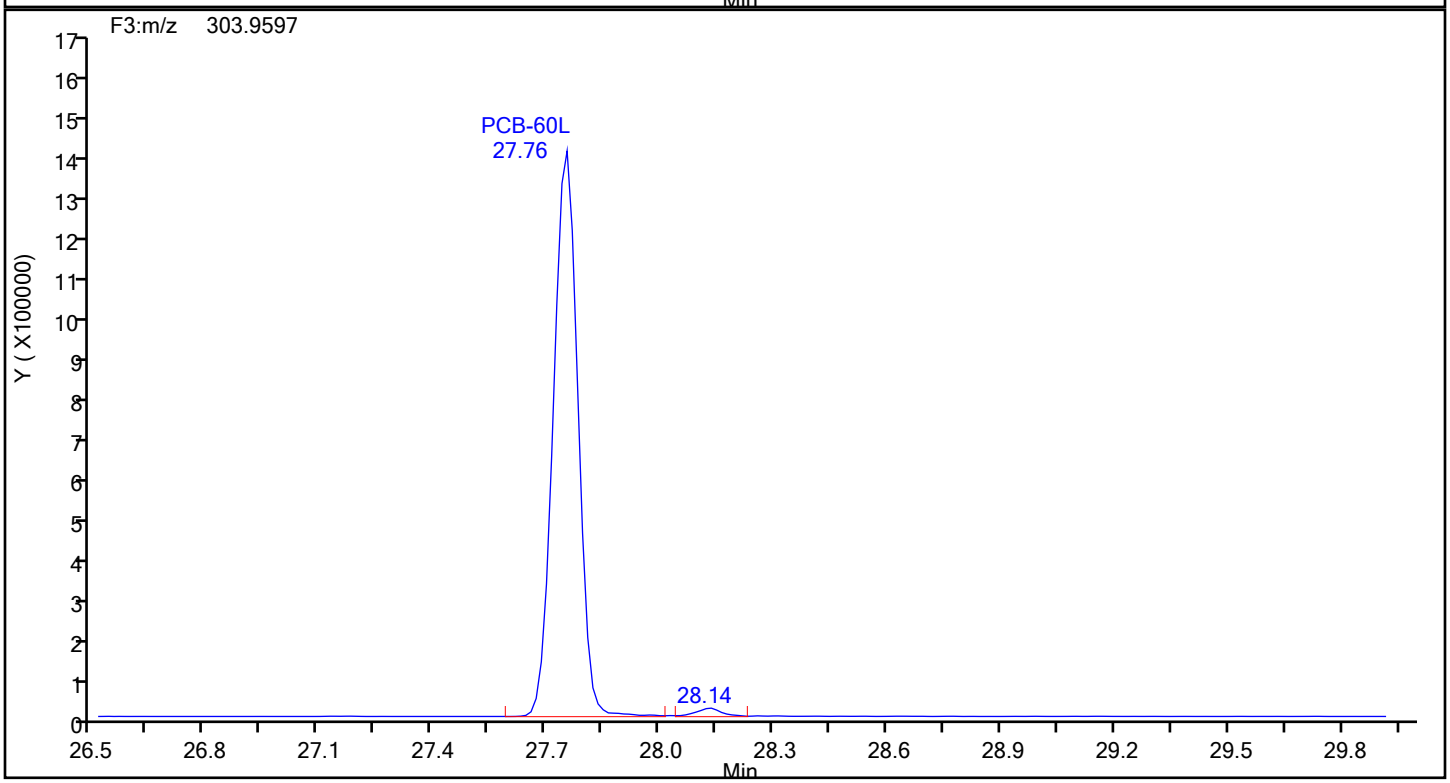
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

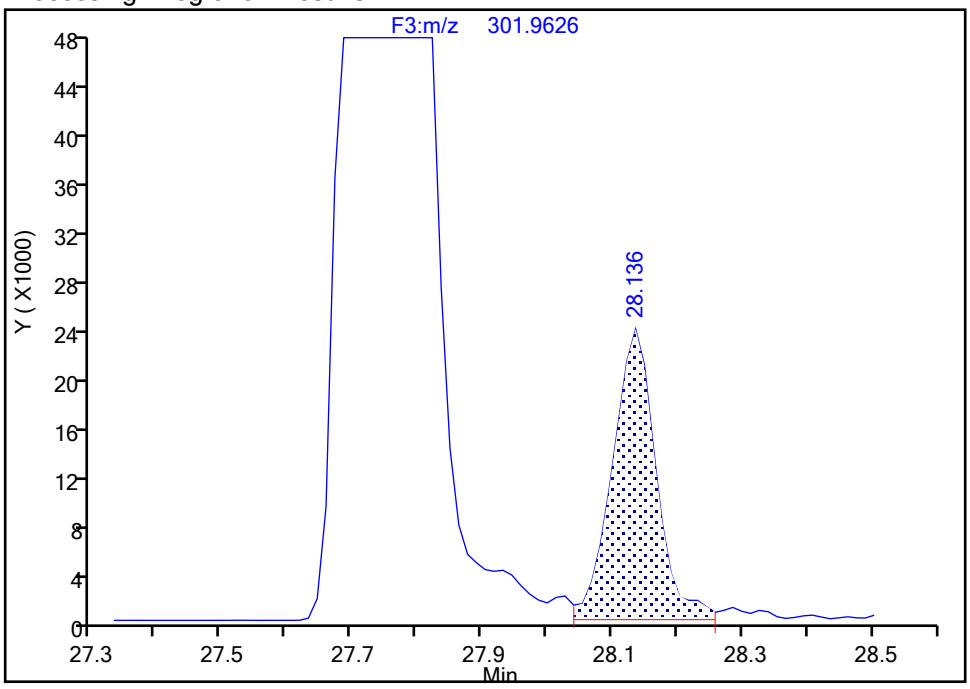
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Instrument ID: D3PST
Lims ID: IC L2
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

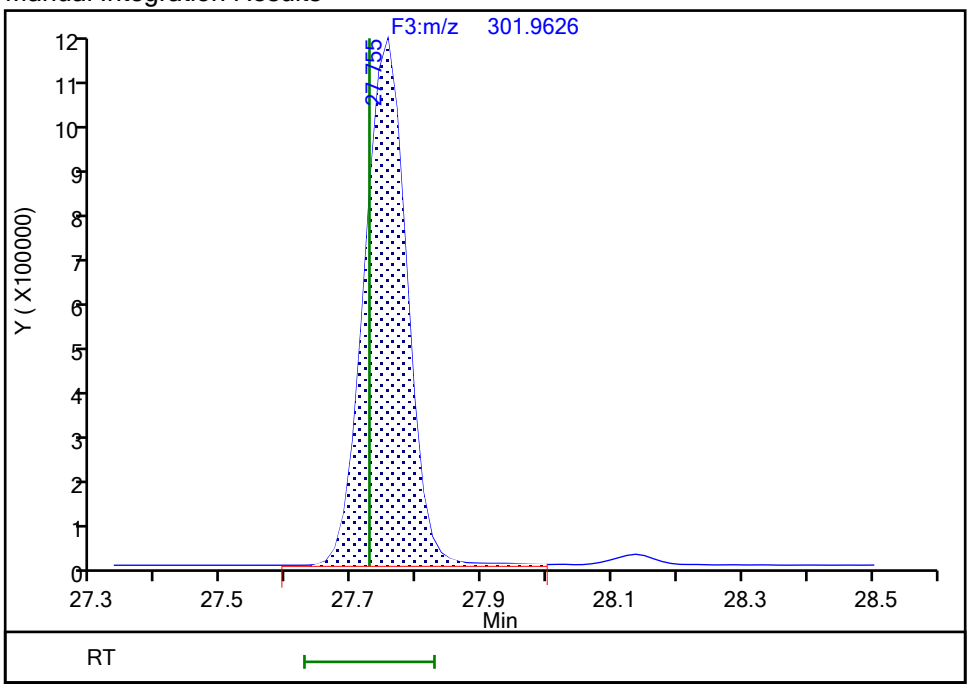
Processing Integration Results

RT: 28.14
Area: 110847
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.76
Area: 5139690
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:19 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

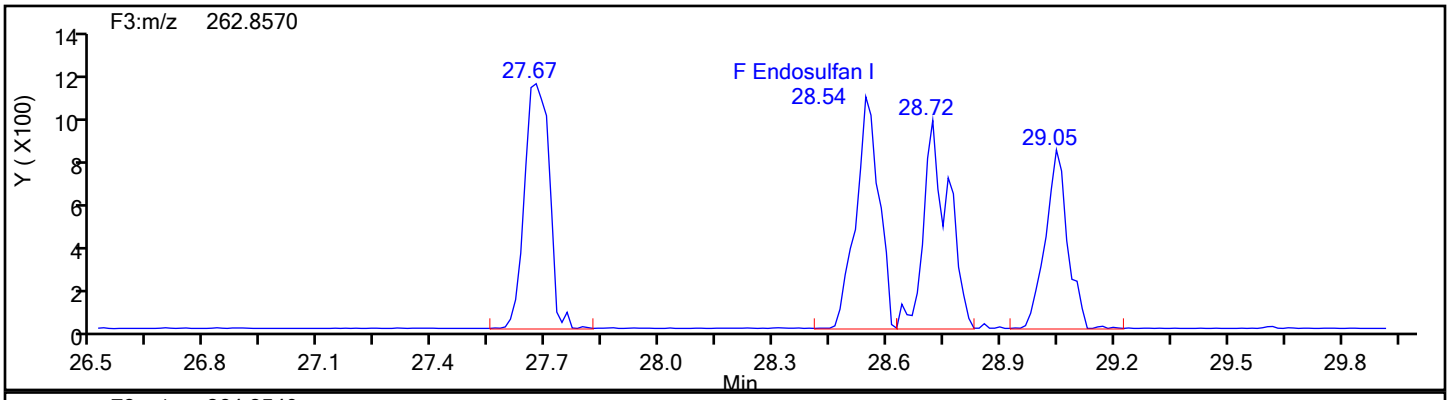
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

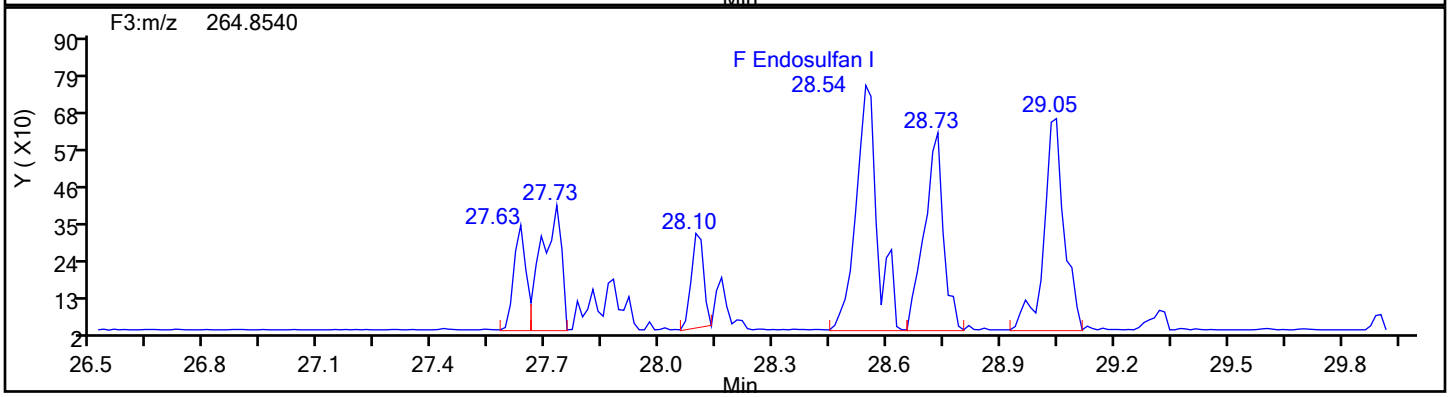
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

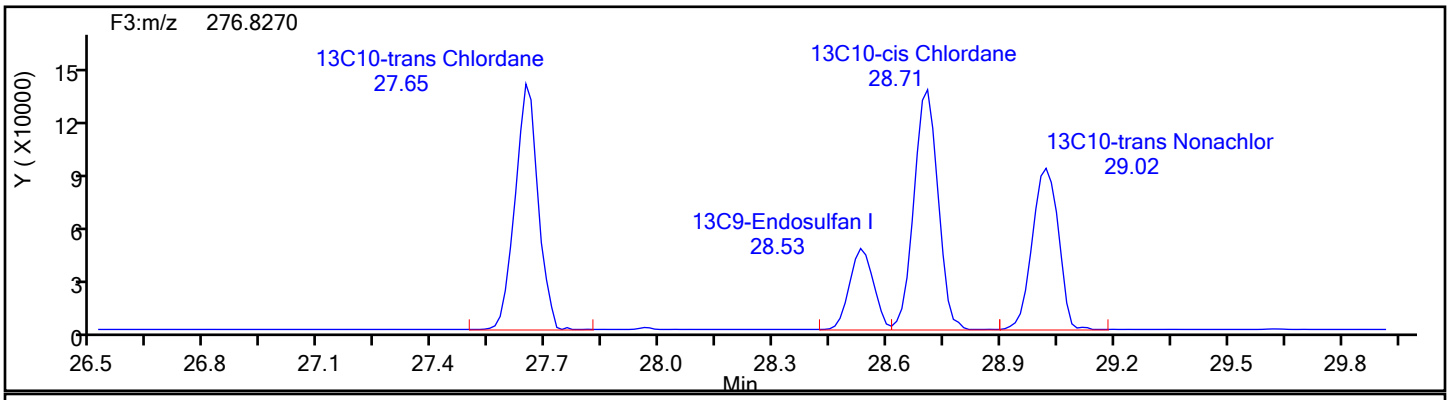
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

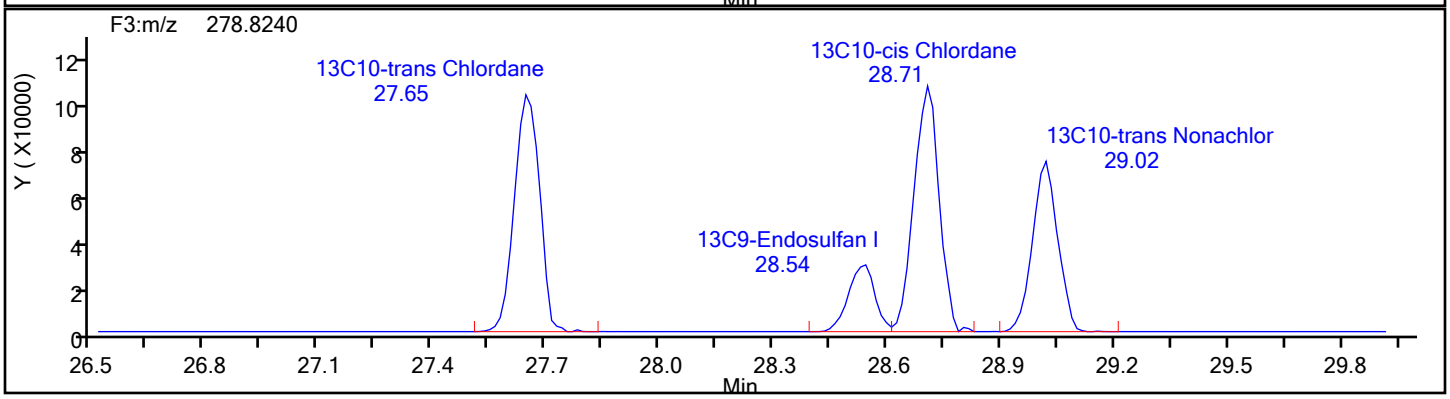
Endosulfan I





Endosulfan I Standards



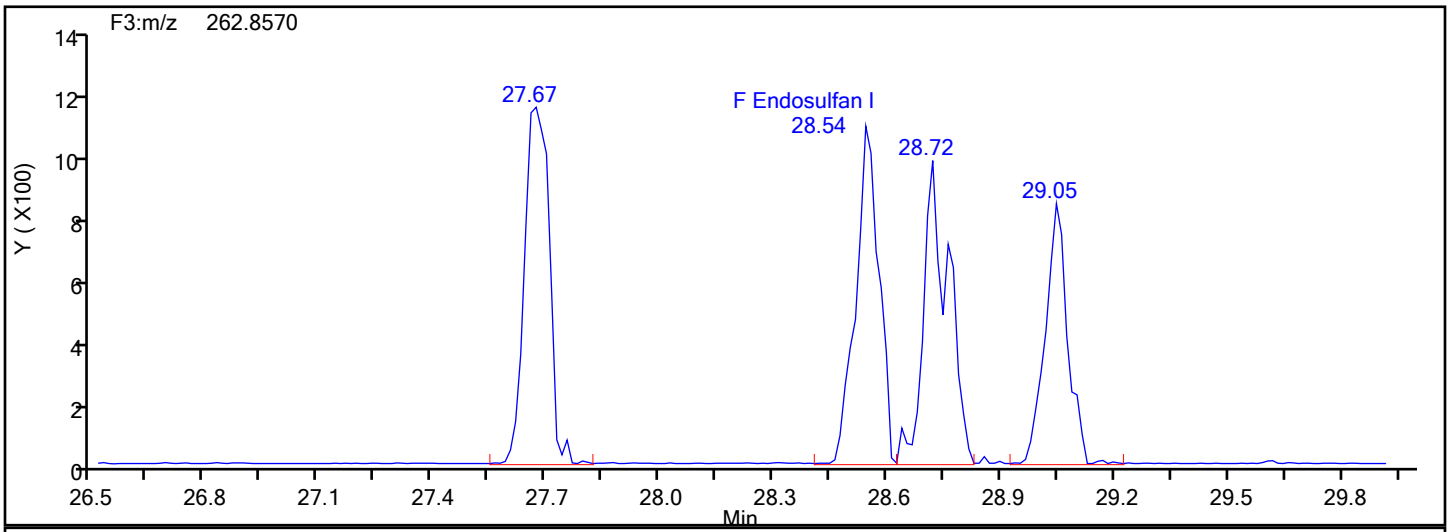


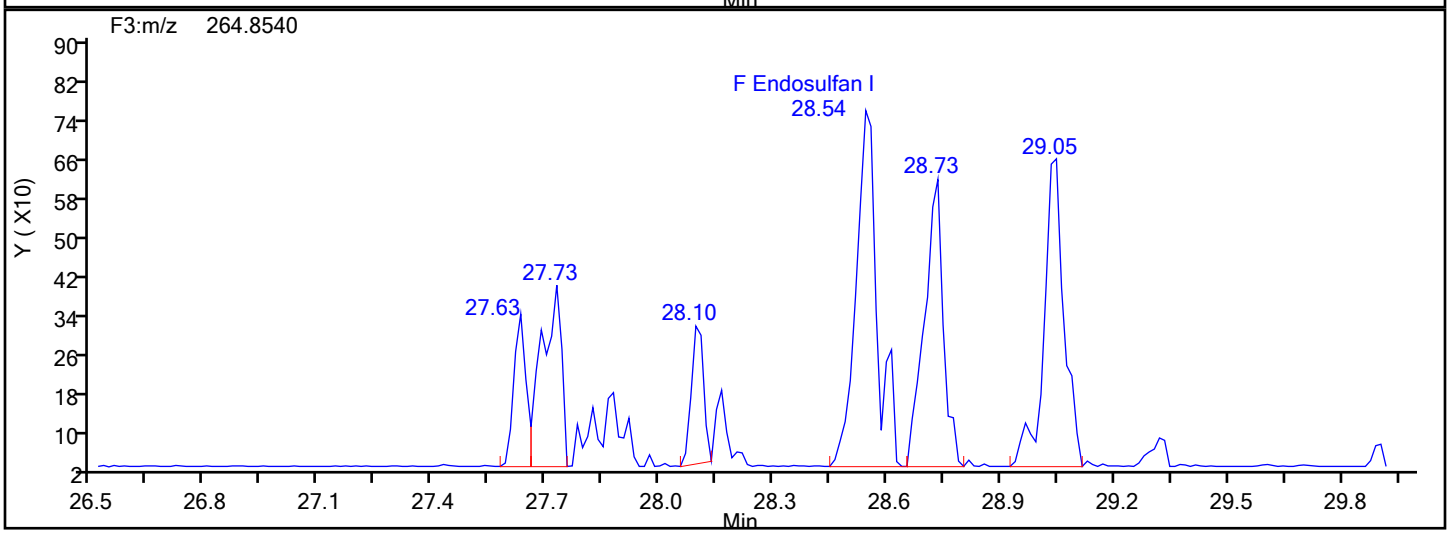
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

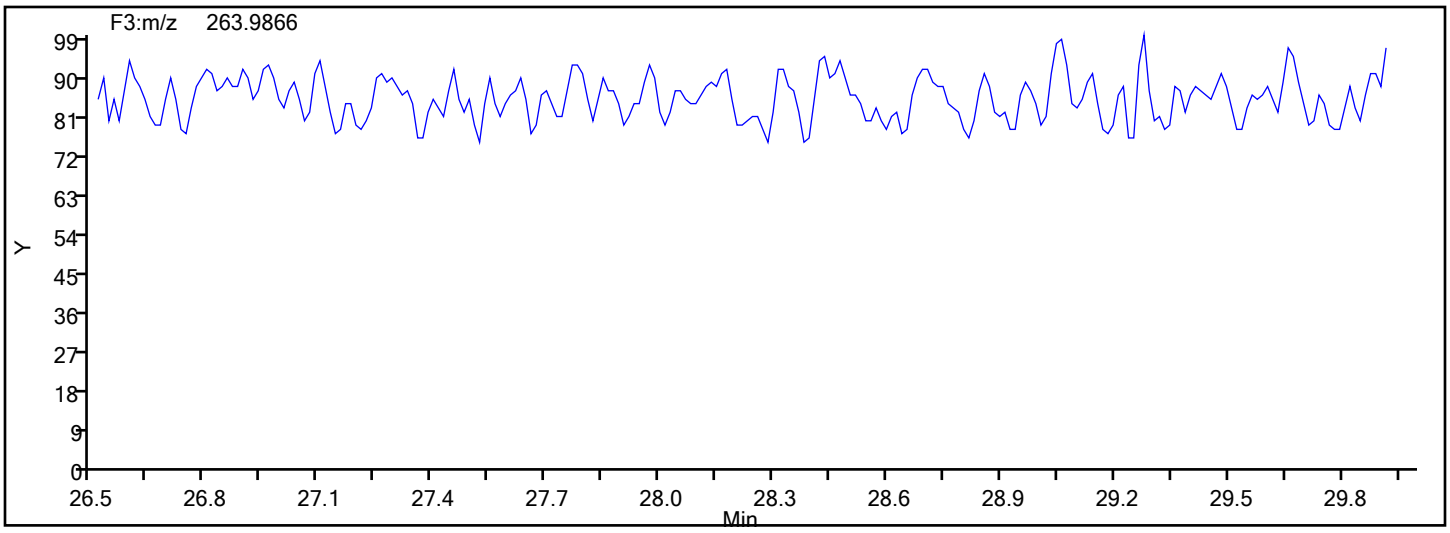
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



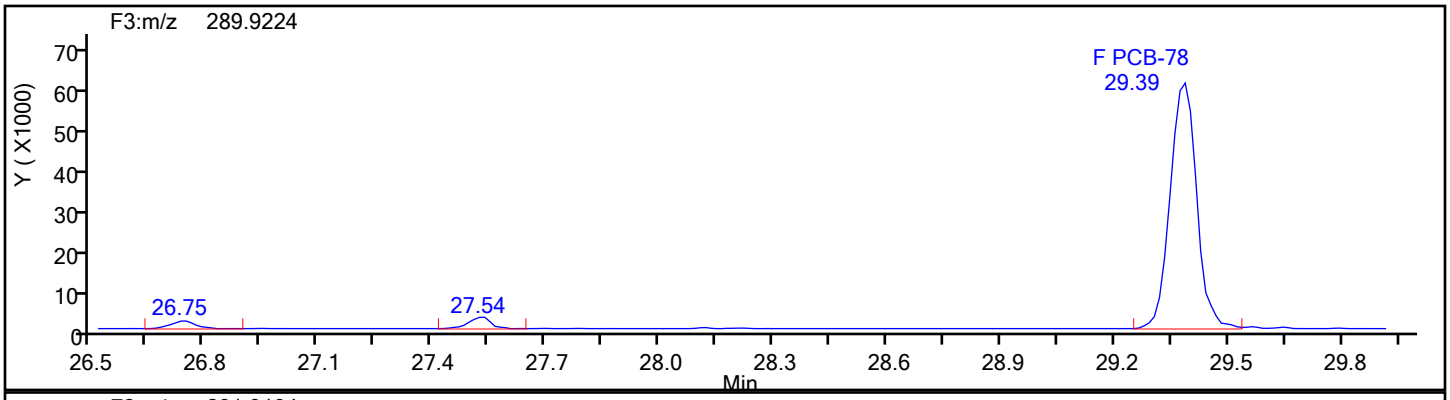
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

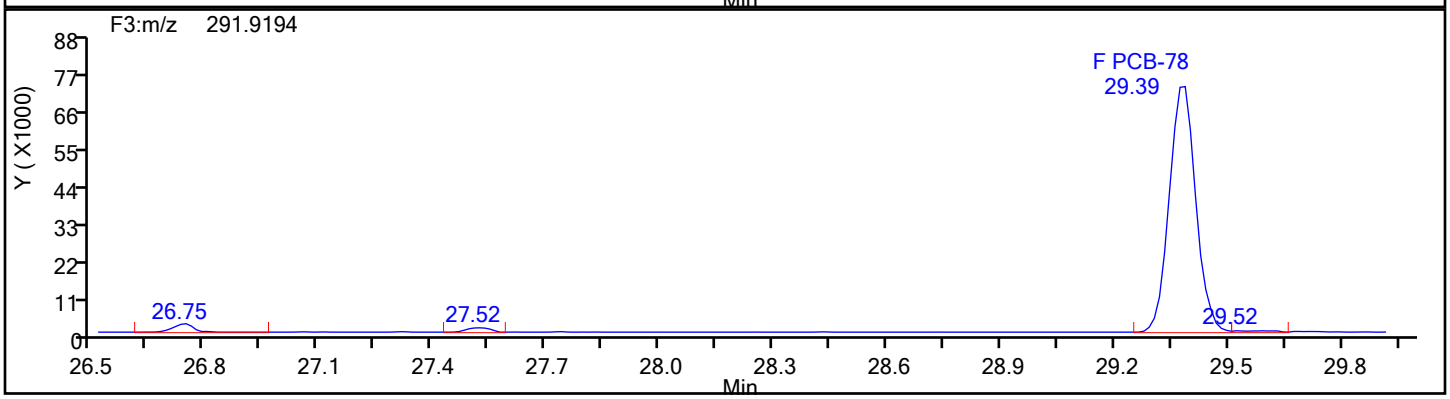
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

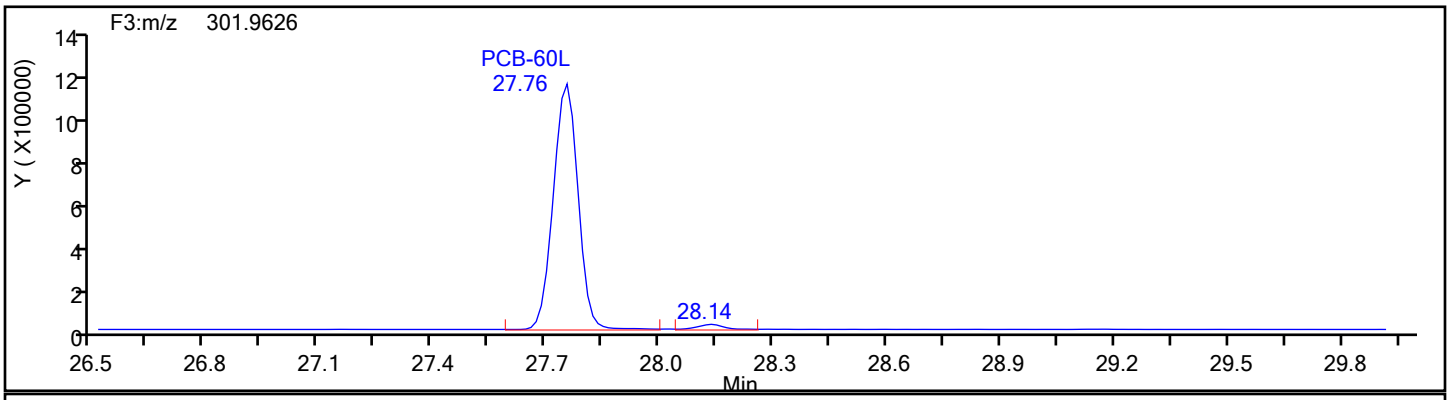
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

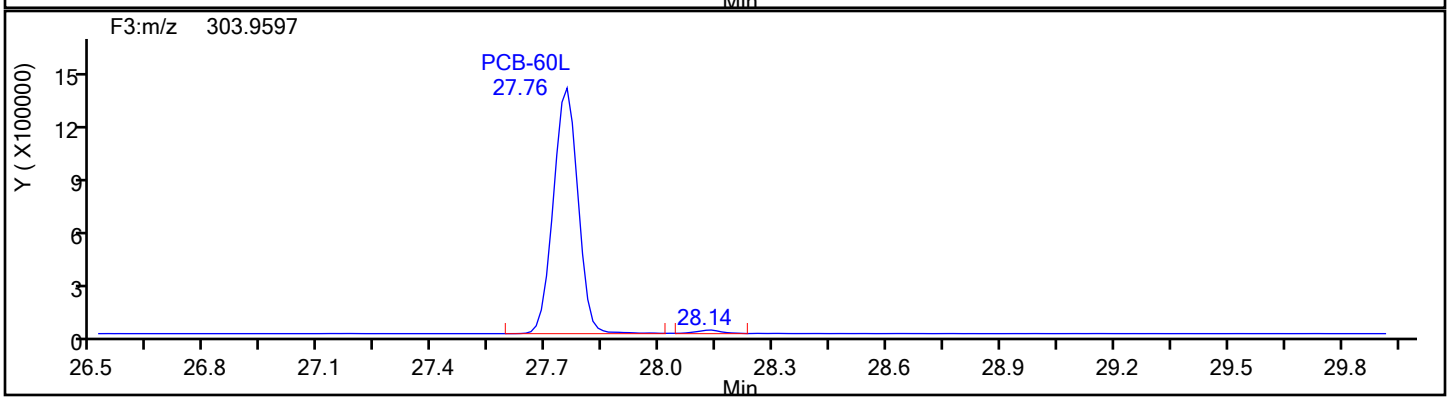
PCB-78





PCB-78 Standards



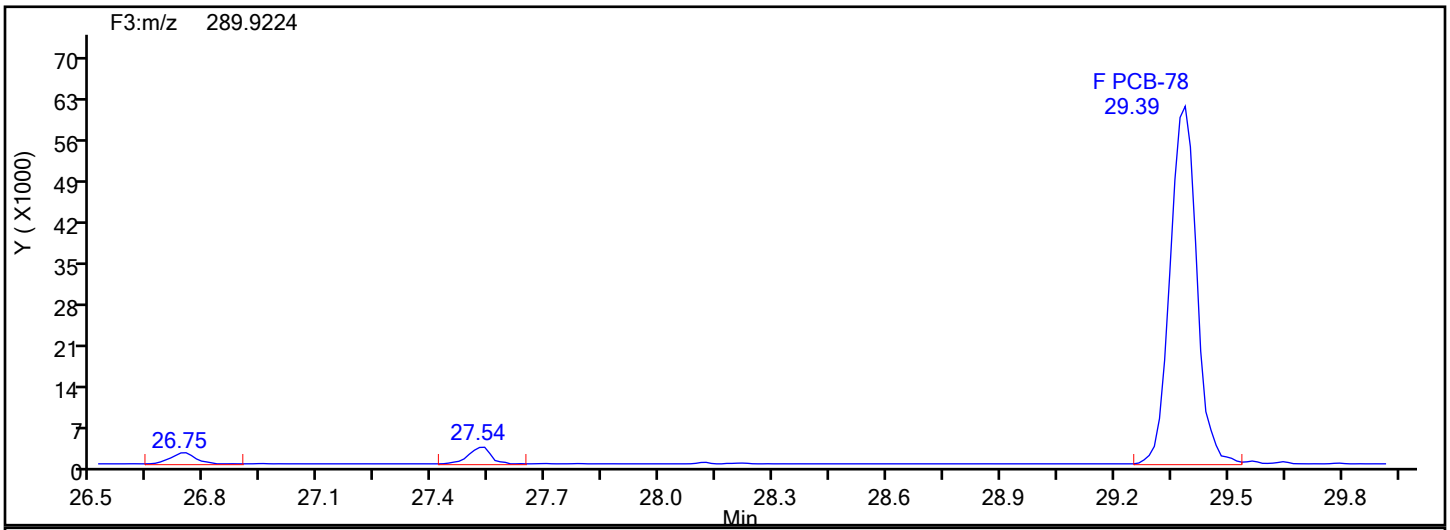


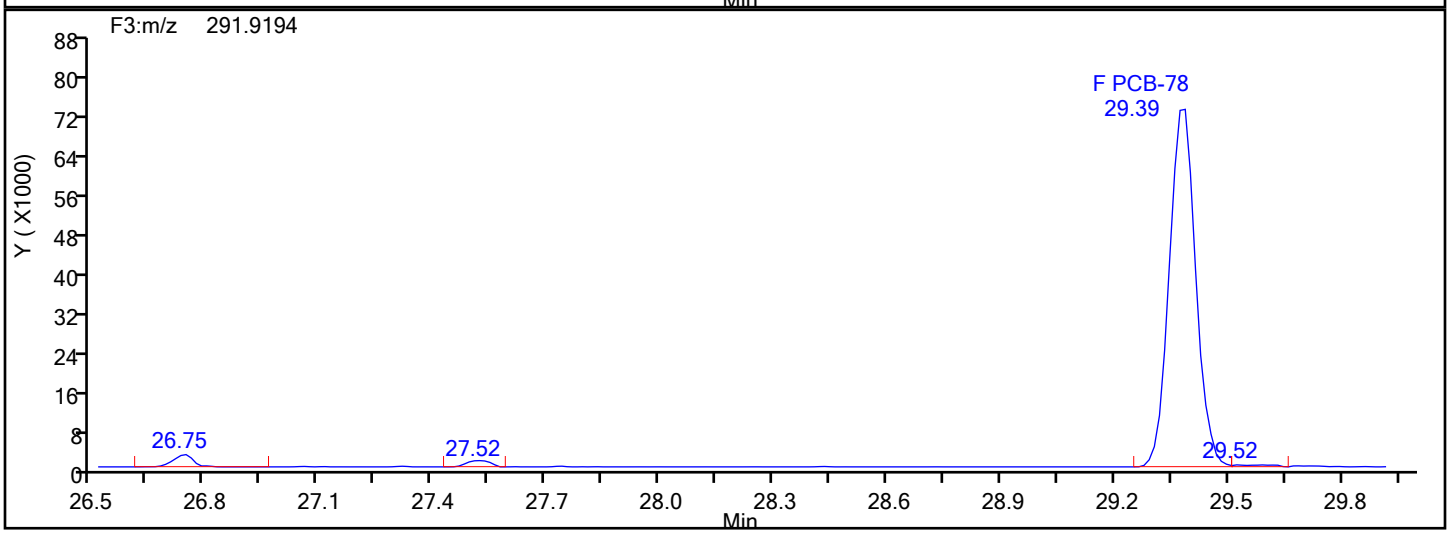
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

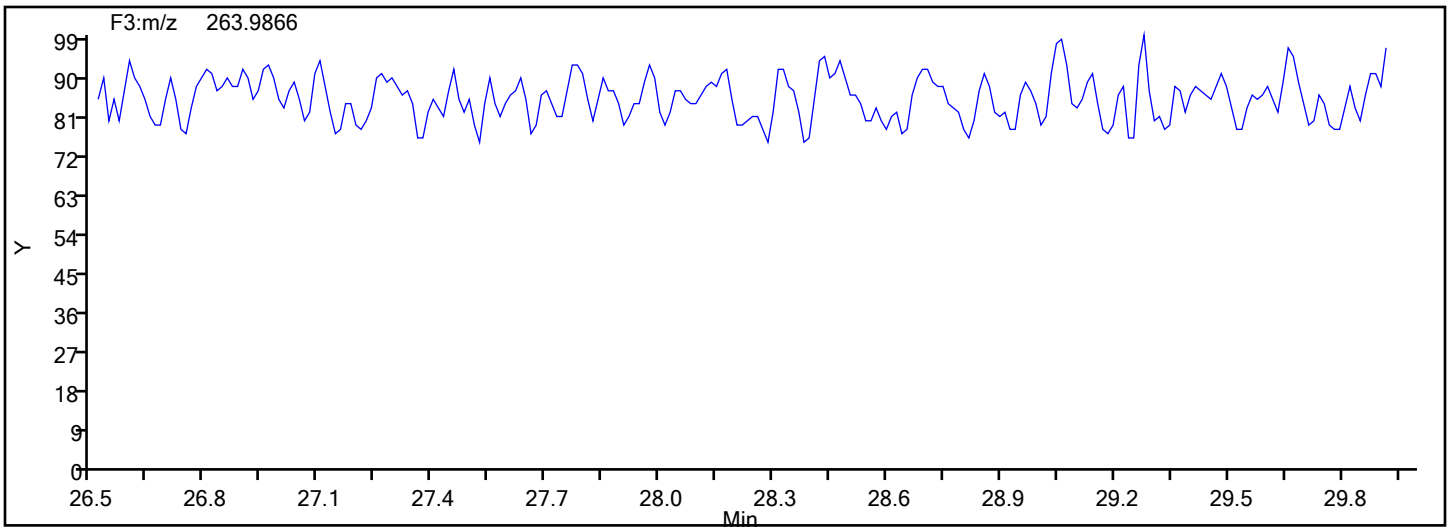
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

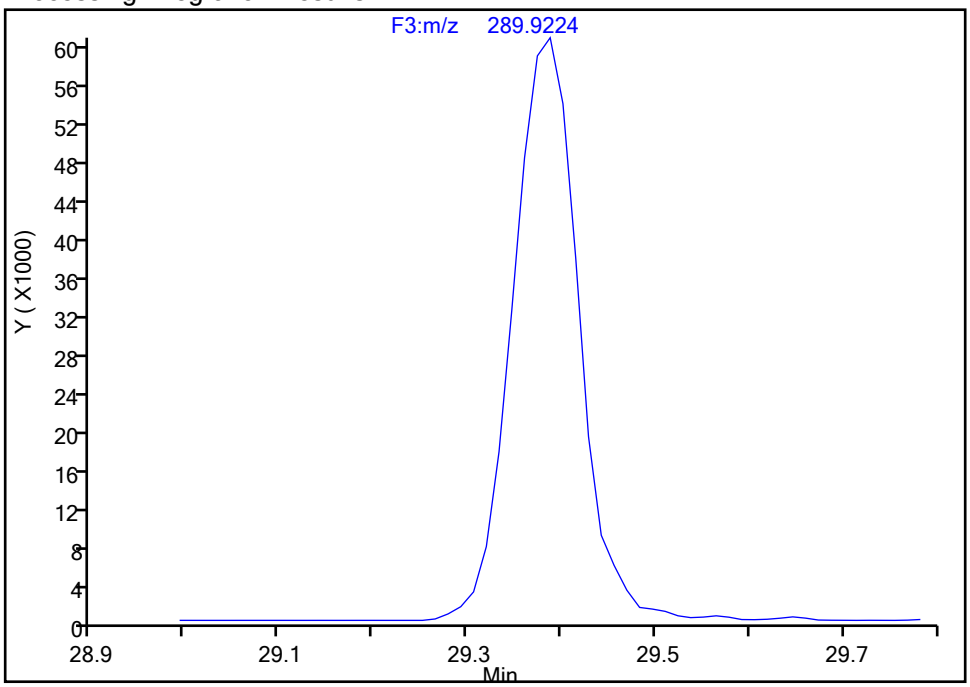
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Instrument ID: D3PST
Lims ID: IC L2
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

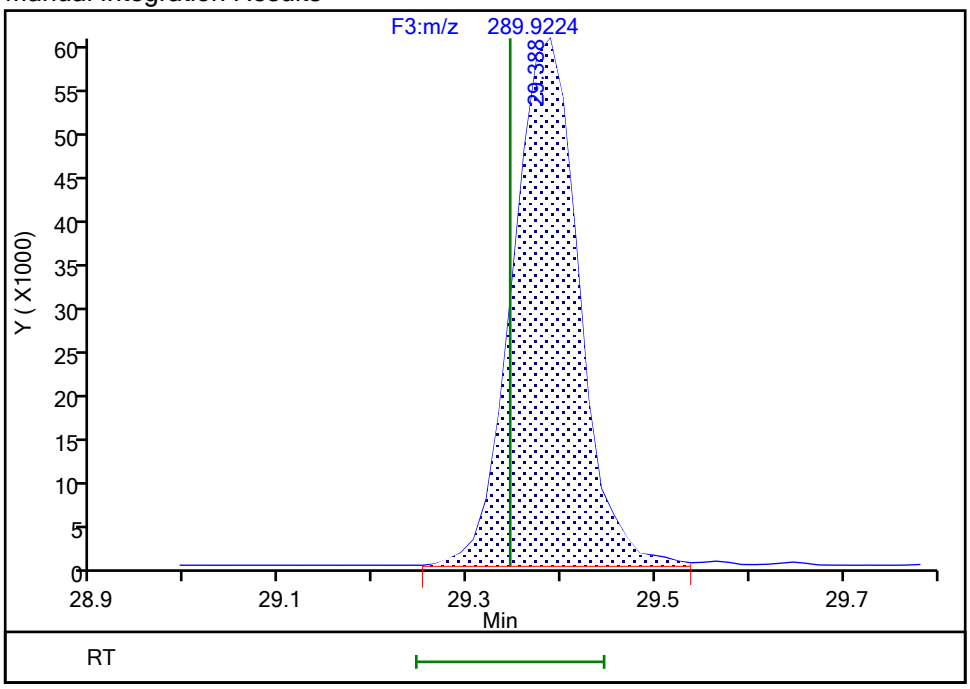
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.39
Area: 297401
Amount: 6.201932
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:57:21 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

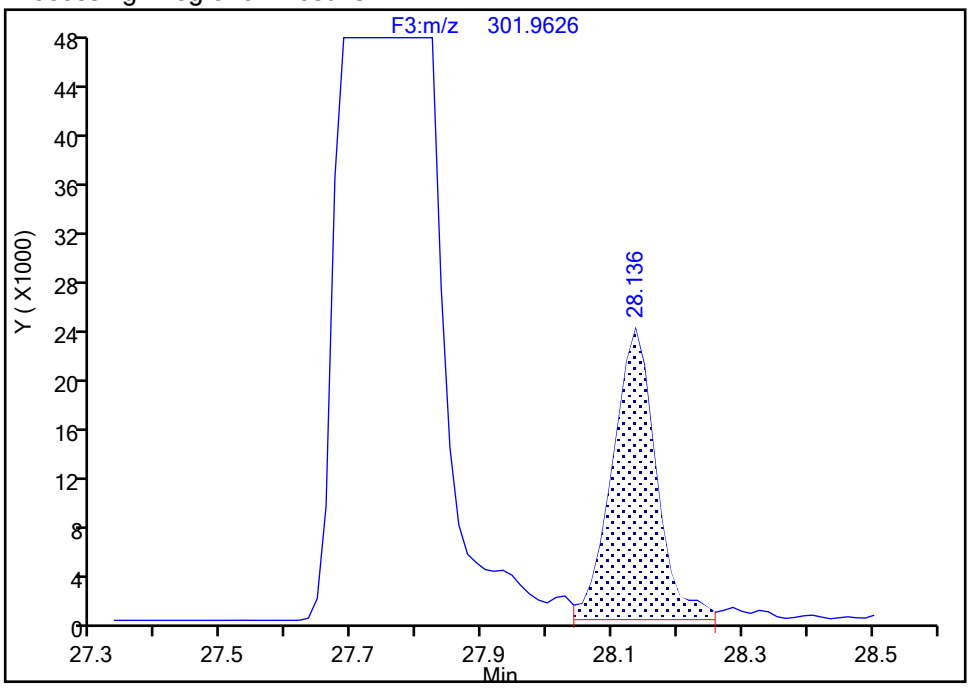
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Instrument ID: D3PST
Lims ID: IC L2
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

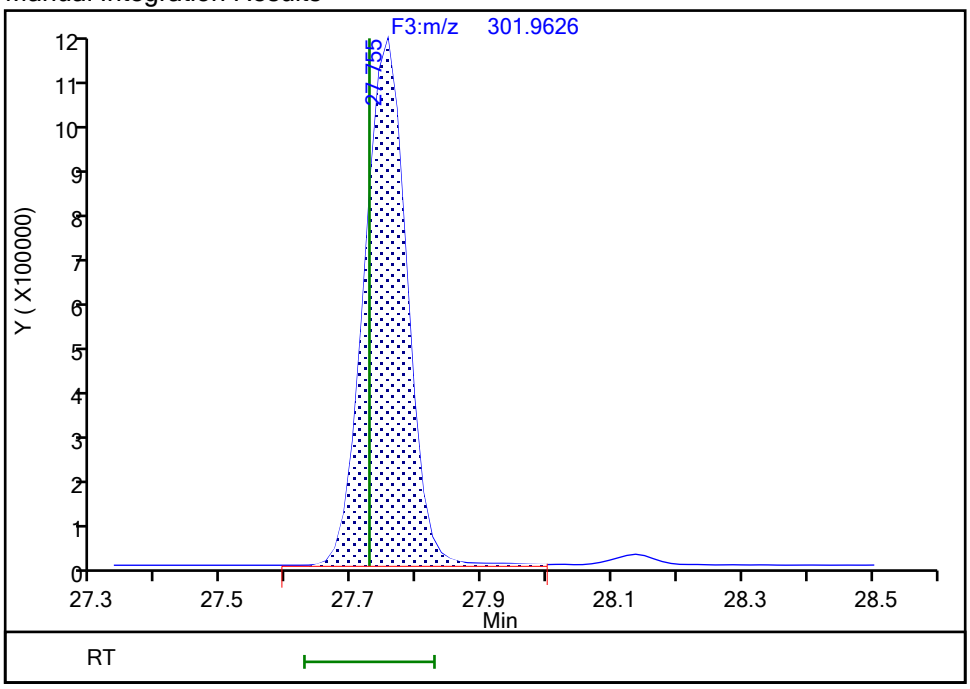
Processing Integration Results

RT: 28.14
Area: 110847
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.76
Area: 5139690
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:19 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

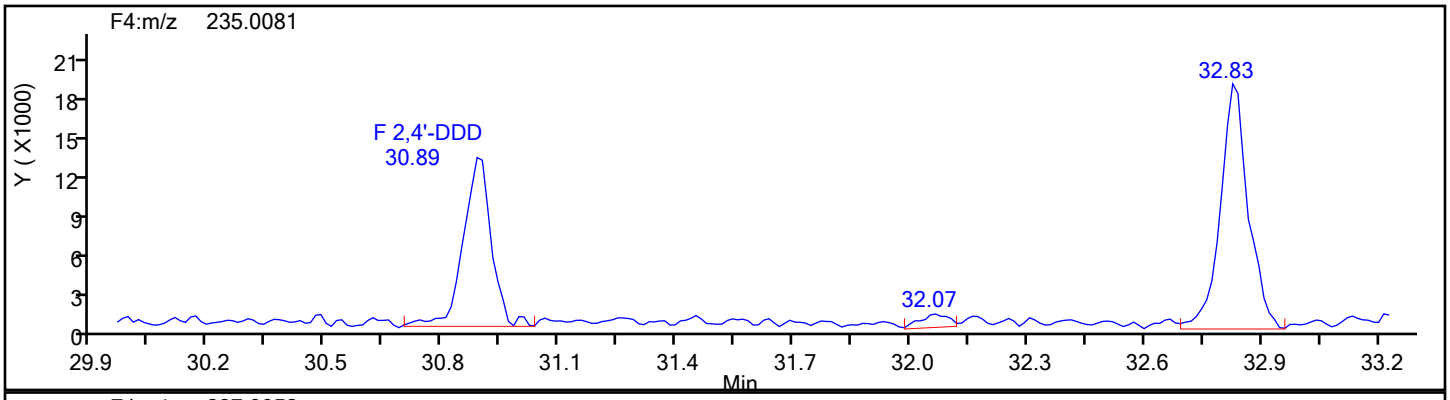
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

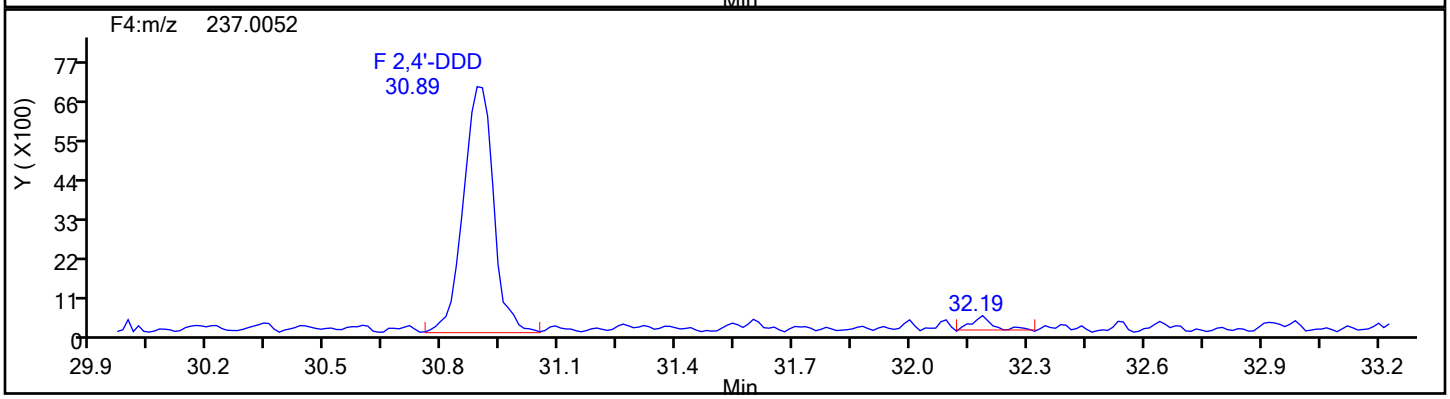
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

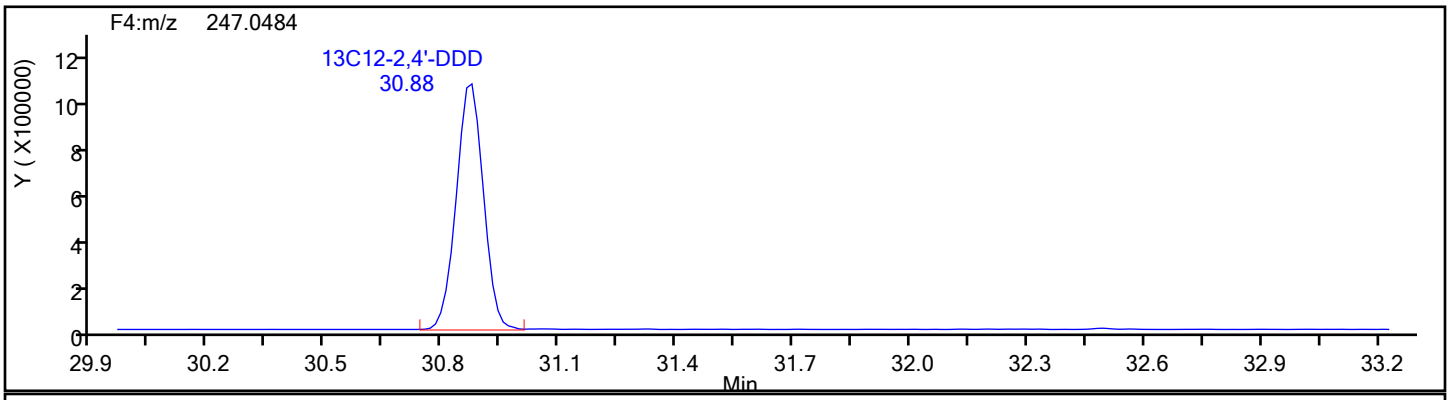
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

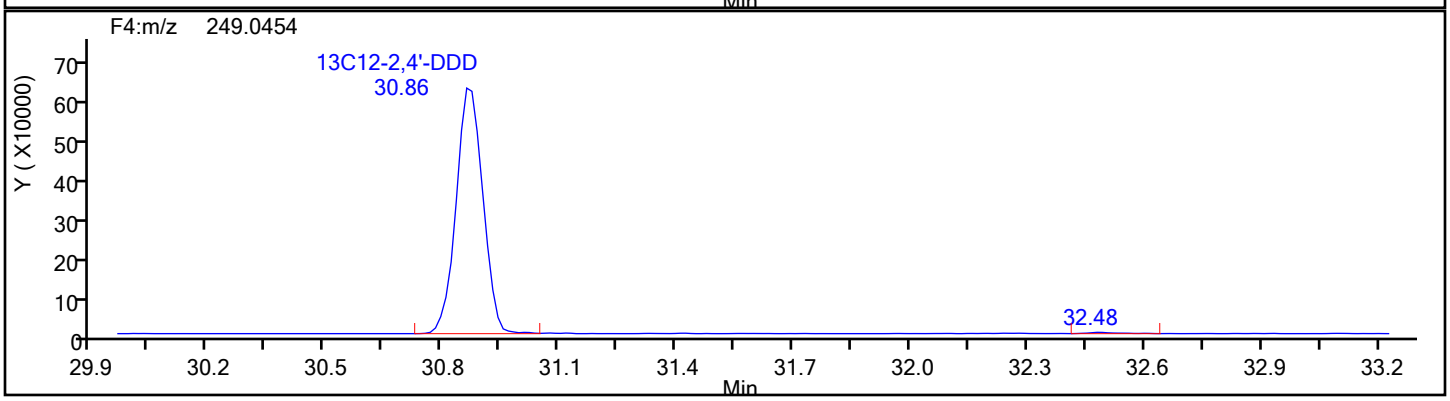
2,4'-DDD





2,4'-DDD Standards



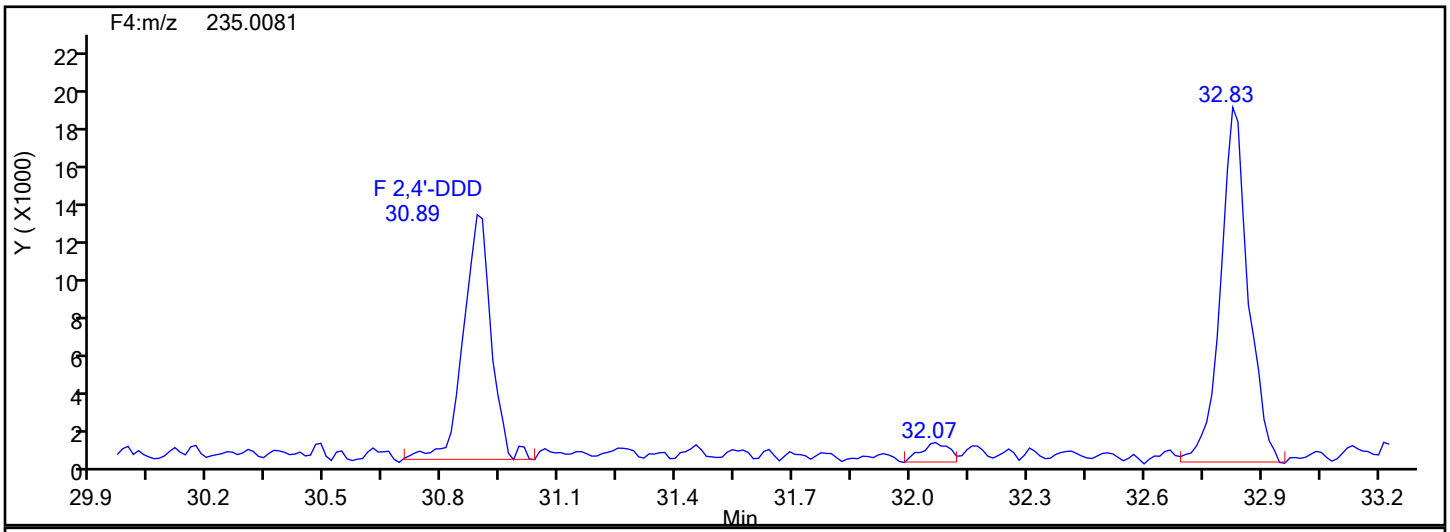


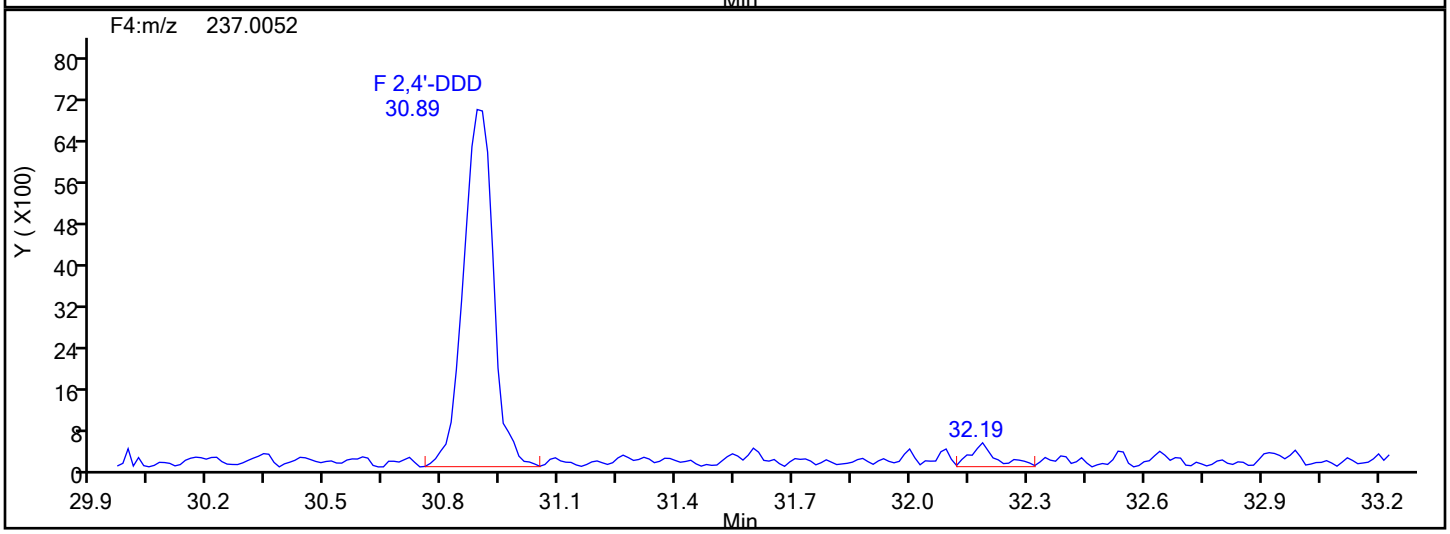
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

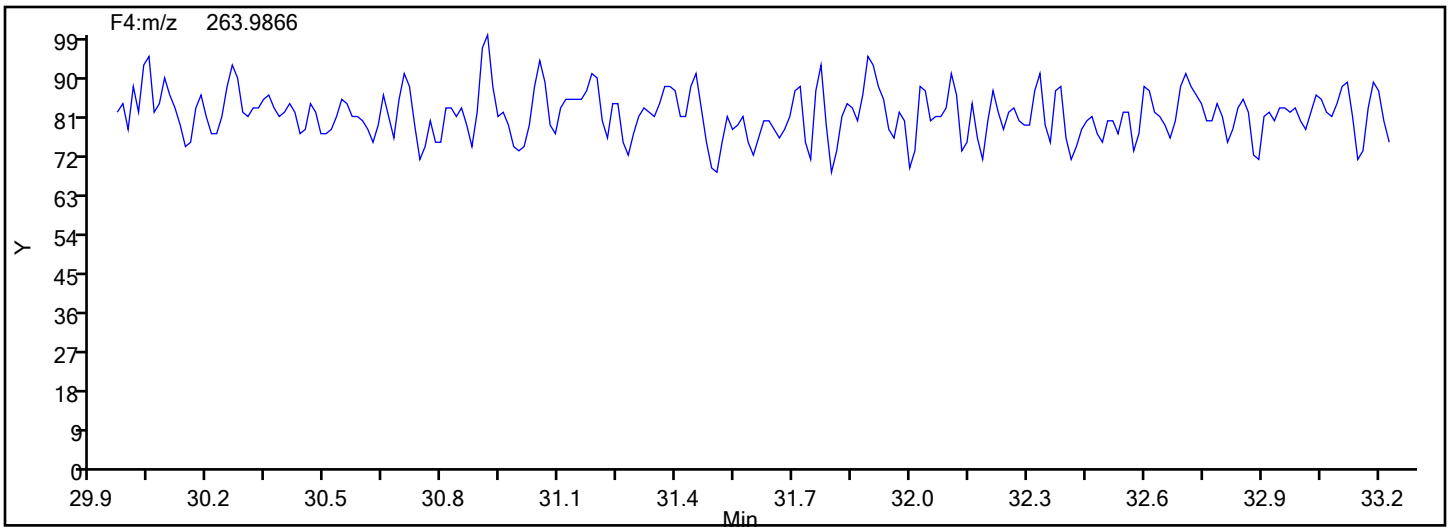
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



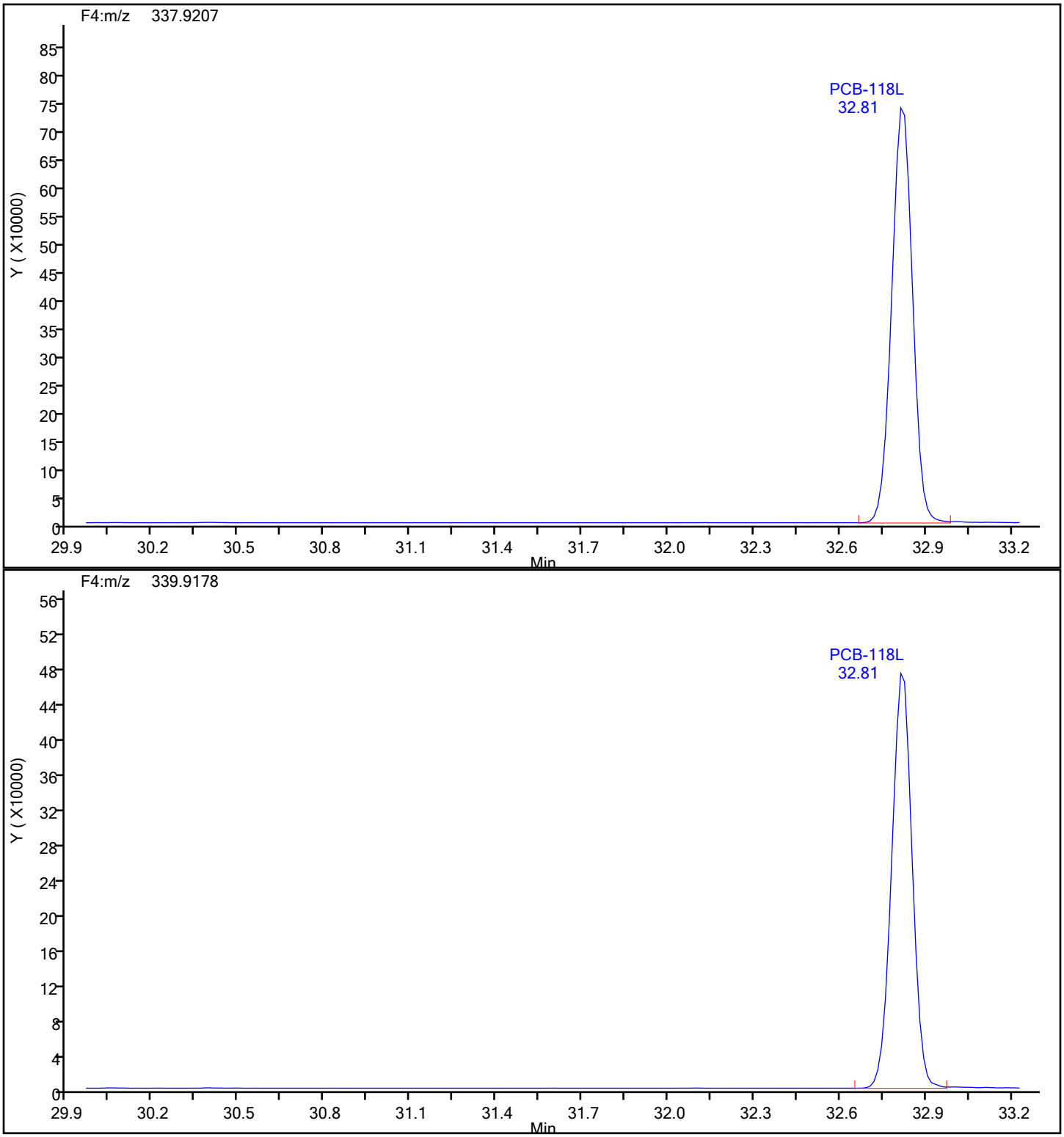
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



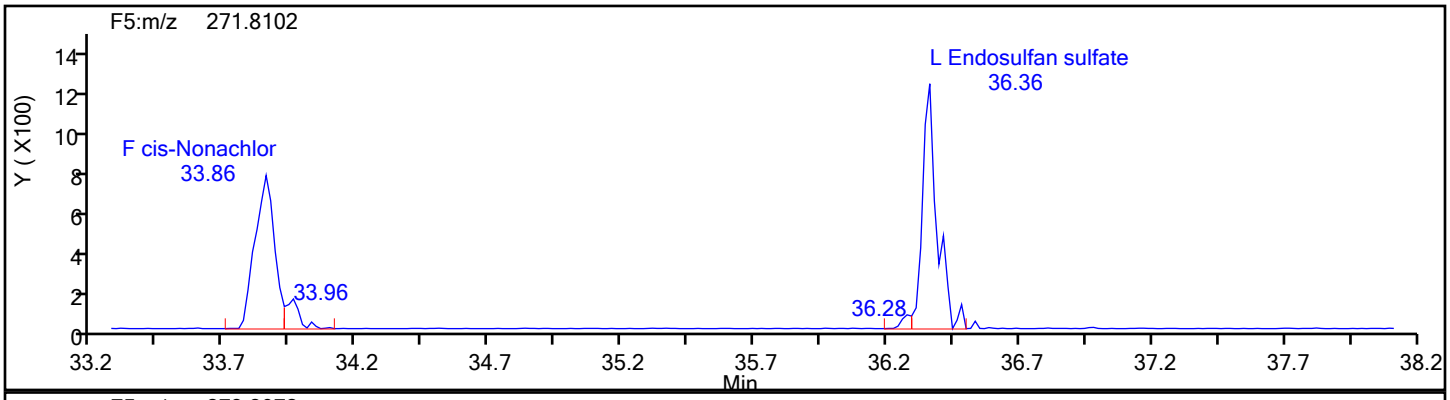
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

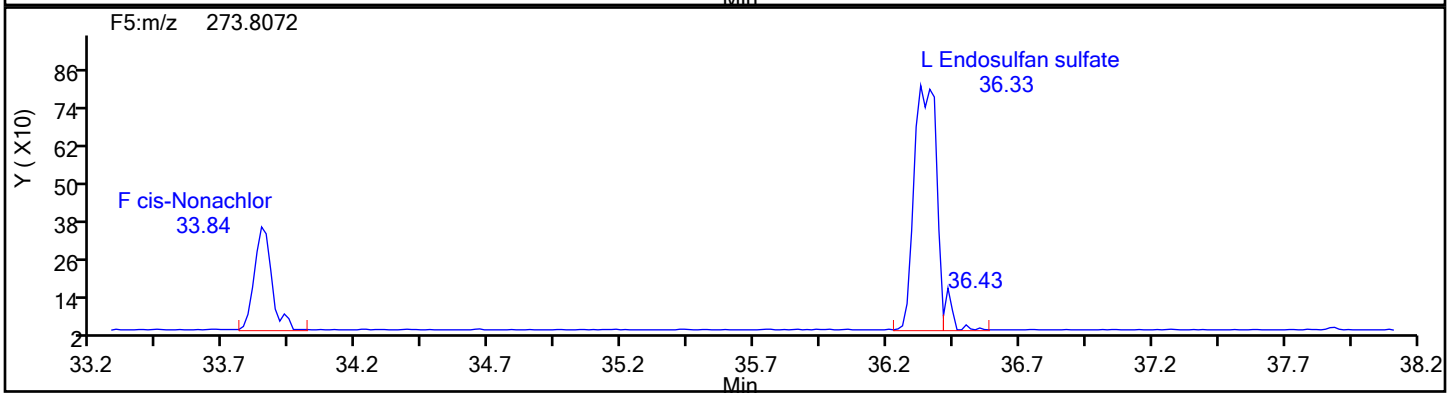
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

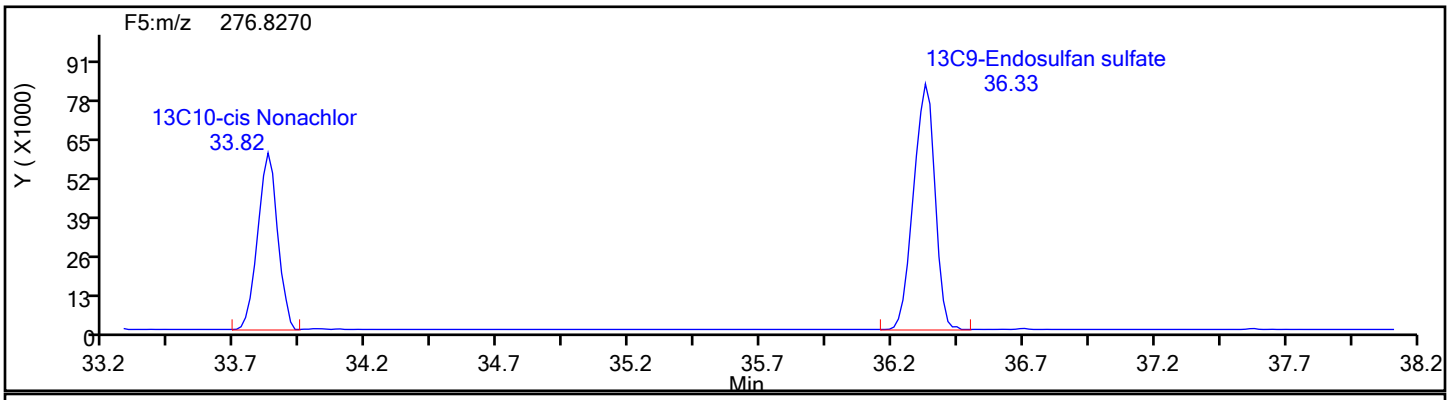
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

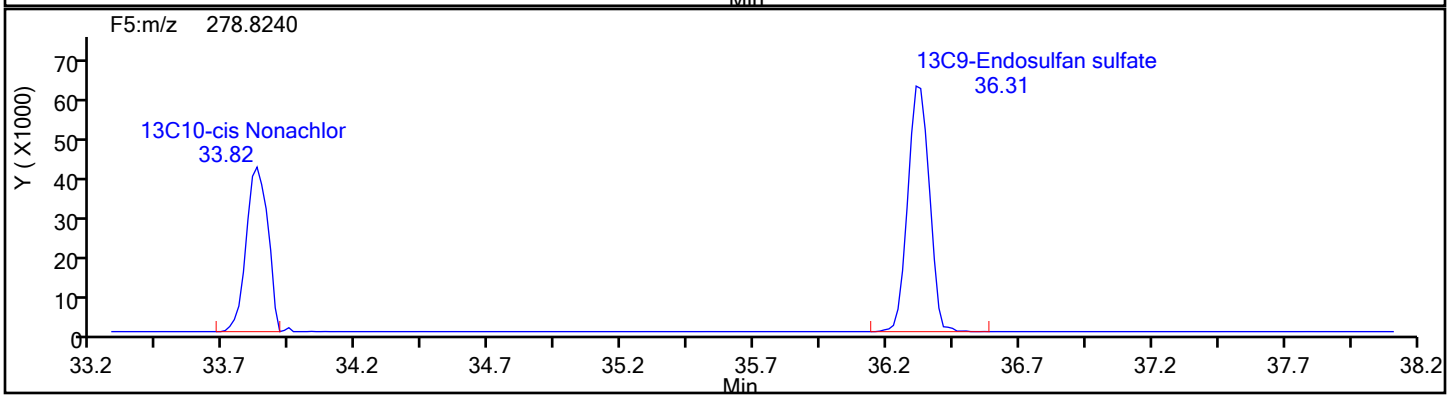
Nonachlor





Nonachlor Standards



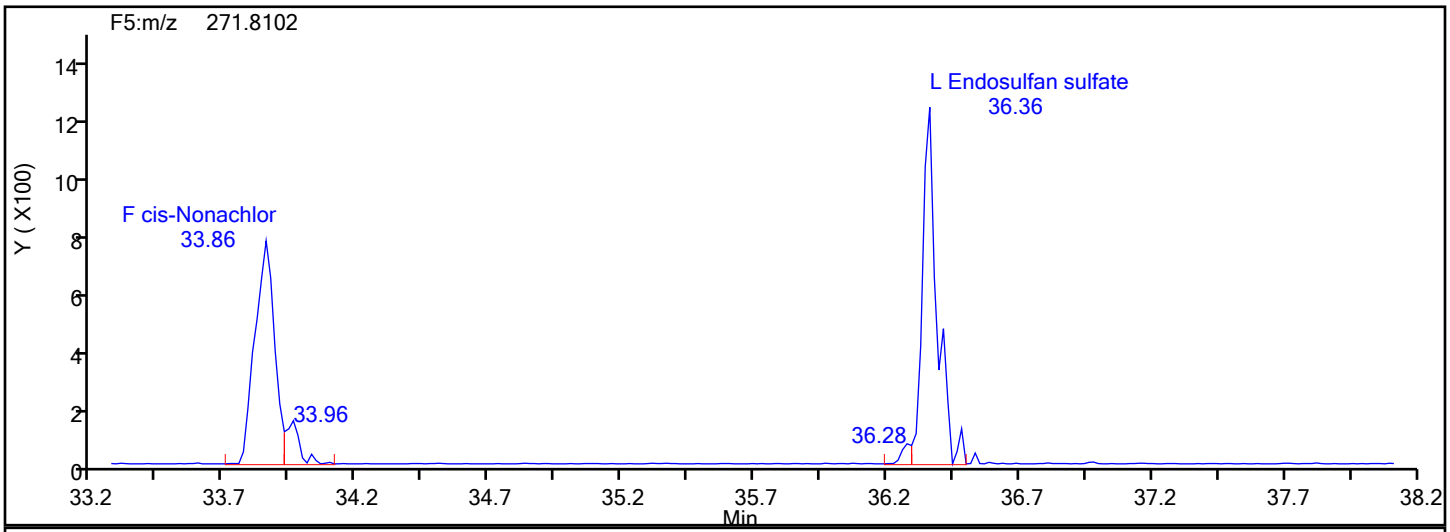


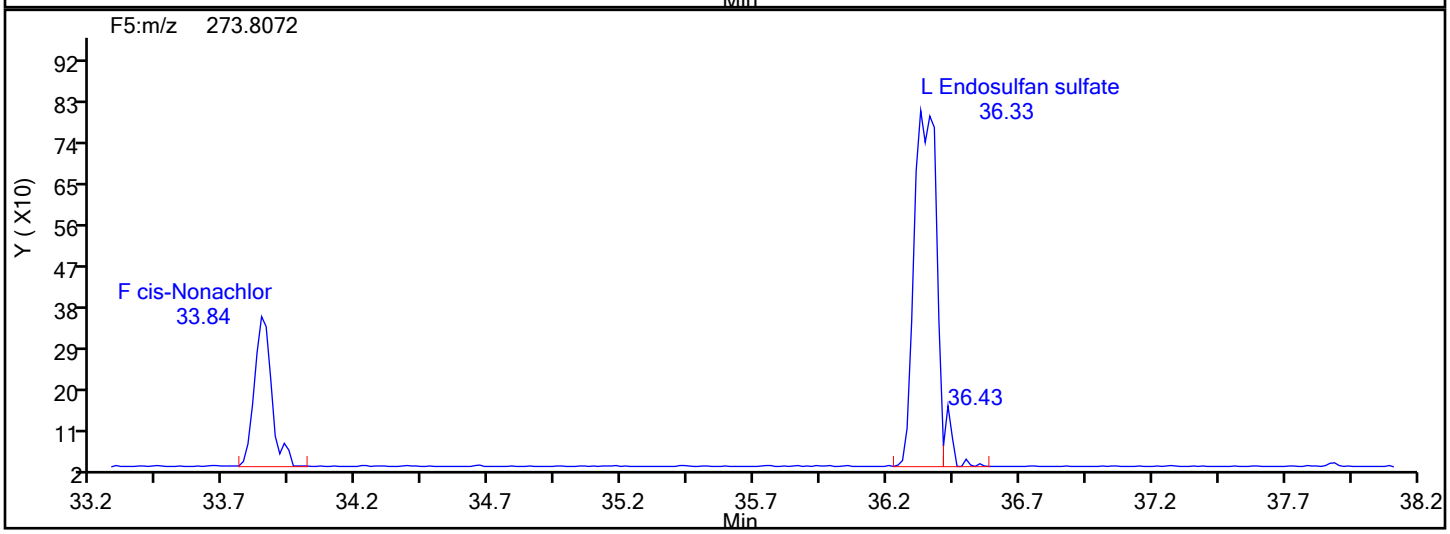
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

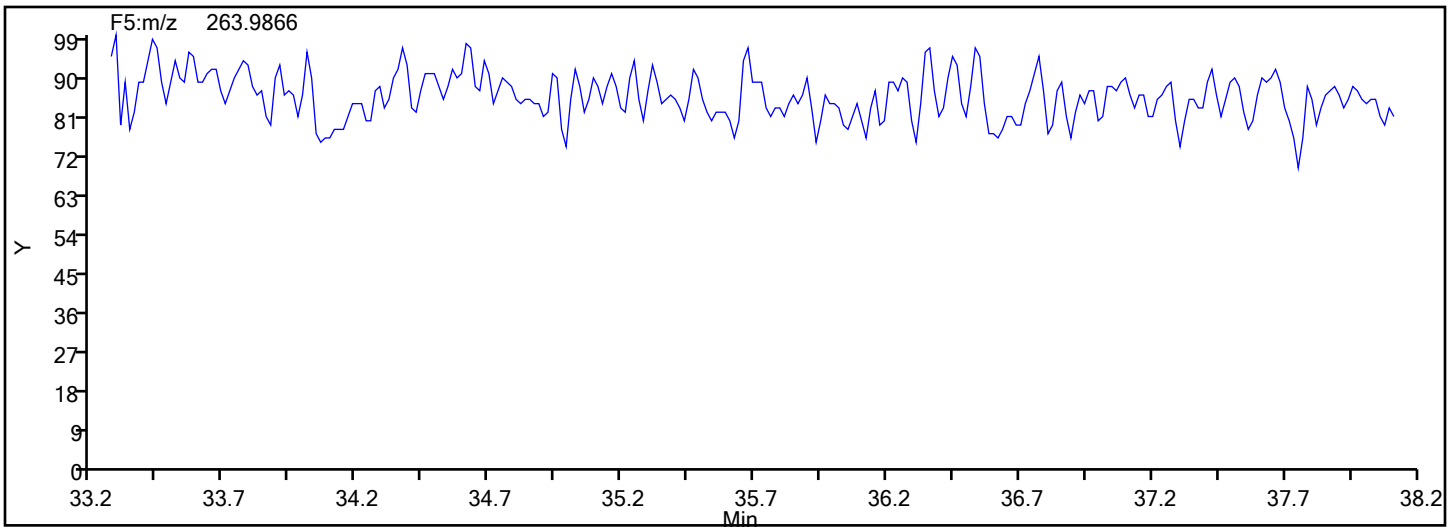
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



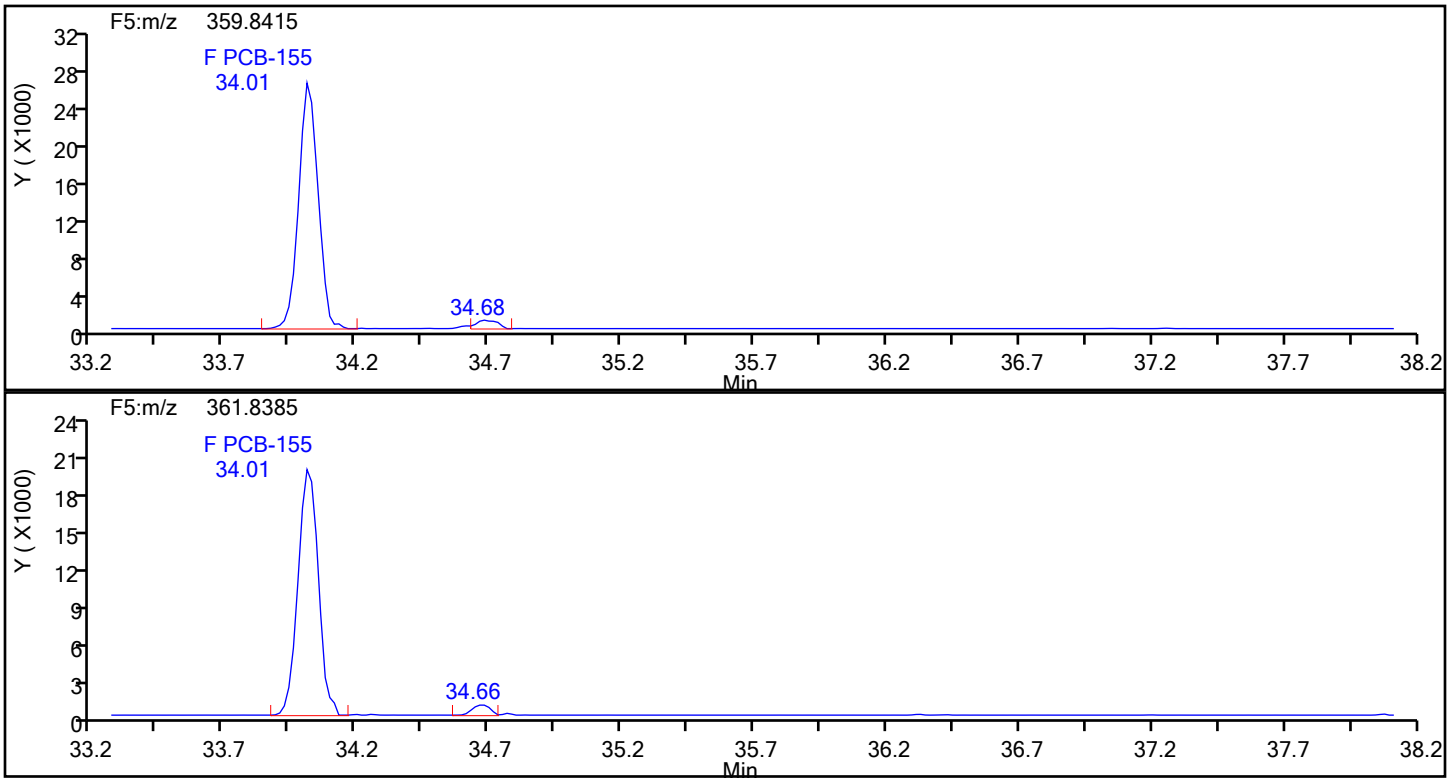
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

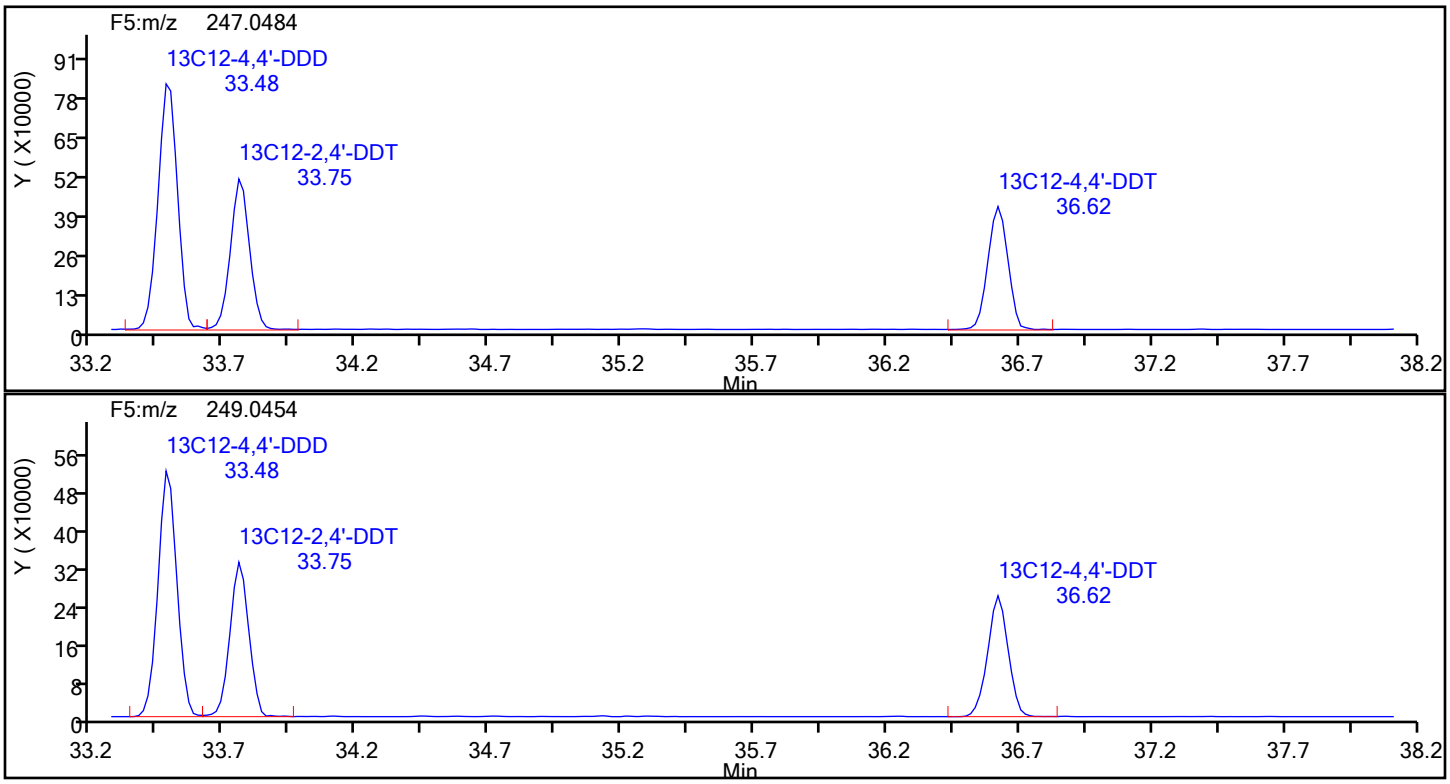
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

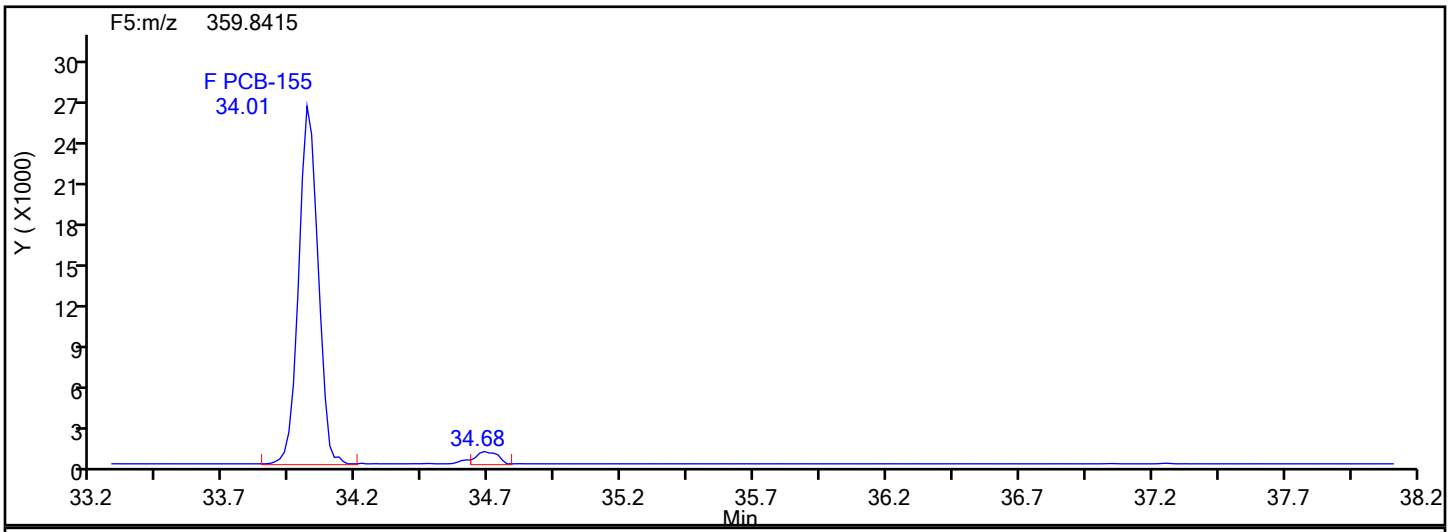


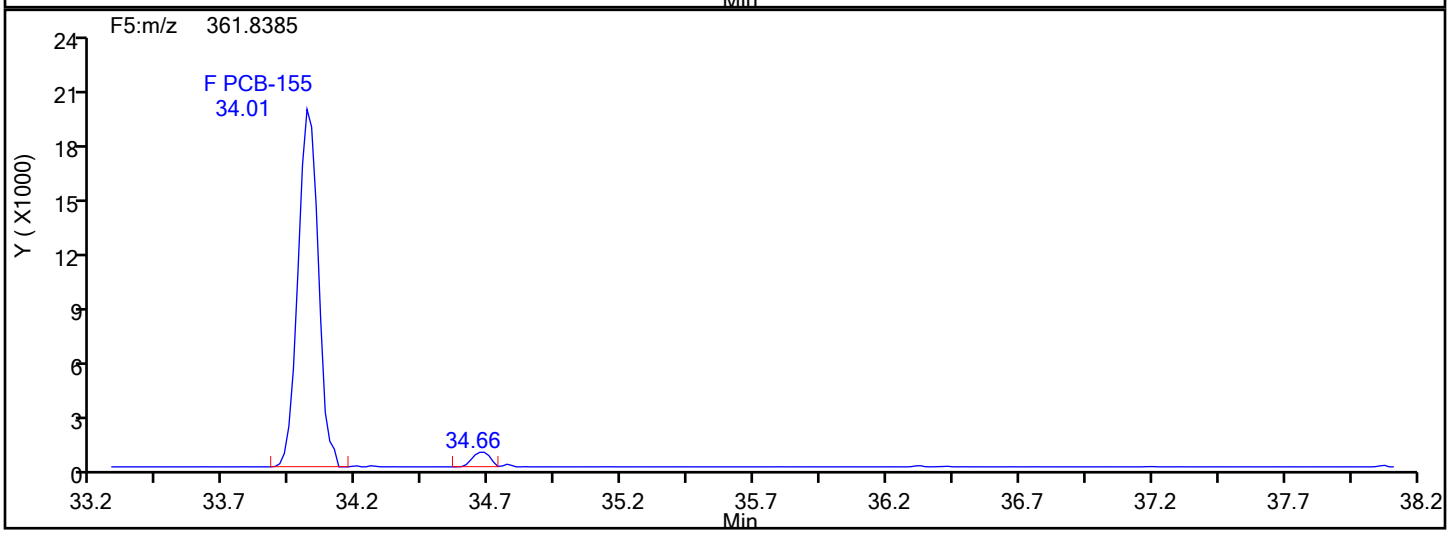
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

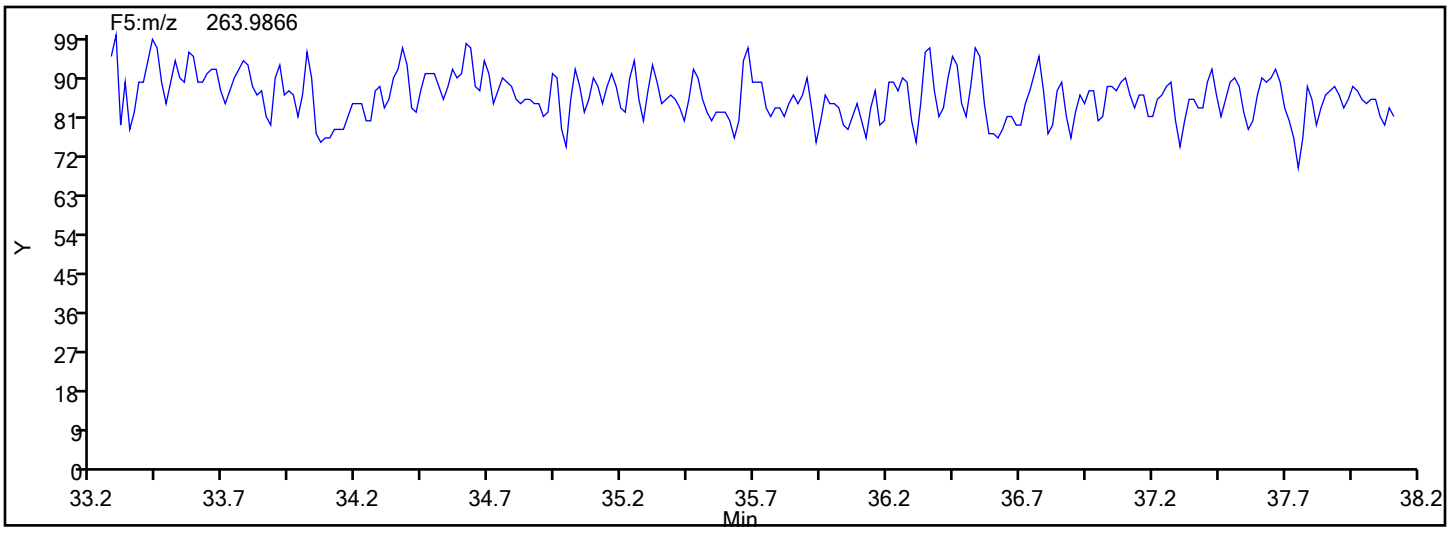
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



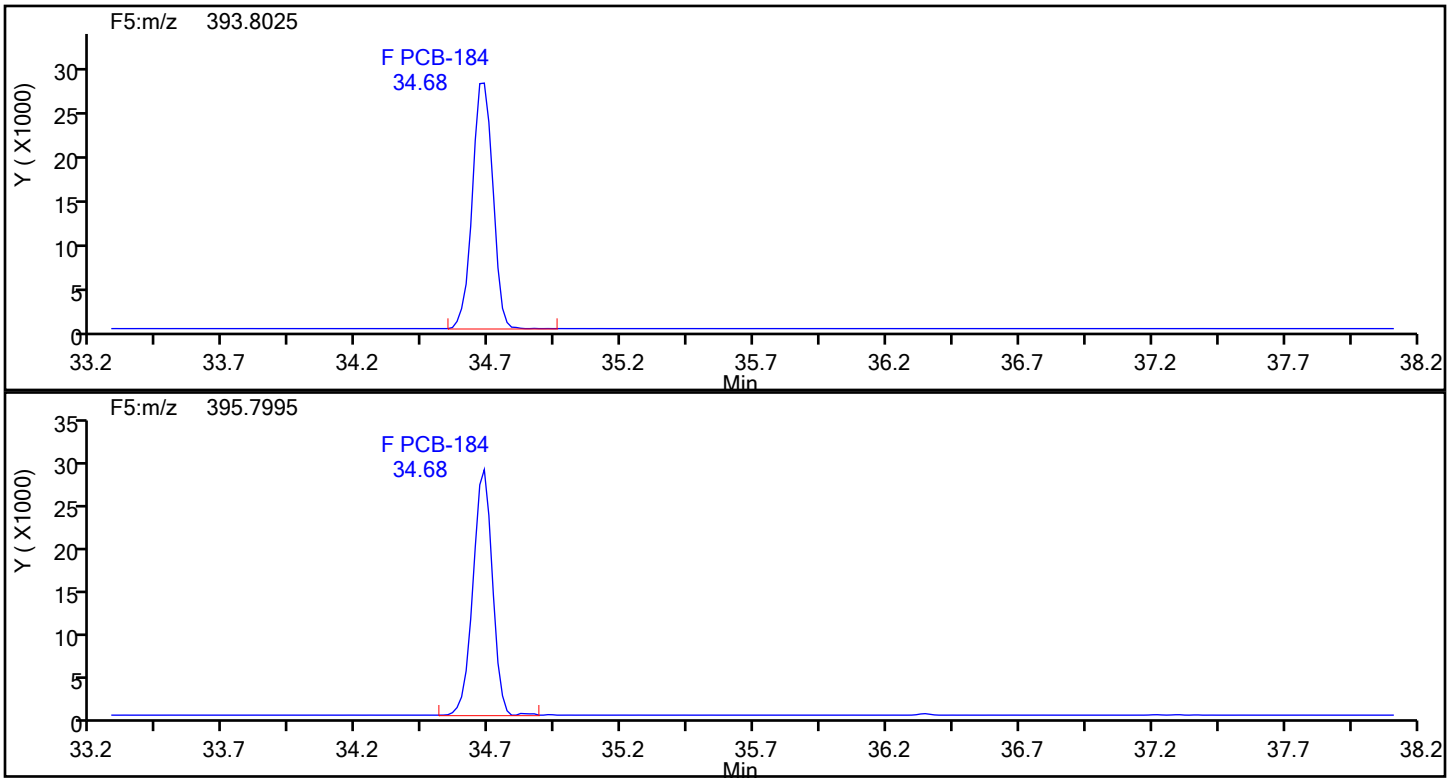
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

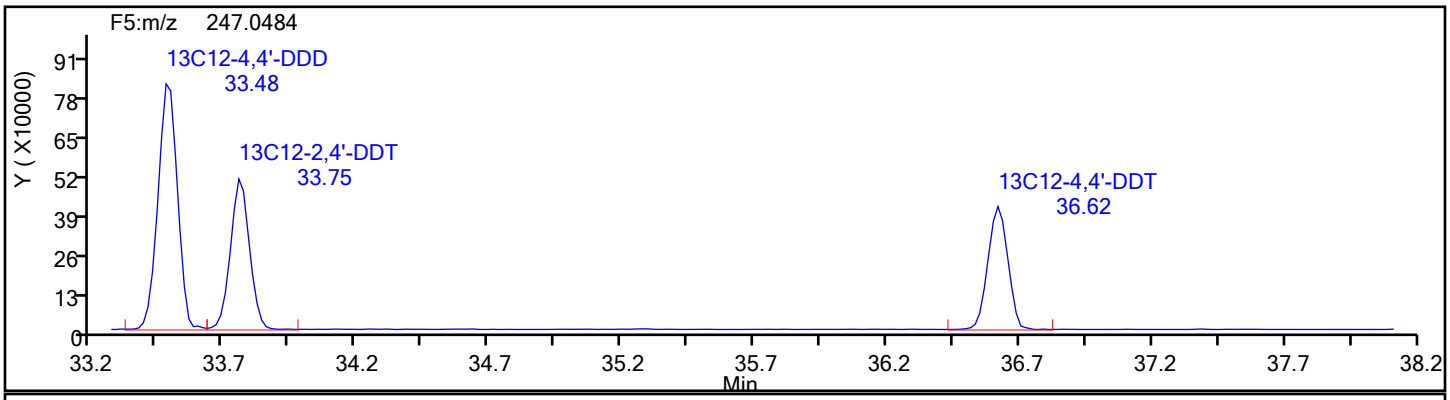
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

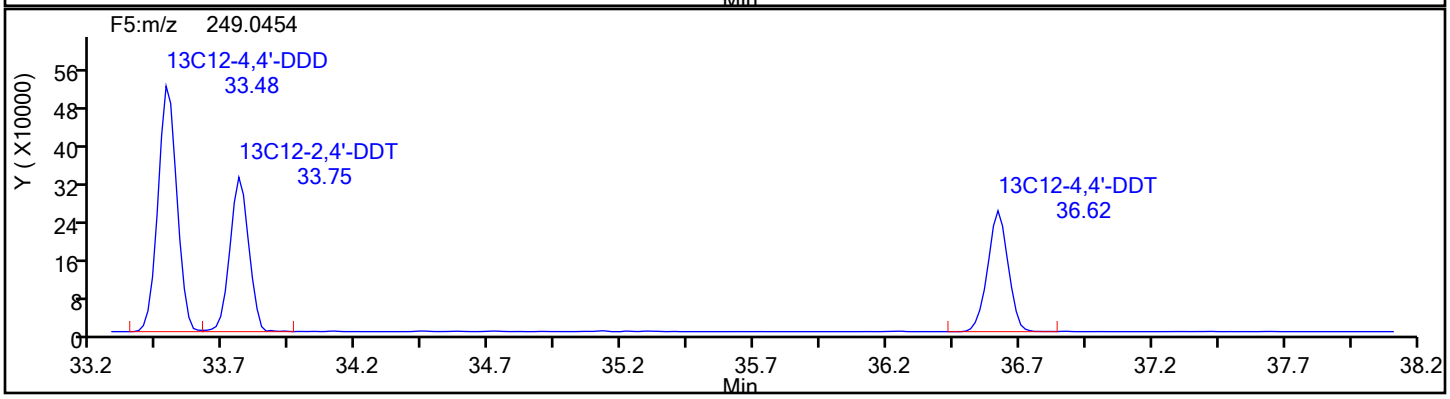
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



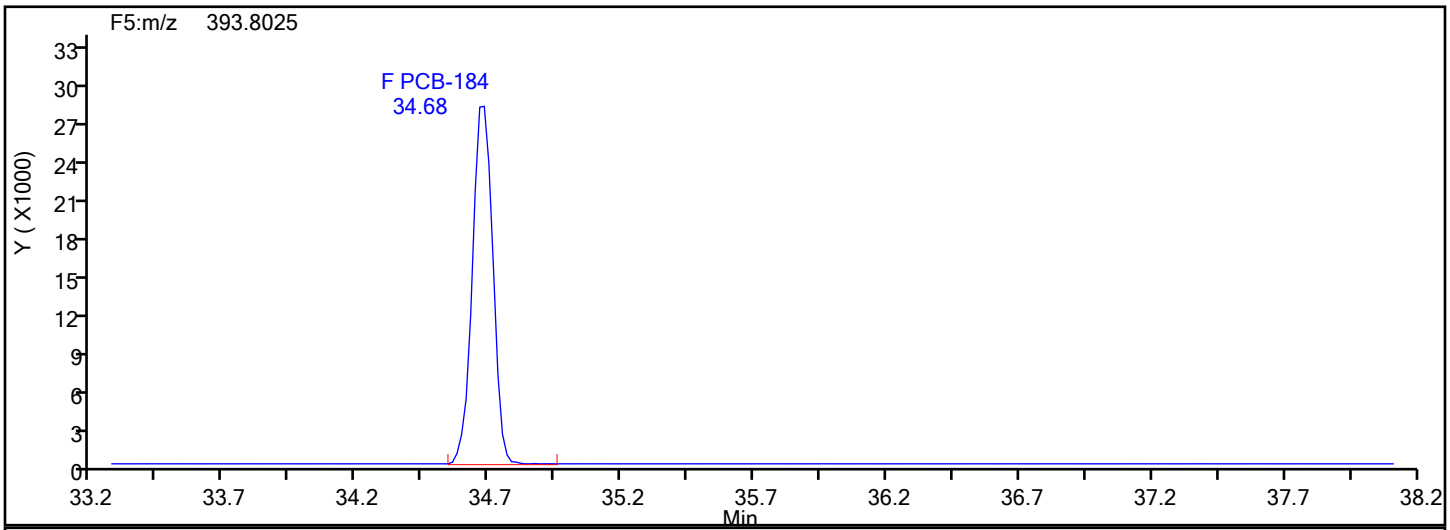


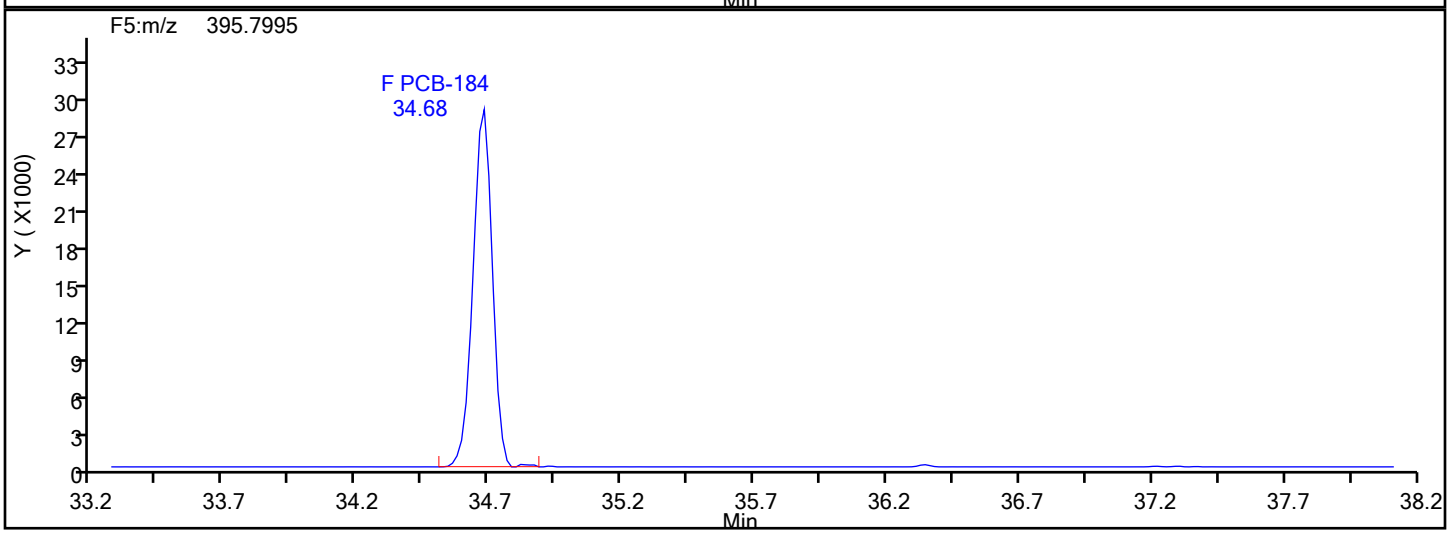
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

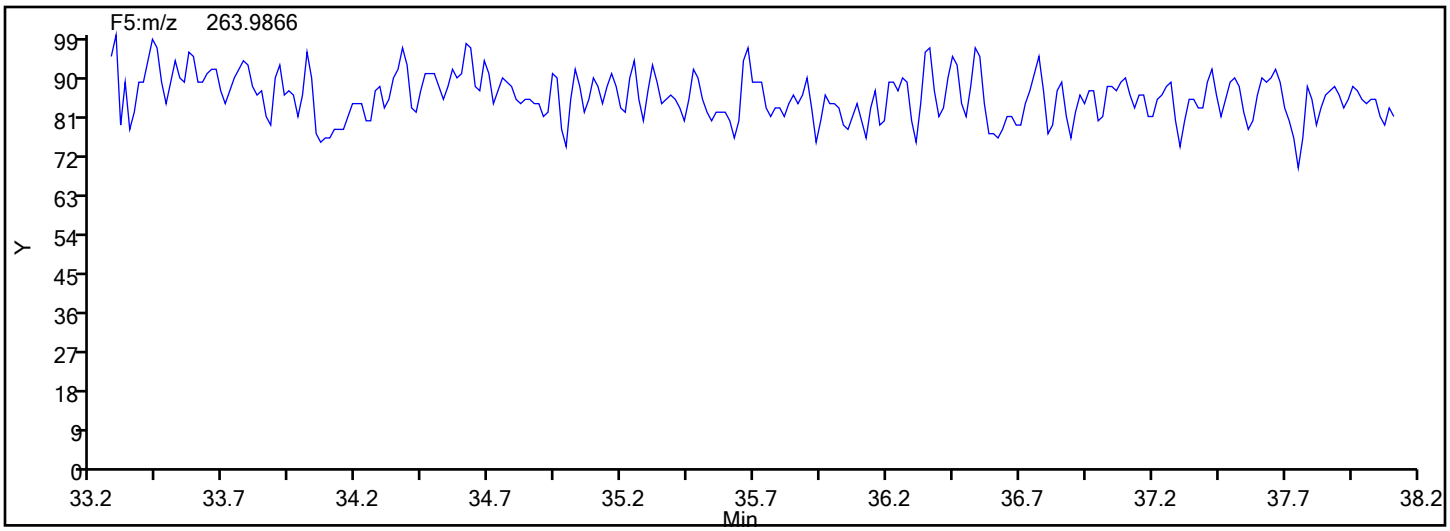
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d
Injection Date: 19-Mar-2025 18:42:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

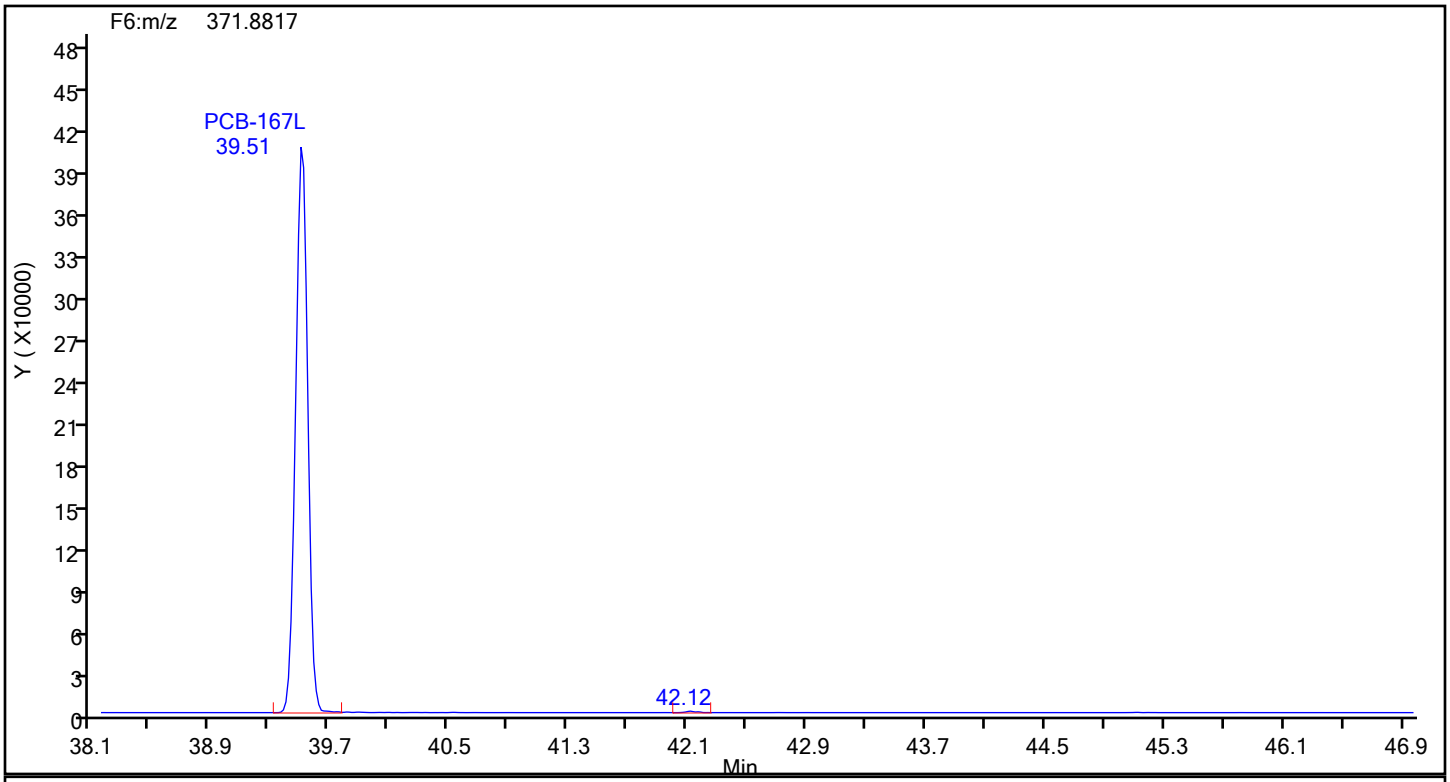


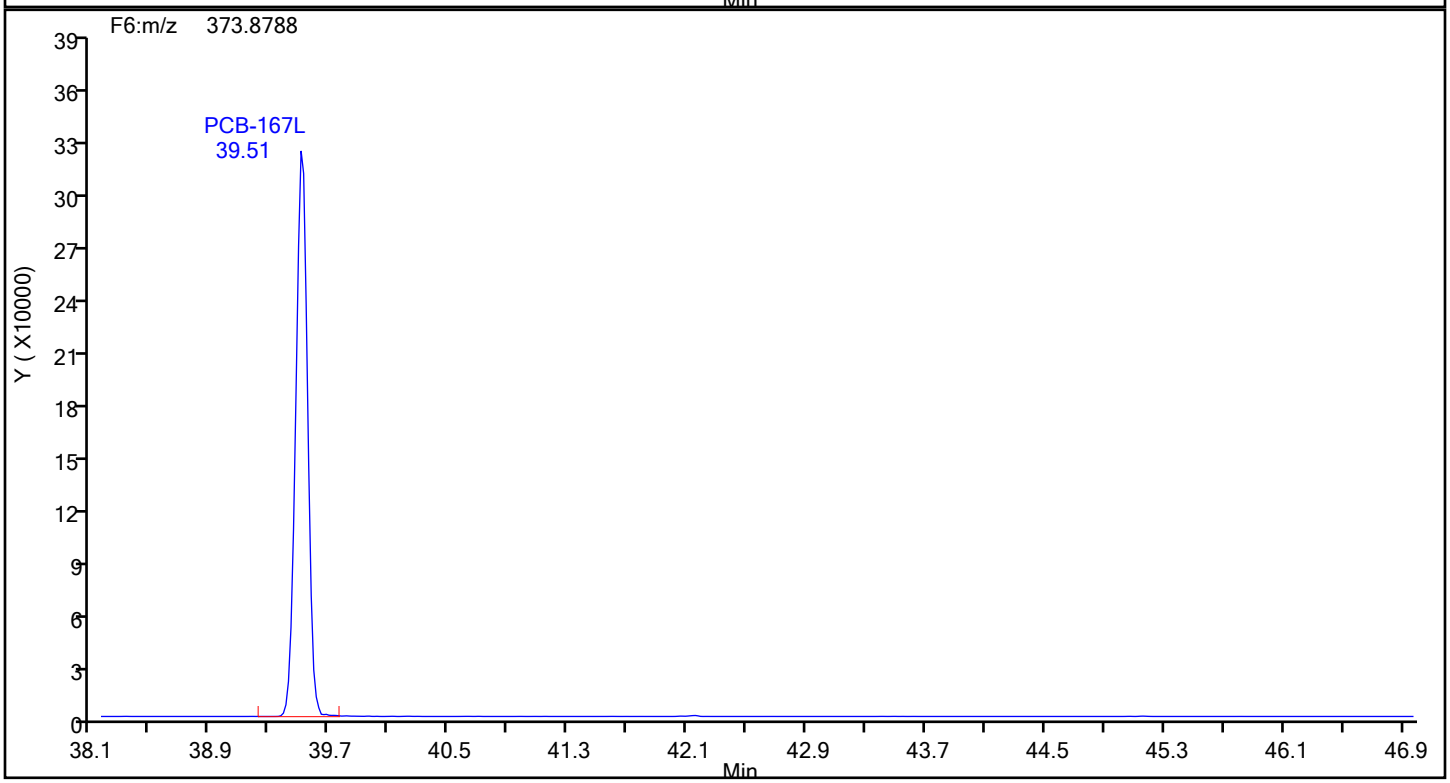
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





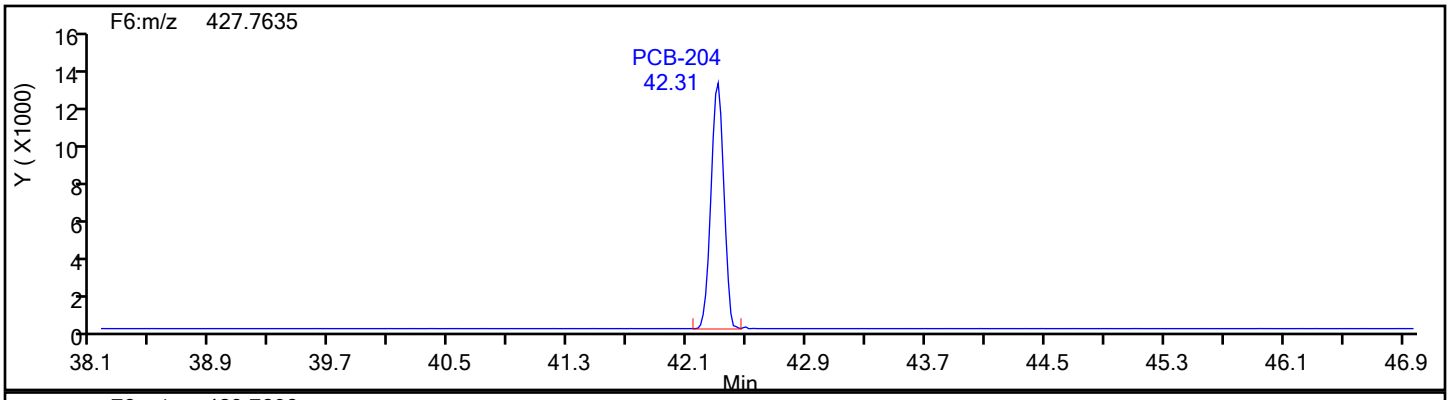
Report Date: 24-Mar-2025 13:05:56 Chrom Revision: 2.3 21-Mar-2025 14:03:38

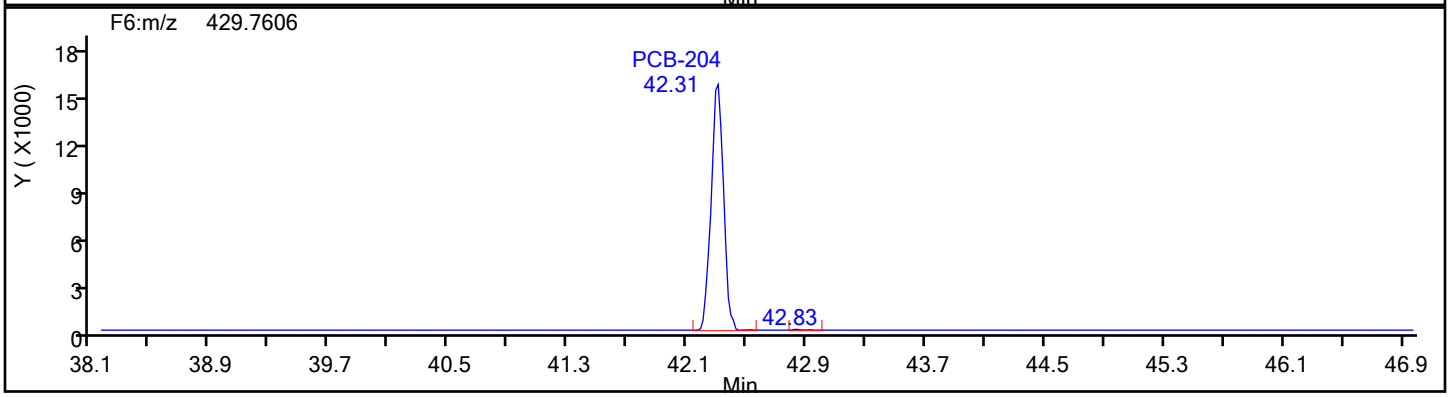
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

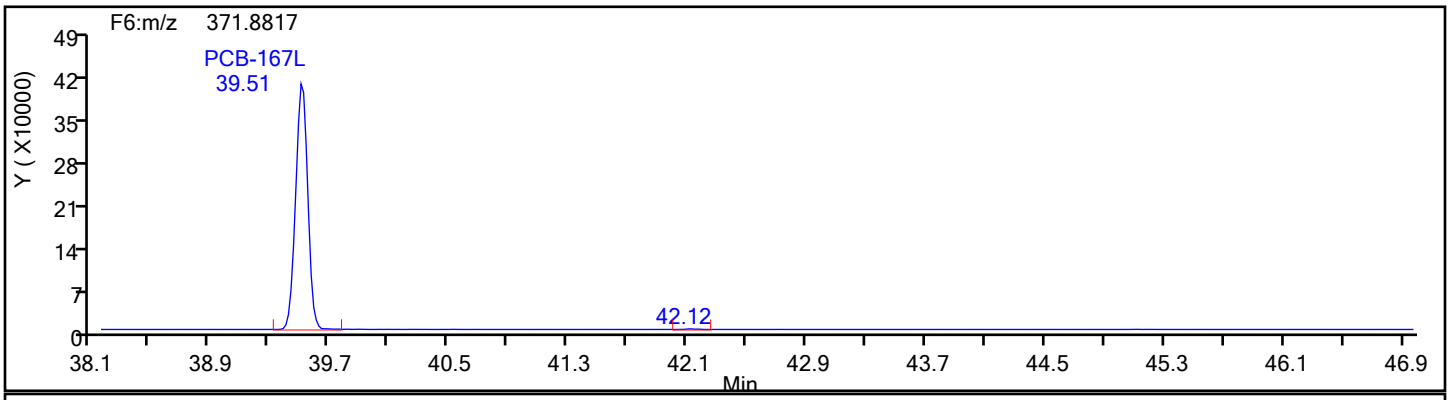
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

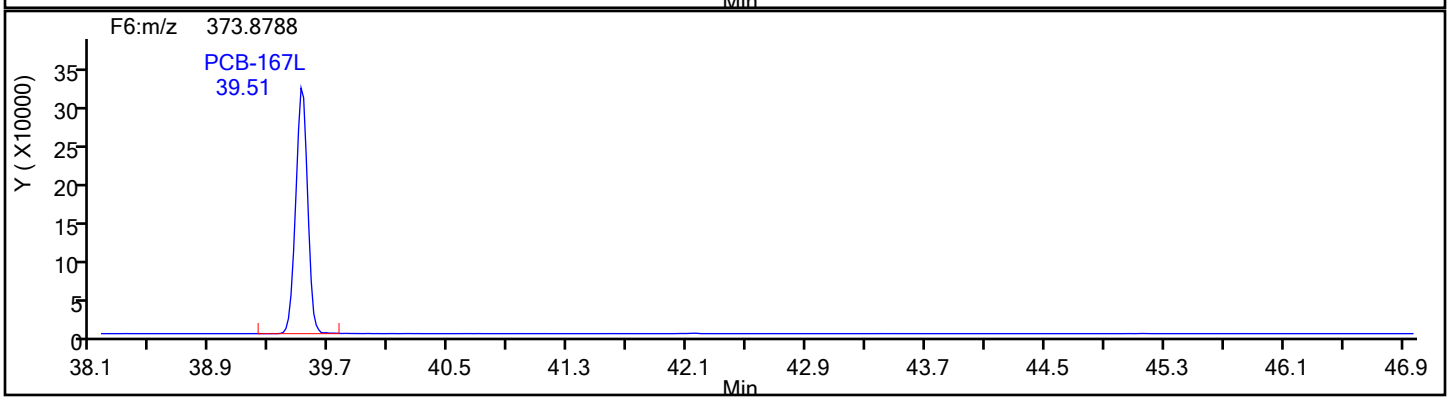
PCB-204





PCB-204 Standards



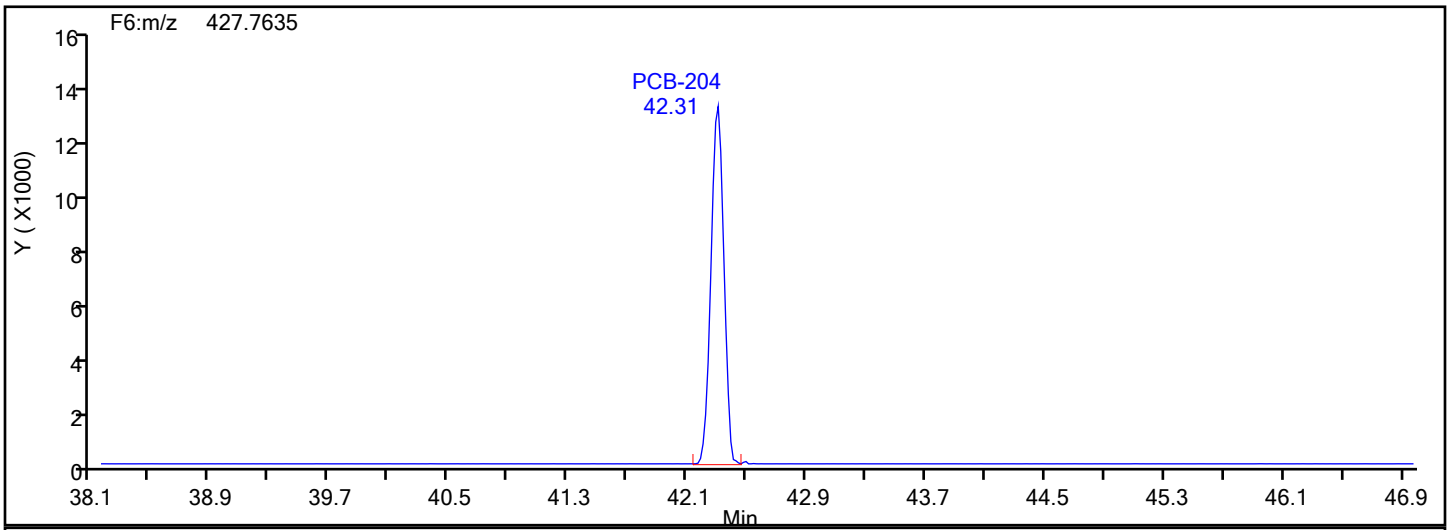


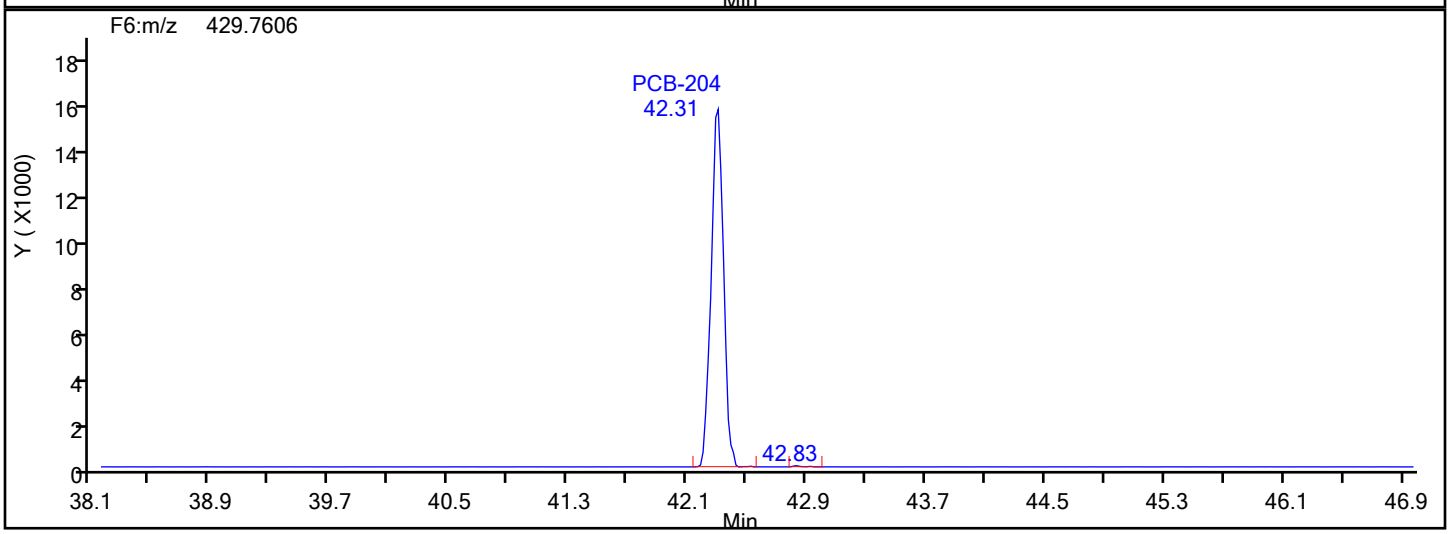
Report Date: 24-Mar-2025 13:05:57 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

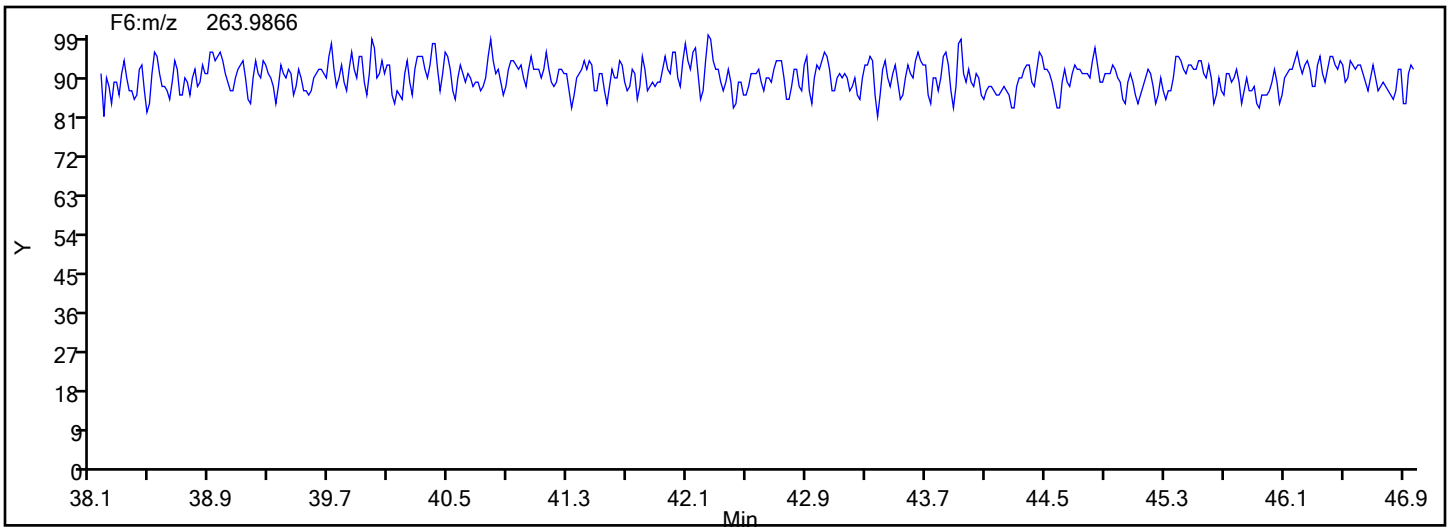
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



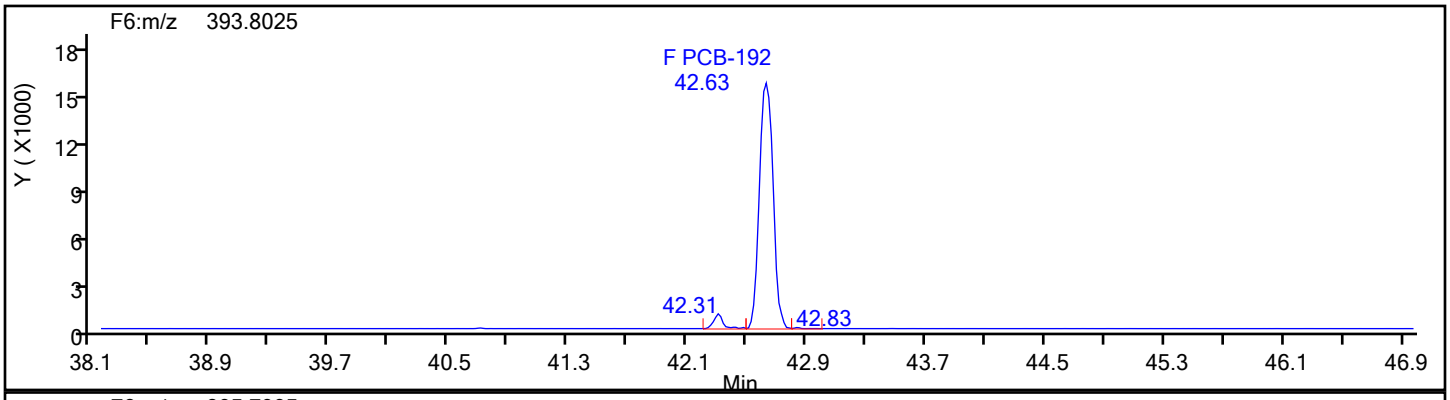
Report Date: 24-Mar-2025 13:05:57 Chrom Revision: 2.3 21-Mar-2025 14:03:38

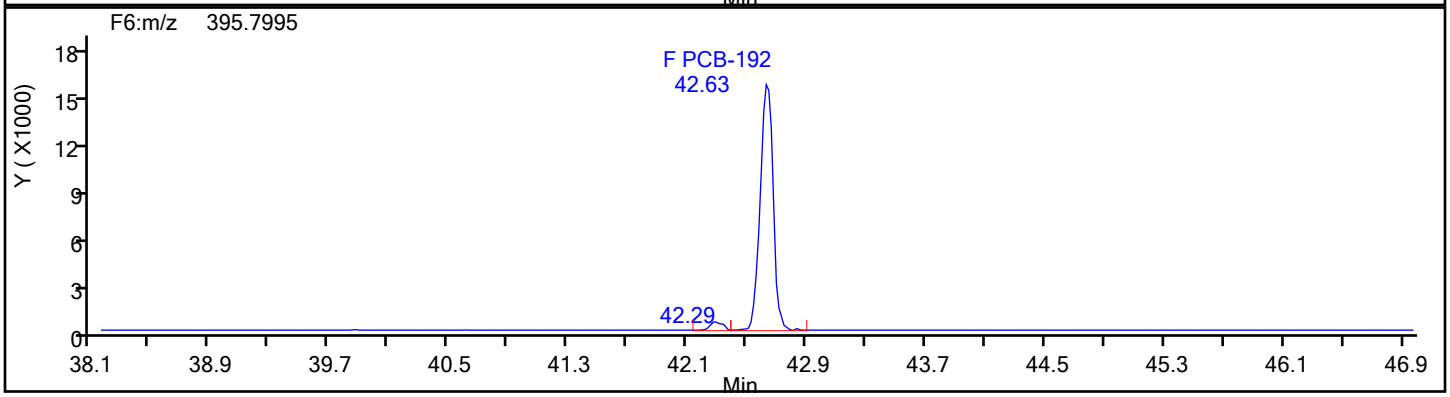
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d

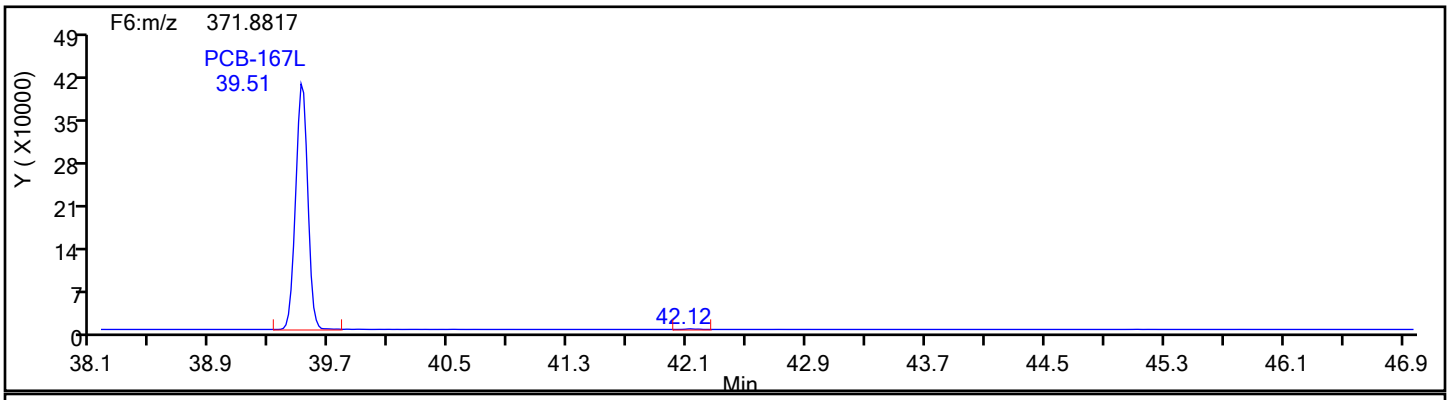
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

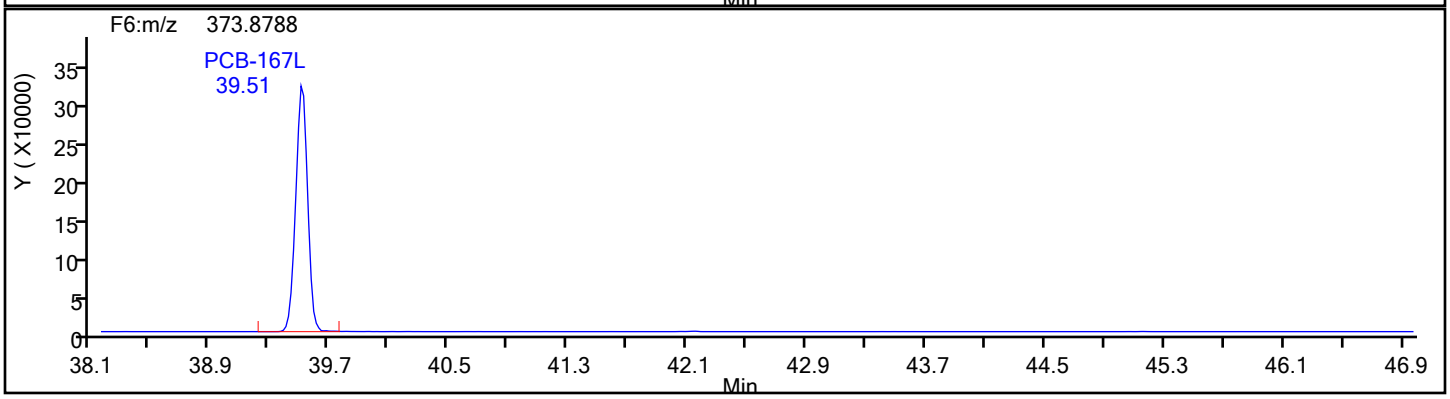
PCB-192





PCB-192 Standards



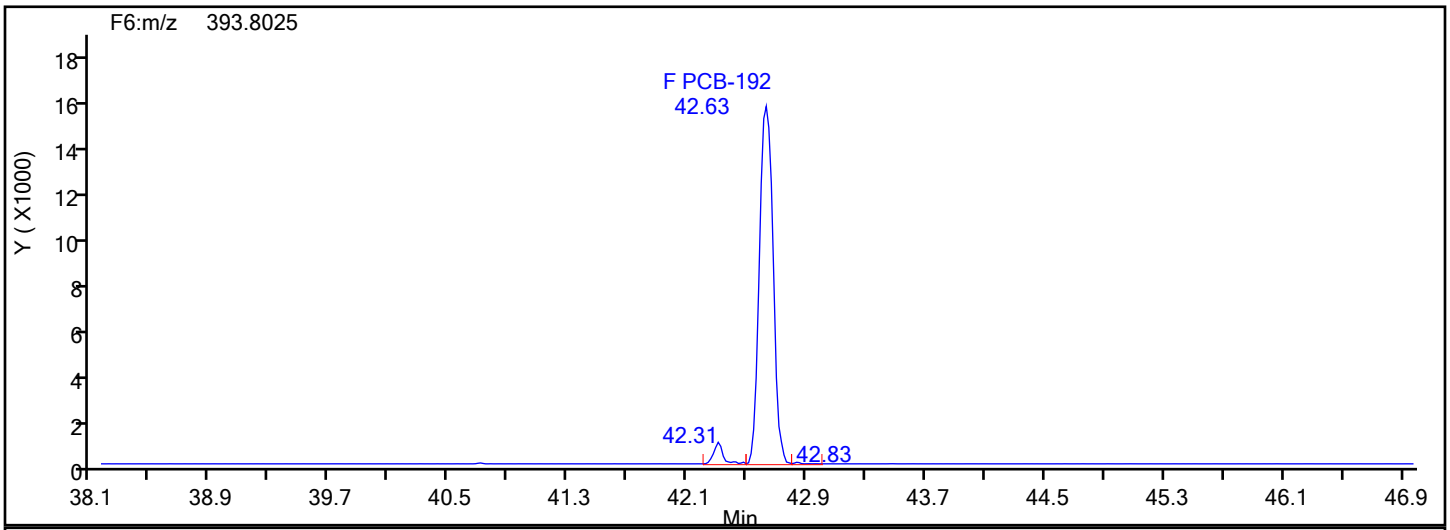


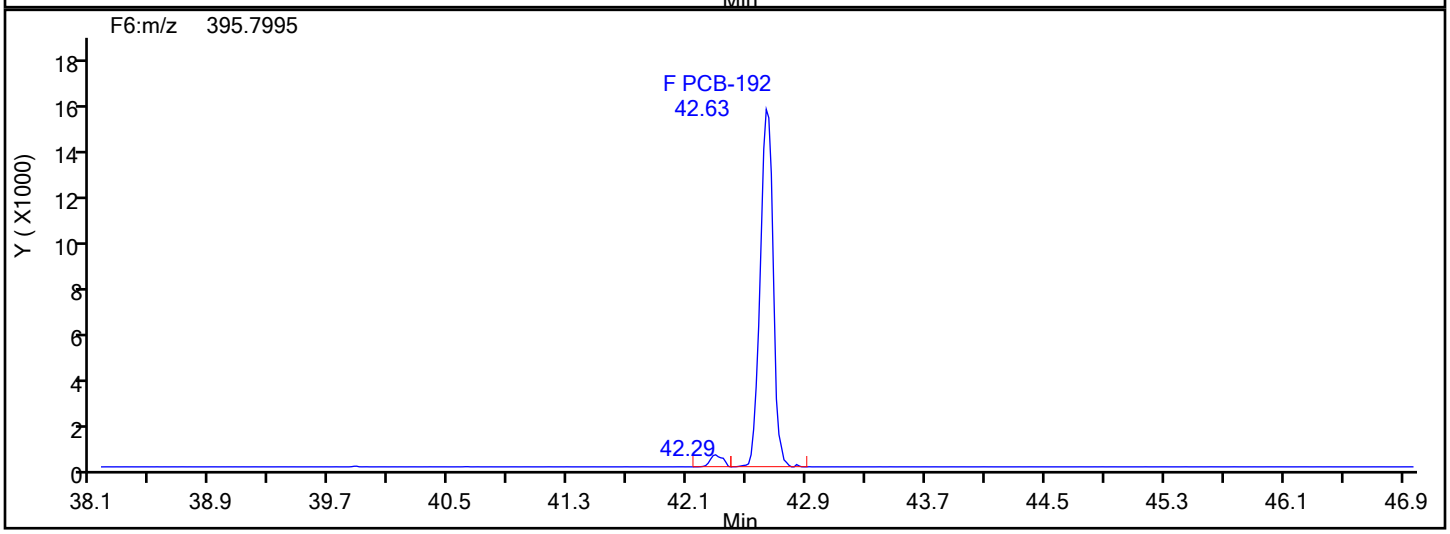
Report Date: 24-Mar-2025 13:05:57 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

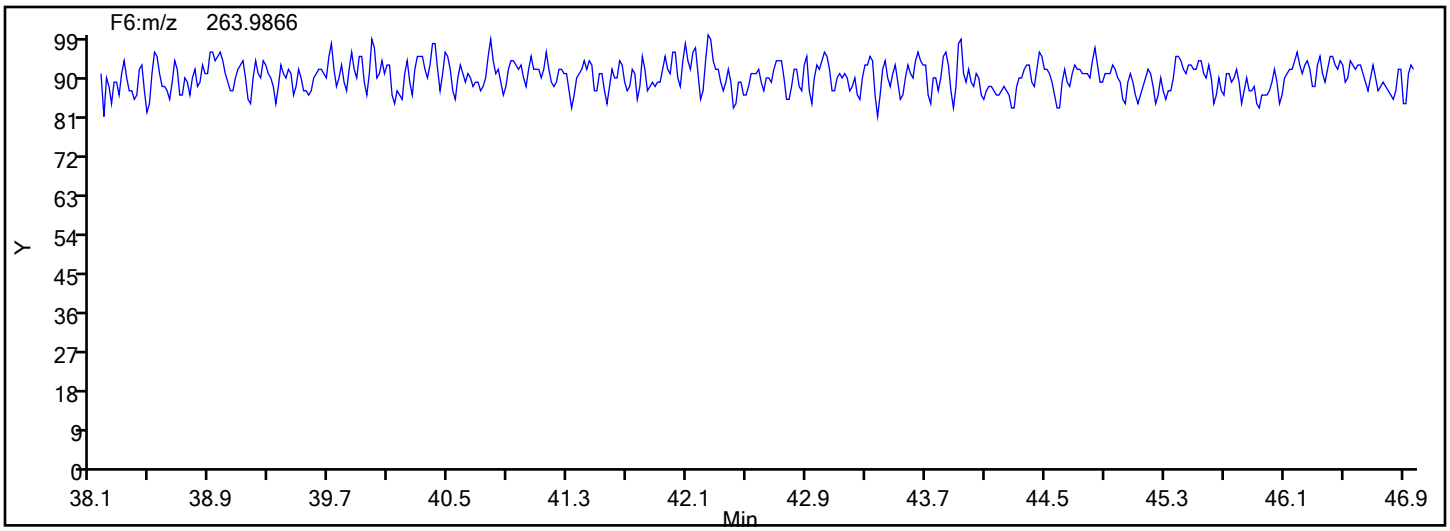
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic2.d		
Injection Date:	19-Mar-2025 18:42:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Mar-2025 19:37:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-003
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:02 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:36:53

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:22	3616931	0.81	0.1704	96.2	96.2	0.0472	0.0472	96.17	
alpha-BHC	17:23	81776	0.65	1.0937	2.067	2.067	0.0269	0.0269	103	
D 13C6-beta BHC	18:22	2422173	0.78	0.1244	88.2	88.2	0.0646	0.0646	88.20	
beta-BHC	18:23	51159	0.79	1.0053	2.101	2.101	0.0479	0.0479	105	
D 13C6-gamma BHC	18:38	3107173	0.82	0.1646	85.5	85.5	0.0488	0.0488	85.52	
gamma-BHC (Lindane)	18:40	60717	0.73	0.9800	1.994	1.994	0.0381	0.0381	99.70	
D 13C6-delta BHC	19:37	2032901	0.78	0.0992	92.8	92.8	0.0810	0.0810	92.83	
delta-BHC	19:37	46190	0.78	1.1243	2.021	2.021	0.0568	0.0568	101	
D 13C10-Heptachlor	21:51	1587485	1.25	0.0715	100.6	100.6	0.0724	0.0724	101	
Heptachlor	21:52	36635	1.15	1.0864	2.124	2.124	0.001005	0.001005	106	
D 13C6-Hexachlorobenzene	17:41	10769888	1.26	0.5041	96.8	96.8	0.000140	0.000140	96.78	
Hexachlorobenzene	17:42	242333	1.23	1.1568	1.945	1.945	0.000112	0.000112	97.25	
D 13C12-Aldrin	23:43	2819612	1.63	0.1384	92.3	92.3	0.0214	0.0214	92.28	
Aldrin	23:45	59502	1.56	1.0892	1.938	1.938	0.000616	0.000616	96.88	
D 13C10-oxy Chlordane	26:09	311350	1.25	0.0481	110.4	110.4	0.007900	0.007900	110	
oxy-Chlordane	26:09	4201	1.29	1.1040	1.222	1.222	0.005618	0.005618	61.11	M
D 13C10-cis Heptachlor Epoxide	26:06	835898	1.32	0.1493	95.5	95.5	0.002544	0.002544	95.46	
Heptachlor epoxide	26:07	20468	1.15	1.1461	2.136	2.136	0.002388	0.002388	107	
D 13C12-2,4'-DDE	27:56	15908848	1.57	2.7345	99.2	99.2	0.0253	0.0253	99.17	
2,4'-DDE	27:57	394075	1.68	1.2831	1.931	1.931	0.006300	0.006300	96.53	
D 13C10-trans Chlordane	27:38	971218	1.31	0.1640	100.9	100.9	0.0310	0.0310	101	
trans-Chlordane	27:39	25201	1.04	1.1433	2.270	2.270	0.002020	0.002020	113	
D 13C10-cis Chlordane	28:41	1015999	1.36	0.1741	99.5	99.5	0.0292	0.0292	99.45	
cis-Chlordane	28:43	21172	1.35	1.0551	1.975	1.975	0.002184	0.002184	98.75	
D 13C10-trans Nonachlor	29:00	720613	1.33	0.1233	99.6	99.6	0.0413	0.0413	99.63	
trans-Nonachlor	29:01	16261	1.29	1.0780	2.093	2.093	0.003025	0.003025	105	
D 13C9-Endosulfan I	28:31	314570	1.28	0.0555	96.6	96.6	0.0916	0.0916	96.58	
D 13C12-4,4'-DDE	30:10	10650504	1.53	1.8637	95.2	95.2	0.0728	0.0728	95.21	
4,4'-DDE	30:11	261793	1.55	1.2526	1.962	1.962	0.008296	0.008296	98.11	
D 13C12-4,4'-DDD	33:28	6525324	1.59	1.1392	95.4	95.4	0.007780	0.007780	95.43	
4,4'-DDD	33:29	166787	1.70	1.2345	2.070	2.070	0.0255	0.0255	104	
D 13C12-2,4'-DDT	33:45	3976573	1.56	0.6754	98.1	98.1	0.0131	0.0131	98.09	
2,4'-DDT	33:46	104956	1.59	1.1809	2.235	2.235	0.0443	0.0443	112	
D 13C12-4,4'-DDT	36:36	3539049	1.68	0.5808	101.5	101.5	0.0153	0.0153	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:38	83908	1.52	1.2096	1.960	1.960	0.0525	0.0525	98.01	
D 13C12-Dieldrin	30:23	1135976	1.68	0.1991	95.1	95.1	0.0466	0.0466	95.06	
Dieldrin	30:25	22994	1.73	1.0718	1.888	1.888	0.004632	0.004632	94.42	
D 13C12-Endrin	32:04	708690	1.75	0.1181	100.0	100.0	0.0786	0.0786	99.99	
Endrin	32:04	16171	1.46	1.0678	2.137	2.137	0.007681	0.007681	107	
D 13C9-Endosulfan II	32:48	136853	1.34	0.0248	92.0	92.0	0.3066	0.3066	92.01	
Endosulfan II	32:47	2265	1.24	1.0972	2.262	1.508	0.0140	0.0140	113	RQM
D 13C12-Endrin Aldehyde	34:19	118346	1.68	0.0237	83.1	83.1	0.2562	0.2562	83.11	
Endrin aldehyde	34:24	800	1.55	1.1278	1.465	0.5994	0.1573	0.1573	73.27	RQ
D 13C12-Methoxychlor	41:57	4057830	16.27	0.6709	100.8	100.8	0.0547	0.0547	101	
Methoxychlor	41:58	113486	5.52	1.3248	2.111	2.111	0.009852	0.009852	106	
D 13C11-Endrin Ketone	40:25	400828	1.67	0.0648	103.1	103.1	0.0352	0.0352	103	
Endrin ketone	40:28	9257	1.73	1.1546	2.000	2.000	0.006346	0.006346	100	
D 13C10-Mirex	45:25	3553873	1.26	0.9459	103.5	103.5	0.0103	0.0103	103	
Mirex	45:27	68494	1.14	1.0234	1.883	1.883	0.000871	0.000871	94.17	
* PCB-15L	19:04	22077058	1.61		100.0	100.0				
PCB-14	17:48	6164996	1.58	1.3581	20.6	20.6	0.000488	0.000488	81.81	
* 13C6-Pentachlorophenol (IS)	18:40	575	0.53		500.0	500.0				
Pentachlorophenol	18:31						275.0	275.0		
PCB-36	22:09	4833603	1.06	1.0230	21.4	21.4	0.000965	0.000965	85.15	
* PCB-101L	28:06	5866592	1.63		100.0	100.0				
PCB-104	23:43	2880608	1.52	1.8372	26.7	26.7	0.000207	0.000207	106	
* PCB-118L	32:48	6002432	1.61		100.0	100.0				
PCB-121	26:43	1963014	1.61	1.4622	22.4	22.4	0.0176	0.0176	88.99	
* PCB-138L	36:59	3630151	1.28		100.0	100.0				
PCB-142	27:30	1777063	1.28	2.0271	24.1	24.1	0.000886	0.000886	96.08	
Endosulfan I	28:32	5451	1.55	1.0931	3.080	1.585	0.0137	0.0137	154	RQ
* PCB-60L	27:44	11435844	0.81		100.0	100.0				a
PCB-78	29:21	2341482	0.81	0.9153	22.4	22.4	0.002245	0.002245	89.00	a
D 13C12-2,4'-DDD	30:51	7575823	1.60	1.3487	93.6	93.6	0.0770	0.0770	93.58	
2,4'-DDD	30:52	182702	1.71	1.1763	2.050	2.050	0.0207	0.0207	103	
D 13C10-cis Nonachlor	33:48	510427	1.32	0.0944	90.1	90.1	0.0492	0.0492	90.06	
cis-Nonachlor	33:50	13583	1.11	1.0758	2.474	2.474	0.004896	0.004896	124	
D 13C9-Endosulfan sulfate	36:17	867490	1.28	0.1517	95.3	95.3	0.0306	0.0306	95.29	
Endosulfan sulfate	36:19	20227	1.40	1.0831	2.153	2.153	0.003085	0.003085	108	
* PCB-167L	39:29	4165889	1.27		100.0	100.0				
PCB-155	33:59	837632	1.25	0.9191	21.9	21.9	0.0205	0.0205	87.04	
PCB-184	34:39	1024976	1.02	1.1610	21.2	21.2	0.001742	0.001742	84.32	
PCB-204	42:16	638954	0.90	0.7364	20.8	20.8	0.000915	0.000915	82.87	
PCB-192	42:37	680774	1.03	0.7635	21.4	21.4	0.002649	0.002649	85.16	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

61L21699PST_00012 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Mar-2025 19:37:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-003
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:02 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:36:53

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:22	17:23	0	0.912	1620877	609668	173	432	3524		
224.9317	17:22	17:23	0	0.912	1996054	749472	55	137	13627	0.81(0.58-0.96)	
alpha-BHC											
216.9145	17:23	17:23	0	1.001	32176	11937	1	2	11937		
218.9116	17:22	17:23	-1	1.000	49600	16718	159	397	105	0.65(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:22	0	0.964	1062905	370738	173	432	2143		
224.9317	18:22	18:22	0	0.964	1359268	460550	55	137	8374	0.78(0.58-0.96)	
beta-BHC											
216.9145	18:23	18:23	0	1.001	22502	7762	1	2	7762		
218.9116	18:23	18:23	0	1.001	28657	9514	159	397	60	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:39	0	0.978	1399496	476775	173	432	2756		
224.9317	18:38	18:39	0	0.978	1707677	594411	55	137	10807	0.82(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	25569	10061	1	2	10061		
218.9116	18:40	18:40	0	1.001	35148	11508	159	397	72	0.73(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:36	0	1.029	892848	269474	173	432	1558		
224.9317	19:36	19:36	0	1.028	1140053	356401	55	137	6480	0.78(0.58-0.96)	
delta-BHC											
216.9145	19:37	19:38	0	1.001	20203	6856	1	2	6856		
218.9116	19:37	19:38	-1	1.000	25987	8422	159	397	53	0.78(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:51	21:51	-1	1.146	882107	258667	90	225	2874		
278.8240	21:51	21:51	-1	1.146	705378	199304	57	142	3497	1.25(0.93-1.55)	
Heptachlor											
271.8102	21:52	21:52	0	1.001	19567	5919	1	2	5919		
273.8072	21:52	21:52	-1	1.001	17068	4639	1	2	4639	1.15(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:42	0	0.928	5995779	2162293	1	2	2162293		
291.8273	17:41	17:42	0	0.928	4774109	1706342	1	2	1706342	1.26(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:42	17:42	0	1.001	133597	48240	1	2	48240		
285.8072	17:42	17:42	0	1.001	108736	37786	1	2	37786	1.23(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:44	-1	1.244	1749087	464279	41	102	11324		
271.8775	23:43	23:44	-1	1.244	1070525	281130	43	107	6538	1.63(1.16-1.94)	
Aldrin											
262.8569	23:45	23:45	-1	1.001	36280	11147	1	2	11147		
264.8540	23:45	23:45	-1	1.001	23222	6366	1	2	6366	1.56(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:08	0	0.930	173278	42792	1	2	42792		
398.8358	26:09	26:08	0	0.930	138072	37819	1	2	37819	1.25(0.78-1.30)	
oxy-Chlordane											M
386.8052	26:09	26:10	-1	1.001	2367	855	1	2	855		M
388.8023	26:09	26:10	-1	1.001	1834	566	1	2	566	1.29(0.78-1.30)	M
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.929	475023	105847	1	2	105847		
364.8748	26:06	26:06	0	0.929	360875	76835	1	2	76835	1.32(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:07	26:08	-1	1.001	10936	2560	1	2	2560		
354.8413	26:07	26:08	-1	1.001	9532	1845	1	2	1845	1.15(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.994	9729926	2200384	221	552	9956		
260.0376	27:56	27:56	0	0.994	6178922	1412196	143	357	9875	1.57(1.17-1.95)	
2,4'-DDE											
246.0003	27:57	27:57	-1	1.000	246960	54598	106	265	515		
247.9974	27:57	27:57	-1	1.000	147115	32251	11	27	2932	1.68(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:38	27:38	0	0.983	550137	120958	26	65	4652		
278.8240	27:38	27:38	0	0.983	421081	95559	1	2	95559	1.31(0.93-1.55)	
trans-Chlordane											
271.8102	27:39	27:39	0	1.001	12876	3227	1	2	3227		
273.8072	27:39	27:39	0	1.001	12325	2637	1	2	2637	1.04(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	0	1.021	584865	126474	26	65	4864		
278.8240	28:41	28:41	0	1.021	431134	90544	1	2	90544	1.36(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:43	28:43	0	1.001	12169	2571	1	2	2571		
273.8072	28:43	28:43	0	1.001	9003	2308	1	2	2308	1.35(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.032	411268	91912	26	65	3535		
278.8240	28:59	29:00	-1	1.031	309345	61415	1	2	61415	1.33(0.93-1.55)	
trans-Nonachlor											
271.8102	29:01	29:02	-1	1.000	9174	2322	1	2	2322		
273.8072	29:00	29:02	-1	1.000	7087	1274	1	2	1274	1.29(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:31	28:31	-1	1.015	176766	37103	26	65	1427		
278.8240	28:31	28:31	-1	1.015	137804	29890	1	2	29890	1.28(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	6448725	1373968	382	955	3597		
260.0376	30:10	30:10	0	0.920	4201779	906677	261	652	3474	1.53(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.001	158977	37061	84	210	441		
247.9974	30:11	30:11	-1	1.000	102816	23916	11	27	2174	1.55(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:28	33:27	1	1.021	4008407	787395	19	47	41442		
249.0454	33:27	33:27	0	1.020	2516917	487523	23	57	21197	1.59(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	105072	19915	127	317	157		
237.0052	33:29	33:29	0	1.001	61715	12587	34	85	370	1.70(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:45	33:44	1	1.029	2423872	471934	19	47	24839		
249.0454	33:44	33:44	0	1.029	1552701	296160	23	57	12877	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	64489	11701	127	317	92		
237.0052	33:46	33:46	0	1.001	40467	7691	34	85	226	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:36	36:36	0	1.116	2217617	399048	19	47	21003		
249.0454	36:36	36:36	0	1.116	1321432	233892	23	57	10169	1.68(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:37	1	1.001	50648	8791	127	317	69		
237.0052	36:37	36:37	0	1.000	33260	6302	34	85	185	1.52(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.927	712159	144398	28	70	5157		
271.8775	30:23	30:23	0	0.927	423817	97299	16	40	6081	1.68(1.16-1.94)	
Dieldrin											
262.8570	30:25	30:25	0	1.001	14577	3151	2	5	1576		
264.8540	30:25	30:25	0	1.001	8417	1945	3	7	648	1.73(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:03	0	0.978	451278	89546	28	70	3198		
271.8775	32:03	32:03	-1	0.977	257412	56771	16	40	3548	1.75(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:04	32:05	-1	1.000	9600	2170	2	5	1085		
264.8540	32:05	32:05	0	1.001	6571	1469	3	7	490	1.46(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:48	32:47	1	1.000	78315	19557	30	75	652		
278.8240	32:47	32:47	0	1.000	58538	12907	6	15	2151	1.34(0.93-1.55)	
Endosulfan II											RQM
271.8102	32:47	32:48	-1	1.000	1254	309	1	2	309		
273.8072	32:49	32:48	0	1.000	2143	622	1	2	622	0.59(0.93-1.55)	M
	Empc Correction				1011	249	1	2	249		
13C12-Endrin Aldehyde											
356.9391	34:19	34:19	0	1.046	74180	12133	18	45	674		
358.9361	34:19	34:19	0	1.046	44166	8728	11	27	793	1.68(1.17-1.95)	
Endrin aldehyde											RQ
344.8988	34:24	34:21	3	1.003	1642	260	13	32	20		
	Empc Correction				486	148	13	32	11		
346.8959	34:24	34:21	3	1.003	314	96	2	5	48	5.23(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:57	41:56	1	1.279	3822874	667656	160	400	4173		
240.1510	41:57	41:56	1	1.279	234956	37273	14	35	2662	16.27(0.00-0.00)	
Methoxychlor											
227.1072	41:58	41:58	0	1.000	96091	17307	28	70	618		
228.1106	41:58	41:58	0	1.000	17395	2999	9	22	333	5.52(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:25	40:25	1	1.233	250686	44616	10	25	4462		
329.9379	40:25	40:25	1	1.233	150142	23628	1	2	23628	1.67(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	1	1.001	5868	1184	1	2	1184		
318.9010	40:27	40:28	0	1.001	3389	616	1	2	616	1.73(1.16-1.95)	
13C10-Mirex											
276.8270	45:25	45:25	0	1.228	1981118	315117	19	47	16585		
278.8240	45:25	45:25	0	1.228	1572755	245933	7	17	35133	1.26(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.001	36424	5908	1	2	5908		
273.8072	45:27	45:27	0	1.001	32070	5235	1	2	5235	1.14(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		13623825	4384130	16	40	274008		
236.0376	19:03	19:04	-1		8453233	2709292	6	15	451549	1.61(1.16-1.93)	
PCB-14											
222.0003	17:48	17:49	0	0.934	3775505	1361384	7	17	194483		
223.9974	17:48	17:49	0	0.934	2389491	857671	12	30	71473	1.58(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:40	18:31	9		199	77	2	5	39		
271.8636	18:43	18:31	12		376	184	5	12	37	0.53(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Pentachlorophenol											
263.8464	18:31						33	82			
265.8435	18:31						15	37			
PCB-36											
255.9613	22:09	22:09	0	1.163	2490597	663009	15	37	44201		
257.9584	22:09	22:09	-1	1.162	2343006	624873	13	32	48067	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:06	28:07	-1		3634674	808973	1	2	808973		
339.9178	28:06	28:07	-1		2231918	508044	1	2	508044	1.63(1.16-1.94)	
PCB-104											
325.8804	23:43	23:44	-1	0.844	1738562	464837	1	2	464837		
327.8775	23:43	23:44	-1	0.844	1142046	304212	1	2	304212	1.52(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		3702222	727571	15	37	48505		
339.9178	32:48	32:48	0		2300210	457166	9	22	50796	1.61(1.16-1.94)	
PCB-121											
325.8804	26:43	26:43	0	0.815	1209900	287350	70	175	4105		
327.8775	26:43	26:43	0	0.815	753114	177166	52	130	3407	1.61(1.32-1.78)	
PCB-138L											
371.8817	36:59	36:59	0		2036069	368213	11	27	33474		
373.8788	36:59	36:59	0		1594082	300127	11	27	27284	1.28(1.16-1.94)	
PCB-142											
359.8415	27:30	27:29	0	0.743	998551	230883	3	7	76961		
361.8385	27:30	27:29	0	0.743	778512	179710	2	5	89855	1.28(1.05-1.43)	
Endosulfan I											RQ
262.8570	28:32	28:32	-1	1.000	8451	1925	1	2	1925		
	Empc Correction				3313	692	1	2	692		
264.8540	28:32	28:32	0	1.001	2138	447	3	7	149	3.95(1.16-1.94)	
PCB-60L											a
301.9626	27:44	27:44	0		5113219	1132414	20	50	56621		a
303.9597	27:44	27:44	0		6322625	1397934	28	70	49926	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:21	29:21	0	1.058	1045125	213599	14	35	15257		a
291.9194	29:22	29:21	1	1.059	1296357	278218	7	17	39745	0.81(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:51	30:50	1	0.941	4660681	977342	322	805	3035		
249.0454	30:51	30:50	0	0.940	2915142	604142	170	425	3554	1.60(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.000	115230	24338	117	292	208		
237.0052	30:52	30:52	0	1.000	67472	13693	37	92	370	1.71(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.031	290834	57907	1	2	57907		
278.8240	33:48	33:48	0	1.031	219593	37024	21	52	1763	1.32(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	7157	1339	1	2	1339		
273.8072	33:49	33:50	-1	1.001	6426	1222	1	2	1222	1.11(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:17	36:17	0	1.106	487614	81632	1	2	81632		
278.8240	36:18	36:17	1	1.107	379876	68002	21	52	3238	1.28(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:19	36:20	-1	1.001	11808	2182	1	2	2182		
273.8072	36:20	36:20	0	1.001	8419	1395	1	2	1395	1.40(0.93-1.55)	
PCB-167L											
371.8817	39:29	39:29	1		2327092	413127	3	7	137709		
373.8788	39:29	39:29	1		1838797	328645	6	15	54774	1.27(1.16-1.94)	
PCB-155											
359.8415	33:59	33:59	0	0.861	465273	87161	35	87	2490		
361.8385	33:59	33:59	0	0.861	372359	70288	21	52	3347	1.25(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.878	516875	99682	4	10	24921		
395.7995	34:39	34:39	0	0.878	508101	98653	2	5	49327	1.02(0.89-1.21)	
PCB-204											
427.7635	42:16	42:17	0	1.071	302127	49118	1	2	49118		
429.7606	42:16	42:17	0	1.071	336827	57035	1	2	57035	0.90(0.76-1.02)	
PCB-192											
393.8025	42:37	42:36	1	1.079	345061	59593	2	5	29797		
395.7995	42:37	42:36	1	1.079	335713	57272	4	10	14318	1.03(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

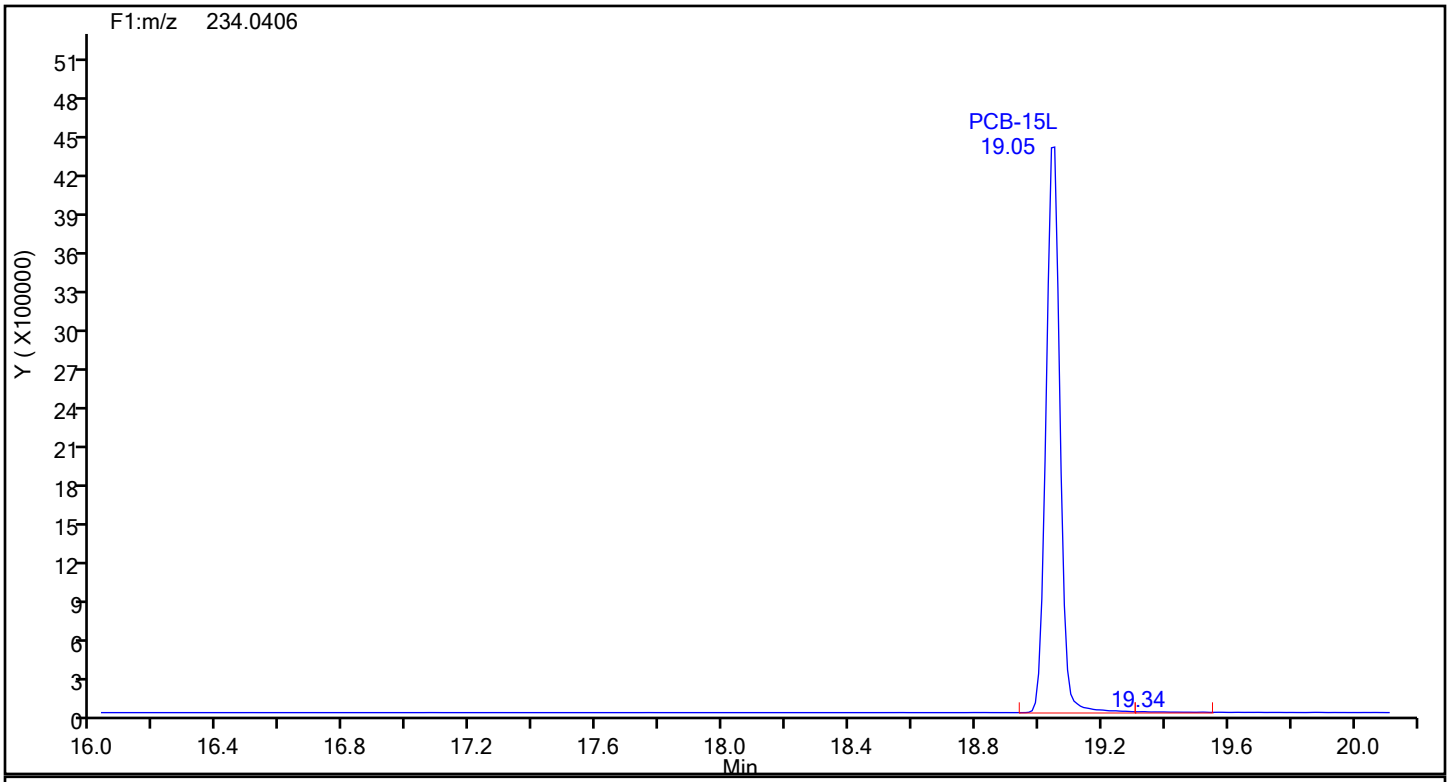
61L21699PST_00012 Amount Added: 20.00 Units: uL

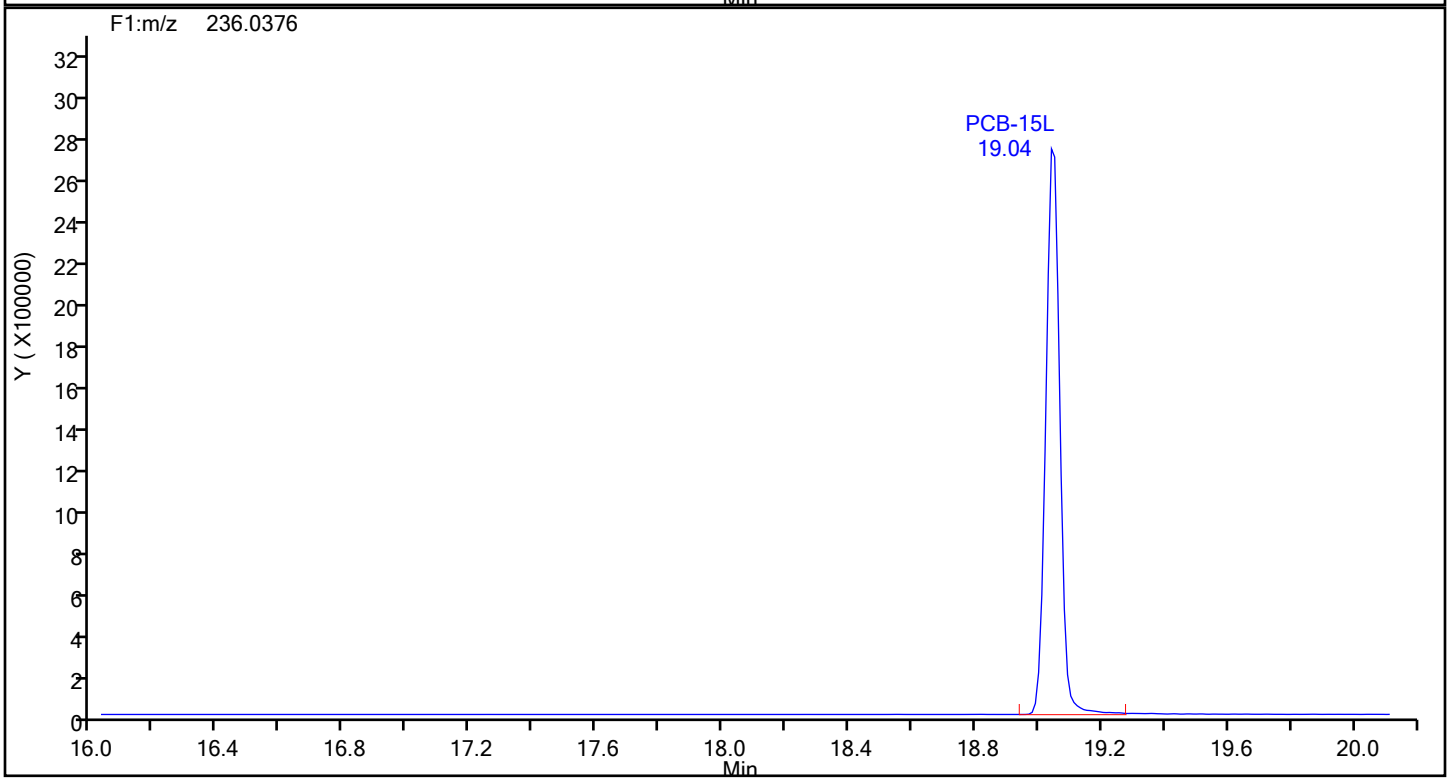
Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





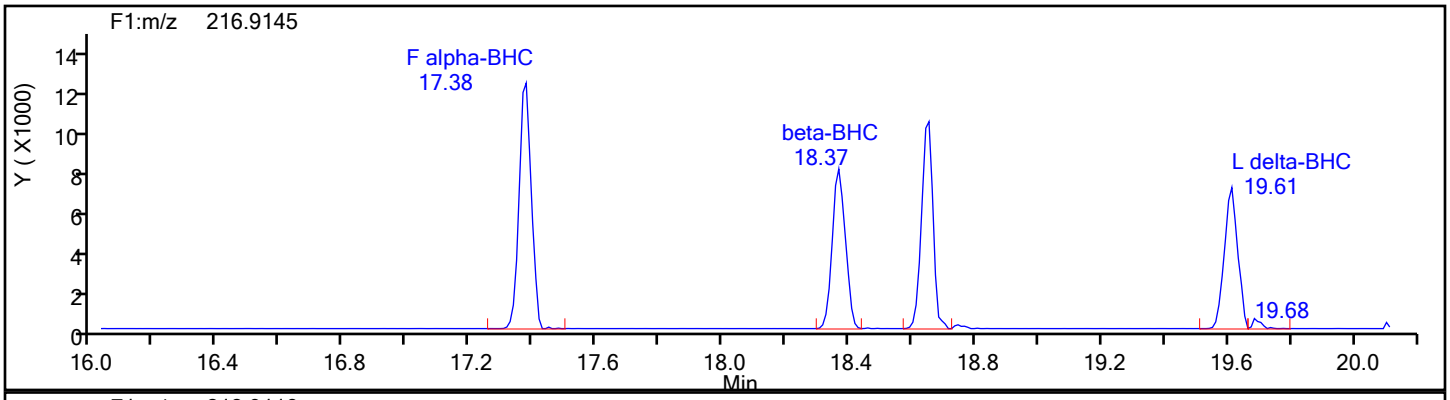
Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

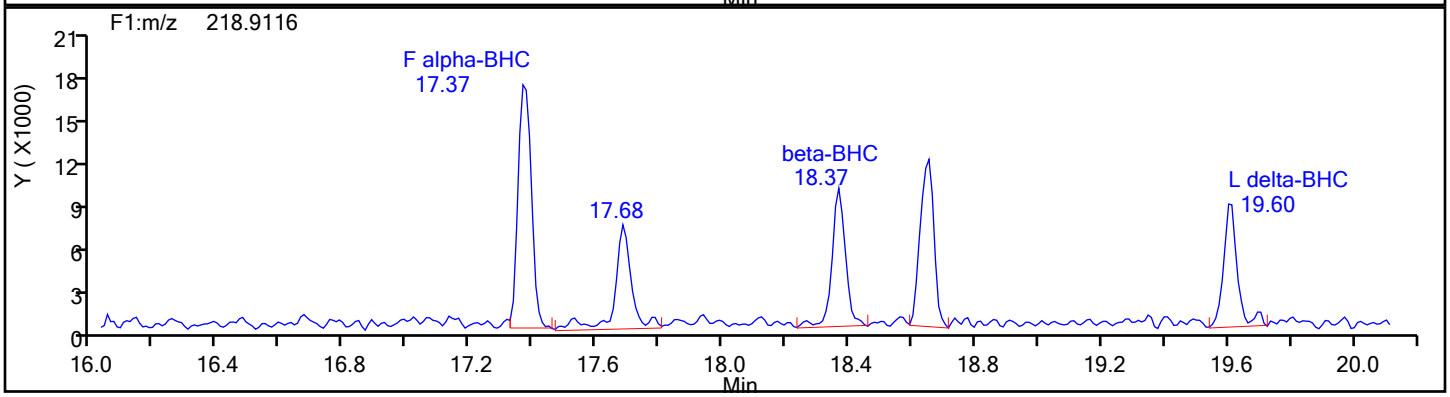
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





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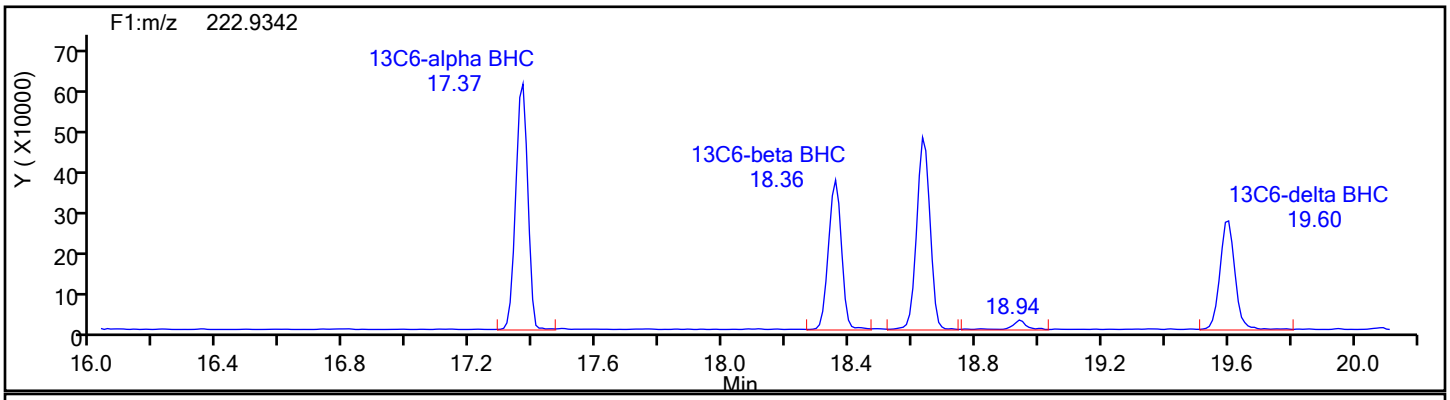

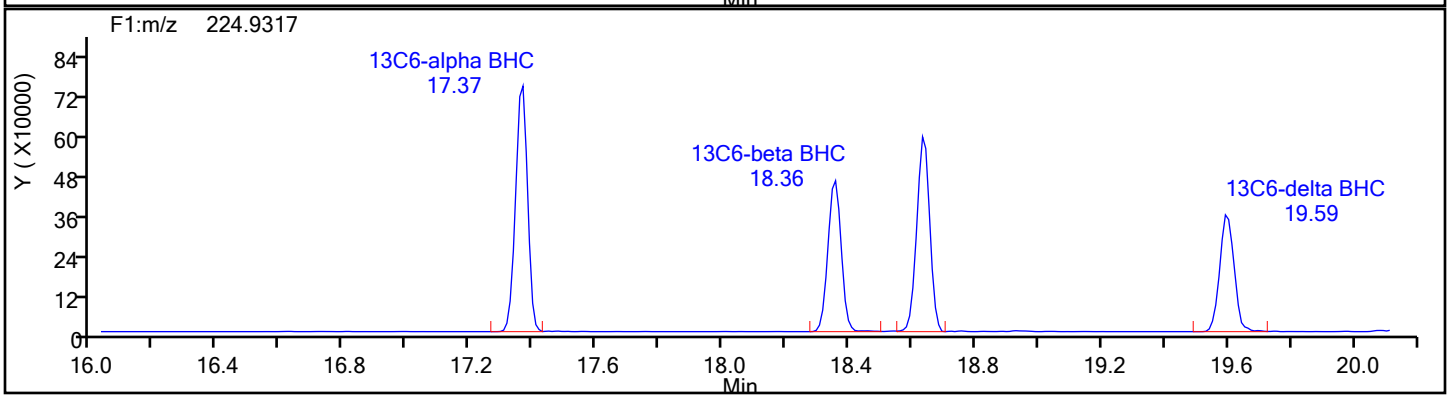

Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
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Client ID:
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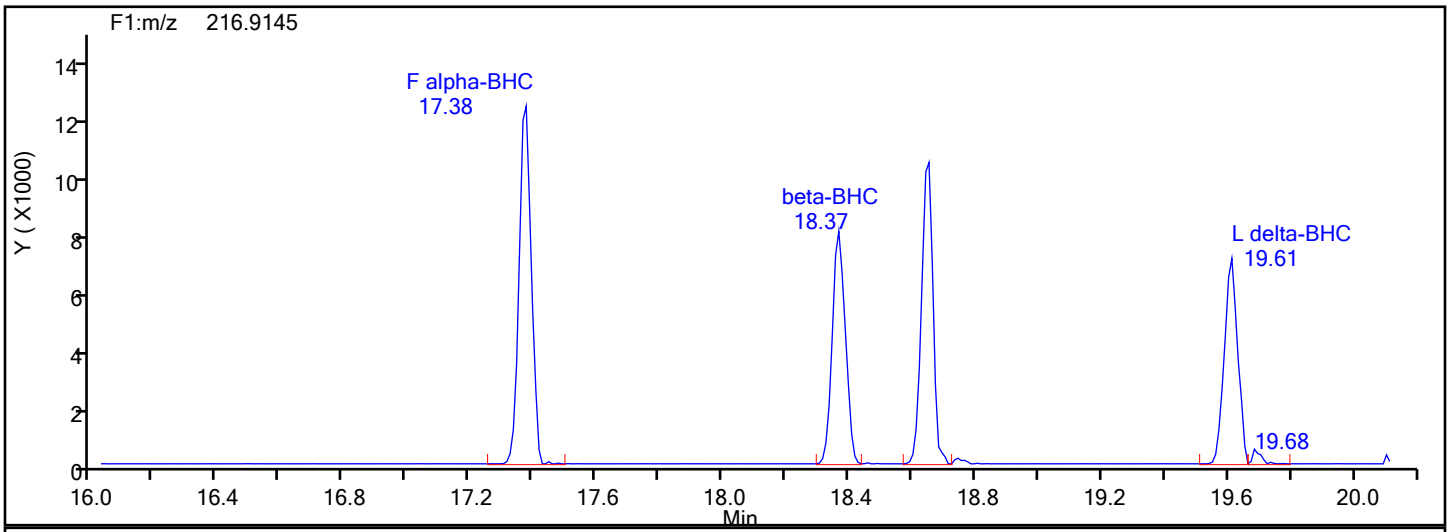
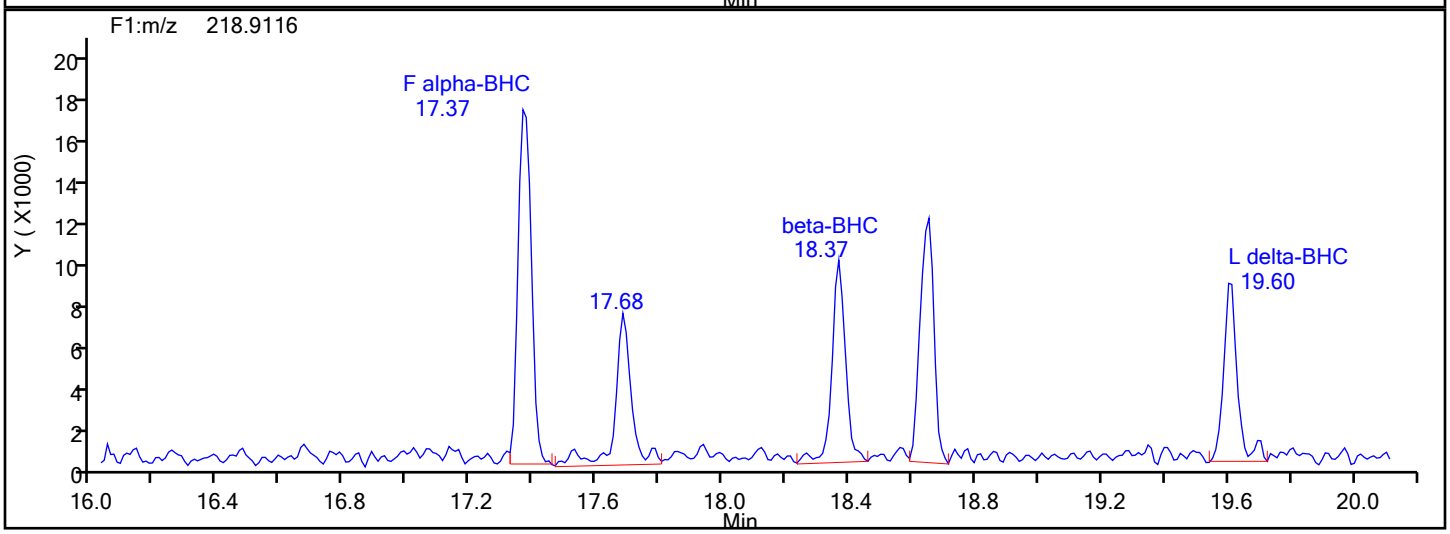
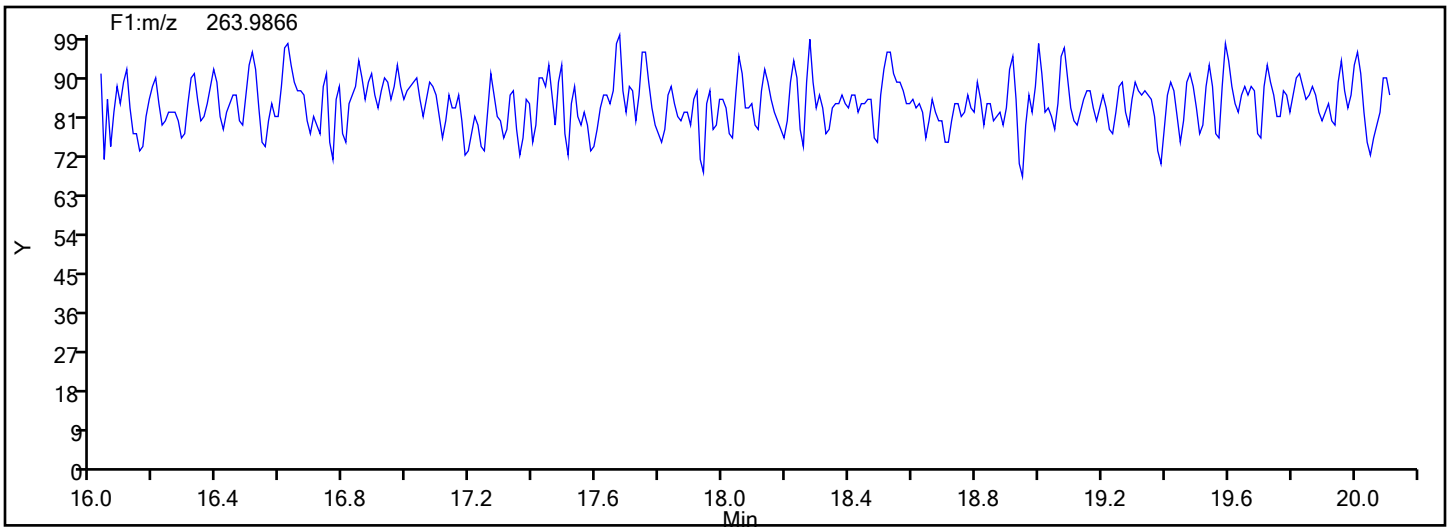
BHC





BHC Lock Mass



Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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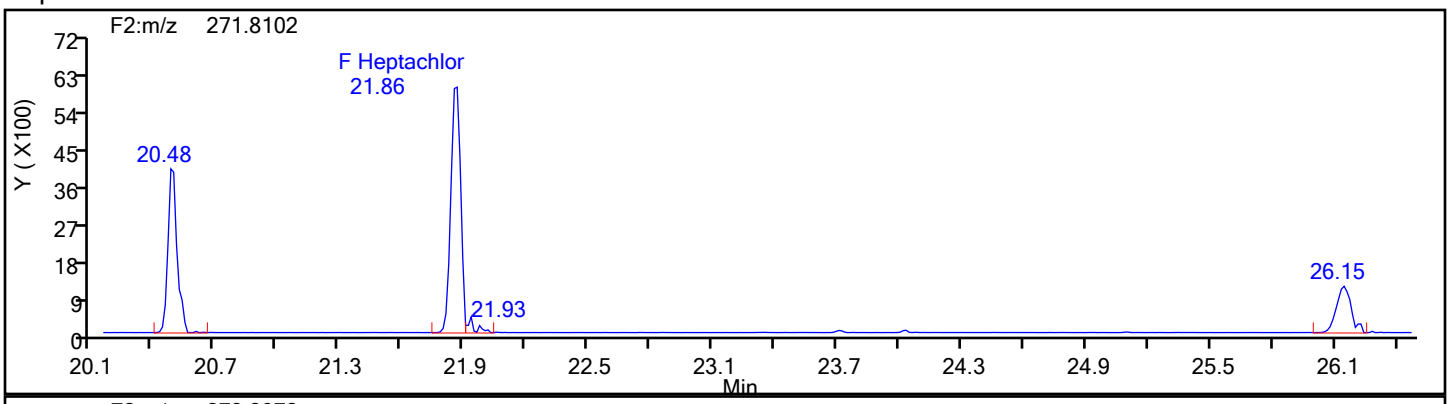
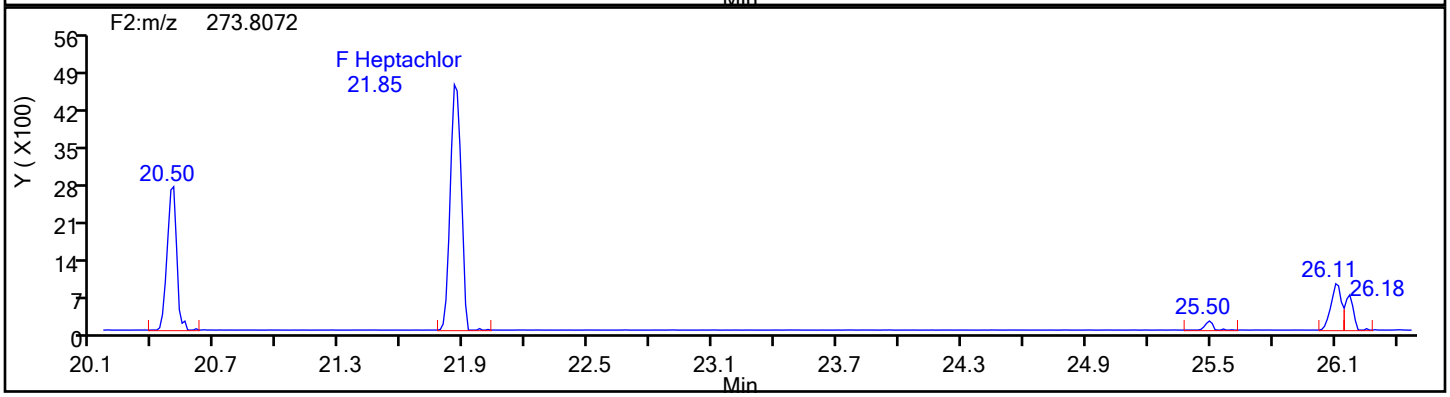
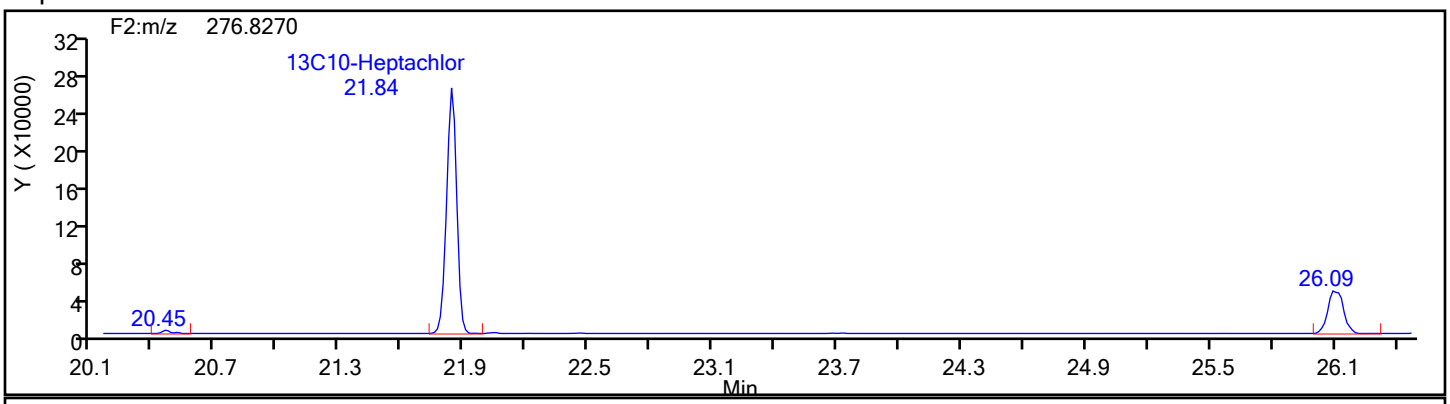
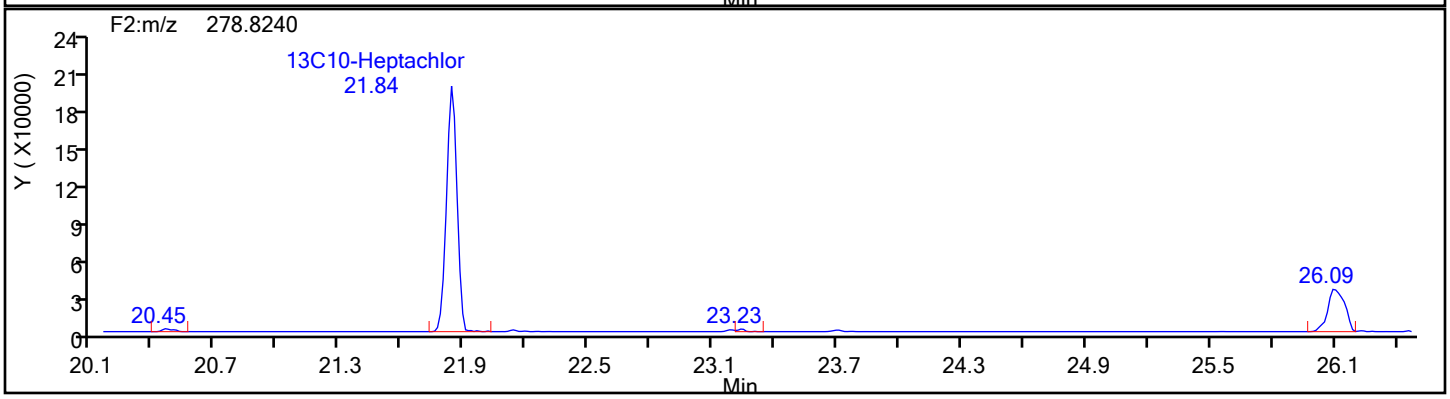
Heptachlor





Heptachlor Standards





Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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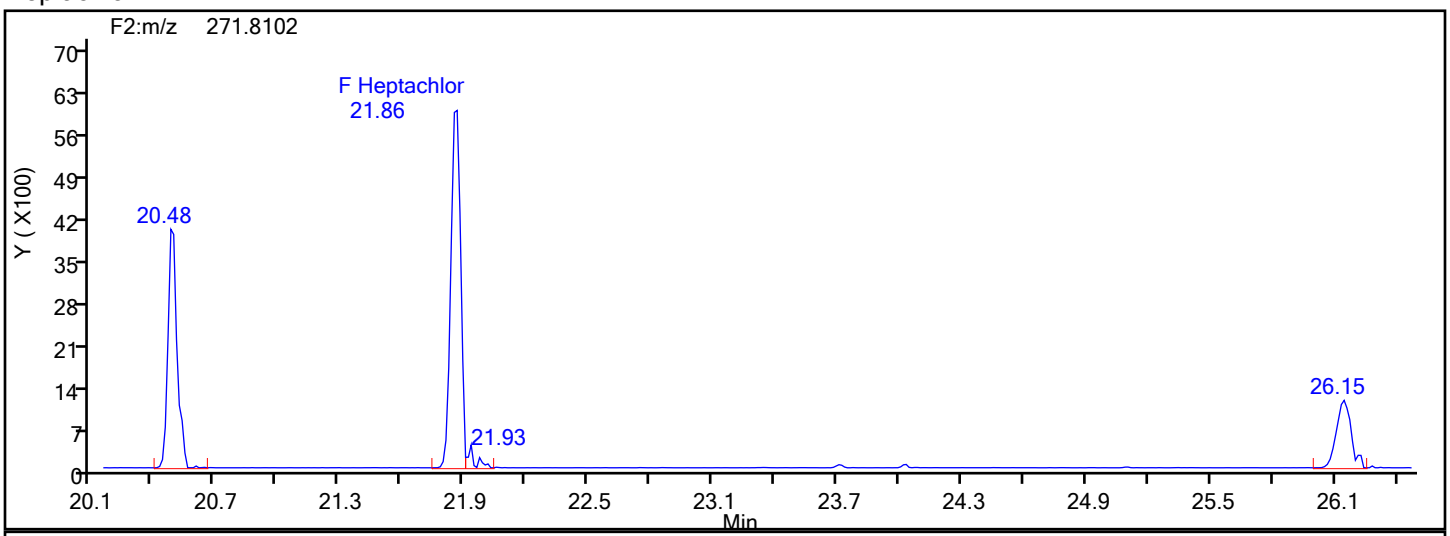
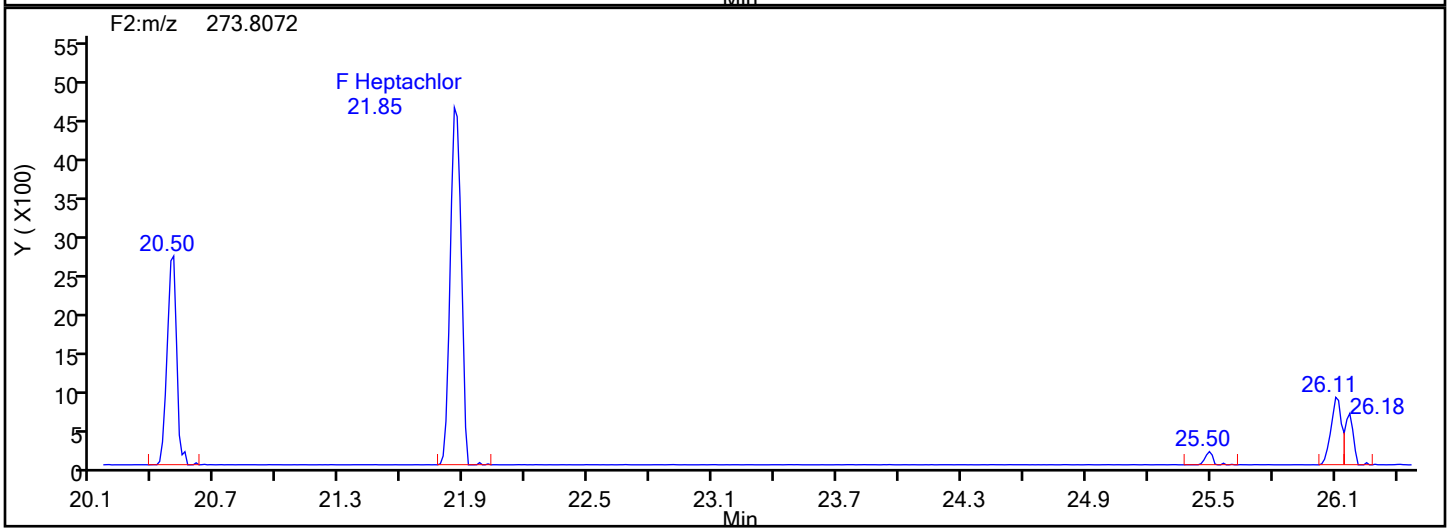
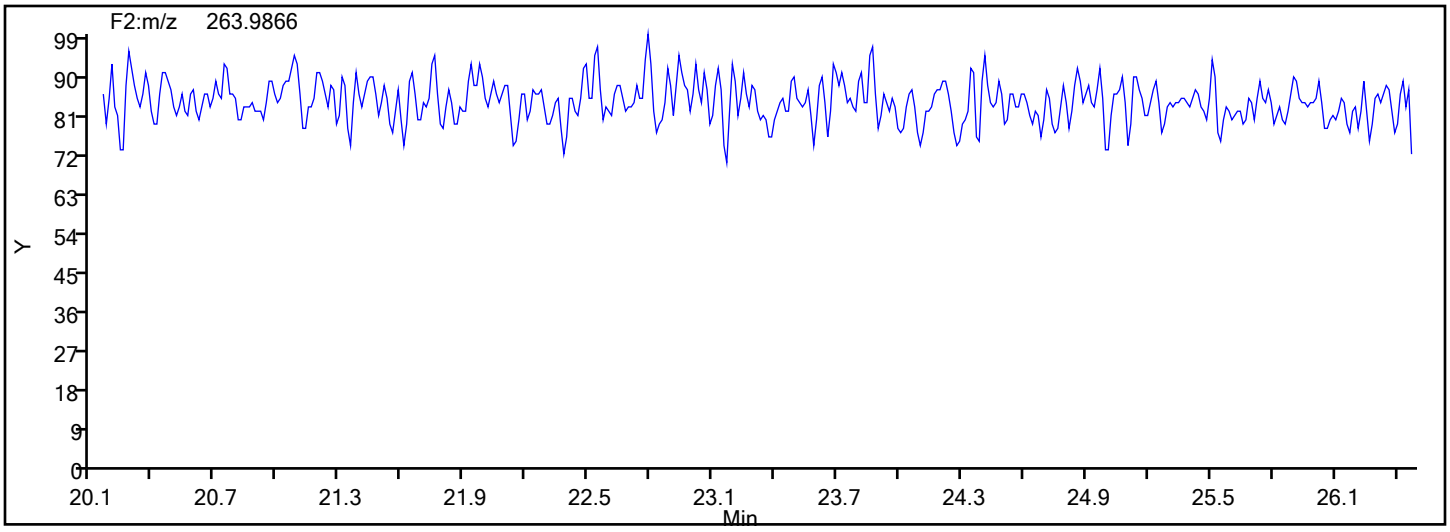
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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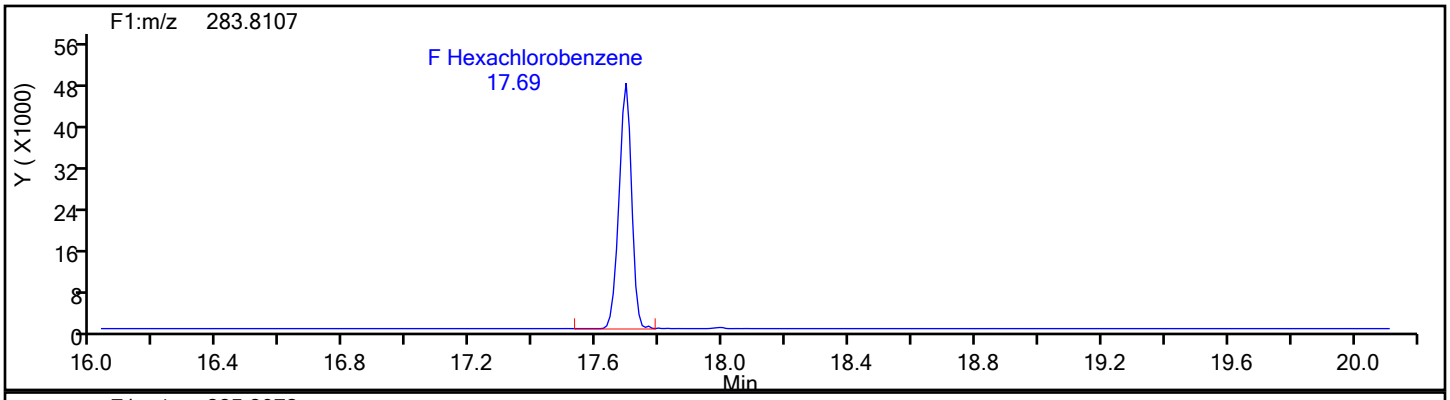
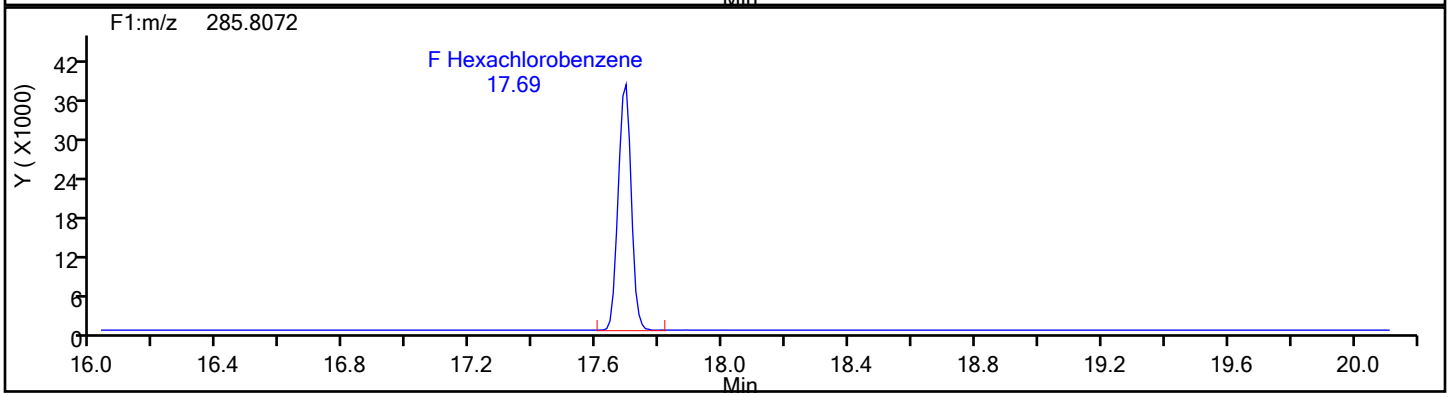
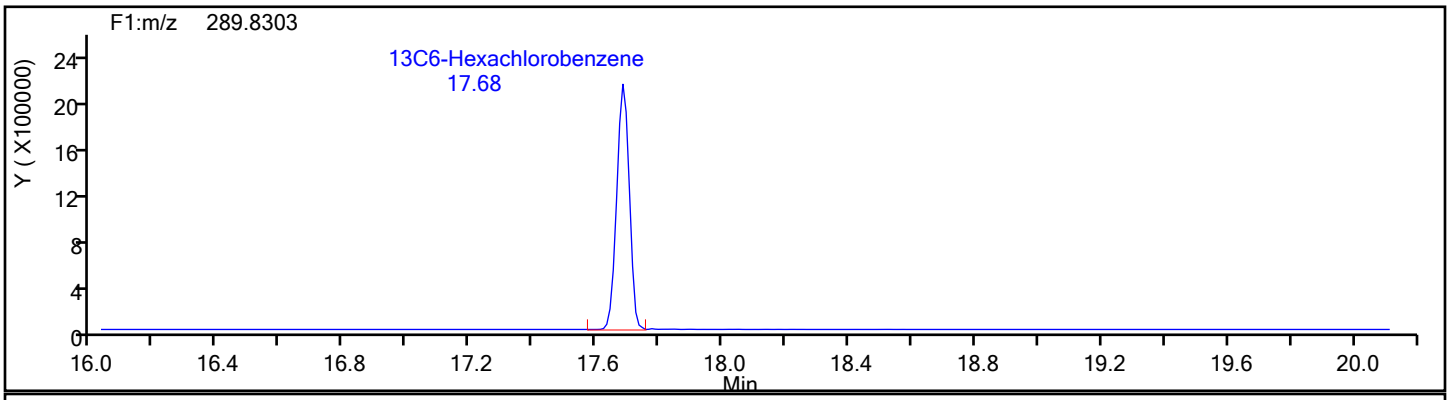
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

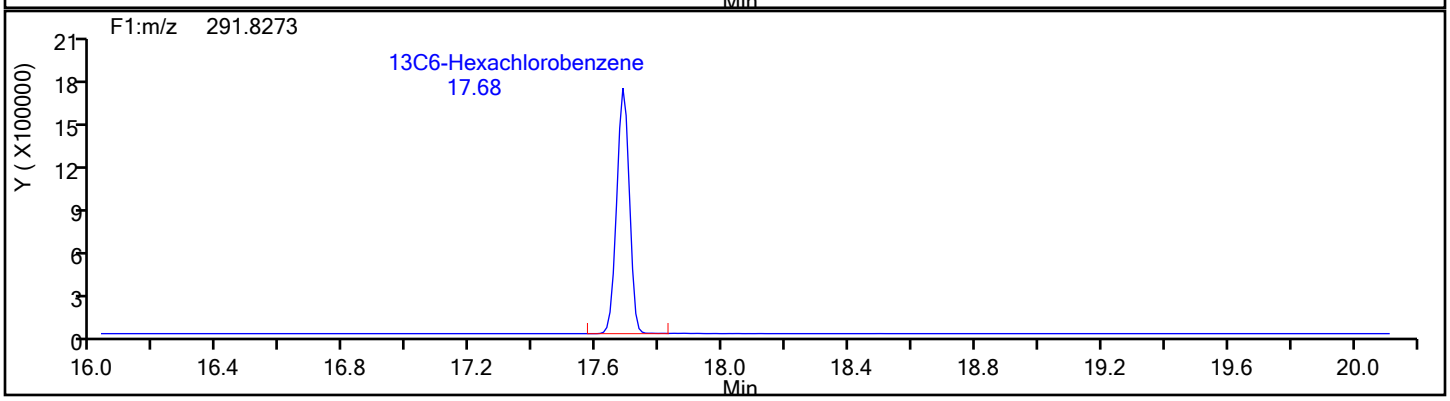
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
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Client ID:
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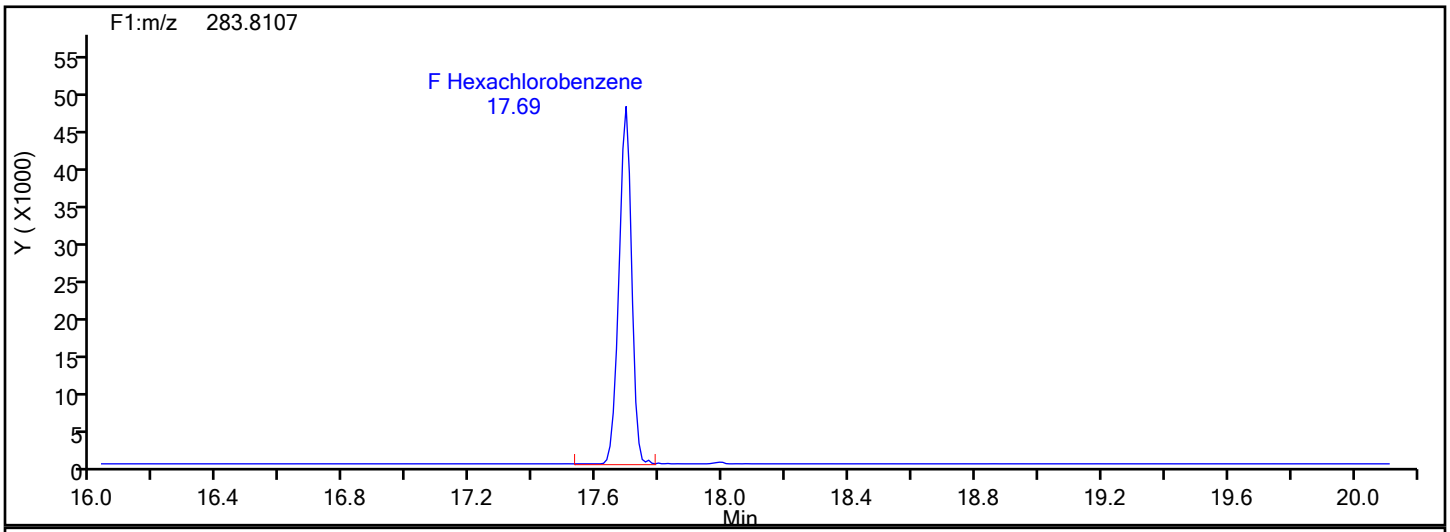
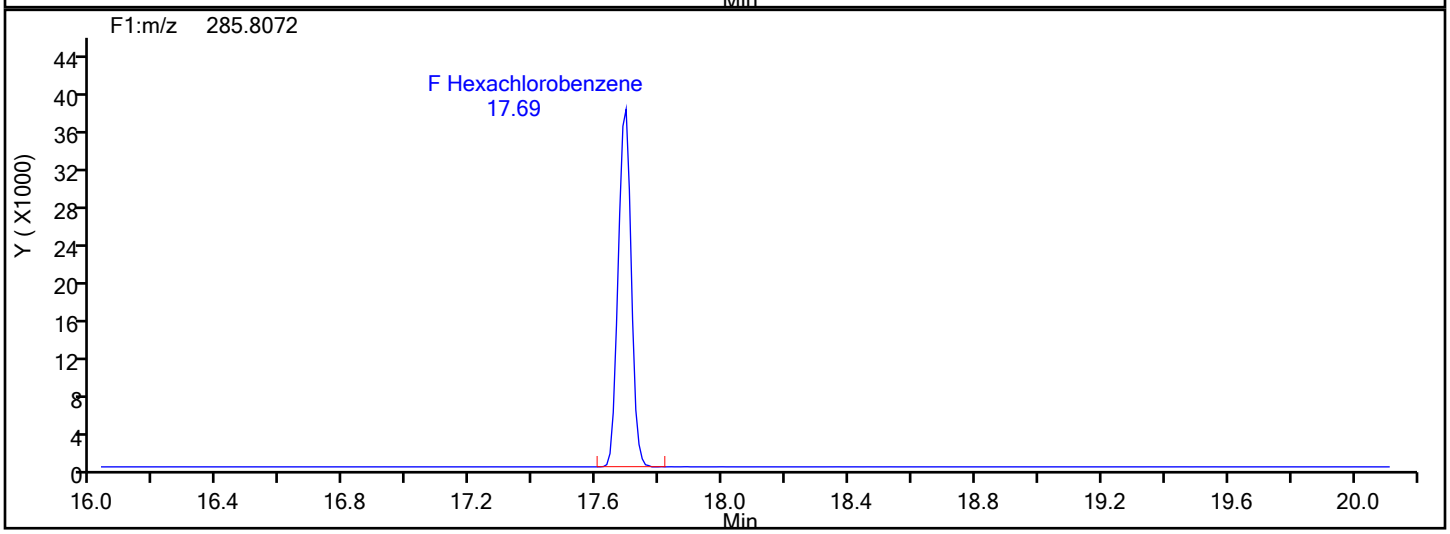
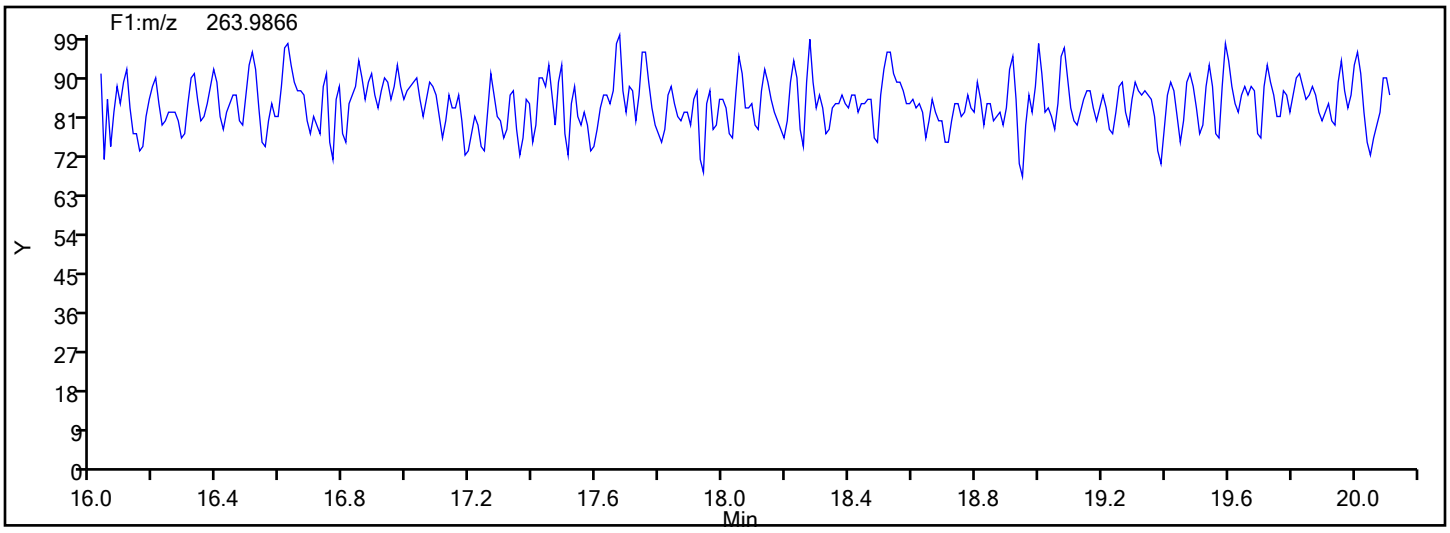
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 24-Mar-2025 13:06:03 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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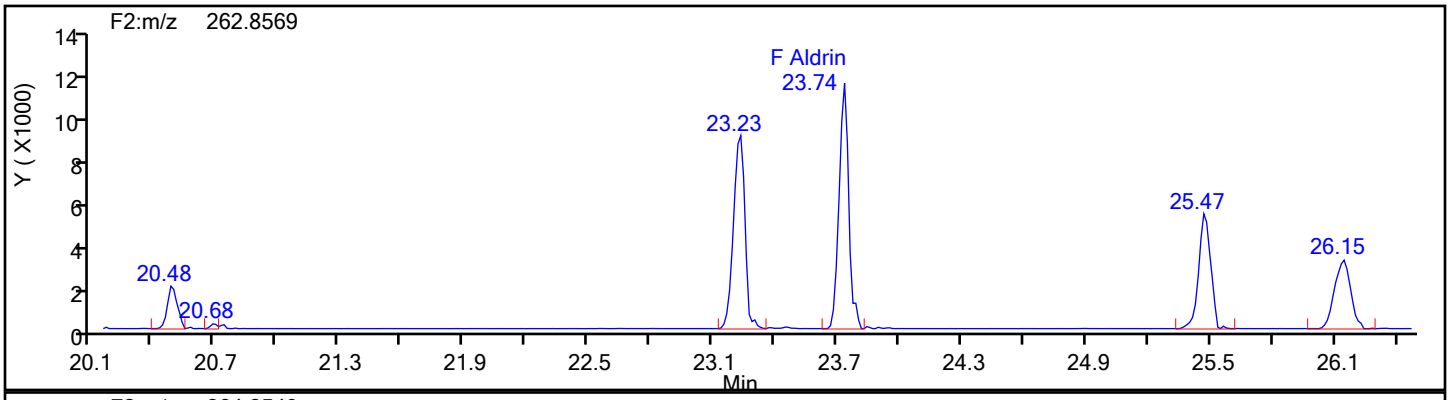
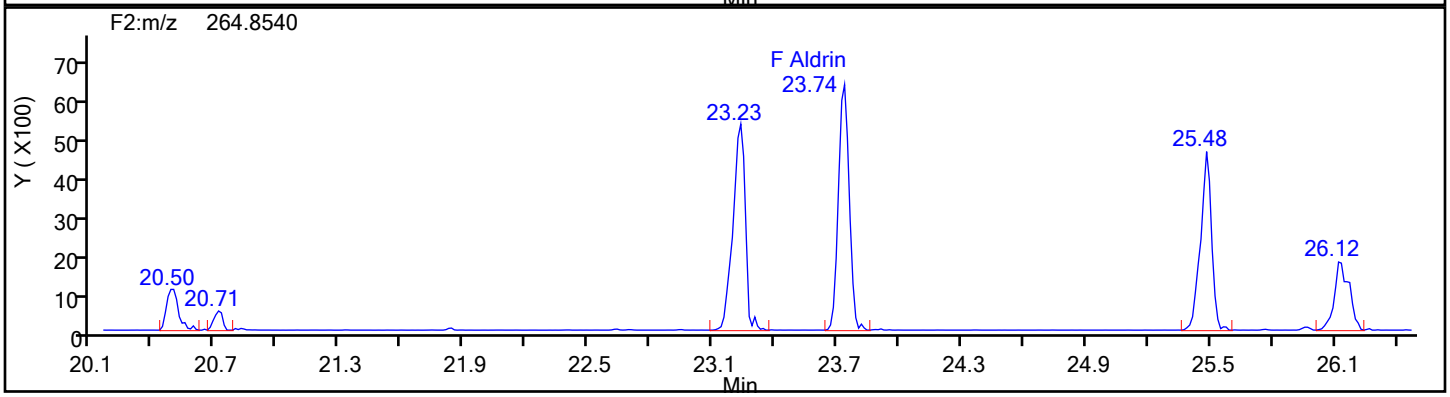
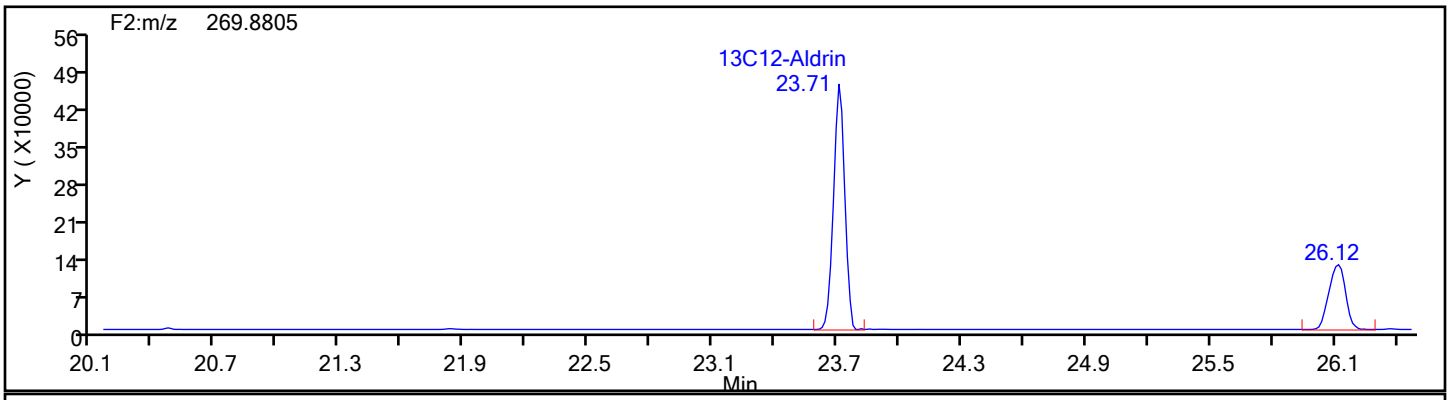
Column Type:	RTX-5	Column Dia:	0.32 mm

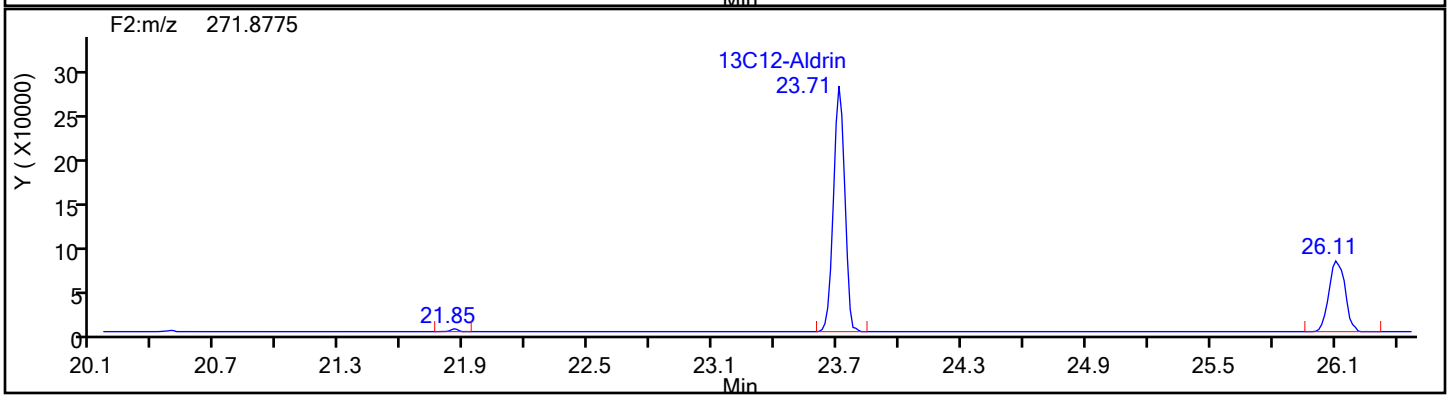
Aldrin





Aldrin Standards





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Eurofins Knoxville

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Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
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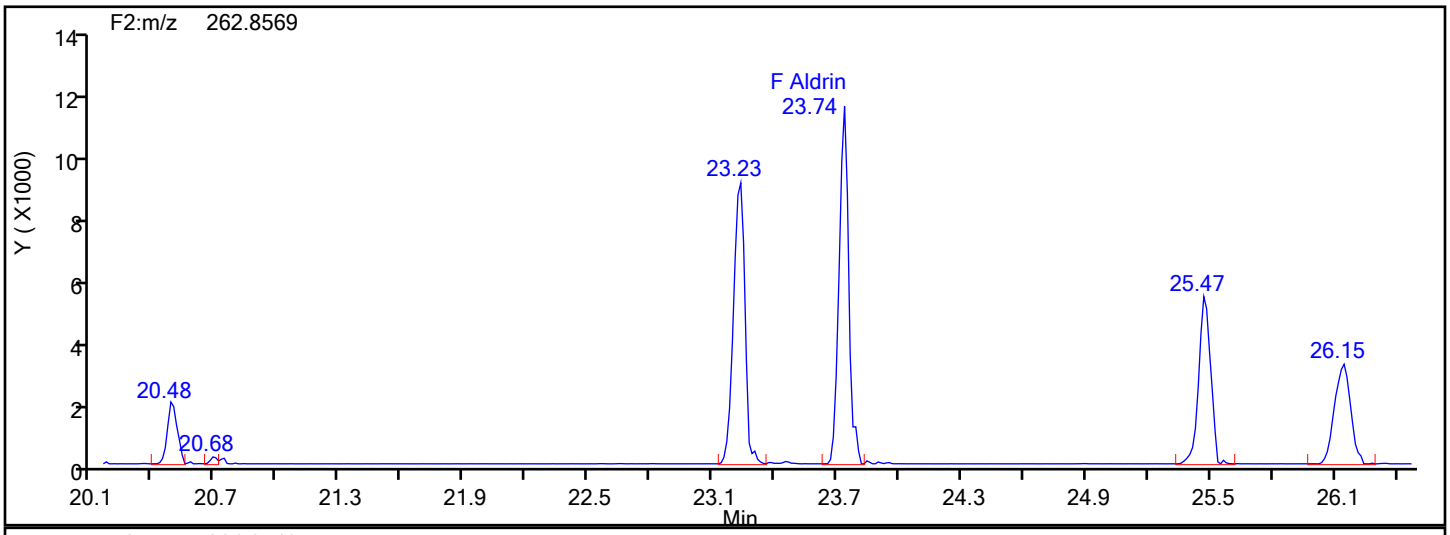
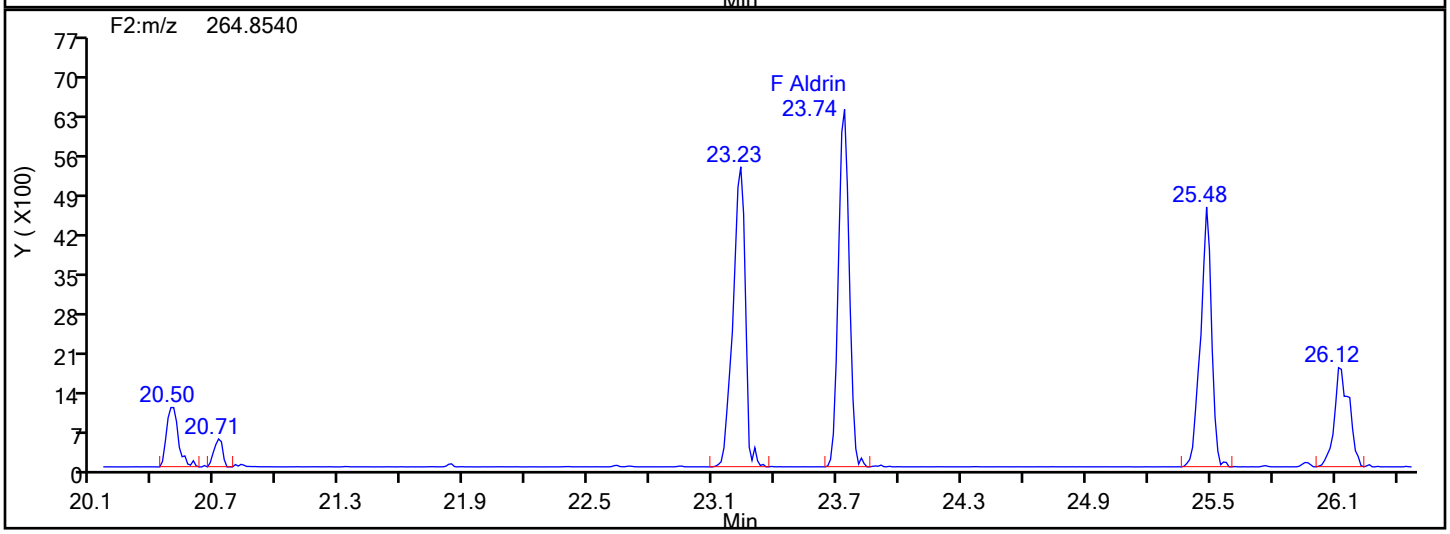
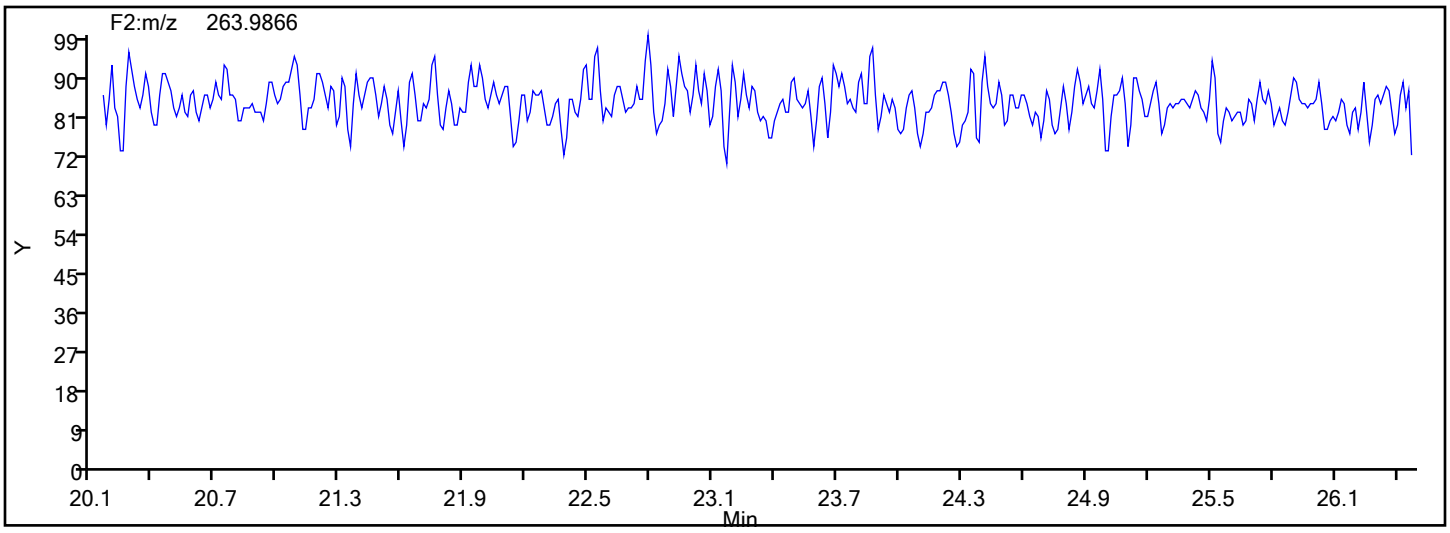
Aldrin





Aldrin Lock Mass



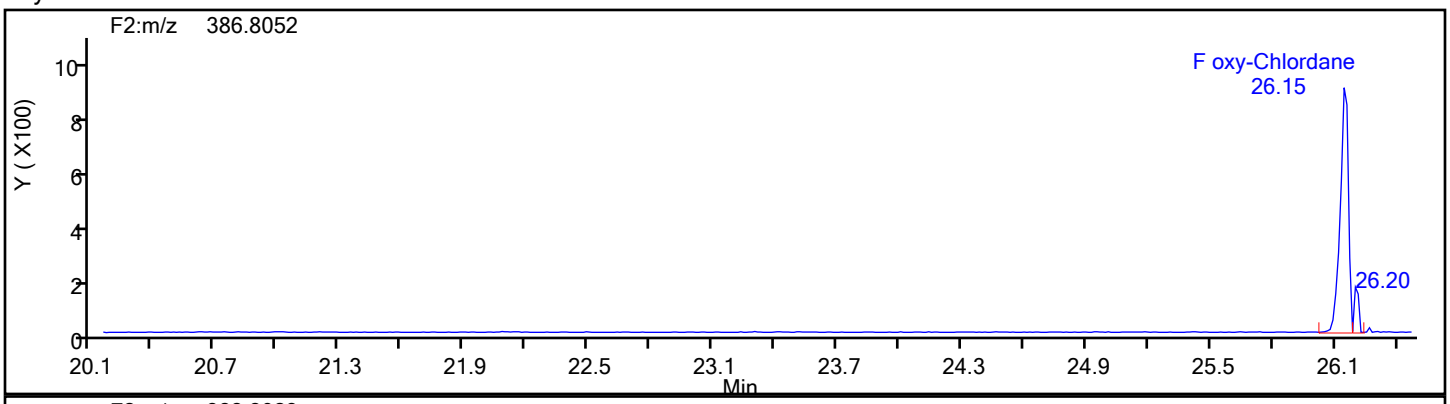
Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

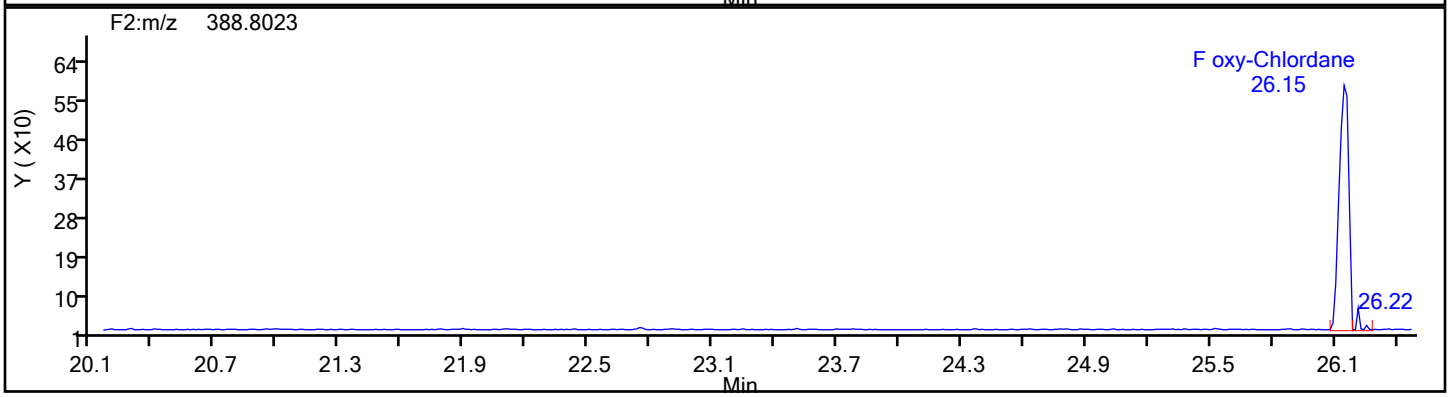
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

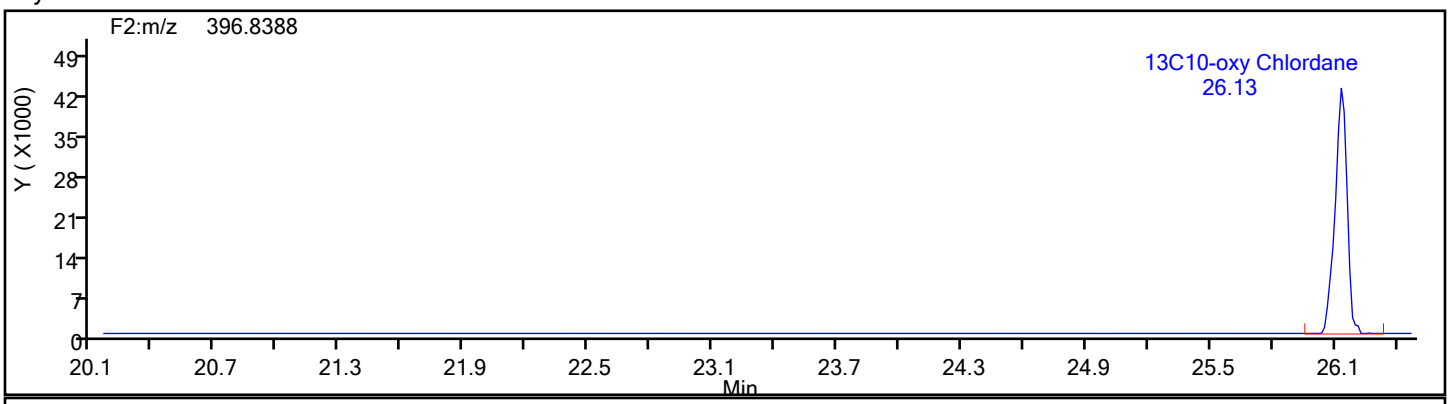
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

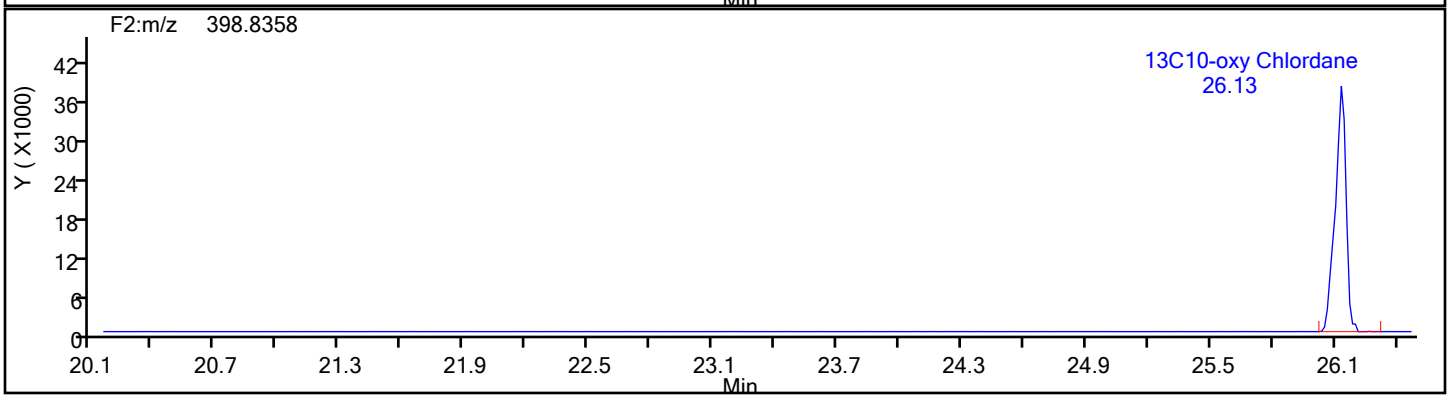
oxy-Chlordane





oxy-Chlordane Standards



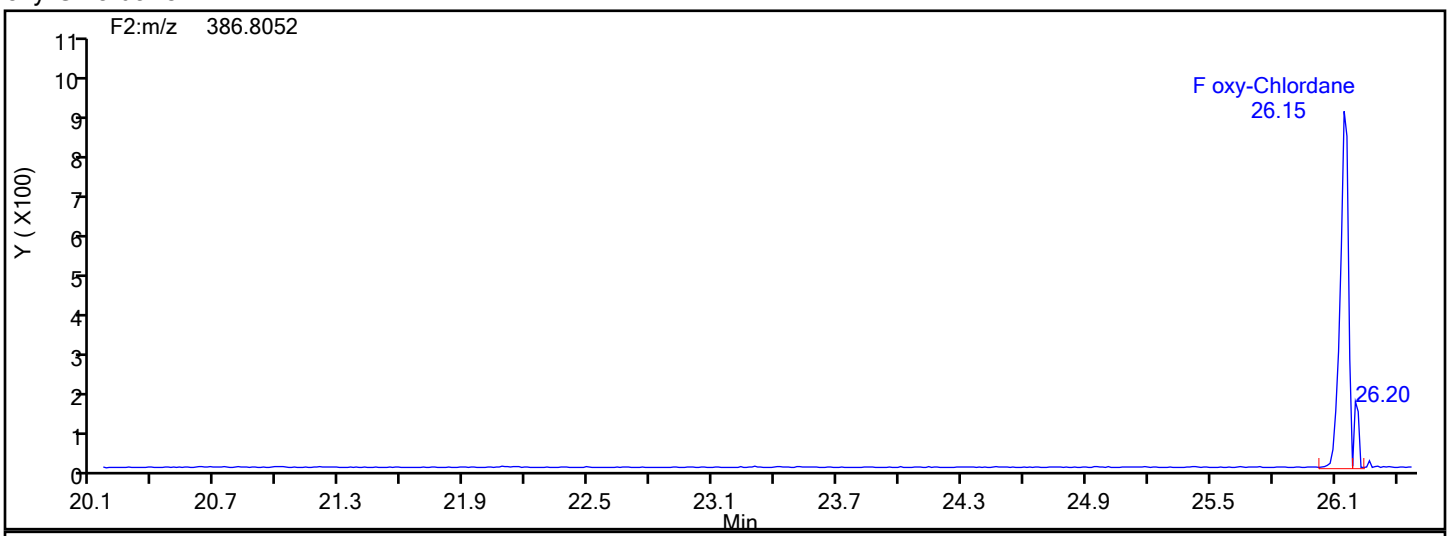


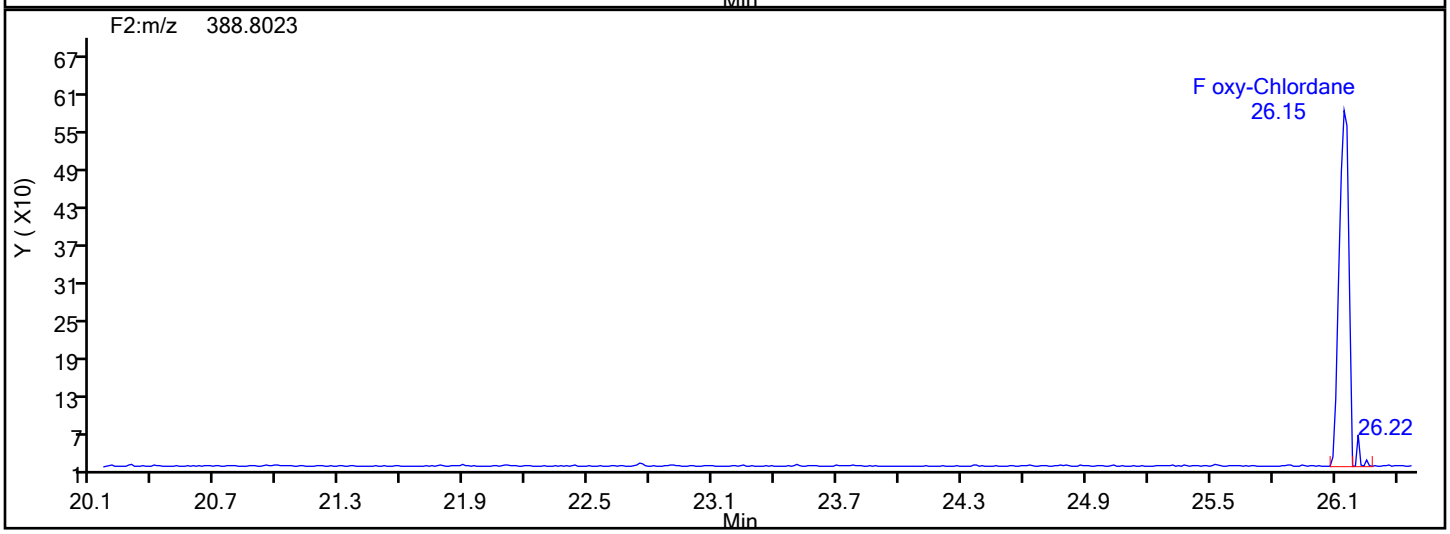
Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

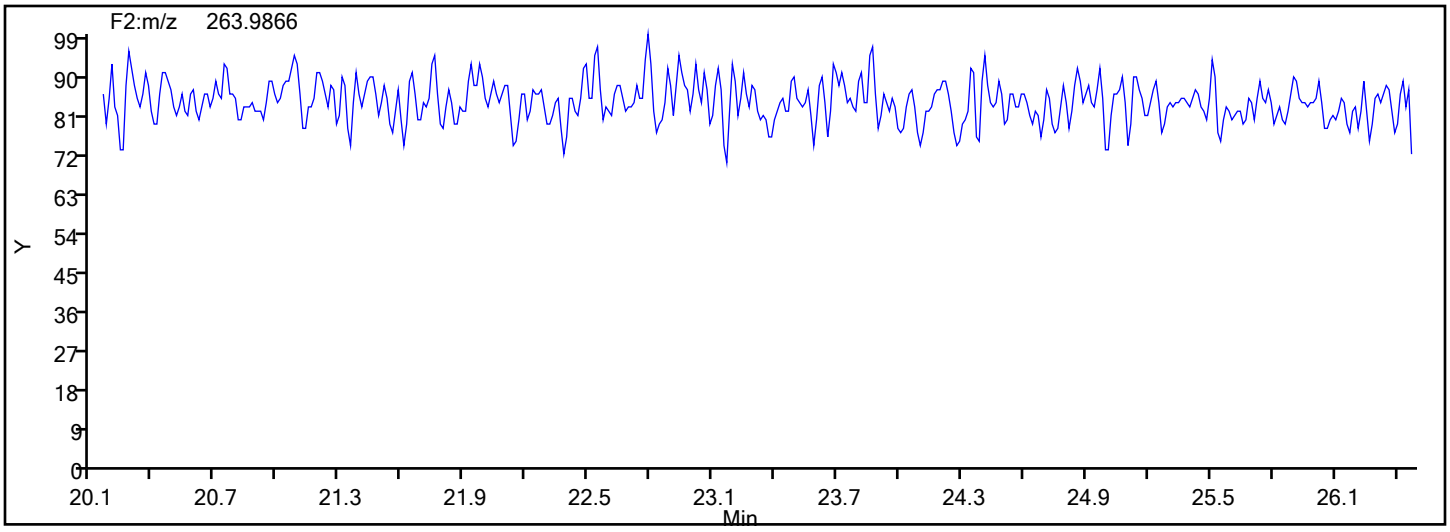
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

oxy-Chlordane





oxy-Chlordane Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

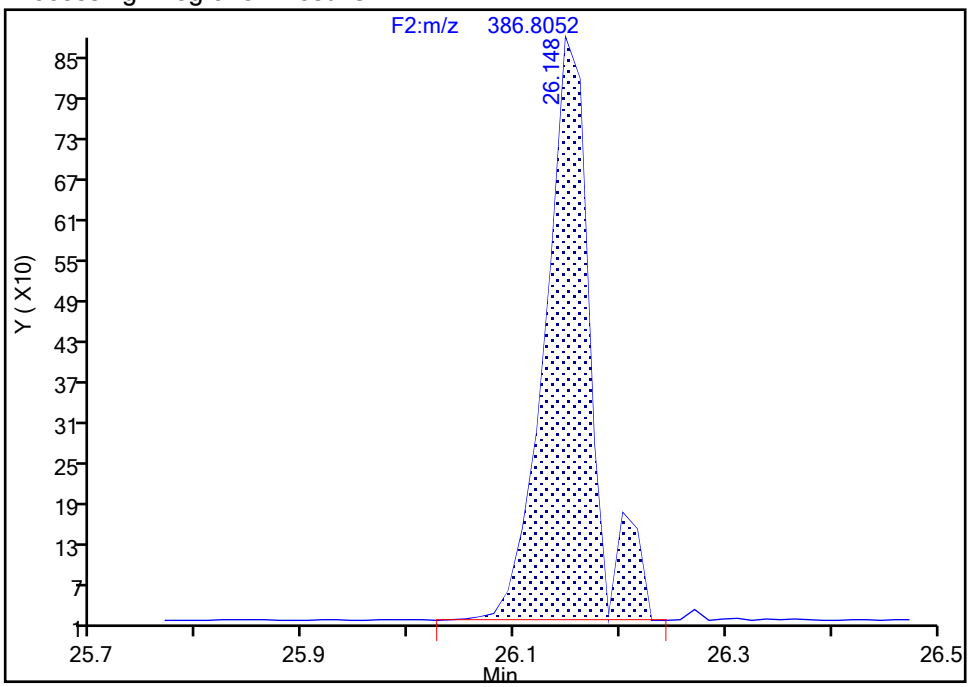
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d				
Injection Date:	19-Mar-2025 19:37:00	Instrument ID:	D3PST		
Lims ID:	IC L3				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F2(20.16 :26.47)		

oxy-Chlordane, CAS: 27304-13-8

Signal: 1

Processing Integration Results

RT: 26.15
Area: 2605
Amount: 1.235209
Amount Units: pg/ul



Manual Integration Results

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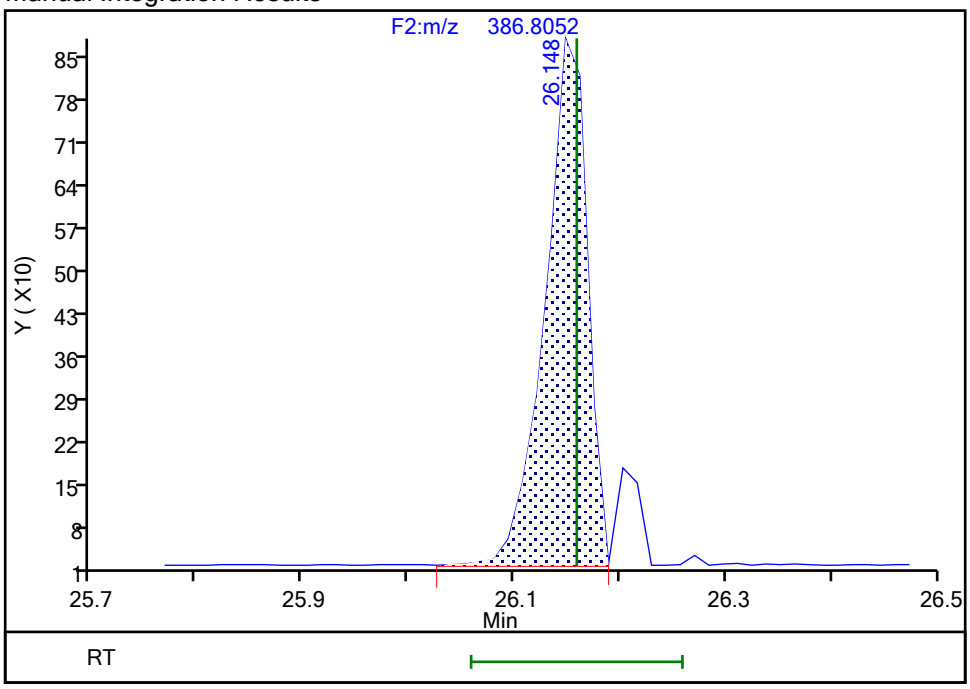
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:36:02 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

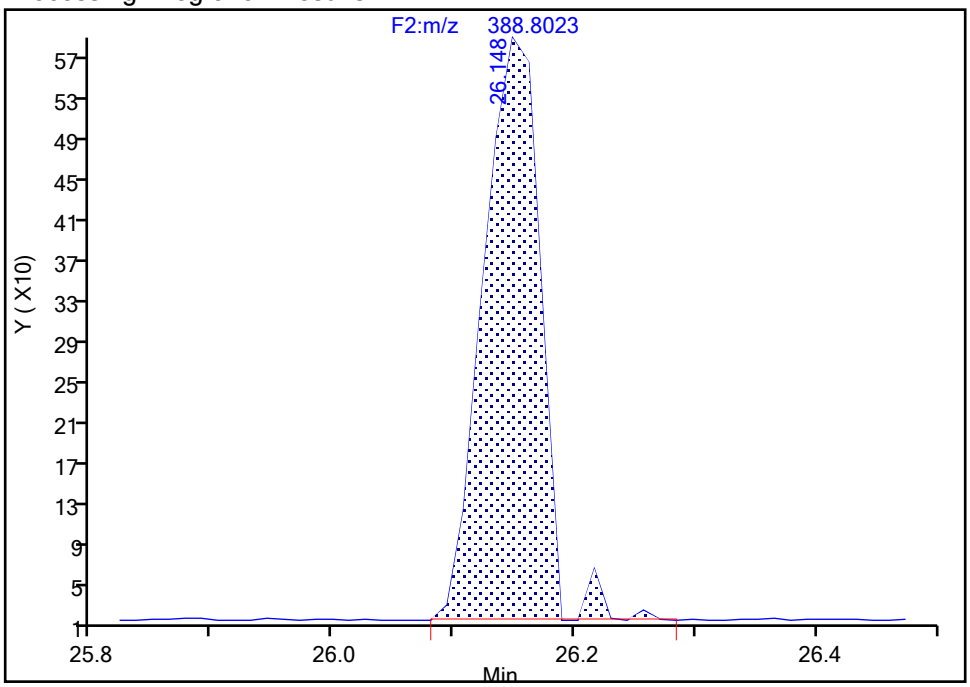
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F2(20.16 :26.47)

oxy-Chlordane, CAS: 27304-13-8

Signal: 2

Processing Integration Results

RT: 26.15
Area: 1885
Amount: 1.235209
Amount Units: pg/ul



Manual Integration Results

RT: 26.15
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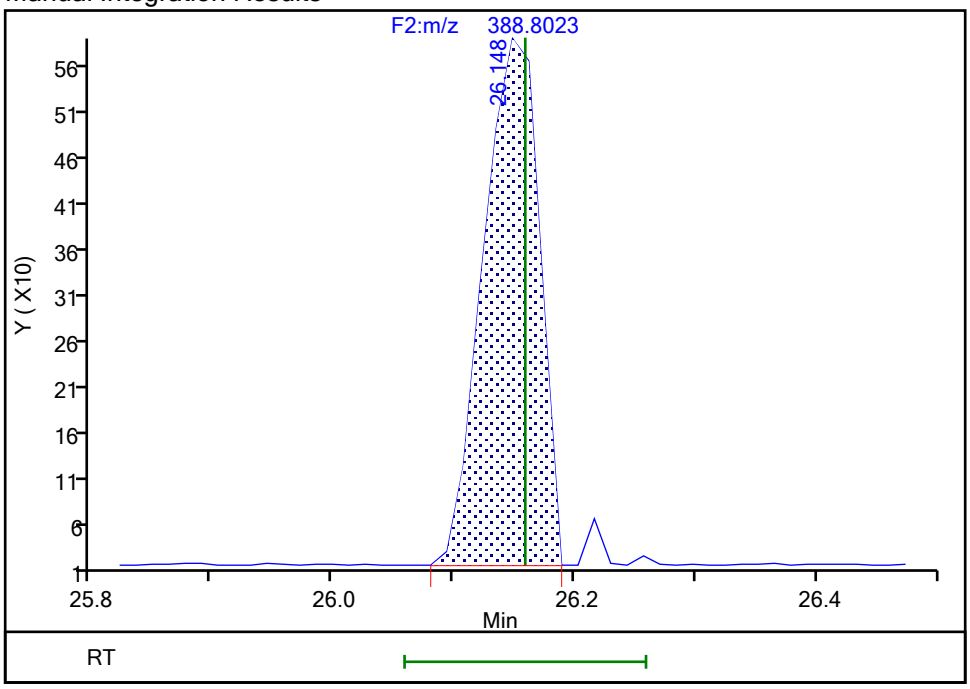
Amount: 1.222211
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:36:08 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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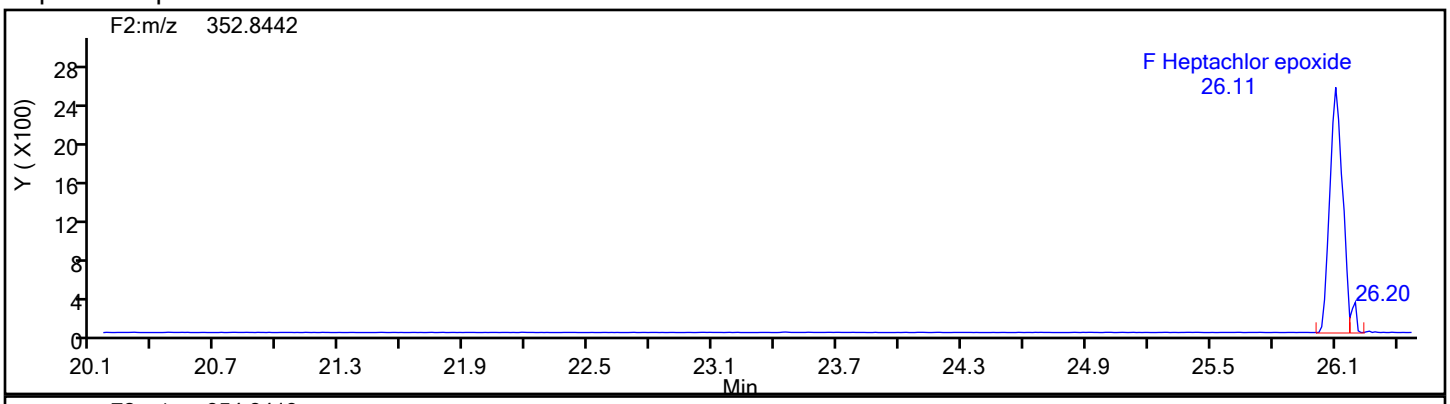
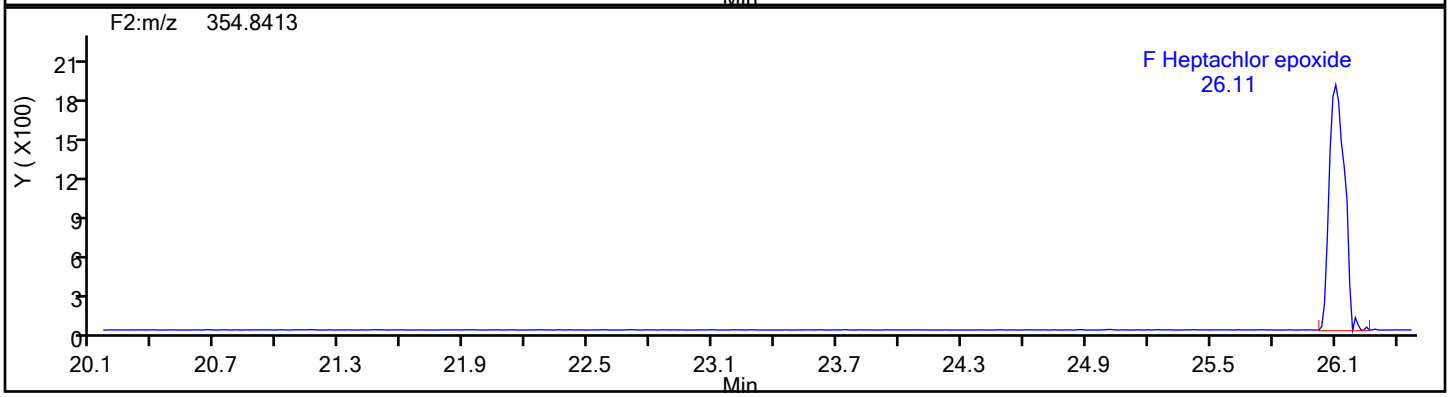
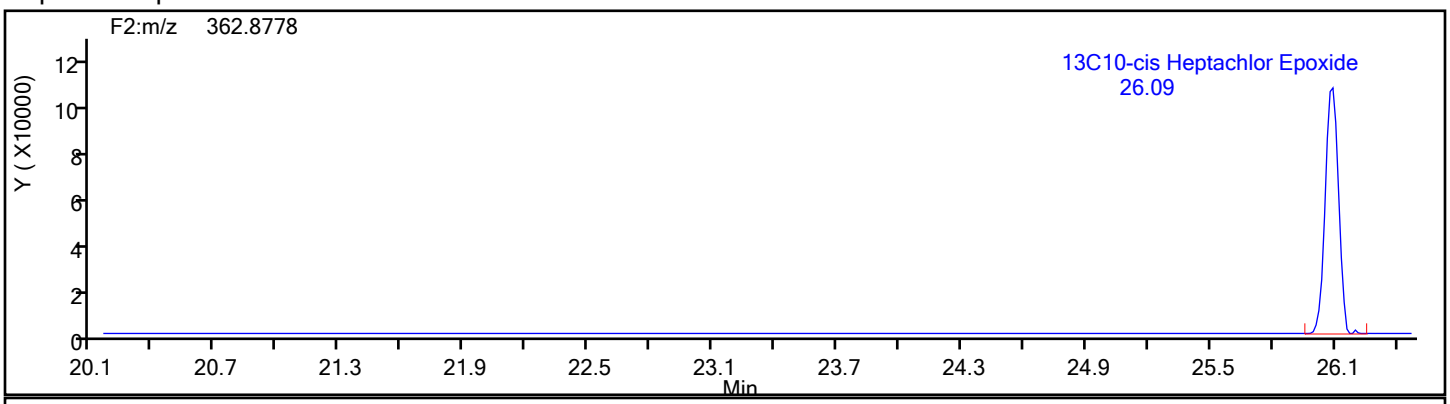
Column Type:	RTX-5	Column Dia:	0.32 mm

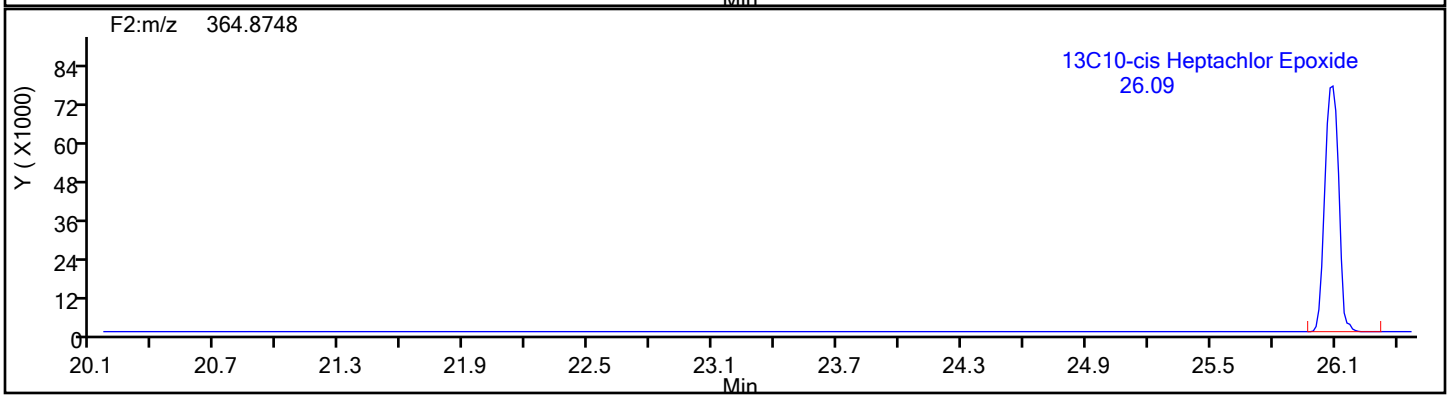
Heptachlor epoxide





Heptachlor epoxide Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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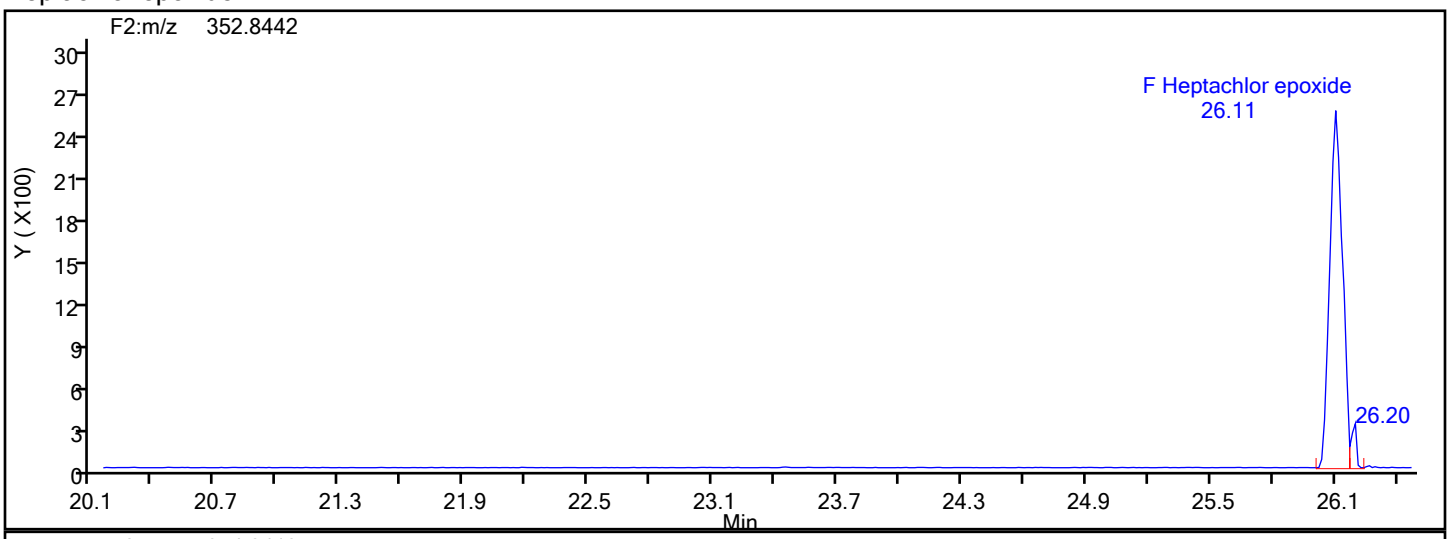
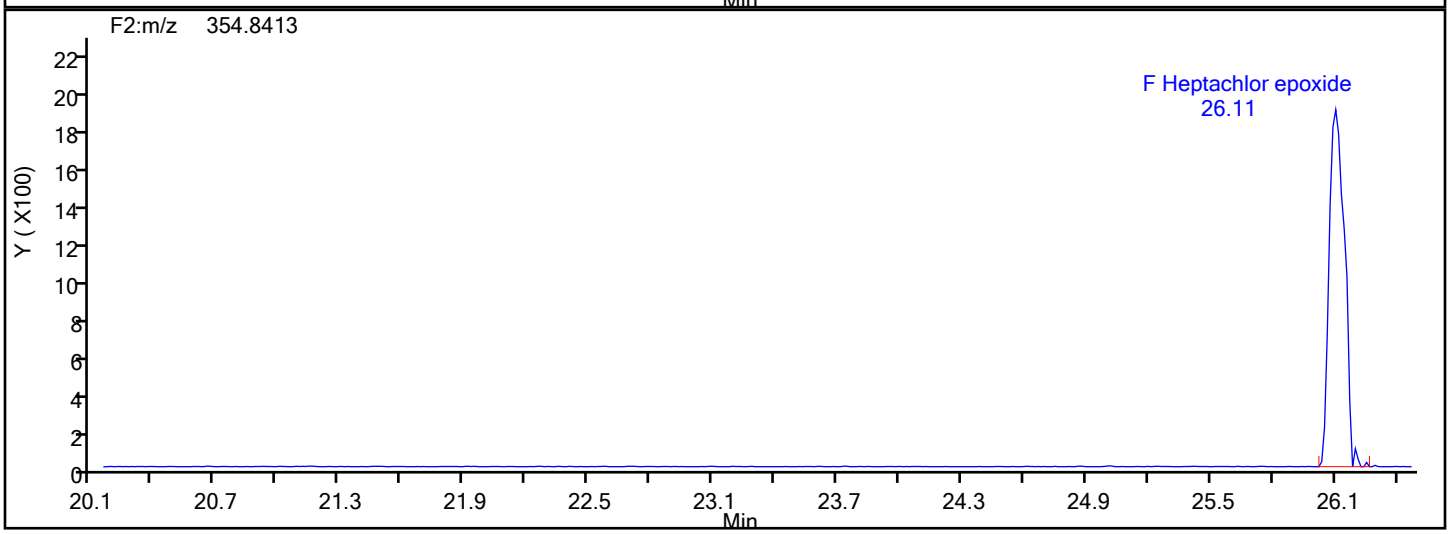
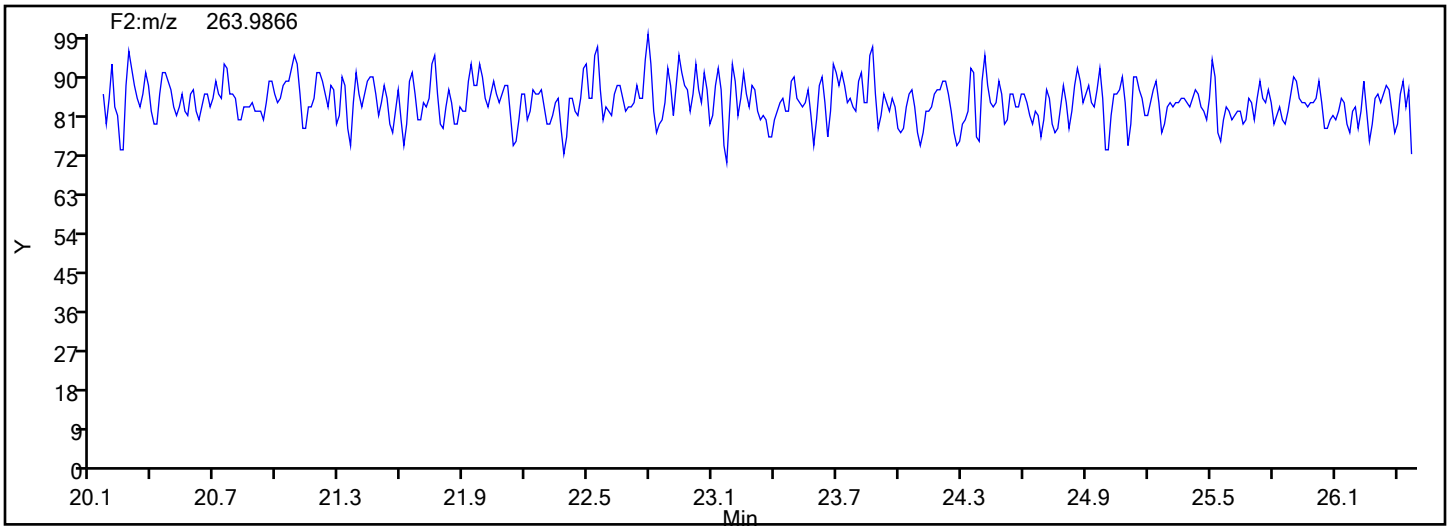
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor epoxide





Heptachlor epoxide Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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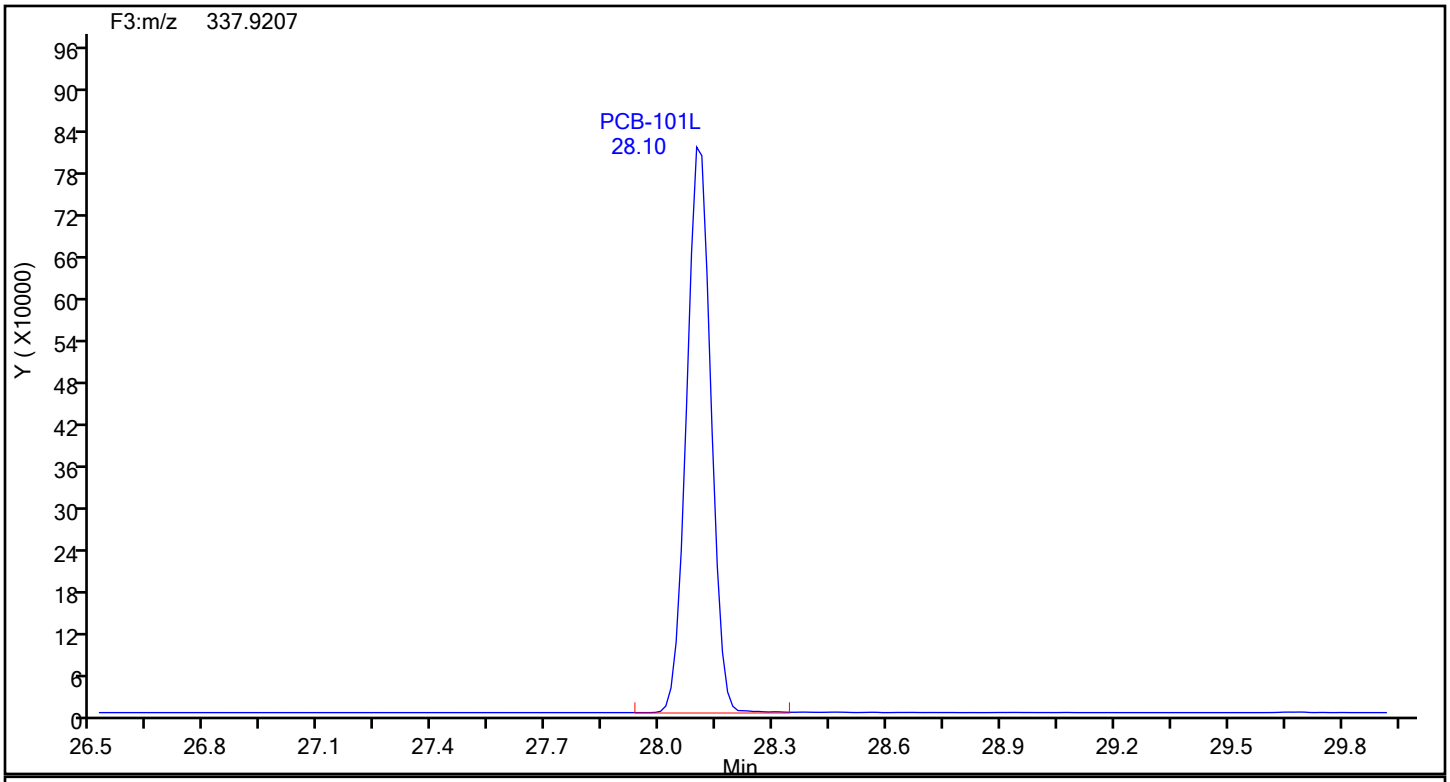
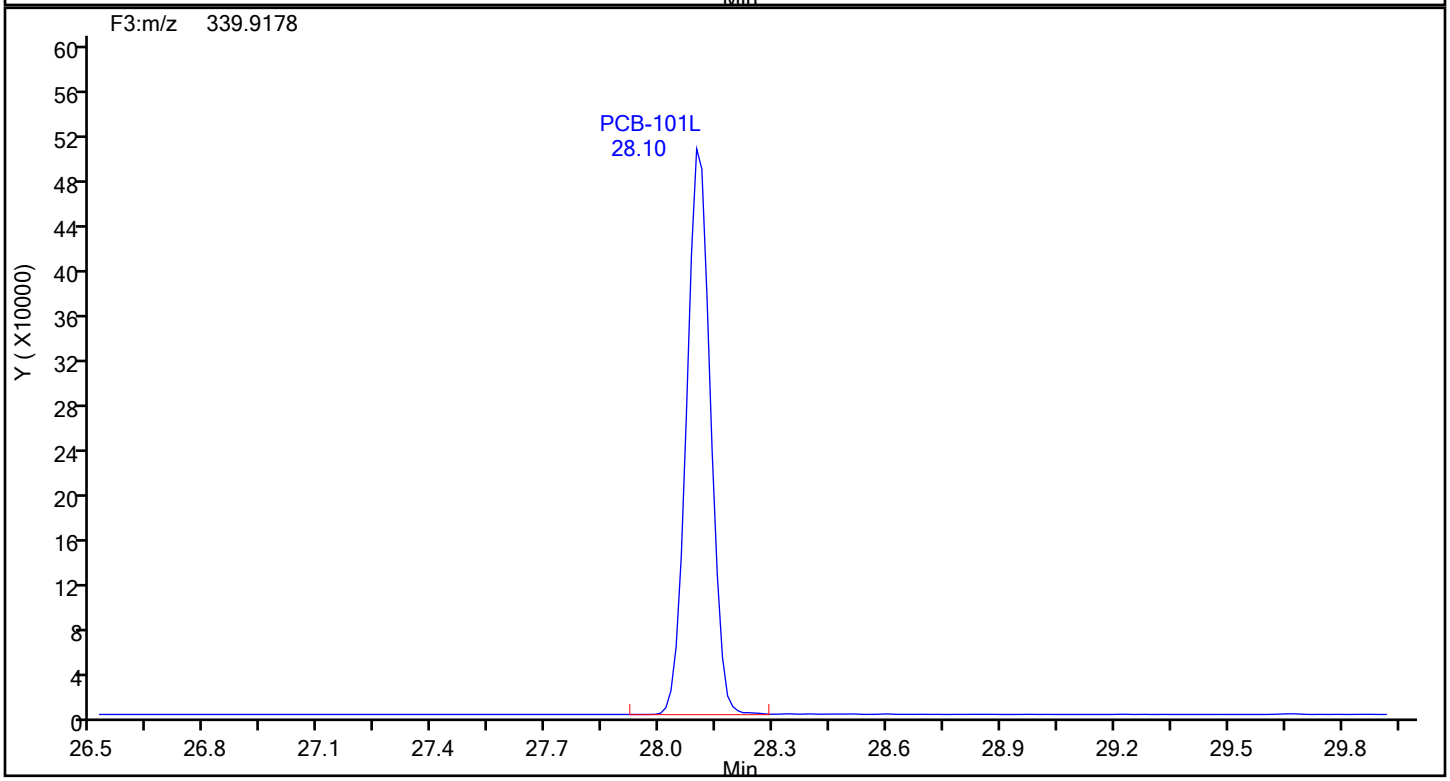
PCB-101L Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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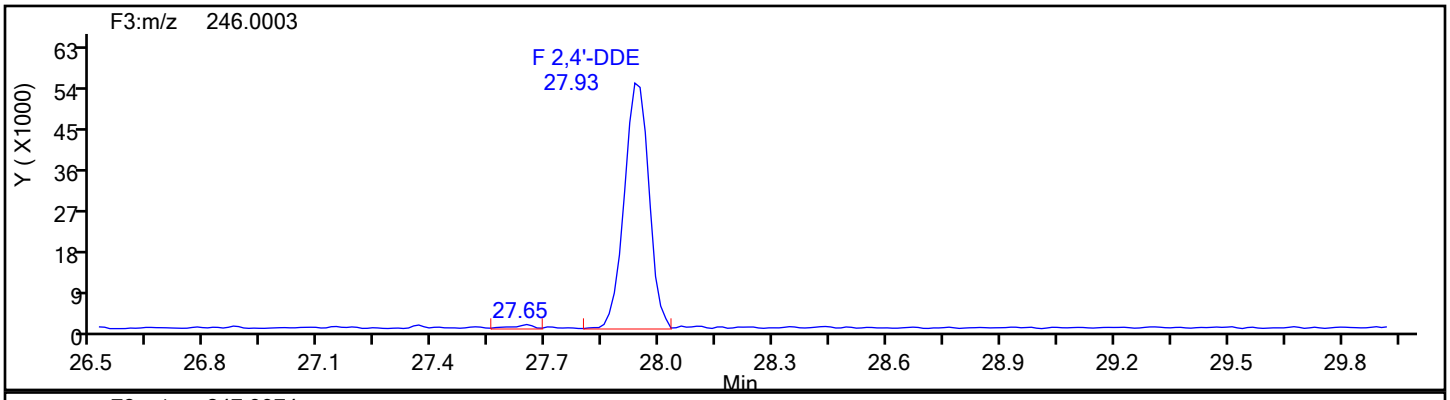
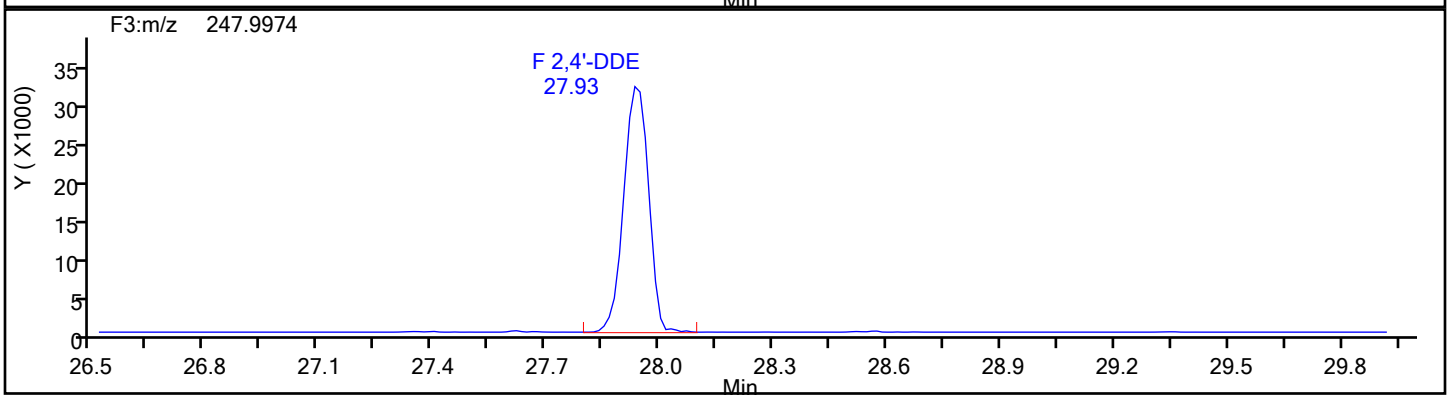
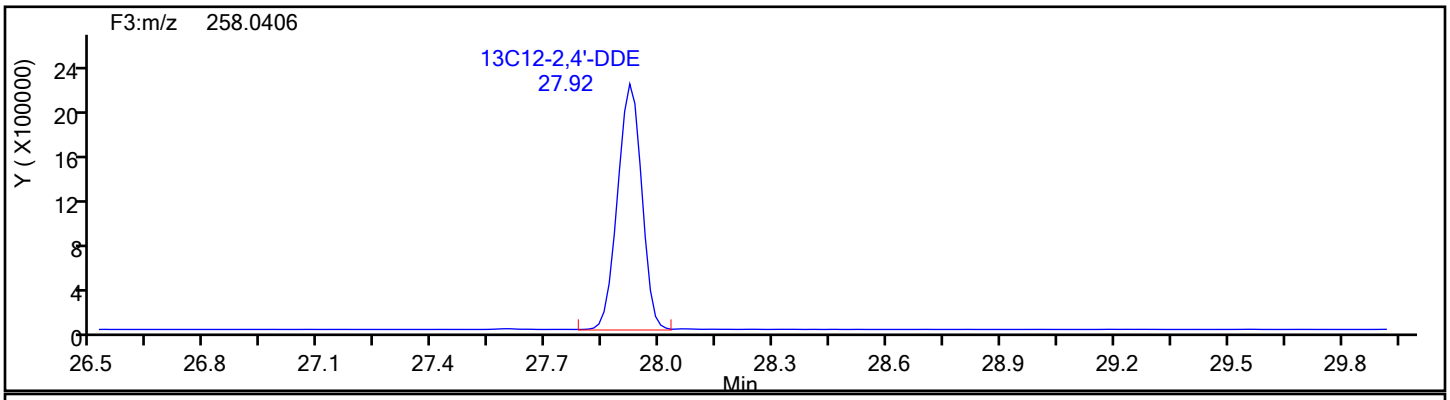
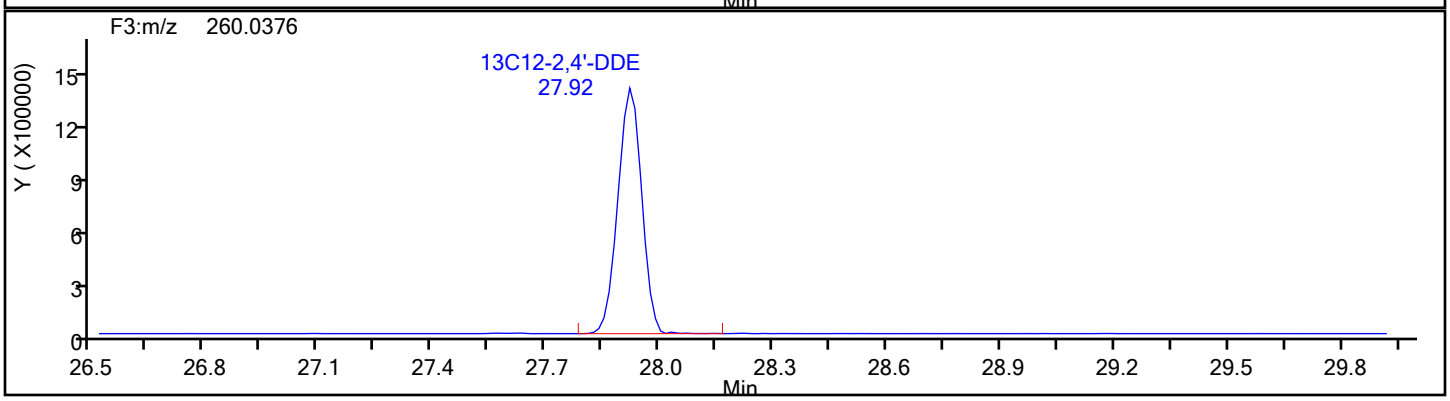
2,4'-DDE





2,4'-DDE Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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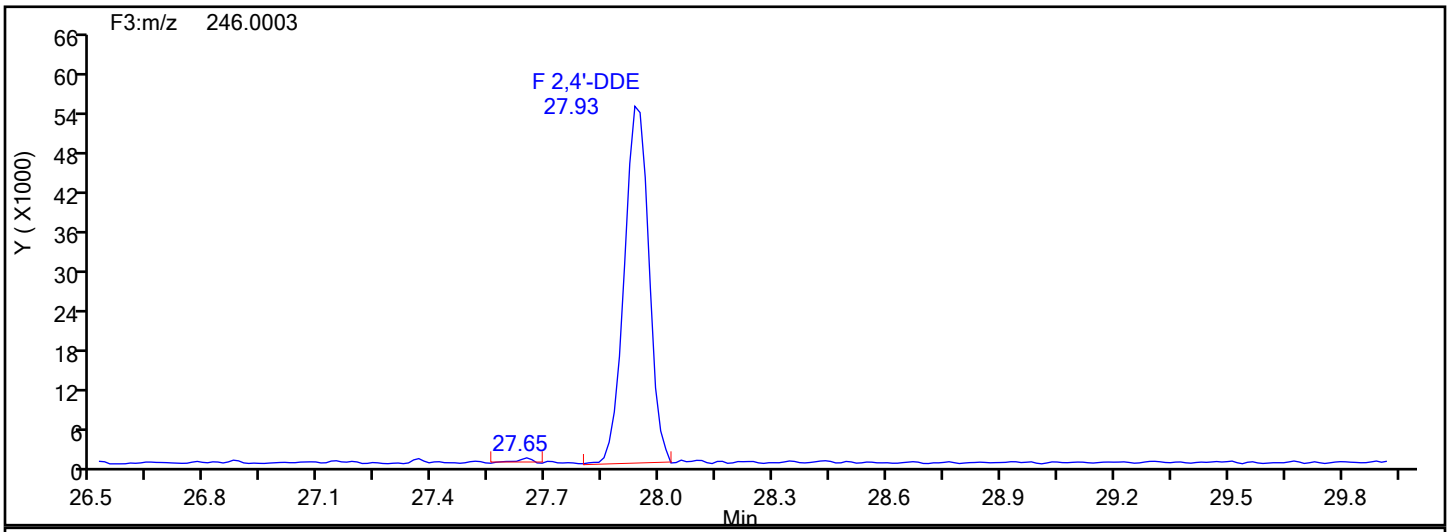
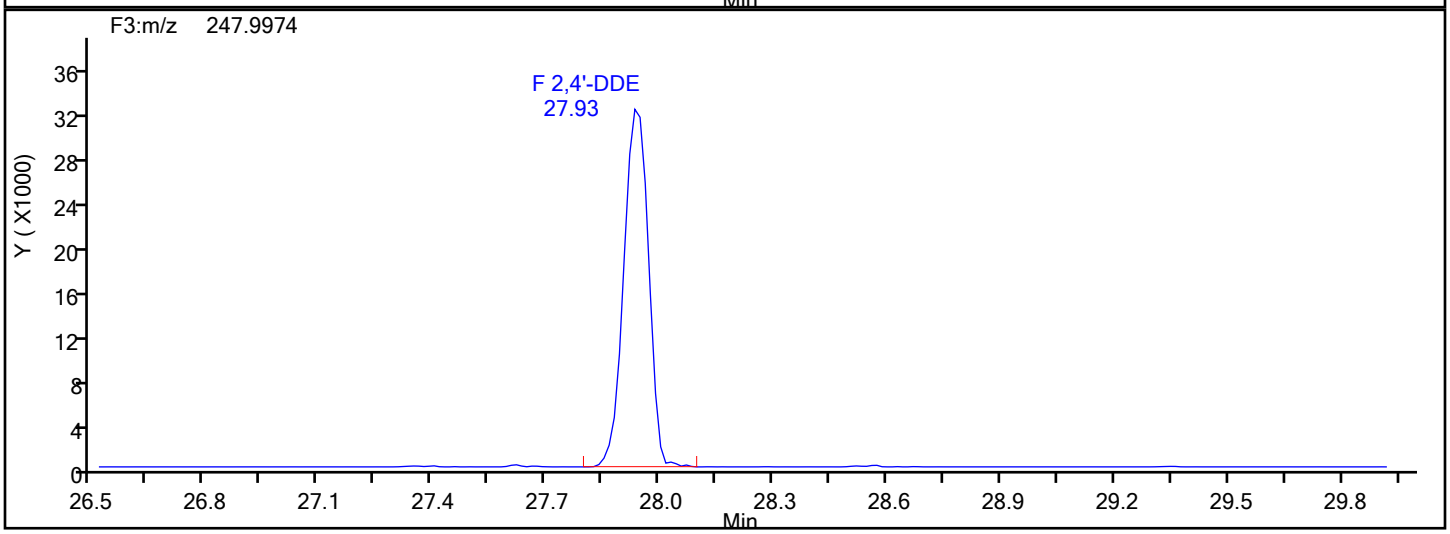
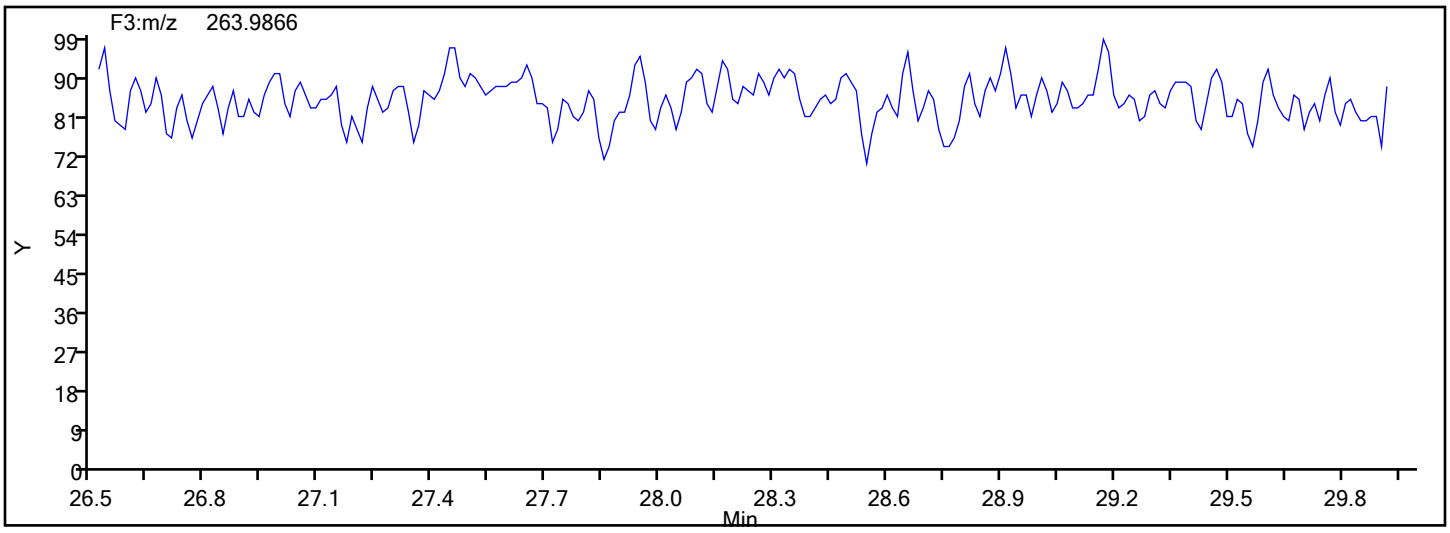
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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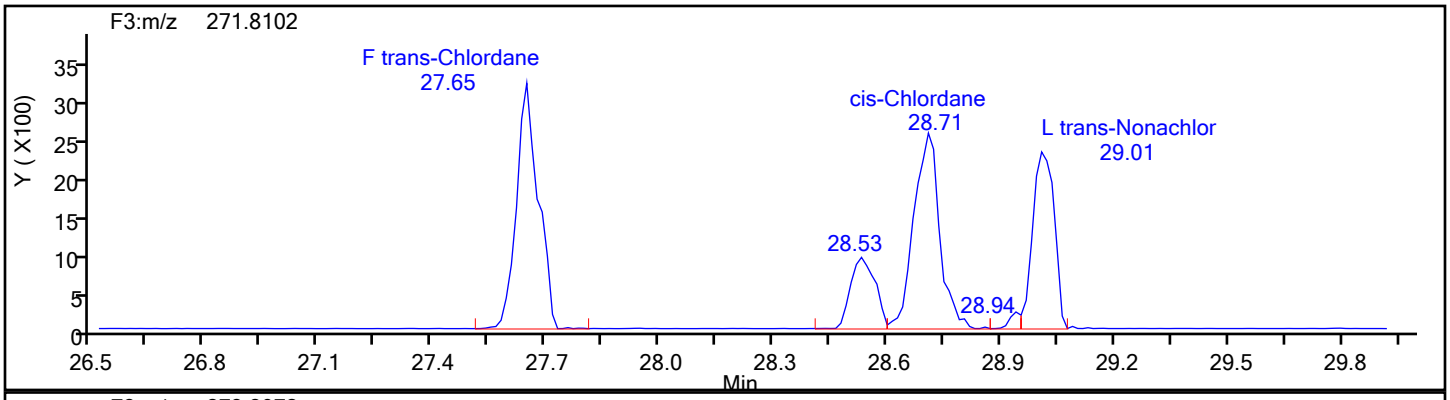
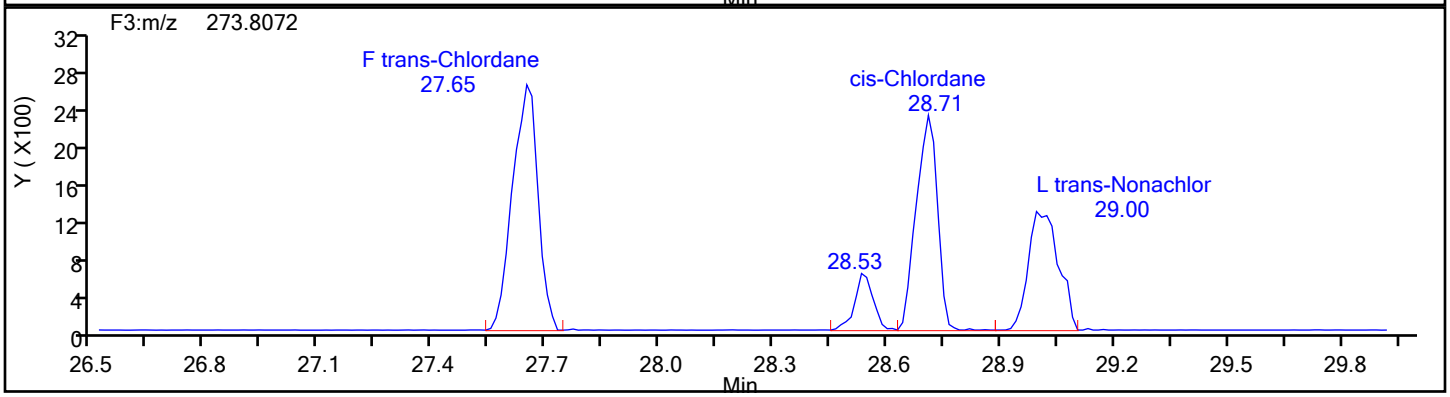
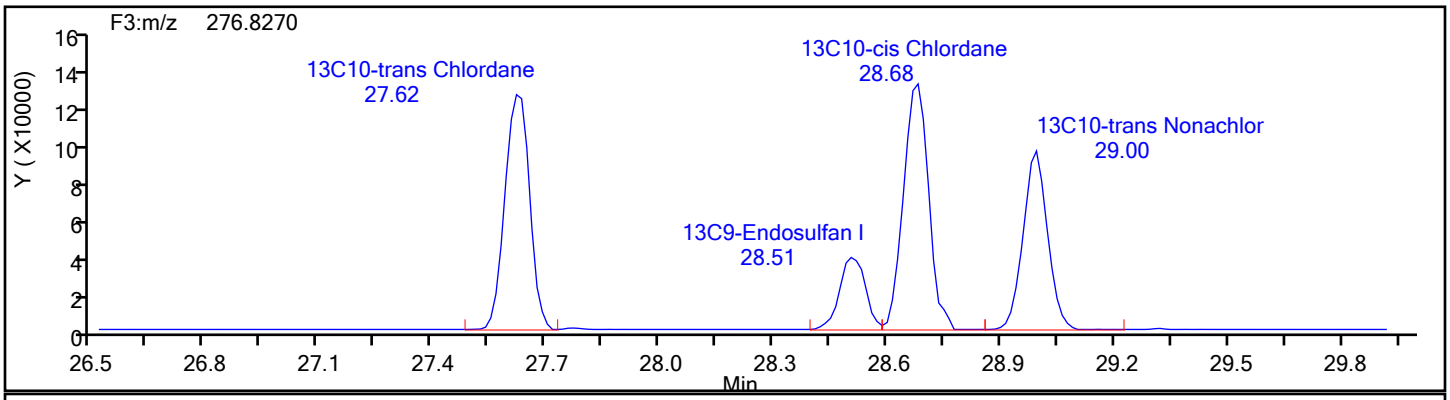
Column Type:	RTX-5	Column Dia:	0.32 mm

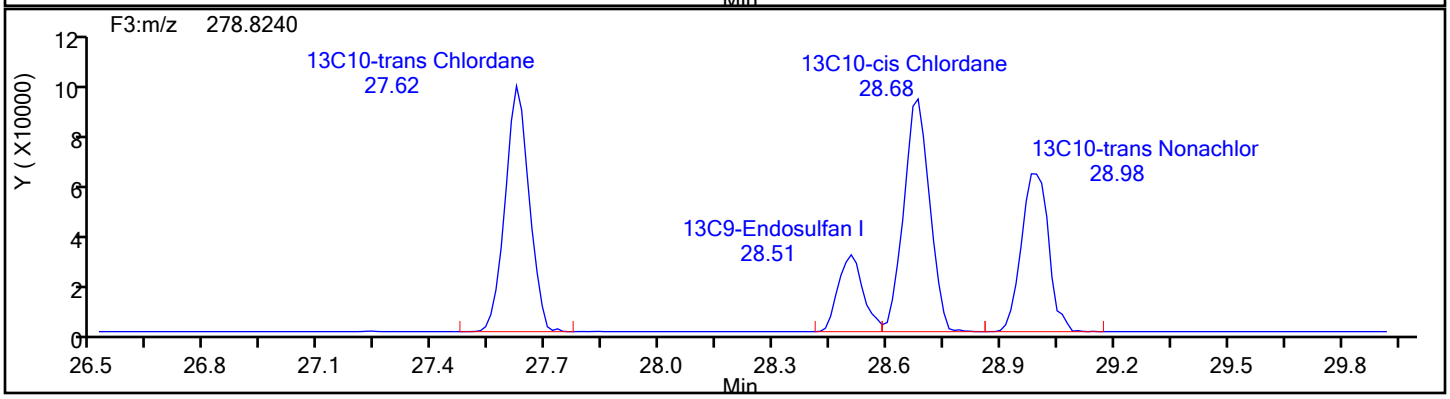
Chlordane





Chlordane Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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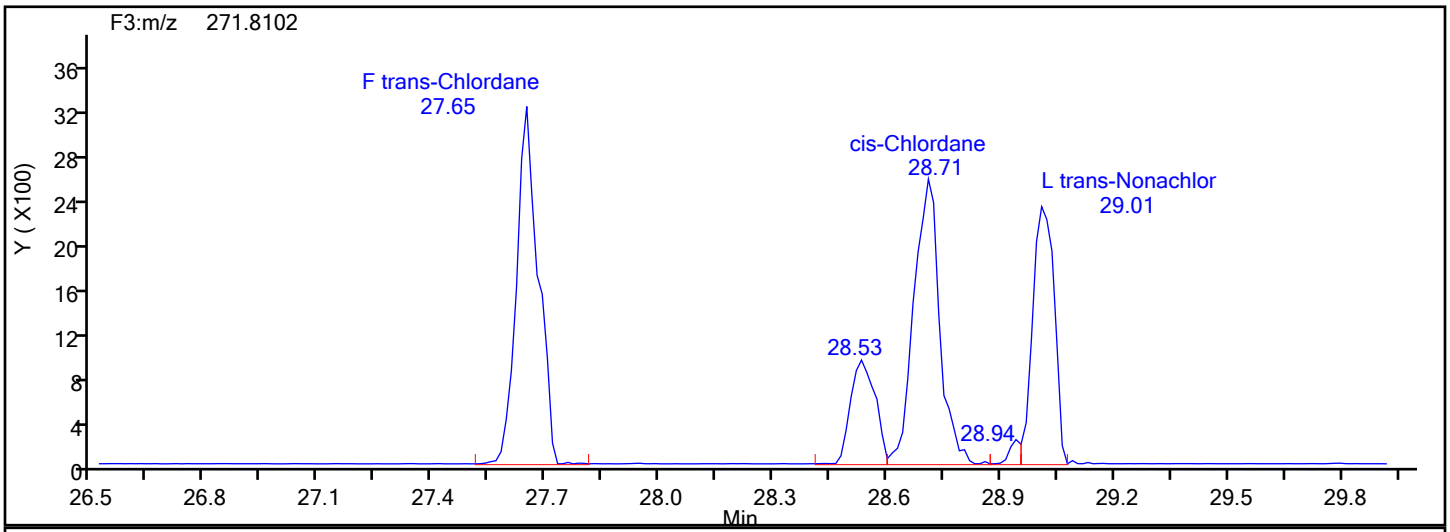
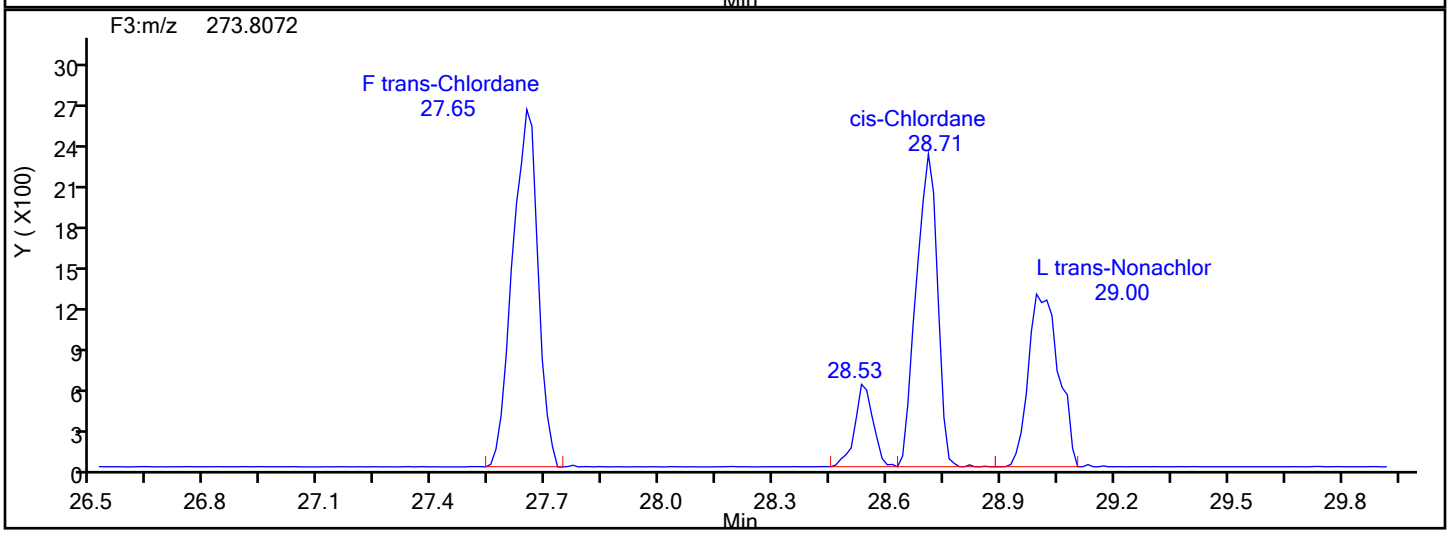
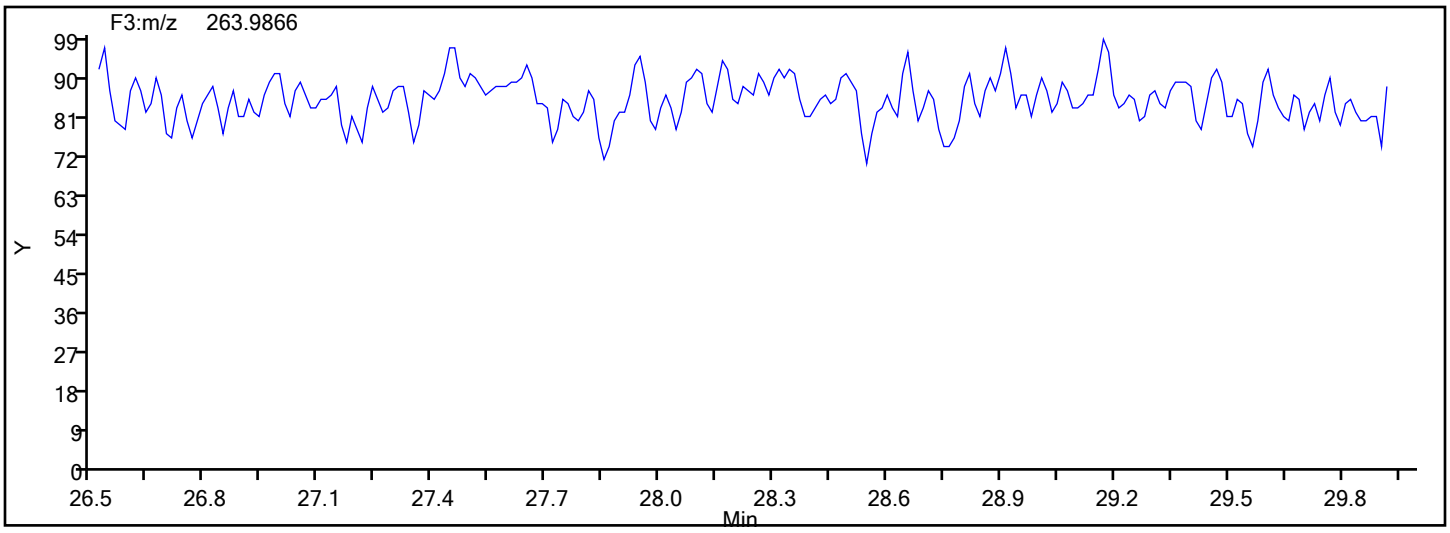
Chlordane





Chlordane Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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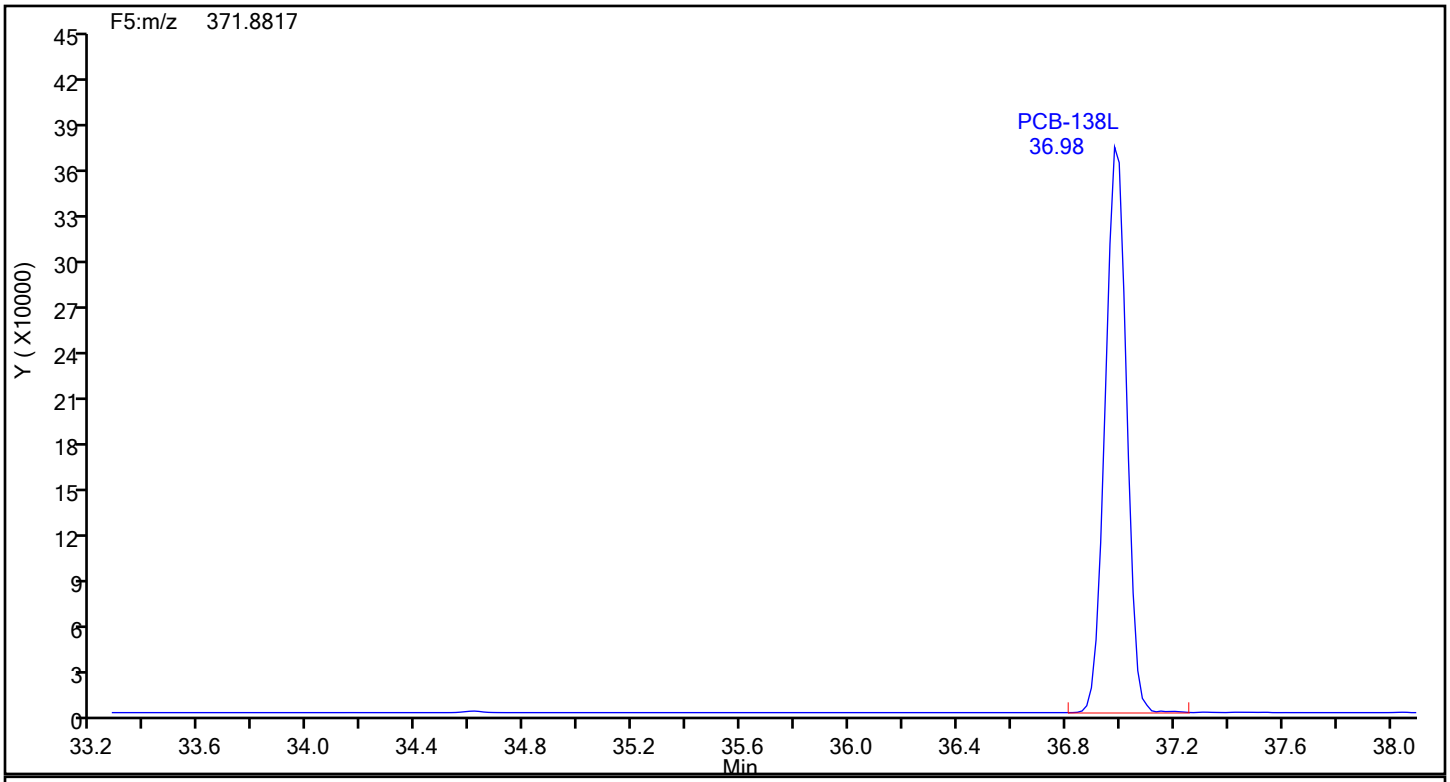
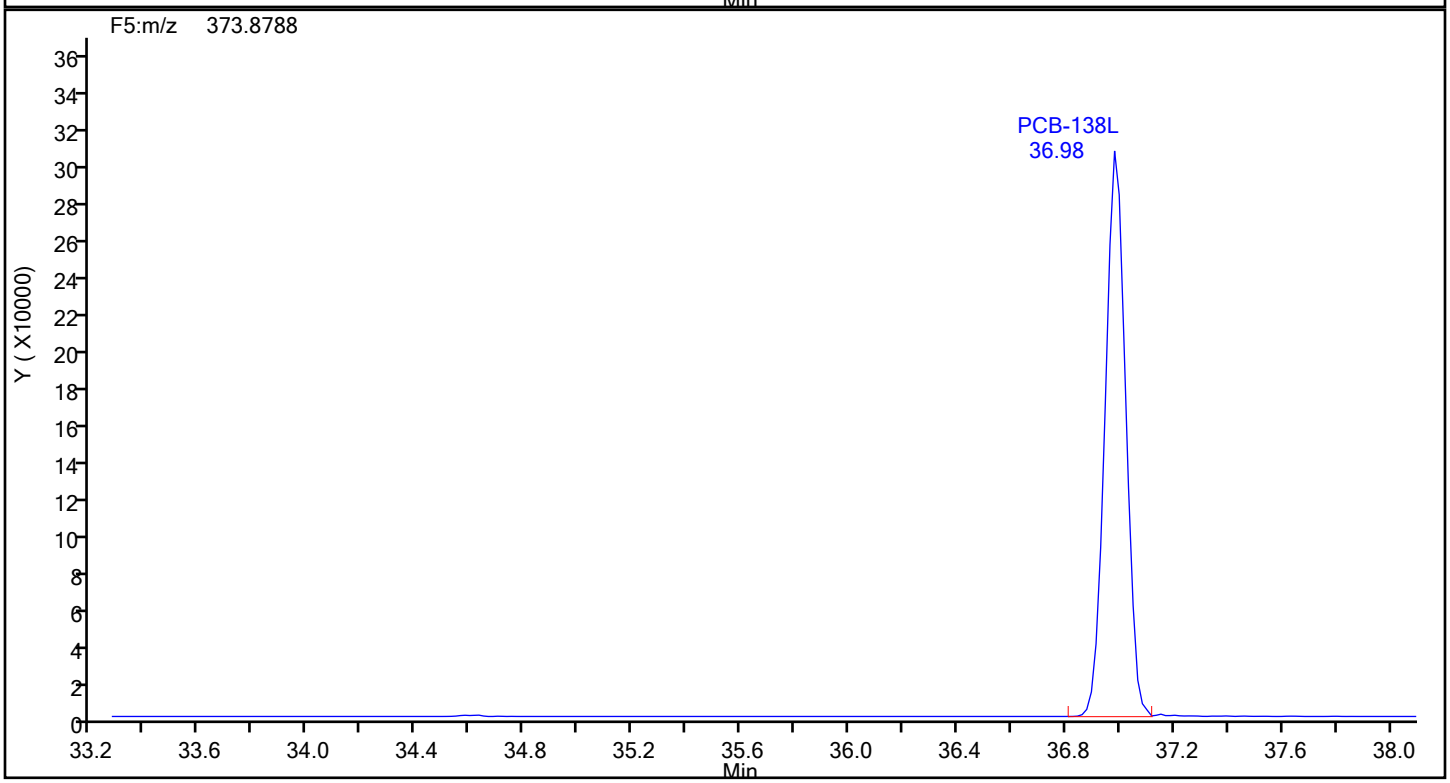
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-138L Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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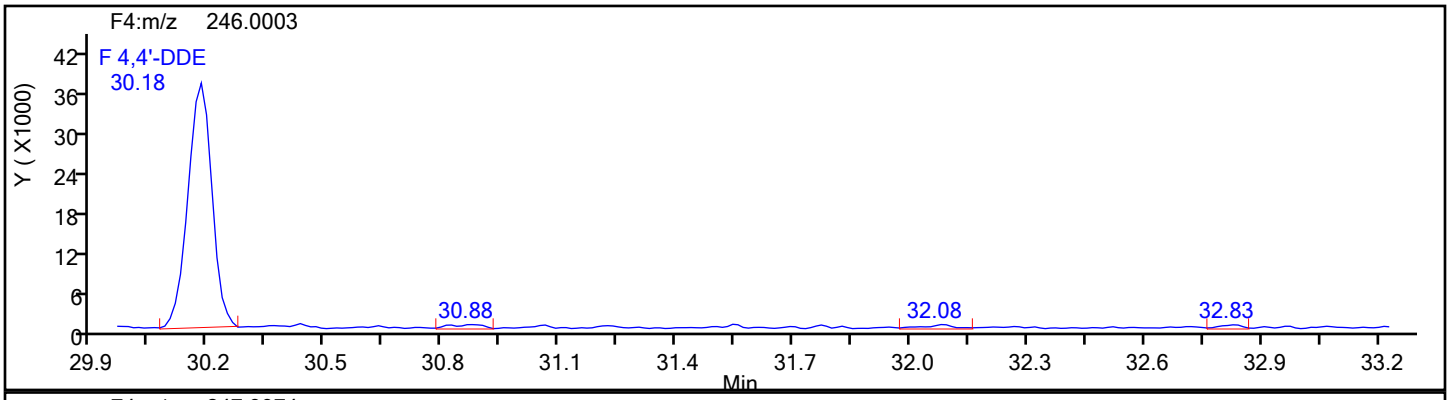
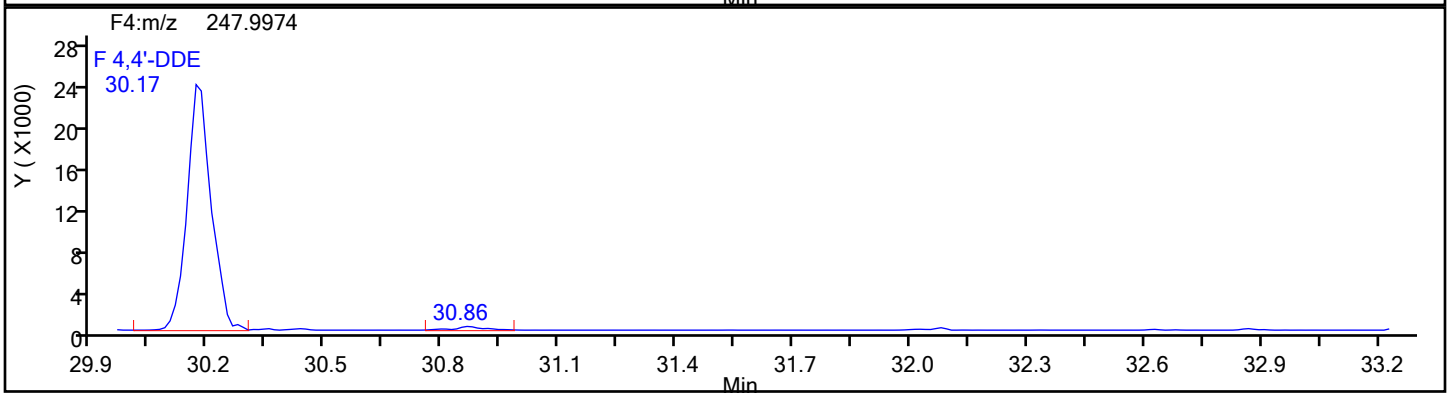
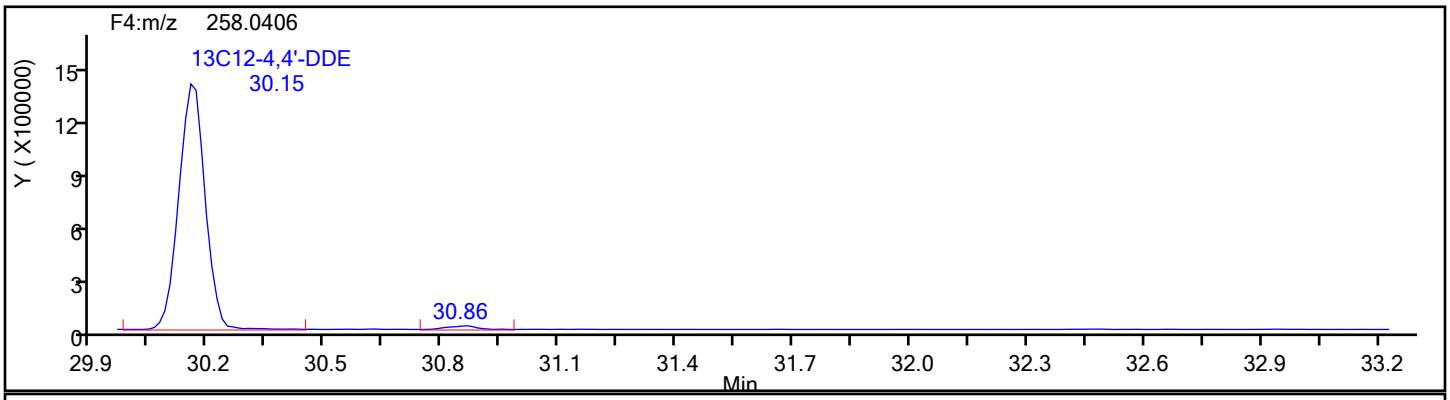
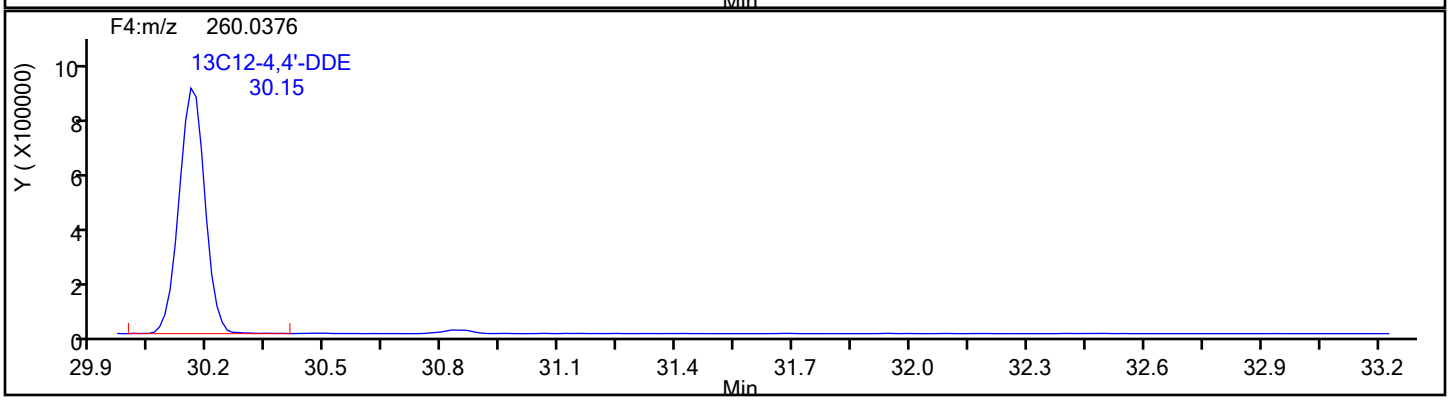
4,4'-DDE





4,4'-DDE Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
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Client ID:
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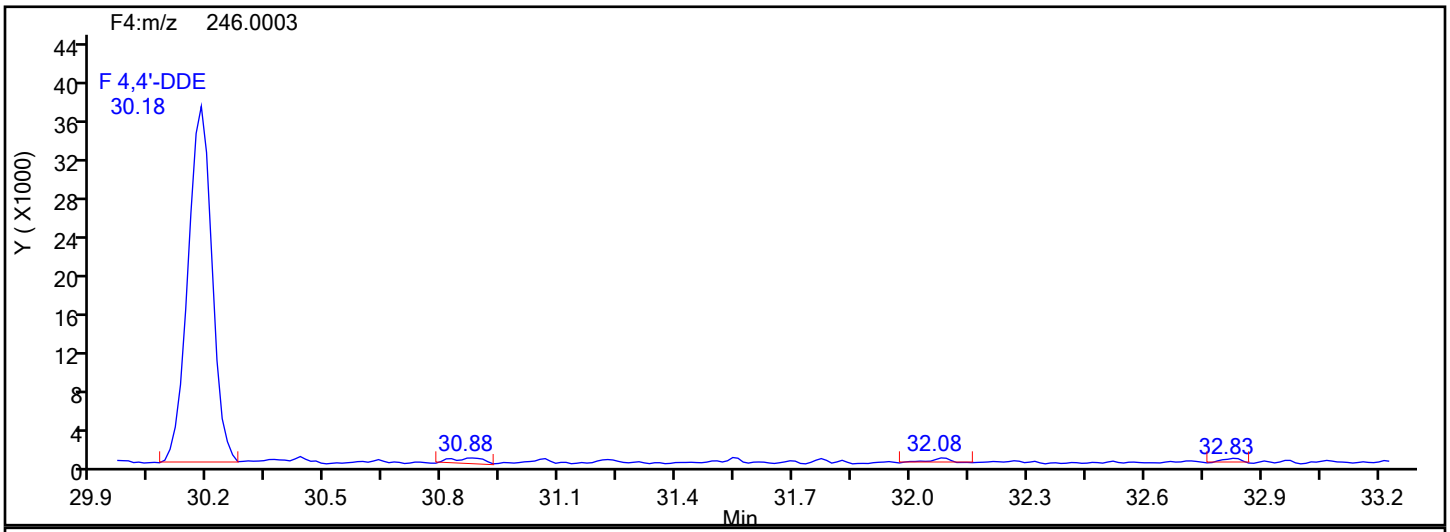
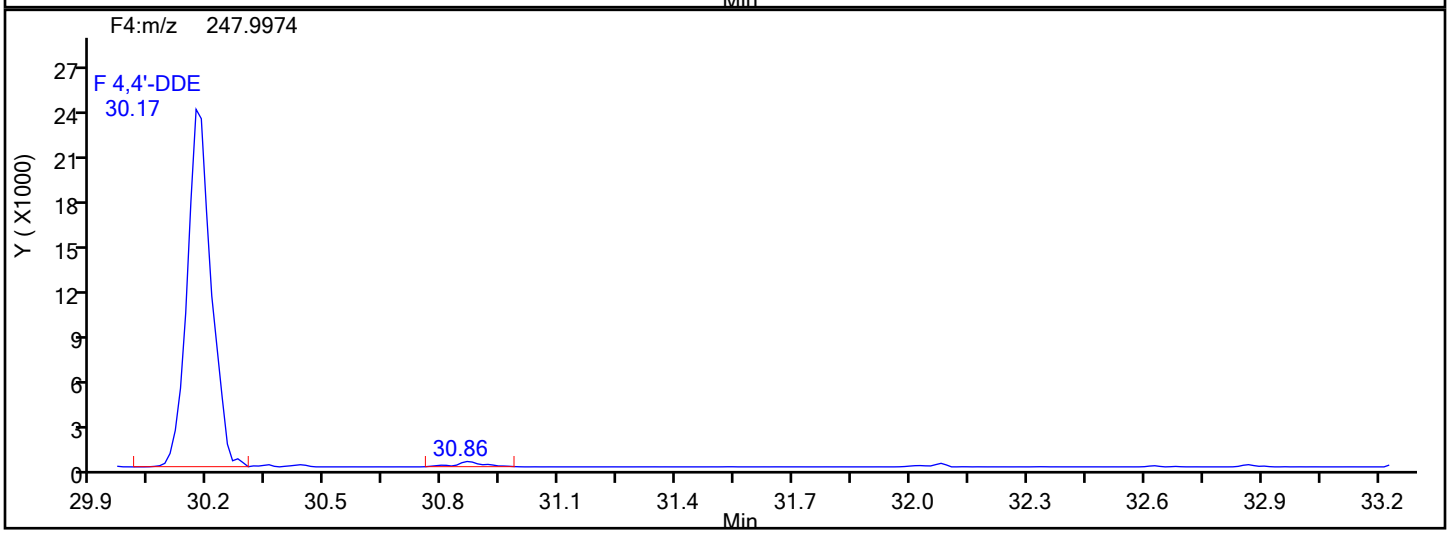
4,4'-DDE





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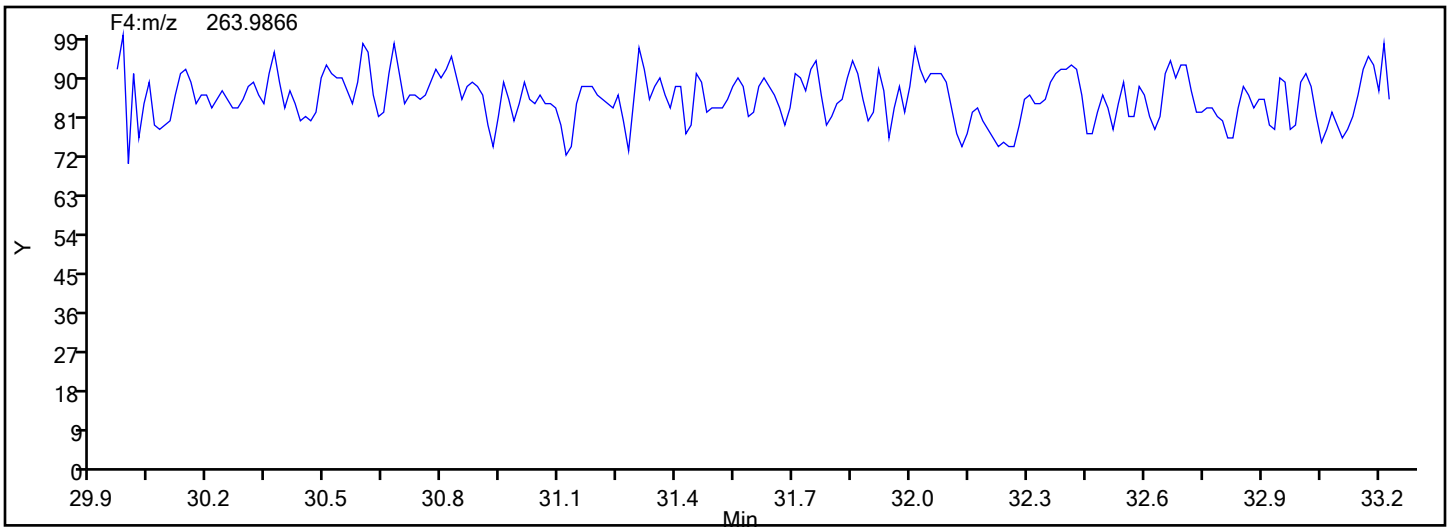

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Eurofins Knoxville

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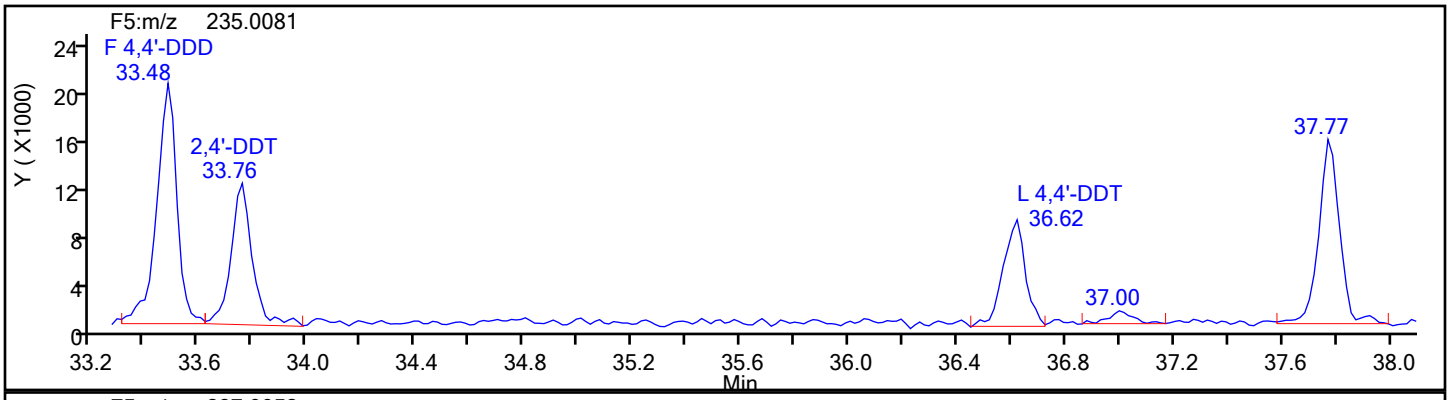
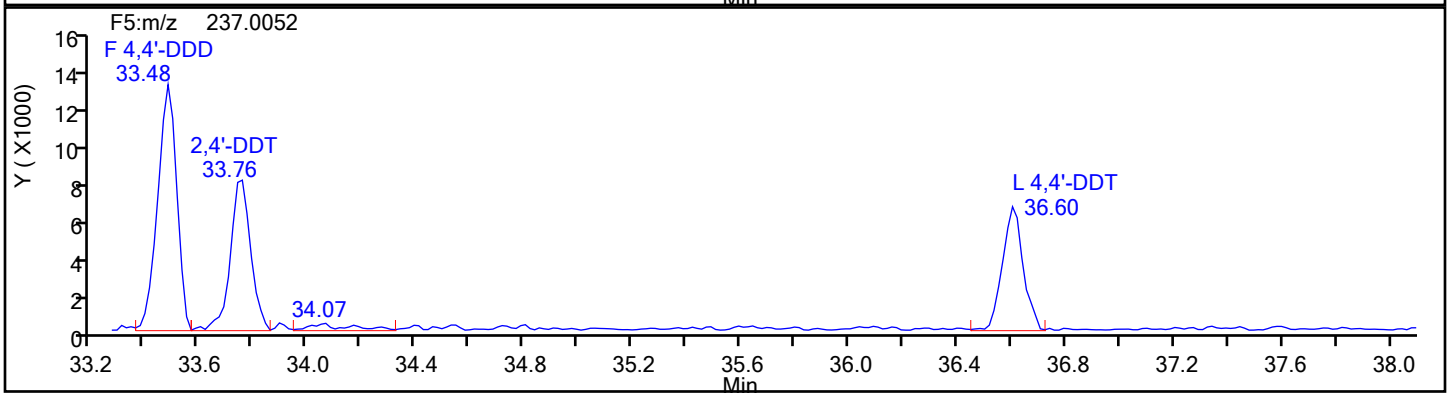
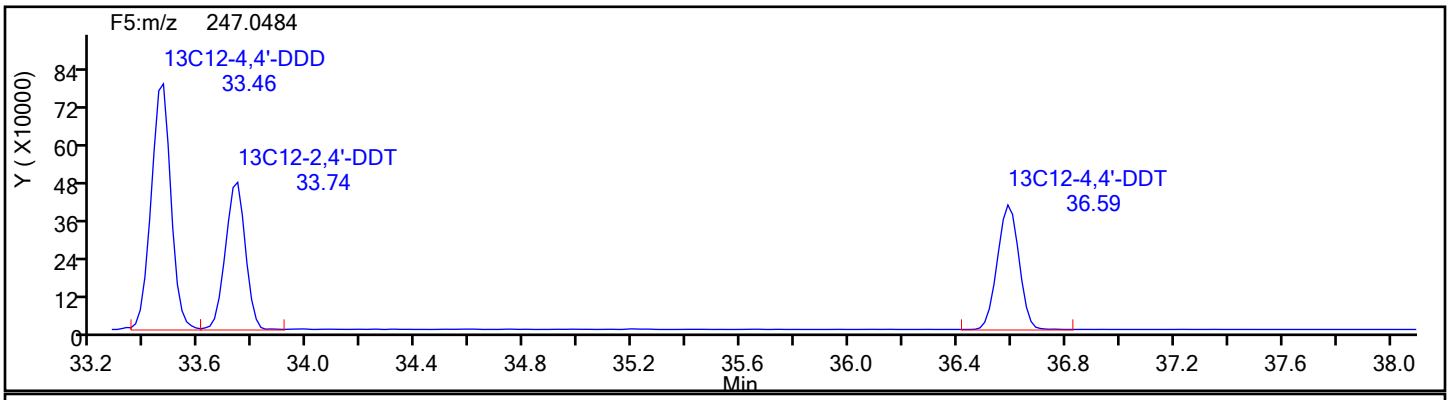
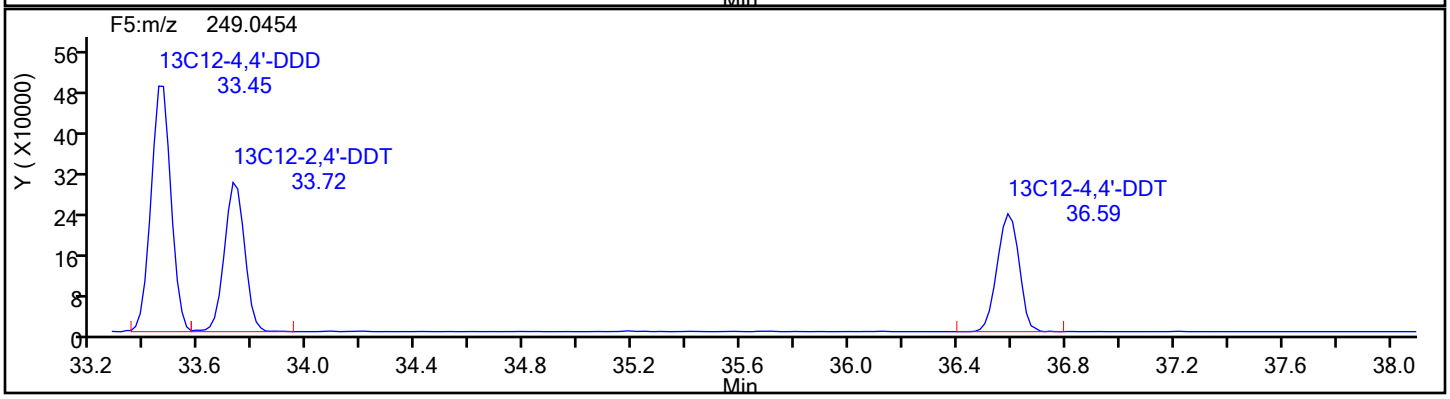




DDD Standards





Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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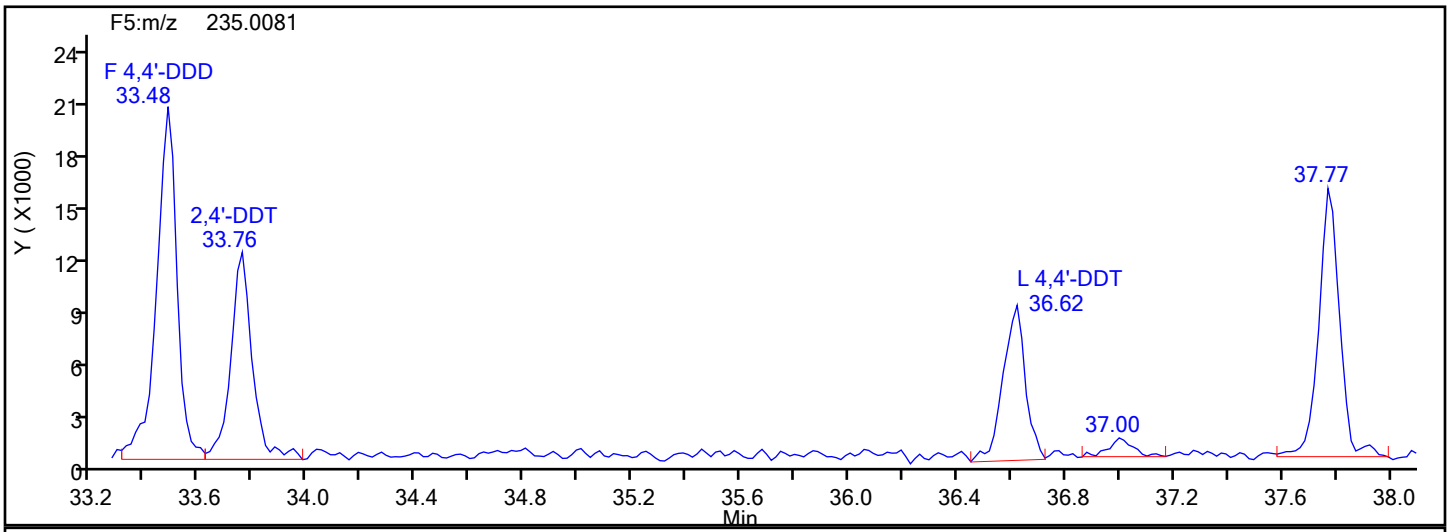
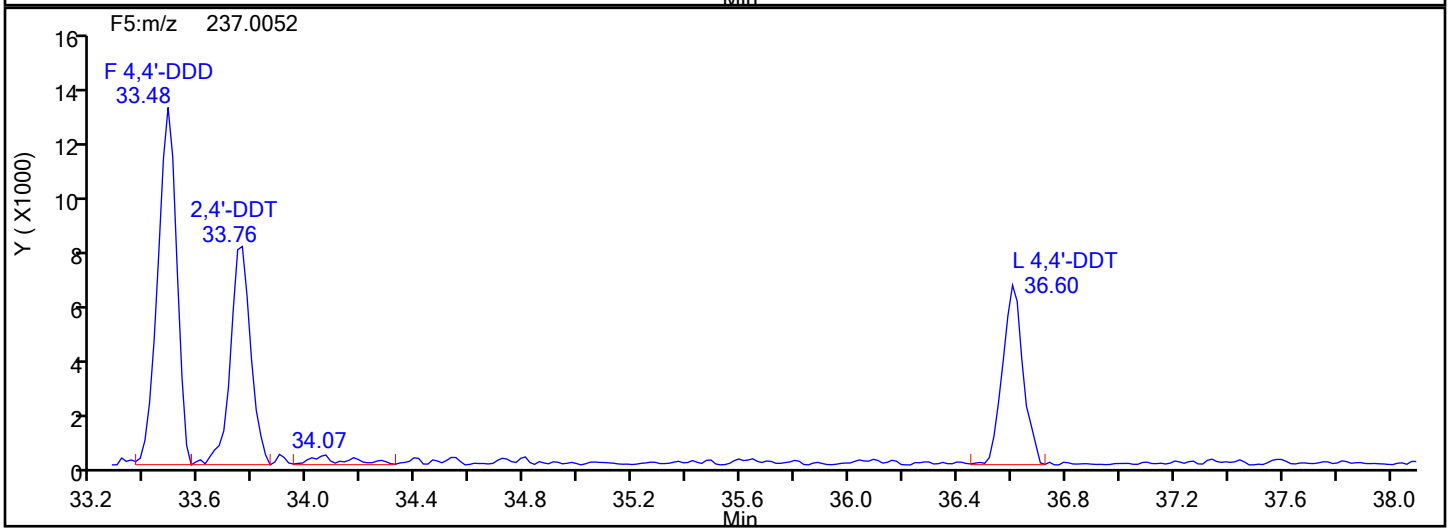
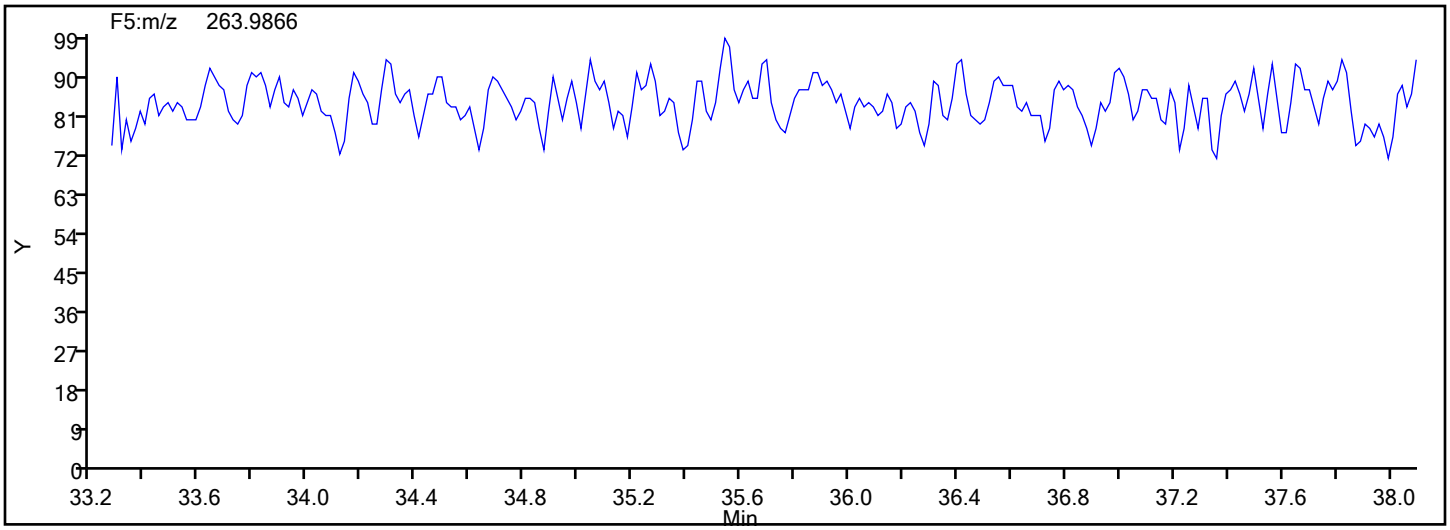




DDD Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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Column Type:	RTX-5	Column Dia:	0.32 mm

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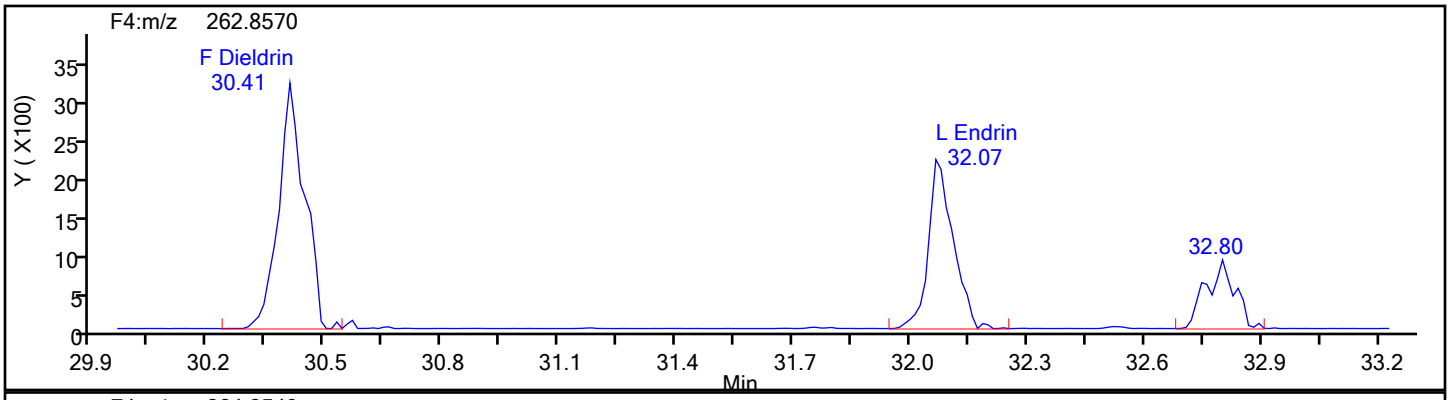

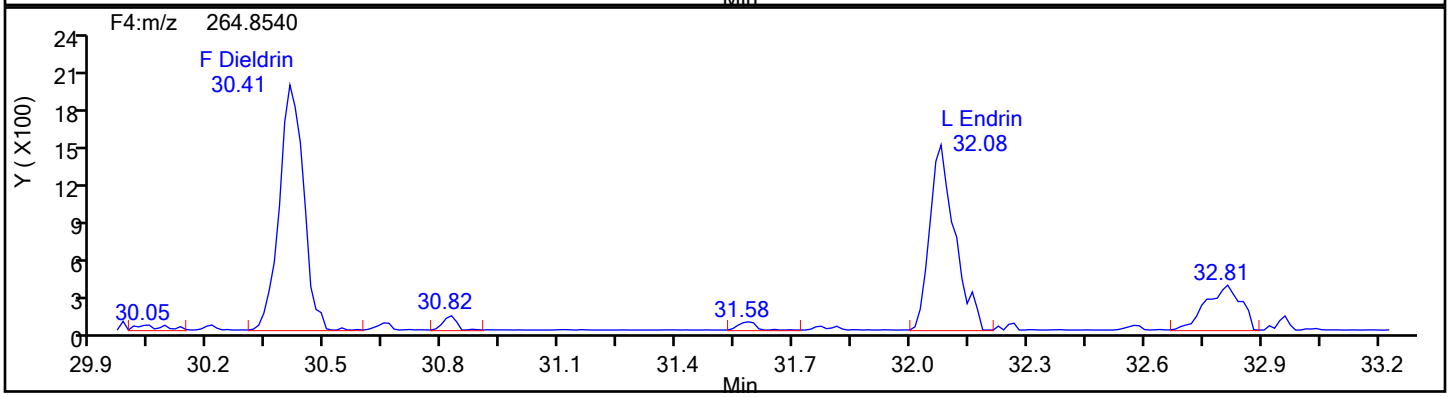

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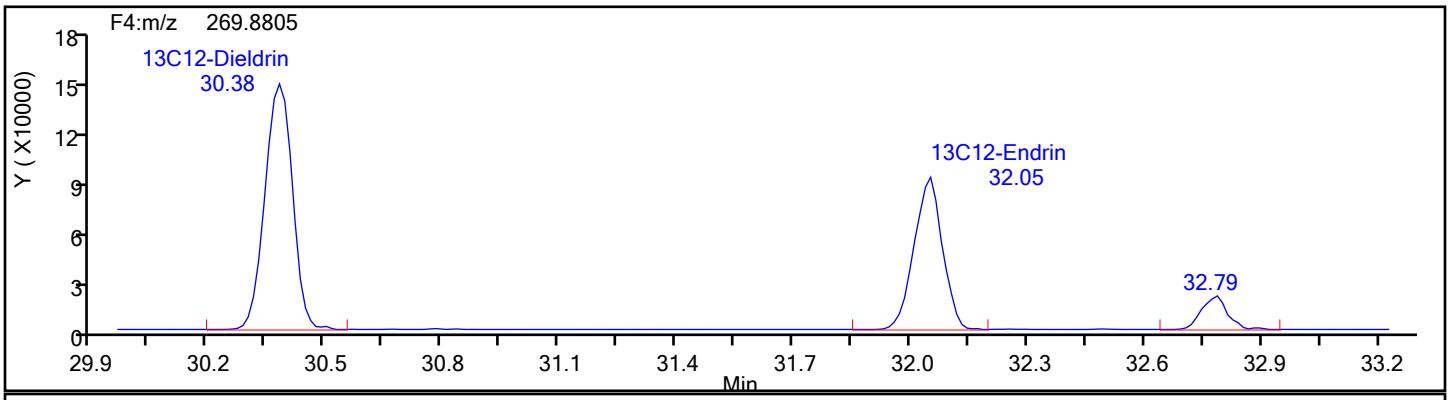

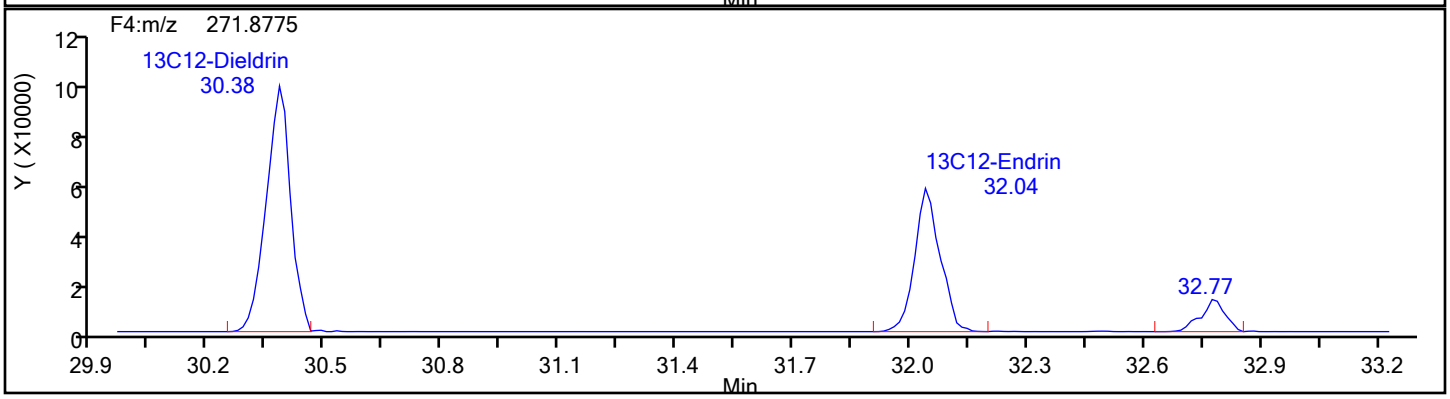

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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
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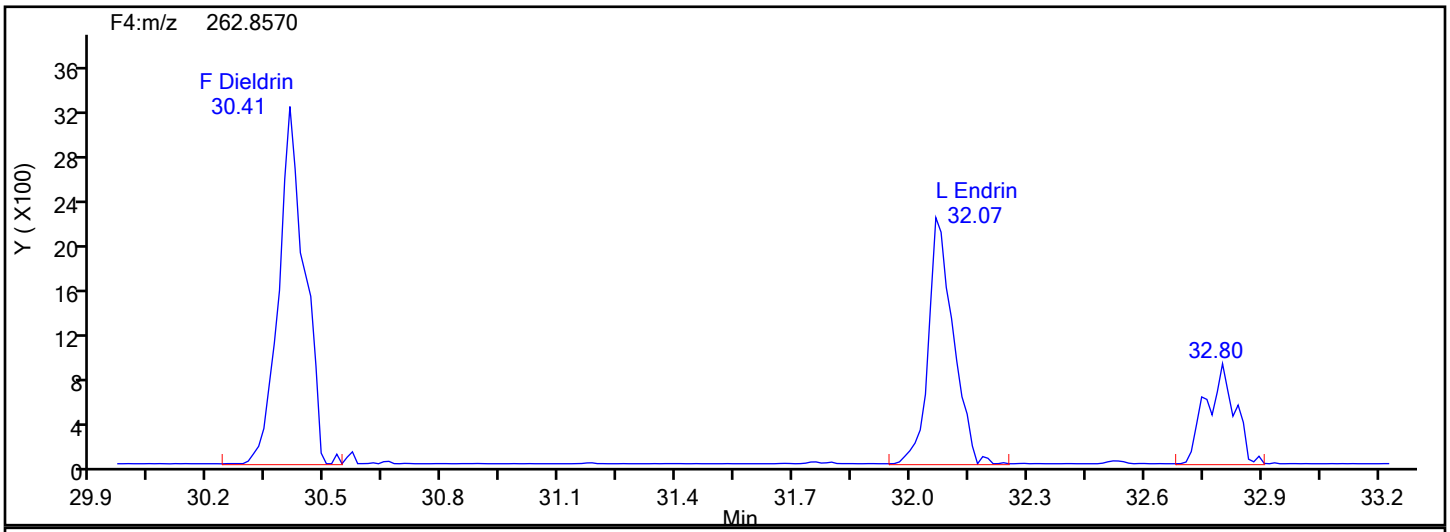
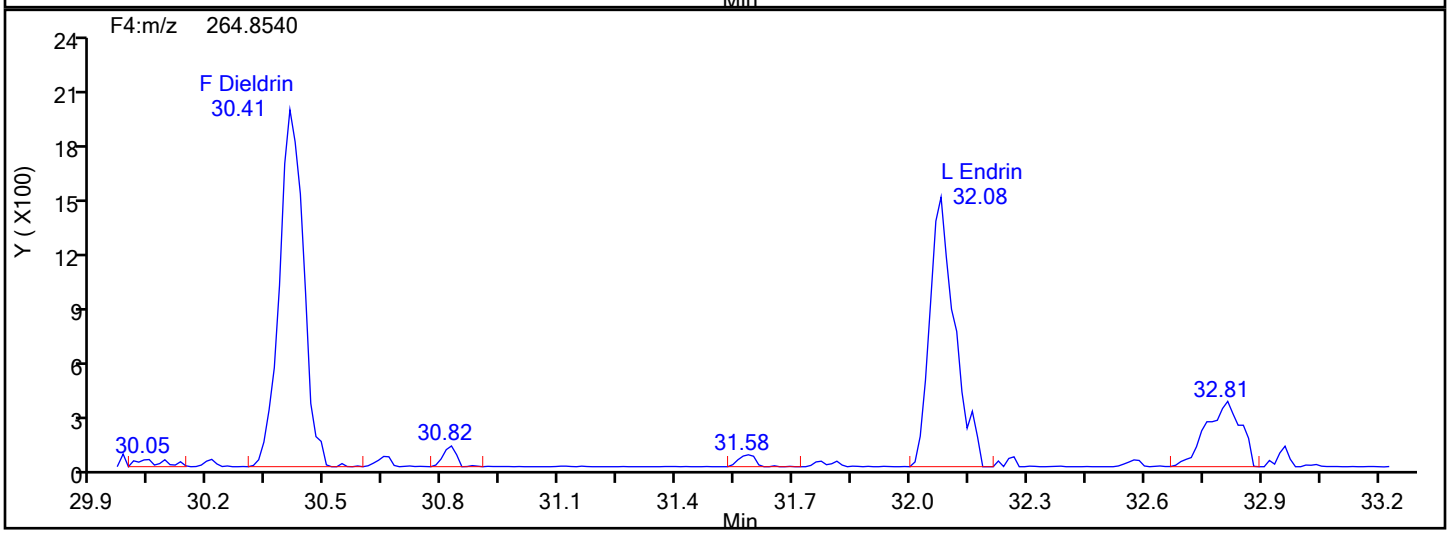
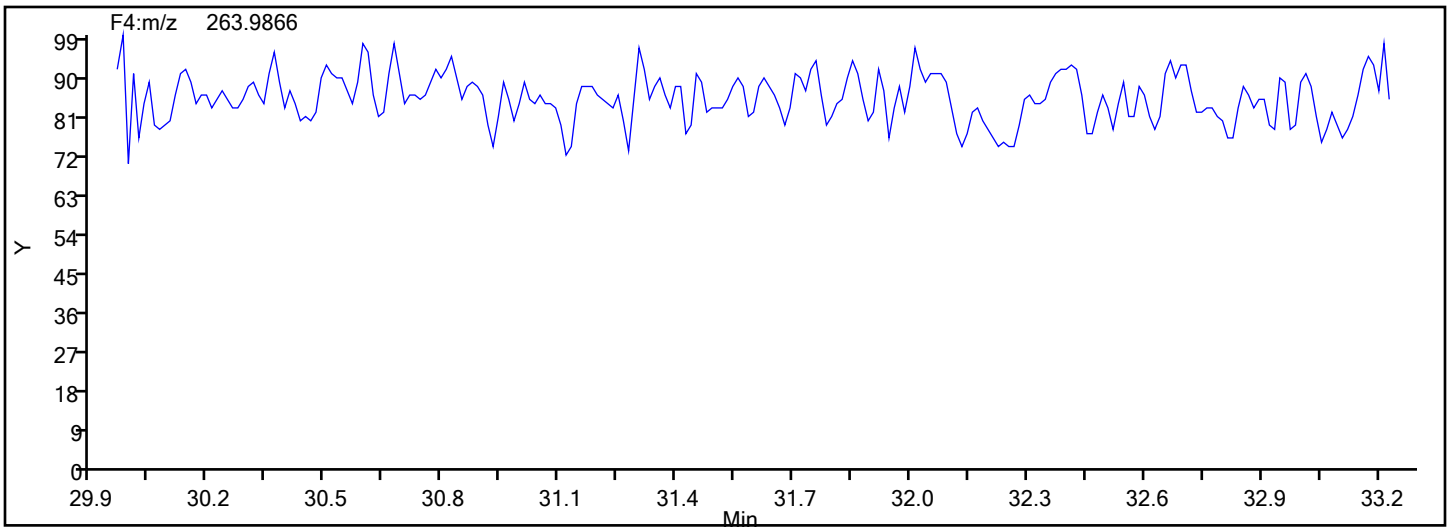




Dieldrin Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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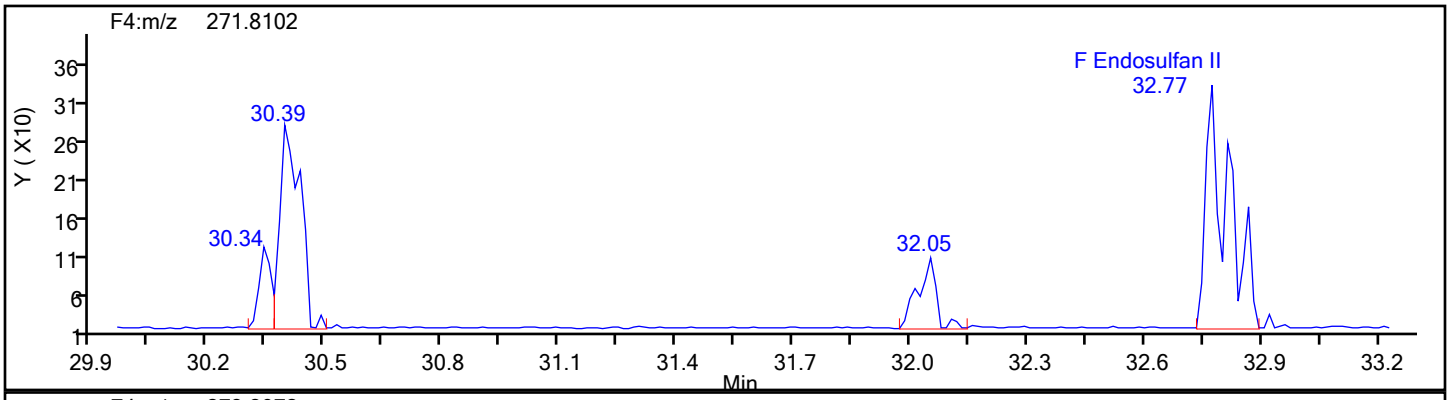
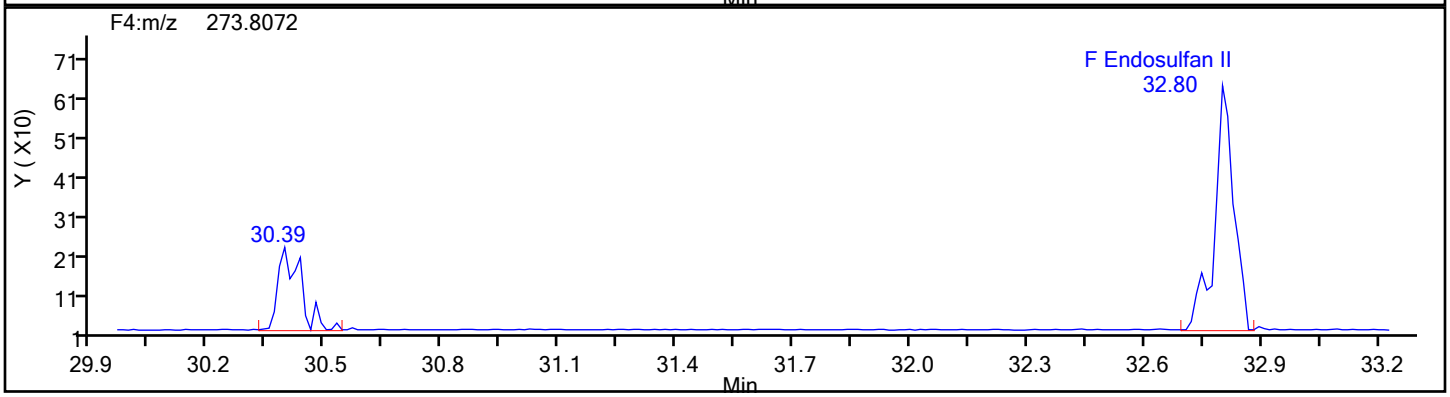
Endosulfan II





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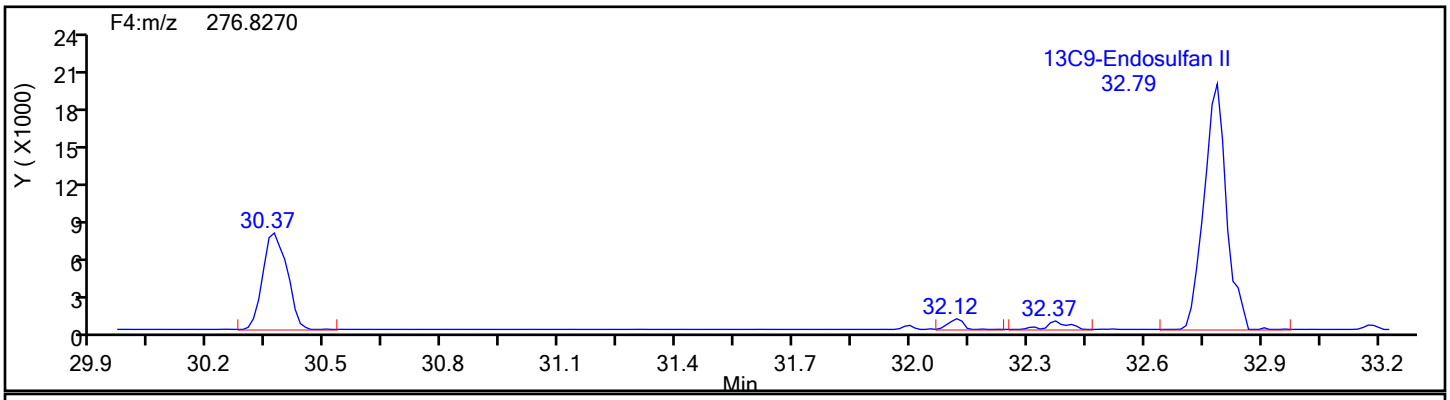

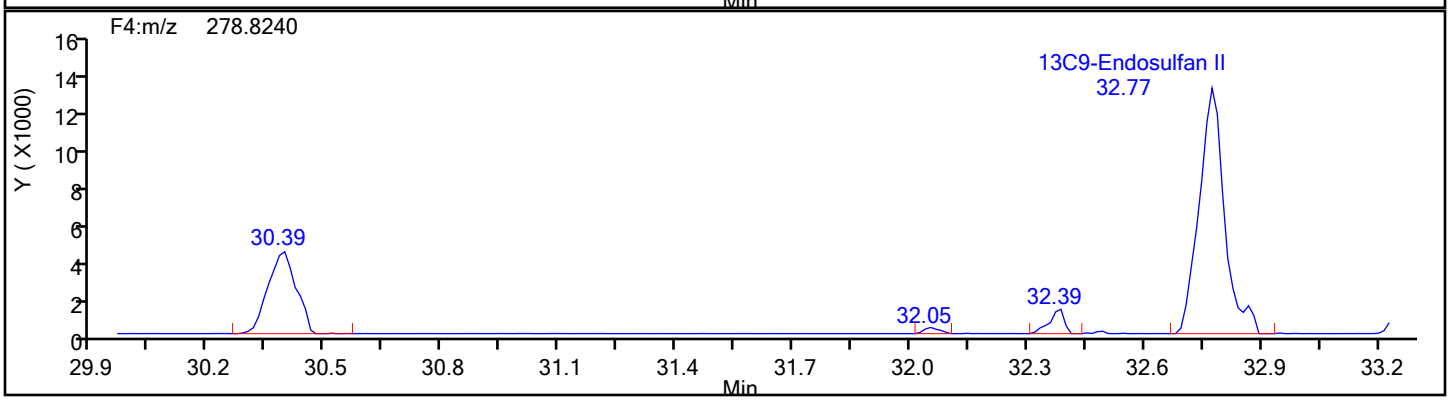

Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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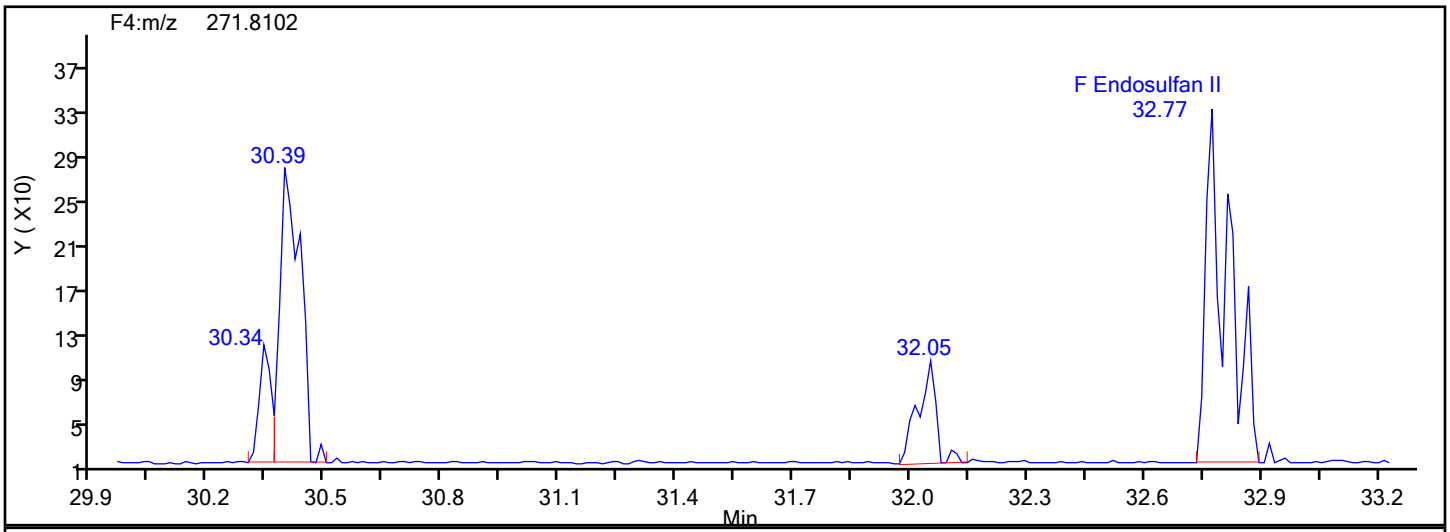
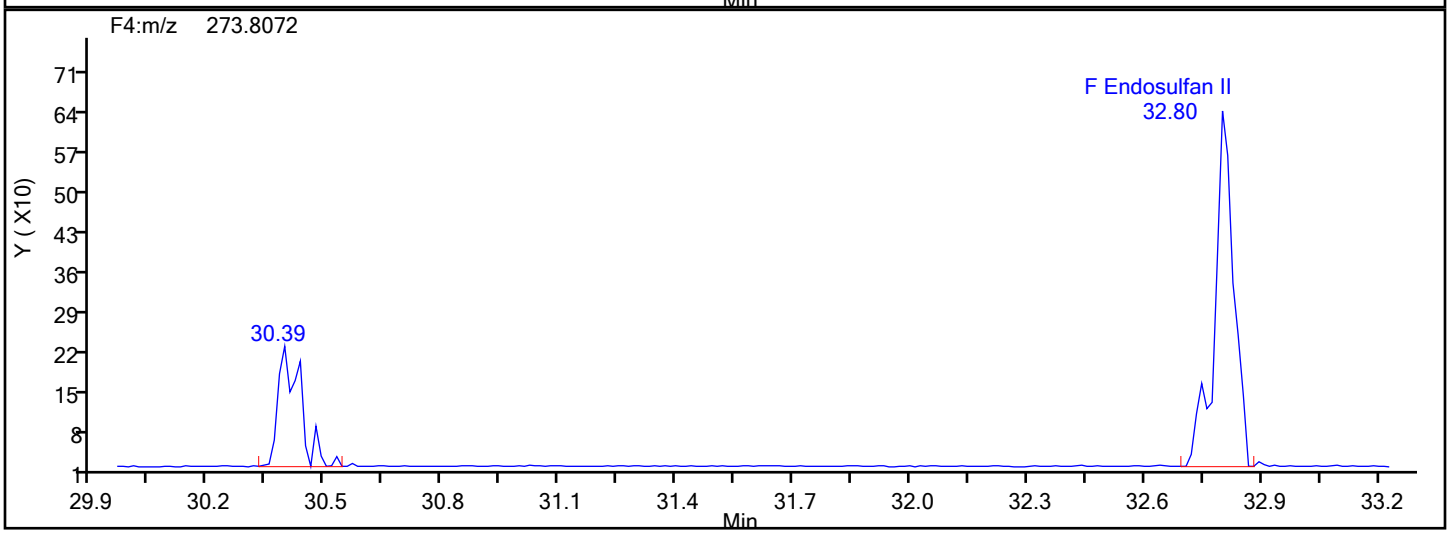
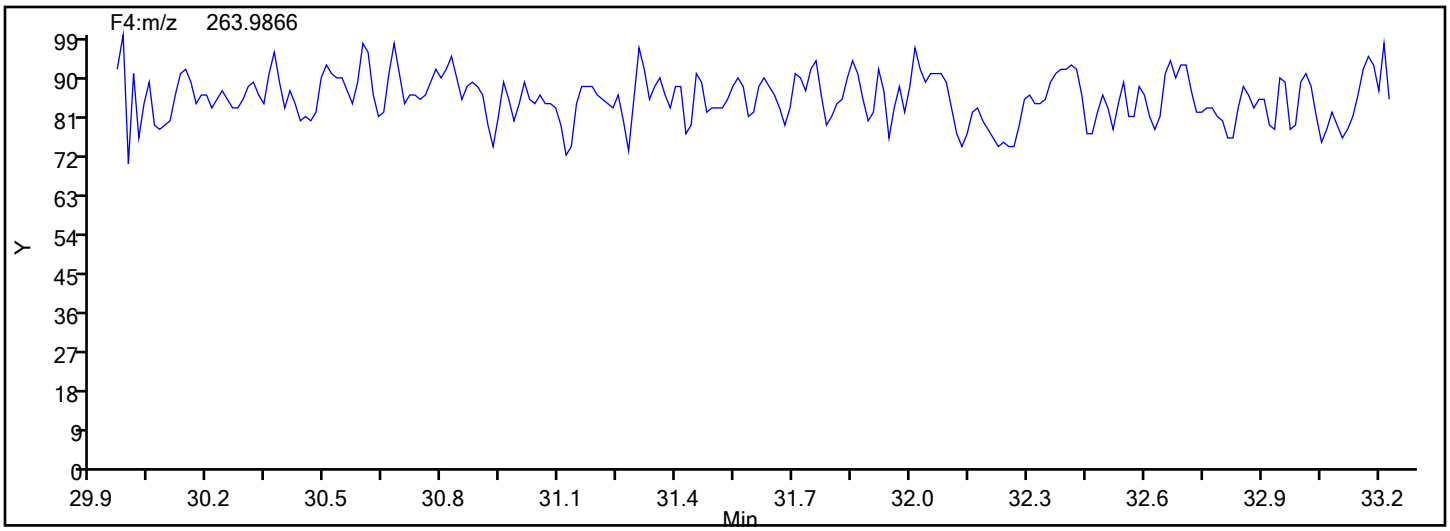
Endosulfan II





Endosulfan II Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

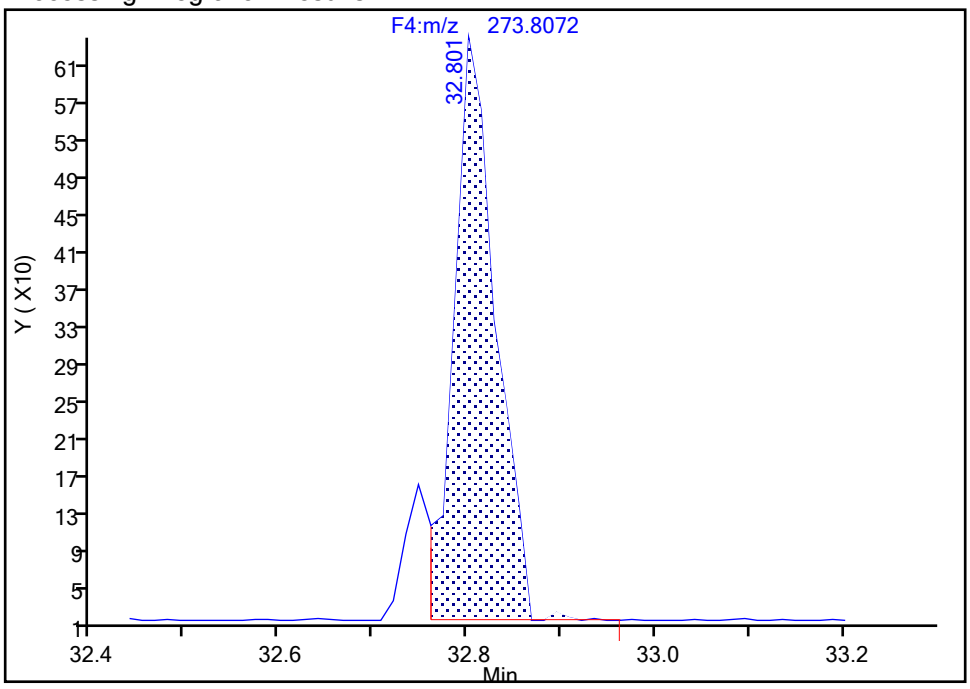
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d				
Injection Date:	19-Mar-2025 19:37:00	Instrument ID:	D3PST		
Lims ID:	IC L3				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F4(29.96 :33.23)		

Endosulfan II, CAS: 33213-65-9

Signal: 2

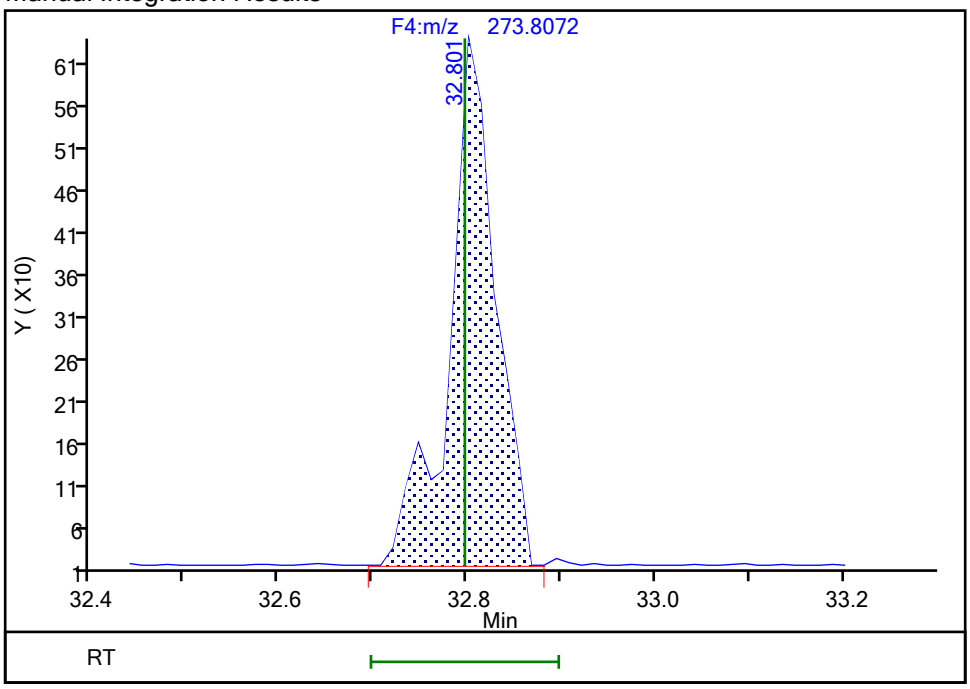
Processing Integration Results

RT: 32.80
Area: 1906
Amount: 2.051584
Amount Units: pg/ul



Manual Integration Results

RT: 32.80
Area: 2143
Amount: 2.262360
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:36:21 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
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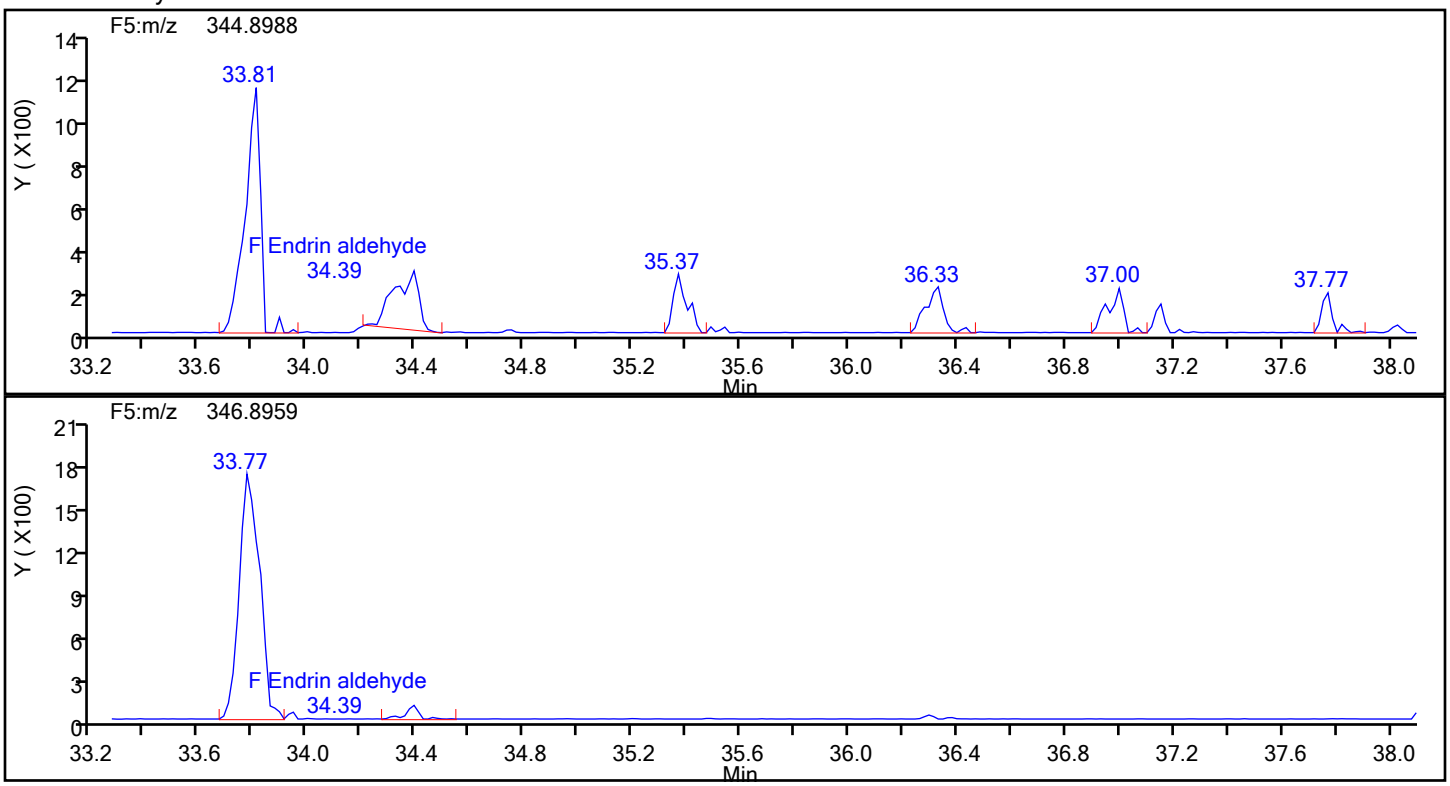
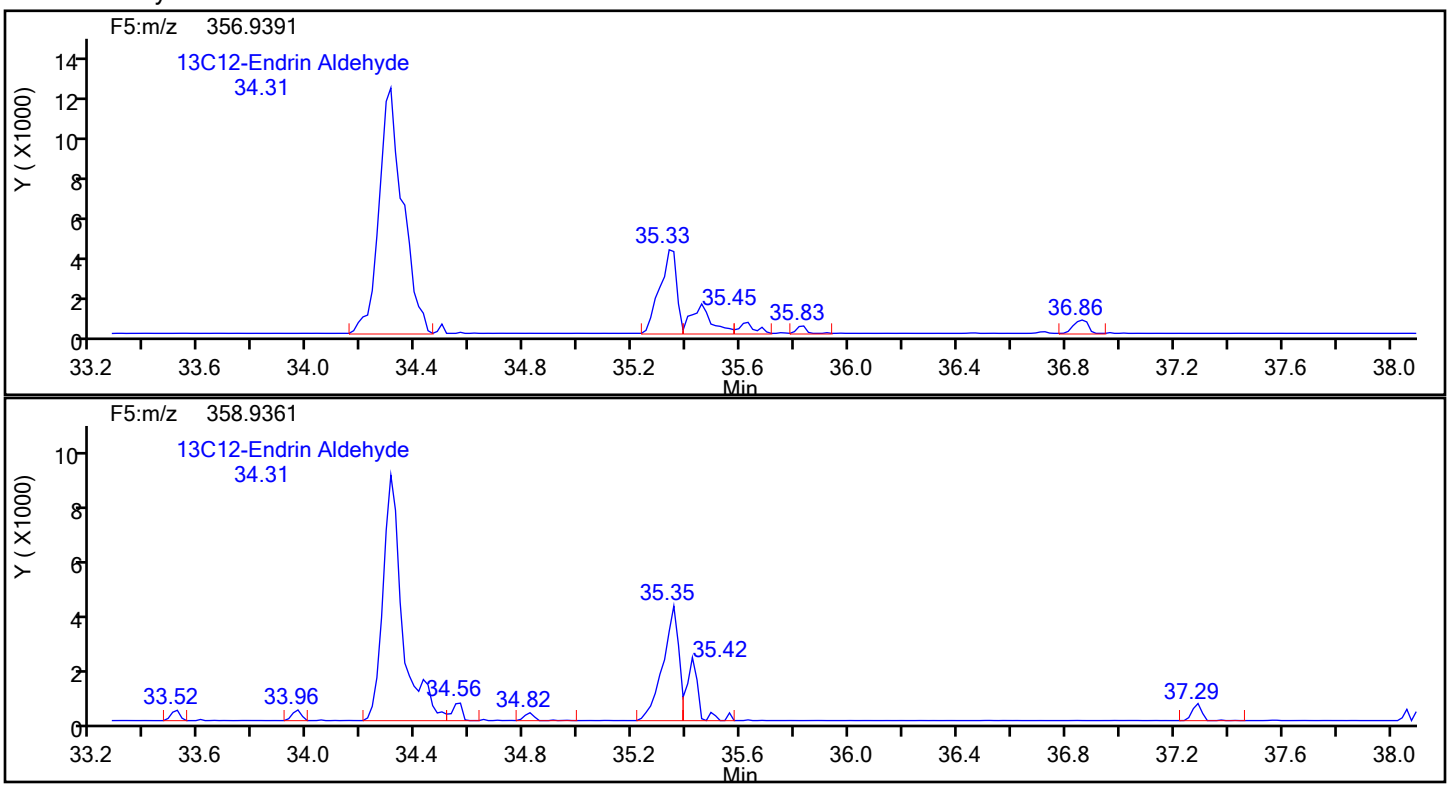
Endrin aldehyde



Endrin aldehyde Standards



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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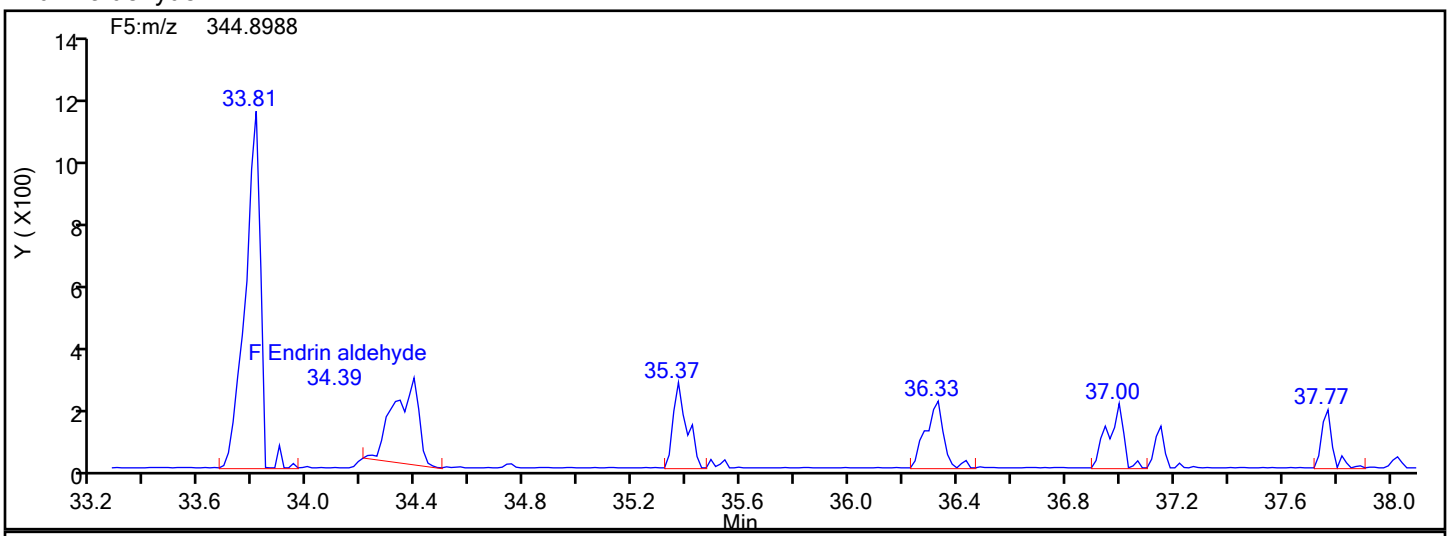
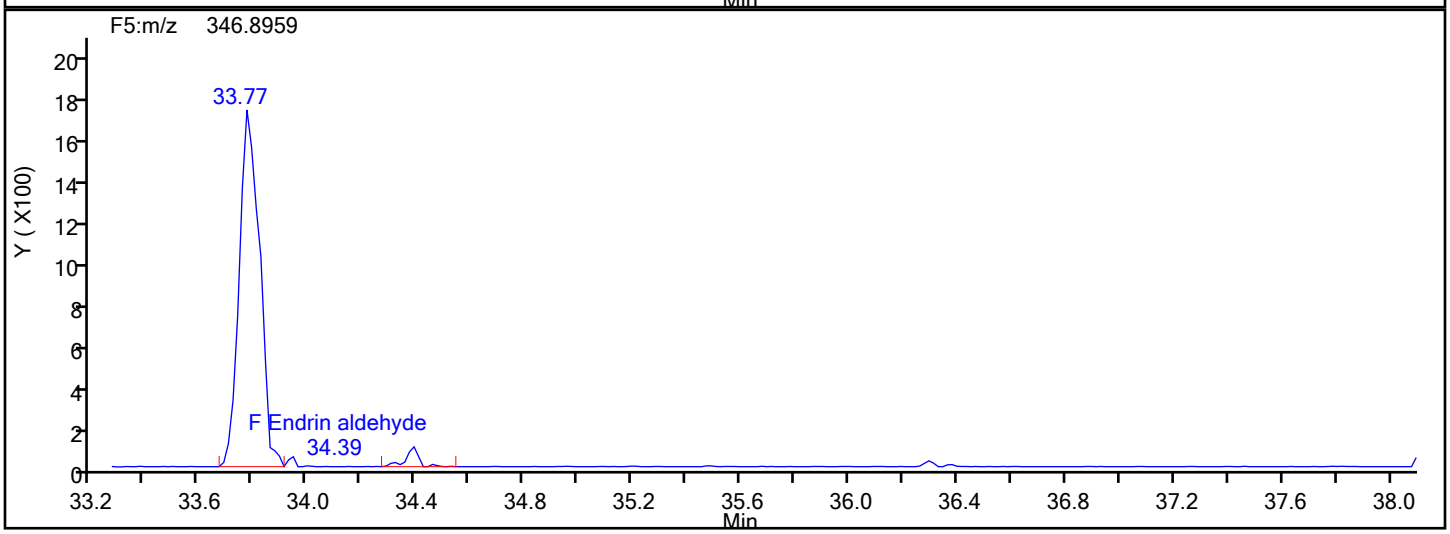
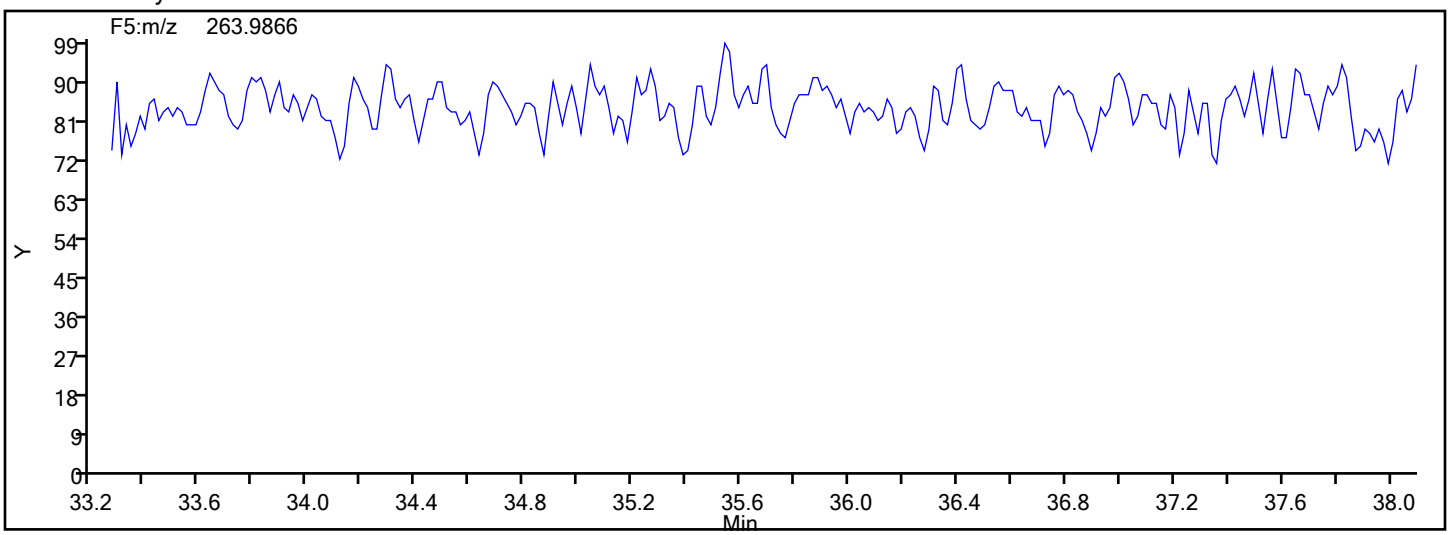
Endrin aldehyde





Endrin aldehyde Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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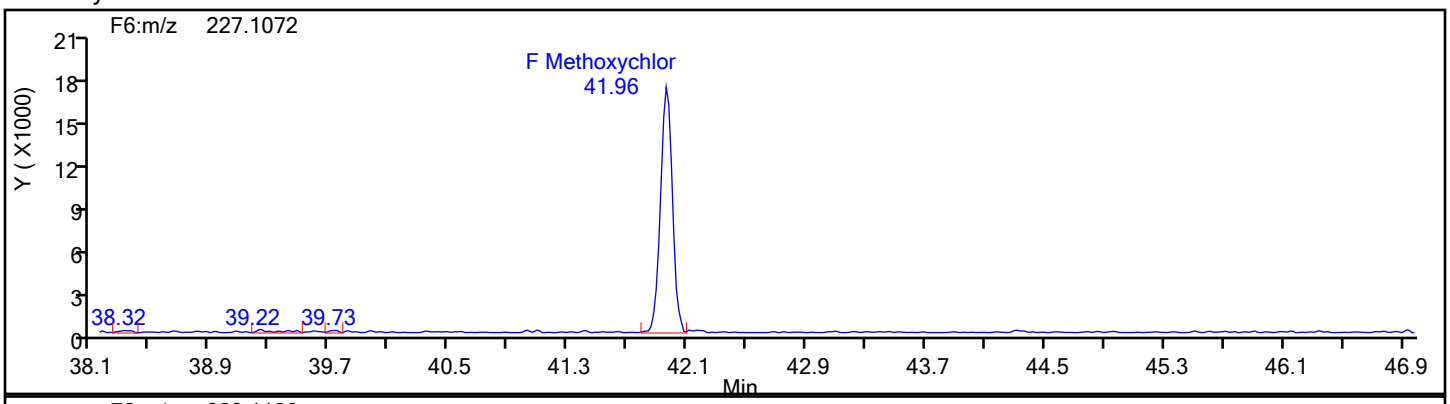
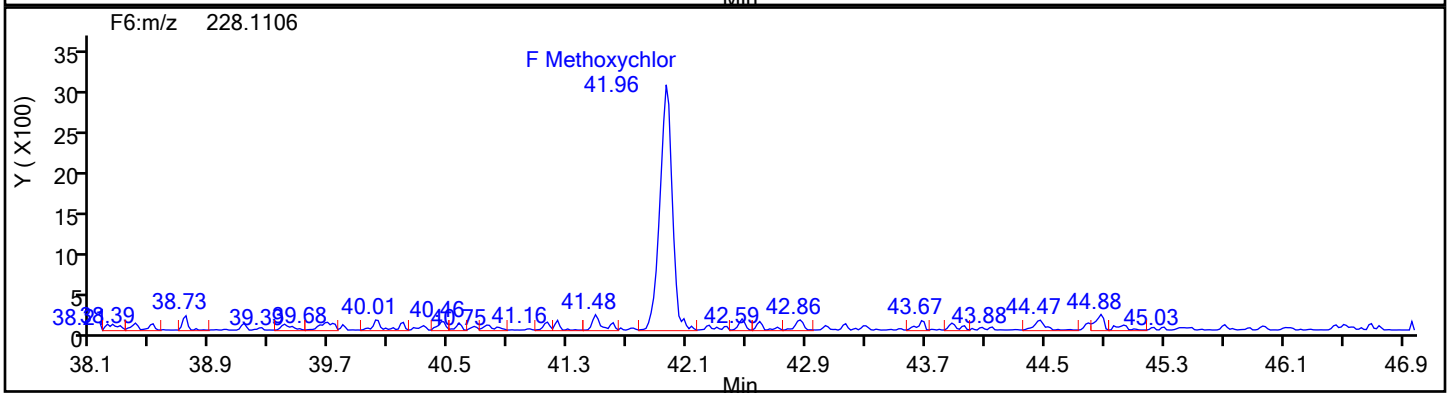
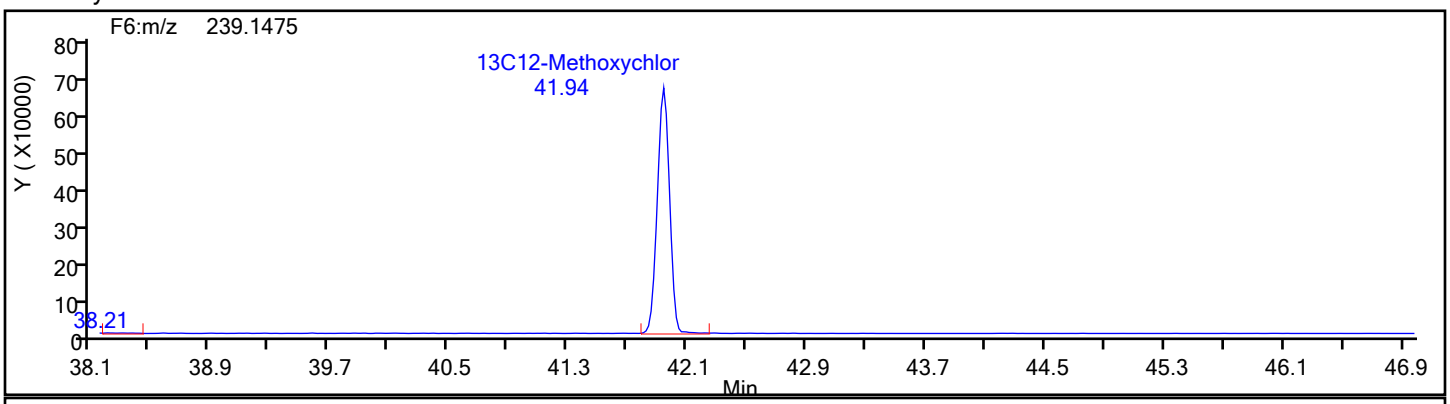
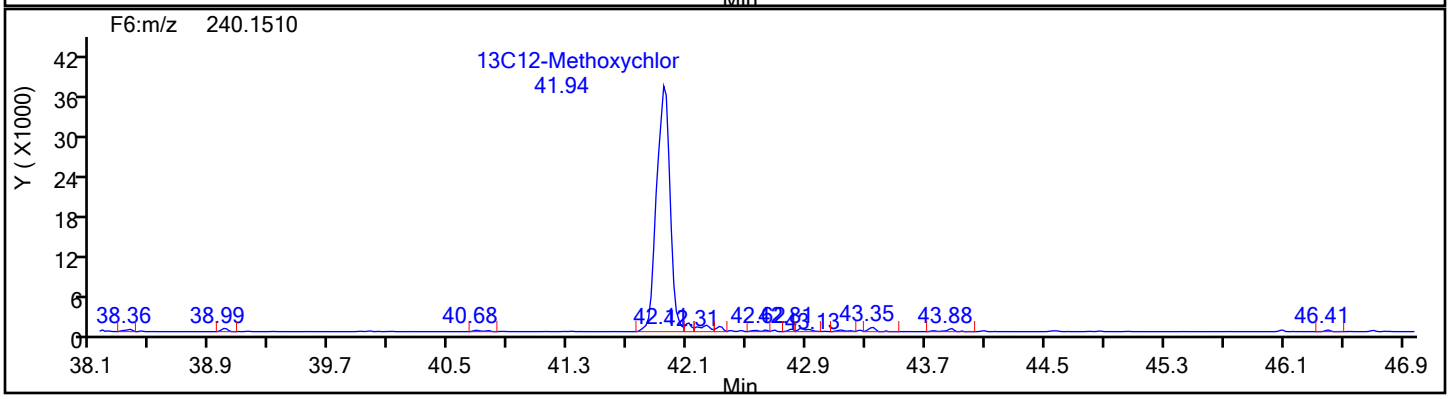
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
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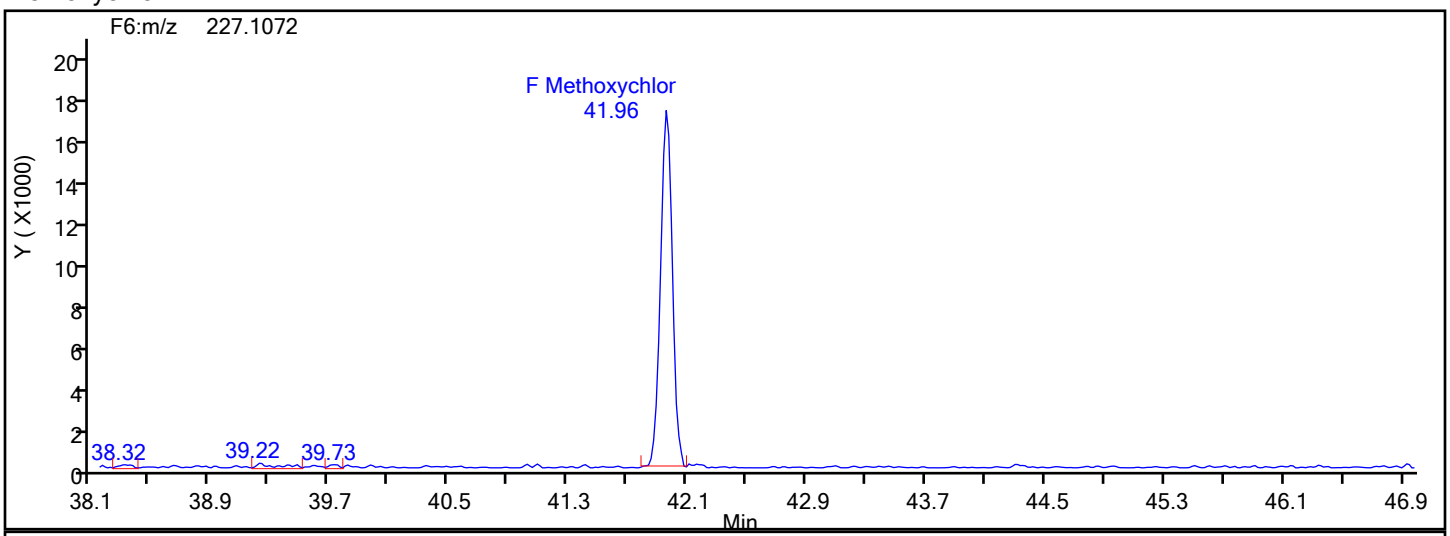
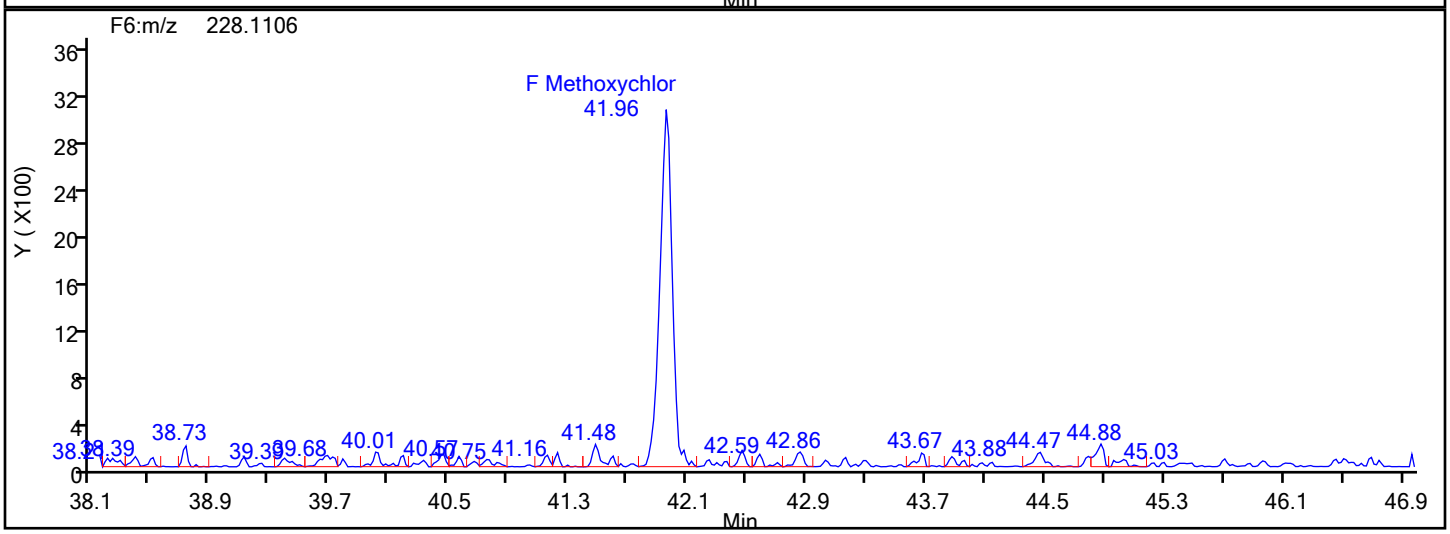
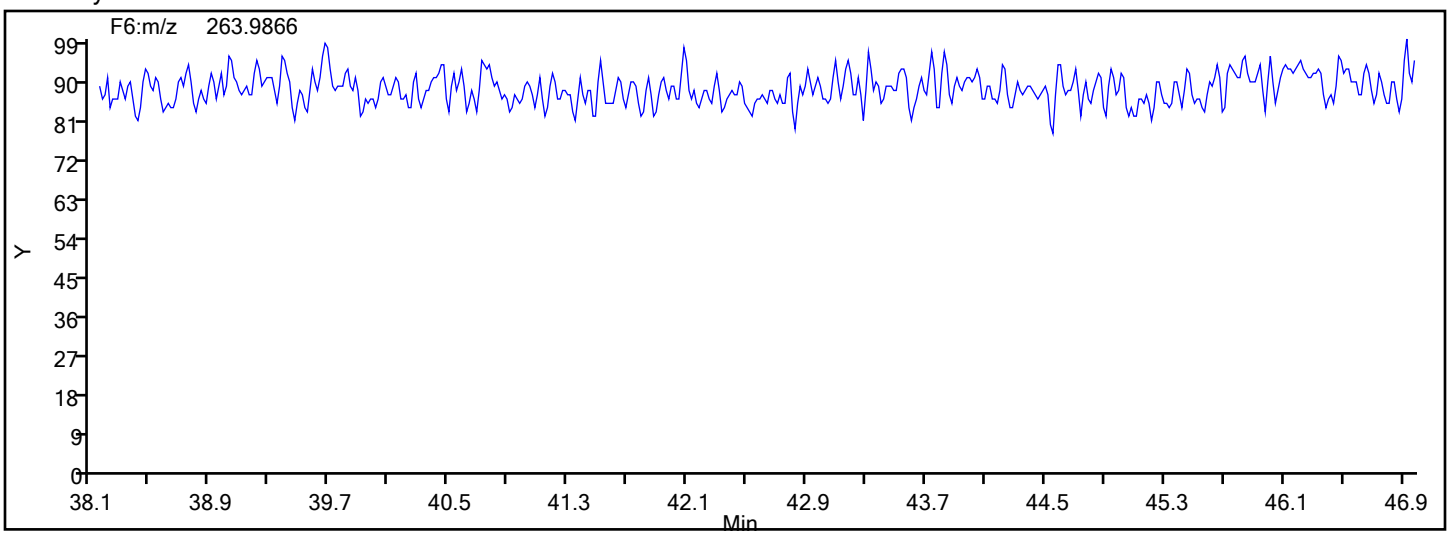
Methoxychlor





Methoxychlor Lock Mass



Report Date: 24-Mar-2025 13:06:04 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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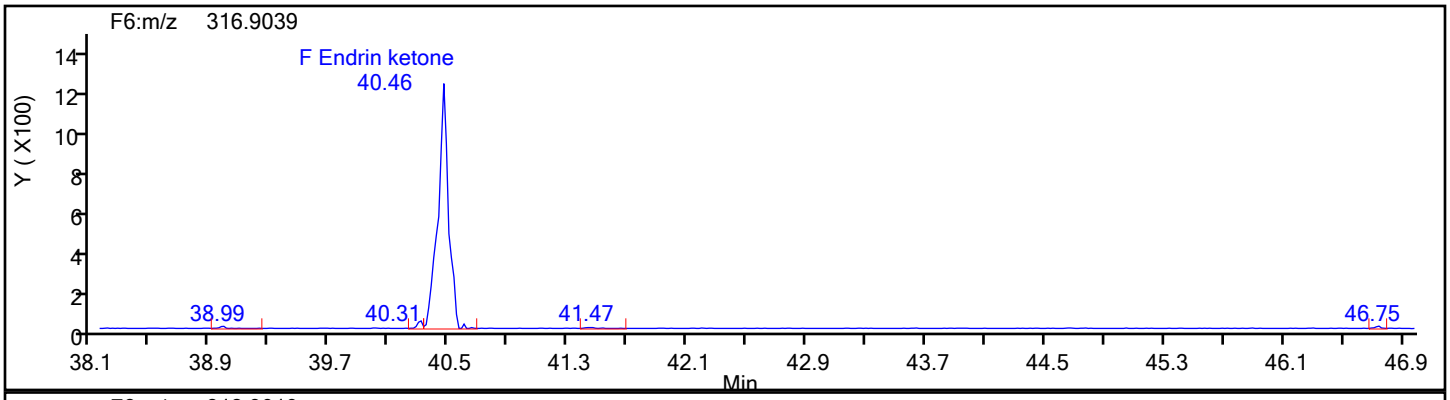
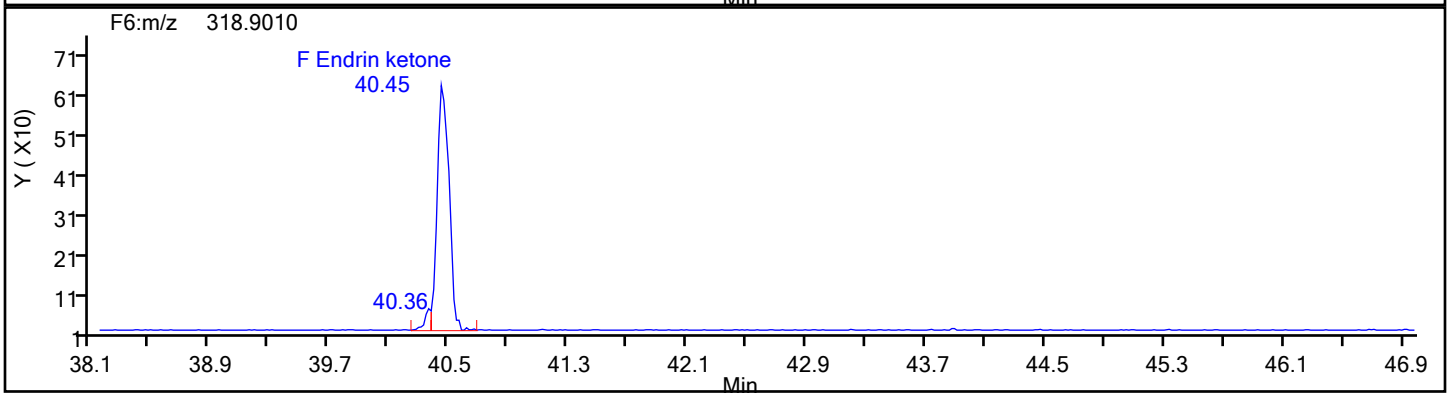
Endrin ketone





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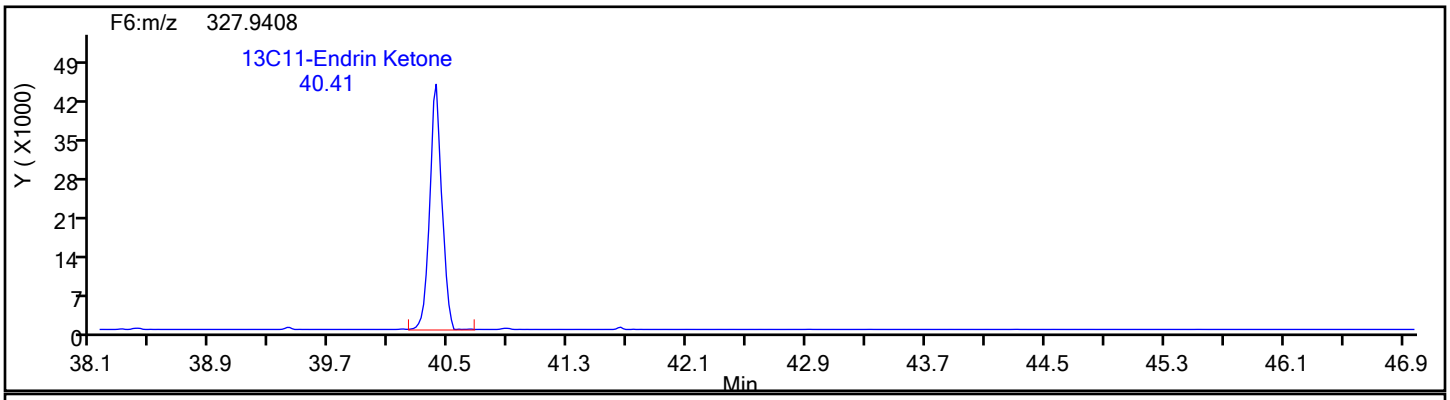

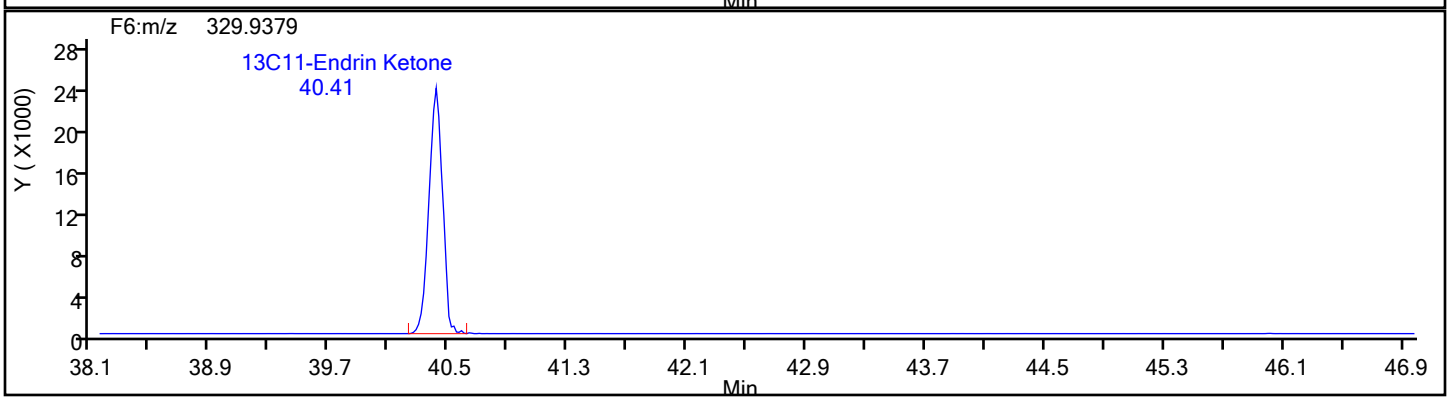

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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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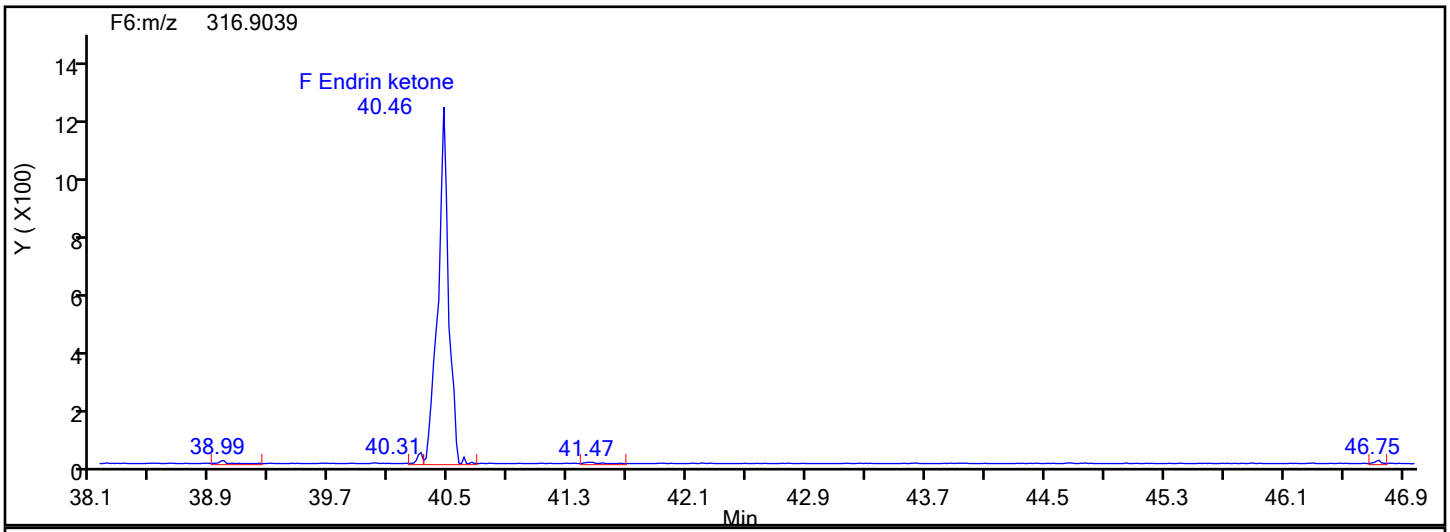
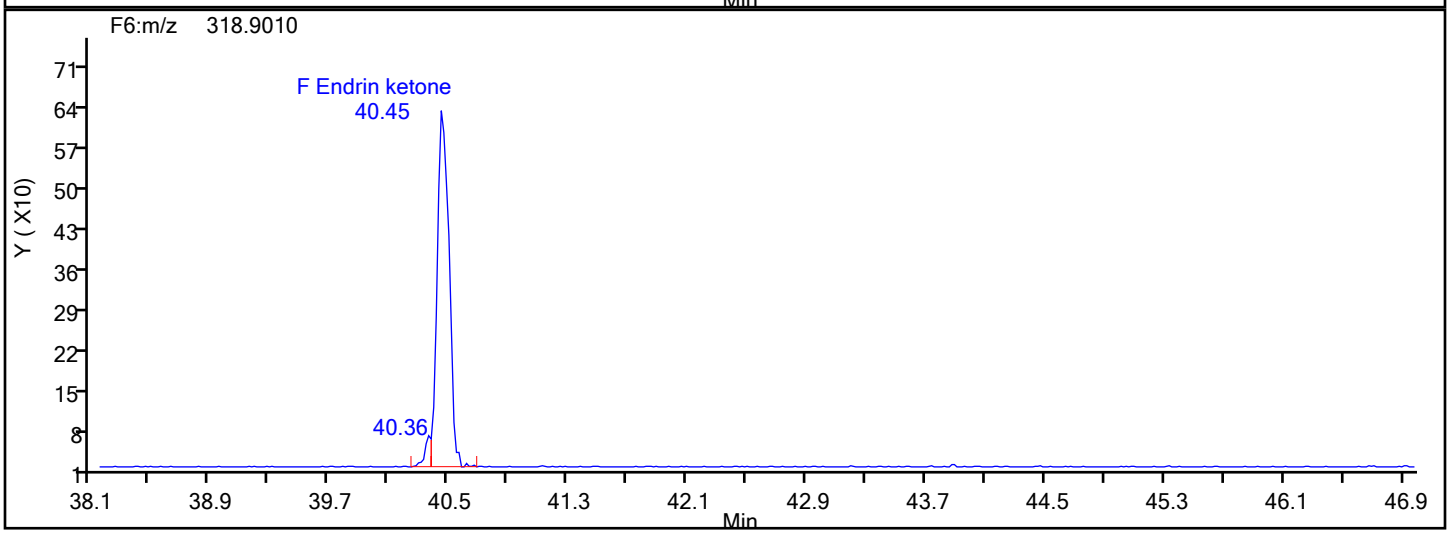
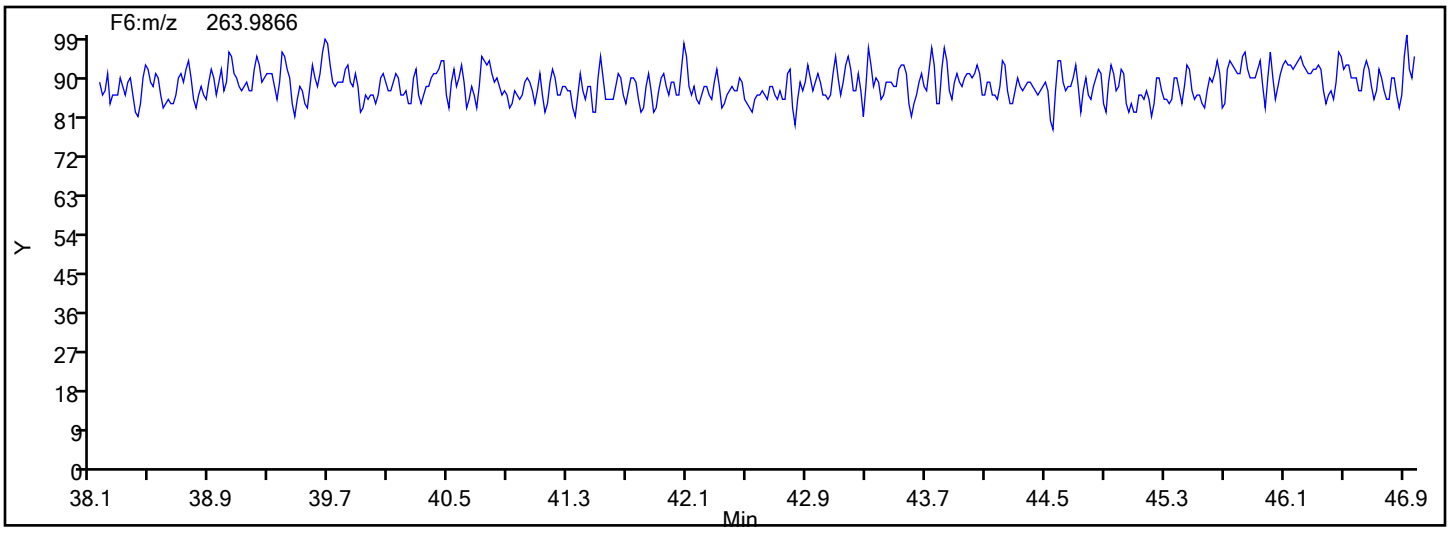




Endrin ketone Lock Mass



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Eurofins Knoxville

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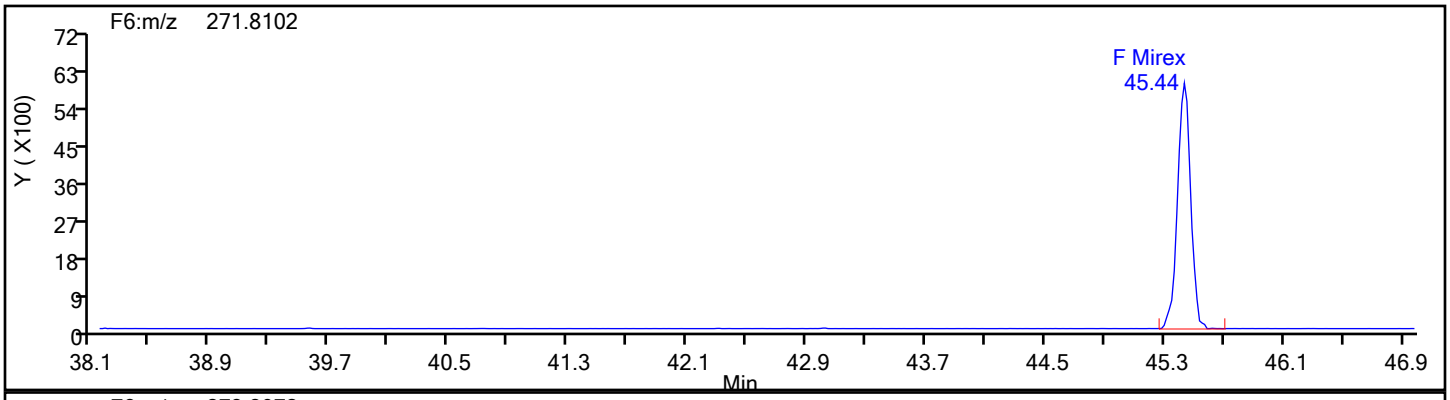
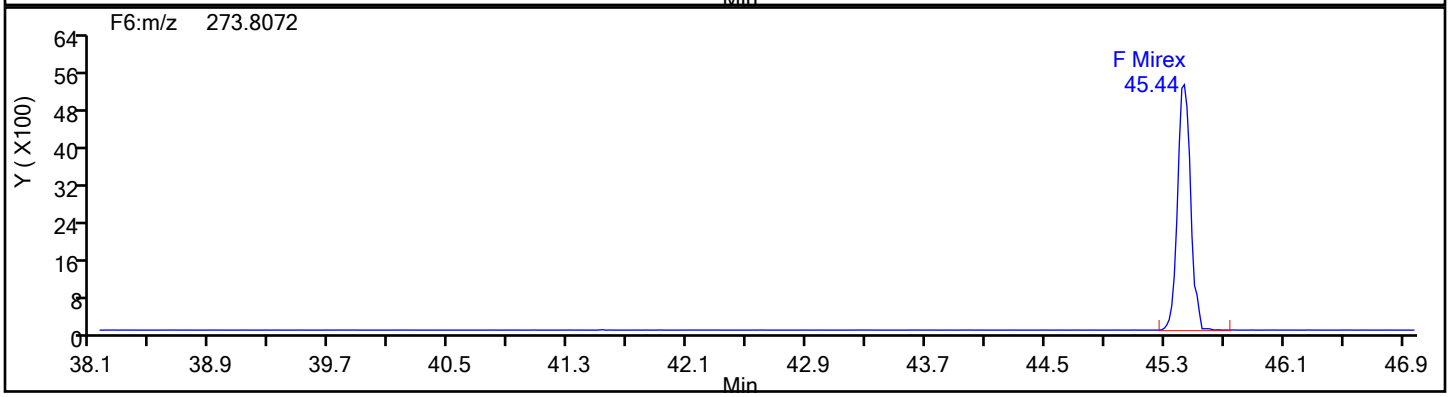
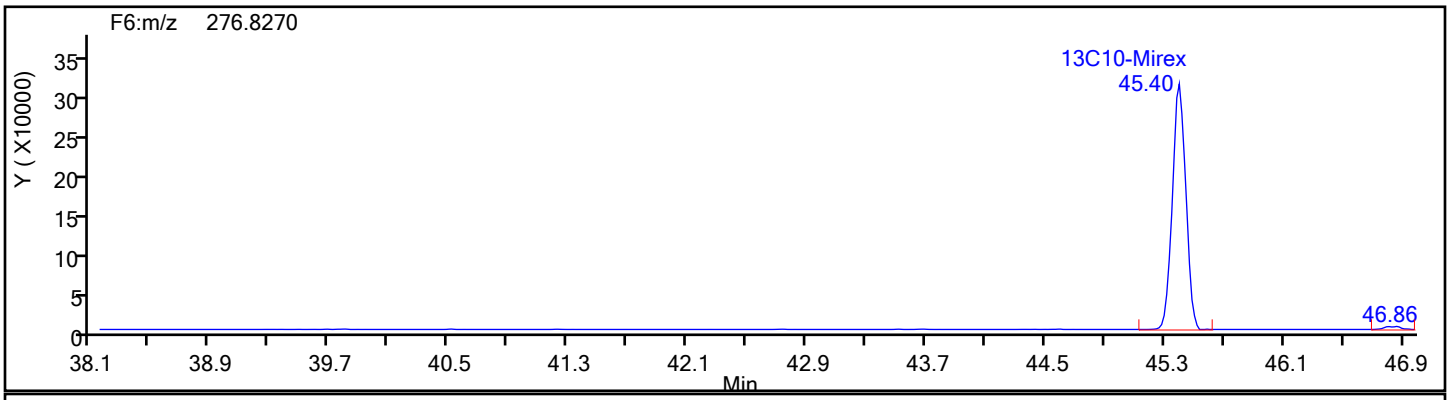
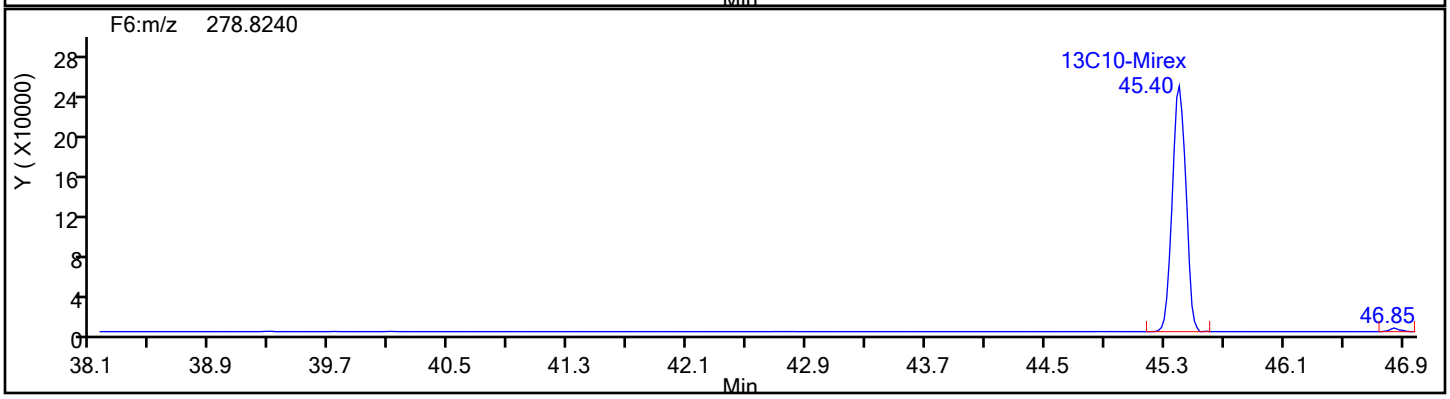




Mirex Standards





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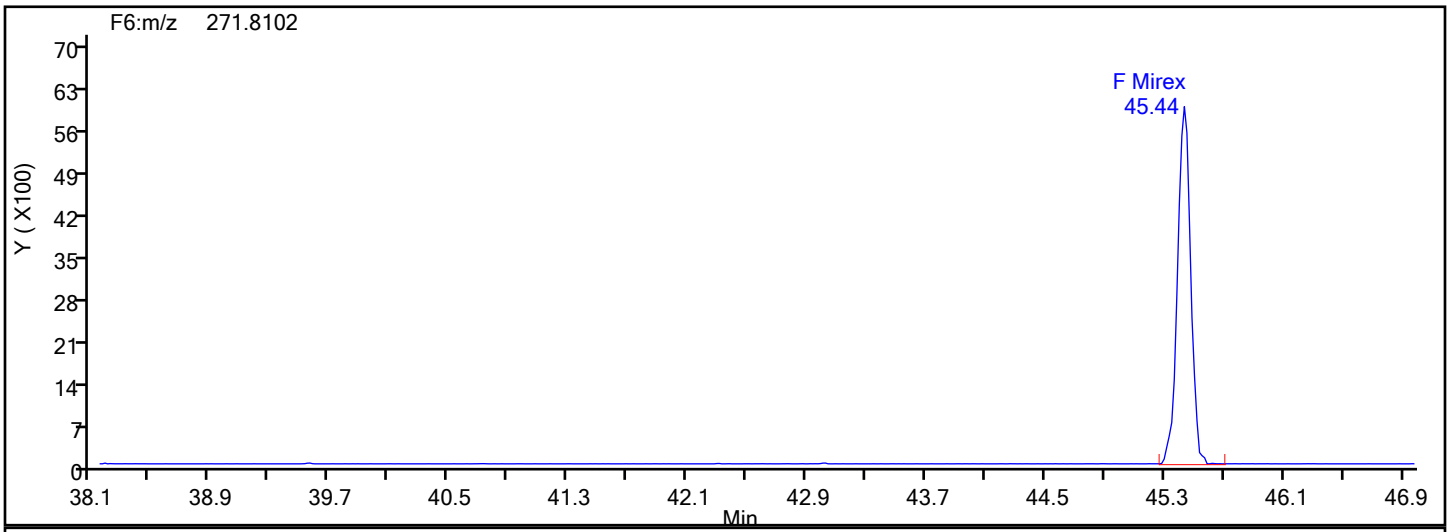
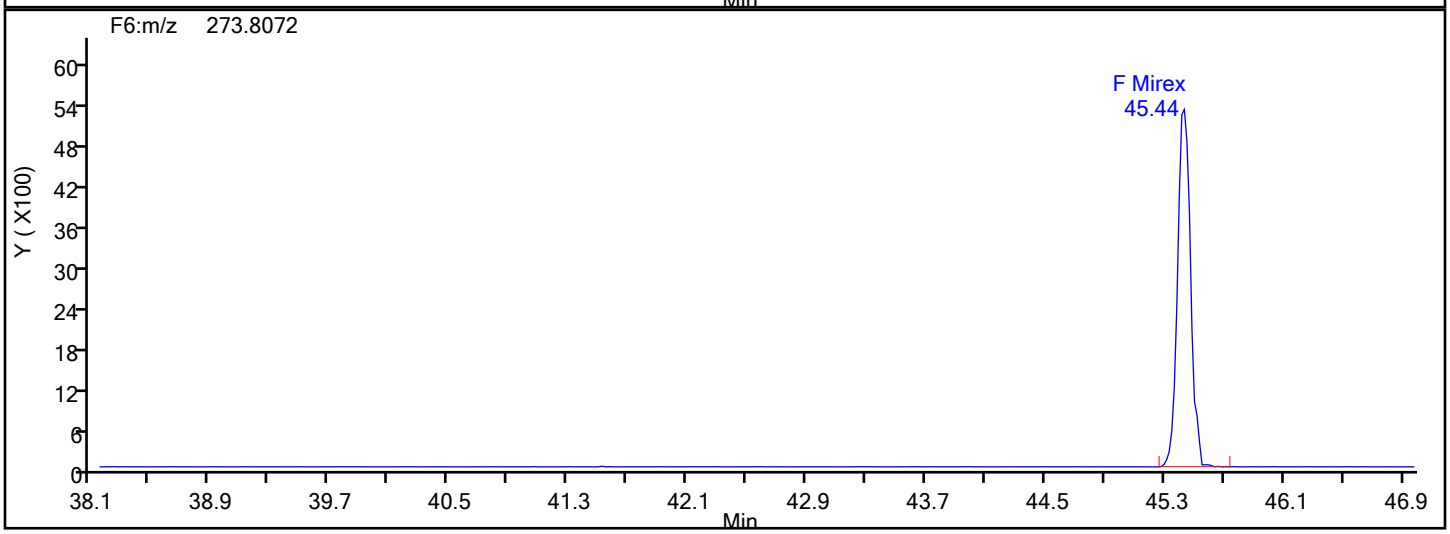
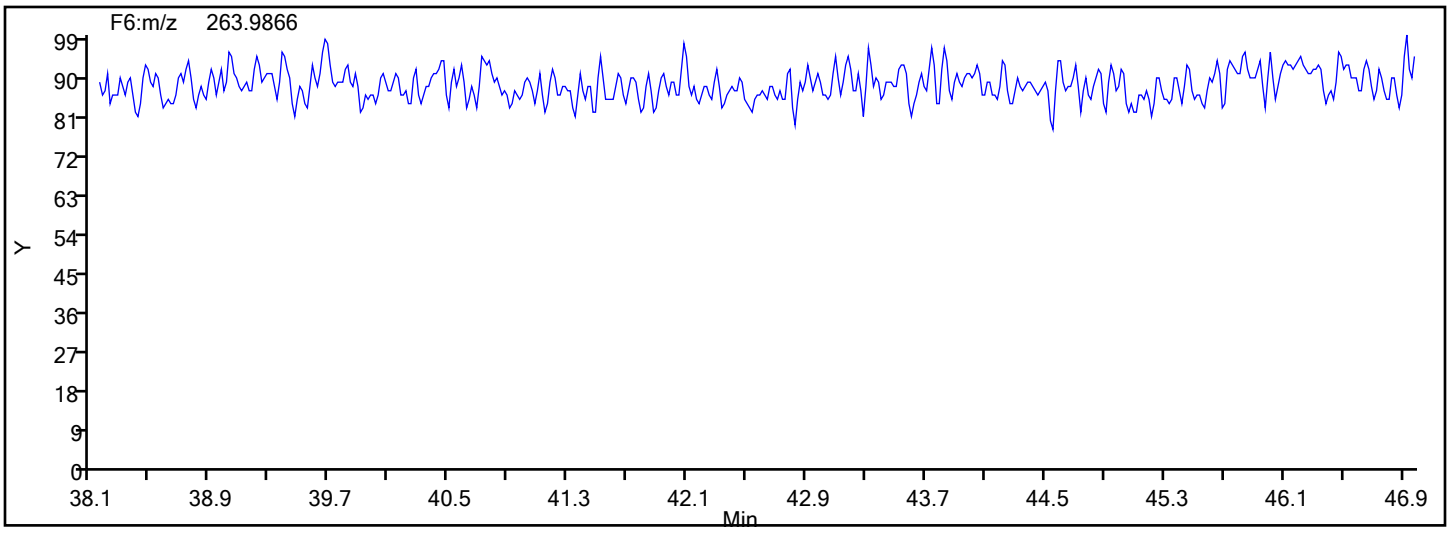




Mirex Lock Mass



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Eurofins Knoxville

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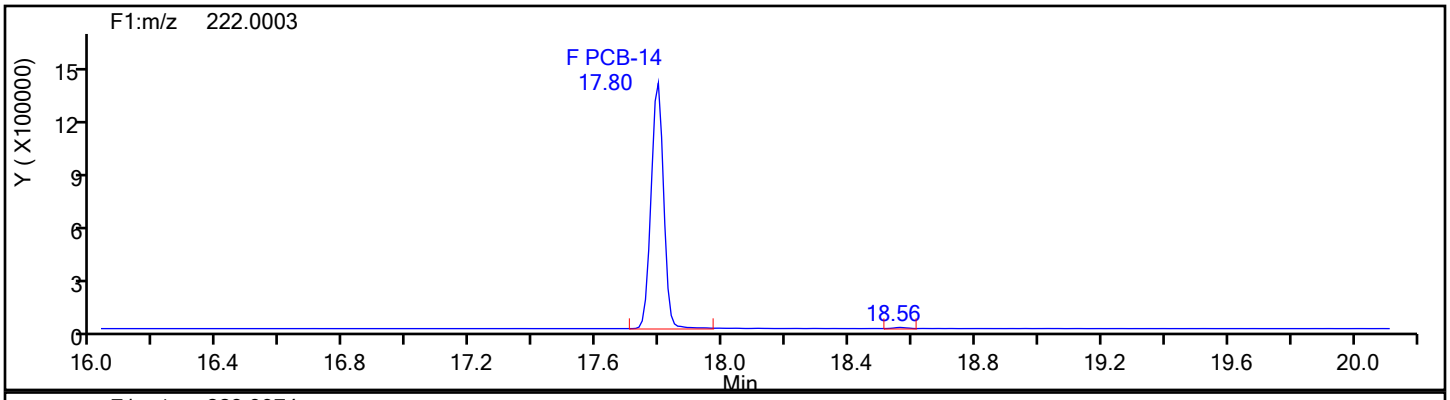
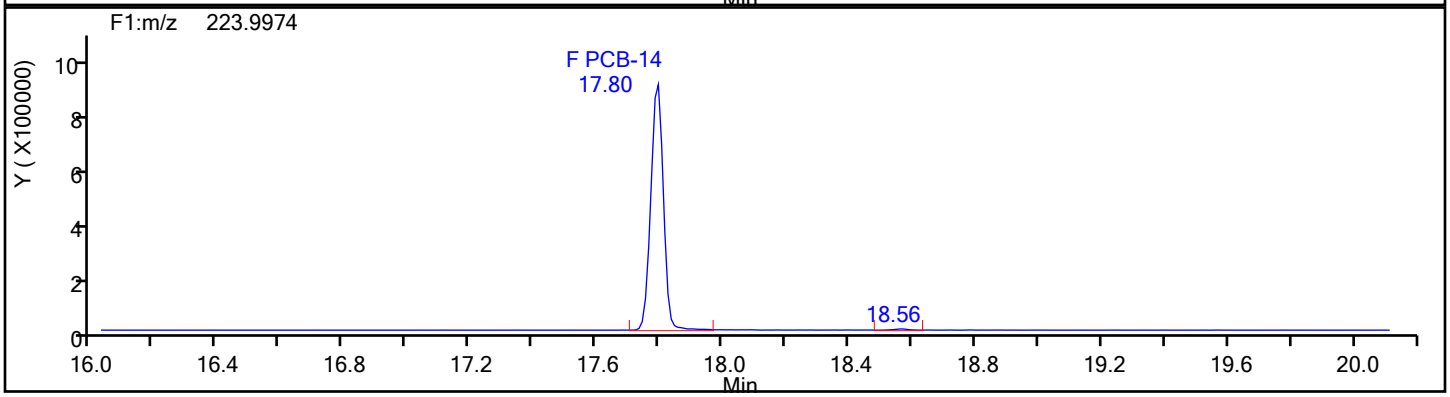
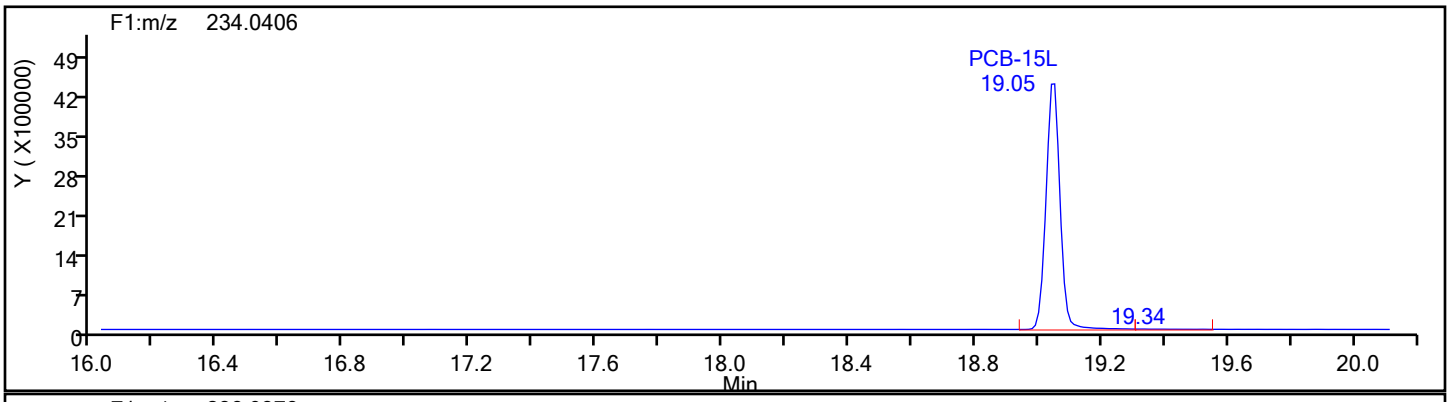
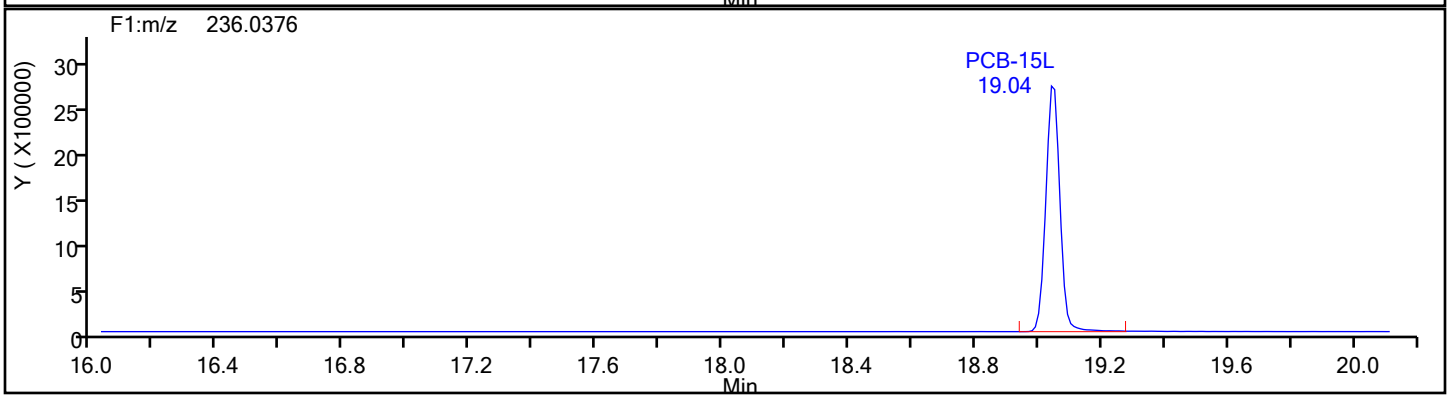
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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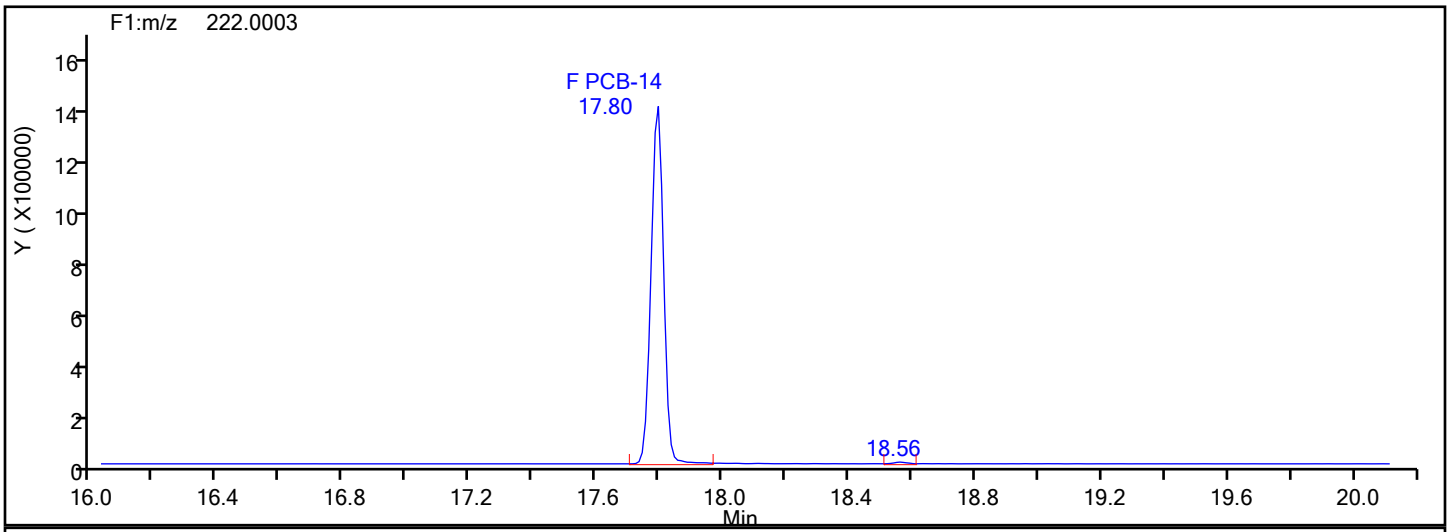
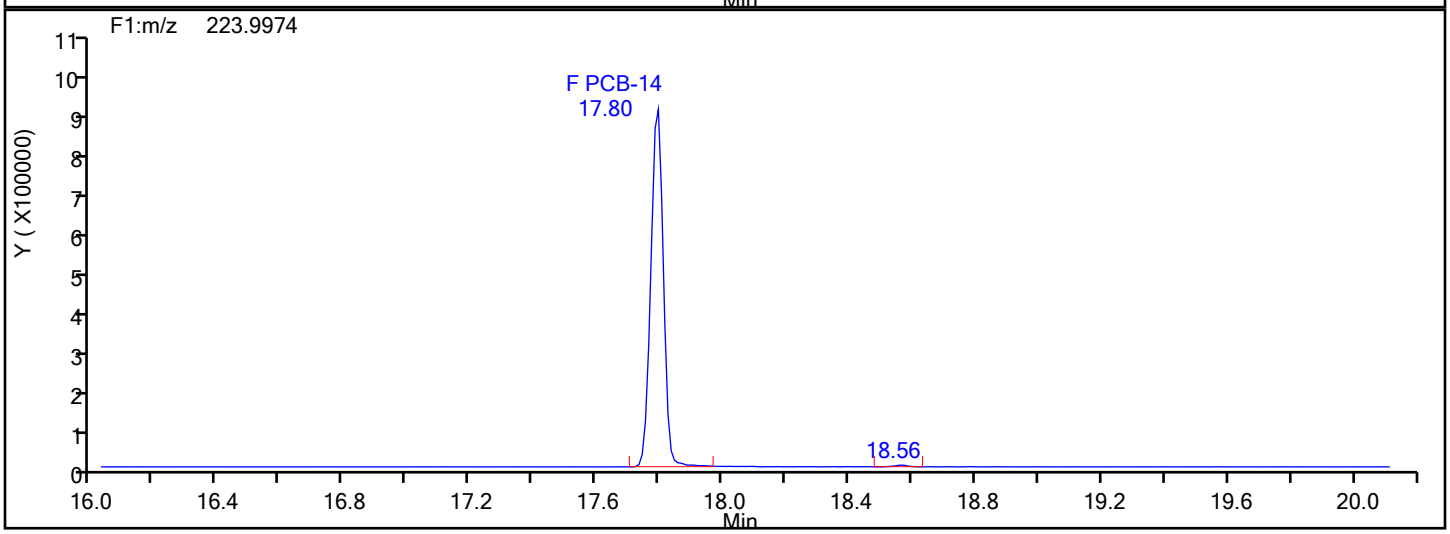
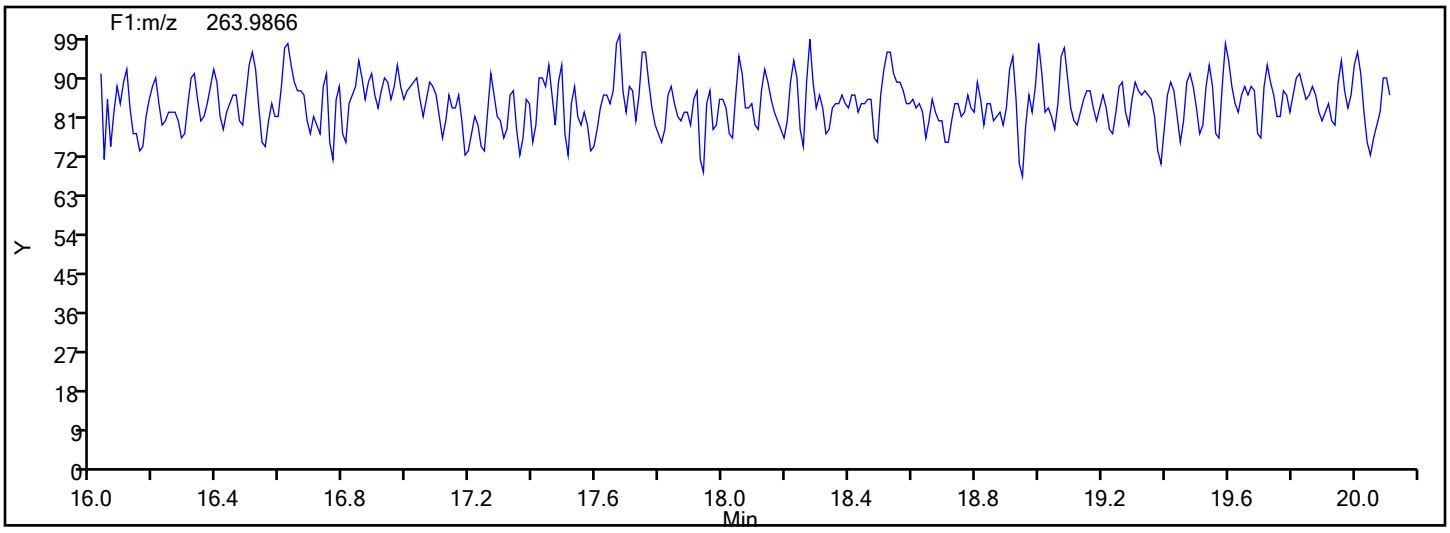
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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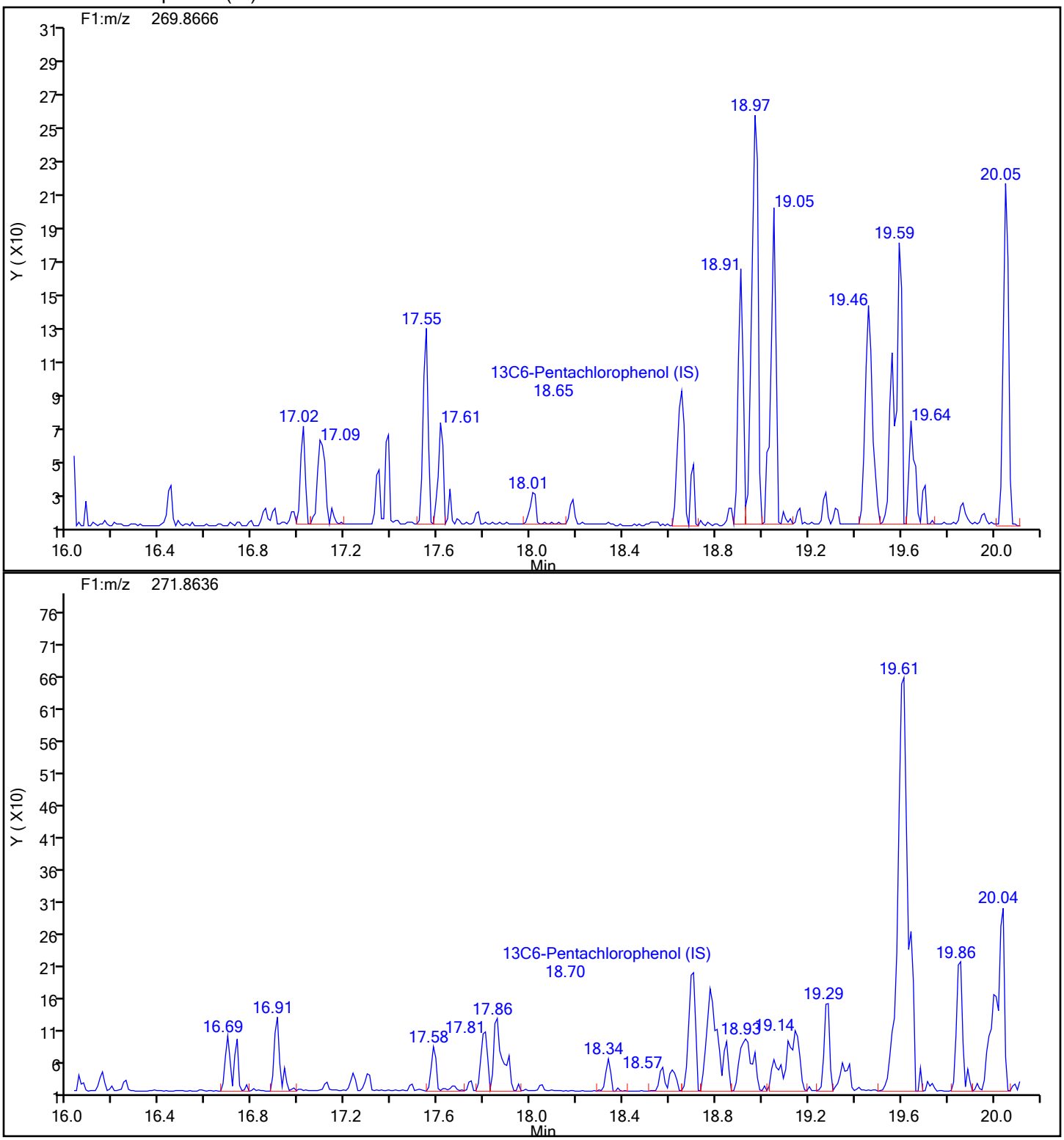
13C6-Pentachlorophenol (IS) Standards



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Eurofins Knoxville

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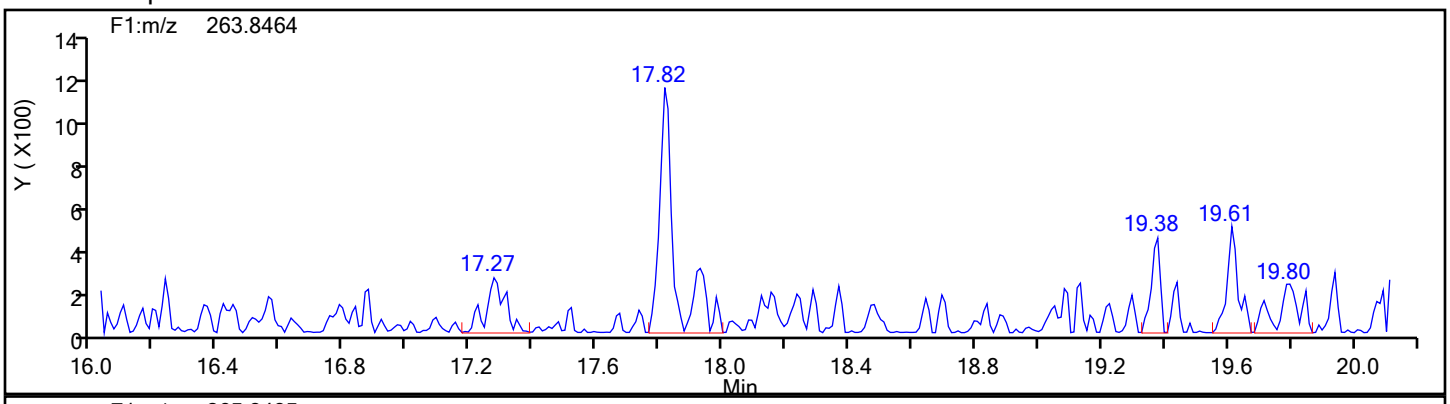
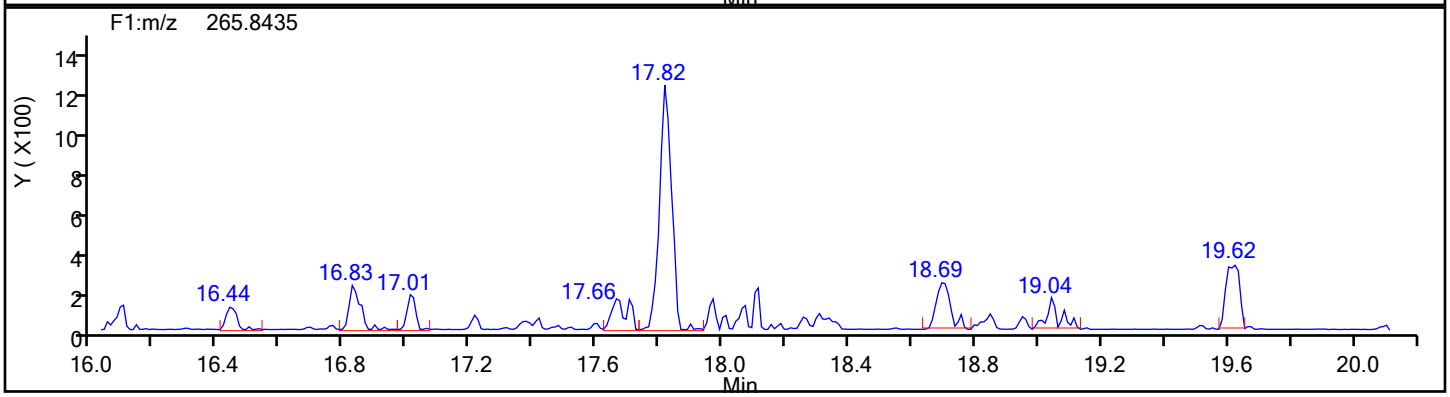
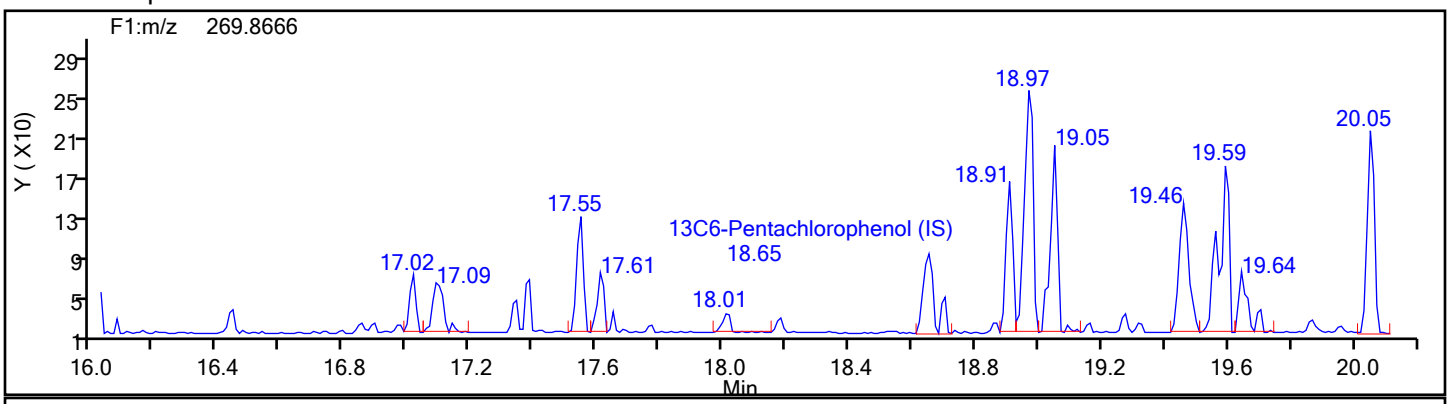
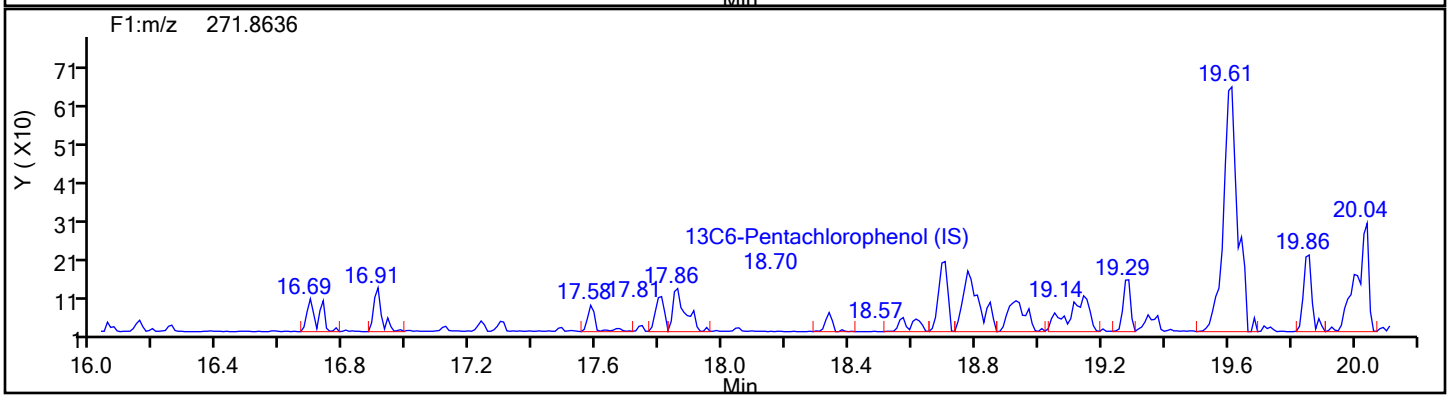
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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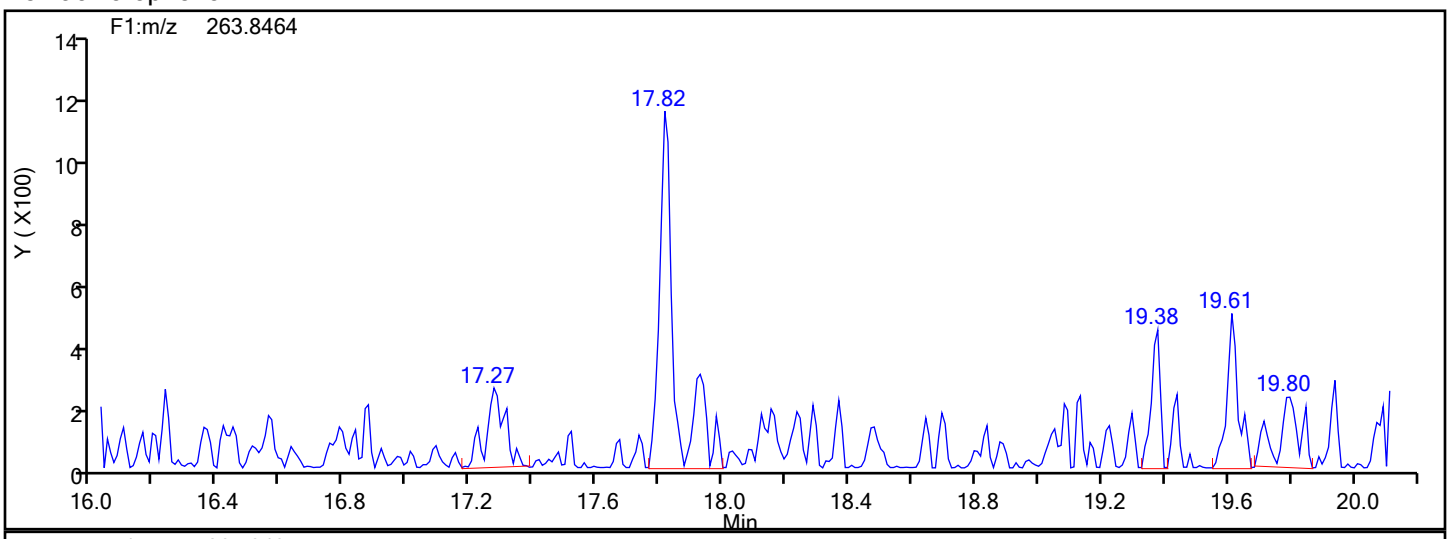
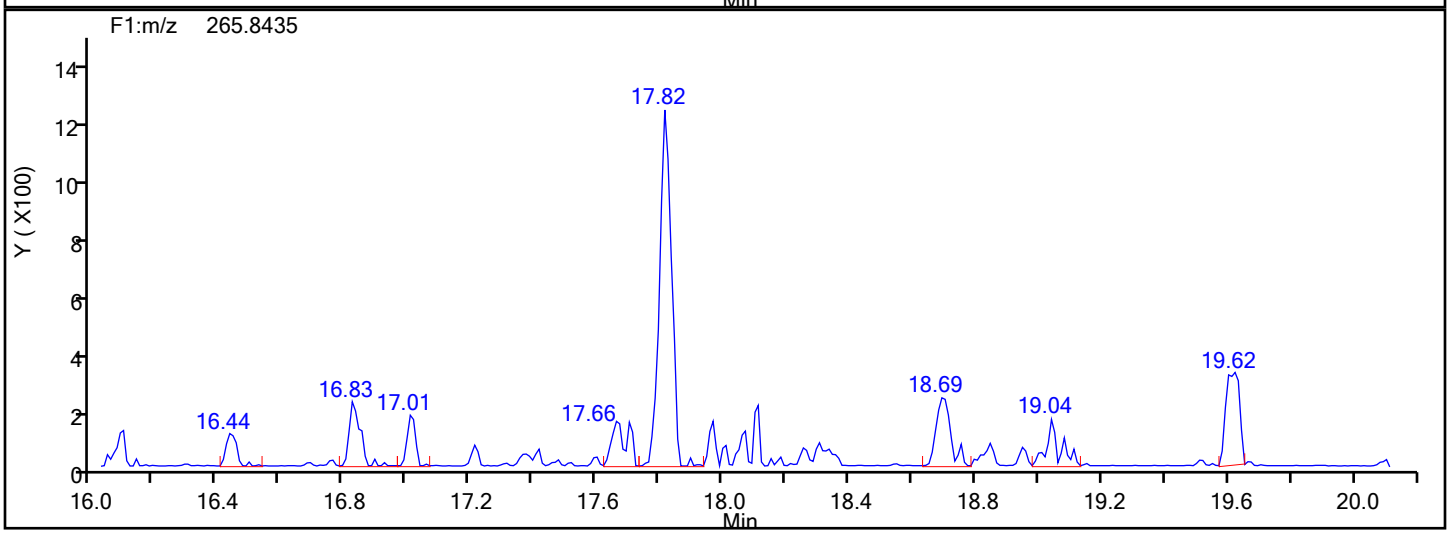
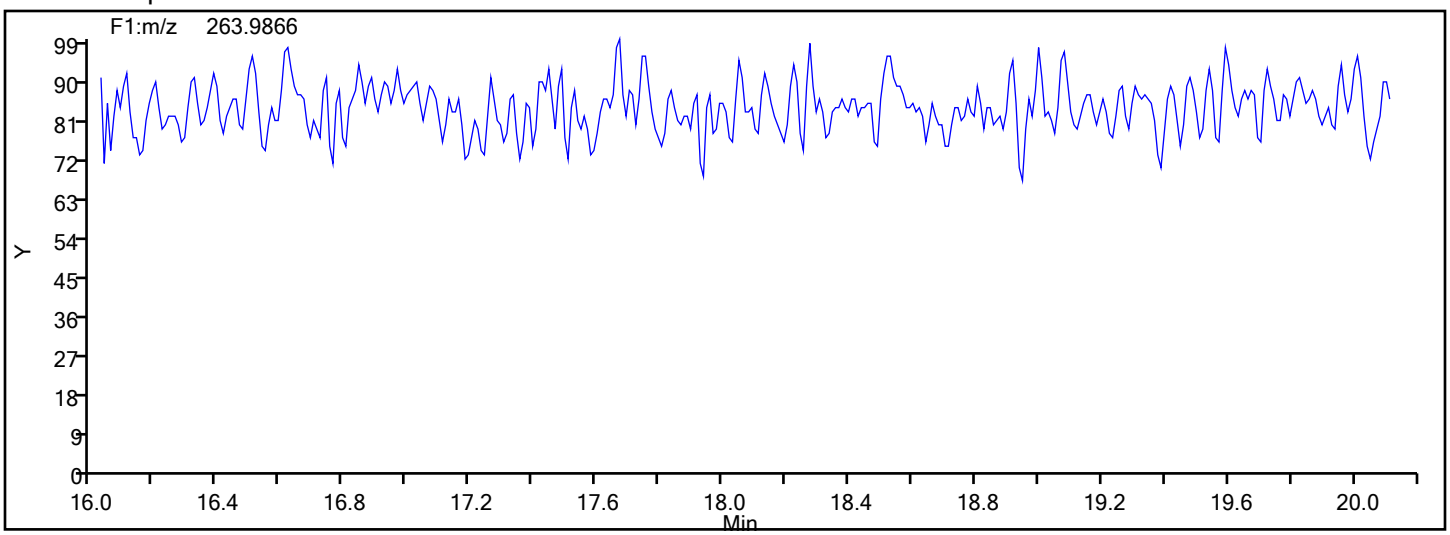
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
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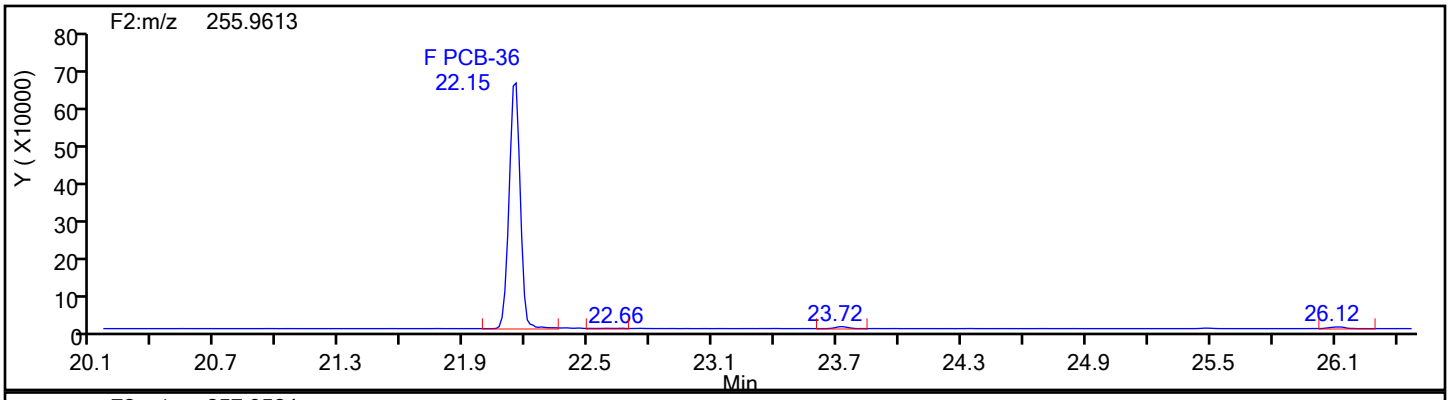
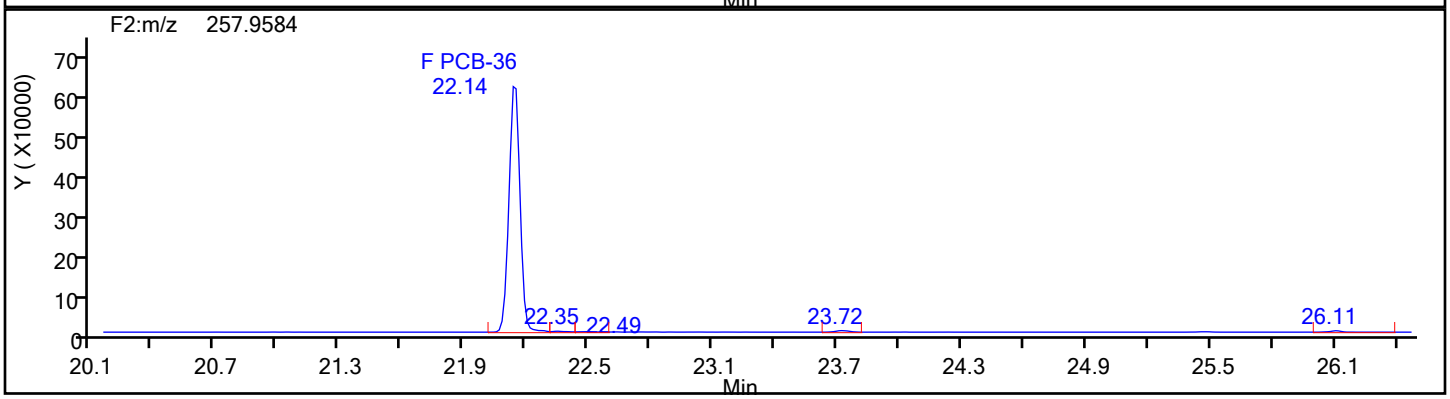
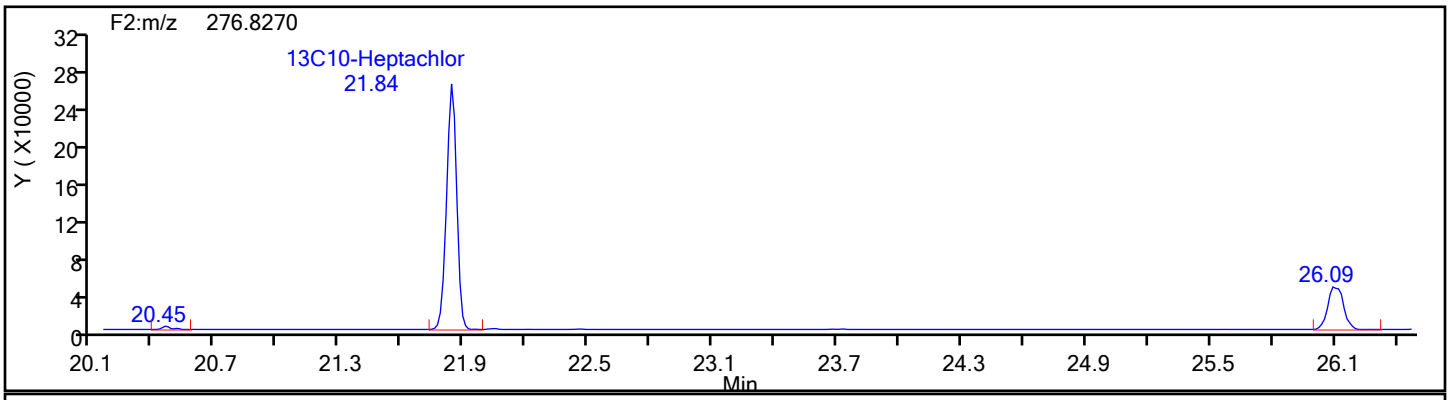
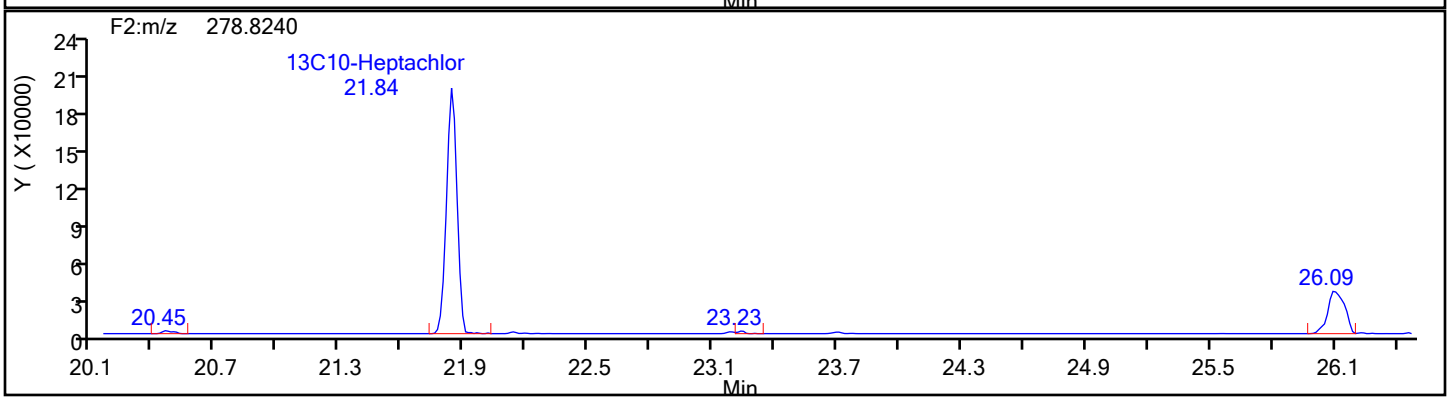
PCB-36





PCB-36 Standards





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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
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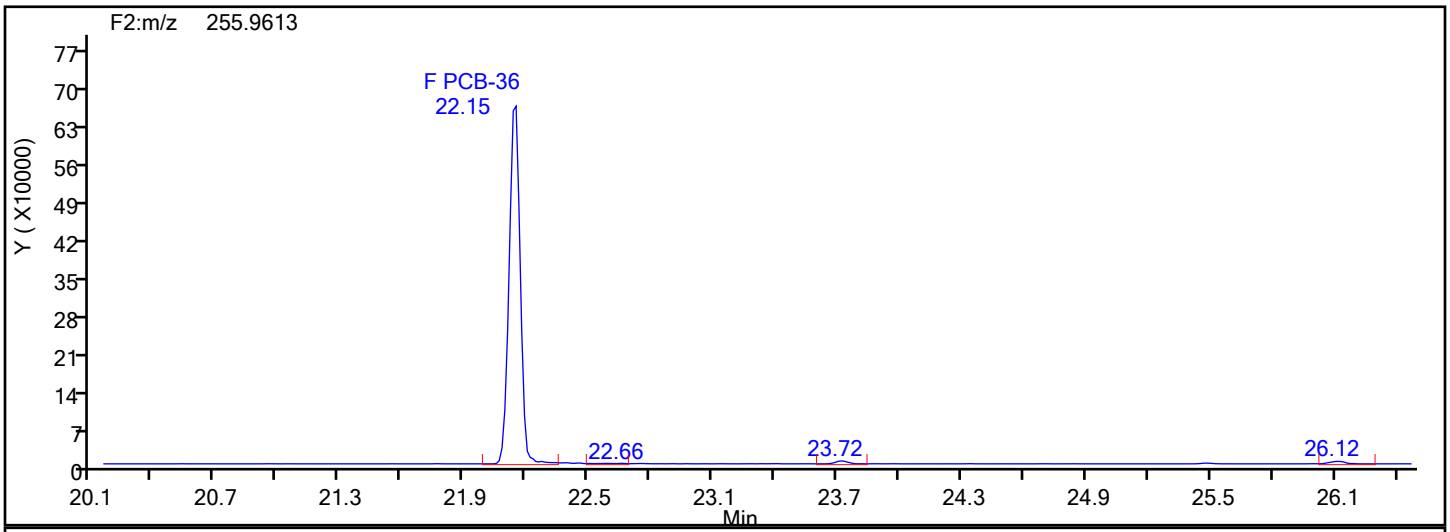
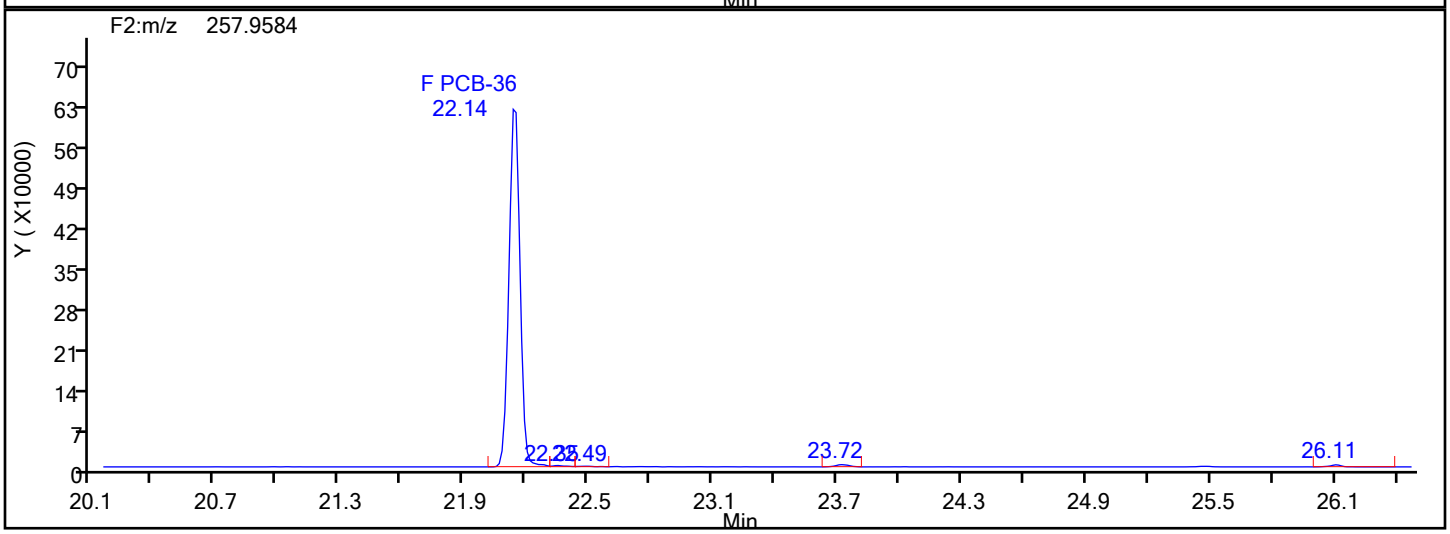
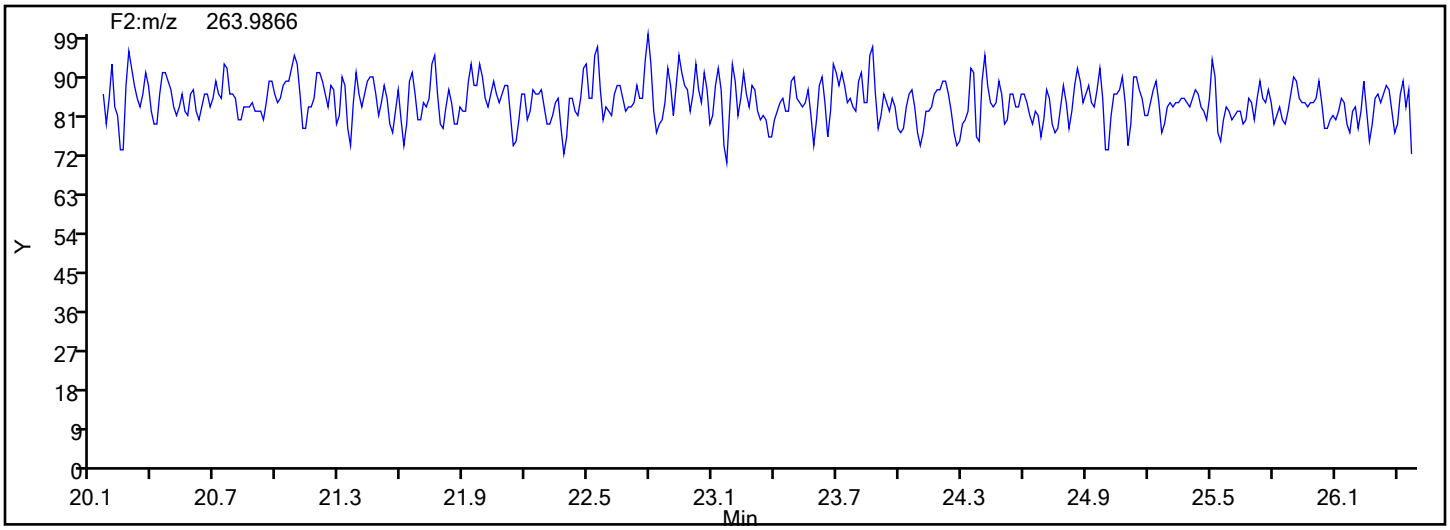
PCB-36





PCB-36 Lock Mass



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Eurofins Knoxville

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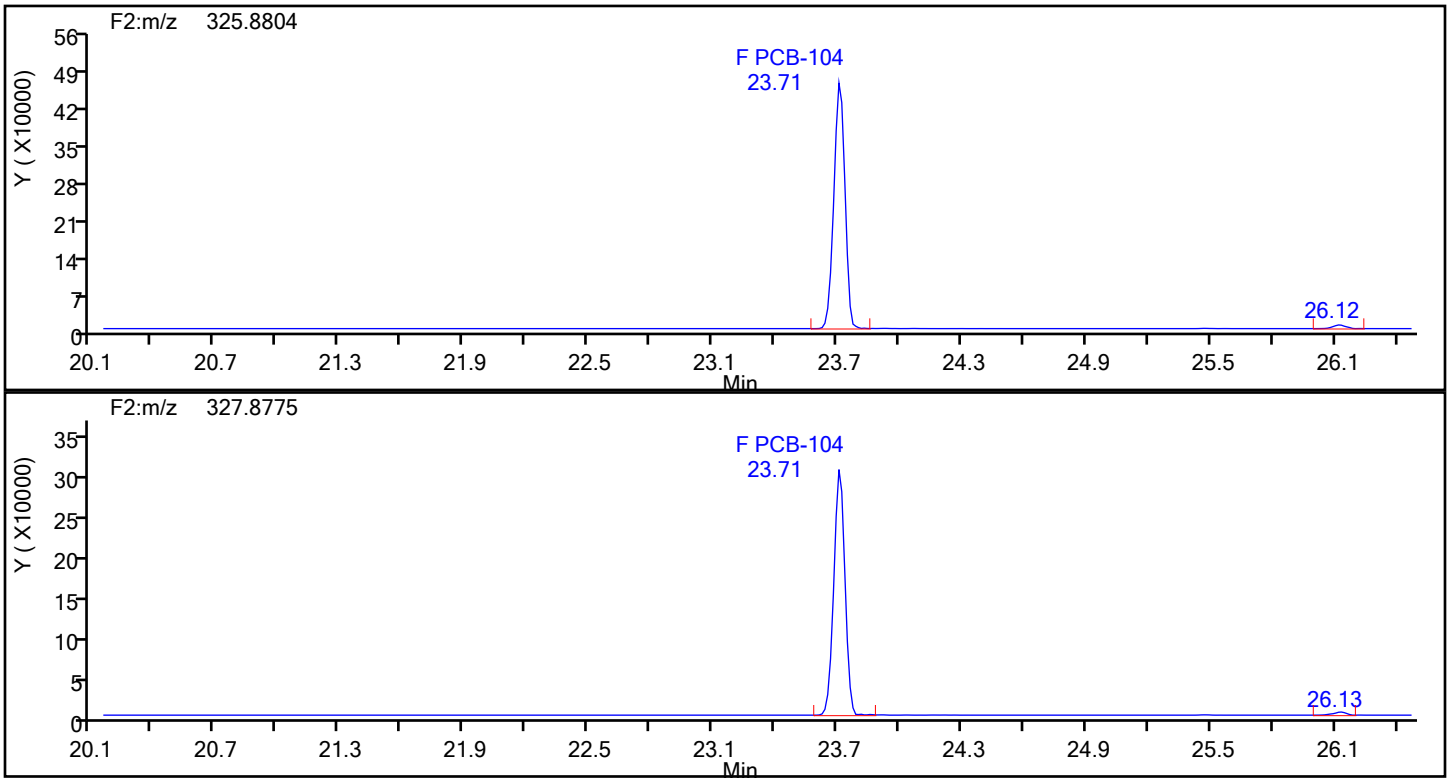
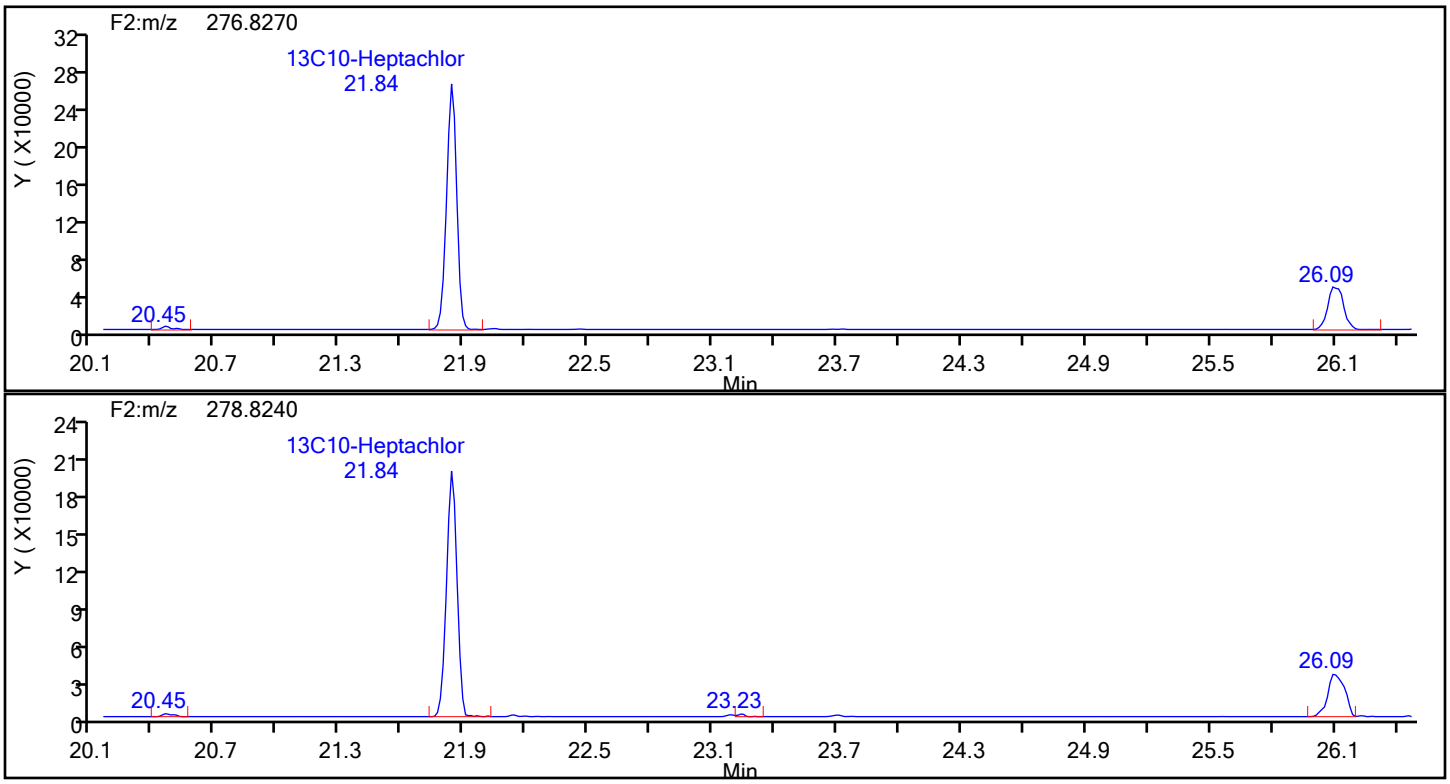
PCB-104



PCB-104 Standards

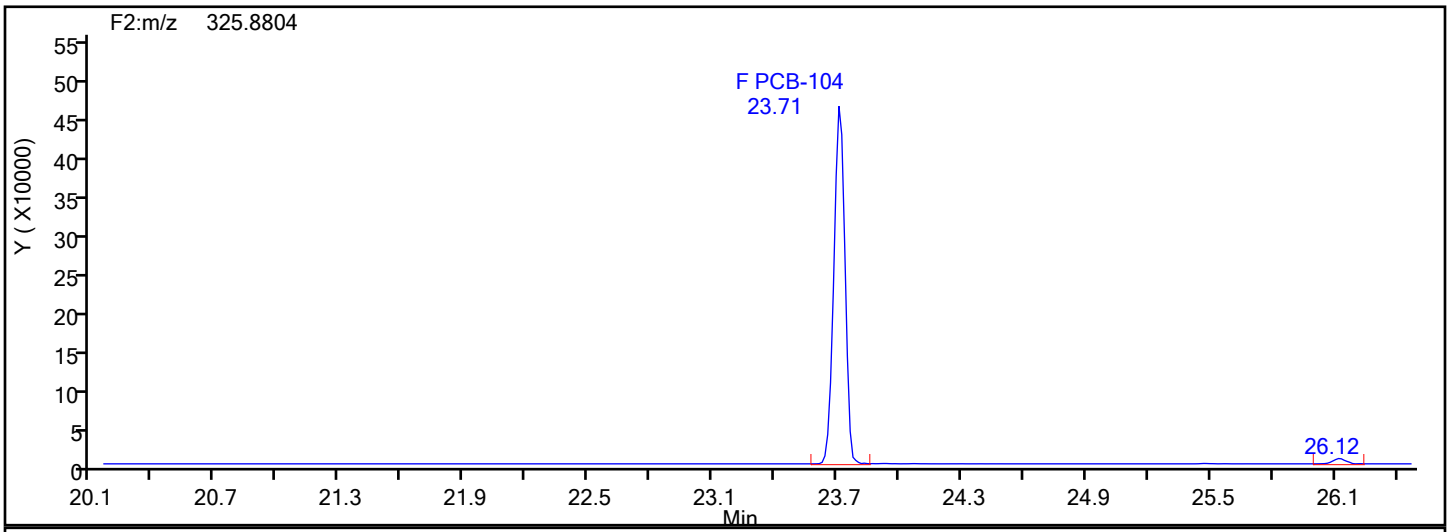


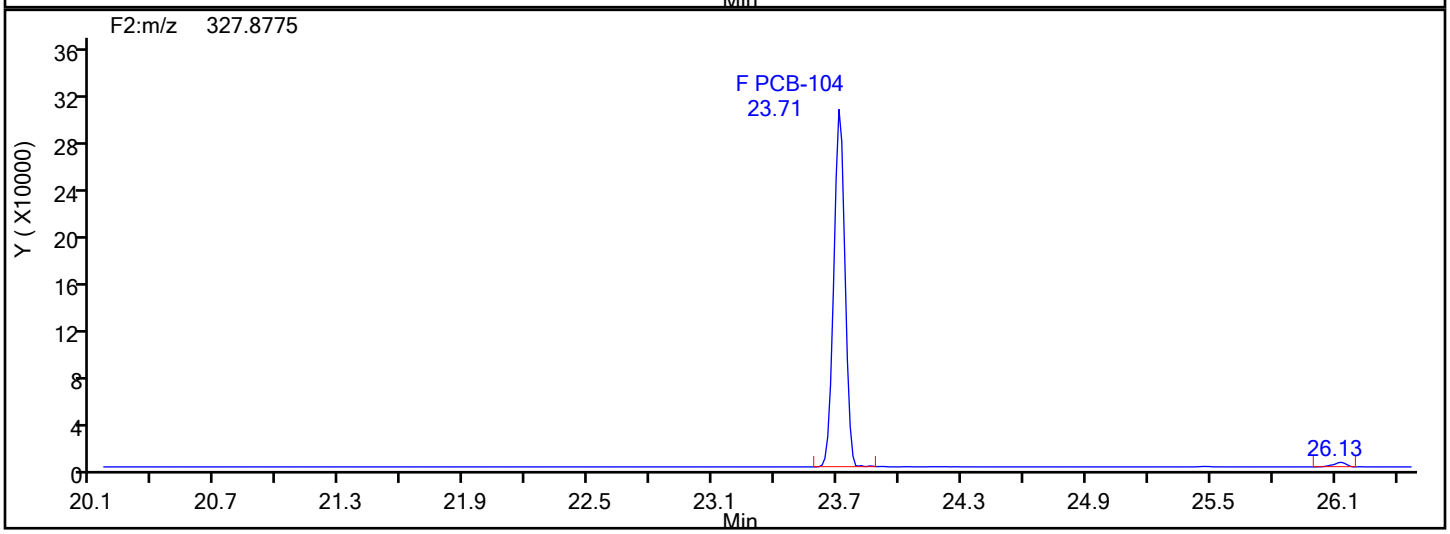
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

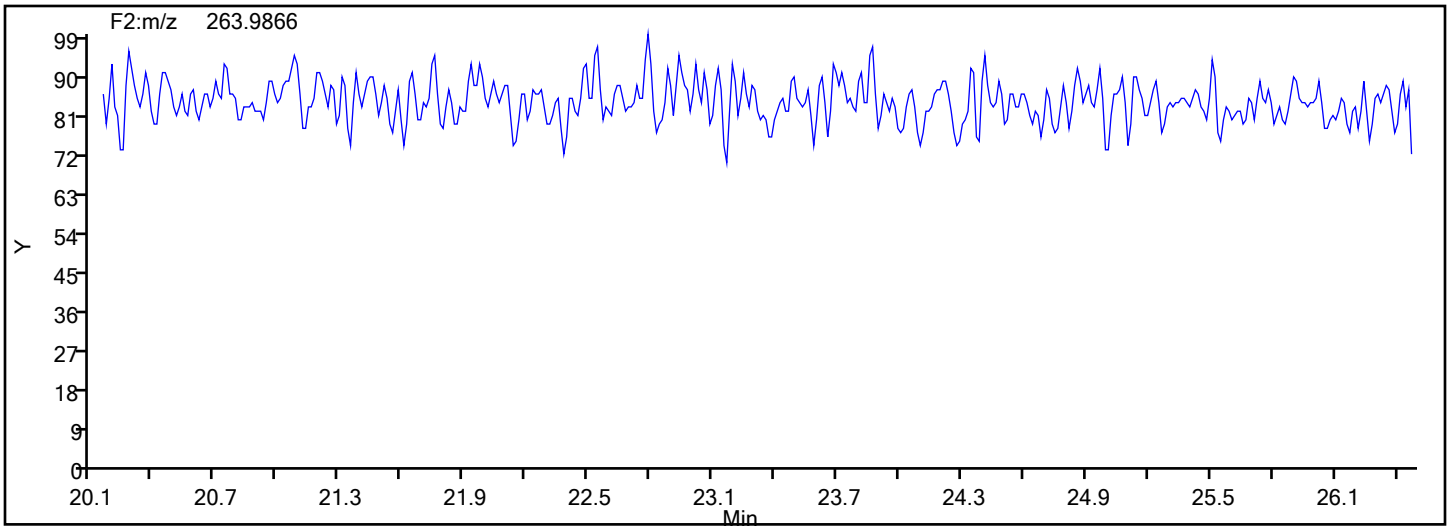
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



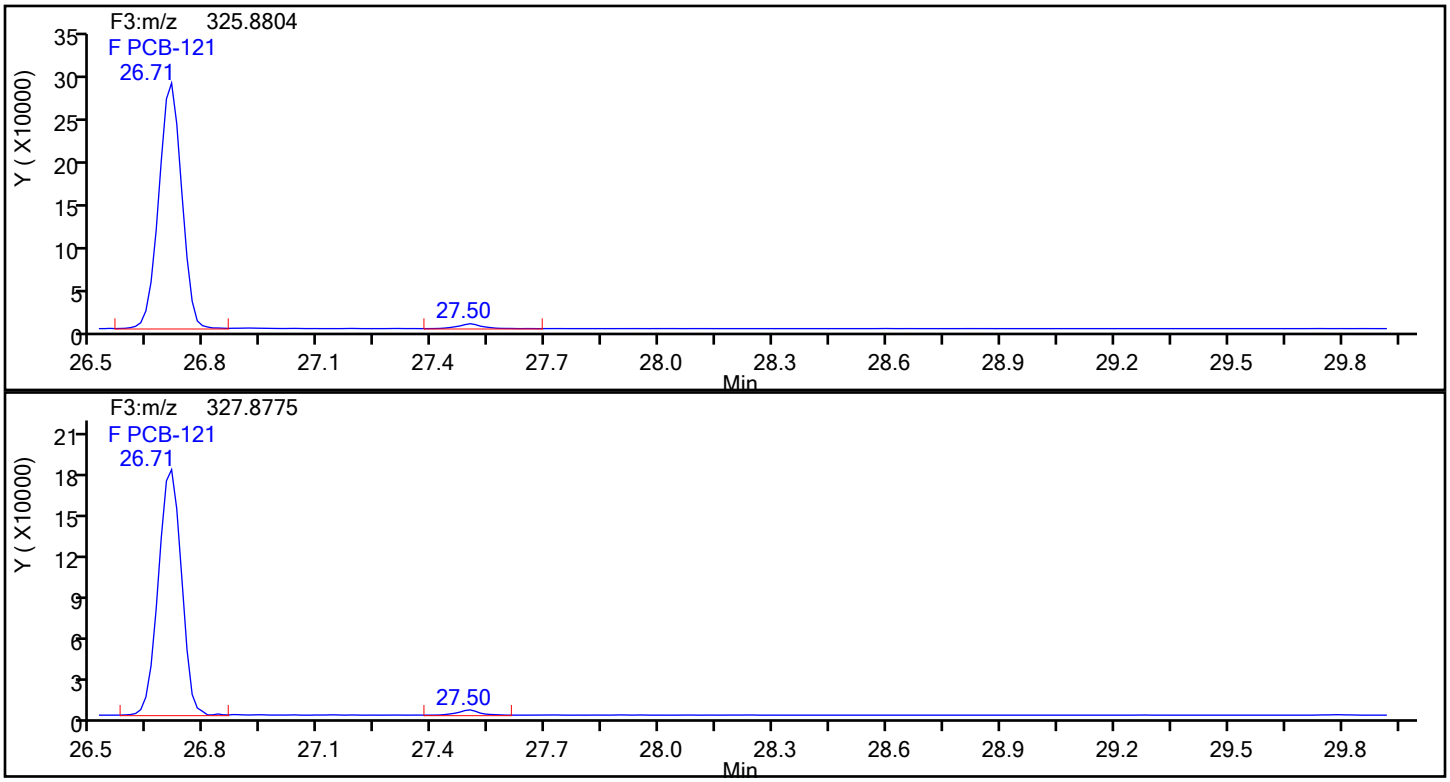
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

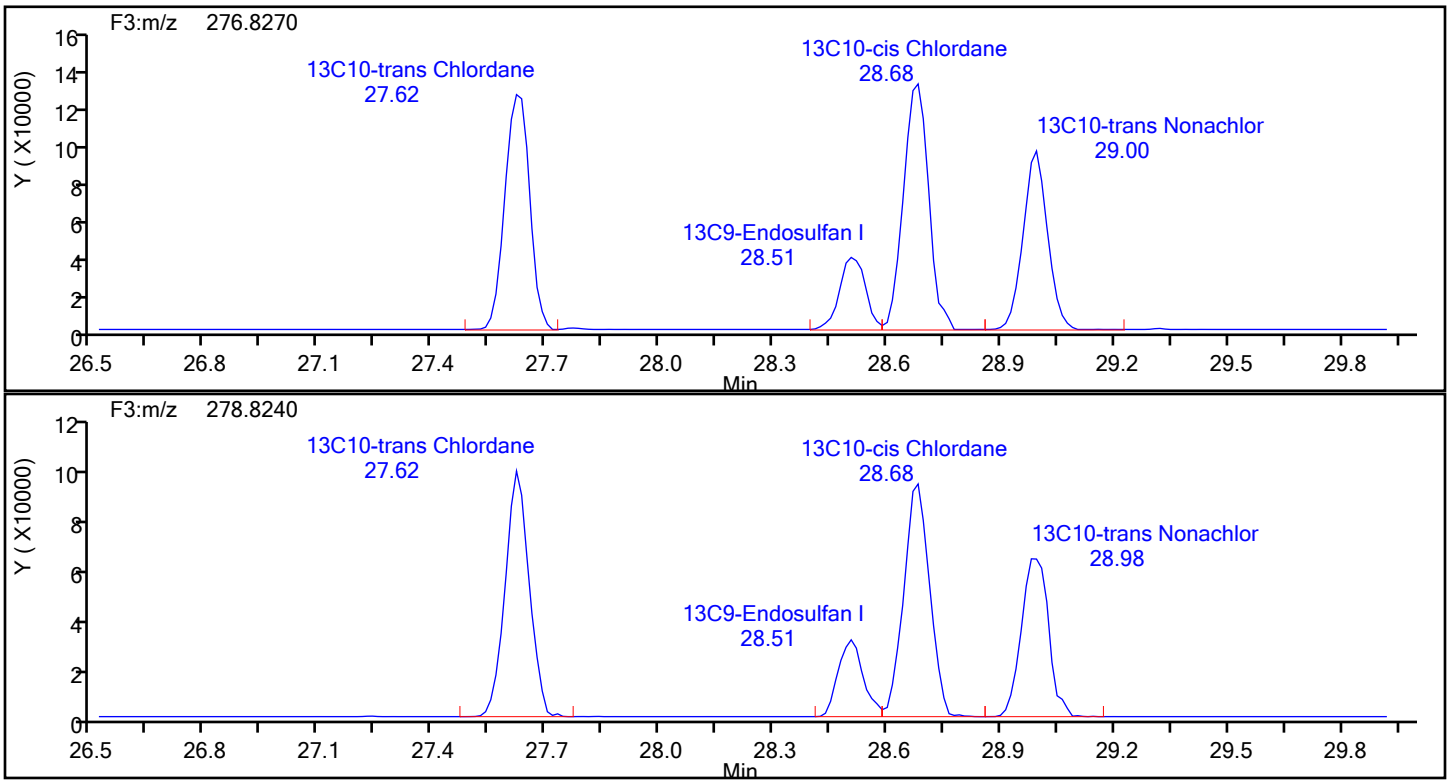
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

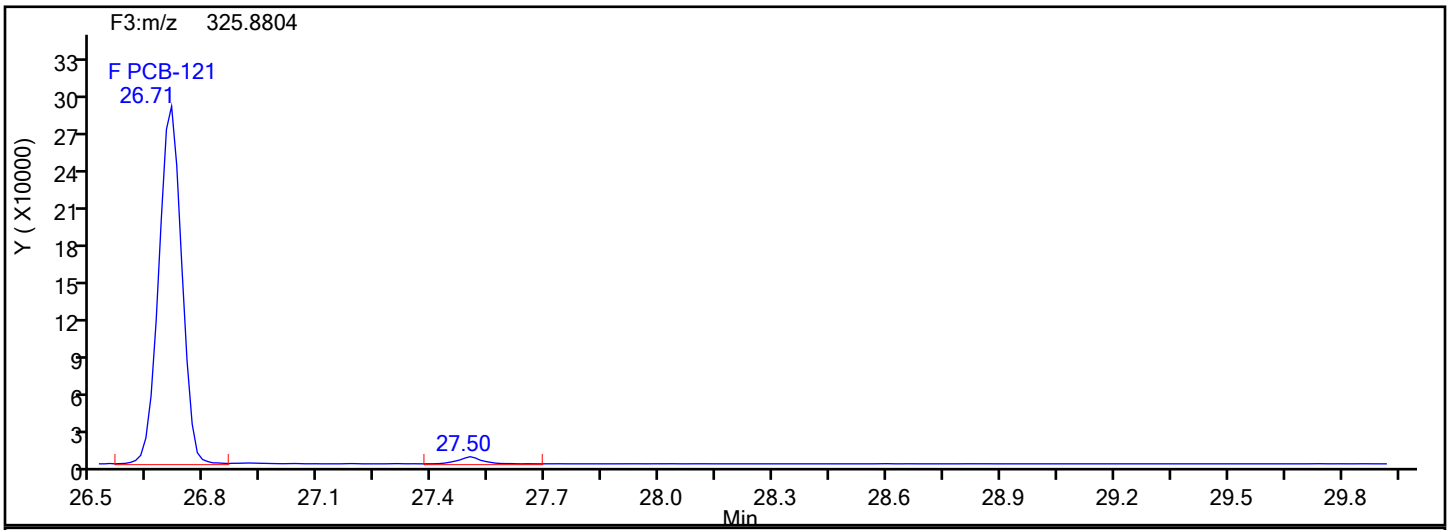


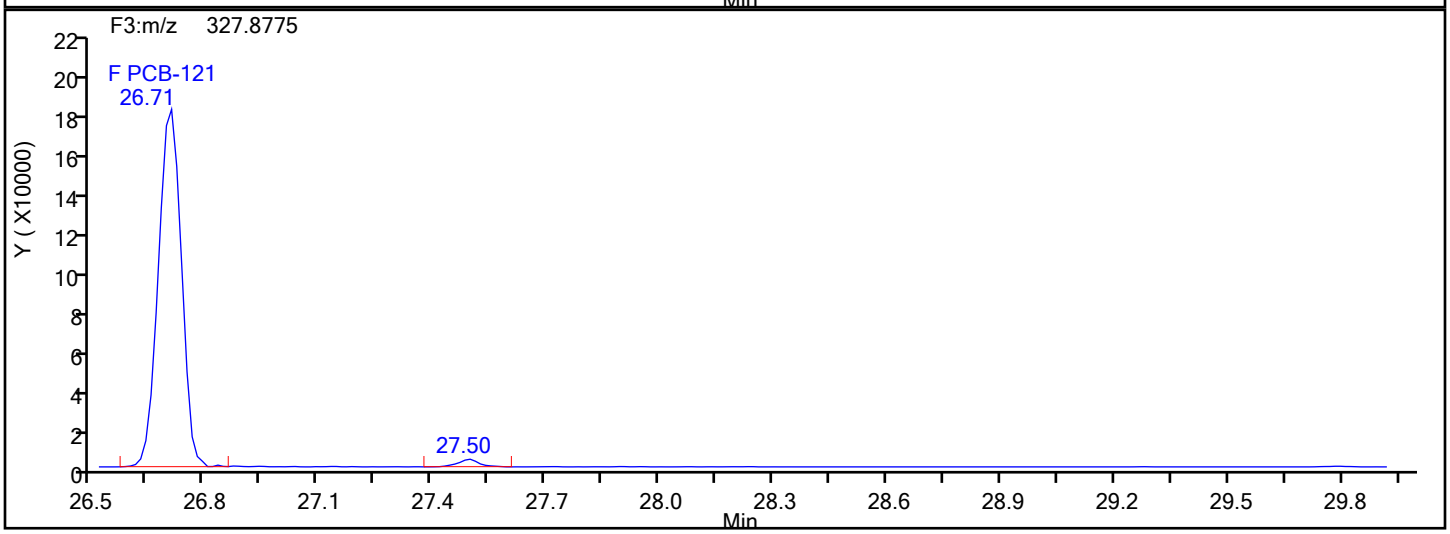
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

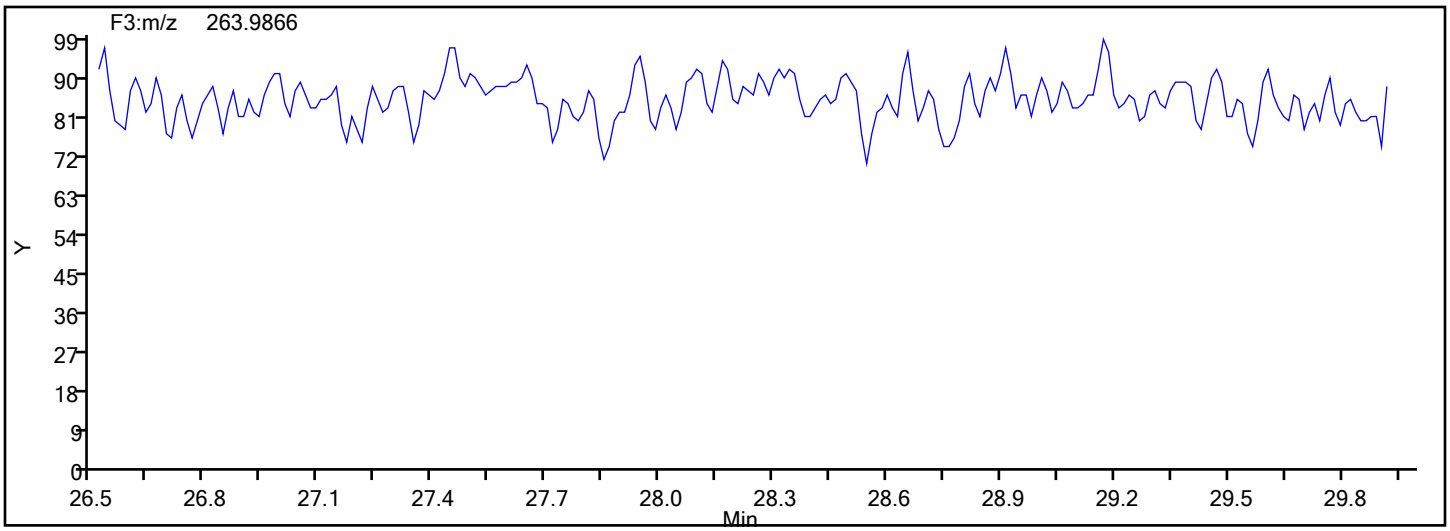
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



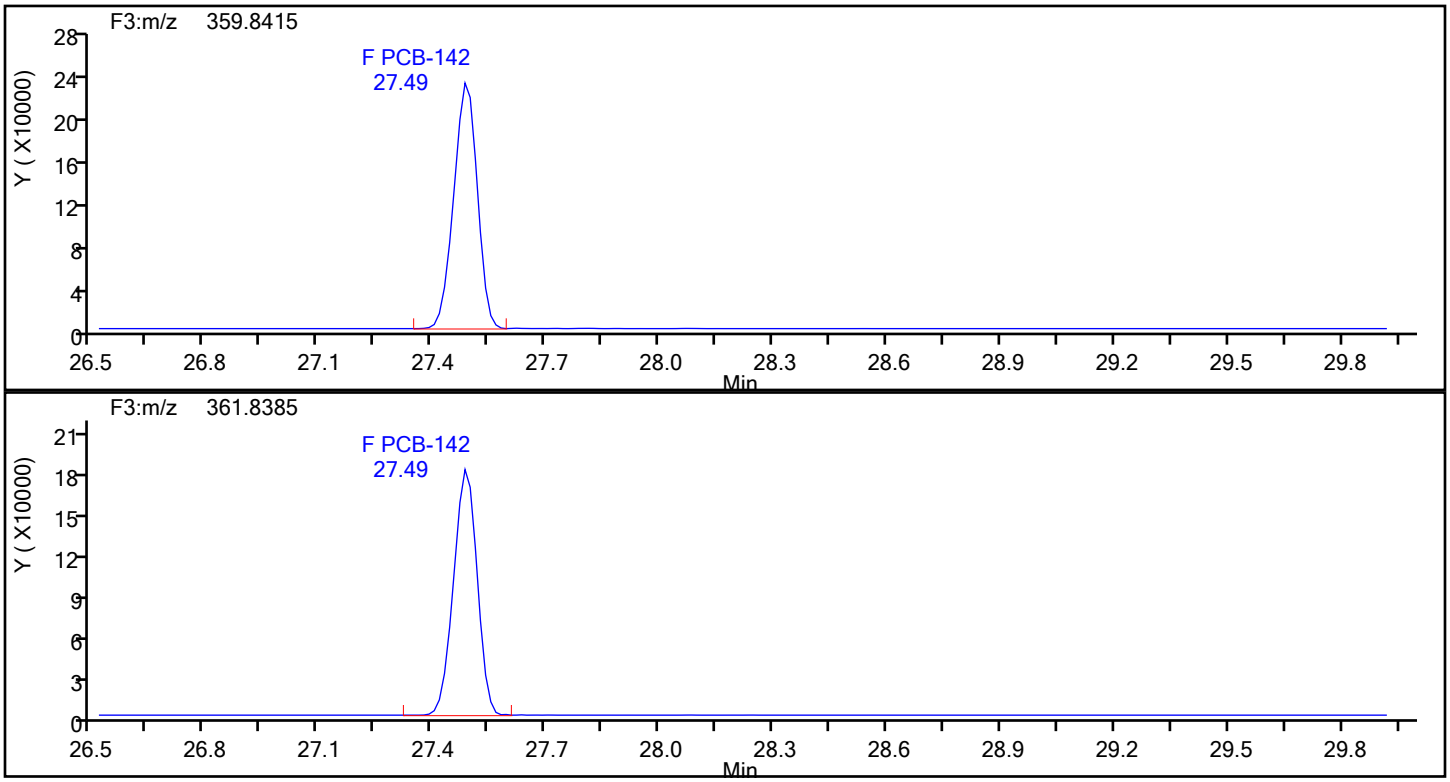
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

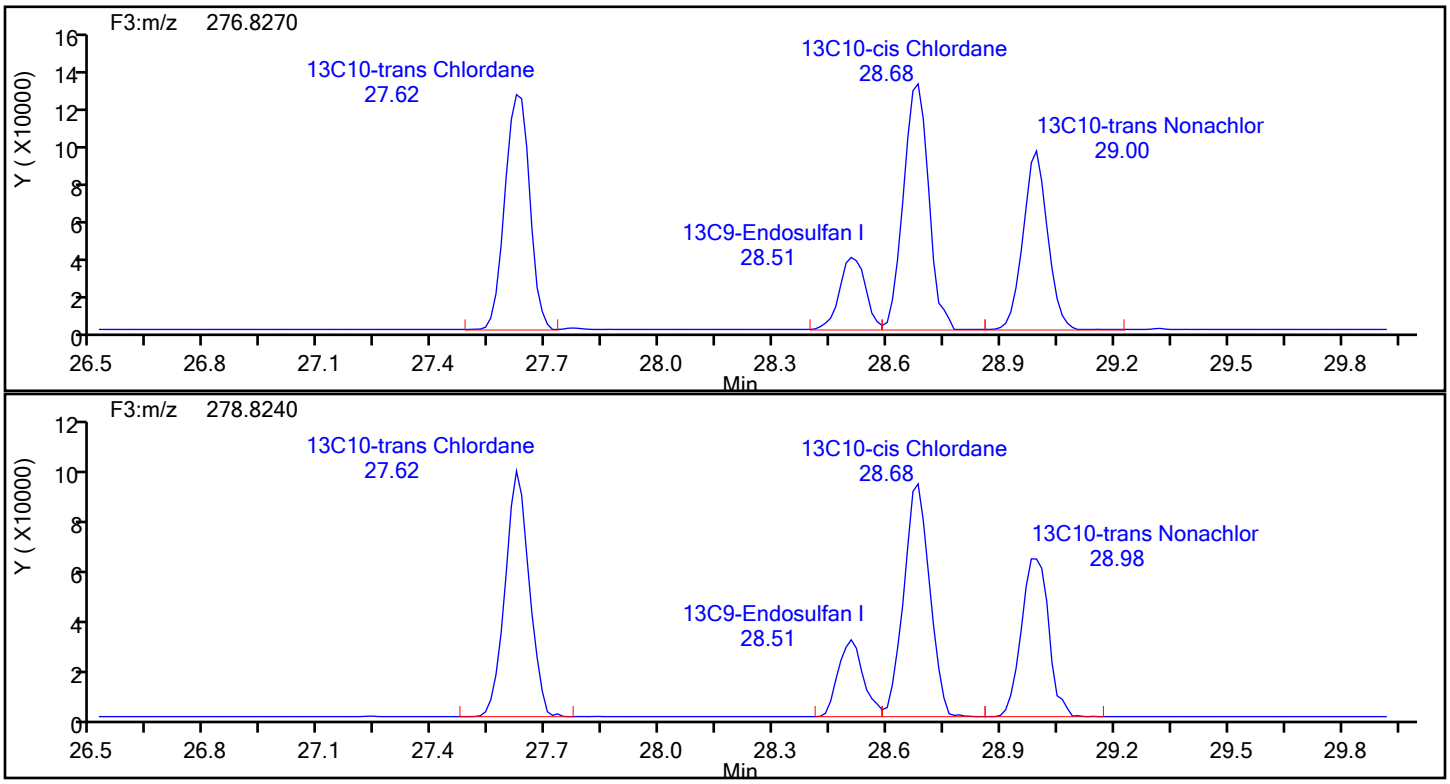
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

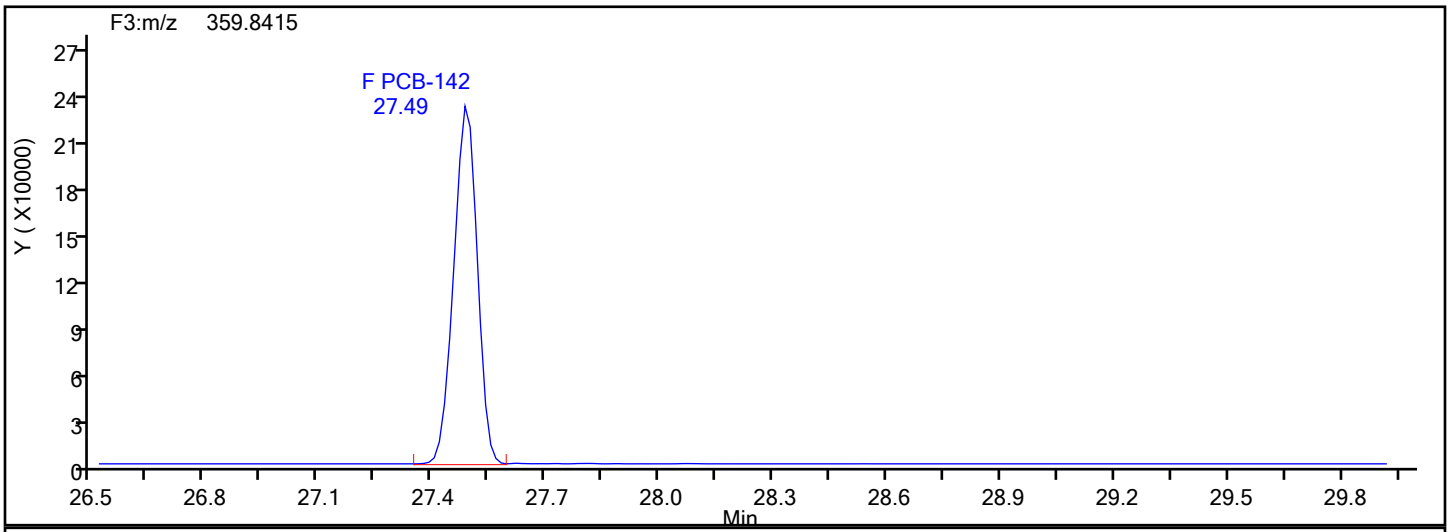


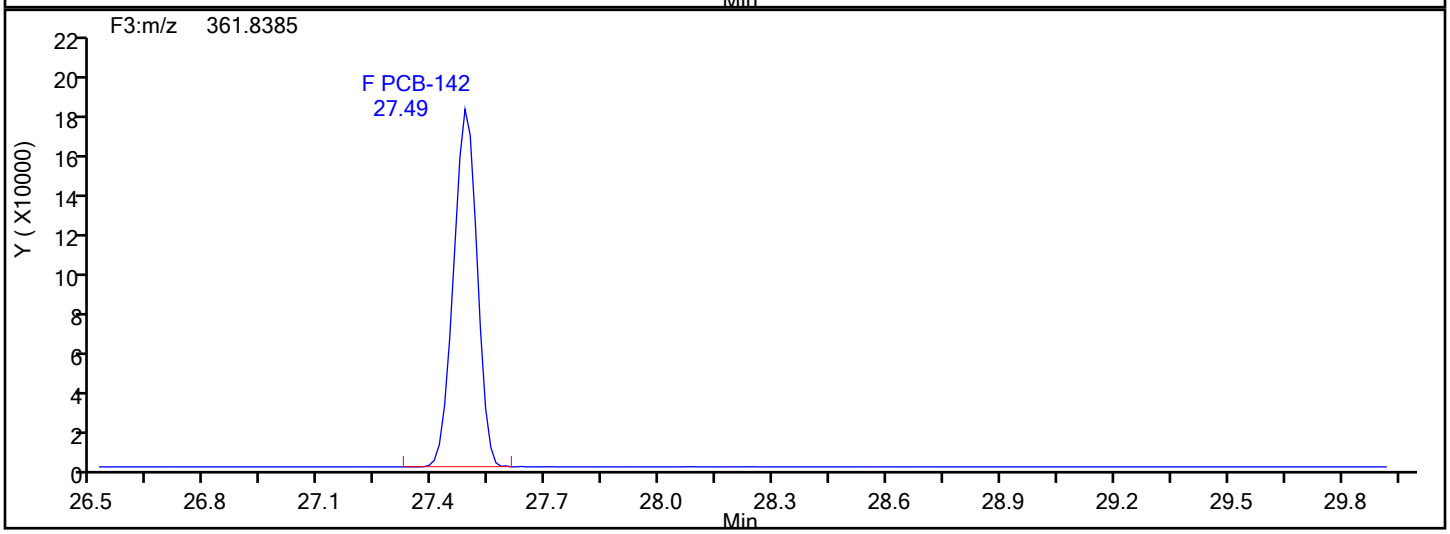
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

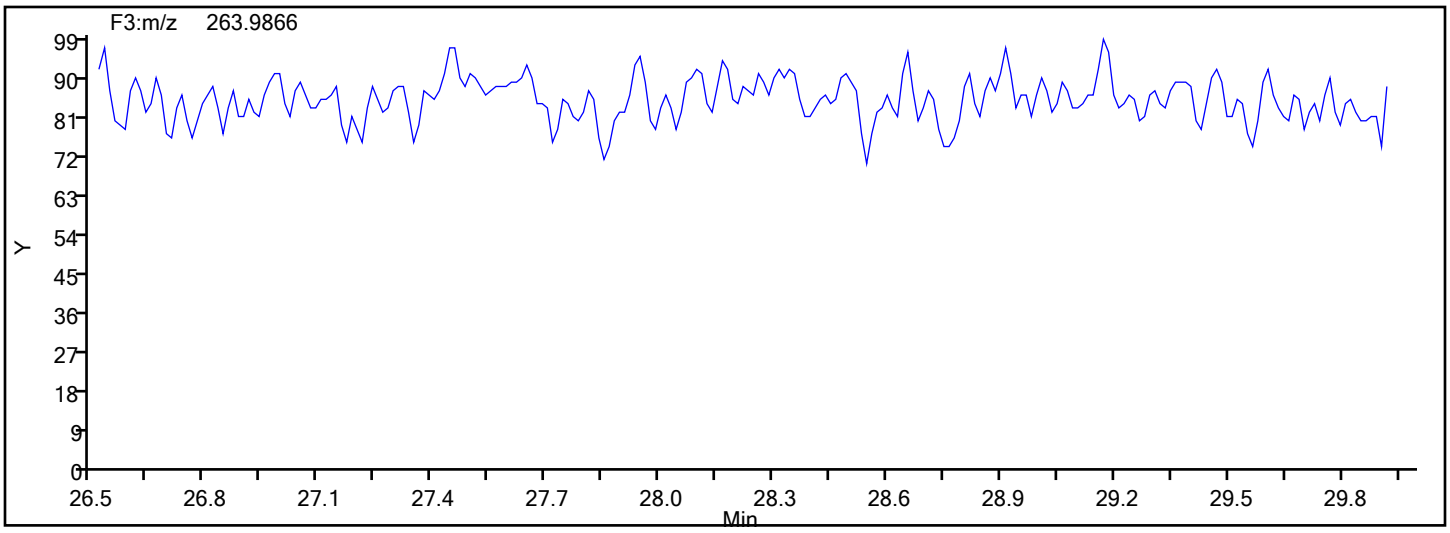
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



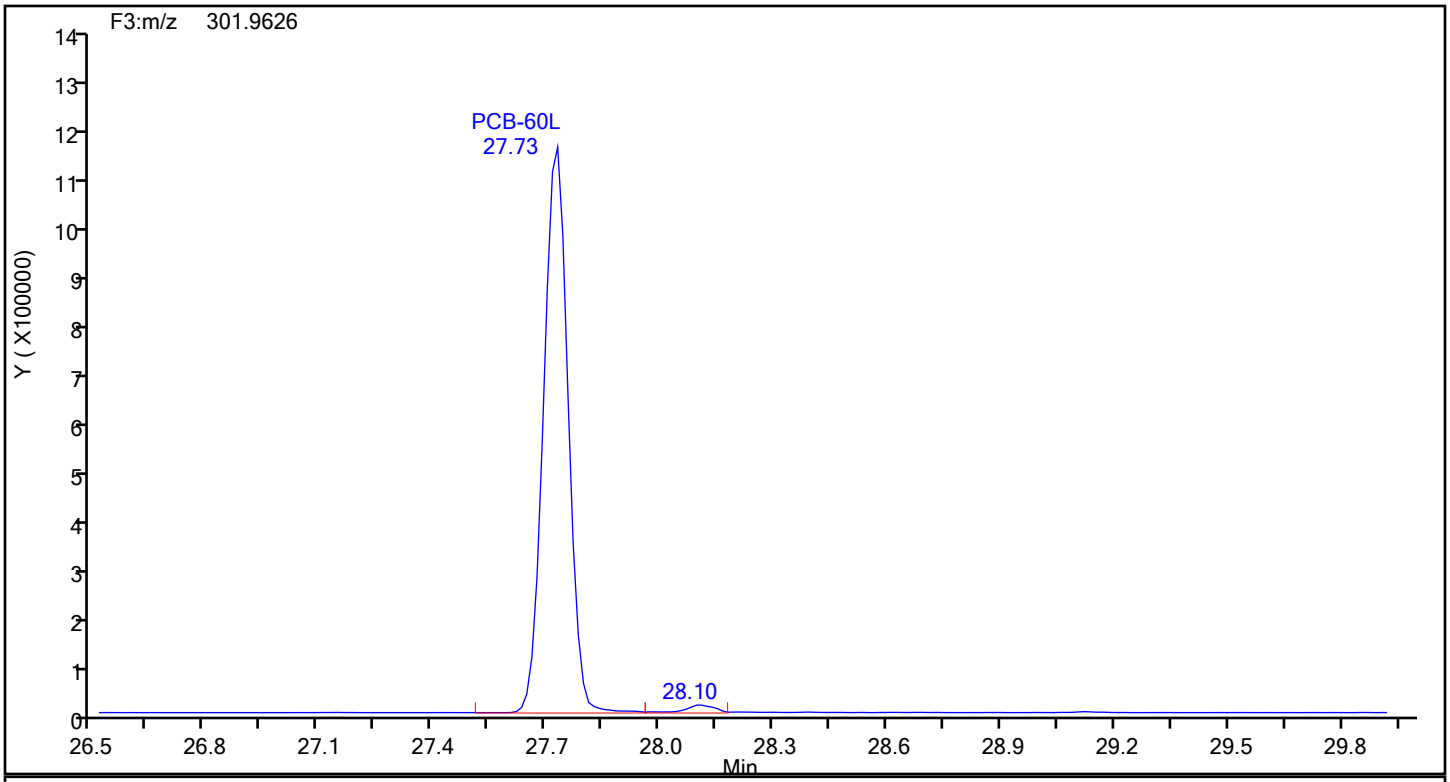
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

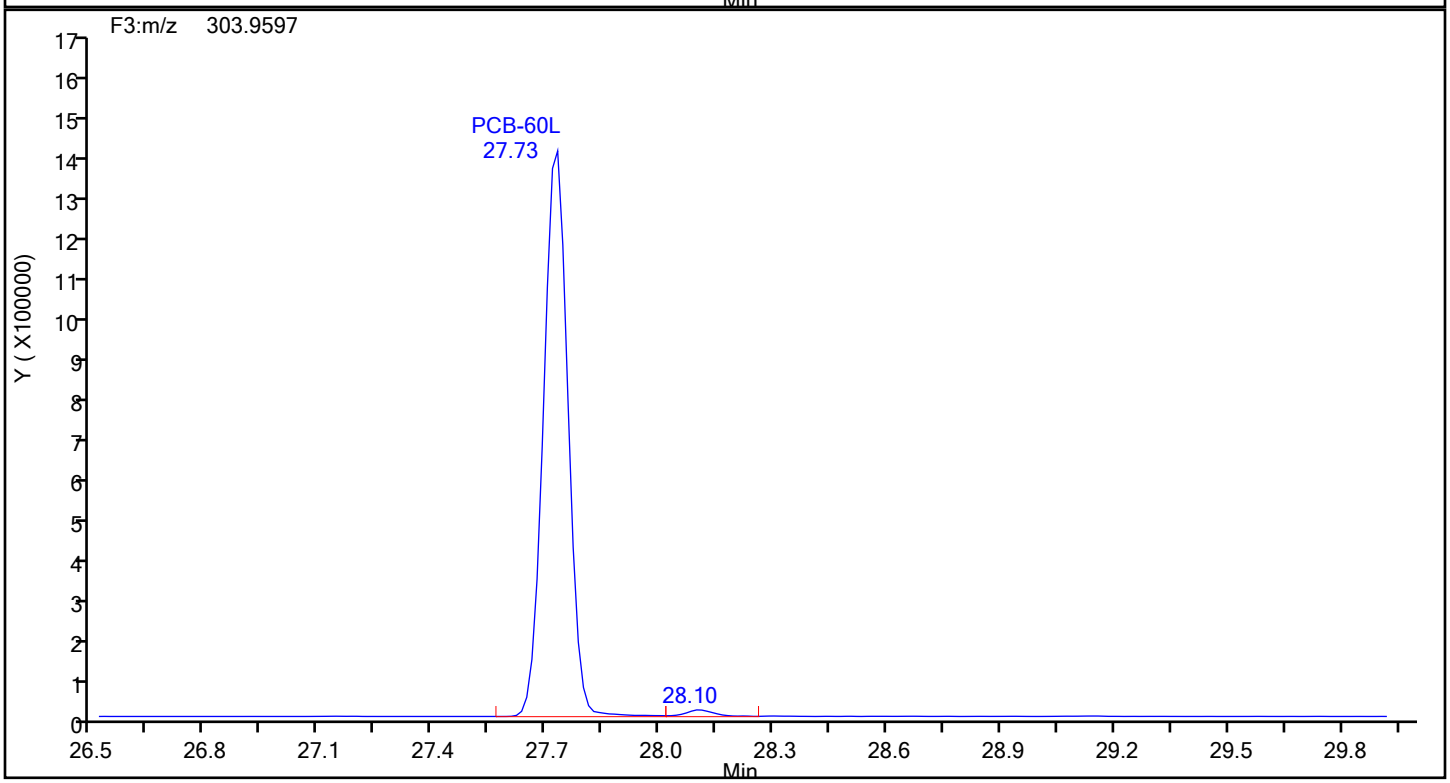
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

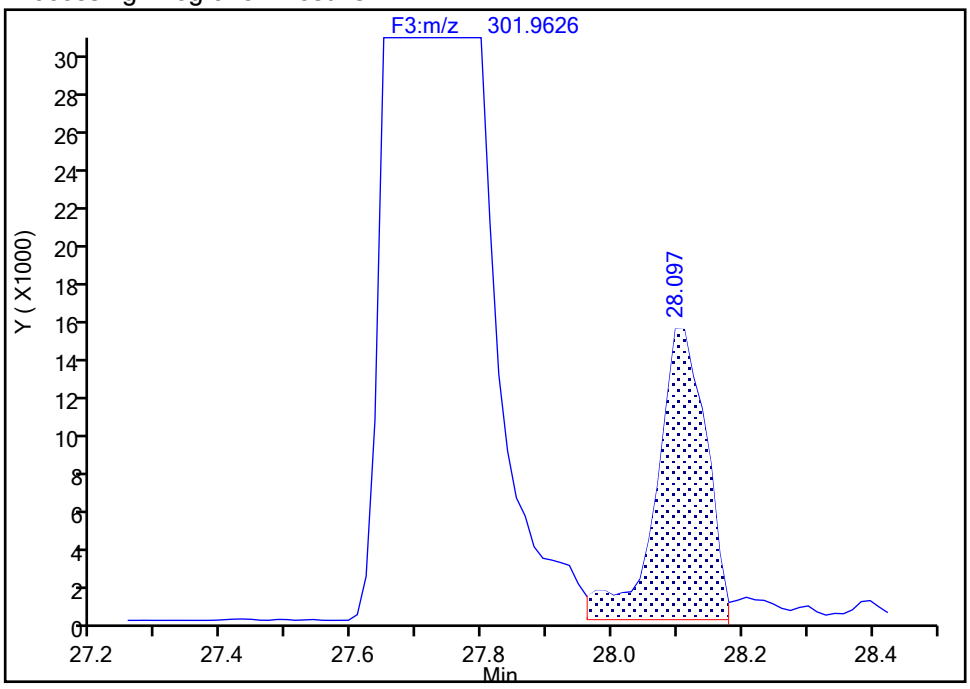
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

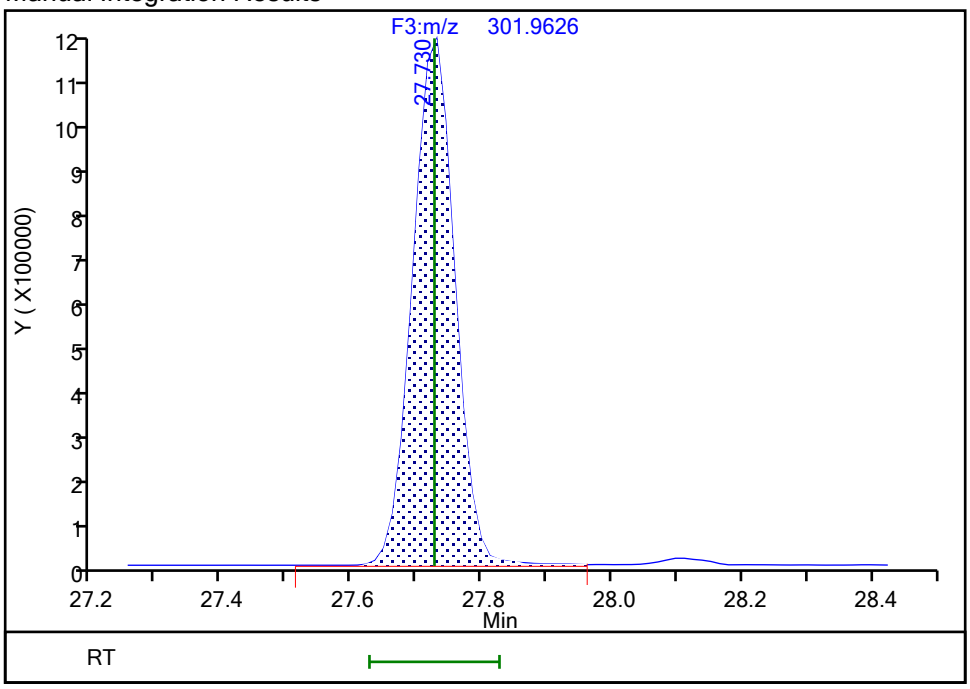
Processing Integration Results

RT: 28.10
Area: 80032
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 5113219
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:37 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

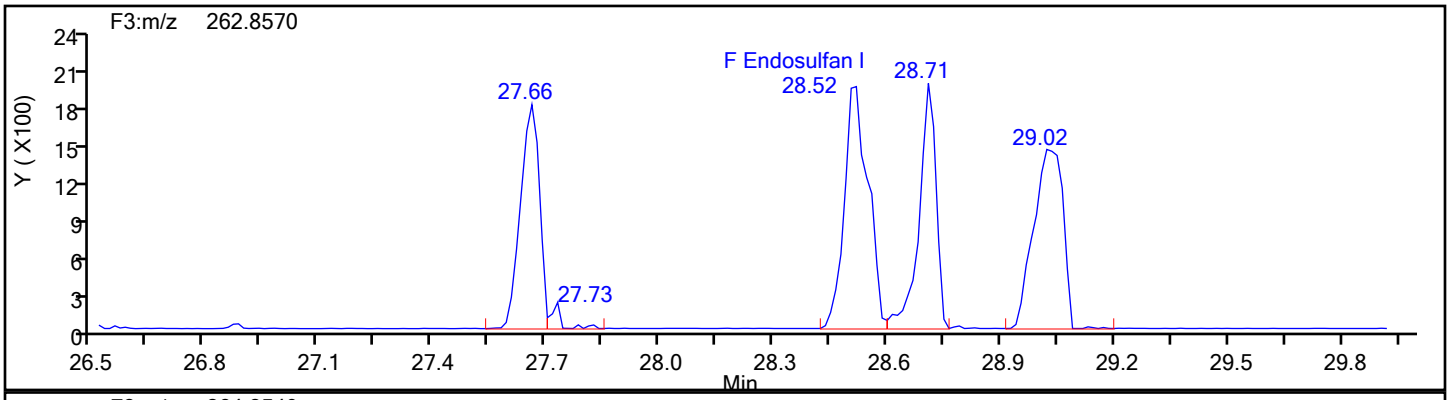
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

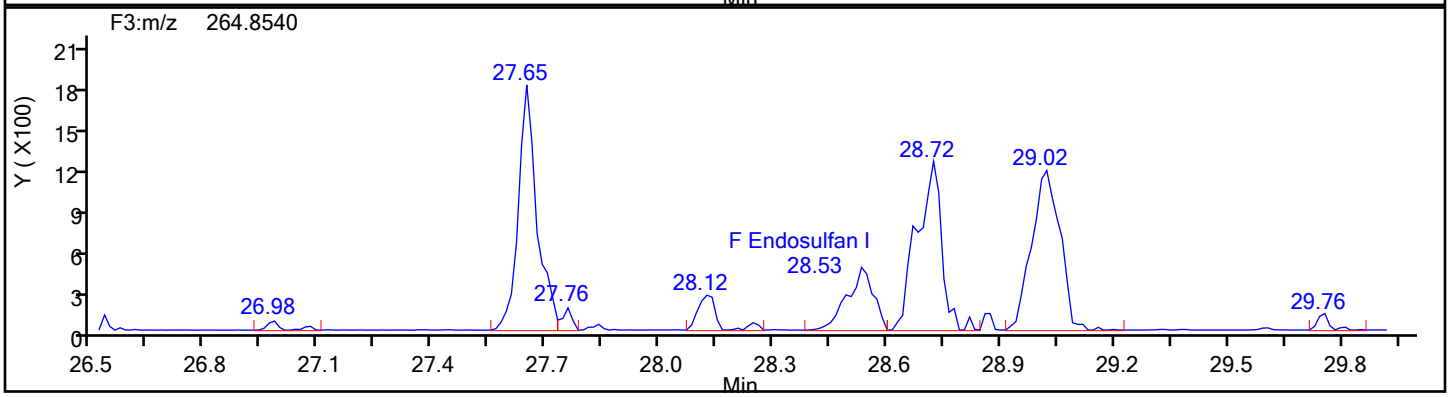
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

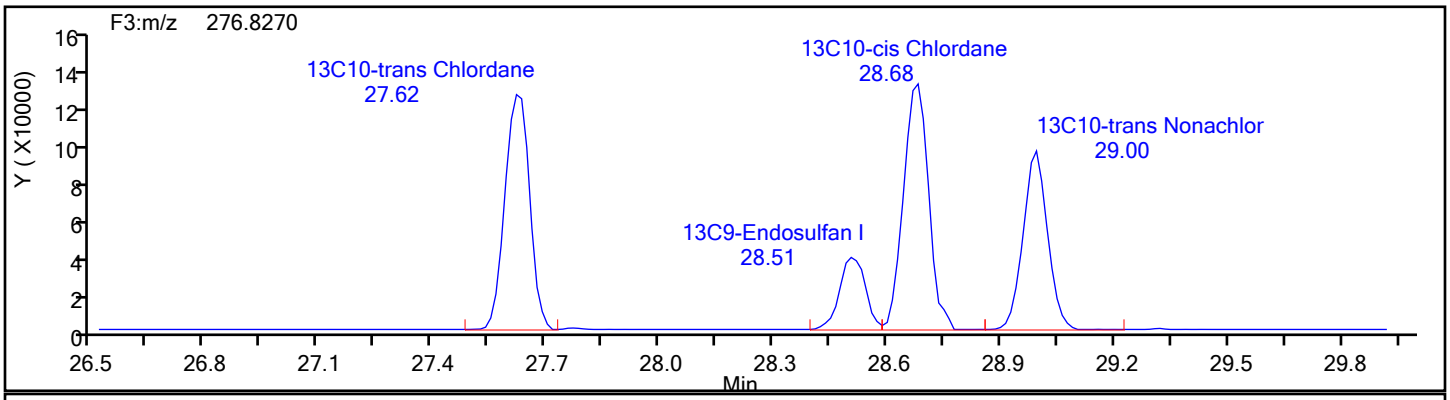
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

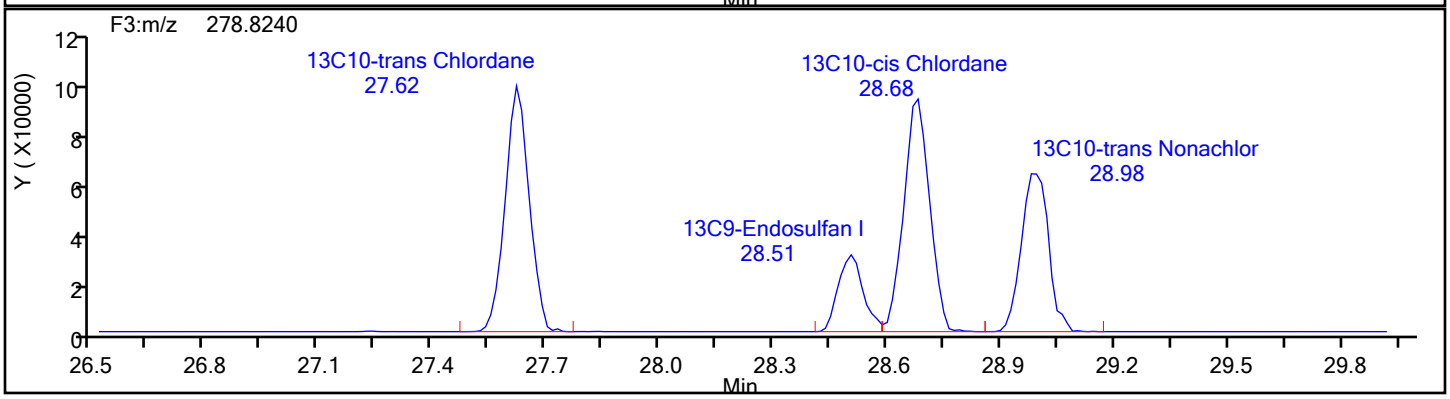
Endosulfan I





Endosulfan I Standards



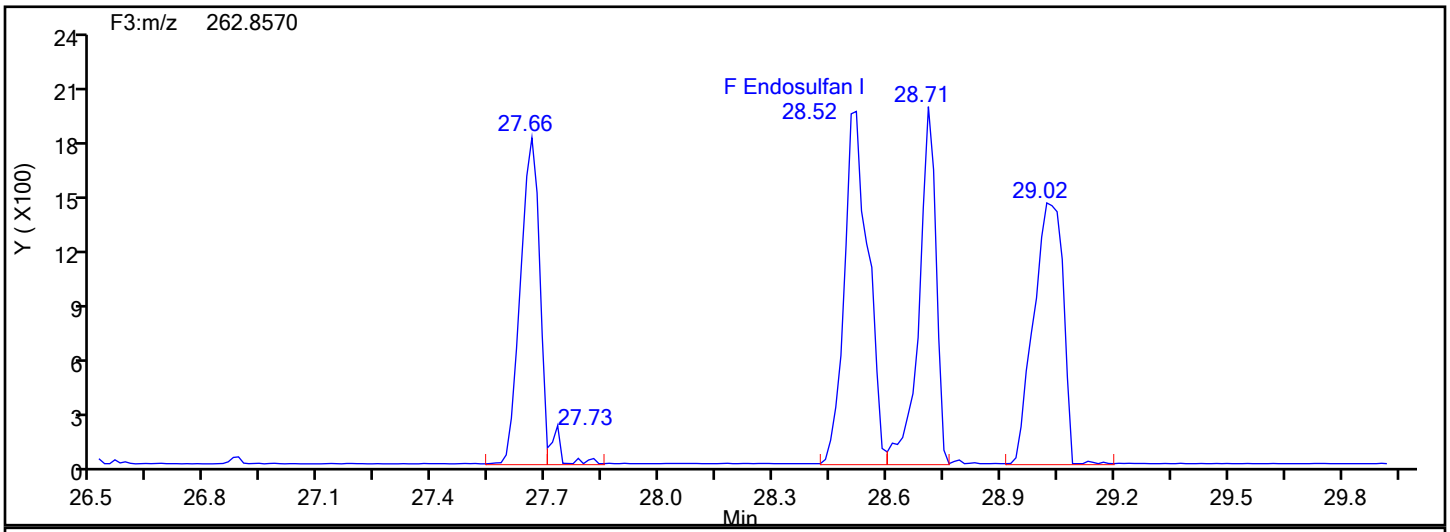


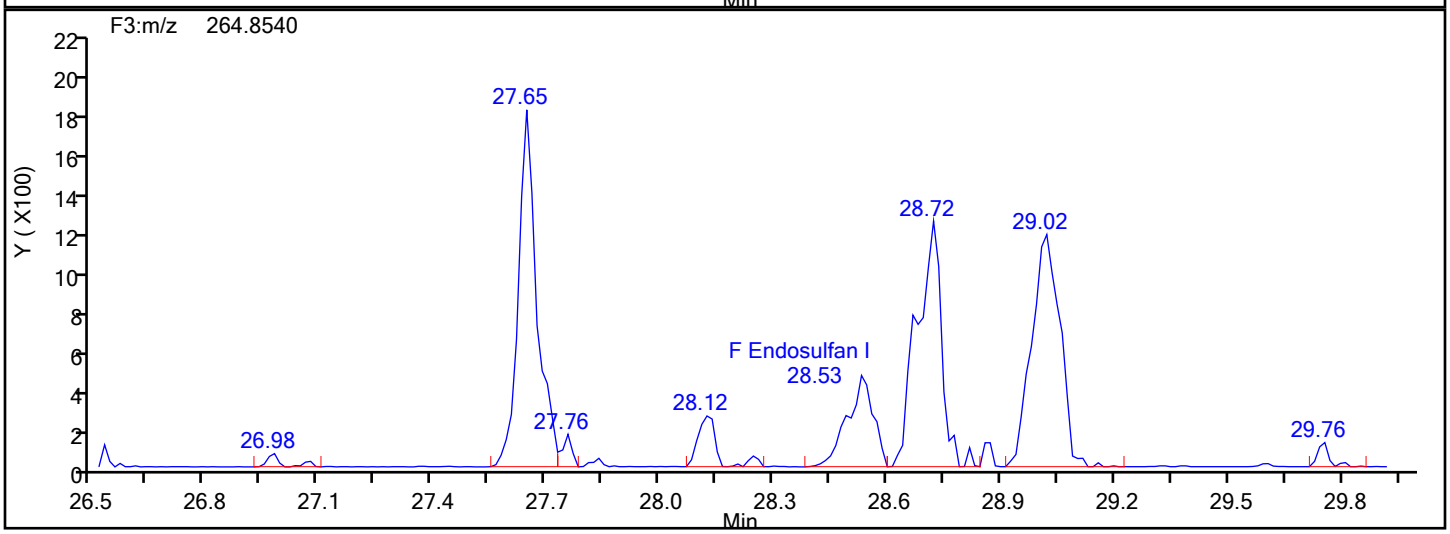
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

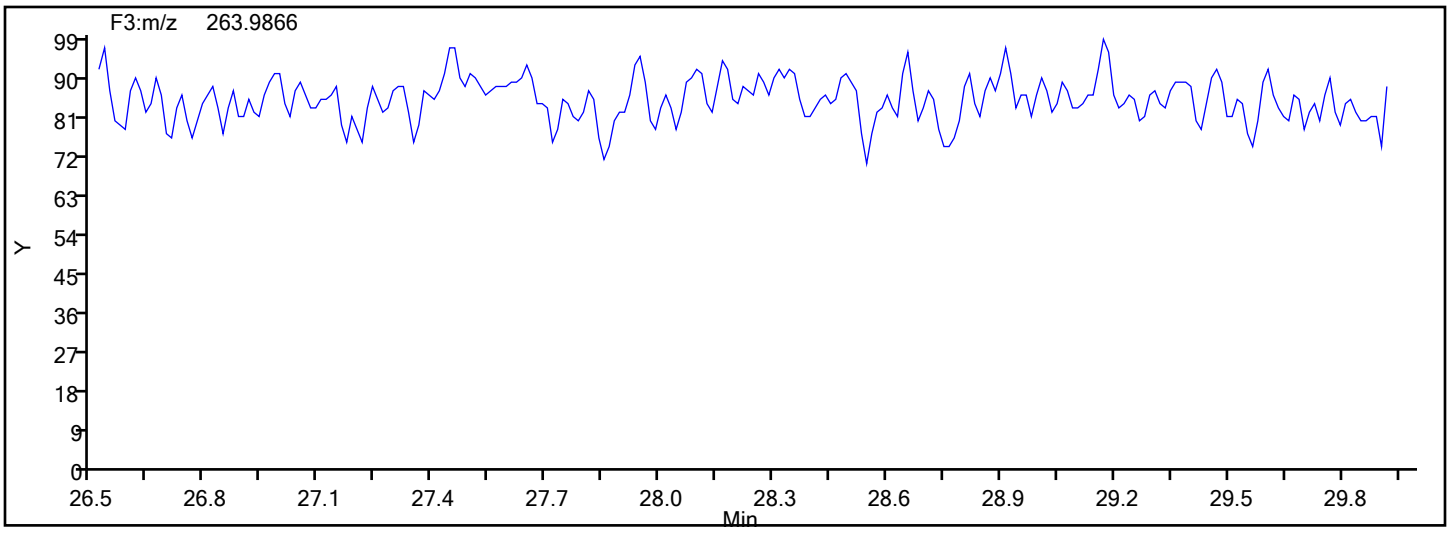
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



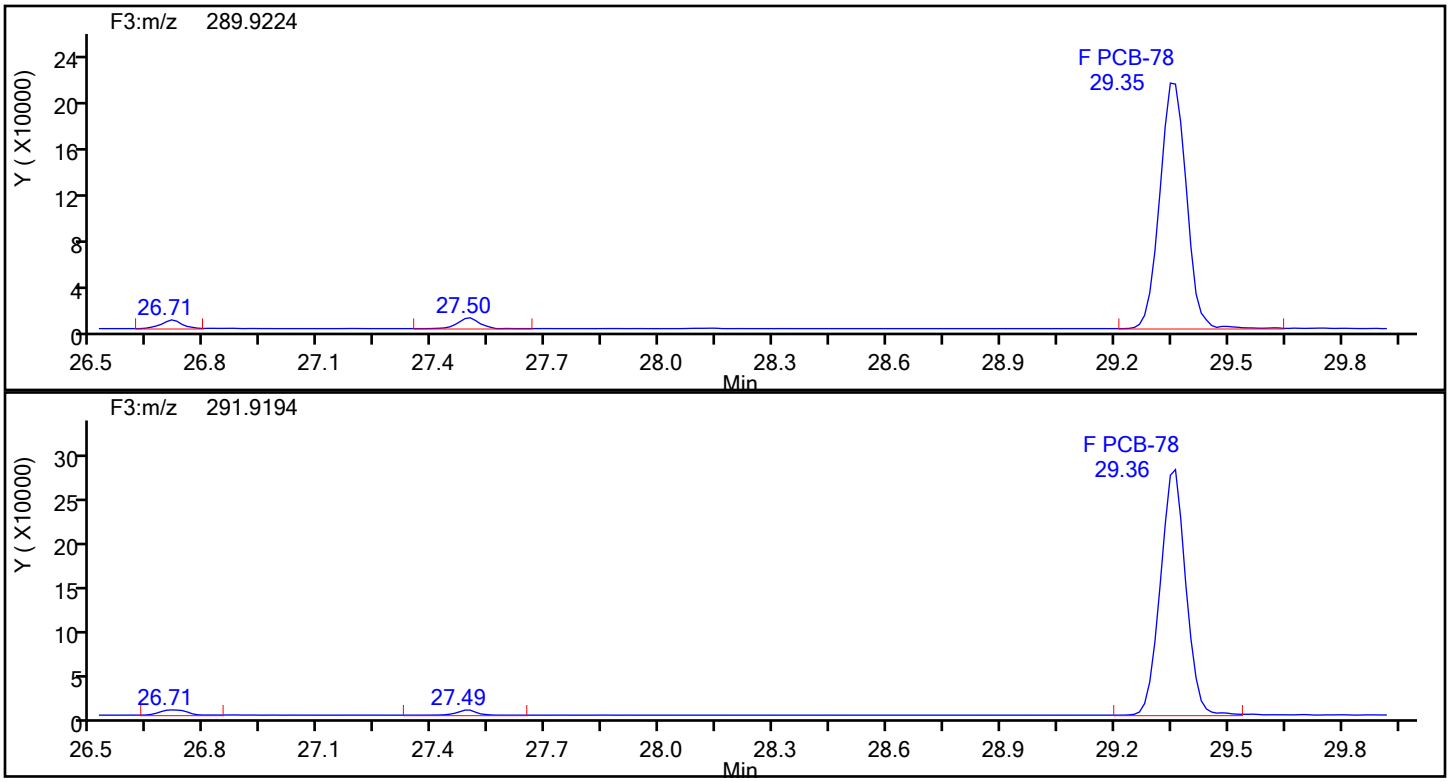
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

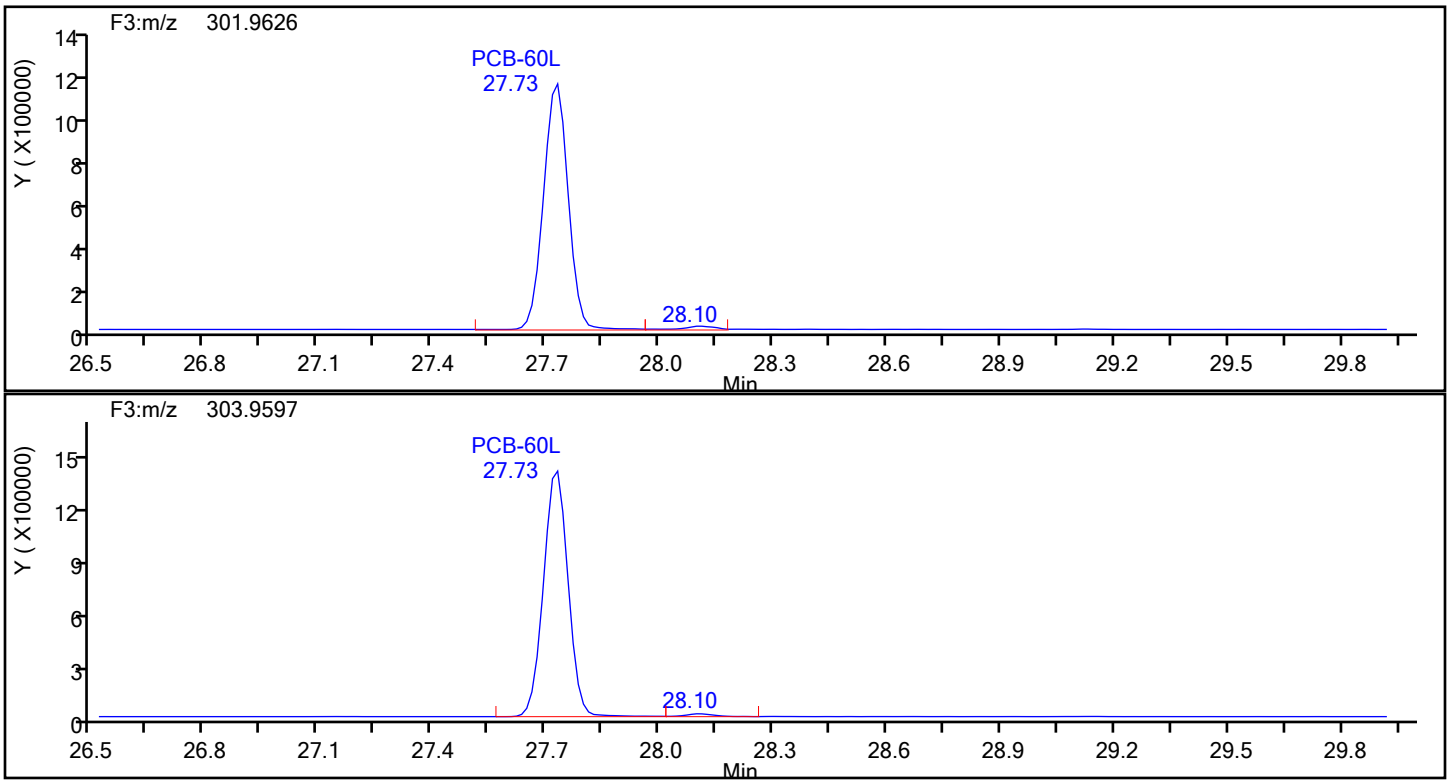
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

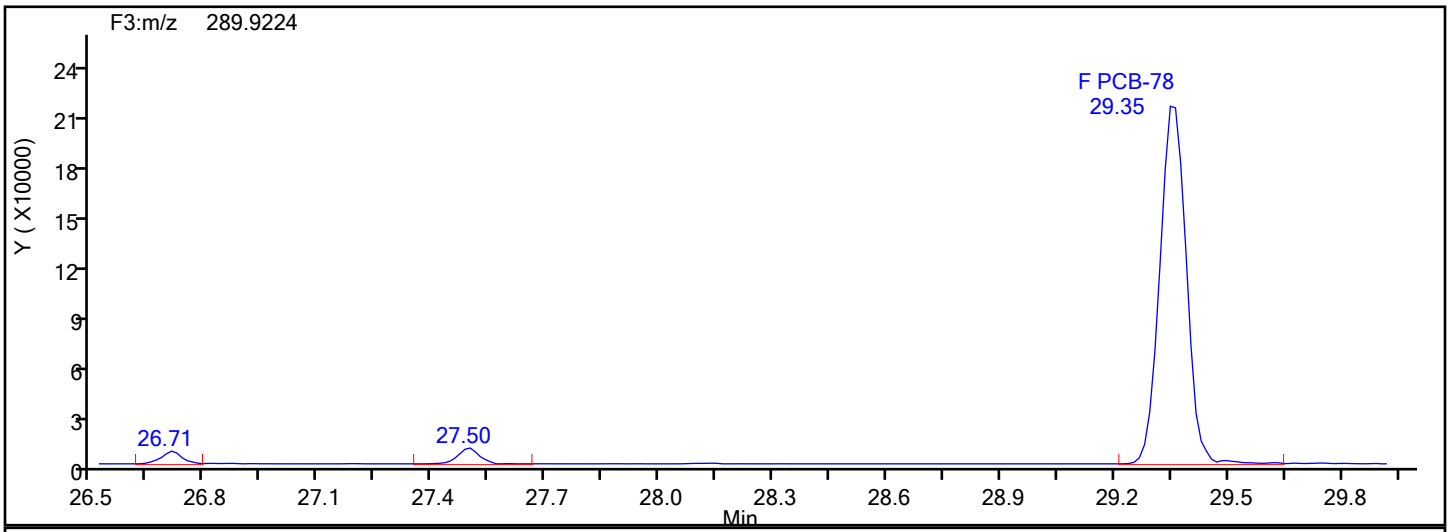


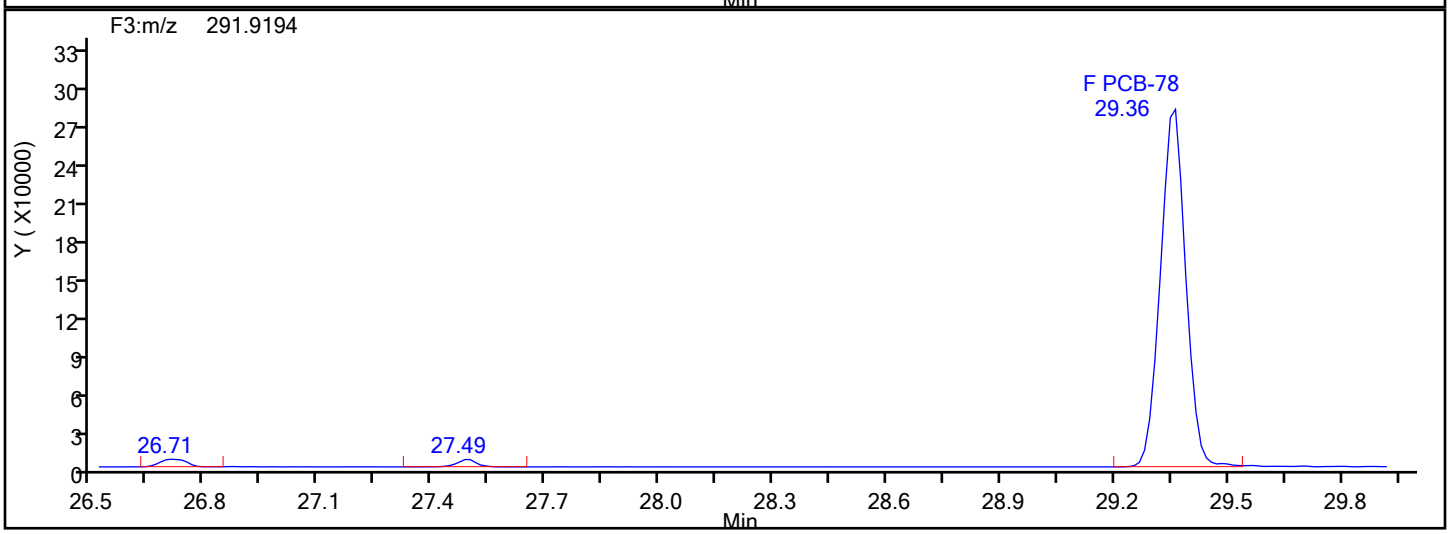
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

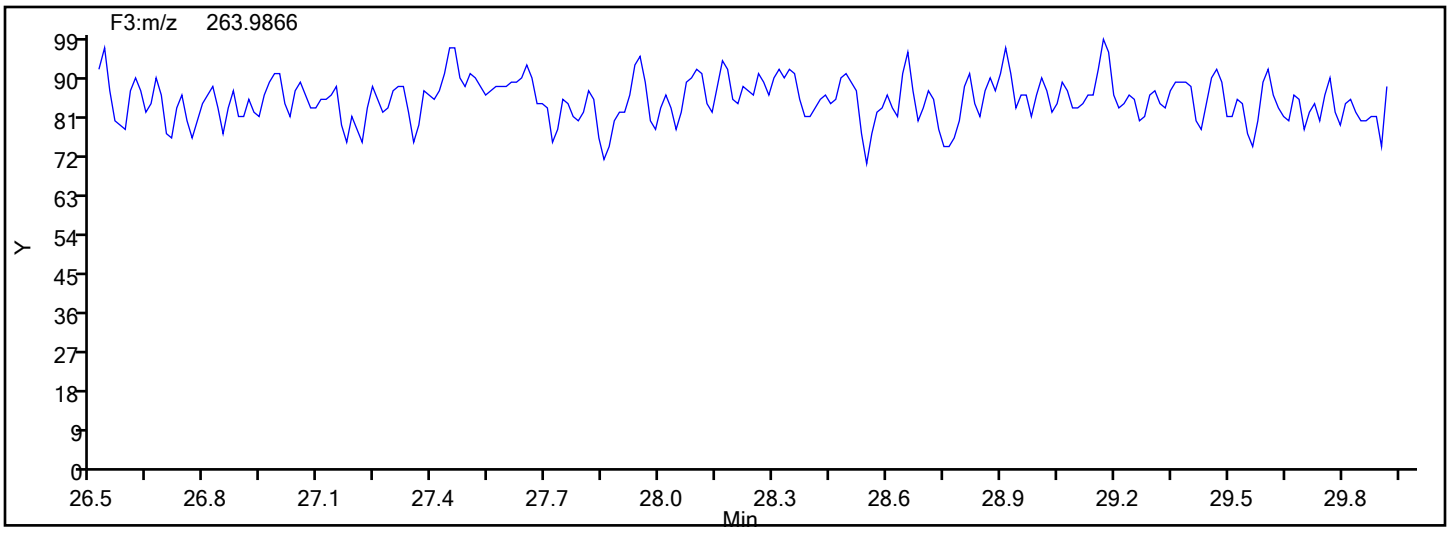
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

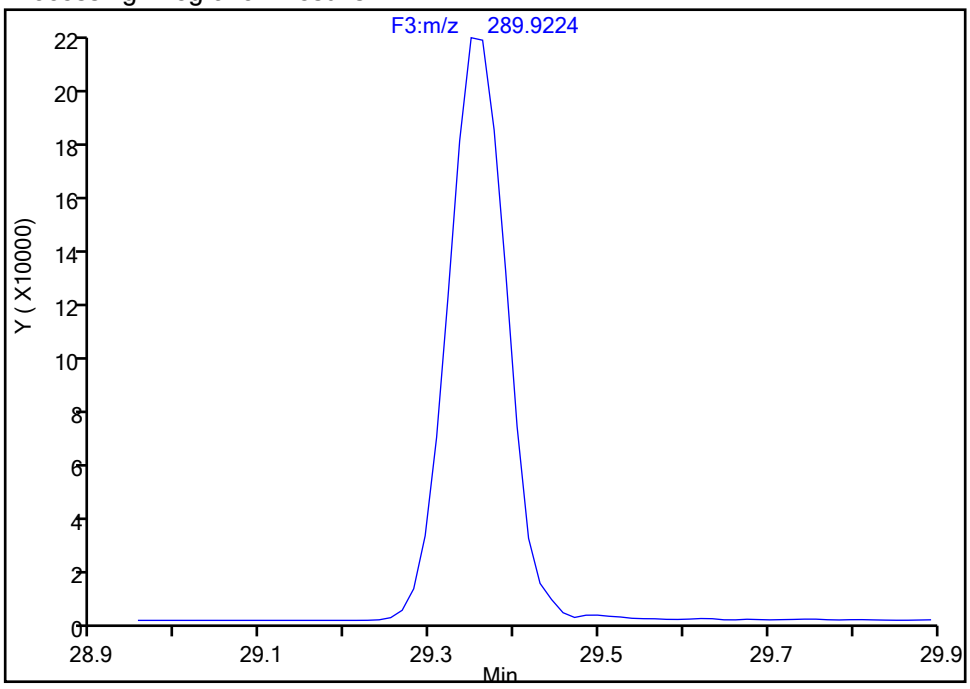
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d				
Injection Date:	19-Mar-2025 19:37:00	Instrument ID:	D3PST		
Lims ID:	IC L3				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

PCB-78, CAS: 70362-49-1

Signal: 1

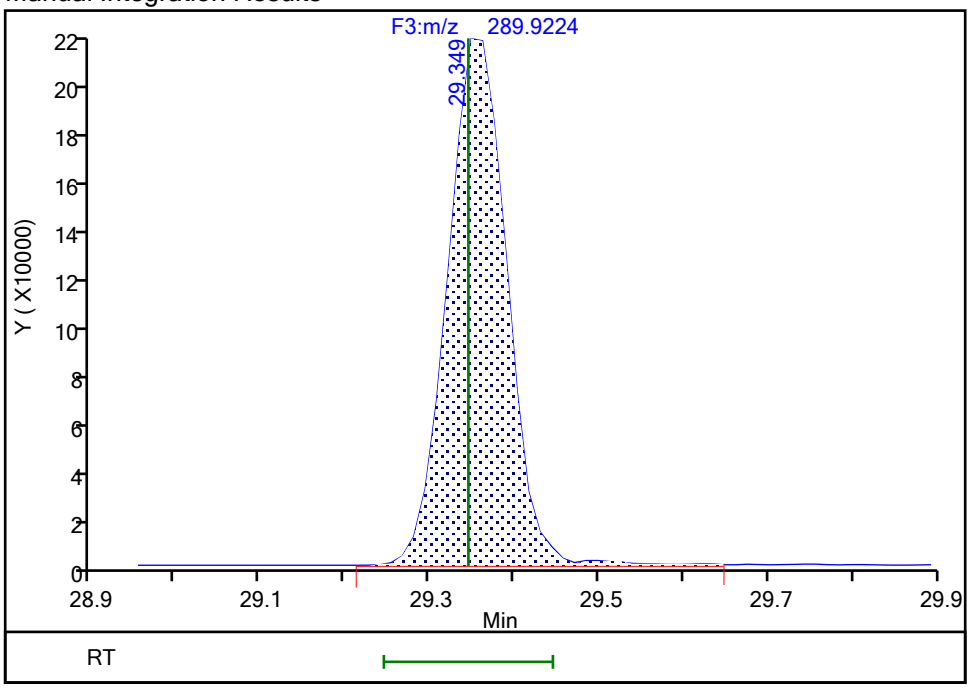
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.35
Area: 1045125
Amount: 22.369598
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:57:02 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

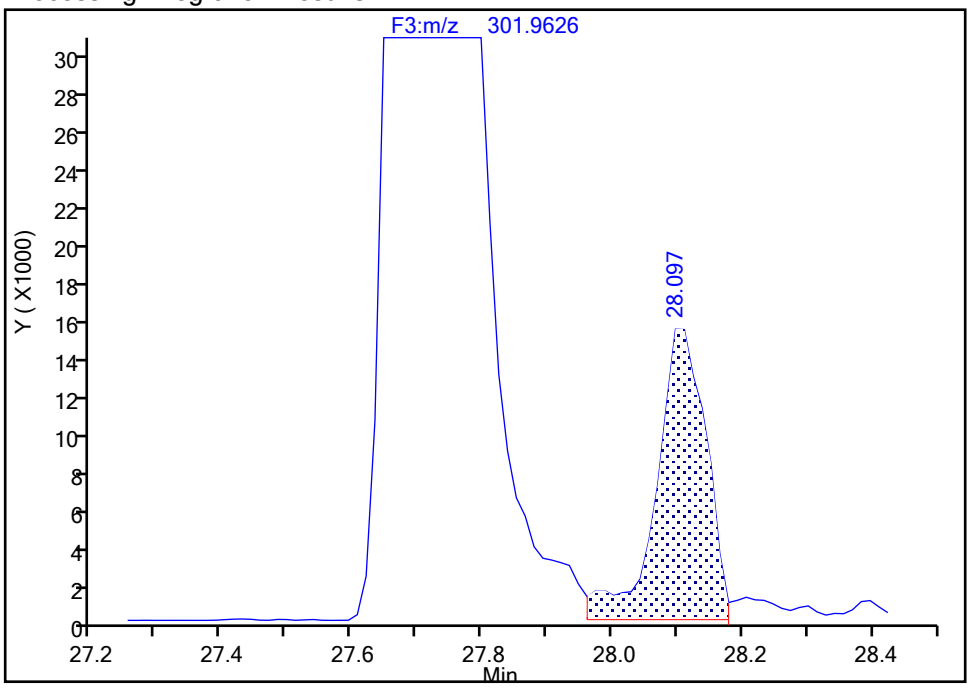
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

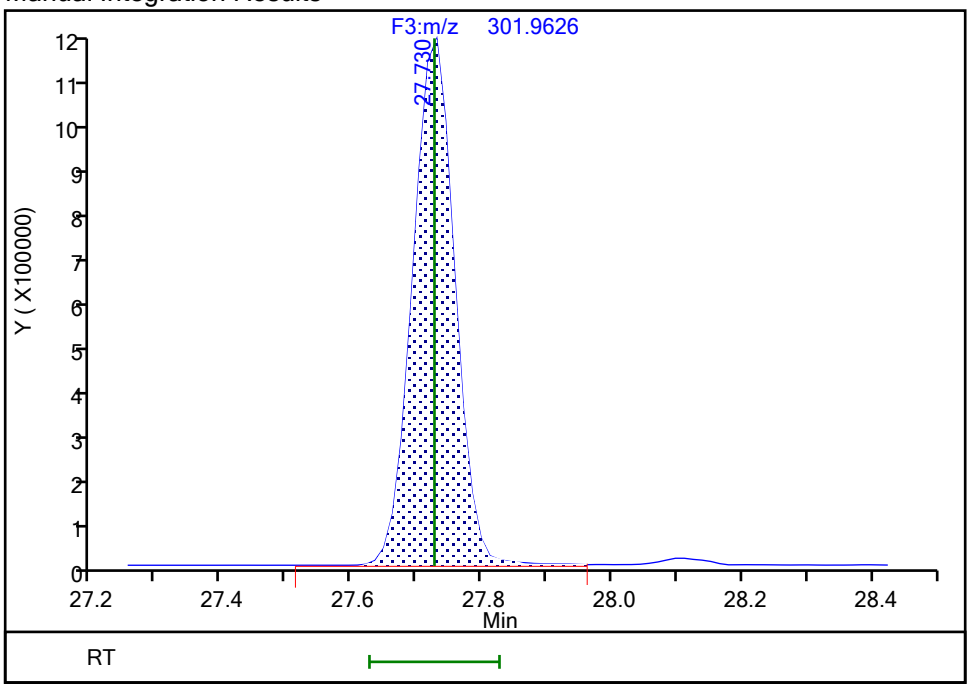
Processing Integration Results

RT: 28.10
Area: 80032
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 5113219
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:37 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

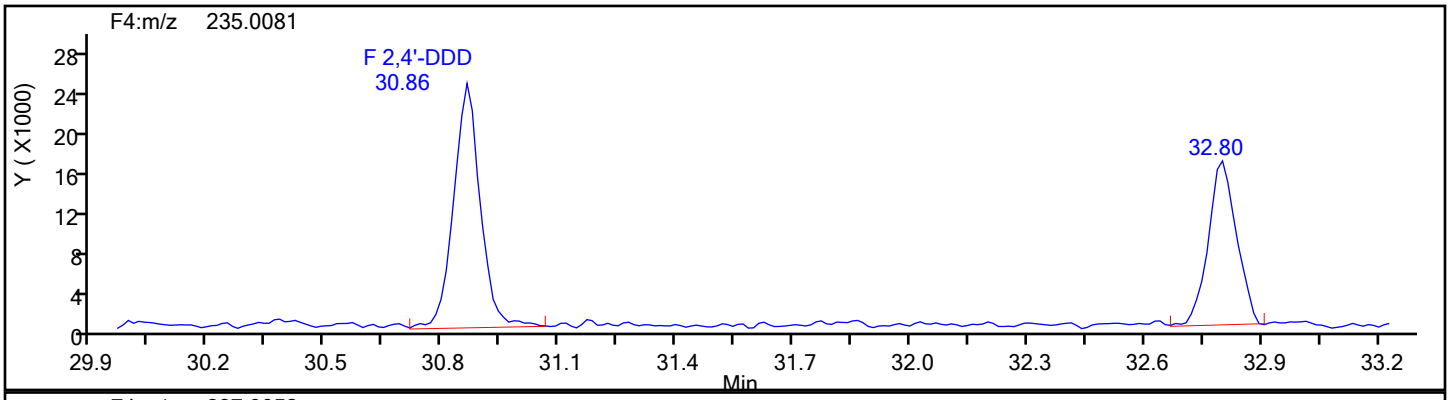
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

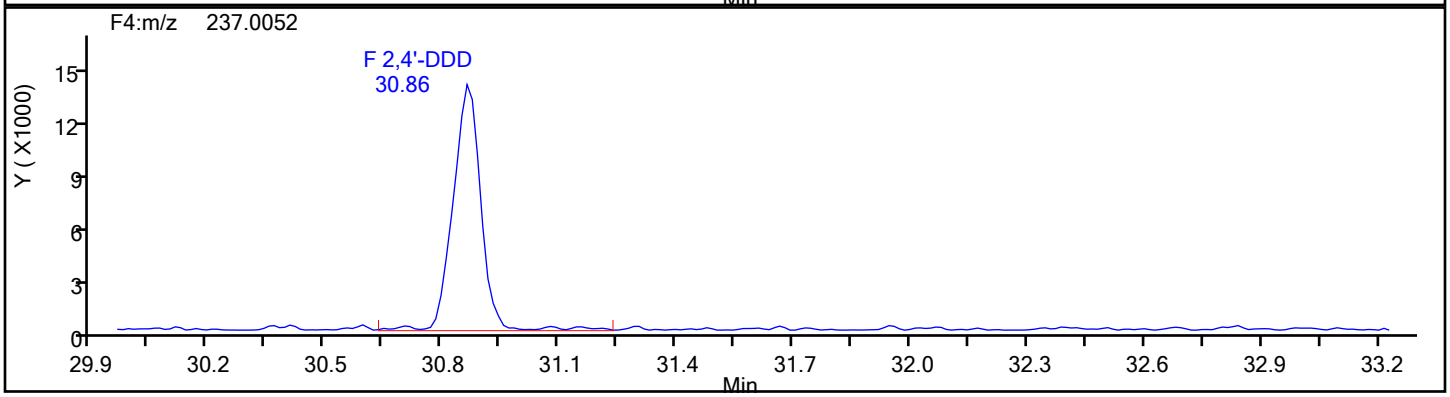
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

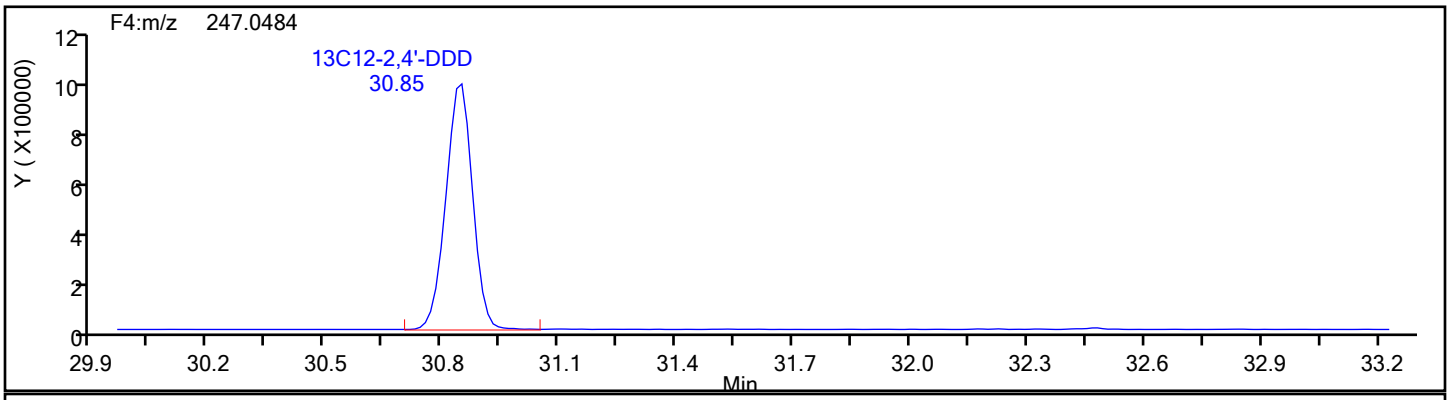
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

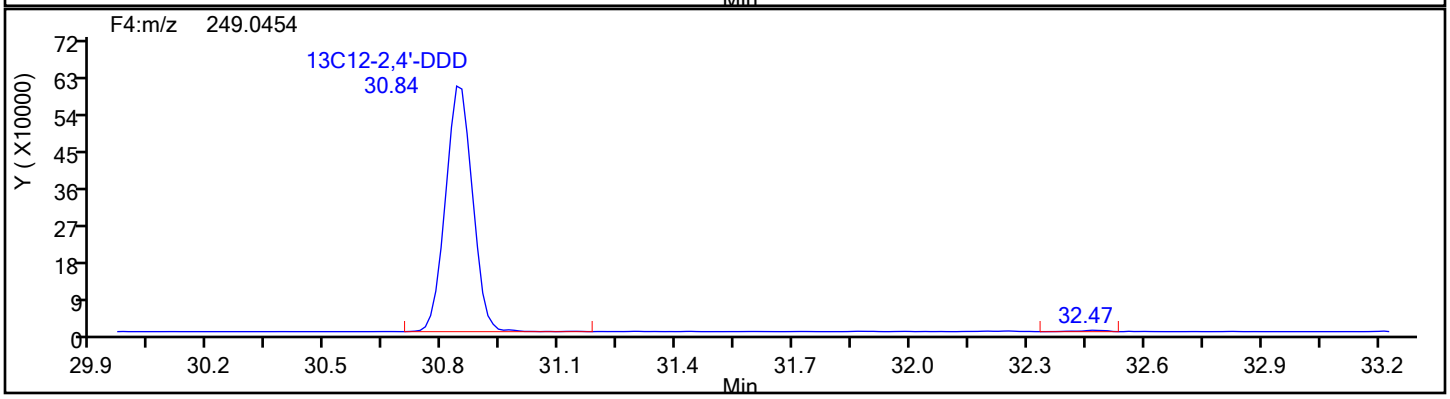
2,4'-DDD





2,4'-DDD Standards



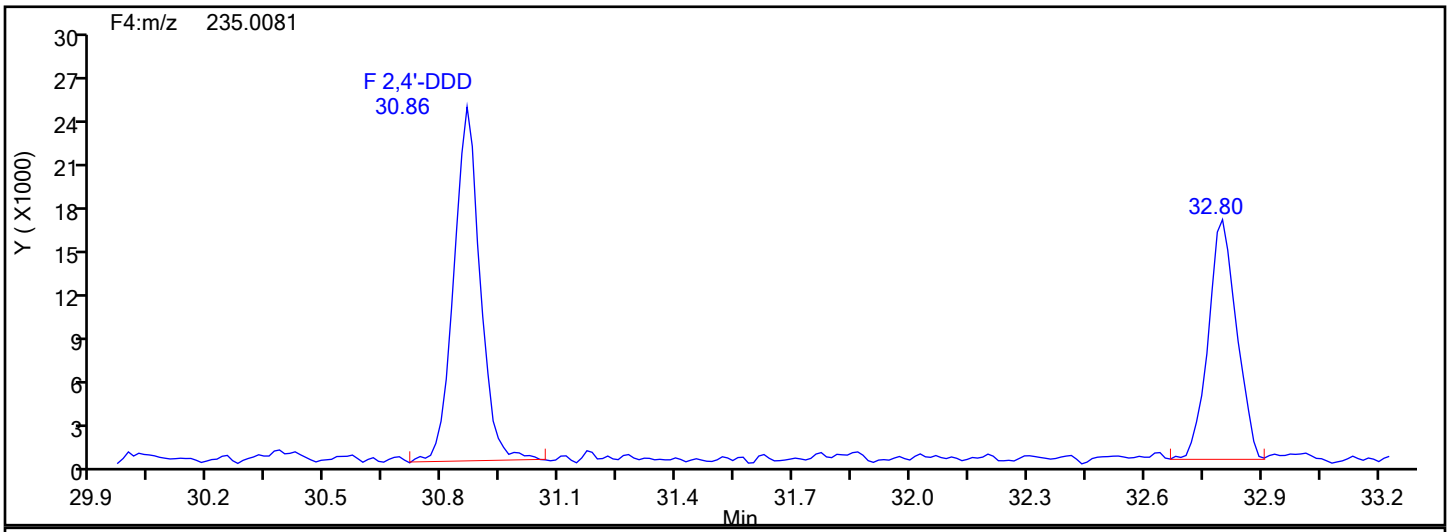


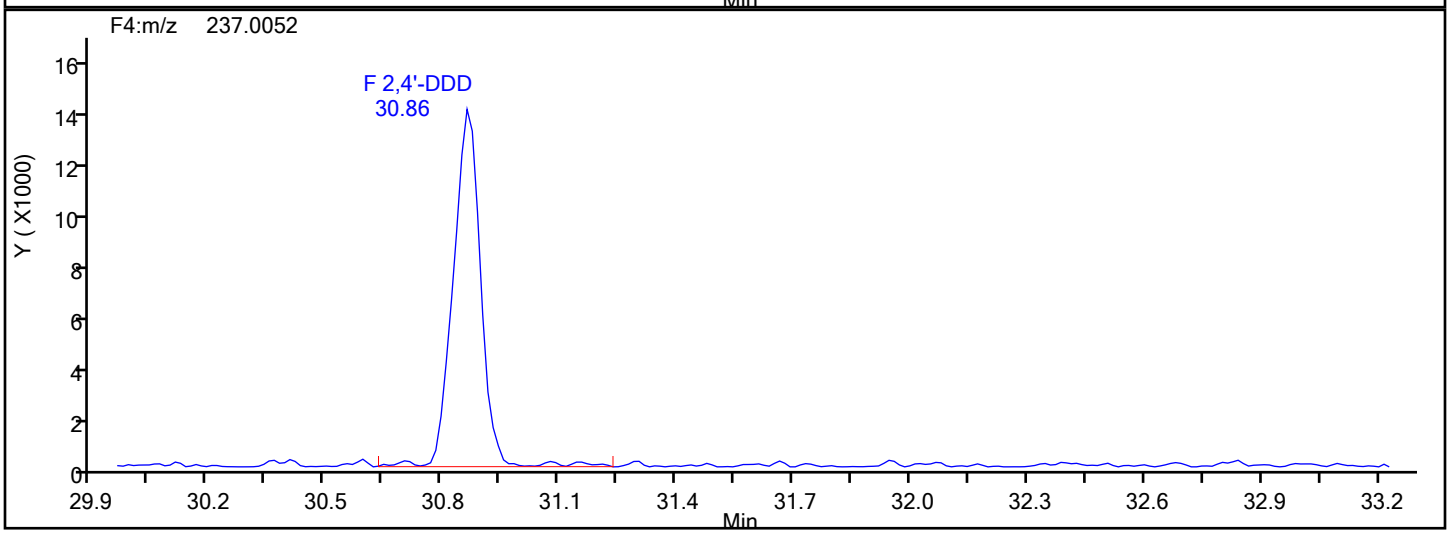
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

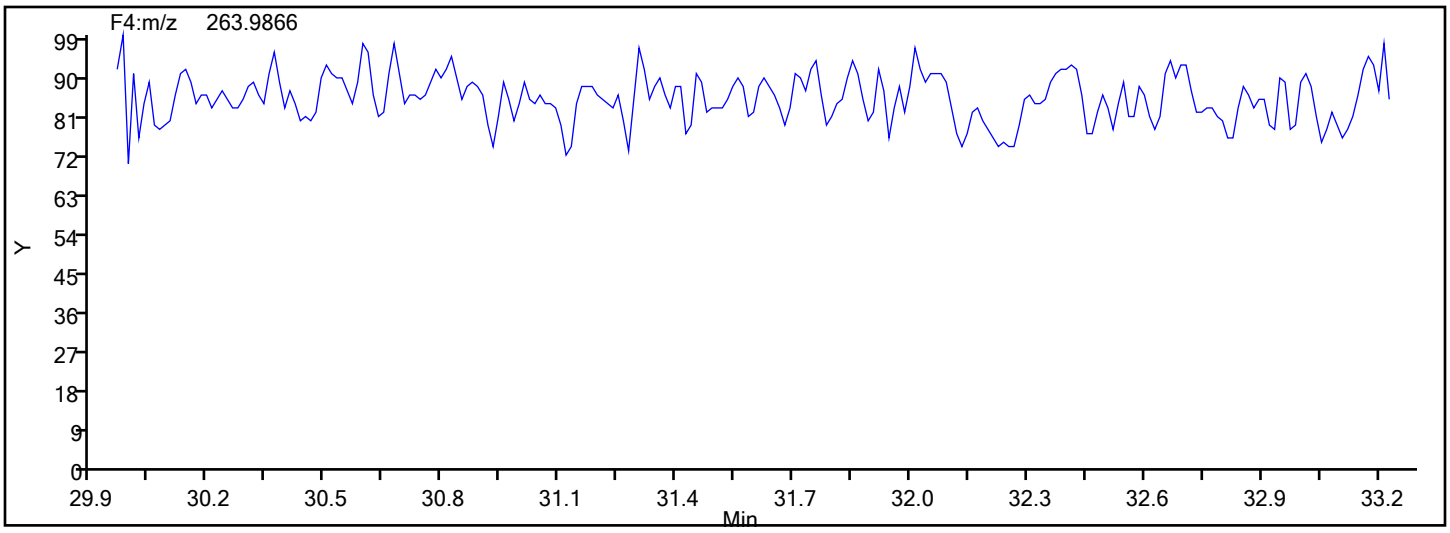
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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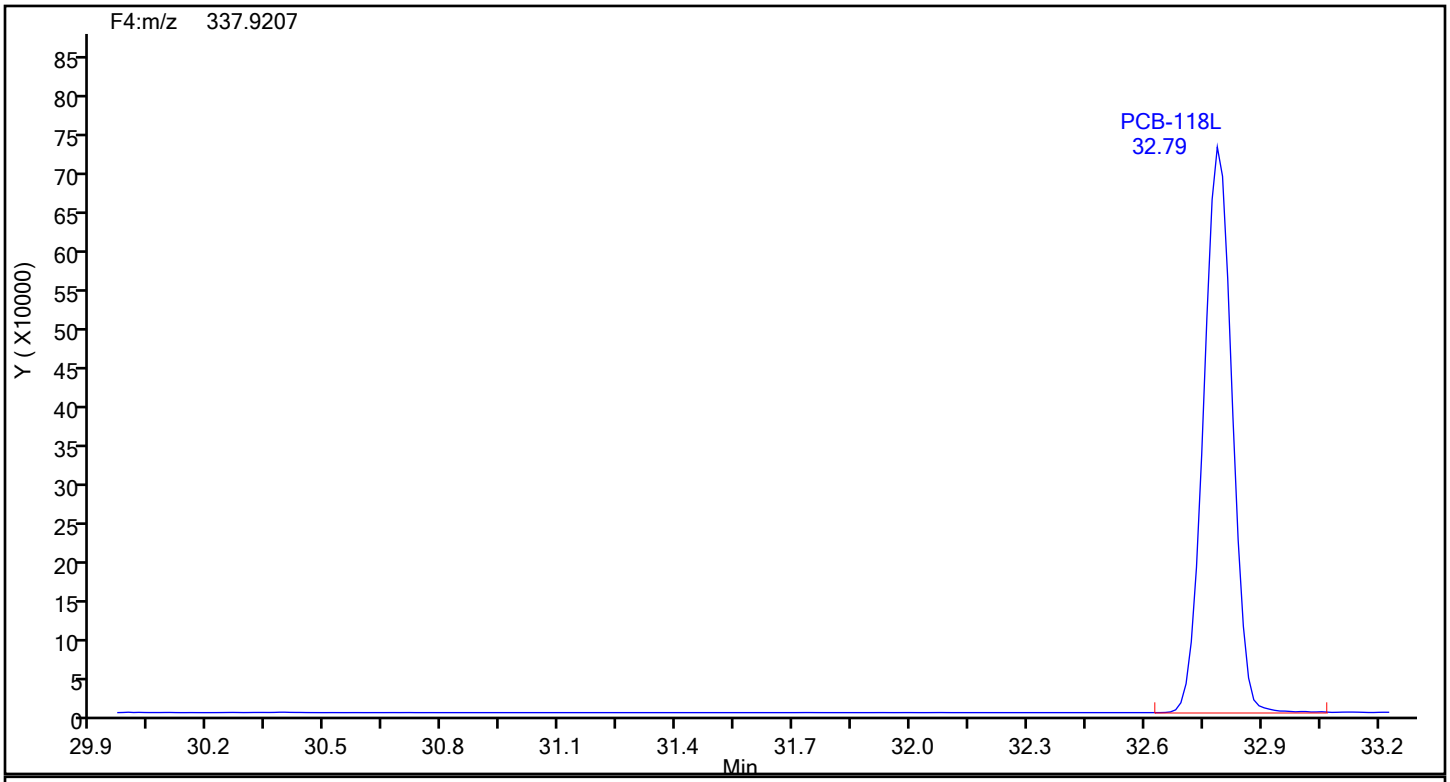
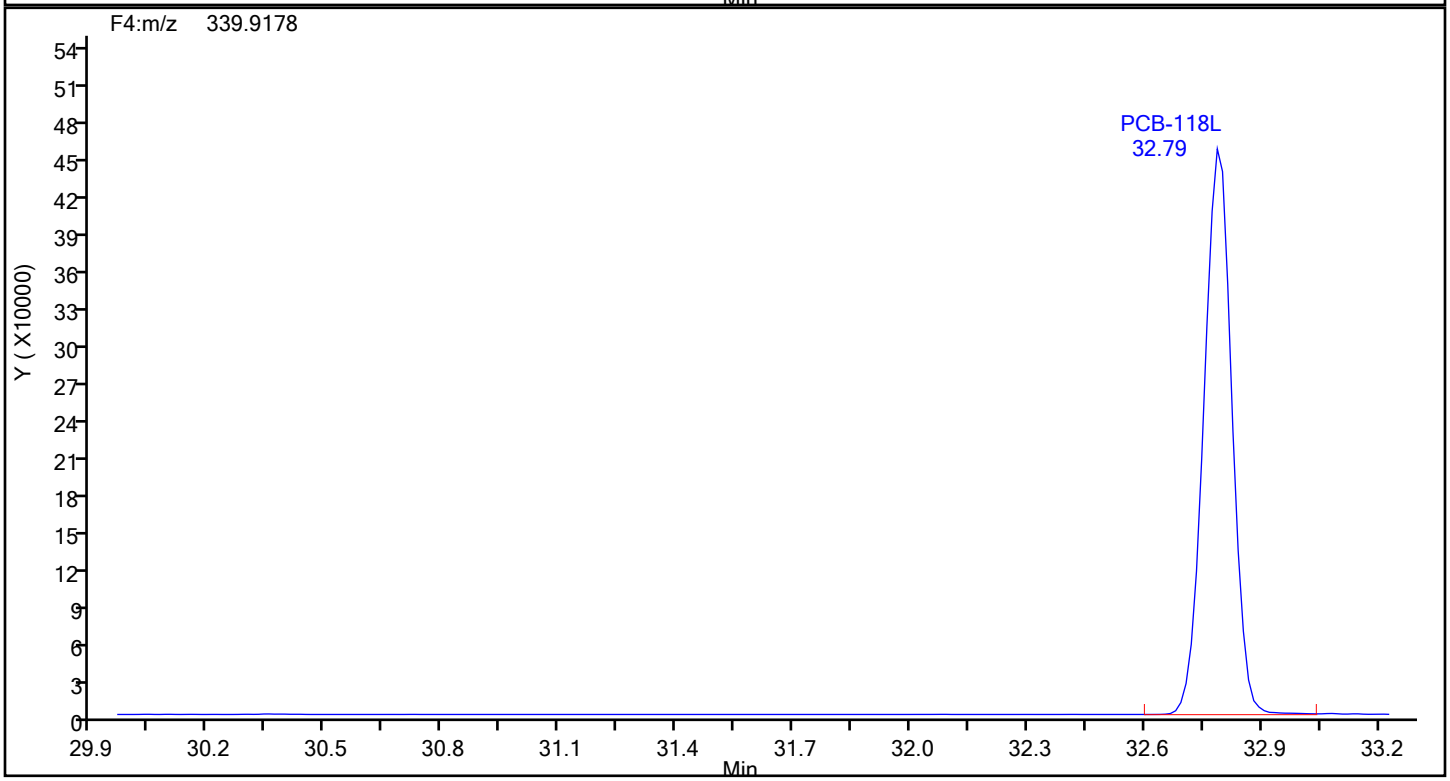
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



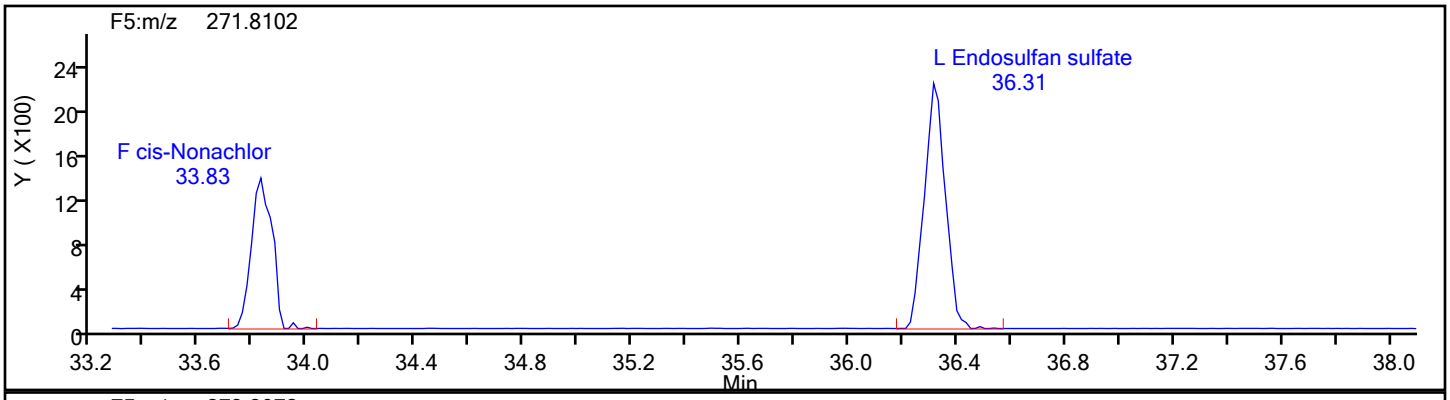


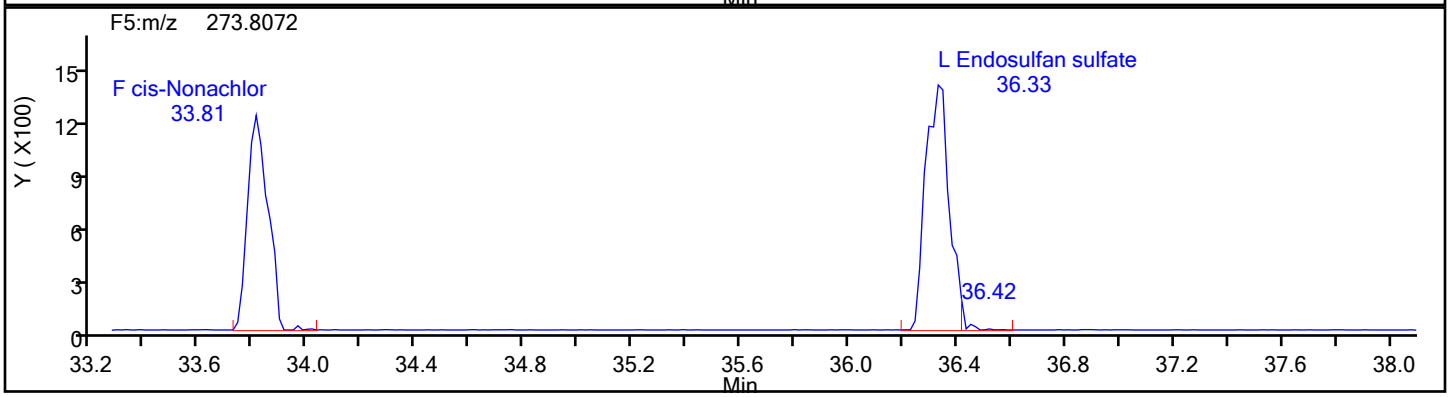
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

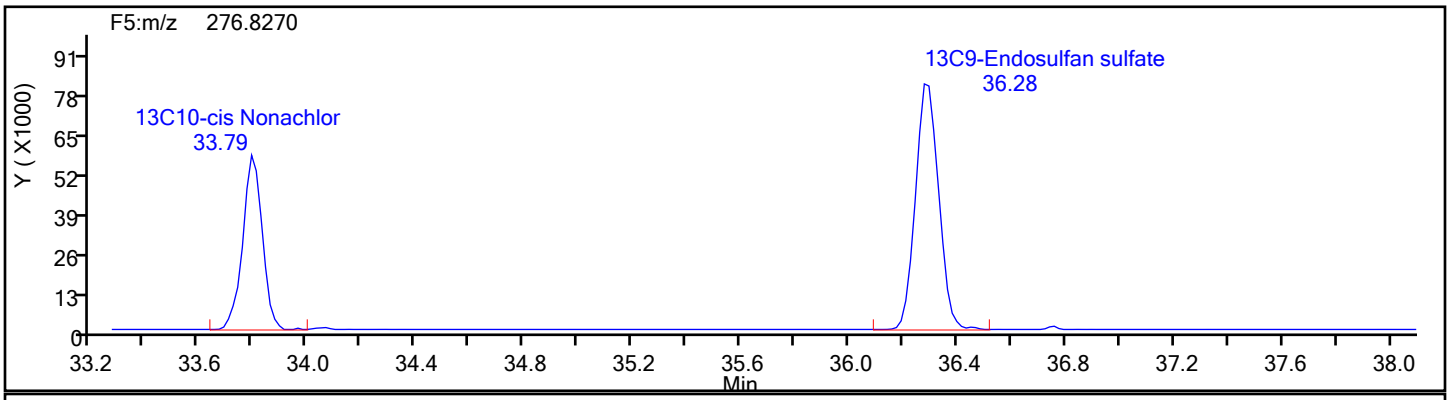
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

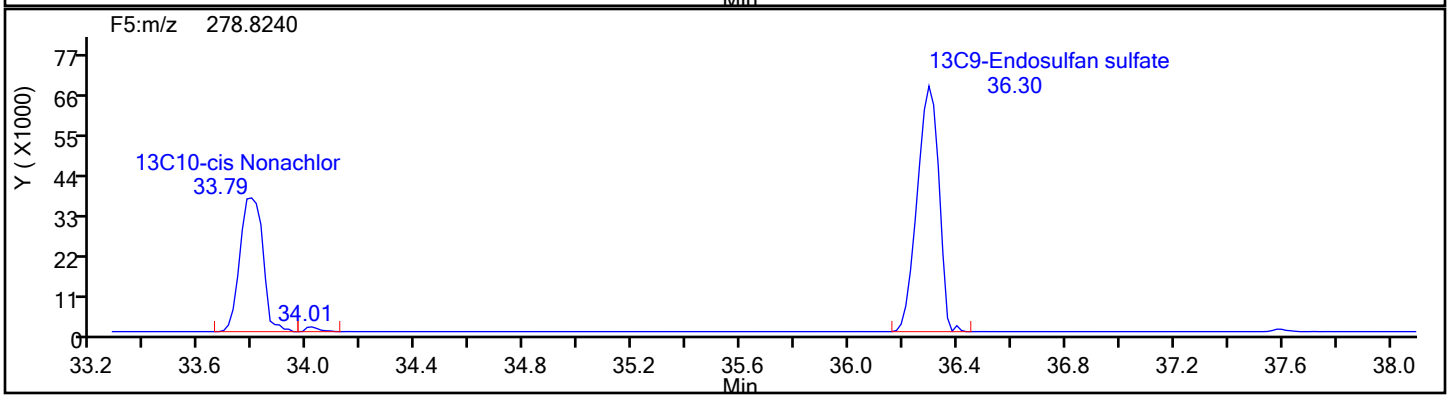
Nonachlor





Nonachlor Standards





Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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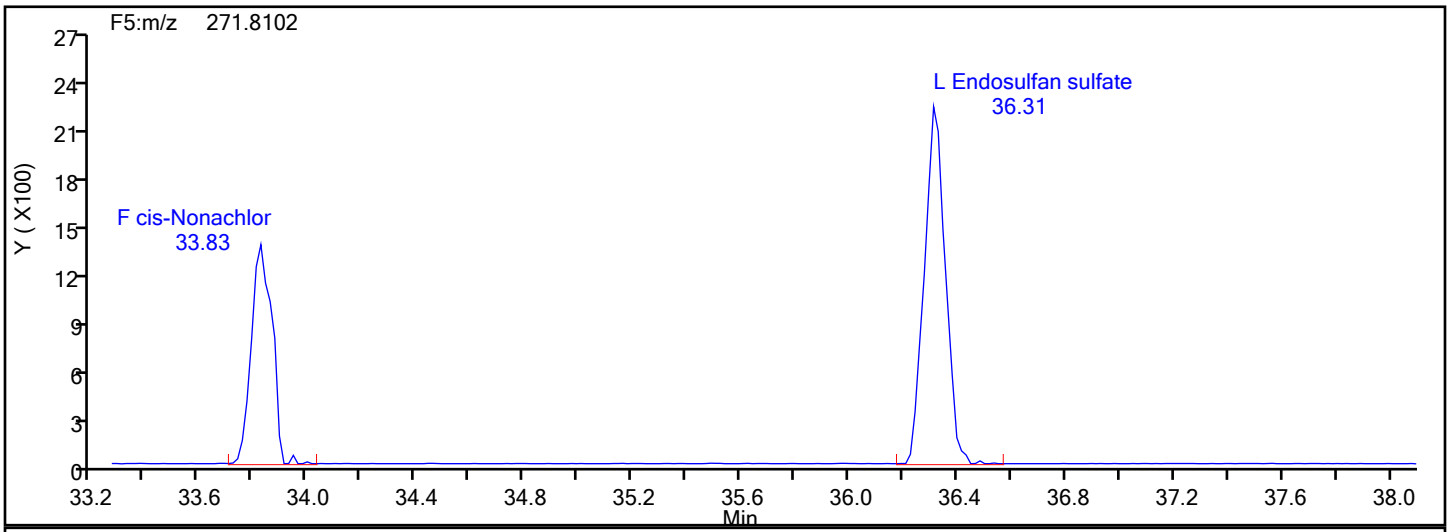
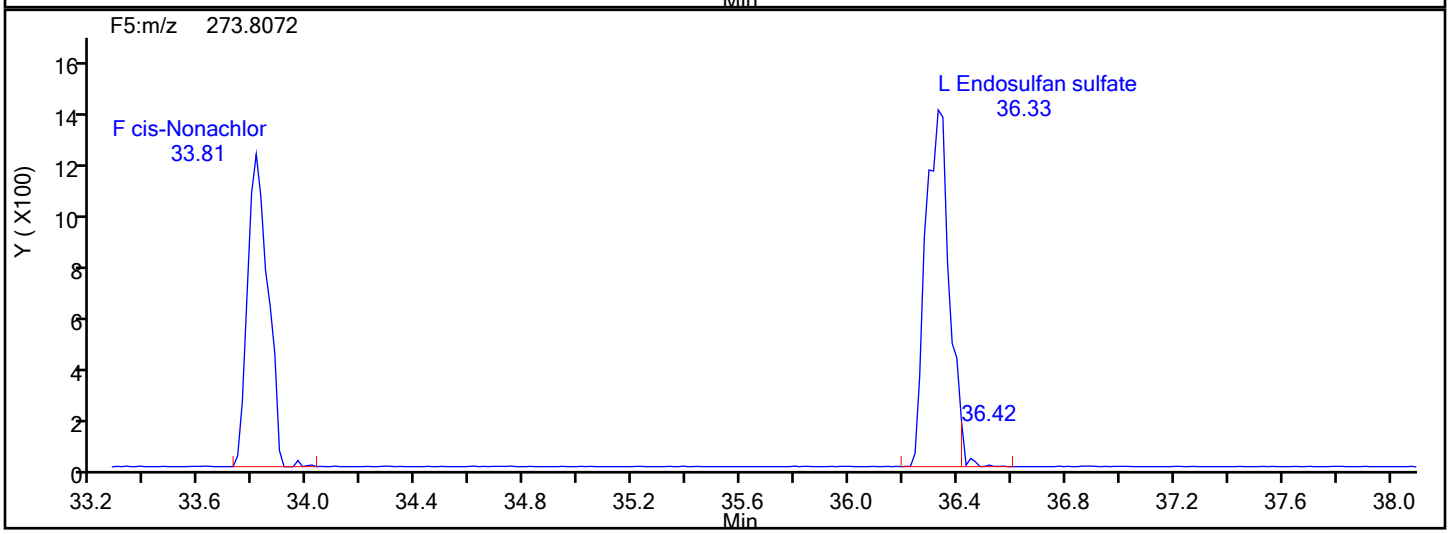
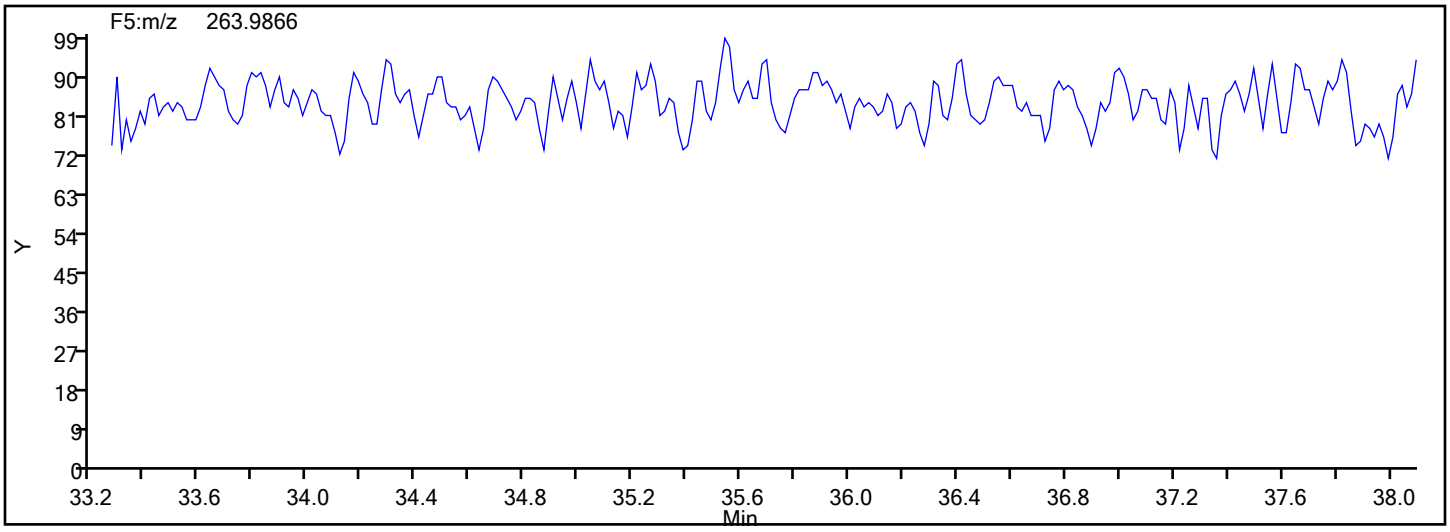
Nonachlor





Nonachlor Lock Mass



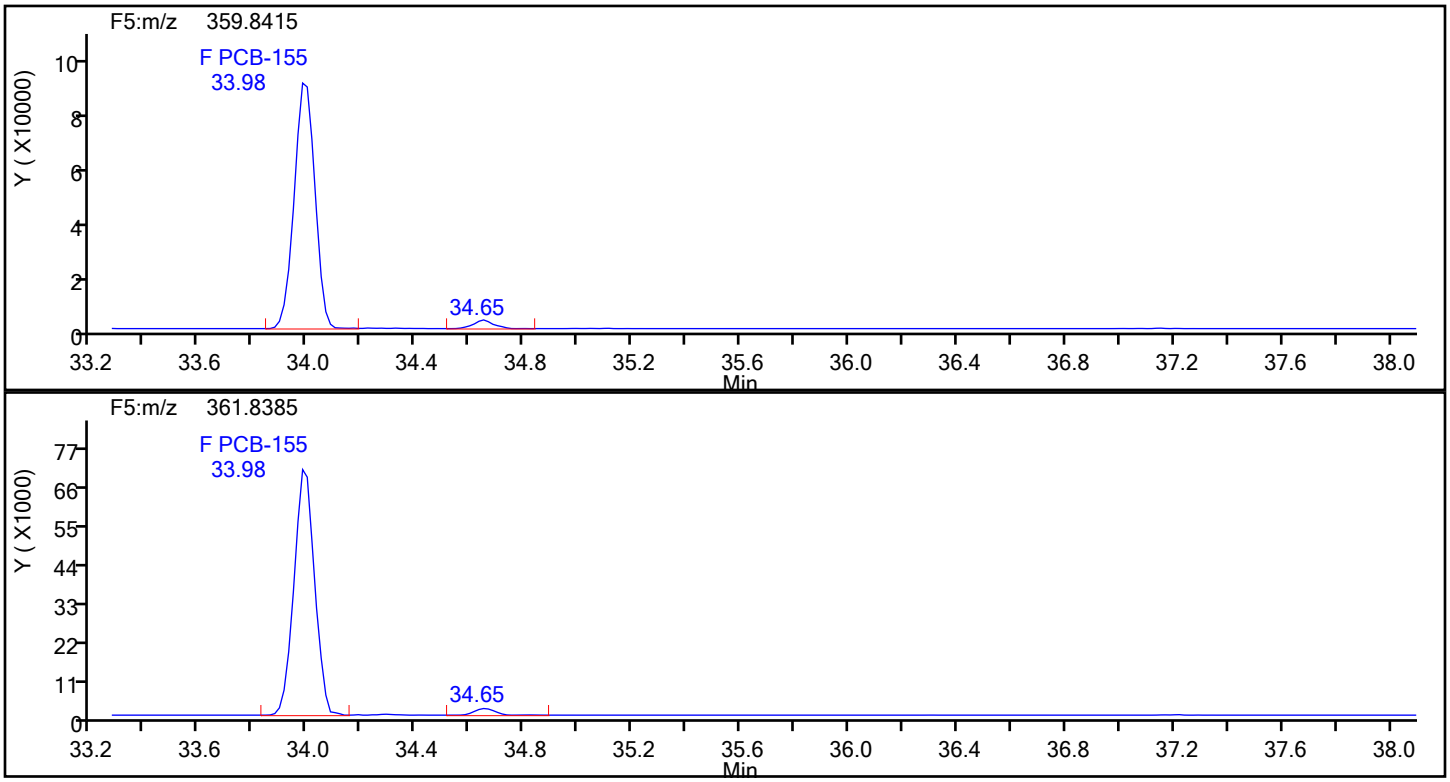
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

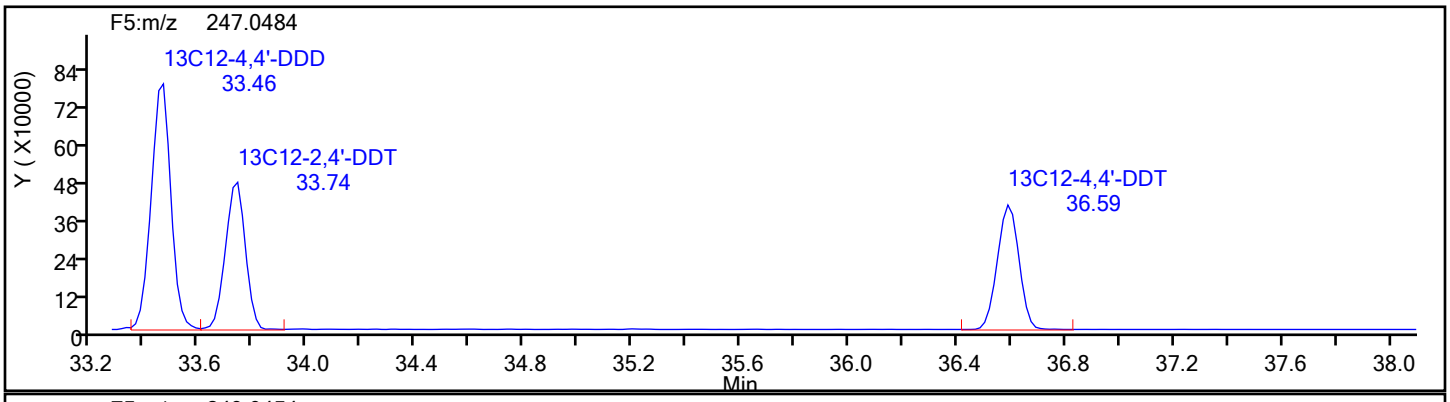
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

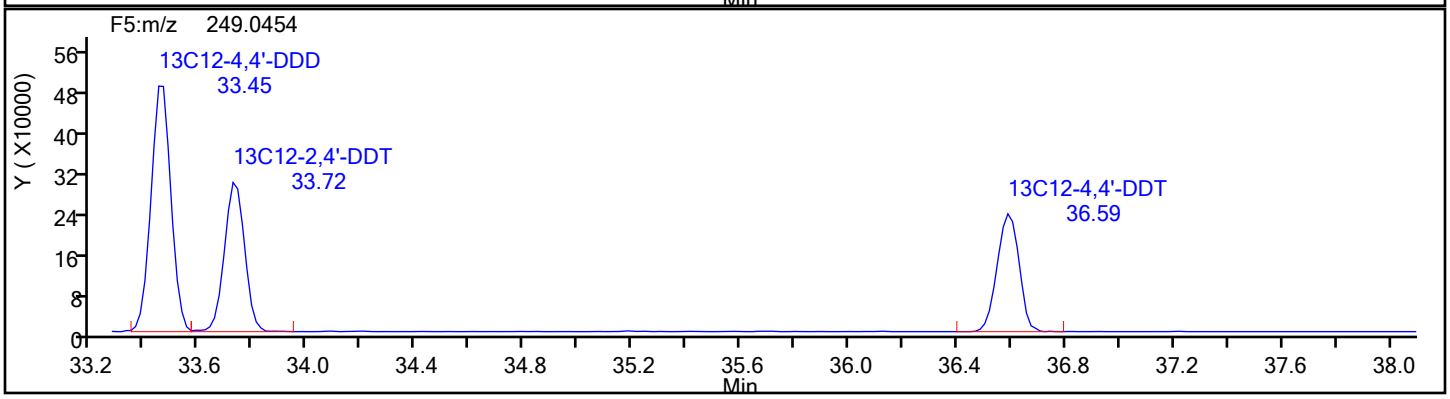
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



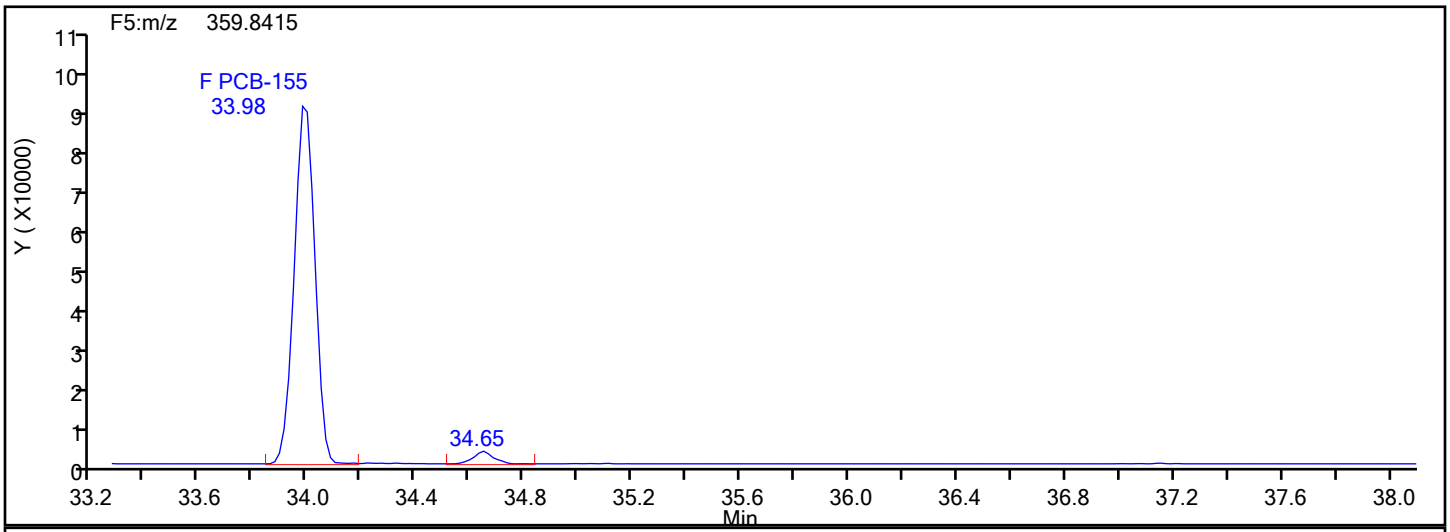


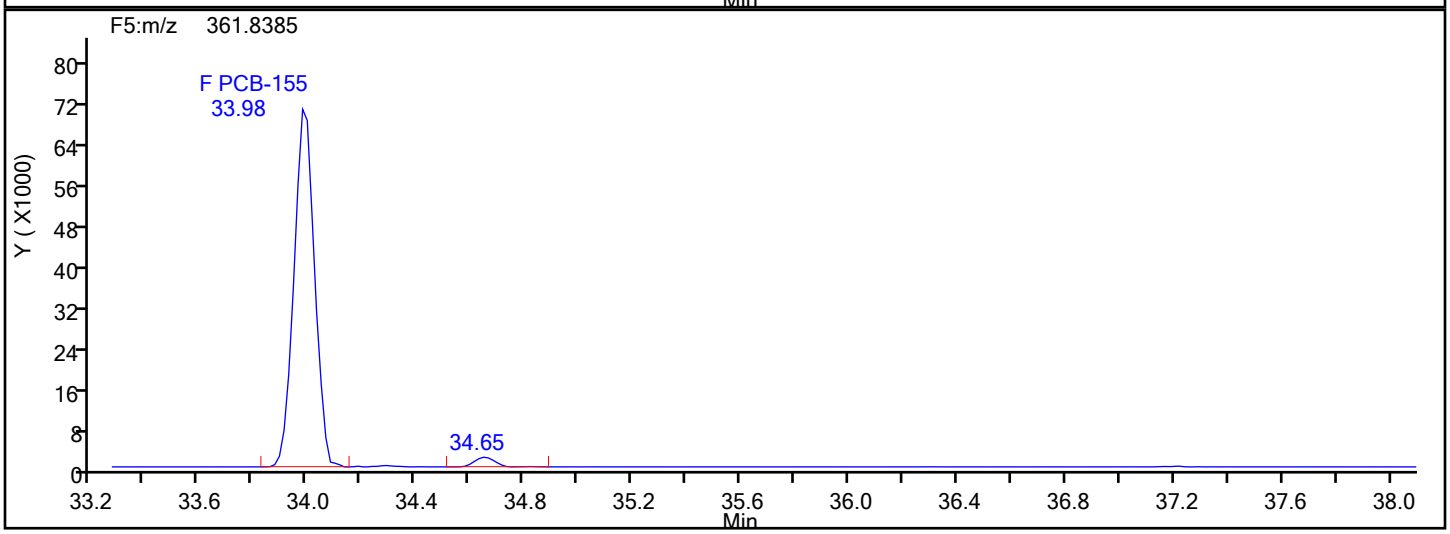
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

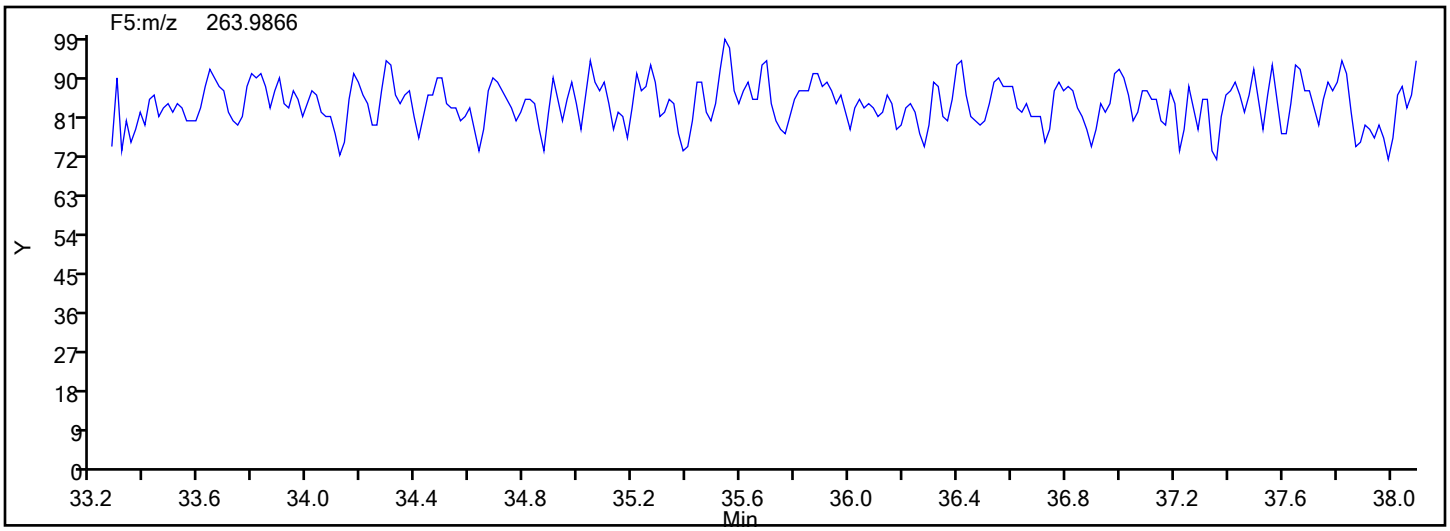
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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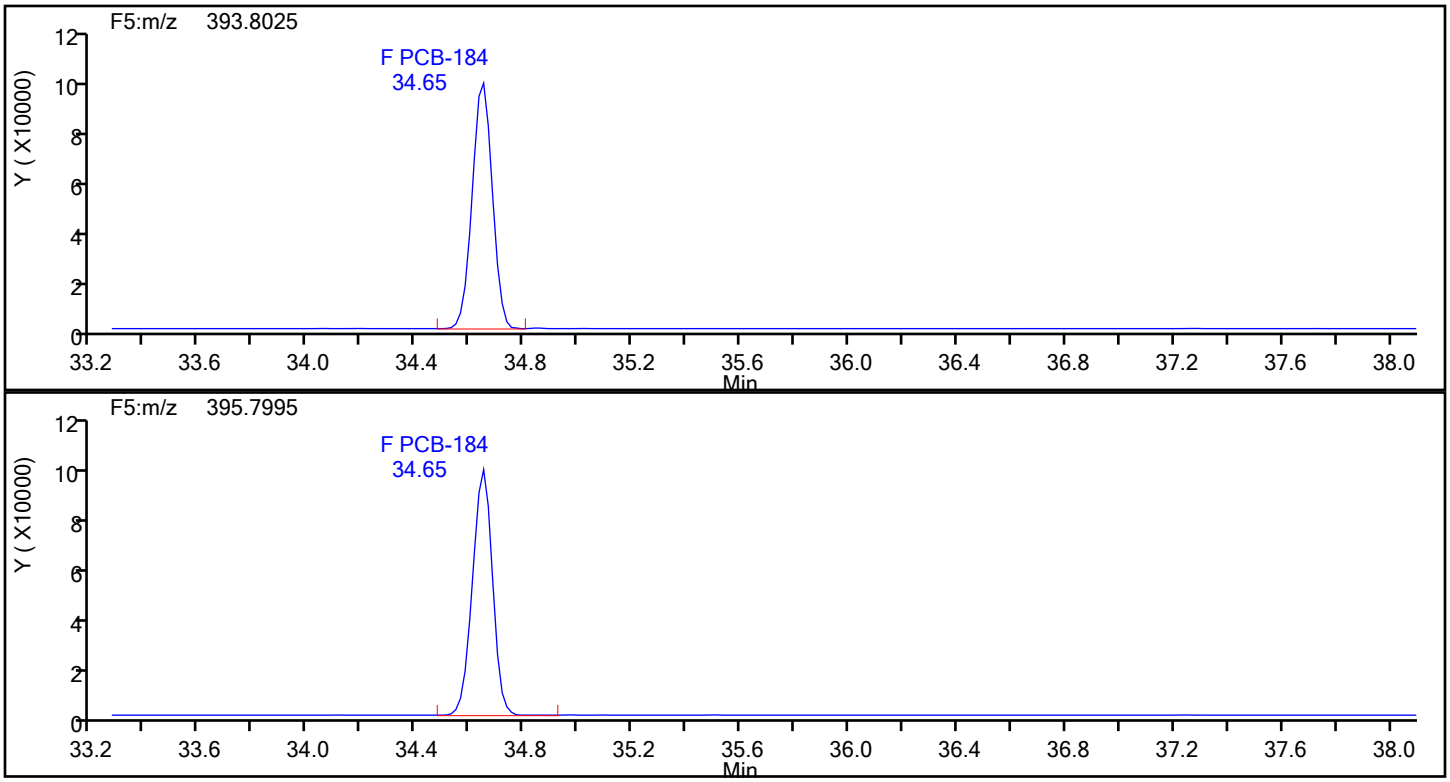
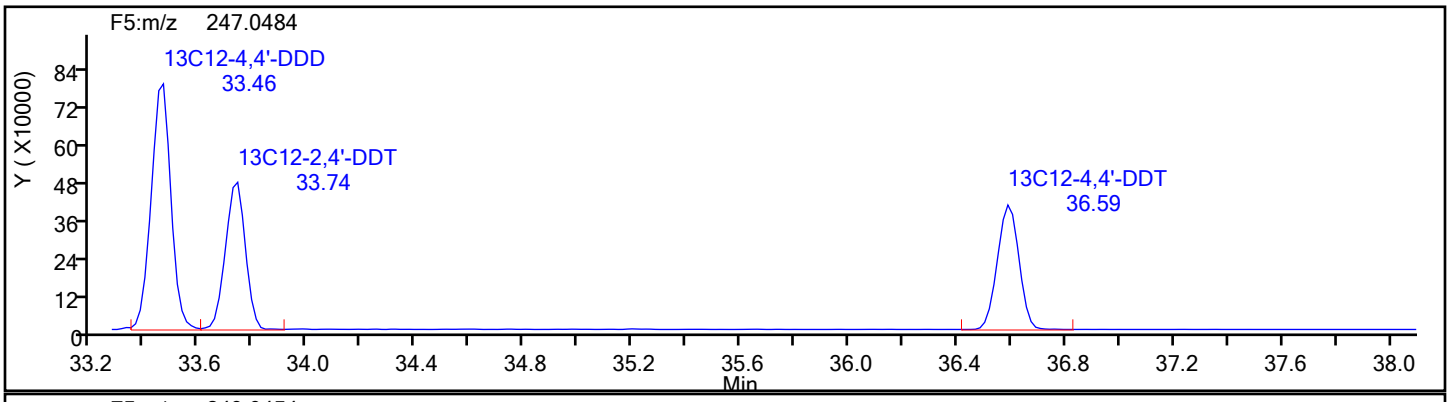
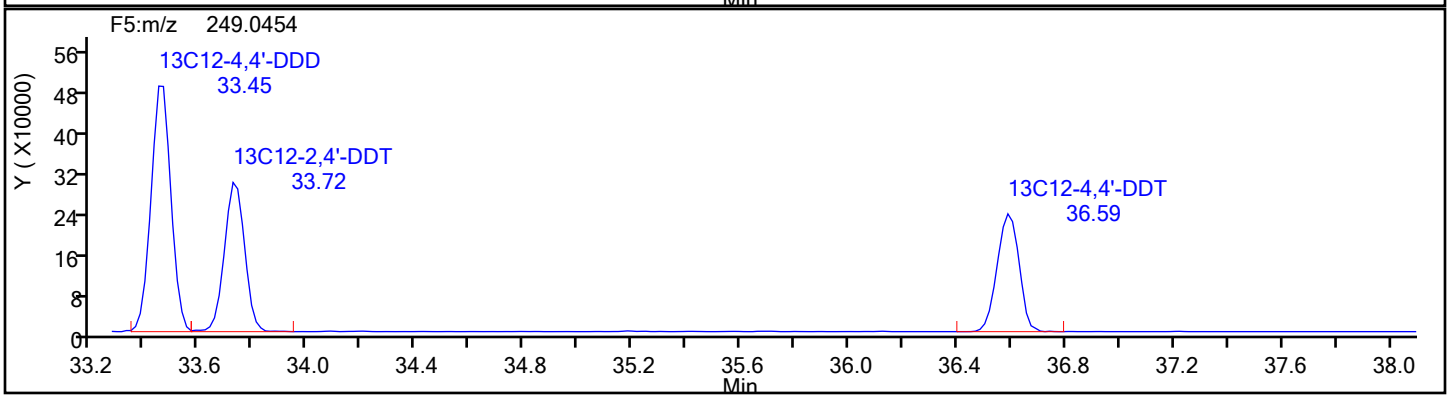
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards





Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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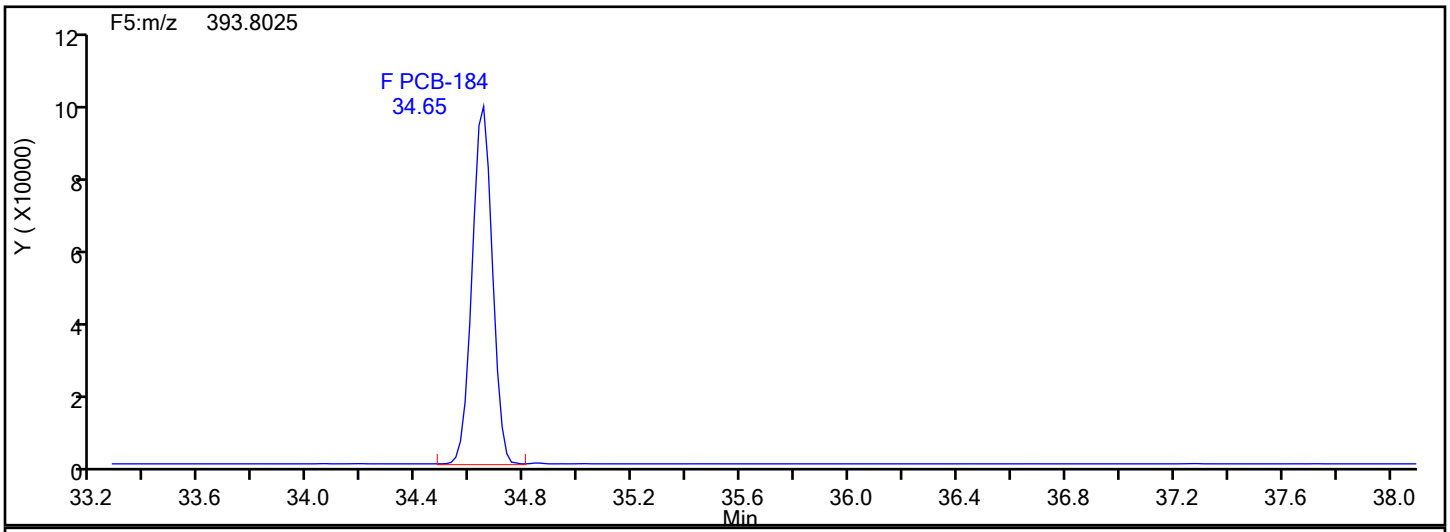
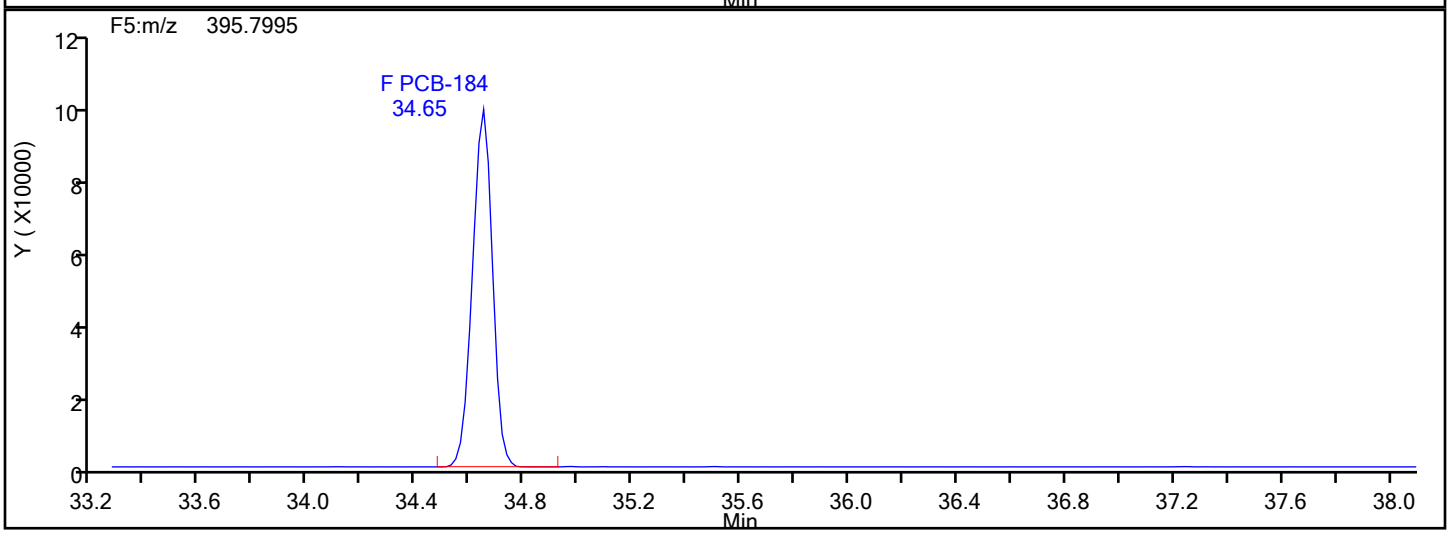
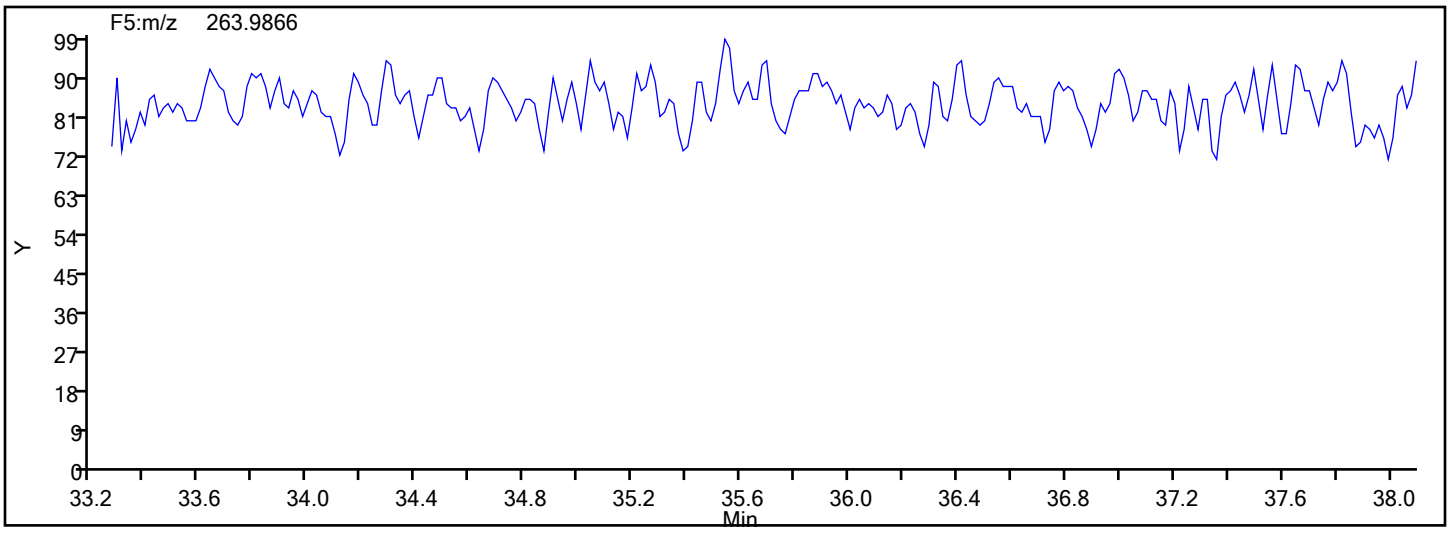
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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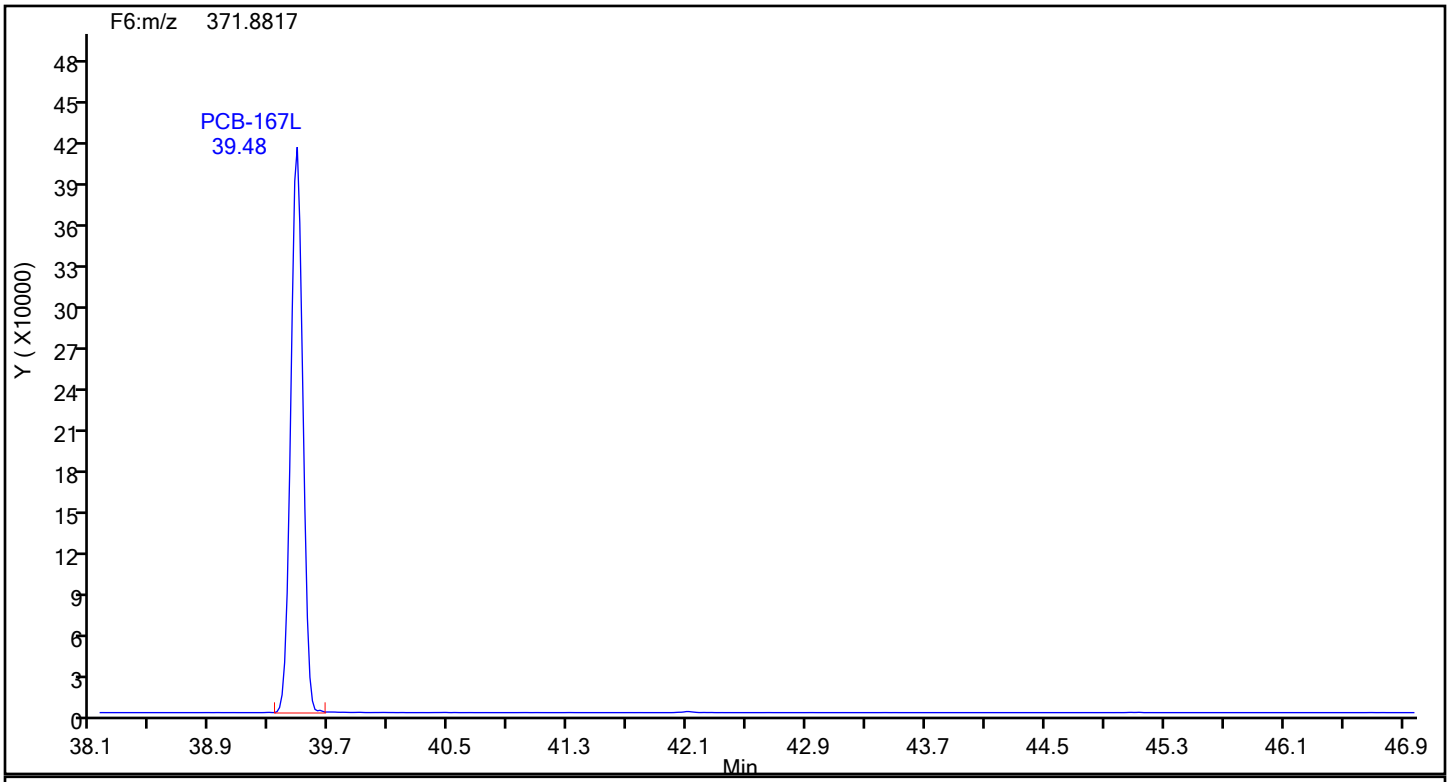
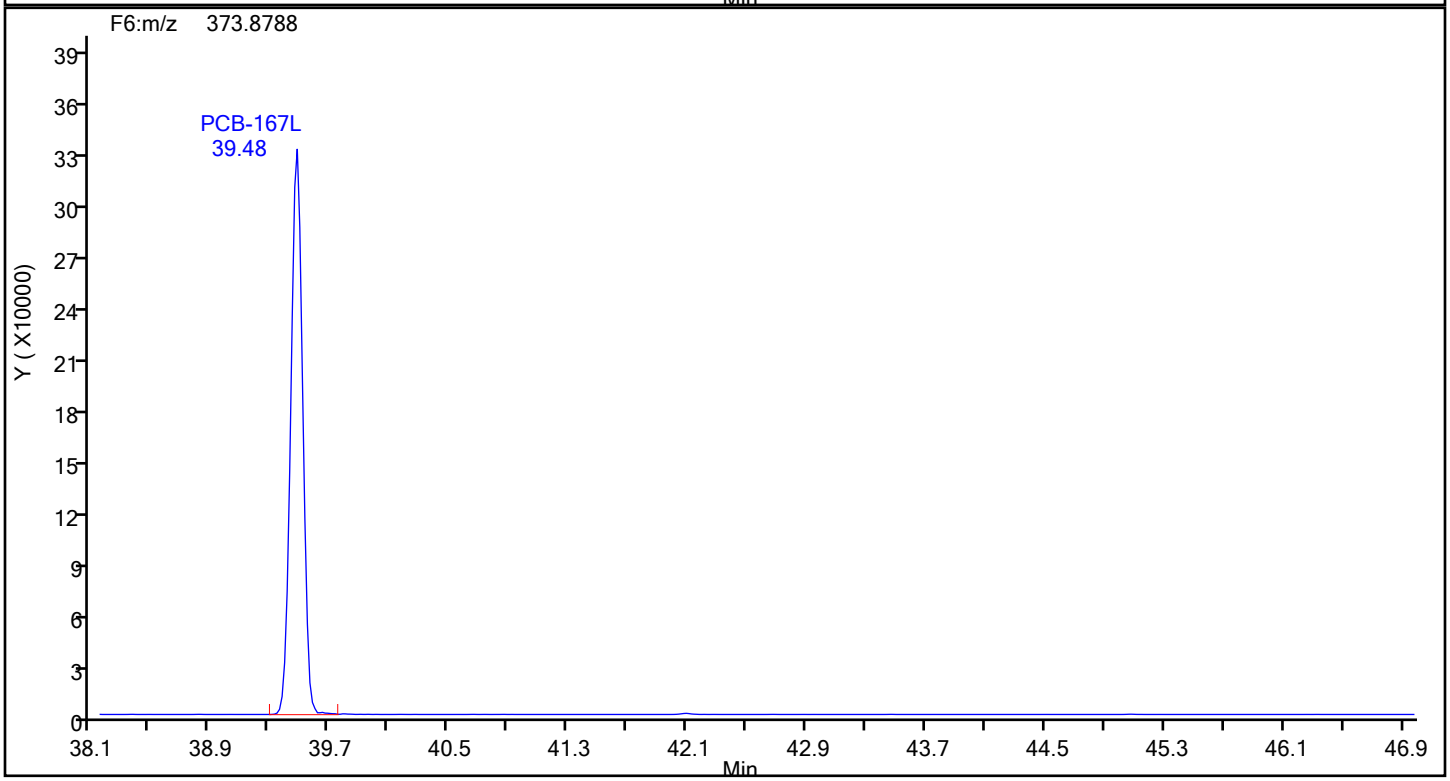
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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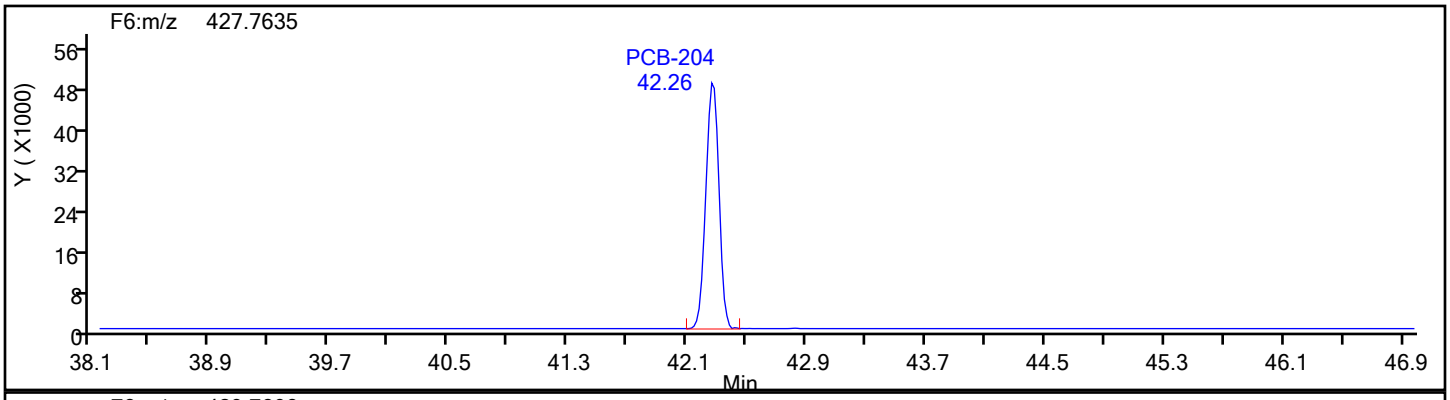
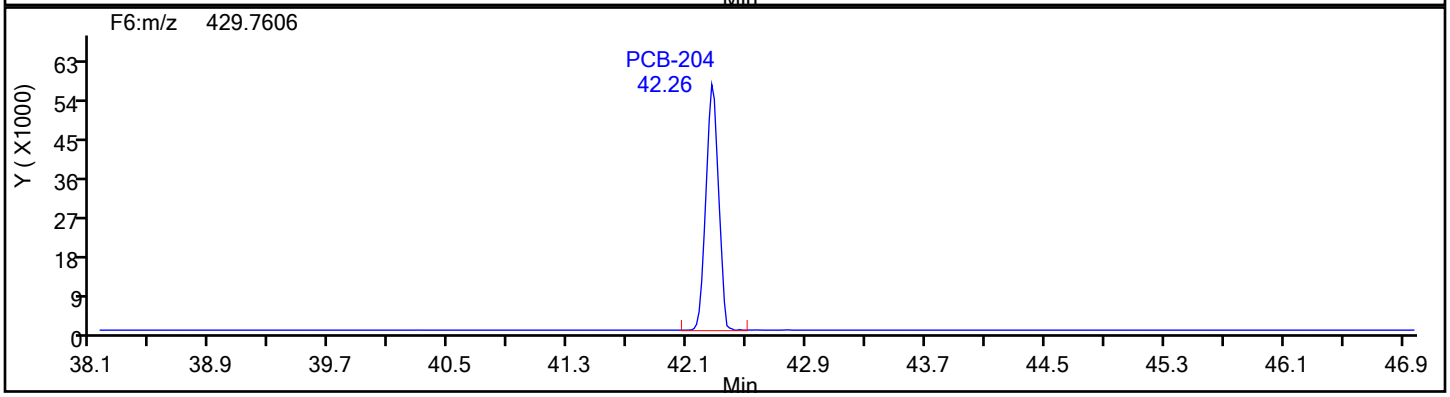
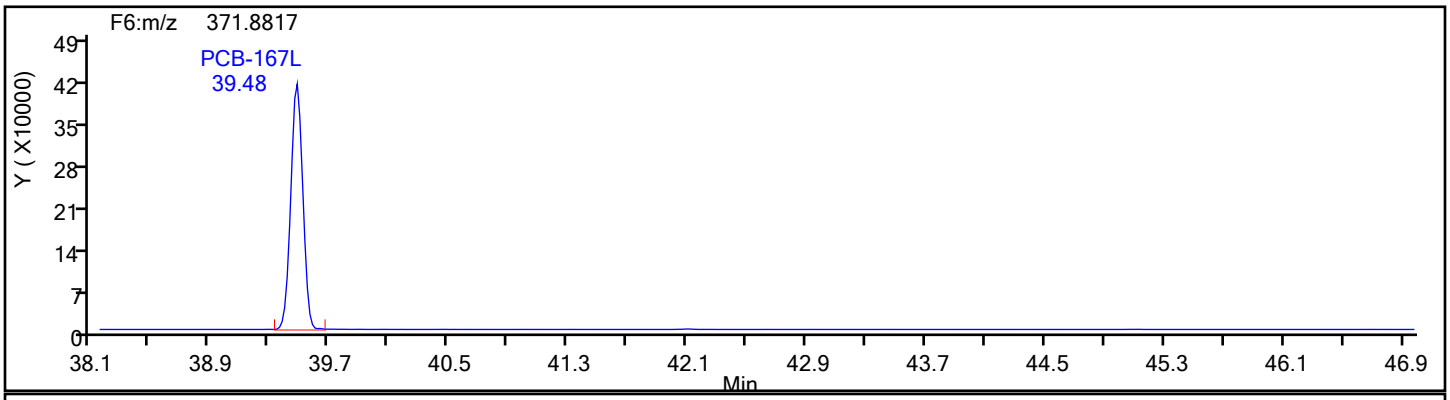
Column Type:	RTX-5	Column Dia:	0.32 mm

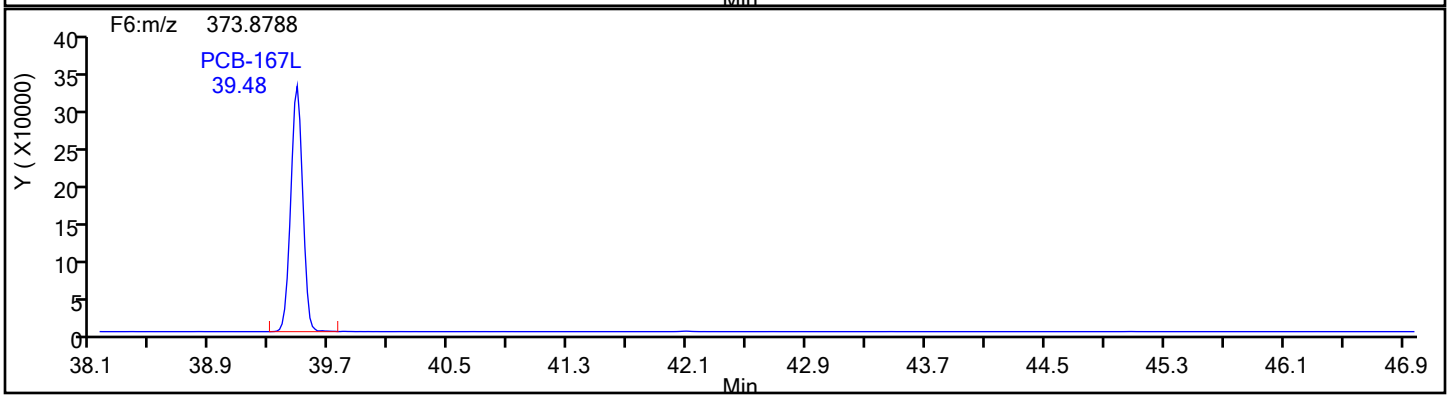
PCB-204





PCB-204 Standards





Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d		
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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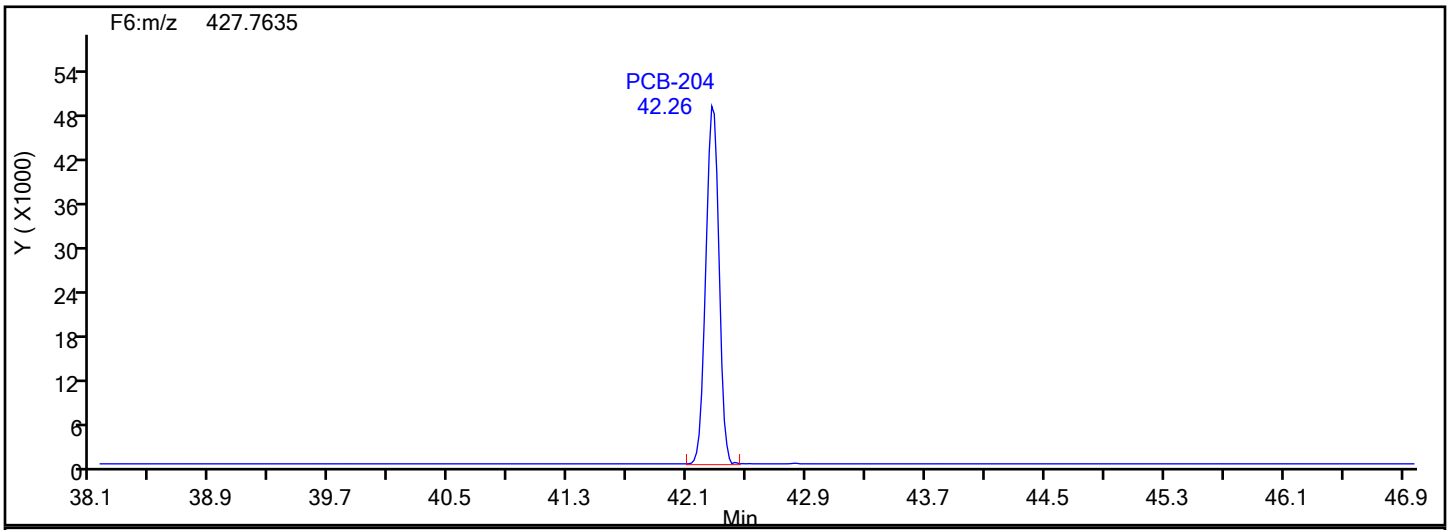
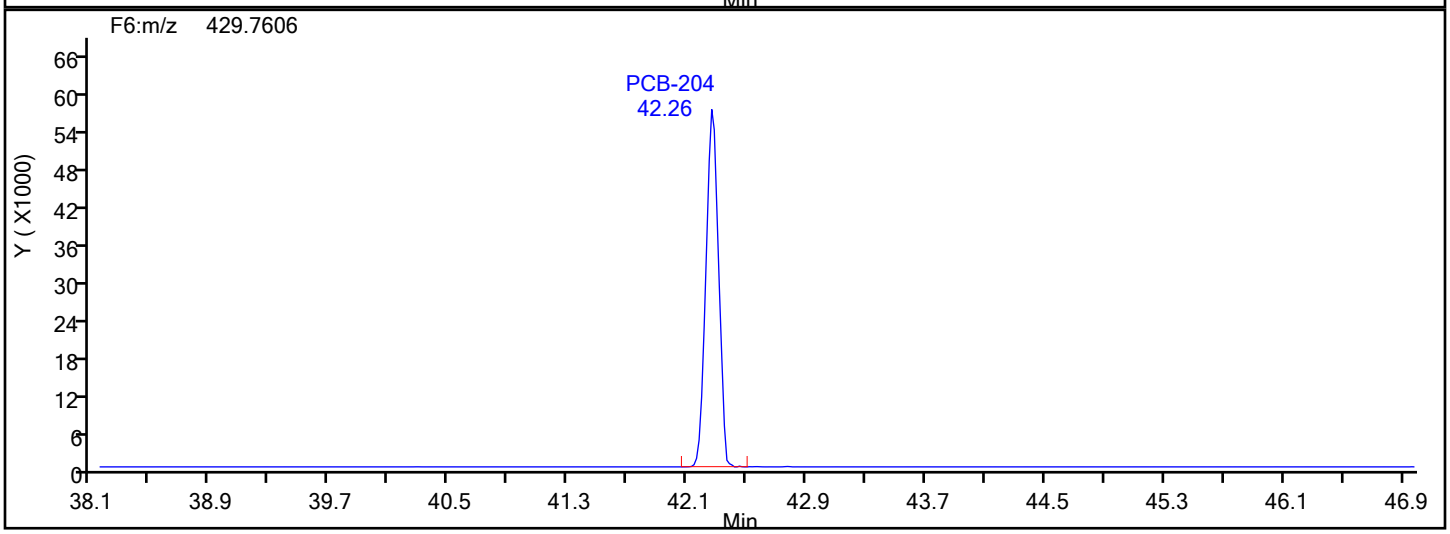
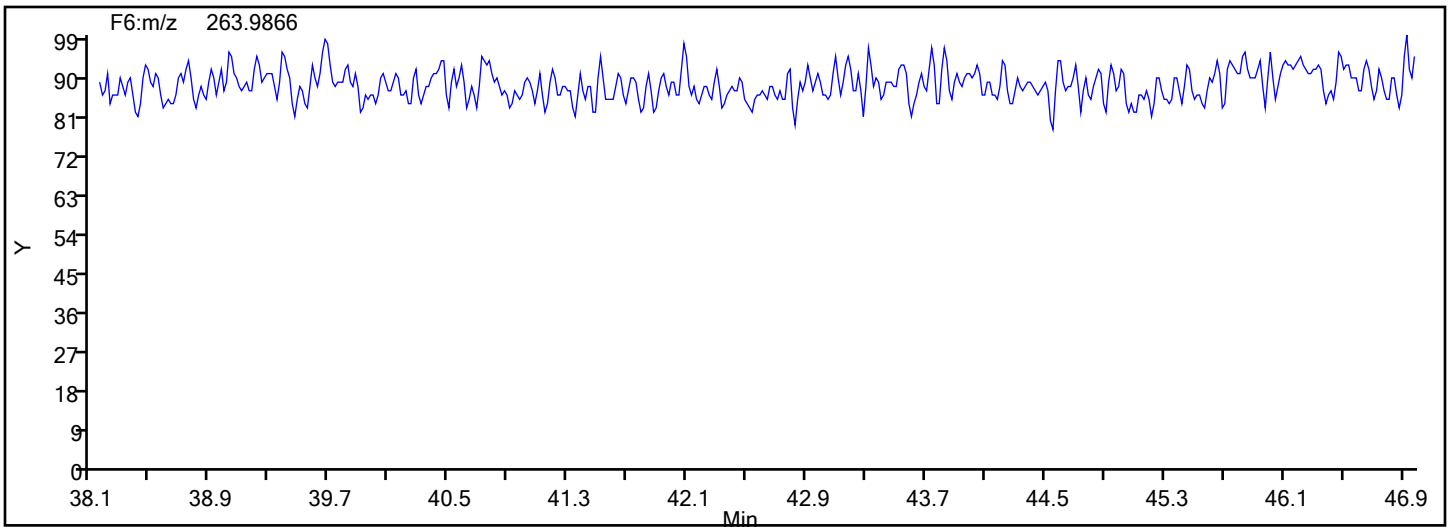
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



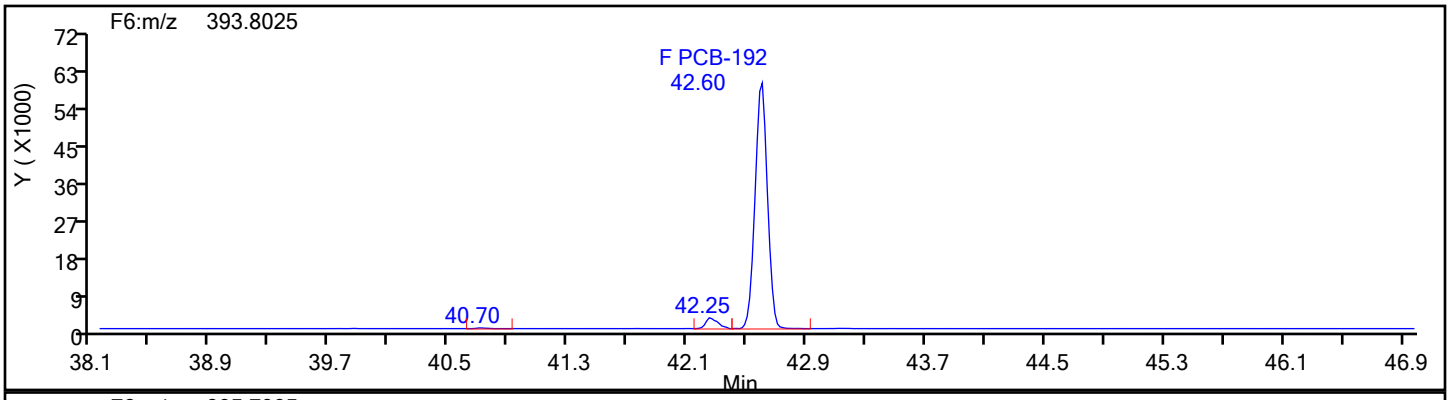
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

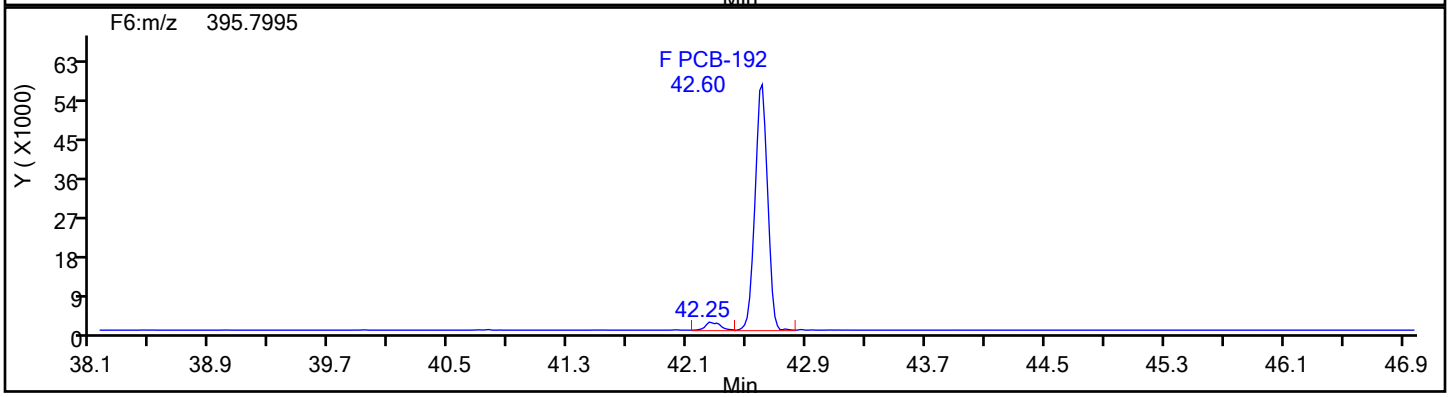
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d

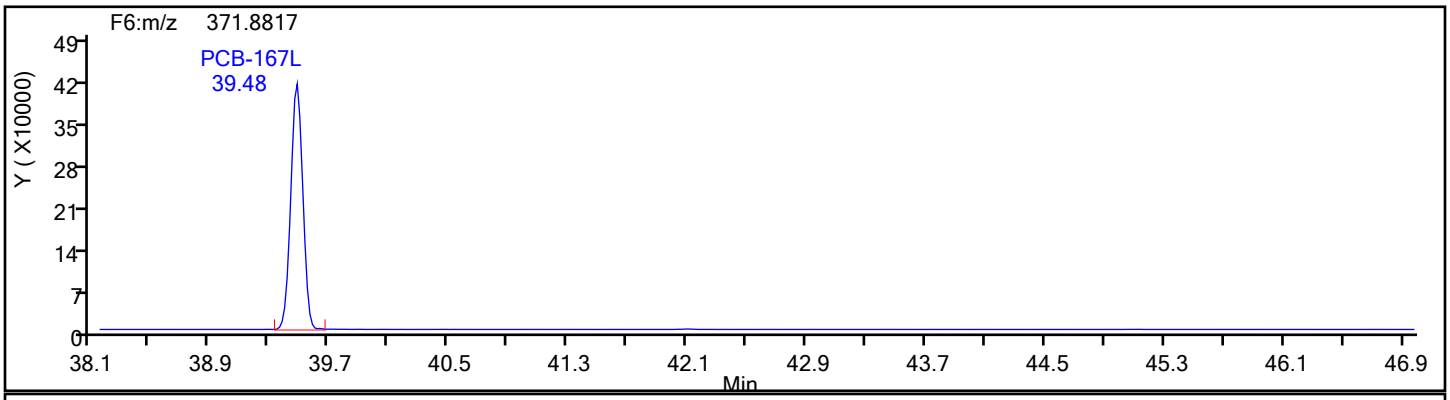
Injection Date:	19-Mar-2025 19:37:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

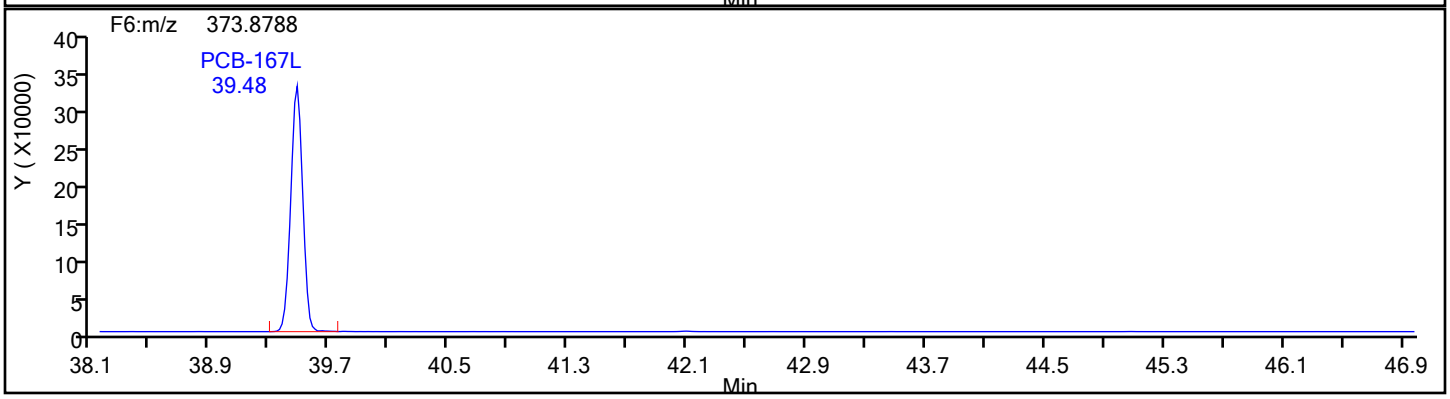
PCB-192





PCB-192 Standards



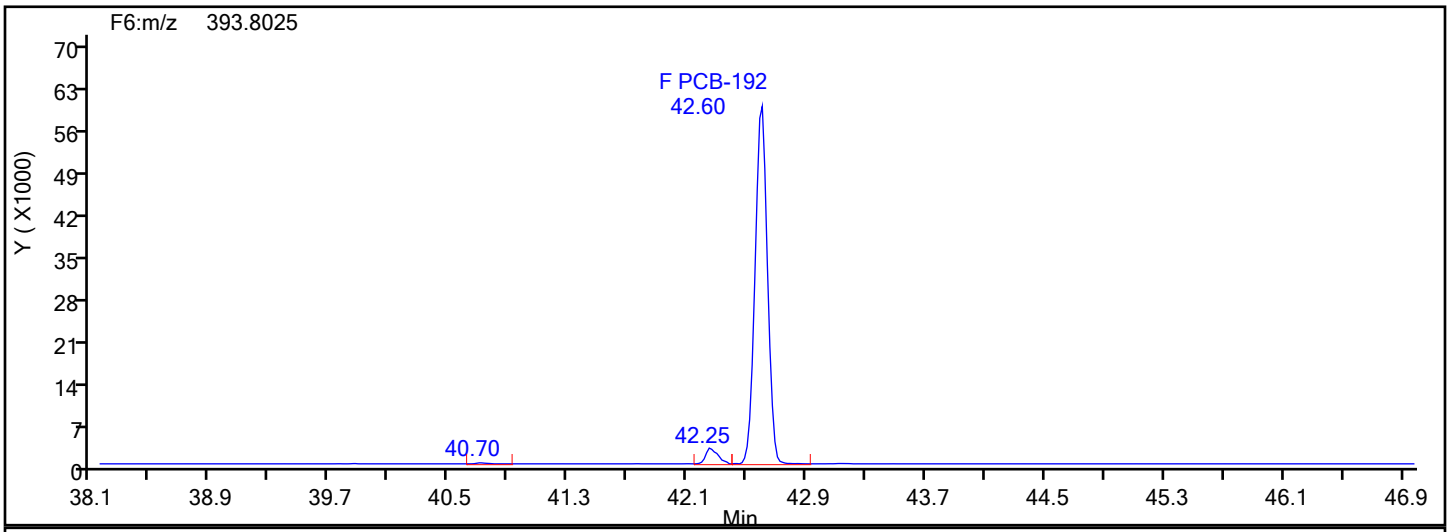


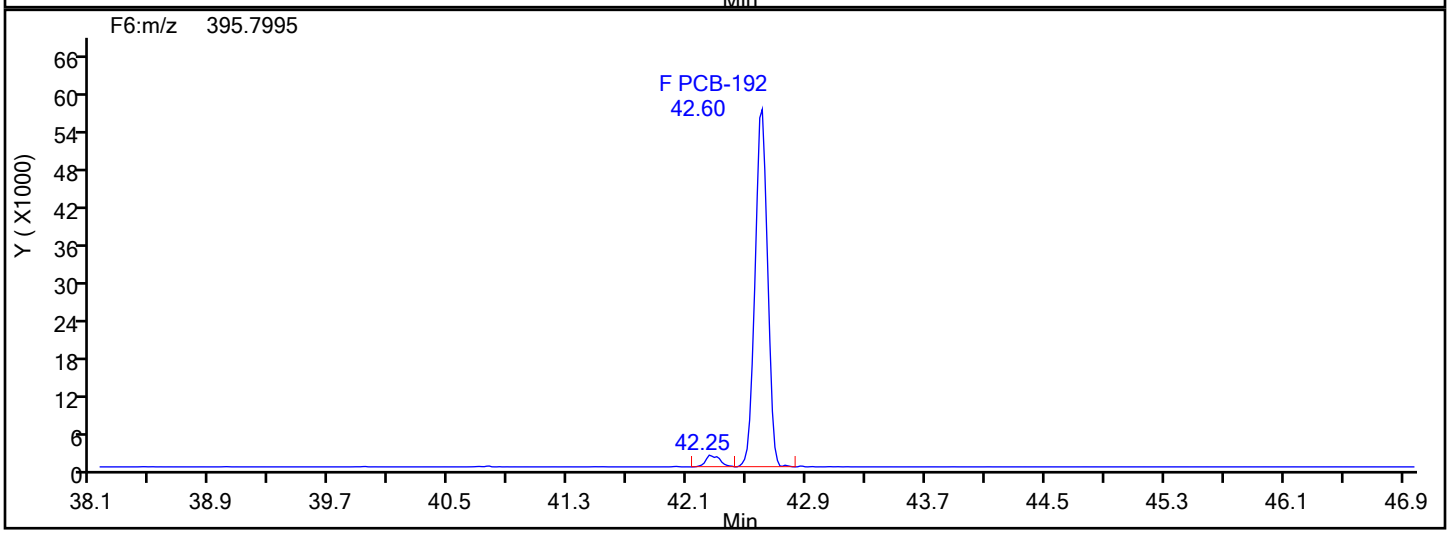
Report Date: 24-Mar-2025 13:06:05 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

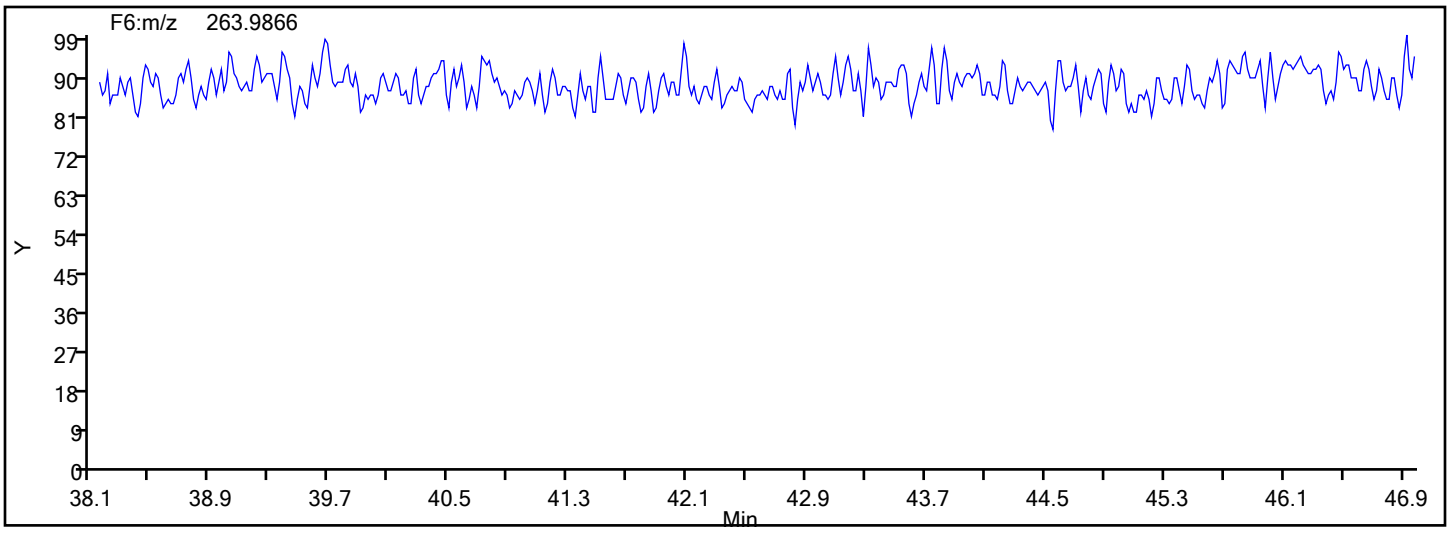
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic3.d
Injection Date: 19-Mar-2025 19:37:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Mar-2025 20:32:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-004
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:11 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:37:15

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:24	3473544	0.83	0.1704	96.0	96.0	0.0516	0.0516	96.01	
alpha-BHC	17:25	395423	0.78	1.0937	10.4	10.4	0.0288	0.0288	104	
D 13C6-beta BHC	18:24	2340824	0.84	0.1244	88.6	88.6	0.0707	0.0707	88.61	
beta-BHC	18:24	768448	0.79	1.0053	32.7	32.7	0.0509	0.0509	327	
D 13C6-gamma BHC	18:40	2935405	0.79	0.1646	84.0	84.0	0.0535	0.0535	83.99	
gamma-BHC (Lindane)	18:41	283718	0.87	0.9800	9.863	9.863	0.0417	0.0417	98.63	
D 13C6-delta BHC	19:38	1951007	0.83	0.0992	92.6	92.6	0.0887	0.0887	92.62	
delta-BHC	19:39	248412	0.78	1.1243	11.3	11.3	0.0588	0.0588	113	
D 13C10-Heptachlor	21:53	1497603	1.28	0.0715	98.6	98.6	0.0787	0.0787	98.63	
Heptachlor	21:54	173810	1.30	1.0864	10.7	10.7	0.001059	0.001059	107	
D 13C6-Hexachlorobenzene	17:43	10268098	1.27	0.5041	95.9	95.9	0.000146	0.000146	95.92	
Hexachlorobenzene	17:44	1155296	1.25	1.1568	9.726	9.726	0.000117	0.000117	97.26	
D 13C12-Aldrin	23:45	2671987	1.76	0.1384	90.9	90.9	0.0135	0.0135	90.90	
Aldrin	23:47	302802	1.53	1.0892	10.4	10.4	0.007906	0.007906	104	
D 13C10-oxy Chlordane	26:09	262046	0.96	0.0481	90.2	90.2	0.007582	0.007582	90.21	
oxy-Chlordane	26:11	32148	1.12	1.1040	11.1	11.1	0.006721	0.006721	111	
D 13C10-cis Heptachlor Epoxide	26:07	904552	1.21	0.1493	100.3	100.3	0.002441	0.002441	100	
Heptachlor epoxide	26:09	102738	1.39	1.1461	9.910	9.910	0.002117	0.002117	99.10	
D 13C12-2,4'-DDE	27:57	15416392	1.58	2.7345	93.3	93.3	0.0156	0.0156	93.27	
2,4'-DDE	27:58	1983035	1.58	1.2831	10.0	10.0	0.005326	0.005326	100	
D 13C10-trans Chlordane	27:39	916428	1.34	0.1640	92.4	92.4	0.004443	0.004443	92.43	
trans-Chlordane	27:41	112938	1.19	1.1433	10.8	10.8	0.004202	0.004202	108	
D 13C10-cis Chlordane	28:42	978310	1.21	0.1741	92.9	92.9	0.004185	0.004185	92.94	
cis-Chlordane	28:44	104520	1.28	1.0551	10.1	10.1	0.004524	0.004524	101	
D 13C10-trans Nonachlor	29:01	707361	1.25	0.1233	94.9	94.9	0.005911	0.005911	94.91	
trans-Nonachlor	29:03	79422	1.13	1.0780	10.4	10.4	0.006138	0.006138	104	
D 13C9-Endosulfan I	28:32	328225	1.11	0.0555	97.8	97.8	0.0131	0.0131	97.80	
D 13C12-4,4'-DDE	30:11	10068209	1.60	1.8637	93.7	93.7	0.0731	0.0731	93.69	
4,4'-DDE	30:12	1266617	1.59	1.2526	10.0	10.0	0.0124	0.0124	100	
D 13C12-4,4'-DDD	33:29	6261644	1.64	1.1392	95.3	95.3	0.0131	0.0131	95.32	
4,4'-DDD	33:30	802910	1.55	1.2345	10.4	10.4	0.0305	0.0305	104	
D 13C12-2,4'-DDT	33:46	3950338	1.64	0.6754	101.4	101.4	0.0221	0.0221	101	
2,4'-DDT	33:47	466899	1.61	1.1809	10.0	10.0	0.0503	0.0503	100	
D 13C12-4,4'-DDT	36:37	3372321	1.64	0.5808	100.7	100.7	0.0257	0.0257	101	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:39	423025	1.71	1.2096	10.4	10.4	0.0606	0.0606	104	
D 13C12-Dieldrin	30:24	1085602	1.66	0.1991	94.6	94.6	0.009688	0.009688	94.57	
Dieldrin	30:26	122103	1.46	1.0718	10.5	10.5	0.0155	0.0155	105	
D 13C12-Endrin	32:04	698284	1.70	0.1181	102.6	102.6	0.0163	0.0163	103	
Endrin	32:07	77060	1.58	1.0678	10.3	10.3	0.0248	0.0248	103	
D 13C9-Endosulfan II	32:49	126689	1.24	0.0248	88.7	88.7	0.2653	0.2653	88.67	
Endosulfan II	32:52	13699	1.54	1.0972	9.855	9.855	0.0487	0.0487	98.55	
D 13C12-Endrin Aldehyde	34:21	76413	1.56	0.0237	64.6	55.9	0.3769	0.3769	64.57	RQM
Endrin aldehyde	34:23	12072	1.41	1.1278	12.1	12.1	0.0257	0.0257	121	
D 13C12-Methoxychlor	41:59	3962482	18.19	0.6709	102.4	102.4	0.0643	0.0643	102	
Methoxychlor	42:00	541571	5.48	1.3248	10.3	10.3	0.0148	0.0148	103	
D 13C11-Endrin Ketone	40:27	387153	1.52	0.0648	103.6	103.6	0.0298	0.0298	104	
Endrin ketone	40:30	46885	1.35	1.1546	10.5	10.5	0.009534	0.009534	105	
D 13C10-Mirex	45:26	3423063	1.25	0.9459	98.6	98.6	0.008025	0.008025	98.60	
Mirex	45:28	375213	1.27	1.0234	10.7	10.7	0.000849	0.000849	107	
* PCB-15L	19:05	21237294	1.59		100.0	100.0				
PCB-14	17:50	12011854	1.57	1.3581	41.6	41.6	0.001215	0.001215	82.85	
* 13C6-Pentachlorophenol (IS)	18:36	364	0.88		500.0	500.0				
Pentachlorophenol	18:31						276.3	276.3		
PCB-36	22:11	9438785	1.06	1.0230	43.4	43.4	0.000792	0.000792	86.42	
* PCB-101L	28:08	6044853	1.62		100.0	100.0				
PCB-104	23:45	5483049	1.58	1.8372	49.4	49.4	0.000198	0.000198	98.22	
* PCB-118L	32:49	5766315	1.61		100.0	100.0				
PCB-121	26:44	3652417	1.61	1.4622	43.3	43.3	0.0337	0.0337	86.18	
* PCB-138L	37:00	3670272	1.27		100.0	100.0				
PCB-142	27:31	3280229	1.28	2.0271	44.1	44.1	0.002022	0.002022	87.71	
Endosulfan I	28:35	39795	1.71	1.0931	11.1	11.1	0.0476	0.0476	111	
* PCB-60L	27:46	11155739	0.81		100.0	100.0				a
PCB-78	29:23	4512815	0.80	0.9153	44.2	44.2	0.0141	0.0141	87.92	a
D 13C12-2,4'-DDD	30:52	7476238	1.56	1.3487	96.1	96.1	0.0642	0.0642	96.13	
2,4'-DDD	30:54	853850	1.62	1.1763	9.709	9.709	0.0244	0.0244	97.09	
D 13C10-cis Nonachlor	33:49	520255	1.18	0.0944	95.6	95.6	0.004642	0.004642	95.56	
cis-Nonachlor	33:51	50800	1.25	1.0758	9.077	9.077	0.004446	0.004446	90.77	
D 13C9-Endosulfan sulfate	36:19	781321	1.26	0.1517	89.3	89.3	0.002890	0.002890	89.34	
Endosulfan sulfate	36:21	93024	1.20	1.0831	11.0	11.0	0.003231	0.003231	110	
* PCB-167L	39:31	3979287	1.27		100.0	100.0				
PCB-155	34:01	1611112	1.25	0.9191	44.1	44.1	0.0231	0.0231	87.64	
PCB-184	34:40	2007886	1.08	1.1610	43.5	43.5	0.001464	0.001464	86.46	
PCB-204	42:18	1293744	0.88	0.7364	44.1	44.1	0.000962	0.000962	87.83	
PCB-192	42:38	1327827	1.05	0.7635	43.7	43.7	0.004082	0.004082	86.95	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

61L31699PST_00010 Amount Added: 20.00 Units: uL

Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Mar-2025 20:32:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-004
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:11 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:37:15

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:24	17:23	1	0.912	1571464	573958	210	525	2733		
224.9317	17:24	17:23	1	0.912	1902080	710654	29	72	24505	0.83(0.58-0.96)	
alpha-BHC											
216.9145	17:25	17:23	1	1.001	173402	67188	1	2	67188		
218.9116	17:24	17:23	1	1.000	222021	82296	161	402	511	0.78(0.58-0.96)	
13C6-beta BHC											
222.9342	18:24	18:22	2	0.964	1071664	354647	210	525	1689		
224.9317	18:24	18:22	2	0.964	1269160	436588	29	72	15055	0.84(0.58-0.96)	
beta-BHC											
216.9145	18:24	18:23	2	1.001	338871	118272	1	2	118272		
218.9116	18:24	18:23	2	1.001	429577	152468	161	402	947	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:40	18:39	2	0.979	1299786	440834	210	525	2099		
224.9317	18:40	18:39	2	0.979	1635619	551238	29	72	19008	0.79(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:41	18:40	1	1.001	131654	45392	1	2	45392		
218.9116	18:41	18:40	1	1.001	152064	51864	161	402	322	0.87(0.58-0.96)	
13C6-delta BHC											
222.9342	19:38	19:36	2	1.029	883325	274956	210	525	1309		
224.9317	19:38	19:36	2	1.029	1067682	337430	29	72	11636	0.83(0.58-0.96)	
delta-BHC											
216.9145	19:39	19:38	2	1.001	109012	35499	1	2	35499		
218.9116	19:39	19:38	2	1.001	139400	43263	161	402	269	0.78(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:53	21:51	1	1.147	841264	246138	87	217	2829		
278.8240	21:53	21:51	1	1.147	656339	188432	66	165	2855	1.28(0.93-1.55)	
Heptachlor											
271.8102	21:54	21:52	2	1.001	98386	27653	1	2	27653		
273.8072	21:53	21:52	1	1.001	75424	21741	1	2	21741	1.30(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:43	17:42	2	0.929	5752555	2080136	1	2	2080136		
291.8273	17:43	17:42	2	0.929	4515543	1612486	1	2	1612486	1.27(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:44	17:42	2	1.001	641574	232395	1	2	232395		
285.8072	17:44	17:42	2	1.001	513722	181232	1	2	181232	1.25(0.93-1.55)	
13C12-Aldrin											
269.8805	23:45	23:44	1	1.245	1705169	430562	26	65	16560		
271.8775	23:45	23:44	1	1.245	966818	266259	25	62	10650	1.76(1.16-1.94)	
Aldrin											
262.8569	23:47	23:45	1	1.001	182988	47349	9	22	5261		
264.8540	23:47	23:45	1	1.001	119814	31007	15	37	2067	1.53(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:08	0	0.930	128434	31242	1	2	31242		
398.8358	26:10	26:08	1	0.930	133612	36144	1	2	36144	0.96(0.78-1.30)	
oxy-Chlordane											
386.8052	26:11	26:10	1	1.002	16987	4795	1	2	4795		
388.8023	26:11	26:10	1	1.002	15161	4472	1	2	4472	1.12(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:07	26:06	1	0.929	495493	115432	1	2	115432		
364.8748	26:07	26:06	1	0.929	409059	90633	1	2	90633	1.21(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:09	26:08	1	1.001	59824	14887	1	2	14887		
354.8413	26:09	26:08	1	1.001	42914	9779	1	2	9779	1.39(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:57	27:56	1	0.994	9443577	2125406	155	387	13712		
260.0376	27:57	27:56	1	0.994	5972815	1342820	79	197	16998	1.58(1.17-1.95)	
2,4'-DDE											
246.0003	27:58	27:57	1	1.000	1214598	278489	88	220	3165		
247.9974	27:58	27:57	1	1.000	768437	174981	7	17	24997	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:39	27:38	1	0.983	524079	120537	1	2	120537		
278.8240	27:39	27:38	1	0.983	392349	87641	3	7	29214	1.34(0.93-1.55)	
trans-Chlordane											
271.8102	27:41	27:39	1	1.001	61308	14101	2	5	7051		
273.8072	27:41	27:39	1	1.001	51630	12418	2	5	6209	1.19(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:42	28:41	1	1.020	536154	115615	1	2	115615		
278.8240	28:42	28:41	1	1.020	442156	93877	3	7	31292	1.21(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:44	28:43	1	1.001	58777	13248	2	5	6624		
273.8072	28:44	28:43	1	1.001	45743	9996	2	5	4998	1.28(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:01	29:00	1	1.032	392761	80123	1	2	80123		
278.8240	29:01	29:00	1	1.032	314600	71012	3	7	23671	1.25(0.93-1.55)	
trans-Nonachlor											
271.8102	29:03	29:02	1	1.001	42220	9078	2	5	4539		
273.8072	29:02	29:02	1	1.000	37202	7811	2	5	3906	1.13(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:32	28:31	1	1.015	173028	39711	1	2	39711		
278.8240	28:32	28:31	1	1.015	155197	37137	3	7	12379	1.11(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:11	30:10	2	0.920	6197095	1303255	371	927	3513		
260.0376	30:11	30:10	2	0.920	3871114	819849	251	627	3266	1.60(1.17-1.95)	
4,4'-DDE											
246.0003	30:12	30:11	1	1.000	778510	160064	101	252	1585		
247.9974	30:12	30:11	1	1.000	488107	104313	31	77	3365	1.59(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:29	33:27	2	1.020	3887835	743620	62	155	11994		
249.0454	33:29	33:27	2	1.020	2373809	456251	6	15	76042	1.64(1.17-1.95)	
4,4'-DDD											
235.0081	33:30	33:29	1	1.001	488016	95258	149	372	639		
237.0052	33:30	33:29	1	1.001	314894	64739	32	80	2023	1.55(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:46	33:44	2	1.029	2451536	473268	62	155	7633		
249.0454	33:45	33:44	1	1.028	1498802	288320	6	15	48053	1.64(1.17-1.95)	
2,4'-DDT											
235.0081	33:47	33:46	1	1.001	288239	58145	149	372	390		
237.0052	33:47	33:46	1	1.001	178660	33899	32	80	1059	1.61(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:37	36:36	1	1.116	2094481	375622	62	155	6058		
249.0454	36:37	36:36	1	1.116	1277840	240595	6	15	40099	1.64(1.16-1.94)	
4,4'-DDT											
235.0081	36:39	36:37	2	1.001	267144	49759	149	372	334		
237.0052	36:39	36:37	2	1.001	155881	30582	32	80	956	1.71(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:24	30:23	1	0.926	677681	139343	1	2	139343		
271.8775	30:24	30:23	1	0.926	407921	82714	8	20	10339	1.66(1.16-1.94)	
Dieldrin											
262.8570	30:26	30:25	2	1.001	72546	14735	4	10	3684		
264.8540	30:26	30:25	2	1.001	49557	10130	11	27	921	1.46(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:03	1	0.977	440103	91656	1	2	91656		
271.8775	32:04	32:03	1	0.977	258181	48307	8	20	6038	1.70(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:07	32:05	2	1.001	47187	9369	4	10	2342		
264.8540	32:07	32:05	2	1.001	29873	6177	11	27	562	1.58(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:49	32:47	2	1.000	70077	10813	25	62	433		
278.8240	32:48	32:47	1	0.999	56612	11661	5	12	2332	1.24(0.93-1.55)	
Endosulfan II											
271.8102	32:52	32:48	3	1.001	8314	1494	3	7	498		
273.8072	32:50	32:48	2	1.000	5385	1230	2	5	615	1.54(0.93-1.55)	
13C12-Endrin Aldehyde											RQM
356.9391	34:21	34:19	2	1.047	58475	11830	30	75	394		M
	Empc Correction				46564	8503	30	75	283		
358.9361	34:21	34:19	2	1.047	29849	5451	11	27	496	1.96(1.17-1.95)	
Endrin aldehyde											
344.8988	34:23	34:21	2	1.001	7069	1158	1	2	1158		
346.8959	34:23	34:21	2	1.001	5003	1062	1	2	1062	1.41(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:59	41:56	2	1.279	3756043	653405	173	432	3777		
240.1510	41:59	41:56	2	1.279	206439	35064	24	60	1461	18.19(0.00-0.00)	
Methoxychlor											
227.1072	42:00	41:58	1	1.000	458004	80529	33	82	2440		
228.1106	42:00	41:58	1	1.000	83567	13856	21	52	660	5.48(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:27	40:25	2	1.233	233348	36889	8	20	4611		
329.9379	40:27	40:25	2	1.233	153805	26701	1	2	26701	1.52(1.19-1.98)	
Endrin ketone											
316.9039	40:30	40:28	2	1.001	26916	4802	2	5	2401		
318.9010	40:29	40:28	1	1.001	19969	3718	1	2	3718	1.35(1.16-1.95)	
13C10-Mirex											
276.8270	45:26	45:25	1	1.228	1901225	318802	11	27	28982		
278.8240	45:26	45:25	1	1.228	1521838	257007	9	22	28556	1.25(0.93-1.55)	
Mirex											
271.8102	45:28	45:27	1	1.001	209744	33341	1	2	33341		
273.8072	45:28	45:27	1	1.001	165469	25100	1	2	25100	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:05	19:04	1		13048902	4182852	15	37	278857		
236.0376	19:05	19:04	1		8188392	2603274	13	32	200252	1.59(1.16-1.93)	
PCB-14											
222.0003	17:50	17:49	1	0.934	7335820	2589752	20	50	129488		
223.9974	17:50	17:49	1	0.934	4676034	1695073	25	62	67803	1.57(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:36	18:31	5		170	104	2	5	52		
271.8636	18:38	18:31	7		194	106	4	10	27	0.88(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31						31	77			
265.8435	18:31						8	20			

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:11	22:09	1	1.162	4848349	1341334	11	27	121940		
257.9584	22:11	22:09	1	1.162	4590436	1257638	11	27	114331	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:07	1		3733762	847539	1	2	847539		
339.9178	28:08	28:07	1		2311091	524679	1	2	524679	1.62(1.16-1.94)	
PCB-104											
325.8804	23:45	23:44	1	0.844	3356773	897352	1	2	897352		
327.8775	23:45	23:44	1	0.844	2126276	562619	1	2	562619	1.58(1.32-1.78)	
PCB-118L											
337.9207	32:49	32:48	2		3559119	703736	13	32	54134		
339.9178	32:49	32:48	2		2207196	436966	7	17	62424	1.61(1.16-1.94)	
PCB-121											
325.8804	26:44	26:43	1	0.815	2252560	517667	145	362	3570		
327.8775	26:44	26:43	1	0.815	1399857	322718	80	200	4034	1.61(1.32-1.78)	
PCB-138L											
371.8817	37:00	36:59	1		2053725	369167	12	30	30764		
373.8788	37:00	36:59	1		1616547	289488	14	35	20678	1.27(1.16-1.94)	
PCB-142											
359.8415	27:31	27:29	1	0.743	1841780	436752	3	7	145584		
361.8385	27:31	27:29	1	0.743	1438449	342552	8	20	42819	1.28(1.05-1.43)	
Endosulfan I											
262.8570	28:35	28:32	2	1.001	25108	5046	3	7	1682		
264.8540	28:34	28:32	1	1.001	14687	3783	13	32	291	1.71(1.16-1.94)	
PCB-60L											a
301.9626	27:46	27:44	1		4998253	1092085	21	52	52004		a
303.9597	27:46	27:44	1		6157486	1341422	20	50	67071	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:23	29:21	1	1.058	2005331	429910	13	32	33070		a
291.9194	29:23	29:21	1	1.058	2507484	536535	113	282	4748	0.80(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:52	30:50	2	0.941	4557176	954814	225	562	4244		
249.0454	30:52	30:50	2	0.941	2919062	594013	170	425	3494	1.56(1.17-1.95)	
2,4'-DDD											
235.0081	30:54	30:52	2	1.001	527742	110620	140	350	790		
237.0052	30:54	30:52	2	1.001	326108	66743	38	95	1756	1.62(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:49	33:48	1	1.030	282061	57999	1	2	57999		
278.8240	33:49	33:48	1	1.030	238194	46539	1	2	46539	1.18(0.93-1.55)	
cis-Nonachlor											
271.8102	33:51	33:50	1	1.001	28227	5326	1	2	5326		
273.8072	33:51	33:50	1	1.001	22573	4586	1	2	4586	1.25(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:19	36:17	2	1.107	436267	80679	1	2	80679		
278.8240	36:19	36:17	2	1.107	345054	62209	1	2	62209	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:21	36:20	1	1.001	50794	7999	1	2	7999		
273.8072	36:21	36:20	1	1.001	42230	7507	1	2	7507	1.20(0.93-1.55)	
PCB-167L											
371.8817	39:31	39:29	2		2225745	391641	2	5	195821		
373.8788	39:31	39:29	2		1753542	314359	2	5	157180	1.27(1.16-1.94)	
PCB-155											
359.8415	34:01	33:59	2	0.861	895106	176915	53	132	3338		
361.8385	34:01	33:59	2	0.861	716006	136672	7	17	19525	1.25(1.05-1.43)	
PCB-184											
393.8025	34:40	34:39	1	0.877	1040763	197975	4	10	49494		
395.7995	34:40	34:39	1	0.877	967123	179551	1	2	179551	1.08(0.89-1.21)	
PCB-204											
427.7635	42:18	42:17	1	1.070	606290	102518	1	2	102518		
429.7606	42:18	42:17	1	1.070	687454	118081	1	2	118081	0.88(0.76-1.02)	
PCB-192											
393.8025	42:38	42:36	2	1.079	679854	114686	5	12	22937		
395.7995	42:38	42:36	2	1.079	647973	112080	4	10	28020	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

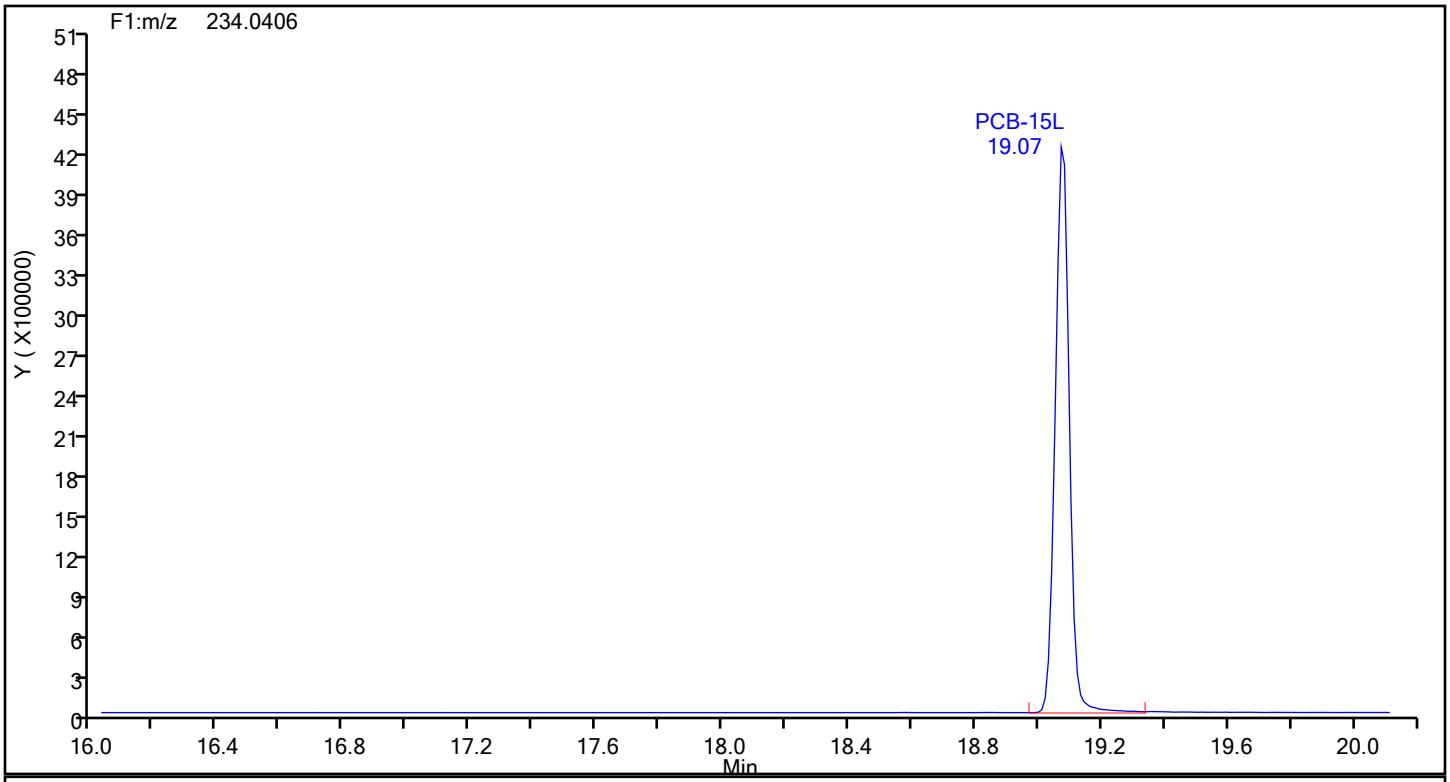
61L31699PST_00010 Amount Added: 20.00 Units: uL

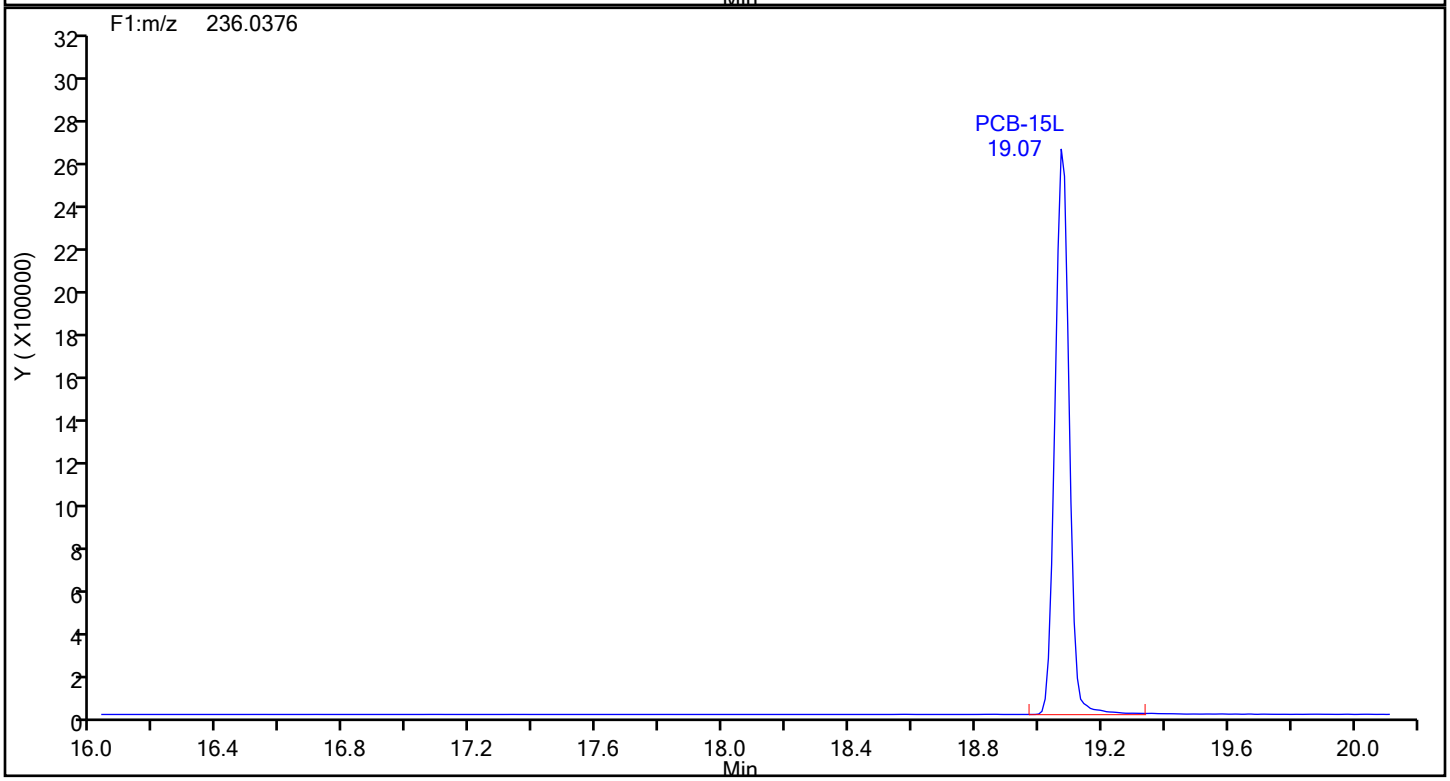
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





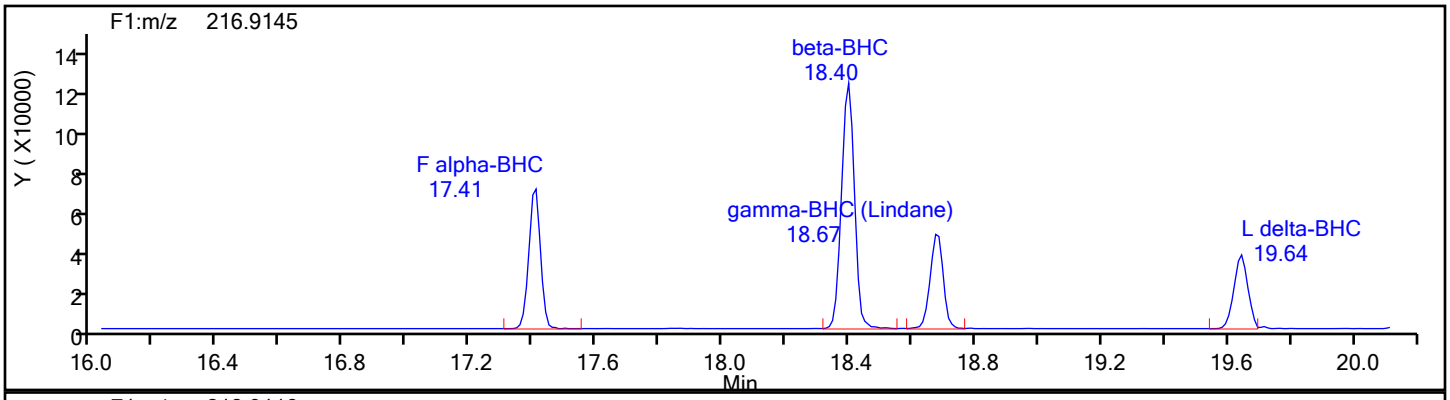
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

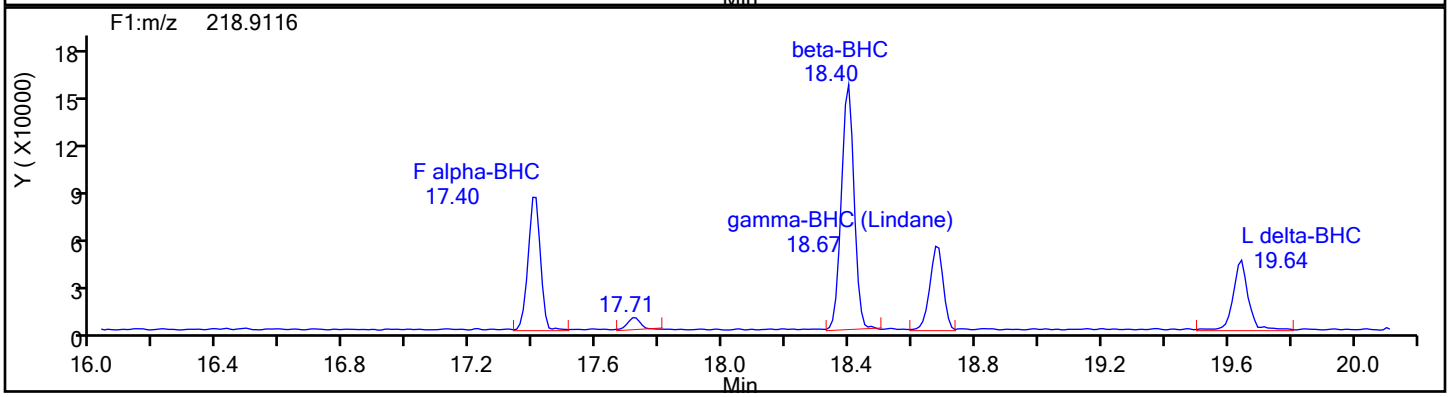
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

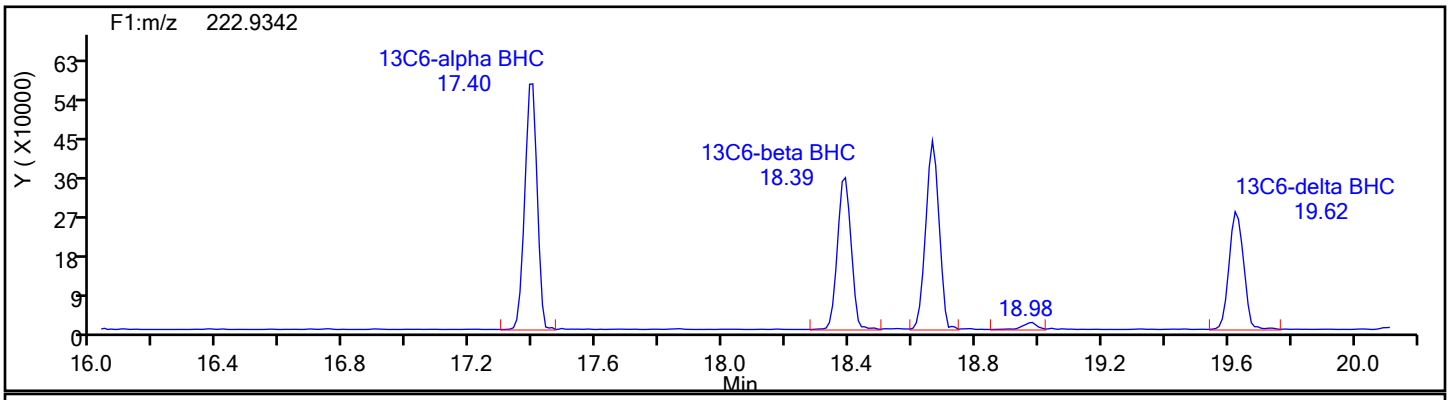
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

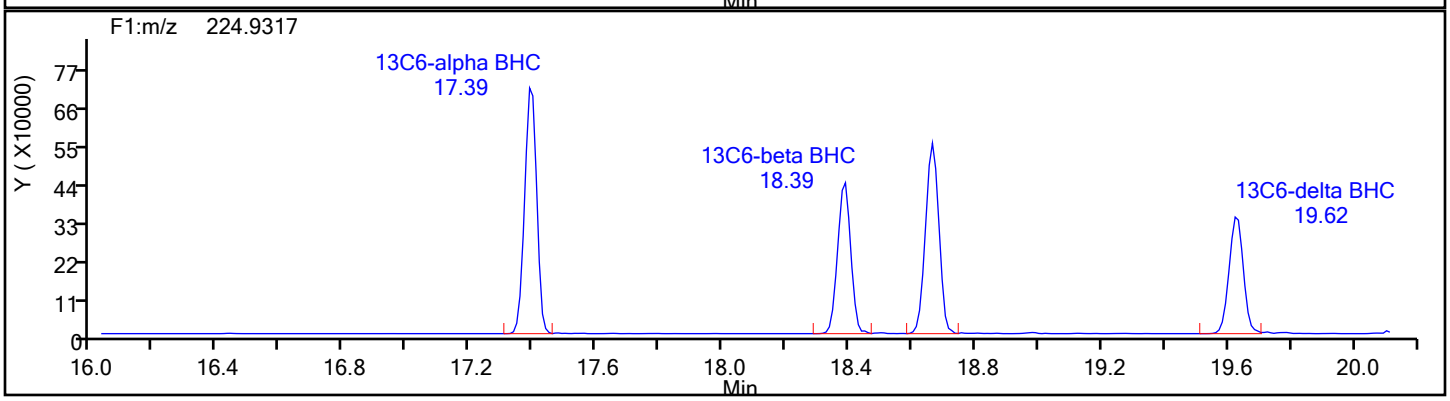
BHC





BHC Standards



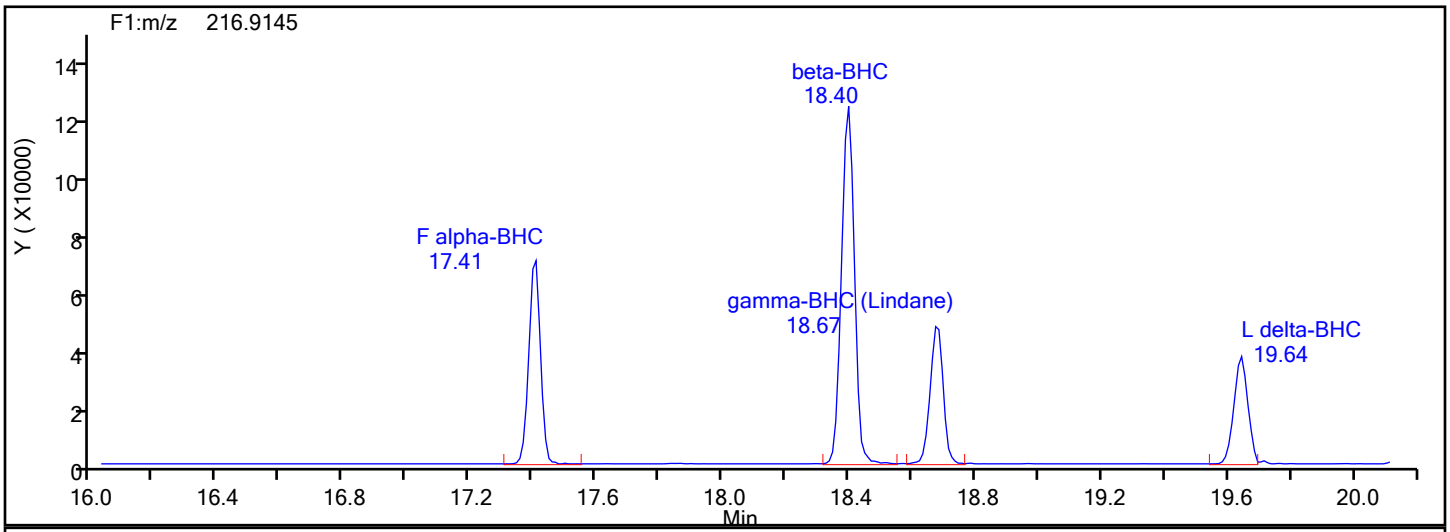


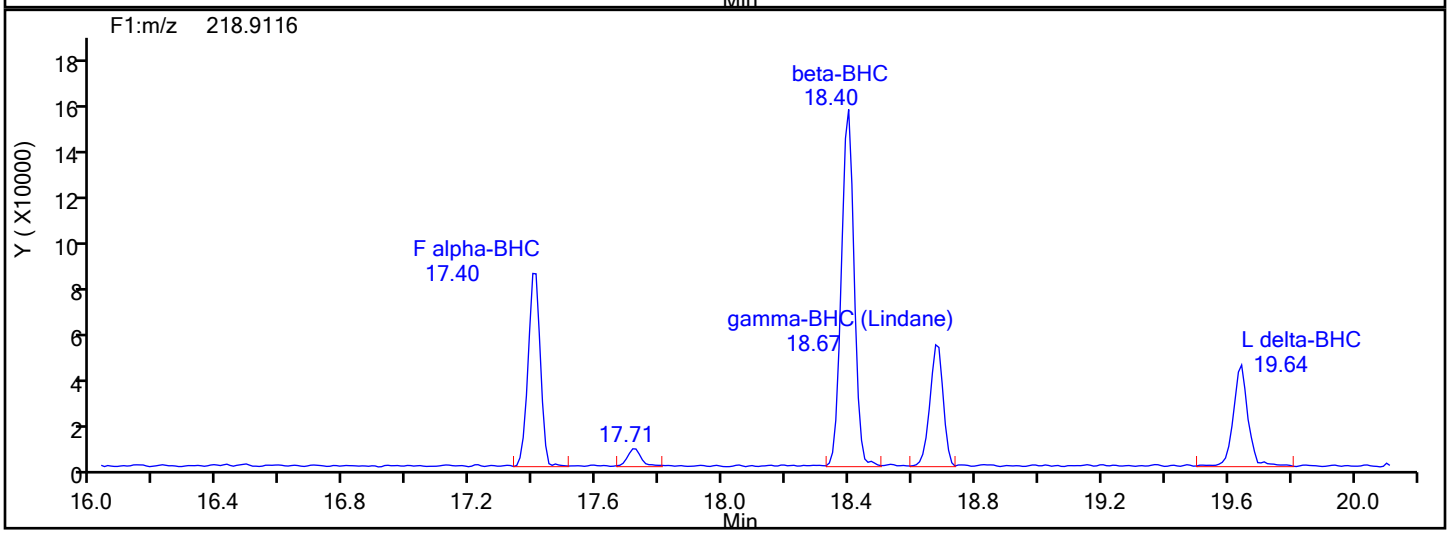
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

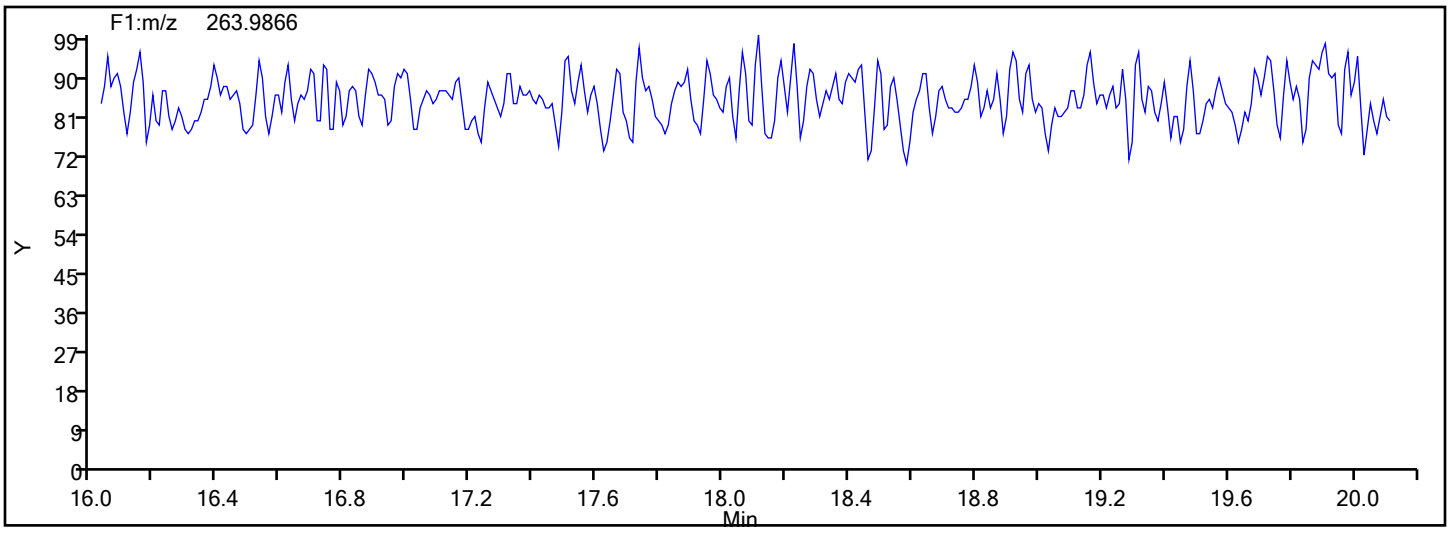
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



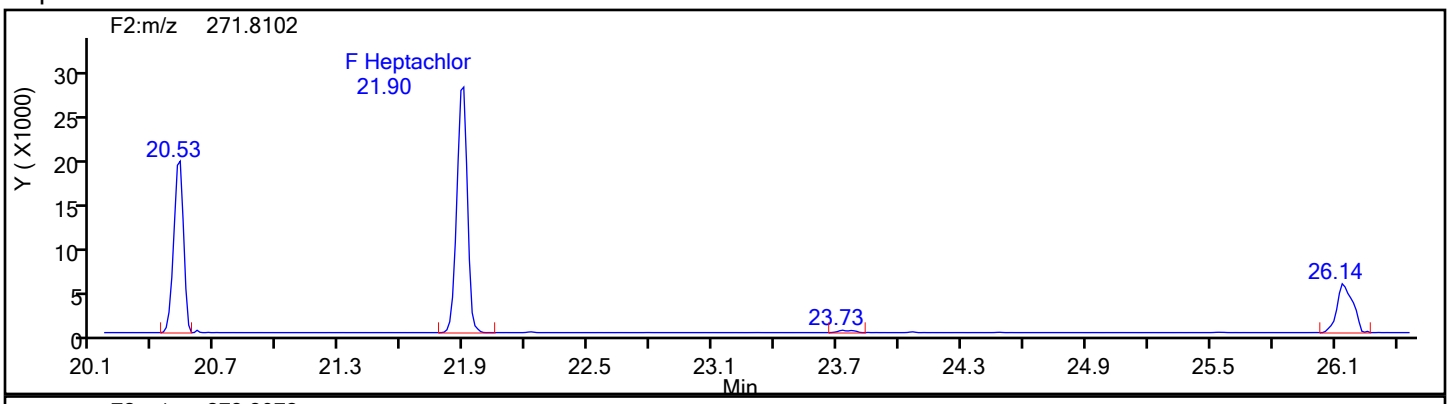
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

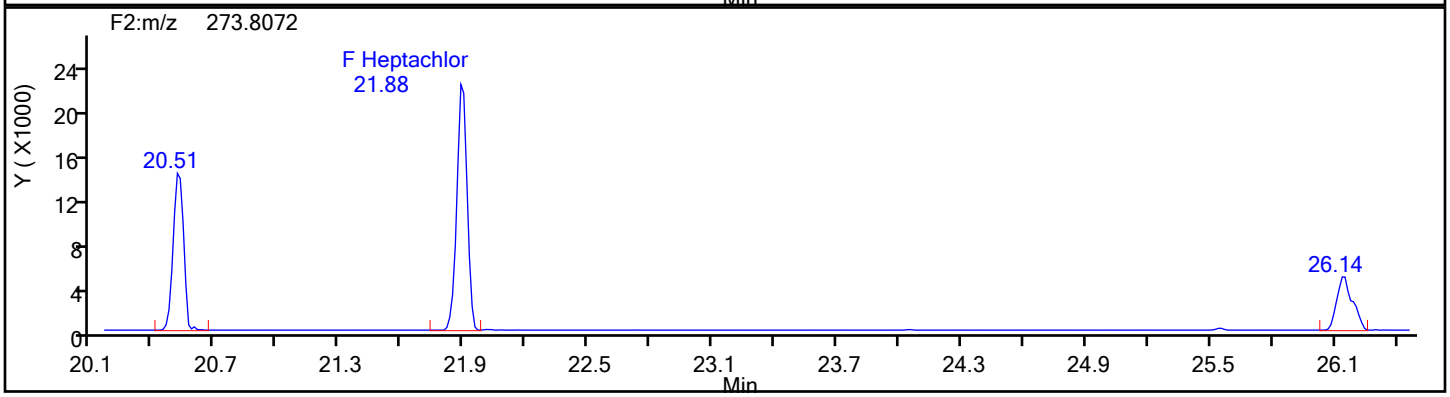
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

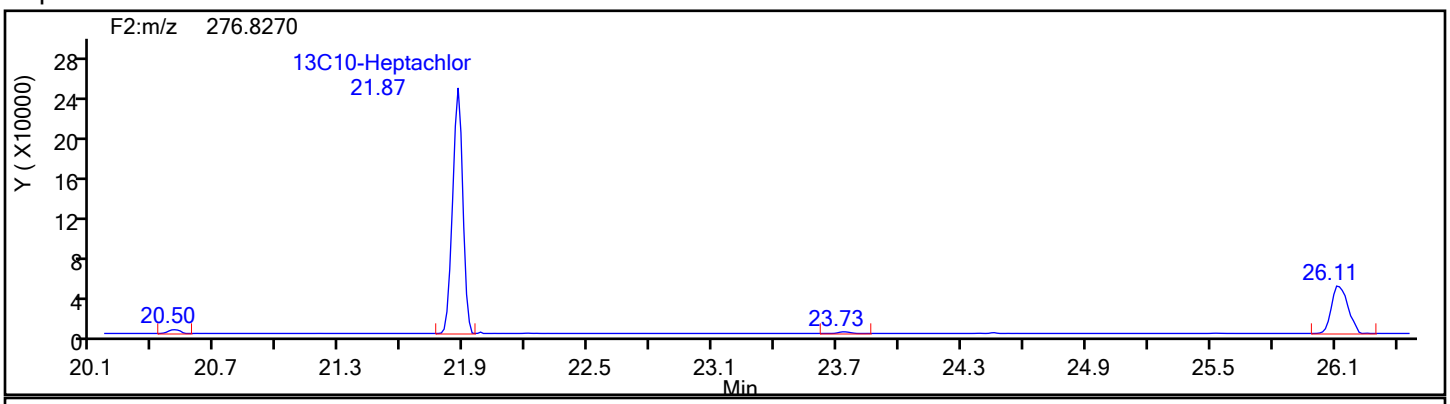
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

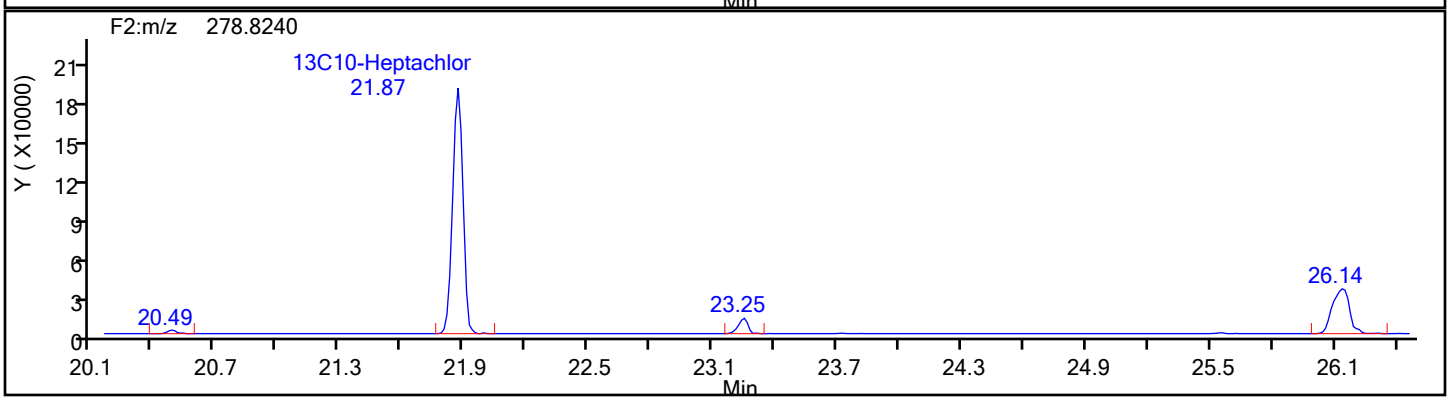
Heptachlor





Heptachlor Standards



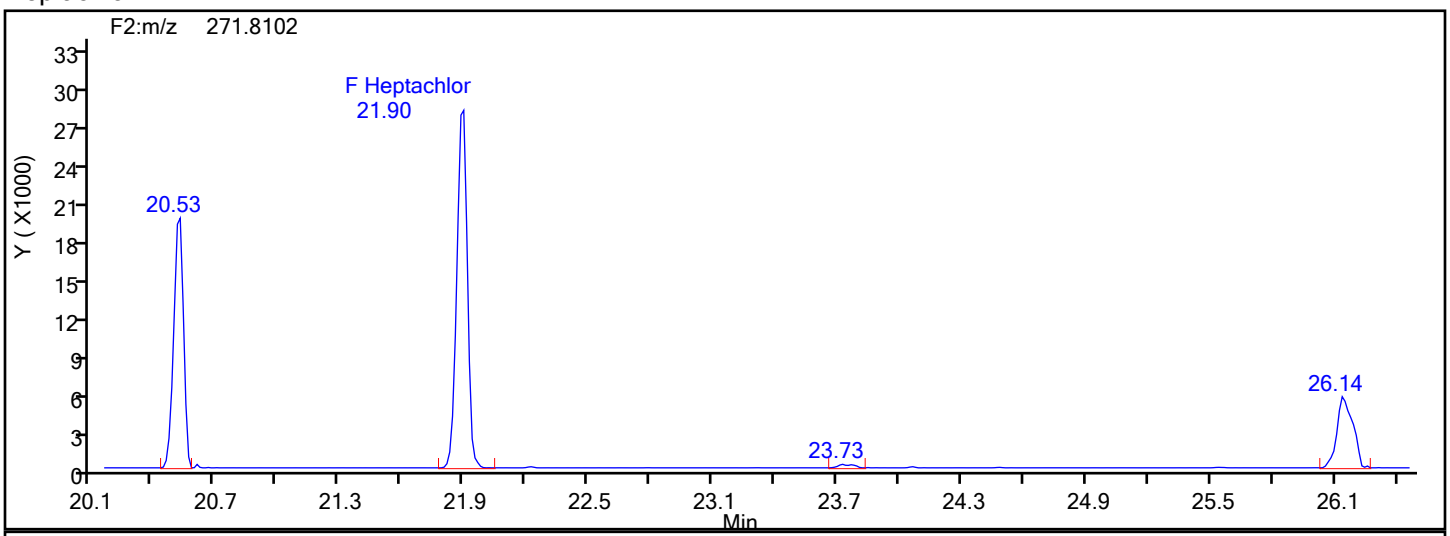


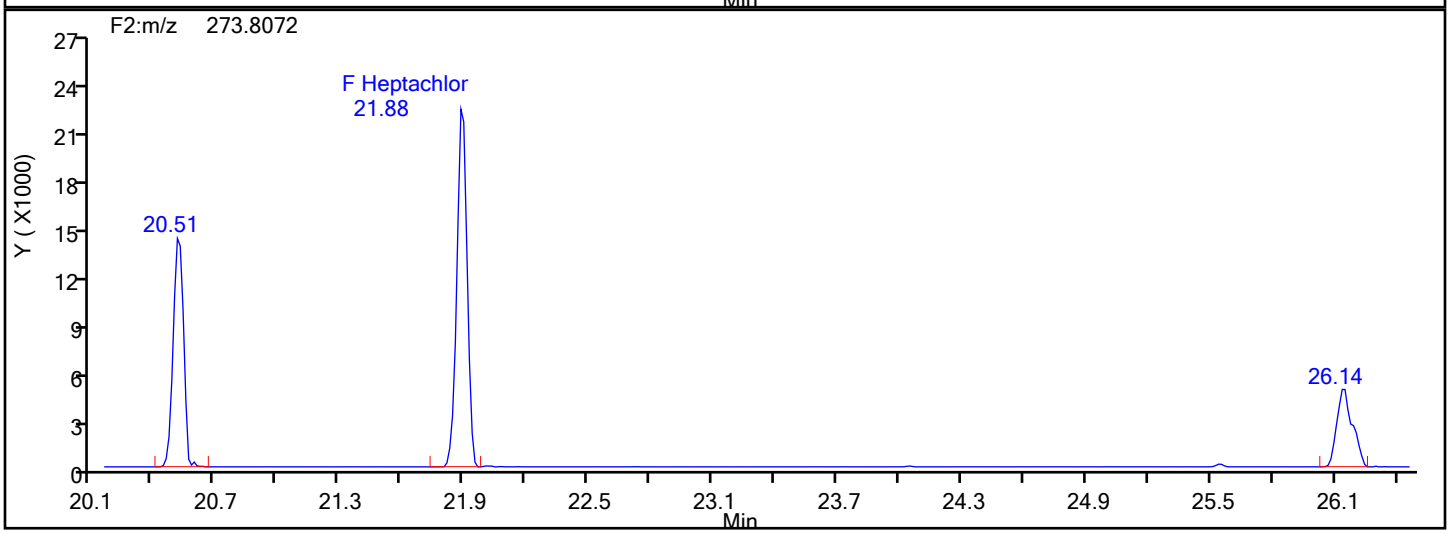
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

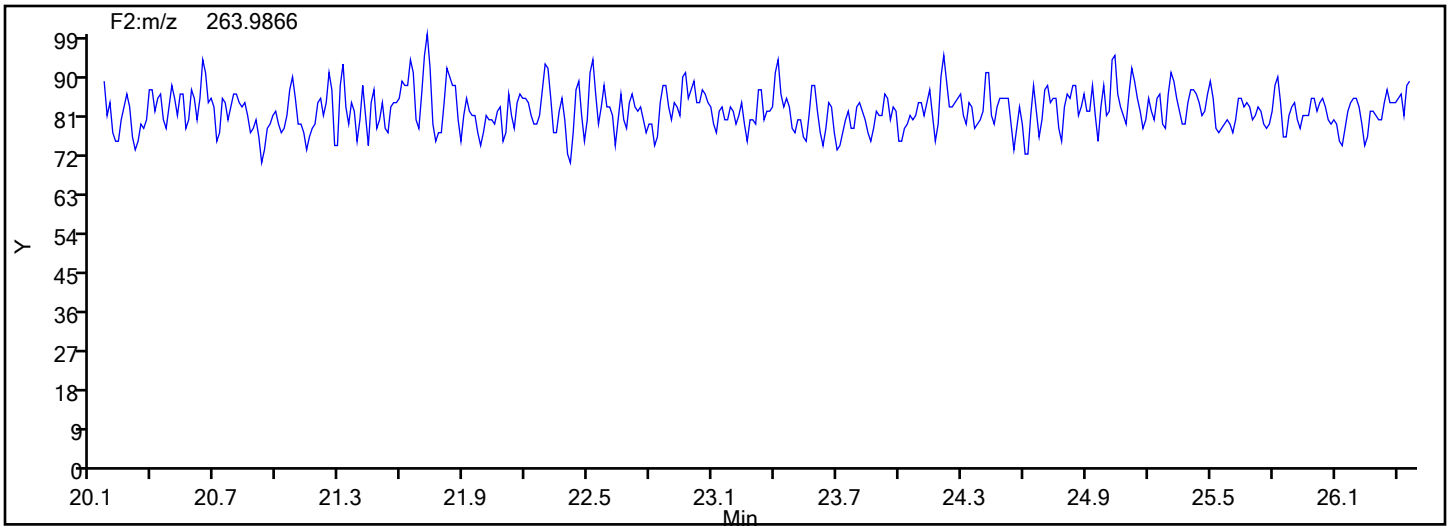
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

Heptachlor





Heptachlor Lock Mass



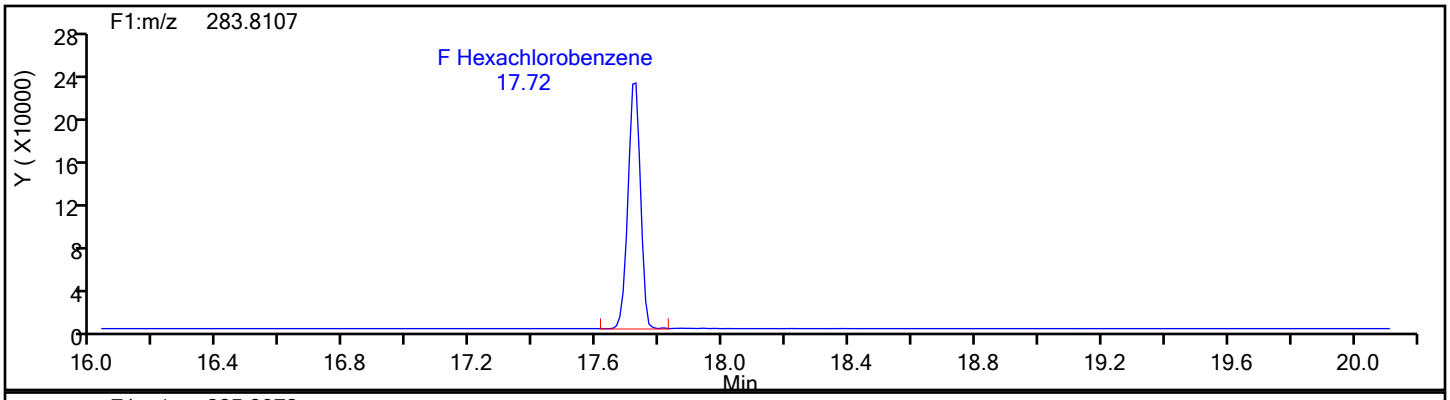
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

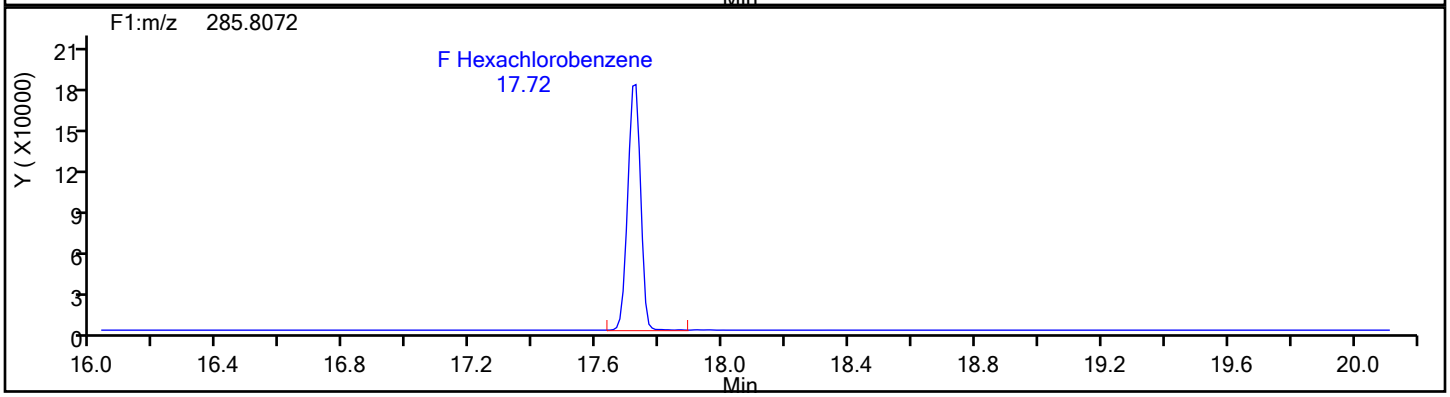
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

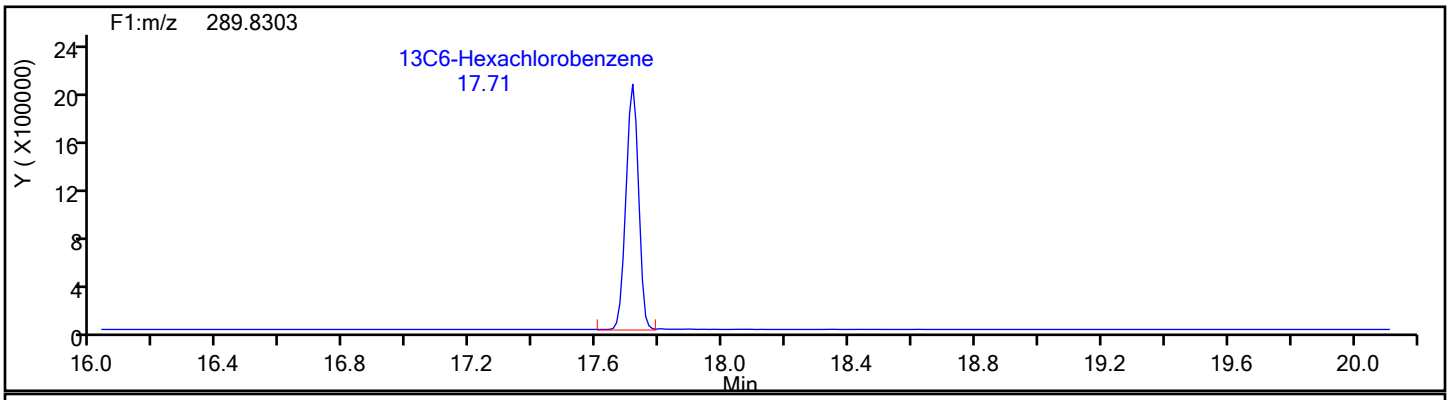
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

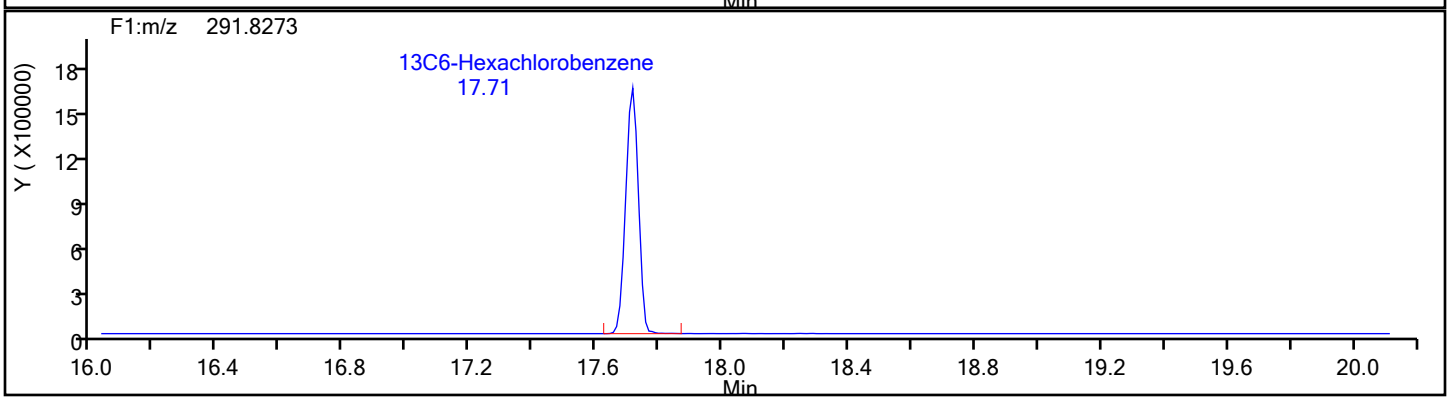
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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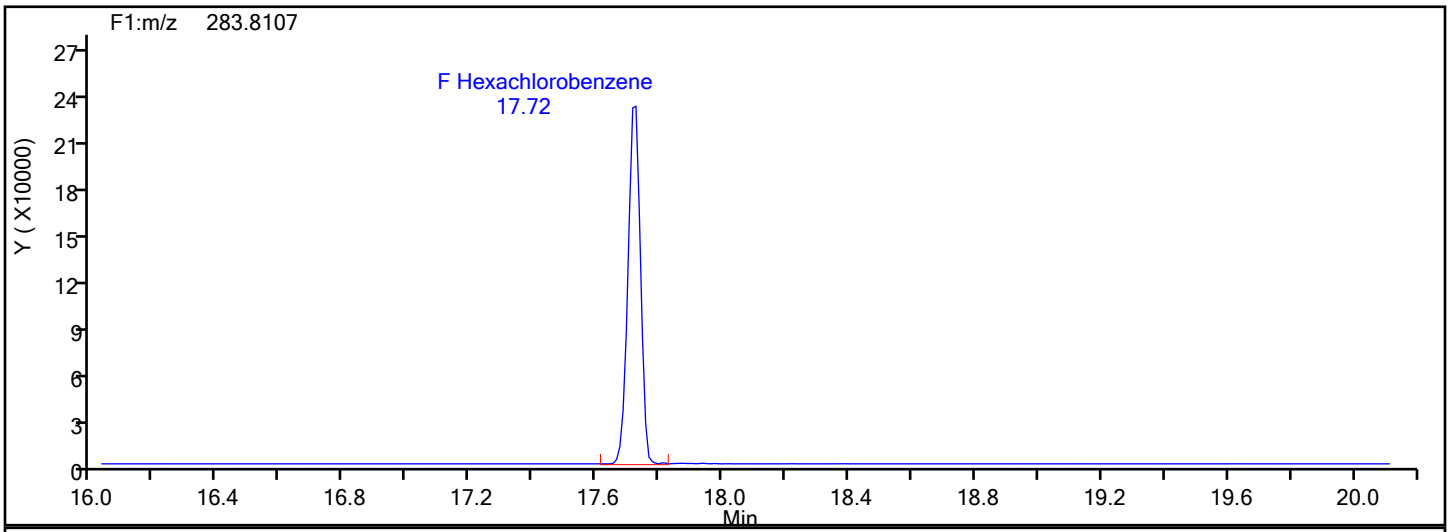
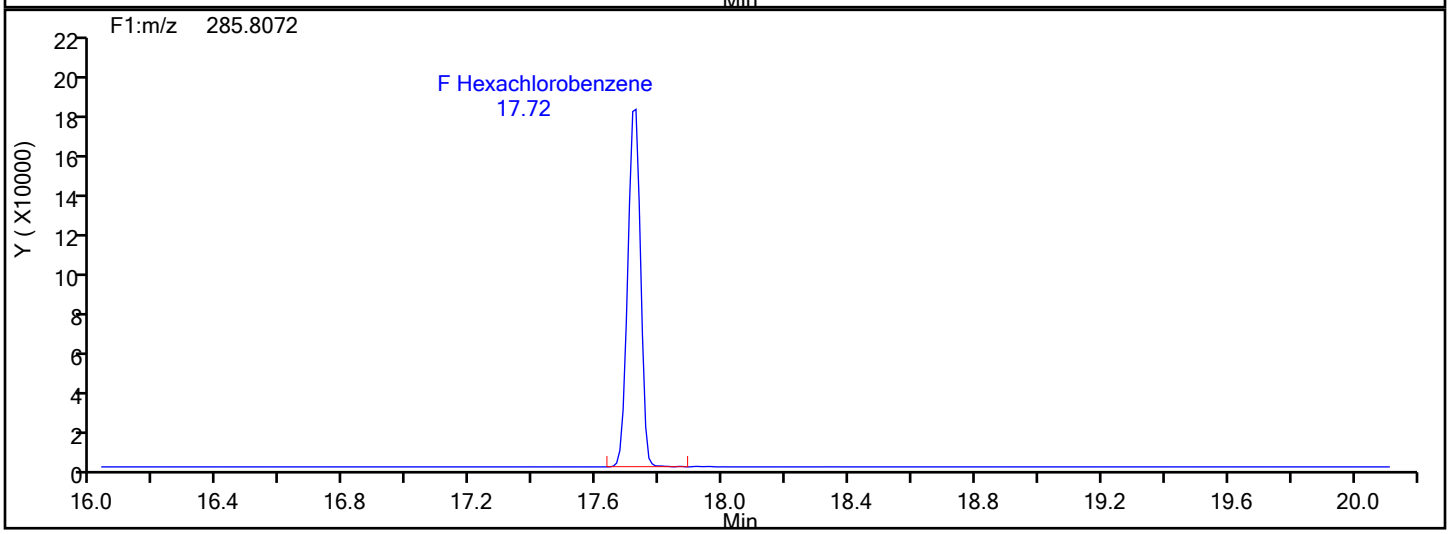
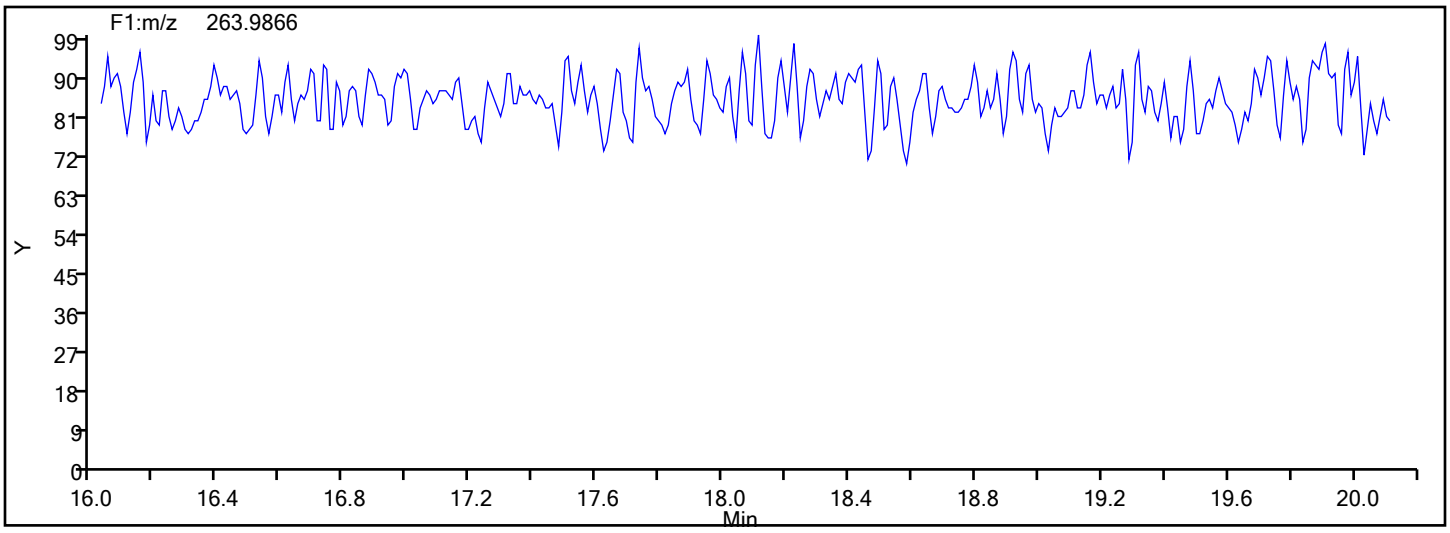
Client ID:
Worklist#: 97380 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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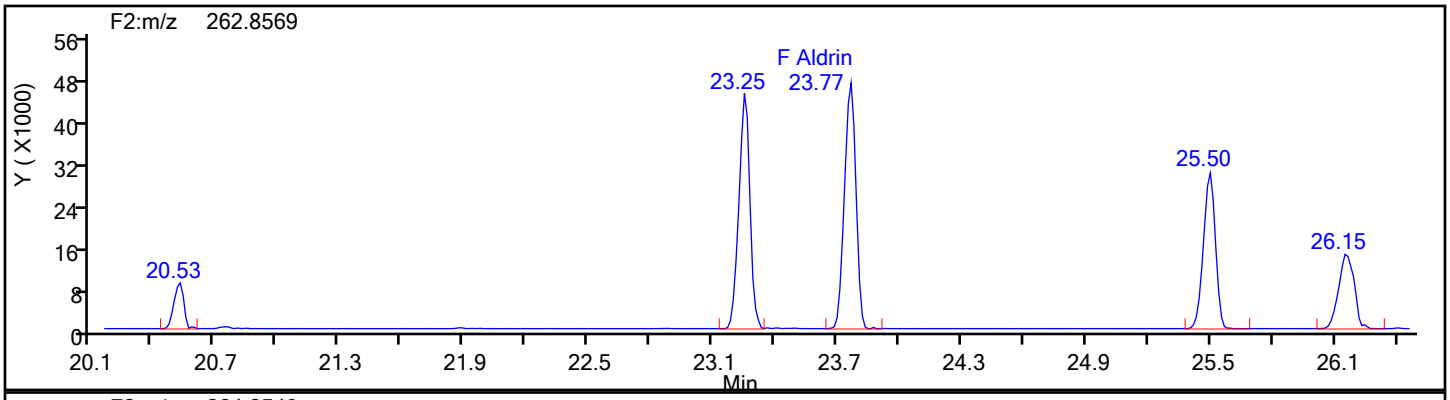
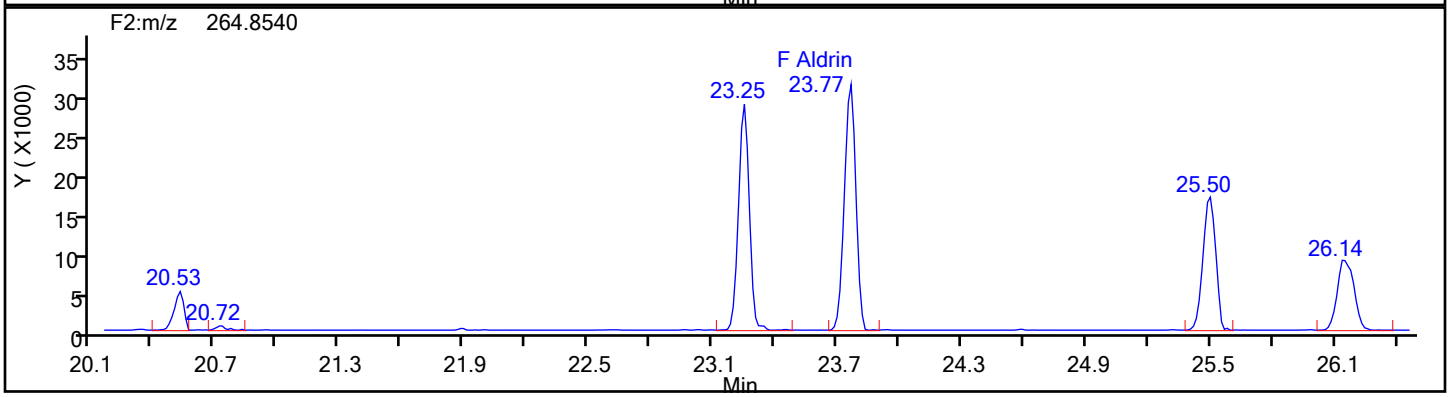
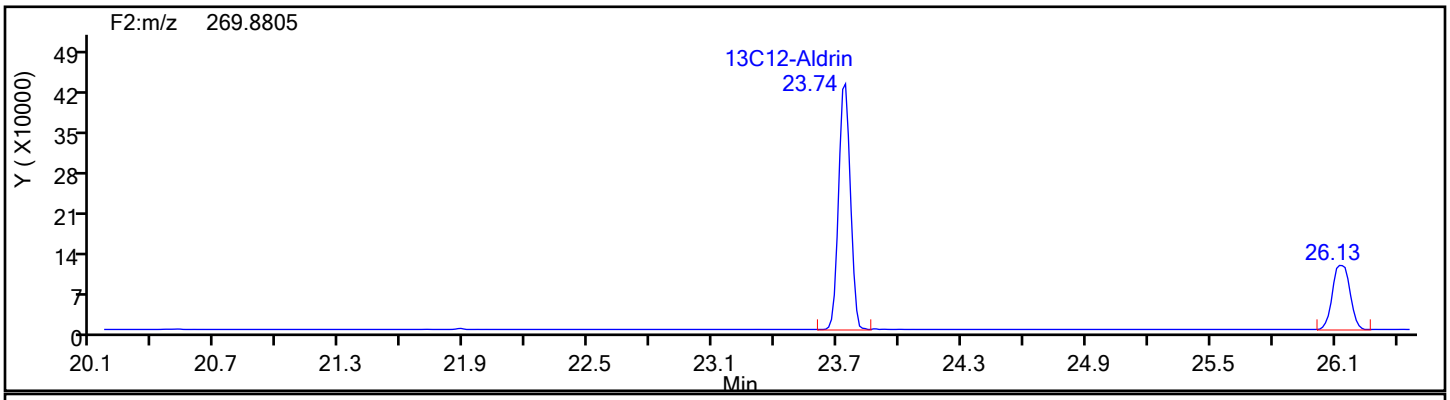
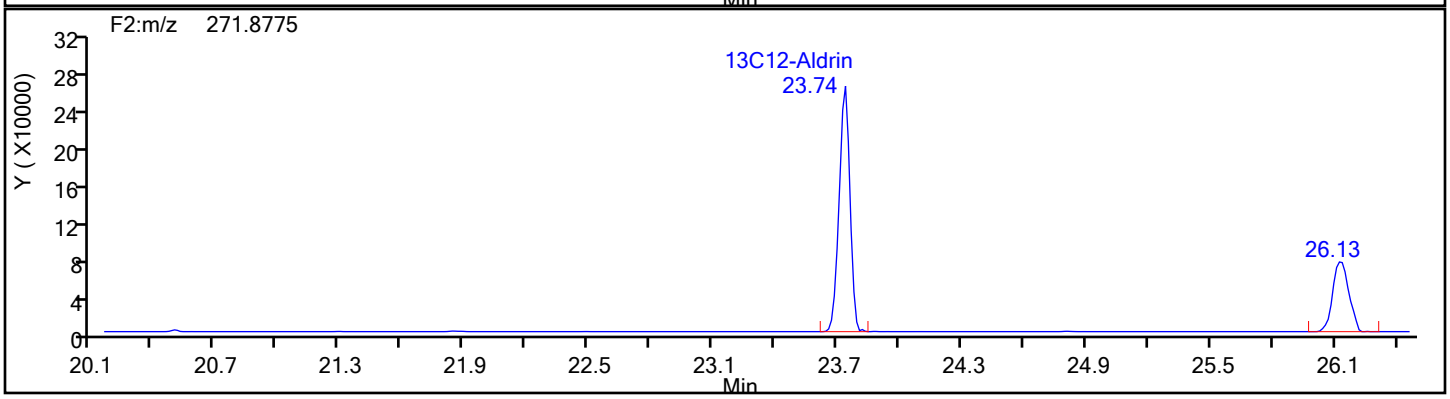
Aldrin





Aldrin Standards





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Eurofins Knoxville

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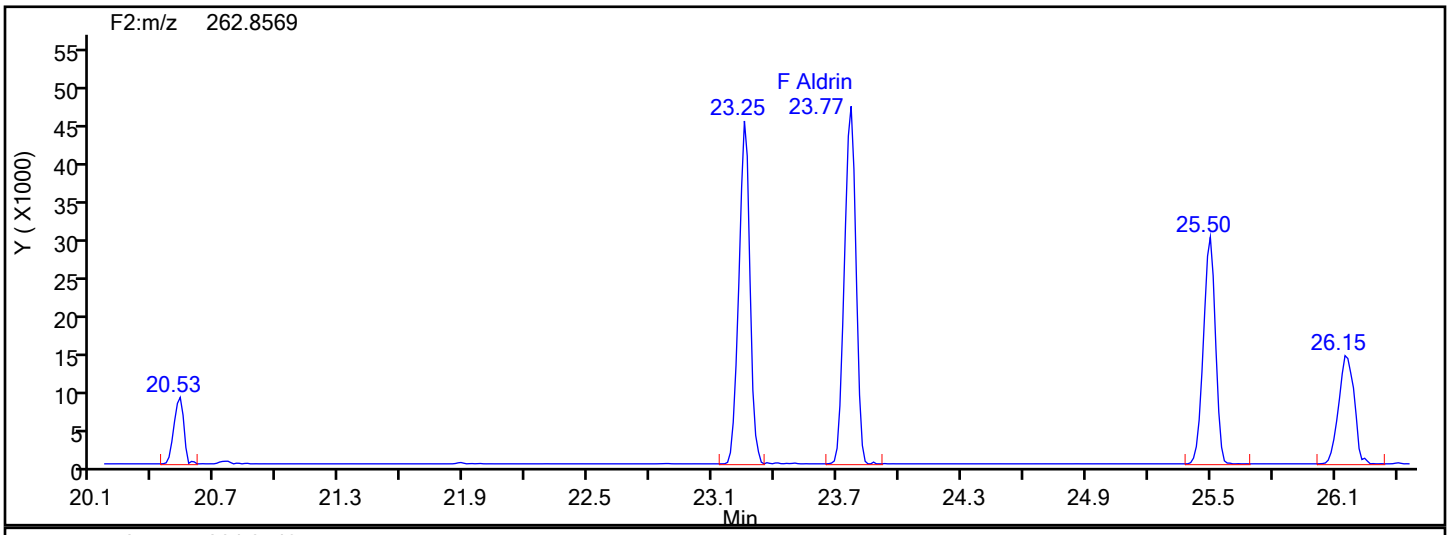
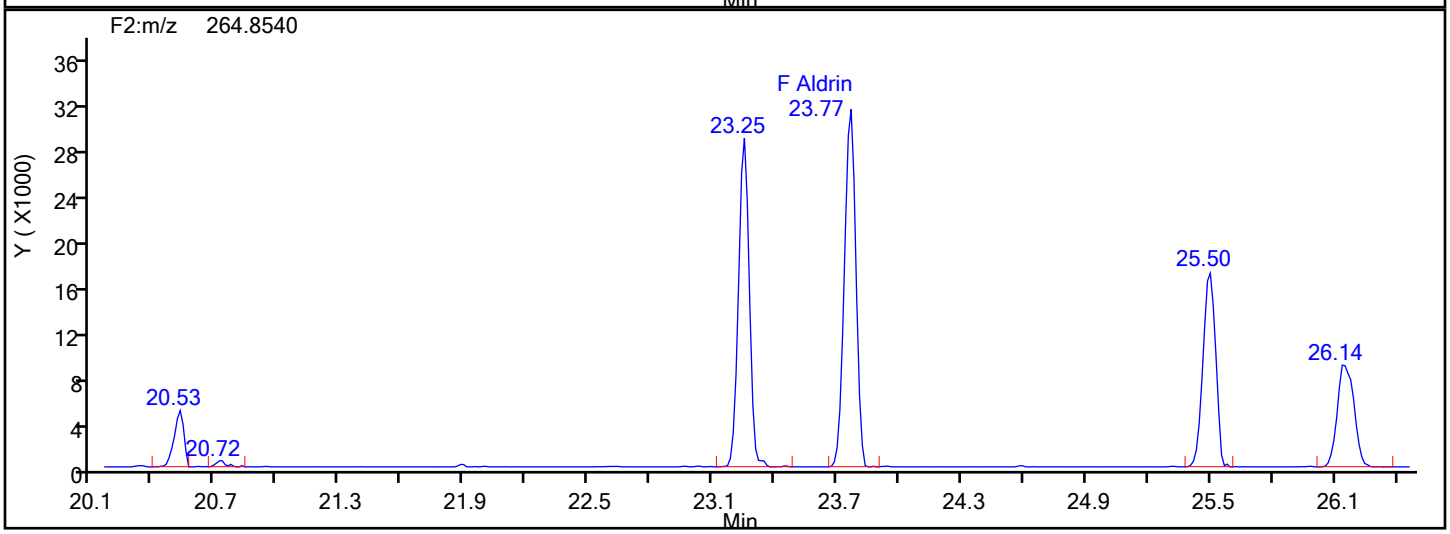
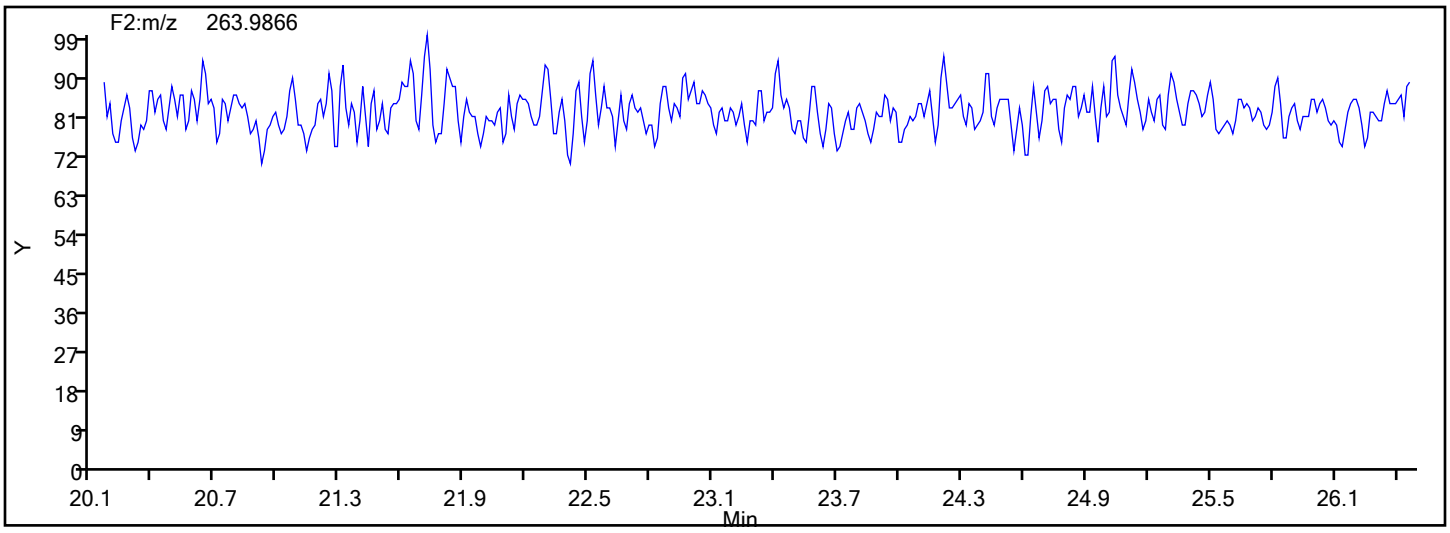
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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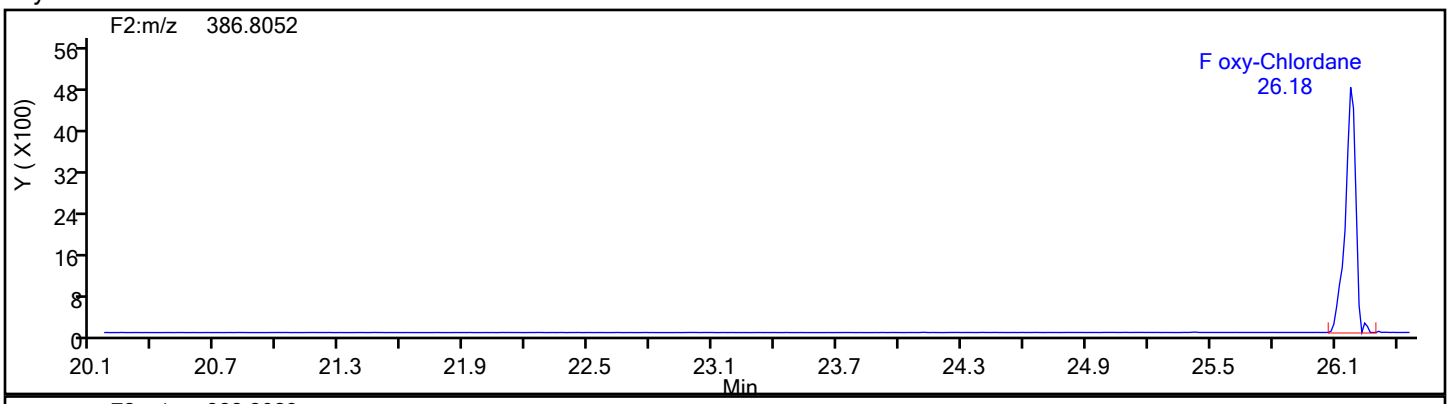
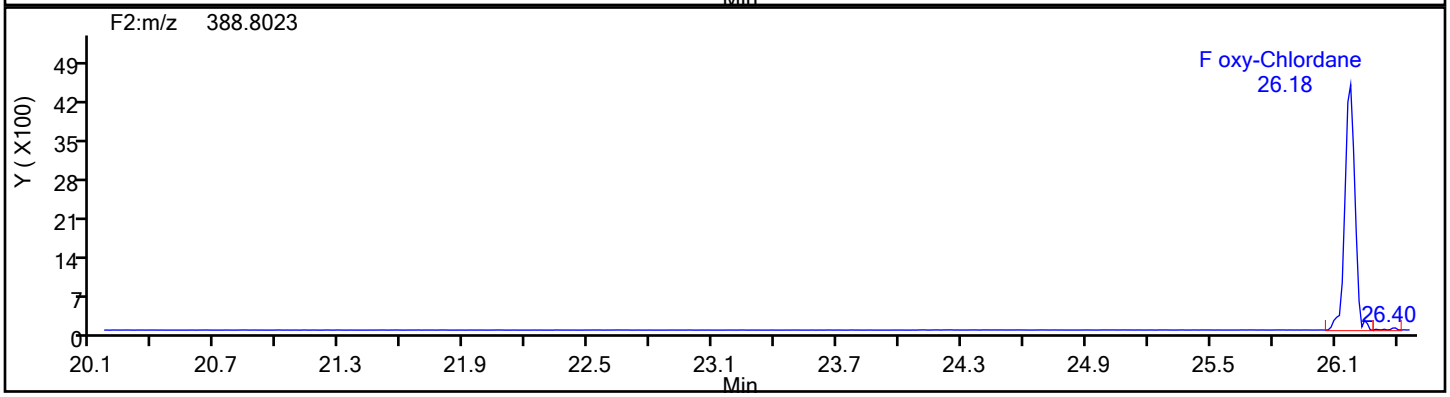
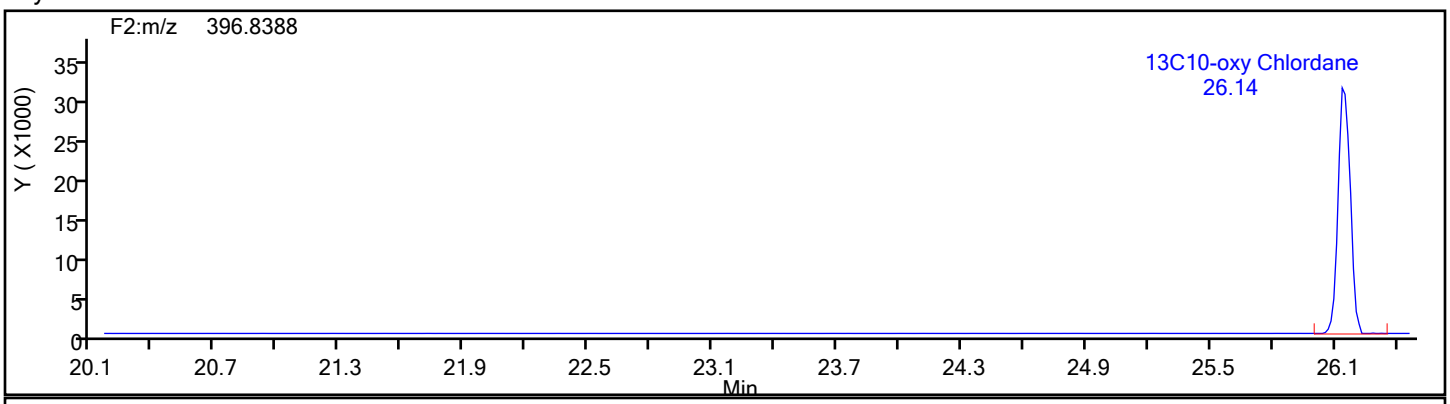
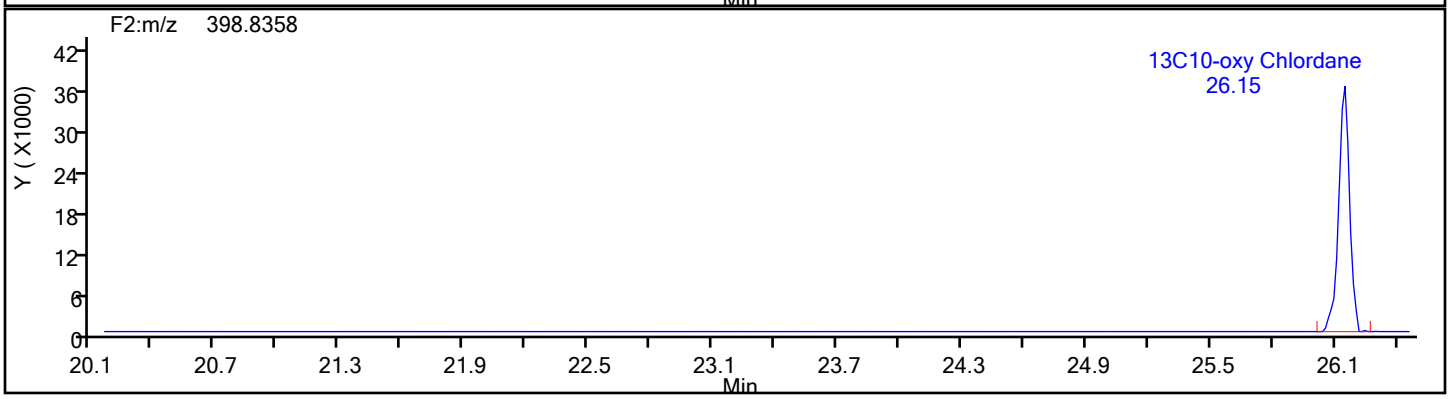
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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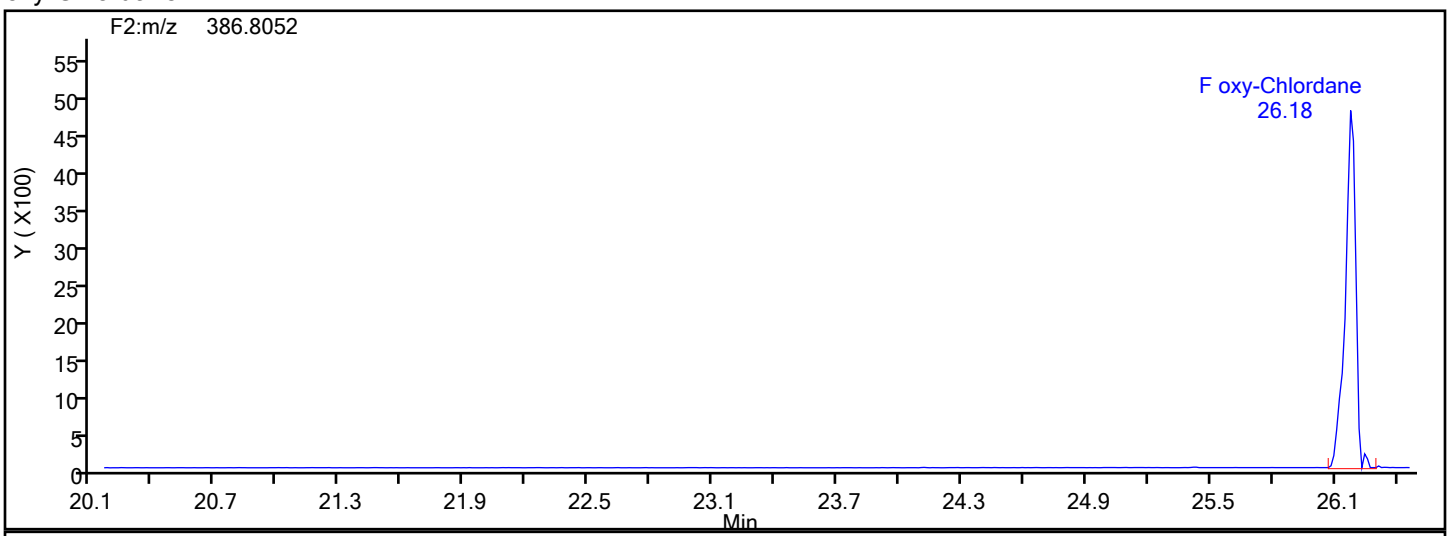
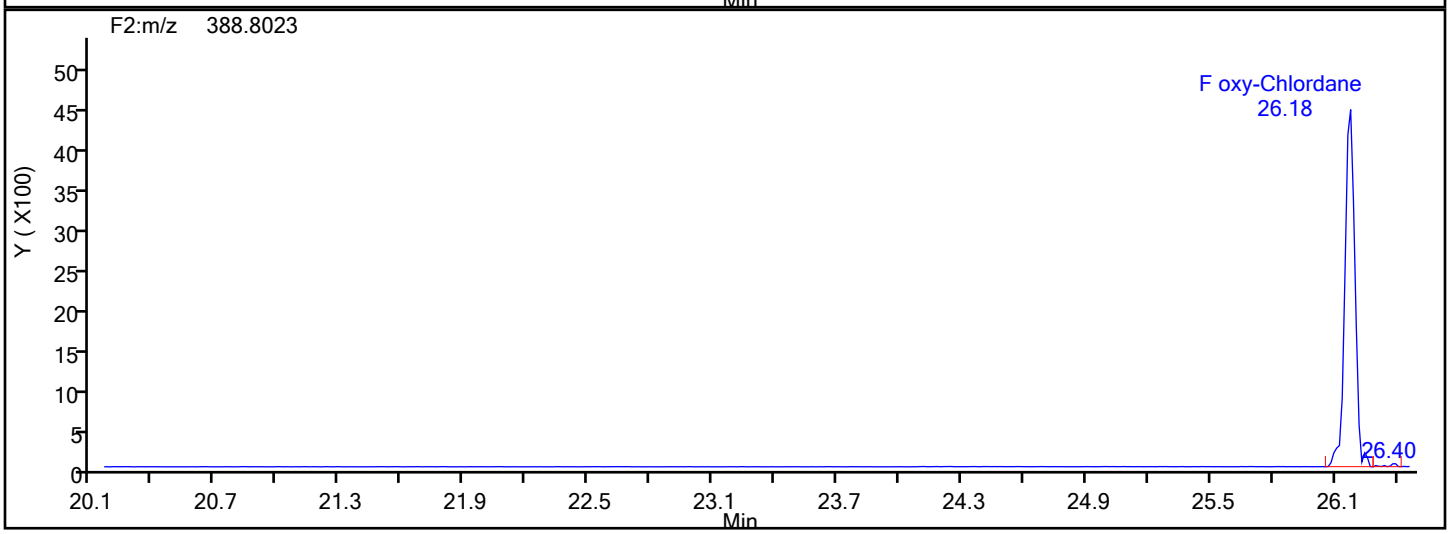
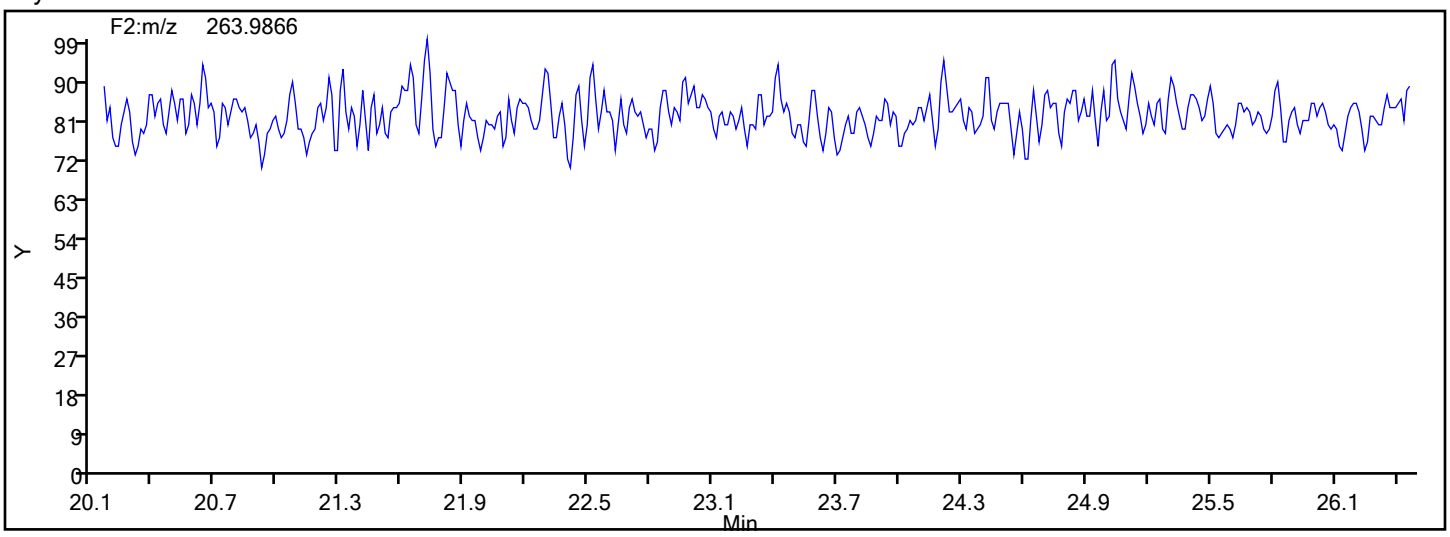
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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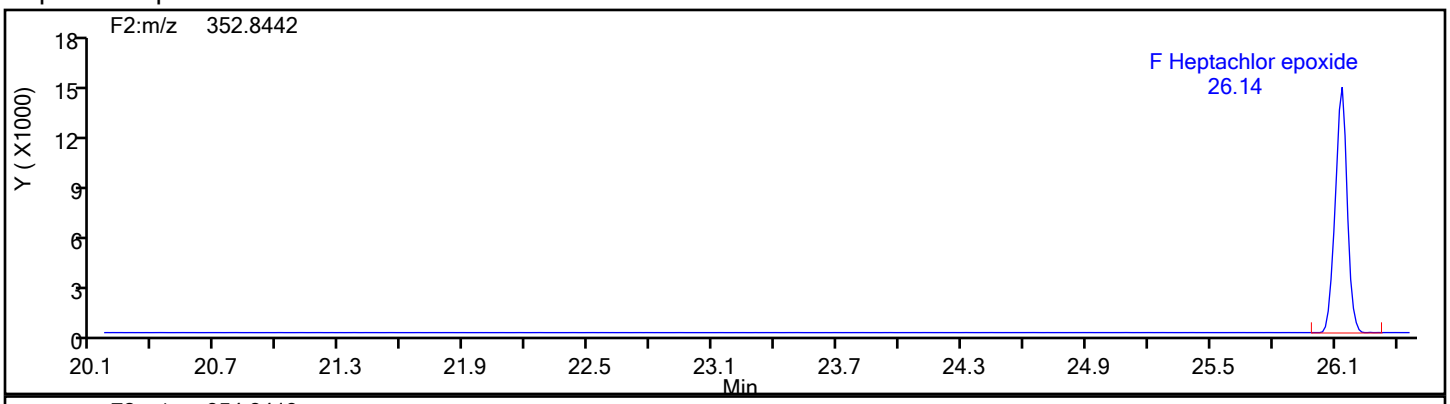
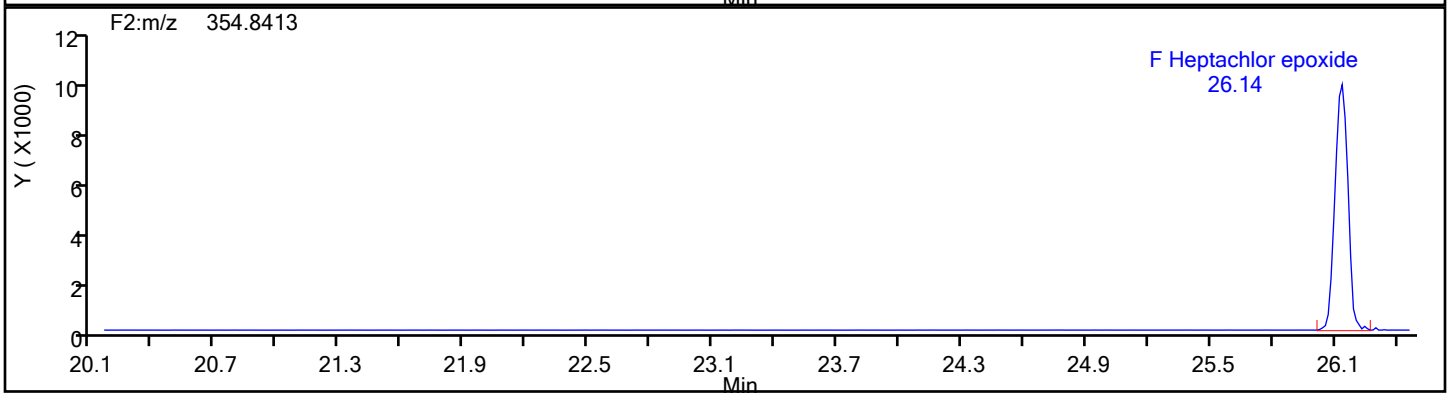
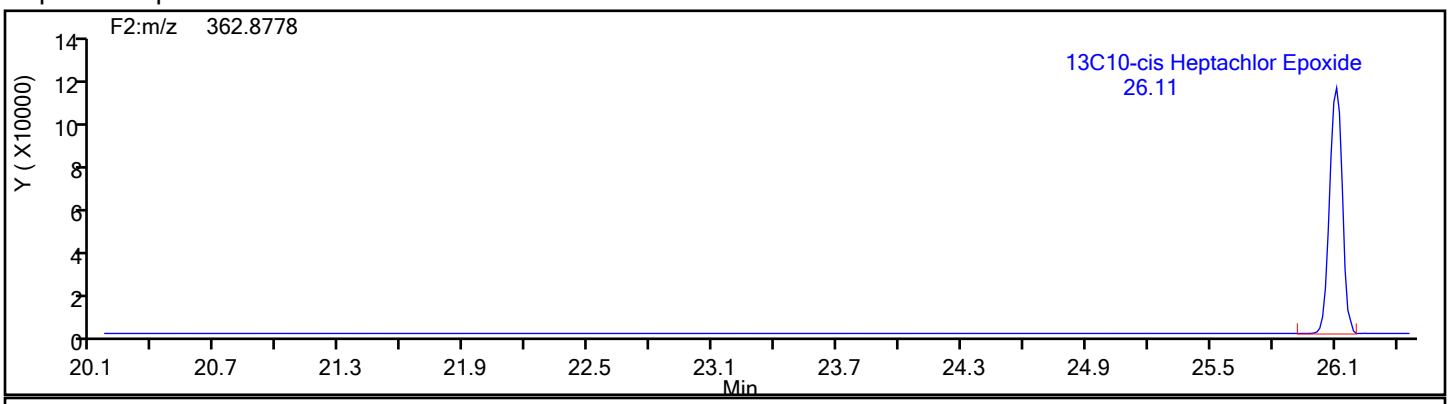
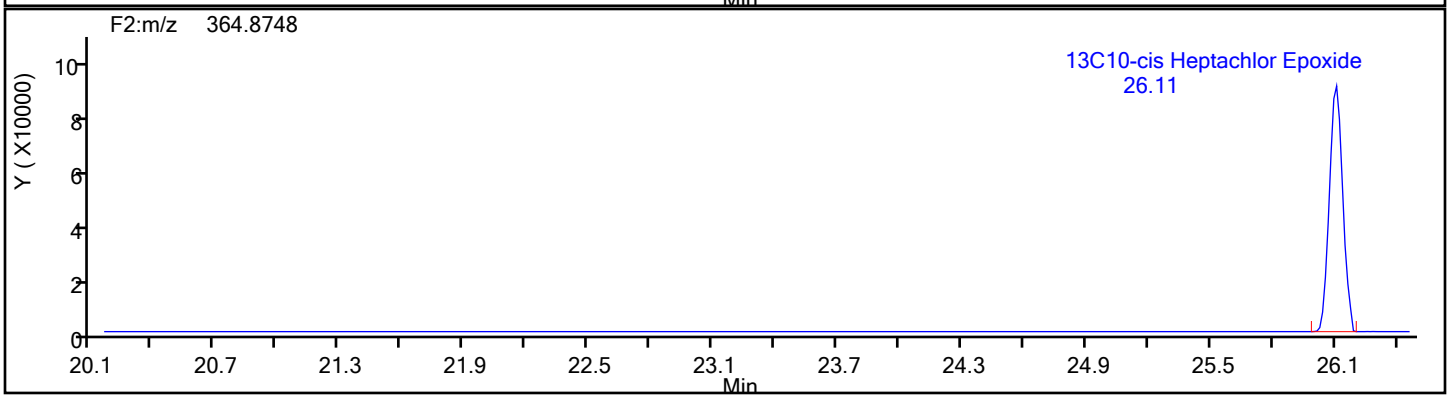
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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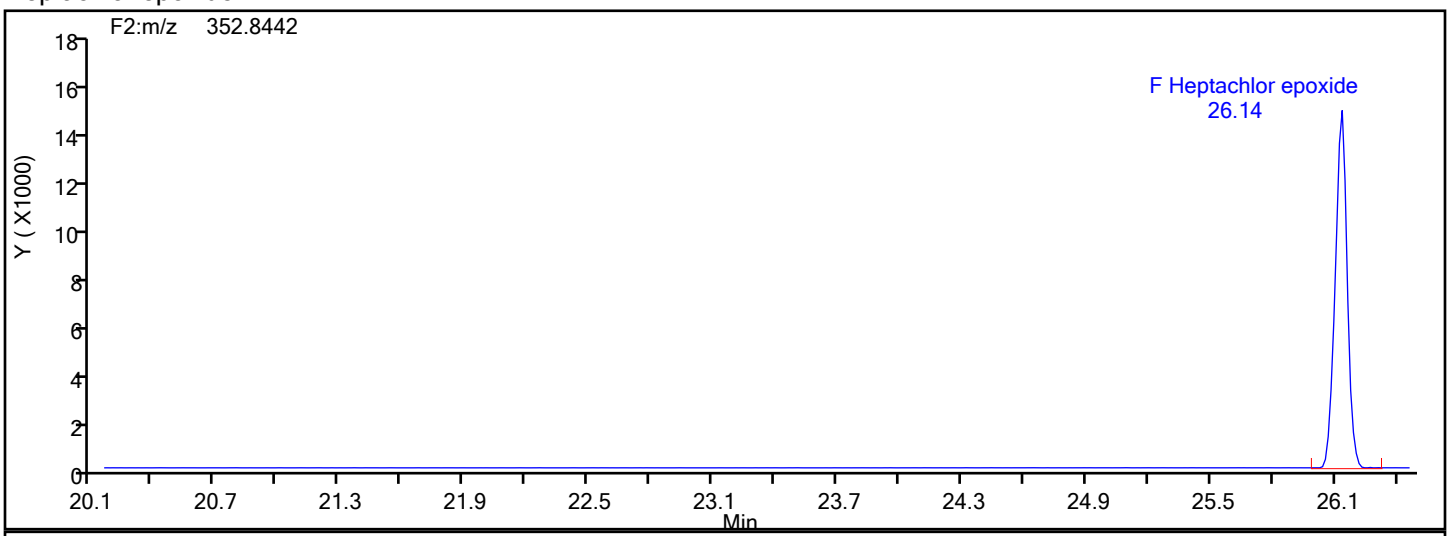
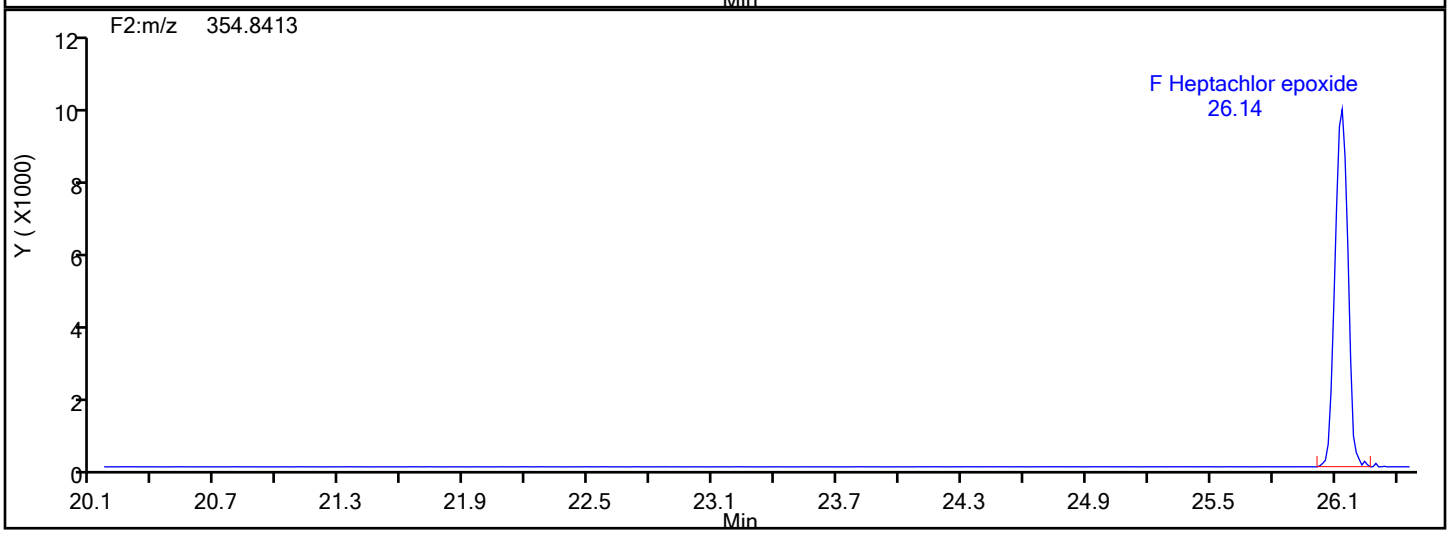
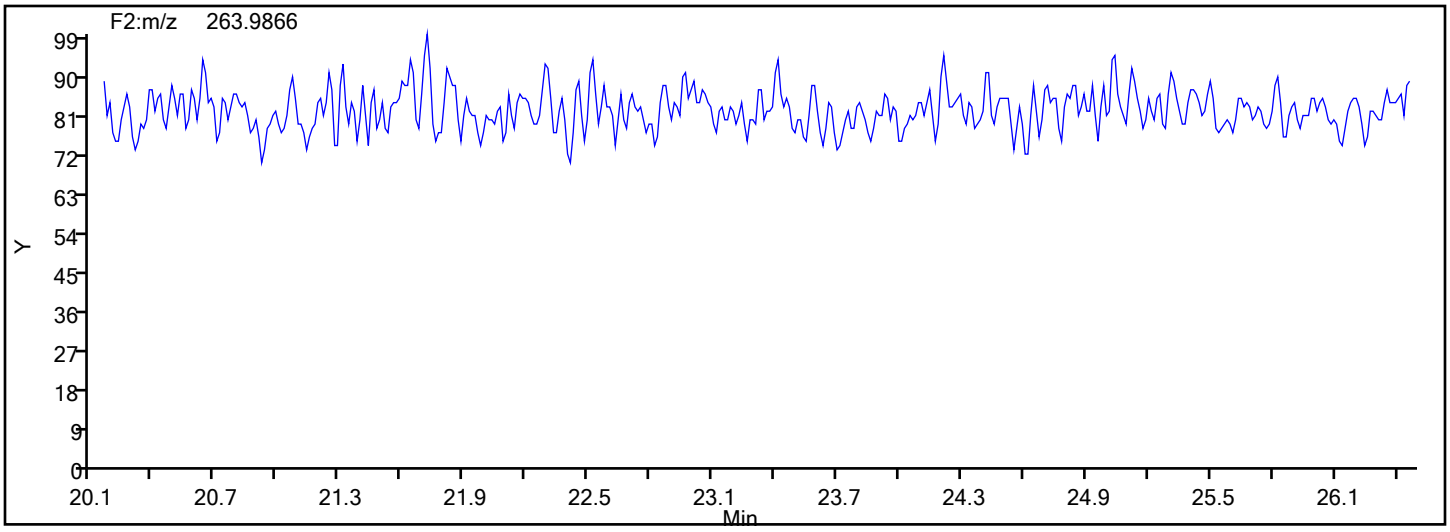
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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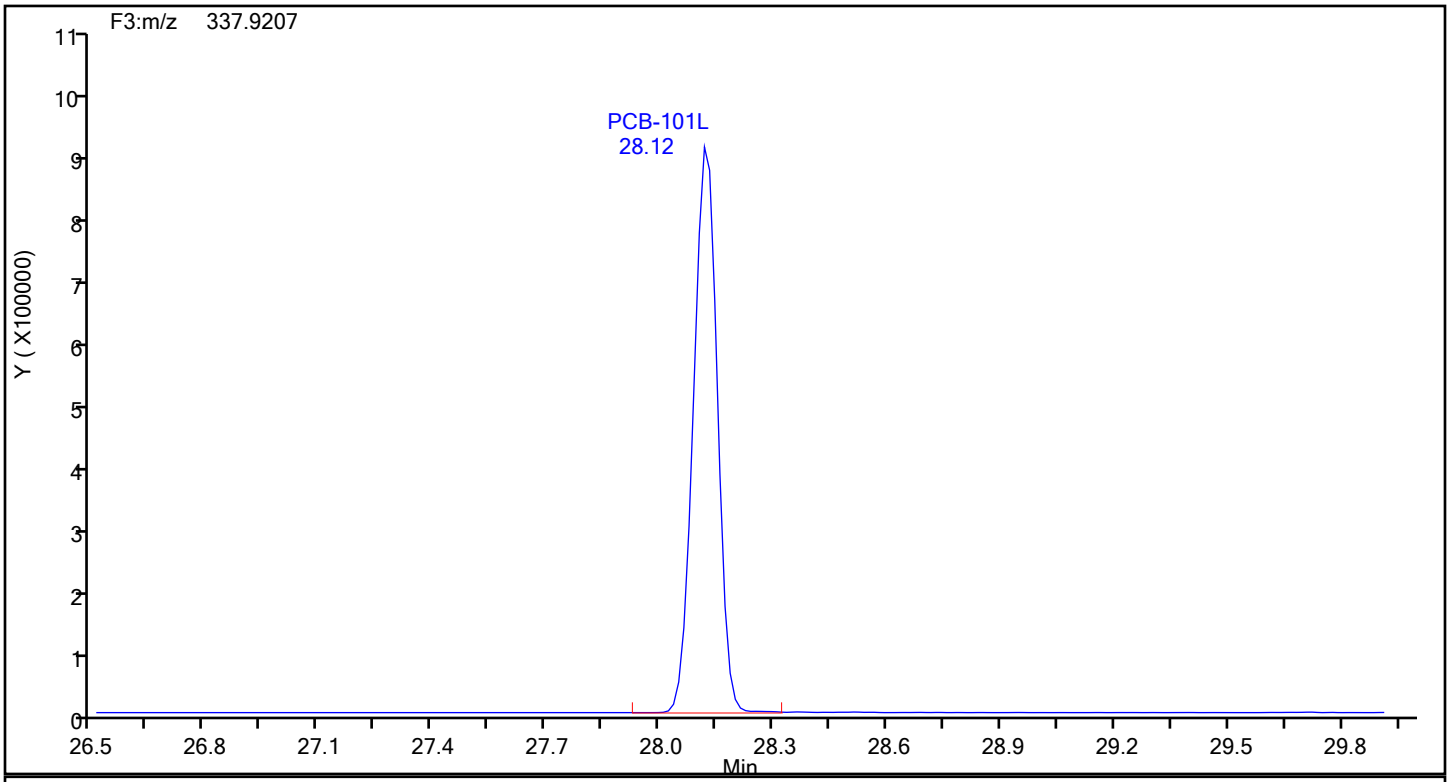
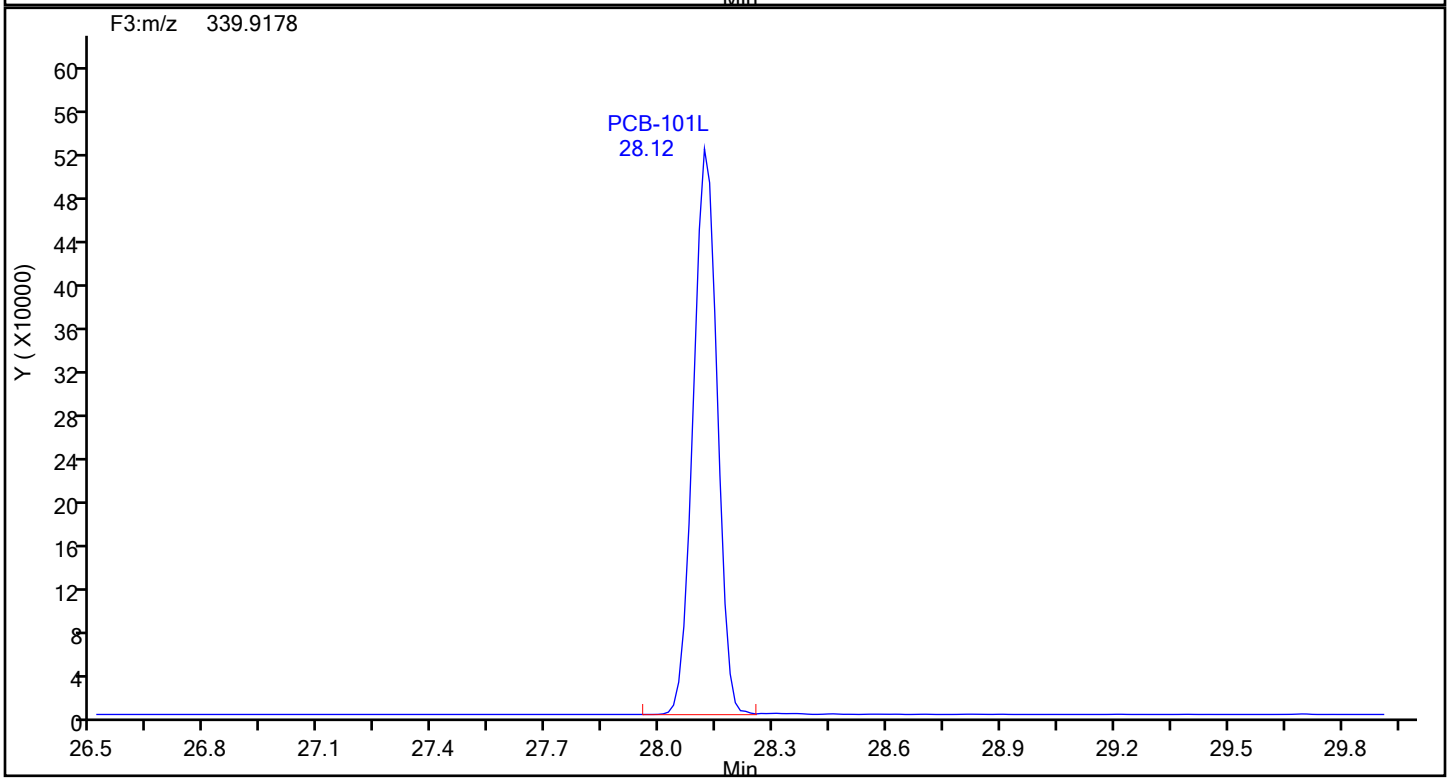
PCB-101L Standards





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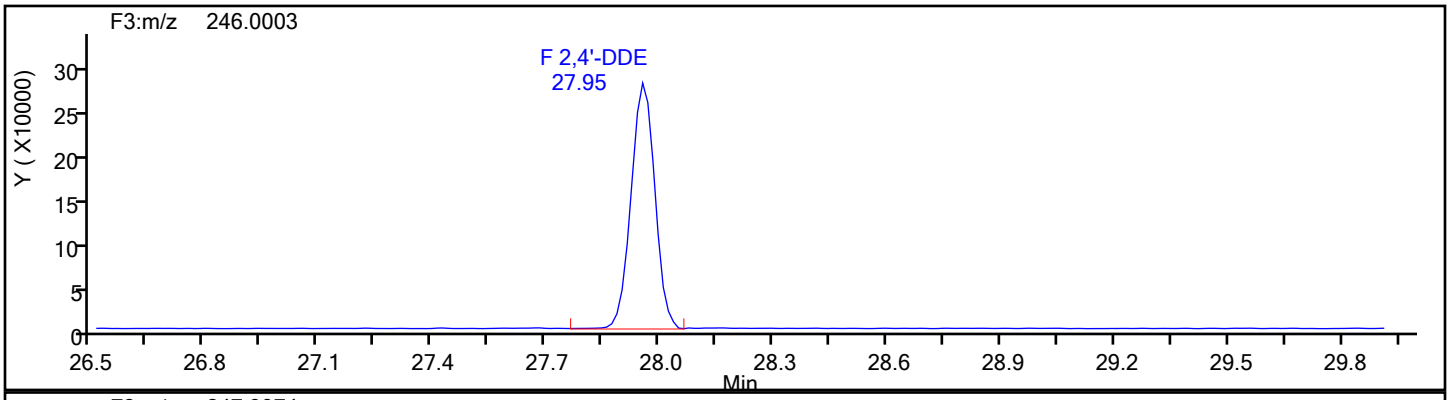
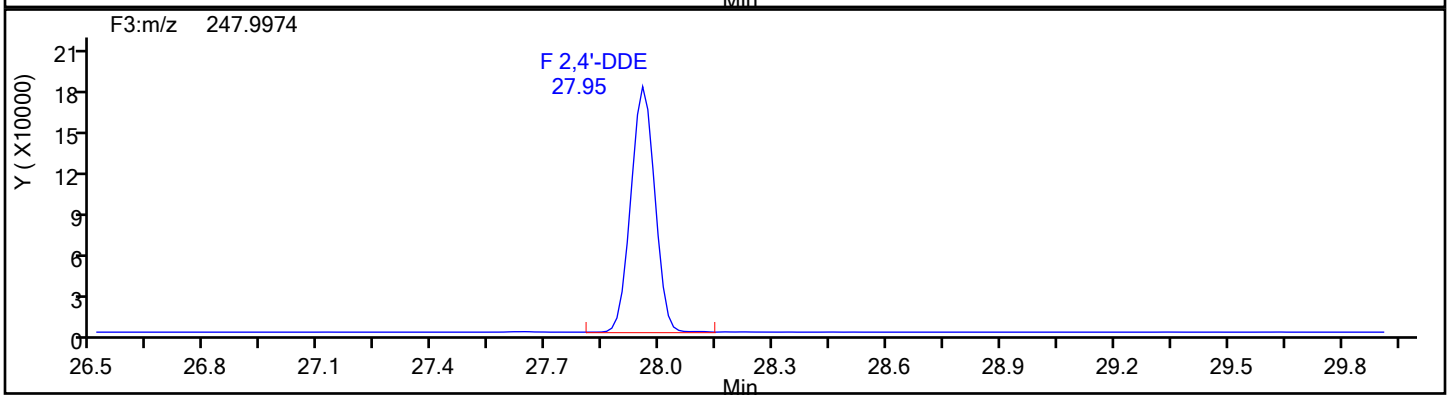
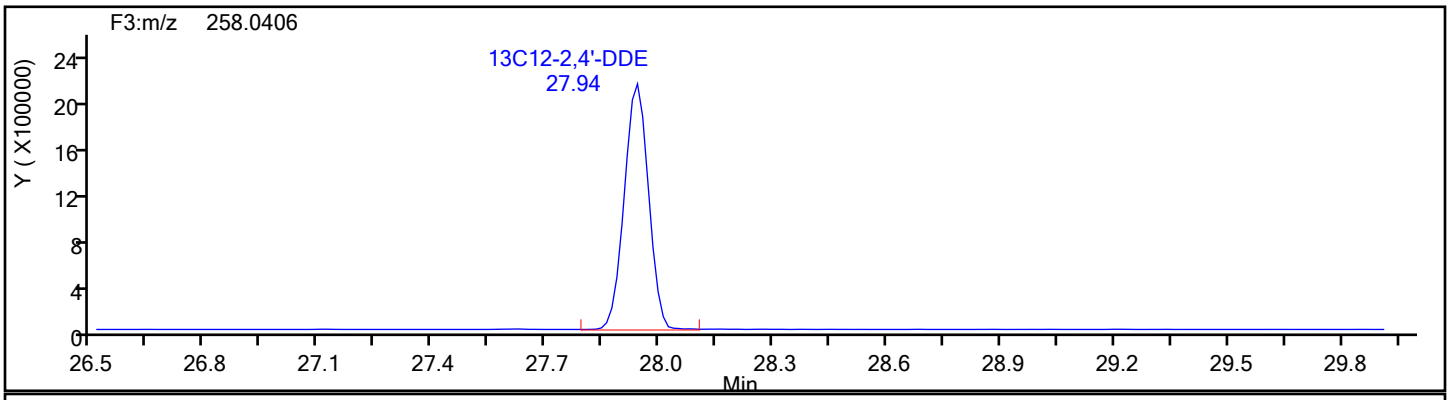
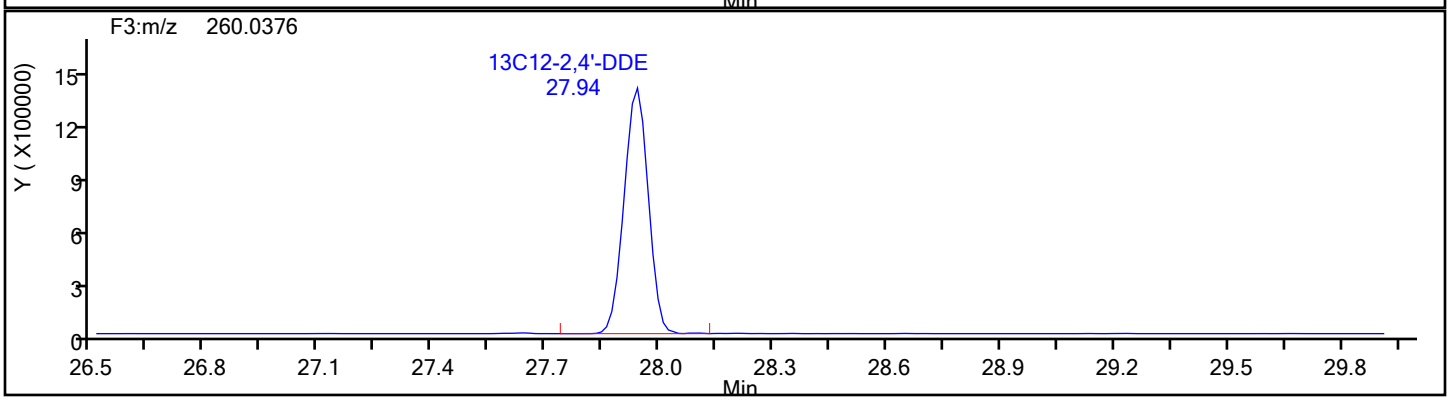
2,4'-DDE





2,4'-DDE Standards





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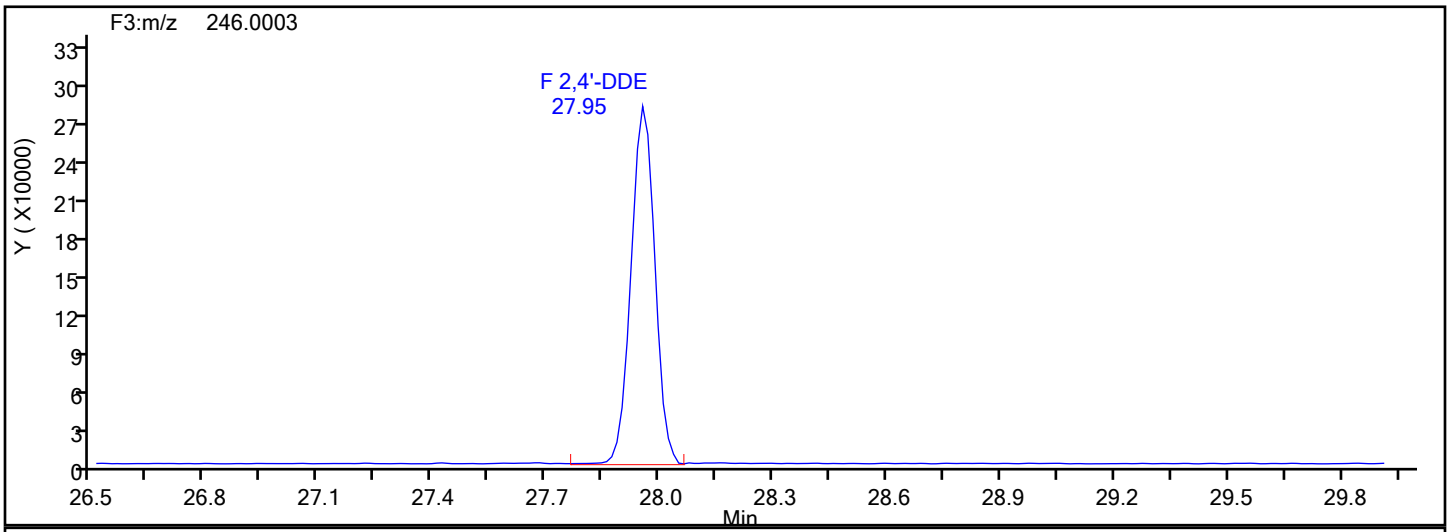
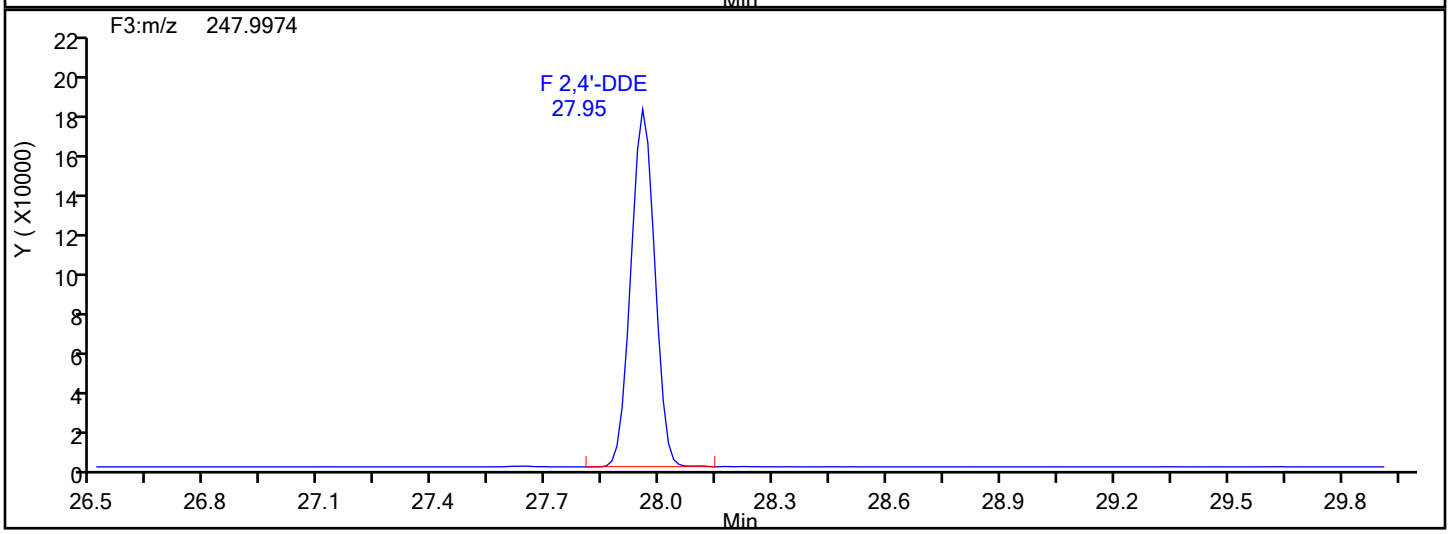
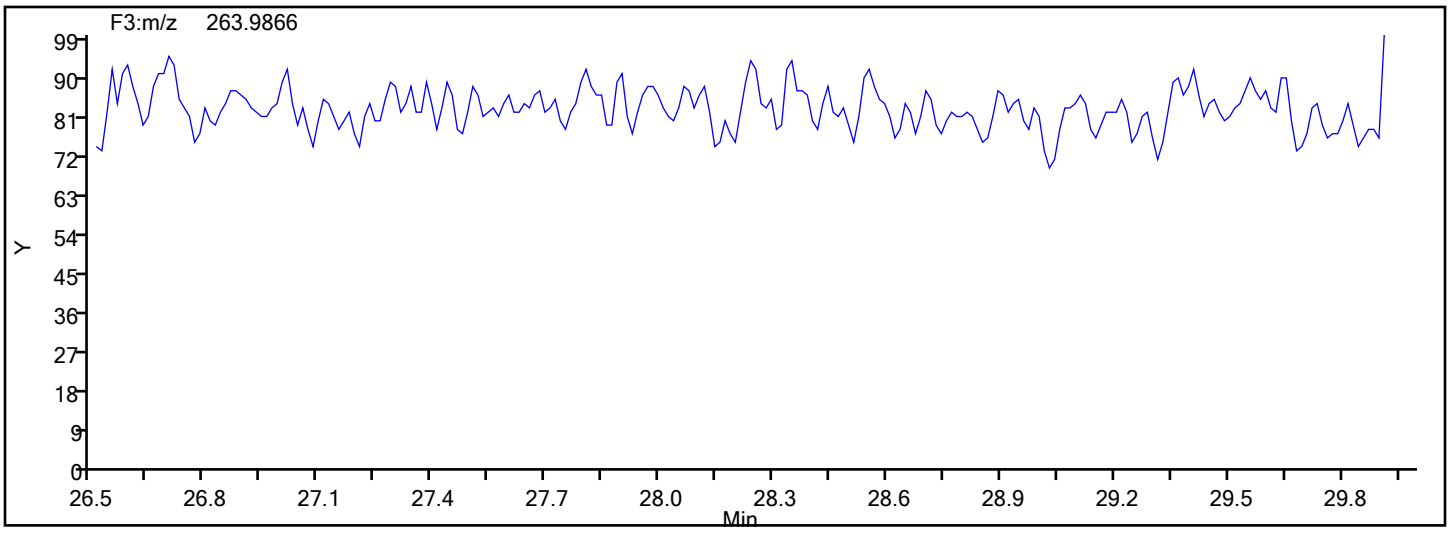
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
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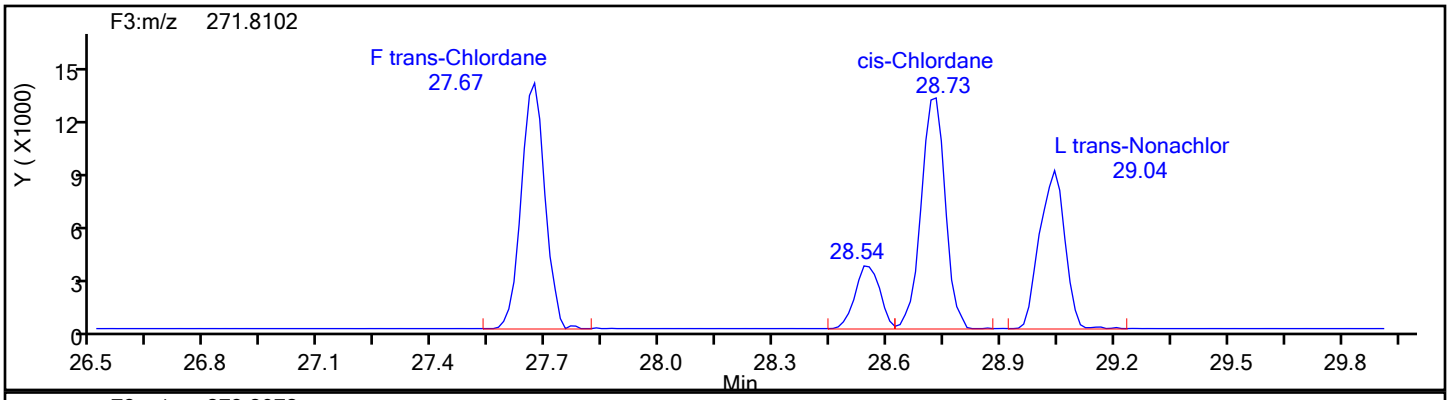
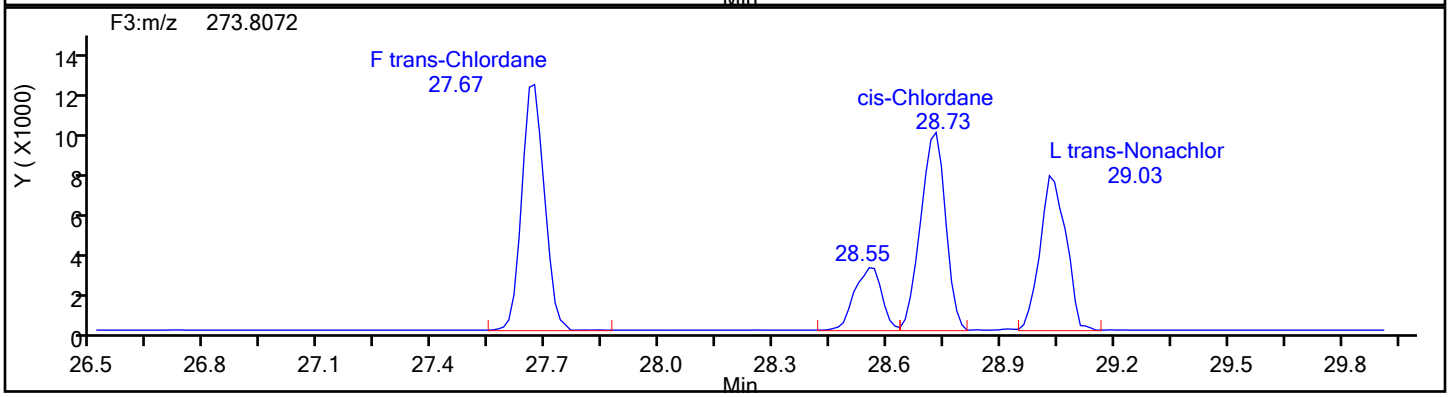
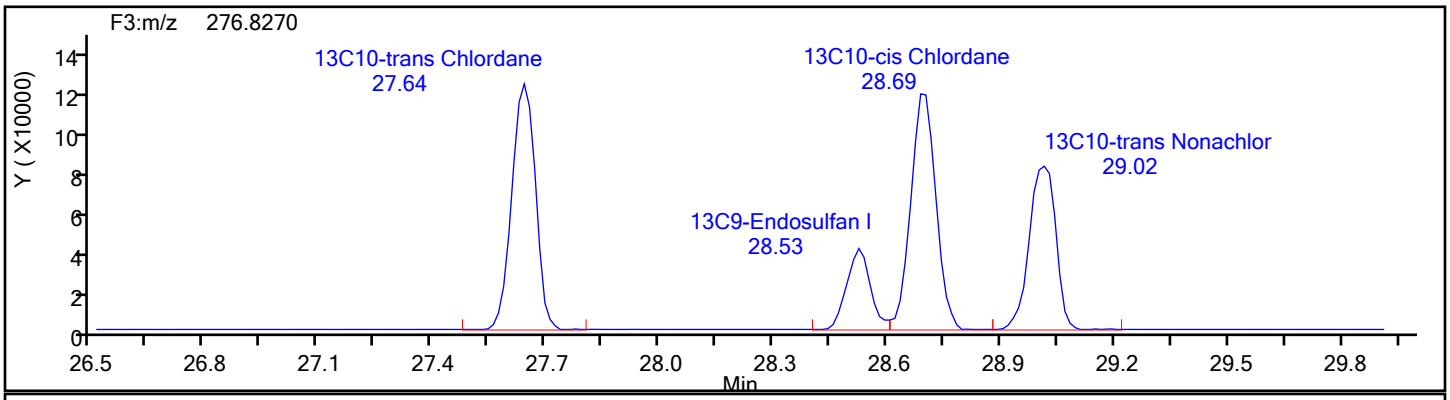
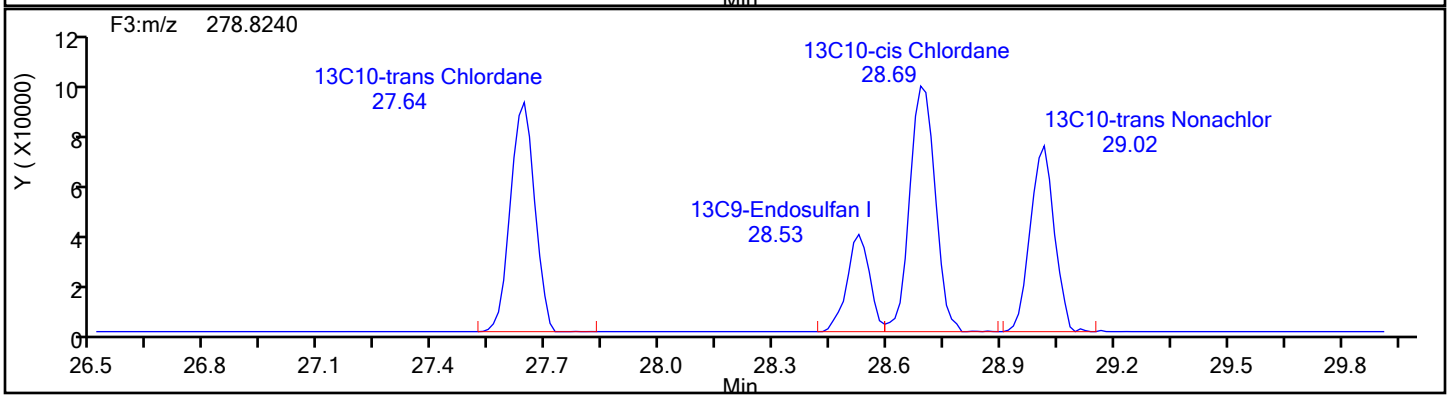
Chlordane





Chlordane Standards





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Eurofins Knoxville

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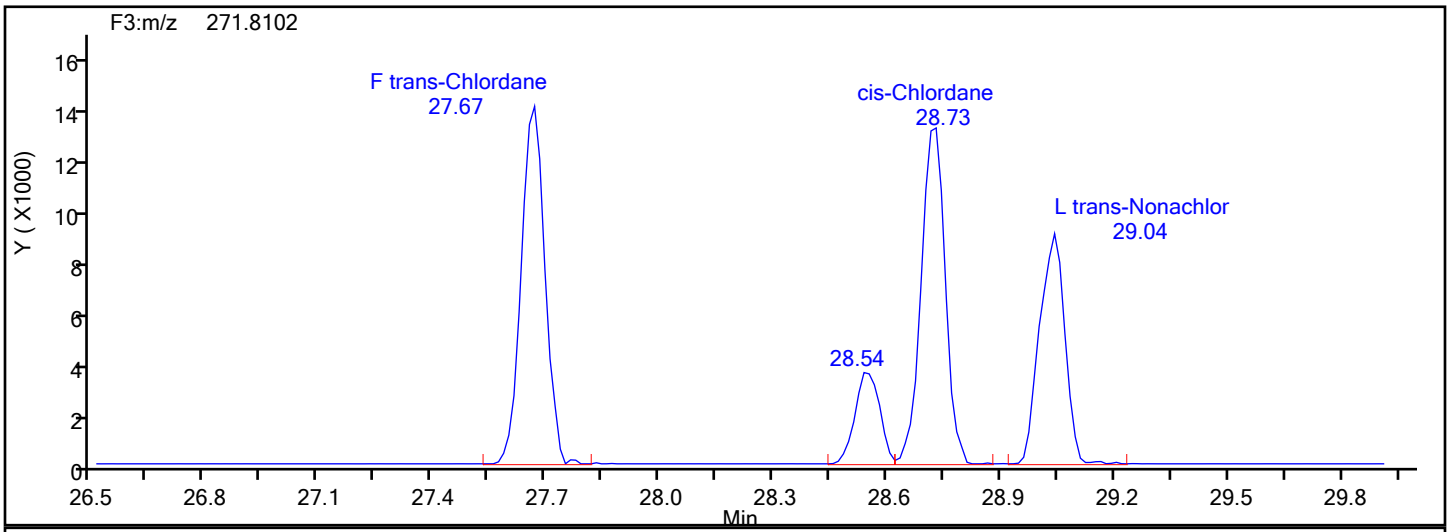
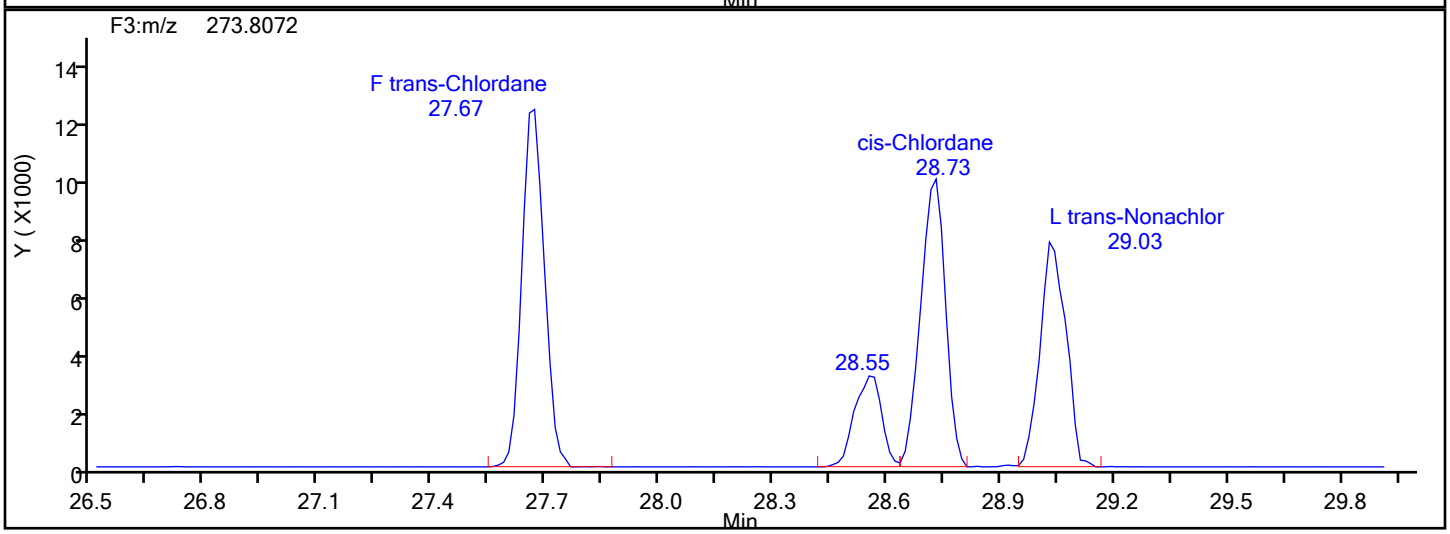
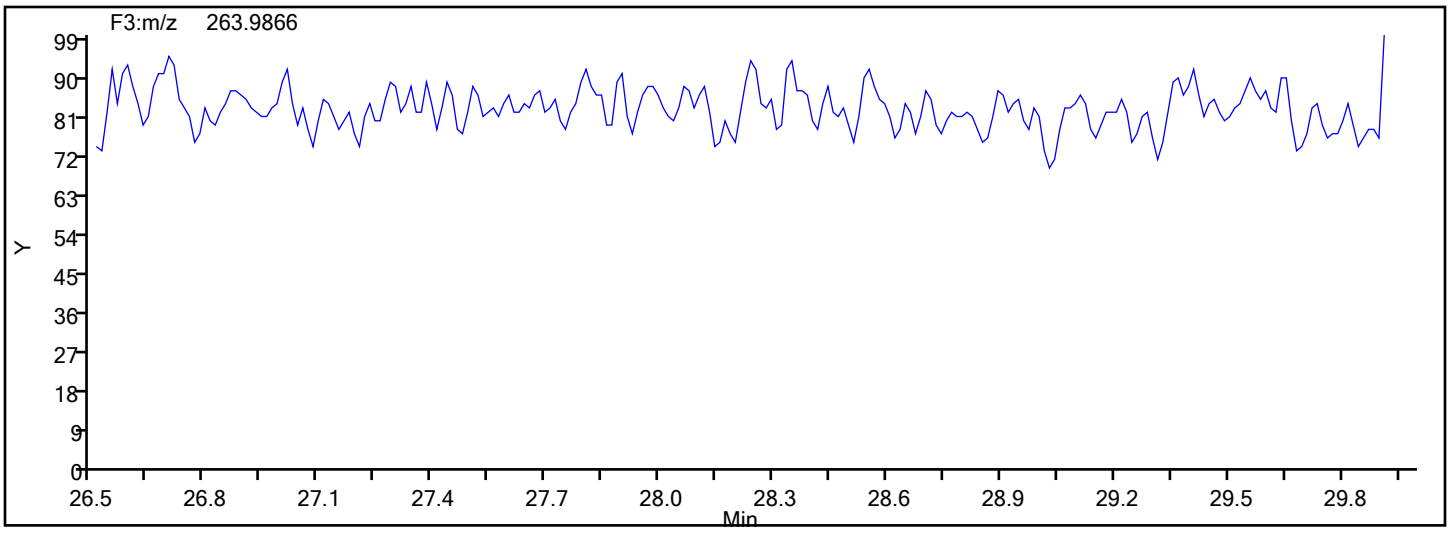
Chlordane





Chlordane Lock Mass



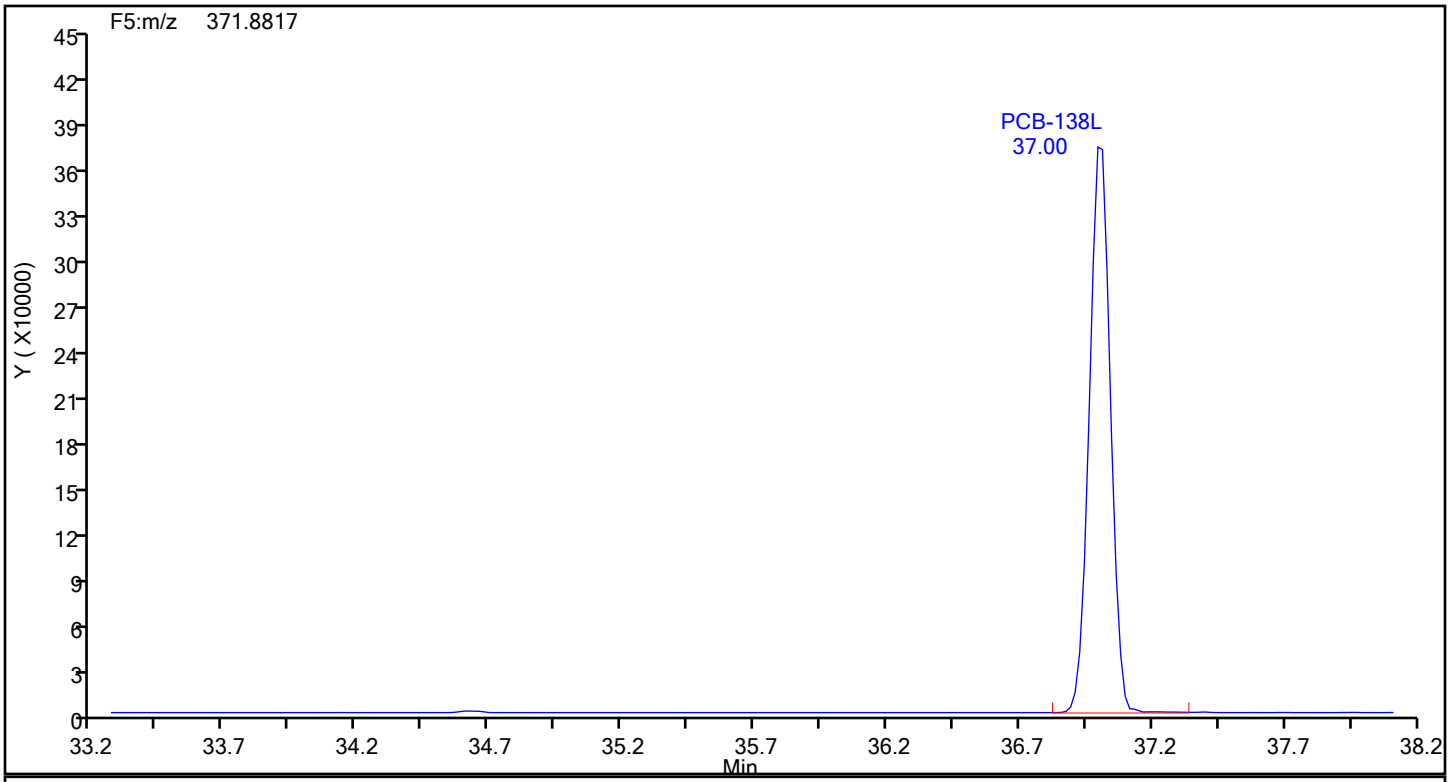
Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

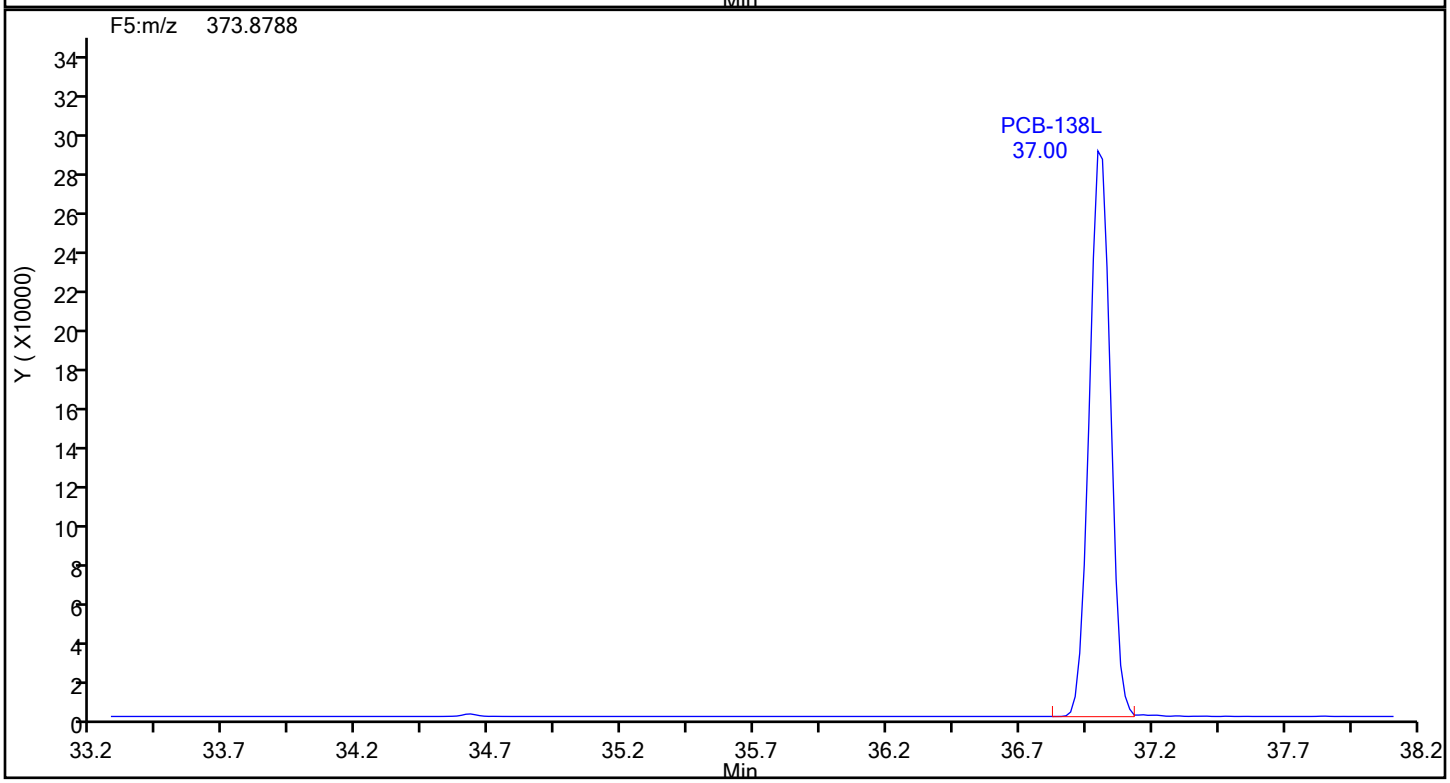
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-138L Standards





Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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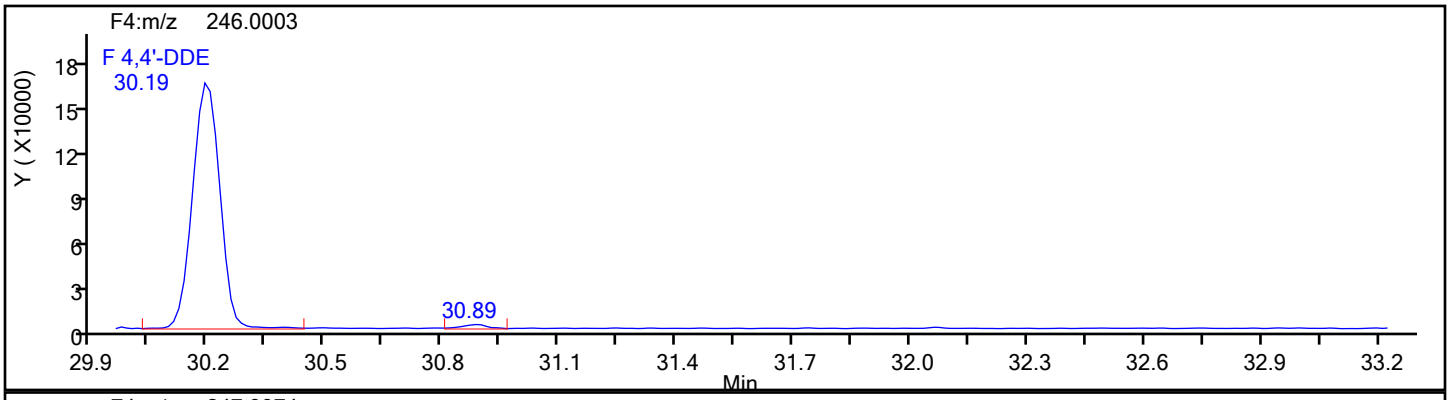
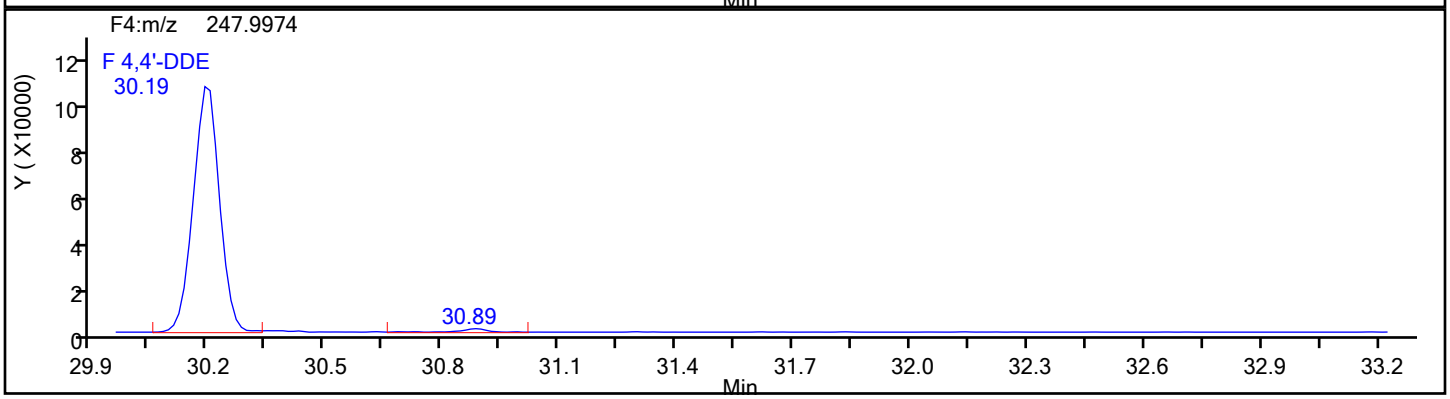
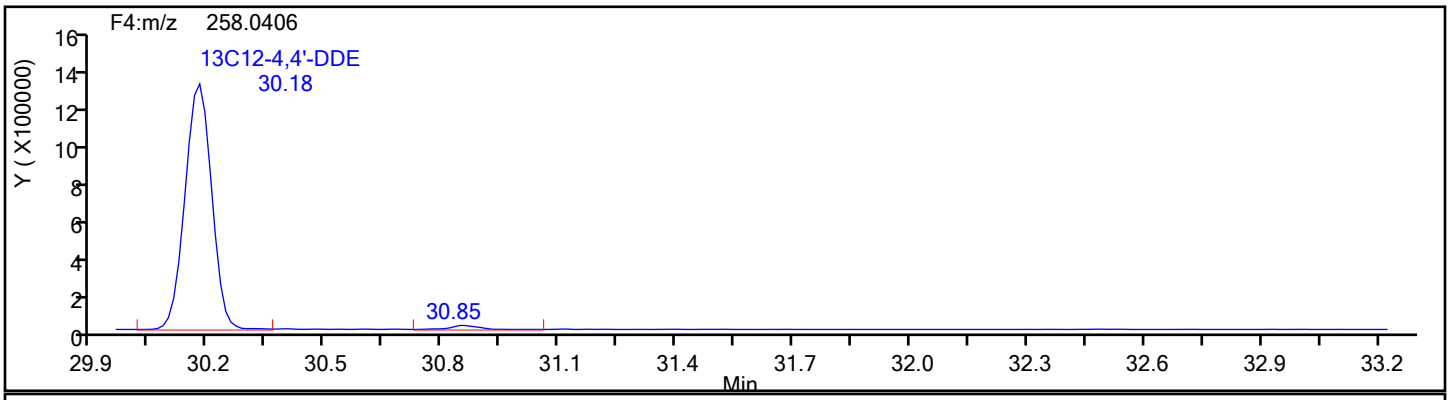
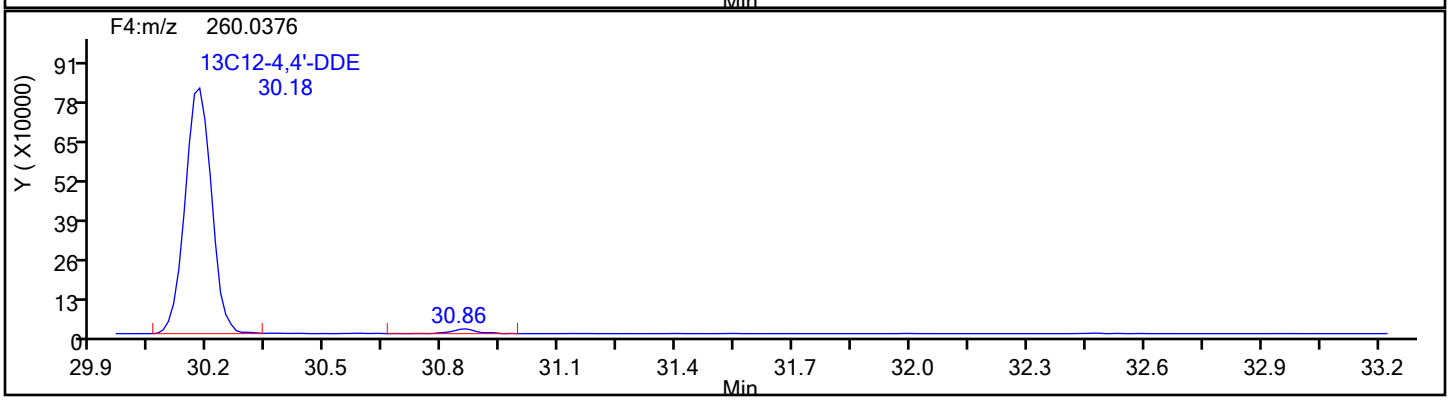
4,4'-DDE





4,4'-DDE Standards





Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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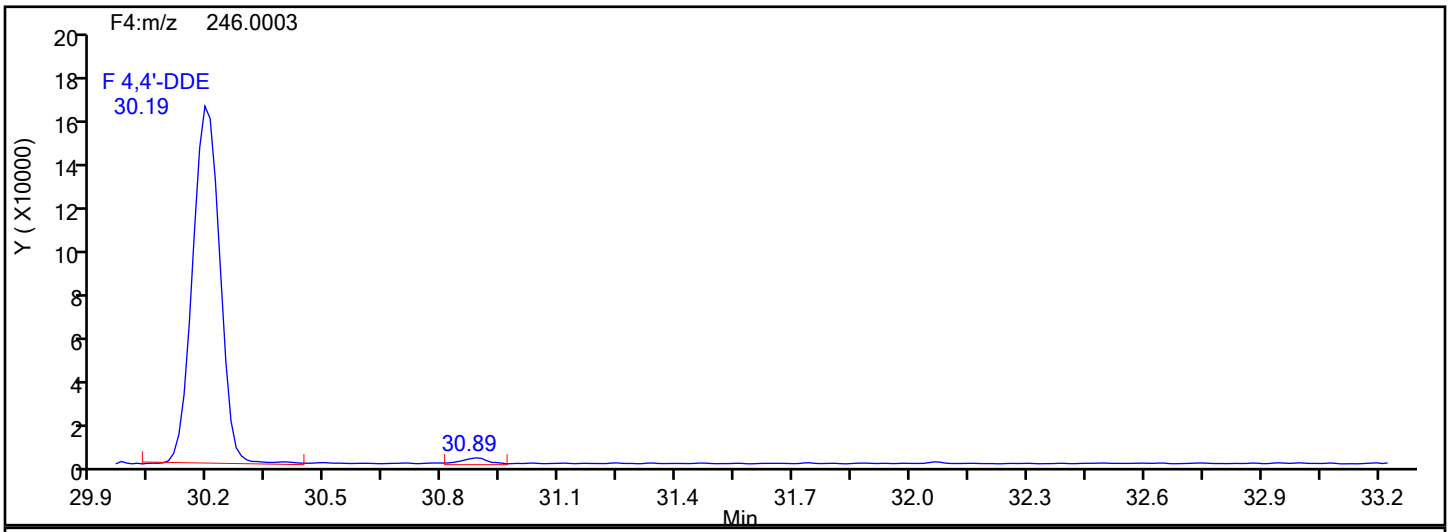
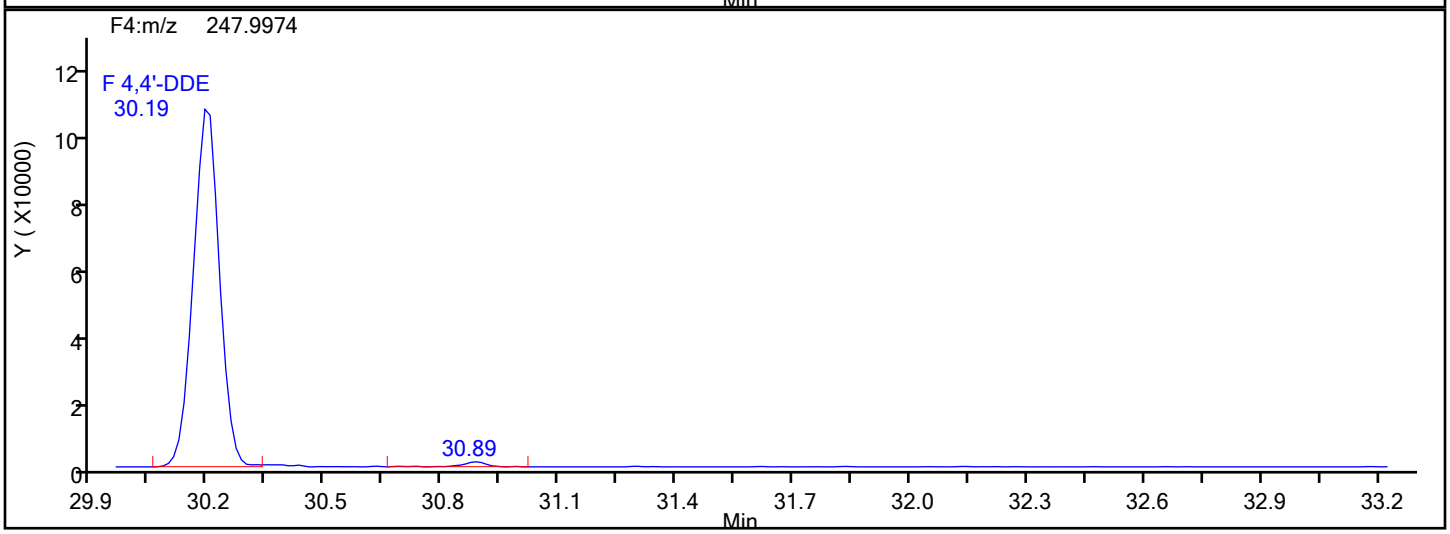
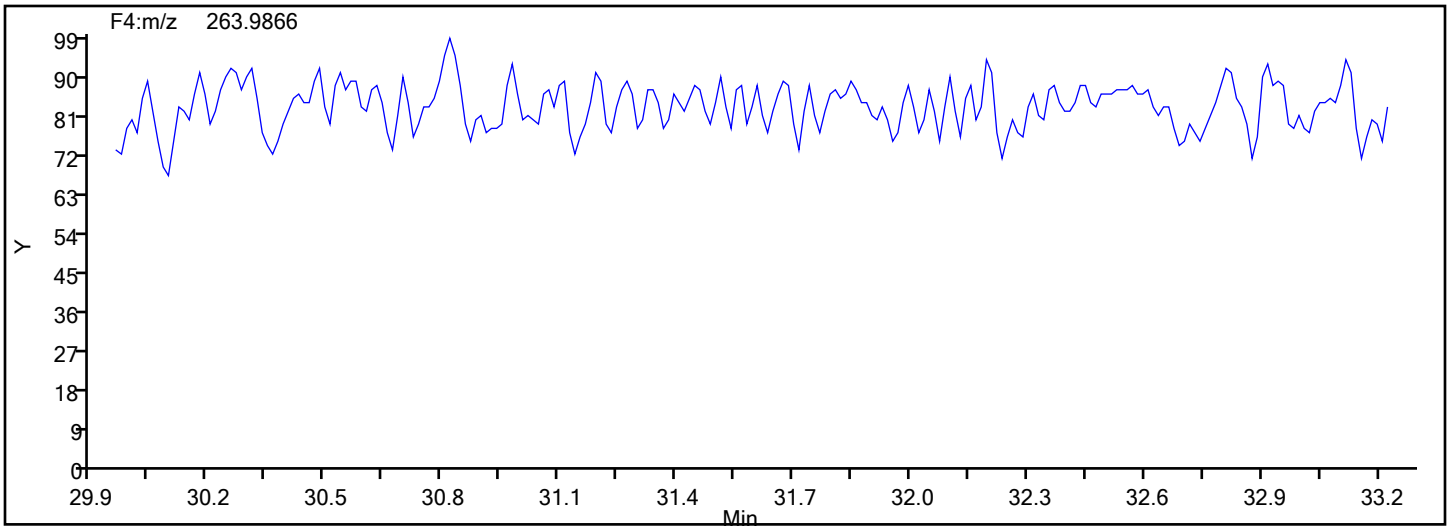
4,4'-DDE





4,4'-DDE Lock Mass



Report Date: 24-Mar-2025 13:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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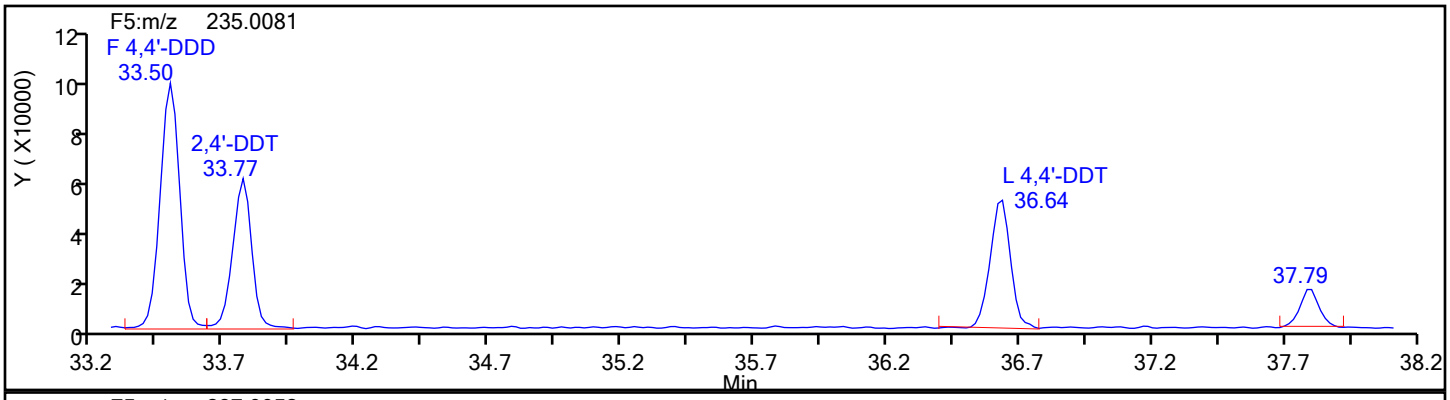
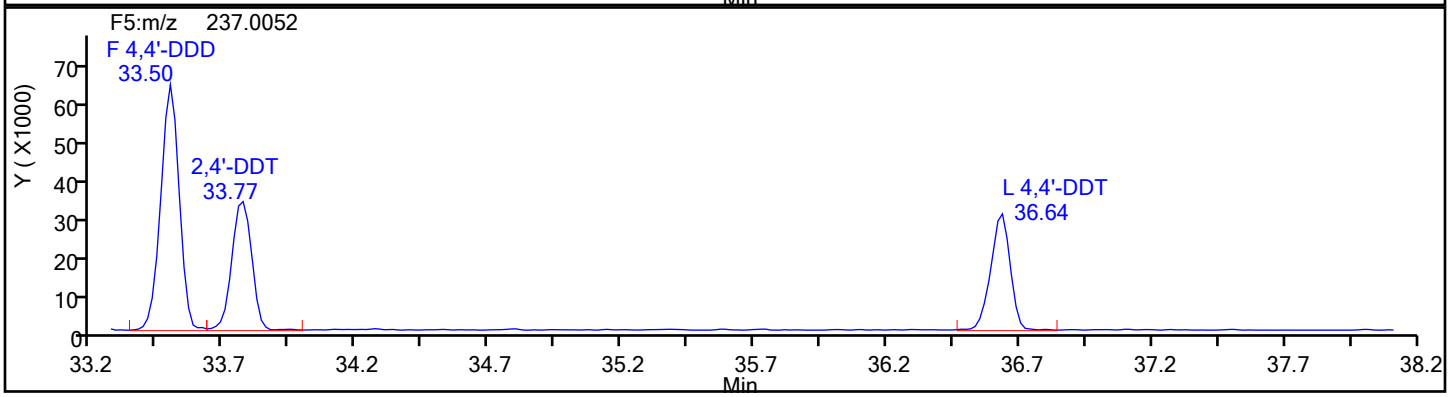
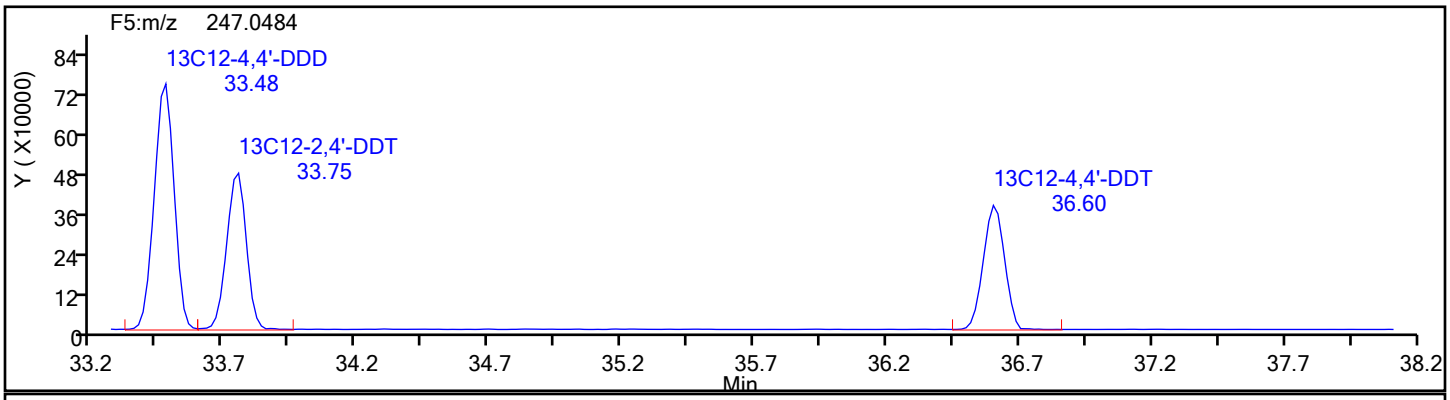
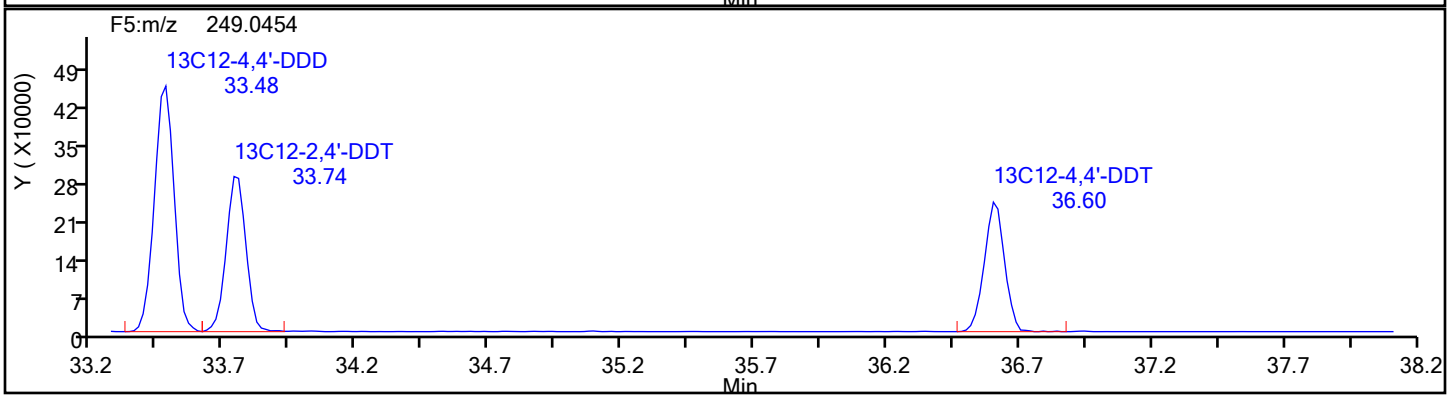
DDD





DDD Standards





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Eurofins Knoxville

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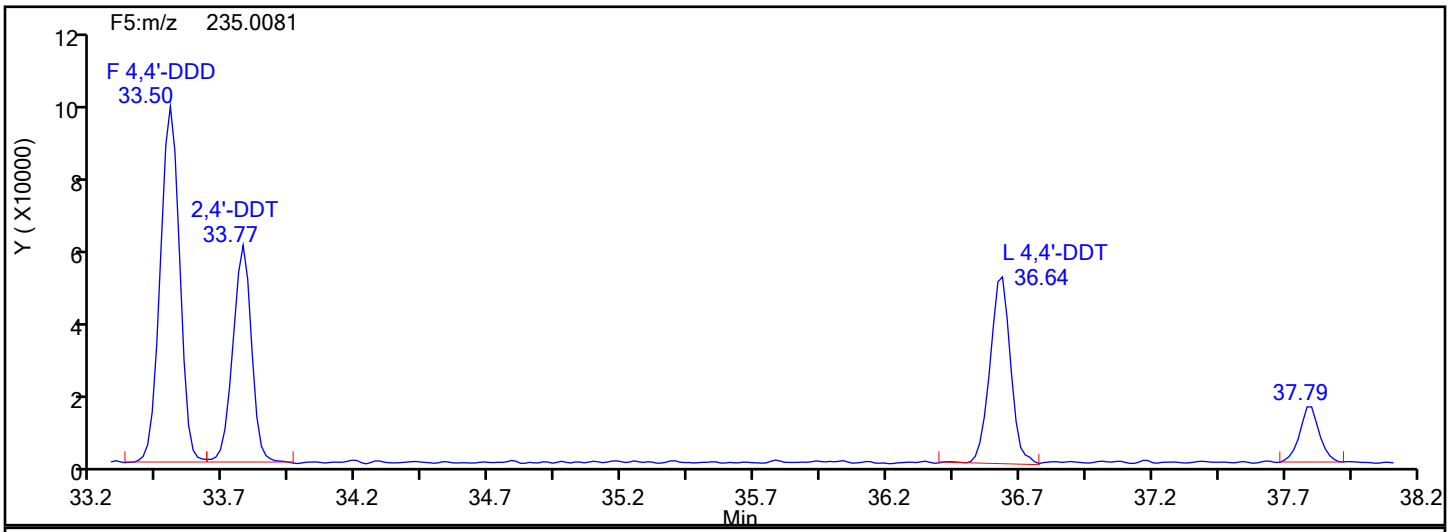
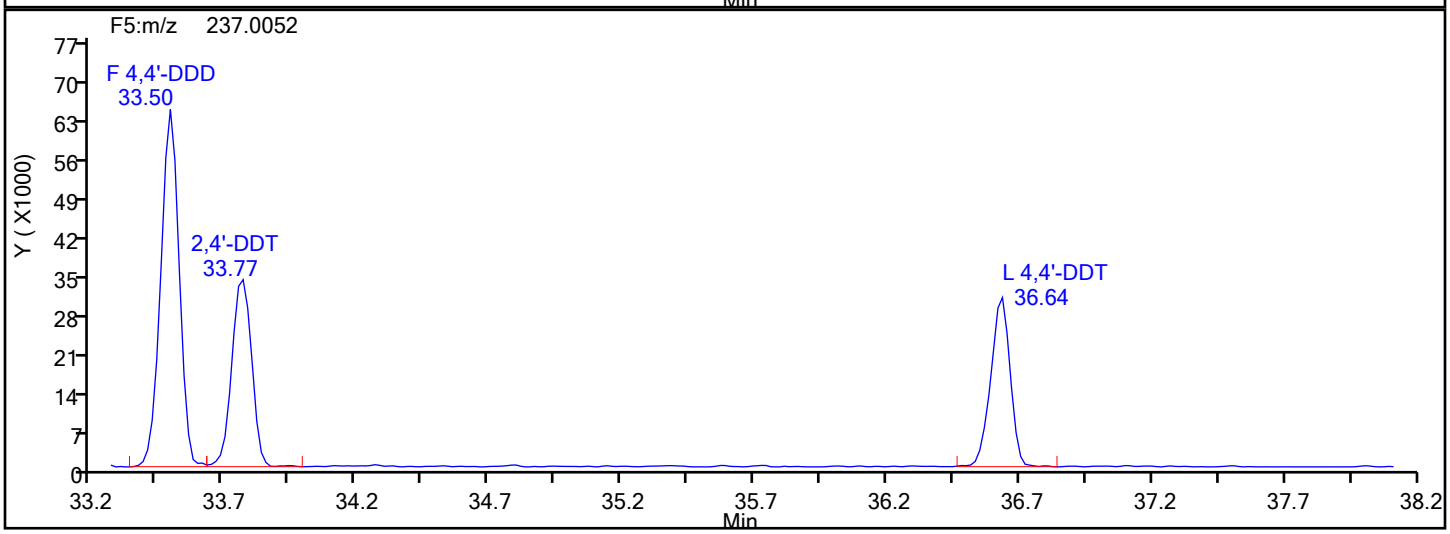
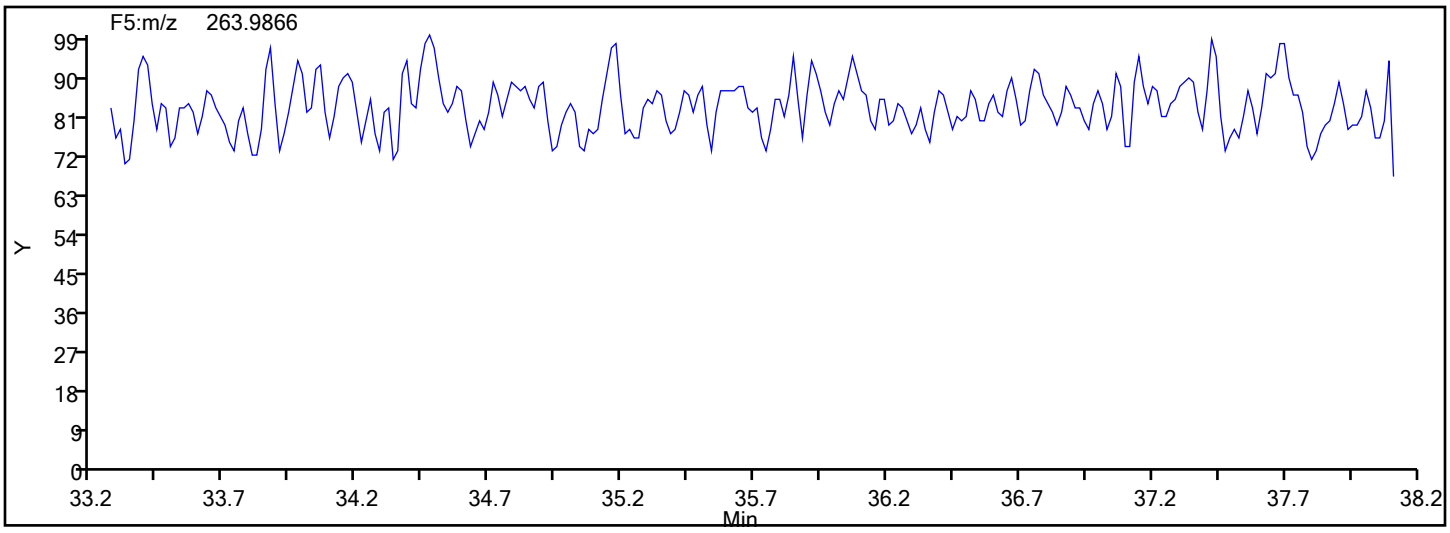
DDD





DDD Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
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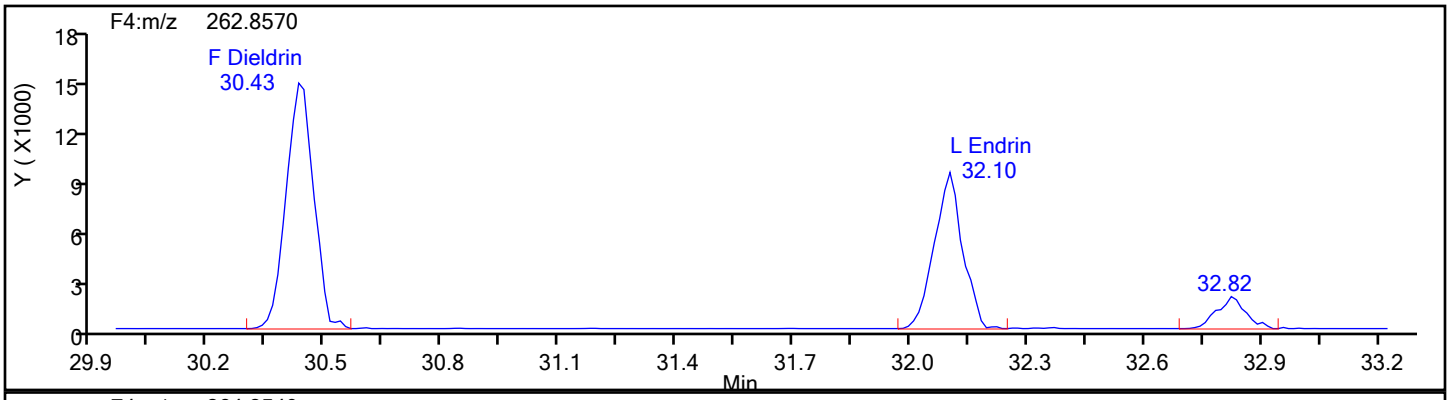
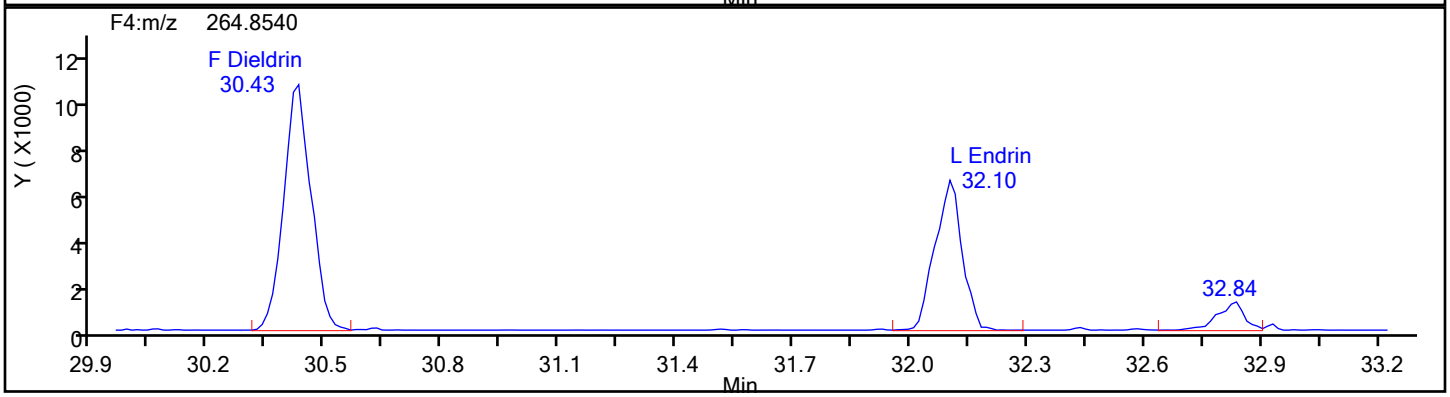
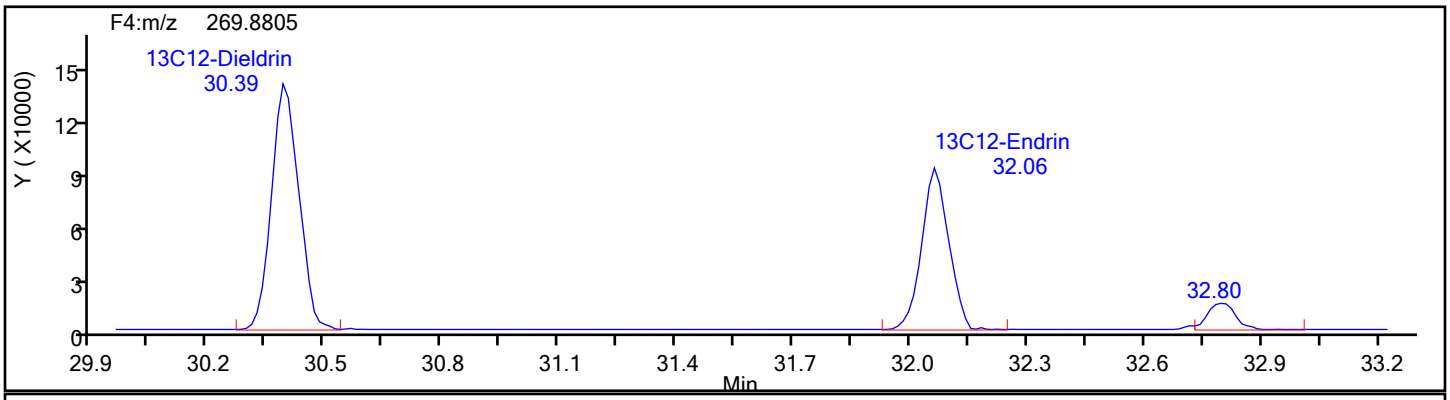
Column Type:	RTX-5	Column Dia:	0.32 mm

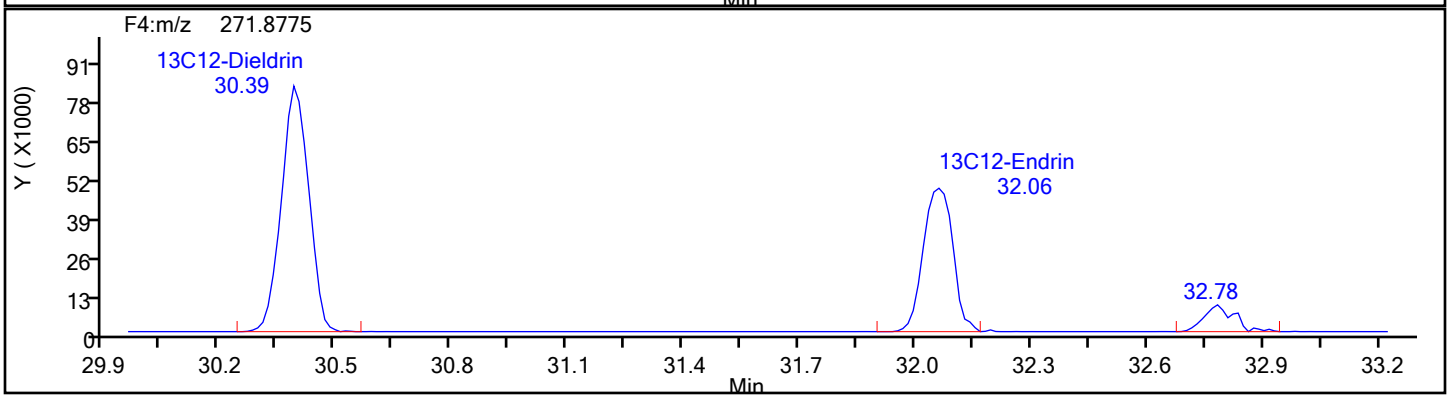
Dieldrin





Dieldrin Standards





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Eurofins Knoxville

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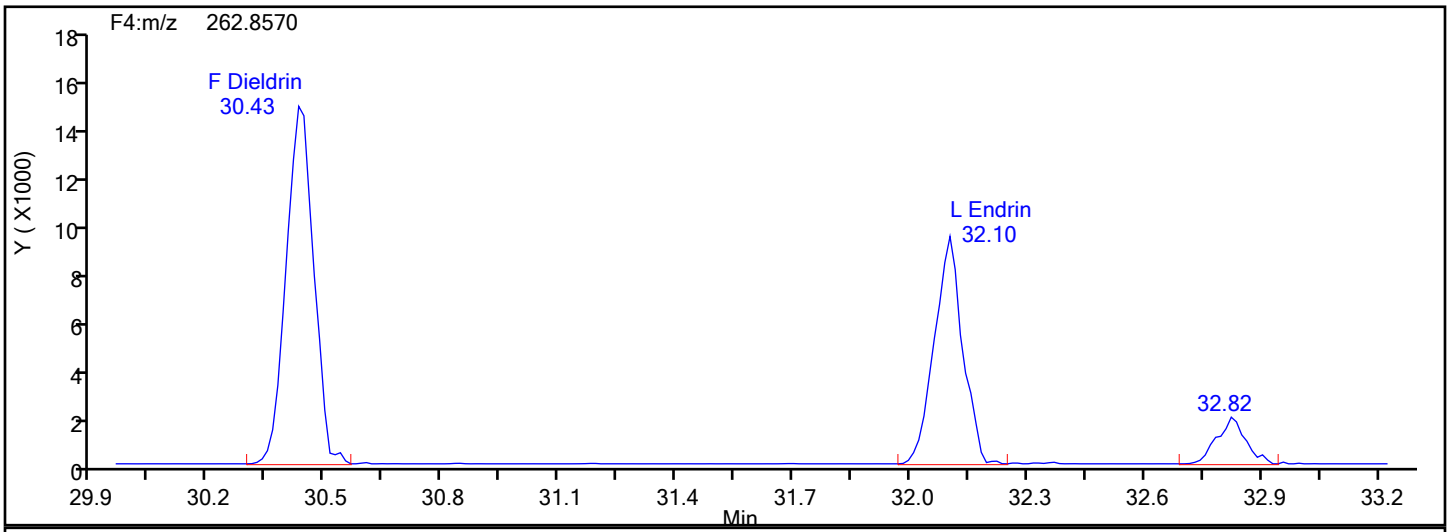
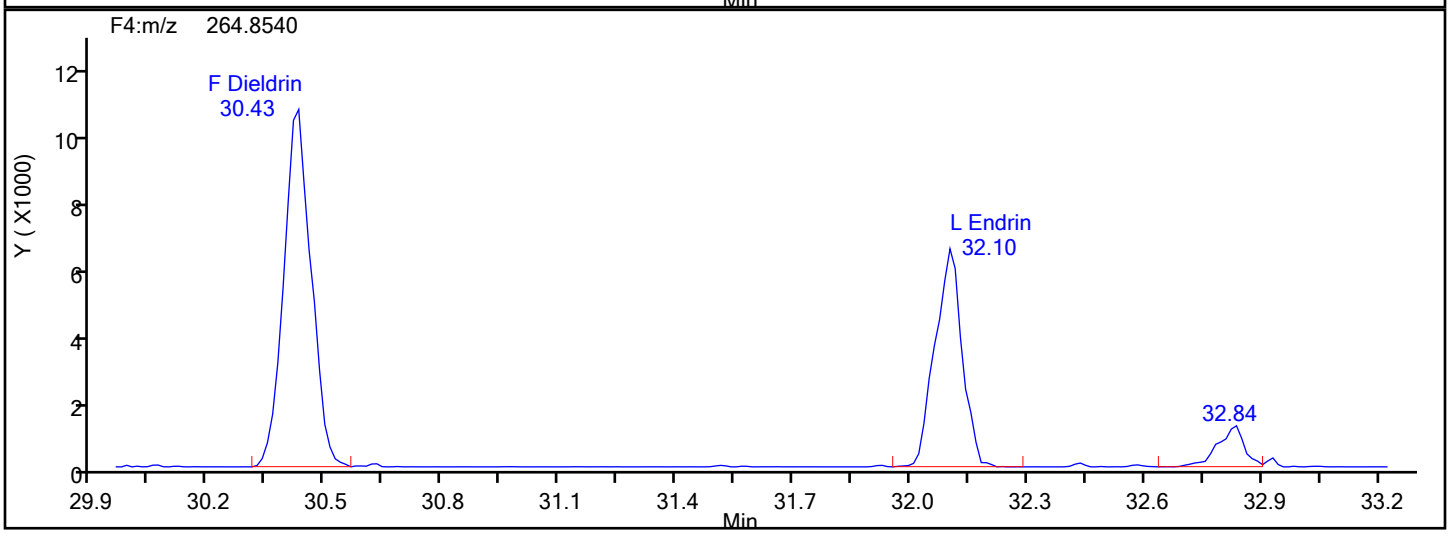
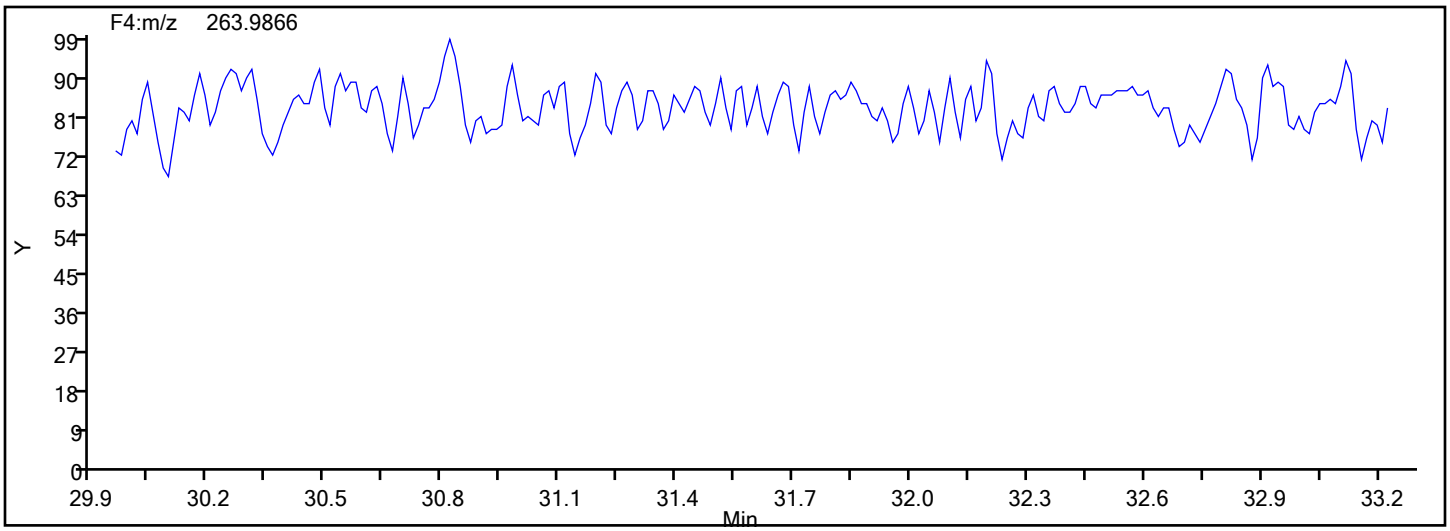




Dieldrin Lock Mass



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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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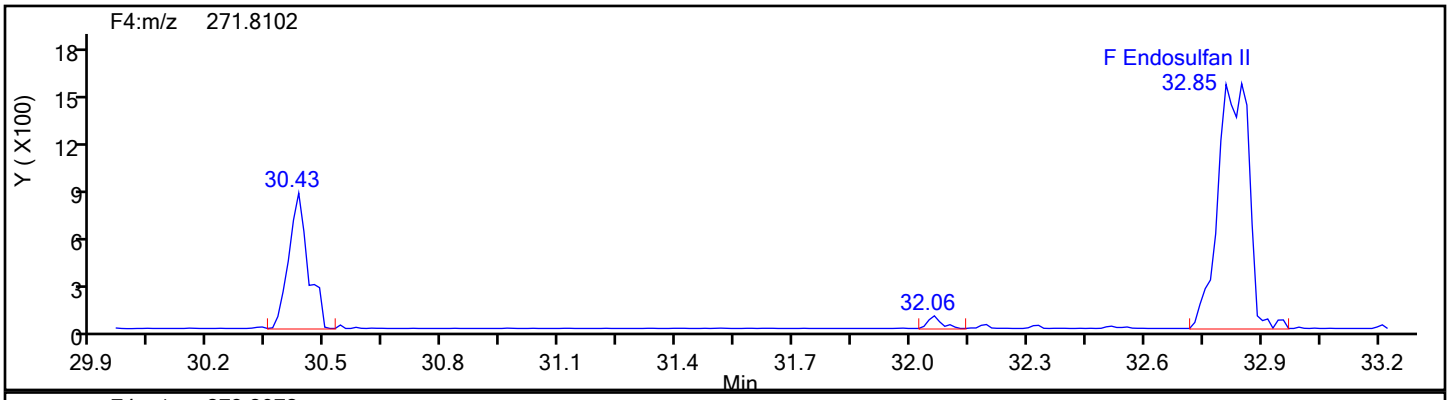
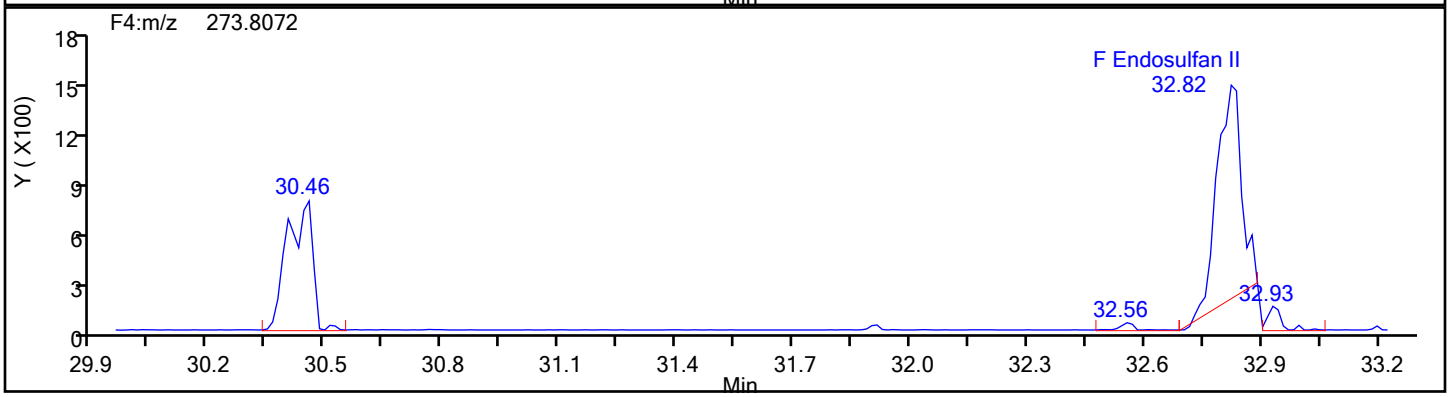
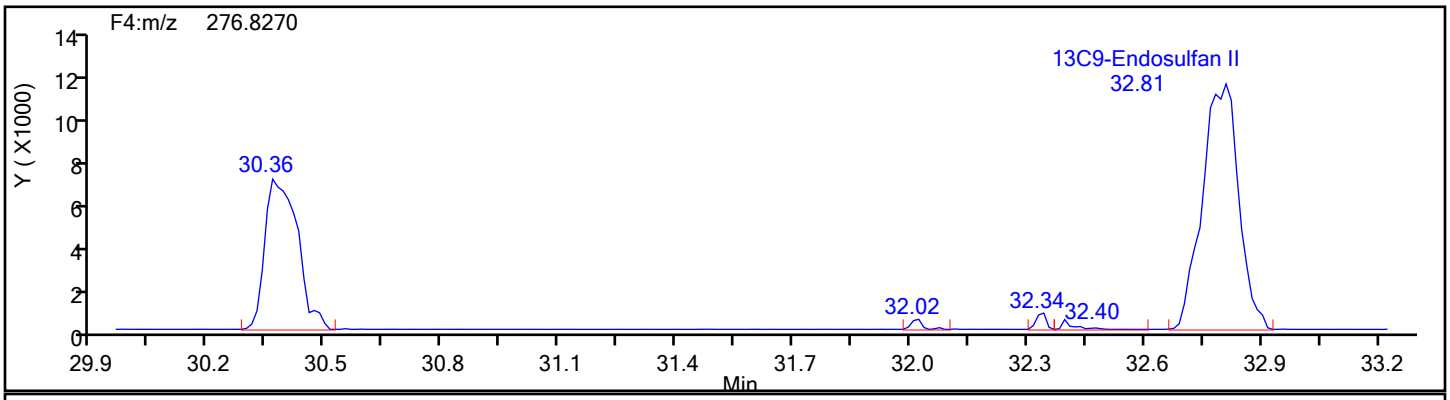
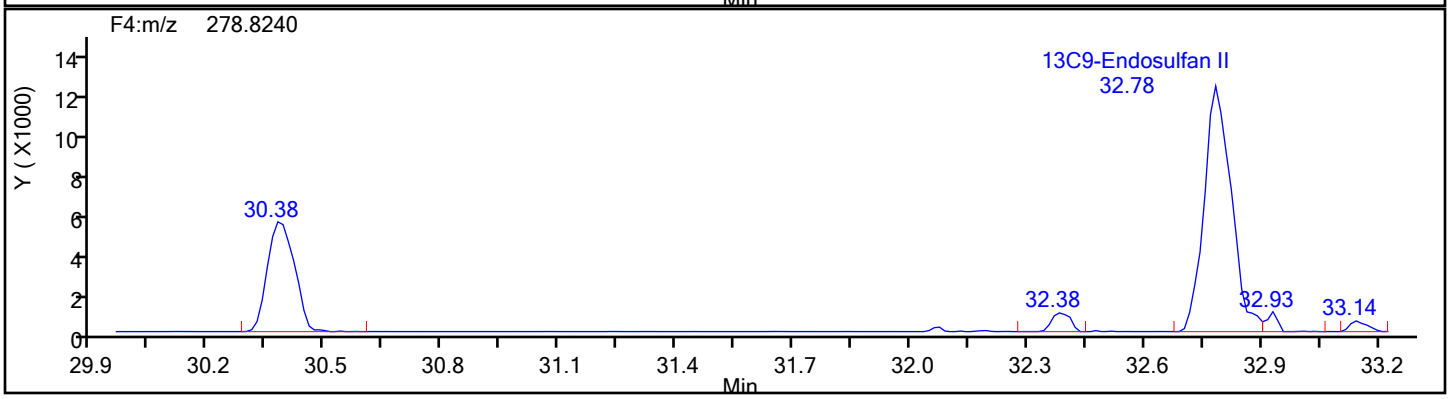
Endosulfan II





Endosulfan II Standards





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Eurofins Knoxville

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Injection Date: 19-Mar-2025 20:32:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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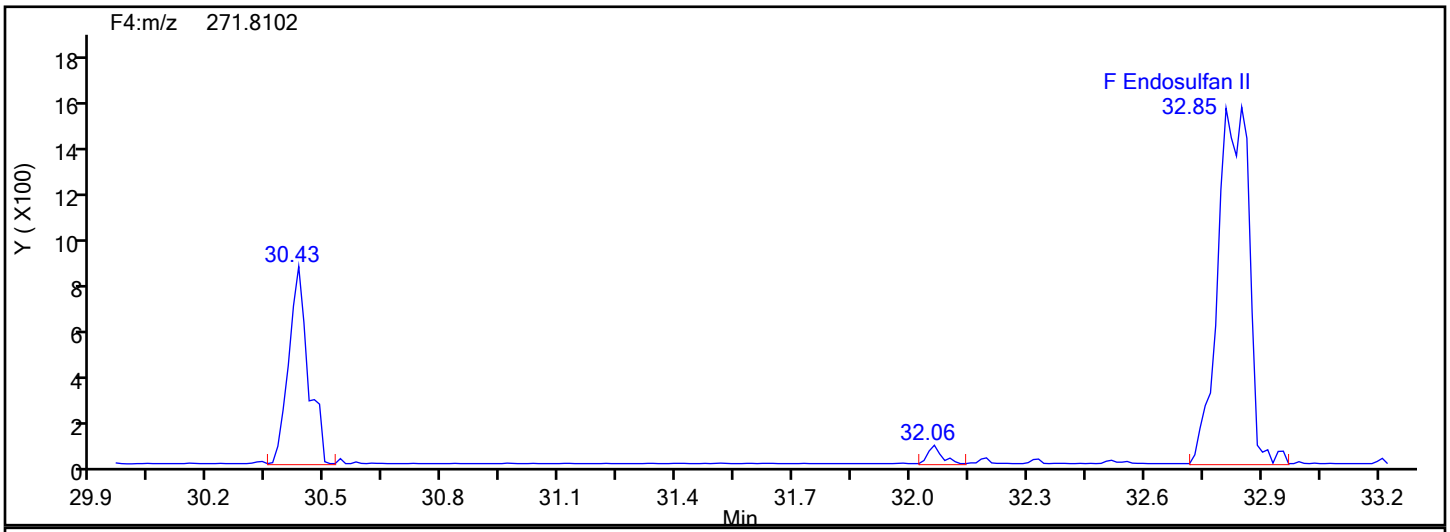
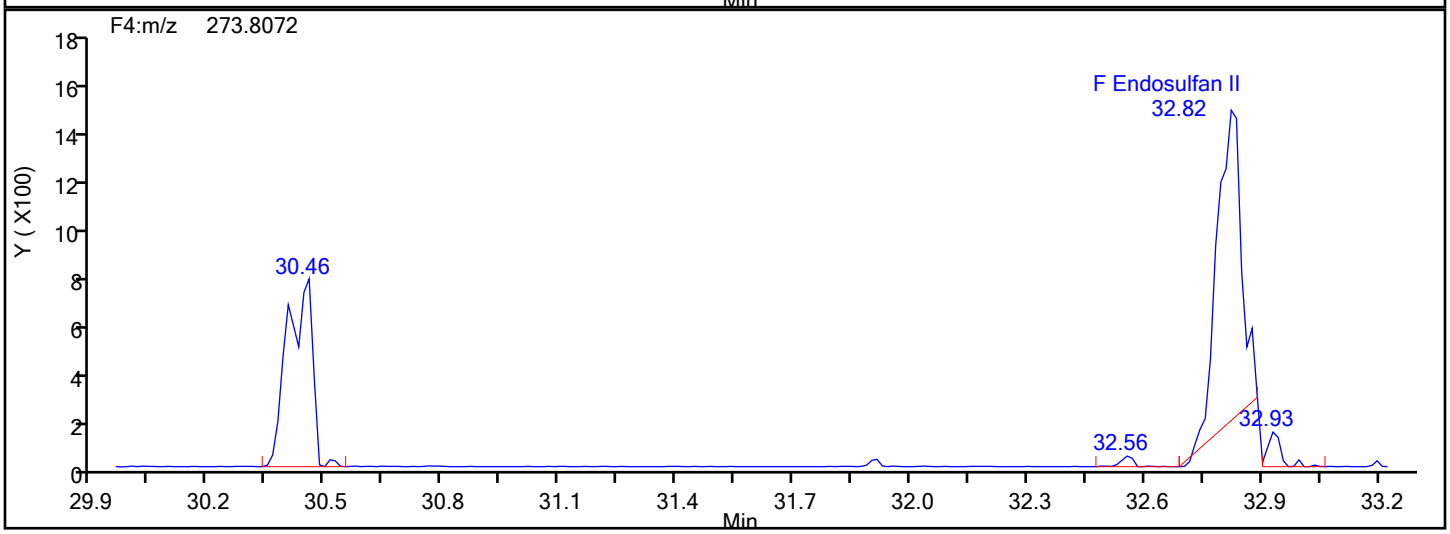
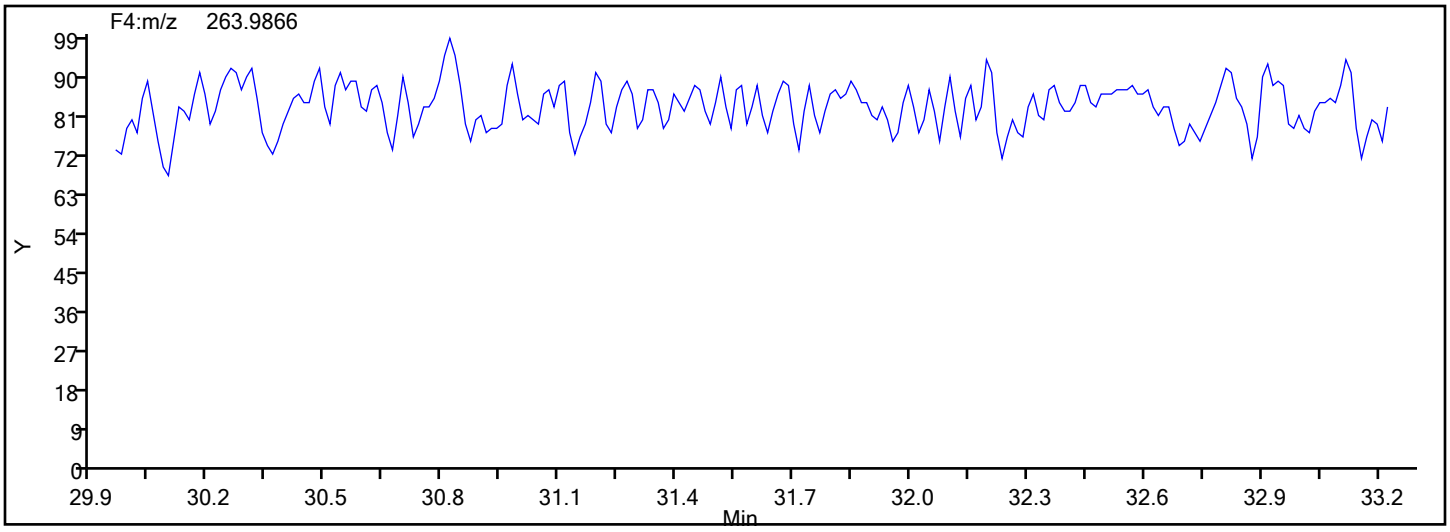




Endosulfan II Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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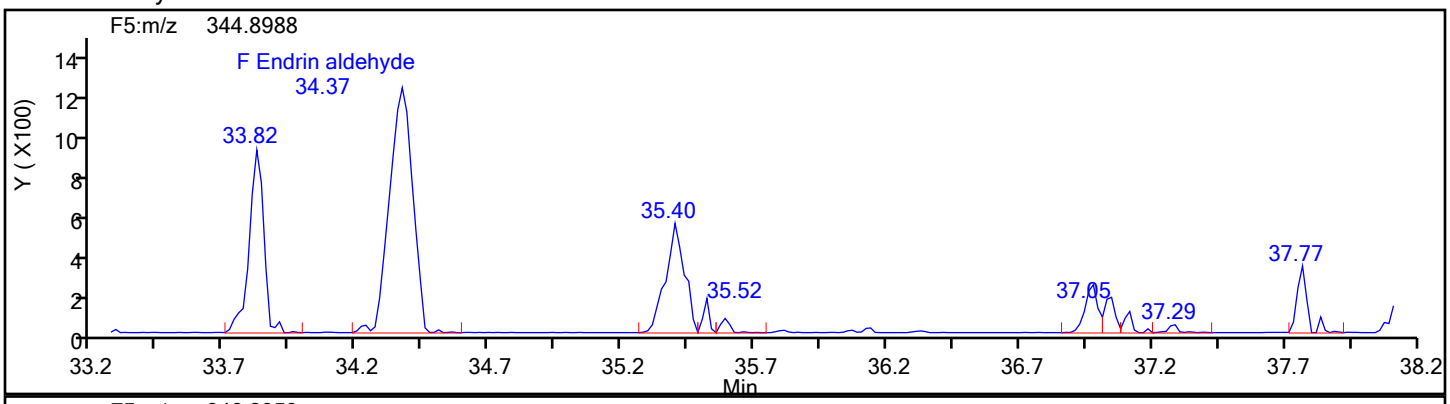
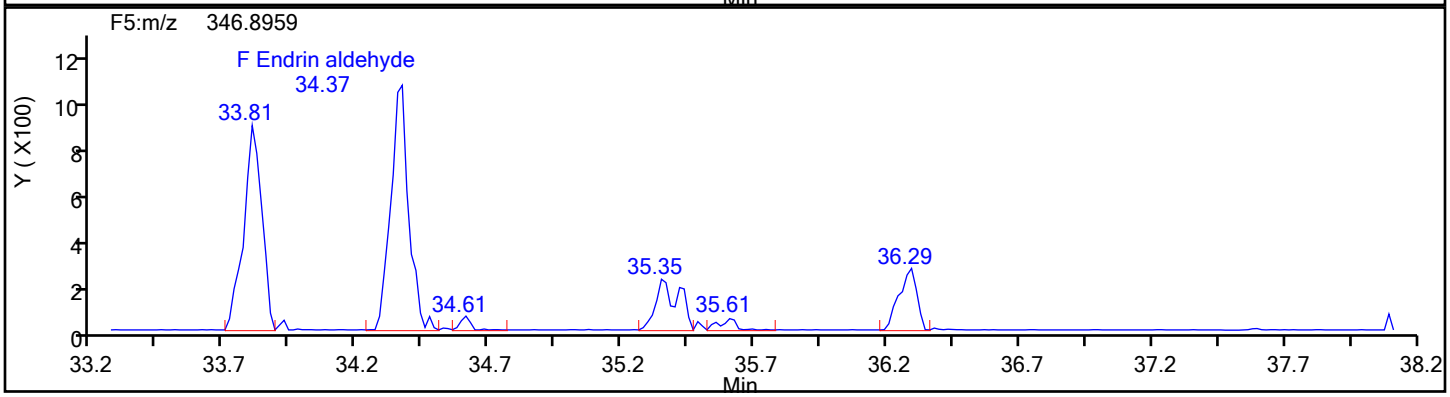
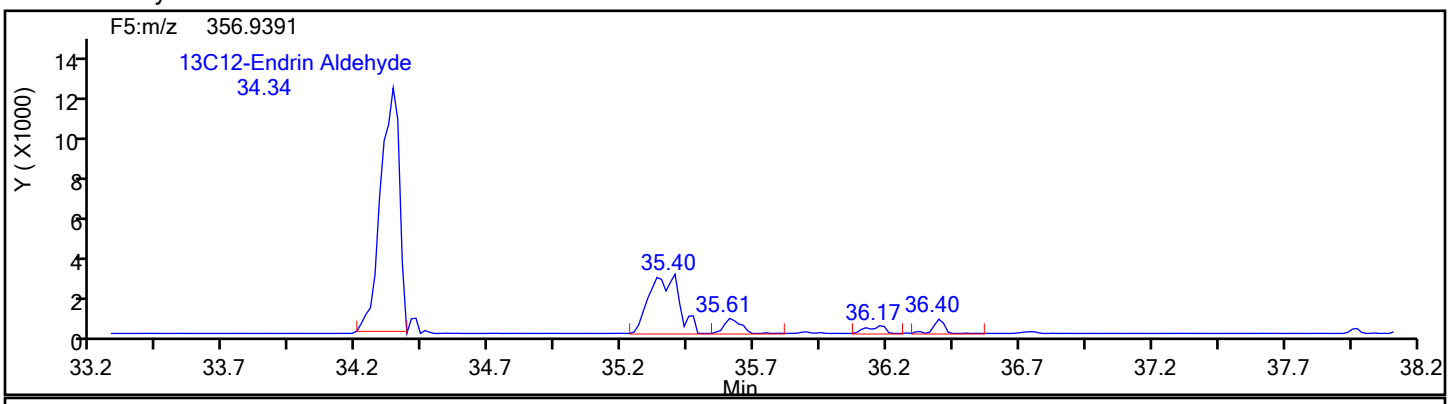
Column Type:	RTX-5	Column Dia:	0.32 mm

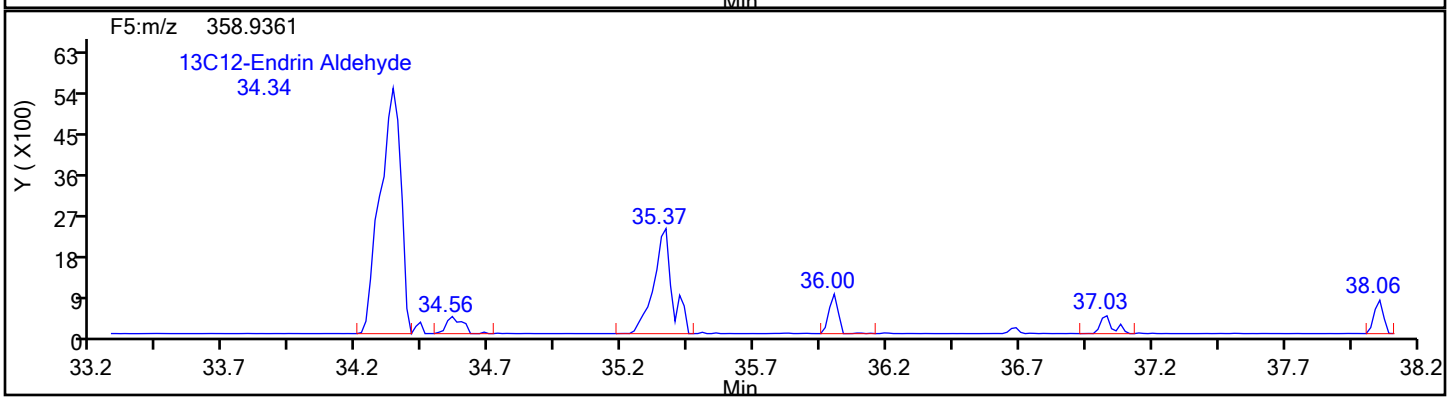
Endrin aldehyde





Endrin aldehyde Standards





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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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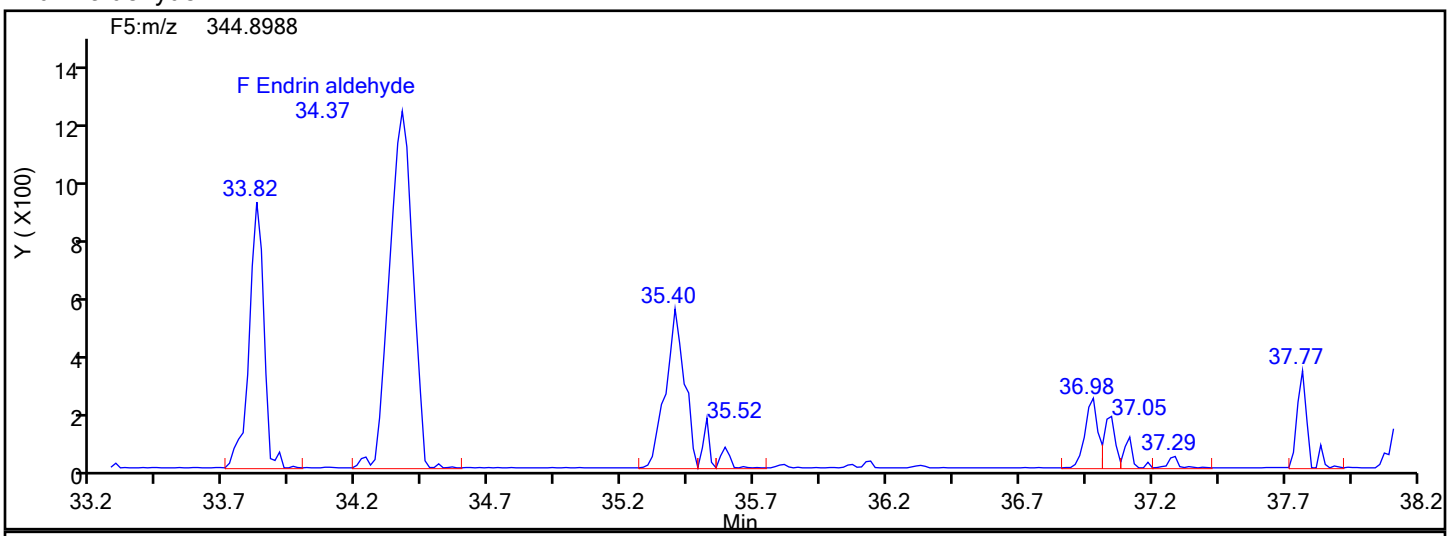
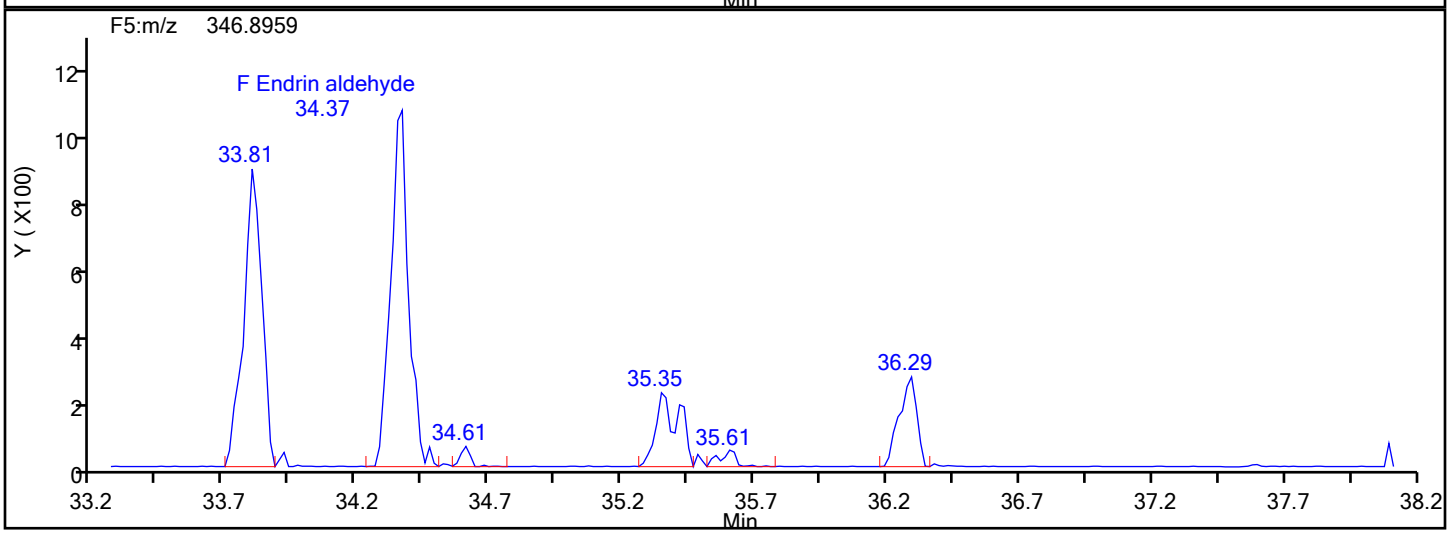
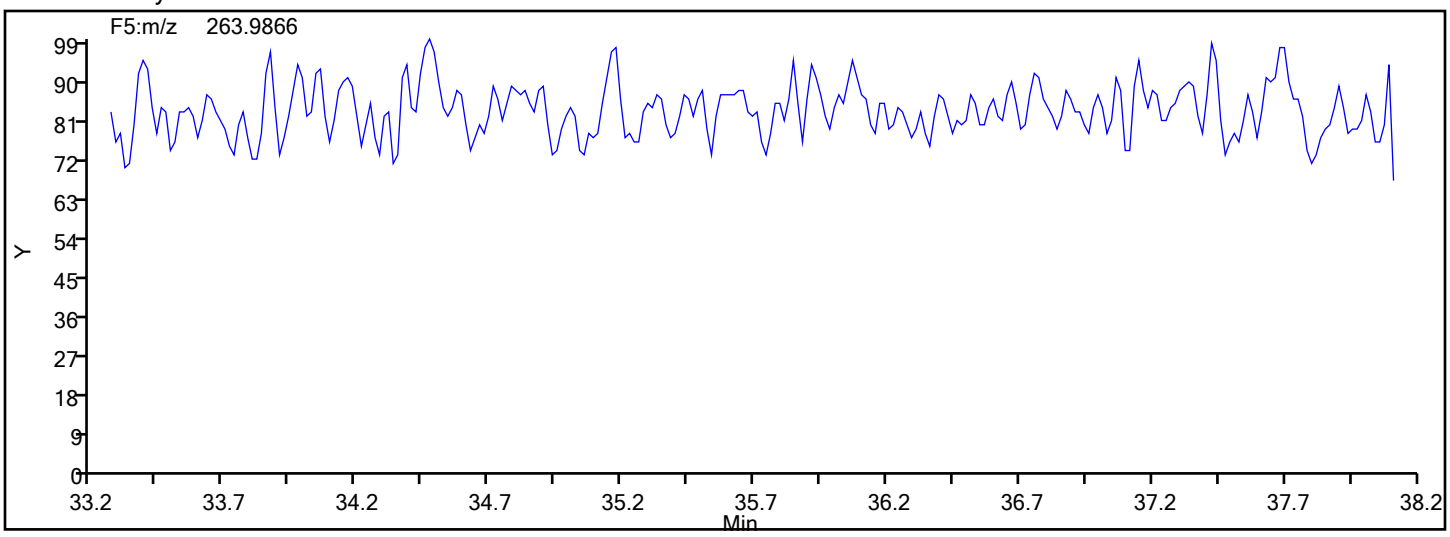
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin aldehyde





Endrin aldehyde Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

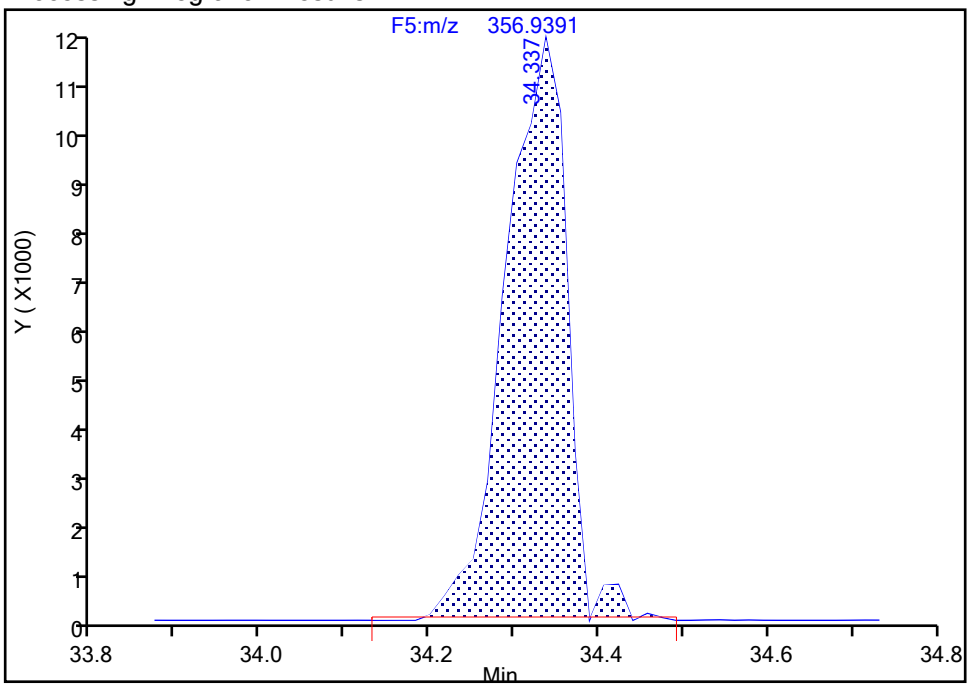
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d				
Injection Date:	19-Mar-2025 20:32:00	Instrument ID:	D3PST		
Lims ID:	IC L4				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

13C12-Endrin Aldehyde, CAS: STL01871

Signal: 1

Processing Integration Results

RT: 34.34
Area: 59645
Amount: 64.019743
Amount Units: pg/ul



Manual Integration Results

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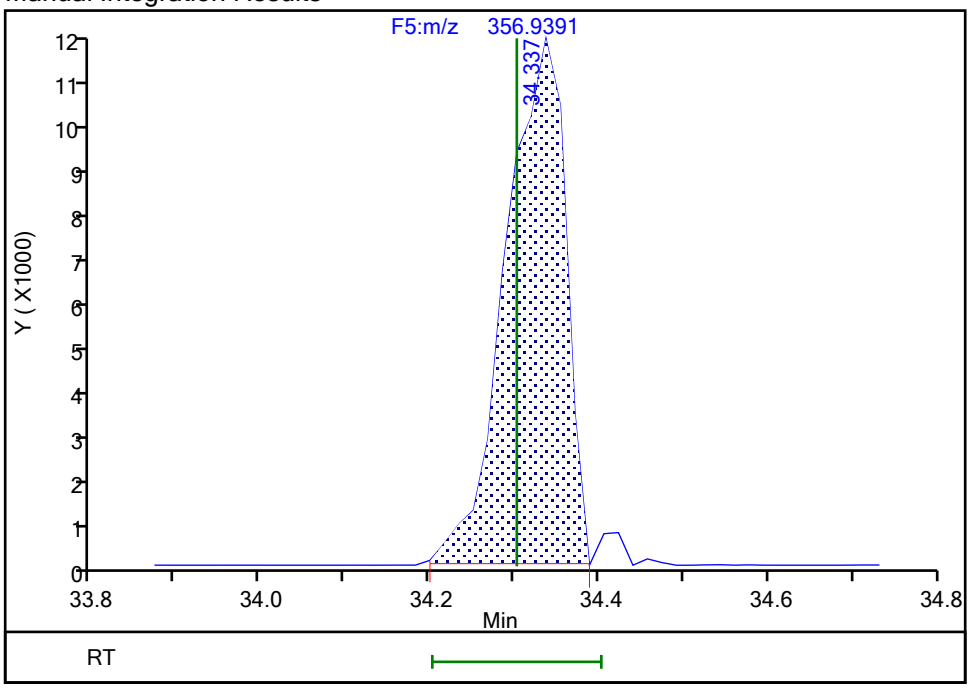
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 10:27:35 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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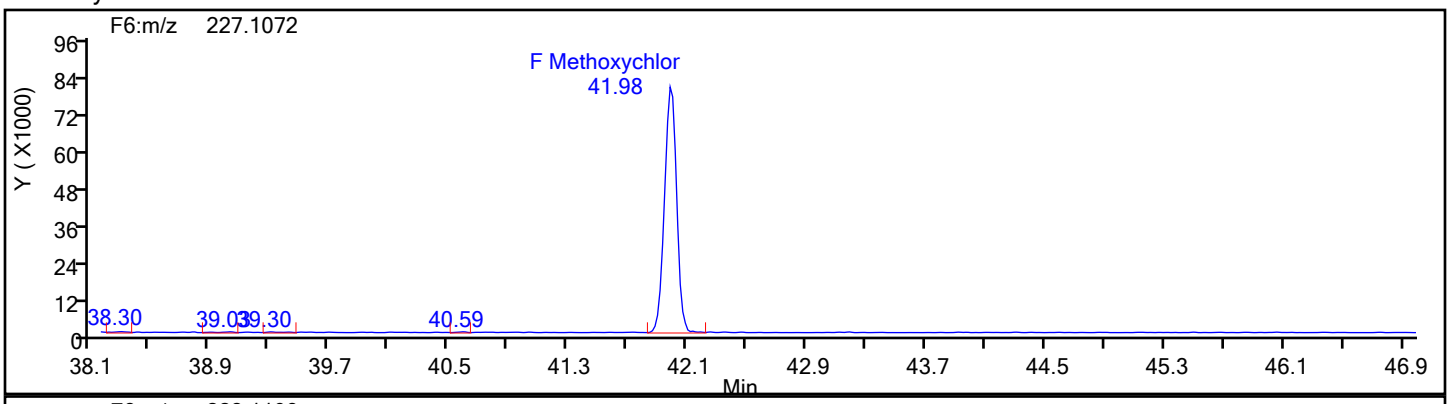

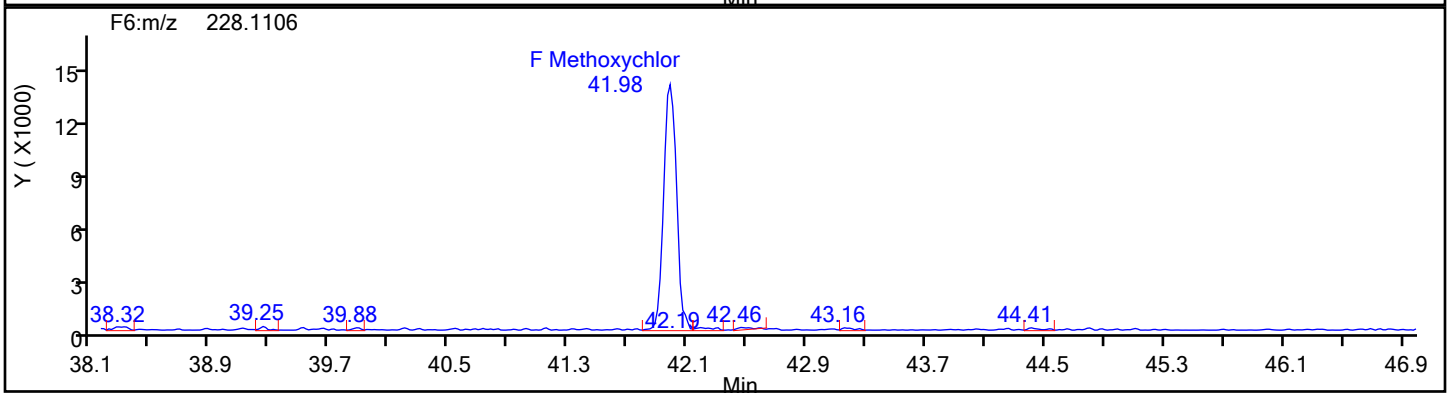

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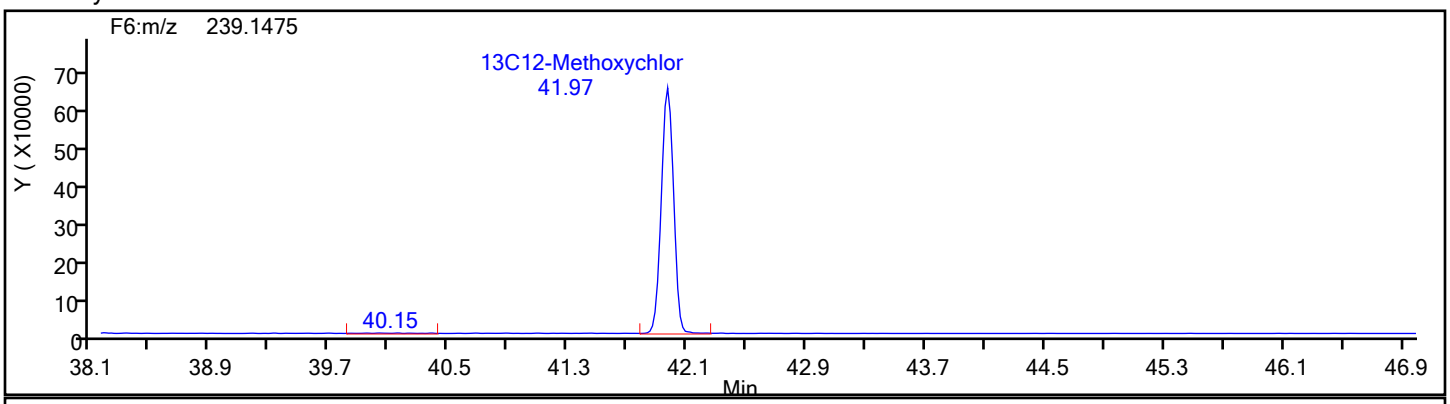

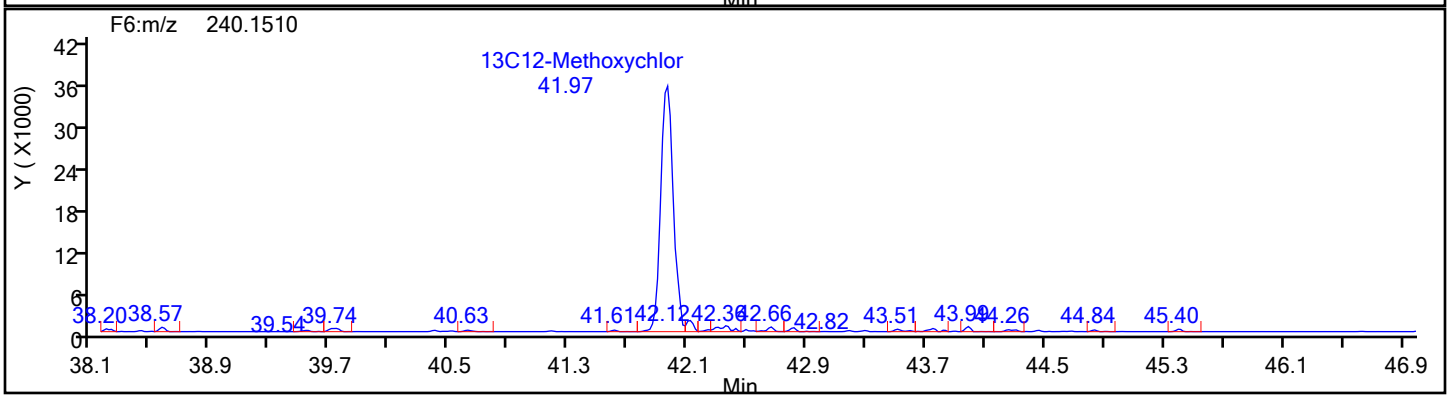

Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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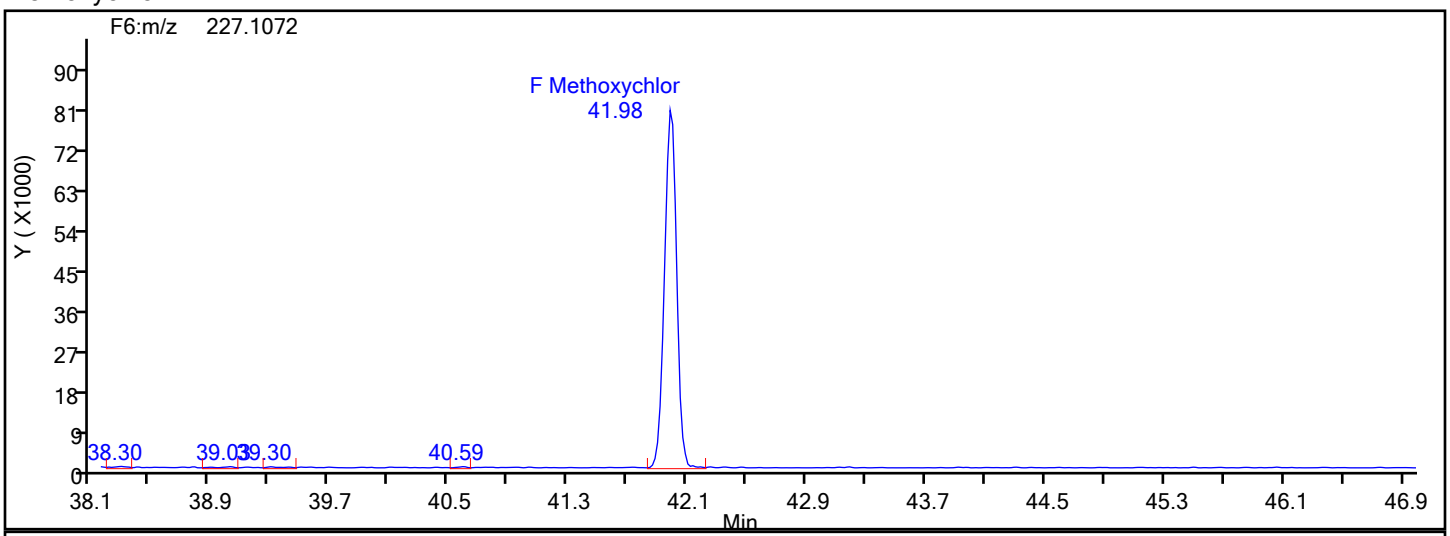
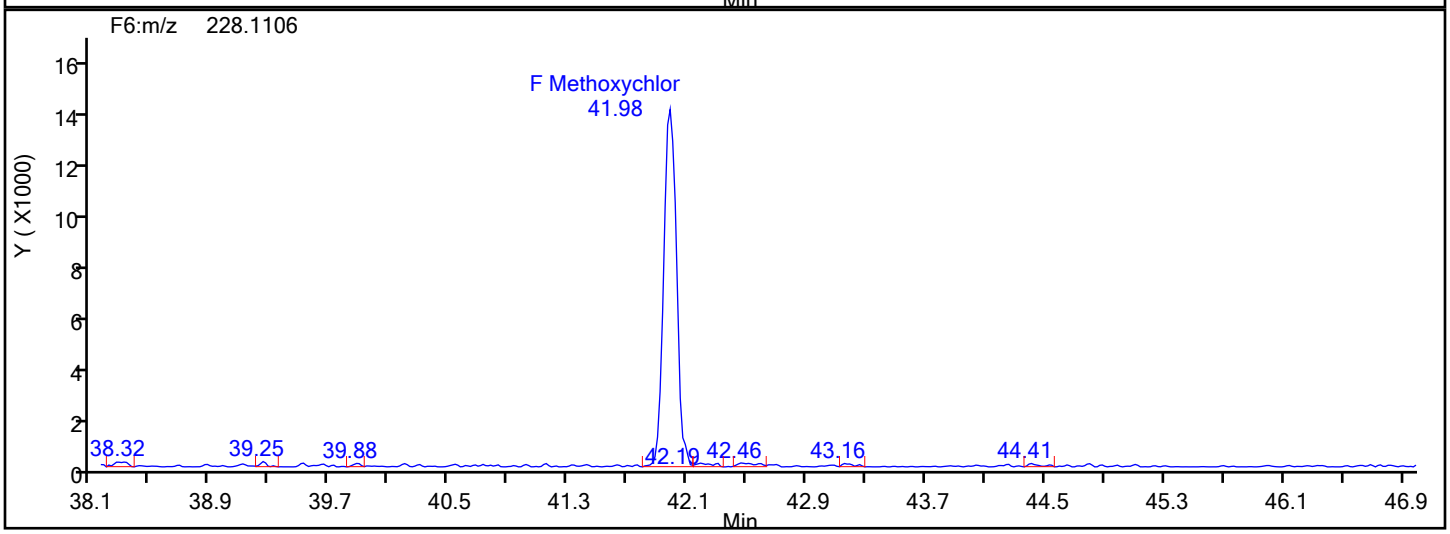
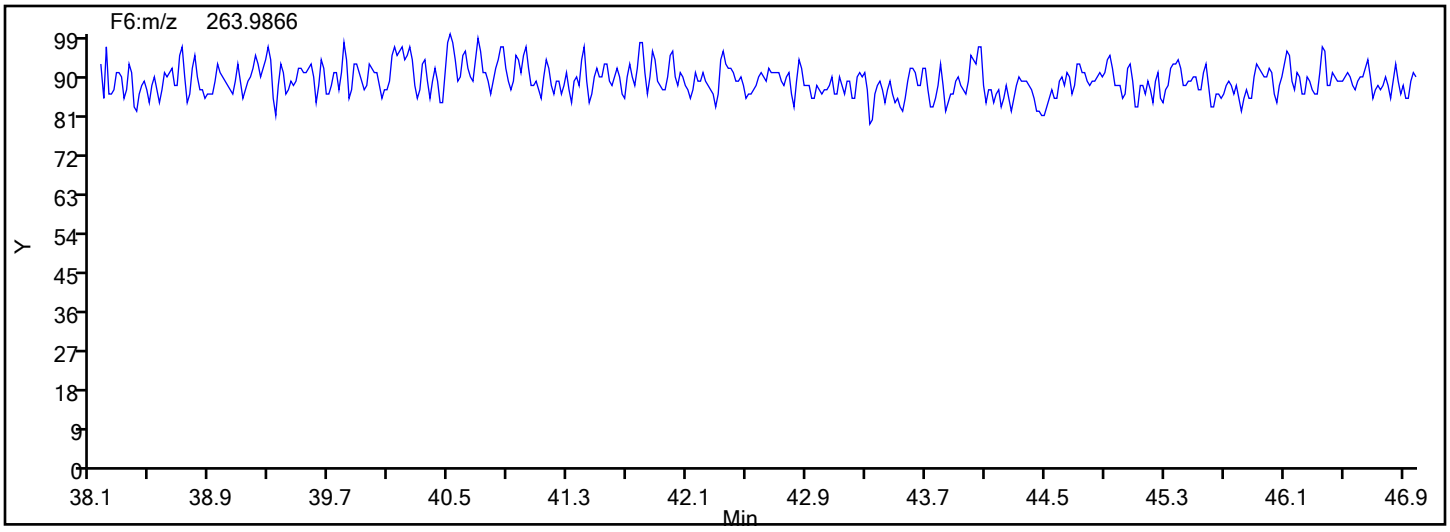




Methoxychlor Lock Mass



Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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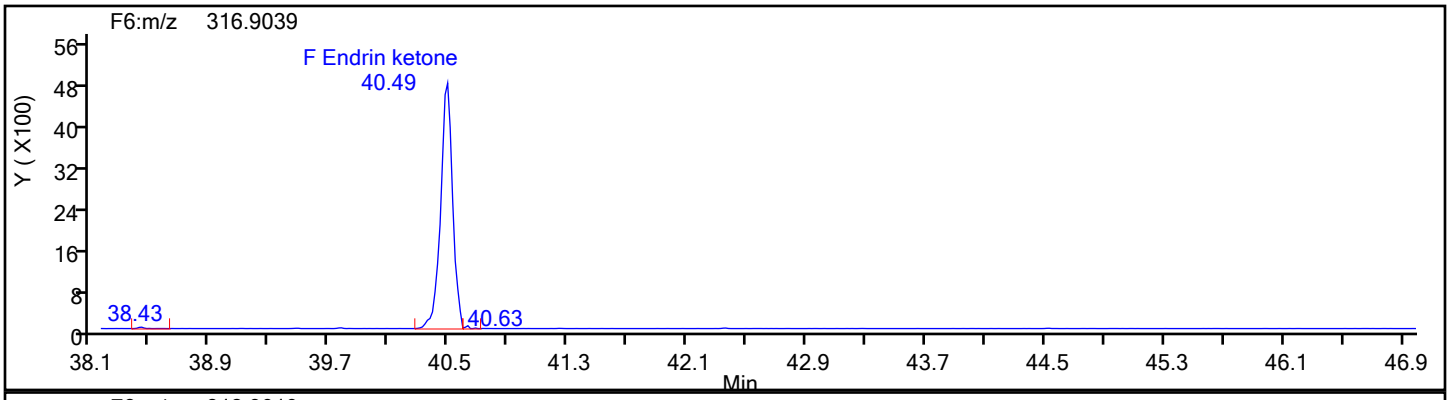

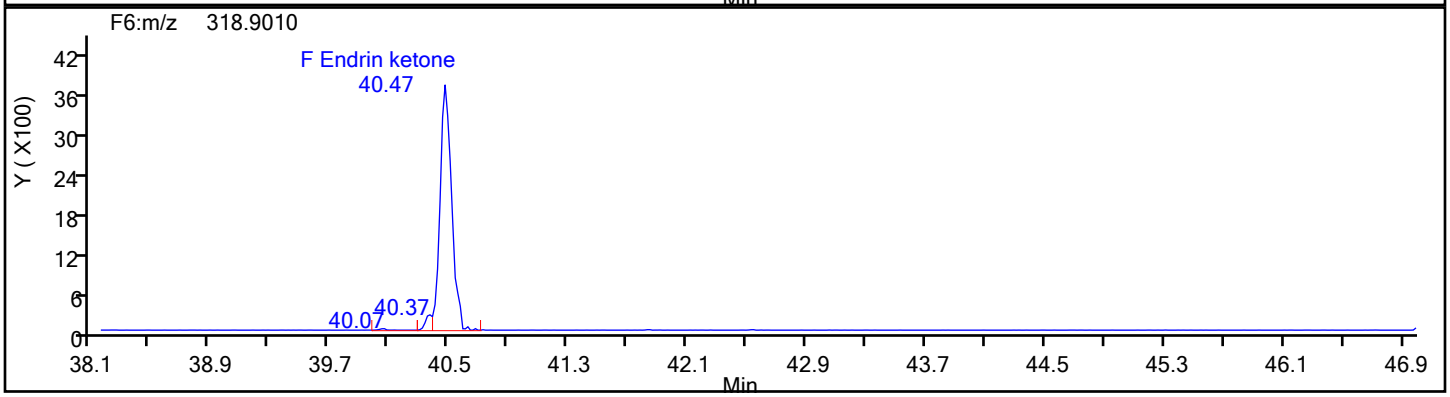

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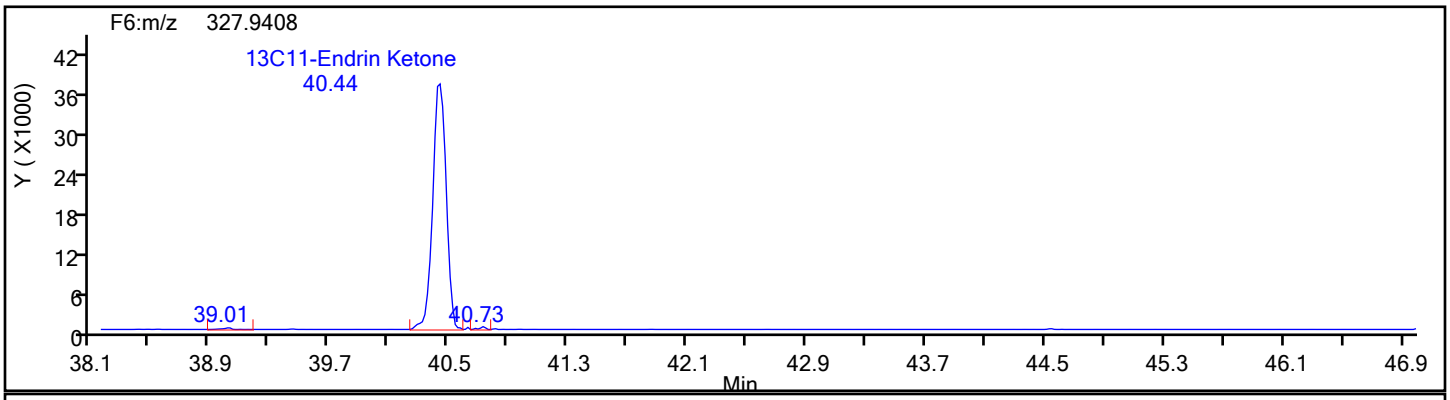

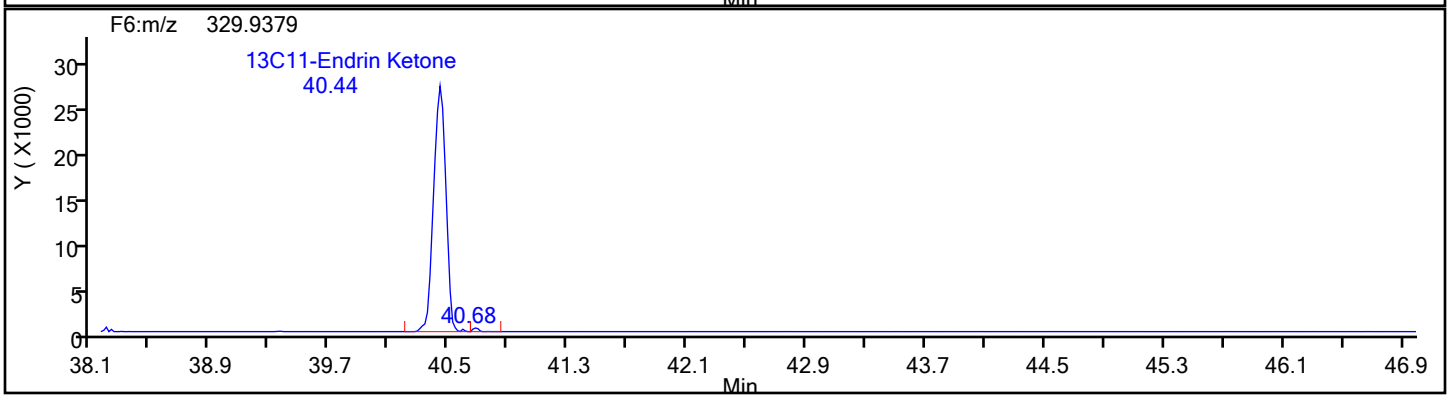

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Eurofins Knoxville

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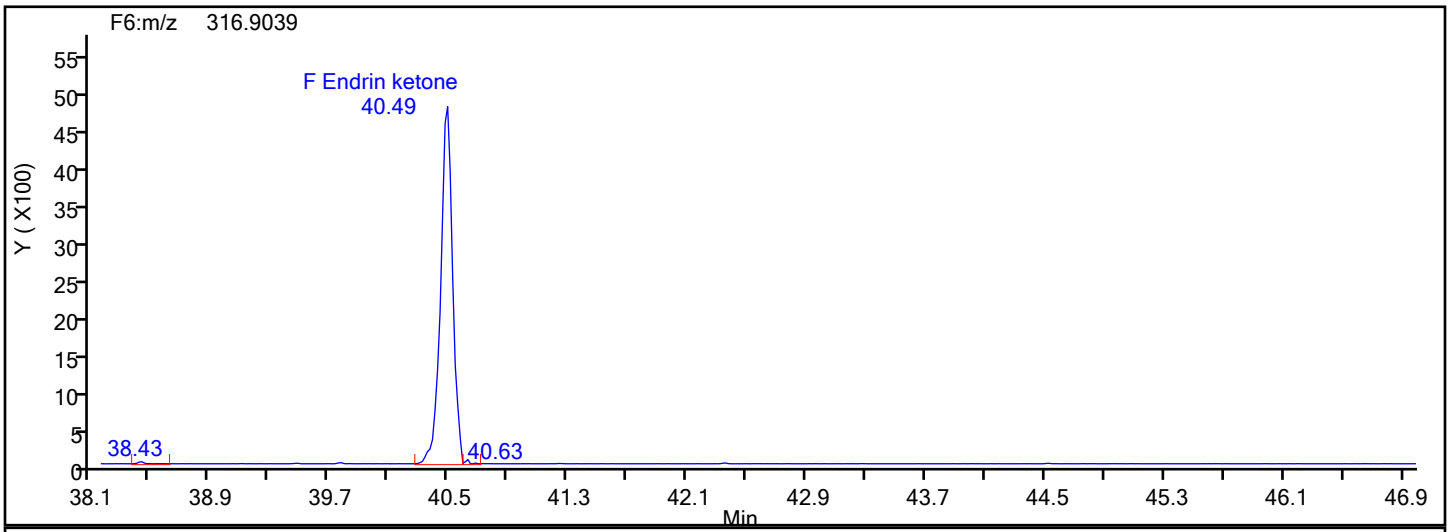
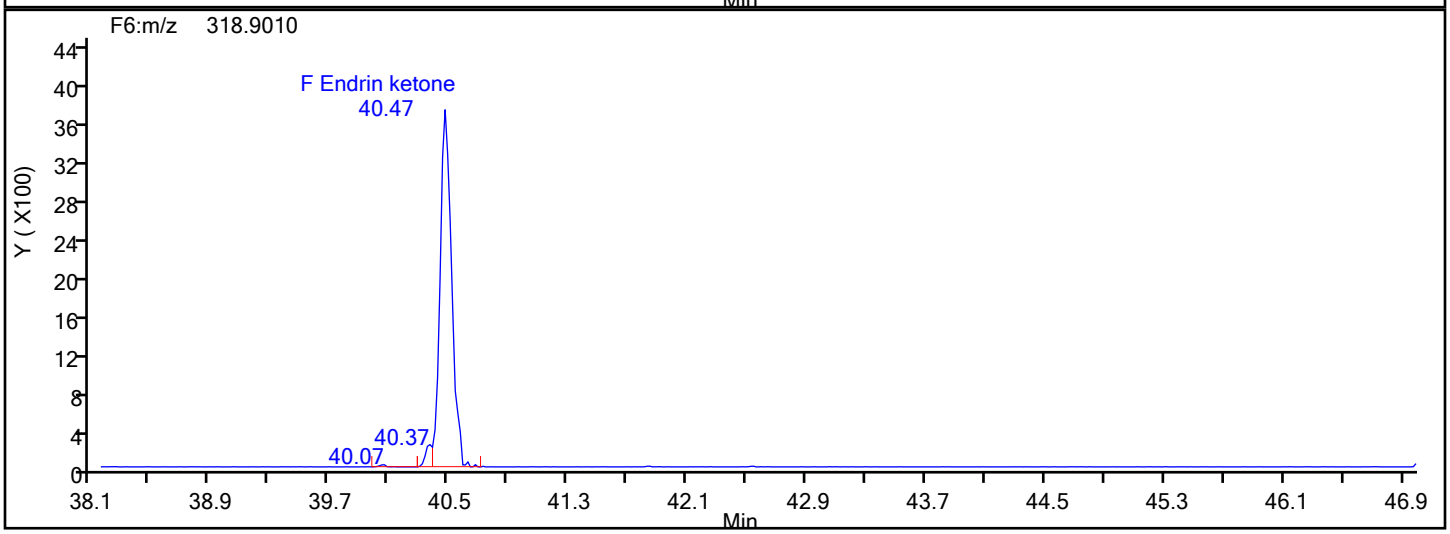
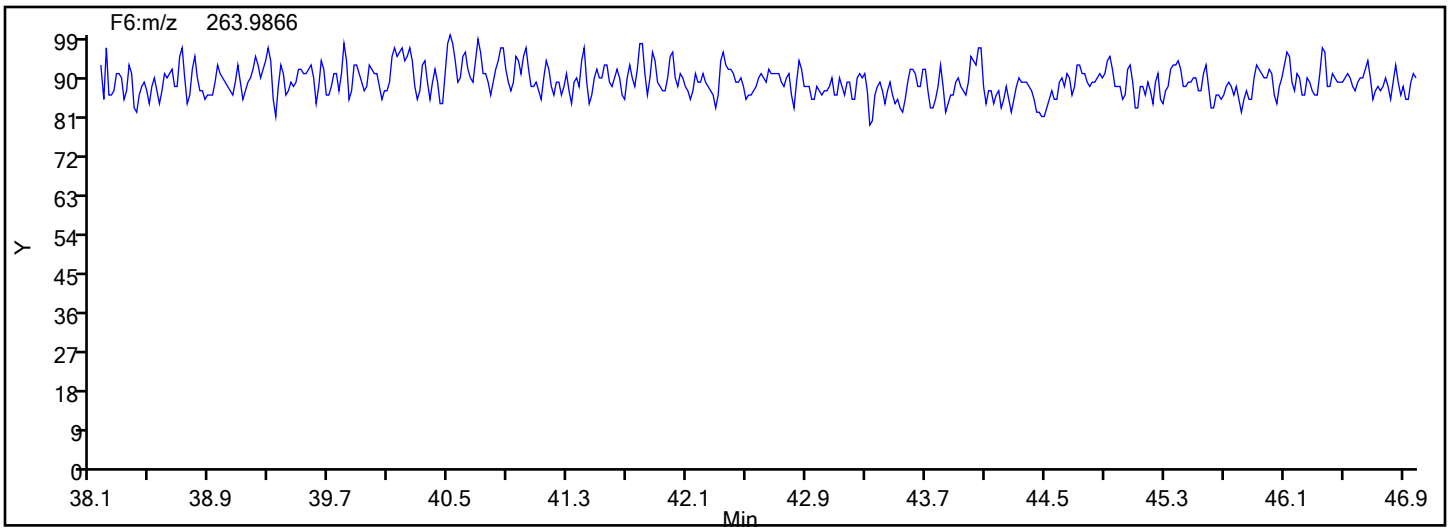




Endrin ketone Lock Mass



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Eurofins Knoxville

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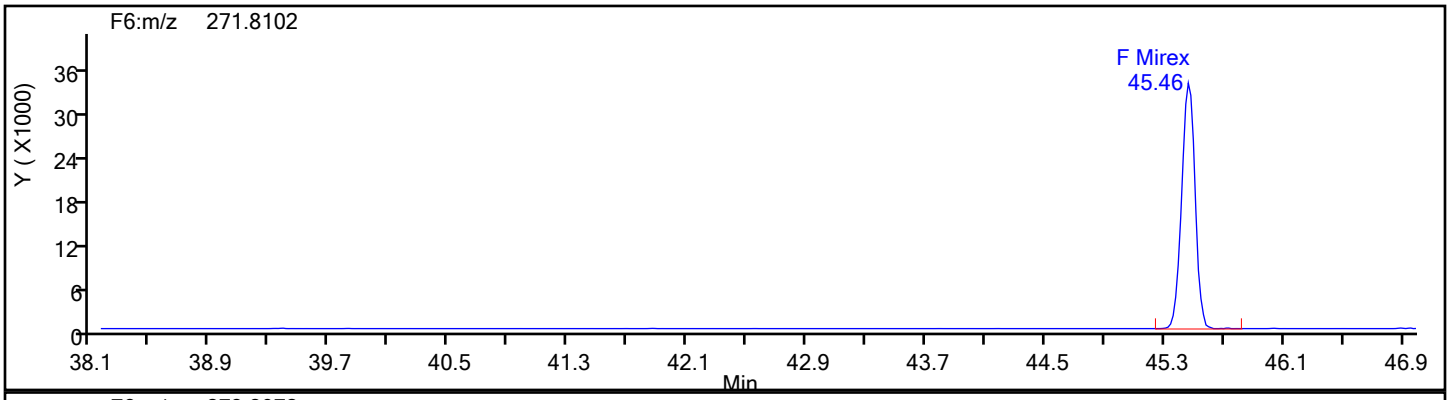
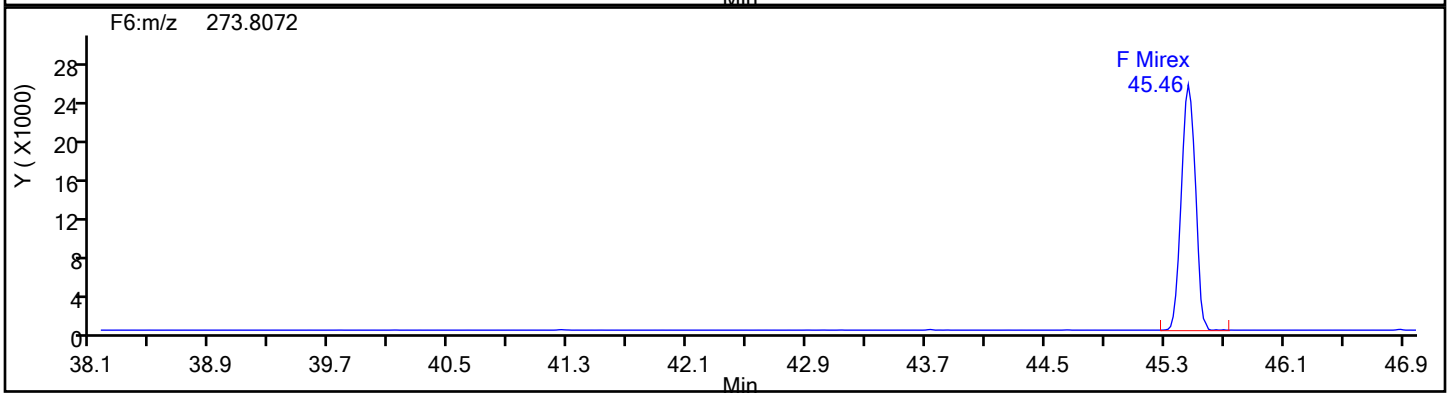
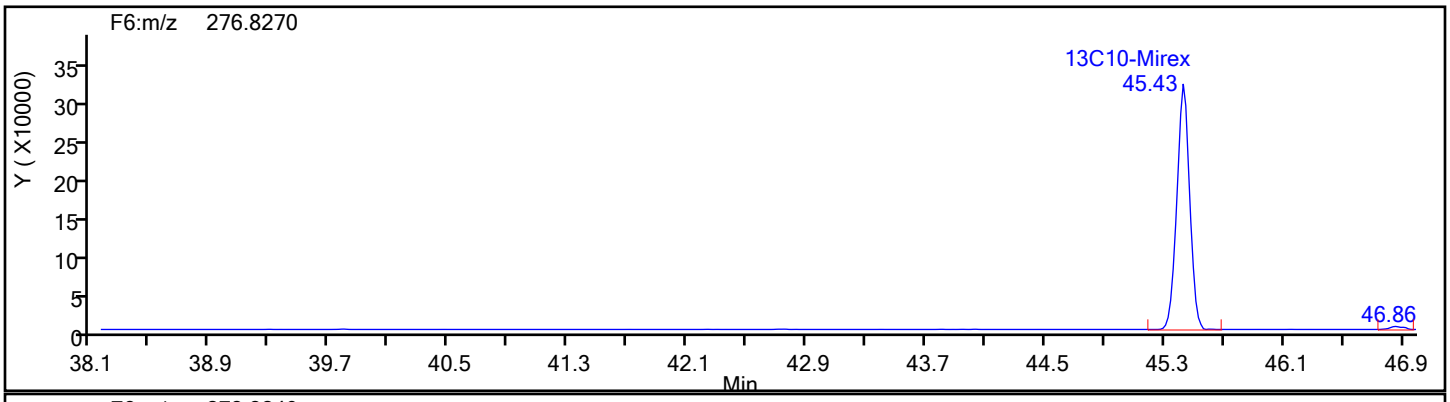
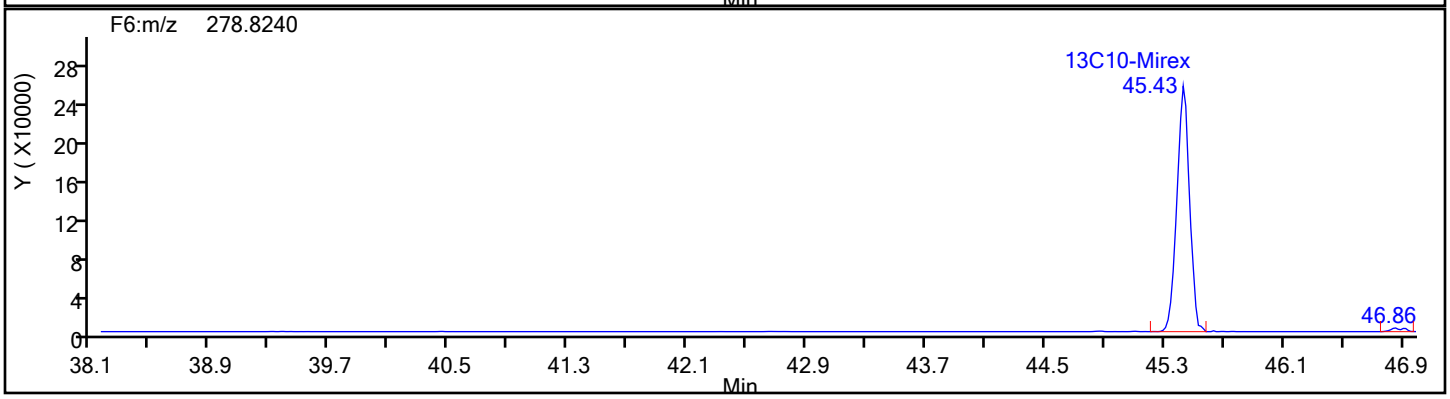




Mirex Standards





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Eurofins Knoxville

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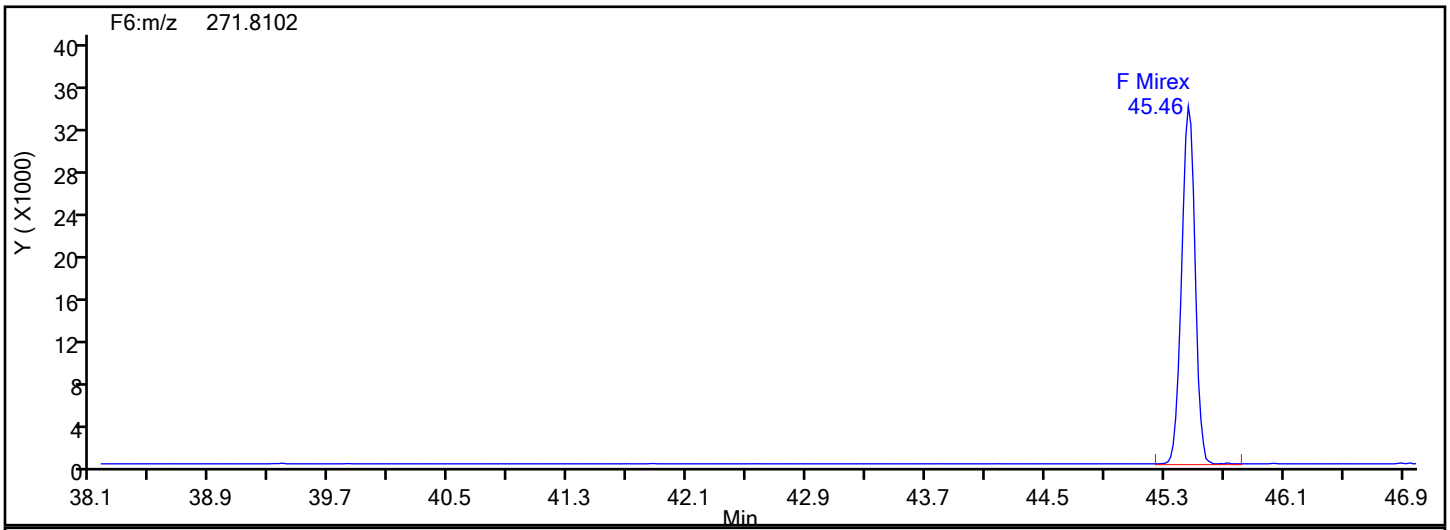
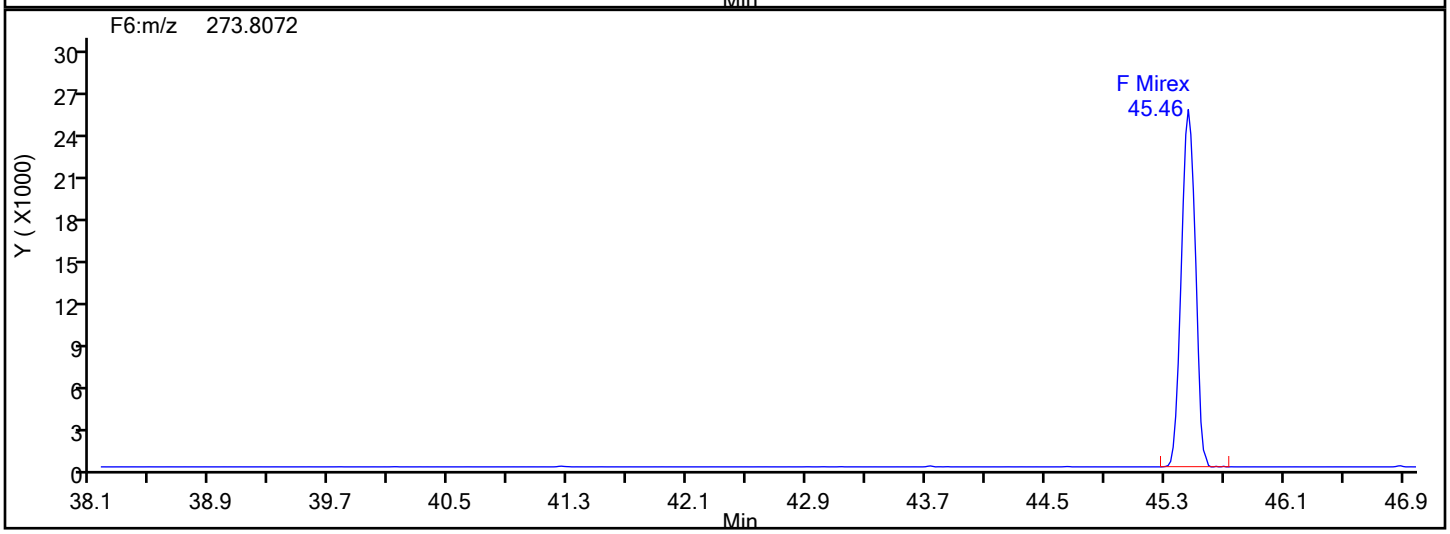
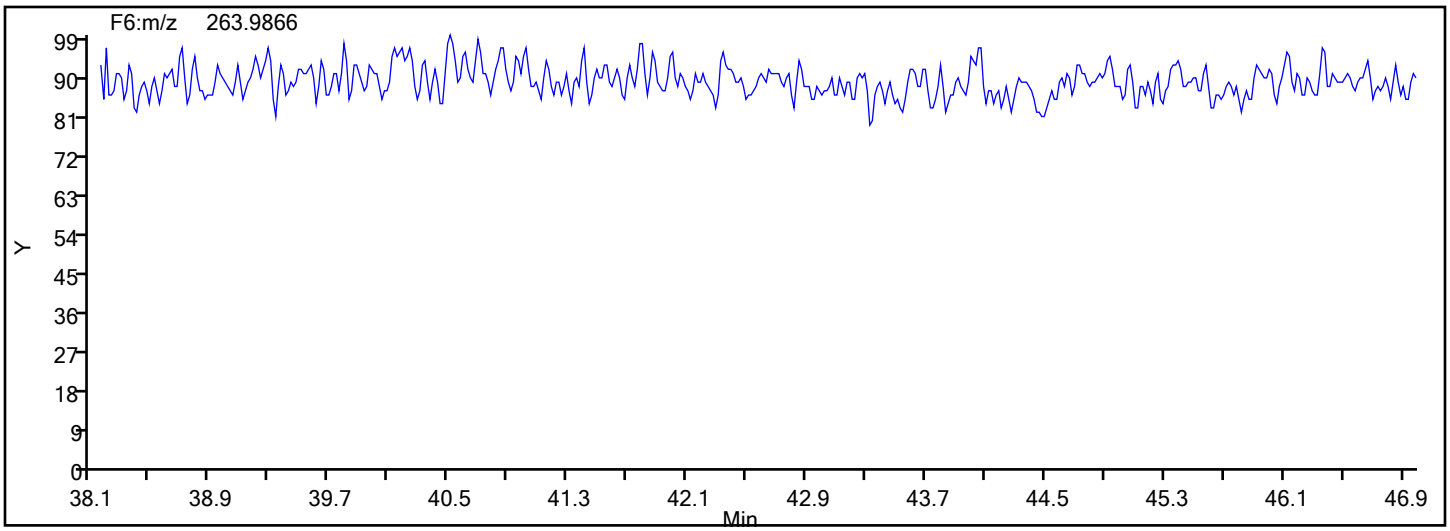




Mirex Lock Mass



Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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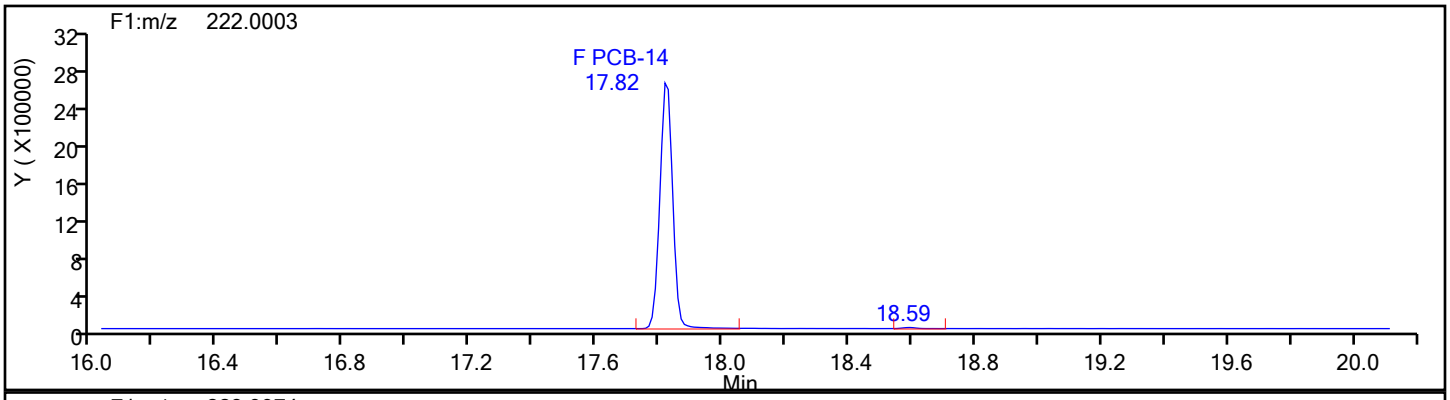
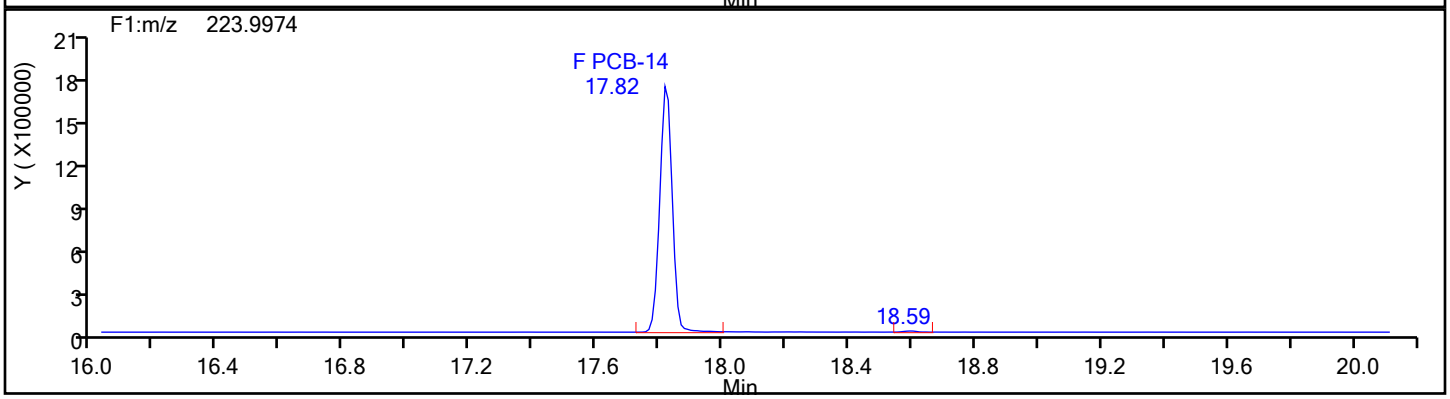
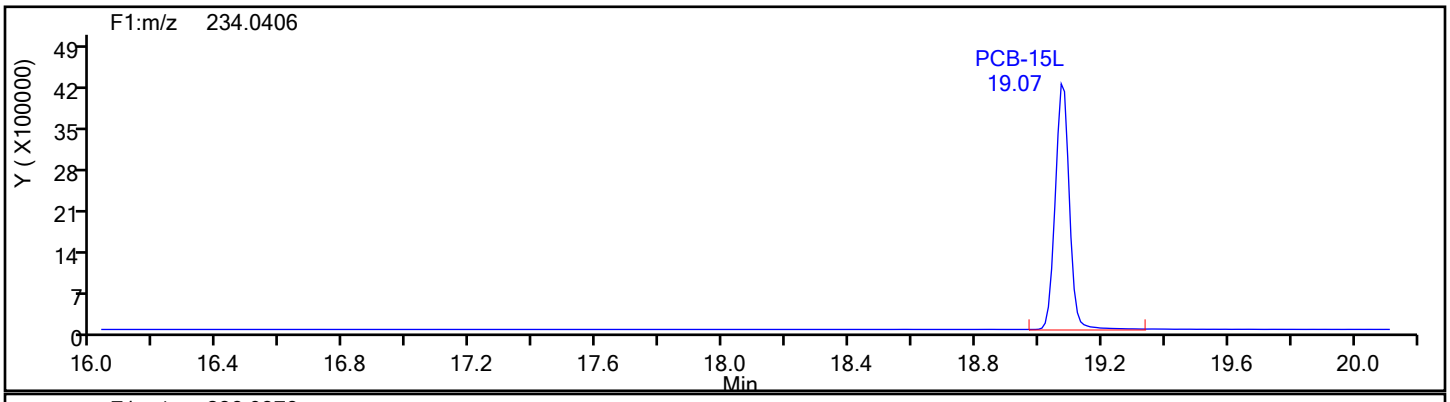
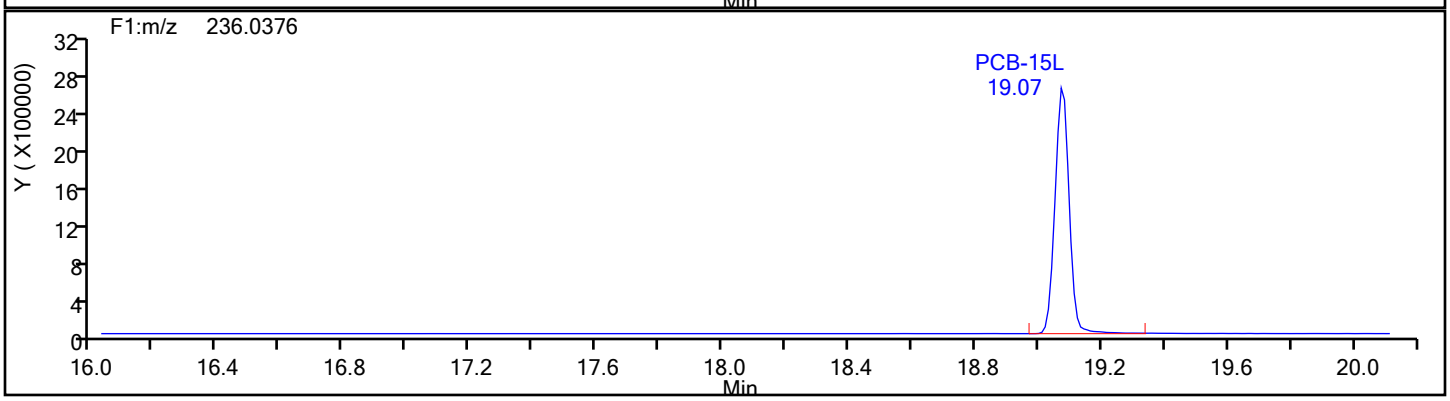
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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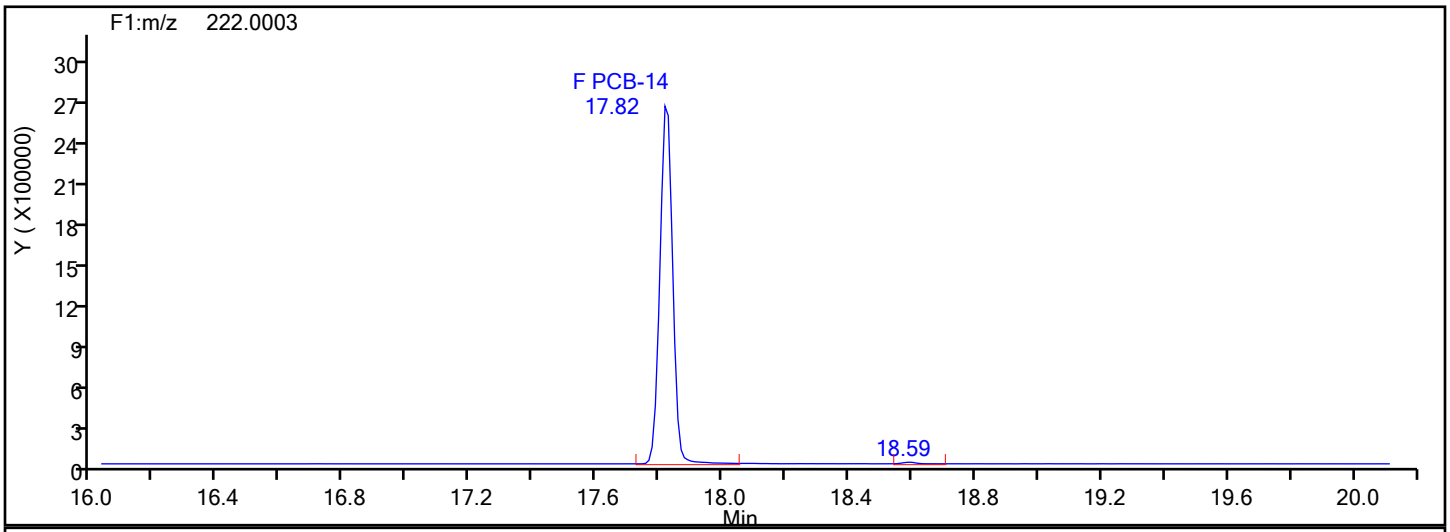
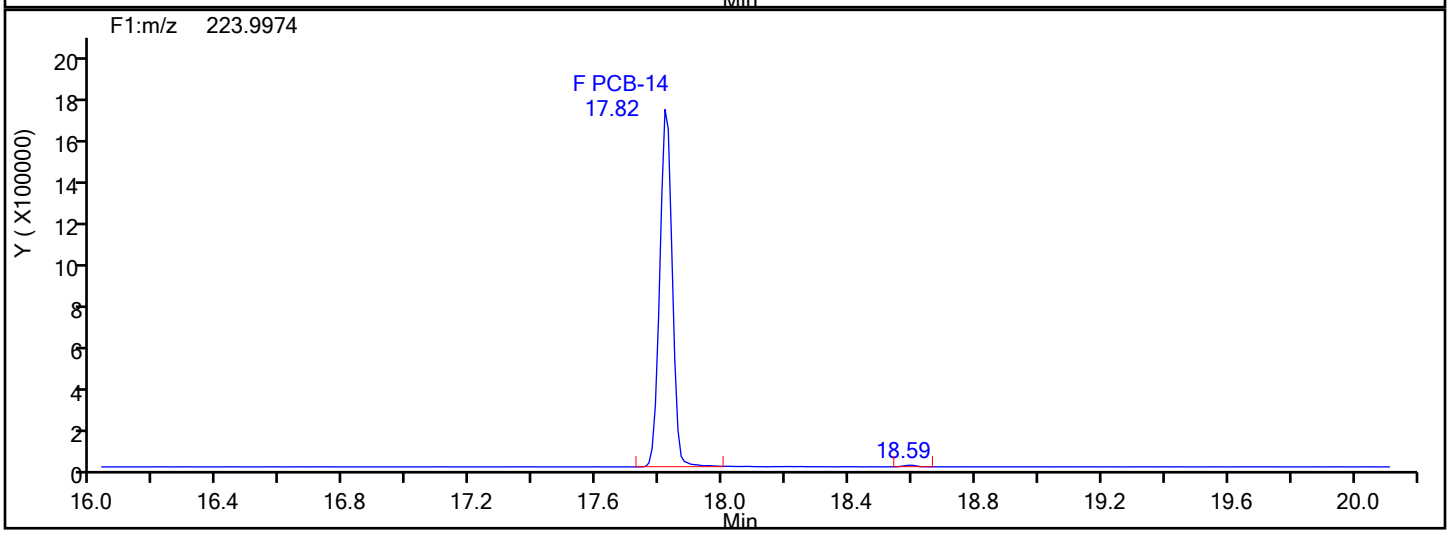
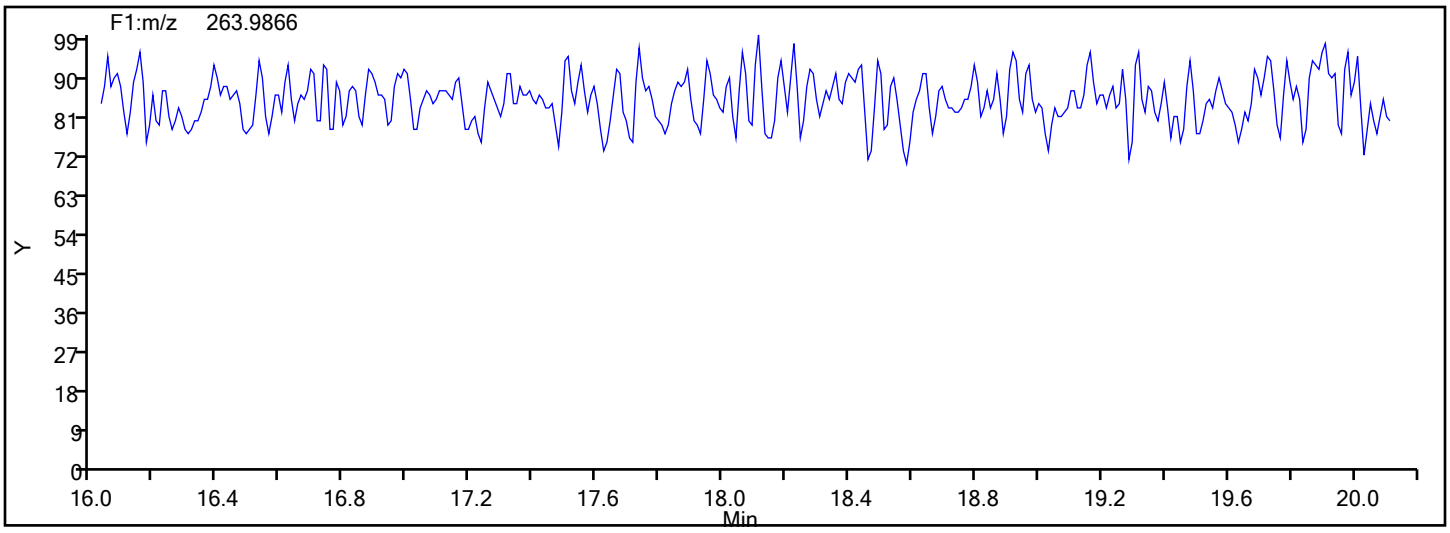
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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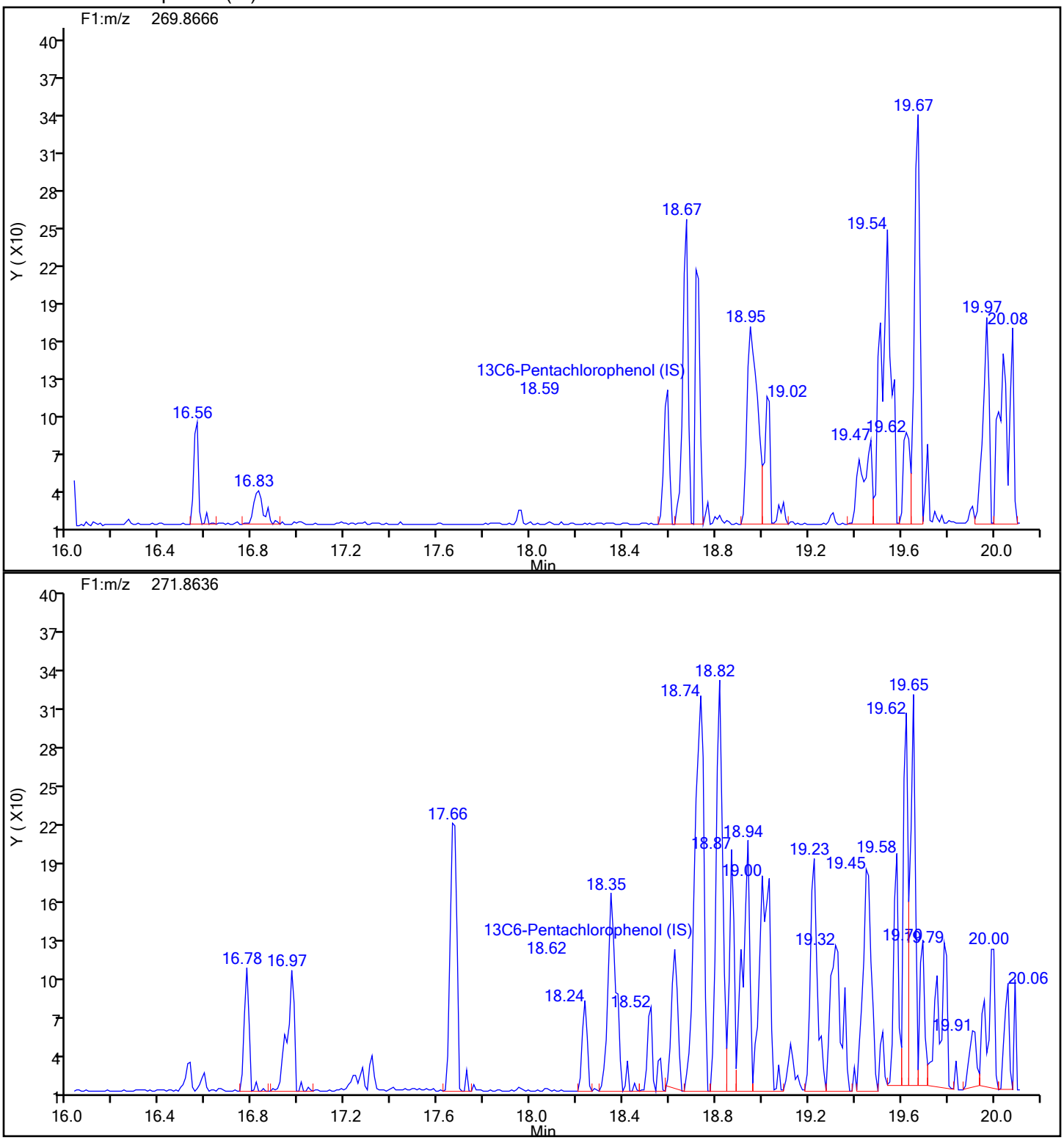
13C6-Pentachlorophenol (IS) Standards



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Eurofins Knoxville

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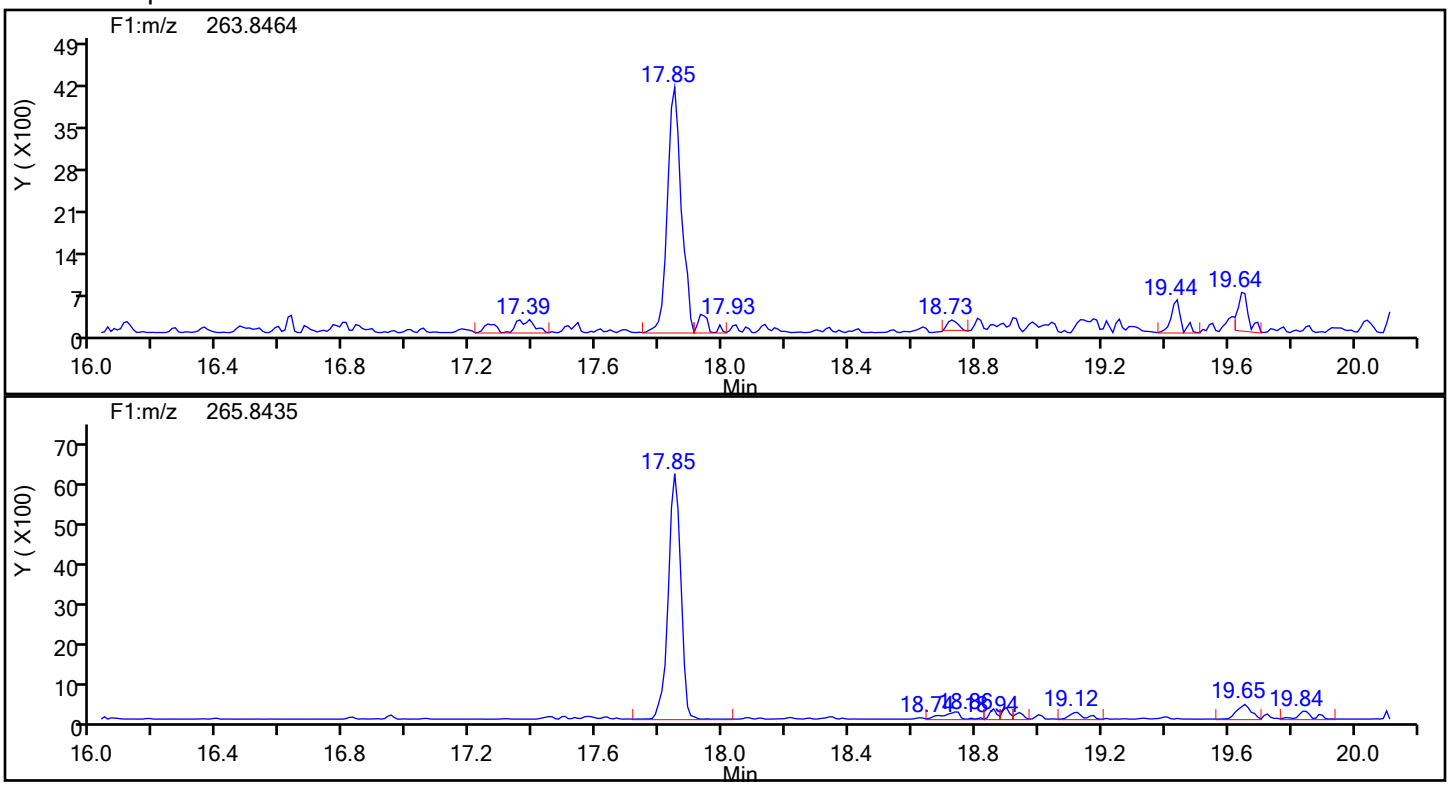
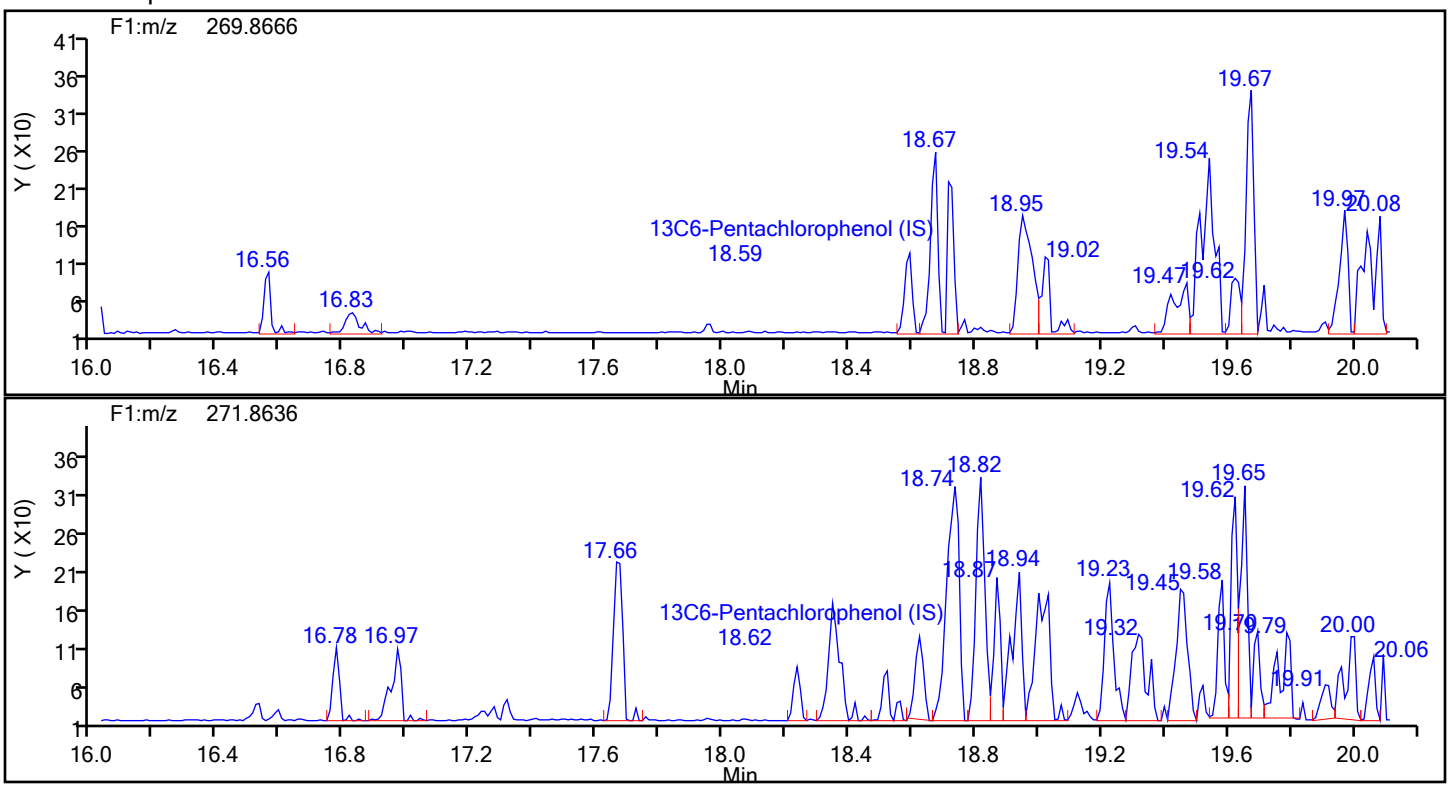
Pentachlorophenol



Pentachlorophenol Standards



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Eurofins Knoxville

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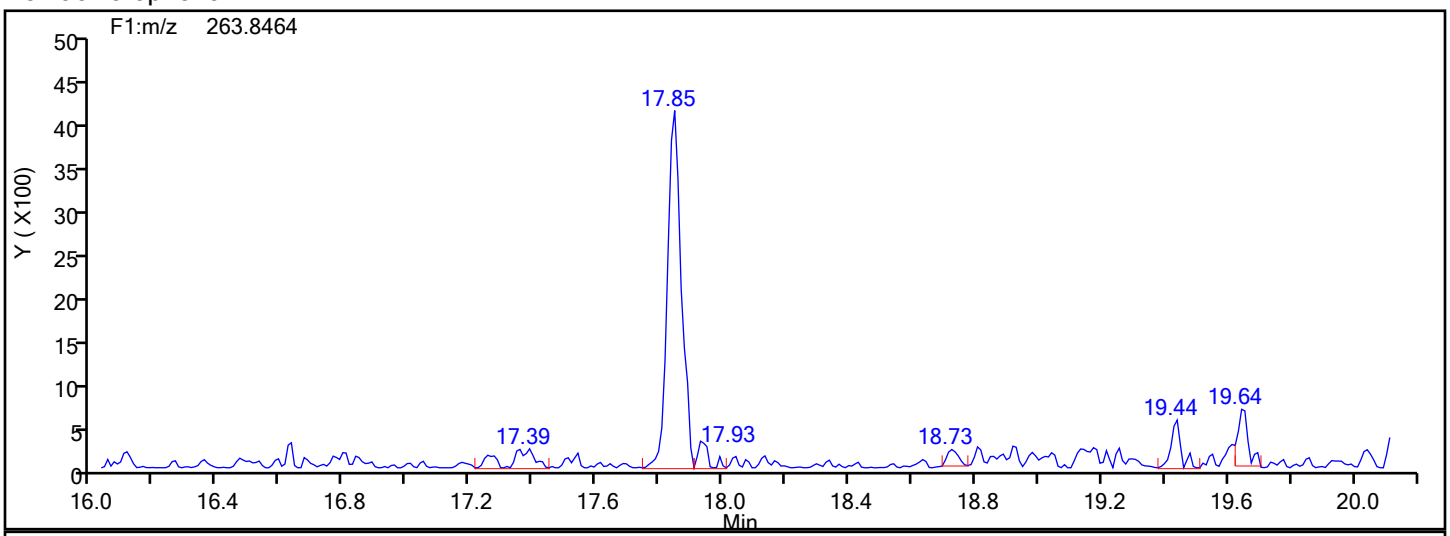
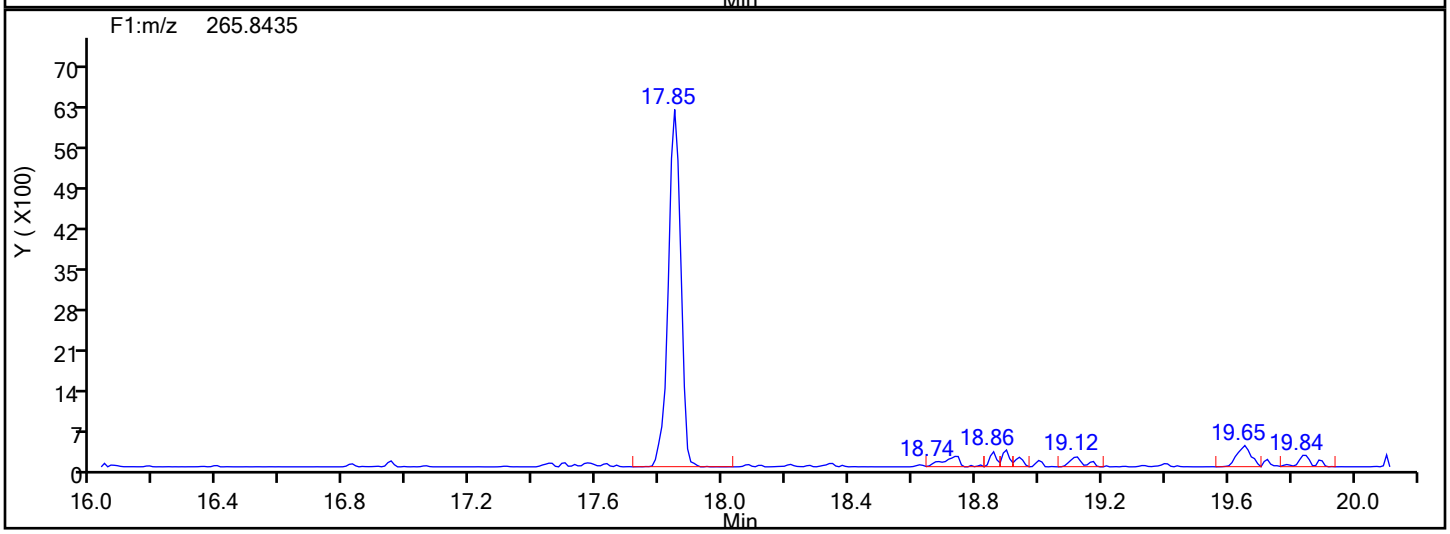
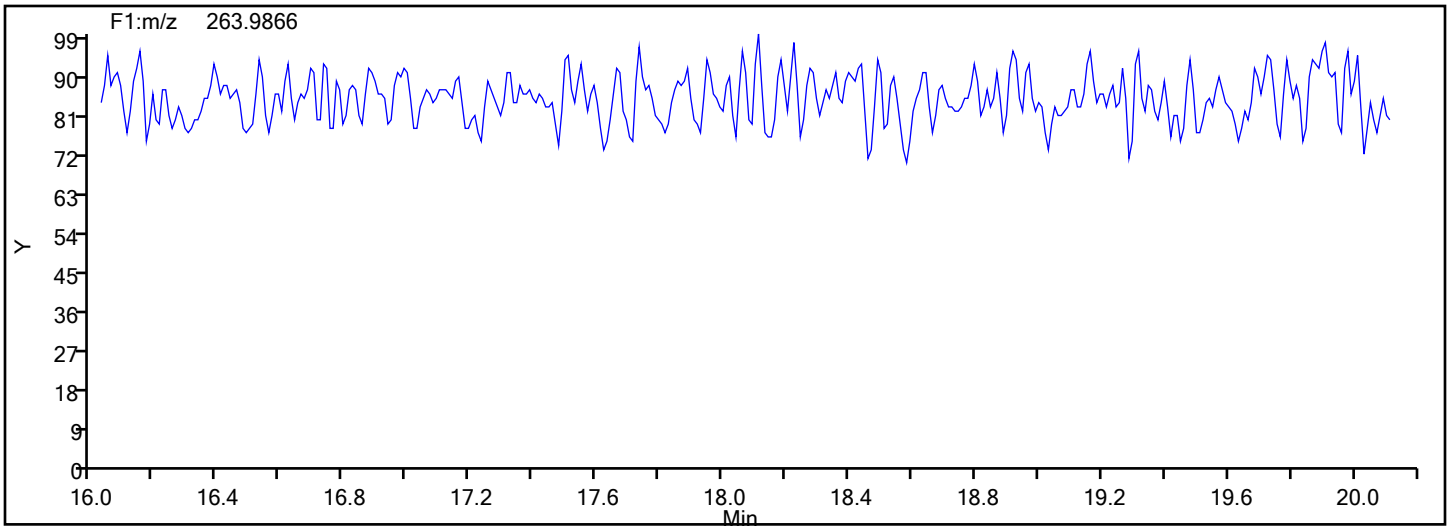
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
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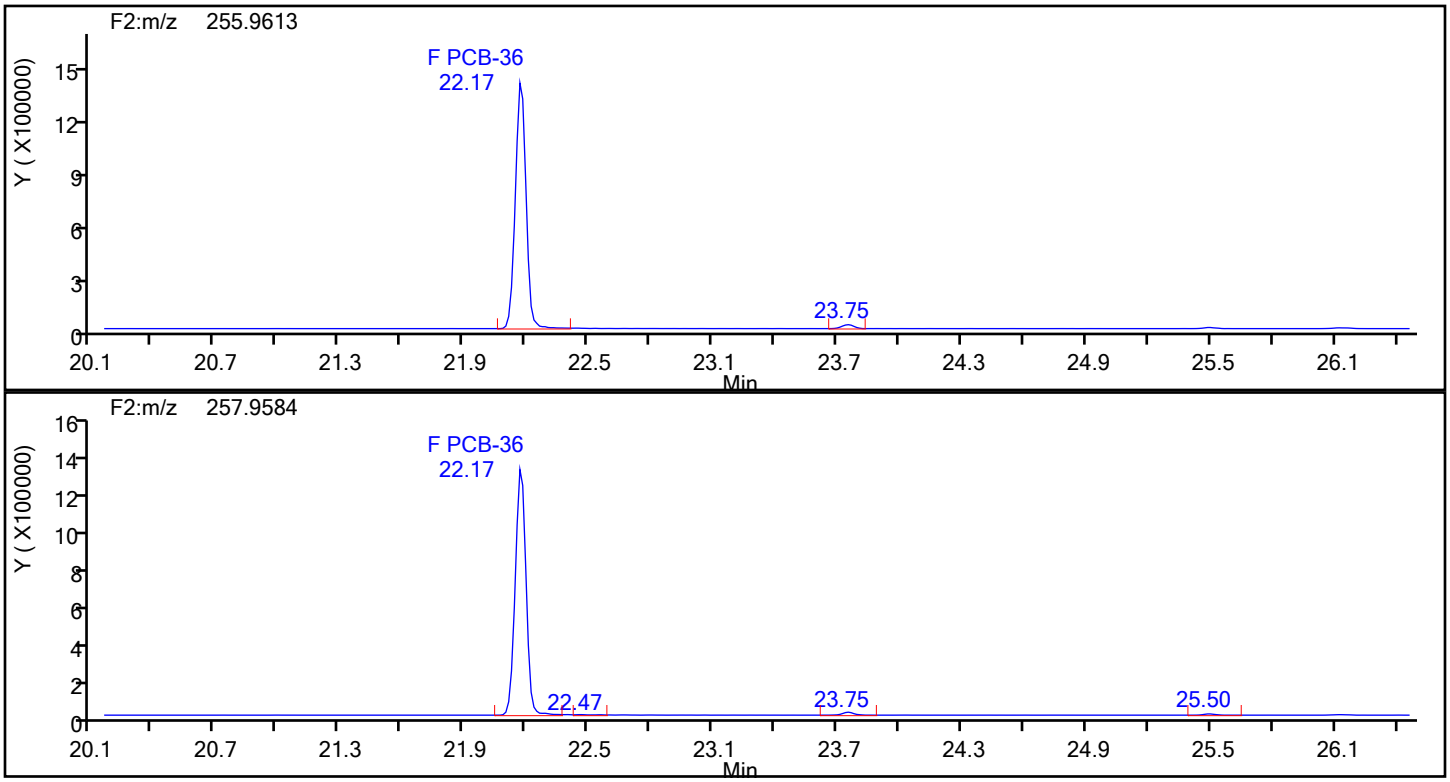
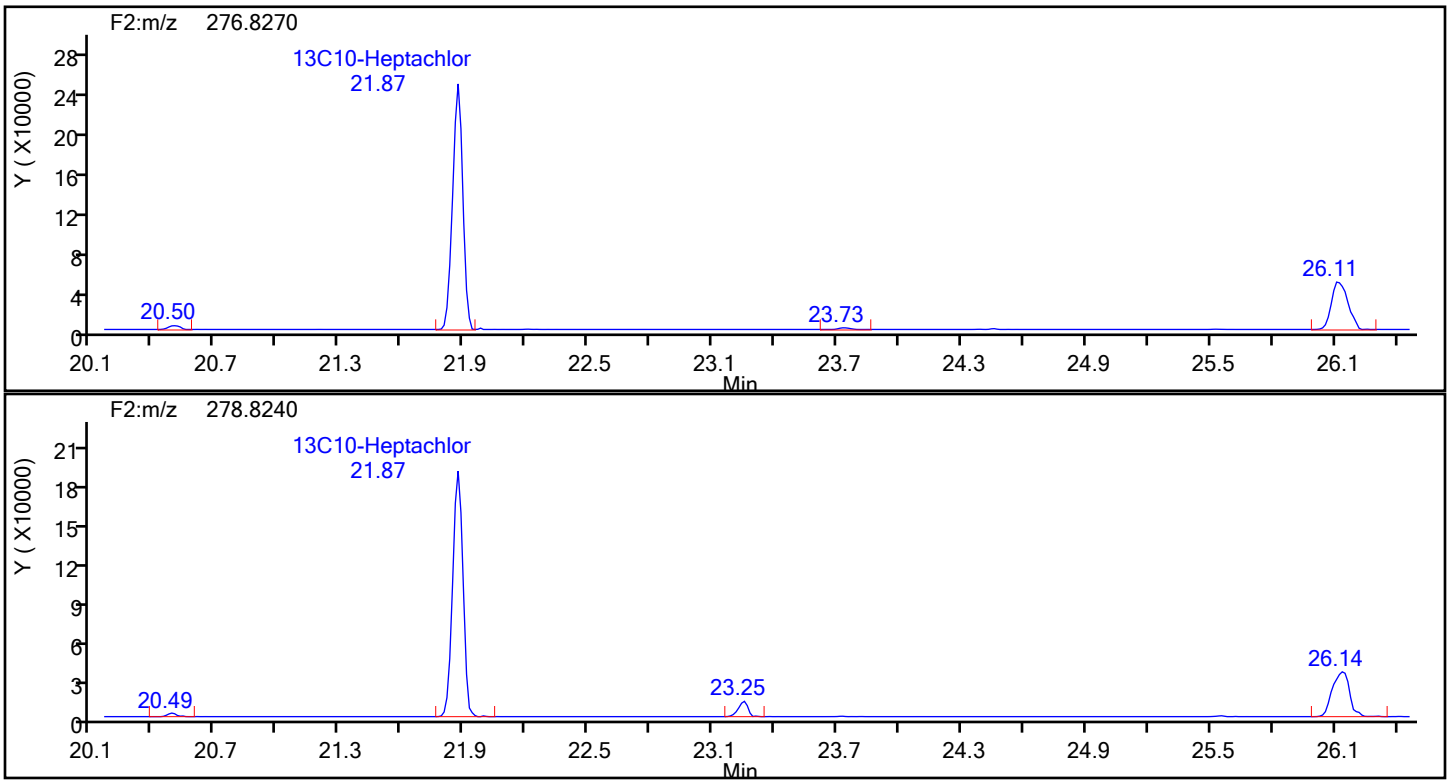
PCB-36



PCB-36 Standards



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Eurofins Knoxville

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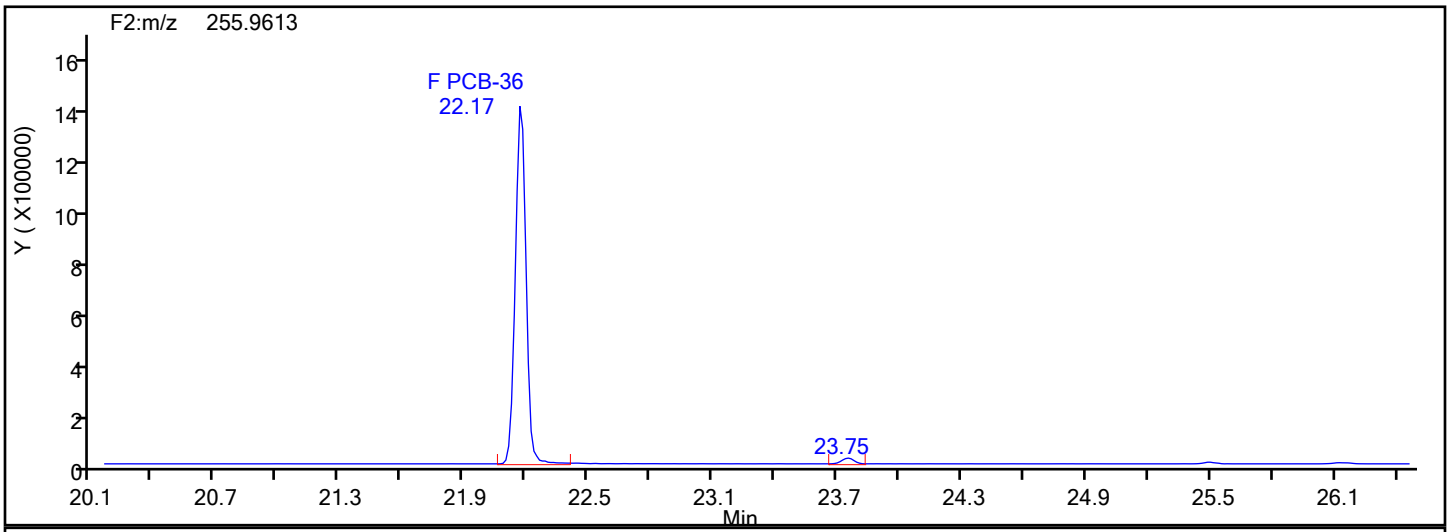
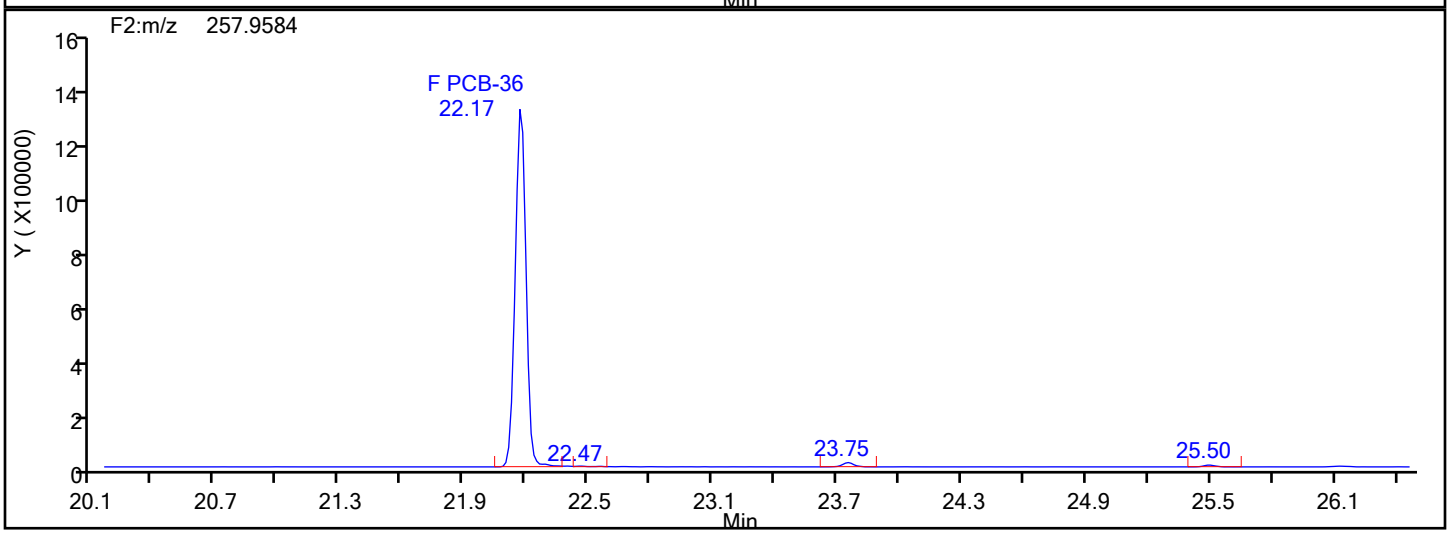
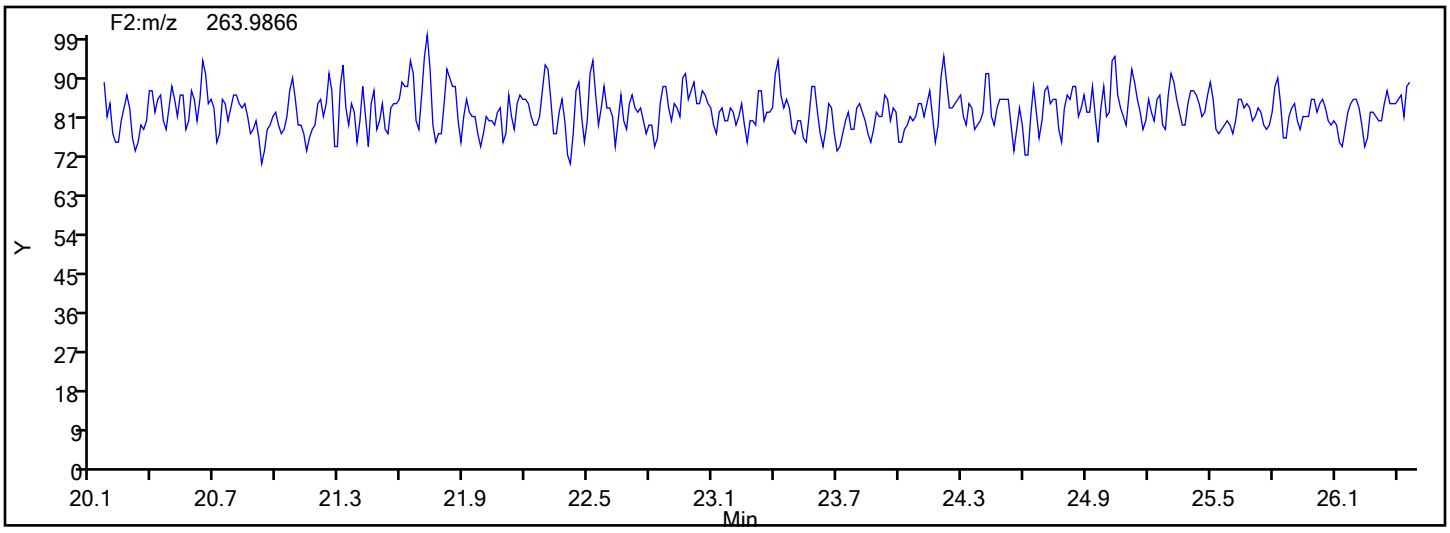
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



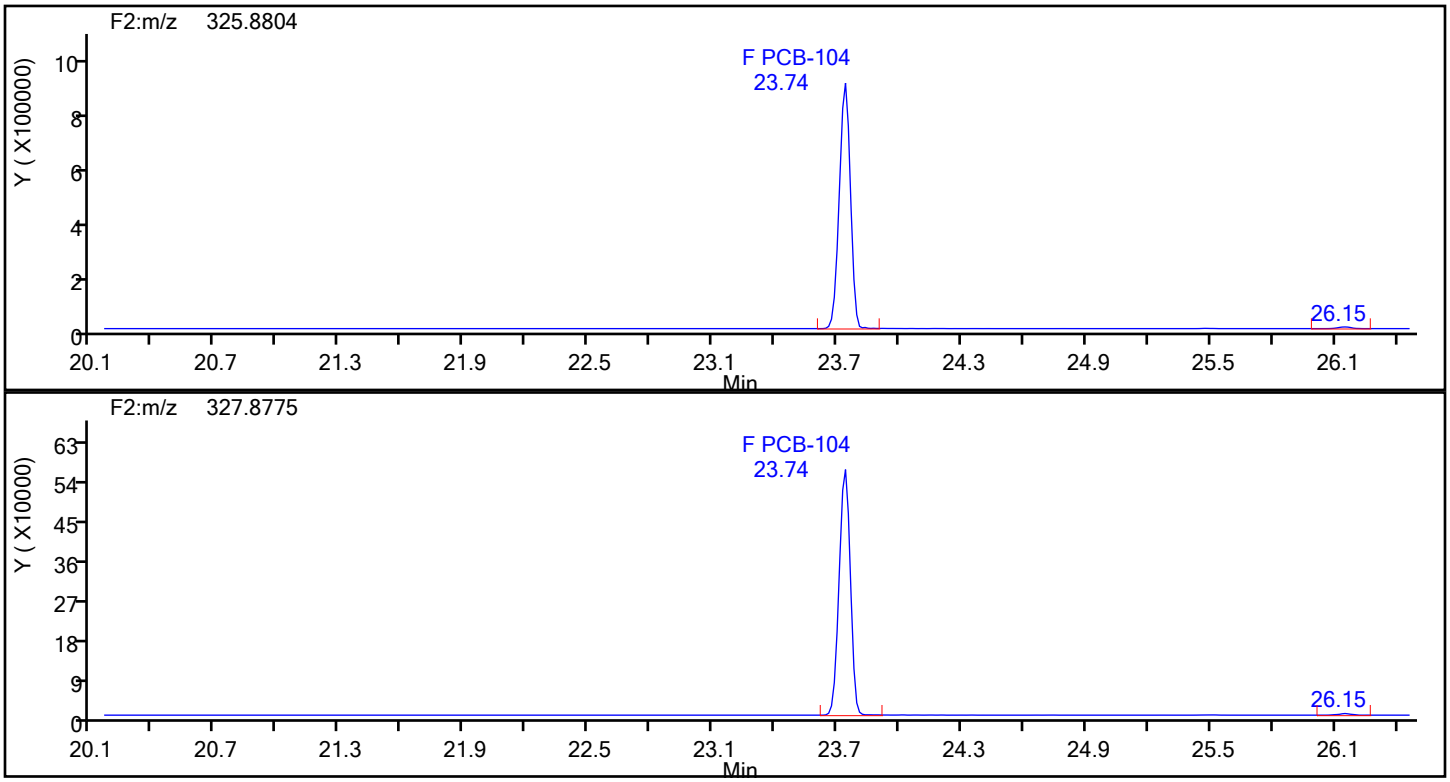
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

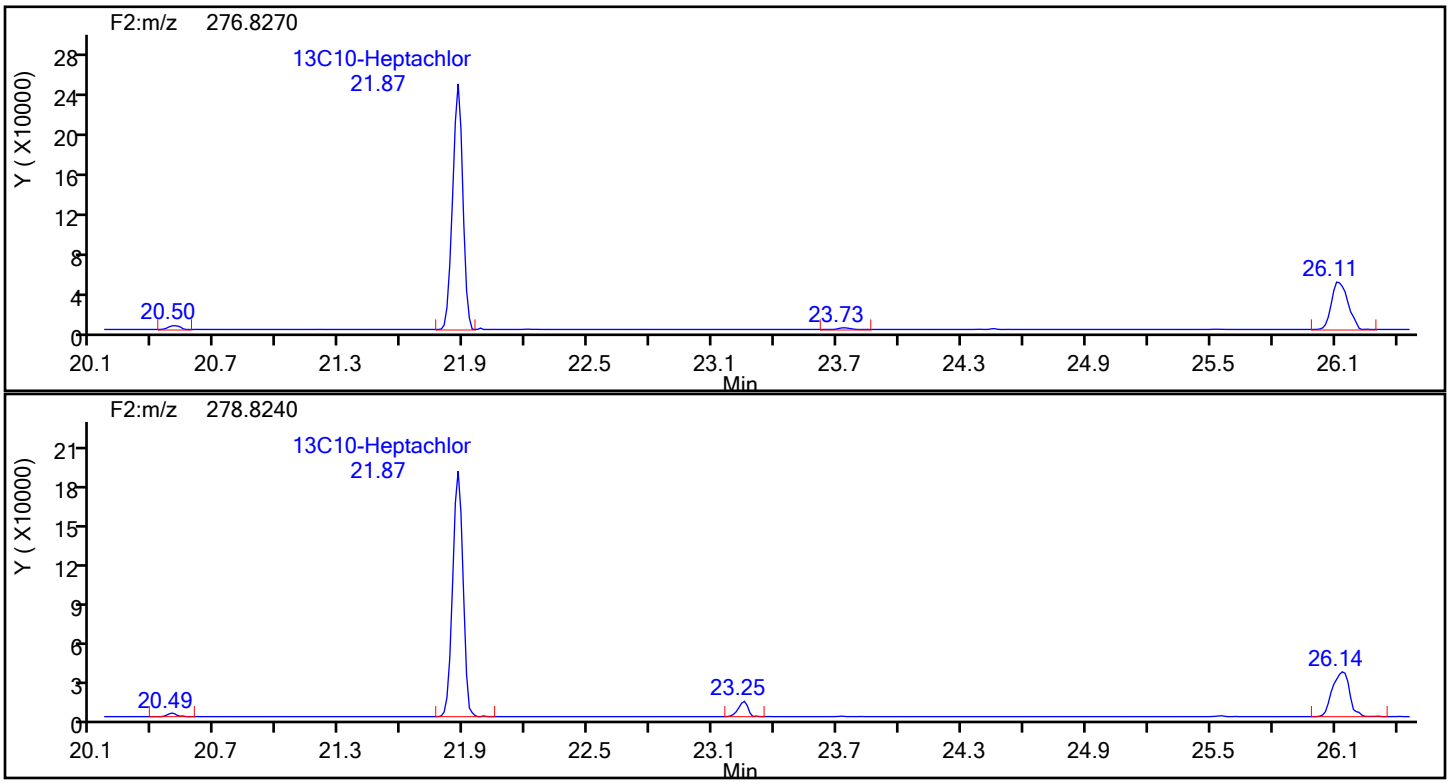
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards

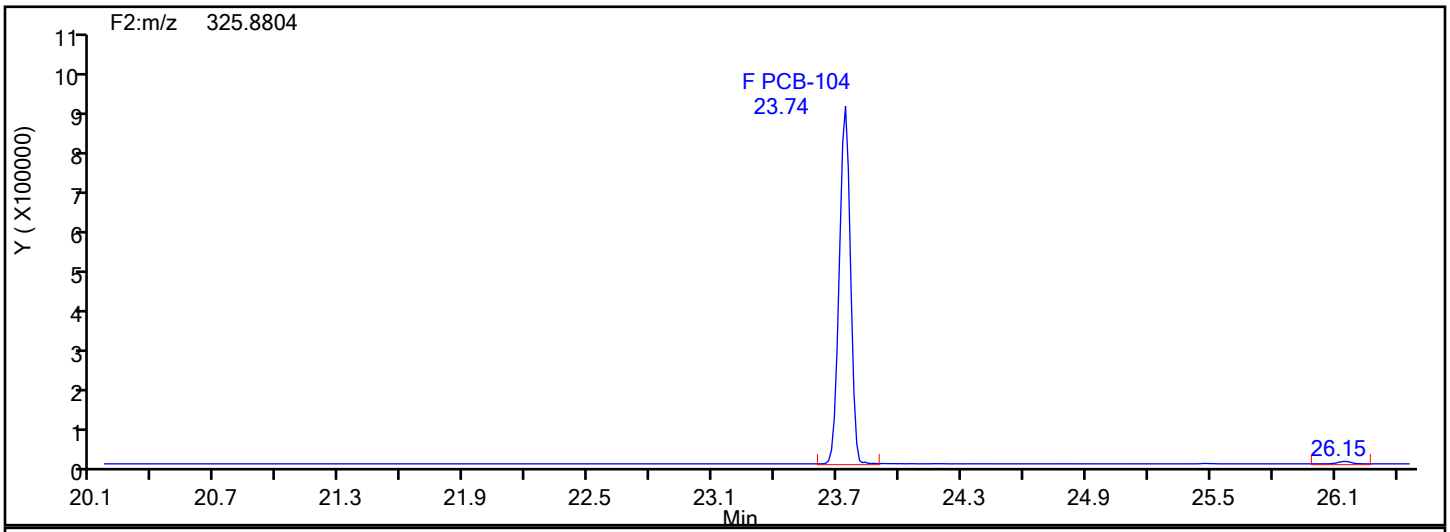


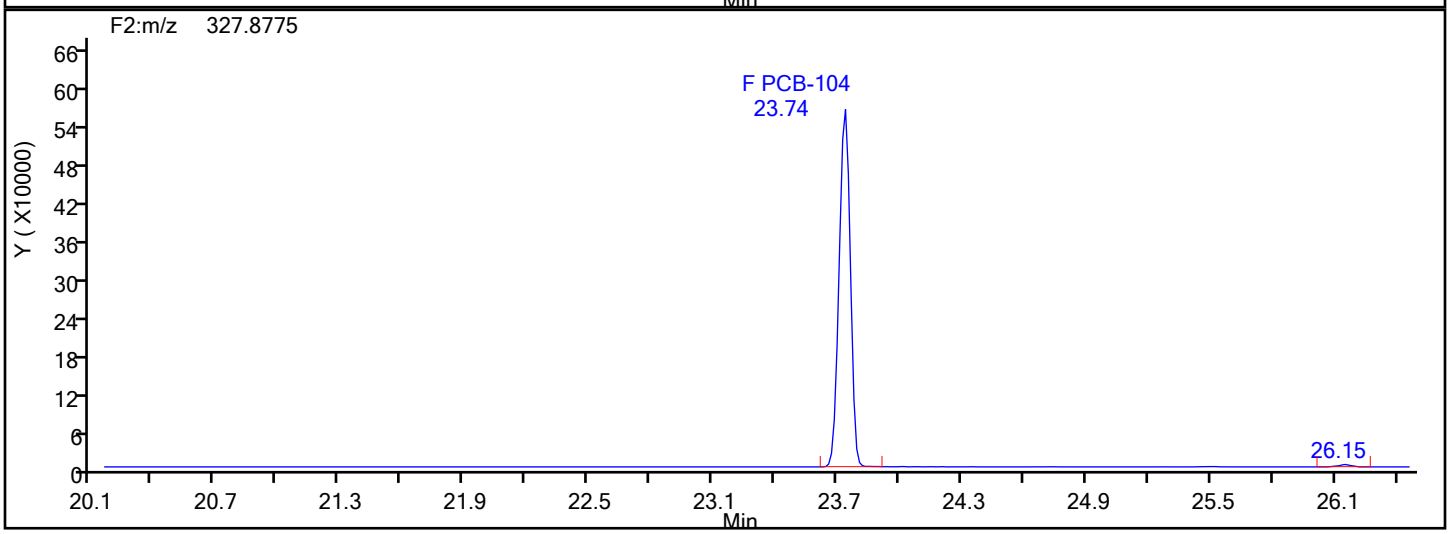
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

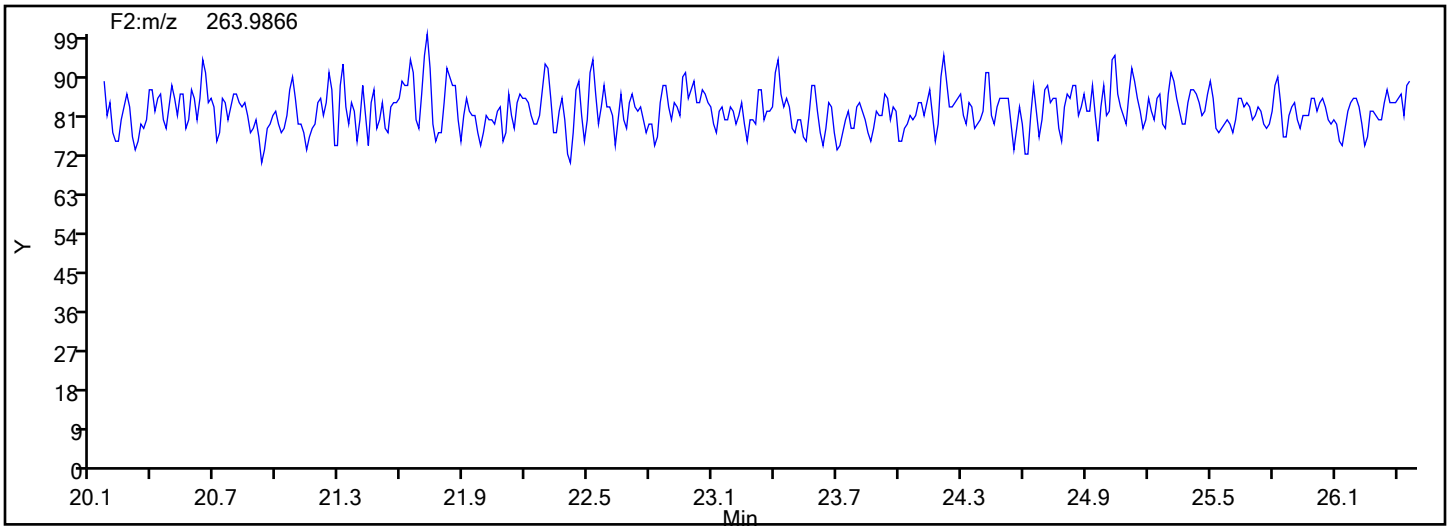
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



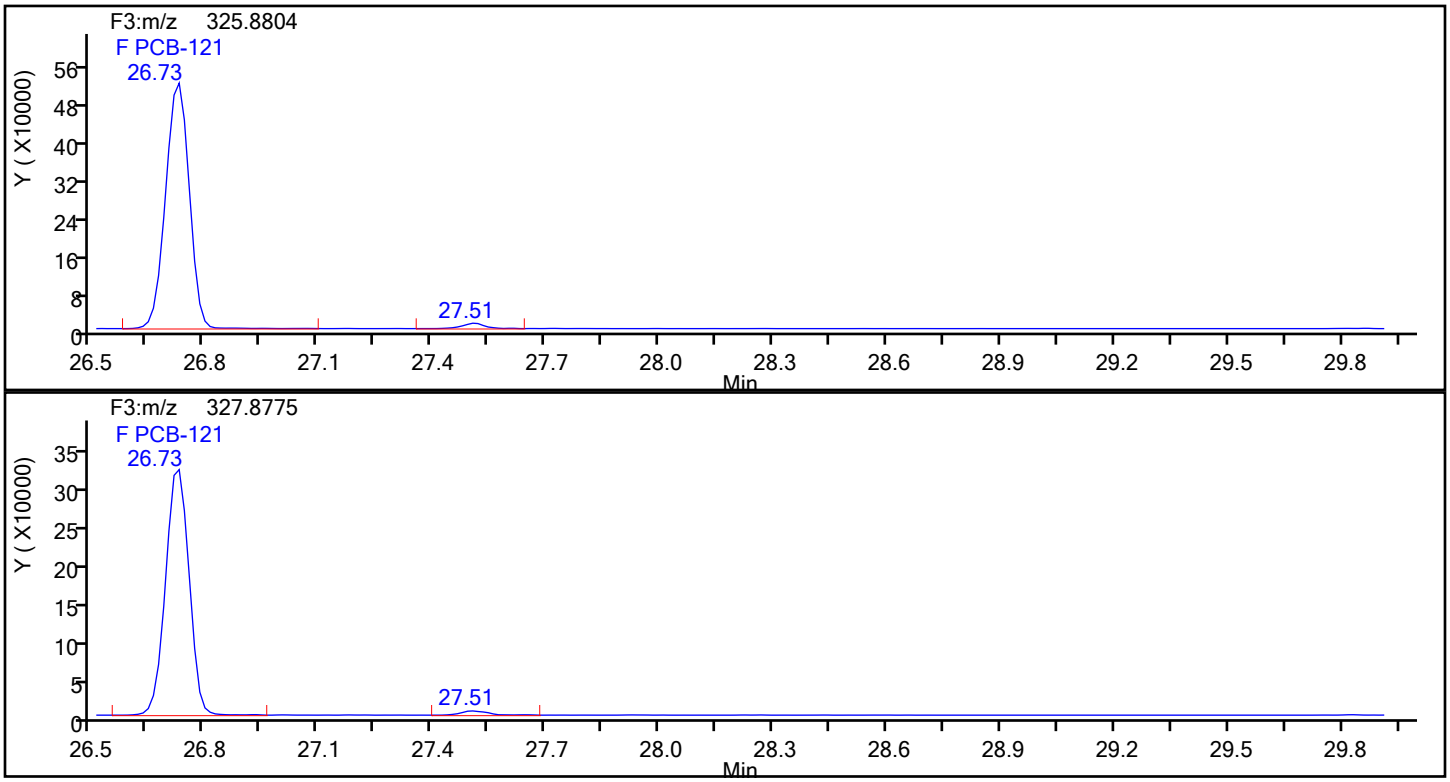
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

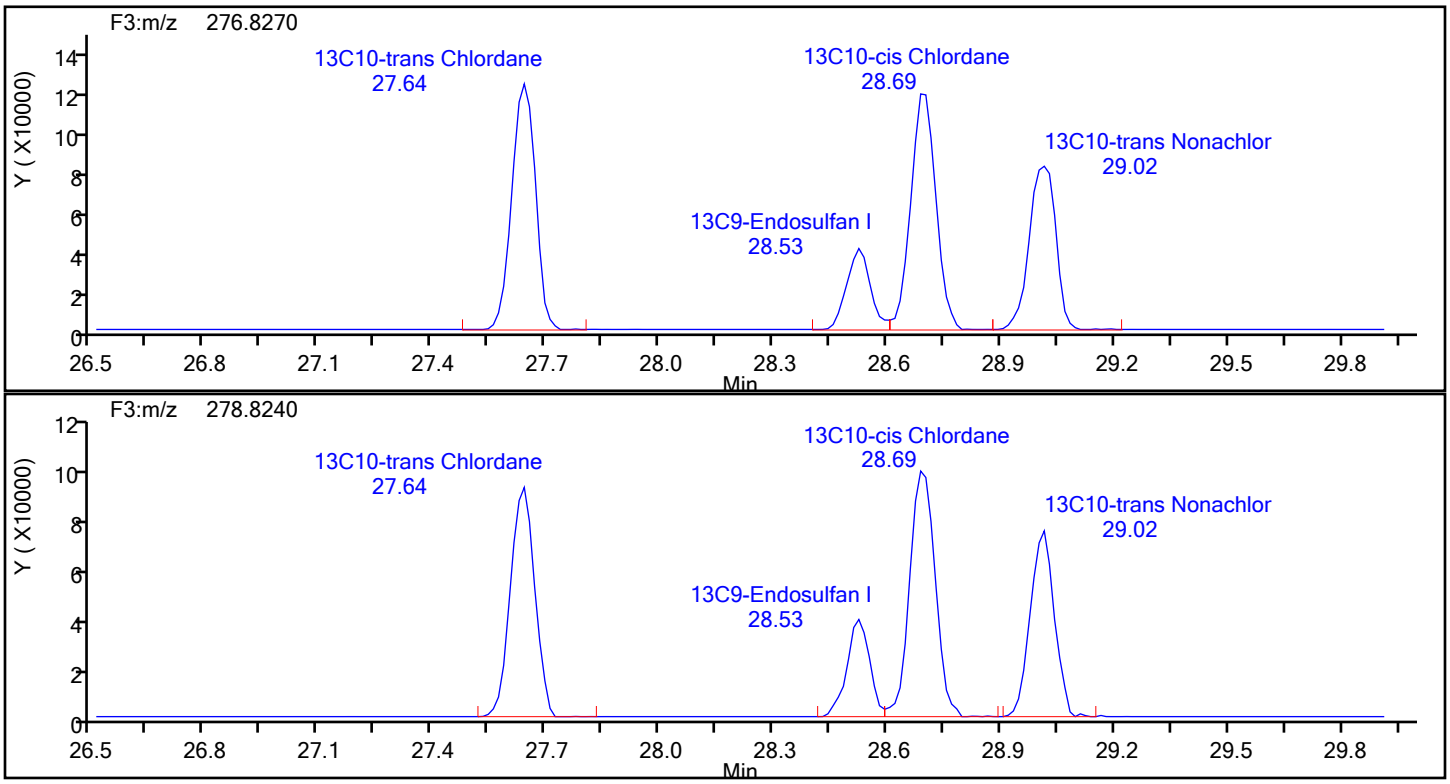
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

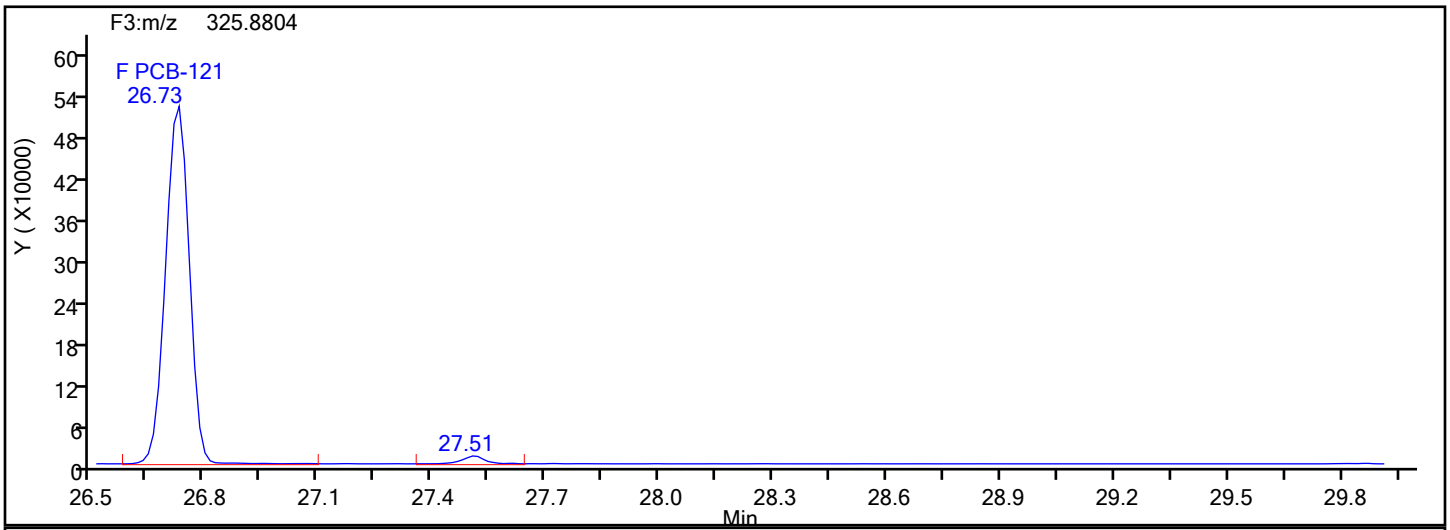


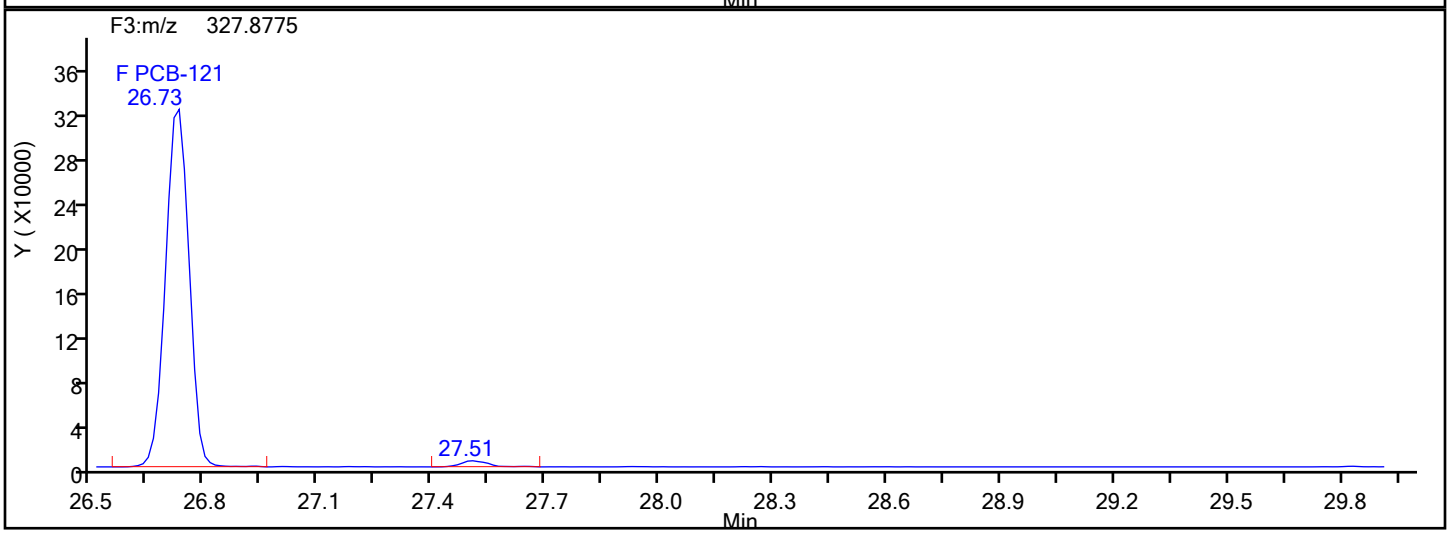
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

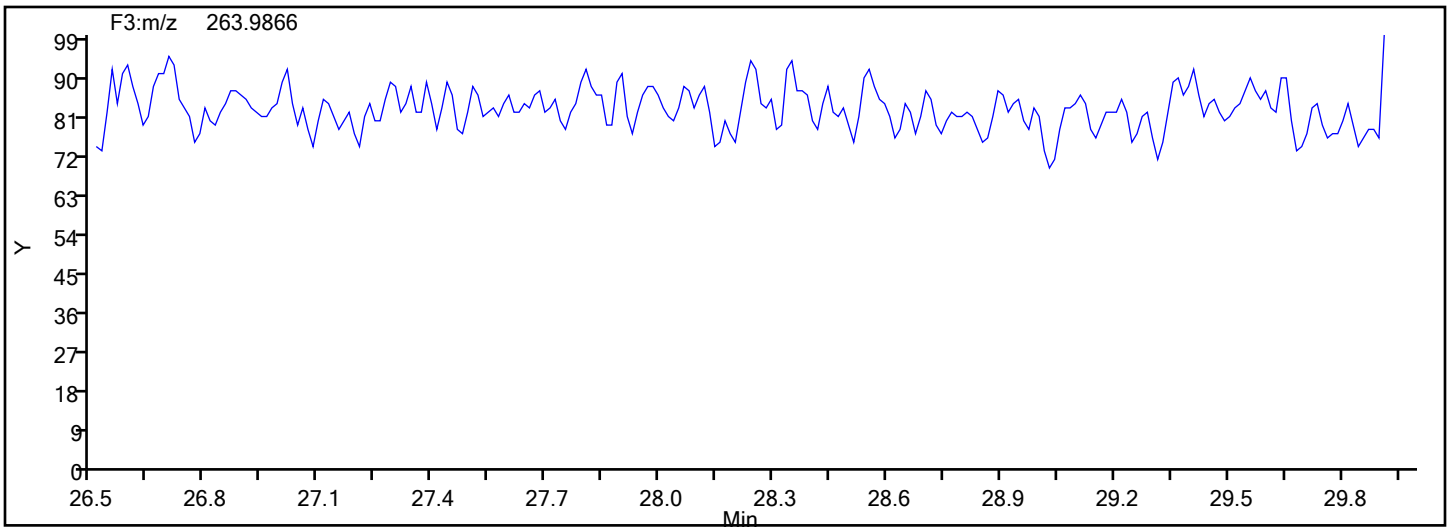
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



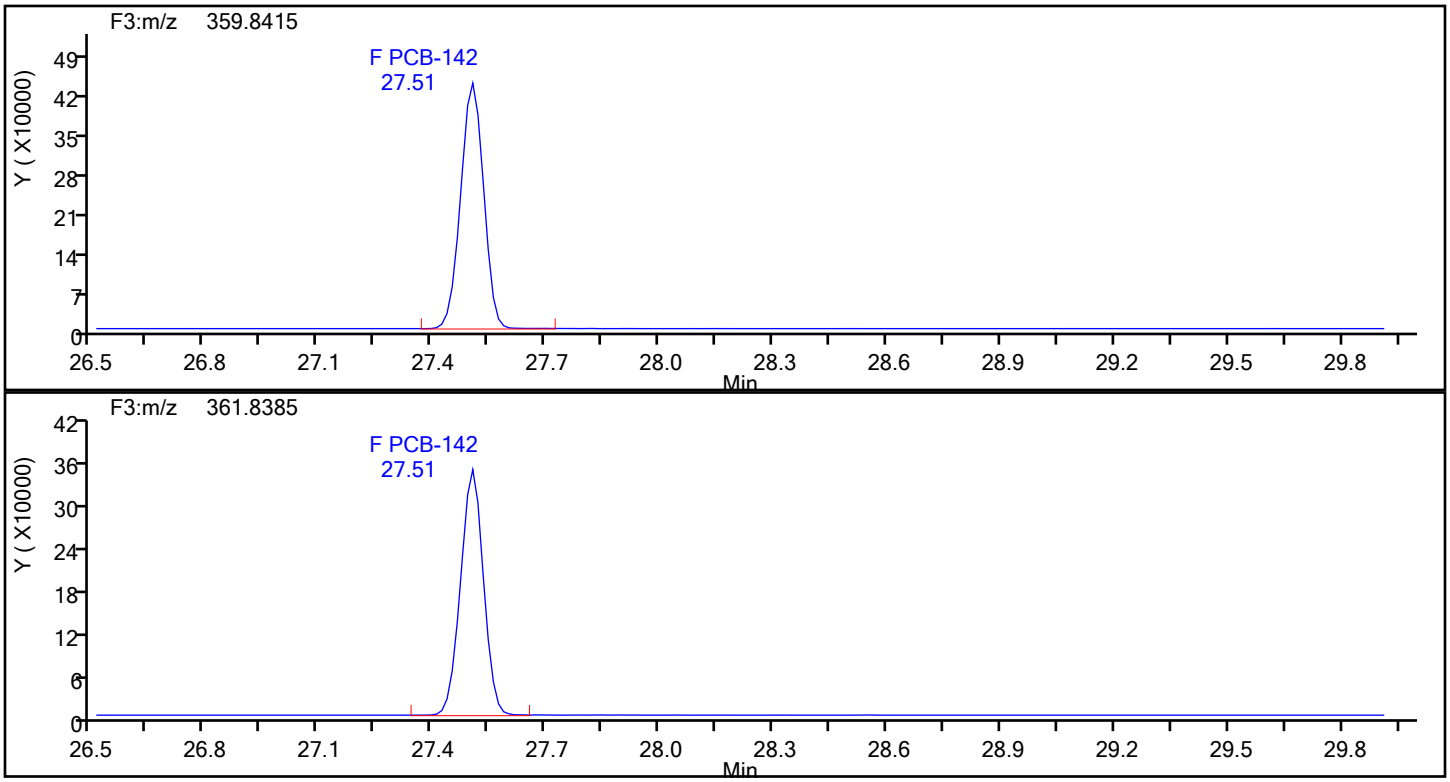
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

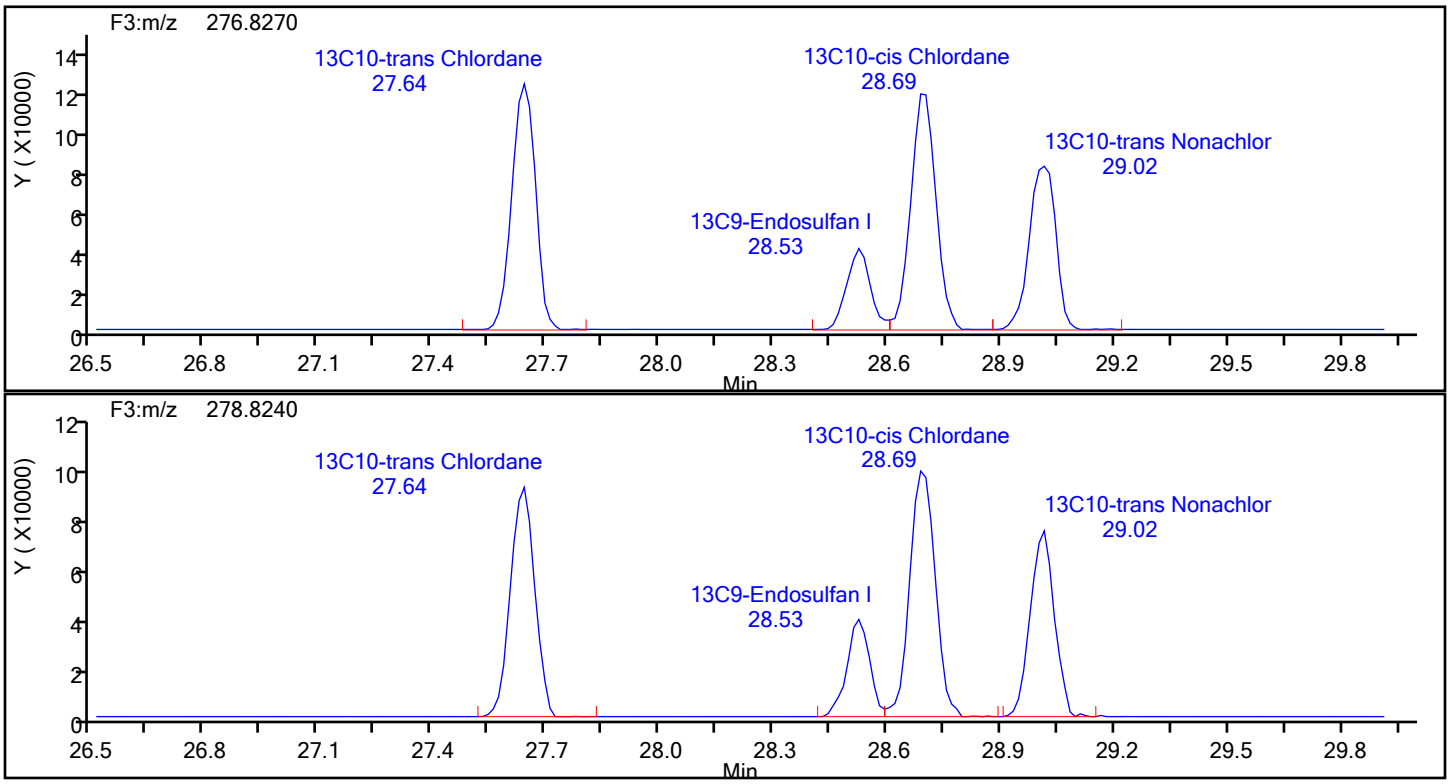
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

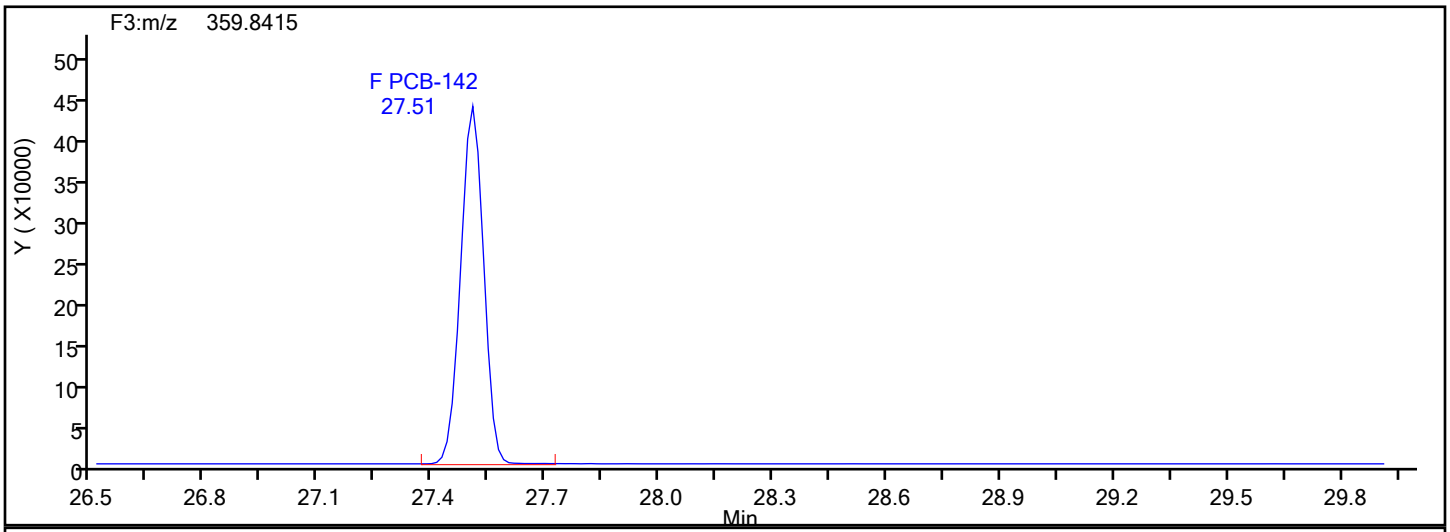


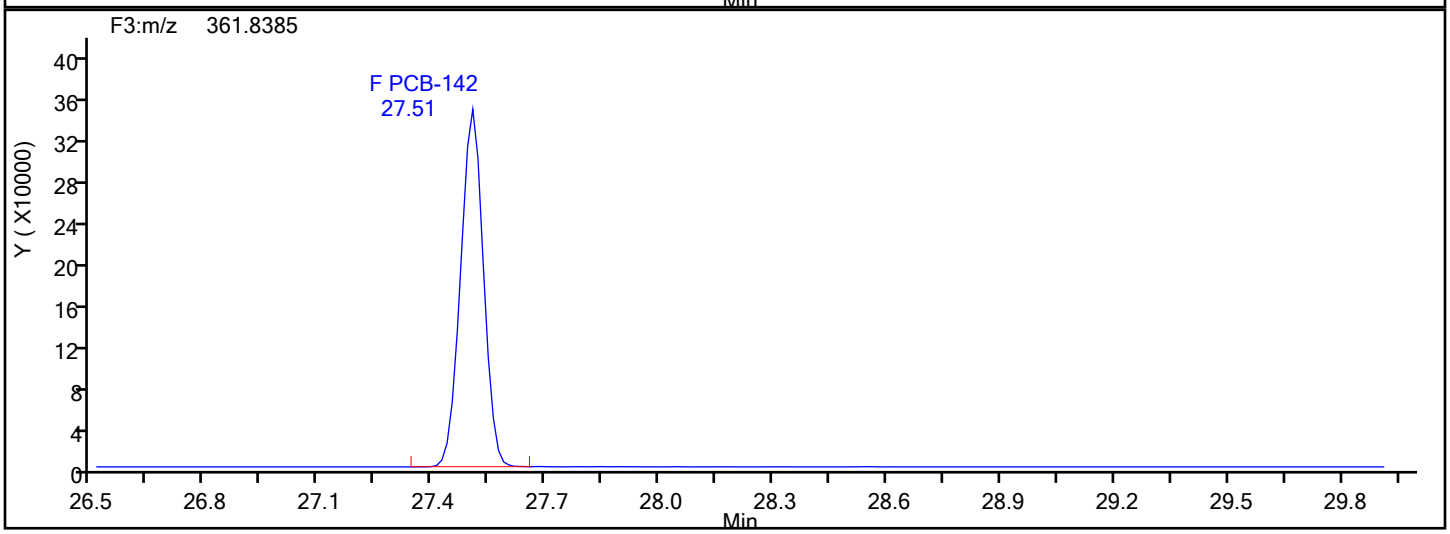
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

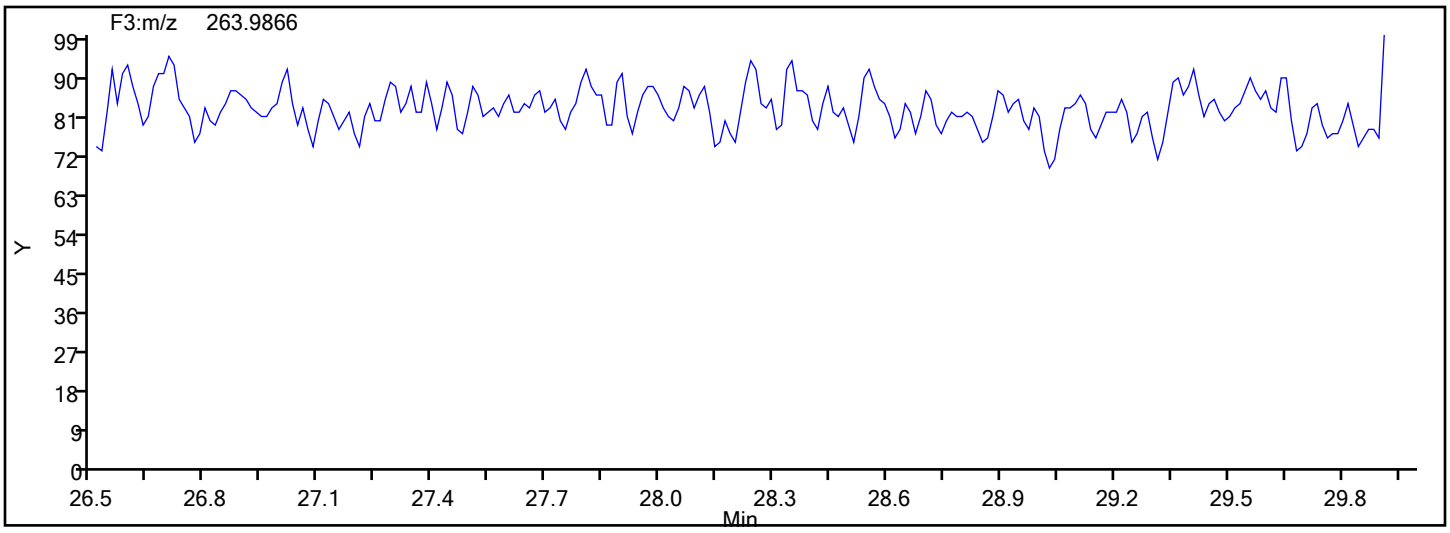
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



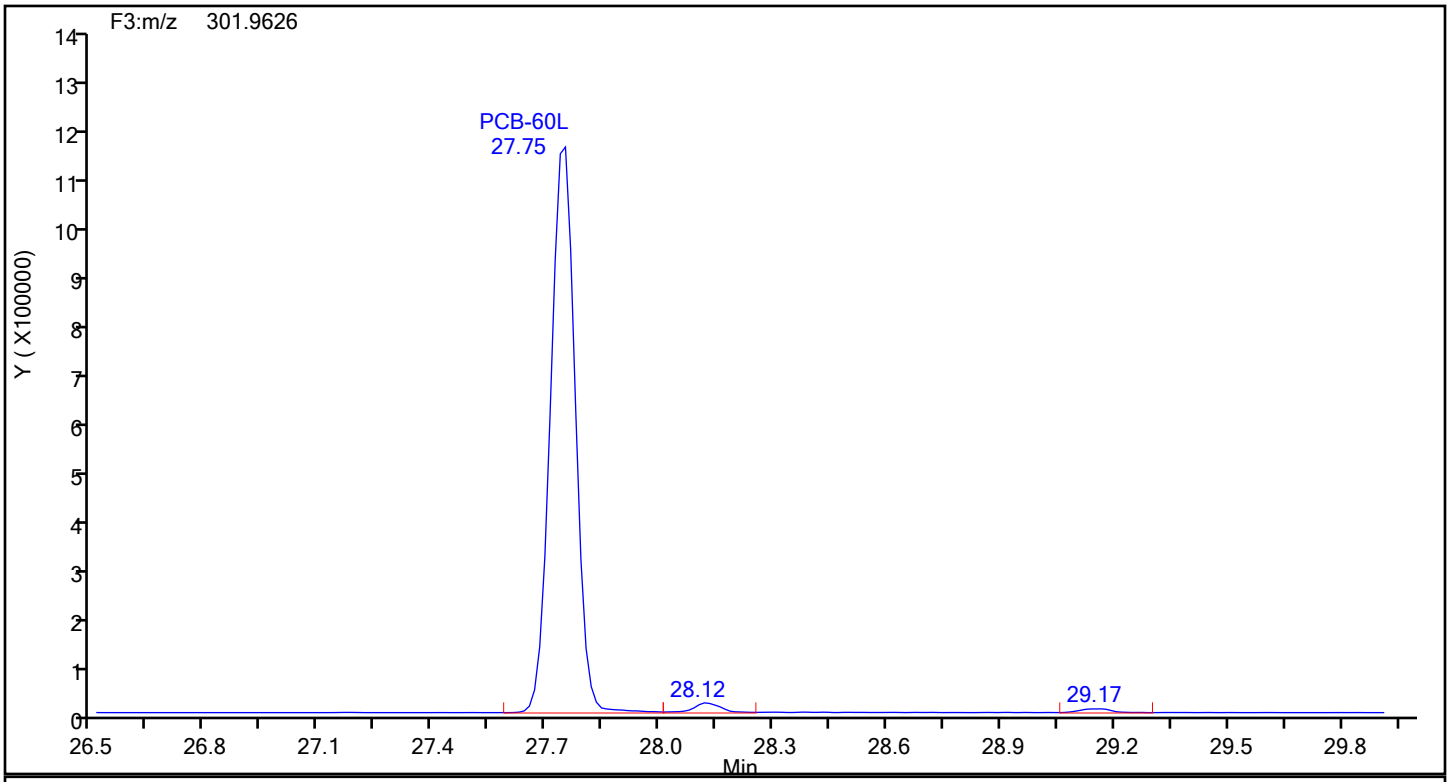
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

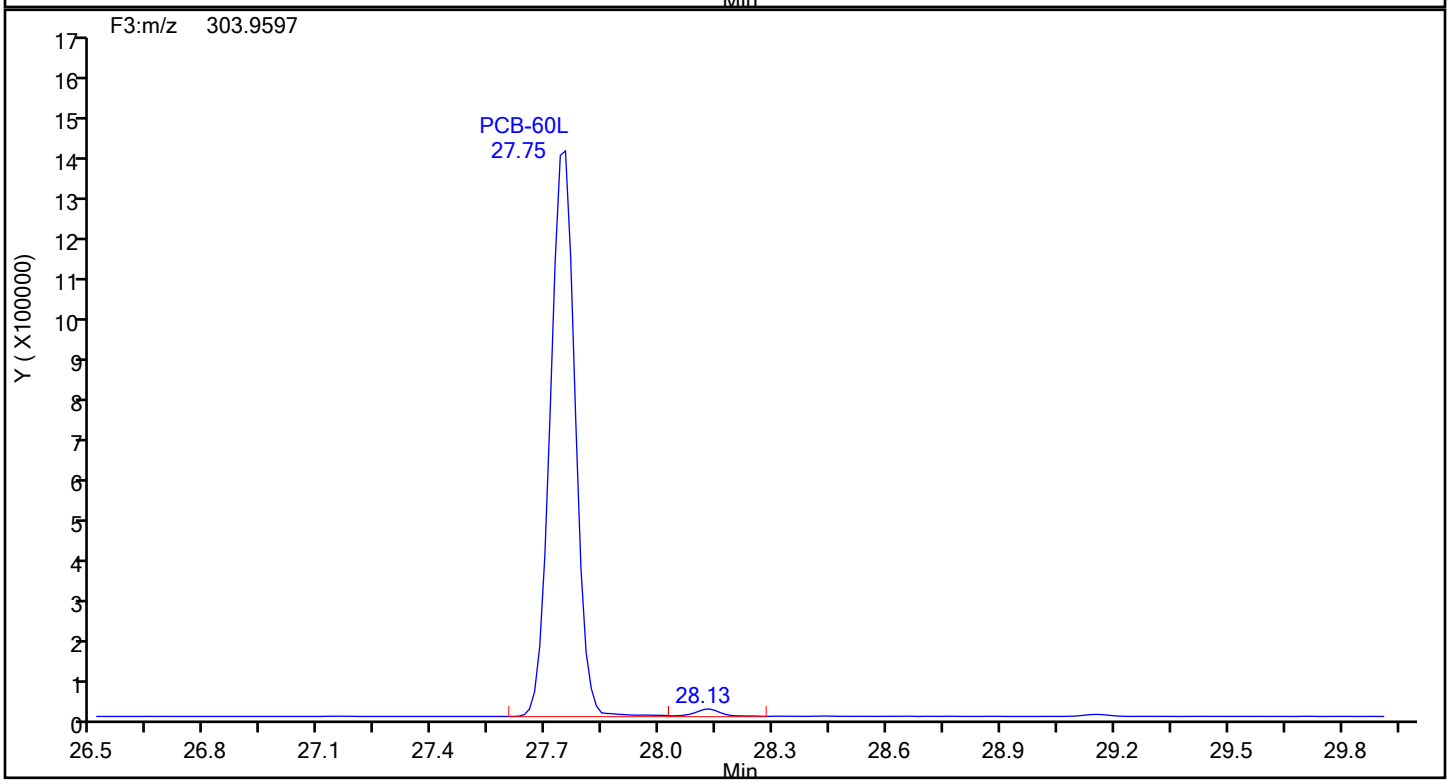
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

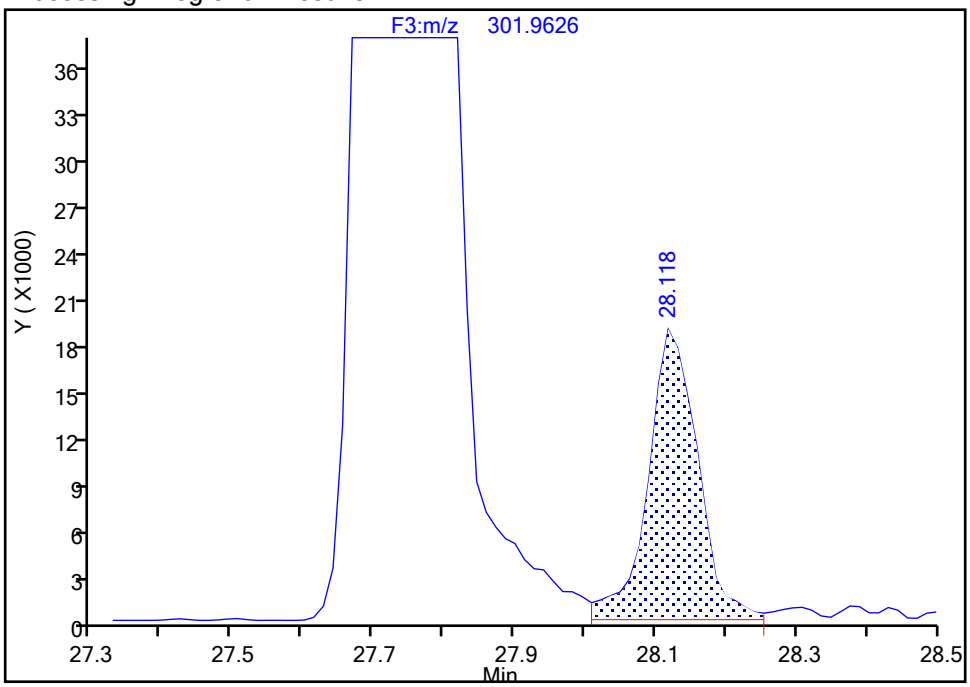
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Instrument ID: D3PST
Lims ID: IC L4
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

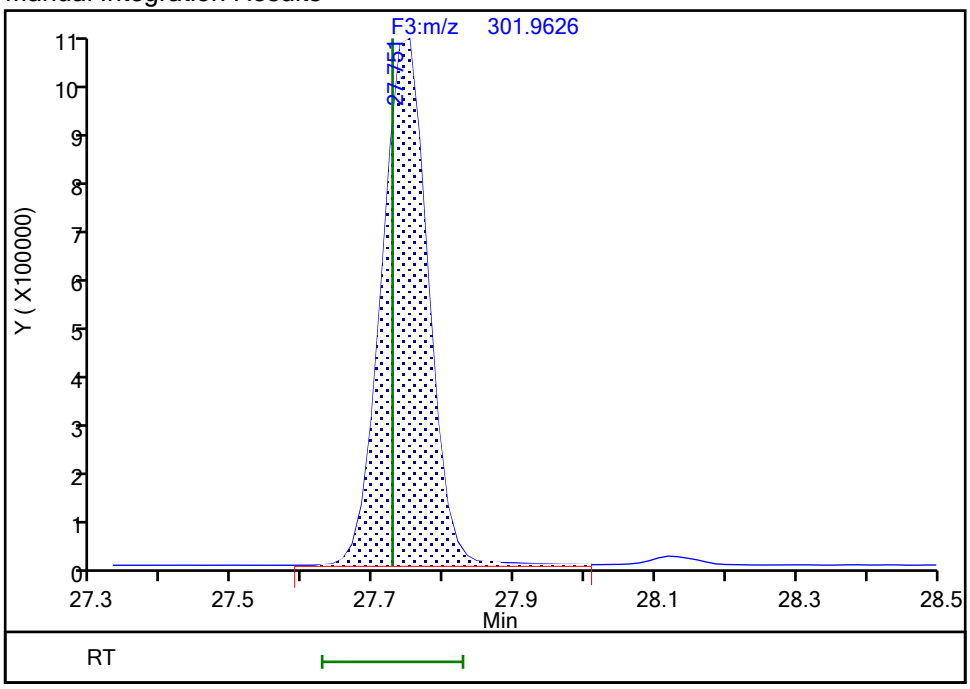
Processing Integration Results

RT: 28.12
Area: 92896
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.75
Area: 4998253
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:54 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

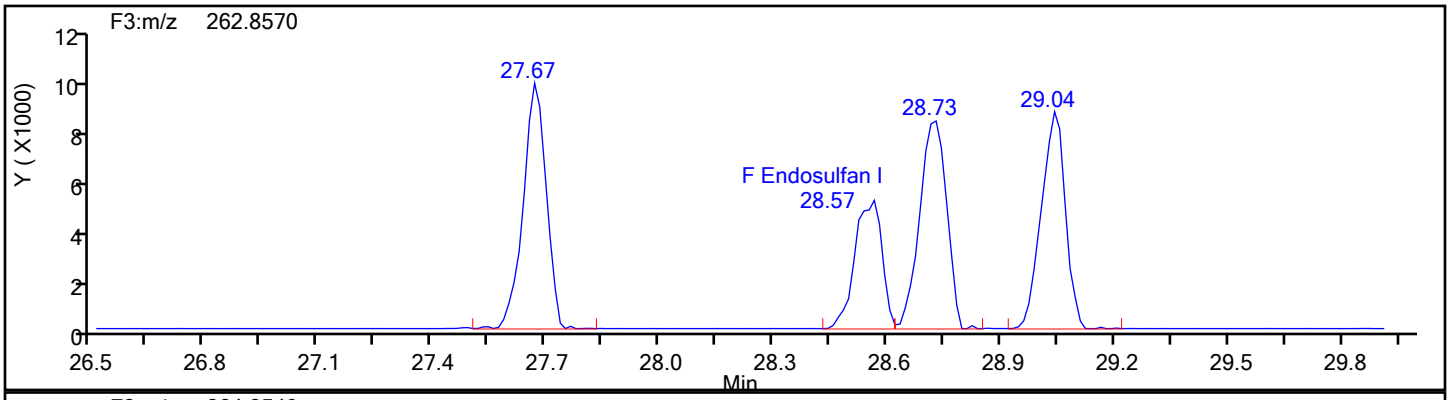
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

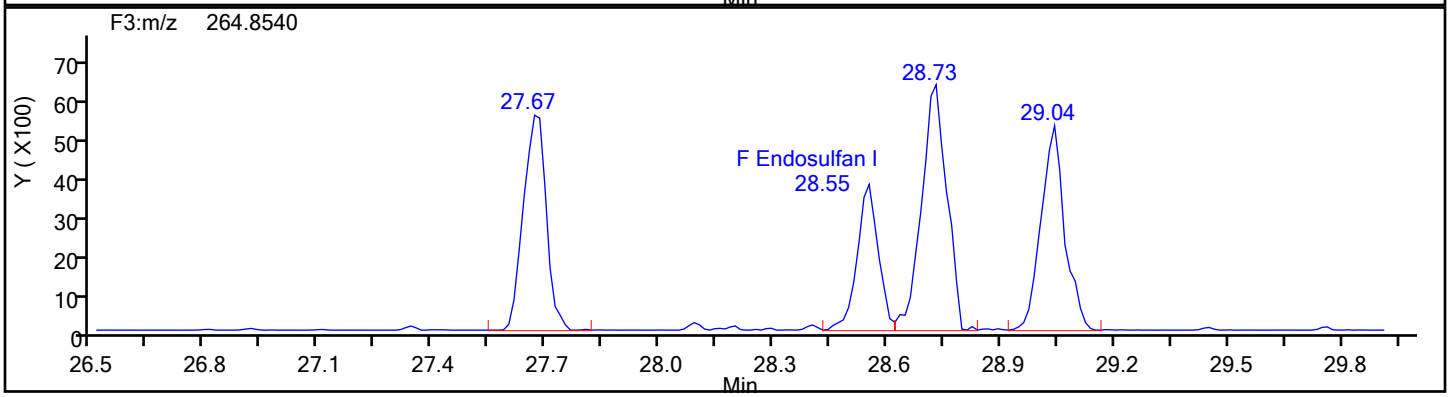
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

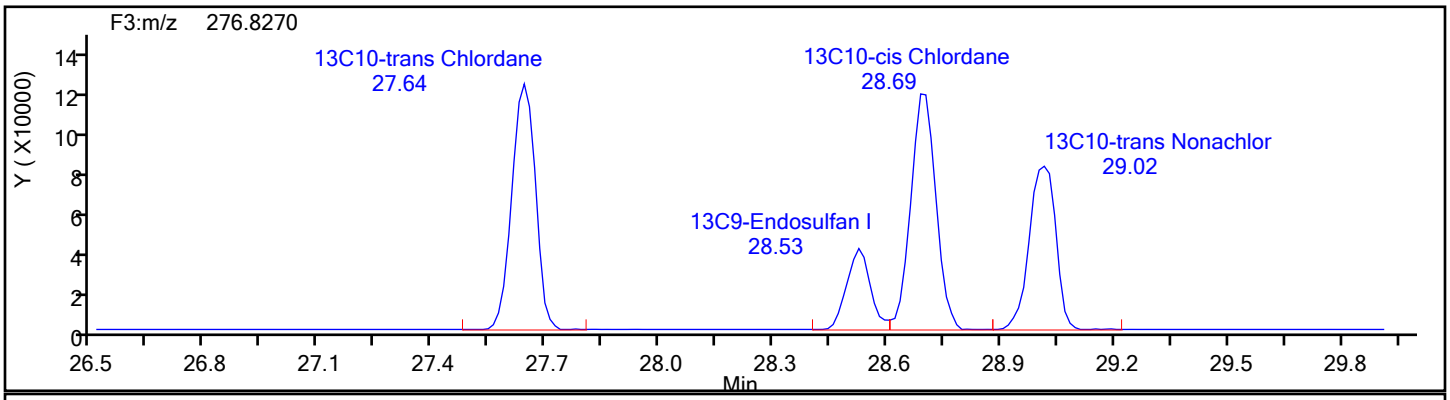
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

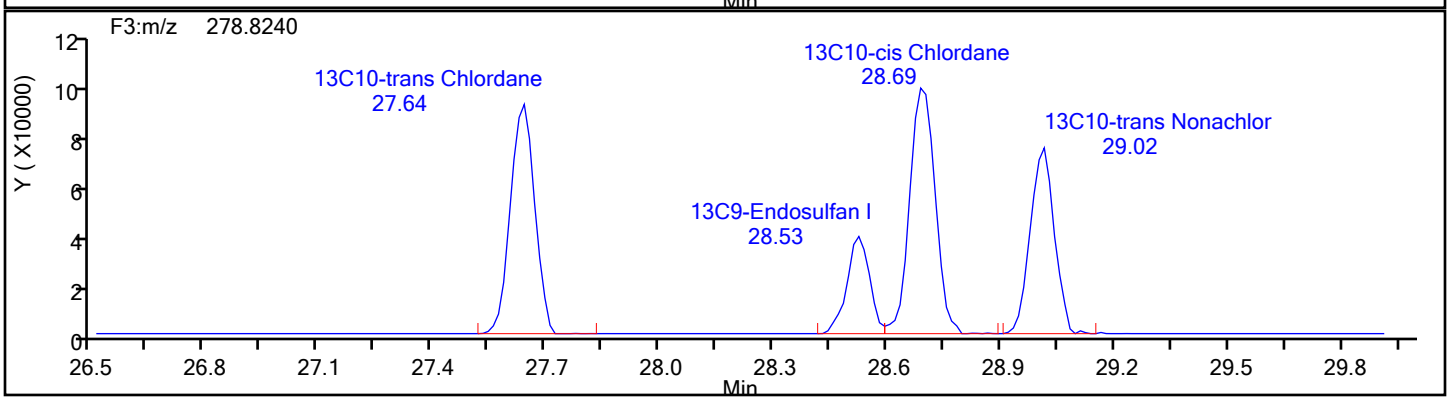
Endosulfan I





Endosulfan I Standards



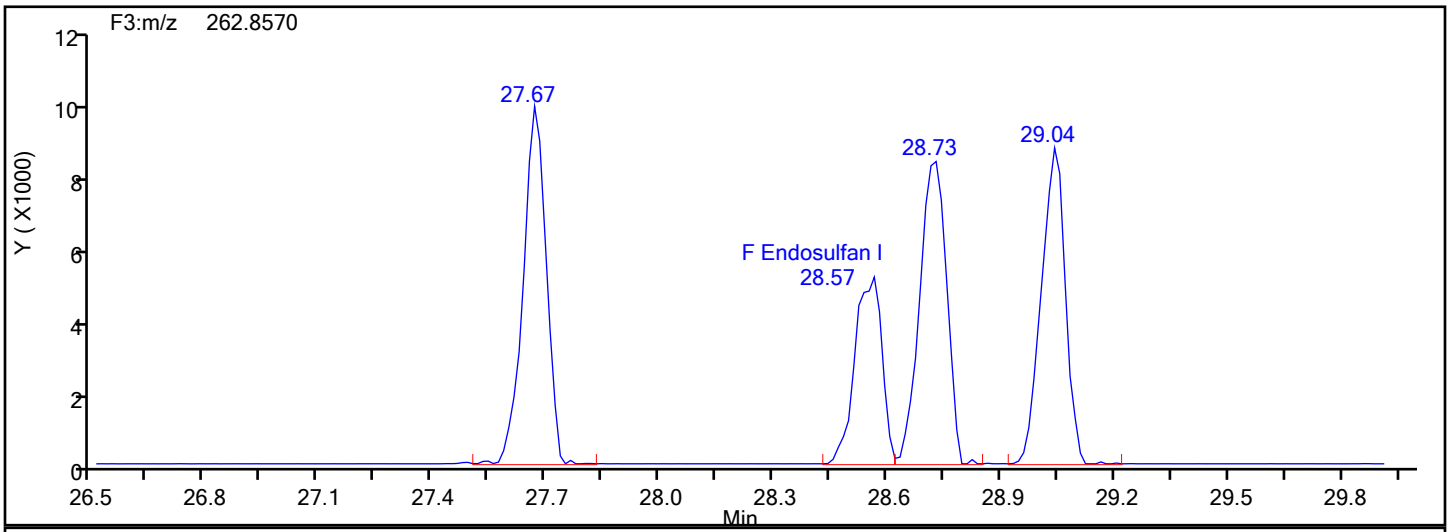


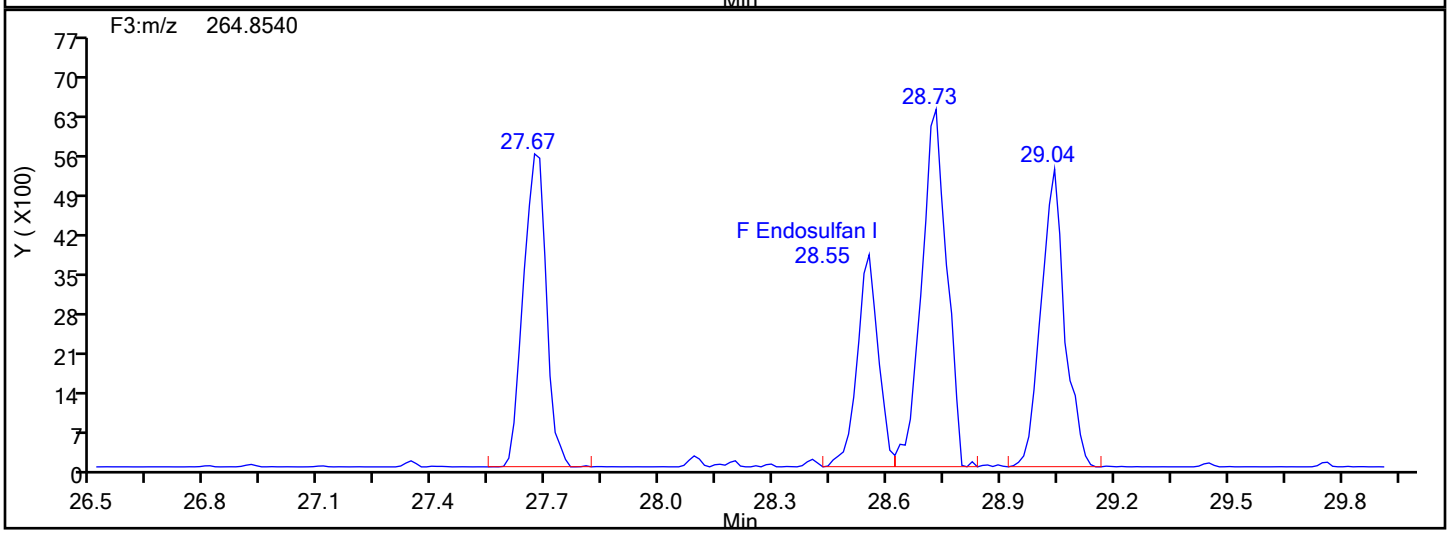
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

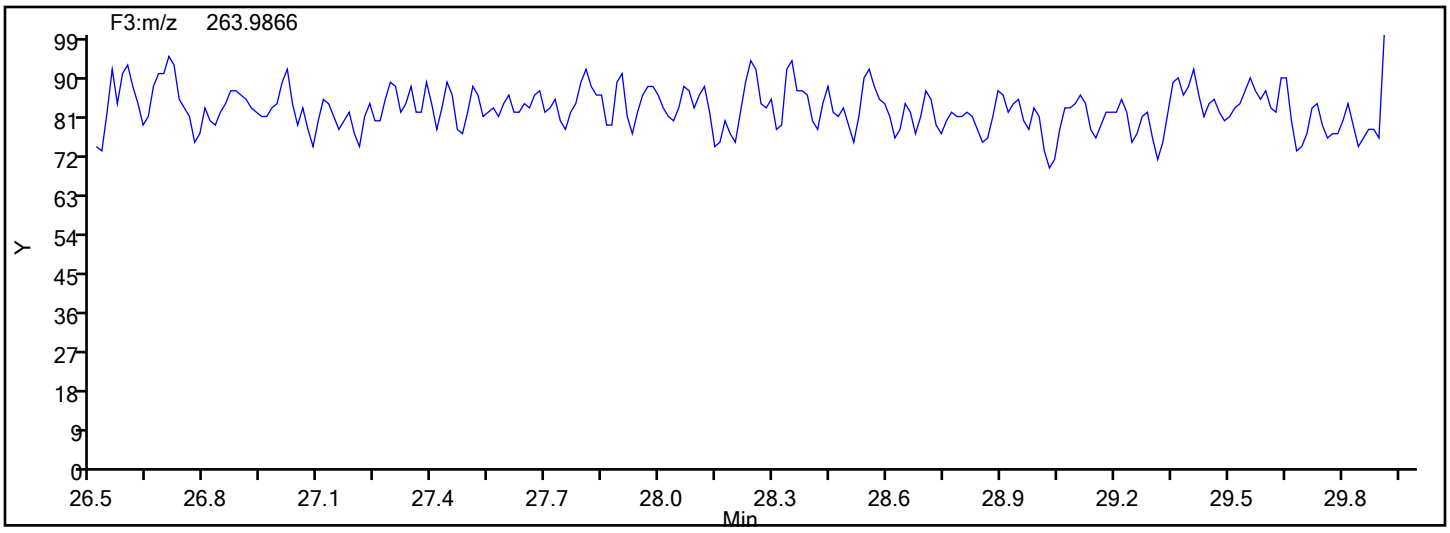
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



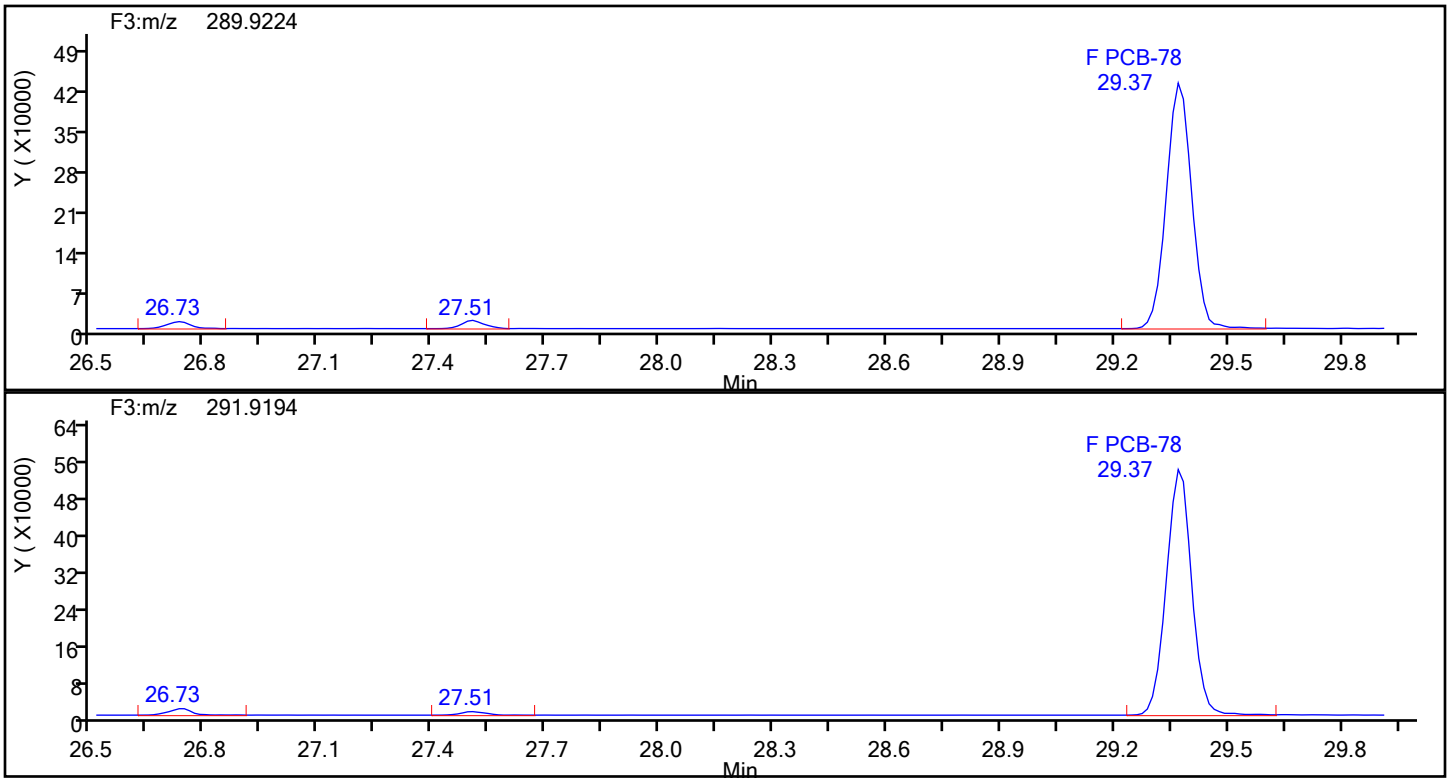
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

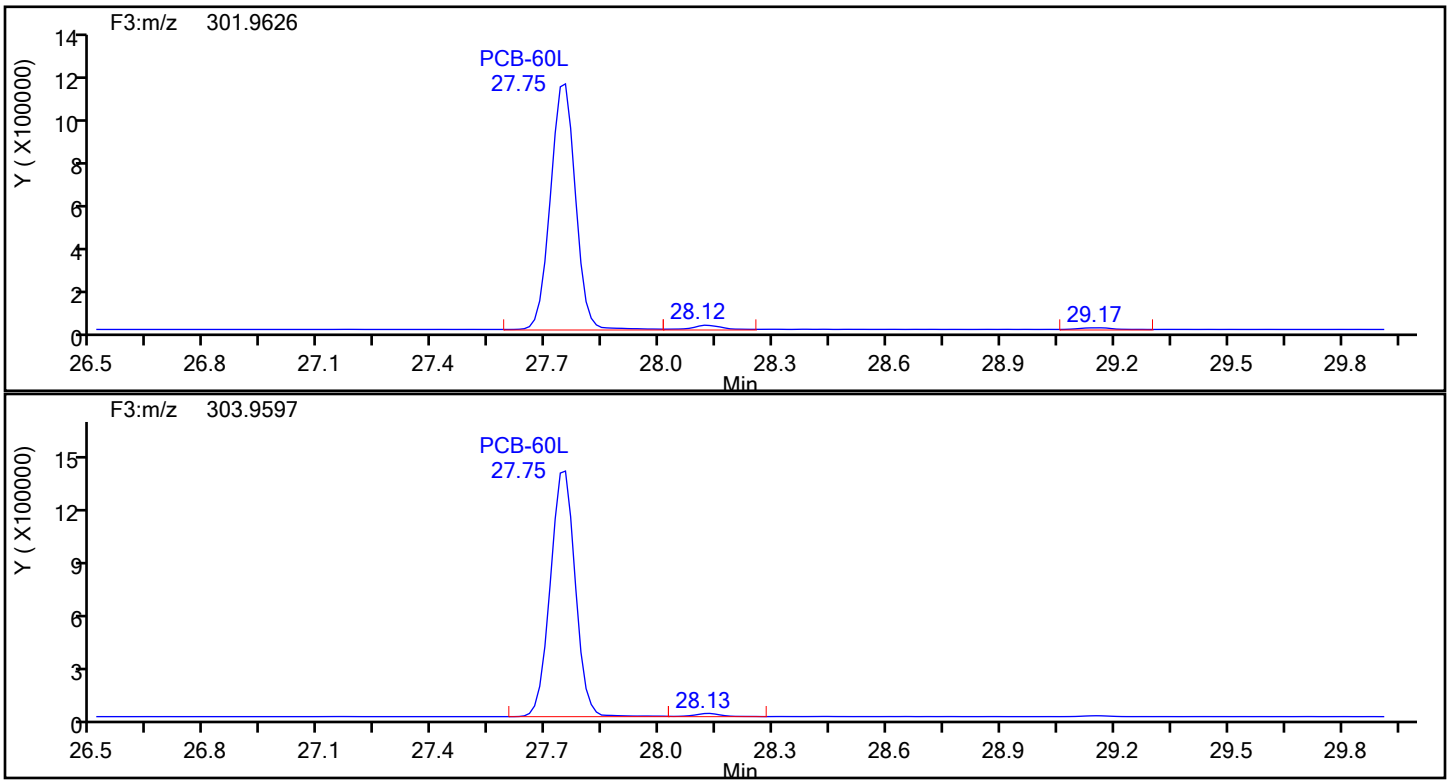
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

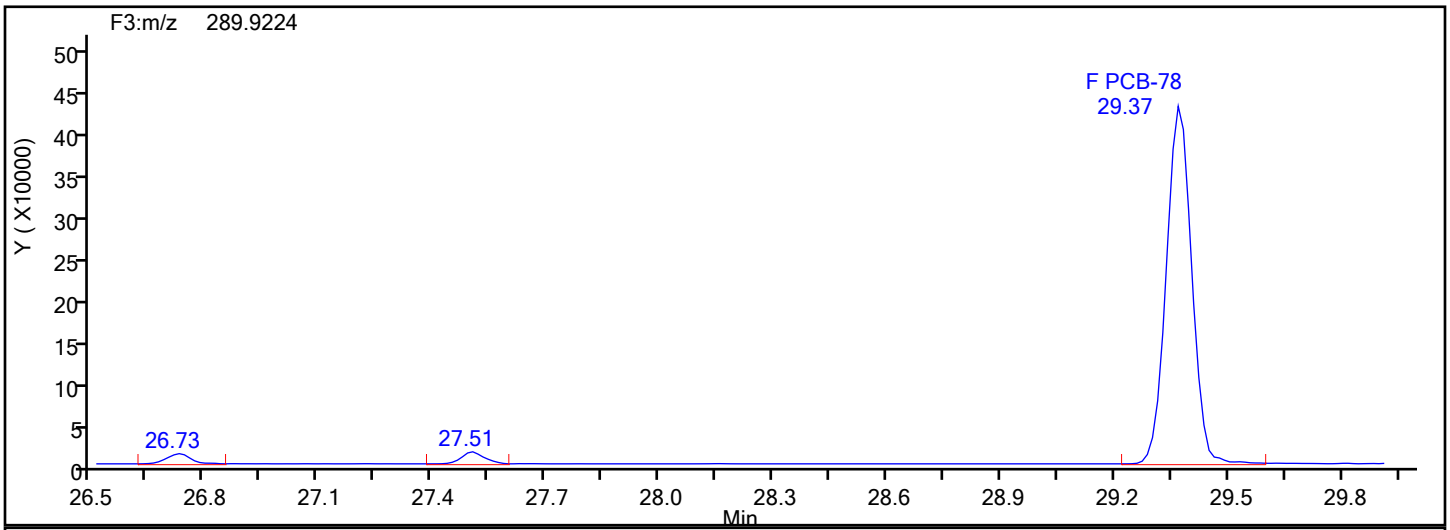


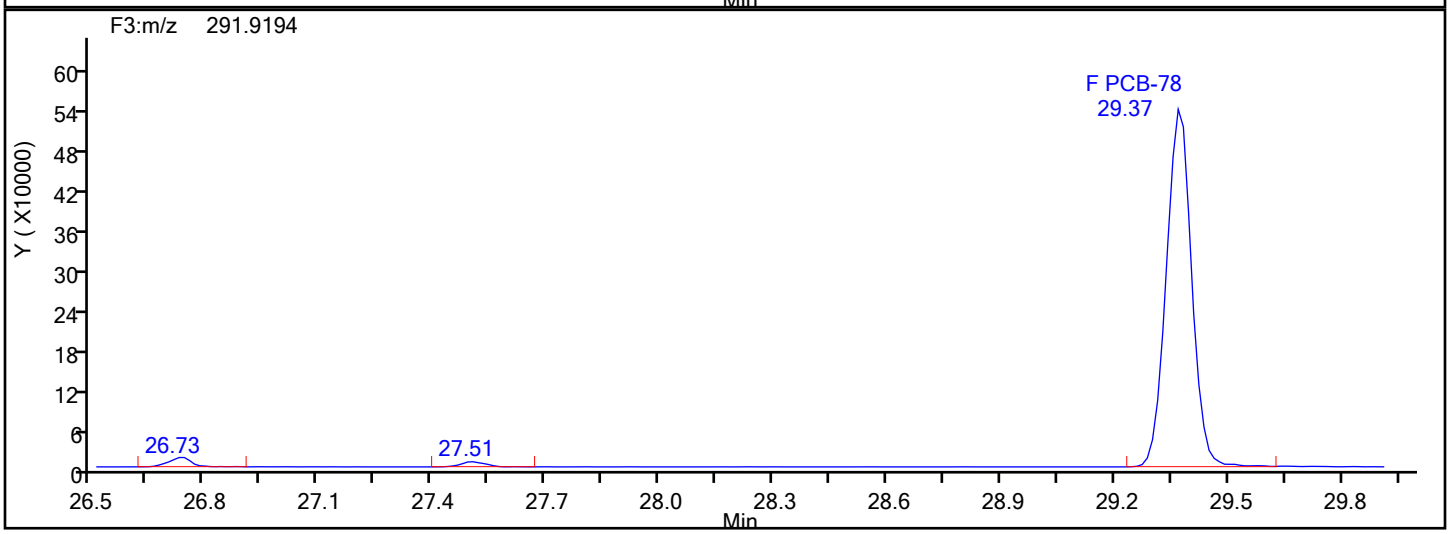
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

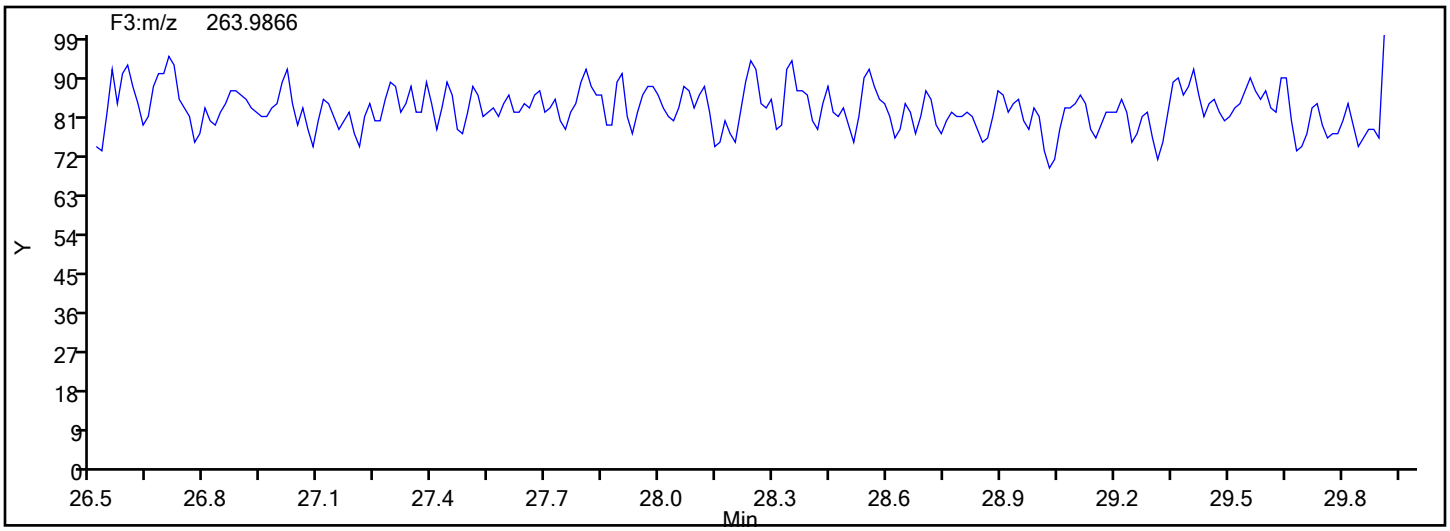
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

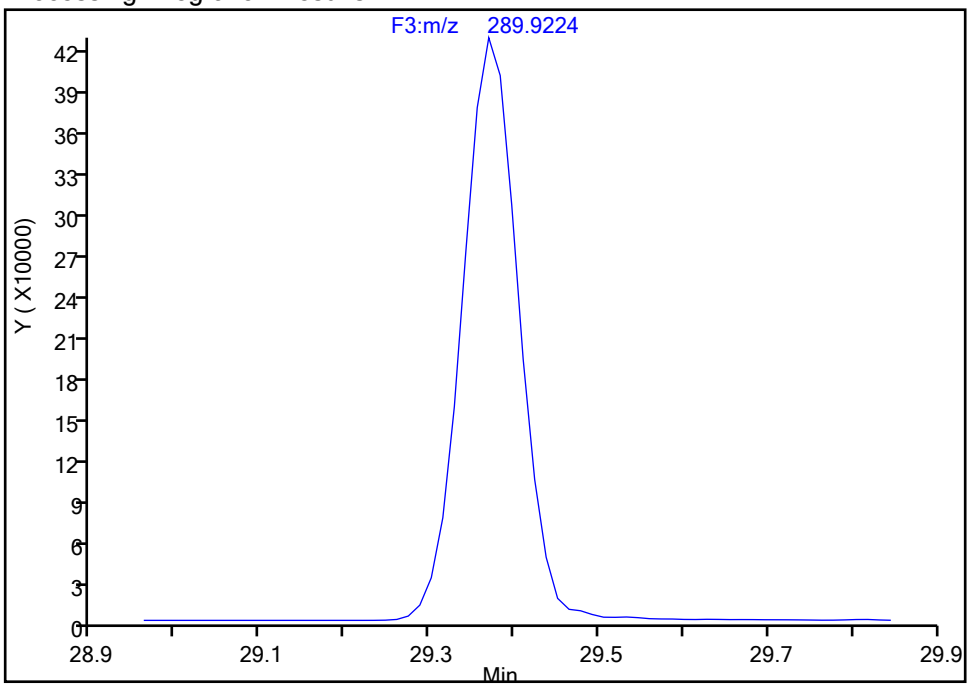
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Instrument ID: D3PST
Lims ID: IC L4
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

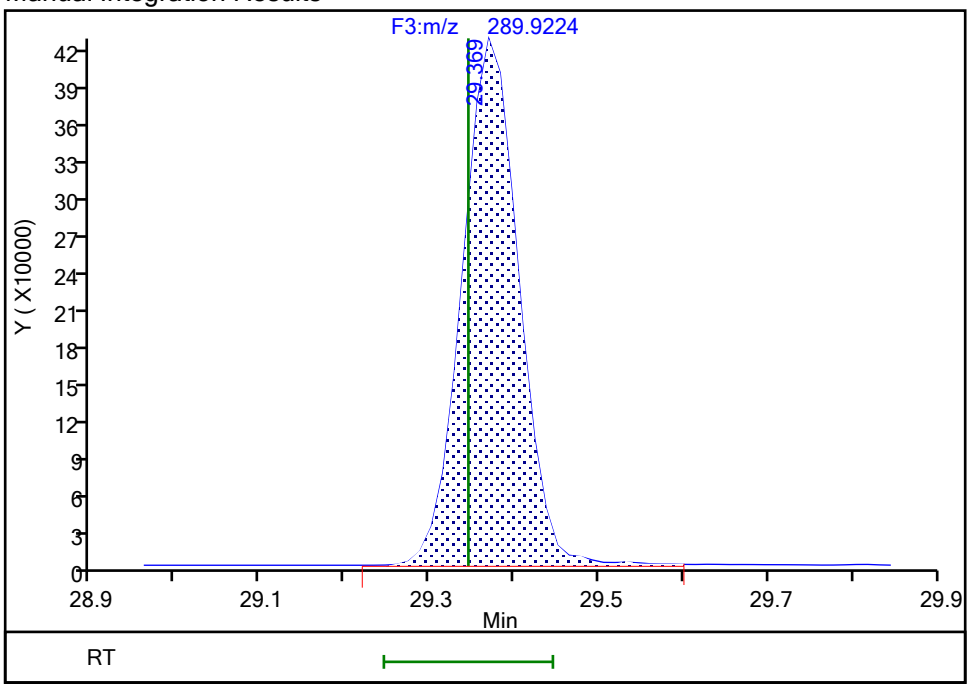
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.37
Area: 2005331
Amount: 44.196184
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:56:45 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

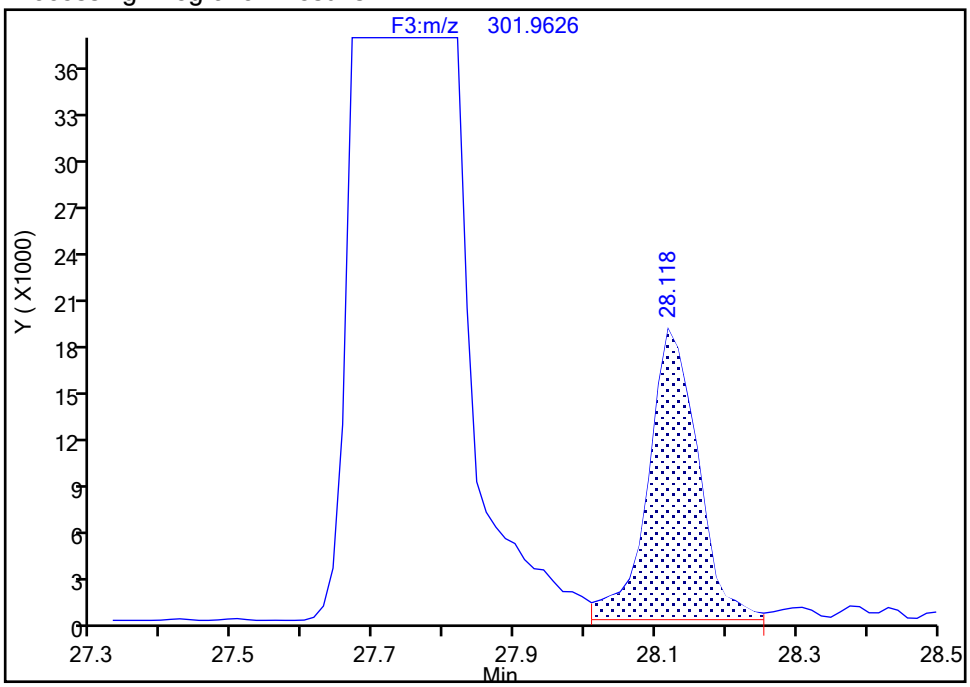
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Instrument ID: D3PST
Lims ID: IC L4
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

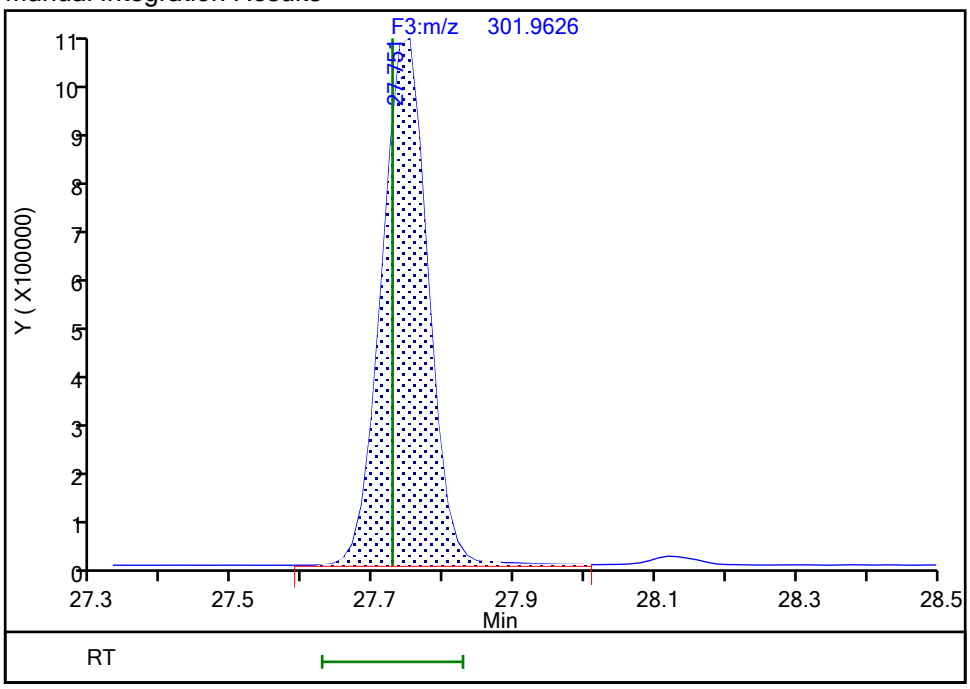
Processing Integration Results

RT: 28.12
Area: 92896
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.75
Area: 4998253
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:38:54 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

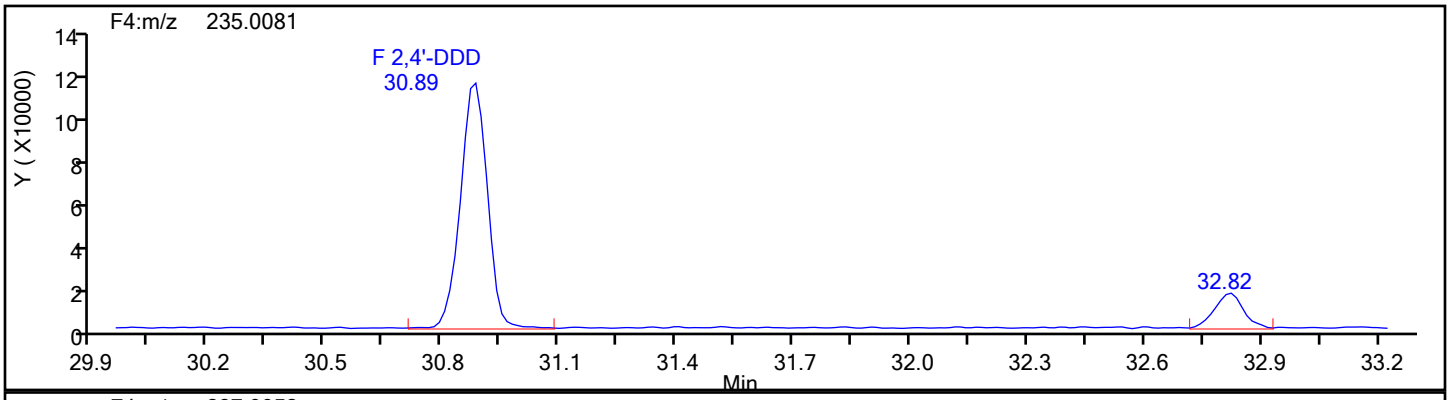
Report Date: 24-Mar-2025 13:06:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

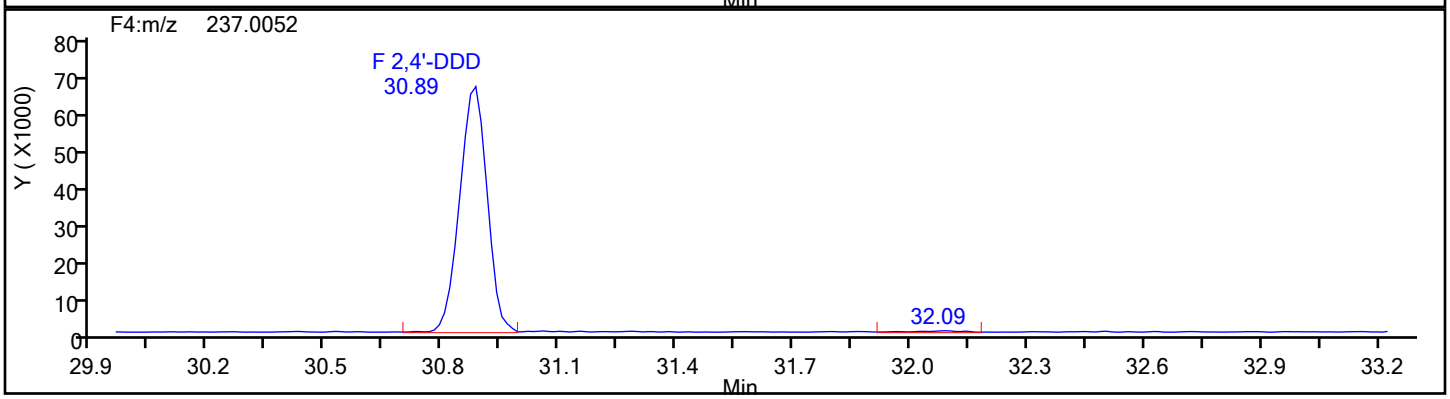
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

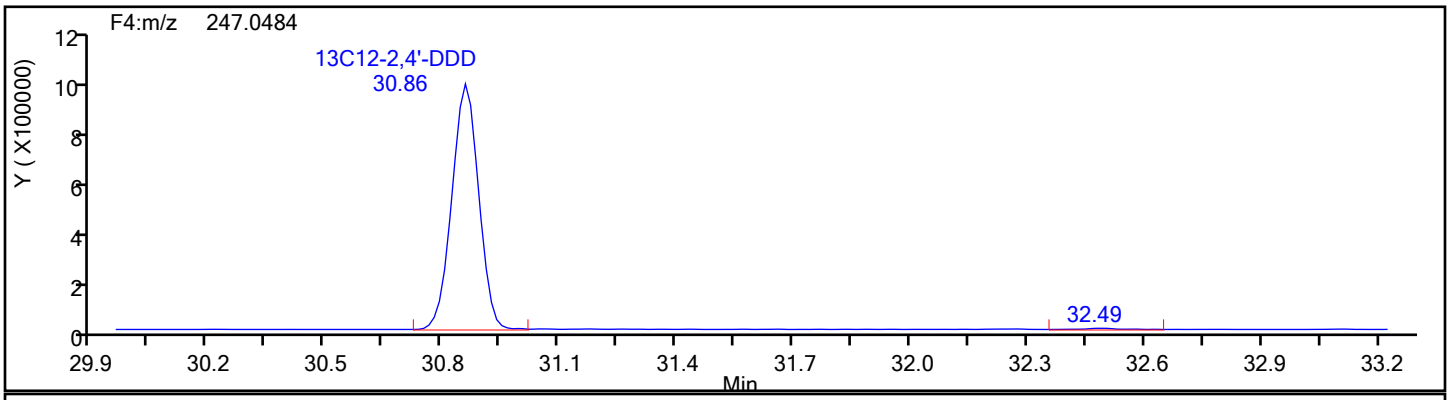
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

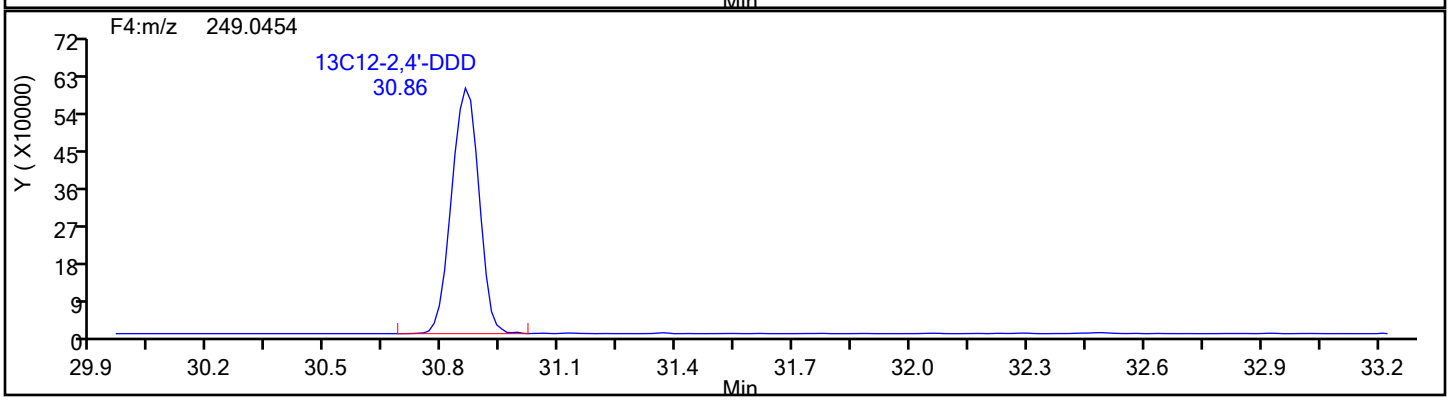
2,4'-DDD





2,4'-DDD Standards



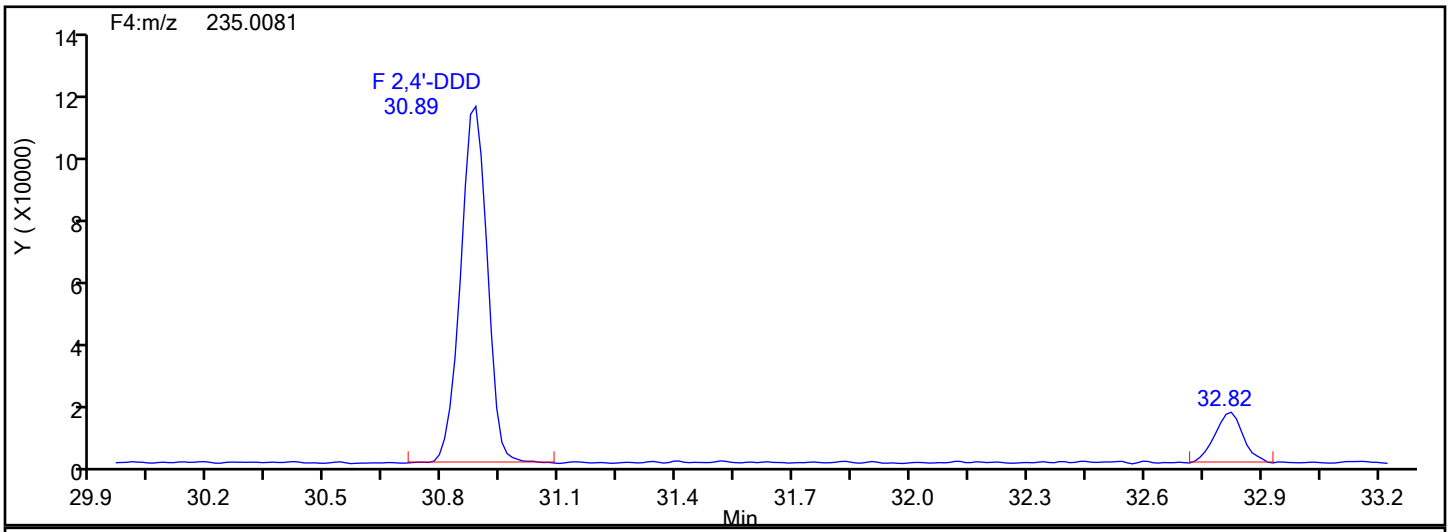


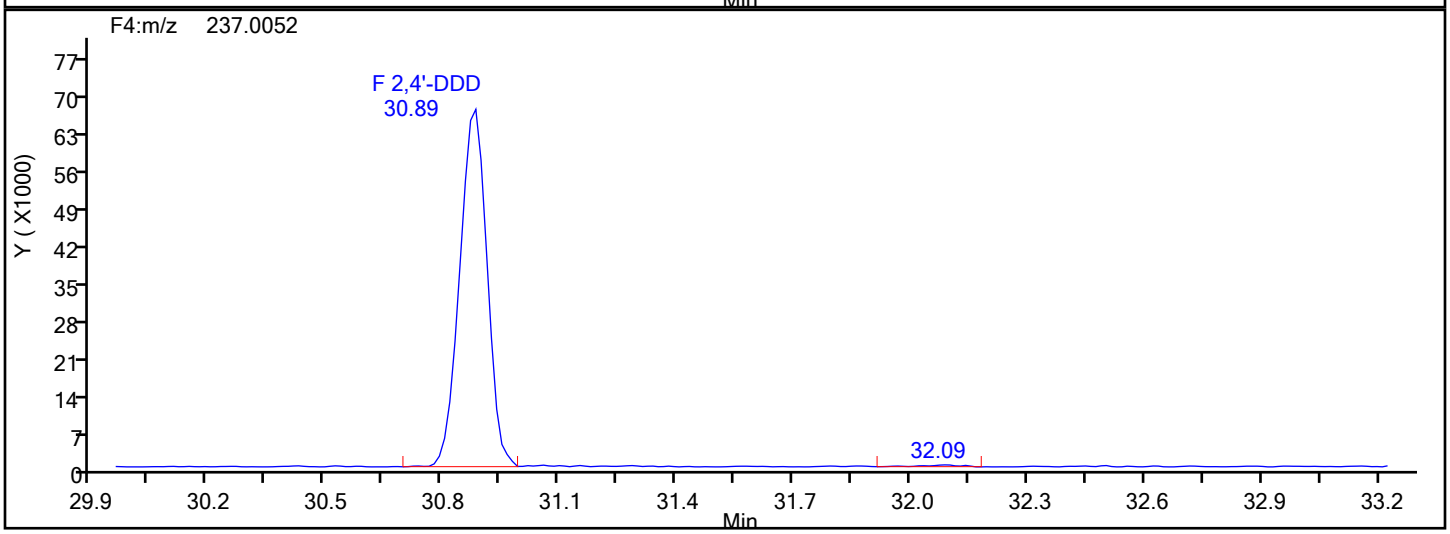
Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

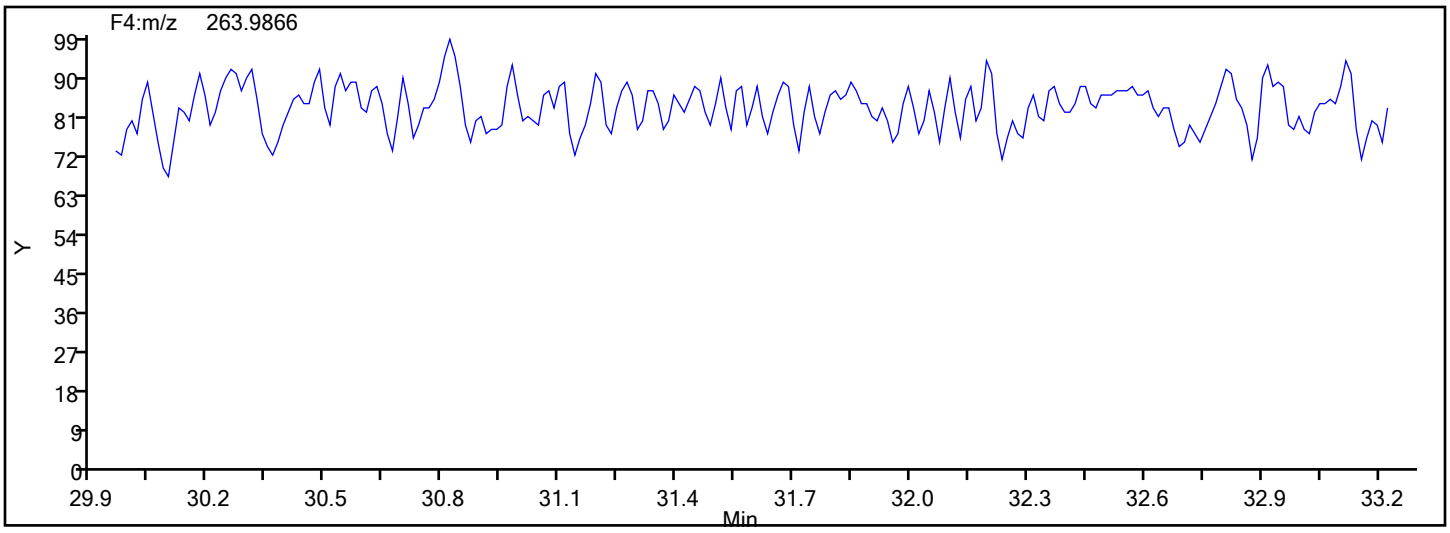
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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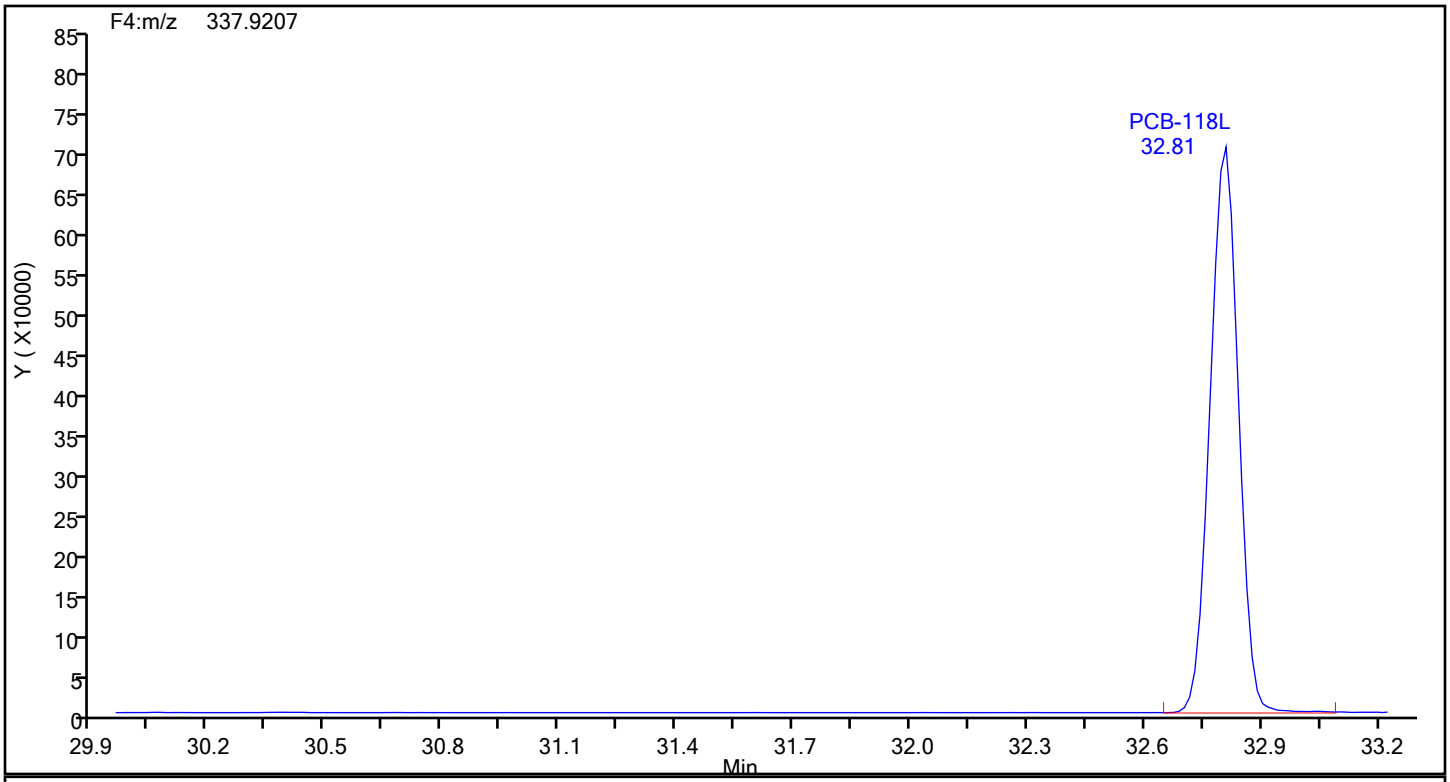
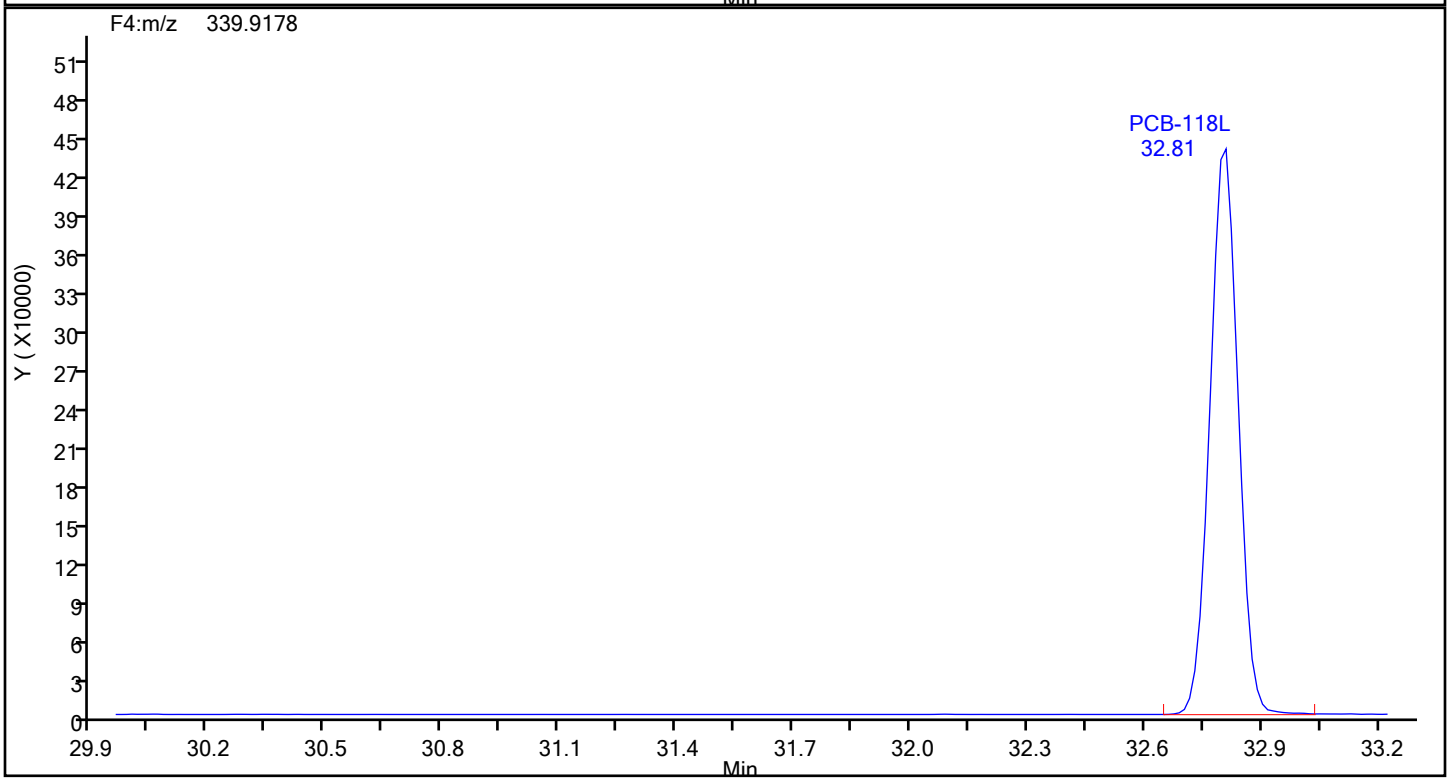
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





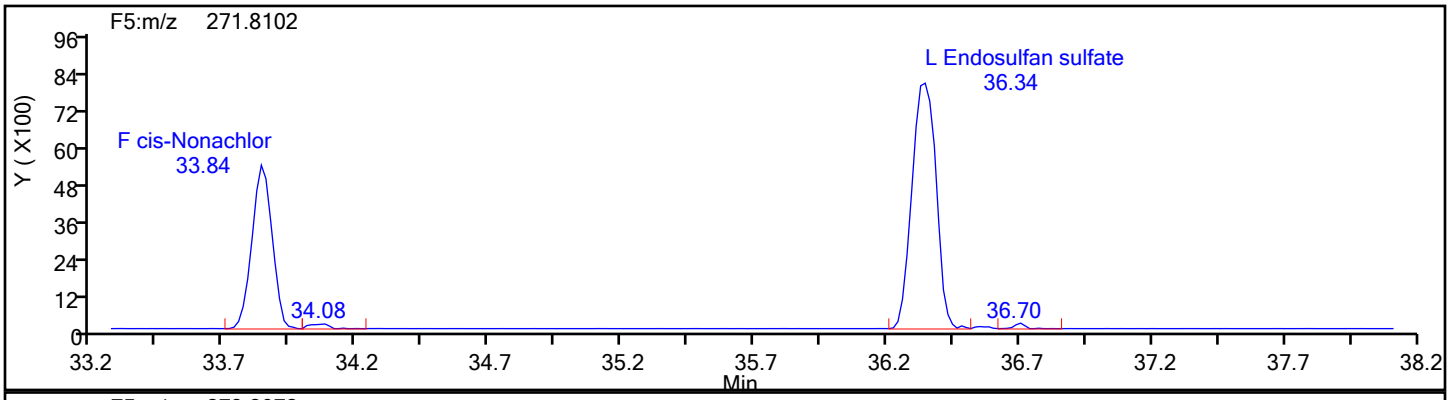
Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

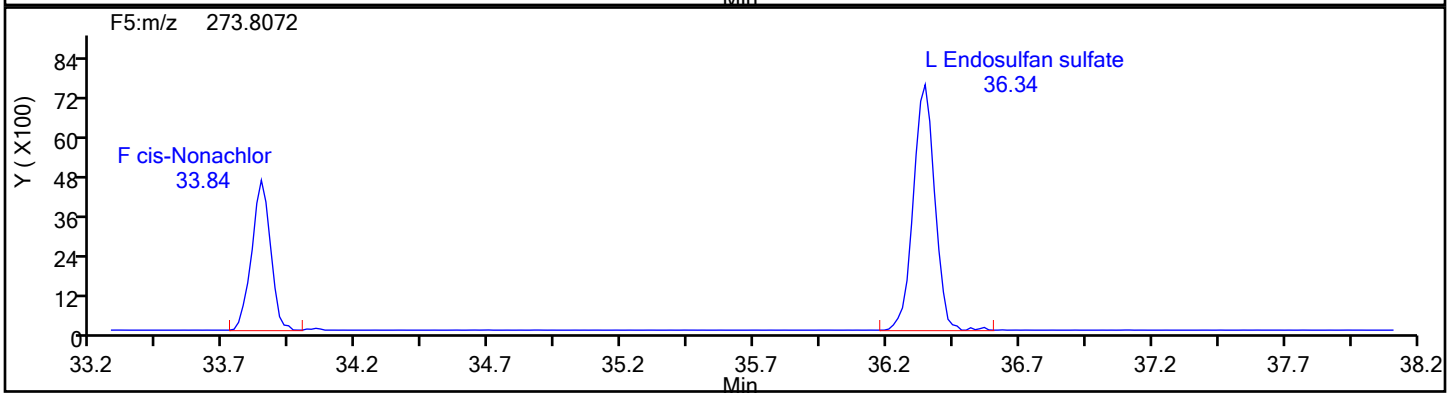
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

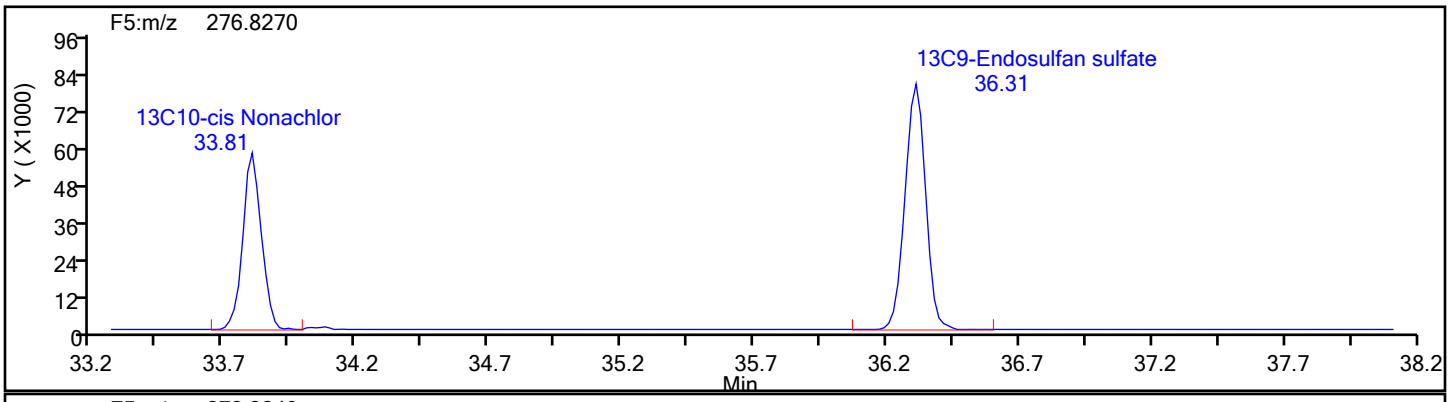
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

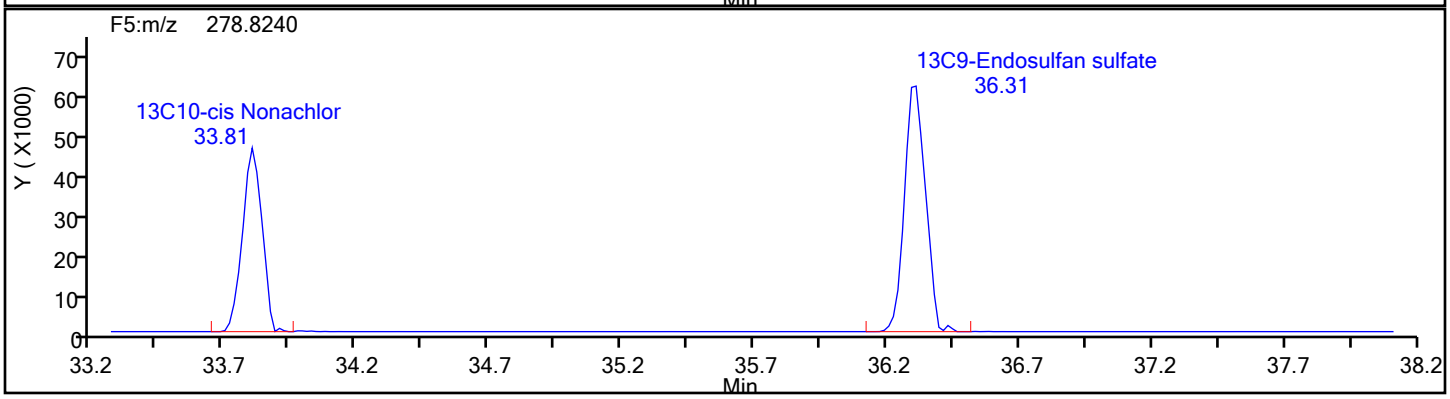
Nonachlor





Nonachlor Standards





Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d
Injection Date: 19-Mar-2025 20:32:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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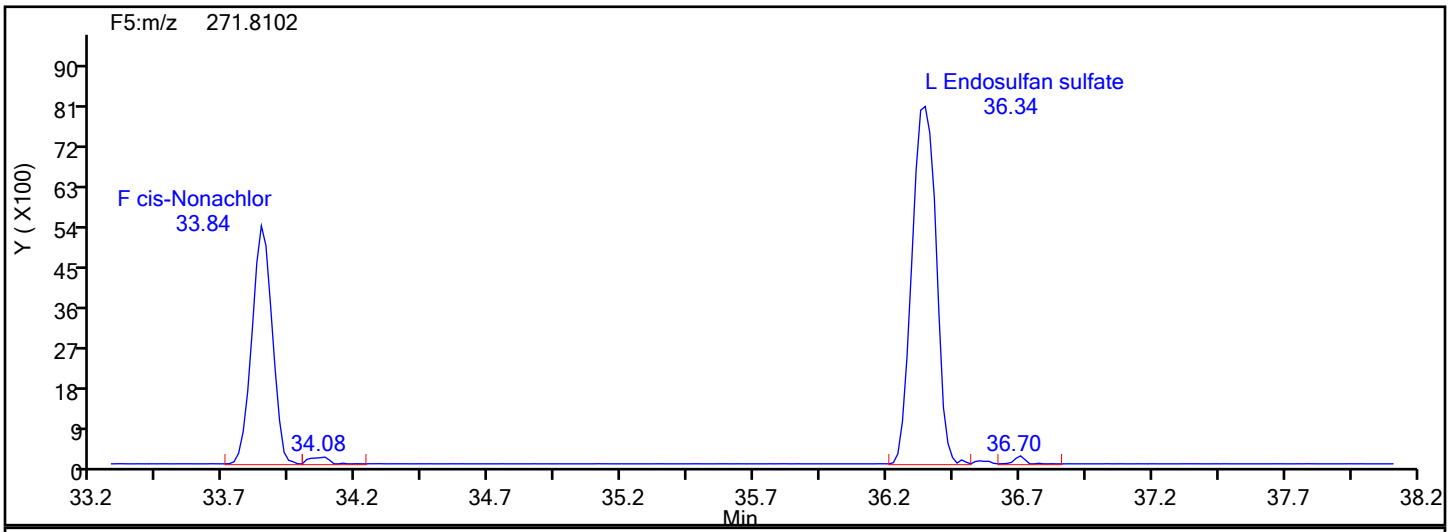
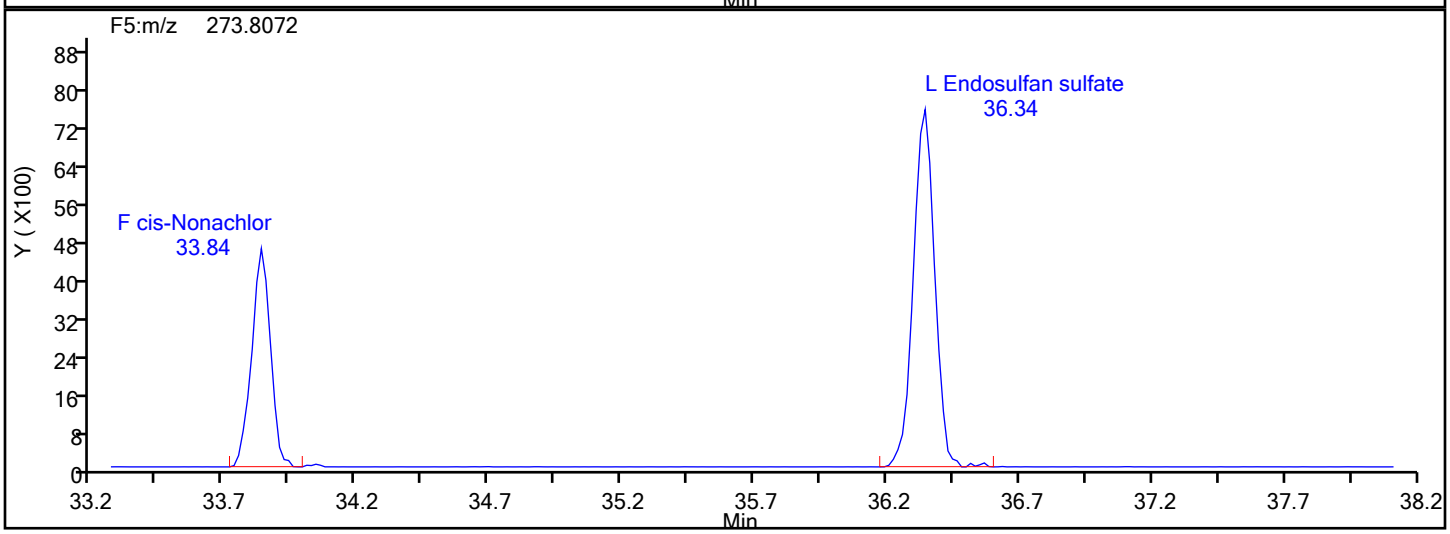
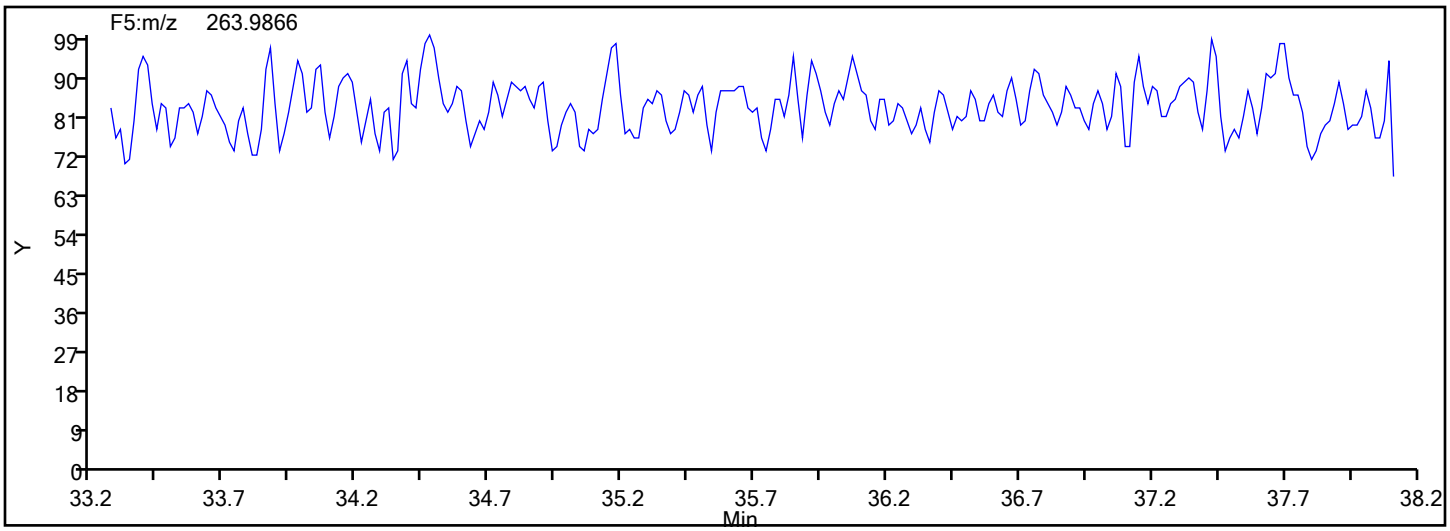
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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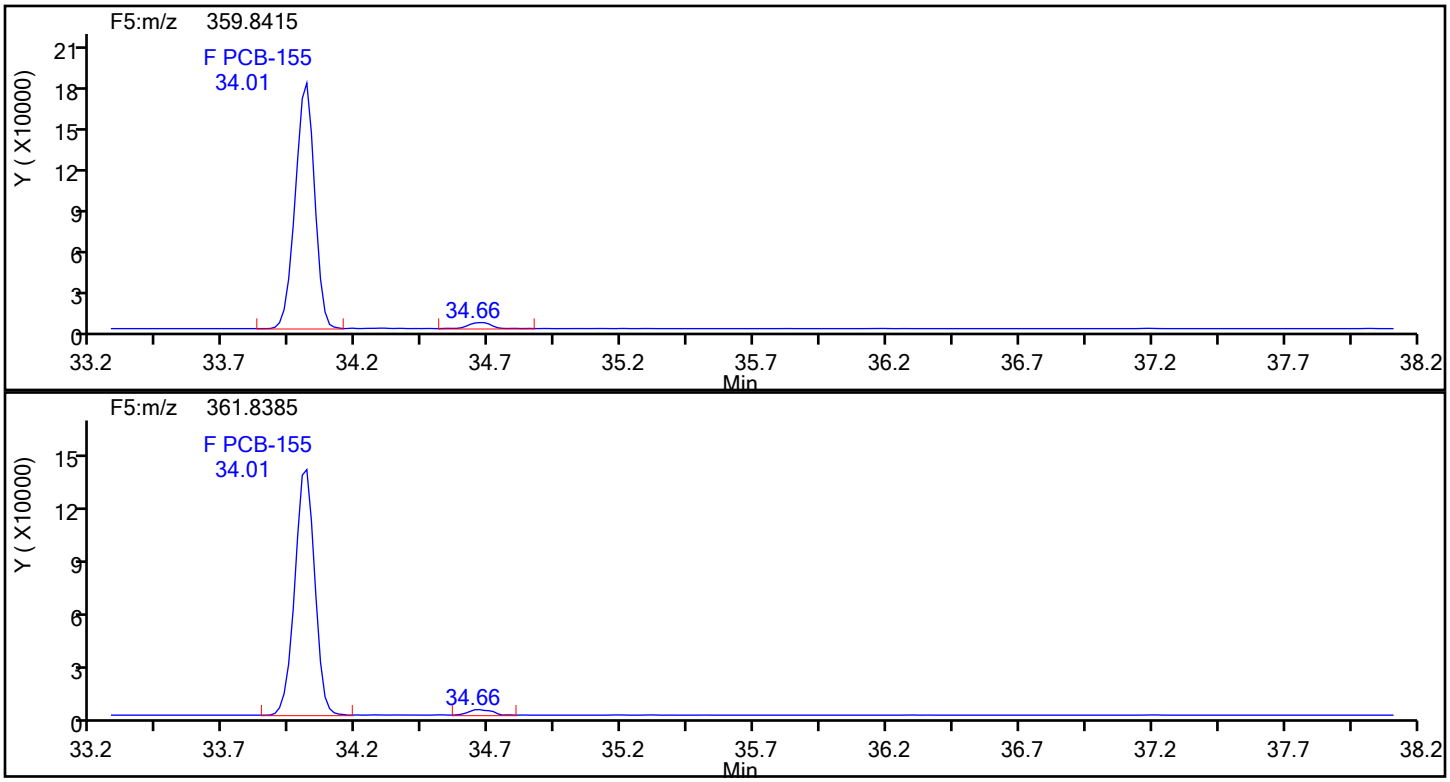
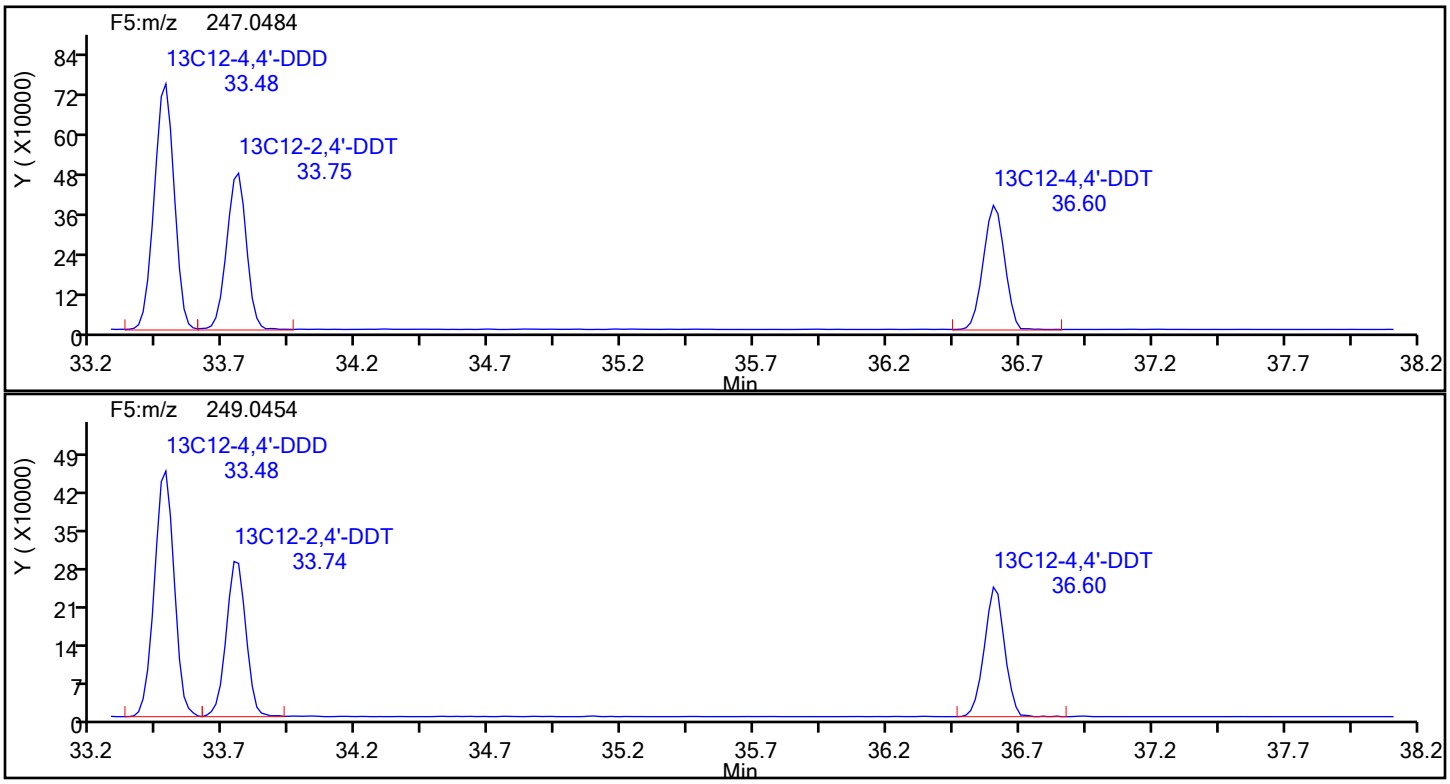
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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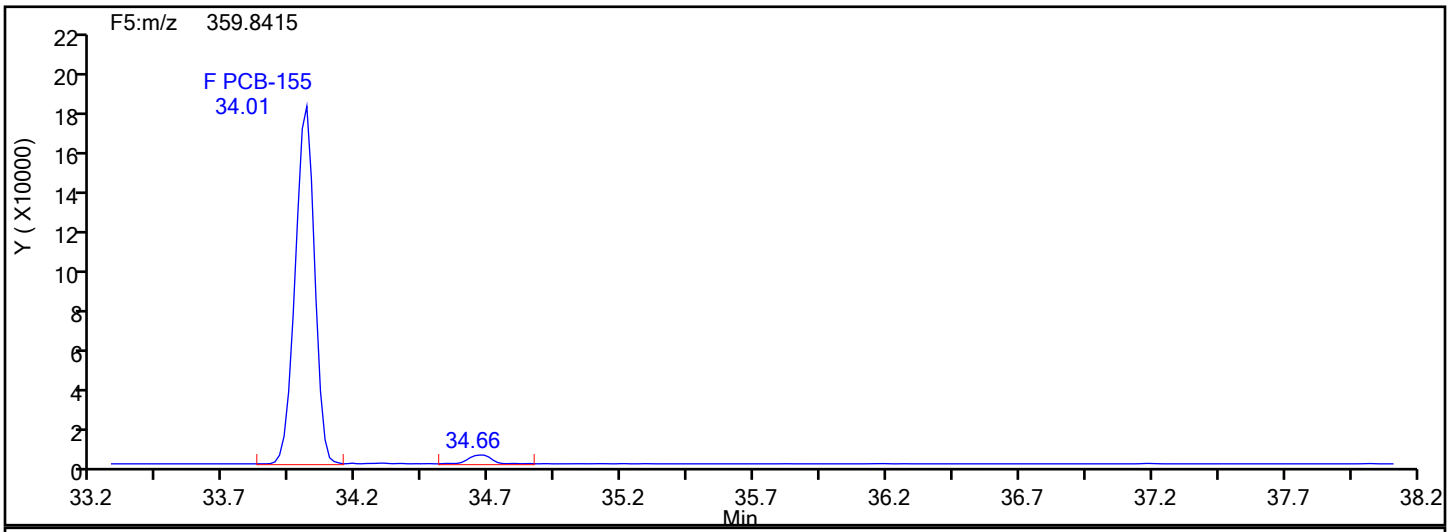
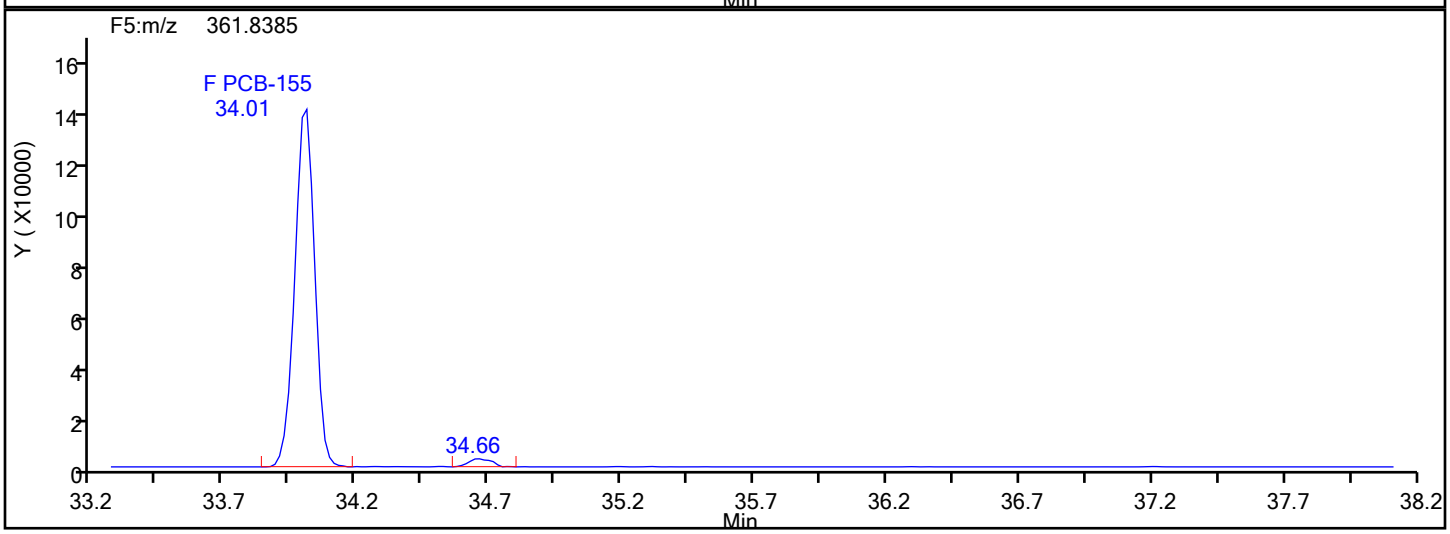
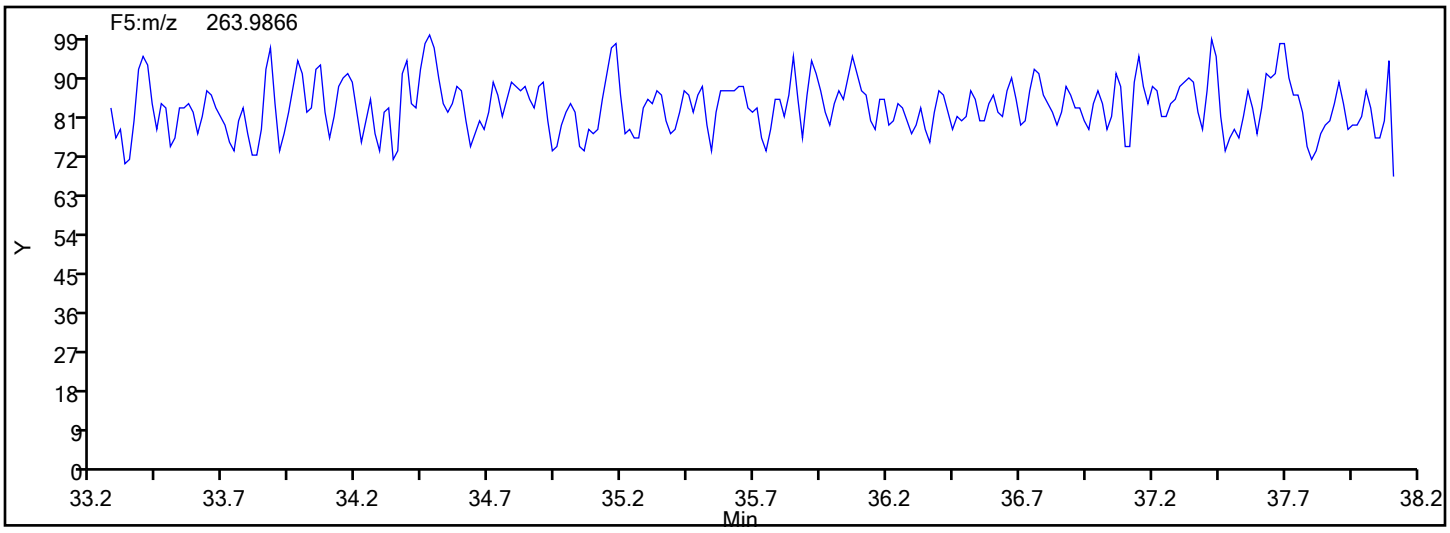
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



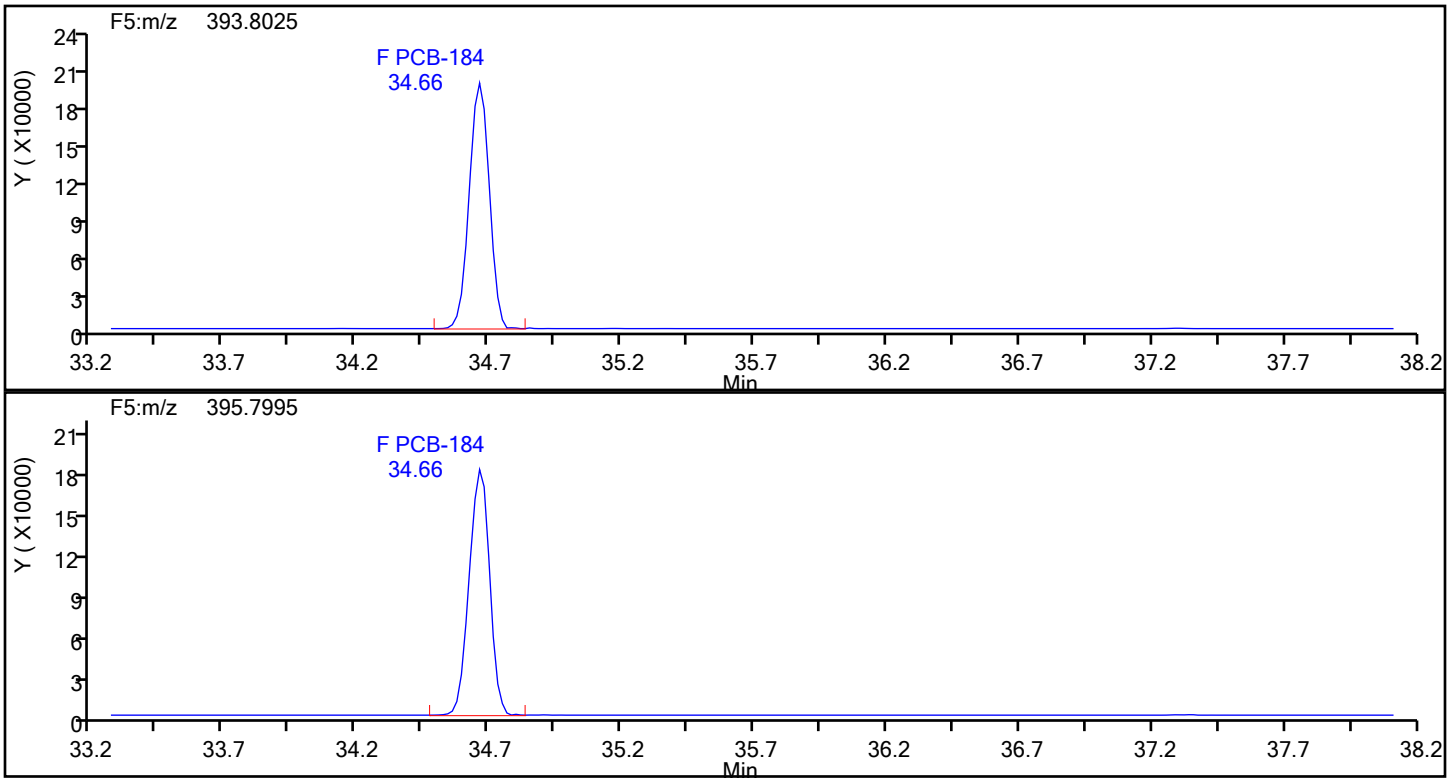
Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

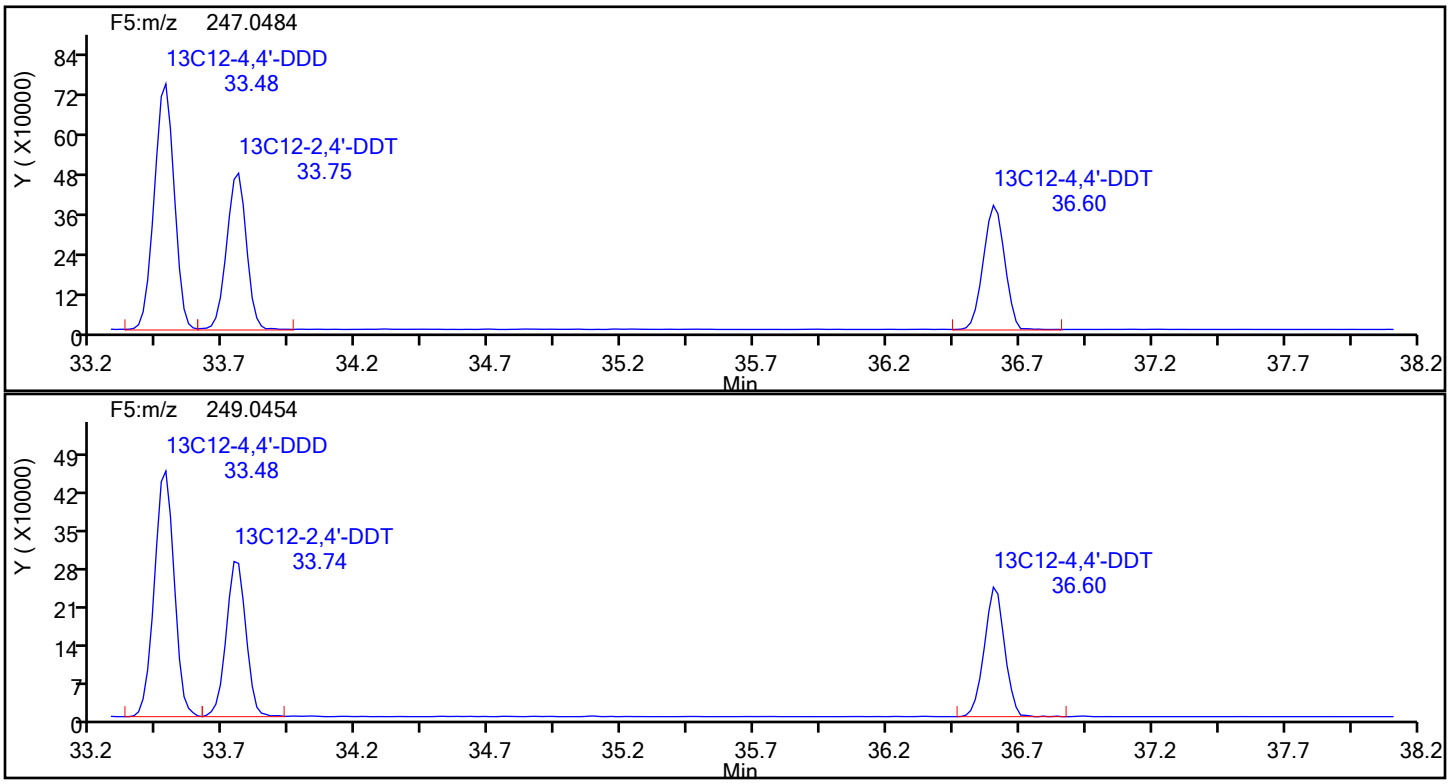
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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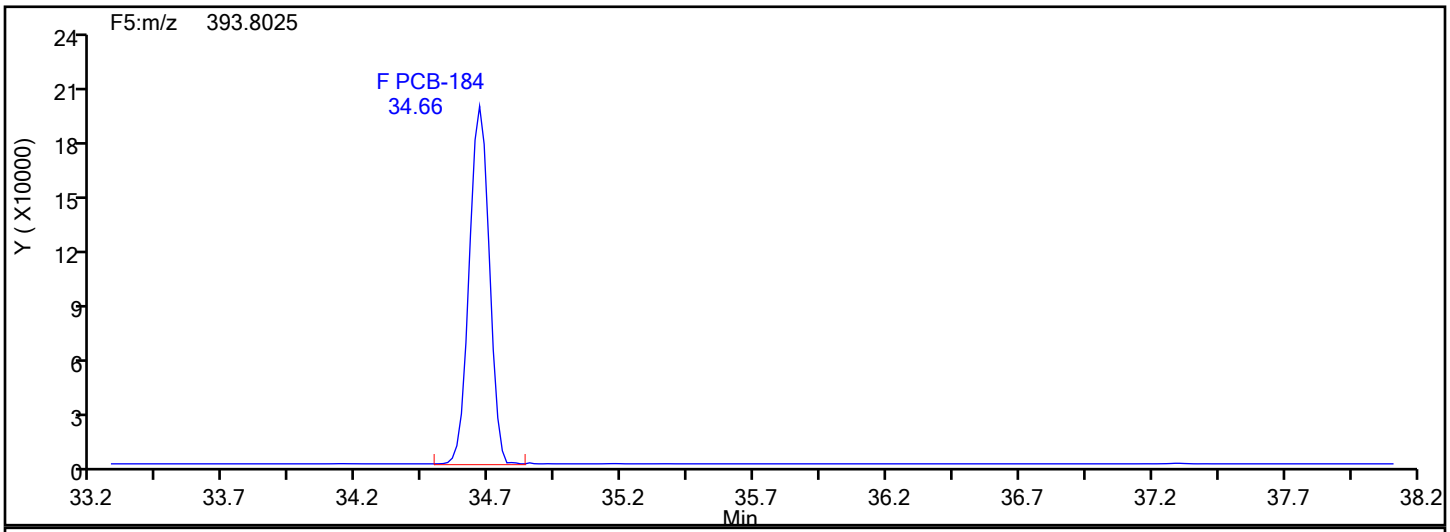
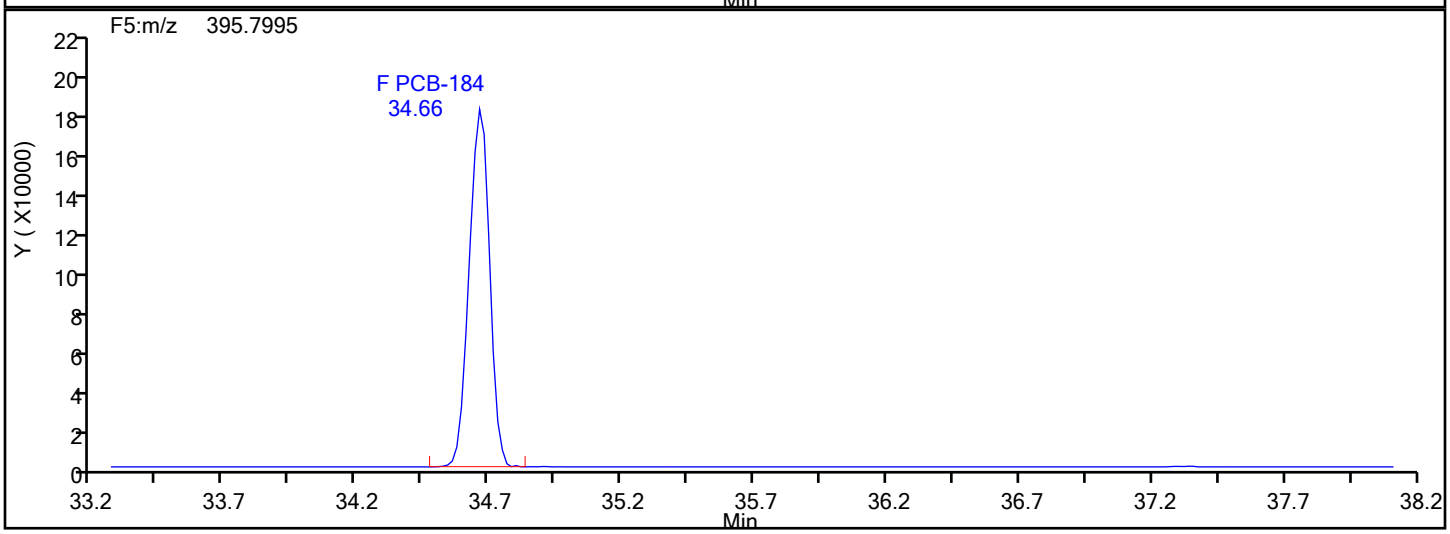
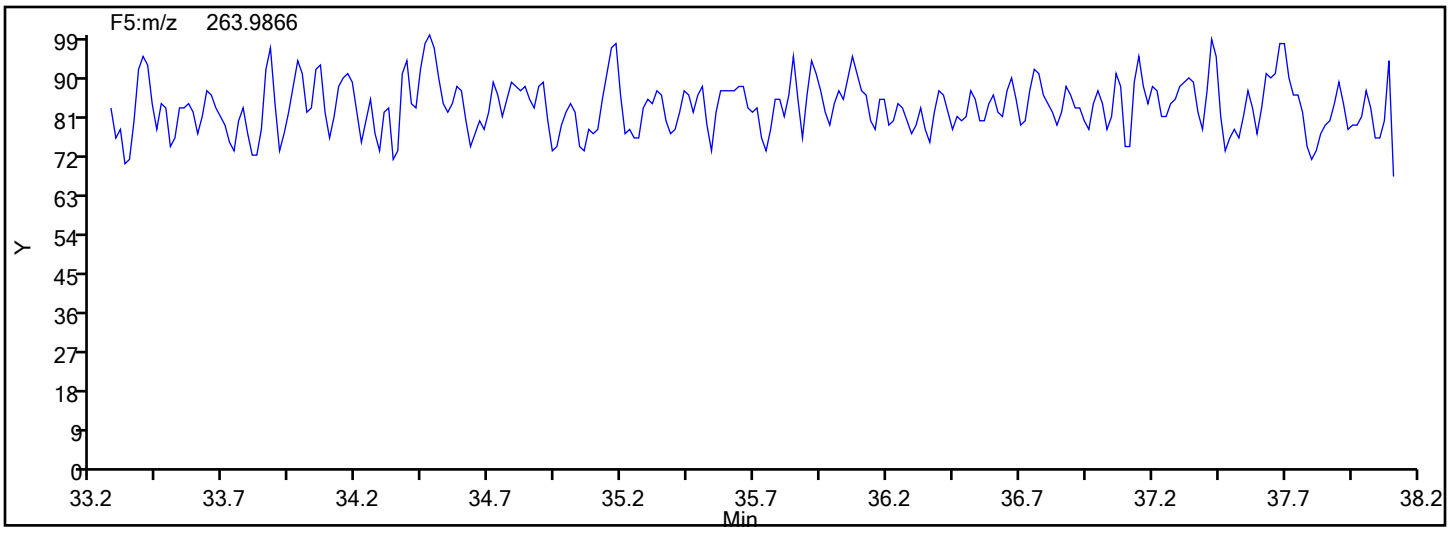
PCB-184





PCB-184 Lock Mass



Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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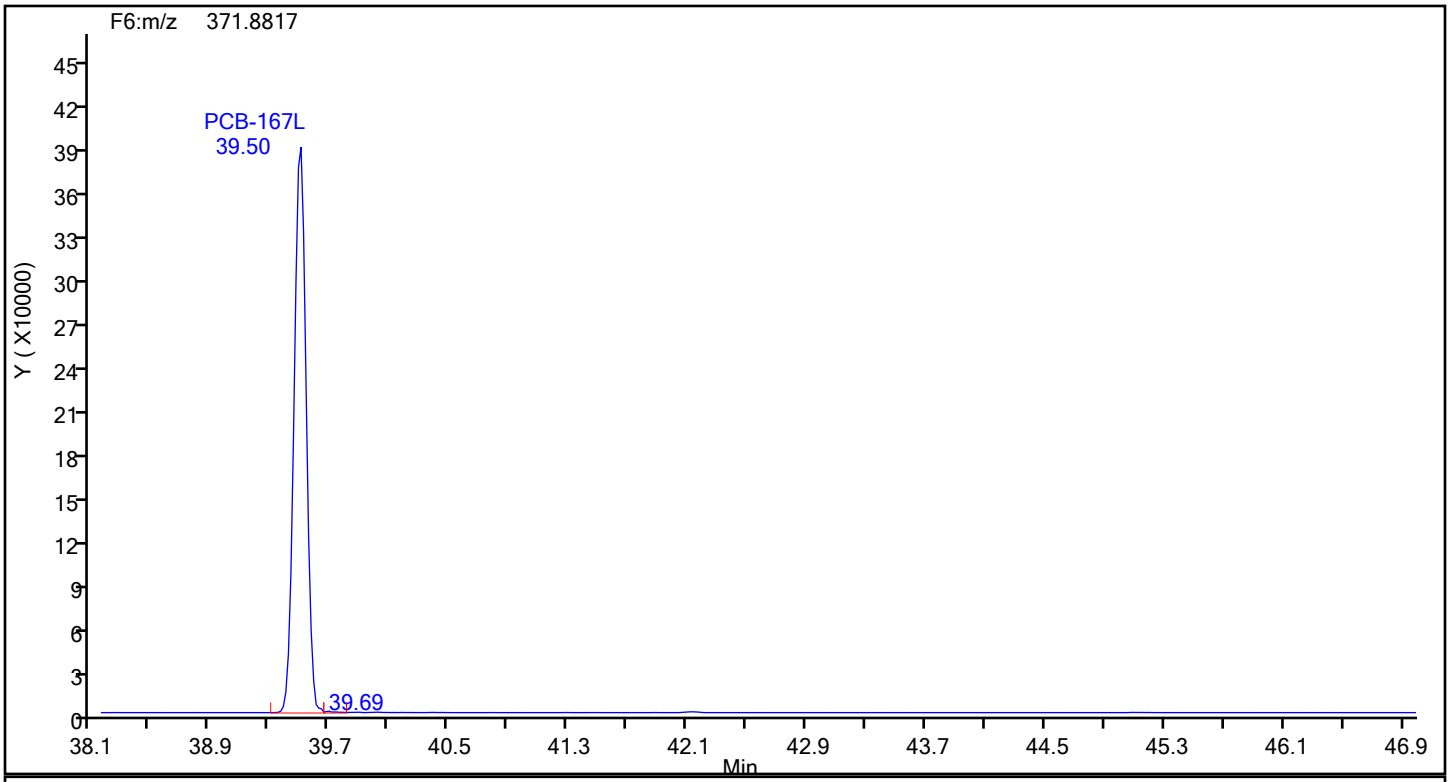
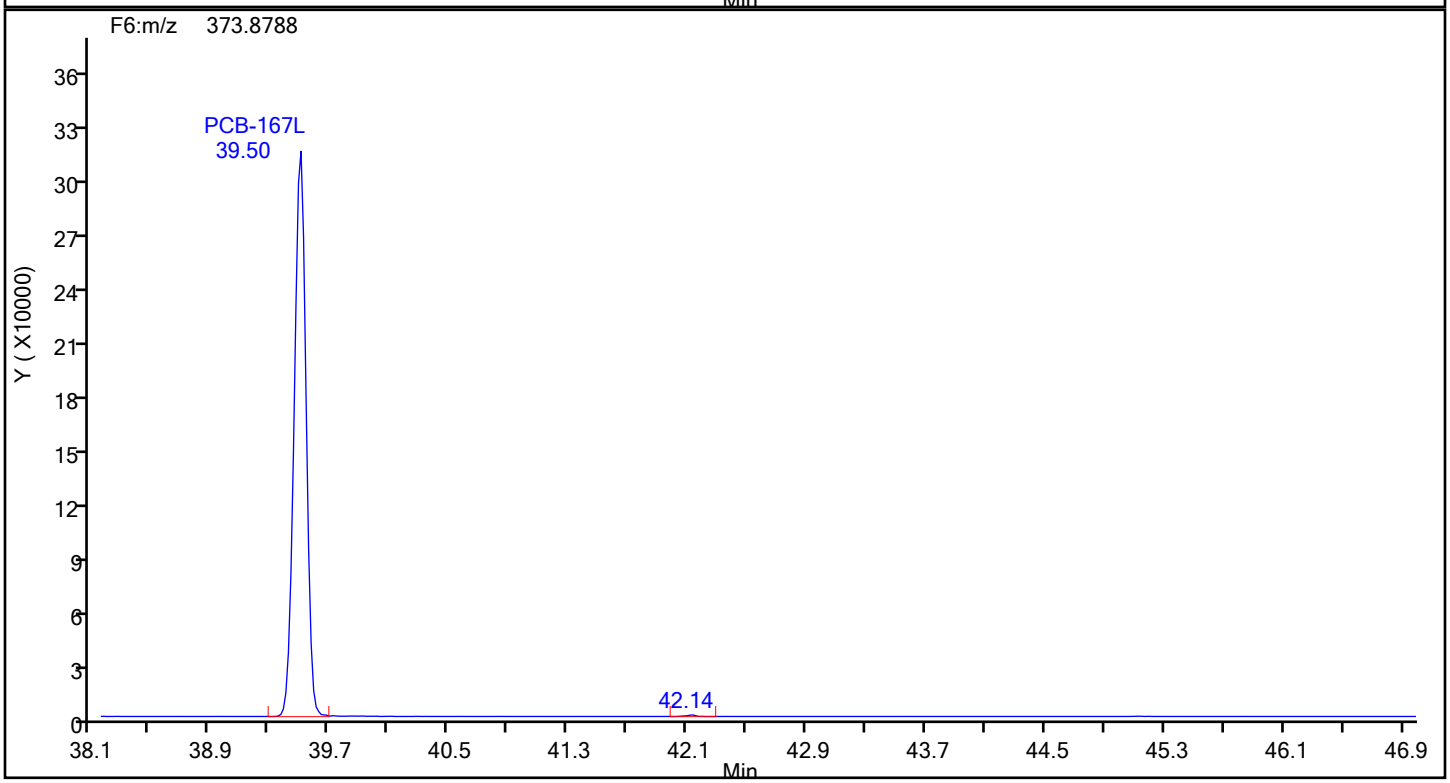
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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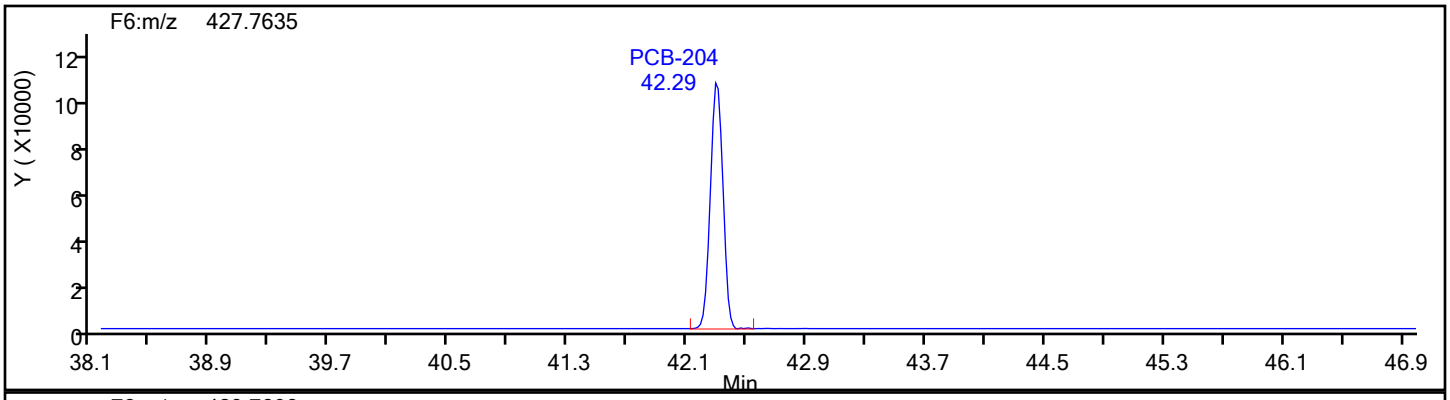
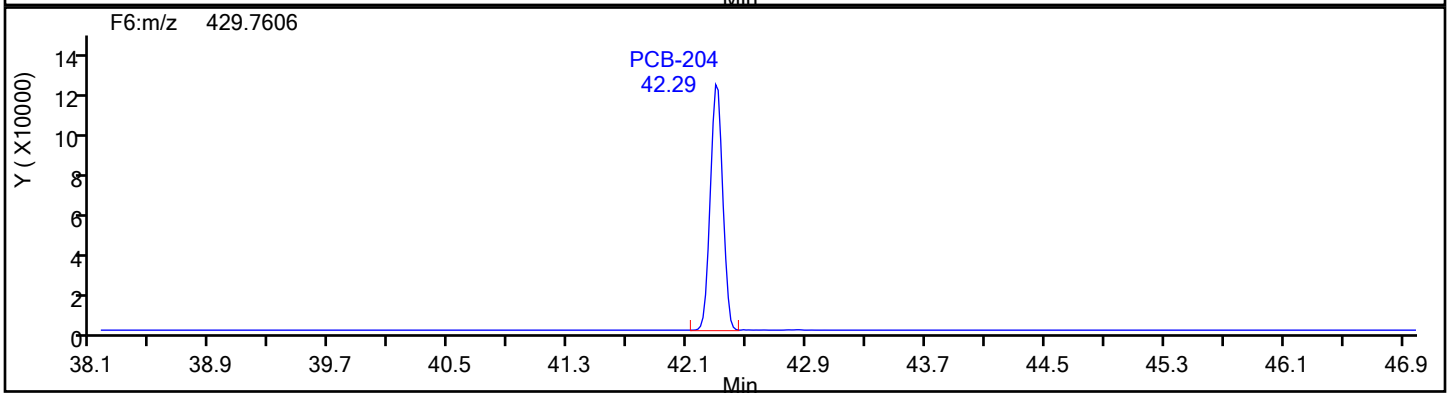
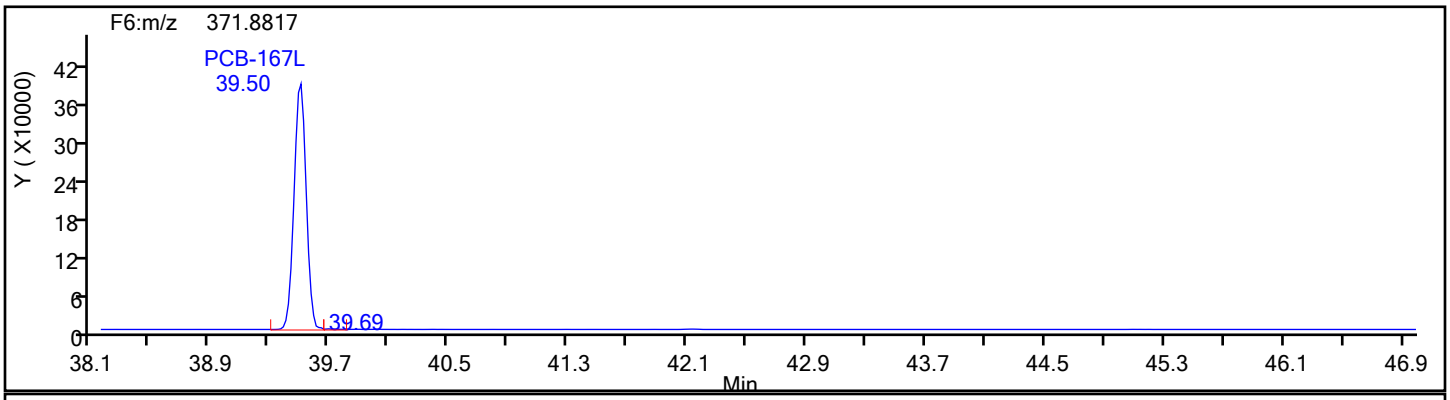
Column Type:	RTX-5	Column Dia:	0.32 mm

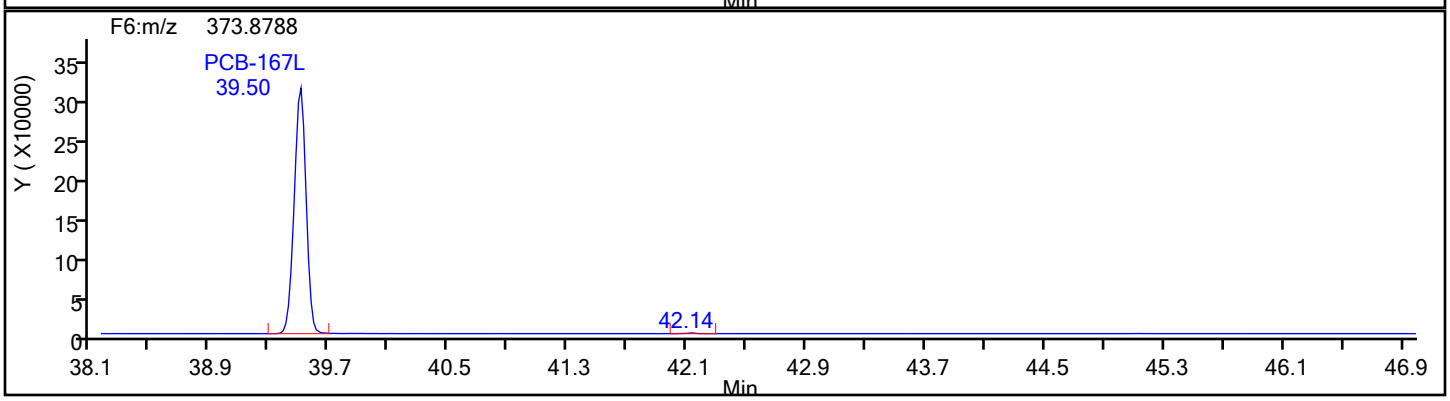
PCB-204





PCB-204 Standards





Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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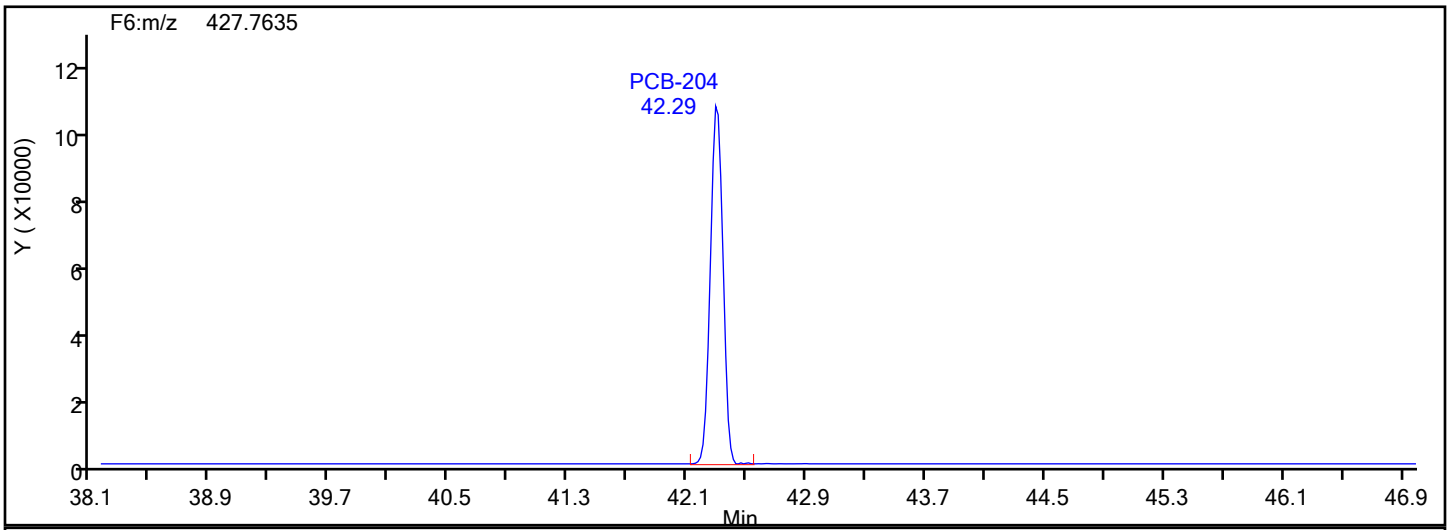
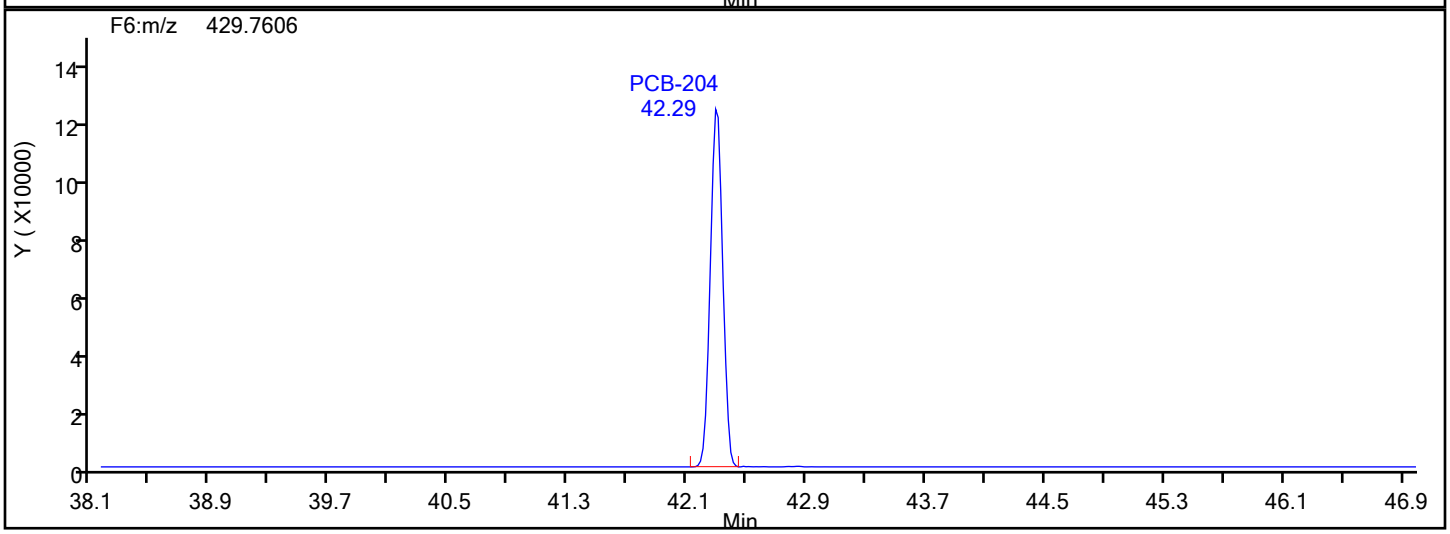
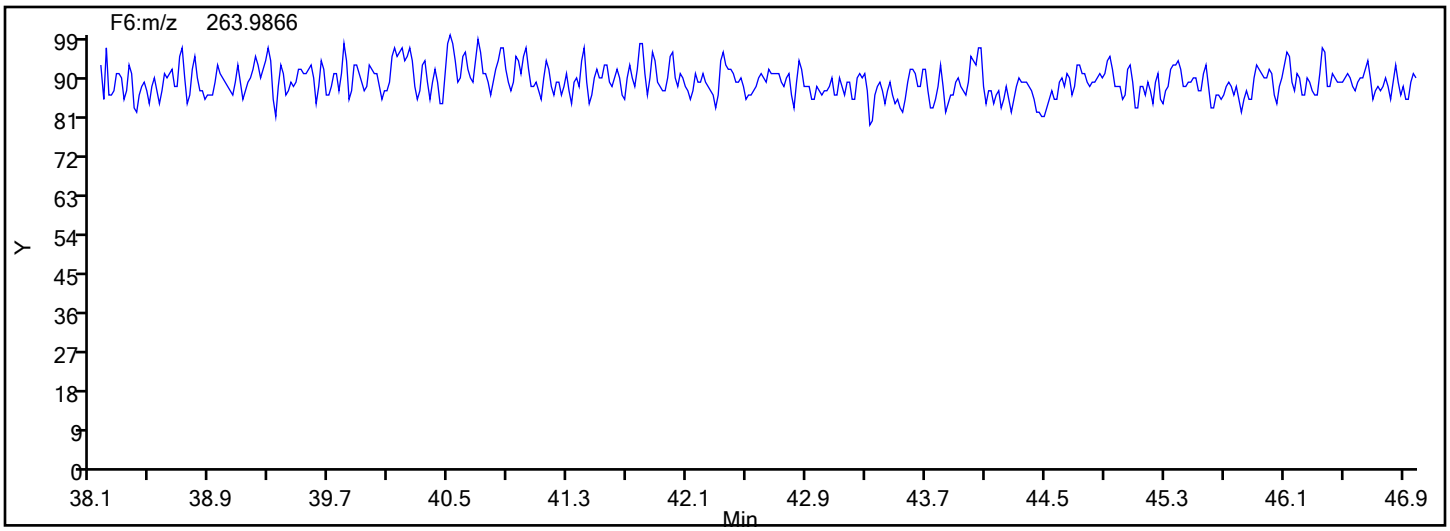
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



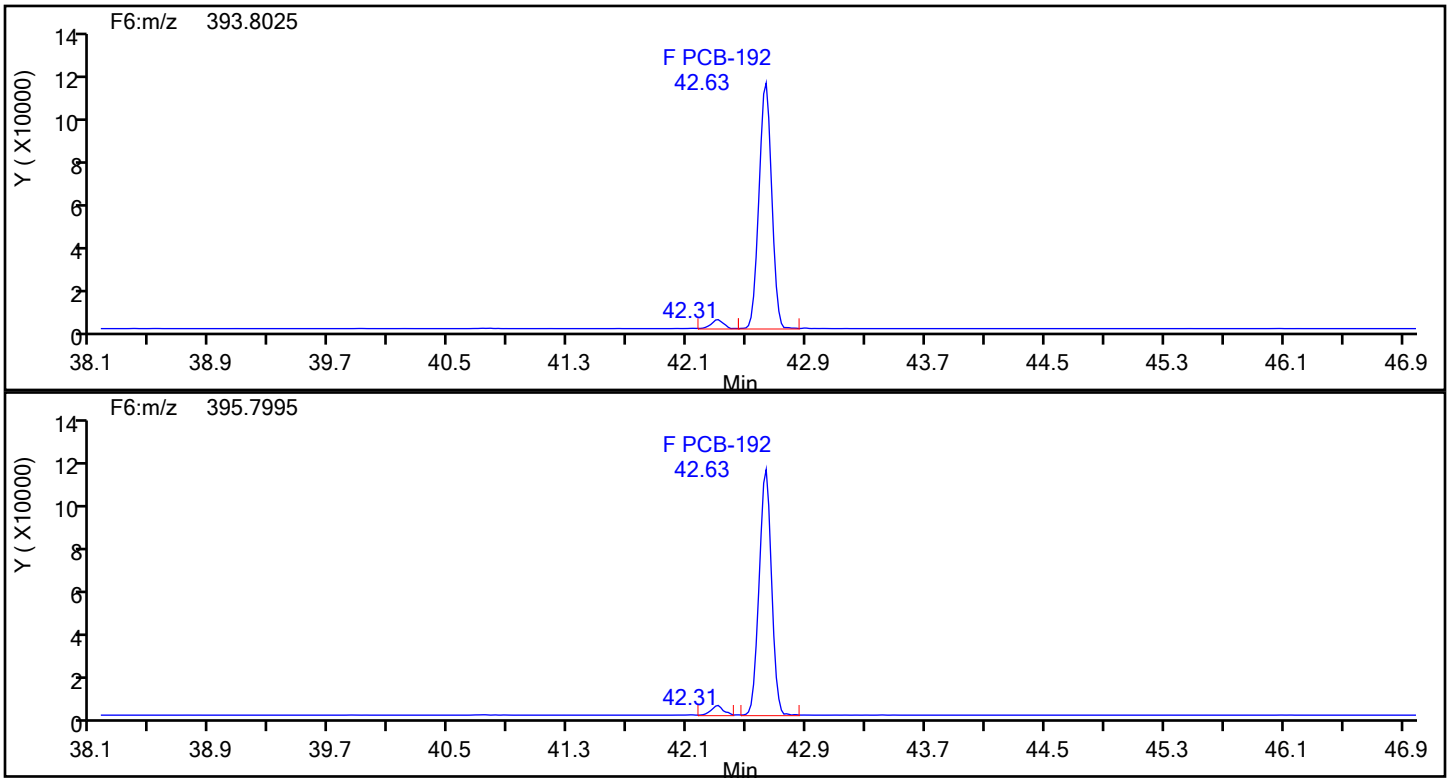
Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

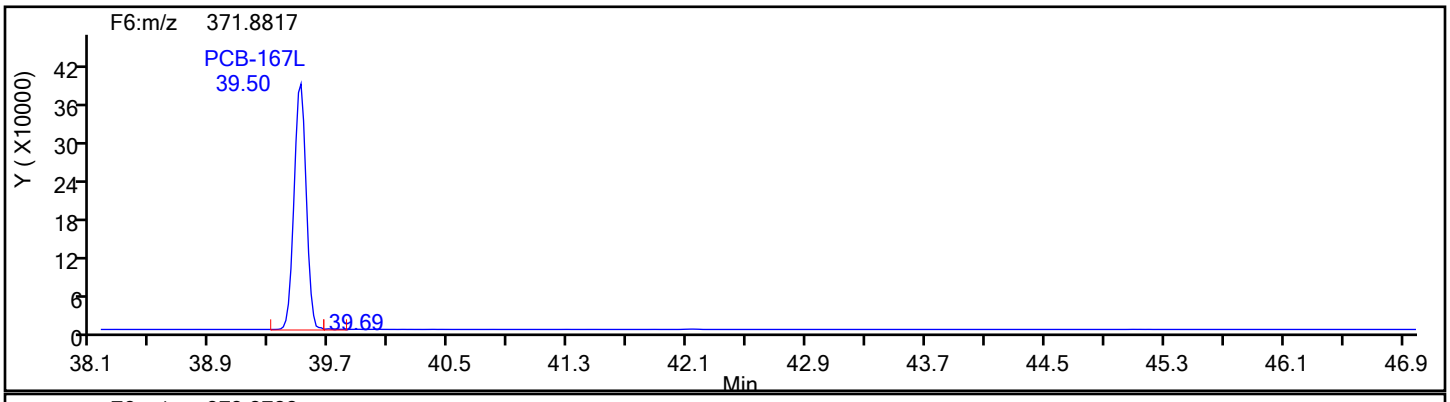
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d

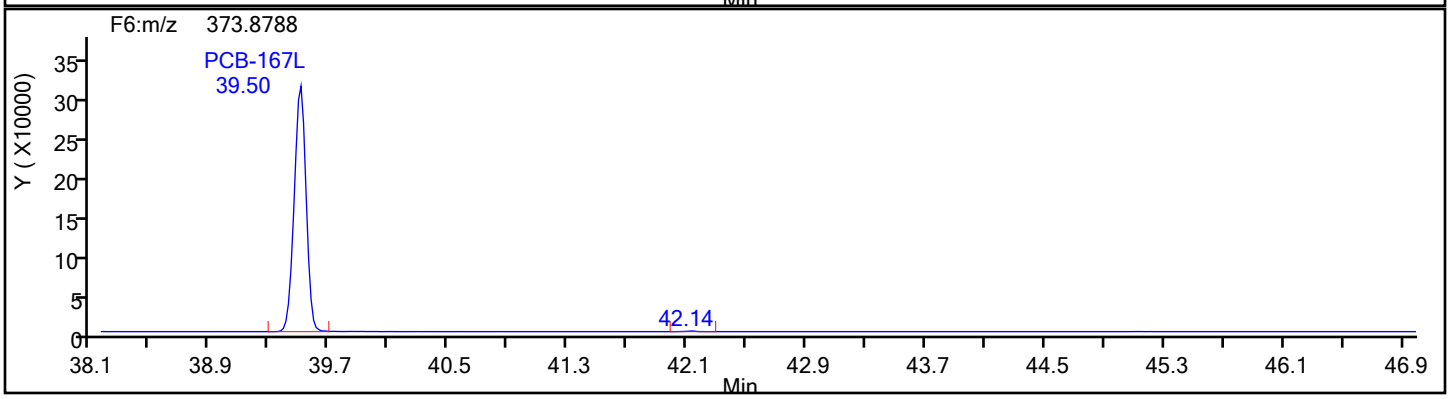
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192



PCB-192 Standards



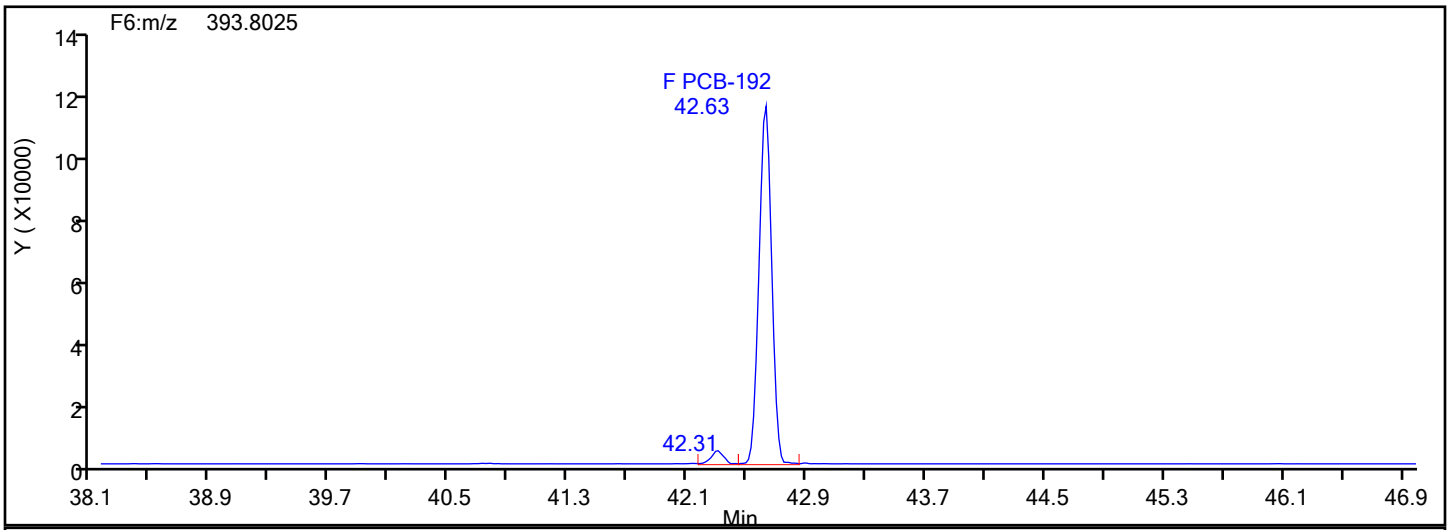


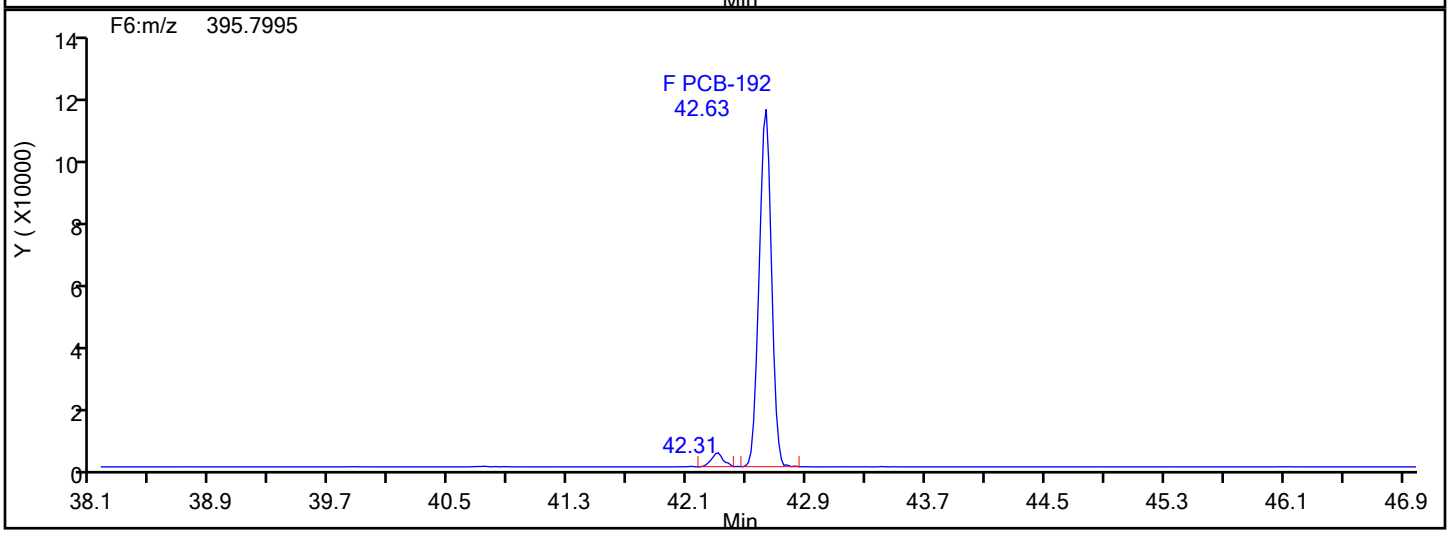
Report Date: 24-Mar-2025 13:06:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

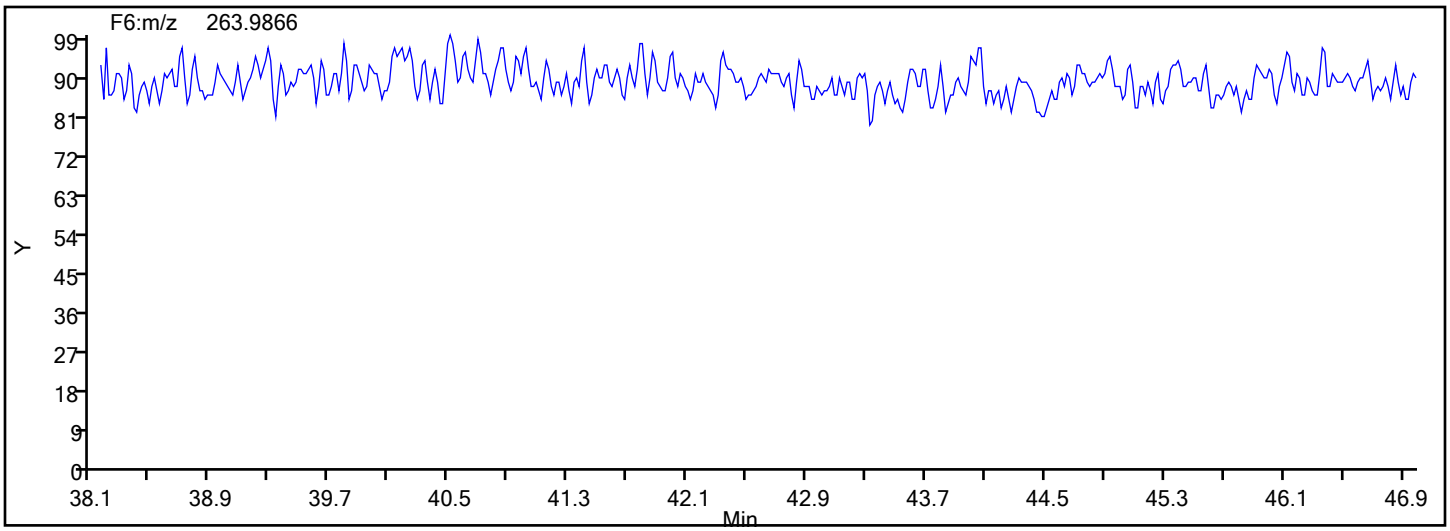
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic4.d		
Injection Date:	19-Mar-2025 20:32:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-Mar-2025 21:26:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-005
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:19 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:37:52

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	3476623	0.79	0.1704	97.0	97.0	0.0332	0.0332	97.04	
alpha-BHC	17:23	1945501	0.82	1.0937	51.2	51.2	0.0298	0.0298	102	
D 13C6-beta BHC	18:22	2483425	0.81	0.1244	94.9	94.9	0.0455	0.0455	94.94	
beta-BHC	18:23	1310739	0.81	1.0053	52.5	52.5	0.0480	0.0480	105	
D 13C6-gamma BHC	18:39	3076879	0.80	0.1646	88.9	88.9	0.0344	0.0344	88.90	
gamma-BHC (Lindane)	18:40	1566020	0.77	0.9800	51.9	51.9	0.0402	0.0402	104	
D 13C6-delta BHC	19:37	2019258	0.75	0.0992	96.8	96.8	0.0570	0.0570	96.80	
delta-BHC	19:37	1159385	0.76	1.1243	51.1	51.1	0.0574	0.0574	102	
D 13C10-Heptachlor	21:51	1515692	1.24	0.0715	100.8	100.8	0.0437	0.0437	101	
Heptachlor	21:52	848419	1.28	1.0864	51.5	51.5	0.001466	0.001466	103	
D 13C6-Hexachlorobenzene	17:42	10832762	1.28	0.5041	102.2	102.2	0.000150	0.000150	102	
Hexachlorobenzene	17:42	5987858	1.25	1.1568	47.8	47.8	0.000110	0.000110	95.56	
D 13C12-Aldrin	23:43	2766658	1.56	0.1384	95.1	95.1	0.0128	0.0128	95.05	
Aldrin	23:45	1566002	1.57	1.0892	52.0	52.0	0.0206	0.0206	104	
D 13C10-oxy Chlordane	26:09	311703	1.08	0.0481	106.0	106.0	0.007656	0.007656	106	
oxy-Chlordane	26:10	174732	0.95	1.1040	50.8	50.8	0.006178	0.006178	102	
D 13C10-cis Heptachlor Epoxide	26:06	1000792	1.32	0.1493	109.6	109.6	0.007395	0.007395	110	
Heptachlor epoxide	26:07	565856	1.27	1.1461	49.3	49.3	0.001813	0.001813	98.67	
D 13C12-2,4'-DDE	27:55	16482260	1.57	2.7345	98.5	98.5	0.0227	0.0227	98.52	
2,4'-DDE	27:57	10561861	1.55	1.2831	49.9	49.9	0.0165	0.0165	99.89	
D 13C10-trans Chlordane	27:37	1008927	1.24	0.1640	100.5	100.5	0.003140	0.003140	101	
trans-Chlordane	27:39	567165	1.22	1.1433	49.2	49.2	0.004709	0.004709	98.34	
D 13C10-cis Chlordane	28:41	1055383	1.29	0.1741	99.1	99.1	0.002958	0.002958	99.06	
cis-Chlordane	28:43	537114	1.22	1.0551	48.2	48.2	0.004748	0.004748	96.47	
D 13C10-trans Nonachlor	29:00	747210	1.26	0.1233	99.1	99.1	0.004178	0.004178	99.06	
trans-Nonachlor	29:01	406463	1.29	1.0780	50.5	50.5	0.006433	0.006433	101	
D 13C9-Endosulfan I	28:30	327174	1.25	0.0555	96.3	96.3	0.009278	0.009278	96.32	
D 13C12-4,4'-DDE	30:10	10716903	1.57	1.8637	97.2	97.2	0.0718	0.0718	97.24	
4,4'-DDE	30:11	6755690	1.55	1.2526	50.3	50.3	0.0262	0.0262	101	
D 13C12-4,4'-DDD	33:27	6596906	1.57	1.1392	97.9	97.9	0.0131	0.0131	97.92	
4,4'-DDD	33:29	4108130	1.57	1.2345	50.4	50.4	0.0973	0.0973	101	
D 13C12-2,4'-DDT	33:44	3871977	1.62	0.6754	96.9	96.9	0.0221	0.0221	96.94	
2,4'-DDT	33:46	2345348	1.56	1.1809	51.3	51.3	0.1714	0.1714	103	
D 13C12-4,4'-DDT	36:36	3278145	1.61	0.5808	95.4	95.4	0.0257	0.0257	95.44	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:37	2003362	1.54	1.2096	50.5	50.5	0.2042	0.2042	101	
D 13C12-Dieldrin	30:23	1142360	1.53	0.1991	97.0	97.0	0.4673	0.4673	97.03	
Dieldrin	30:25	630002	1.56	1.0718	51.5	51.5	0.0567	0.0567	103	
D 13C12-Endrin	32:03	668257	1.71	0.1181	95.7	95.7	0.7878	0.7878	95.69	
Endrin	32:05	367590	1.60	1.0678	51.5	51.5	0.1041	0.1041	103	
D 13C9-Endosulfan II	32:47	142362	1.26	0.0248	97.2	97.2	0.3568	0.3568	97.15	
Endosulfan II	32:48	84673	1.28	1.0972	54.2	54.2	0.0807	0.0807	108	
D 13C12-Endrin Aldehyde	34:19	196439	1.62	0.0237	140.0	140.0	0.3726	0.3726	140	
Endrin aldehyde	34:21	103114	1.67	1.1278	46.5	46.5	0.1952	0.1952	93.09	
D 13C12-Methoxychlor	41:56	3773993	18.77	0.6709	95.1	95.1	0.0590	0.0590	95.12	
Methoxychlor	41:58	2538828	5.55	1.3248	50.8	50.8	0.0330	0.0330	102	
D 13C11-Endrin Ketone	40:25	389726	1.89	0.0648	101.7	101.7	0.0390	0.0390	102	
Endrin ketone	40:28	225789	1.58	1.1546	50.2	50.2	0.0424	0.0424	100	
D 13C10-Mirex	45:25	3603105	1.28	0.9459	100.1	100.1	0.0155	0.0155	100	
Mirex	45:27	1966988	1.27	1.0234	53.3	53.3	0.007179	0.007179	107	
* PCB-15L	19:03	21029971	1.60		100.0	100.0				
PCB-14	17:48	32650133	1.63	1.3581	114.3	114.3	0.001910	0.001910	91.08	
* 13C6-Pentachlorophenol (IS)	18:34	12694	0.24		500.0	500.0				
Pentachlorophenol	18:34	29004	0.46	0.8359	1366.7	1366.7	34.6	34.6	137	
PCB-36	22:09	24478909	1.05	1.0230	113.8	113.8	0.001946	0.001946	90.65	
* PCB-101L	28:07	6117996	1.61		100.0	100.0				
PCB-104	23:43	14454671	1.55	1.8372	128.6	128.6	0.000280	0.000280	102	
* PCB-118L	32:48	5913755	1.64		100.0	100.0				
PCB-121	26:43	10051172	1.59	1.4622	116.2	116.2	0.0806	0.0806	92.61	
* PCB-138L	36:59	3805965	1.26		100.0	100.0				
PCB-142	27:29	9088814	1.25	2.0271	117.8	117.8	0.0103	0.0103	93.86	
Endosulfan I	28:32	189646	1.63	1.0931	53.0	53.0	0.0362	0.0362	106	
* PCB-60L	27:44	11469728	0.81		100.0	100.0				a
PCB-78	29:22	11942815	0.80	0.9153	113.8	113.8	0.009332	0.009332	90.63	a
D 13C12-2,4'-DDD	30:51	7959246	1.59	1.3487	99.8	99.8	0.0732	0.0732	99.79	
2,4'-DDD	30:52	4612671	1.57	1.1763	49.3	49.3	0.0256	0.0256	98.53	
D 13C10-cis Nonachlor	33:48	541902	1.30	0.0944	97.0	97.0	0.0374	0.0374	97.05	
cis-Nonachlor	33:50	304486	1.32	1.0758	52.2	52.2	0.004509	0.004509	104	
D 13C9-Endosulfan sulfate	36:17	899266	1.34	0.1517	100.3	100.3	0.0233	0.0233	100	
Endosulfan sulfate	36:20	503091	1.27	1.0831	51.7	51.7	0.002896	0.002896	103	
* PCB-167L	39:30	3873776	1.25		100.0	100.0				
PCB-155	33:59	4394214	1.27	0.9191	123.4	123.4	0.1074	0.1074	98.33	
PCB-184	34:39	5329838	1.04	1.1610	118.5	118.5	0.004578	0.004578	94.42	
PCB-204	42:17	3562773	0.88	0.7364	124.9	124.9	0.001031	0.001031	99.50	
PCB-192	42:36	3615911	1.05	0.7635	122.3	122.3	0.0179	0.0179	97.41	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L41699PST_00010 Amount Added: 20.00 Units: uL

Report Date: 24-Mar-2025 13:06:19 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-Mar-2025 21:26:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-005
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:19 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:37:52

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	1536794	566877	147	367	3856		
224.9317	17:23	17:23	0	0.912	1939829	713407	3	7	237802	0.79(0.58-0.96)	
alpha-BHC											
216.9145	17:23	17:23	0	1.001	875214	333712	1	2	333712		
218.9116	17:23	17:23	0	1.001	1070287	405769	166	415	2444	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:22	0	0.964	1114880	388963	147	367	2646		
224.9317	18:22	18:22	0	0.964	1368545	474410	3	7	158137	0.81(0.58-0.96)	
beta-BHC											
216.9145	18:23	18:23	0	1.001	585414	205214	1	2	205214		
218.9116	18:23	18:23	0	1.001	725325	256018	166	415	1542	0.81(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:39	0	0.979	1365773	466429	147	367	3173		
224.9317	18:39	18:39	0	0.979	1711106	591746	3	7	197249	0.80(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	679556	229929	1	2	229929		
218.9116	18:39	18:40	-1	1.001	886464	304439	166	415	1834	0.77(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:37	0	1.030	867496	277339	147	367	1887		
224.9317	19:37	19:37	0	1.030	1151762	368595	3	7	122865	0.75(0.58-0.96)	
delta-BHC											
216.9145	19:37	19:37	0	1.001	499906	155957	1	2	155957		
218.9116	19:37	19:37	0	1.001	659479	203302	166	415	1225	0.76(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:51	21:51	0	1.147	838780	248684	59	147	4215		
278.8240	21:51	21:51	0	1.147	676912	190959	24	60	7957	1.24(0.93-1.55)	
Heptachlor											
271.8102	21:52	21:52	0	1.001	476973	132833	2	5	66417		
273.8072	21:52	21:52	-1	1.001	371446	102013	1	2	102013	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.929	6075200	2188082	1	2	2188082		
291.8273	17:42	17:42	0	0.929	4757562	1733537	1	2	1733537	1.28(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:42	17:42	0	1.001	3331172	1199941	1	2	1199941		
285.8072	17:42	17:42	0	1.001	2656686	953419	1	2	953419	1.25(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:43	0	1.245	1684595	435284	24	60	18137		
271.8775	23:43	23:43	0	1.245	1082063	288019	23	57	12523	1.56(1.16-1.94)	
Aldrin											
262.8569	23:45	23:45	0	1.001	955932	254538	28	70	9091		
264.8540	23:45	23:45	0	1.001	610070	159153	37	92	4301	1.57(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:09	0	0.930	162061	37892	1	2	37892		
398.8358	26:08	26:09	-1	0.929	149642	35417	1	2	35417	1.08(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	85113	20212	1	2	20212		
388.8023	26:09	26:10	-1	1.001	89619	22390	1	2	22390	0.95(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.928	569407	135020	1	2	135020		
364.8748	26:05	26:06	-1	0.928	431385	105610	5	12	21122	1.32(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:07	26:07	0	1.001	316622	76577	1	2	76577		
354.8413	26:07	26:07	0	1.001	249234	57598	1	2	57598	1.27(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:55	27:55	0	0.993	10067480	2240830	200	500	11204		
260.0376	27:55	27:55	0	0.993	6414780	1437906	137	342	10496	1.57(1.17-1.95)	
2,4'-DDE											
246.0003	27:57	27:57	0	1.001	6422168	1430074	208	520	6875		
247.9974	27:57	27:57	0	1.001	4139693	930418	104	260	8946	1.55(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:37	27:37	0	0.983	558060	122643	1	2	122643		
278.8240	27:37	27:37	0	0.983	450867	100235	2	5	50118	1.24(0.93-1.55)	
trans-Chlordane											
271.8102	27:39	27:39	0	1.001	311811	70562	1	2	70562		
273.8072	27:39	27:39	0	1.001	255354	56261	4	10	14065	1.22(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	0	1.020	594072	136718	1	2	136718		
278.8240	28:41	28:41	0	1.020	461311	102804	2	5	51402	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:43	28:43	0	1.001	295094	65587	1	2	65587		
273.8072	28:43	28:43	0	1.001	242020	54566	4	10	13642	1.22(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.031	415992	97992	1	2	97992		
278.8240	29:00	29:00	0	1.031	331218	75030	2	5	37515	1.26(0.93-1.55)	
trans-Nonachlor											
271.8102	29:01	29:01	0	1.001	228776	50887	1	2	50887		
273.8072	29:01	29:01	0	1.001	177687	38426	4	10	9607	1.29(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:30	28:30	0	1.014	181452	38404	1	2	38404		
278.8240	28:30	28:30	0	1.014	145722	29803	2	5	14902	1.25(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	6547849	1407322	387	967	3636		
260.0376	30:10	30:10	0	0.920	4169054	906030	249	622	3639	1.57(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.001	4111047	875255	187	467	4681		
247.9974	30:10	30:11	-1	1.000	2644643	570423	117	292	4875	1.55(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:27	33:27	0	1.020	4027398	759639	35	87	21704		
249.0454	33:27	33:27	0	1.020	2569508	497383	36	90	13816	1.57(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	2510132	498236	558	1395	893		
237.0052	33:29	33:29	0	1.001	1597998	309952	46	115	6738	1.57(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:44	33:44	0	1.028	2392558	461935	35	87	13198		
249.0454	33:44	33:44	0	1.028	1479419	284209	36	90	7895	1.62(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	1428795	272118	558	1395	488		
237.0052	33:46	33:46	0	1.001	916553	175358	46	115	3812	1.56(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:36	36:36	0	1.116	2021643	370594	35	87	10588		
249.0454	36:36	36:36	0	1.116	1256502	240875	36	90	6691	1.61(1.16-1.94)	
4,4'-DDT											
235.0081	36:37	36:37	0	1.000	1215547	226907	558	1395	407		
237.0052	36:37	36:37	0	1.000	787815	145595	46	115	3165	1.54(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.927	690575	145945	406	1015	359		
271.8775	30:23	30:23	0	0.927	451785	96070	36	90	2669	1.53(1.16-1.94)	
Dieldrin											
262.8570	30:25	30:25	0	1.001	383990	76238	33	82	2310		
264.8540	30:25	30:25	0	1.001	246012	51138	26	65	1967	1.56(1.16-1.94)	
13C12-Endrin											
269.8805	32:03	32:03	0	0.977	421758	84203	406	1015	207		
271.8775	32:03	32:03	0	0.977	246499	48003	36	90	1333	1.71(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:05	32:05	0	1.001	225938	45263	33	82	1372		
264.8540	32:05	32:05	0	1.001	141652	29200	26	65	1123	1.60(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:47	32:47	0	1.000	79287	18007	26	65	693		
278.8240	32:47	32:47	0	1.000	63075	12481	16	40	780	1.26(0.93-1.55)	
Endosulfan II											
271.8102	32:48	32:48	0	1.001	47582	9887	8	20	1236		
273.8072	32:48	32:48	0	1.001	37091	6312	3	7	2104	1.28(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:19	34:19	0	1.046	121420	20993	20	50	1050		
358.9361	34:19	34:19	0	1.046	75019	13976	22	55	635	1.62(1.17-1.95)	
Endrin aldehyde											
344.8988	34:21	34:21	0	1.001	64559	12764	16	40	798		
346.8959	34:21	34:21	0	1.001	38555	6742	15	37	449	1.67(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:56	41:56	0	1.279	3583096	612294	182	455	3364		
240.1510	41:57	41:56	1	1.279	190897	33435	6	15	5573	18.77(0.00-0.00)	
Methoxychlor											
227.1072	41:58	41:58	0	1.001	2151314	376357	77	192	4888		
228.1106	41:58	41:58	0	1.001	387514	68713	36	90	1909	5.55(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:25	40:25	0	1.232	254831	38940	8	20	4868		
329.9379	40:26	40:25	1	1.233	134895	22277	4	10	5569	1.89(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	0	1.001	138296	23651	9	22	2628		
318.9010	40:28	40:28	0	1.001	87493	15088	3	7	5029	1.58(1.16-1.95)	
13C10-Mirex											
276.8270	45:25	45:25	0	1.228	2022722	320786	30	75	10693		
278.8240	45:25	45:25	0	1.228	1580383	250935	11	27	22812	1.28(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.001	1100102	173822	10	25	17382		
273.8072	45:27	45:27	0	1.001	866886	139773	7	17	19968	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:03	0		12934463	4077529	18	45	226529		
236.0376	19:03	19:03	0		8095508	2551987	11	27	231999	1.60(1.16-1.93)	
PCB-14											
222.0003	17:48	17:48	0	0.935	20219442	7558370	37	92	204280		
223.9974	17:48	17:48	0	0.935	12430691	4570361	32	80	142824	1.63(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:34	18:34	0		2420	859	1	2	859		
271.8636	18:33	18:34	-1		10274	1166	4	10	292	0.24(0.00-0.00)	
Pentachlorophenol											
263.8464	18:34	18:34	0	1.000	9136	1414	41	102	34		
265.8435	18:35	18:34	1	1.001	19868	1842	6	15	307	0.46(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:09	22:09	0	1.163	12532402	3368147	25	62	134726		
257.9584	22:09	22:09	0	1.163	11946507	3219555	28	70	114984	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:07	28:07	0		3777085	838990	1	2	838990		
339.9178	28:07	28:07	0		2340911	519974	1	2	519974	1.61(1.16-1.94)	
PCB-104											
325.8804	23:43	23:43	0	0.844	8775776	2355132	1	2	2355132		
327.8775	23:43	23:43	0	0.844	5678895	1522383	2	5	761192	1.55(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		3671151	737287	15	37	49152		
339.9178	32:48	32:48	0		2242604	450506	8	20	56313	1.64(1.16-1.94)	
PCB-121											
325.8804	26:43	26:43	0	0.815	6171847	1472056	348	870	4230		
327.8775	26:43	26:43	0	0.815	3879325	921315	212	530	4346	1.59(1.32-1.78)	
PCB-138L											
371.8817	36:59	36:59	0		2120304	388052	12	30	32338		
373.8788	36:59	36:59	0		1685661	306275	7	17	43754	1.26(1.16-1.94)	
PCB-142											
359.8415	27:29	27:29	0	0.743	5057579	1198947	33	82	36332		
361.8385	27:29	27:29	0	0.743	4031235	949716	25	62	37989	1.25(1.05-1.43)	
Endosulfan I											
262.8570	28:32	28:32	0	1.001	117550	26675	2	5	13338		
264.8540	28:31	28:32	-1	1.000	72096	14292	9	22	1588	1.63(1.16-1.94)	
PCB-60L											a
301.9626	27:44	27:44	0		5125688	1164085	22	55	52913		a
303.9597	27:44	27:44	0		6344040	1435086	18	45	79727	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:22	29:22	0	1.059	5307753	1129119	46	115	24546		a
291.9194	29:22	29:22	0	1.059	6635062	1377141	43	107	32027	0.80(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:51	30:51	0	0.940	4883094	1004114	295	737	3404		
249.0454	30:51	30:51	0	0.940	3076152	649249	174	435	3731	1.59(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.001	2820238	578447	125	312	4628		
237.0052	30:52	30:52	0	1.001	1792433	365776	74	185	4943	1.57(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.031	306014	56419	1	2	56419		
278.8240	33:48	33:48	0	1.031	235888	46649	16	40	2916	1.30(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	173150	33327	1	2	33327		
273.8072	33:50	33:50	0	1.001	131336	24971	1	2	24971	1.32(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:17	36:17	0	1.106	514494	87213	1	2	87213		
278.8240	36:18	36:17	1	1.107	384772	72188	16	40	4512	1.34(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.001	281719	49932	1	2	49932		
273.8072	36:19	36:20	-1	1.001	221372	41940	1	2	41940	1.27(0.93-1.55)	
PCB-167L											
371.8817	39:30	39:30	0		2150976	370432	1	2	370432		
373.8788	39:29	39:30	-1		1722800	288035	2	5	144018	1.25(1.16-1.94)	
PCB-155											
359.8415	33:59	33:59	0	0.860	2458326	463458	151	377	3069		
361.8385	33:59	33:59	0	0.860	1935888	375974	109	272	3449	1.27(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.877	2711943	526710	8	20	65839		
395.7995	34:39	34:39	0	0.877	2617895	512437	6	15	85406	1.04(0.89-1.21)	
PCB-204											
427.7635	42:17	42:17	0	1.071	1671663	292418	1	2	292418		
429.7606	42:17	42:17	0	1.071	1891110	327333	1	2	327333	0.88(0.76-1.02)	
PCB-192											
393.8025	42:36	42:36	0	1.079	1848909	316589	20	50	15829		
395.7995	42:36	42:36	0	1.079	1767002	302408	16	40	18901	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

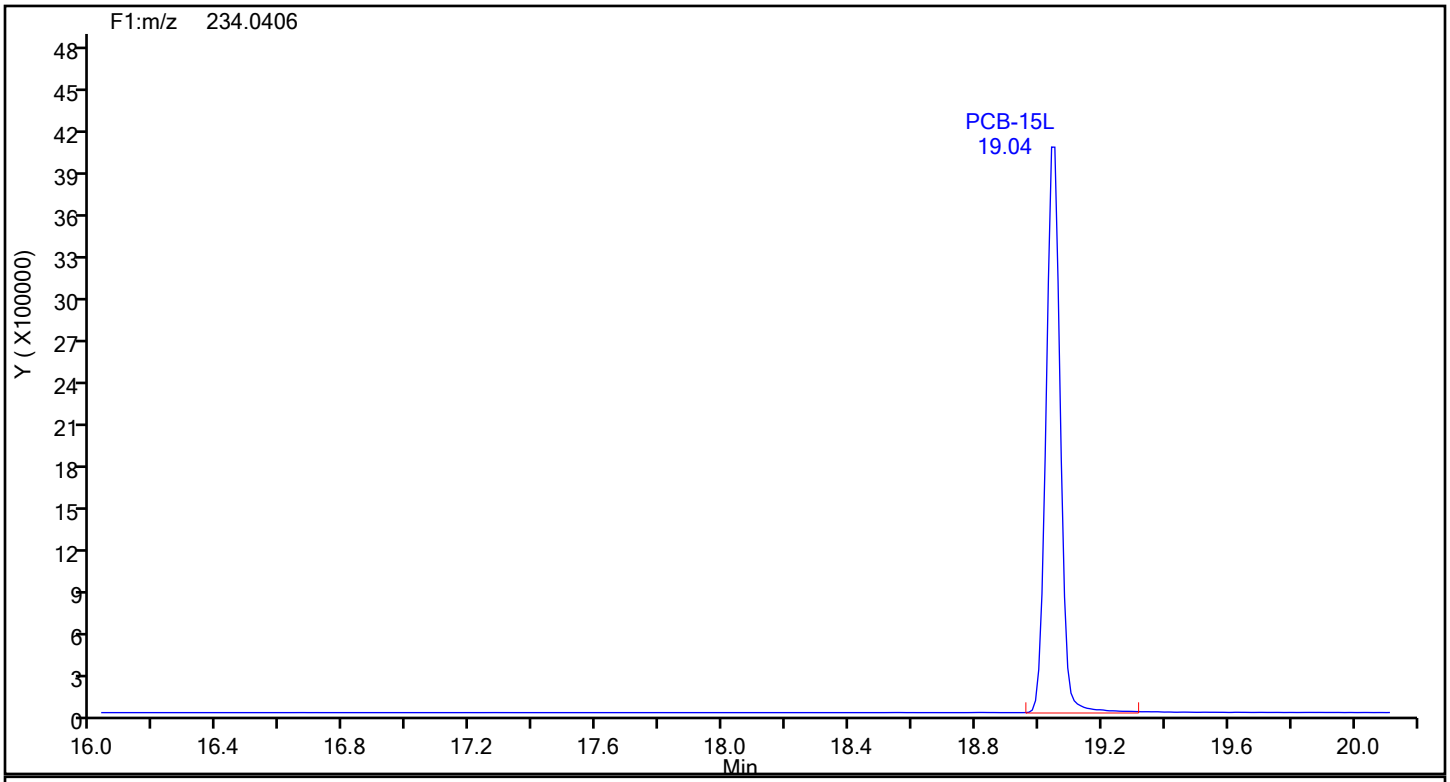
61L41699PST_00010 Amount Added: 20.00 Units: uL

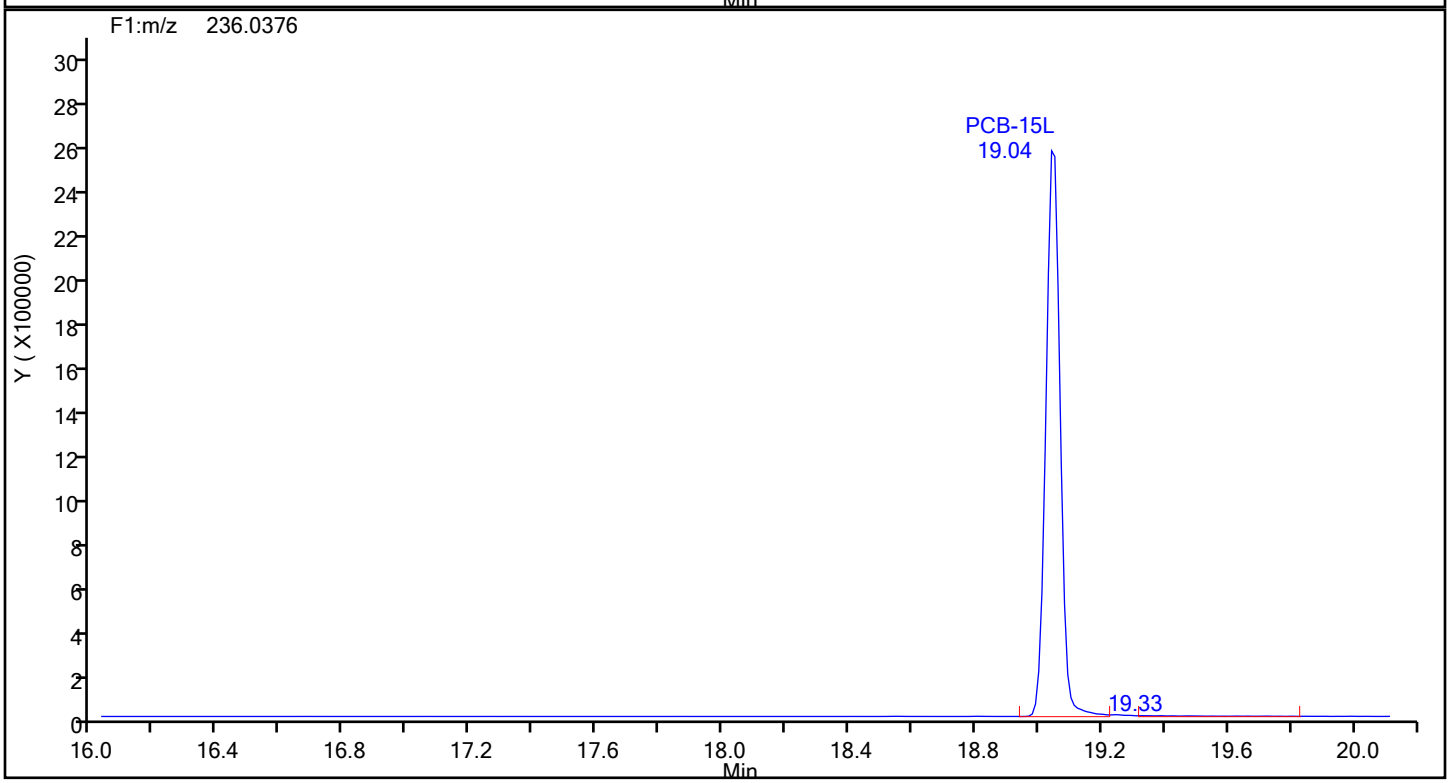
Report Date: 24-Mar-2025 13:06:19 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





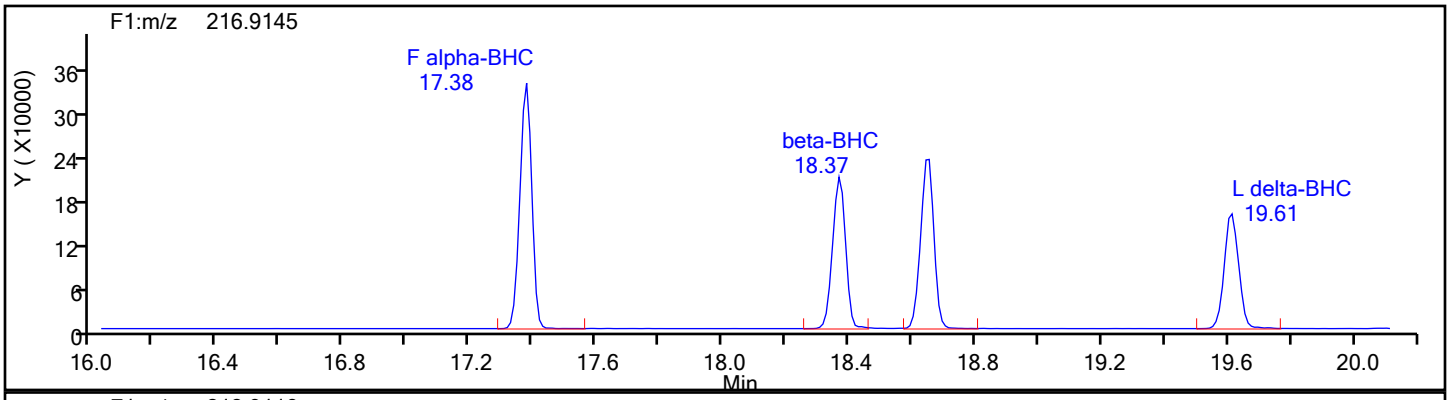
Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

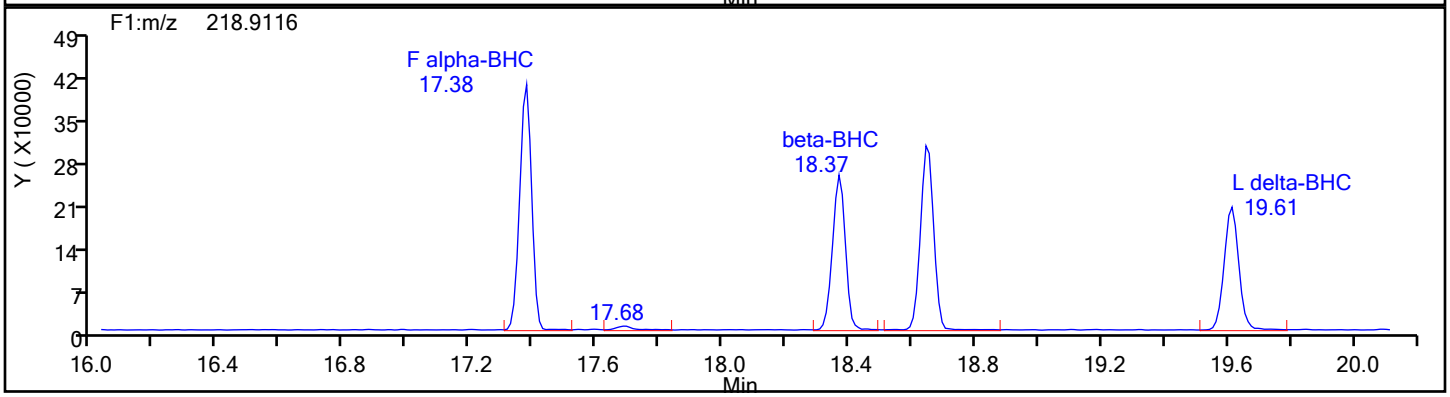
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

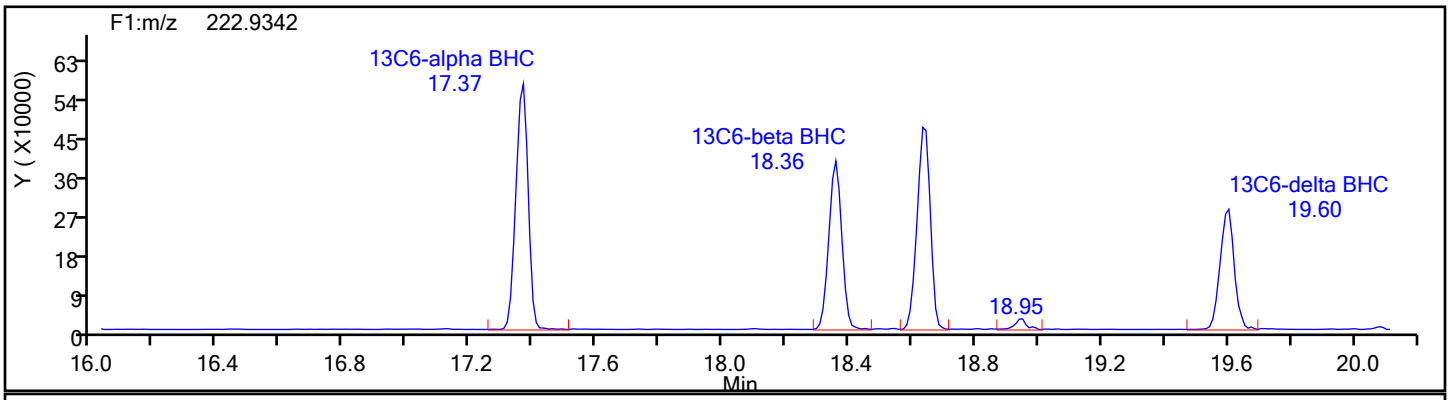
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

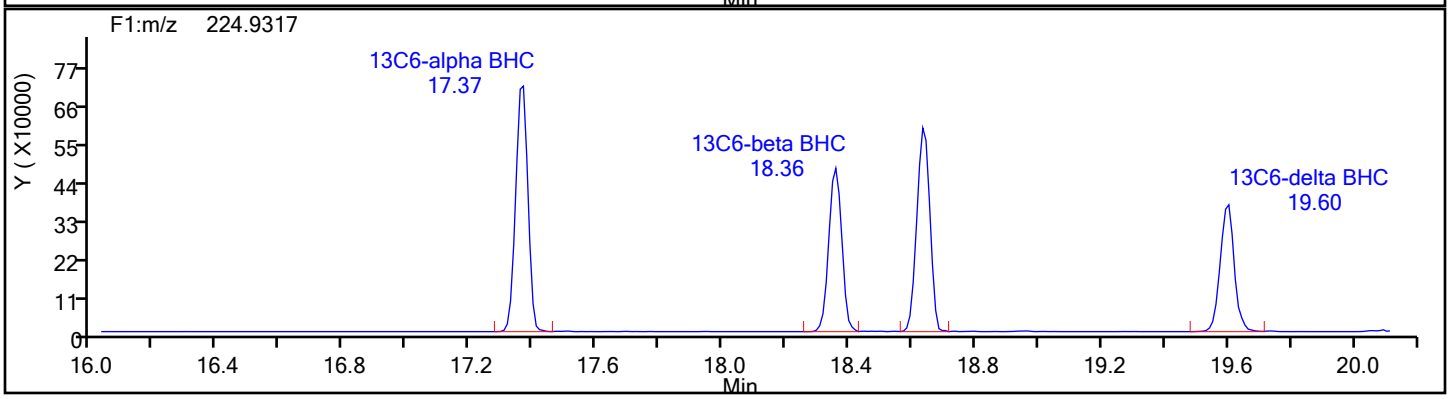
BHC





BHC Standards





Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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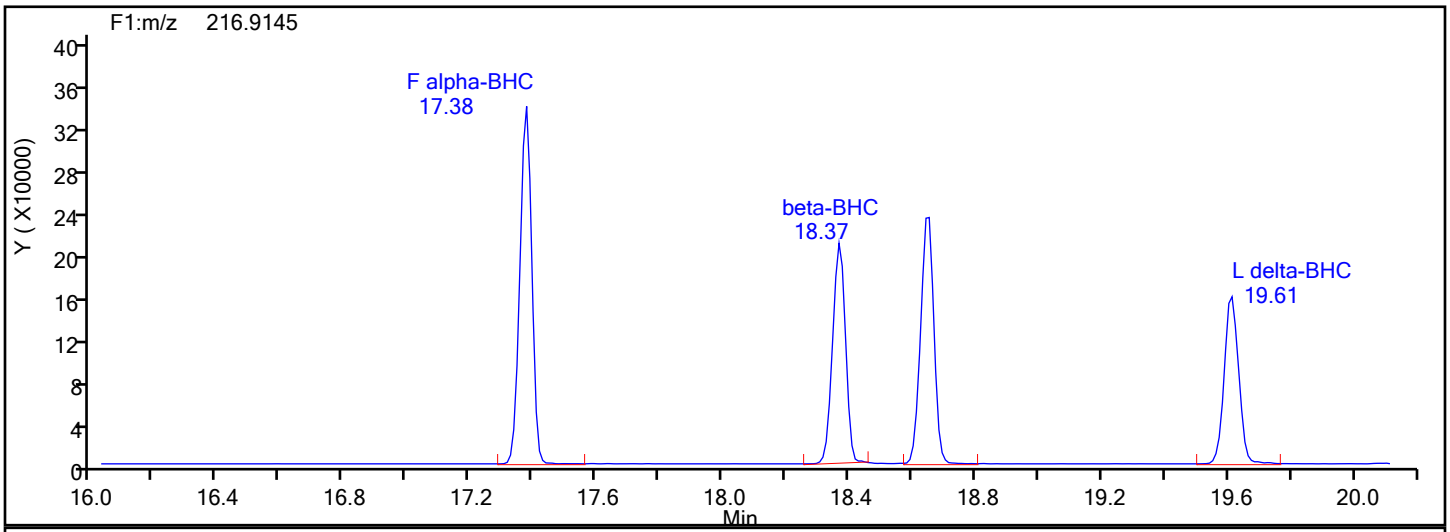
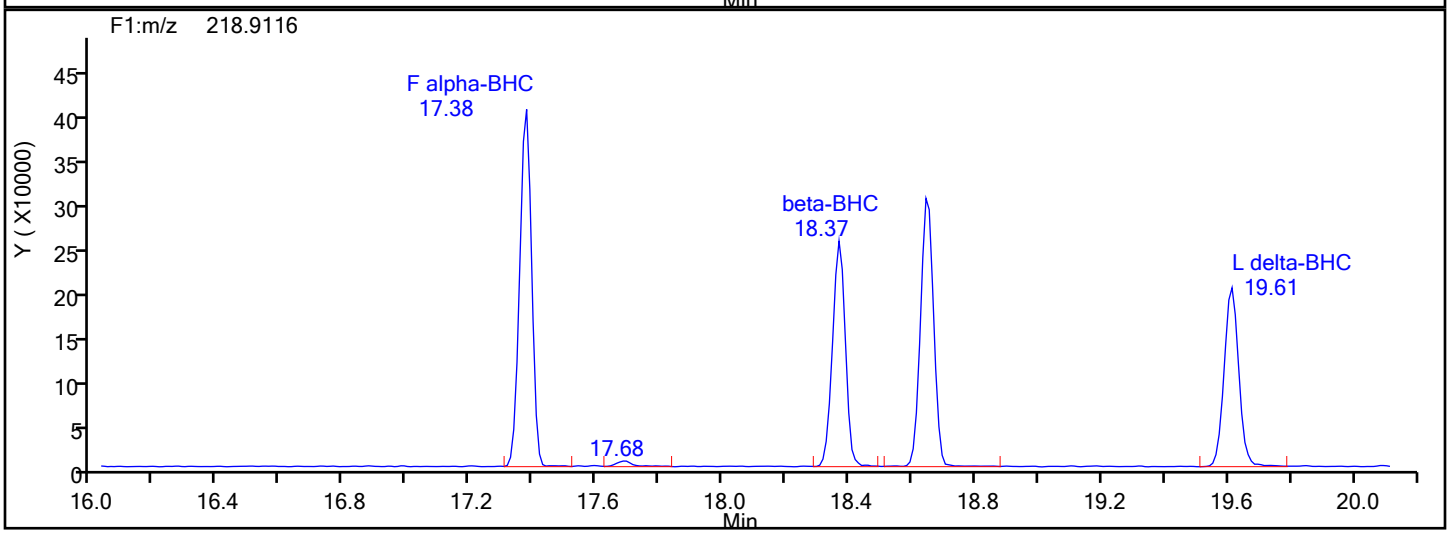
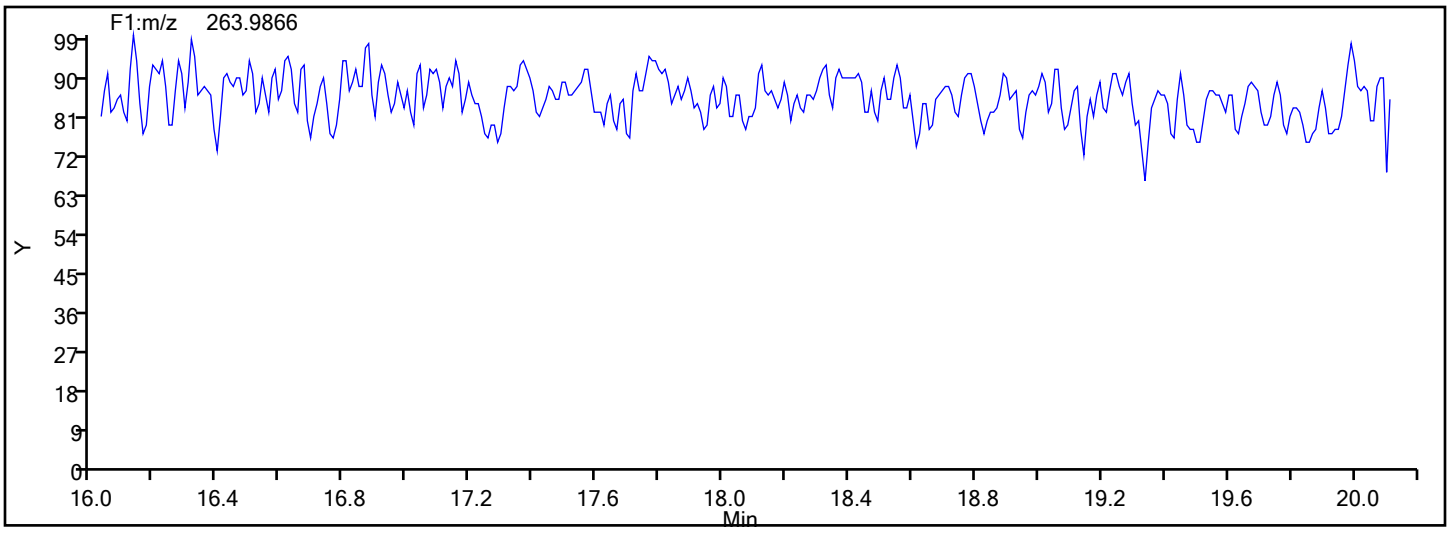




BHC Lock Mass



Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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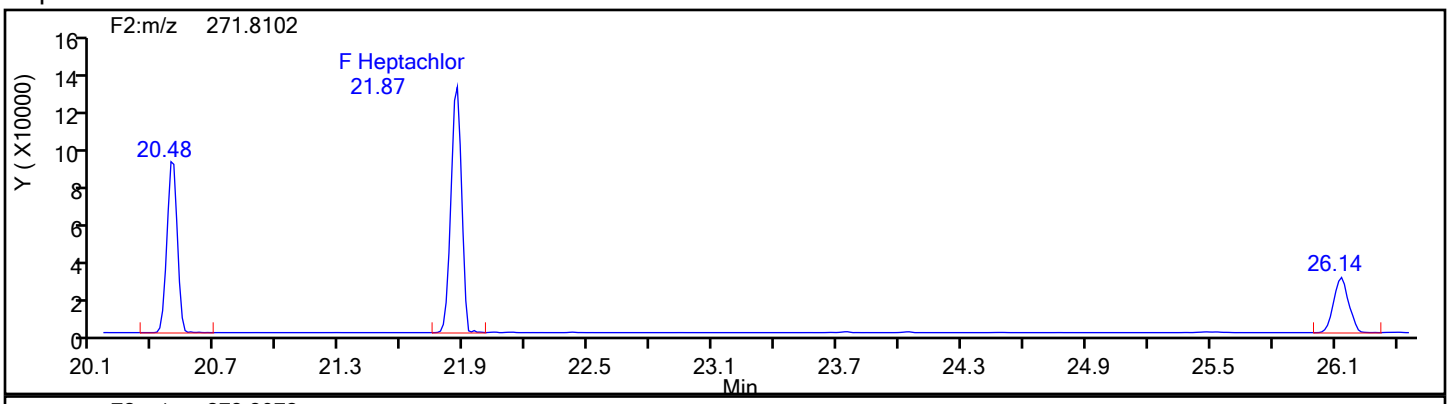
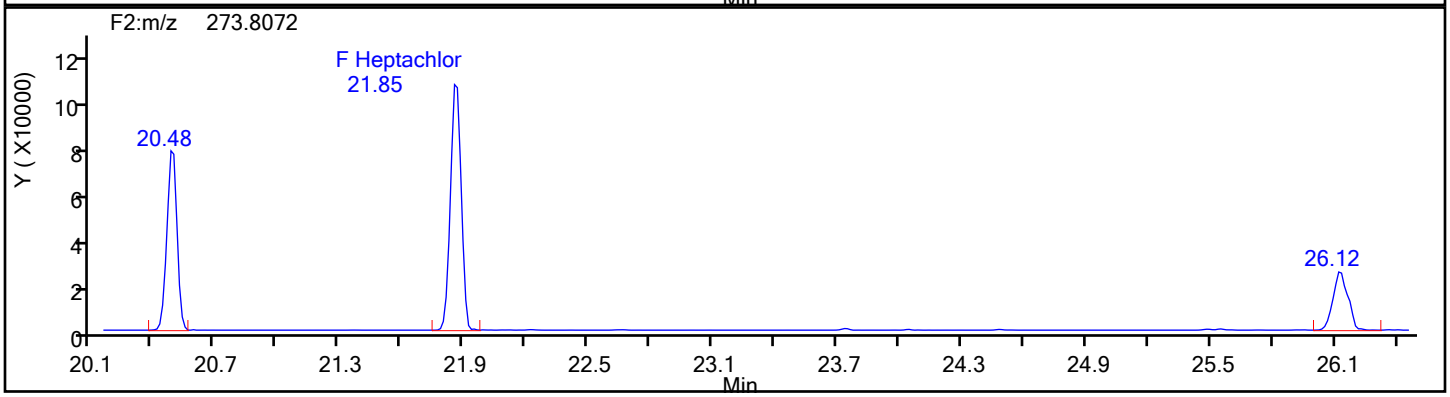
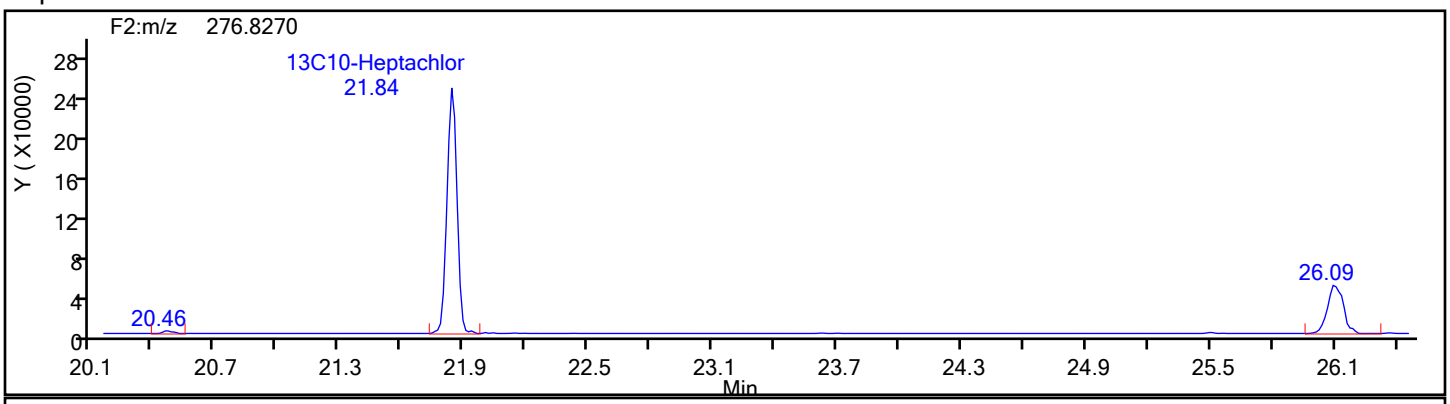
Column Type:	RTX-5	Column Dia:	0.32 mm

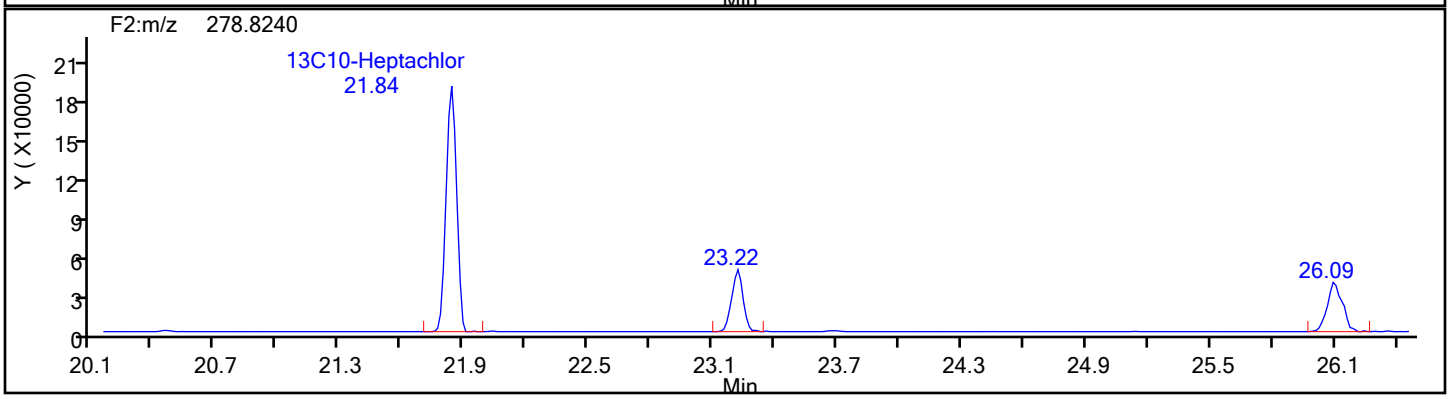
Heptachlor





Heptachlor Standards



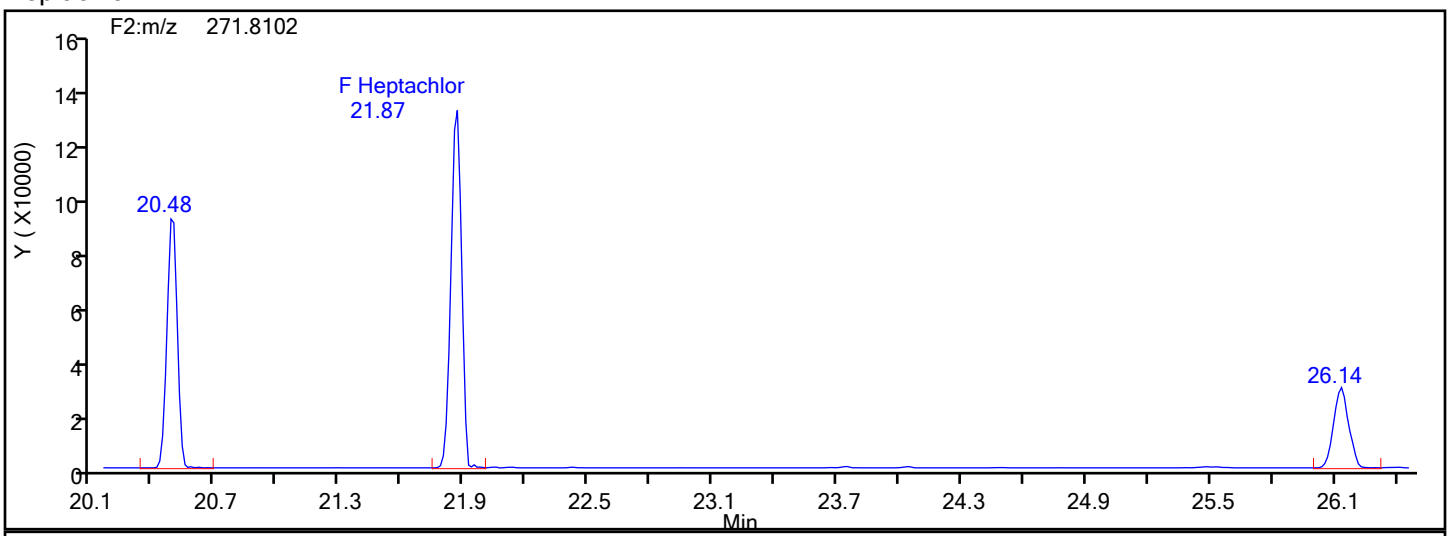


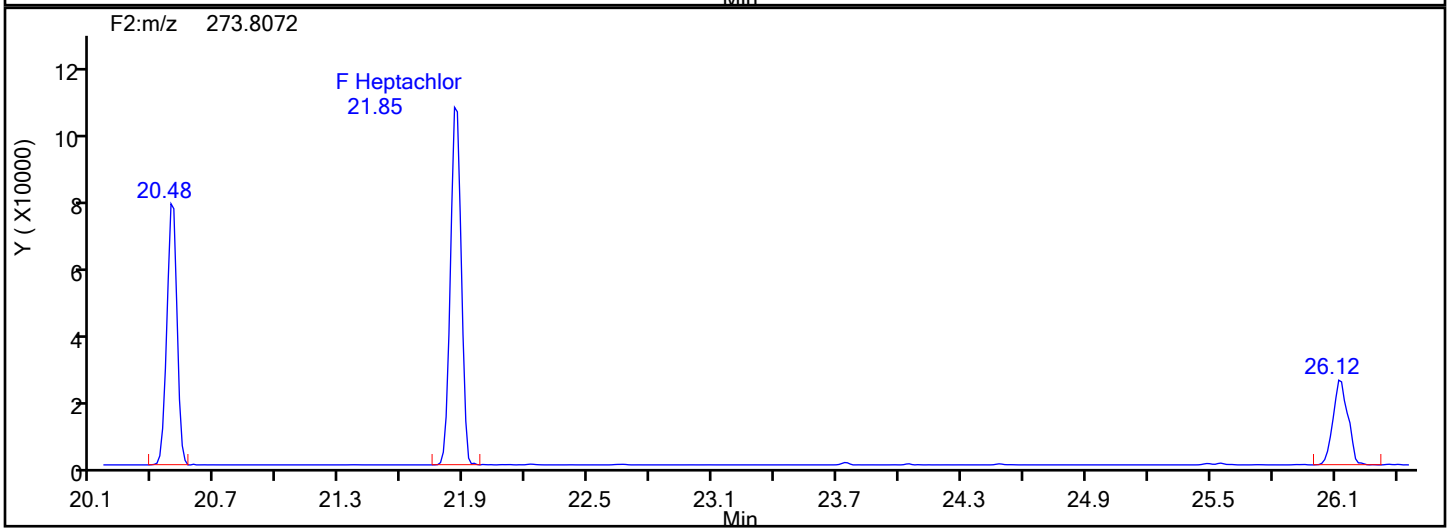
Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

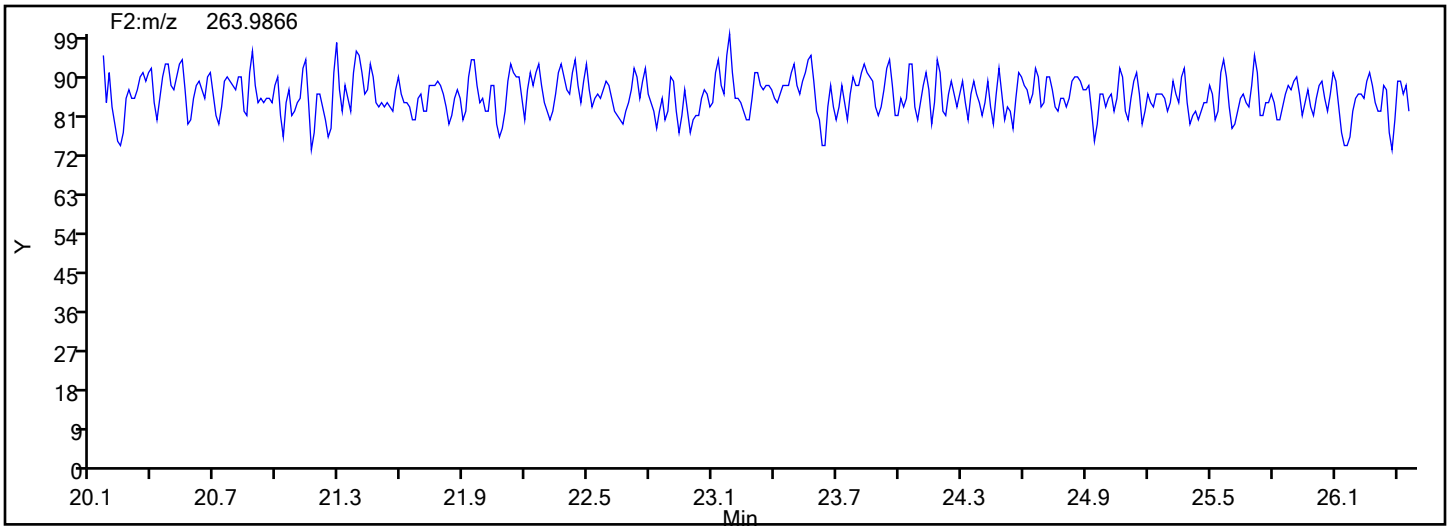
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



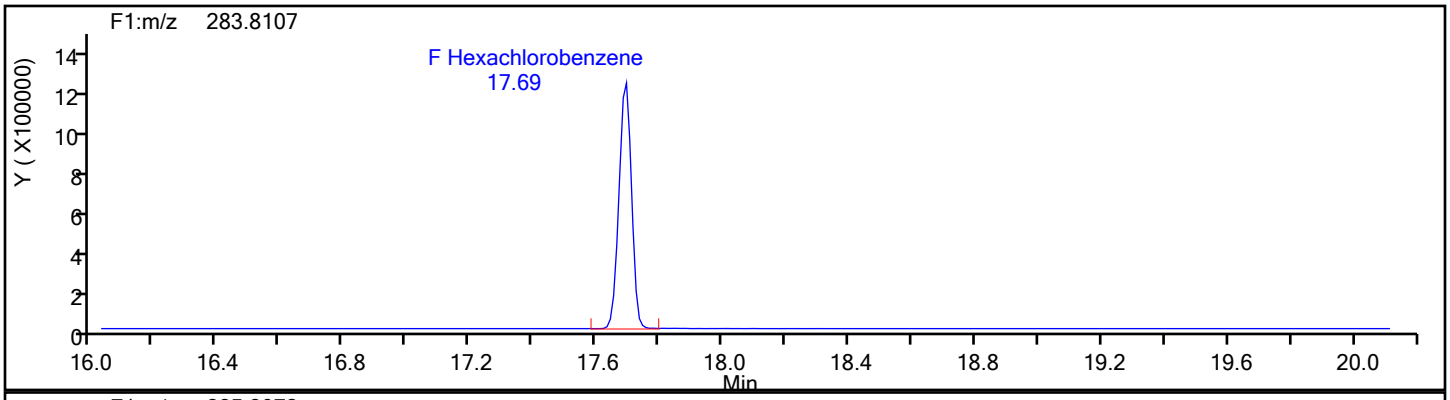
Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

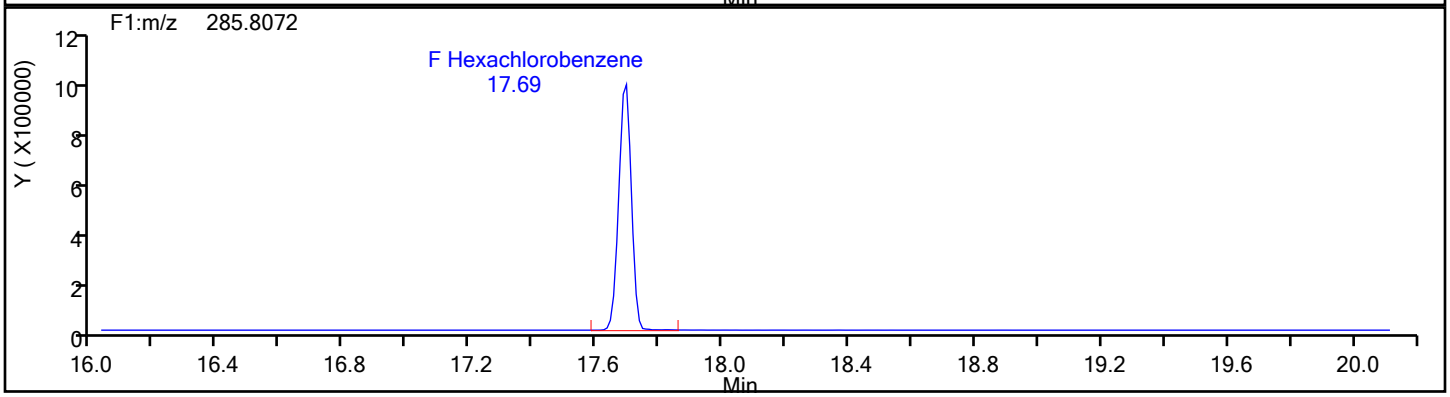
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

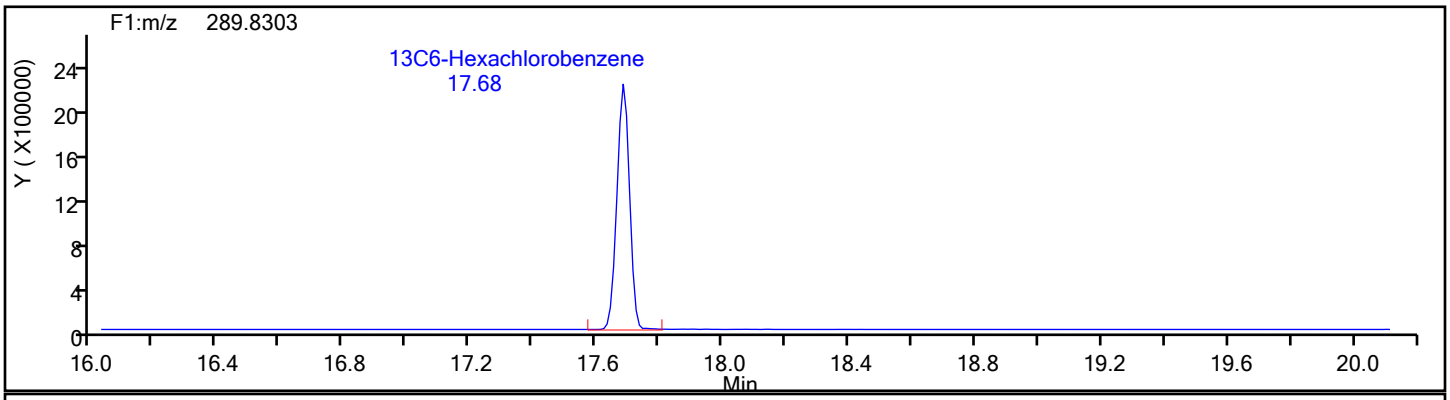
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

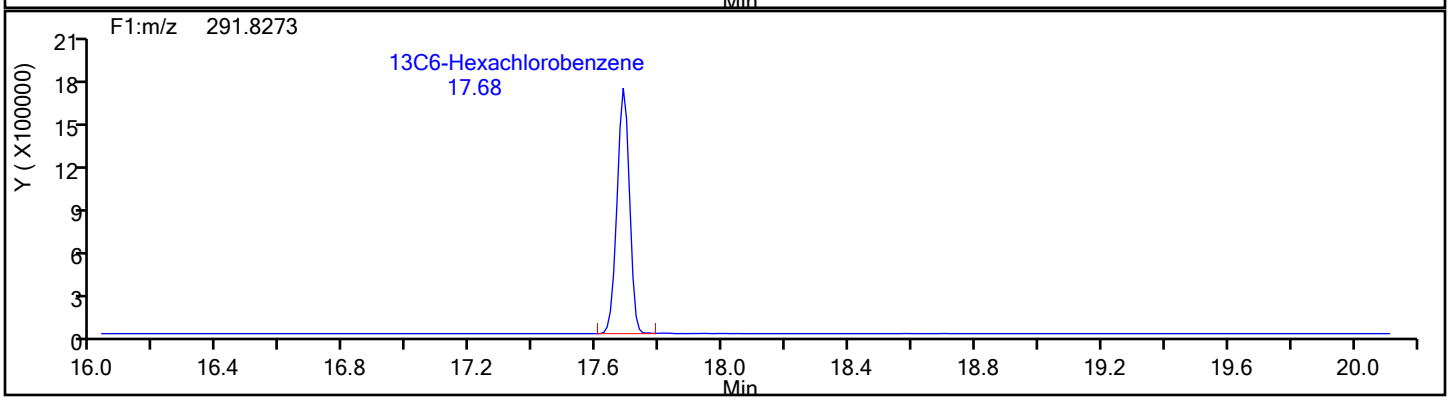
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
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Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
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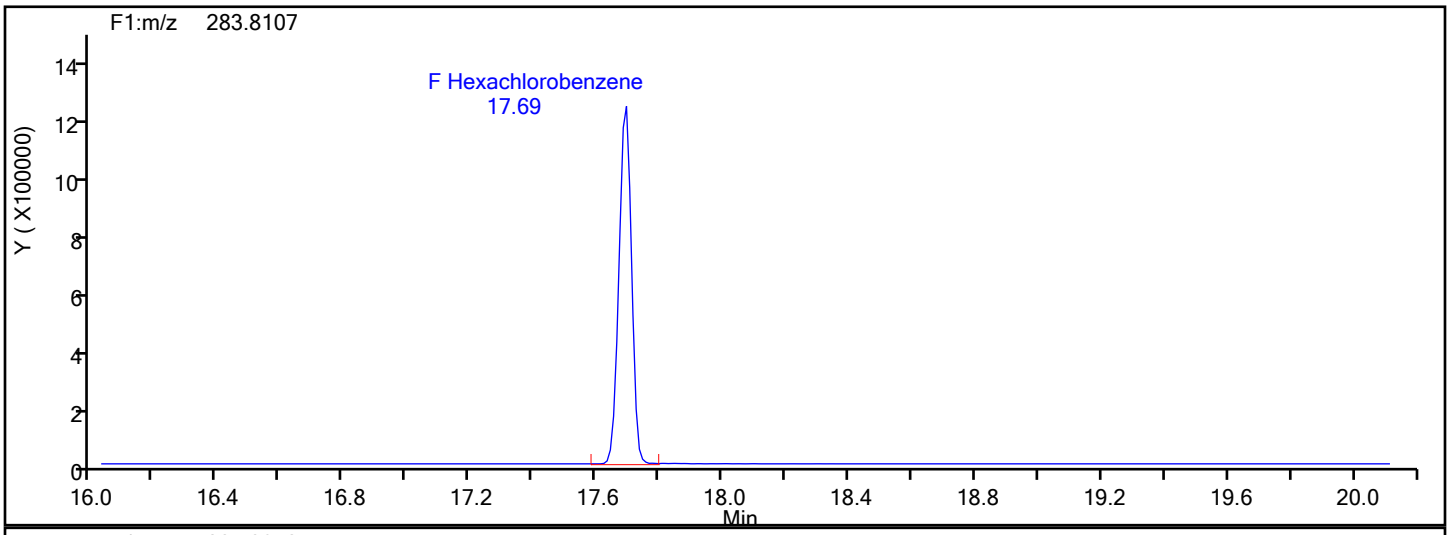
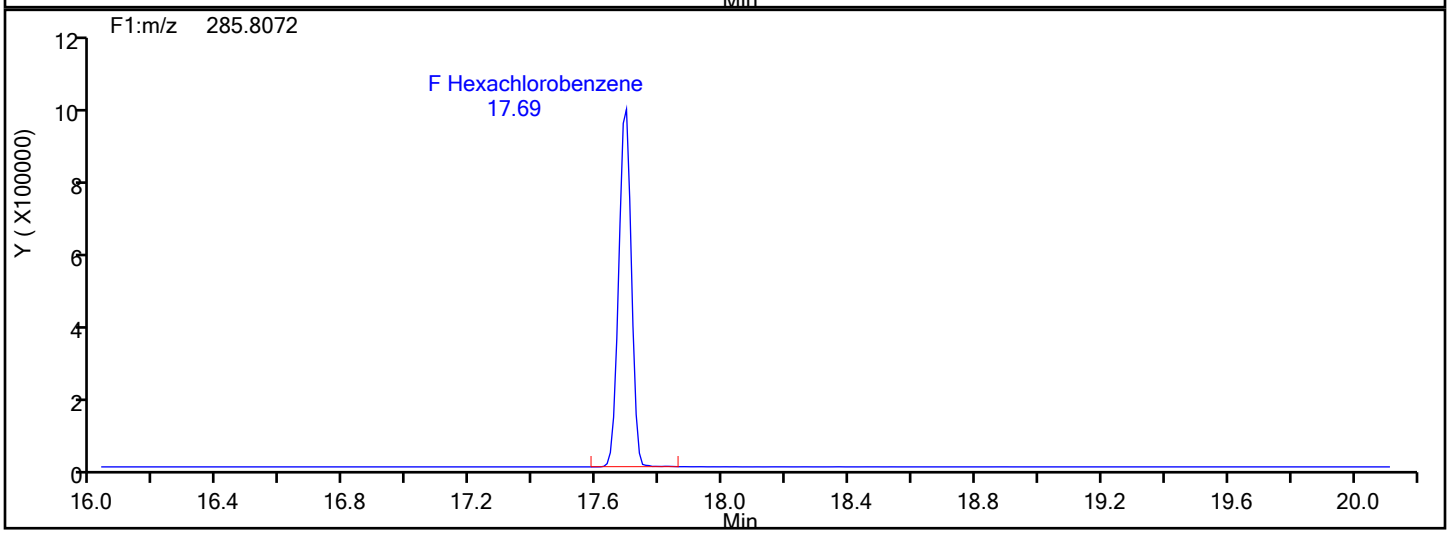
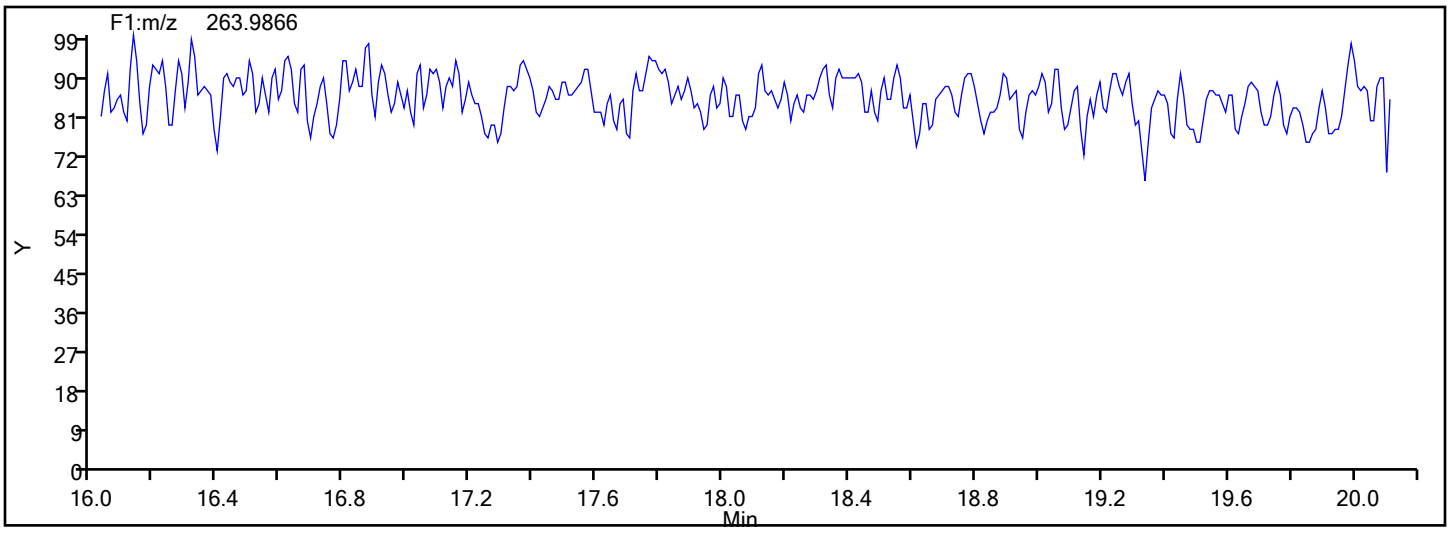
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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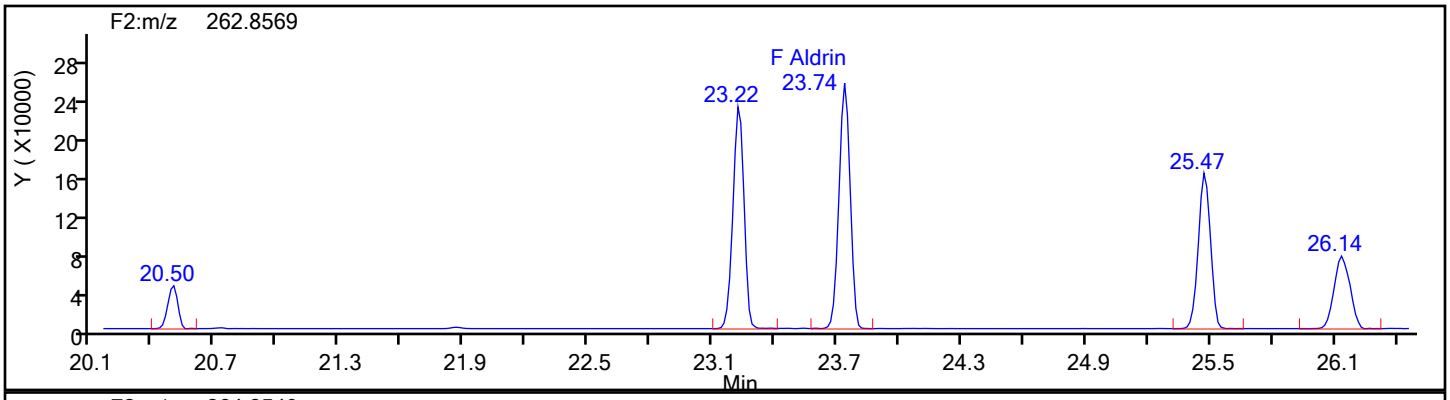
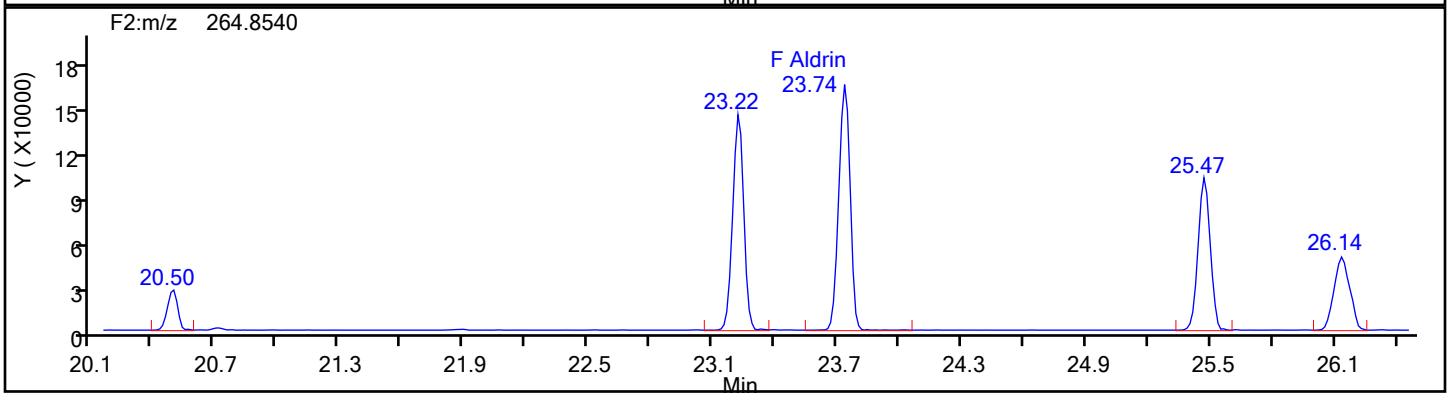
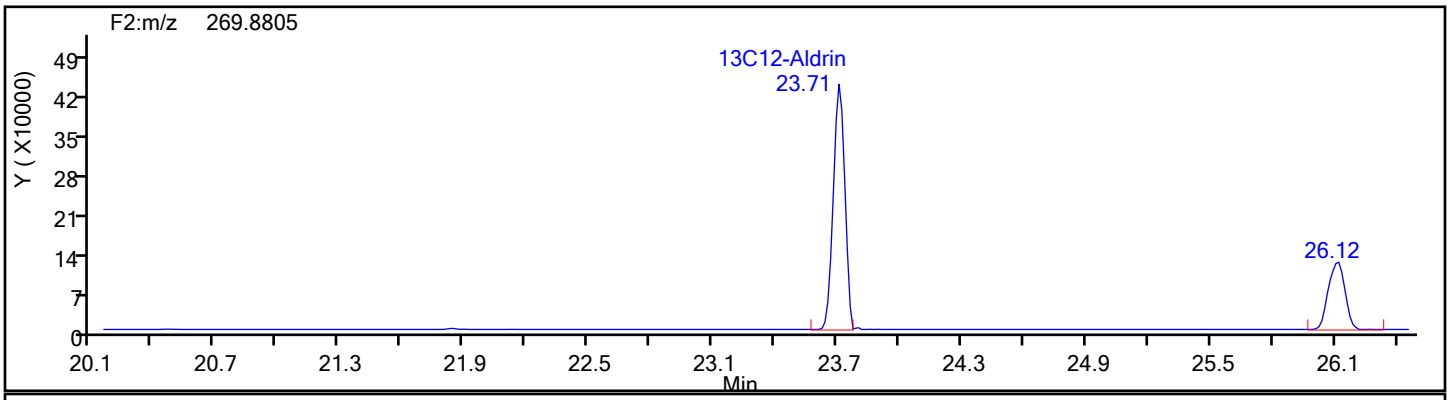
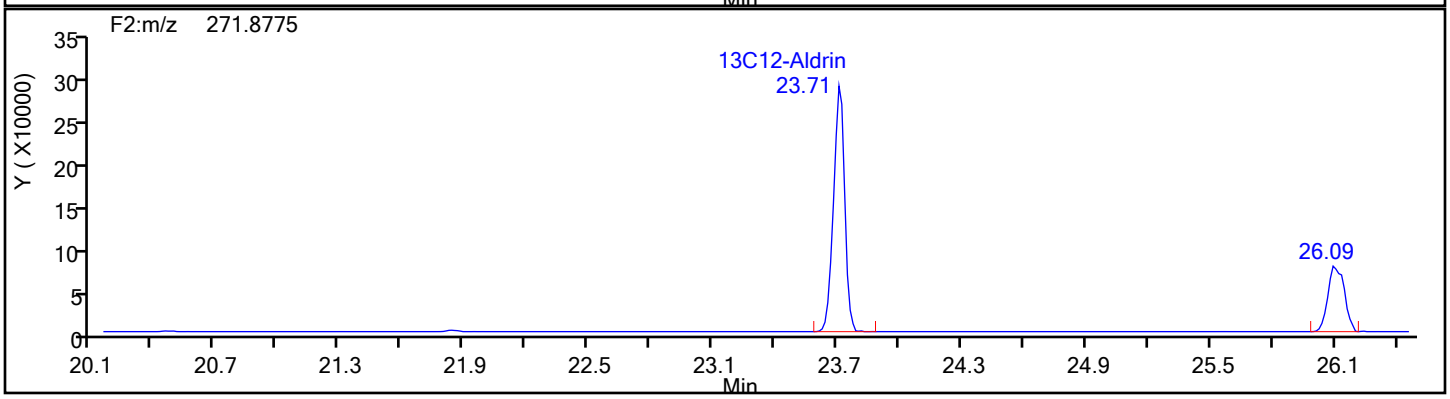
Aldrin





Aldrin Standards





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Eurofins Knoxville

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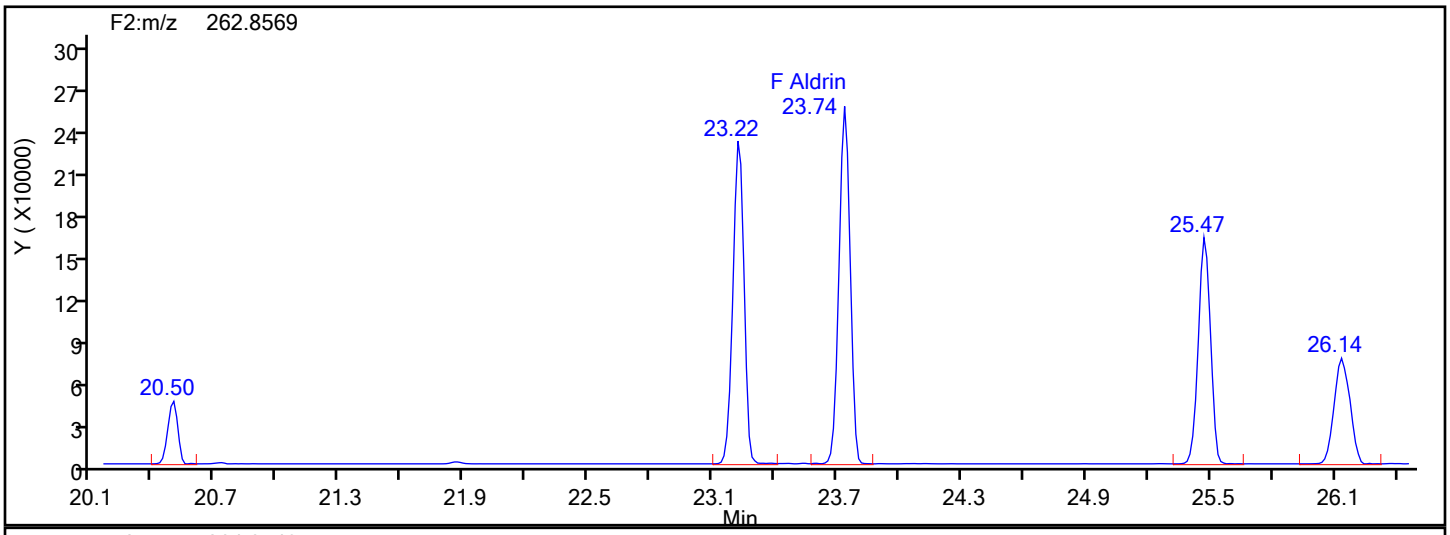
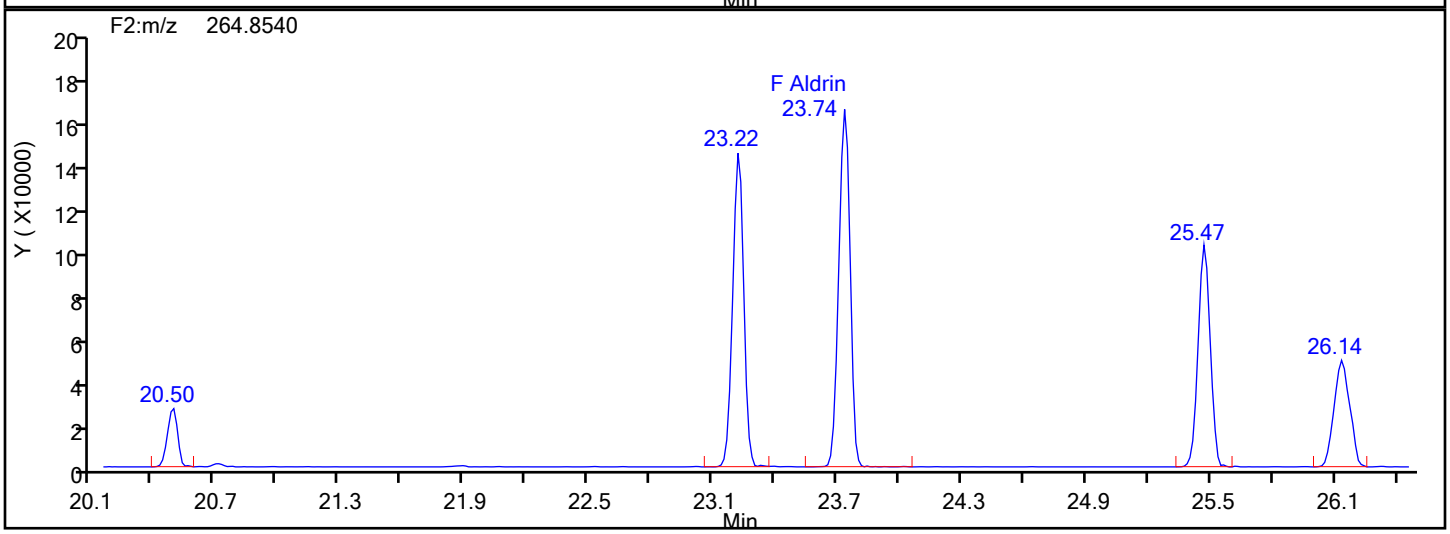
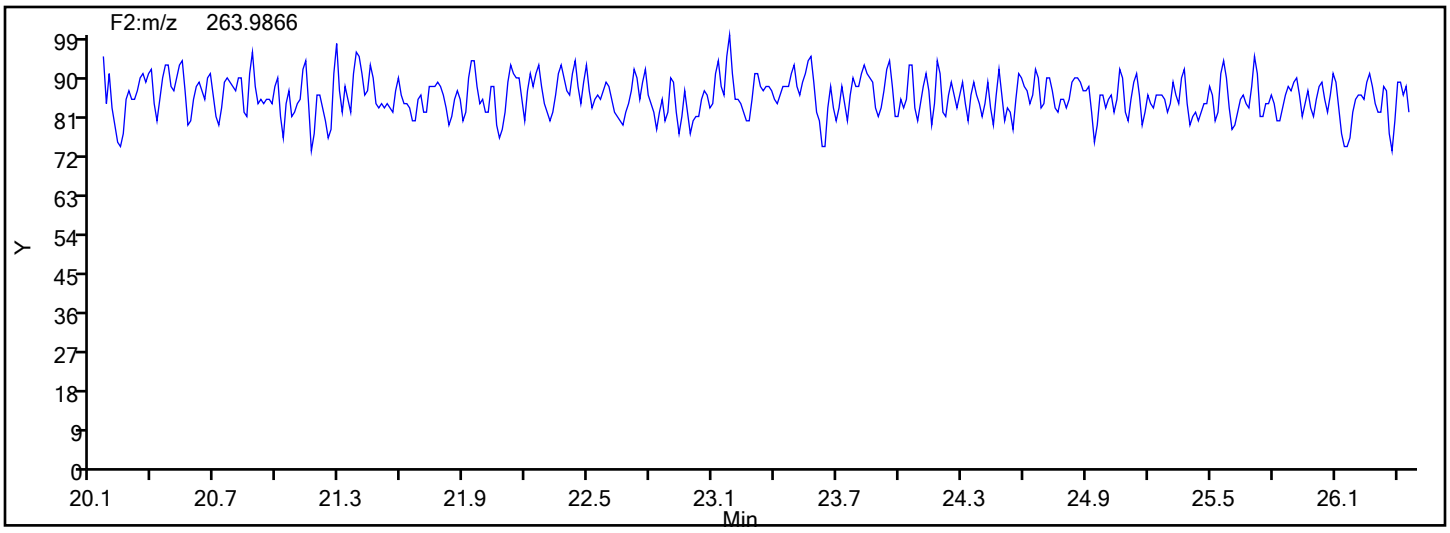
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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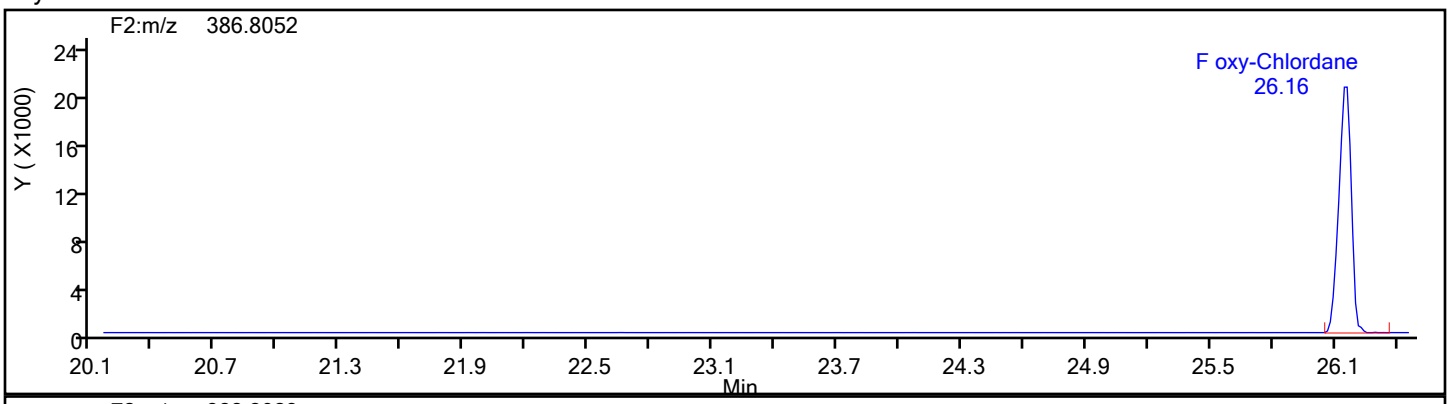
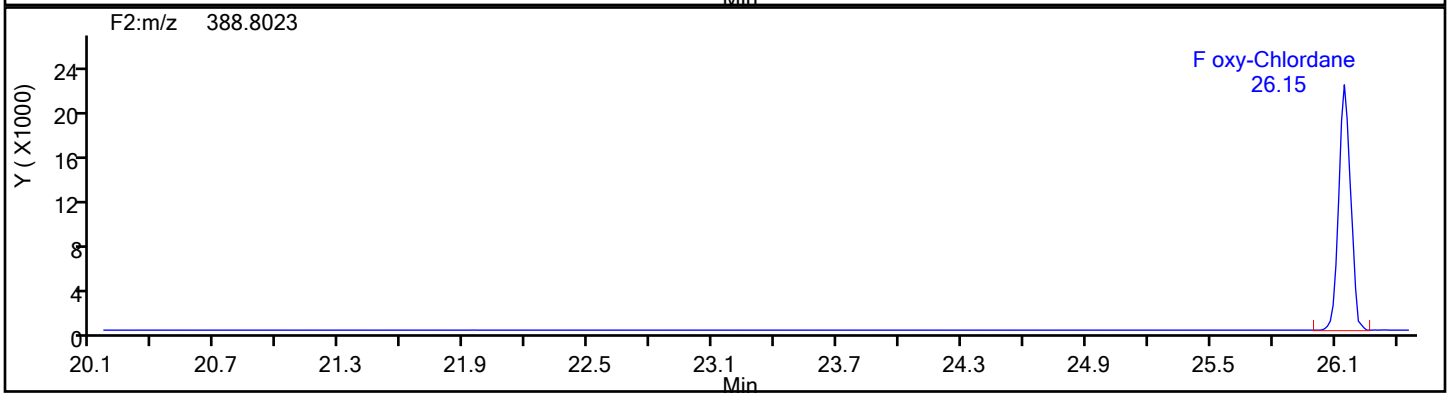
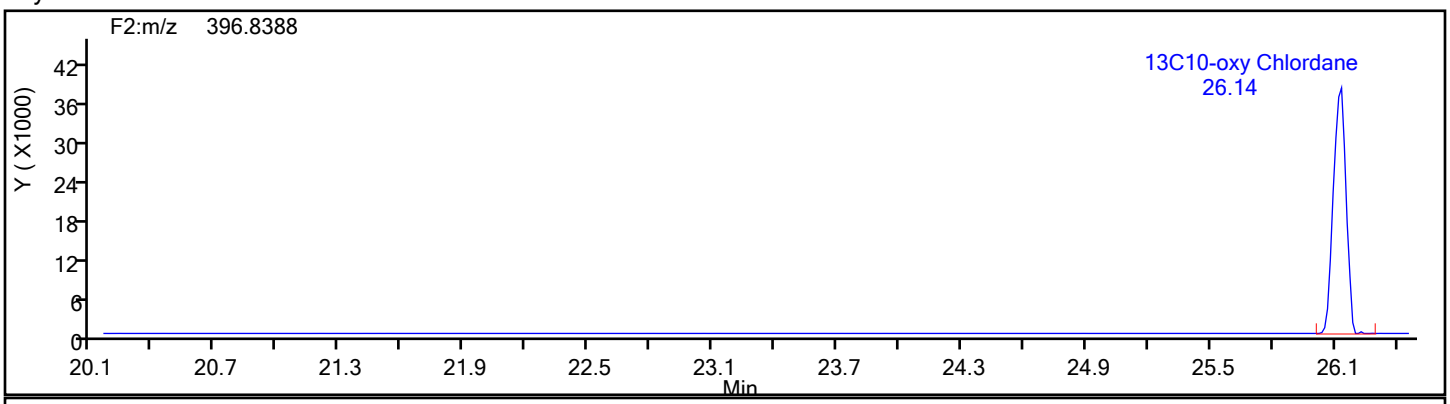
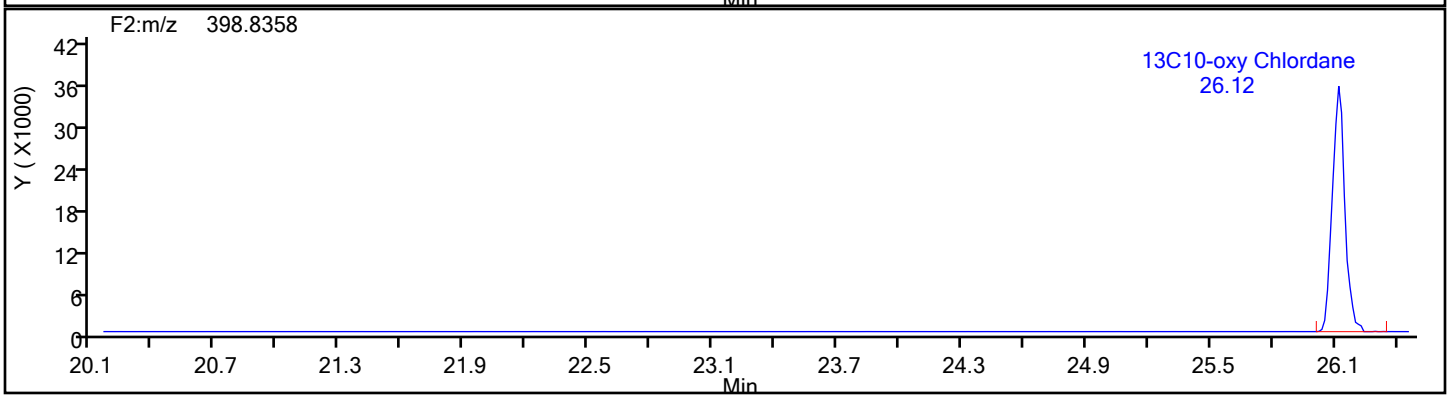
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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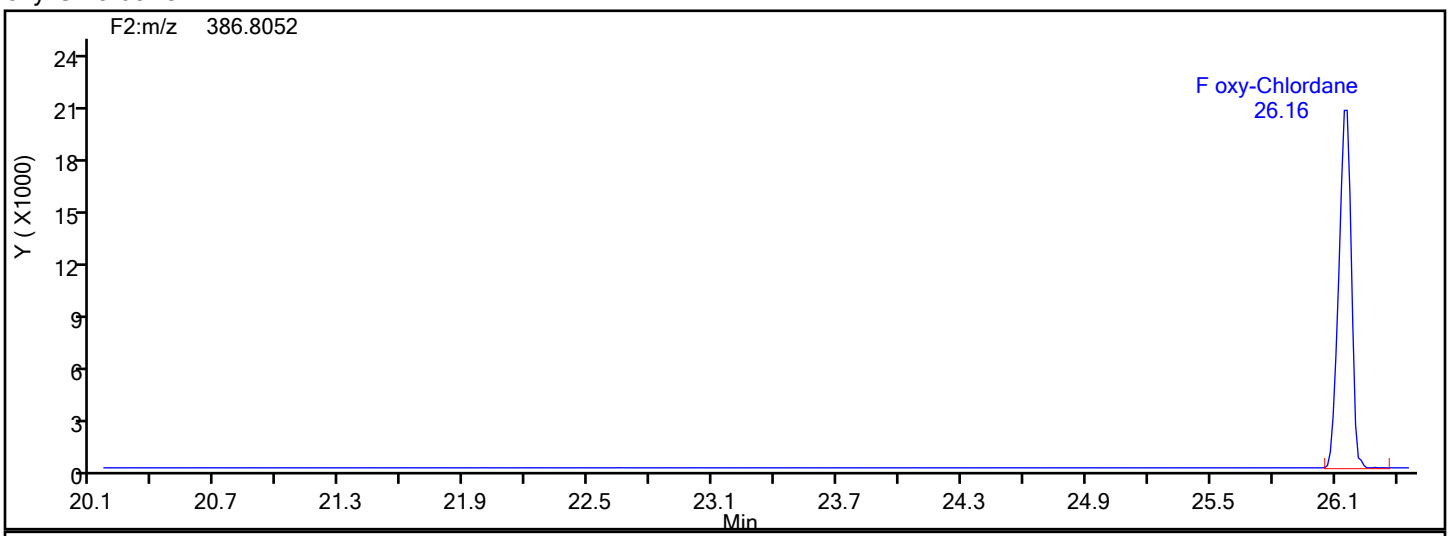
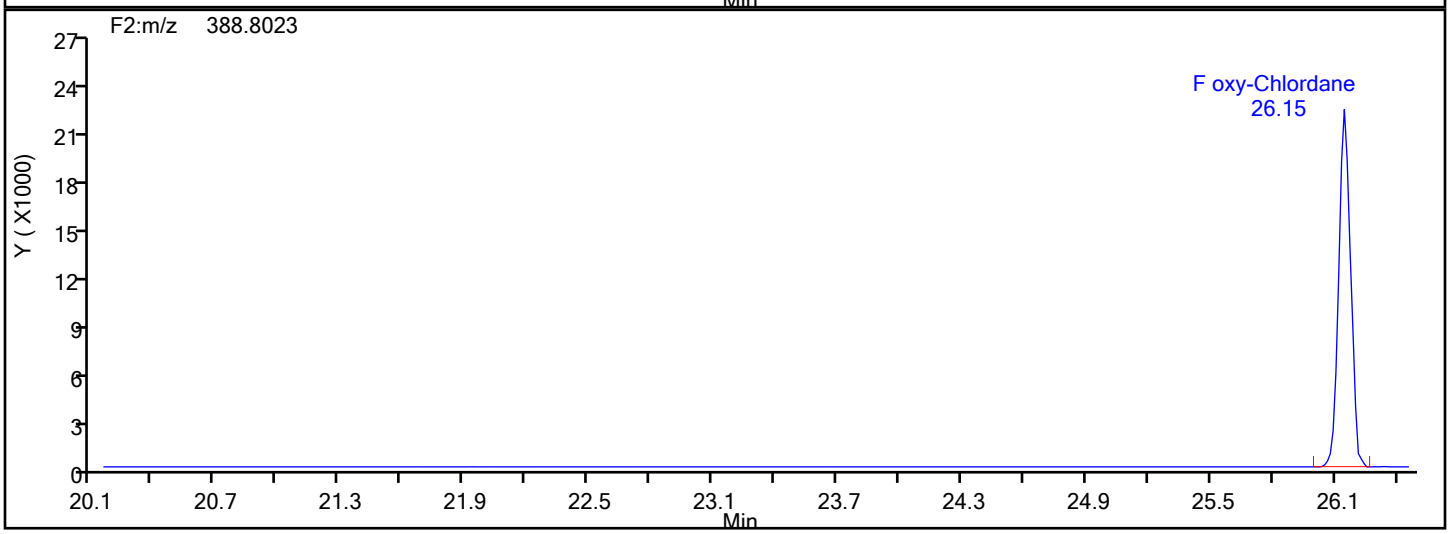
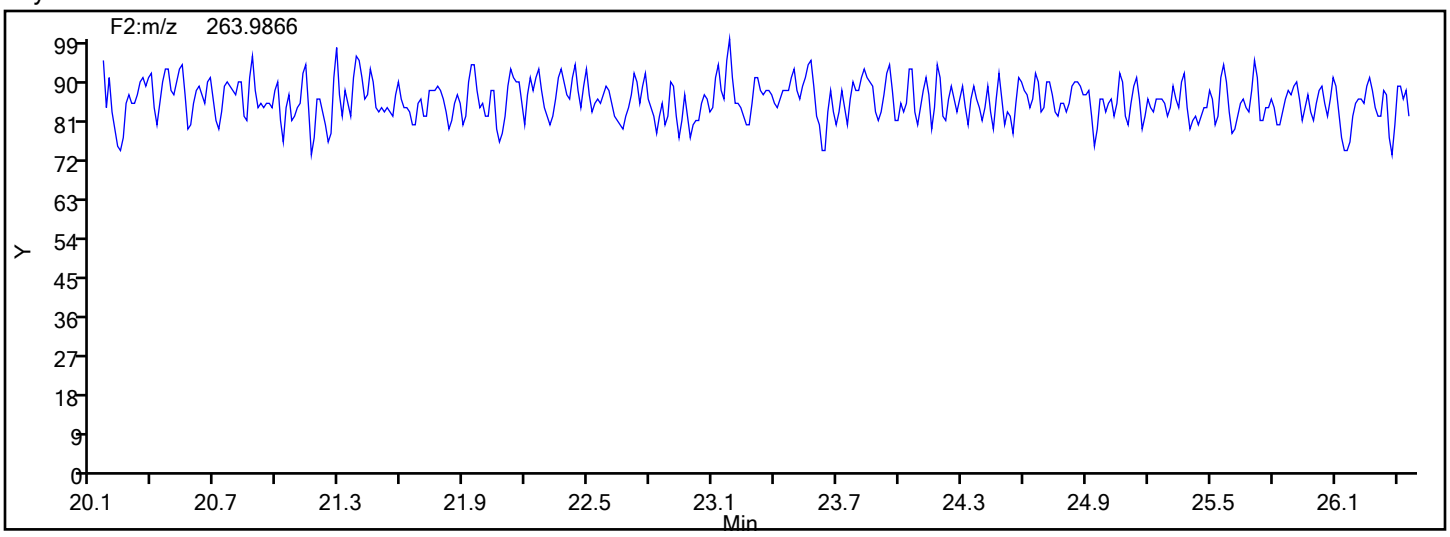
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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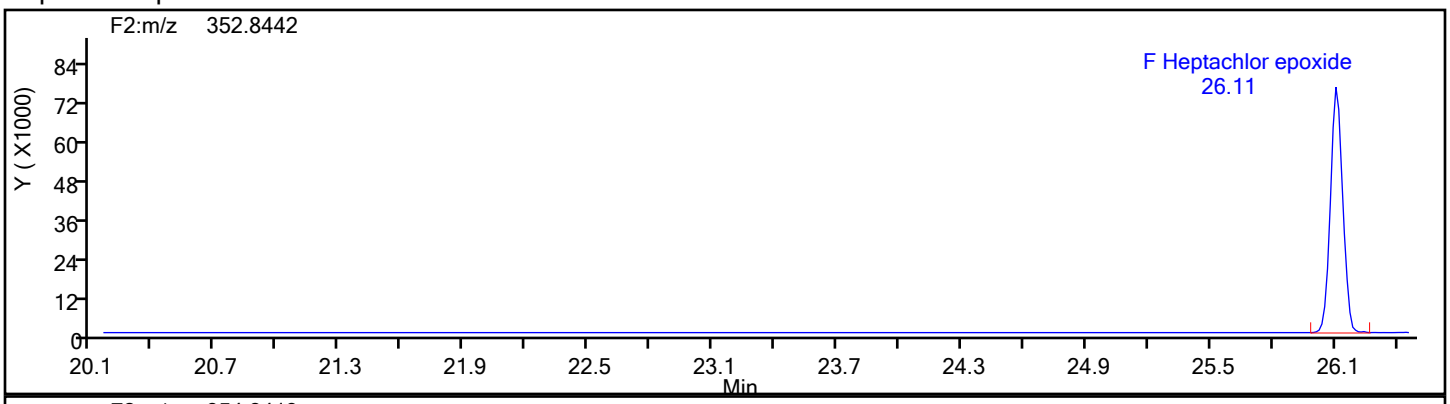
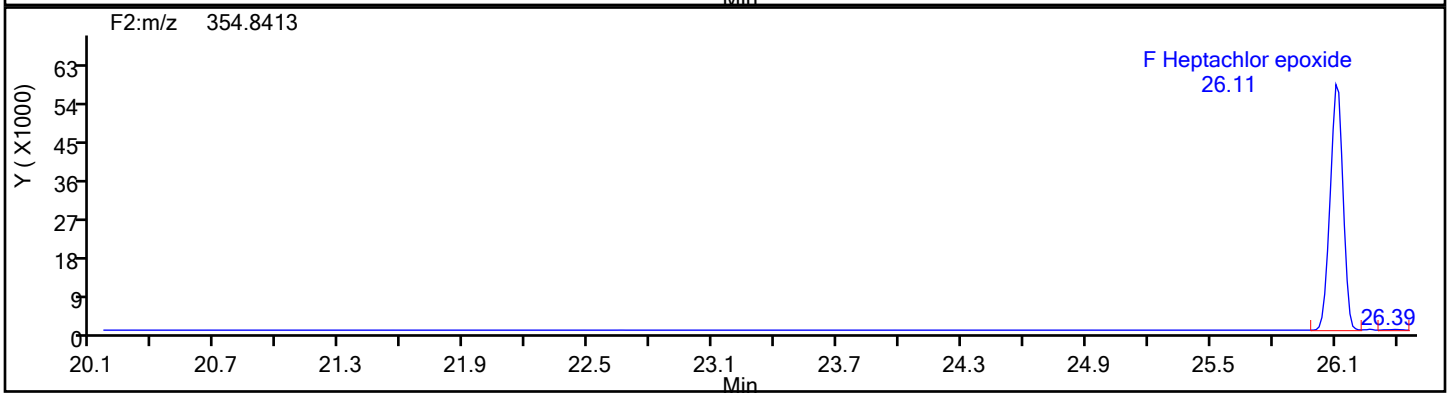
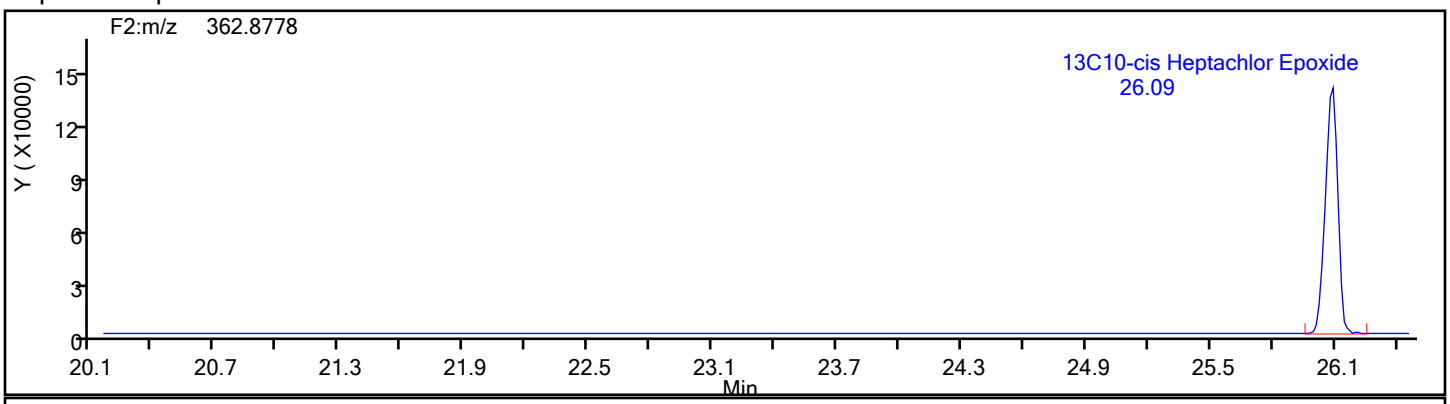
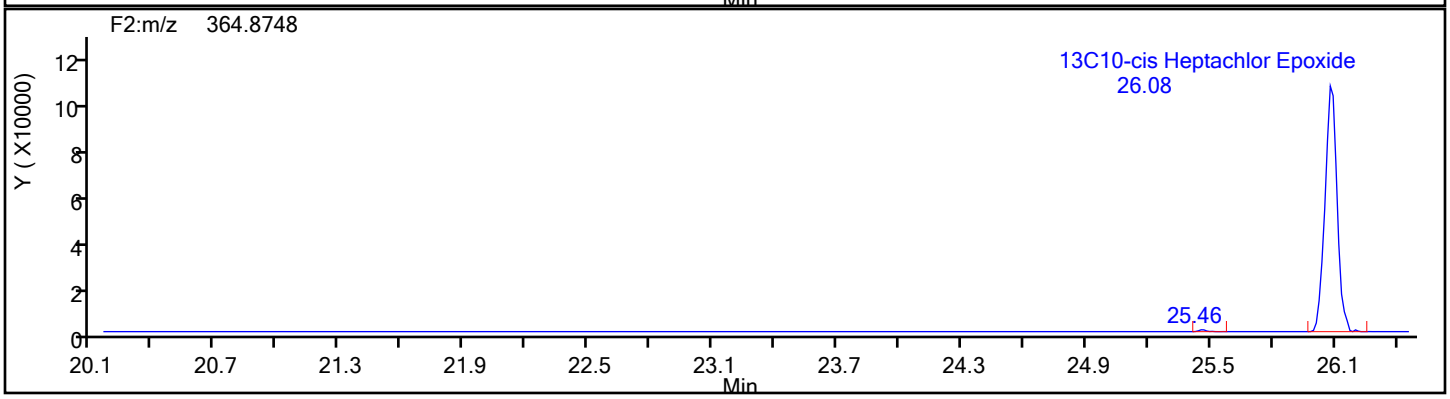
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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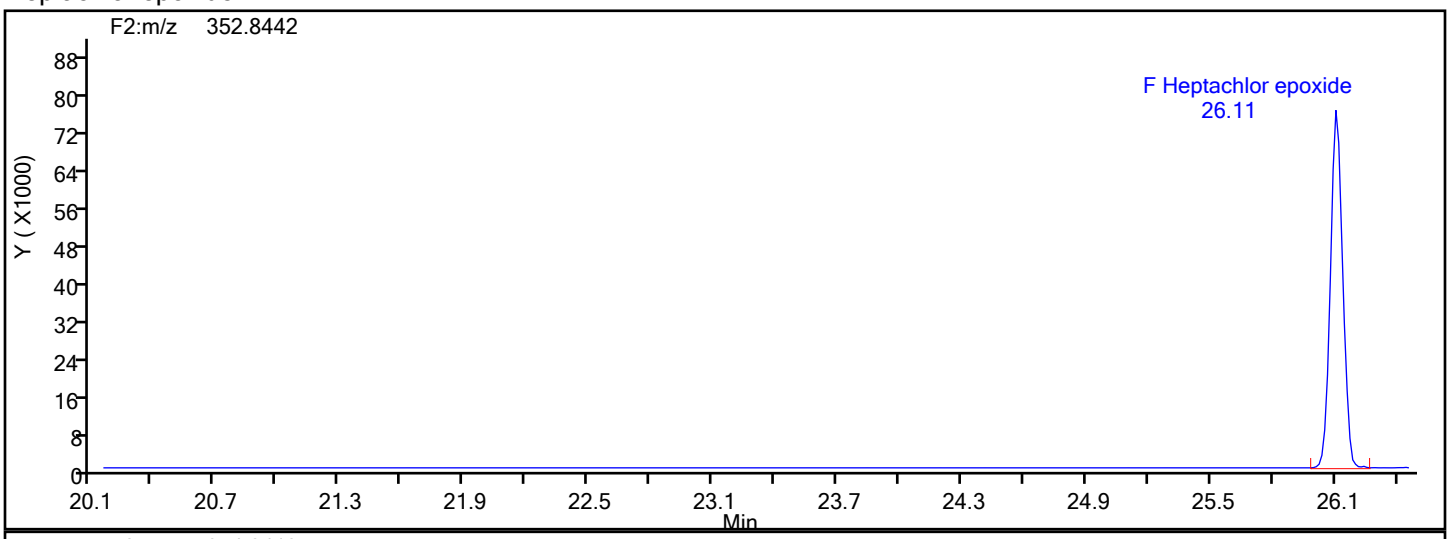
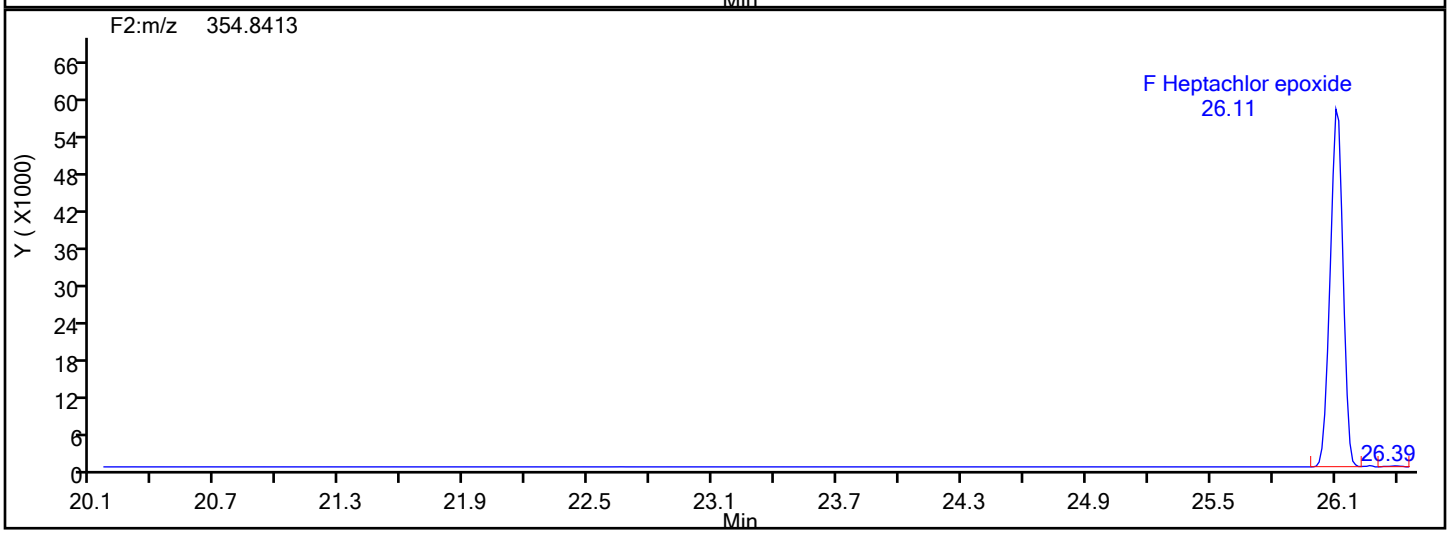
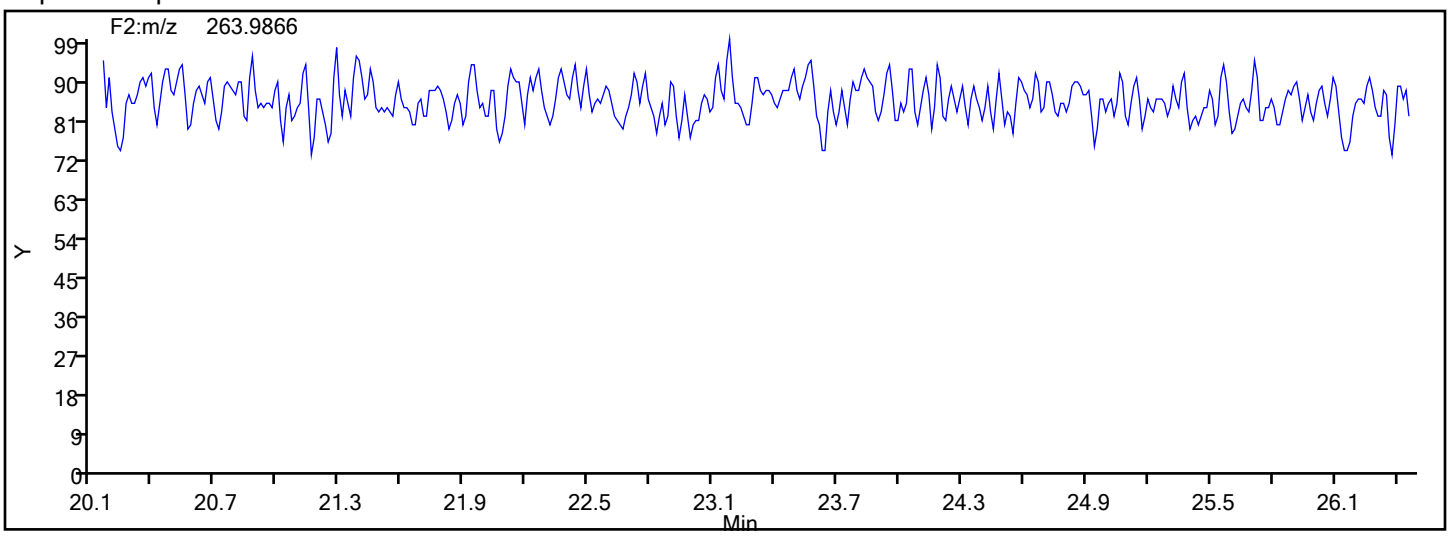
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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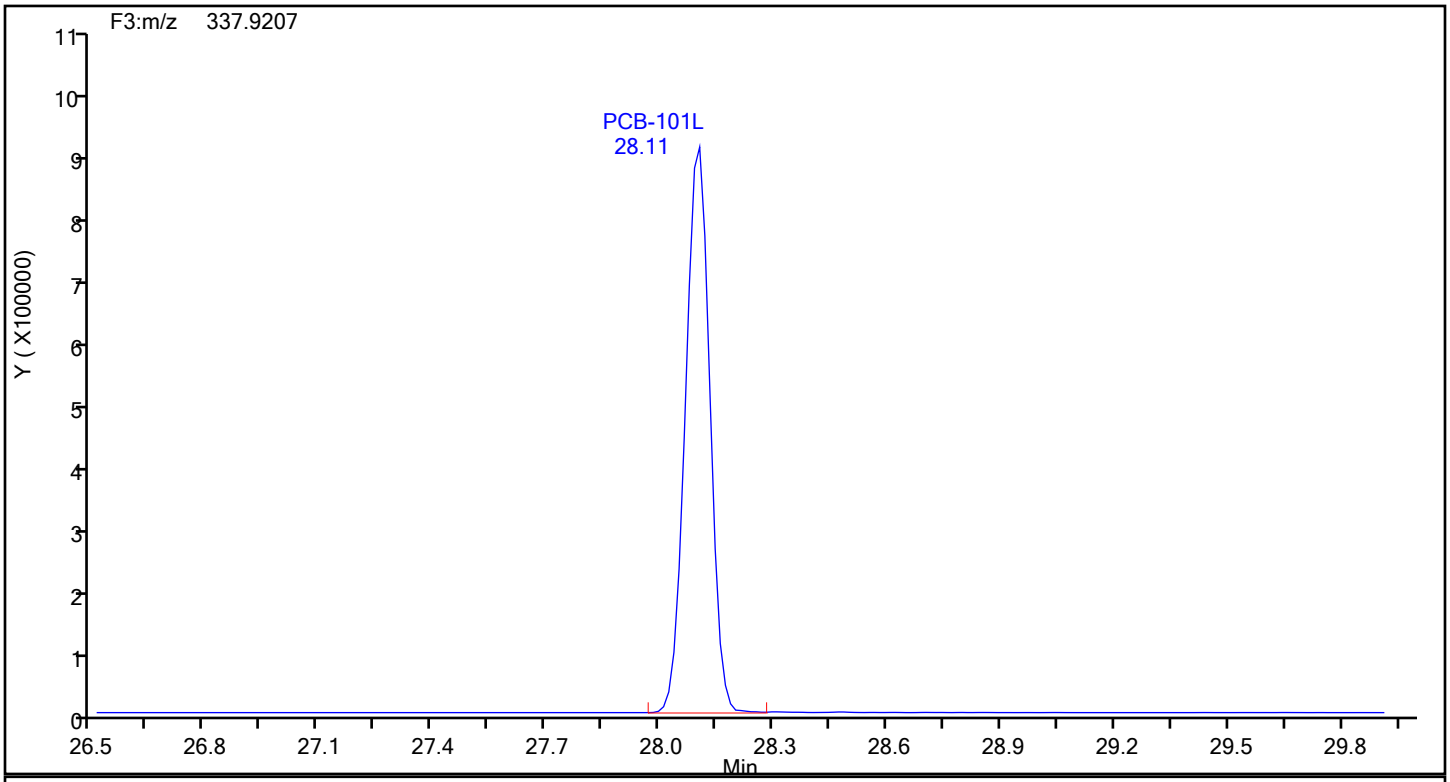
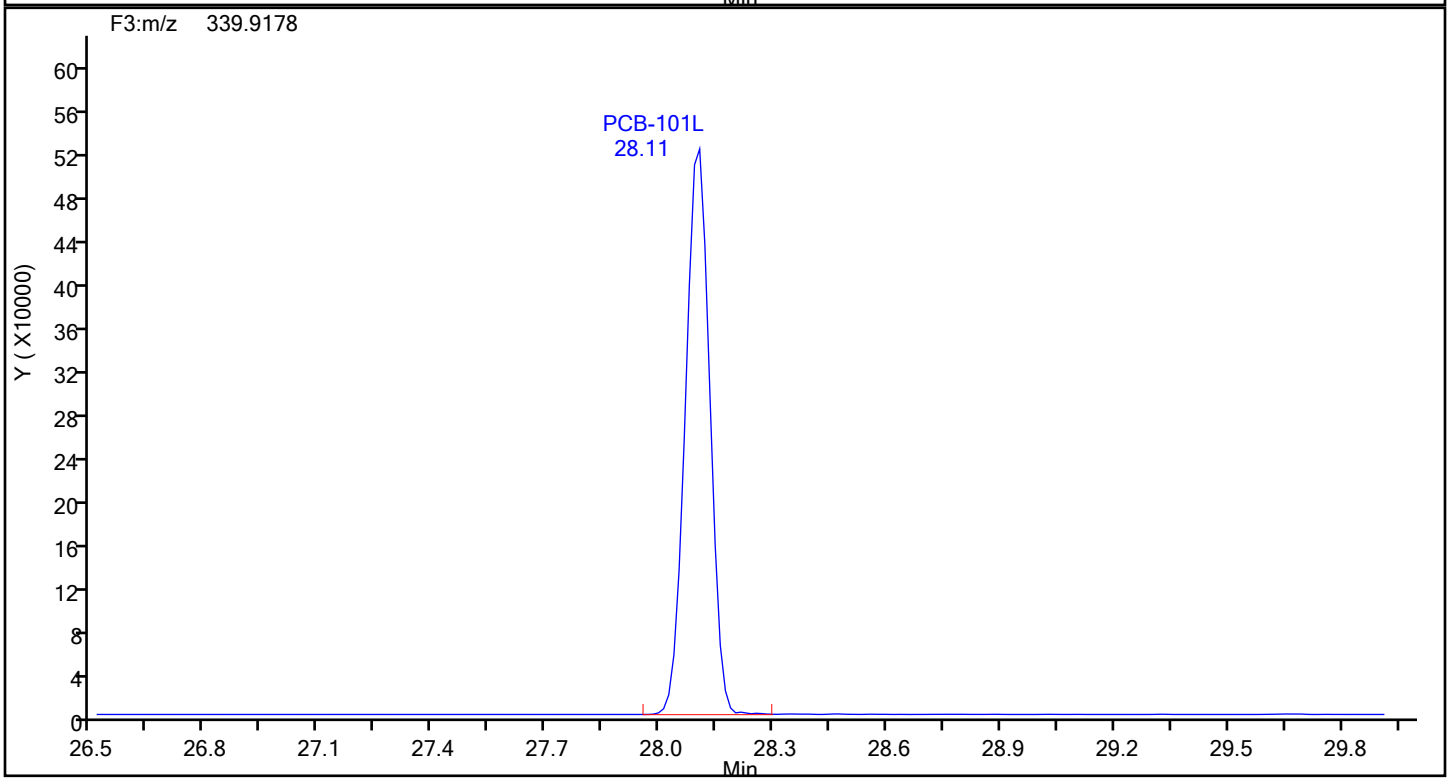
PCB-101L Standards





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Eurofins Knoxville

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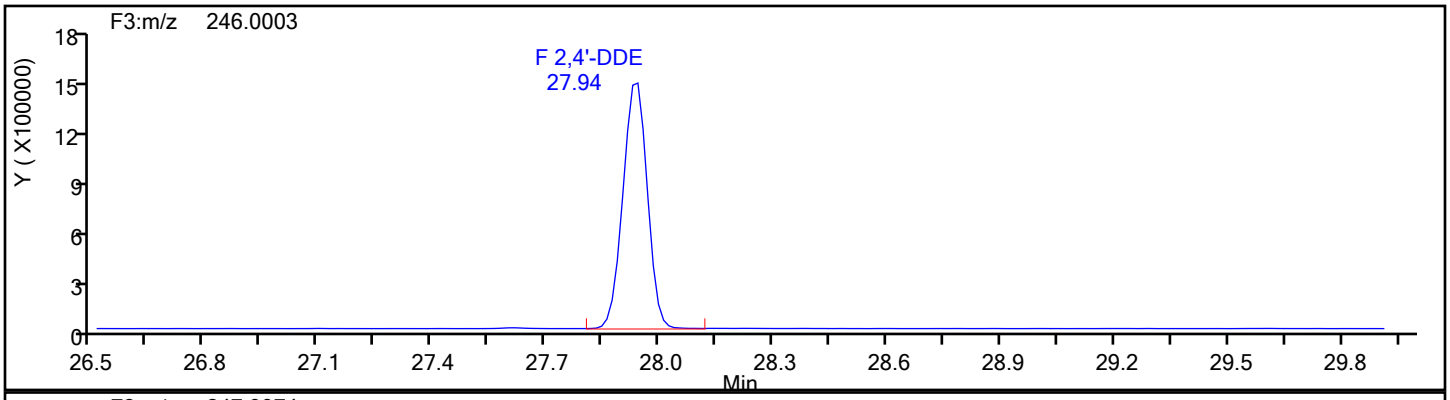
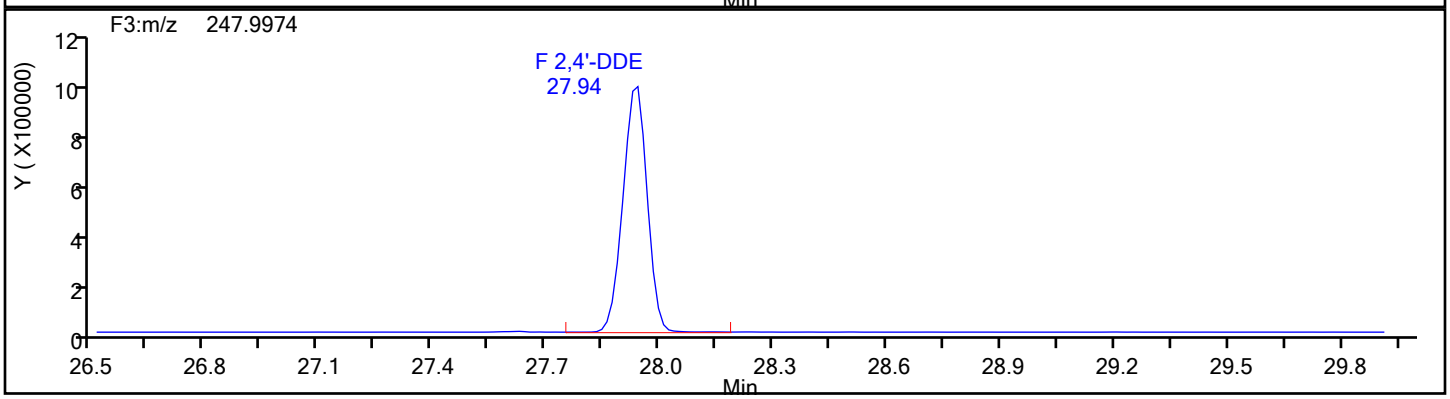
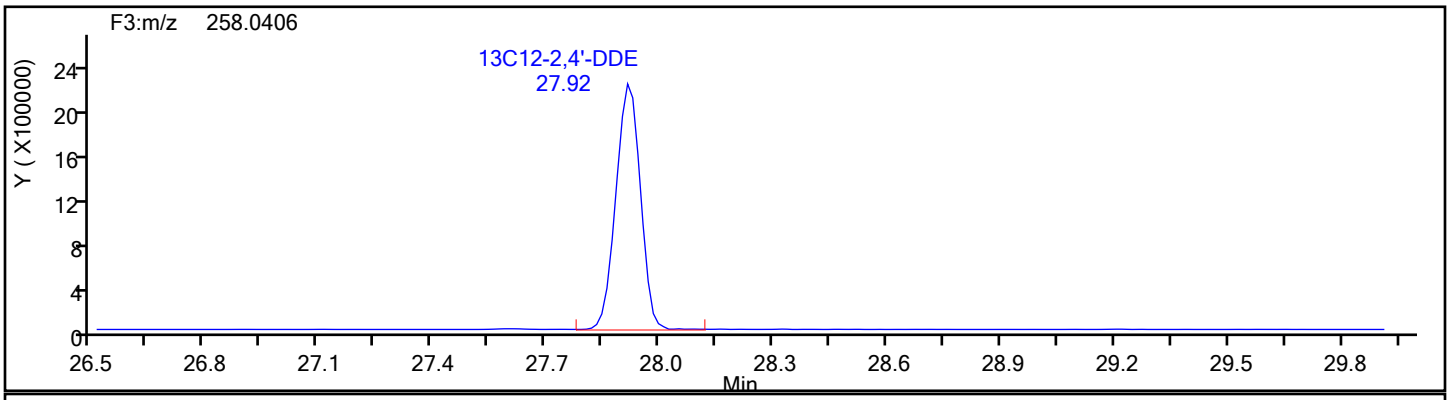
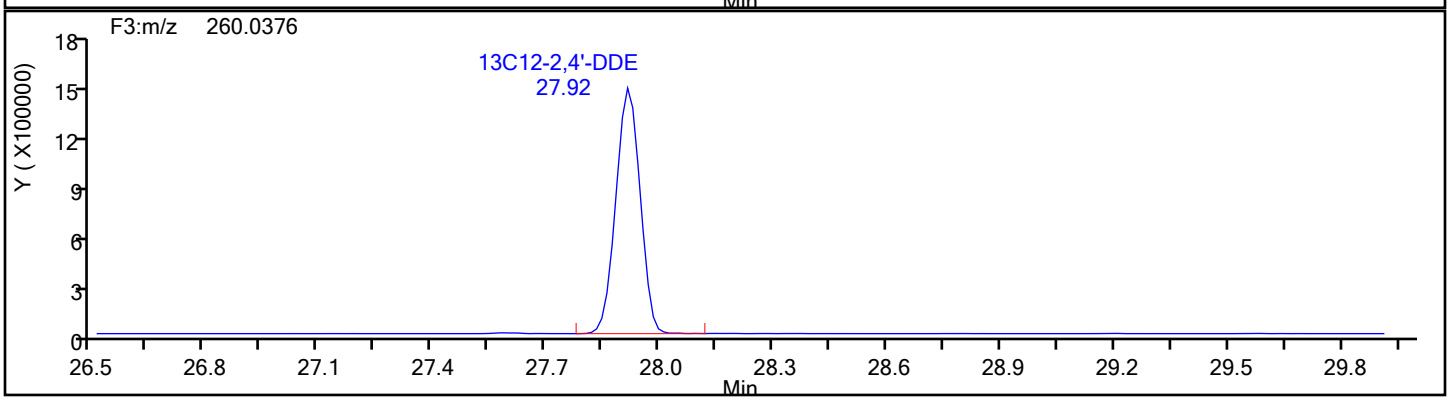
2,4'-DDE





2,4'-DDE Standards





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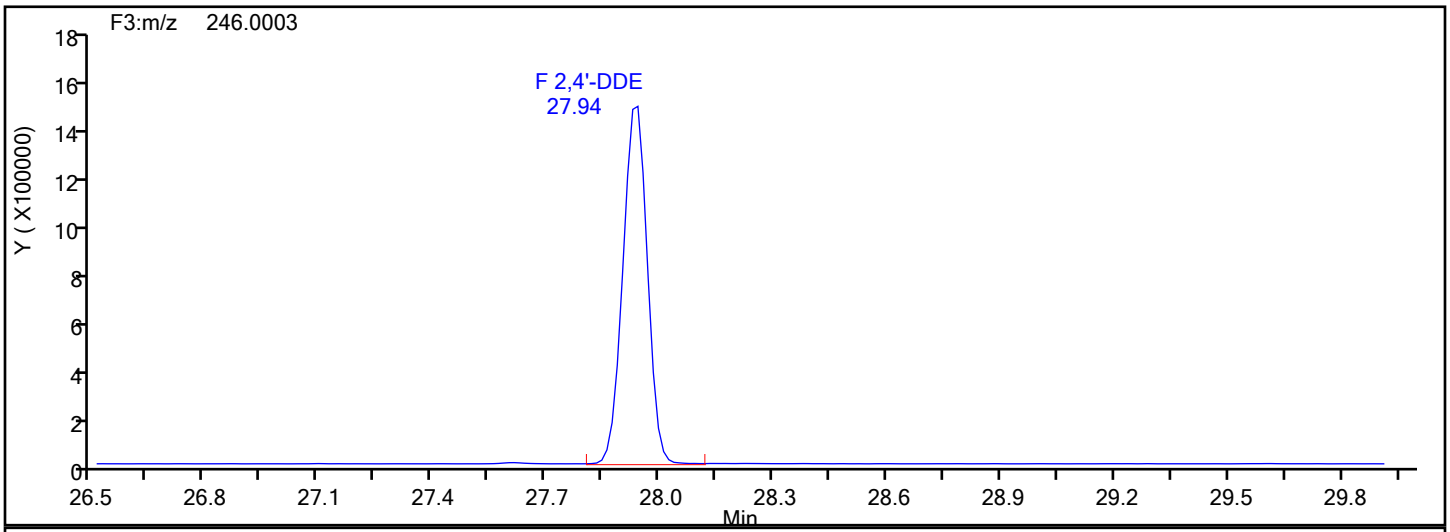
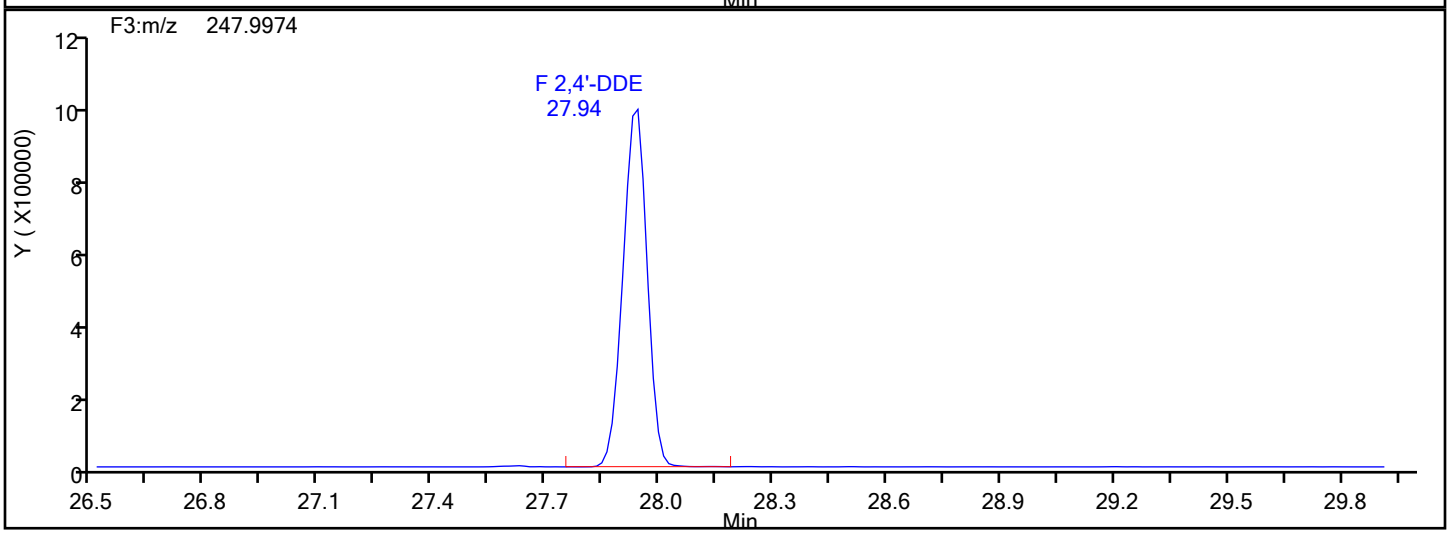
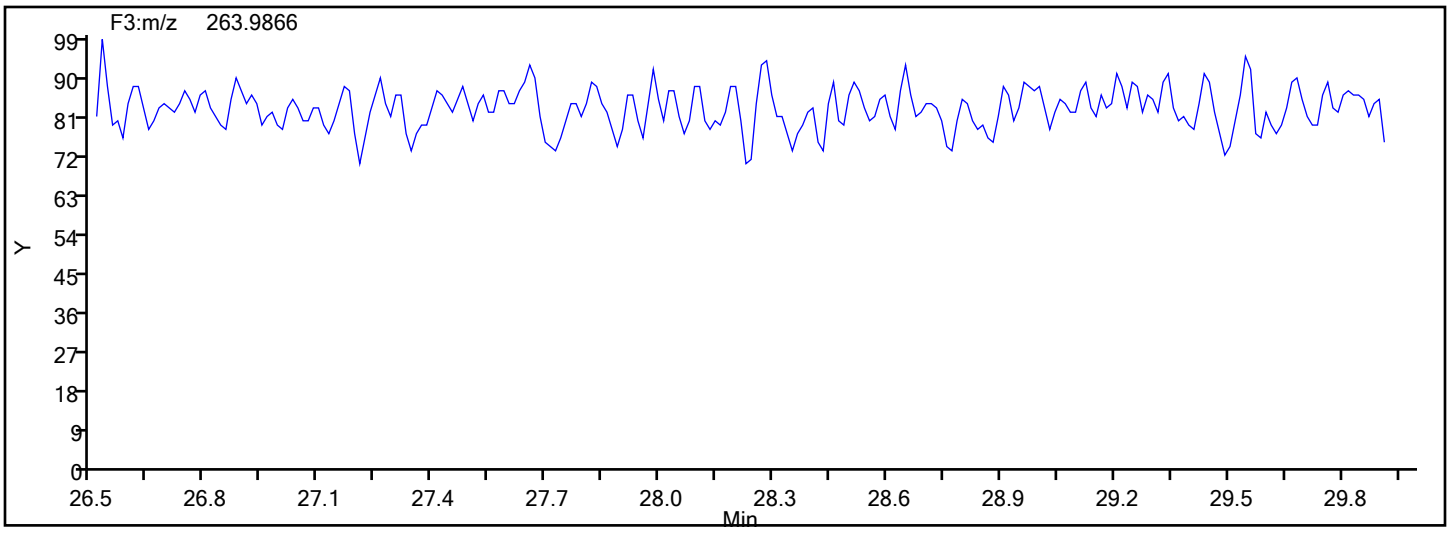
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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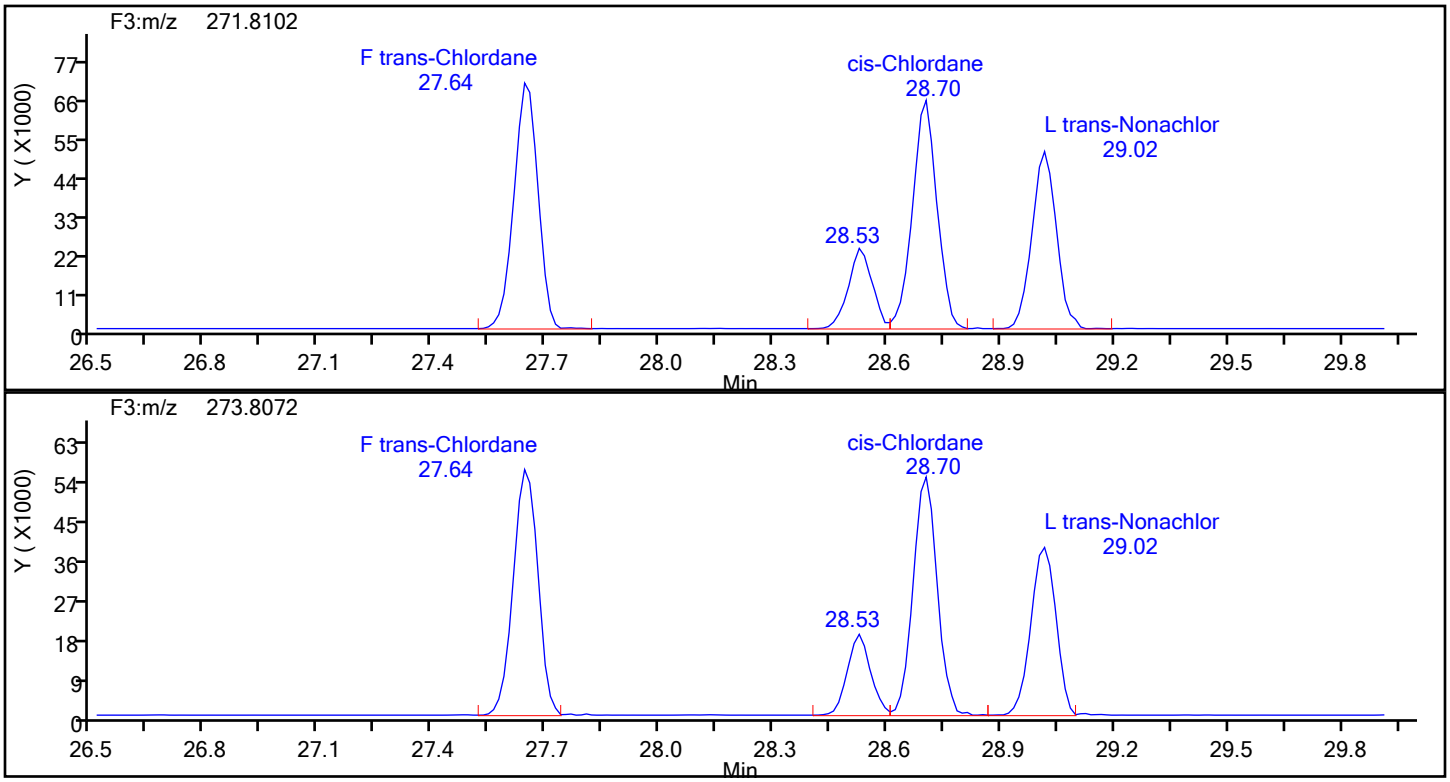
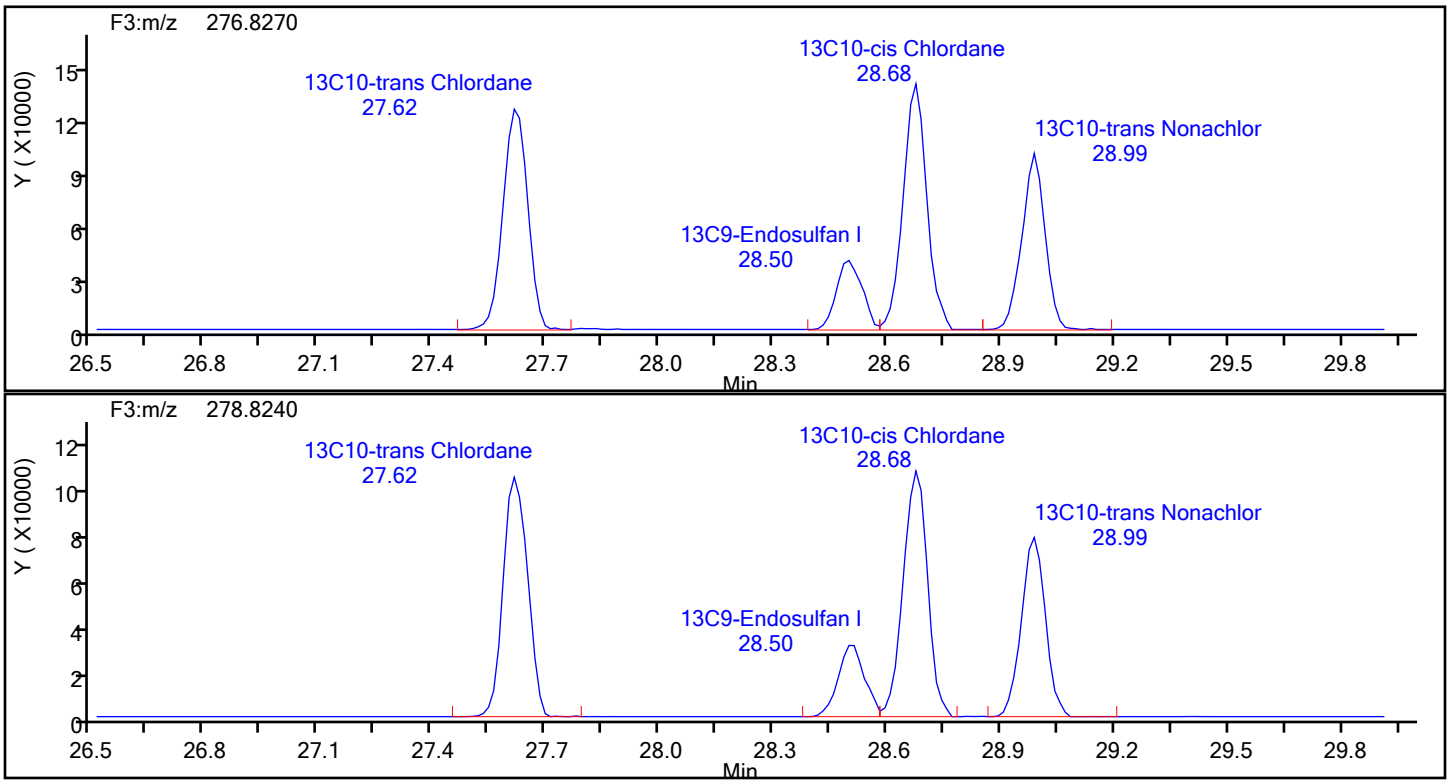
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane



Chlordane Standards



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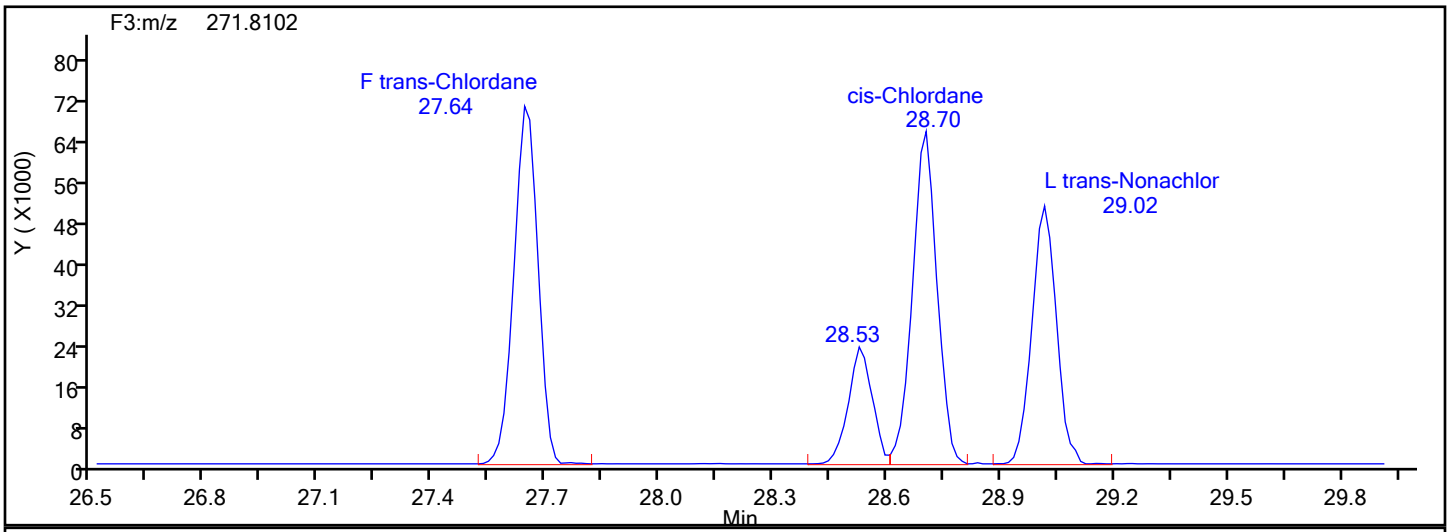
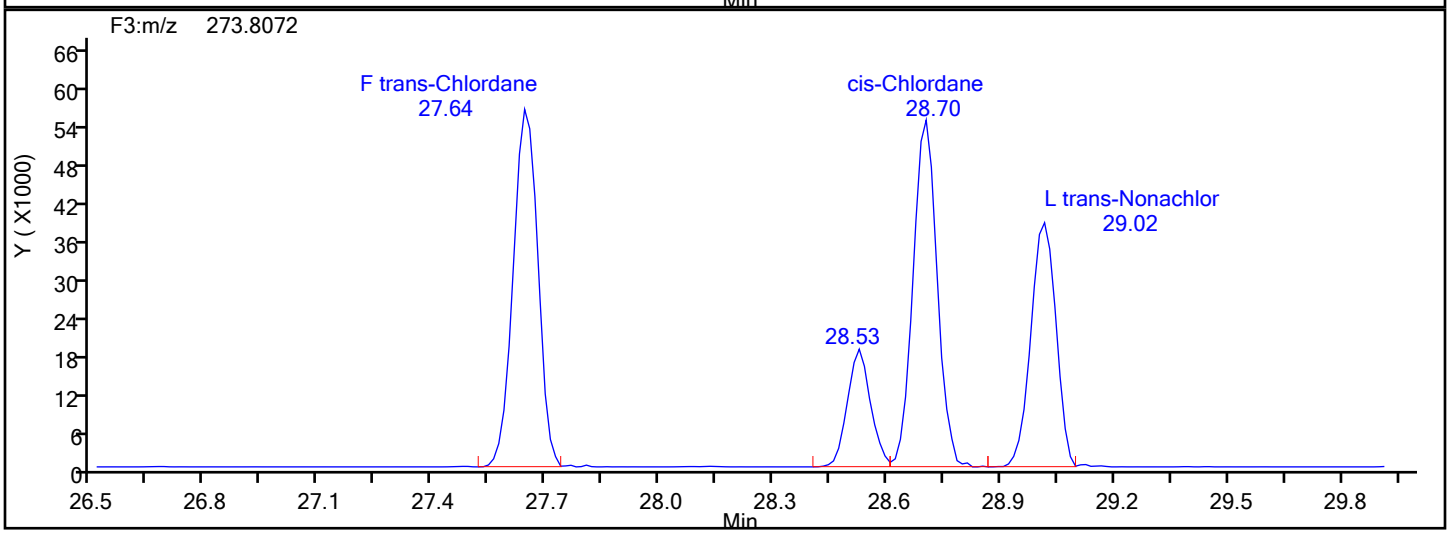
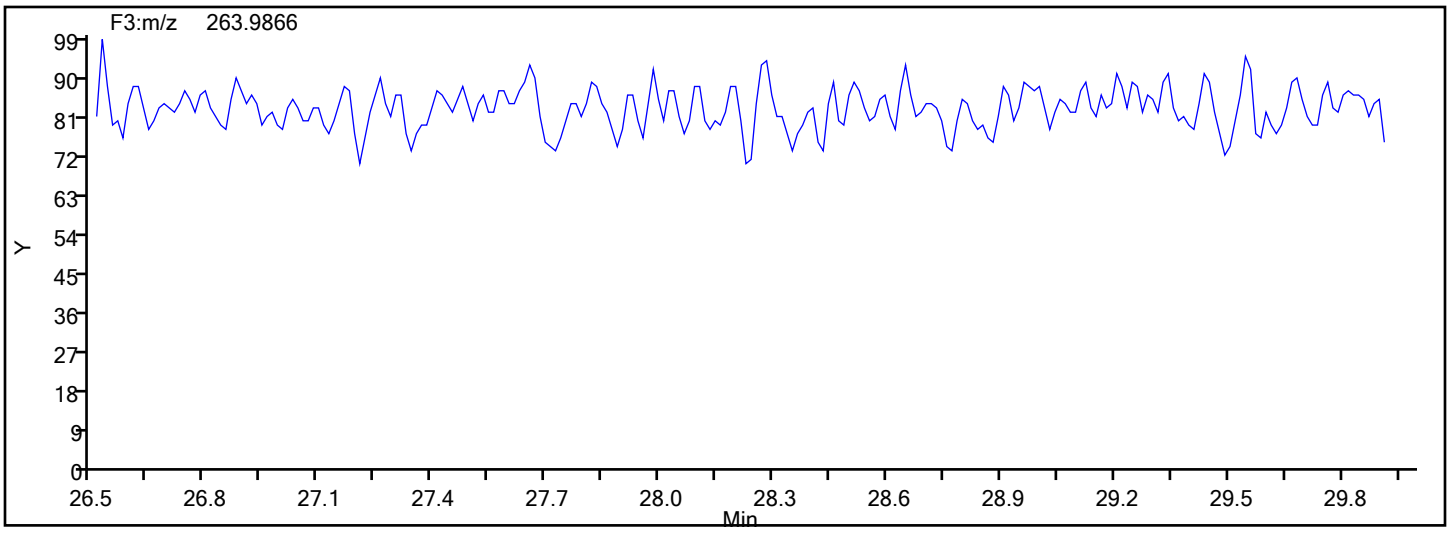
Chlordane





Chlordane Lock Mass



Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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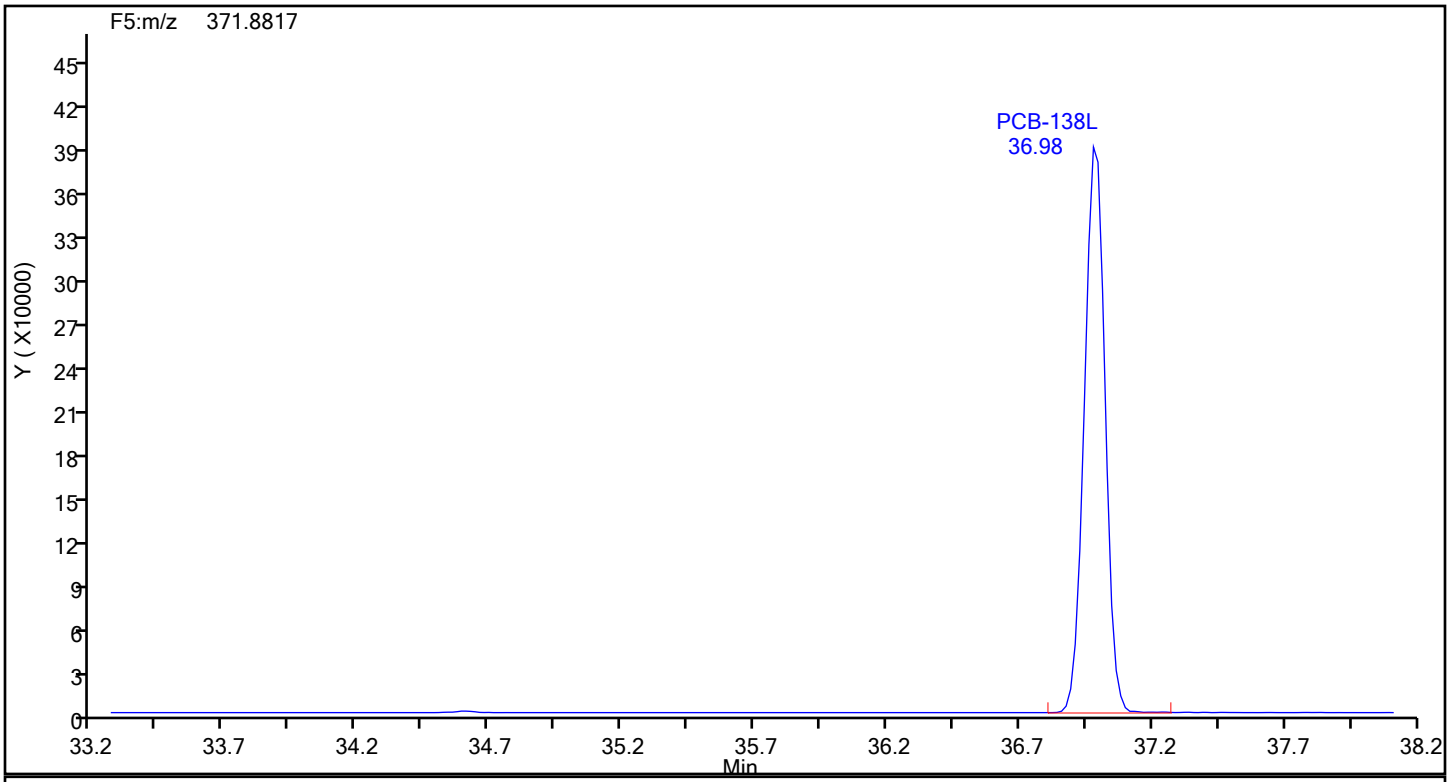
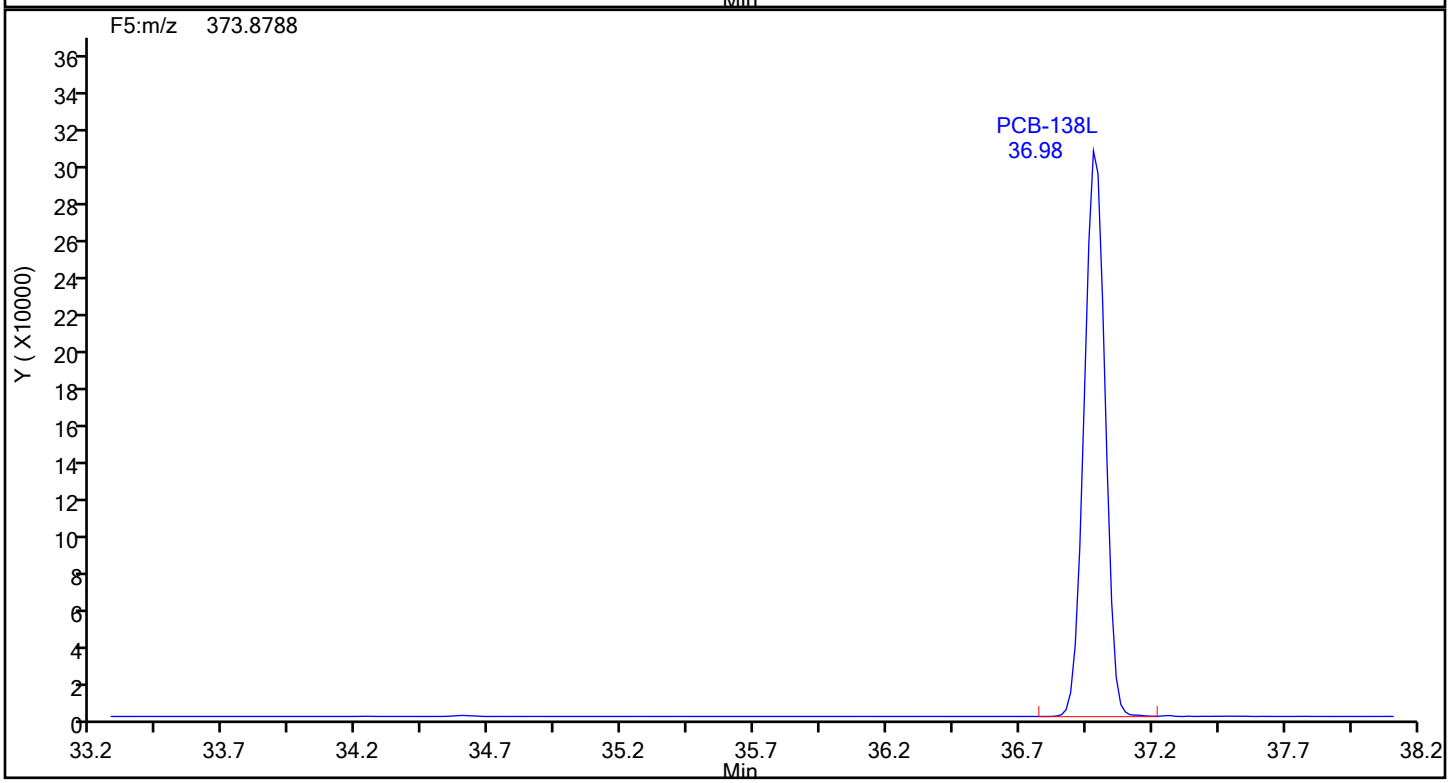
PCB-138L Standards





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Eurofins Knoxville

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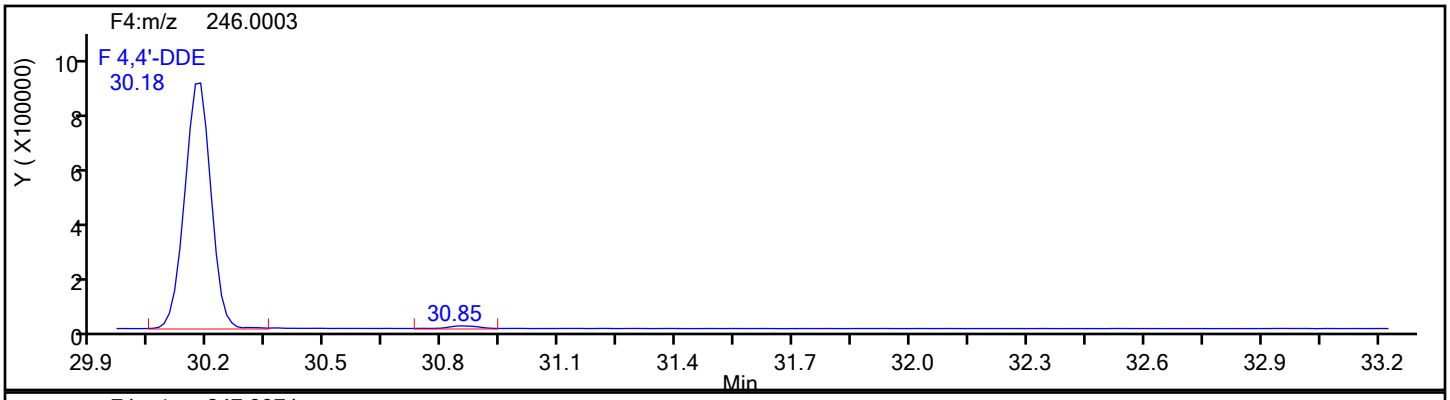
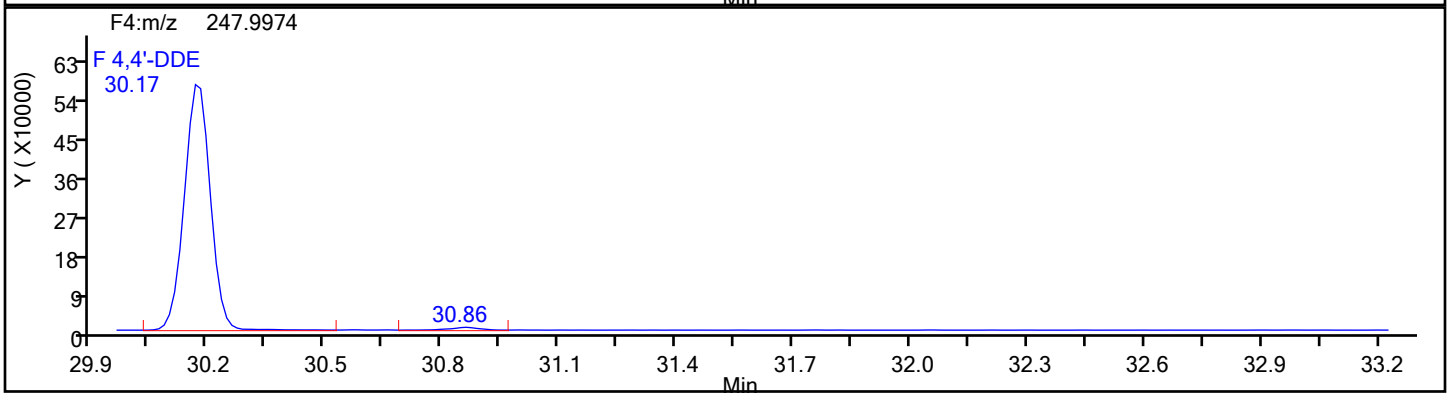
4,4'-DDE





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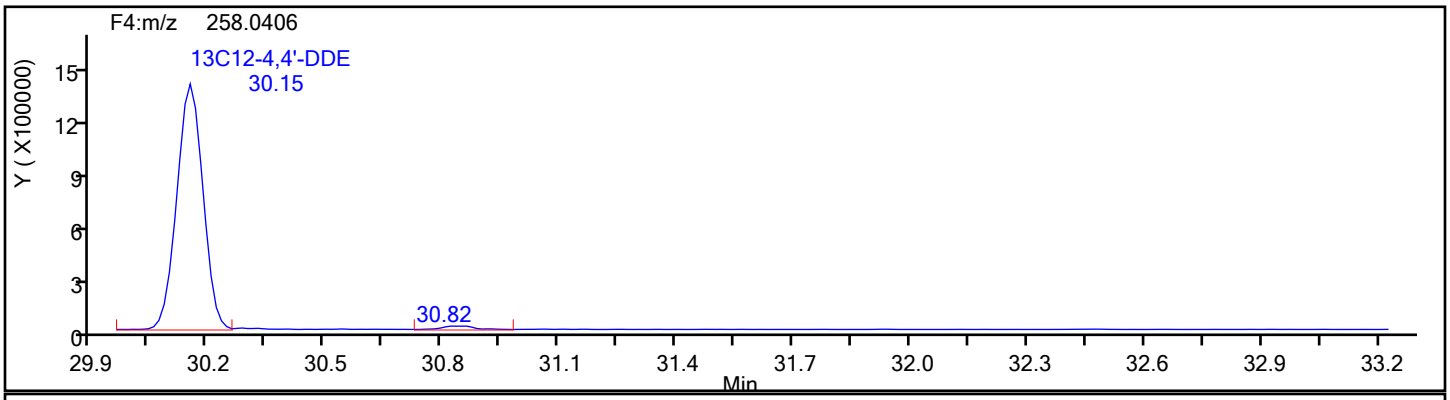

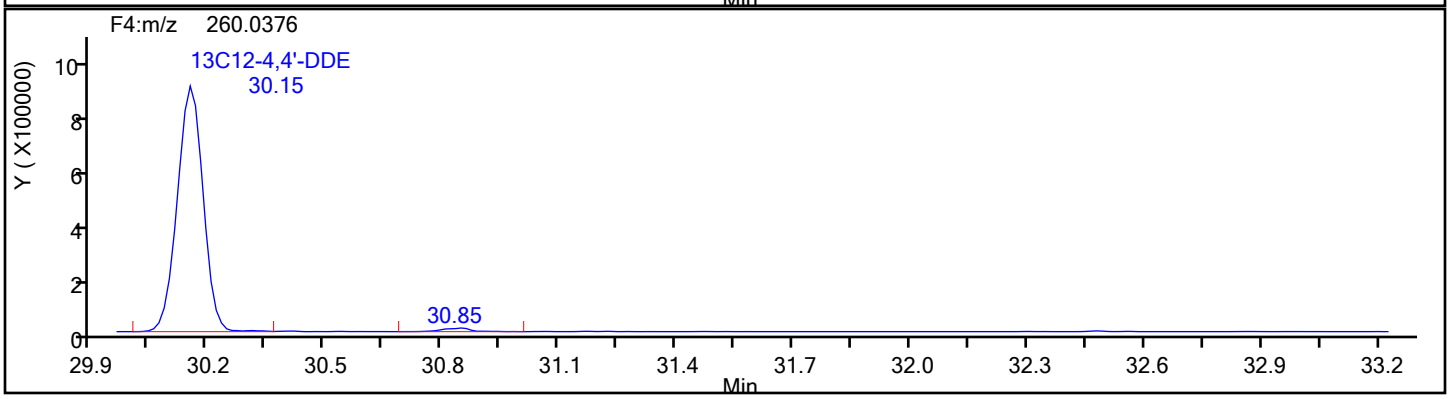

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Eurofins Knoxville

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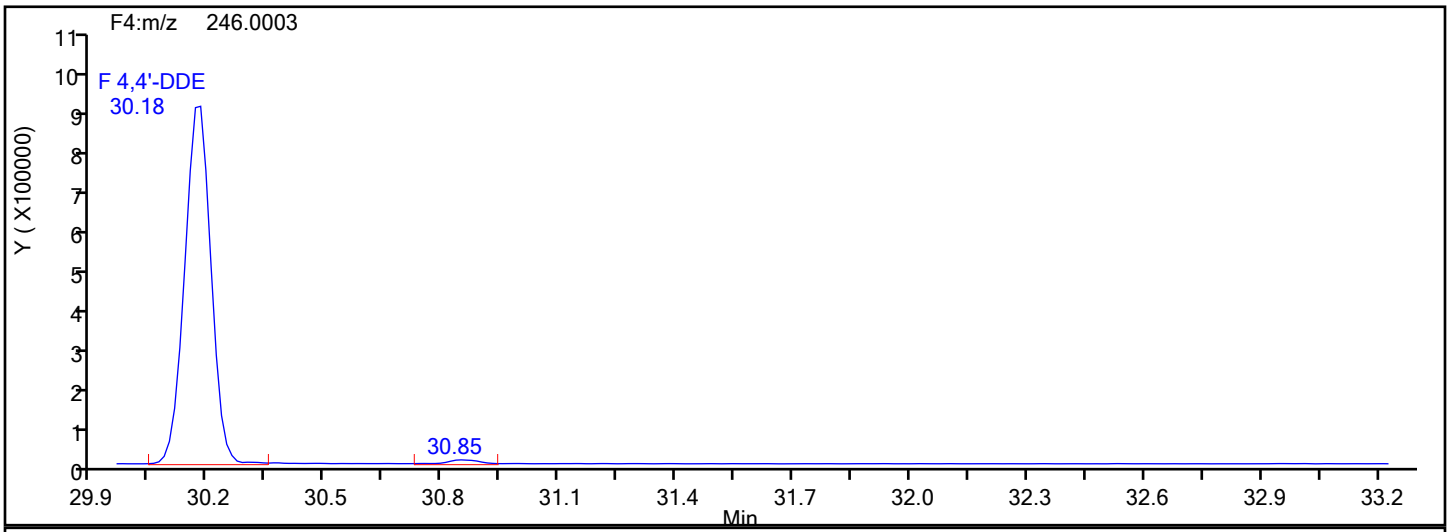

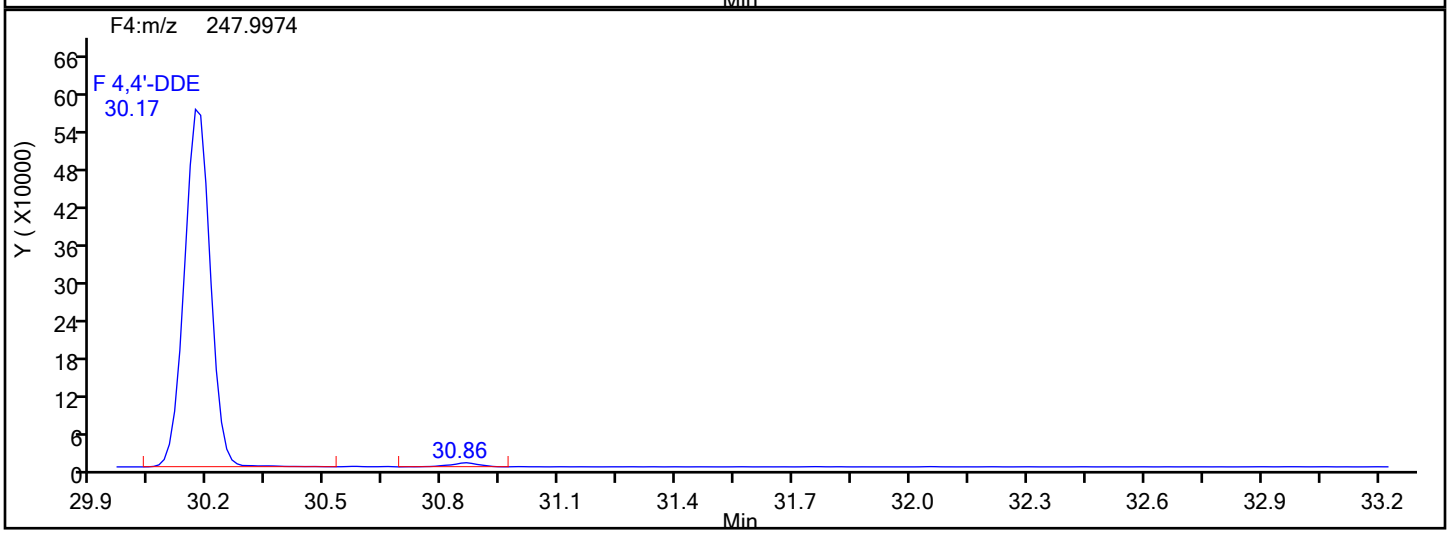

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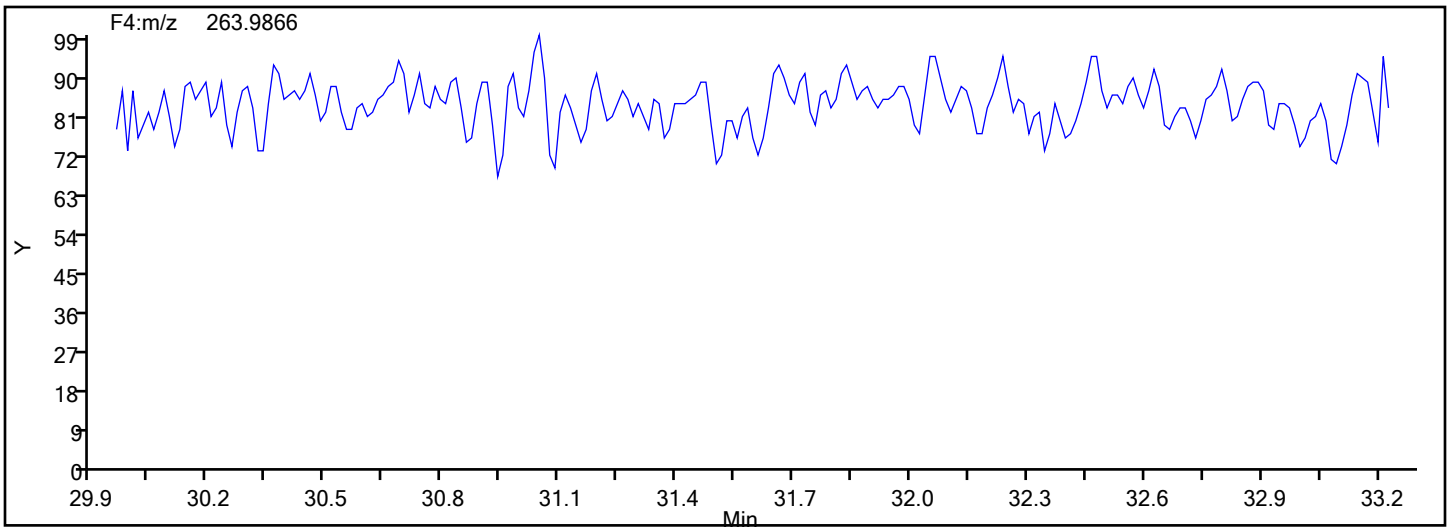

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Eurofins Knoxville

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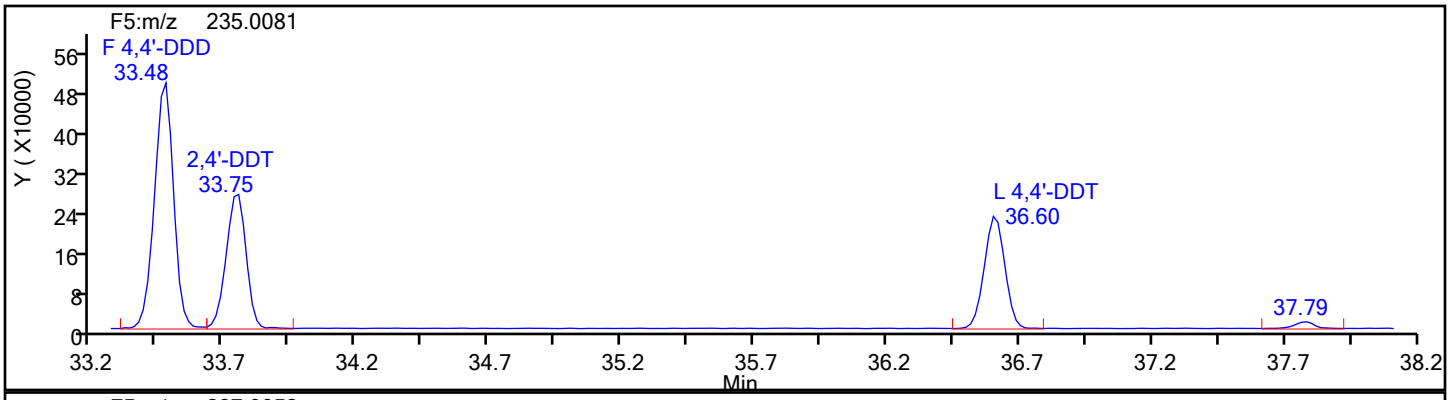
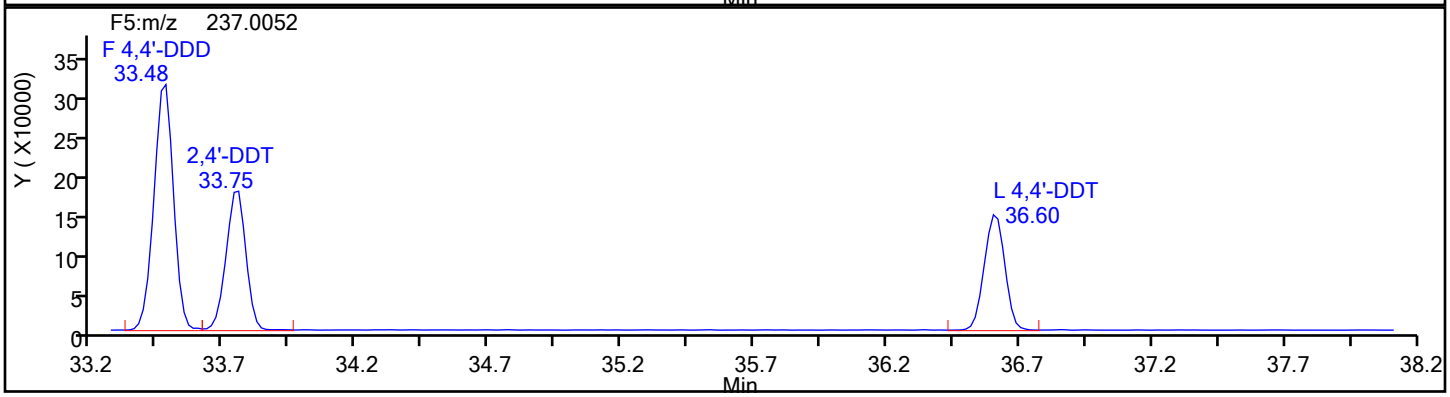
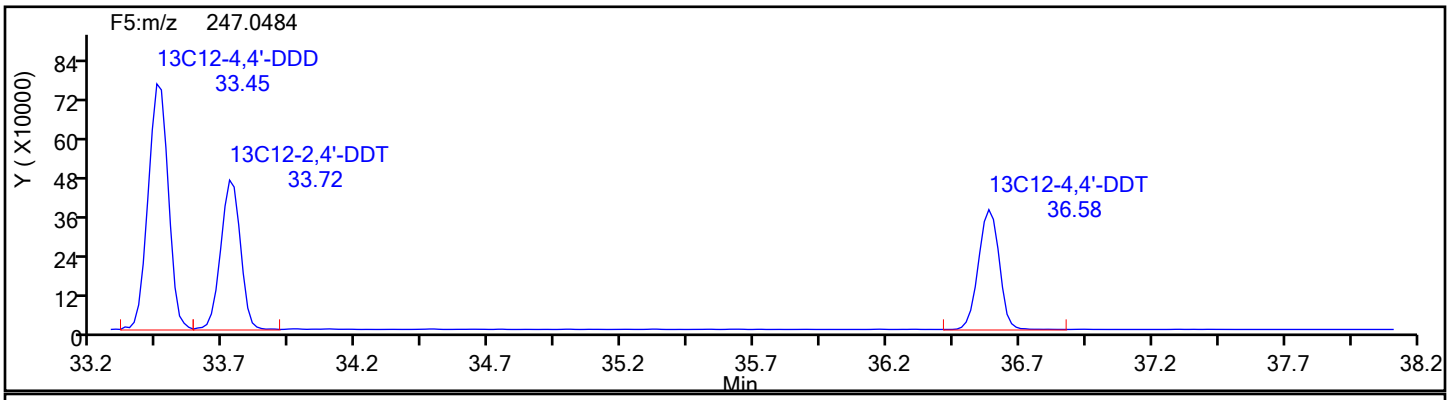
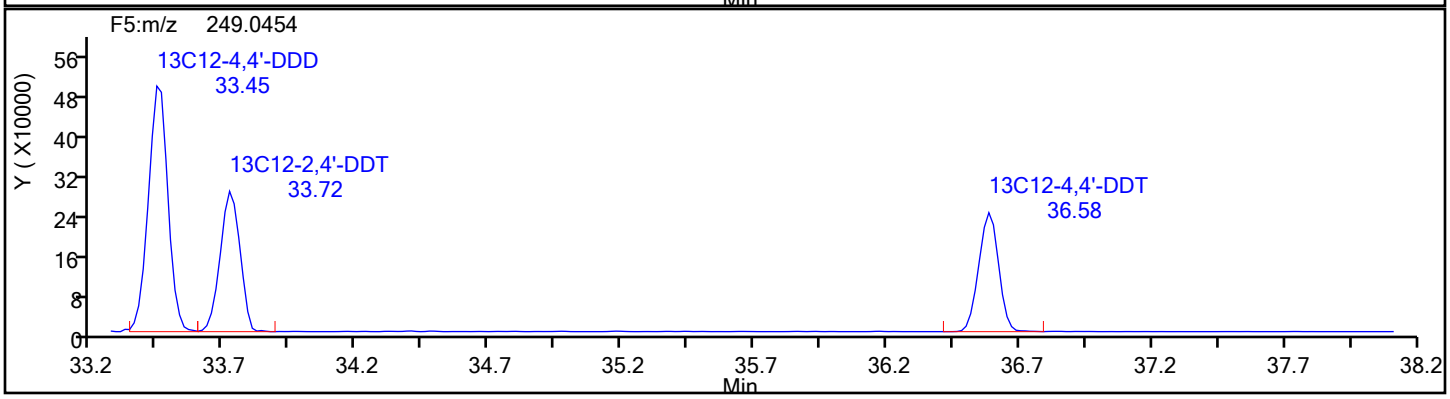
DDD





DDD Standards





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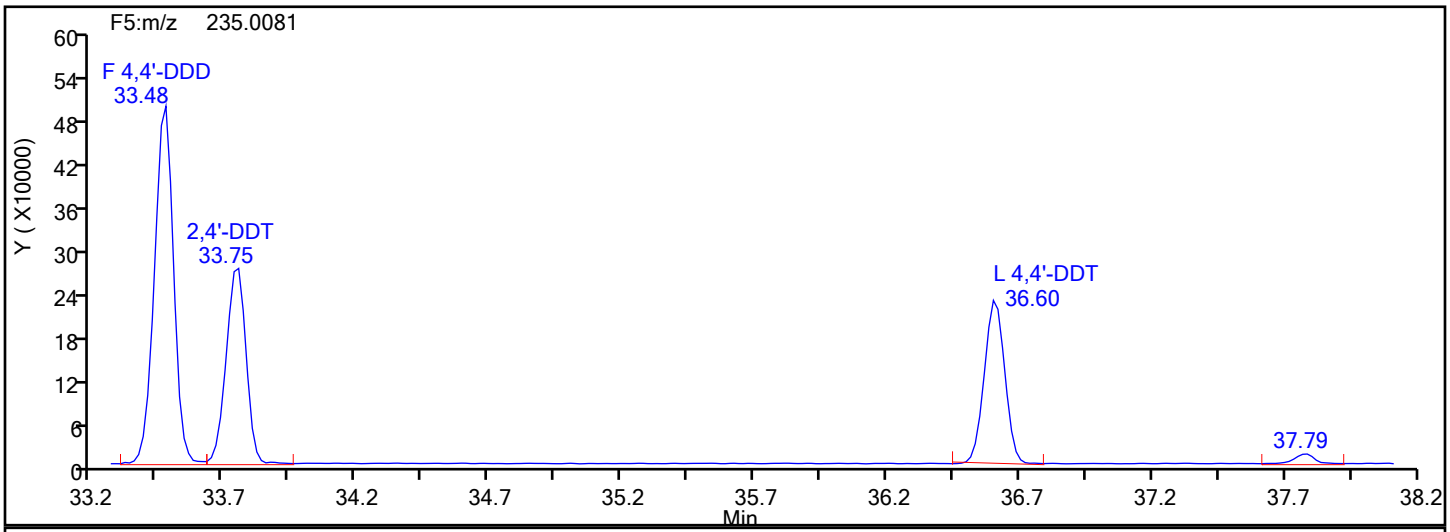
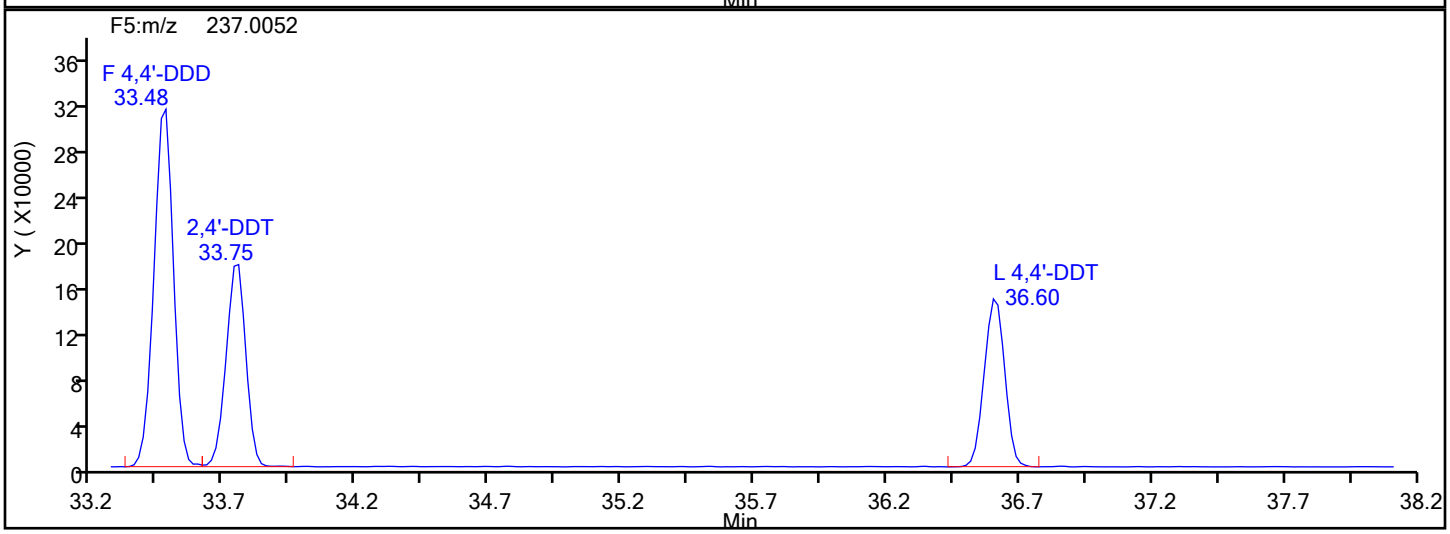
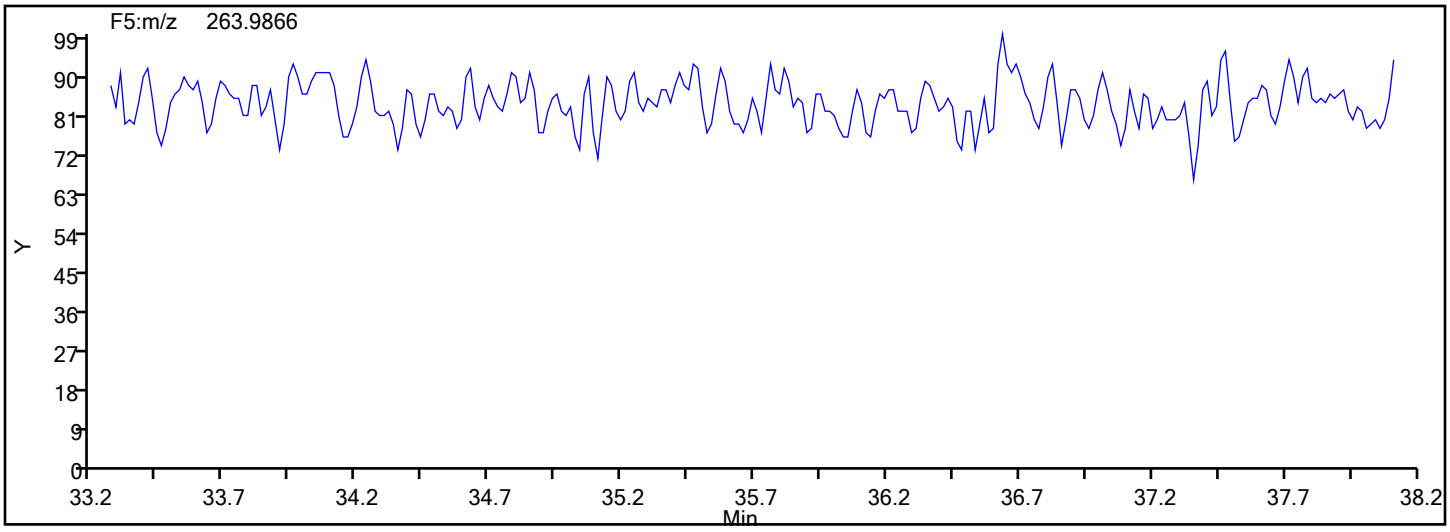




DDD Lock Mass



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Eurofins Knoxville

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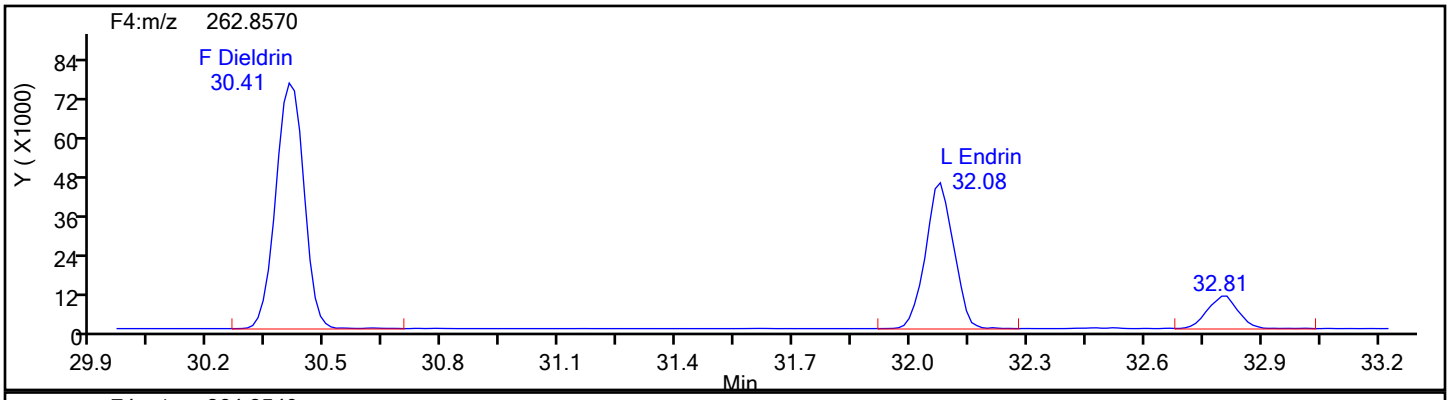

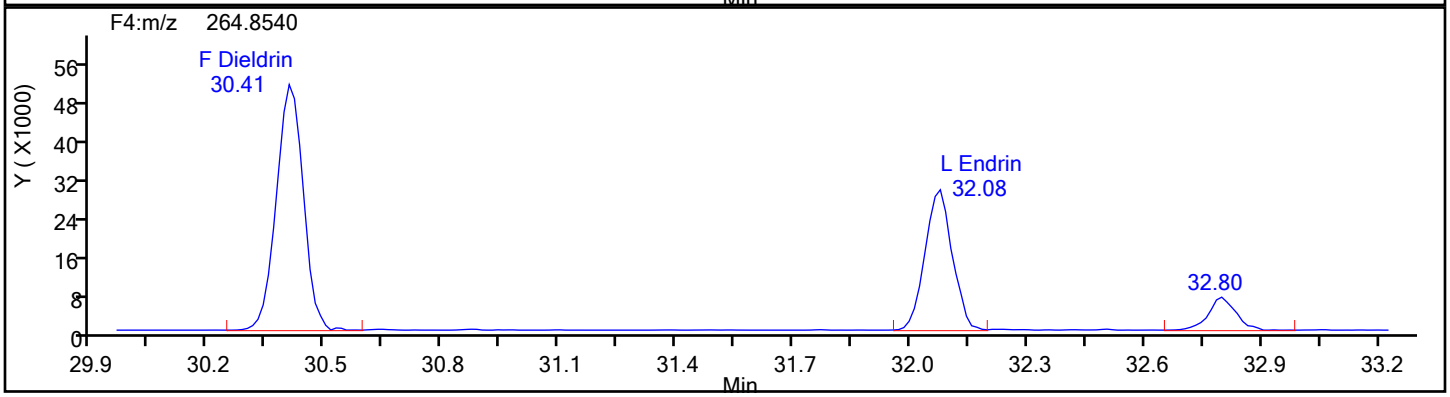

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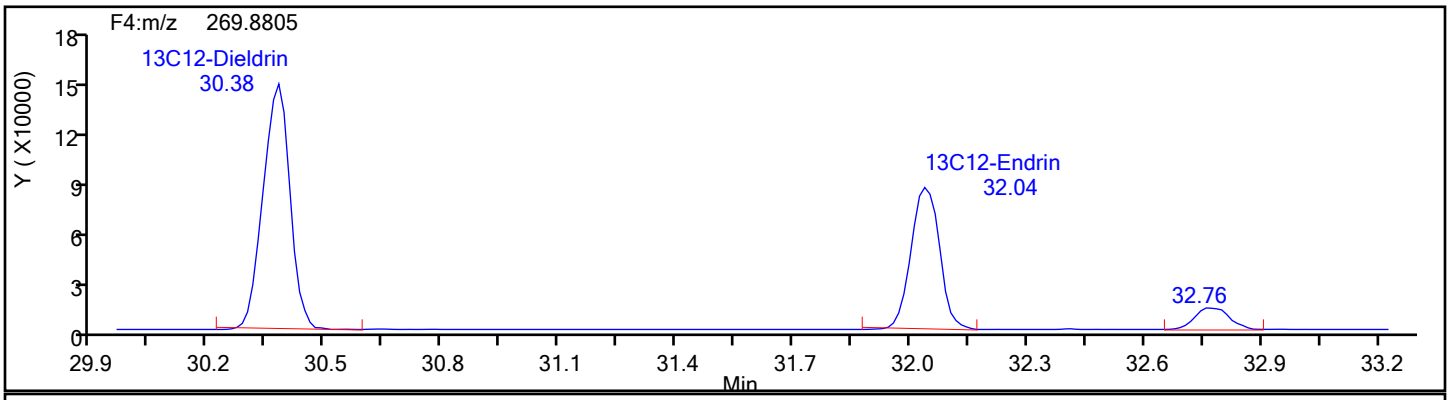

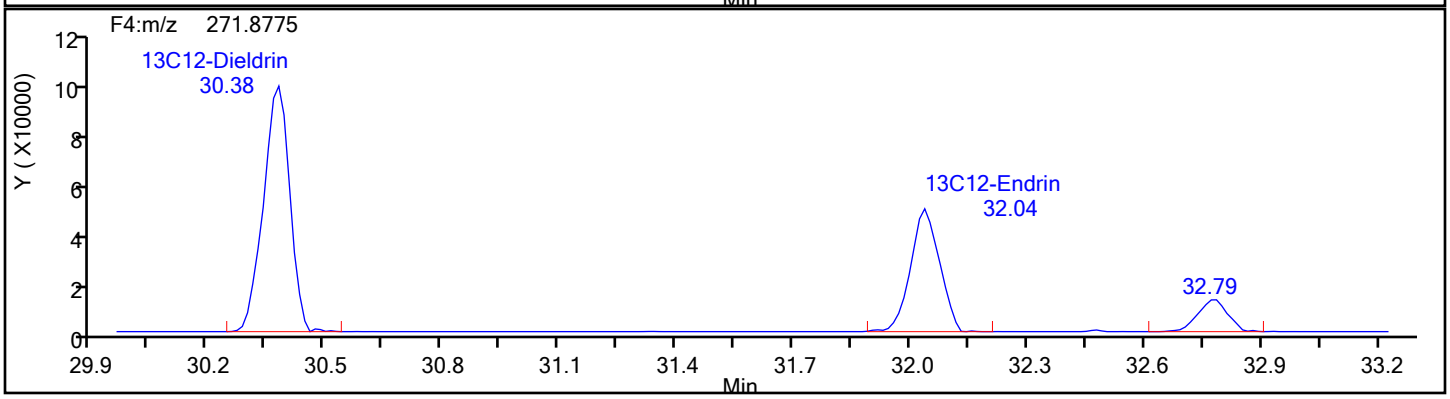

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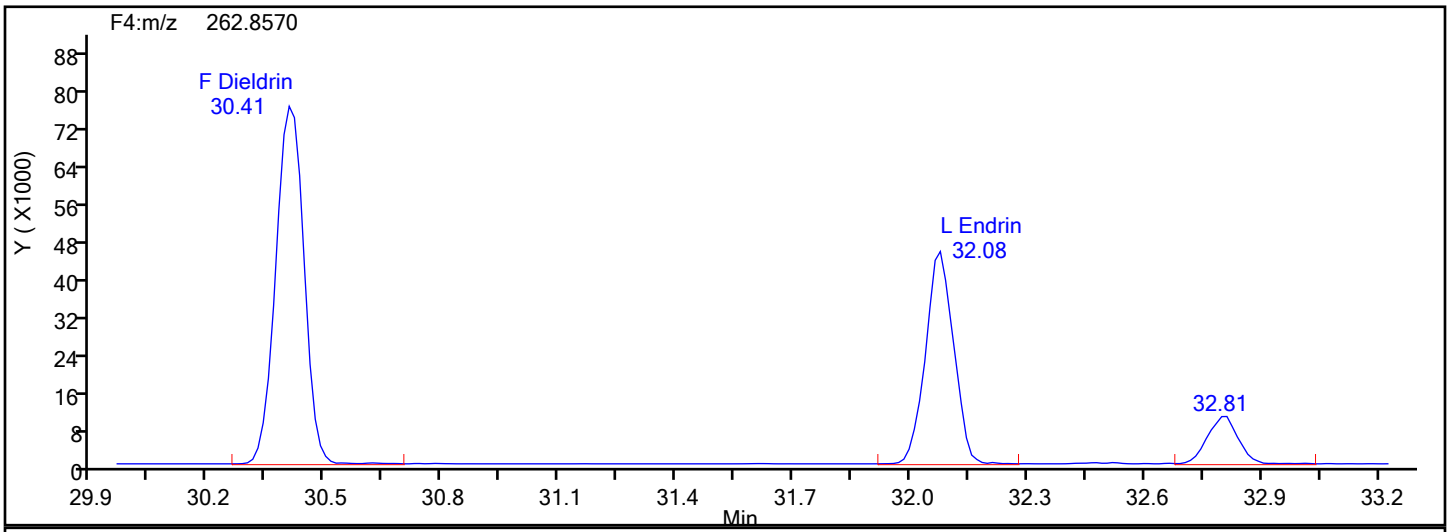

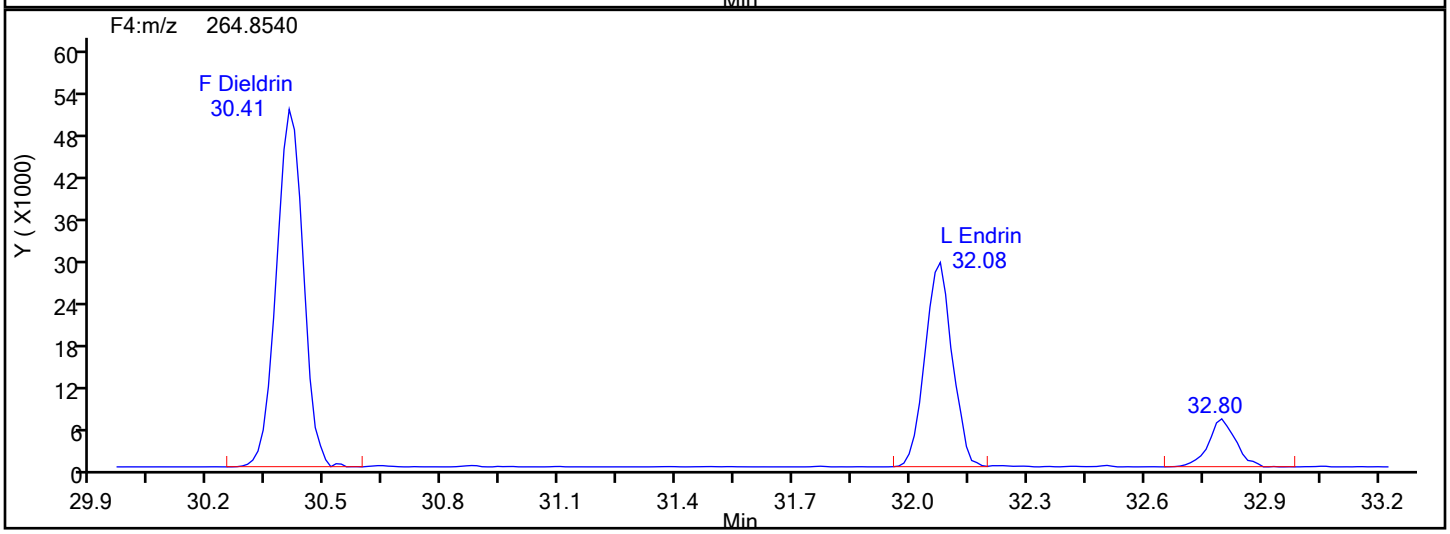

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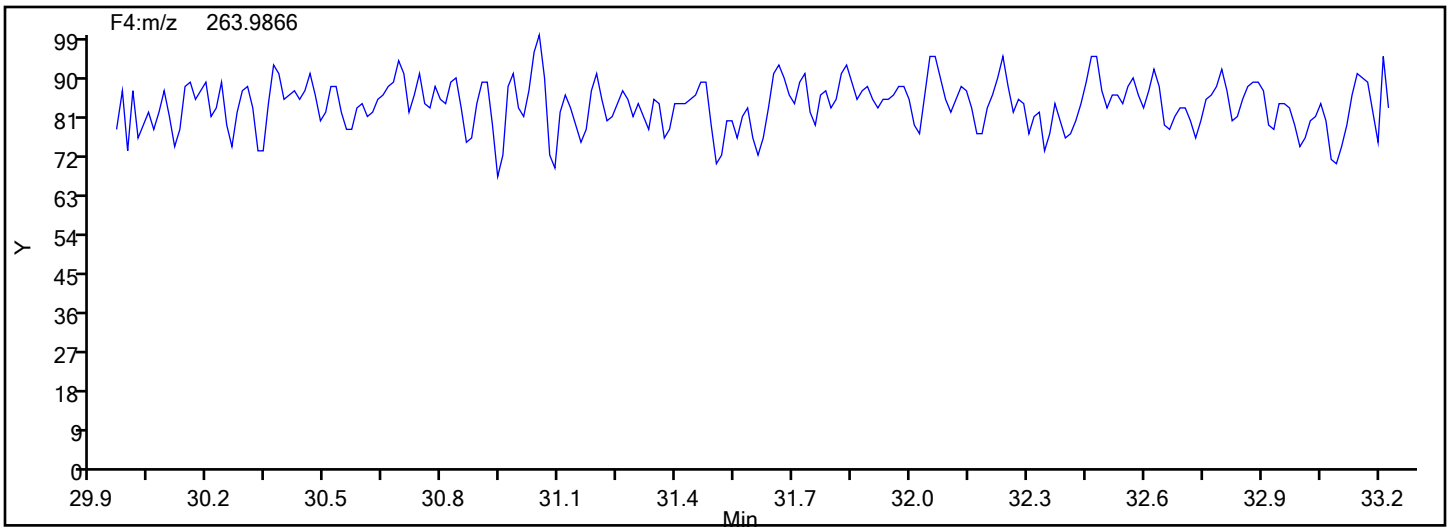

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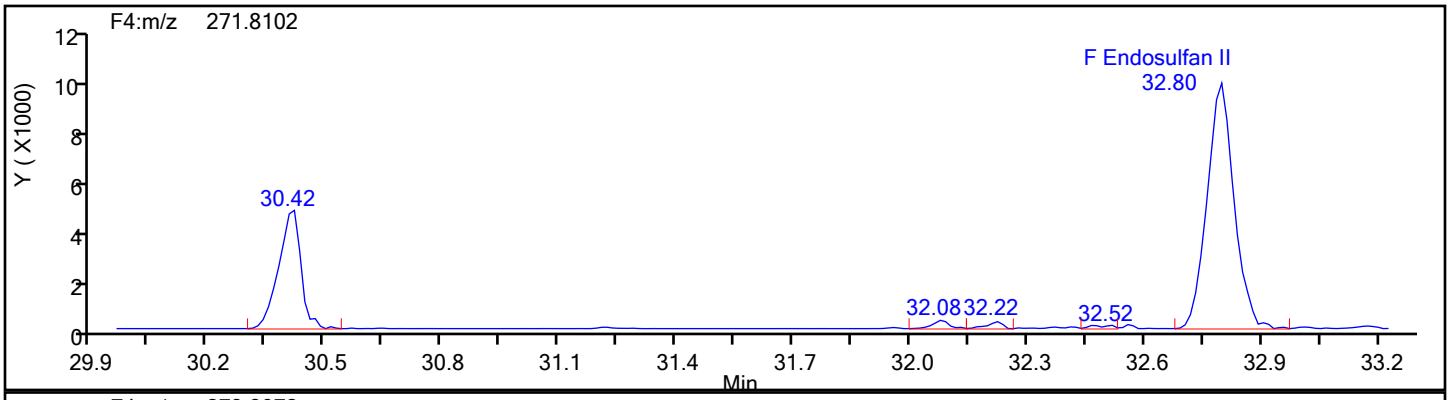

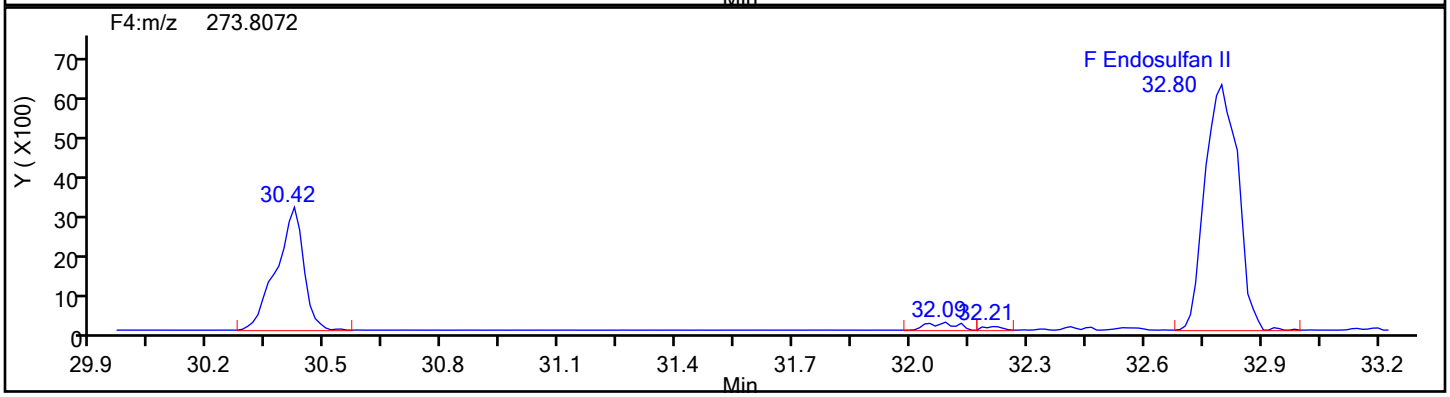

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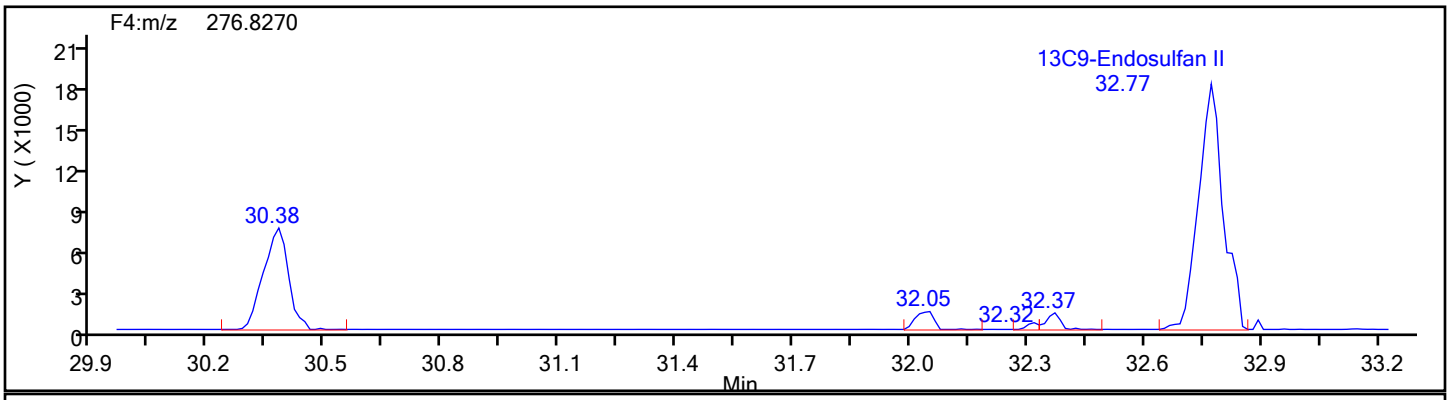

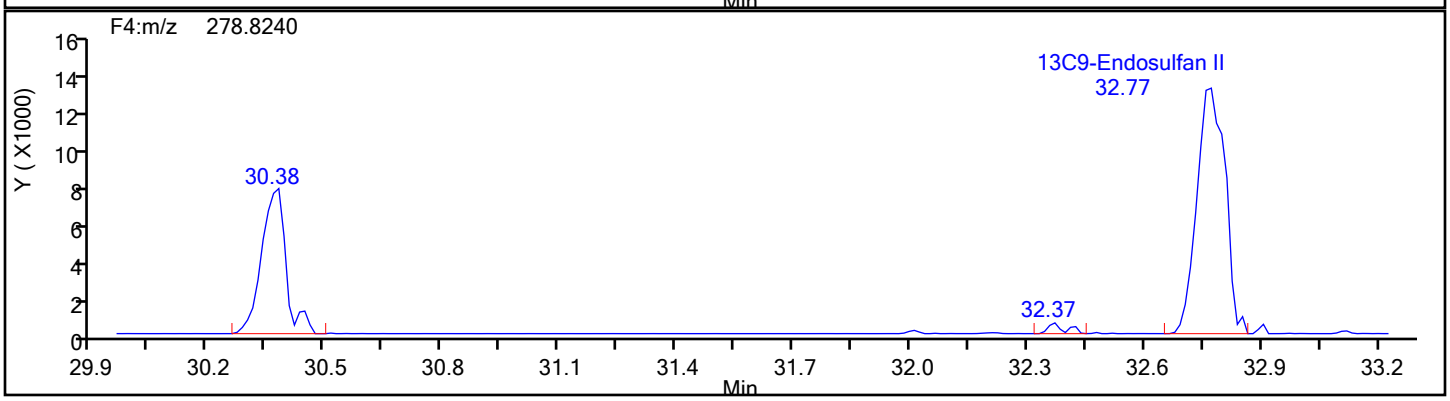

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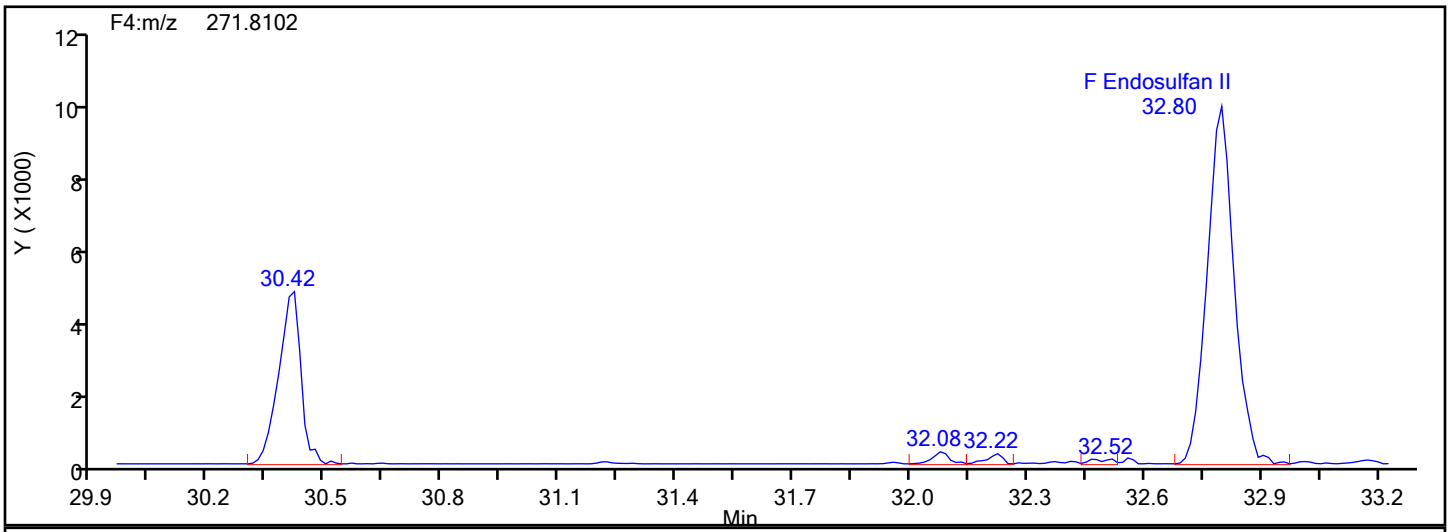

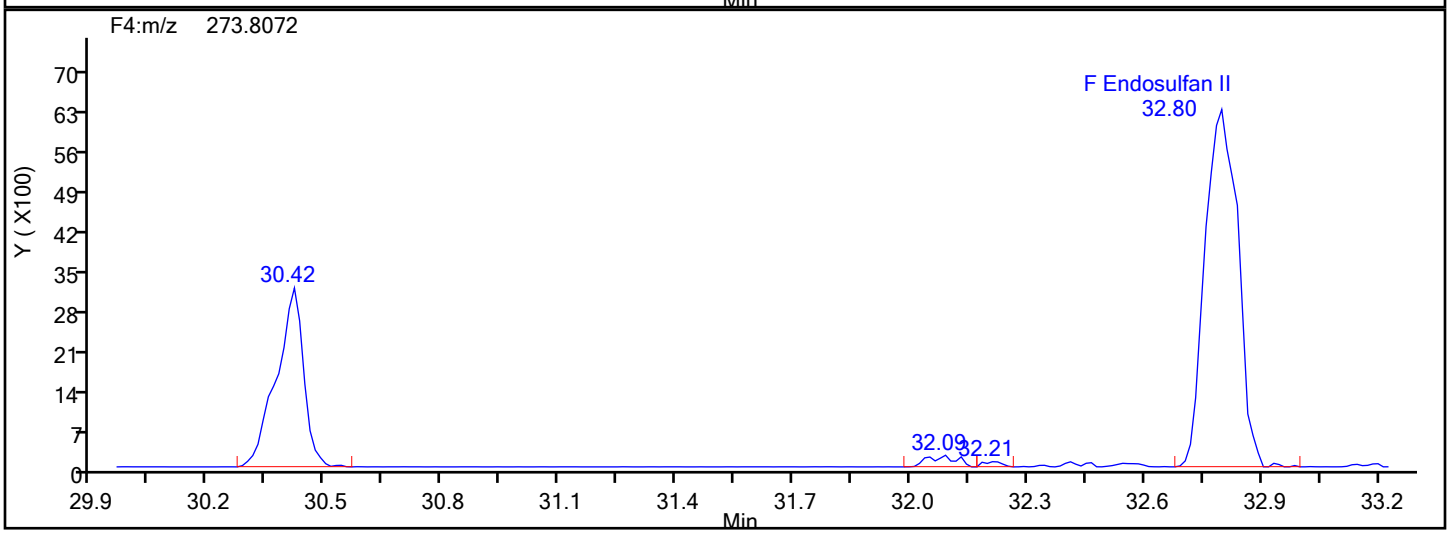

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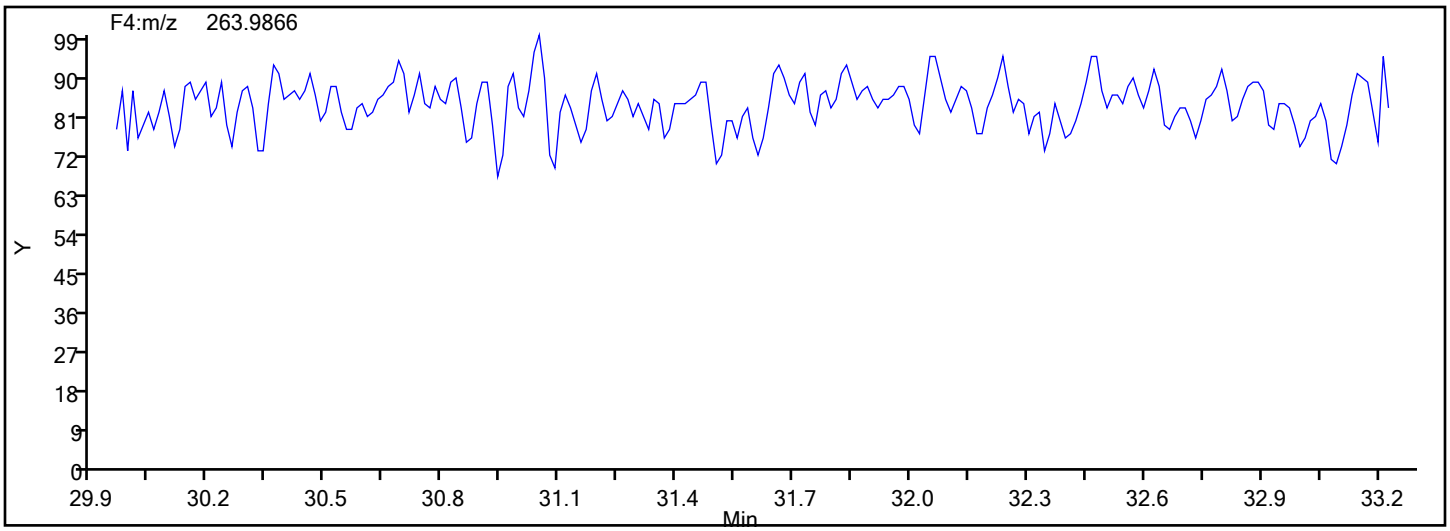

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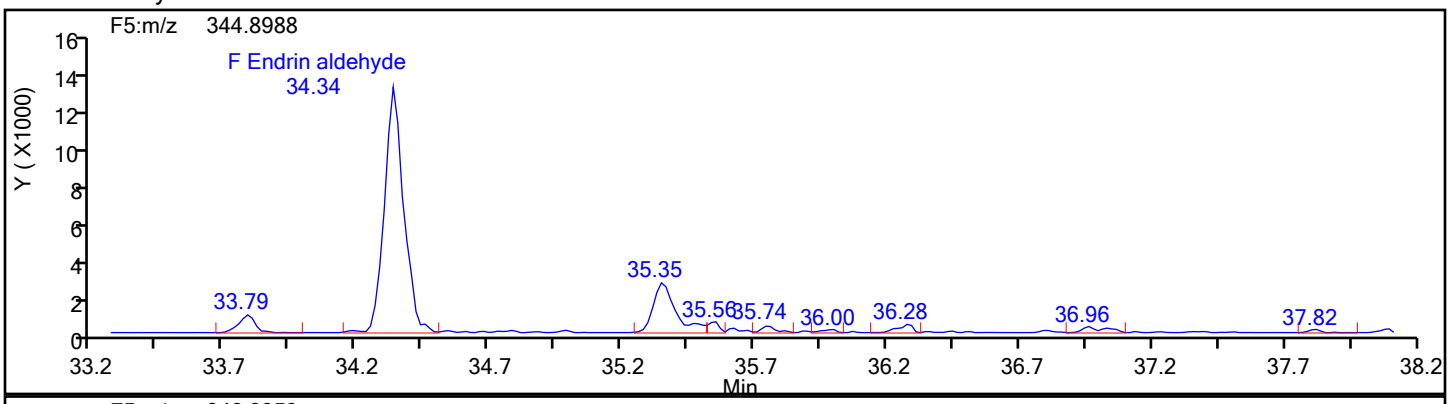
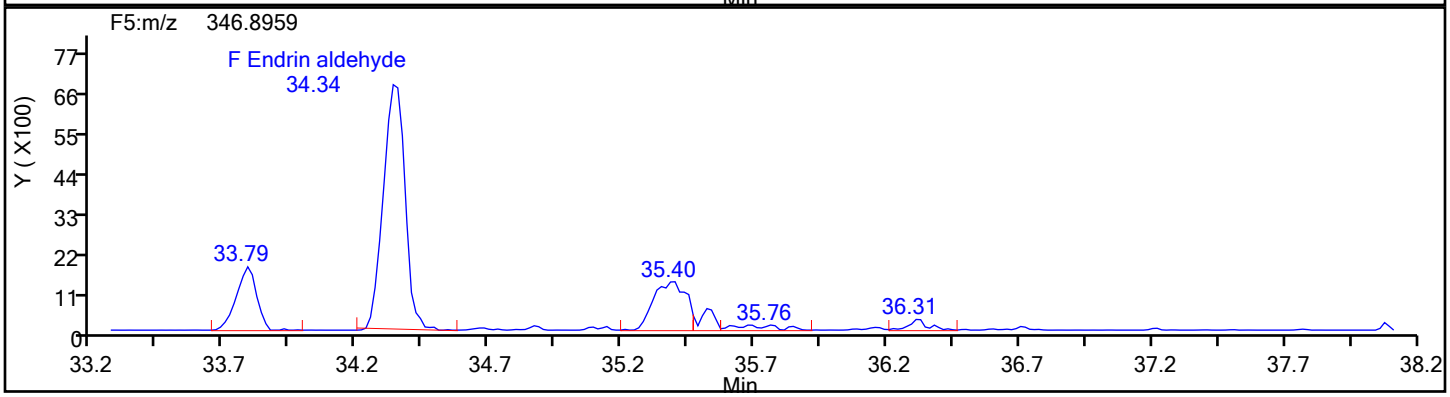
Endrin aldehyde





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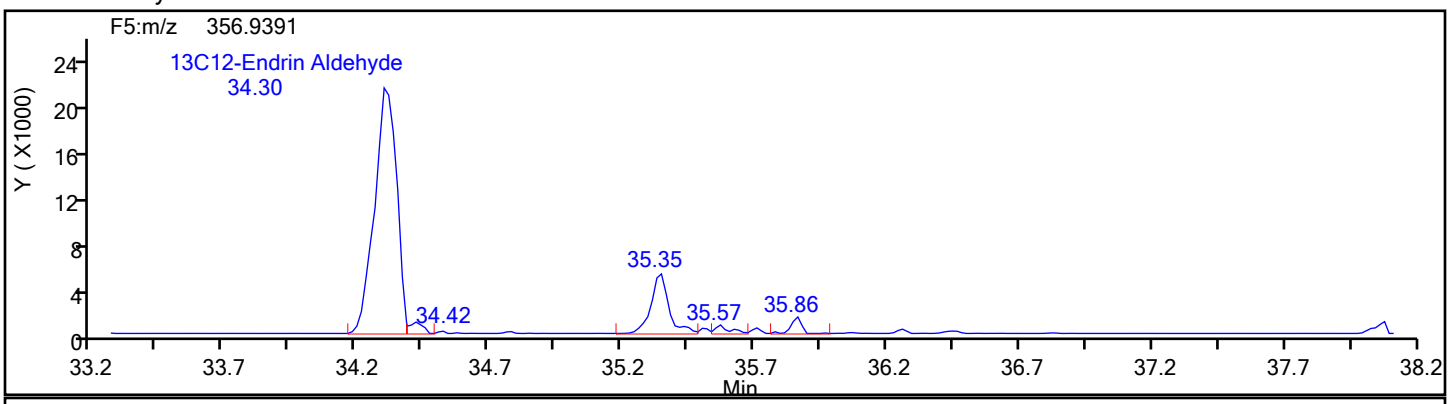

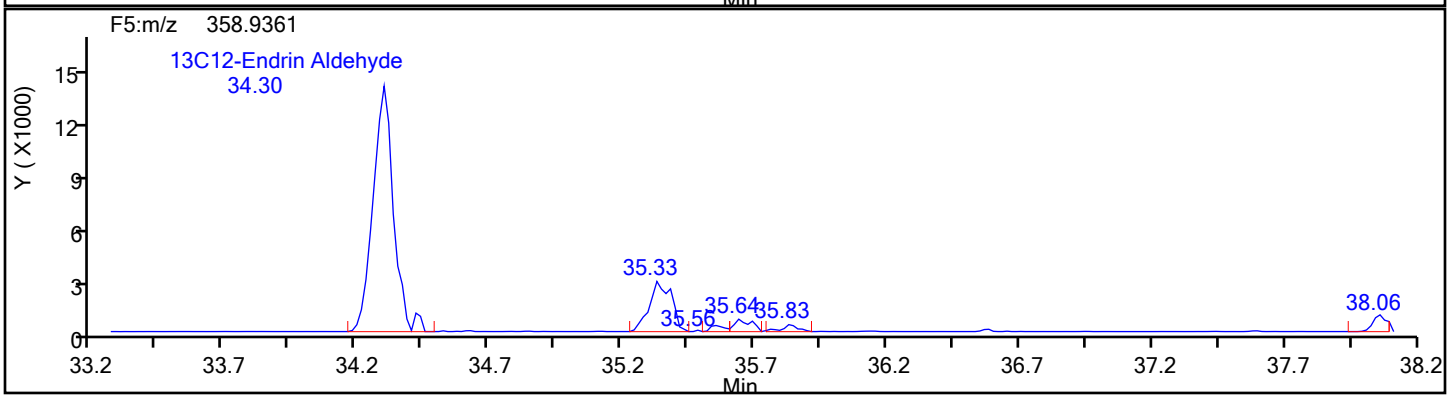

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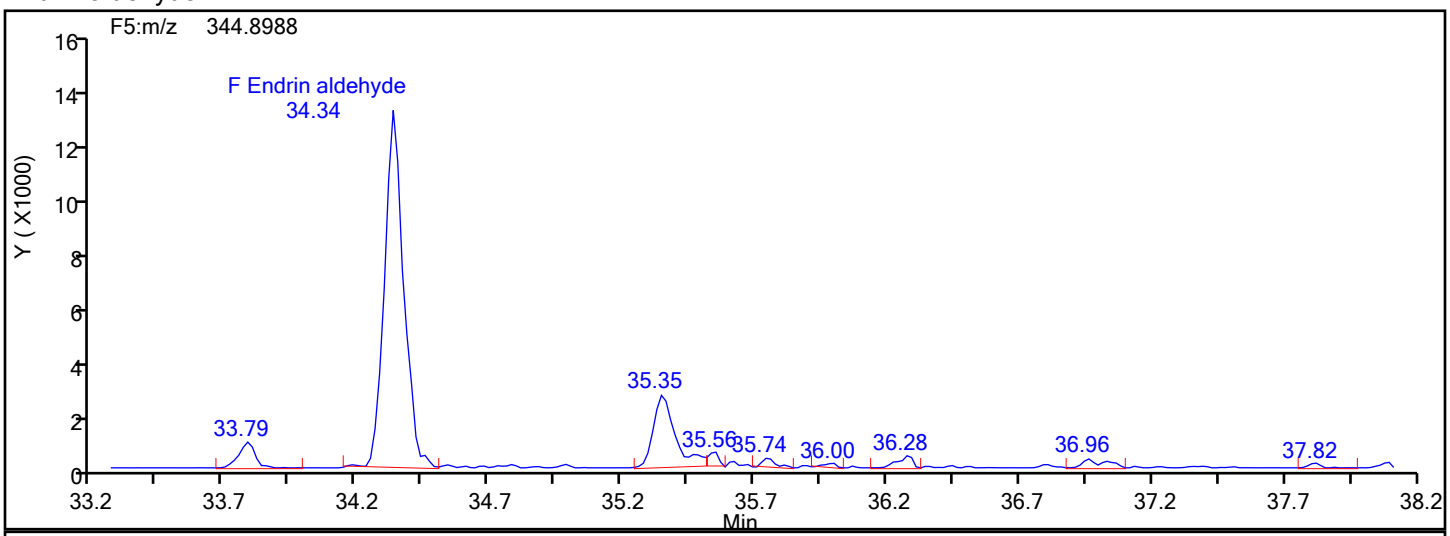
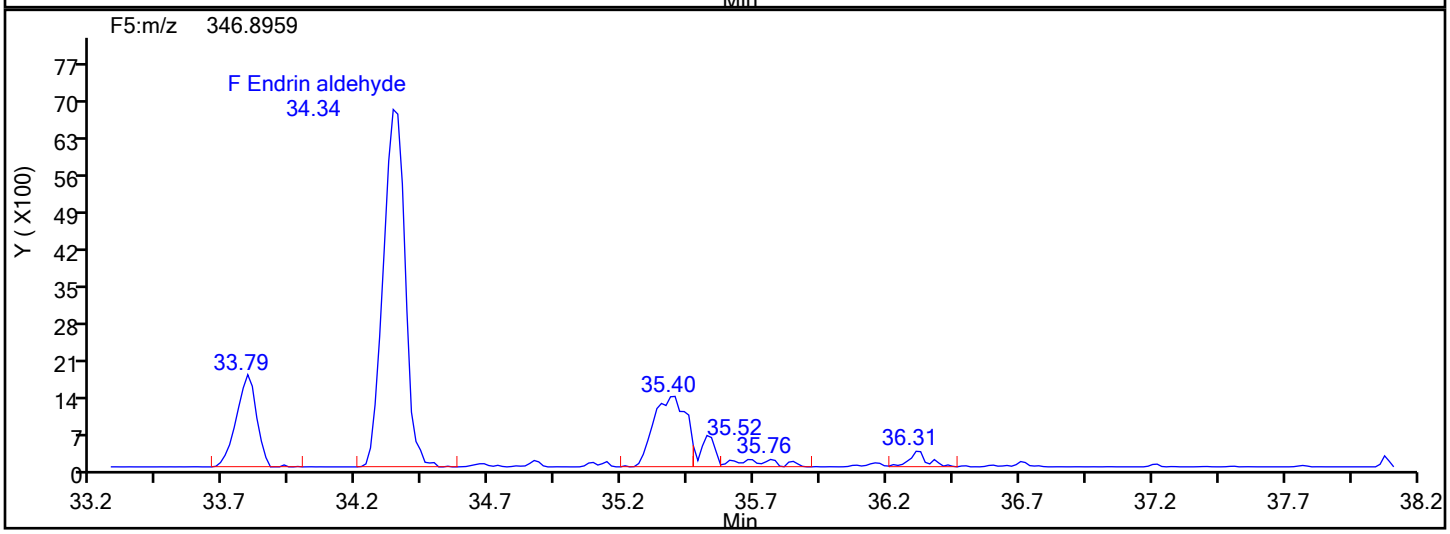
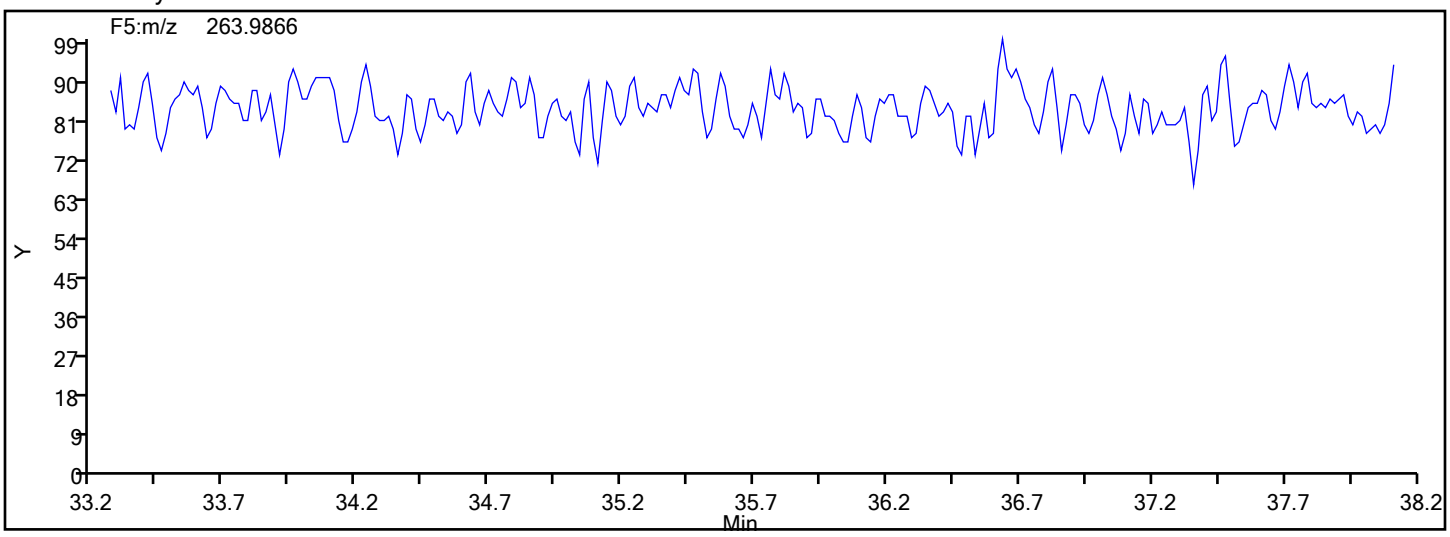




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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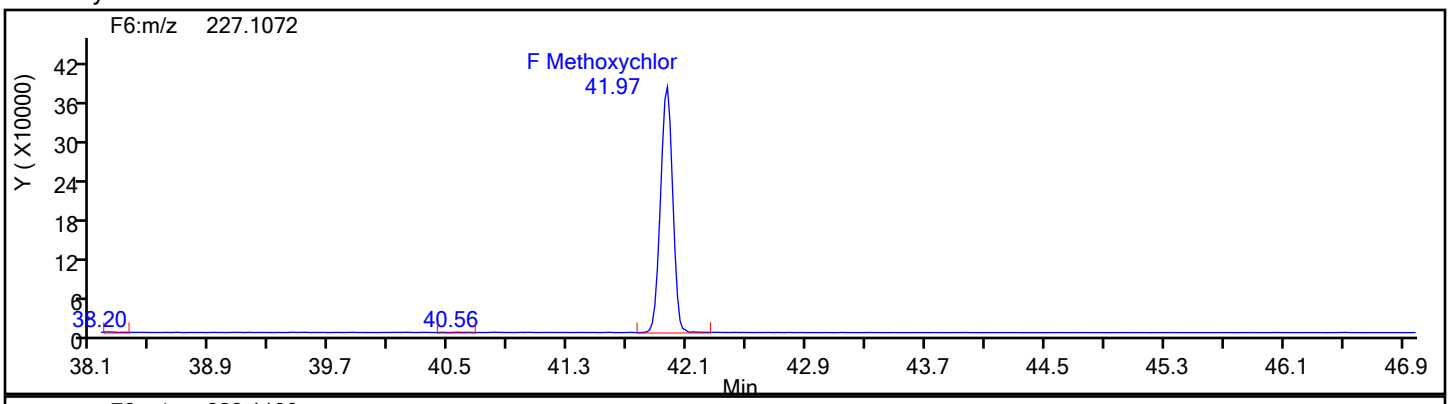
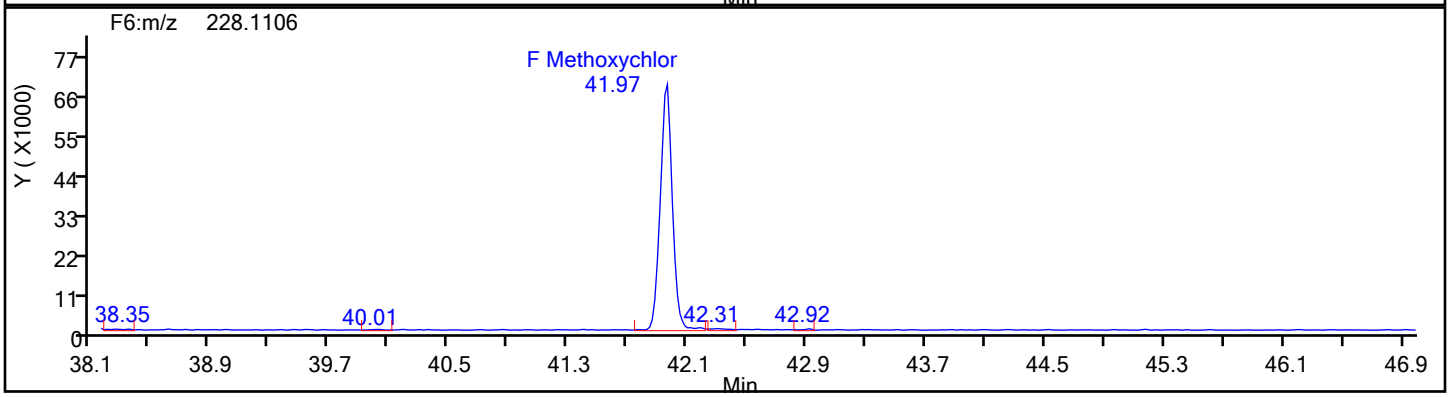
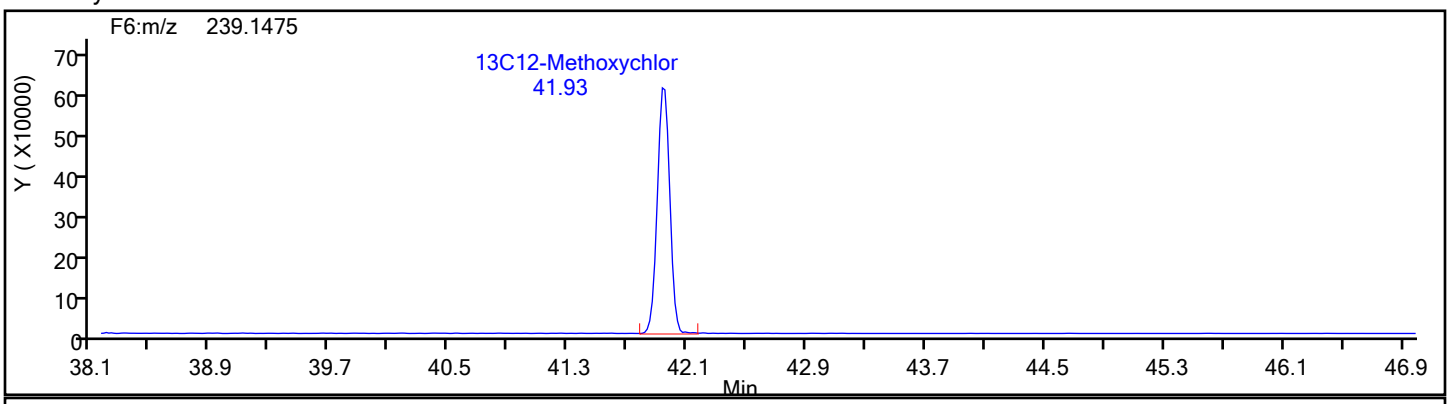
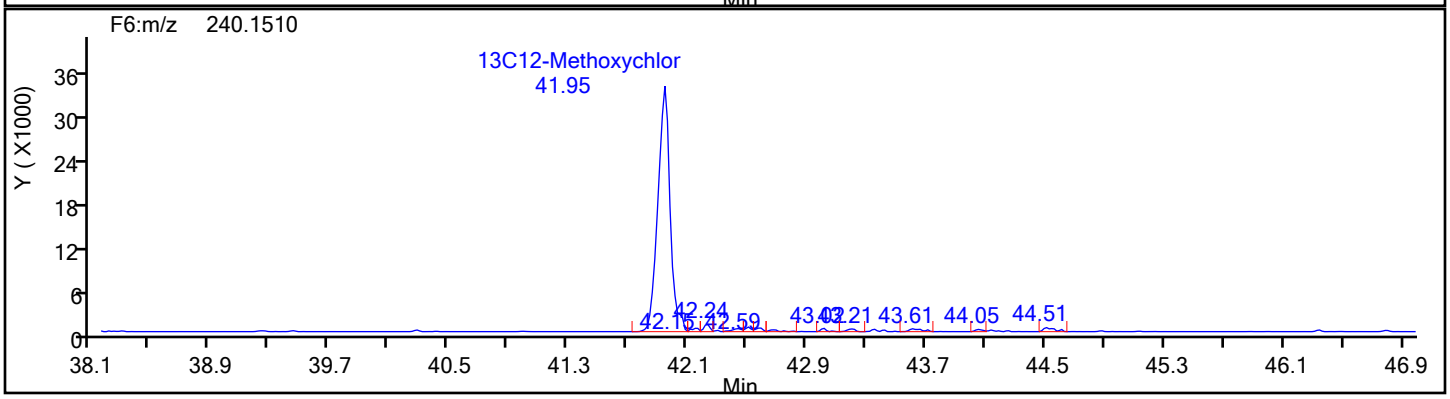
Methoxychlor





Methoxychlor Standards





Report Date: 24-Mar-2025 13:06:20 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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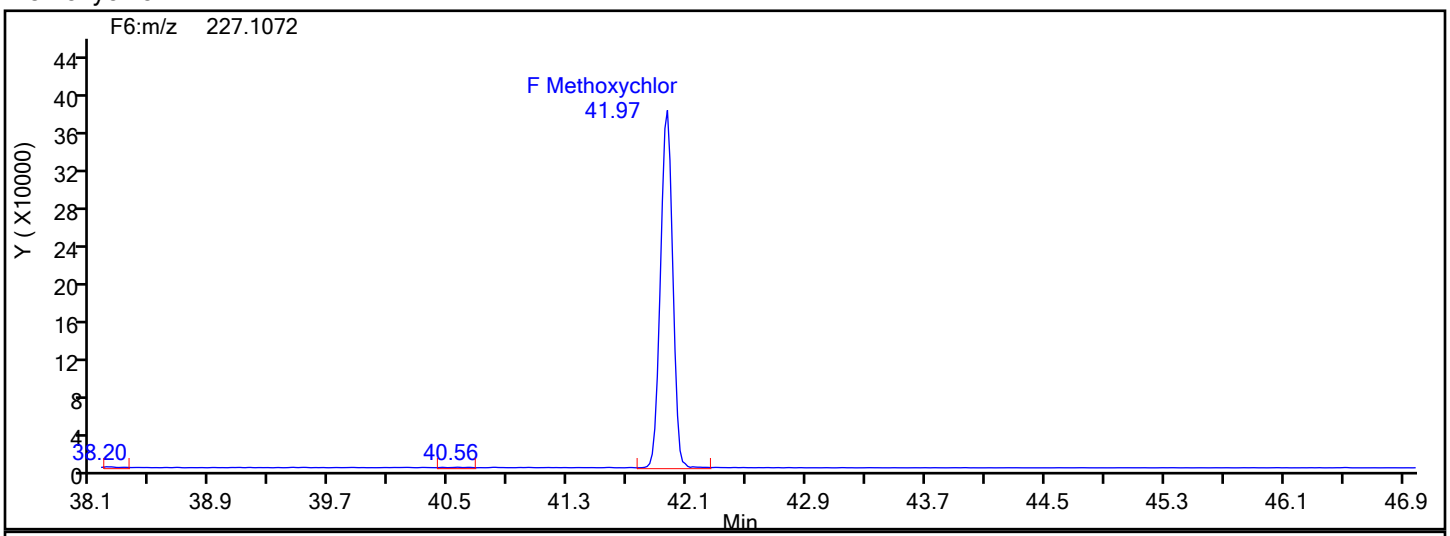
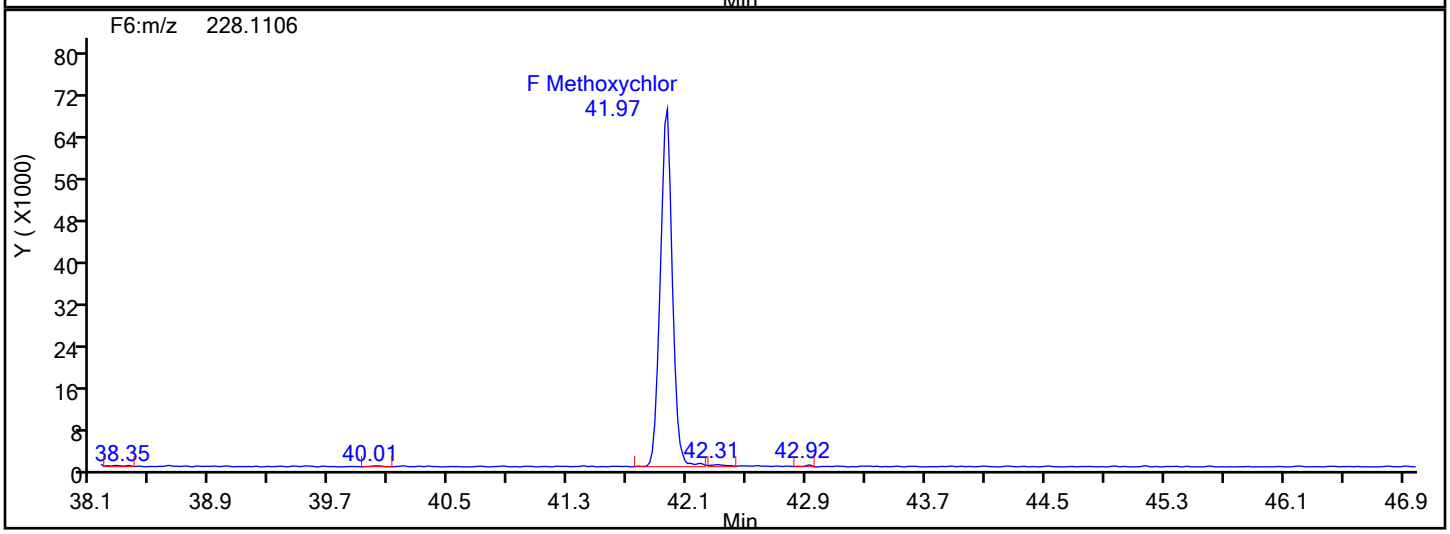
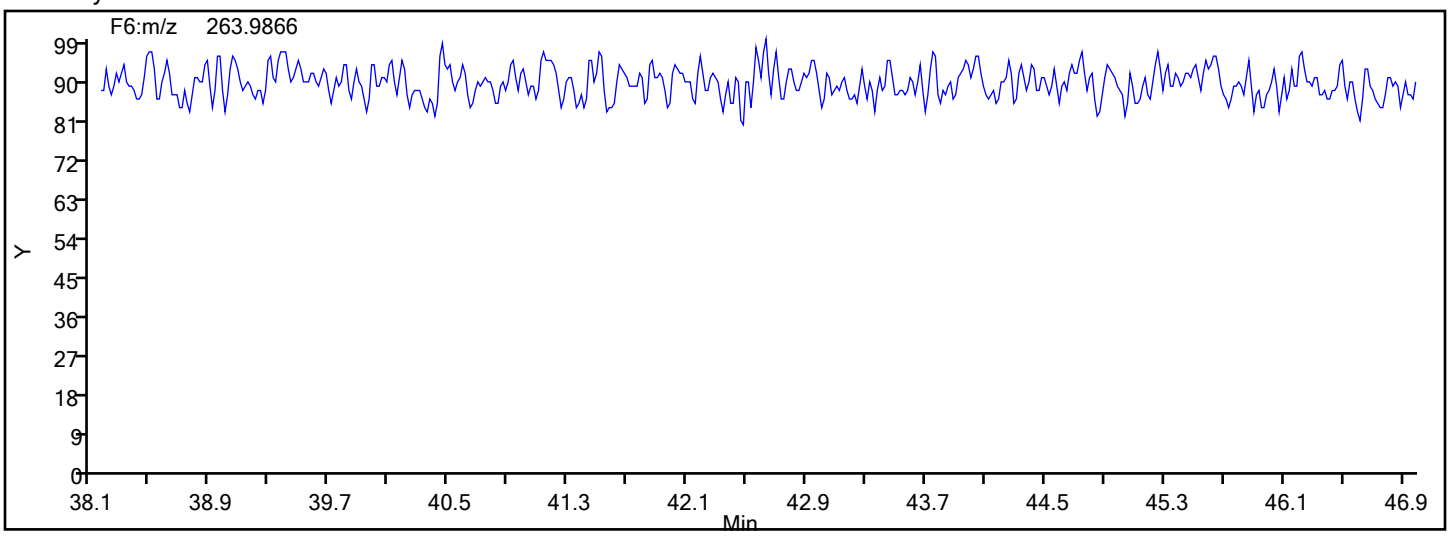




Methoxychlor Lock Mass



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Eurofins Knoxville

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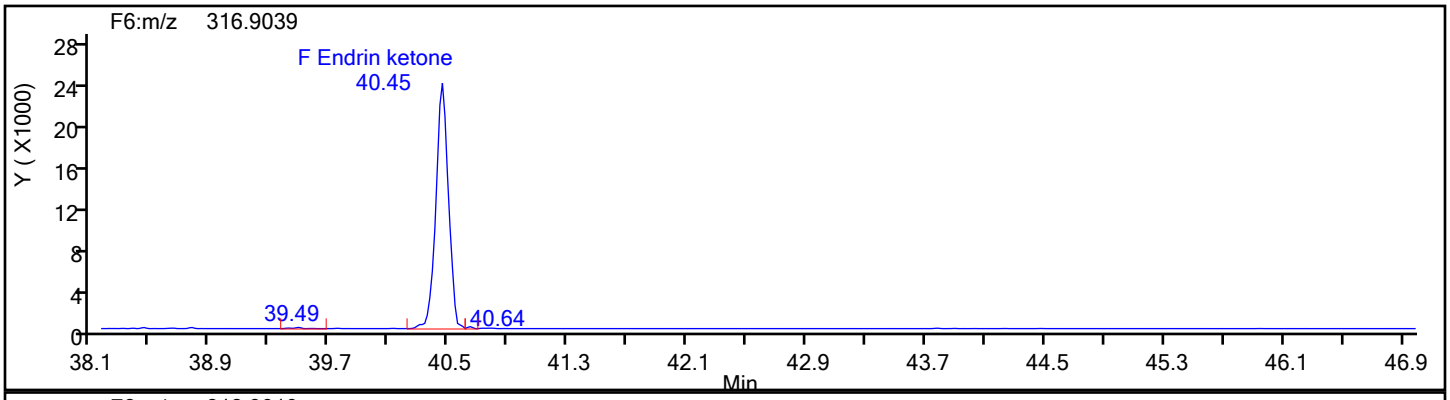

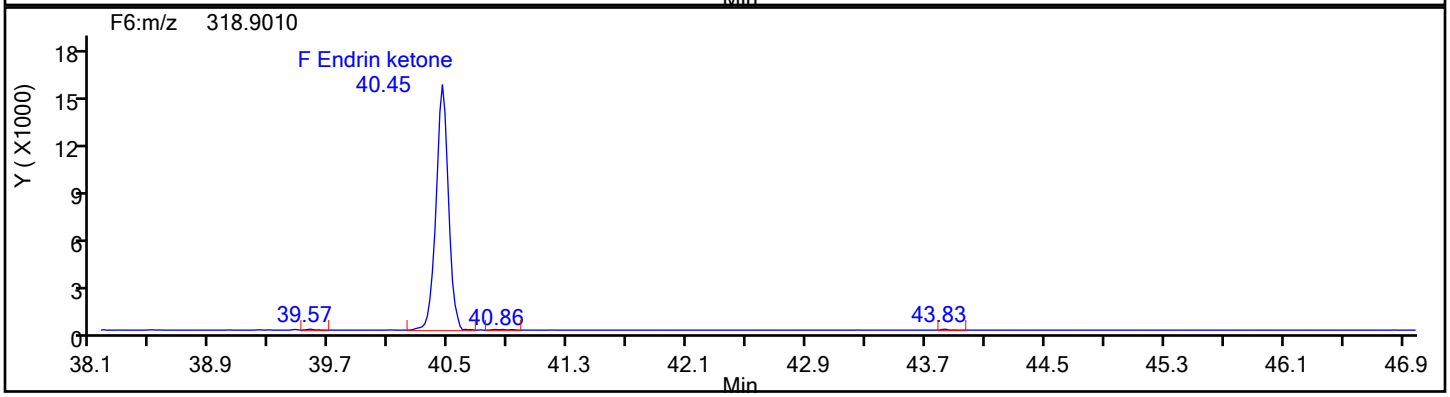

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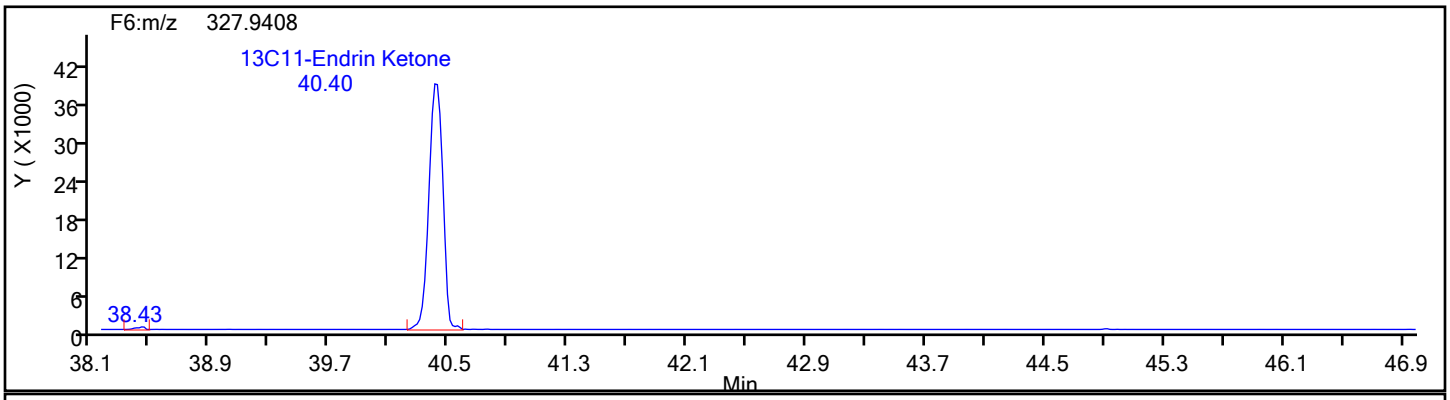

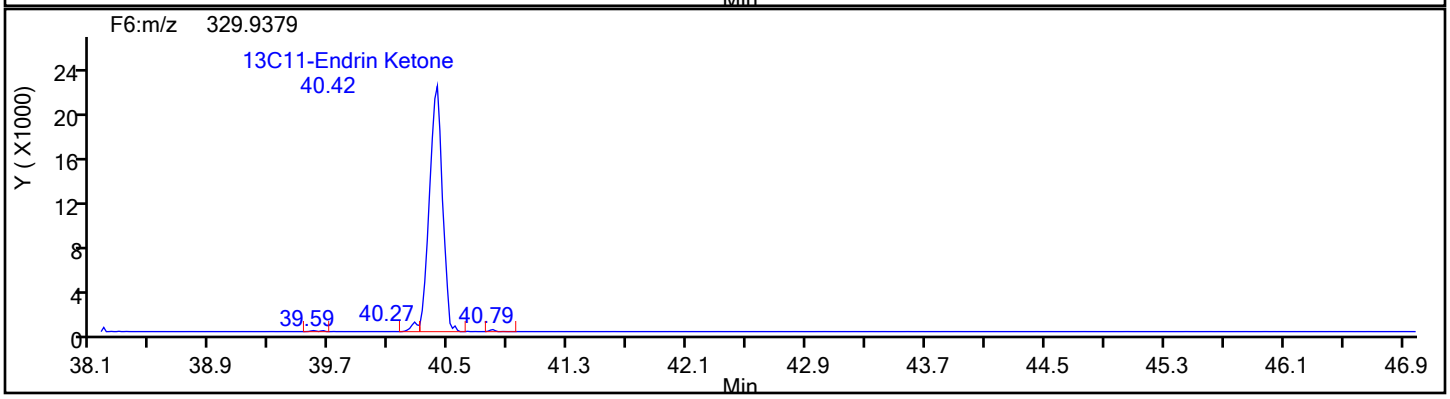

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Eurofins Knoxville

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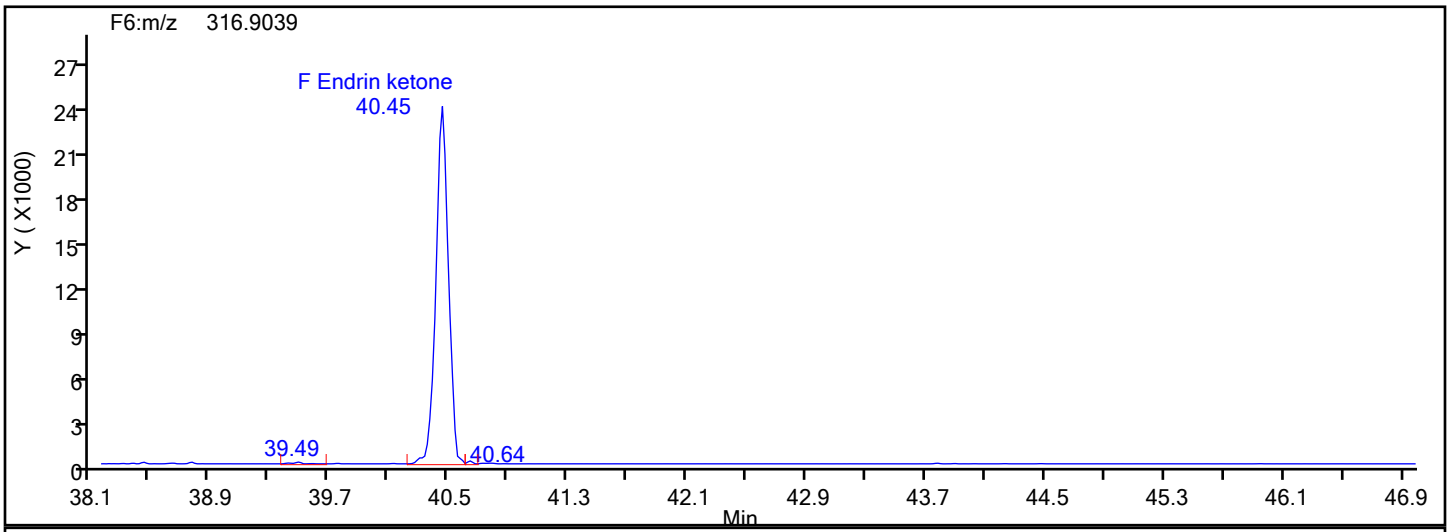
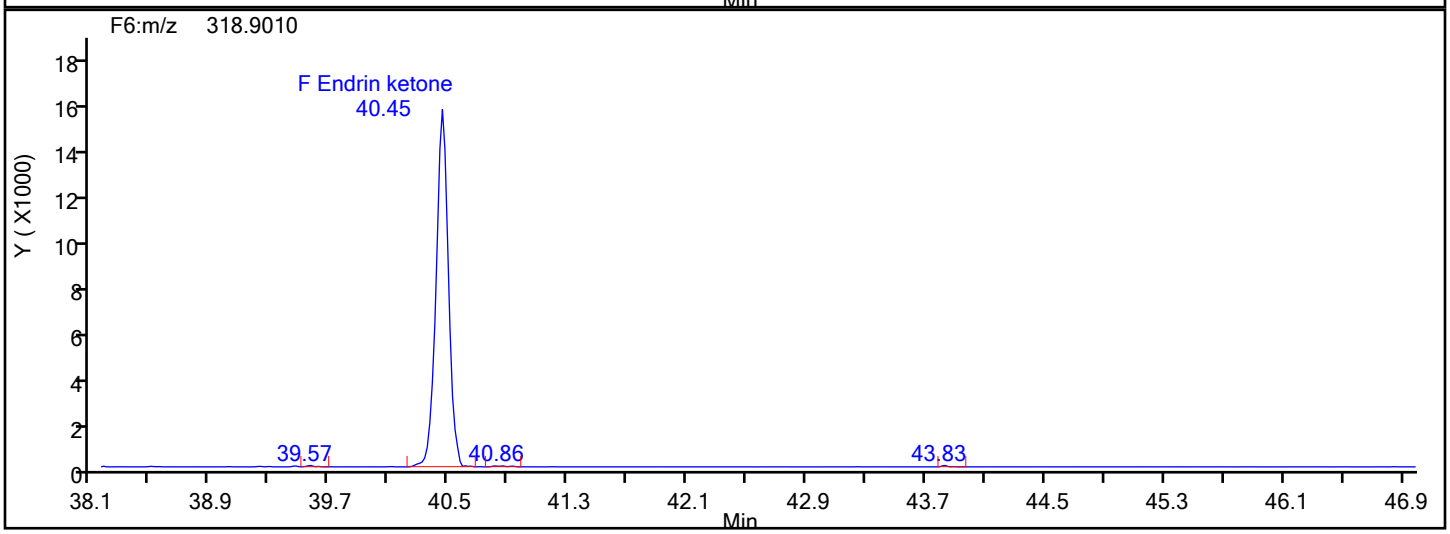
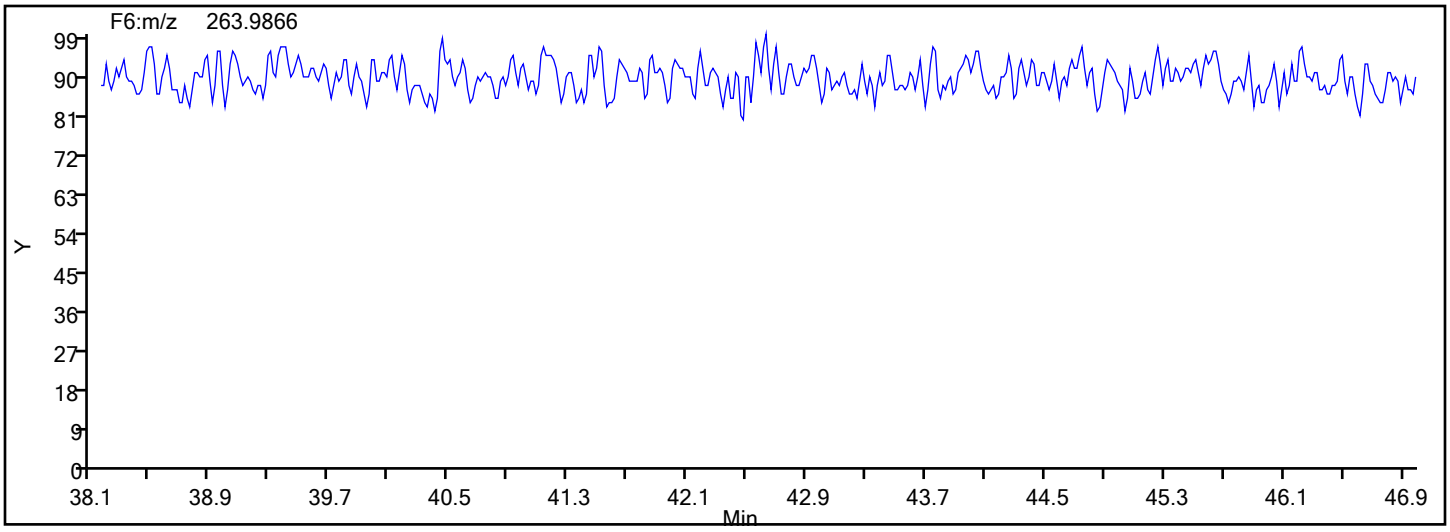




Endrin ketone Lock Mass



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Eurofins Knoxville

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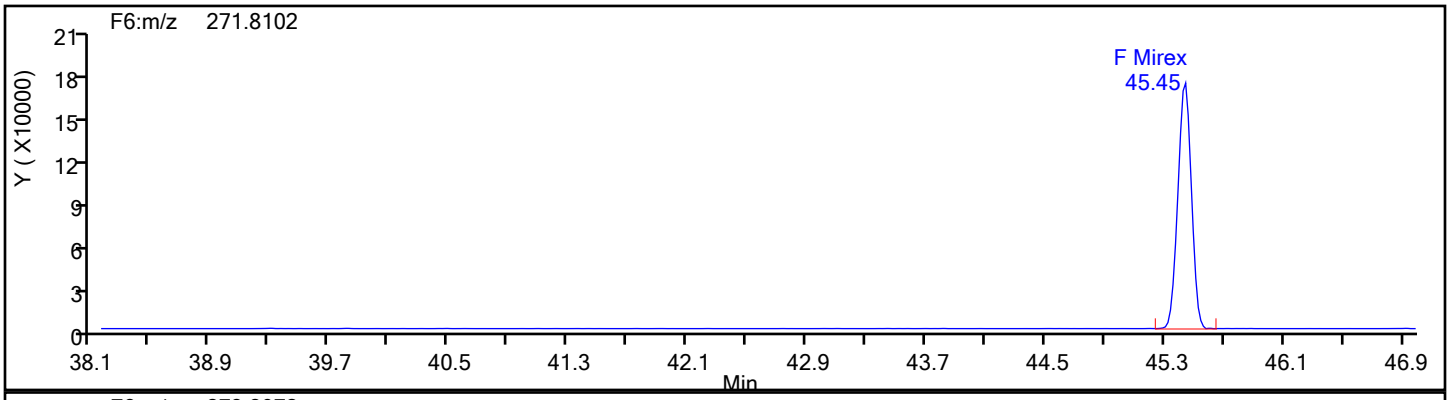
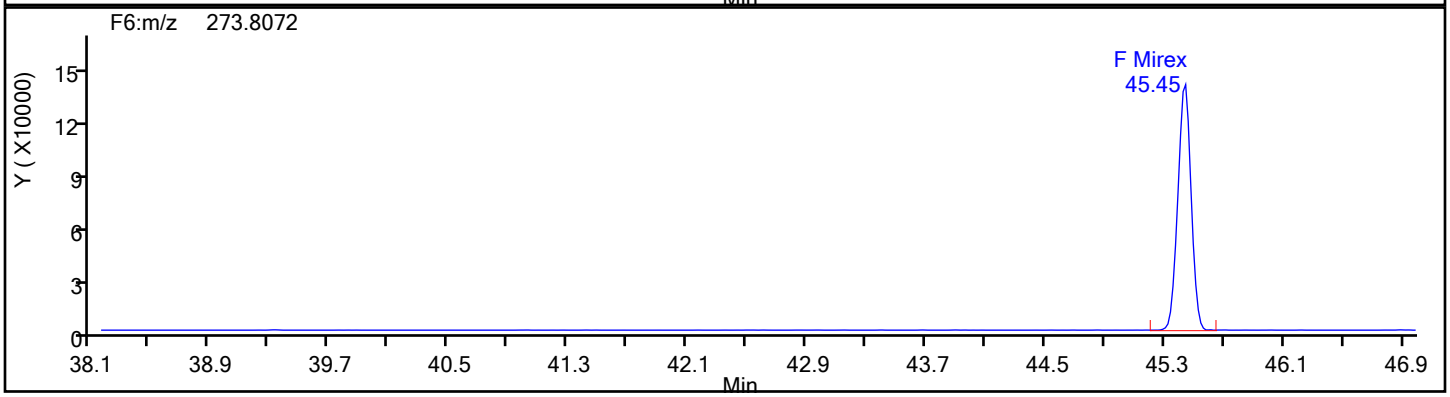
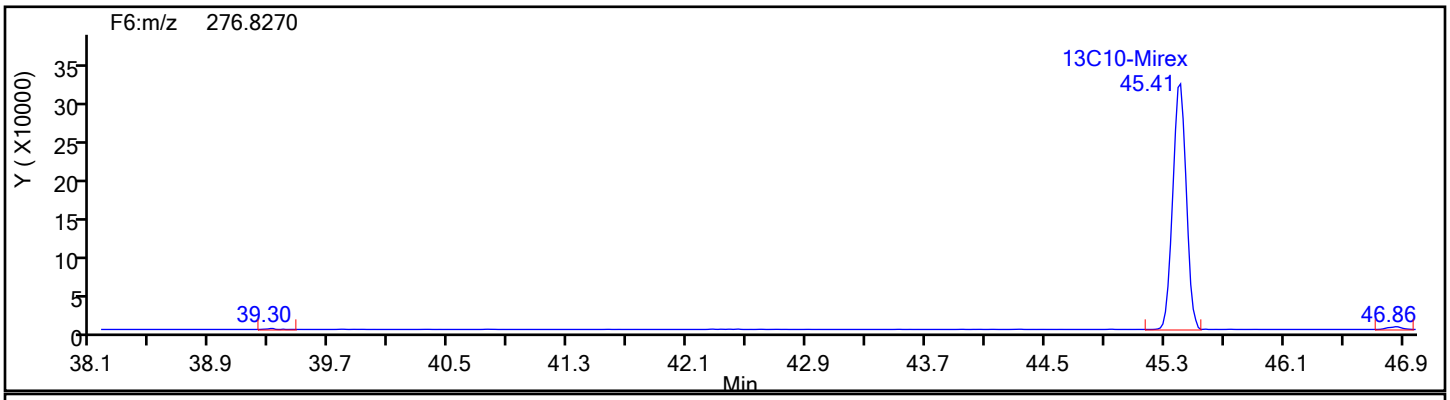
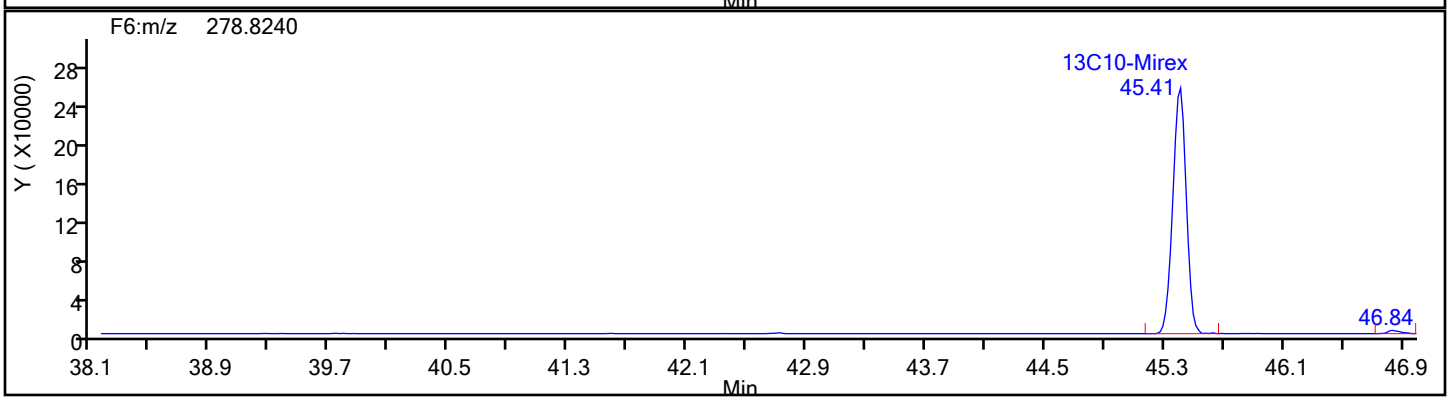




Mirex Standards





Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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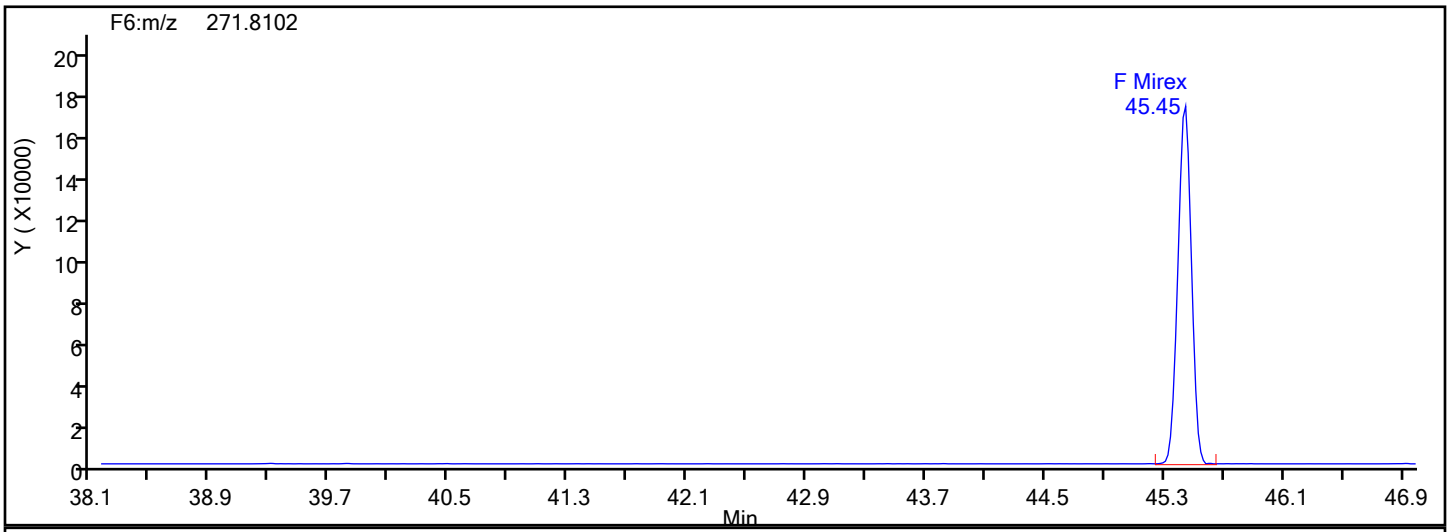
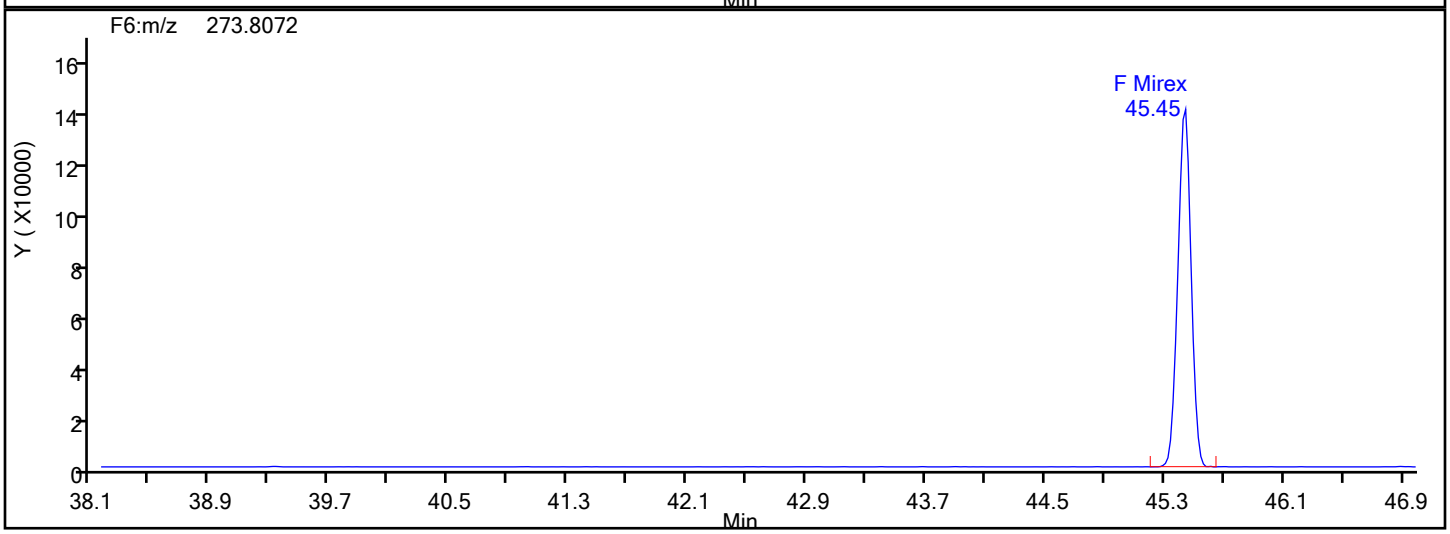
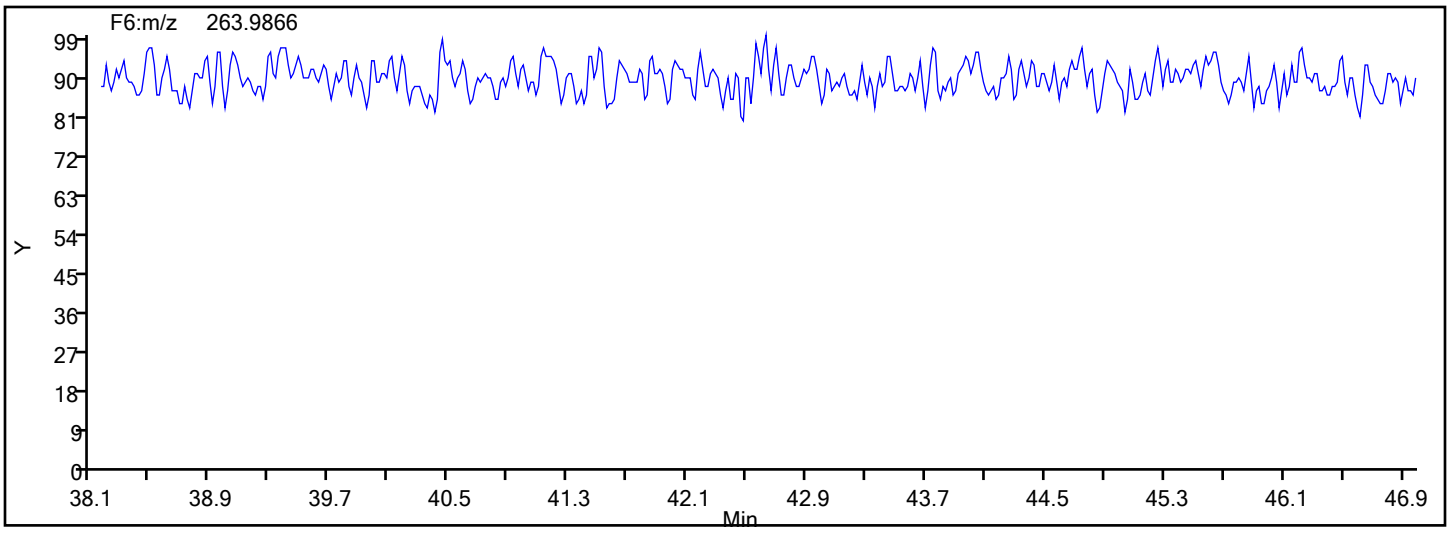




Mirex Lock Mass



Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
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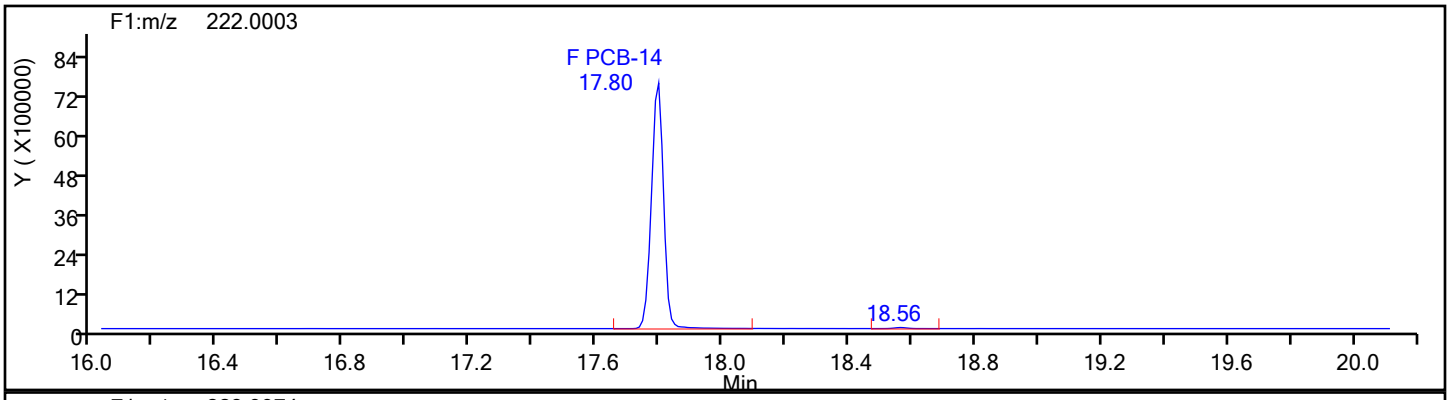
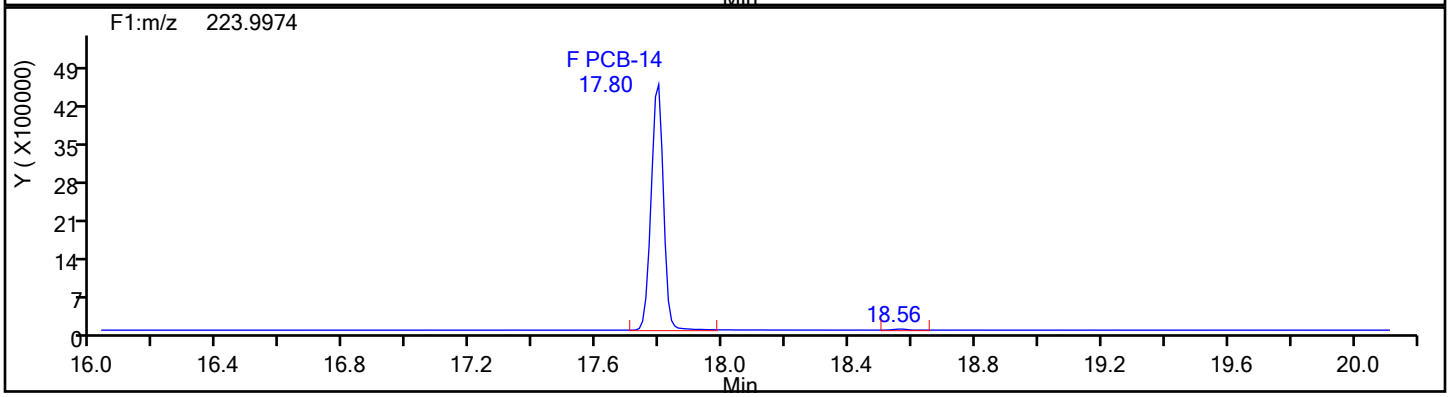
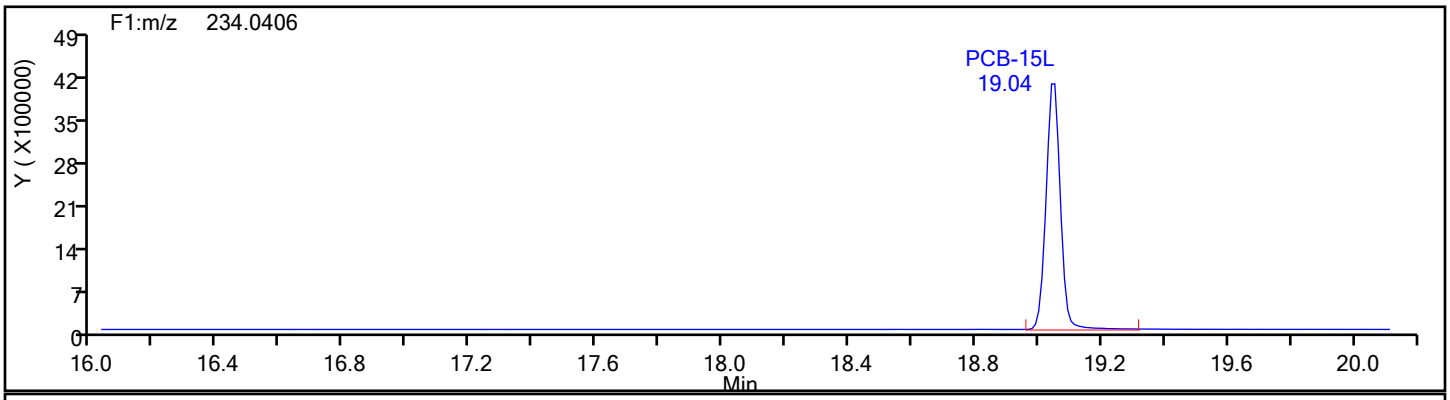
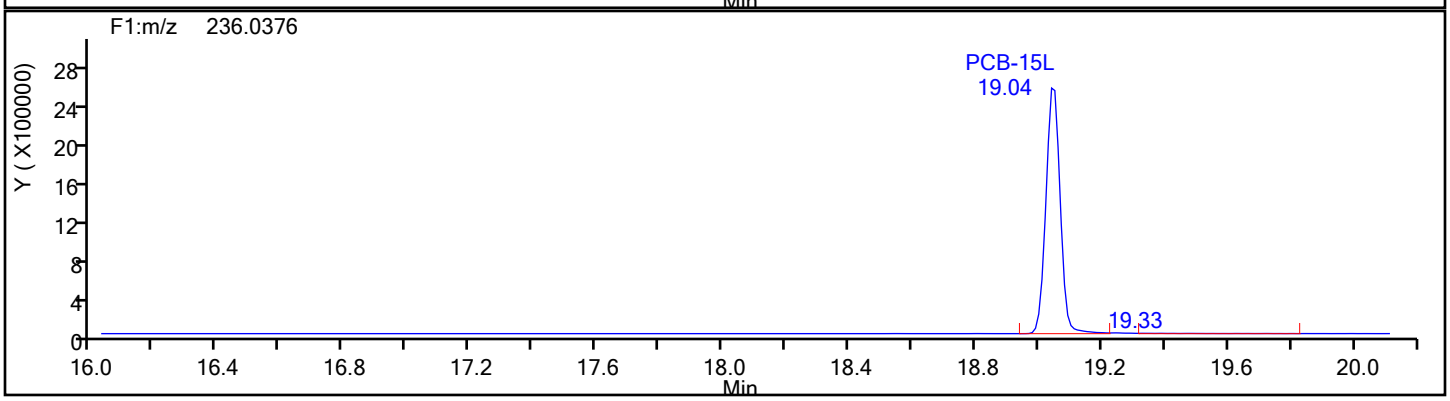
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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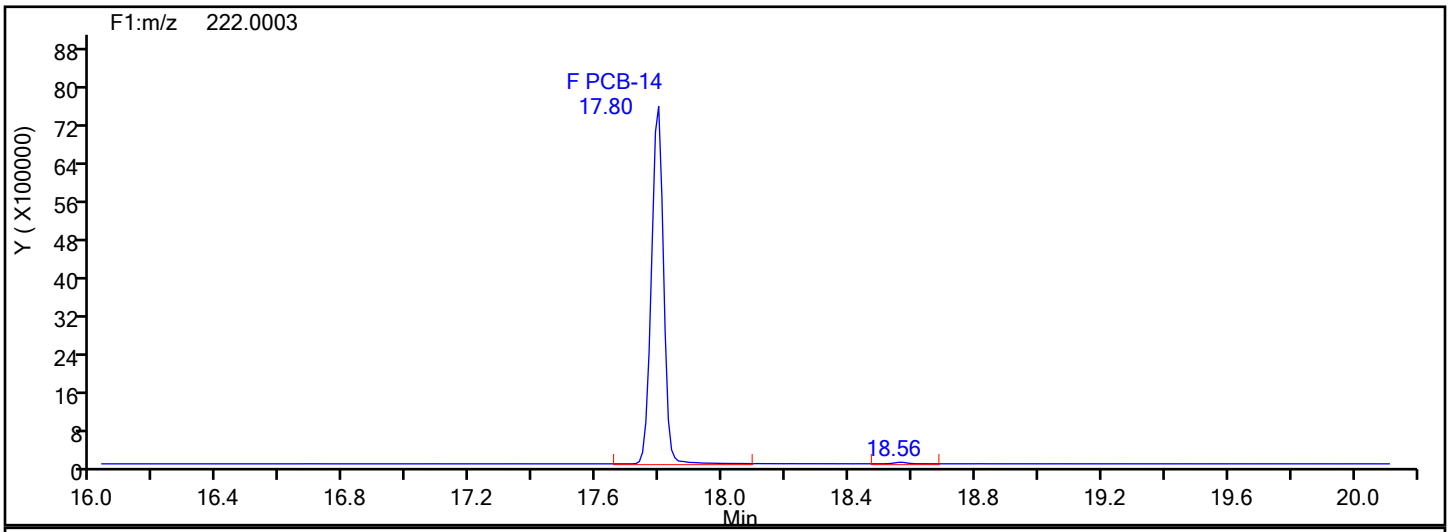
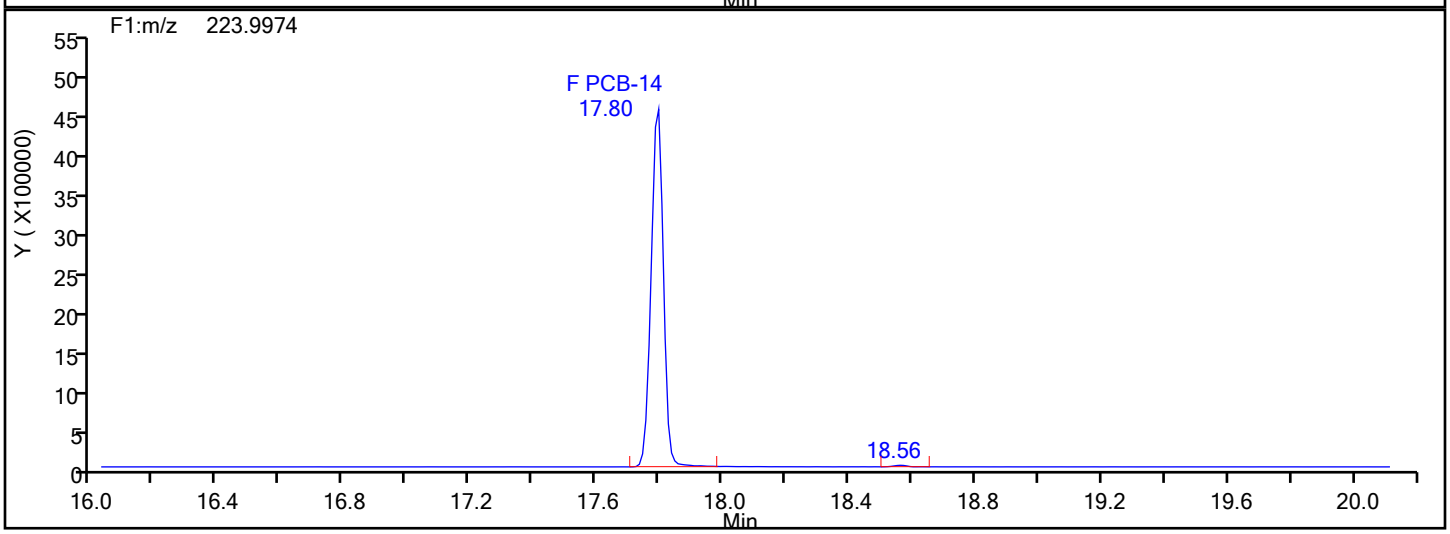
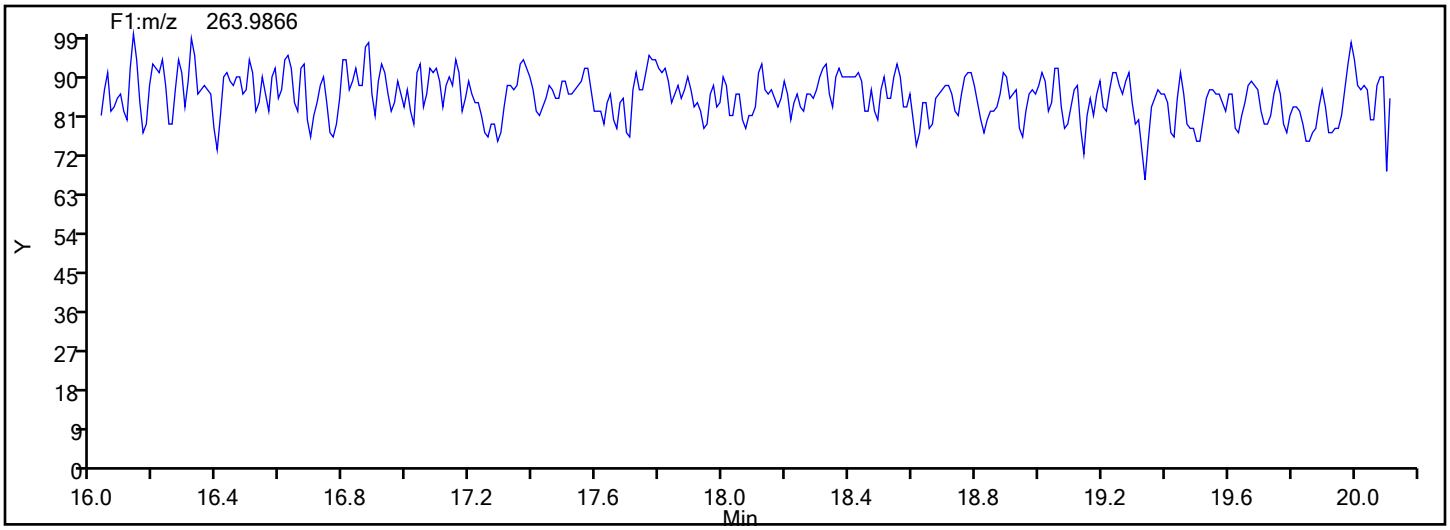
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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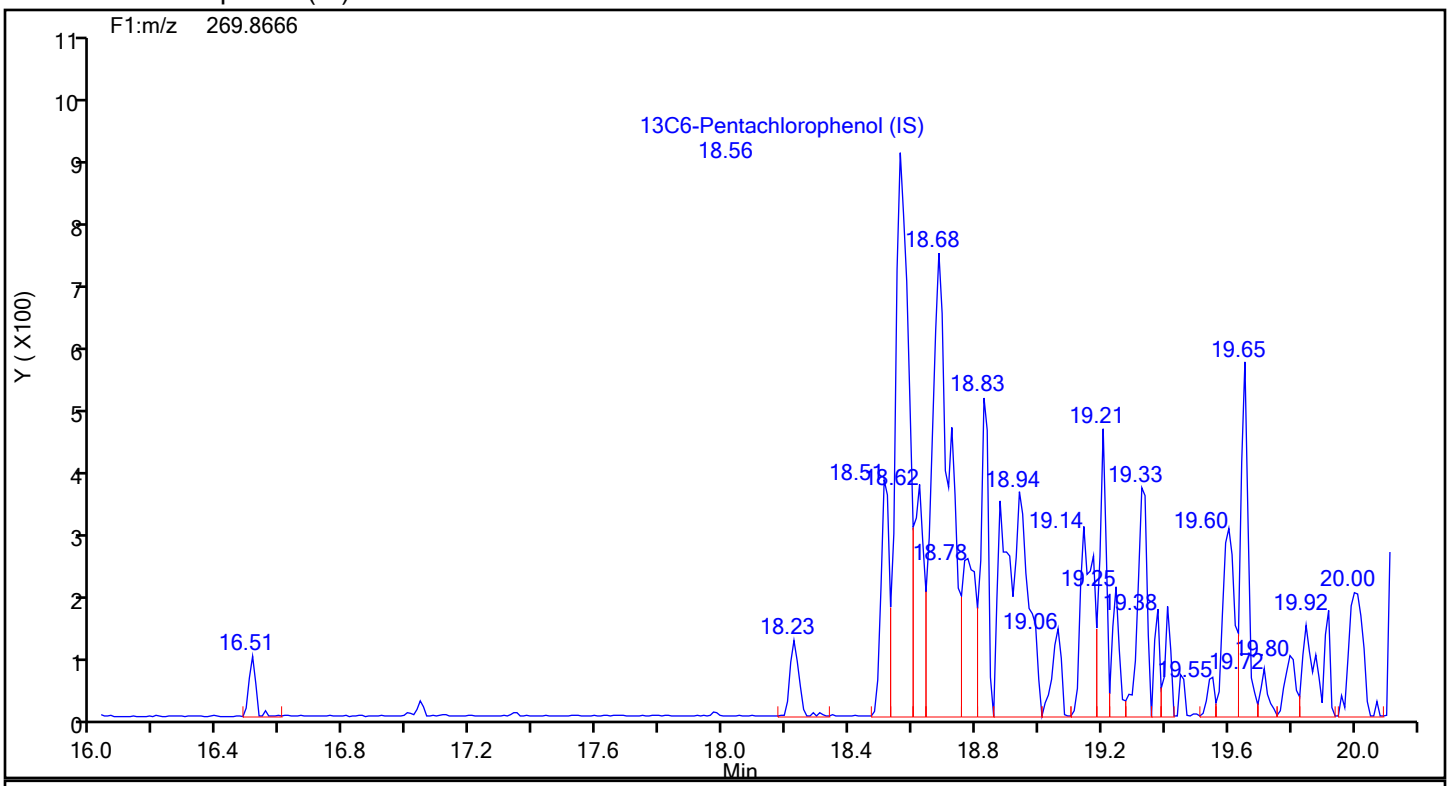
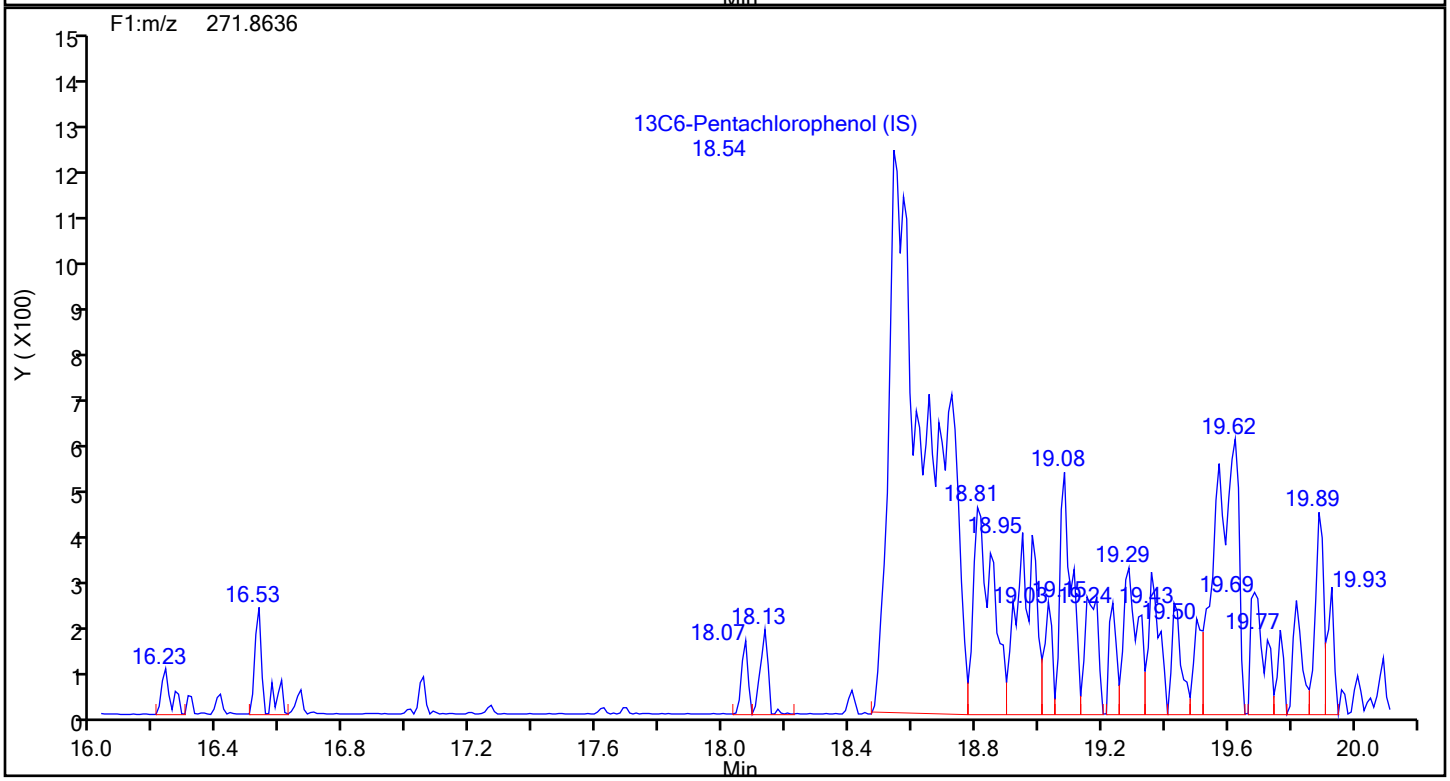
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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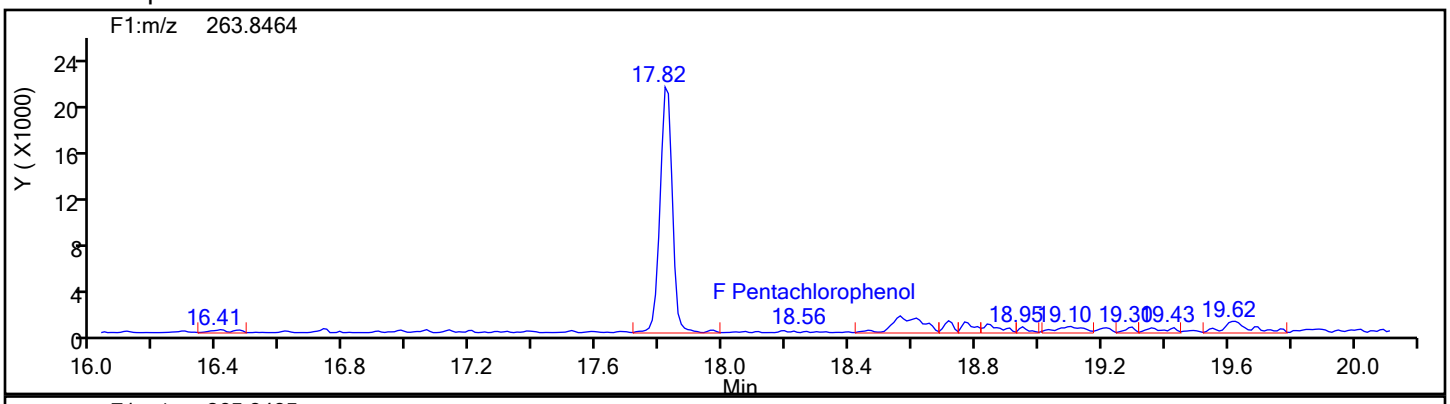
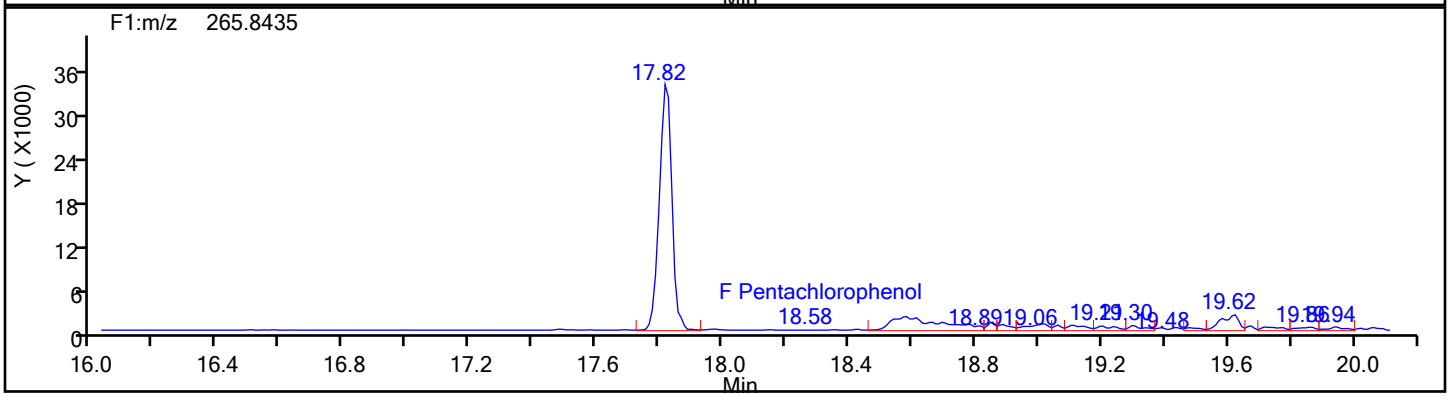
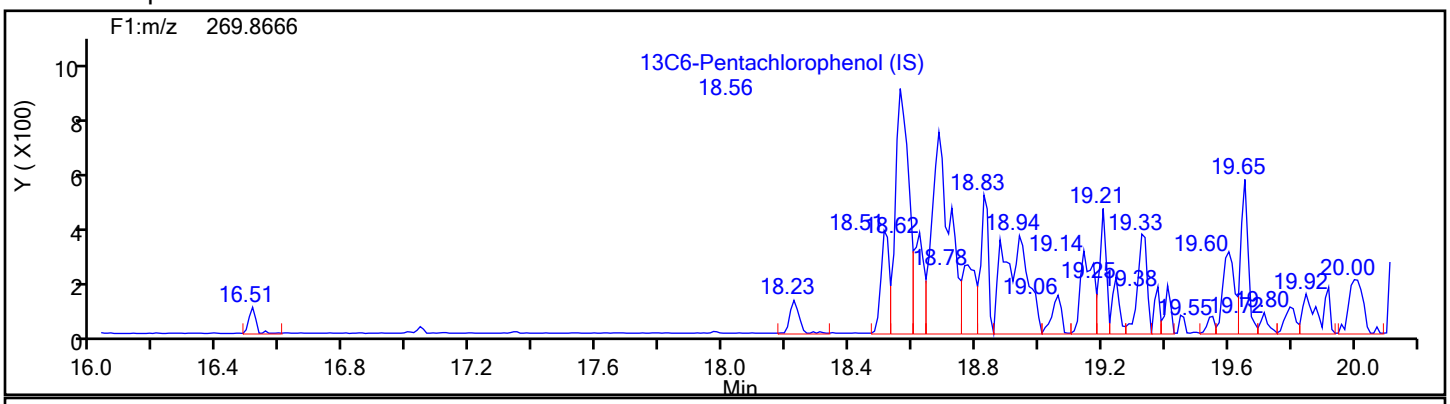
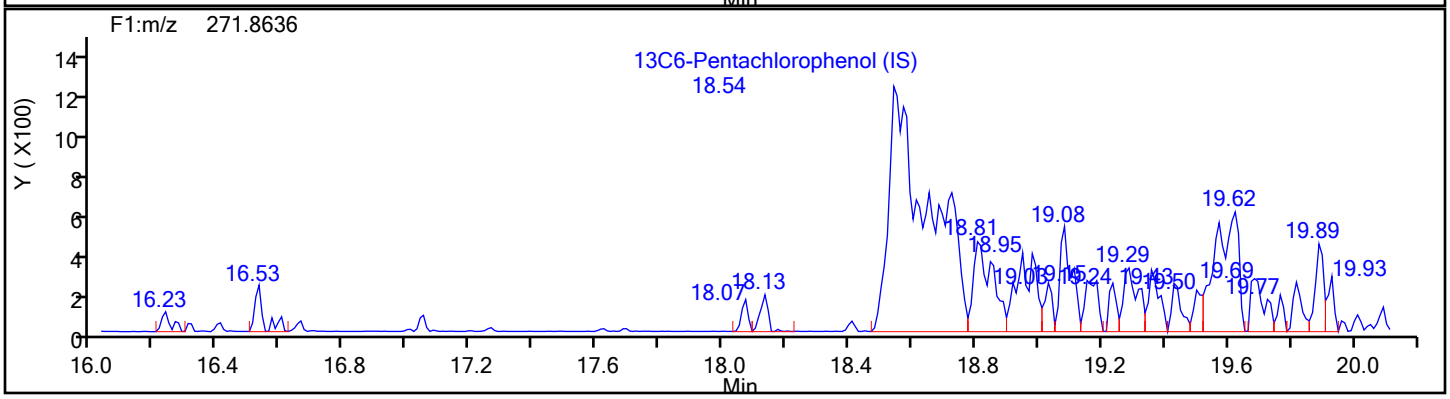
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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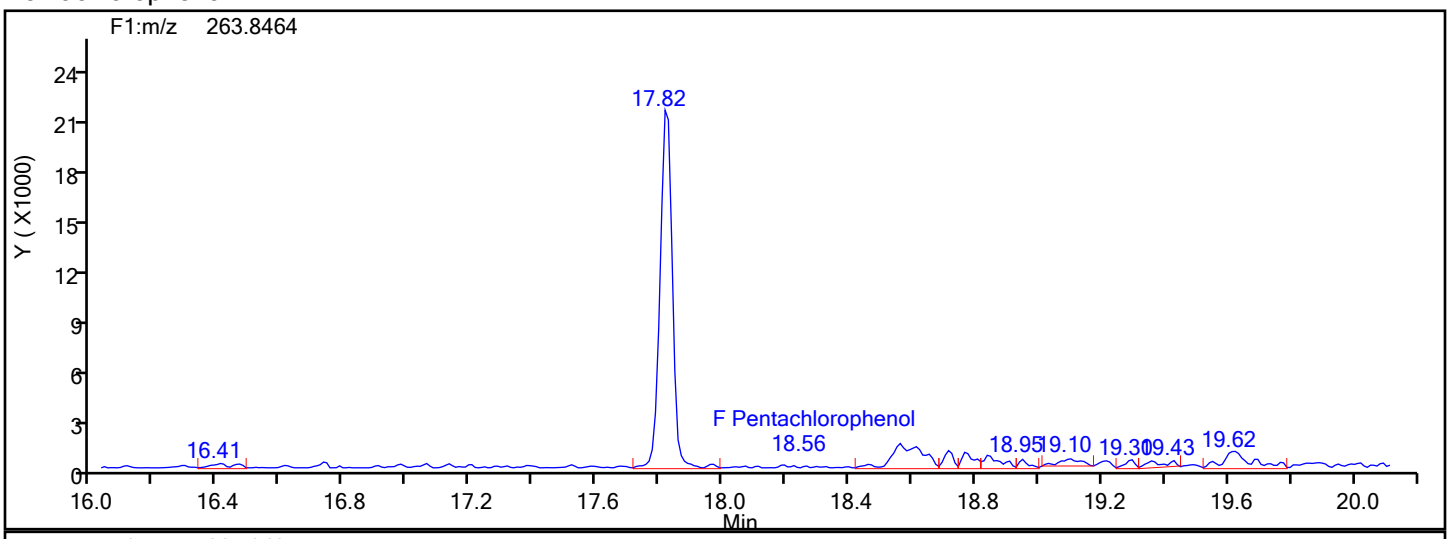
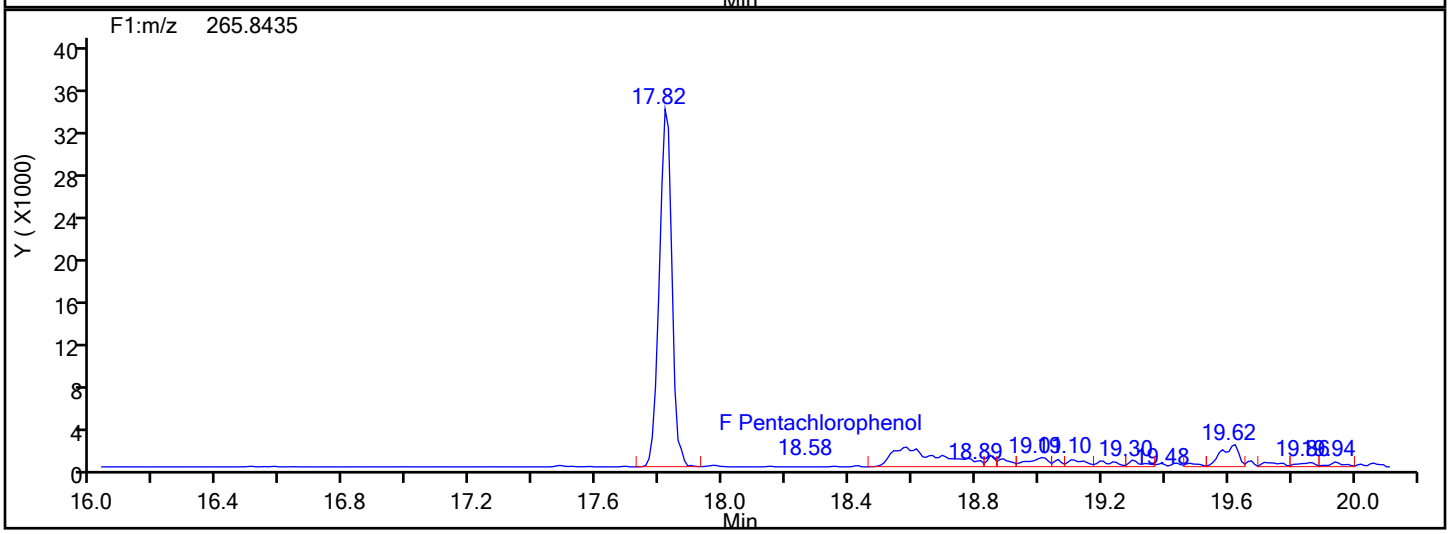
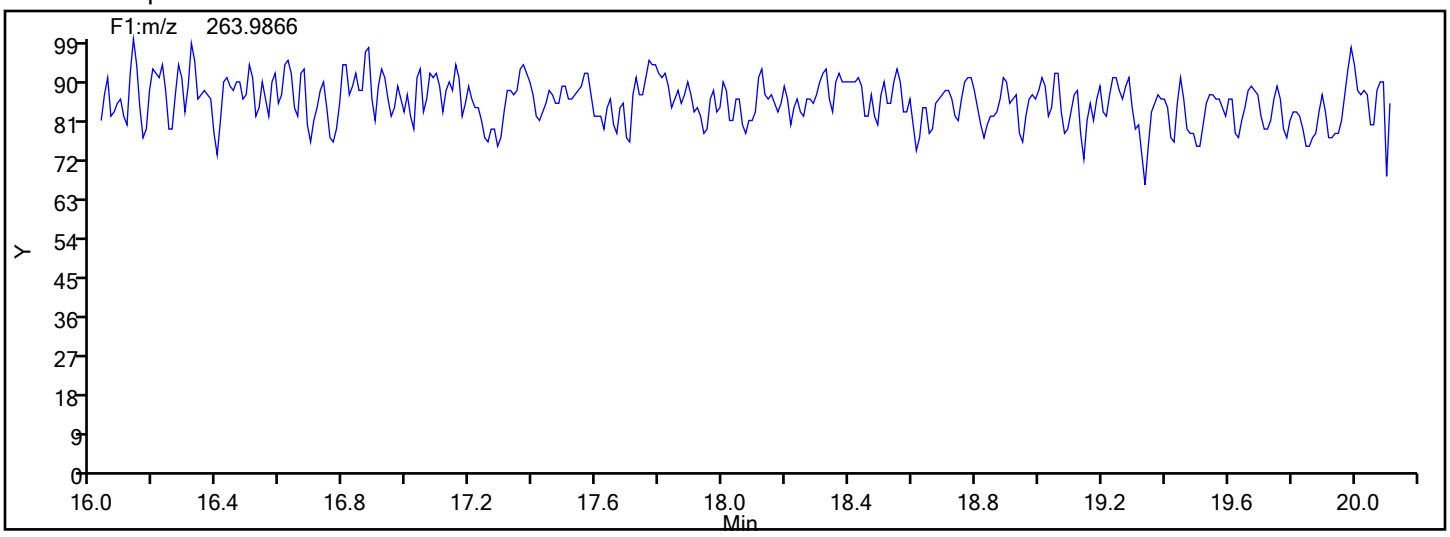
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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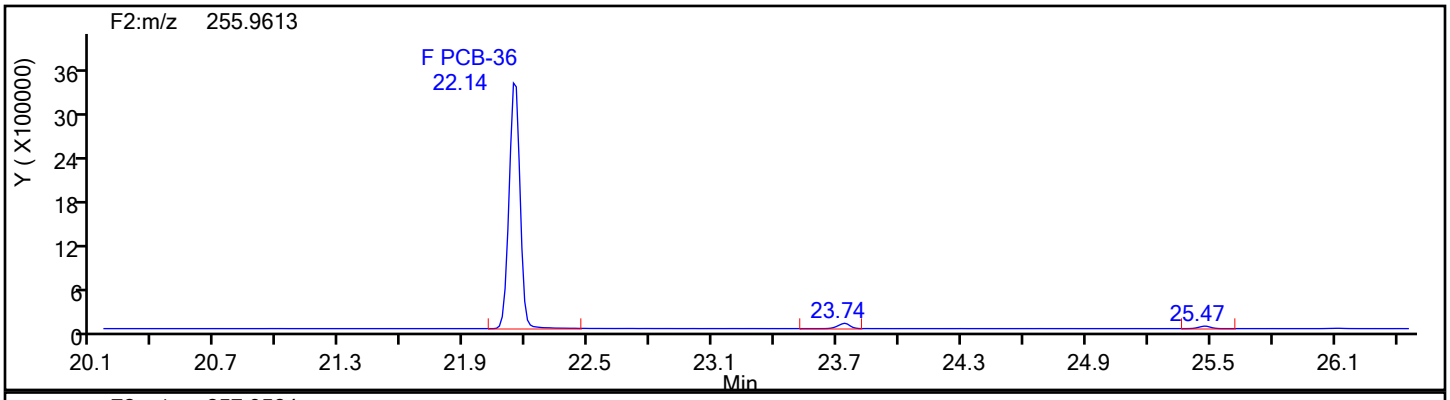
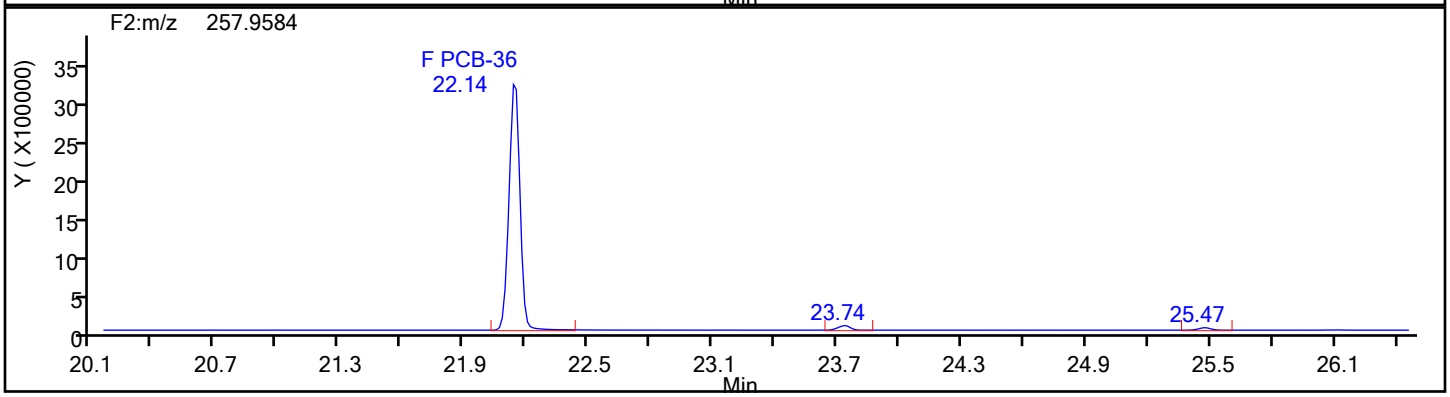
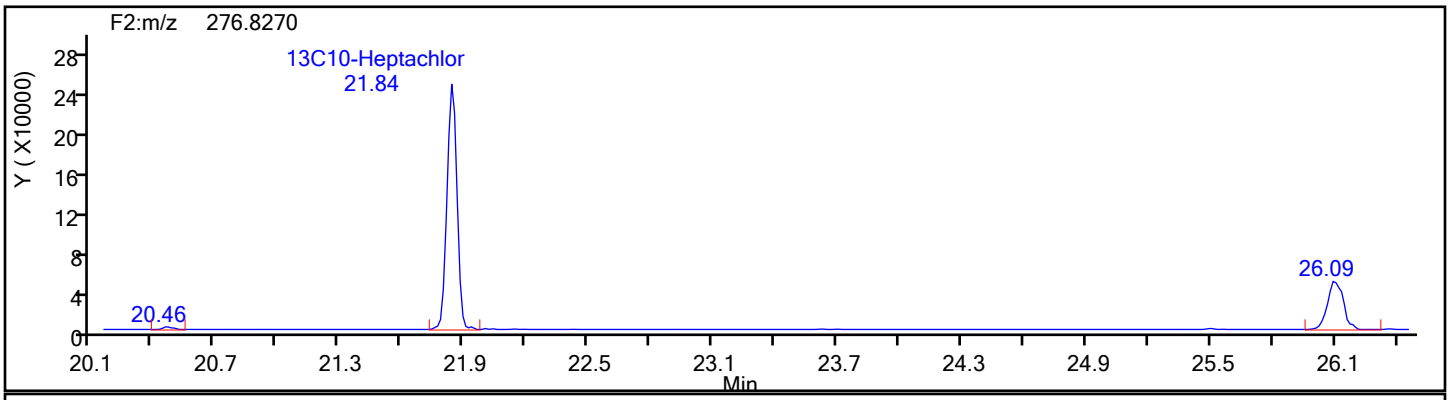
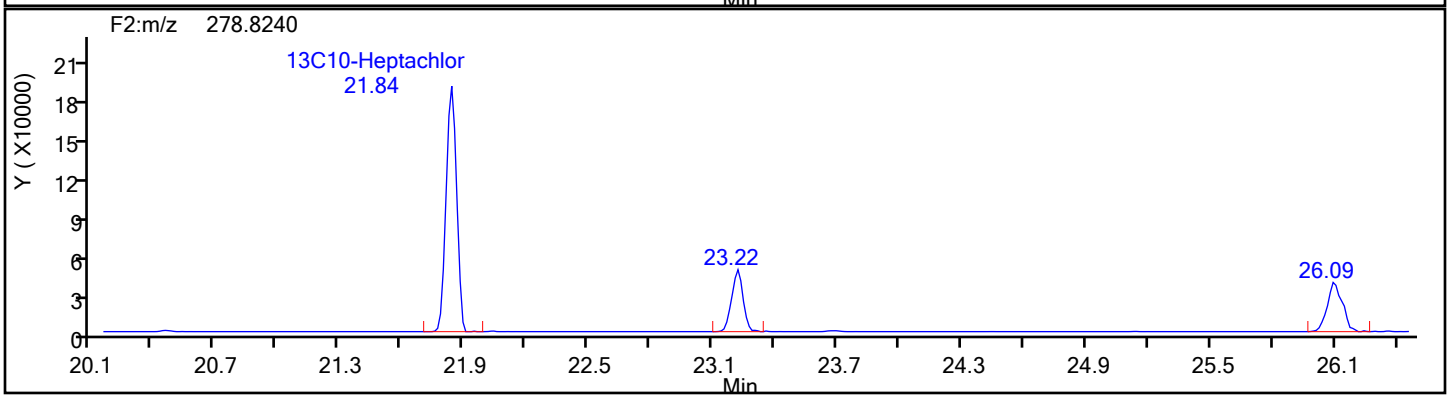
PCB-36





PCB-36 Standards





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Eurofins Knoxville

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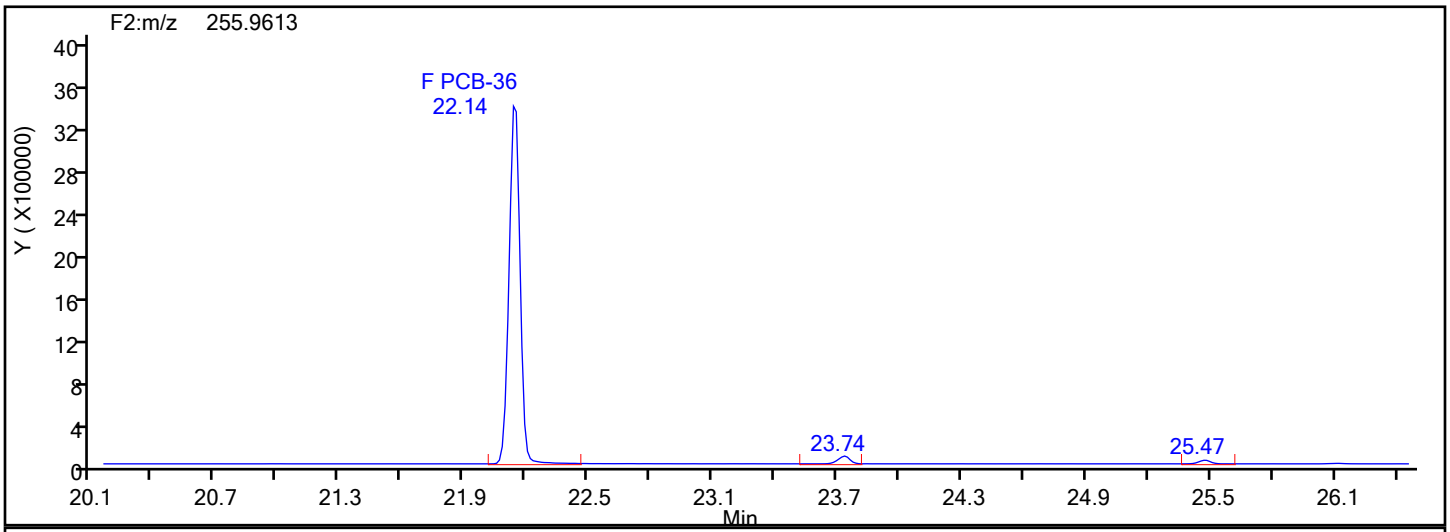
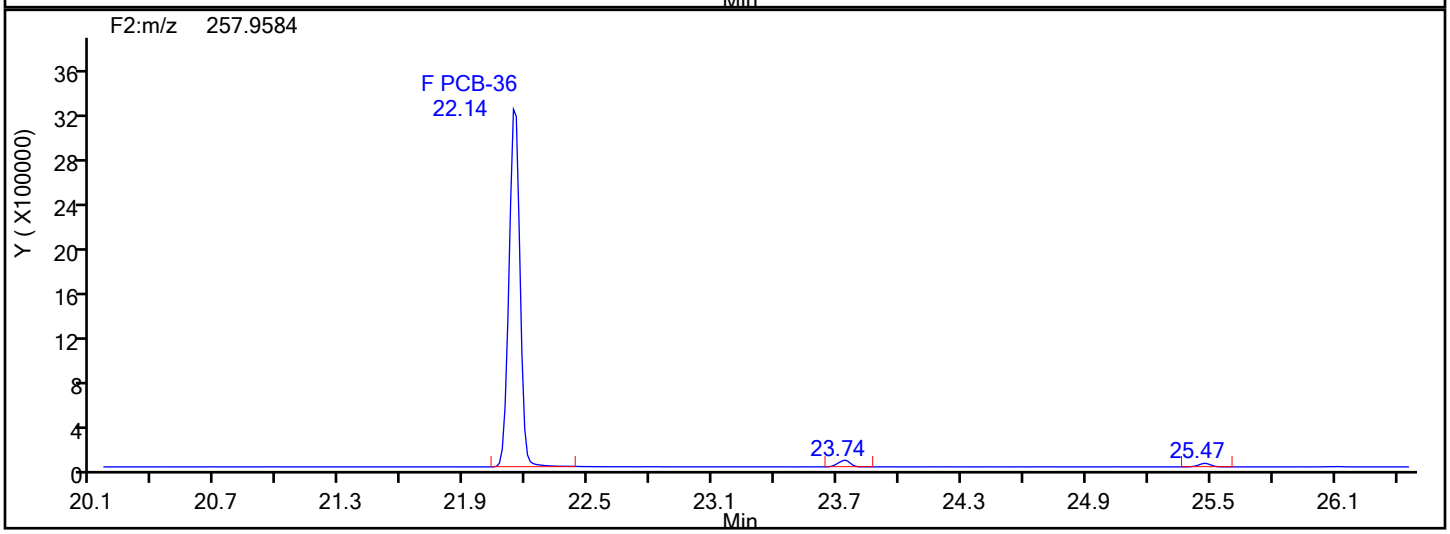
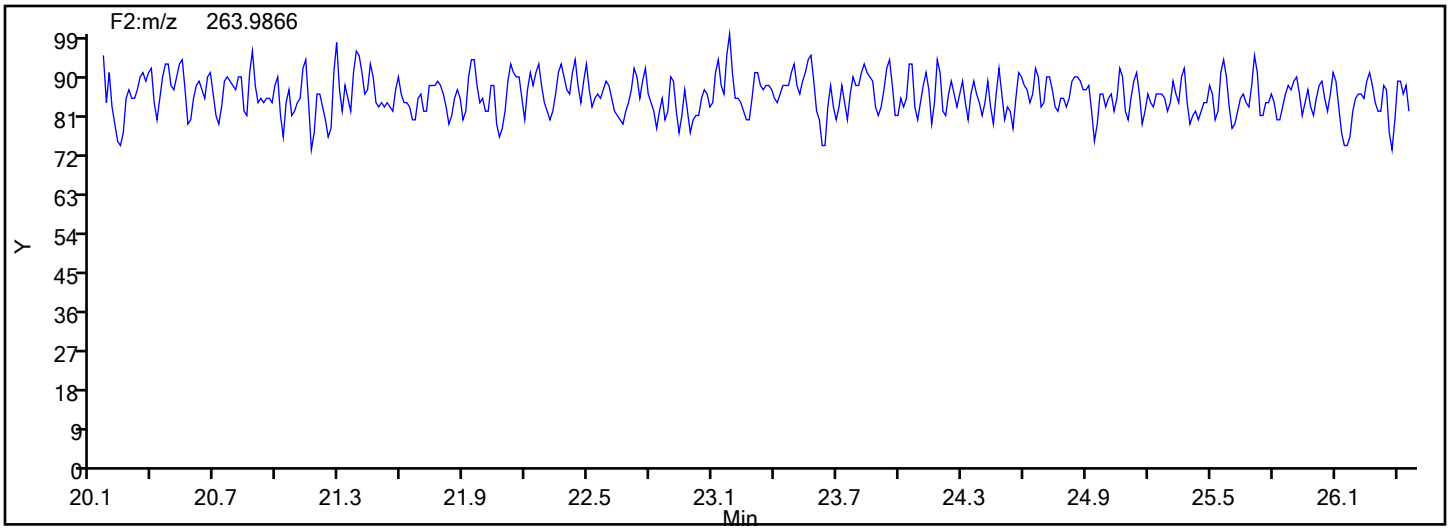
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



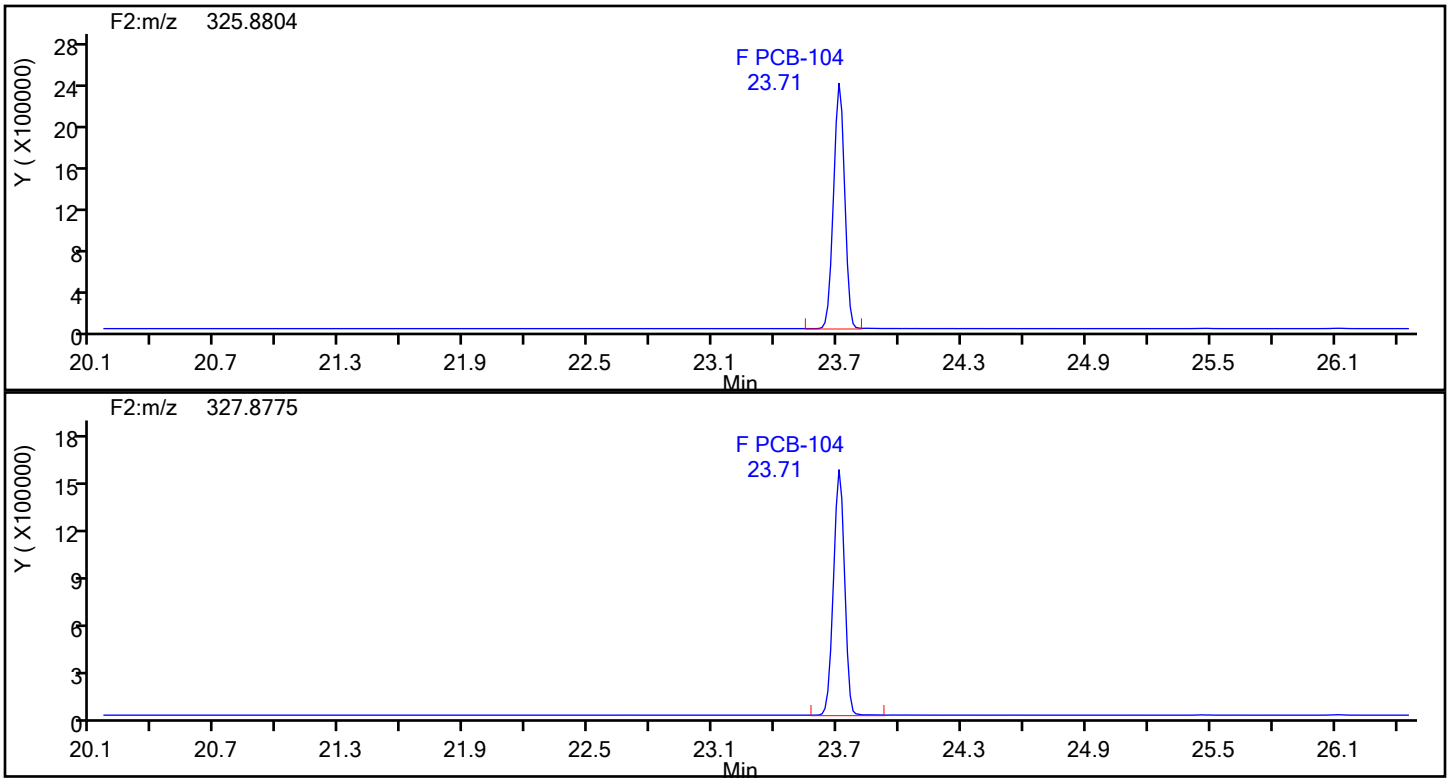
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

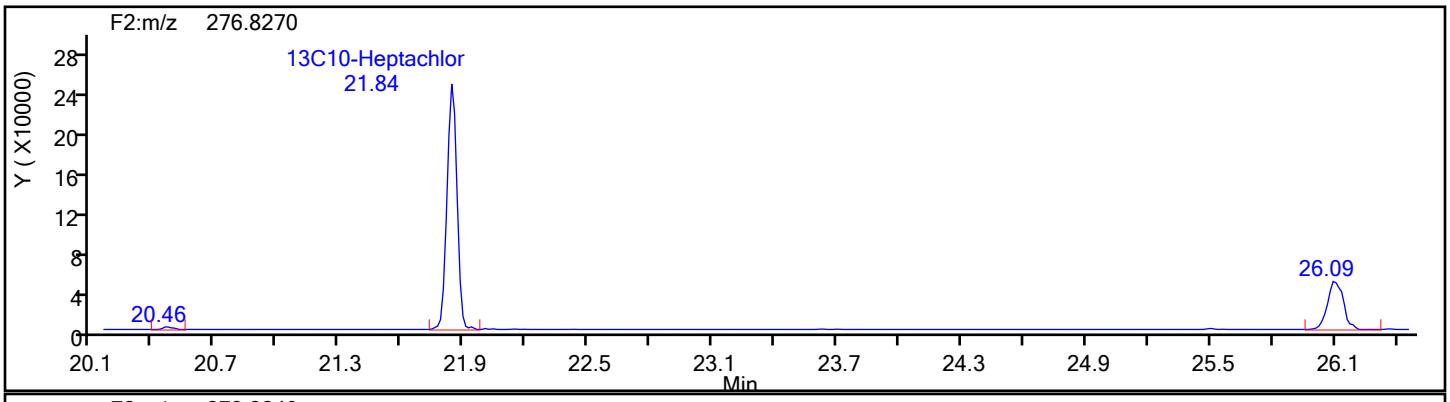
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

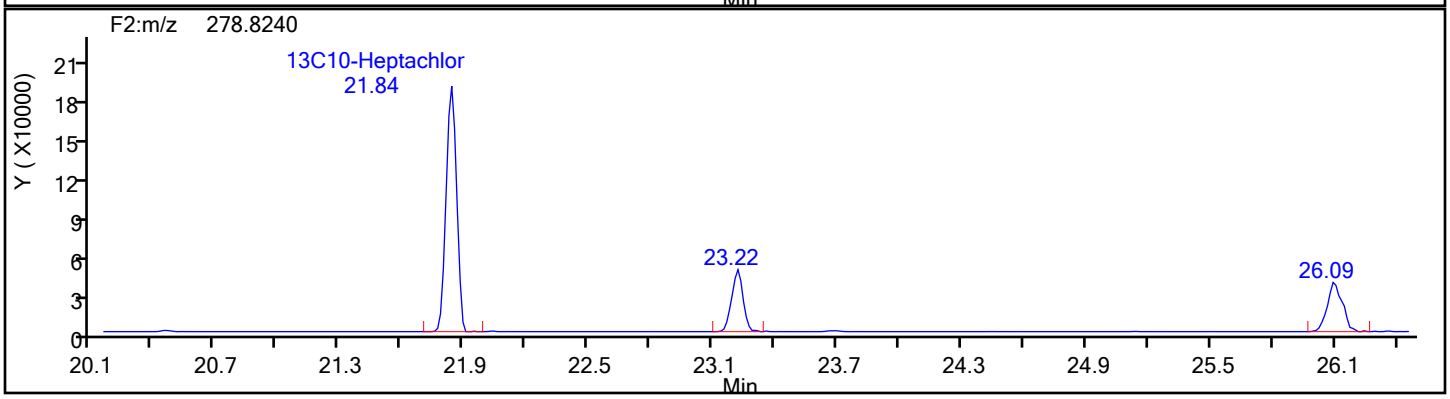
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards



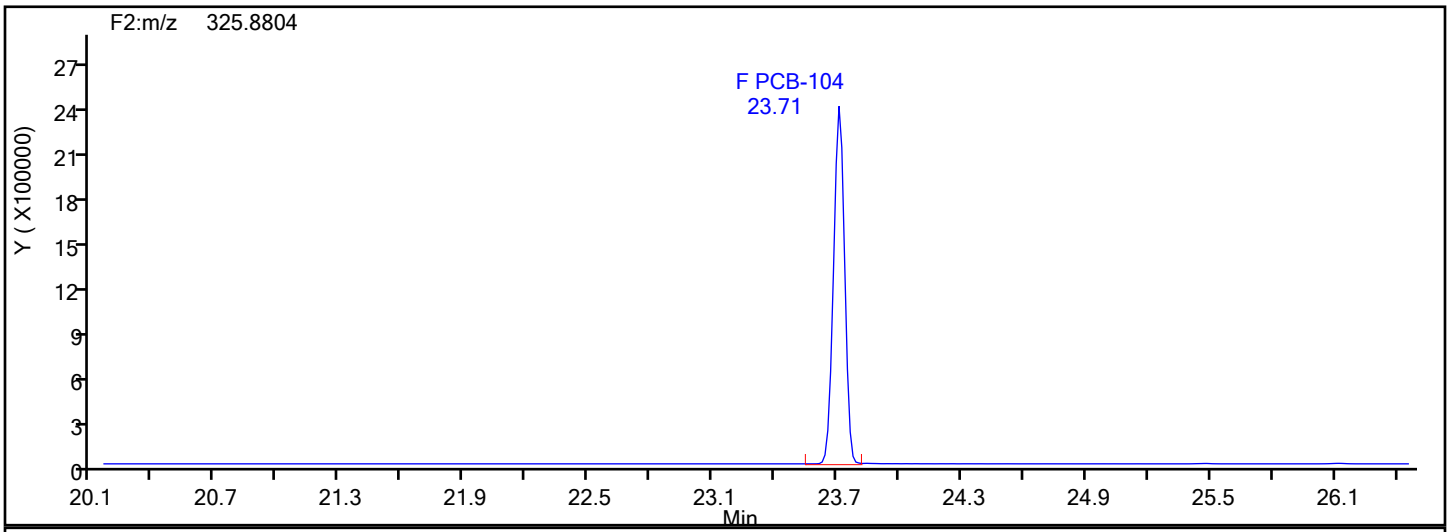


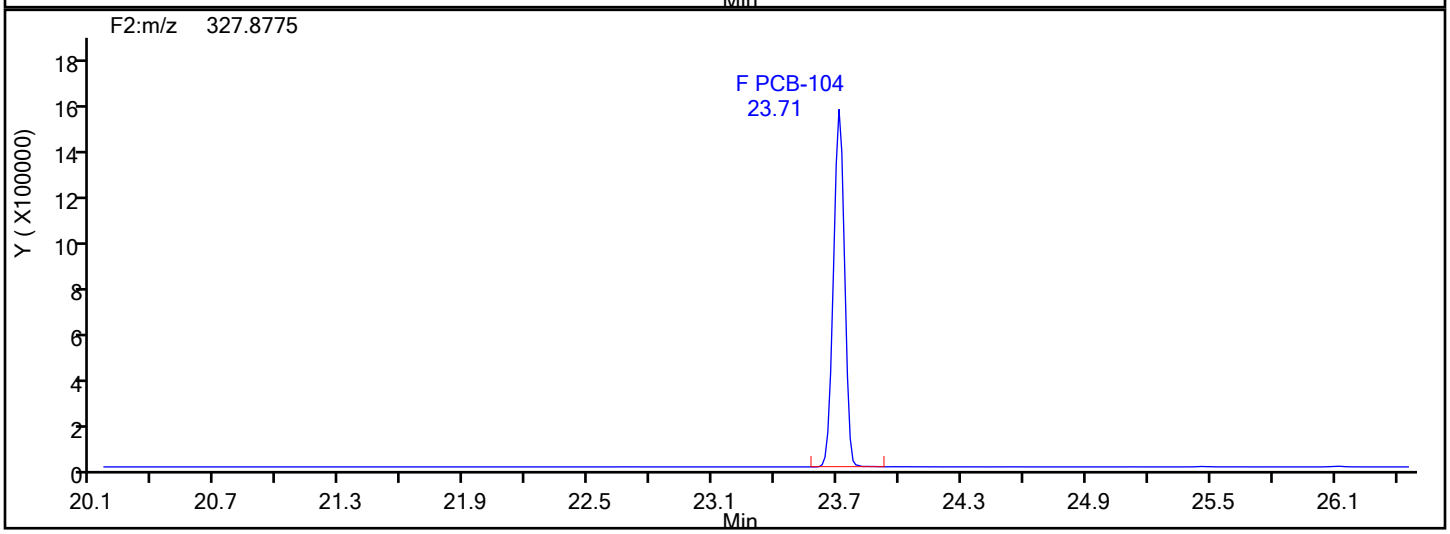
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

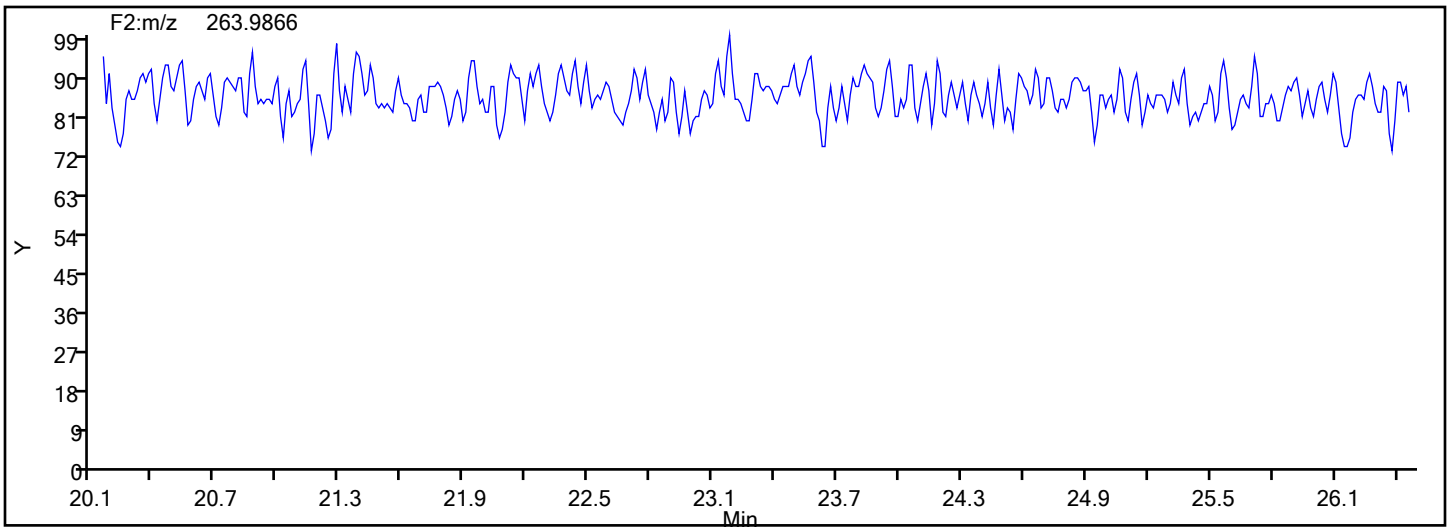
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



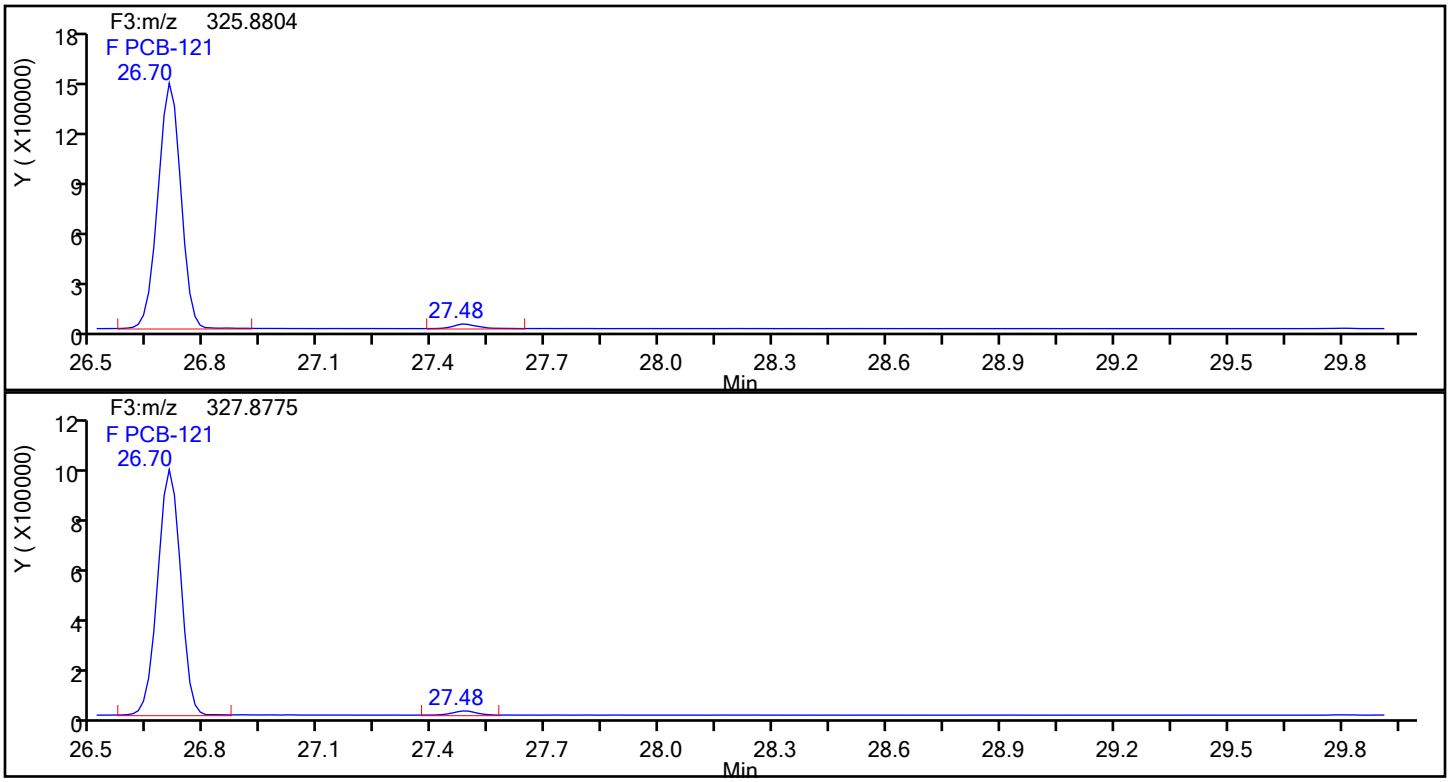
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

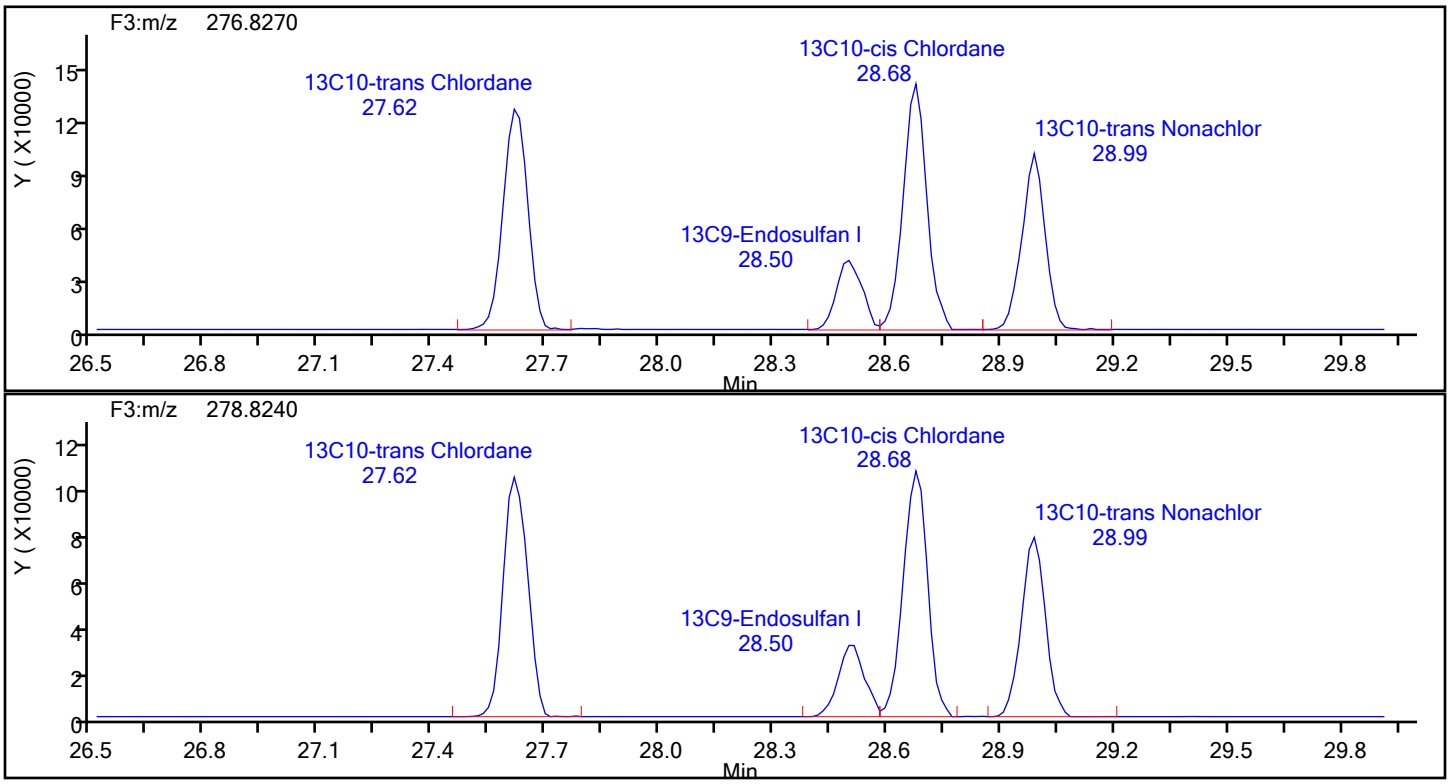
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

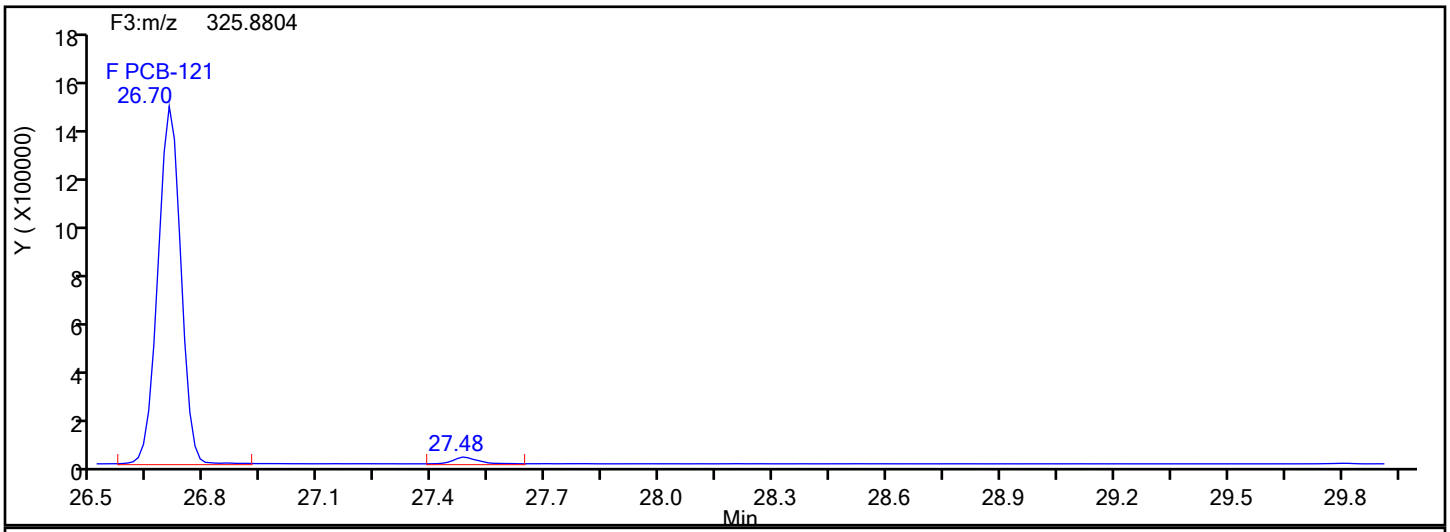


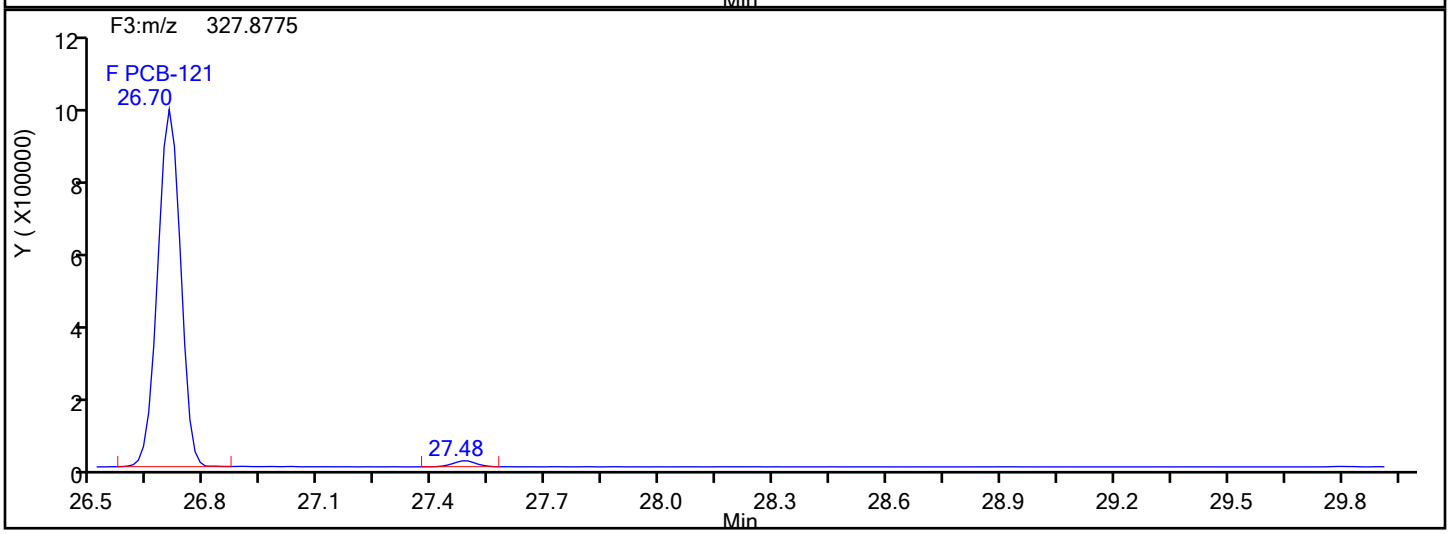
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

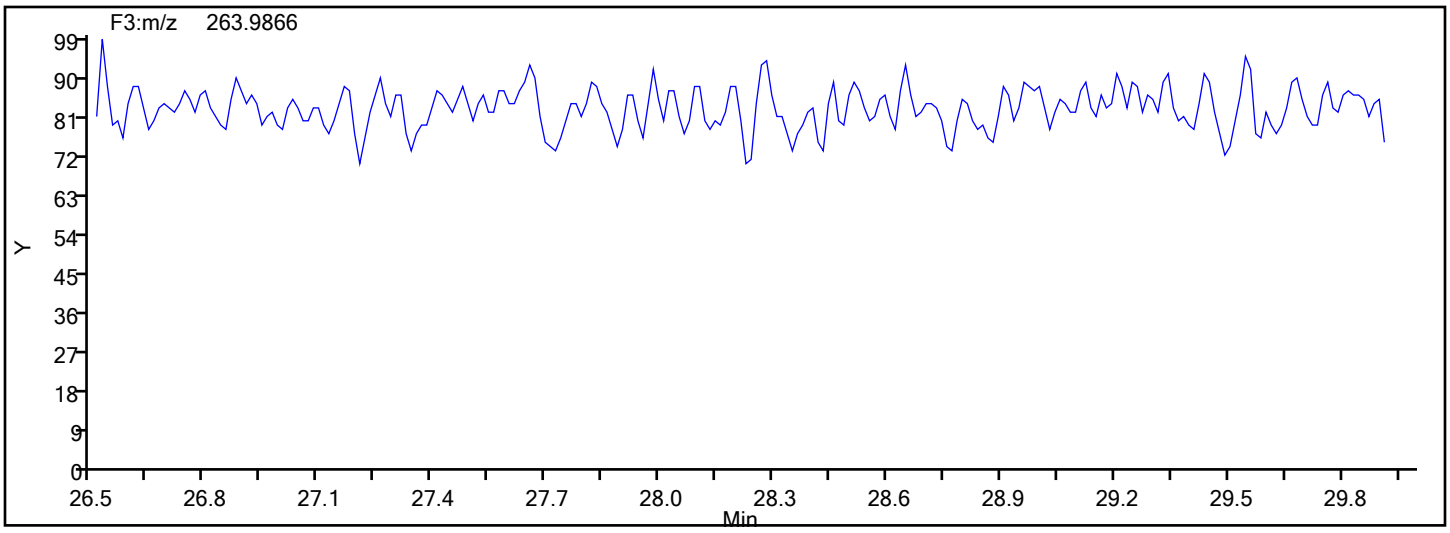
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



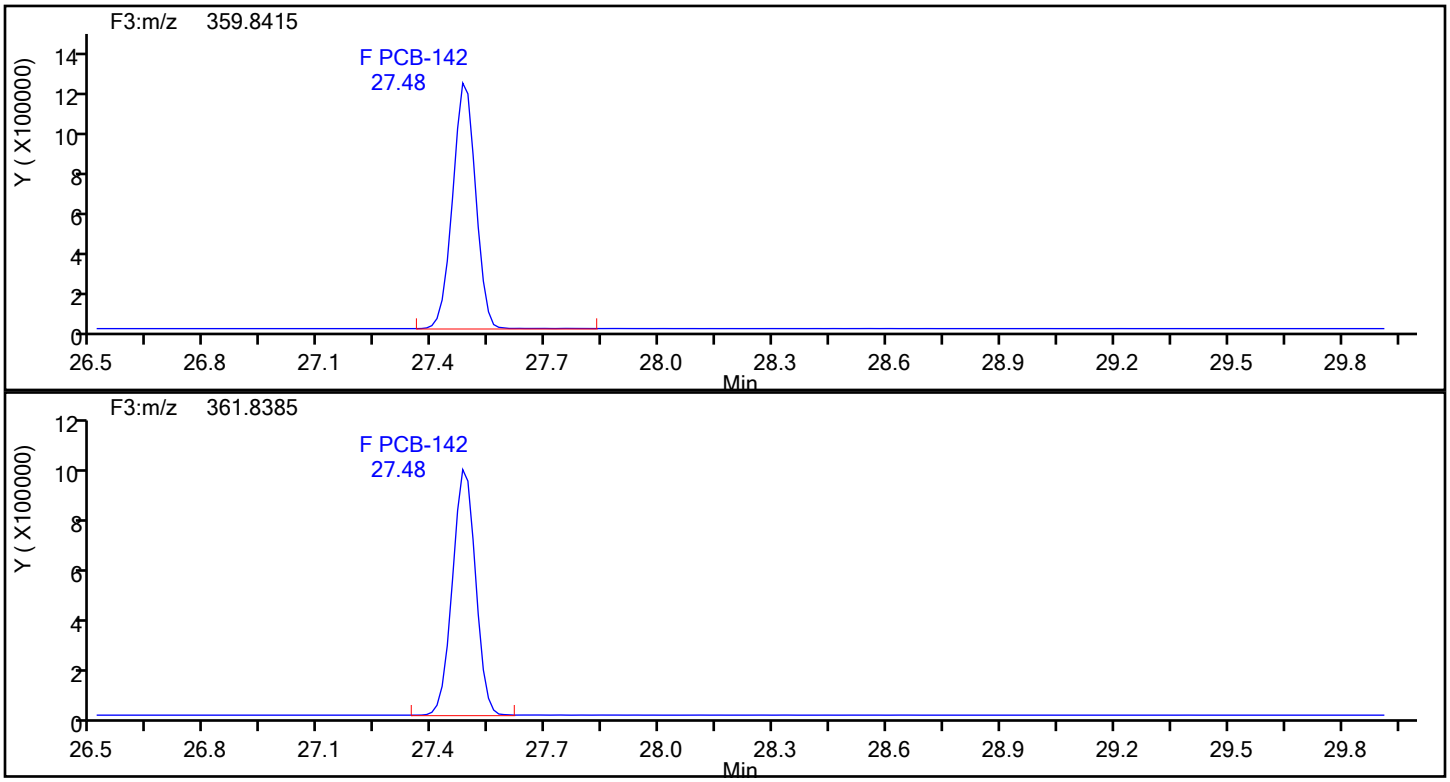
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

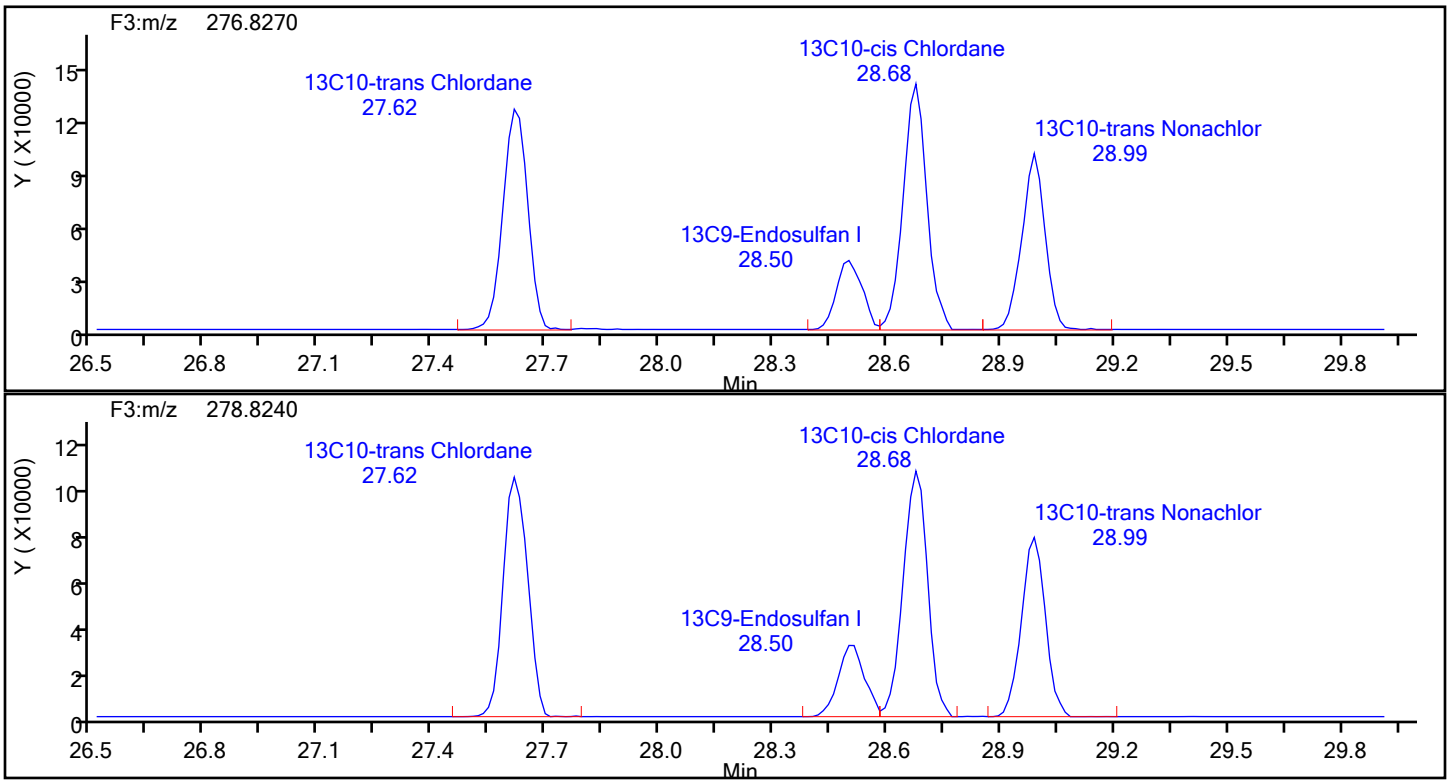
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

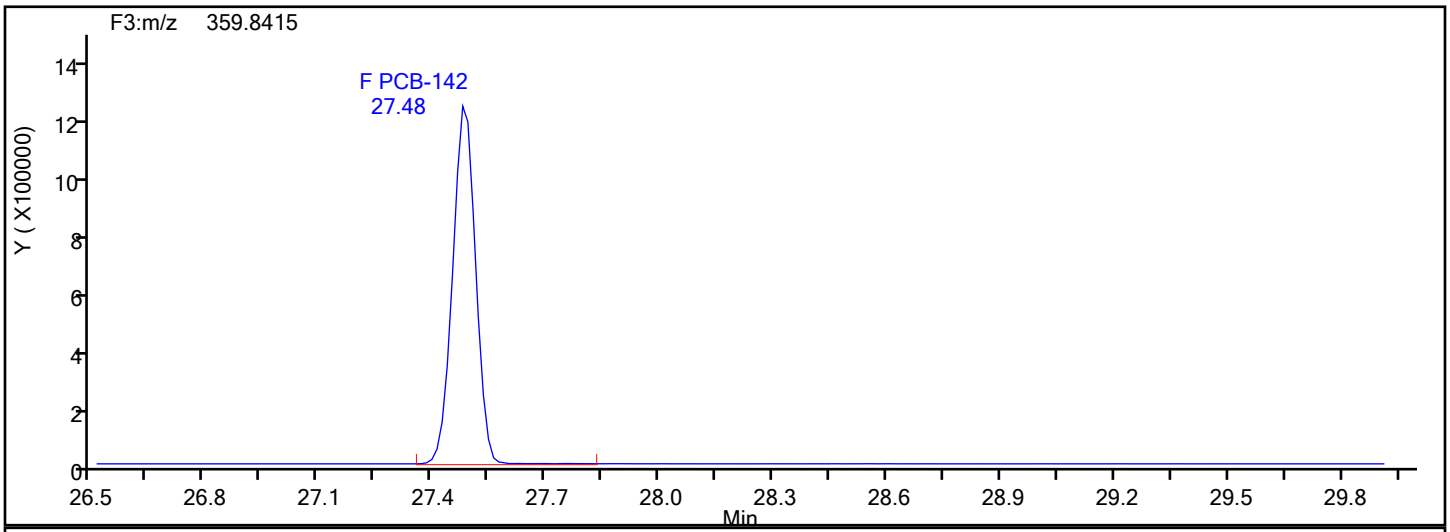


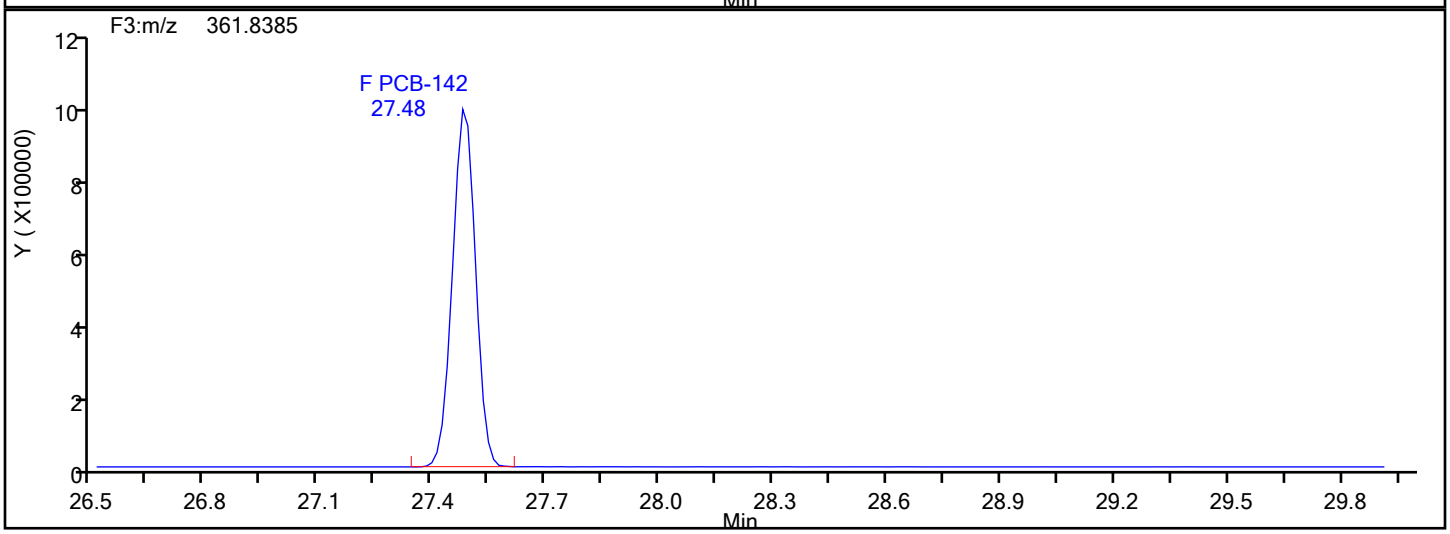
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

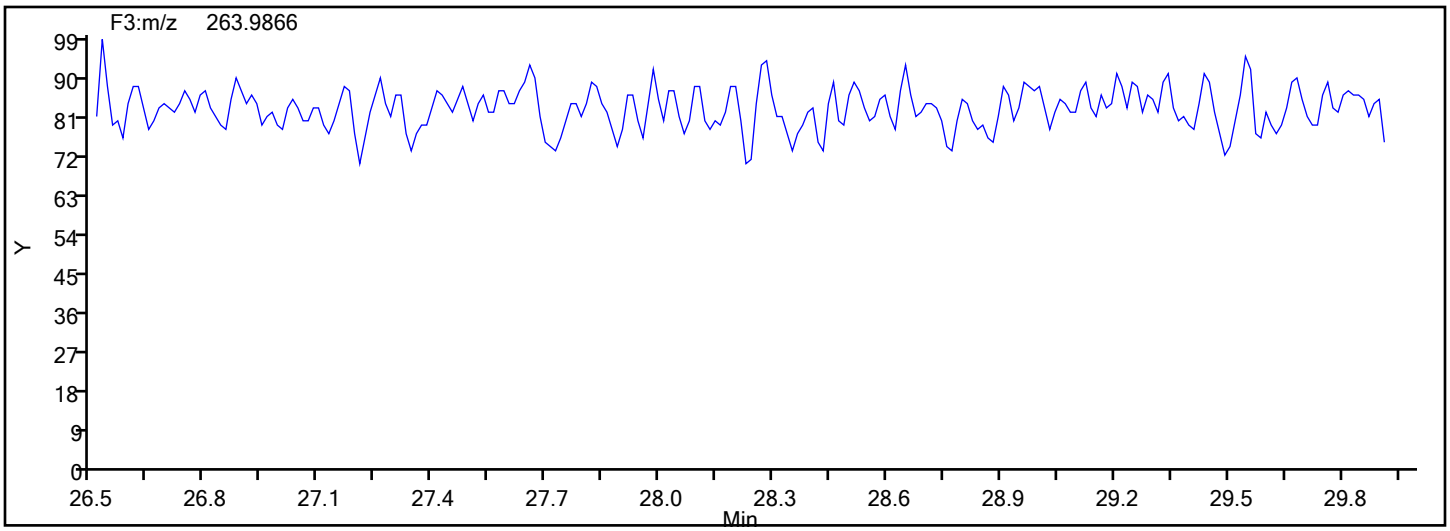
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass

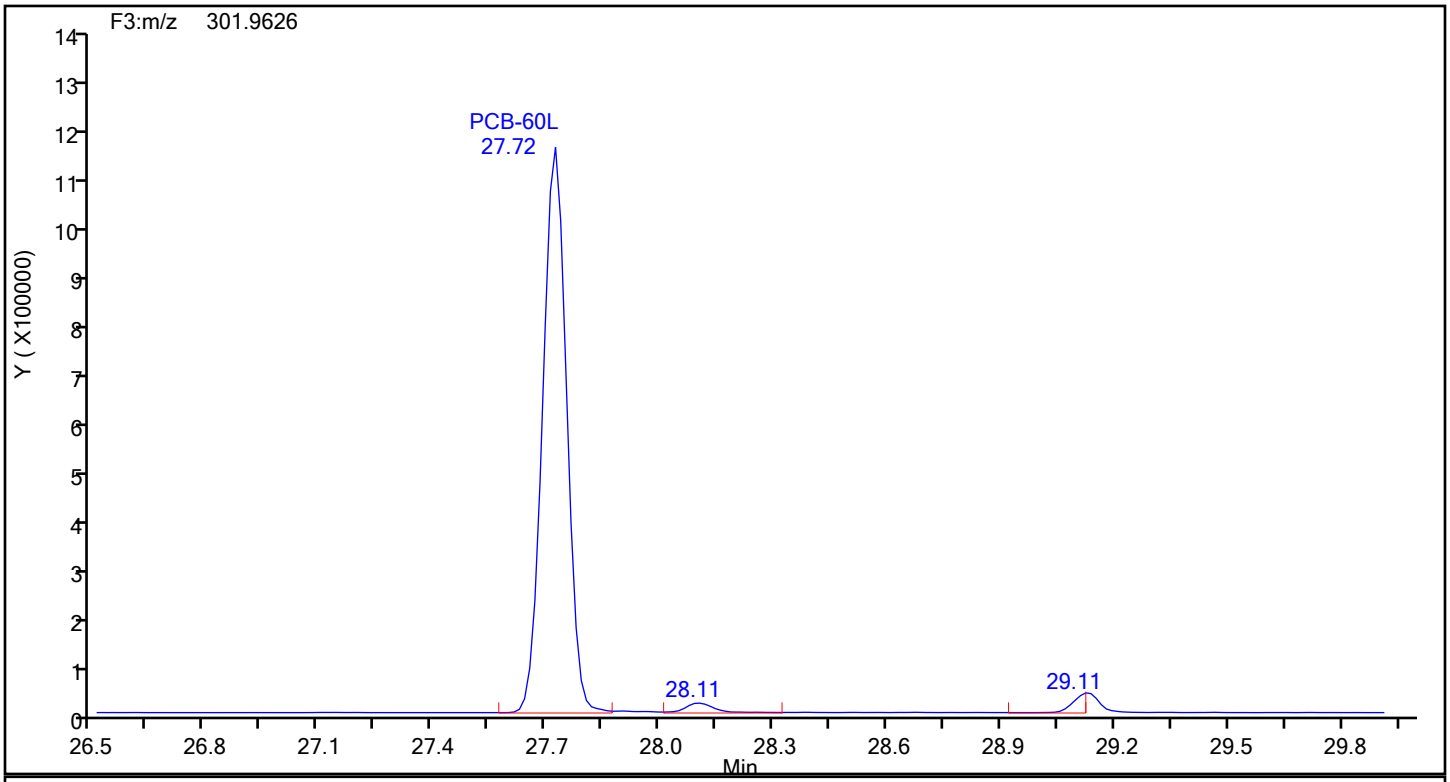


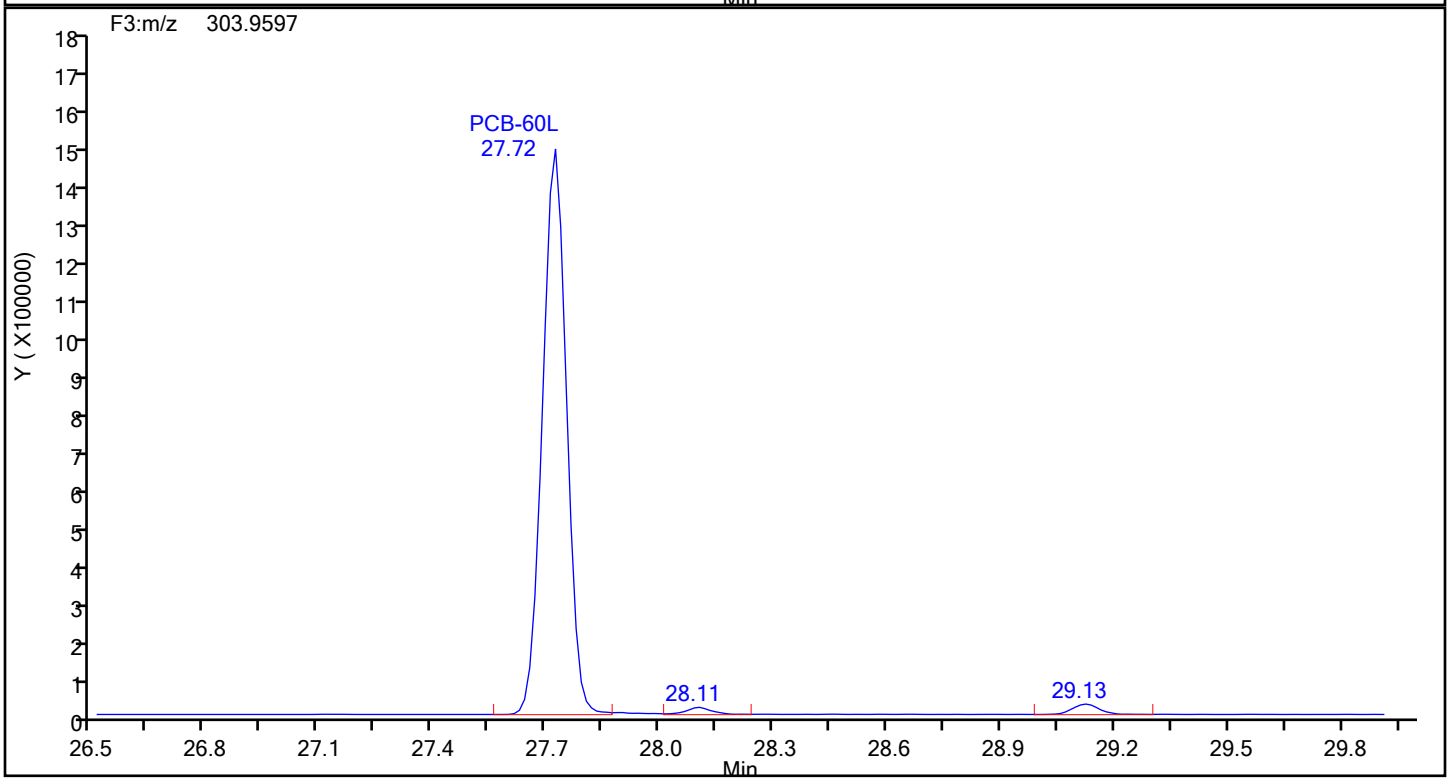
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

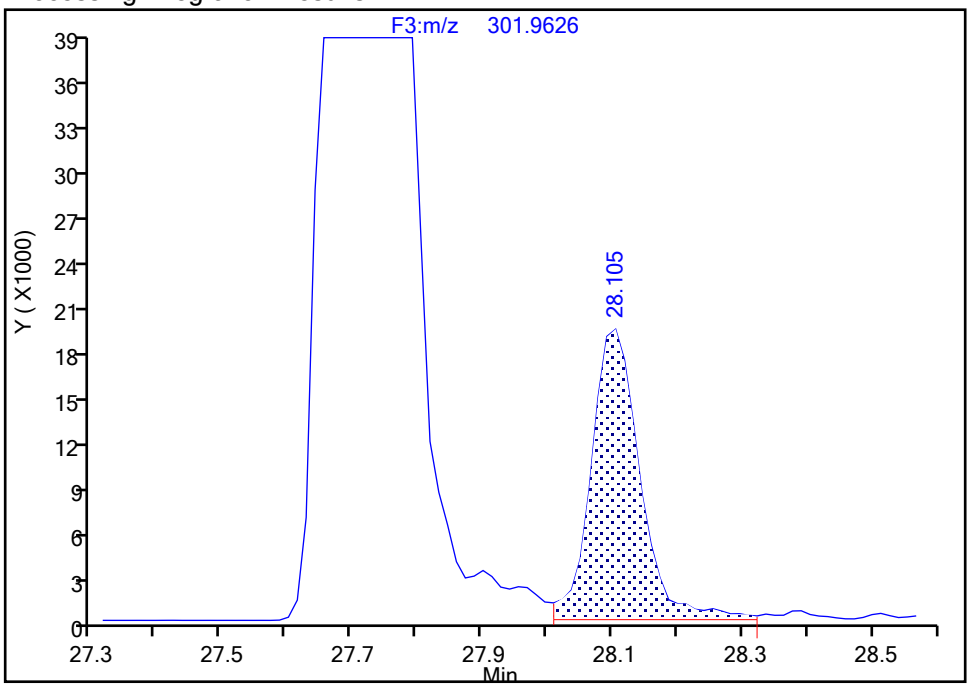
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d				
Injection Date:	19-Mar-2025 21:26:00	Instrument ID:	D3PST		
Lims ID:	IC L5				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

PCB-60L, CAS: STL02699

Signal: 1

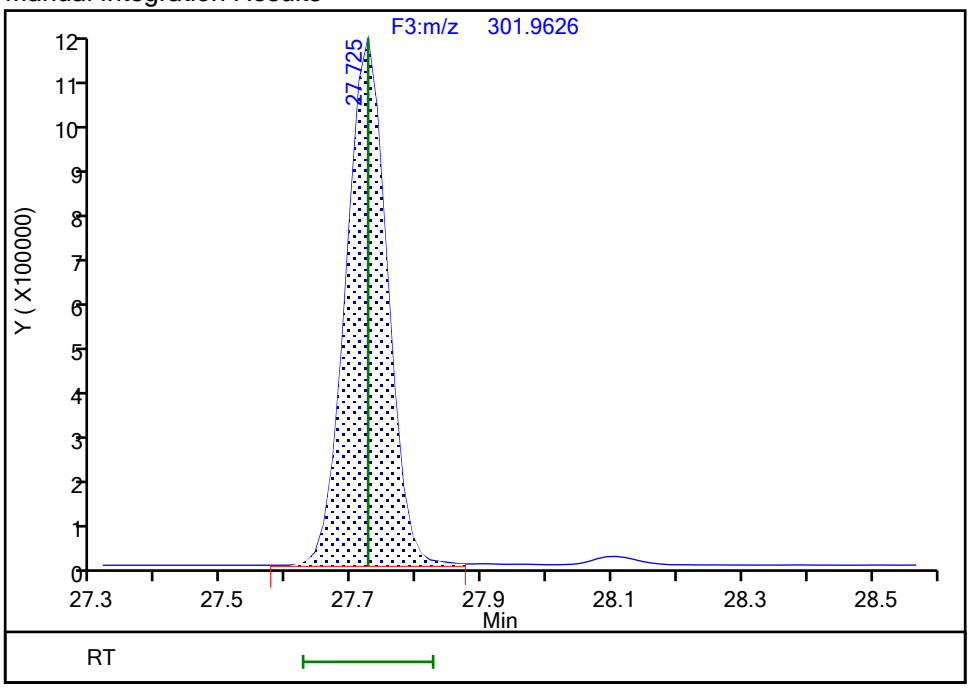
Processing Integration Results

RT: 28.11
Area: 101307
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.72
Area: 5125688
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:39:09 -04:00:00 (UTC)

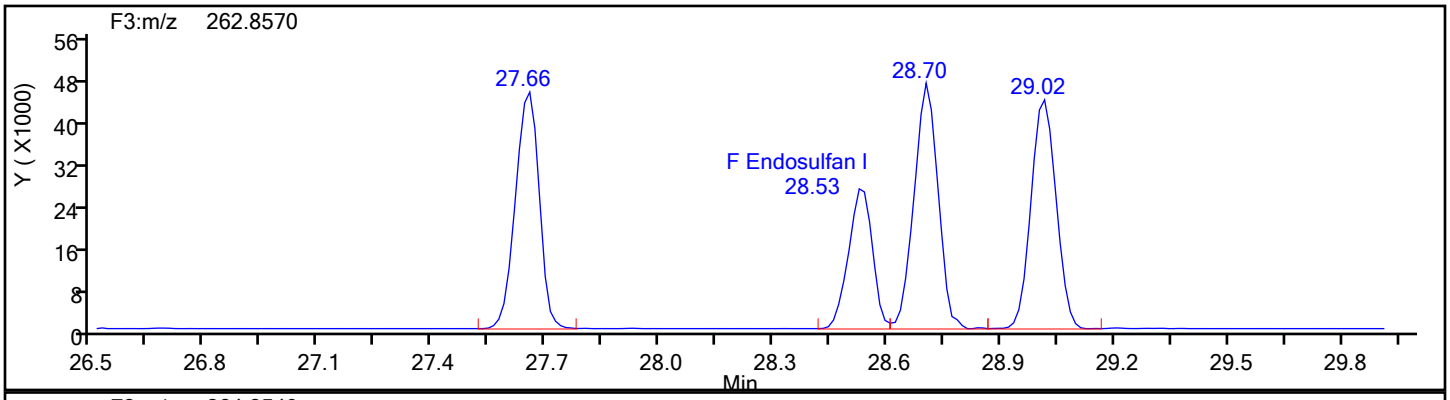
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

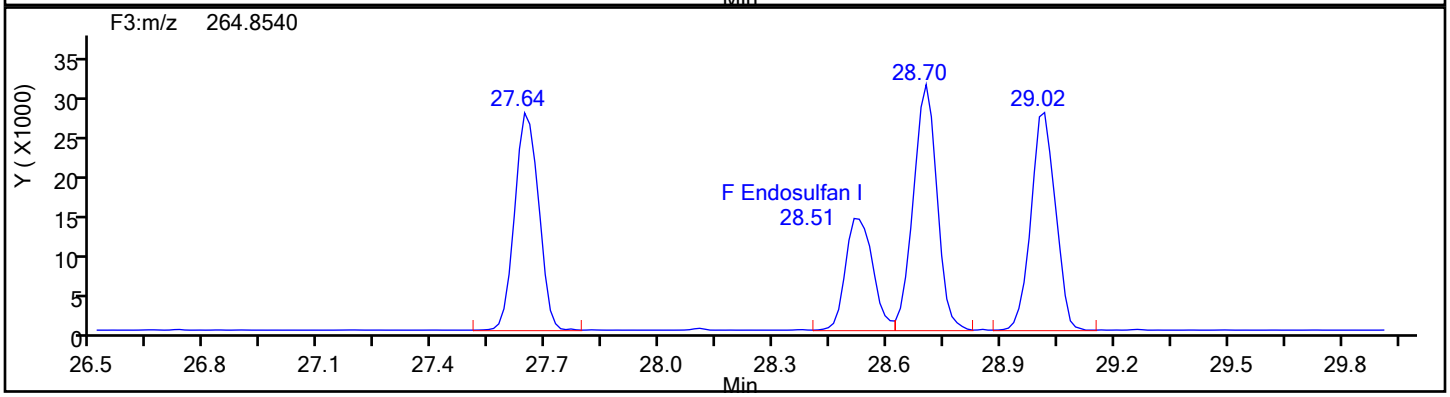
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

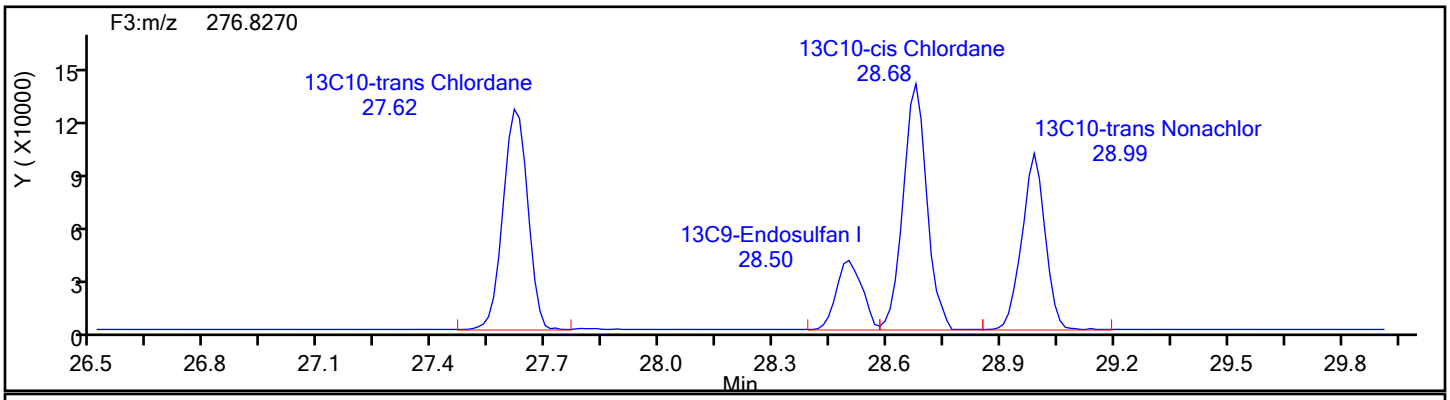
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

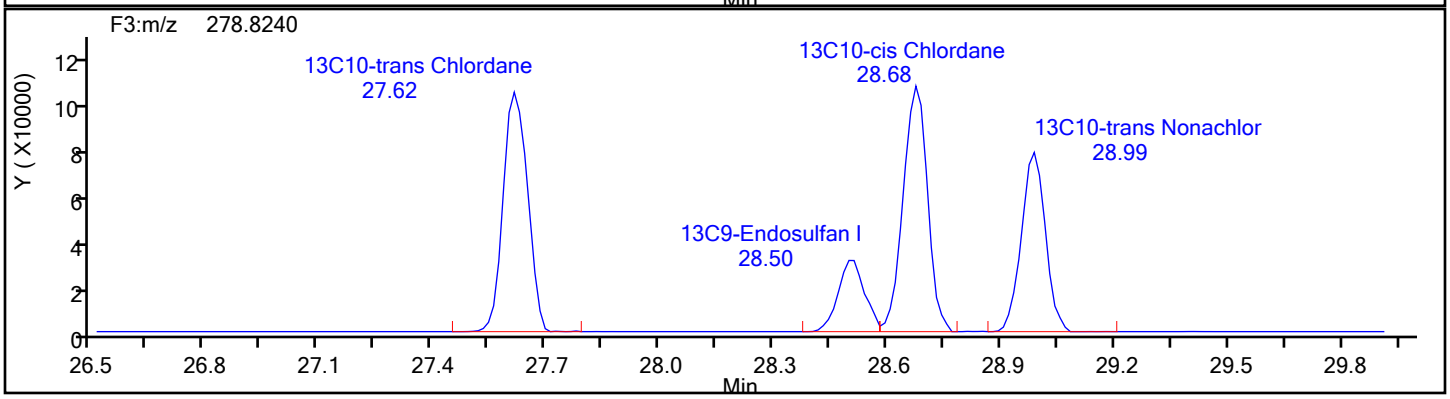
Endosulfan I





Endosulfan I Standards



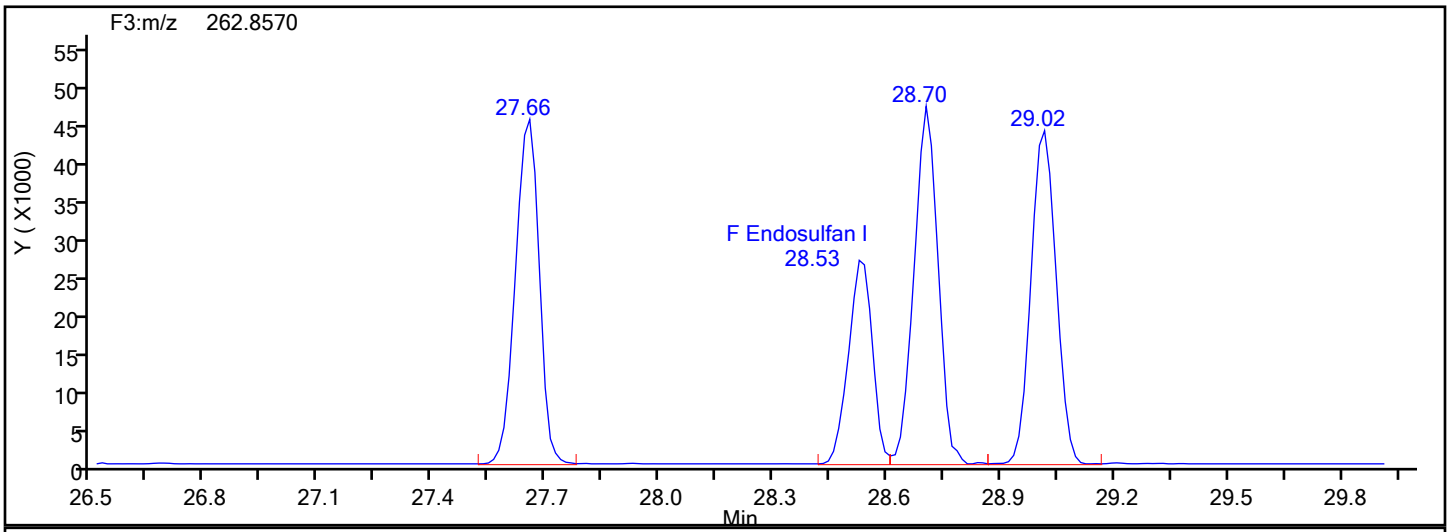


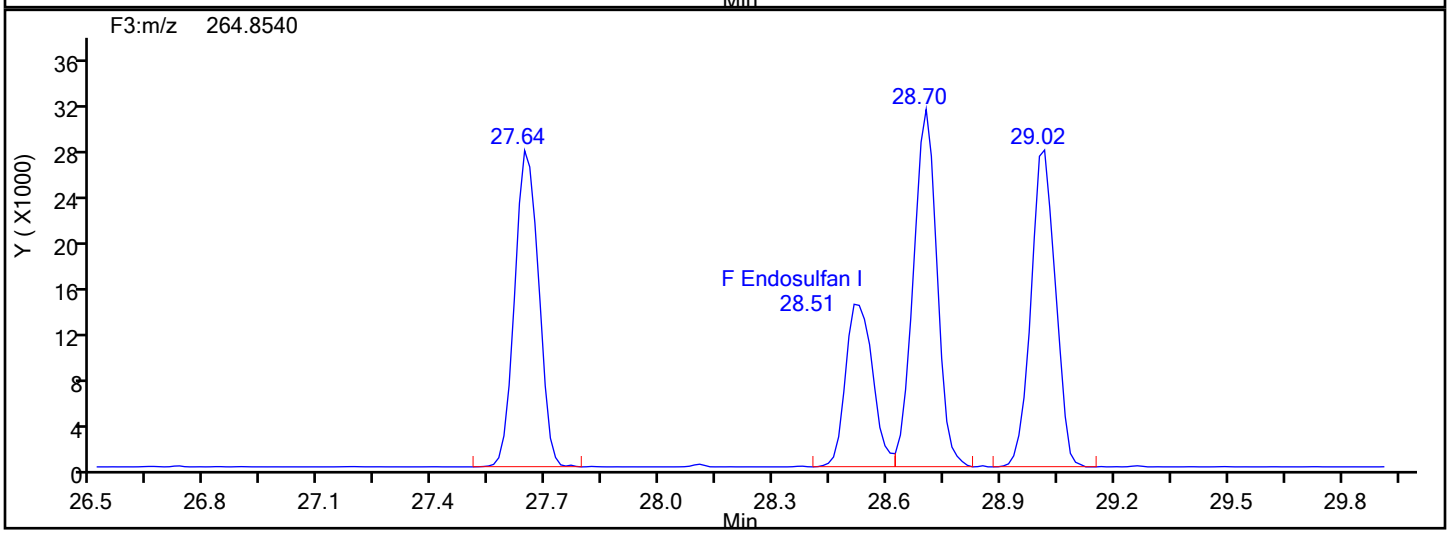
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

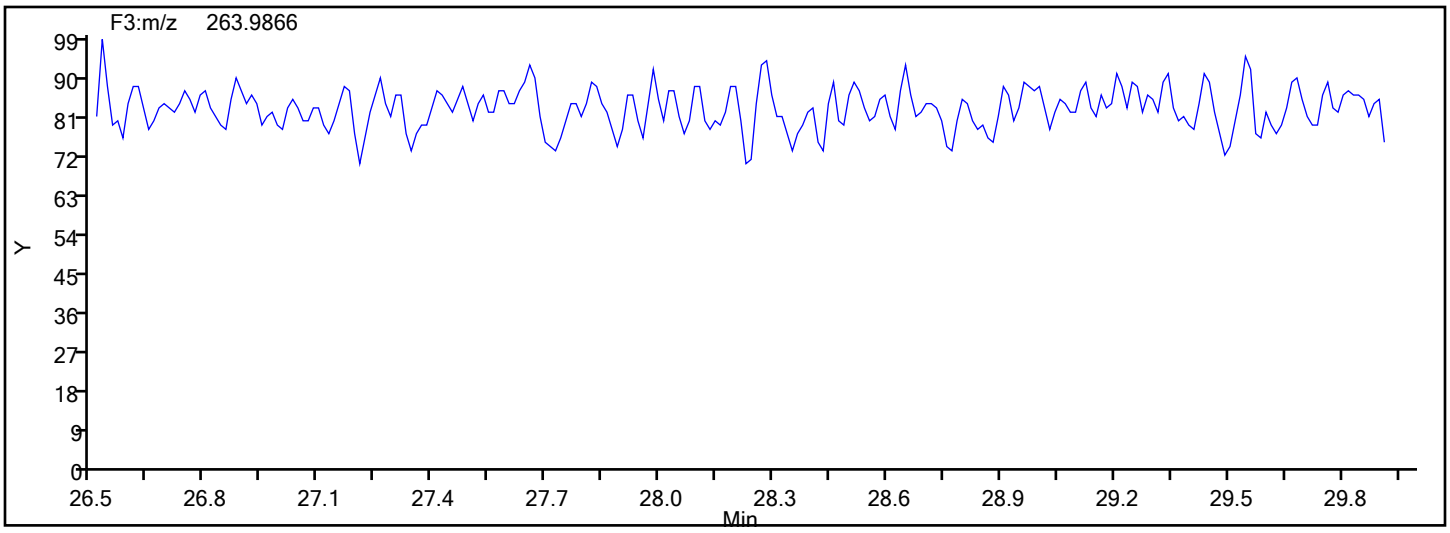
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



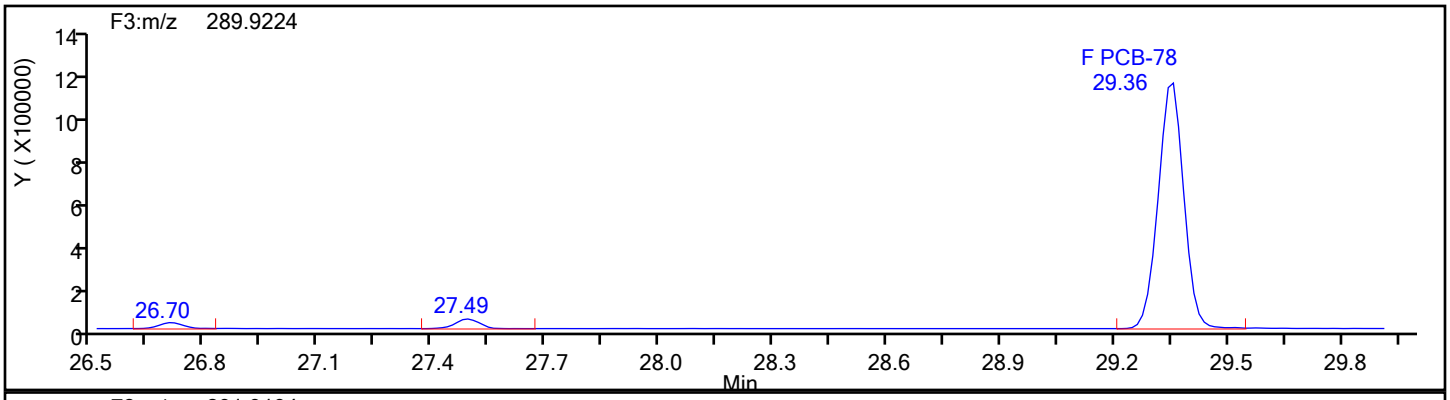
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

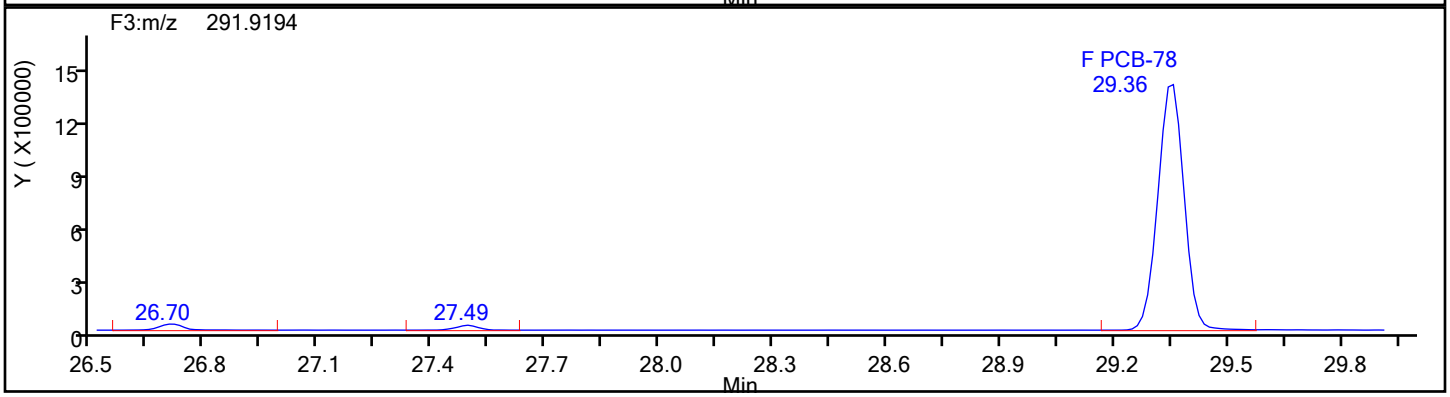
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

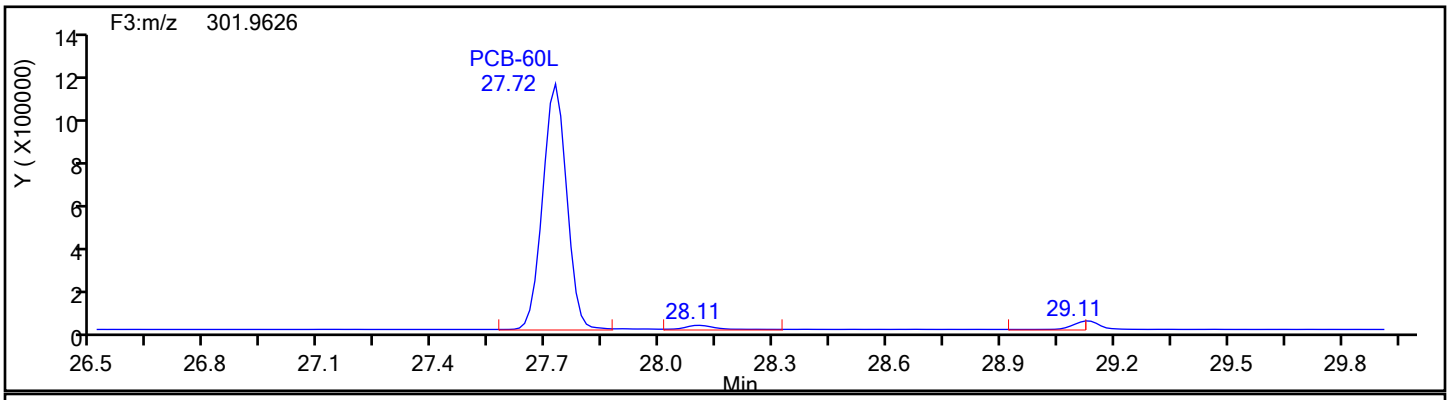
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

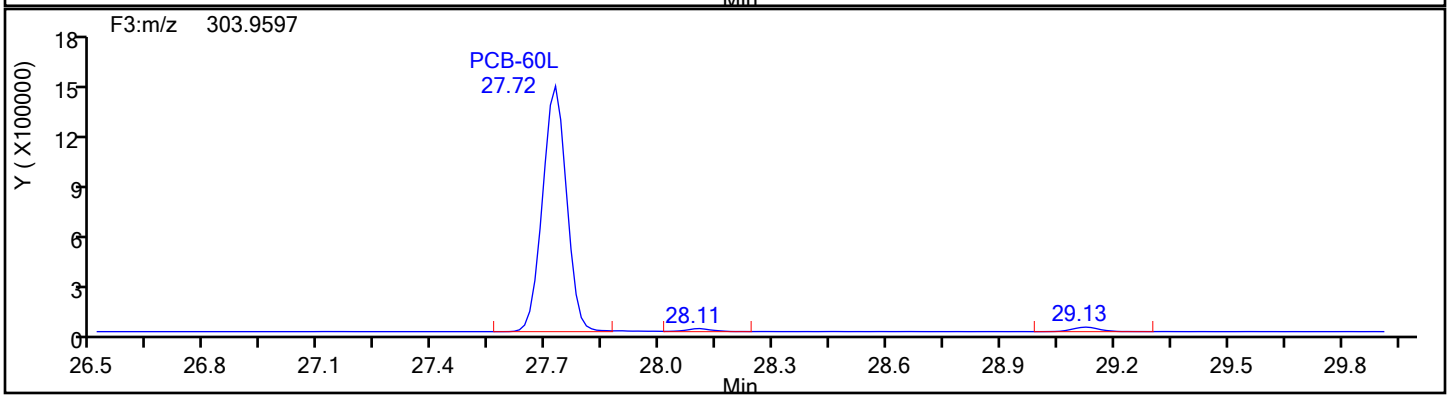
PCB-78





PCB-78 Standards



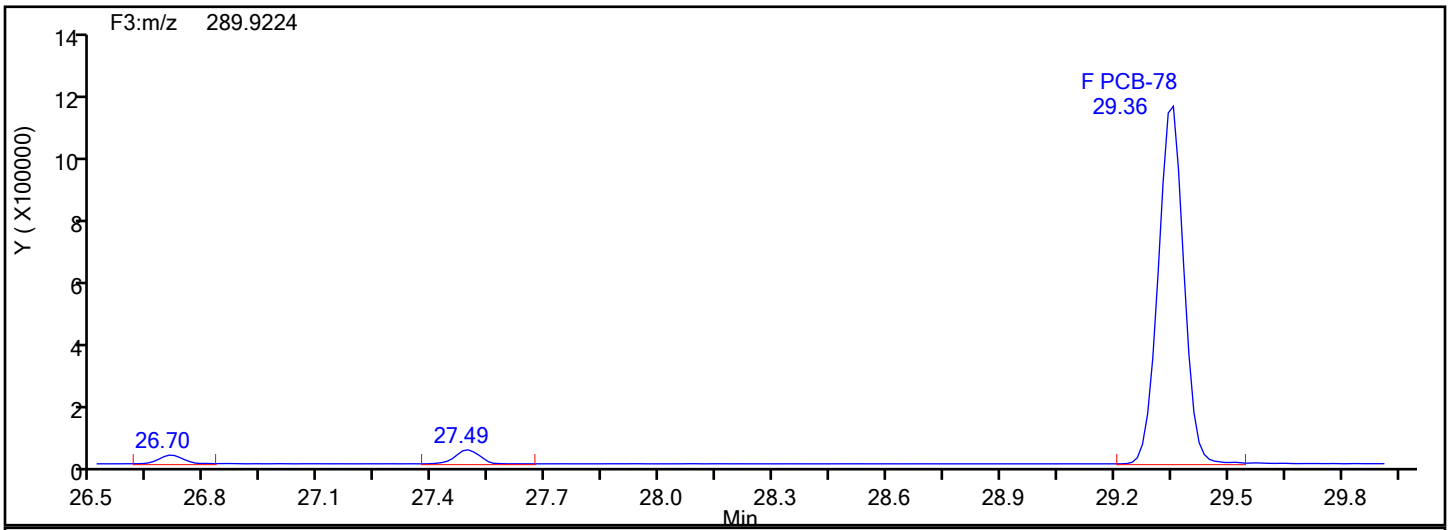


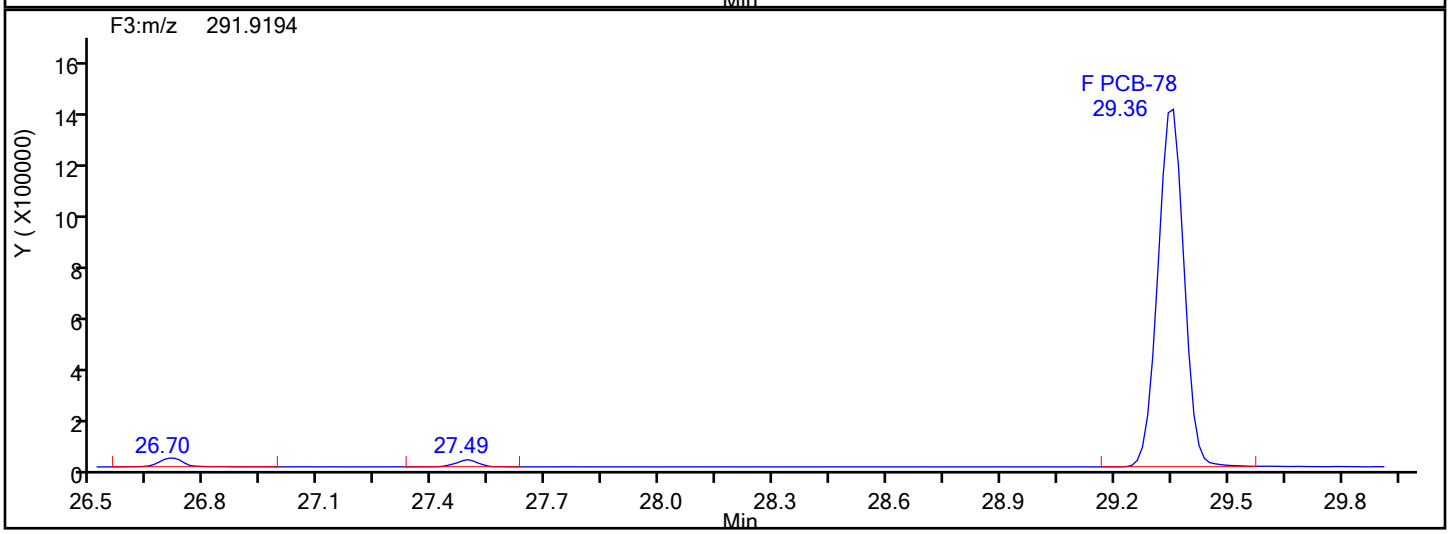
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

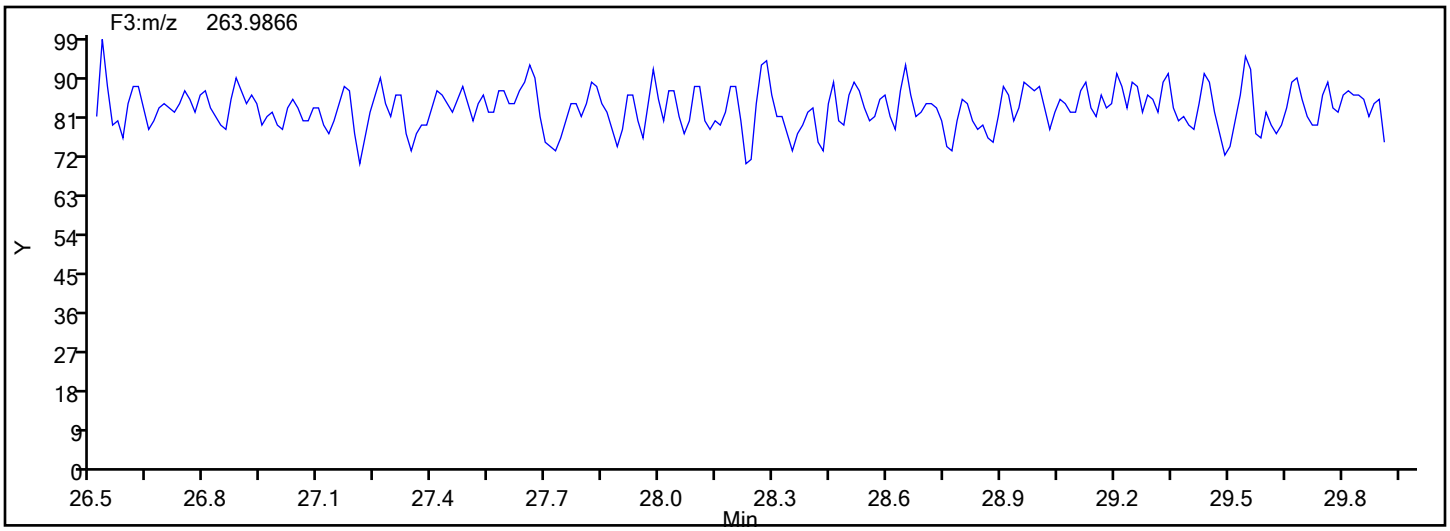
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

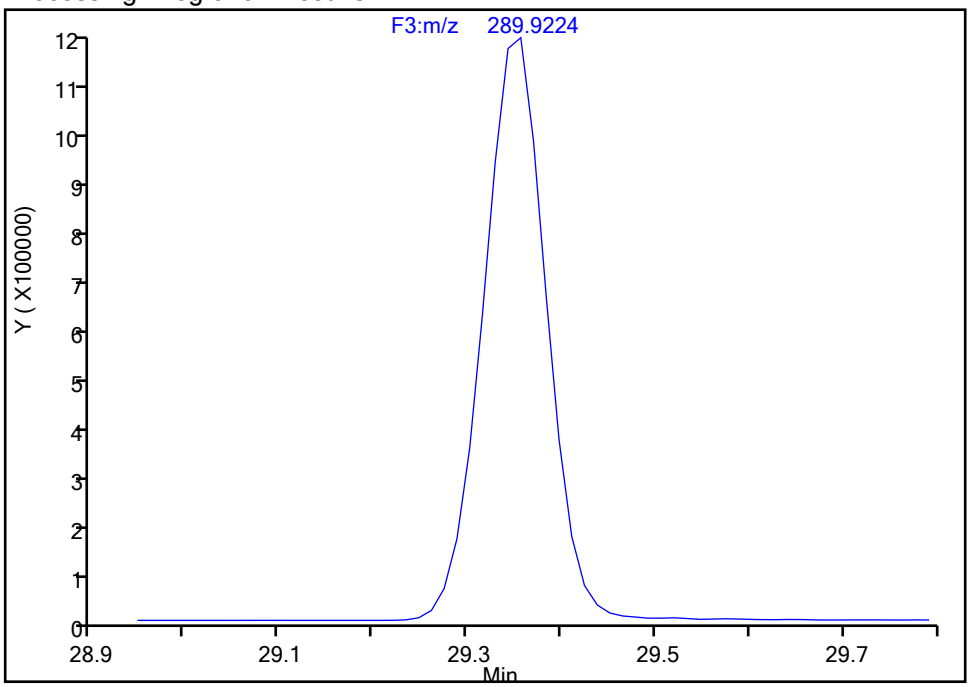
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d				
Injection Date:	19-Mar-2025 21:26:00	Instrument ID:	D3PST		
Lims ID:	IC L5				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

PCB-78, CAS: 70362-49-1

Signal: 1

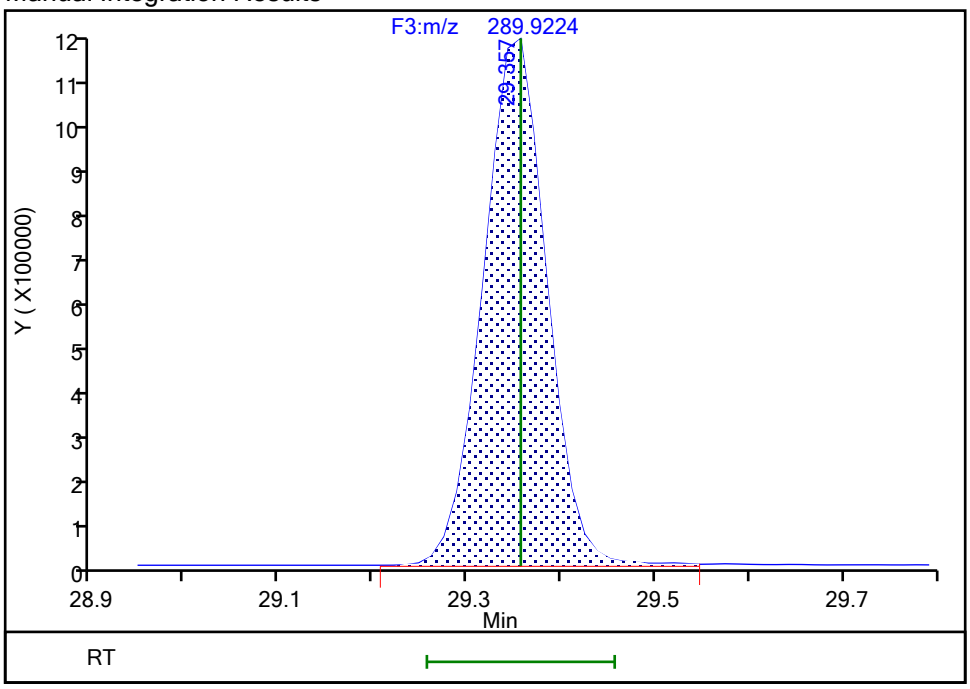
Not Detected
Expected RT: 29.36

Processing Integration Results



Manual Integration Results

RT:	29.36
Area:	5307753
Amount:	113.7599
Amount Units:	pg/ul



Reviewer: F9EE, 24-Mar-2025 12:56:30 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

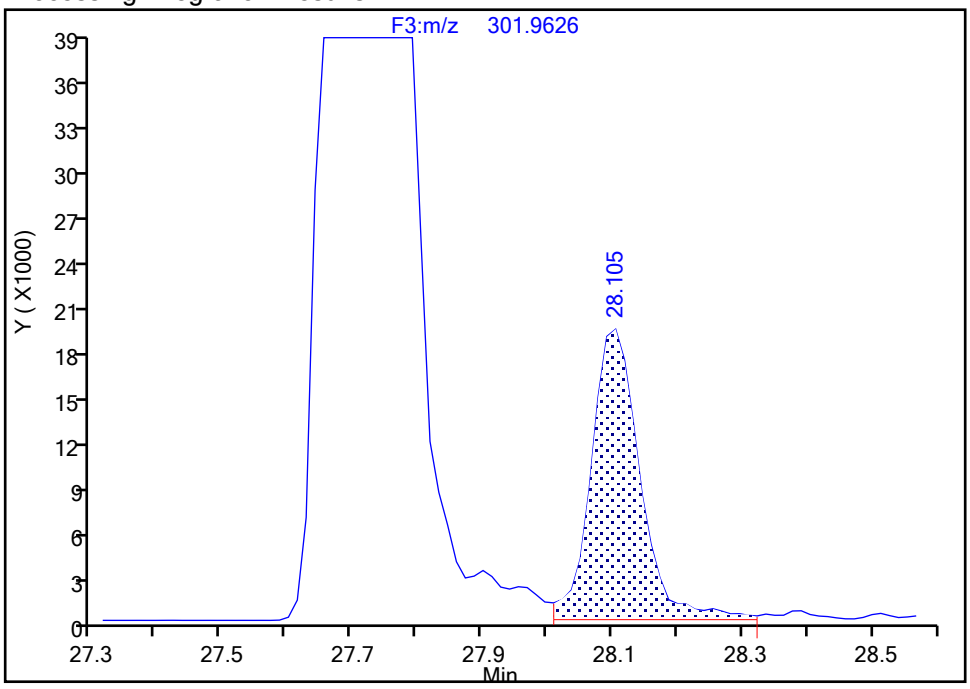
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d				
Injection Date:	19-Mar-2025 21:26:00	Instrument ID:	D3PST		
Lims ID:	IC L5				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F3(26.52 :29.92)		

PCB-60L, CAS: STL02699

Signal: 1

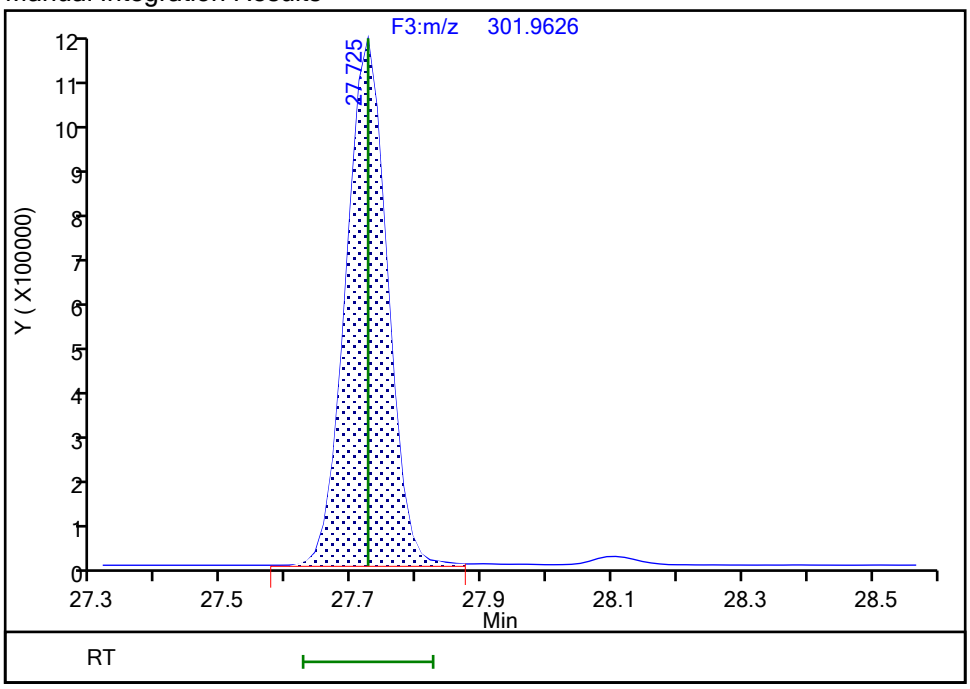
Processing Integration Results

RT: 28.11
Area: 101307
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.72
Area: 5125688
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:39:09 -04:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

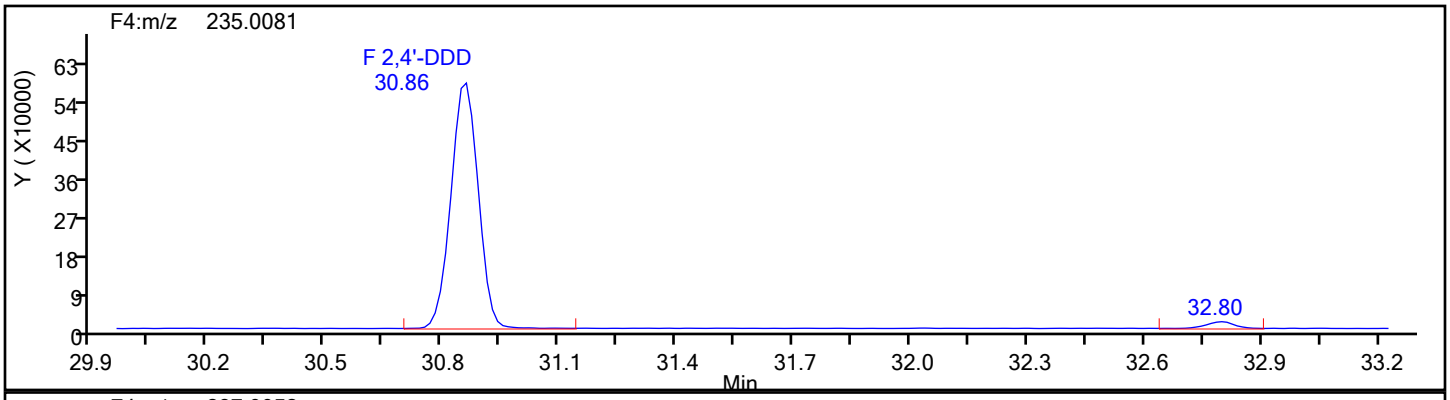
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

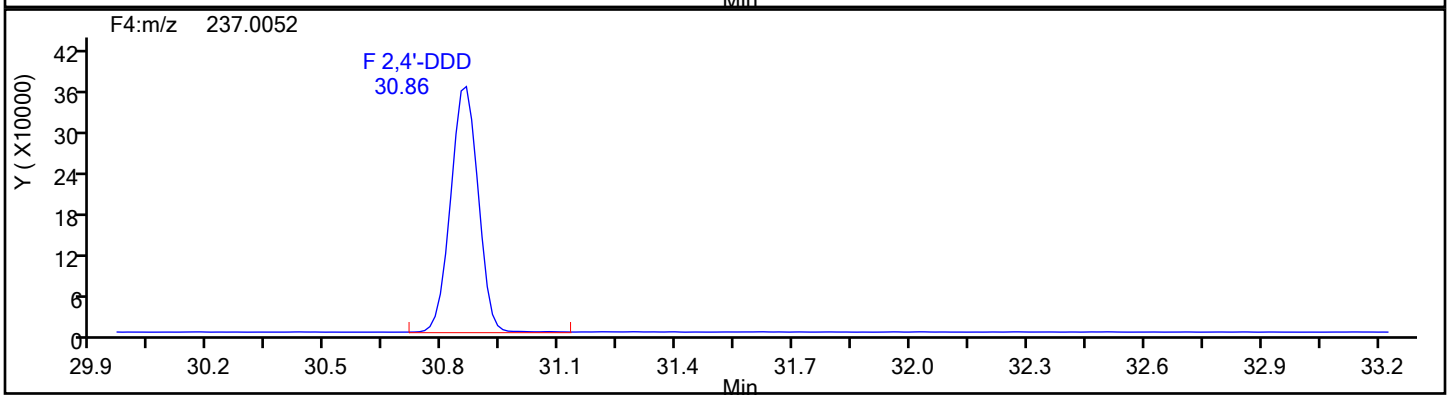
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

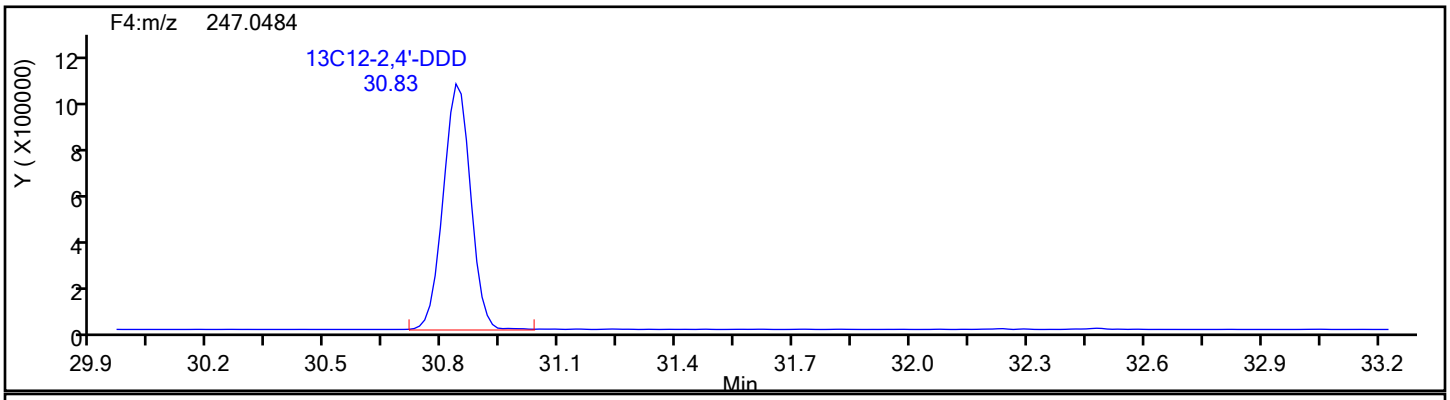
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

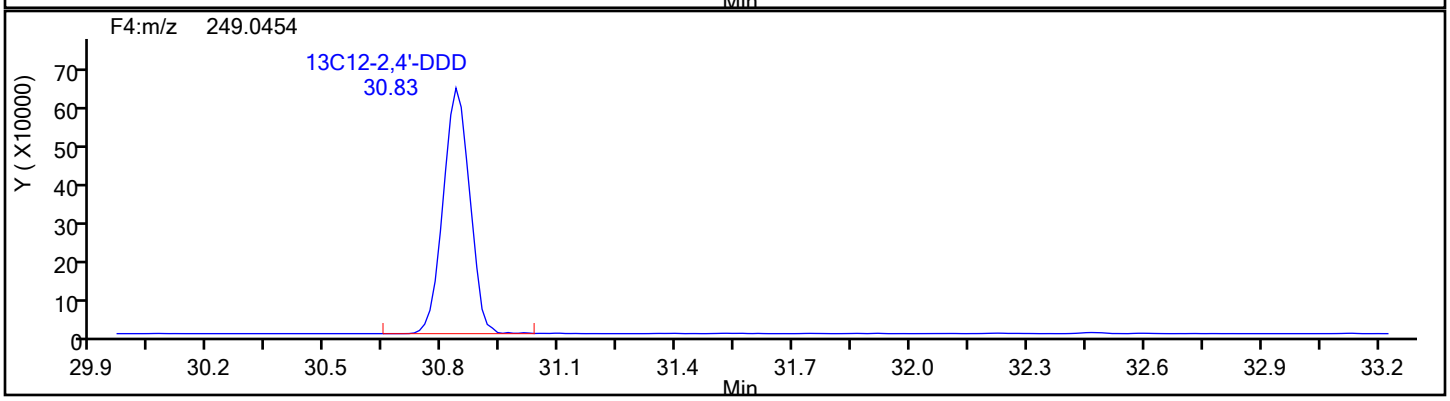
2,4'-DDD





2,4'-DDD Standards



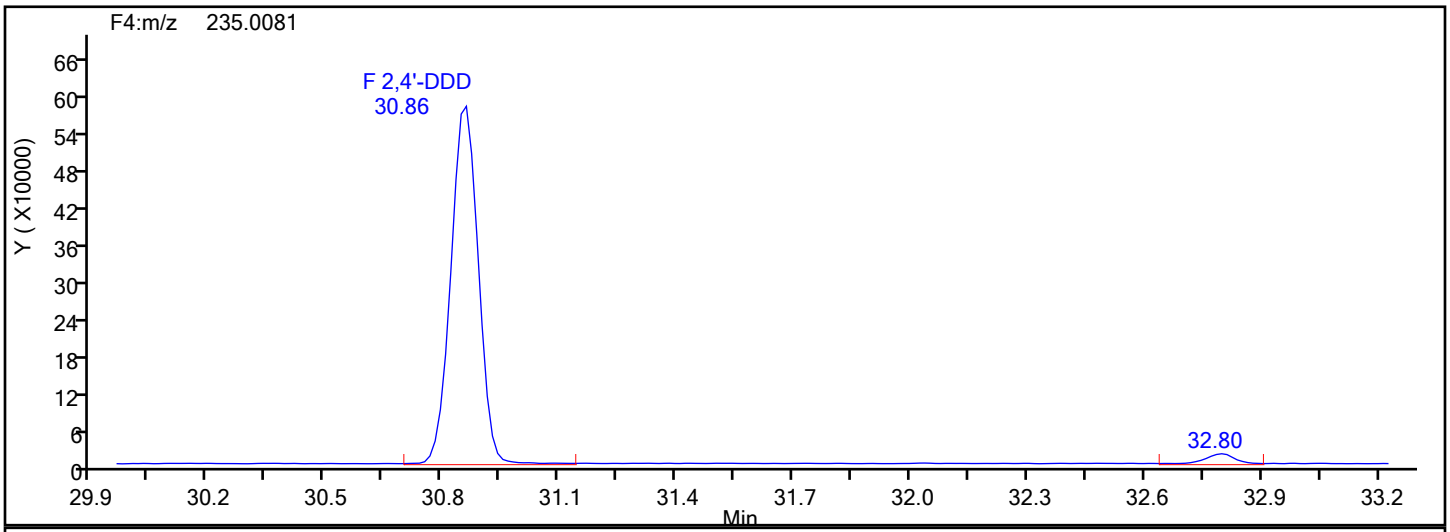


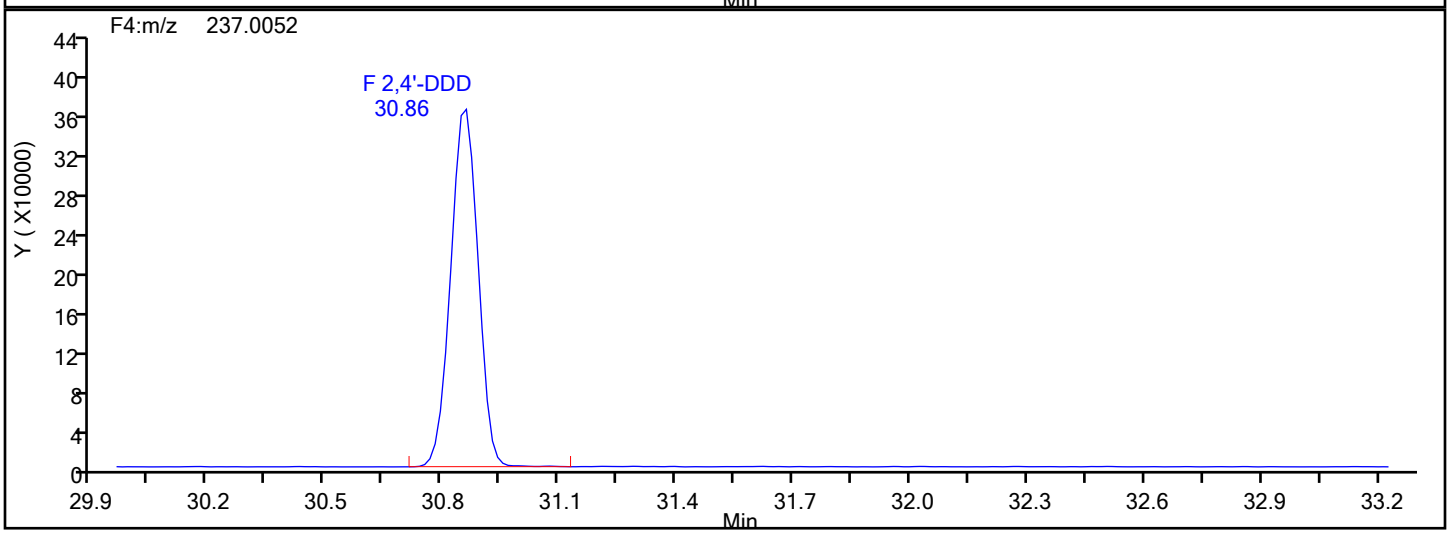
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

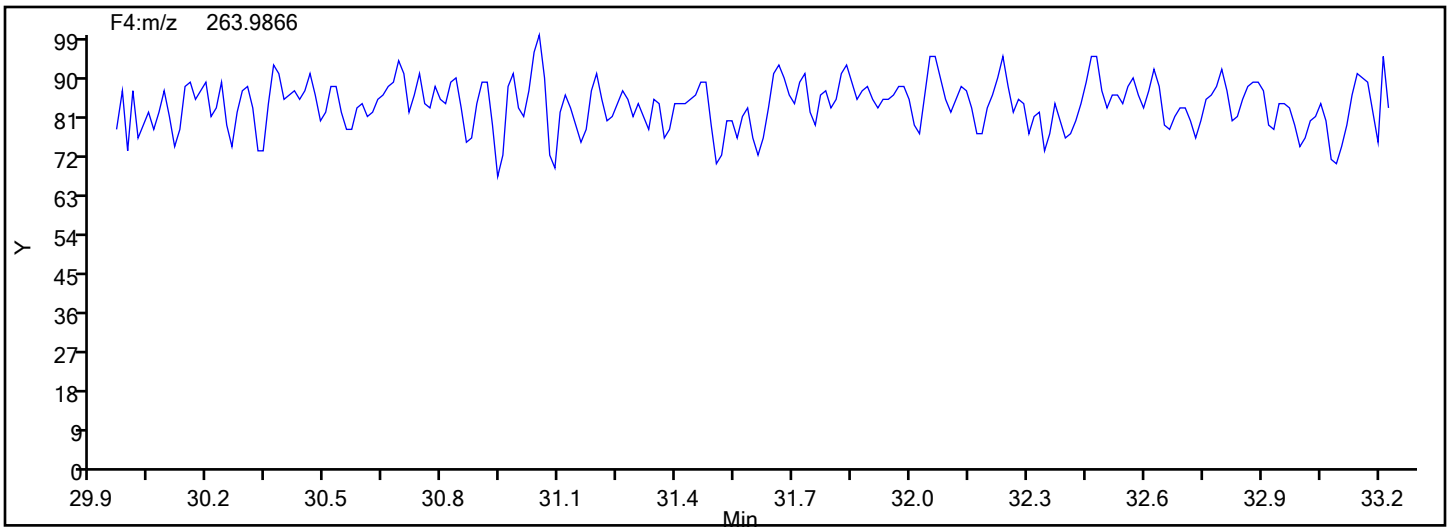
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



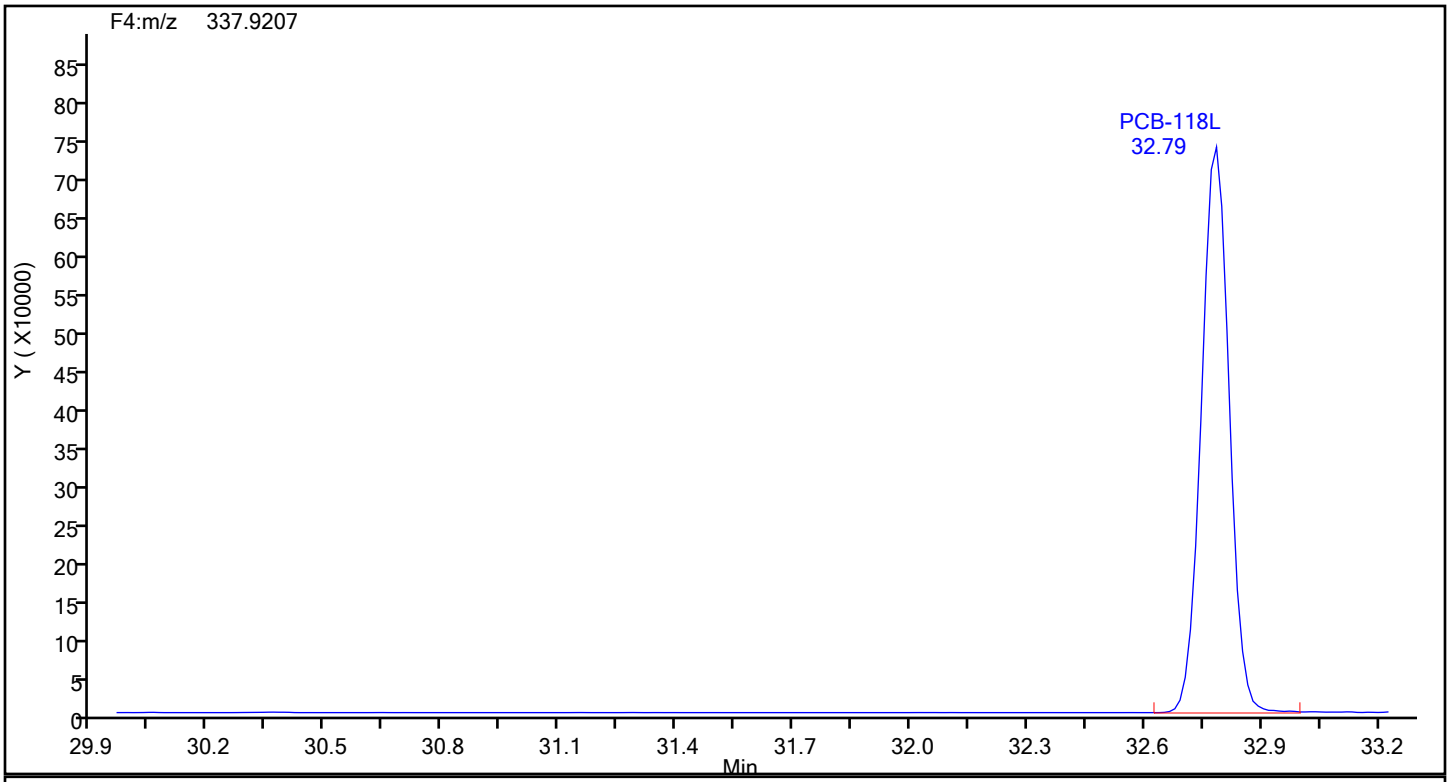
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

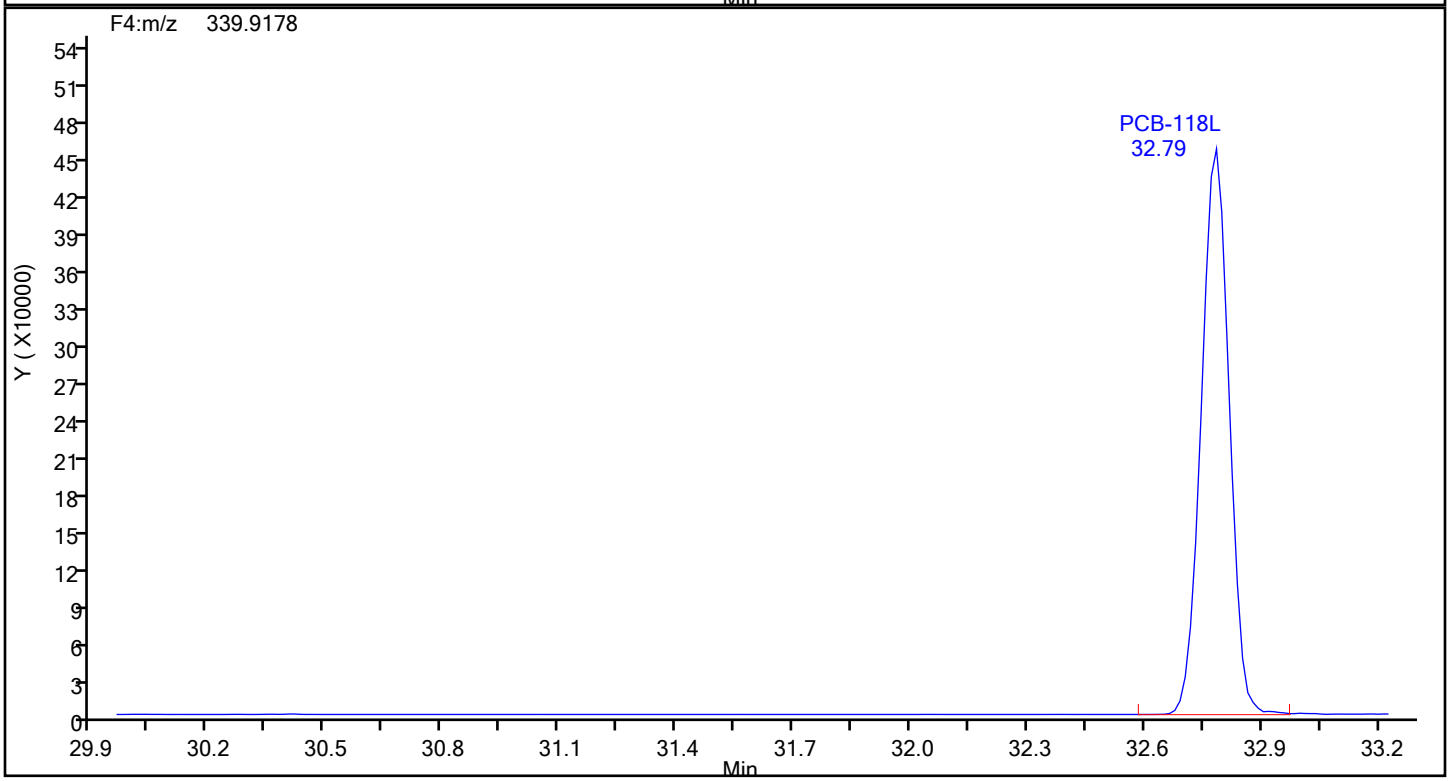
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





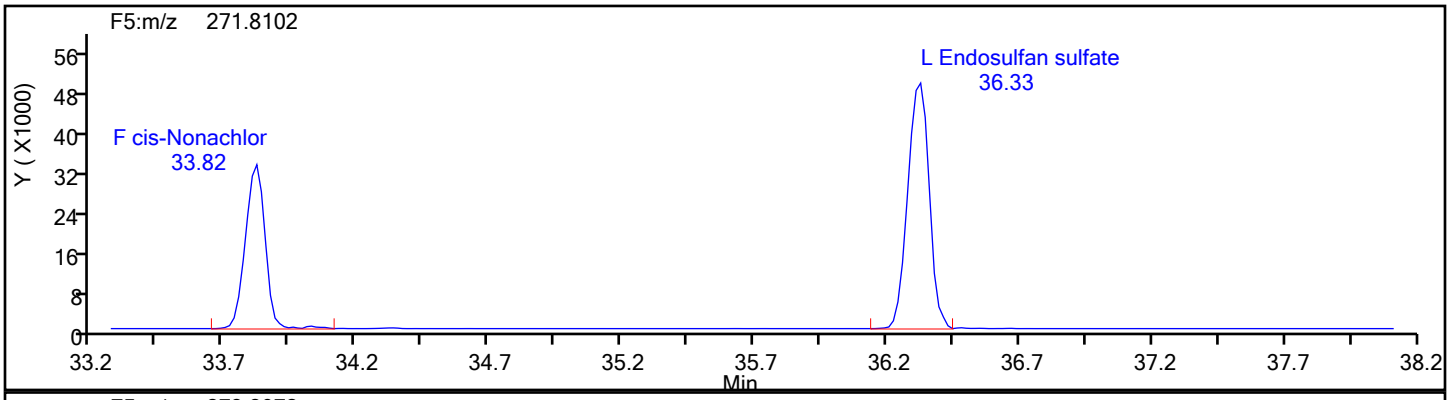
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

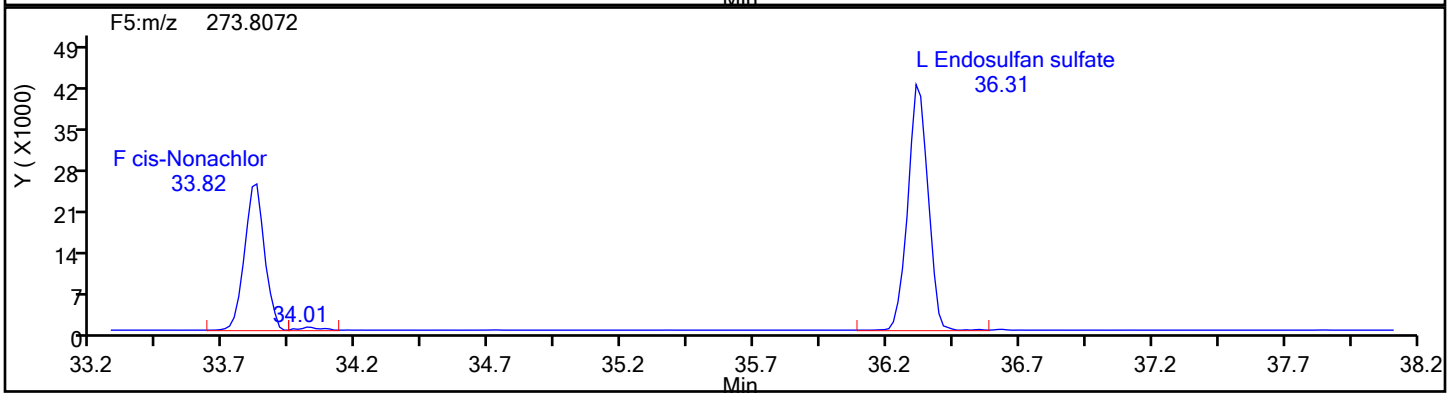
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

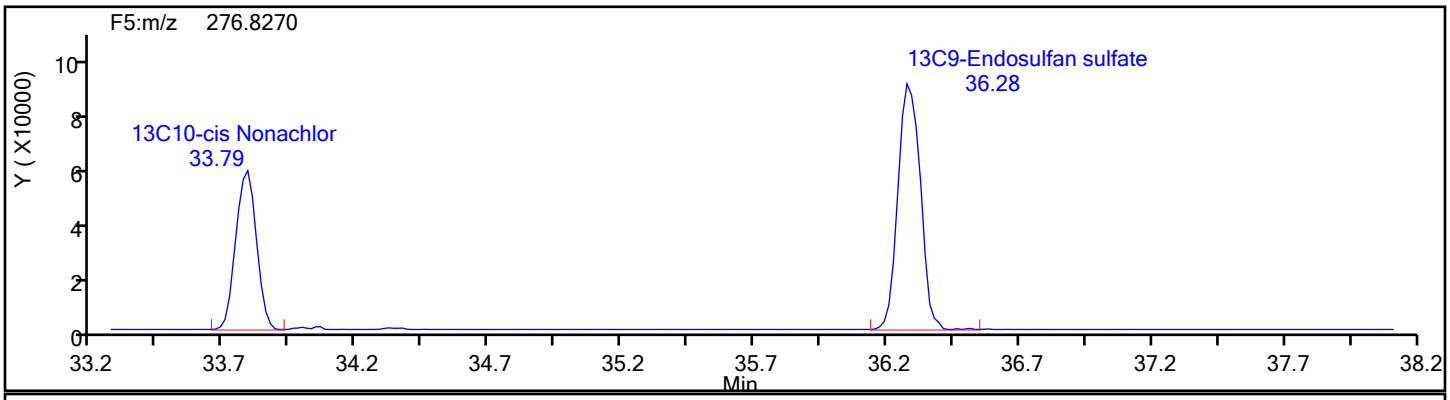
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

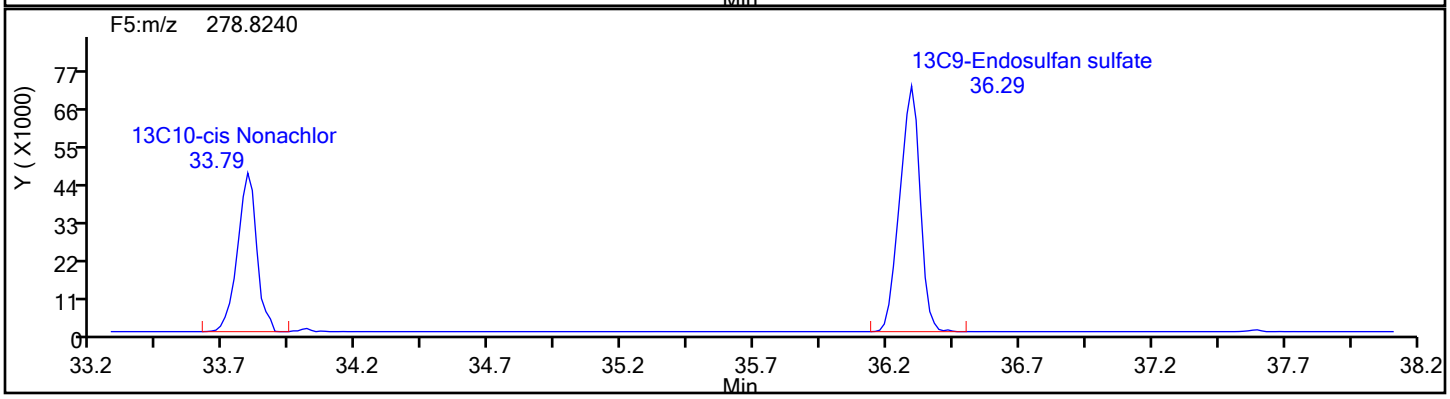
Nonachlor





Nonachlor Standards



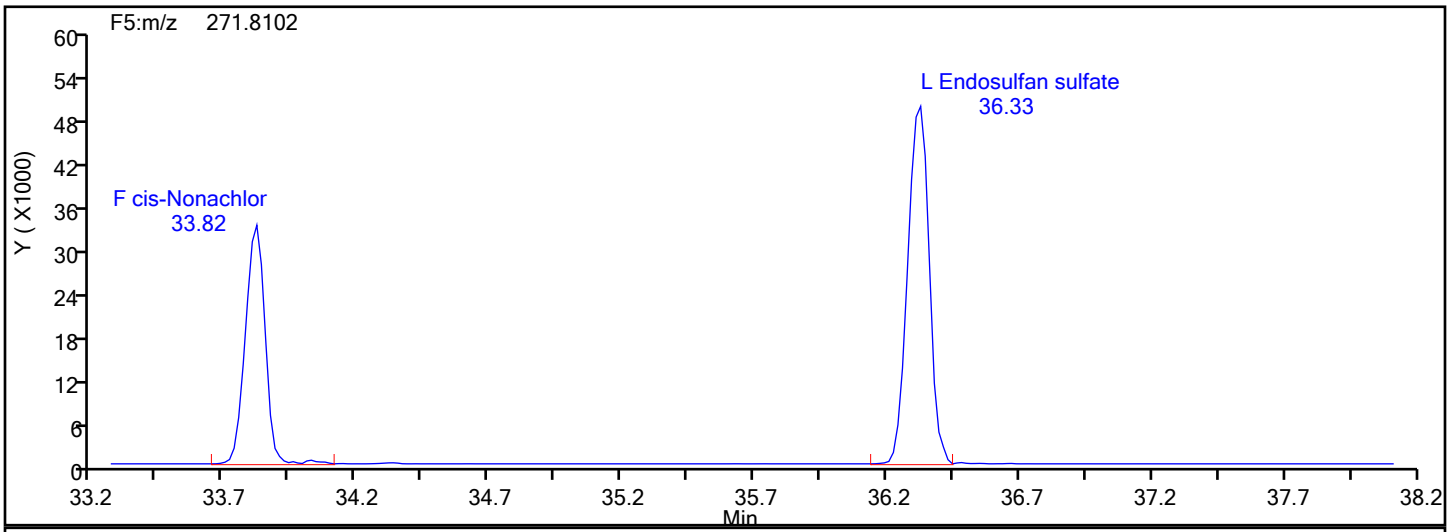


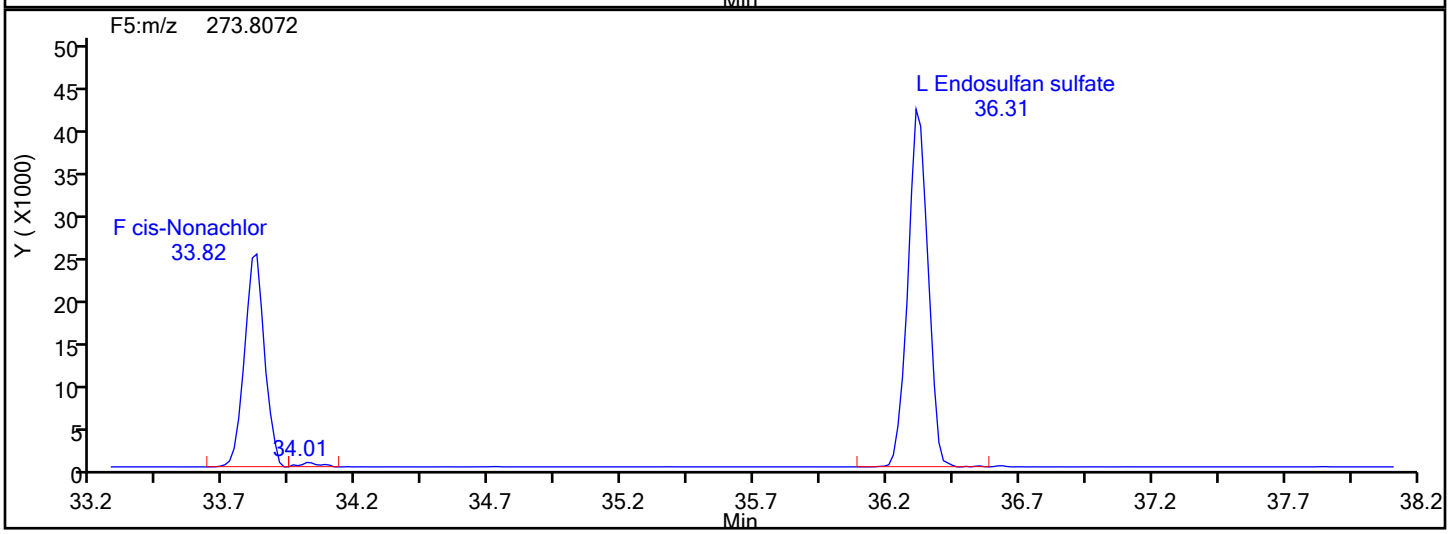
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

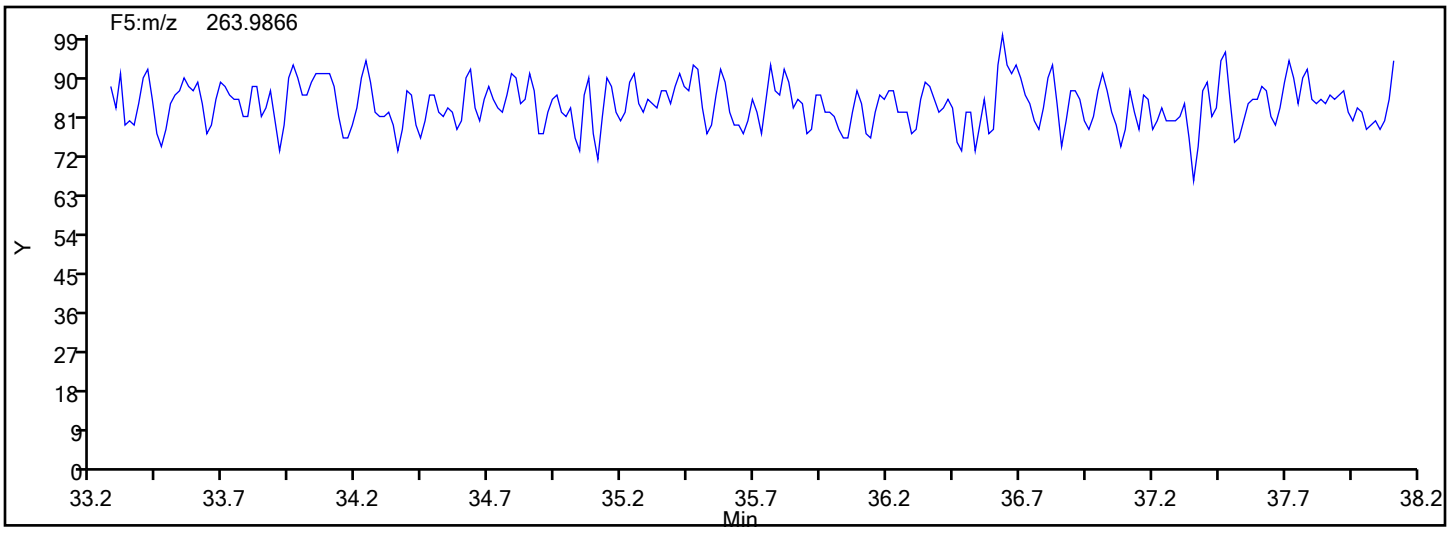
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



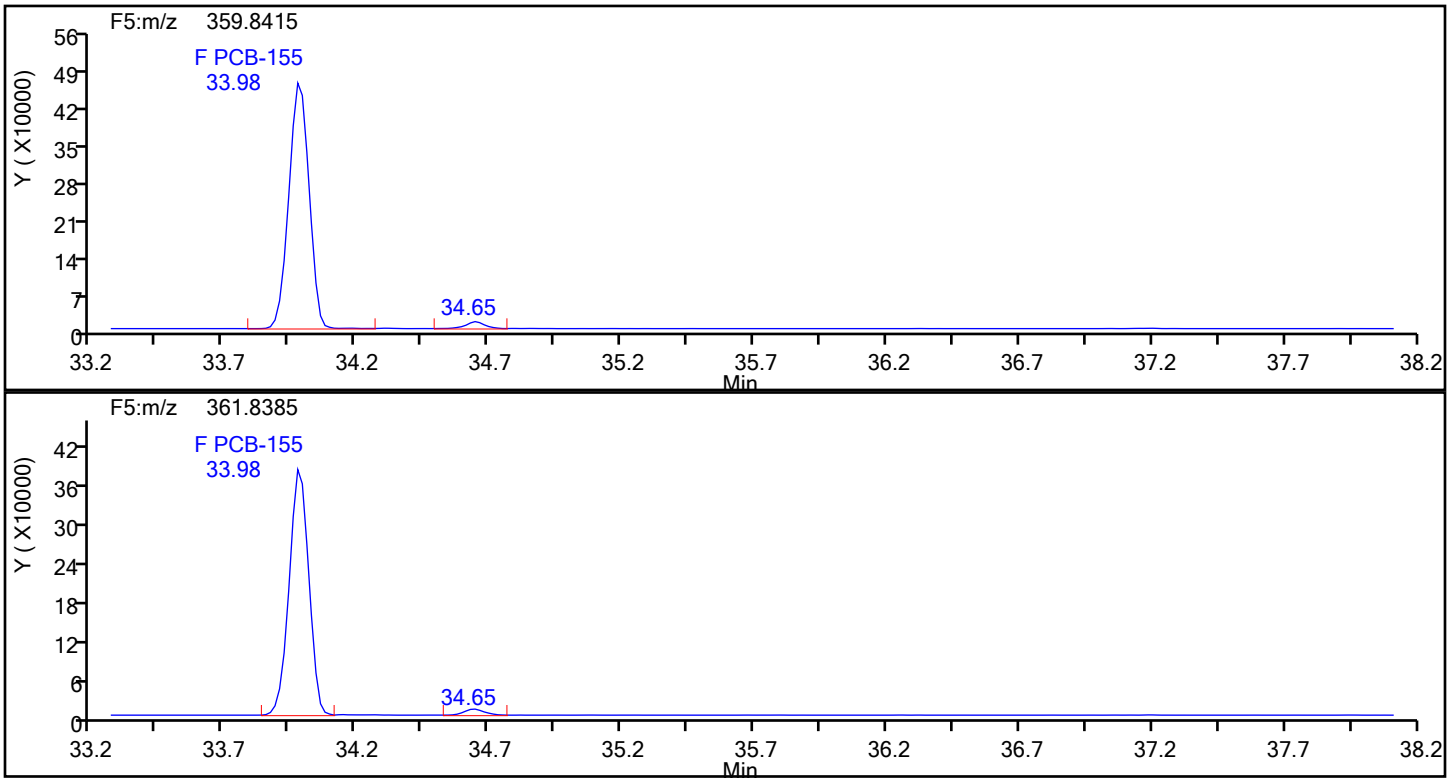
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

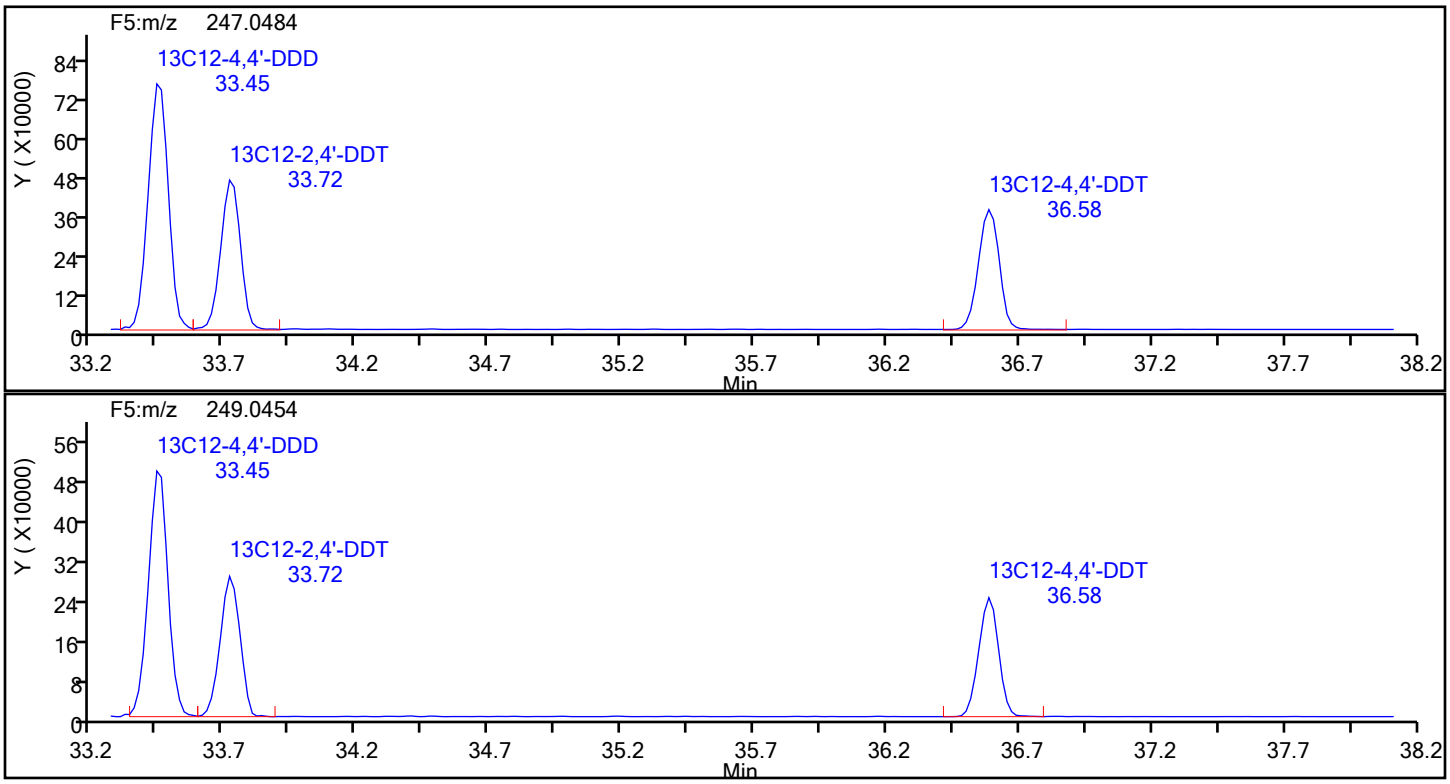
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

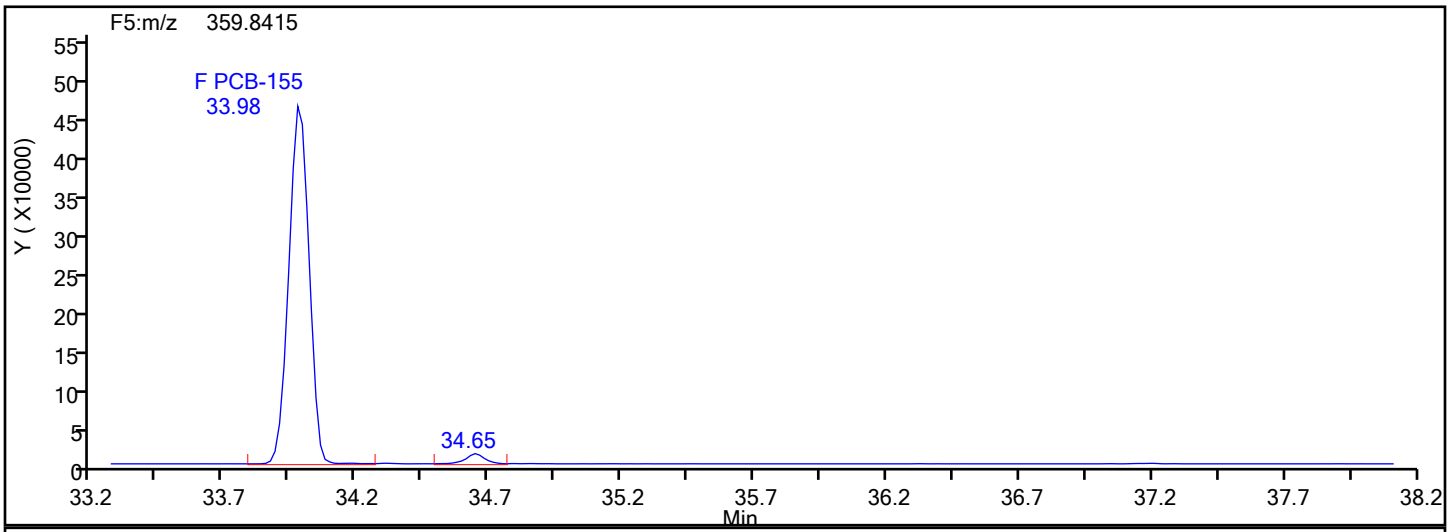


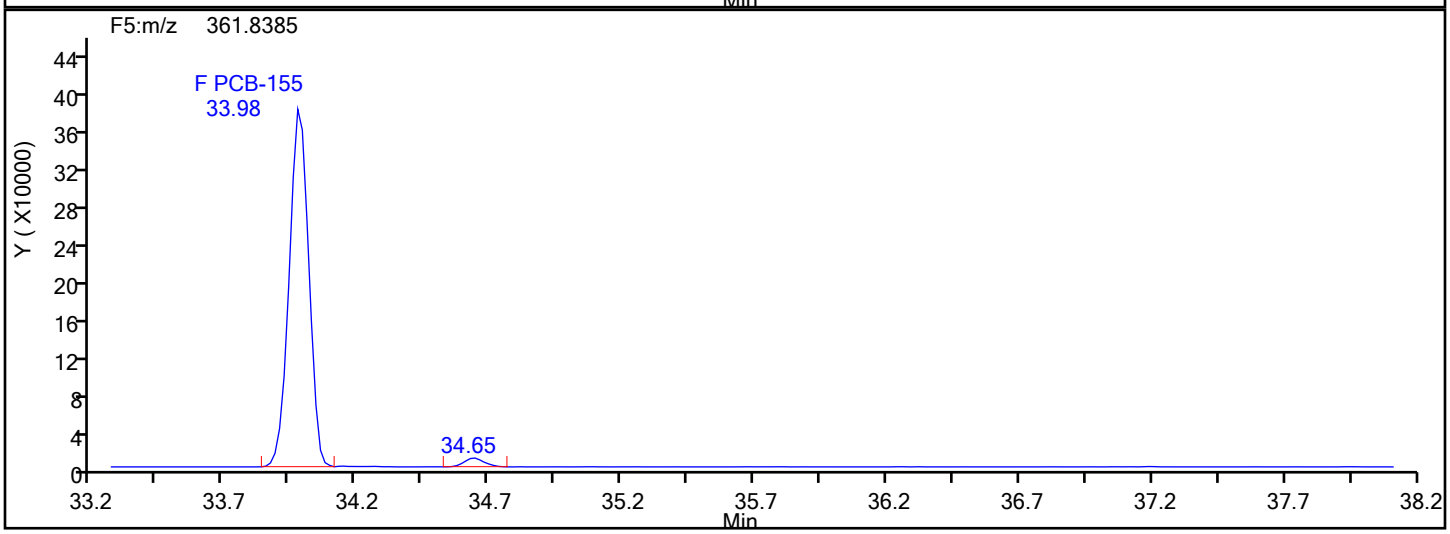
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

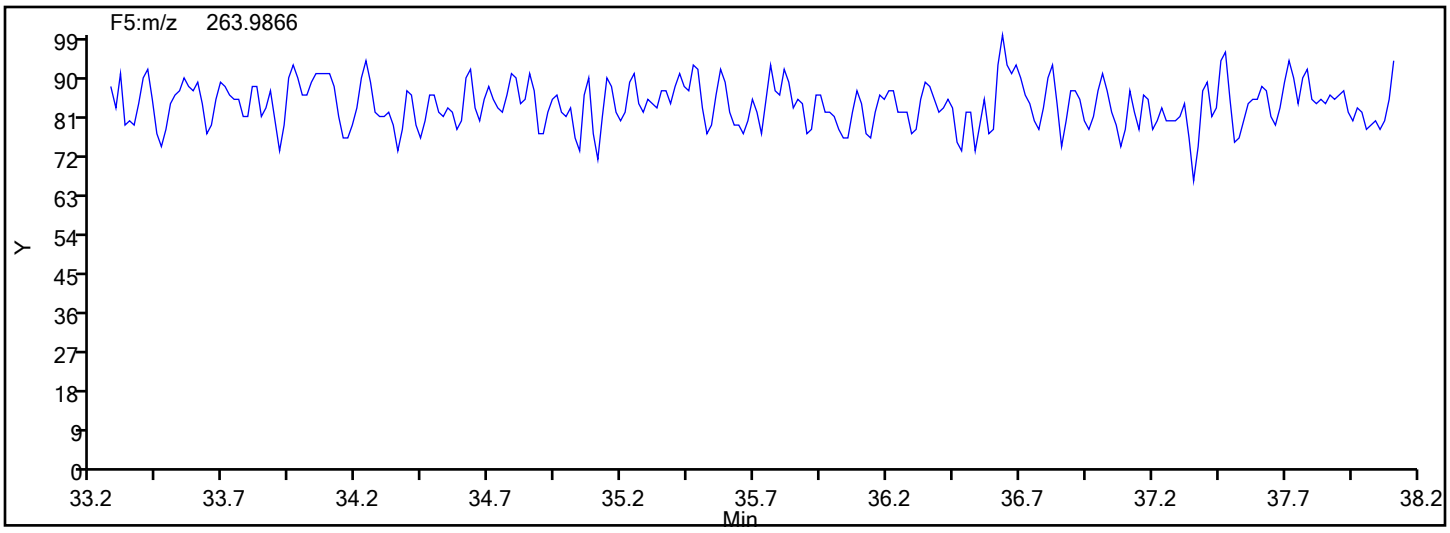
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d
Injection Date: 19-Mar-2025 21:26:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



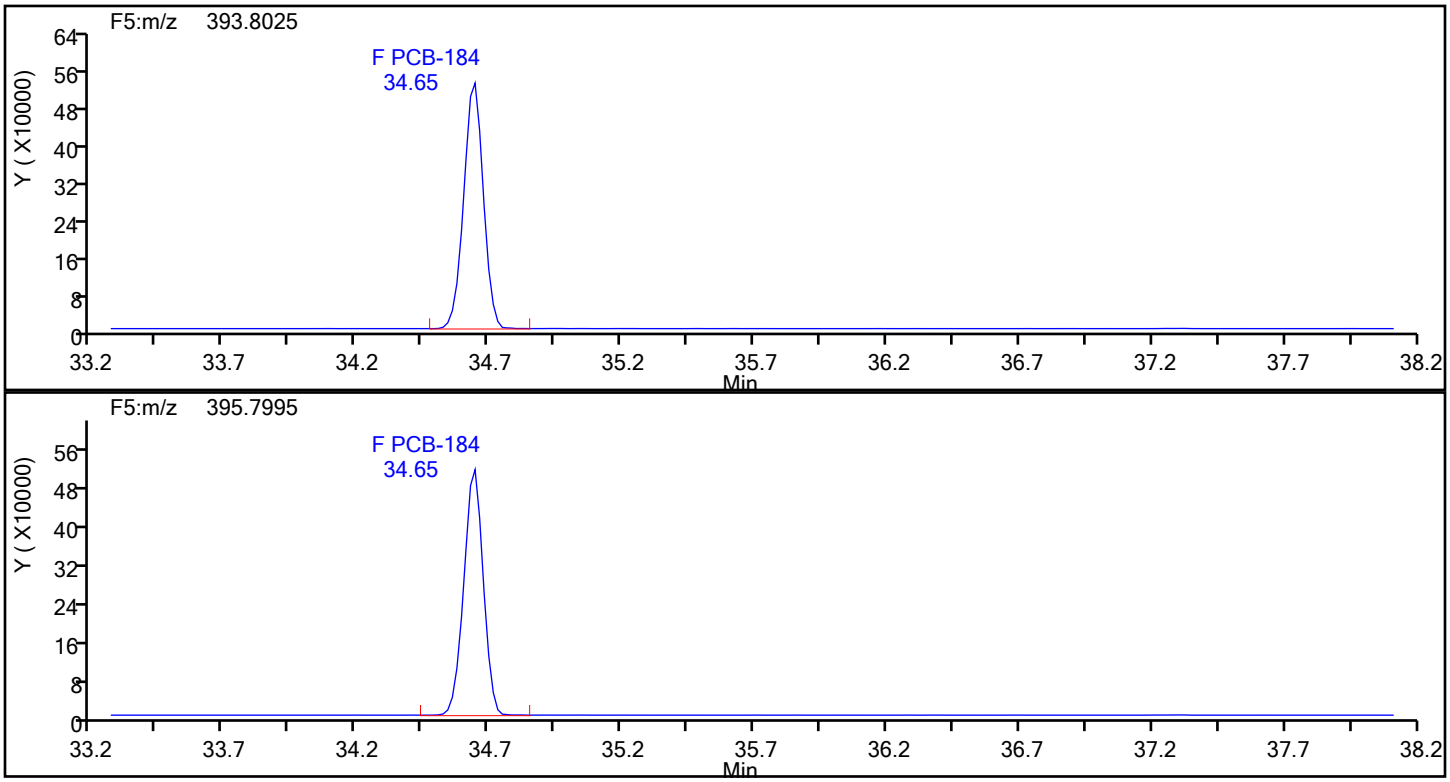
Report Date: 24-Mar-2025 13:06:21 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

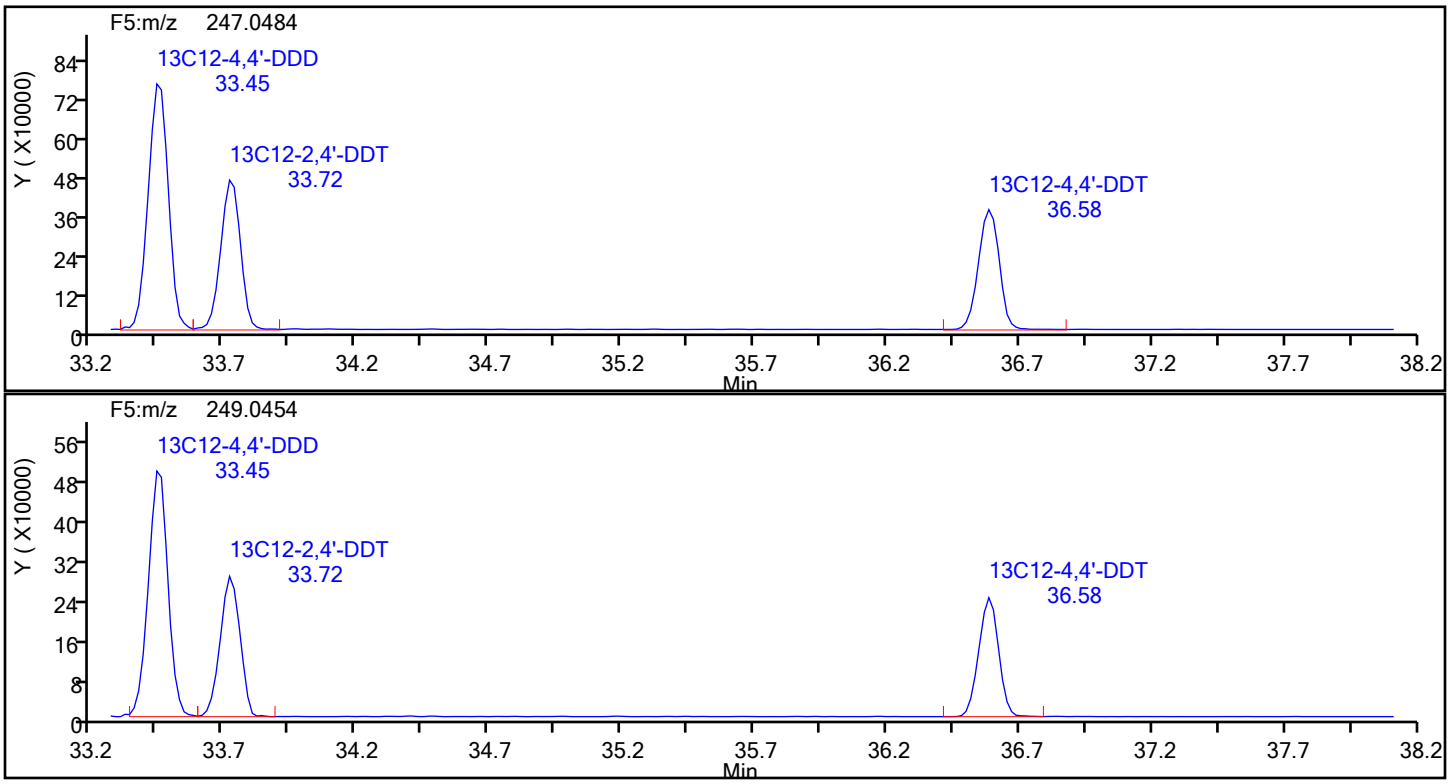
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

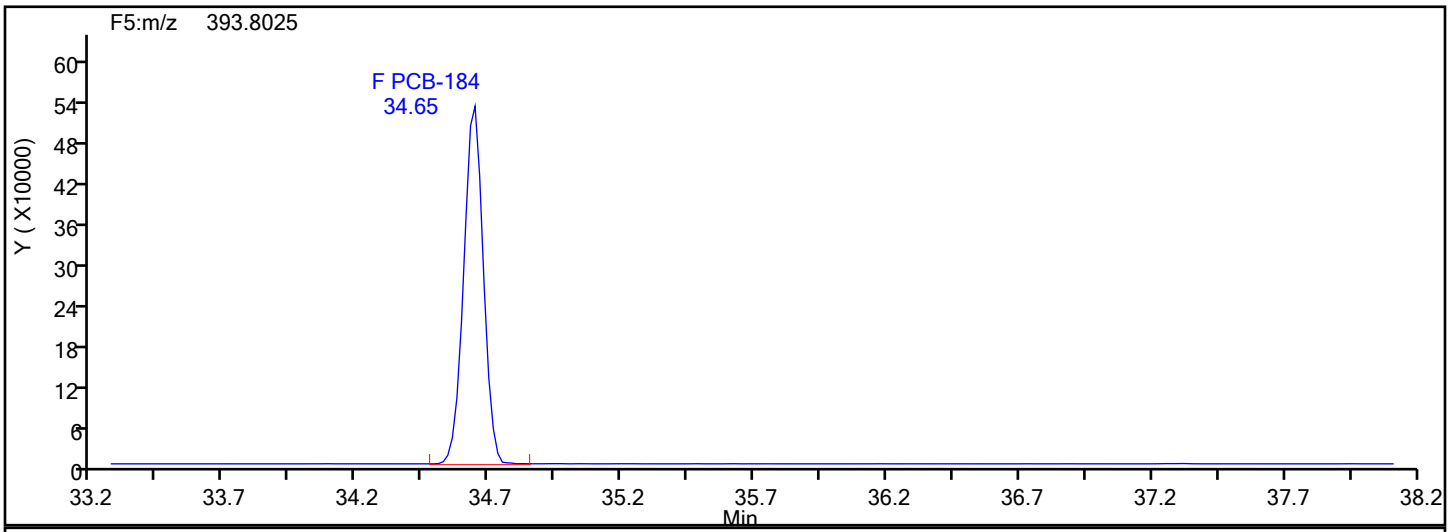


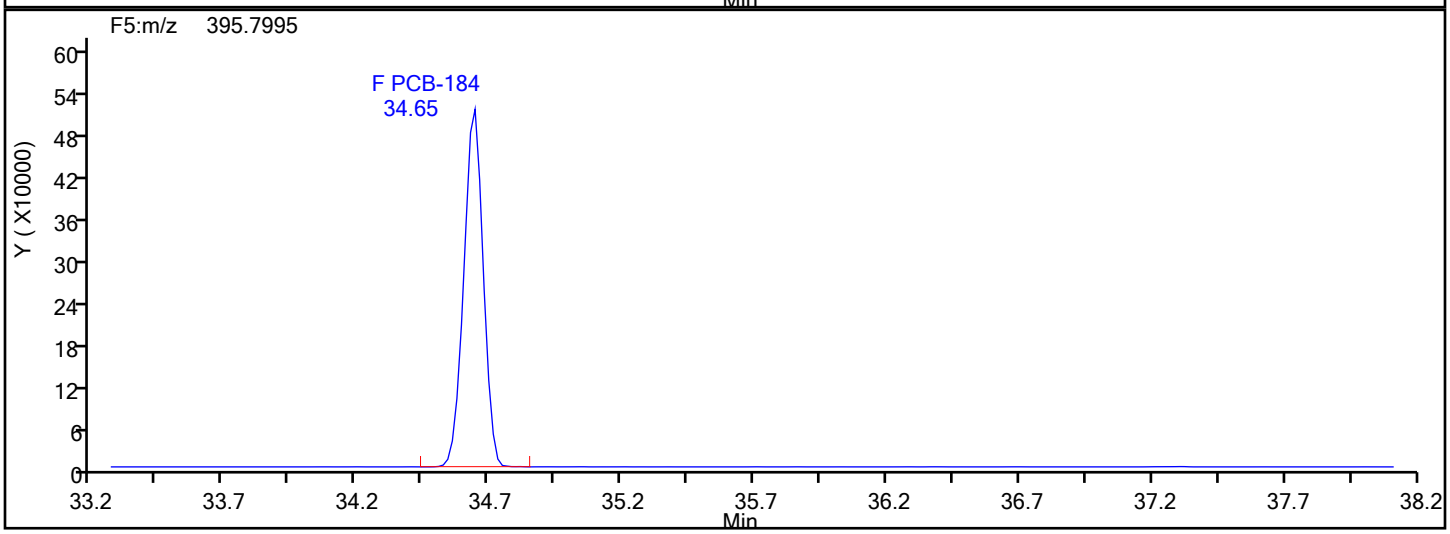
Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

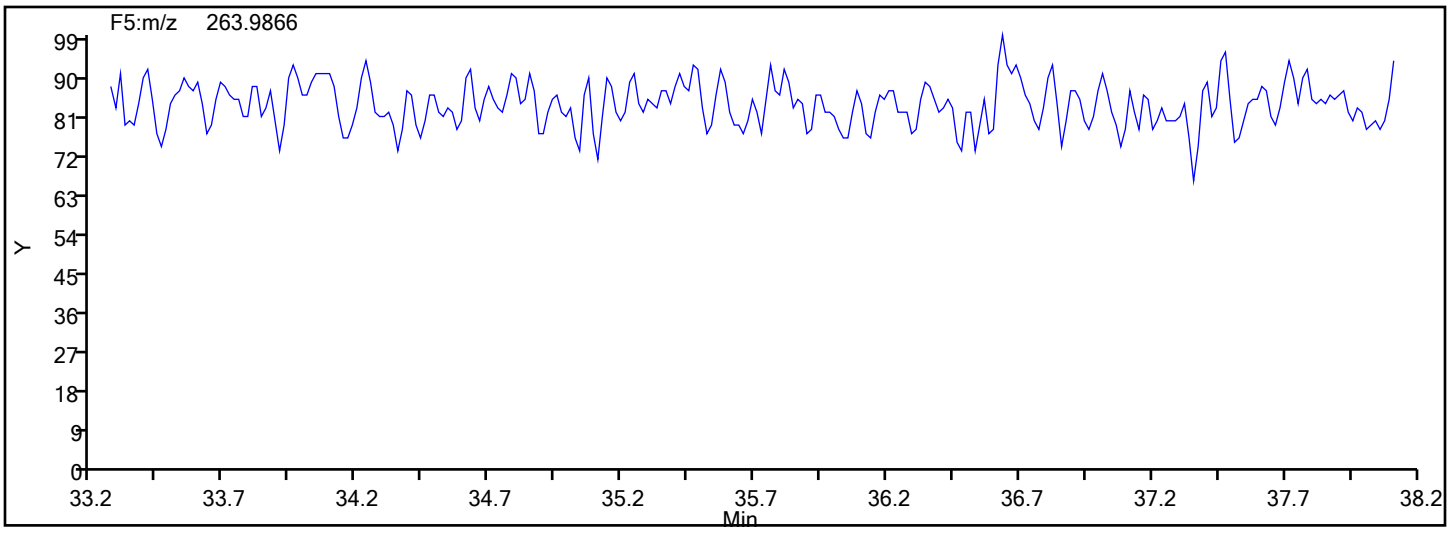
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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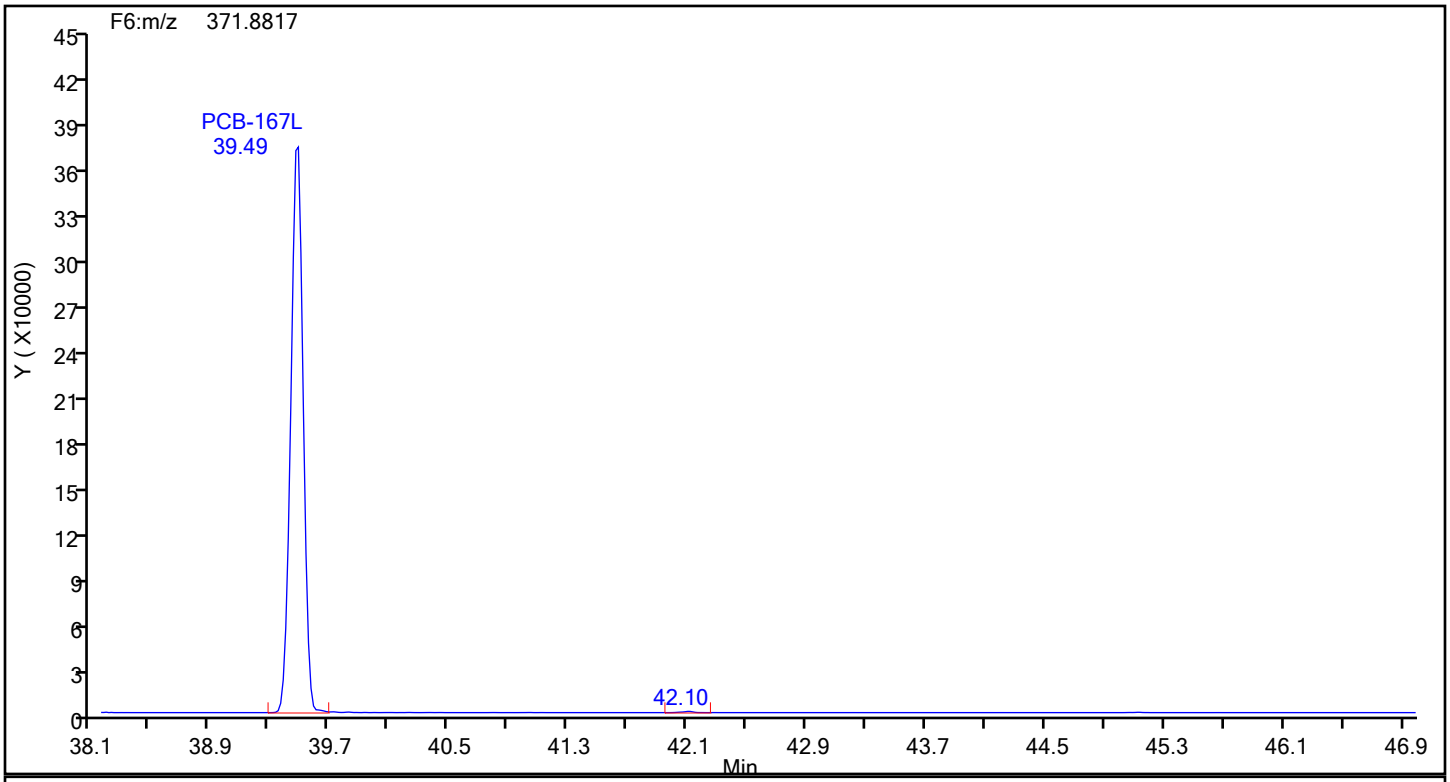
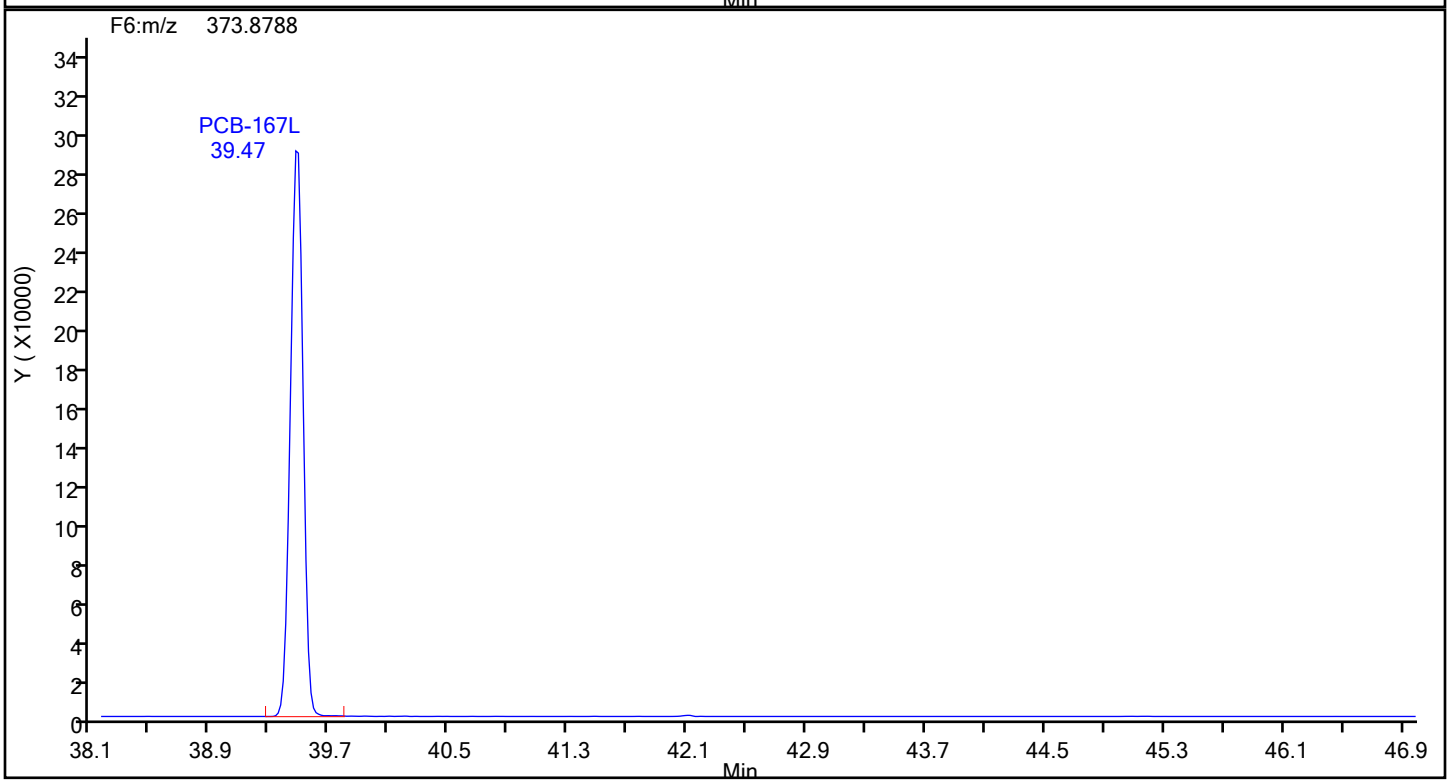
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





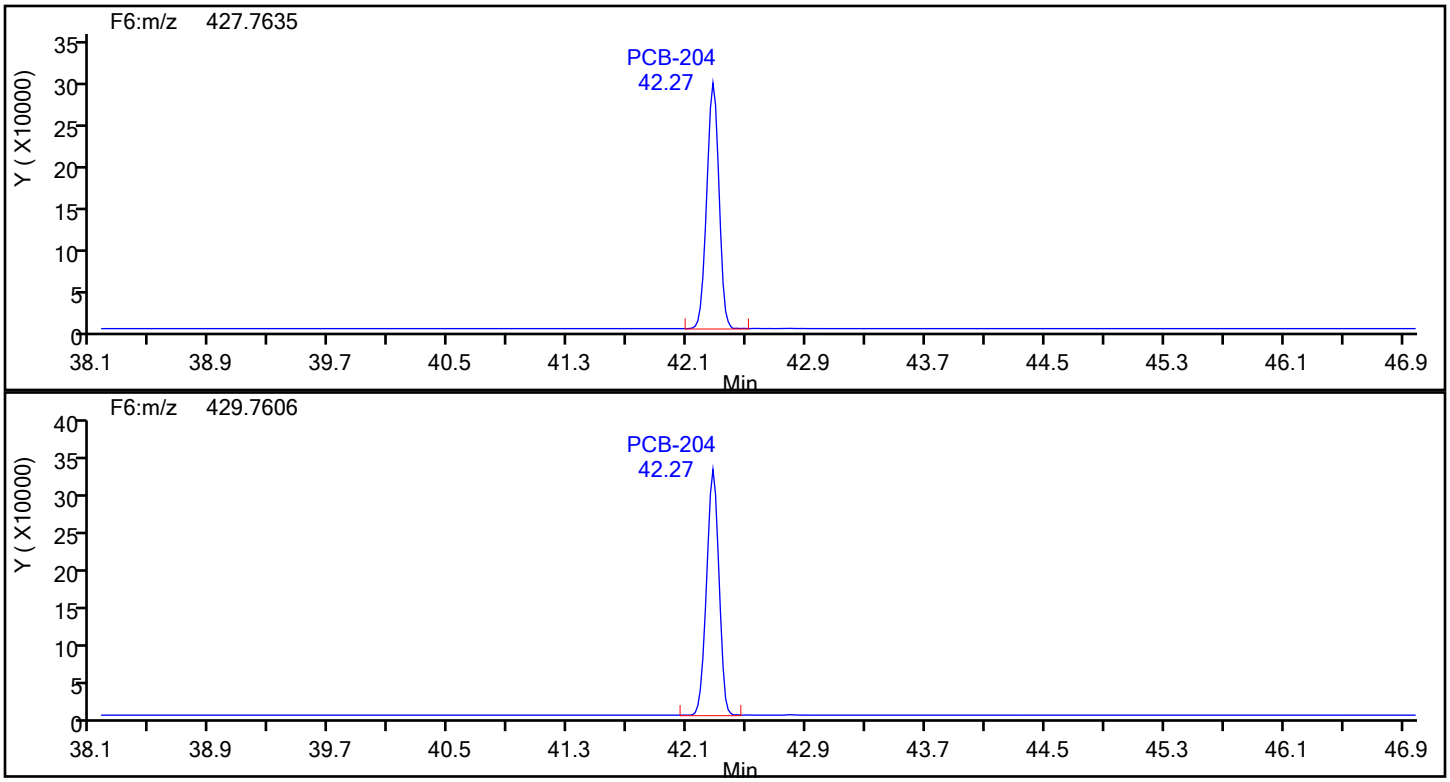
Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

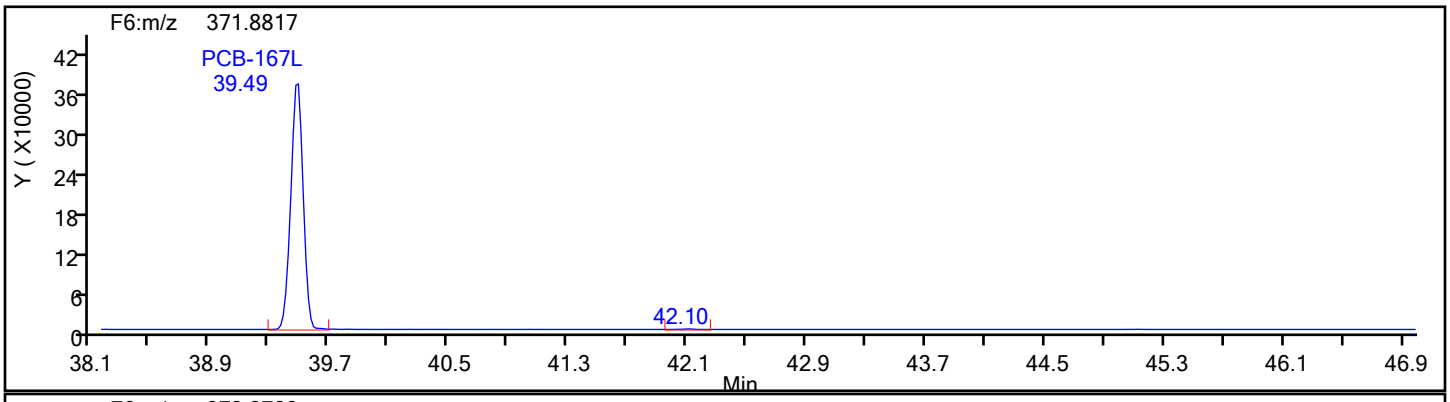
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

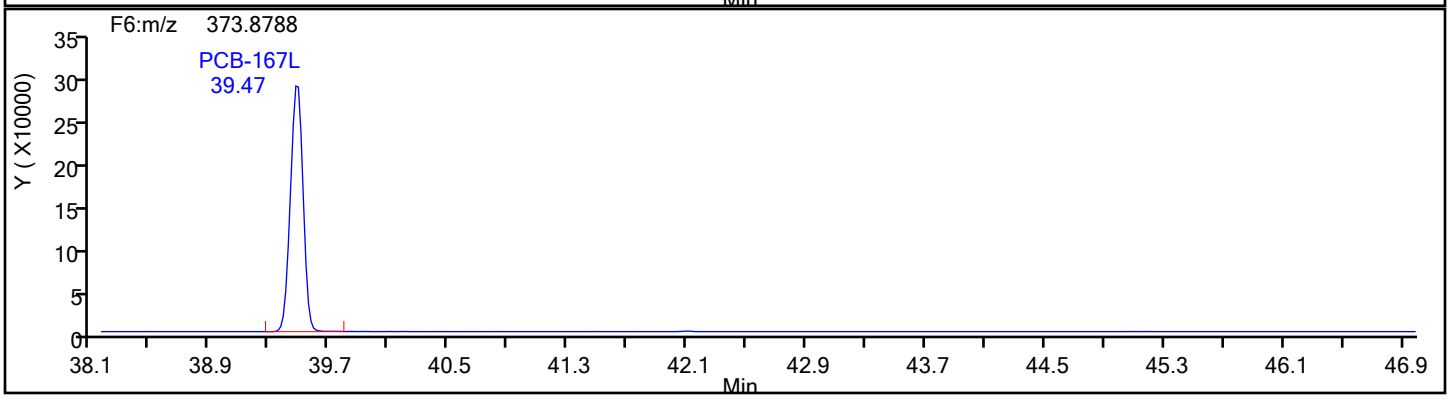
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



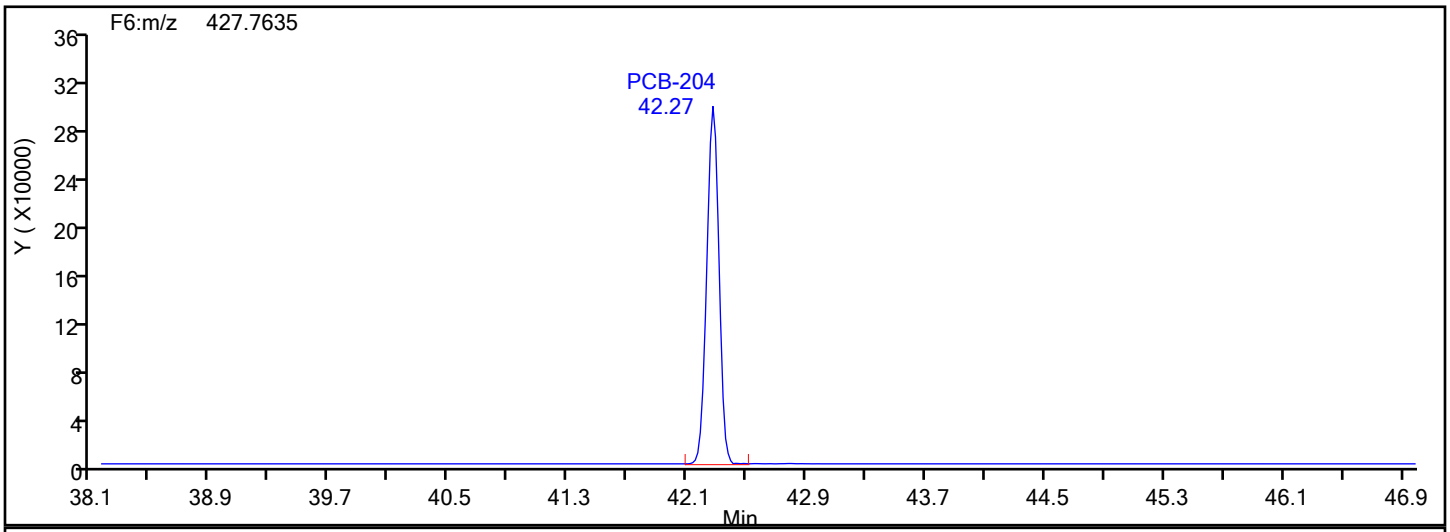


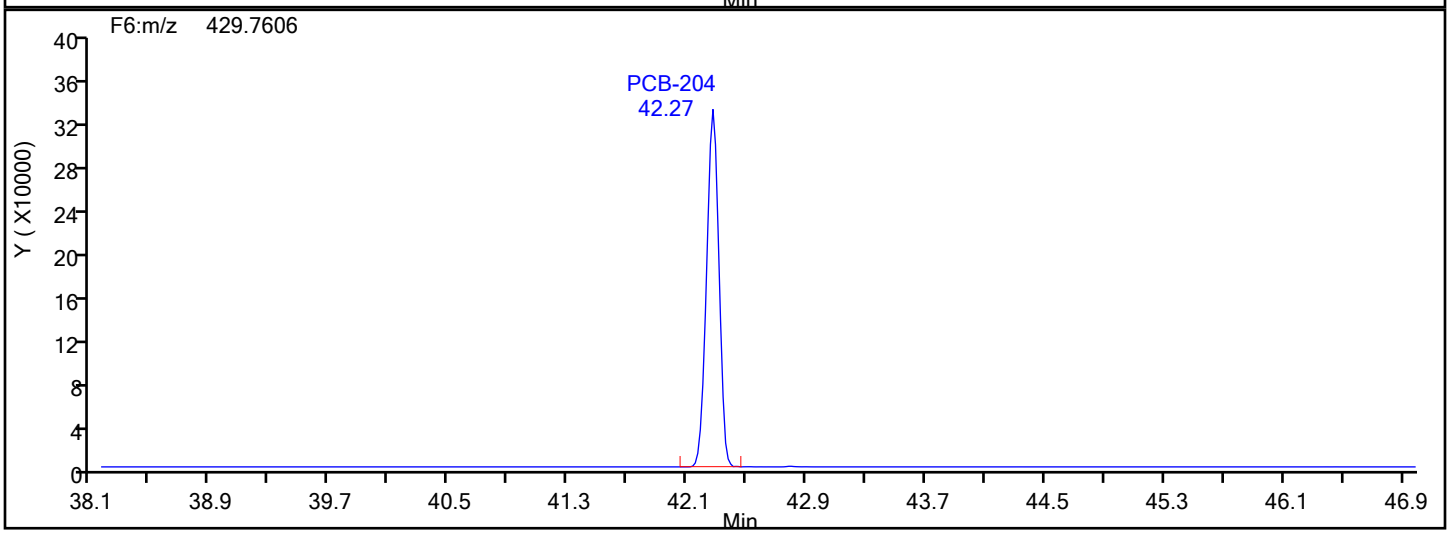
Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

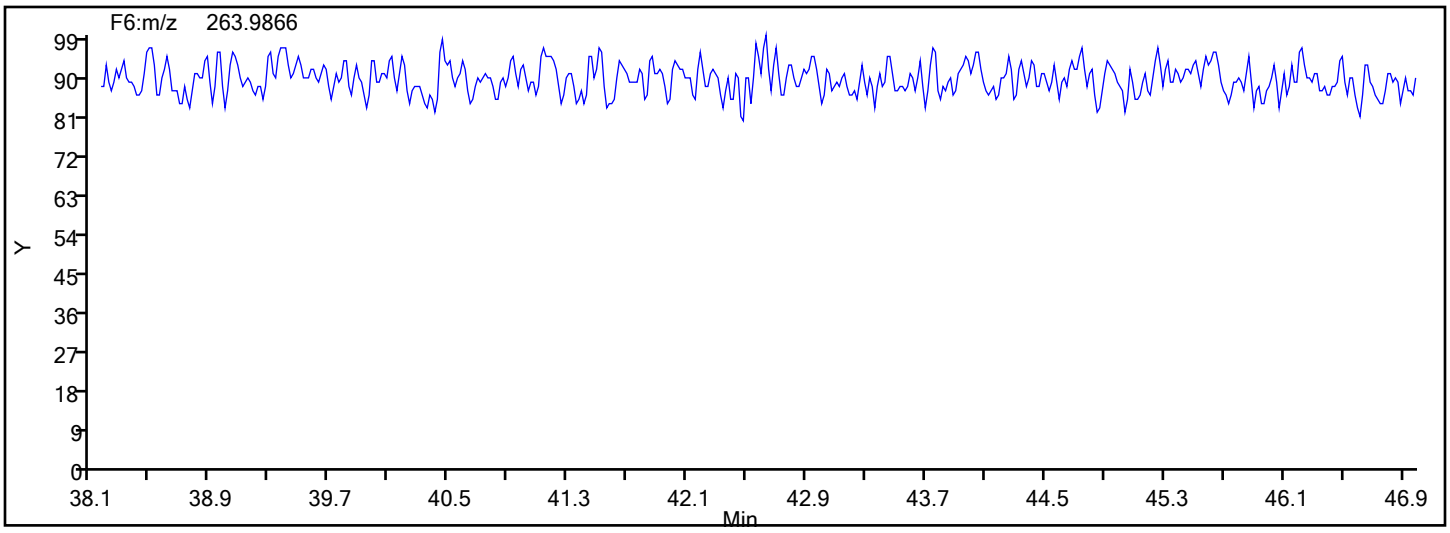
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



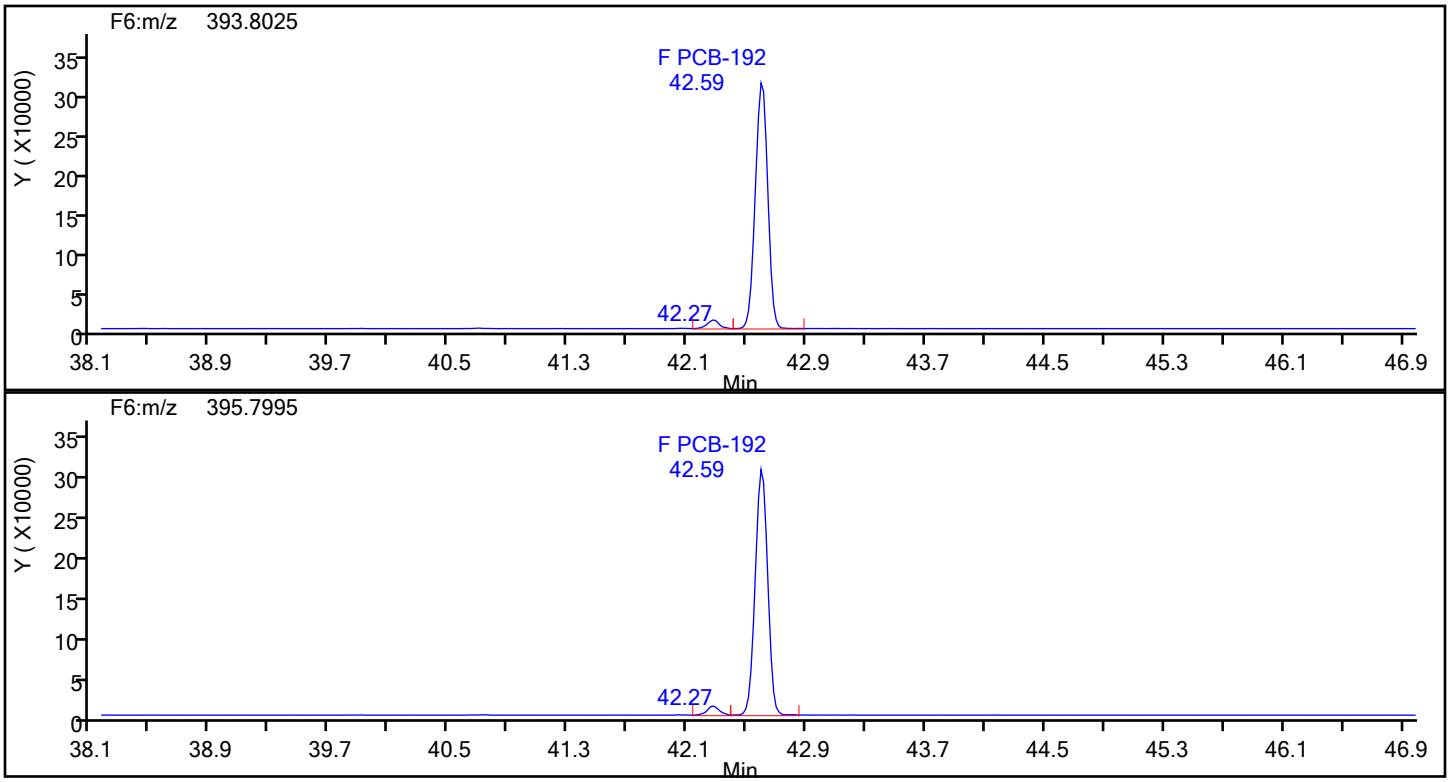
Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

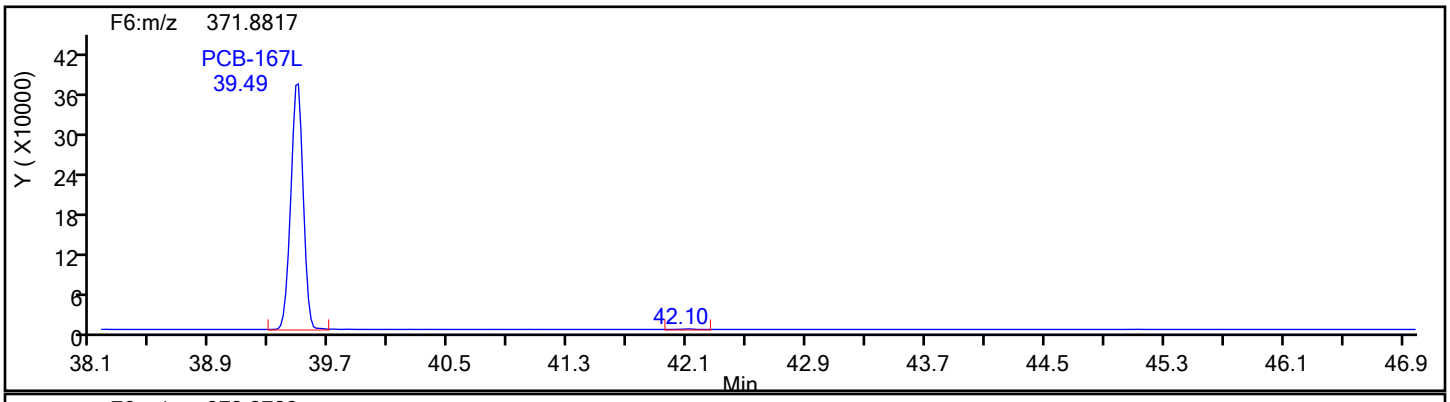
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d

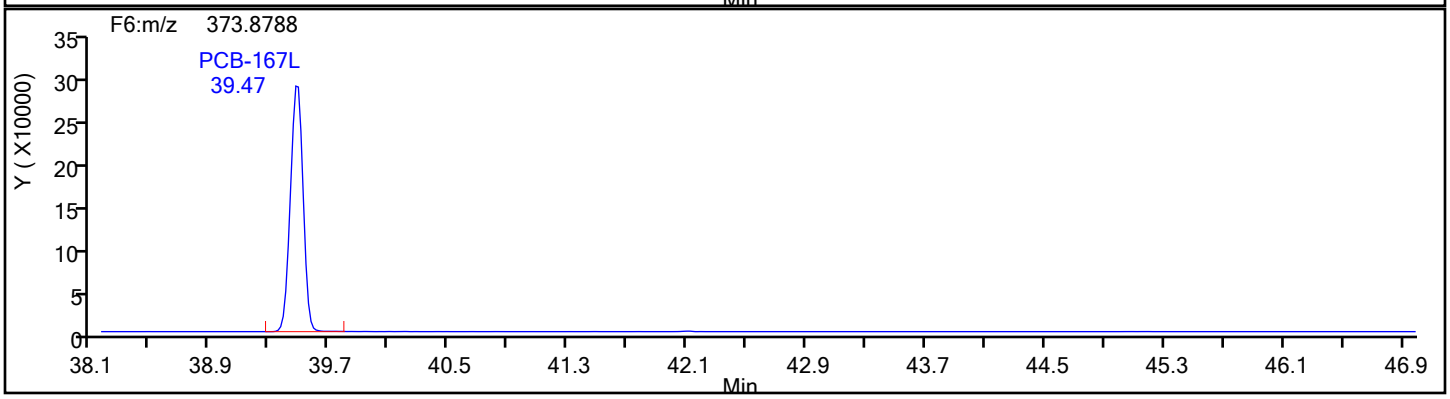
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192



PCB-192 Standards



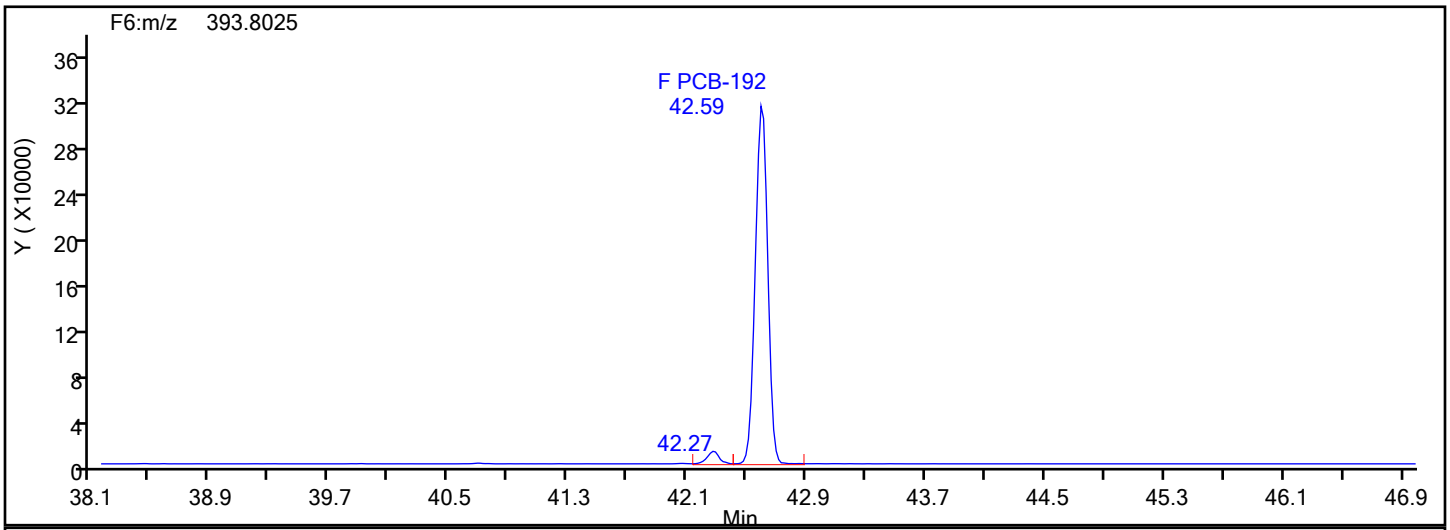


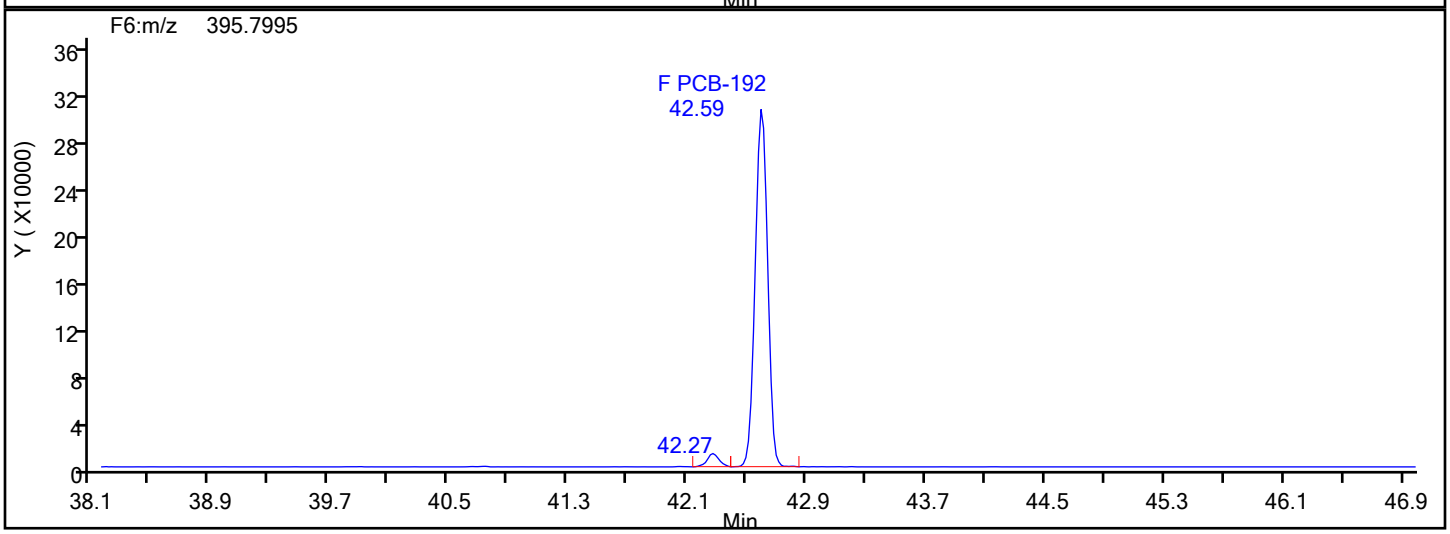
Report Date: 24-Mar-2025 13:06:22 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

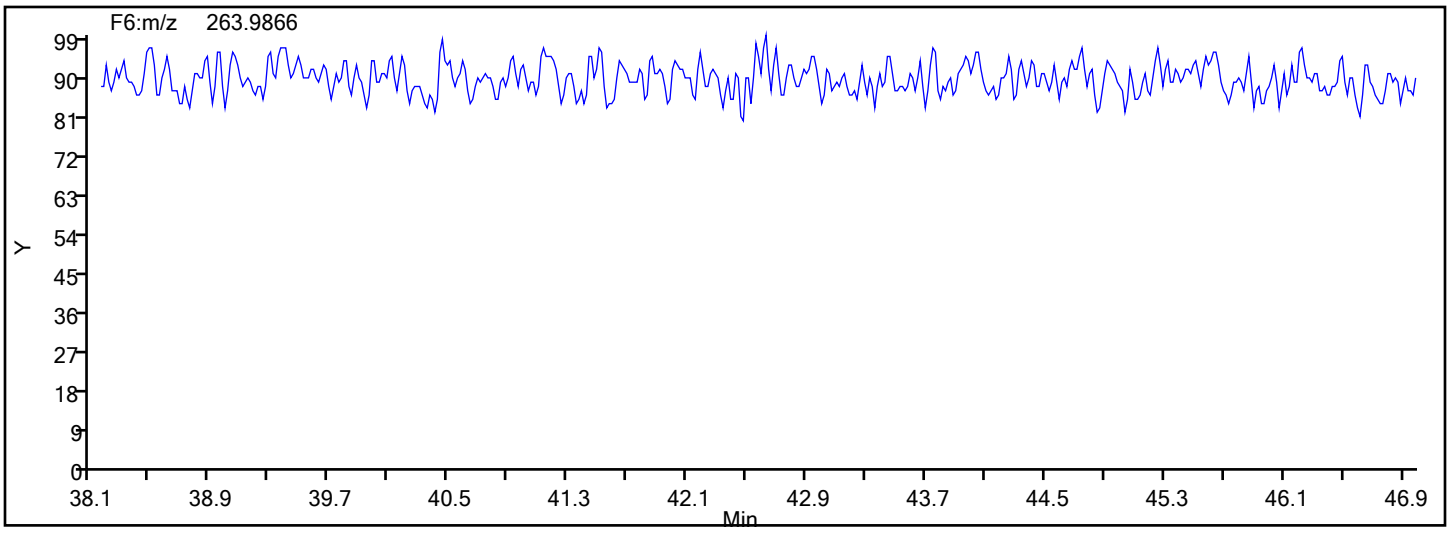
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic5.d		
Injection Date:	19-Mar-2025 21:26:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-Mar-2025 22:21:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-006
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:25 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	3602215	0.81	0.1704	99.8	99.8	0.0553	0.0553	99.77	
alpha-BHC	17:23	7534627	0.80	1.0937	191.2	191.2	0.0231	0.0231	95.62	
D 13C6-beta BHC	18:22	2557654	0.83	0.1244	97.0	97.0	0.0757	0.0757	97.02	
beta-BHC	18:23	4979403	0.79	1.0053	193.7	193.7	0.0387	0.0387	96.83	
D 13C6-gamma BHC	18:39	3207454	0.80	0.1646	92.0	92.0	0.0572	0.0572	91.96	
gamma-BHC (Lindane)	18:40	5969448	0.81	0.9800	189.9	189.9	0.0318	0.0318	94.96	
D 13C6-delta BHC	19:36	2065468	0.79	0.0992	98.2	98.2	0.0949	0.0949	98.25	
delta-BHC	19:38	4432024	0.82	1.1243	190.9	190.9	0.0474	0.0474	95.43	
D 13C10-Heptachlor	21:51	1430525	1.33	0.0715	94.4	94.4	0.0786	0.0786	94.40	
Heptachlor	21:52	3144906	1.27	1.0864	202.4	202.4	0.0123	0.0123	101	
D 13C6-Hexachlorobenzene	17:42	10793829	1.28	0.5041	101.0	101.0	0.000141	0.000141	101	
Hexachlorobenzene	17:42	21822267	1.25	1.1568	174.8	174.8	0.000110	0.000110	87.38	
D 13C12-Aldrin	23:44	2988259	1.61	0.1384	101.9	101.9	0.0197	0.0197	102	
Aldrin	23:45	6261281	1.62	1.0892	192.4	192.4	0.0522	0.0522	96.19	
D 13C10-oxy Chlordane	26:08	314648	1.09	0.0481	99.6	99.6	0.007115	0.007115	99.63	
oxy-Chlordane	26:10	682225	1.04	1.1040	196.4	196.4	0.005903	0.005903	98.20	
D 13C10-cis Heptachlor Epoxide	26:06	951795	1.28	0.1493	97.0	97.0	0.0183	0.0183	97.04	
Heptachlor epoxide	26:08	2192657	1.25	1.1461	201.0	201.0	0.001919	0.001919	101	
D 13C12-2,4'-DDE	27:56	17217611	1.60	2.7345	95.8	95.8	0.0342	0.0342	95.81	
2,4'-DDE	27:57	41298636	1.58	1.2831	186.9	186.9	0.0472	0.0472	93.47	
D 13C10-trans Chlordane	27:38	1003496	1.21	0.1640	93.1	93.1	0.0167	0.0167	93.10	
trans-Chlordane	27:39	2260879	1.25	1.1433	197.1	197.1	0.0398	0.0398	98.53	
D 13C10-cis Chlordane	28:41	1097051	1.26	0.1741	95.9	95.9	0.0157	0.0157	95.87	
cis-Chlordane	28:43	2112363	1.27	1.0551	182.5	182.5	0.0403	0.0403	91.25	
D 13C10-trans Nonachlor	29:00	761866	1.29	0.1233	94.0	94.0	0.0222	0.0222	94.03	
trans-Nonachlor	29:02	1630658	1.28	1.0780	198.5	198.5	0.0581	0.0581	99.27	
D 13C9-Endosulfan I	28:31	332448	1.48	0.0555	91.1	91.1	0.0493	0.0493	91.12	
D 13C12-4,4'-DDE	30:10	11275709	1.56	1.8637	101.0	101.0	0.0810	0.0810	101	
4,4'-DDE	30:11	26051353	1.57	1.2526	184.4	184.4	0.0783	0.0783	92.22	
D 13C12-4,4'-DDD	33:27	7075560	1.59	1.1392	103.7	103.7	0.0113	0.0113	104	
4,4'-DDD	33:29	15997592	1.54	1.2345	183.1	183.1	0.1009	0.1009	91.57	
D 13C12-2,4'-DDT	33:44	3848812	1.56	0.6754	95.2	95.2	0.0190	0.0190	95.16	
2,4'-DDT	33:46	8855709	1.59	1.1809	194.8	194.8	0.1996	0.1996	97.42	
D 13C12-4,4'-DDT	36:36	3227413	1.68	0.5808	92.8	92.8	0.0221	0.0221	92.79	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:37	7496858	1.57	1.2096	192.0	192.0	0.2289	0.2289	96.02	
D 13C12-Dieldrin	30:23	1241069	1.66	0.1991	104.1	104.1	0.0500	0.0500	104	
Dieldrin	30:25	2516108	1.60	1.0718	189.1	189.1	0.1063	0.1063	94.57	
D 13C12-Endrin	32:03	675965	1.54	0.1181	95.6	95.6	0.0843	0.0843	95.59	
Endrin	32:05	1361647	1.62	1.0678	188.6	188.6	0.2091	0.2091	94.32	
D 13C9-Endosulfan II	32:47	161272	1.43	0.0248	108.7	108.7	0.1507	0.1507	109	
Endosulfan II	32:48	338771	1.20	1.0972	191.5	191.5	0.5204	0.5204	95.73	
D 13C12-Endrin Aldehyde	34:19	201048	1.58	0.0237	141.5	141.5	0.3744	0.3744	142	
Endrin aldehyde	34:21	434848	1.56	1.1278	191.8	191.8	0.5182	0.5182	95.89	
D 13C12-Methoxychlor	41:56	3796730	16.57	0.6709	94.5	94.5	0.0572	0.0572	94.49	
Methoxychlor	41:58	9310222	5.40	1.3248	185.1	185.1	0.0548	0.0548	92.55	
D 13C11-Endrin Ketone	40:25	402379	1.68	0.0648	103.7	103.7	0.0346	0.0346	104	
Endrin ketone	40:28	885308	1.60	1.1546	190.6	190.6	0.1344	0.1344	95.28	
D 13C10-Mirex	45:25	3673548	1.20	0.9459	99.9	99.9	0.0145	0.0145	99.90	
Mirex	45:27	7594881	1.26	1.0234	202.0	202.0	0.0269	0.0269	101	
* PCB-15L	19:04	21194034	1.60		100.0	100.0				
PCB-14	17:49	73092288	1.65	1.3581	253.9	253.9	0.003006	0.003006	101	
* 13C6-Pentachlorophenol (IS)	18:31	105491	0.67		500.0	500.0				
Pentachlorophenol	18:31	397848	0.80	0.8359	2255.8	2255.8	4.184	4.184	113	
PCB-36	22:09	52265824	1.05	1.0230	241.1	241.1	0.003017	0.003017	96.08	
* PCB-101L	28:07	6571589	1.60		100.0	100.0				
PCB-104	23:44	29349310	1.56	1.8372	243.1	243.1	0.000186	0.000186	96.90	
* PCB-118L	32:48	5988675	1.64		100.0	100.0				
PCB-121	26:43	20443539	1.57	1.4622	233.5	233.5	0.1340	0.1340	93.06	
* PCB-138L	36:59	3887255	1.28		100.0	100.0				
PCB-142	27:29	18415360	1.27	2.0271	233.7	233.7	0.0198	0.0198	93.15	
Endosulfan I	28:32	724333	1.55	1.0931	199.3	199.3	0.1291	0.1291	99.66	
* PCB-60L	27:44	12068157	0.81		100.0	100.0				a
PCB-78	29:21	25591629	0.80	0.9153	231.7	231.7	0.0105	0.0105	92.35	a
D 13C12-2,4'-DDD	30:50	8132099	1.57	1.3487	100.7	100.7	0.0546	0.0546	101	
2,4'-DDD	30:52	17908733	1.53	1.1763	187.2	187.2	0.0691	0.0691	93.61	
D 13C10-cis Nonachlor	33:48	596251	1.38	0.0944	105.4	105.4	0.0457	0.0457	105	
cis-Nonachlor	33:50	1179864	1.19	1.0758	183.9	183.9	0.0166	0.0166	91.97	
D 13C9-Endosulfan sulfate	36:17	928164	1.29	0.1517	102.2	102.2	0.0285	0.0285	102	
Endosulfan sulfate	36:20	1980650	1.25	1.0831	197.0	197.0	0.0111	0.0111	98.51	
* PCB-167L	39:29	4119294	1.26		100.0	100.0				
PCB-155	33:59	9462059	1.27	0.9191	249.9	249.9	0.0311	0.0311	99.62	
PCB-184	34:39	11628772	1.04	1.1610	243.2	243.2	0.0147	0.0147	96.92	
PCB-204	42:17	7419015	0.90	0.7364	244.6	244.6	0.000947	0.000947	97.48	
PCB-192	42:36	7848643	1.06	0.7635	249.6	249.6	0.0347	0.0347	99.47	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-Mar-2025 22:21:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-006
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:25 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:23

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	1615138	618223	264	660	2342		
224.9317	17:23	17:23	0	0.912	1987077	745441	1	2	745441	0.81(0.58-0.96)	
alpha-BHC											
216.9145	17:23	17:23	0	1.001	3347250	1283102	2	5	641551		
218.9116	17:23	17:23	0	1.001	4187377	1579789	136	340	11616	0.80(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:22	0	0.964	1161901	402700	264	660	1525		
224.9317	18:22	18:22	0	0.964	1395753	485129	1	2	485129	0.83(0.58-0.96)	
beta-BHC											
216.9145	18:23	18:23	0	1.001	2193277	779981	2	5	389991		
218.9116	18:23	18:23	0	1.001	2786126	973459	136	340	7158	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:39	0	0.978	1428552	491928	264	660	1863		
224.9317	18:39	18:39	0	0.978	1778902	615849	1	2	615849	0.80(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	2663632	888979	2	5	444490		
218.9116	18:40	18:40	0	1.001	3305816	1108328	136	340	8149	0.81(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:36	0	1.028	909110	279090	264	660	1057		
224.9317	19:37	19:36	1	1.029	1156358	368720	1	2	368720	0.79(0.58-0.96)	
delta-BHC											
216.9145	19:38	19:38	0	1.001	1990562	630372	2	5	315186		
218.9116	19:38	19:38	0	1.001	2441462	778464	136	340	5724	0.82(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:51	21:51	0	1.146	815706	235532	91	227	2588		
278.8240	21:51	21:51	0	1.146	614819	176786	67	167	2639	1.33(0.93-1.55)	
Heptachlor											
271.8102	21:52	21:52	0	1.001	1762408	493278	16	40	30830		
273.8072	21:52	21:52	0	1.001	1382498	390777	6	15	65130	1.27(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.928	6049546	2192993	1	2	2192993		
291.8273	17:42	17:42	0	0.928	4744283	1724137	1	2	1724137	1.28(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:42	17:42	0	1.001	12113940	4433678	1	2	4433678		
285.8072	17:42	17:42	0	1.001	9708327	3550630	1	2	3550630	1.25(0.93-1.55)	
13C12-Aldrin											
269.8805	23:44	23:44	0	1.245	1844812	494239	43	107	11494		
271.8775	23:44	23:44	0	1.245	1143447	287743	34	85	8463	1.61(1.16-1.94)	
Aldrin											
262.8569	23:45	23:45	0	1.001	3875554	1024362	102	255	10043		
264.8540	23:45	23:45	0	1.001	2385727	641109	76	190	8436	1.62(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:08	26:08	0	0.930	164278	41071	1	2	41071		
398.8358	26:08	26:08	0	0.930	150370	35653	1	2	35653	1.09(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	347336	84529	1	2	84529		
388.8023	26:10	26:10	0	1.001	334889	81187	1	2	81187	1.04(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.928	534455	129444	7	17	18492		
364.8748	26:06	26:06	0	0.928	417340	97878	9	22	10875	1.28(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:08	26:08	0	1.001	1217038	287147	1	2	287147		
354.8413	26:08	26:08	0	1.001	975619	228580	1	2	228580	1.25(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.993	10601695	2326709	368	920	6323		
260.0376	27:56	27:56	0	0.993	6615916	1459228	179	447	8152	1.60(1.17-1.95)	
2,4'-DDE											
246.0003	27:57	27:57	0	1.001	25283653	5804857	583	1457	9957		
247.9974	27:57	27:57	0	1.001	16014983	3627366	335	837	10828	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:38	27:38	0	0.983	550263	129894	3	7	43298		
278.8240	27:38	27:38	0	0.983	453233	101150	13	32	7781	1.21(0.93-1.55)	
trans-Chlordane											
271.8102	27:39	27:39	0	1.001	1257056	289633	21	52	13792		
273.8072	27:39	27:39	0	1.001	1003823	230287	21	52	10966	1.25(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	0	1.020	612562	137097	3	7	45699		
278.8240	28:41	28:41	0	1.020	484489	110069	13	32	8467	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:43	28:43	0	1.001	1183194	259353	21	52	12350		
273.8072	28:43	28:43	0	1.001	929169	204885	21	52	9756	1.27(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.031	429472	93676	3	7	31225		
278.8240	29:00	29:00	0	1.031	332394	73838	13	32	5680	1.29(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	916027	204104	21	52	9719		
273.8072	29:02	29:02	0	1.001	714631	158482	21	52	7547	1.28(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:31	28:31	0	1.015	198211	43142	3	7	14381		
278.8240	28:31	28:31	0	1.015	134237	31240	13	32	2403	1.48(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	6874406	1459486	487	1217	2997		
260.0376	30:10	30:10	0	0.920	4401303	961996	241	602	3992	1.56(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.001	15906161	3431254	574	1435	5978		
247.9974	30:11	30:11	0	1.001	10145192	2160702	376	940	5747	1.57(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:27	33:27	0	1.020	4344833	821453	18	45	45636		
249.0454	33:27	33:27	0	1.020	2730727	544629	44	110	12378	1.59(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	9692931	1894922	564	1410	3360		
237.0052	33:29	33:29	0	1.001	6304661	1224299	117	292	10464	1.54(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:44	33:44	0	1.029	2342860	436252	18	45	24236		
249.0454	33:44	33:44	0	1.029	1505952	285721	44	110	6494	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	5441466	1034244	564	1410	1834		
237.0052	33:46	33:46	0	1.001	3414243	647457	117	292	5534	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:36	36:36	0	1.116	2022616	383679	18	45	21316		
249.0454	36:36	36:36	0	1.116	1204797	230988	44	110	5250	1.68(1.16-1.94)	
4,4'-DDT											
235.0081	36:37	36:37	0	1.000	4576659	841779	564	1410	1493		
237.0052	36:37	36:37	0	1.000	2920199	530764	117	292	4536	1.57(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.927	774565	163783	45	112	3640		
271.8775	30:23	30:23	0	0.927	466504	101383	3	7	33794	1.66(1.16-1.94)	
Dieldrin											
262.8570	30:25	30:25	0	1.001	1547062	313920	78	195	4025		
264.8540	30:25	30:25	0	1.001	969046	197994	43	107	4605	1.60(1.16-1.94)	
13C12-Endrin											
269.8805	32:03	32:03	0	0.978	410203	81731	45	112	1816		
271.8775	32:03	32:03	-1	0.977	265762	53536	3	7	17845	1.54(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:05	32:05	0	1.001	841758	172501	78	195	2212		
264.8540	32:05	32:05	0	1.001	519889	104676	43	107	2434	1.62(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:47	32:47	0	1.000	94949	20308	12	30	1692		
278.8240	32:47	32:47	0	1.000	66323	13845	6	15	2308	1.43(0.93-1.55)	
Endosulfan II											
271.8102	32:48	32:48	0	1.001	184687	34989	46	115	761		
273.8072	32:48	32:48	0	1.001	154084	29414	32	80	919	1.20(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:19	34:19	0	1.046	123180	24649	22	55	1120		
358.9361	34:18	34:19	-1	1.046	77868	16417	21	52	782	1.58(1.17-1.95)	
Endrin aldehyde											
344.8988	34:21	34:21	0	1.001	265079	47909	62	155	773		
346.8959	34:21	34:21	0	1.001	169769	30469	34	85	896	1.56(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:56	41:56	0	1.279	3580601	626861	172	430	3645		
240.1510	41:56	41:56	0	1.279	216129	34093	13	32	2623	16.57(0.00-0.00)	
Methoxychlor											
227.1072	41:58	41:58	0	1.001	7854810	1344107	123	307	10928		
228.1106	41:58	41:58	0	1.001	1455412	242488	69	172	3514	5.40(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:25	40:25	0	1.232	252312	44833	9	22	4981		
329.9379	40:25	40:25	0	1.232	150067	24096	2	5	12048	1.68(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	0	1.001	544871	86198	26	65	3315		
318.9010	40:28	40:28	0	1.001	340437	56075	17	42	3299	1.60(1.16-1.95)	
13C10-Mirex											
276.8270	45:25	45:25	0	1.228	2005427	313123	33	82	9489		
278.8240	45:25	45:25	0	1.228	1668121	257851	6	15	42975	1.20(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.001	4238414	677275	35	87	19351		
273.8072	45:27	45:27	0	1.001	3356467	535792	28	70	19135	1.26(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		13028435	4334992	32	80	135469		
236.0376	19:04	19:04	0		8165599	2695926	24	60	112330	1.60(1.16-1.93)	
PCB-14											
222.0003	17:49	17:49	0	0.934	45474491	17430905	59	147	295439		
223.9974	17:49	17:49	0	0.934	27617797	10525928	56	140	187963	1.65(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31	18:31	0		42407	10655	12	30	888		
271.8636	18:31	18:31	0		63084	13934	17	42	820	0.67(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31	18:31	0	1.001	176876	37194	46	115	809		
265.8435	18:31	18:31	-1	1.000	220972	57275	23	57	2490	0.80(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:09	22:09	0	1.162	26783914	7724844	48	120	160934		
257.9584	22:09	22:09	0	1.162	25481910	7354396	39	97	188574	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:07	28:07	0		4045517	899700	1	2	899700		
339.9178	28:07	28:07	0		2526072	562657	2	5	281329	1.60(1.16-1.94)	
PCB-104											
325.8804	23:44	23:44	0	0.844	17896288	4812213	1	2	4812213		
327.8775	23:44	23:44	0	0.844	11453022	3028292	1	2	3028292	1.56(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		3720175	750240	19	47	39486		
339.9178	32:48	32:48	0		2268500	454626	8	20	56828	1.64(1.16-1.94)	
PCB-121											
325.8804	26:43	26:43	0	0.815	12477569	3011816	555	1387	5427		
327.8775	26:43	26:43	0	0.815	7965970	1919782	389	972	4935	1.57(1.32-1.78)	
PCB-138L											
371.8817	36:59	36:59	0		2181133	395988	8	20	49499		
373.8788	36:59	36:59	0		1706122	313069	9	22	34785	1.28(1.16-1.94)	
PCB-142											
359.8415	27:29	27:29	0	0.743	10293807	2358610	62	155	38042		
361.8385	27:29	27:29	0	0.743	8121553	1853318	52	130	35641	1.27(1.05-1.43)	
Endosulfan I											
262.8570	28:32	28:32	0	1.000	440281	93999	18	45	5222		
264.8540	28:32	28:32	0	1.000	284052	59684	24	60	2487	1.55(1.16-1.94)	
PCB-60L											a
301.9626	27:44	27:44	0		5404025	1214125	20	50	60706		a
303.9597	27:44	27:44	0		6664132	1490193	21	52	70962	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:21	29:21	0	1.058	11350784	2353616	48	120	49034		a
291.9194	29:21	29:21	0	1.058	14240845	2981037	56	140	53233	0.80(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:50	30:50	0	0.940	4972651	1011712	218	545	4641		
249.0454	30:50	30:50	0	0.940	3159448	642759	137	342	4692	1.57(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.001	10828610	2226762	443	1107	5027		
237.0052	30:52	30:52	0	1.001	7080123	1462116	95	237	15391	1.53(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.031	345376	67375	5	12	13475		
278.8240	33:48	33:48	0	1.031	250875	44634	16	40	2790	1.38(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	641674	125305	1	2	125305		
273.8072	33:50	33:50	0	1.001	538190	106281	7	17	15183	1.19(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:17	36:17	0	1.107	523219	91554	5	12	18311		
278.8240	36:18	36:17	1	1.107	404945	74691	16	40	4668	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.001	1100088	198736	1	2	198736		
273.8072	36:19	36:20	-1	1.001	880562	161938	7	17	23134	1.25(0.93-1.55)	
PCB-167L											
371.8817	39:29	39:29	0		2299736	399467	1	2	399467		
373.8788	39:29	39:29	0		1819558	317268	4	10	79317	1.26(1.16-1.94)	
PCB-155											
359.8415	33:59	33:59	0	0.861	5291870	1001276	48	120	20860		
361.8385	33:59	33:59	0	0.861	4170189	795338	34	85	23392	1.27(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.878	5935715	1121291	14	35	80092		
395.7995	34:39	34:39	0	0.878	5693057	1065250	35	87	30436	1.04(0.89-1.21)	
PCB-204											
427.7635	42:17	42:17	0	1.071	3508612	597917	1	2	597917		
429.7606	42:17	42:17	0	1.071	3910403	669645	1	2	669645	0.90(0.76-1.02)	
PCB-192											
393.8025	42:36	42:36	0	1.079	4030279	696695	34	85	20491		
395.7995	42:36	42:36	0	1.079	3818364	667012	42	105	15881	1.06(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

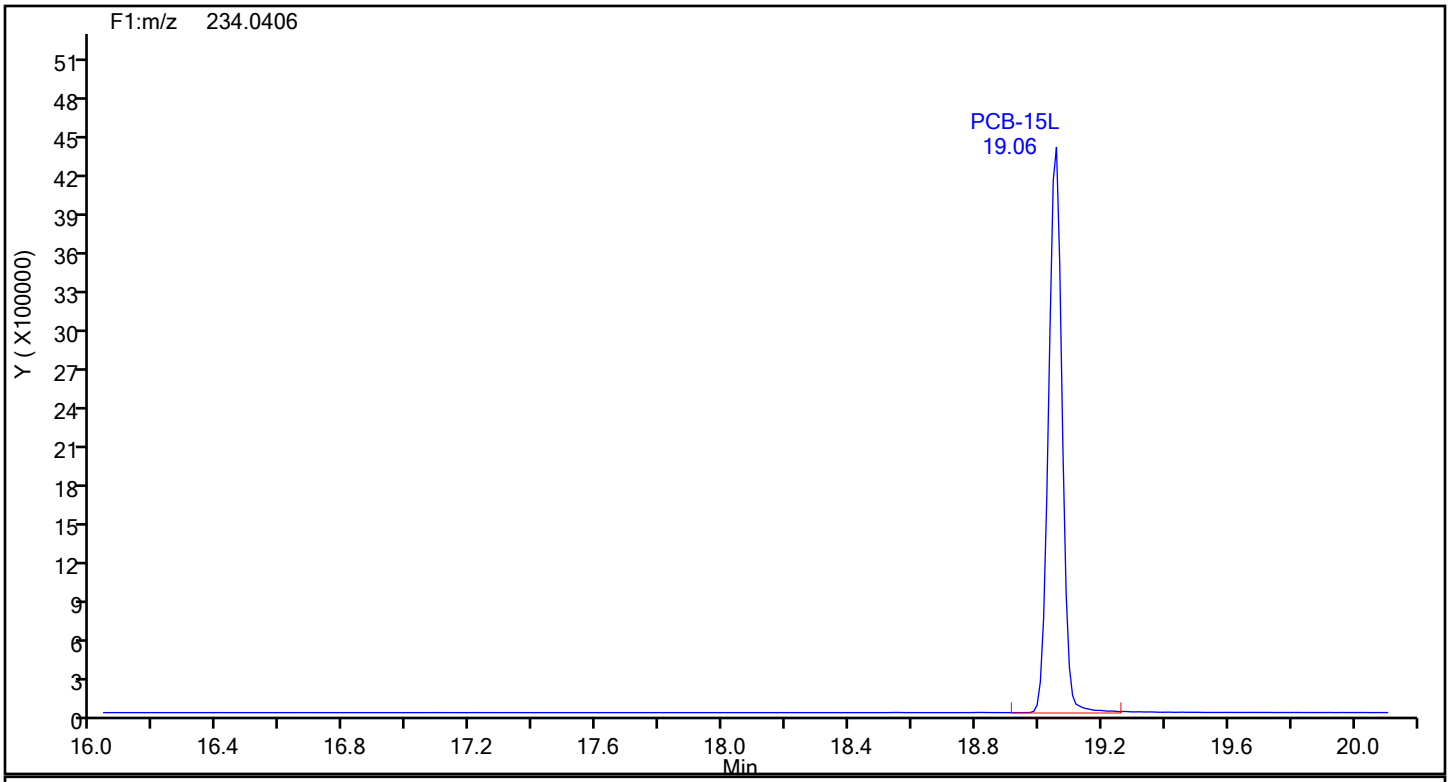
Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

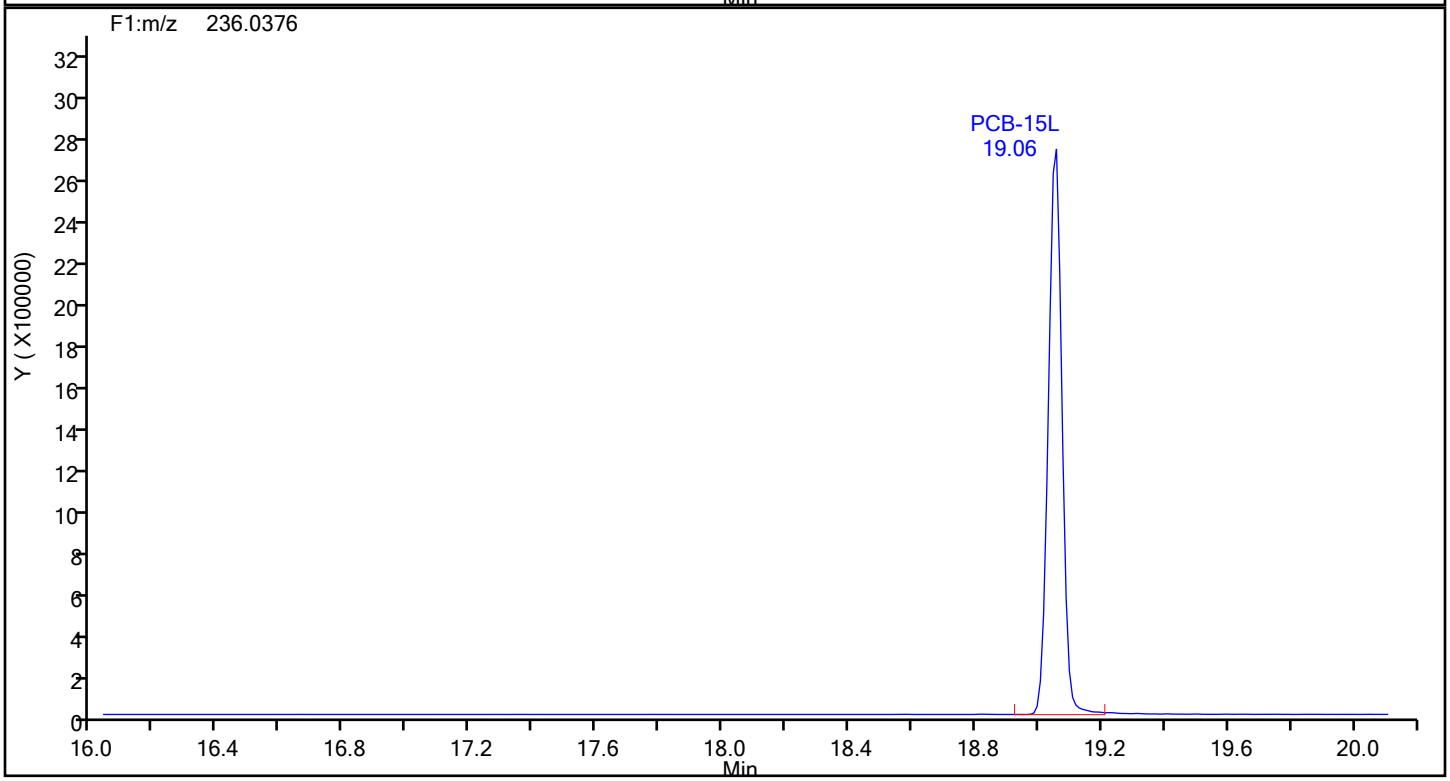
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





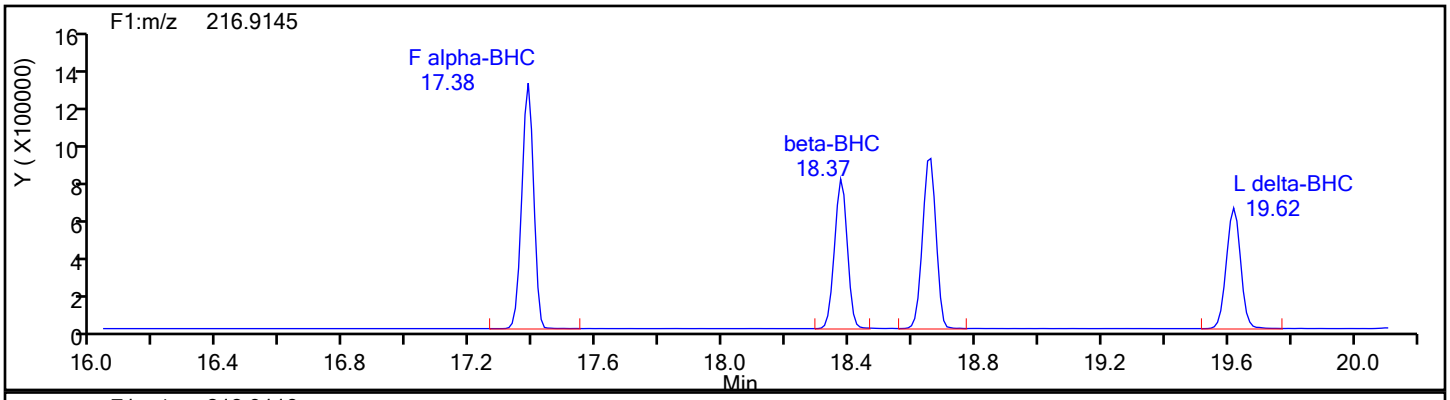
Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

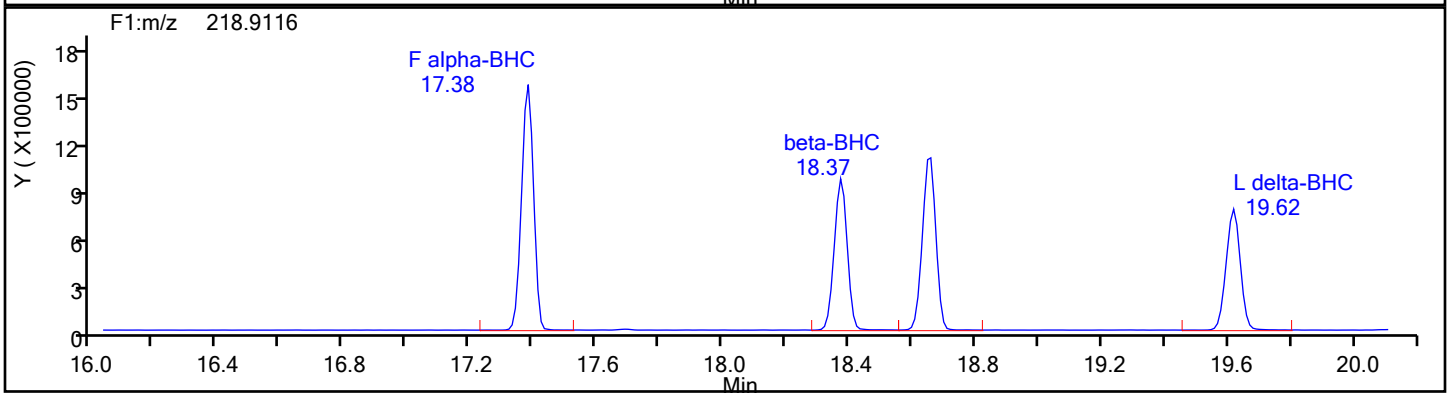
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

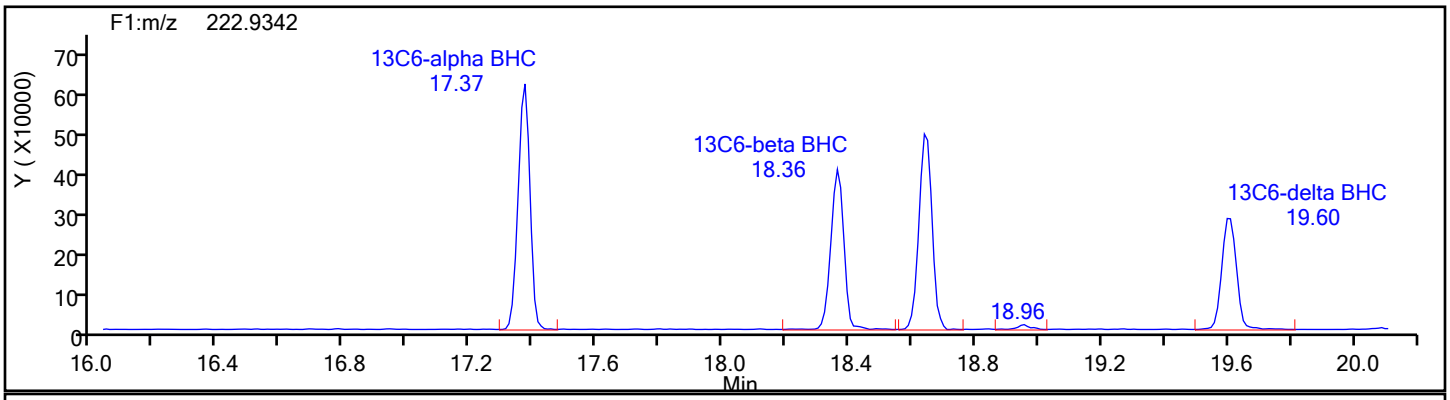
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

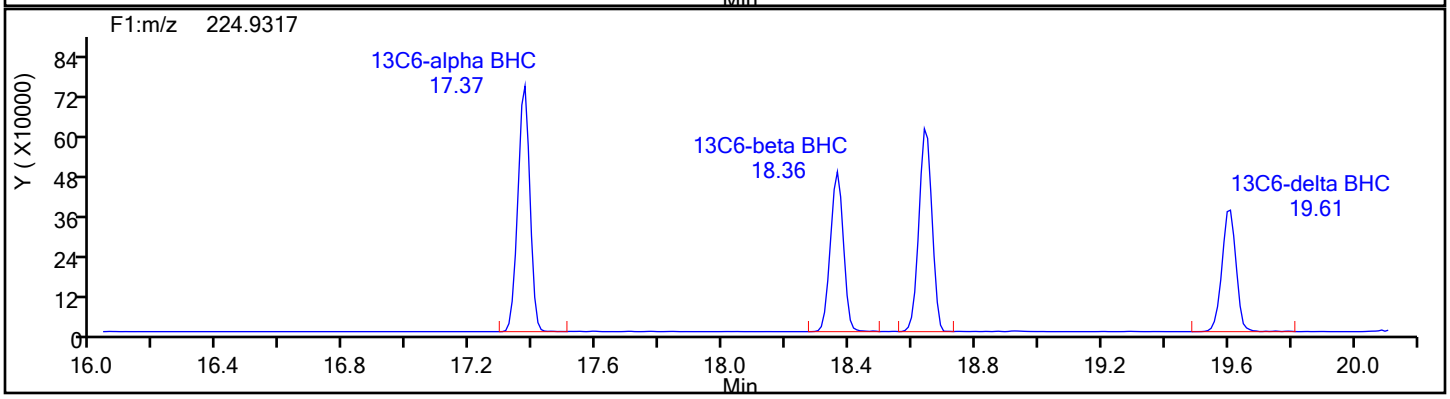
BHC





BHC Standards





Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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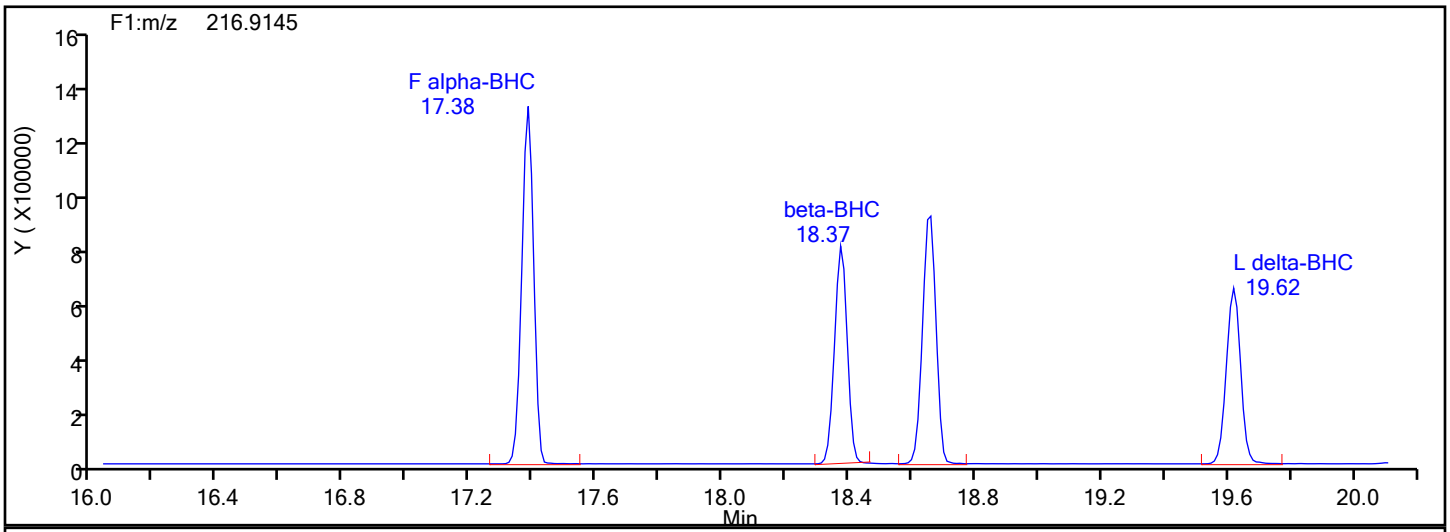

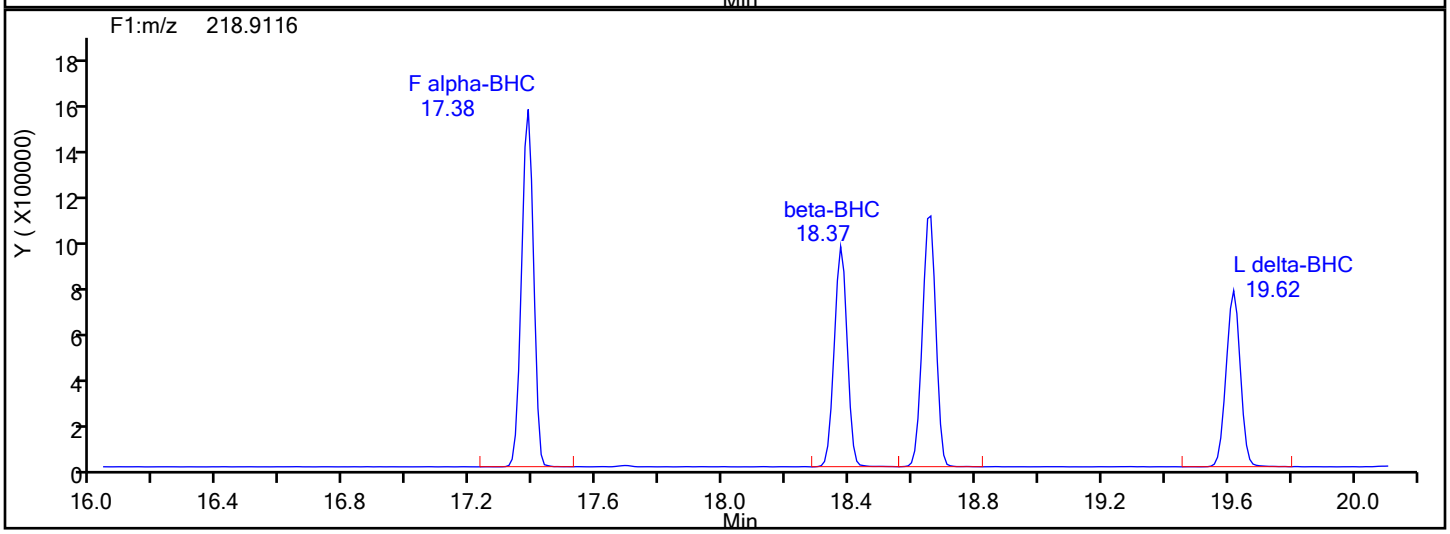

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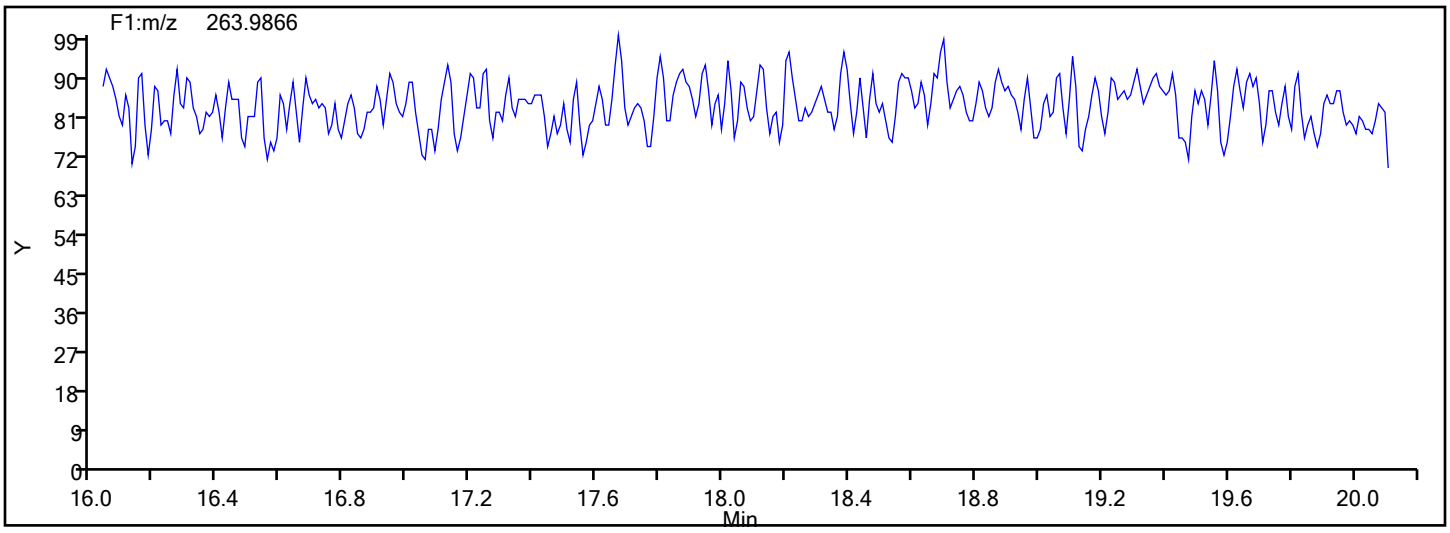

Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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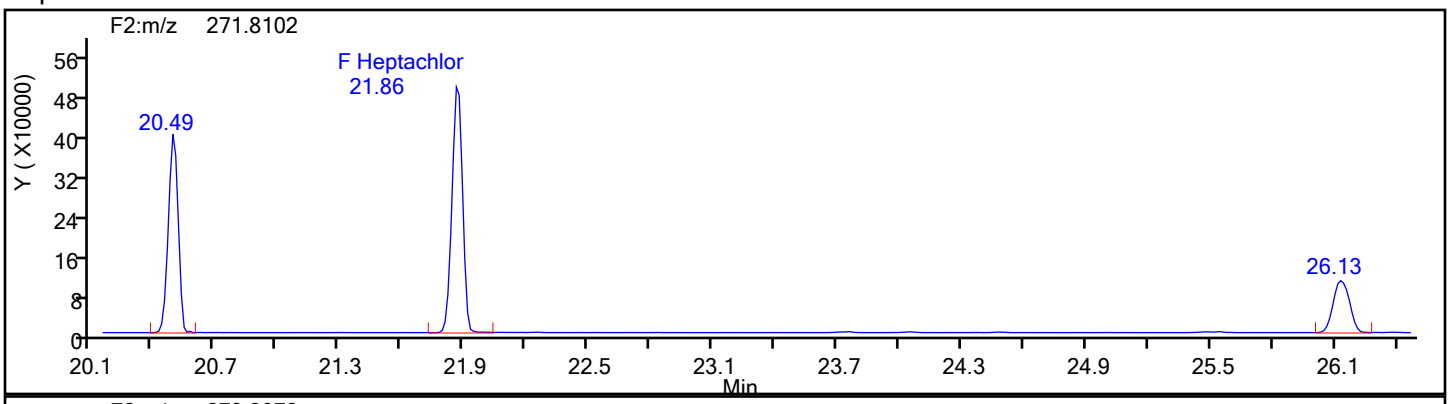
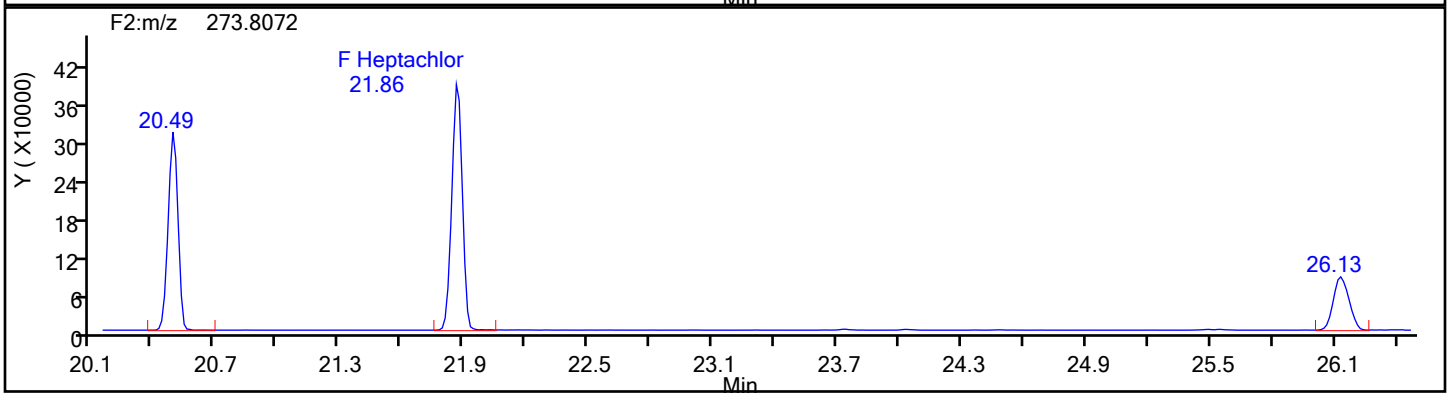
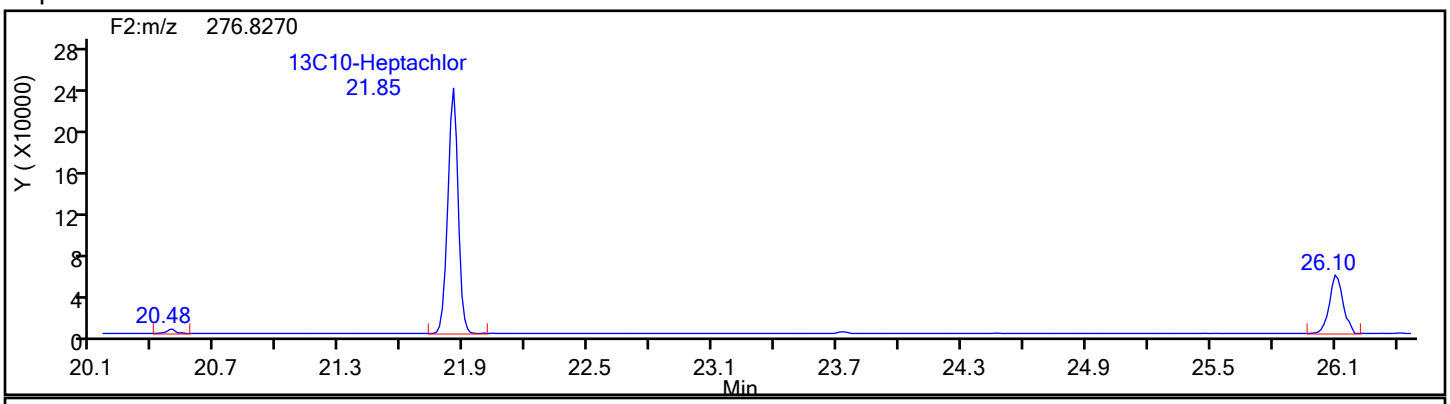
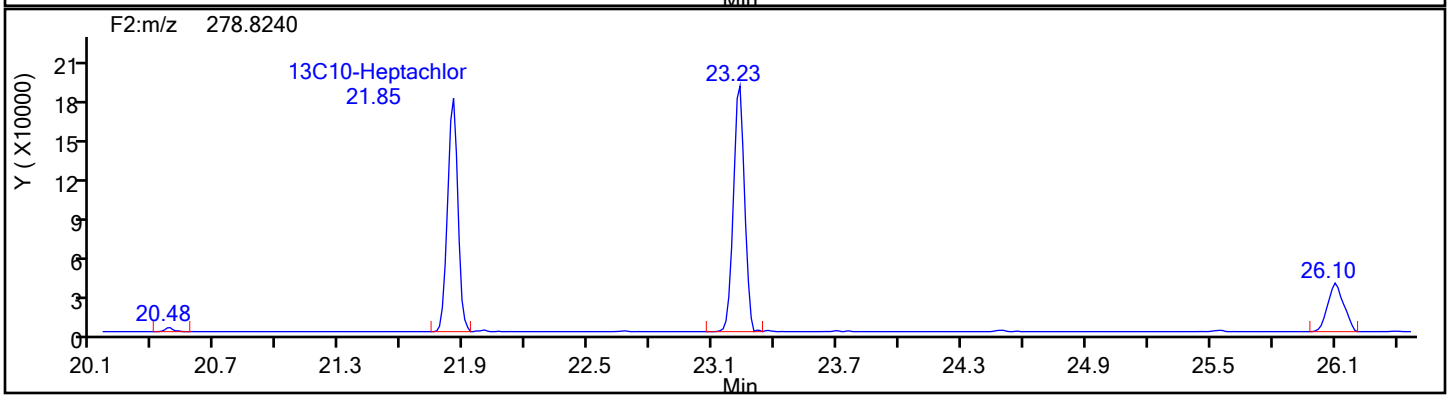
Heptachlor





Heptachlor Standards





Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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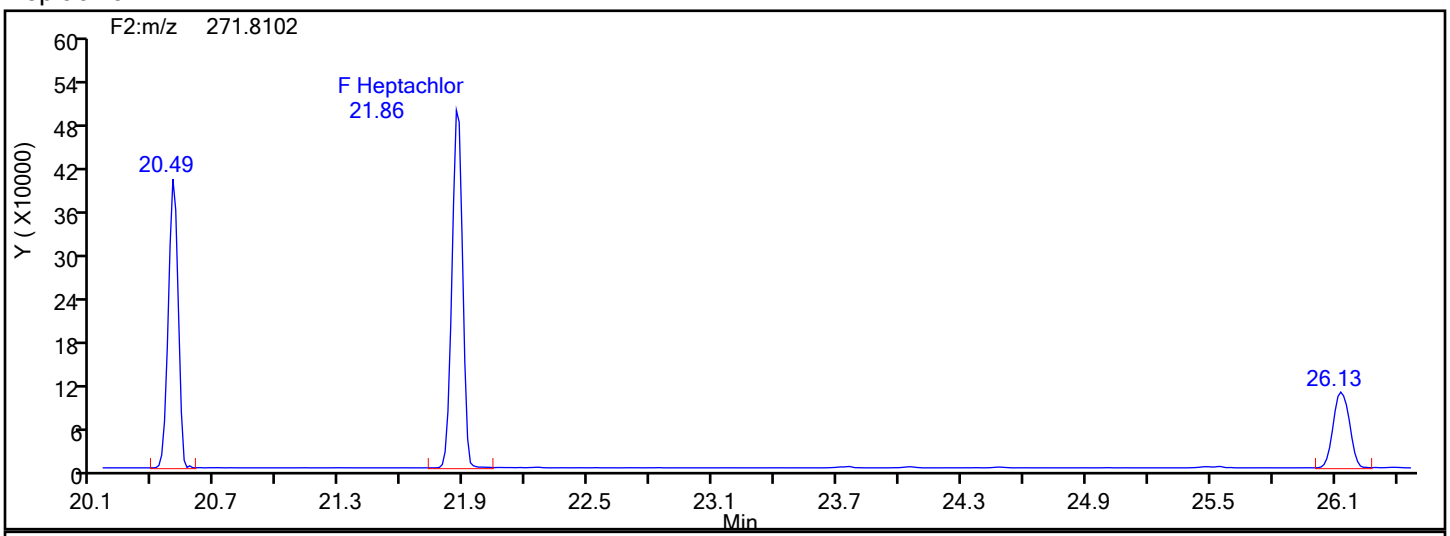
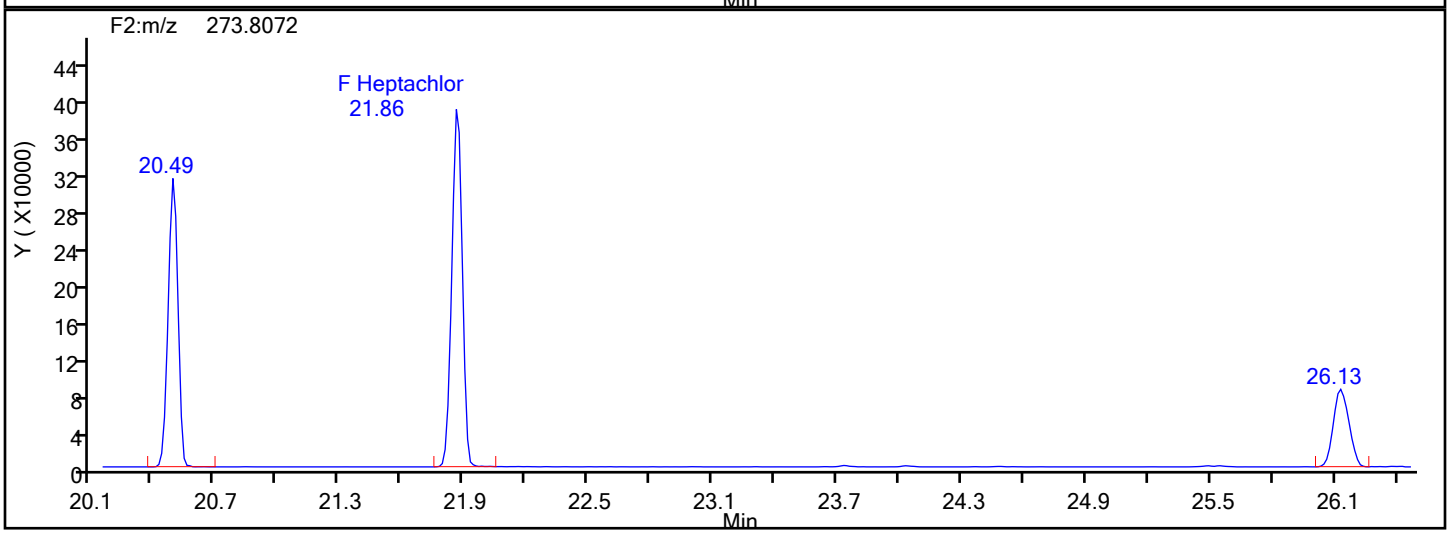
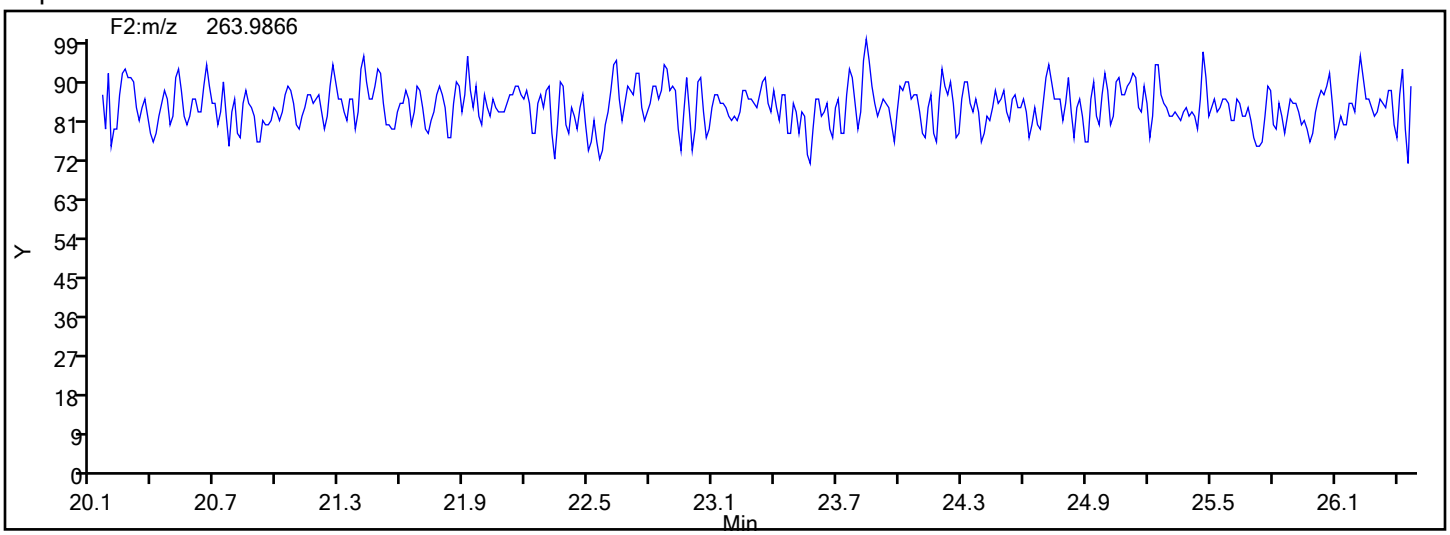
Heptachlor





Heptachlor Lock Mass



Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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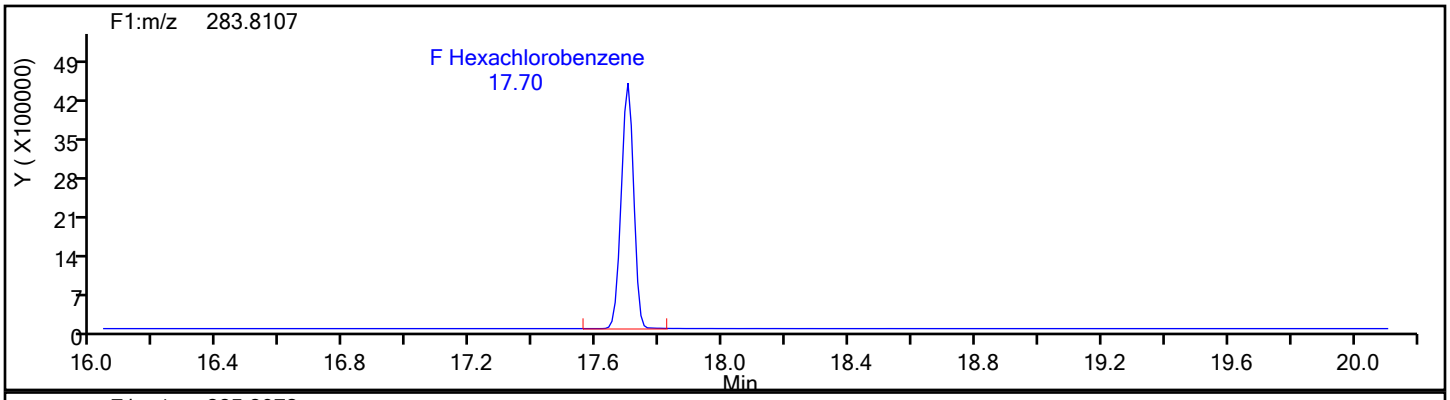
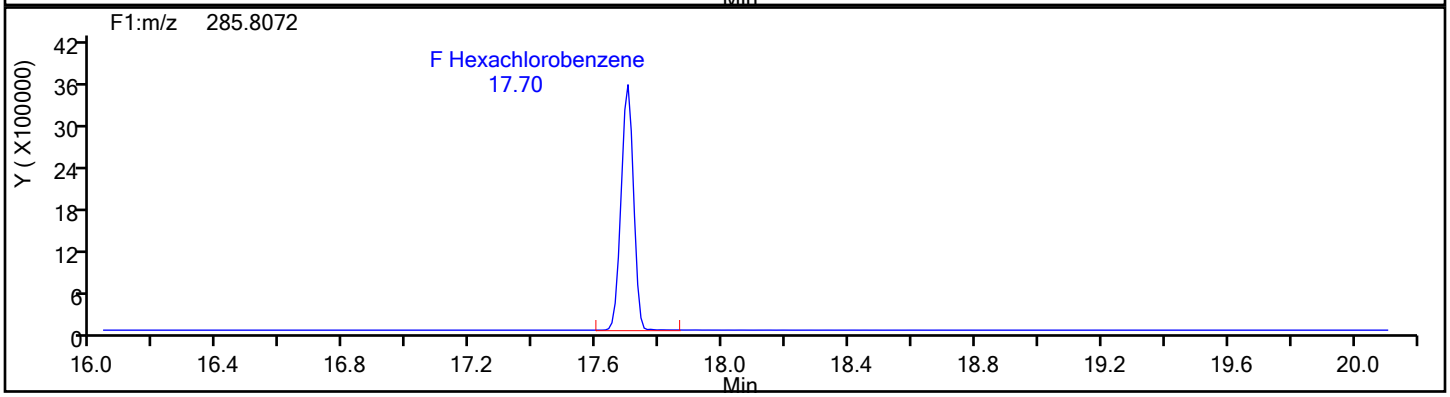
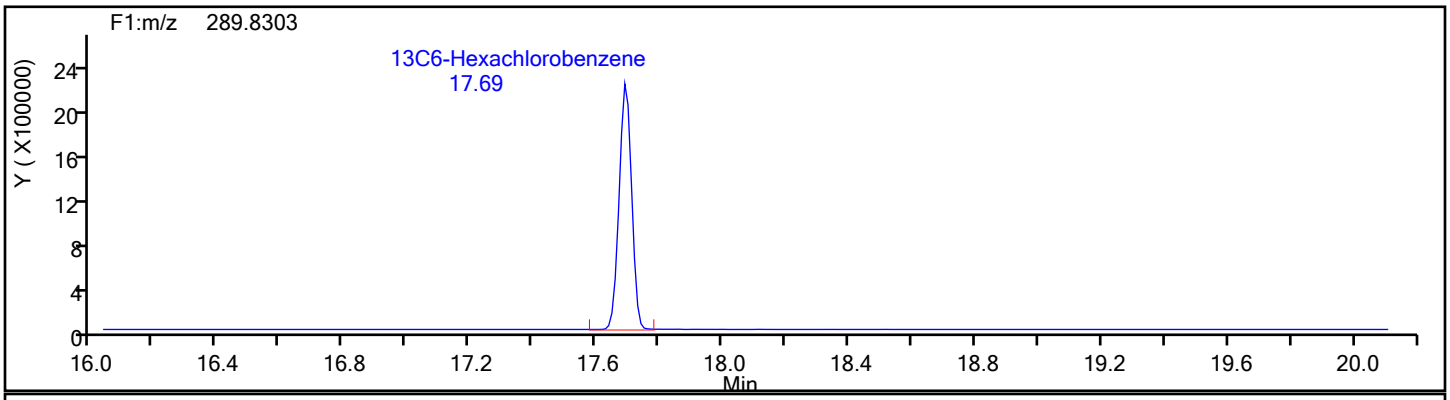
Column Type:	RTX-5	Column Dia:	0.32 mm

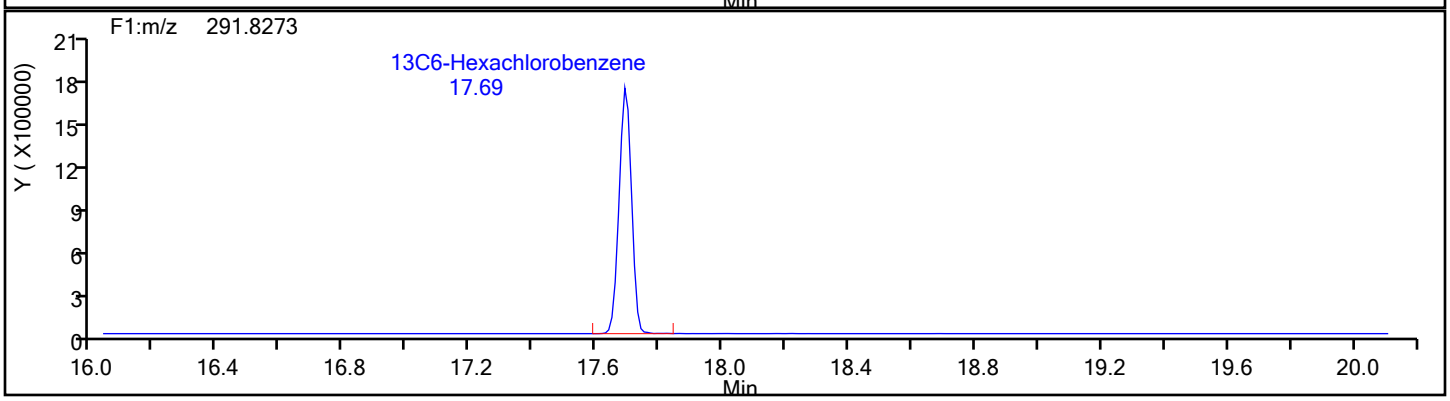
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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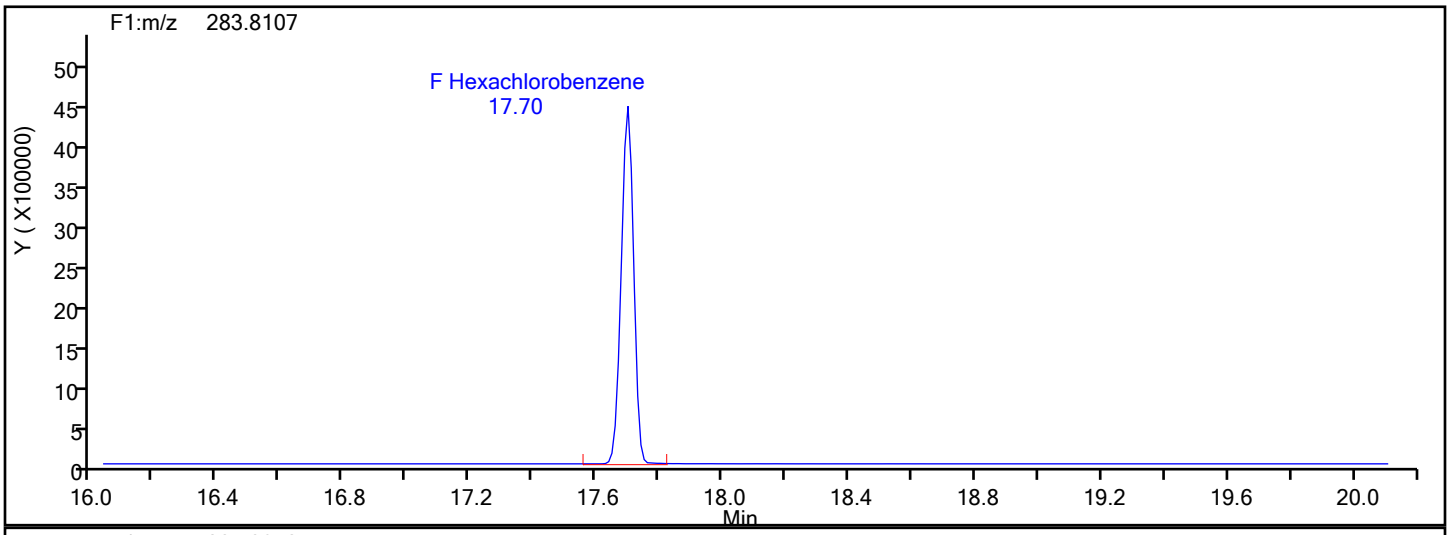
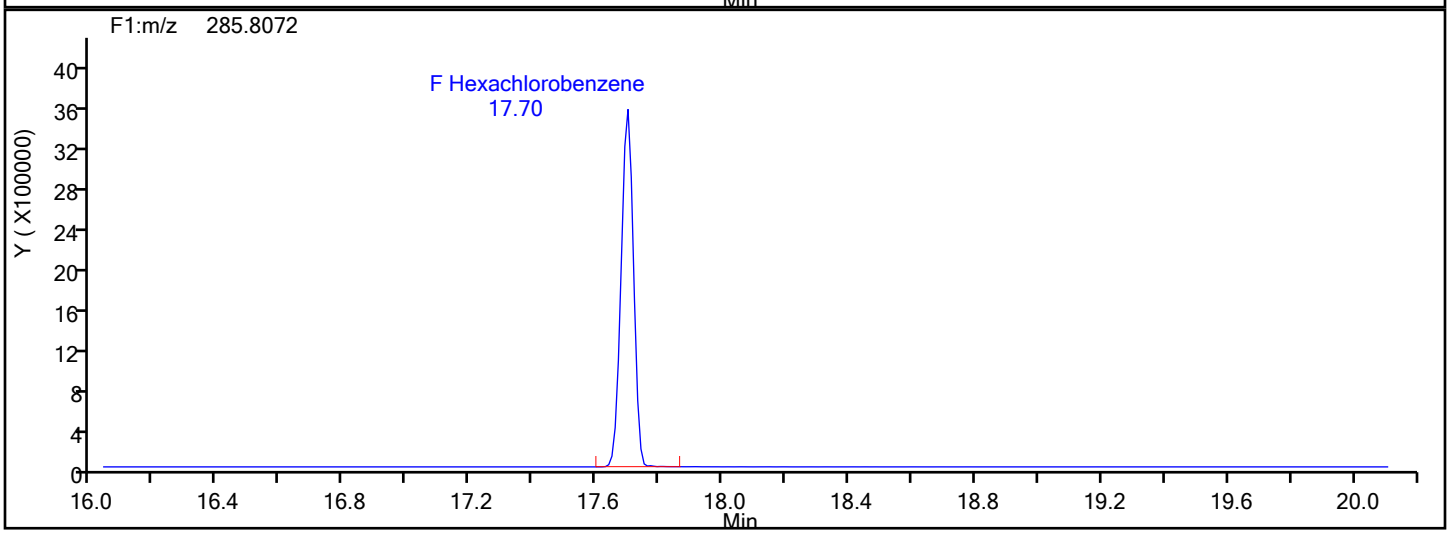
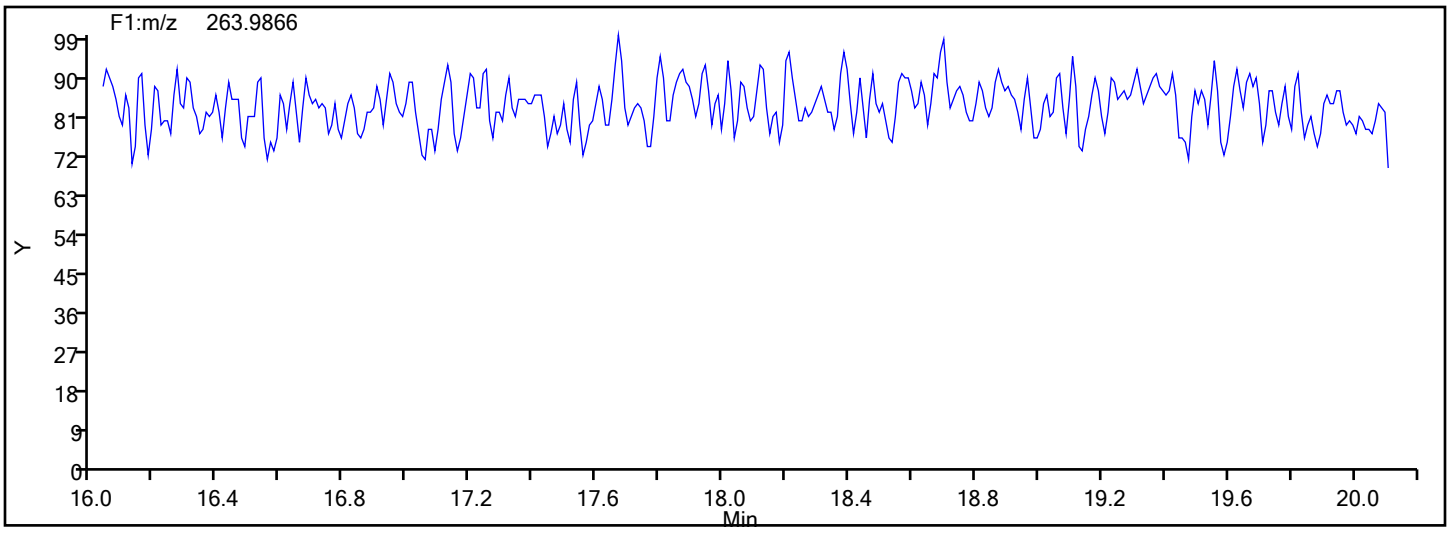
Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
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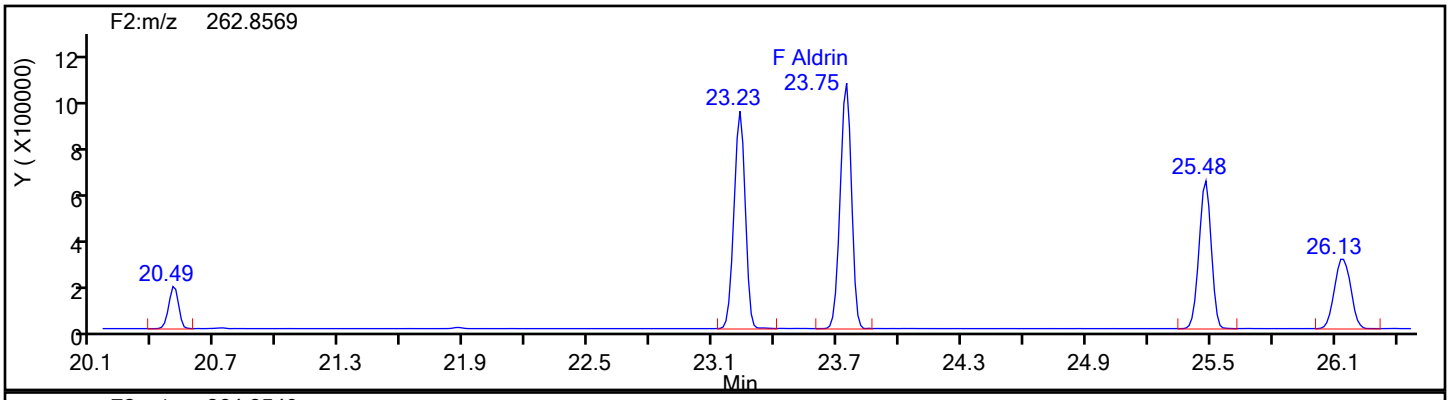
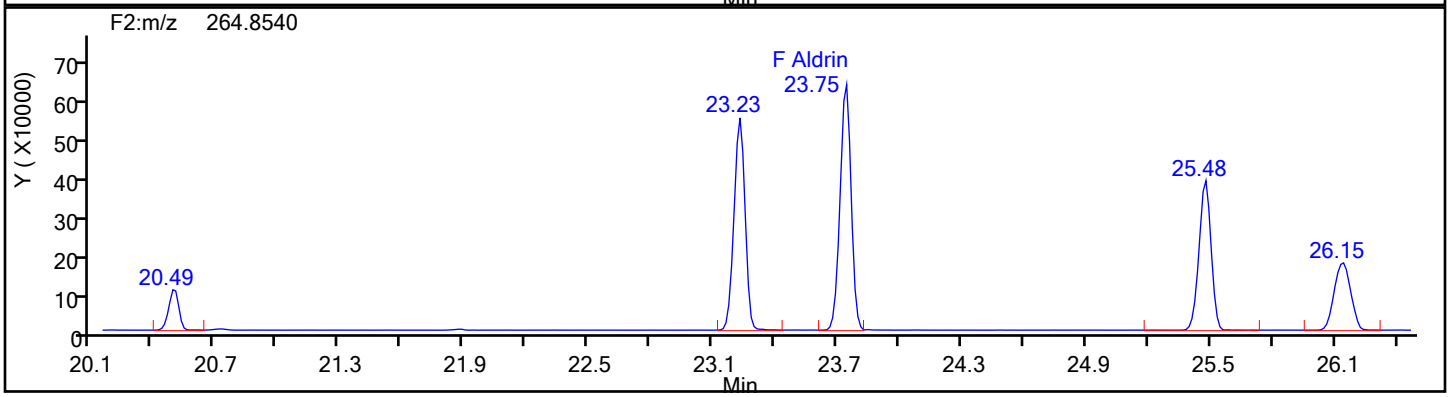
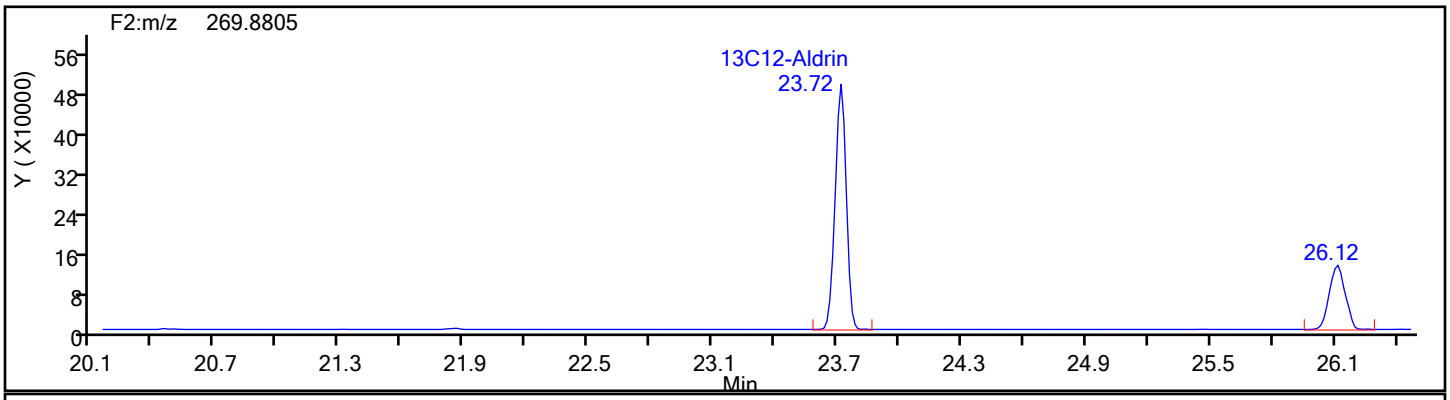
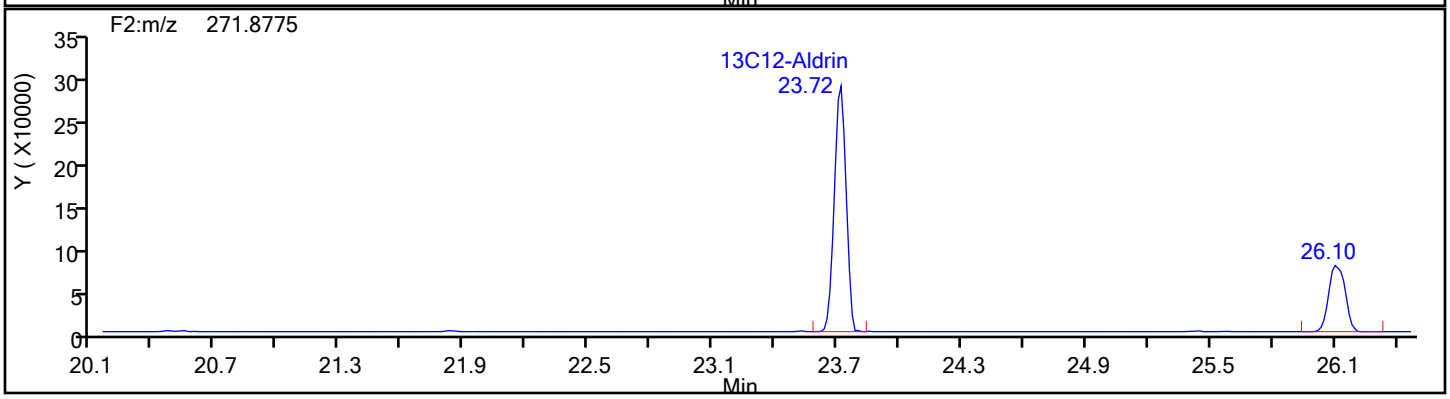
Aldrin





Aldrin Standards





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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
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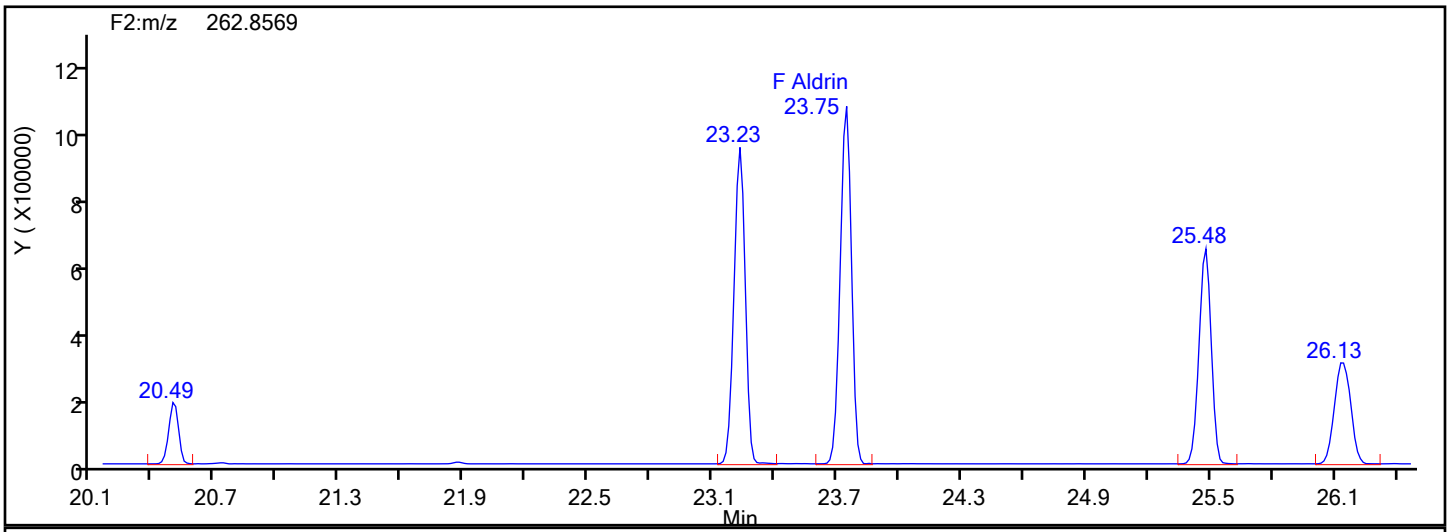
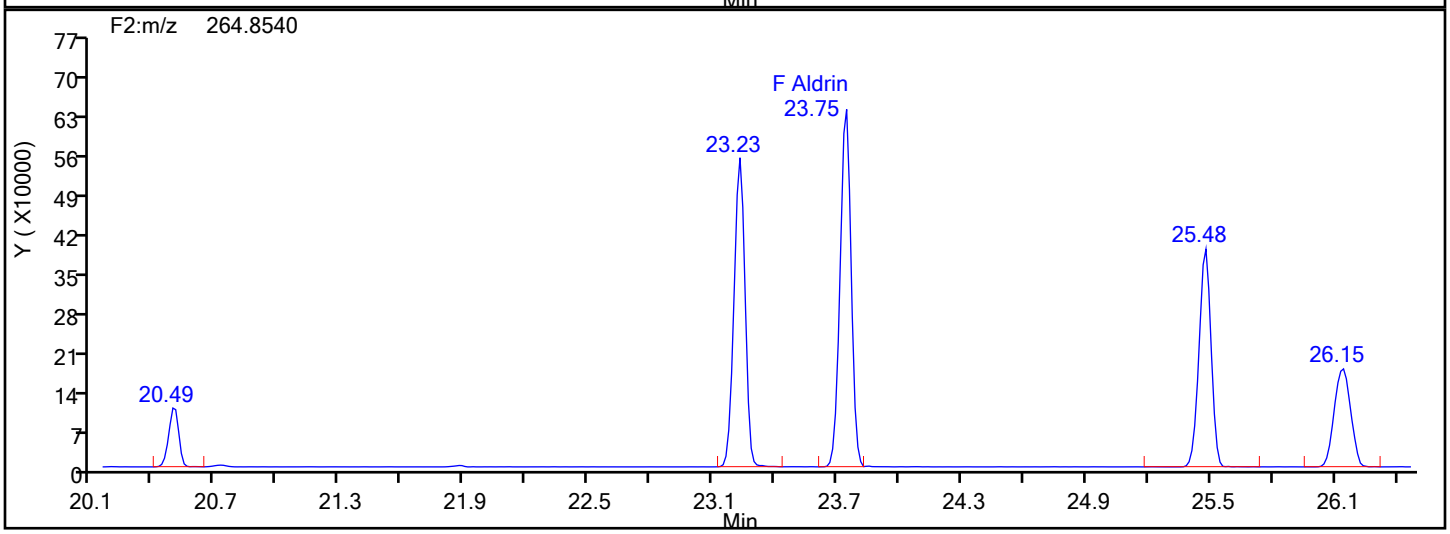
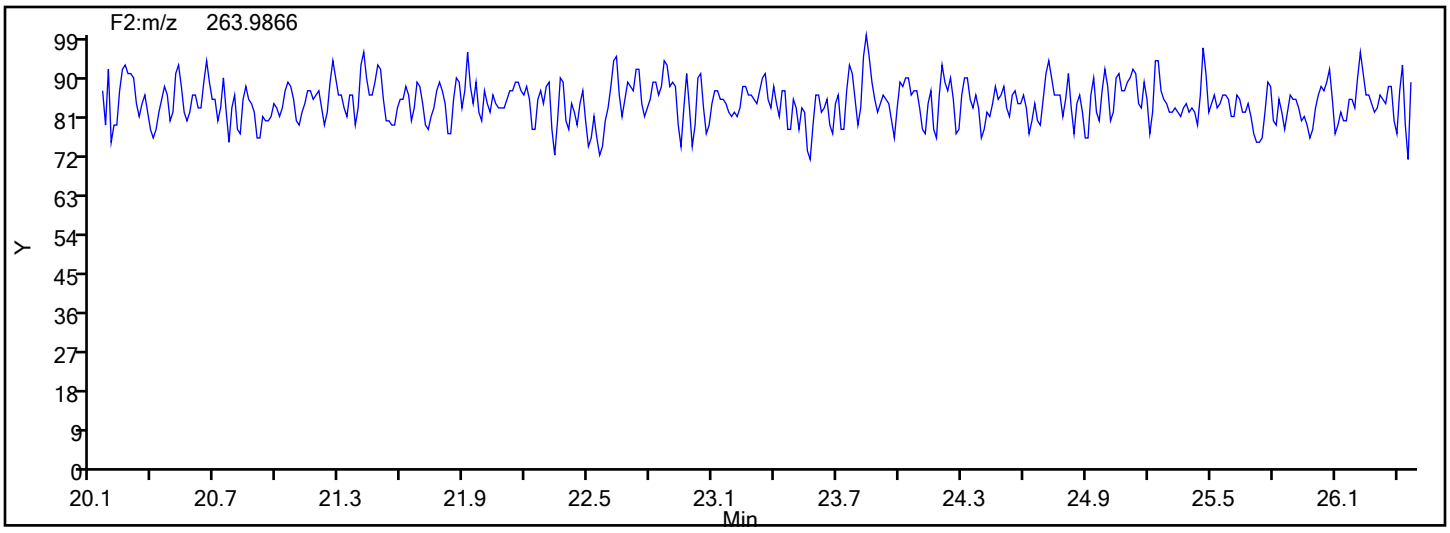
Aldrin





Aldrin Lock Mass



Report Date: 24-Mar-2025 13:06:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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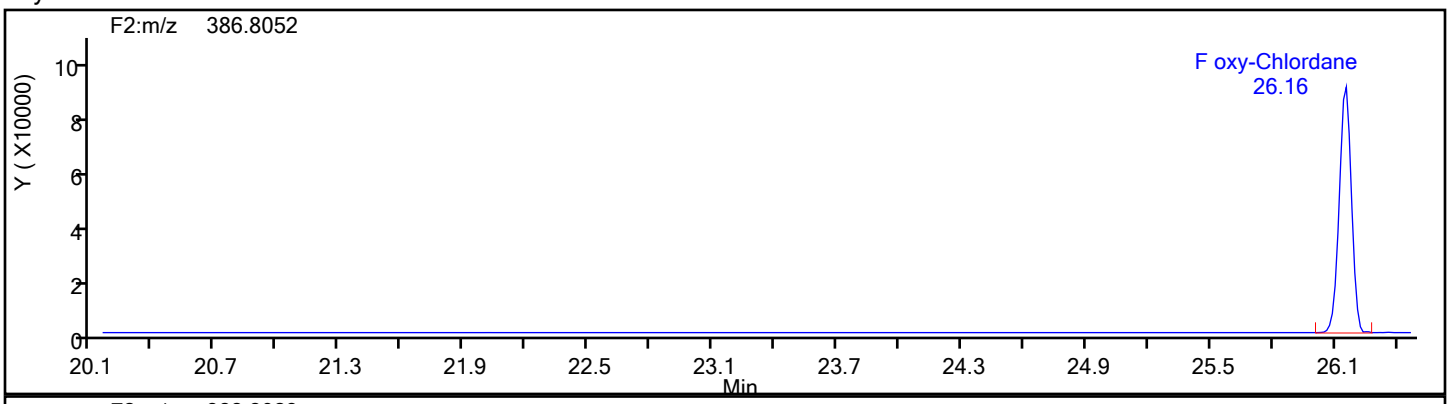
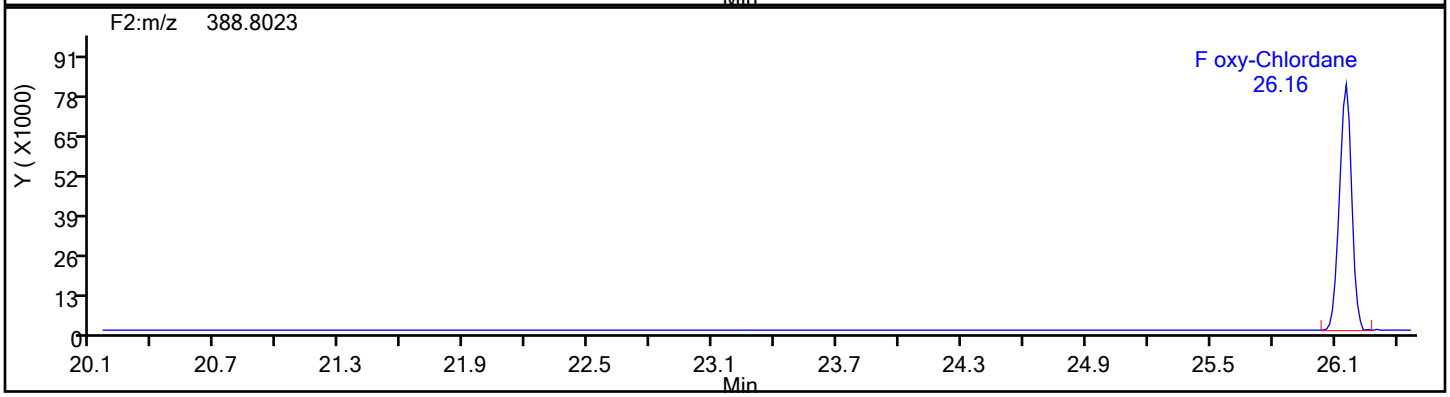
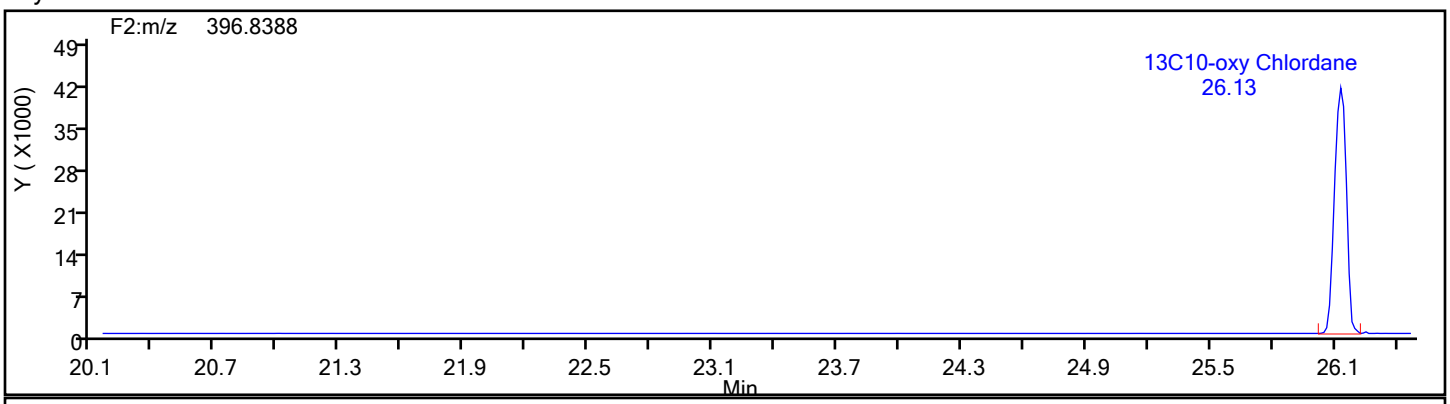
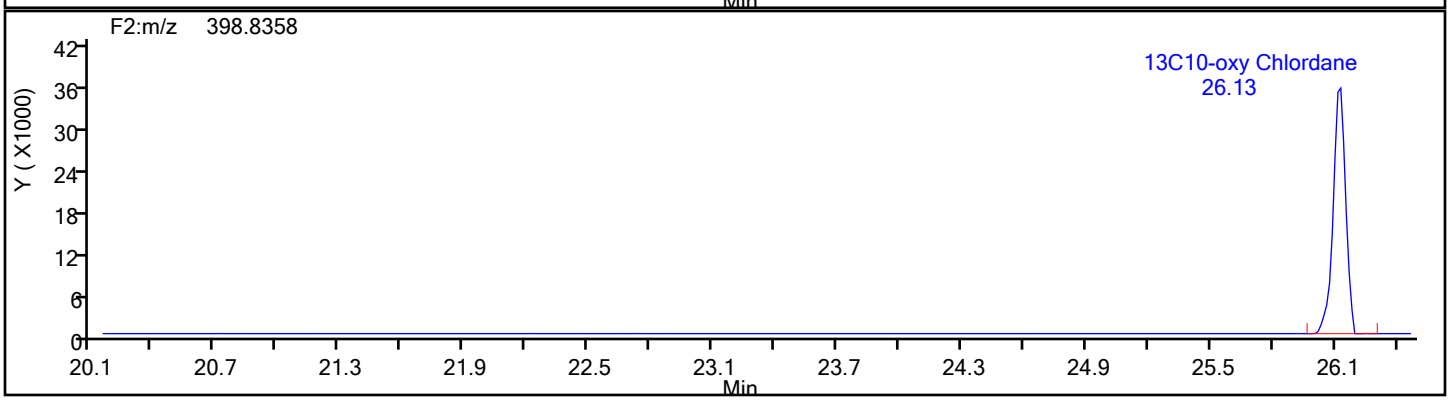
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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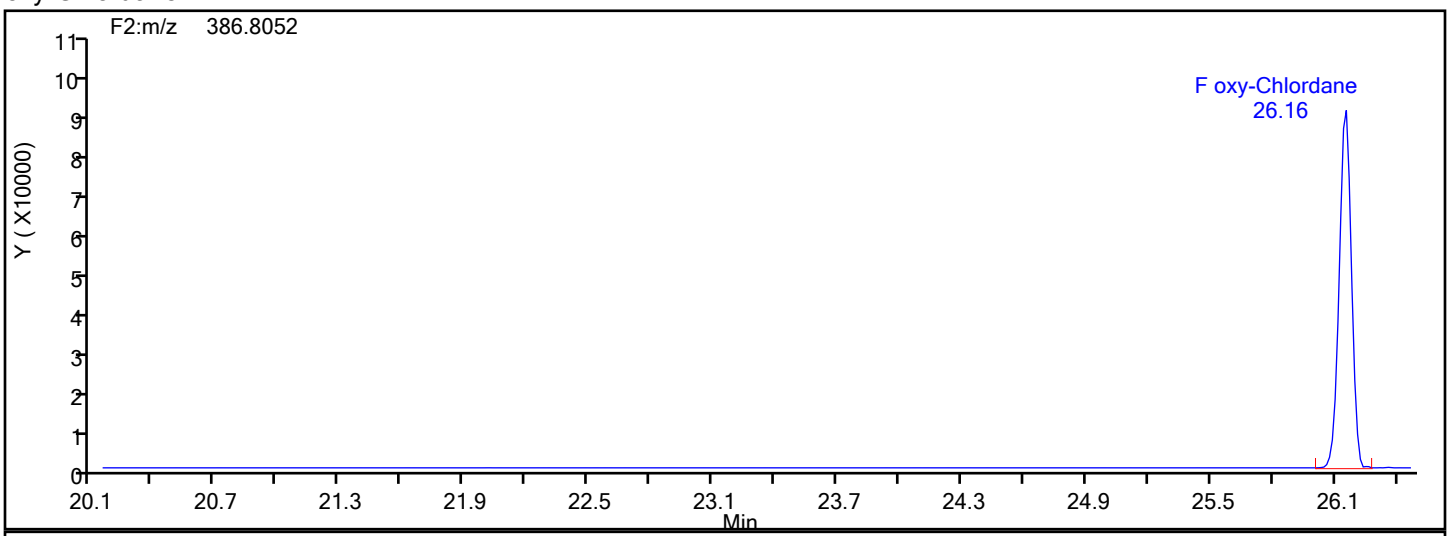
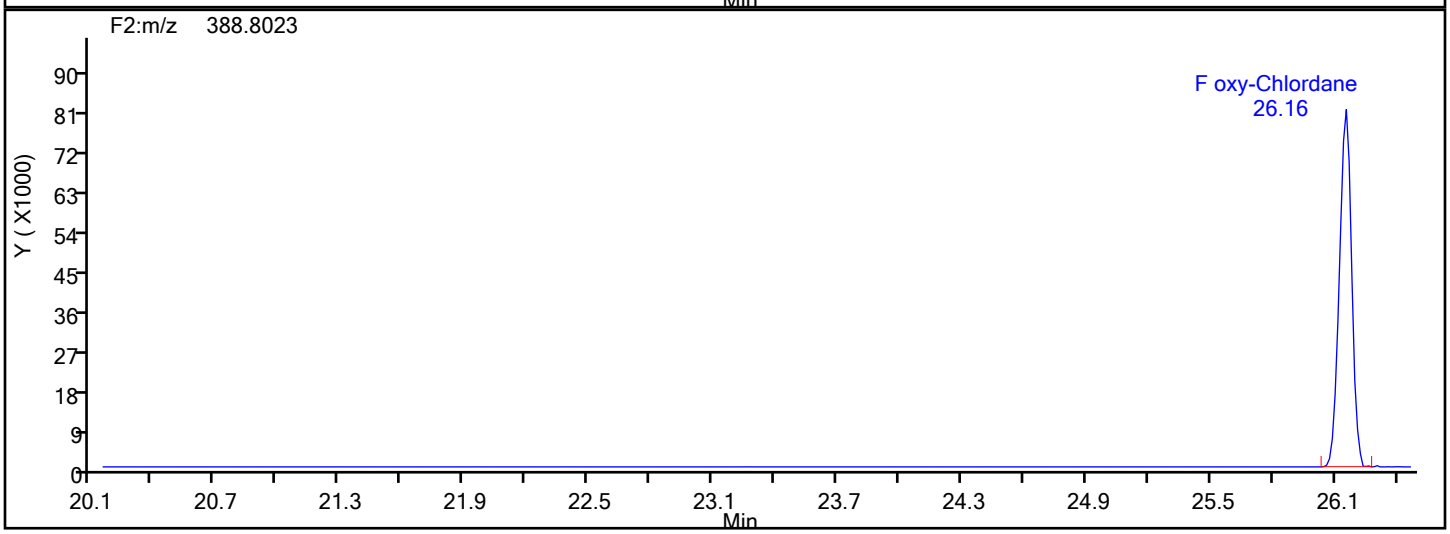
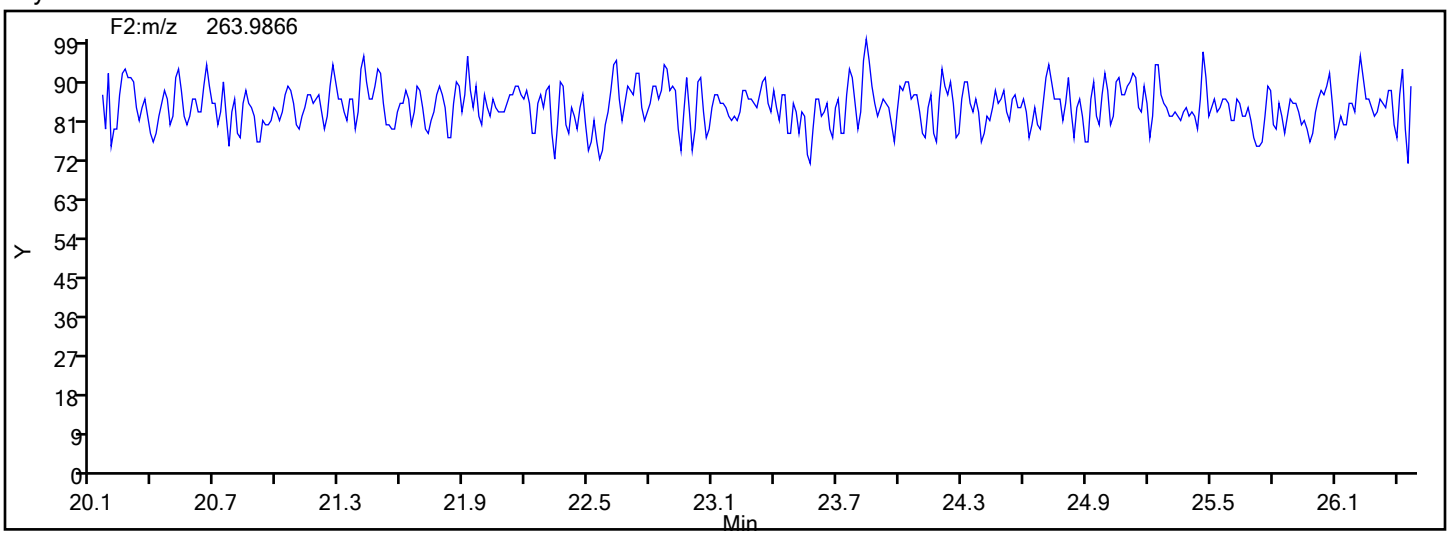
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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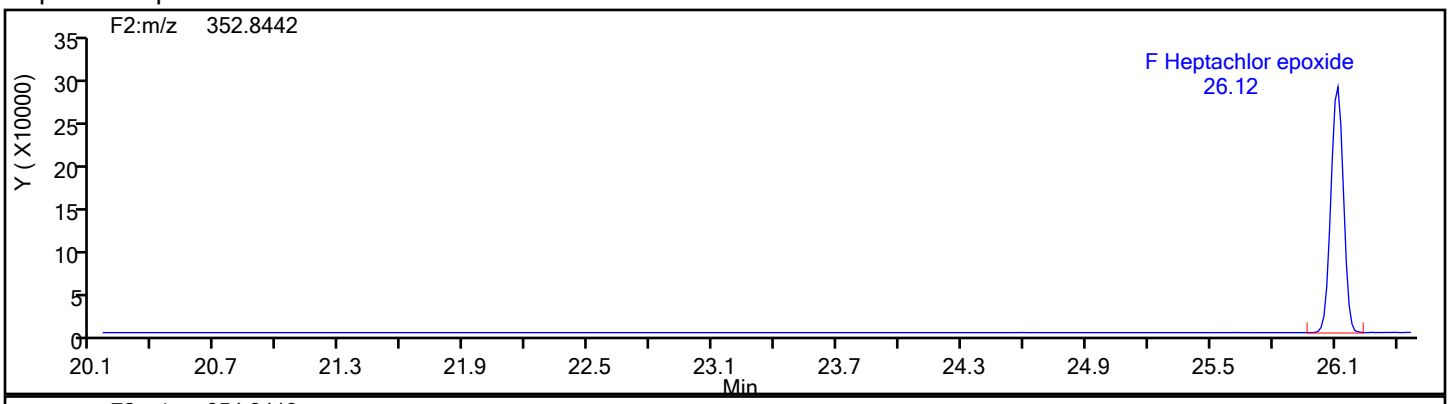
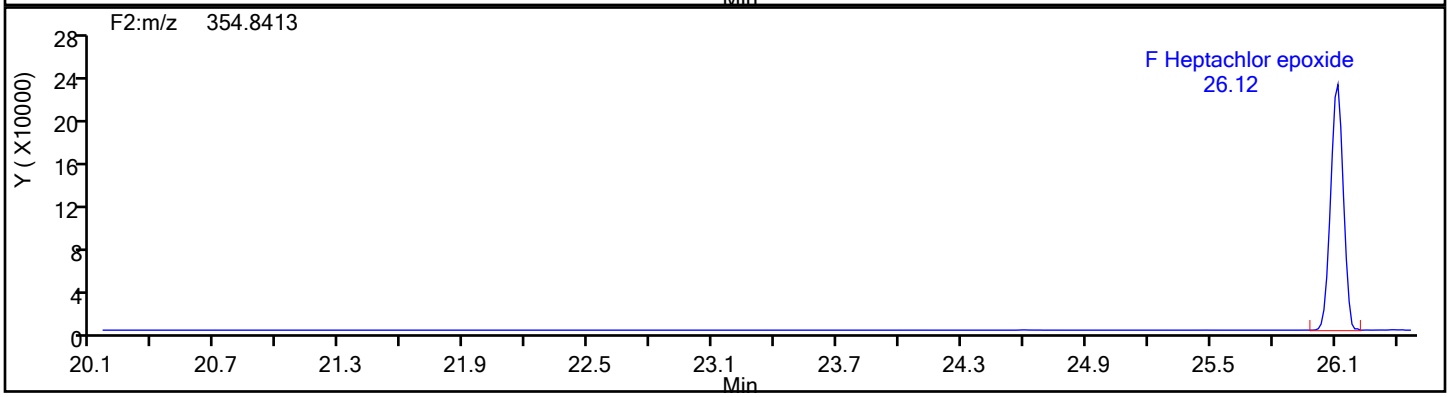
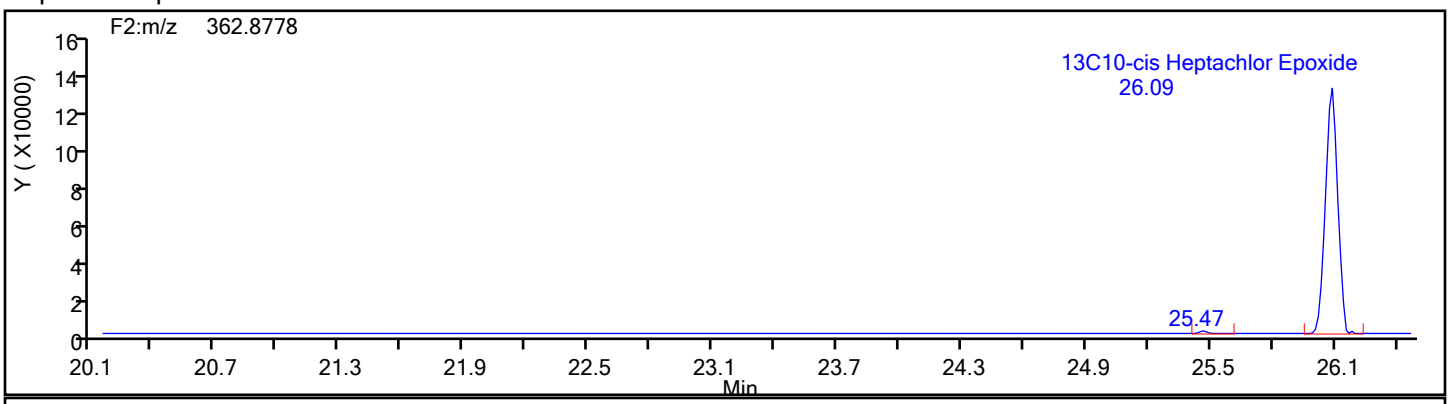
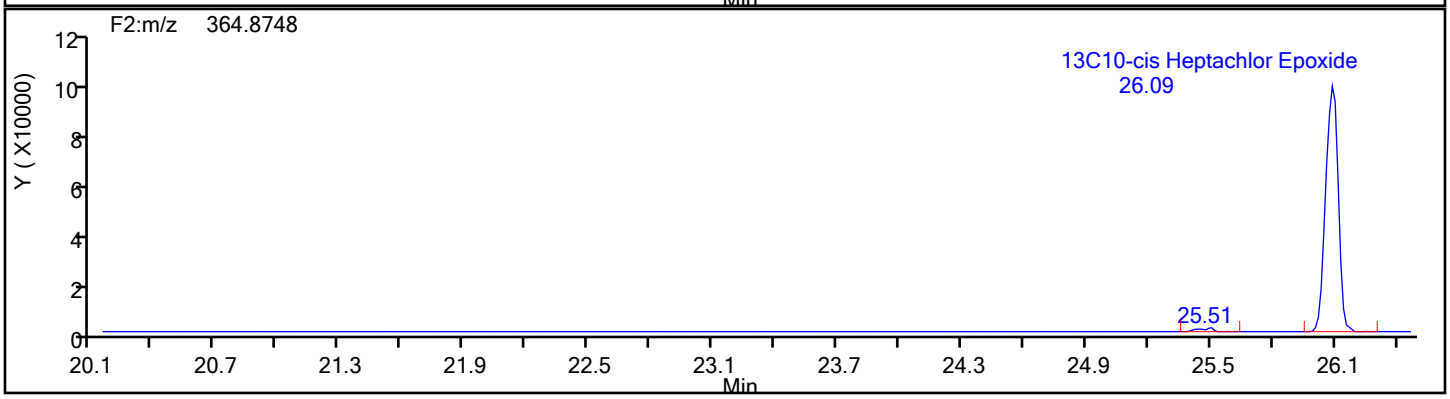
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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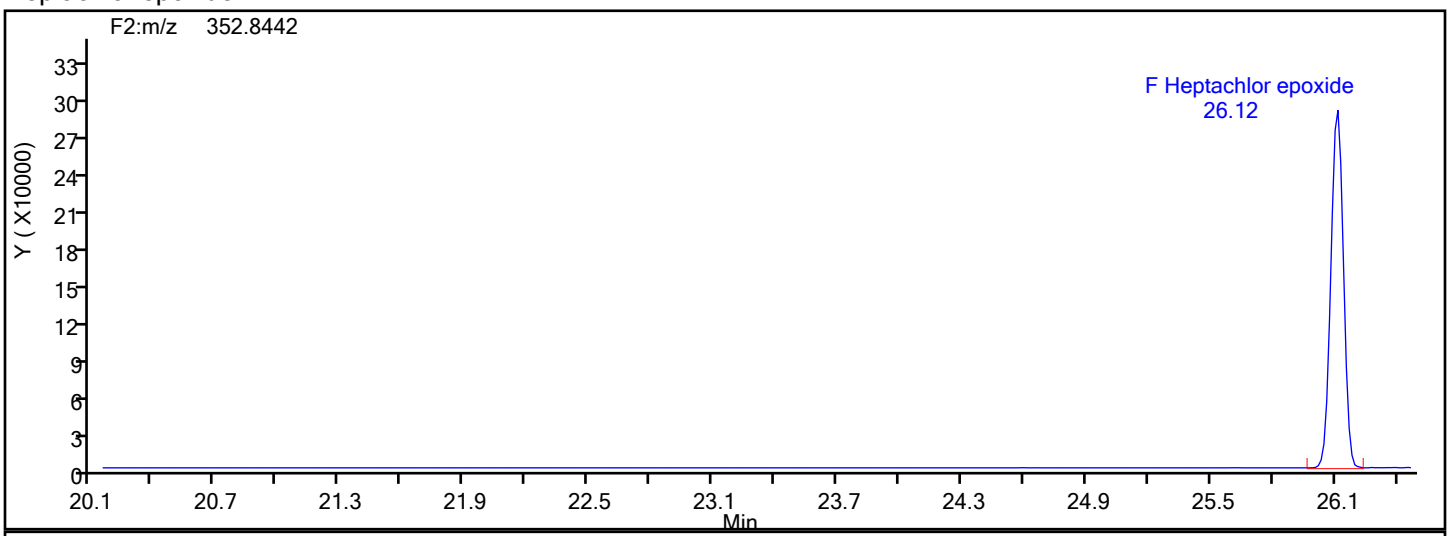
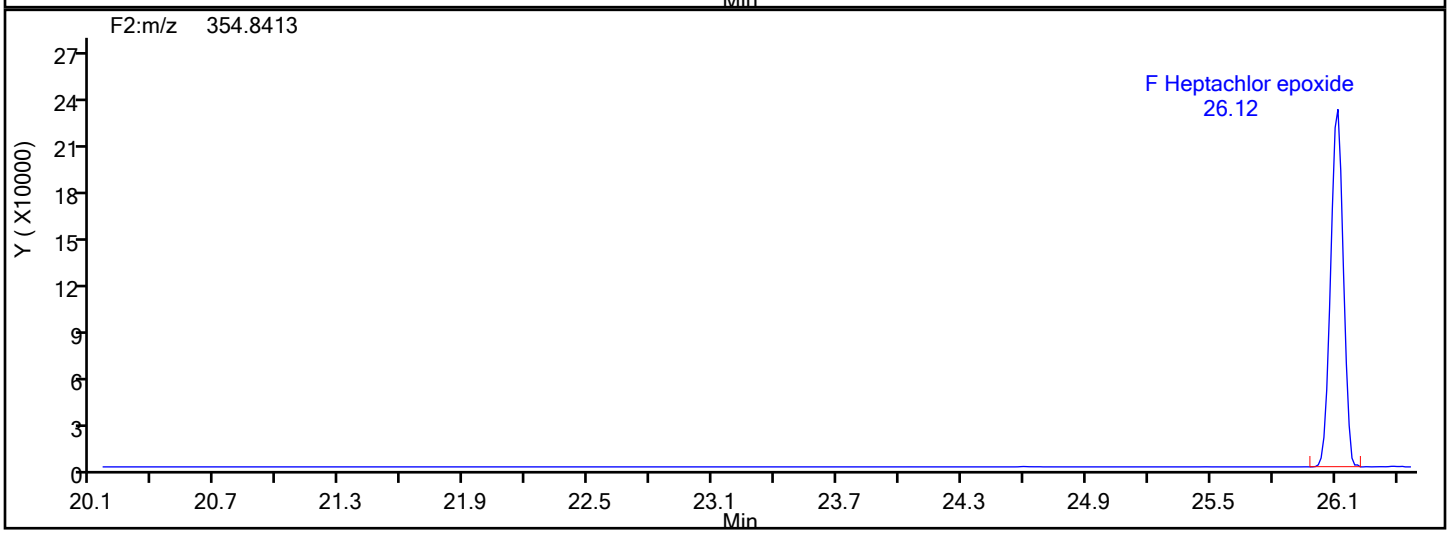
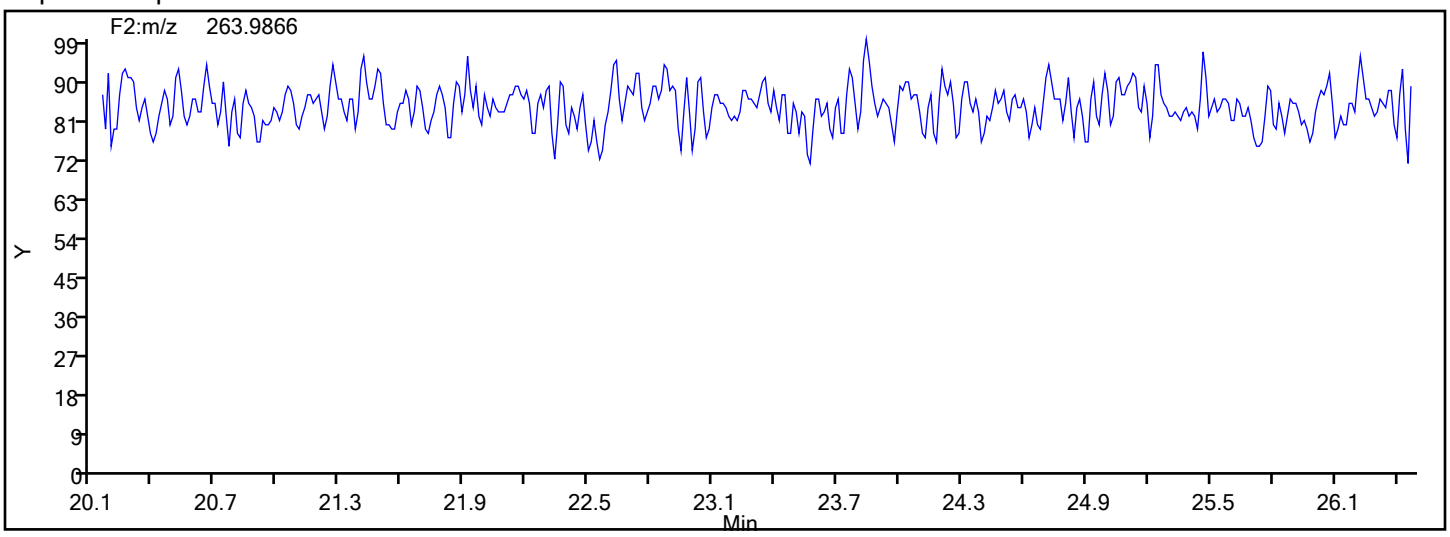
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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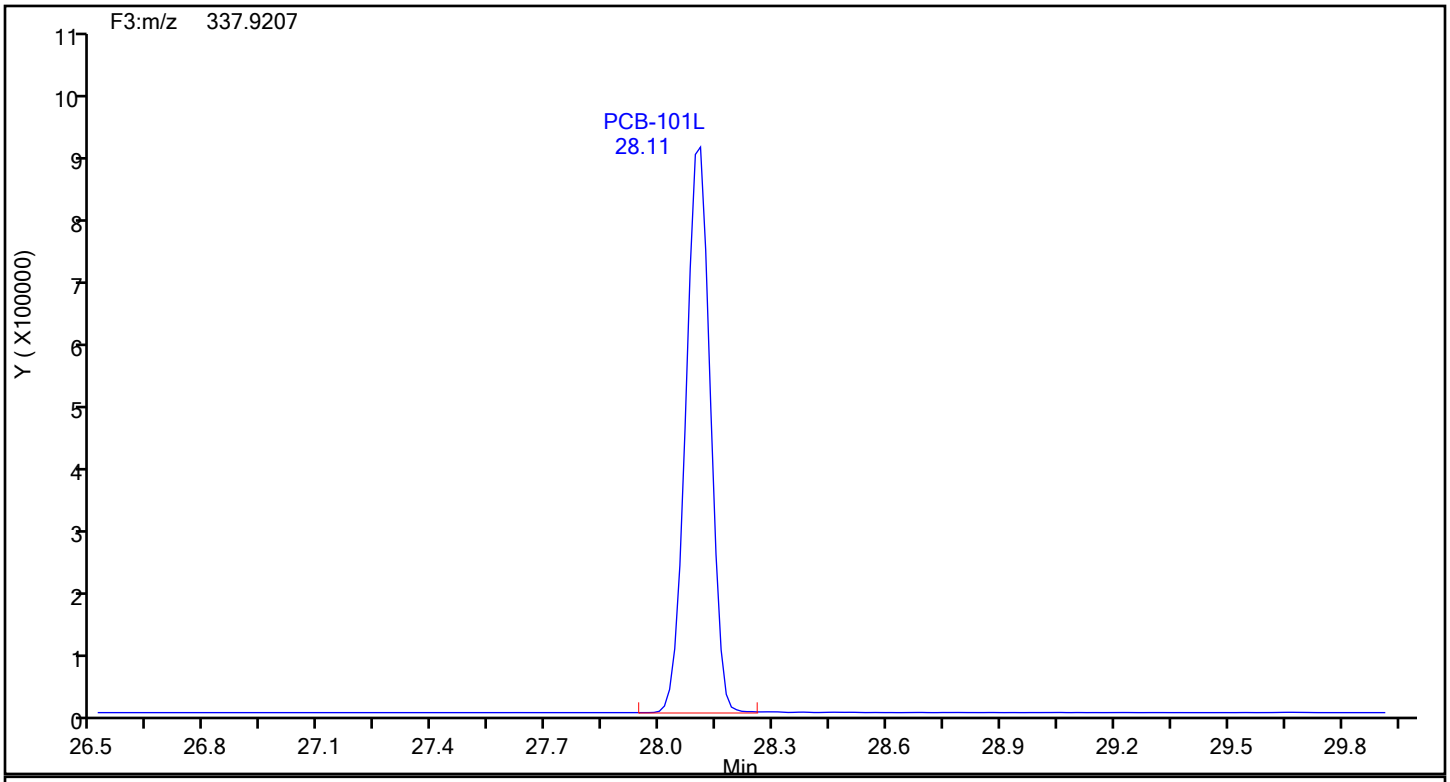
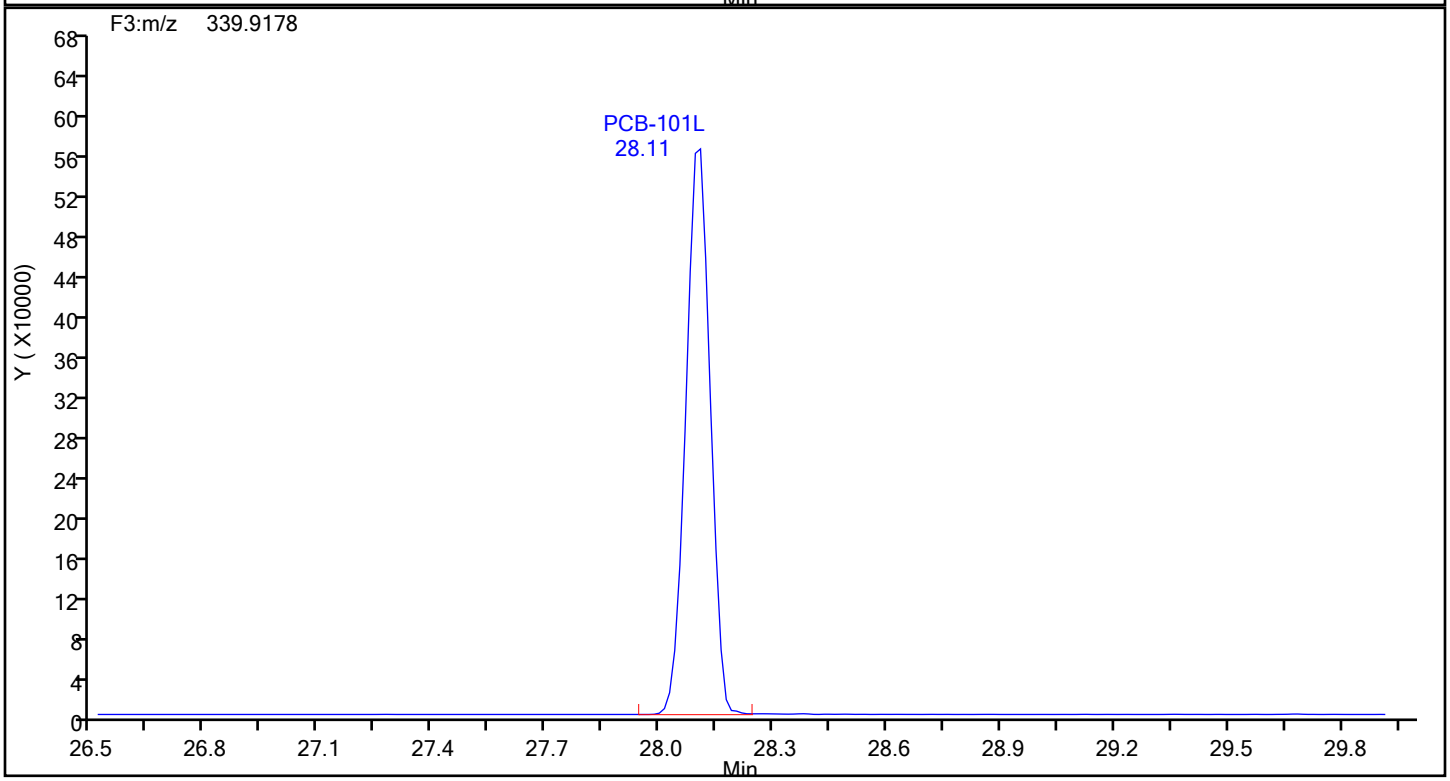
PCB-101L Standards





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Eurofins Knoxville

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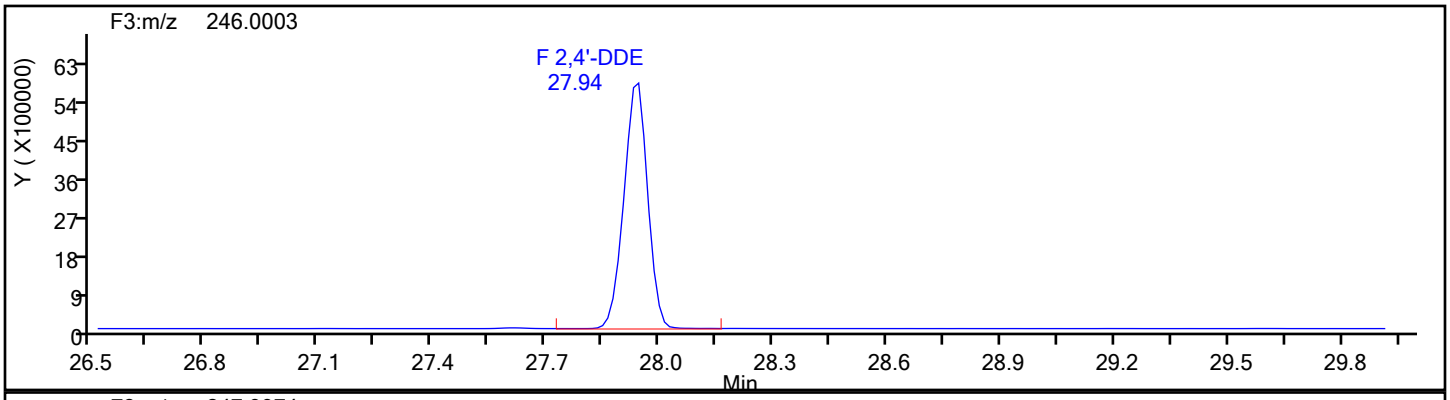
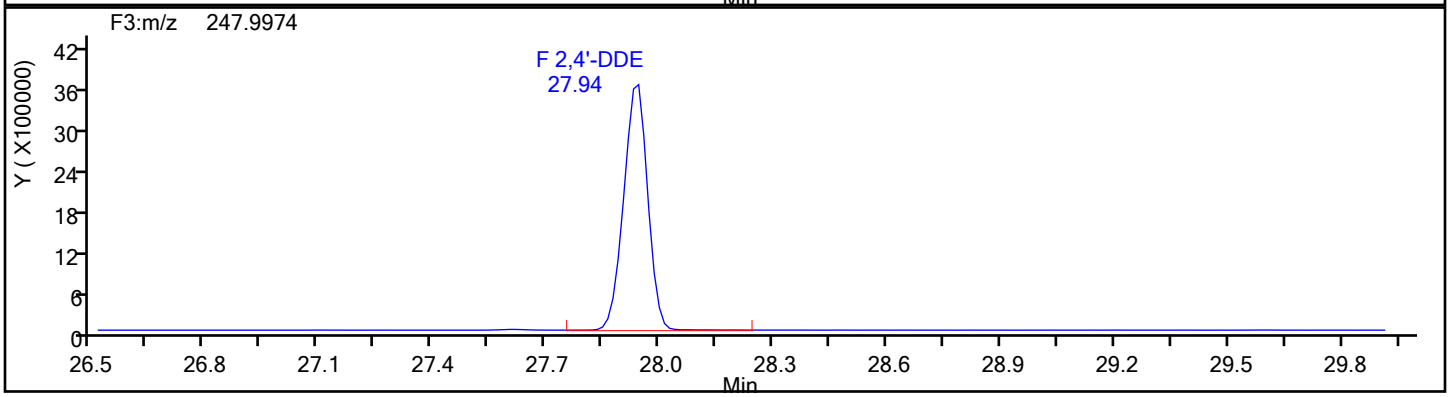
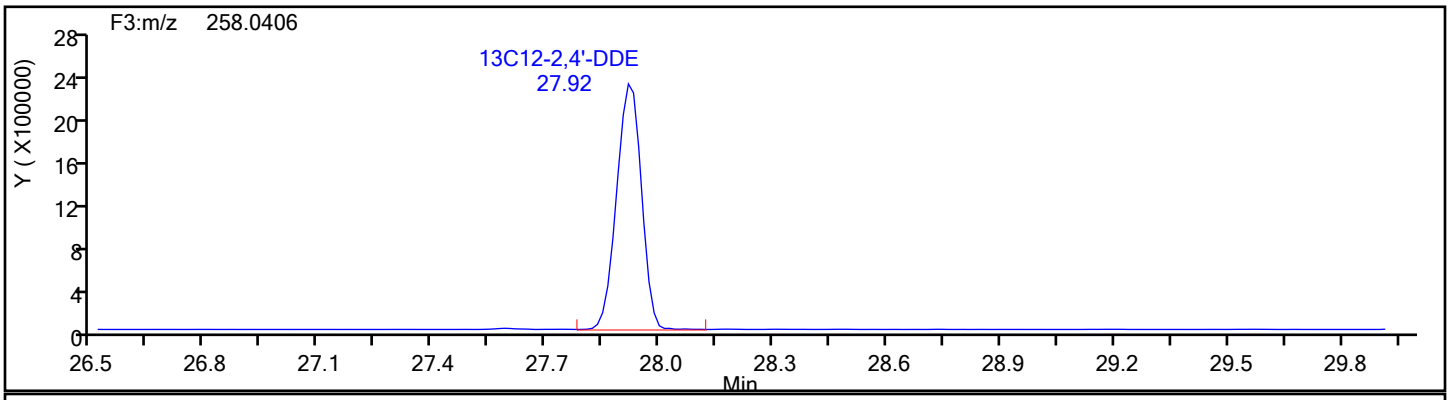
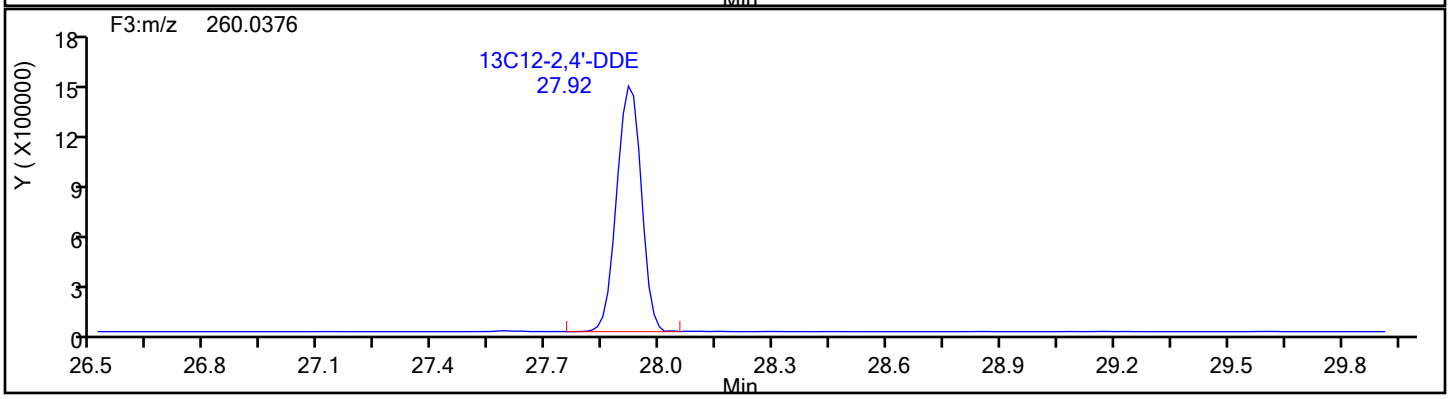
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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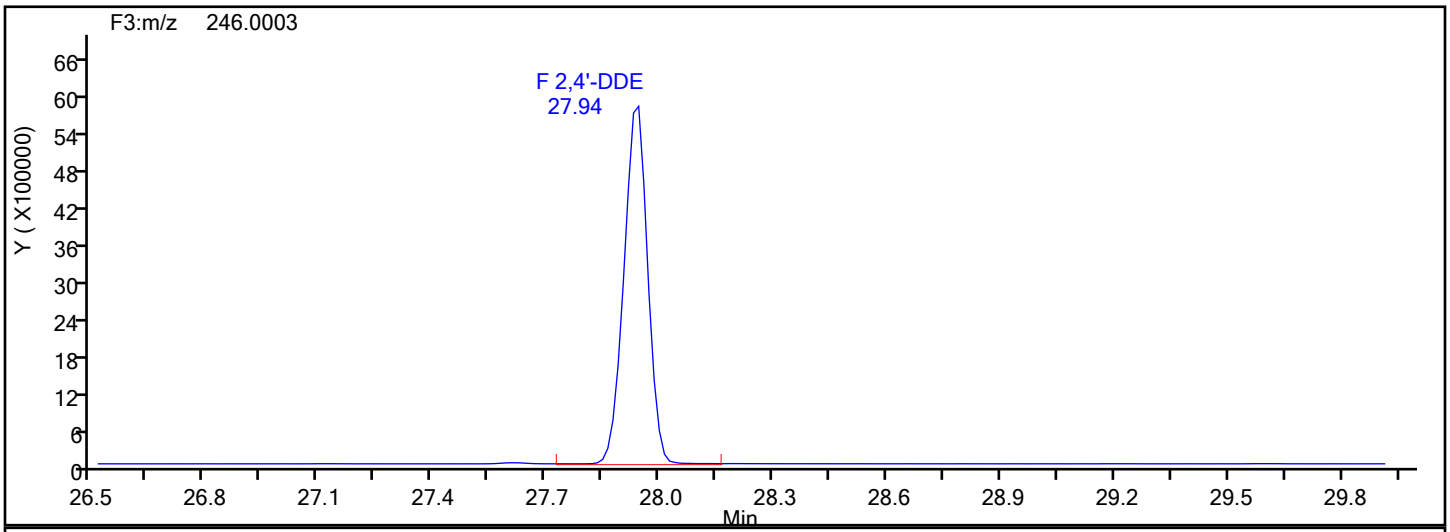
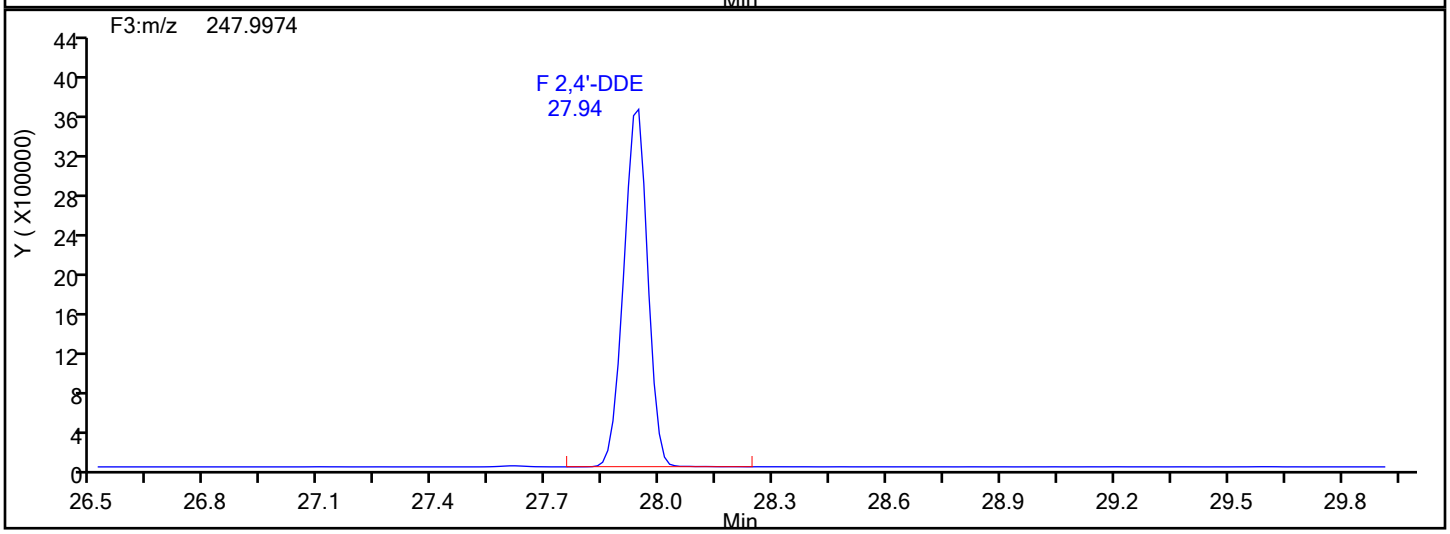
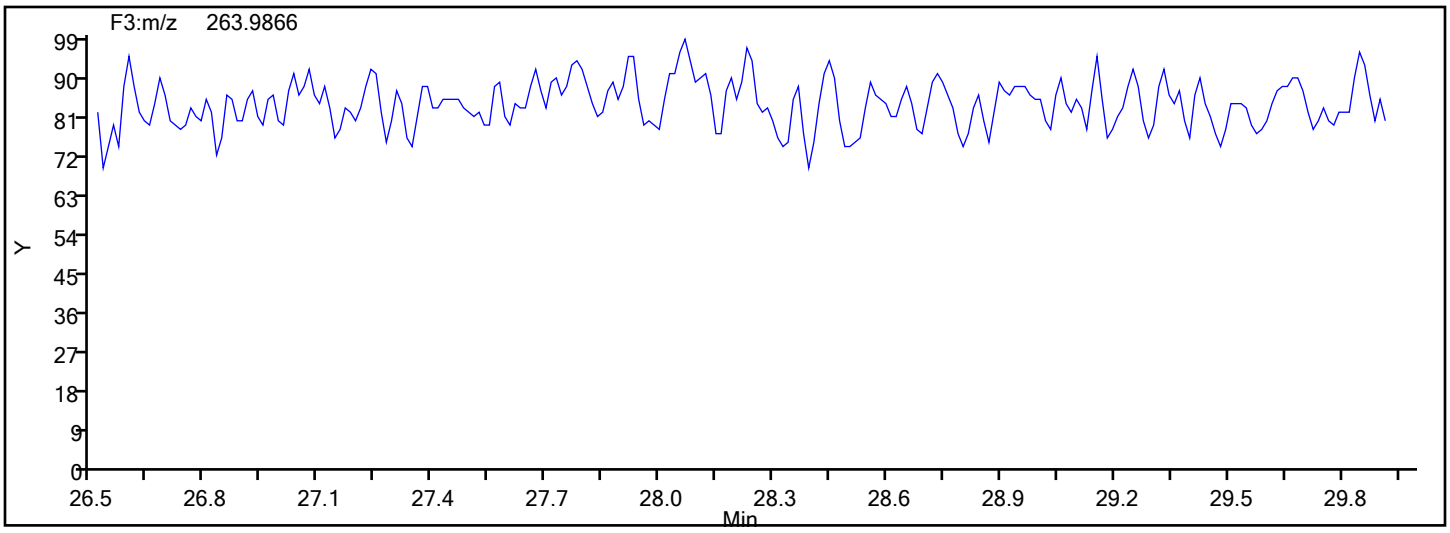
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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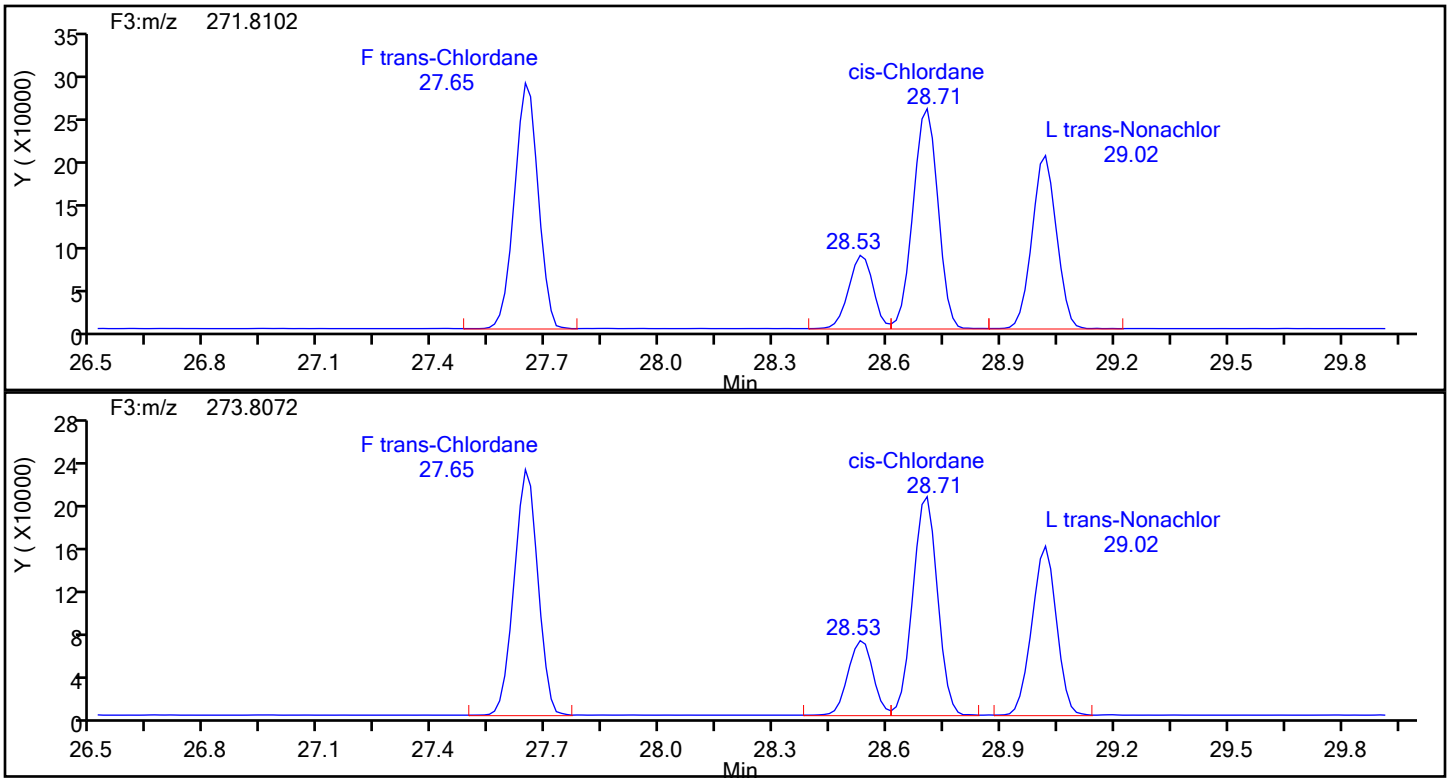
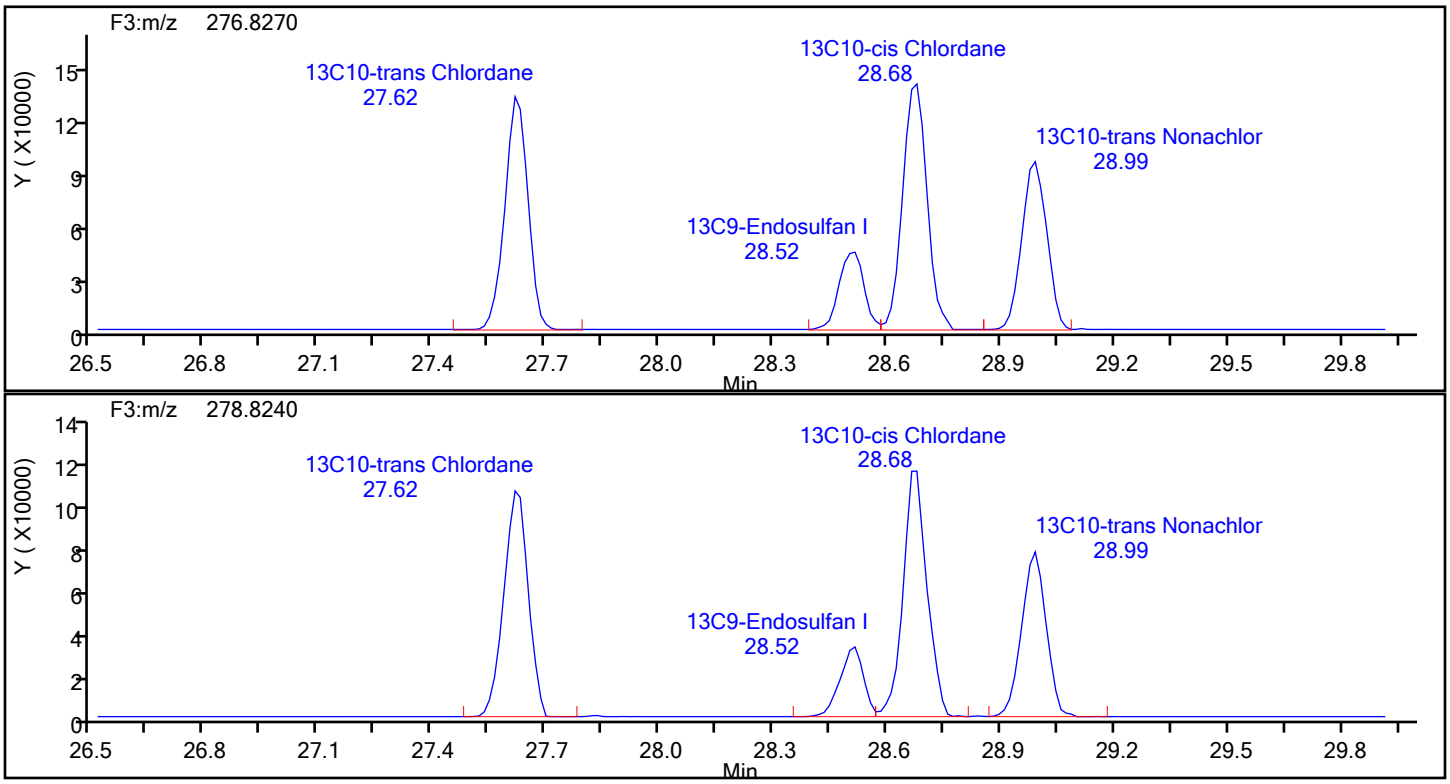
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane



Chlordane Standards



Report Date: 24-Mar-2025 13:06:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Client ID:
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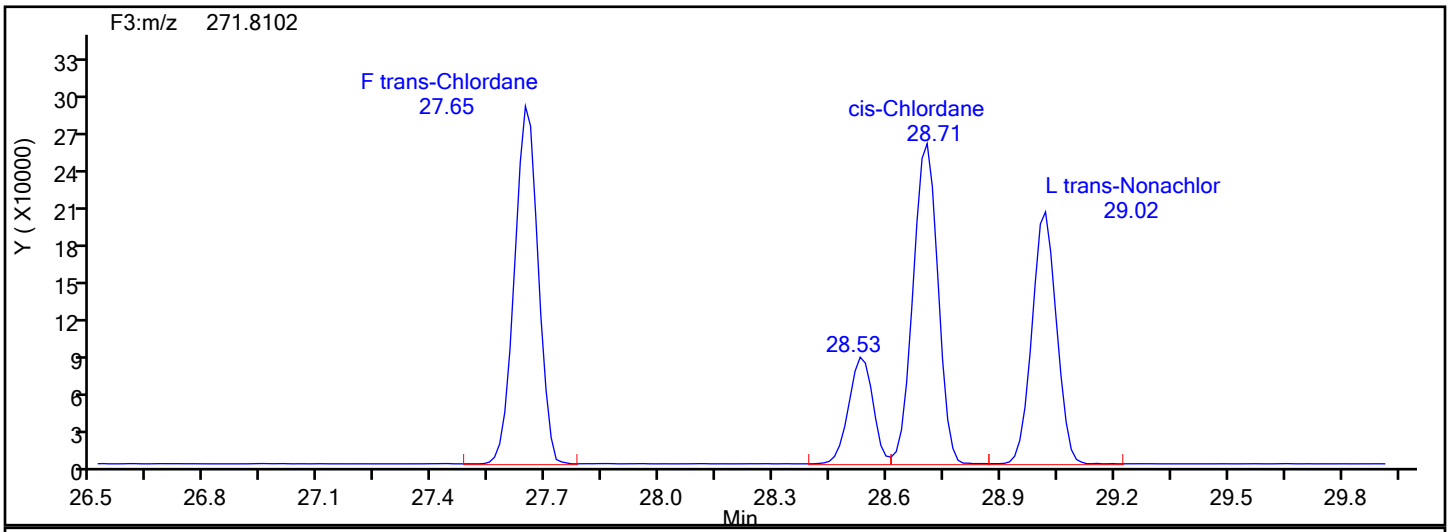
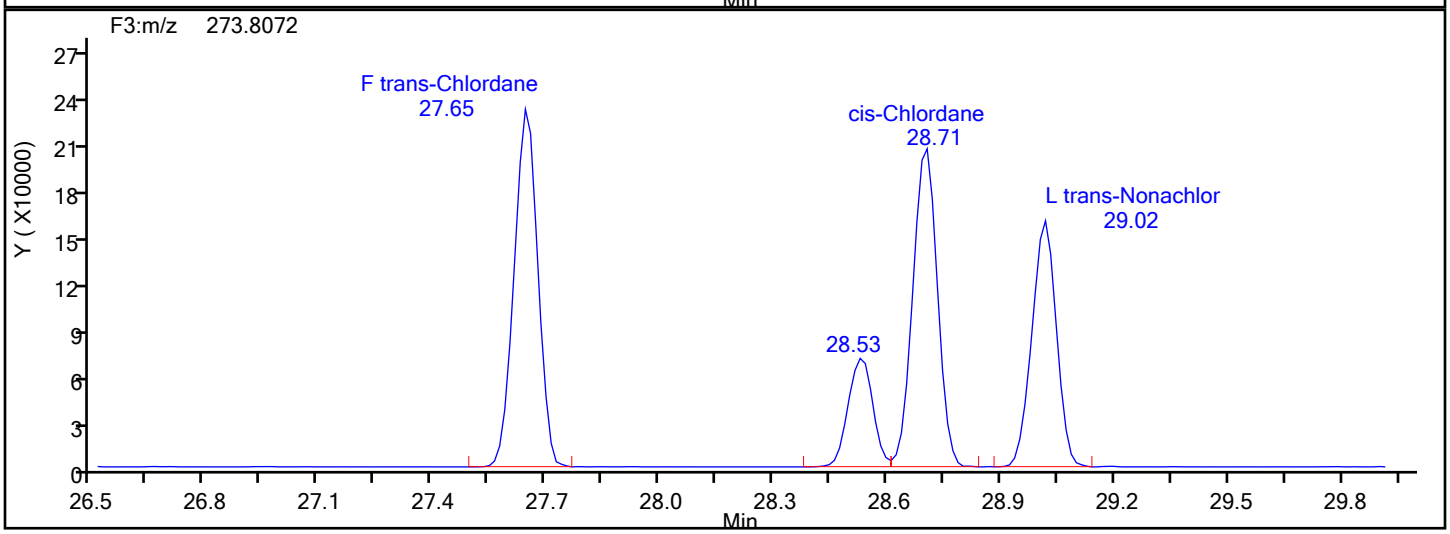
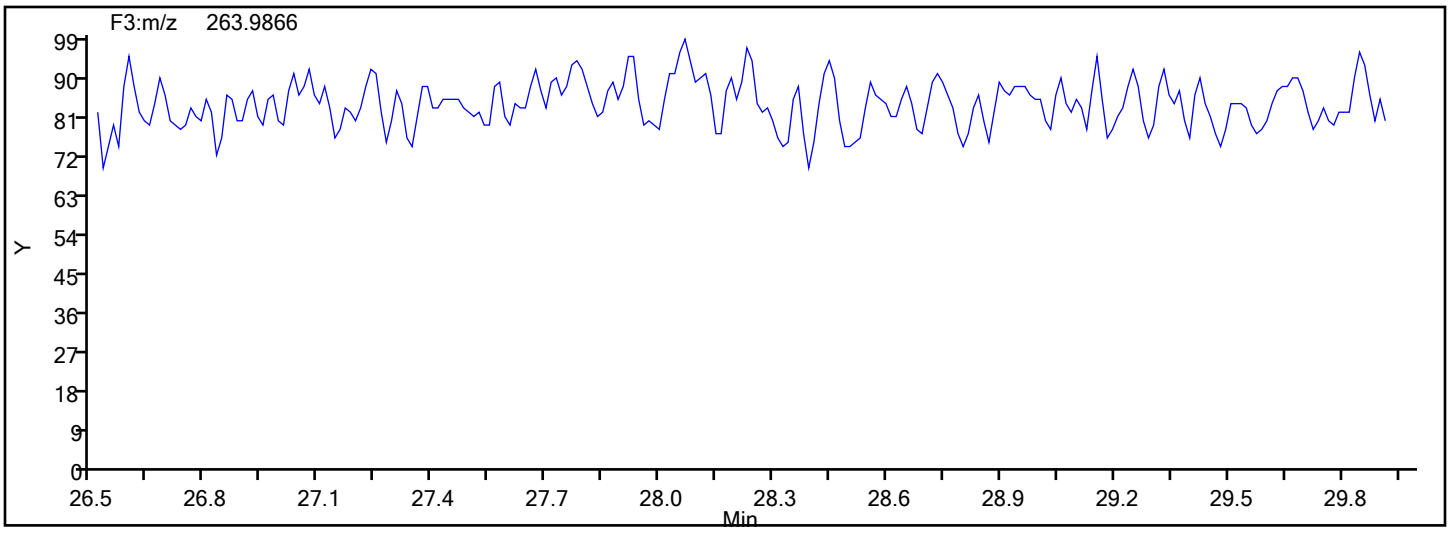
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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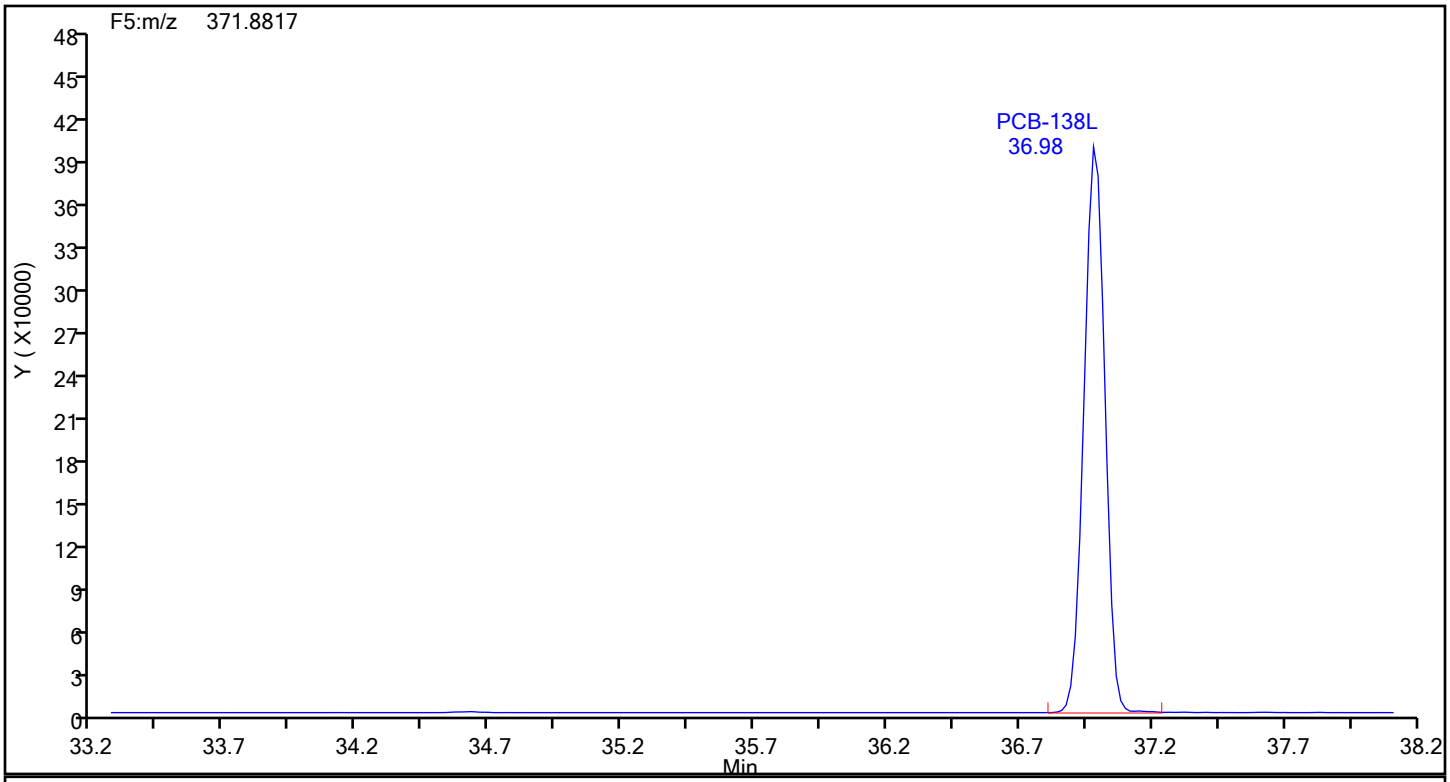
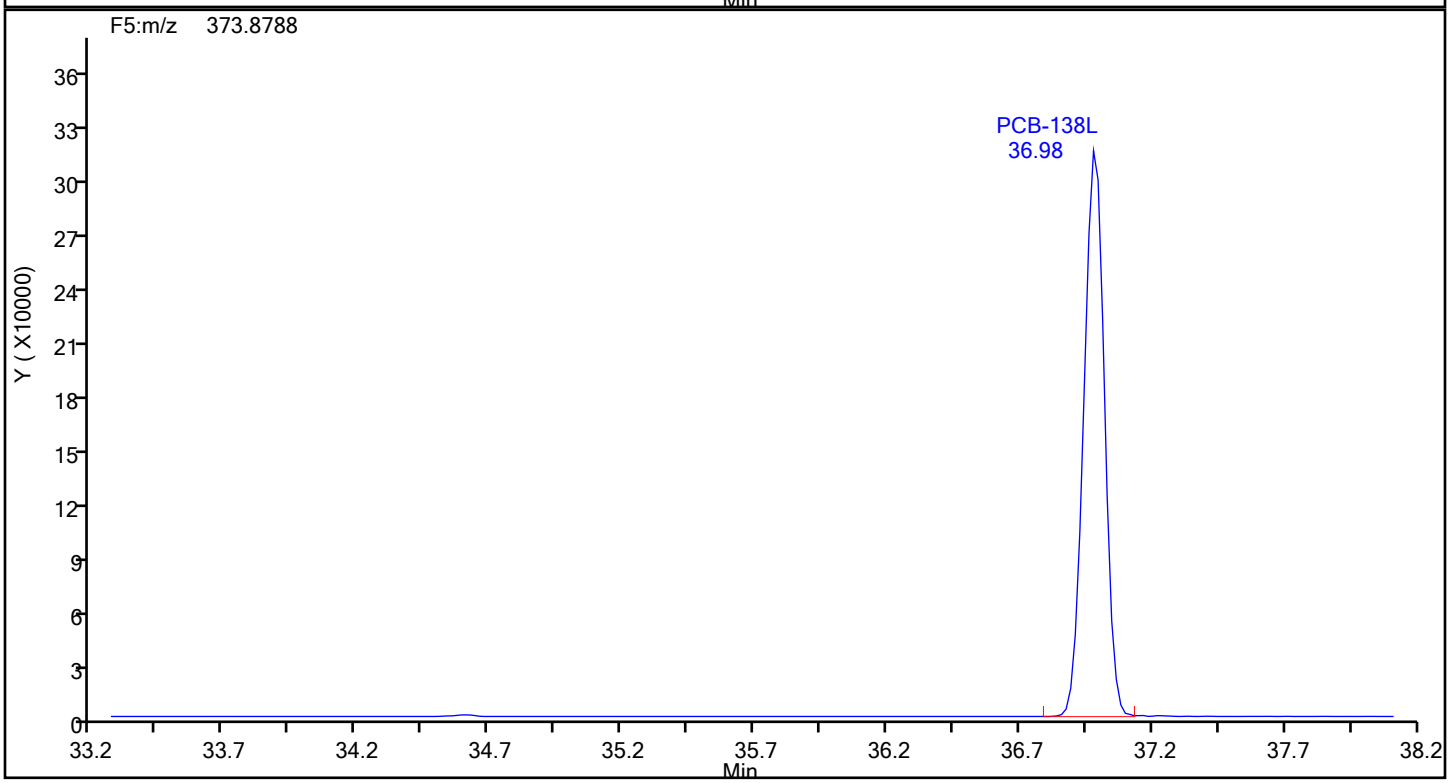
PCB-138L Standards





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Eurofins Knoxville

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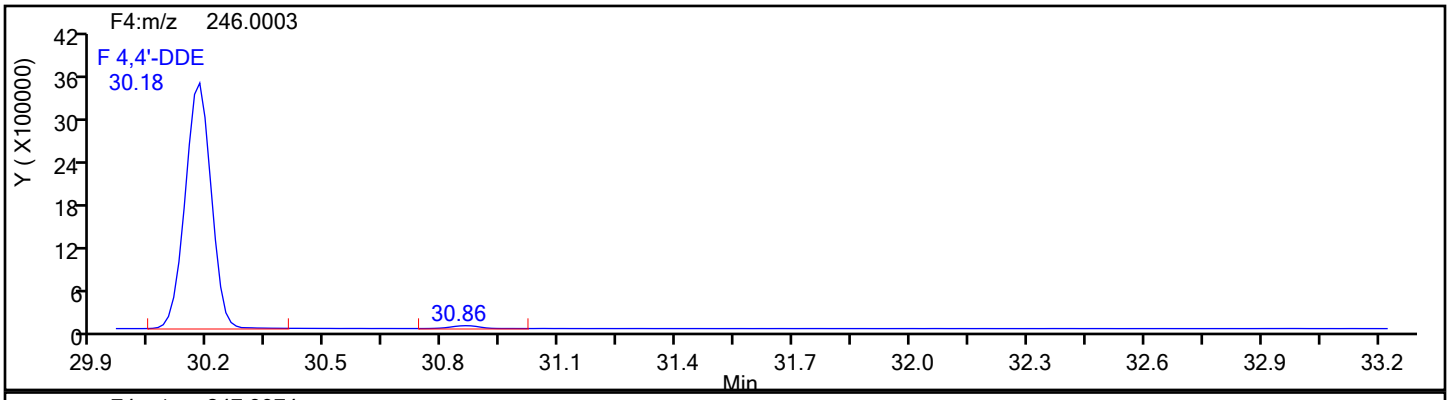
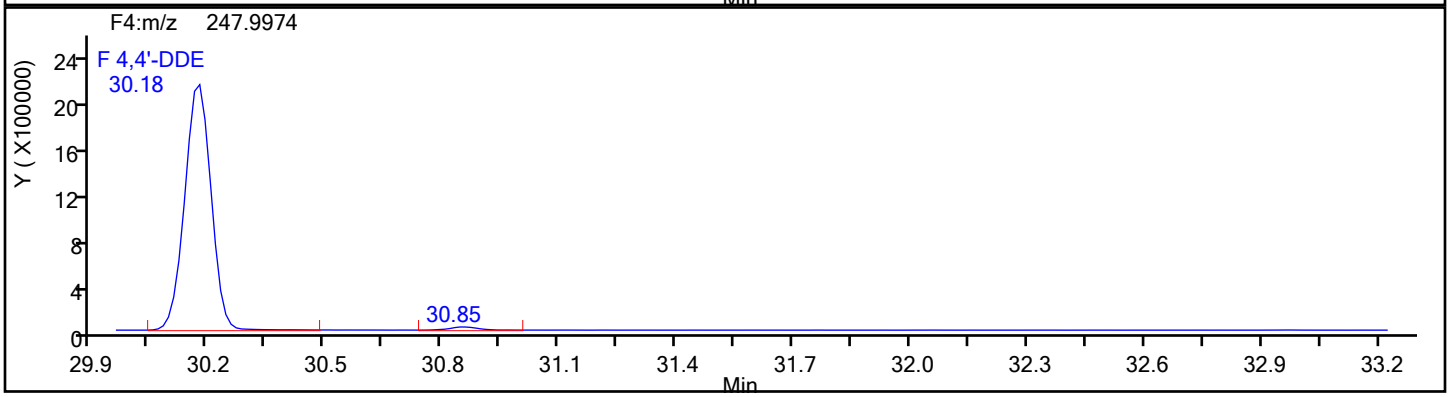
4,4'-DDE





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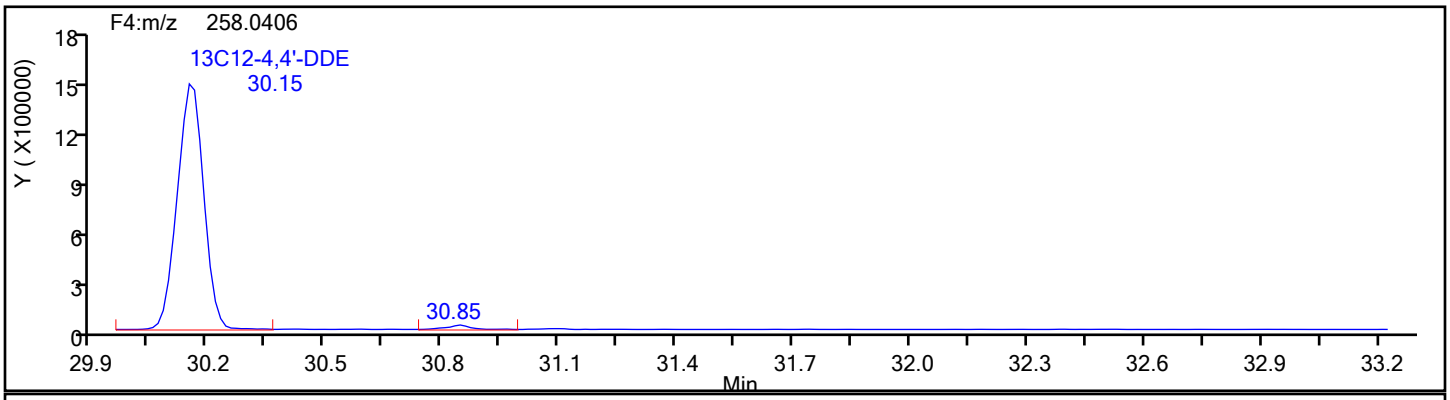

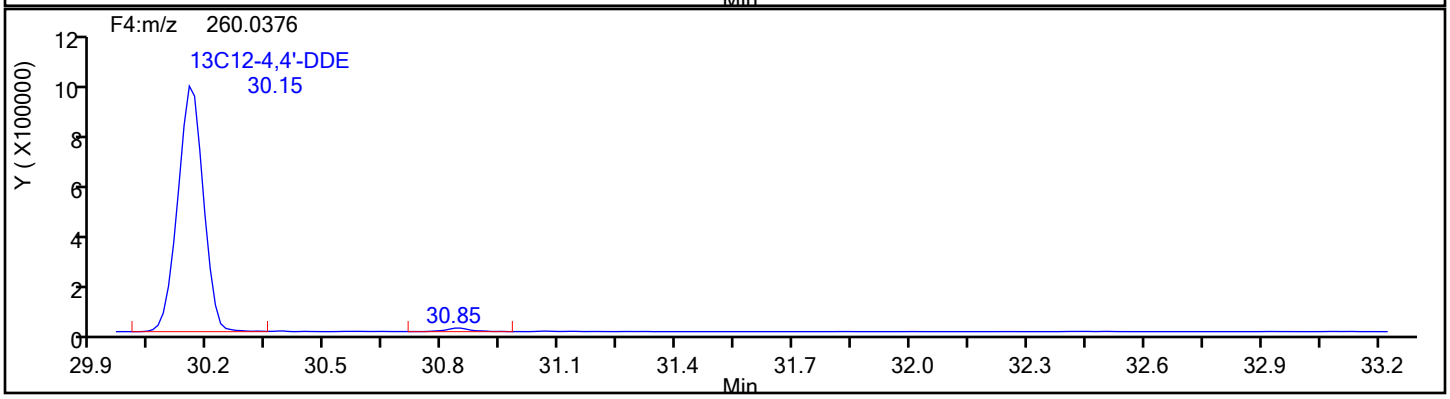

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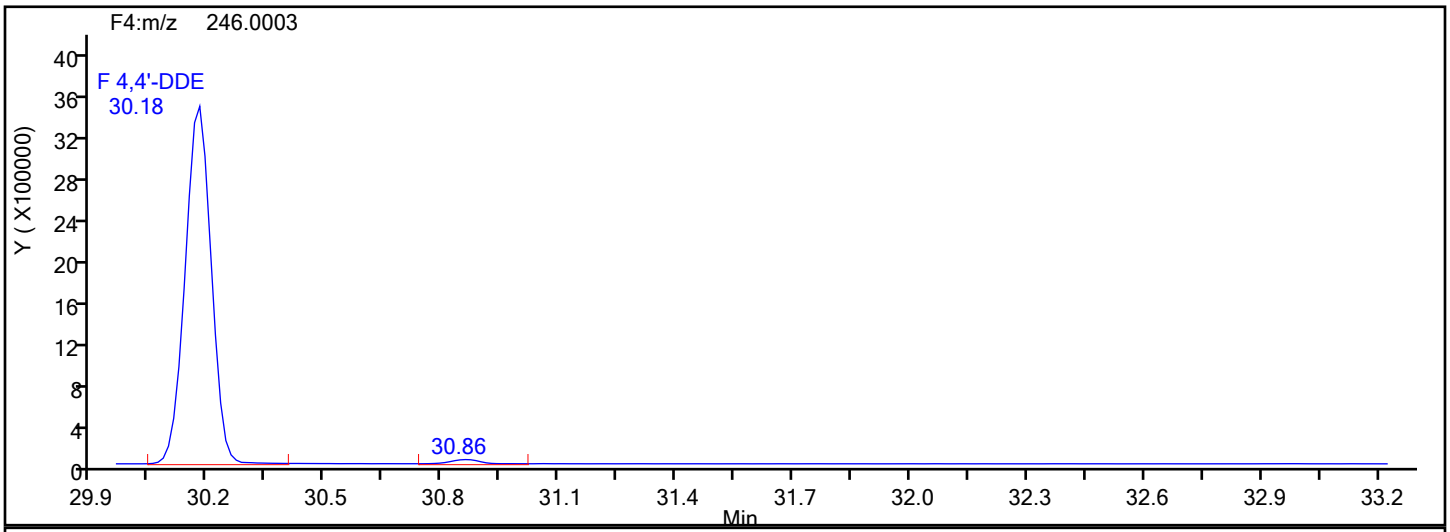
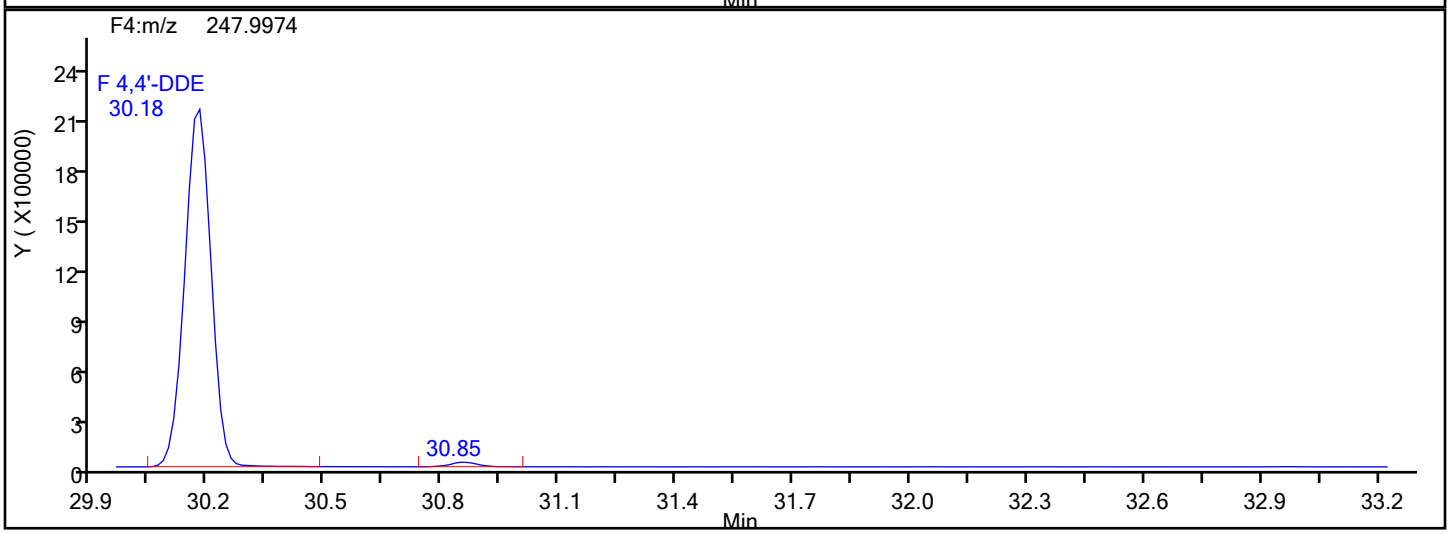
4,4'-DDE





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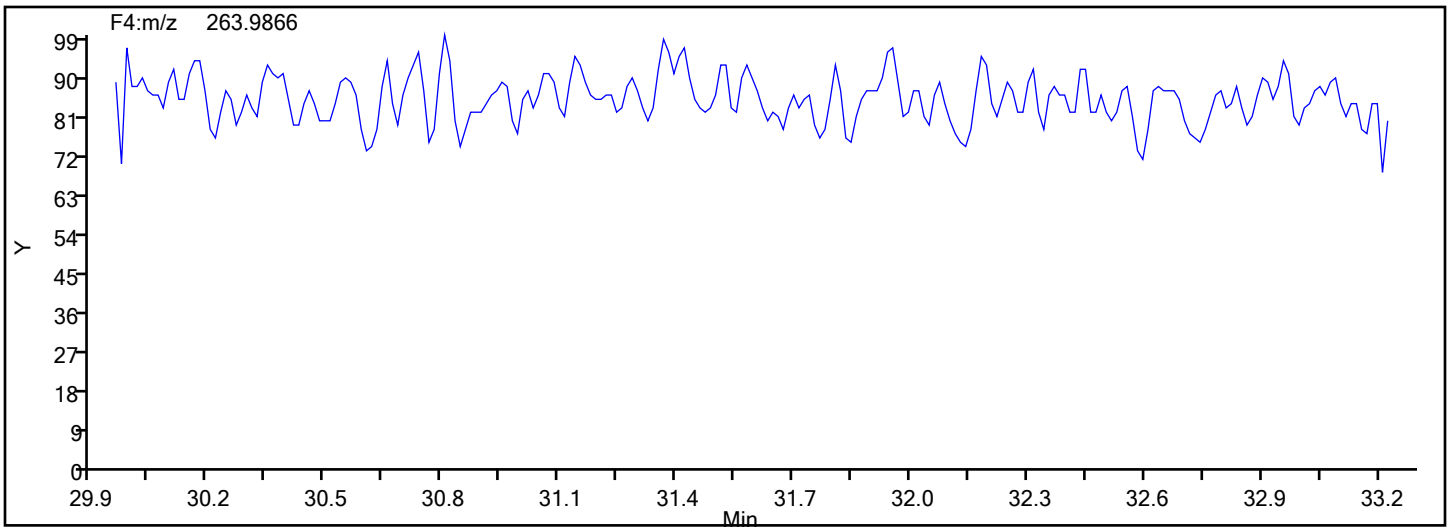

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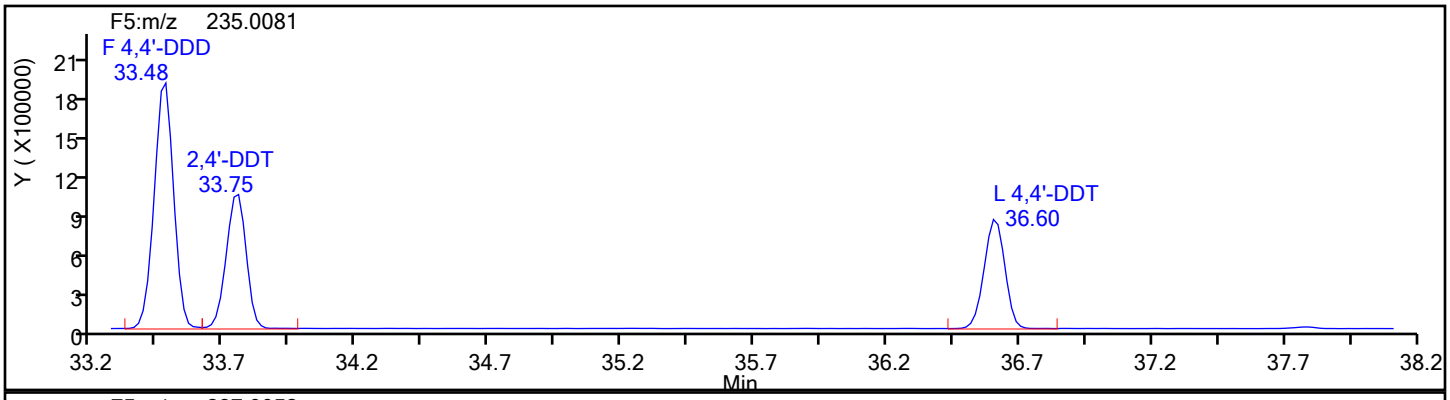

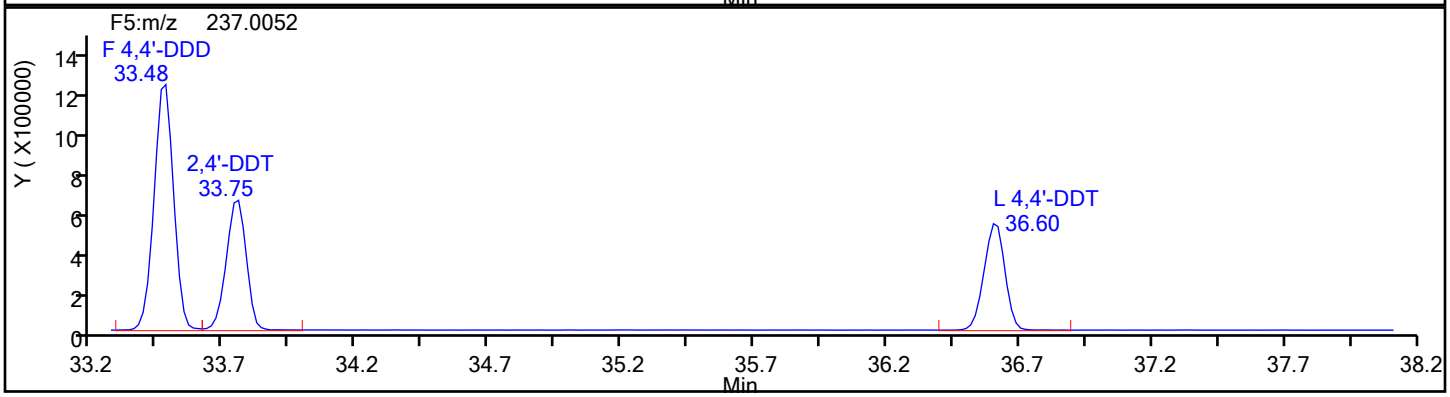

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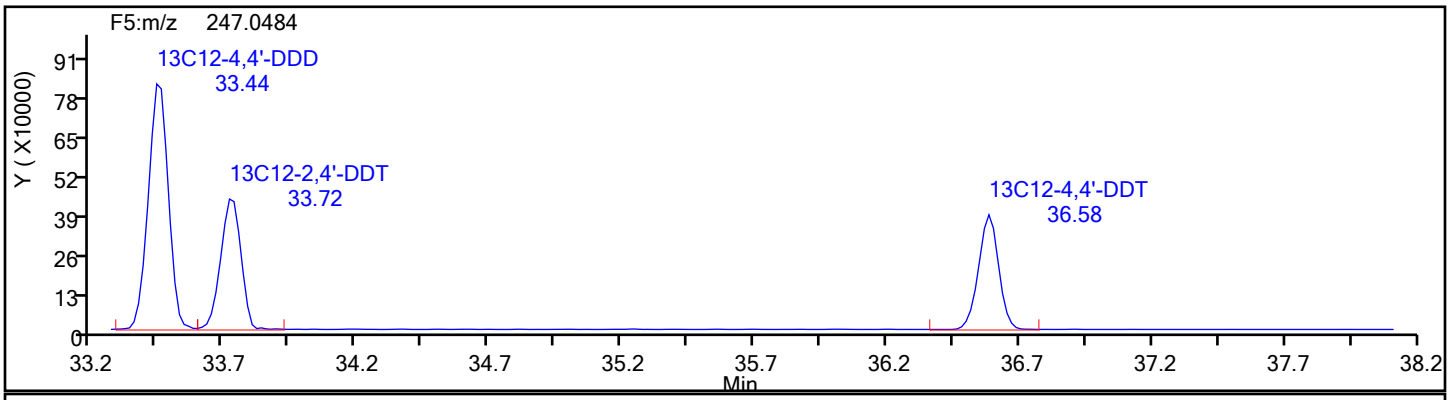

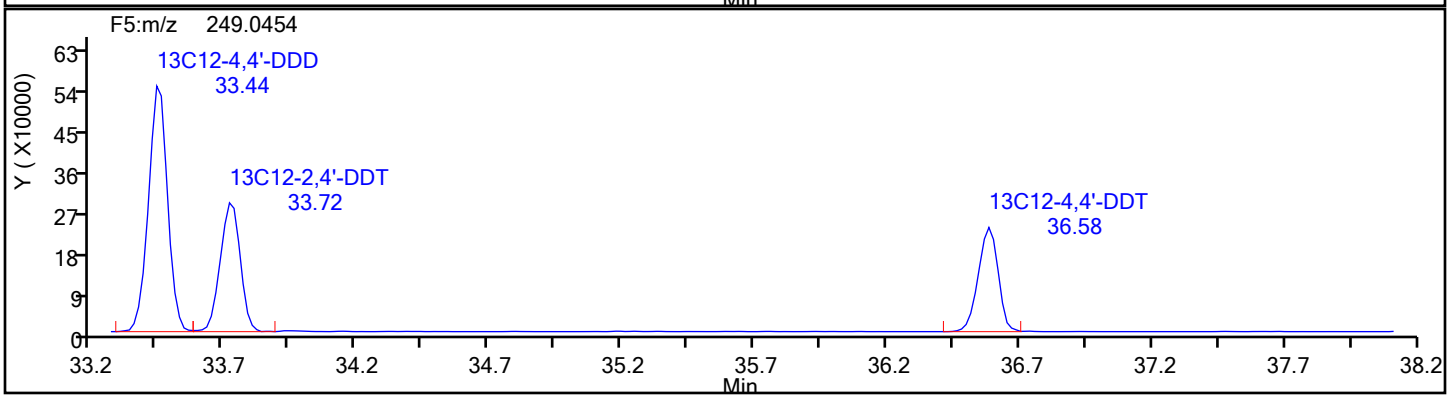

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Eurofins Knoxville

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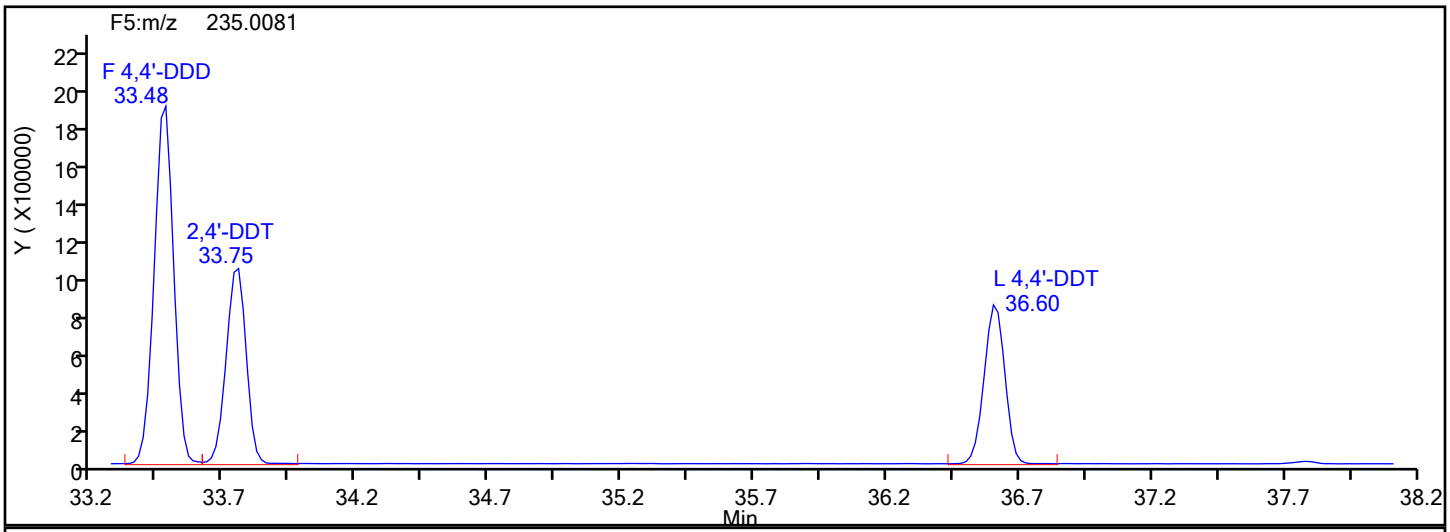
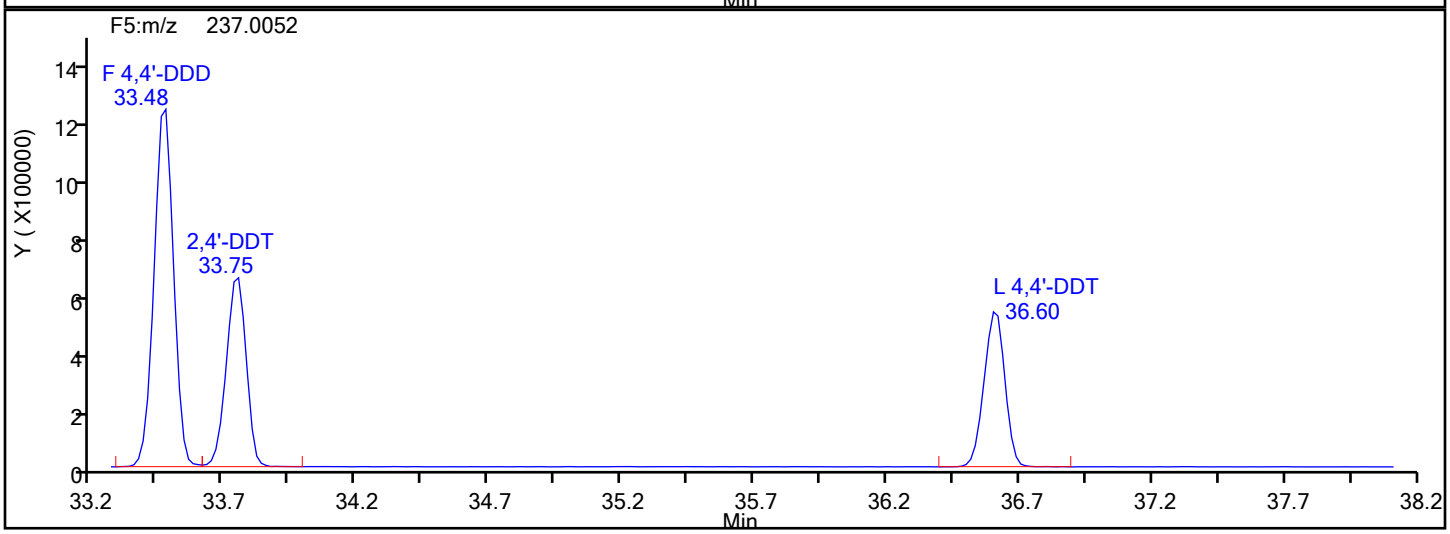
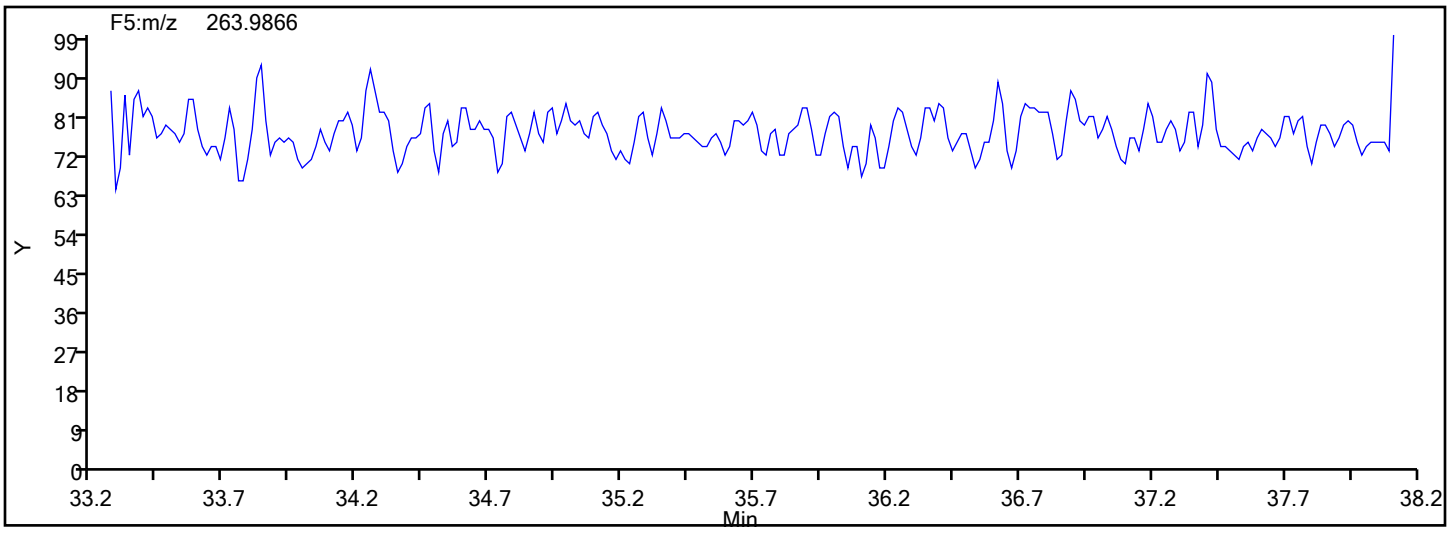




DDD Lock Mass



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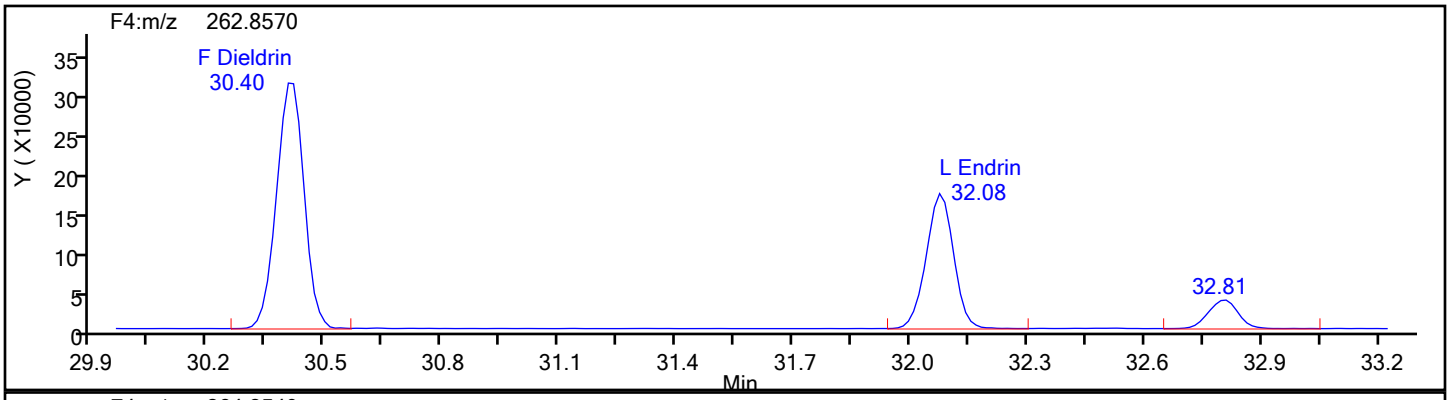

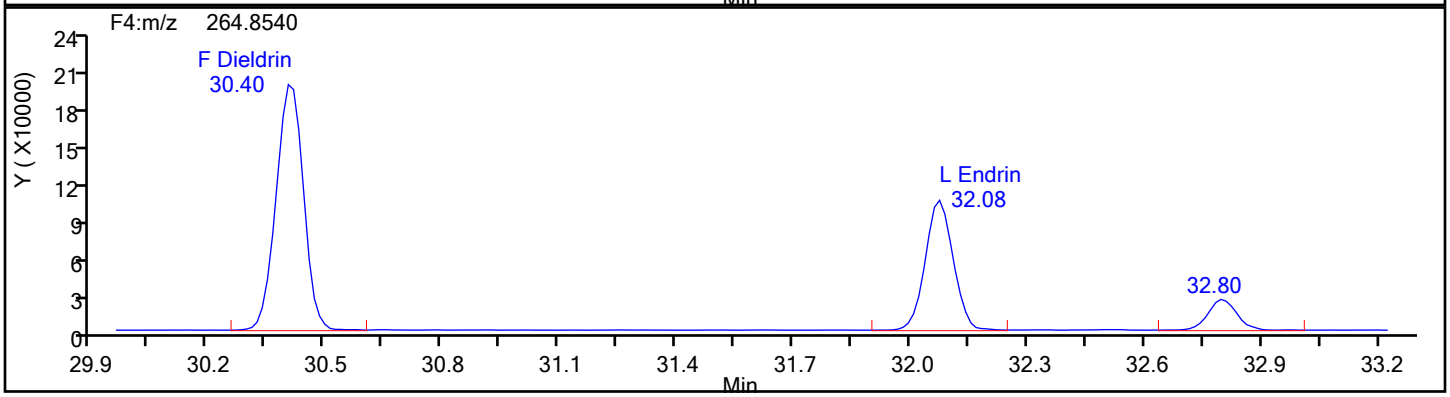

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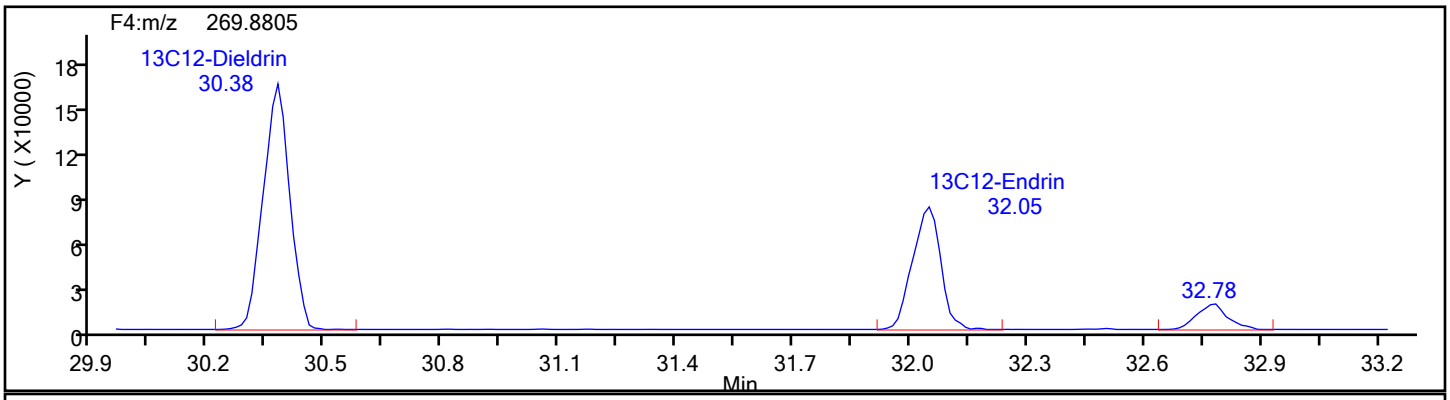

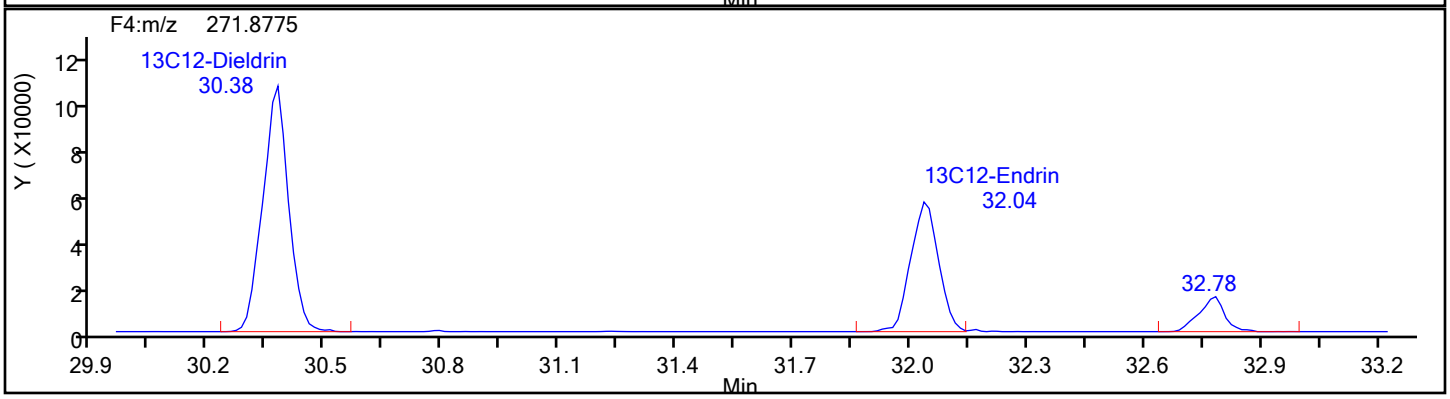

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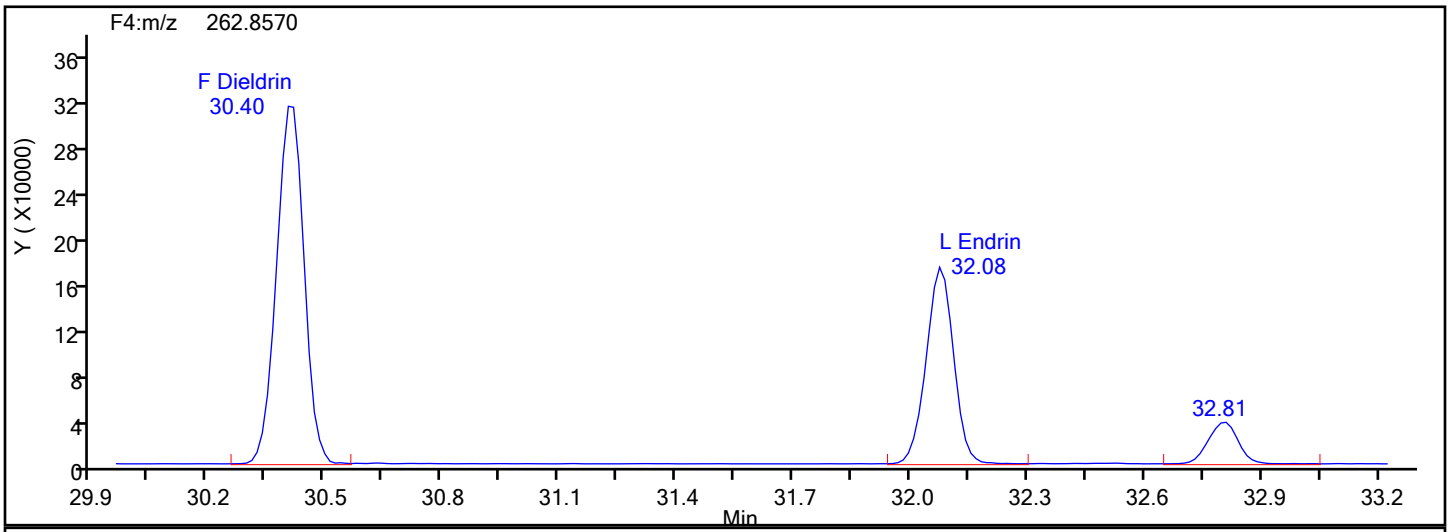
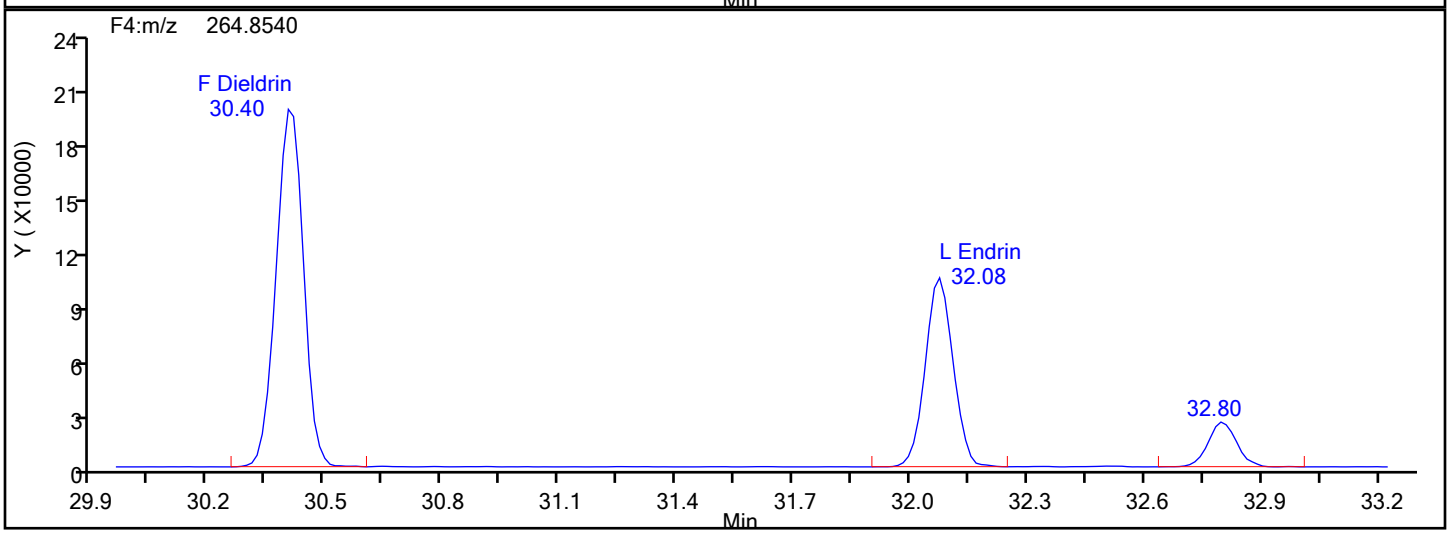
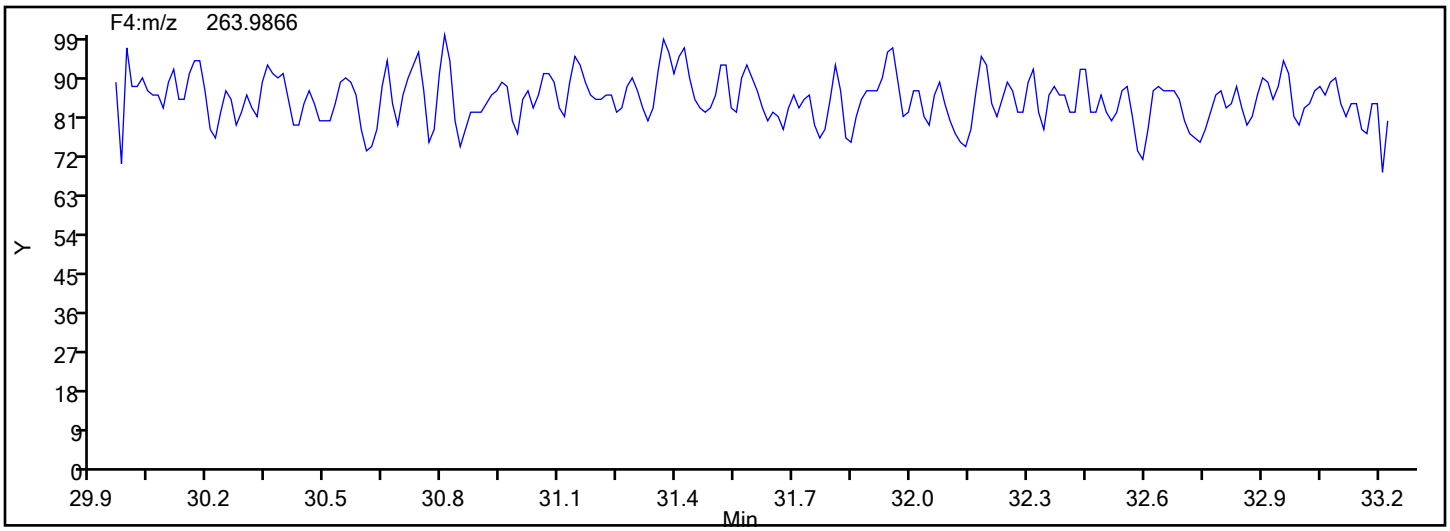




Dieldrin Lock Mass



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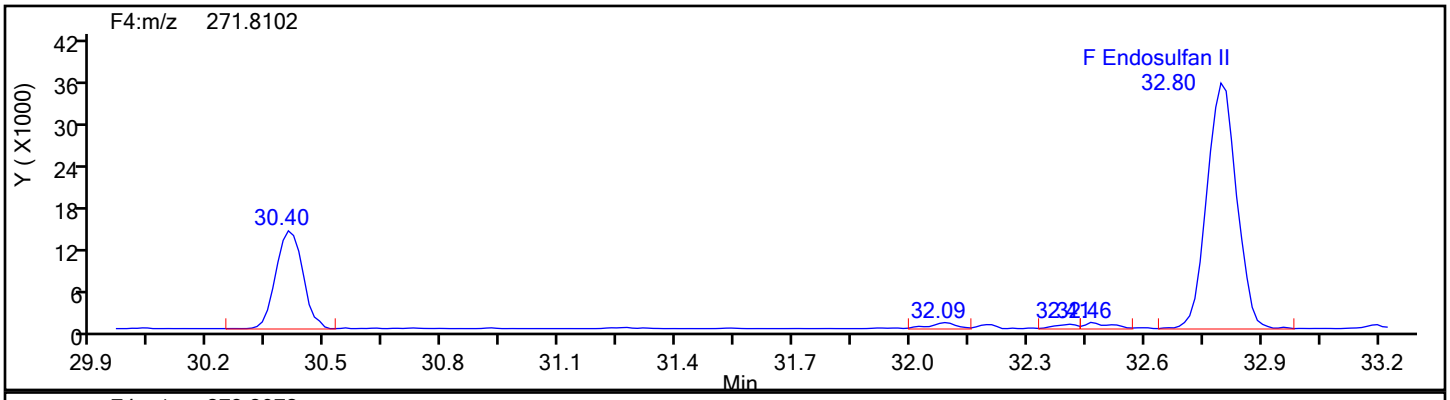
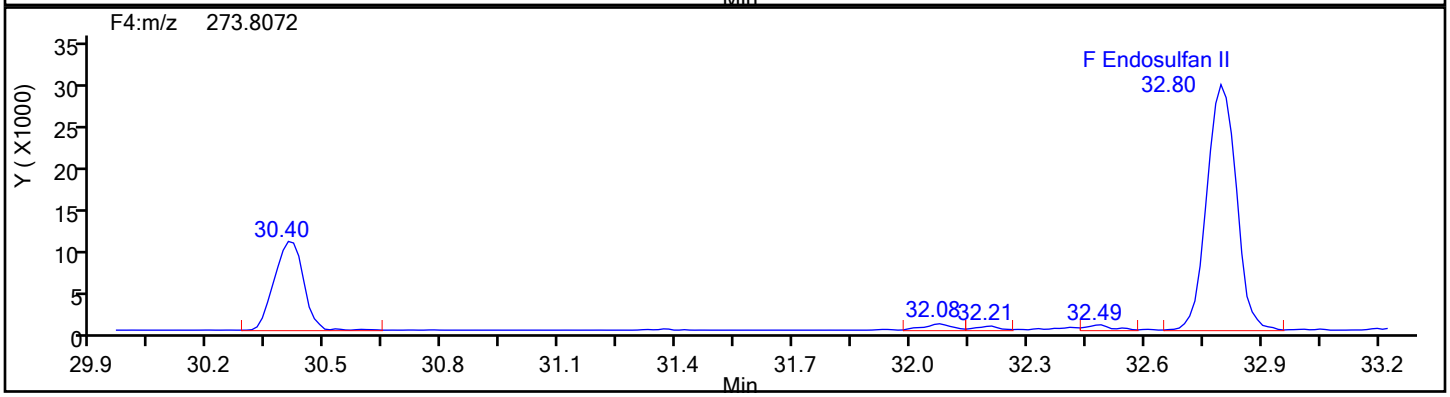
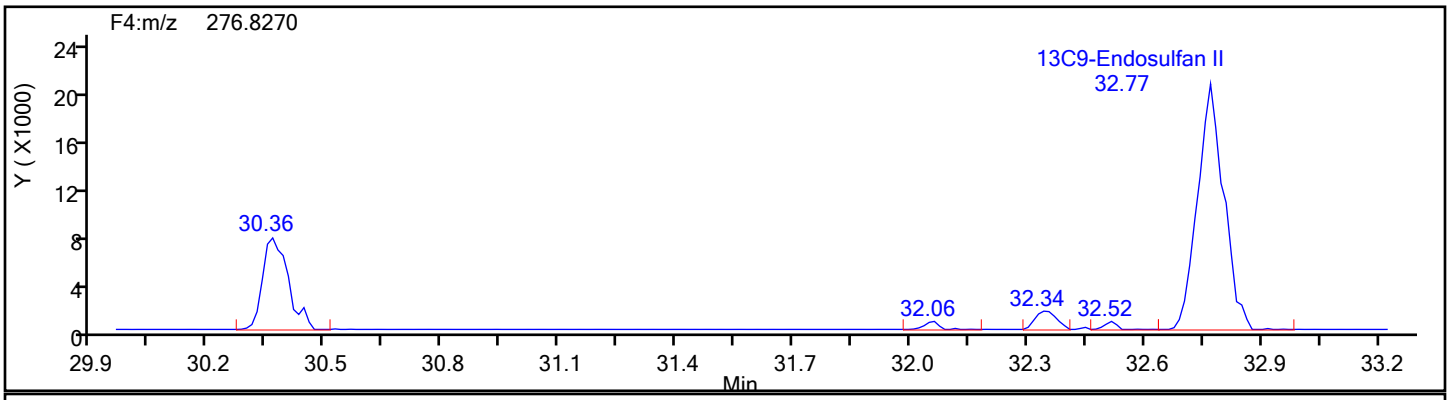
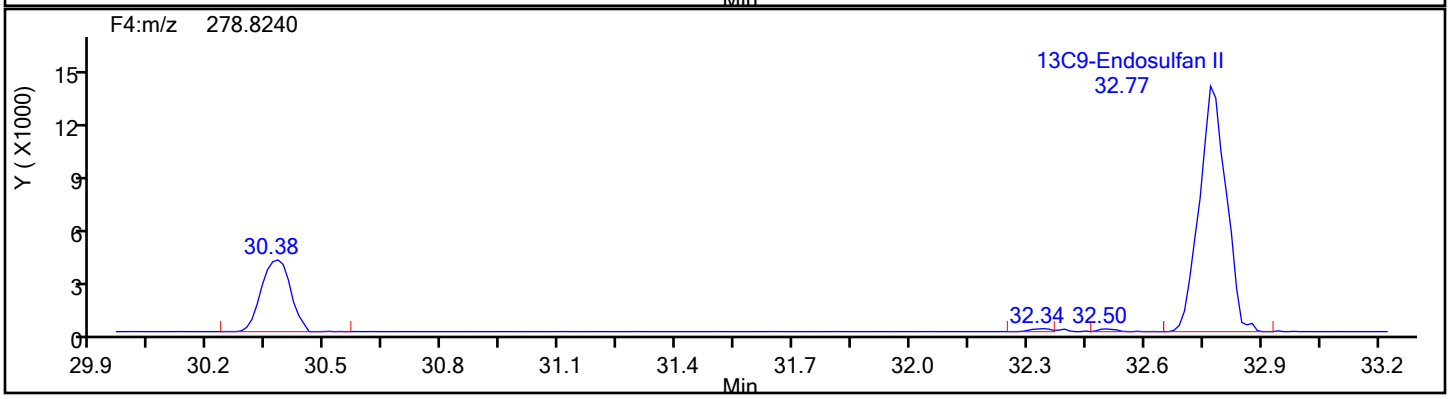
Endosulfan II





Endosulfan II Standards





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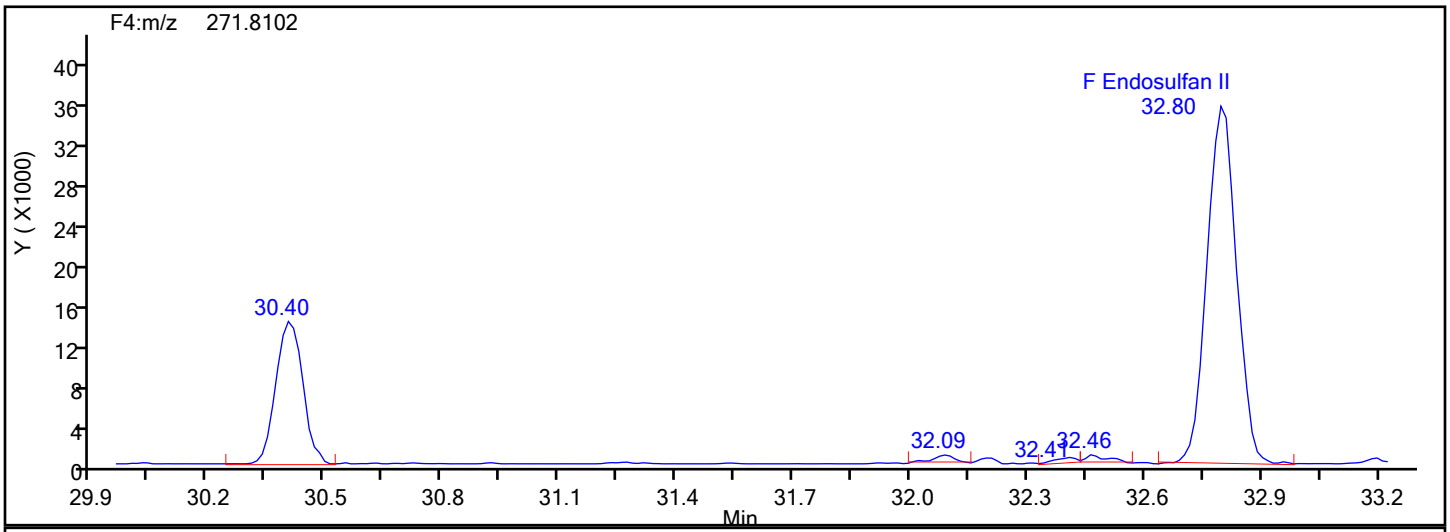
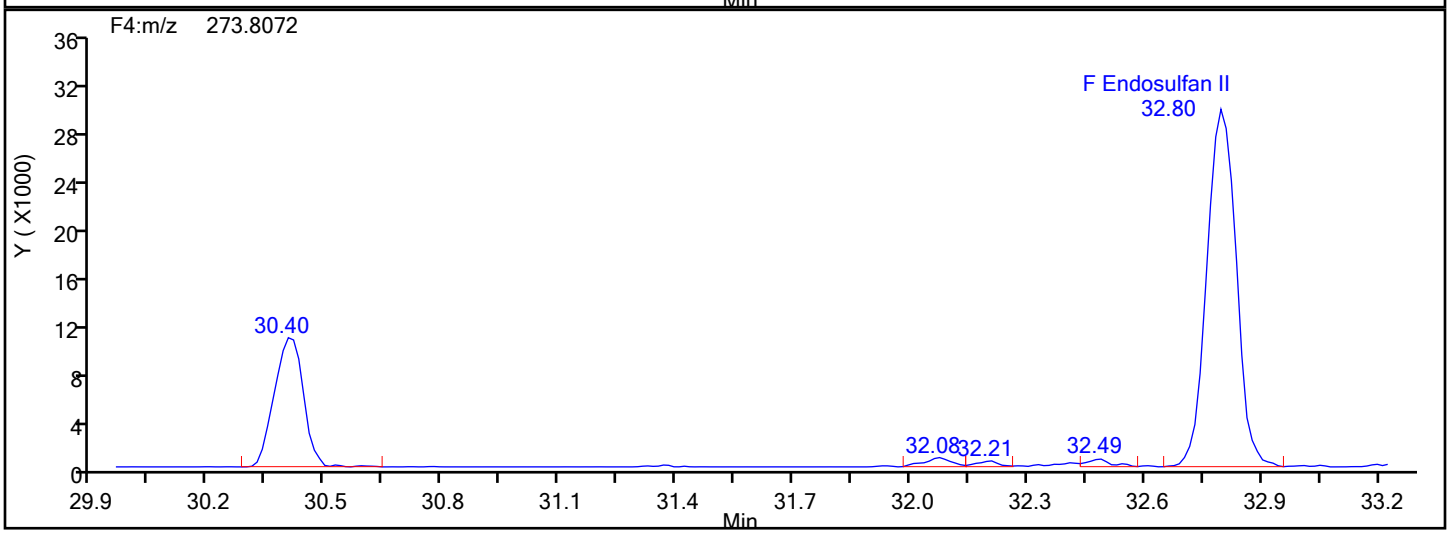
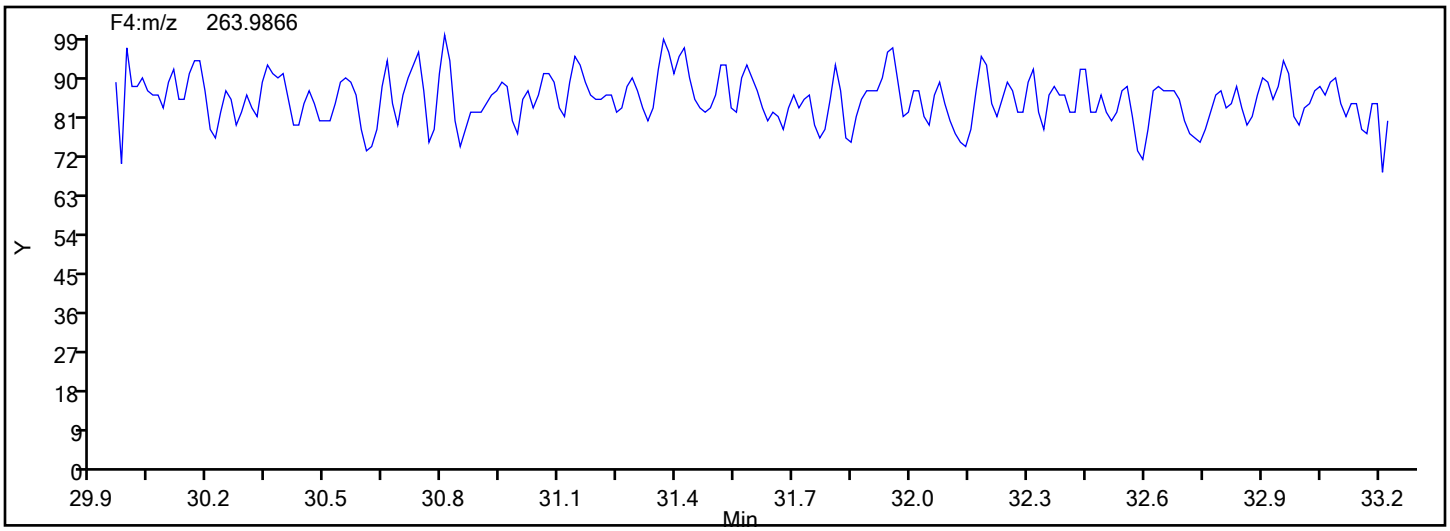




Endosulfan II Lock Mass



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Eurofins Knoxville

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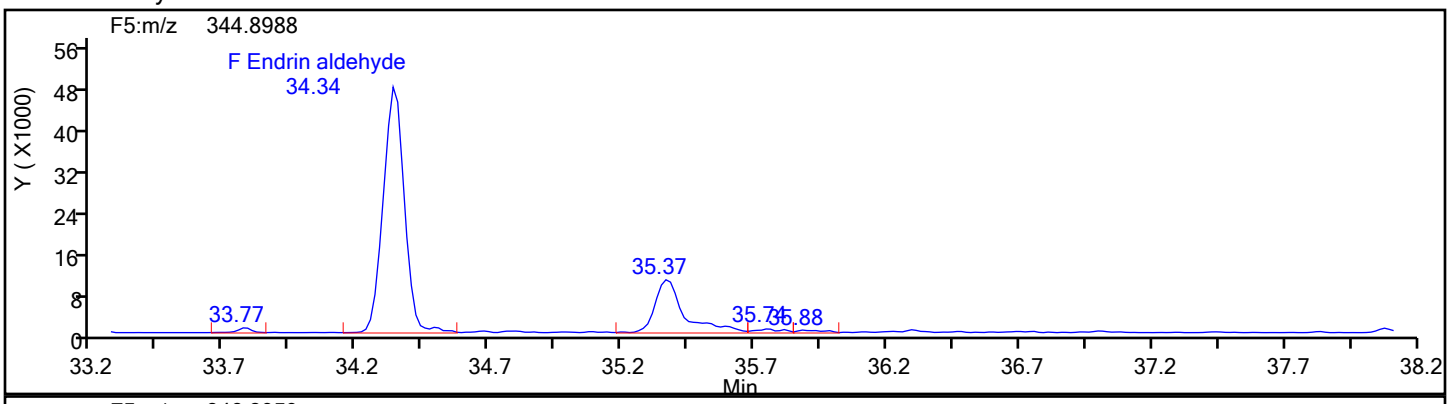
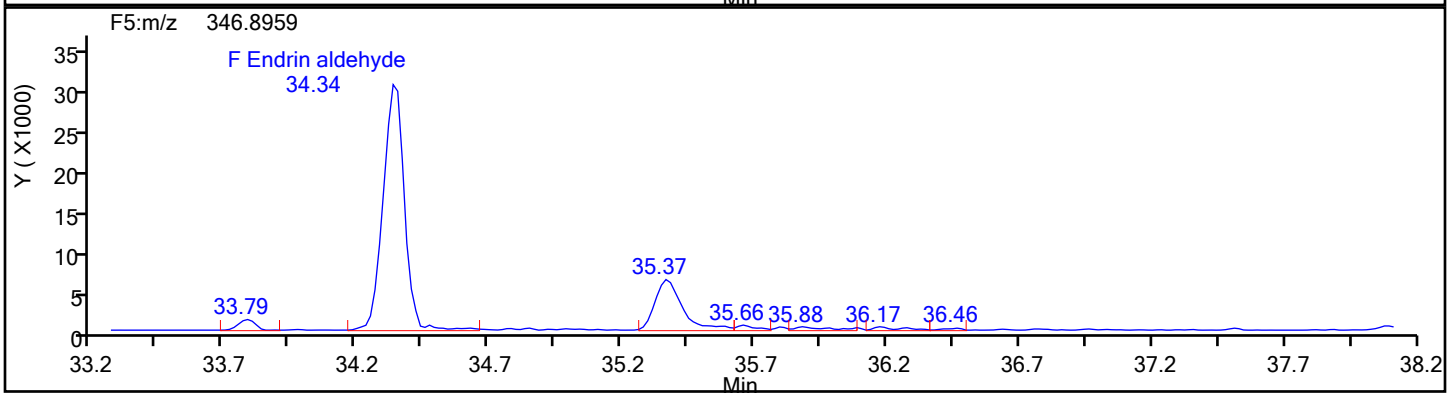
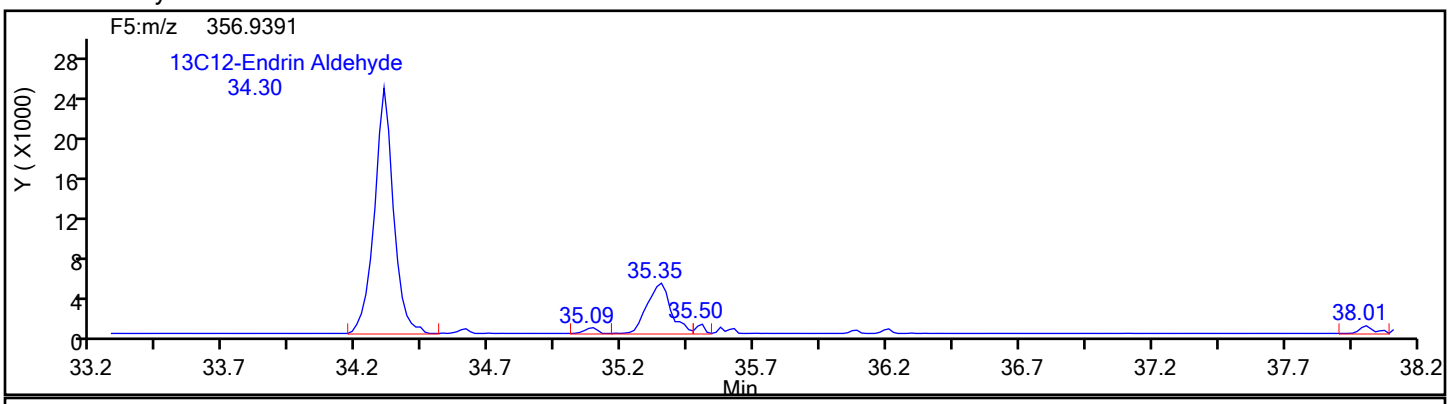
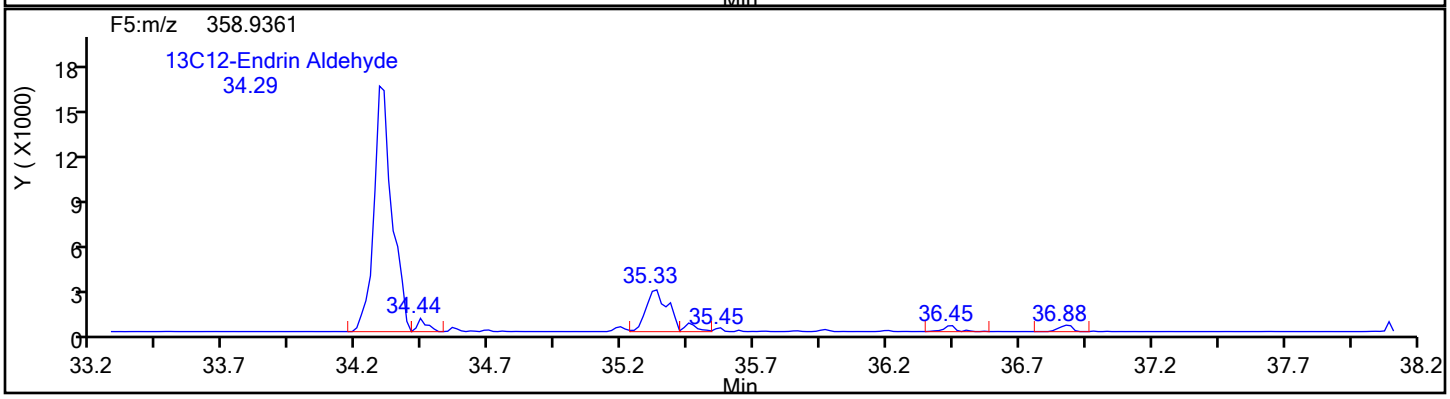
Endrin aldehyde





Endrin aldehyde Standards





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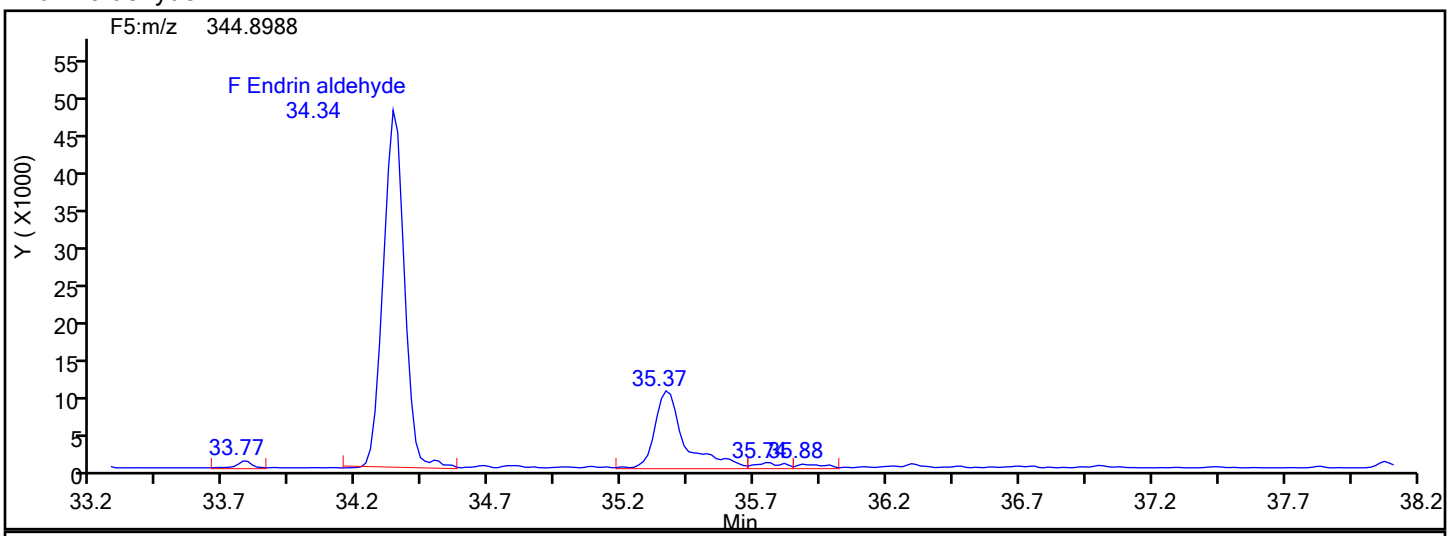
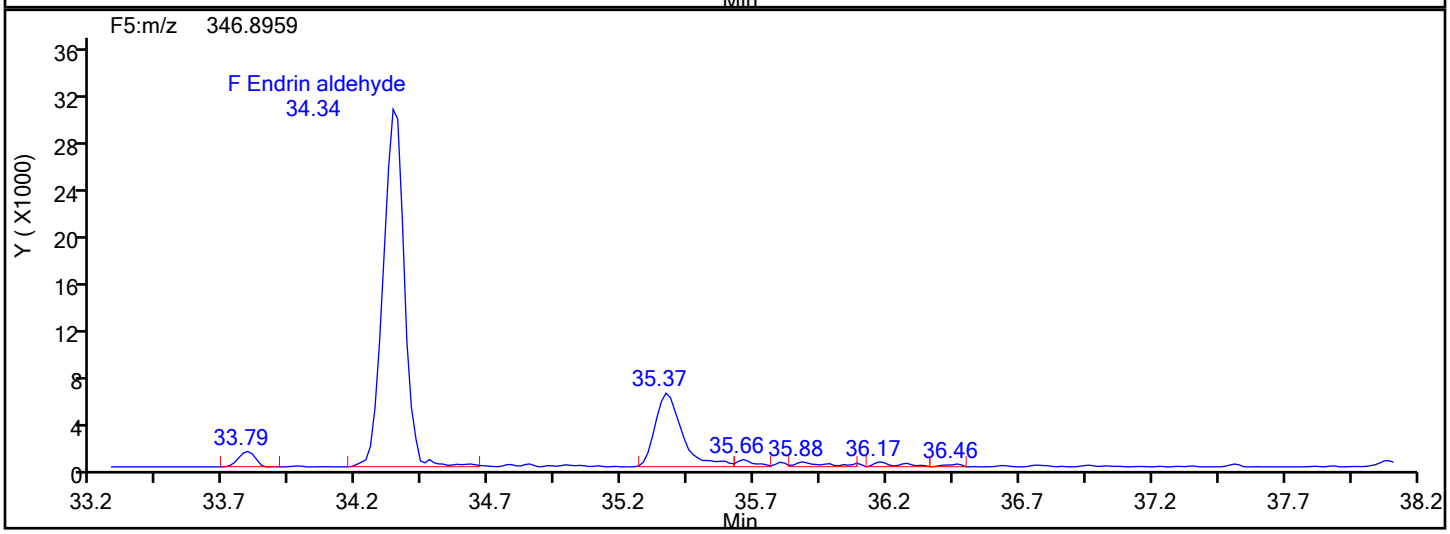
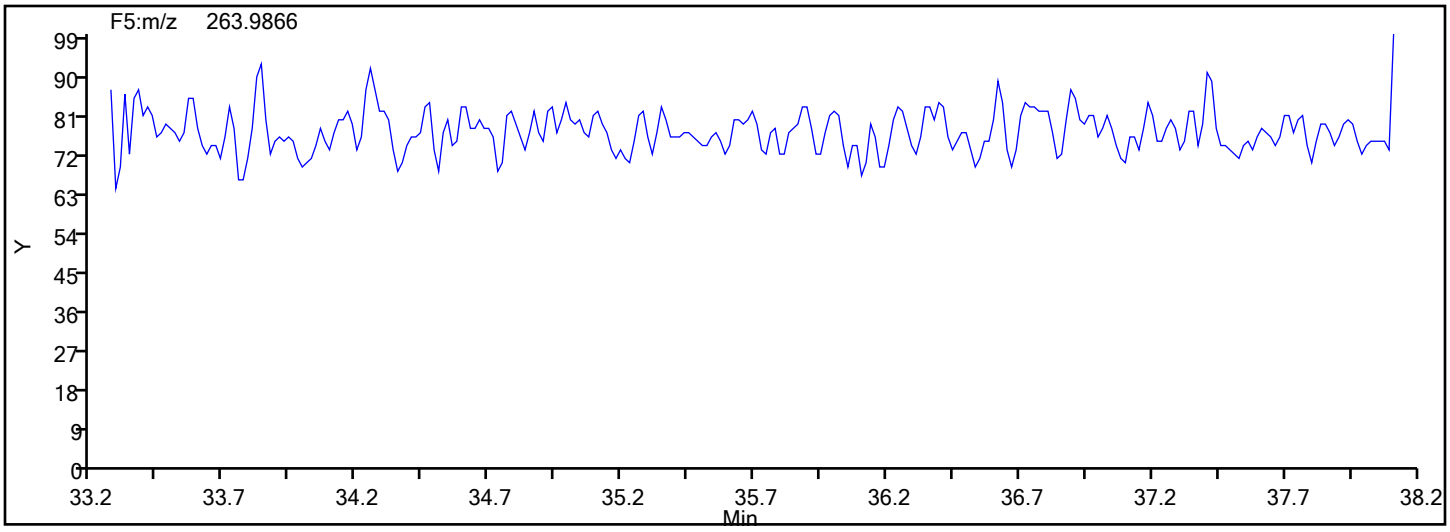
Endrin aldehyde





Endrin aldehyde Lock Mass



Report Date: 24-Mar-2025 13:06:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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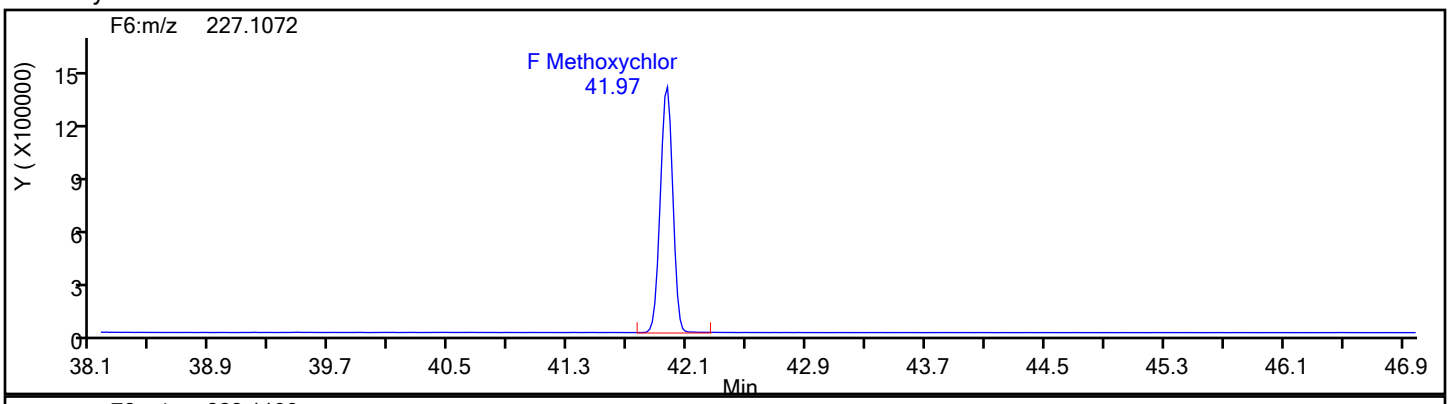
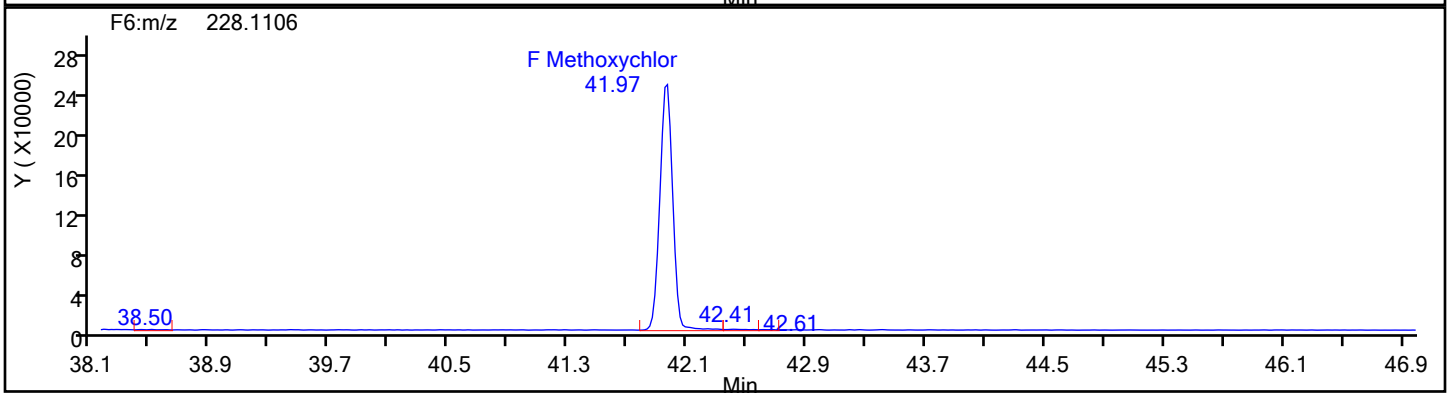
Methoxychlor





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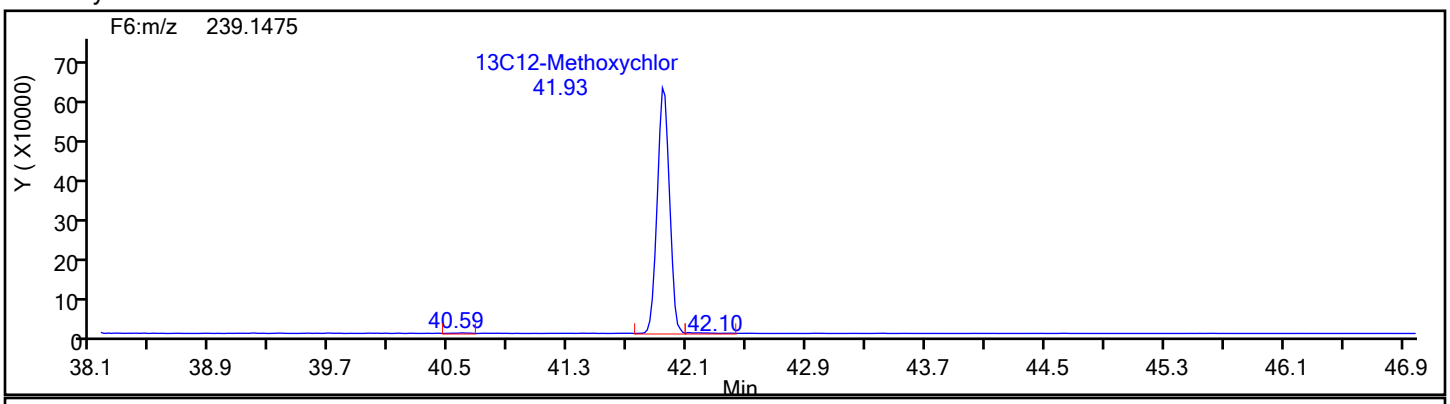

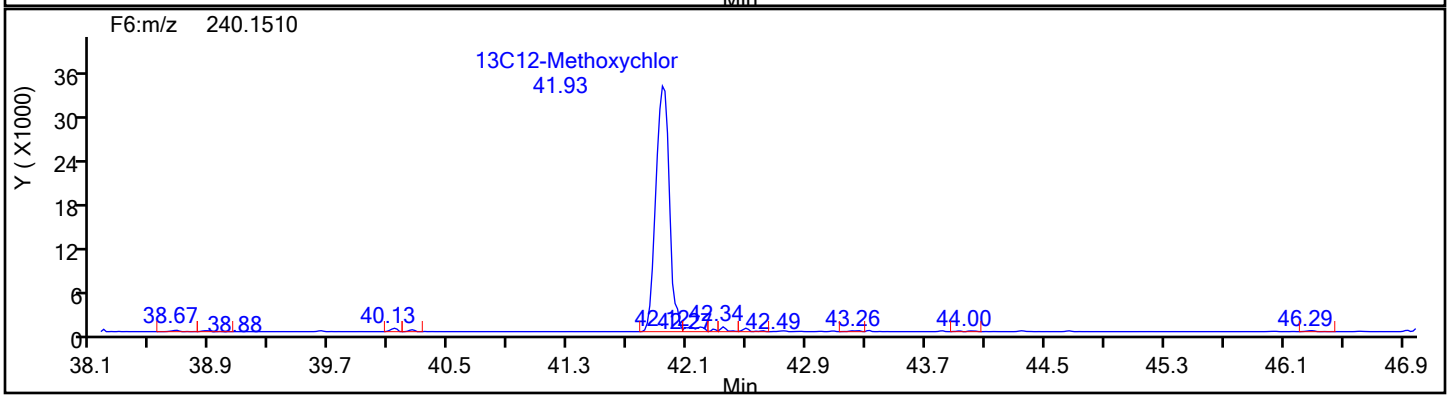

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Eurofins Knoxville

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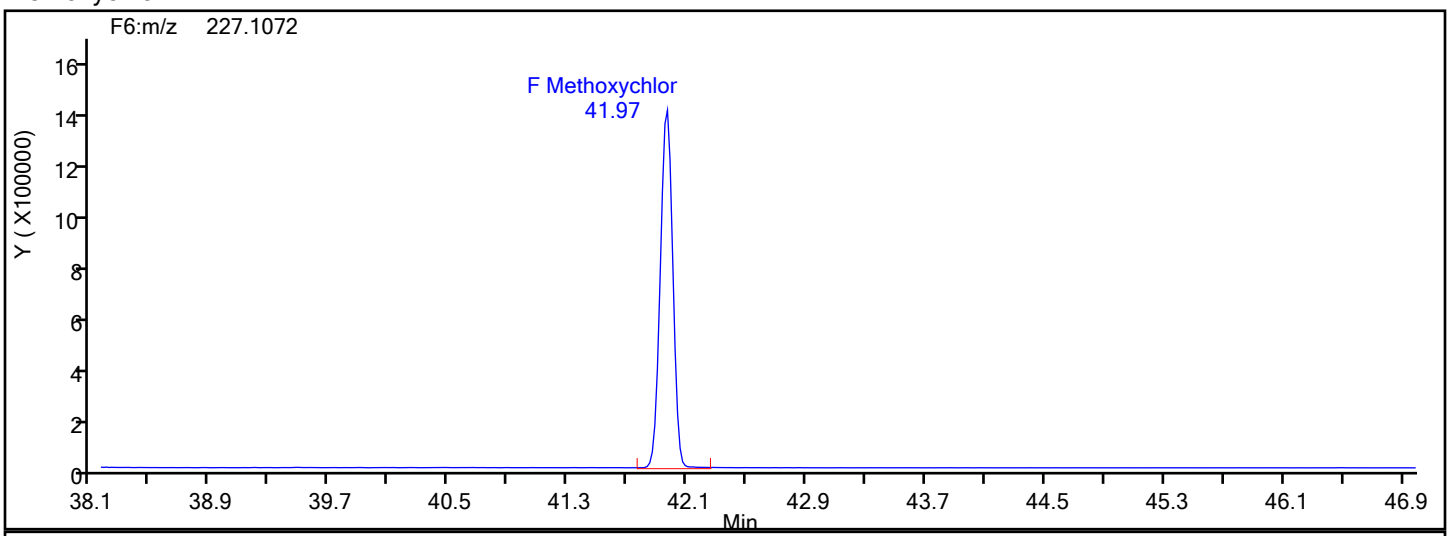
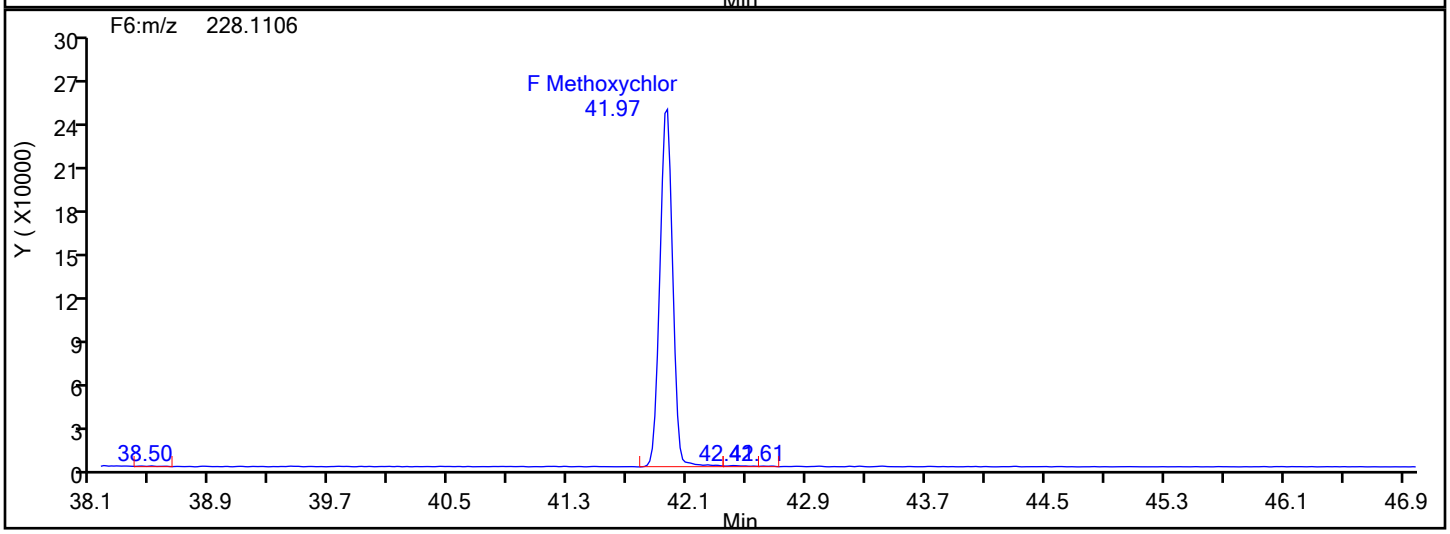
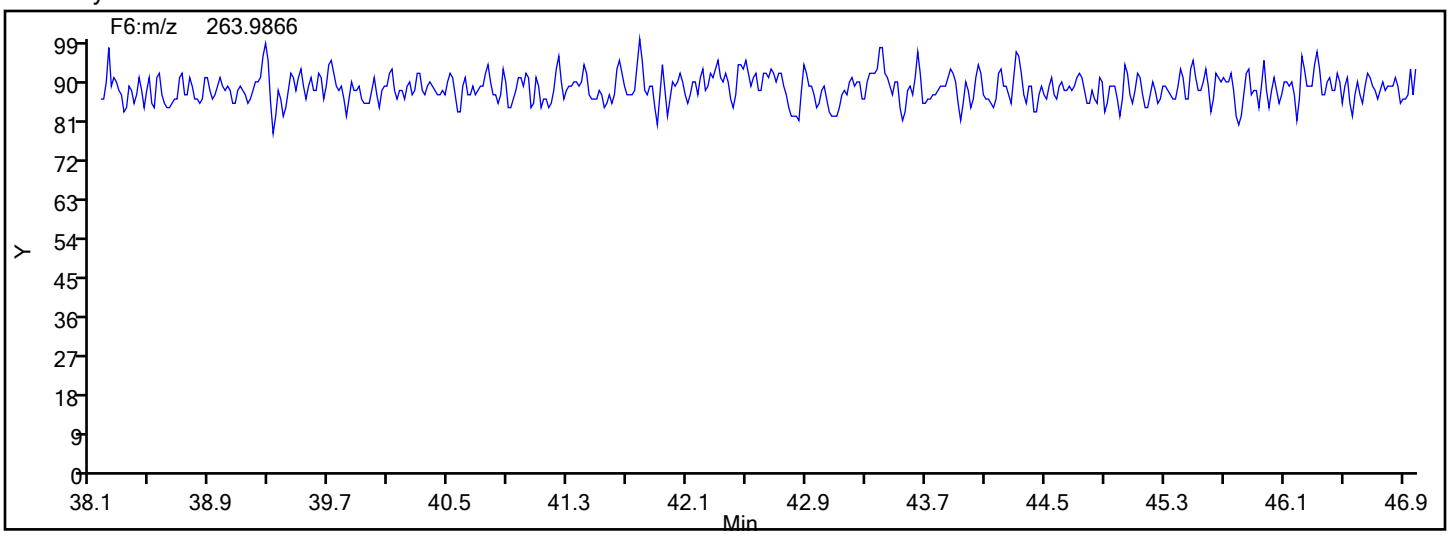




Methoxychlor Lock Mass



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Eurofins Knoxville

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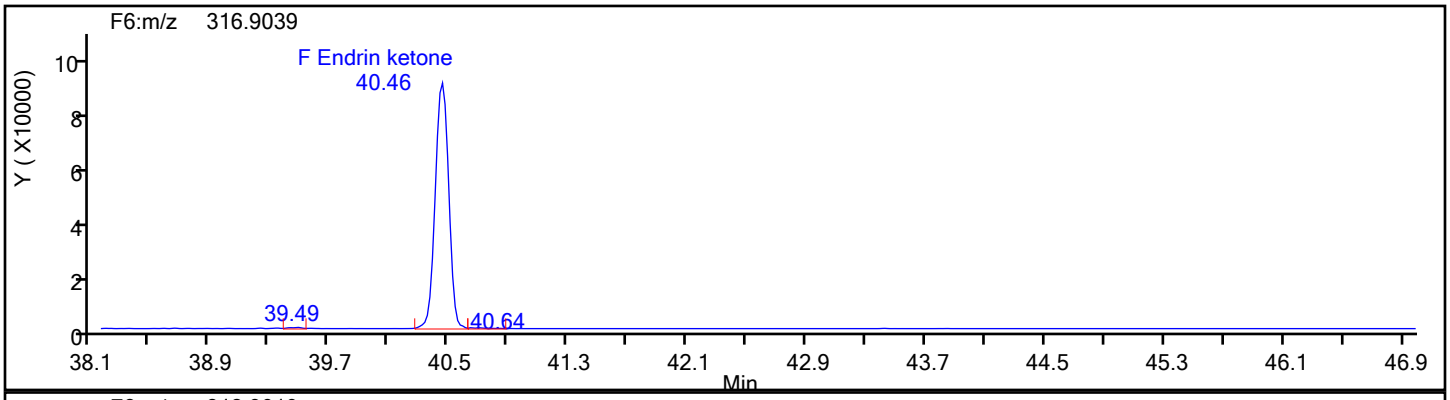

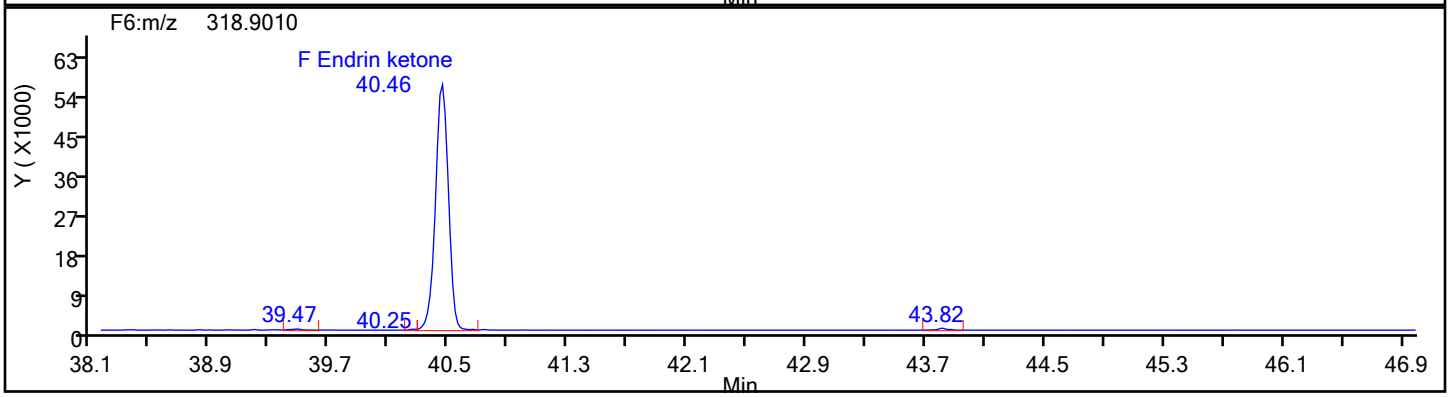

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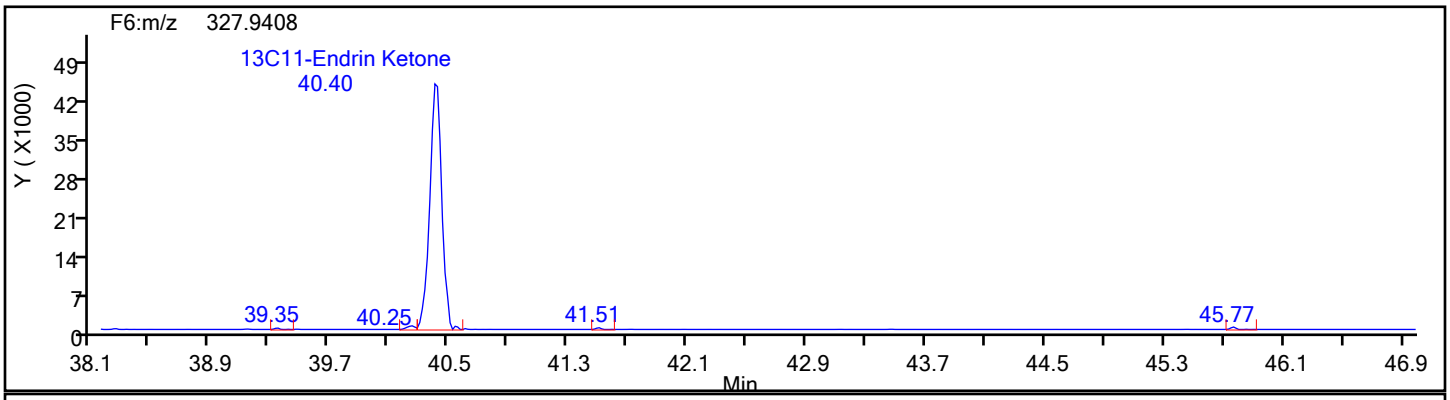

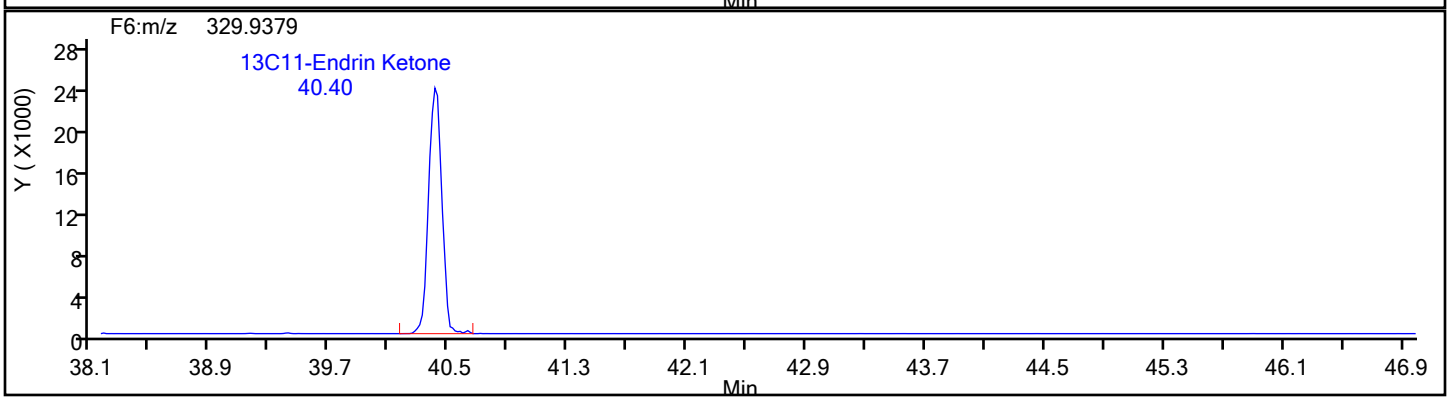

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Eurofins Knoxville

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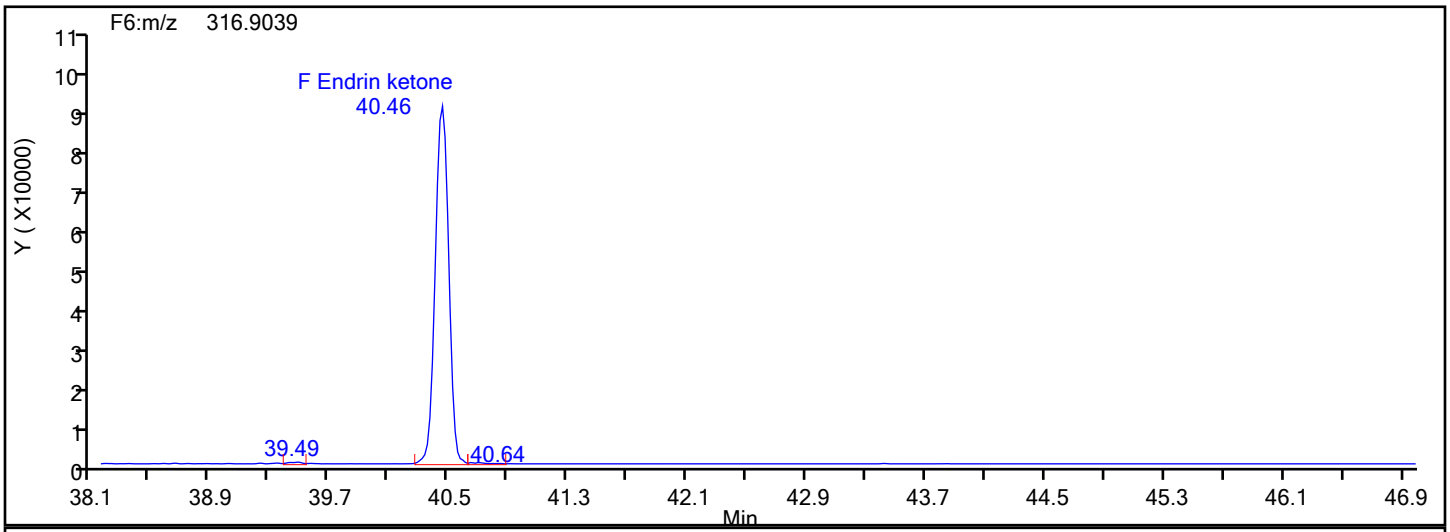
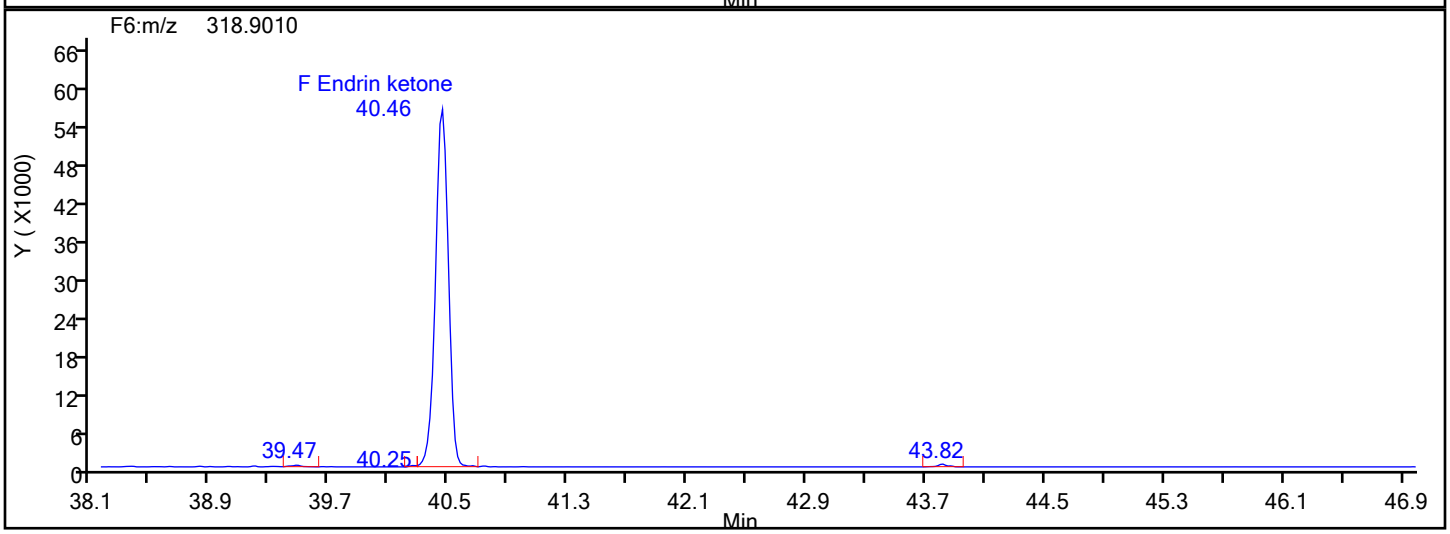
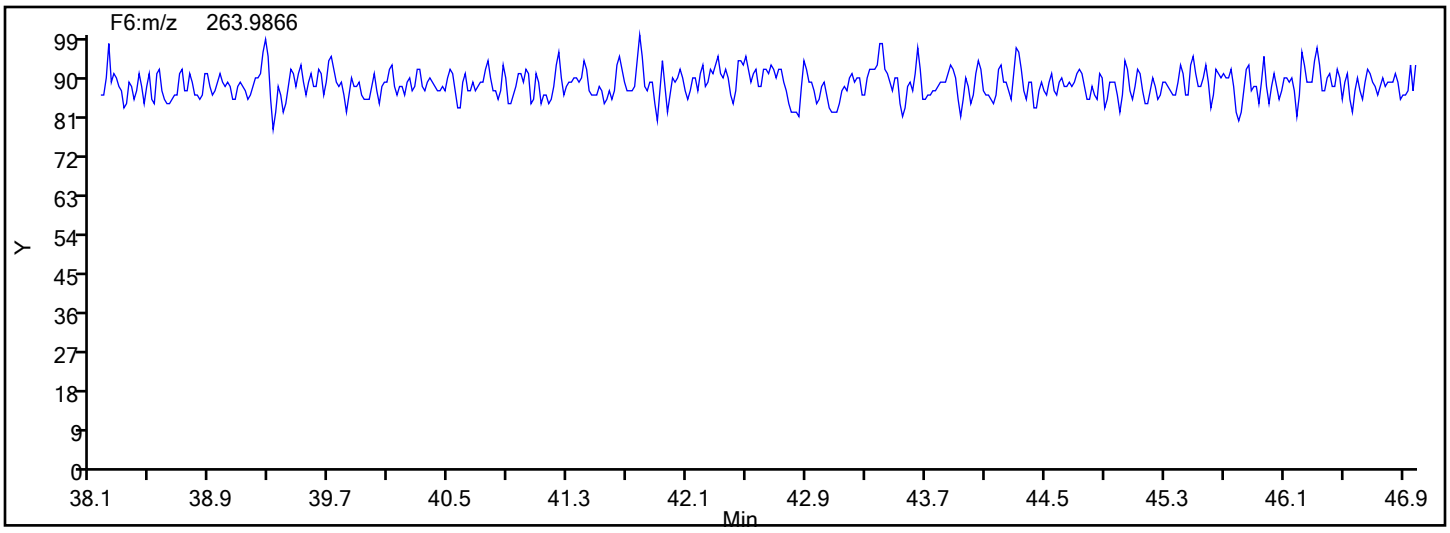




Endrin ketone Lock Mass



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Eurofins Knoxville

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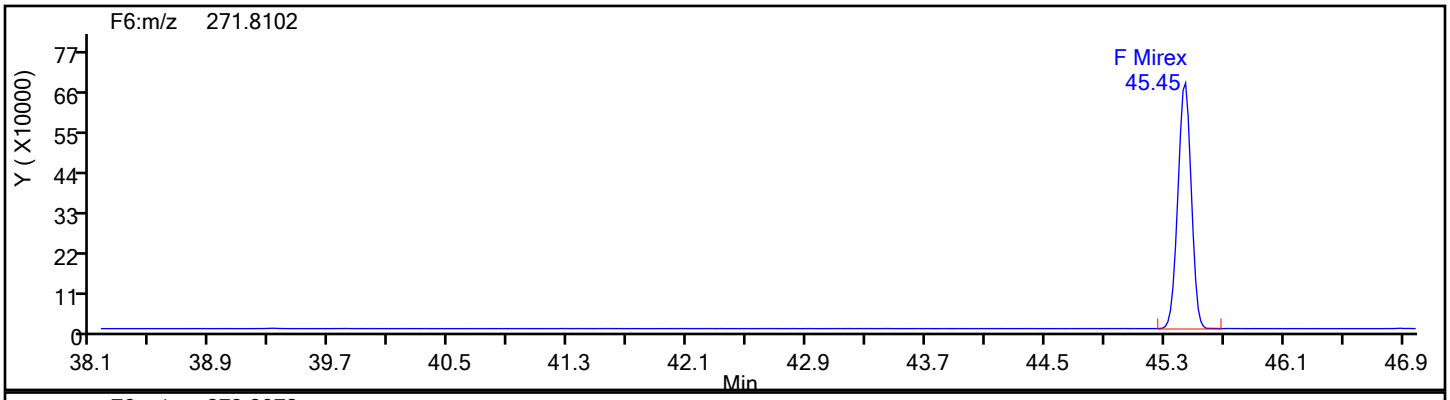
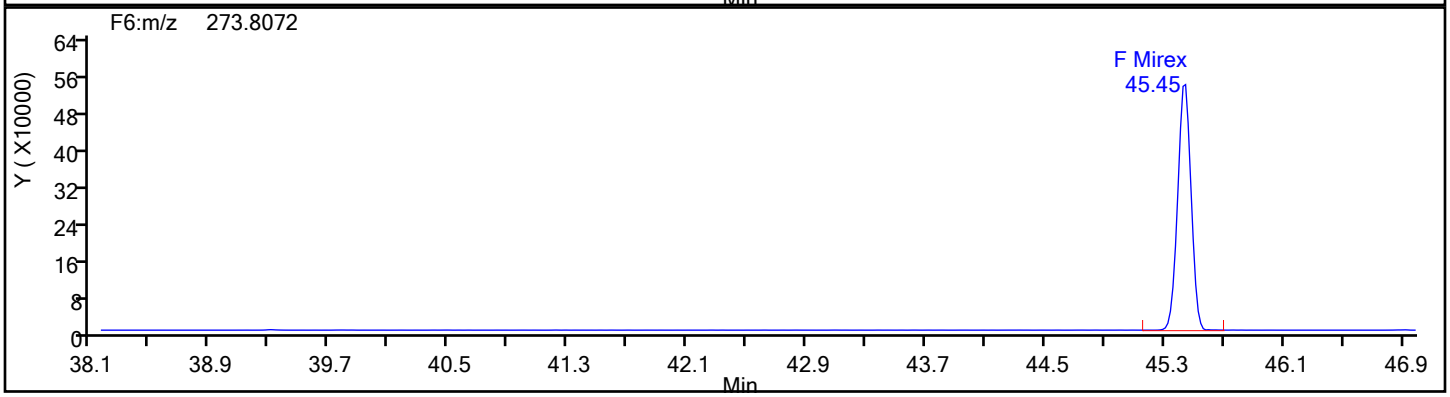
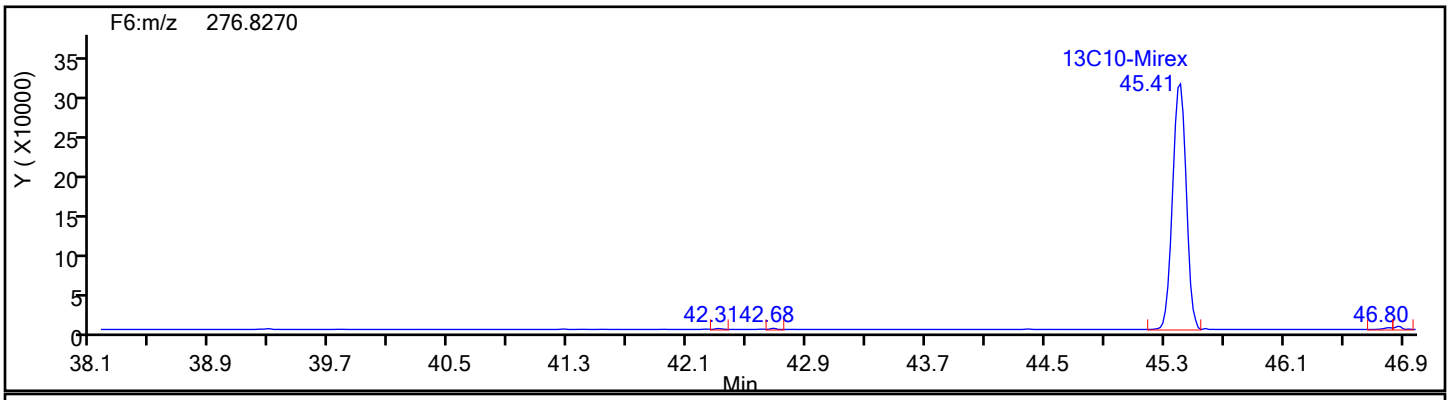
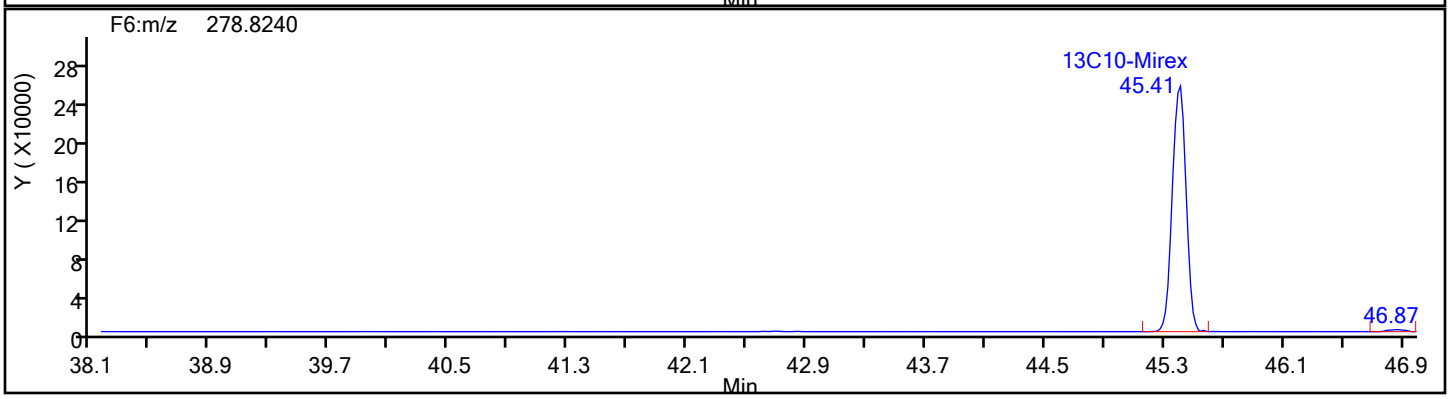




Mirex Standards





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Eurofins Knoxville

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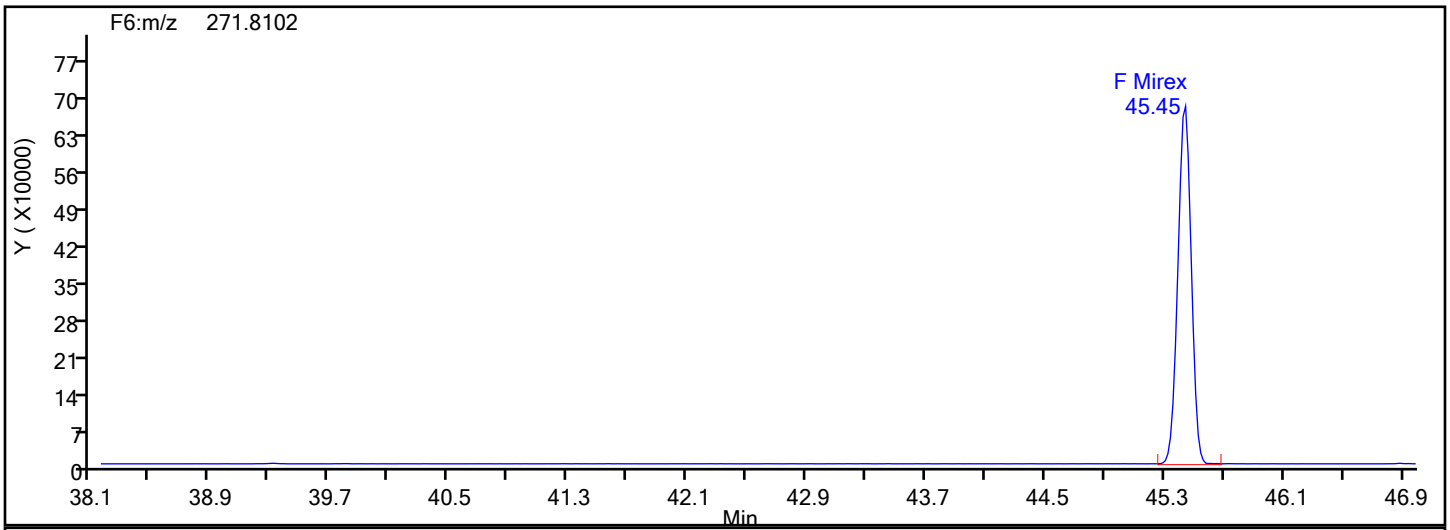
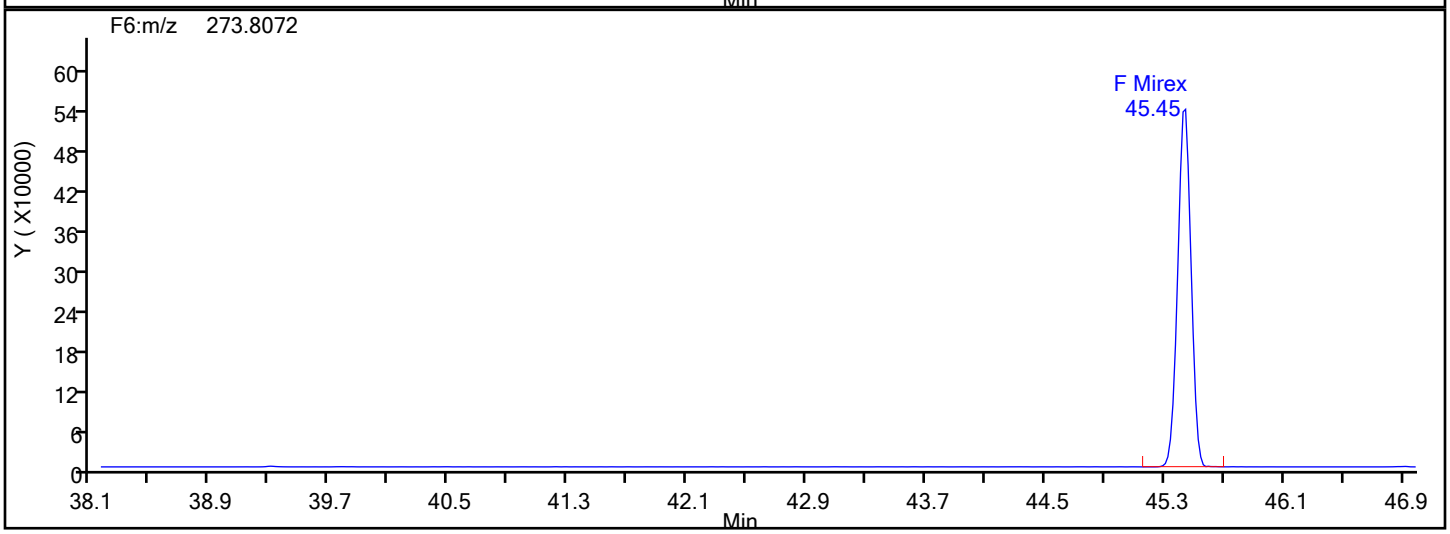
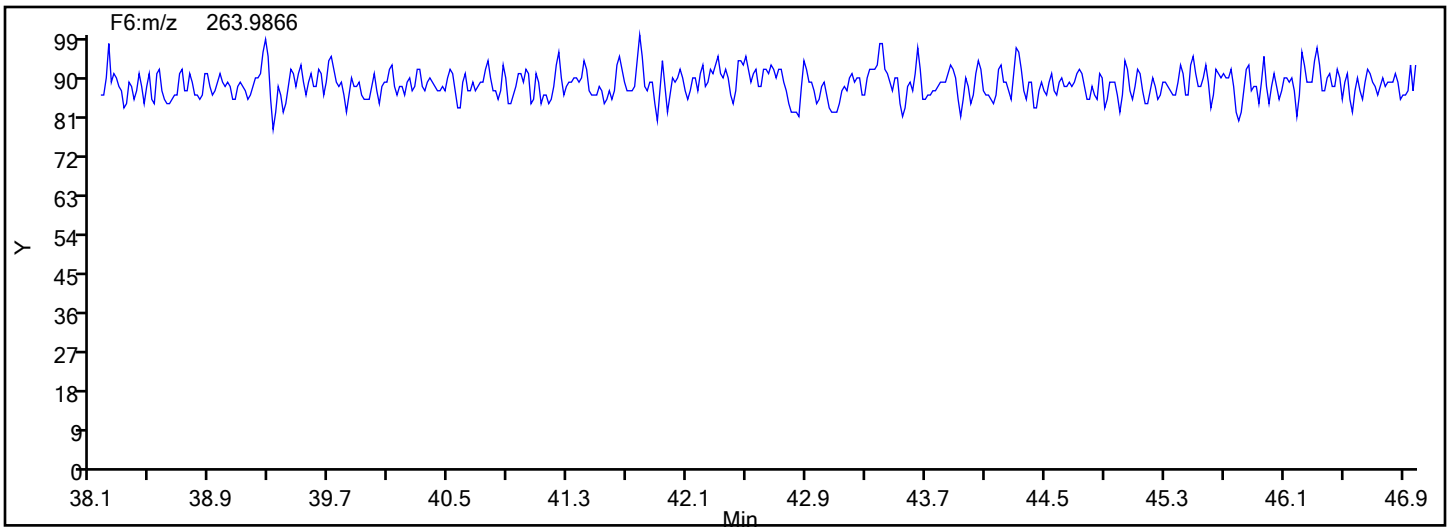




Mirex Lock Mass



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Eurofins Knoxville

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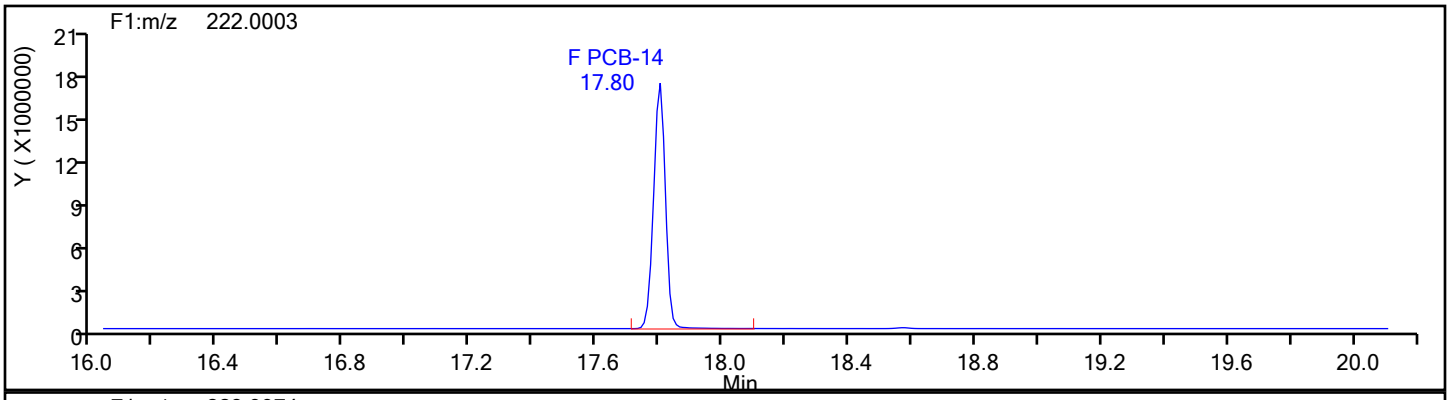
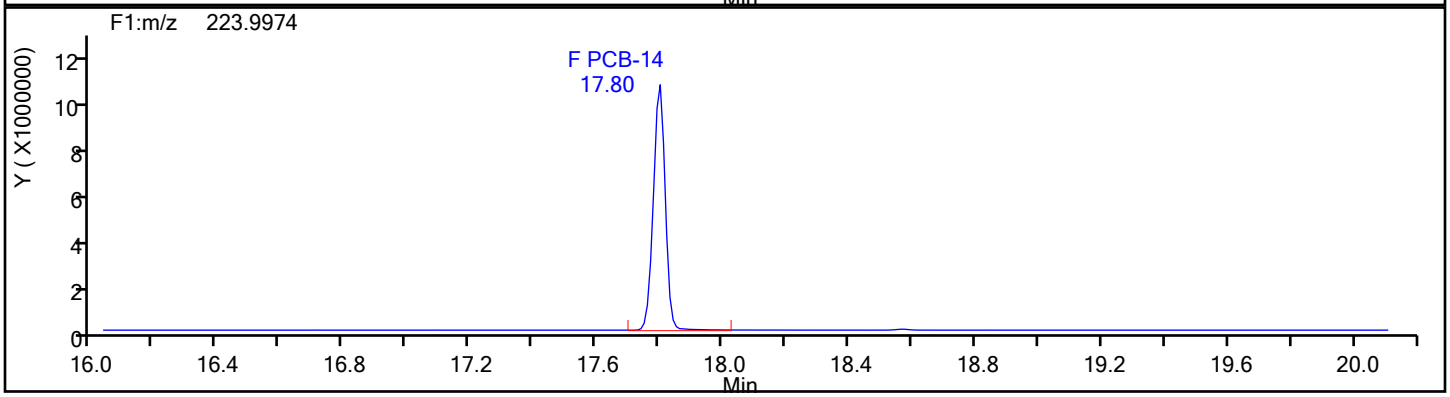
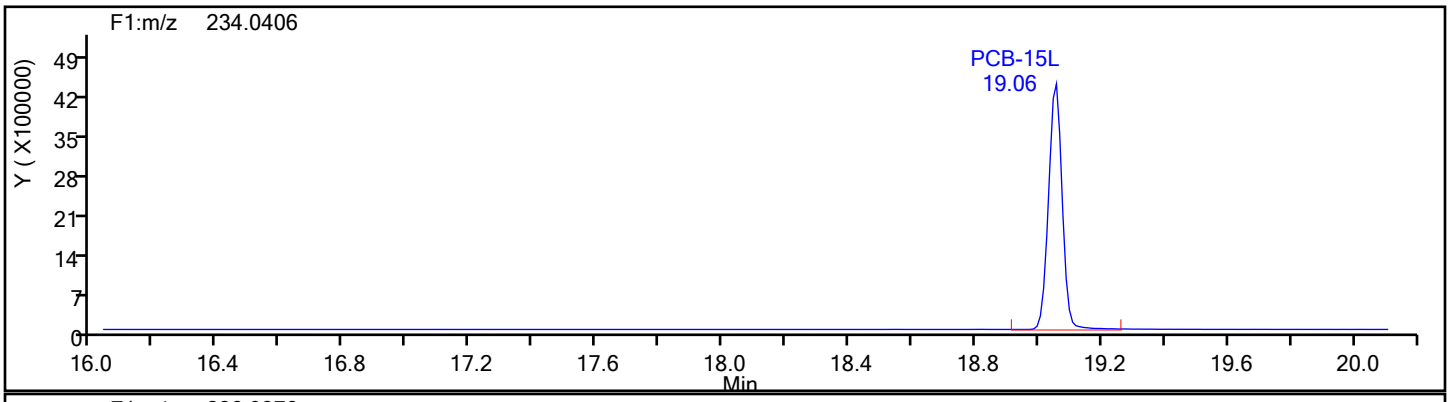
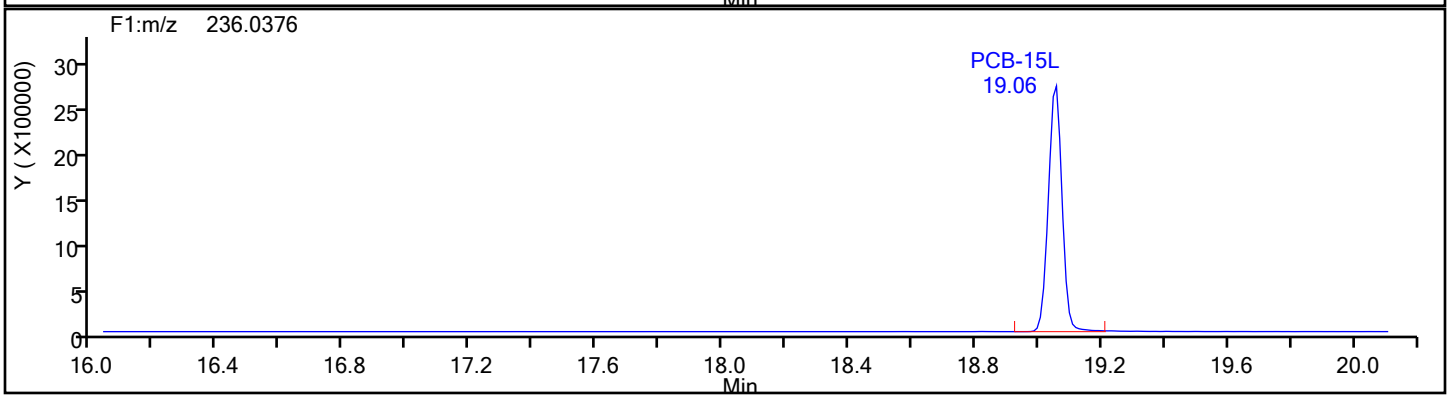
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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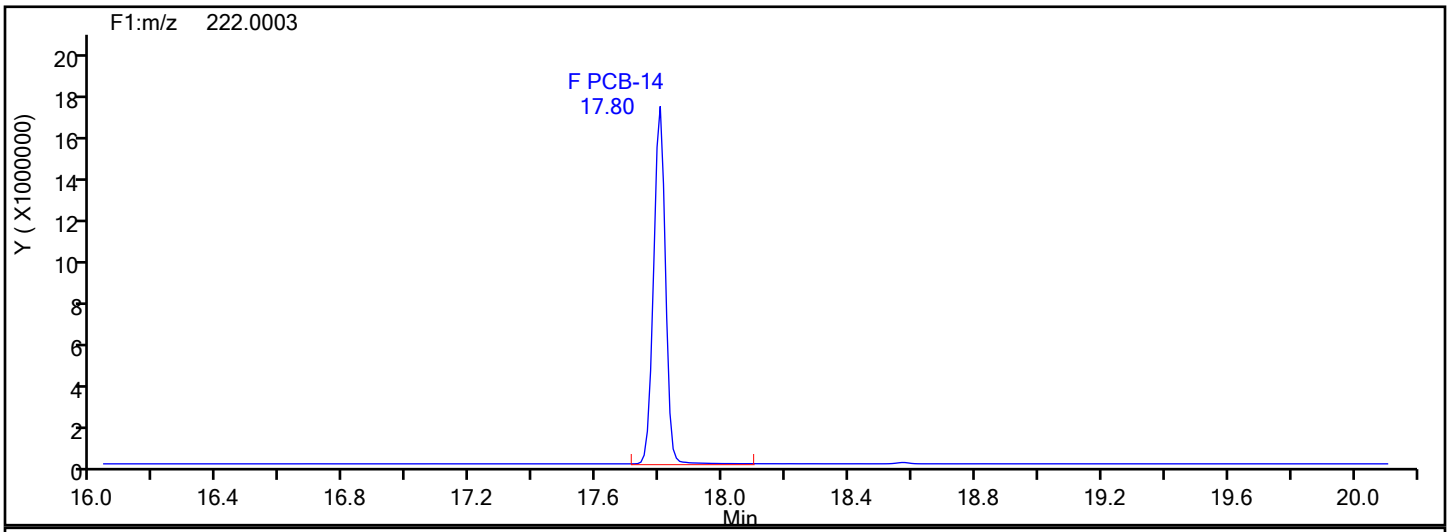
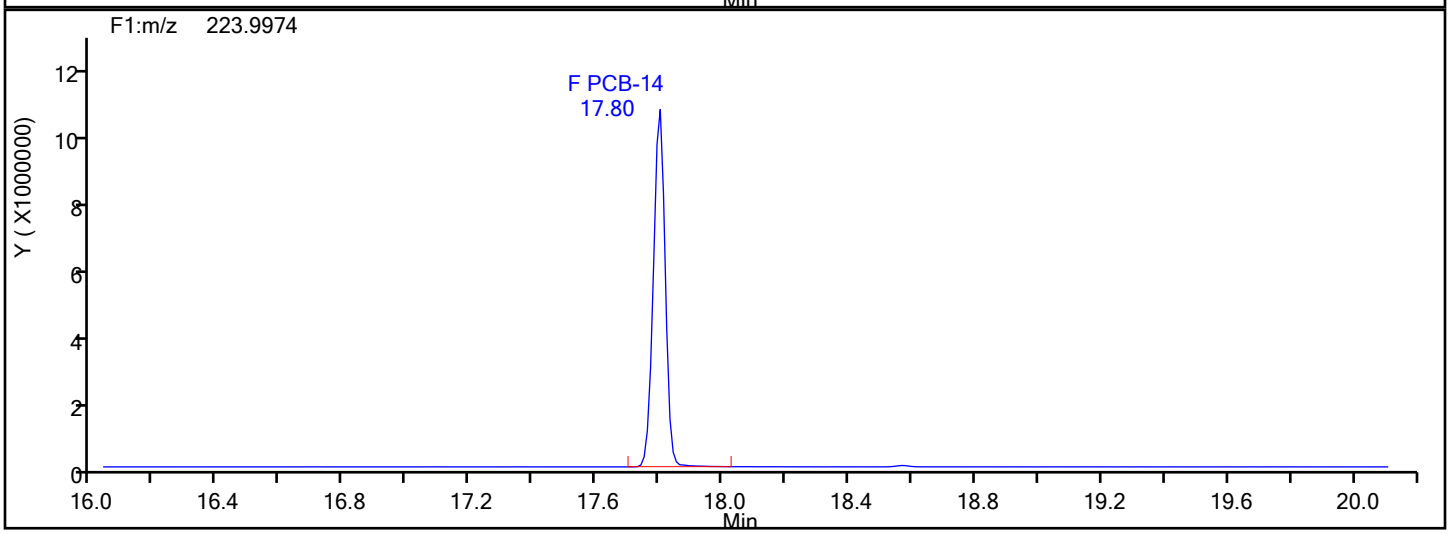
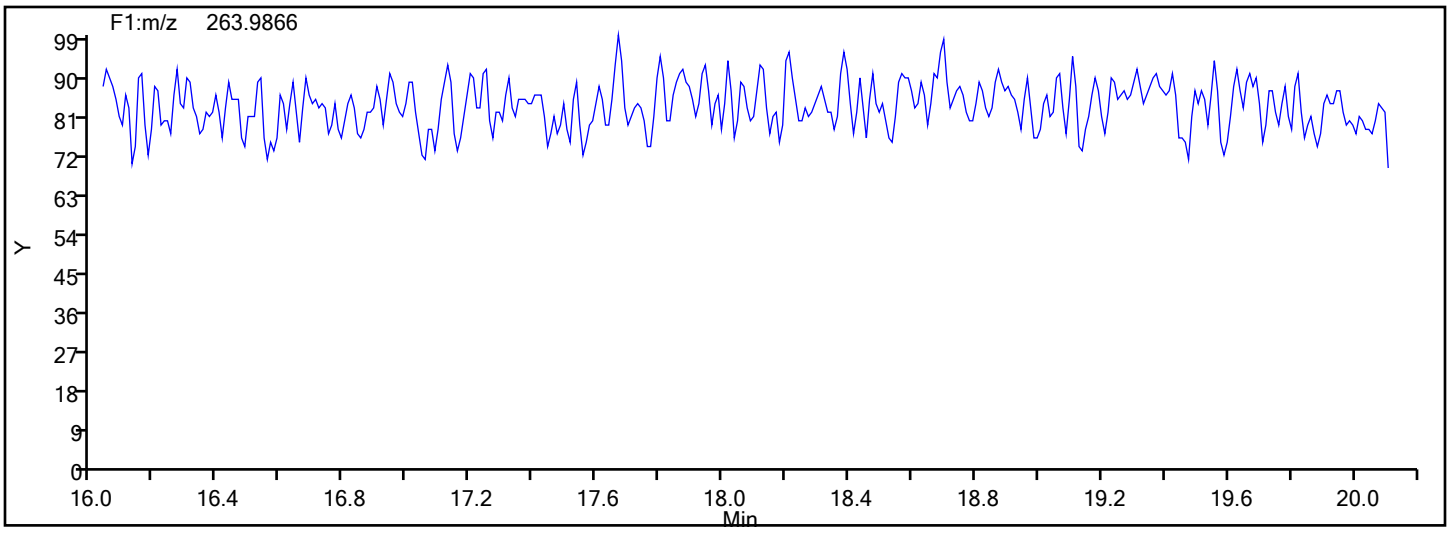
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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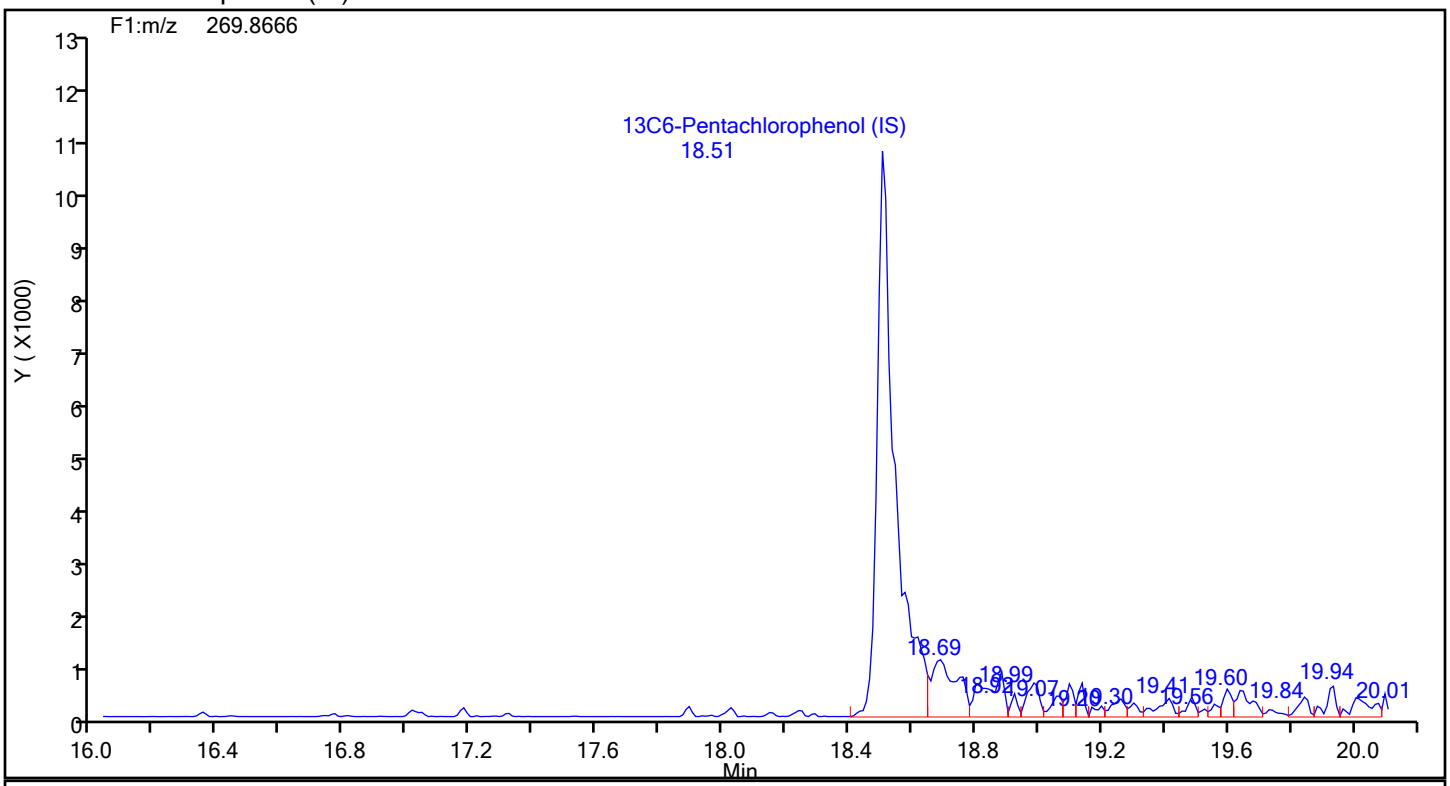
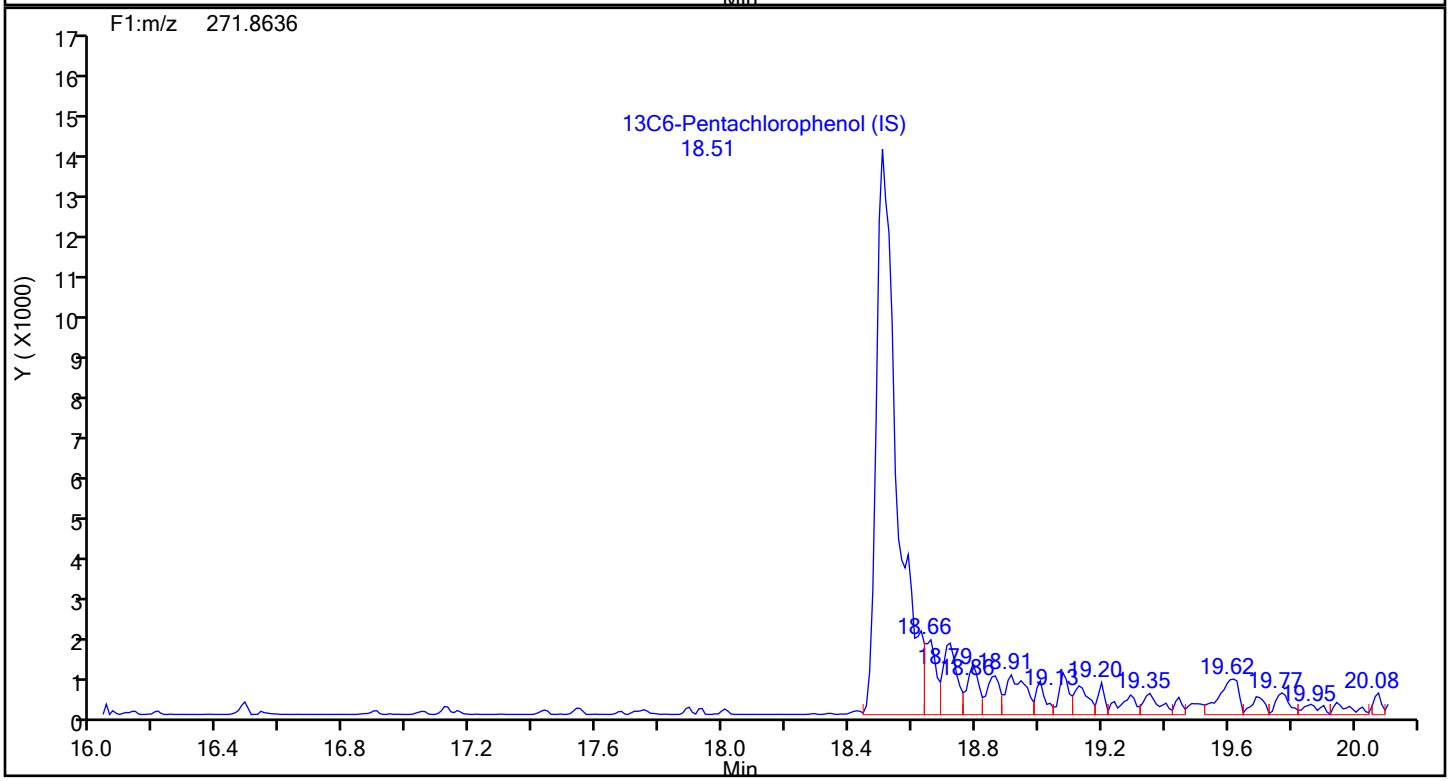
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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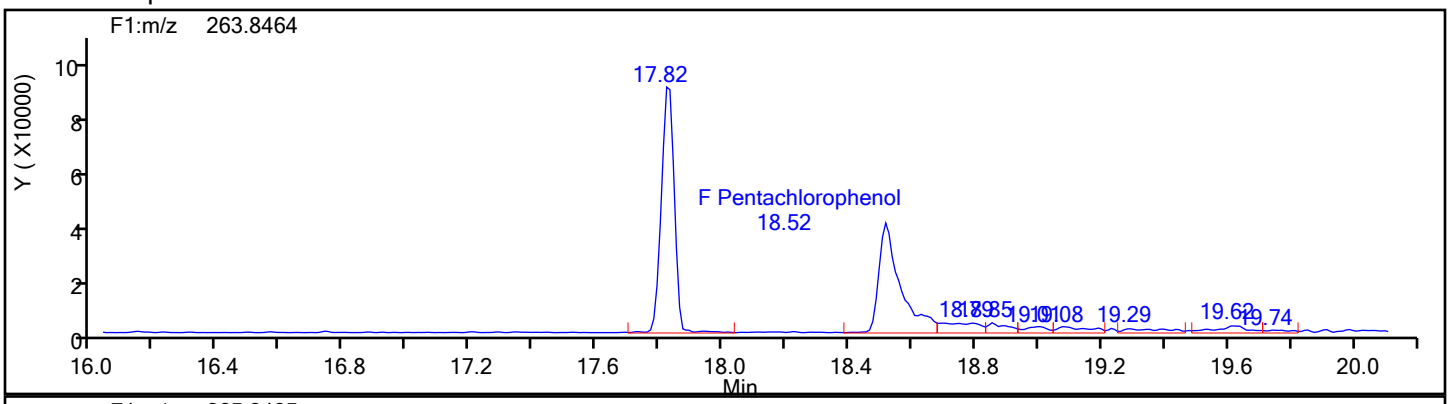
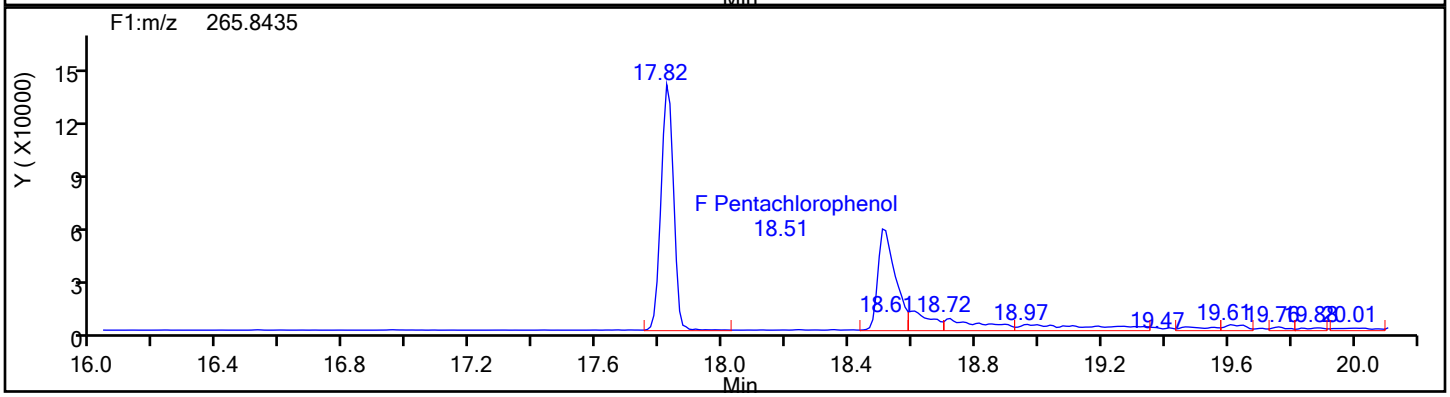
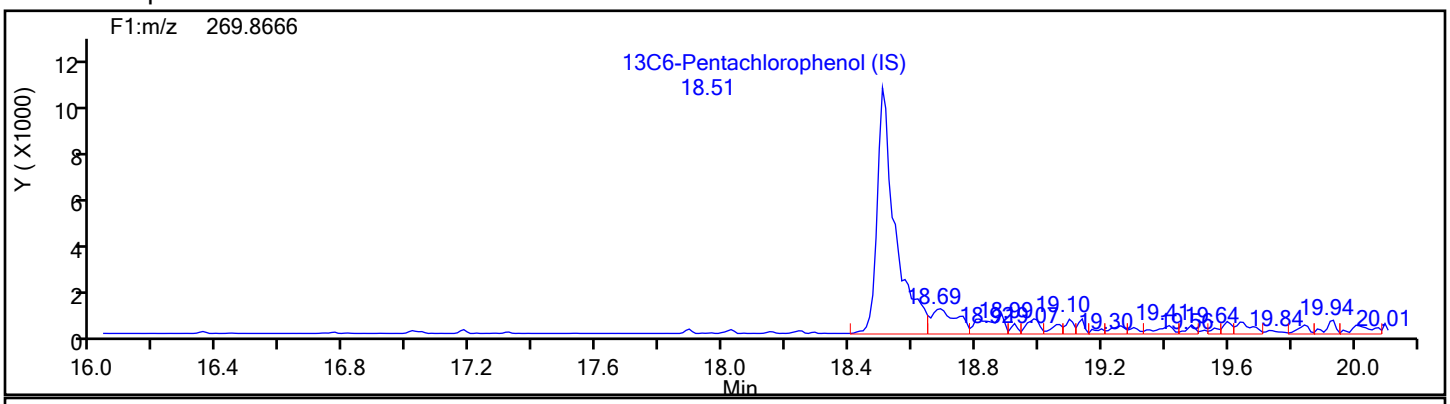
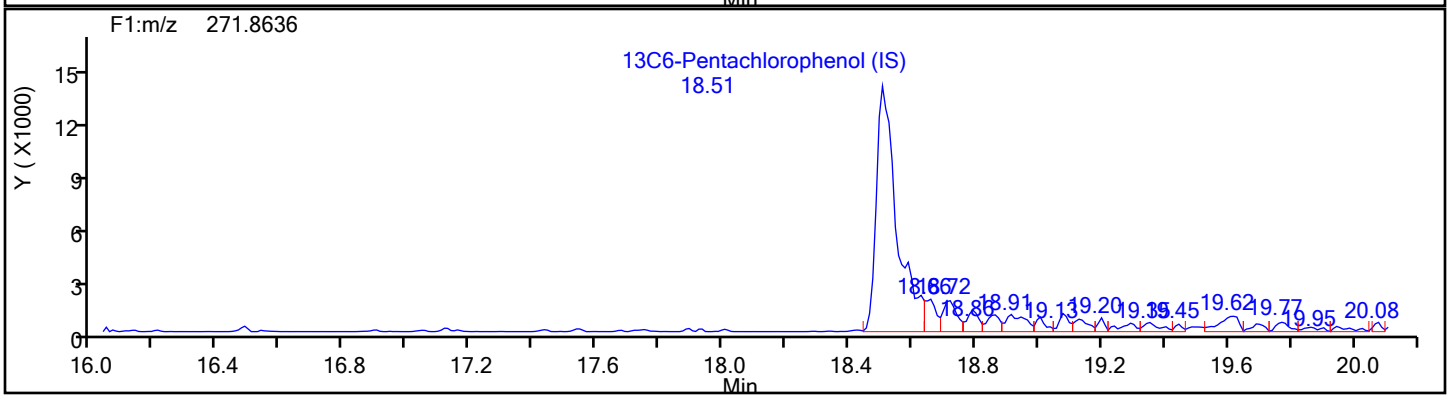
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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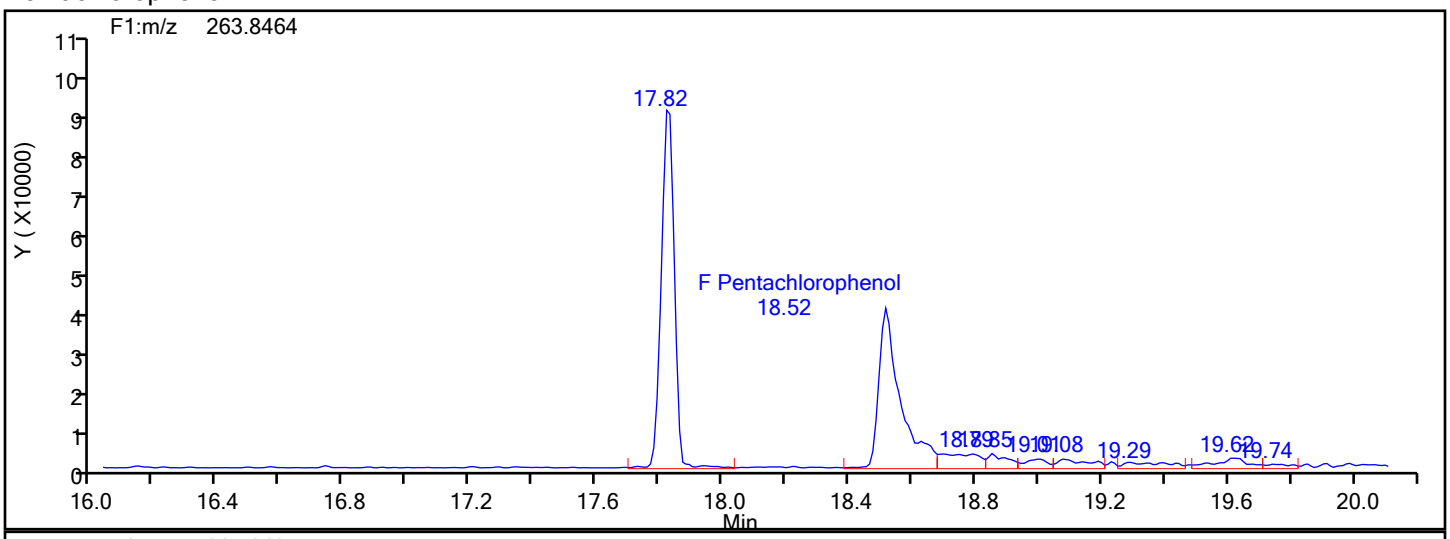
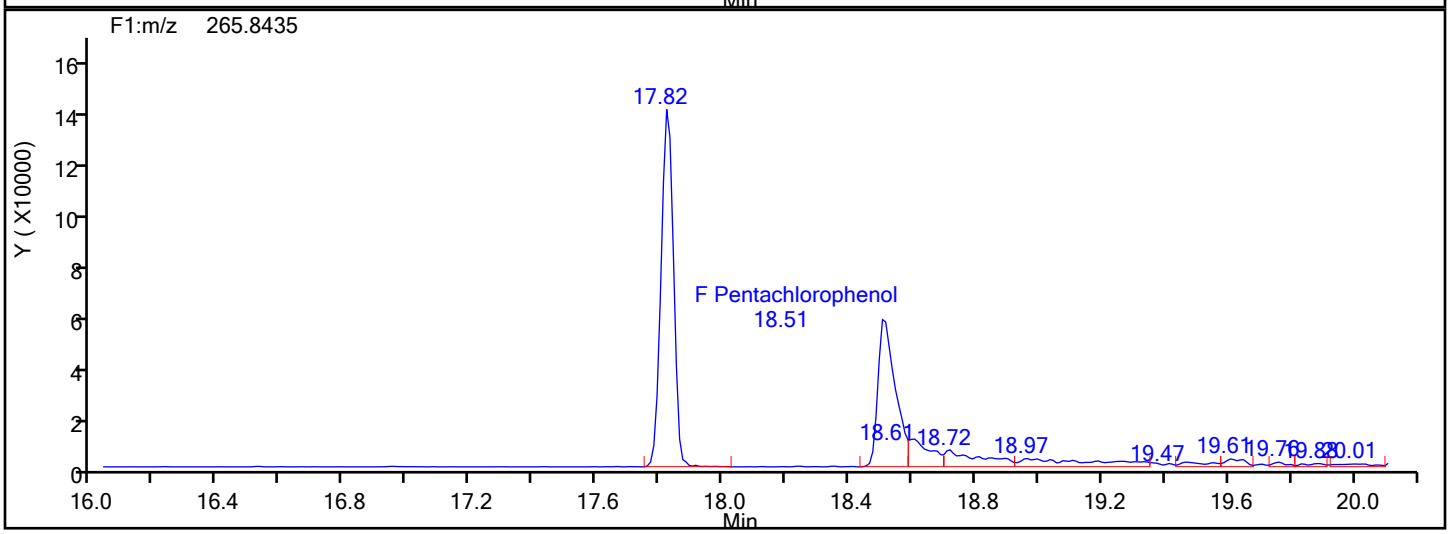
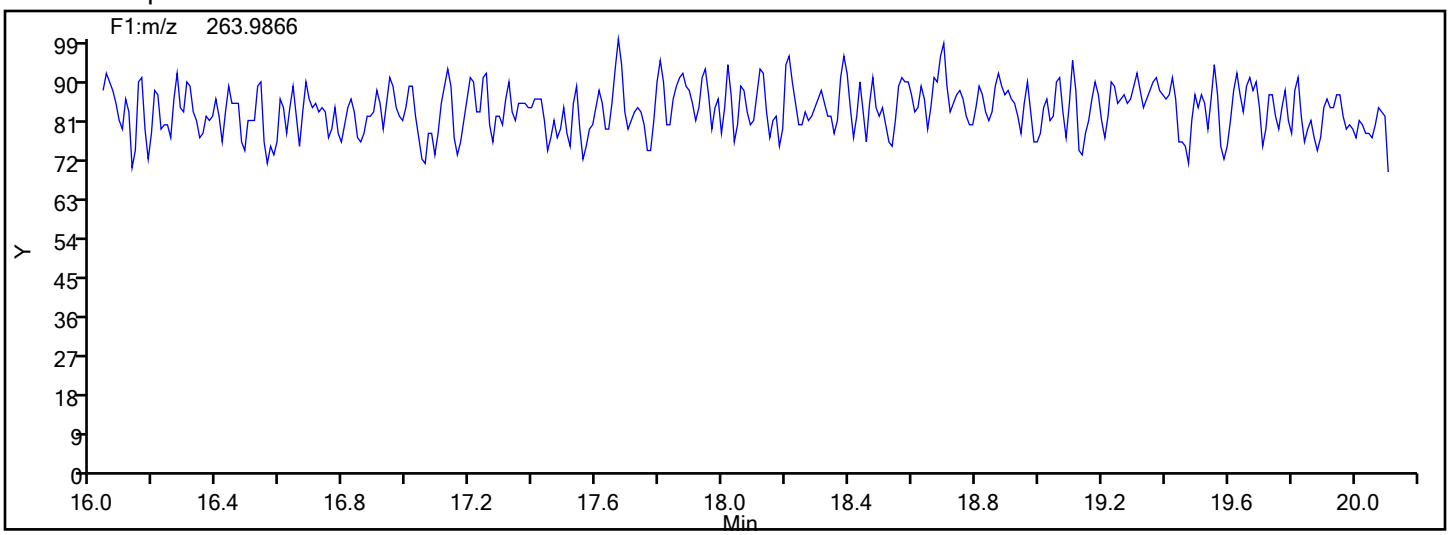
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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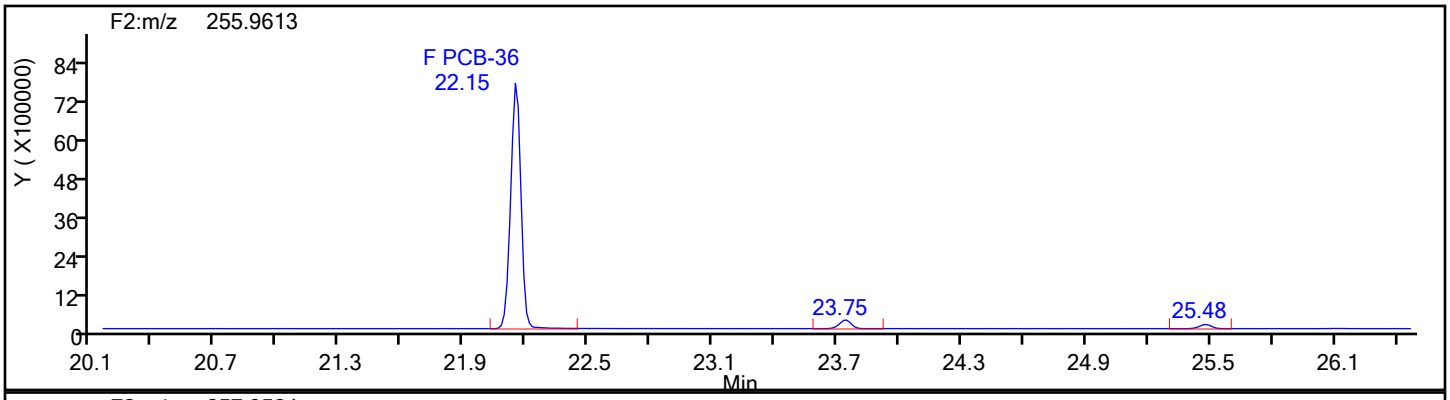
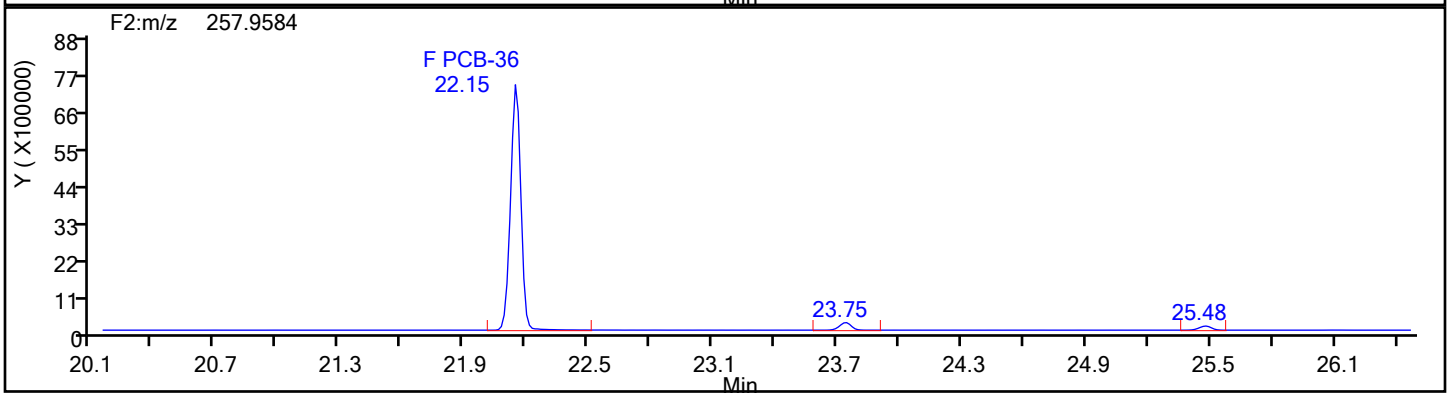
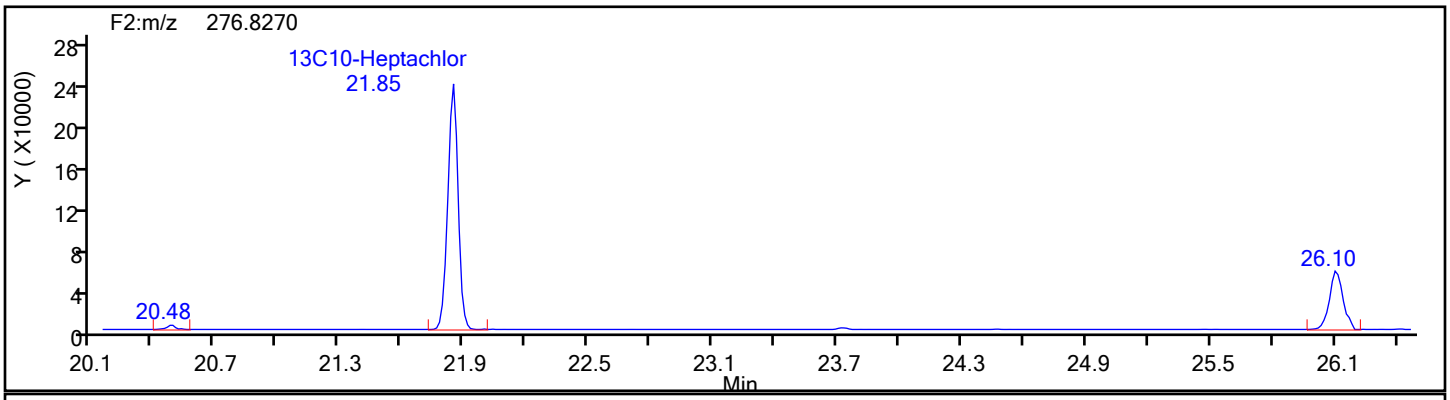
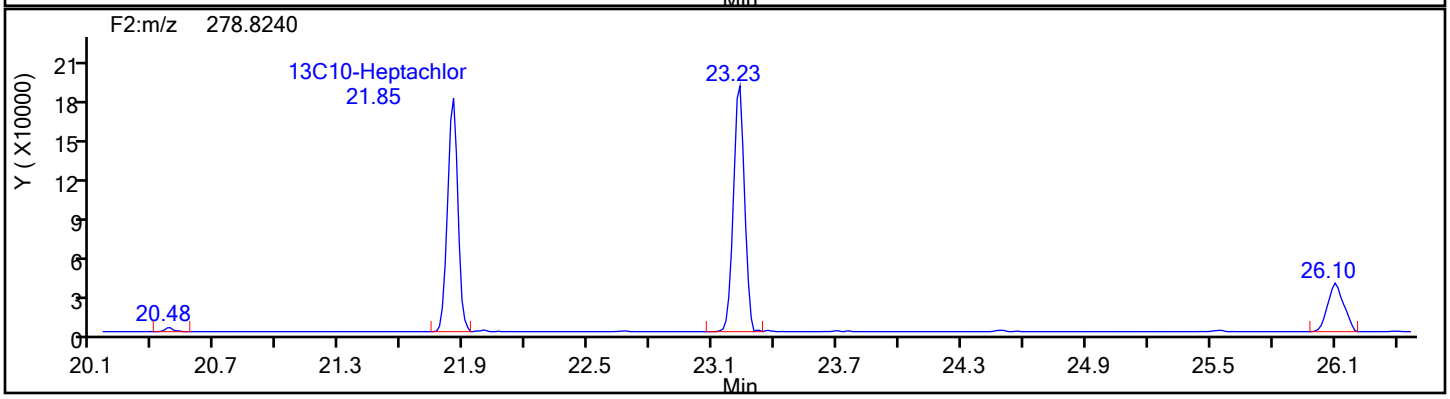
PCB-36





PCB-36 Standards



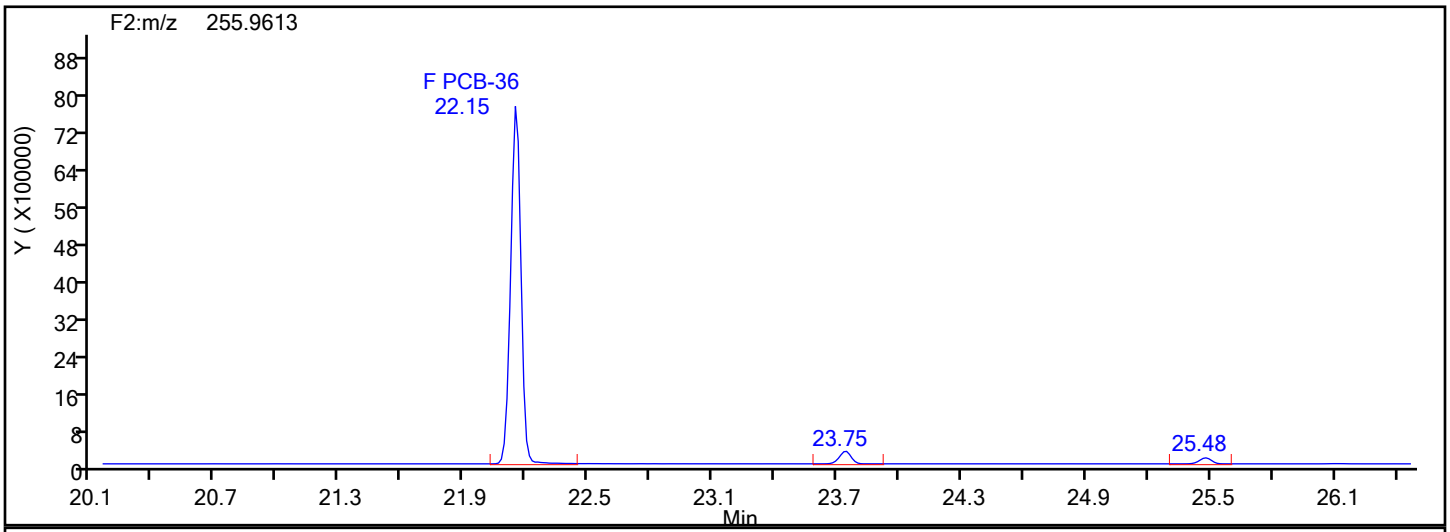


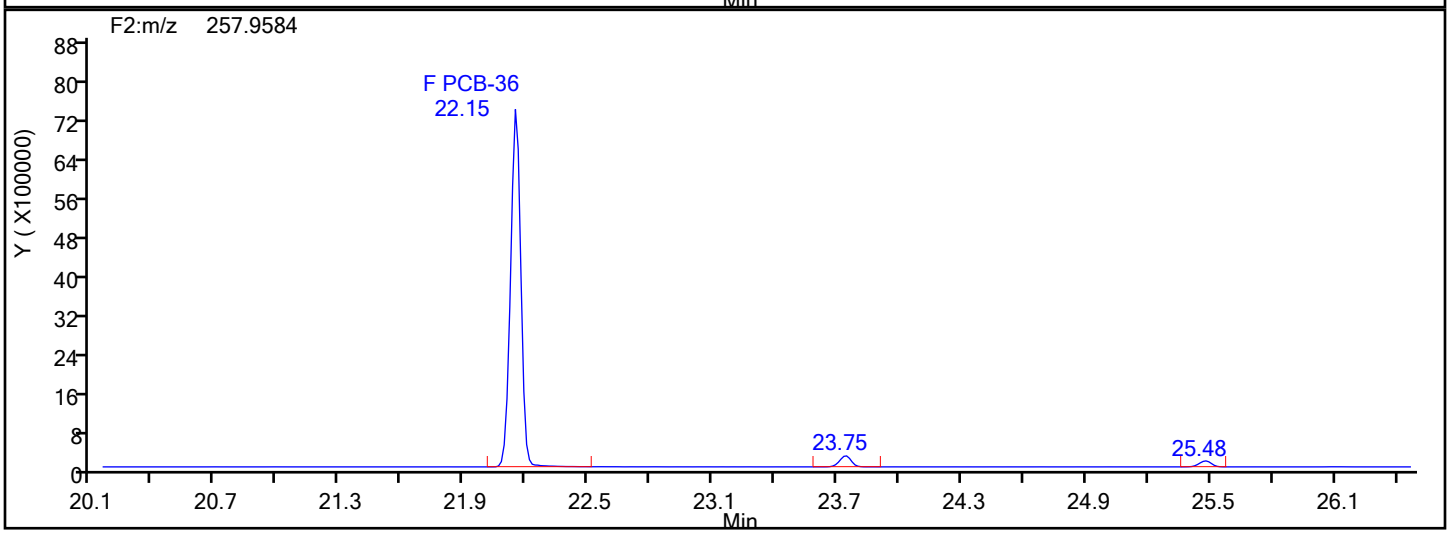
Report Date: 24-Mar-2025 13:06:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

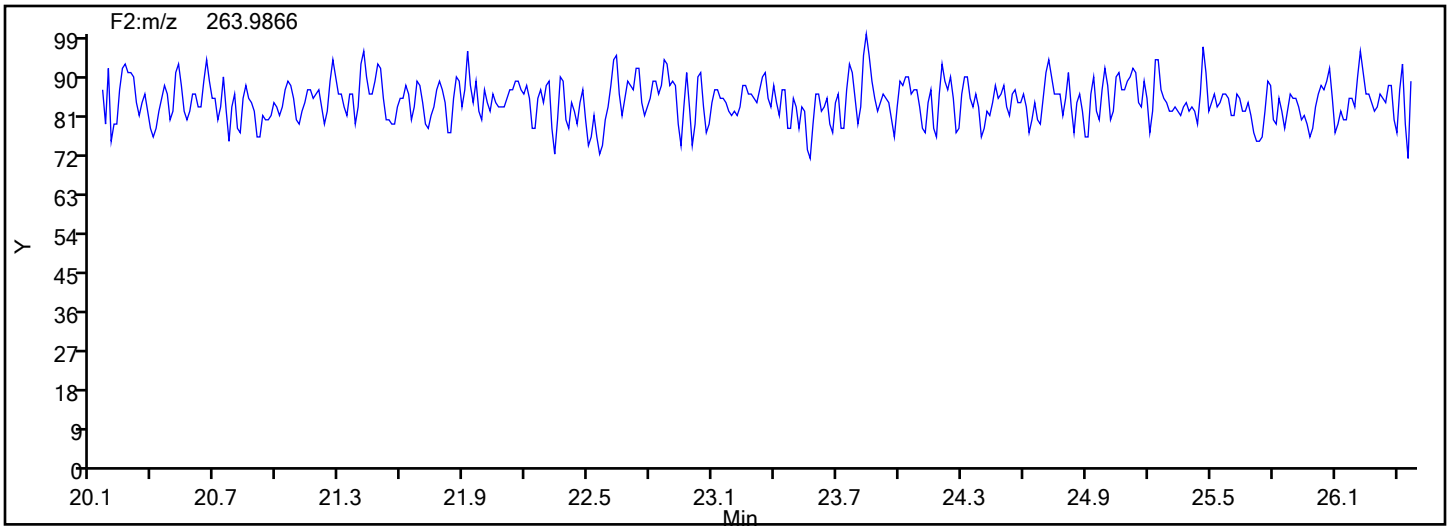
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



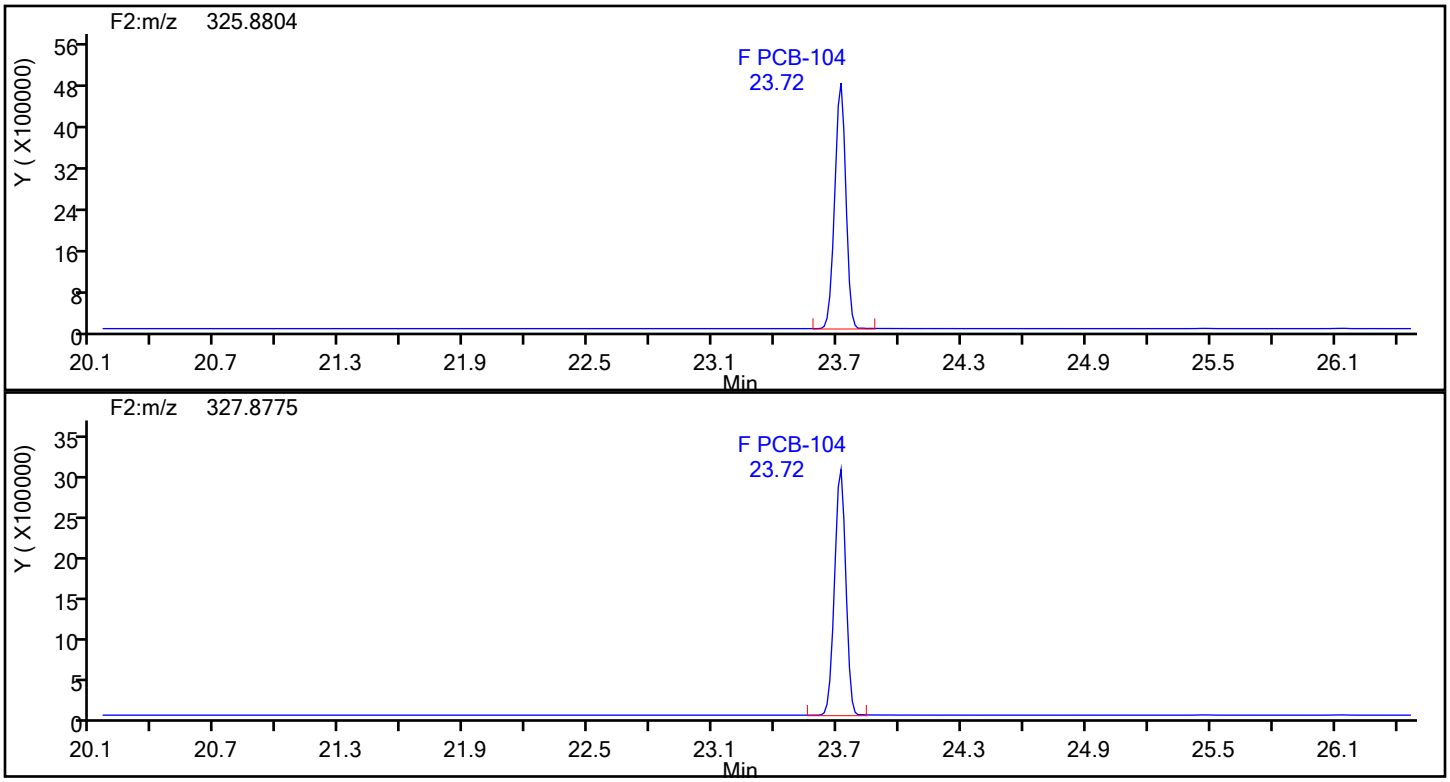
Report Date: 24-Mar-2025 13:06:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

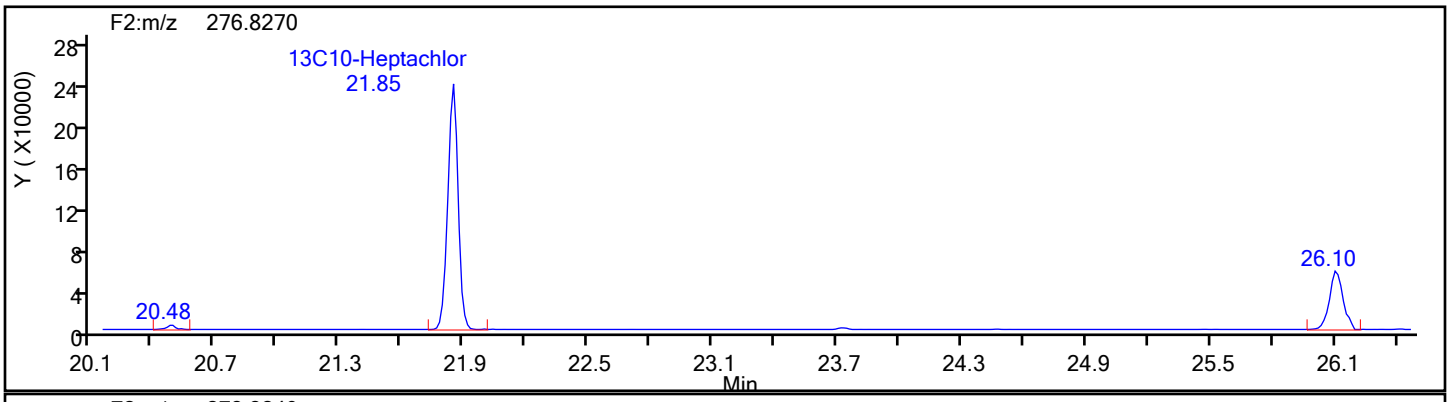
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

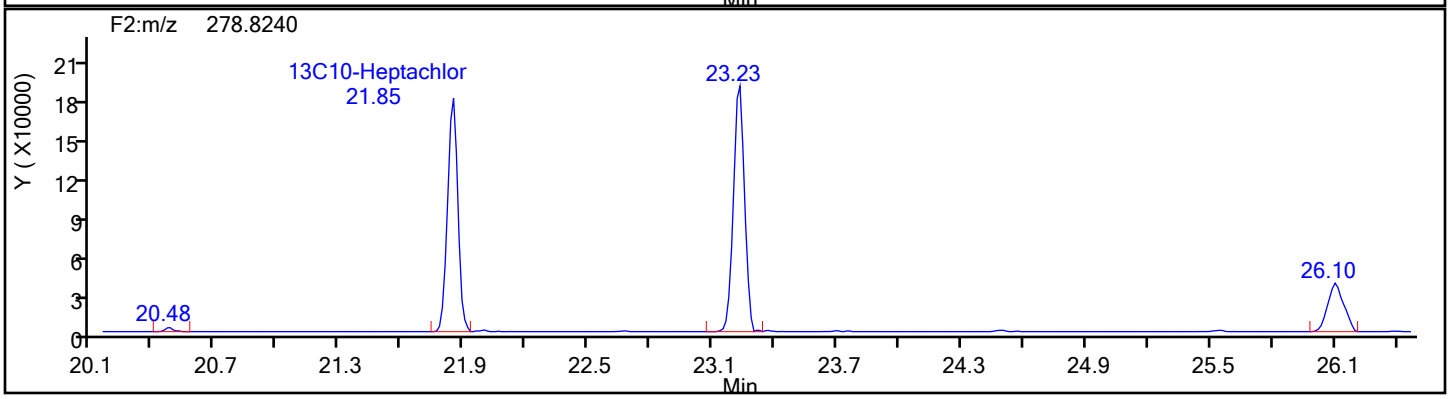
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards



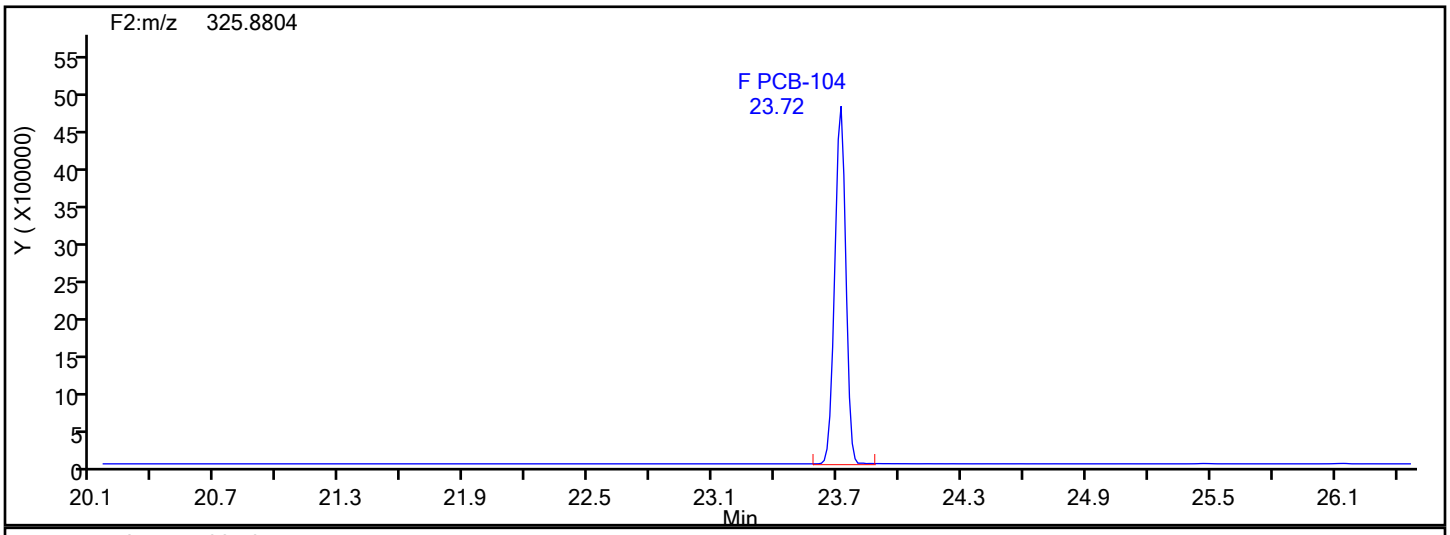


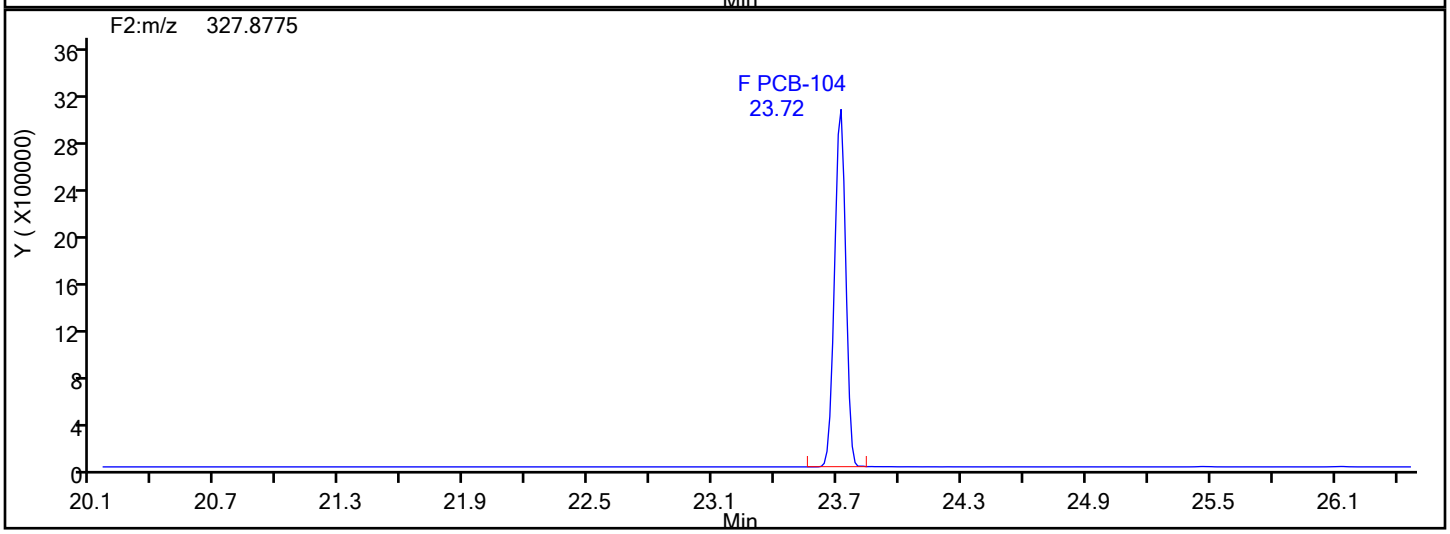
Report Date: 24-Mar-2025 13:06:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

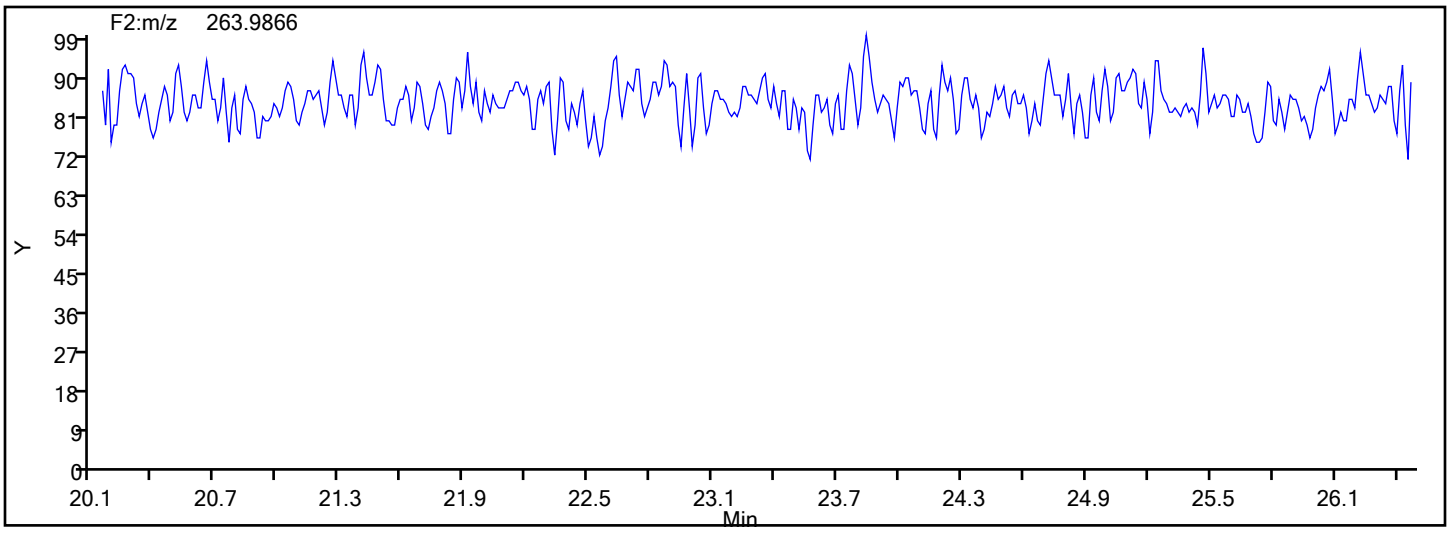
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



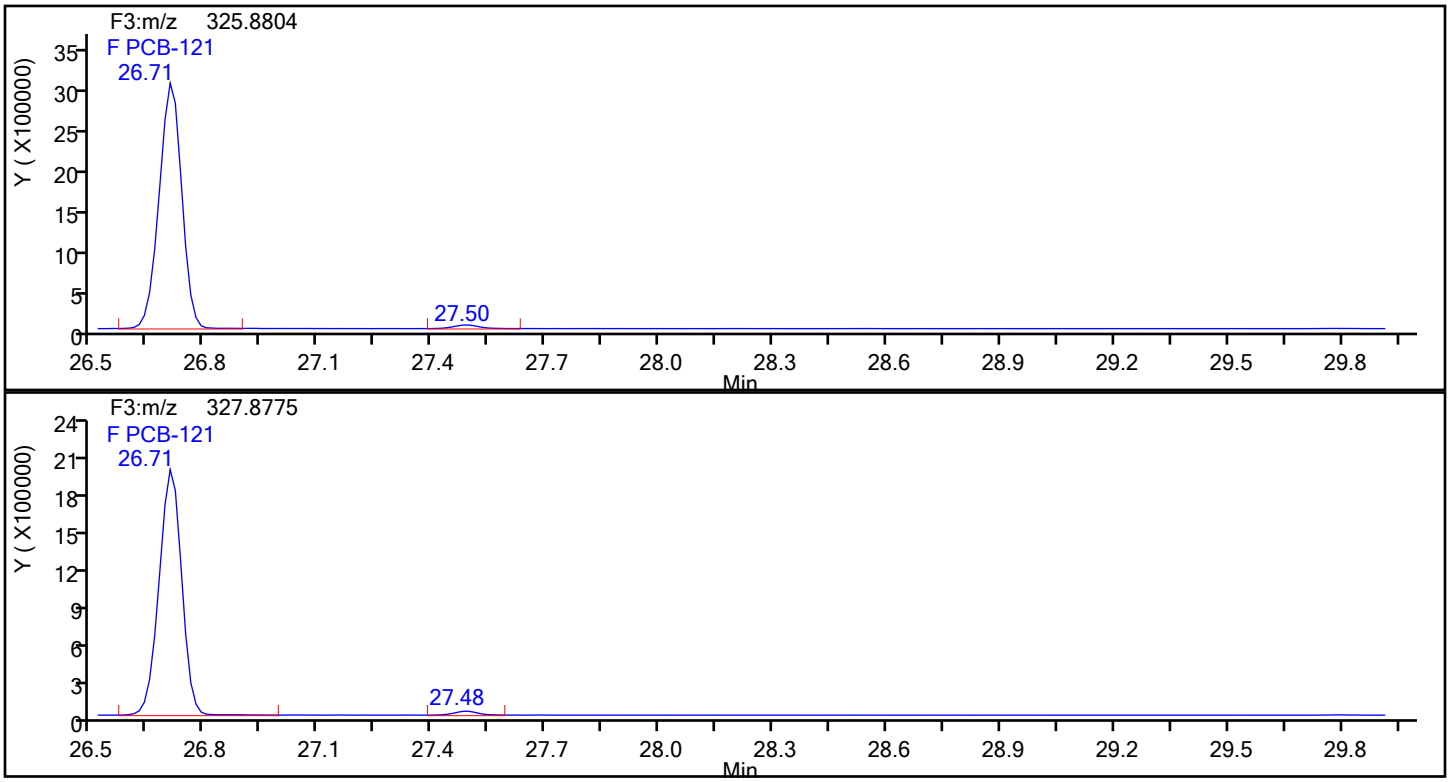
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

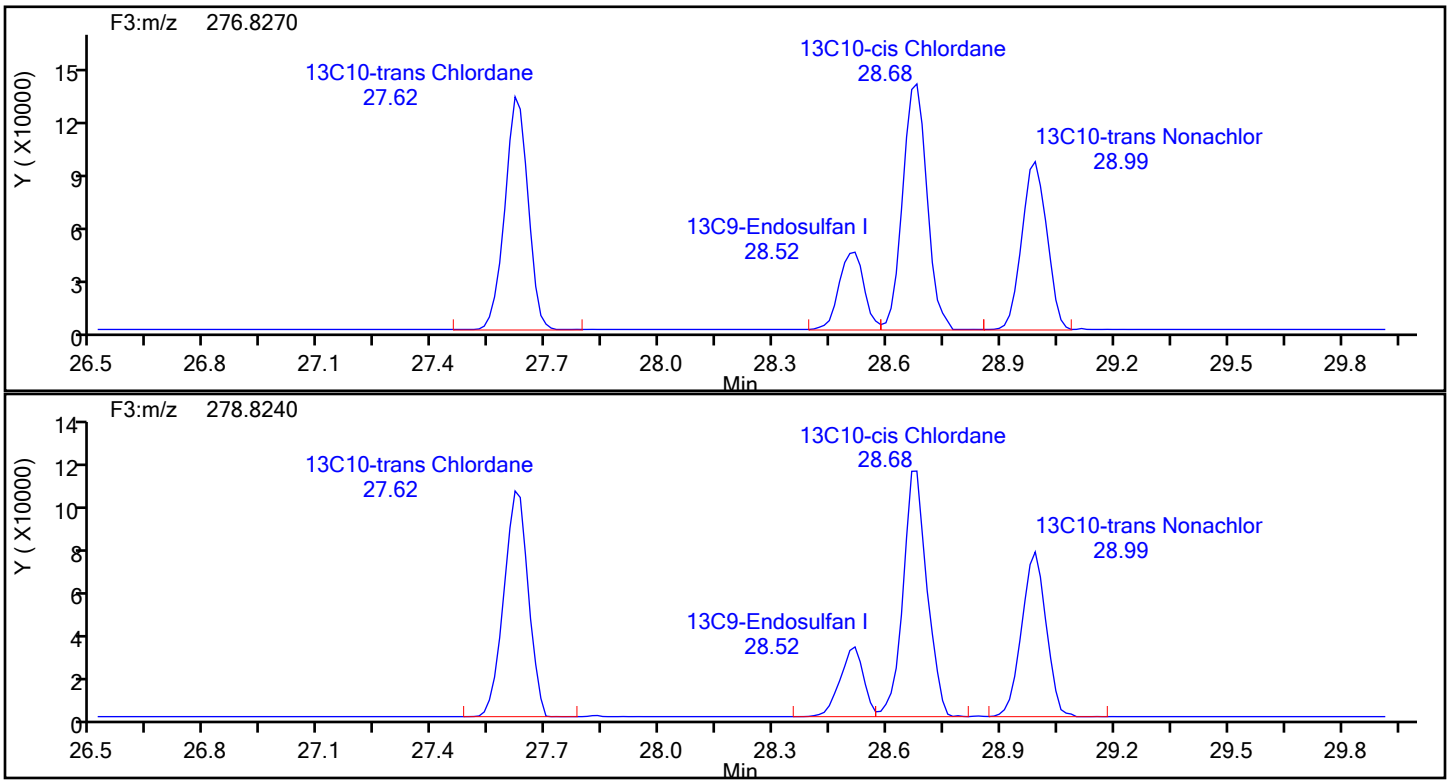
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

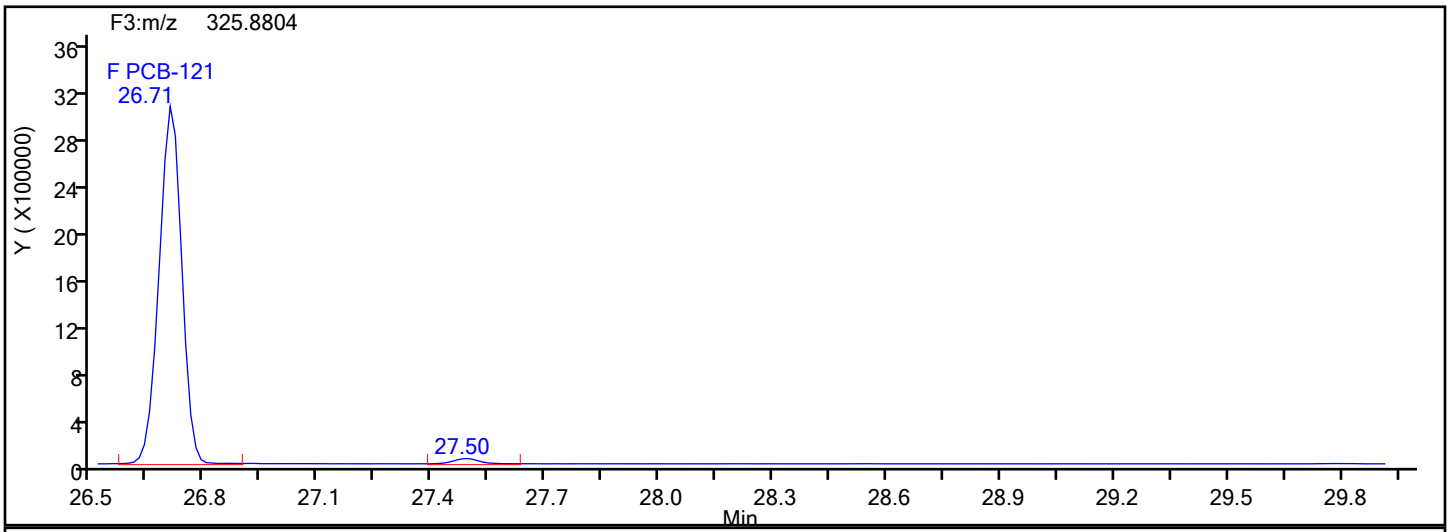


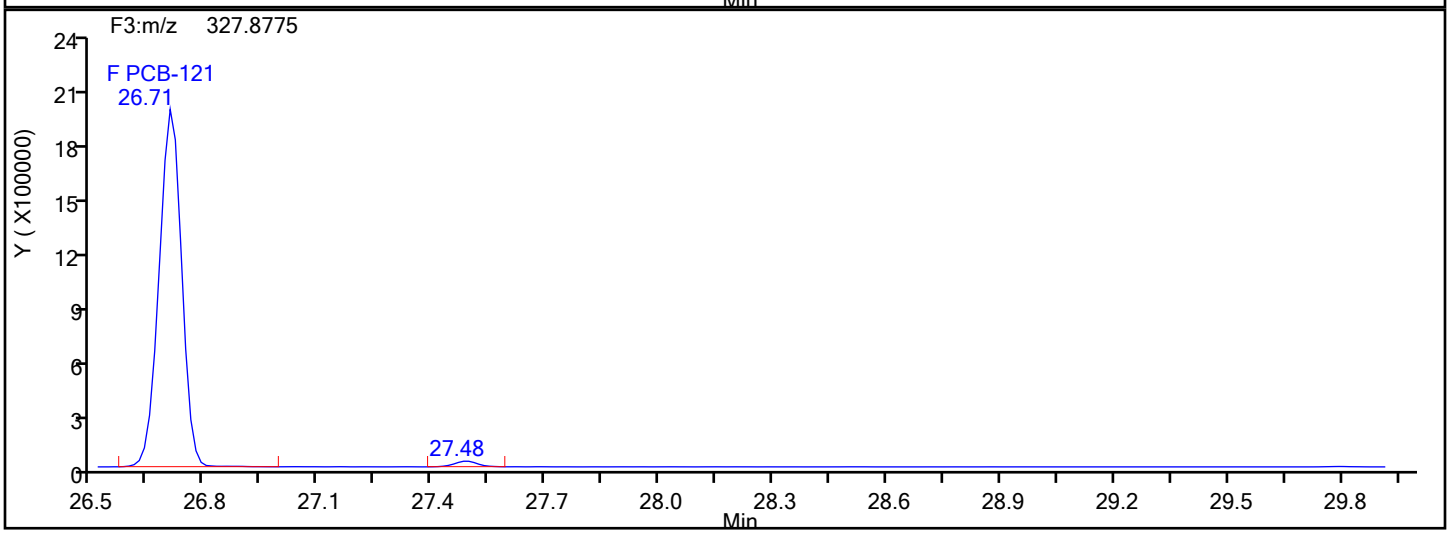
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

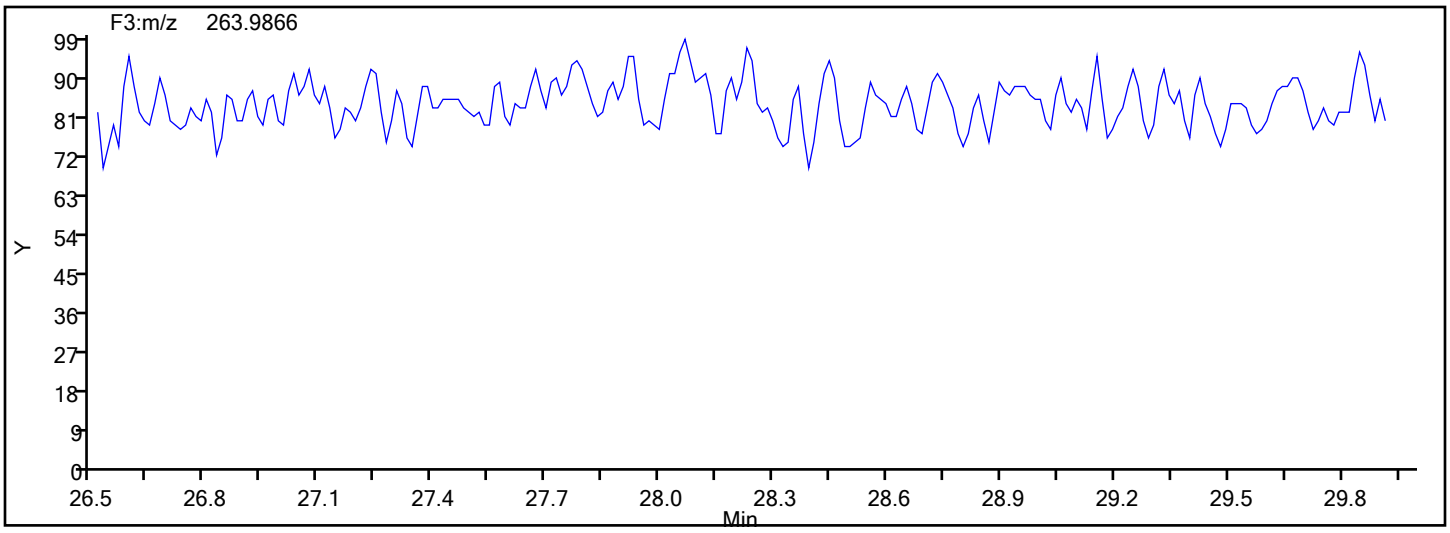
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



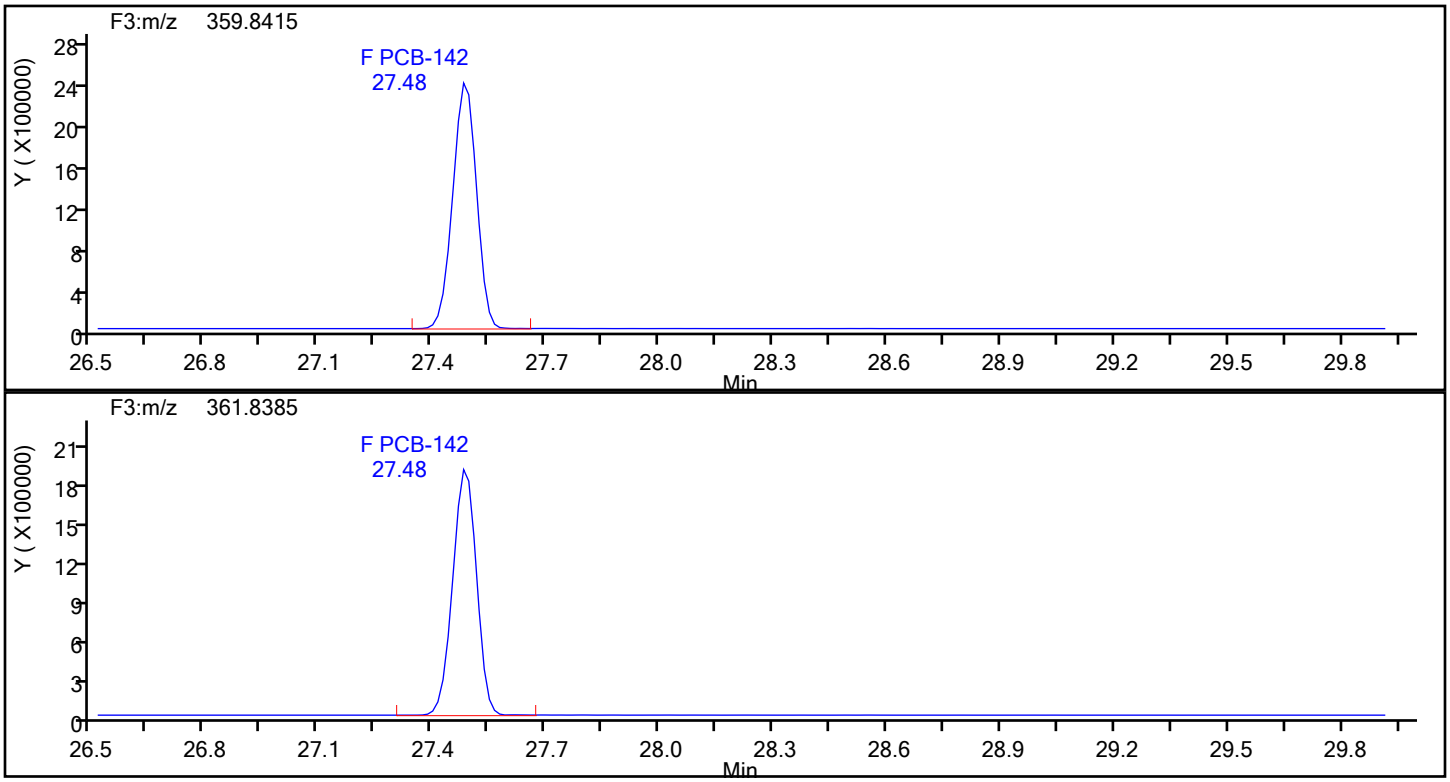
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

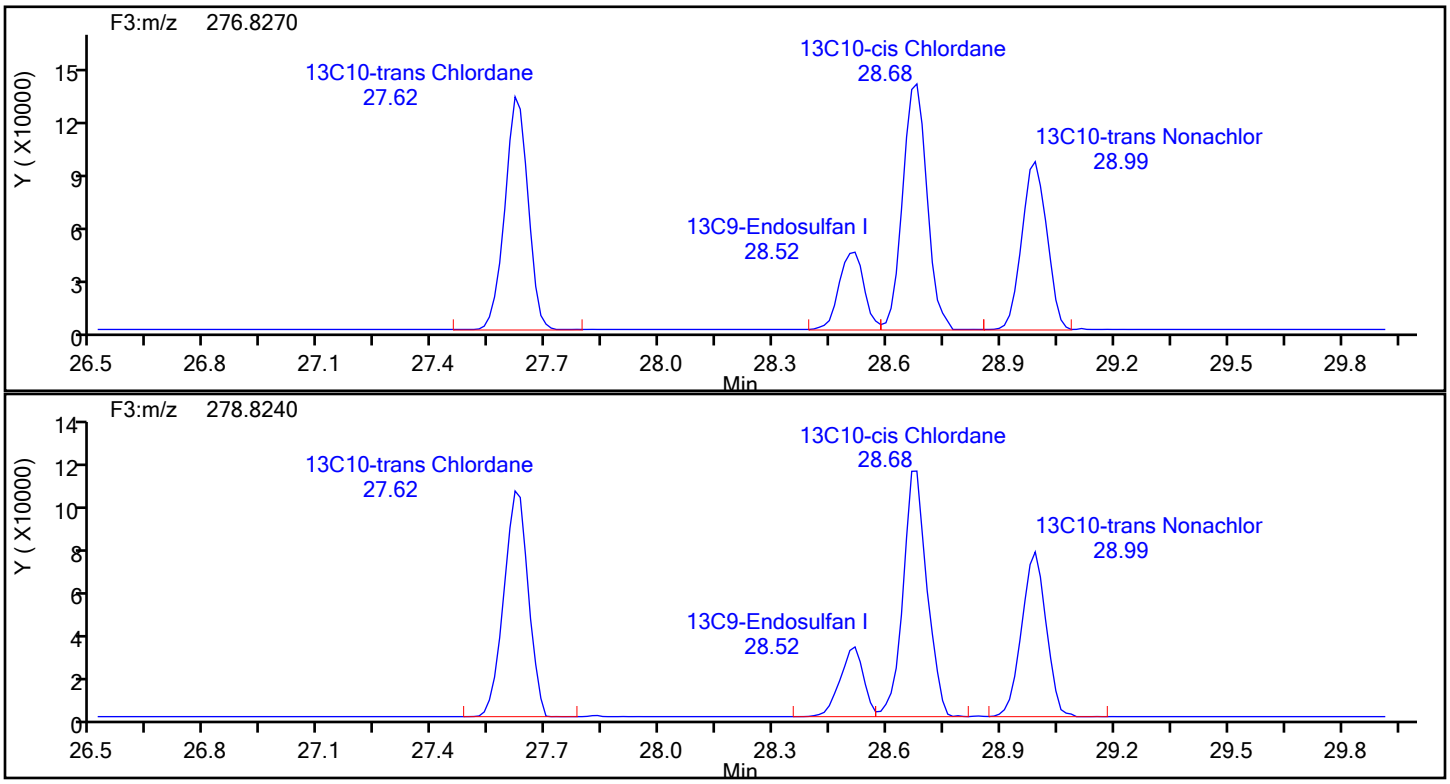
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

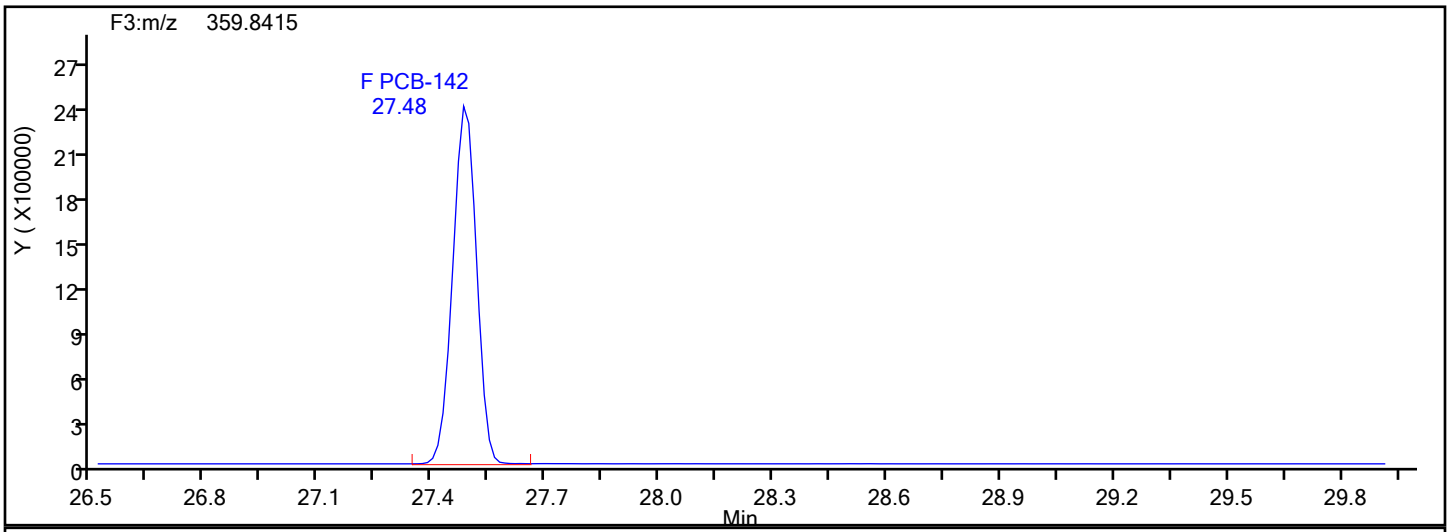


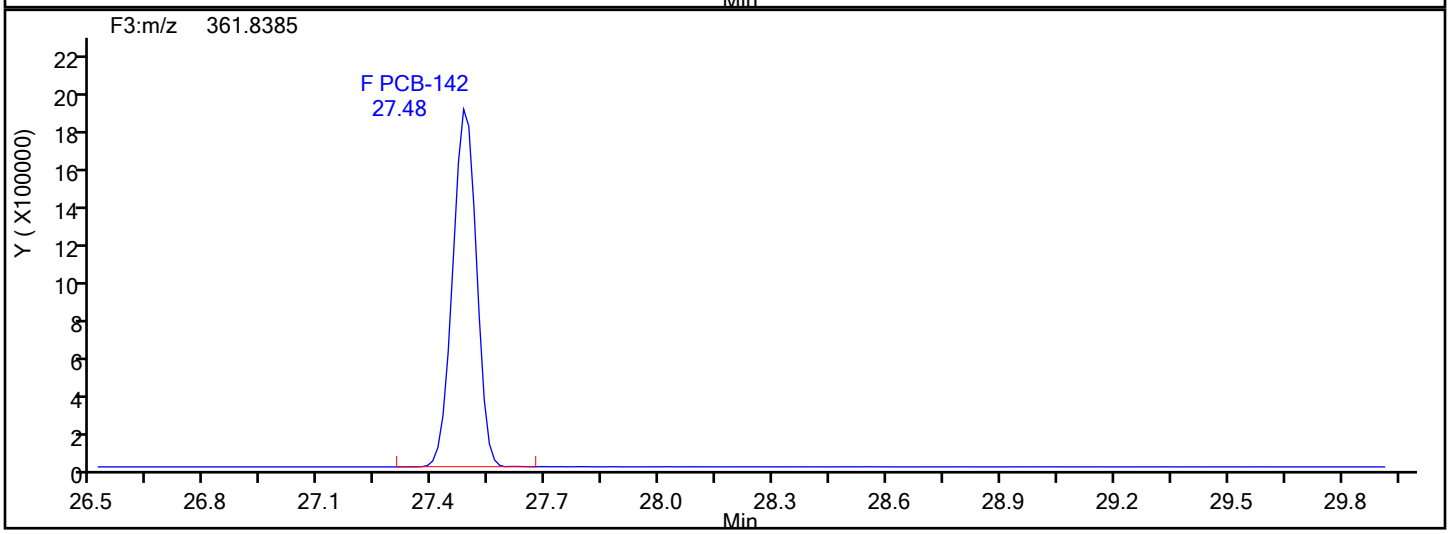
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

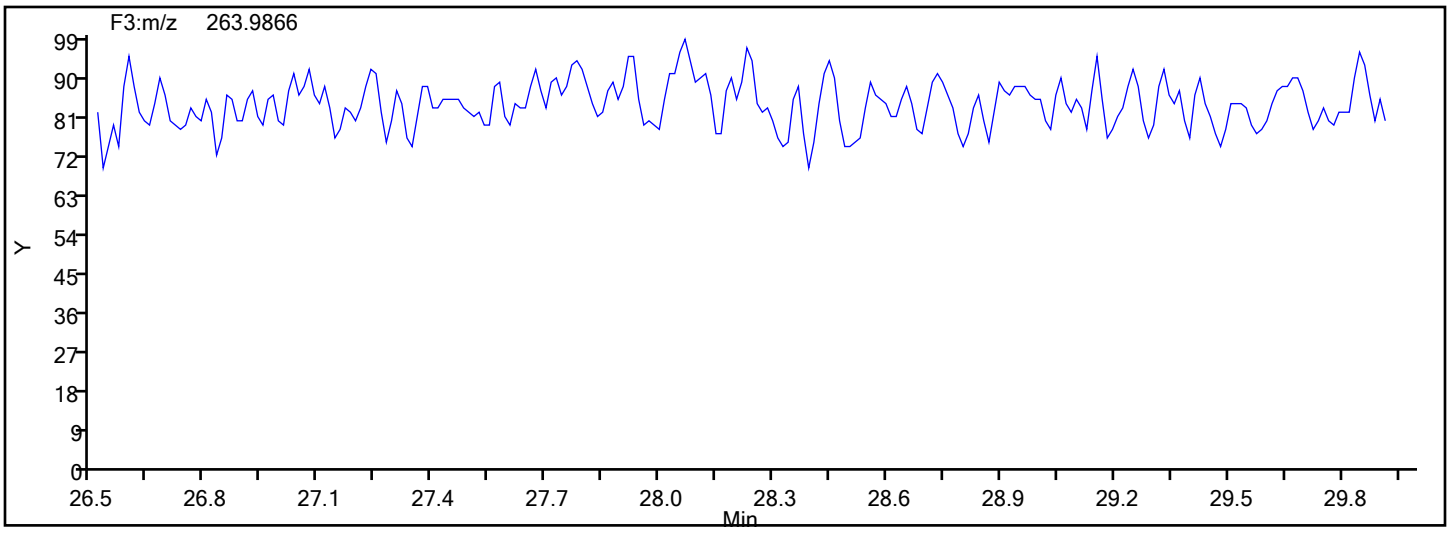
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



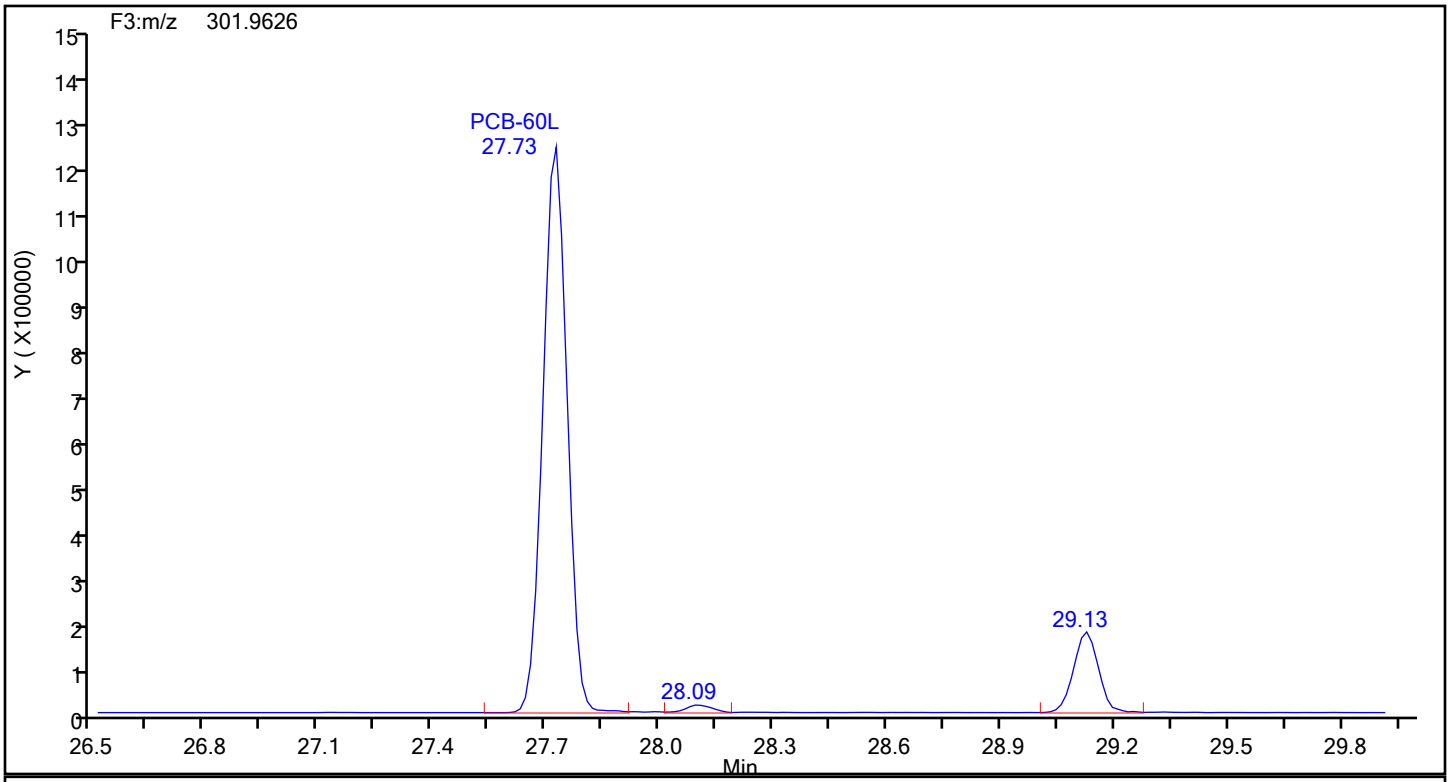
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

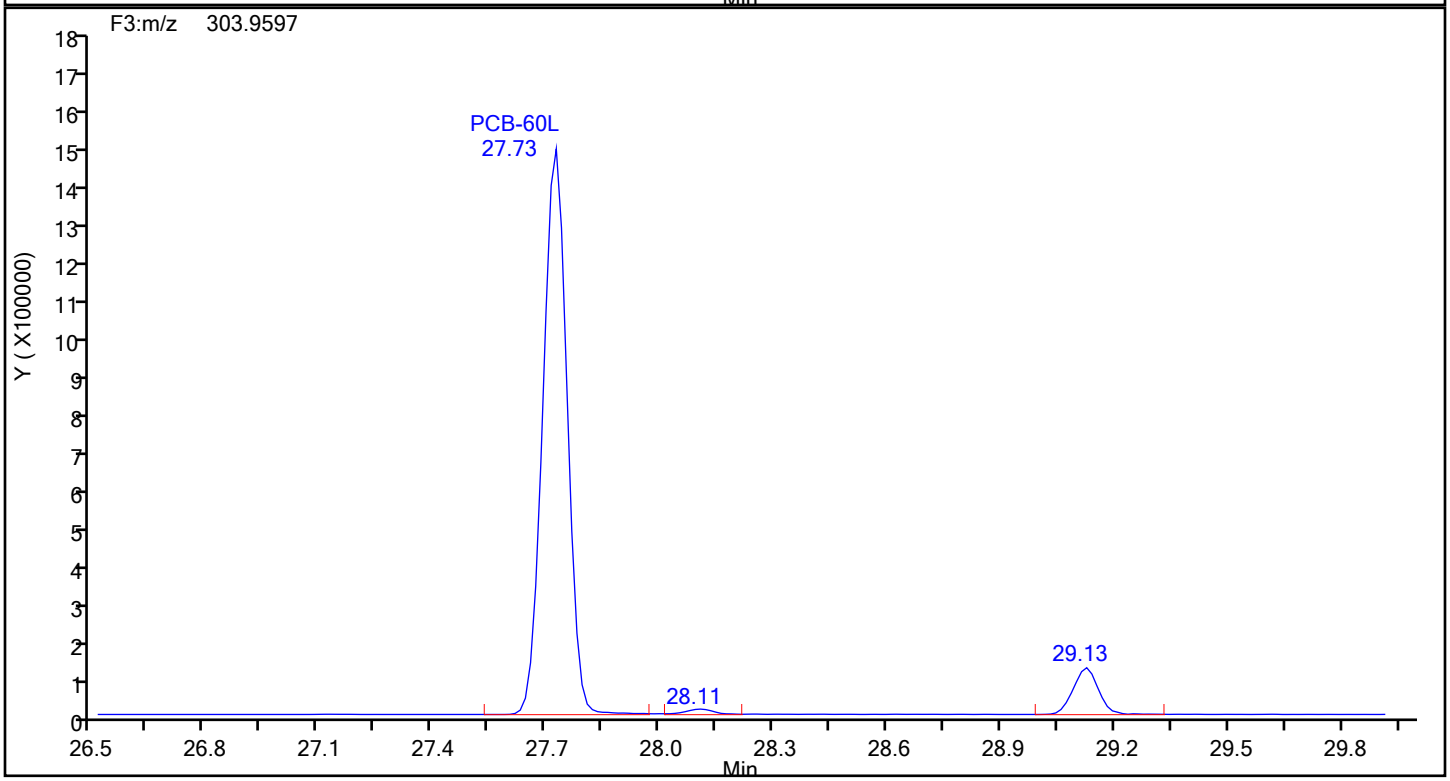
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

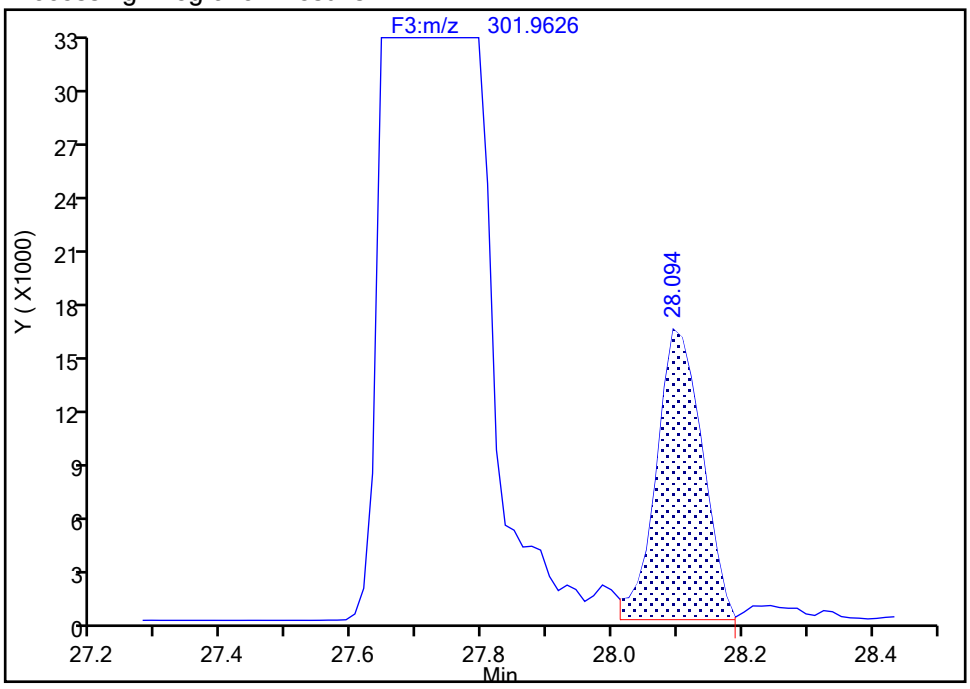
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Instrument ID: D3PST
Lims ID: IC L6
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

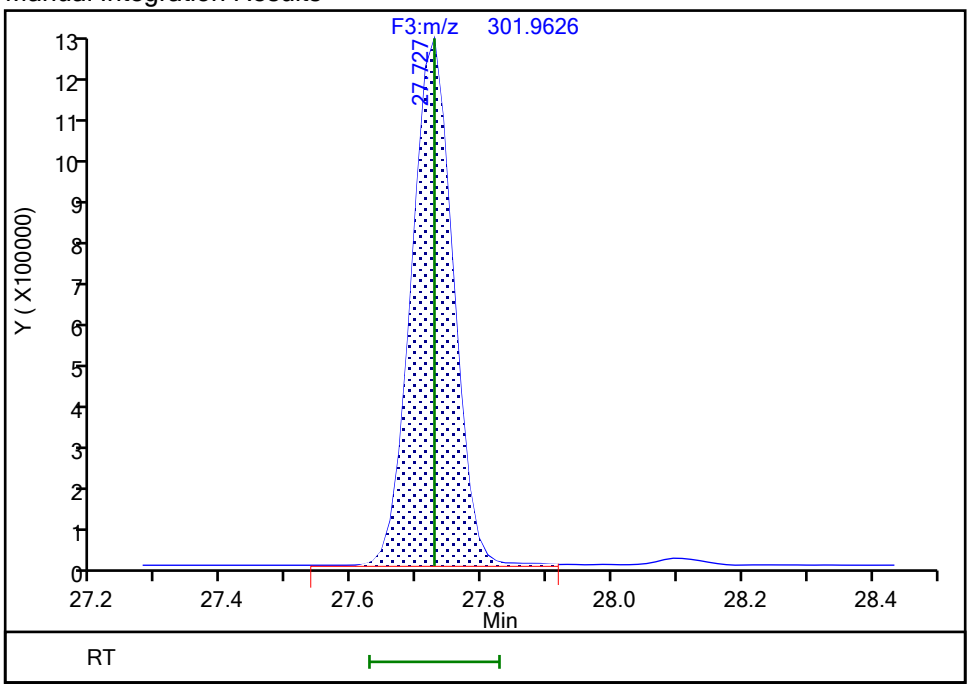
Processing Integration Results

RT: 28.09
Area: 79020
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 5404025
Amount: 100.0000
Amount Units: pg/ul



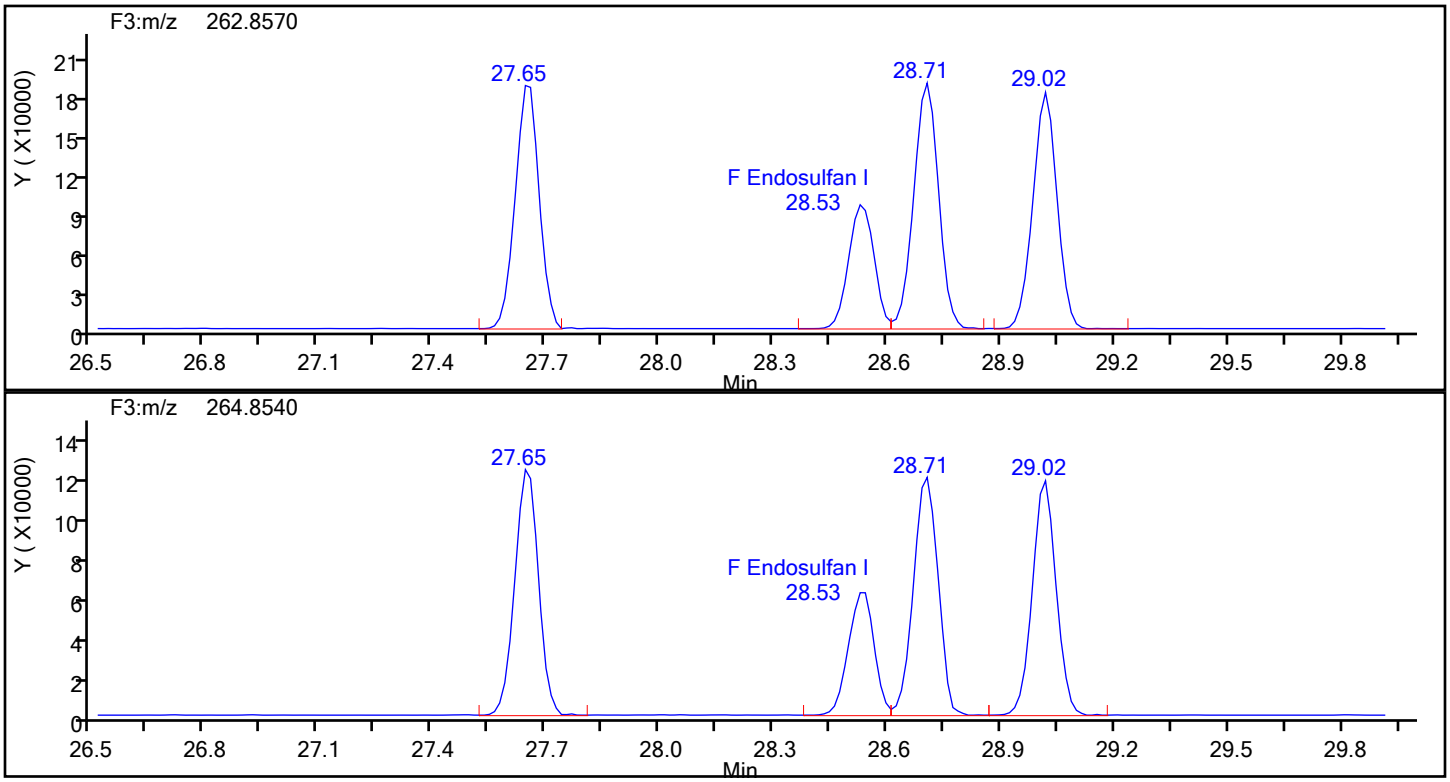
Reviewer: F9EE, 20-Mar-2025 15:39:20 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

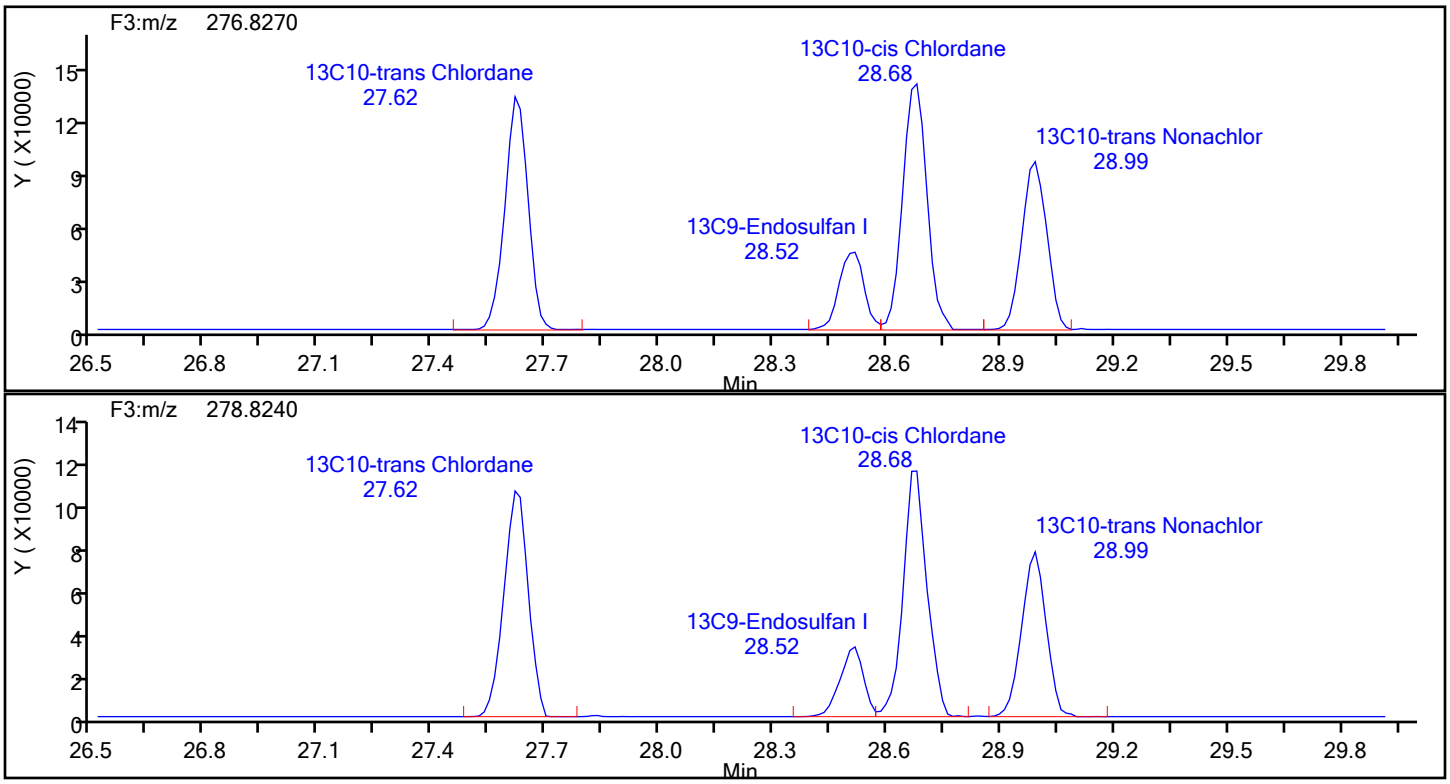
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I



Endosulfan I Standards

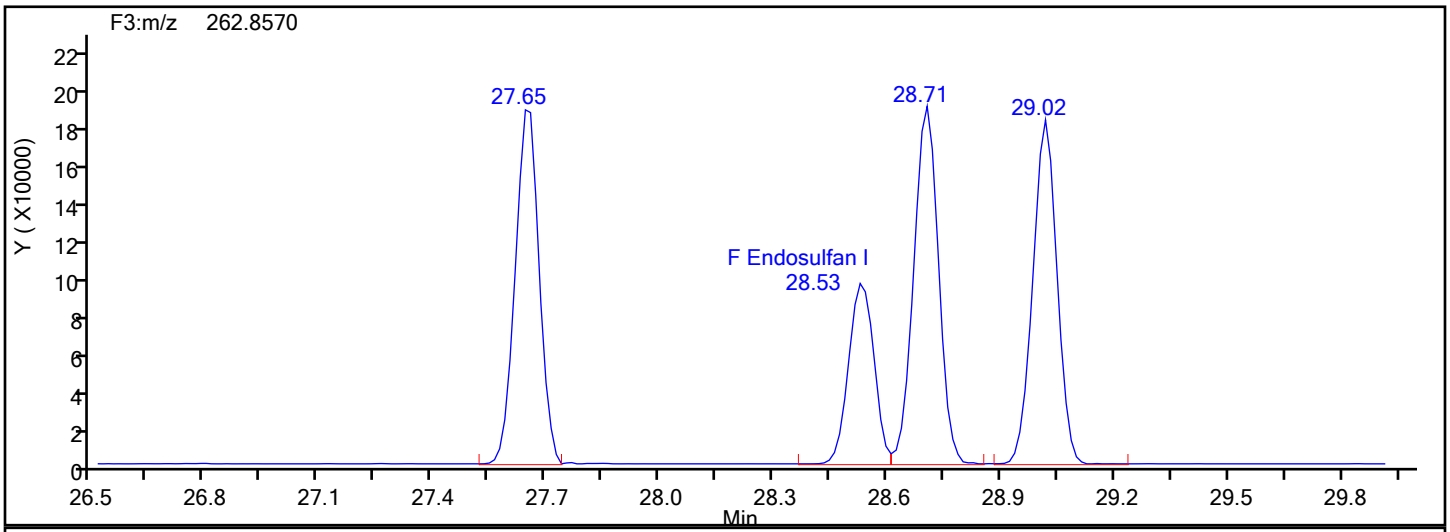


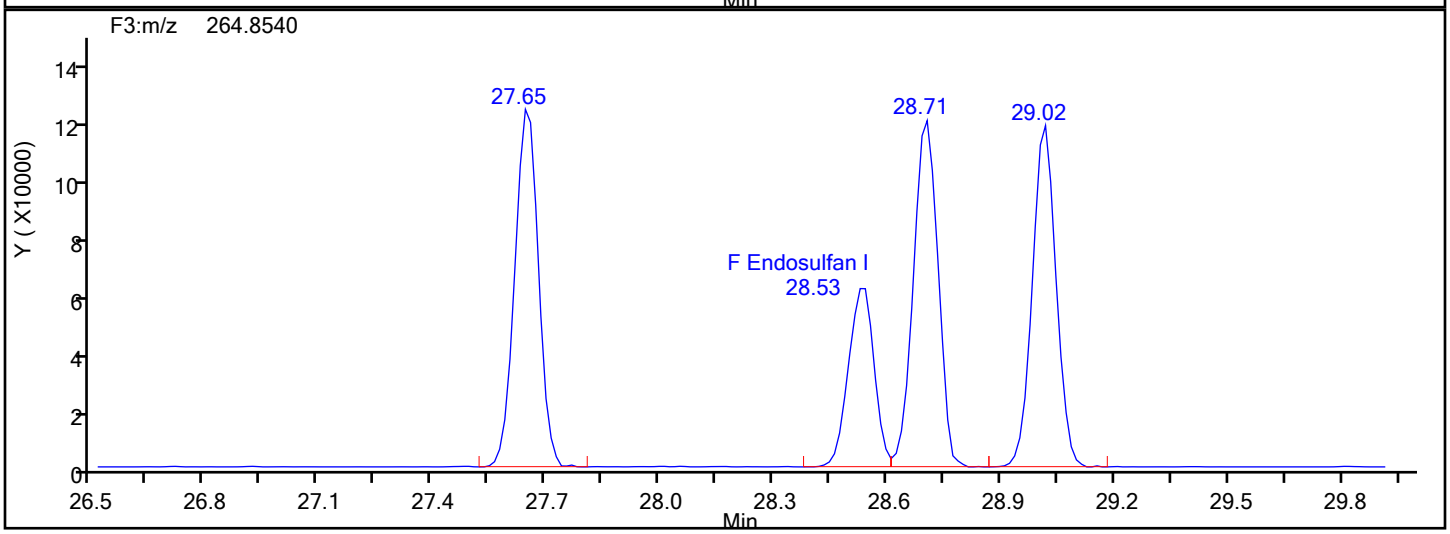
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

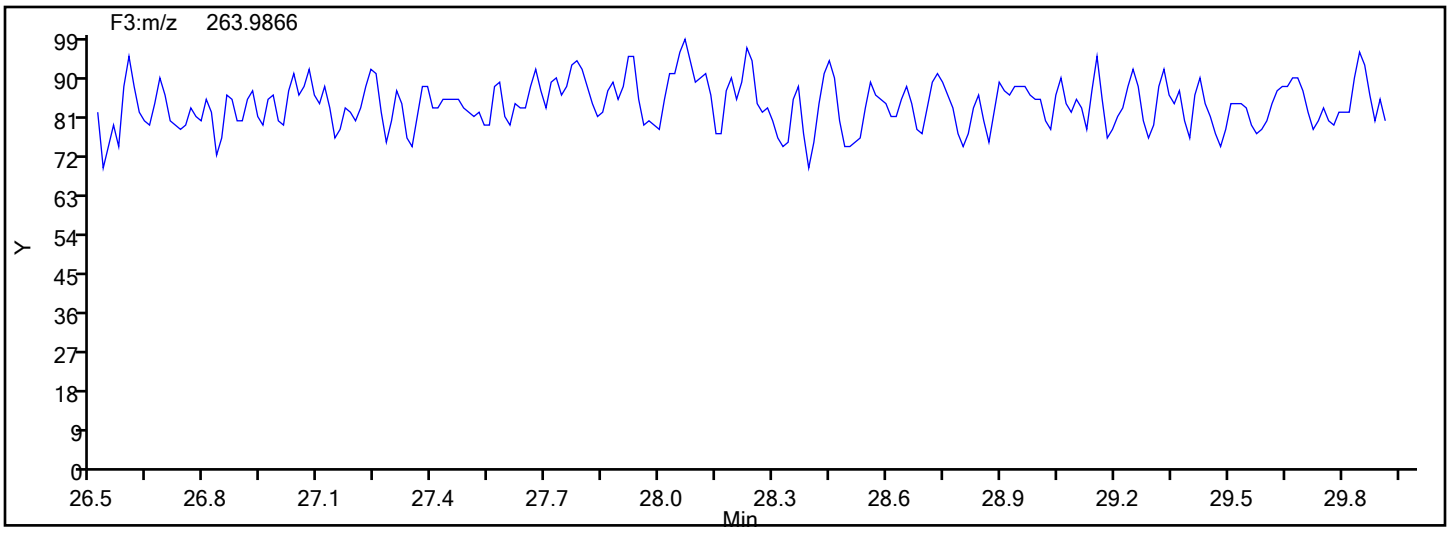
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



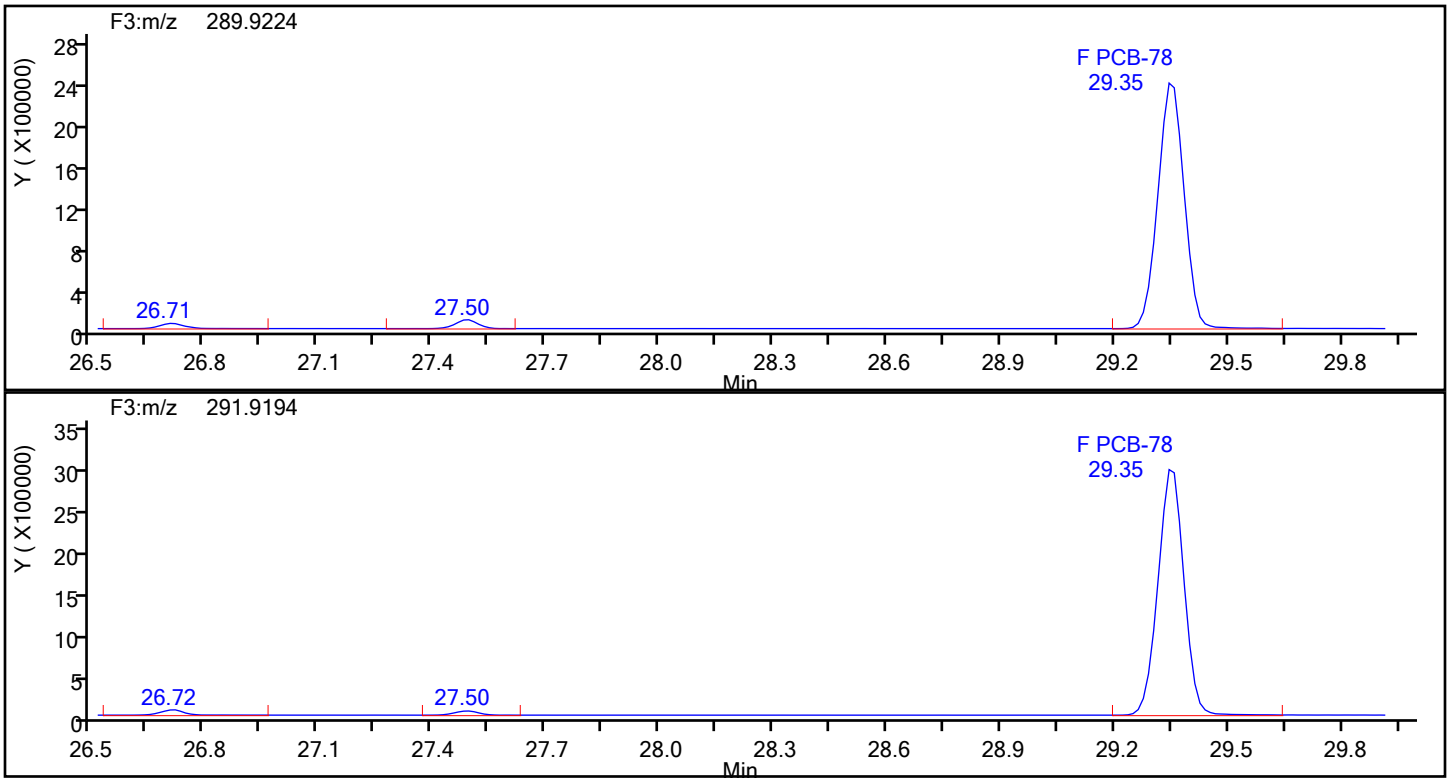
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

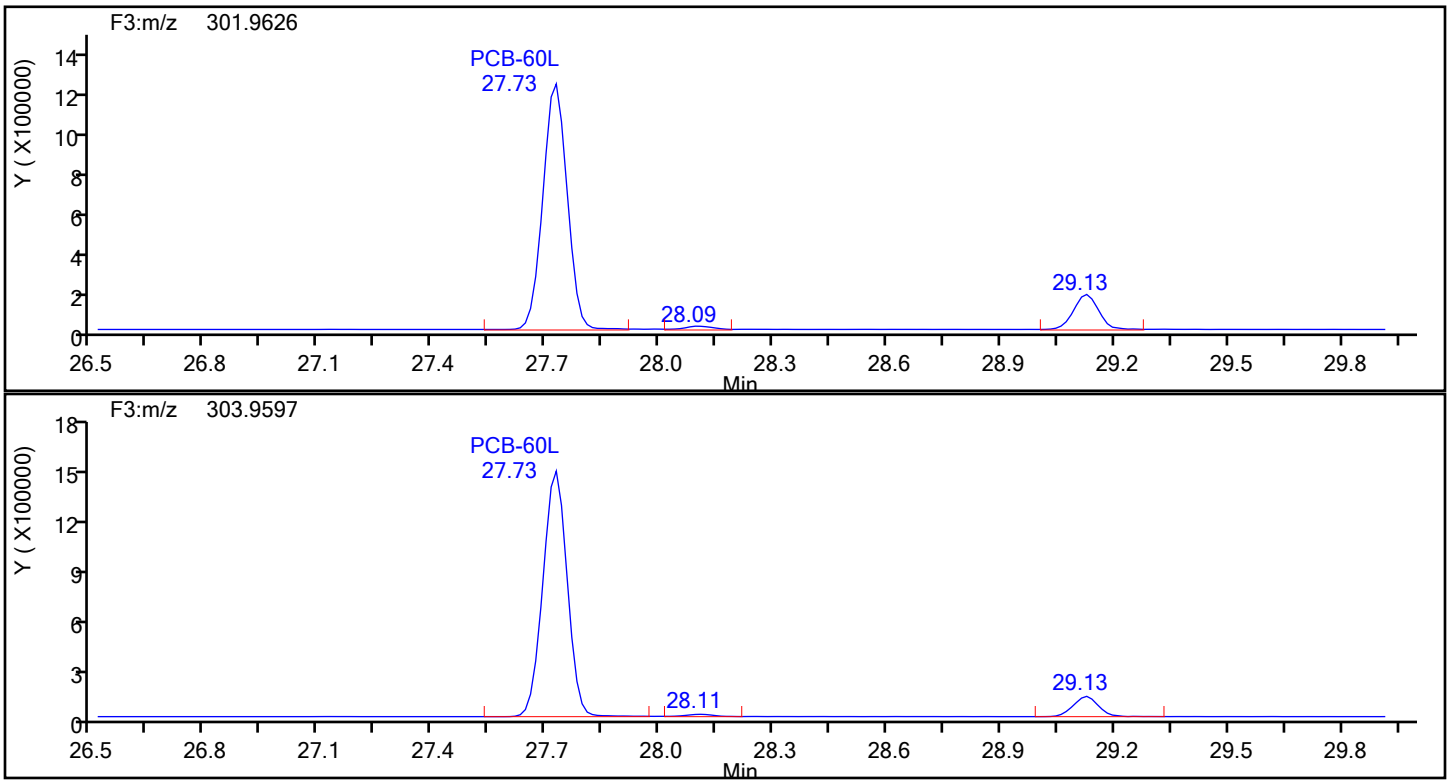
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

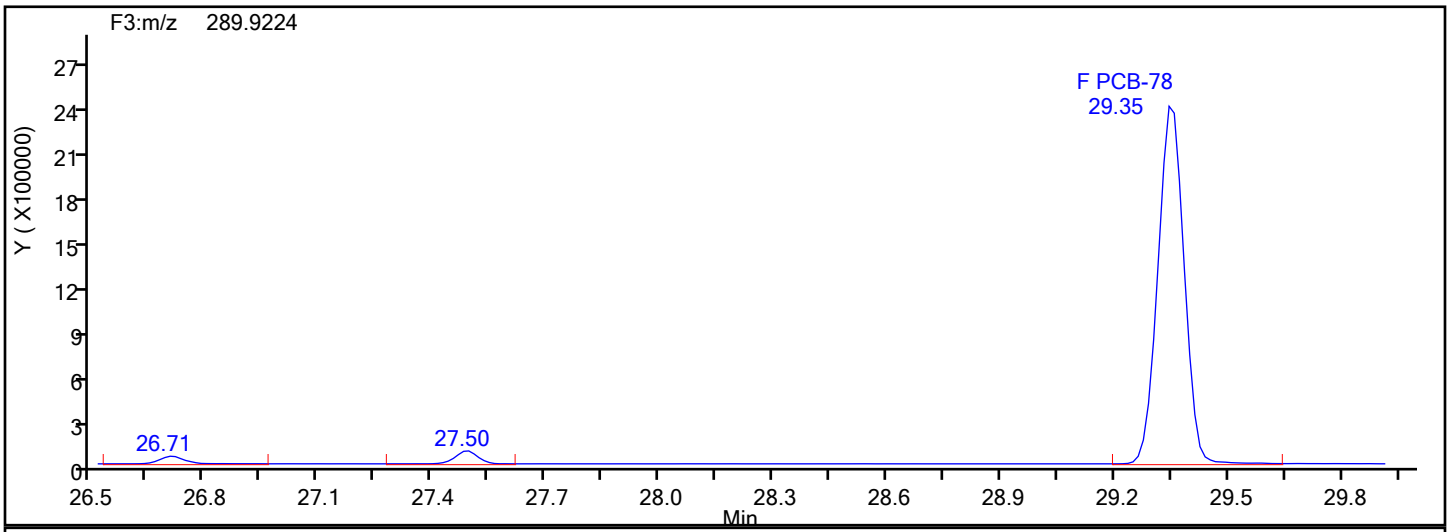


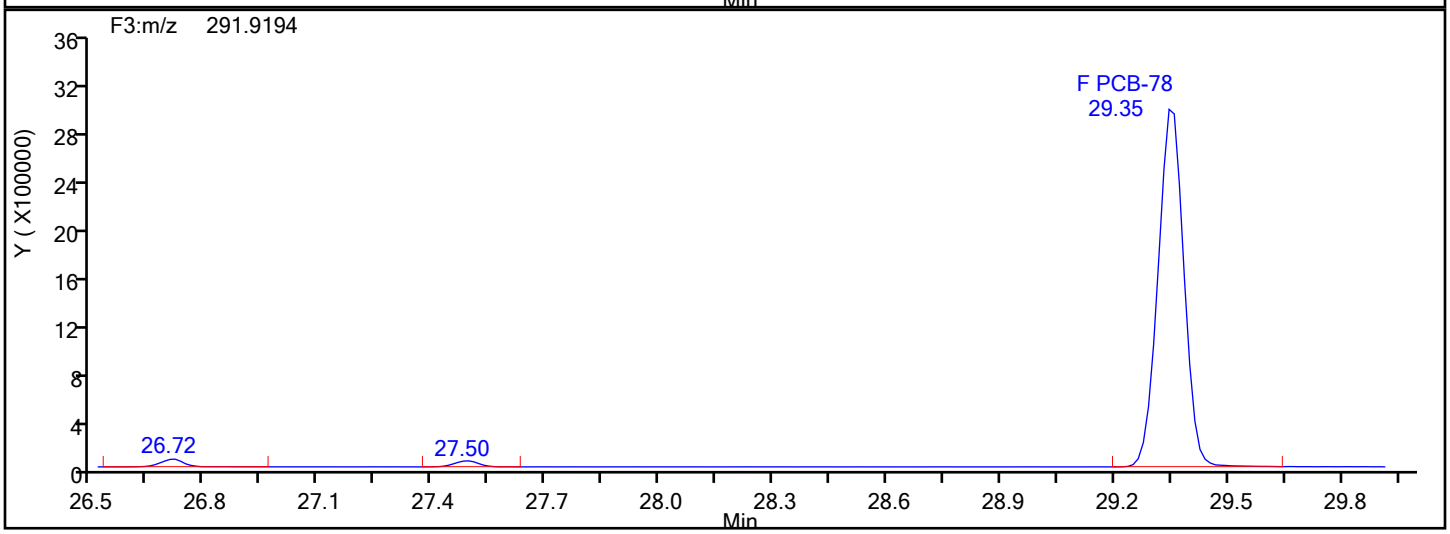
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

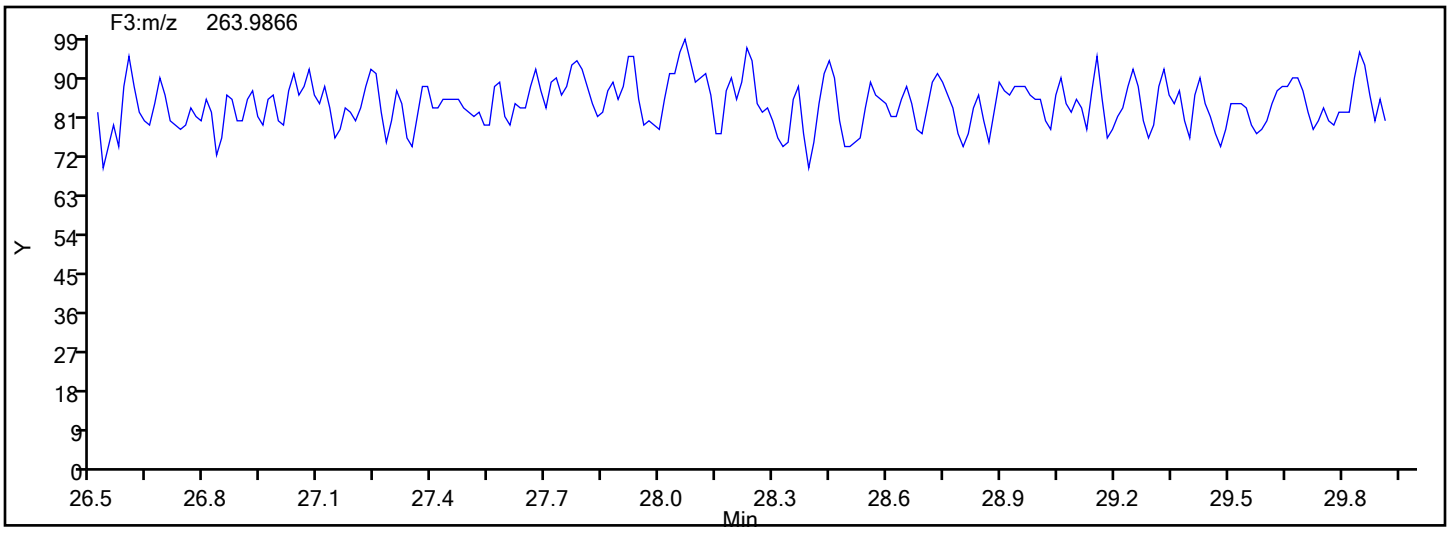
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

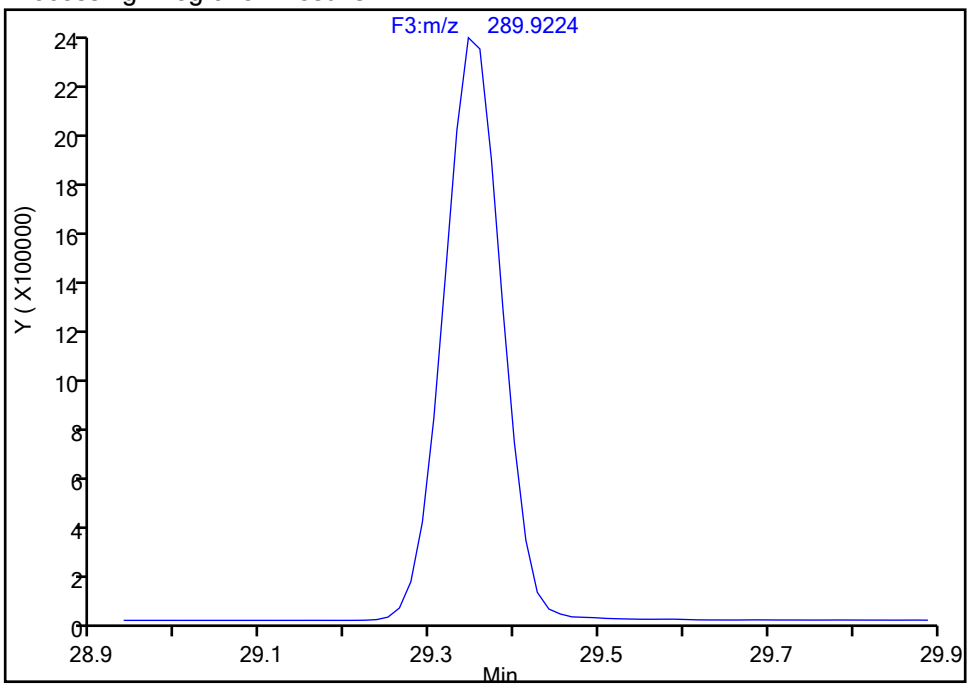
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Instrument ID: D3PST
Lims ID: IC L6
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

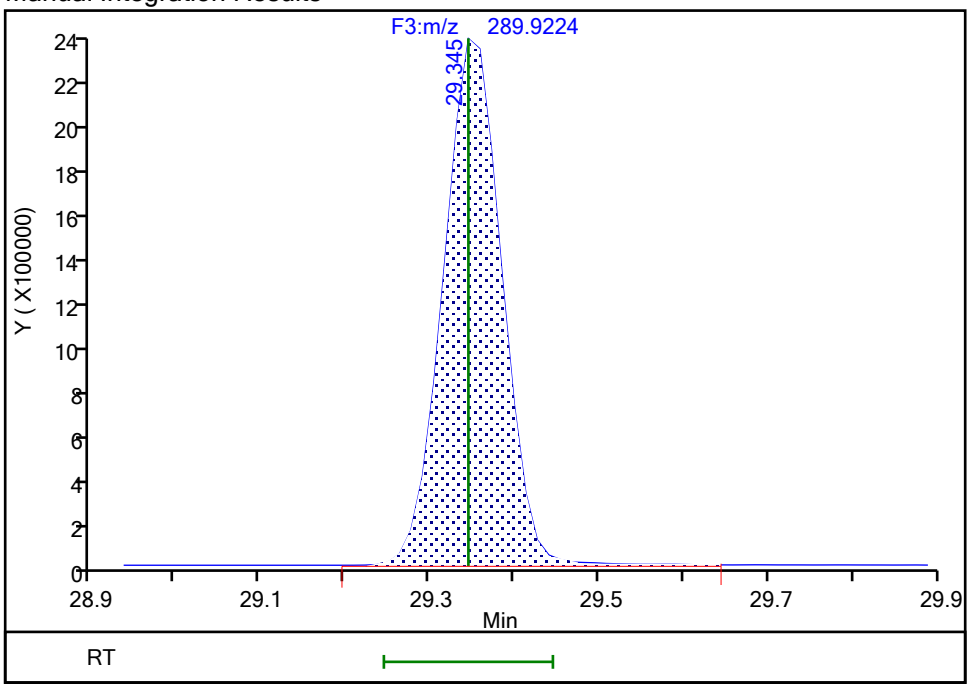
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.35
Area: 11350784
Amount: 231.6821
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:56:15 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

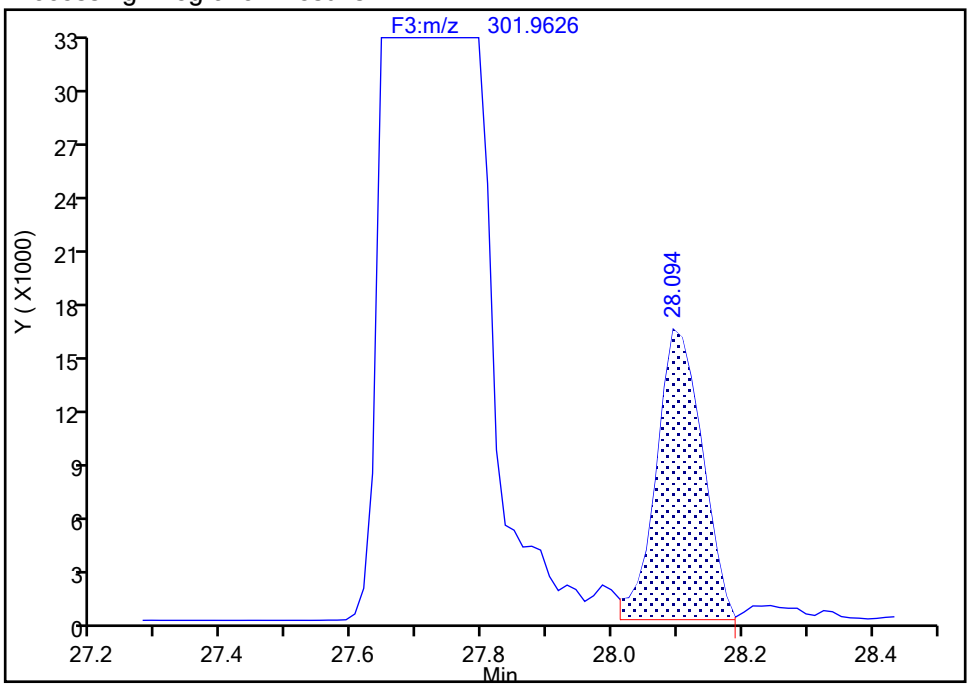
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Instrument ID: D3PST
Lims ID: IC L6
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

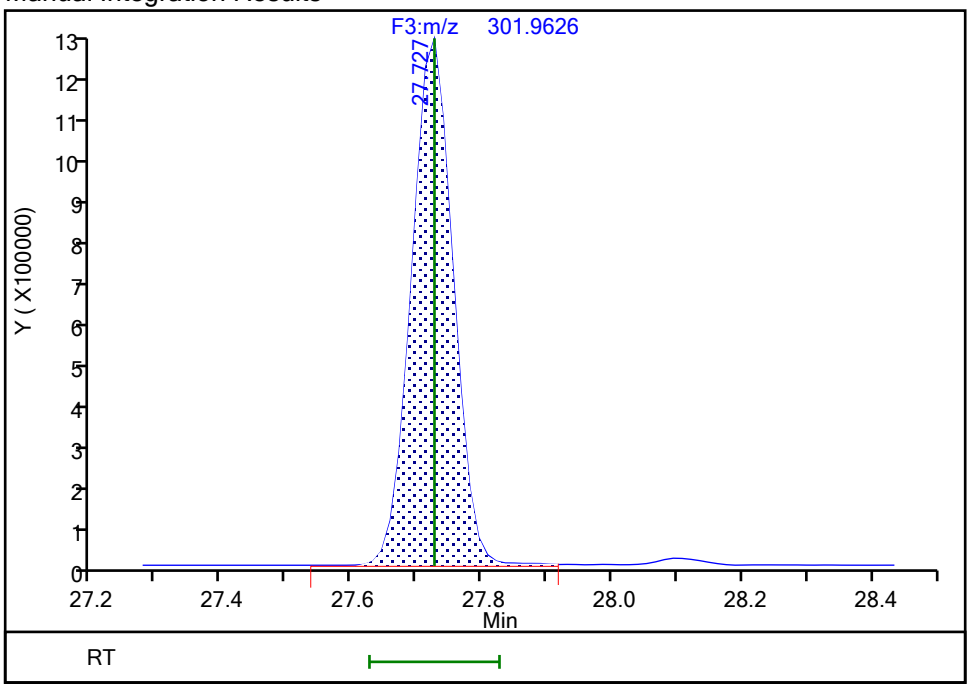
Processing Integration Results

RT: 28.09
Area: 79020
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 5404025
Amount: 100.0000
Amount Units: pg/ul



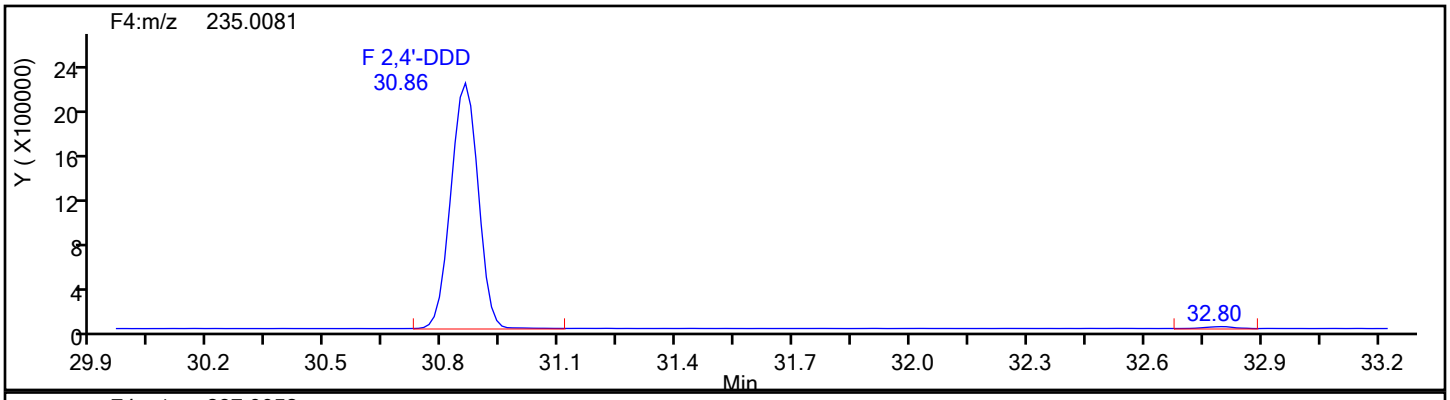
Reviewer: F9EE, 20-Mar-2025 15:39:20 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

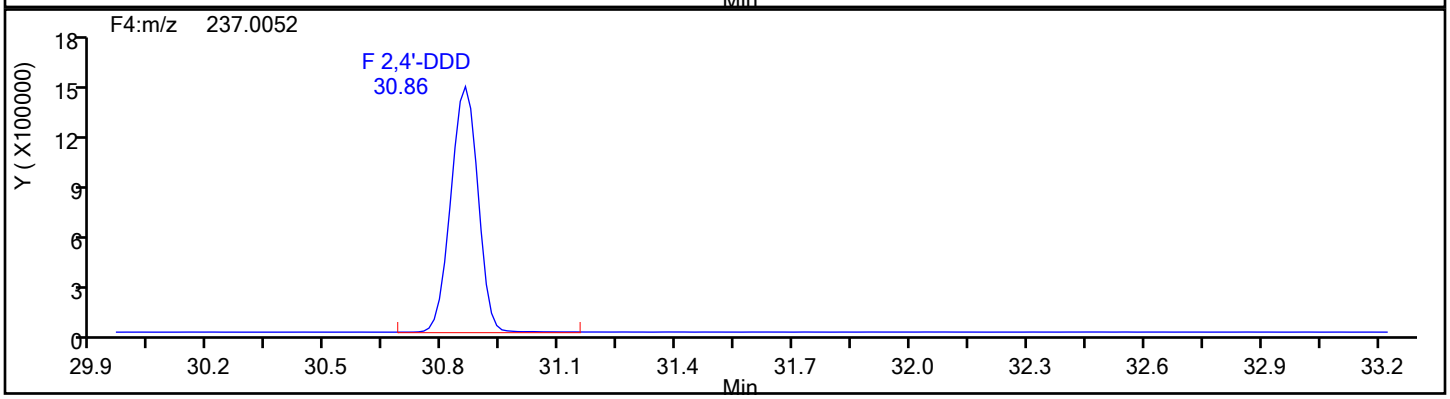
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

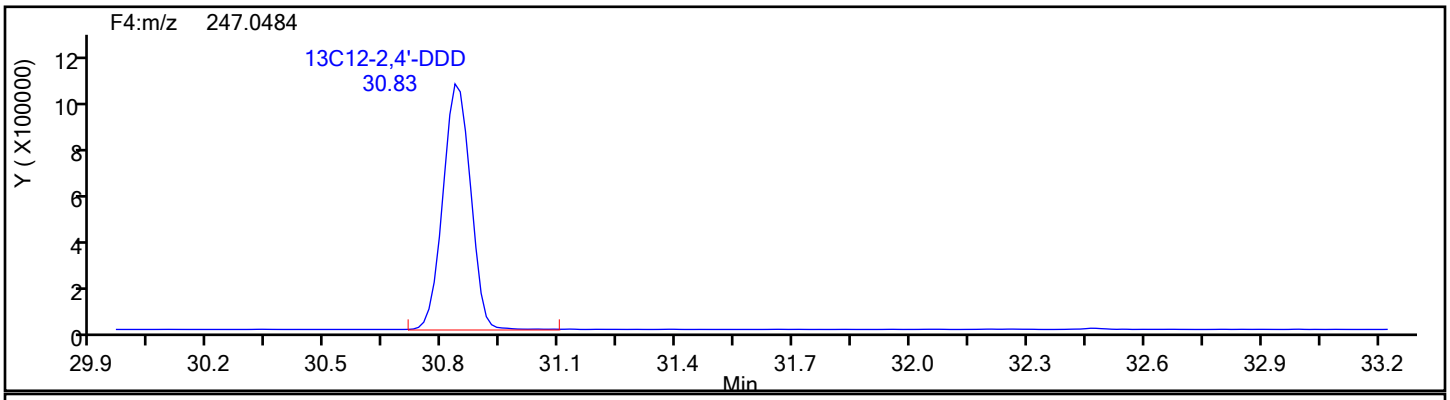
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

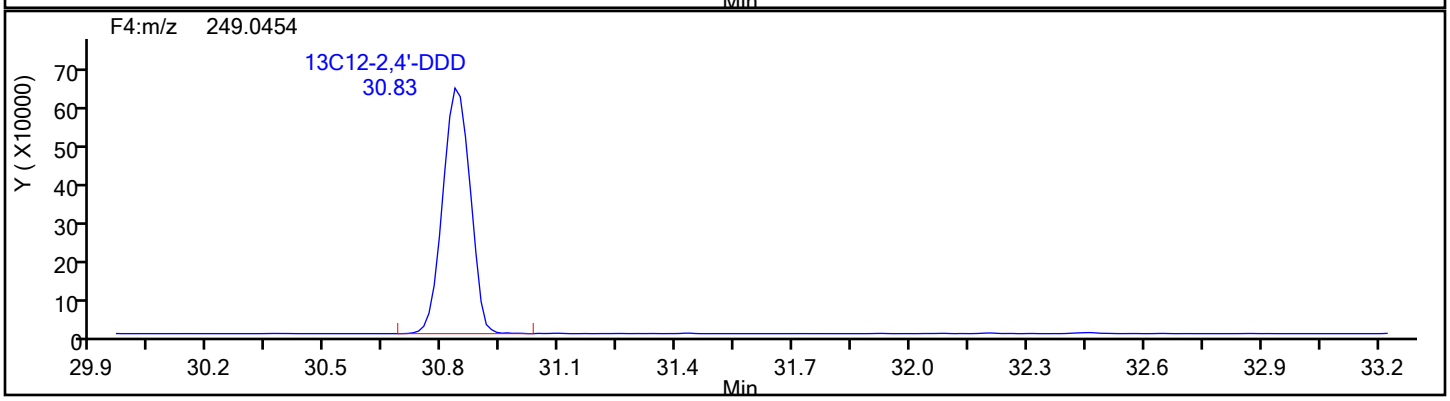
2,4'-DDD





2,4'-DDD Standards



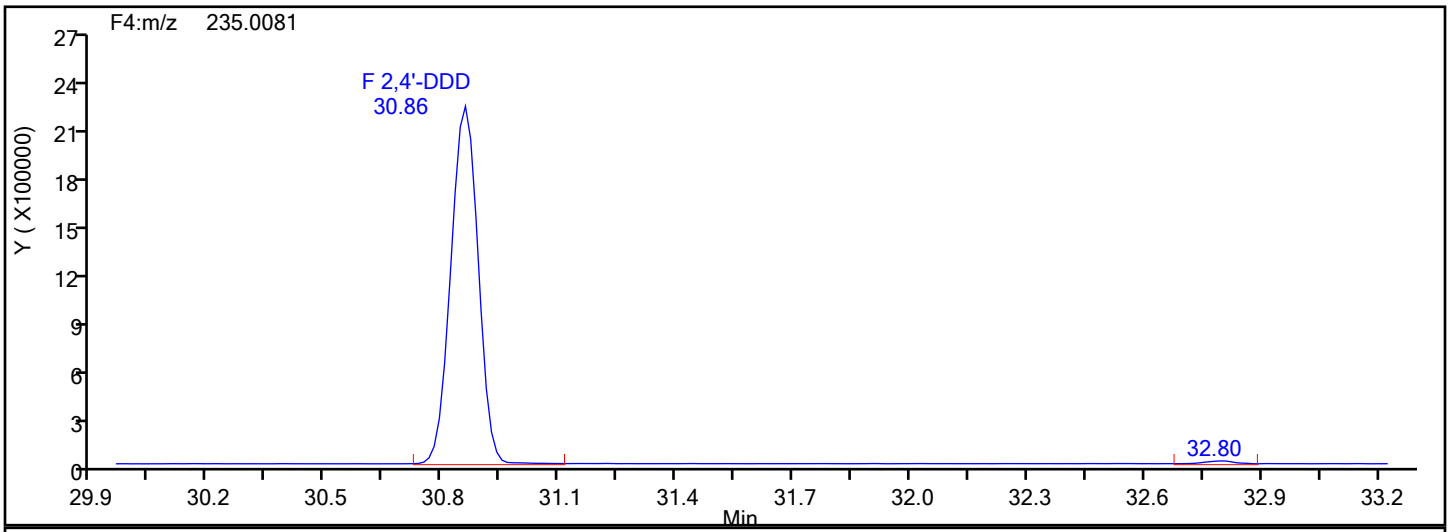


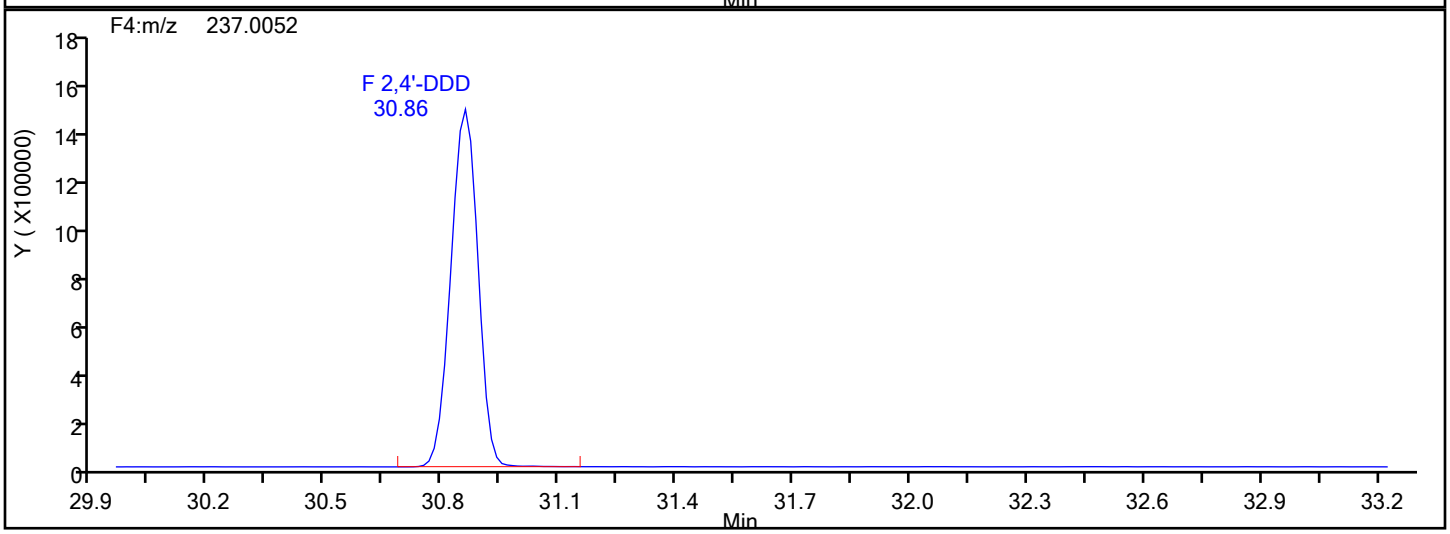
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

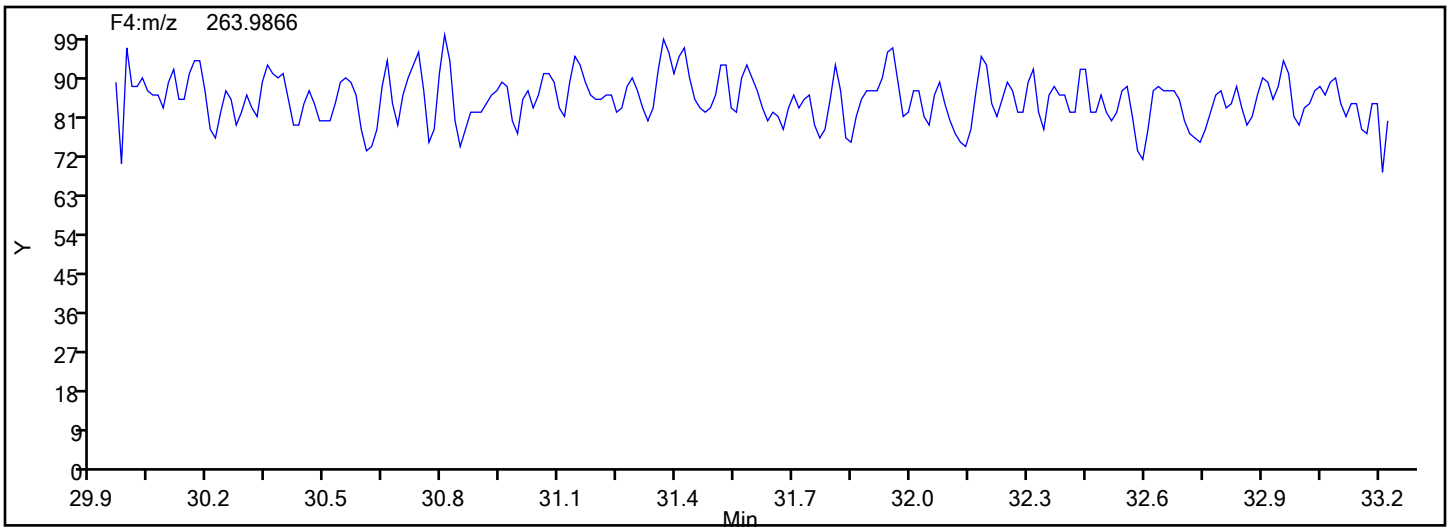
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



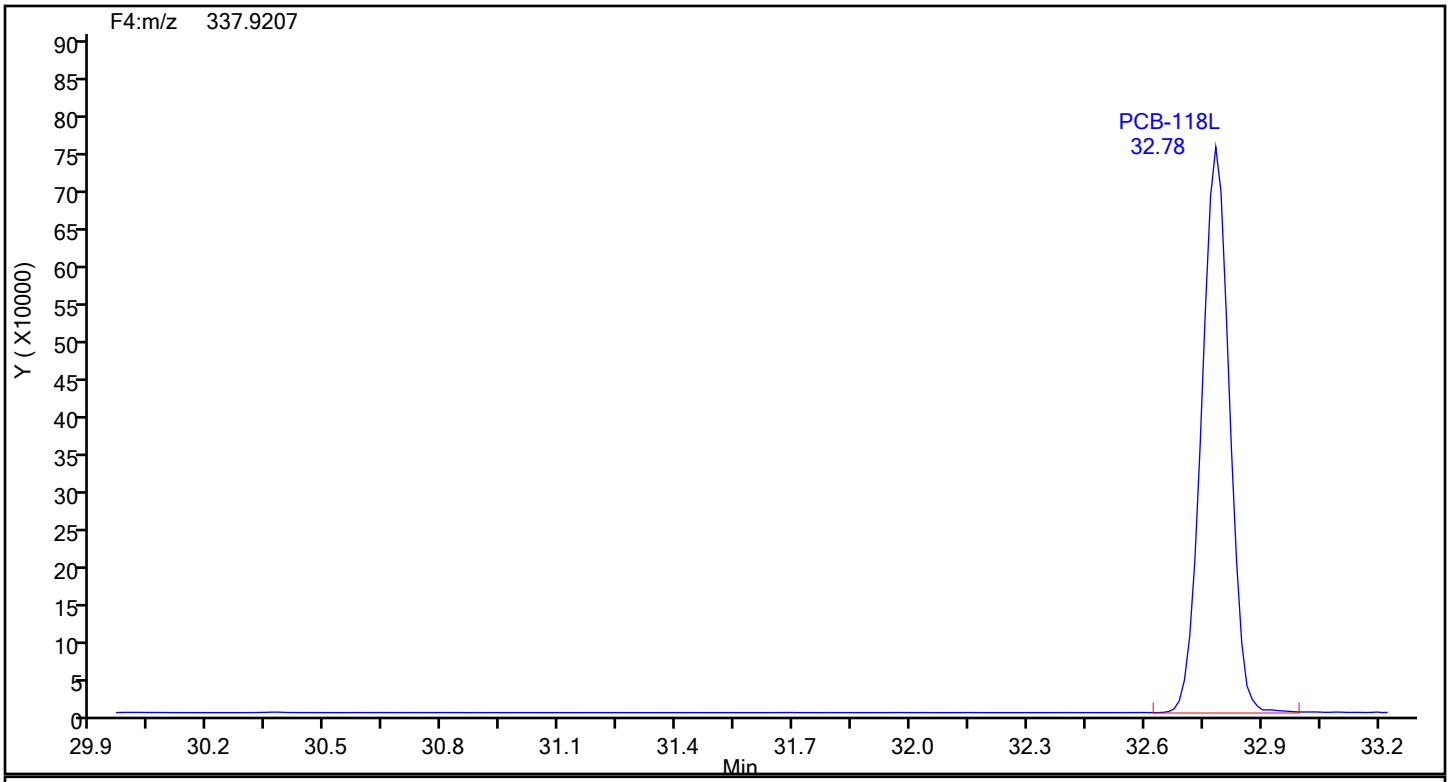
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

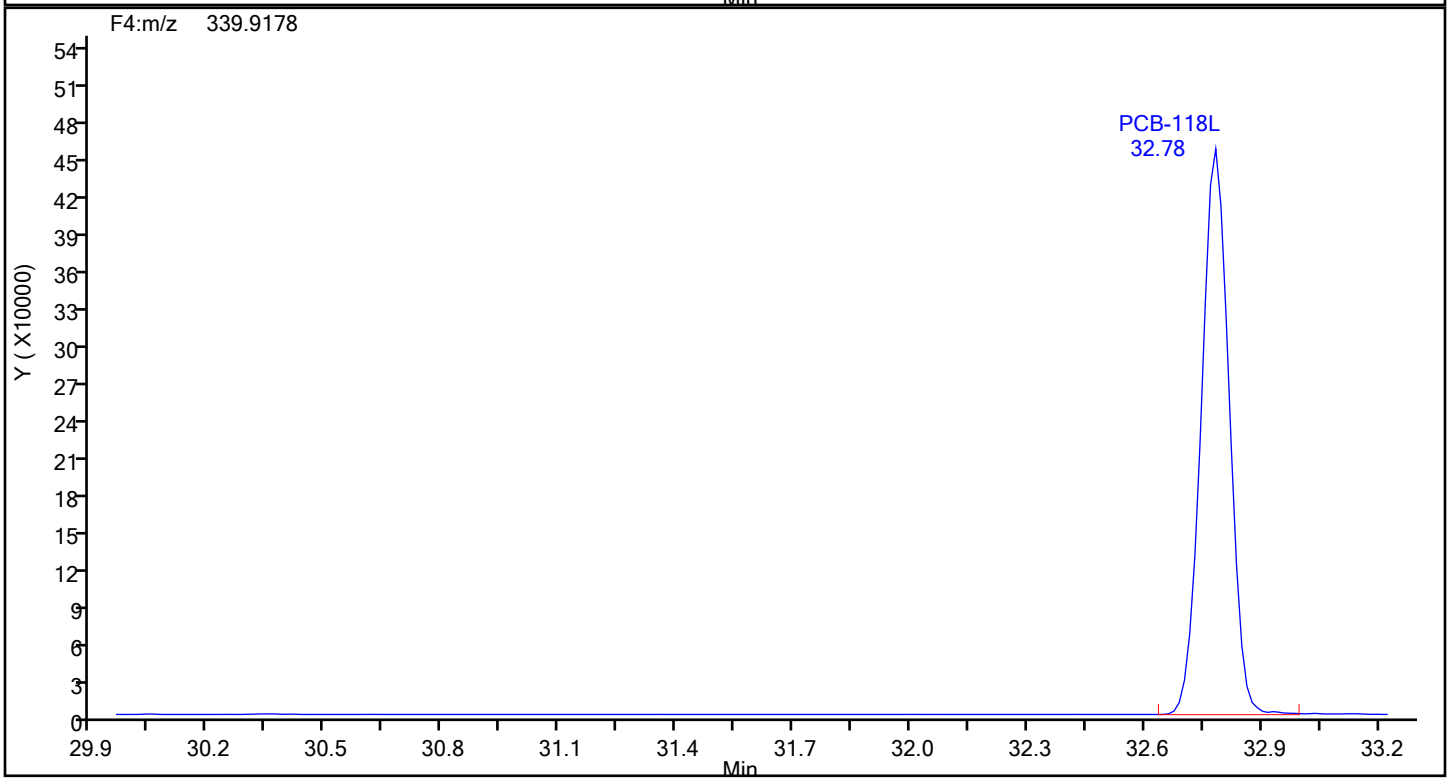
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





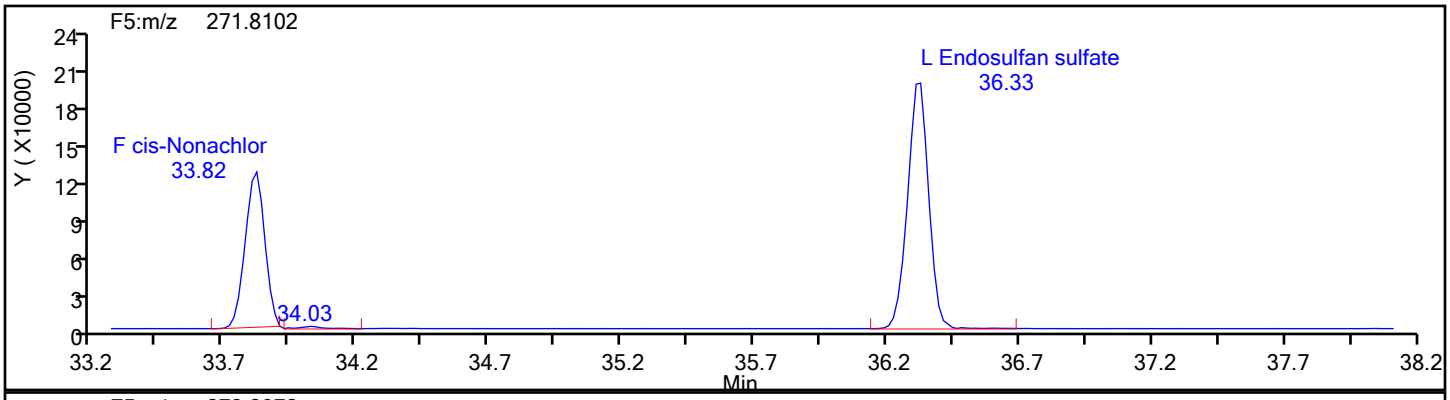
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

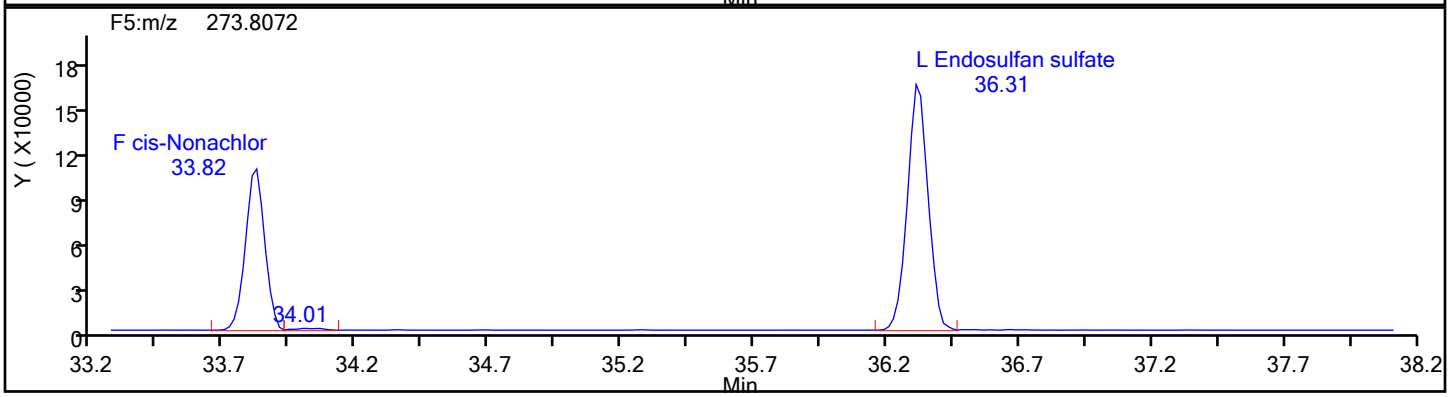
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

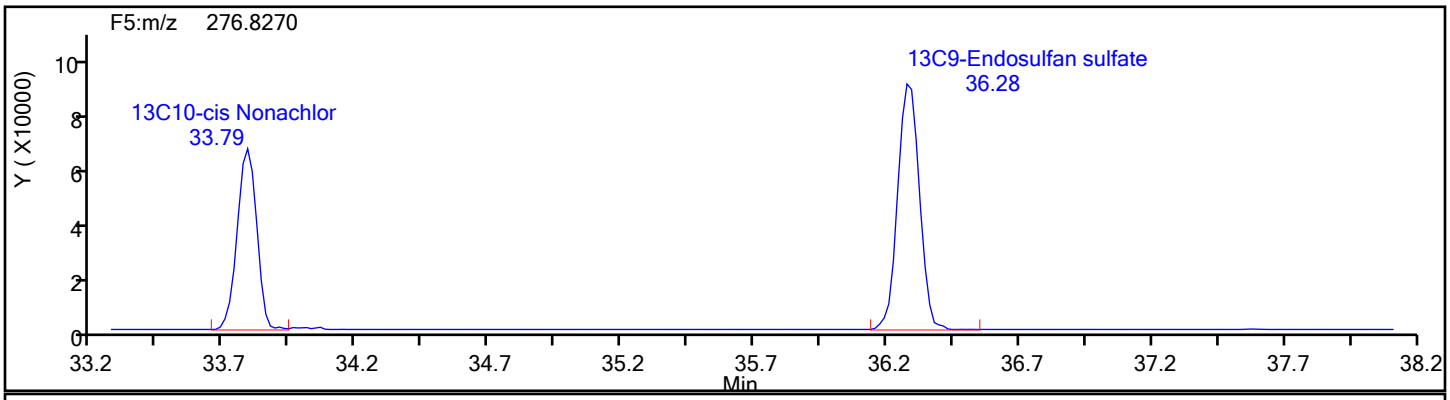
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

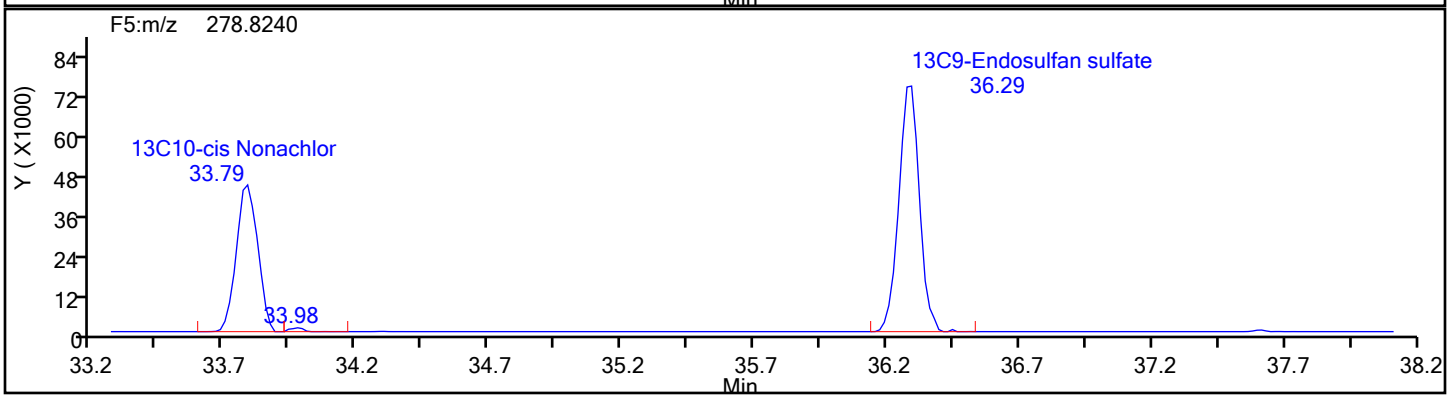
Nonachlor





Nonachlor Standards



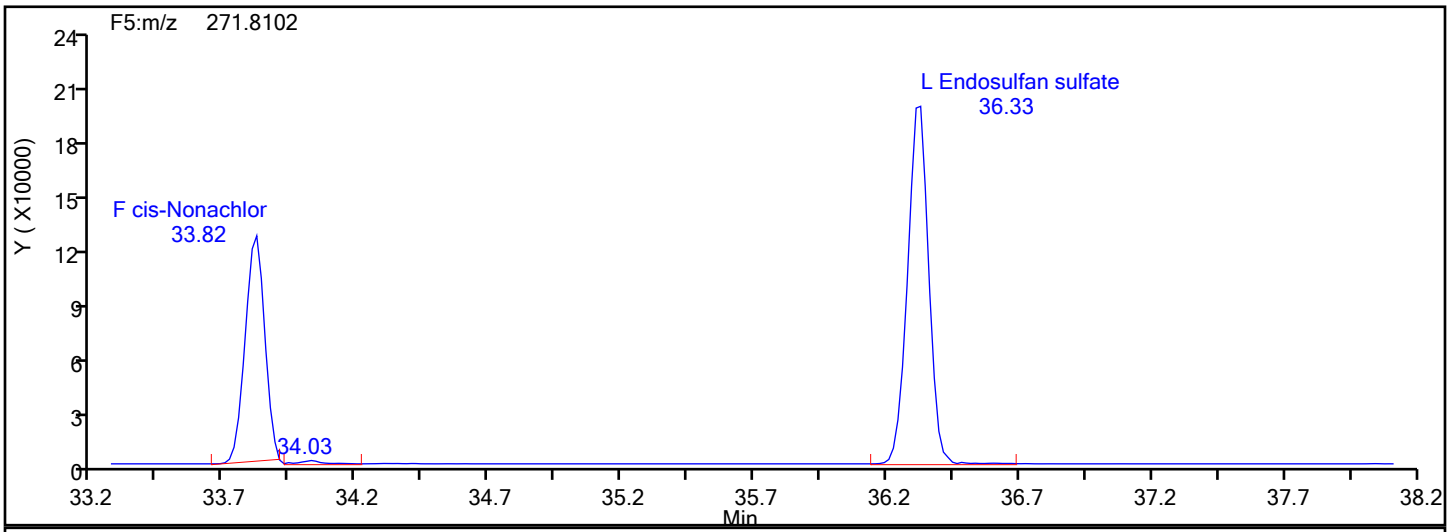


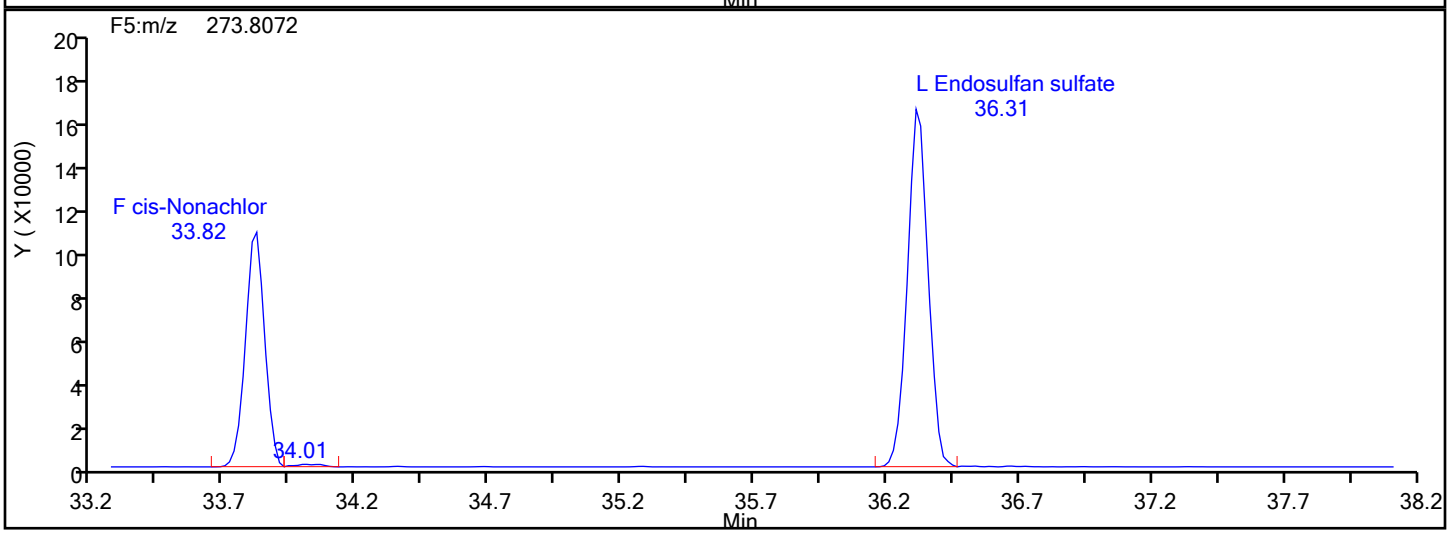
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

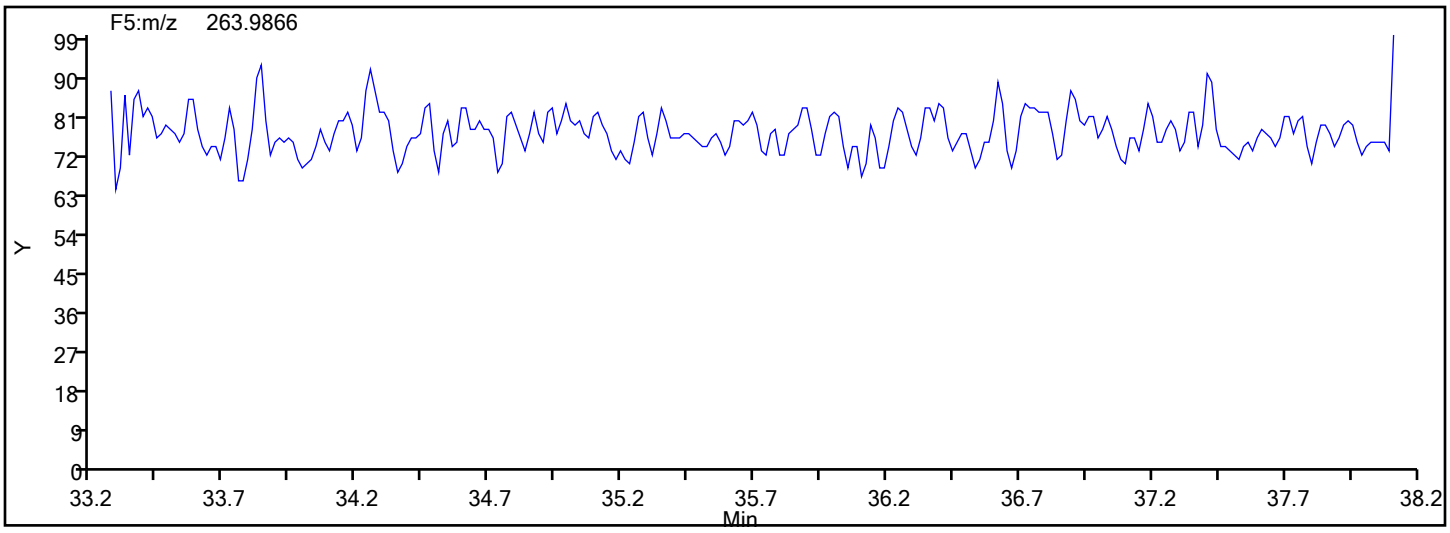
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



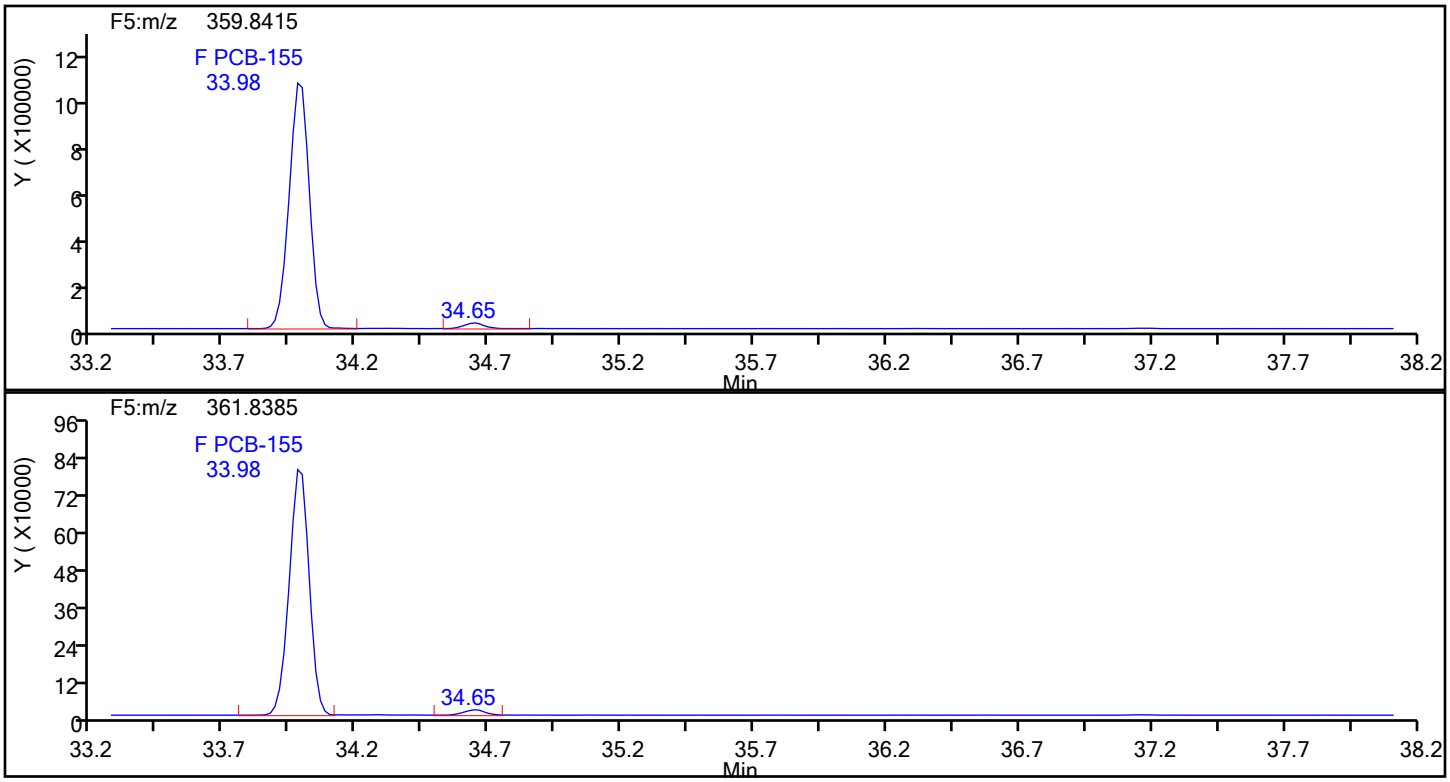
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

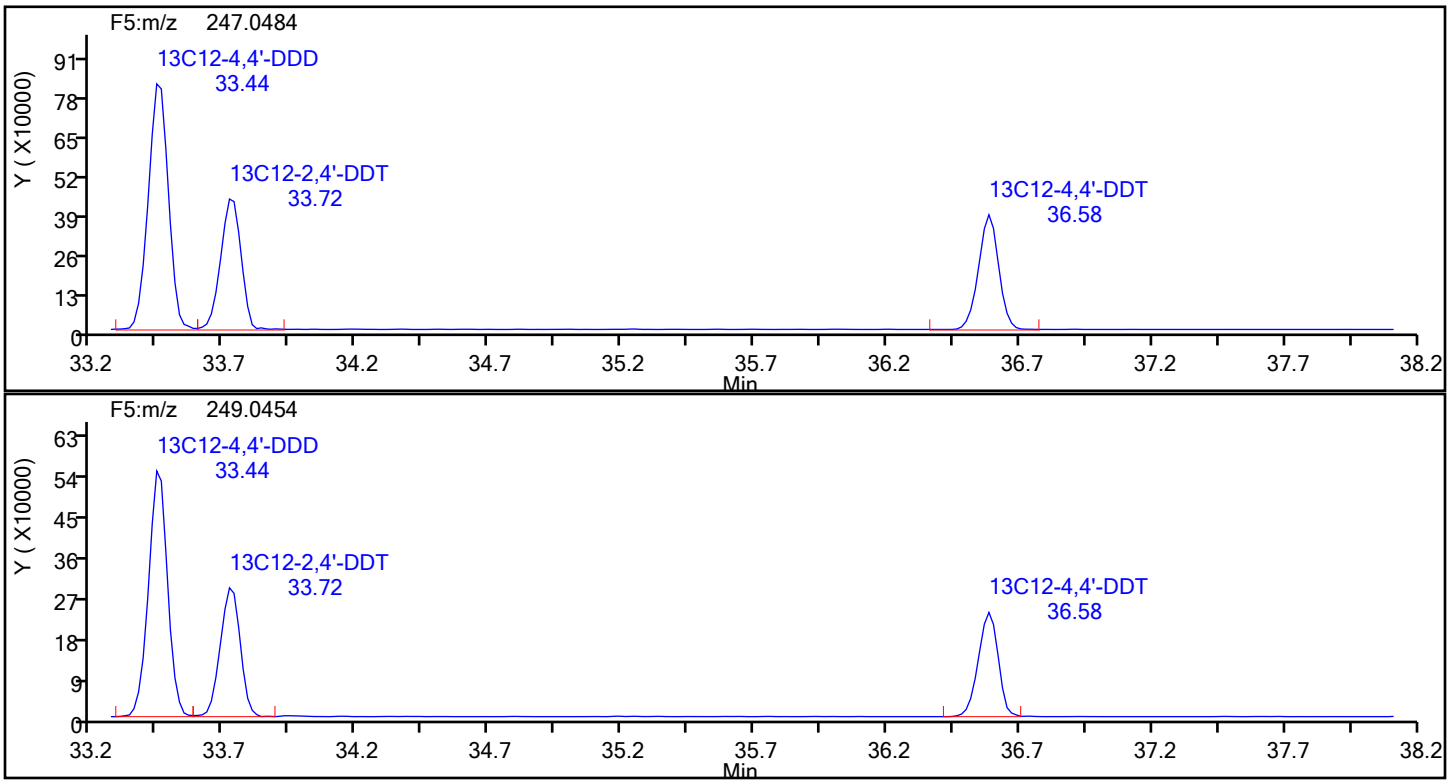
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

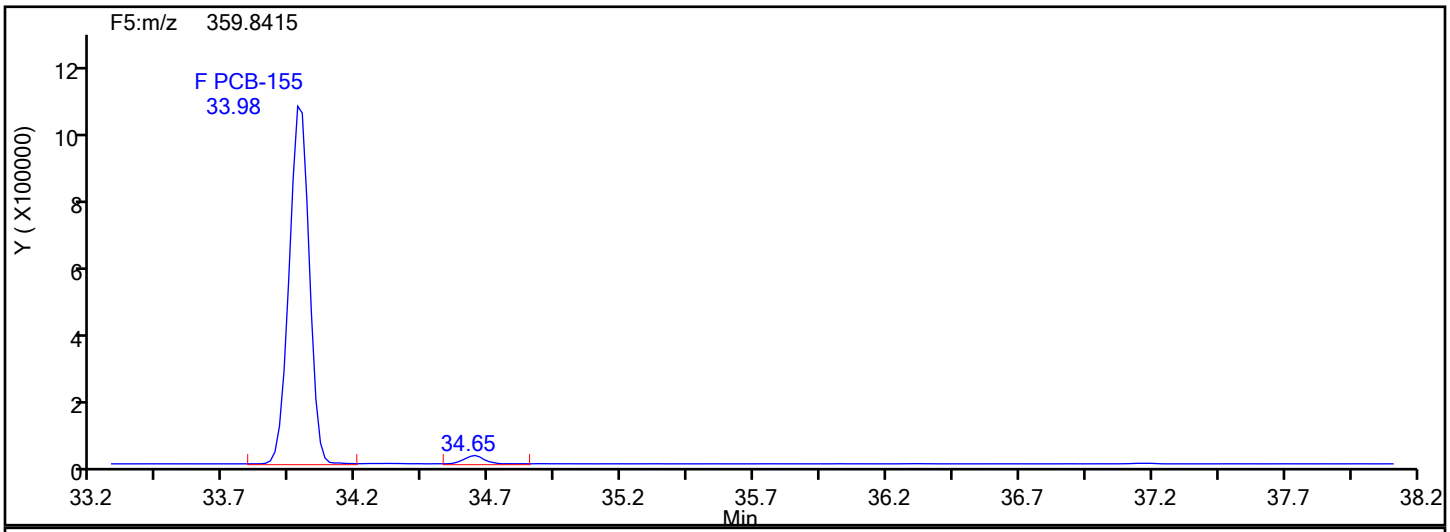


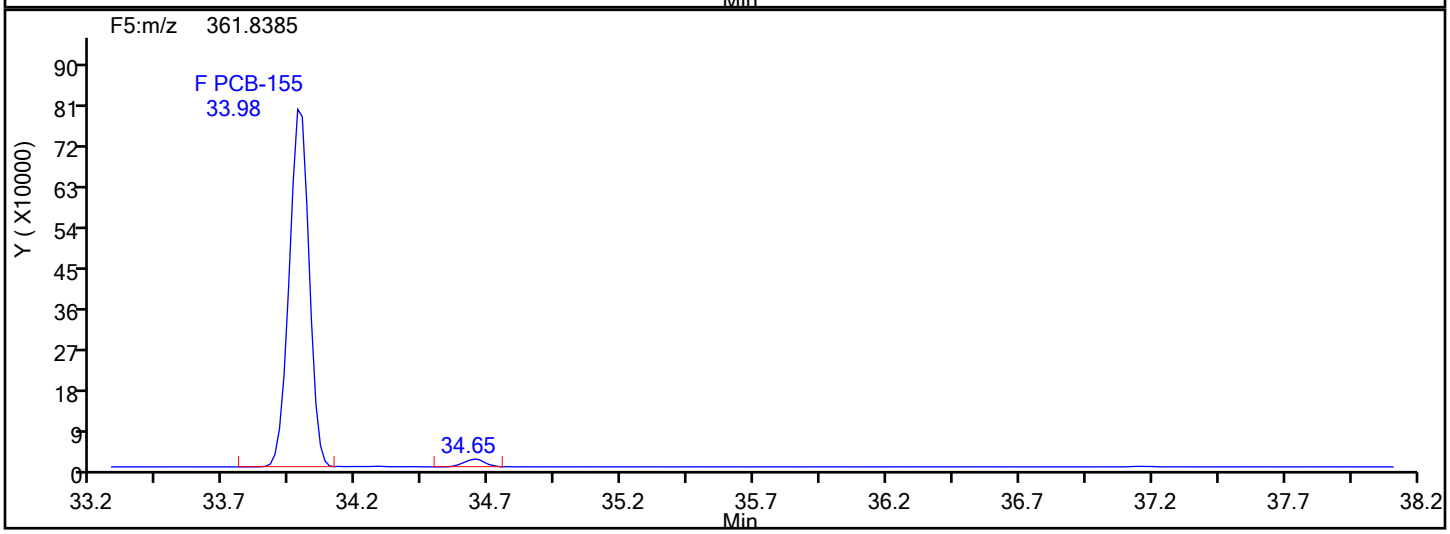
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

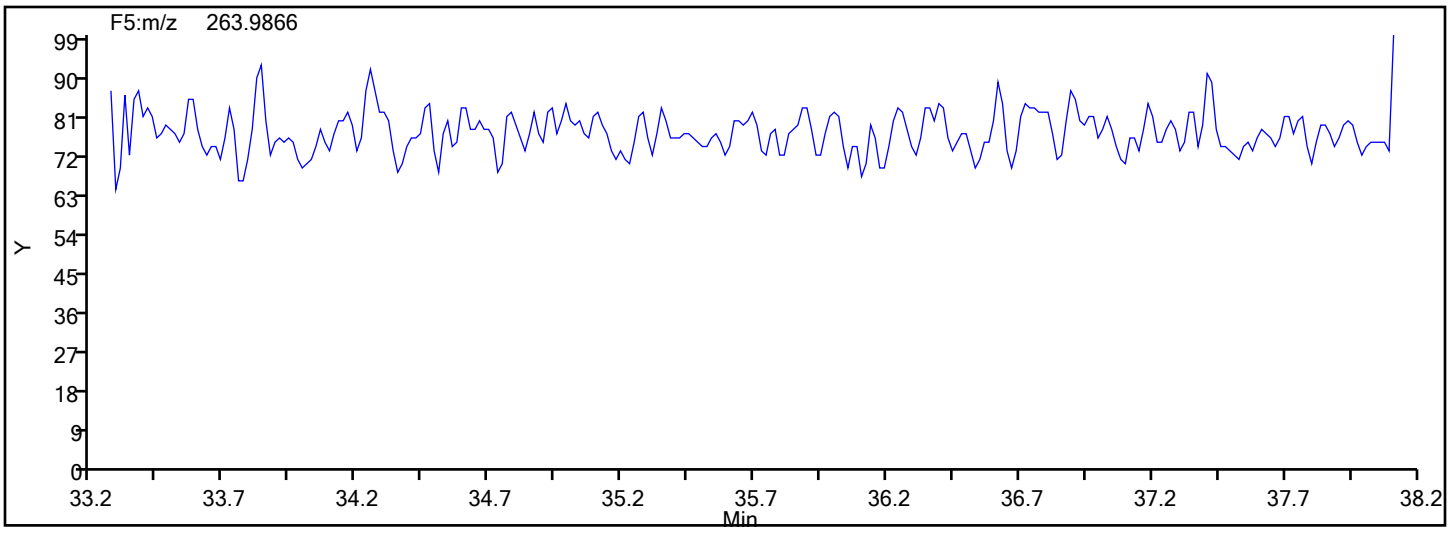
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d
Injection Date: 19-Mar-2025 22:21:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



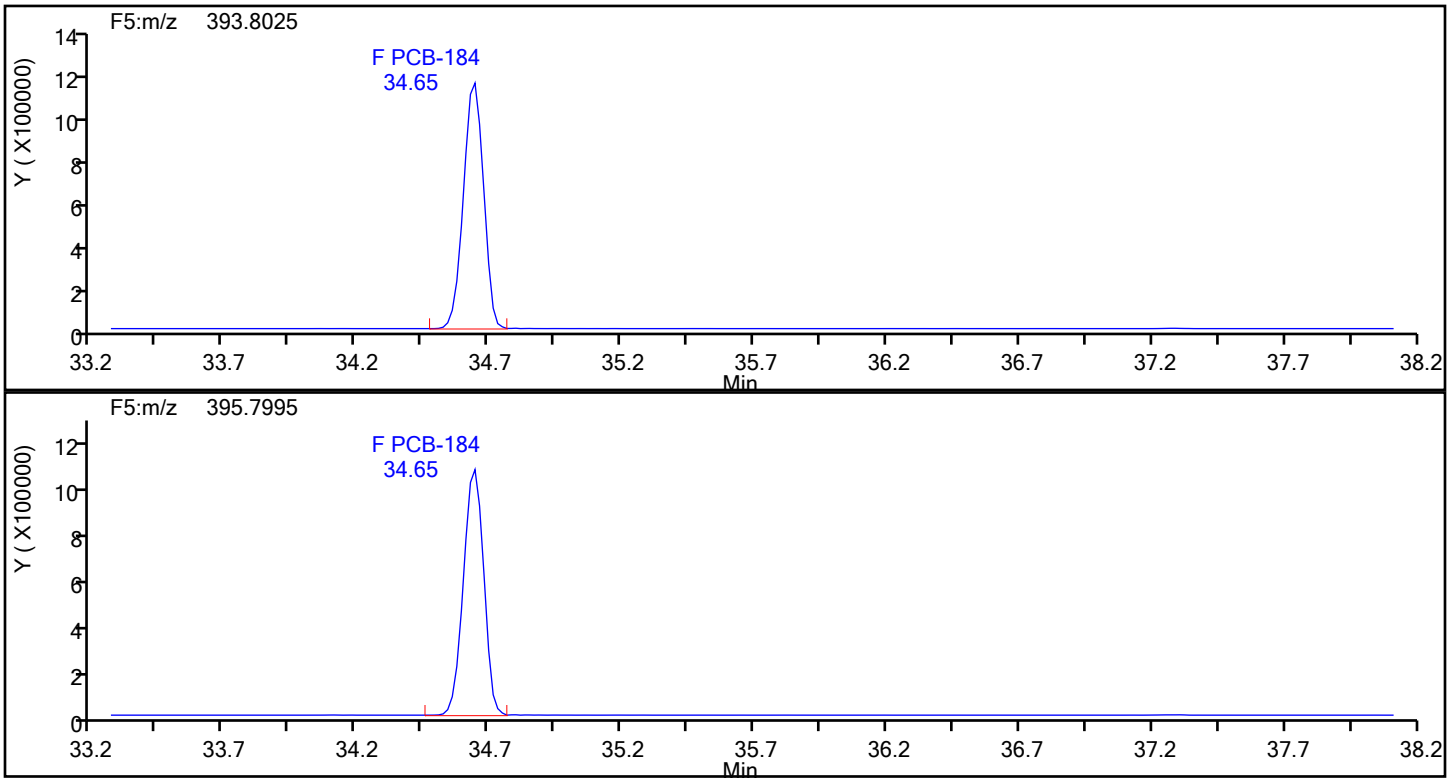
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

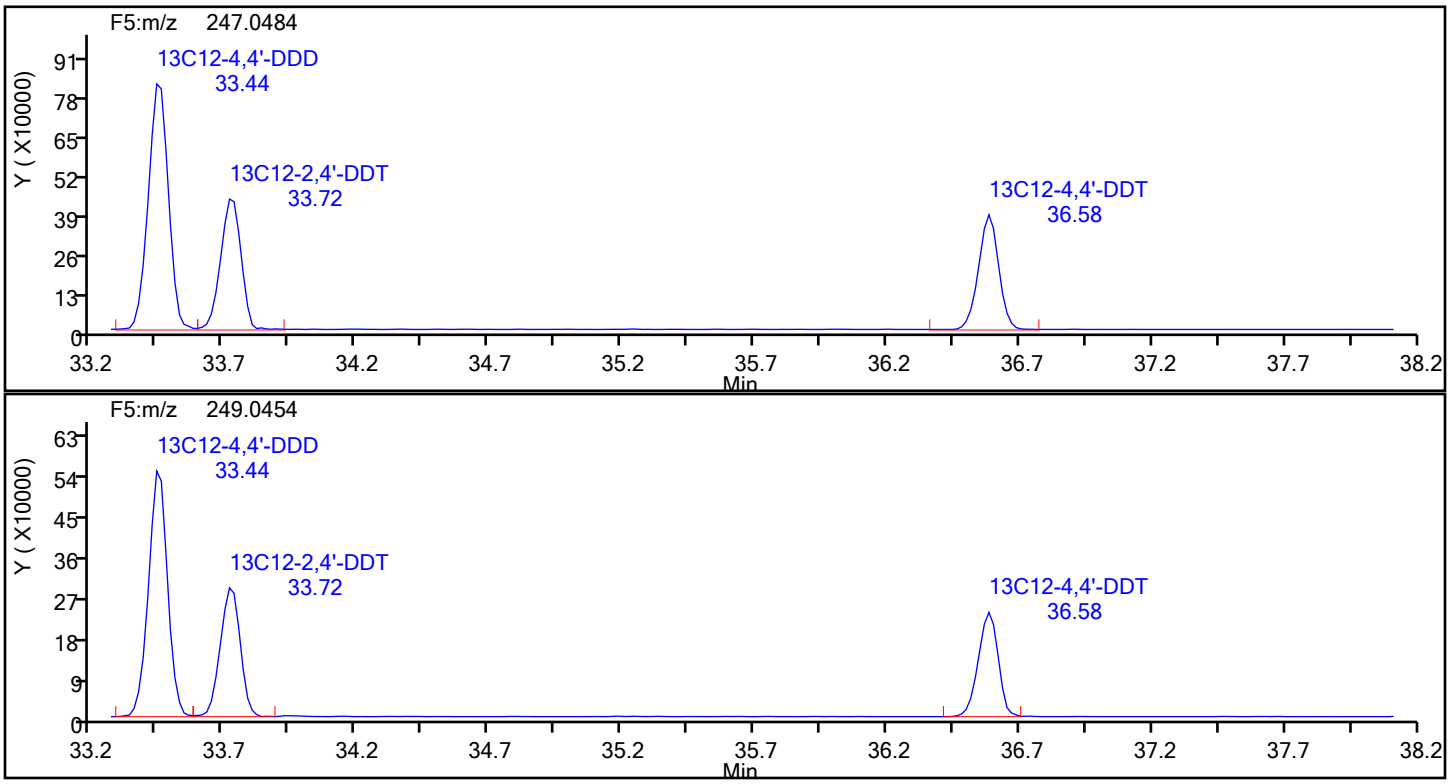
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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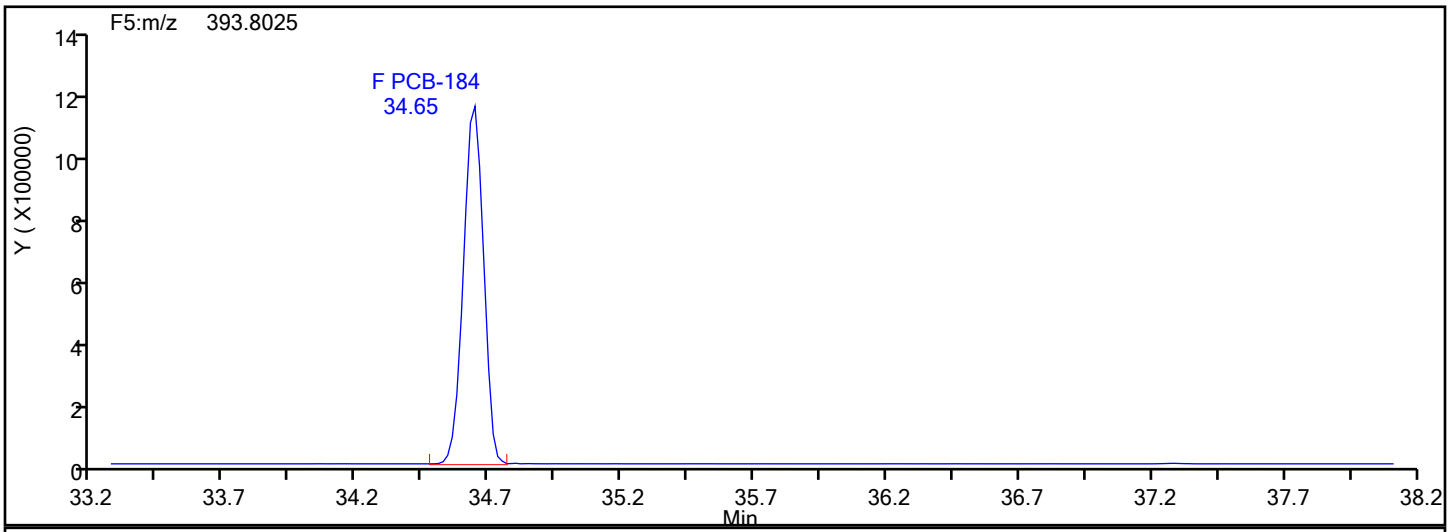
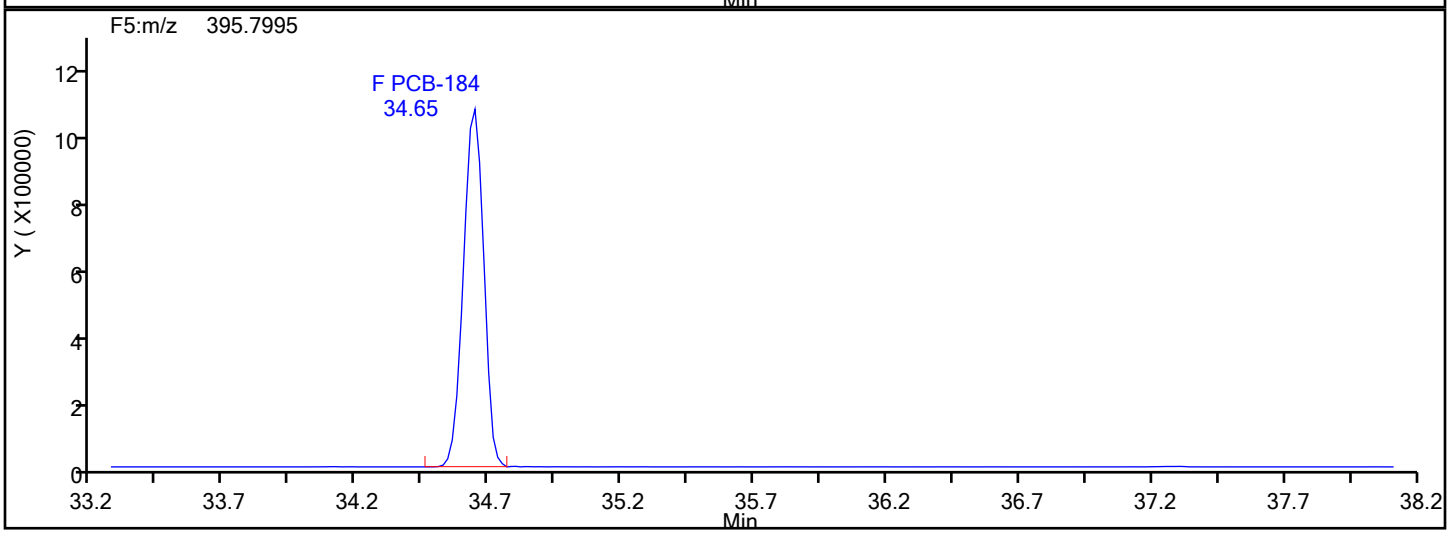
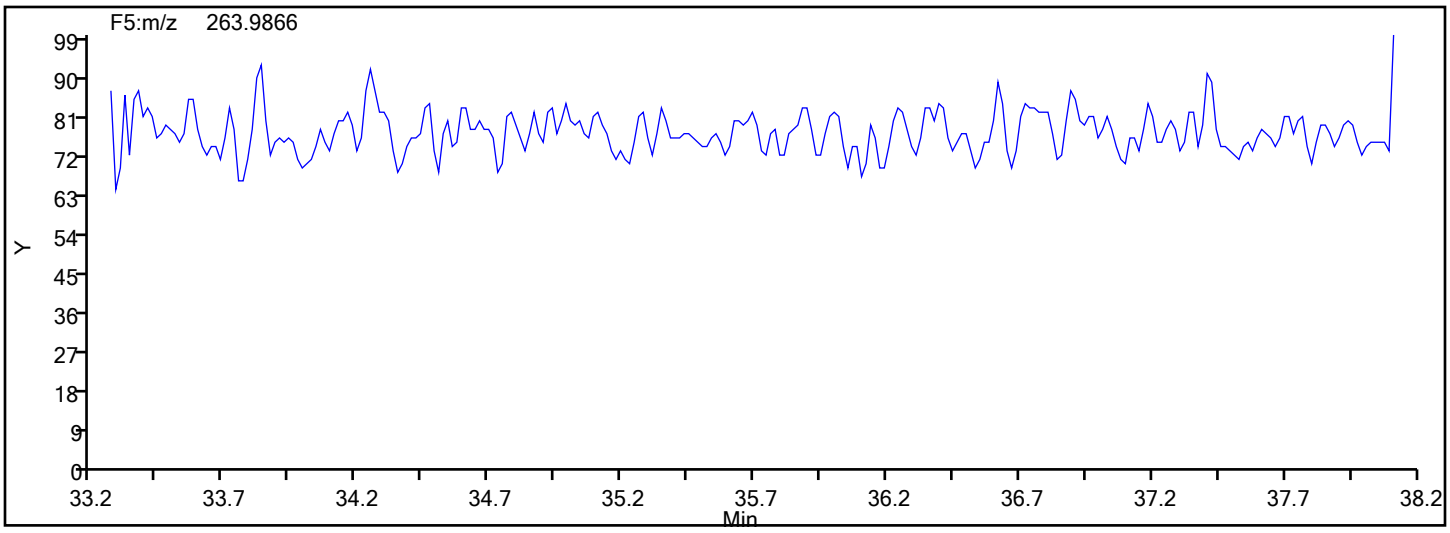
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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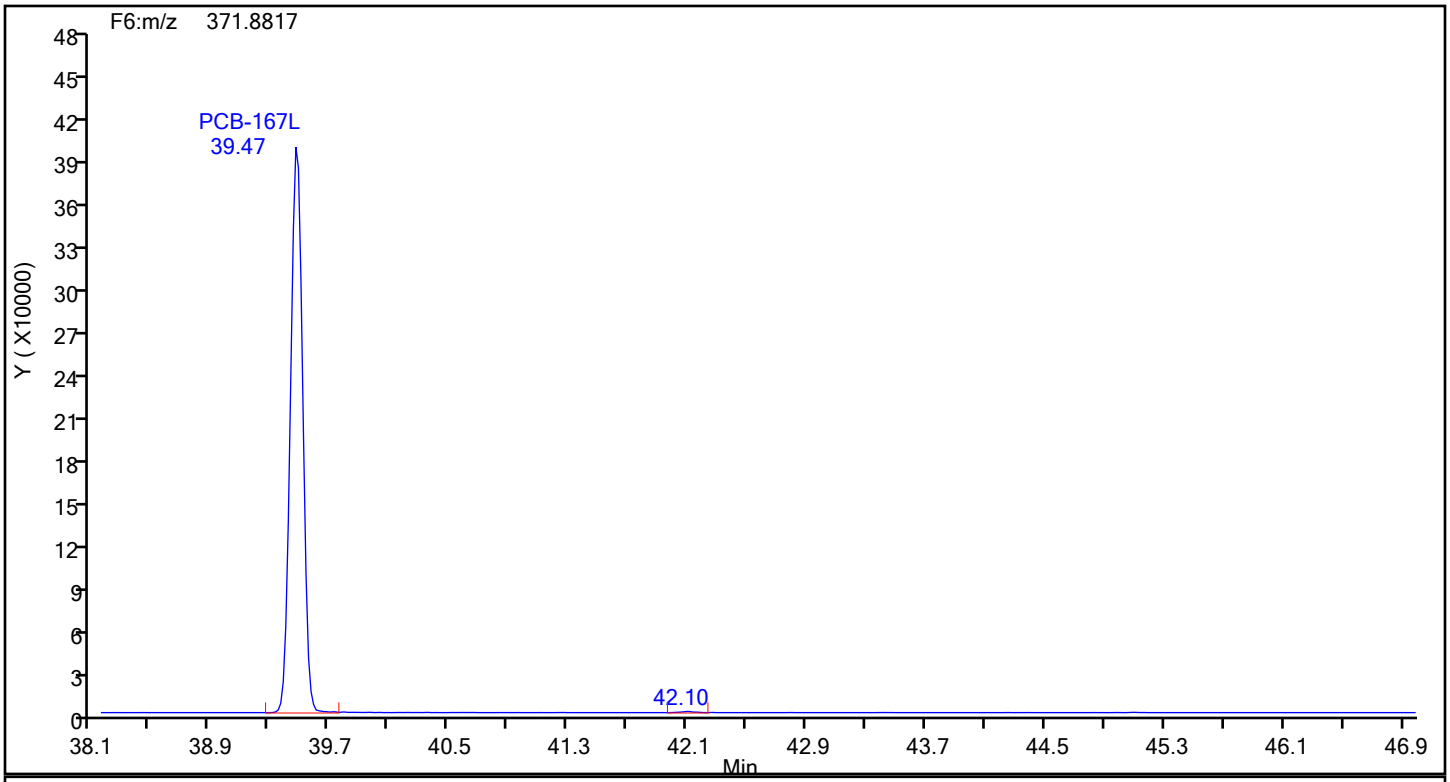
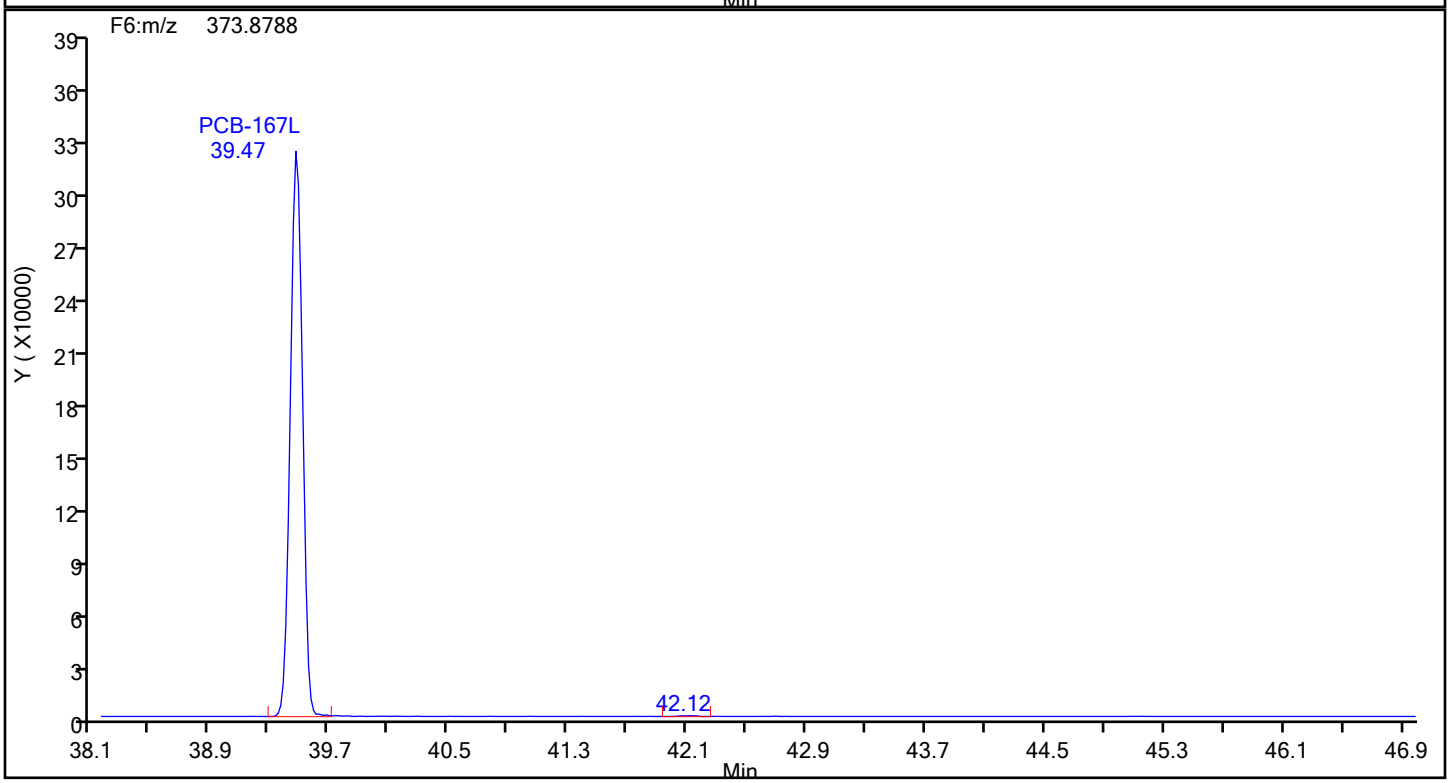
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





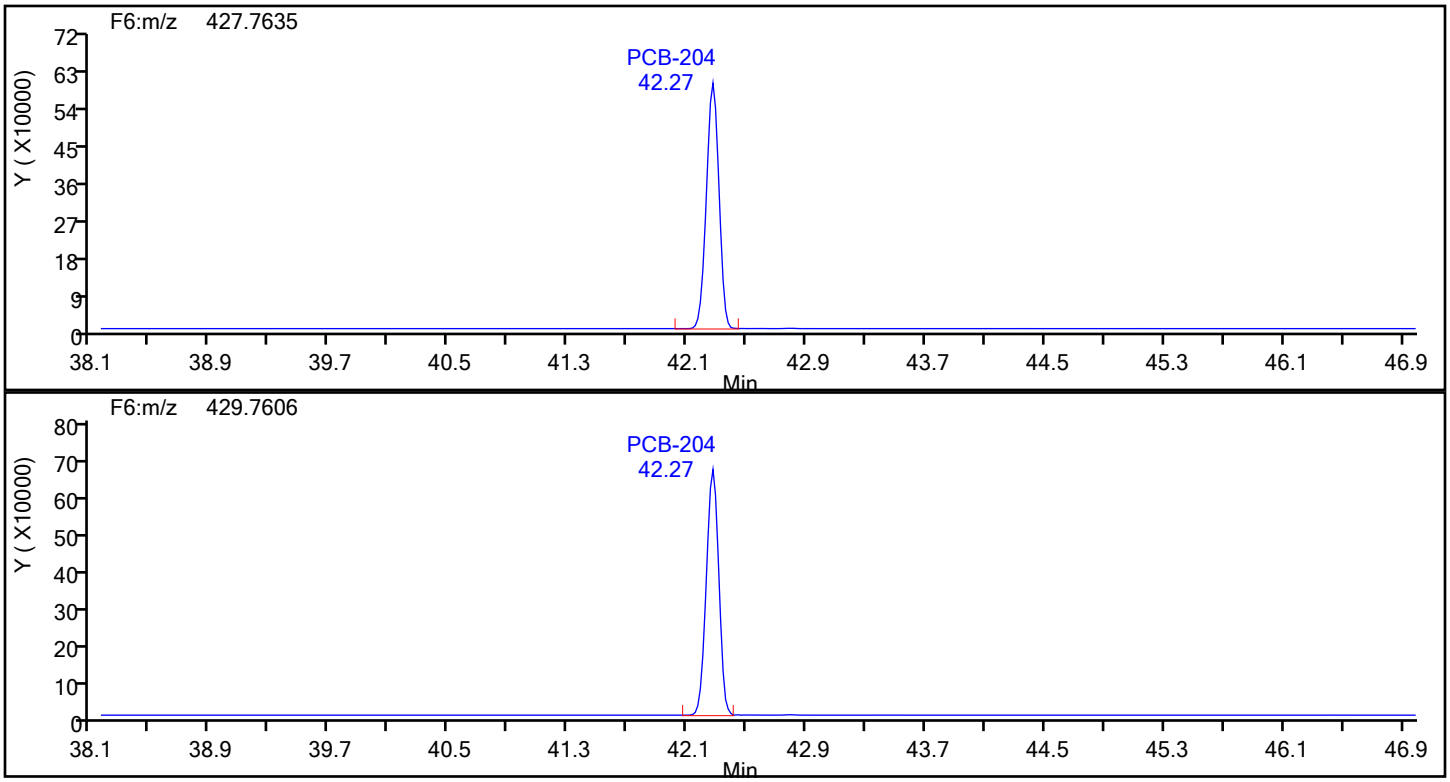
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

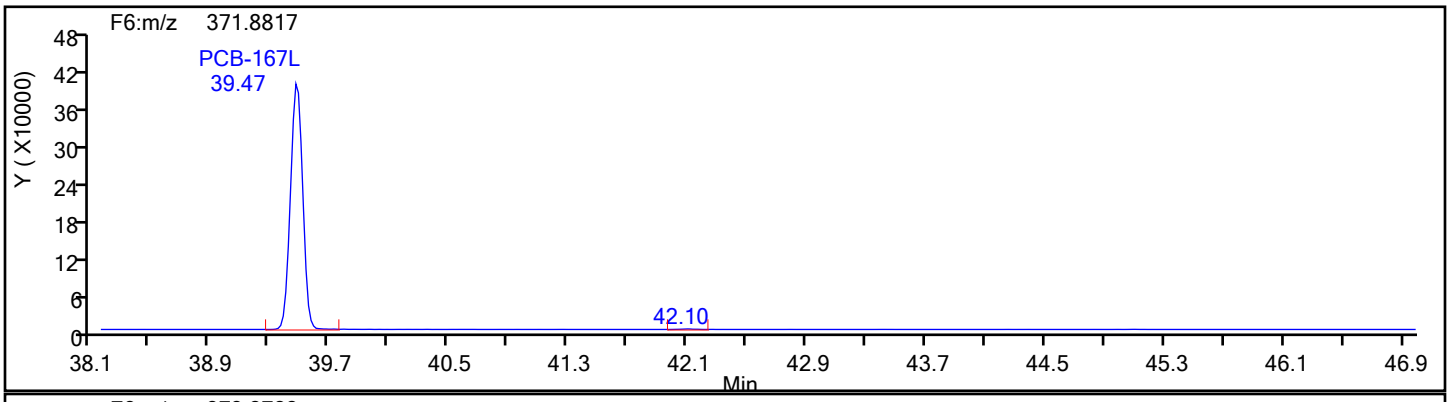
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

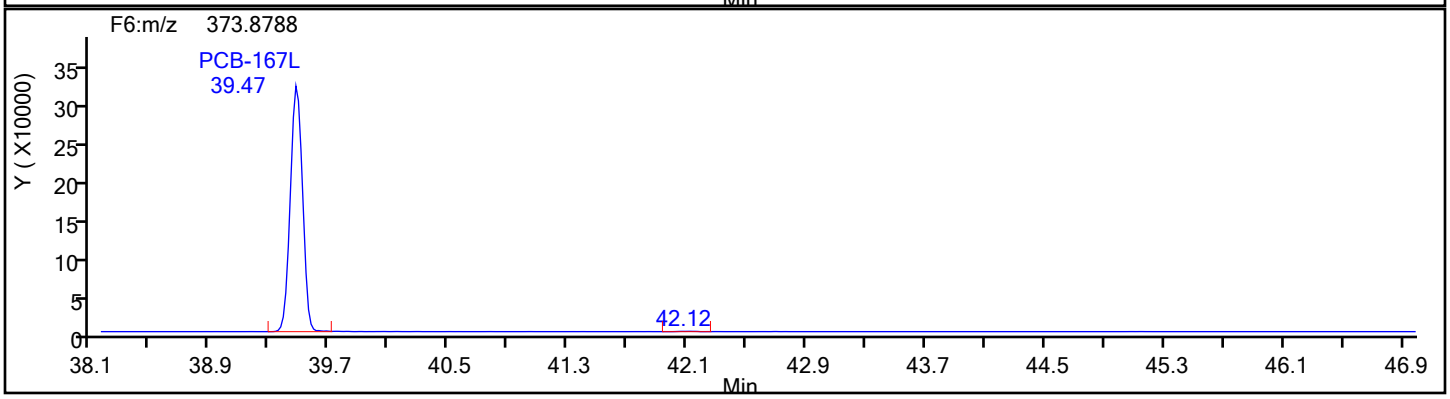
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



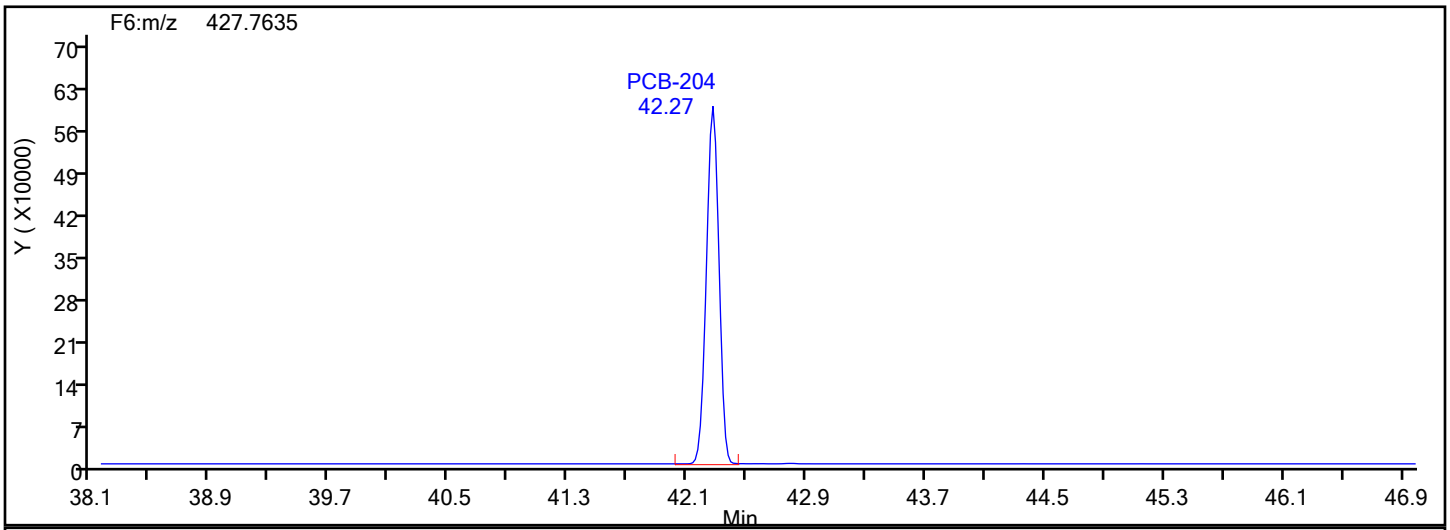


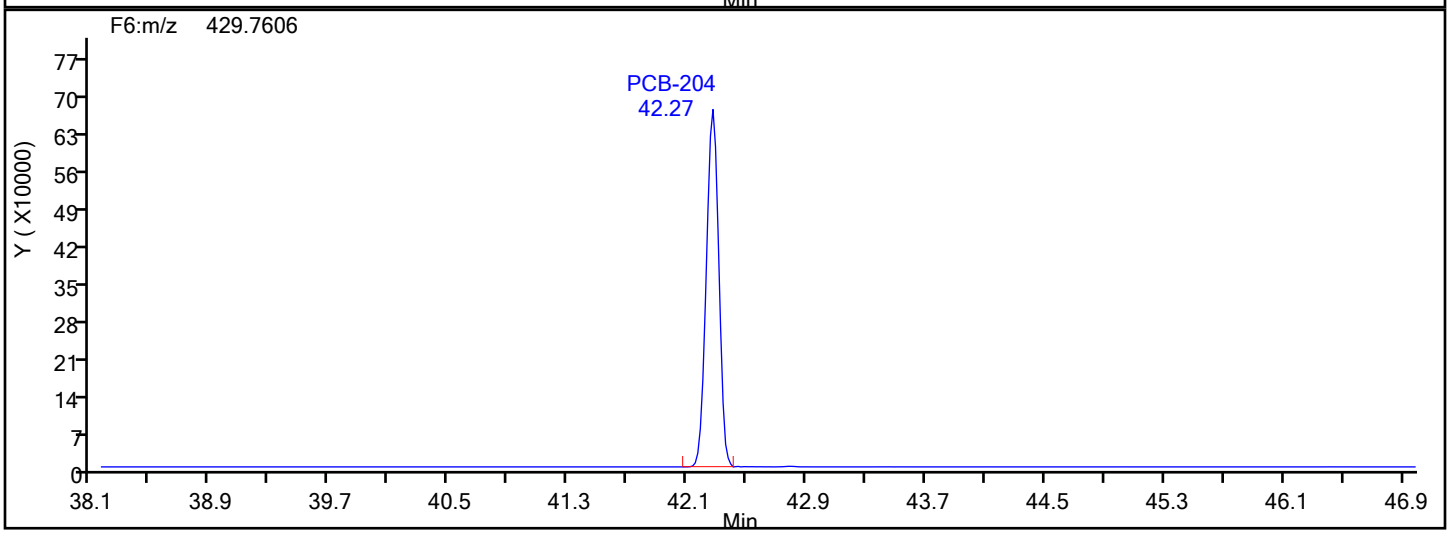
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

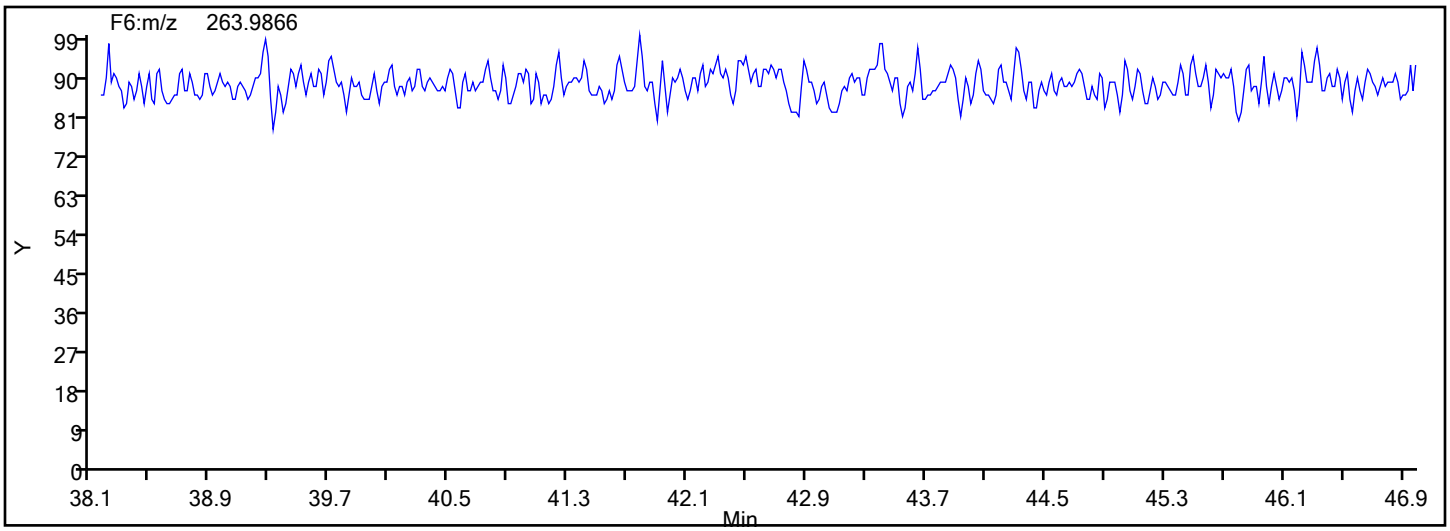
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



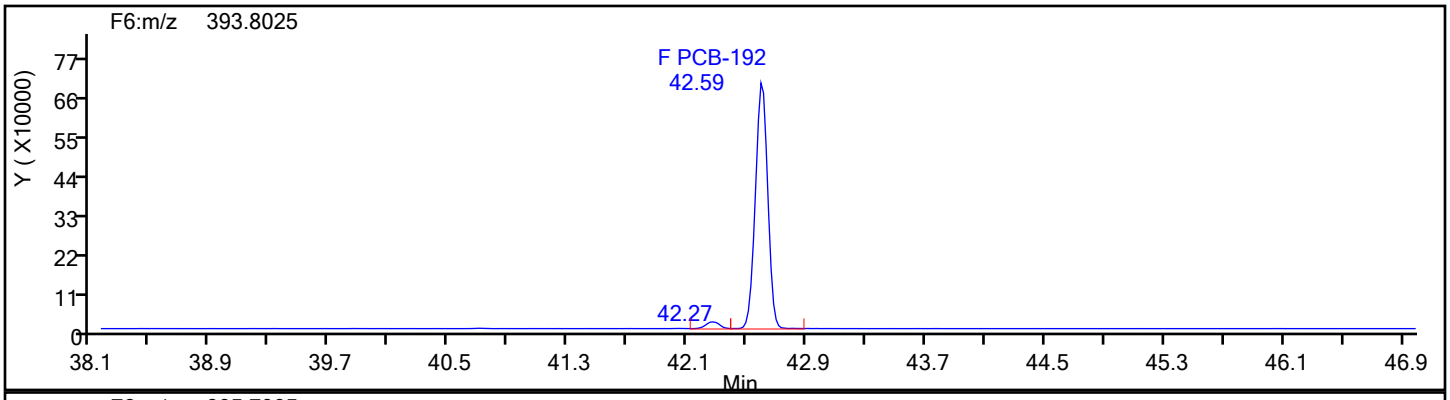
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

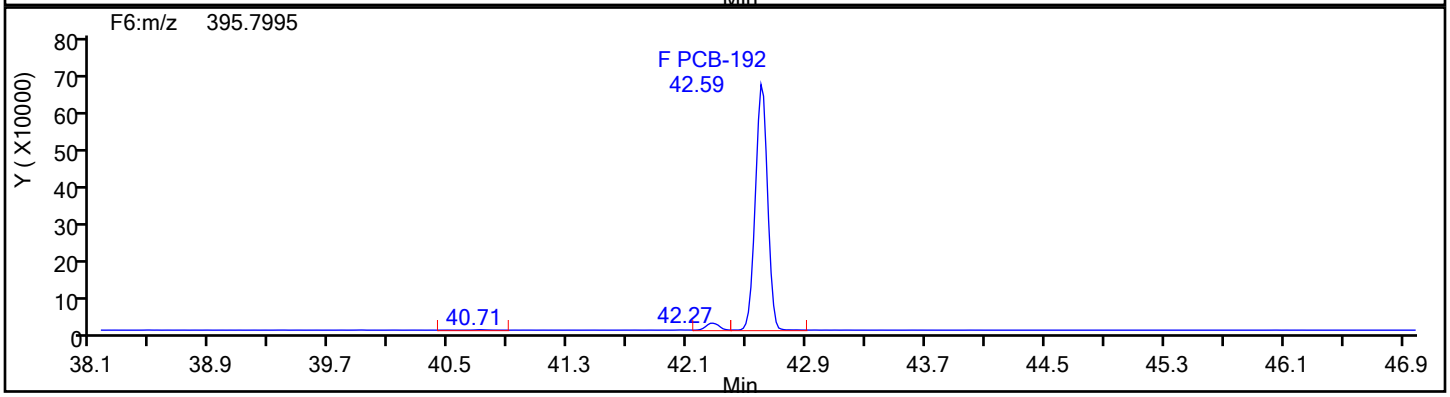
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d

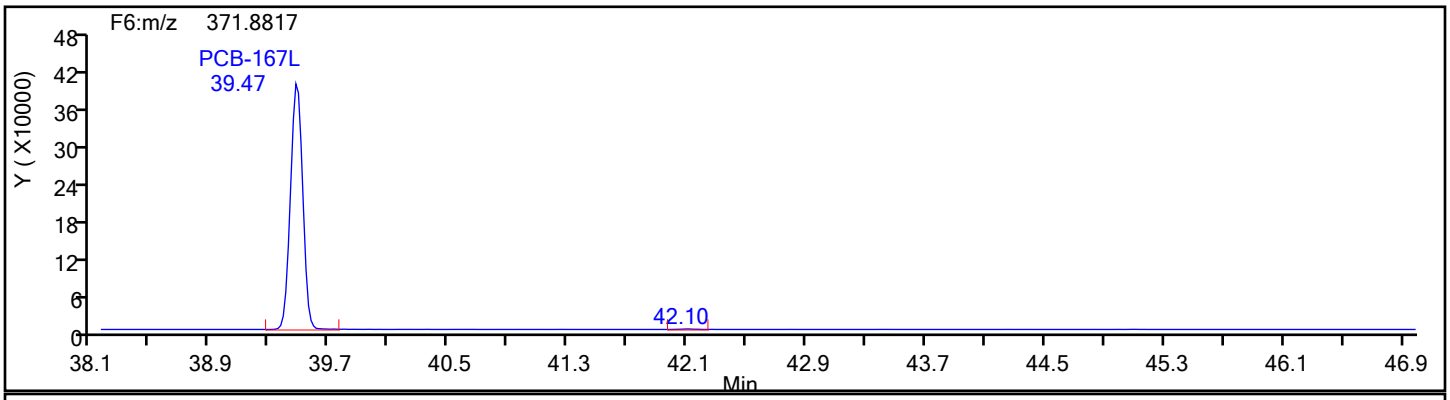
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

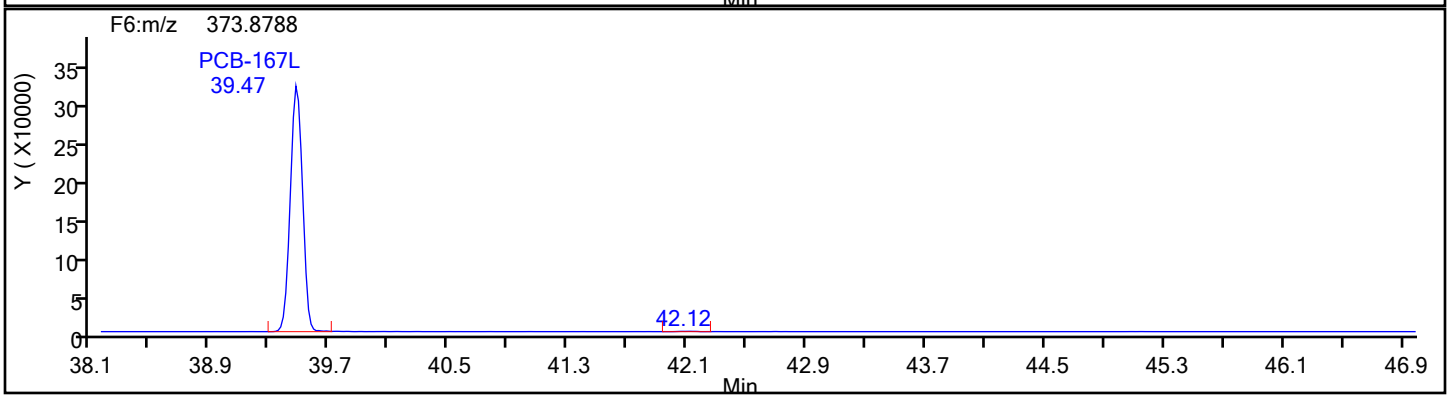
PCB-192





PCB-192 Standards



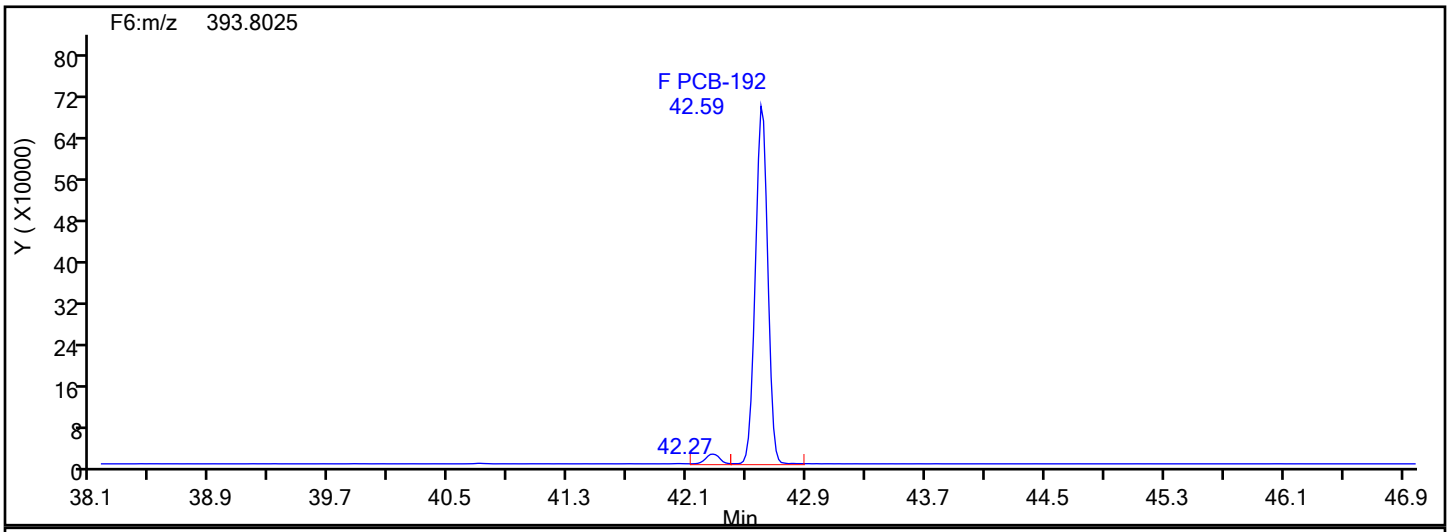


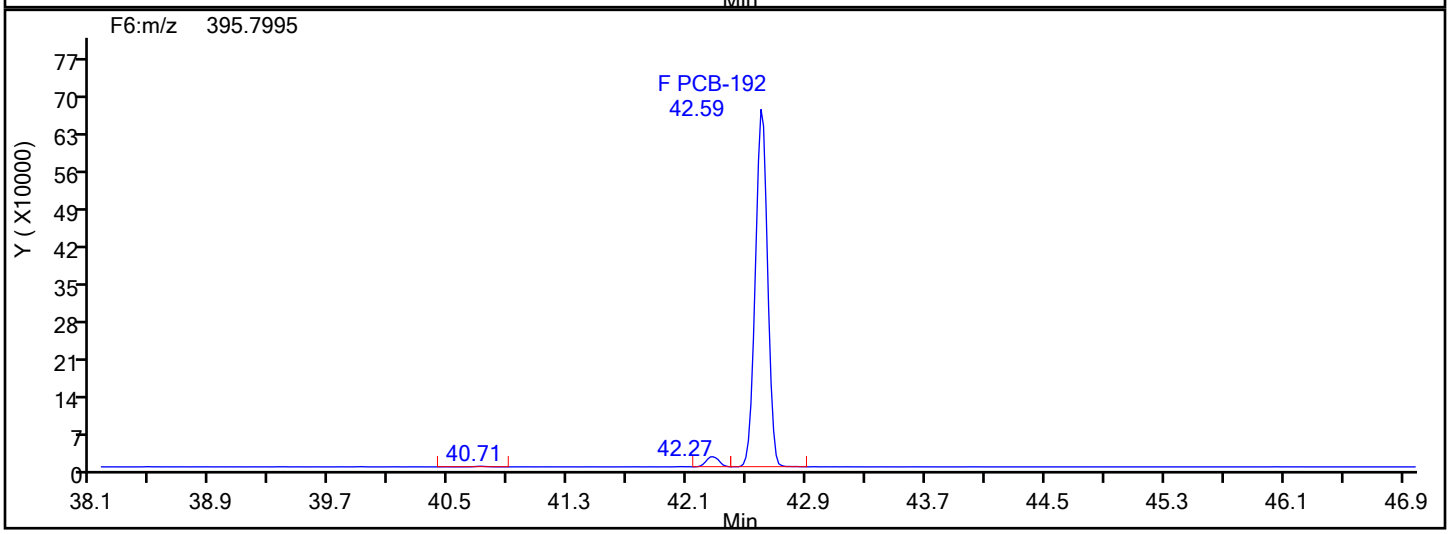
Report Date: 24-Mar-2025 13:06:28 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

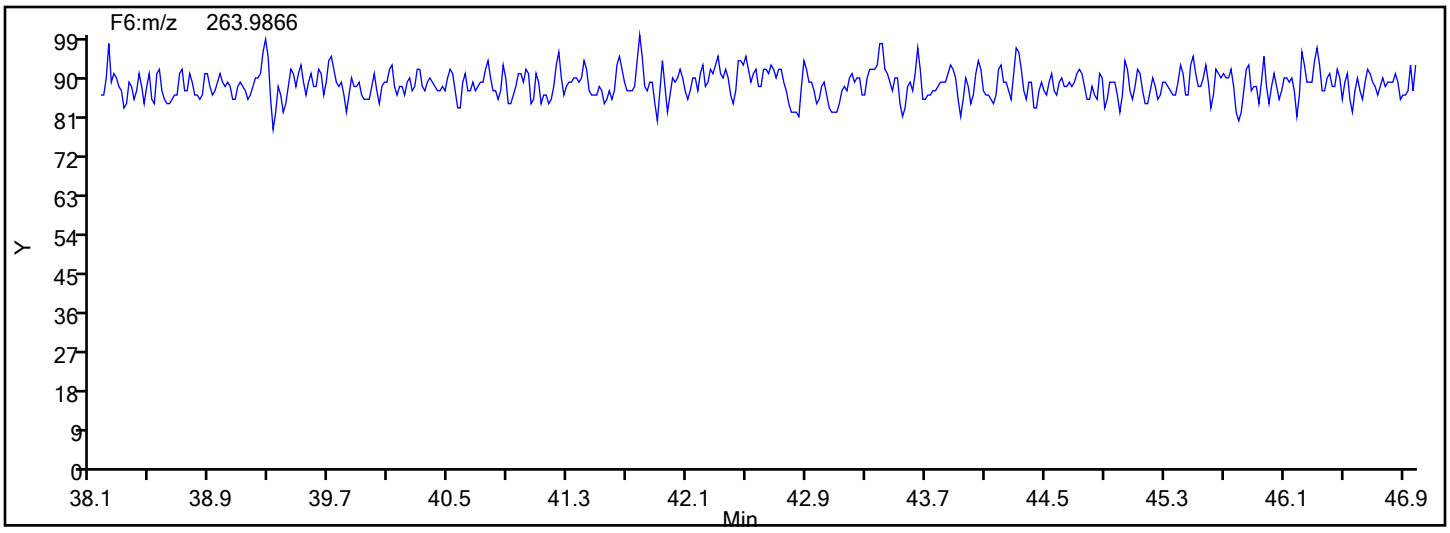
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic6.d		
Injection Date:	19-Mar-2025 22:21:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Mar-2025 23:16:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-007
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:31 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:35

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	3879111	0.81	0.1704	97.2	97.2	0.0501	0.0501	97.16	
alpha-BHC	17:24	20014310	0.79	1.0937	471.7	471.7	0.0229	0.0229	94.35	
D 13C6-beta BHC	18:23	2805446	0.79	0.1244	96.2	96.2	0.0686	0.0686	96.23	
beta-BHC	18:23	13785712	0.79	1.0053	488.8	488.8	0.0368	0.0368	97.76	
D 13C6-gamma BHC	18:39	3674094	0.84	0.1646	95.3	95.3	0.0518	0.0518	95.26	
gamma-BHC (Lindane)	18:40	16435985	0.80	0.9800	456.5	456.5	0.0281	0.0281	91.30	
D 13C6-delta BHC	19:37	2408030	0.78	0.0992	103.6	103.6	0.0860	0.0860	104	
delta-BHC	19:37	12710210	0.80	1.1243	469.5	469.5	0.0404	0.0404	93.89	
D 13C10-Heptachlor	21:52	1634865	1.27	0.0715	97.6	97.6	0.0903	0.0903	97.56	
Heptachlor	21:52	9077309	1.26	1.0864	511.1	511.1	0.0500	0.0500	102	
D 13C6-Hexachlorobenzene	17:42	11999536	1.28	0.5041	101.6	101.6	0.000127	0.000127	102	
Hexachlorobenzene	17:42	63029238	1.28	1.1568	454.1	454.1	0.000097	0.000097	90.81	
D 13C12-Aldrin	23:43	3275250	1.65	0.1384	101.0	101.0	0.0247	0.0247	101	
Aldrin	23:45	17311132	1.57	1.0892	485.3	485.3	0.1208	0.1208	97.06	
D 13C10-oxy Chlordane	26:09	336854	1.01	0.0481	94.2	94.2	0.006263	0.006263	94.25	
oxy-Chlordane	26:10	2023383	1.05	1.1040	544.1	544.1	0.005504	0.005504	109	
D 13C10-cis Heptachlor Epoxide	26:06	1086929	1.44	0.1493	97.9	97.9	0.0270	0.0270	97.92	
Heptachlor epoxide	26:08	6117161	1.28	1.1461	491.1	491.1	0.001658	0.001658	98.21	
D 13C12-2,4'-DDE	27:56	20449120	1.58	2.7345	100.6	100.6	0.0255	0.0255	101	
2,4'-DDE	27:57	128534592	1.60	1.2831	489.9	489.9	0.0728	0.0728	97.98	
D 13C10-trans Chlordane	27:38	1222995	1.30	0.1640	100.3	100.3	0.0239	0.0239	100	
trans-Chlordane	27:39	6563213	1.26	1.1433	469.4	469.4	0.0882	0.0882	93.88	
D 13C10-cis Chlordane	28:41	1264317	1.20	0.1741	97.6	97.6	0.0225	0.0225	97.62	
cis-Chlordane	28:43	6160483	1.25	1.0551	461.8	461.8	0.0962	0.0962	92.36	
D 13C10-trans Nonachlor	29:00	897767	1.32	0.1233	97.9	97.9	0.0317	0.0317	97.90	
trans-Nonachlor	29:02	4667906	1.28	1.0780	482.3	482.3	0.1333	0.1333	96.46	
D 13C9-Endosulfan I	28:31	397808	1.36	0.0555	96.3	96.3	0.0705	0.0705	96.34	
D 13C12-4,4'-DDE	30:10	13478935	1.57	1.8637	99.8	99.8	0.0788	0.0788	99.79	
4,4'-DDE	30:11	80800322	1.62	1.2526	478.6	478.6	0.1723	0.1723	95.71	
D 13C12-4,4'-DDD	33:28	8036142	1.60	1.1392	97.3	97.3	0.0108	0.0108	97.33	
4,4'-DDD	33:29	45277301	1.56	1.2345	456.4	456.4	0.1244	0.1244	91.28	
D 13C12-2,4'-DDT	33:44	4791427	1.61	0.6754	97.9	97.9	0.0182	0.0182	97.89	
2,4'-DDT	33:46	26183745	1.53	1.1809	462.8	462.8	0.2135	0.2135	92.55	
D 13C12-4,4'-DDT	36:36	4244185	1.59	0.5808	100.8	100.8	0.0212	0.0212	101	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:38	23548724	1.52	1.2096	458.7	458.7	0.2350	0.2350	91.74	
D 13C12-Dieldrin	30:23	1390078	1.60	0.1991	96.3	96.3	0.001763	0.001763	96.34	
Dieldrin	30:25	7194272	1.57	1.0718	482.9	482.9	0.2001	0.2001	96.57	
D 13C12-Endrin	32:04	834838	1.55	0.1181	97.5	97.5	0.002972	0.002972	97.55	
Endrin	32:05	4098614	1.56	1.0678	459.8	459.8	0.3440	0.3440	91.95	
D 13C9-Endosulfan II	32:47	177294	1.05	0.0248	98.7	98.7	0.2125	0.2125	98.72	
Endosulfan II	32:48	913391	1.31	1.0972	469.6	469.6	0.9202	0.9202	93.91	M
D 13C12-Endrin Aldehyde	34:18	52620	1.51	0.0237	30.6	30.6	0.1924	0.1924	30.61	
Endrin aldehyde	34:21	345875	1.44	1.1278	582.8	582.8	3.370	3.370	117	
D 13C12-Methoxychlor	41:58	4884196	16.86	0.6709	100.4	100.4	0.0424	0.0424	100	
Methoxychlor	41:59	29486279	5.24	1.3248	455.7	455.7	0.0678	0.0678	91.14	
D 13C11-Endrin Ketone	40:26	436000	1.64	0.0648	92.9	92.9	0.0130	0.0130	92.86	
Endrin ketone	40:28	2526490	1.61	1.1546	501.9	501.9	0.1947	0.1947	100	
D 13C10-Mirex	45:26	4094120	1.27	0.9459	91.8	91.8	0.0119	0.0119	91.80	
Mirex	45:28	21235428	1.25	1.0234	506.8	506.8	0.0340	0.0340	101	
* PCB-15L	19:04	23436625	1.61		100.0	100.0				
PCB-14	17:48	171764524	1.68	1.3581	539.6	539.6	0.004914	0.004914	108	
* 13C6-Pentachlorophenol (IS)	18:33	41946	0.84		500.0	500.0				
Pentachlorophenol	18:31	19750	0.44	0.8359	281.6	281.6	22.2	22.2	9.39	
PCB-36	22:09	124888396	1.06	1.0230	520.9	520.9	0.006086	0.006086	104	
* PCB-101L	28:06	7437291	1.59		100.0	100.0				
PCB-104	23:44	65894705	1.61	1.8372	482.3	482.3	0.000164	0.000164	96.08	
* PCB-118L	32:48	7247607	1.60		100.0	100.0				
PCB-121	26:43	47043241	1.60	1.4622	443.9	443.9	0.2369	0.2369	88.44	
* PCB-138L	36:59	4714790	1.28		100.0	100.0				
PCB-142	27:30	41396134	1.26	2.0271	433.1	433.1	0.0297	0.0297	86.30	
Endosulfan I	28:32	2067950	1.60	1.0931	475.6	475.6	0.1815	0.1815	95.11	
* PCB-60L	27:44	14056538	0.81		100.0	100.0				a
PCB-78	29:21	62605358	0.79	0.9153	486.6	486.6	0.0164	0.0164	96.95	a
D 13C12-2,4'-DDD	30:51	9249989	1.57	1.3487	94.6	94.6	0.0475	0.0475	94.63	
2,4'-DDD	30:52	50351279	1.58	1.1763	462.7	462.7	0.0785	0.0785	92.55	
D 13C10-cis Nonachlor	33:48	673057	1.36	0.0944	98.4	98.4	0.0312	0.0312	98.35	
cis-Nonachlor	33:50	3466489	1.25	1.0758	478.8	478.8	0.0597	0.0597	95.75	
D 13C9-Endosulfan sulfate	36:18	1083345	1.27	0.1517	98.6	98.6	0.0194	0.0194	98.55	
Endosulfan sulfate	36:20	5967867	1.27	1.0831	508.6	508.6	0.0426	0.0426	102	
* PCB-167L	39:29	4672917	1.26		100.0	100.0				
PCB-155	33:59	21720145	1.25	0.9191	505.7	505.7	0.0550	0.0550	101	
PCB-184	34:39	26710524	1.05	1.1610	492.4	492.4	0.0168	0.0168	98.09	
PCB-204	42:17	17598444	0.90	0.7364	511.4	511.4	0.000827	0.000827	102	
PCB-192	42:37	17327871	1.05	0.7635	485.7	485.7	0.0550	0.0550	96.77	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

61L61699PST_00010 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Mar-2025 23:16:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-007
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:31 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:35

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	1731908	631223	242	605	2608		
224.9317	17:23	17:23	0	0.912	2147203	793318	25	62	31733	0.81(0.58-0.96)	
alpha-BHC											
216.9145	17:24	17:23	0	1.001	8850327	3259989	12	30	271666		
218.9116	17:23	17:23	0	1.001	11163983	4091314	131	327	31231	0.79(0.58-0.96)	
13C6-beta BHC											
222.9342	18:23	18:22	0	0.964	1239604	429177	242	605	1773		
224.9317	18:22	18:22	0	0.964	1565842	536490	25	62	21460	0.79(0.58-0.96)	
beta-BHC											
216.9145	18:23	18:23	0	1.001	6086680	2111479	12	30	175957		
218.9116	18:23	18:23	0	1.001	7699032	2658935	131	327	20297	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:39	0	0.979	1674937	595113	242	605	2459		
224.9317	18:39	18:39	0	0.979	1999157	700909	25	62	28036	0.84(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	7287909	2527549	12	30	210629		
218.9116	18:40	18:40	0	1.001	9148076	3159529	131	327	24119	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:36	0	1.029	1055745	343632	242	605	1420		
224.9317	19:37	19:36	0	1.029	1352285	442450	25	62	17698	0.78(0.58-0.96)	
delta-BHC											
216.9145	19:37	19:38	0	1.001	5647056	1730741	12	30	144228		
218.9116	19:37	19:38	0	1.001	7063154	2151247	131	327	16422	0.80(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:52	21:51	0	1.147	914691	260751	98	245	2661		
278.8240	21:52	21:51	0	1.147	720174	203181	104	260	1954	1.27(0.93-1.55)	
Heptachlor											
271.8102	21:52	21:52	0	1.001	5063616	1460032	52	130	28078		
273.8072	21:52	21:52	0	1.001	4013693	1147160	49	122	23411	1.26(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.929	6729737	2488997	1	2	2488997		
291.8273	17:42	17:42	0	0.929	5269799	1955999	1	2	1955999	1.28(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:42	17:42	0	1.000	35417654	13139895	1	2	13139900		
285.8072	17:42	17:42	0	1.000	27611584	10253804	1	2	10253800	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:44	-1	1.244	2039454	520847	66	165	7892		
271.8775	23:43	23:44	-1	1.244	1235796	326929	41	102	7974	1.65(1.16-1.94)	
Aldrin											
262.8569	23:45	23:45	-1	1.001	10587974	2690550	241	602	11164		
264.8540	23:45	23:45	-1	1.001	6723158	1744128	205	512	8508	1.57(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:08	0	0.930	169617	40370	1	2	40370		
398.8358	26:08	26:08	-1	0.930	167237	41923	1	2	41923	1.01(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	1035311	249531	1	2	249531		
388.8023	26:10	26:10	0	1.001	988072	238593	1	2	238593	1.05(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.929	641272	148454	26	65	5710		
364.8748	26:06	26:06	0	0.929	445657	114691	1	2	114691	1.44(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:08	26:08	0	1.001	3428419	794696	1	2	794696		
354.8413	26:08	26:08	0	1.001	2688742	619975	1	2	619975	1.28(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.994	12516331	2835615	279	697	10163		
260.0376	27:56	27:56	0	0.994	7932789	1776295	184	460	9654	1.58(1.17-1.95)	
2,4'-DDE											
246.0003	27:57	27:57	-1	1.000	79066194	18485723	1057	2642	17489		
247.9974	27:57	27:57	-1	1.000	49468398	11600021	665	1662	17444	1.60(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:38	27:38	0	0.983	690958	158029	25	62	6321		
278.8240	27:38	27:38	0	0.983	532037	121763	1	2	121763	1.30(0.93-1.55)	
trans-Chlordane											
271.8102	27:39	27:39	0	1.001	3665308	841739	67	167	12563		
273.8072	27:39	27:39	0	1.001	2897905	666533	46	115	14490	1.26(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	-1	1.020	690331	151047	25	62	6042		
278.8240	28:41	28:41	0	1.021	573986	126916	1	2	126916	1.20(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:43	28:43	0	1.001	3420715	751858	67	167	11222		
273.8072	28:43	28:43	0	1.001	2739768	614474	46	115	13358	1.25(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.032	509984	111527	25	62	4461		
278.8240	29:00	29:00	0	1.032	387783	84737	1	2	84737	1.32(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	2623342	585994	67	167	8746		
273.8072	29:02	29:02	0	1.001	2044564	446160	46	115	9699	1.28(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:31	28:31	-1	1.015	229361	50004	25	62	2000		
278.8240	28:32	28:31	0	1.015	168447	35676	1	2	35676	1.36(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	8243269	1784110	522	1305	3418		
260.0376	30:10	30:10	0	0.920	5235666	1140028	315	787	3619	1.57(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.001	49918156	11054972	1536	3840	7197		
247.9974	30:11	30:11	0	1.001	30882166	6777861	989	2472	6853	1.62(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:28	33:27	1	1.021	4939629	921834	25	62	36873		
249.0454	33:27	33:27	0	1.020	3096513	580162	45	112	12892	1.60(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	27598165	5382051	782	1955	6882		
237.0052	33:29	33:29	0	1.001	17679136	3365625	141	352	23870	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:44	33:44	0	1.029	2958641	562317	25	62	22493		
249.0454	33:44	33:44	0	1.029	1832786	352581	45	112	7835	1.61(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	15851865	3033140	782	1955	3879		
237.0052	33:45	33:46	-1	1.001	10331880	1950028	141	352	13830	1.53(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:36	36:36	0	1.116	2605383	493627	25	62	19745		
249.0454	36:36	36:36	0	1.116	1638802	318099	45	112	7069	1.59(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:37	1	1.001	14208467	2606185	782	1955	3333		
237.0052	36:37	36:37	0	1.000	9340257	1722621	141	352	12217	1.52(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.927	855047	169475	1	2	169475		
271.8775	30:22	30:23	-1	0.926	535031	106479	1	2	106479	1.60(1.16-1.94)	
Dieldrin											
262.8570	30:25	30:25	0	1.001	4393552	893559	153	382	5840		
264.8540	30:25	30:25	0	1.001	2800720	574104	84	210	6835	1.57(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:03	0	0.978	507529	97410	1	2	97410		
271.8775	32:03	32:03	-1	0.977	327309	63754	1	2	63754	1.55(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:05	32:05	0	1.001	2495366	491736	153	382	3214		
264.8540	32:05	32:05	0	1.001	1603248	322794	84	210	3843	1.56(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:47	32:47	0	1.000	90798	17669	19	47	930		
278.8240	32:47	32:47	0	1.000	86496	17492	11	27	1590	1.05(0.93-1.55)	
Endosulfan II											M
271.8102	32:48	32:48	0	1.001	517671	102086	75	187	1361		
273.8072	32:48	32:48	0	1.001	395720	79069	67	167	1180	1.31(0.93-1.55)	M
13C12-Endrin Aldehyde											
356.9391	34:18	34:19	-1	1.046	31637	6027	4	10	1507		
358.9361	34:20	34:19	1	1.047	20983	3971	22	55	181	1.51(1.17-1.95)	
Endrin aldehyde											
344.8988	34:21	34:21	0	1.002	204301	36541	87	217	420		
346.8959	34:22	34:21	1	1.002	141574	23884	65	162	367	1.44(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:58	41:56	1	1.280	4610725	820759	151	377	5435		
240.1510	41:57	41:56	0	1.279	273471	43995	11	27	4000	16.86(0.00-0.00)	
Methoxychlor											
227.1072	41:59	41:58	0	1.000	24761446	4487534	201	502	22326		
228.1106	41:59	41:58	0	1.000	4724833	819889	110	275	7454	5.24(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:26	40:25	1	1.233	270783	45322	4	10	11331		
329.9379	40:25	40:25	0	1.233	165217	25868	1	2	25868	1.64(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	0	1.001	1559374	266784	41	102	6507		
318.9010	40:28	40:28	0	1.001	967116	165581	23	57	7199	1.61(1.16-1.95)	
13C10-Mirex											
276.8270	45:26	45:25	1	1.228	2293841	369070	27	67	13669		
278.8240	45:26	45:25	1	1.228	1800279	284052	12	30	23671	1.27(0.93-1.55)	
Mirex											
271.8102	45:28	45:27	1	1.001	11788160	1874881	51	127	36762		
273.8072	45:28	45:27	1	1.001	9447268	1502568	40	100	37564	1.25(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		14458241	4841878	16	40	302617		
236.0376	19:04	19:04	0		8978384	2979411	14	35	212815	1.61(1.16-1.93)	
PCB-14											
222.0003	17:48	17:49	0	0.934	107556999	41634131	126	315	330430		
223.9974	17:48	17:49	0	0.934	64207525	24781118	83	207	298568	1.68(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:33	18:31	2		19140	3359	10	25	336		
271.8636	18:31	18:31	0		22806	4737	25	62	189	0.84(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31	18:31	-1	0.998	6038	1267	69	172	18		
265.8435	18:32	18:31	0	0.999	13712	2047	51	127	40	0.44(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:09	22:09	0	1.163	64178365	19049283	97	242	196384		
257.9584	22:09	22:09	0	1.163	60710031	18020587	98	245	183884	1.06(0.88-1.20)	
PCB-101L											
337.9207	28:06	28:07	-1		4569481	1017837	1	2	1017837		
339.9178	28:06	28:07	-1		2867810	643565	1	2	643565	1.59(1.16-1.94)	
PCB-104											
325.8804	23:44	23:44	0	0.844	40648940	10865388	1	2	10865390		
327.8775	23:44	23:44	0	0.844	25245765	6617260	1	2	6617260	1.61(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		4458787	867913	14	35	61994		
339.9178	32:48	32:48	0		2788820	556574	12	30	46381	1.60(1.16-1.94)	
PCB-121											
325.8804	26:43	26:43	0	0.815	28928881	6996621	1210	3025	5782		
327.8775	26:43	26:43	0	0.815	18114360	4340505	764	1910	5681	1.60(1.32-1.78)	
PCB-138L											
371.8817	36:59	36:59	0		2650749	486262	12	30	40522		
373.8788	36:59	36:59	0		2064041	377459	12	30	31455	1.28(1.16-1.94)	
PCB-142											
359.8415	27:30	27:29	0	0.743	23099614	5403421	136	340	39731		
361.8385	27:30	27:29	0	0.743	18296520	4288059	72	180	59556	1.26(1.05-1.43)	
Endosulfan I											
262.8570	28:32	28:32	0	1.001	1271193	285682	35	87	8162		
264.8540	28:32	28:32	0	1.001	796757	176118	33	82	5337	1.60(1.16-1.94)	
PCB-60L											a
301.9626	27:44	27:44	0		6270905	1384146	22	55	62916		a
303.9597	27:44	27:44	0		7785633	1718794	25	62	68752	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:21	29:21	0	1.058	27595479	6104443	84	210	72672		a
291.9194	29:21	29:21	0	1.058	35009879	7811971	103	257	75844	0.79(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:51	30:50	1	0.941	5645123	1158567	196	490	5911		
249.0454	30:51	30:50	0	0.940	3604866	748550	169	422	4429	1.57(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.000	30826254	6783870	541	1352	12540		
237.0052	30:52	30:52	0	1.000	19525025	4216917	163	407	25871	1.58(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.031	387625	77454	16	40	4841		
278.8240	33:48	33:48	0	1.031	285432	58048	1	2	58048	1.36(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	1924348	366344	7	17	52335		
273.8072	33:50	33:50	0	1.001	1542141	297774	28	70	10635	1.25(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:18	36:17	1	1.107	606475	105793	16	40	6612		
278.8240	36:18	36:17	1	1.107	476870	82961	1	2	82961	1.27(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.001	3335972	596792	7	17	85256		
273.8072	36:20	36:20	0	1.001	2631895	461262	28	70	16474	1.27(0.93-1.55)	
PCB-167L											
371.8817	39:29	39:29	0		2604080	458624	4	10	114656		
373.8788	39:29	39:29	0		2068837	362454	3	7	120818	1.26(1.16-1.94)	
PCB-155											
359.8415	33:59	33:59	0	0.861	12071302	2326692	89	222	26143		
361.8385	33:59	33:59	0	0.861	9648843	1863835	77	192	24206	1.25(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.878	13662355	2587410	44	110	58805		
395.7995	34:39	34:39	0	0.878	13048169	2465902	20	50	123295	1.05(0.89-1.21)	
PCB-204											
427.7635	42:17	42:17	0	1.071	8337806	1445223	1	2	1445223		
429.7606	42:17	42:17	0	1.071	9260638	1601349	1	2	1601349	0.90(0.76-1.02)	
PCB-192											
393.8025	42:37	42:36	1	1.079	8864239	1509850	73	182	20683		
395.7995	42:37	42:36	1	1.079	8463632	1444192	65	162	22218	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

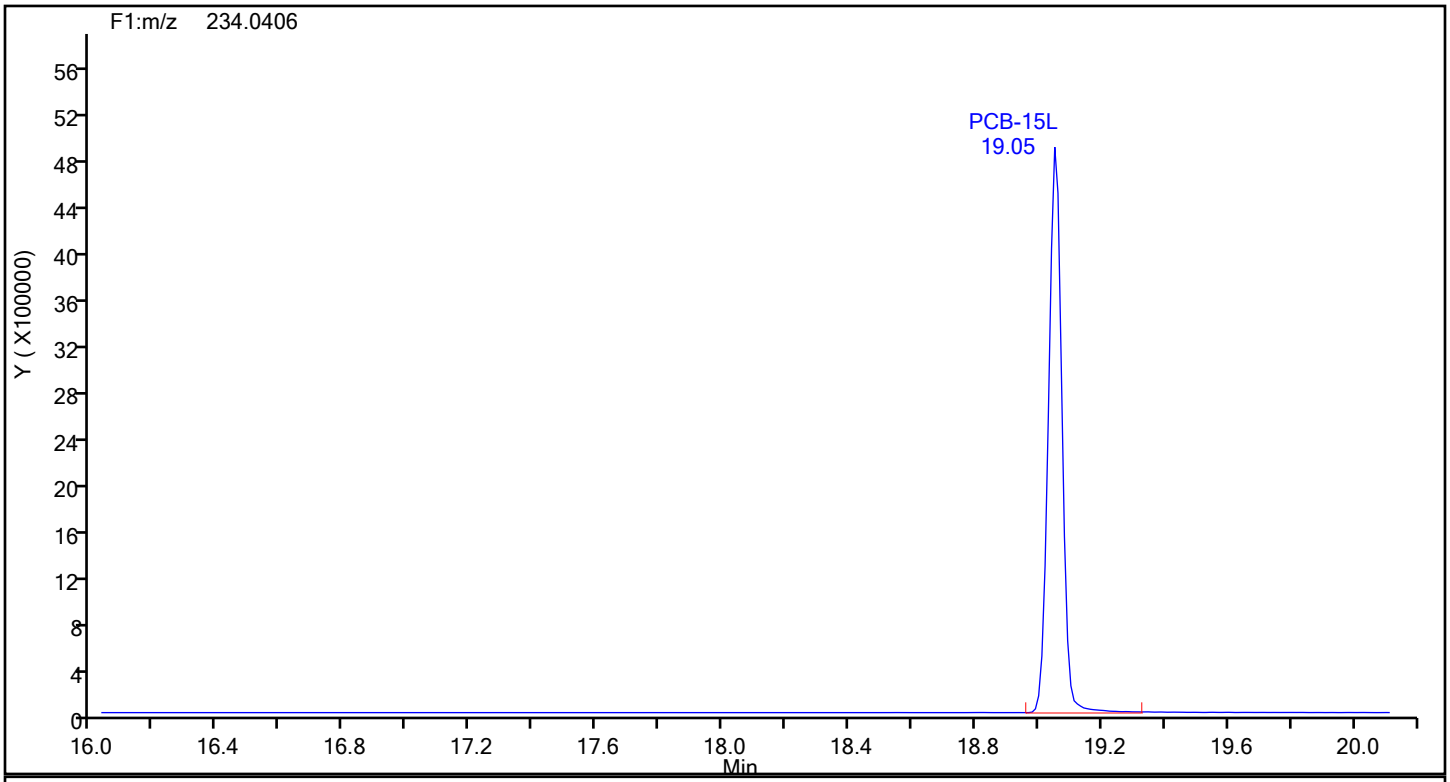
61L61699PST_00010 Amount Added: 20.00 Units: uL

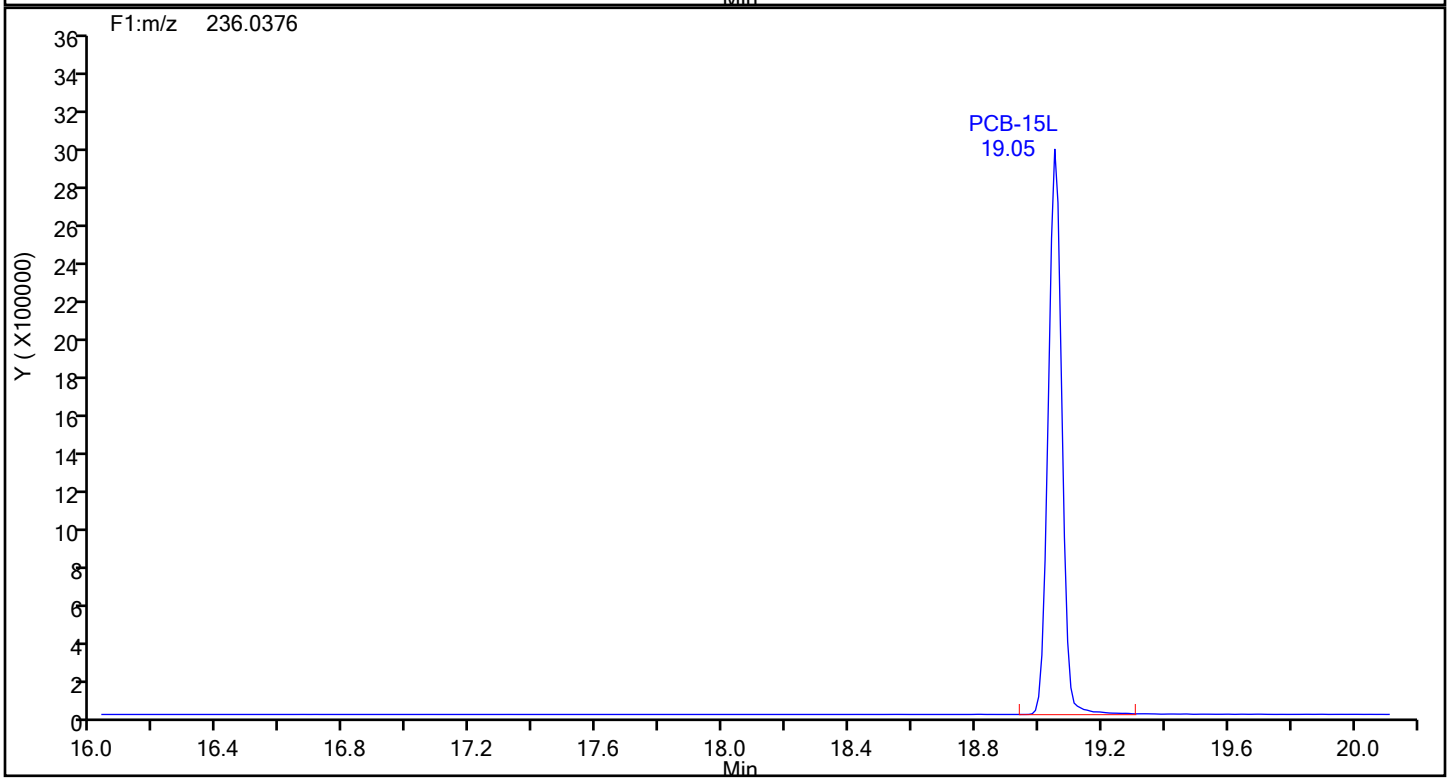
Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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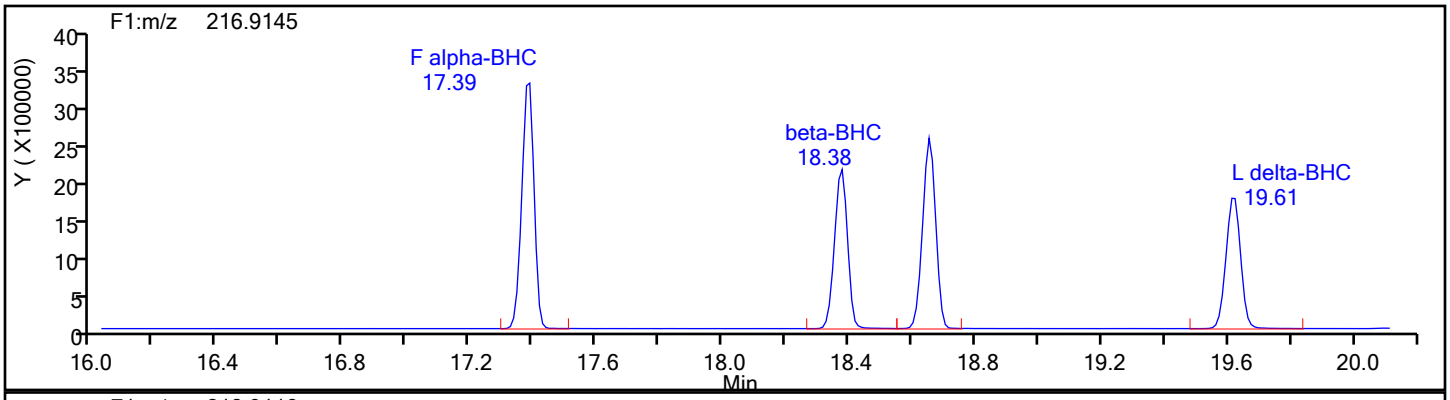
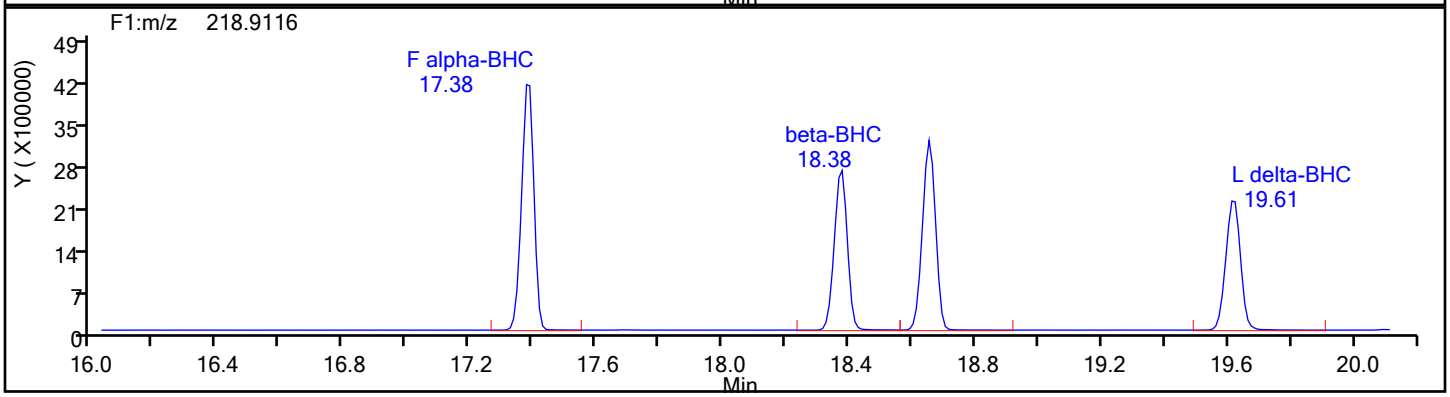
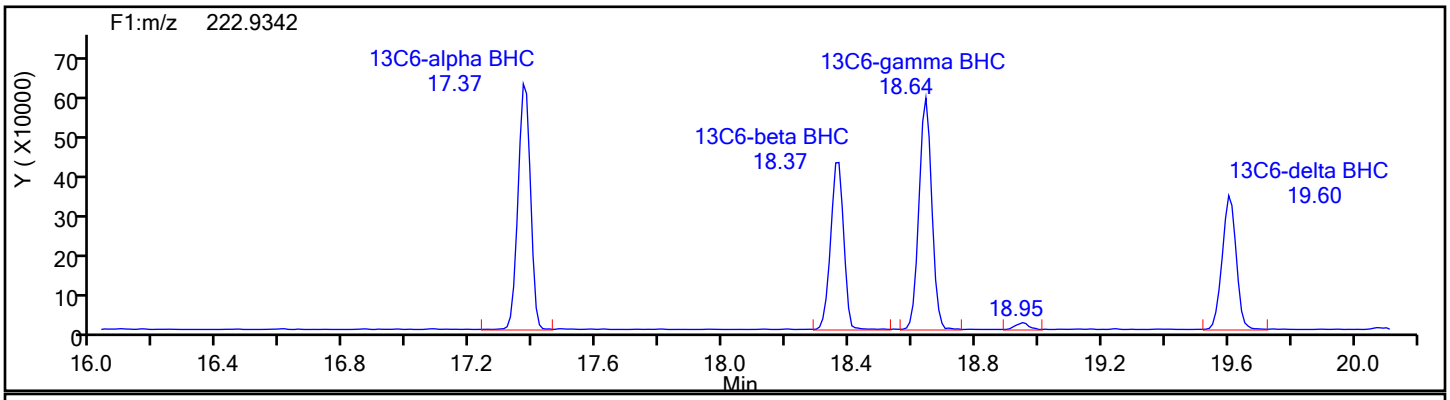
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

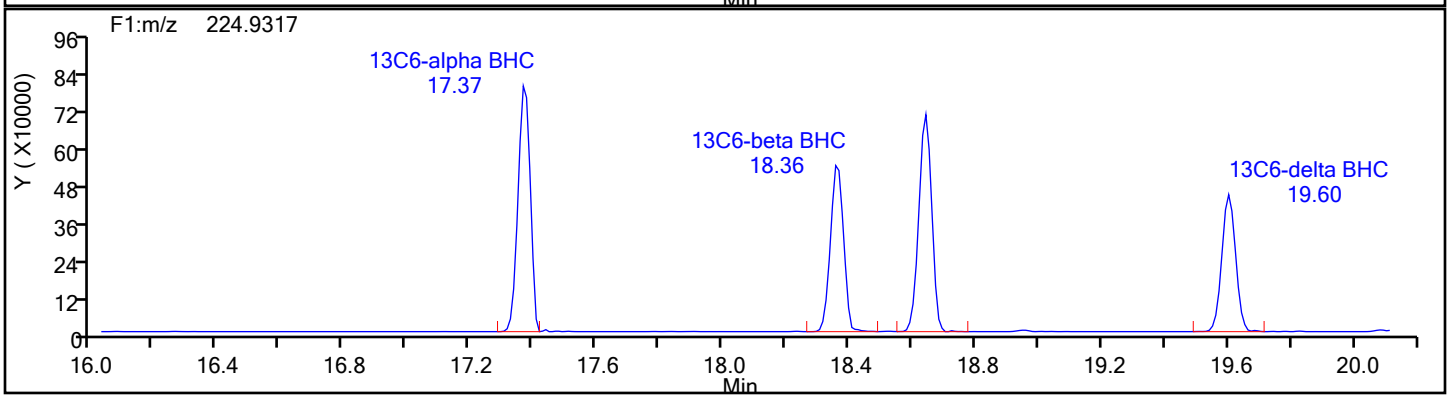
BHC





BHC Standards





Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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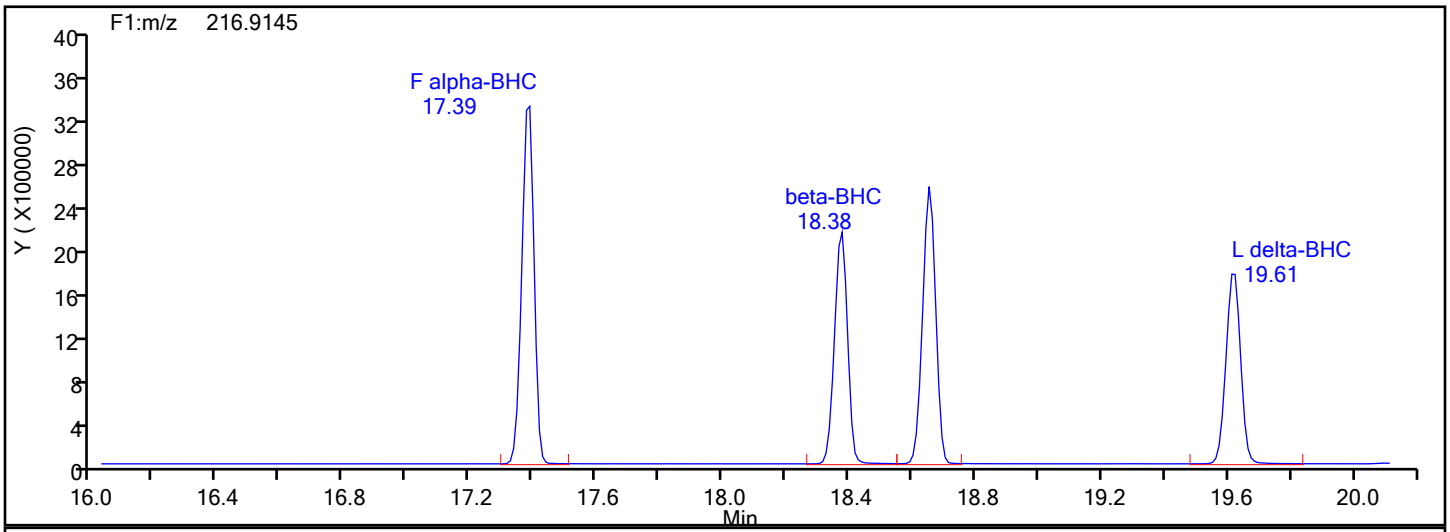
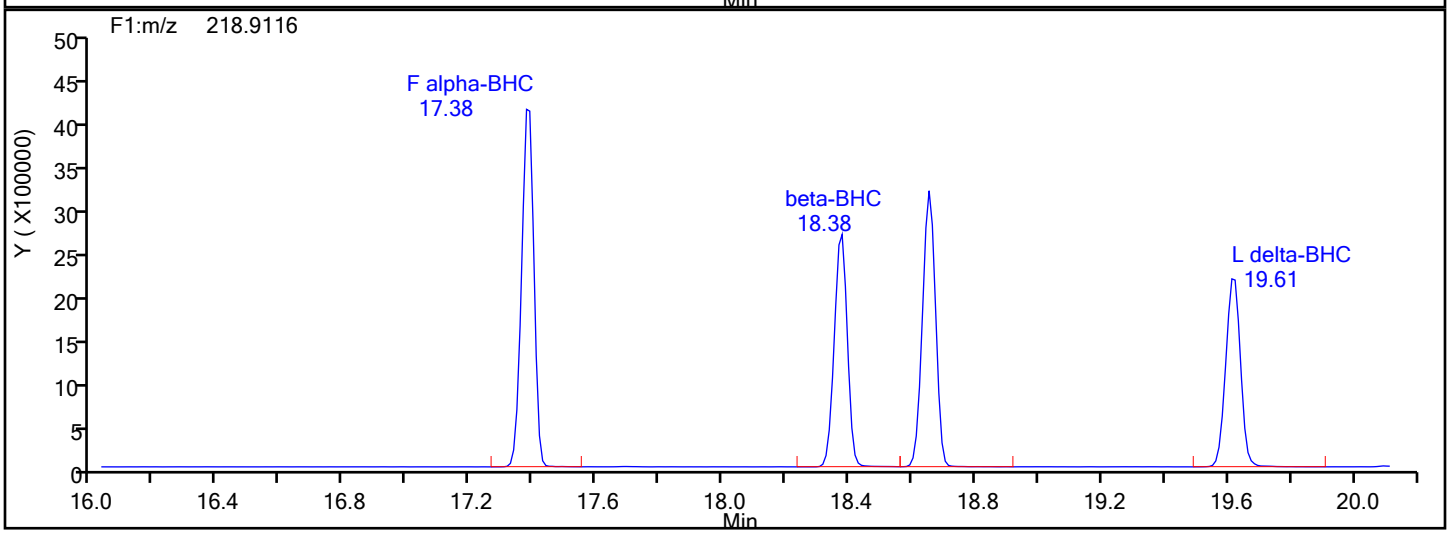
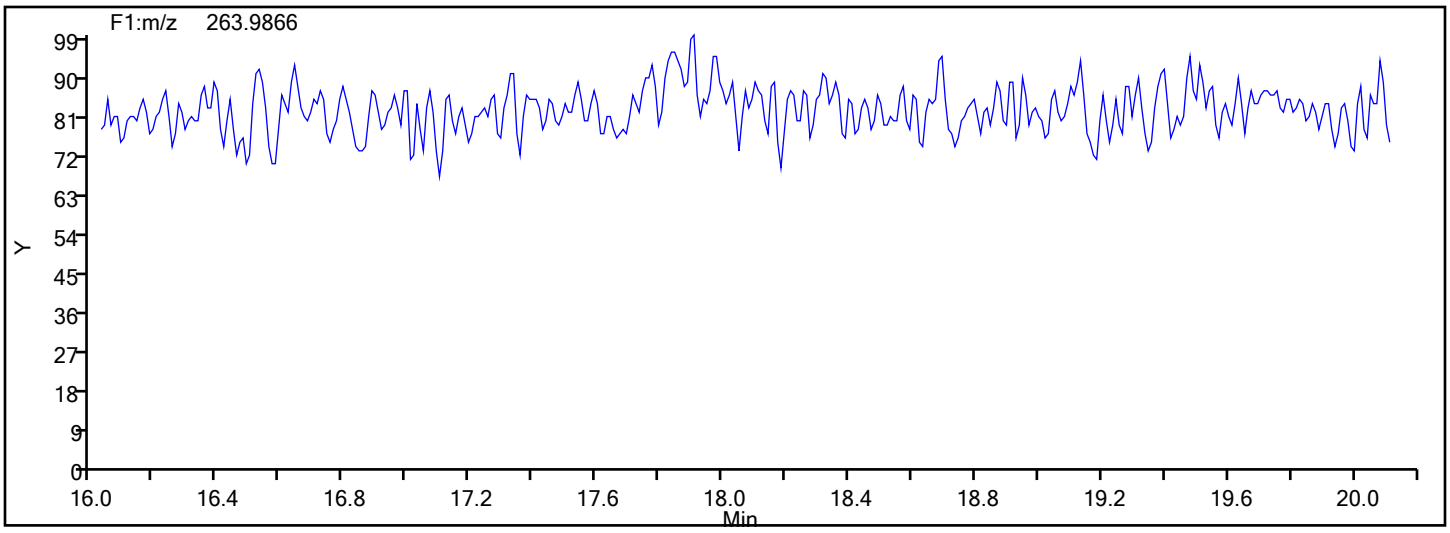




BHC Lock Mass



Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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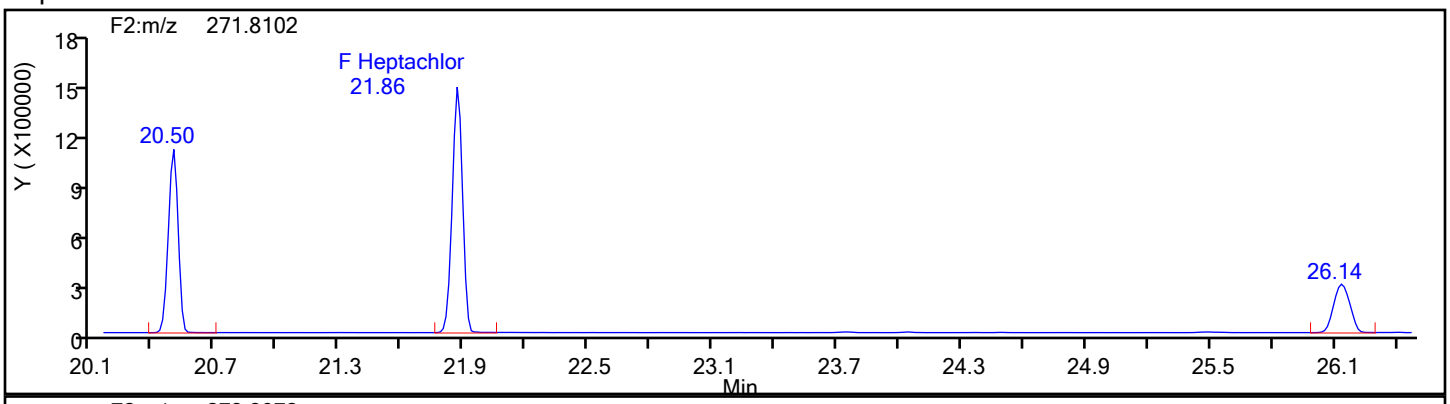
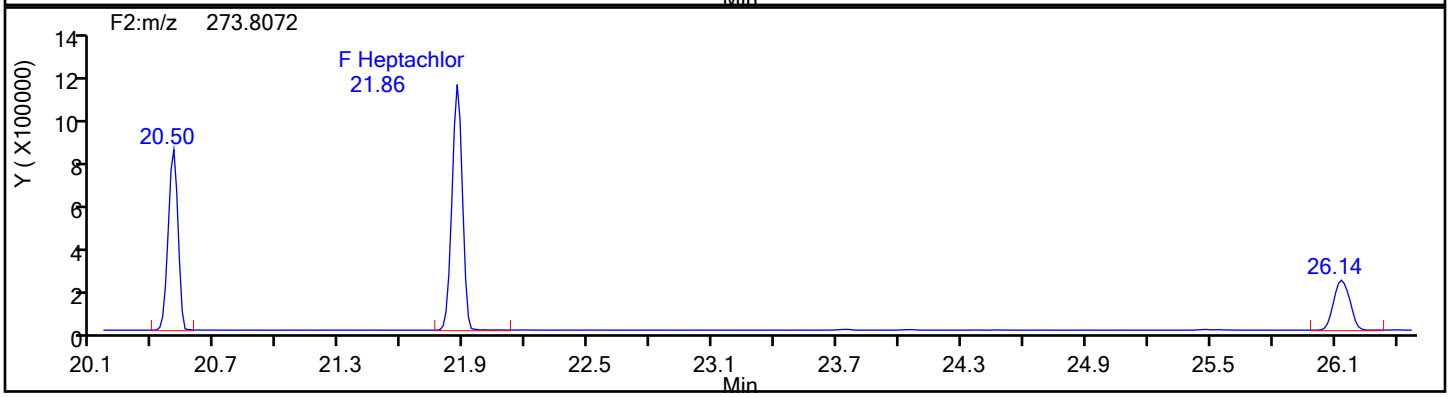
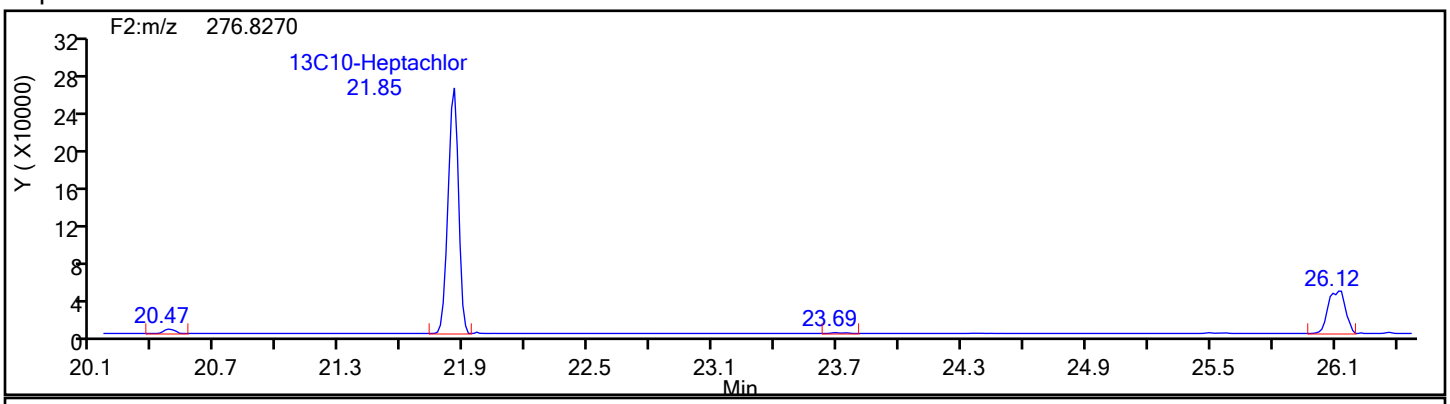
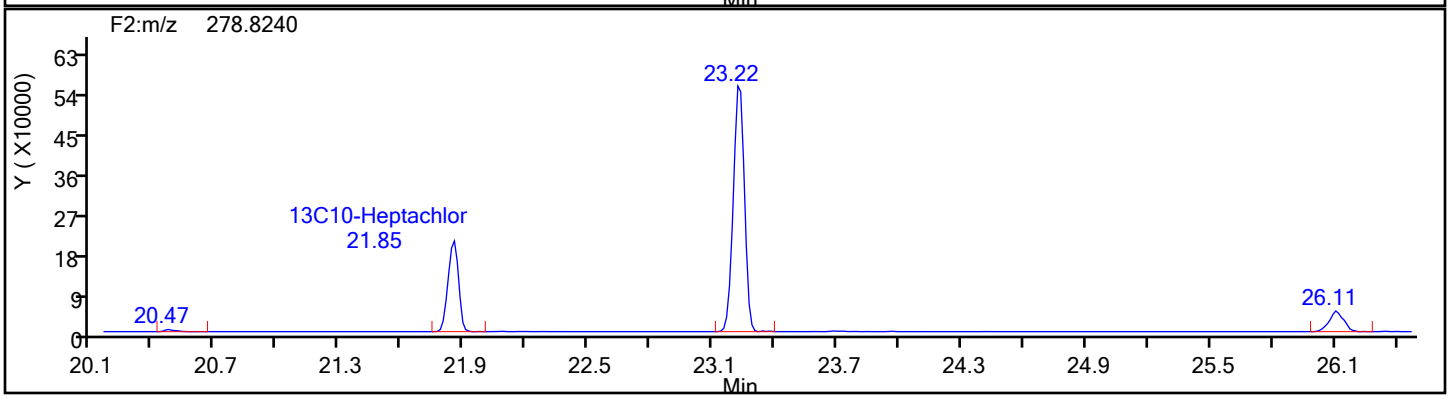
Heptachlor





Heptachlor Standards





Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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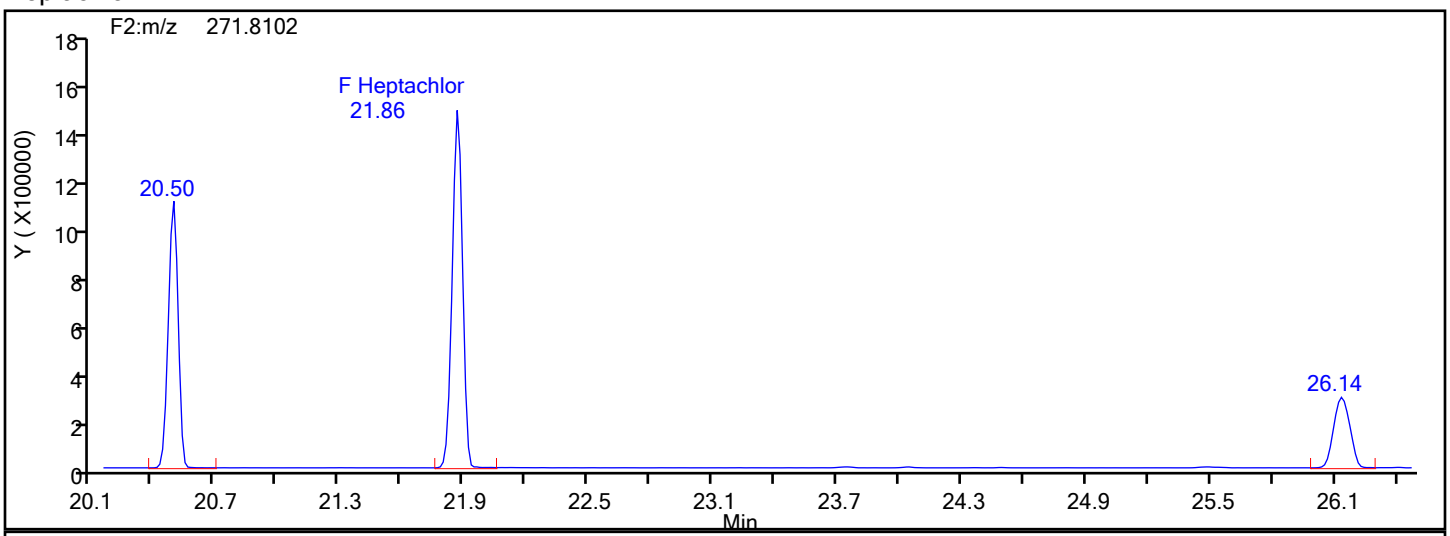
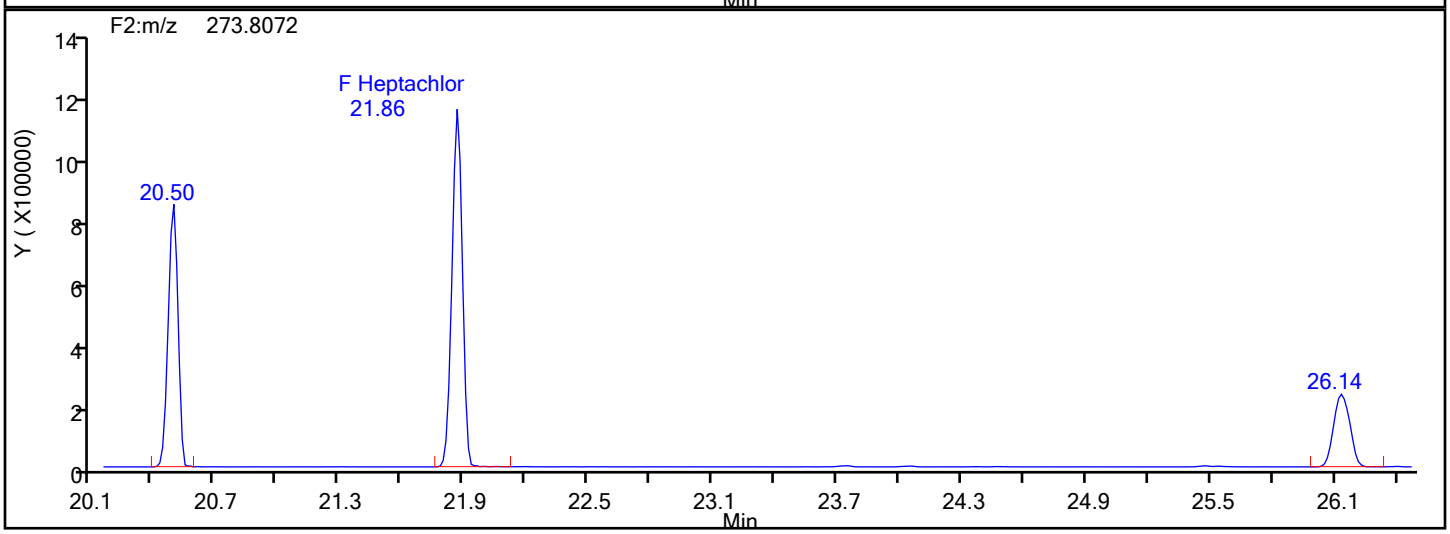
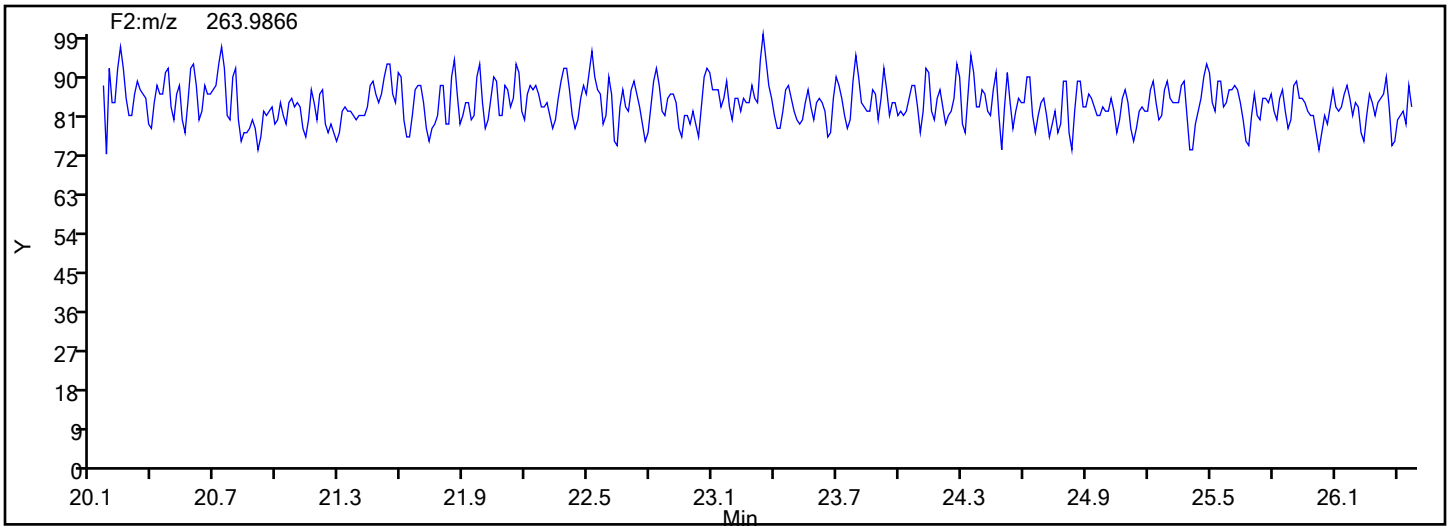
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



Report Date: 24-Mar-2025 13:06:32 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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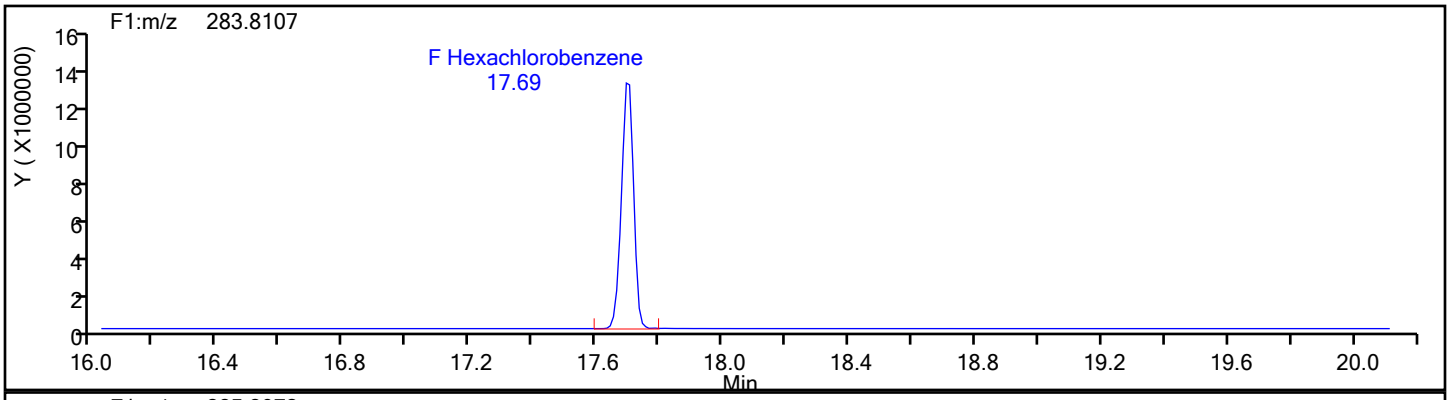
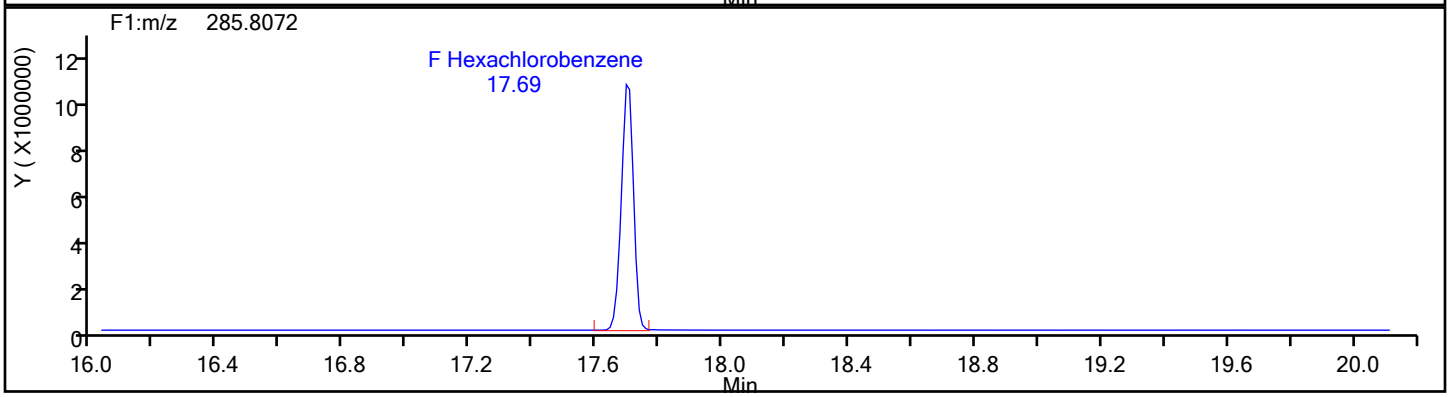
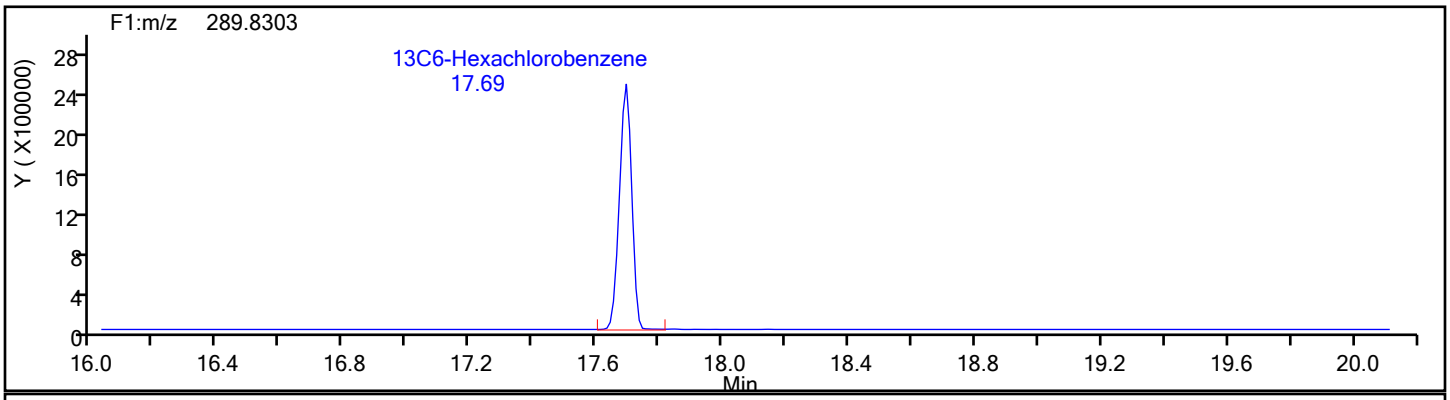
Column Type:	RTX-5	Column Dia:	0.32 mm

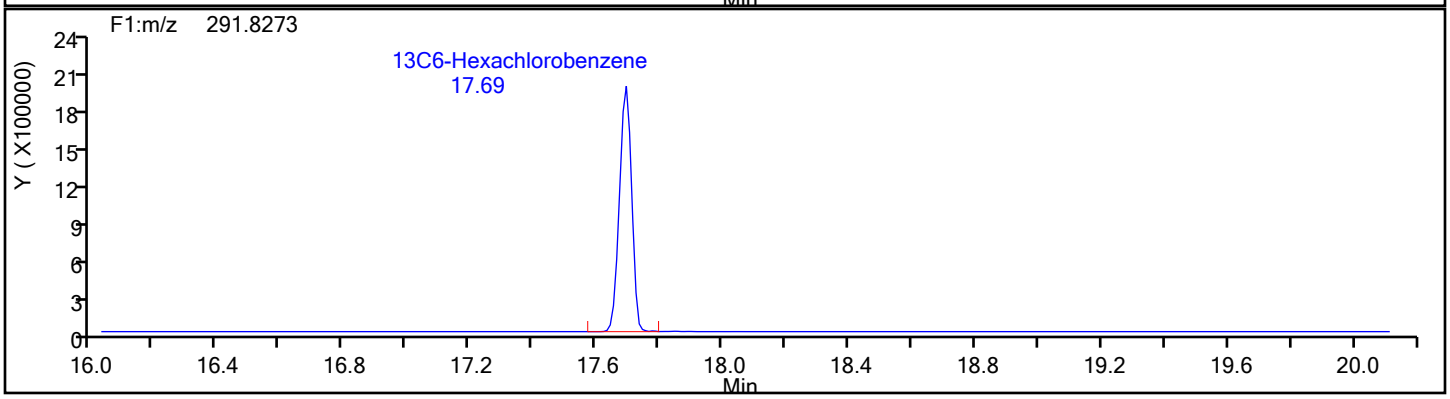
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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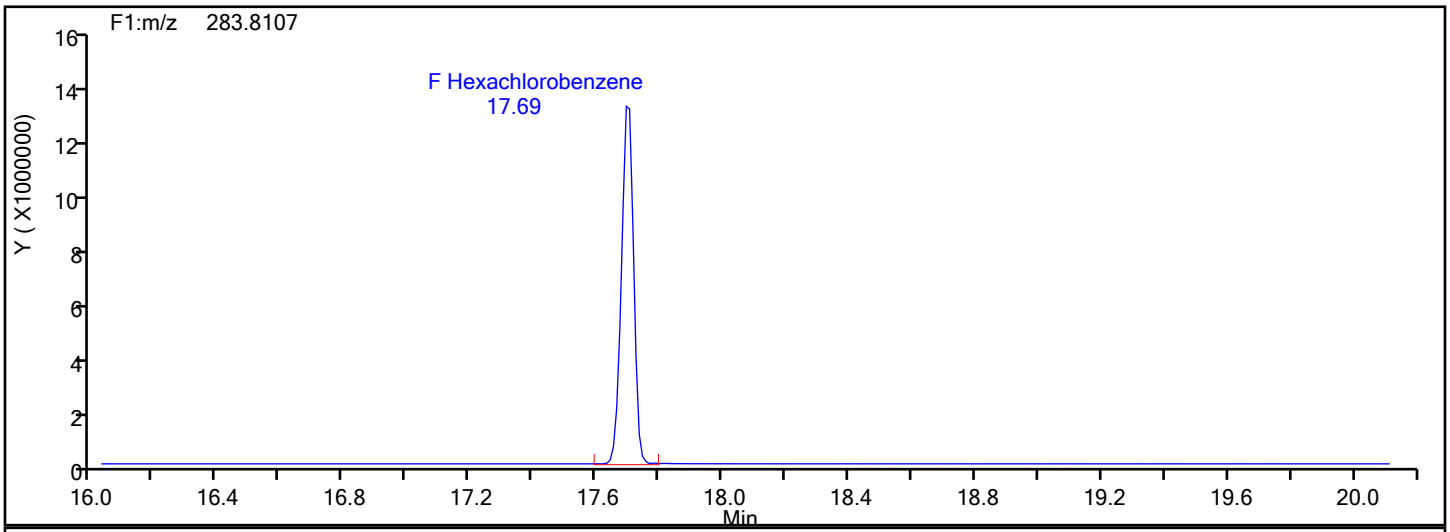
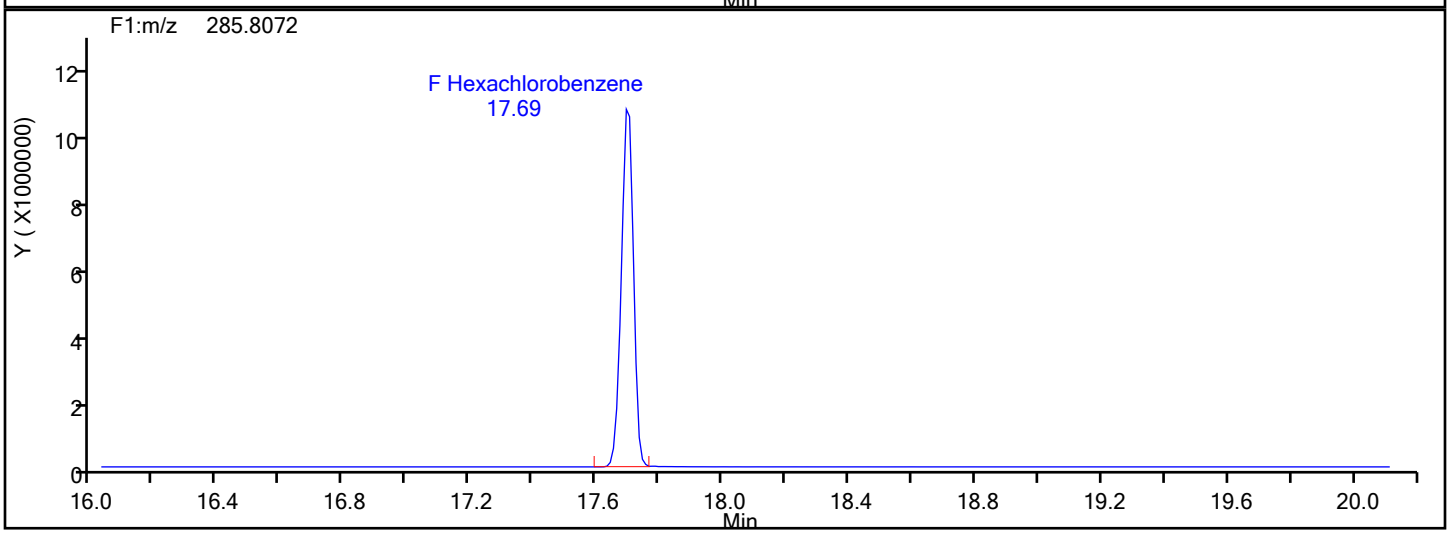
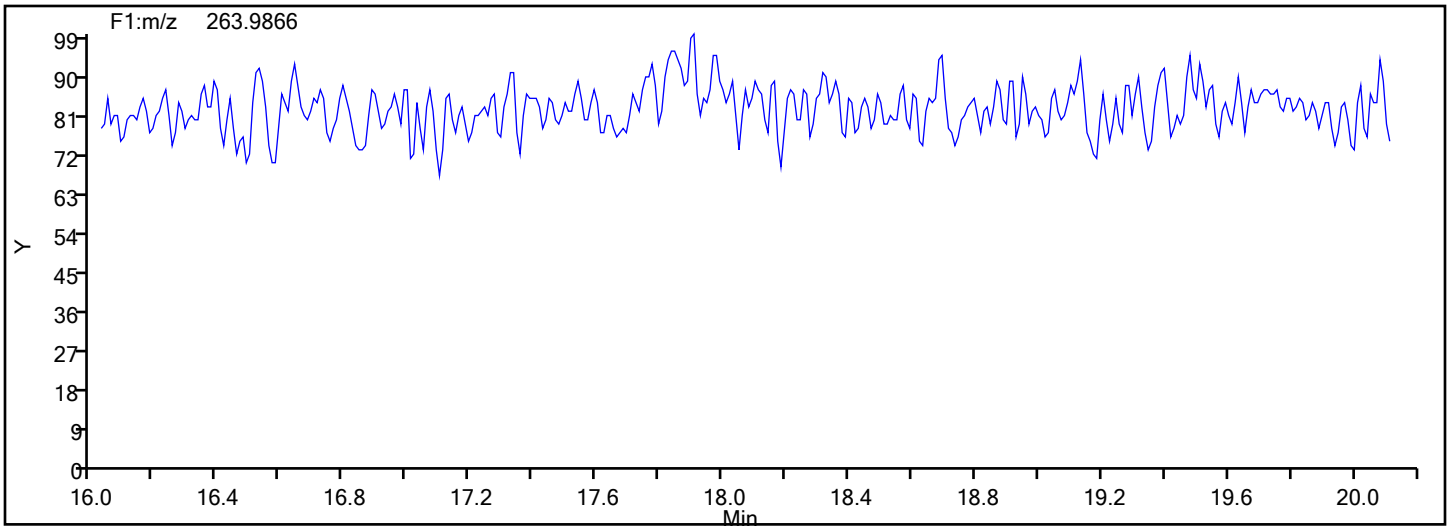
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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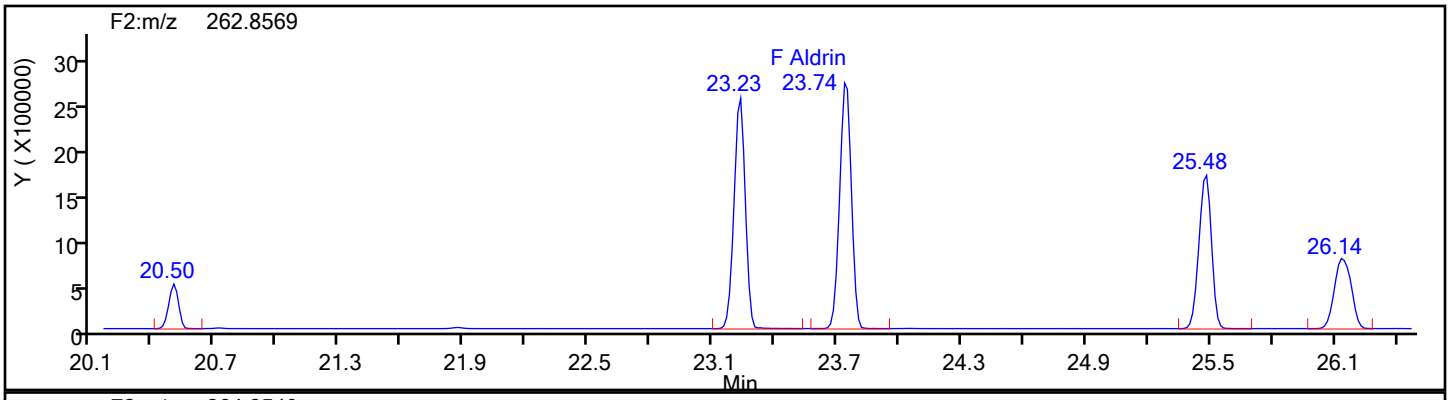
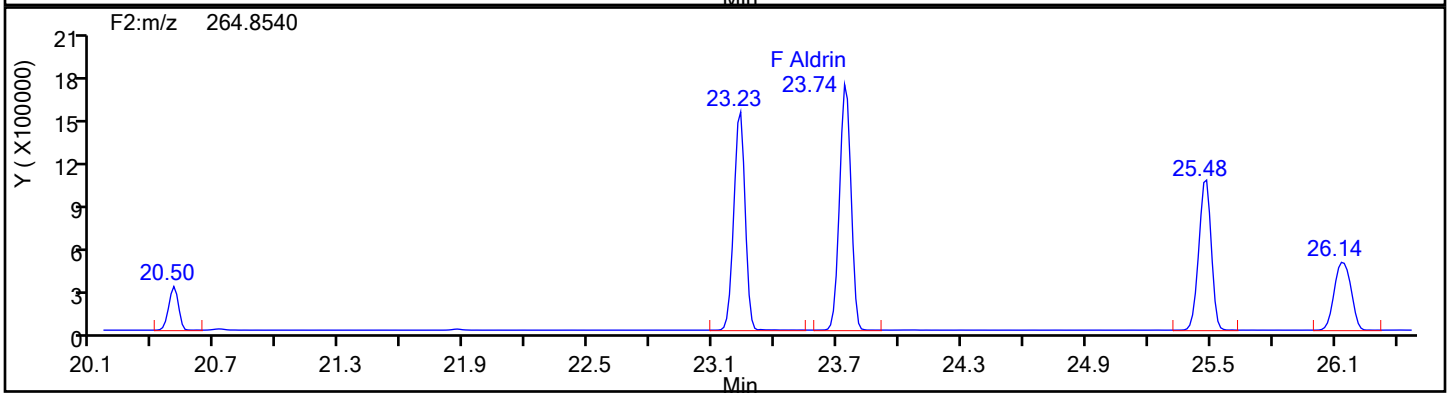
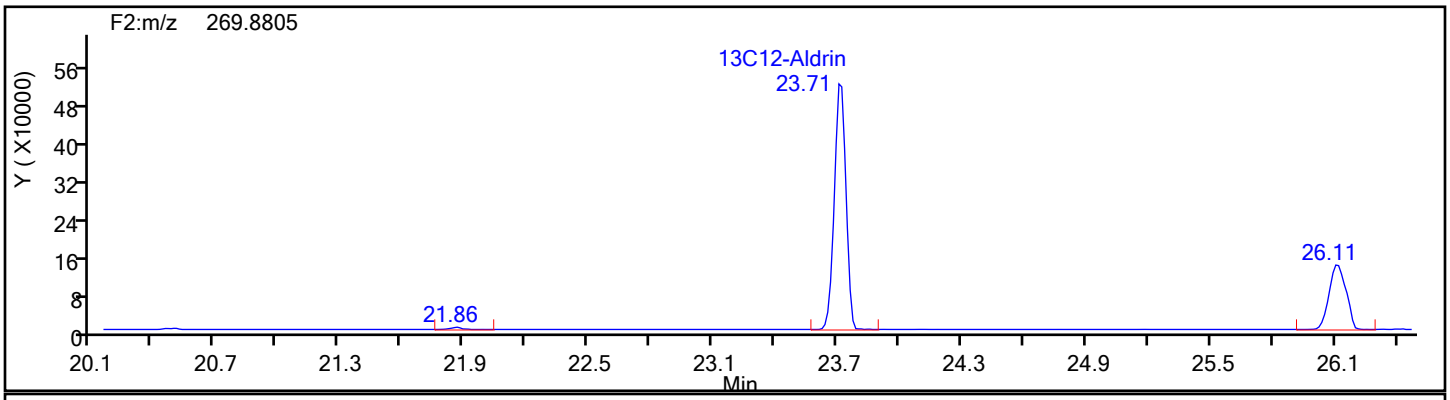
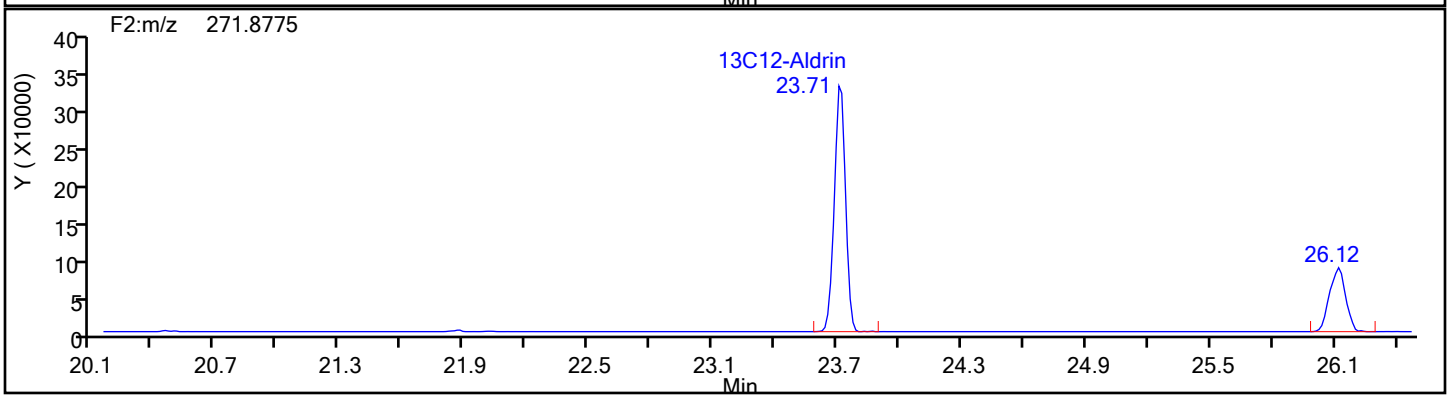
Aldrin





Aldrin Standards





Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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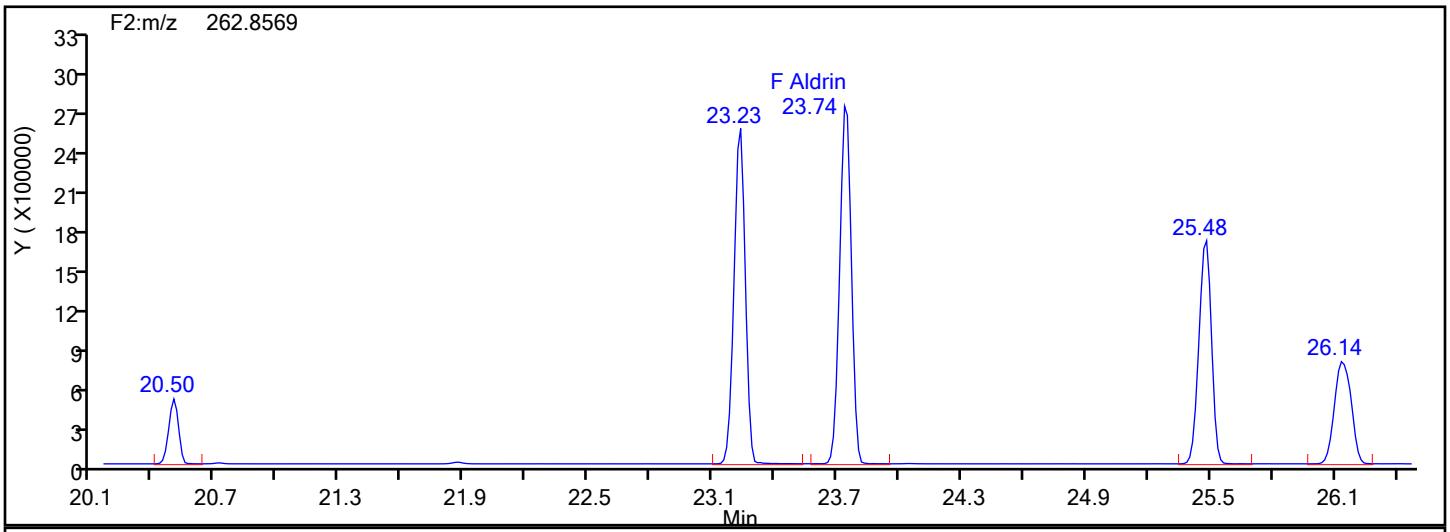
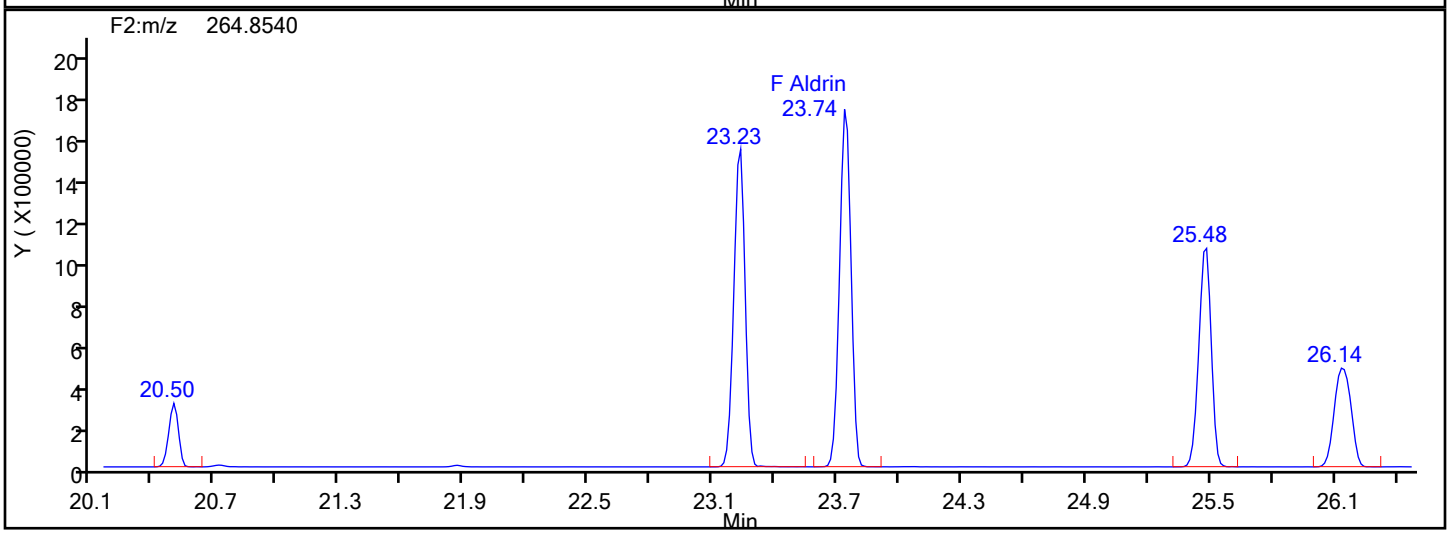
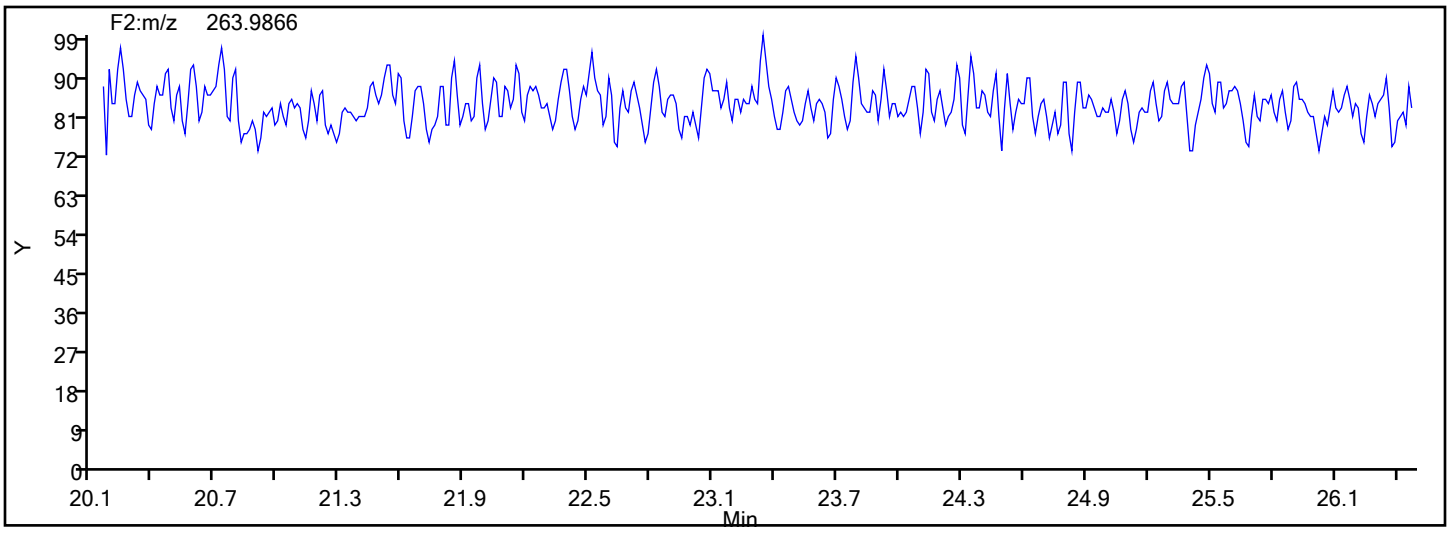
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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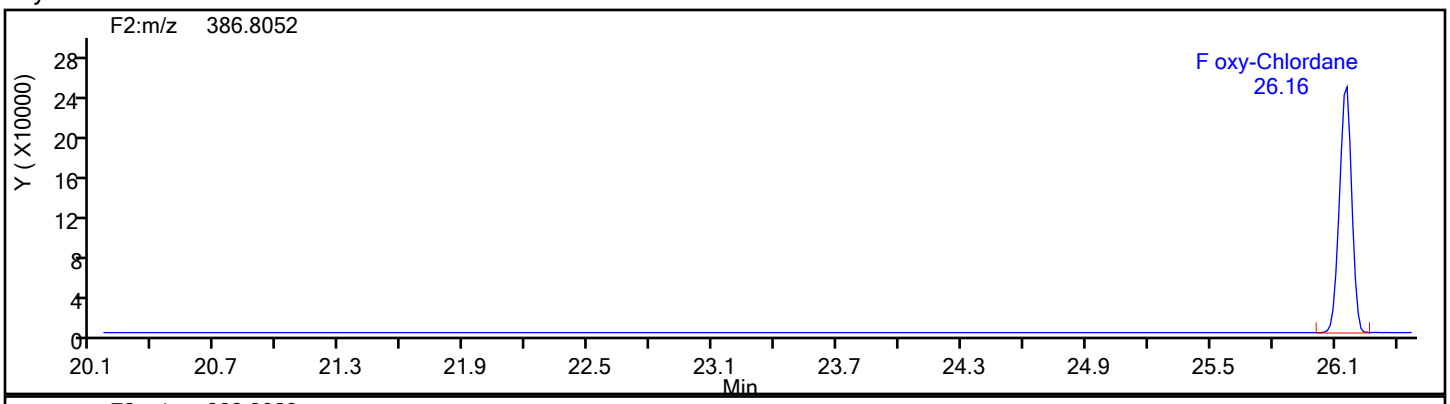
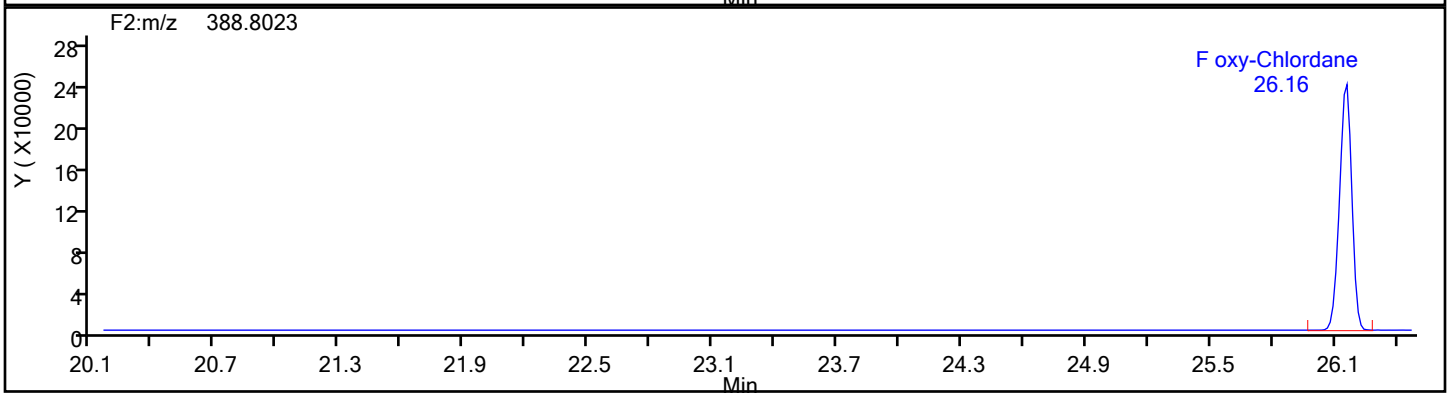
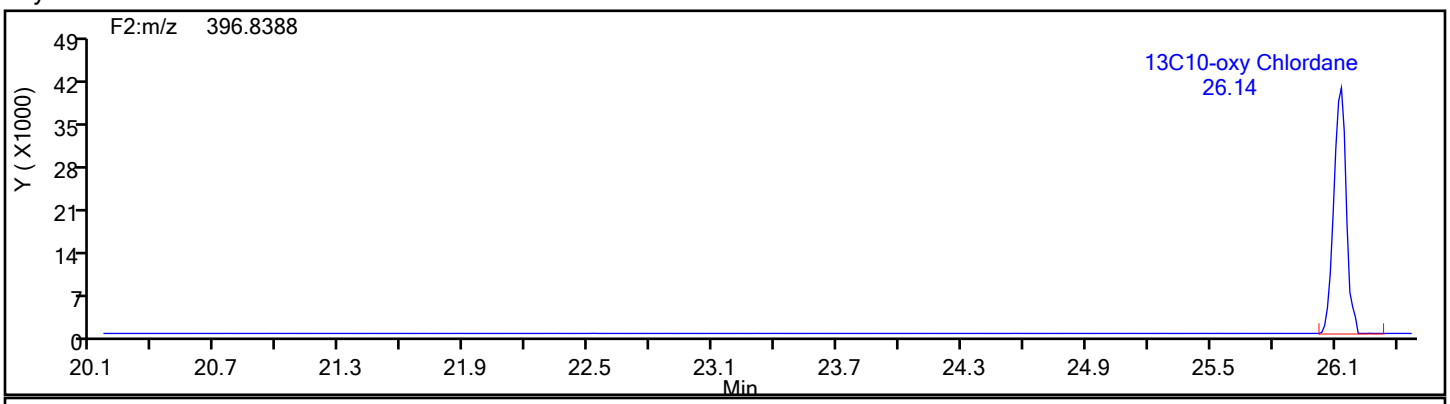
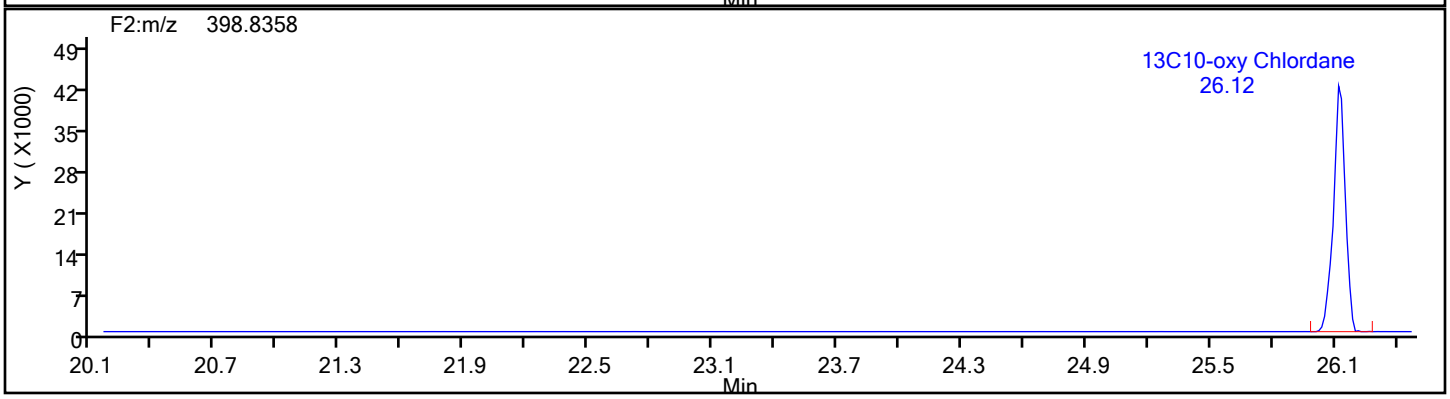
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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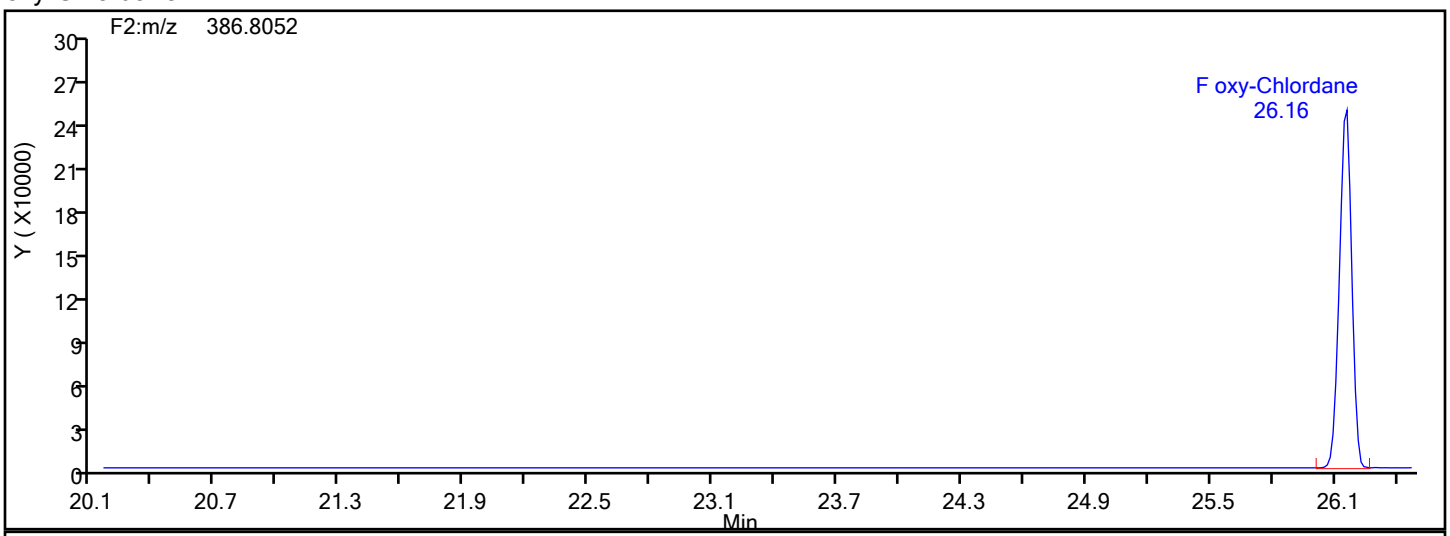
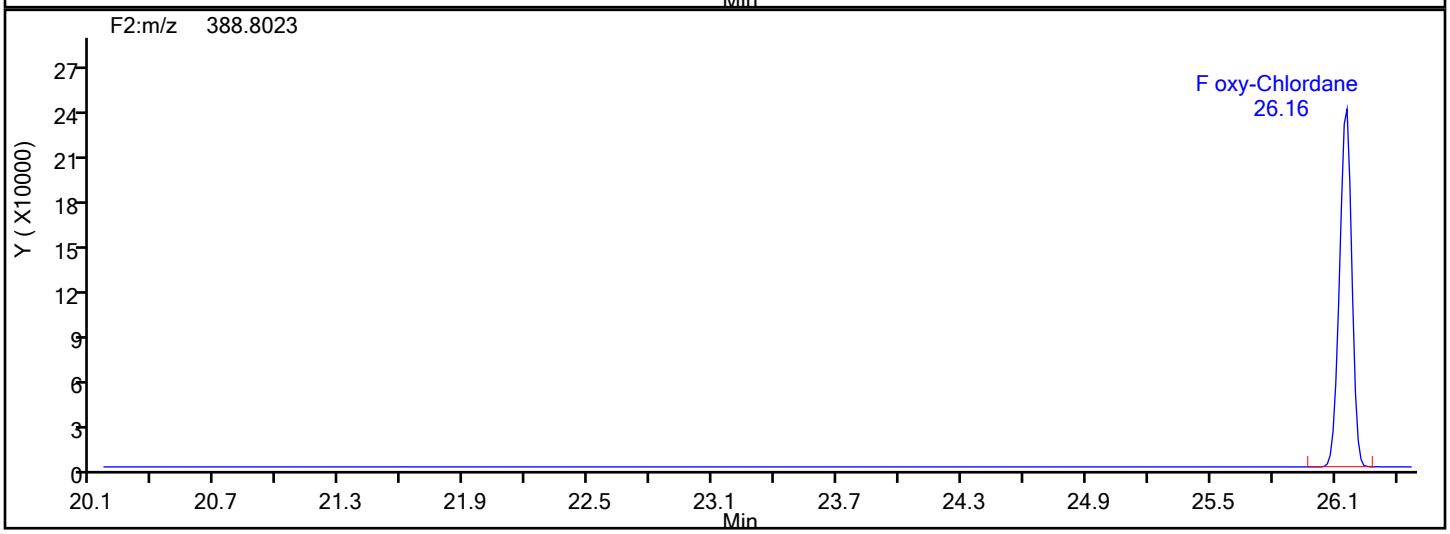
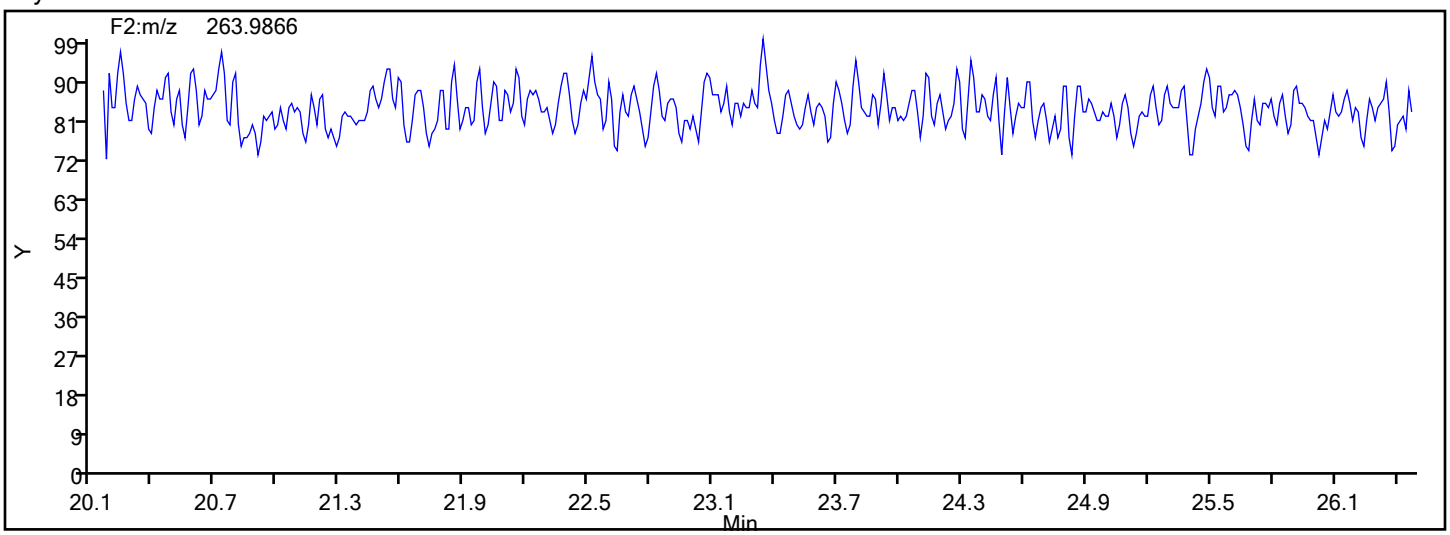
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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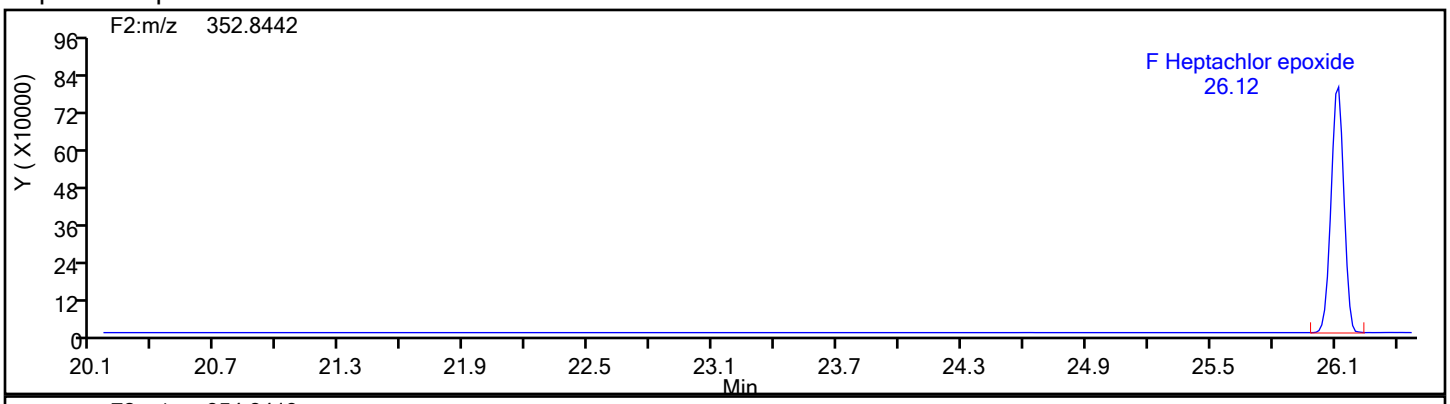
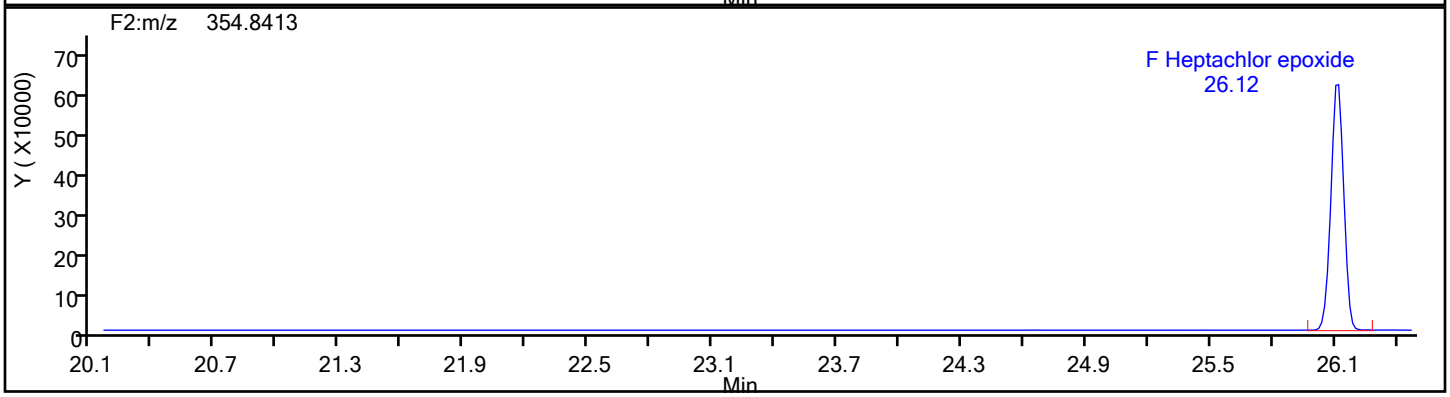
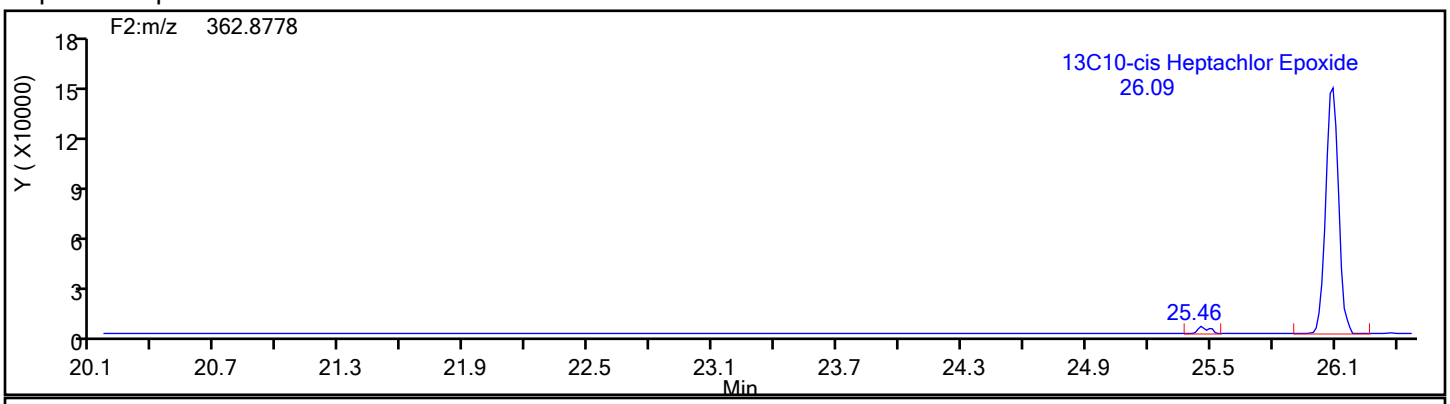
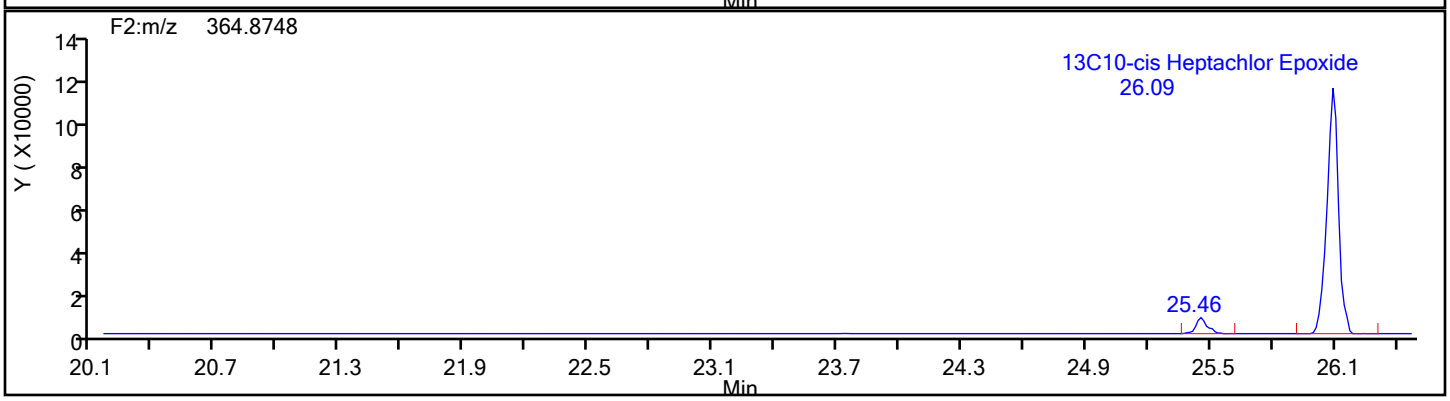
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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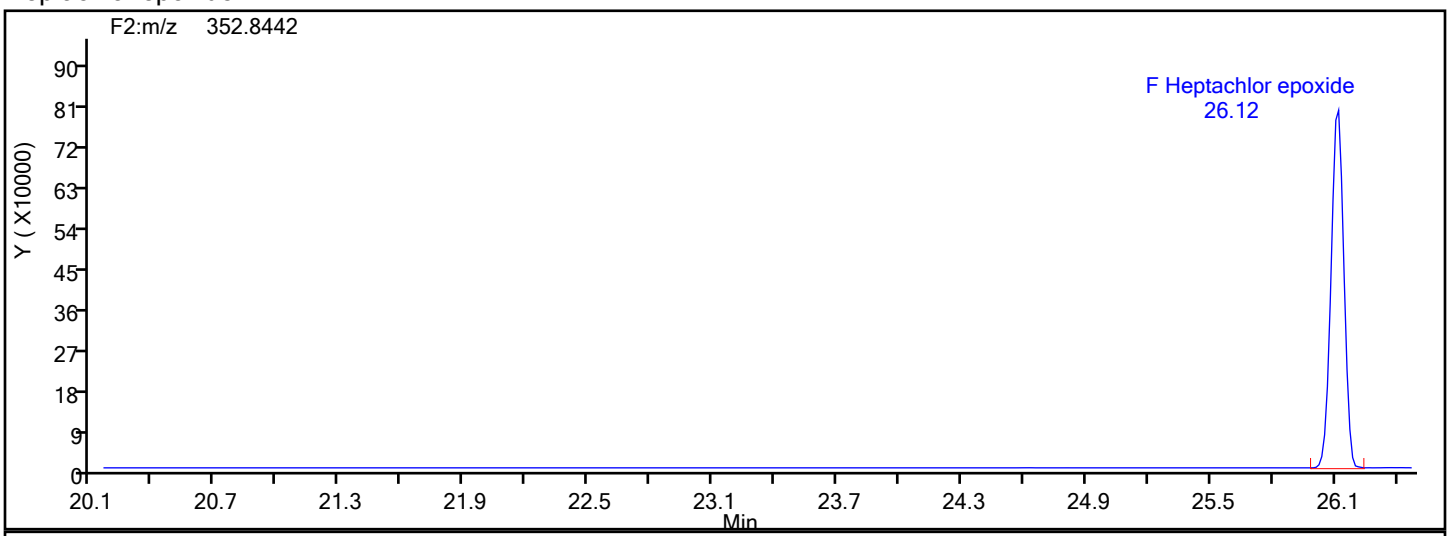
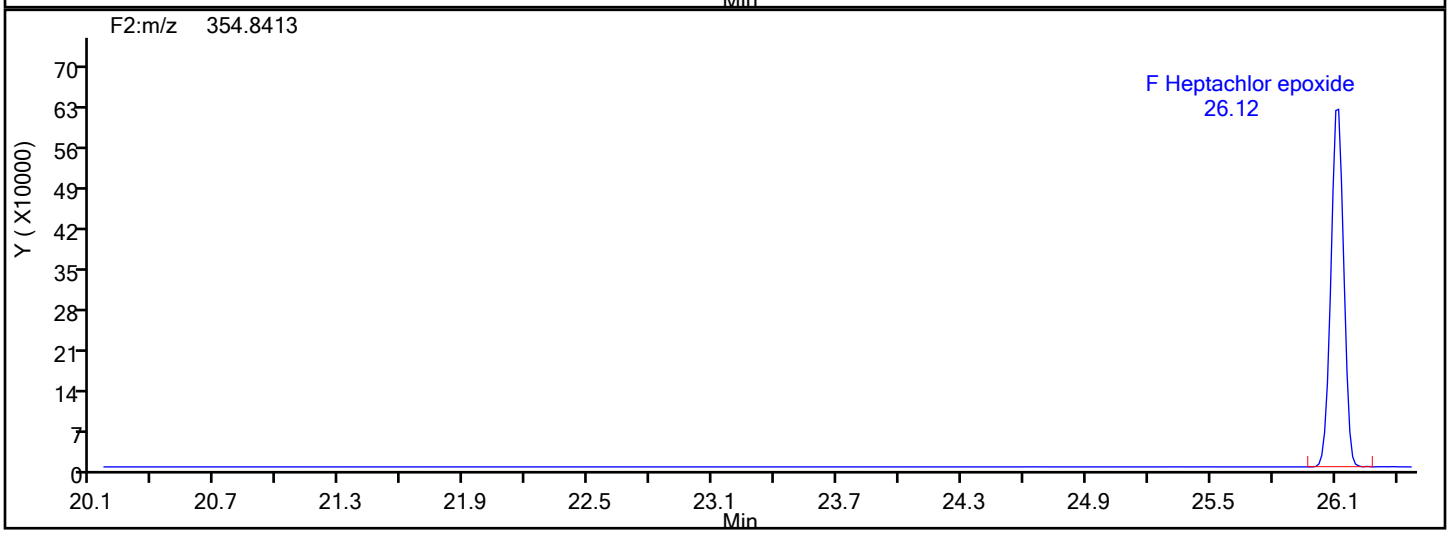
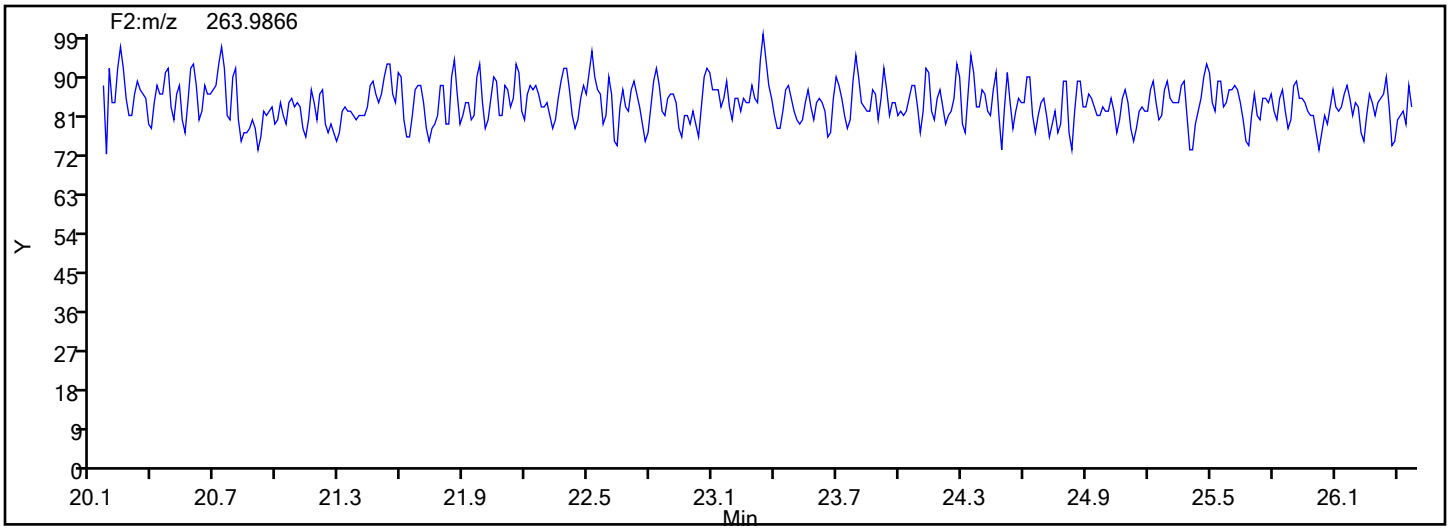
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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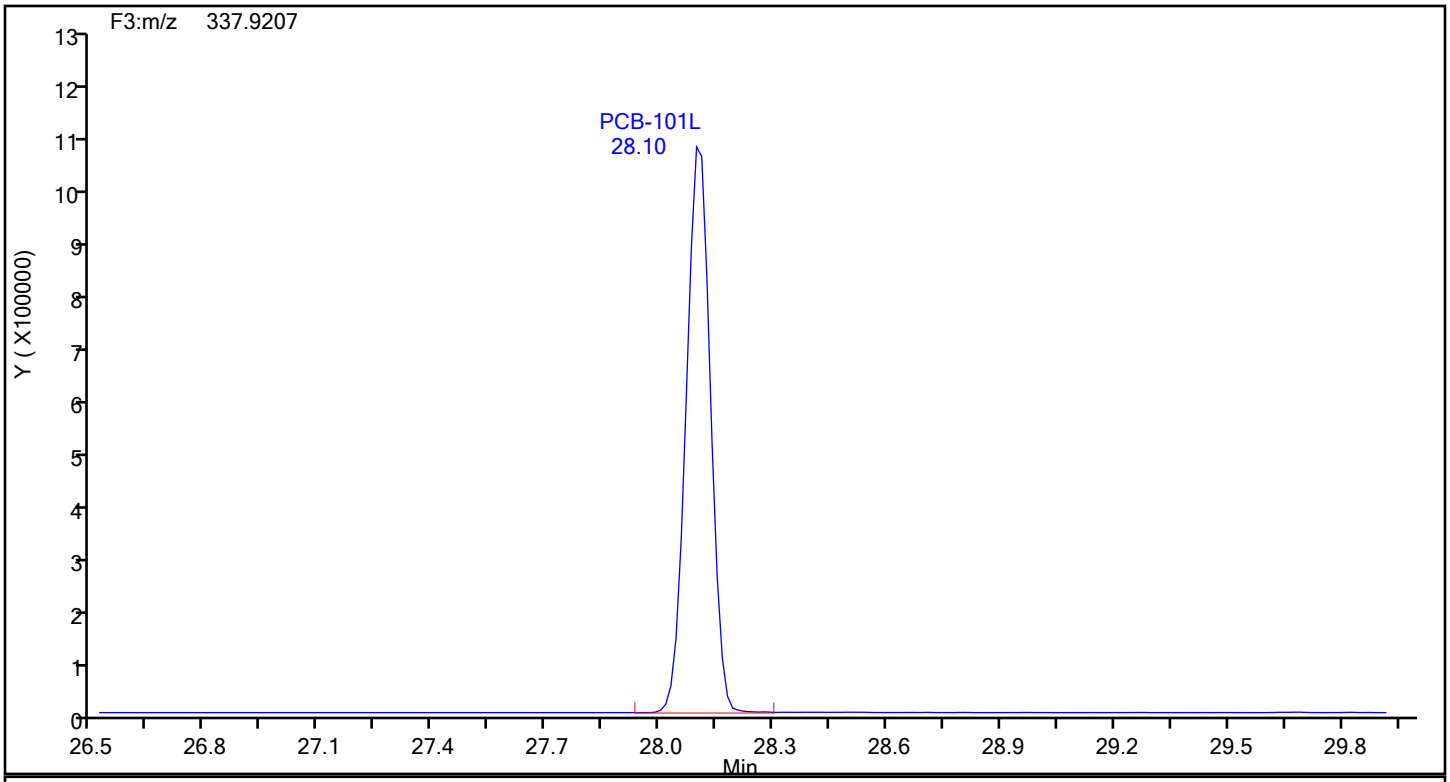
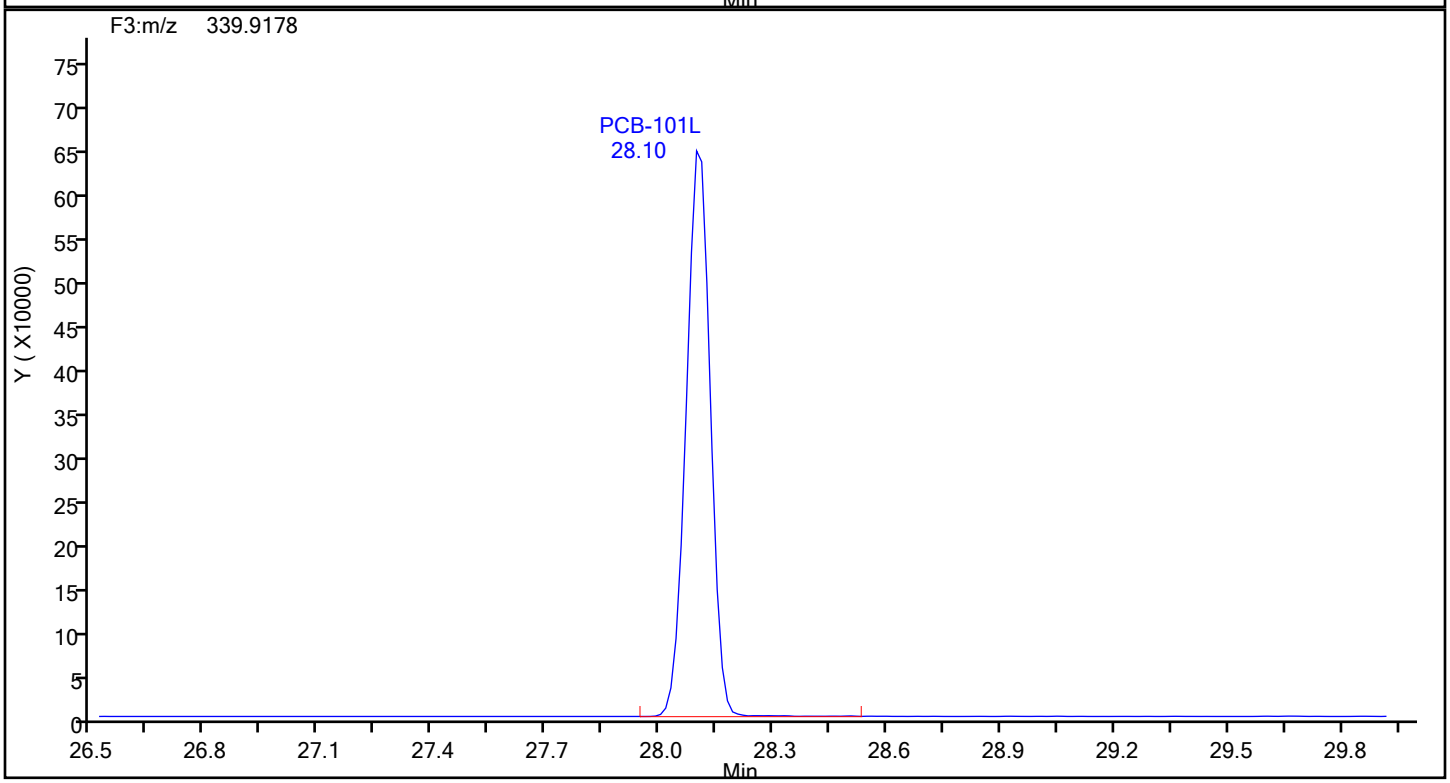
PCB-101L Standards





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Eurofins Knoxville

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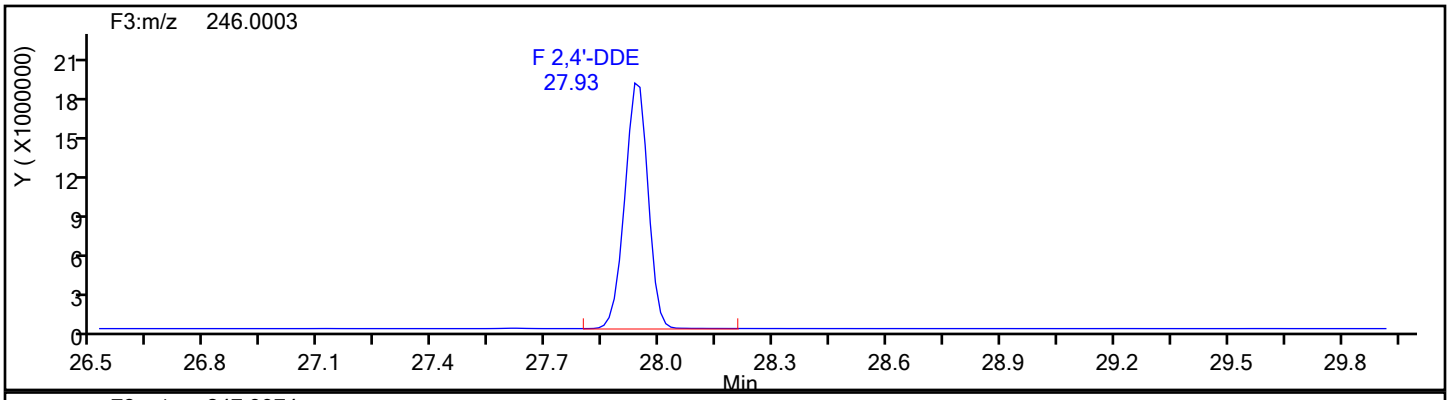
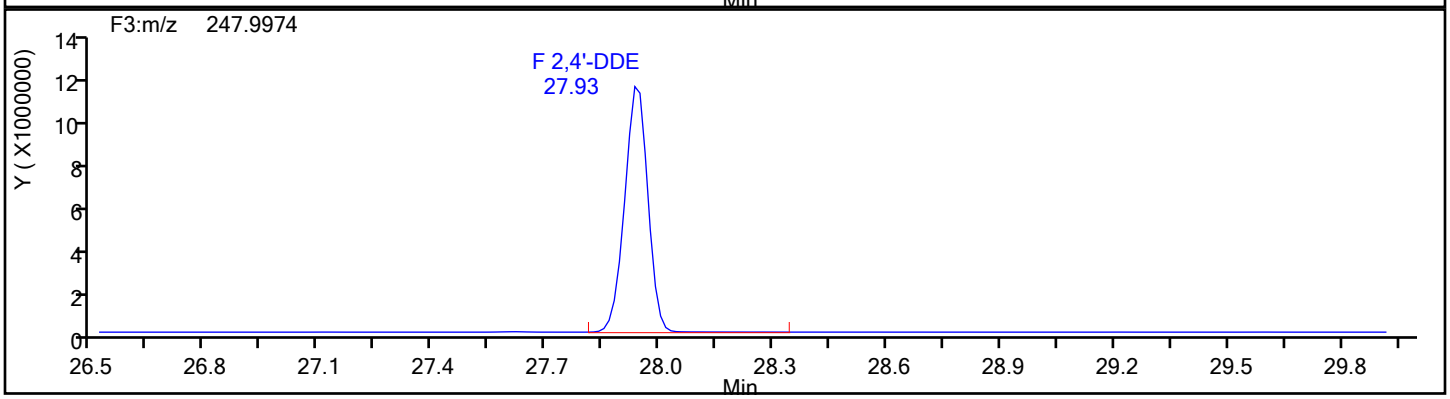
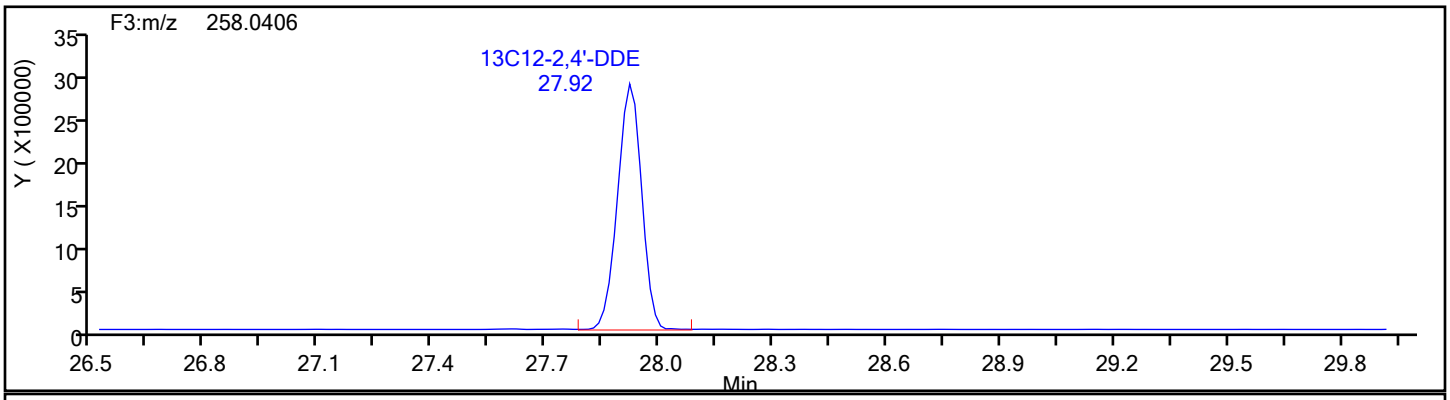
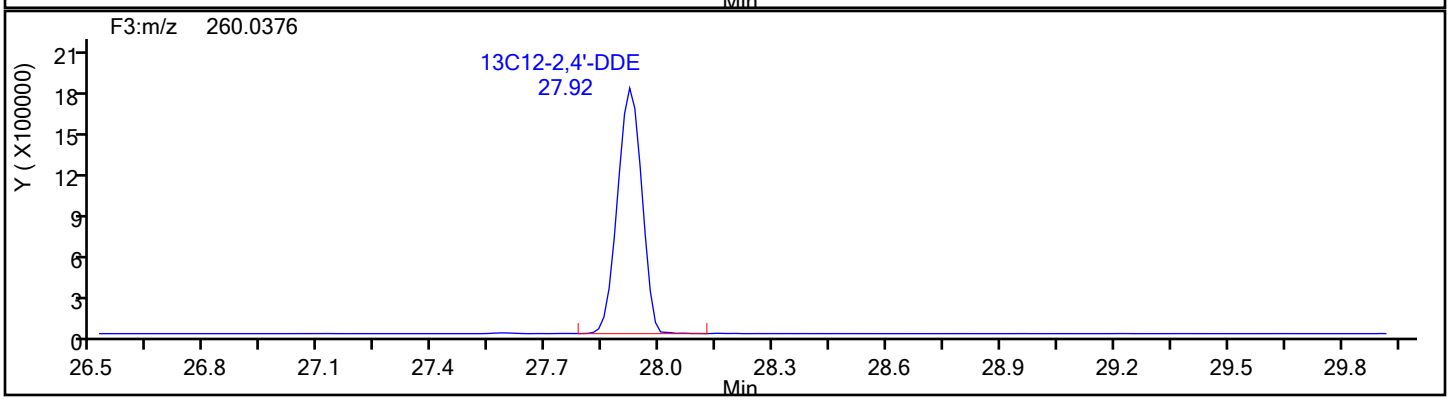
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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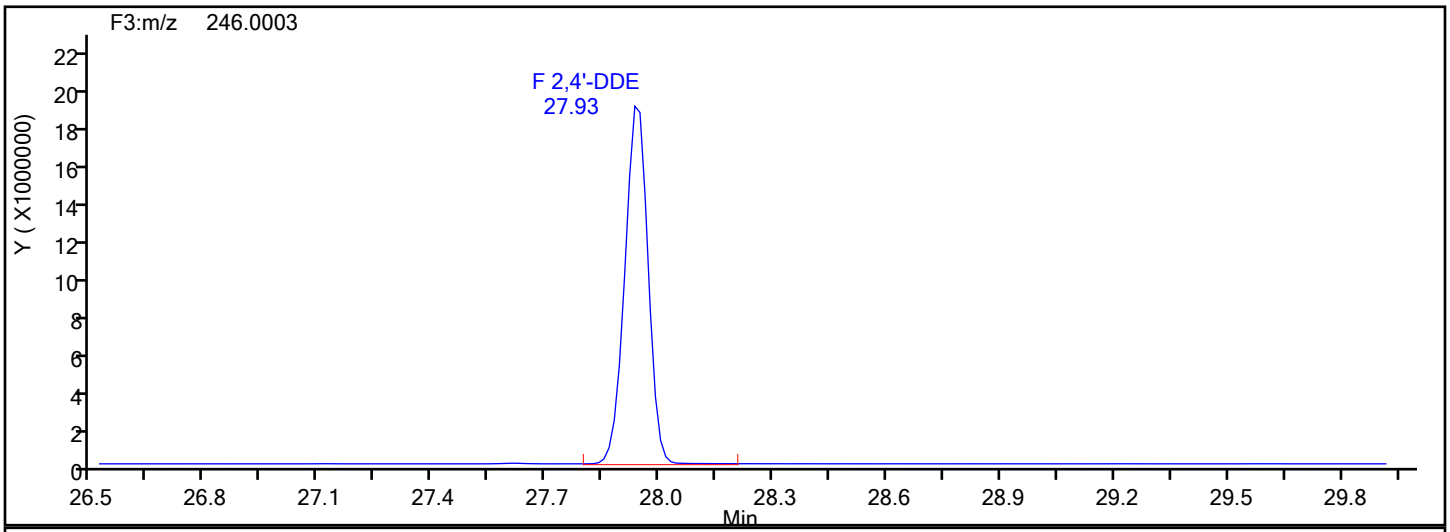
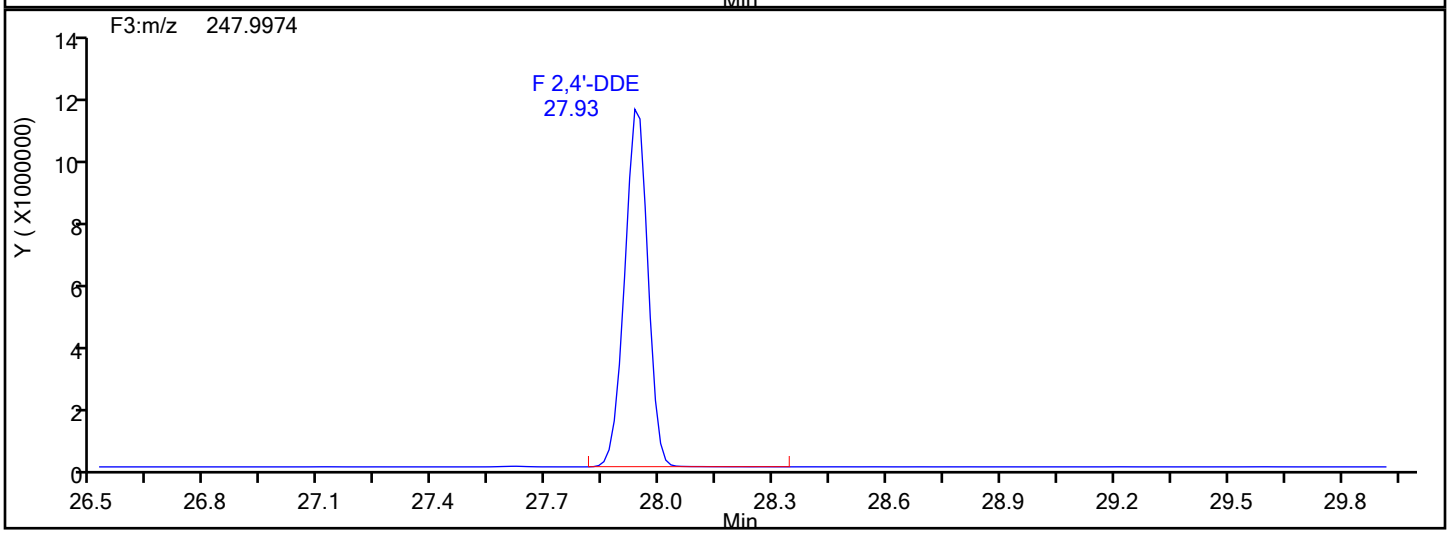
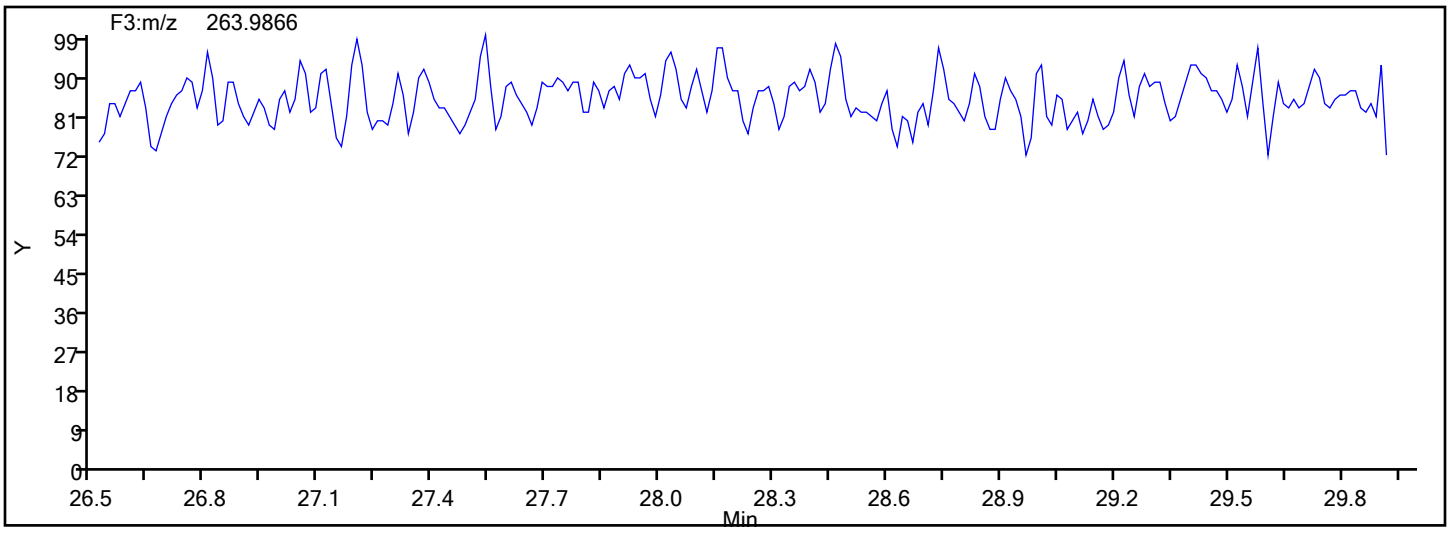
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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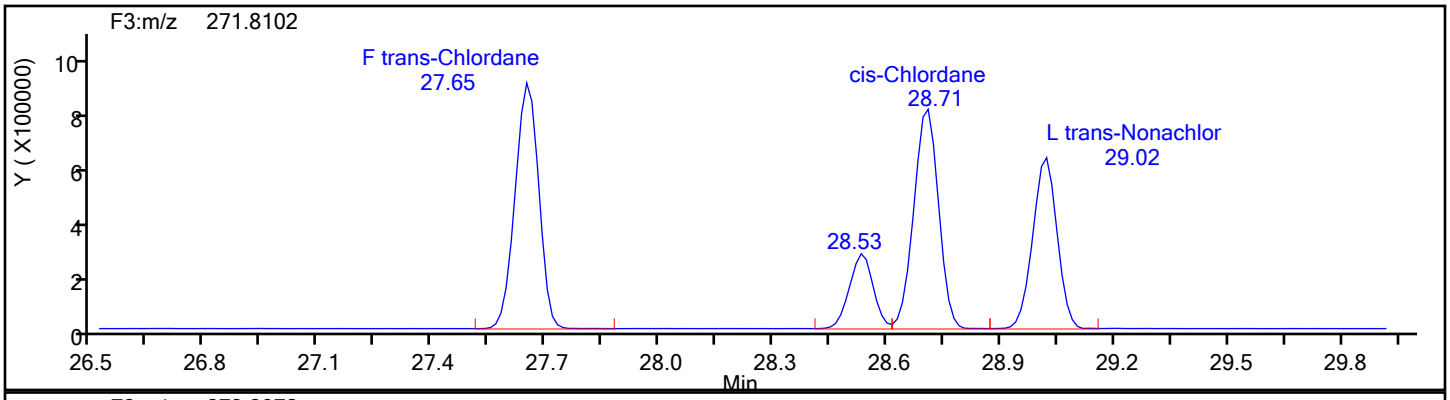
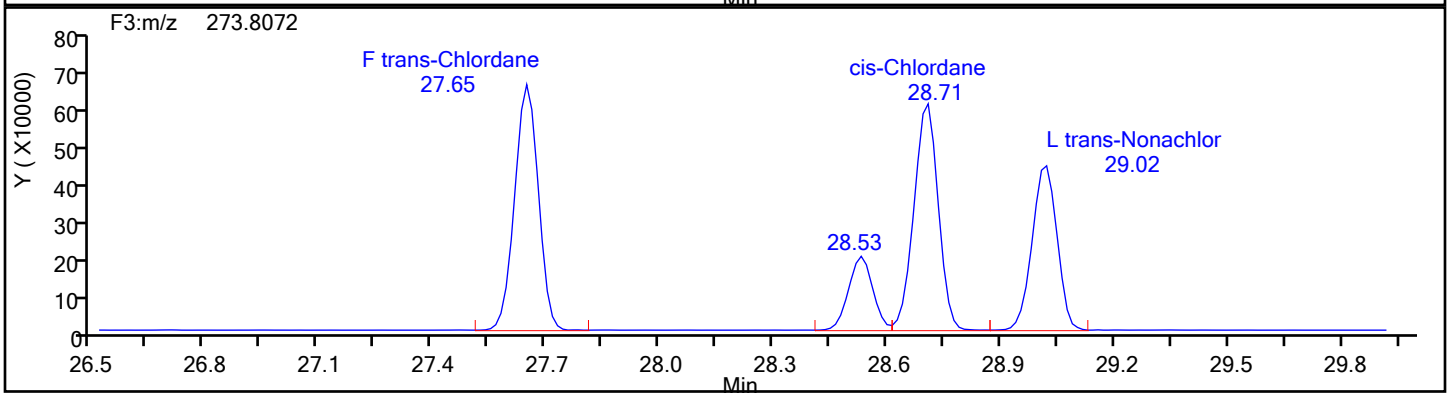
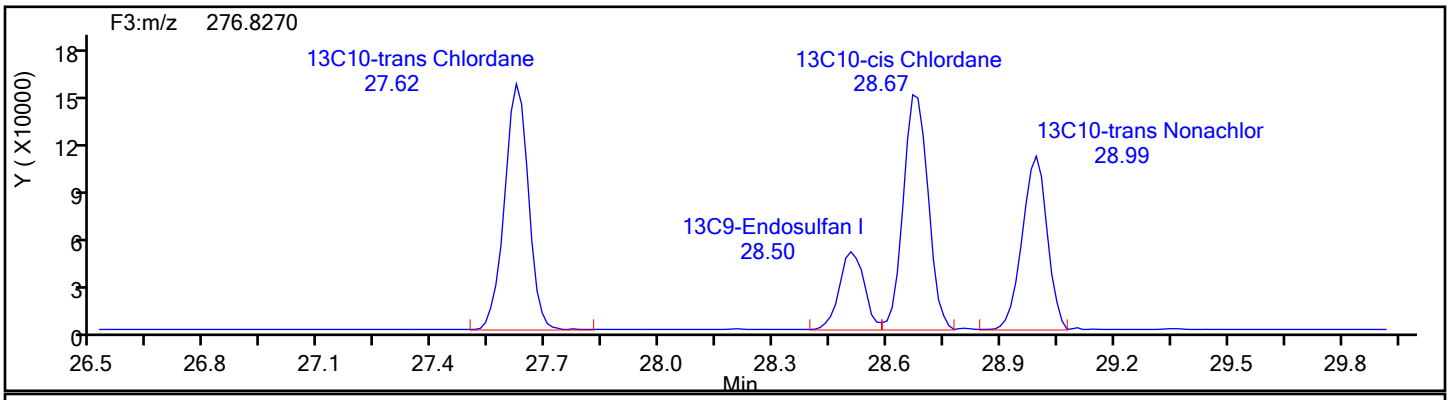
Column Type:	RTX-5	Column Dia:	0.32 mm

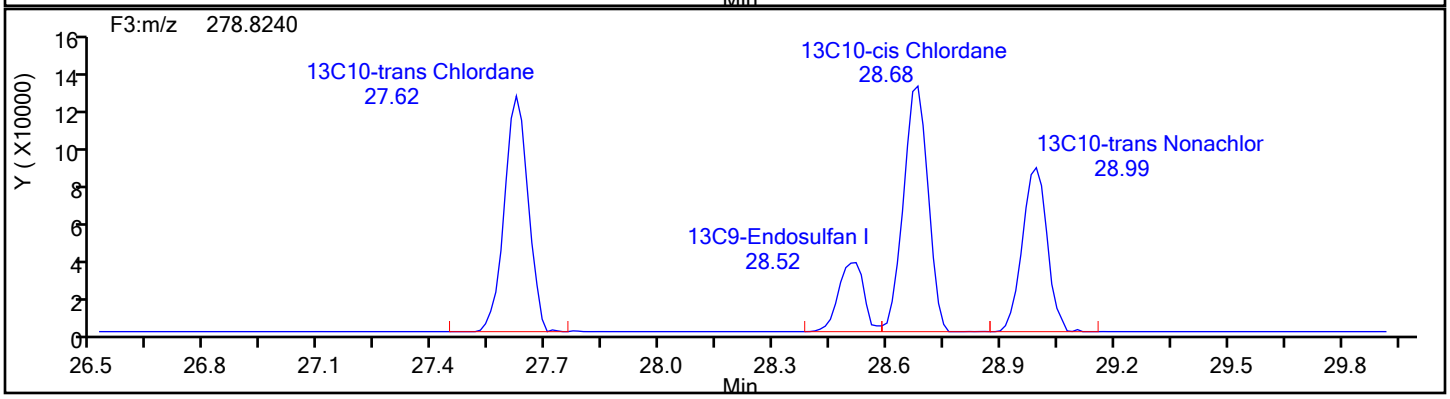
Chlordane





Chlordane Standards



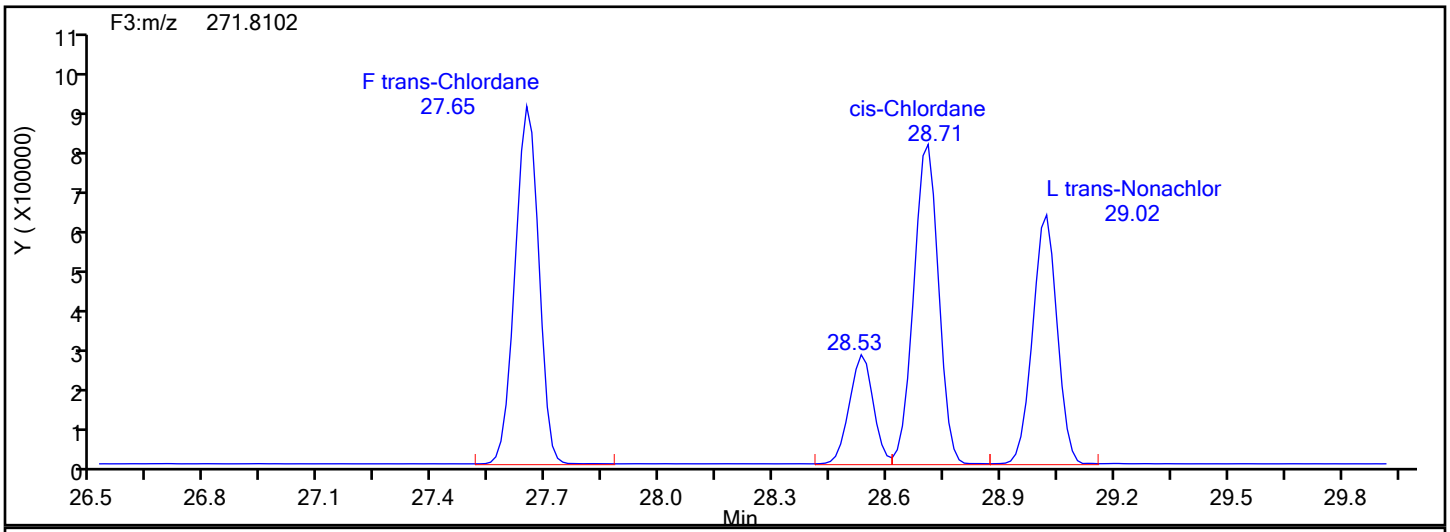


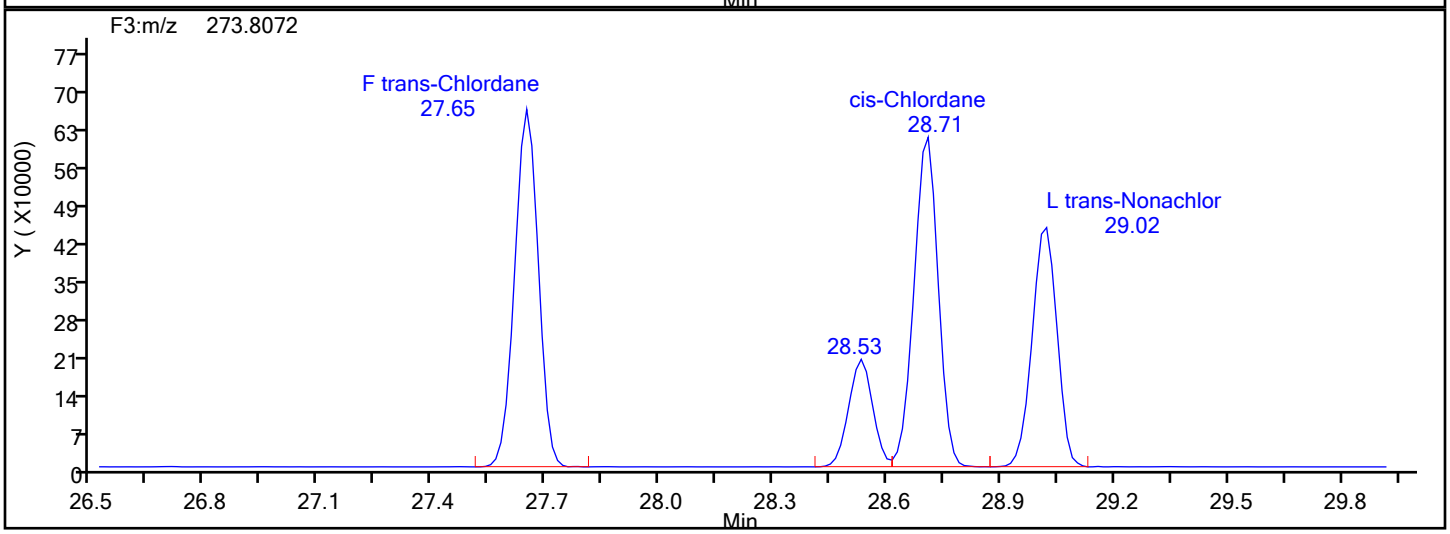
Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

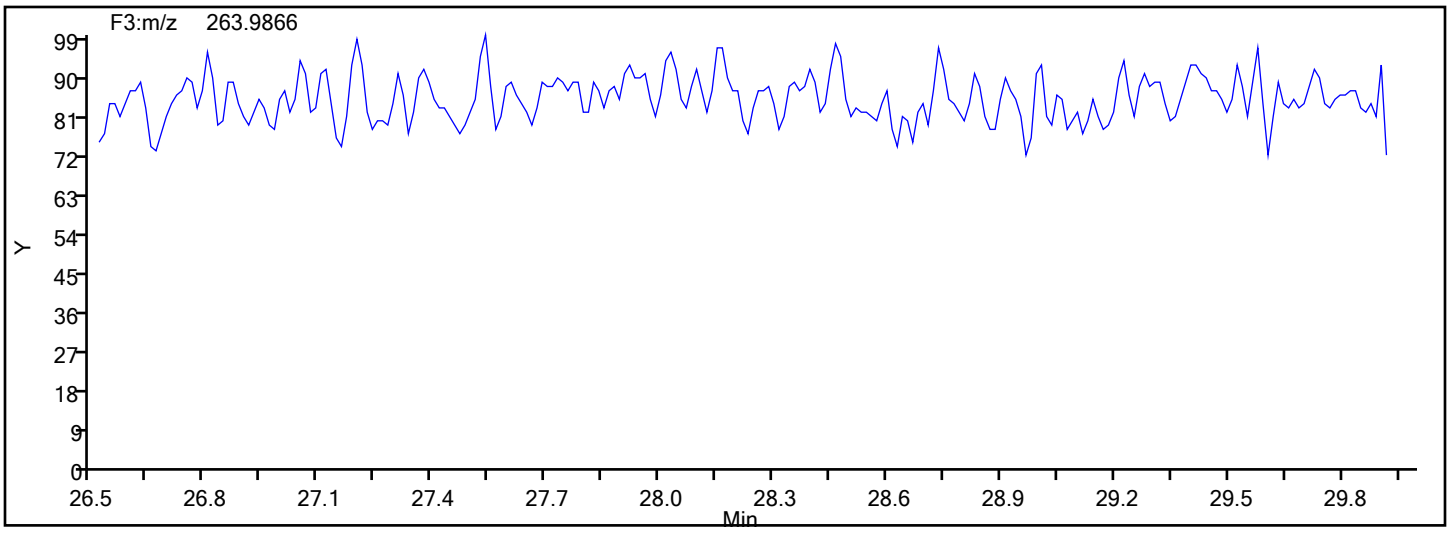
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane





Chlordane Lock Mass



Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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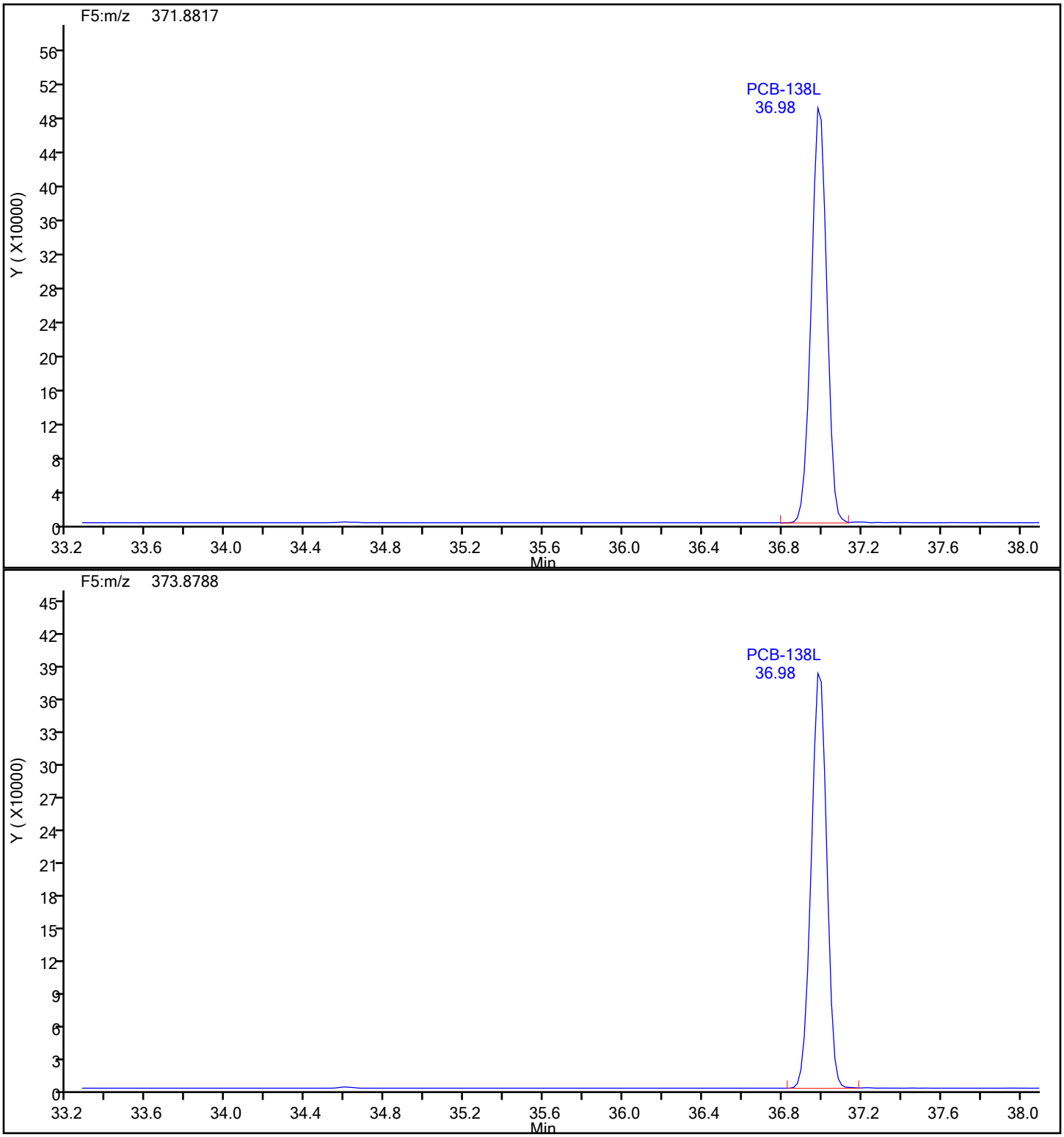
PCB-138L Standards



Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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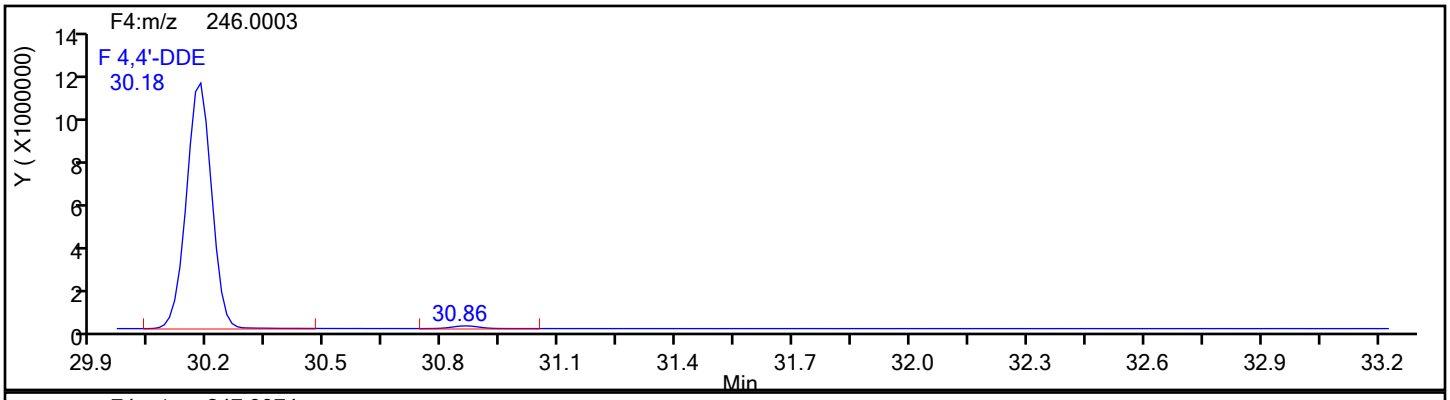
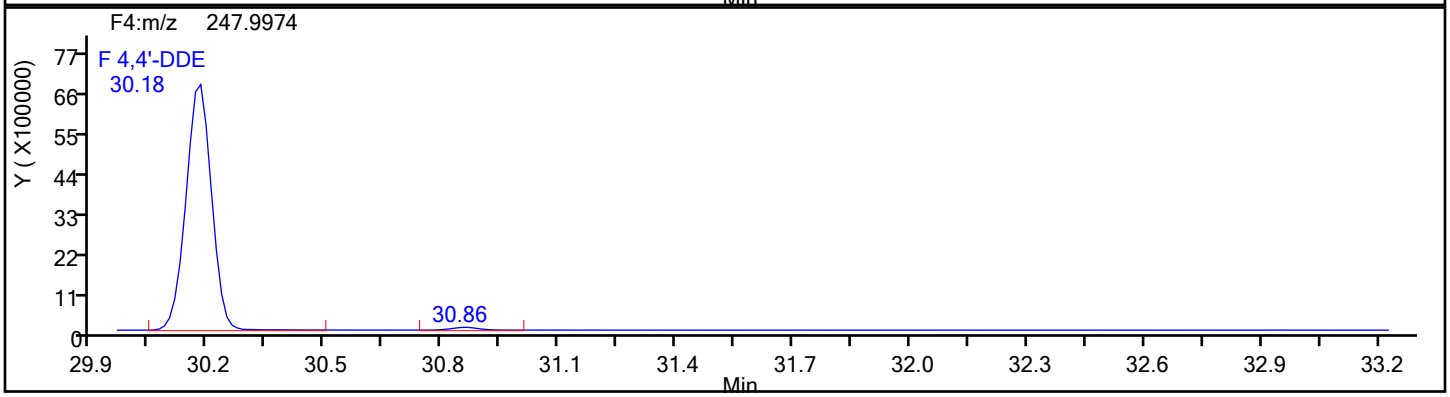
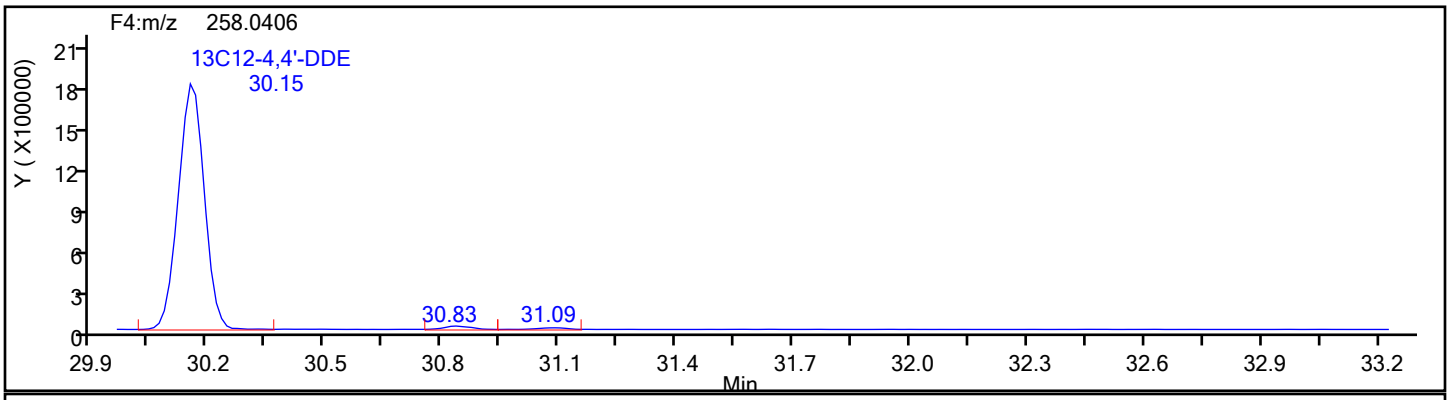
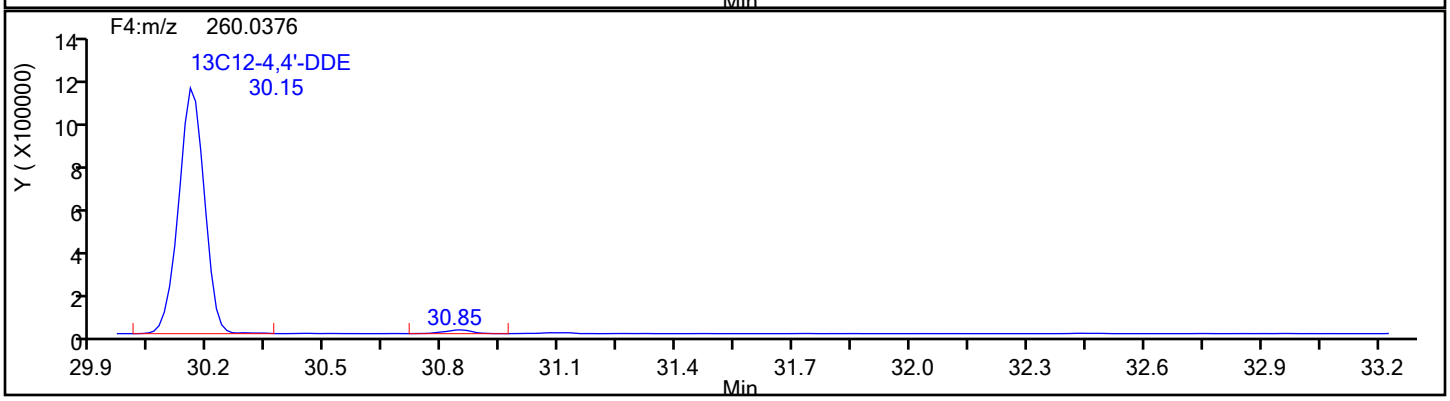
4,4'-DDE





4,4'-DDE Standards





Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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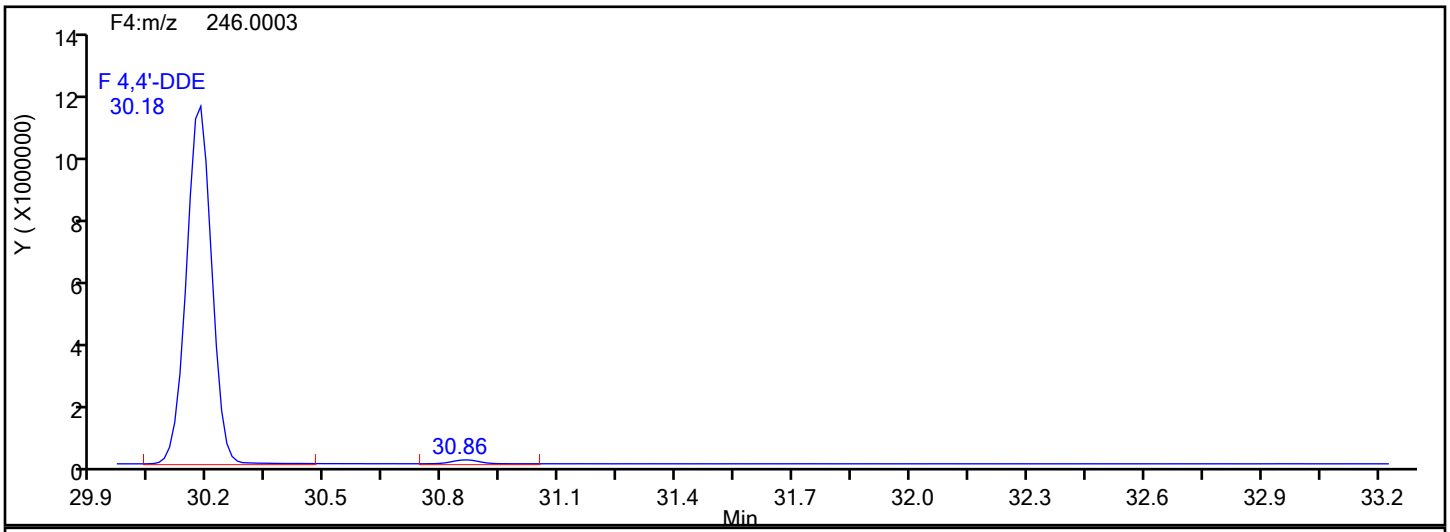
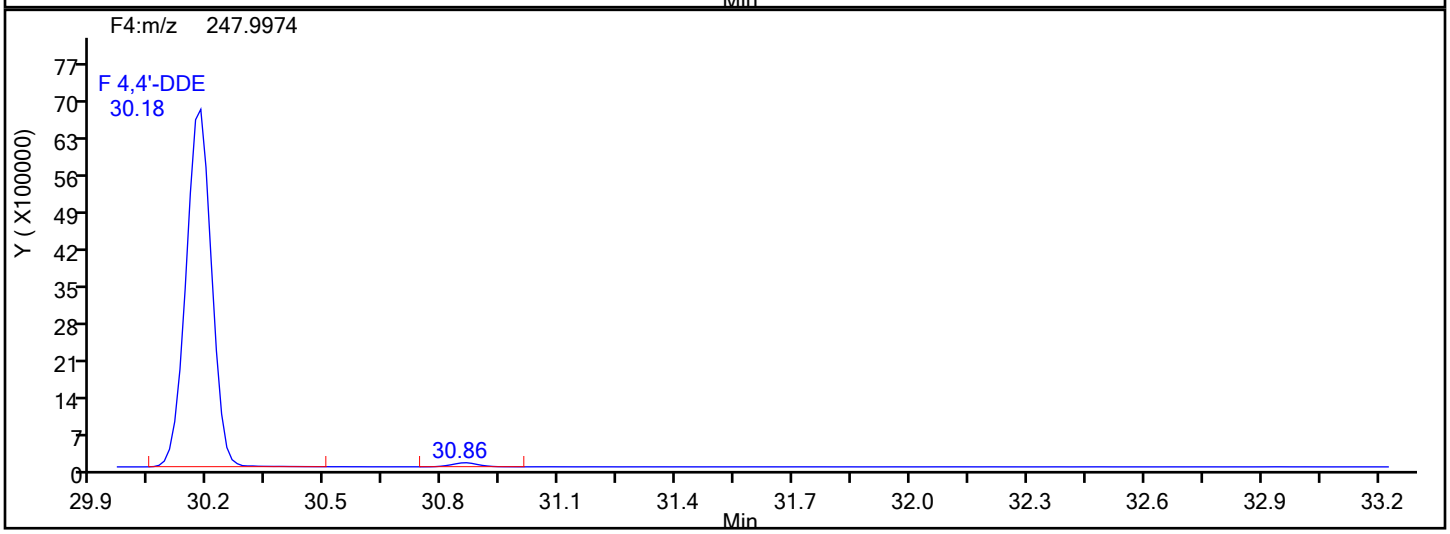
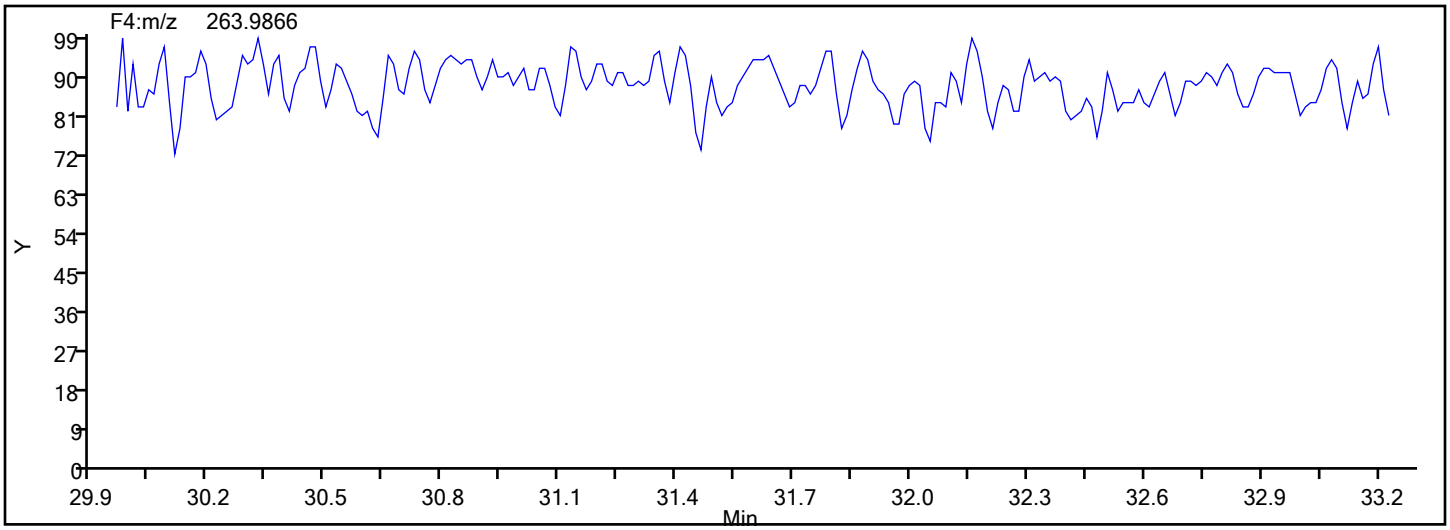
4,4'-DDE





4,4'-DDE Lock Mass



Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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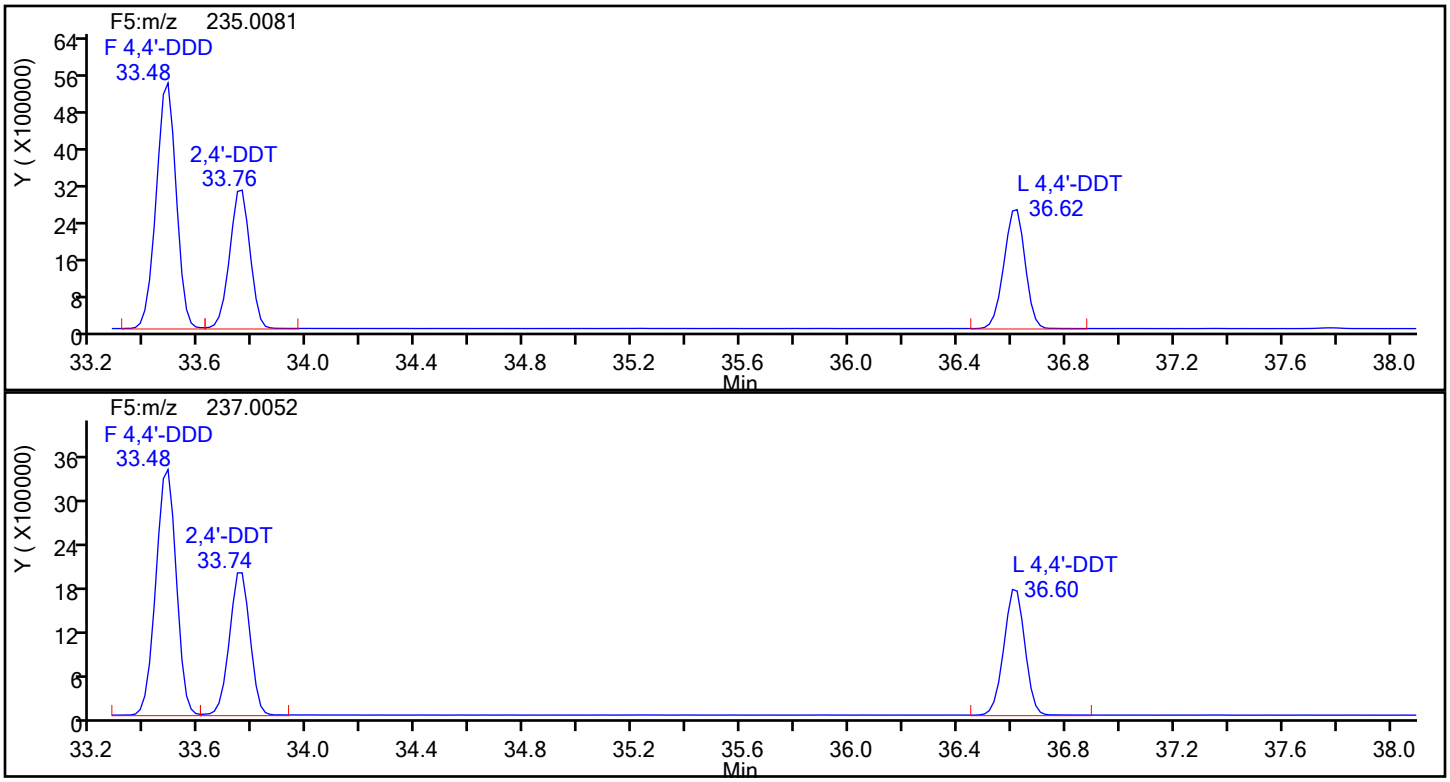
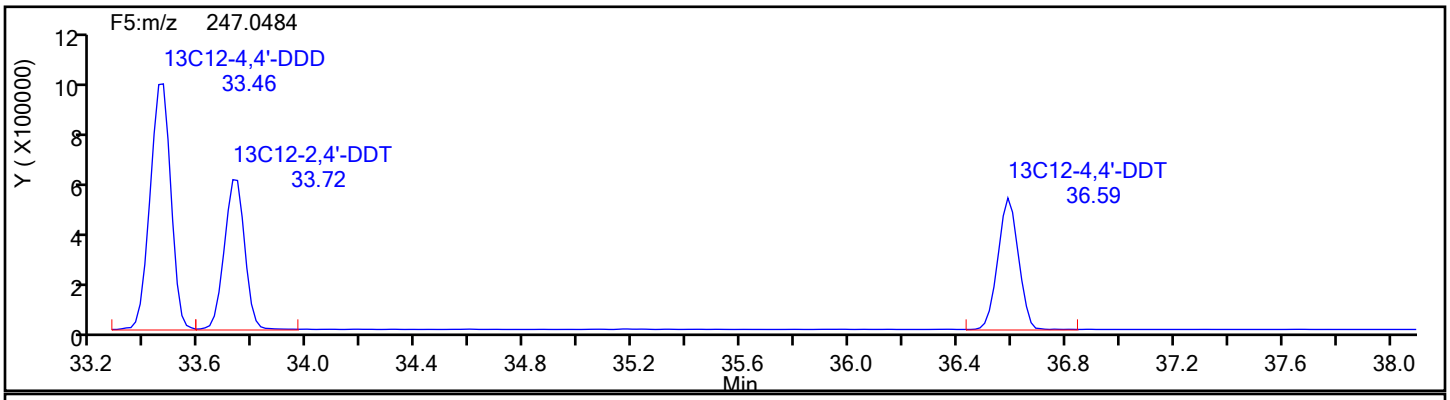
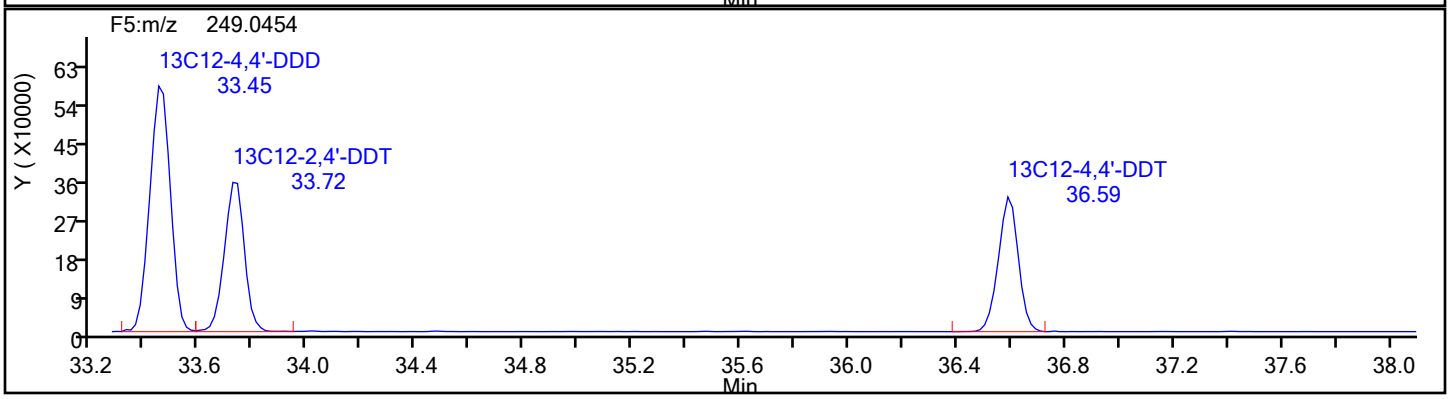
Column Type:	RTX-5	Column Dia:	0.32 mm

DDD



DDD Standards





Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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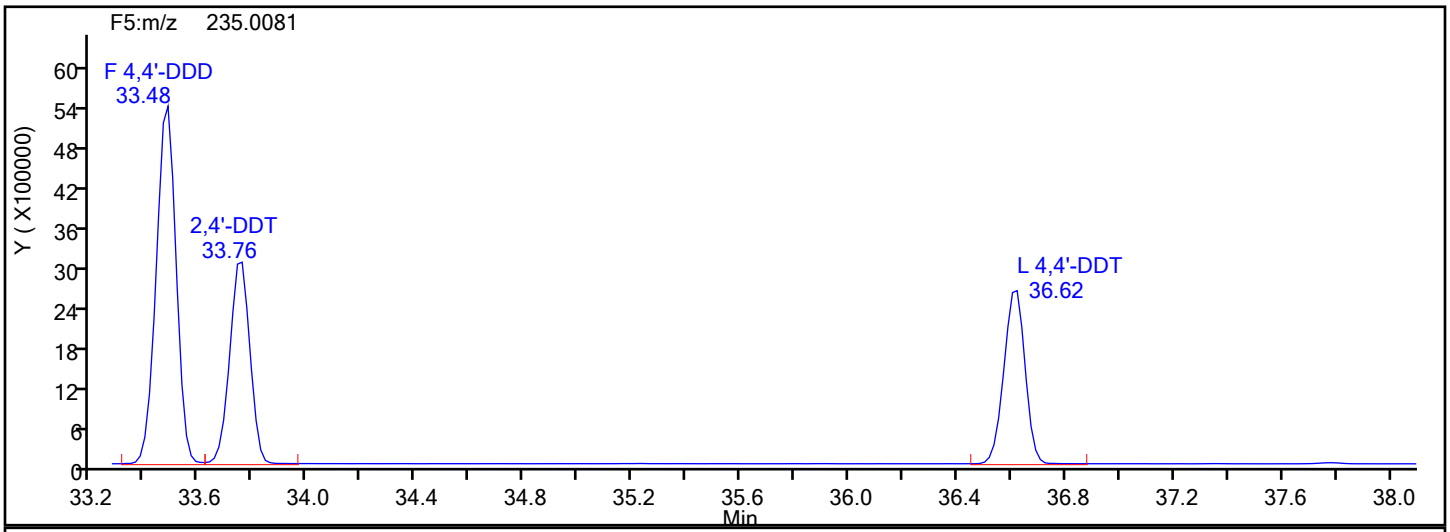
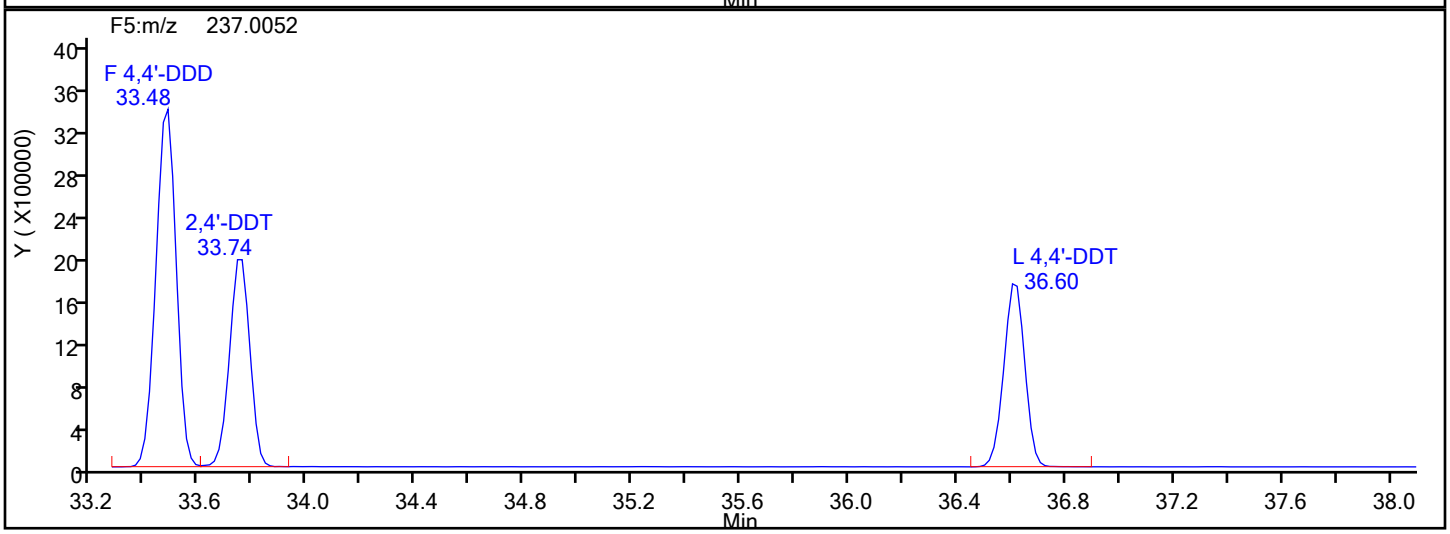
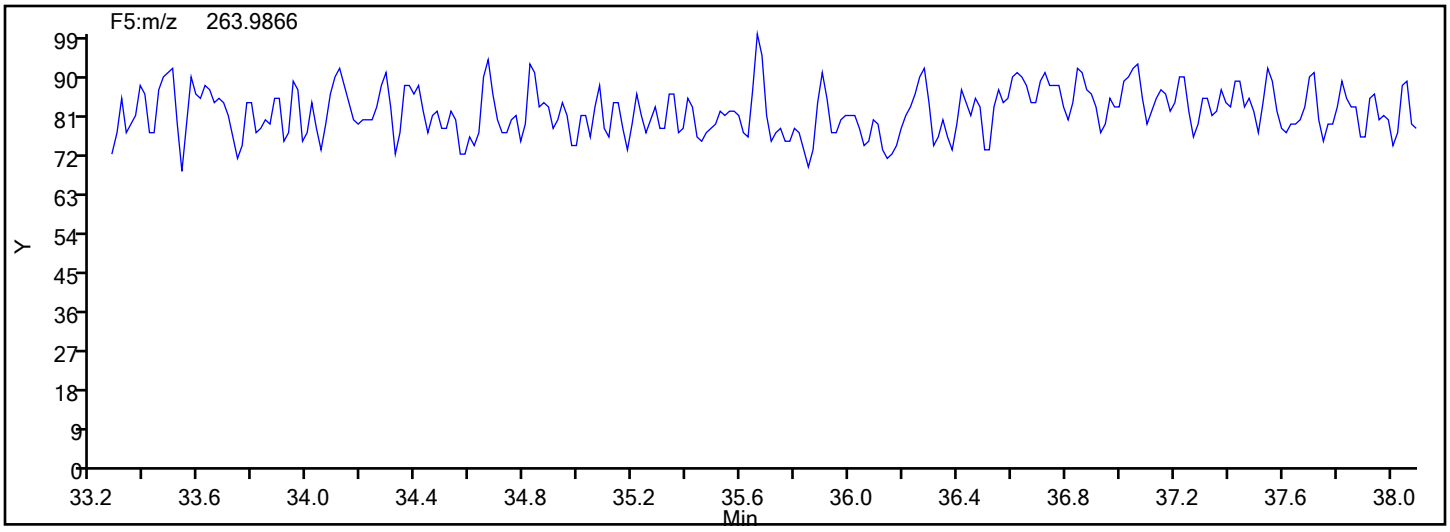
DDD





DDD Lock Mass



Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
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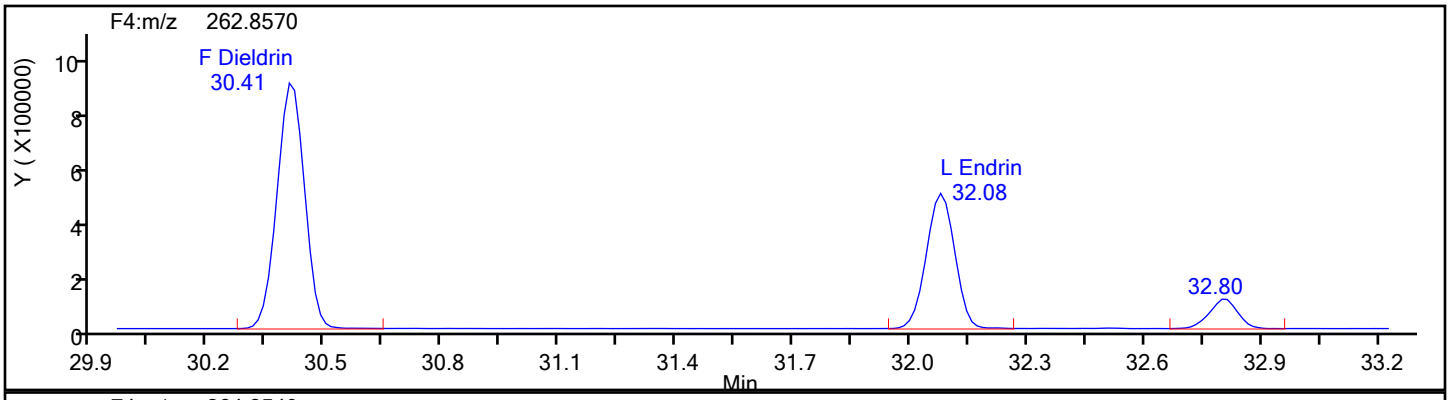

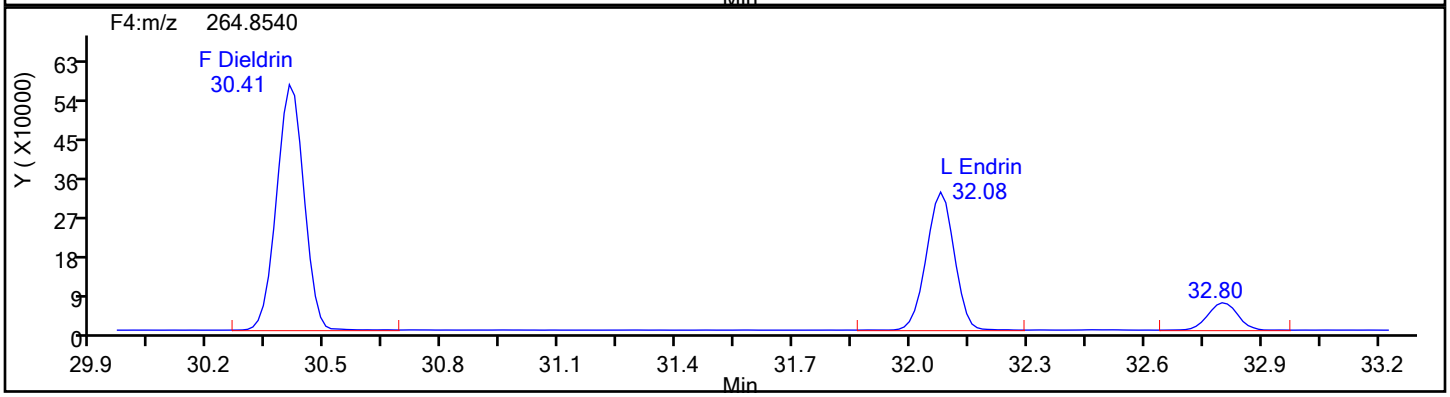

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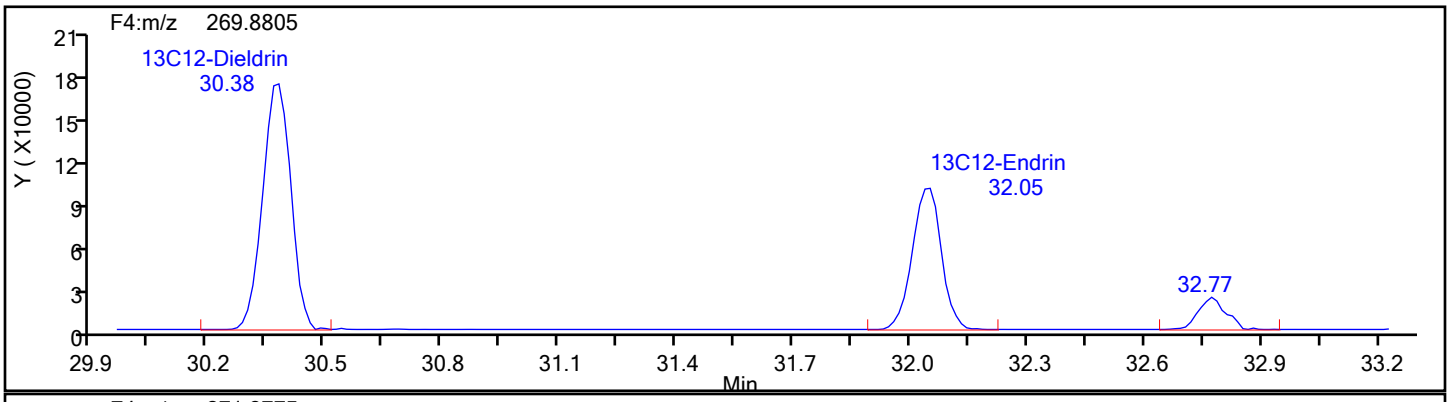

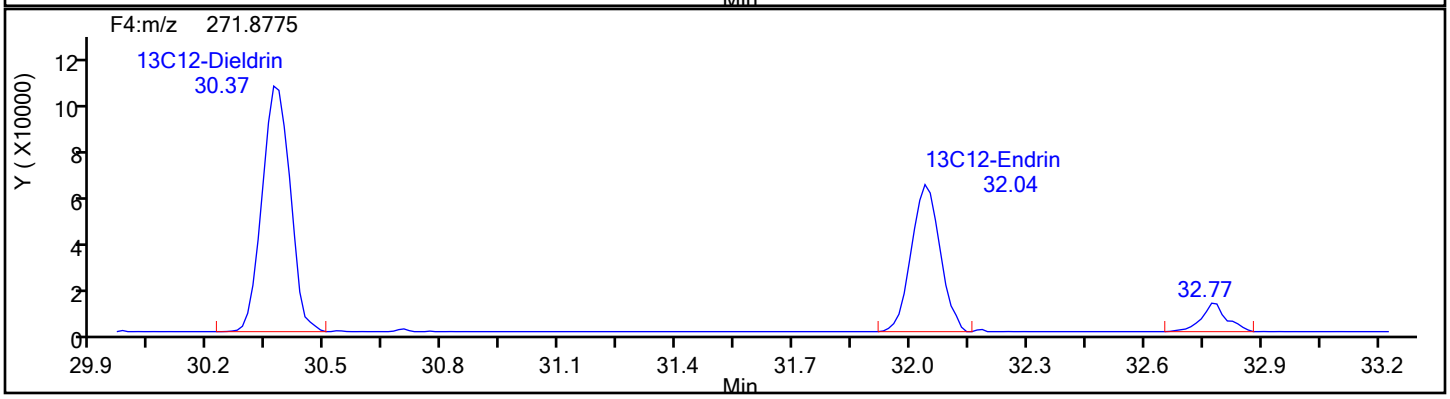

Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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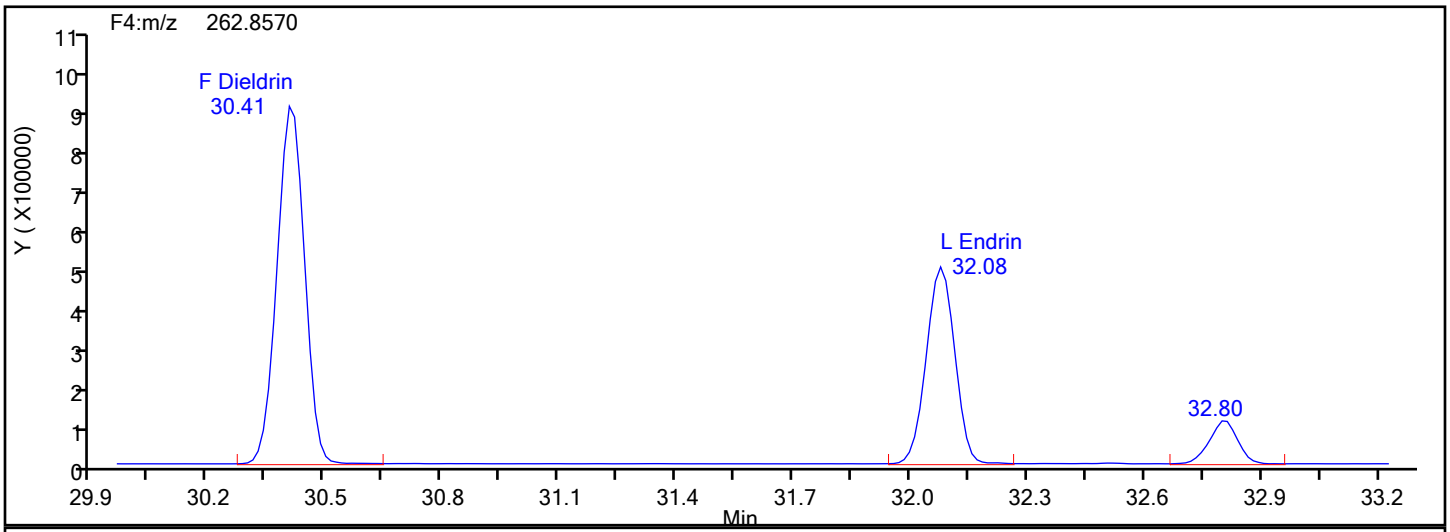
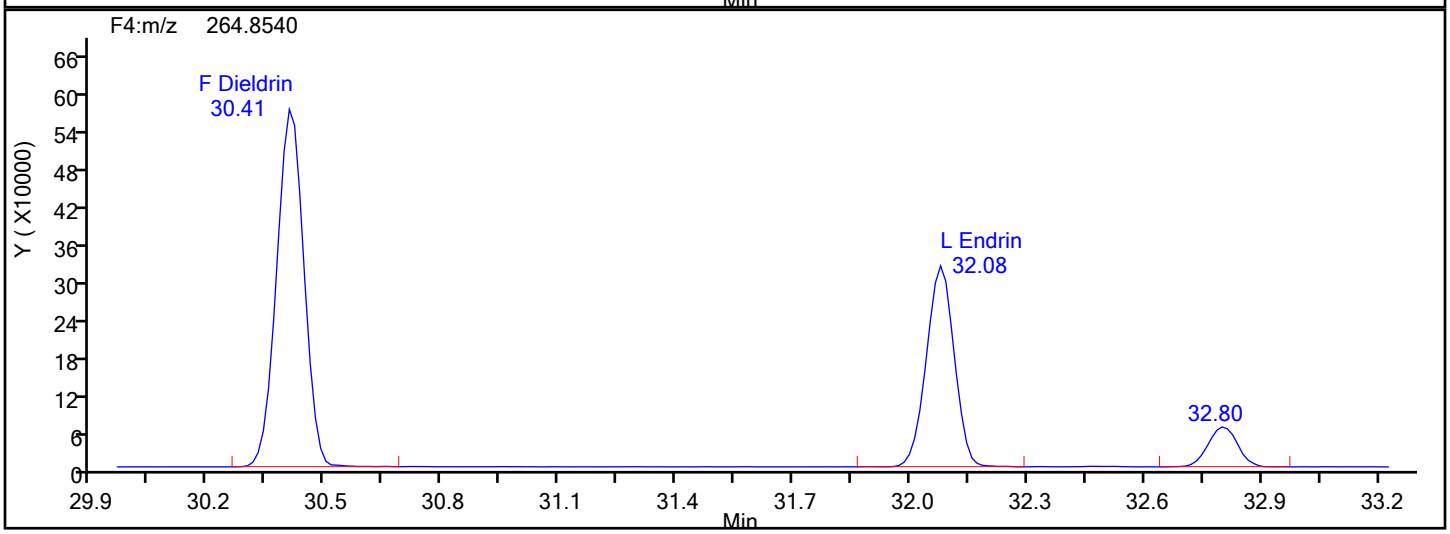
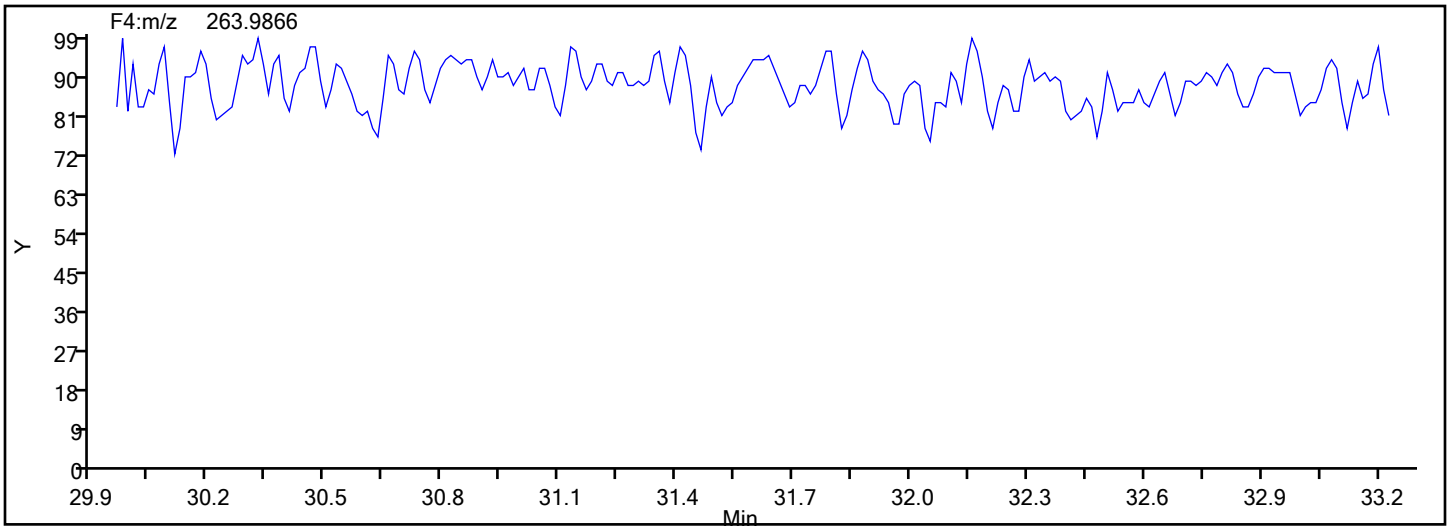
Dieldrin





Dieldrin Lock Mass



Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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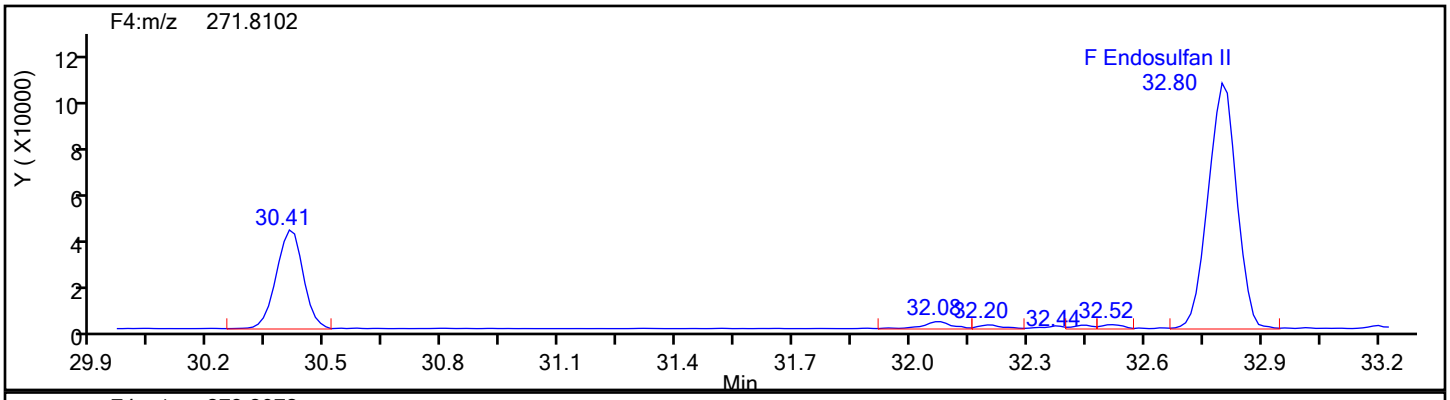
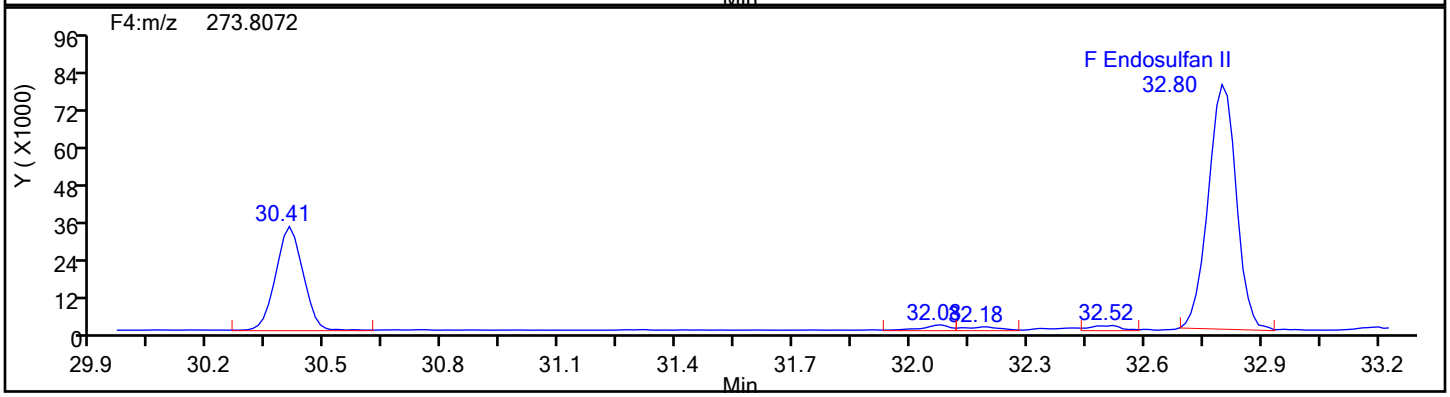
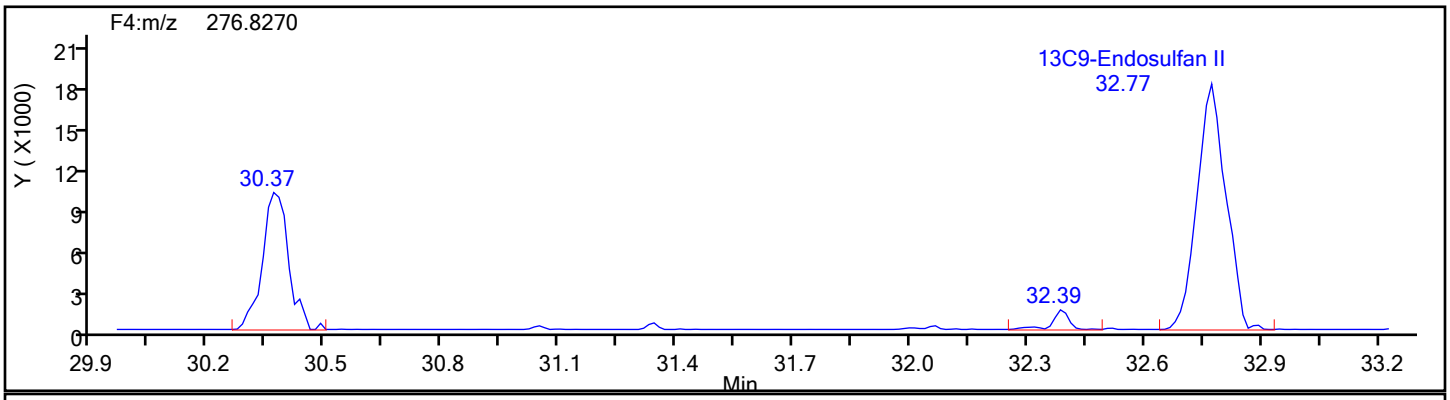
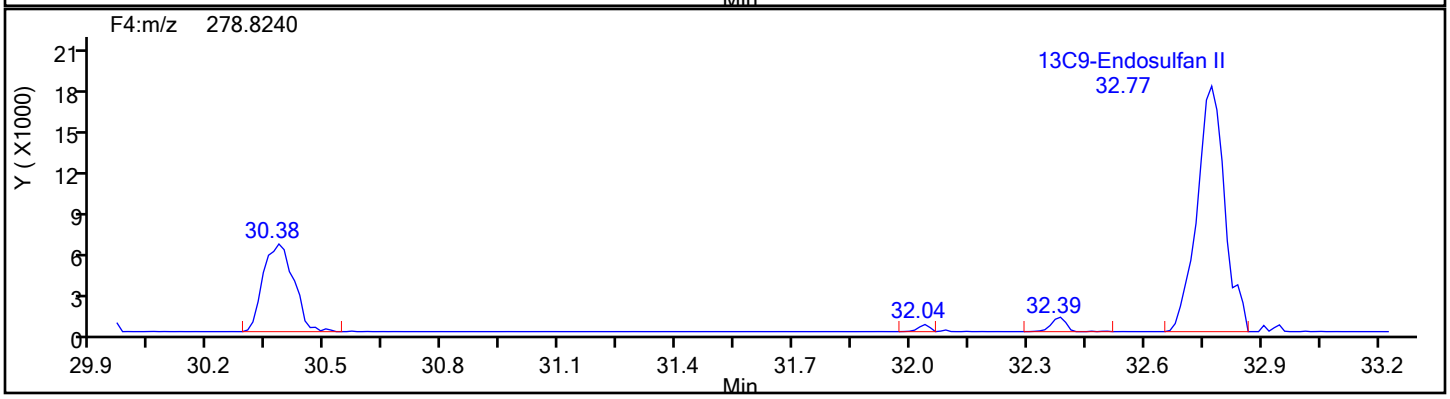
Endosulfan II





Endosulfan II Standards





Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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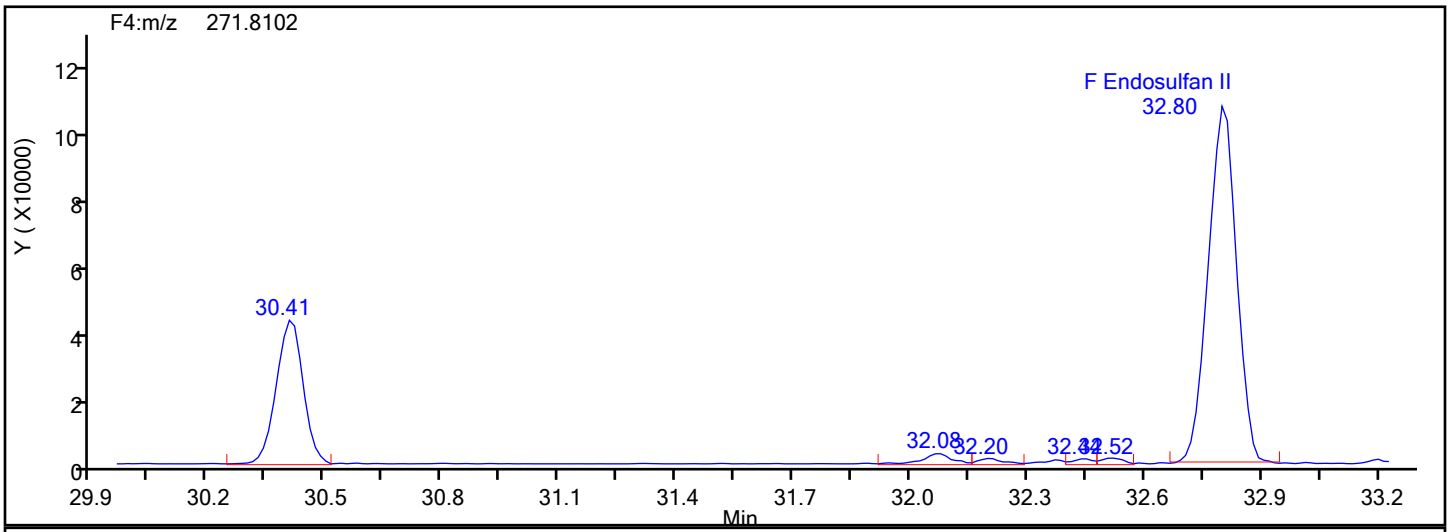
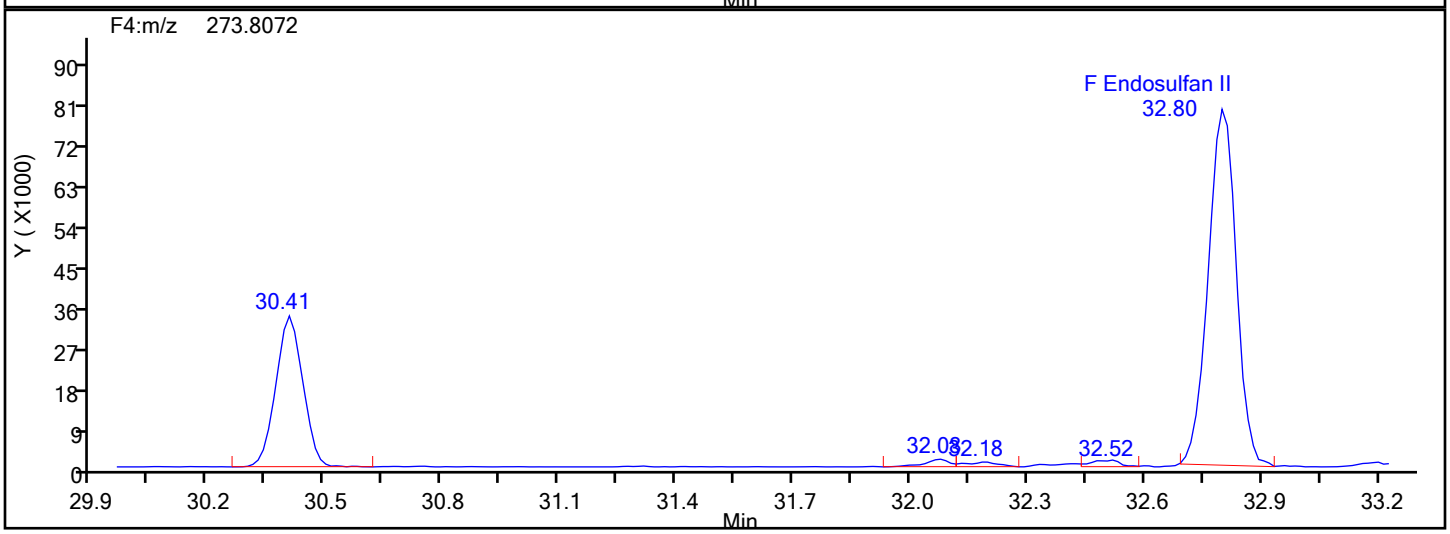
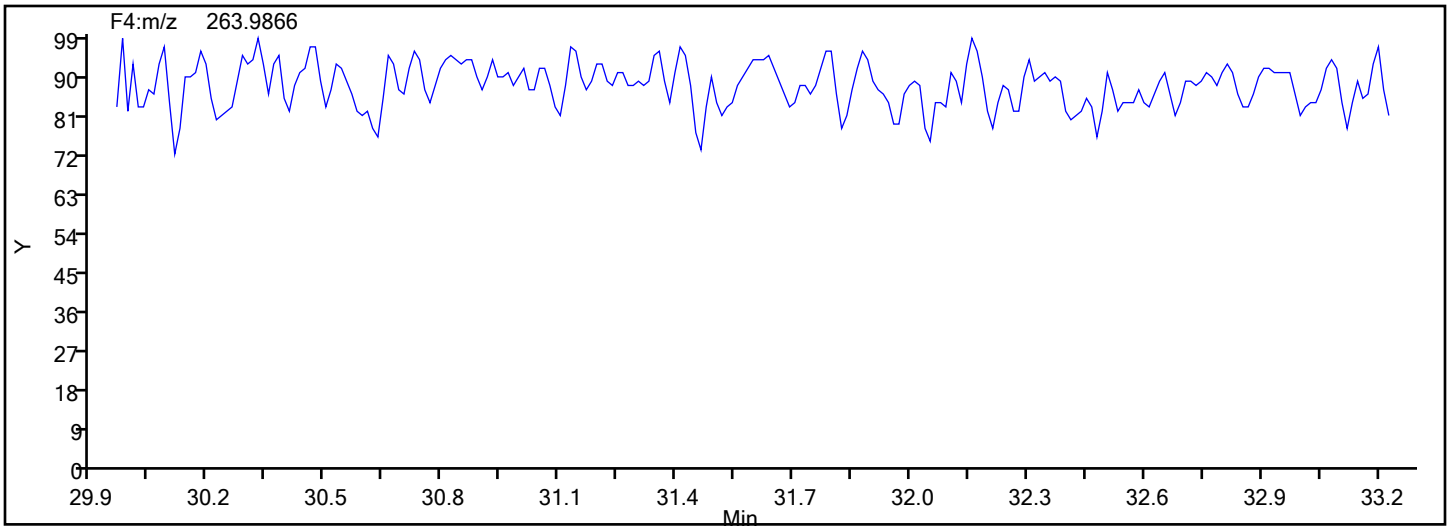
Endosulfan II





Endosulfan II Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

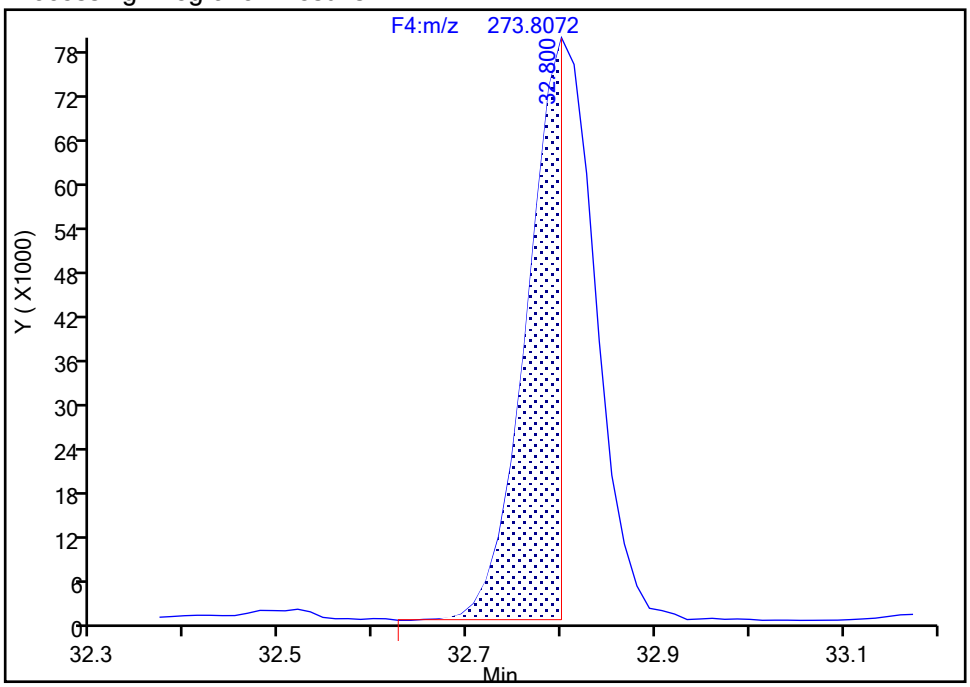
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Instrument ID: D3PST
Lims ID: IC L7
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F4(29.96 :33.23)

Endosulfan II, CAS: 33213-65-9

Signal: 2

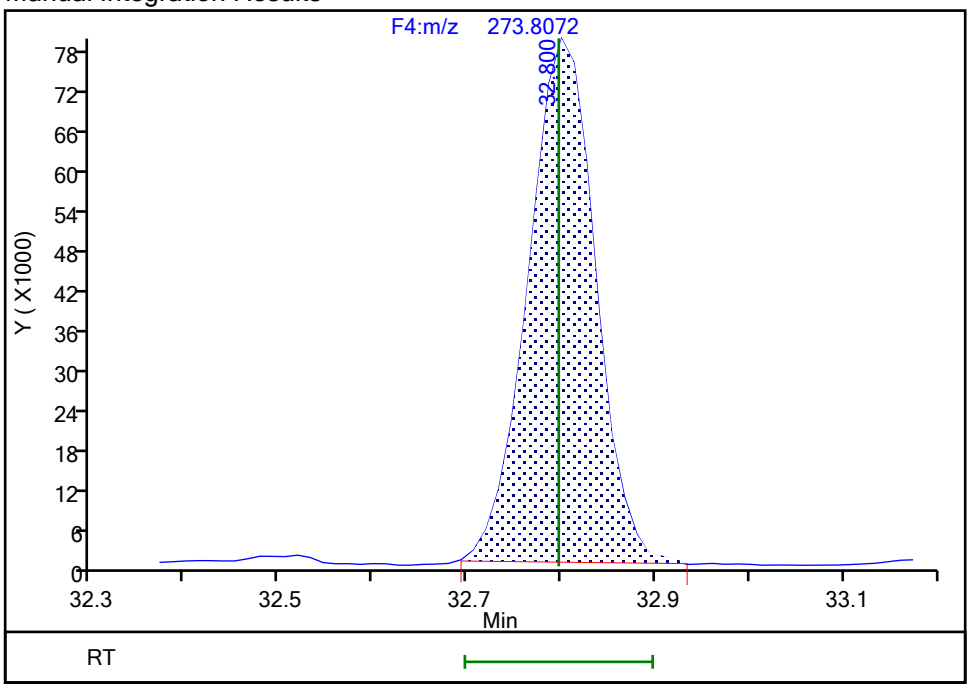
Processing Integration Results

RT: 32.80
Area: 198447
Amount: 355.8365
Amount Units: pg/ul



Manual Integration Results

RT: 32.80
Area: 395720
Amount: 469.5515
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 10:28:56 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
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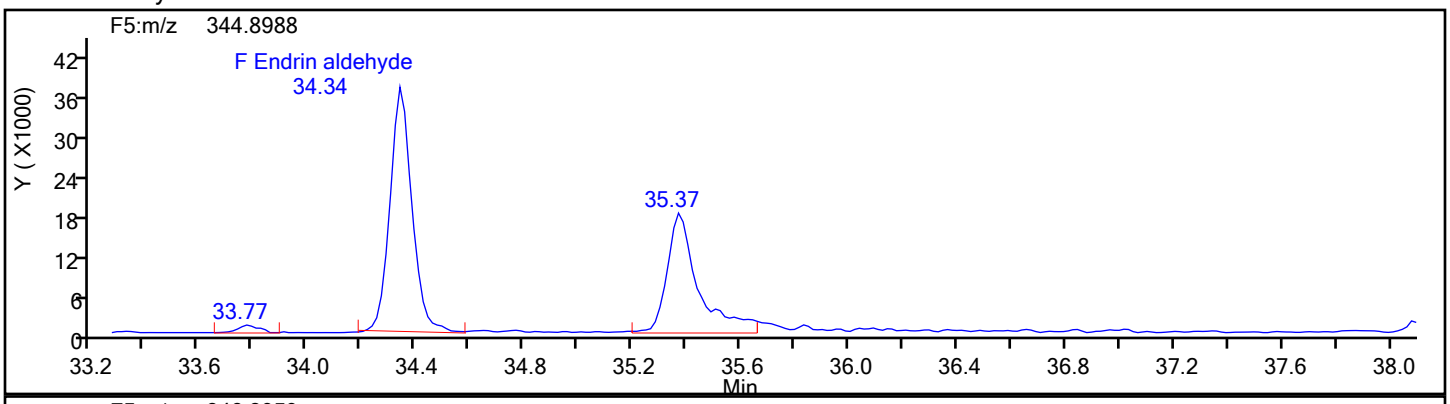
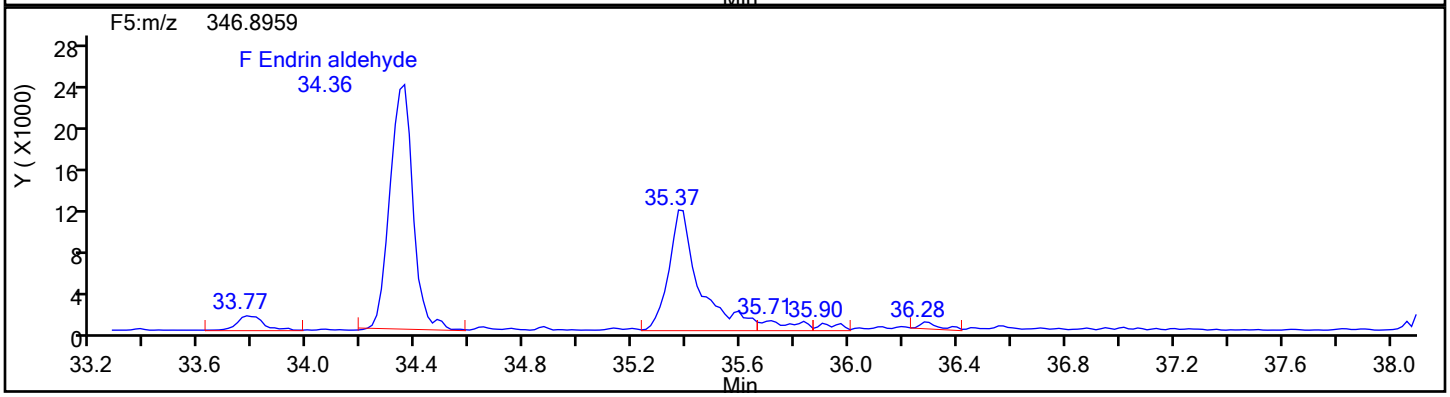
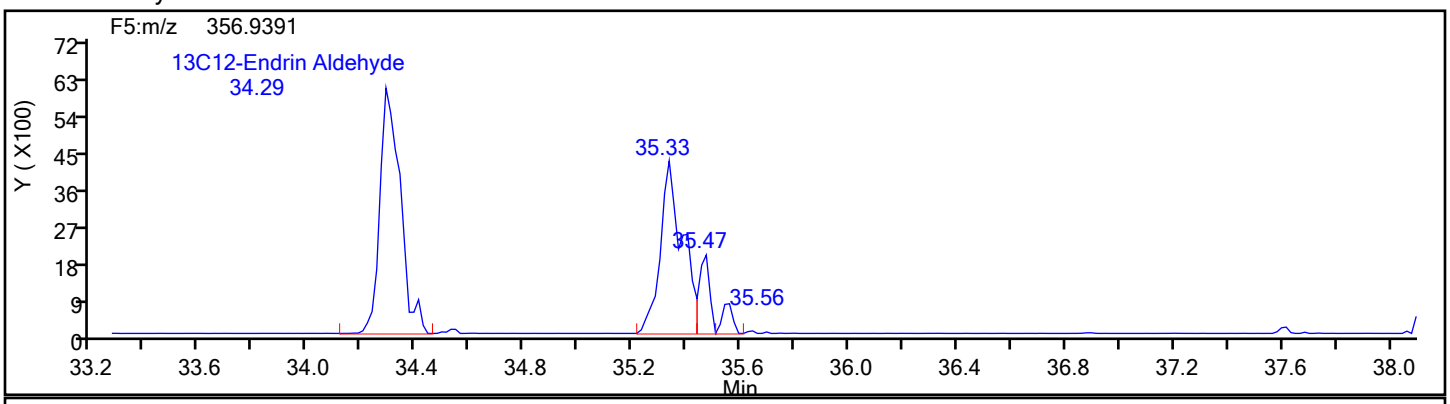
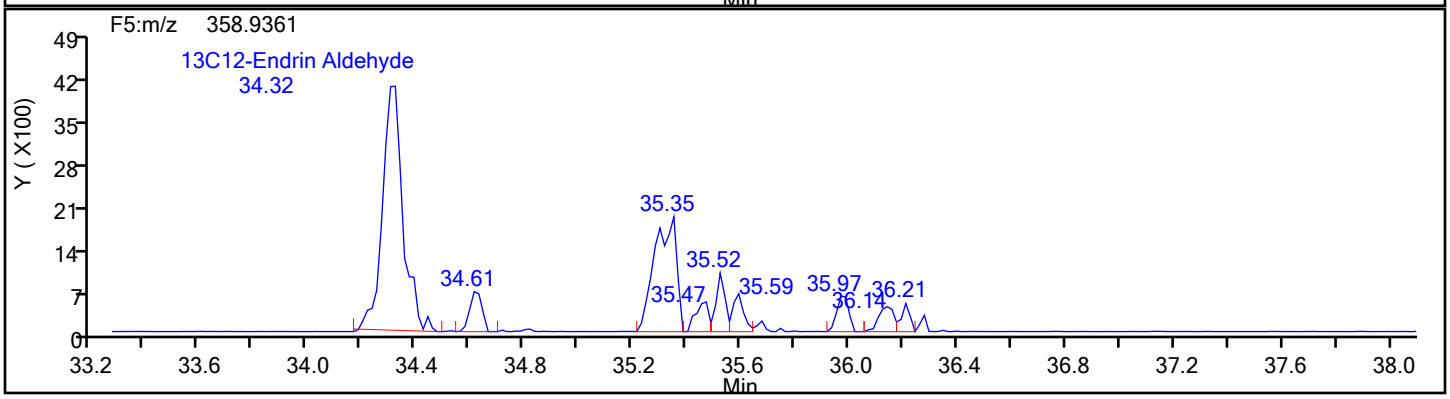
Endrin aldehyde





Endrin aldehyde Standards





Report Date: 24-Mar-2025 13:06:33 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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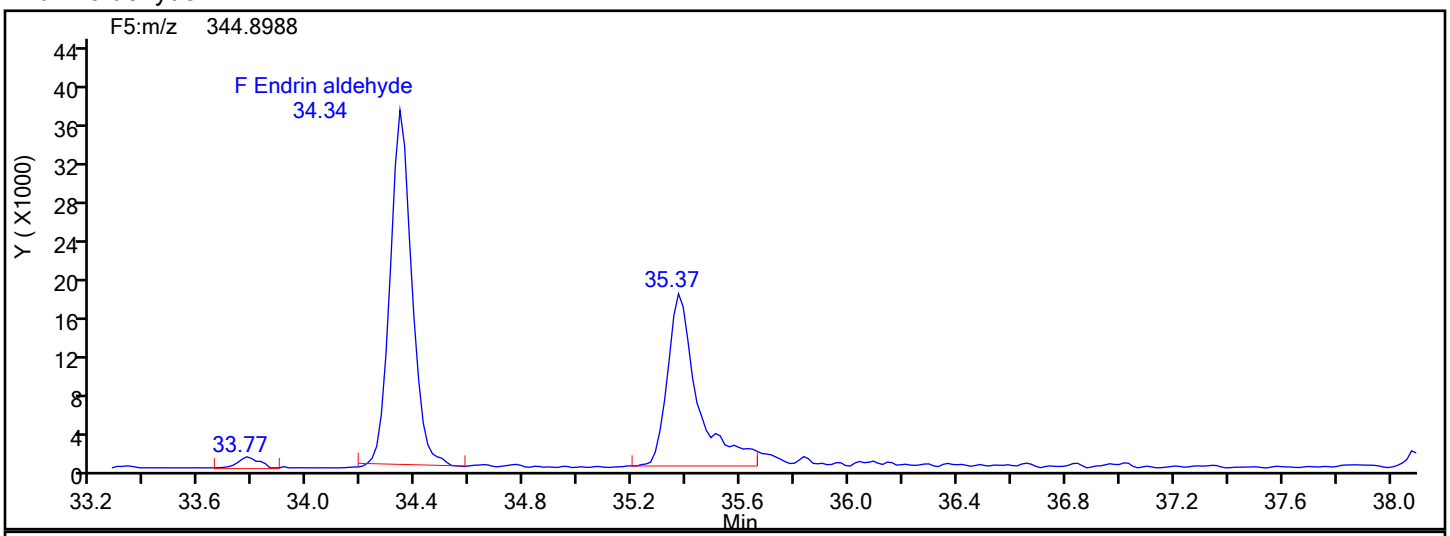
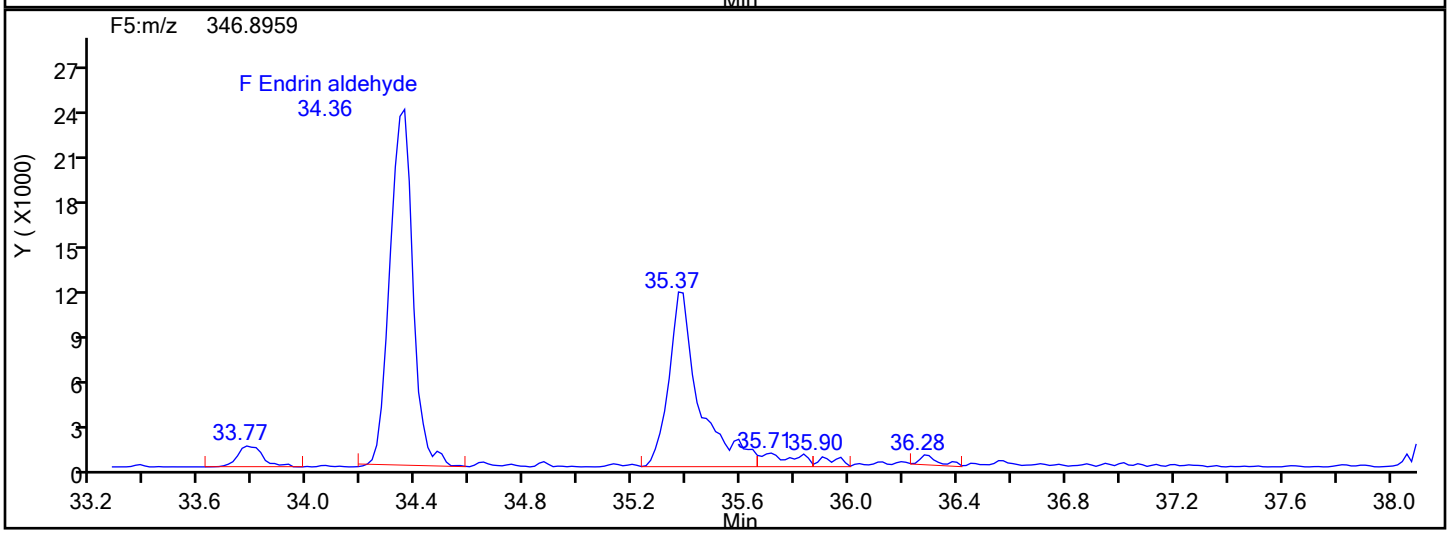
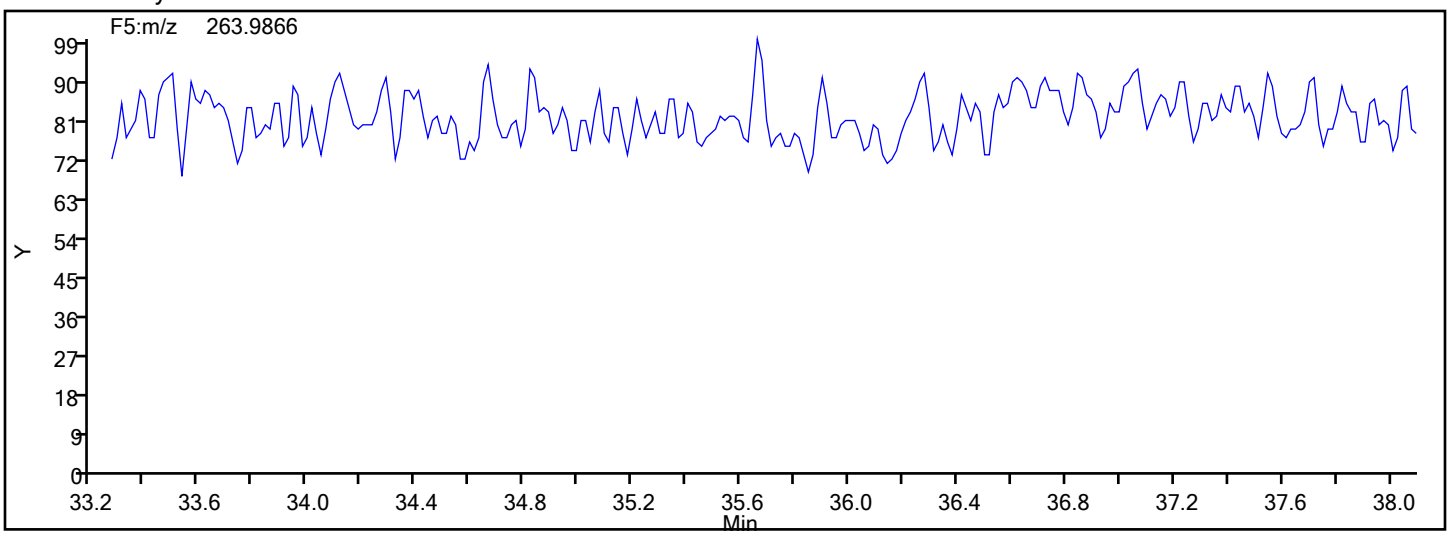




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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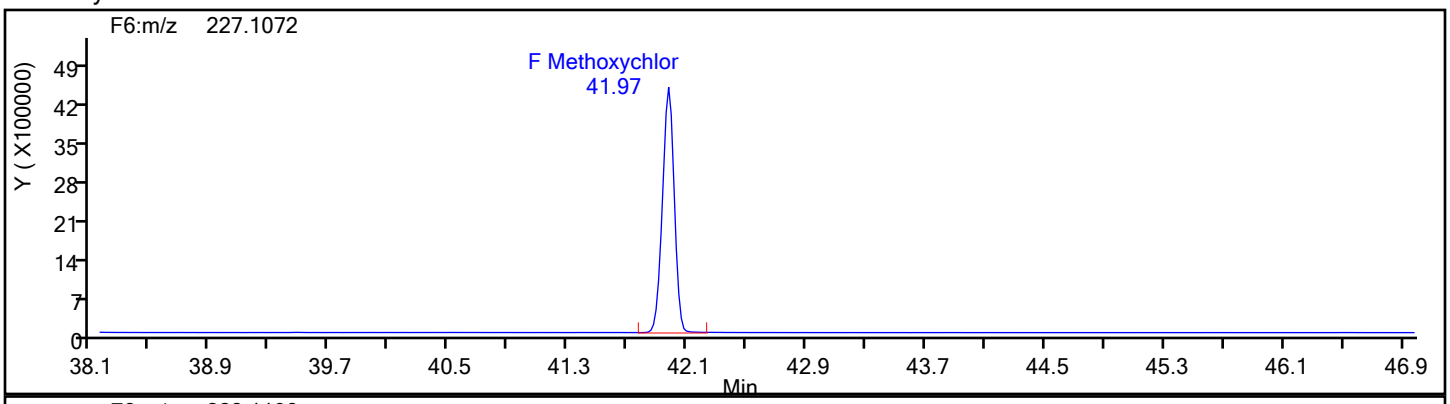

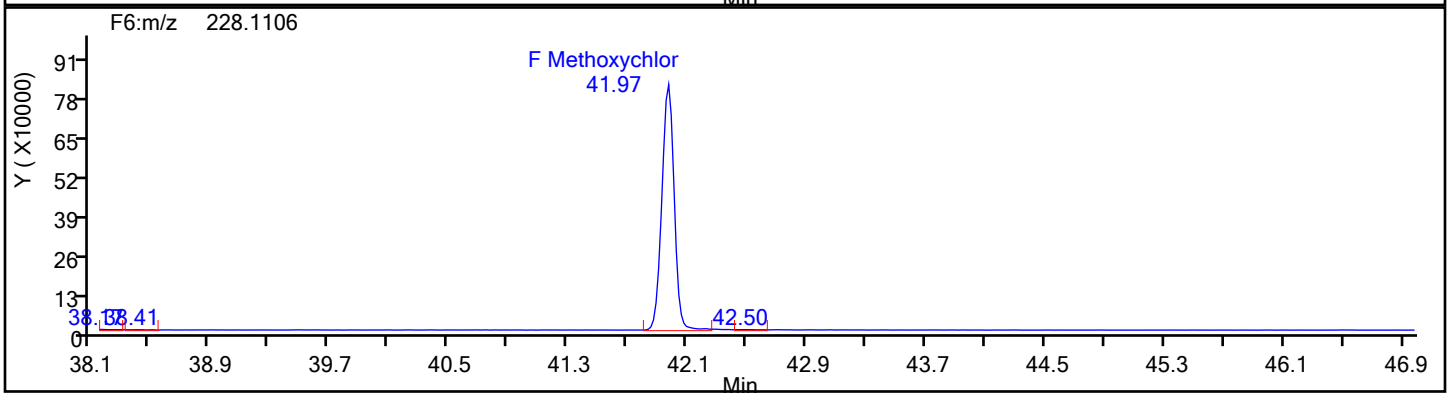

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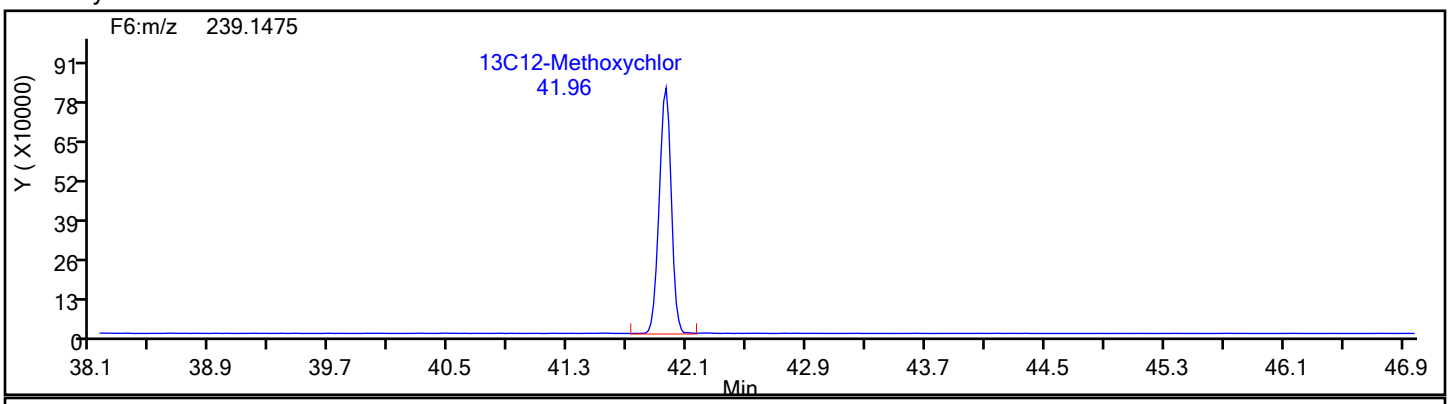

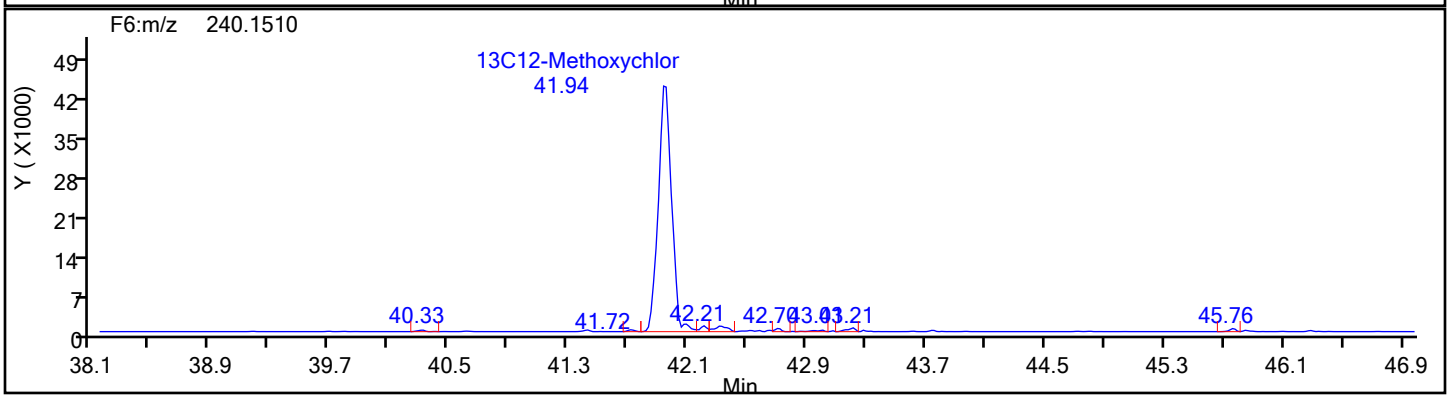

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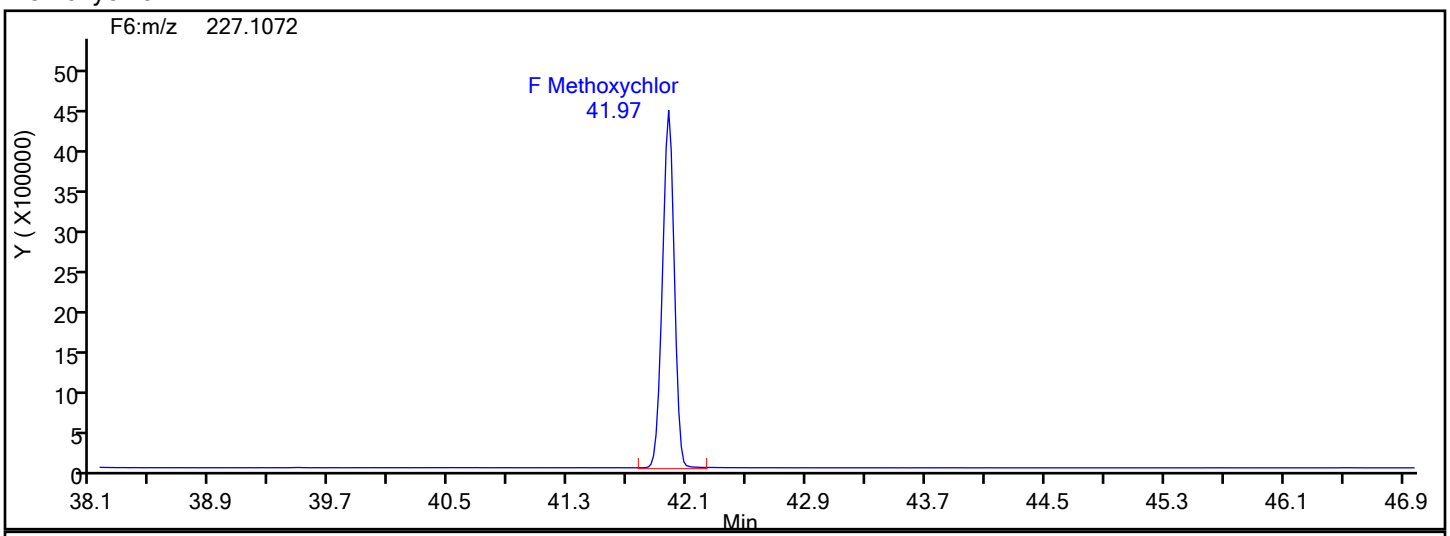
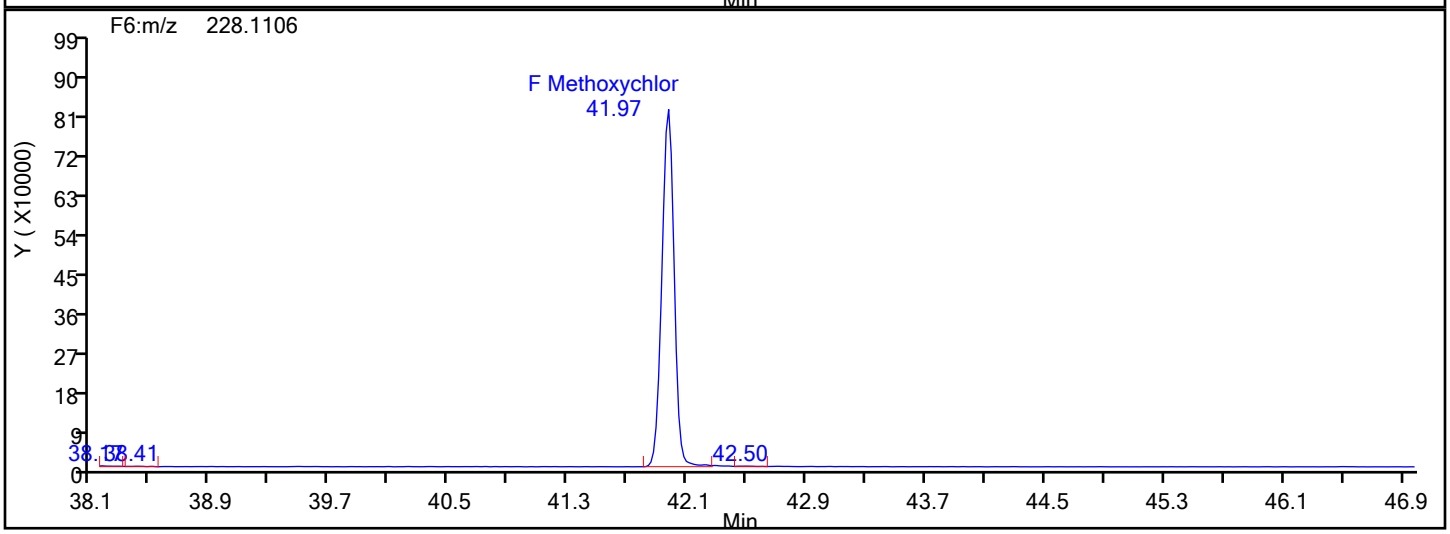
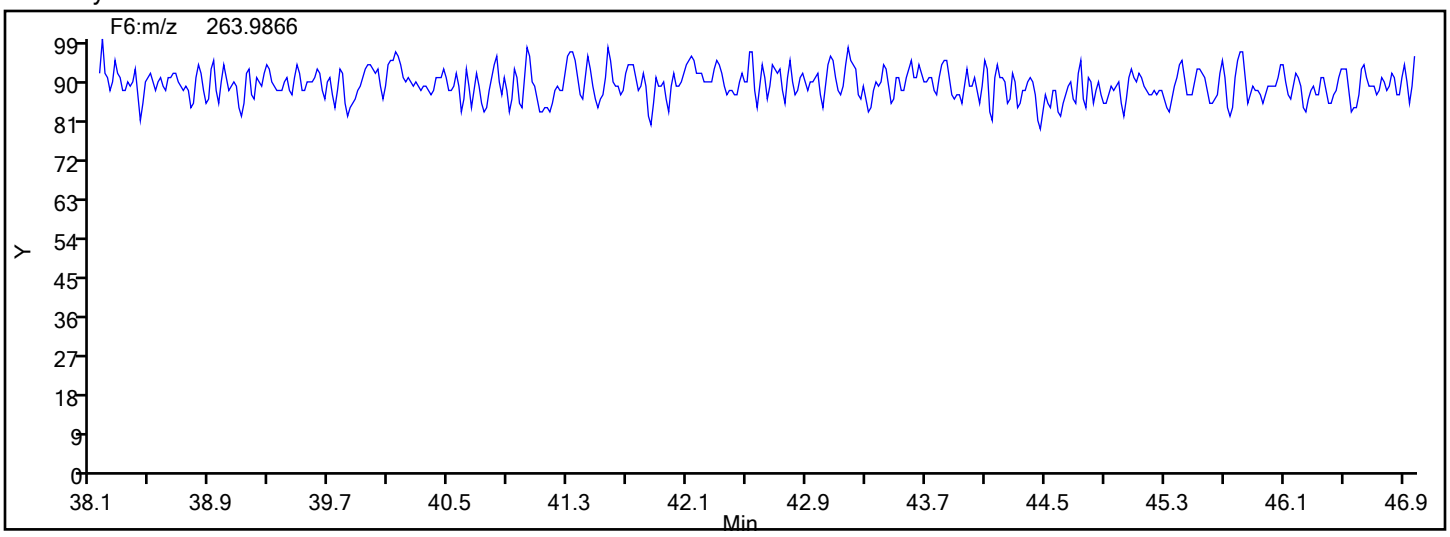




Methoxychlor Lock Mass



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Eurofins Knoxville

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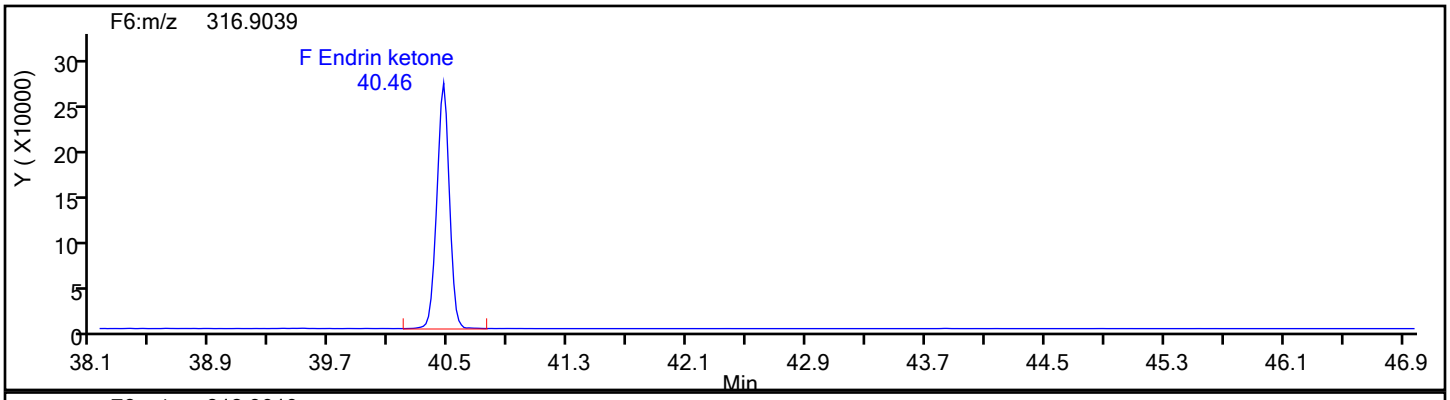

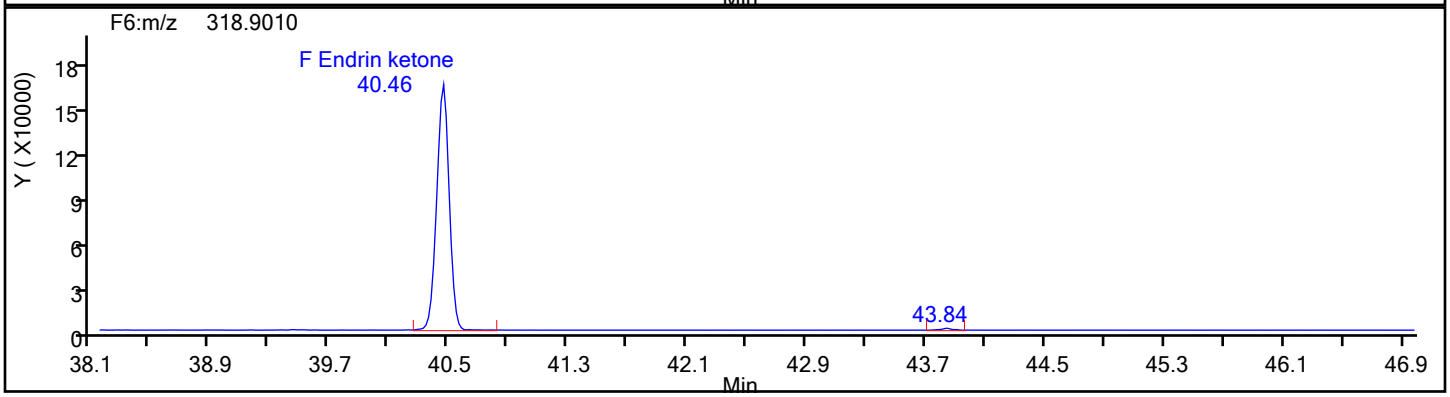

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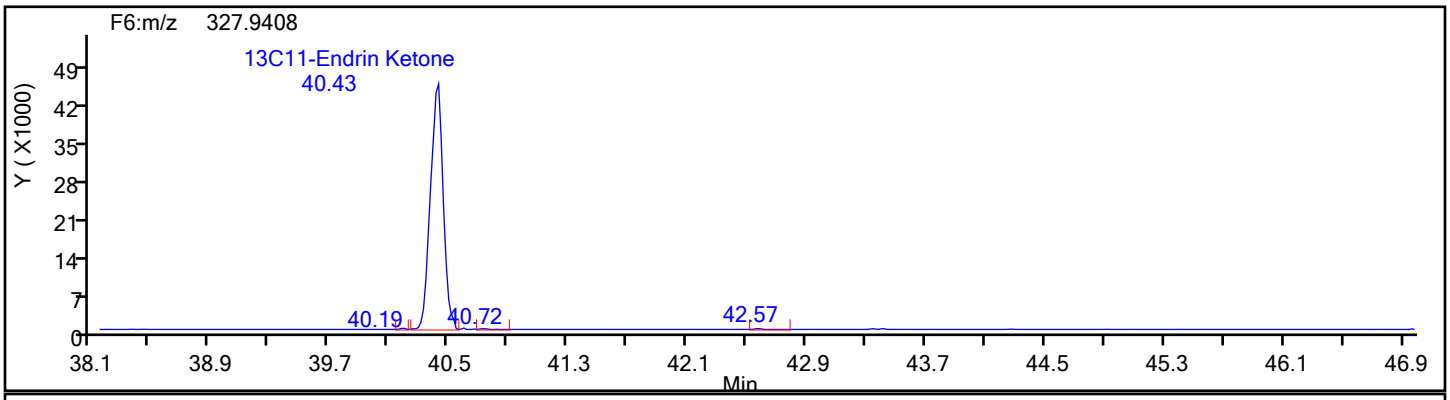

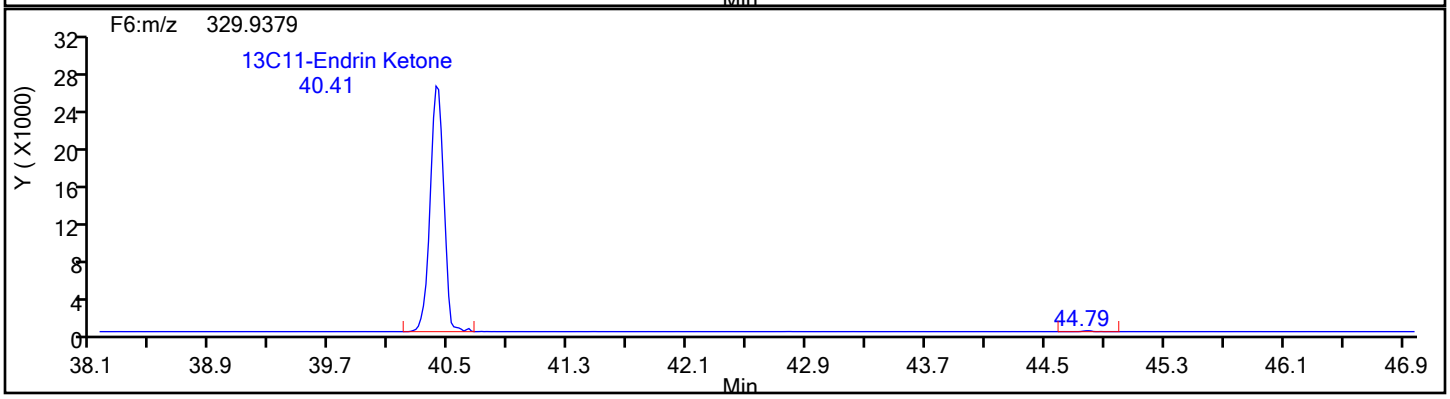

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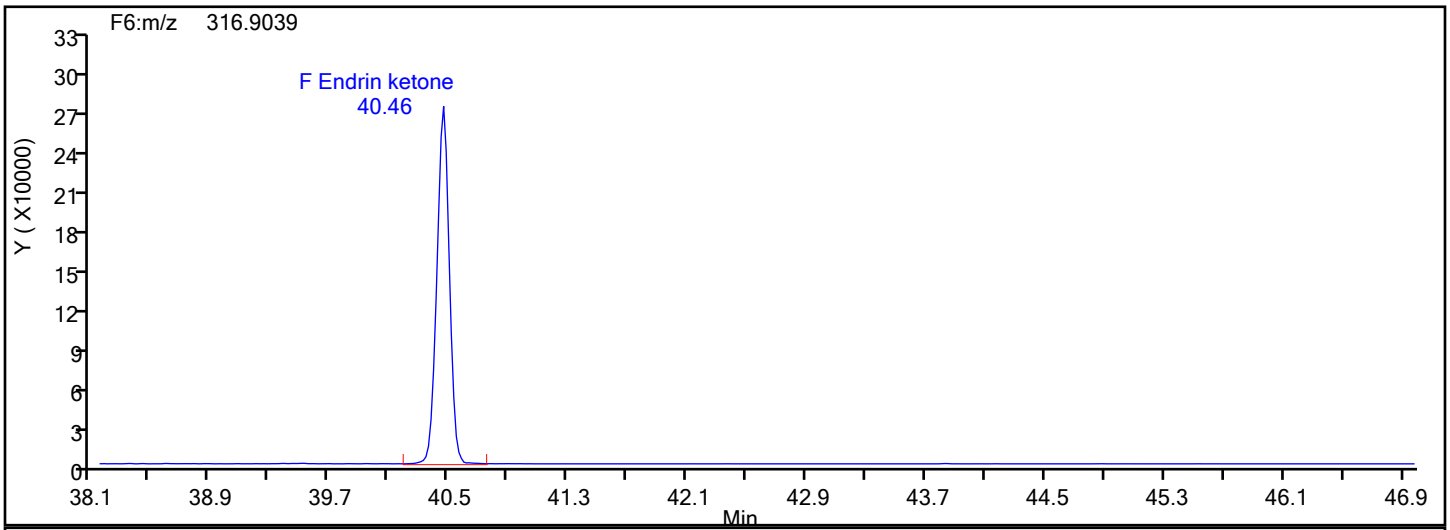
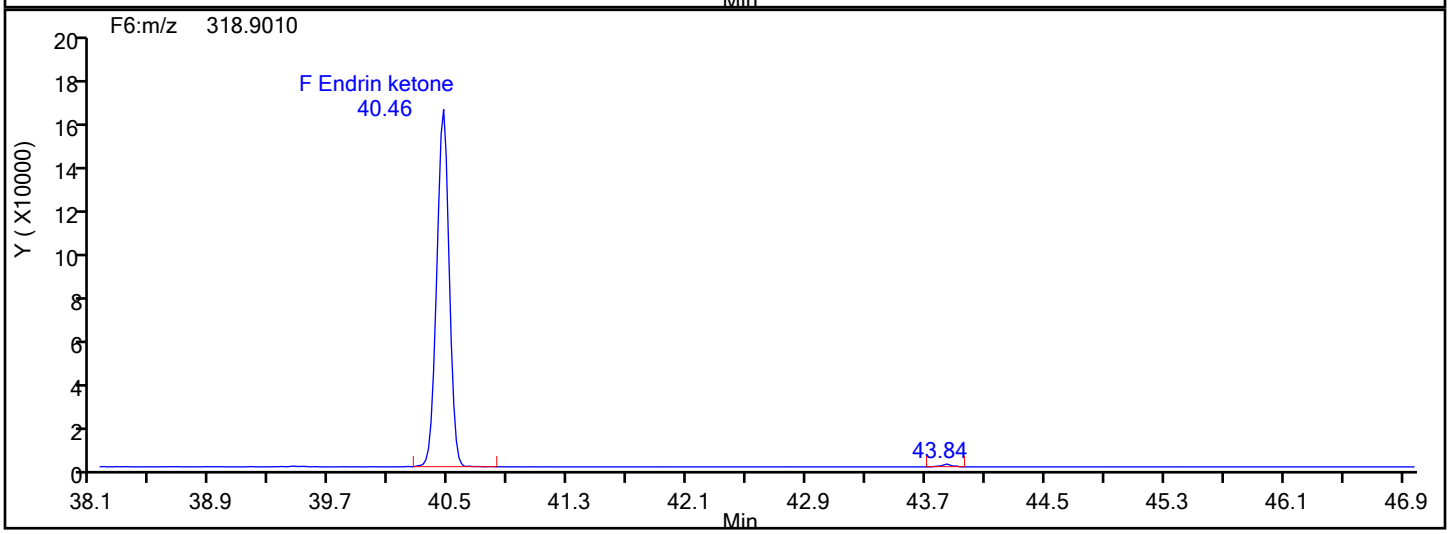
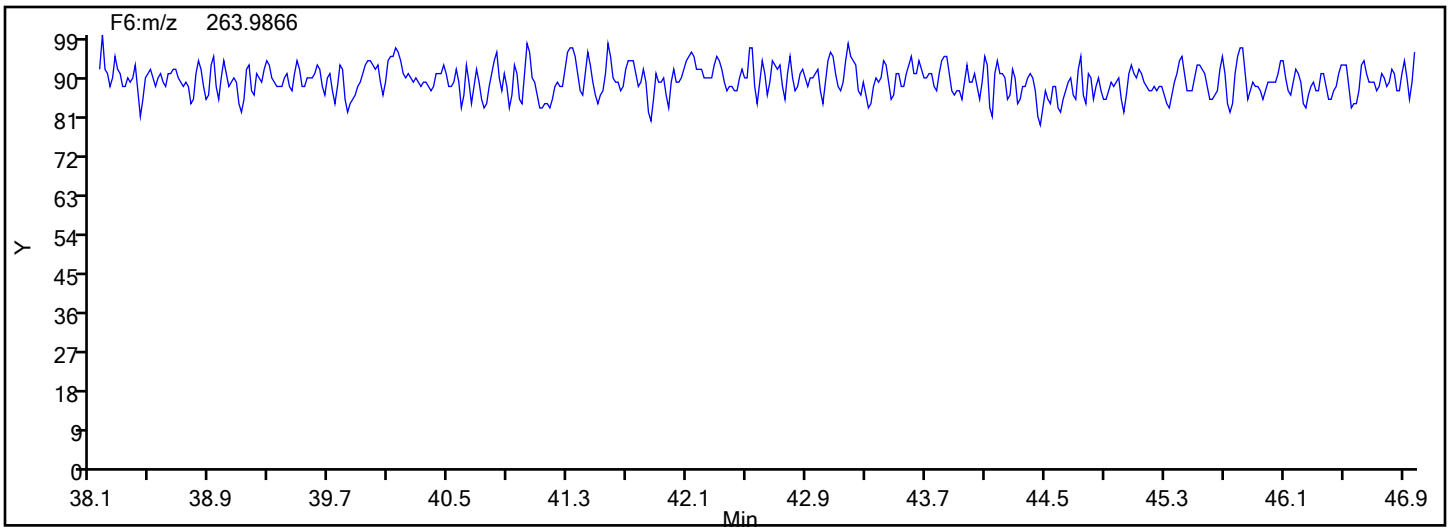




Endrin ketone Lock Mass



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Eurofins Knoxville

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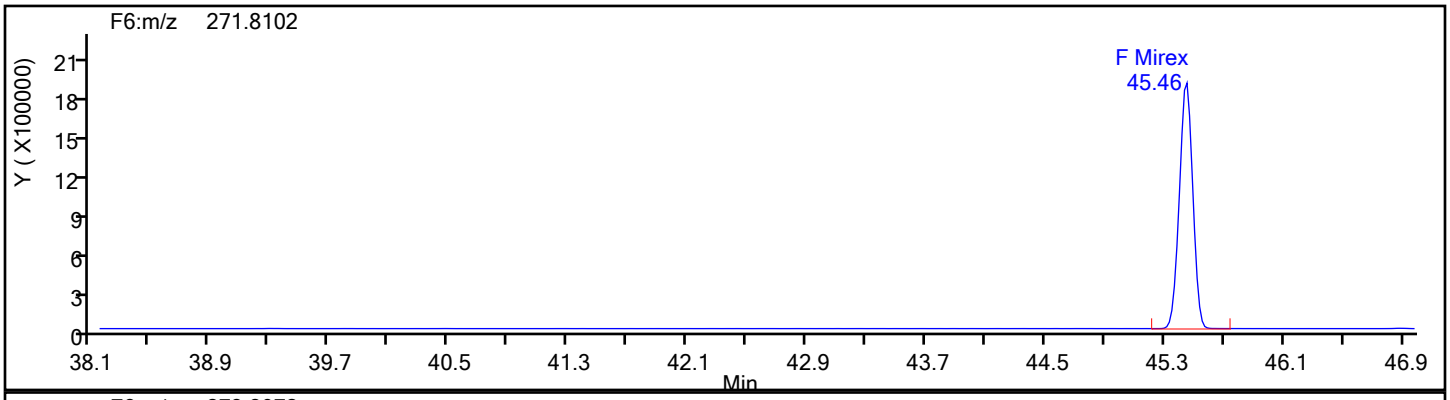
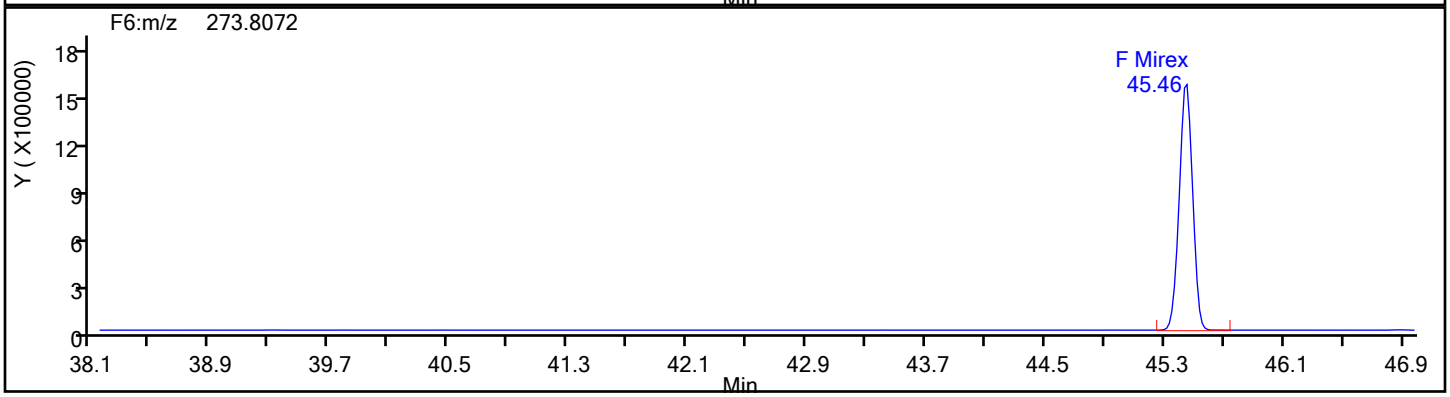
Mirex





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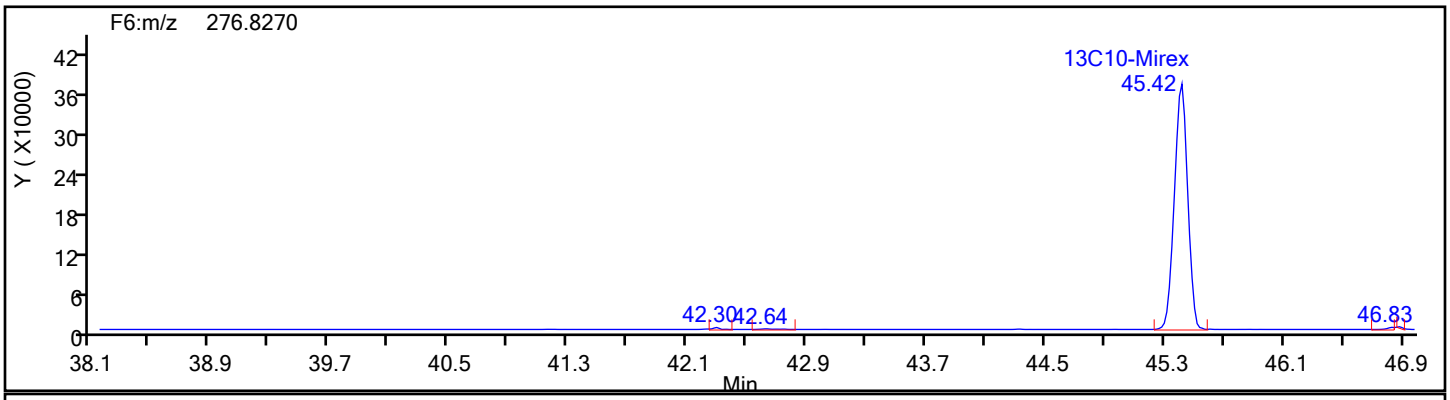

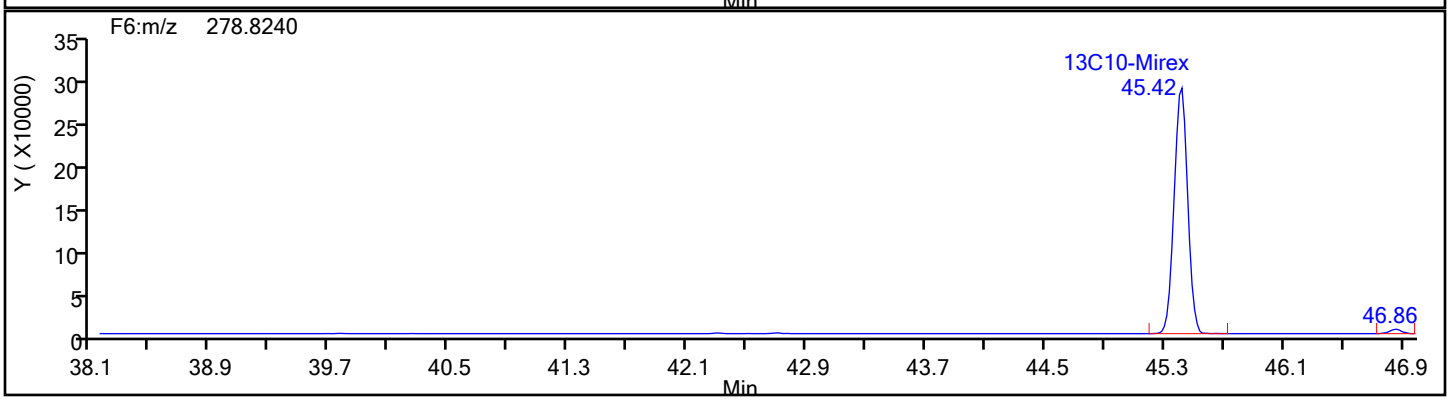

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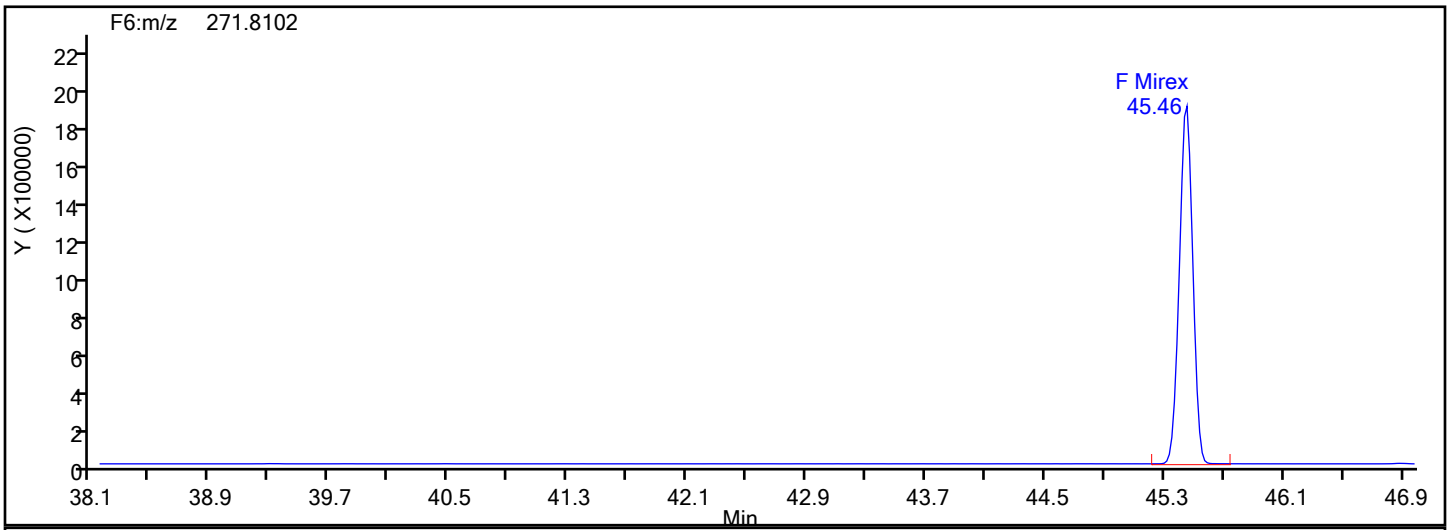
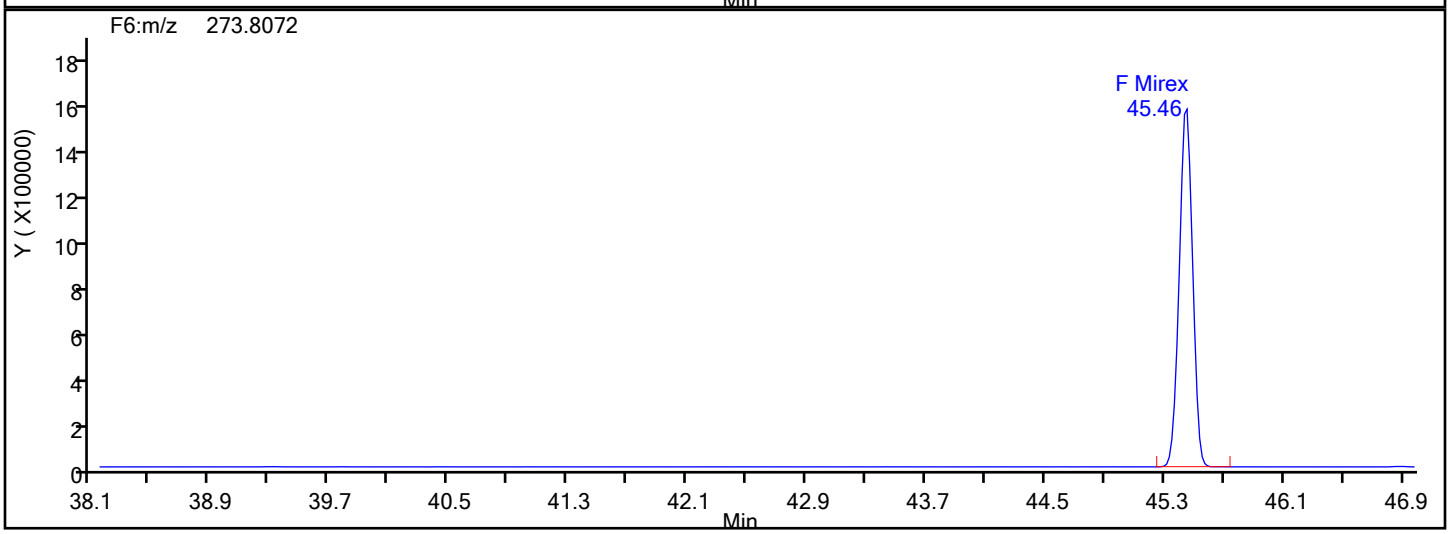
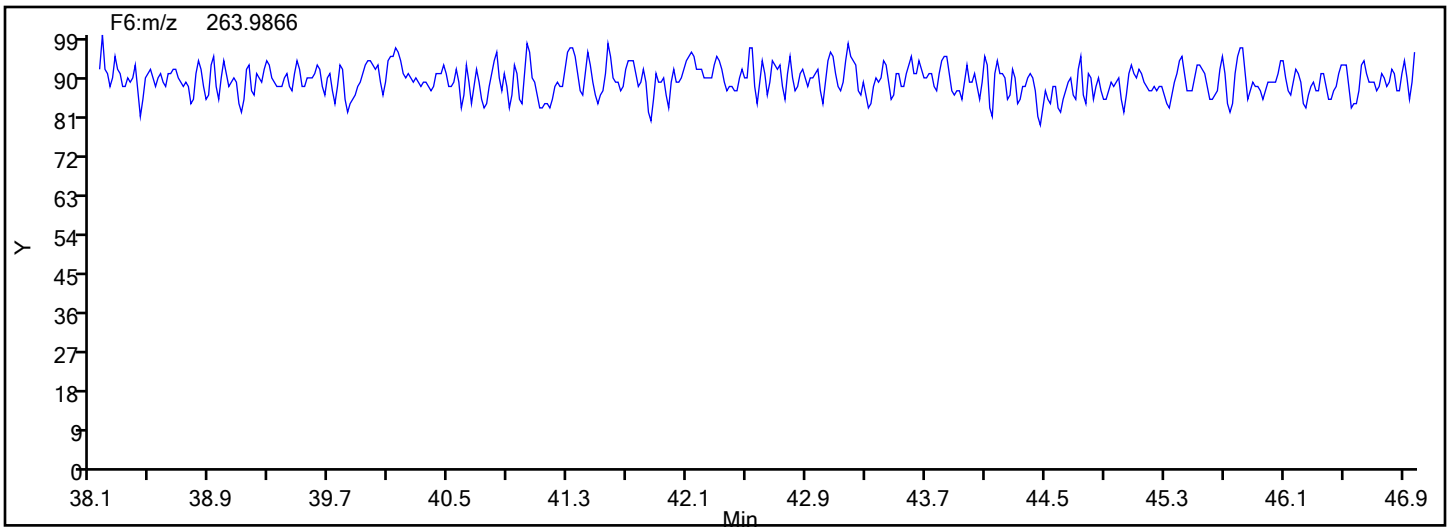




Mirex Lock Mass



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Eurofins Knoxville

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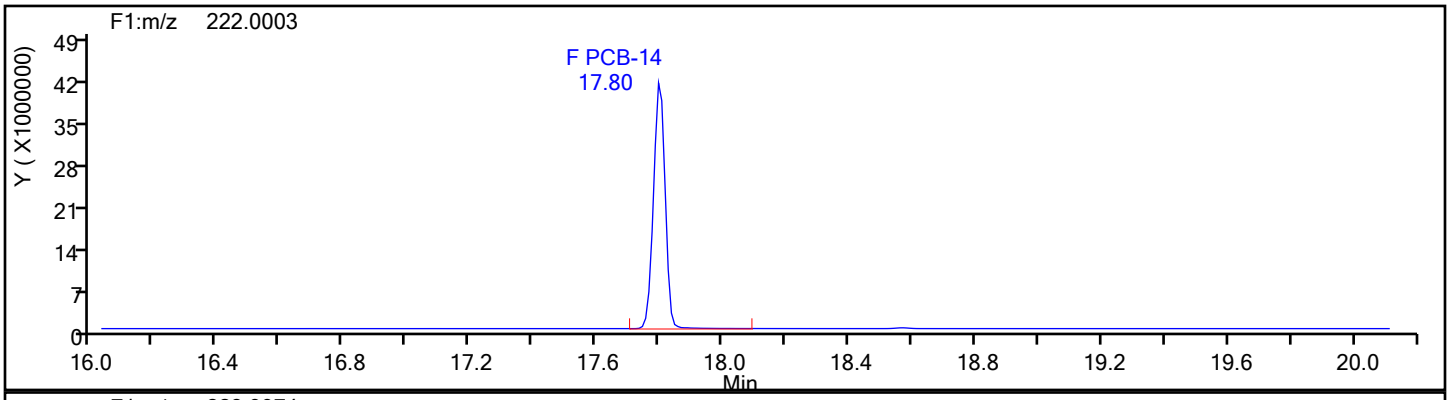
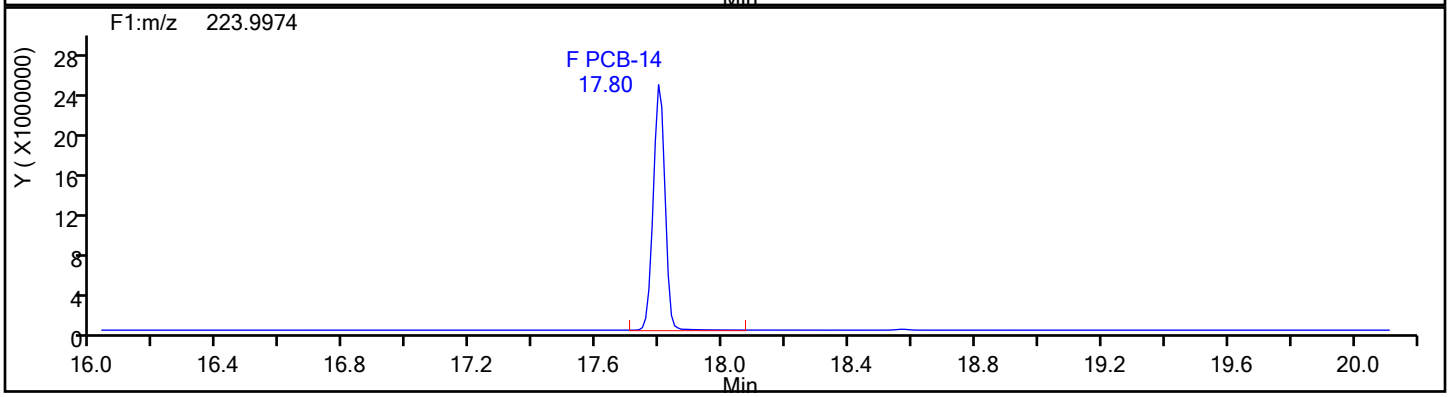
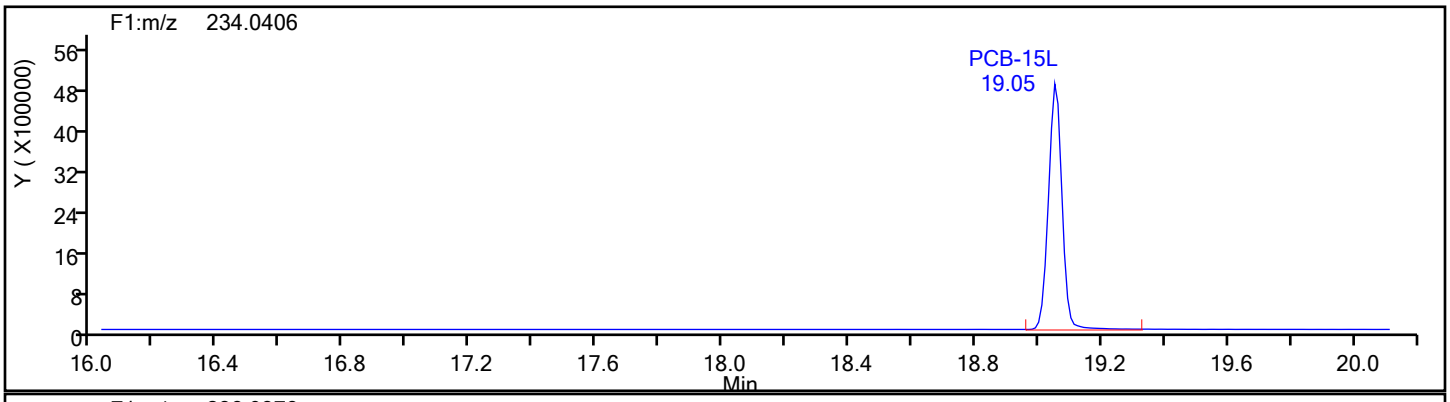
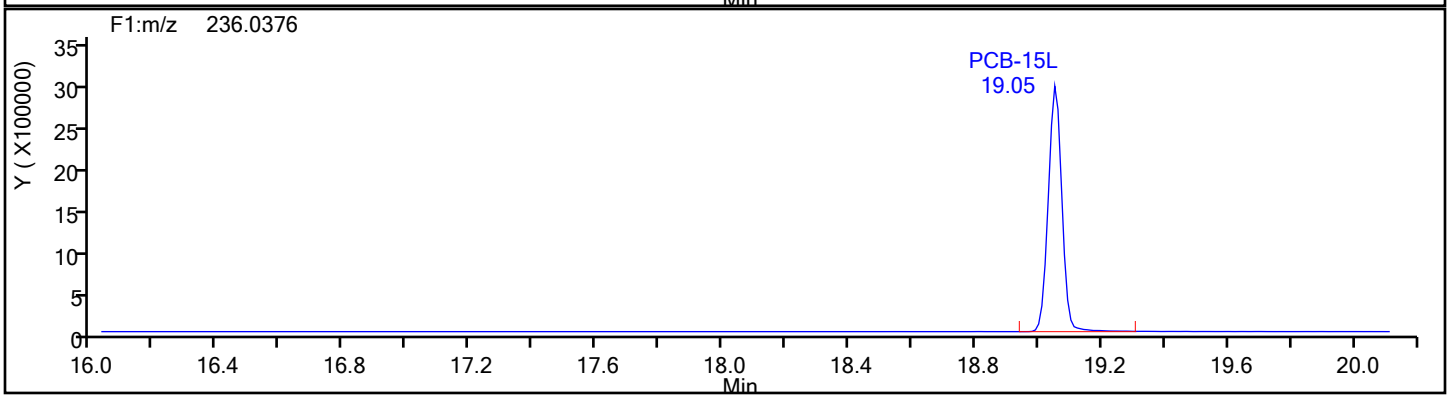
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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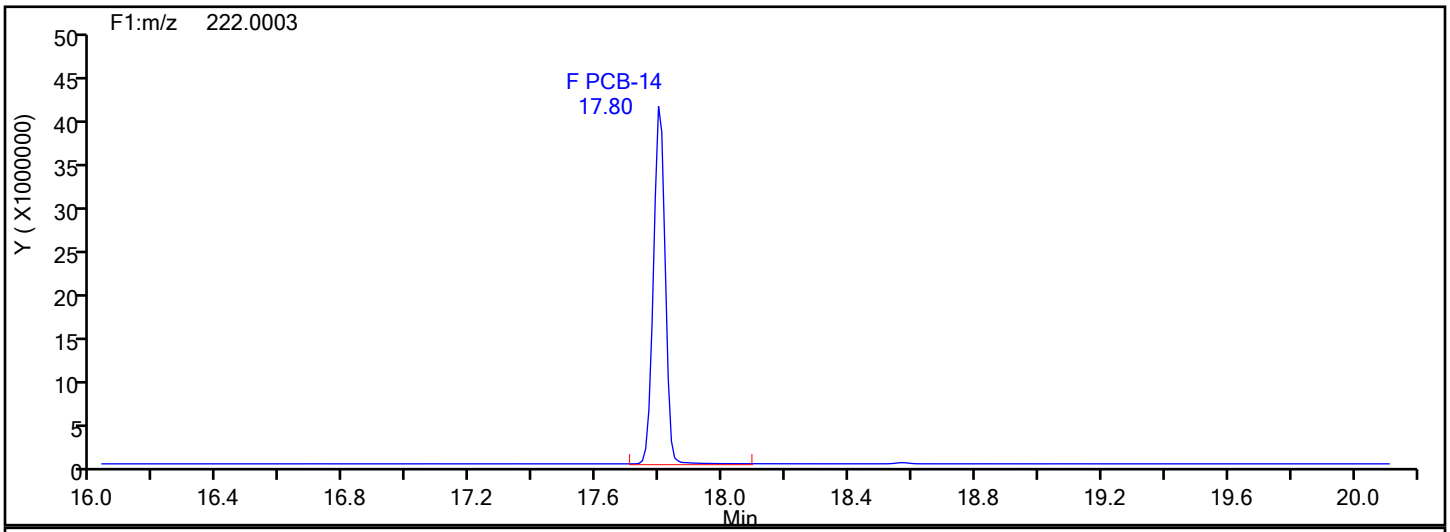
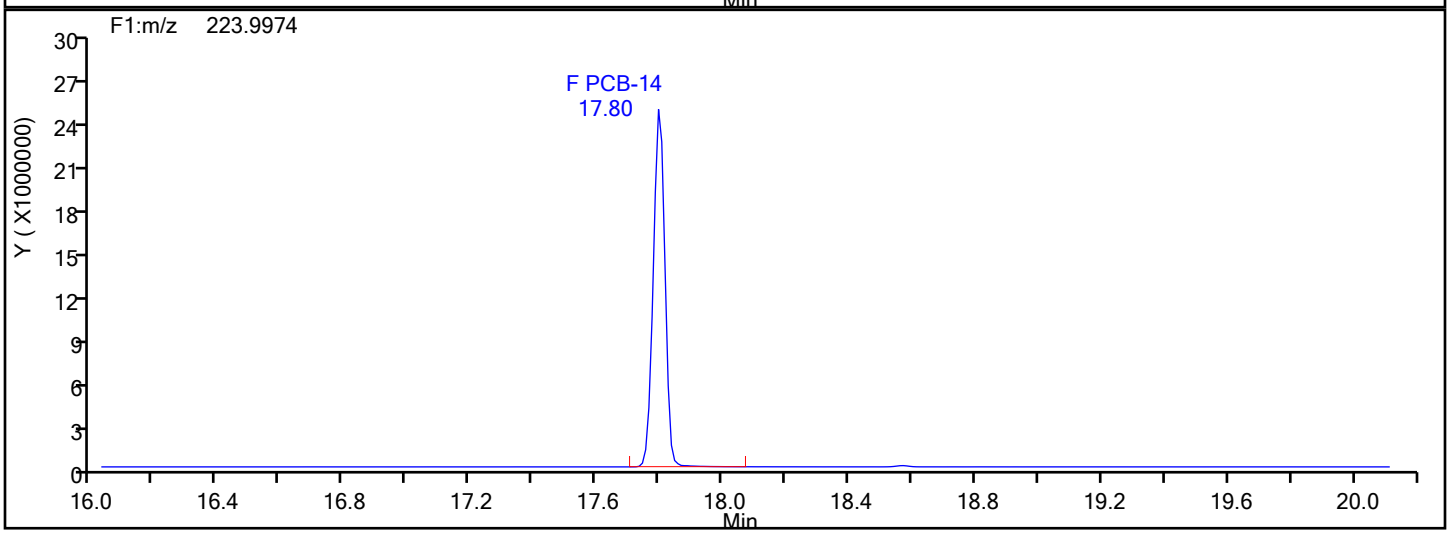
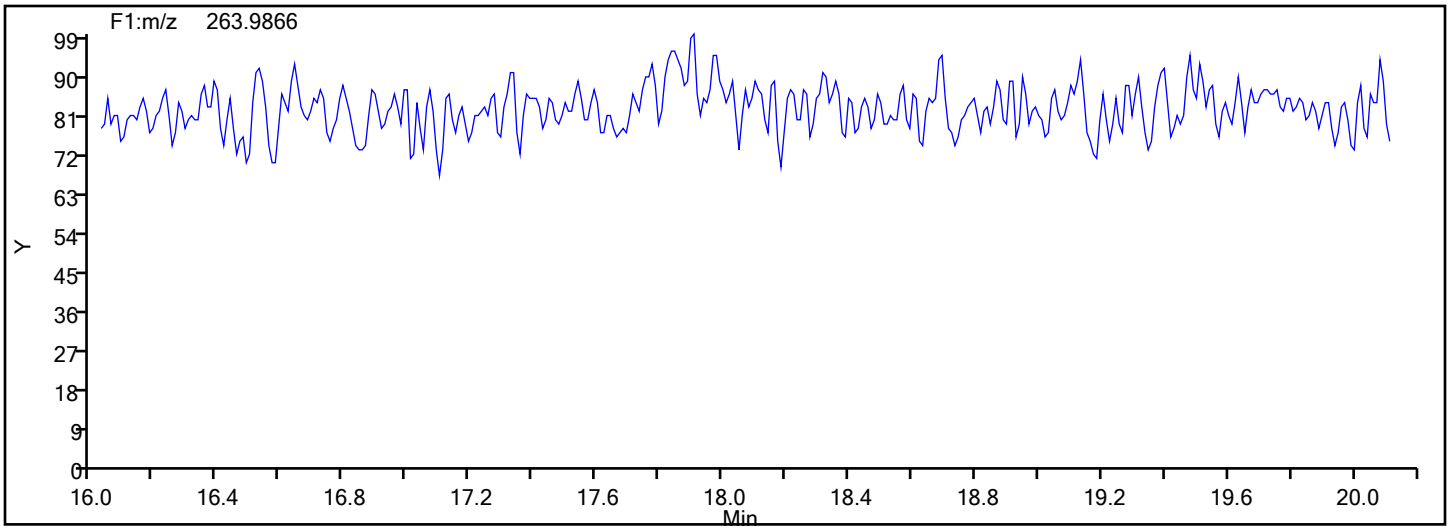
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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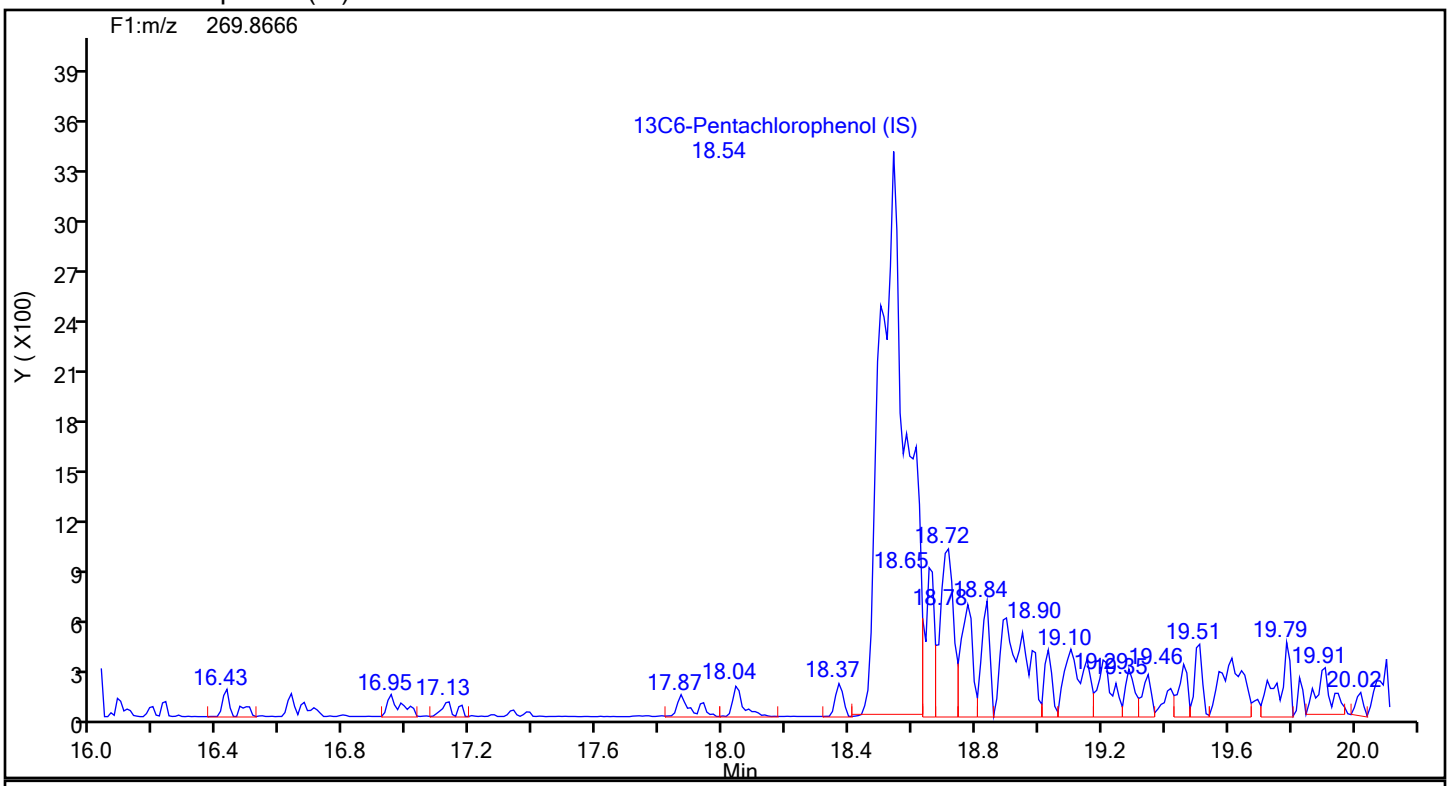
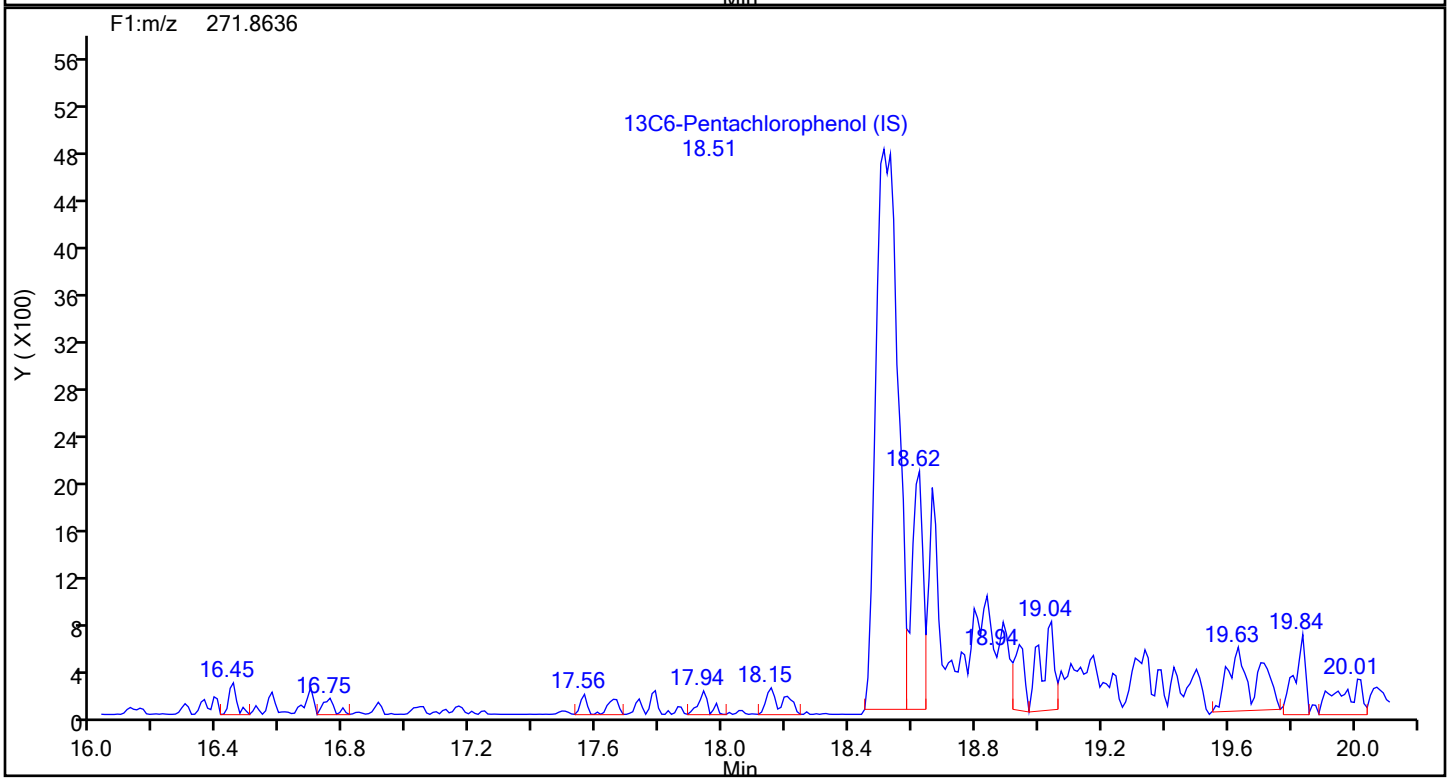
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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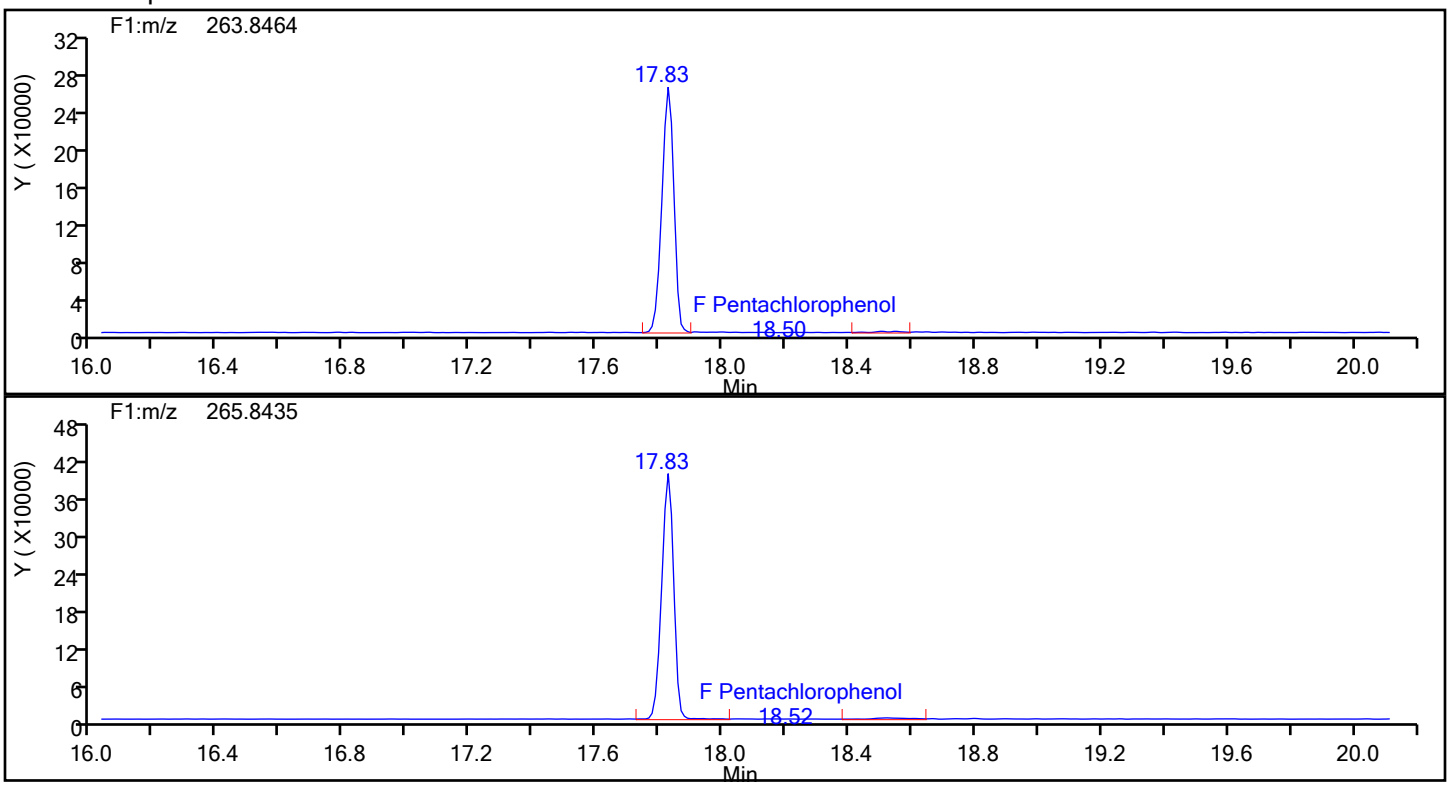
Pentachlorophenol



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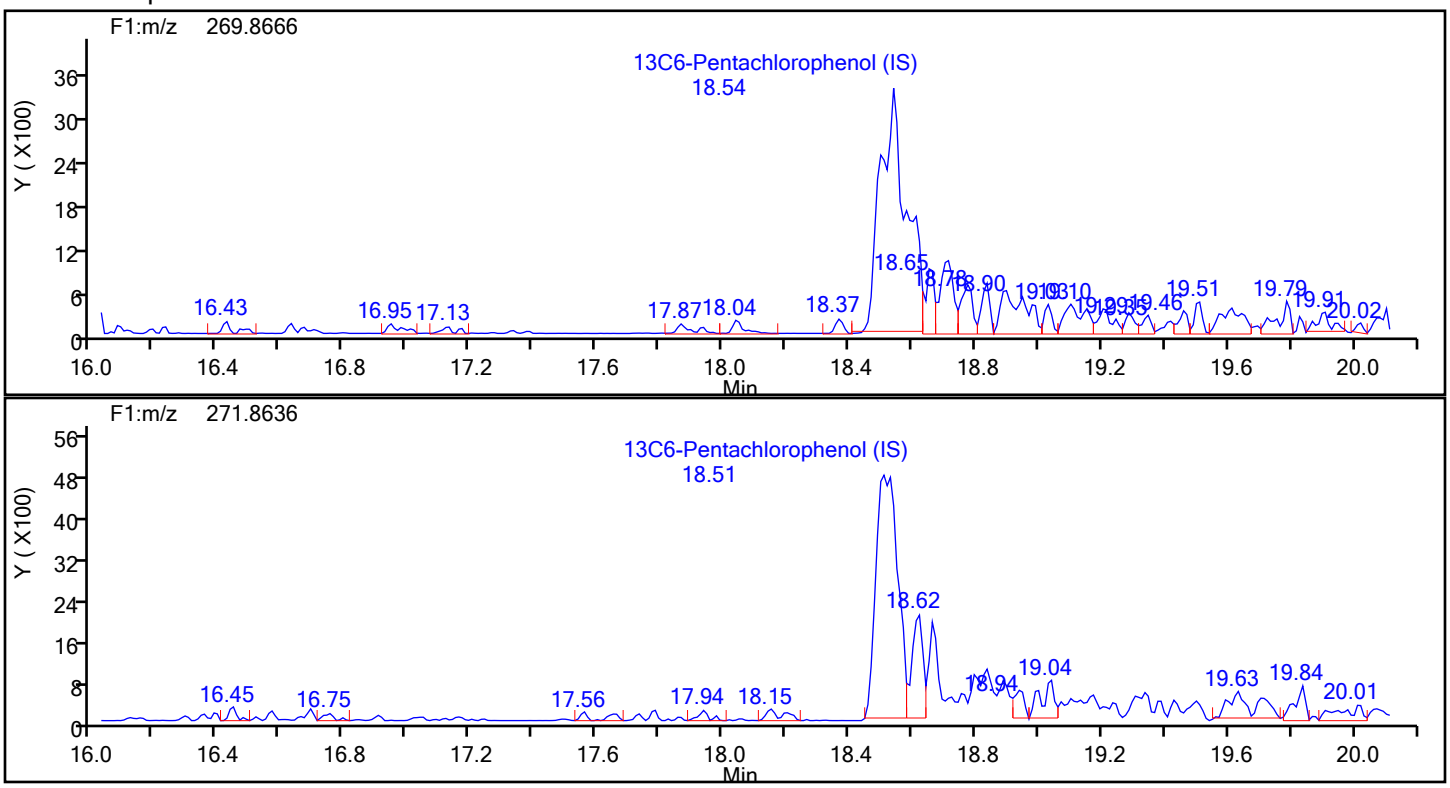

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Eurofins Knoxville

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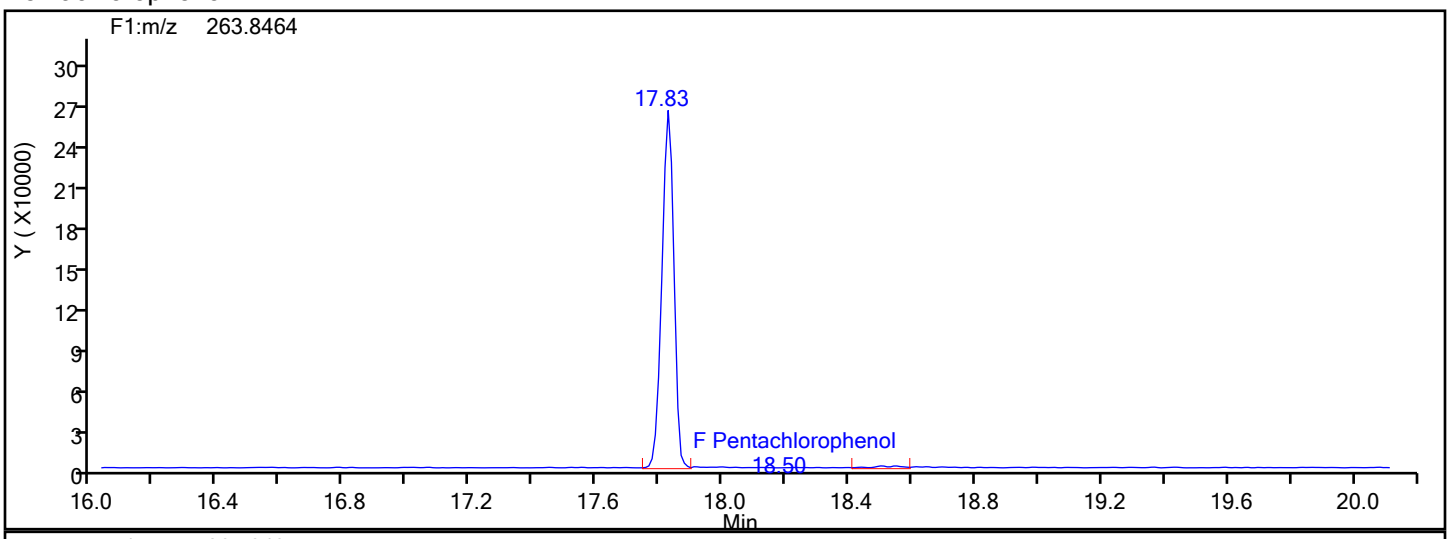
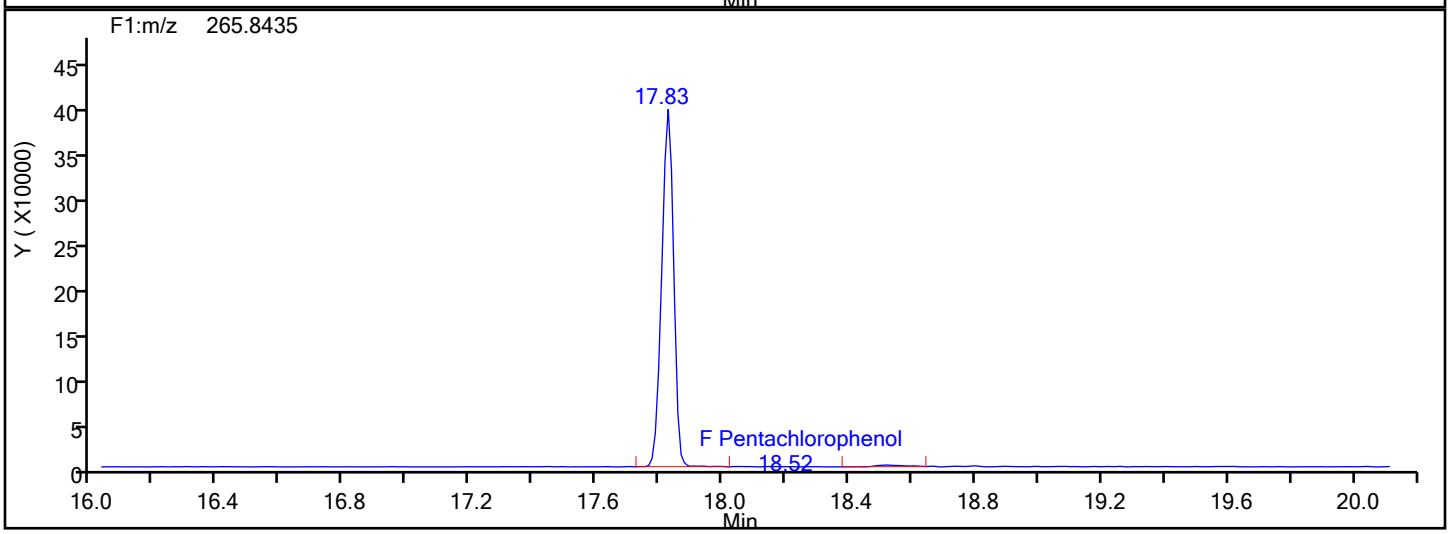
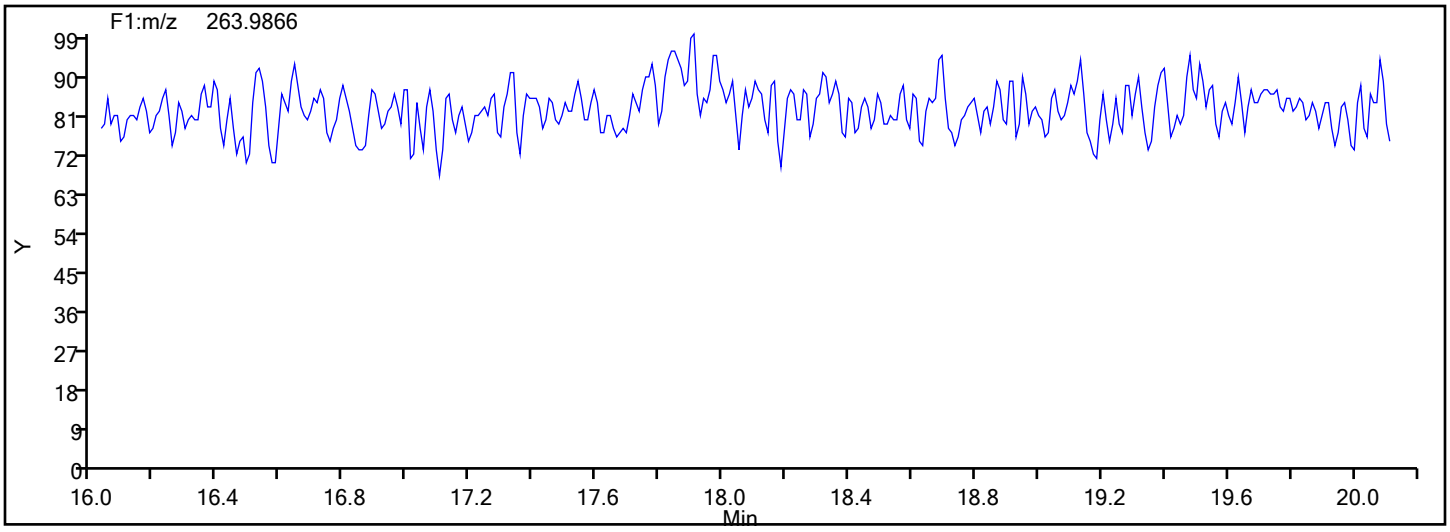
Pentachlorophenol





Pentachlorophenol Lock Mass



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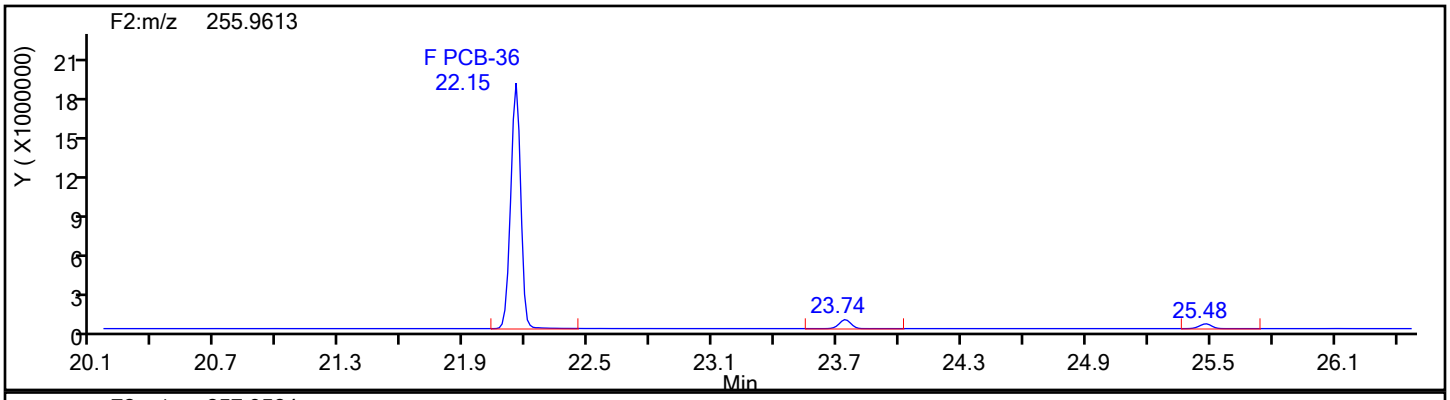
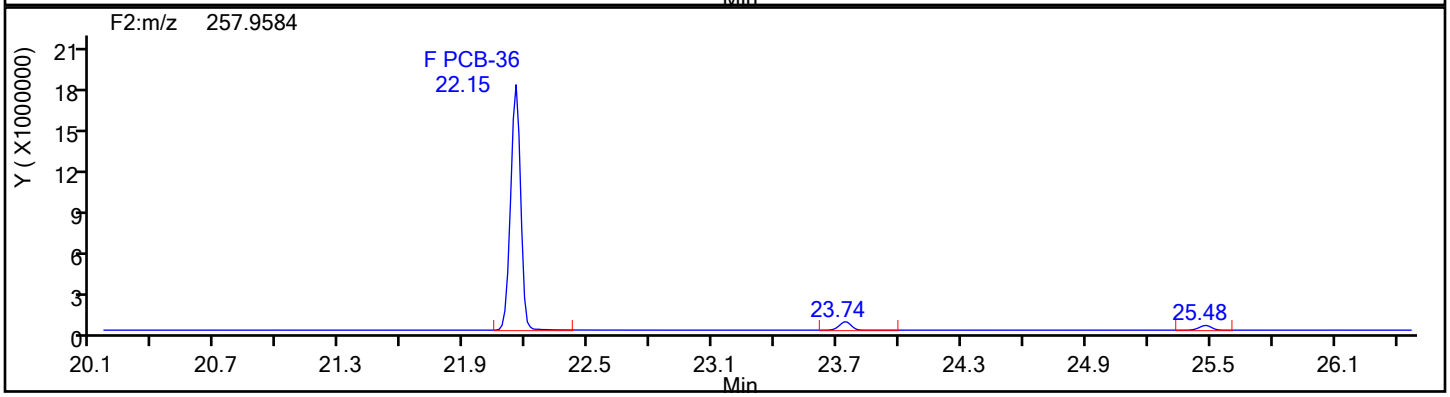
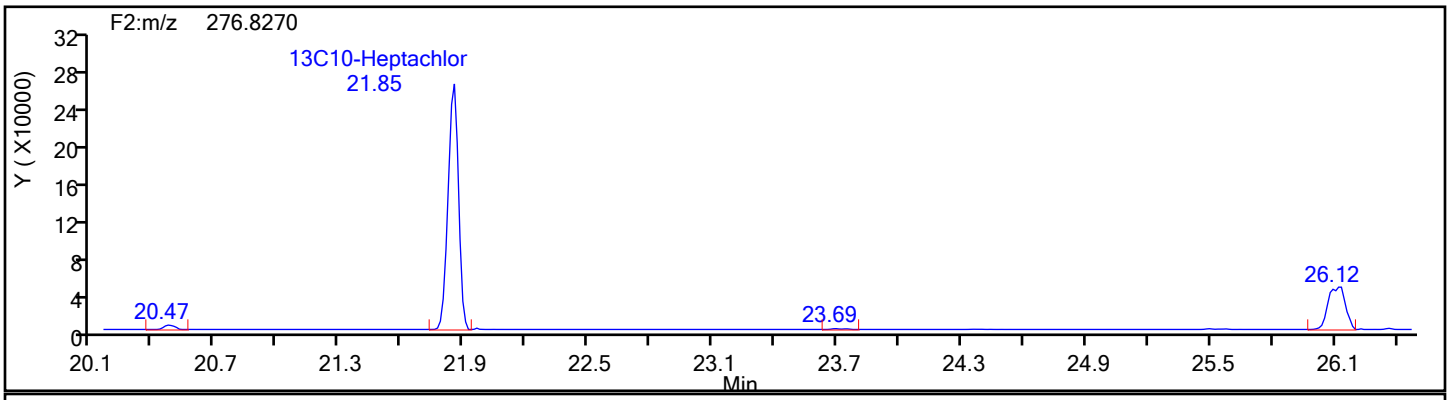
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

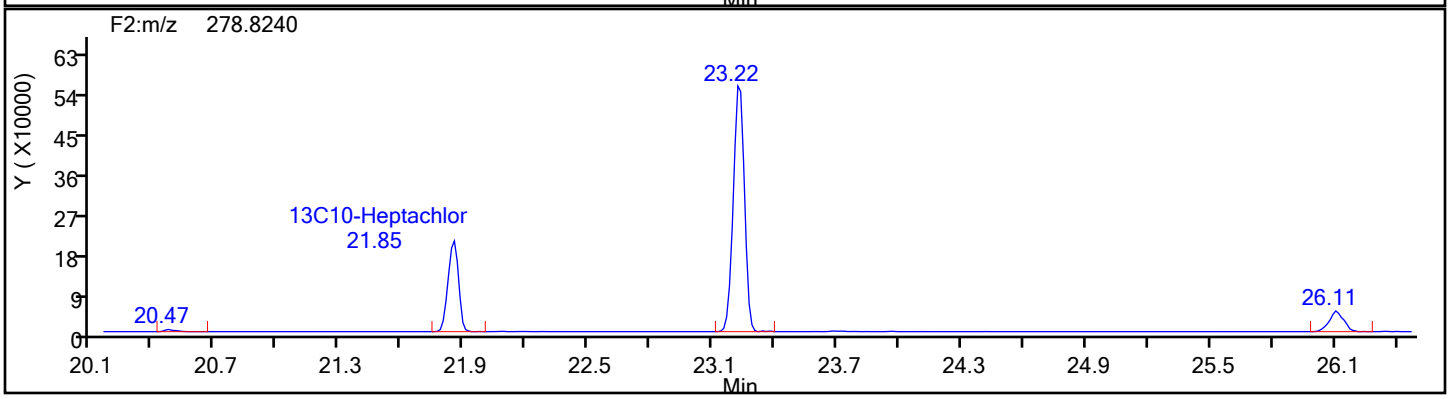
PCB-36





PCB-36 Standards



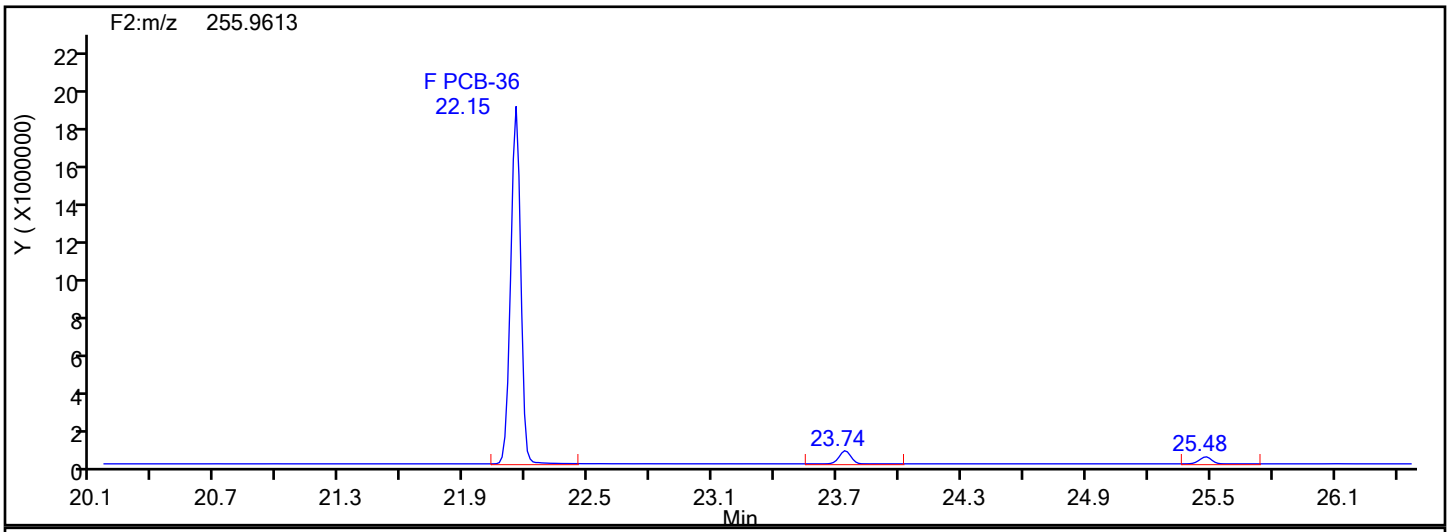


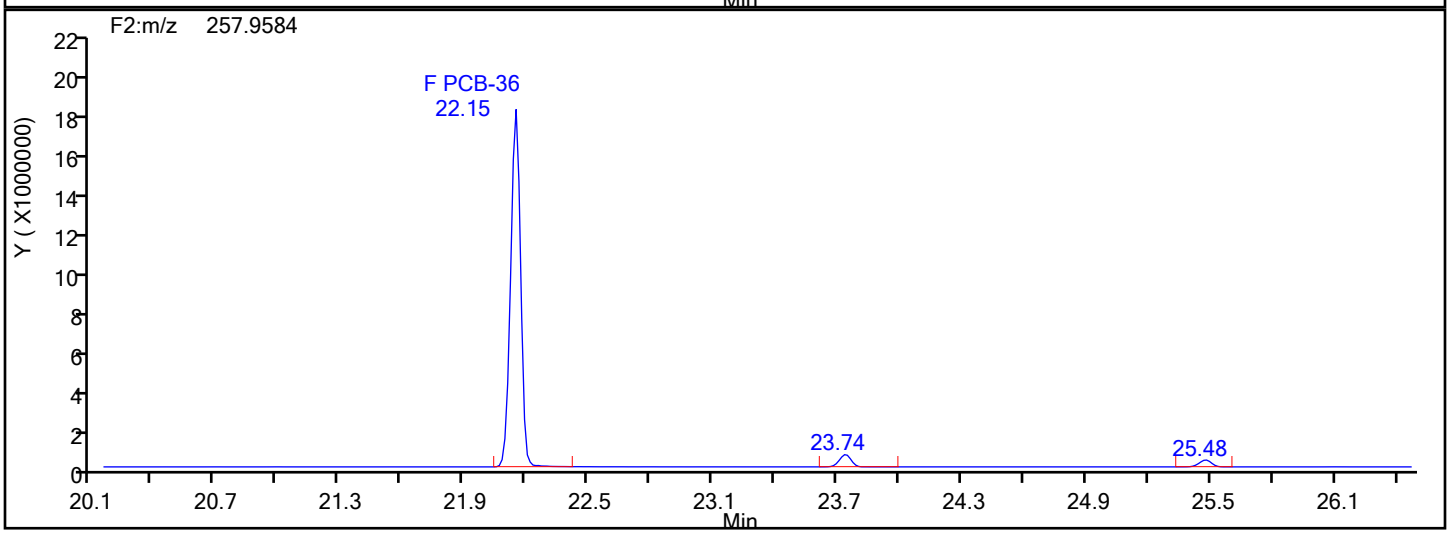
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

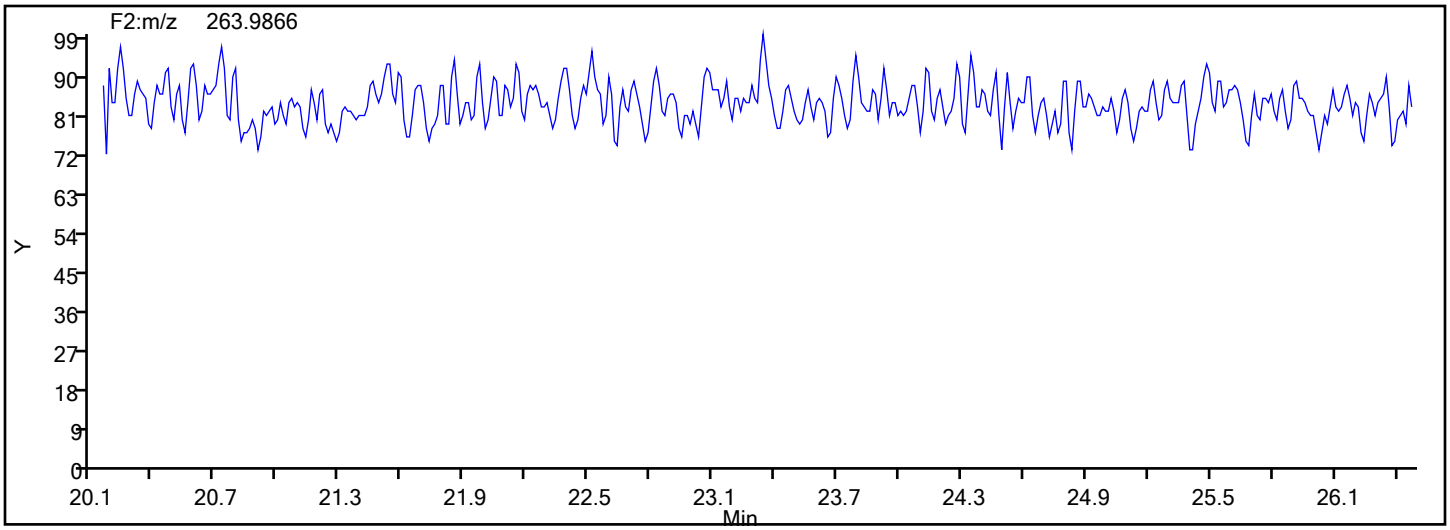
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



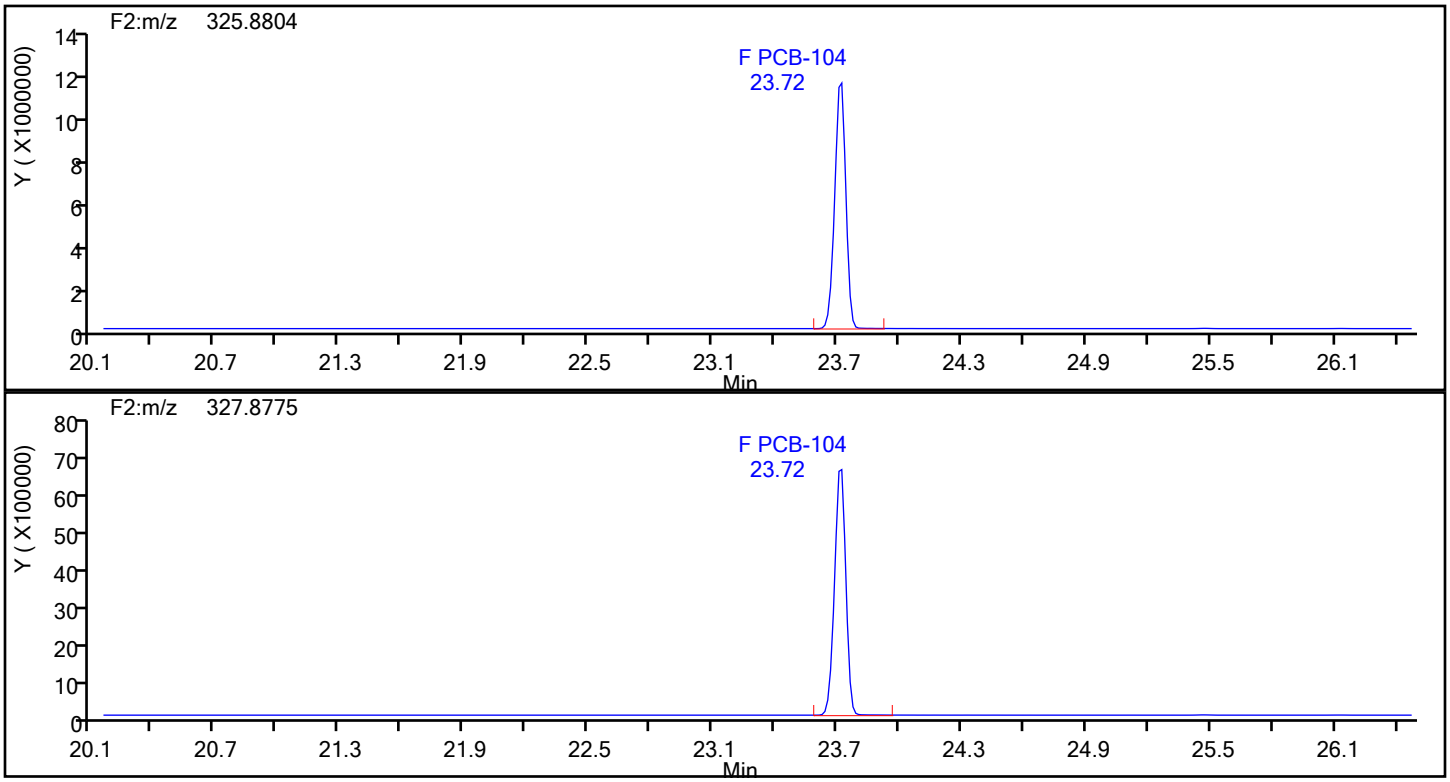
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

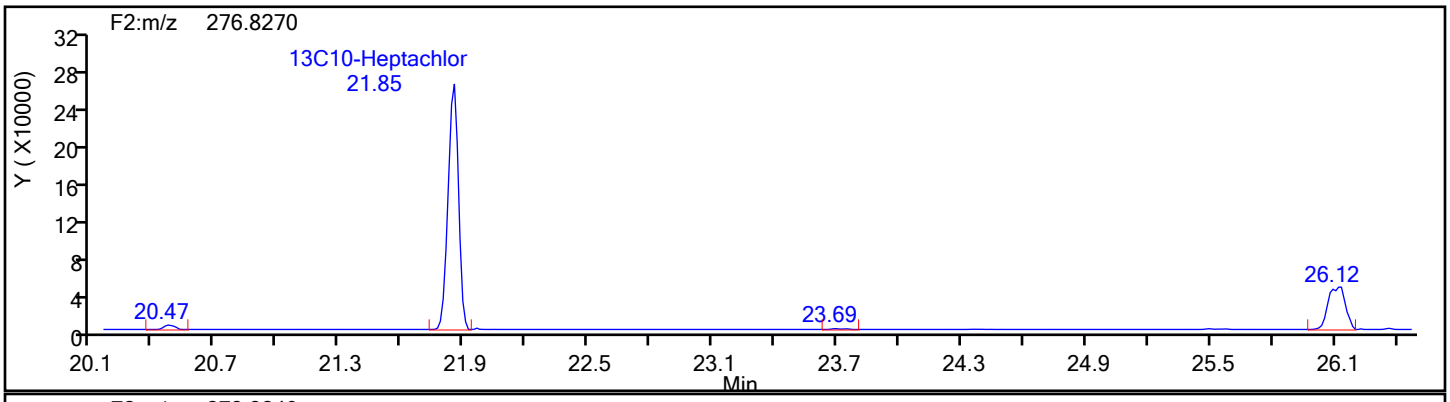
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

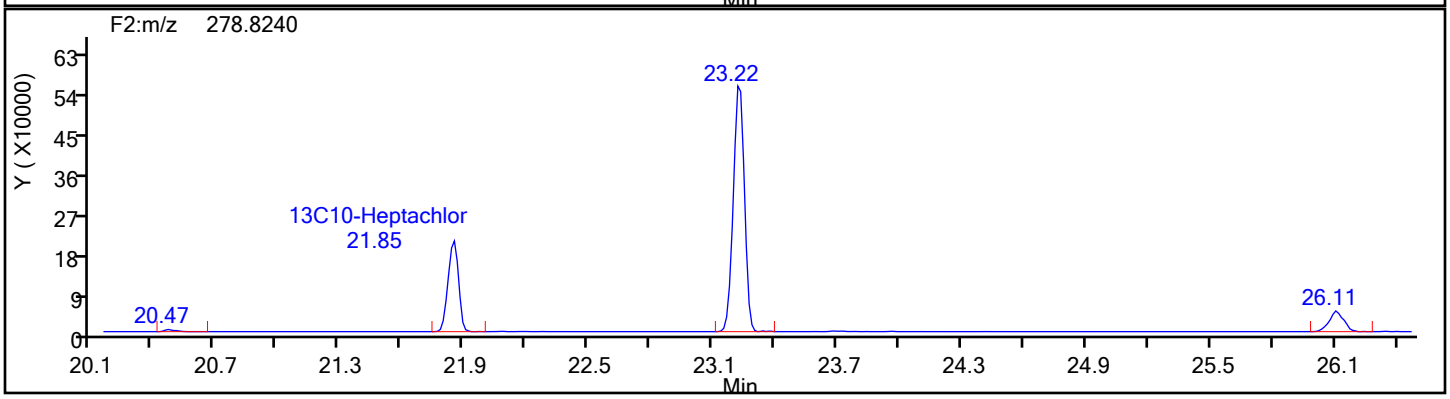
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards



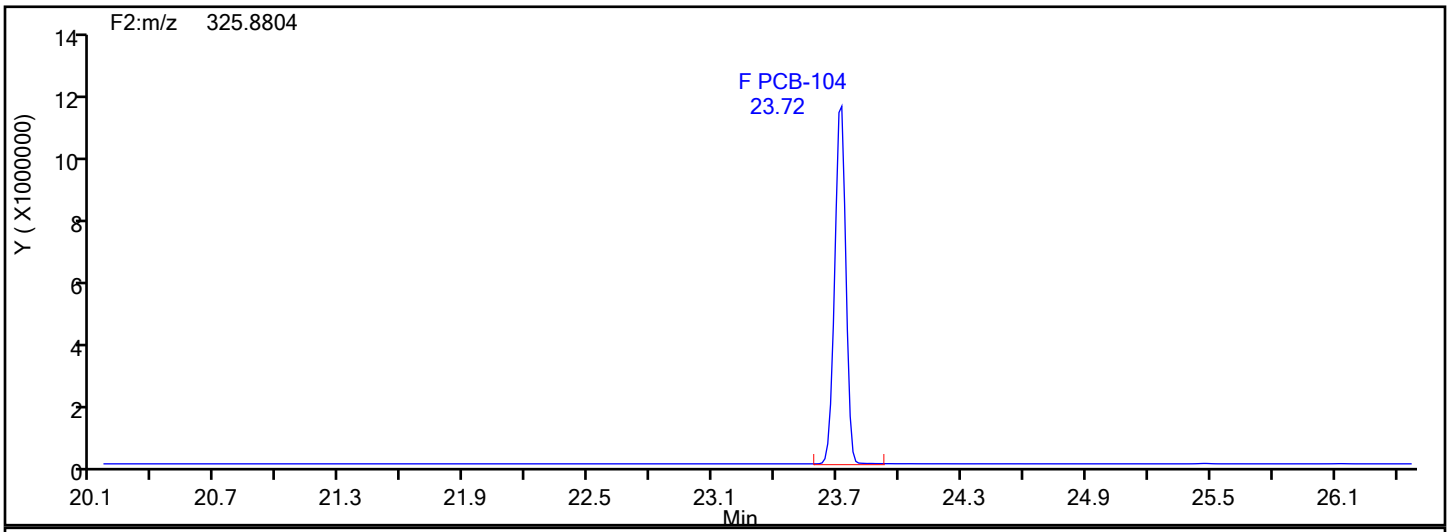


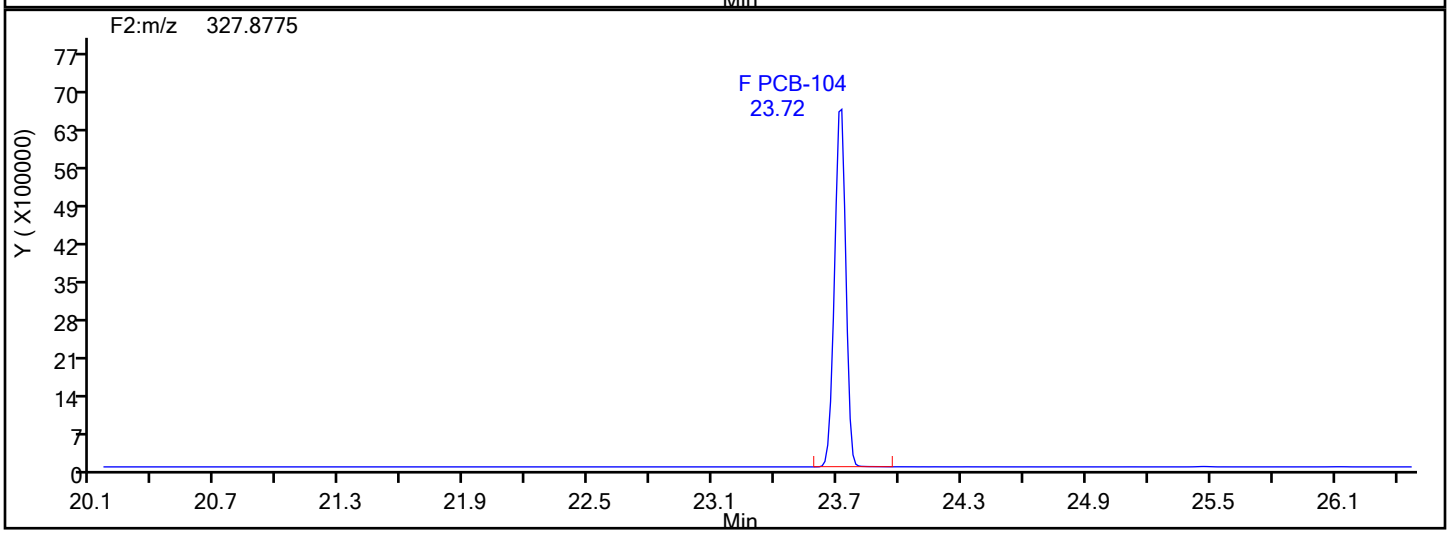
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

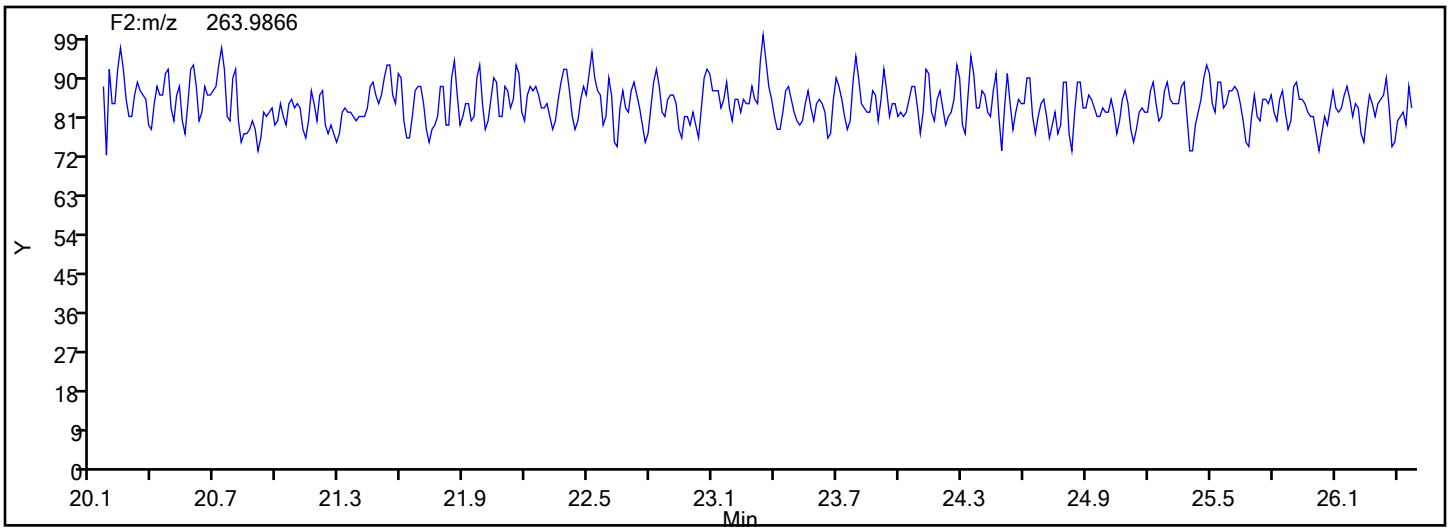
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



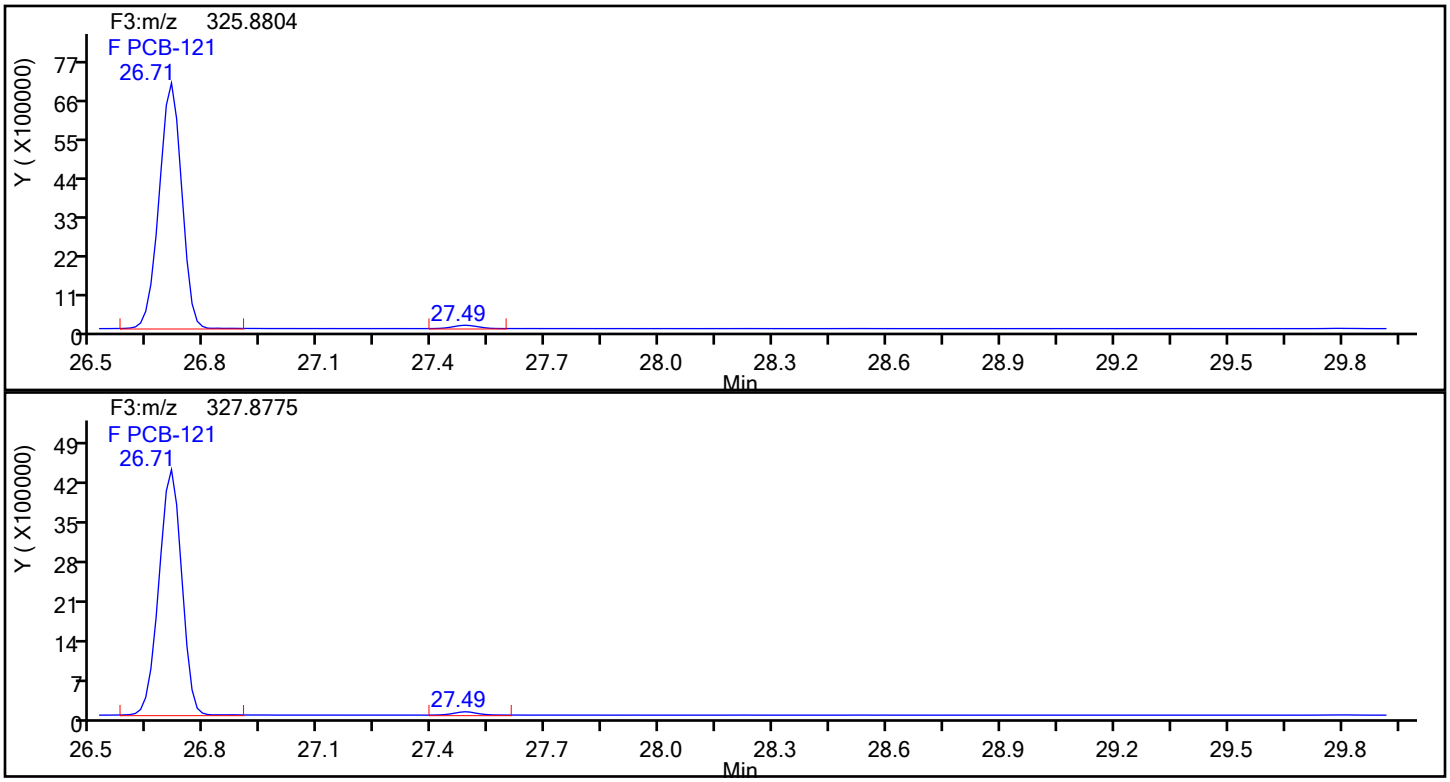
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

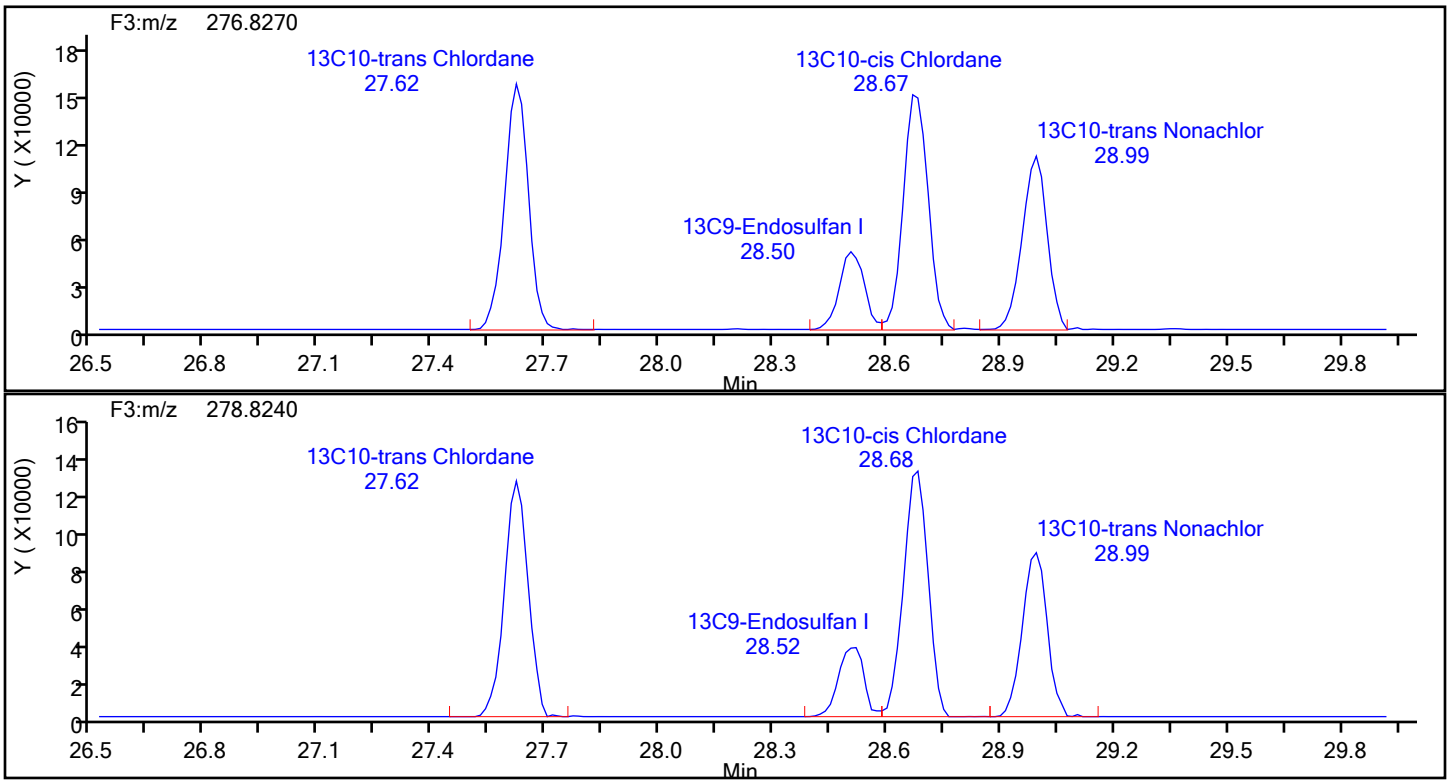
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

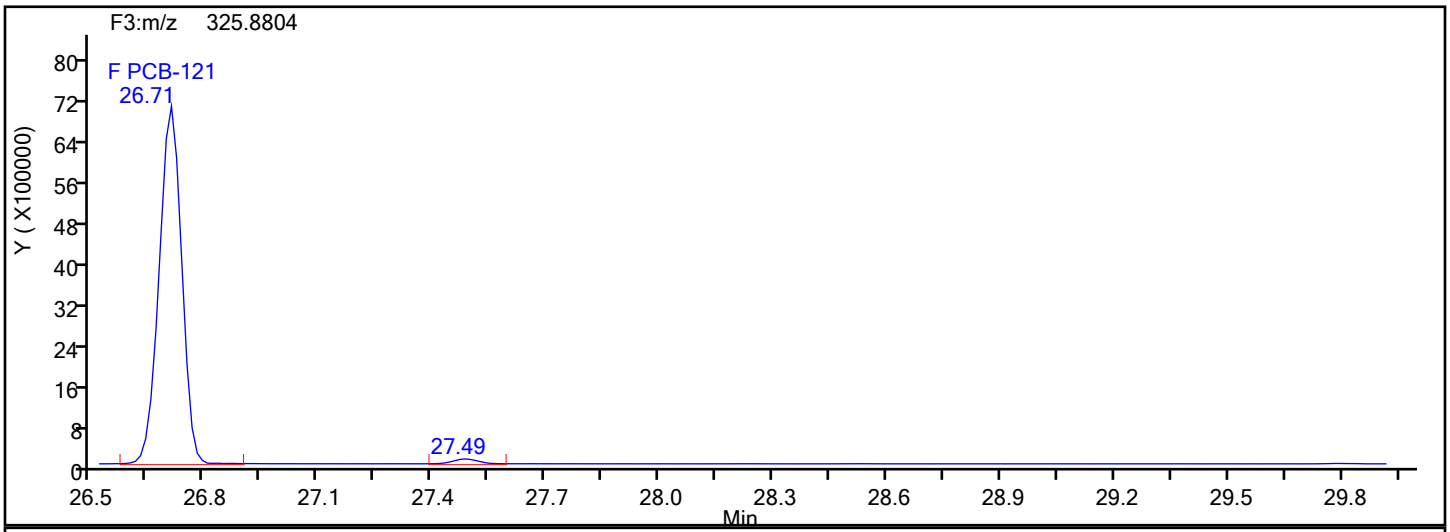


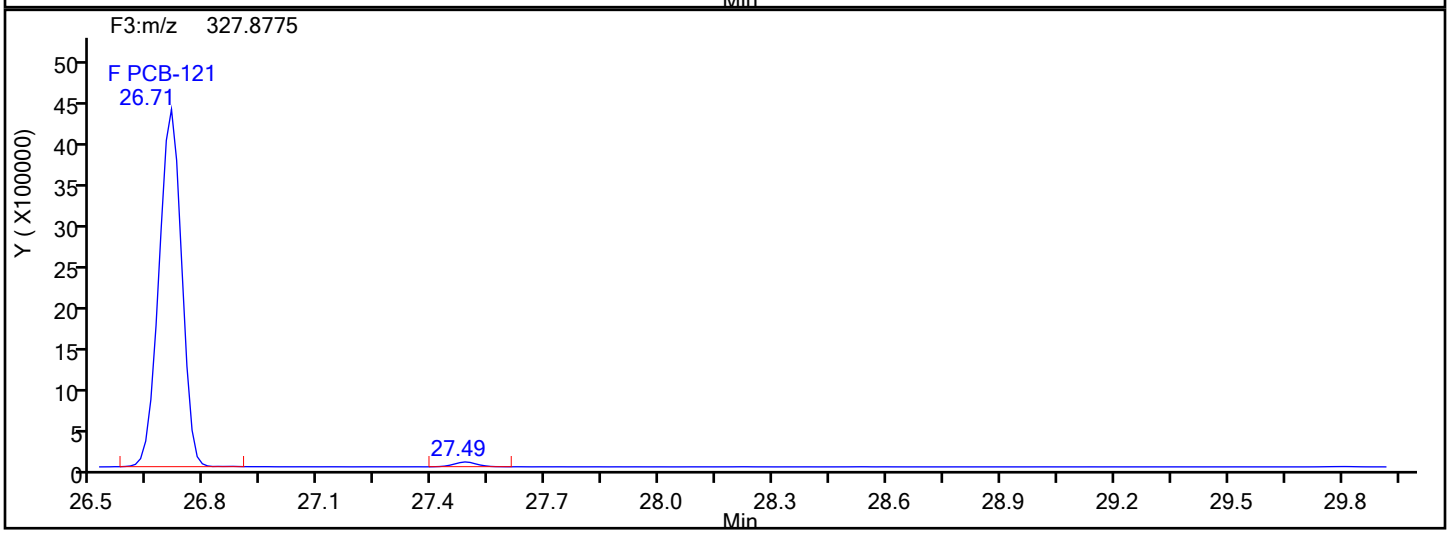
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

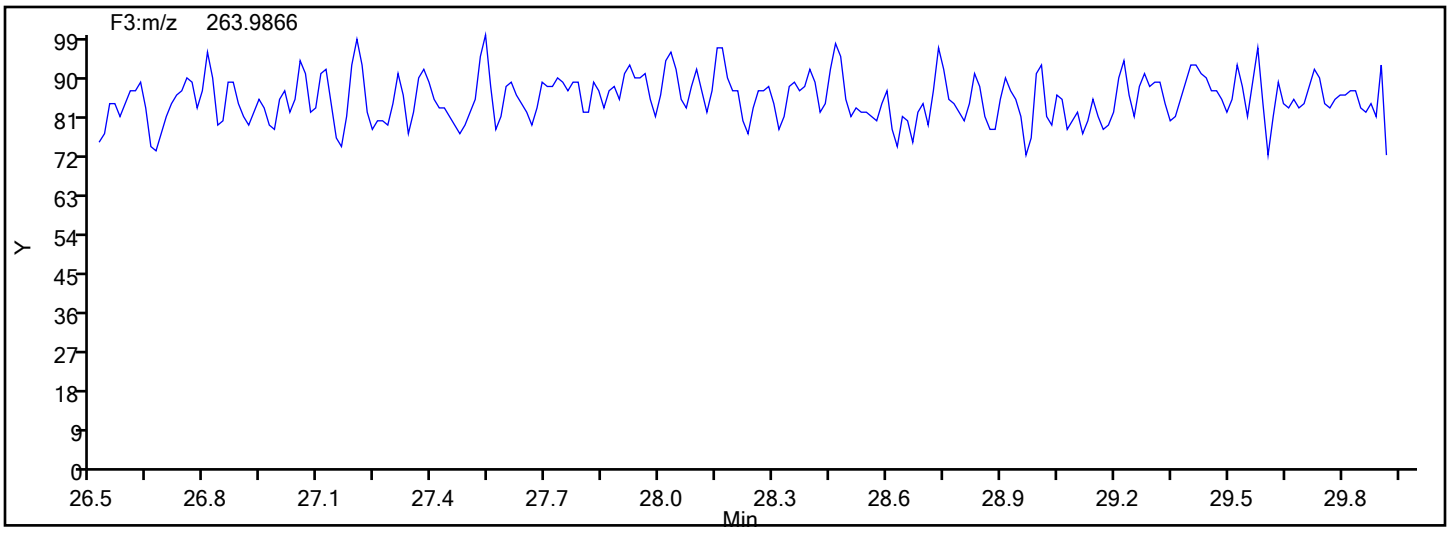
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



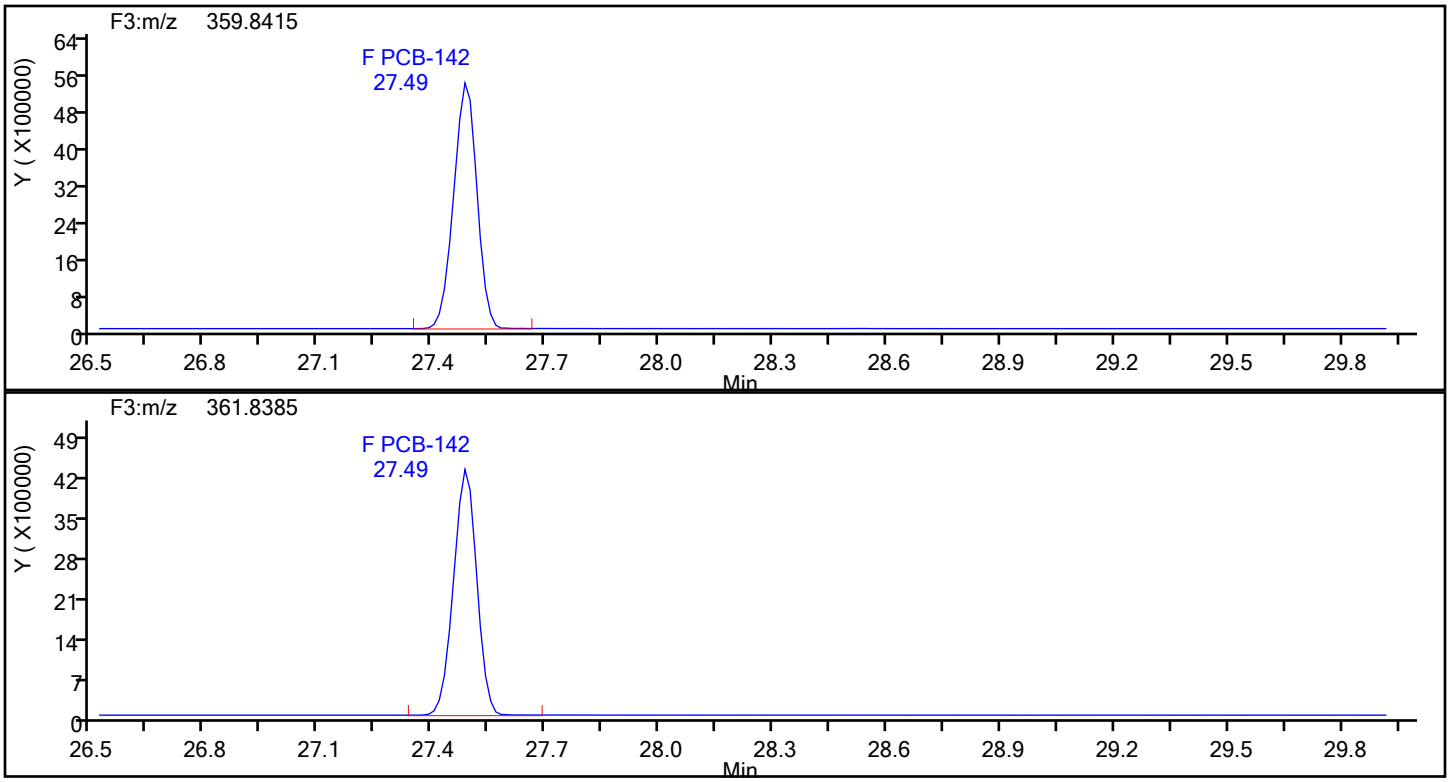
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

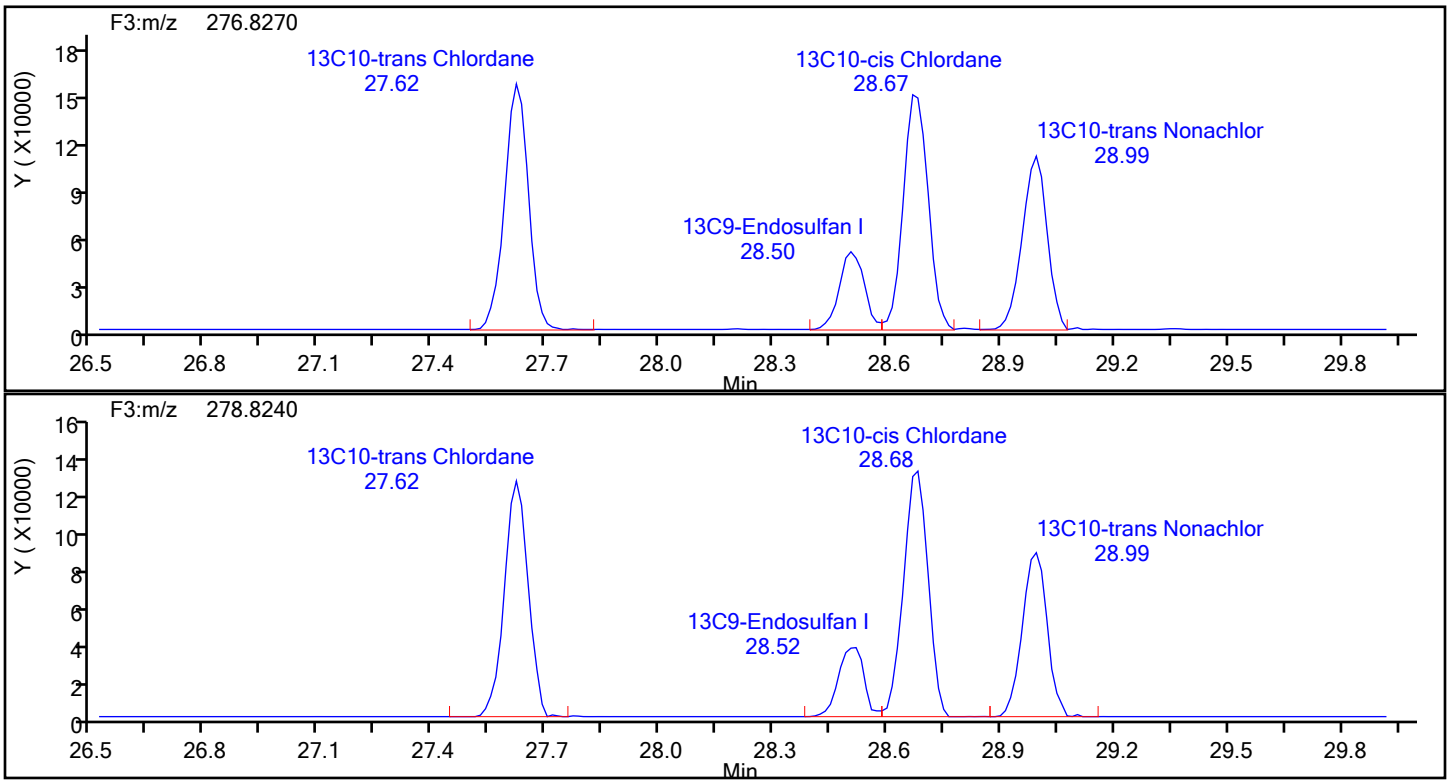
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards

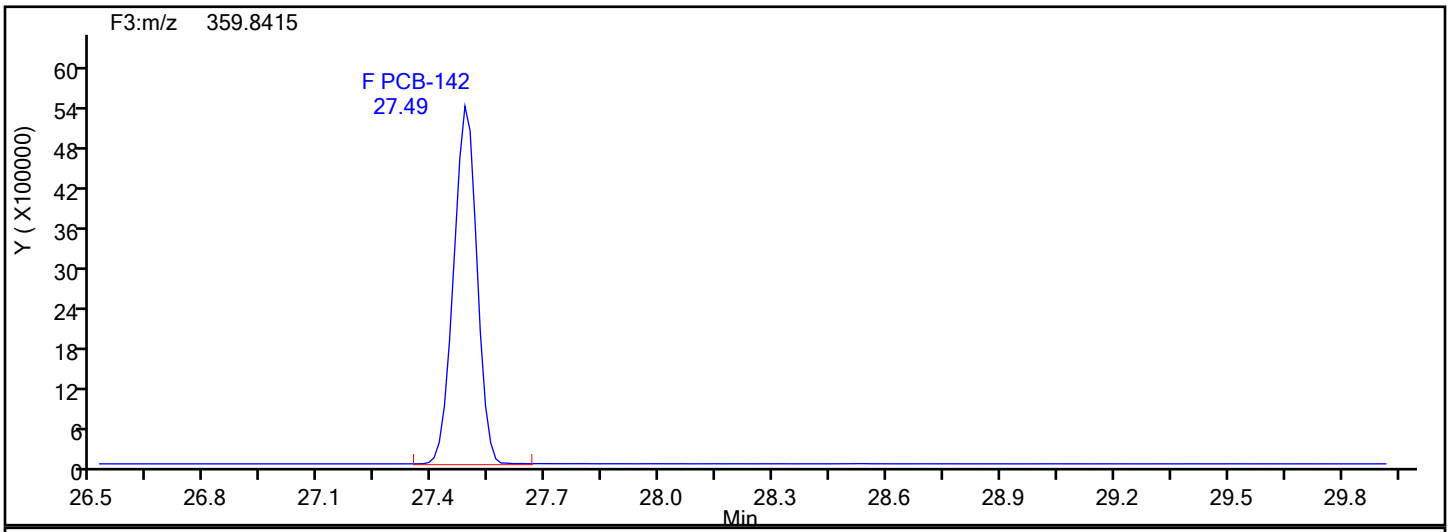


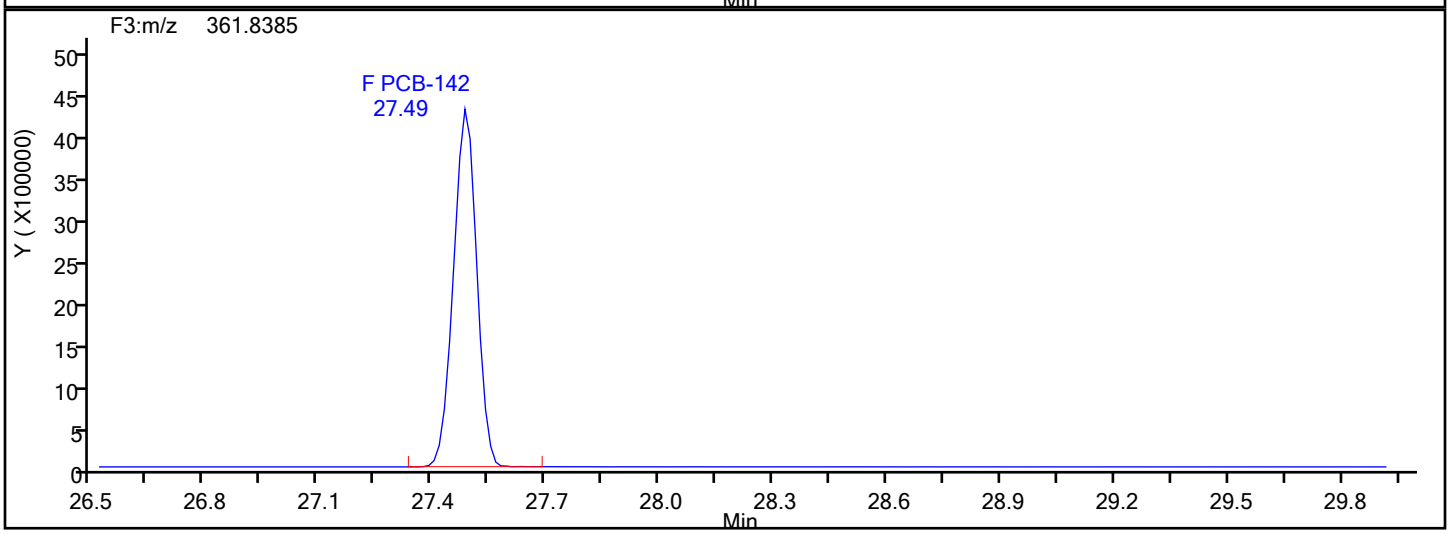
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

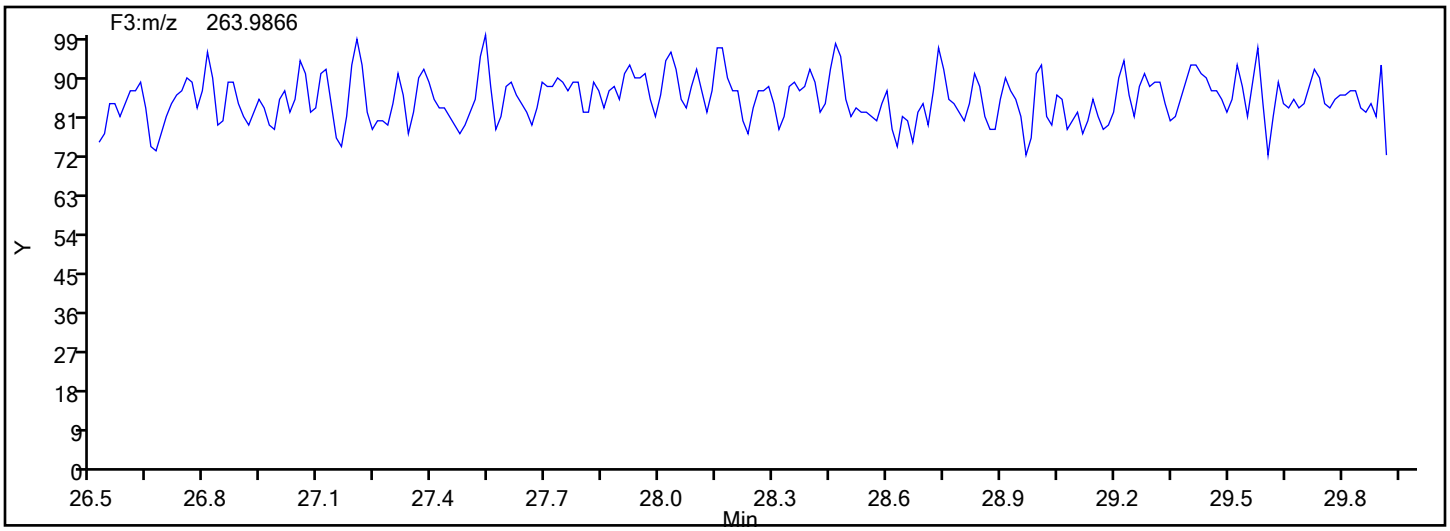
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



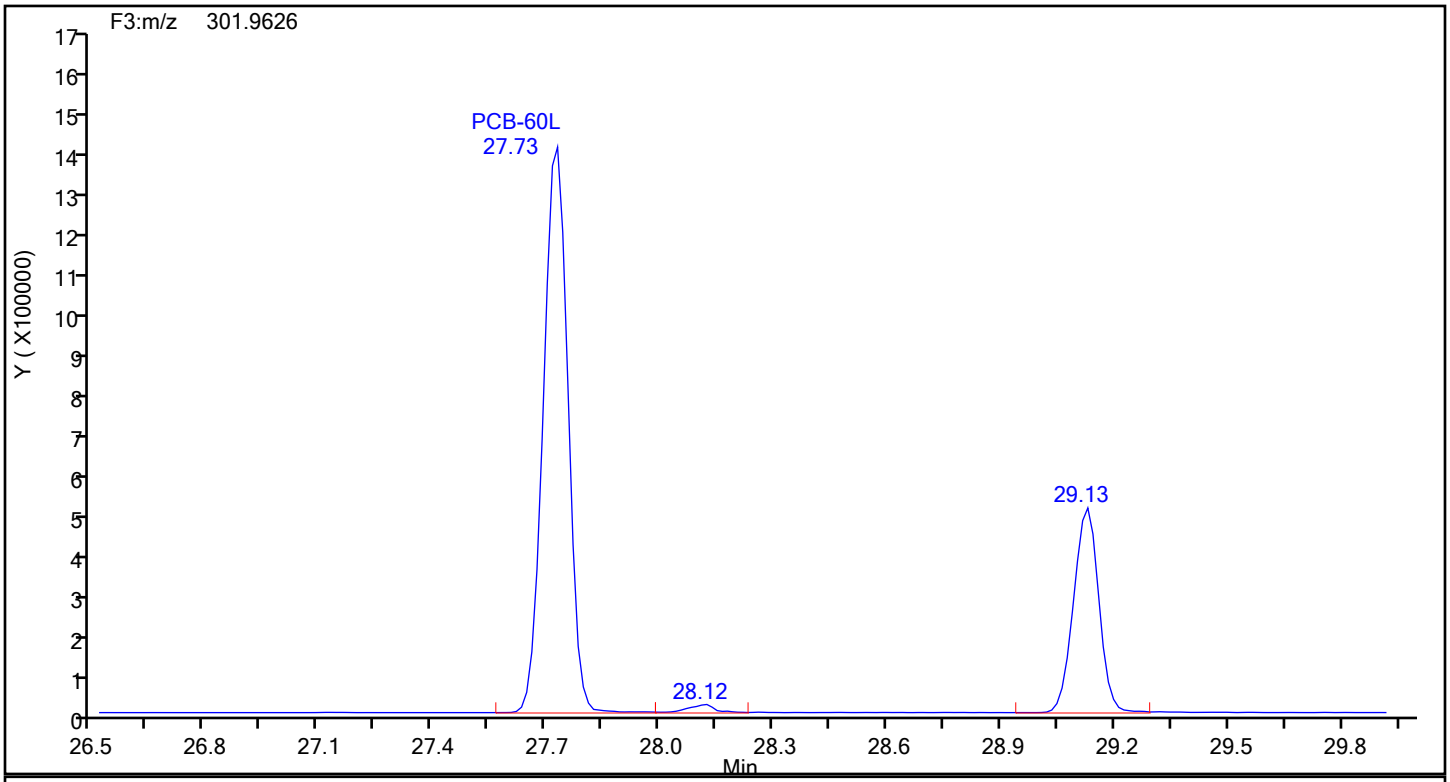
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

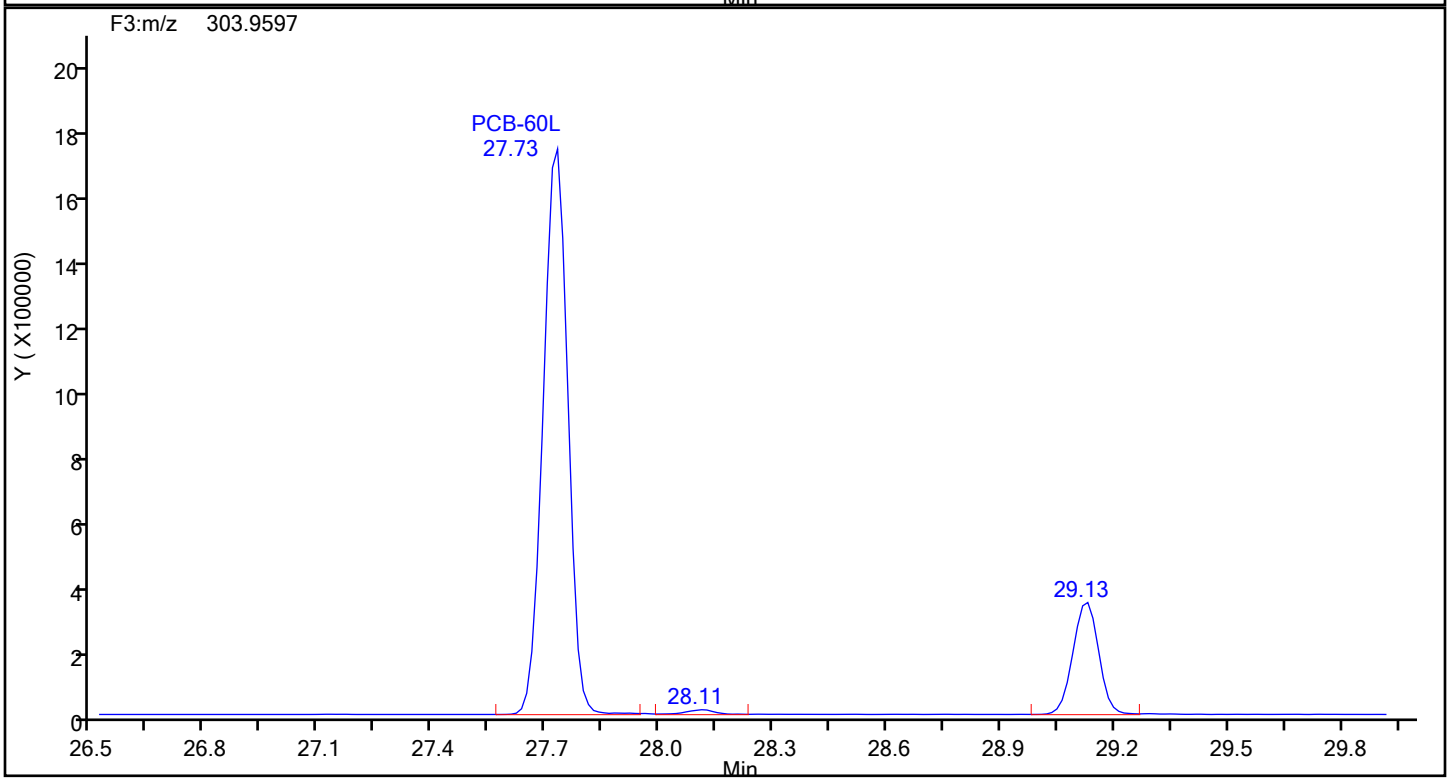
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

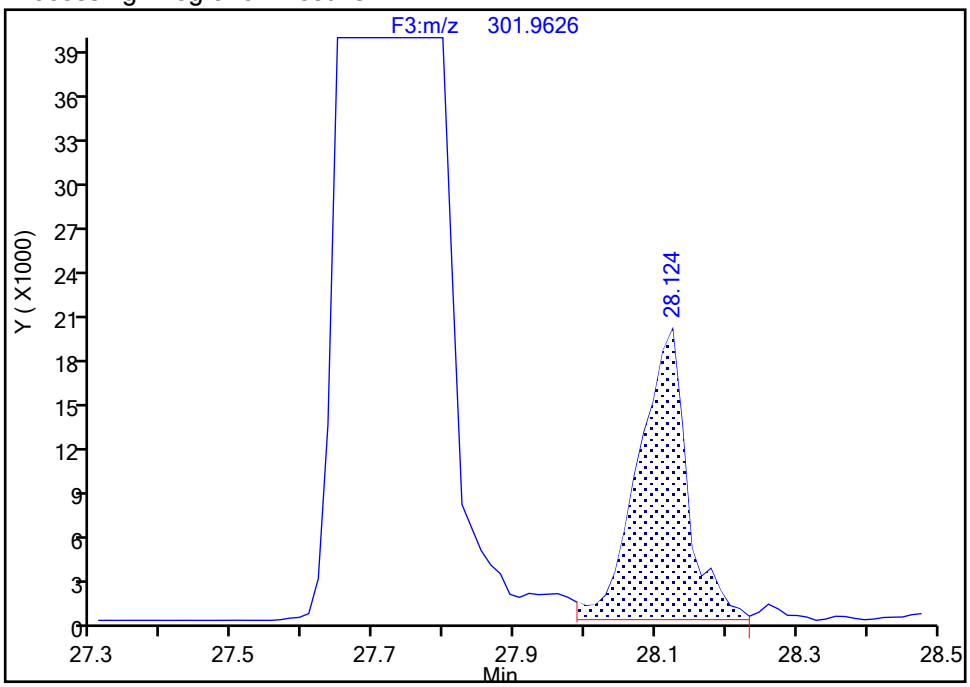
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Instrument ID: D3PST
Lims ID: IC L7
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

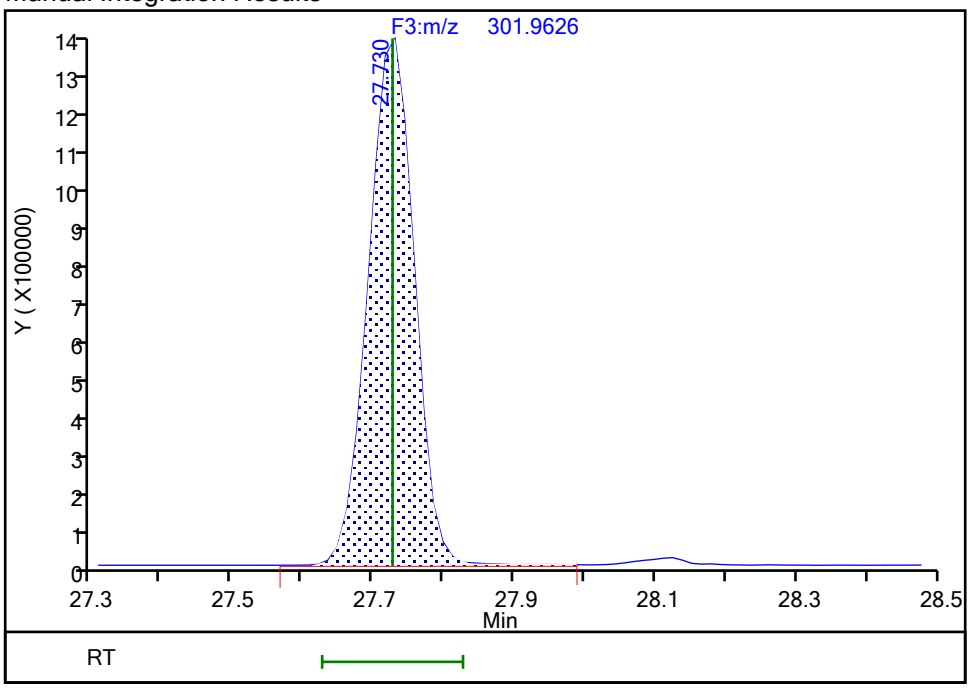
Processing Integration Results

RT: 28.12
Area: 96201
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 6270905
Amount: 100.0000
Amount Units: pg/ul



Reviewer: F9EE, 20-Mar-2025 15:39:33 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

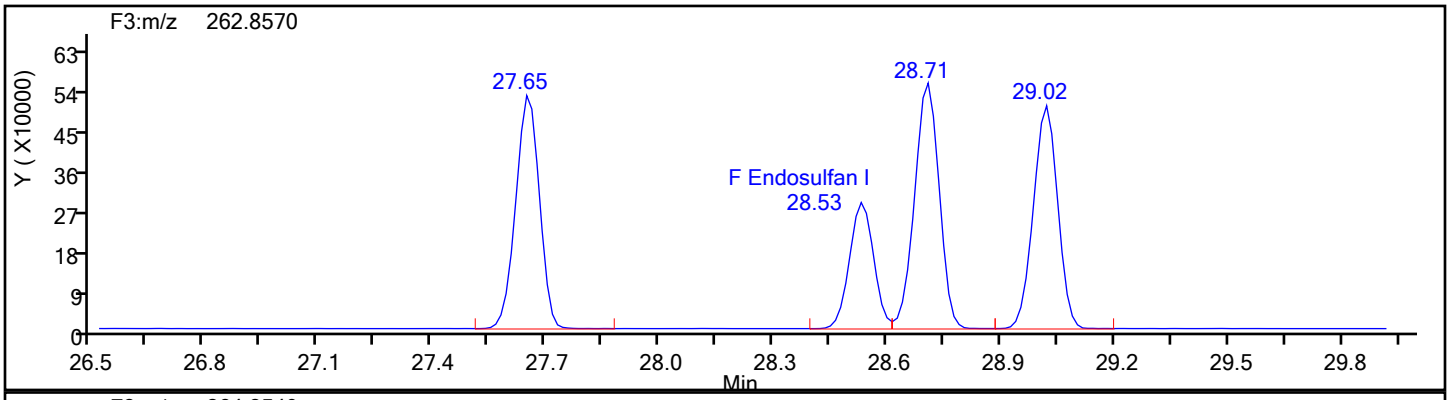
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

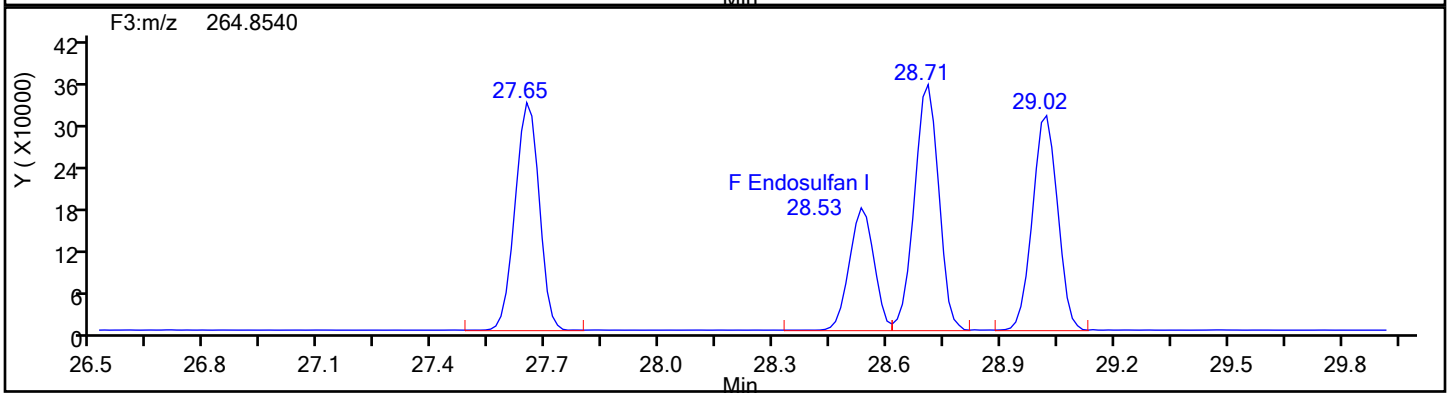
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

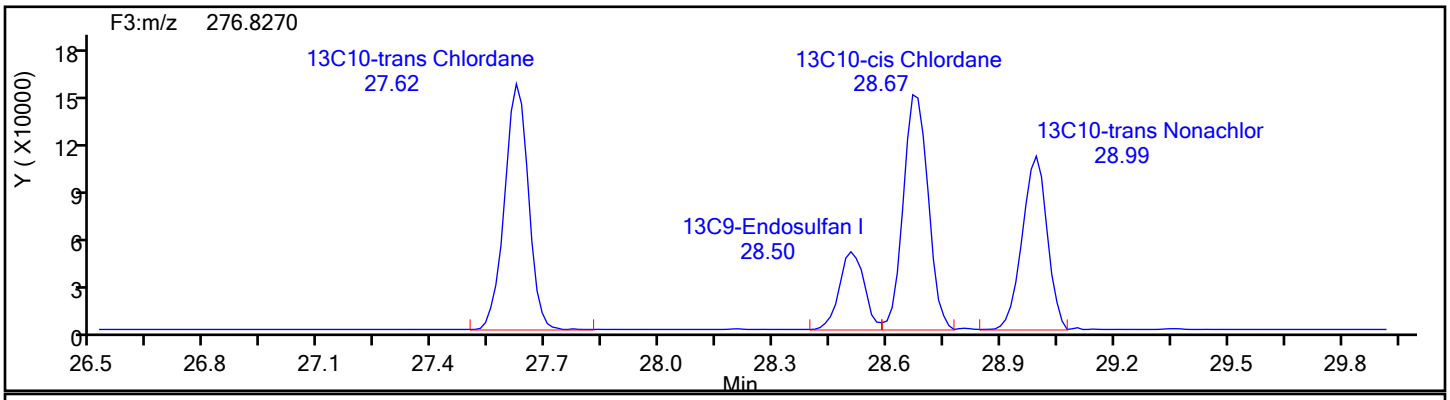
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

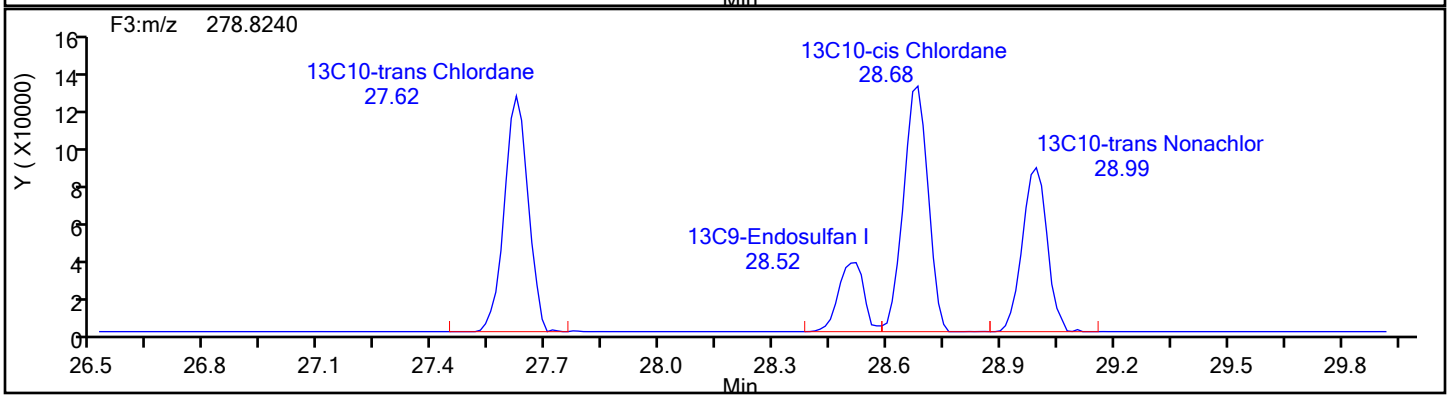
Endosulfan I





Endosulfan I Standards



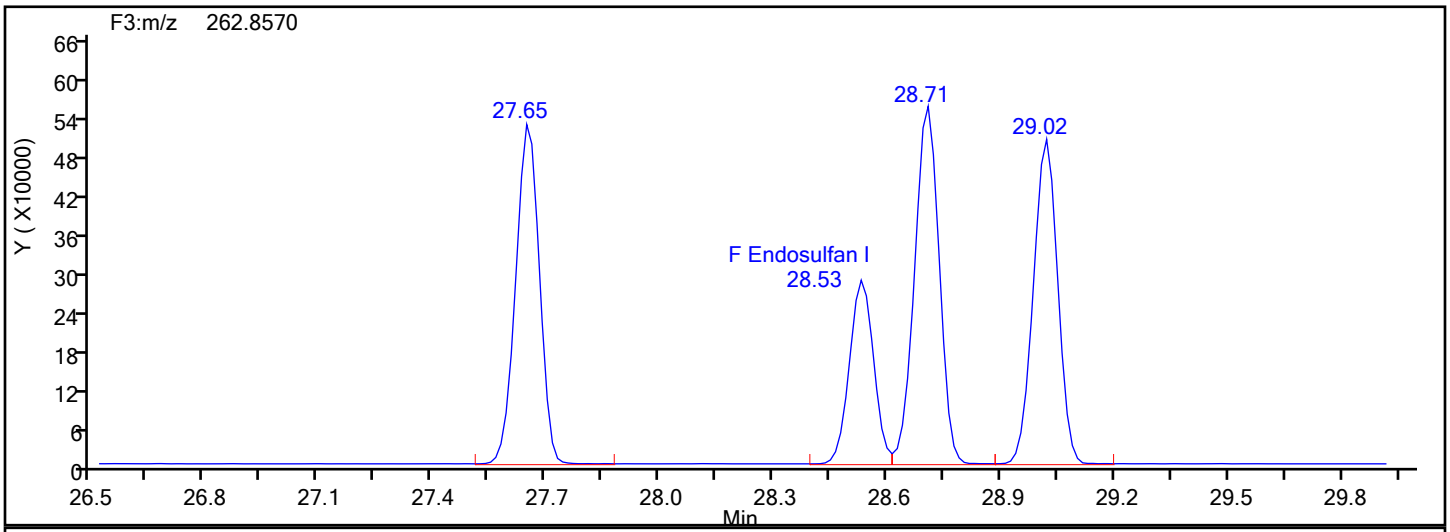


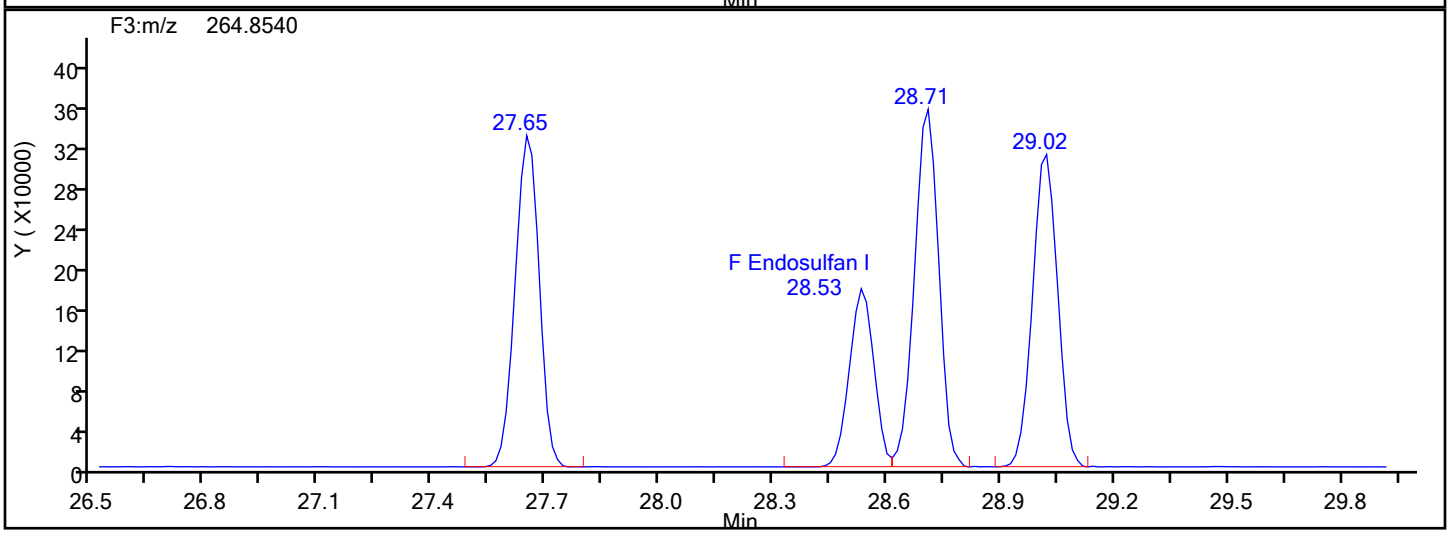
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

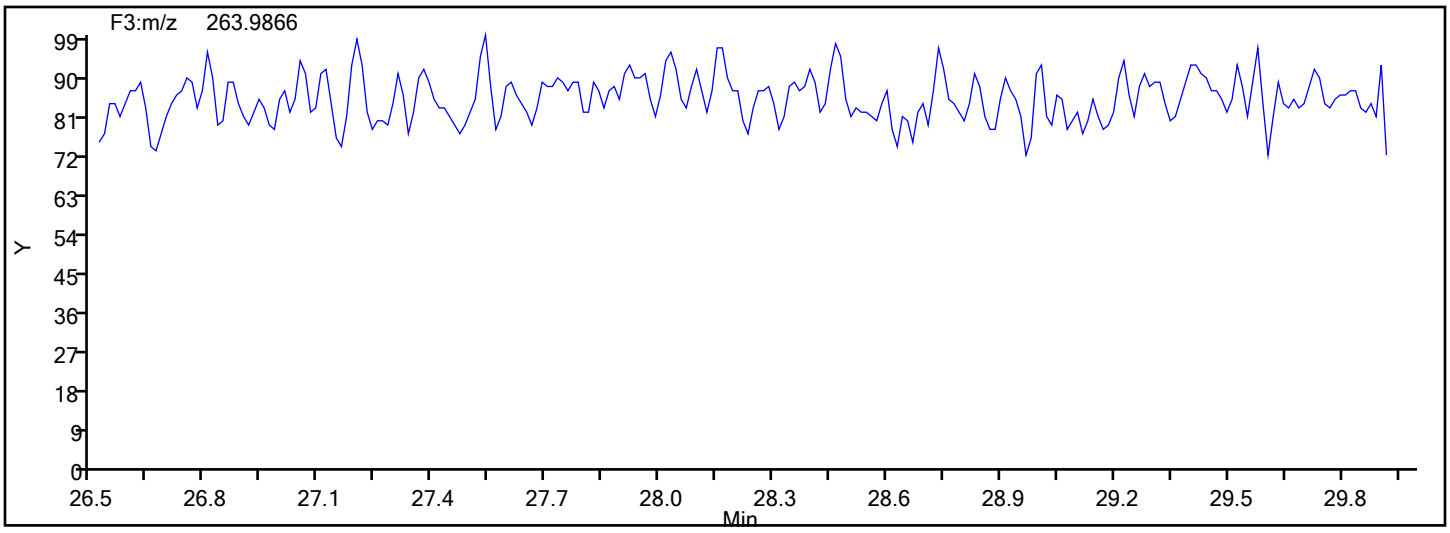
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



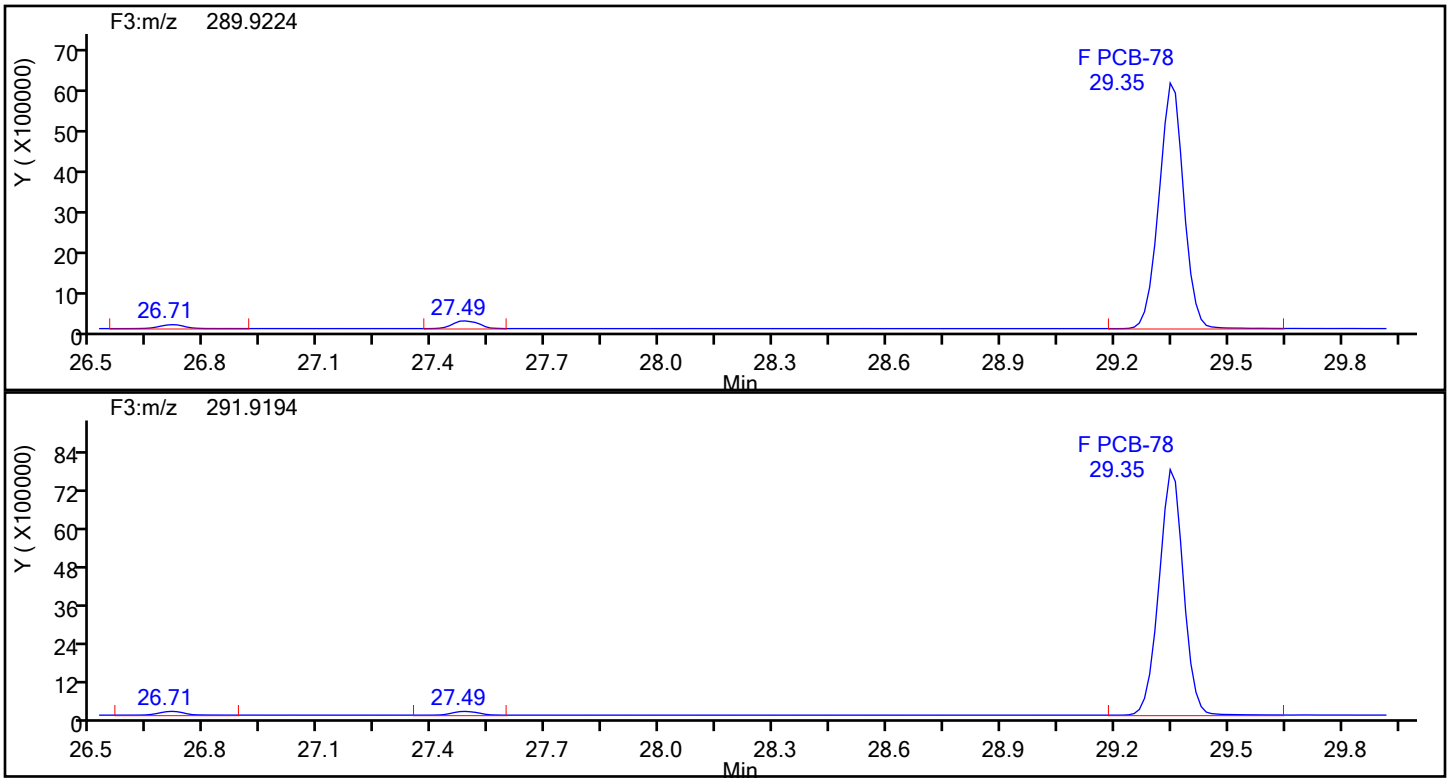
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

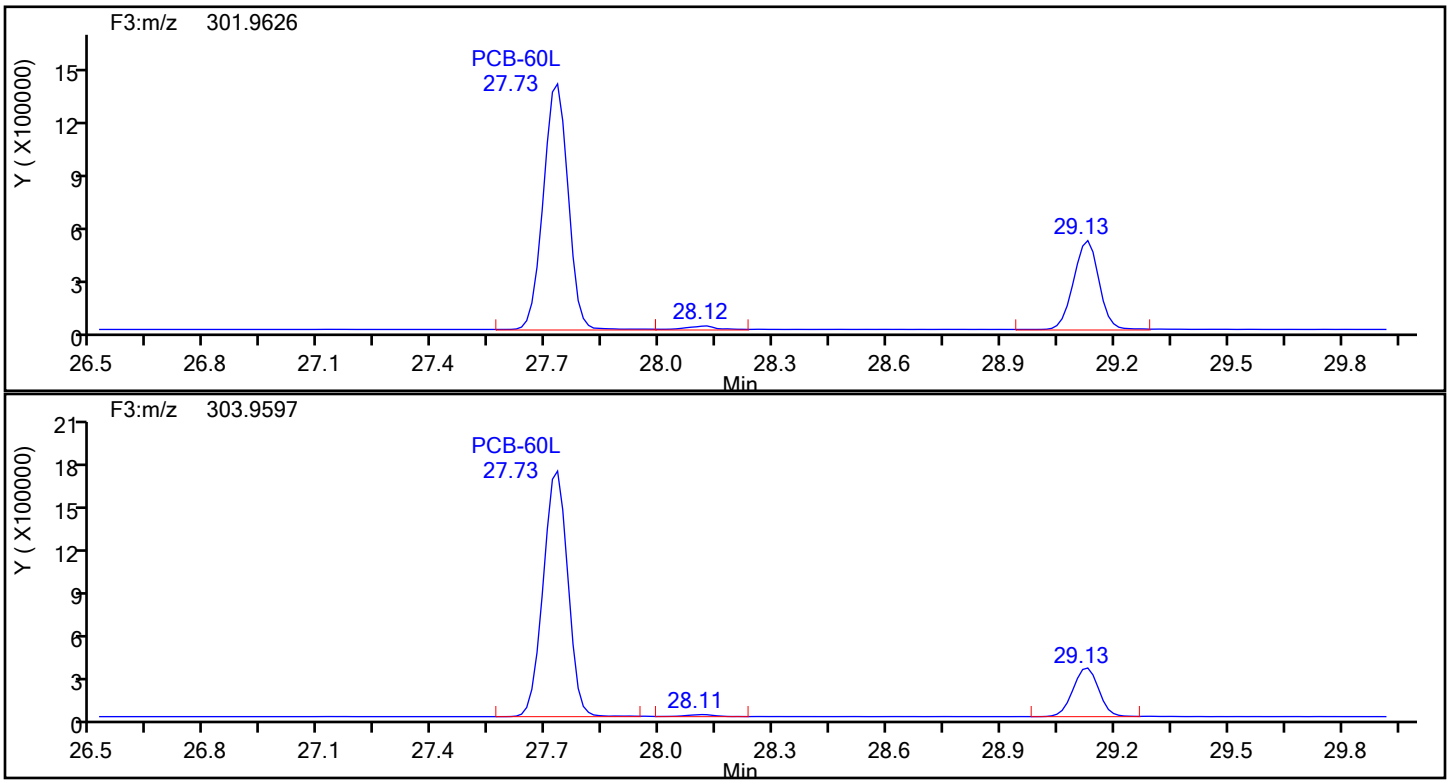
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

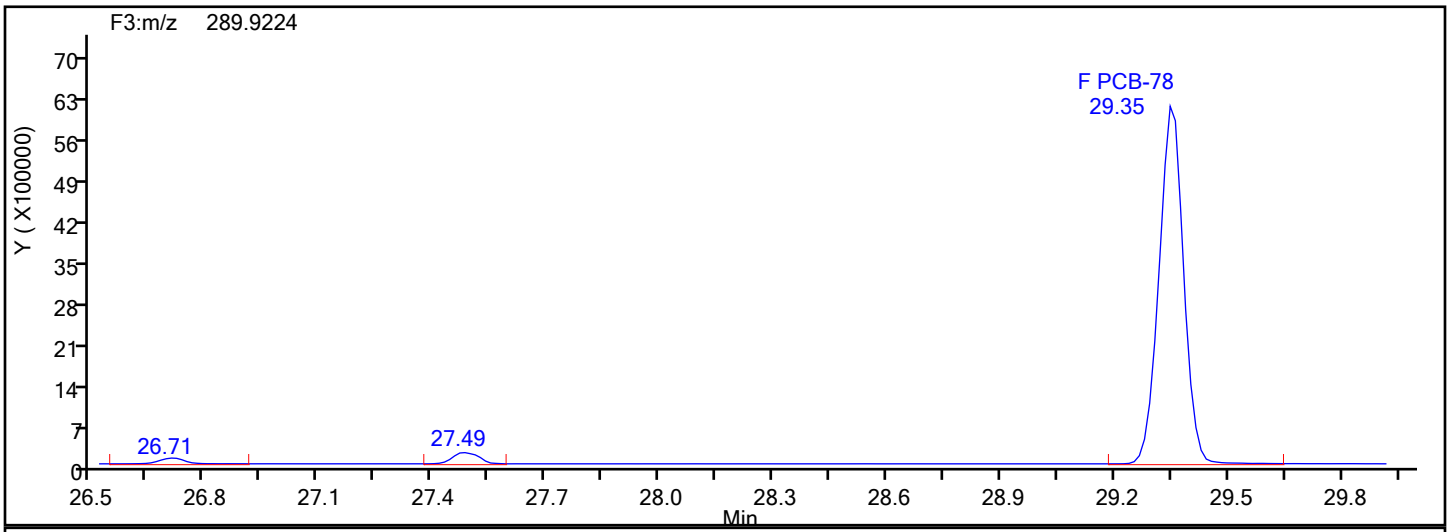


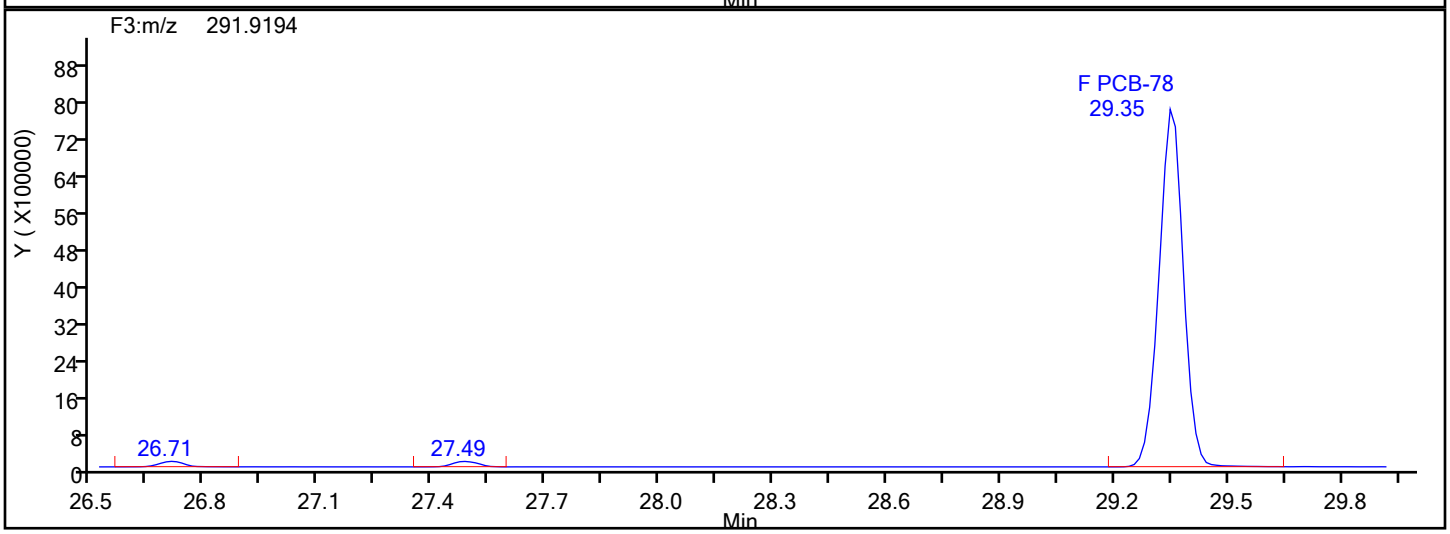
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

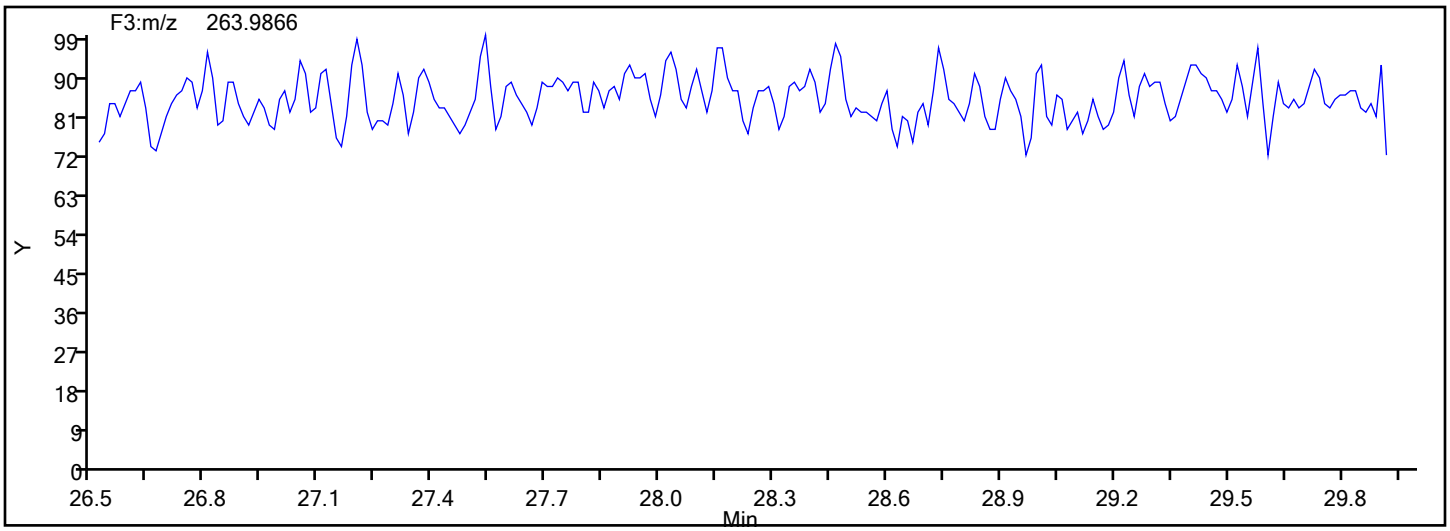
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

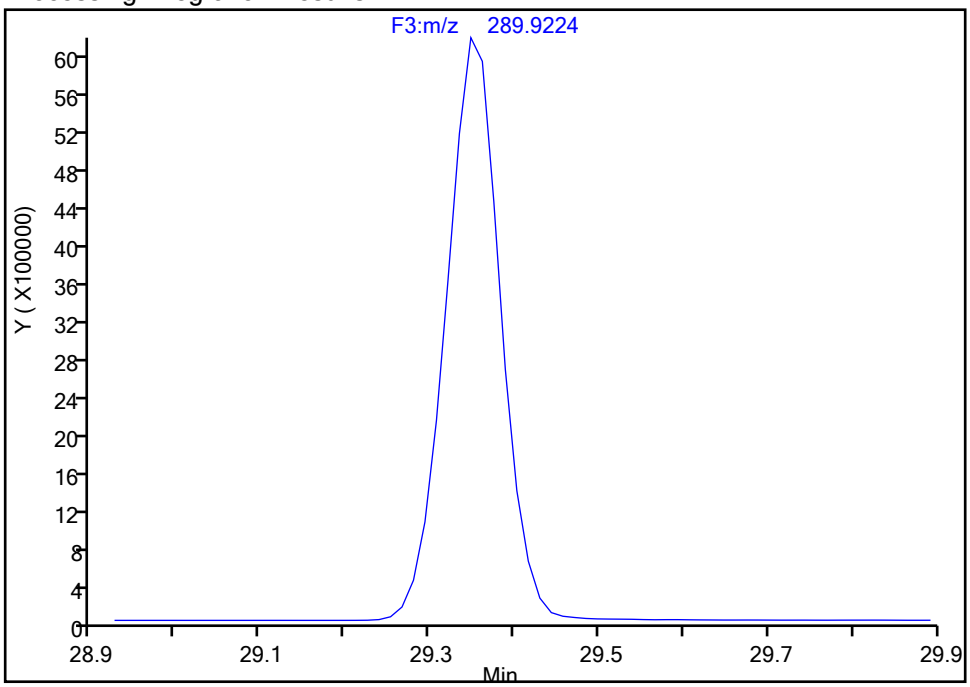
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Instrument ID: D3PST
Lims ID: IC L7
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

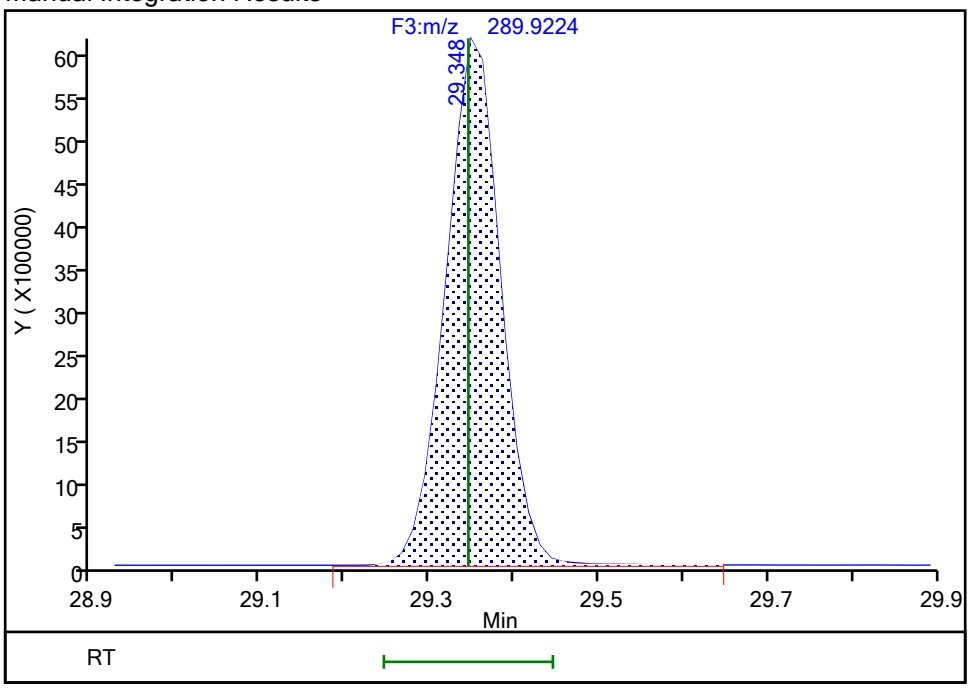
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.35
Area: 27595479
Amount: 486.5962
Amount Units: pg/ul



Reviewer: F9EE, 24-Mar-2025 12:55:59 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Knoxville

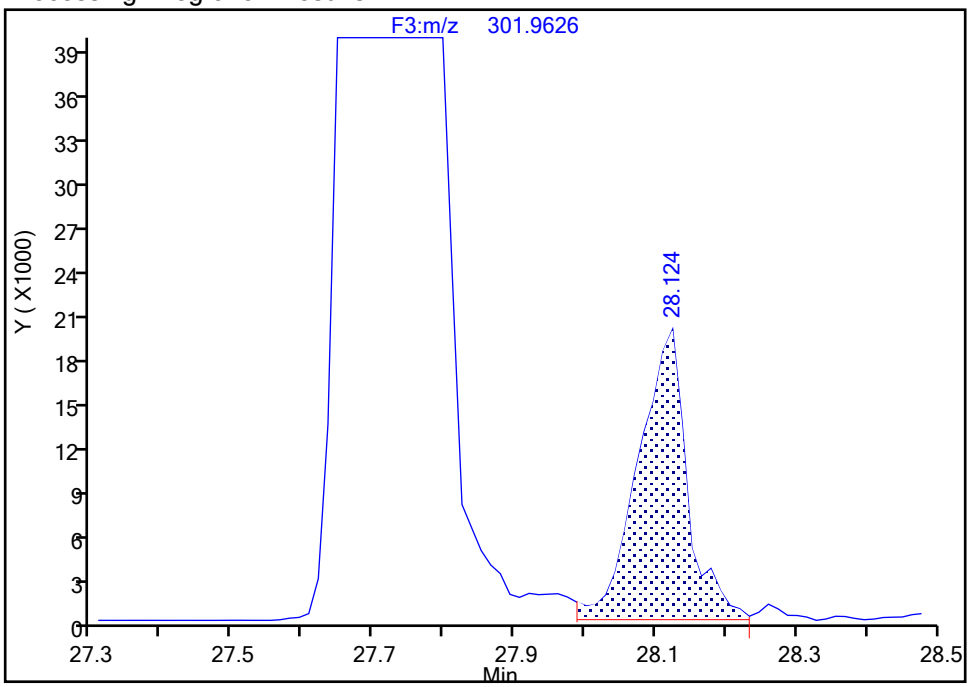
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Instrument ID: D3PST
Lims ID: IC L7
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-60L, CAS: STL02699

Signal: 1

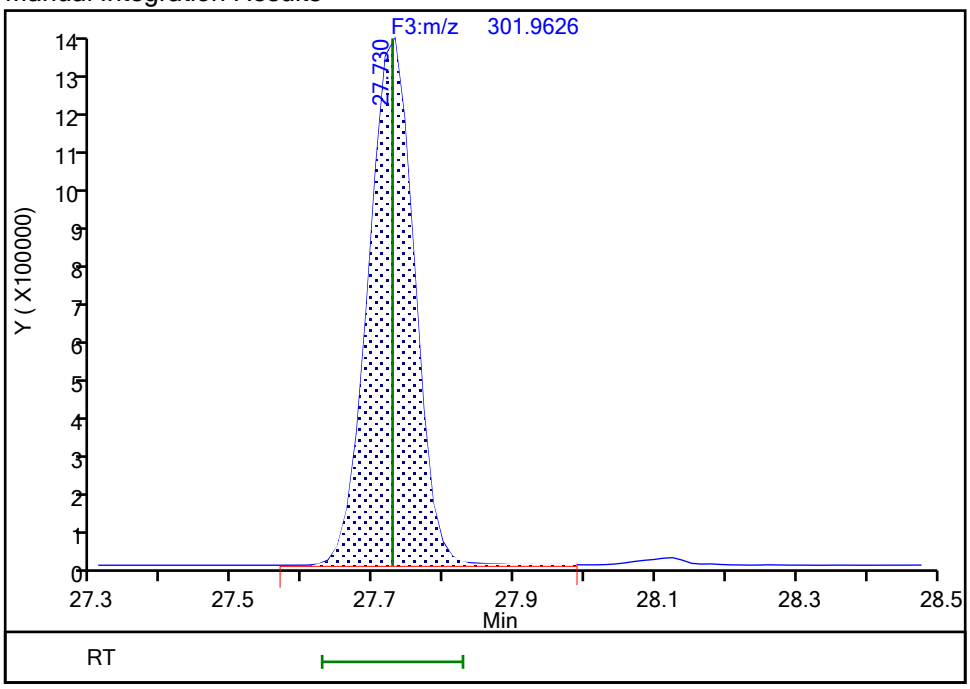
Processing Integration Results

RT: 28.12
Area: 96201
Amount: 100.0000
Amount Units: pg/ul



Manual Integration Results

RT: 27.73
Area: 6270905
Amount: 100.0000
Amount Units: pg/ul



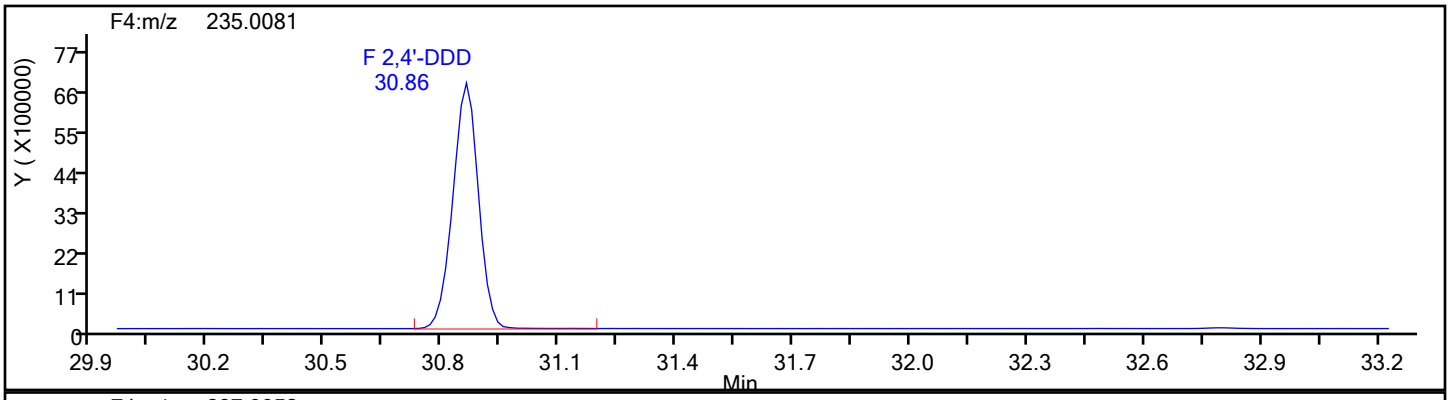
Reviewer: F9EE, 20-Mar-2025 15:39:33 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

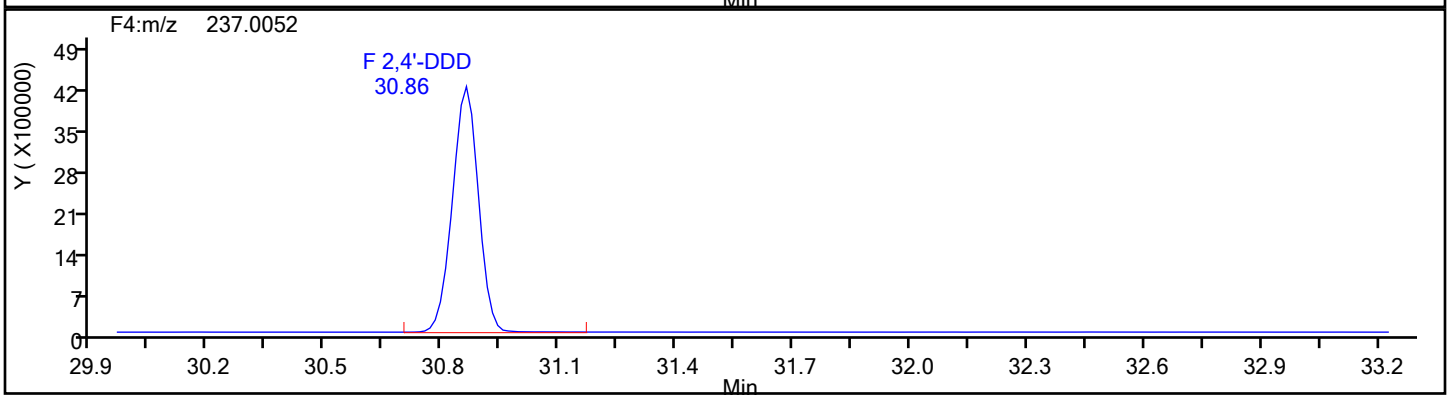
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

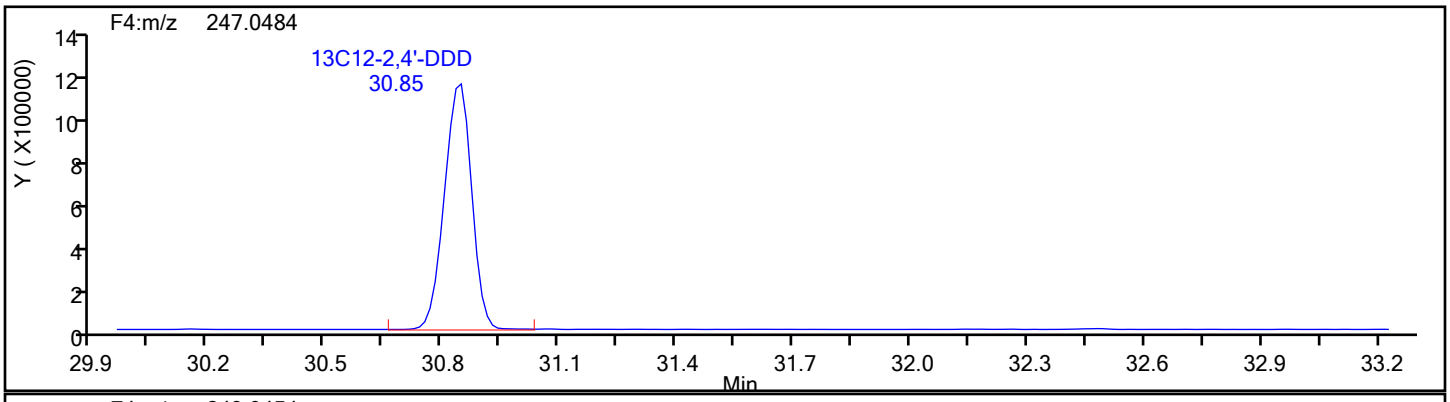
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

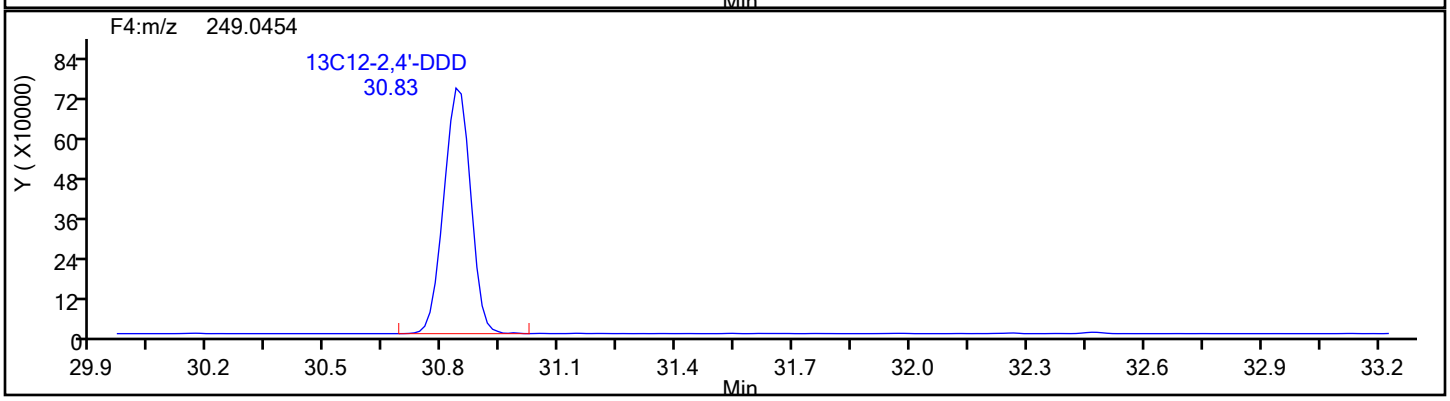
2,4'-DDD





2,4'-DDD Standards



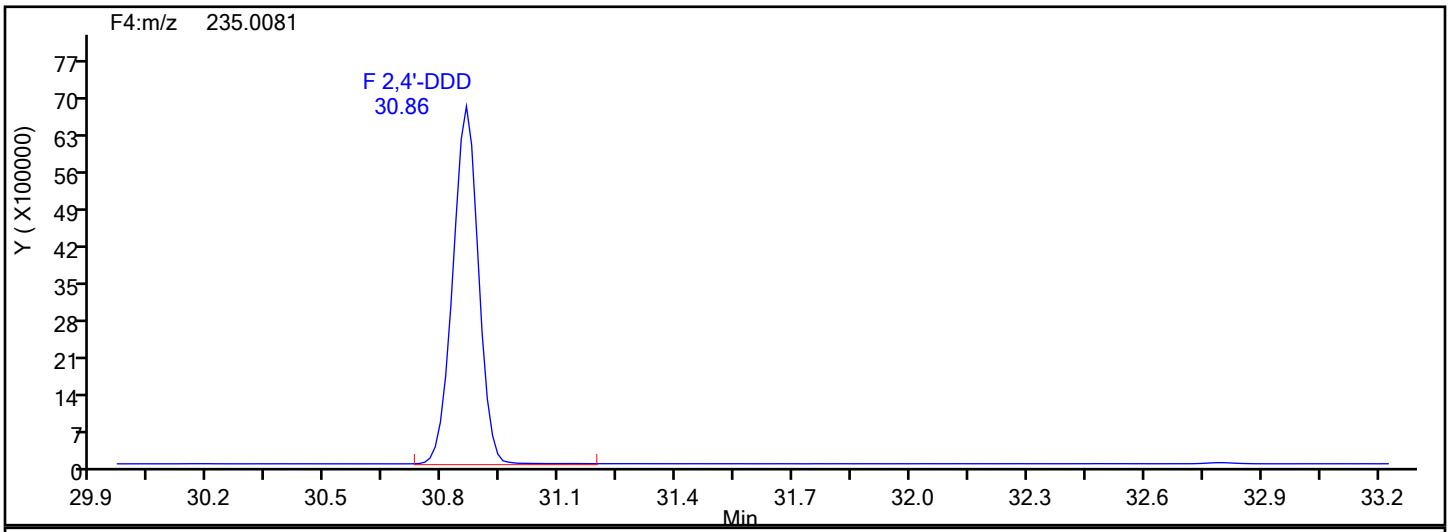


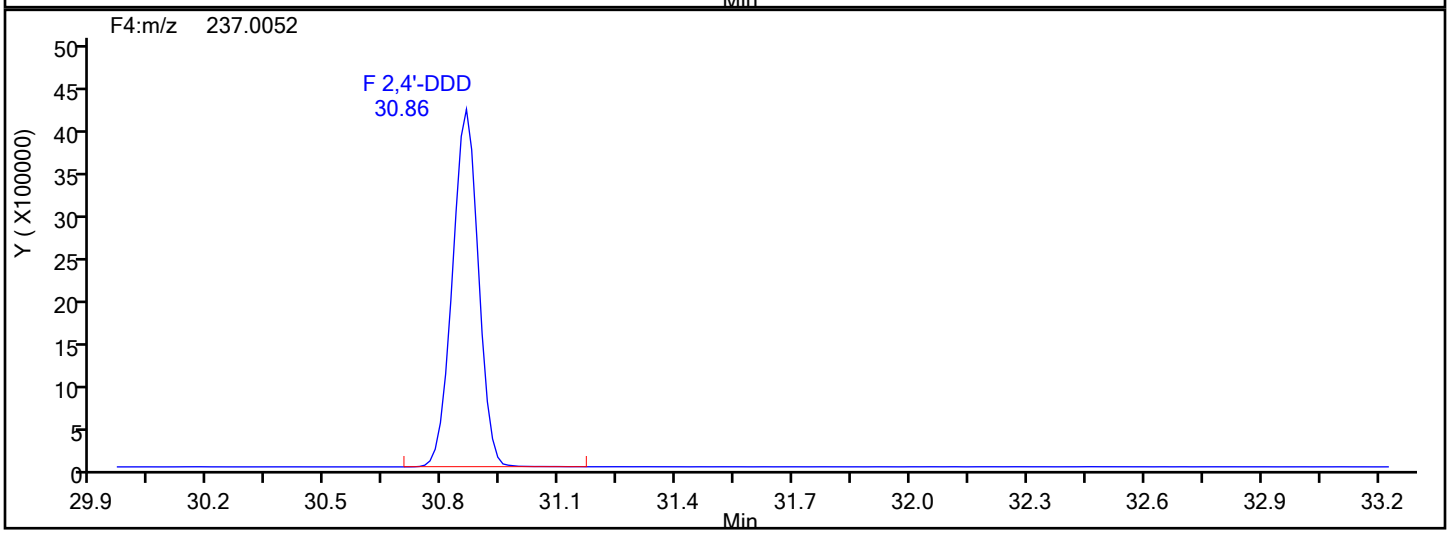
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

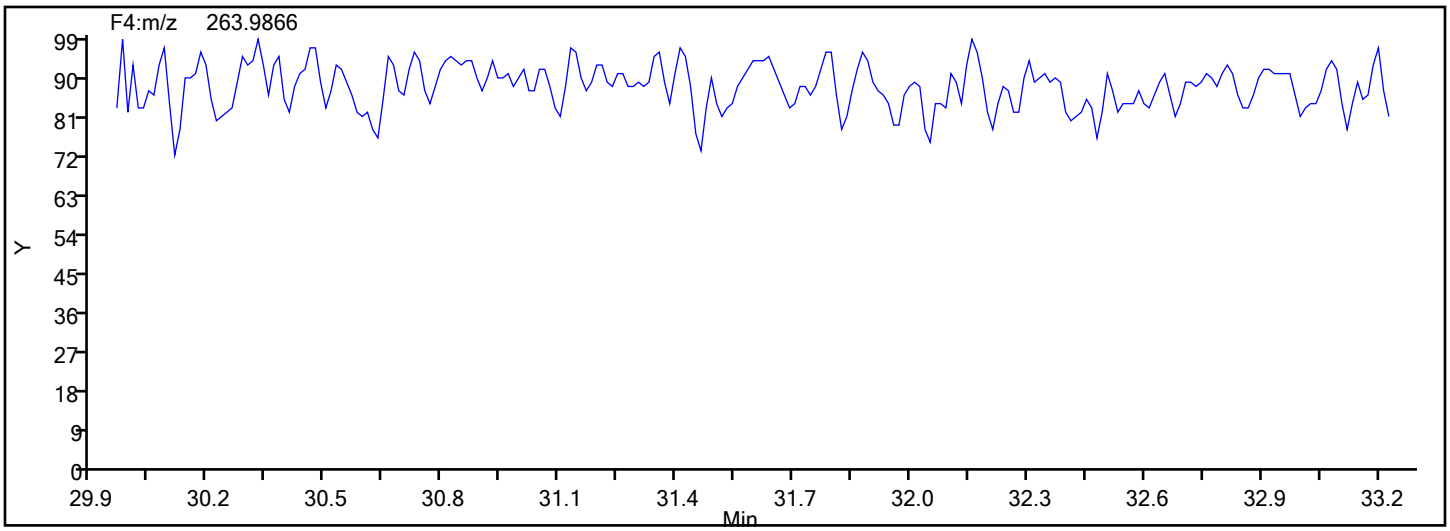
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass

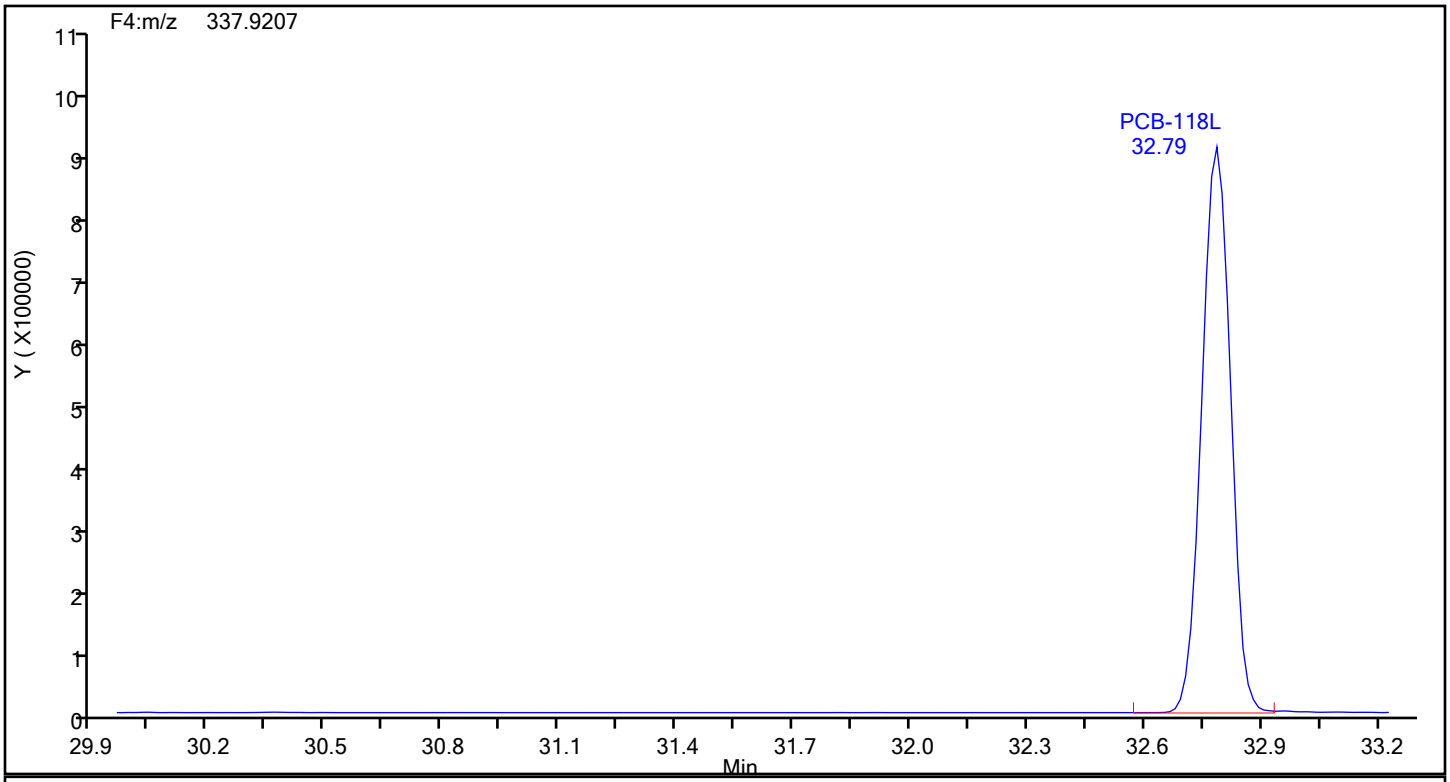


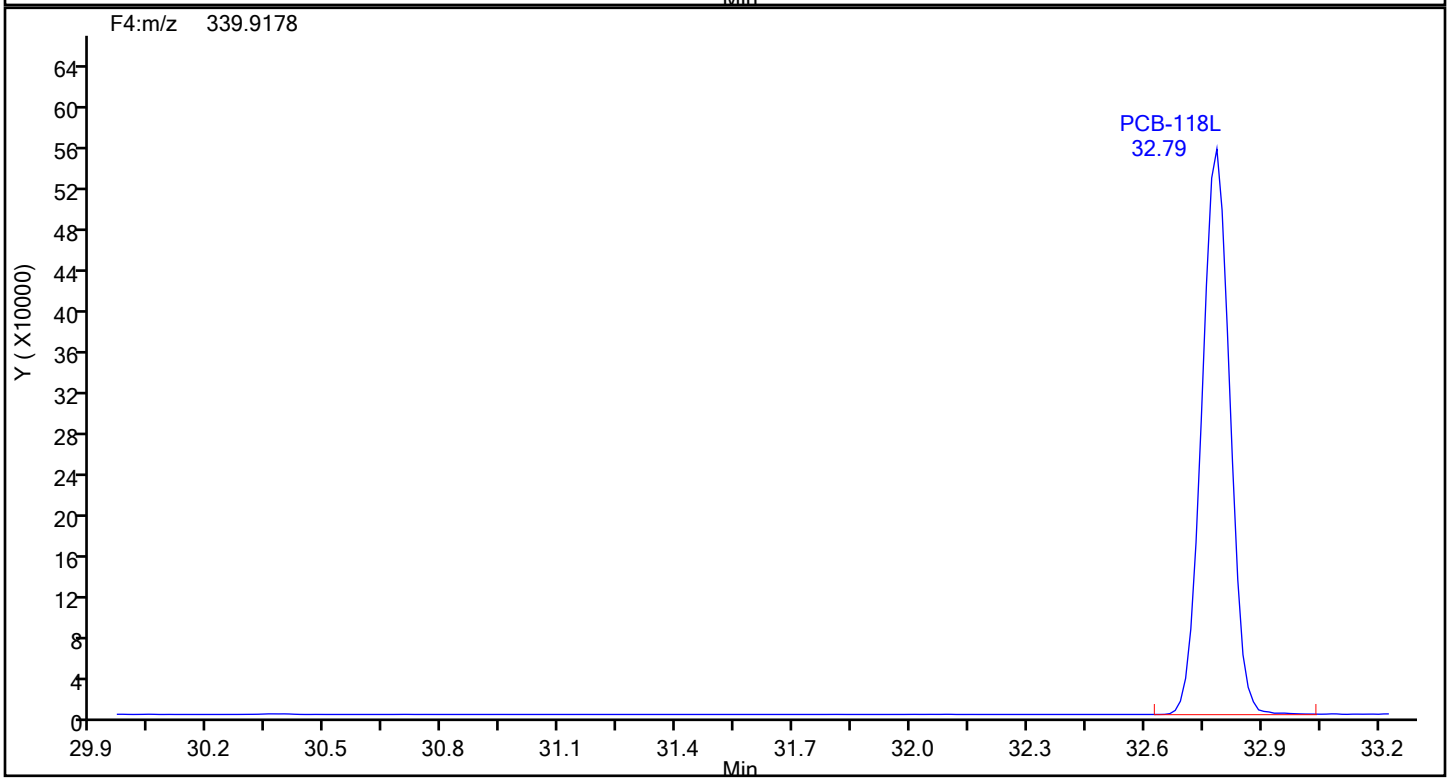
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





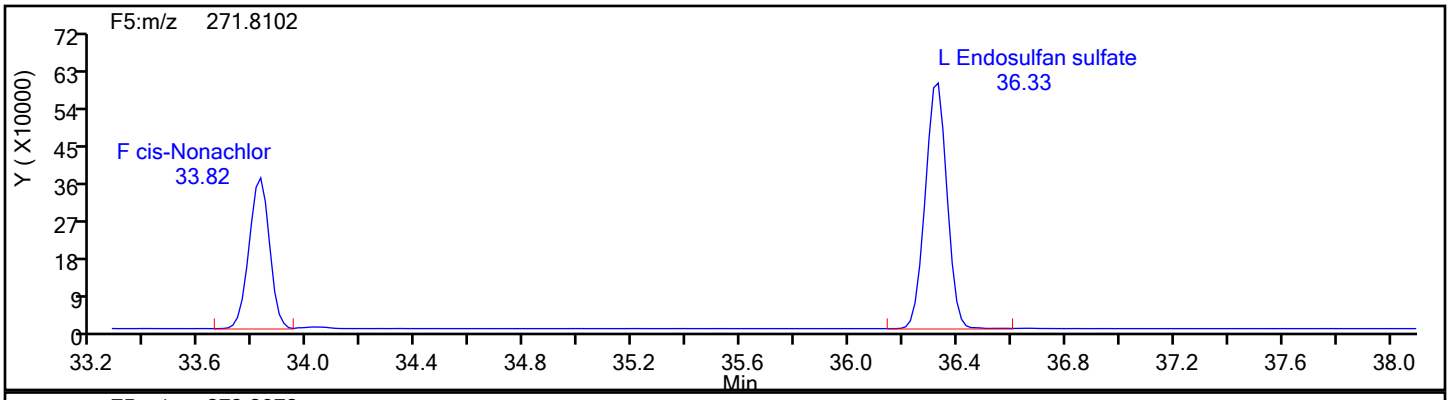
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

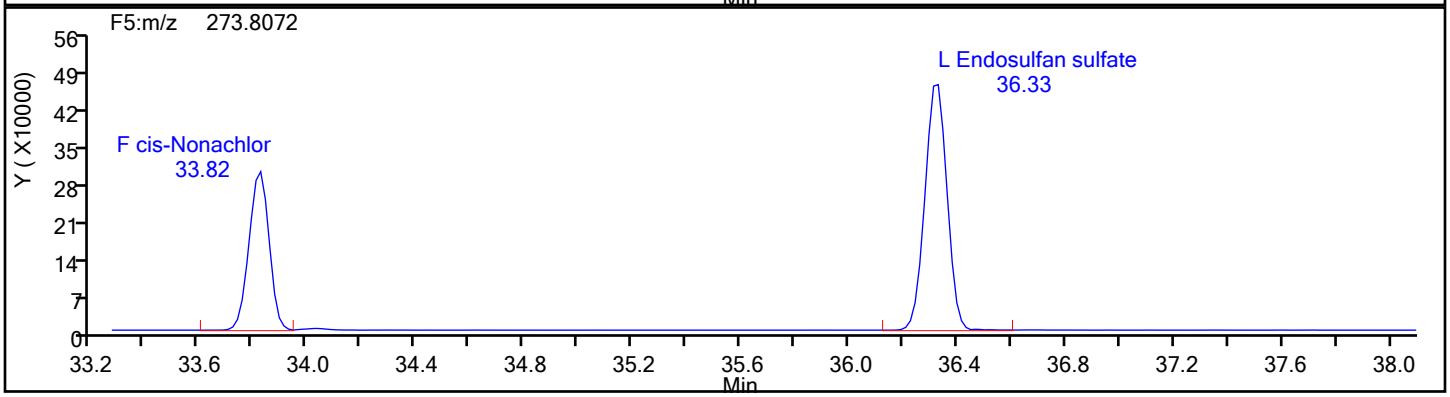
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

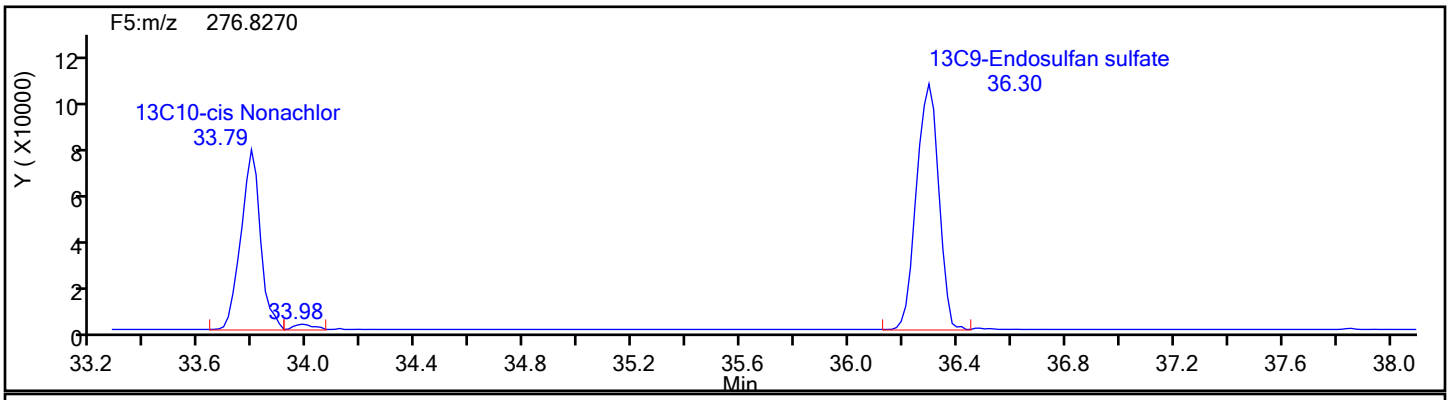
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

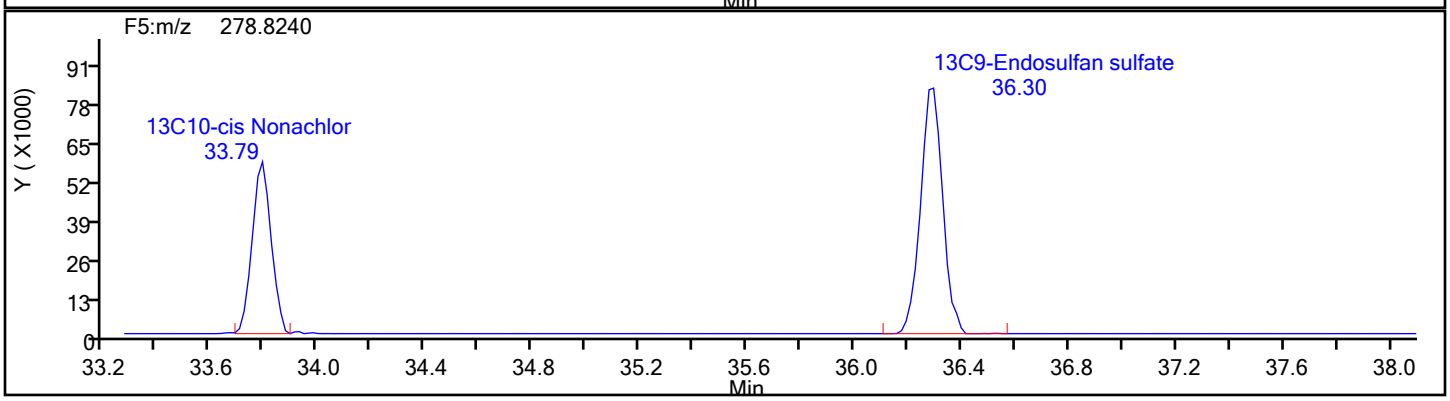
Nonachlor





Nonachlor Standards



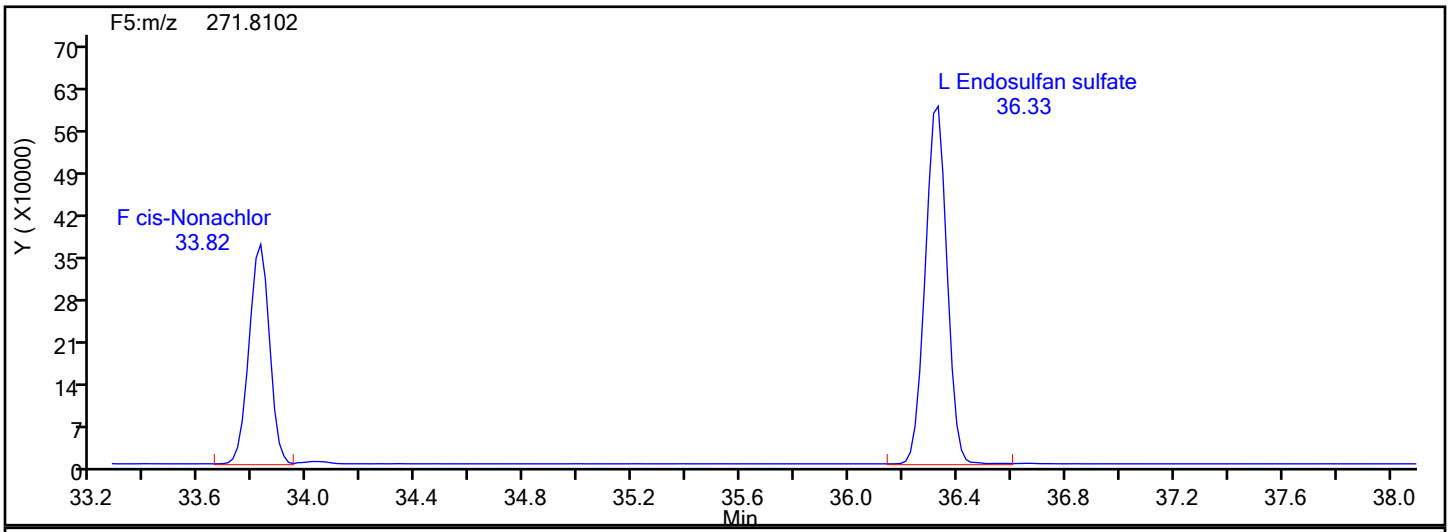


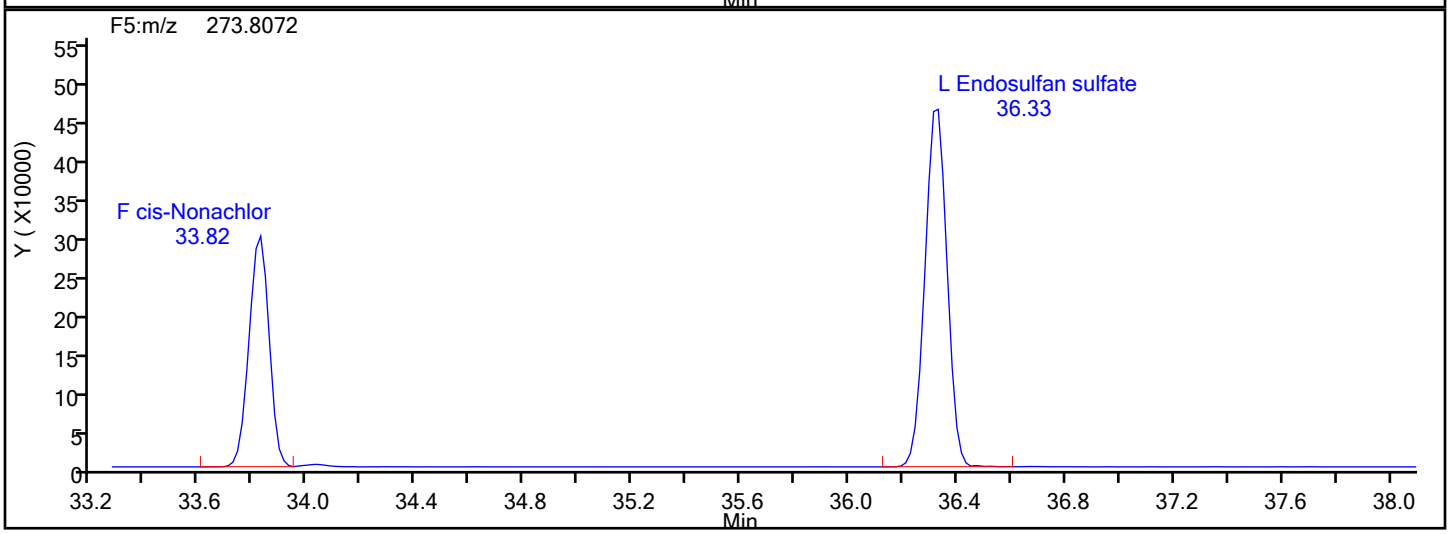
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

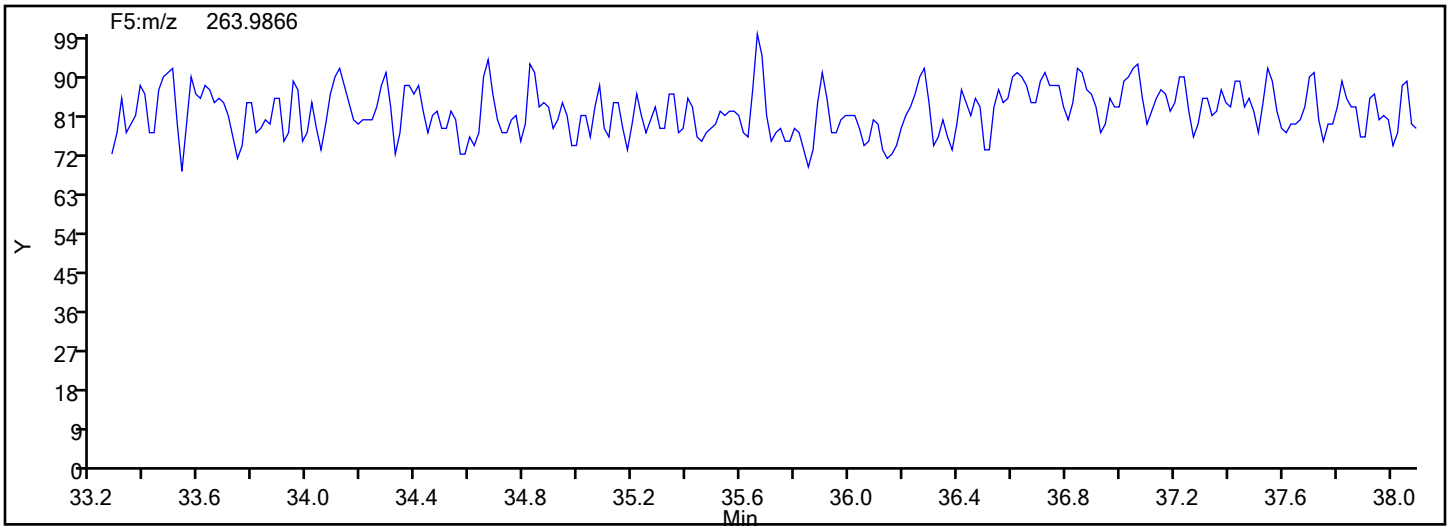
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass

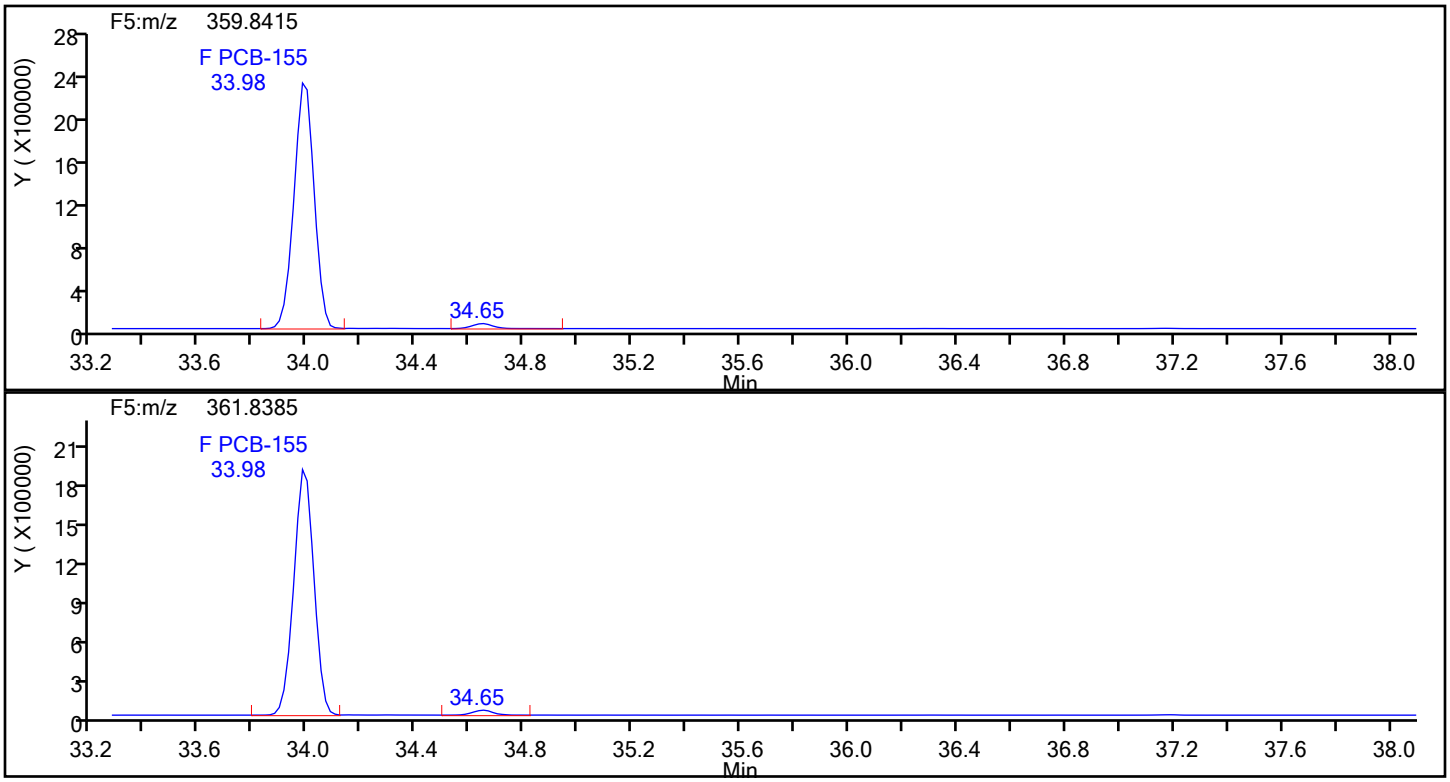


Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

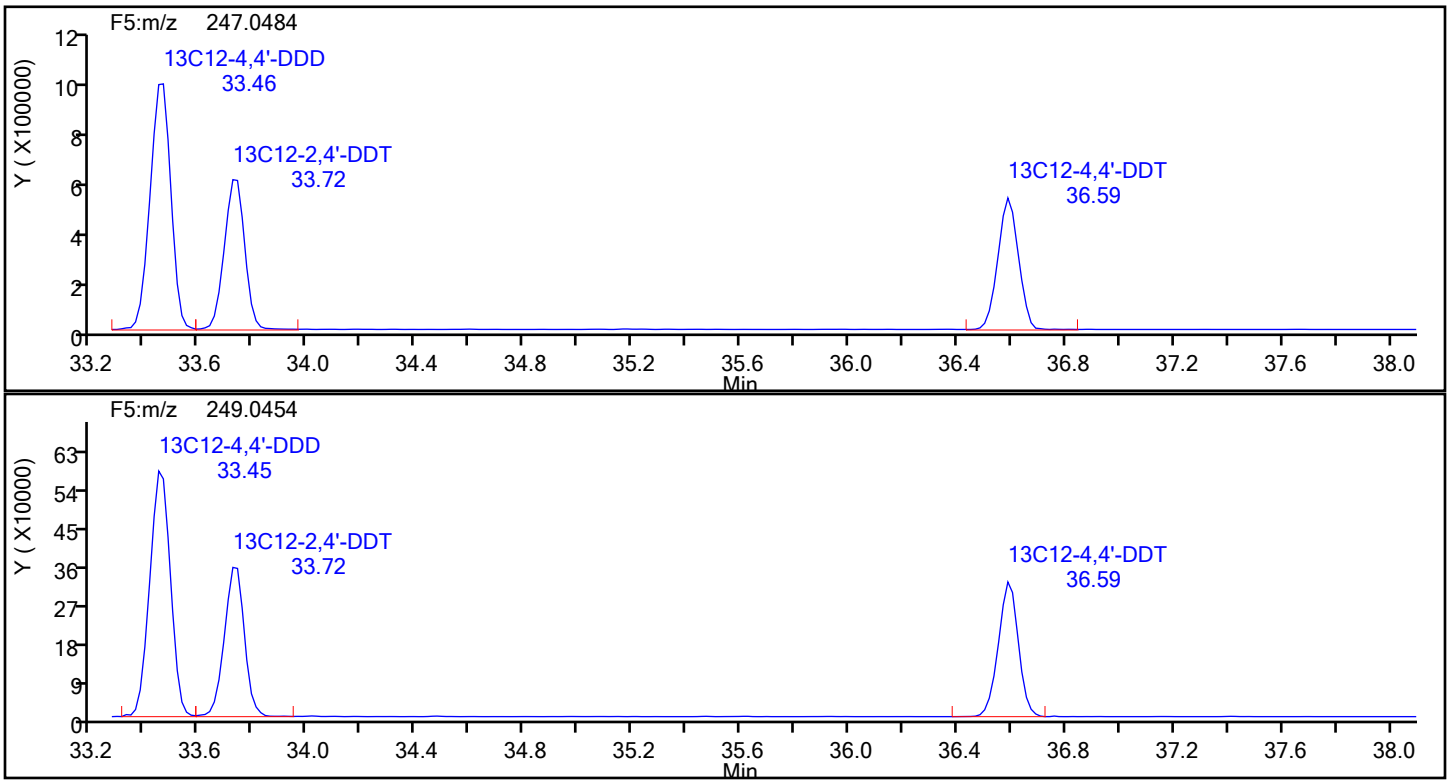
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155



PCB-155 Standards

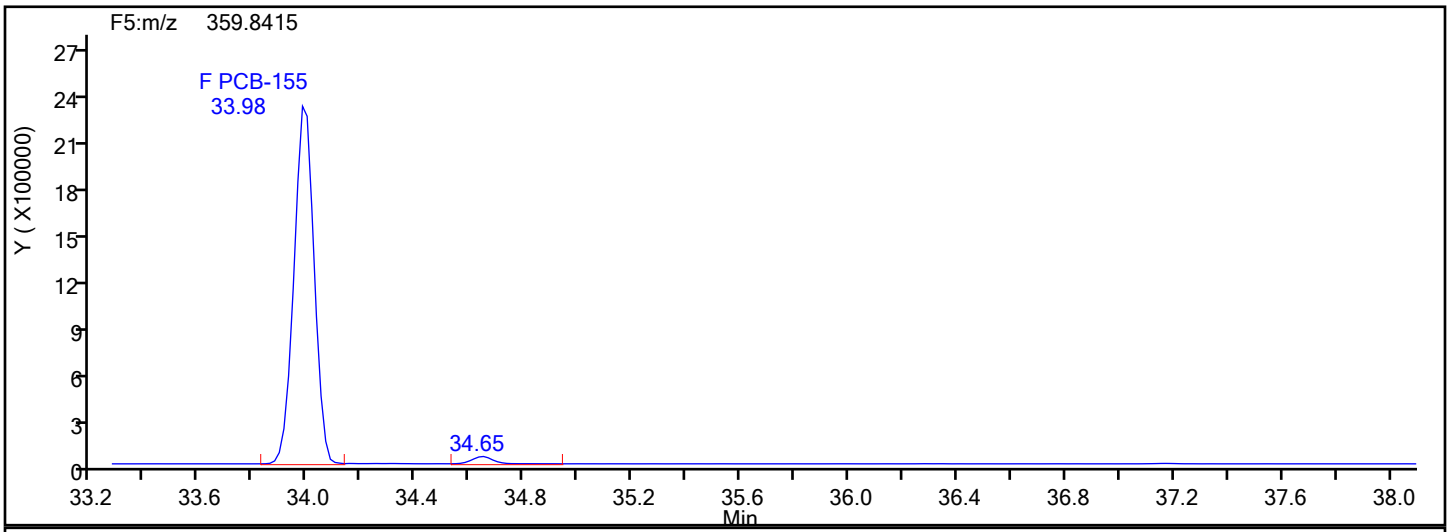


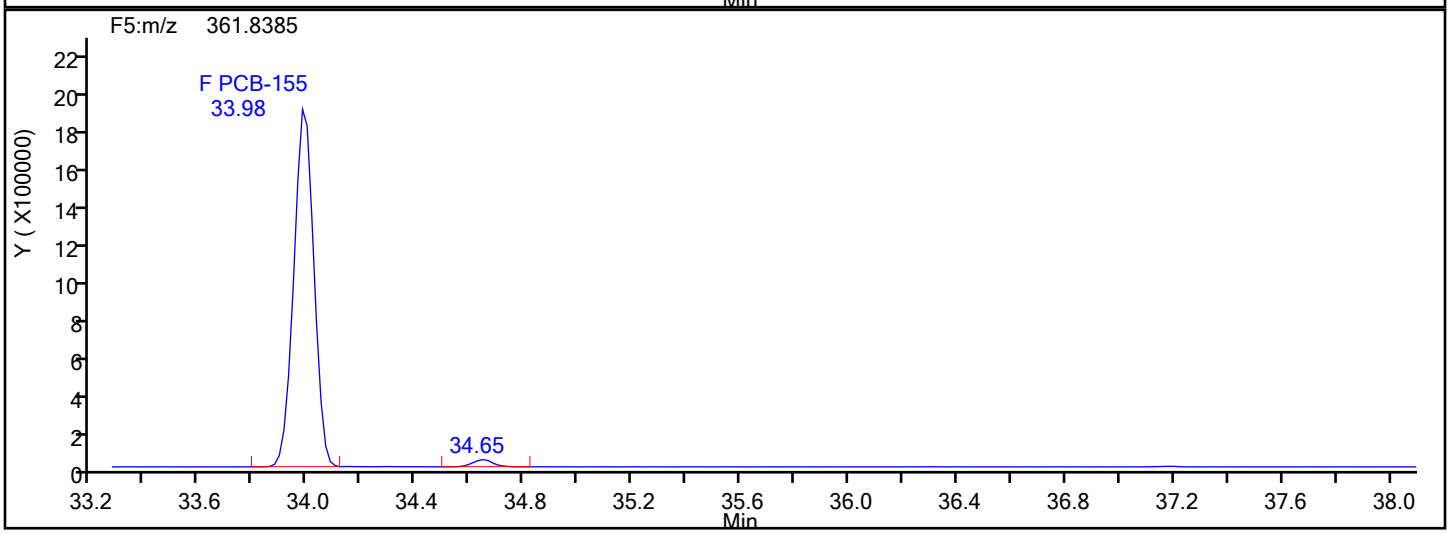
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

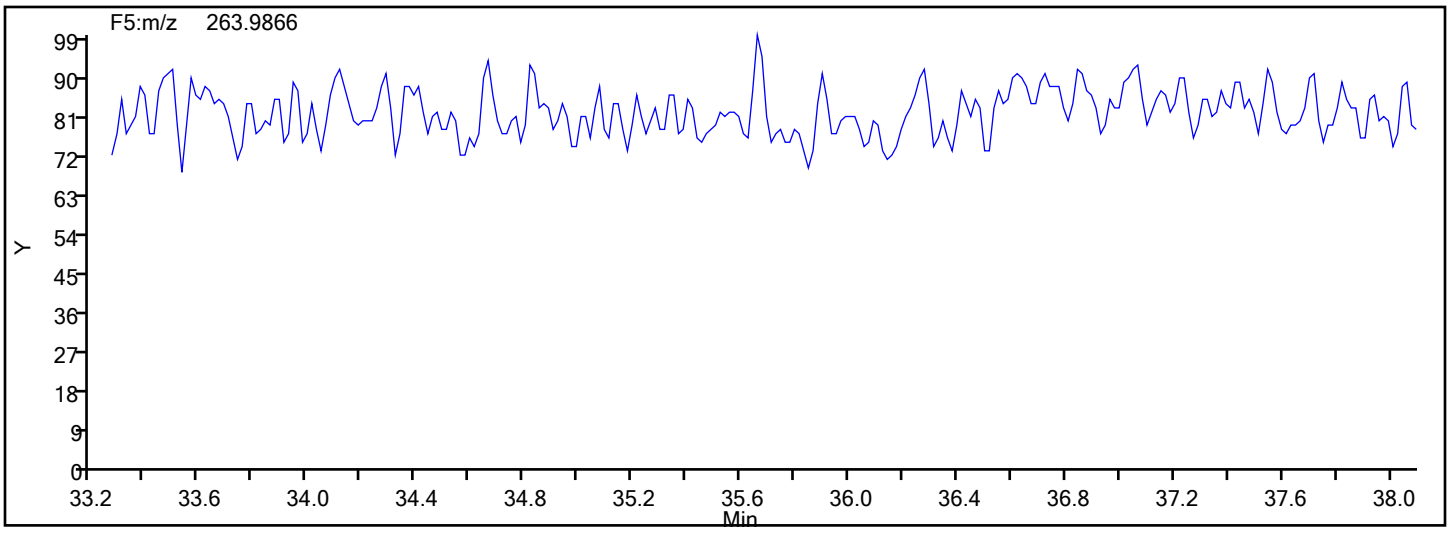
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



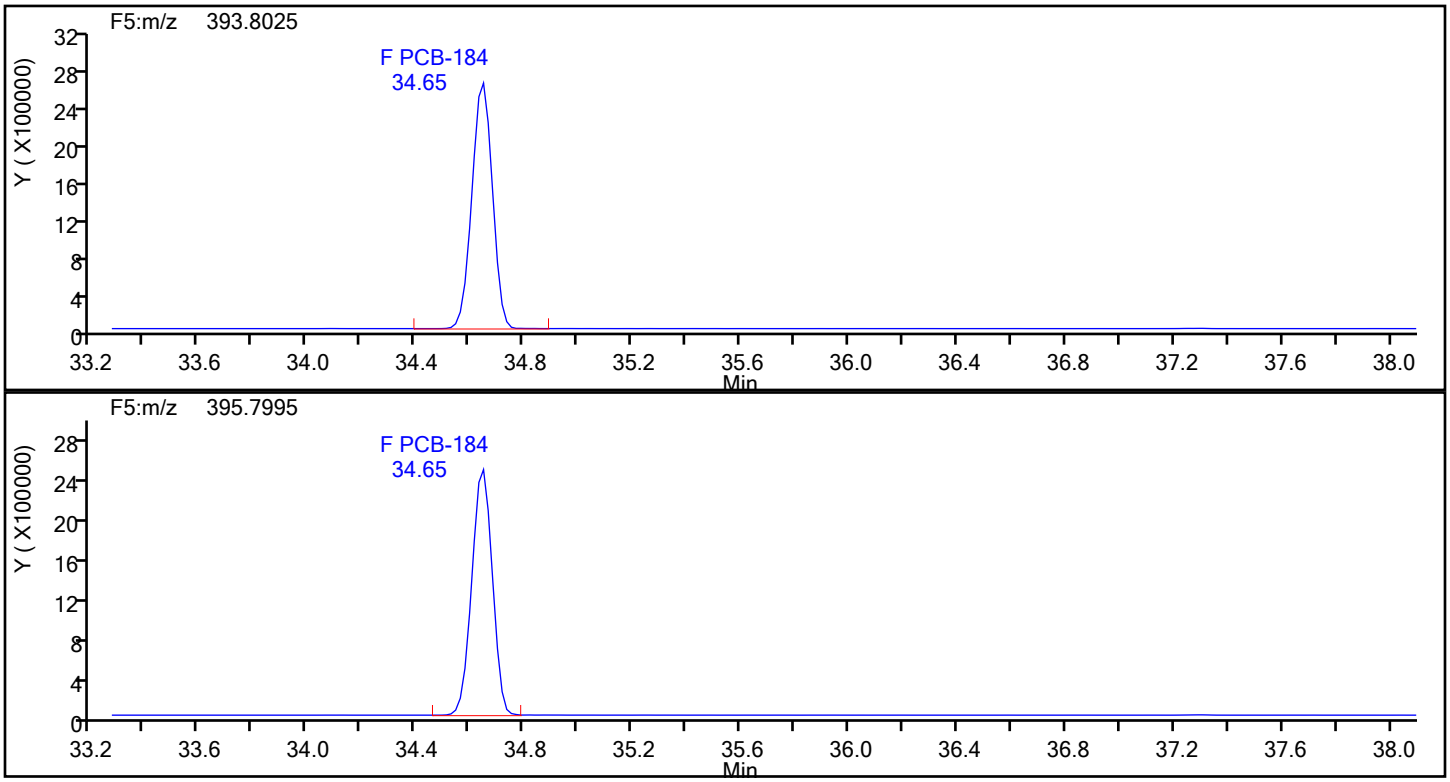
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

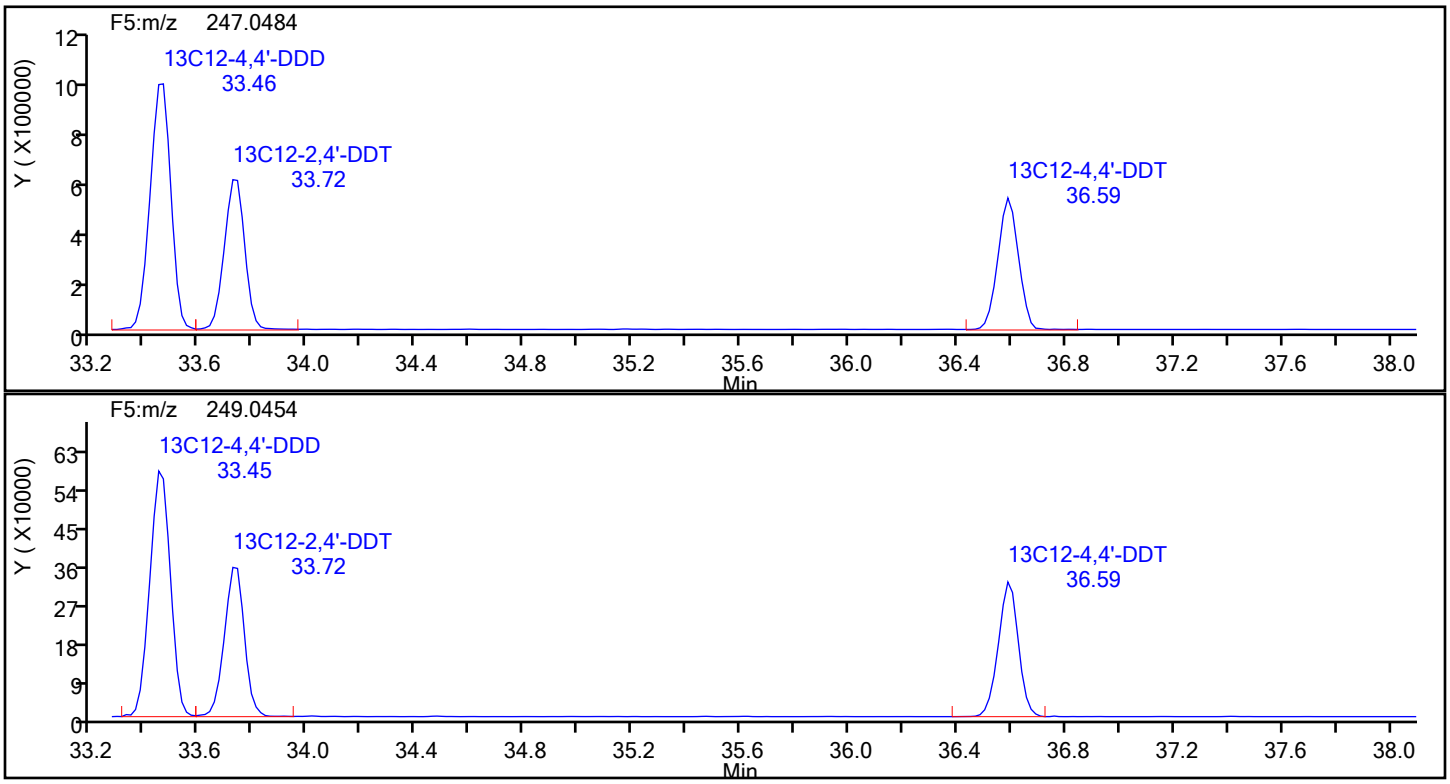
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

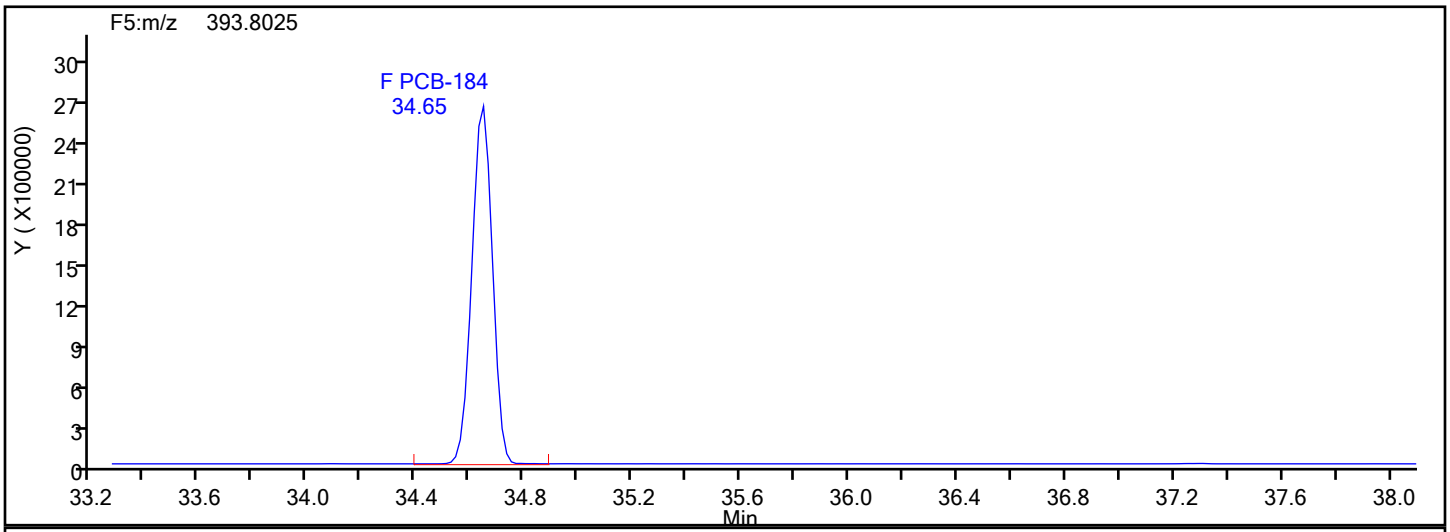


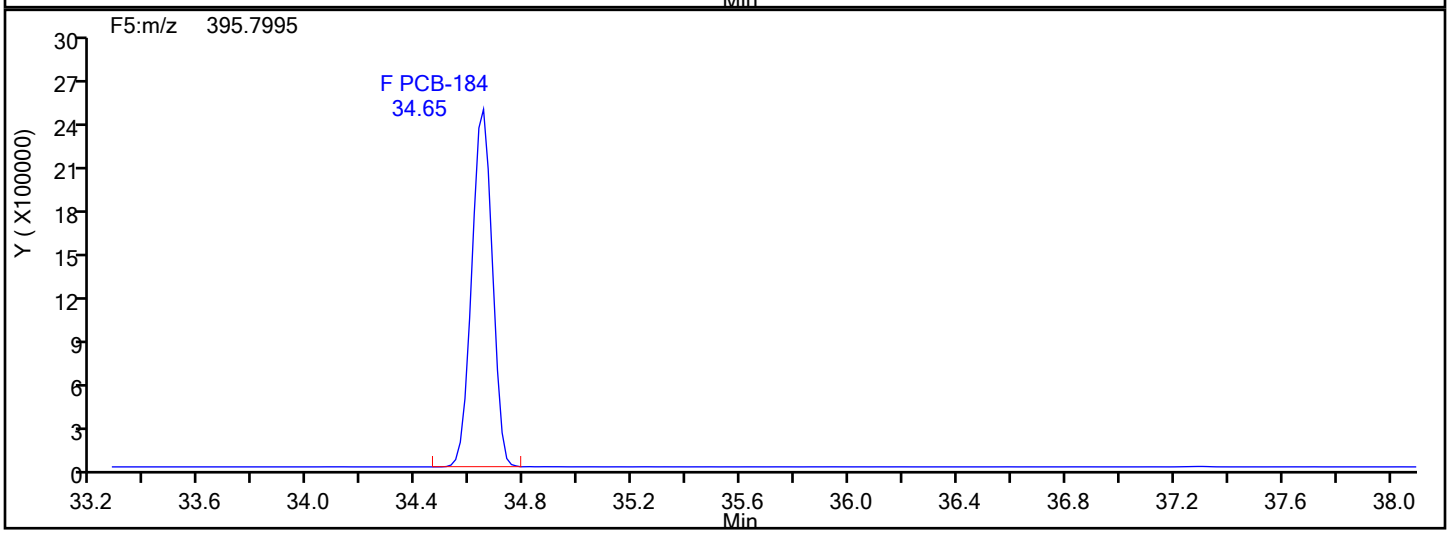
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

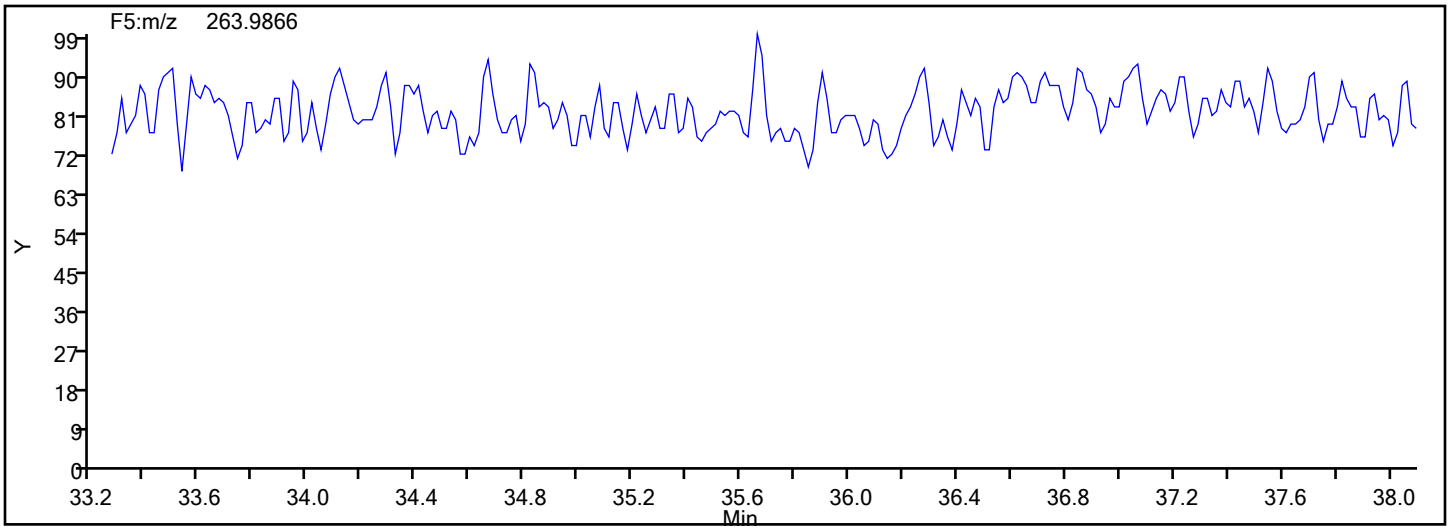
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d
Injection Date: 19-Mar-2025 23:16:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

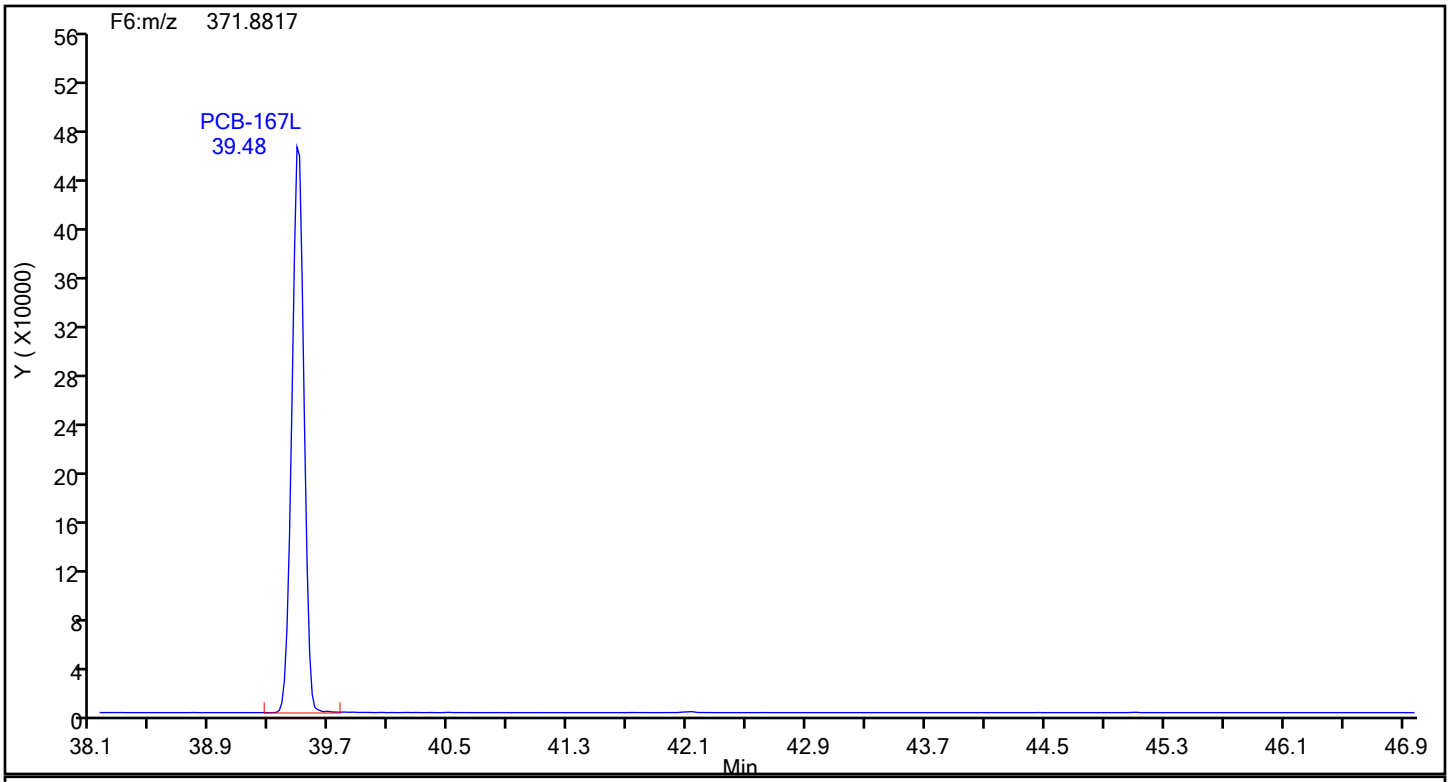


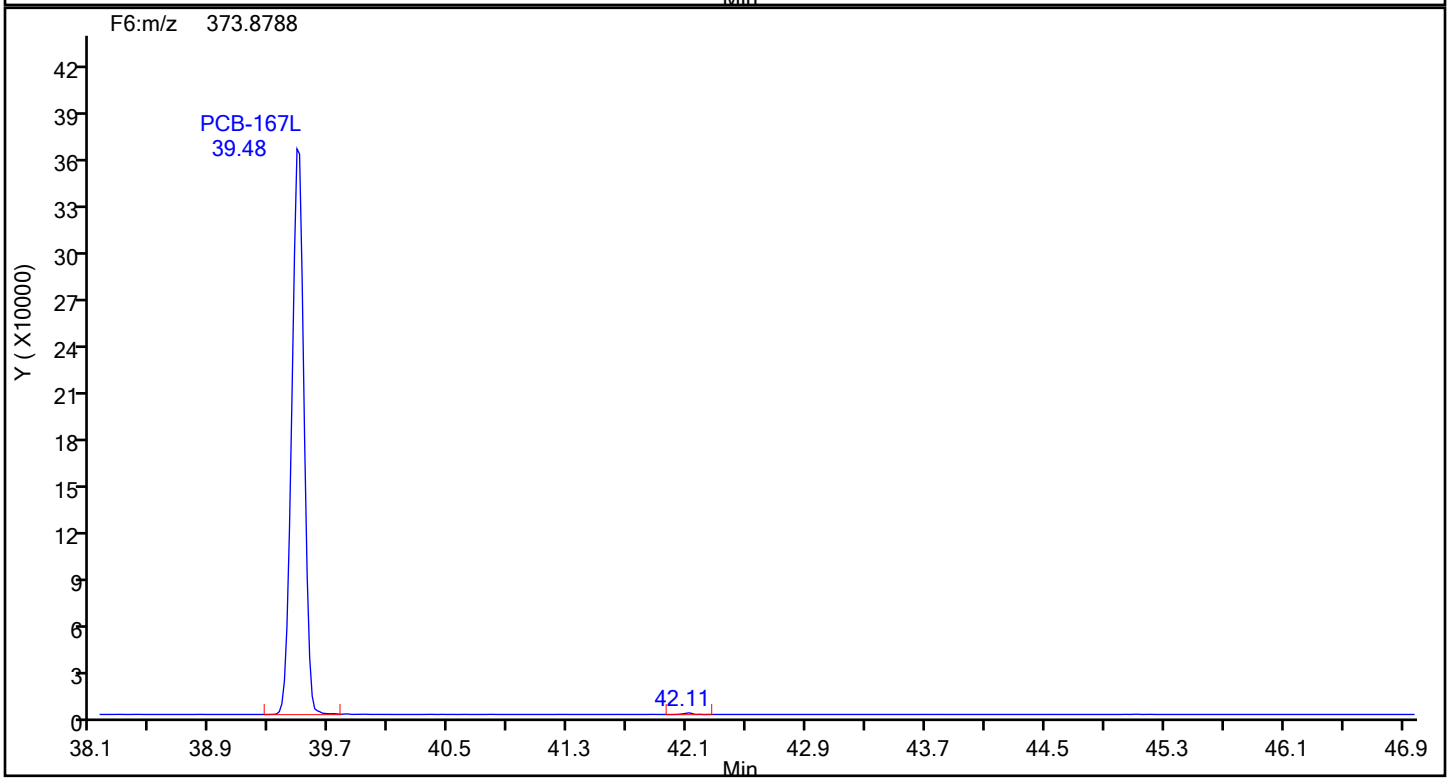
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





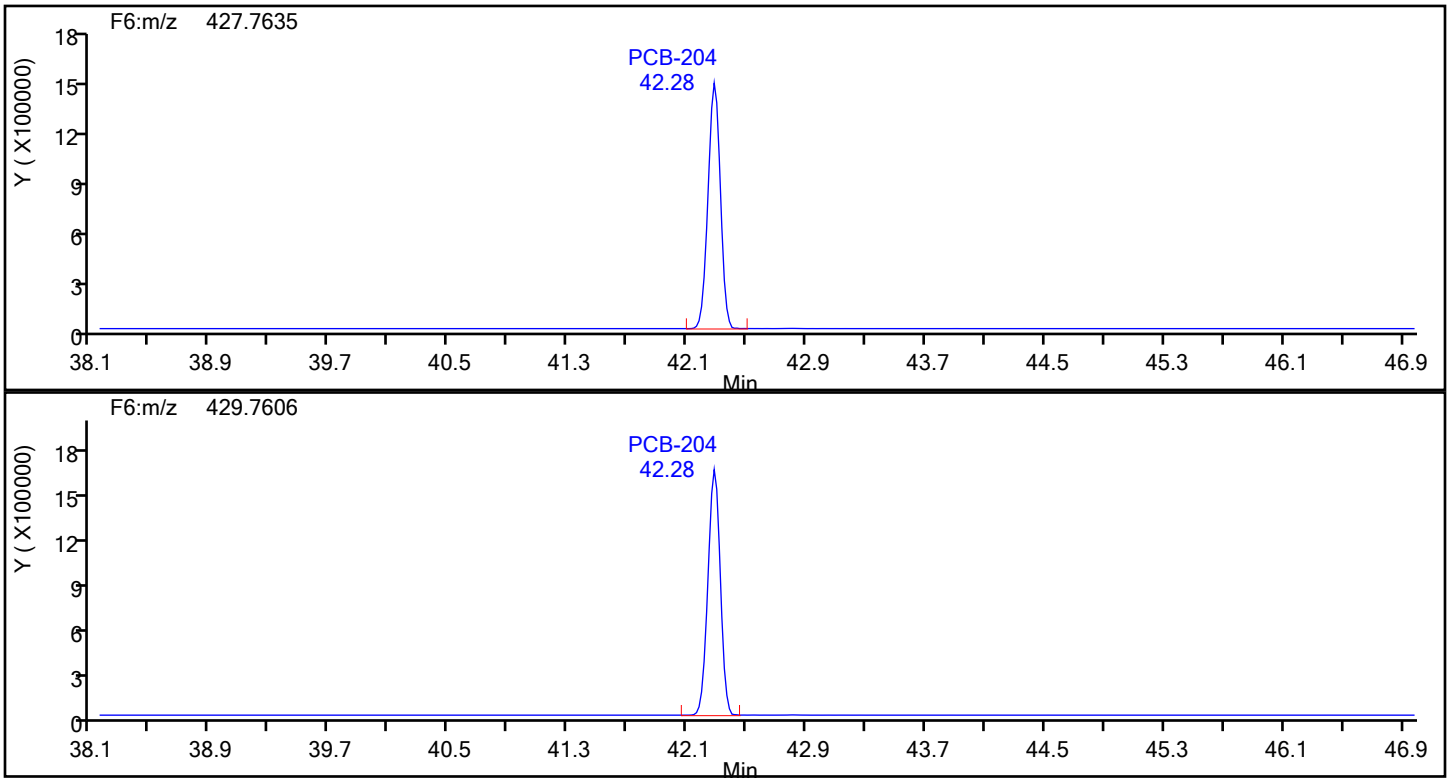
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

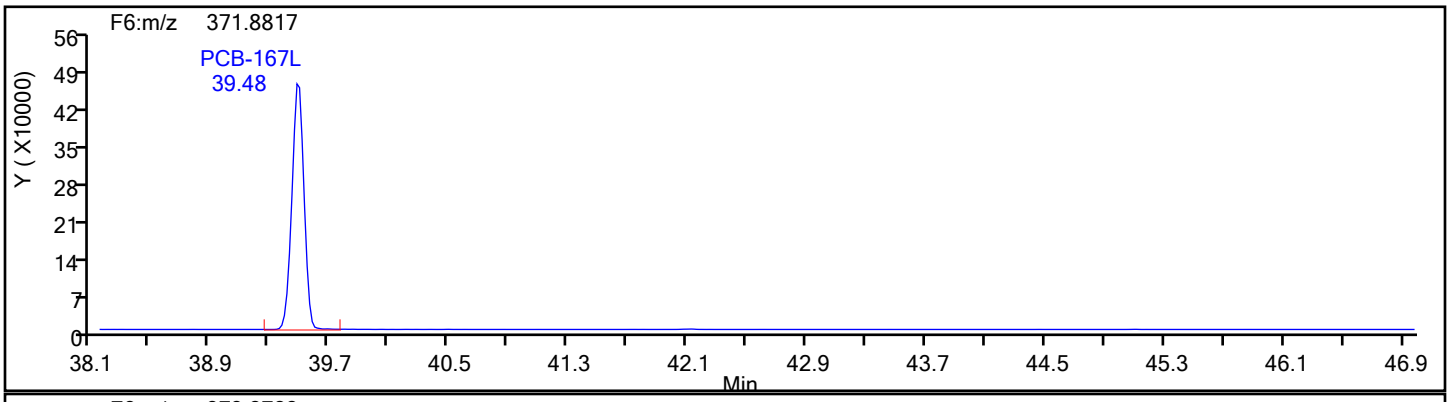
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

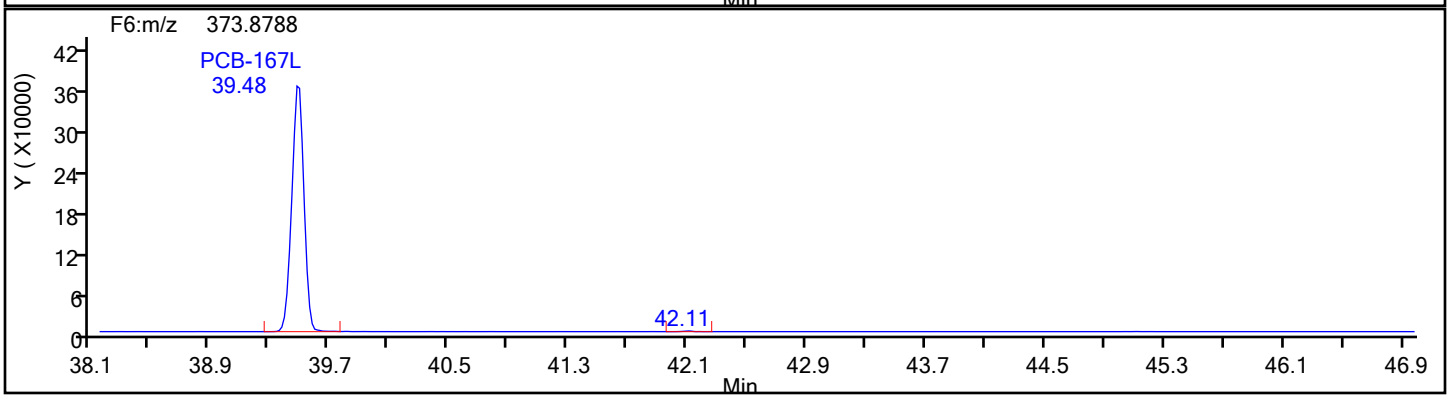
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204



PCB-204 Standards



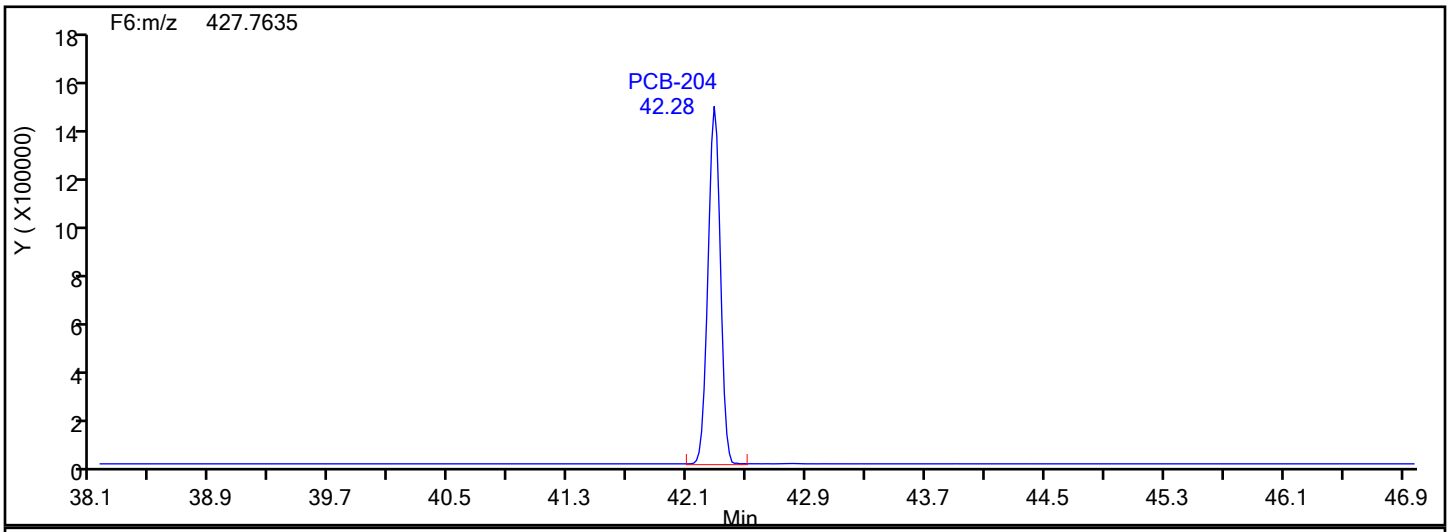


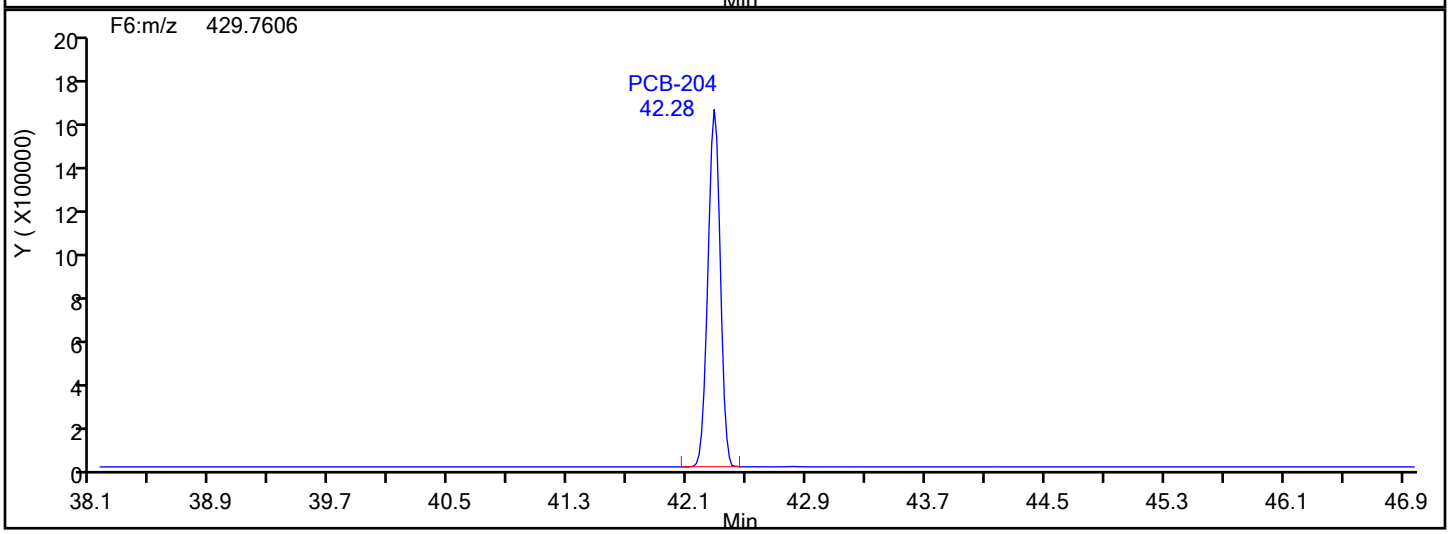
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

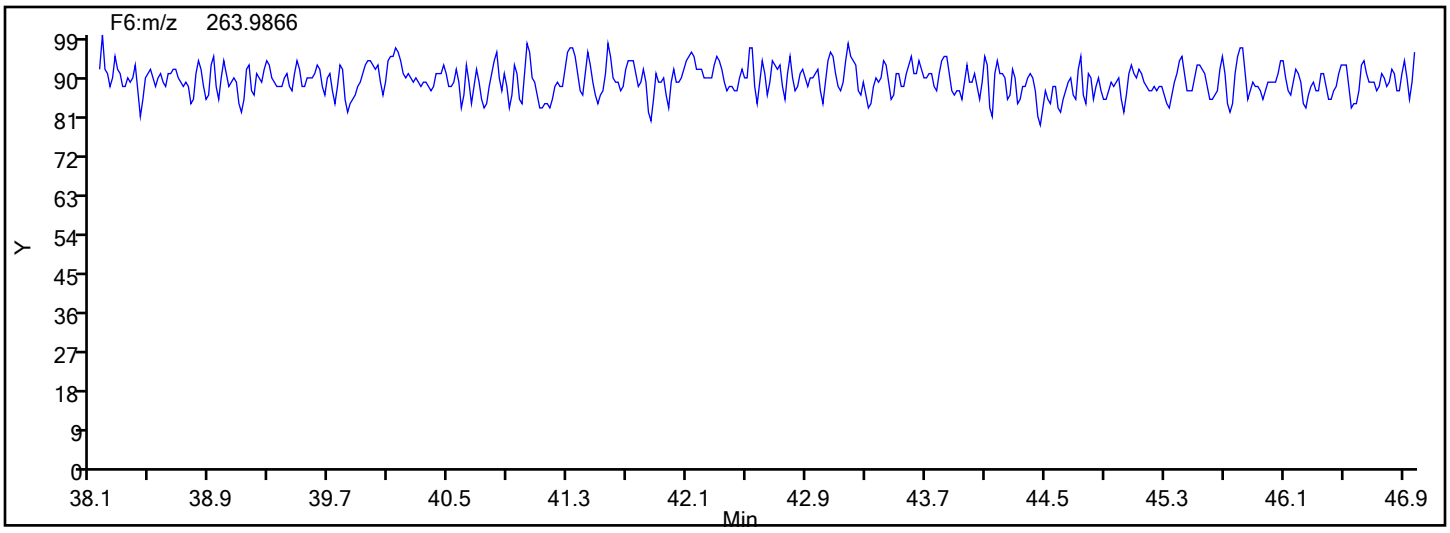
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



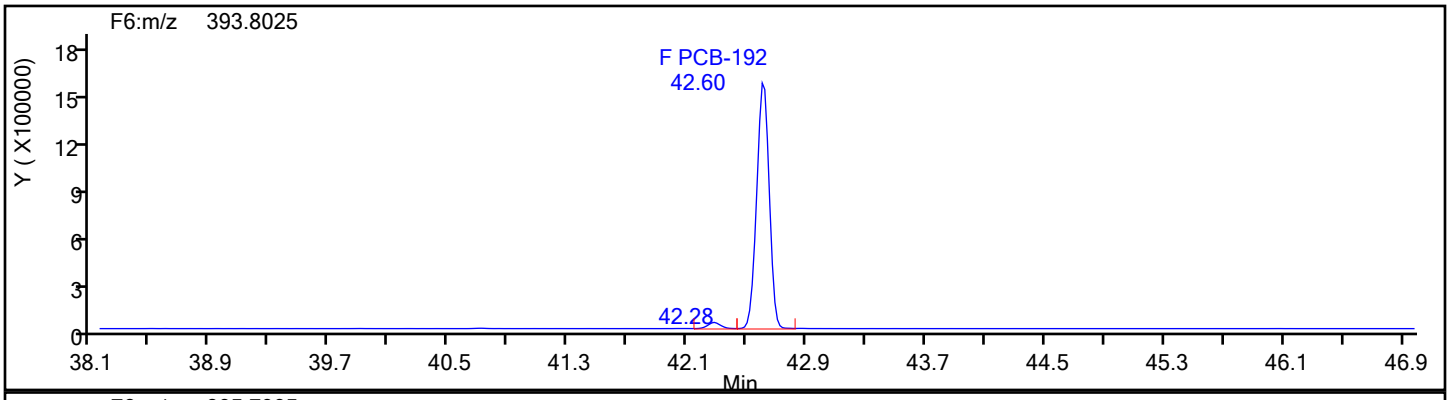
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

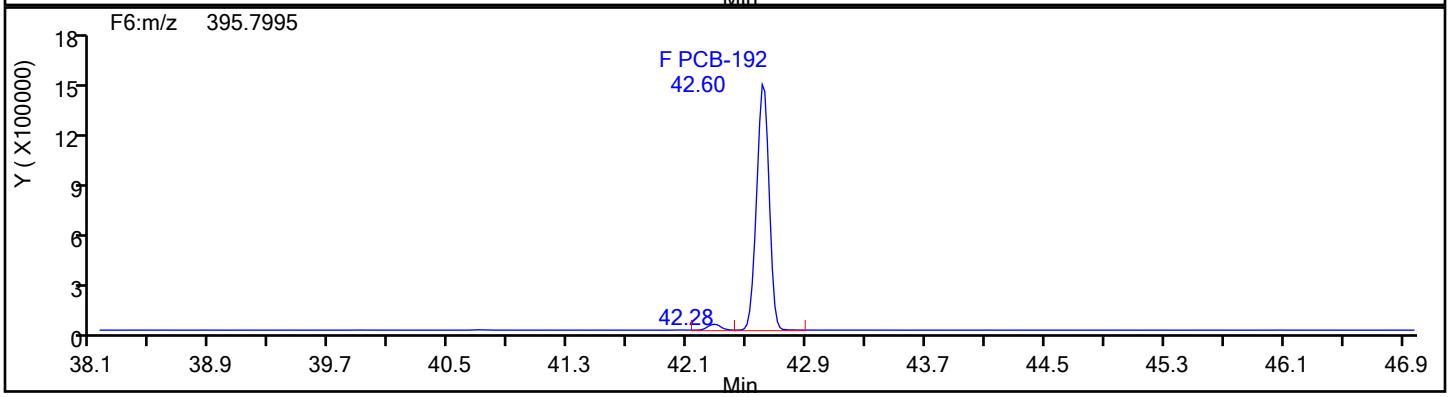
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d

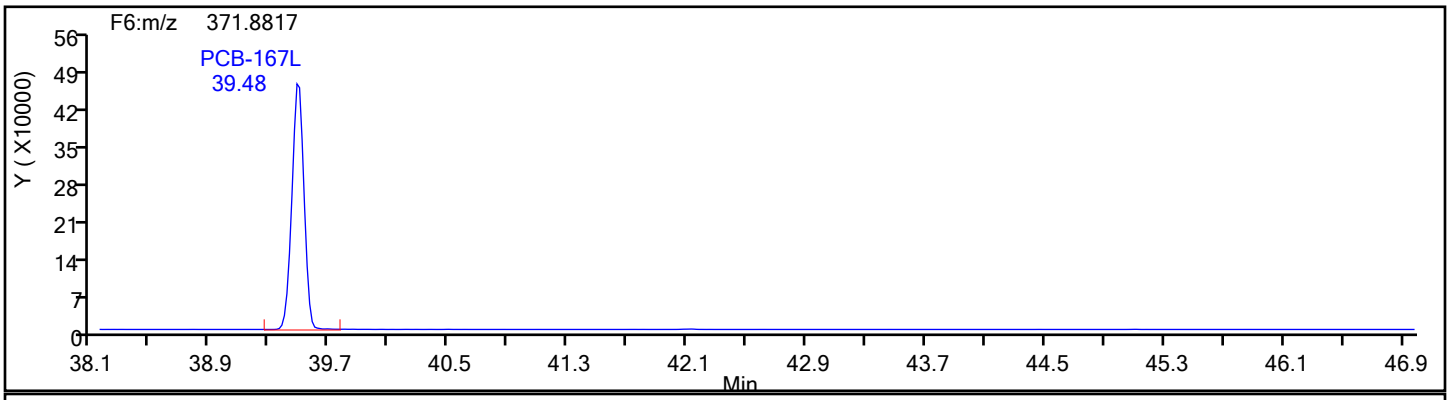
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

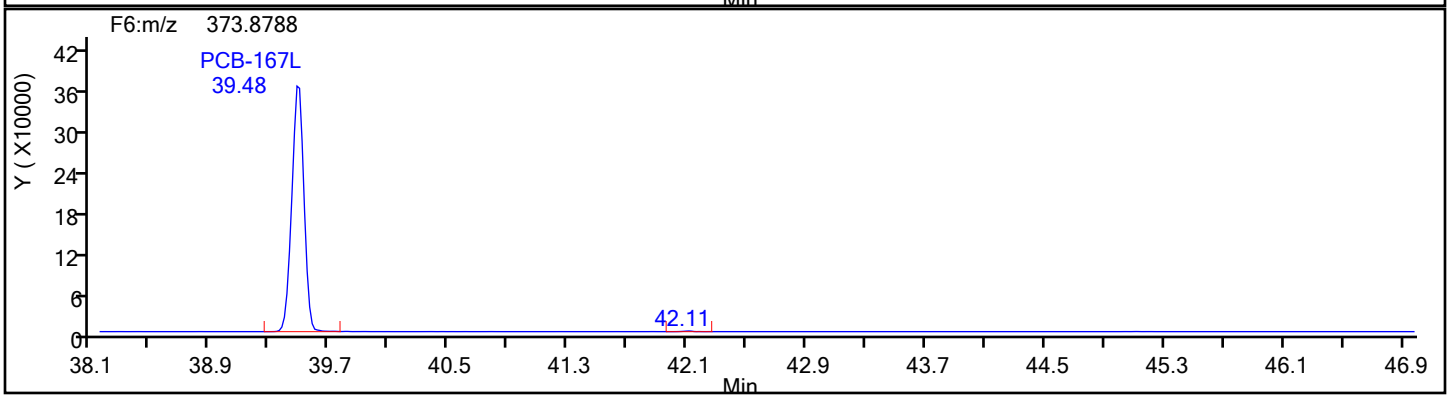
PCB-192





PCB-192 Standards



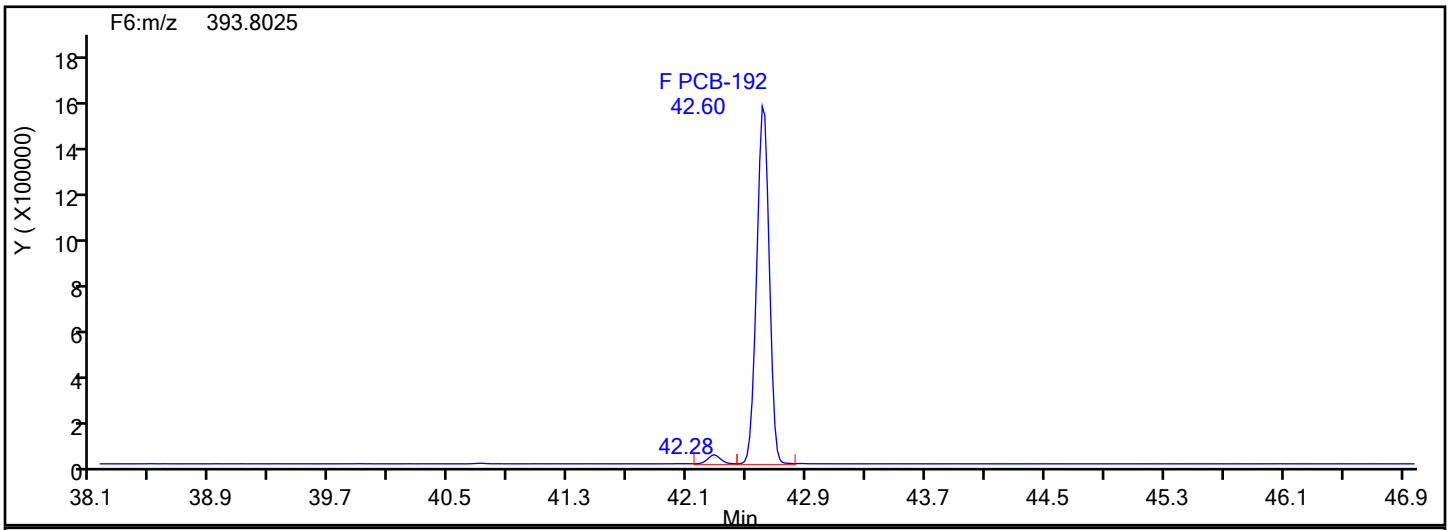


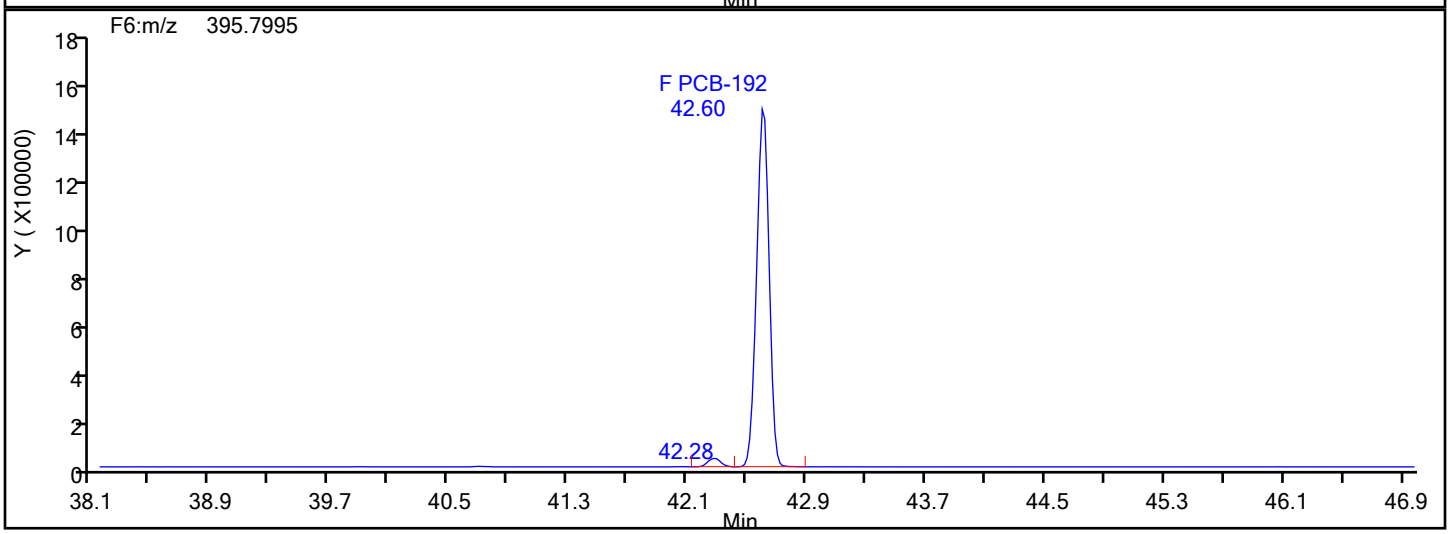
Report Date: 24-Mar-2025 13:06:34 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

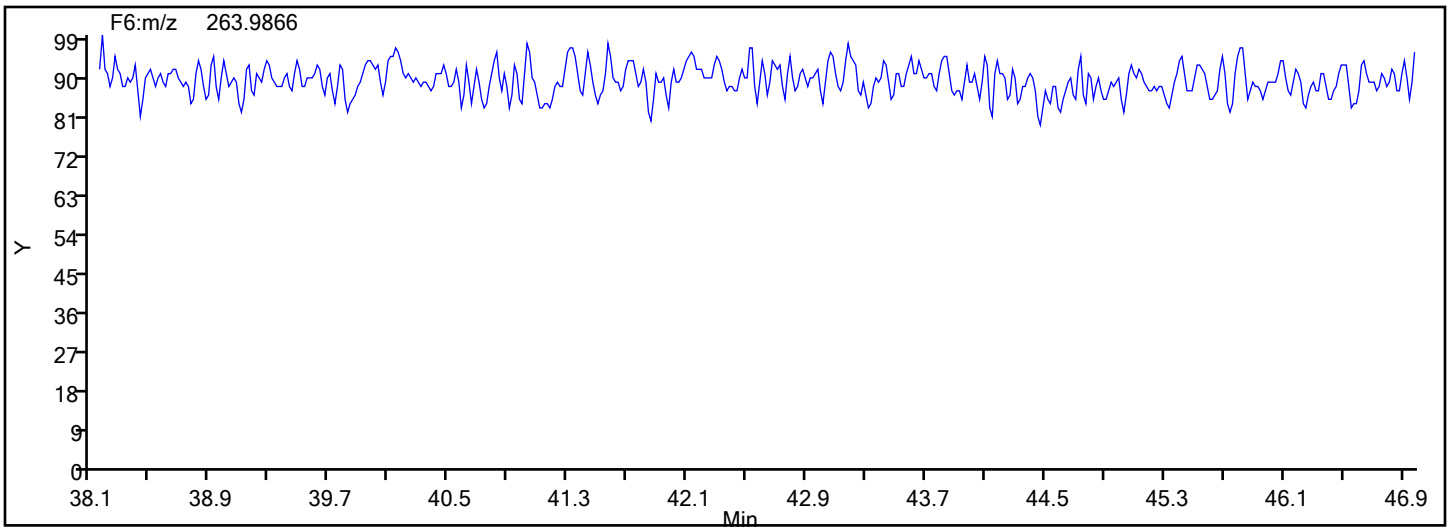
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic7.d		
Injection Date:	19-Mar-2025 23:16:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Mar-2025 00:10:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-008
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:37 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 24-Mar-2025 12:55:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	4533782	0.81	0.1704	101.4	101.4	0.0397	0.0397	101	
alpha-BHC	17:24	48281970	0.78	1.0937	973.7	973.7	0.0269	0.0269	97.37	
D 13C6-beta BHC	18:23	3282927	0.81	0.1244	100.6	100.6	0.0544	0.0544	101	
beta-BHC	18:23	32359283	0.79	1.0053	980.5	980.5	0.0429	0.0429	98.05	
D 13C6-gamma BHC	18:40	4494914	0.84	0.1646	104.1	104.1	0.0411	0.0411	104	
gamma-BHC (Lindane)	18:40	40372633	0.78	0.9800	916.5	916.5	0.0342	0.0342	91.65	
D 13C6-delta BHC	19:37	3016759	0.80	0.0992	115.9	115.9	0.0682	0.0682	116	
delta-BHC	19:38	31967615	0.79	1.1243	942.5	942.5	0.0461	0.0461	94.25	
D 13C10-Heptachlor	21:52	1864412	1.33	0.0715	99.4	99.4	0.0925	0.0925	99.38	
Heptachlor	21:53	19935693	1.28	1.0864	984.2	984.2	0.0553	0.0553	98.42	
D 13C6-Hexachlorobenzene	17:42	13515929	1.28	0.5041	102.2	102.2	0.000114	0.000114	102	
Hexachlorobenzene	17:43	149918916	1.27	1.1568	958.8	958.8	0.000088	0.000088	95.88	
D 13C12-Aldrin	23:44	4069743	1.60	0.1384	112.1	112.1	0.0385	0.0385	112	
Aldrin	23:45	42000143	1.60	1.0892	947.5	947.5	0.2105	0.2105	94.75	
D 13C10-oxy Chlordane	26:09	388129	1.13	0.0481	95.4	95.4	0.005403	0.005403	95.38	
oxy-Chlordane	26:10	4394066	1.06	1.1040	1025.5	1025.5	0.004996	0.004996	103	
D 13C10-cis Heptachlor Epoxide	26:06	1242301	1.29	0.1493	98.3	98.3	0.0129	0.0129	98.30	
Heptachlor epoxide	26:08	13728653	1.27	1.1461	964.2	964.2	0.008133	0.008133	96.42	
D 13C12-2,4'-DDE	27:56	24396662	1.57	2.7345	105.4	105.4	0.0239	0.0239	105	
2,4'-DDE	27:57	334573524	1.63	1.2831	1068.8	1068.8	0.1373	0.1373	107	
D 13C10-trans Chlordane	27:38	1422586	1.20	0.1640	102.4	102.4	0.002216	0.002216	102	
trans-Chlordane	27:40	15385694	1.26	1.1433	946.0	946.0	0.1474	0.1474	94.60	
D 13C10-cis Chlordane	28:42	1508057	1.27	0.1741	102.3	102.3	0.002087	0.002087	102	
cis-Chlordane	28:43	14606093	1.27	1.0551	917.9	917.9	0.1554	0.1554	91.79	
D 13C10-trans Nonachlor	29:00	1050555	1.19	0.1233	100.6	100.6	0.002948	0.002948	101	
trans-Nonachlor	29:02	11168725	1.25	1.0780	986.2	986.2	0.2148	0.2148	98.62	
D 13C9-Endosulfan I	28:31	455915	1.29	0.0555	97.0	97.0	0.006547	0.006547	96.98	
D 13C12-4,4'-DDE	30:11	16340962	1.57	1.8637	105.4	105.4	0.1132	0.1132	105	
4,4'-DDE	30:11	210628582	1.64	1.2526	1029.0	1029.0	0.3260	0.3260	103	
D 13C12-4,4'-DDD	33:28	9659031	1.60	1.1392	101.9	101.9	0.0145	0.0145	102	
4,4'-DDD	33:29	114402667	1.60	1.2345	959.4	959.4	0.1267	0.1267	95.94	
D 13C12-2,4'-DDT	33:45	5749965	1.56	0.6754	102.4	102.4	0.0245	0.0245	102	
2,4'-DDT	33:46	61056501	1.54	1.1809	899.2	899.2	0.2188	0.2188	89.92	
D 13C12-4,4'-DDT	36:37	4825263	1.59	0.5808	99.9	99.9	0.0285	0.0285	99.89	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:38	55259453	1.58	1.2096	946.8	946.8	0.2748	0.2748	94.68	
D 13C12-Dieldrin	30:23	1715445	1.77	0.1991	103.6	103.6	0.1084	0.1084	104	
Dieldrin	30:26	17124900	1.55	1.0718	931.4	931.4	0.3070	0.3070	93.14	
D 13C12-Endrin	32:03	928689	1.63	0.1181	94.6	94.6	0.1828	0.1828	94.56	
Endrin	32:06	9252127	1.56	1.0678	933.0	933.0	0.5980	0.5980	93.30	
D 13C9-Endosulfan II	32:48	211255	1.21	0.0248	102.5	102.5	0.2524	0.2524	103	
Endosulfan II	32:49	2292627	1.26	1.0972	989.1	989.1	1.959	1.959	98.91	
D 13C12-Endrin Aldehyde	34:20	240657	1.59	0.0237	122.0	122.0	0.2068	0.2068	122	
Endrin aldehyde	34:22	2851134	1.55	1.1278	1050.5	1050.5	1.353	1.353	105	
D 13C12-Methoxychlor	41:57	5626133	18.48	0.6709	100.8	100.8	0.0408	0.0408	101	
Methoxychlor	41:59	70180456	5.54	1.3248	941.6	941.6	0.0764	0.0764	94.16	
D 13C11-Endrin Ketone	40:26	513679	1.57	0.0648	95.3	95.3	0.0445	0.0445	95.34	
Endrin ketone	40:29	5959702	1.59	1.1546	1004.9	1004.9	0.3708	0.3708	100	
D 13C10-Mirex	45:25	4832793	1.29	0.9459	95.5	95.5	0.0113	0.0113	95.52	
Mirex	45:27	48713034	1.26	1.0234	985.0	985.0	0.0494	0.0494	98.50	
* PCB-15L	19:04	26237588	1.61		100.0	100.0				
PCB-14	17:49	328773792	1.66	1.3581	922.7	922.7	0.007739	0.007739	61.31	
* 13C6-Pentachlorophenol (IS)	18:29	1481626	0.66		500.0	500.0				
Pentachlorophenol	18:30	15611001	0.63	0.8359	6302.3	6302.3	0.3985	0.3985	126	
PCB-36	22:09	233254477	1.05	1.0230	869.0	869.0	0.009601	0.009601	57.74	
* PCB-101L	28:07	8467459	1.61		100.0	100.0				
PCB-104	23:44	116814628	1.62	1.8372	750.9	750.9	0.000141	0.000141	49.90	
* PCB-118L	32:48	8316764	1.60		100.0	100.0				
PCB-121	26:43	83218585	1.64	1.4622	684.3	684.3	0.3050	0.3050	45.47	
* PCB-138L	37:00	5348652	1.26		100.0	100.0				
PCB-142	27:31	72018560	1.28	2.0271	664.2	664.2	0.0412	0.0412	44.14	
Endosulfan I	28:33	4963077	1.57	1.0931	995.9	995.9	0.3010	0.3010	99.59	
* PCB-60L	27:44	16276619	0.81		100.0	100.0				
PCB-78	29:22	115802395	0.78	0.9153	777.3	777.3	0.1707	0.1707	51.65	a
D 13C12-2,4'-DDD	30:51	11592132	1.56	1.3487	103.3	103.3	0.0432	0.0432	103	
2,4'-DDD	30:52	131947034	1.60	1.1763	967.6	967.6	0.0828	0.0828	96.76	
D 13C10-cis Nonachlor	33:49	807977	1.24	0.0944	102.9	102.9	0.0597	0.0597	103	
cis-Nonachlor	33:50	8479788	1.27	1.0758	975.6	975.6	0.1030	0.1030	97.56	
D 13C9-Endosulfan sulfate	36:18	1299396	1.26	0.1517	103.0	103.0	0.0372	0.0372	103	
Endosulfan sulfate	36:20	14386772	1.25	1.0831	1022.3	1022.3	0.0699	0.0699	102	
* PCB-167L	39:29	5309029	1.25		100.0	100.0				
PCB-155	34:00	38793542	1.25	0.9191	795.0	795.0	0.0769	0.0769	52.83	
PCB-184	34:39	46841364	1.06	1.1610	760.0	760.0	0.0162	0.0162	50.50	
PCB-204	42:18	31518837	0.90	0.7364	806.2	806.2	0.000703	0.000703	53.57	
PCB-192	42:37	33687431	1.04	0.7635	831.1	831.1	0.0740	0.0740	55.22	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L71699PST_00011 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Mar-2025 00:10:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-008
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:37 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 24-Mar-2025 12:55:40

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	2024446	789424	202	505	3908		
224.9317	17:23	17:23	0	0.912	2509336	961251	34	85	28272	0.81(0.58-0.96)	
alpha-BHC											
216.9145	17:24	17:23	0	1.001	21183269	8189729	26	65	314990		
218.9116	17:24	17:23	0	1.001	27098701	10527665	180	450	58487	0.78(0.58-0.96)	
13C6-beta BHC											
222.9342	18:23	18:22	0	0.964	1469424	529992	202	505	2624		
224.9317	18:23	18:22	0	0.964	1813503	664628	34	85	19548	0.81(0.58-0.96)	
beta-BHC											
216.9145	18:23	18:23	0	1.001	14244996	5081128	26	65	195428		
218.9116	18:23	18:23	0	1.001	18114287	6565083	180	450	36473	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:40	18:39	1	0.979	2050872	688619	202	505	3409		
224.9317	18:39	18:39	0	0.978	2444042	850205	34	85	25006	0.84(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	17734882	6098827	26	65	234570		
218.9116	18:40	18:40	0	1.001	22637751	7787452	180	450	43264	0.78(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:36	1	1.029	1340179	449357	202	505	2225		
224.9317	19:37	19:36	0	1.028	1676580	544528	34	85	16016	0.80(0.58-0.96)	
delta-BHC											
216.9145	19:38	19:38	0	1.001	14097434	4648410	26	65	178785		
218.9116	19:38	19:38	0	1.001	17870181	5928948	180	450	32939	0.79(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:52	21:51	0	1.146	1062704	300804	136	340	2212		
278.8240	21:52	21:51	0	1.146	801708	218805	95	237	2303	1.33(0.93-1.55)	
Heptachlor											
271.8102	21:53	21:52	1	1.001	11189916	3096233	64	160	48379		
273.8072	21:53	21:52	1	1.001	8745777	2396058	61	152	39280	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.928	7579907	2773073	1	2	2773073		
291.8273	17:42	17:42	0	0.928	5936022	2124014	1	2	2124014	1.28(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:43	17:42	0	1.001	83771823	32233197	1	2	32233200		
285.8072	17:43	17:42	0	1.001	66147093	25442029	1	2	25442030	1.27(0.93-1.55)	
13C12-Aldrin											
269.8805	23:44	23:44	0	1.244	2503018	656308	113	282	5808		
271.8775	23:44	23:44	0	1.244	1566725	417419	73	182	5718	1.60(1.16-1.94)	
Aldrin											
262.8569	23:45	23:45	0	1.001	25865174	7010824	492	1230	14250		
264.8540	23:45	23:45	0	1.001	16134969	4323026	493	1232	8769	1.60(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:08	0	0.930	206008	50311	1	2	50311		
398.8358	26:09	26:08	0	0.930	182121	40339	1	2	40339	1.13(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	2259674	545317	1	2	545317		
388.8023	26:10	26:10	0	1.001	2134392	514938	1	2	514938	1.06(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.928	700731	162712	4	10	40678		
364.8748	26:06	26:06	0	0.928	541570	126951	11	27	11541	1.29(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:08	26:08	0	1.001	7668215	1798052	6	15	299675		
354.8413	26:08	26:08	0	1.001	6060438	1447332	5	12	289466	1.27(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.993	14905804	3417734	358	895	9547		
260.0376	27:56	27:56	0	0.993	9490858	2126403	145	362	14665	1.57(1.17-1.95)	
2,4'-DDE											
246.0003	27:57	27:57	0	1.001	207574592	50844631	2312	5780	21992		
247.9974	27:57	27:57	0	1.001	126998932	30747999	1594	3985	19290	1.63(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:38	27:38	0	0.983	775536	179505	2	5	89753		
278.8240	27:39	27:38	1	0.983	647050	142108	1	2	142108	1.20(0.93-1.55)	
trans-Chlordane											
271.8102	27:40	27:39	1	1.001	8567560	1922251	119	297	16153		
273.8072	27:40	27:39	1	1.001	6818134	1531208	98	245	15625	1.26(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:42	28:41	0	1.020	845069	196853	2	5	98427		
278.8240	28:42	28:41	0	1.020	662988	133661	1	2	133661	1.27(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:43	28:43	0	1.001	8159139	1789017	119	297	15034		
273.8072	28:43	28:43	0	1.001	6446954	1421172	98	245	14502	1.27(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.031	570124	123278	2	5	61639		
278.8240	29:00	29:00	0	1.031	480431	110773	1	2	110773	1.19(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	6212135	1333781	119	297	11208		
273.8072	29:02	29:02	0	1.001	4956590	1063184	98	245	10849	1.25(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:31	28:31	-1	1.014	256408	53698	2	5	26849		
278.8240	28:32	28:31	0	1.015	199507	44162	1	2	44162	1.29(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:11	30:10	1	0.920	9985528	2184470	963	2407	2268		
260.0376	30:11	30:10	1	0.920	6355434	1393866	413	1032	3375	1.57(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.000	130878591	30383169	3523	8807	8624		
247.9974	30:11	30:11	0	1.000	79749991	18428037	2322	5805	7936	1.64(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:28	33:27	1	1.021	5938071	1146897	39	97	29408		
249.0454	33:28	33:27	1	1.021	3720960	729714	69	172	10576	1.60(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	70432260	14438404	930	2325	15525		
237.0052	33:29	33:29	0	1.001	43970407	8948595	244	610	36675	1.60(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:45	33:44	1	1.029	3504736	680753	39	97	17455		
249.0454	33:45	33:44	1	1.029	2245229	455036	69	172	6595	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	37045176	7342912	930	2325	7896		
237.0052	33:46	33:46	0	1.001	24011325	4712078	244	610	19312	1.54(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:37	36:36	1	1.116	2959704	534336	39	97	13701		
249.0454	36:37	36:36	1	1.116	1865559	348616	69	172	5052	1.59(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:37	1	1.000	33805809	6443820	930	2325	6929		
237.0052	36:38	36:37	1	1.000	21453644	4067291	244	610	16669	1.58(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.927	1095088	245207	118	295	2078		
271.8775	30:23	30:23	0	0.927	620357	130095	23	57	5656	1.77(1.16-1.94)	
Dieldrin											
262.8570	30:26	30:25	1	1.001	10420228	2118000	274	685	7730		
264.8540	30:26	30:25	1	1.001	6704672	1356700	220	550	6167	1.55(1.16-1.94)	
13C12-Endrin											
269.8805	32:03	32:03	-1	0.977	576235	115585	118	295	980		
271.8775	32:04	32:03	0	0.978	352454	77818	23	57	3383	1.63(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:06	32:05	1	1.002	5637809	1111080	274	685	4055		
264.8540	32:05	32:05	0	1.001	3614318	708963	220	550	3223	1.56(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:48	32:47	1	1.000	115469	21843	18	45	1214		
278.8240	32:48	32:47	1	1.000	95786	18737	23	57	815	1.21(0.93-1.55)	
Endosulfan II											
271.8102	32:49	32:48	0	1.000	1276478	246971	210	525	1176		
273.8072	32:49	32:48	0	1.000	1016149	199025	139	347	1432	1.26(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:20	34:19	1	1.047	147753	27015	25	62	1081		
358.9361	34:20	34:19	1	1.047	92904	17037	7	17	2434	1.59(1.17-1.95)	
Endrin aldehyde											
344.8988	34:22	34:21	1	1.001	1734831	328406	142	355	2313		
346.8959	34:22	34:21	1	1.001	1116303	208086	127	317	1638	1.55(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:57	41:56	1	1.279	5337253	903834	161	402	5614		
240.1510	41:58	41:56	2	1.280	288880	46738	18	45	2597	18.48(0.00-0.00)	
Methoxychlor											
227.1072	41:59	41:58	1	1.001	59442893	10774971	257	642	41926		
228.1106	41:59	41:58	1	1.001	10737563	1814309	128	320	14174	5.54(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:26	40:25	2	1.233	313679	51417	13	32	3955		
329.9379	40:25	40:25	1	1.233	200000	34306	6	15	5718	1.57(1.19-1.98)	
Endrin ketone											
316.9039	40:29	40:28	1	1.001	3662152	616177	85	212	7249		
318.9010	40:29	40:28	1	1.001	2297550	391257	62	155	6311	1.59(1.16-1.95)	
13C10-Mirex											
276.8270	45:25	45:25	0	1.227	2725187	429678	28	70	15346		
278.8240	45:25	45:25	0	1.227	2107606	332653	14	35	23761	1.29(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.001	27146396	4314736	83	207	51985		
273.8072	45:27	45:27	0	1.001	21566638	3427387	71	177	48273	1.26(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		16202912	5421328	23	57	235710		
236.0376	19:04	19:04	0		10034676	3303450	17	42	194321	1.61(1.16-1.93)	
PCB-14											
222.0003	17:49	17:49	0	0.934	205191027	81961423	220	550	372552		
223.9974	17:49	17:49	0	0.934	123582765	50029475	147	367	340337	1.66(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:29	18:31	-1		586436	194166	11	27	17651		
271.8636	18:29	18:31	-1		895190	301178	27	67	11155	0.66(0.00-0.00)	
Pentachlorophenol											
263.8464	18:30	18:31	-1	1.001	6057117	1920425	64	160	30007		
265.8435	18:30	18:31	-1	1.001	9553884	2984476	68	170	43889	0.63(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:09	22:09	0	1.162	119617358	35050476	166	415	211148		
257.9584	22:09	22:09	0	1.162	113637119	33591246	177	442	189781	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:07	28:07	0		5217299	1175329	1	2	1175329		
339.9178	28:07	28:07	0		3250160	750338	3	7	250113	1.61(1.16-1.94)	
PCB-104											
325.8804	23:44	23:44	0	0.844	72158205	20159981	1	2	20159980		
327.8775	23:44	23:44	0	0.844	44656423	12411373	1	2	12411370	1.62(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		5123518	1004789	23	57	43686		
339.9178	32:48	32:48	0		3193246	626252	19	47	32961	1.60(1.16-1.94)	
PCB-121											
325.8804	26:43	26:43	0	0.815	51669784	12705757	1846	4615	6883		
327.8775	26:43	26:43	0	0.815	31548801	7671139	1064	2660	7210	1.64(1.32-1.78)	
PCB-138L											
371.8817	37:00	36:59	1		2986938	550557	21	52	26217		
373.8788	37:00	36:59	1		2361714	430889	12	30	35907	1.26(1.16-1.94)	
PCB-142											
359.8415	27:31	27:29	1	0.743	40453407	9531883	193	482	49388		
361.8385	27:31	27:29	1	0.743	31565153	7396065	135	337	54786	1.28(1.05-1.43)	
Endosulfan I											
262.8570	28:33	28:32	1	1.001	3032335	672320	55	137	12224		
264.8540	28:33	28:32	1	1.001	1930742	423169	74	185	5719	1.57(1.16-1.94)	
PCB-60L											
301.9626	27:44	27:44	0		7290704	1635247	28	70	58402		
303.9597	27:44	27:44	0		8985915	2011472	39	97	51576	0.81(0.58-0.96)	
PCB-78											a
289.9224	29:22	29:21	1	1.059	50847266	11564260	1054	2635	10972		a
291.9194	29:22	29:21	1	1.059	64955129	14764518	1225	3062	12053	0.78(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:51	30:50	1	0.941	7068600	1448589	209	522	6931		
249.0454	30:51	30:50	1	0.941	4523532	933167	171	427	5457	1.56(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.000	81134823	17414848	672	1680	25915		
237.0052	30:52	30:52	0	1.000	50812211	10951320	256	640	42779	1.60(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:49	33:48	1	1.031	447880	84857	15	37	5657		
278.8240	33:49	33:48	1	1.031	360097	68540	22	55	3115	1.24(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	4744619	933818	41	102	22776		
273.8072	33:50	33:50	0	1.001	3735169	726373	27	67	26903	1.27(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:18	36:17	1	1.107	725540	123551	15	37	8237		
278.8240	36:18	36:17	1	1.107	573856	100852	22	55	4584	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.001	7990677	1457328	41	102	35545		
273.8072	36:20	36:20	0	1.001	6396095	1171214	27	67	43378	1.25(0.93-1.55)	
PCB-167L											
371.8817	39:29	39:29	1		2949824	535812	6	15	89302		
373.8788	39:29	39:29	1		2359205	429465	4	10	107366	1.25(1.16-1.94)	
PCB-155											
359.8415	34:00	33:59	1	0.861	21552448	4326374	153	382	28277		
361.8385	34:00	33:59	1	0.861	17241094	3440865	120	300	28674	1.25(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.878	24051400	4703275	28	70	167974		
395.7995	34:39	34:39	0	0.878	22789964	4448104	45	112	98847	1.06(0.89-1.21)	
PCB-204											
427.7635	42:18	42:17	1	1.071	14961454	2564169	1	2	2564169		
429.7606	42:18	42:17	1	1.071	16557383	2825803	1	2	2825803	0.90(0.76-1.02)	
PCB-192											
393.8025	42:37	42:36	1	1.079	17191152	2956835	115	287	25712		
395.7995	42:37	42:36	1	1.079	16496279	2843737	103	257	27609	1.04(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

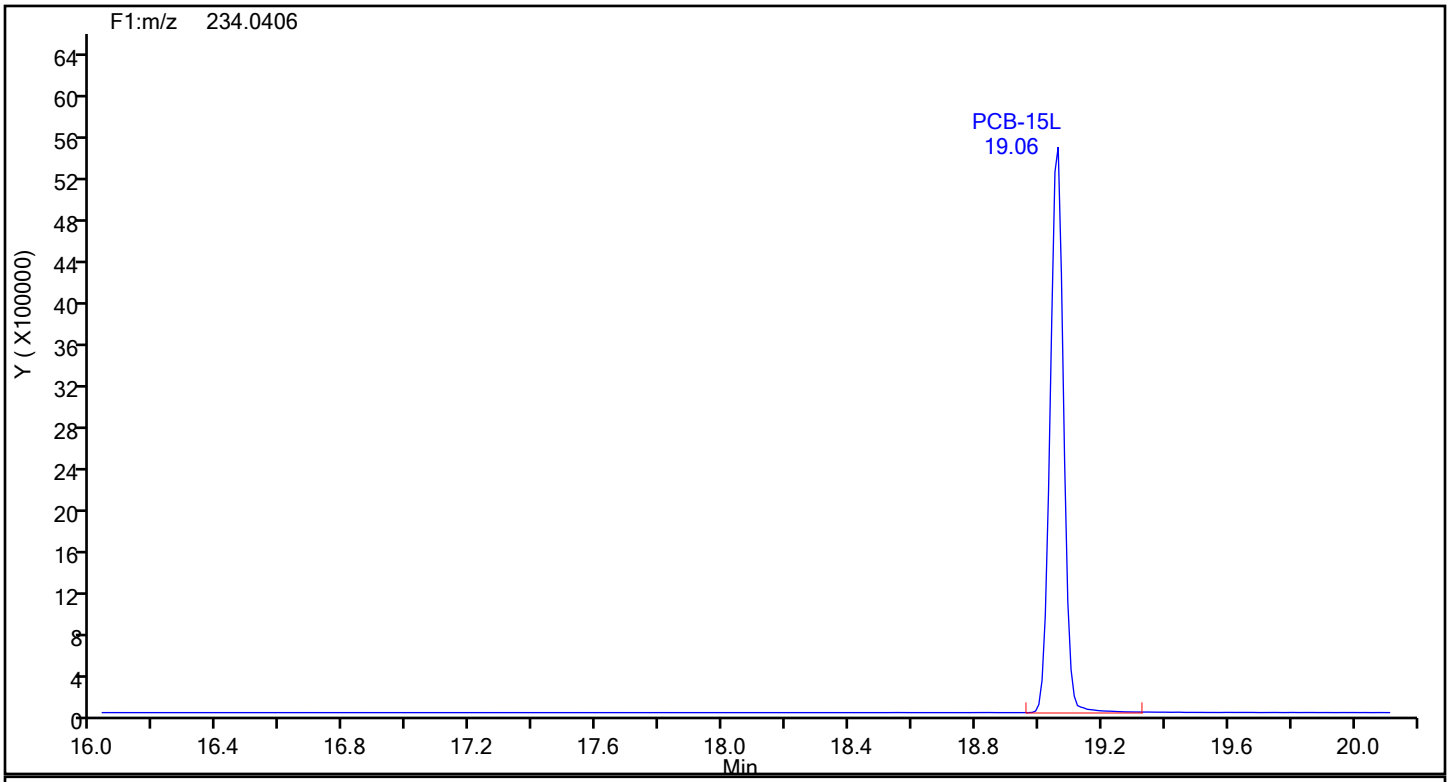
61L71699PST_00011 Amount Added: 20.00 Units: uL

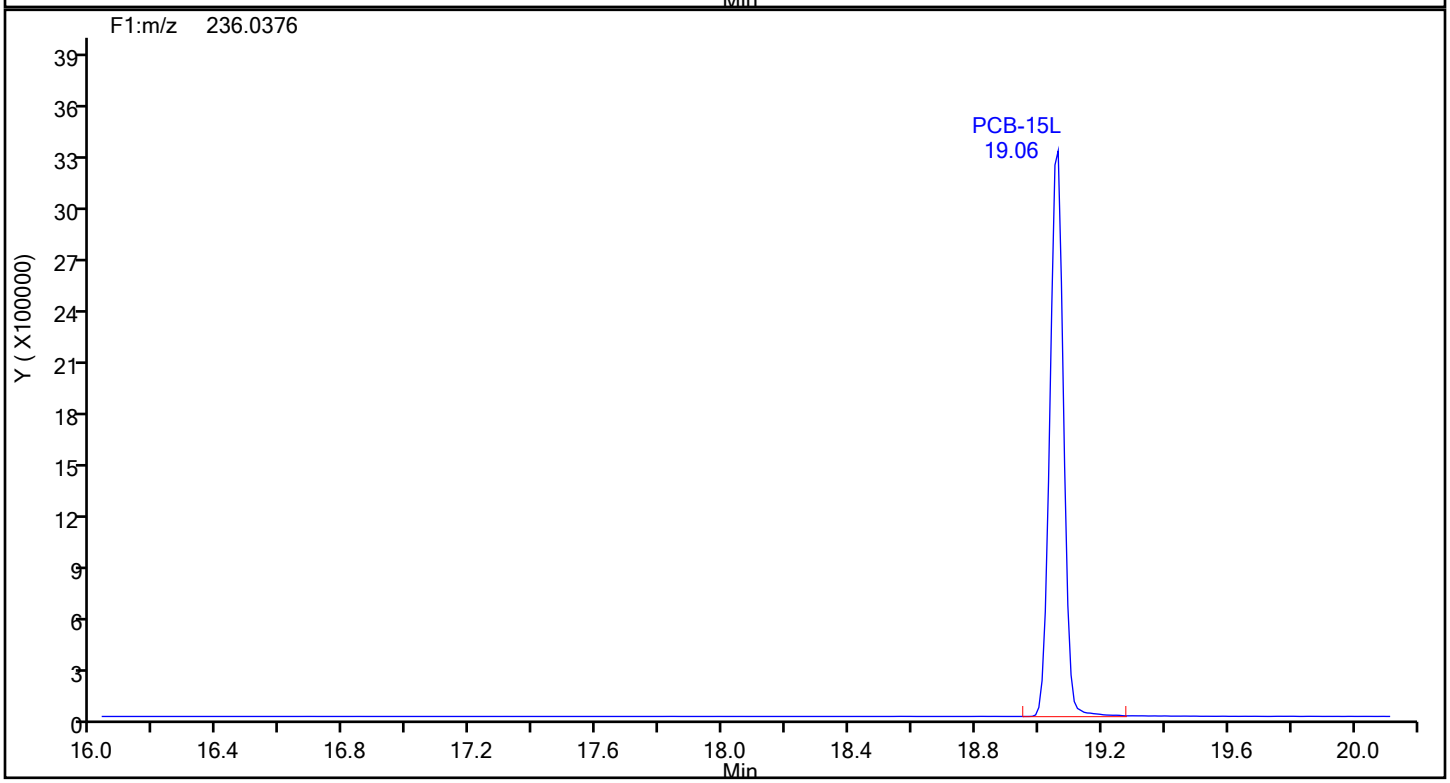
Report Date: 24-Mar-2025 13:06:38 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





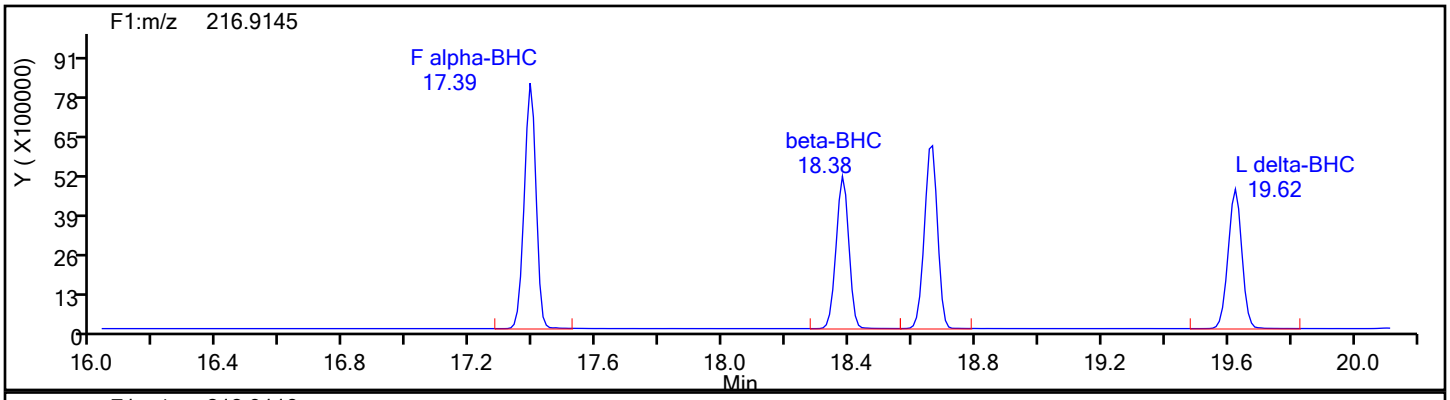
Report Date: 24-Mar-2025 13:06:38 Chrom Revision: 2.3 21-Mar-2025 14:03:38

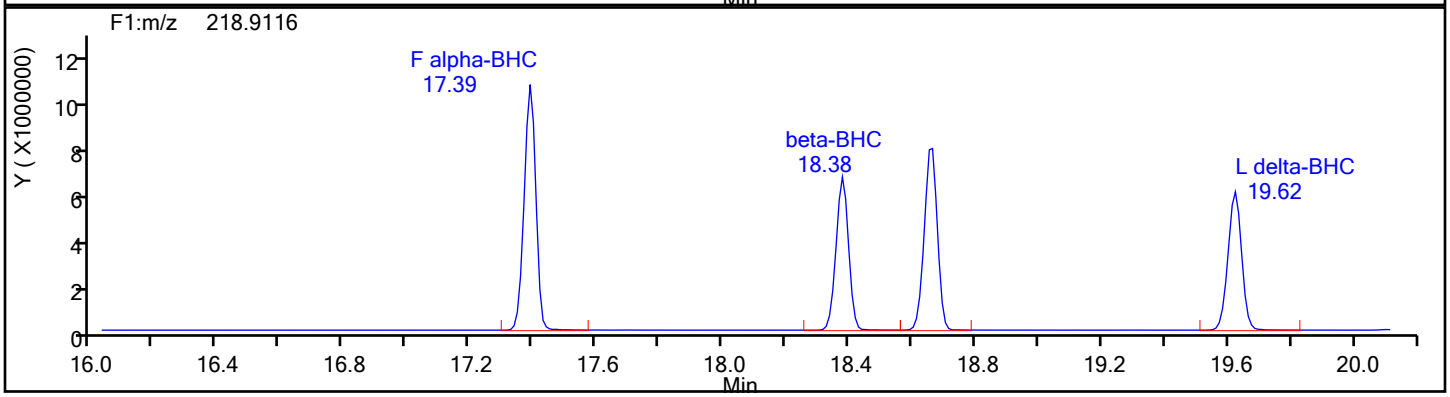
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

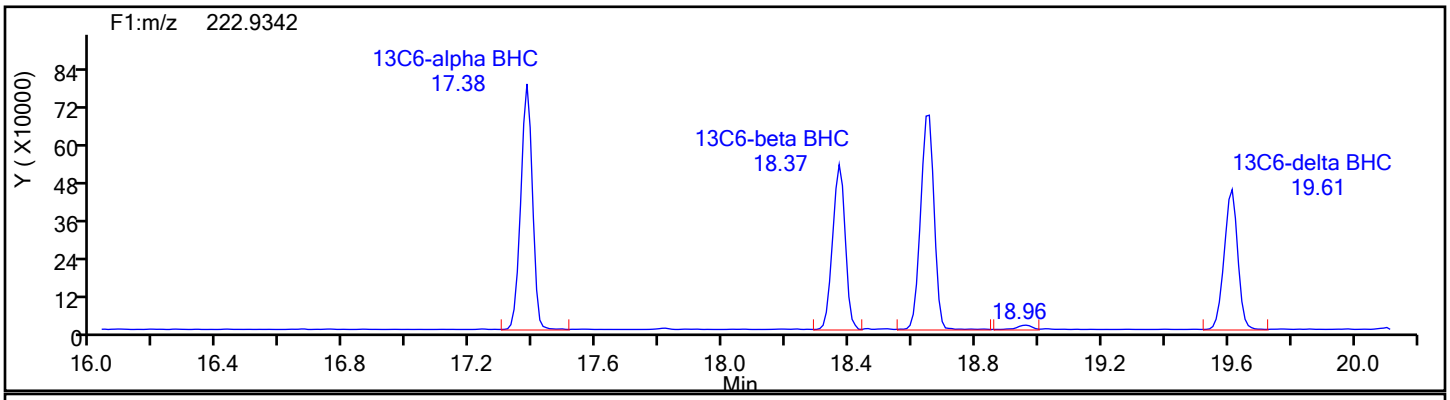
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

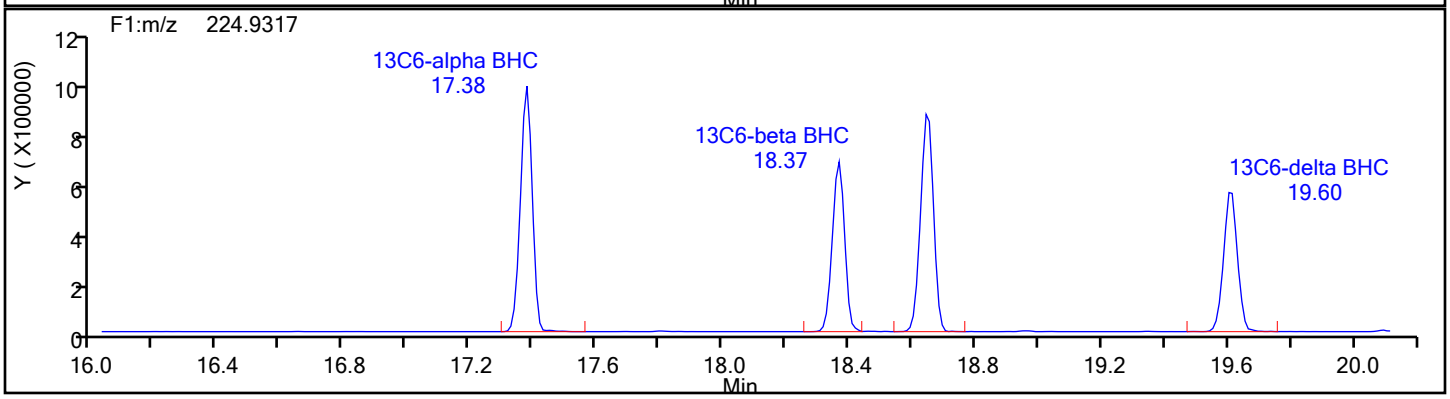
BHC





BHC Standards



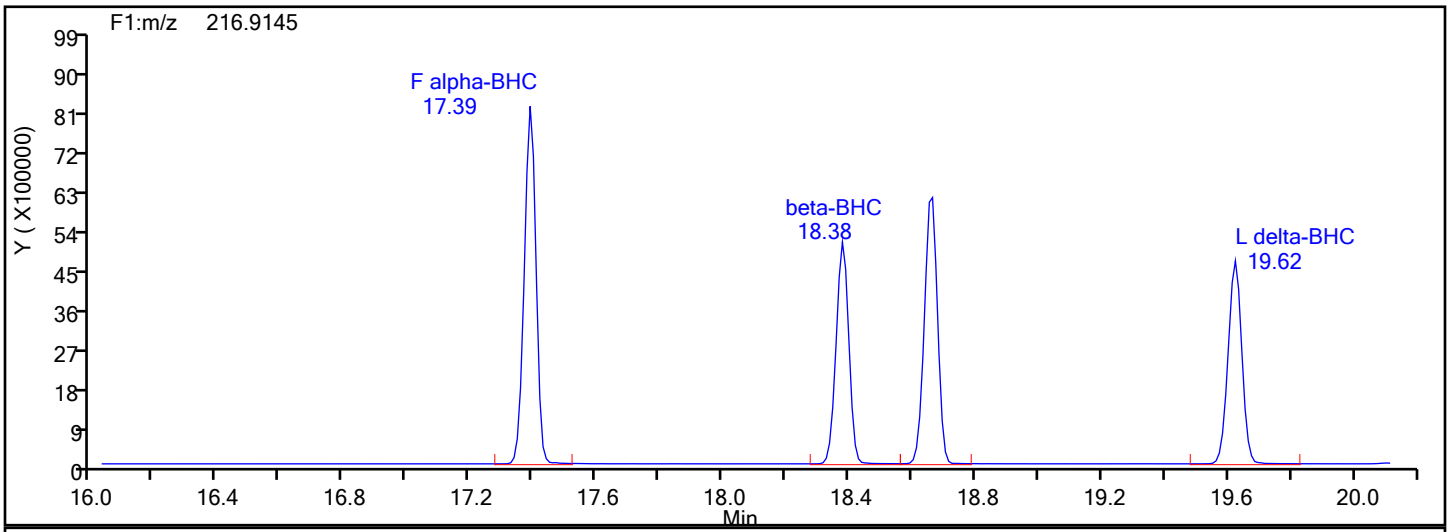


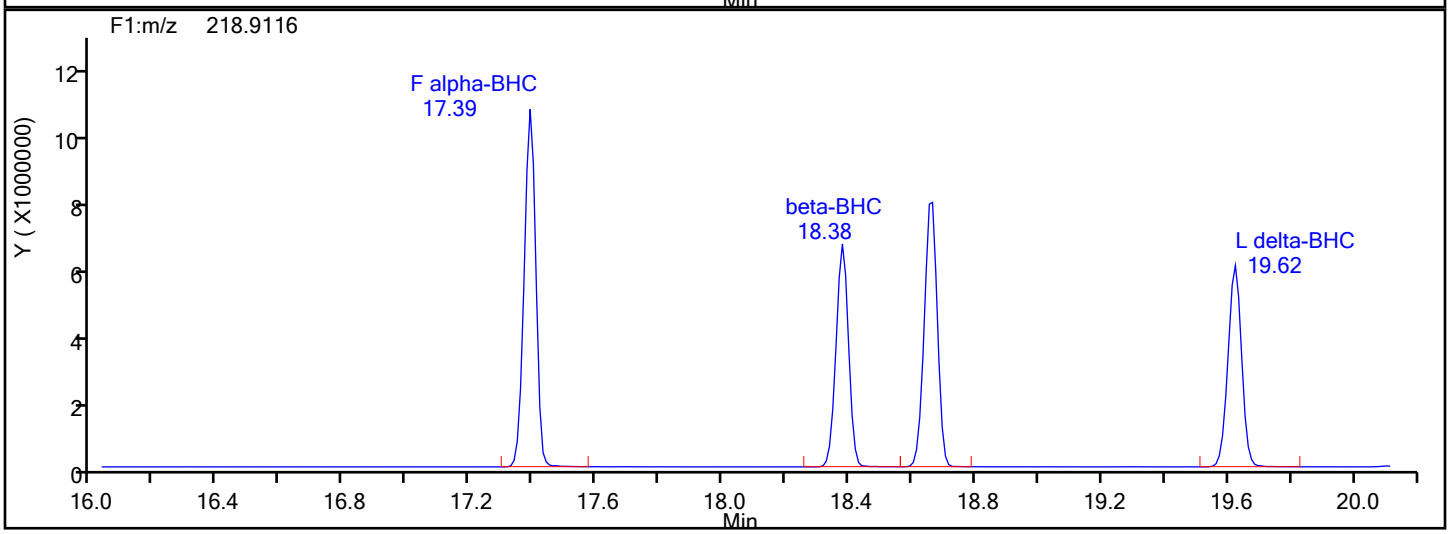
Report Date: 24-Mar-2025 13:06:38 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

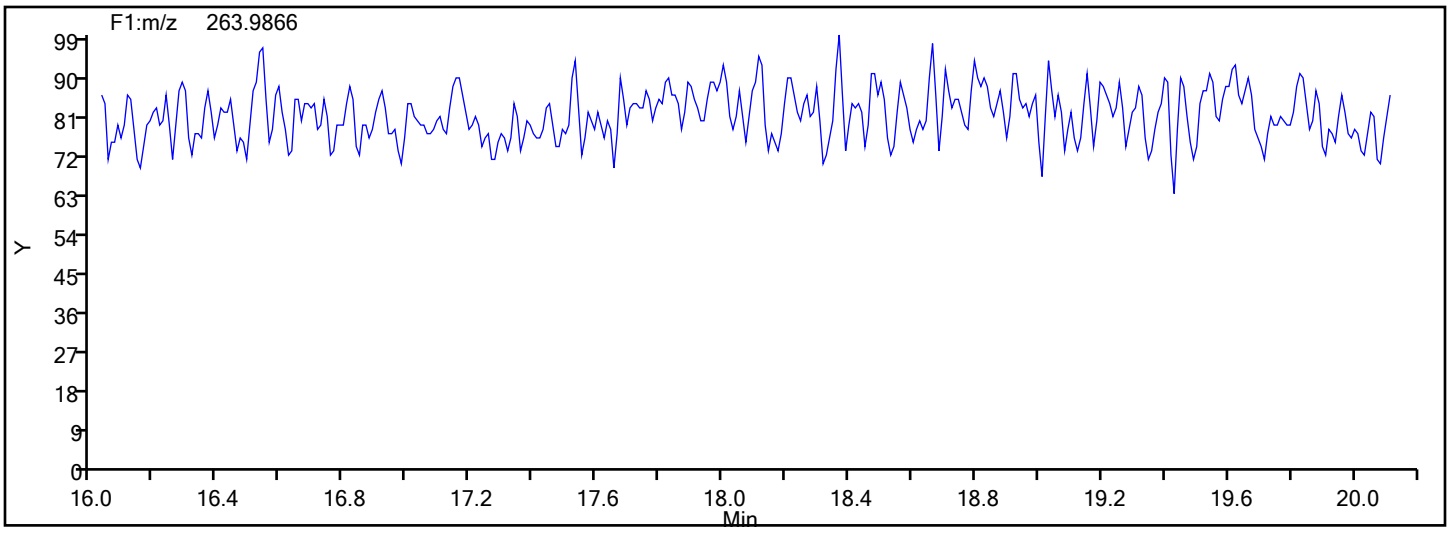
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

BHC





BHC Lock Mass



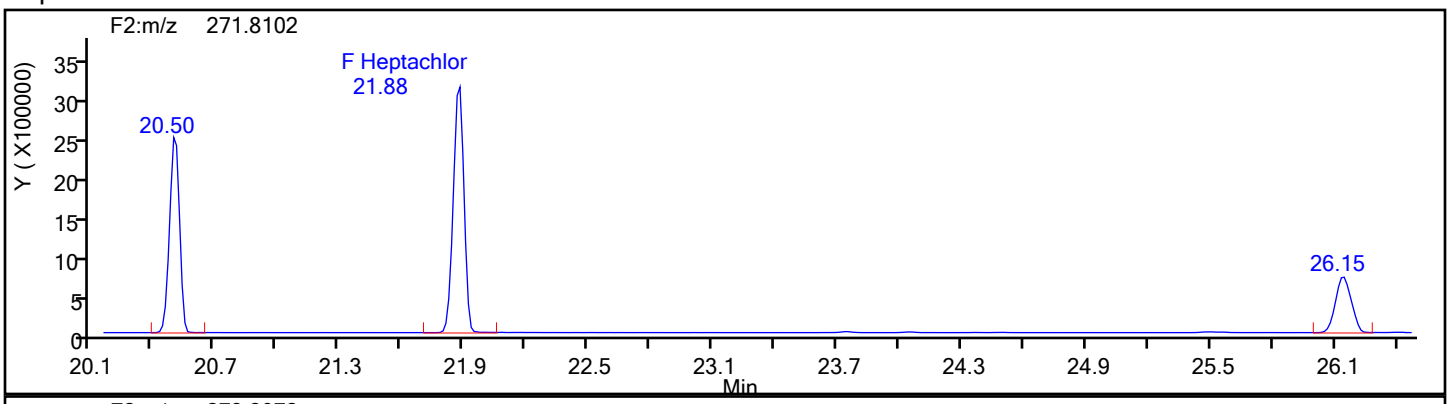
Report Date: 24-Mar-2025 13:06:38 Chrom Revision: 2.3 21-Mar-2025 14:03:38

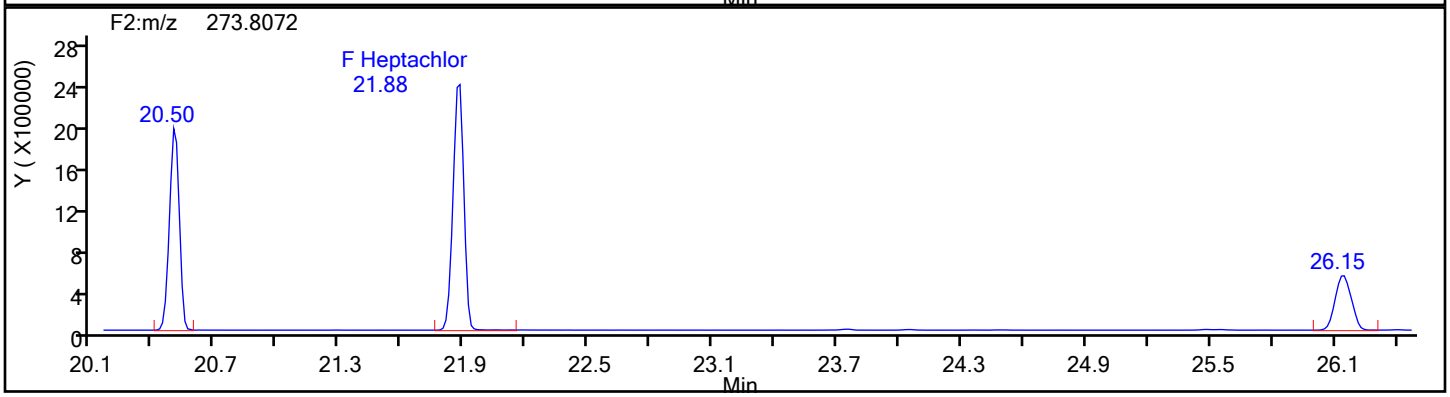
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

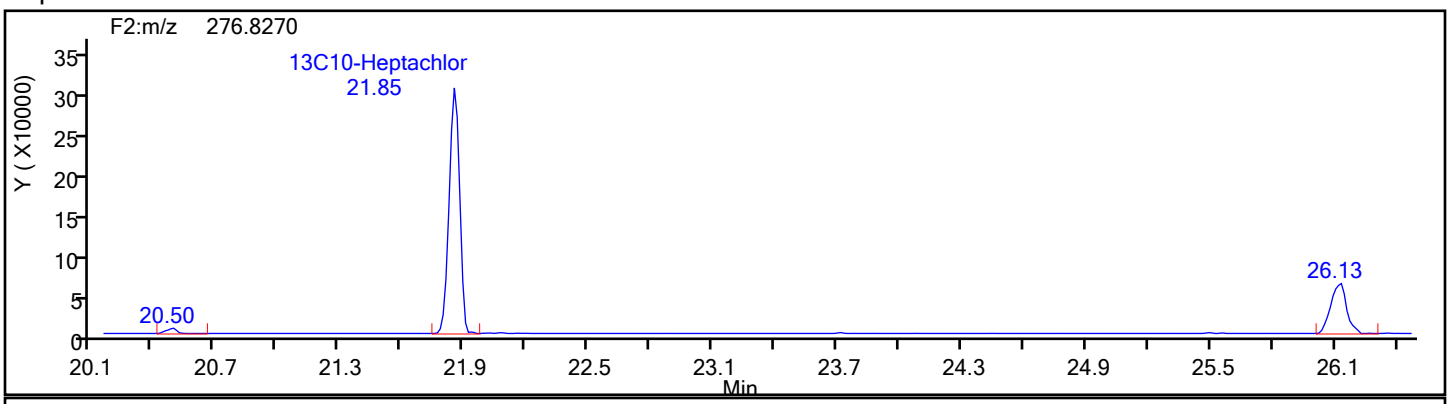
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

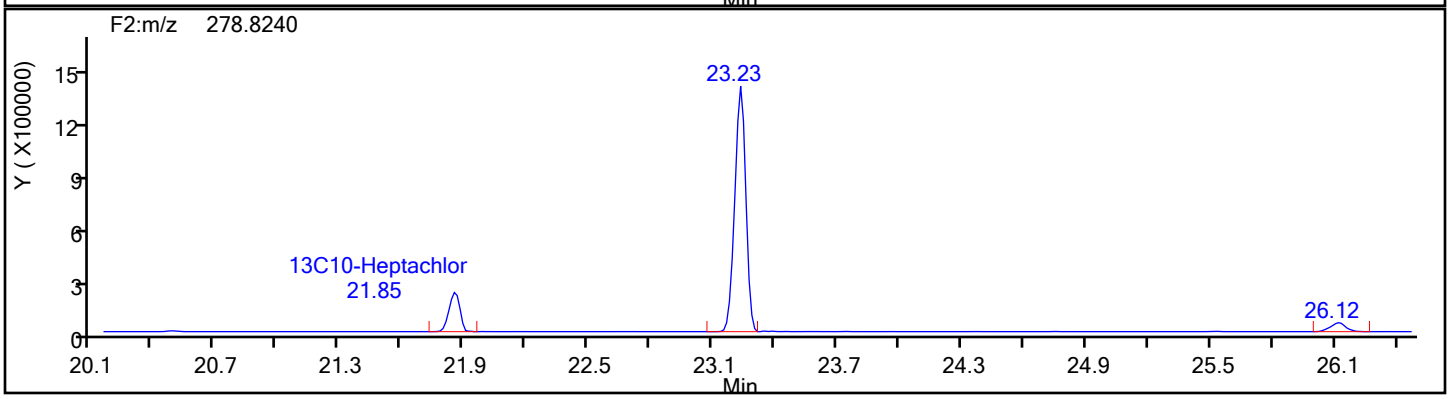
Heptachlor





Heptachlor Standards





Report Date: 24-Mar-2025 13:06:38 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
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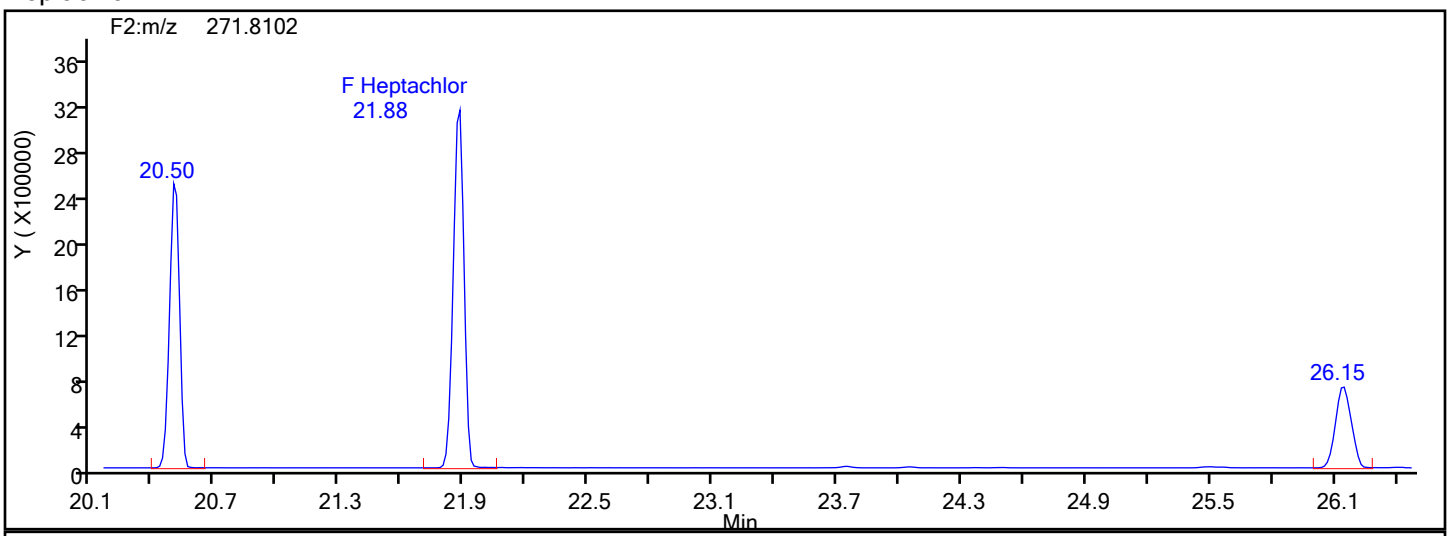
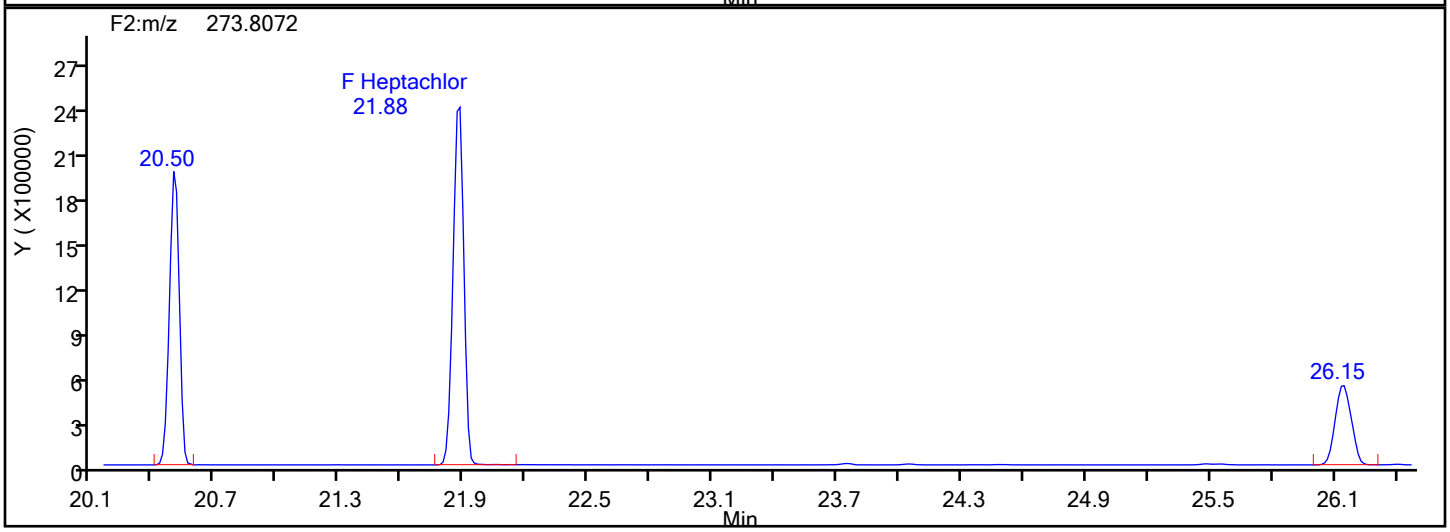
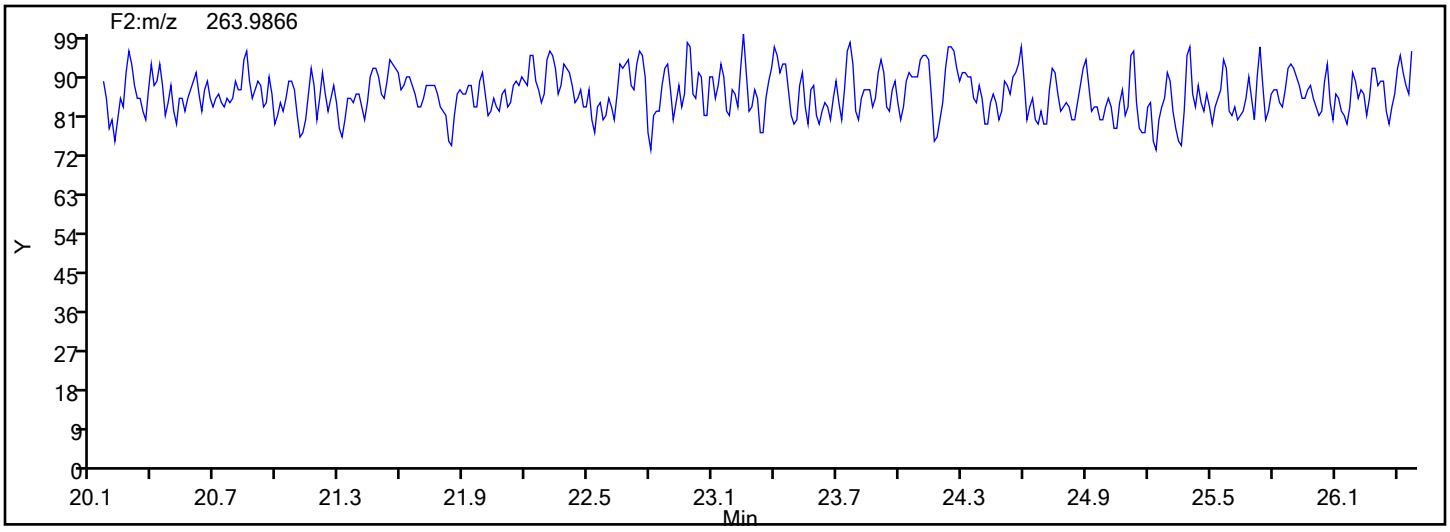
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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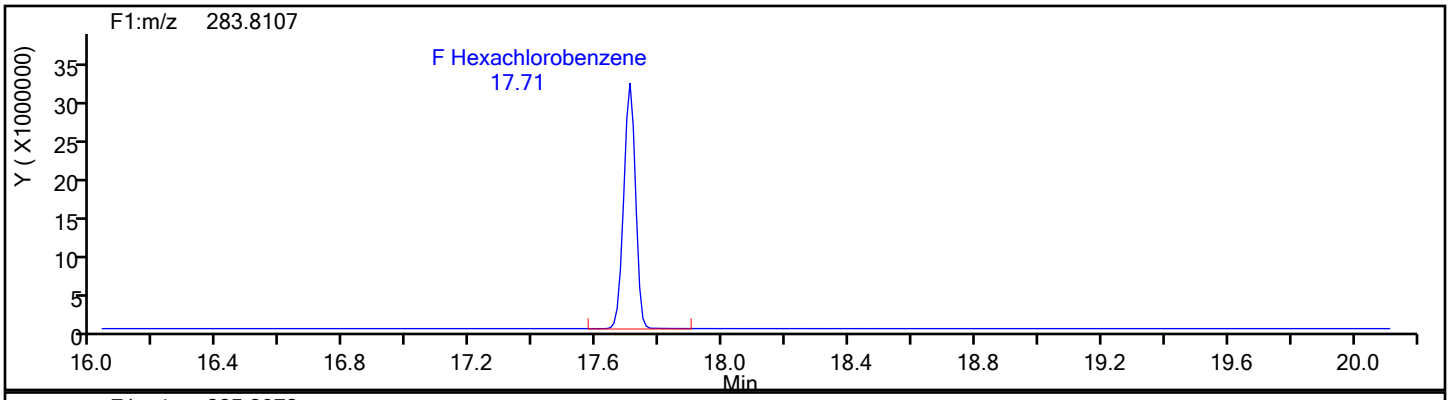
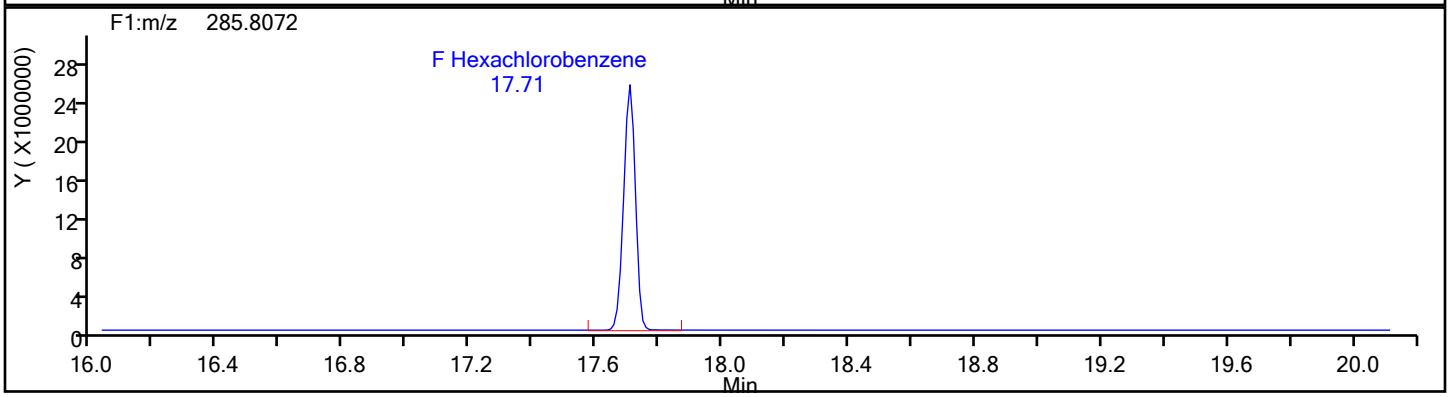
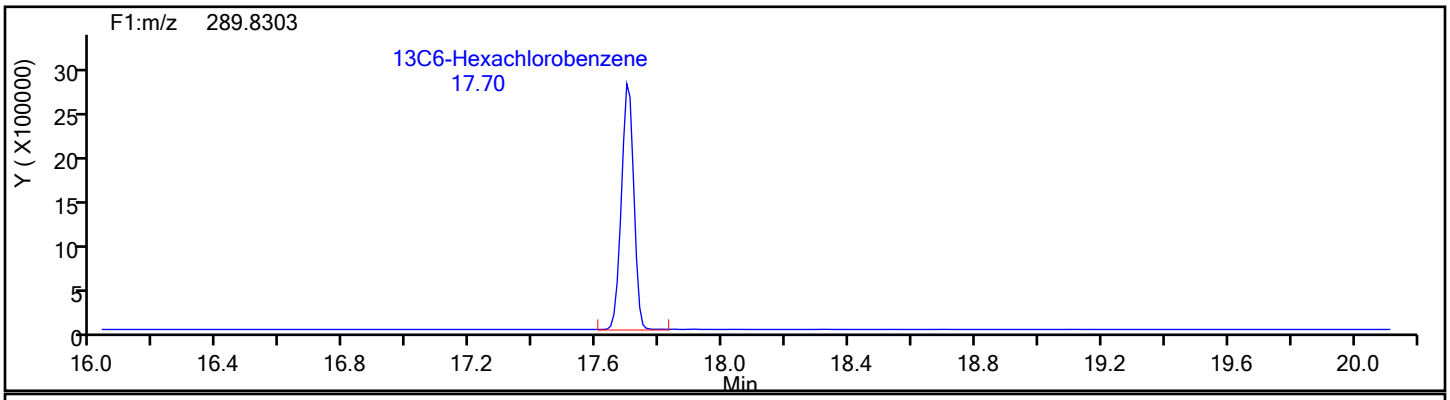
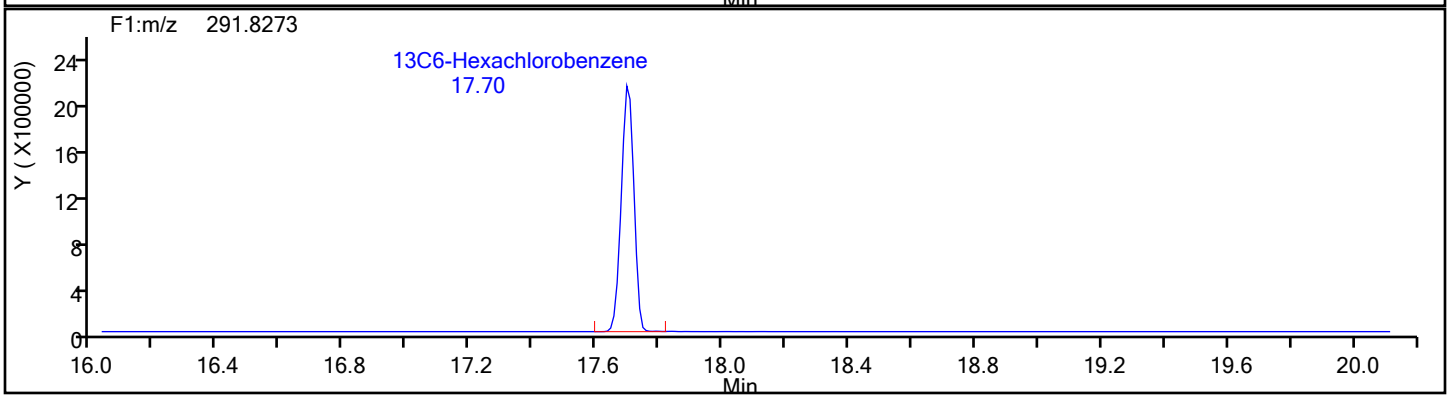
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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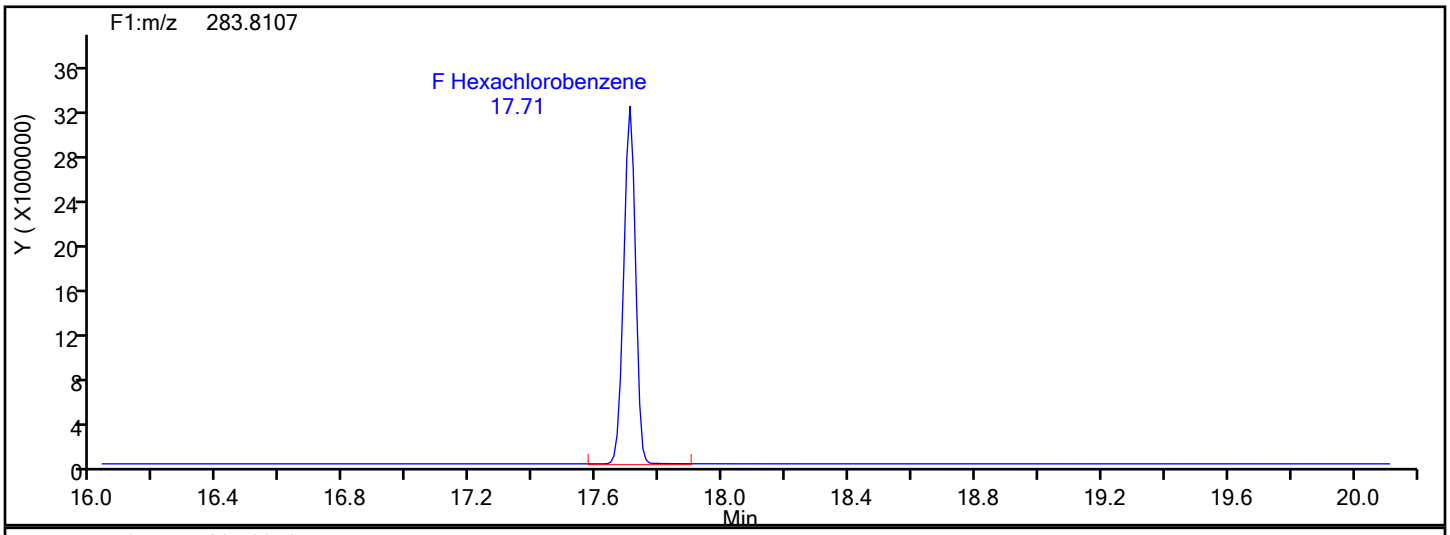
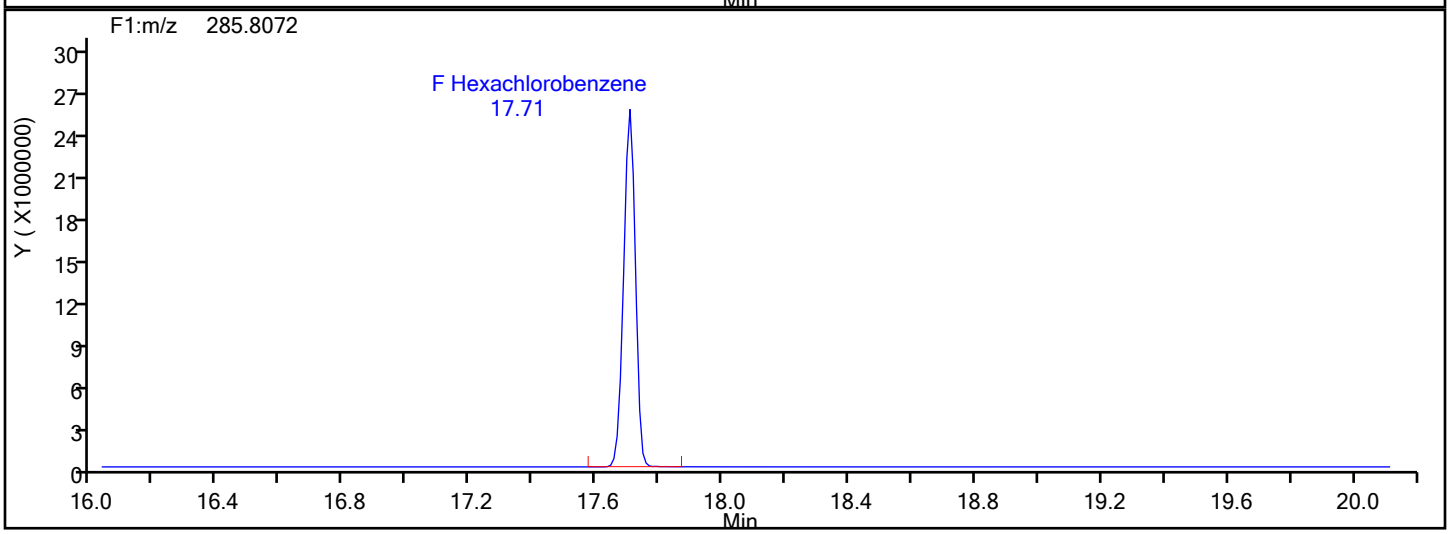
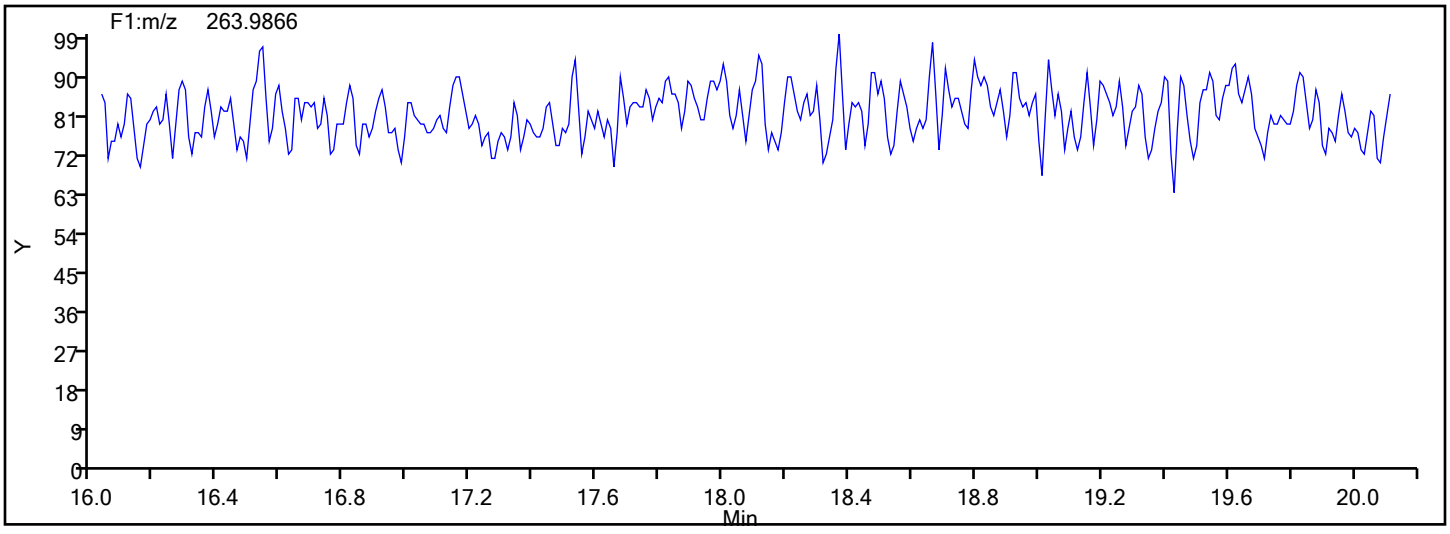
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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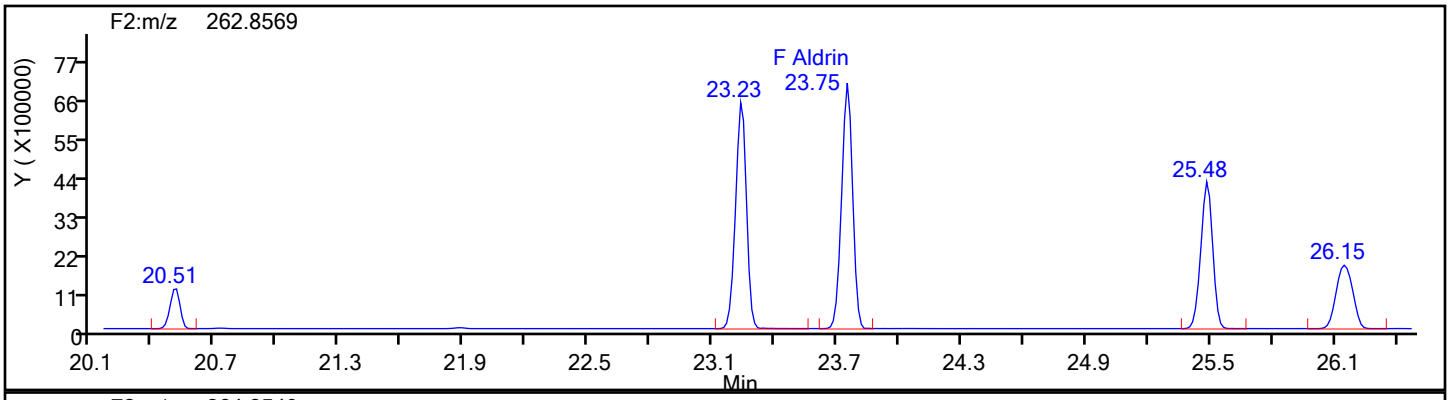
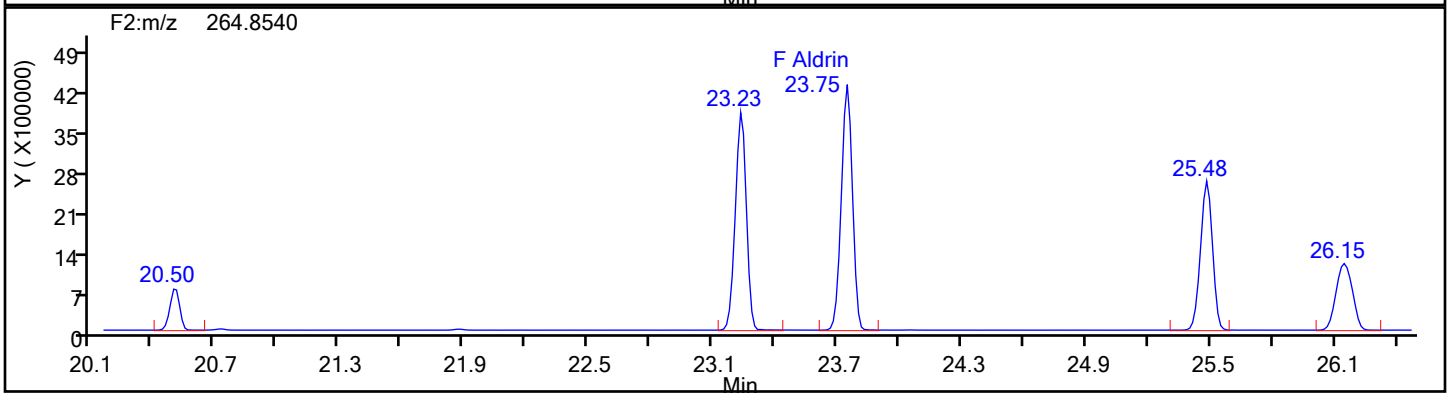
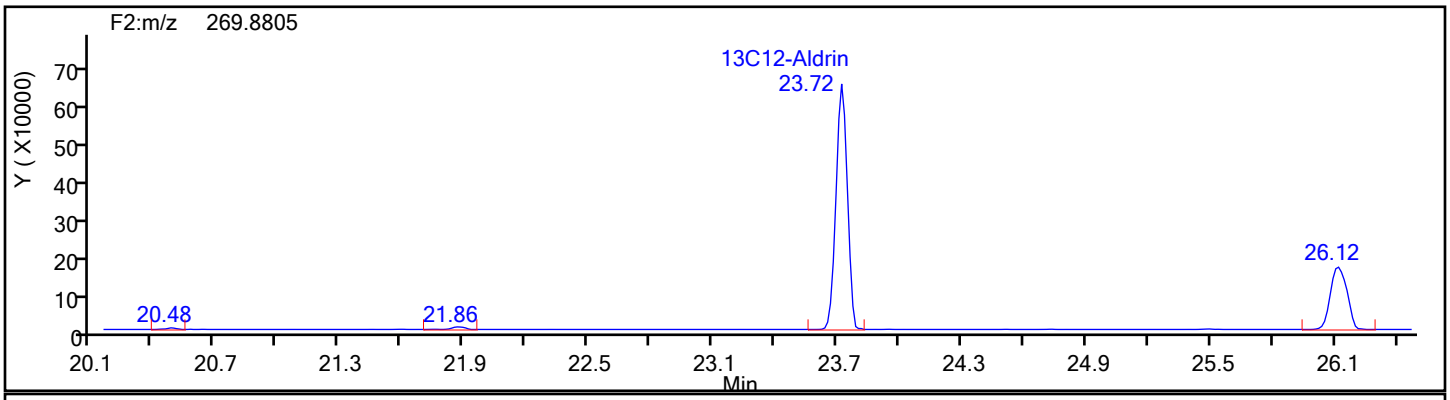
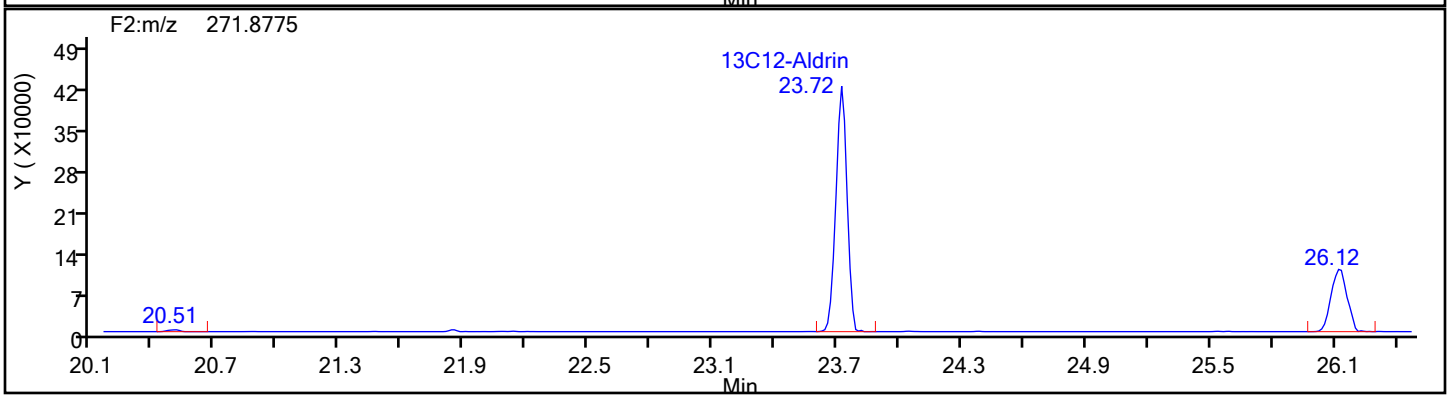
Aldrin





Aldrin Standards





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Eurofins Knoxville

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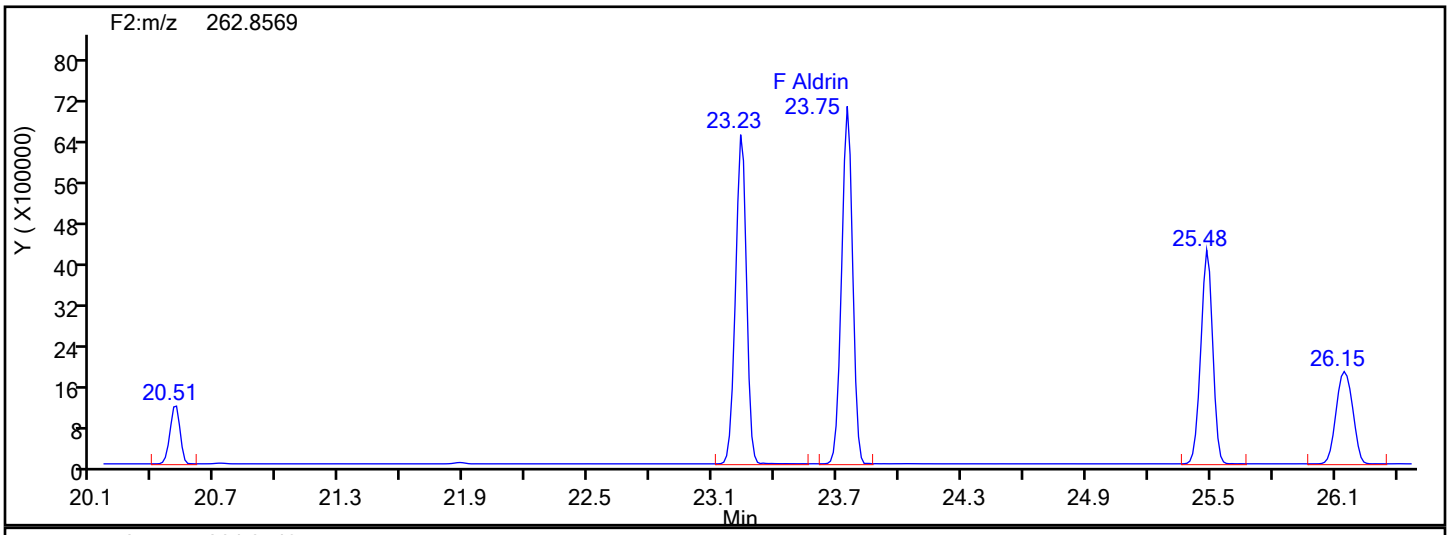
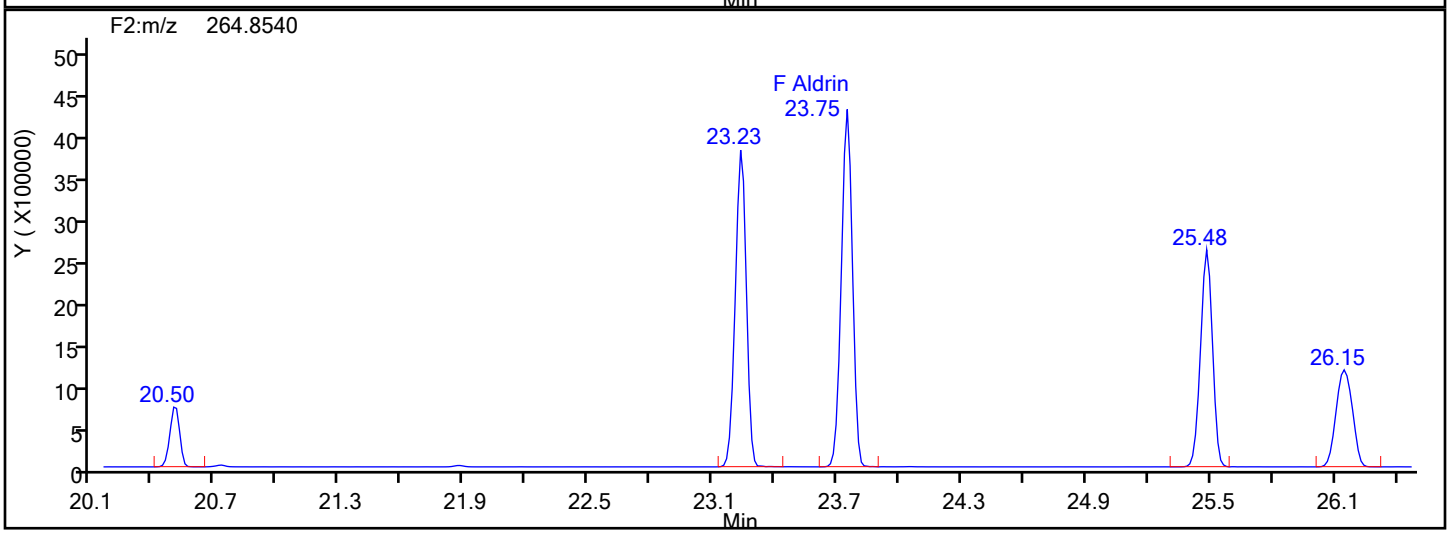
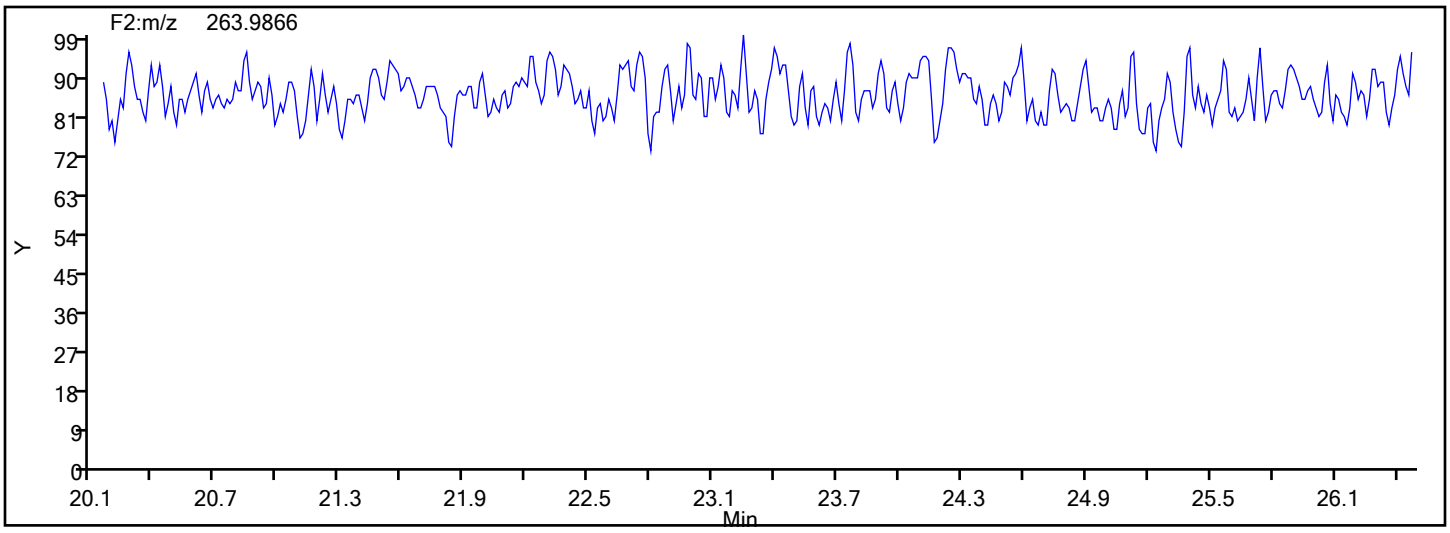
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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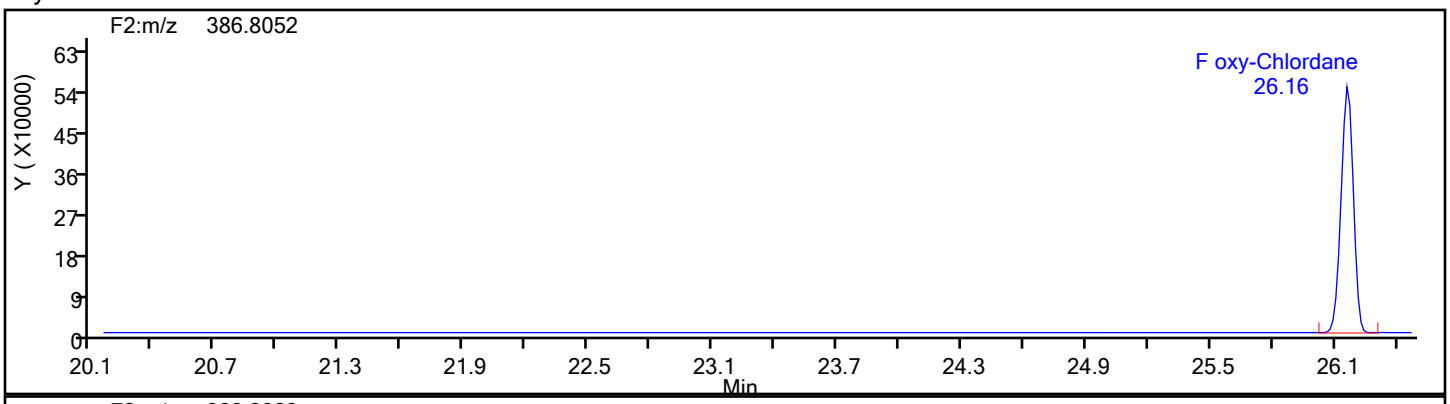
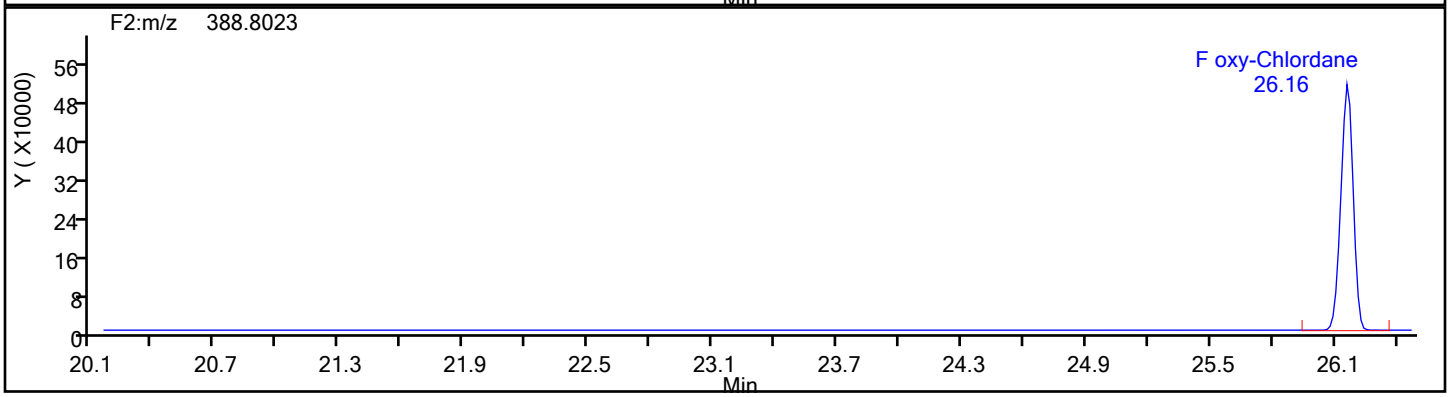
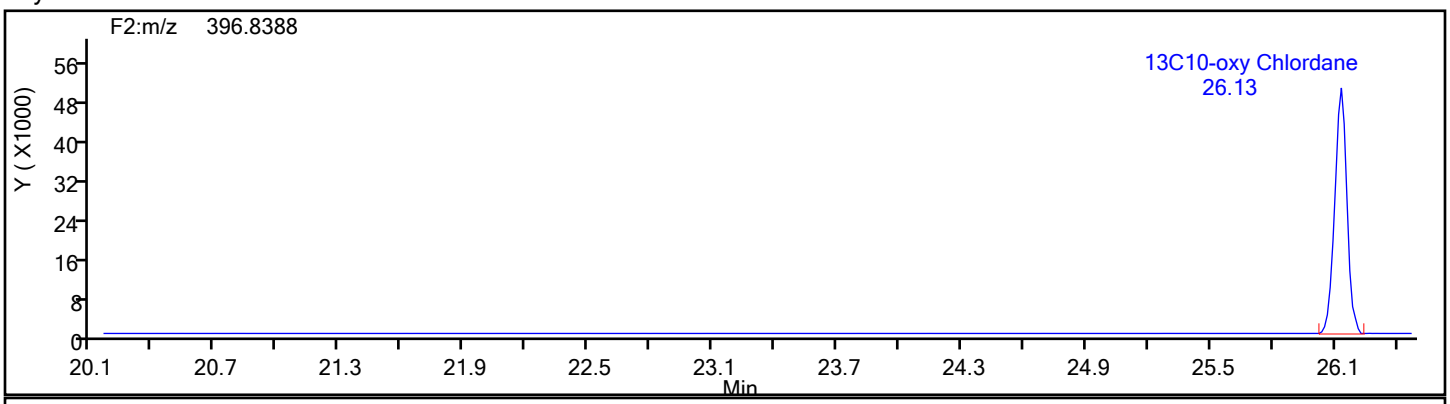
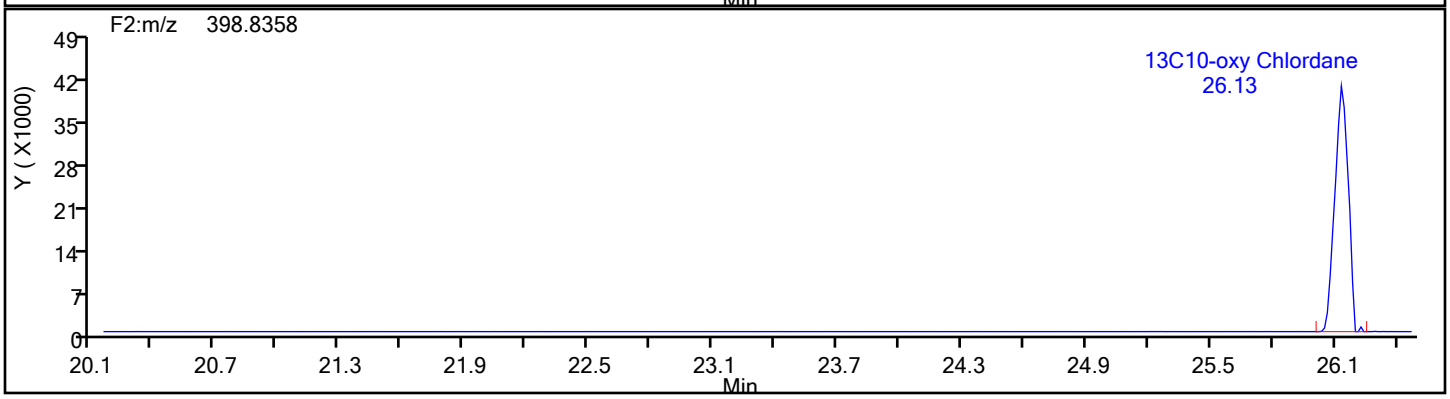
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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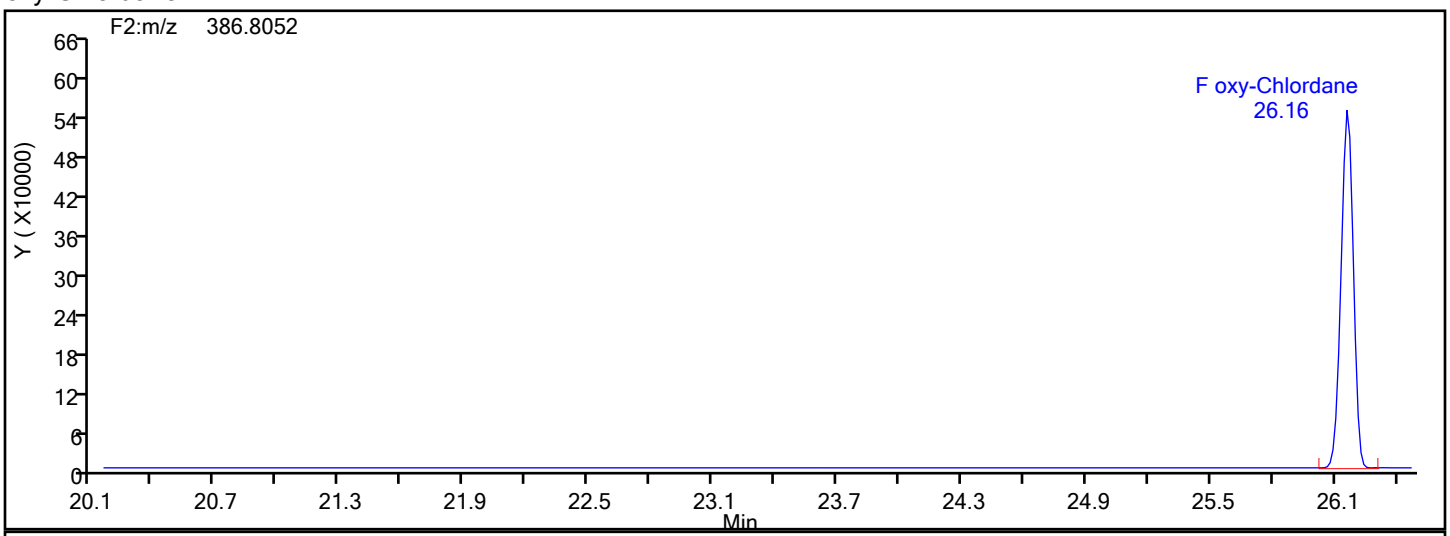
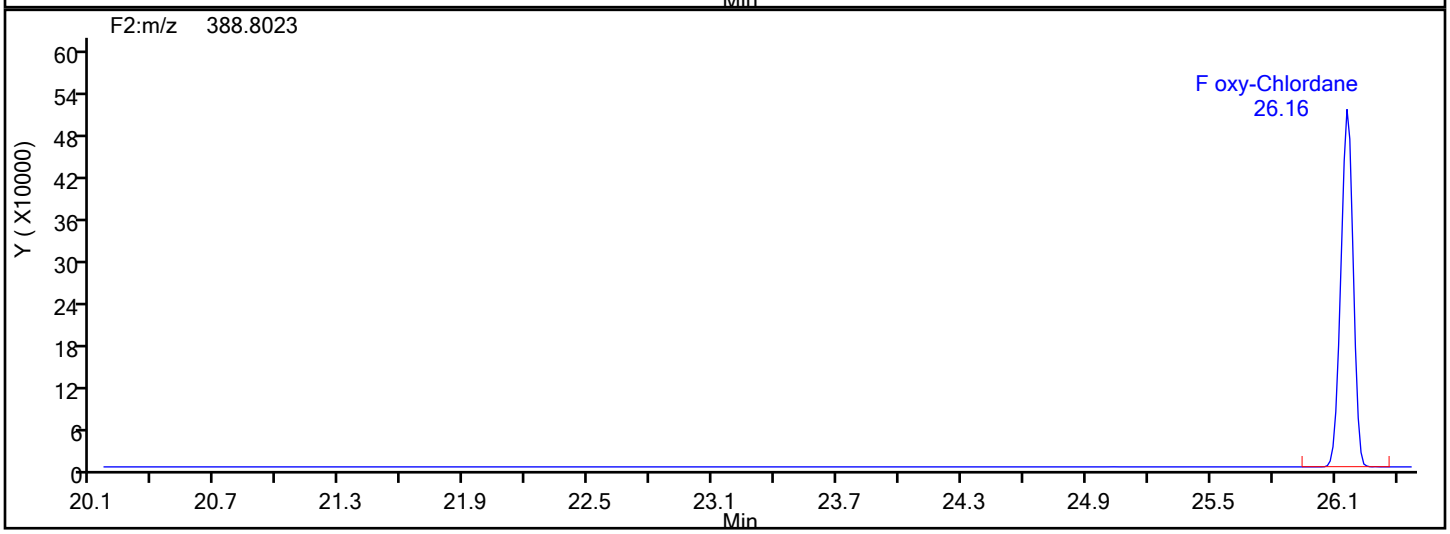
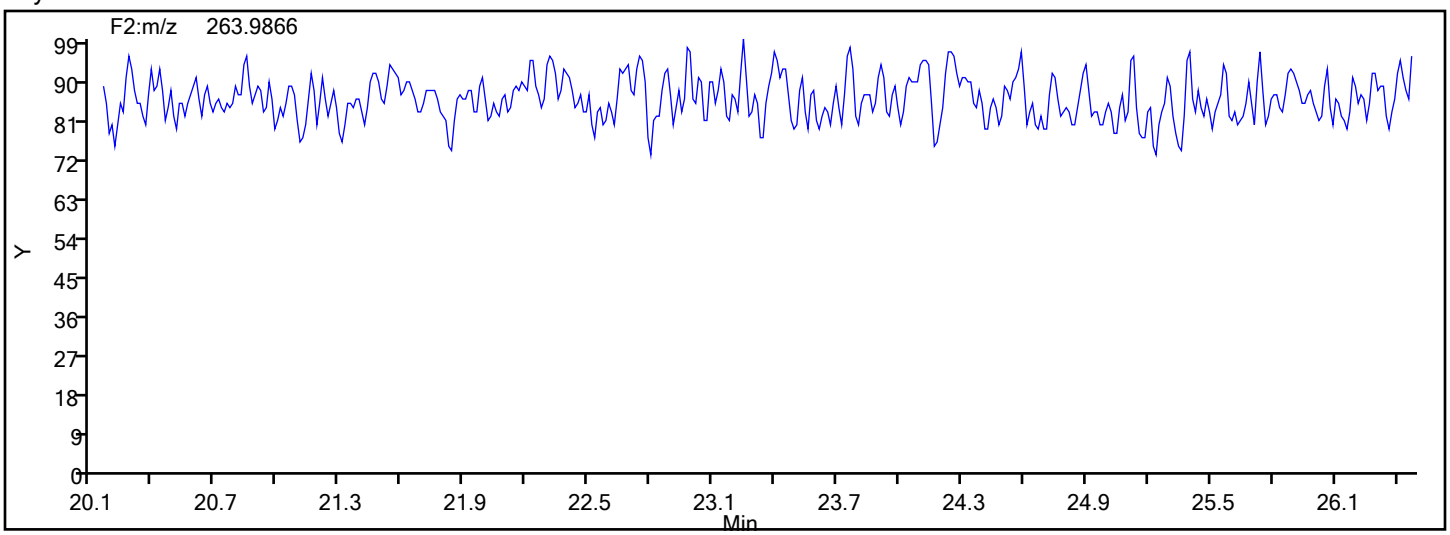
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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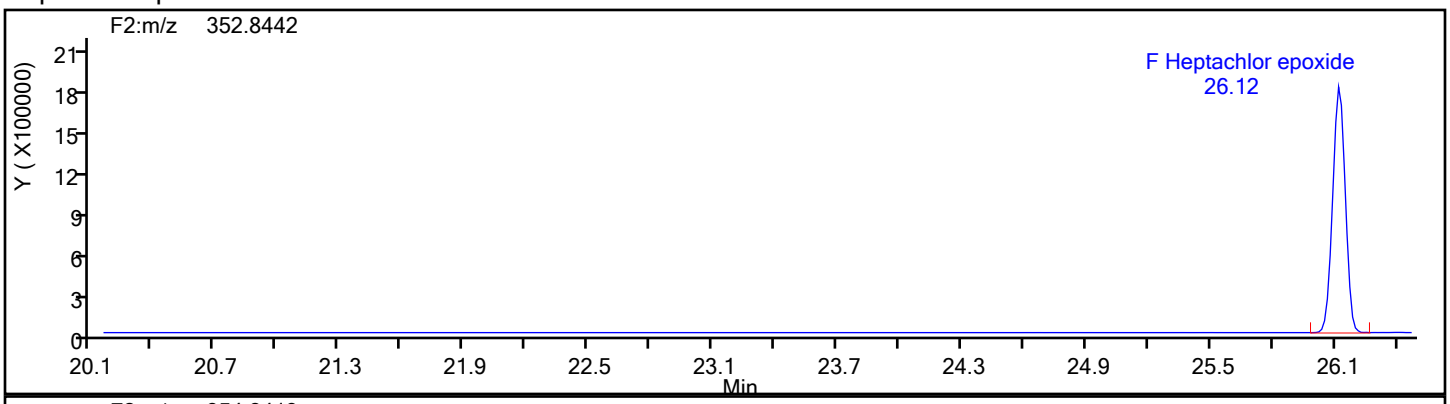
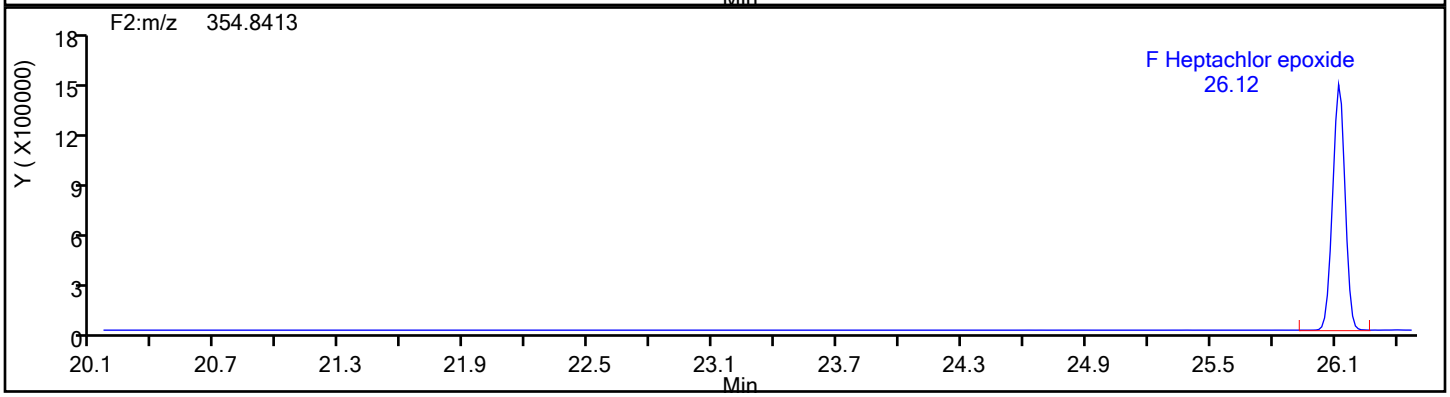
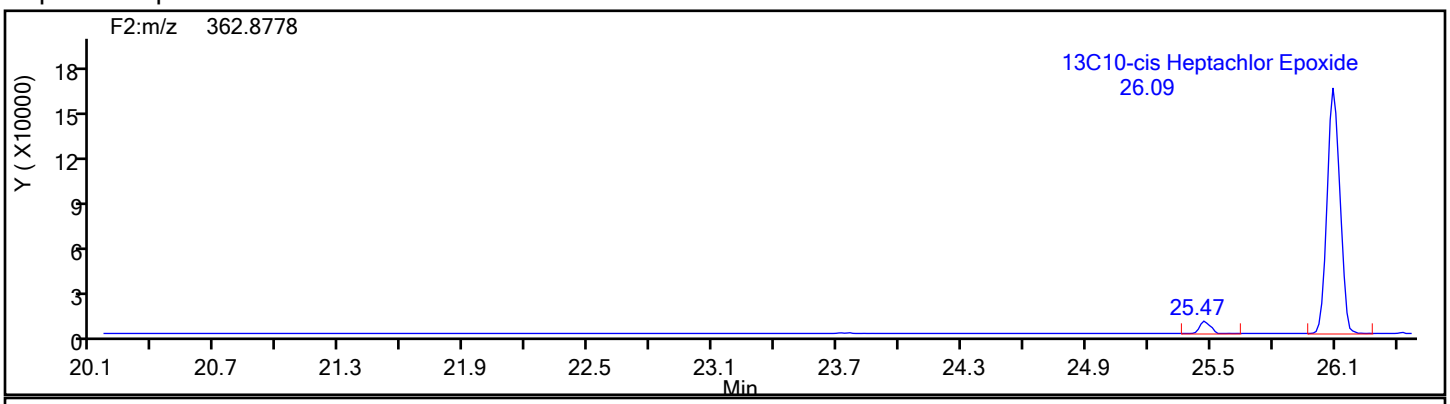
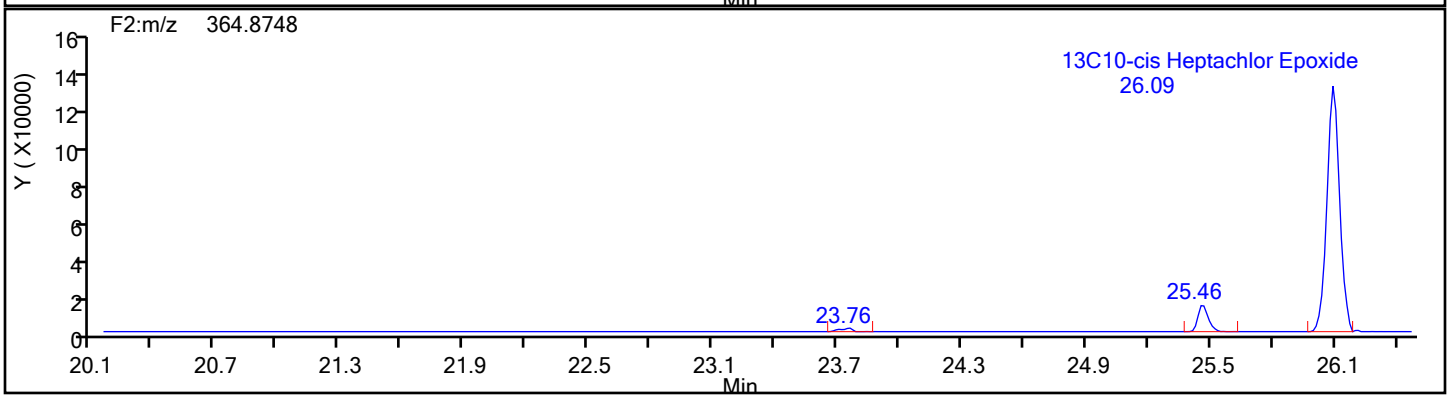
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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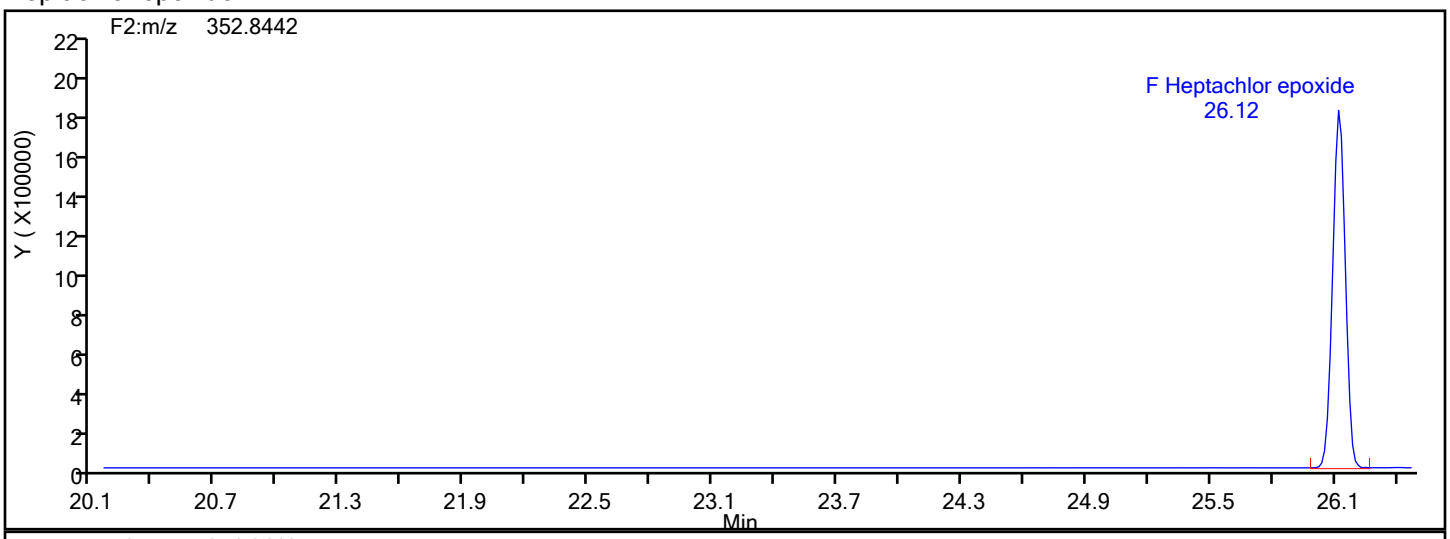
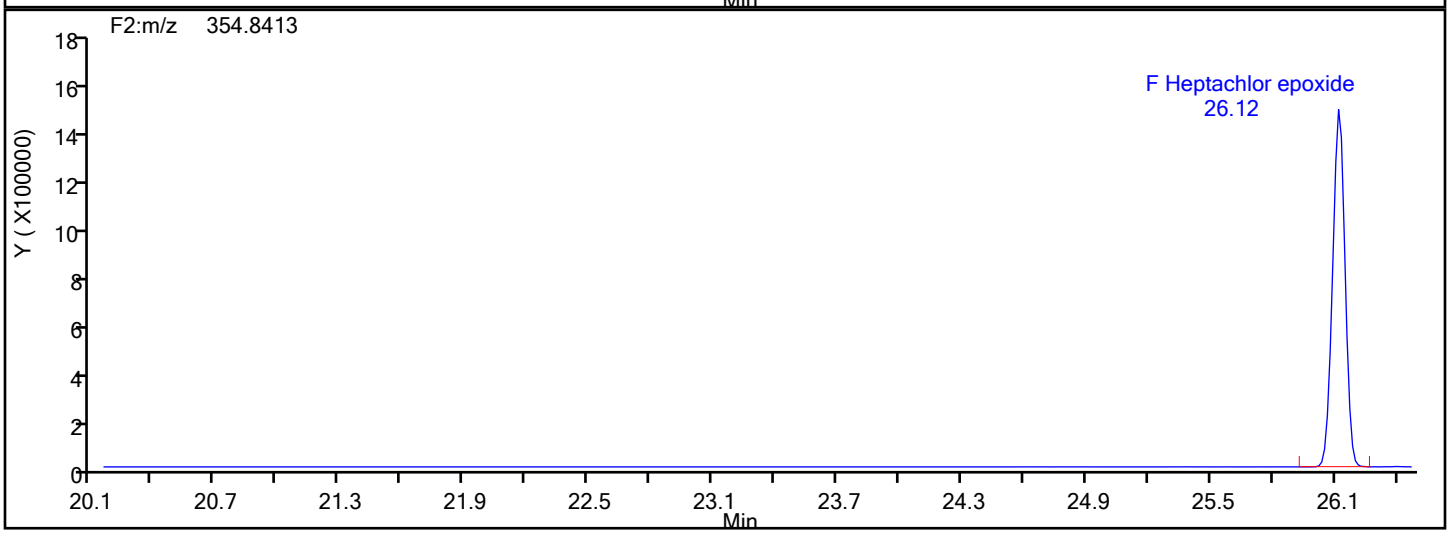
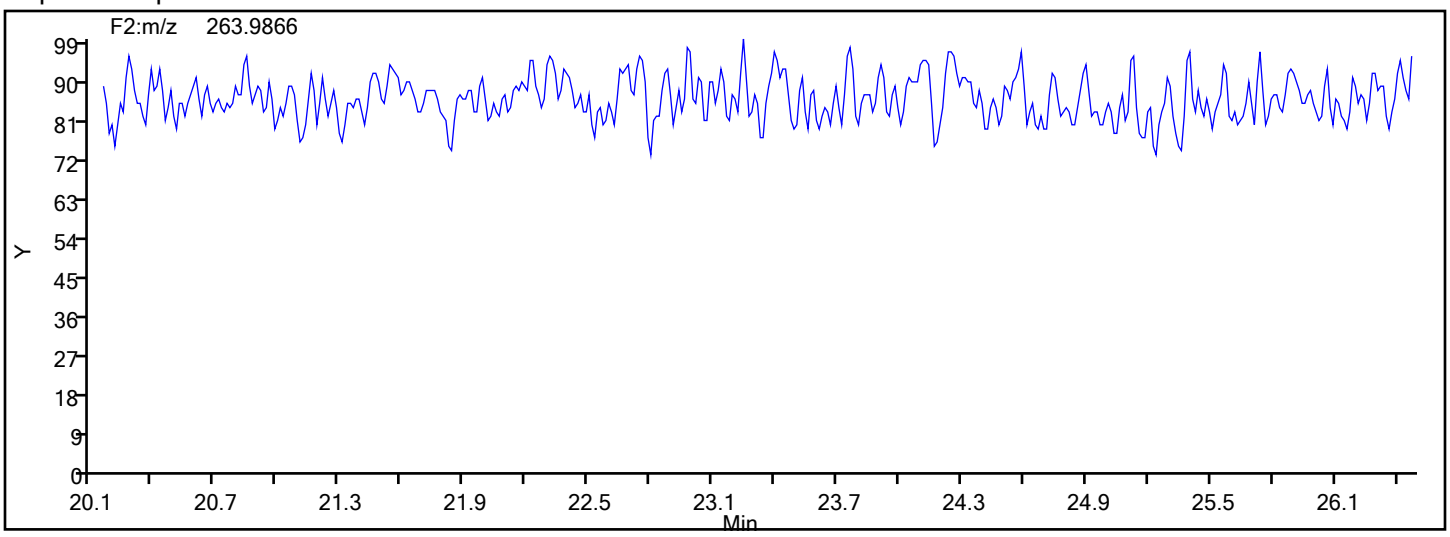
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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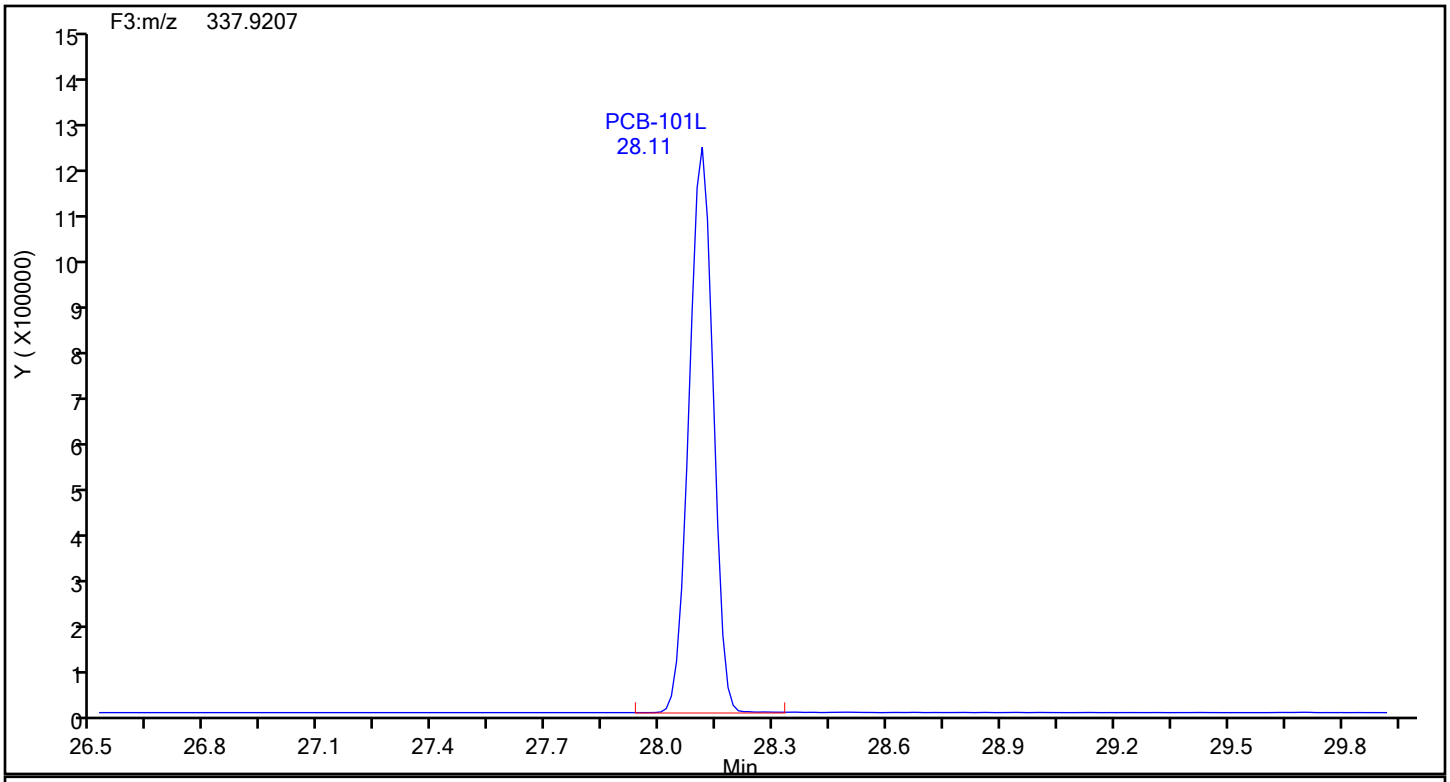
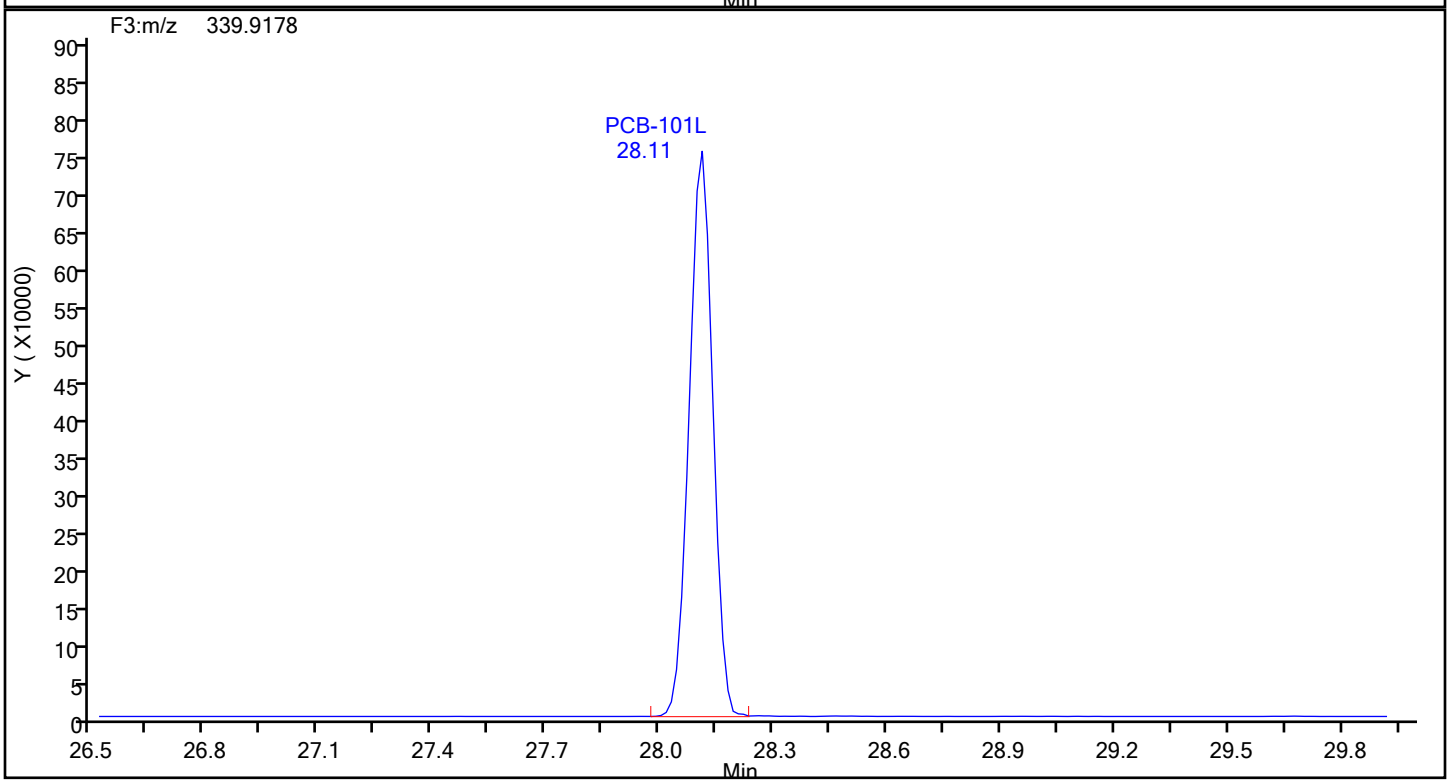
PCB-101L Standards





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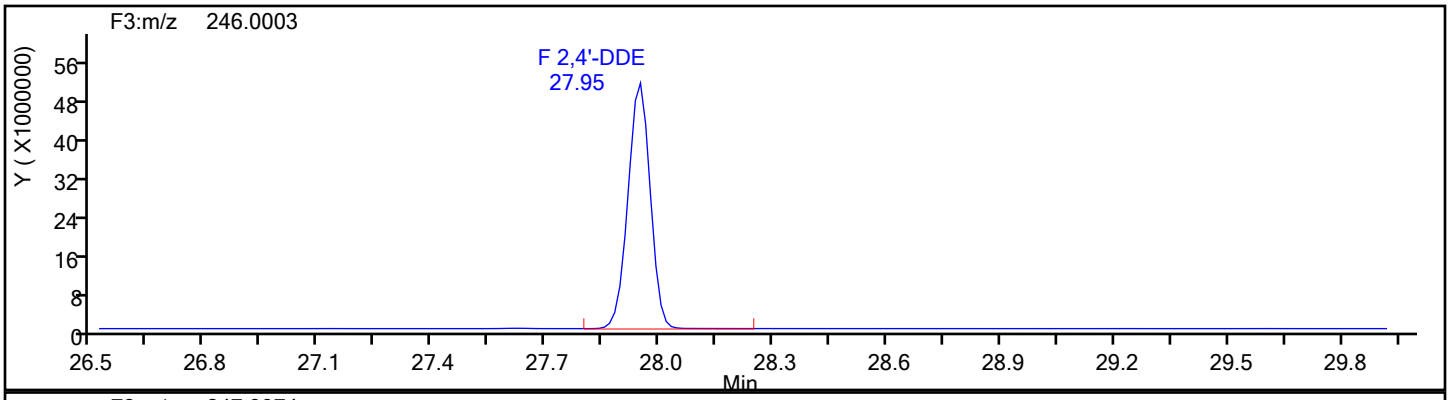
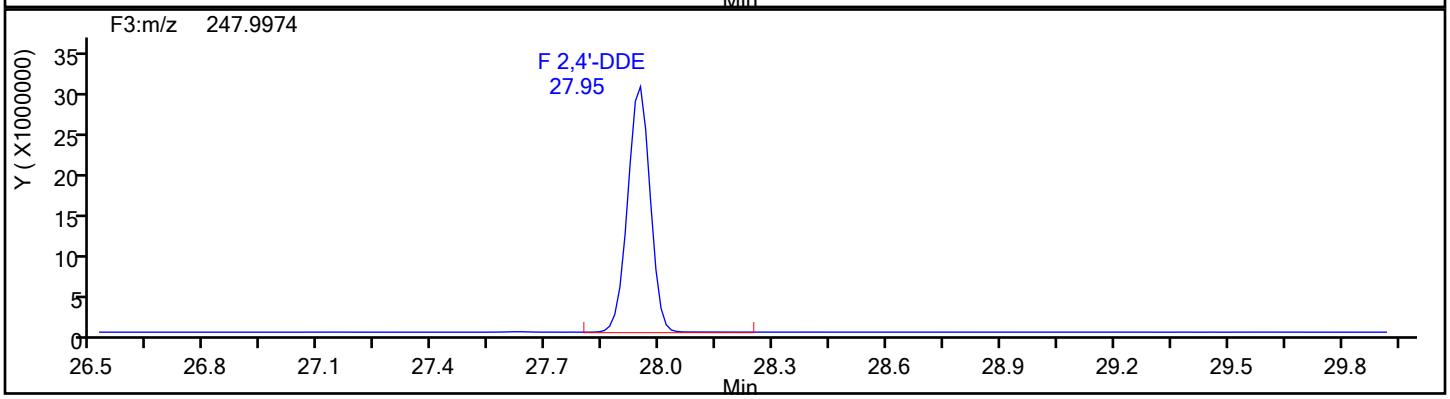
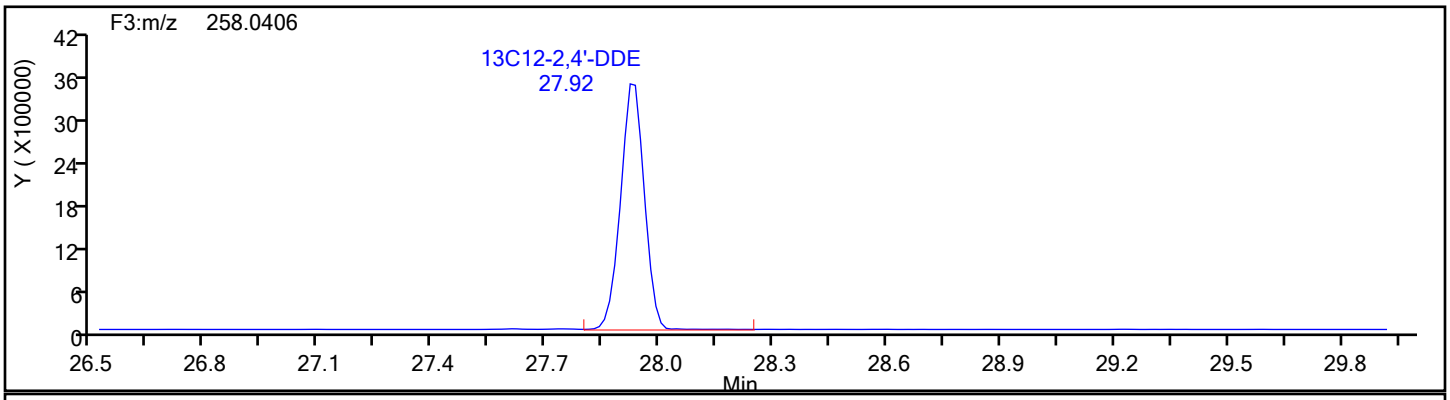
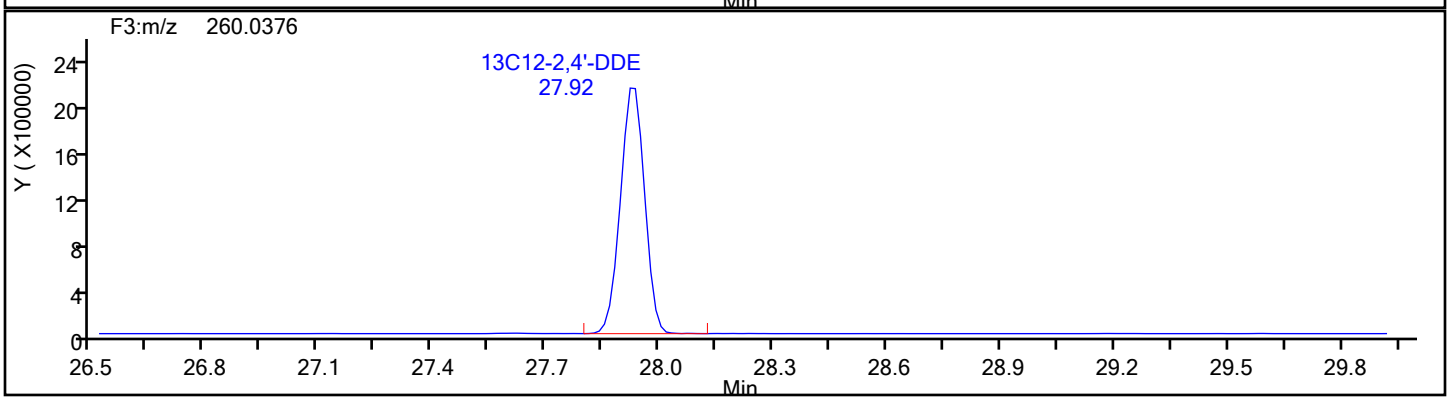
2,4'-DDE





2,4'-DDE Standards





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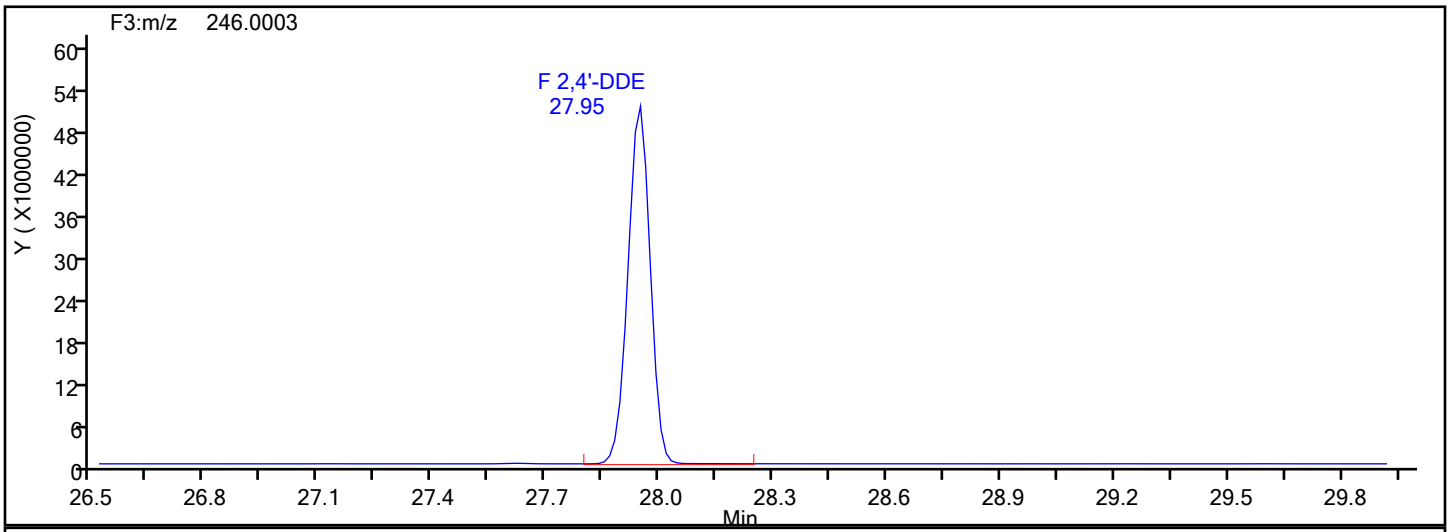
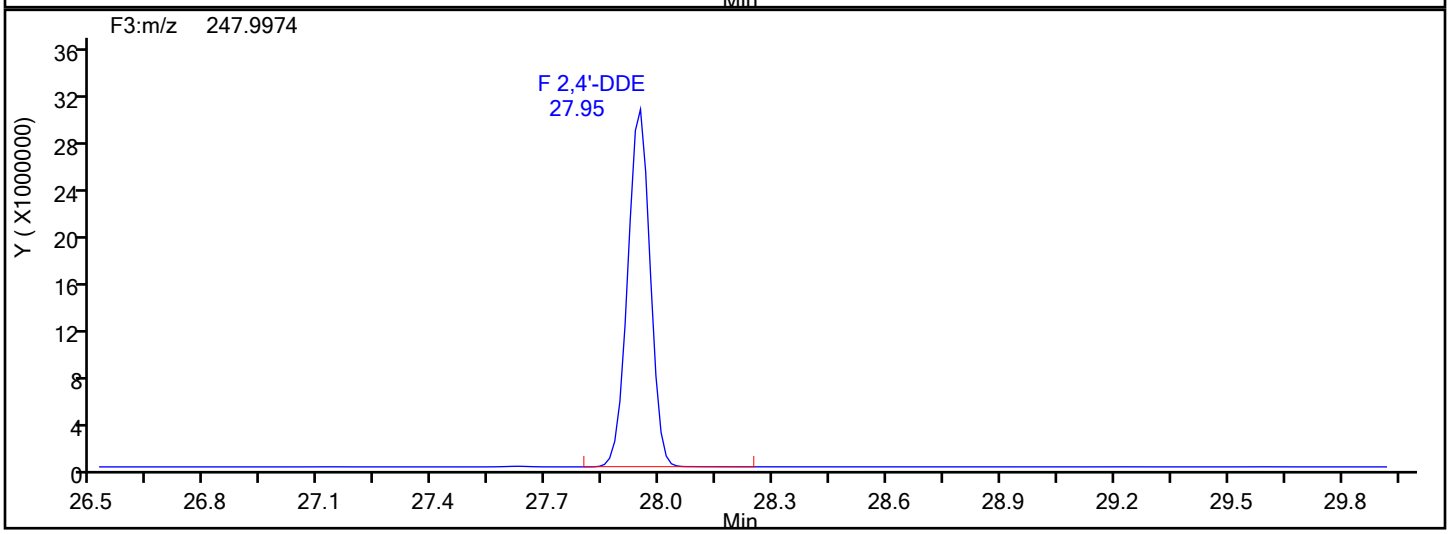
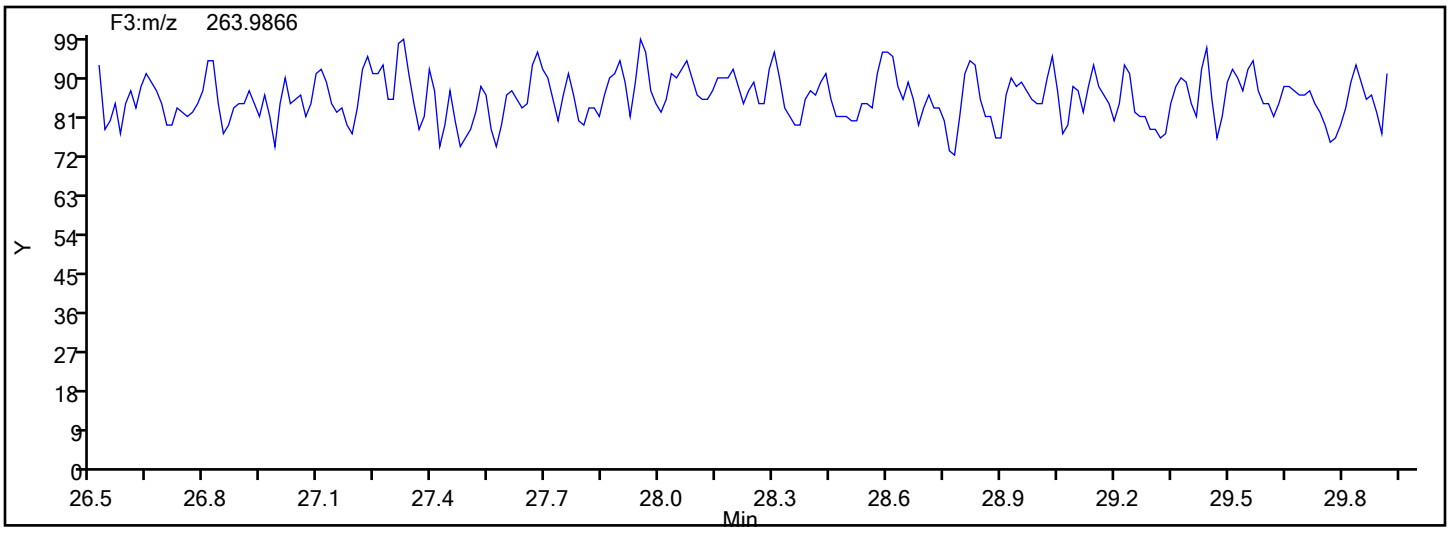
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 24-Mar-2025 13:06:39 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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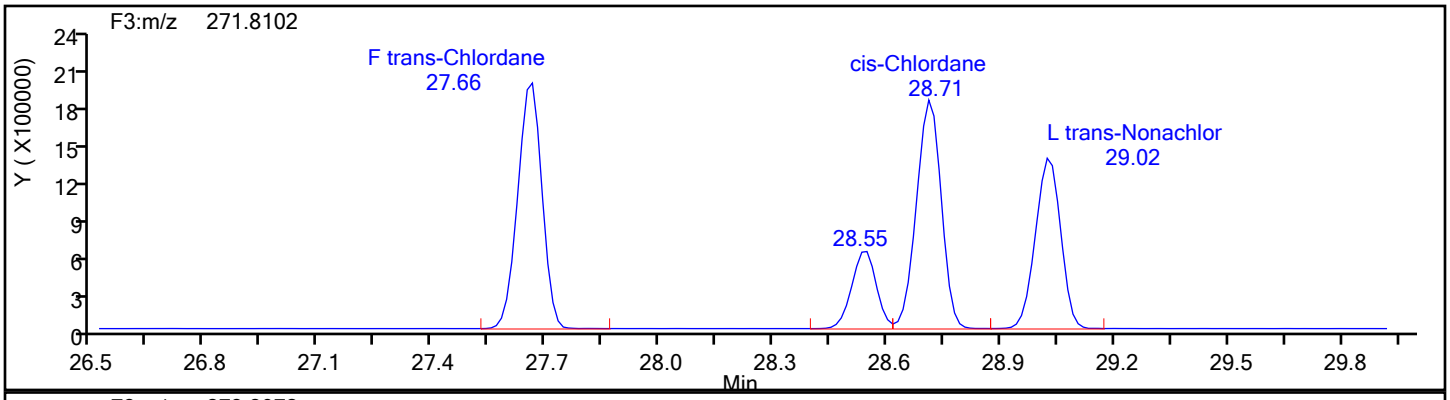
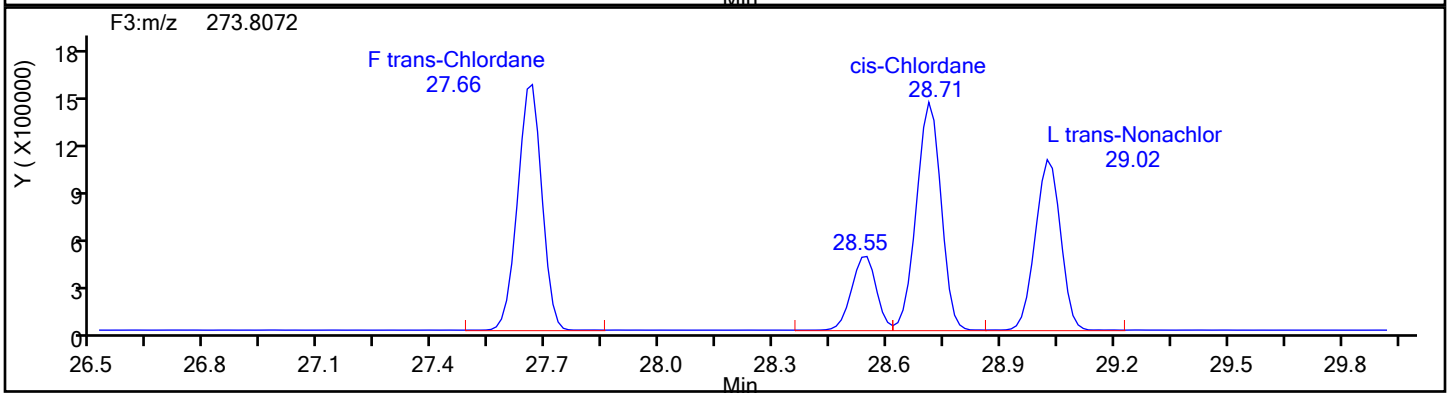
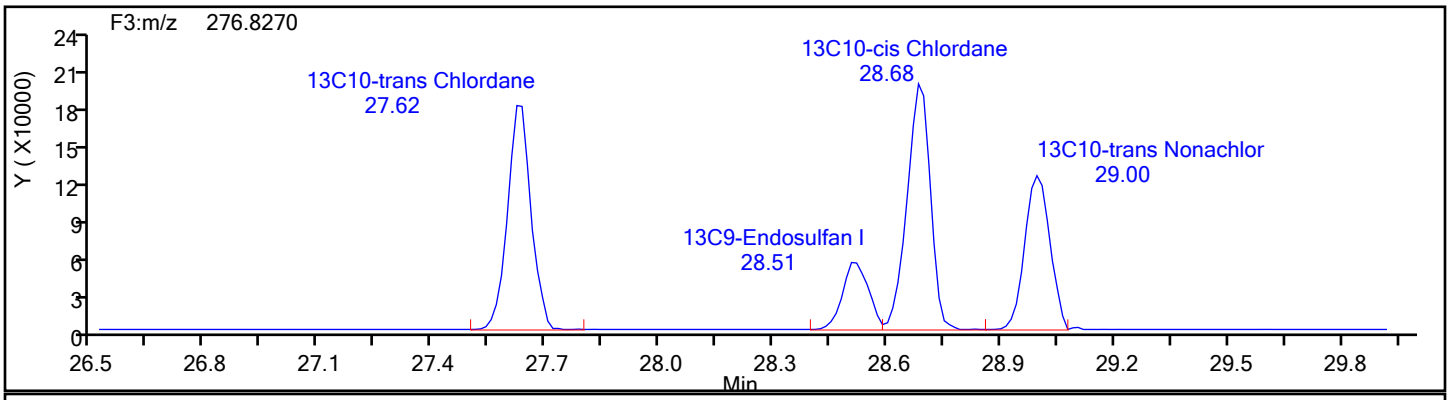
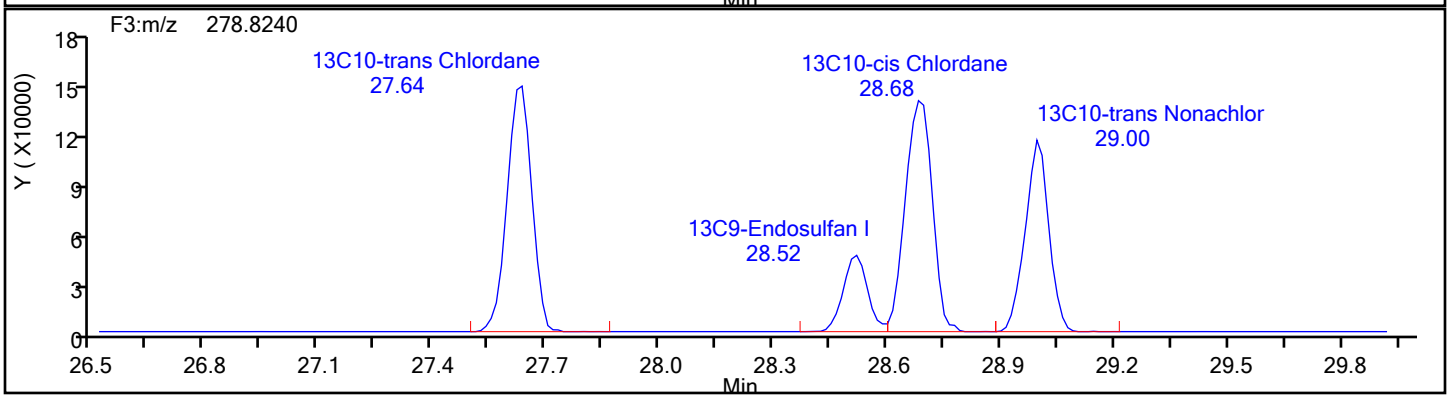
Chlordane





Chlordane Standards





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Eurofins Knoxville

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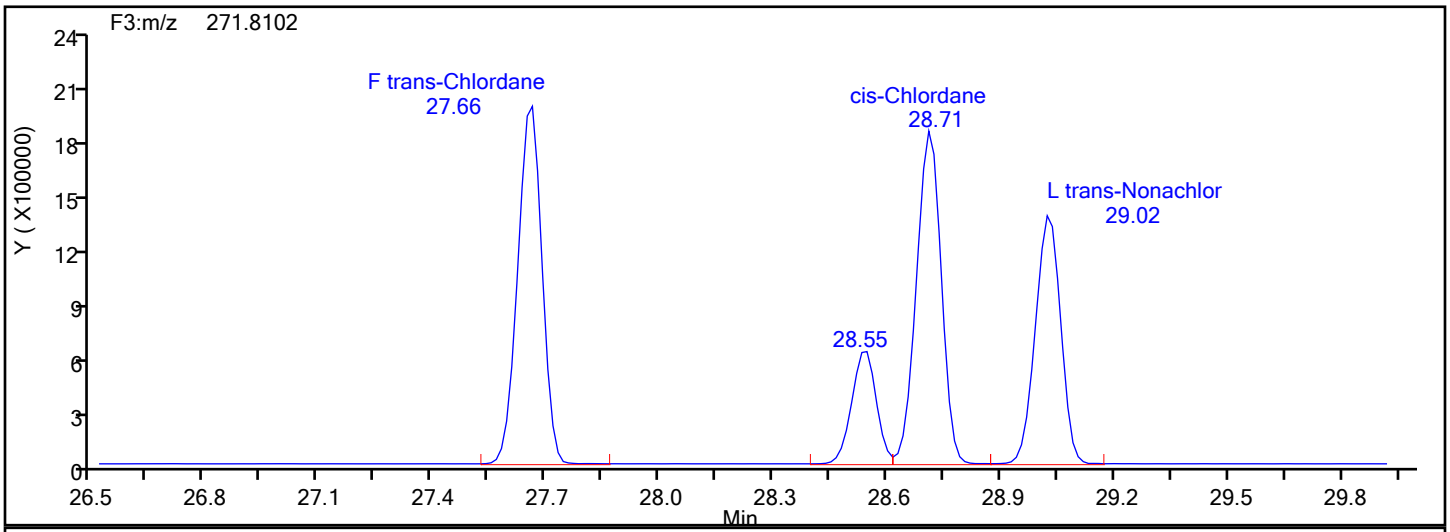
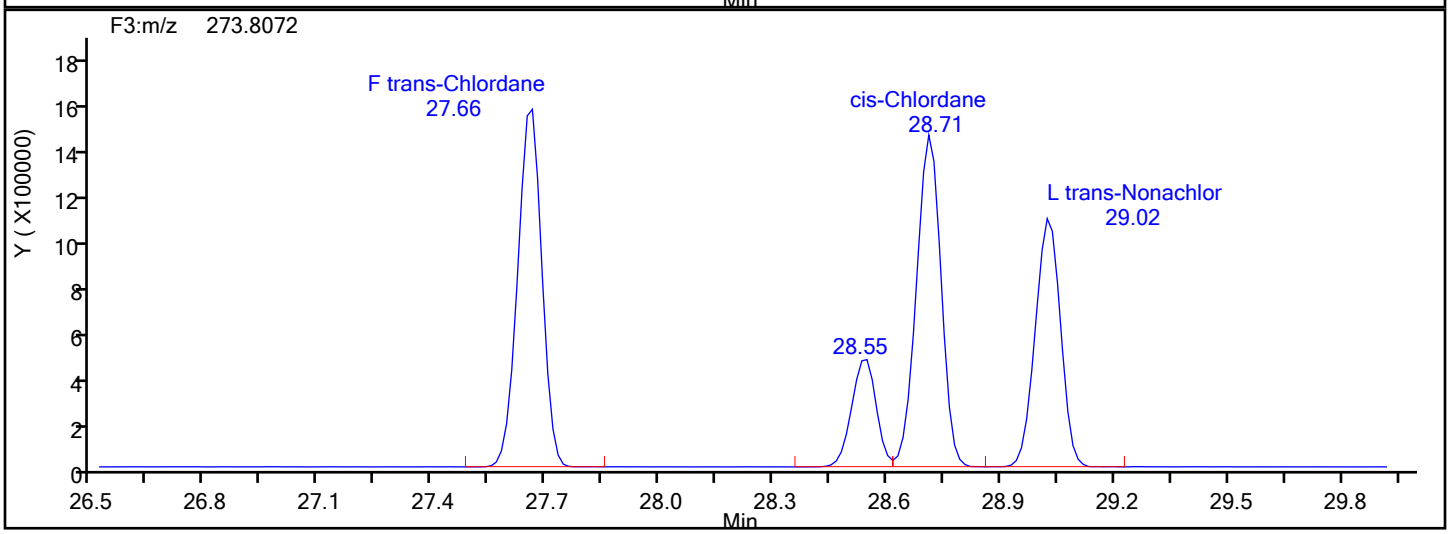
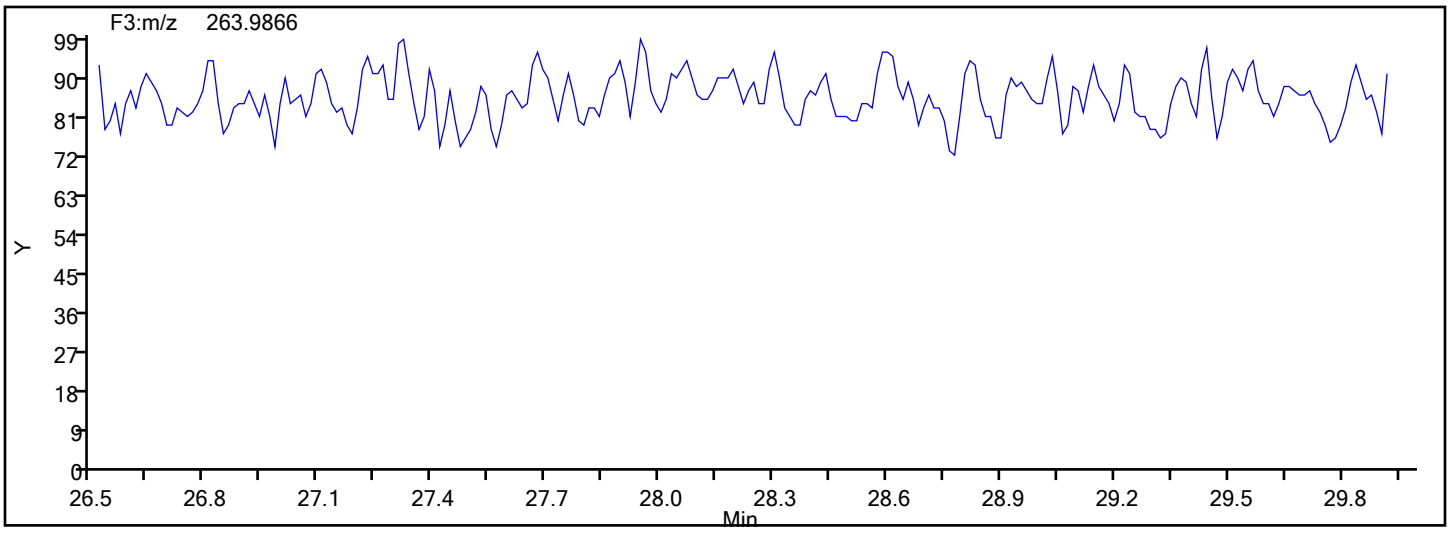




Chlordane Lock Mass



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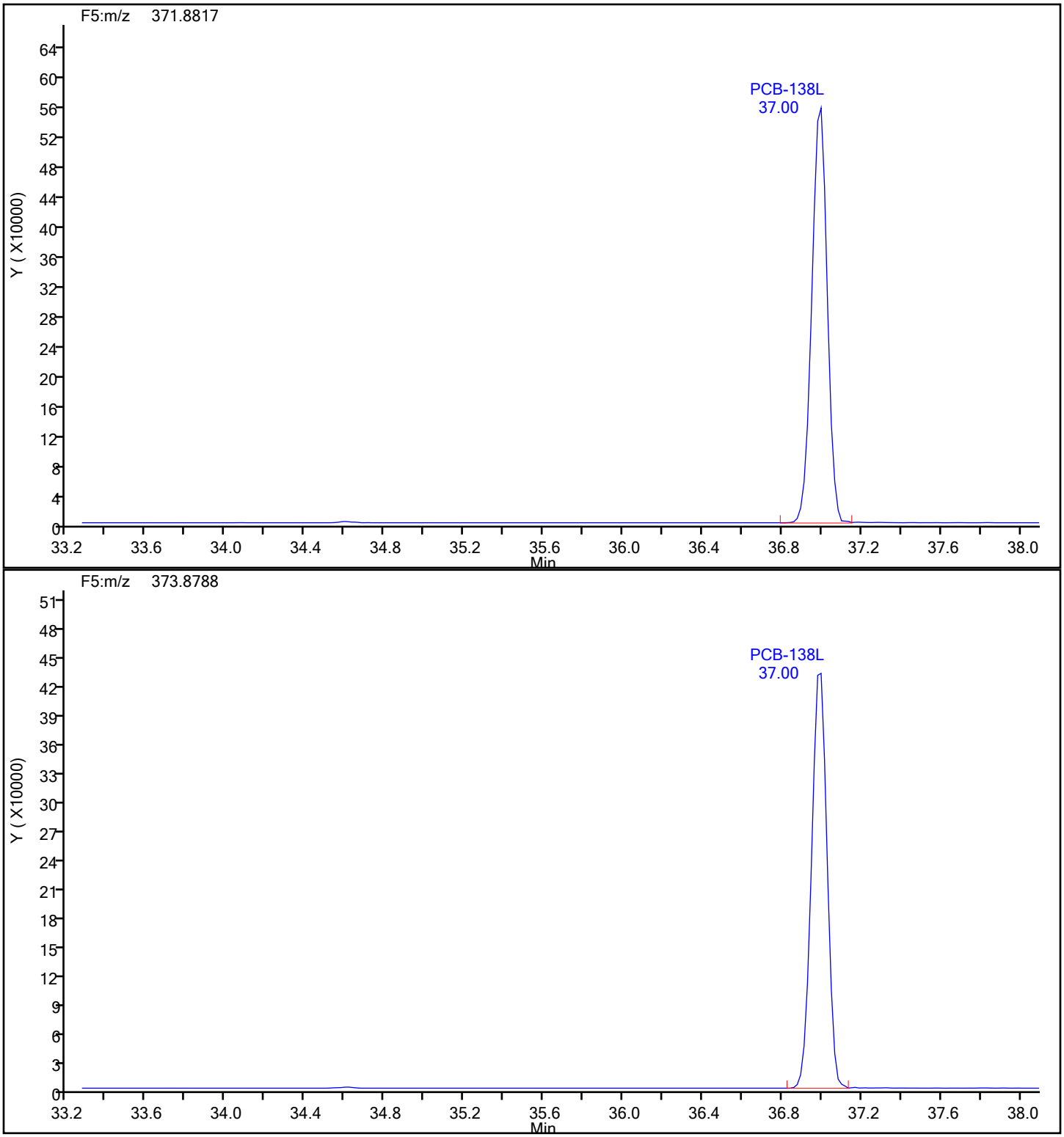
PCB-138L Standards



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Eurofins Knoxville

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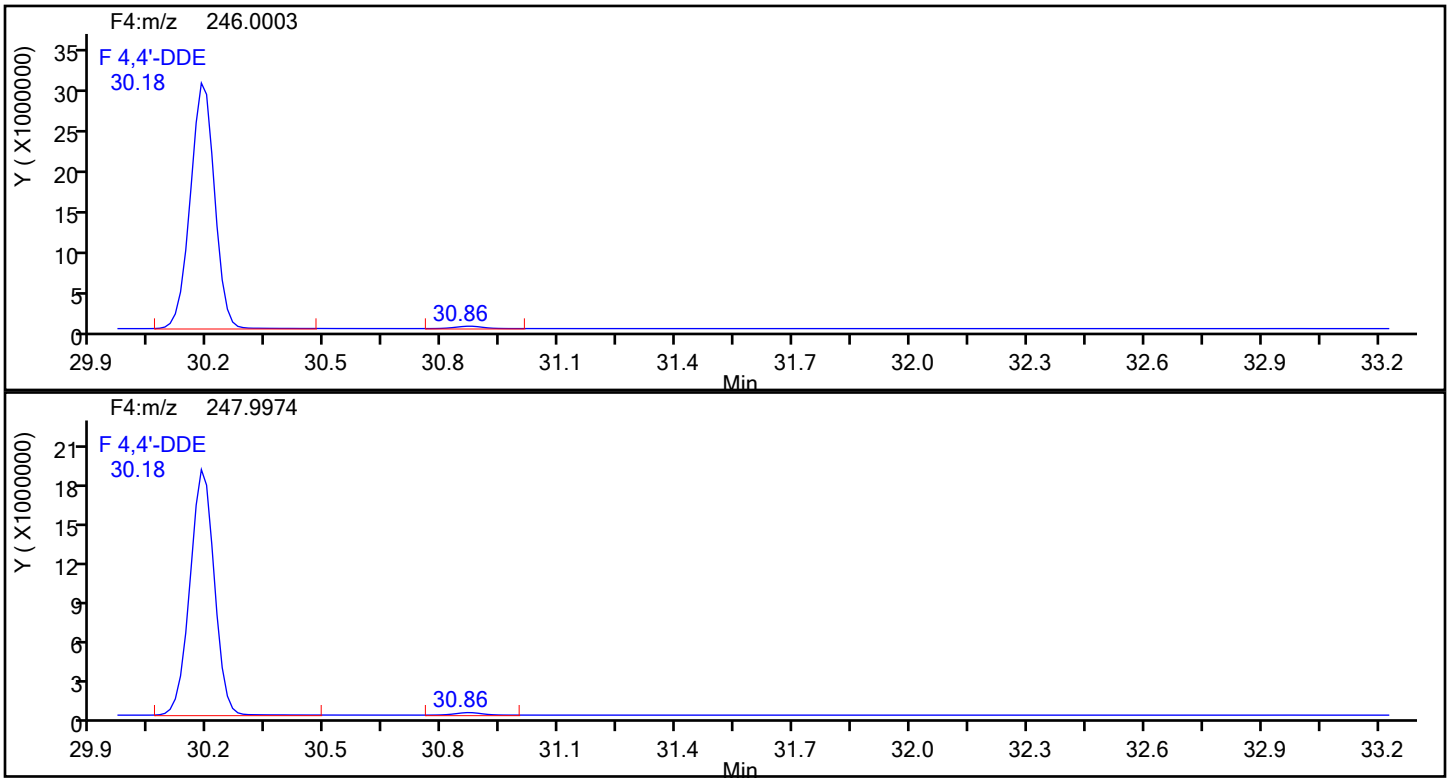
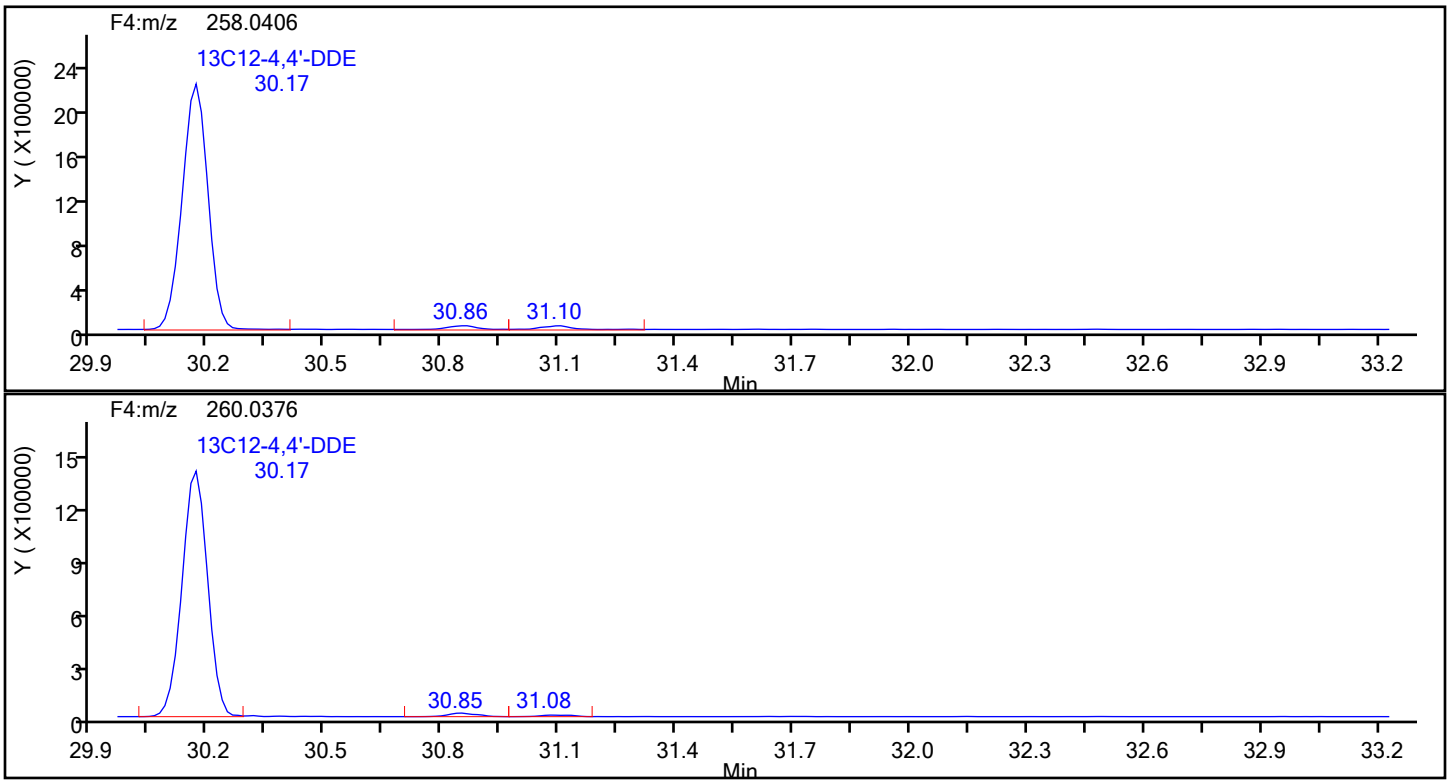


4,4'-DDE Standards



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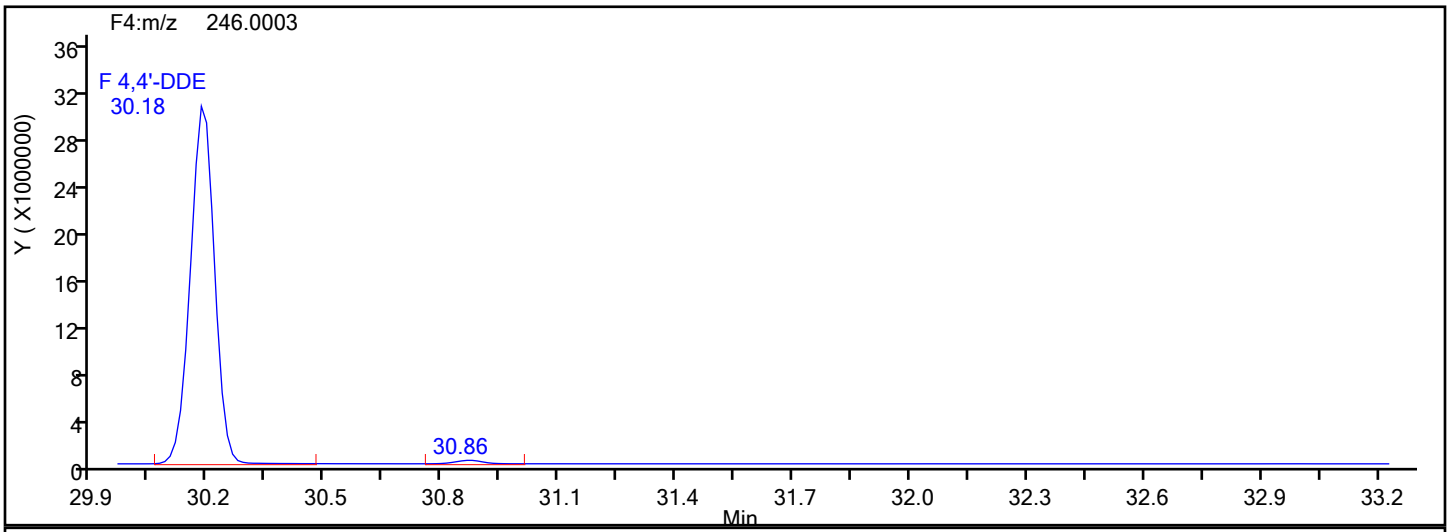

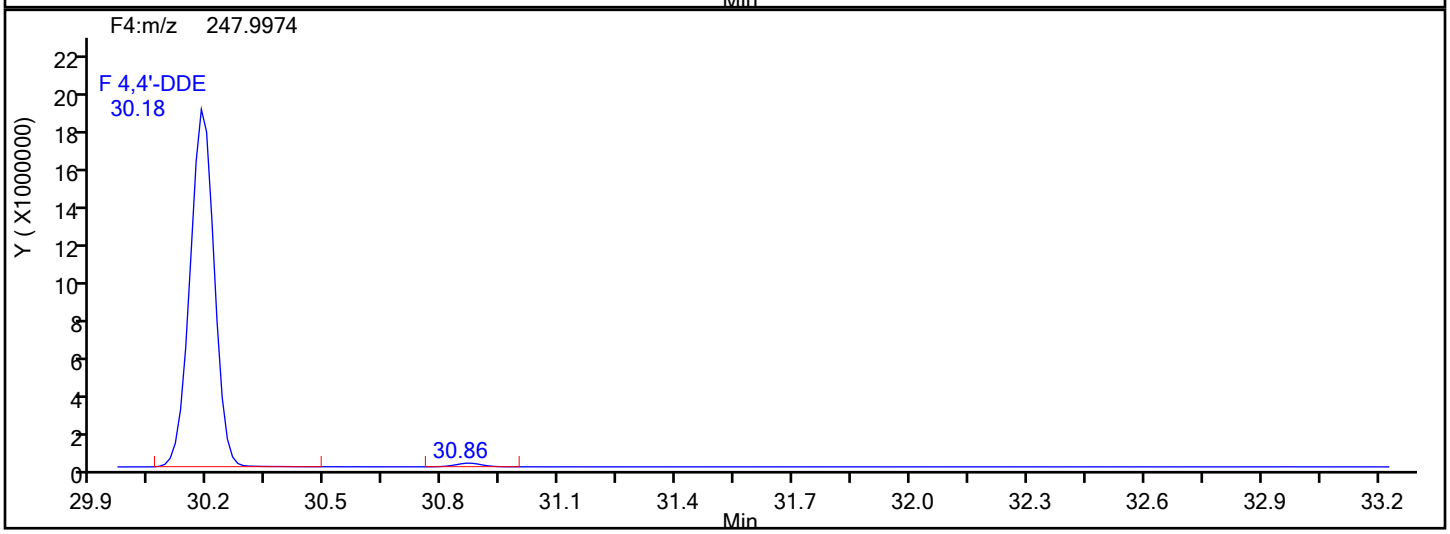

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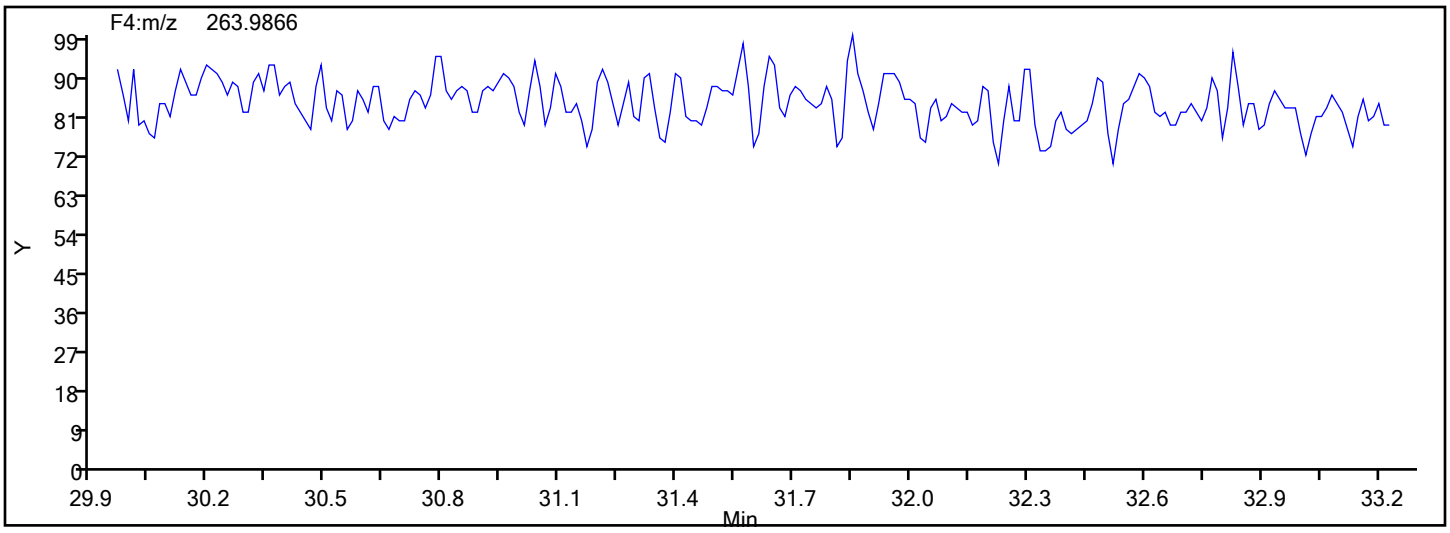

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Eurofins Knoxville

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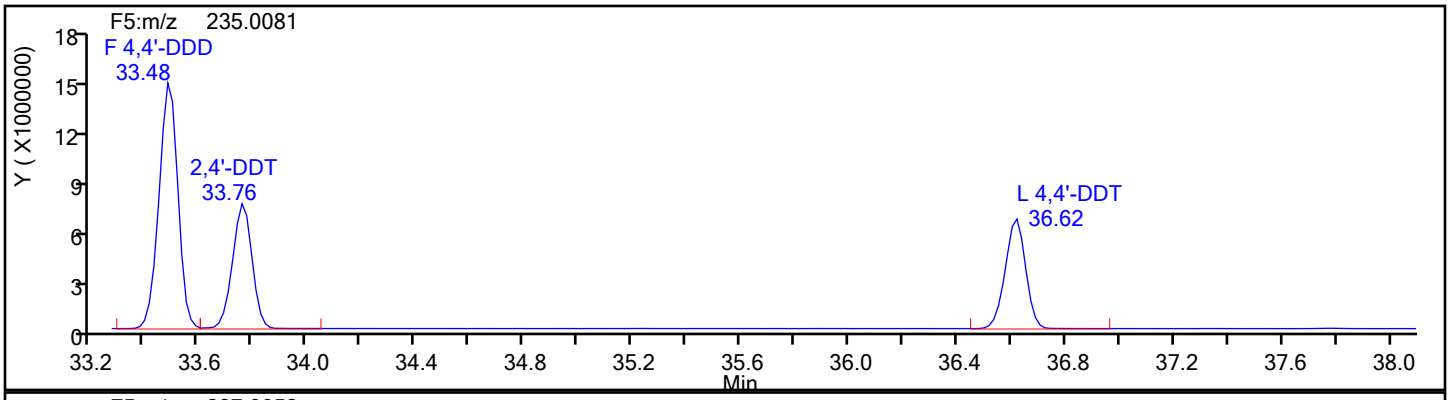

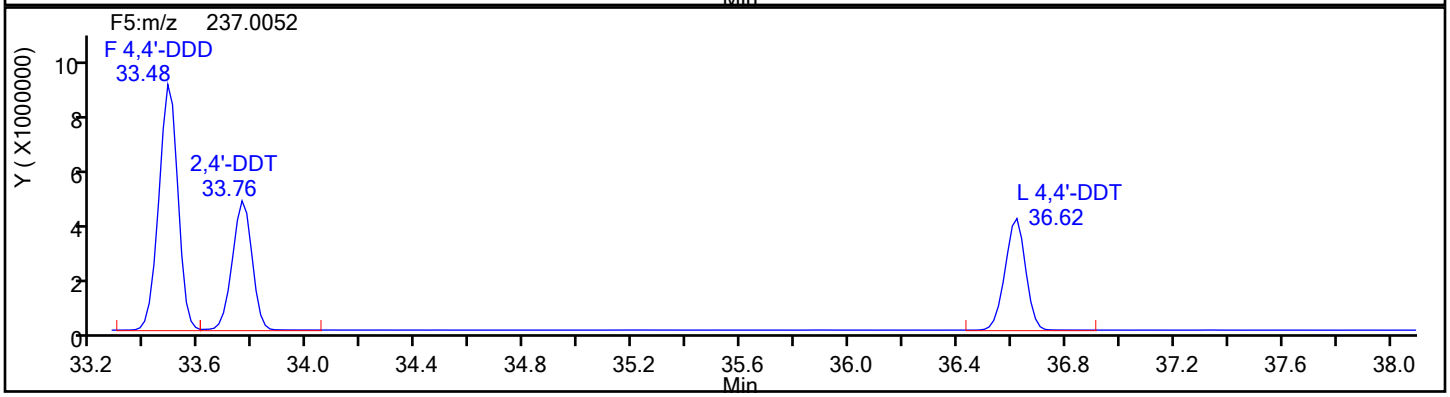

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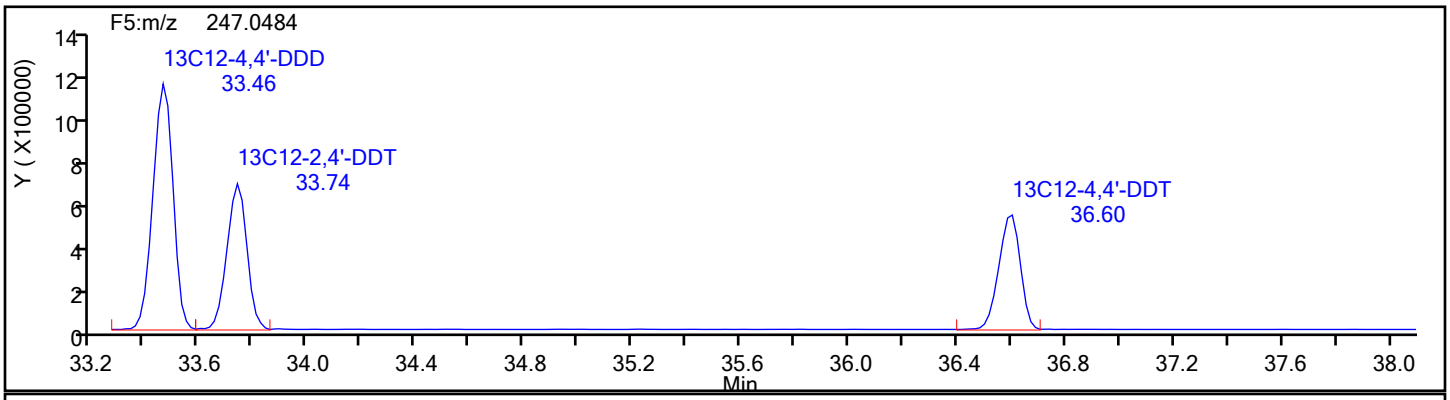

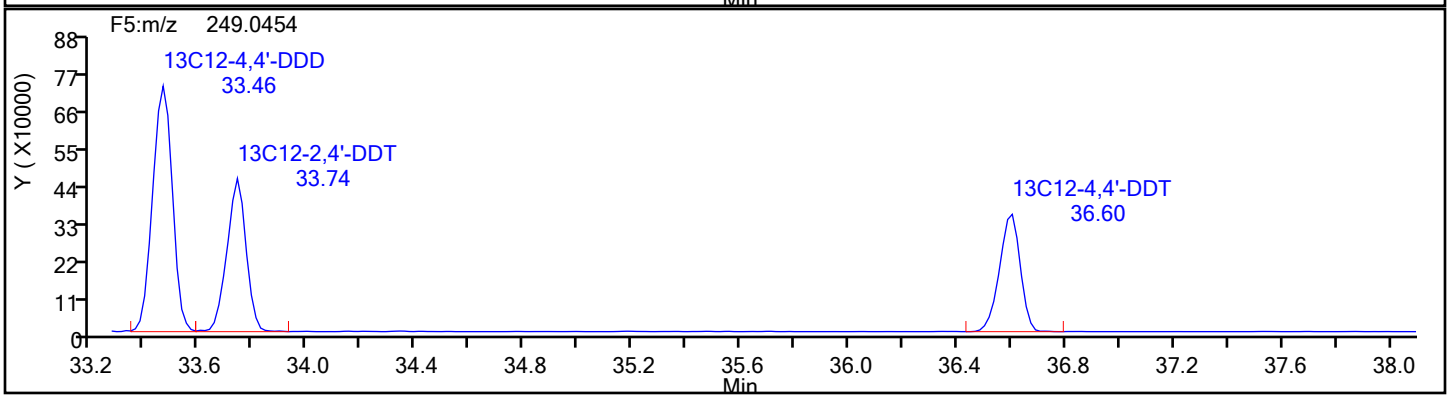

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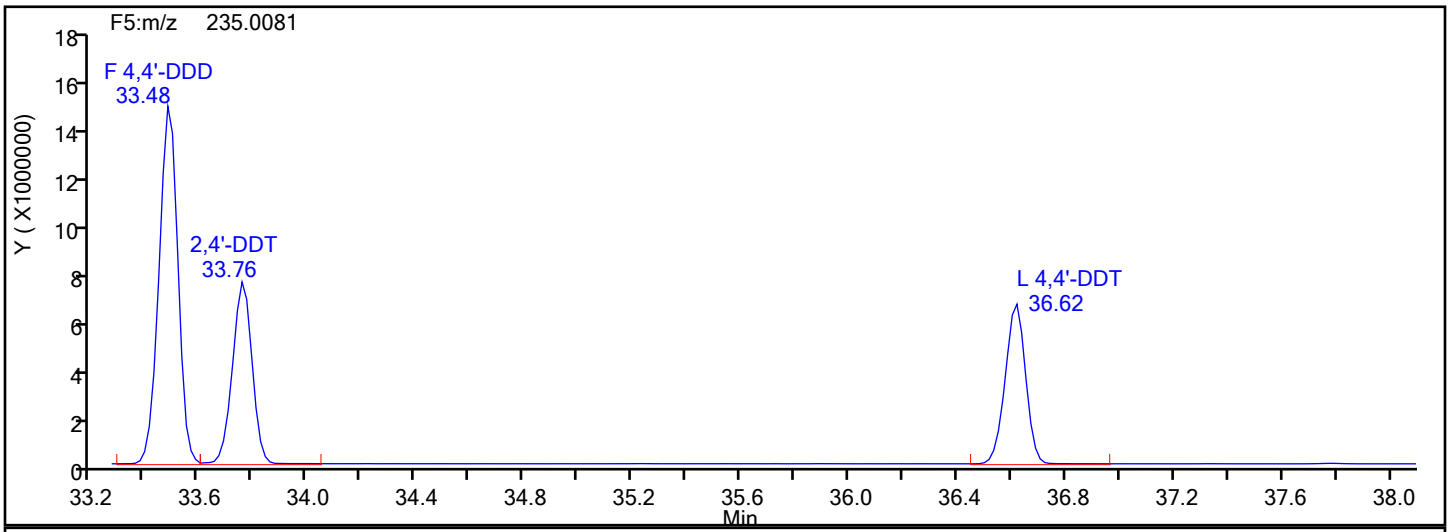
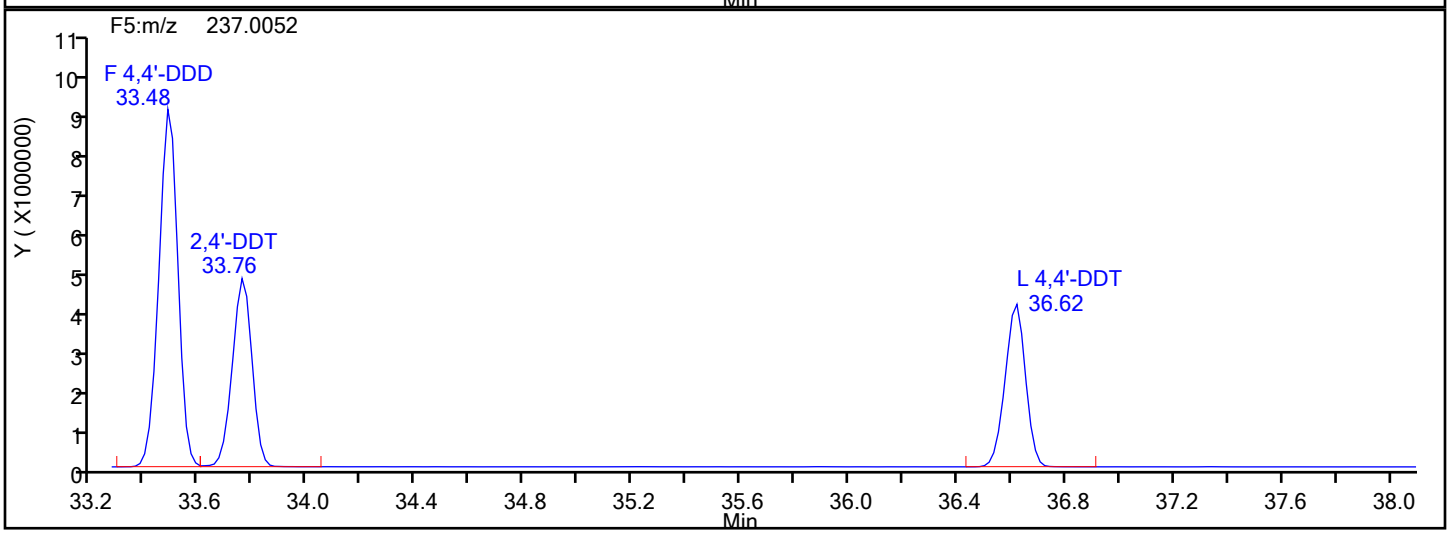
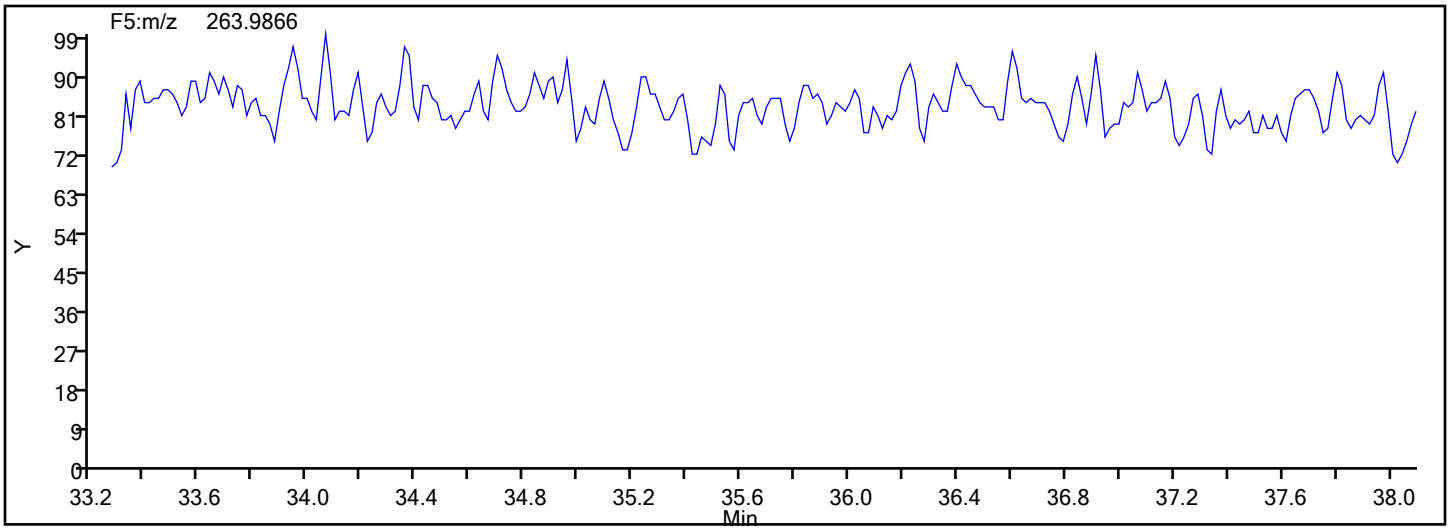




DDD Lock Mass



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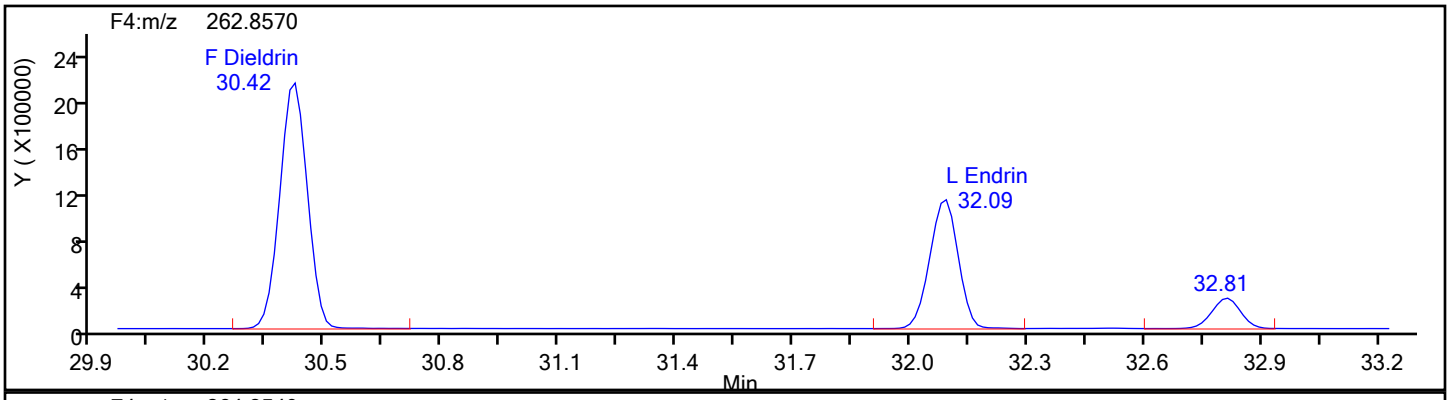

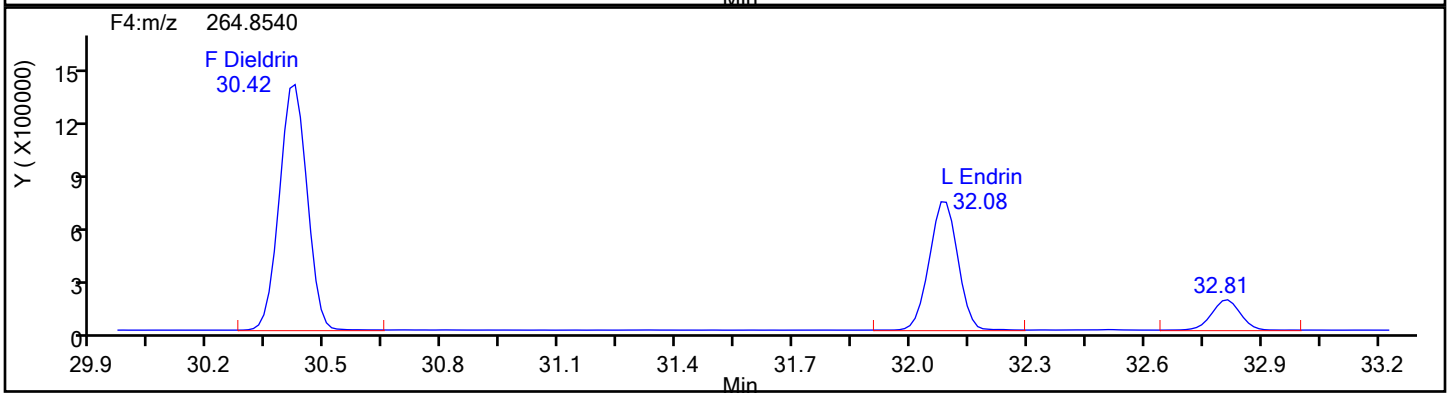

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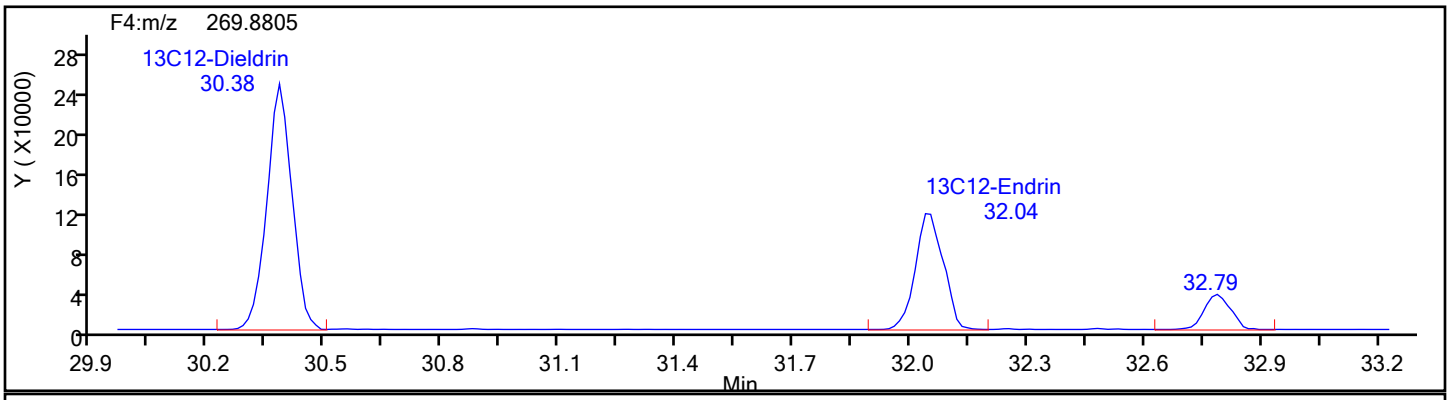

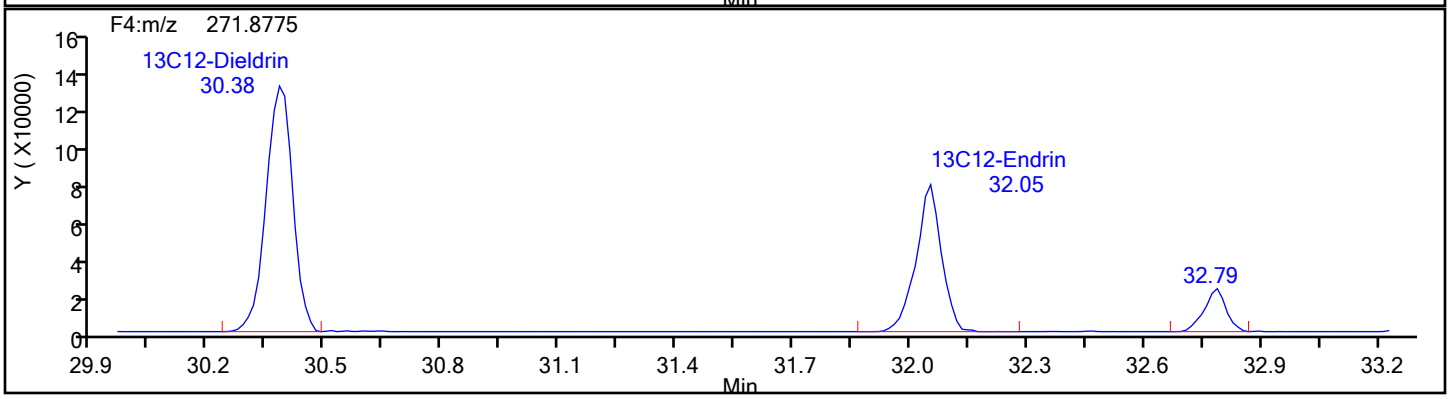

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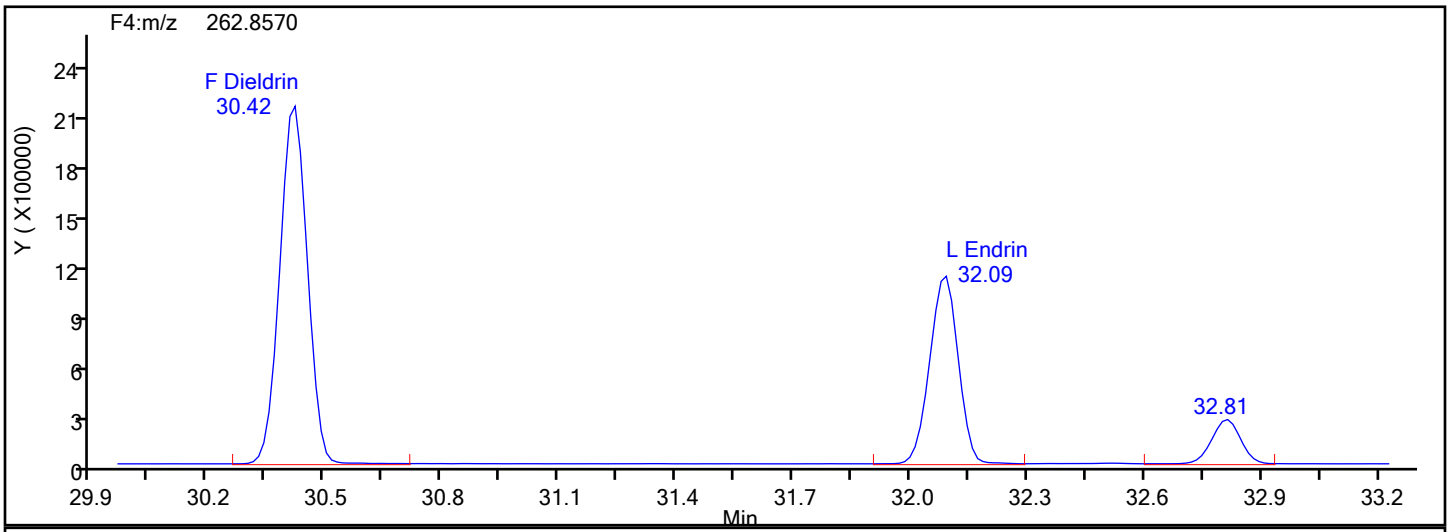

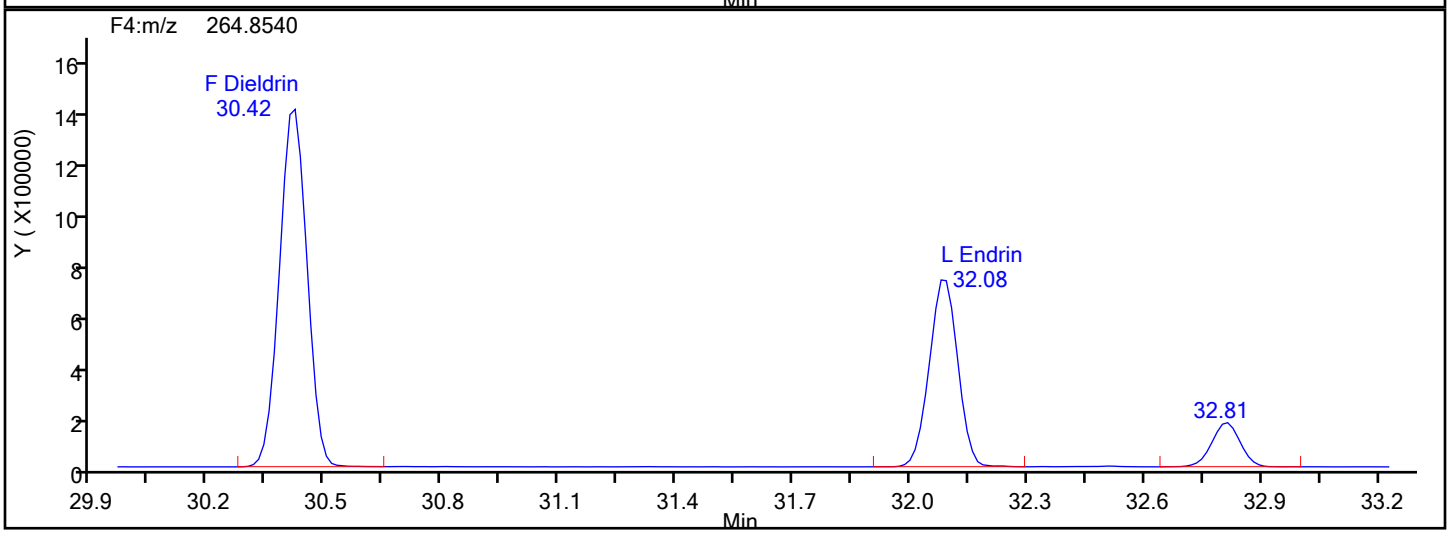

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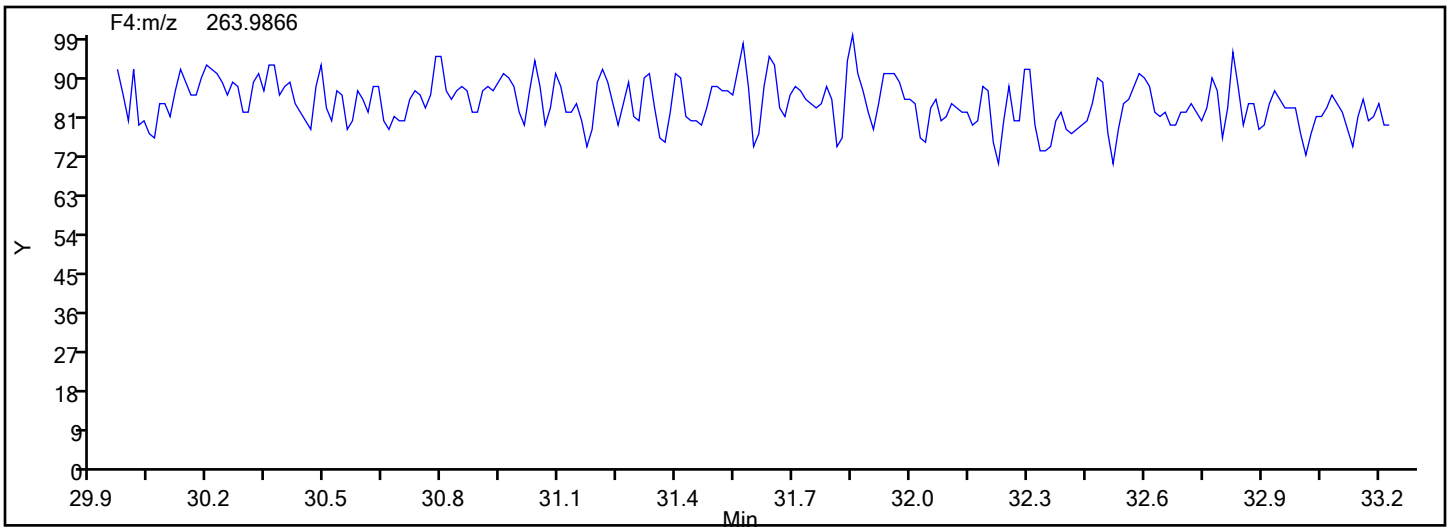

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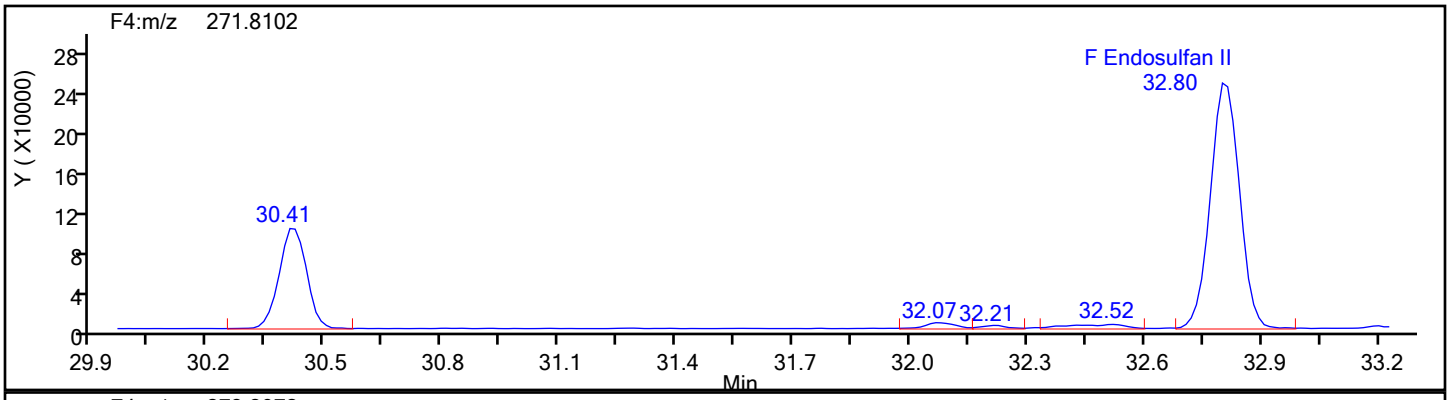
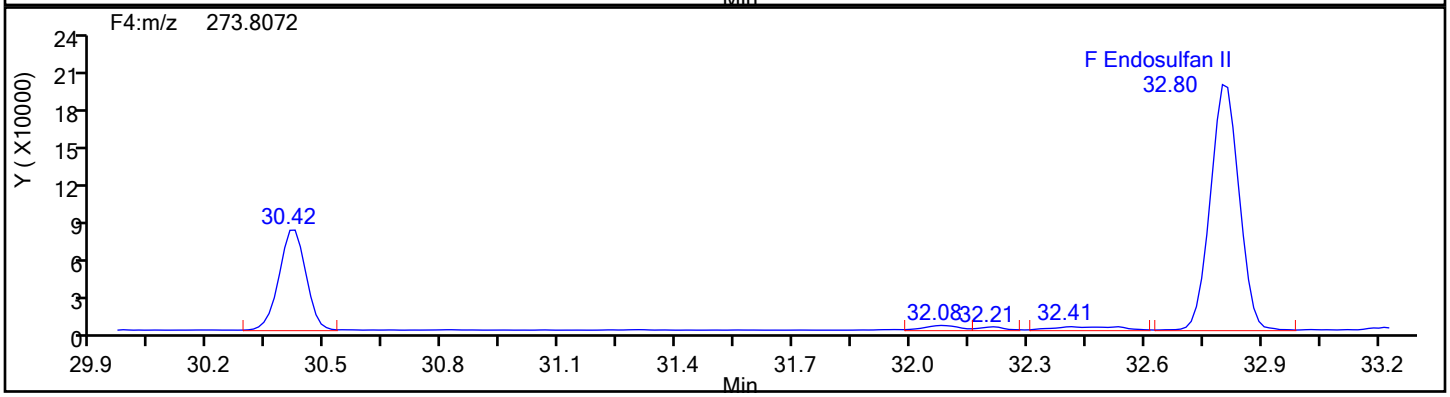
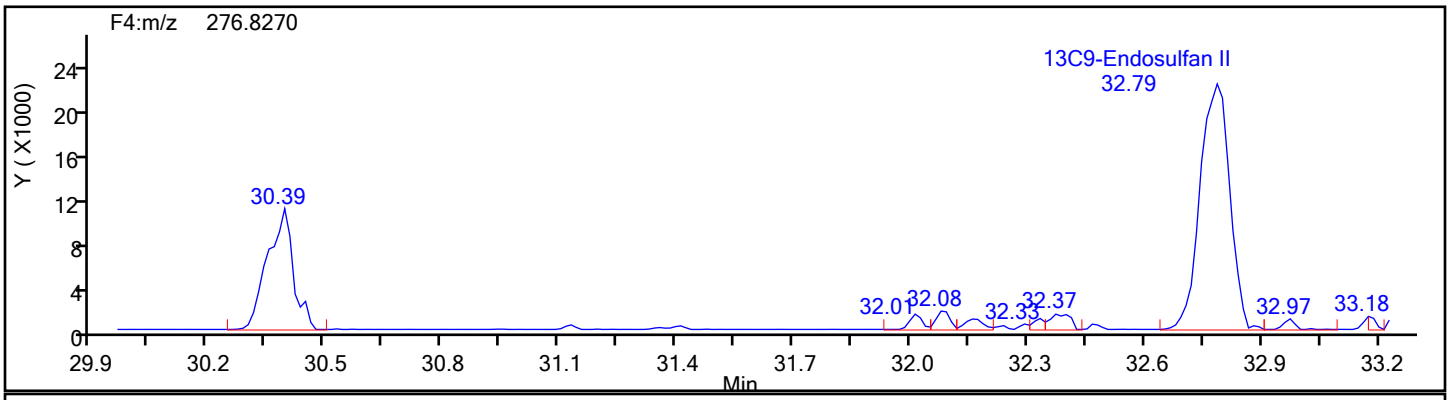
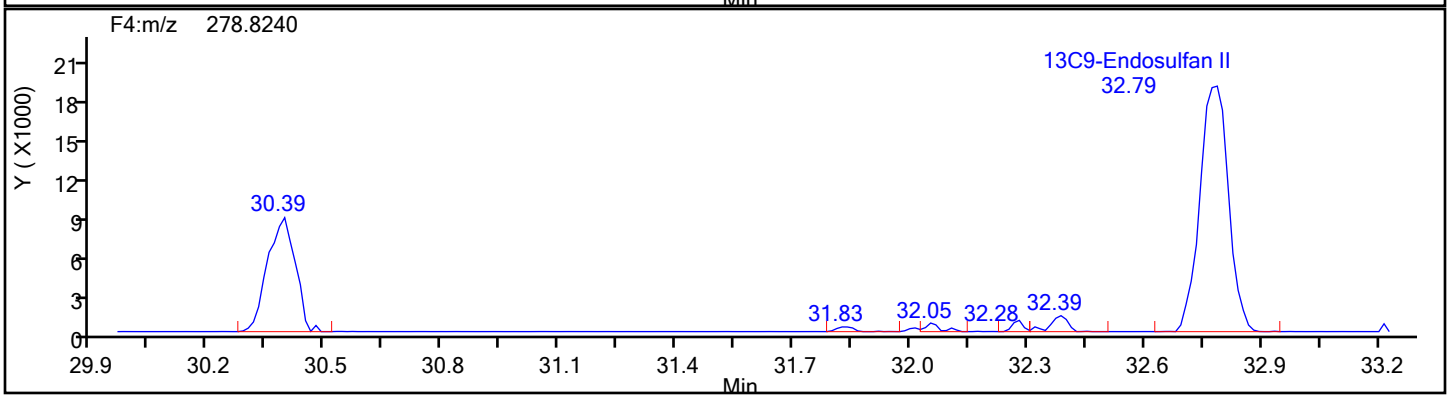
Endosulfan II





Endosulfan II Standards





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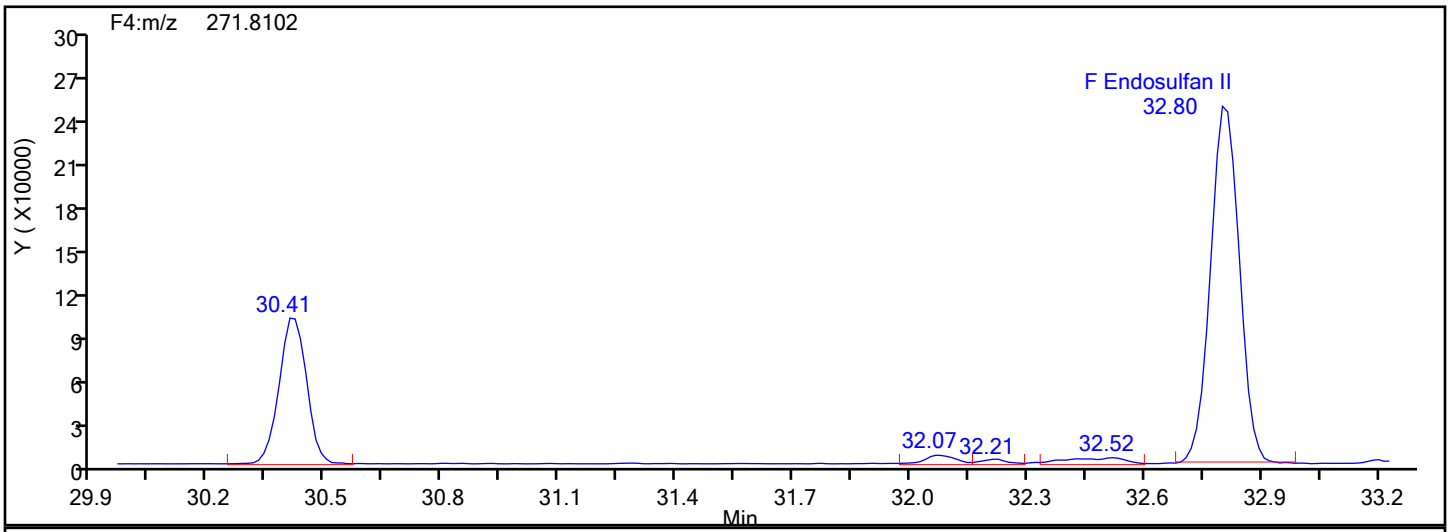
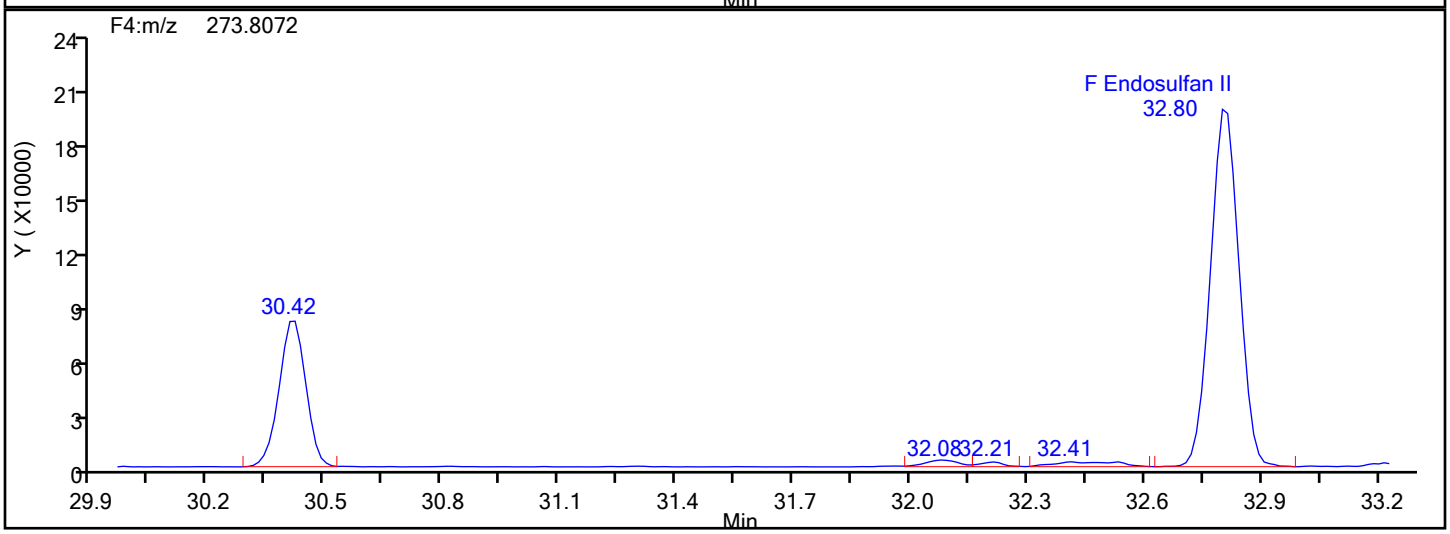
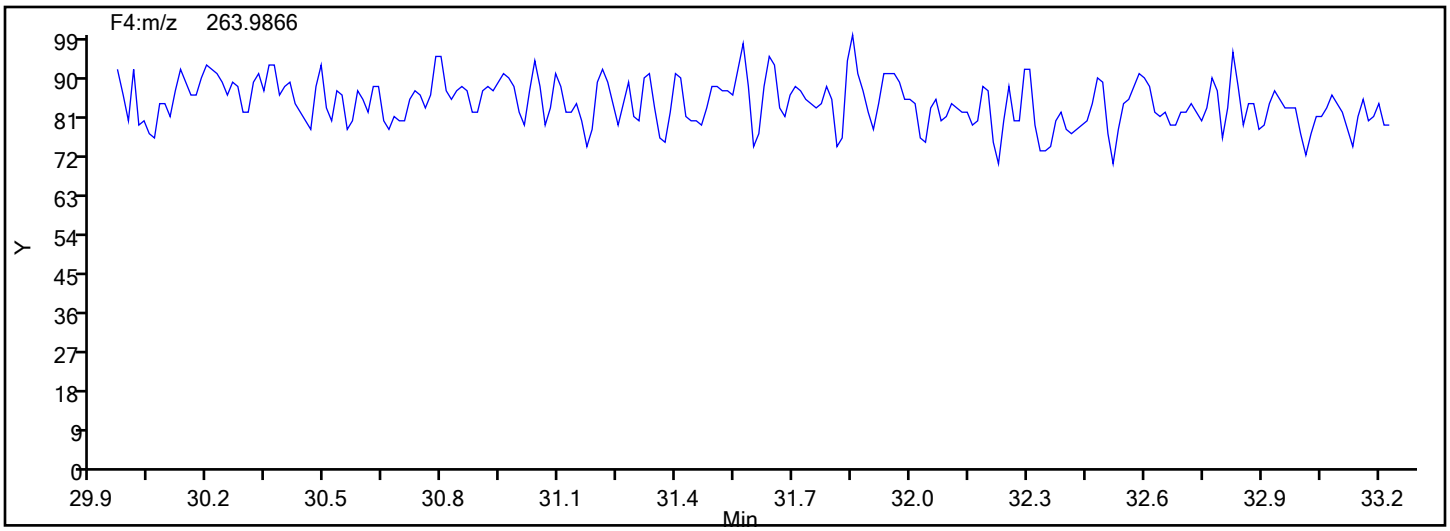




Endosulfan II Lock Mass



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Eurofins Knoxville

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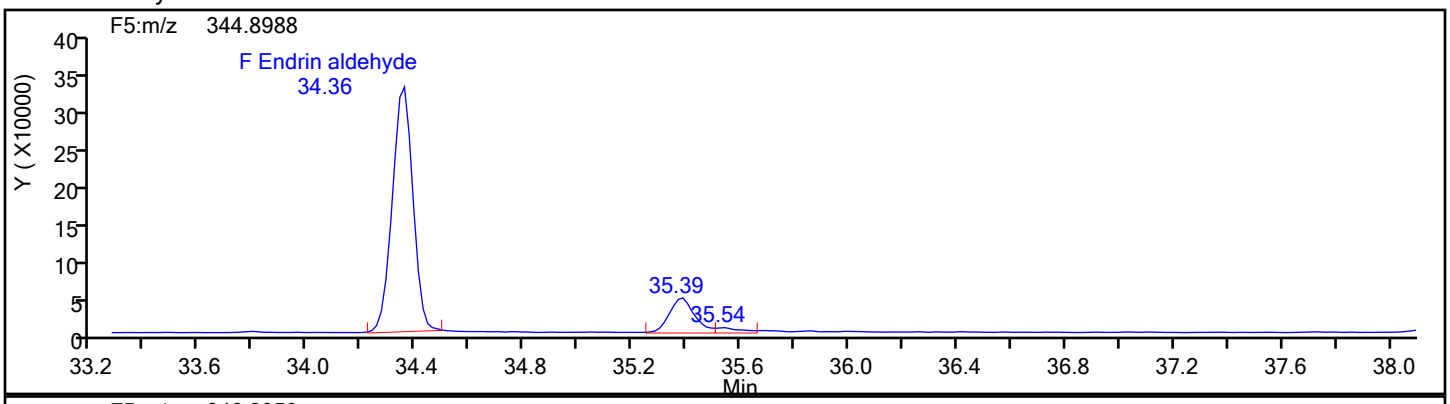
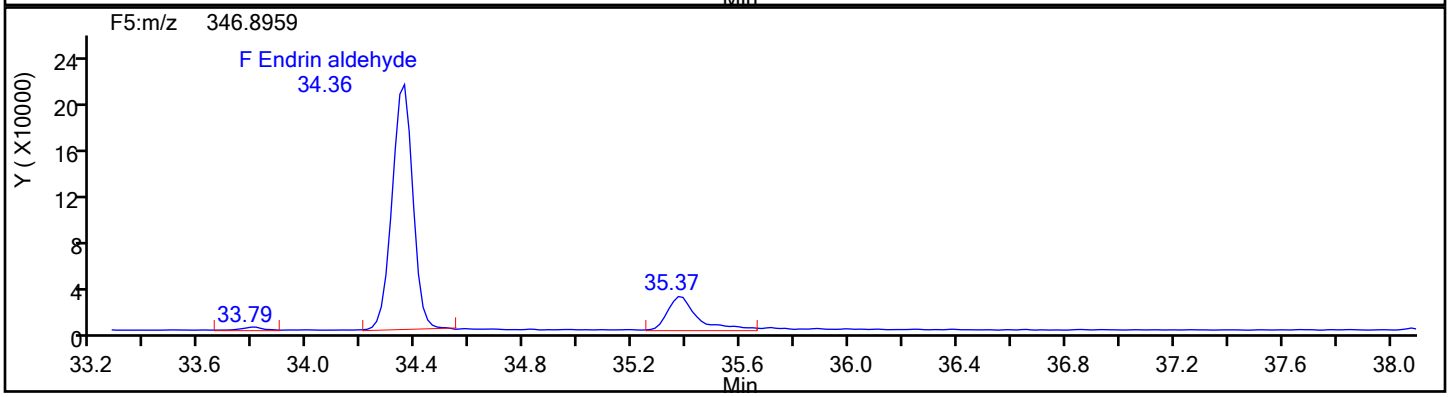
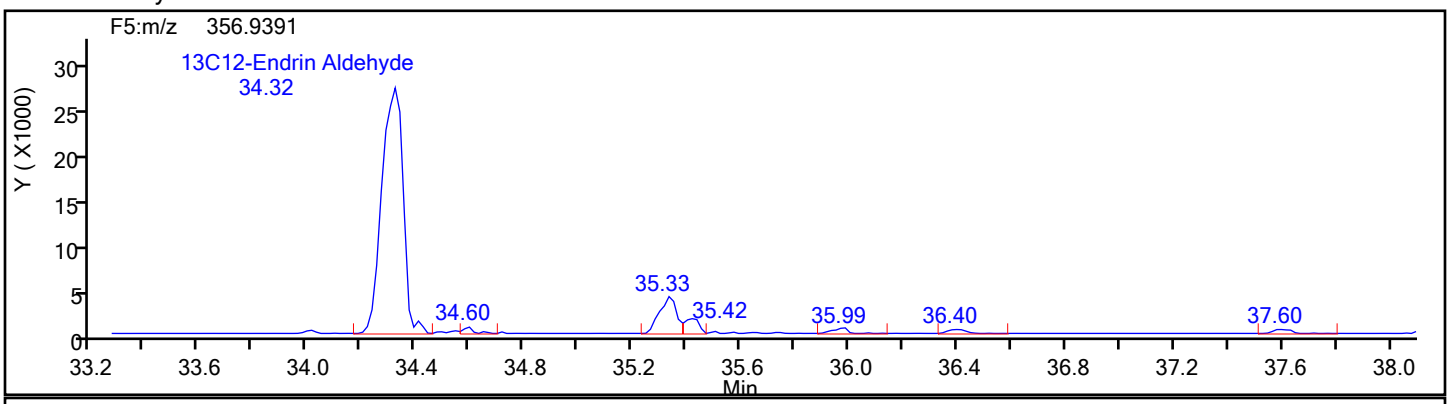
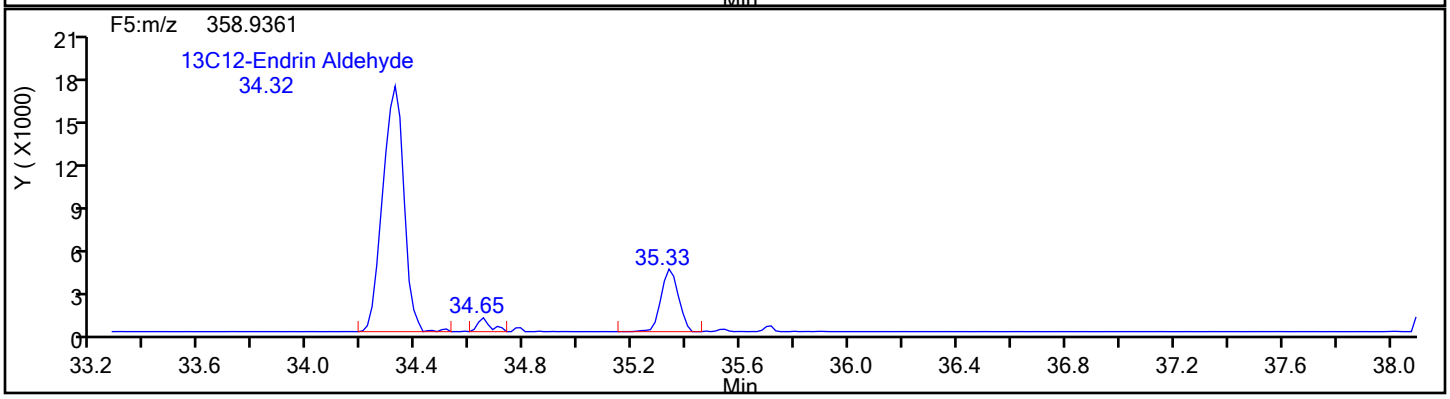




Endrin aldehyde Standards





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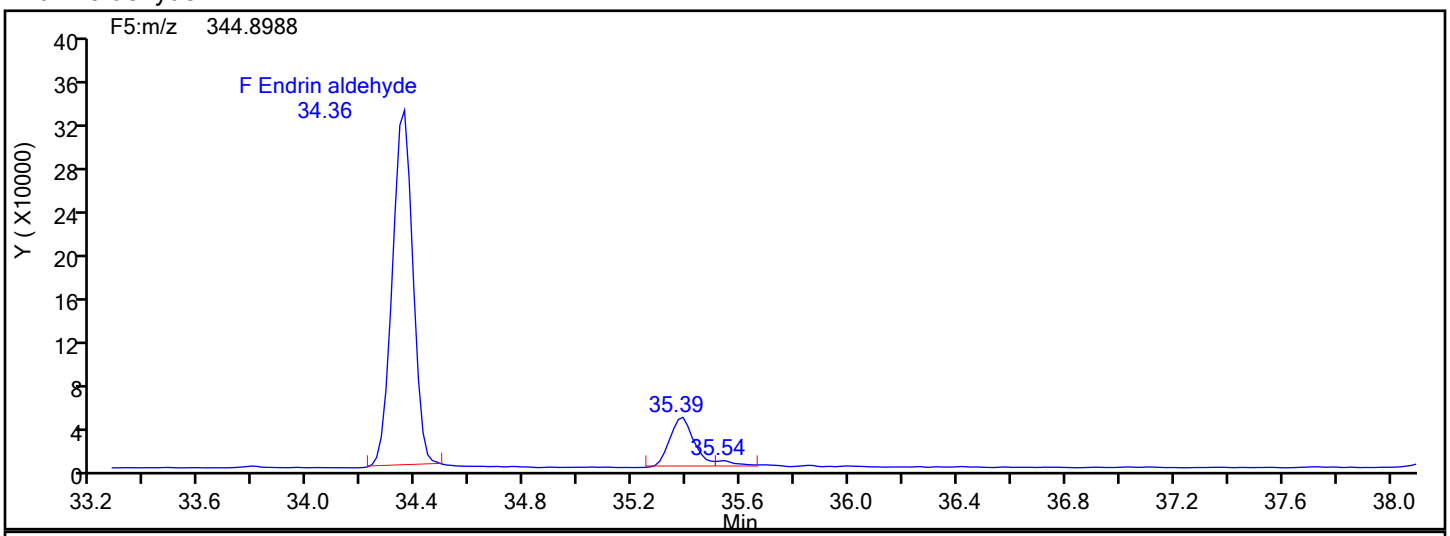
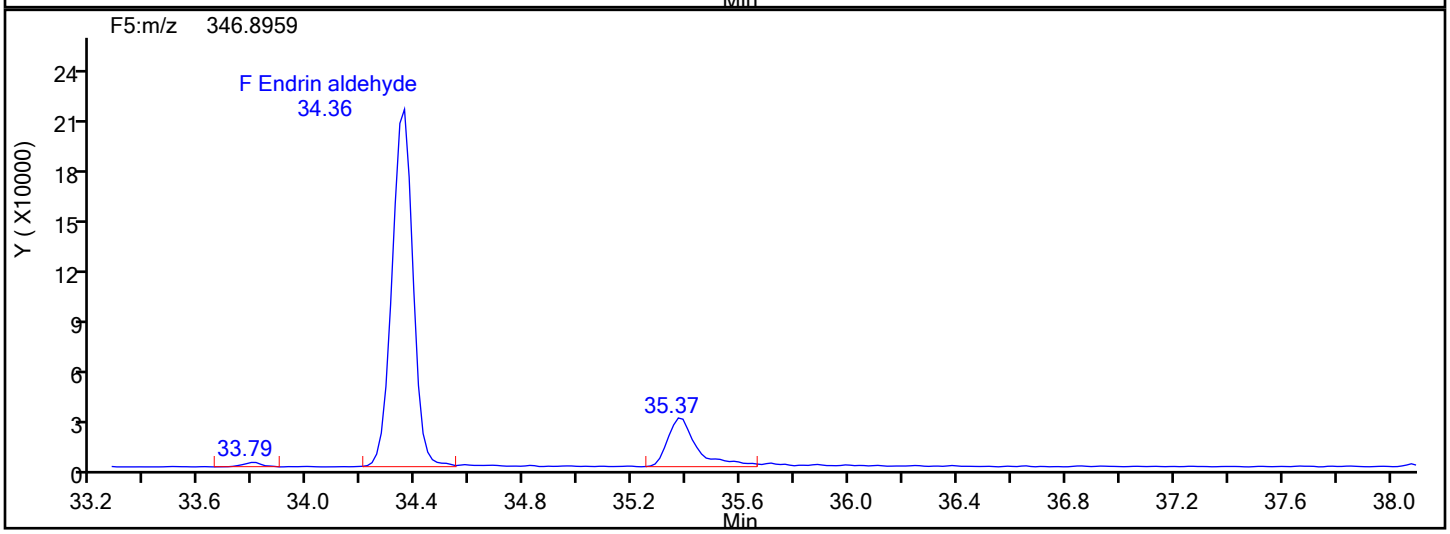
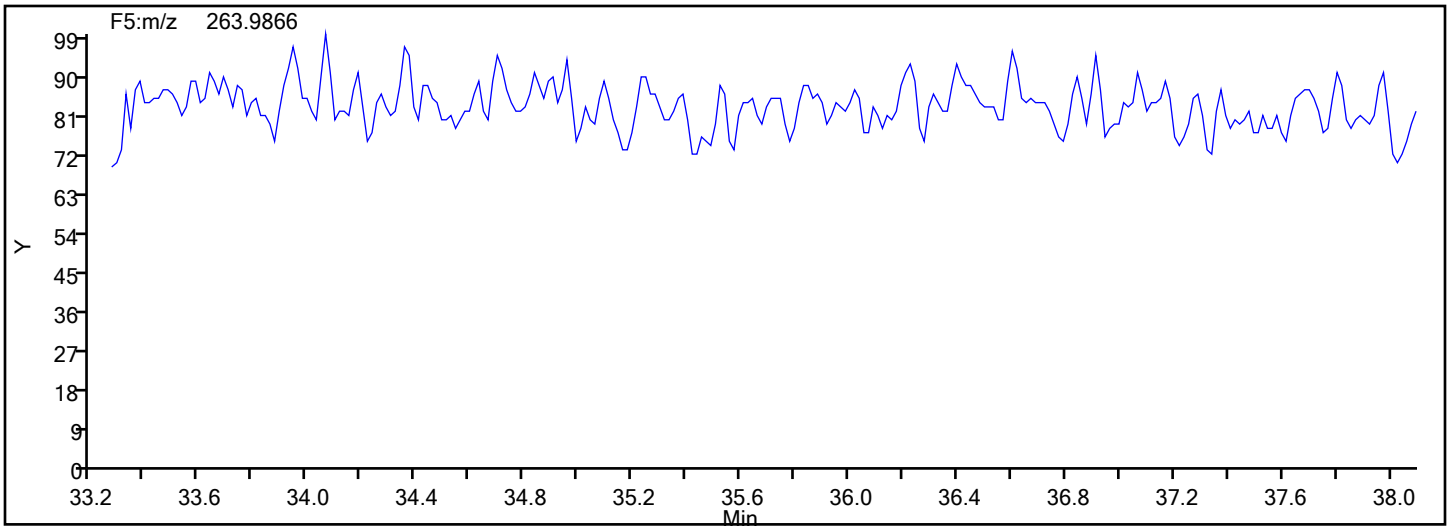
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin aldehyde





Endrin aldehyde Lock Mass



Report Date: 24-Mar-2025 13:06:39 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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Column Type:	RTX-5	Column Dia:	0.32 mm

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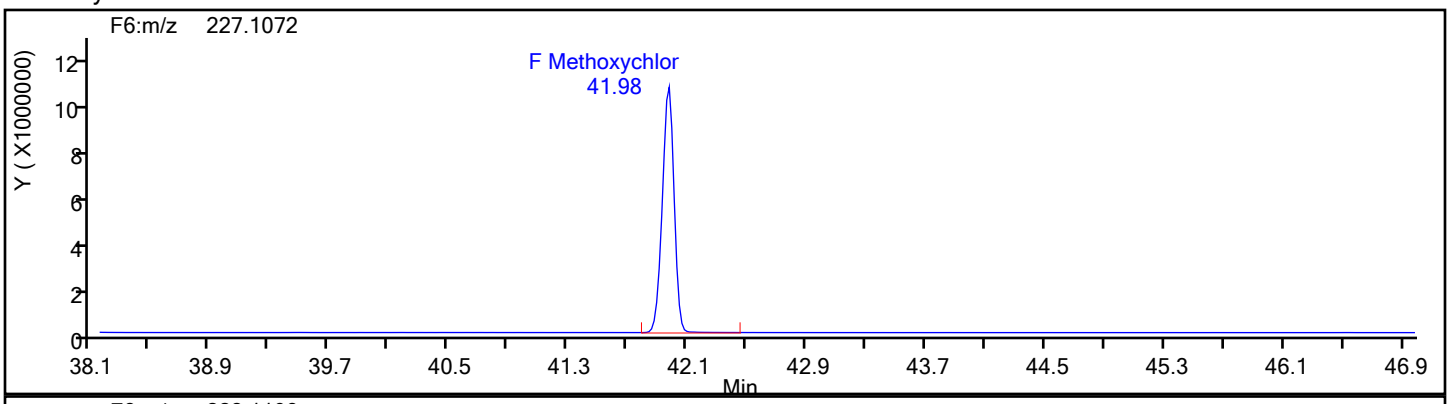
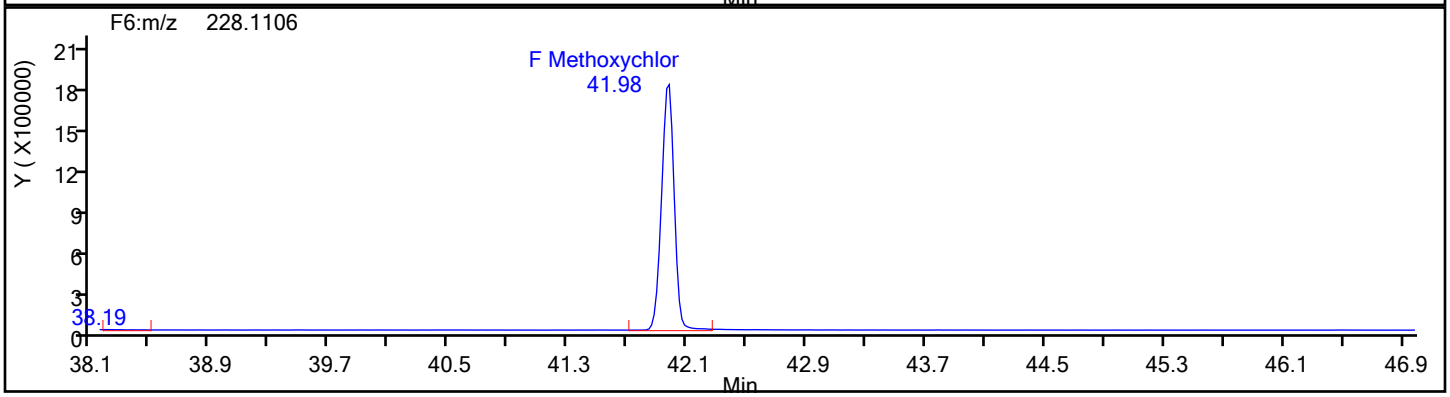
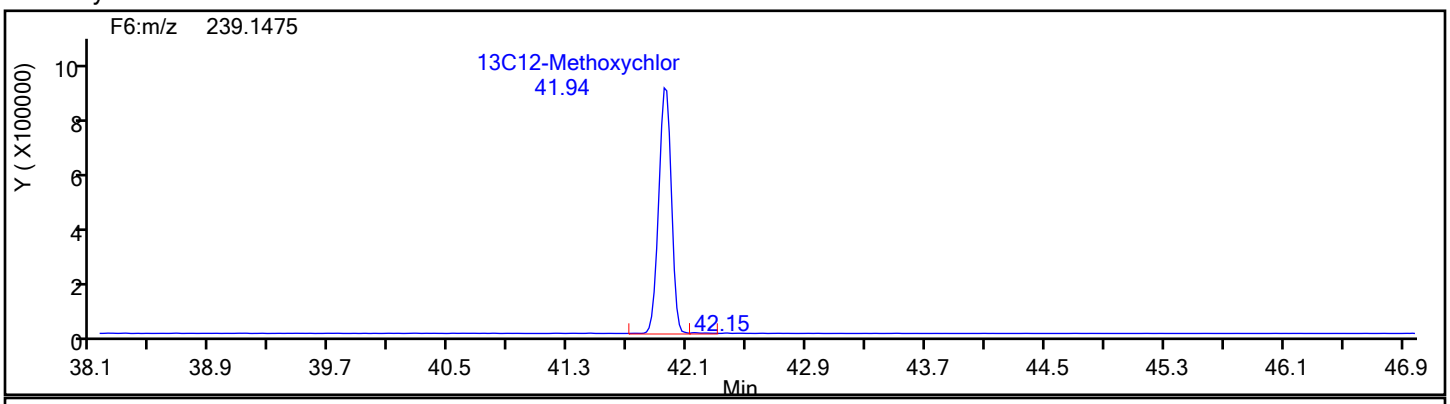
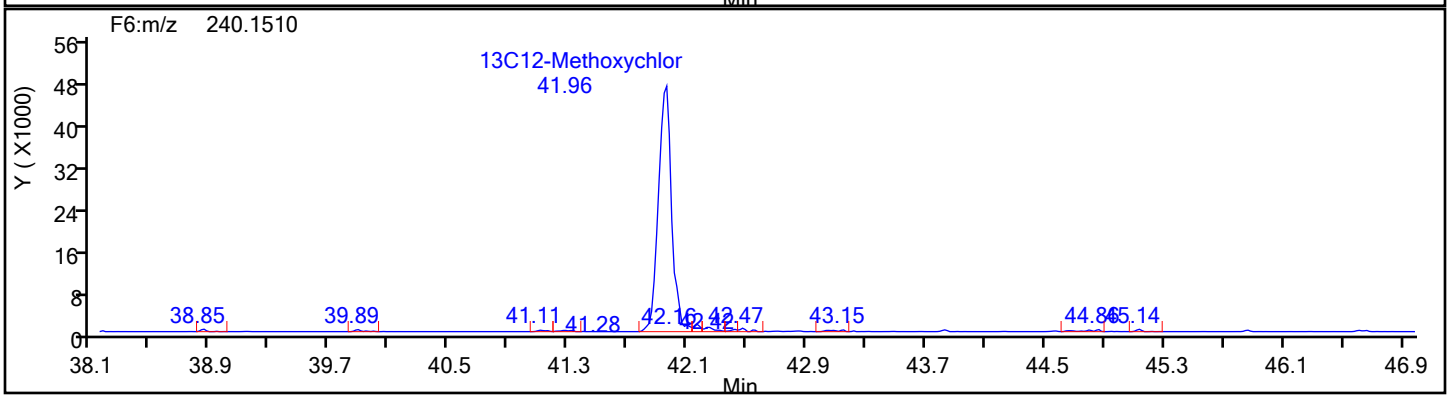




Methoxychlor Standards





Report Date: 24-Mar-2025 13:06:39 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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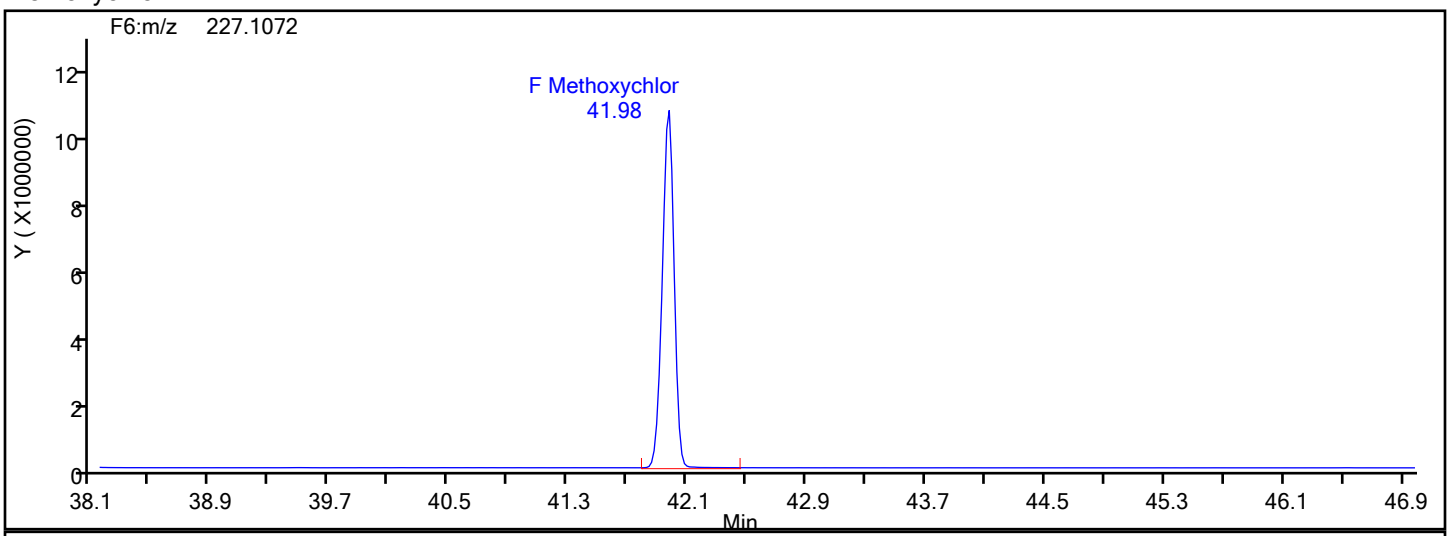
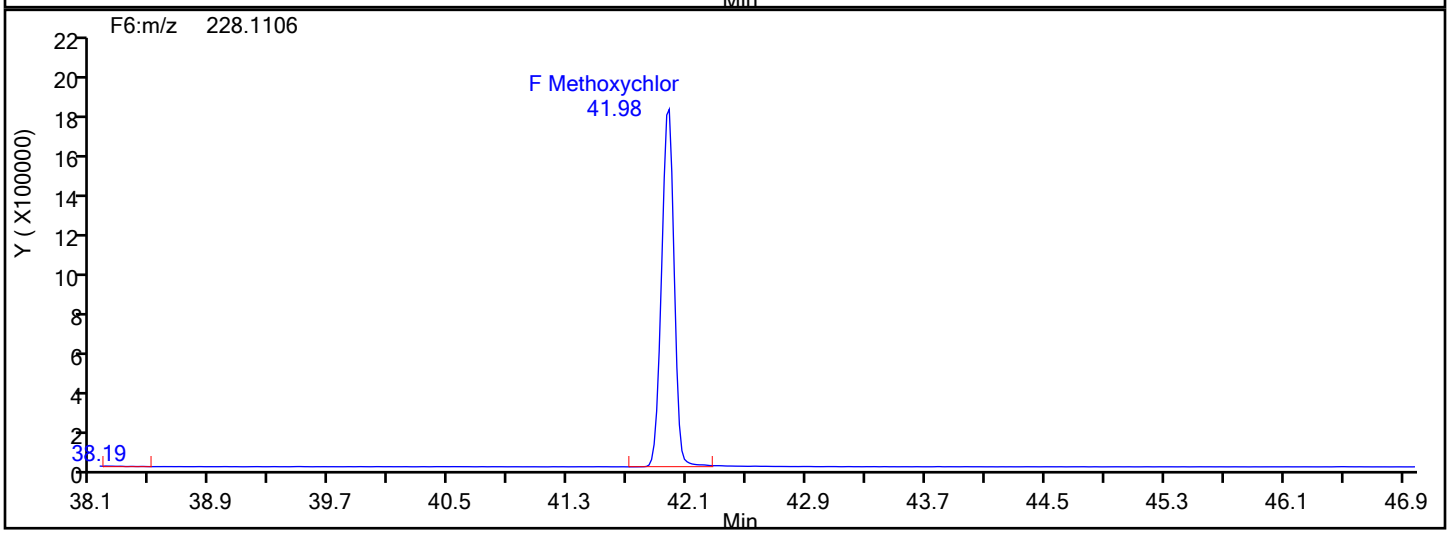
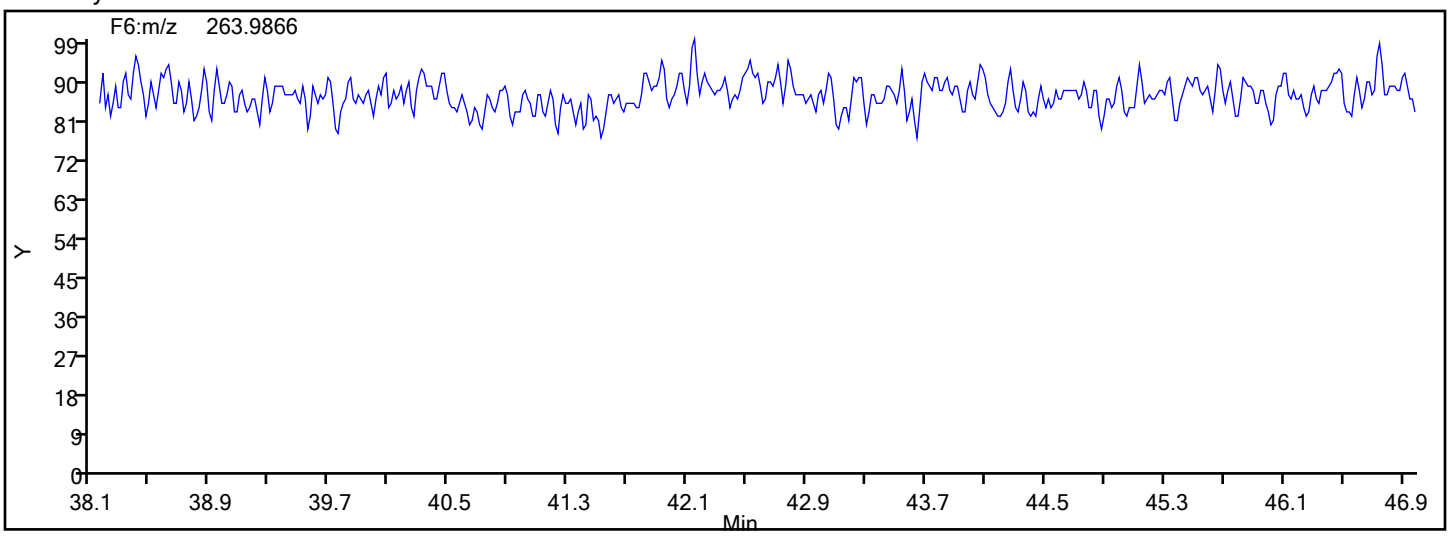
Methoxychlor





Methoxychlor Lock Mass



Report Date: 24-Mar-2025 13:06:39 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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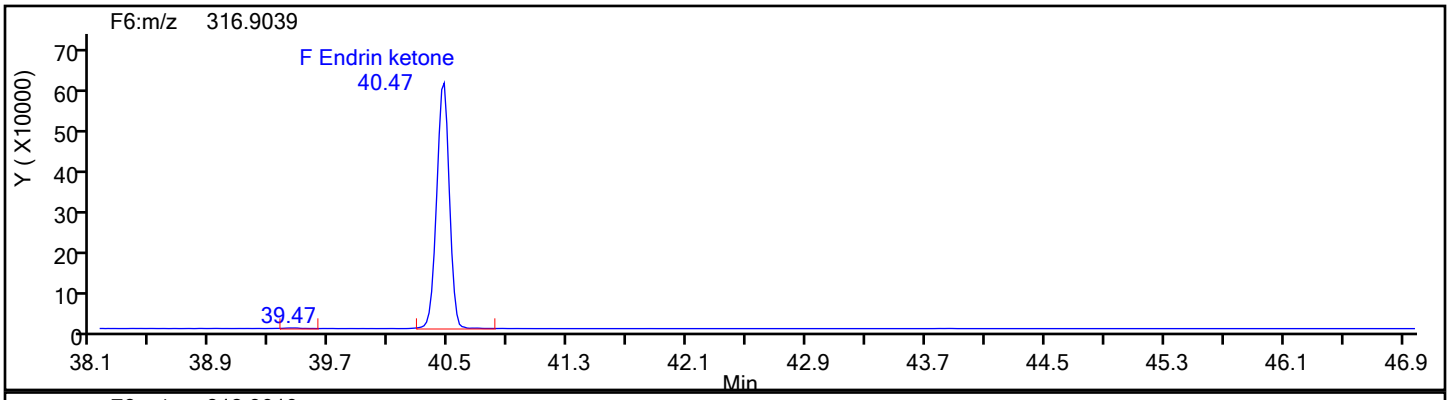

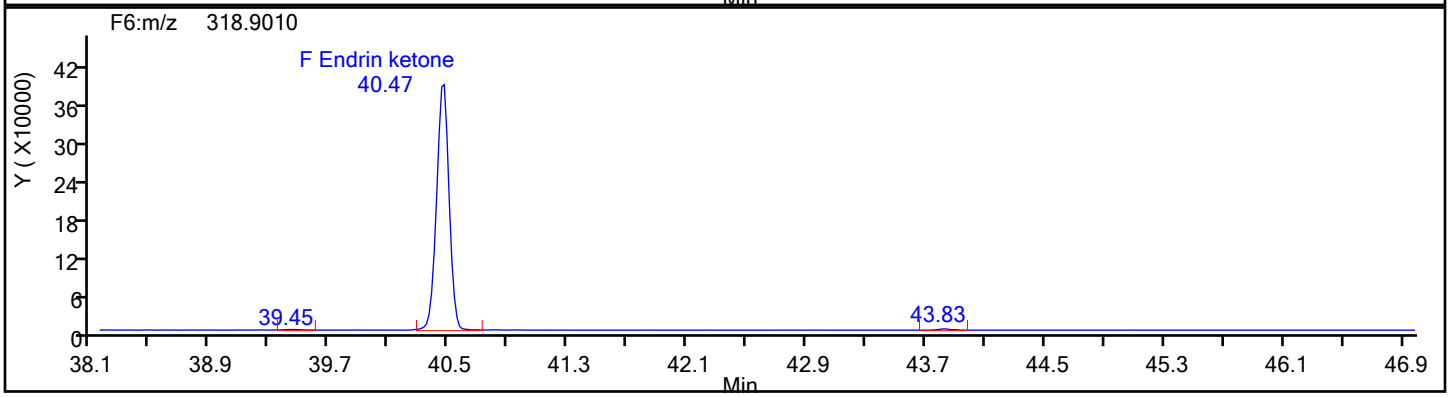

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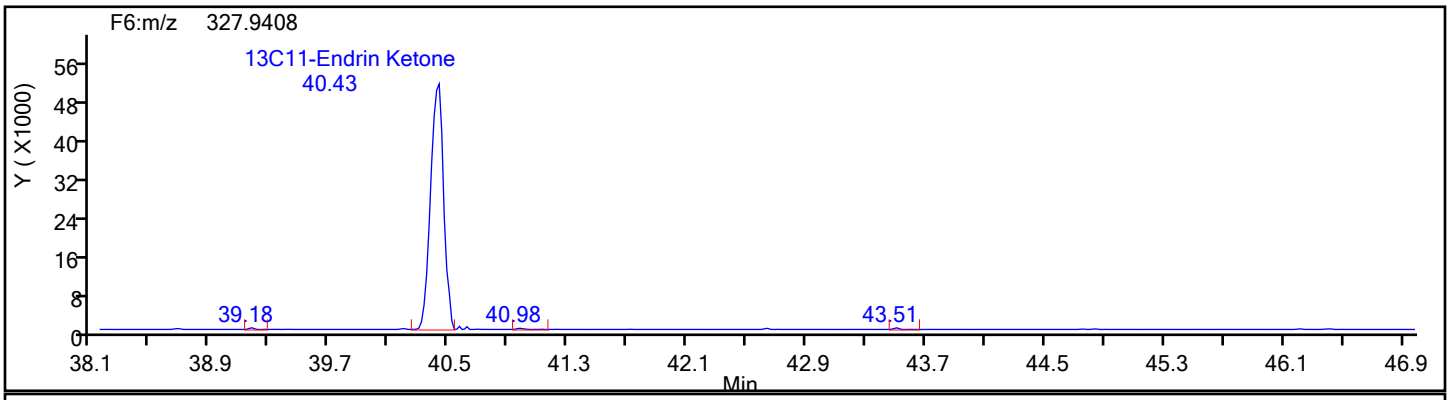

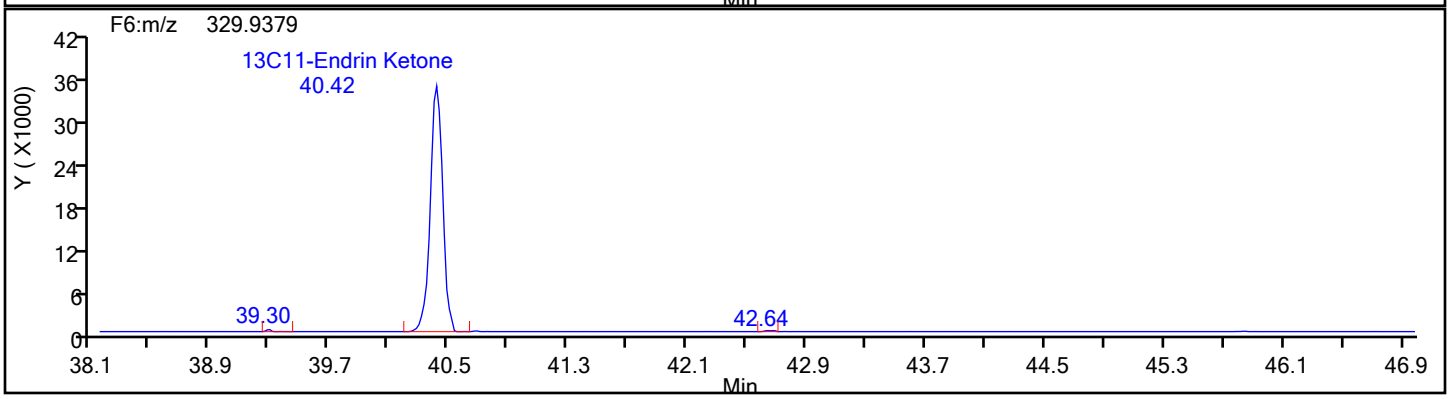

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Eurofins Knoxville

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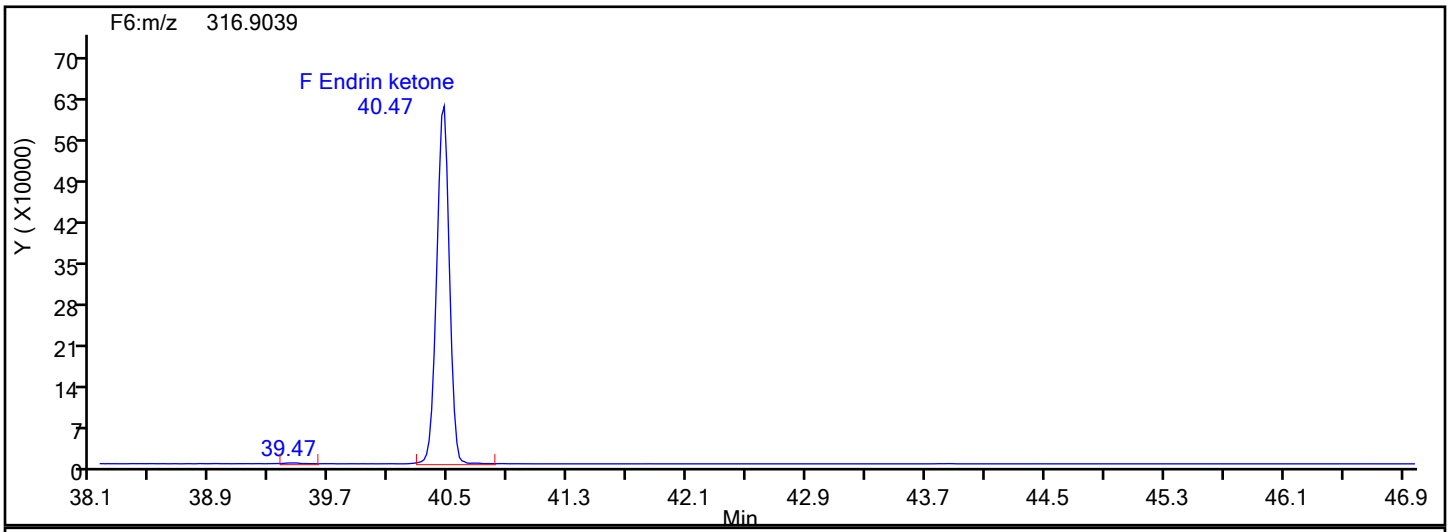
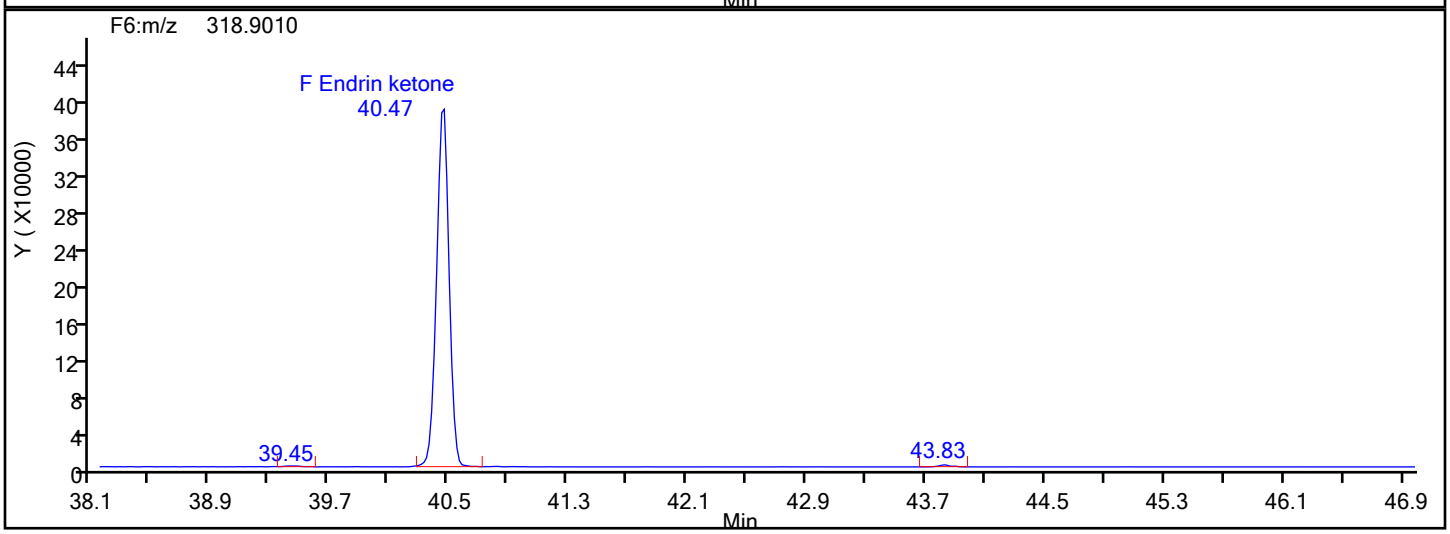
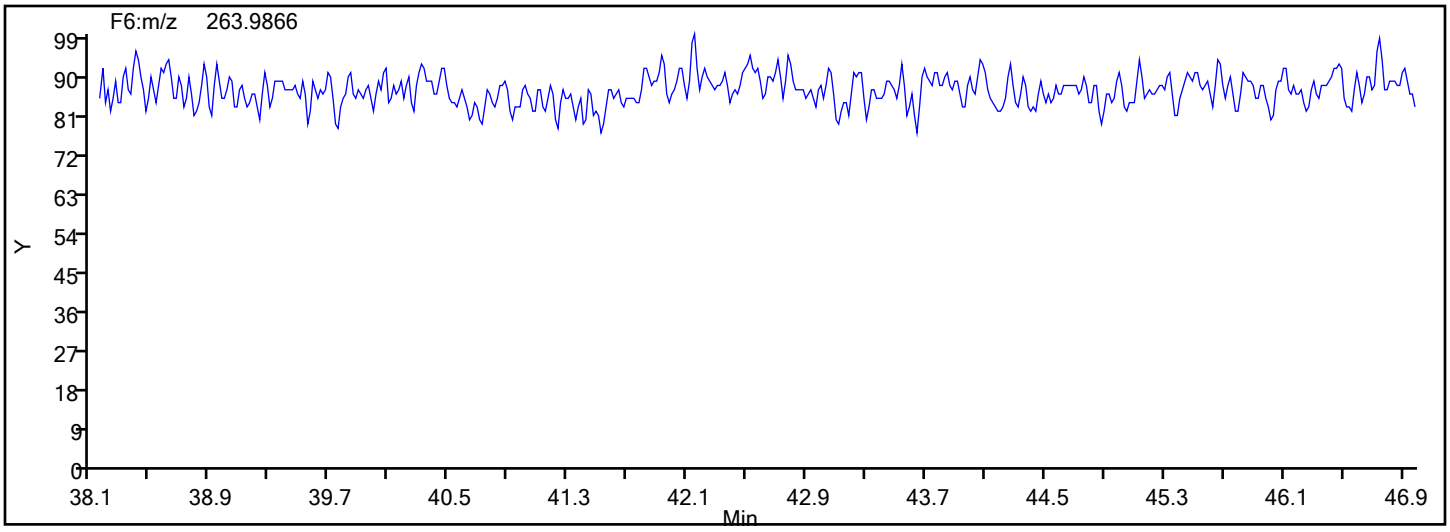




Endrin ketone Lock Mass



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Eurofins Knoxville

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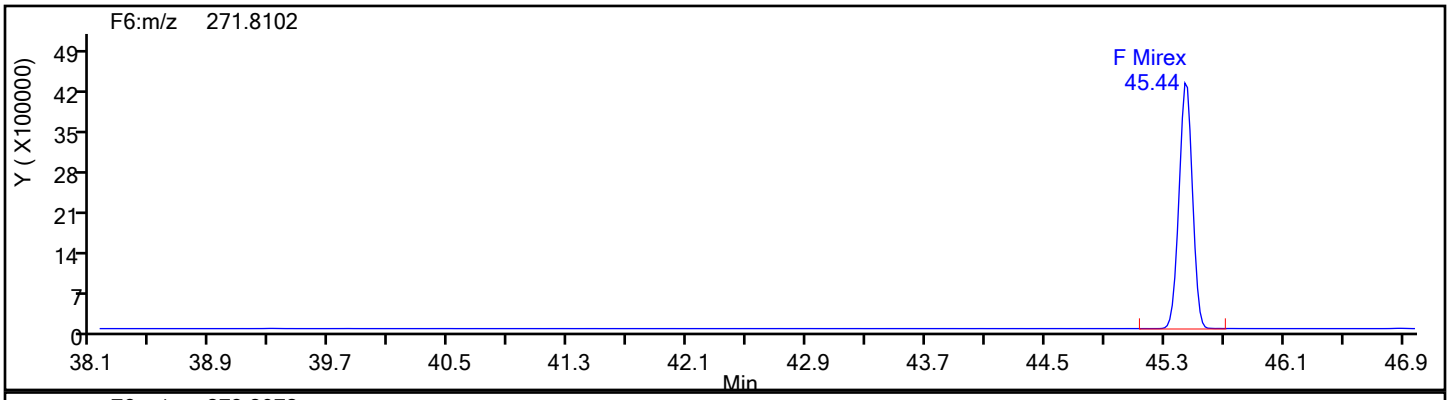
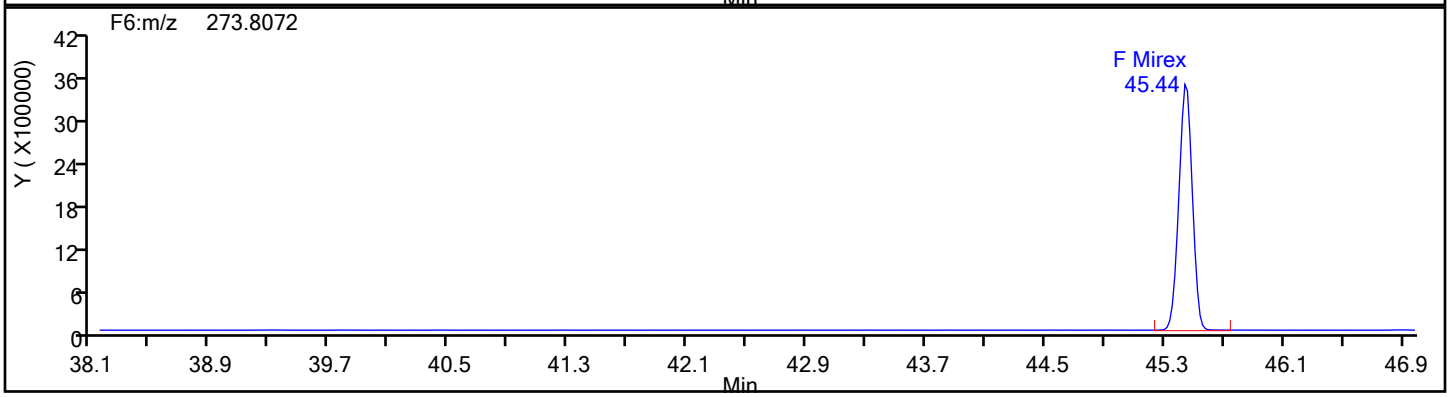
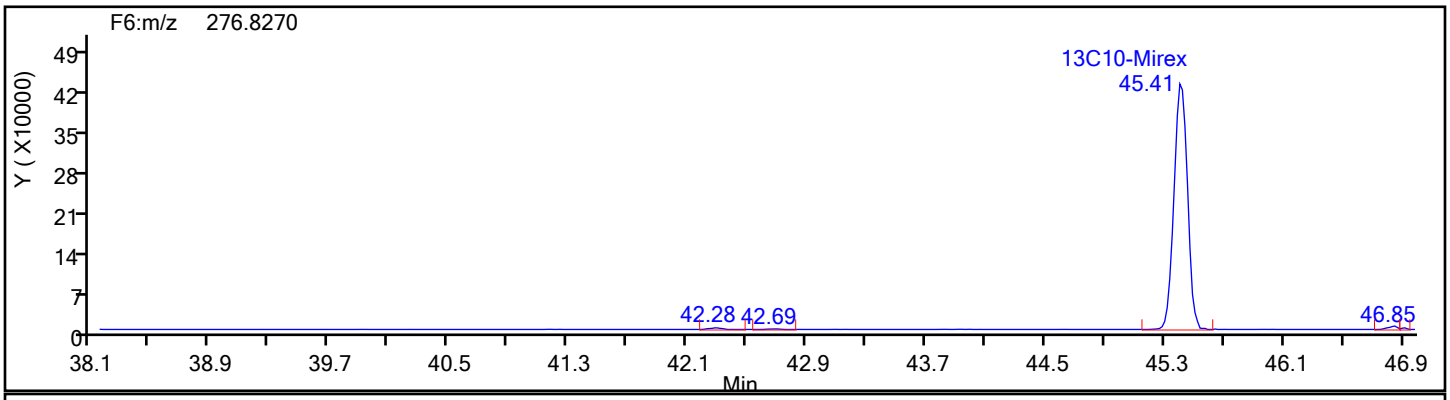
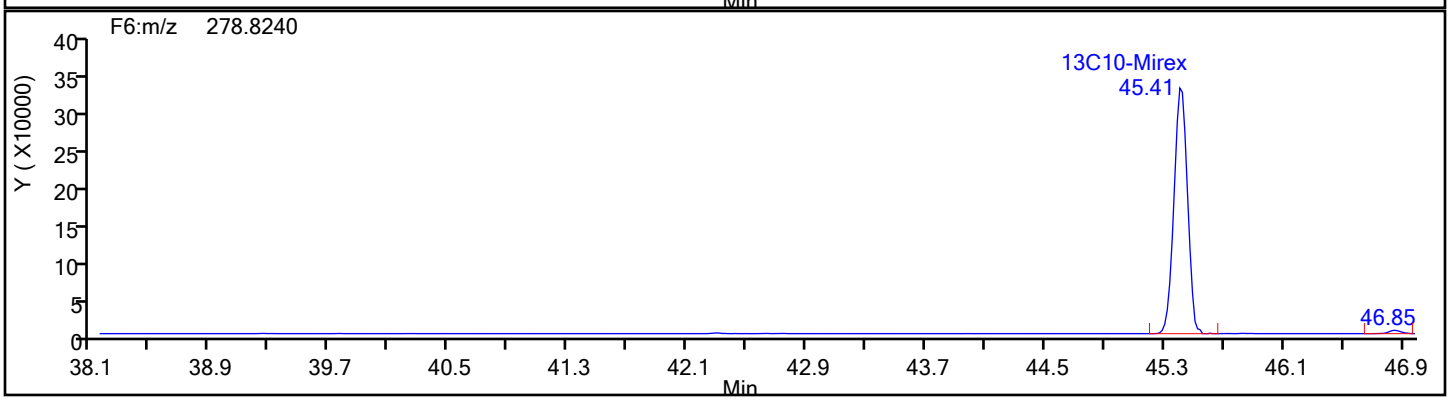
Mirex





Mirex Standards





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Eurofins Knoxville

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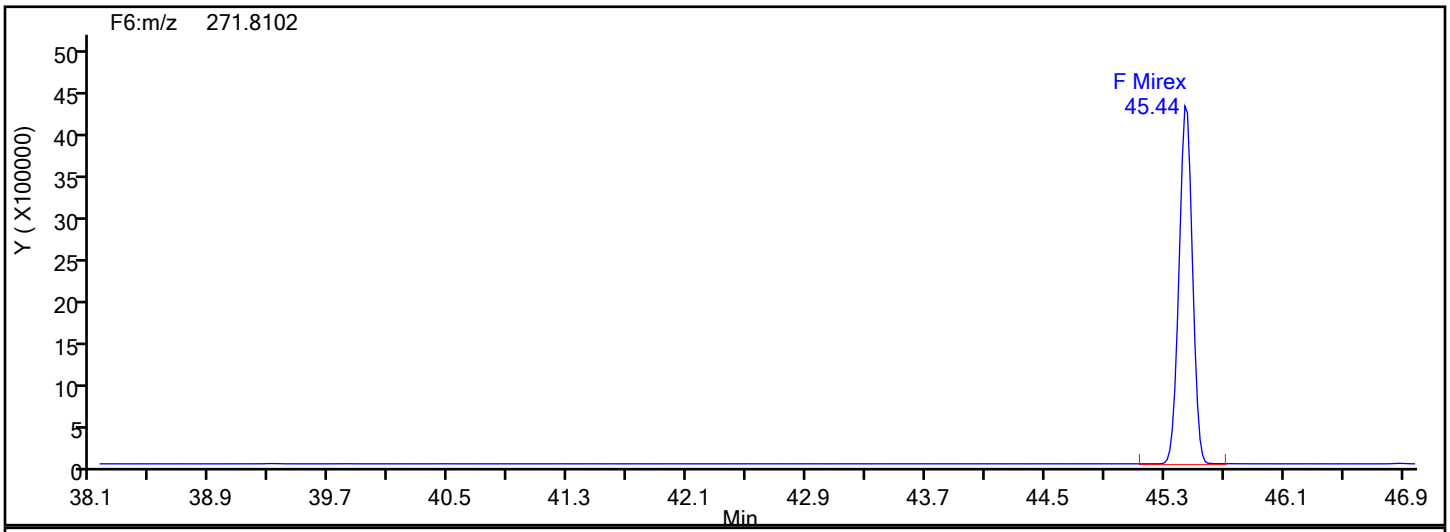
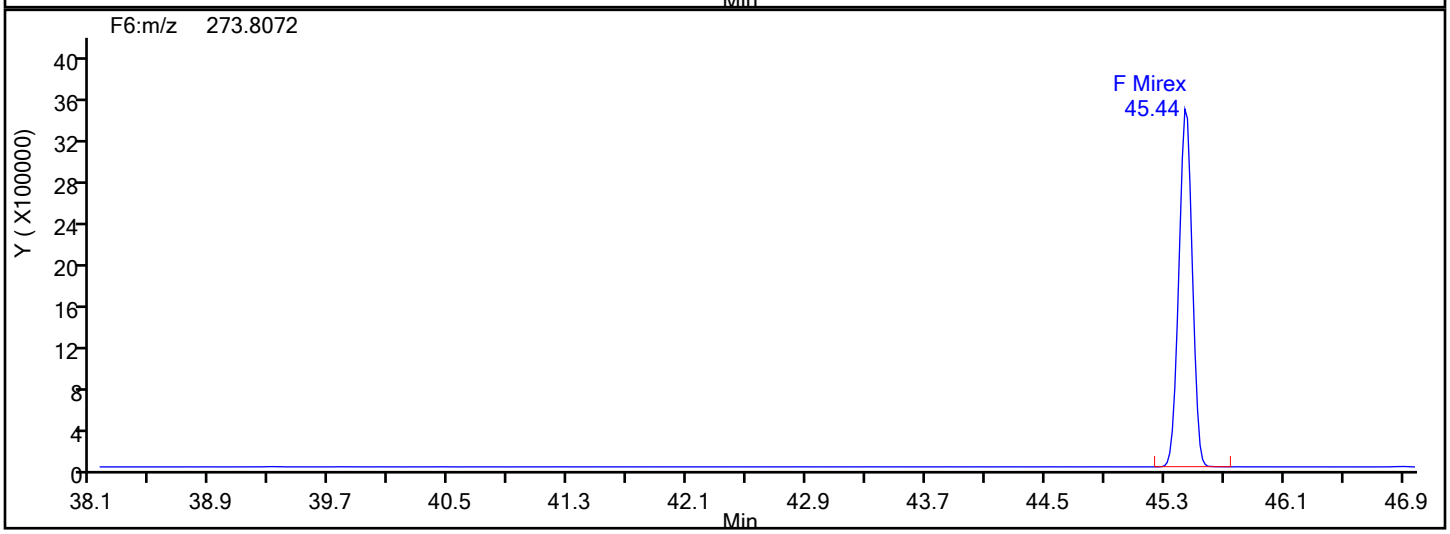
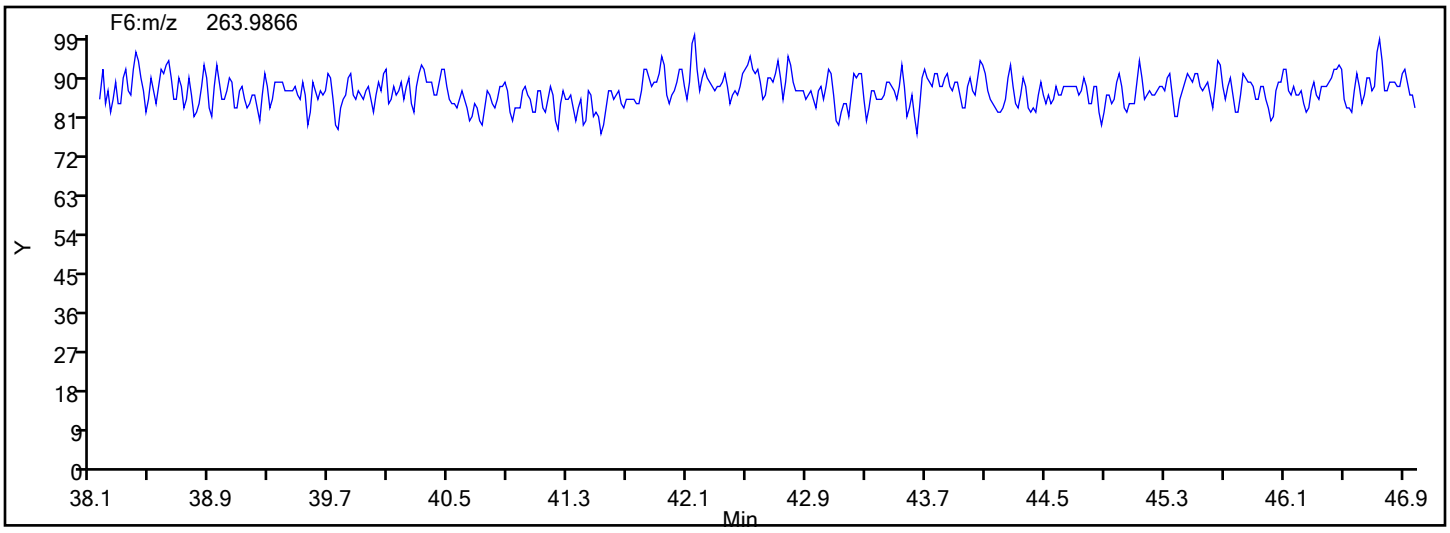




Mirex Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
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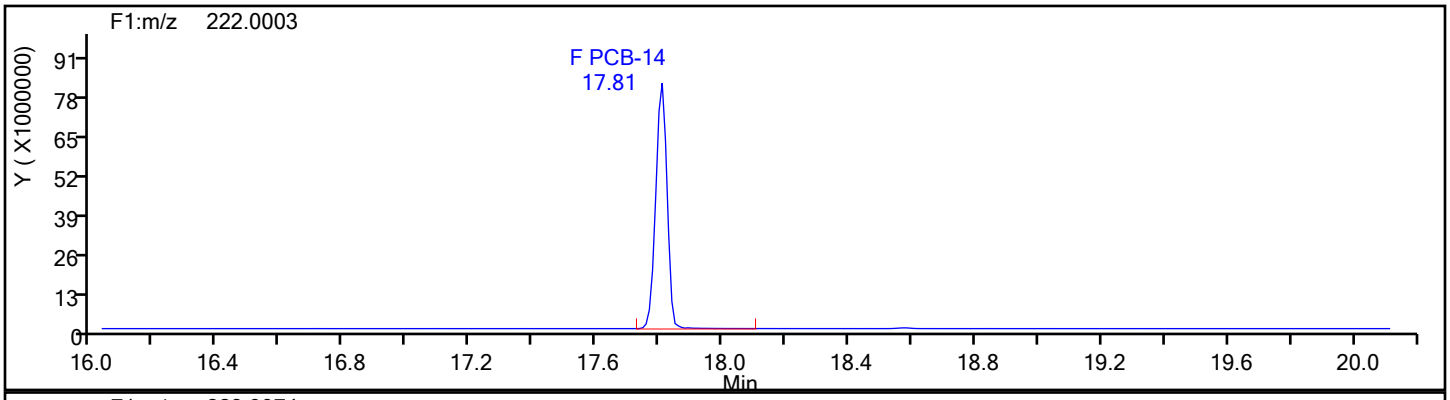
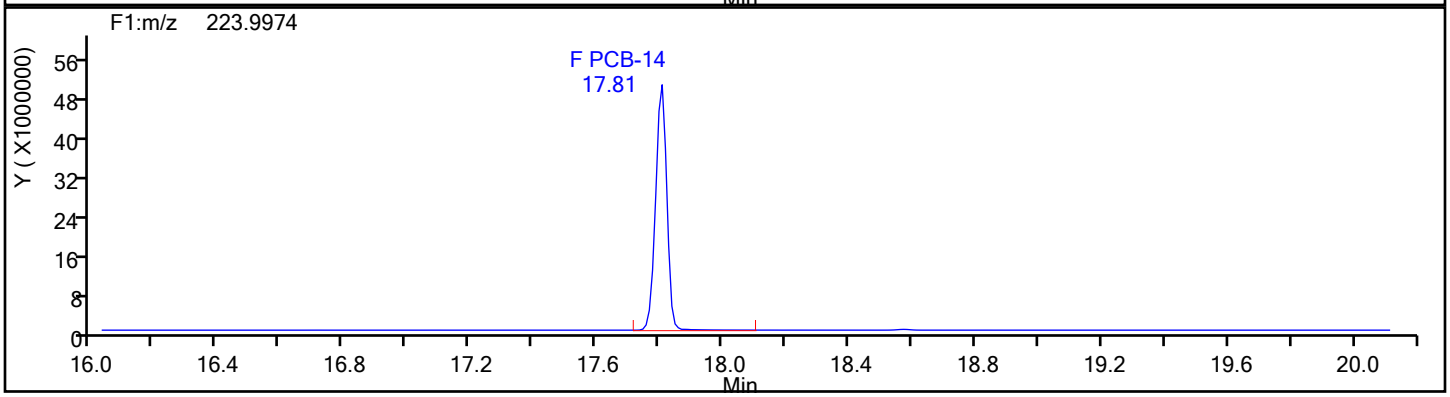
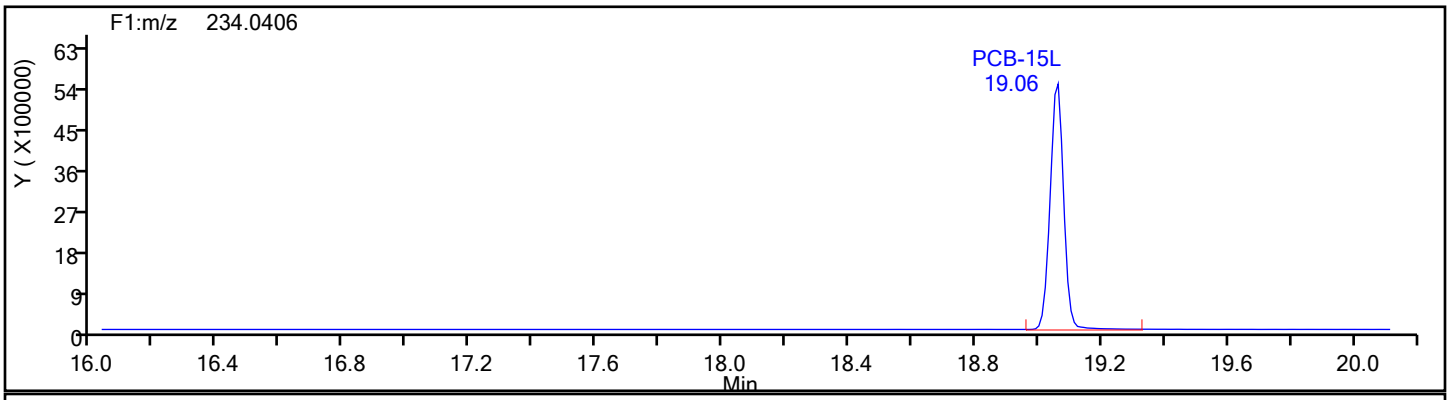
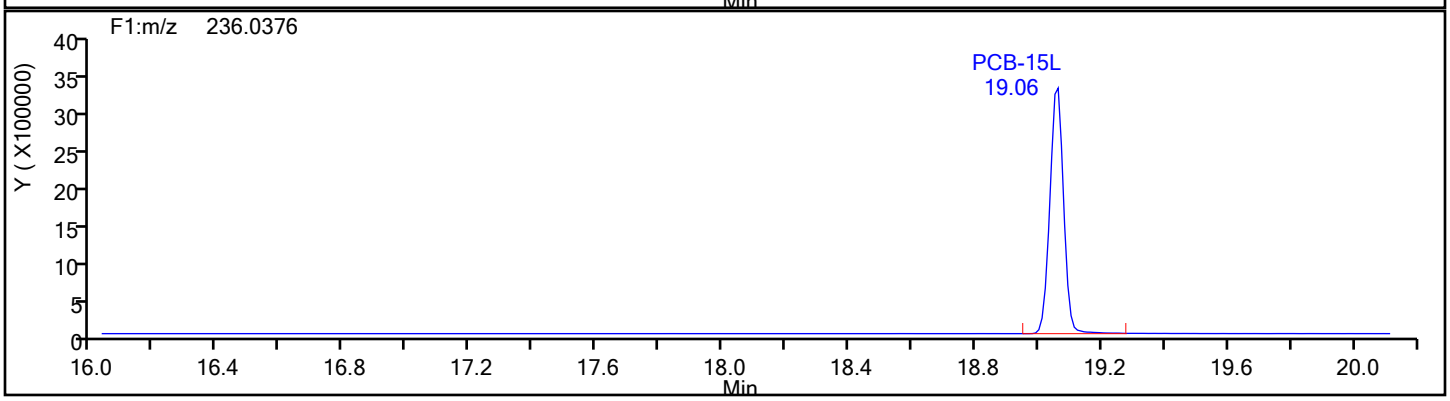
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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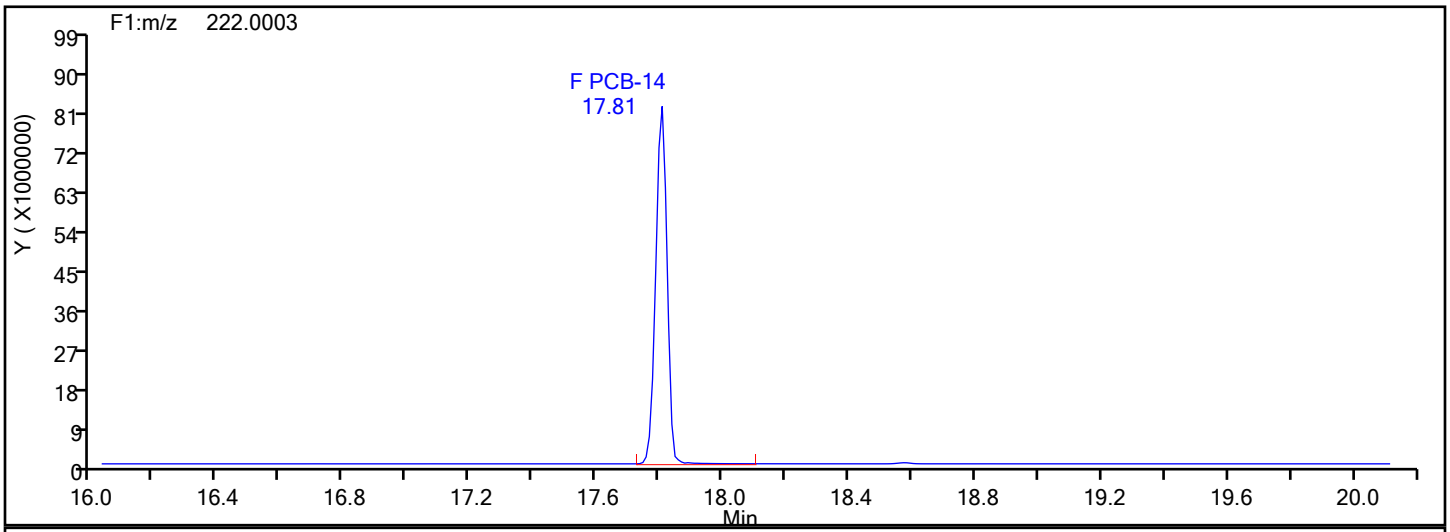
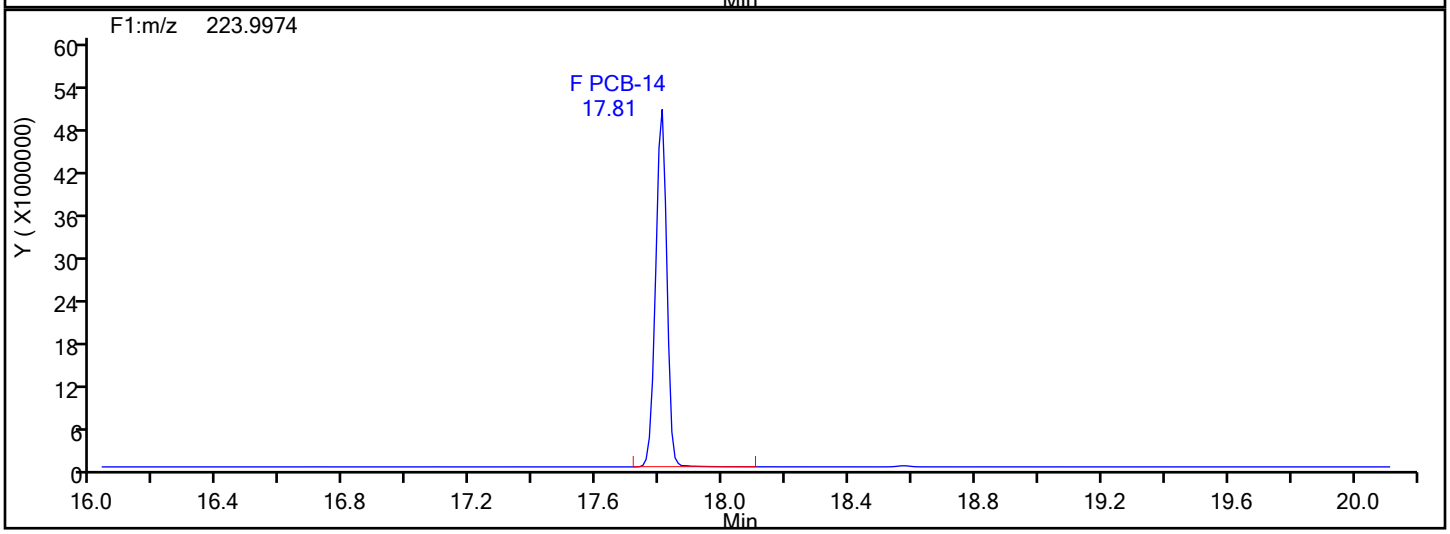
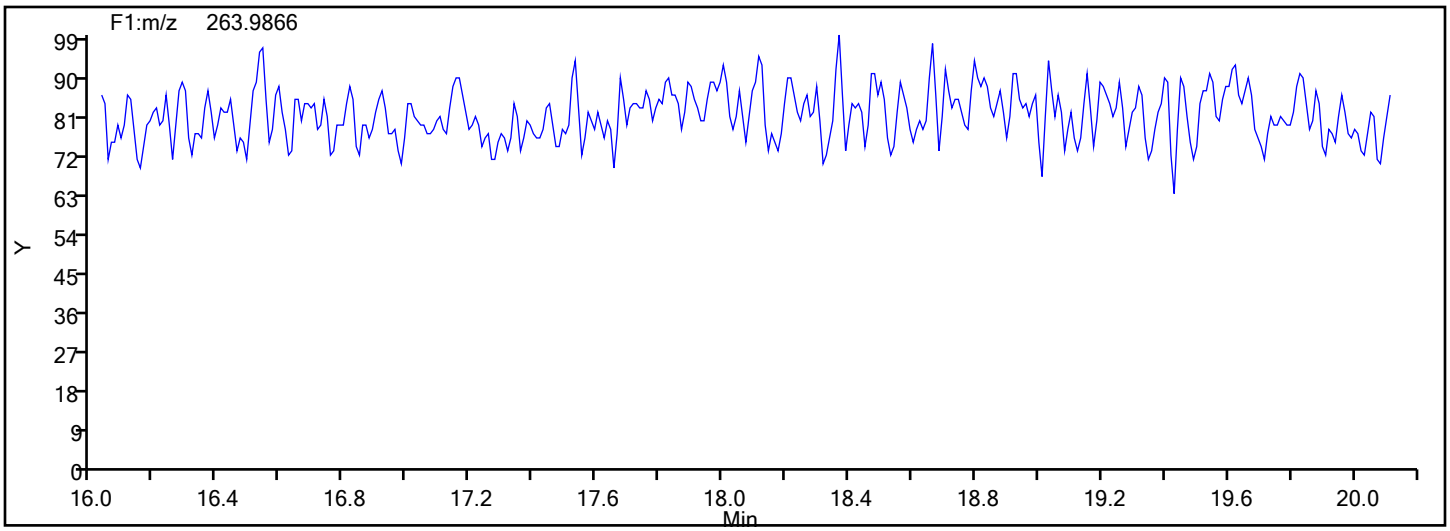
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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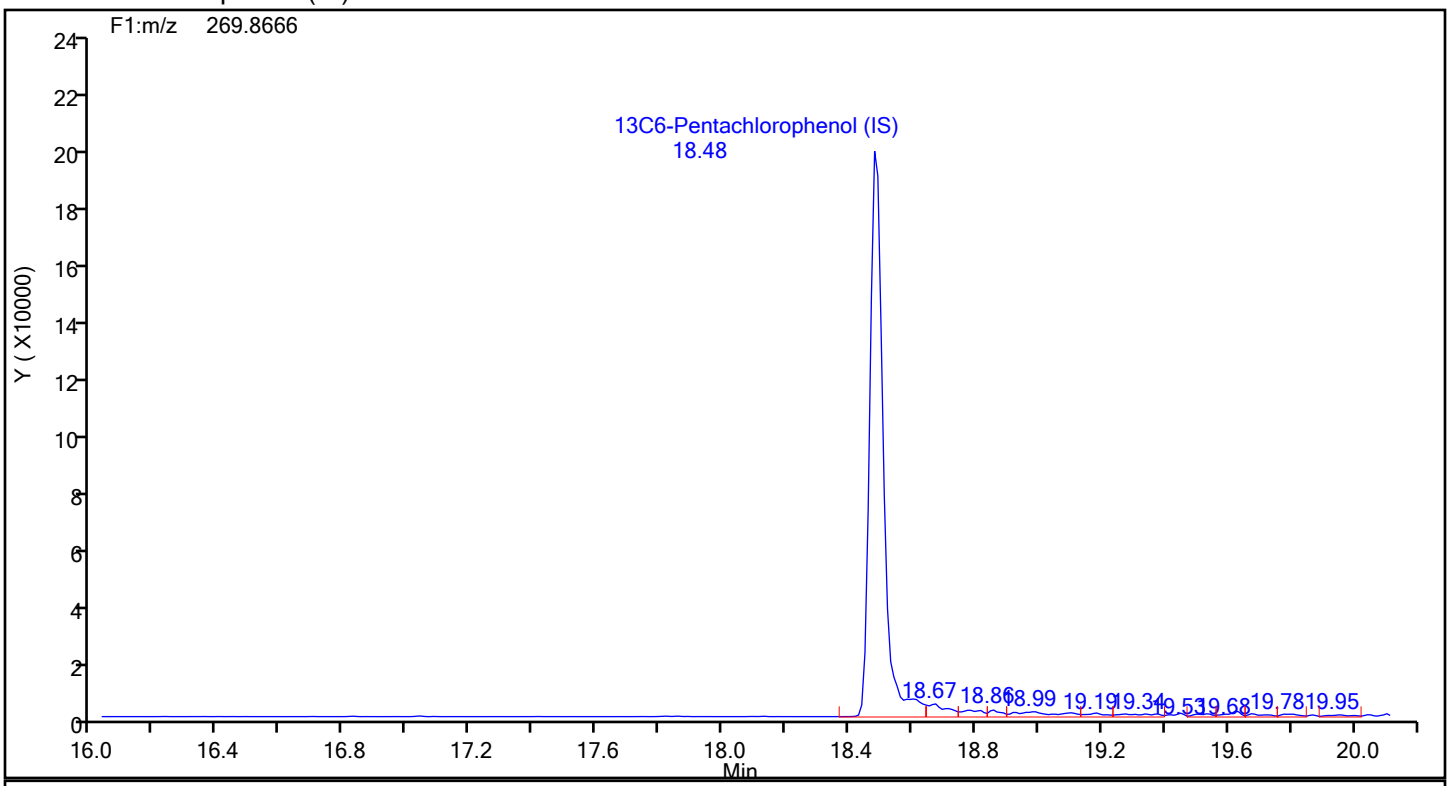
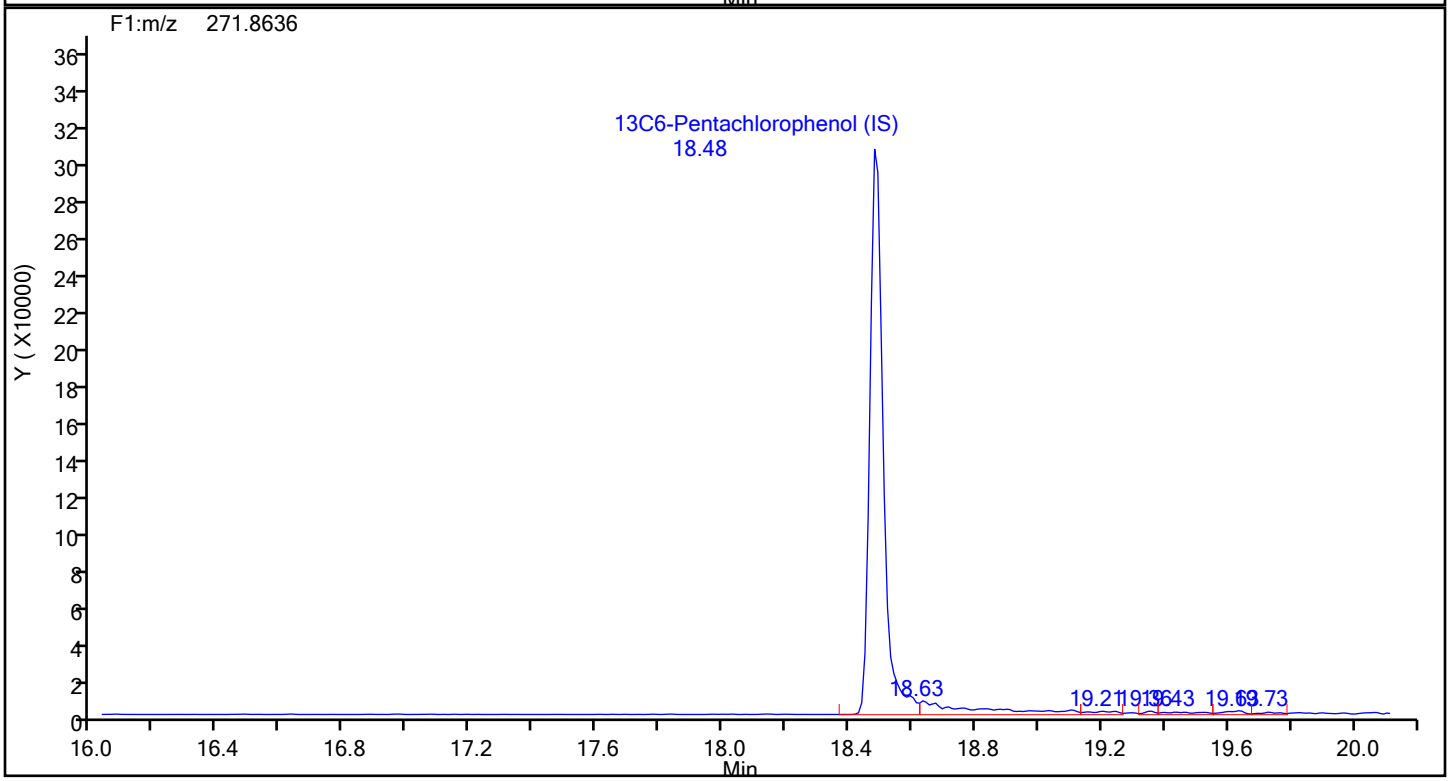
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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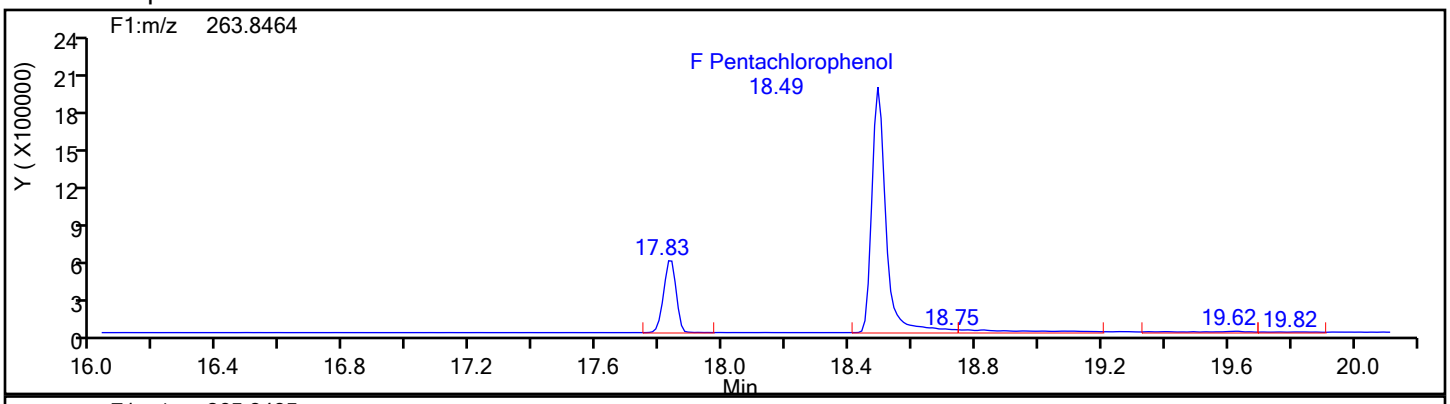
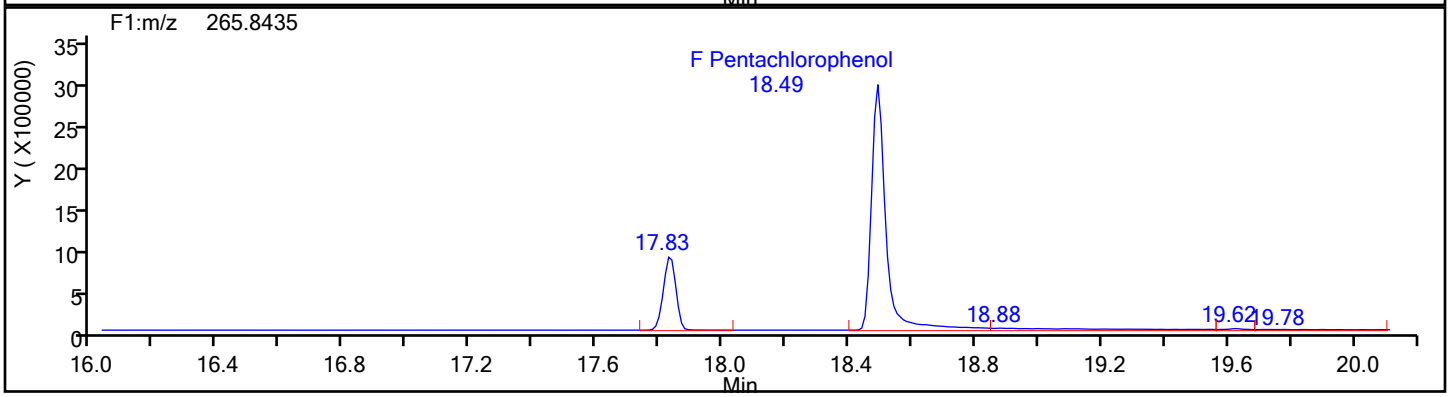
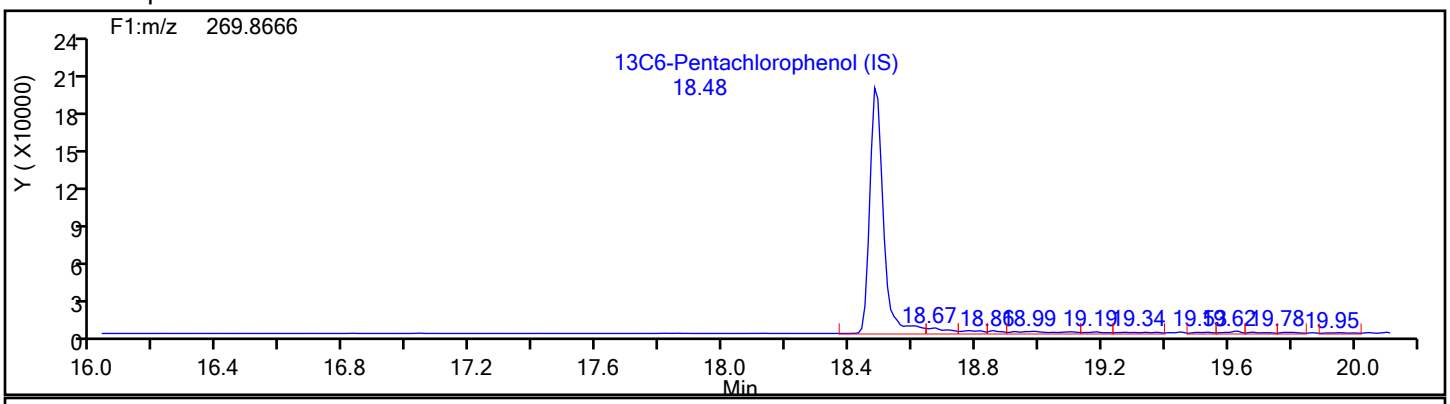
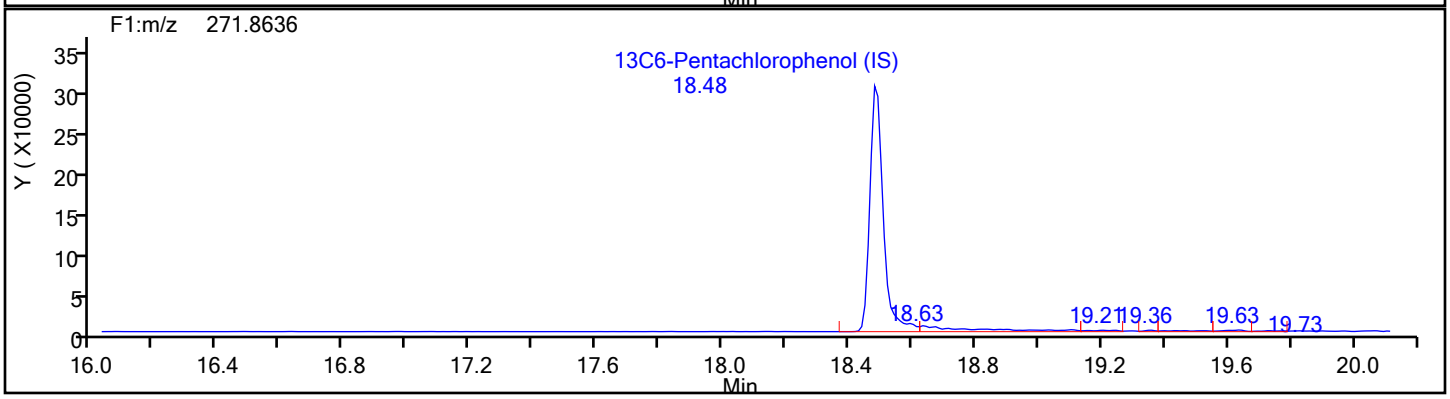
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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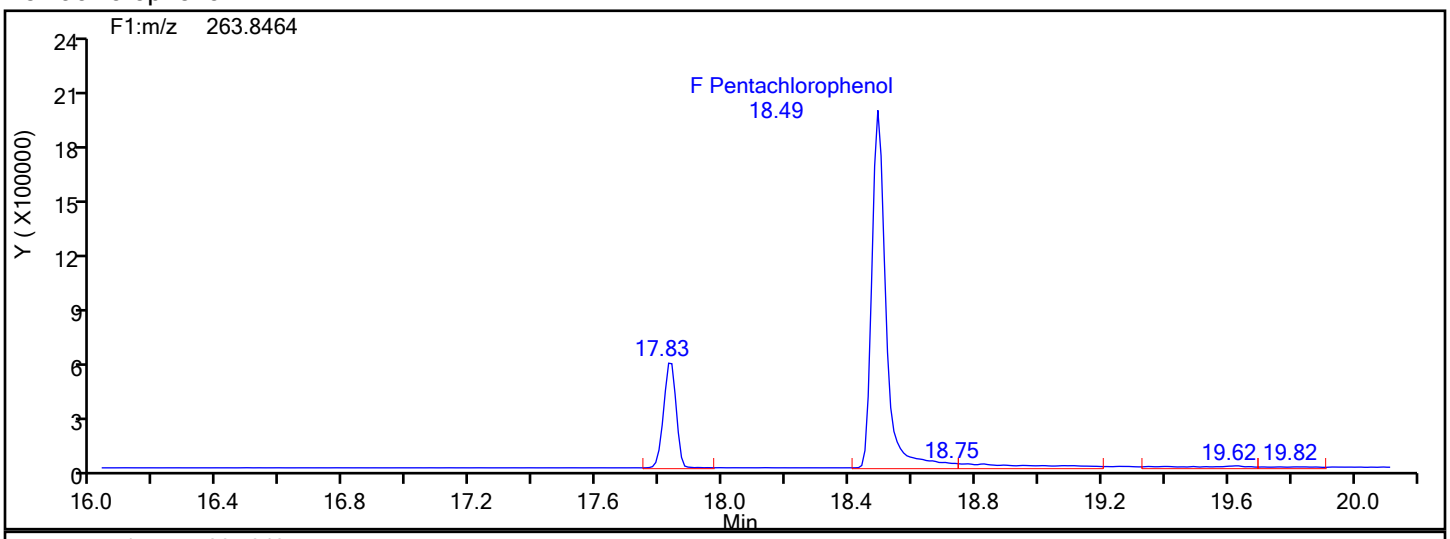
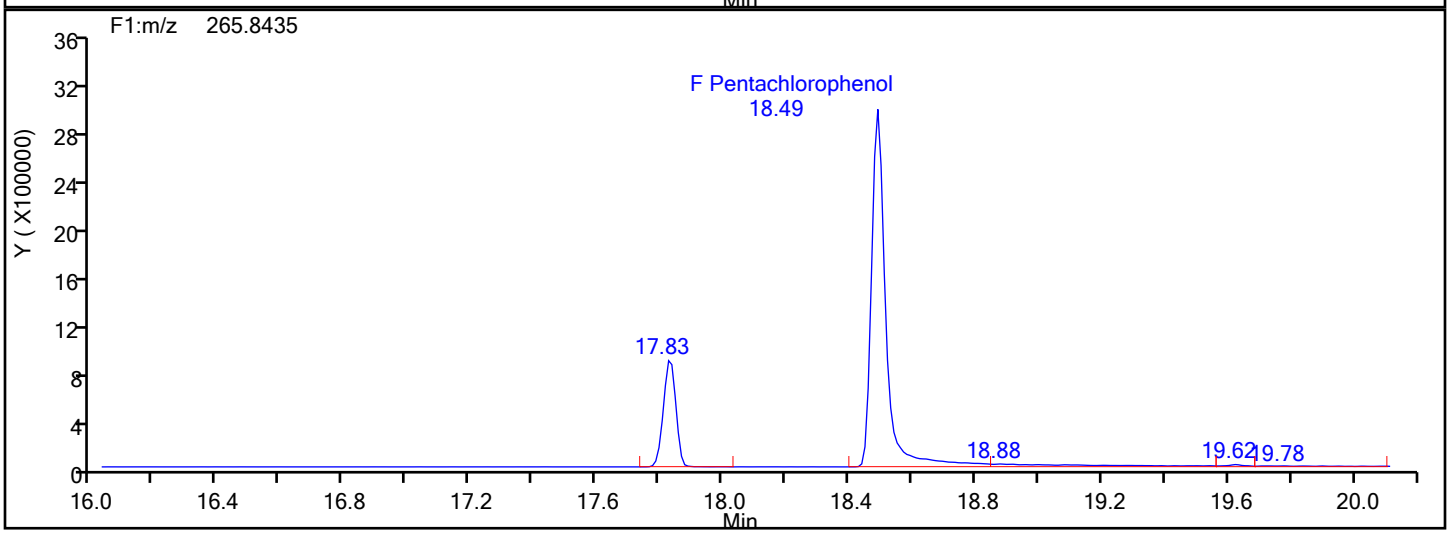
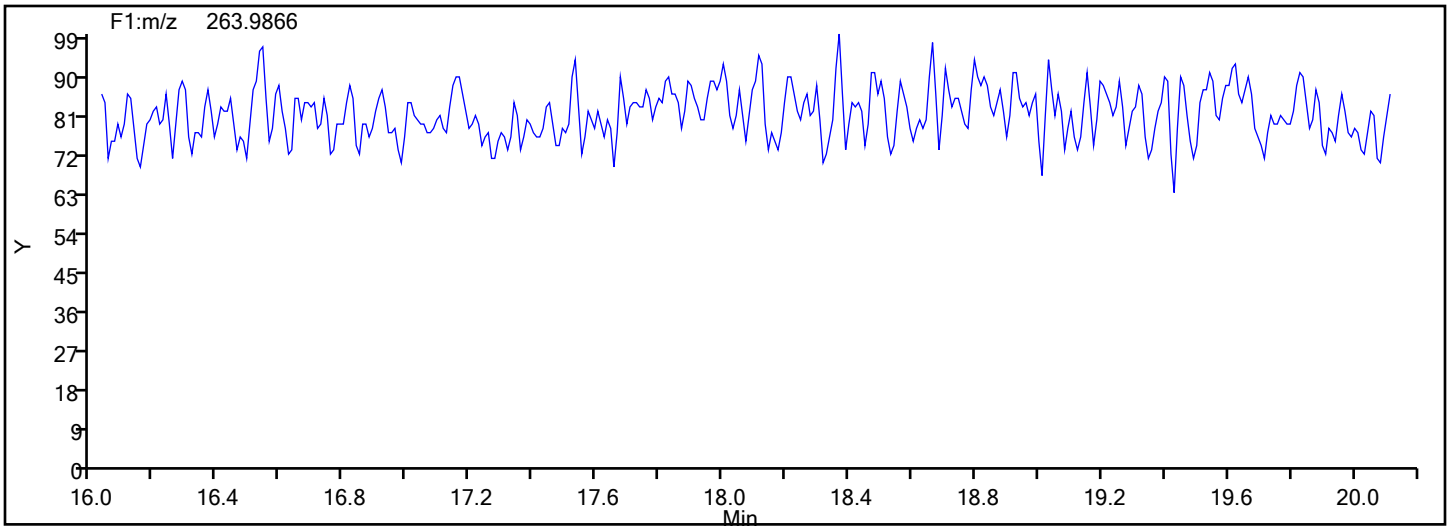
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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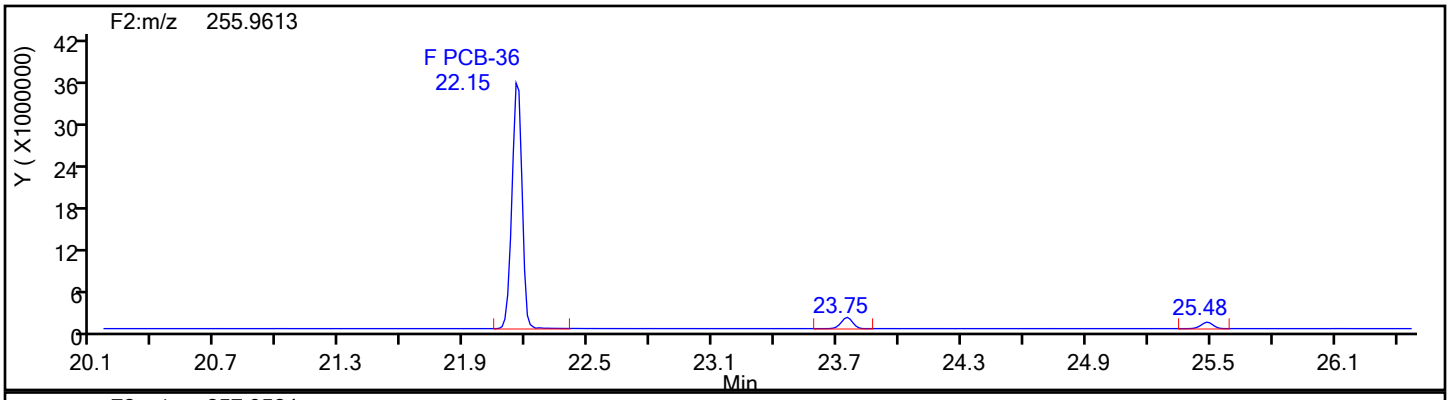
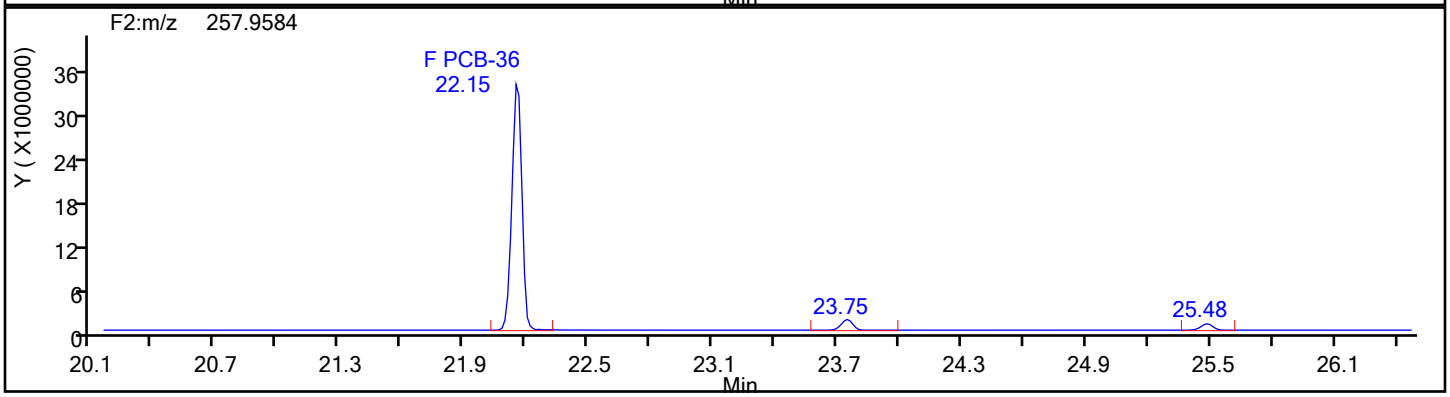
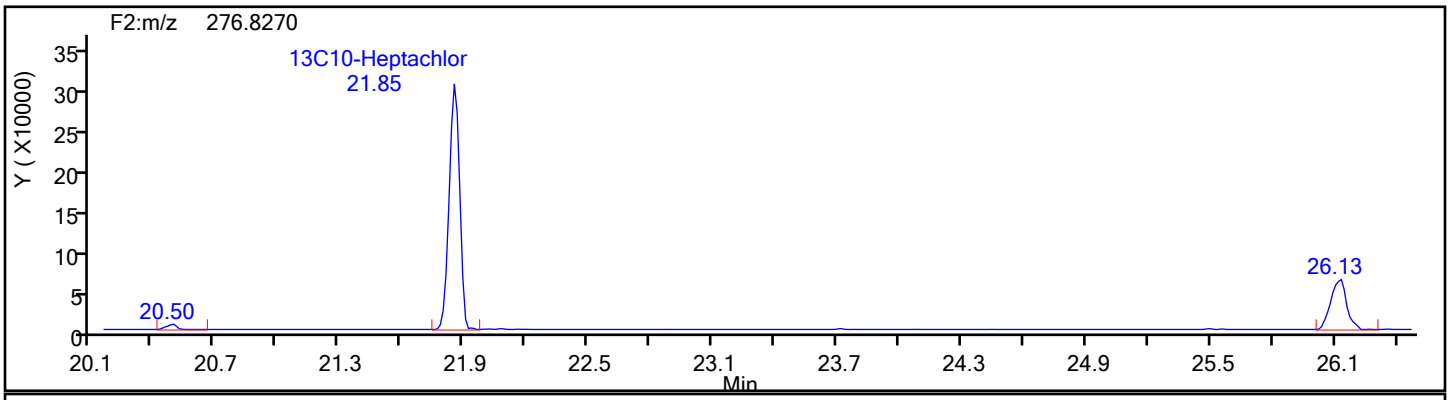
Column Type:	RTX-5	Column Dia:	0.32 mm

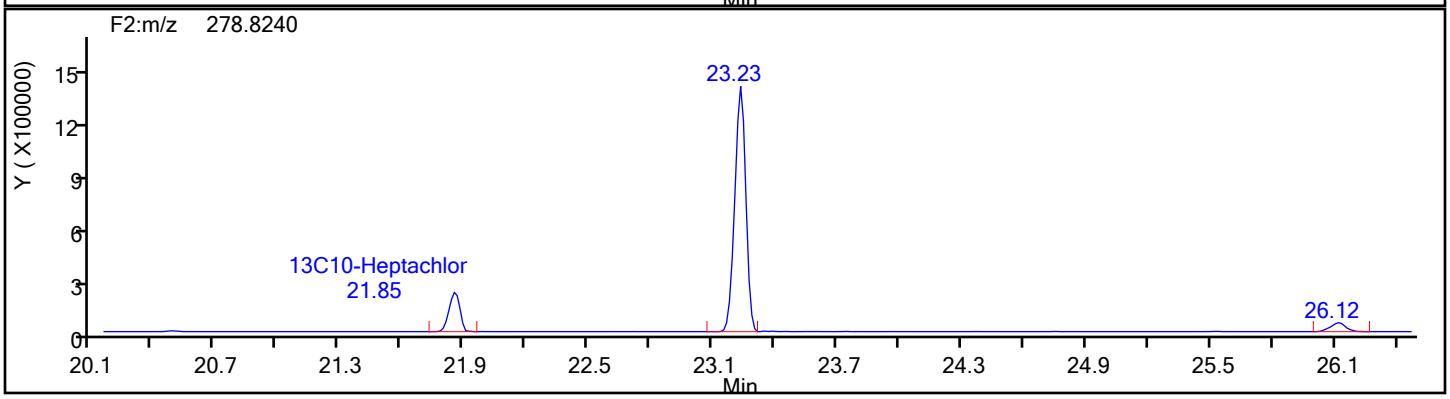
PCB-36





PCB-36 Standards



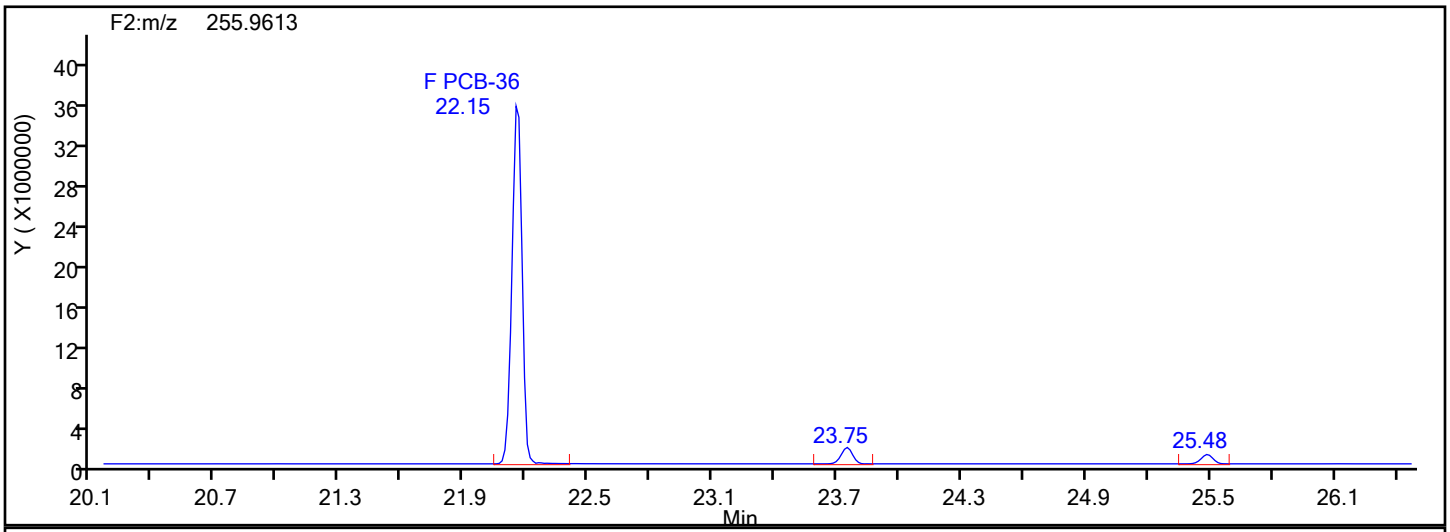


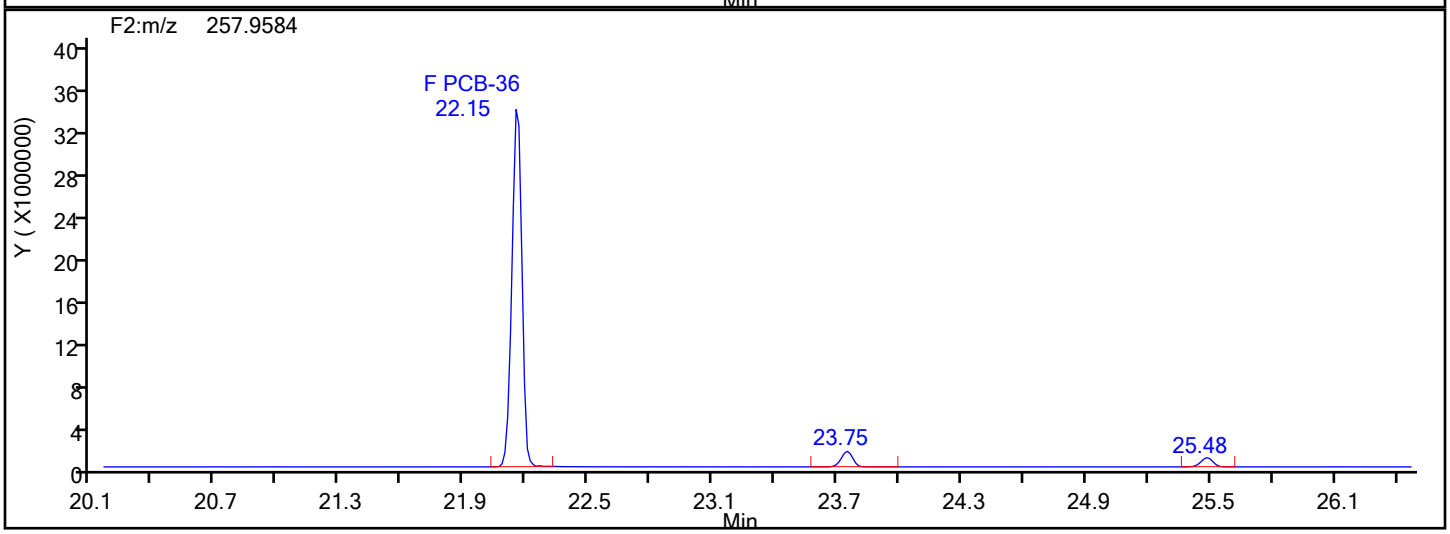
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

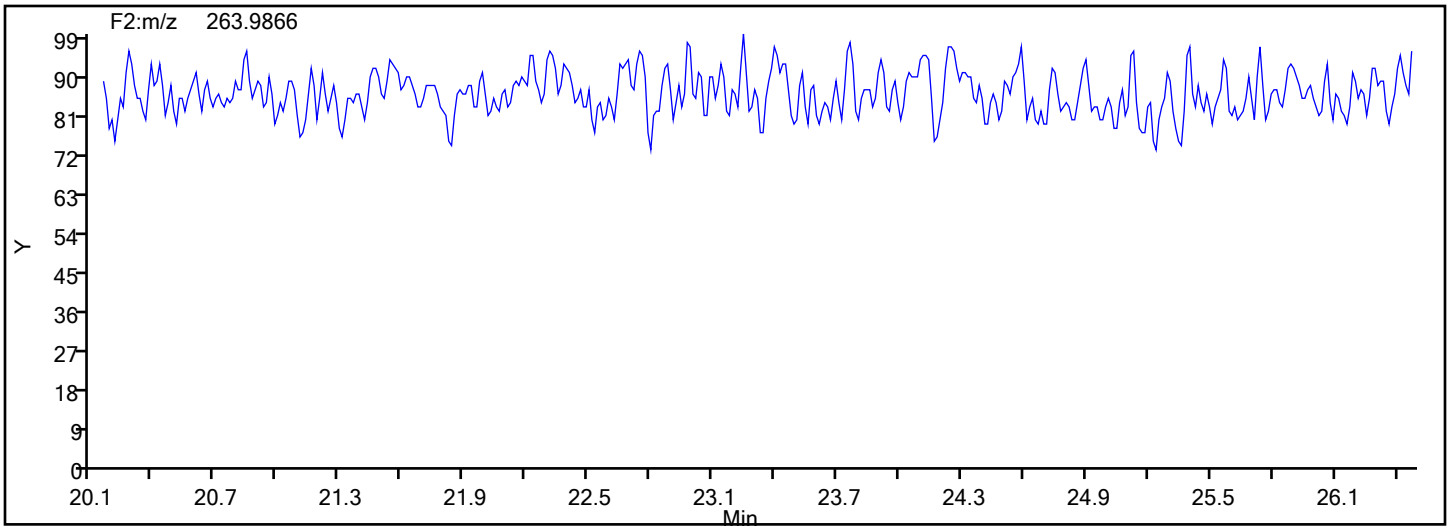
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



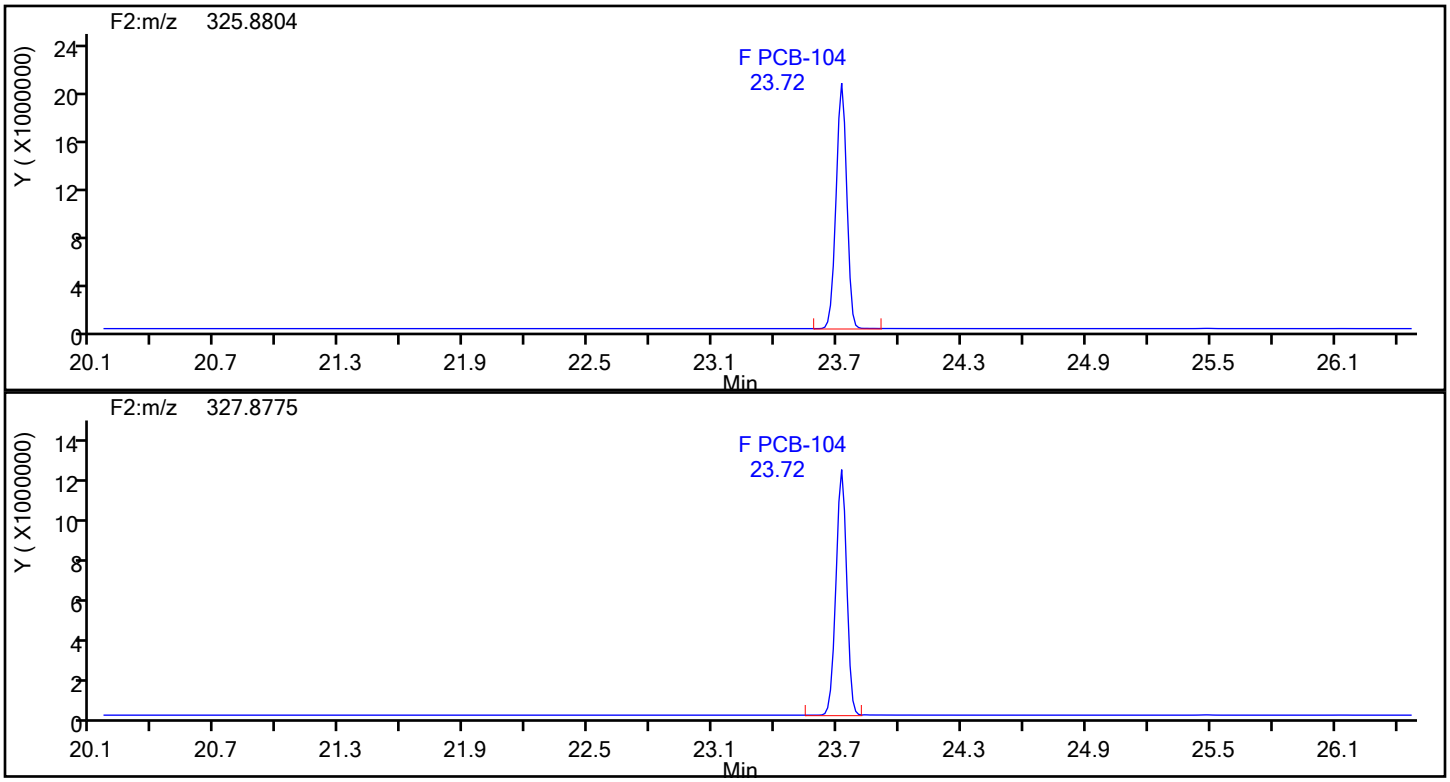
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

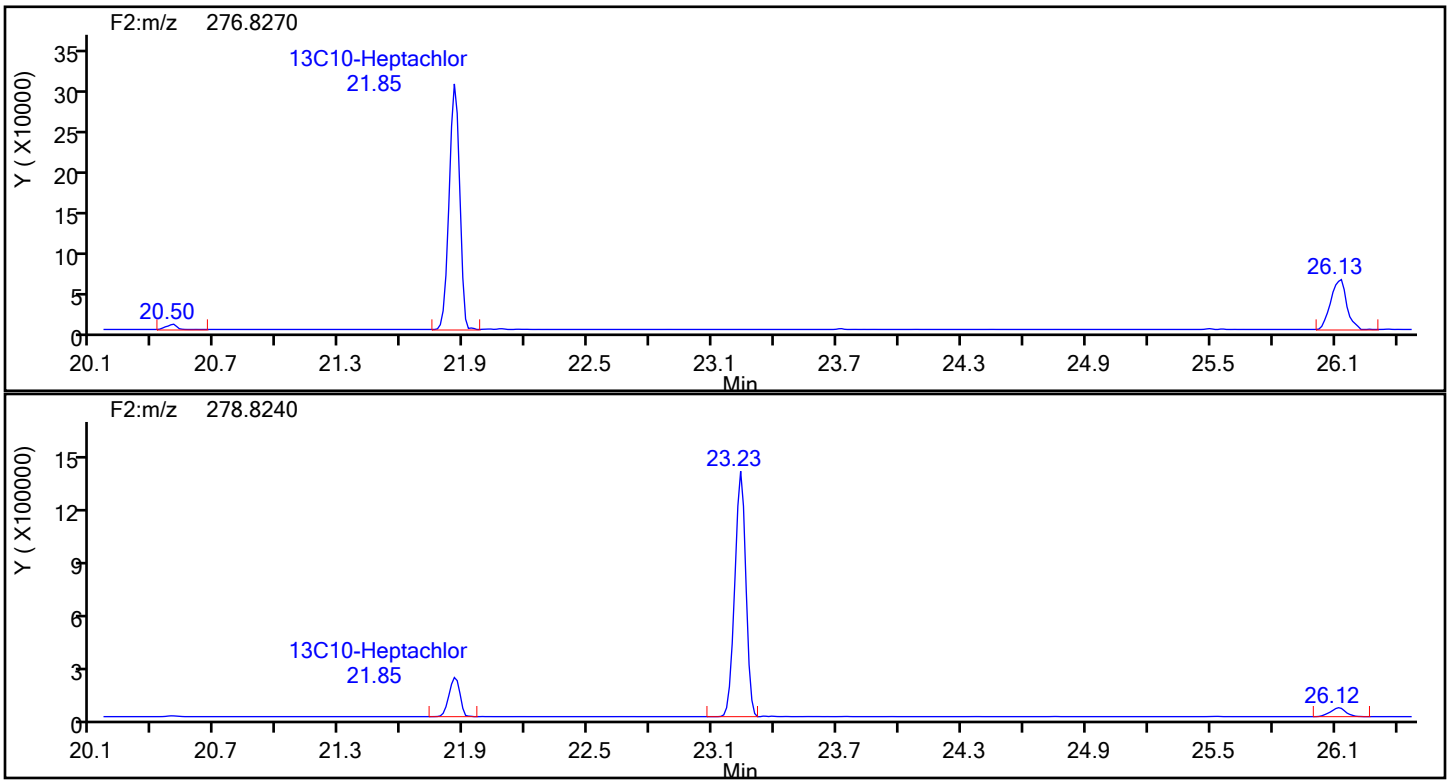
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards

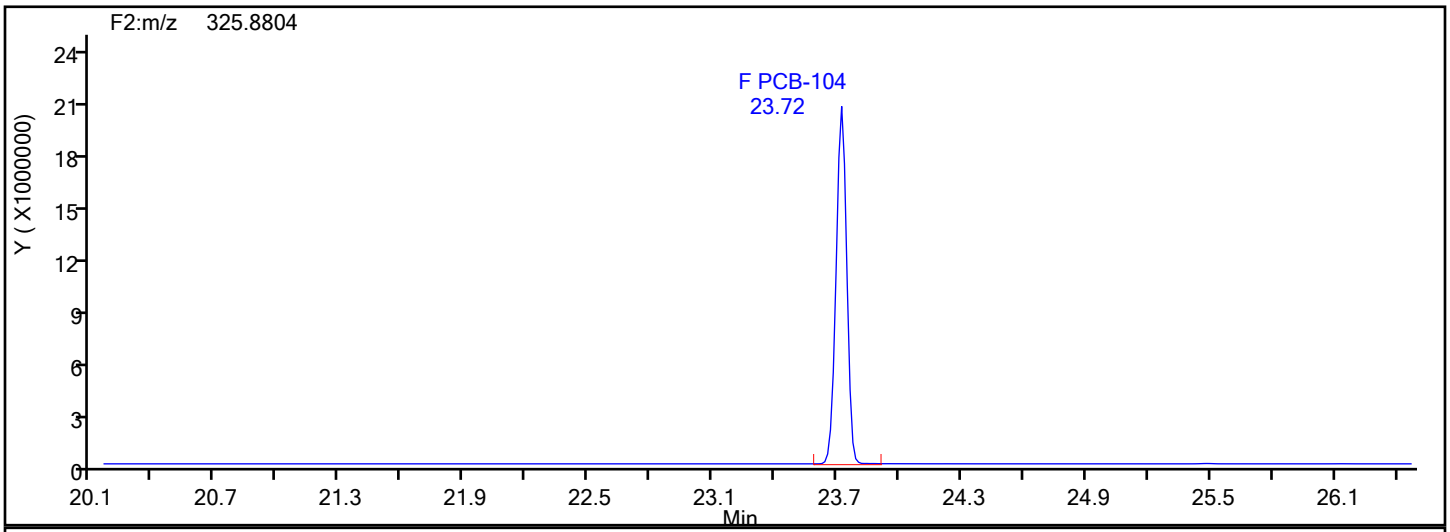


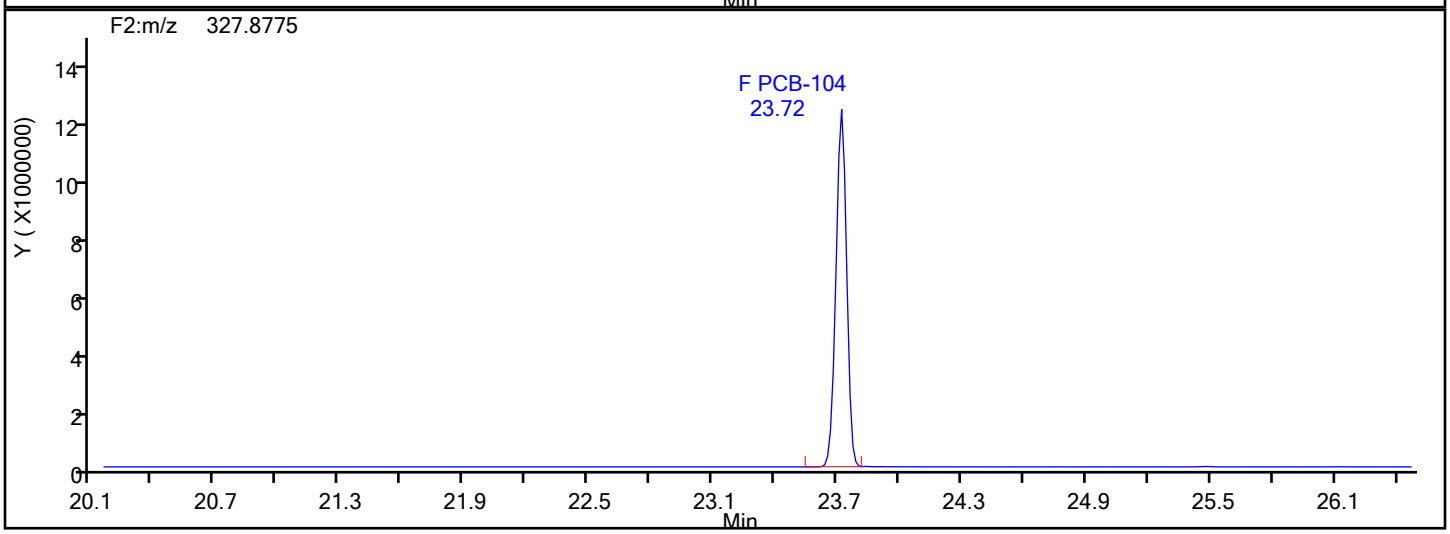
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

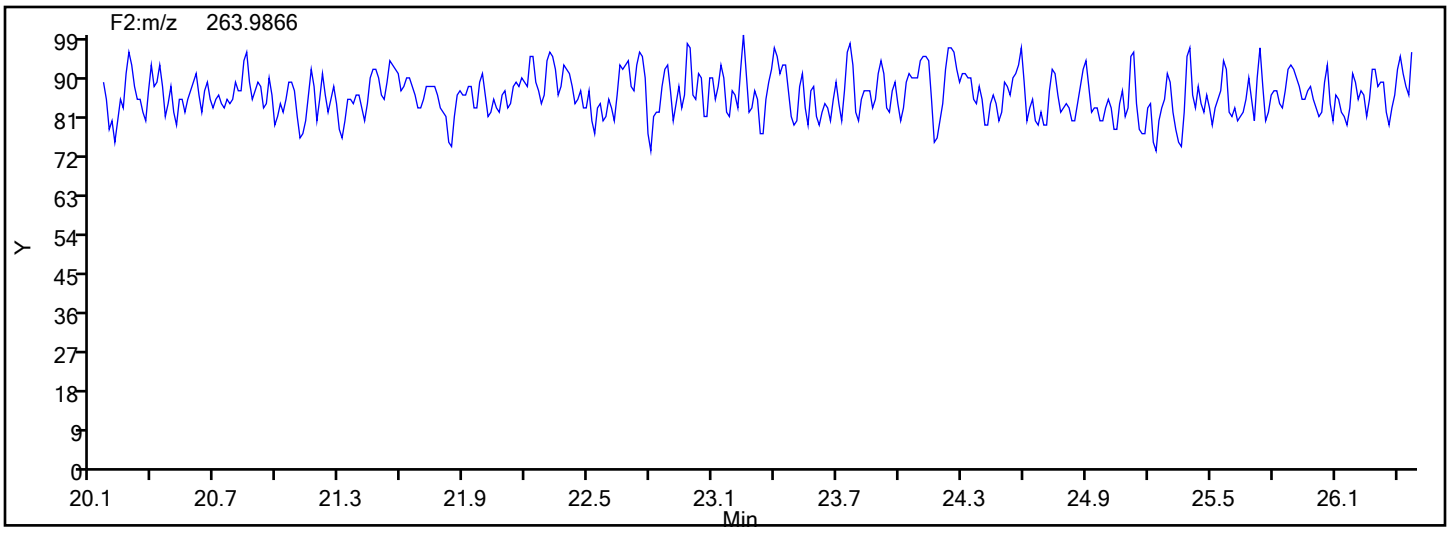
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



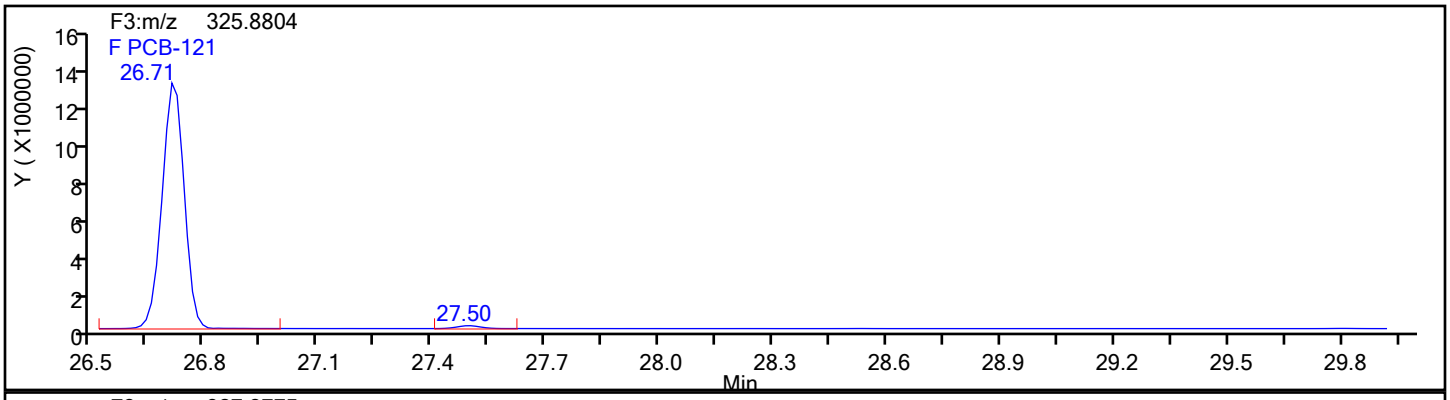
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

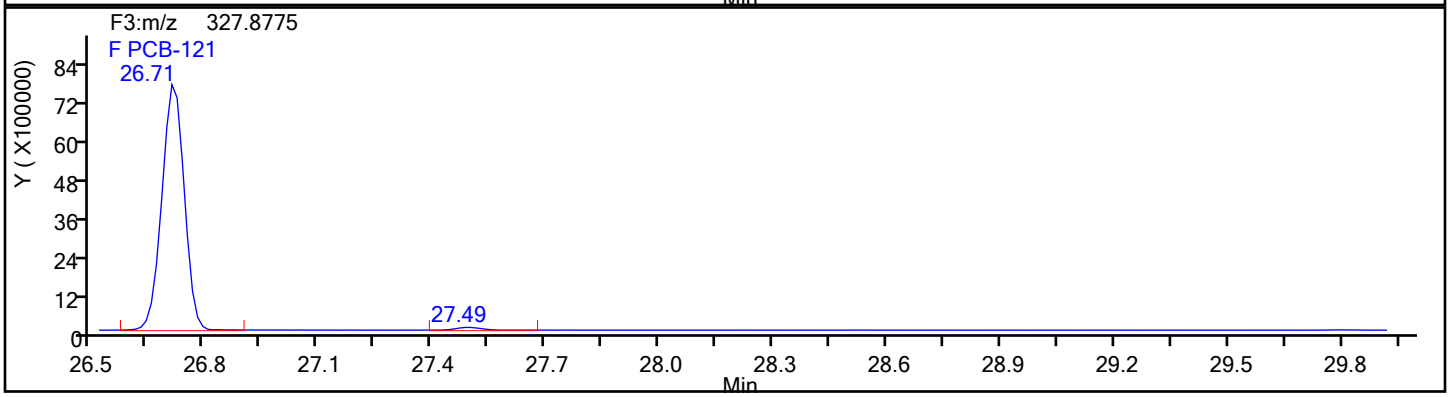
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

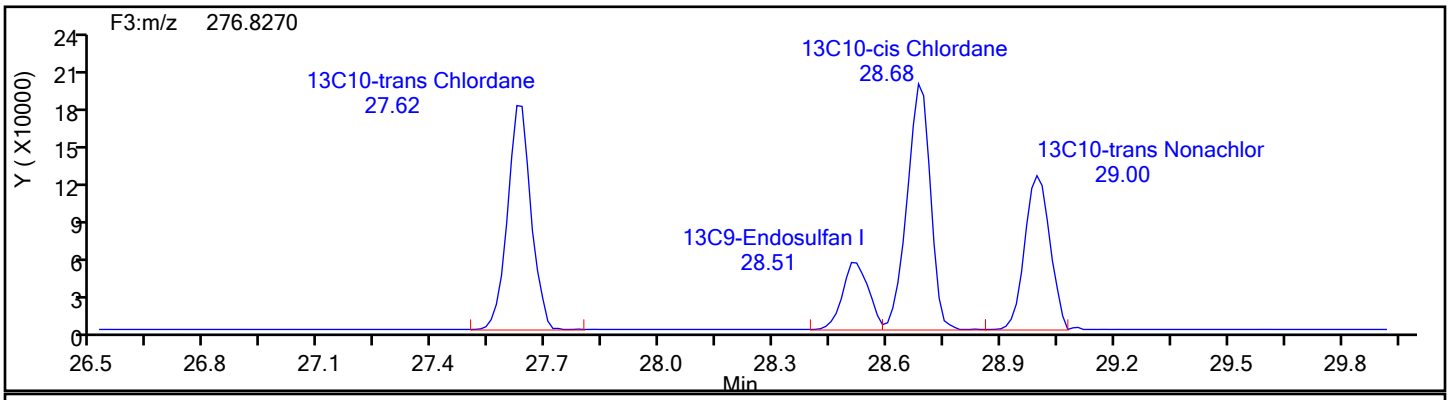
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

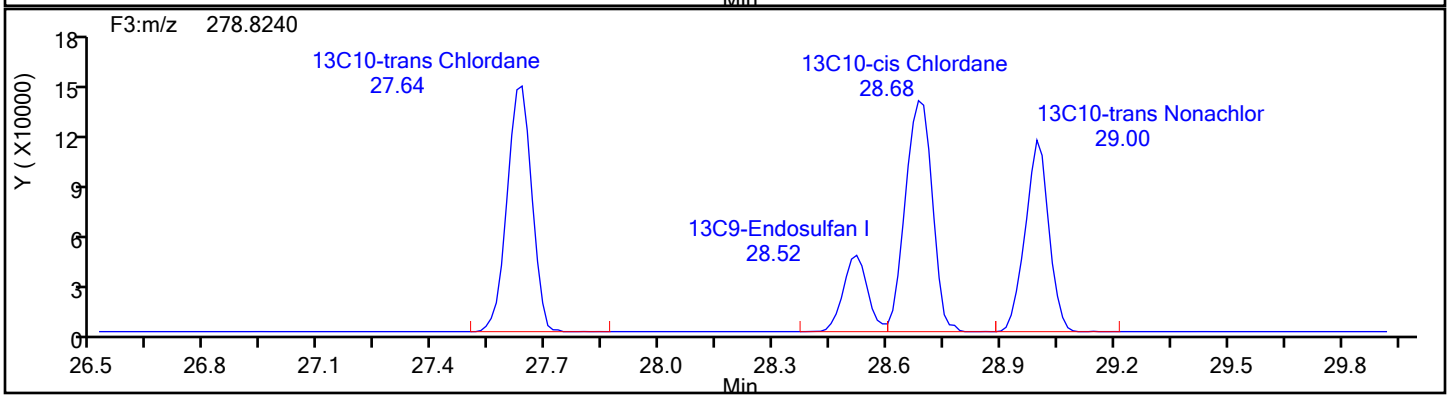
PCB-121





PCB-121 Standards



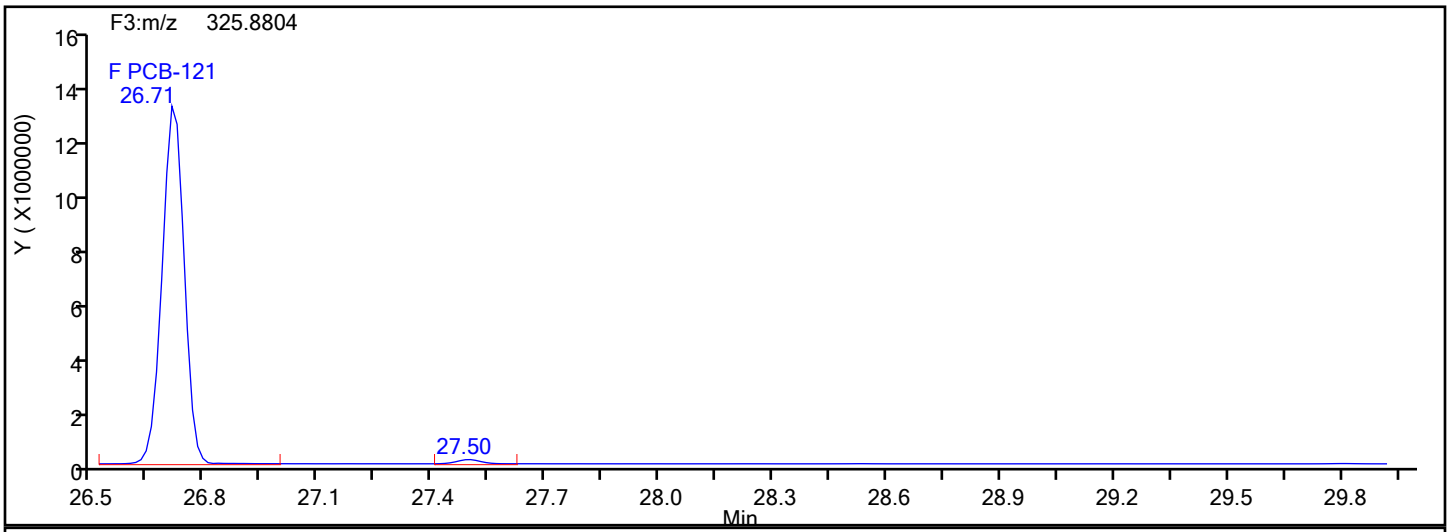


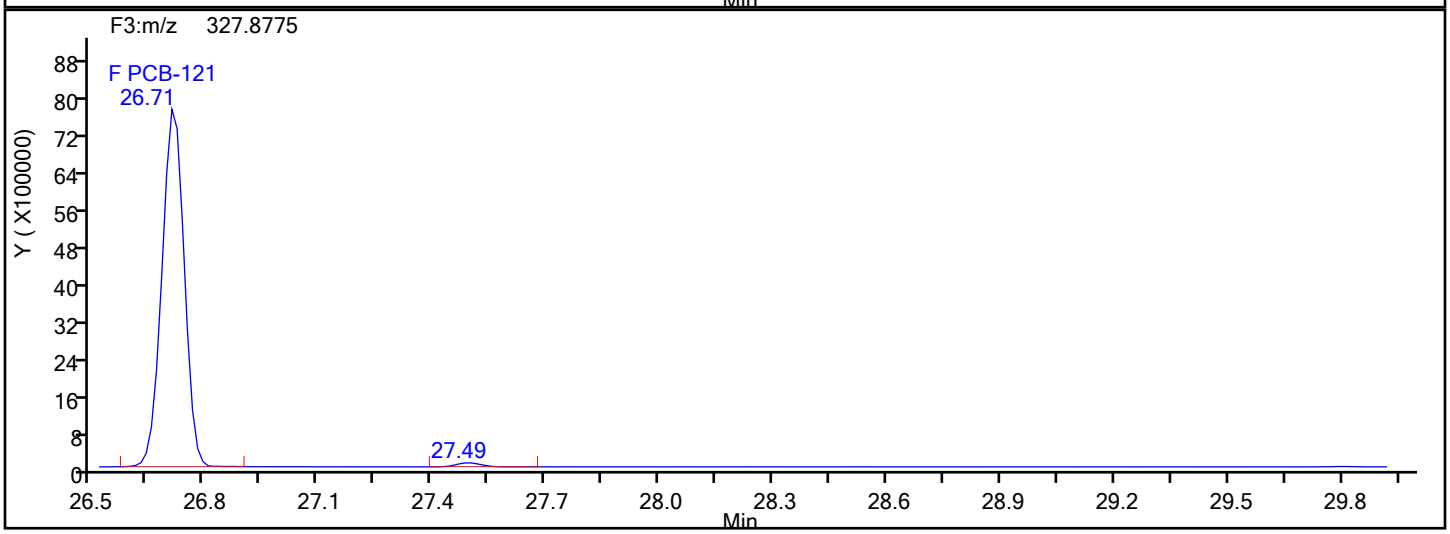
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

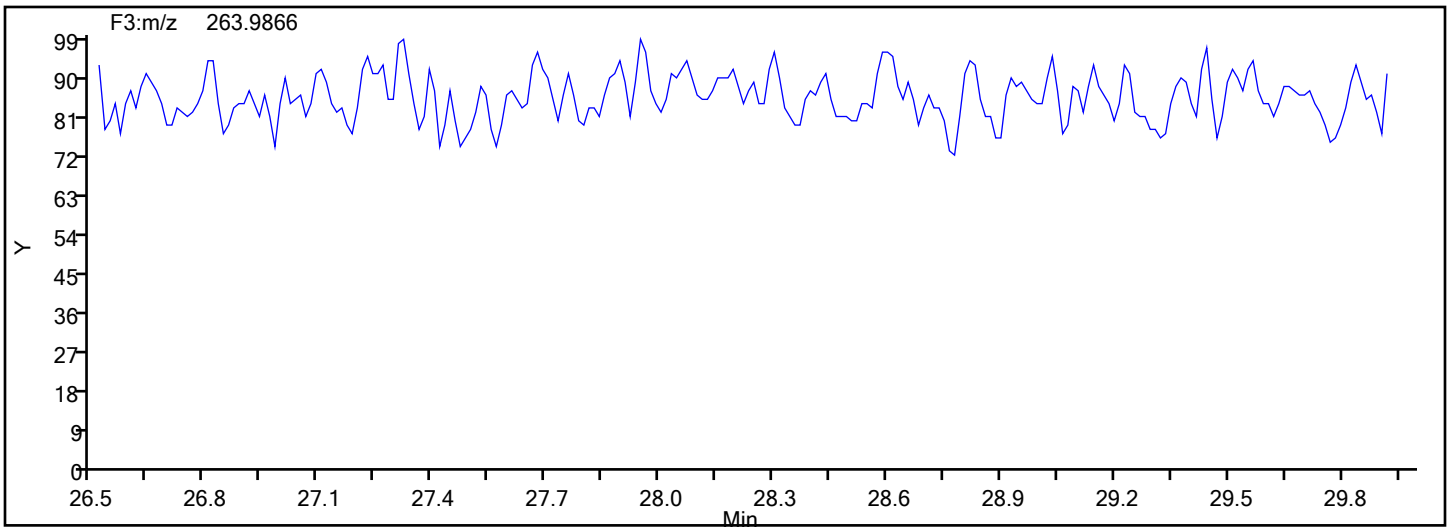
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



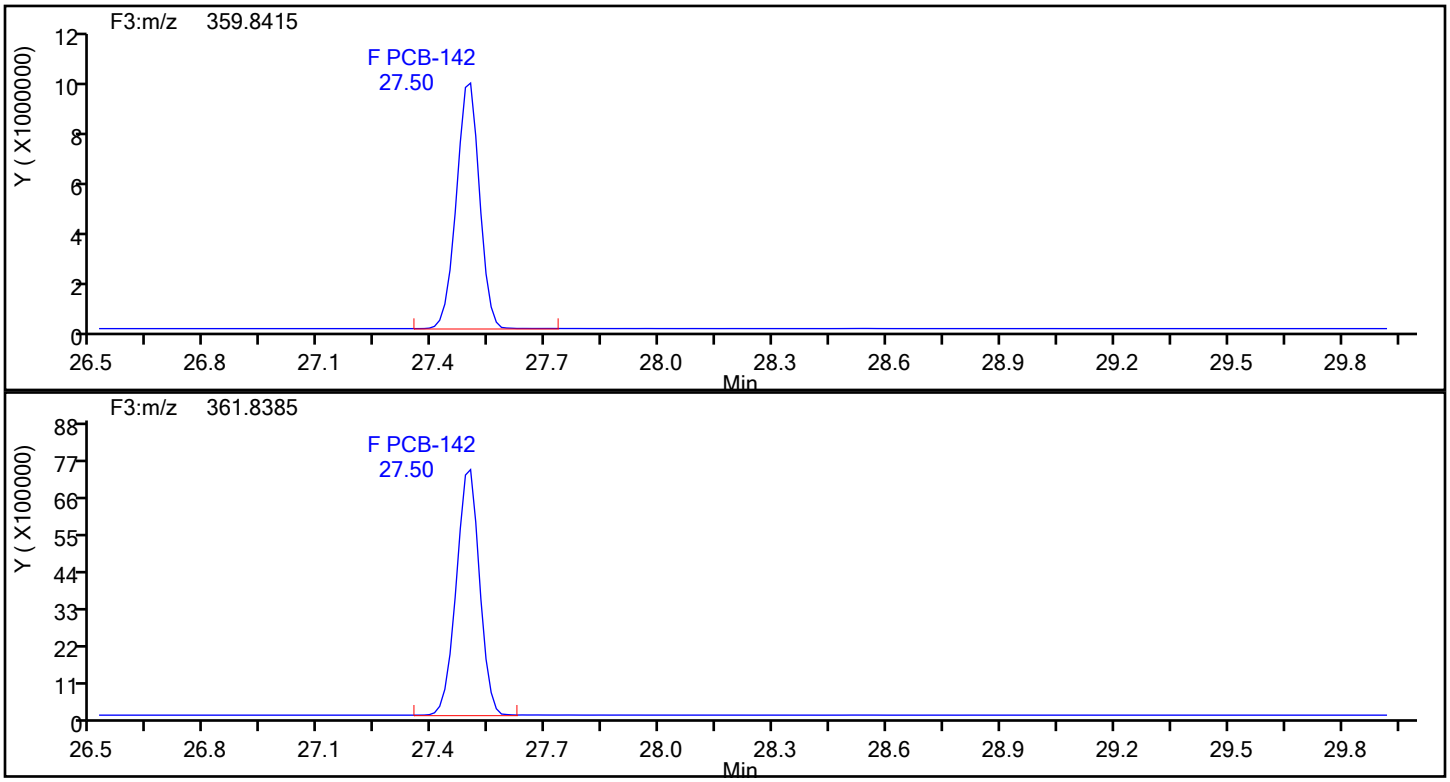
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

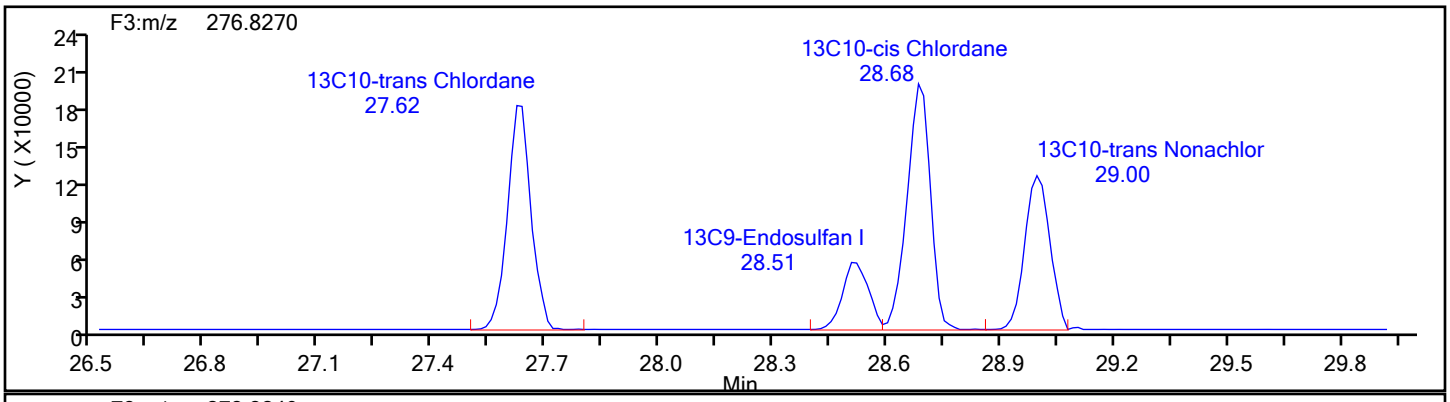
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

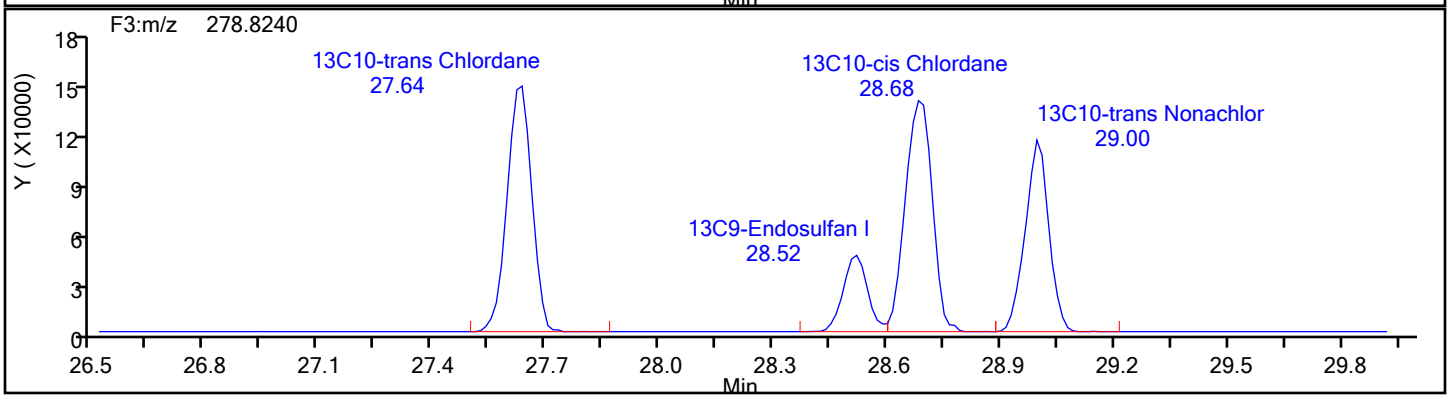
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards



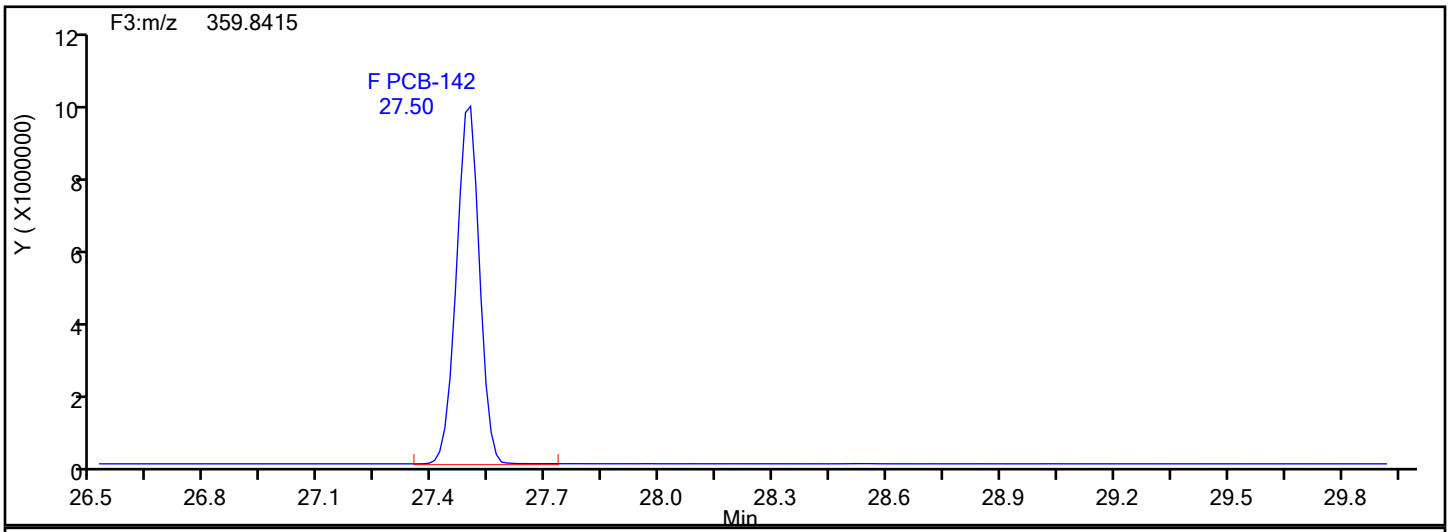


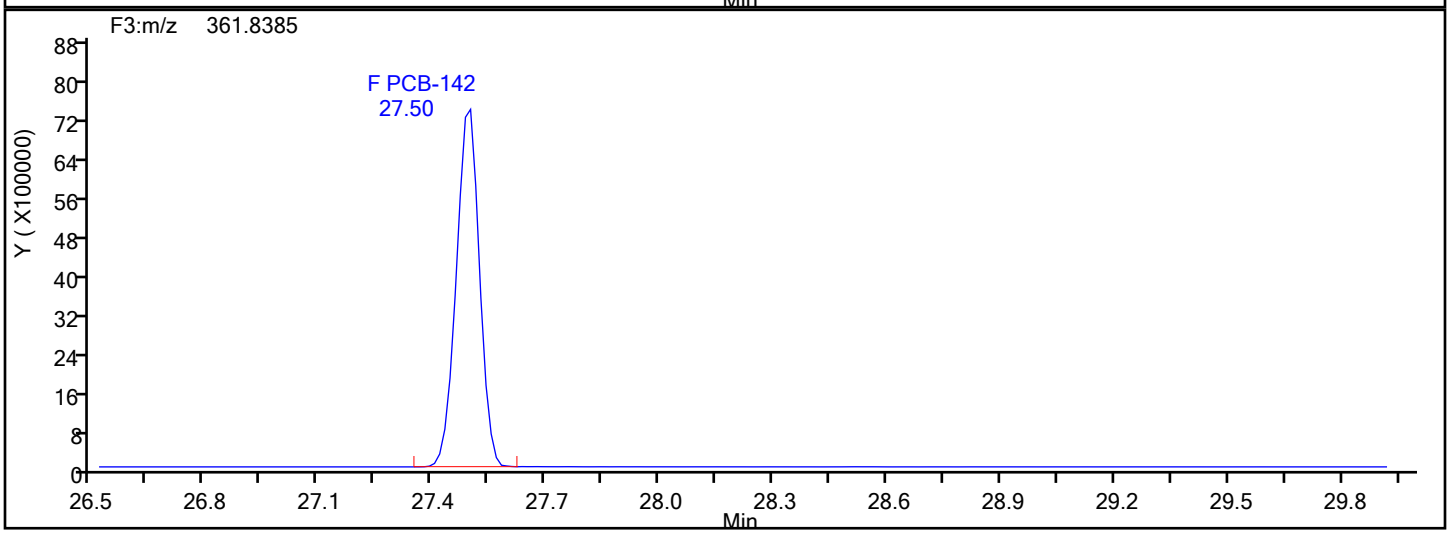
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

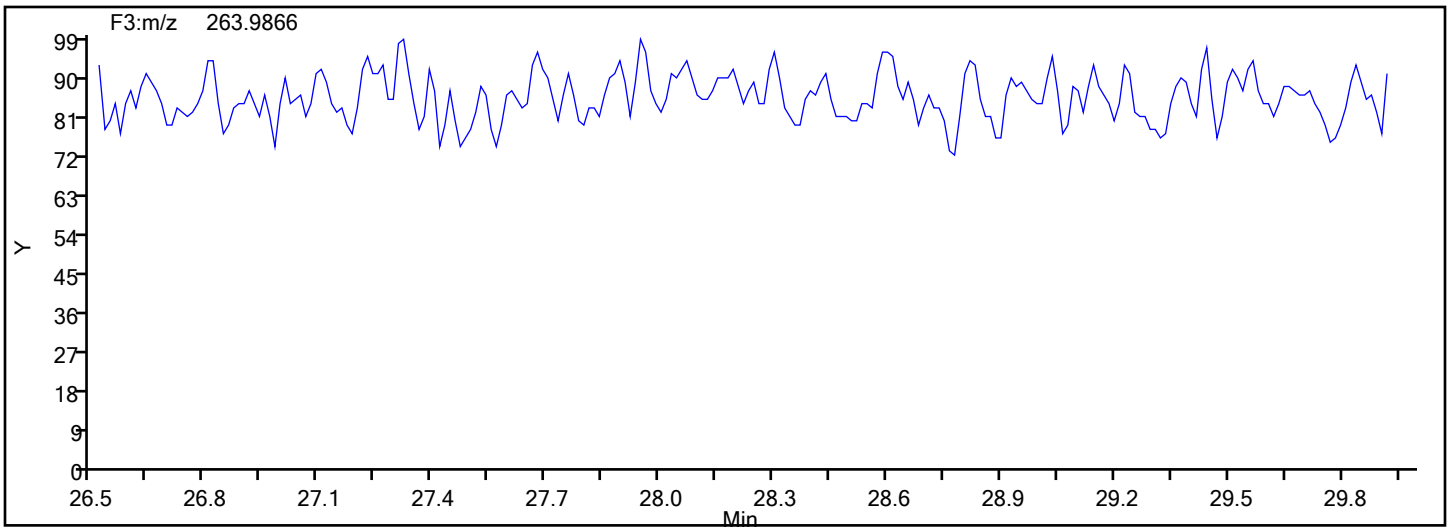
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass

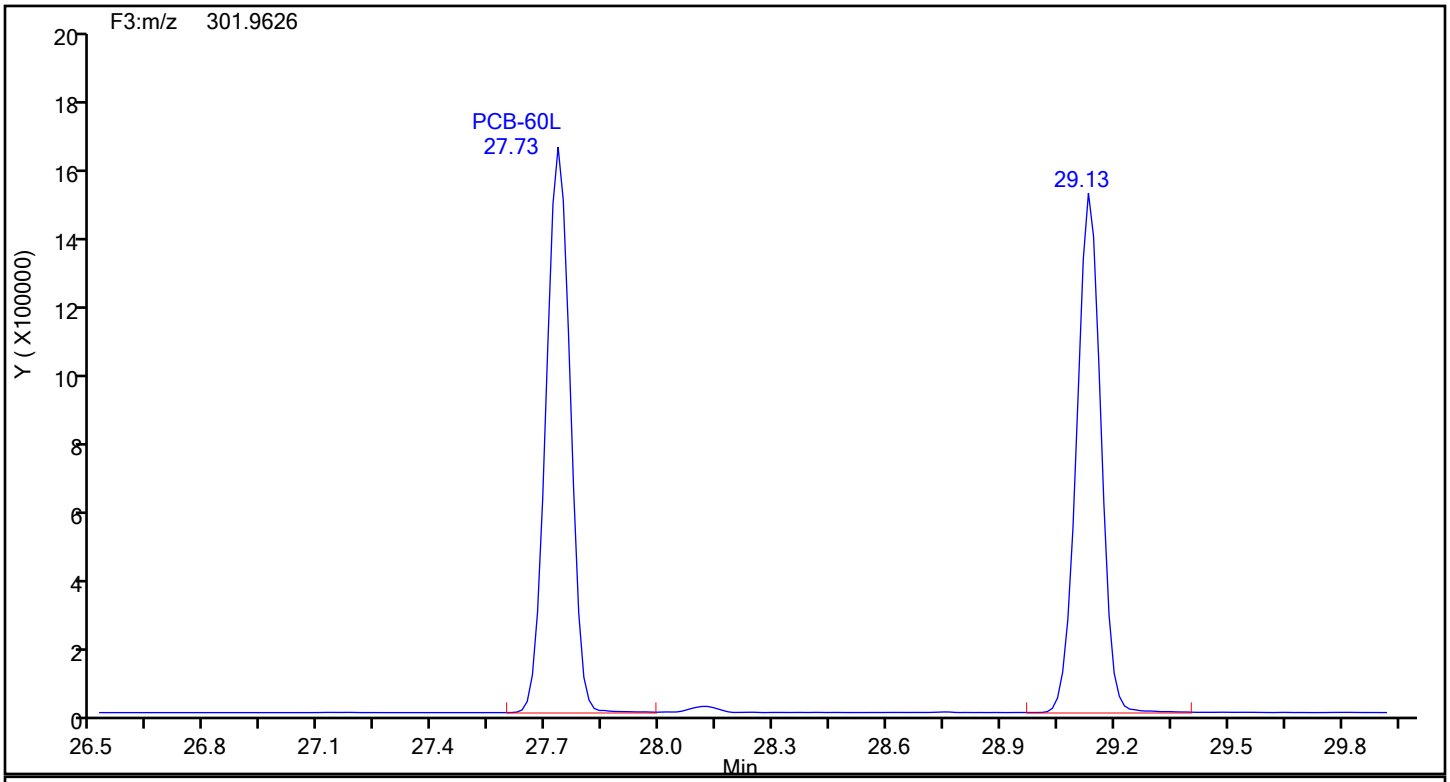


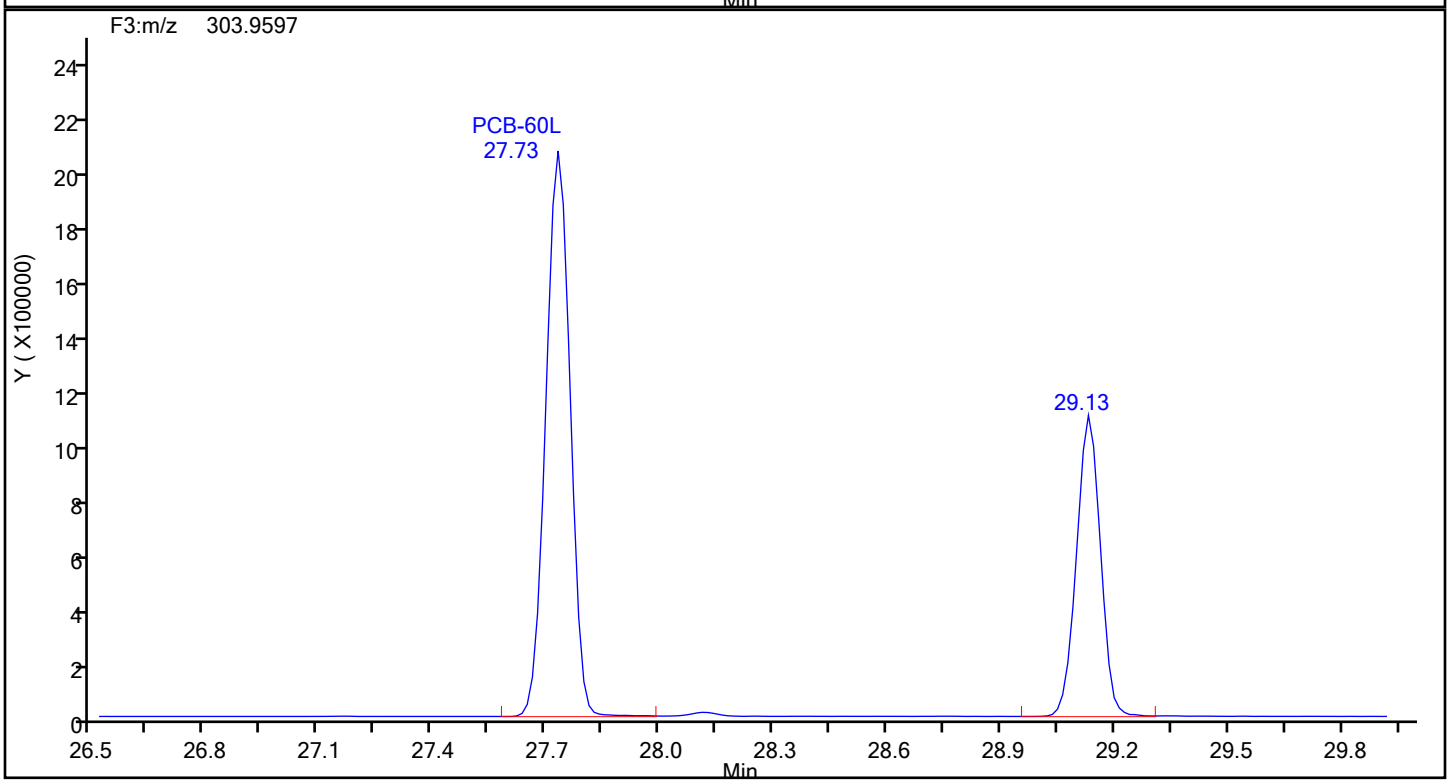
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards



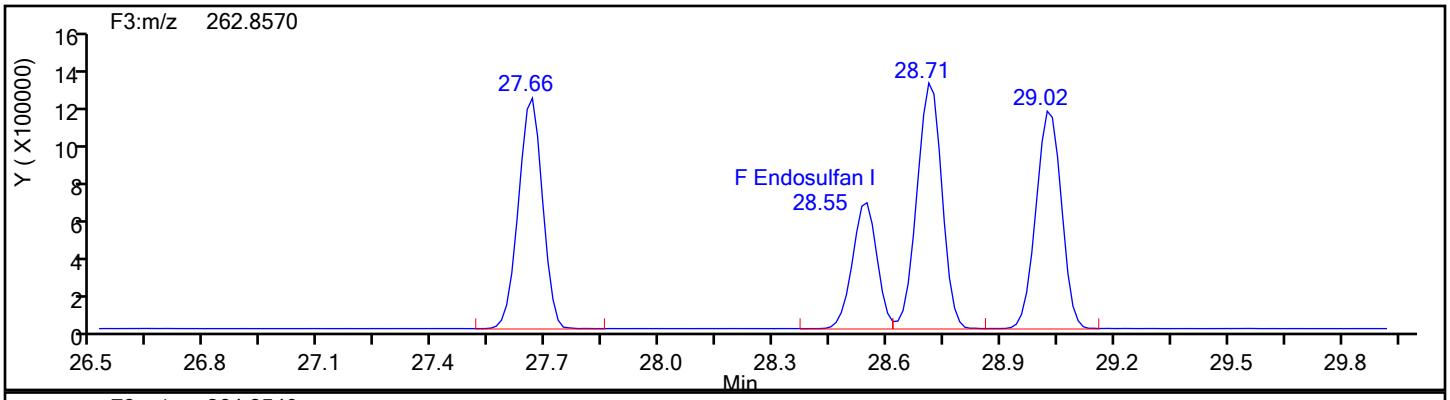


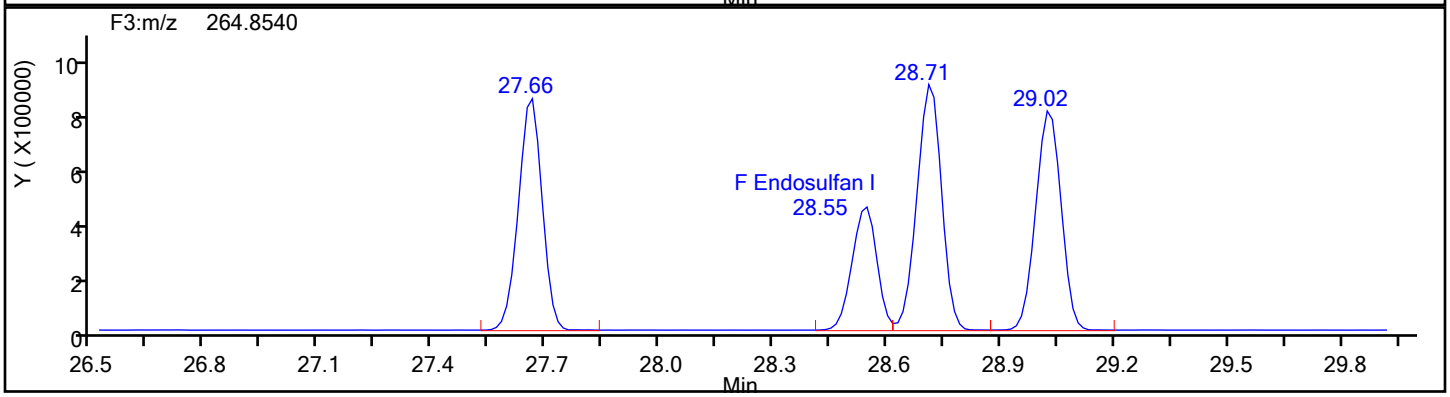
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

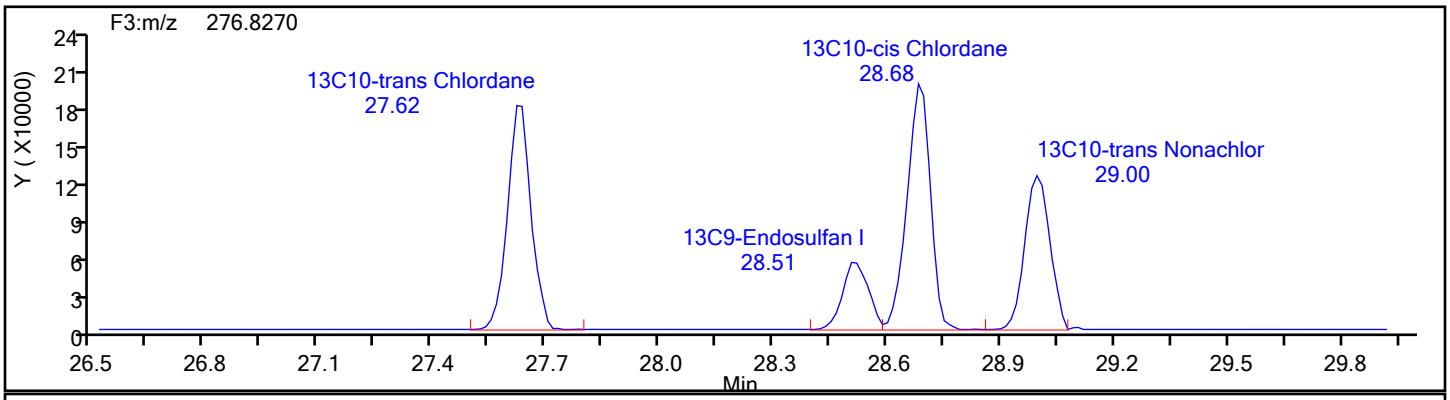
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

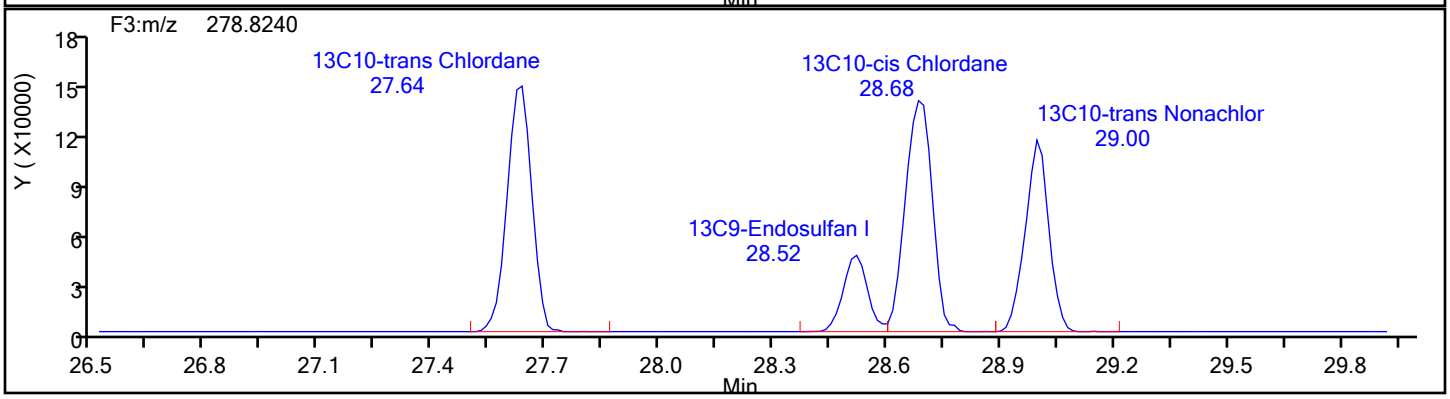
Endosulfan I





Endosulfan I Standards



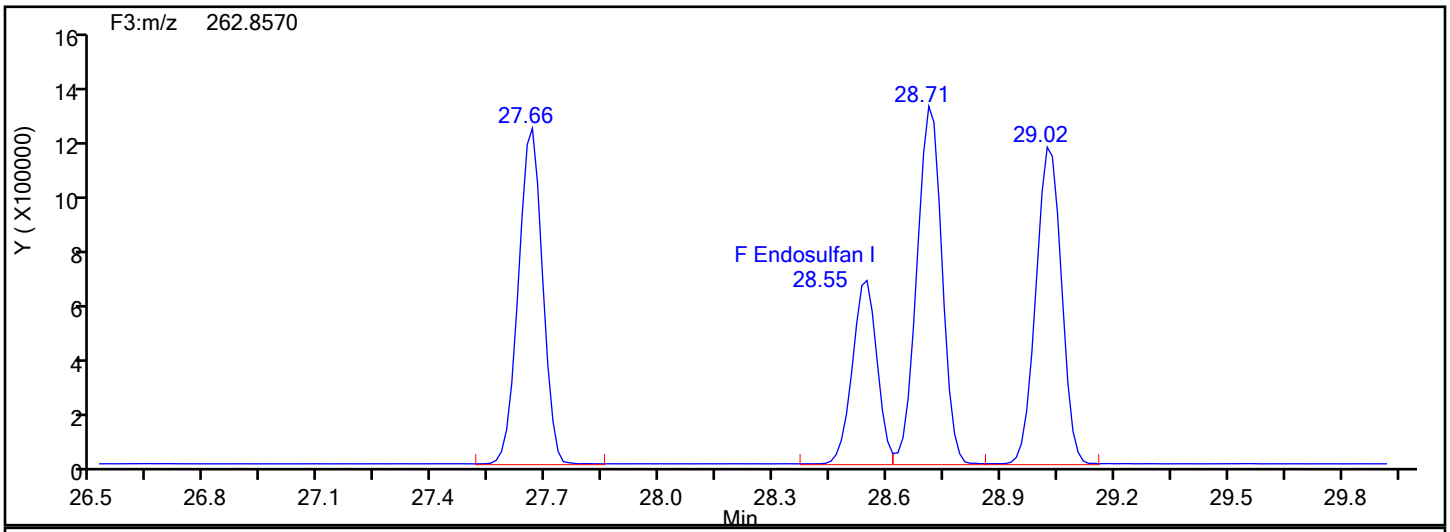


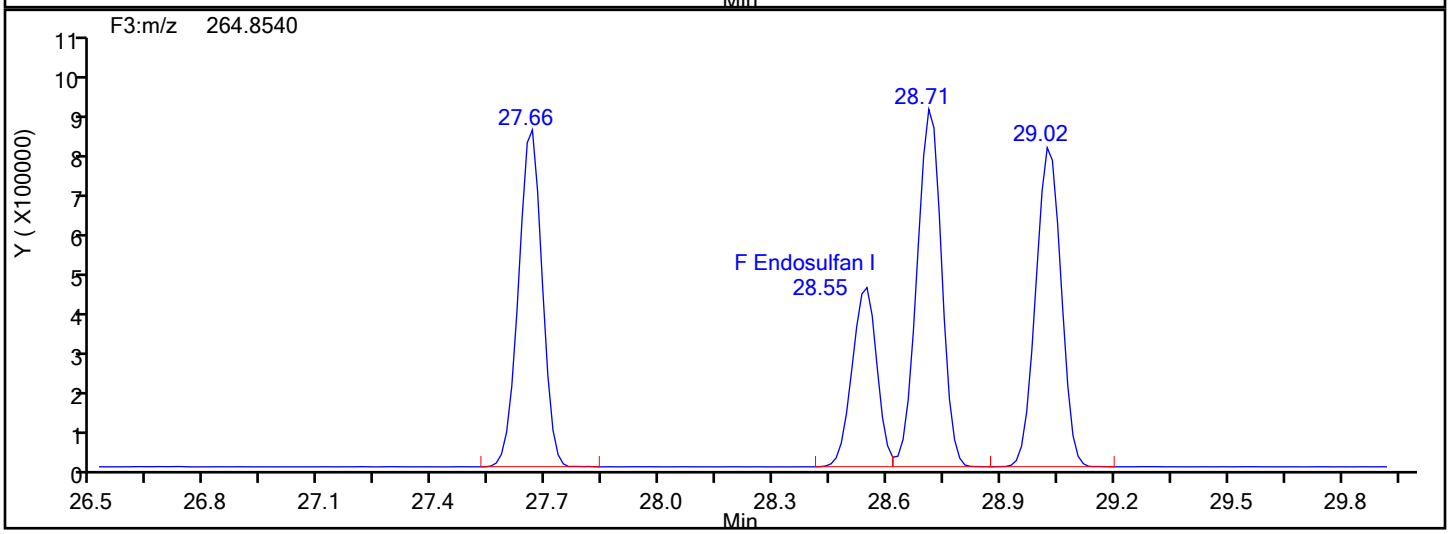
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

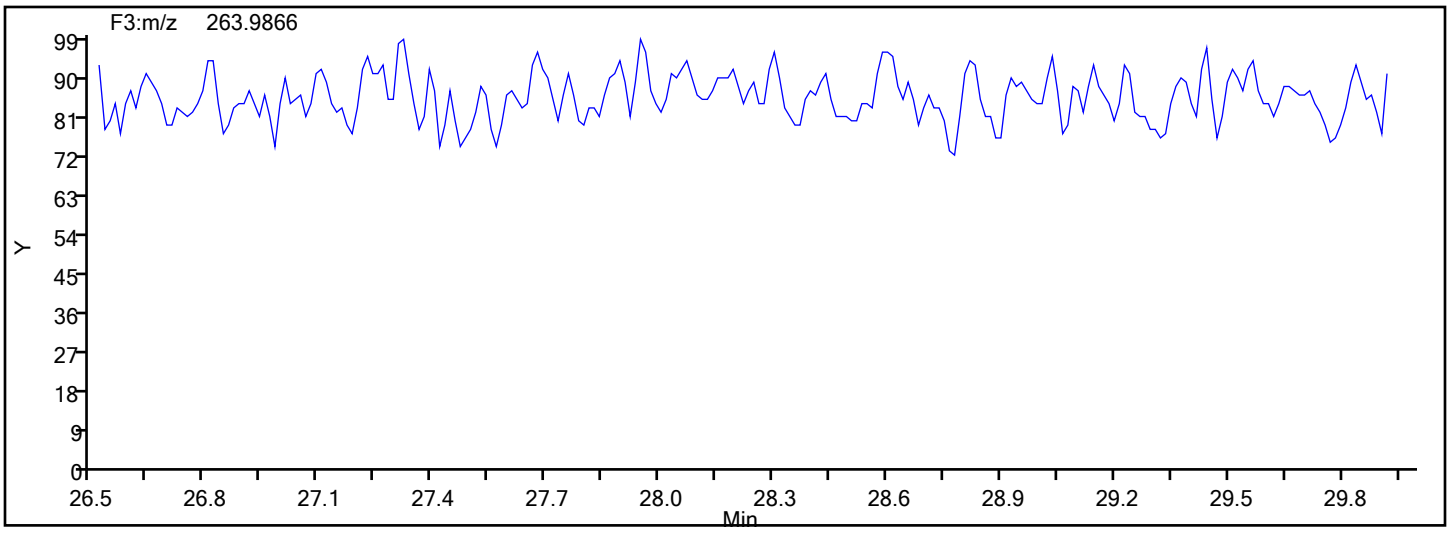
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



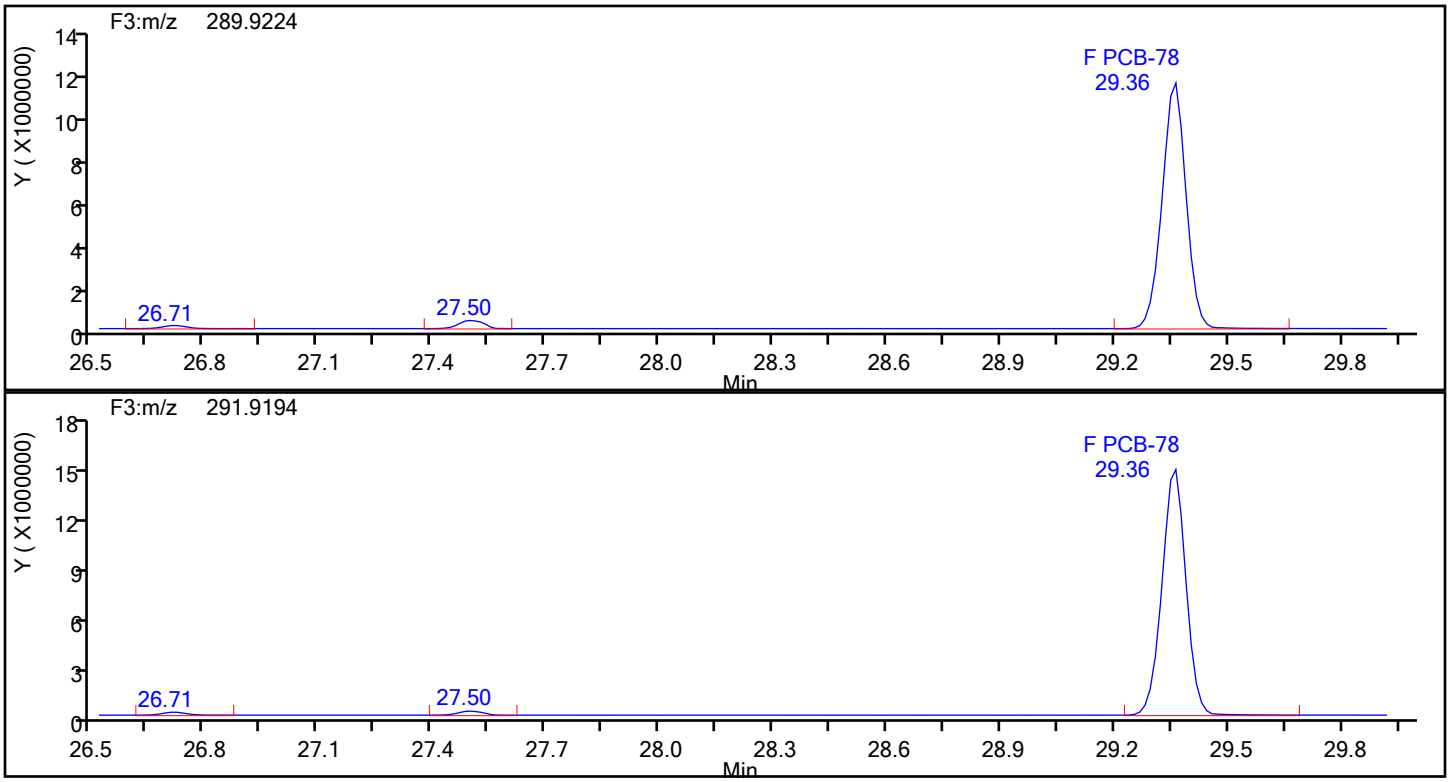
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

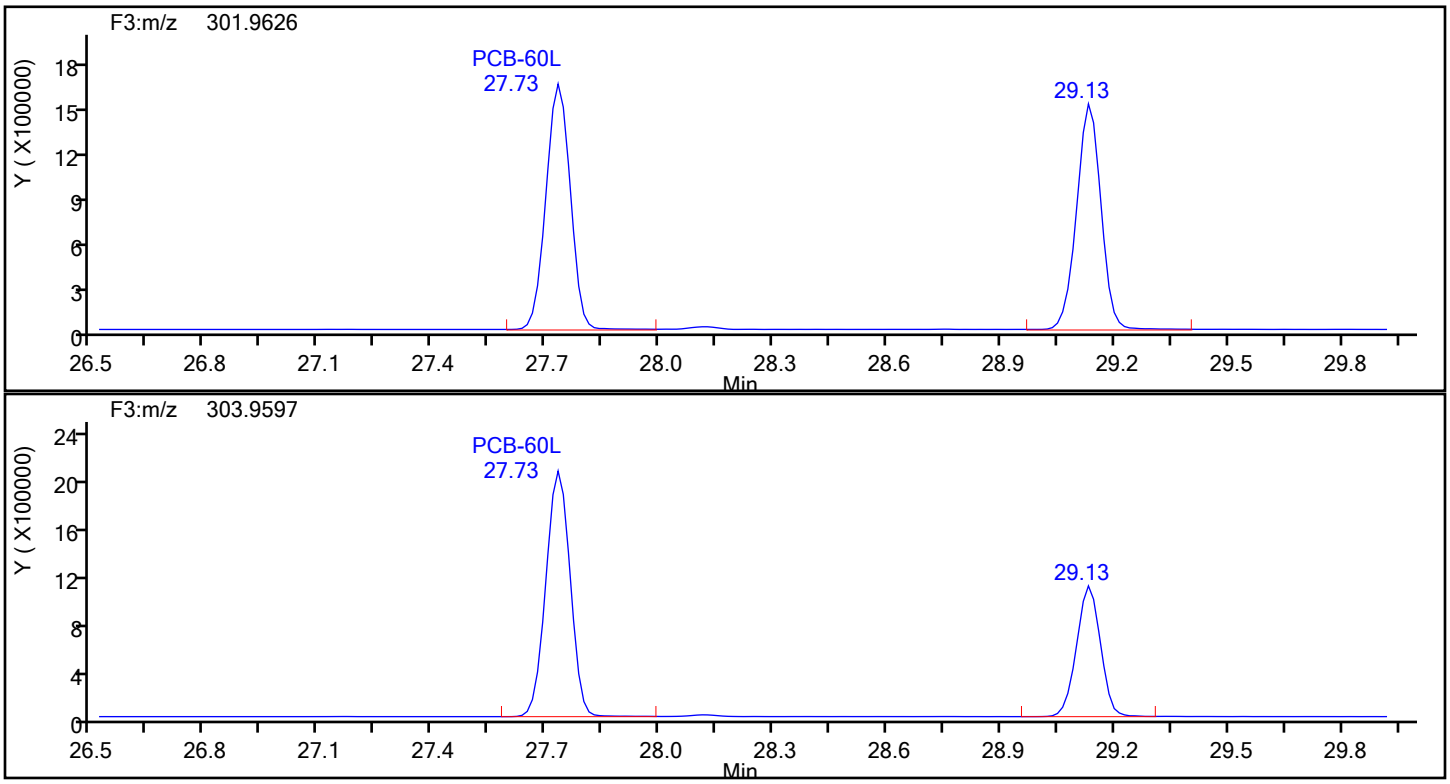
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards

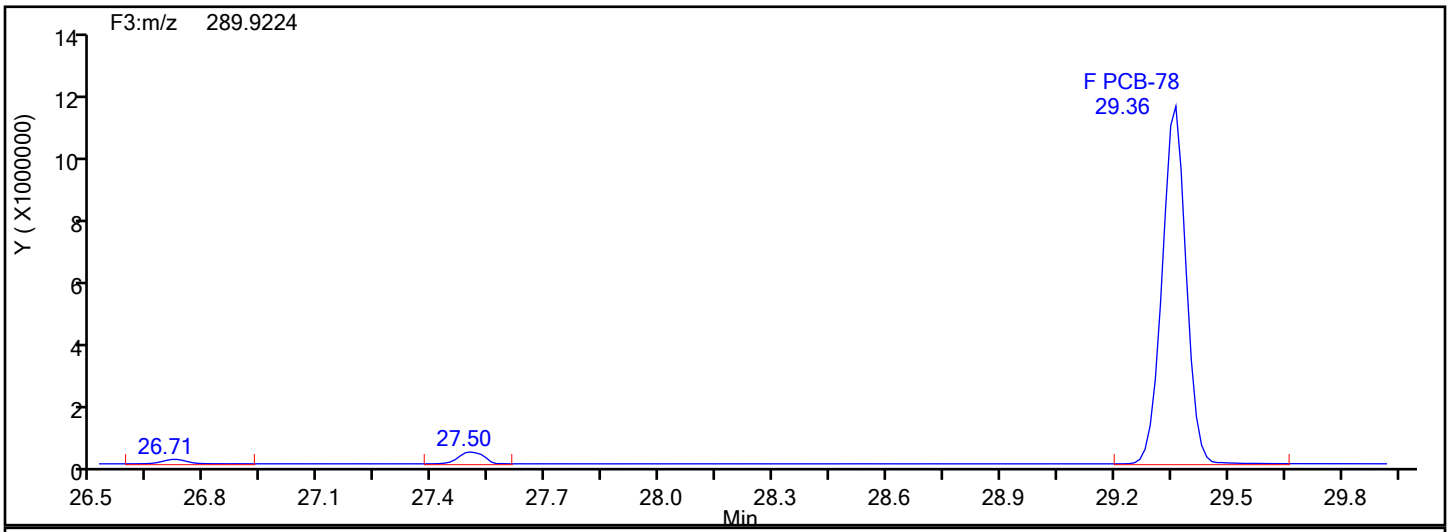


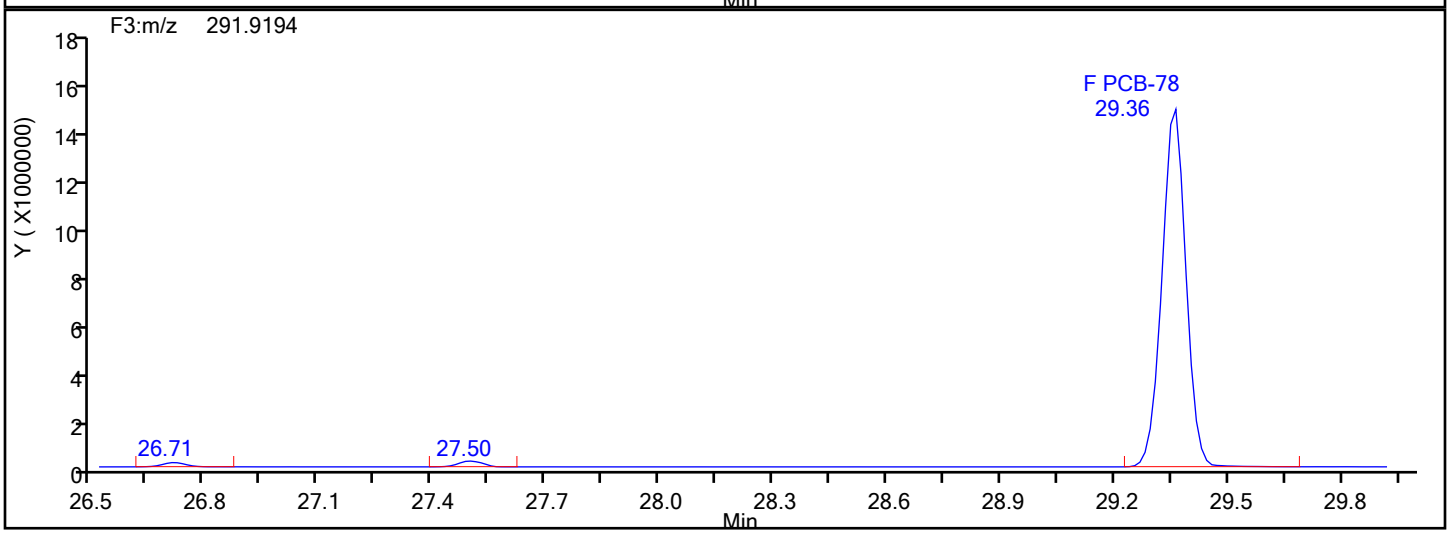
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

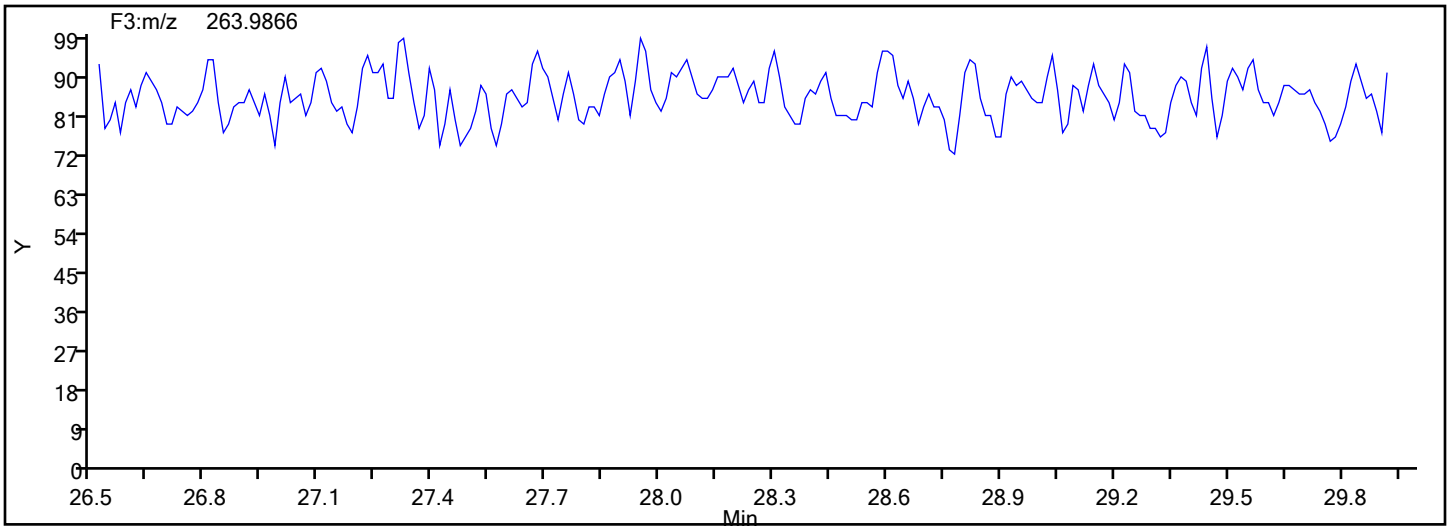
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

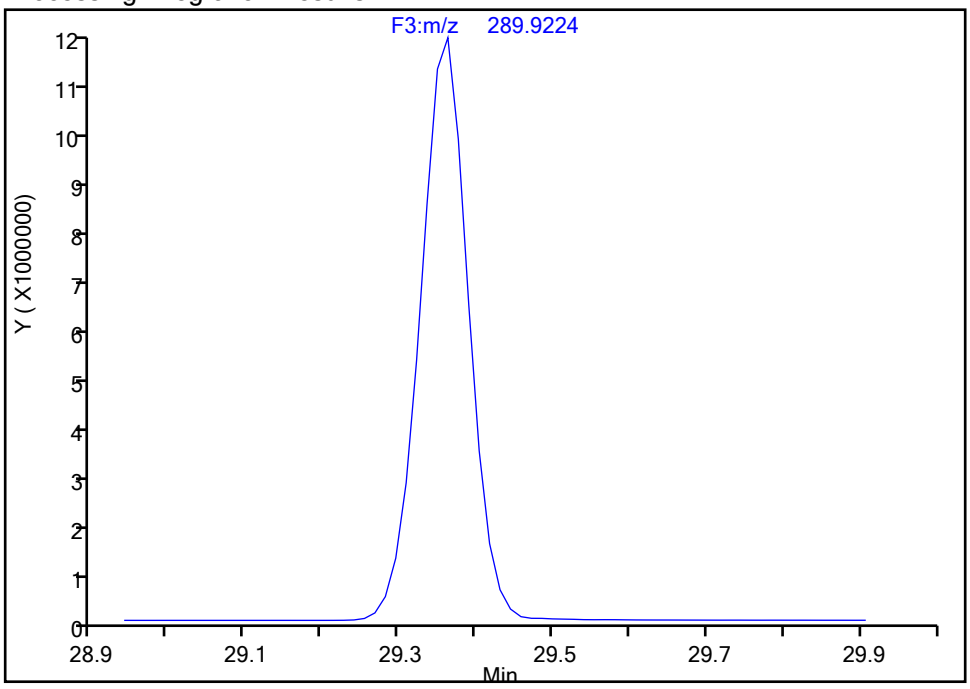
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Instrument ID: D3PST
Lims ID: IC L8
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-78, CAS: 70362-49-1

Signal: 1

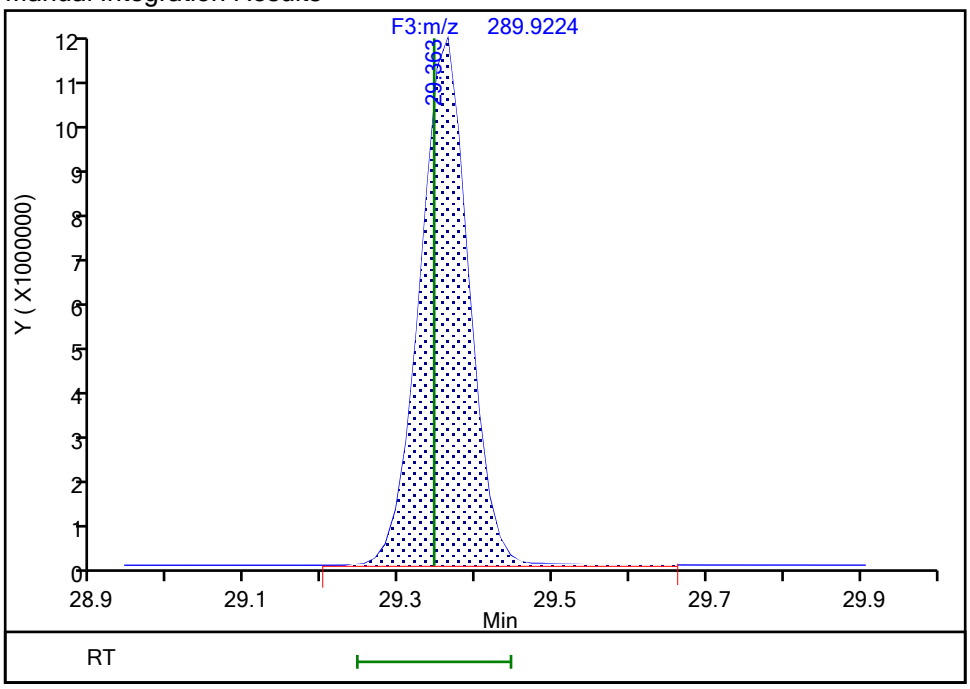
Not Detected
Expected RT: 29.35

Processing Integration Results



Manual Integration Results

RT: 29.36
Area: 50847266
Amount: 777.3005
Amount Units: pg/ul



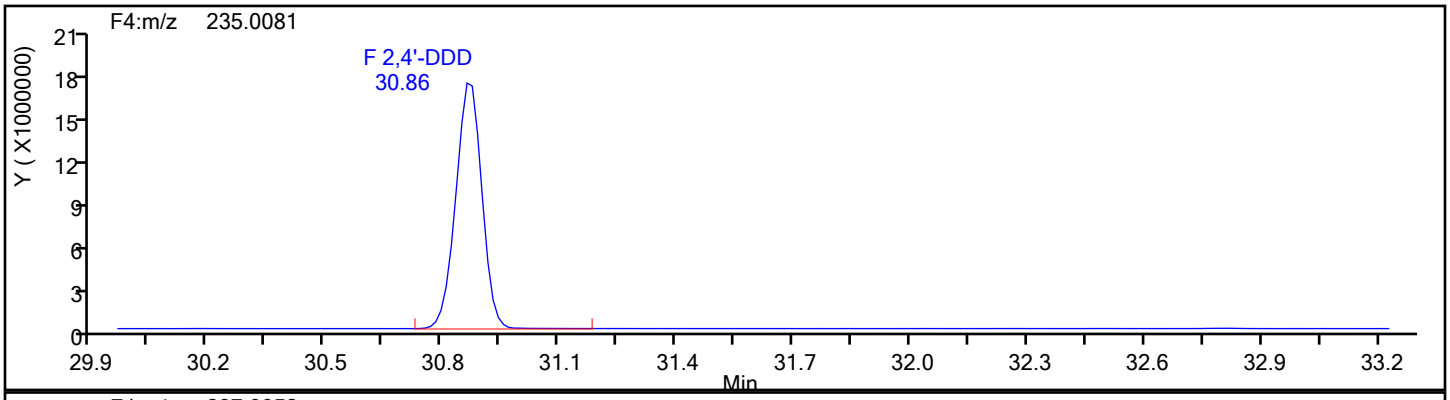
Reviewer: F9EE, 24-Mar-2025 12:55:33 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

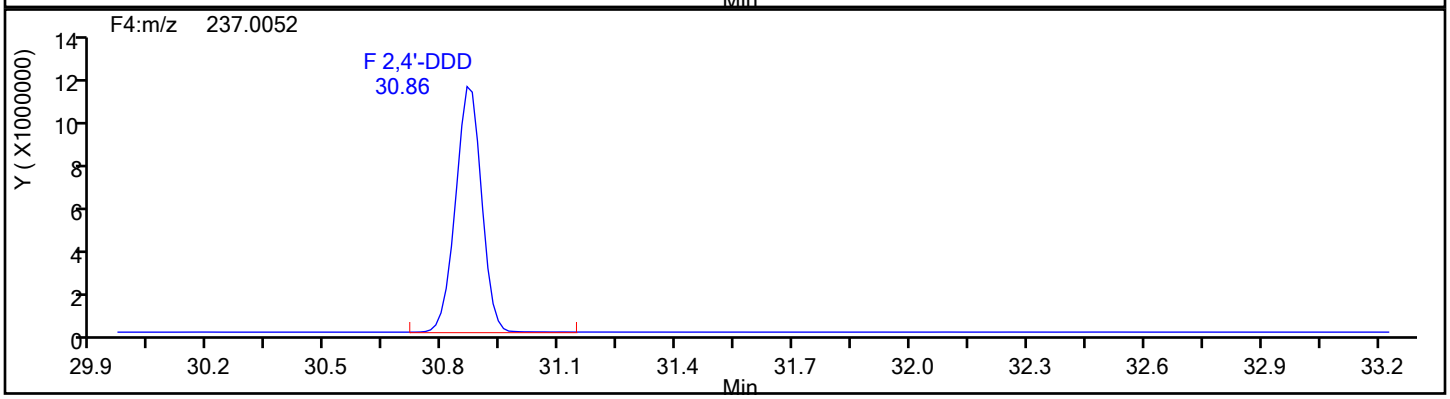
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

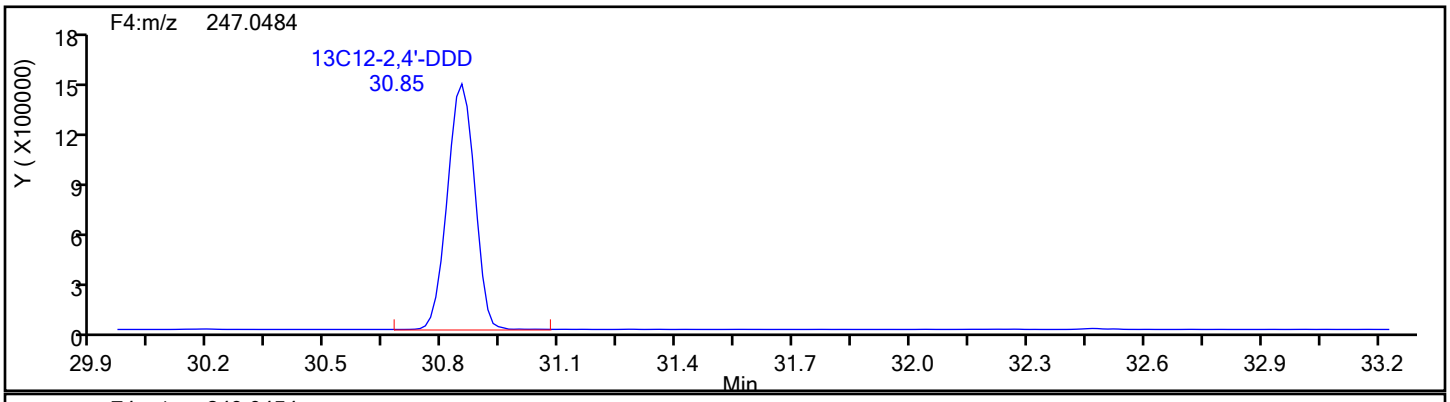
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d
Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

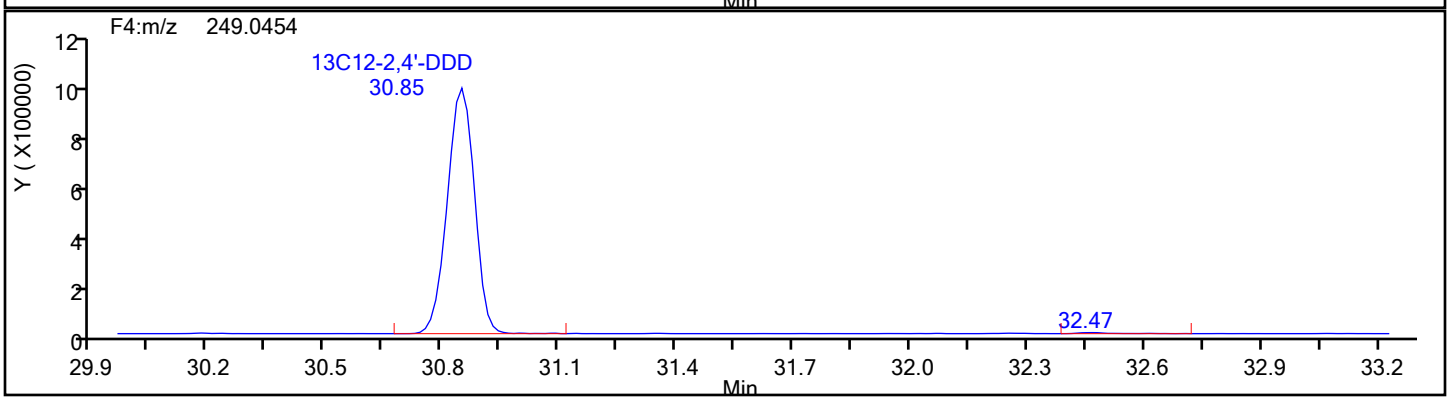
2,4'-DDD





2,4'-DDD Standards



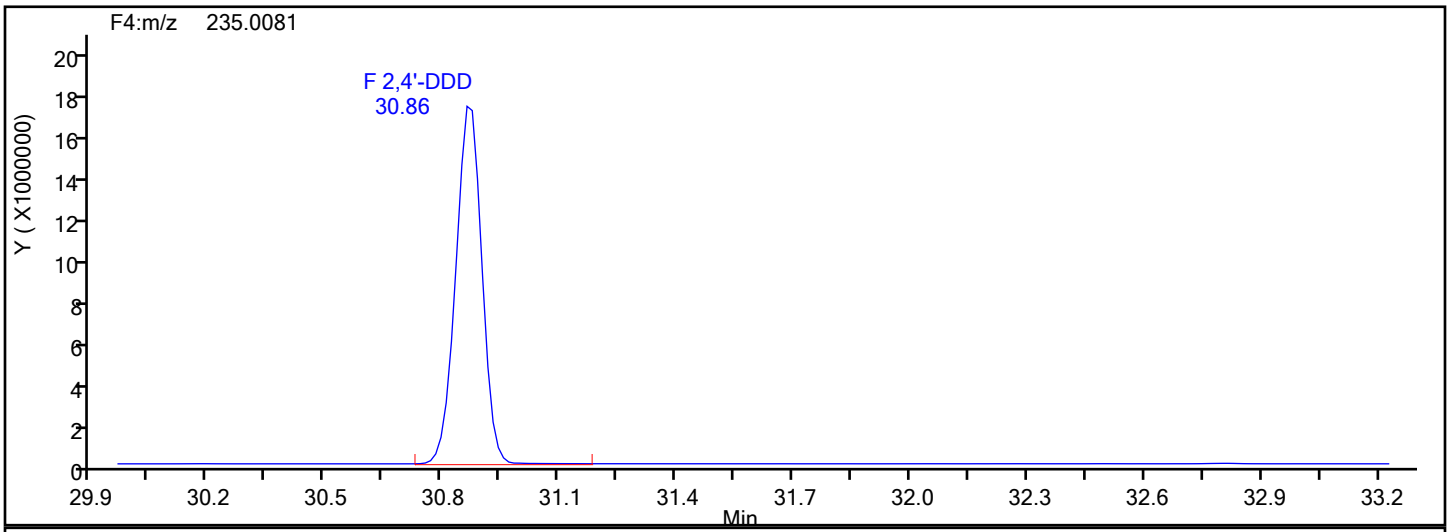


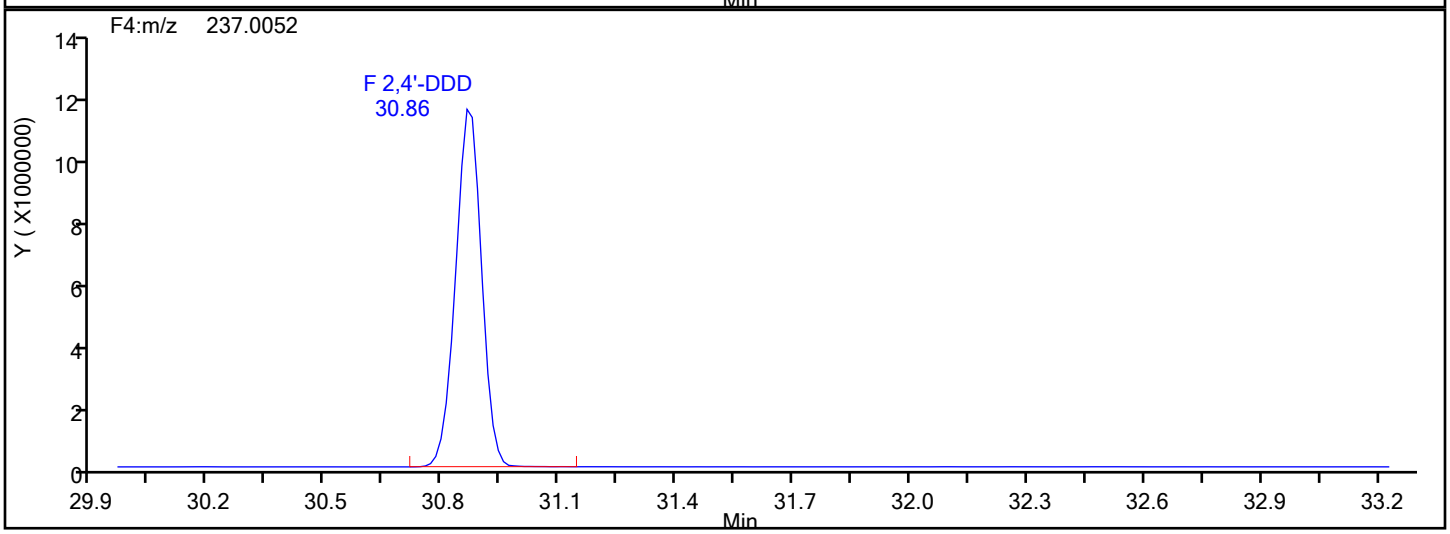
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

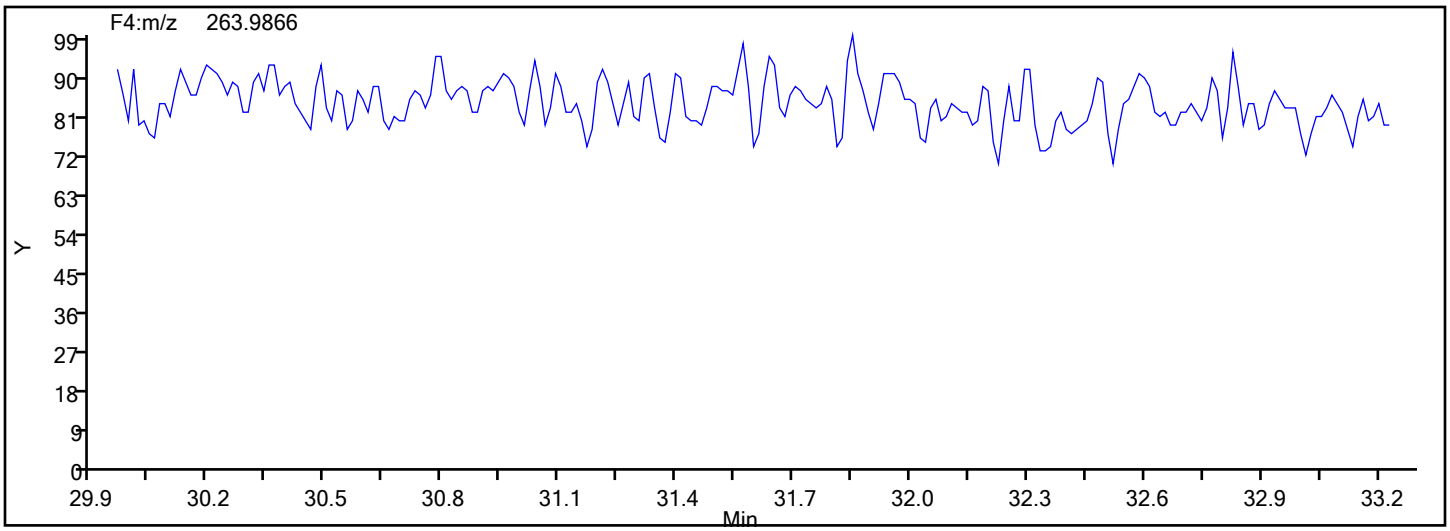
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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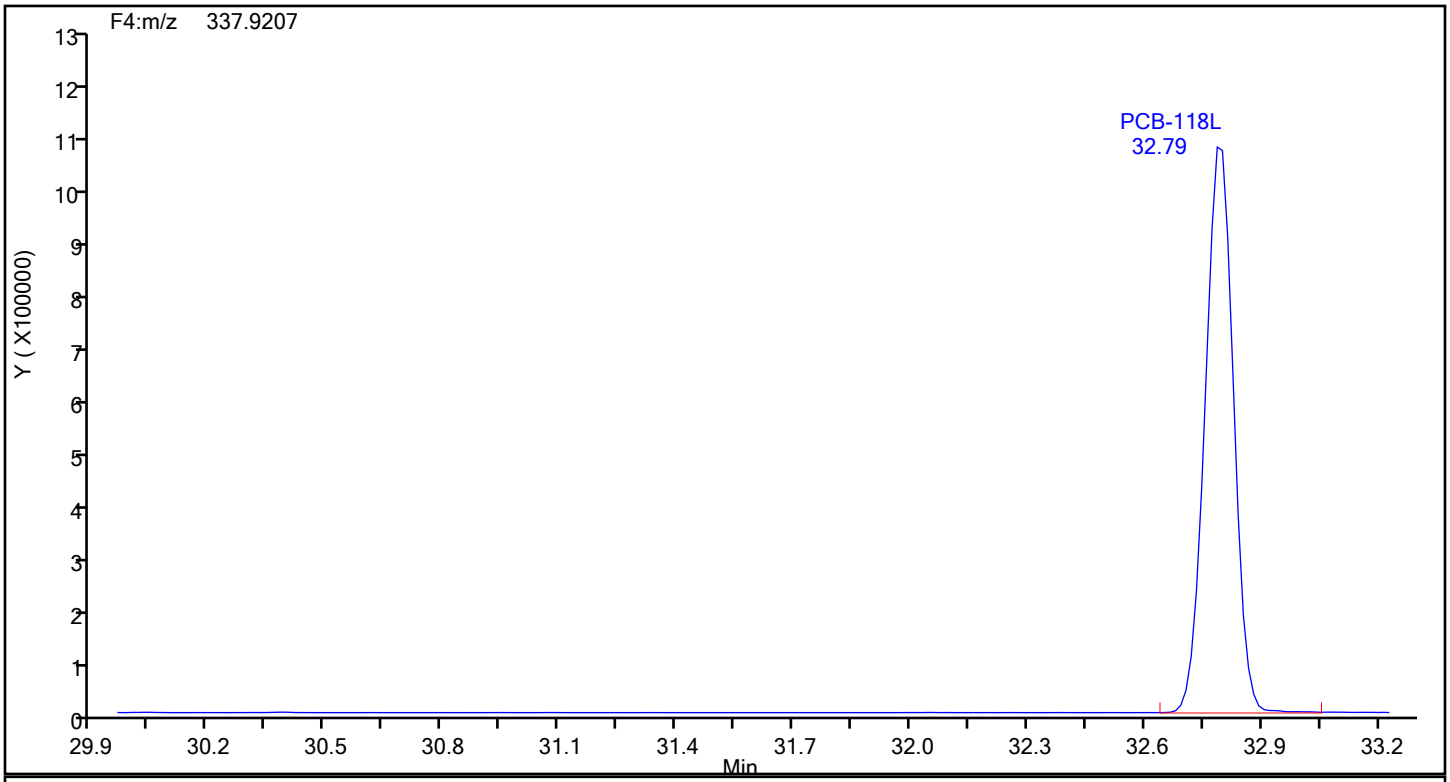
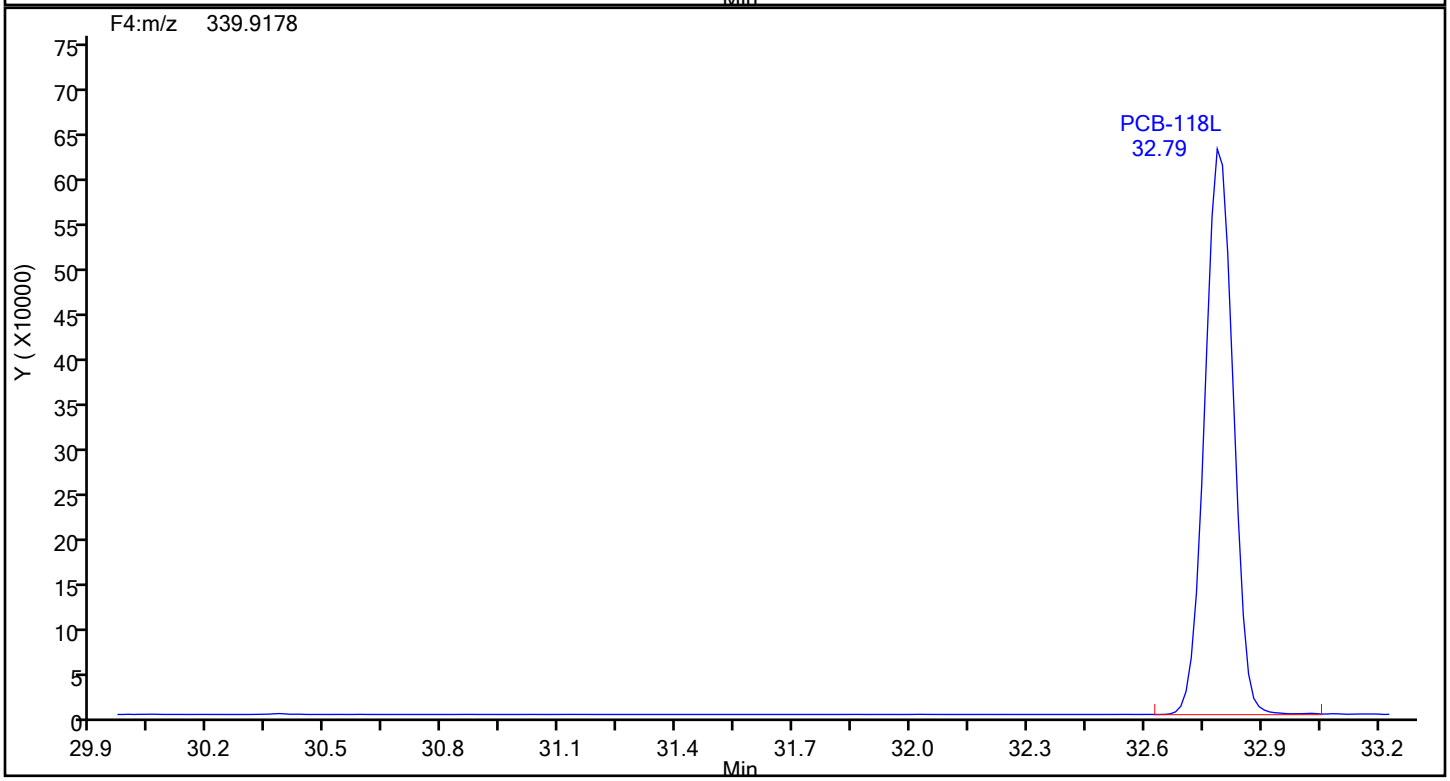
PCB-118L Standards





Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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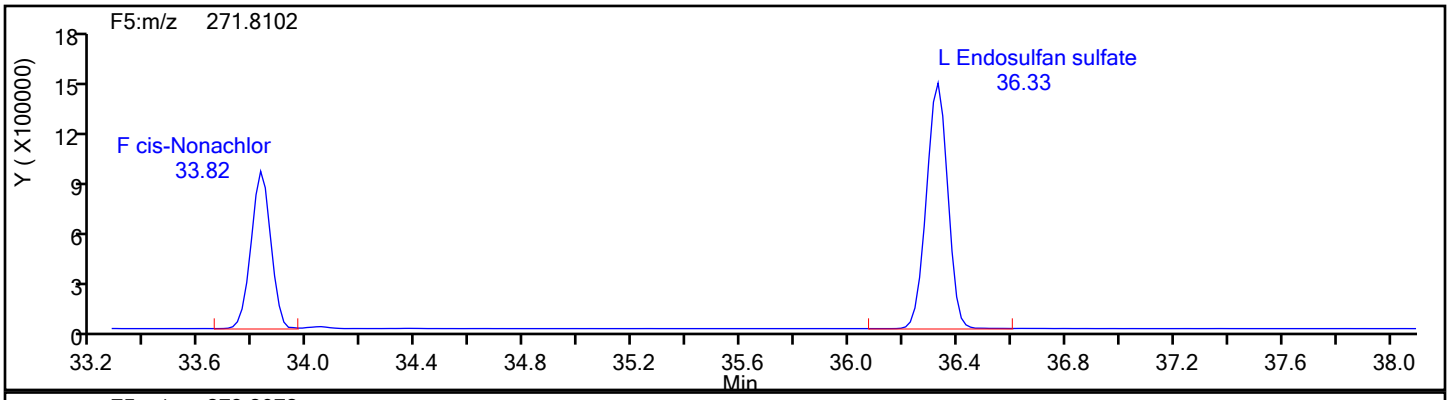
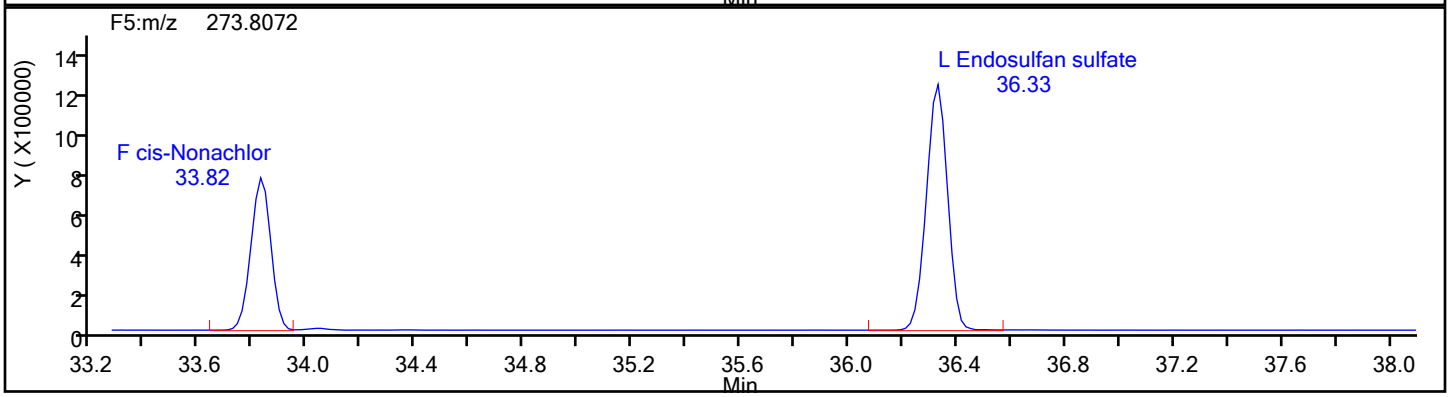
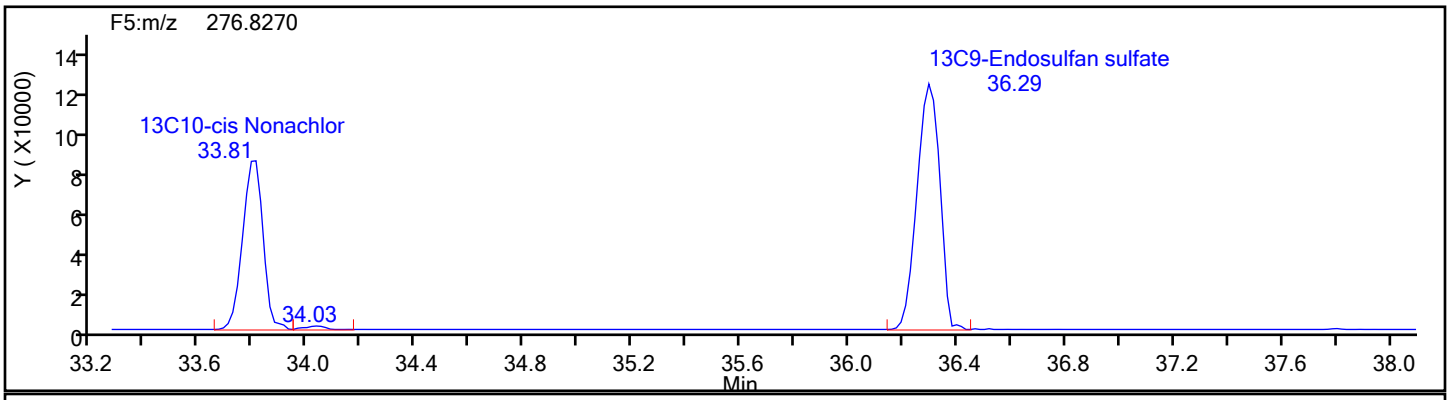
Column Type:	RTX-5	Column Dia:	0.32 mm

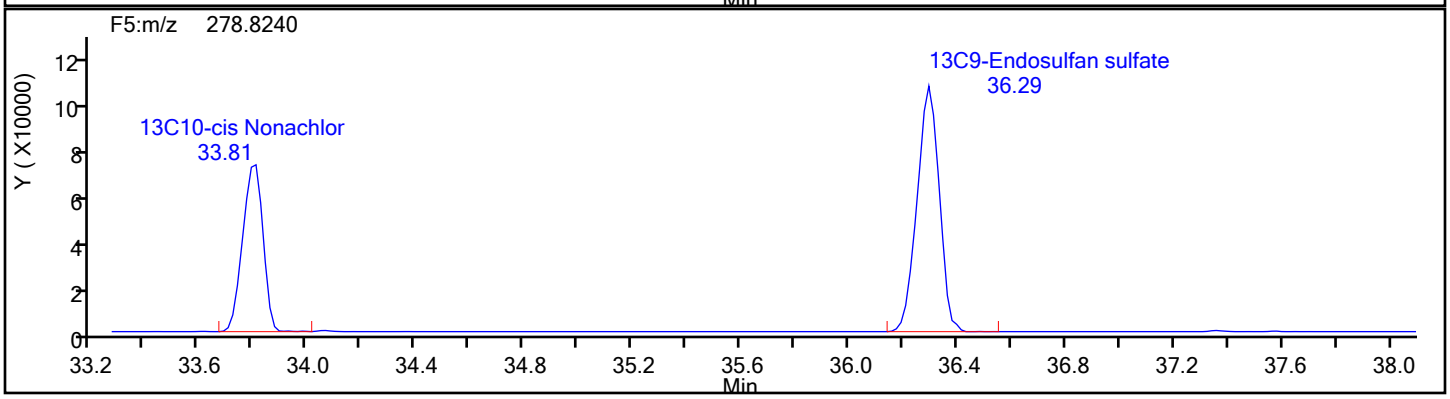
Nonachlor





Nonachlor Standards





Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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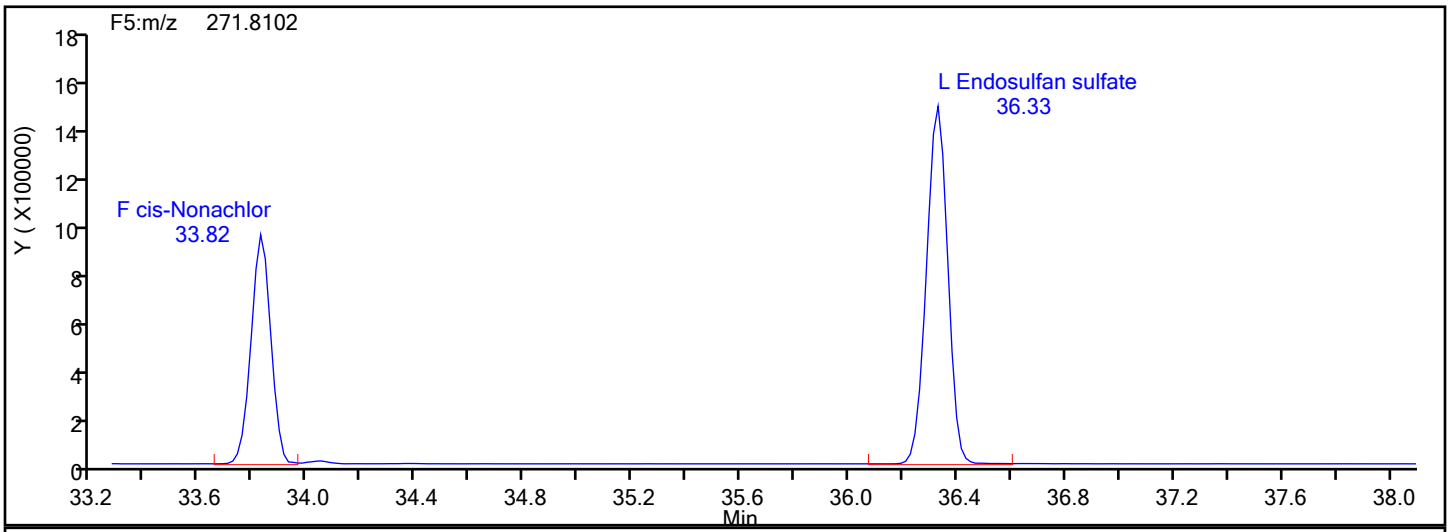
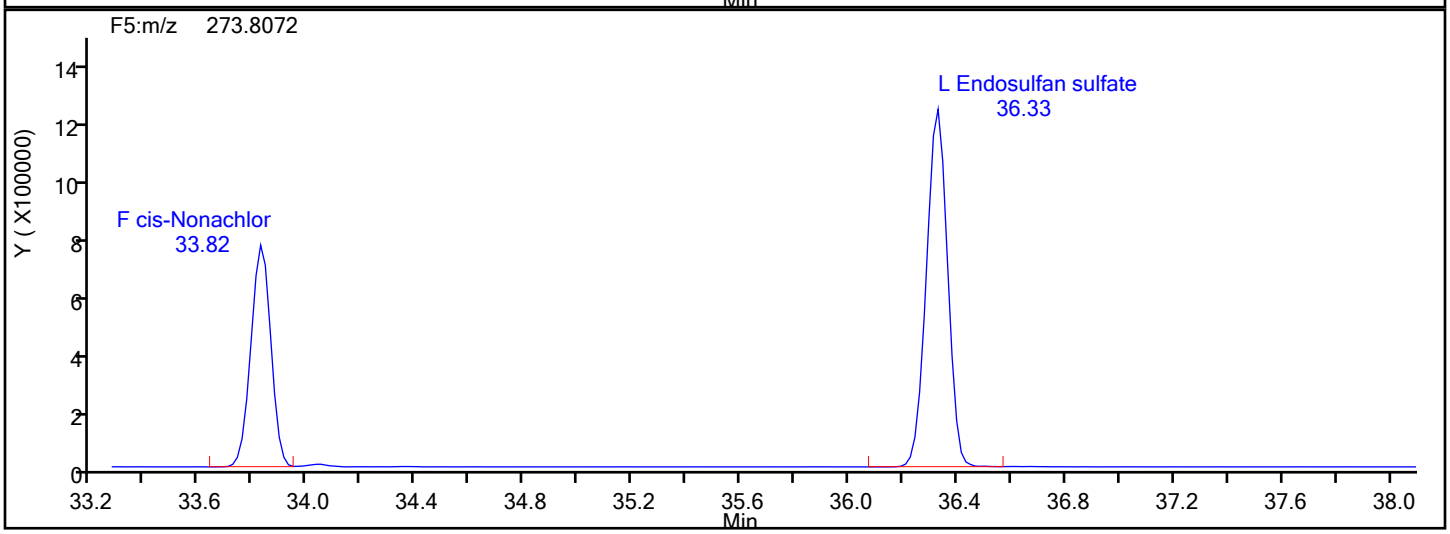
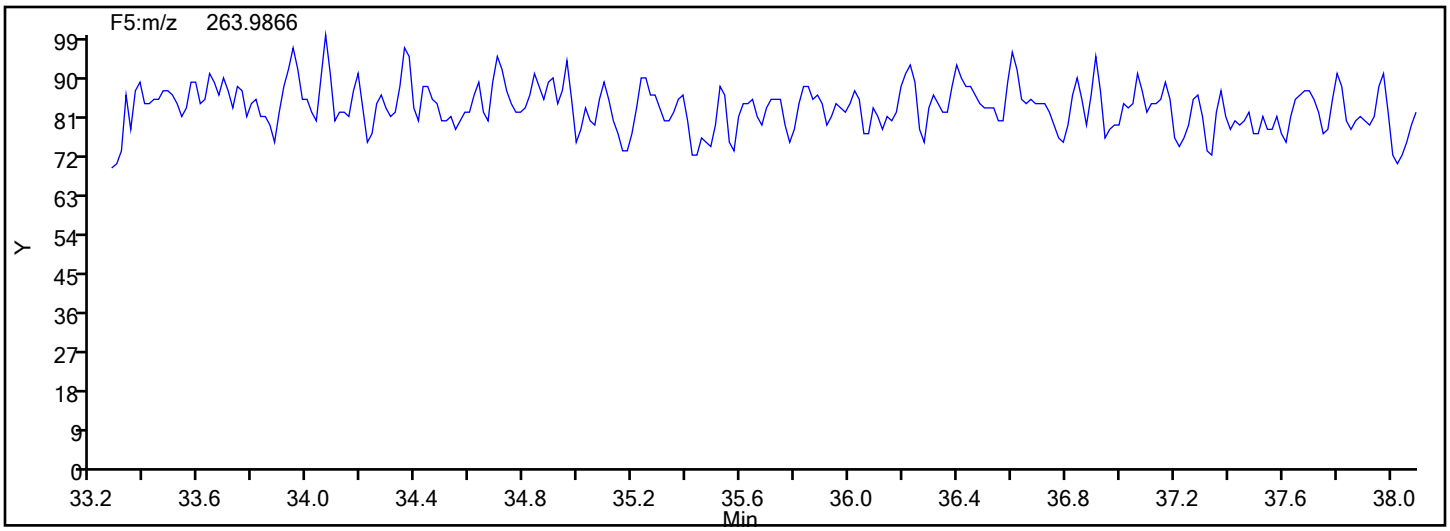




Nonachlor Lock Mass



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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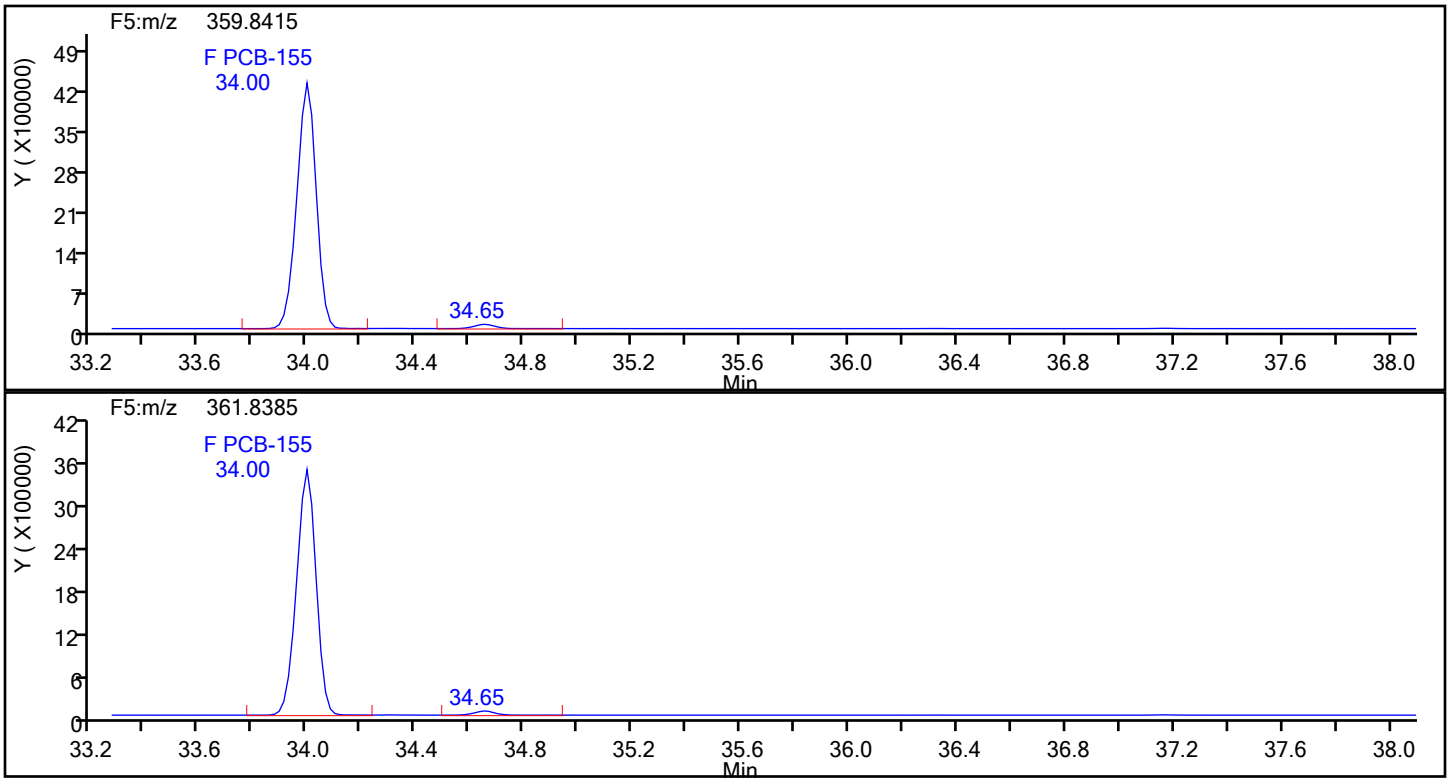
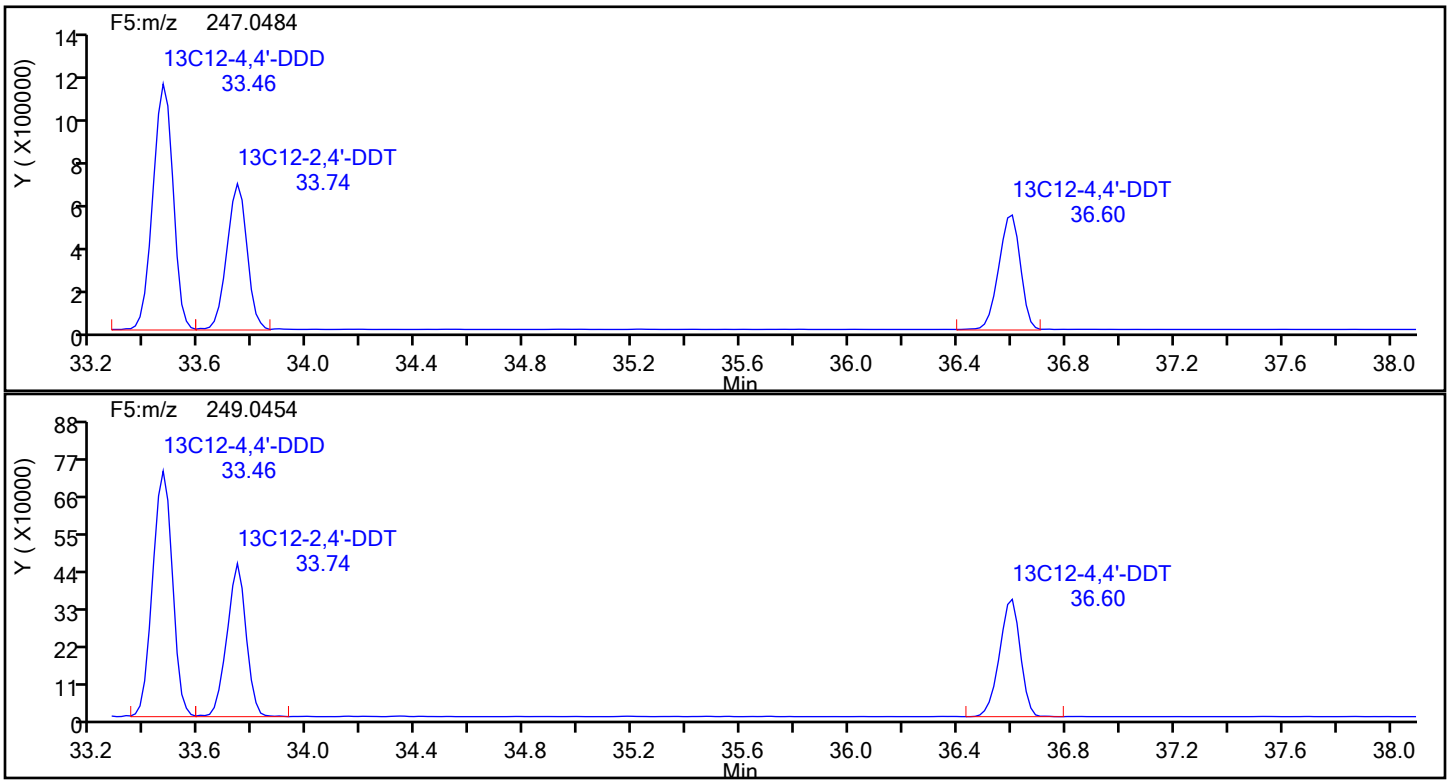
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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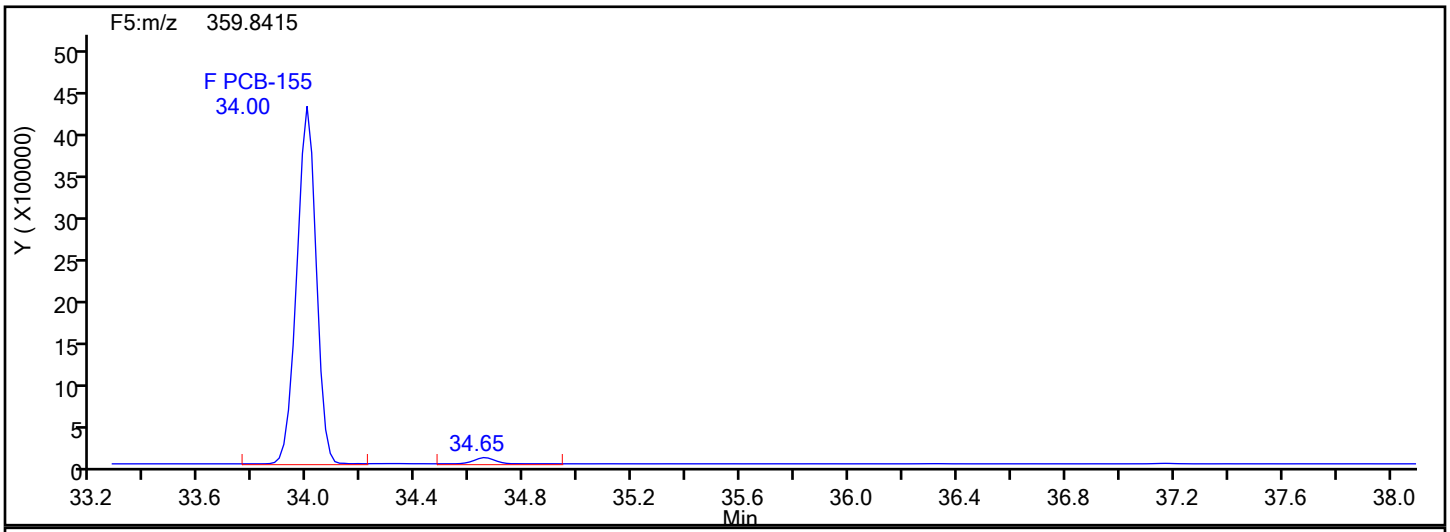
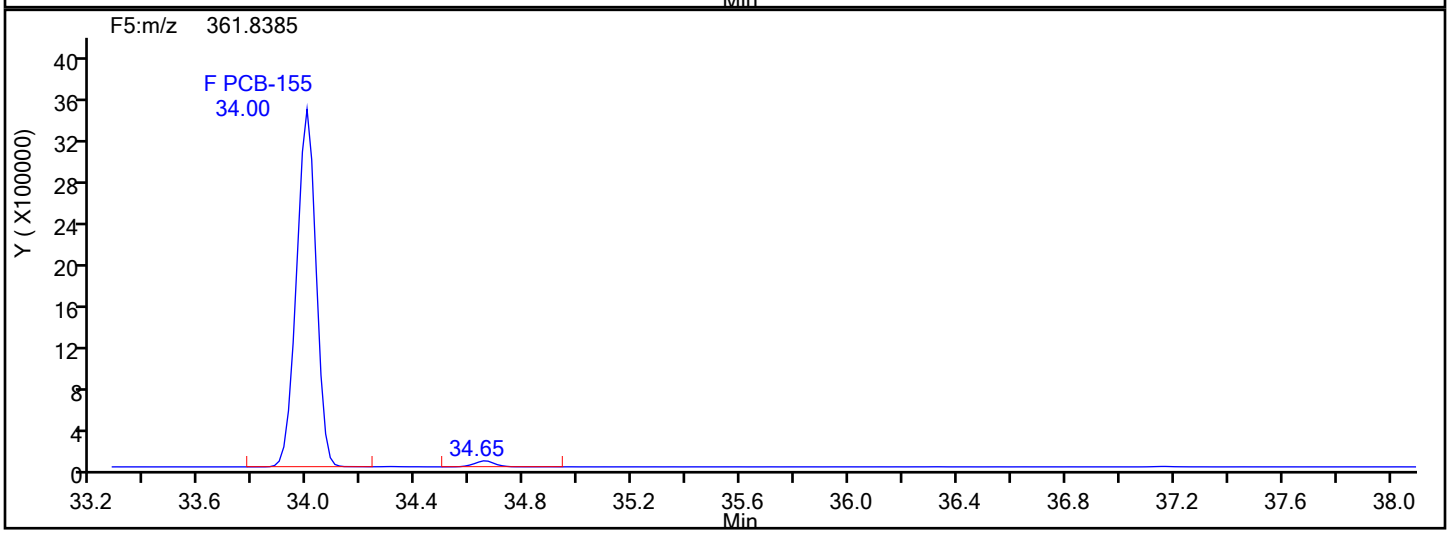
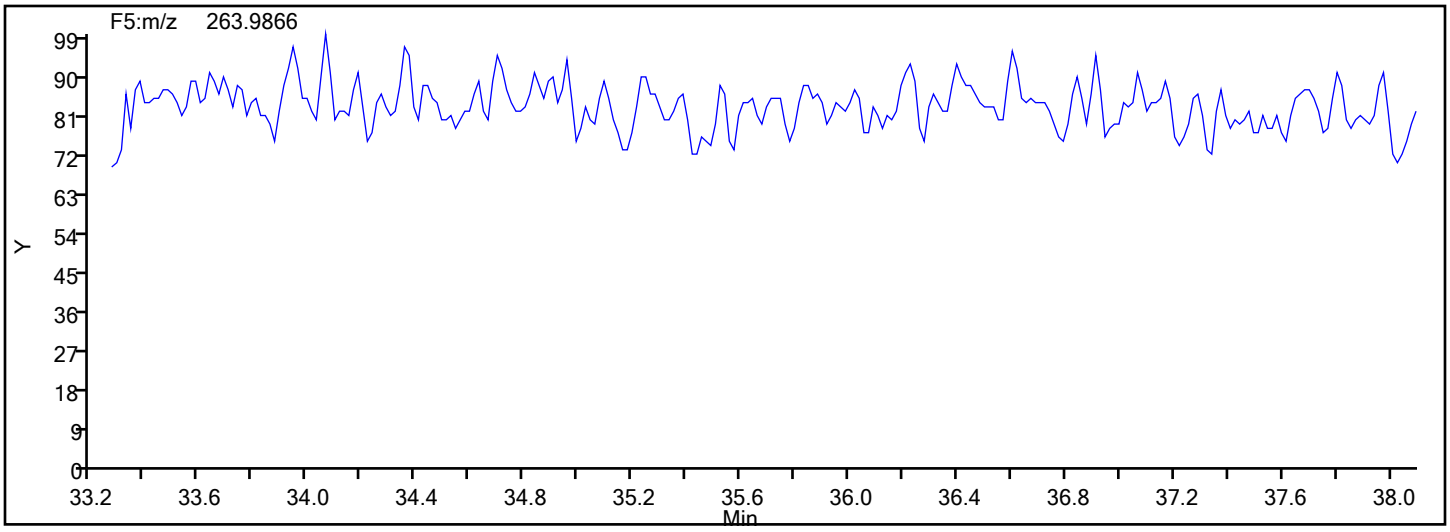
PCB-155





PCB-155 Lock Mass



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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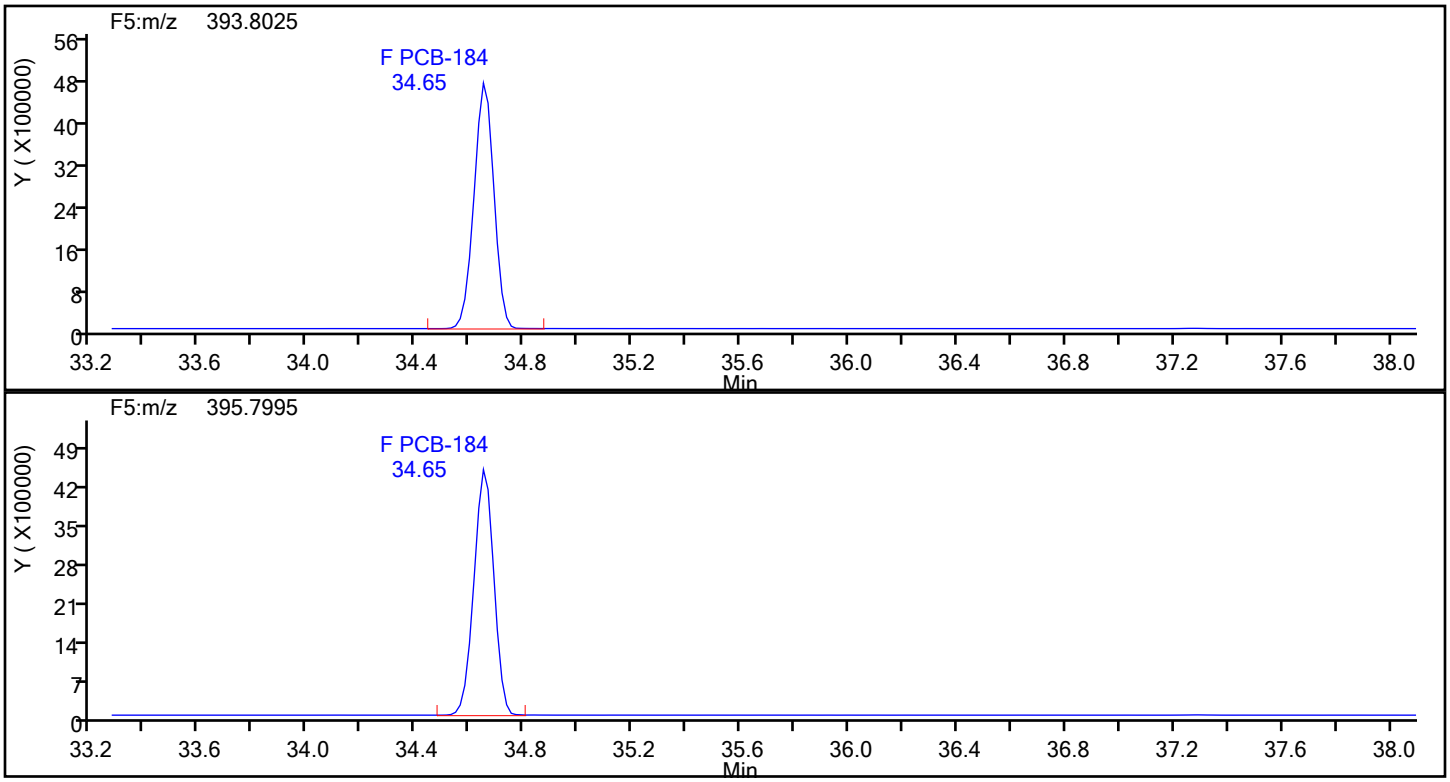
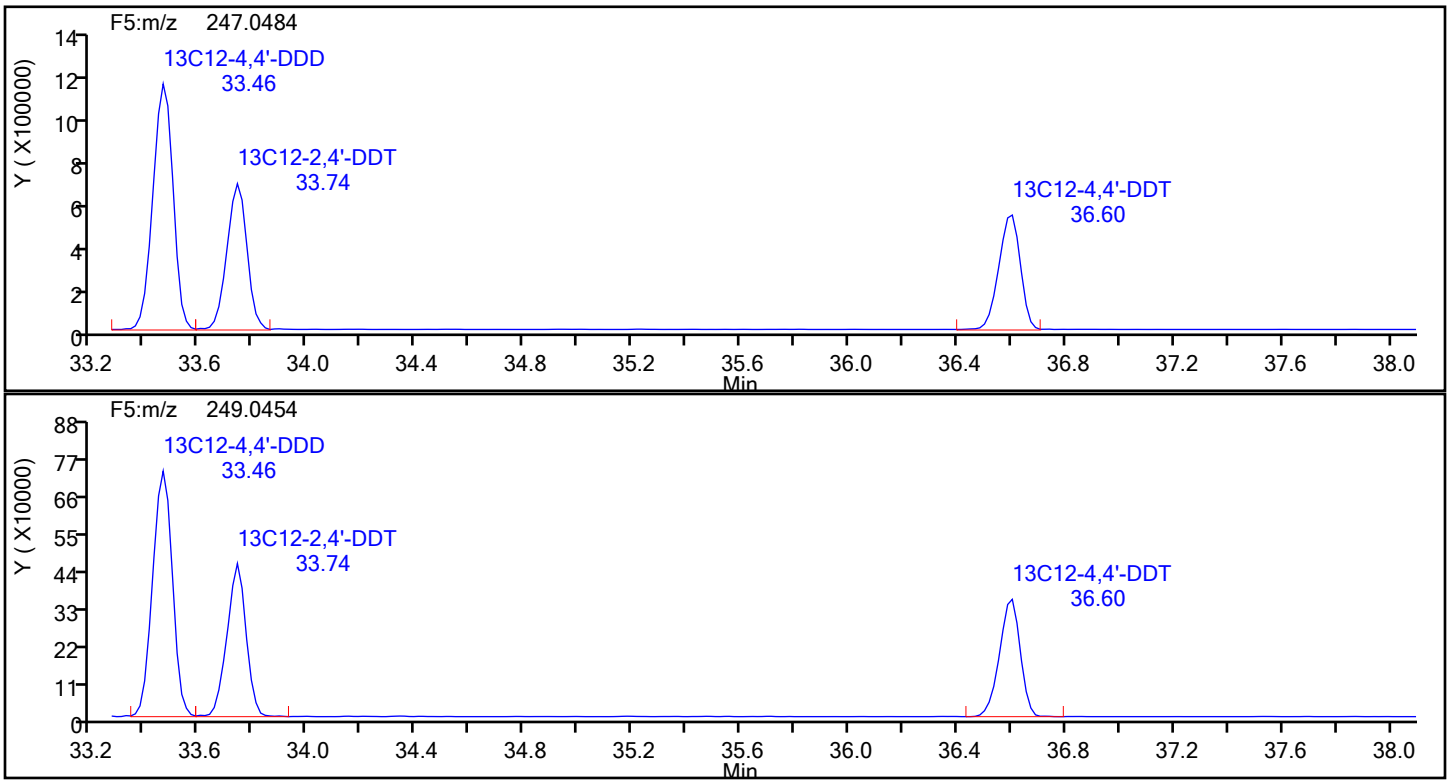
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date: 20-Mar-2025 00:10:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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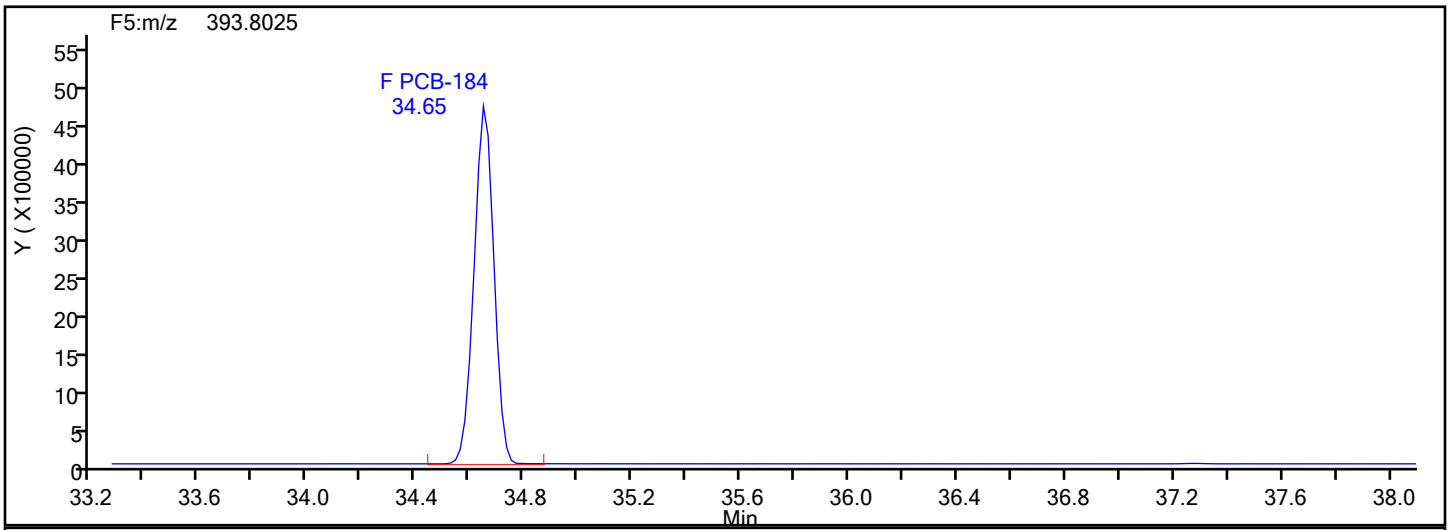
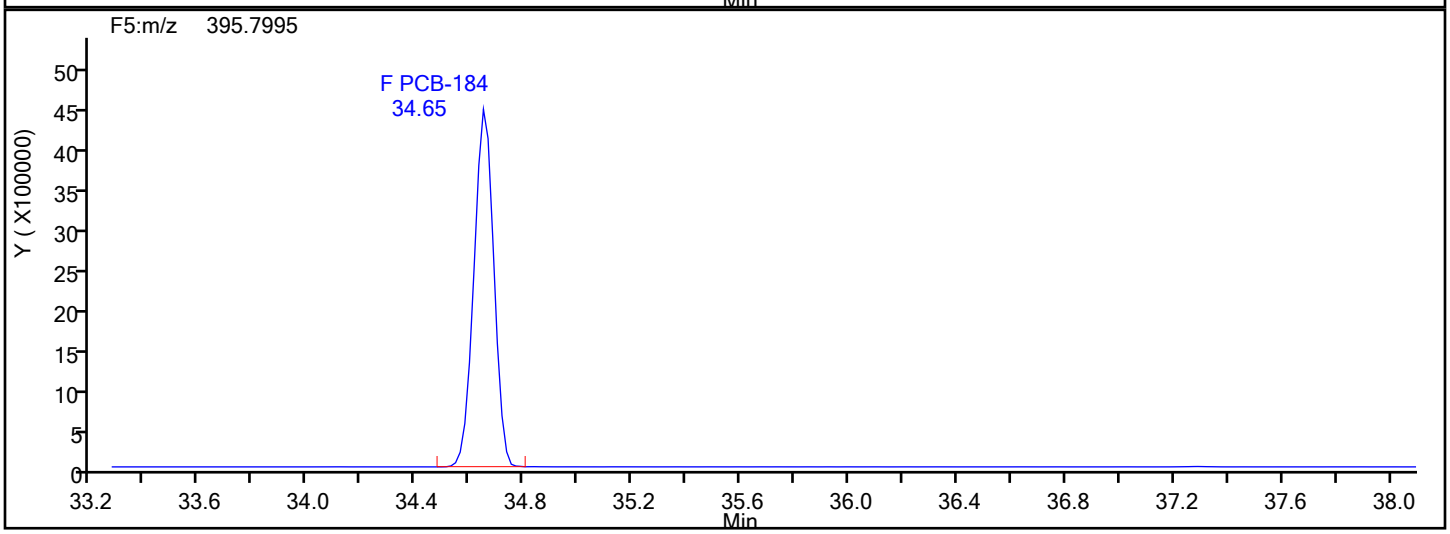
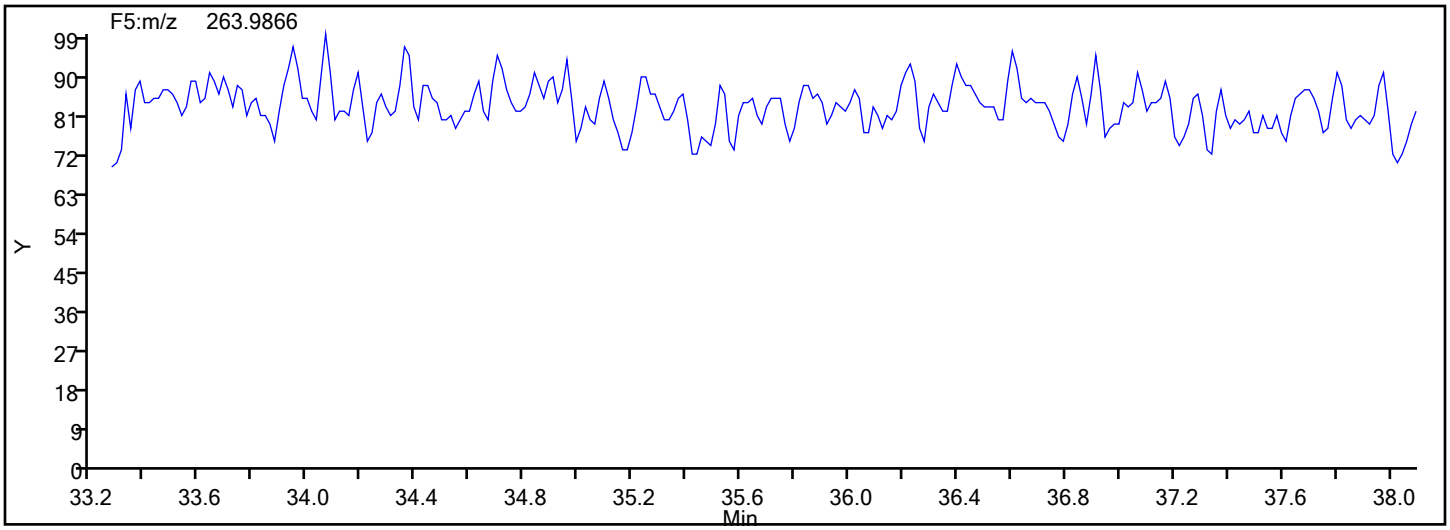
PCB-184





PCB-184 Lock Mass



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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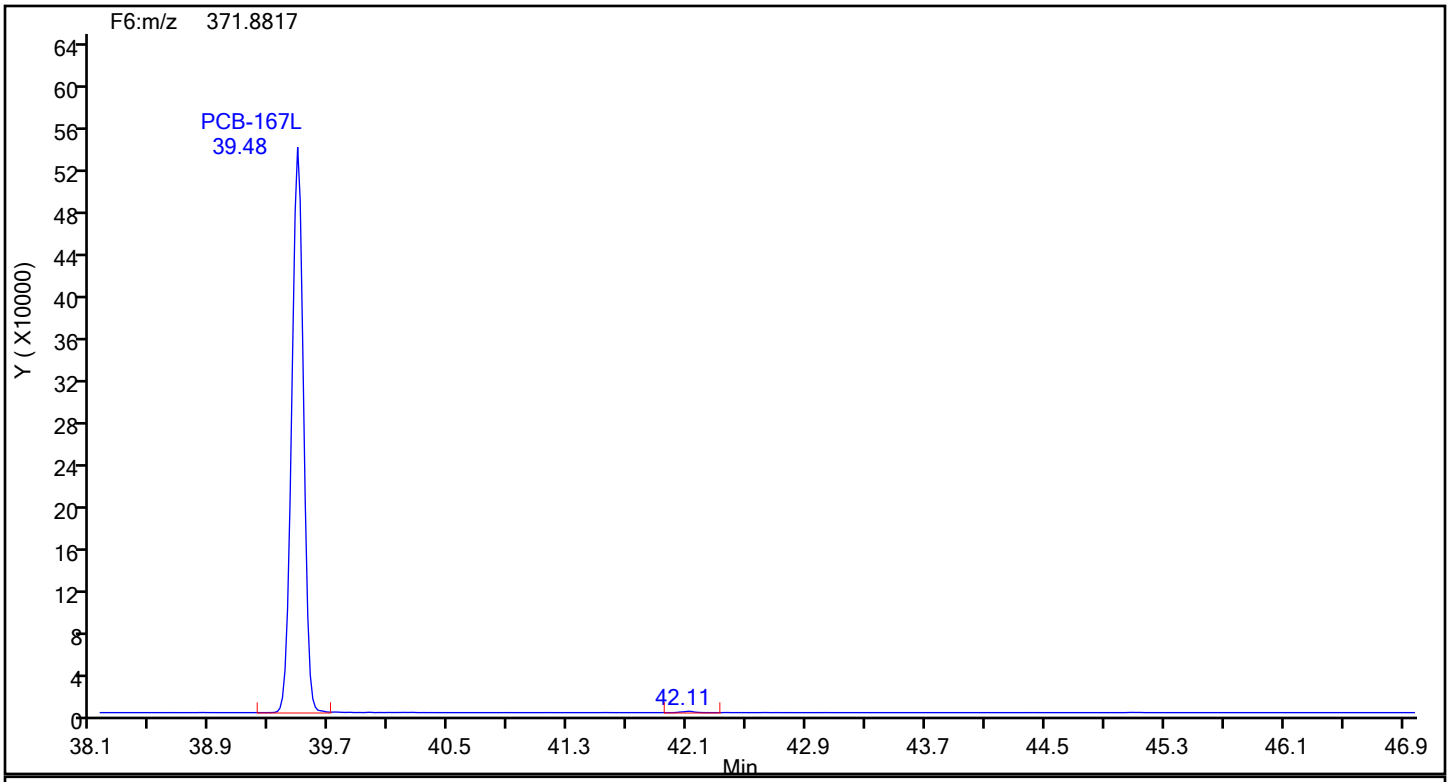
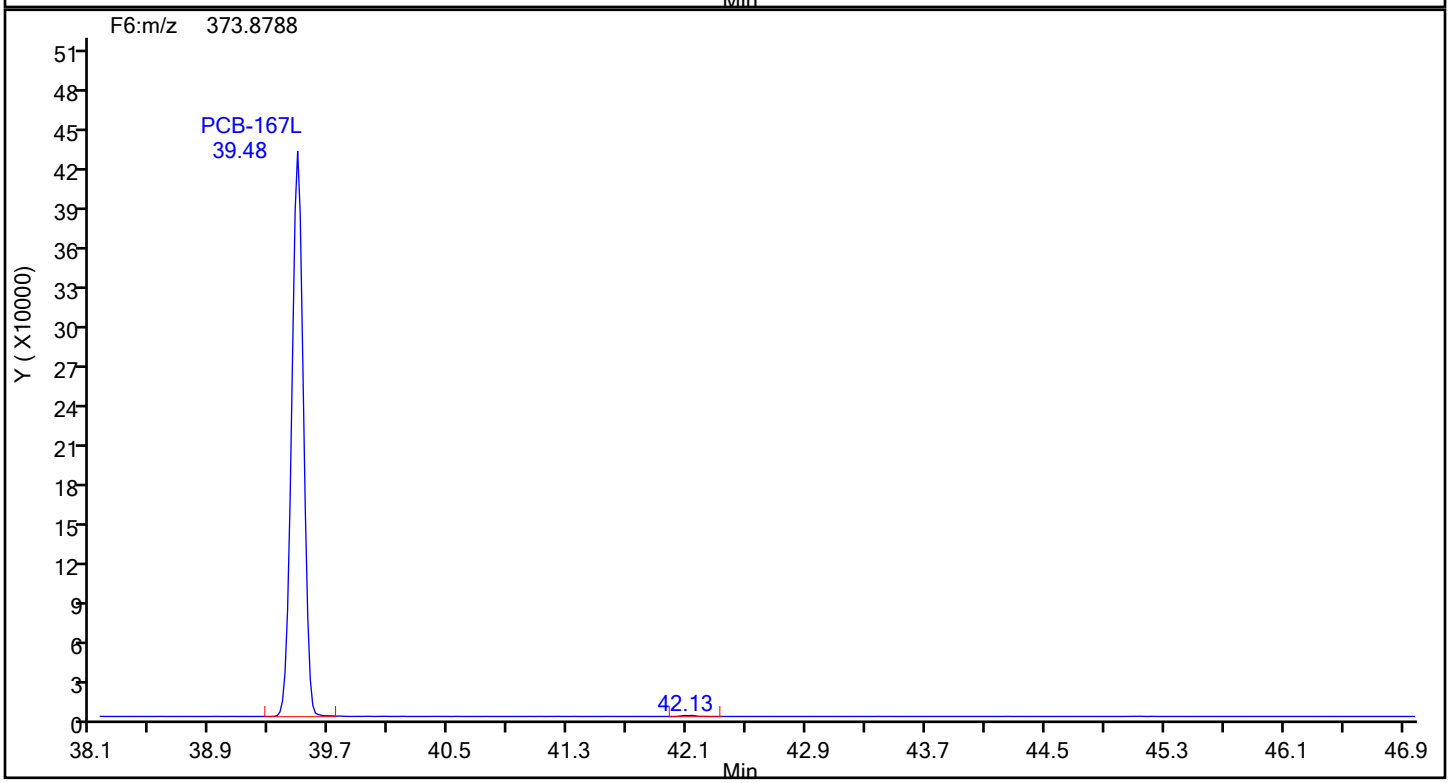
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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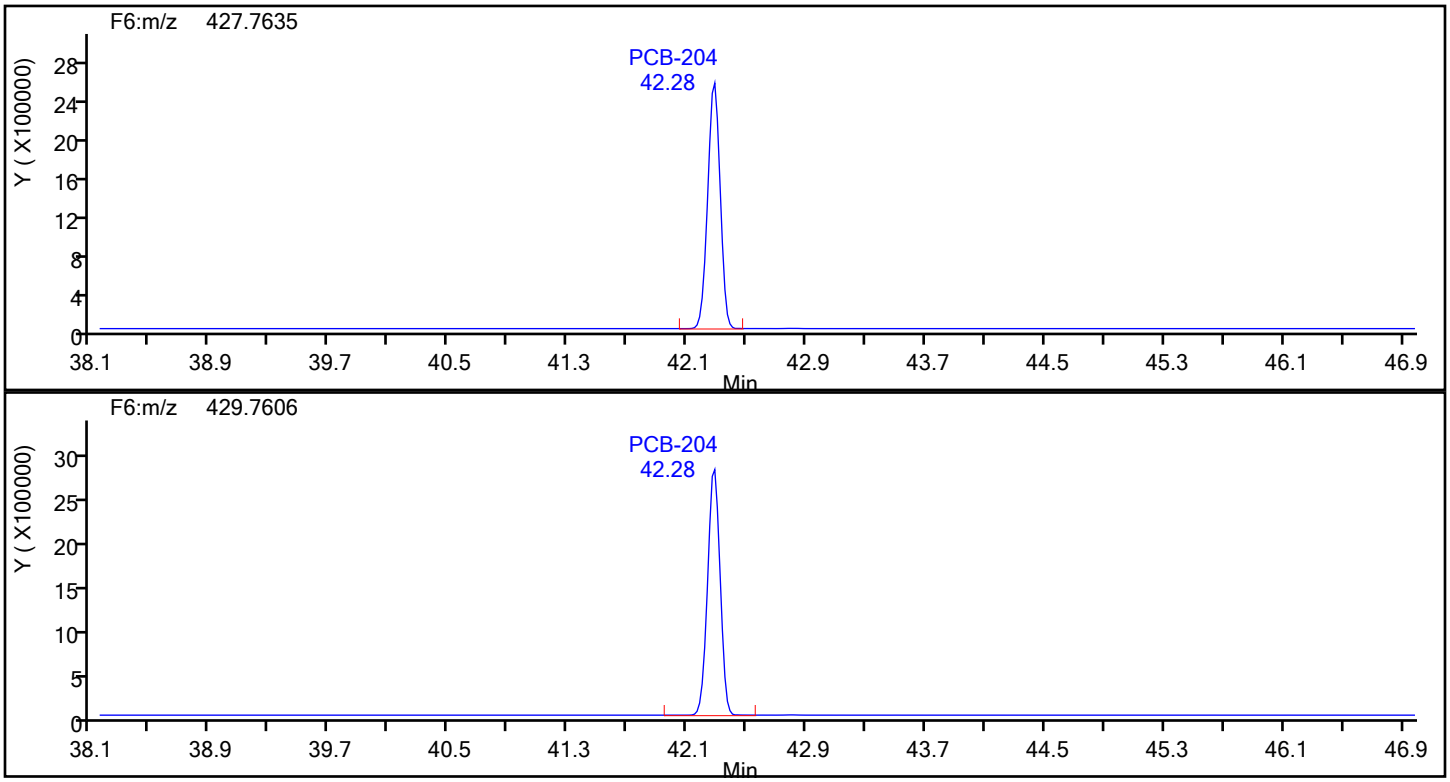
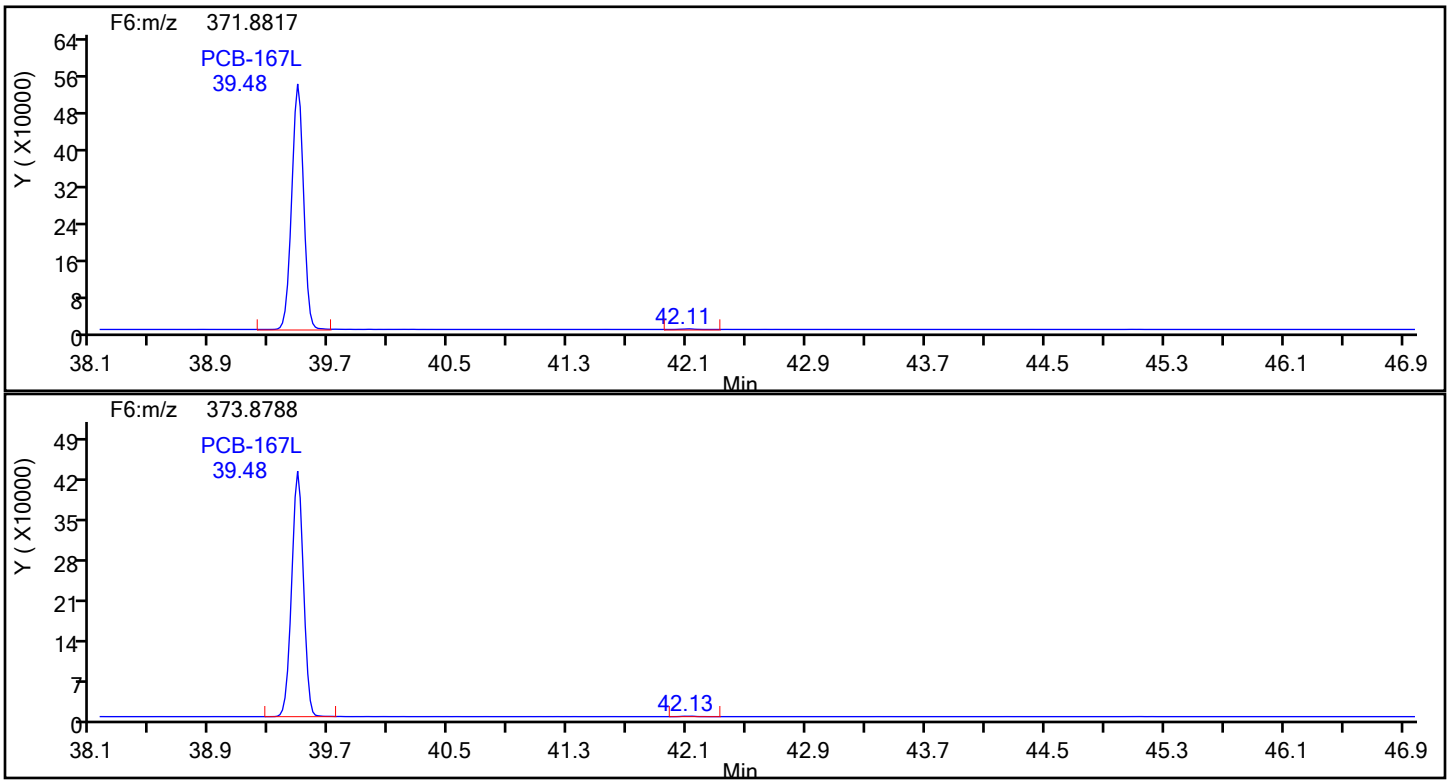
PCB-204



PCB-204 Standards



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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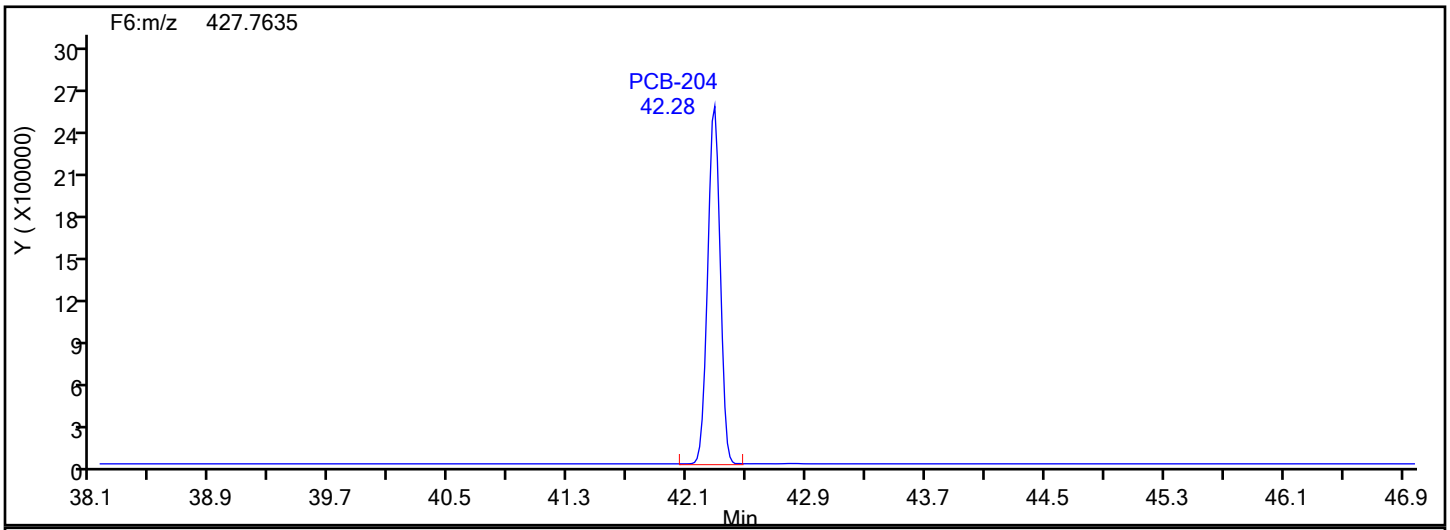
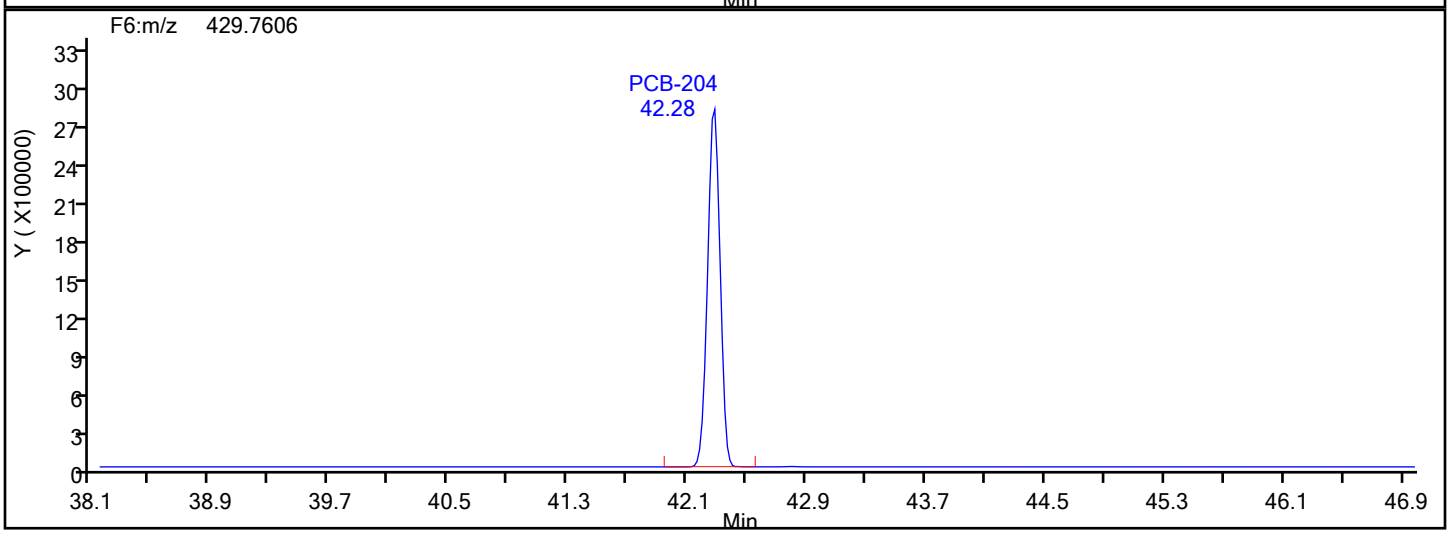
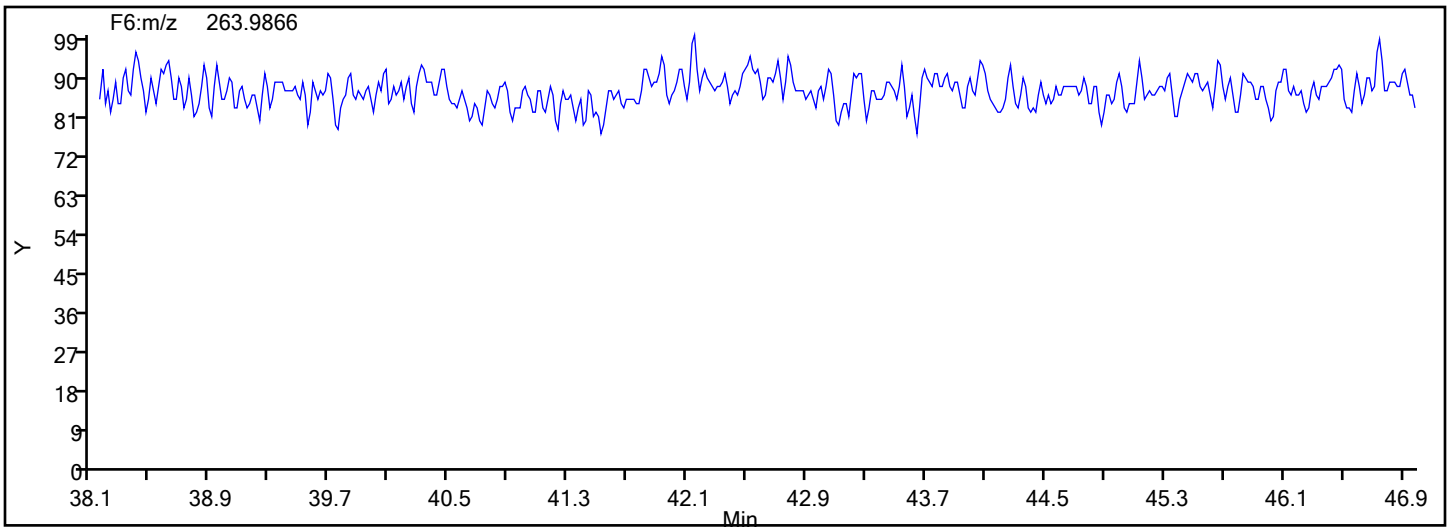
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d

Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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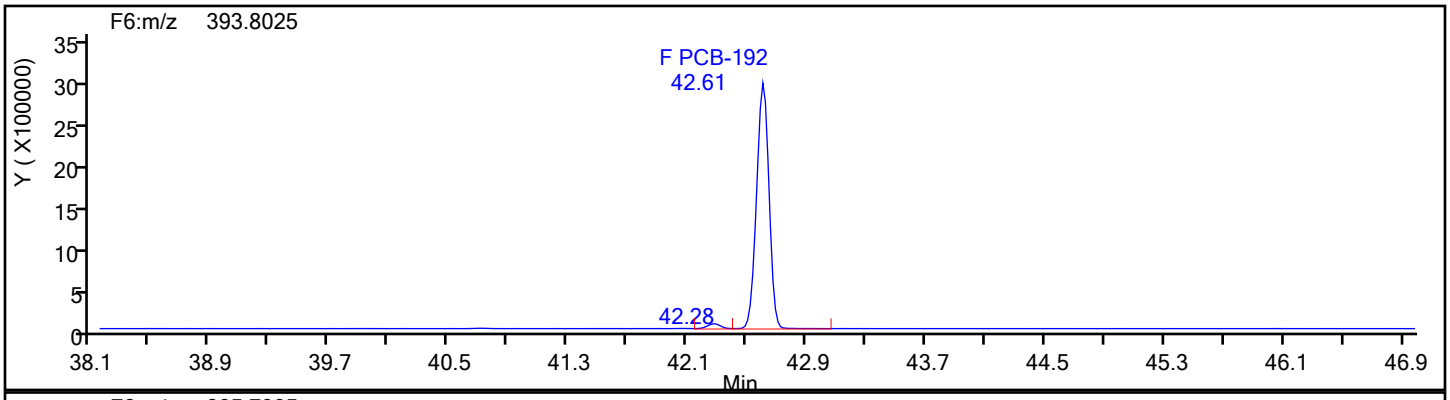
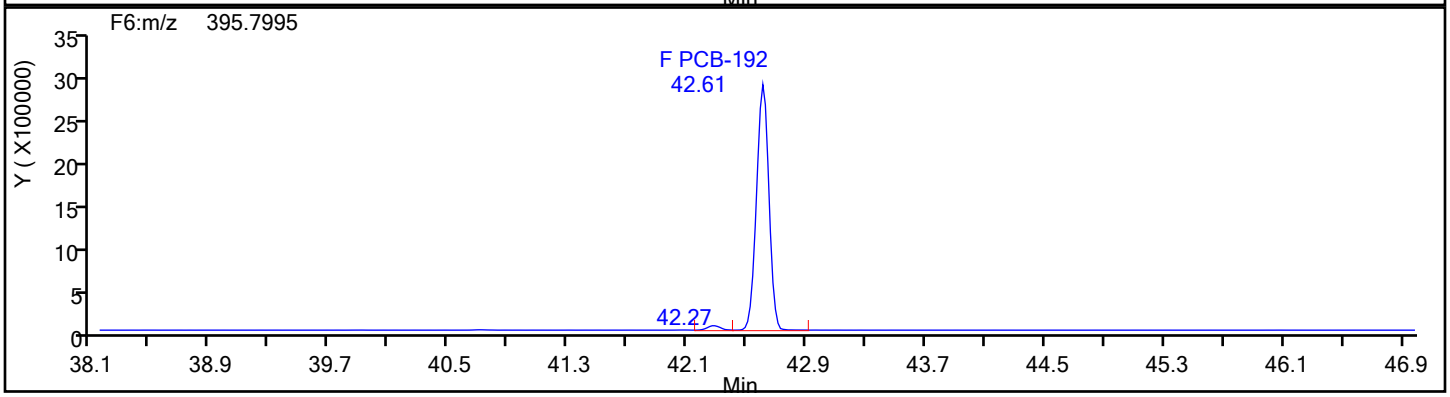
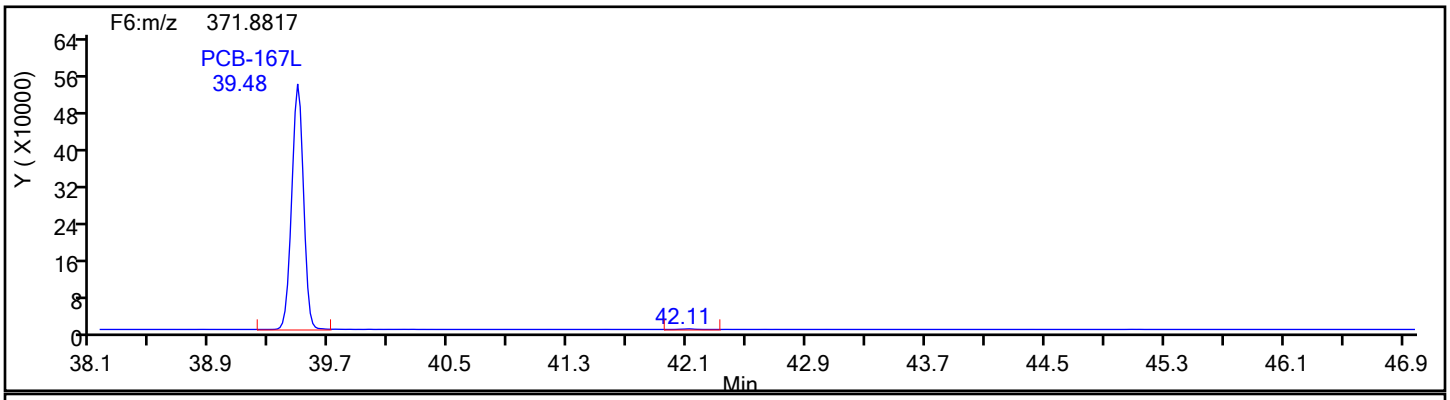
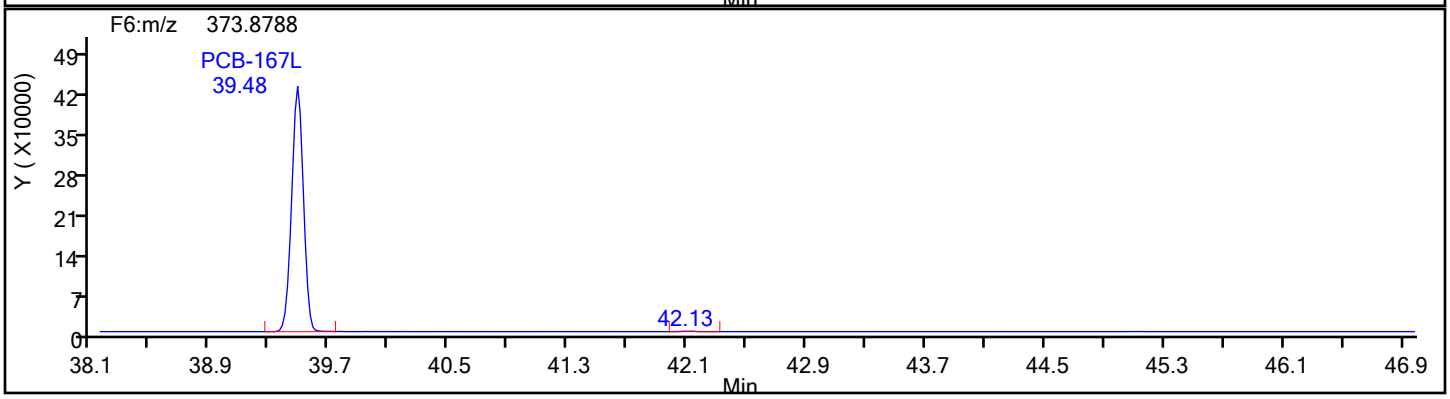
PCB-192





PCB-192 Standards



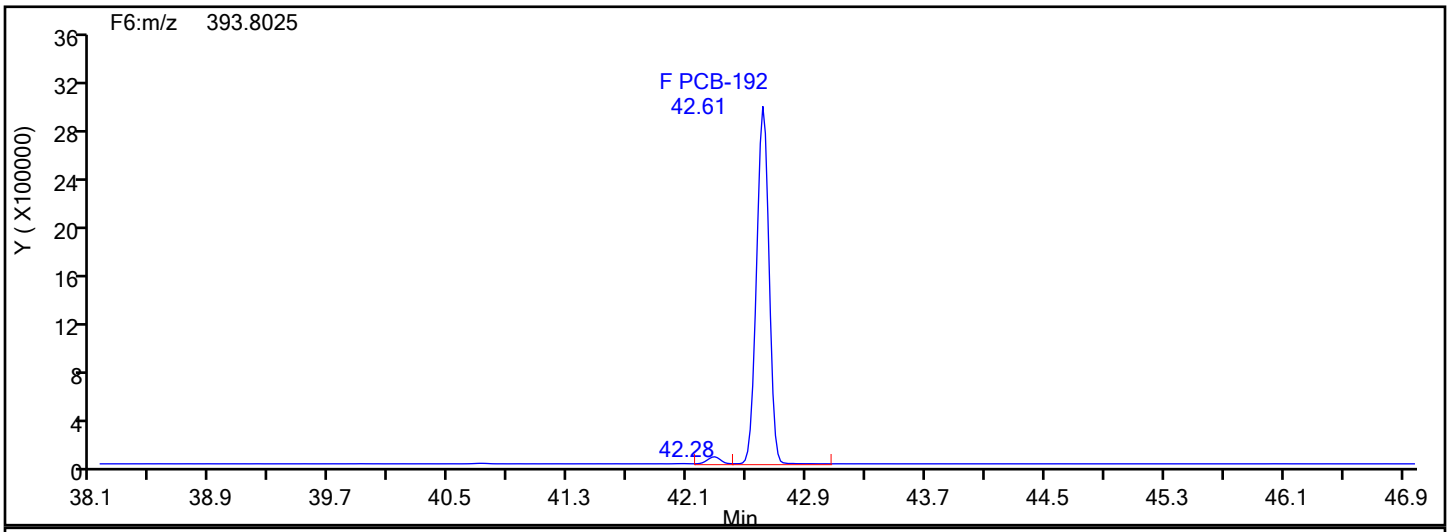


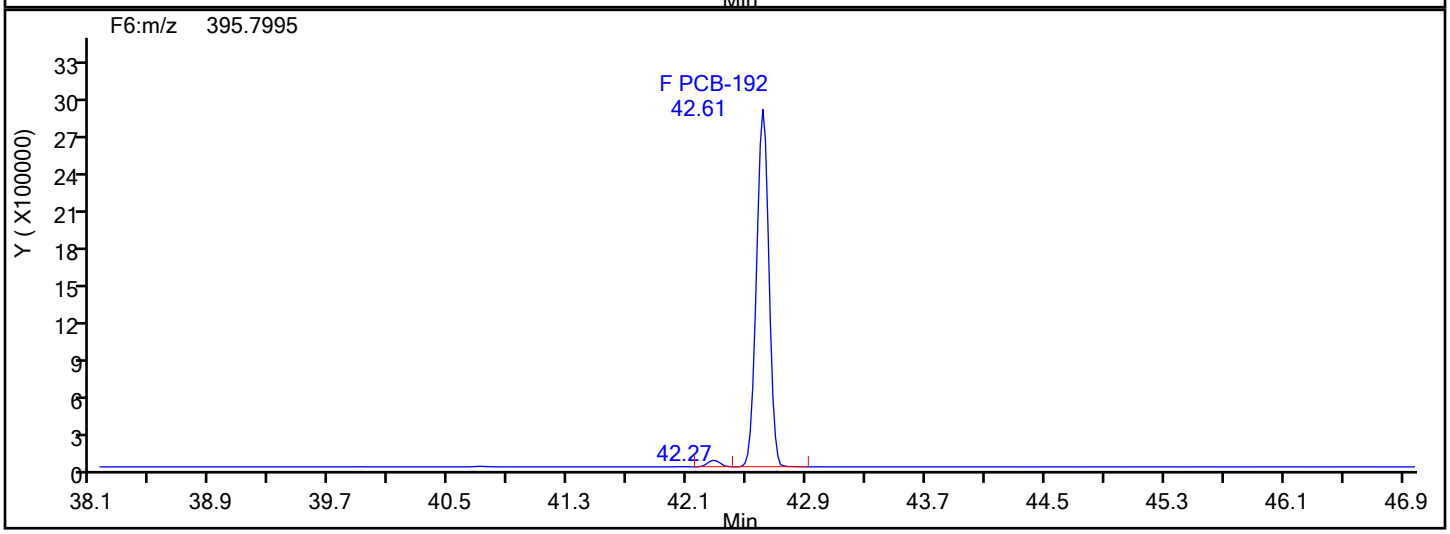
Report Date: 24-Mar-2025 13:06:40 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

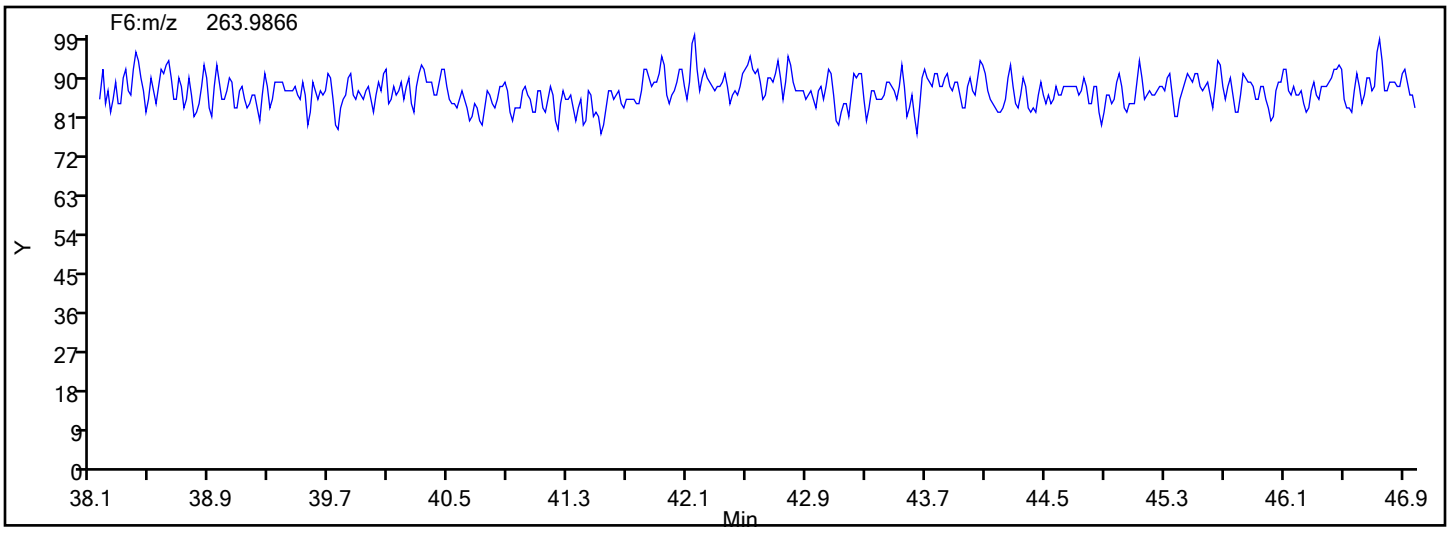
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic8.d		
Injection Date:	20-Mar-2025 00:10:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Mar-2025 01:05:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-009
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:43 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:54

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	5219117	0.84	0.1704	112.4	112.4	0.0396	0.0396	112	
alpha-BHC	17:24	117459794	0.77	1.0937	2057.7	2057.7	0.0248	0.0248	103	
D 13C6-beta BHC	18:23	3770374	0.84	0.1244	111.2	111.2	0.0542	0.0542	111	
beta-BHC	18:24	77594510	0.78	1.0053	2047.2	2047.2	0.0402	0.0402	102	
D 13C6-gamma BHC	18:40	5372811	0.82	0.1646	119.8	119.8	0.0410	0.0410	120	
gamma-BHC (Lindane)	18:40	105389023	0.78	0.9800	2001.6	2001.6	0.0292	0.0292	100	
D 13C6-delta BHC	19:37	3888868	0.82	0.0992	143.9	143.9	0.0680	0.0680	144	
delta-BHC	19:38	85959884	0.77	1.1243	1966.0	1966.0	0.0373	0.0373	98.30	
D 13C10-Heptachlor	21:52	2083954	1.26	0.0715	106.9	106.9	0.1103	0.1103	107	
Heptachlor	21:52	45118522	1.29	1.0864	1992.9	1992.9	0.0623	0.0623	99.64	
D 13C6-Hexachlorobenzene	17:43	14544754	1.29	0.5041	105.9	105.9	0.000106	0.000106	106	
Hexachlorobenzene	17:43	359514754	1.28	1.1568	2136.7	2136.7	0.000082	0.000082	107	
D 13C12-Aldrin	23:44	4419139	1.60	0.1384	117.1	117.1	0.0568	0.0568	117	
Aldrin	23:46	96935949	1.63	1.0892	2014.0	2014.0	0.3952	0.3952	101	
D 13C10-oxy Chlordane	26:09	464307	1.05	0.0481	108.6	108.6	0.007204	0.007204	109	
oxy-Chlordane	26:10	10315219	1.05	1.1040	2012.4	2012.4	0.003812	0.003812	101	
D 13C10-cis Heptachlor Epoxide	26:06	1347280	1.18	0.1493	101.4	101.4	0.0222	0.0222	101	
Heptachlor epoxide	26:08	30965962	1.27	1.1461	2005.4	2005.4	0.008982	0.008982	100	
D 13C12-2,4'-DDE	27:56	27432688	1.59	2.7345	112.7	112.7	0.0248	0.0248	113	
2,4'-DDE	27:56	738071807	1.30	1.2831	2096.9	2096.9	0.1740	0.1740	105	
D 13C10-trans Chlordane	27:38	1610060	1.21	0.1640	110.3	110.3	0.005126	0.005126	110	
trans-Chlordane	27:40	34372204	1.27	1.1433	1867.3	1867.3	0.1633	0.1633	93.37	
D 13C10-cis Chlordane	28:41	1828268	1.27	0.1741	118.0	118.0	0.004828	0.004828	118	
cis-Chlordane	28:42	33579442	1.25	1.0551	1740.7	1740.7	0.1564	0.1564	87.04	
D 13C10-trans Nonachlor	29:00	1249144	1.34	0.1233	113.8	113.8	0.006819	0.006819	114	
trans-Nonachlor	29:02	25835090	1.26	1.0780	1918.5	1918.5	0.2471	0.2471	95.92	
D 13C9-Endosulfan I	28:31	600065	1.36	0.0555	121.4	121.4	0.0151	0.0151	121	
D 13C12-4,4'-DDE	30:10	18586481	1.56	1.8637	107.7	107.7	0.1313	0.1313	108	
4,4'-DDE	30:11	543141453	1.67	1.2526	2332.9	2332.9	0.6394	0.6394	117	
D 13C12-4,4'-DDD	33:27	11665283	1.55	1.1392	110.6	110.6	0.0248	0.0248	111	
4,4'-DDD	33:30	303753293	1.64	1.2345	2109.3	2109.3	0.1441	0.1441	105	
D 13C12-2,4'-DDT	33:44	6725978	1.56	0.6754	107.5	107.5	0.0418	0.0418	108	
2,4'-DDT	33:45	155532218	1.60	1.1809	1958.2	1958.2	0.2626	0.2626	97.91	
D 13C12-4,4'-DDT	36:36	5880512	1.64	0.5808	109.3	109.3	0.0486	0.0486	109	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:37	137226817	1.61	1.2096	1929.3	1929.3	0.3021	0.3021	96.46	
D 13C12-Dieldrin	30:23	2005741	1.52	0.1991	108.8	108.8	0.0689	0.0689	109	
Dieldrin	30:25	40022541	1.58	1.0718	1861.6	1861.6	0.5175	0.5175	93.08	
D 13C12-Endrin	32:03	1046109	1.70	0.1181	95.7	95.7	0.1162	0.1162	95.66	
Endrin	32:05	20422729	1.56	1.0678	1828.3	1828.3	1.019	1.019	91.41	
D 13C9-Endosulfan II	32:46	239256	1.36	0.0248	104.3	104.3	0.2215	0.2215	104	
Endosulfan II	32:49	5485327	1.26	1.0972	2089.6	2089.6	3.352	3.352	104	
D 13C12-Endrin Aldehyde	34:19	294649	1.42	0.0237	134.1	134.1	0.1928	0.1928	134	
Endrin aldehyde	34:21	7173492	1.58	1.1278	2158.7	2158.7	1.522	1.522	108	
D 13C12-Methoxychlor	41:57	6644020	18.35	0.6709	106.9	106.9	0.0309	0.0309	107	
Methoxychlor	41:58	178385511	6.04	1.3248	2026.7	2026.7	0.0961	0.0961	101	
D 13C11-Endrin Ketone	40:25	597797	1.67	0.0648	99.6	99.6	0.0390	0.0390	99.64	
Endrin ketone	40:27	13610881	1.56	1.1546	1972.0	1972.0	0.5405	0.5405	98.60	
D 13C10-Mirex	45:26	5626603	1.28	0.9459	105.8	105.8	0.006051	0.006051	106	
Mirex	45:27	116070595	1.27	1.0234	2015.8	2015.8	0.0543	0.0543	101	
* PCB-15L	19:04	27254466	1.61		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:30	4374298	0.65		500.0	500.0				
Pentachlorophenol	18:30	84177392	0.61	0.8359	11511	11511	0.2819	0.2819	115	
* PCB-101L	28:07	8899369	1.60		100.0	100.0				
* PCB-118L	32:48	9260830	1.59		100.0	100.0				
* PCB-138L	37:00	5620174	1.26		100.0	100.0				
Endosulfan I	28:33	11630989	1.56	1.0931	1773.2	1773.2	0.4592	0.4592	88.66	
* PCB-60L	27:44	16964741	0.80		100.0	100.0				
D 13C12-2,4'-DDD	30:51	13652371	1.59	1.3487	109.3	109.3	0.0449	0.0449	109	
2,4'-DDD	30:52	342674825	1.63	1.1763	2133.8	2133.8	0.0945	0.0945	107	
D 13C10-cis Nonachlor	33:48	967451	1.27	0.0944	110.6	110.6	0.005698	0.005698	111	
cis-Nonachlor	33:49	19943011	1.25	1.0758	1916.2	1916.2	0.2246	0.2246	95.81	
D 13C9-Endosulfan sulfate	36:17	1555959	1.34	0.1517	110.8	110.8	0.003547	0.003547	111	
Endosulfan sulfate	36:19	34166594	1.26	1.0831	2027.4	2027.4	0.1489	0.1489	101	
* PCB-167L	39:29	5774627	1.27		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags

Reagents:
61L81699PST_00010 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Mar-2025 01:05:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-009
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 13:06:43 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1705

First Level Reviewer: F9EE Date: 20-Mar-2025 15:39:54

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	2378350	888079	217	542	4093		
224.9317	17:23	17:23	0	0.912	2840767	1087772	35	87	31079	0.84(0.58-0.96)	
alpha-BHC											
216.9145	17:24	17:23	0	1.001	51242049	20160971	47	117	428957		
218.9116	17:24	17:23	0	1.001	66217745	26430703	168	420	157326	0.77(0.58-0.96)	
13C6-beta BHC											
222.9342	18:23	18:22	0	0.964	1716060	609878	217	542	2810		
224.9317	18:23	18:22	0	0.964	2054314	718058	35	87	20516	0.84(0.58-0.96)	
beta-BHC											
216.9145	18:24	18:23	1	1.001	33972211	12287945	47	117	261446		
218.9116	18:24	18:23	1	1.001	43622299	15762994	168	420	93827	0.78(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:40	18:39	1	0.979	2415337	845292	217	542	3895		
224.9317	18:40	18:39	1	0.979	2957474	1032615	35	87	29503	0.82(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:40	18:40	0	1.001	46022860	16890859	47	117	359380		
218.9116	18:40	18:40	0	1.001	59366163	21914255	168	420	130442	0.78(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:36	1	1.029	1747437	580257	217	542	2674		
224.9317	19:37	19:36	1	1.029	2141431	701543	35	87	20044	0.82(0.58-0.96)	
delta-BHC											
216.9145	19:38	19:38	0	1.001	37499022	12971499	47	117	275989		
218.9116	19:38	19:38	0	1.001	48460862	16867727	168	420	100403	0.77(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:52	21:51	0	1.146	1160164	332809	177	442	1880		
278.8240	21:52	21:51	0	1.146	923790	261379	118	295	2215	1.26(0.93-1.55)	
Heptachlor											
271.8102	21:52	21:52	0	1.001	25397621	7272091	94	235	77363		
273.8072	21:52	21:52	0	1.001	19720901	5659833	67	167	84475	1.29(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:43	17:42	1	0.929	8189148	2994901	1	2	2994901		
291.8273	17:43	17:42	1	0.929	6355606	2297654	1	2	2297654	1.29(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:43	17:42	0	1.000	201856979	78367213	1	2	78367220		
285.8072	17:43	17:42	0	1.000	157657775	62155244	1	2	62155240	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:44	23:44	0	1.245	2717753	697293	170	425	4102		
271.8775	23:44	23:44	0	1.245	1701386	434654	124	310	3505	1.60(1.16-1.94)	
Aldrin											
262.8569	23:46	23:45	0	1.001	60010980	16385357	954	2385	17175		
264.8540	23:46	23:45	0	1.001	36924969	9899349	995	2487	9949	1.63(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:08	0	0.930	237708	57709	1	2	57709		
398.8358	26:09	26:08	0	0.930	226599	61088	2	5	30544	1.05(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	5276551	1270401	1	2	1270401		
388.8023	26:10	26:10	0	1.001	5038668	1197775	1	2	1197775	1.05(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:06	26:06	0	0.929	730003	168951	8	20	21119		
364.8748	26:06	26:06	0	0.929	617277	141918	19	47	7469	1.18(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:08	26:08	0	1.001	17319652	4089412	7	17	584202		
354.8413	26:08	26:08	0	1.001	13646310	3197175	6	15	532863	1.27(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.994	16829269	4060001	337	842	12047		
260.0376	27:56	27:56	0	0.994	10603419	2518932	211	527	11938	1.59(1.17-1.95)	
2,4'-DDE											
246.0003	27:56	27:57	-1	1.000	417504788	85256959	3483	8707	24478		
247.9974	27:57	27:57	0	1.000	320567019	82319660	2392	5980	34415	1.30(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:38	27:38	0	0.983	882436	193832	3	7	64611		
278.8240	27:38	27:38	0	0.983	727624	172993	4	10	43248	1.21(0.93-1.55)	
trans-Chlordane											
271.8102	27:40	27:39	0	1.001	19256331	4471785	143	357	31271		
273.8072	27:40	27:39	0	1.001	15115873	3480999	131	327	26573	1.27(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	0	1.020	1023449	233895	3	7	77965		
278.8240	28:41	28:41	0	1.020	804819	181337	4	10	45334	1.27(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:42	28:43	0	1.001	18674460	4115474	143	357	28780		
273.8072	28:42	28:43	0	1.001	14904982	3253364	131	327	24835	1.25(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:00	29:00	0	1.031	715715	146831	3	7	48944		
278.8240	29:00	29:00	0	1.032	533429	110340	4	10	27585	1.34(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	14383543	3074755	143	357	21502		
273.8072	29:01	29:02	0	1.001	11451547	2423280	131	327	18498	1.26(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:31	28:31	0	1.015	346306	69042	3	7	23014		
278.8240	28:31	28:31	0	1.015	253759	53478	4	10	13370	1.36(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	11315815	2488343	1235	3087	2015		
260.0376	30:10	30:10	0	0.920	7270666	1609093	584	1460	2755	1.56(1.17-1.95)	
4,4'-DDE											
246.0003	30:11	30:11	0	1.000	340094432	79600963	7952	19880	10010		
247.9974	30:11	30:11	0	1.000	203047021	47555240	5175	12937	9189	1.67(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:27	33:27	0	1.020	7099096	1380624	57	142	24221		
249.0454	33:27	33:27	0	1.020	4566187	904538	153	382	5912	1.55(1.17-1.95)	
4,4'-DDD											
235.0081	33:30	33:29	0	1.001	188687355	38380598	1211	3027	31693		
237.0052	33:30	33:29	0	1.001	115065938	23142855	415	1037	55766	1.64(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:44	33:44	0	1.028	4099373	790676	57	142	13872		
249.0454	33:44	33:44	0	1.028	2626605	520414	153	382	3401	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:45	33:46	-1	1.001	95729334	18879542	1211	3027	15590		
237.0052	33:45	33:46	-1	1.001	59802884	11787975	415	1037	28405	1.60(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:36	36:36	0	1.116	3653235	697150	57	142	12231		
249.0454	36:36	36:36	0	1.116	2227277	415457	153	382	2715	1.64(1.16-1.94)	
4,4'-DDT											
235.0081	36:37	36:37	0	1.000	84731990	16315314	1211	3027	13473		
237.0052	36:37	36:37	0	1.000	52494827	10091925	415	1037	24318	1.61(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:23	30:23	0	0.926	1210606	249878	70	175	3570		
271.8775	30:24	30:23	0	0.927	795135	163323	32	80	5104	1.52(1.16-1.94)	
Dieldrin											
262.8570	30:25	30:25	0	1.001	24515637	5201856	578	1445	9000		
264.8540	30:25	30:25	0	1.001	15506904	3239364	339	847	9556	1.58(1.16-1.94)	
13C12-Endrin											
269.8805	32:03	32:03	0	0.977	658598	133600	70	175	1909		
271.8775	32:04	32:03	0	0.978	387511	76939	32	80	2404	1.70(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:05	32:05	0	1.001	12436922	2446438	578	1445	4233		
264.8540	32:05	32:05	0	1.001	7985807	1576579	339	847	4651	1.56(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:46	32:47	0	0.999	137956	27157	30	75	905		
278.8240	32:47	32:47	0	1.000	101300	20024	11	27	1820	1.36(0.93-1.55)	
Endosulfan II											
271.8102	32:49	32:48	0	1.001	3056321	603755	371	927	1627		
273.8072	32:49	32:48	0	1.001	2429006	492030	323	807	1523	1.26(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:19	34:19	0	1.046	173091	30167	20	50	1508		
358.9361	34:18	34:19	-1	1.046	121558	26154	14	35	1868	1.42(1.17-1.95)	
Endrin aldehyde											
344.8988	34:21	34:21	0	1.001	4393307	818821	225	562	3639		
346.8959	34:21	34:21	0	1.001	2780185	524531	162	405	3238	1.58(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:57	41:56	1	1.279	6300689	1124781	141	352	7977		
240.1510	41:57	41:56	1	1.279	343331	53944	13	32	4150	18.35(0.00-0.00)	
Methoxychlor											
227.1072	41:58	41:58	0	1.000	153058118	29087708	407	1017	71469		
228.1106	41:58	41:58	0	1.000	25327393	4570608	193	482	23682	6.04(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:25	40:25	1	1.233	374172	60749	13	32	4673		
329.9379	40:24	40:25	0	1.232	223625	34924	6	15	5821	1.67(1.19-1.98)	
Endrin ketone											
316.9039	40:27	40:28	0	1.001	8292781	1369384	139	347	9852		
318.9010	40:27	40:28	0	1.001	5318100	887932	100	250	8879	1.56(1.16-1.95)	
13C10-Mirex											
276.8270	45:26	45:25	1	1.228	3158811	504448	9	22	56050		
278.8240	45:25	45:25	0	1.228	2467792	399734	15	37	26649	1.28(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.000	64941718	10870591	115	287	94527		
273.8072	45:27	45:27	0	1.000	51128877	8559488	86	215	99529	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		16806900	5806295	17	42	341547		
236.0376	19:04	19:04	0		10447566	3535282	23	57	153708	1.61(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:30	18:31	-1		1720495	576834	41	102	14069		
271.8636	18:29	18:31	-2		2653803	881054	47	117	18746	0.65(0.00-0.00)	
Pentachlorophenol											
263.8464	18:30	18:31	-2	1.000	31878087	10812371	128	320	84472		
265.8435	18:30	18:31	-2	1.000	52299305	18076636	147	367	122970	0.61(0.00-0.00)	
PCB-101L											
337.9207	28:07	28:07	0		5480209	1240832	10	25	124083		
339.9178	28:07	28:07	0		3419160	781139	4	10	195285	1.60(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118L											
337.9207	32:48	32:48	0		5680707	1137083	21	52	54147		
339.9178	32:48	32:48	0		3580123	721546	15	37	48103	1.59(1.16-1.94)	
PCB-138L											
371.8817	37:00	36:59	0		3136420	584471	15	37	38965		
373.8788	37:00	36:59	0		2483754	463723	12	30	38644	1.26(1.16-1.94)	
Endosulfan I											
262.8570	28:33	28:32	0	1.001	7093232	1579565	104	260	15188		
264.8540	28:33	28:32	0	1.001	4537757	1036313	142	355	7298	1.56(1.16-1.94)	
PCB-60L											
301.9626	27:44	27:44	0		7556933	1650834	38	95	43443		
303.9597	27:44	27:44	0		9407808	2063374	30	75	68779	0.80(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:51	30:50	0	0.940	8371183	1730708	230	575	7525		
249.0454	30:51	30:50	0	0.940	5281188	1119602	220	550	5089	1.59(1.17-1.95)	
2,4'-DDD											
235.0081	30:52	30:52	0	1.001	212583138	48159749	917	2292	52519		
237.0052	30:52	30:52	0	1.001	130091687	29075774	350	875	83074	1.63(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.031	541759	99685	2	5	49843		
278.8240	33:48	33:48	0	1.031	425692	85321	2	5	42661	1.27(0.93-1.55)	
cis-Nonachlor											
271.8102	33:49	33:50	-1	1.001	11062204	2077833	97	242	21421		
273.8072	33:49	33:50	-1	1.001	8880807	1688076	82	205	20586	1.25(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:17	36:17	0	1.106	892077	165930	2	5	82965		
278.8240	36:17	36:17	0	1.106	663882	111241	2	5	55621	1.34(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:19	36:20	-1	1.001	19027594	3413675	97	242	35193		
273.8072	36:19	36:20	-1	1.001	15139000	2723163	82	205	33209	1.26(0.93-1.55)	
PCB-167L											
371.8817	39:29	39:29	1		3230431	570907	6	15	95151		
373.8788	39:28	39:29	0		2544196	448028	6	15	74671	1.27(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Reagents:

61L81699PST_00010 Amount Added: 20.00 Units: uL

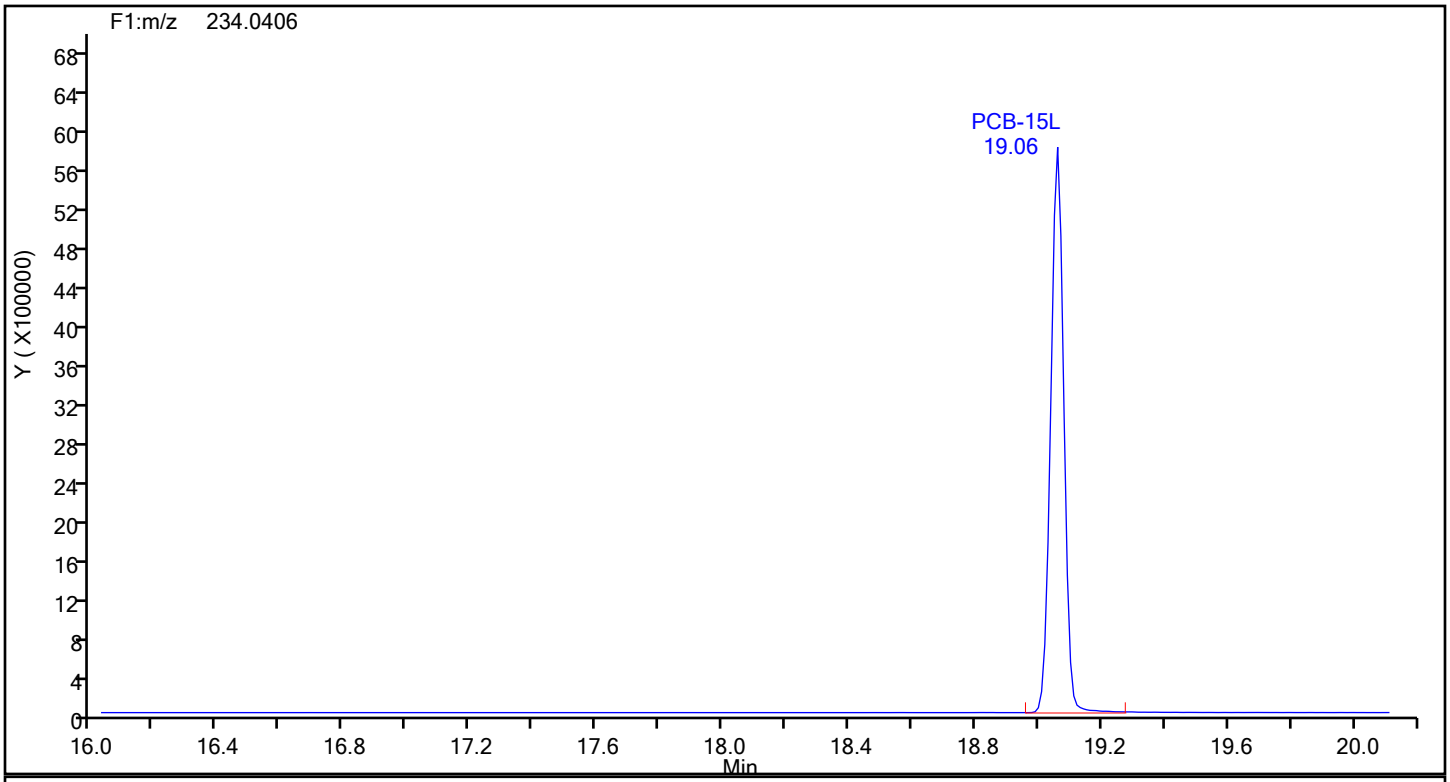
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

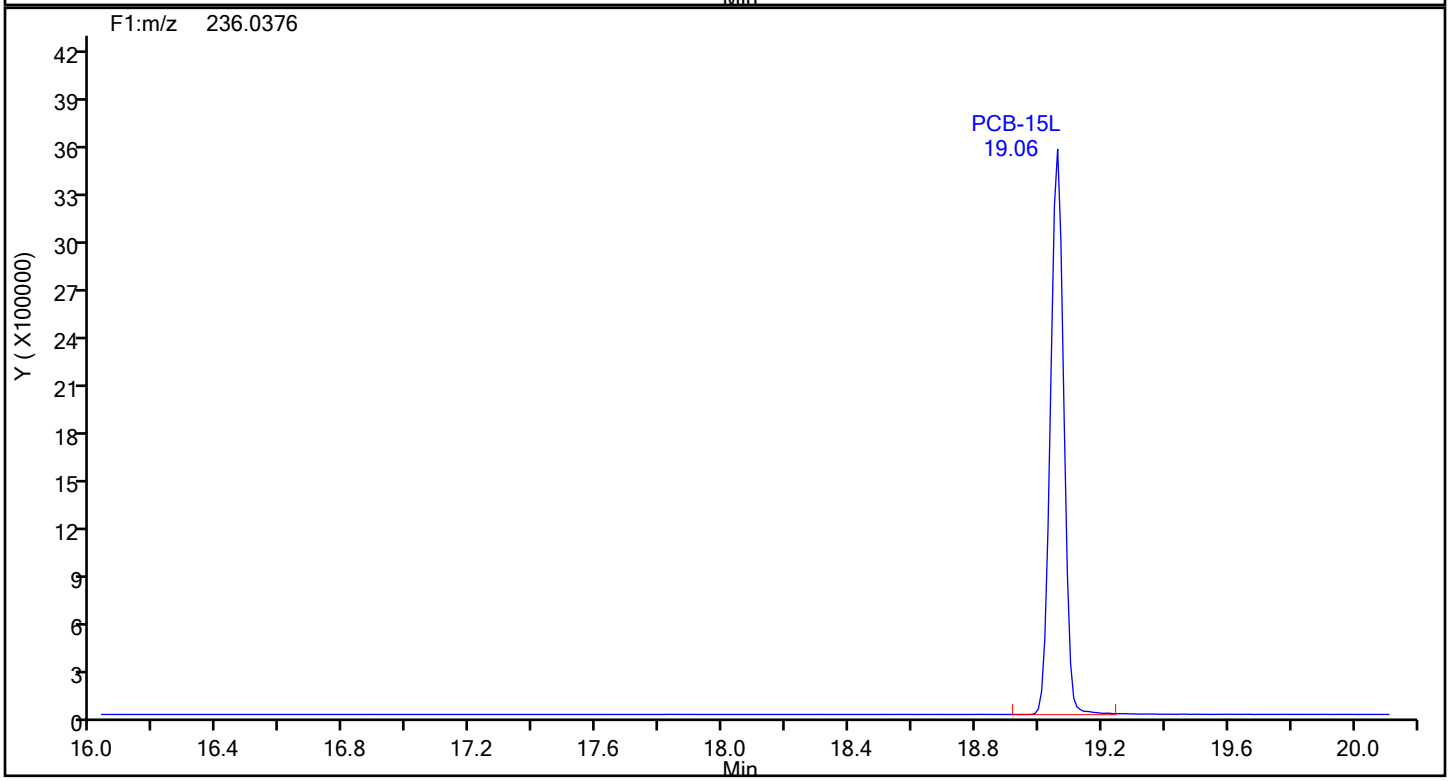
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





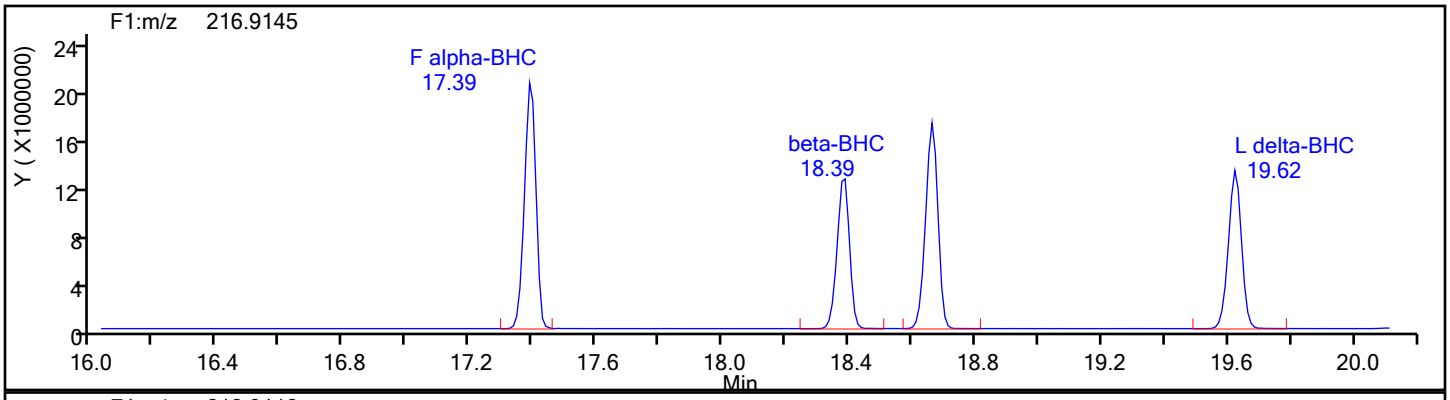
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

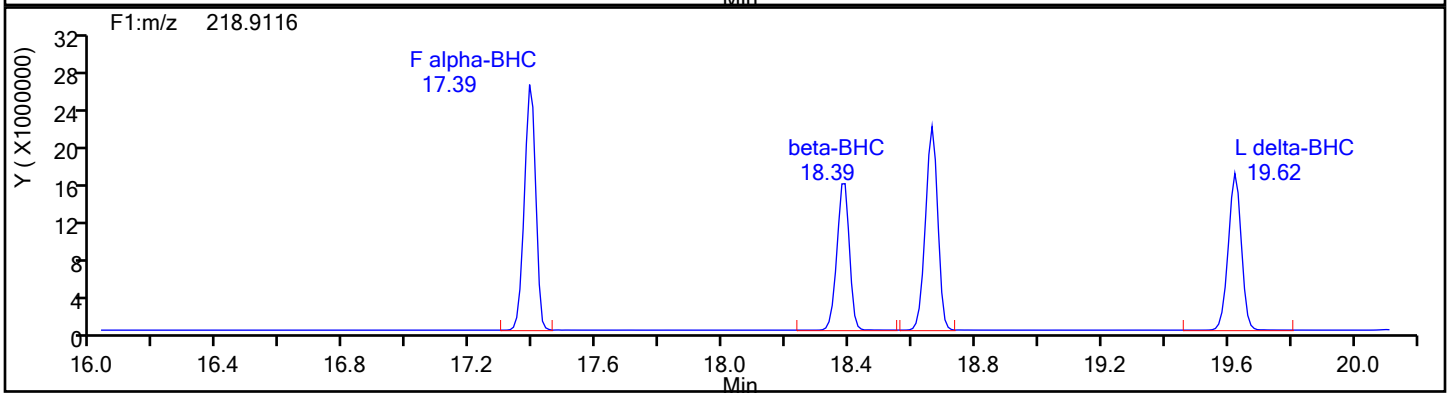
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

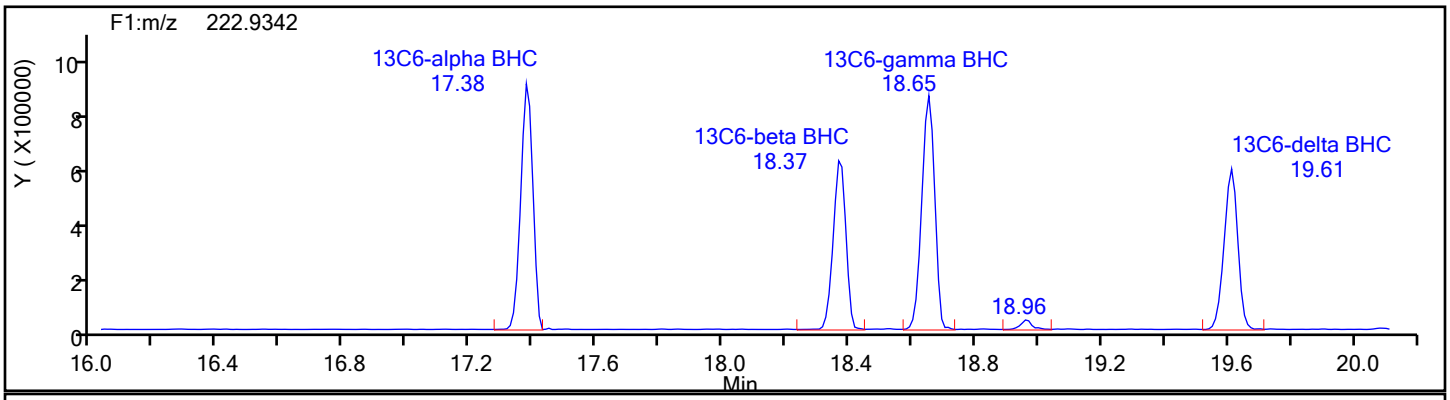
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

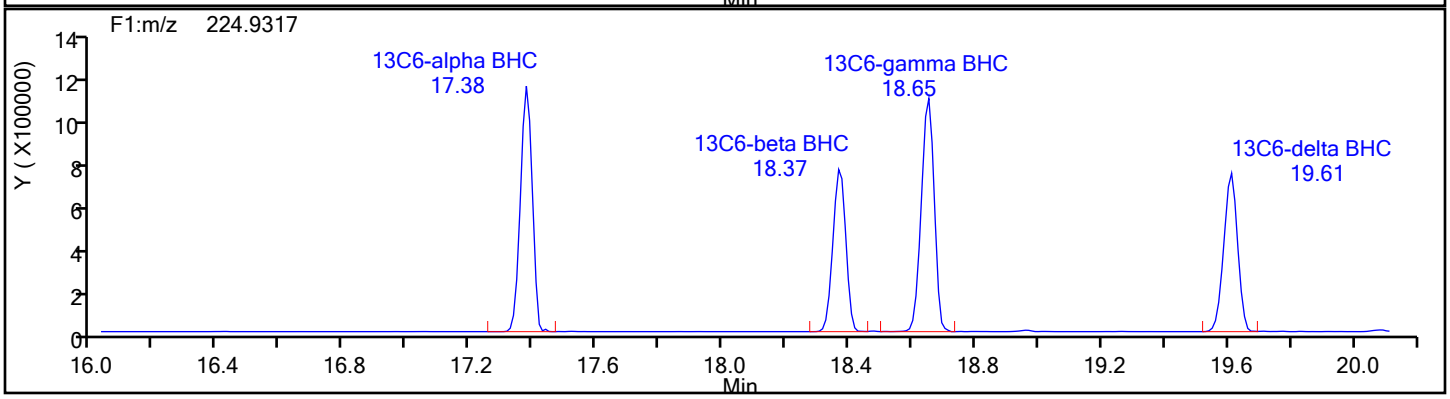
BHC





BHC Standards





Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d		
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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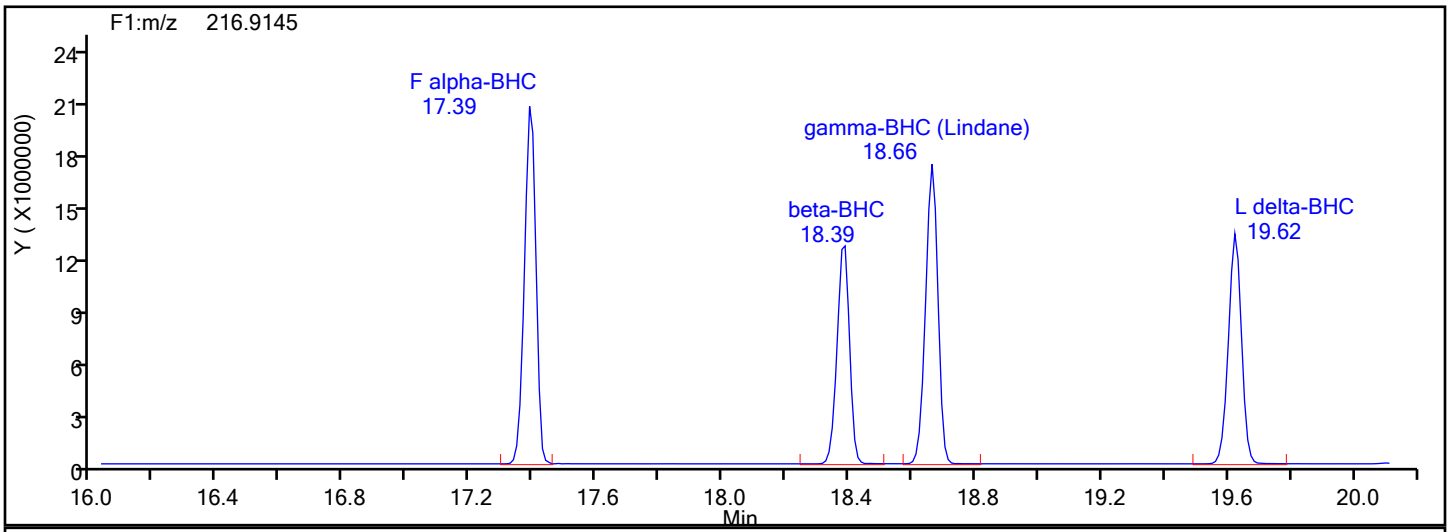
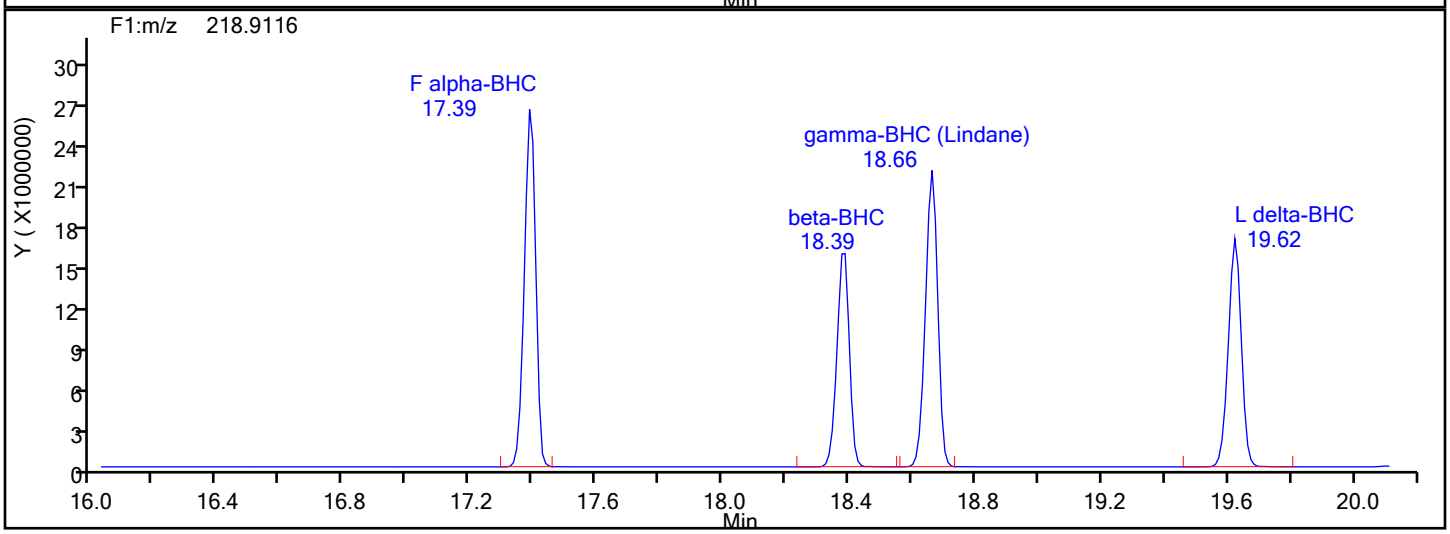
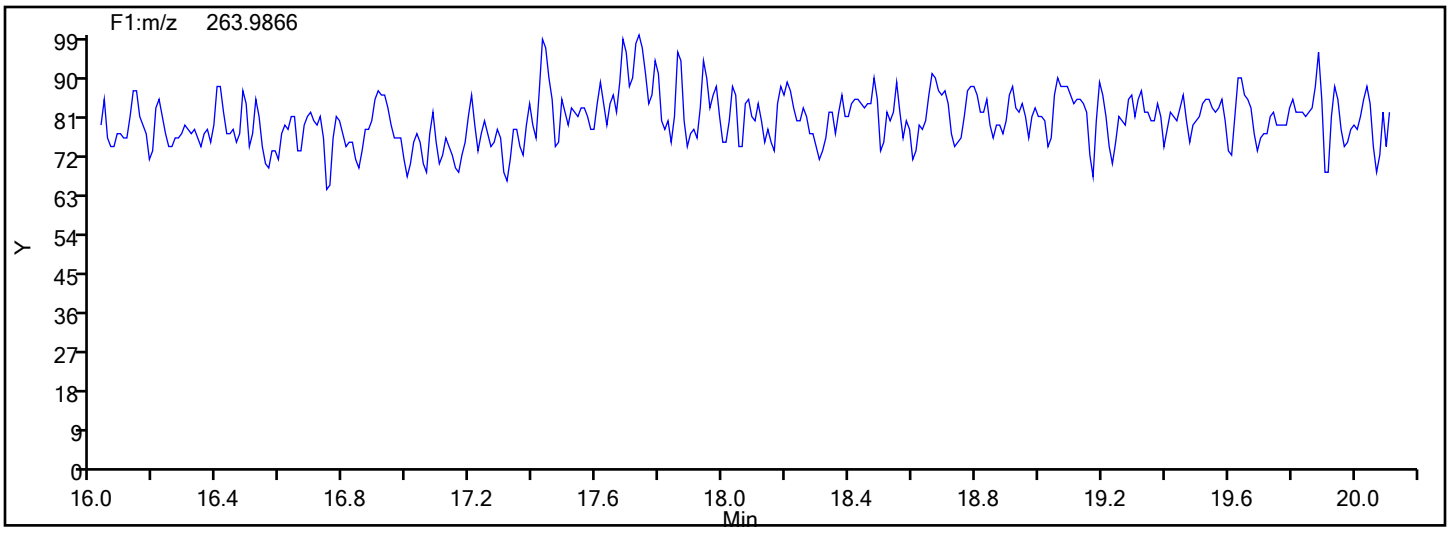
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



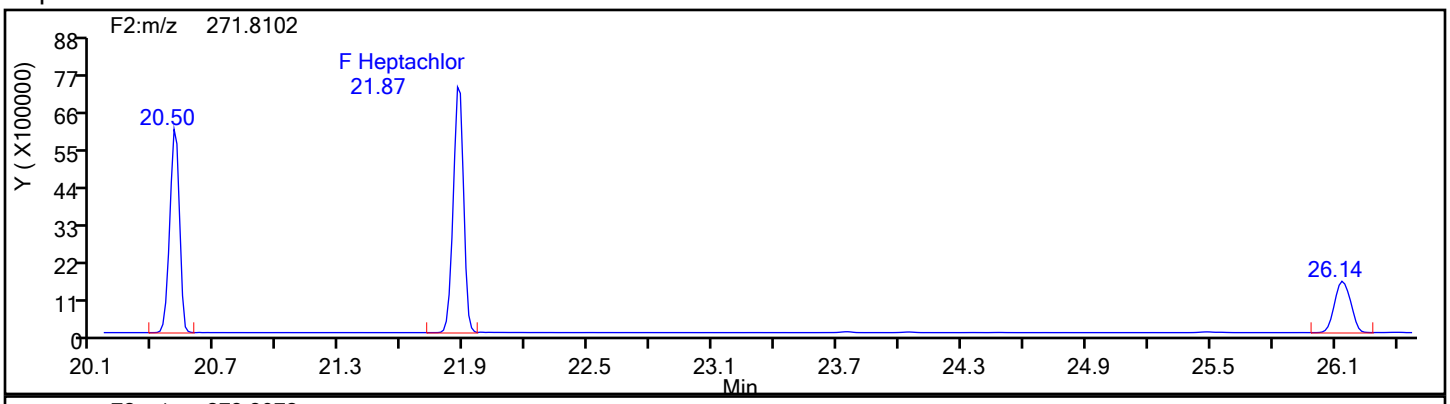
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

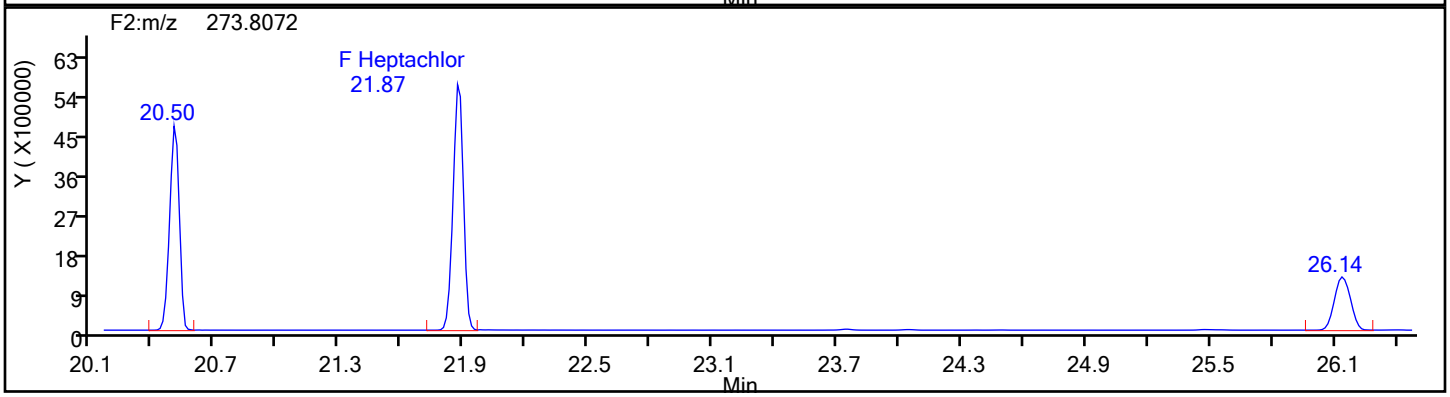
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

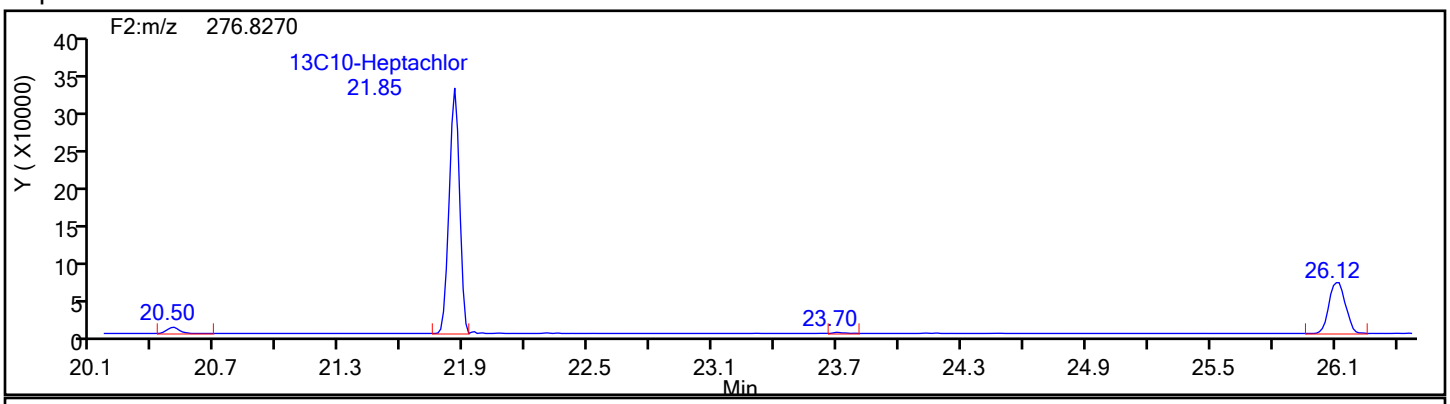
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

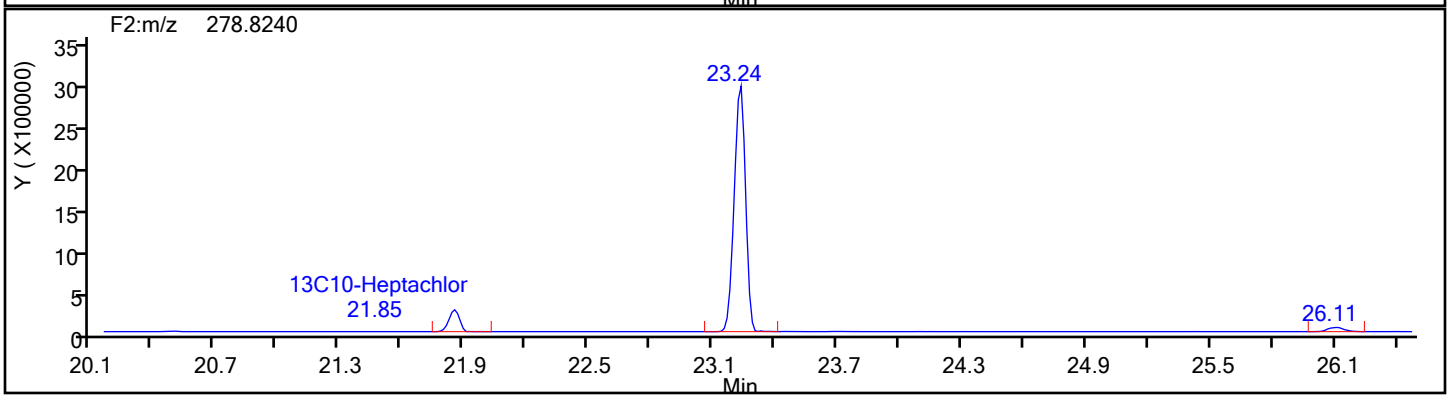
Heptachlor





Heptachlor Standards



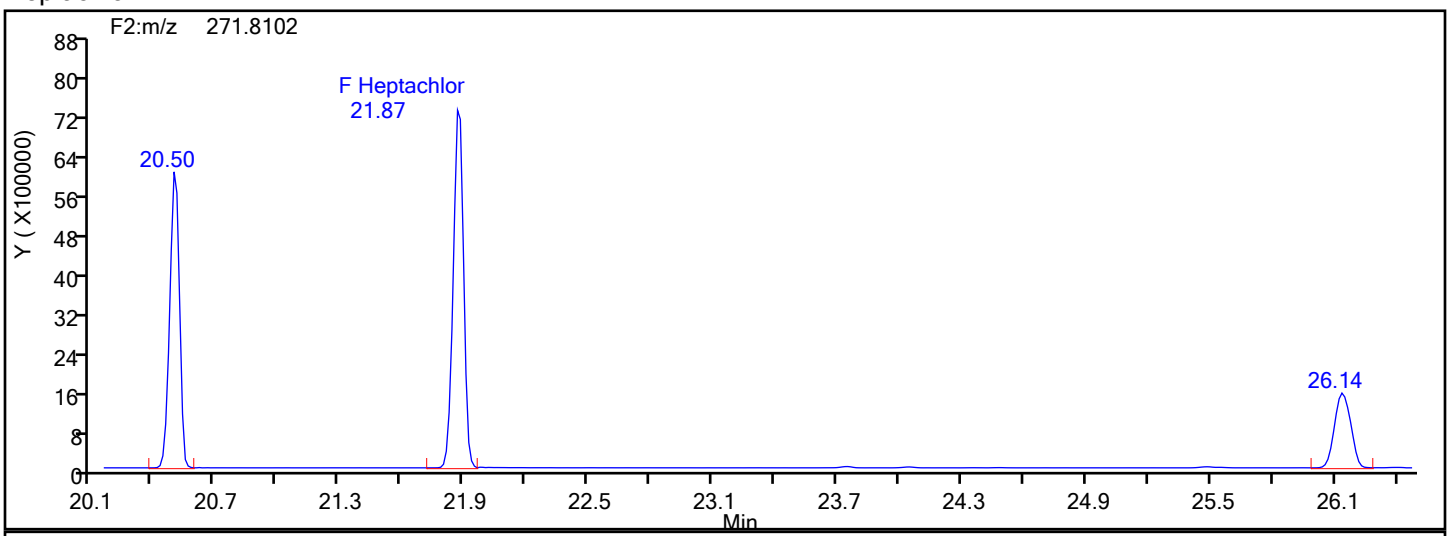


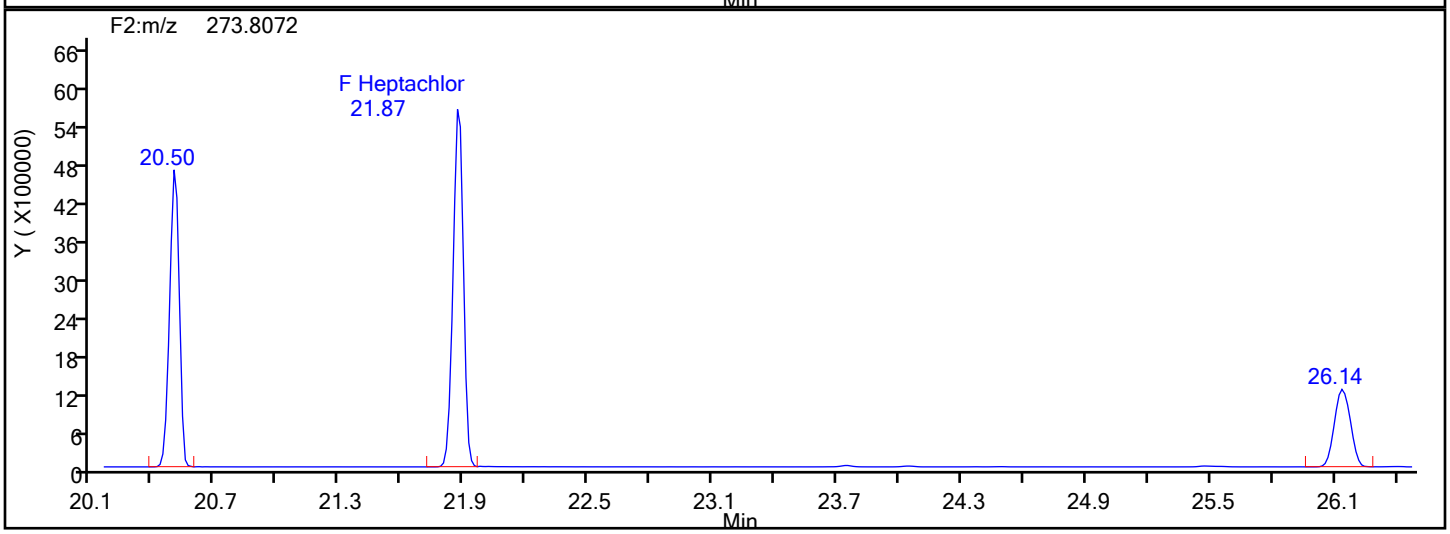
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

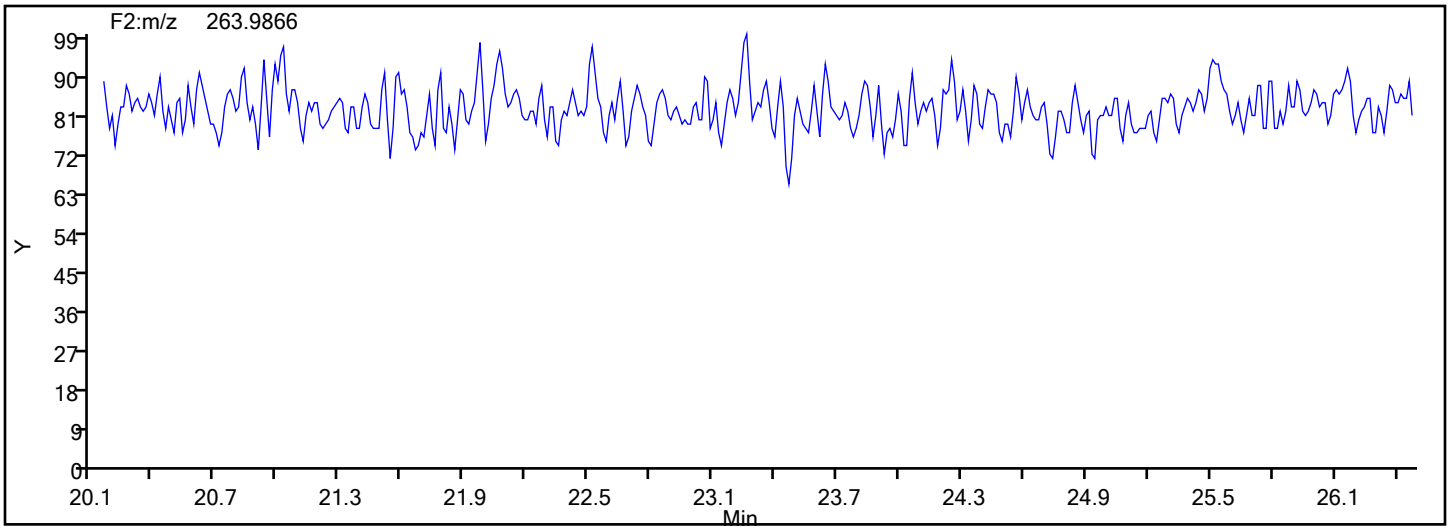
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d		
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



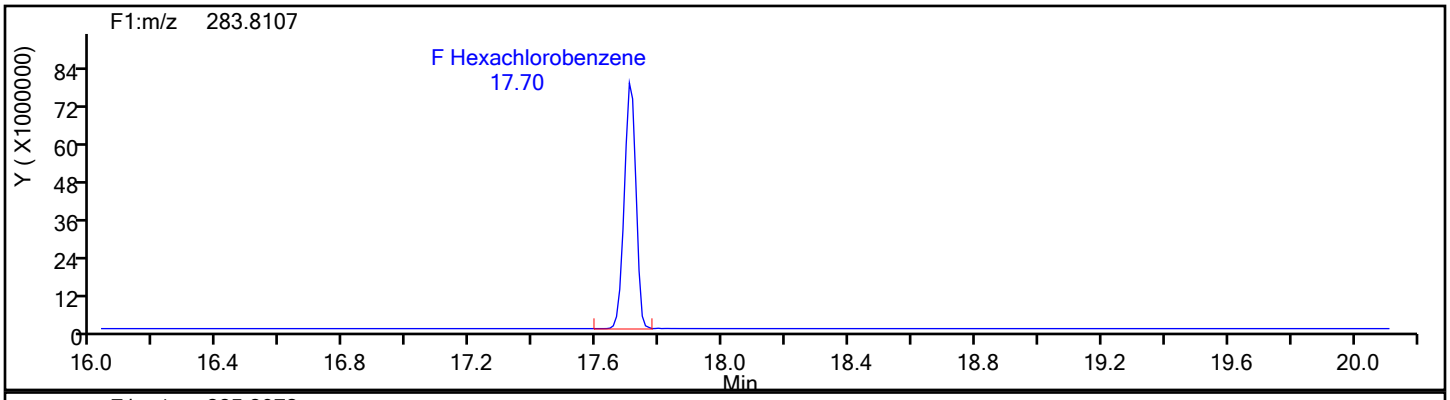
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

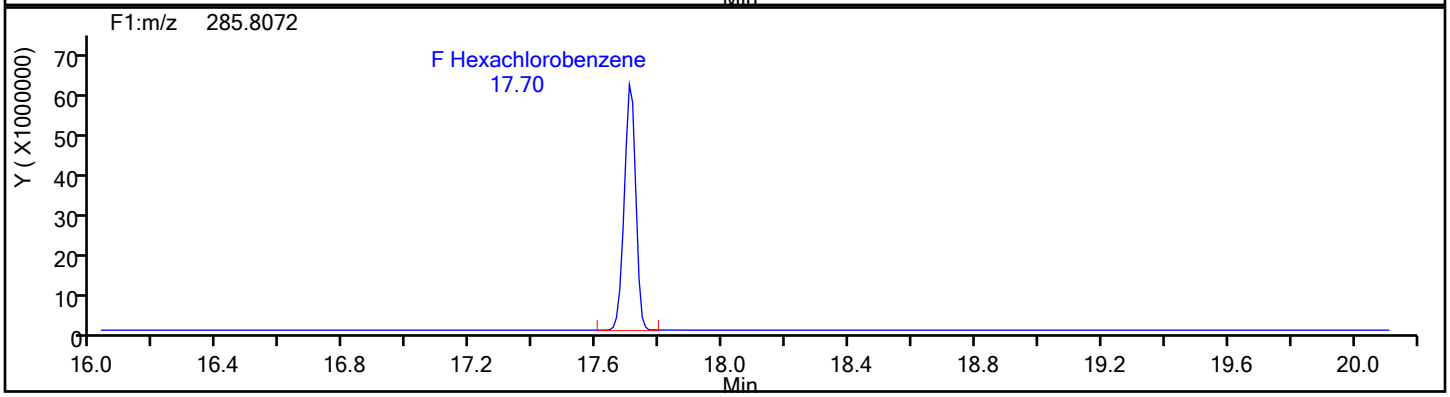
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

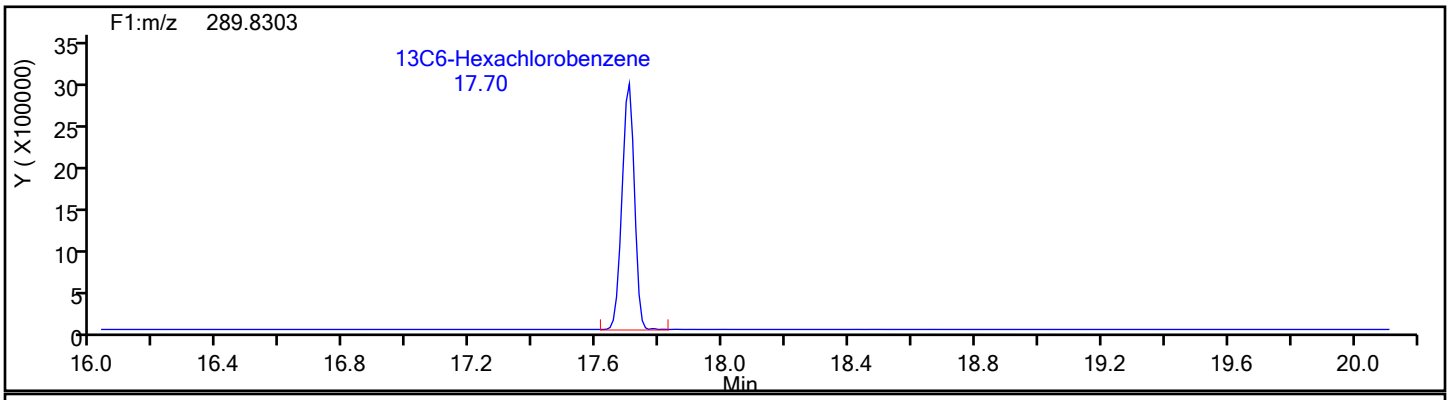
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

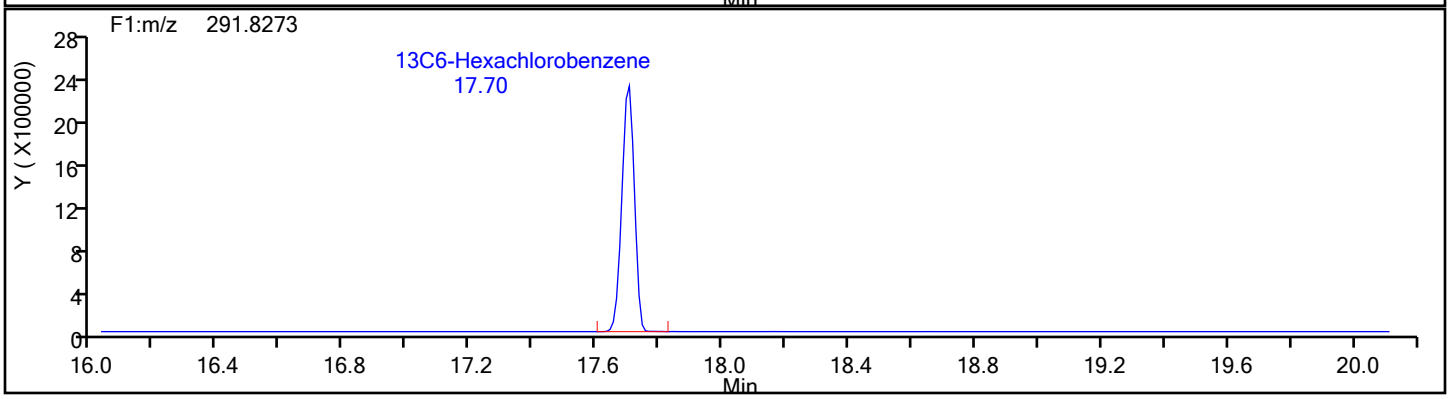
Hexachlorobenzene





Hexachlorobenzene Standards



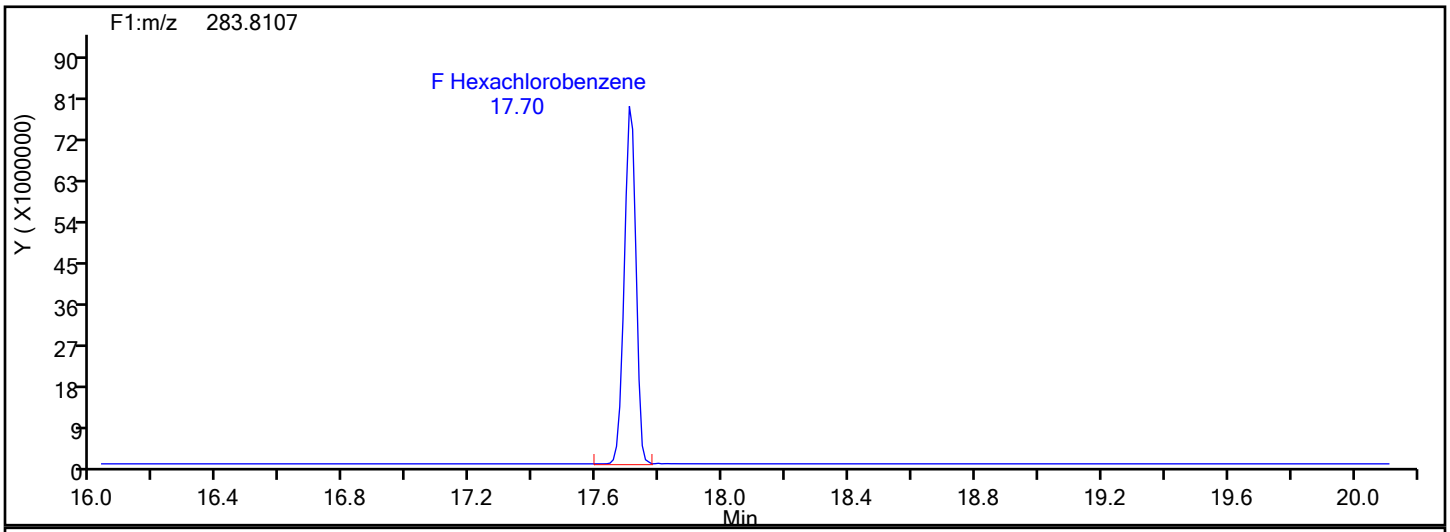


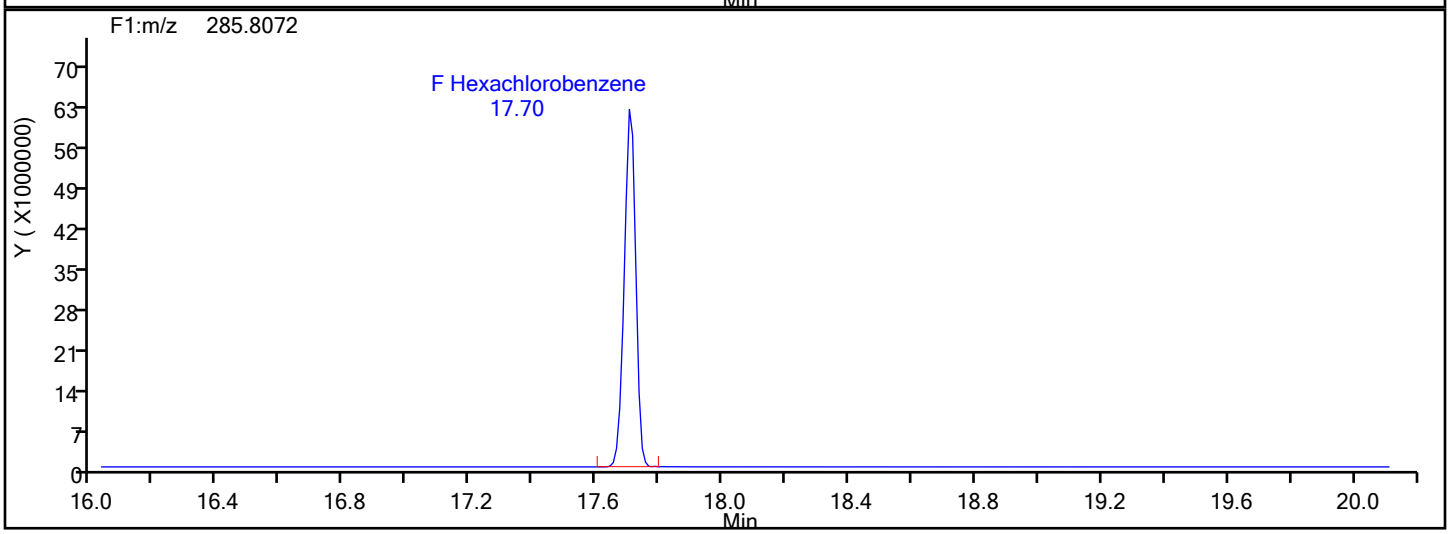
Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

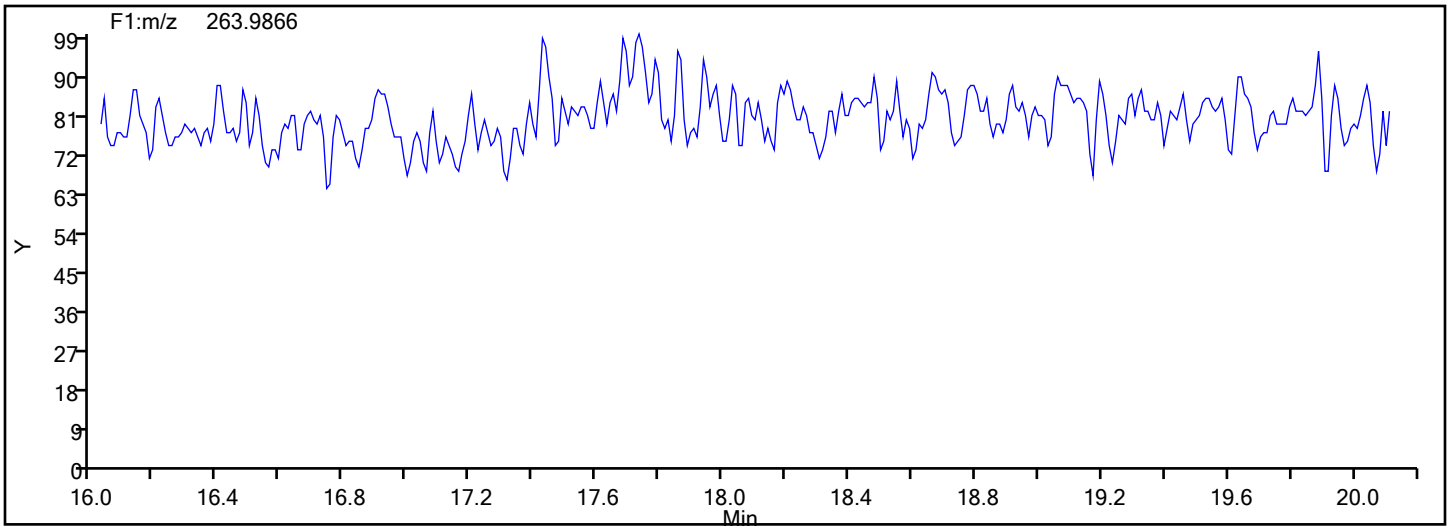
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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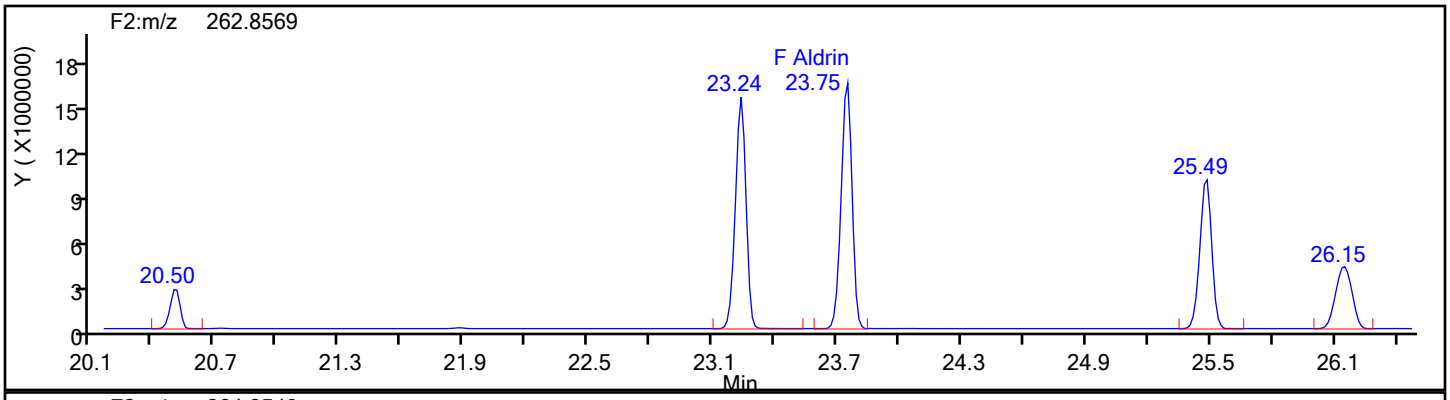
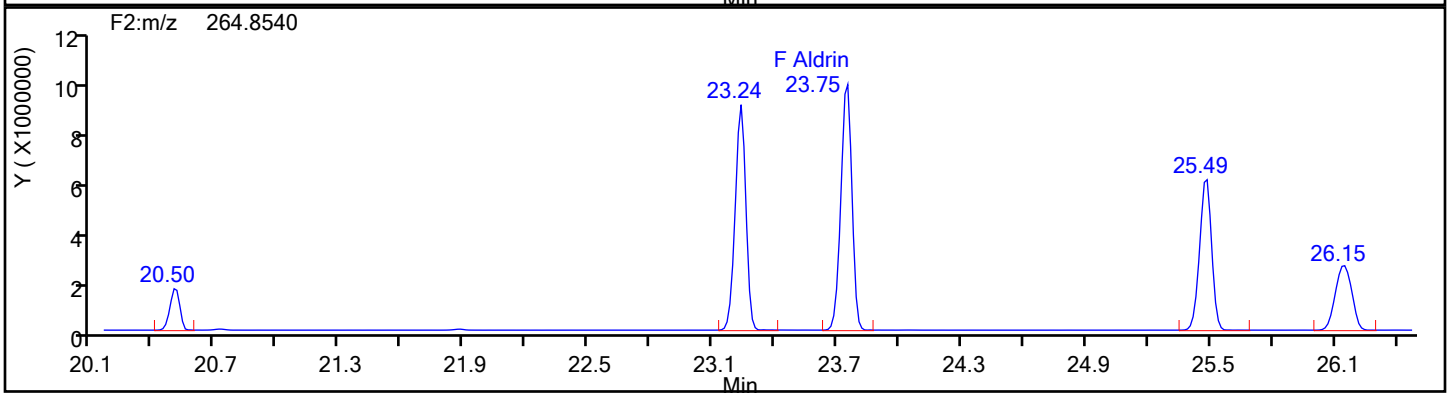
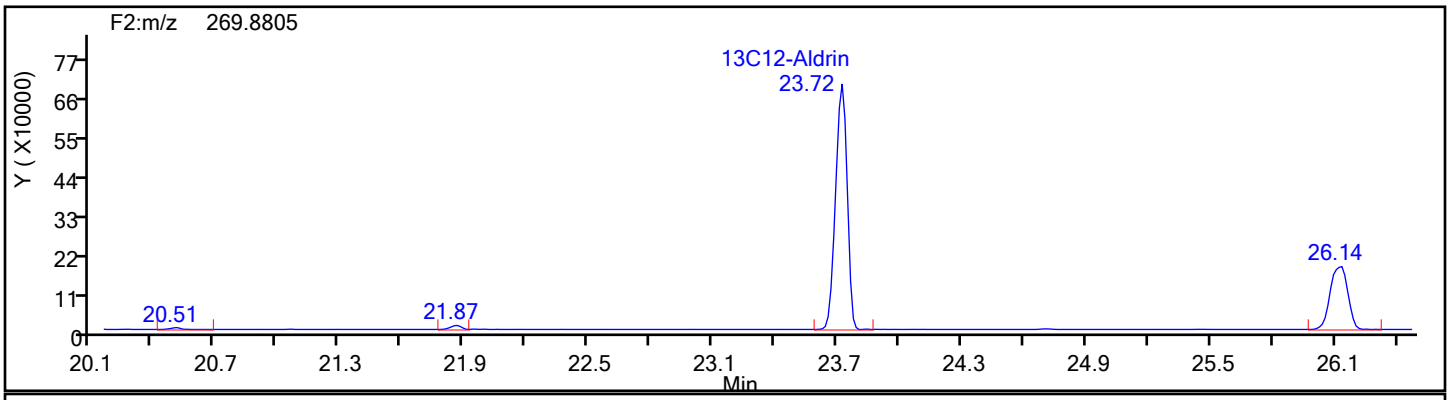
Column Type:	RTX-5	Column Dia:	0.32 mm

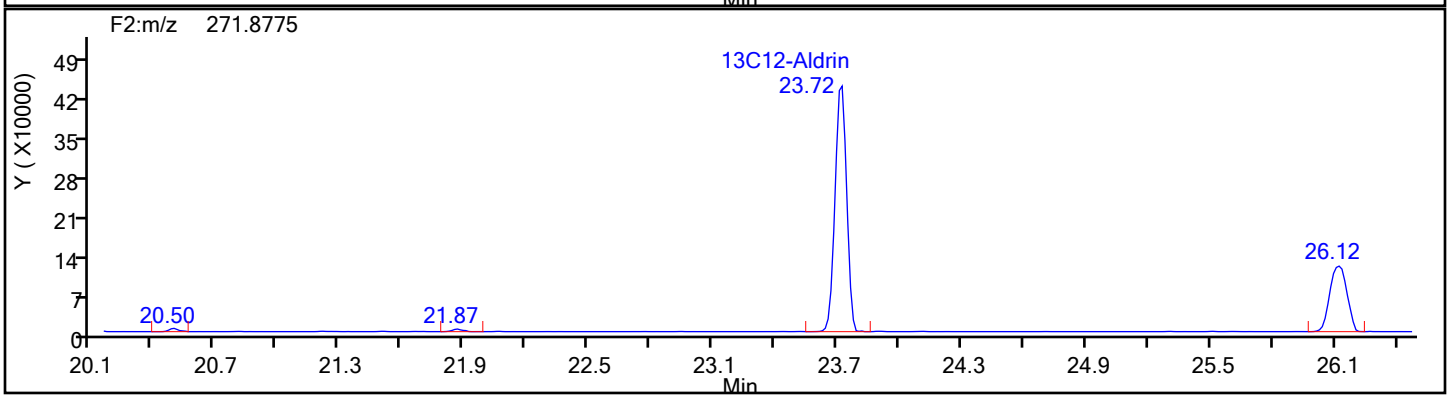
Aldrin





Aldrin Standards





Report Date: 24-Mar-2025 13:06:44 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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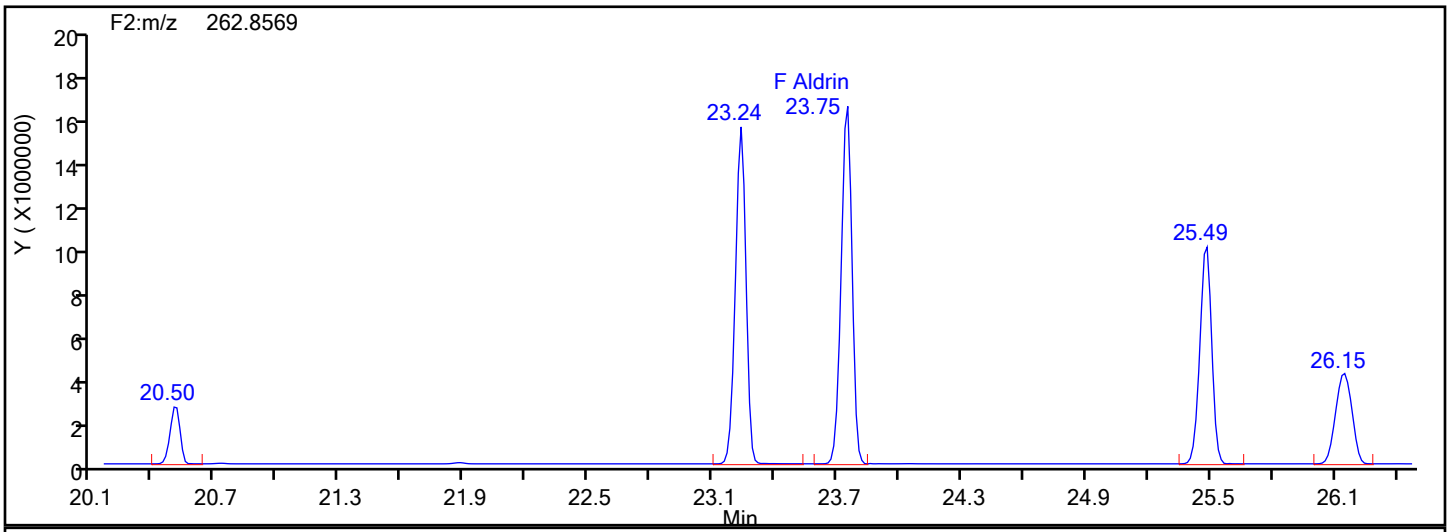
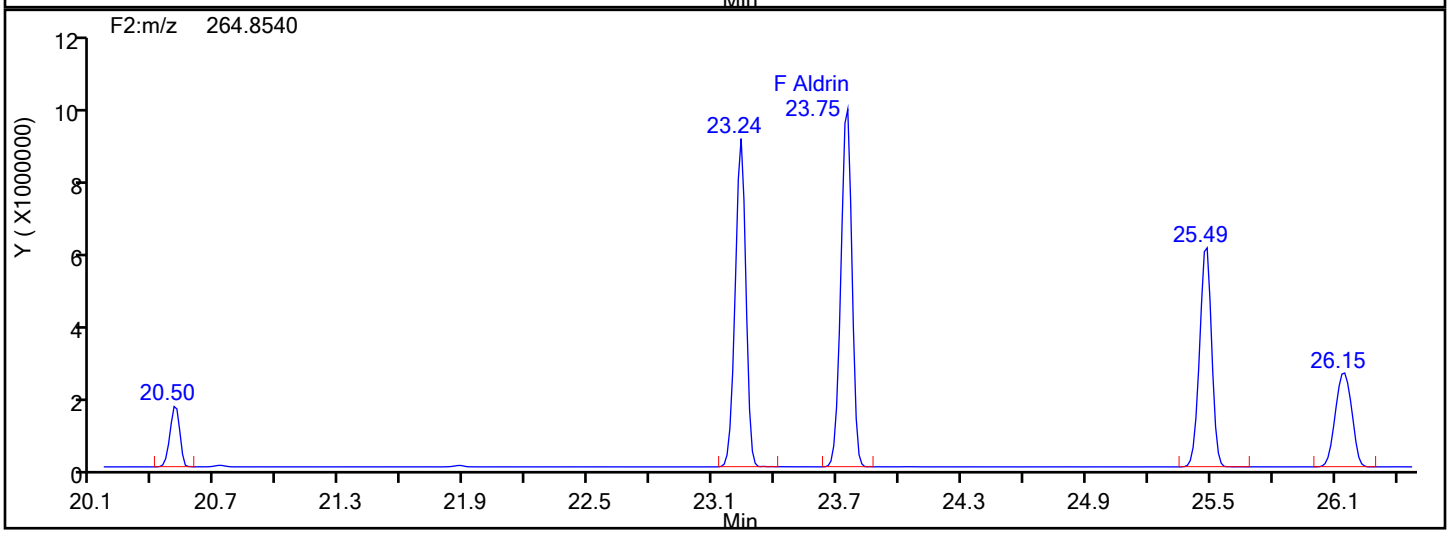
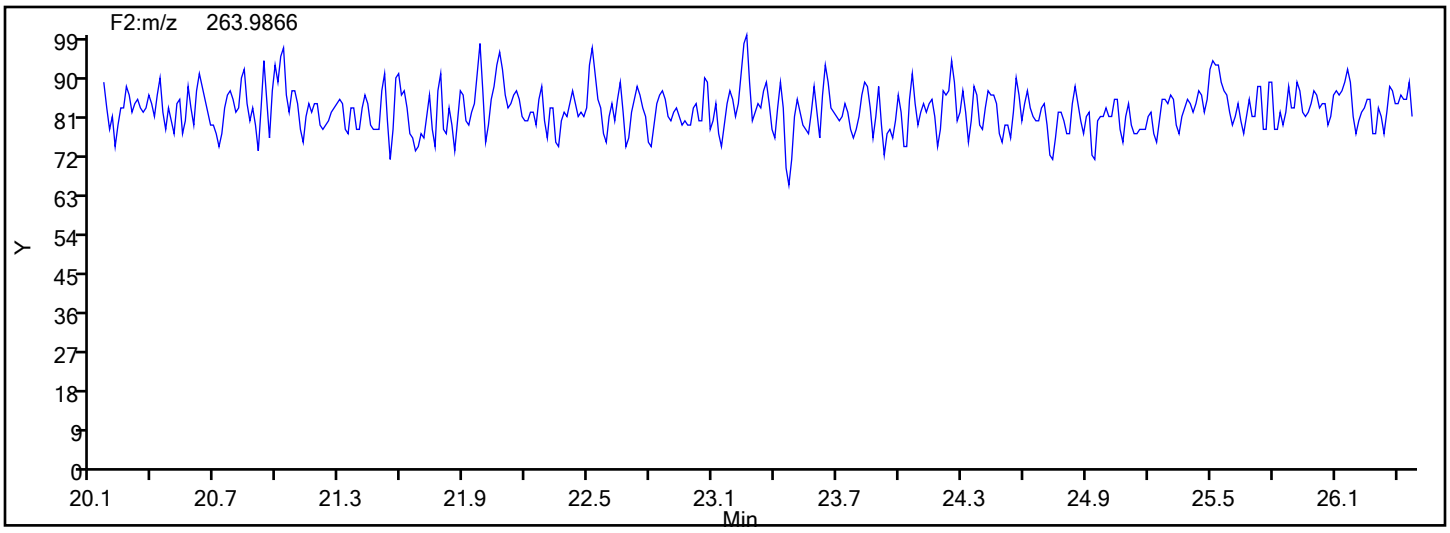
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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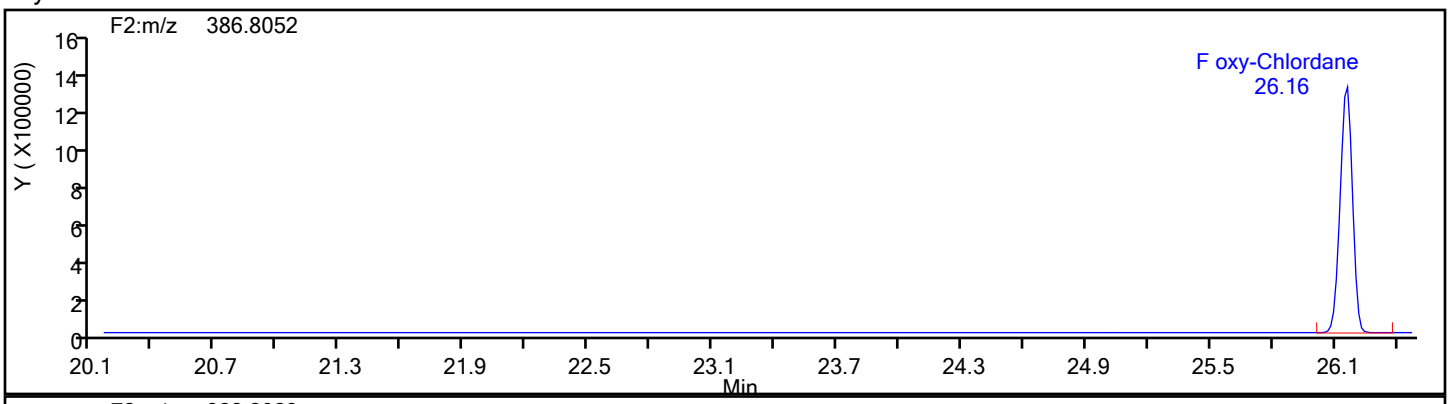
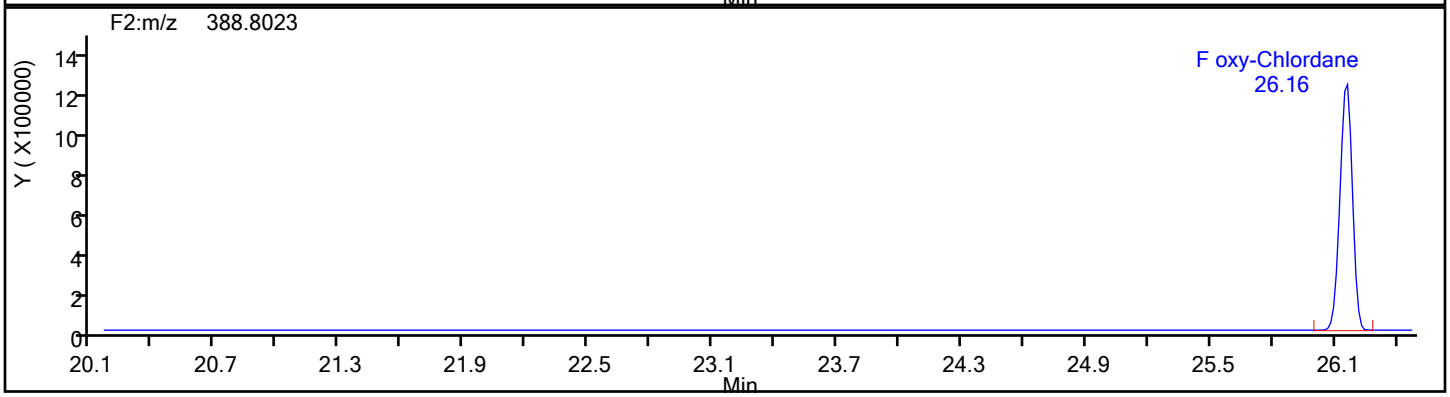
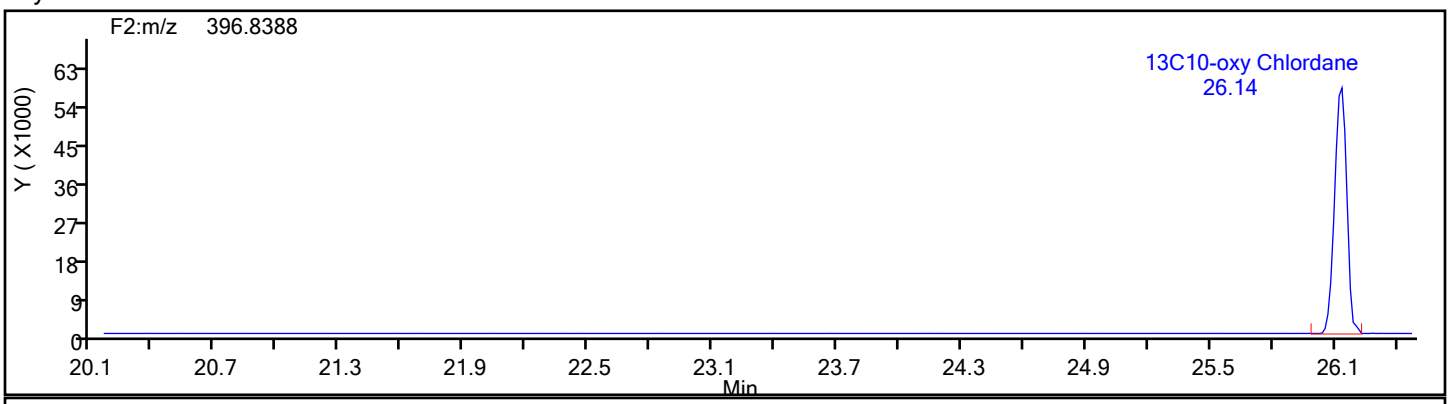
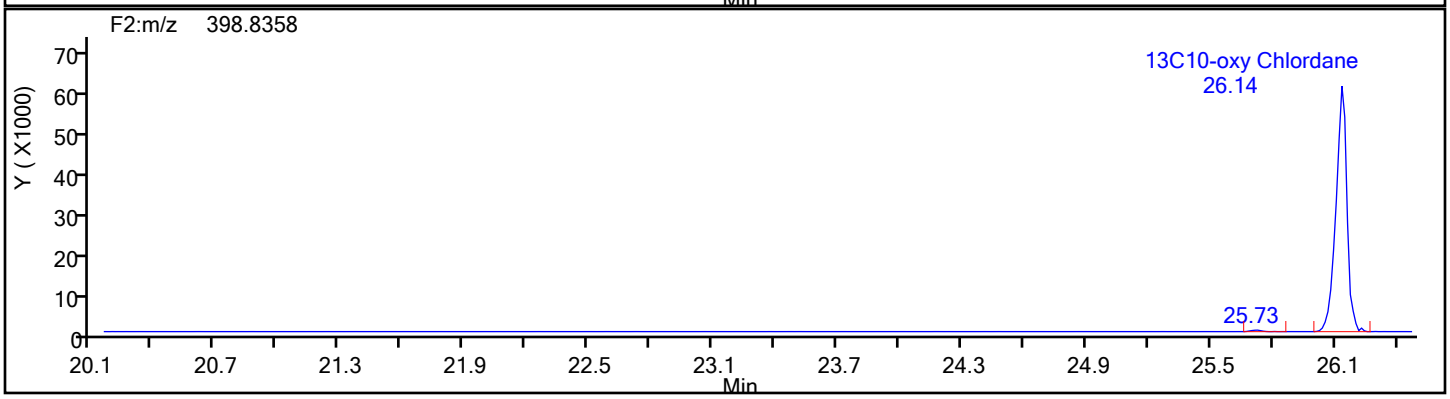
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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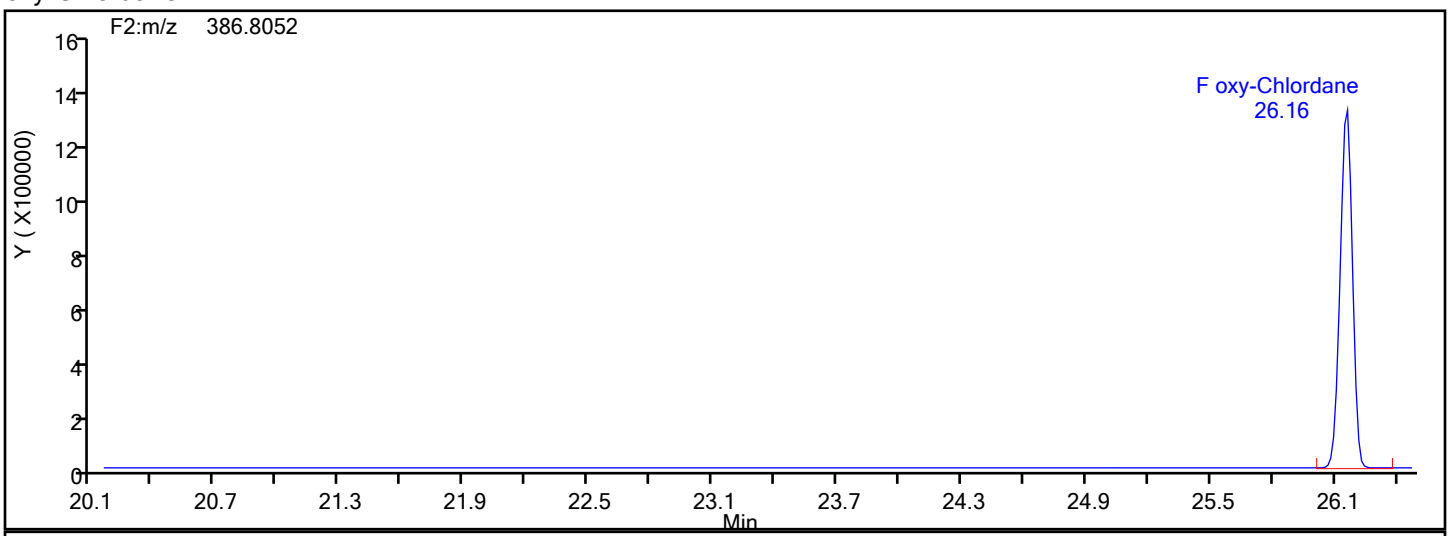
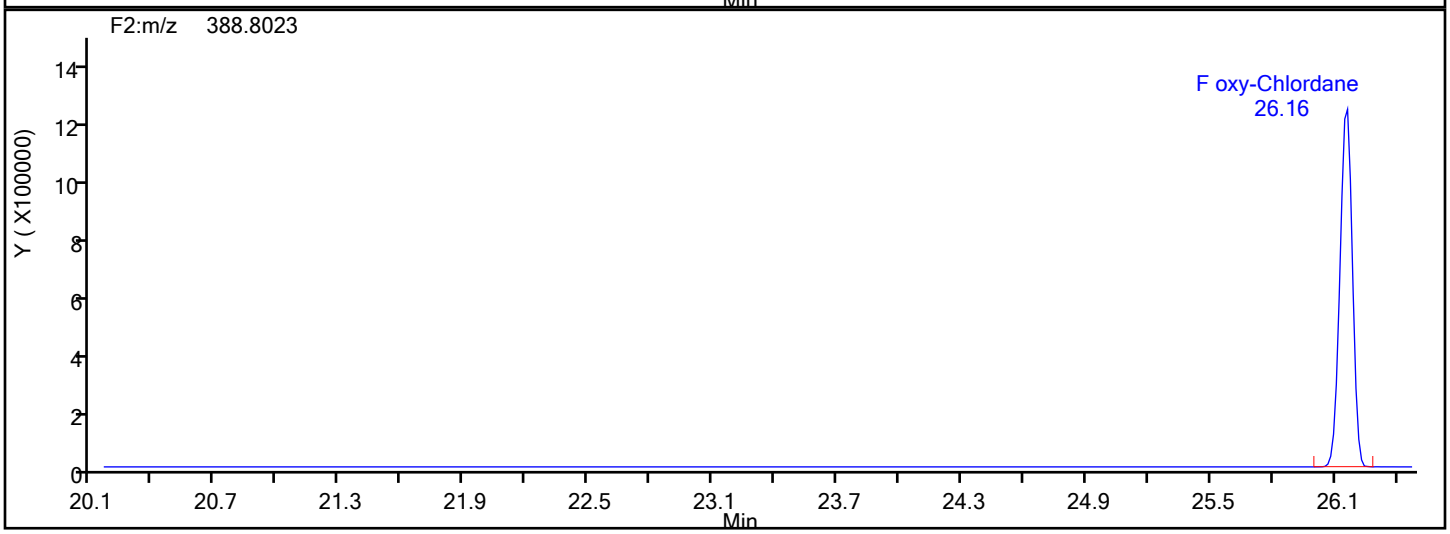
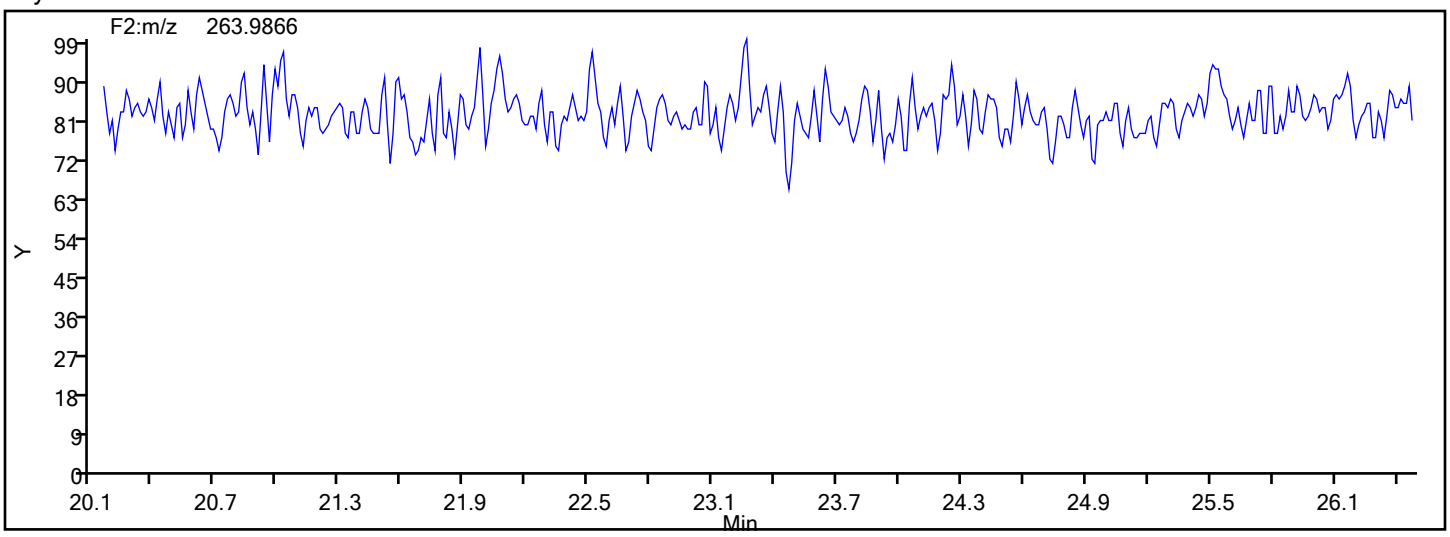
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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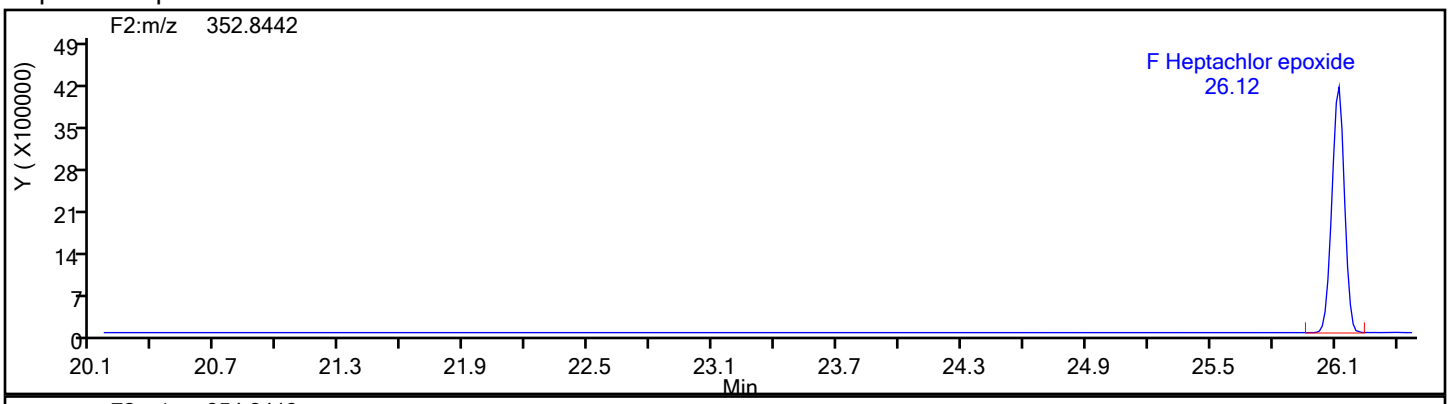
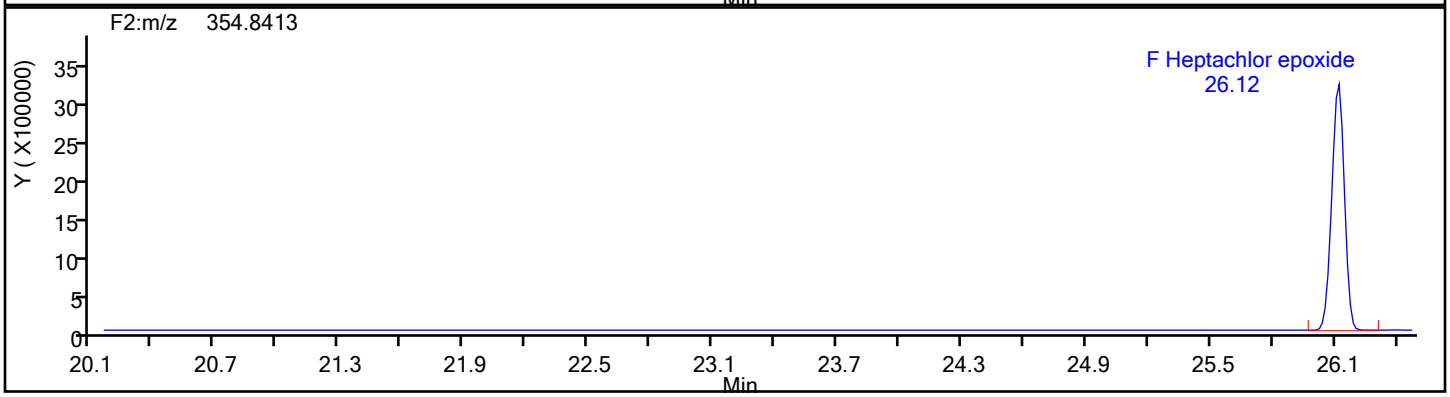
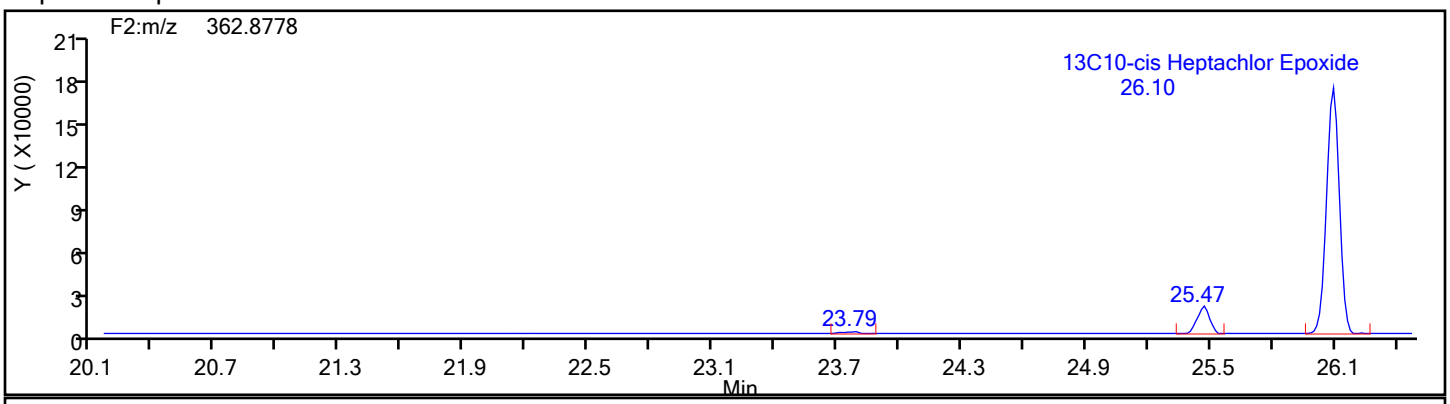
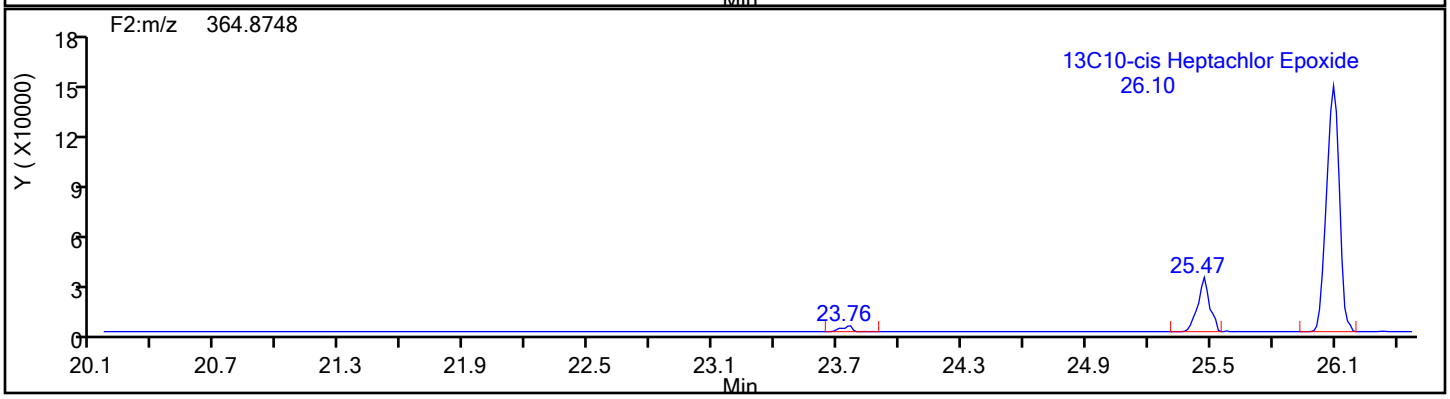
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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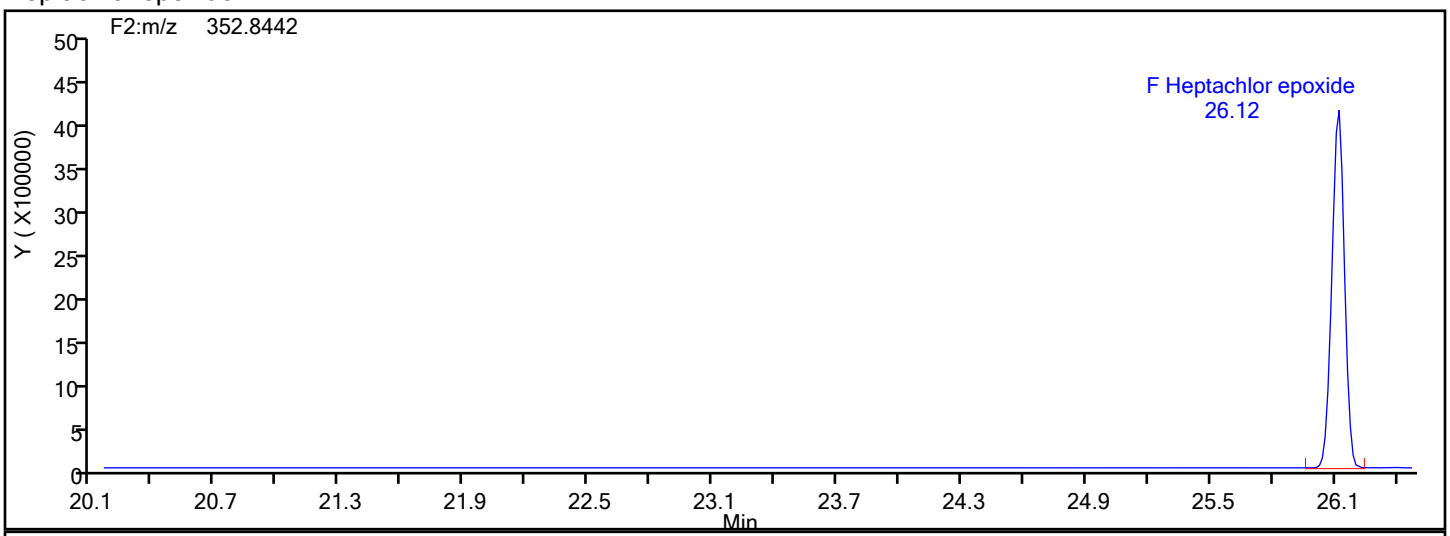
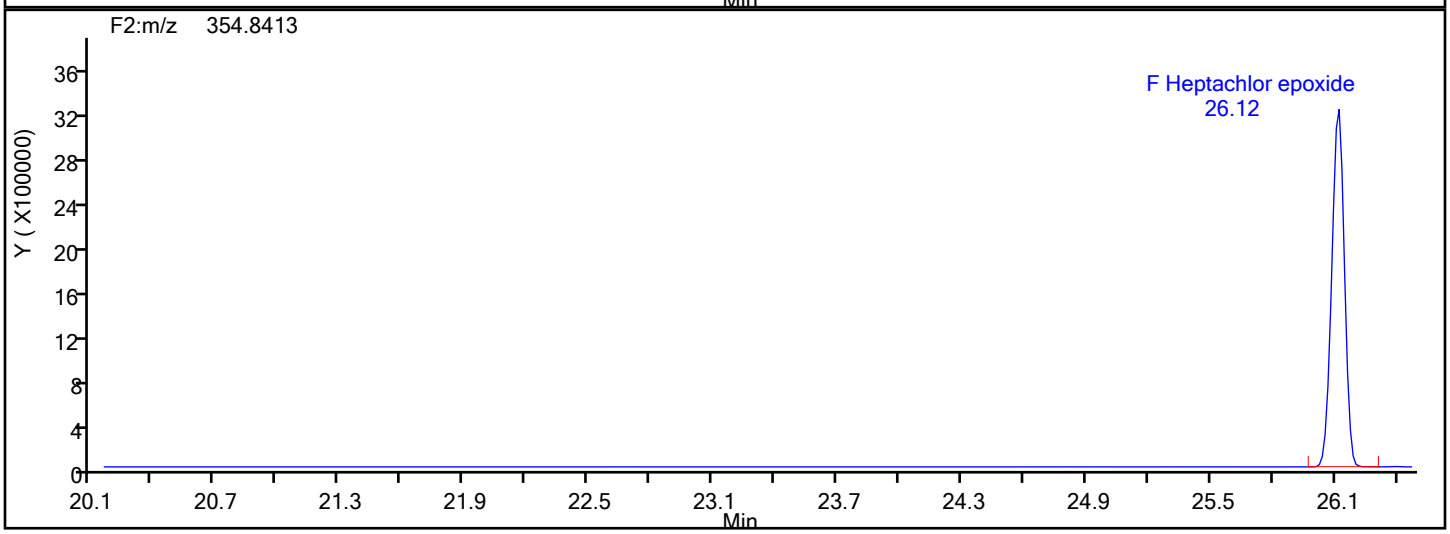
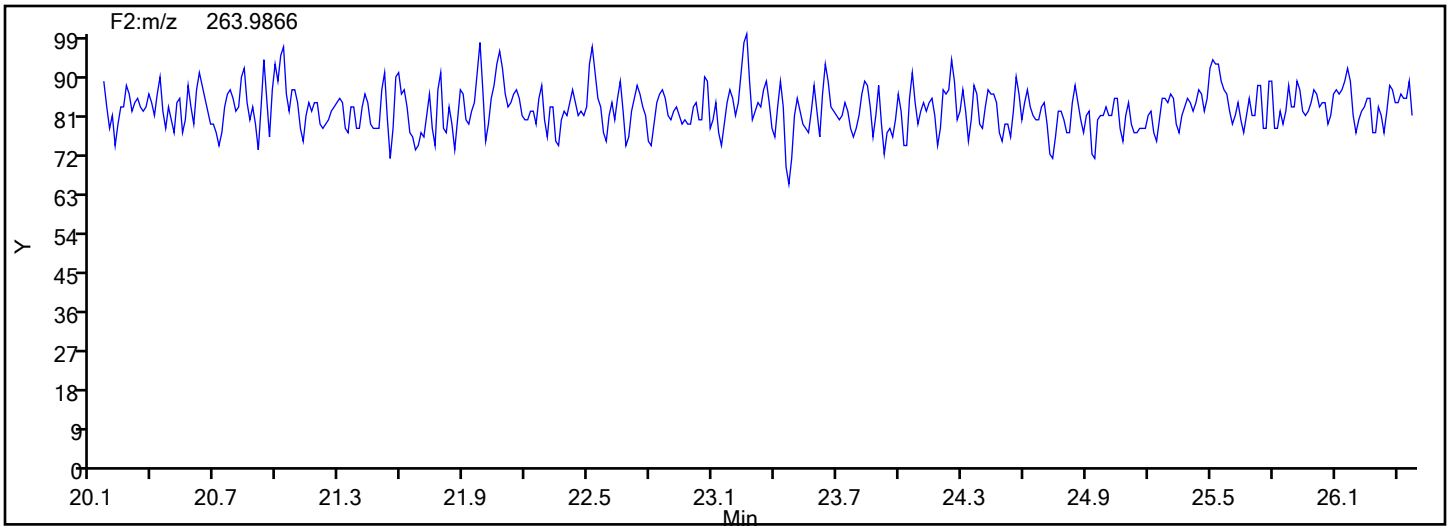
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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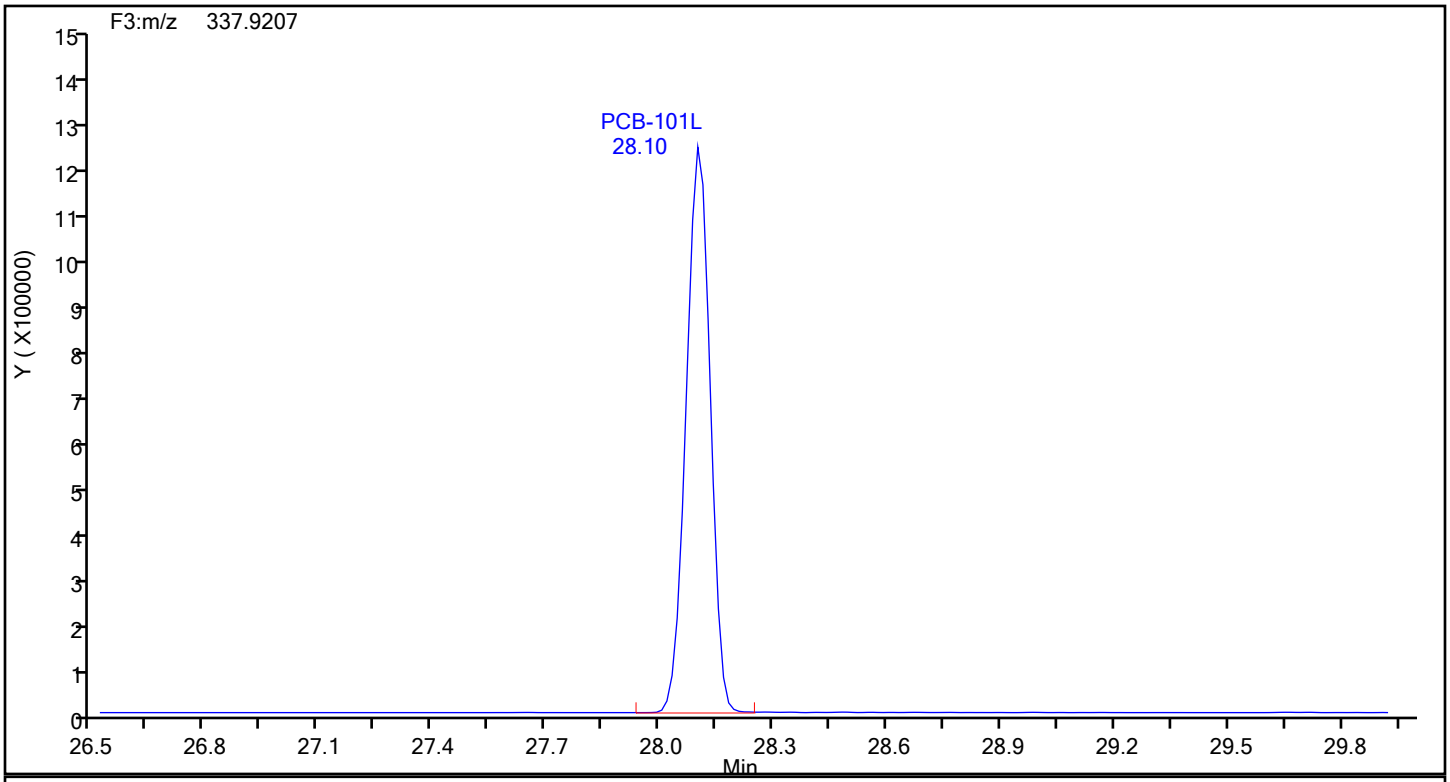
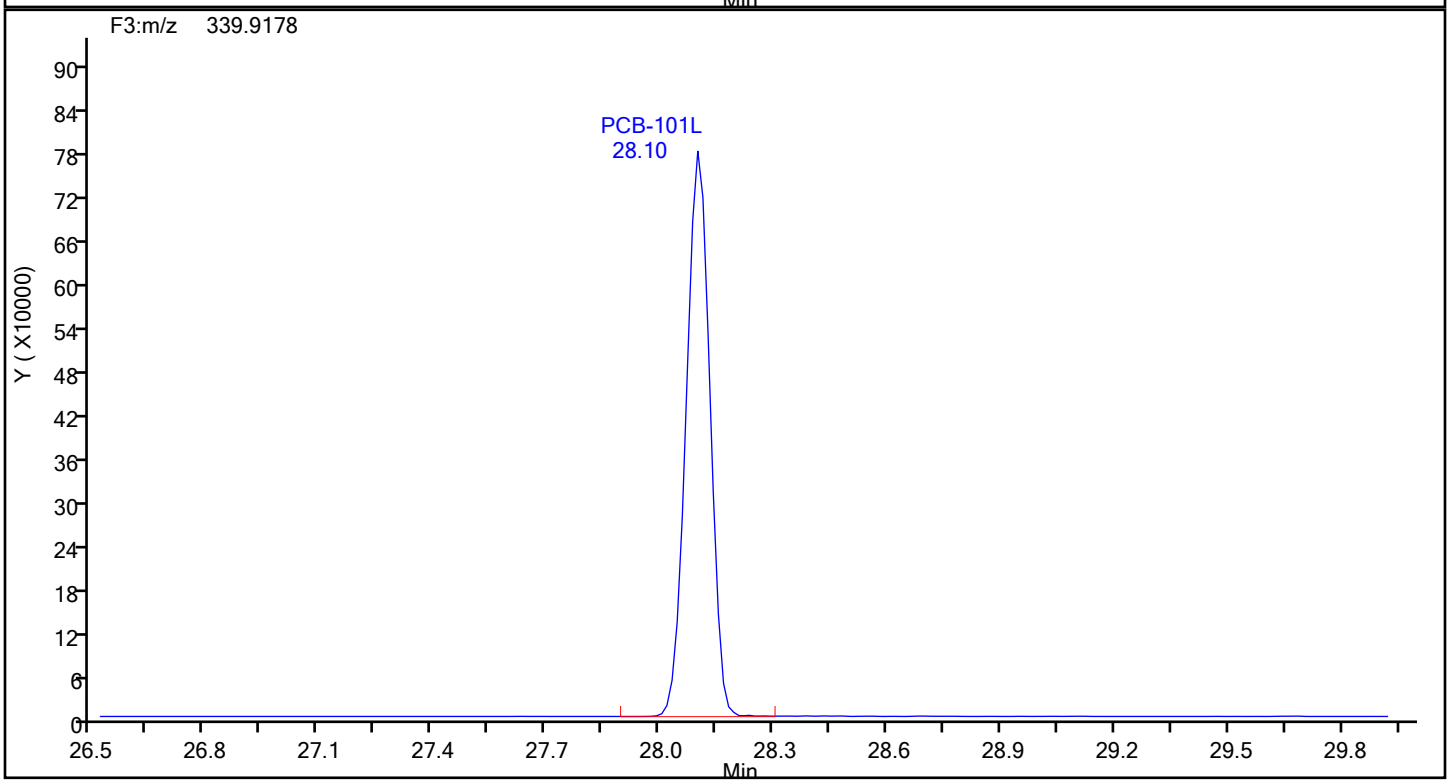
PCB-101L Standards





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Eurofins Knoxville

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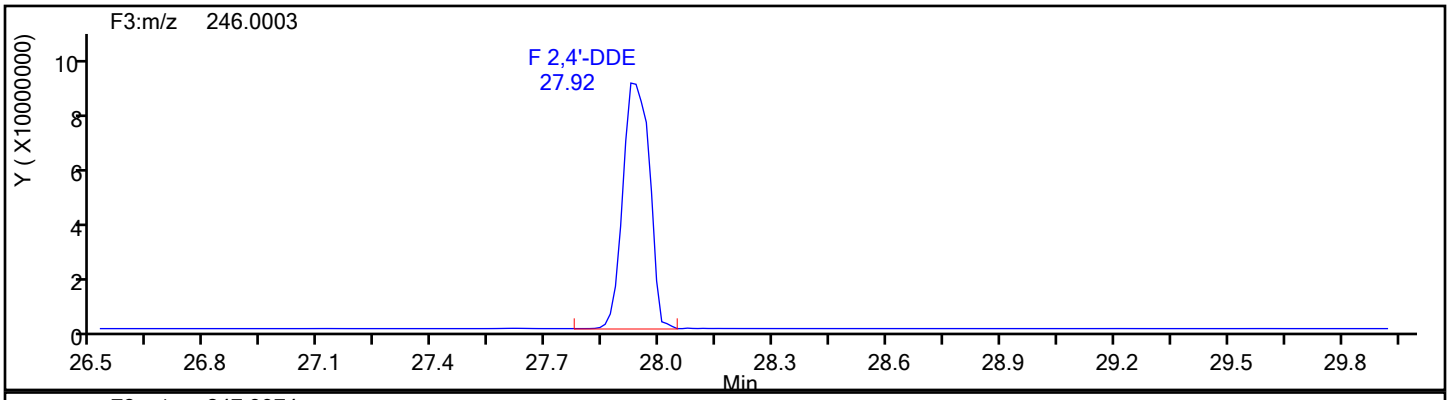
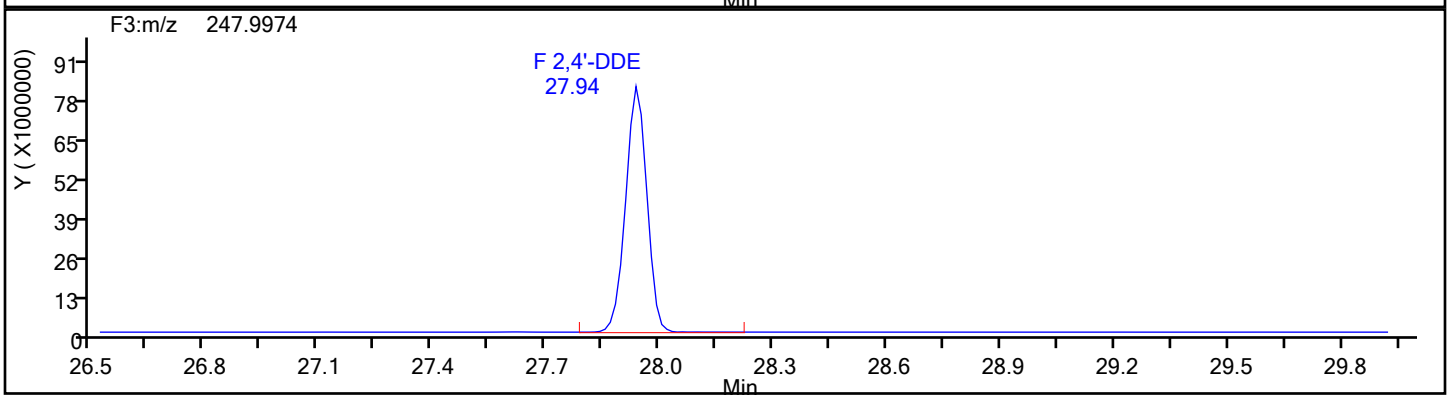
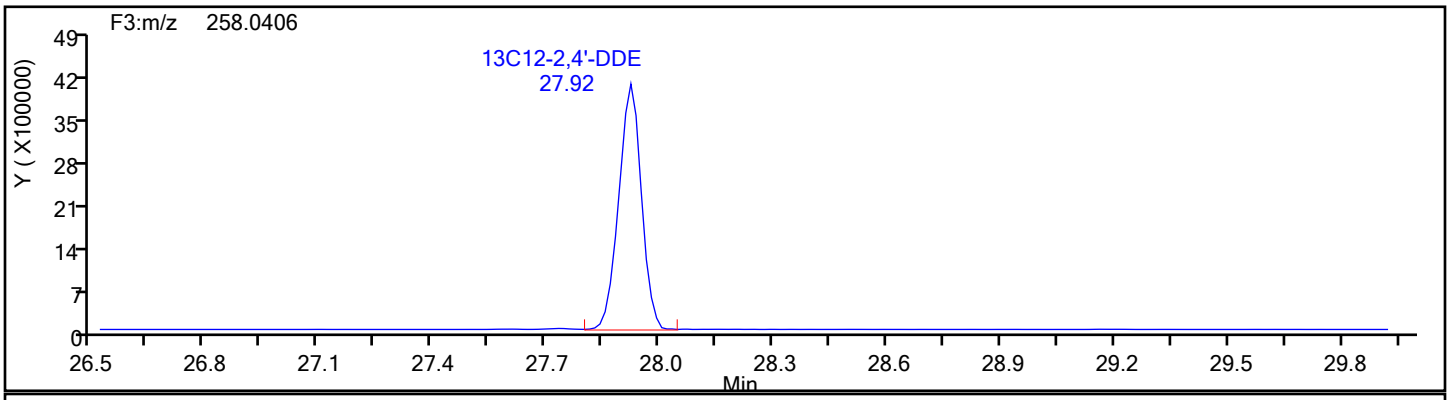
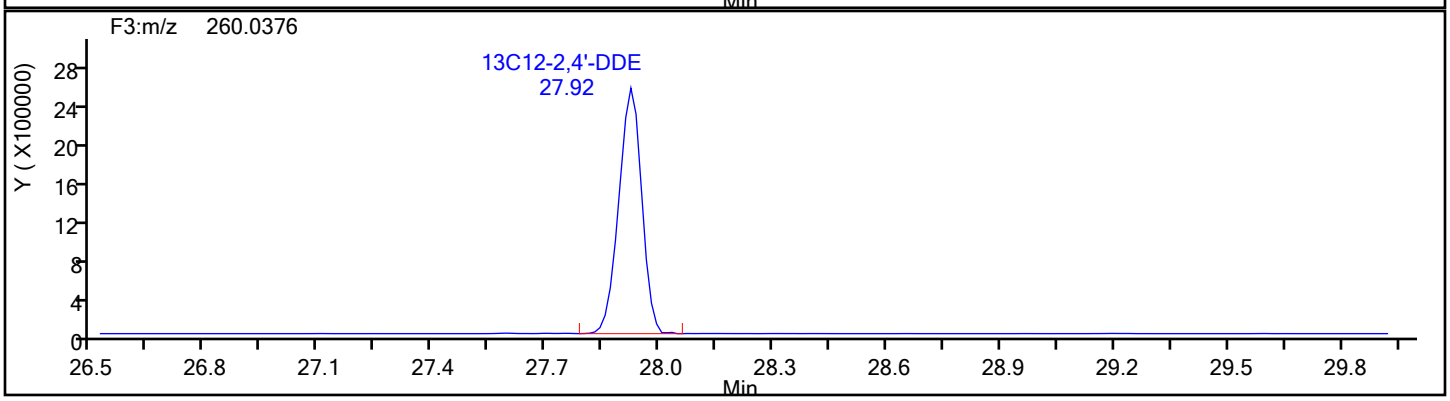
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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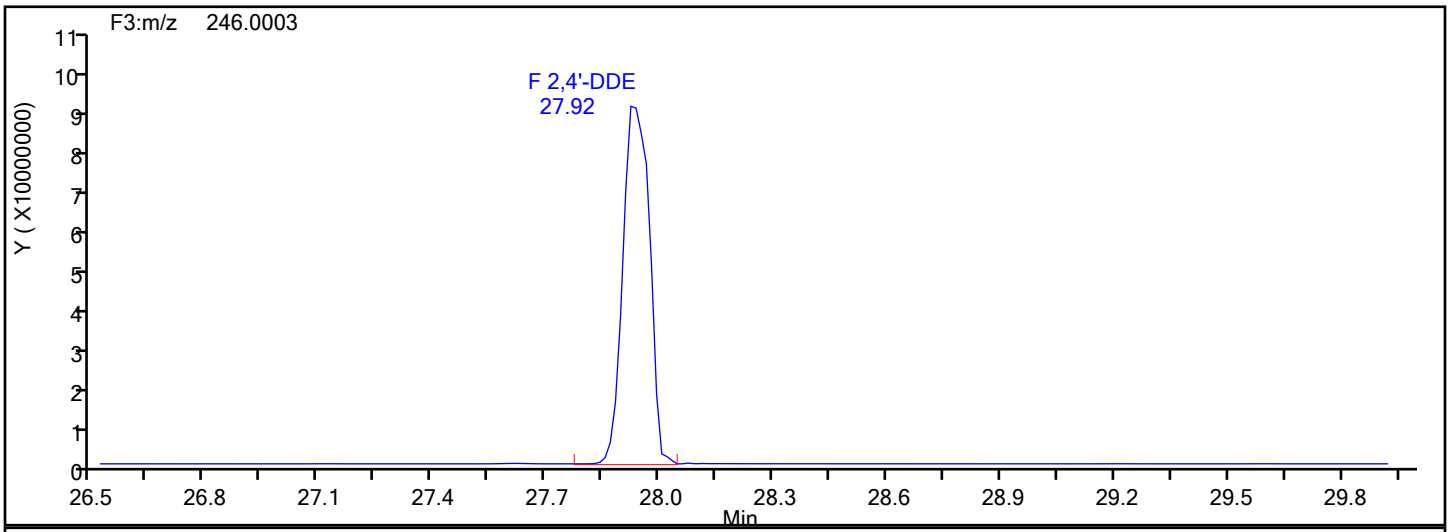
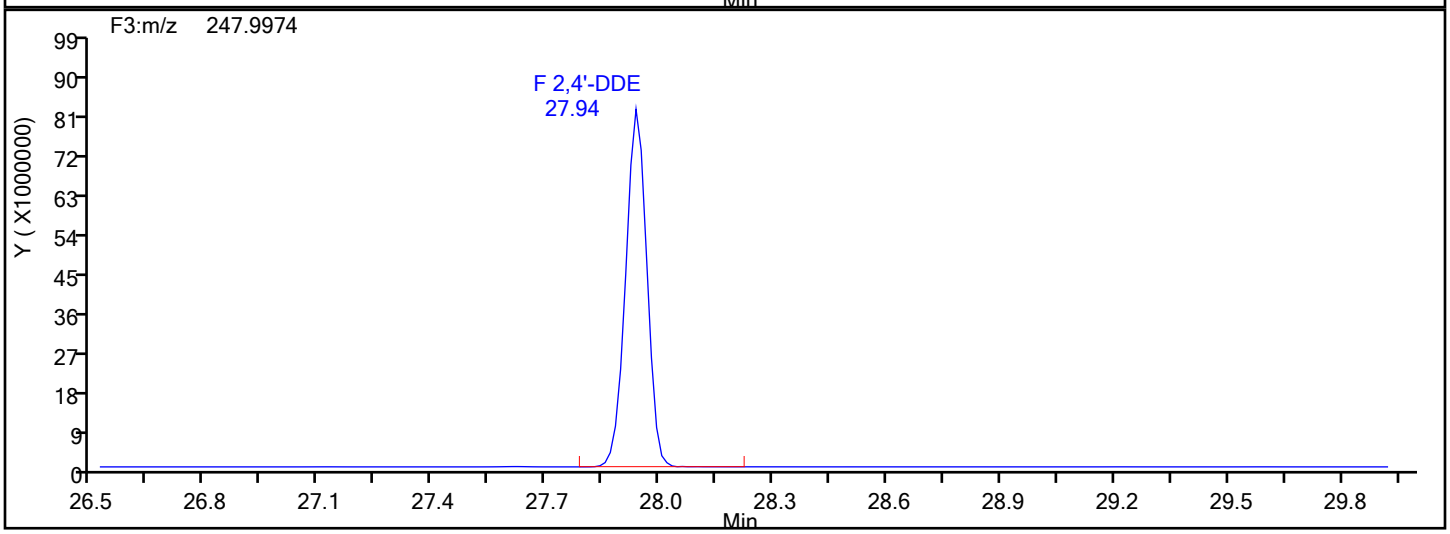
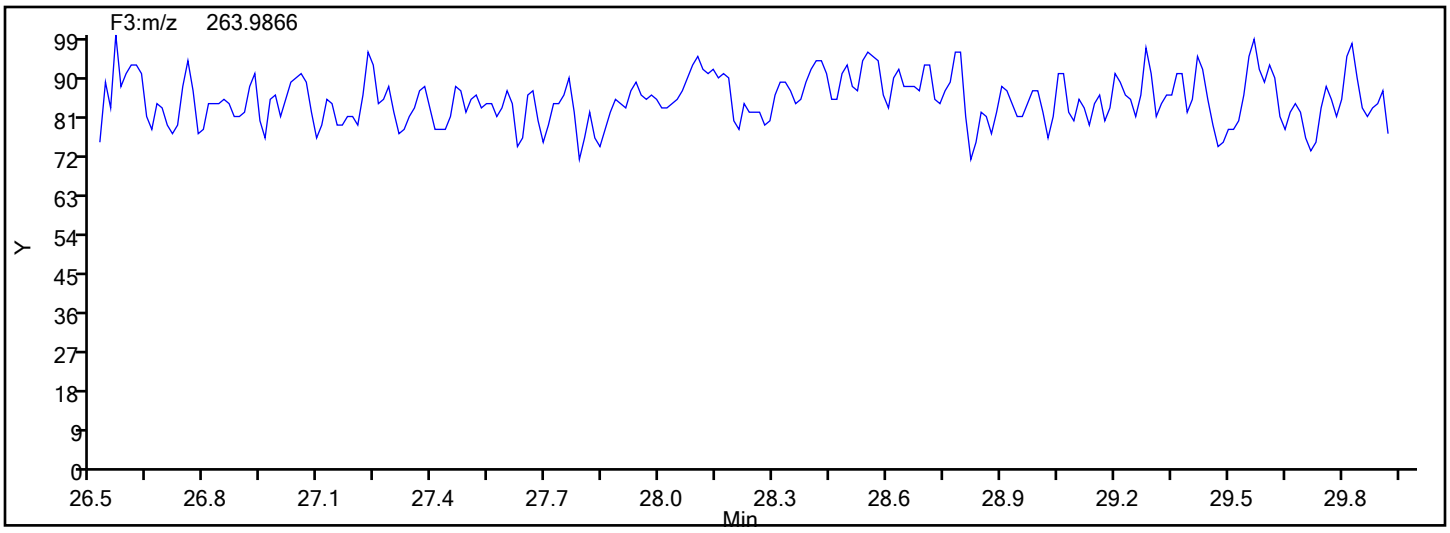
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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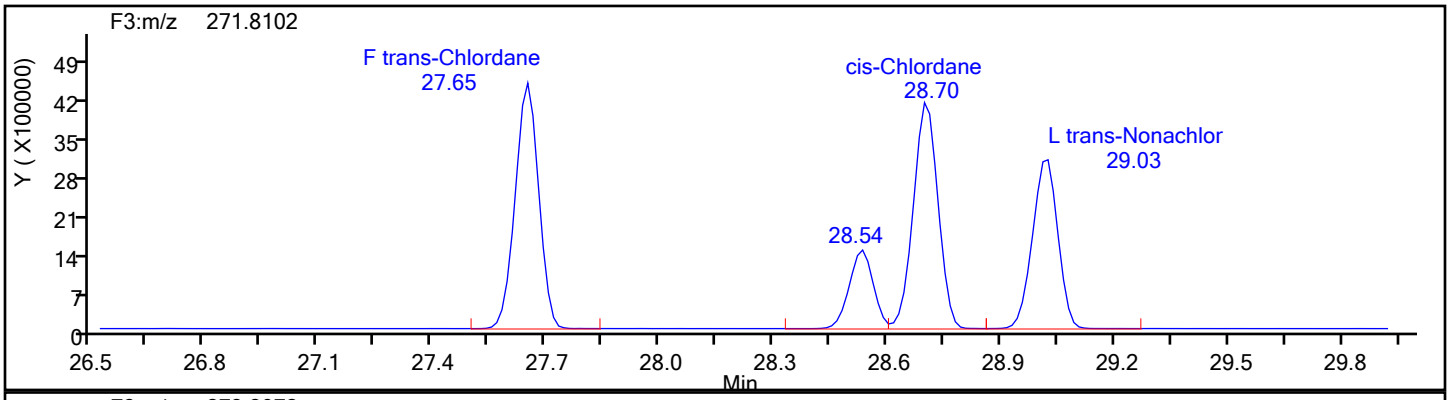
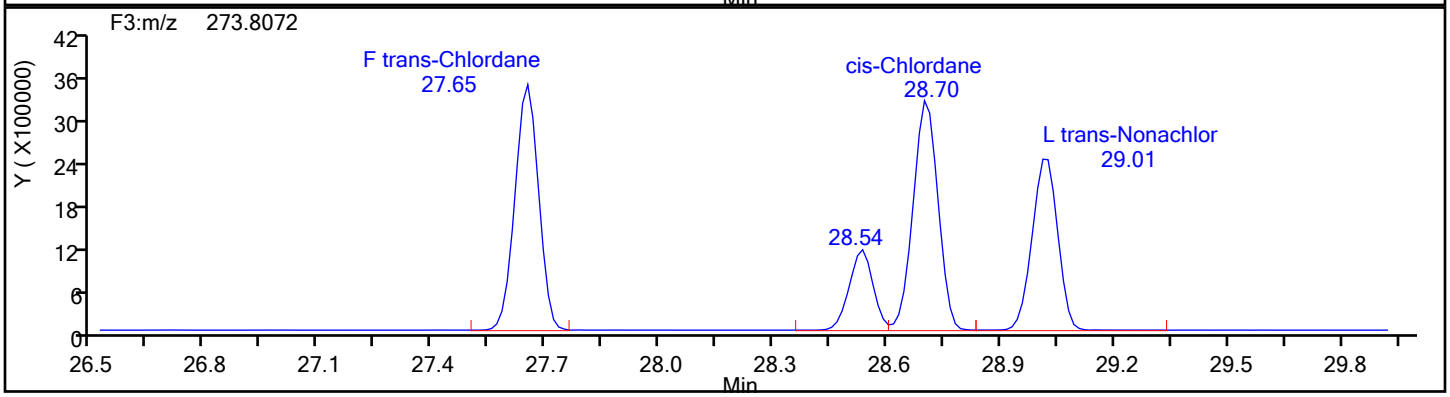
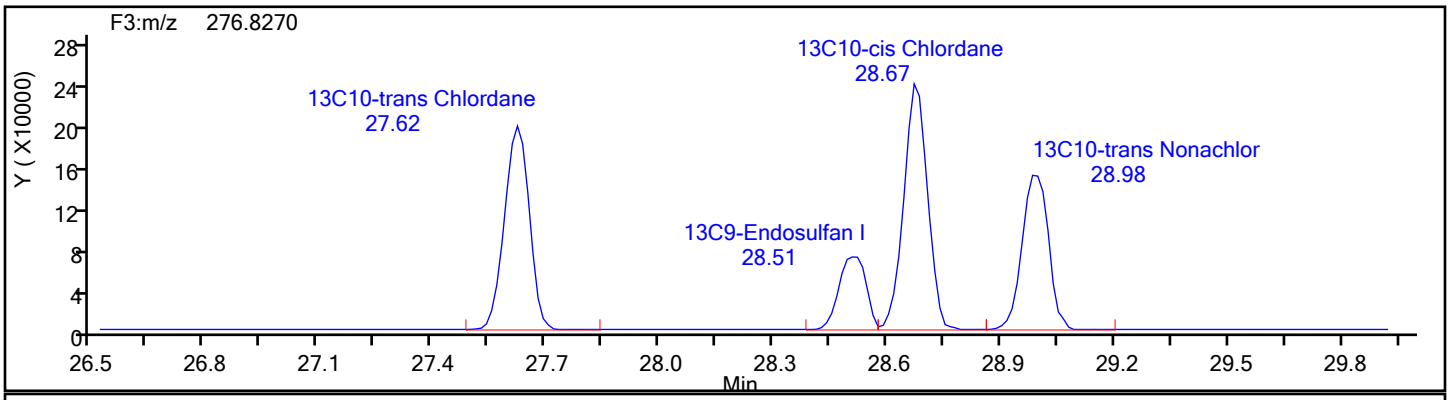
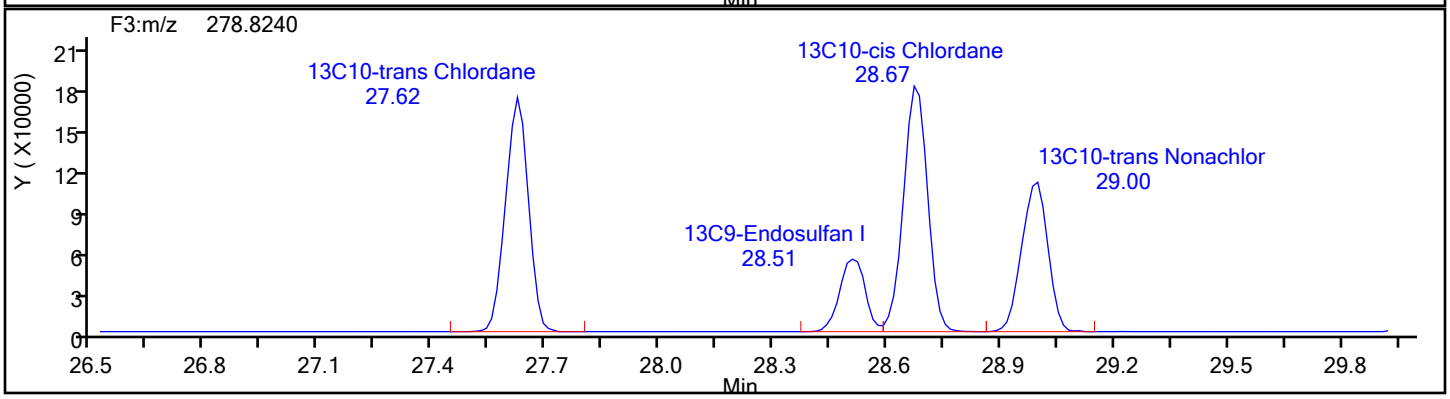
Chlordane





Chlordane Standards





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Eurofins Knoxville

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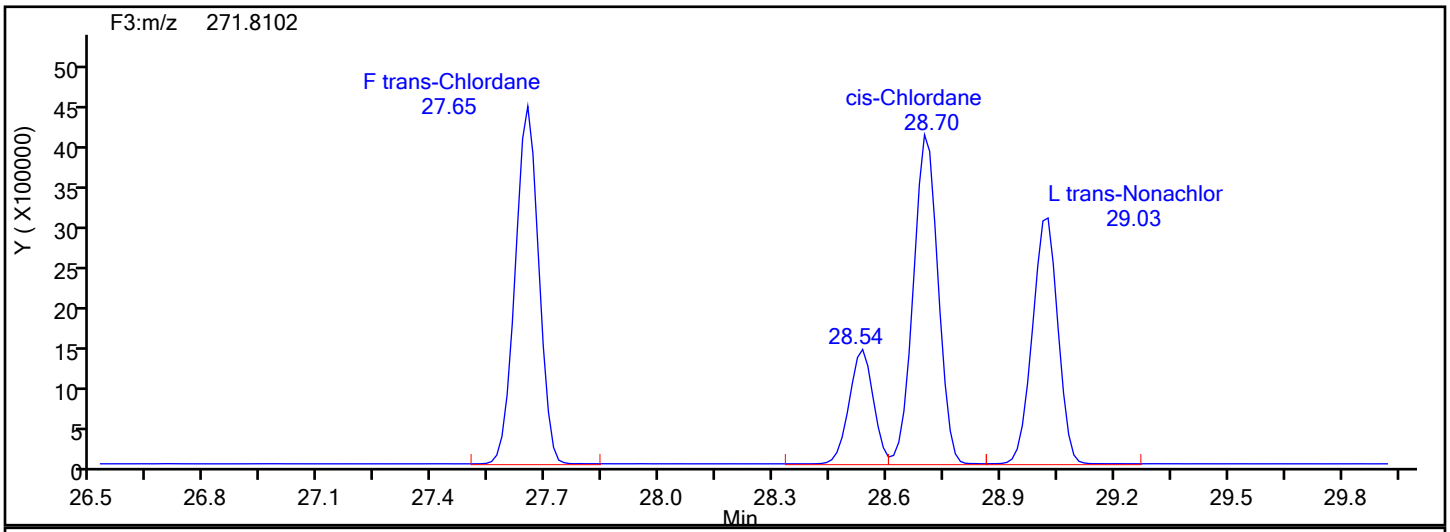
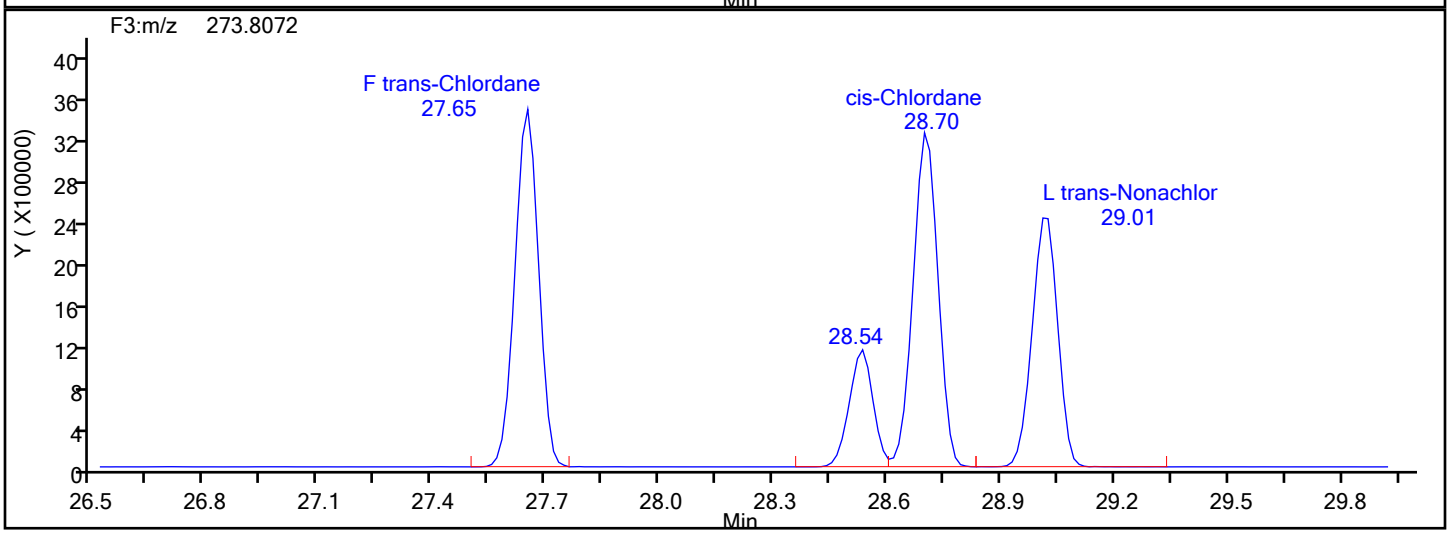
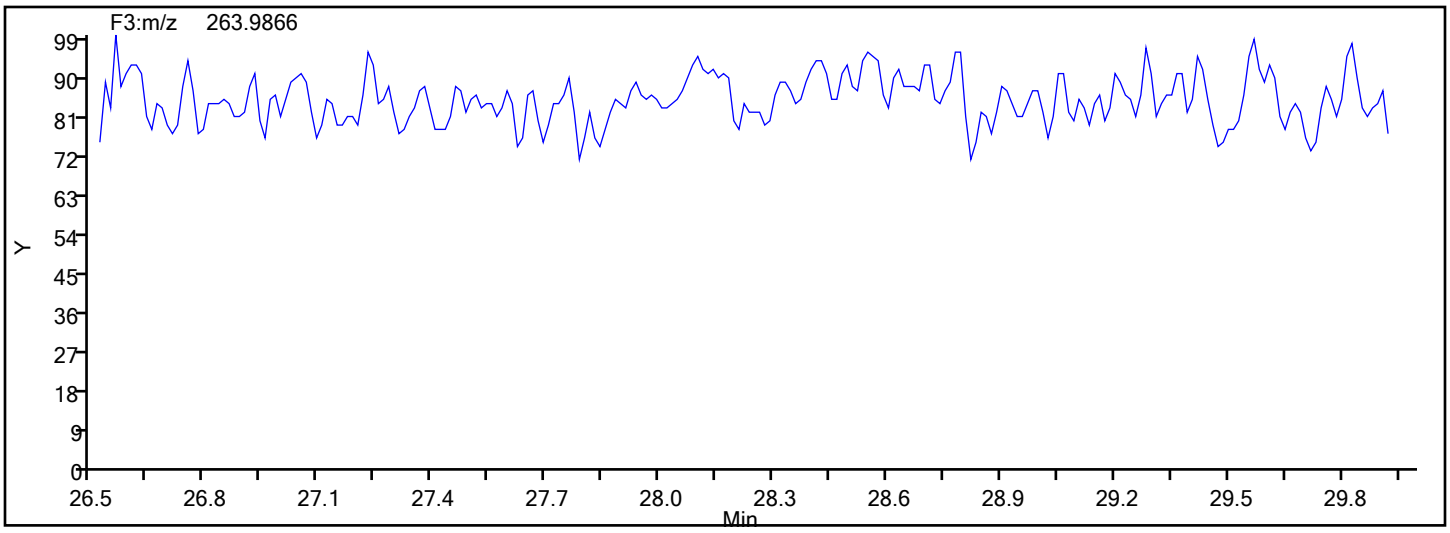
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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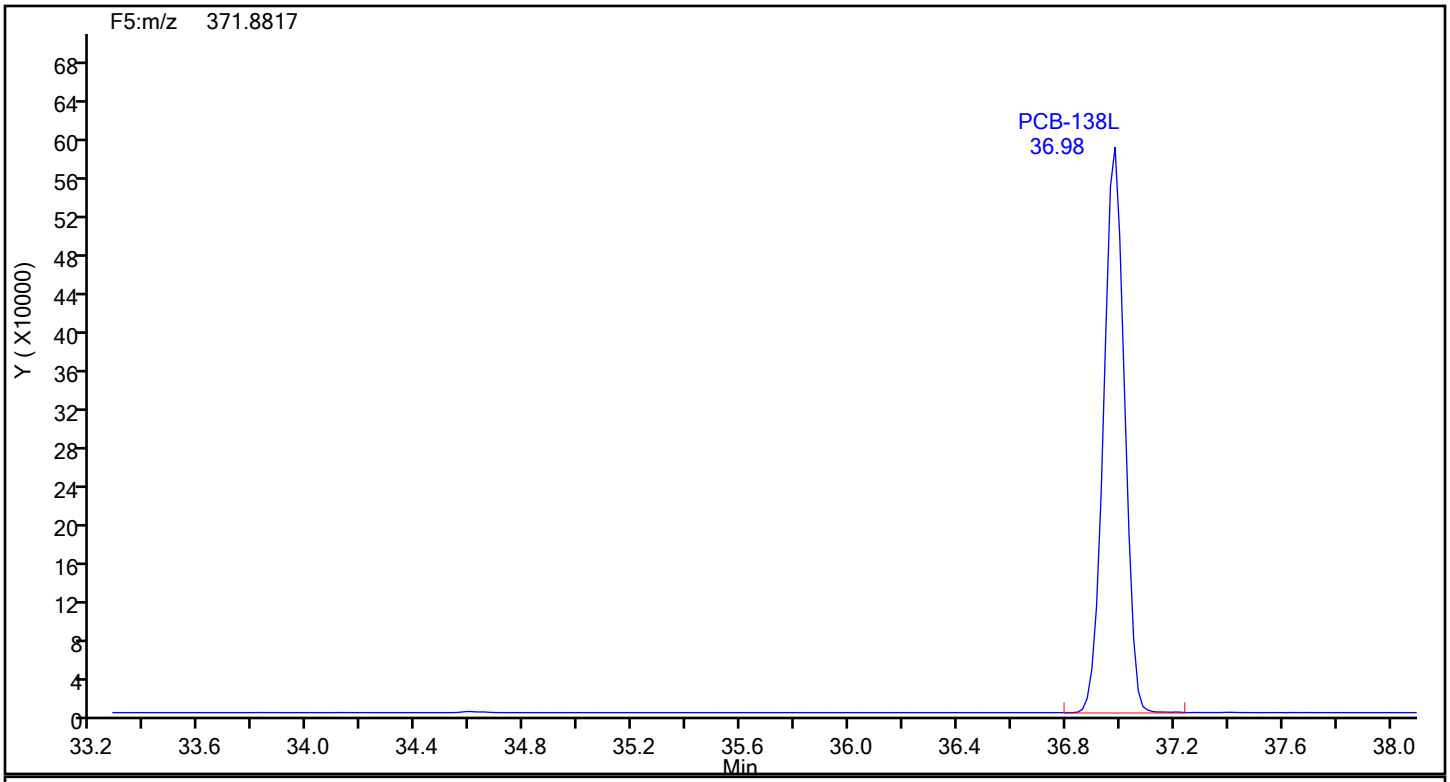
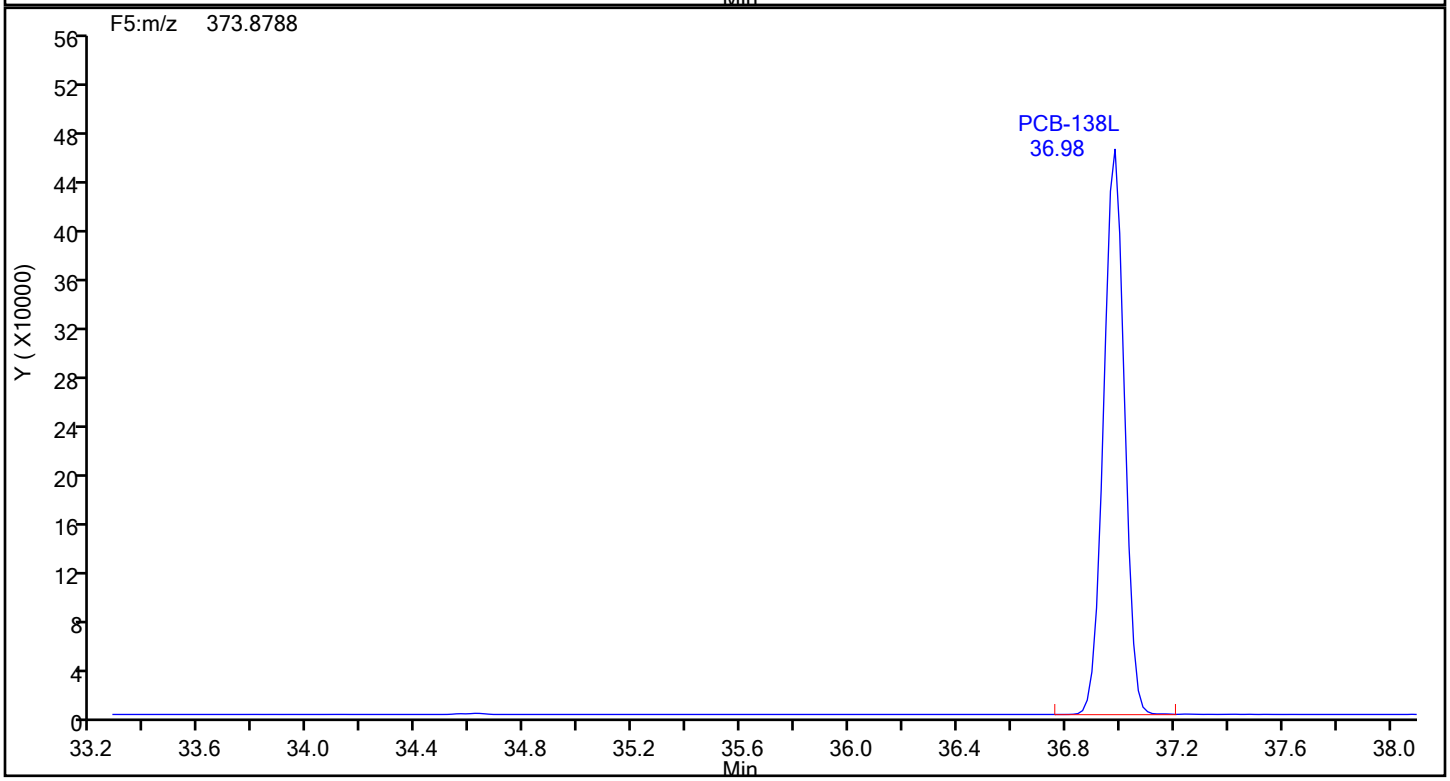
PCB-138L Standards





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Eurofins Knoxville

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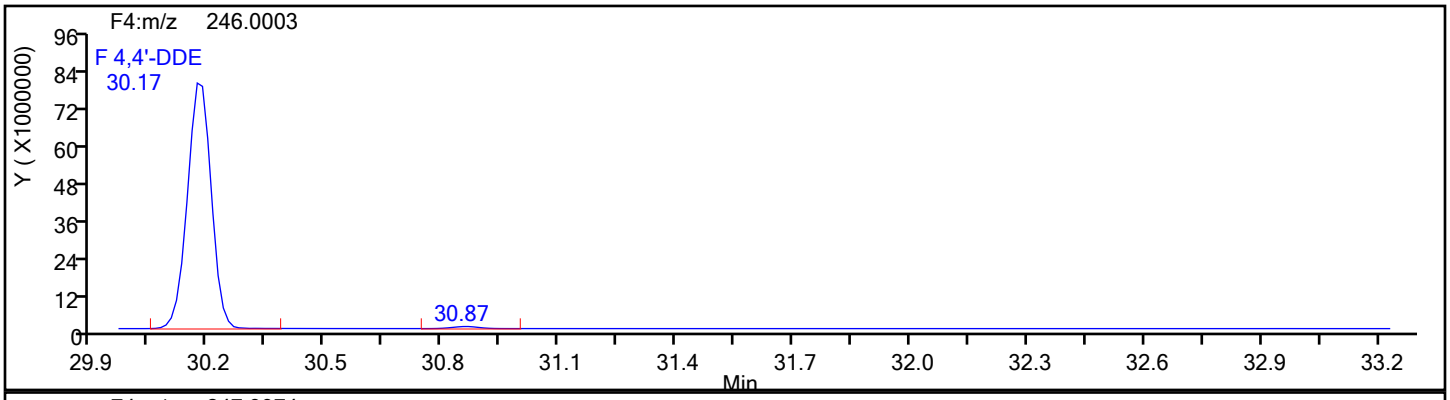
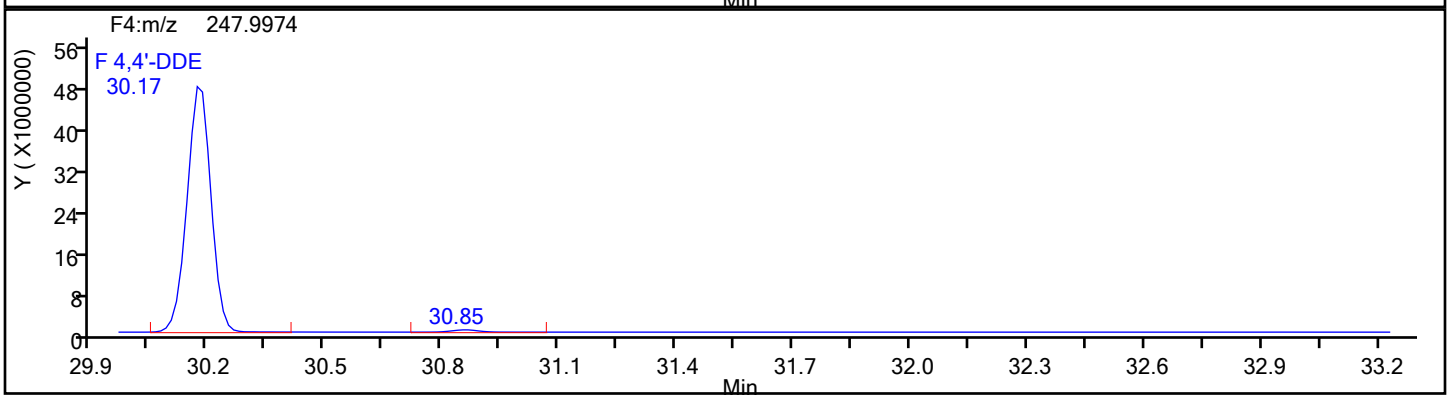
4,4'-DDE





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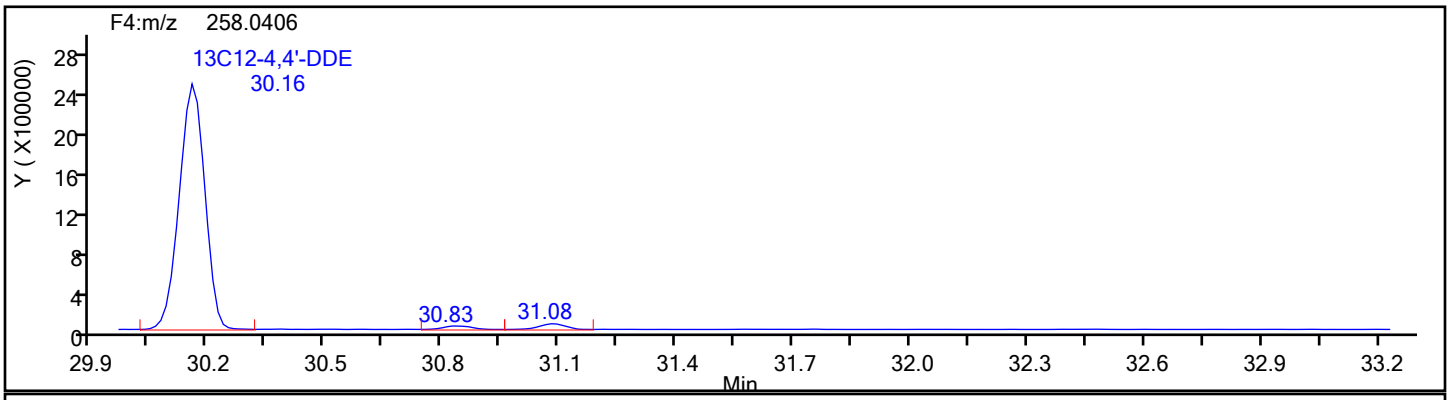

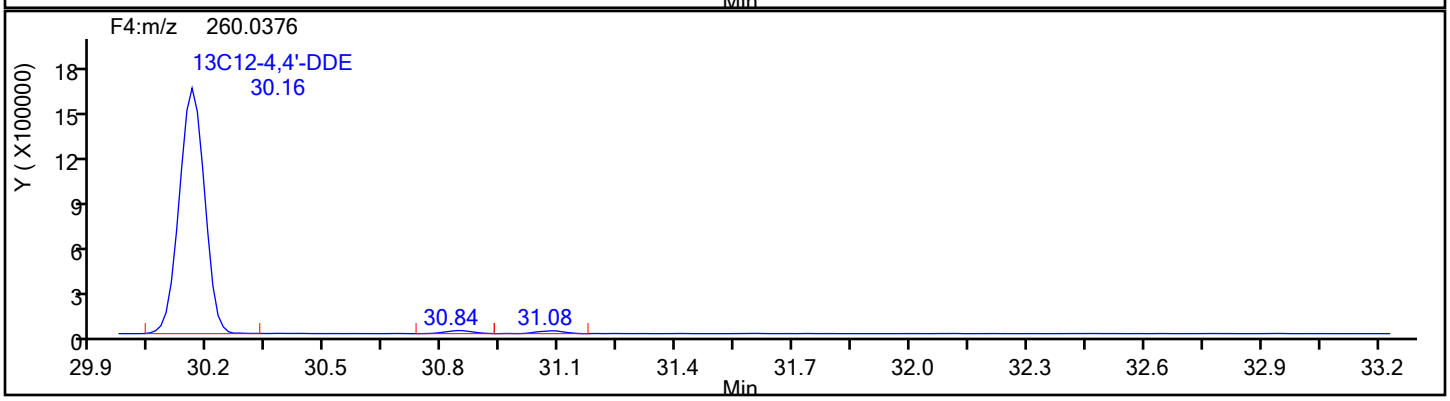

Report Date: 24-Mar-2025 13:06:45 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Client ID:
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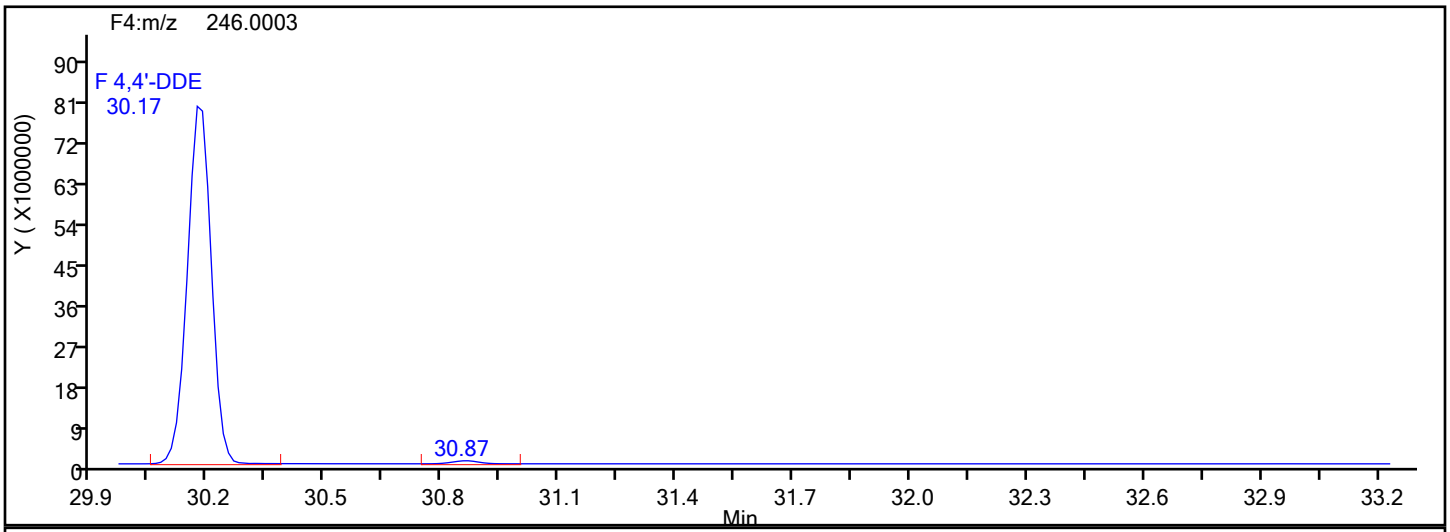
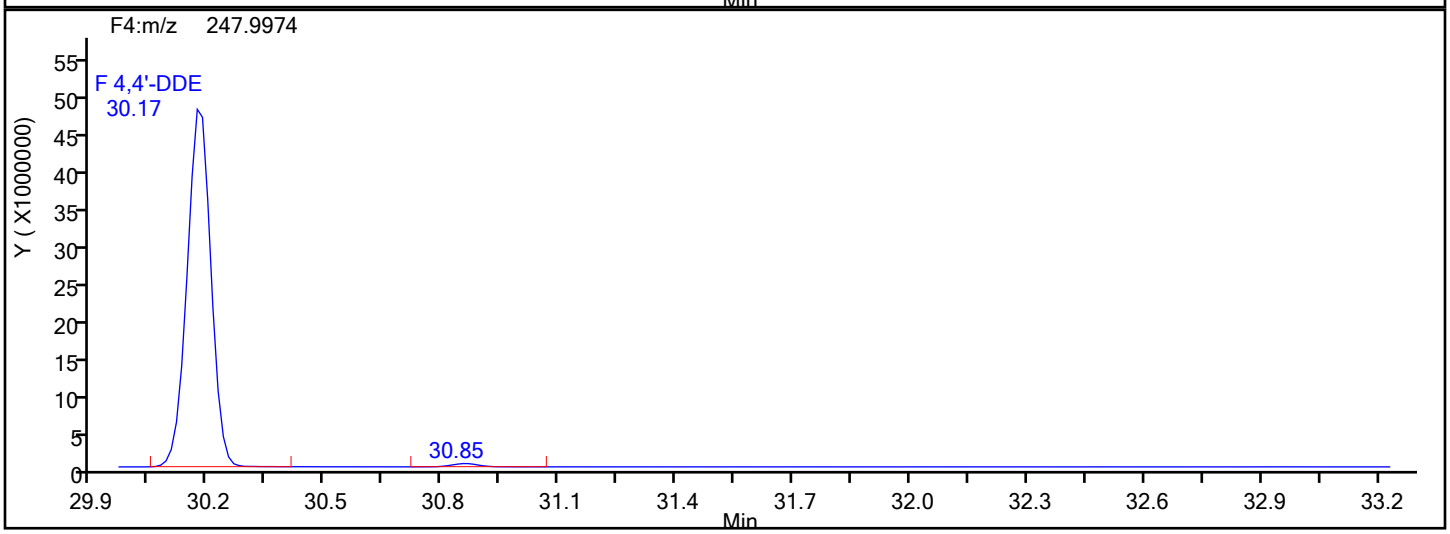
4,4'-DDE





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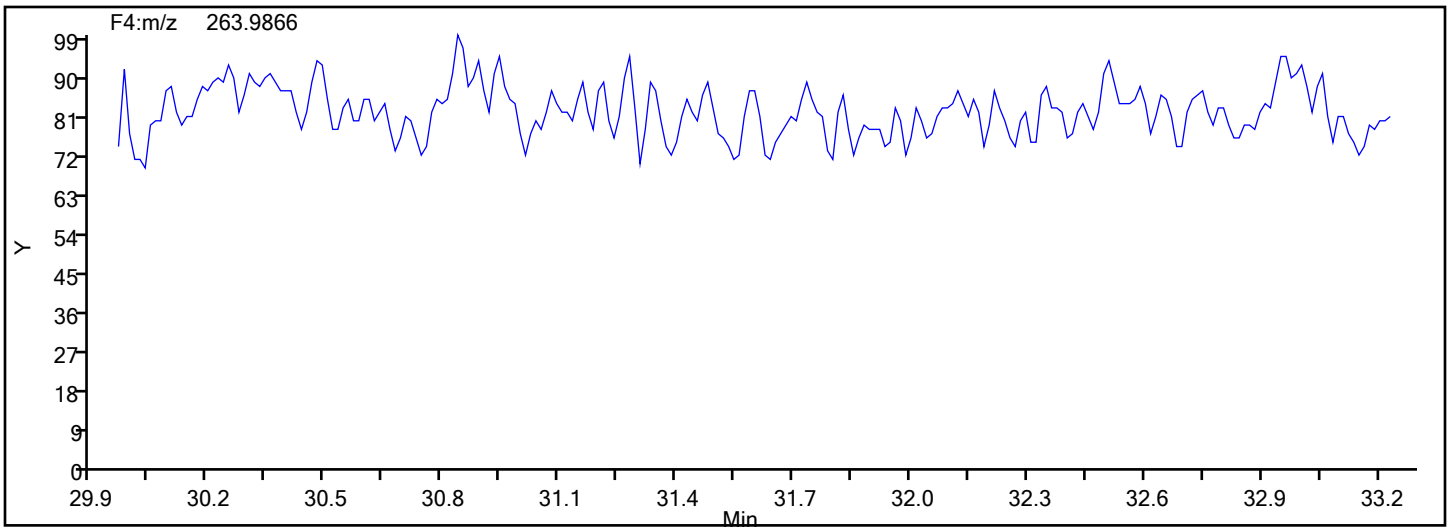

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Eurofins Knoxville

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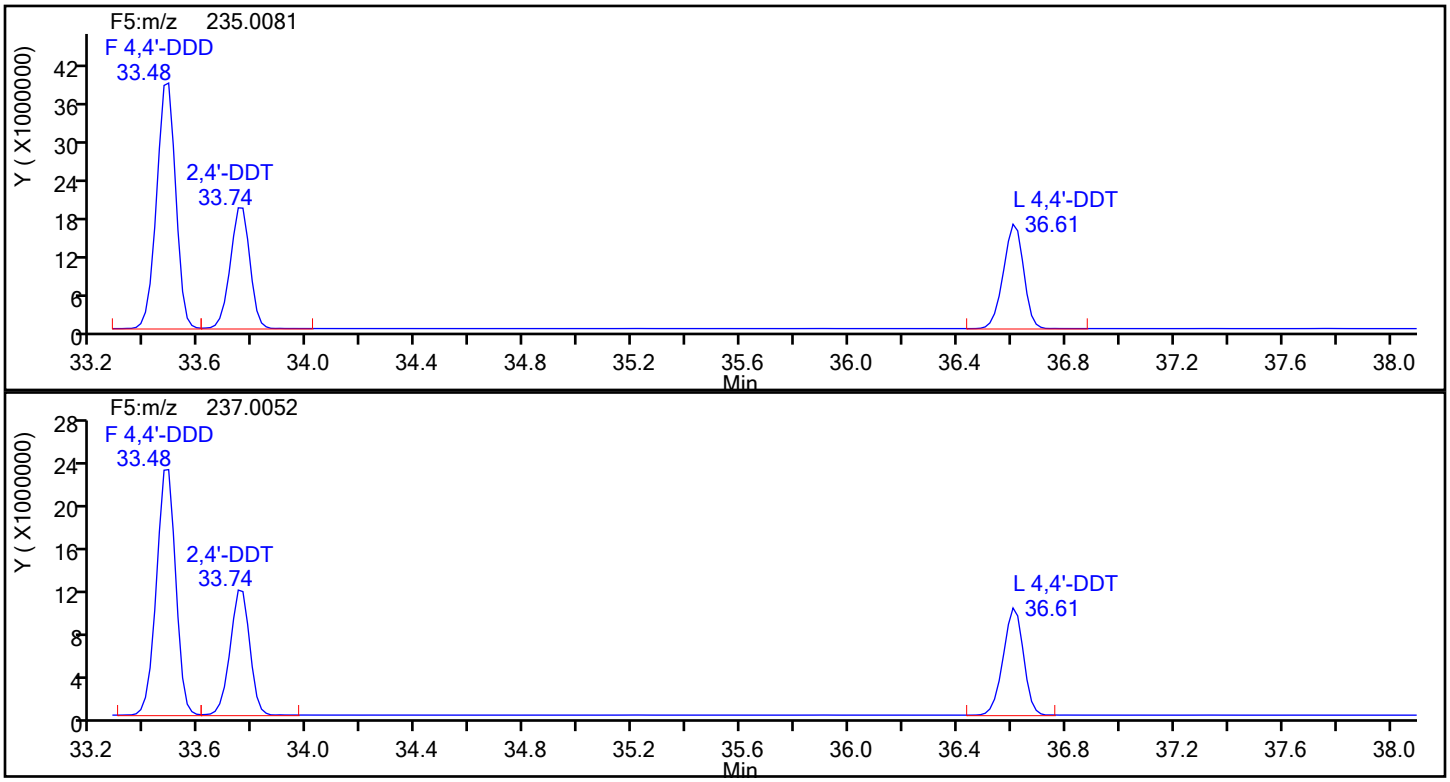
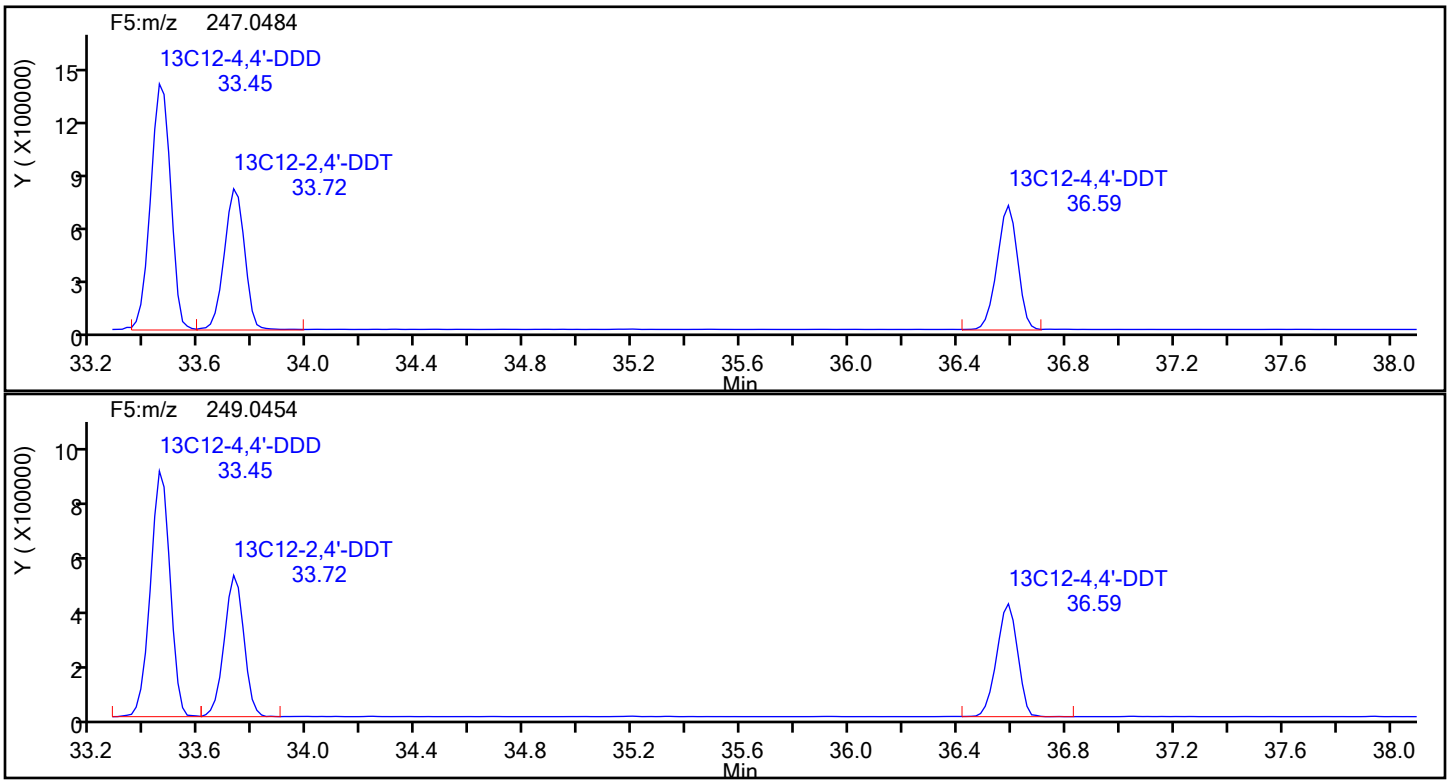


DDD Standards



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Eurofins Knoxville

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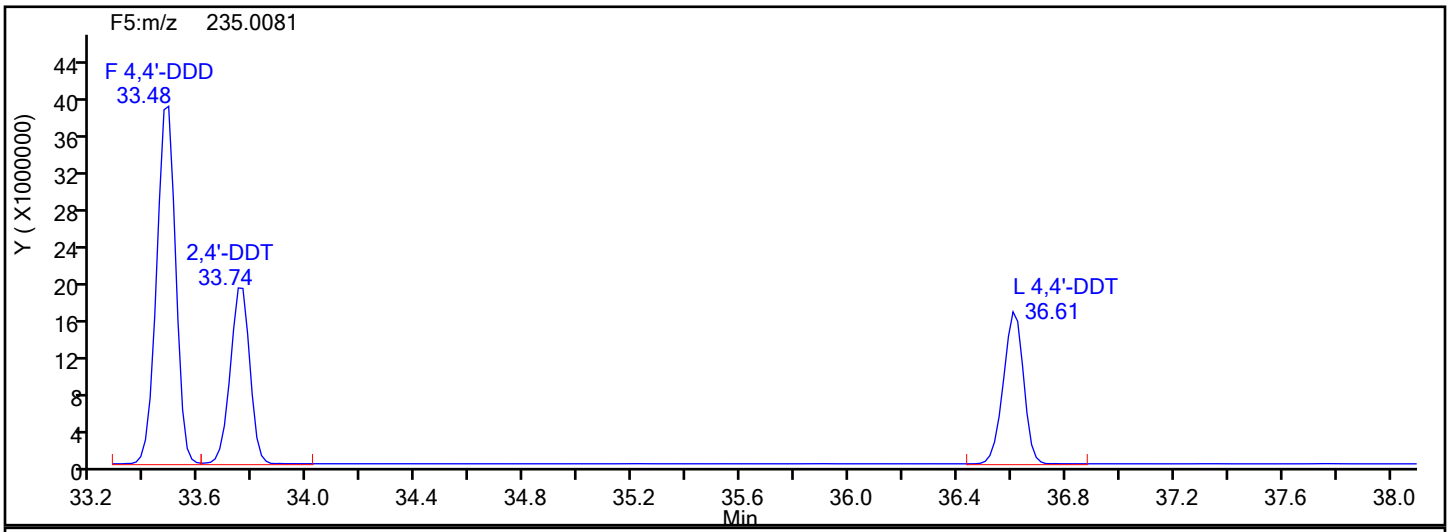

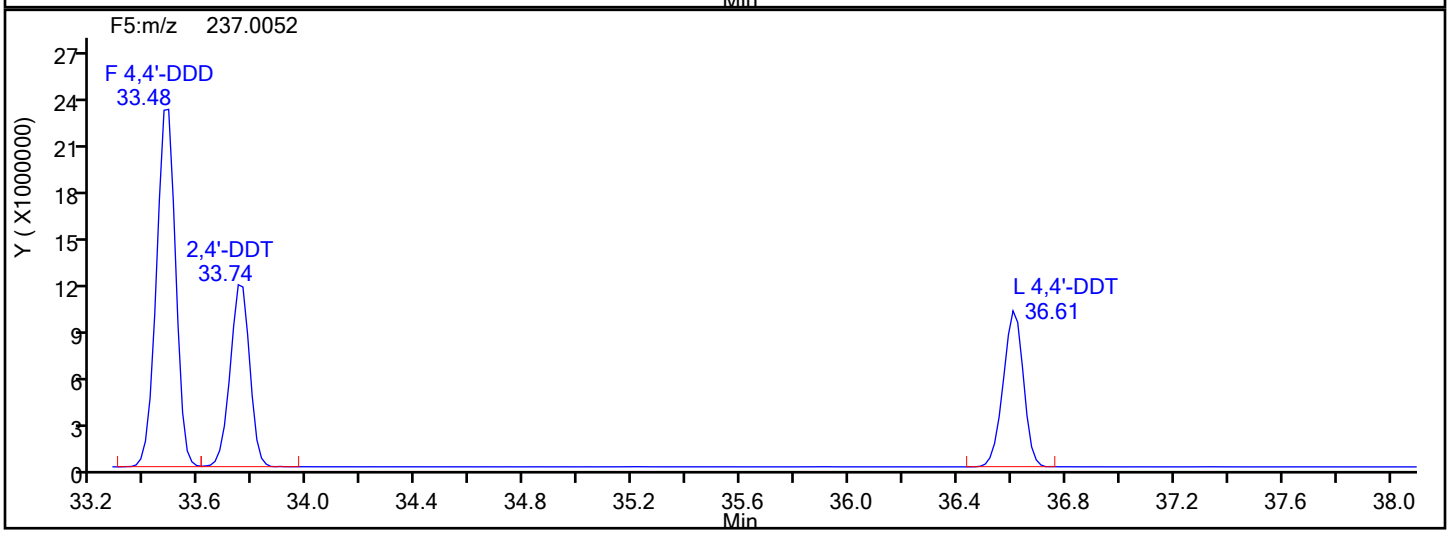

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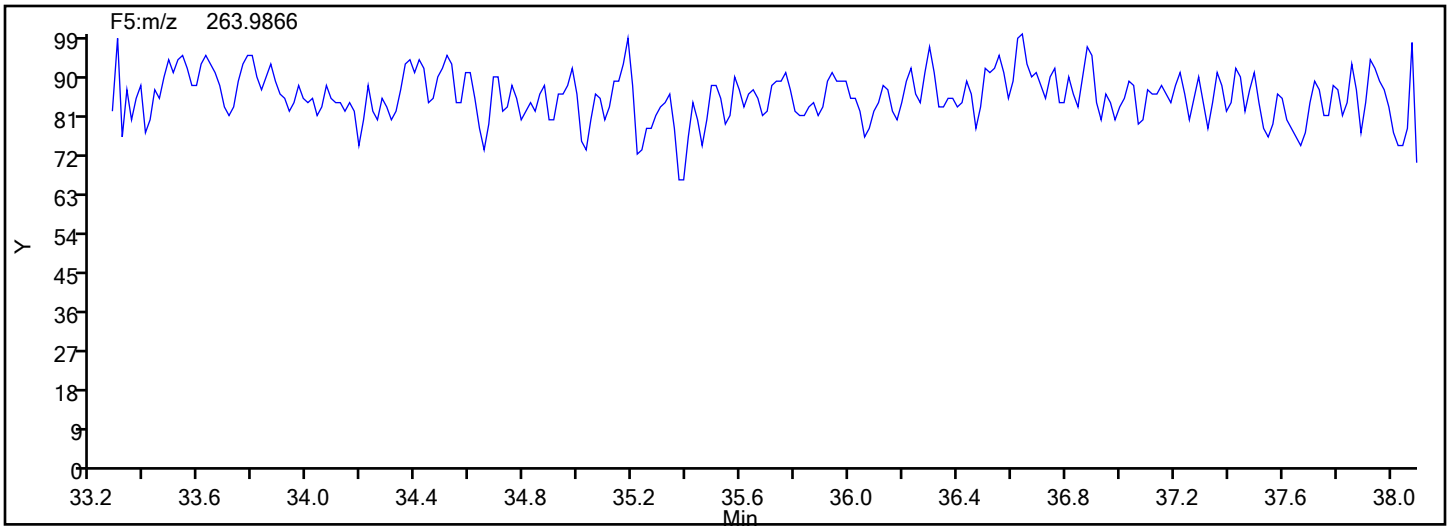

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Eurofins Knoxville

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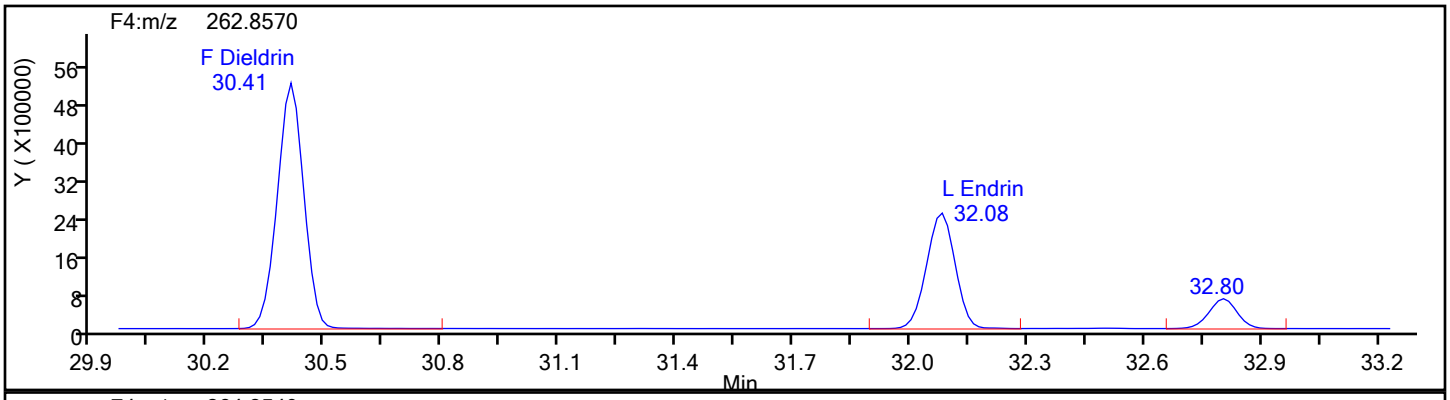

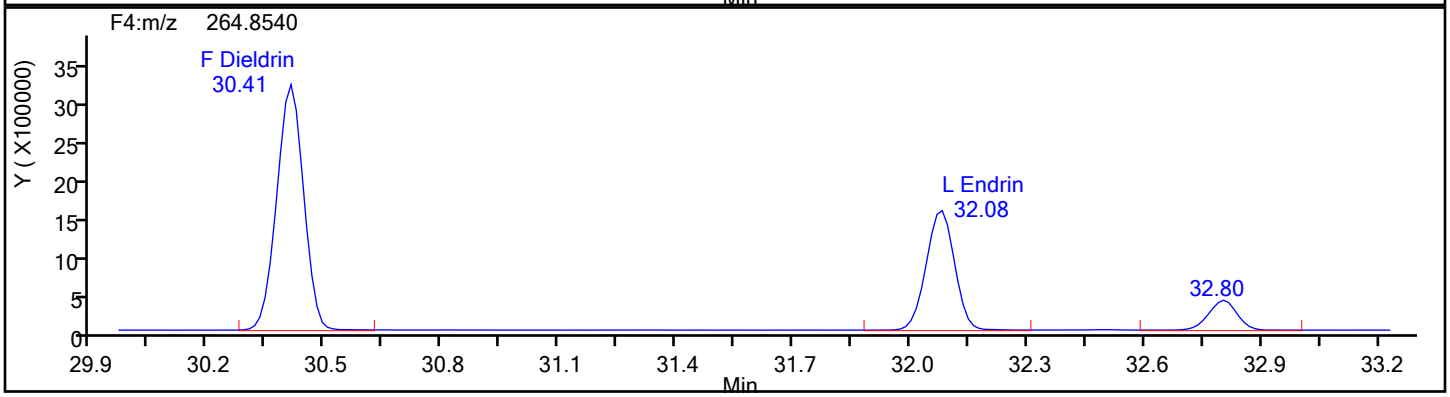

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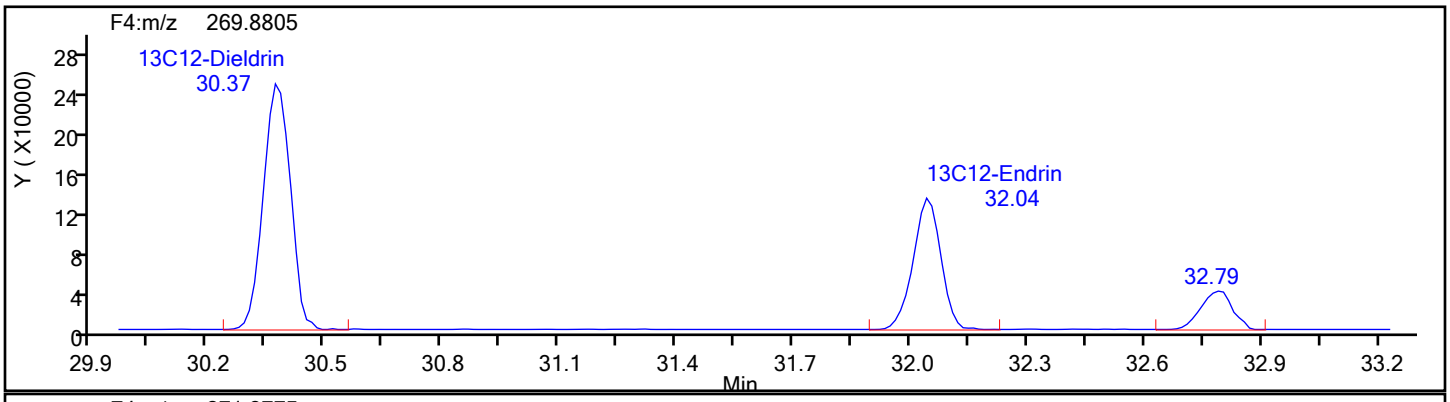

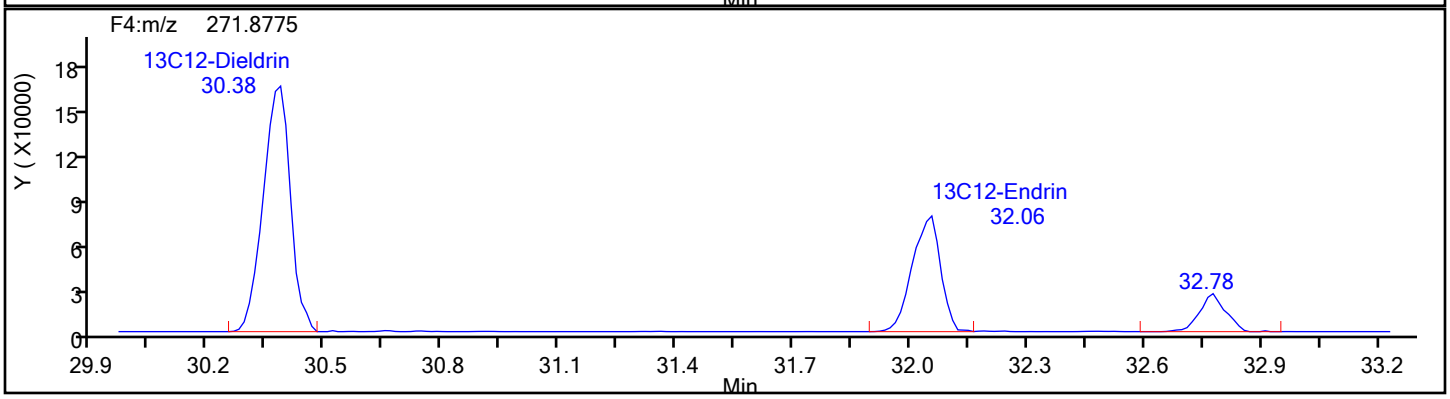

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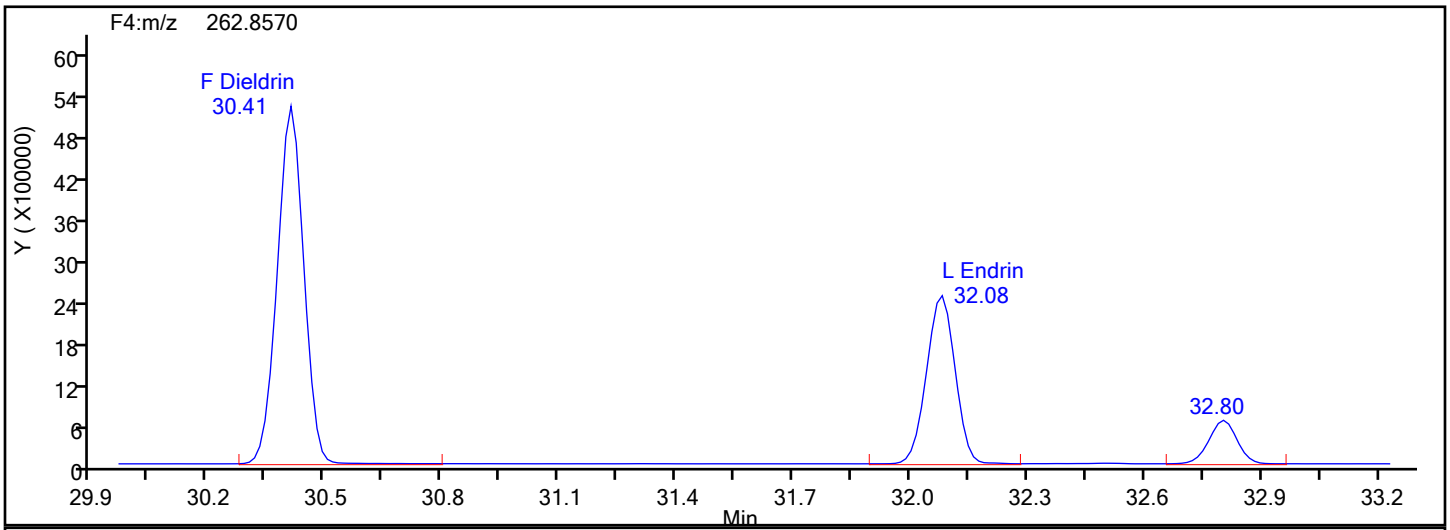

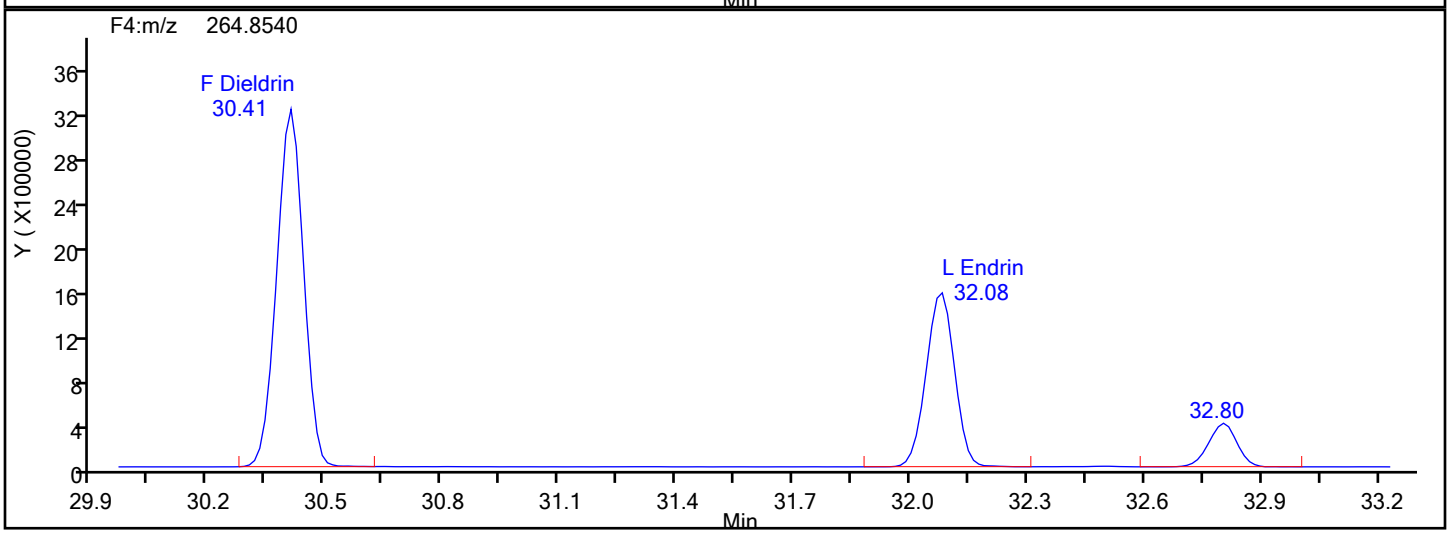

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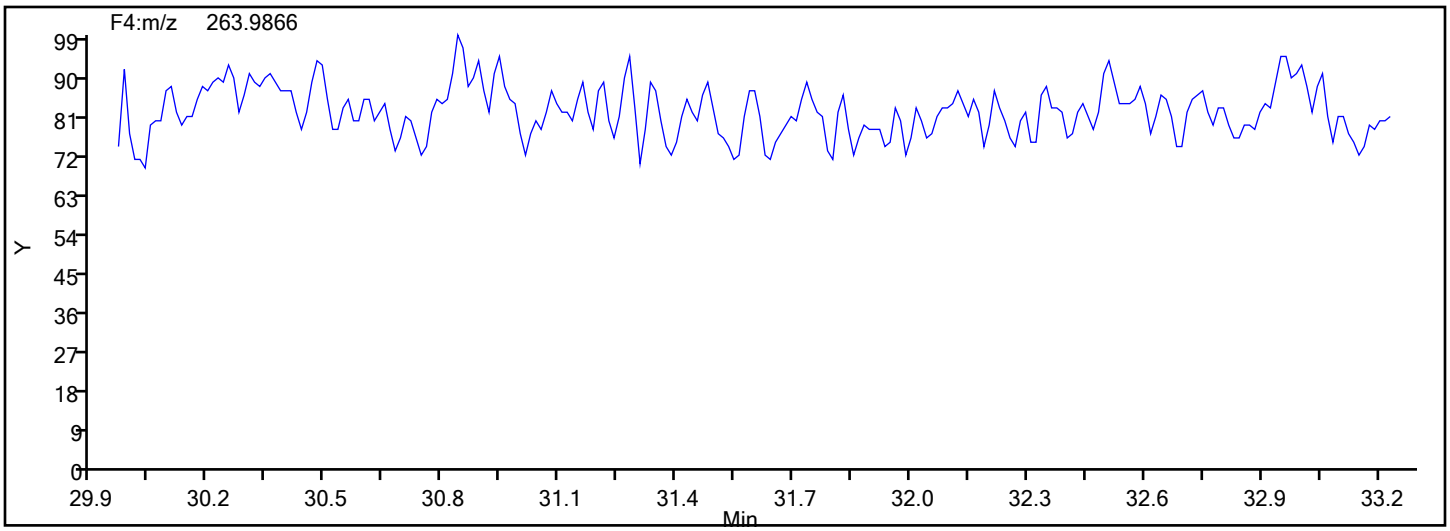

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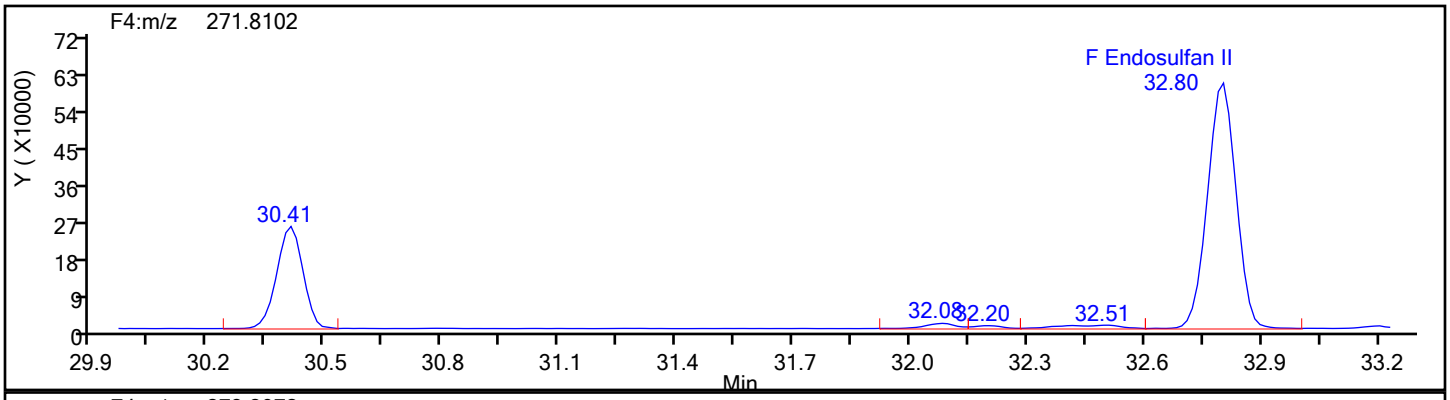

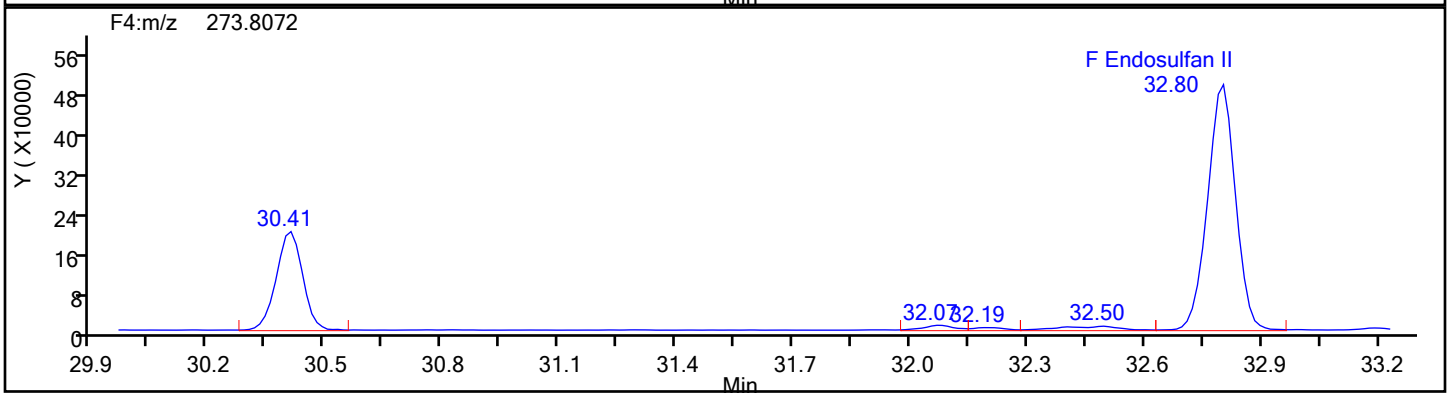

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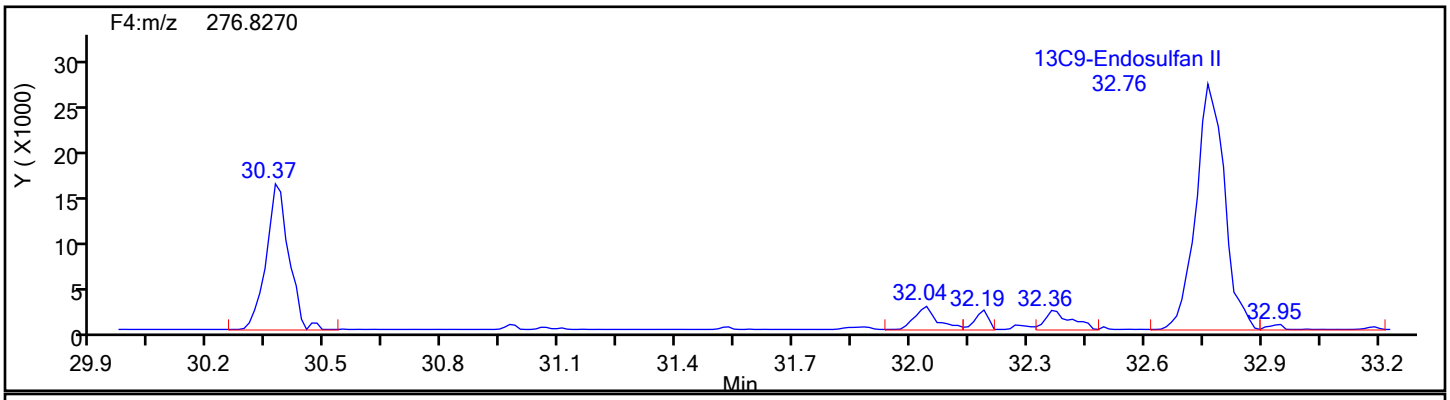

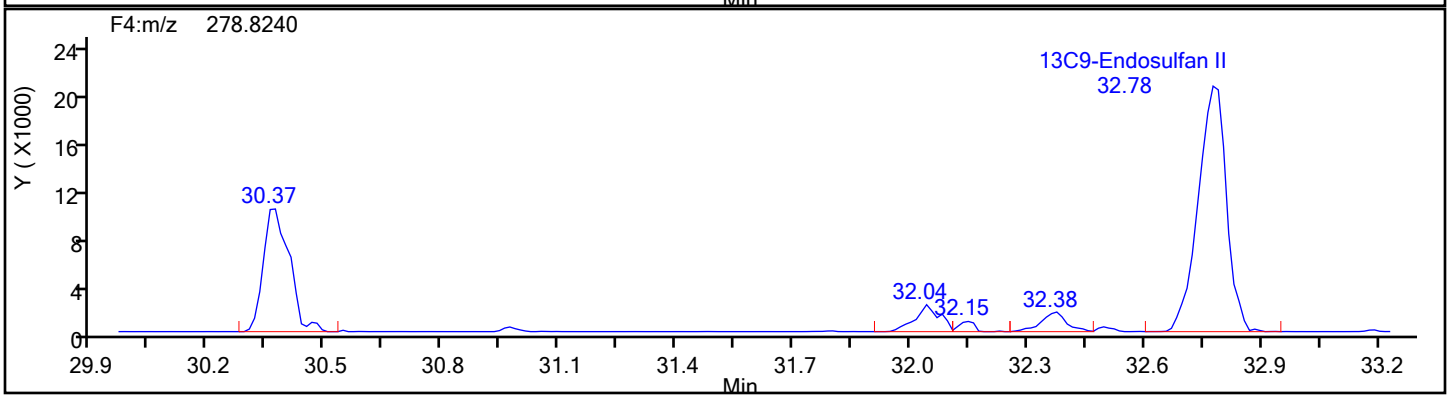

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Eurofins Knoxville

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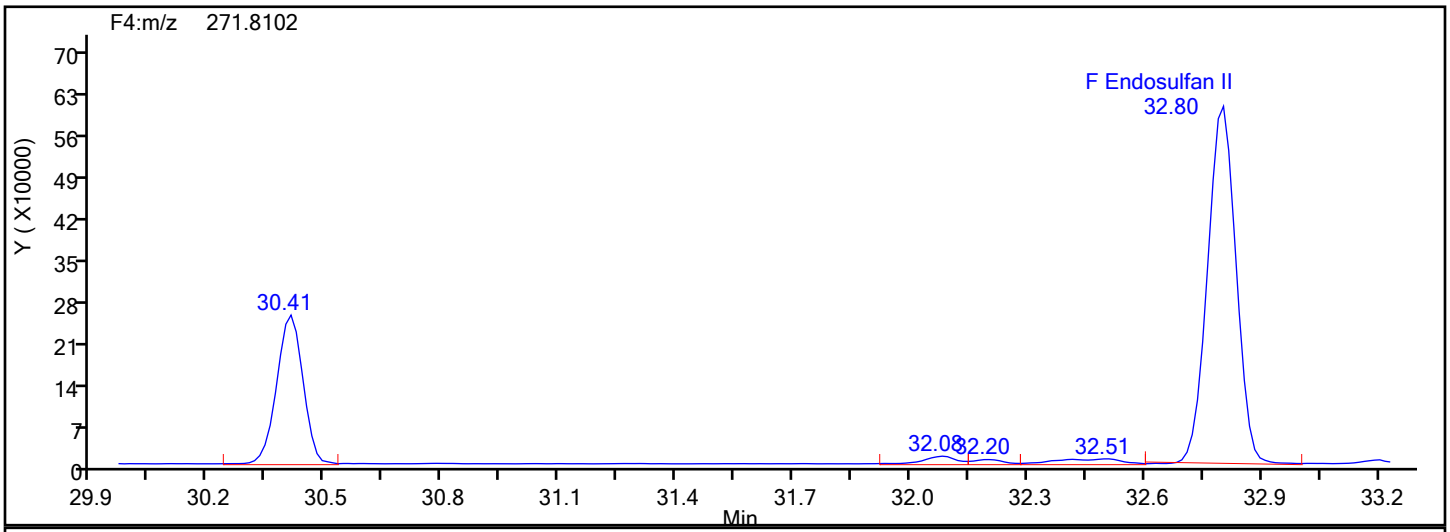

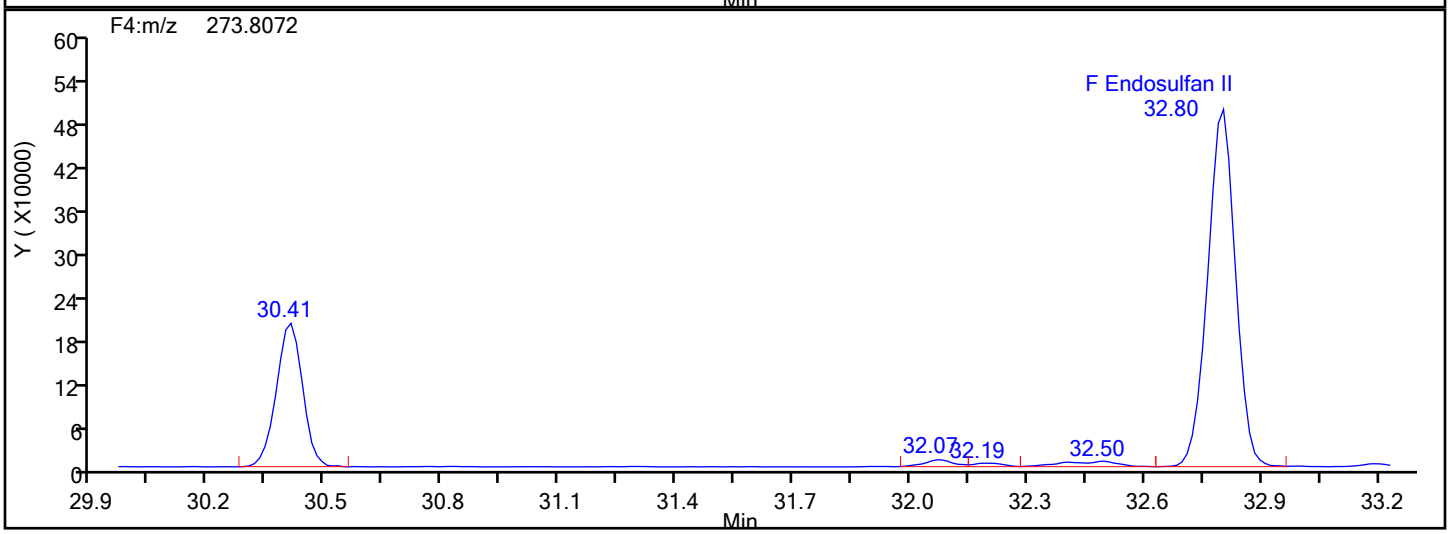

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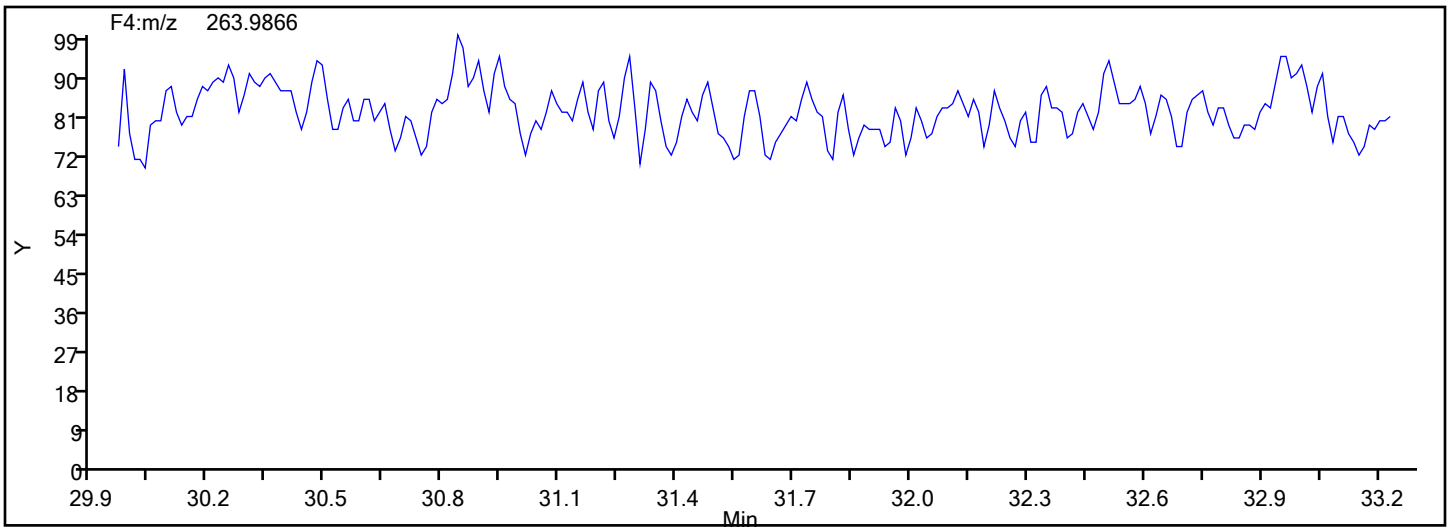

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Eurofins Knoxville

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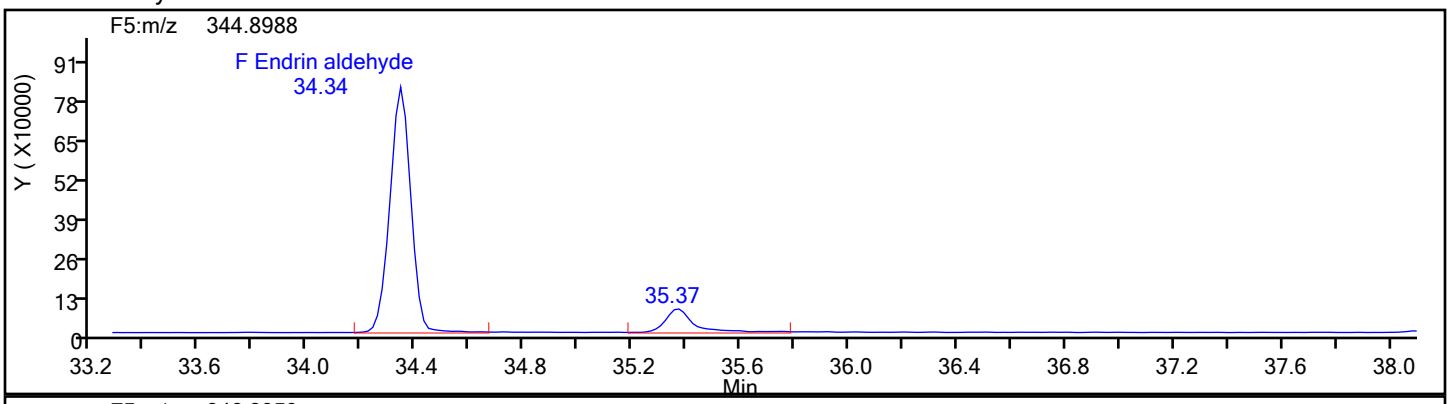

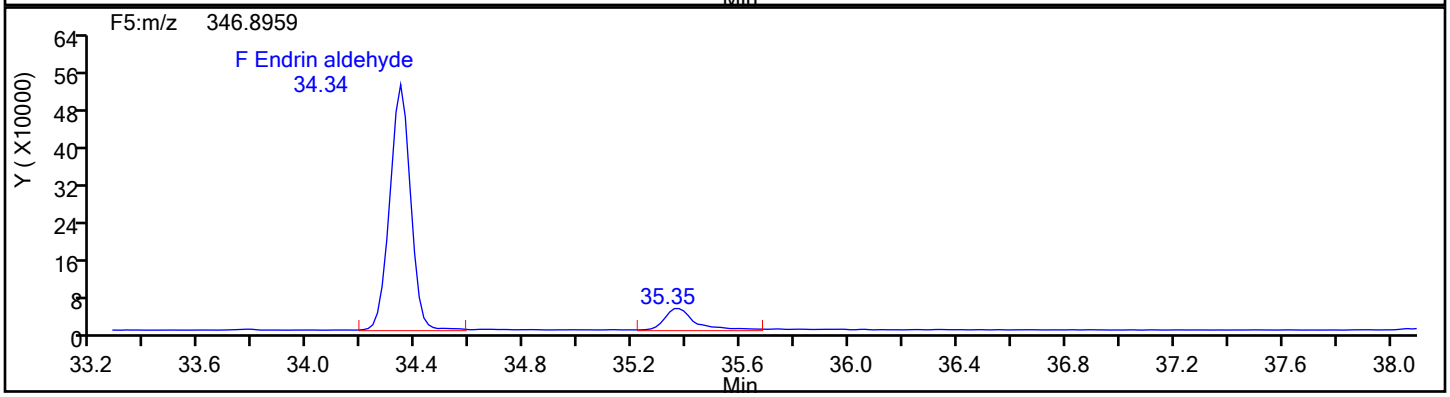

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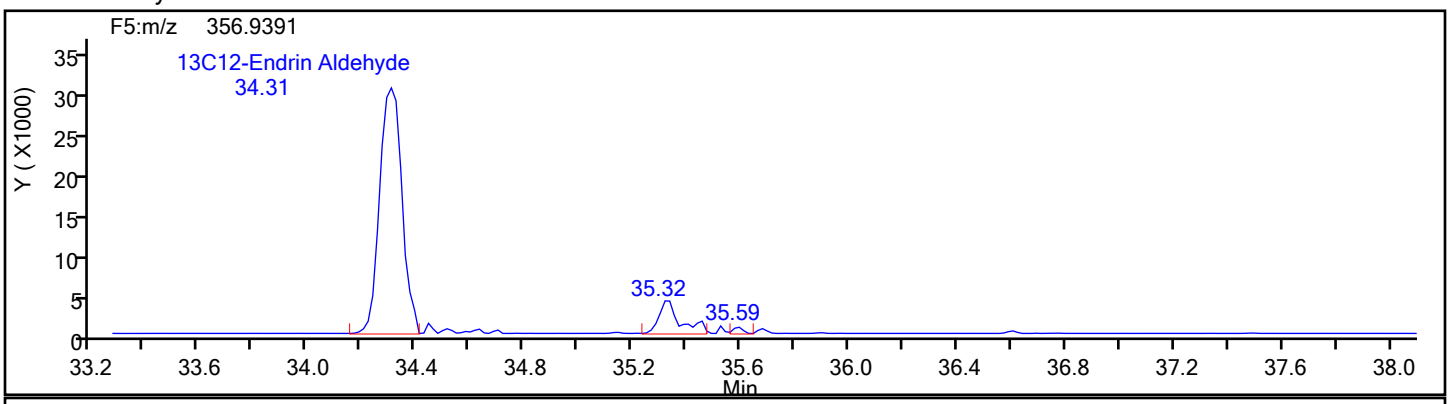

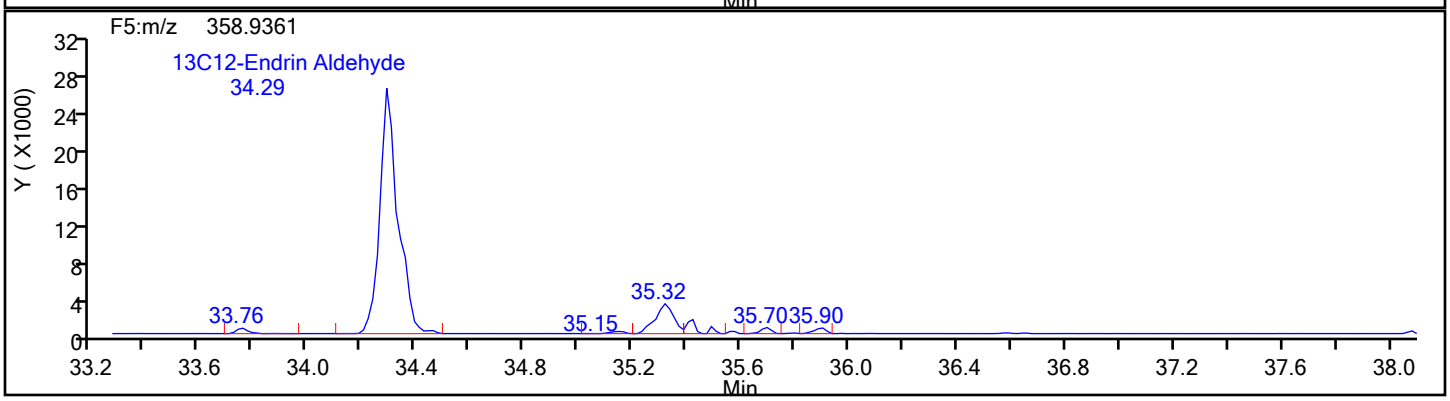

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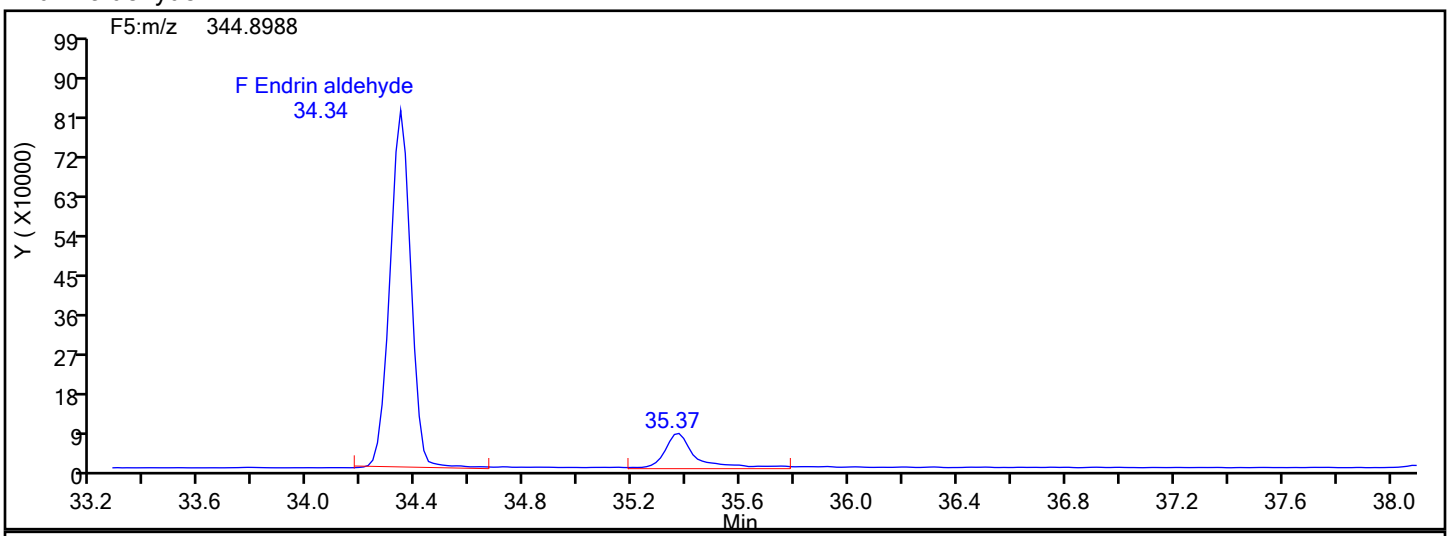
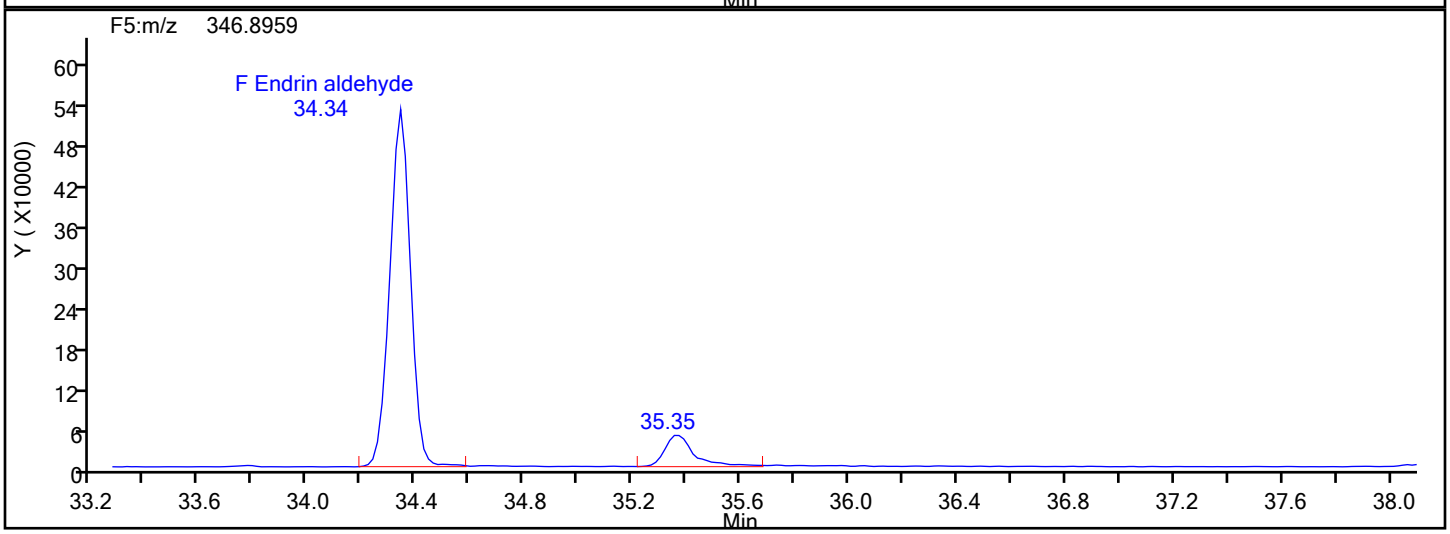
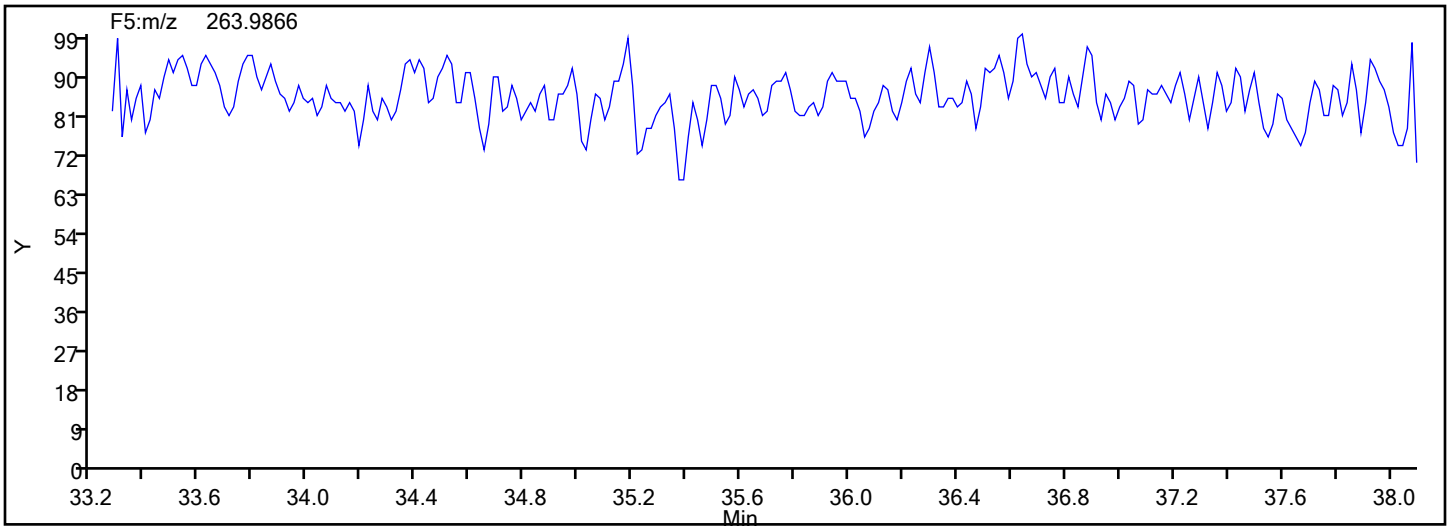




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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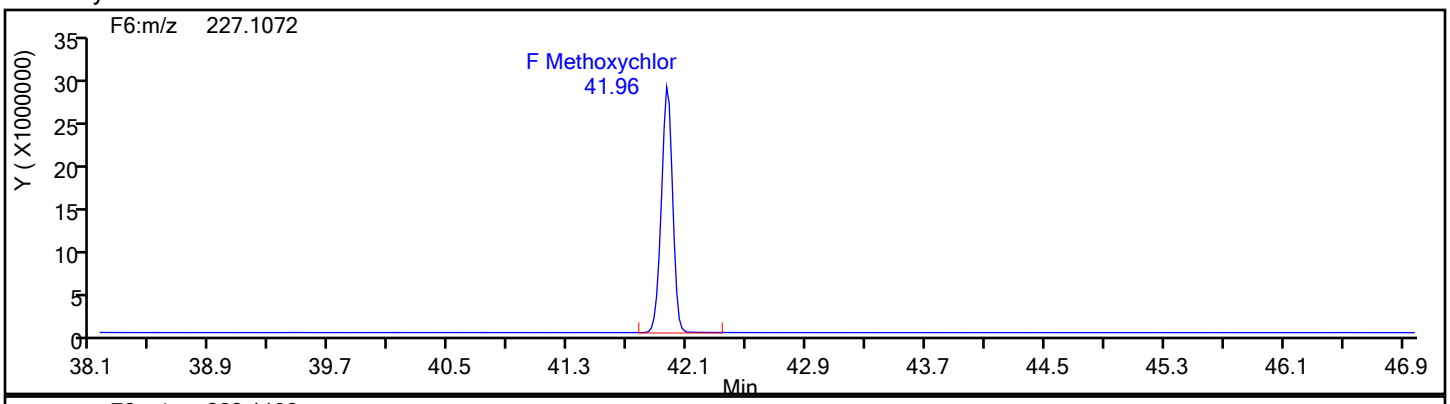
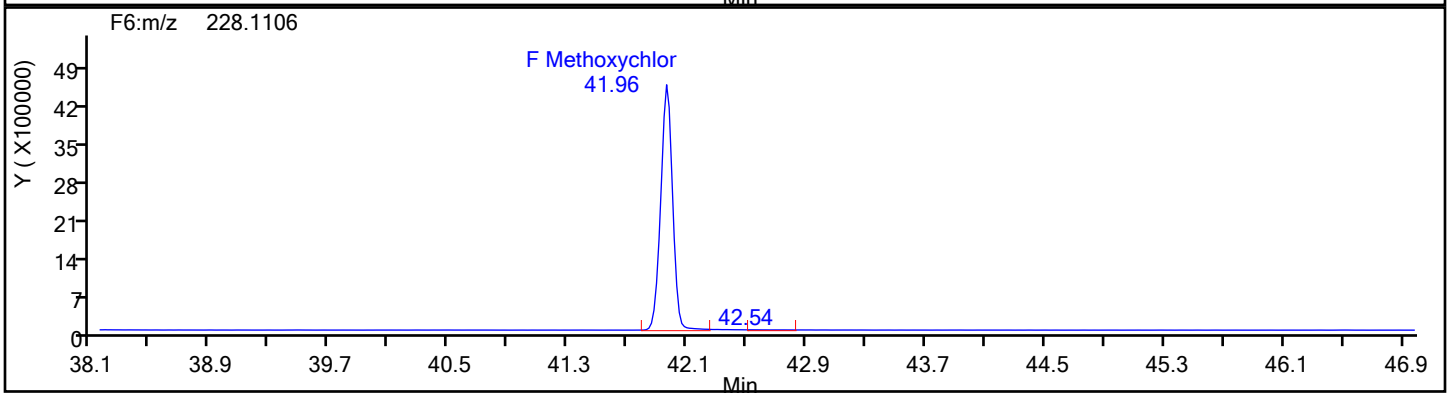
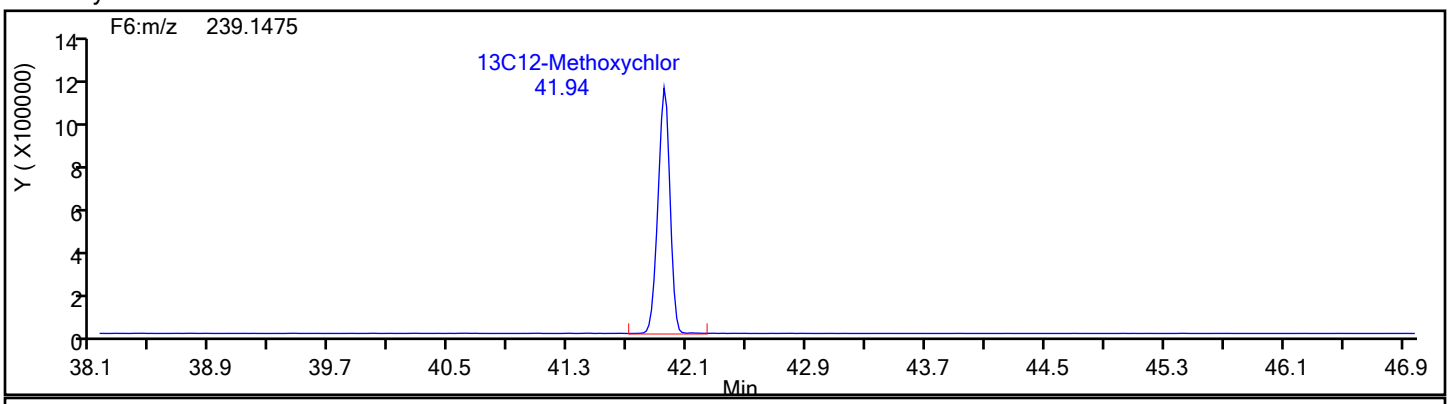
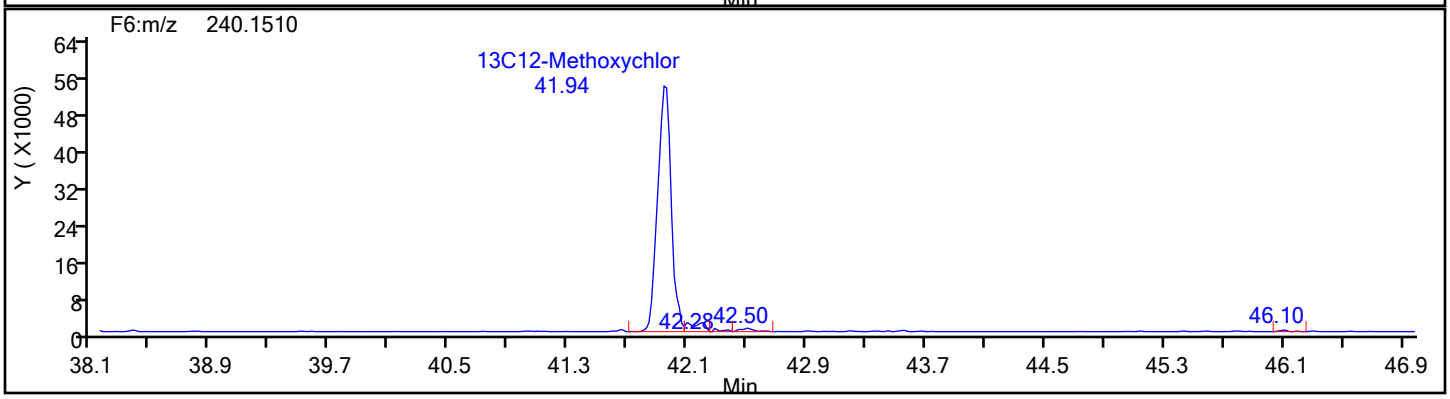
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

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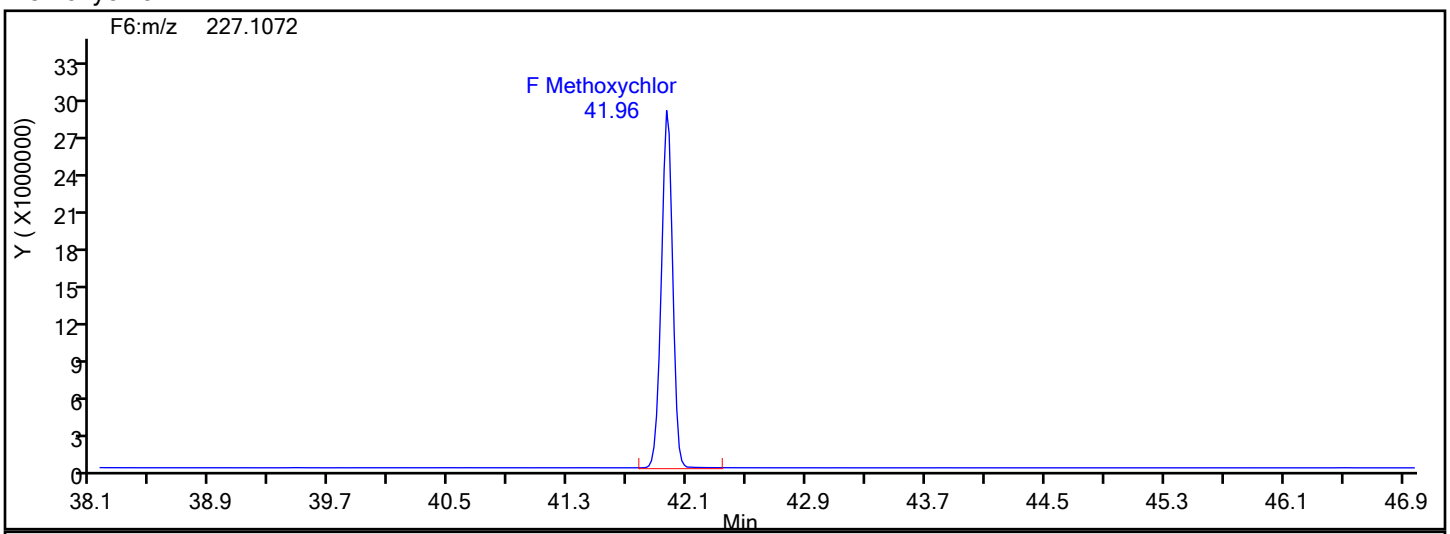
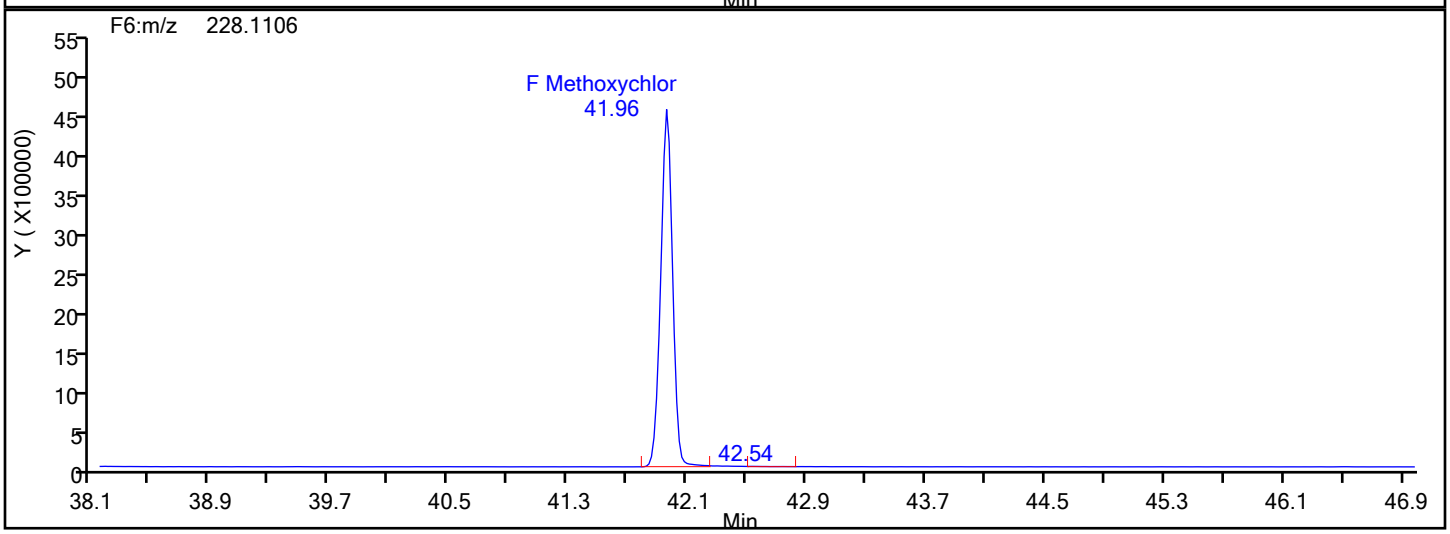
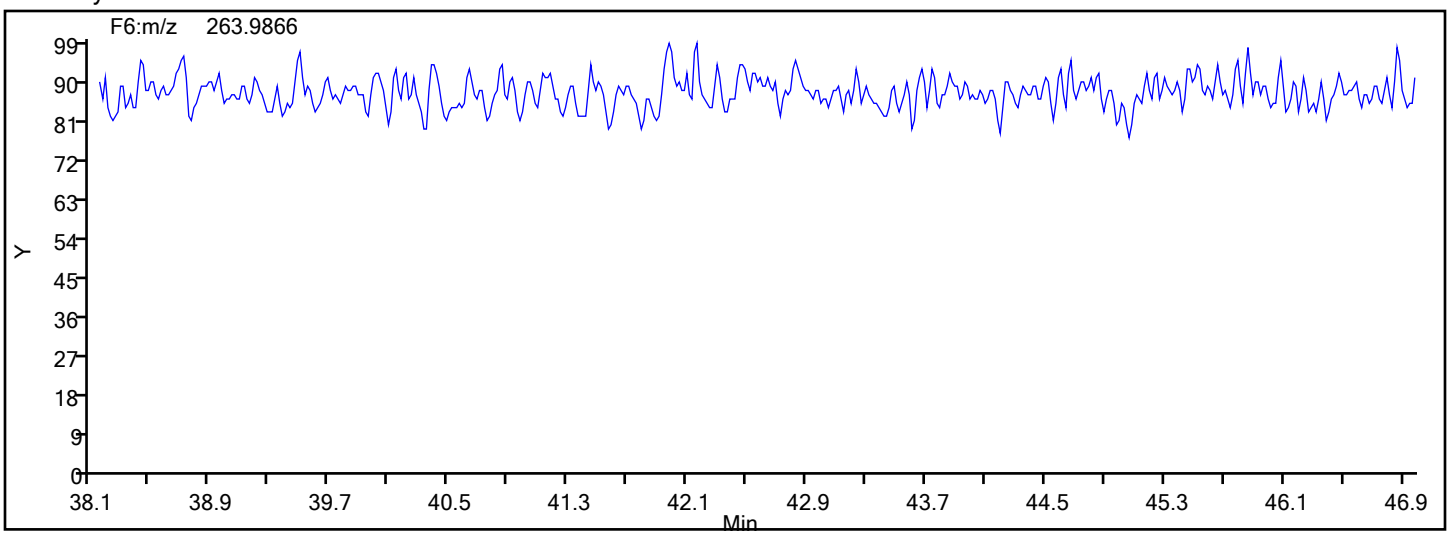
Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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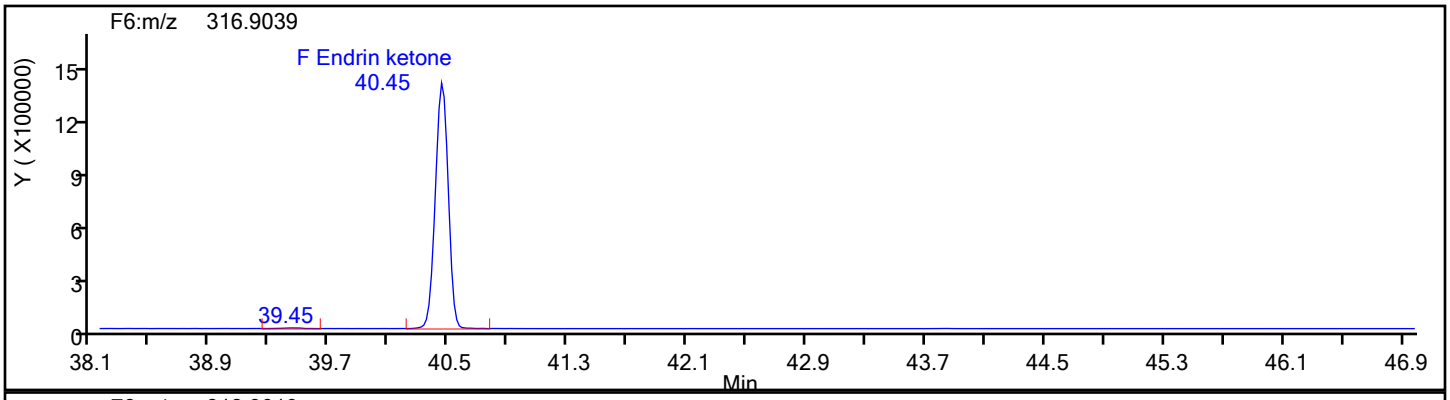
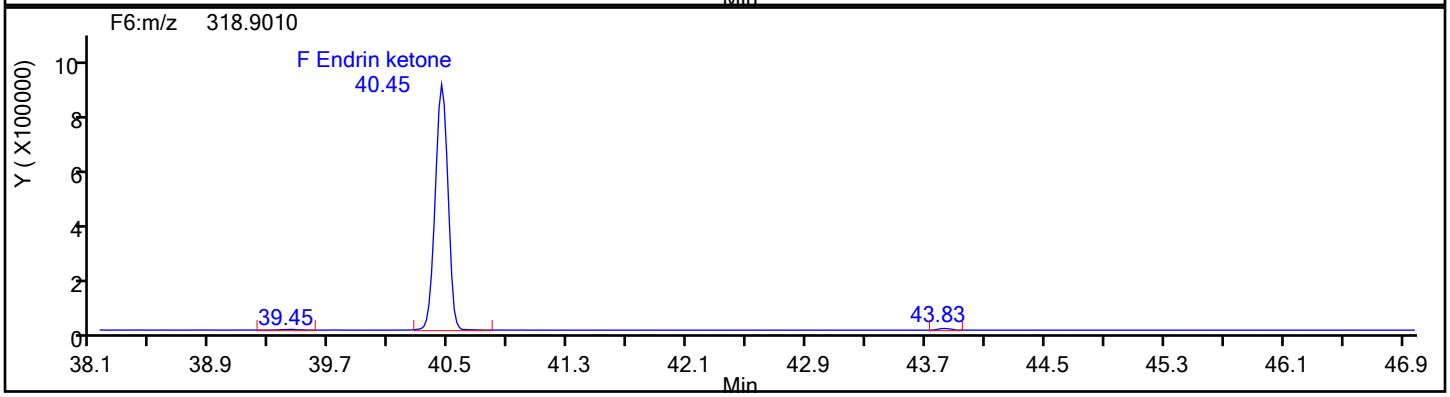
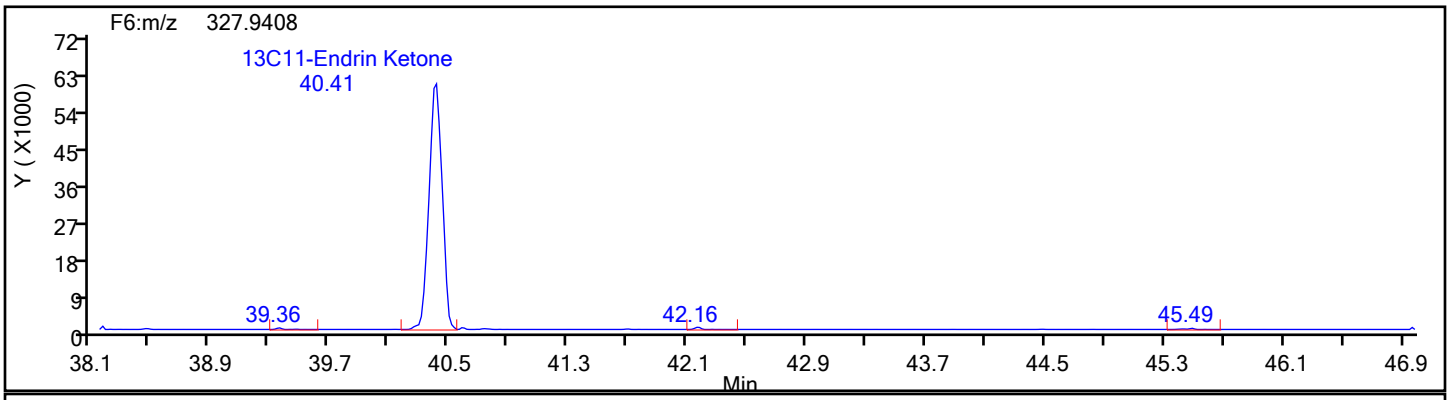
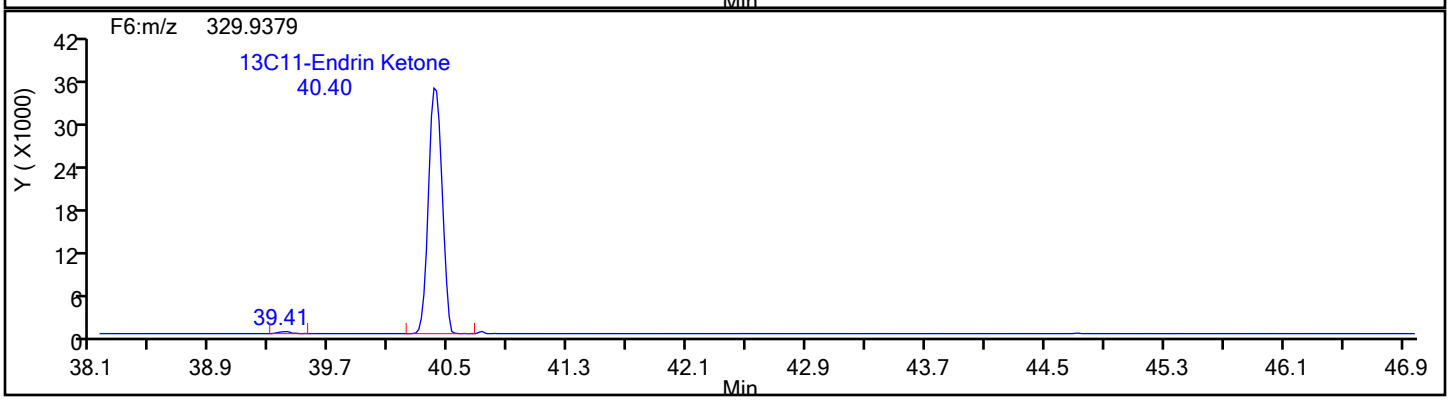
Endrin ketone





Endrin ketone Standards





Report Date: 24-Mar-2025 13:06:45 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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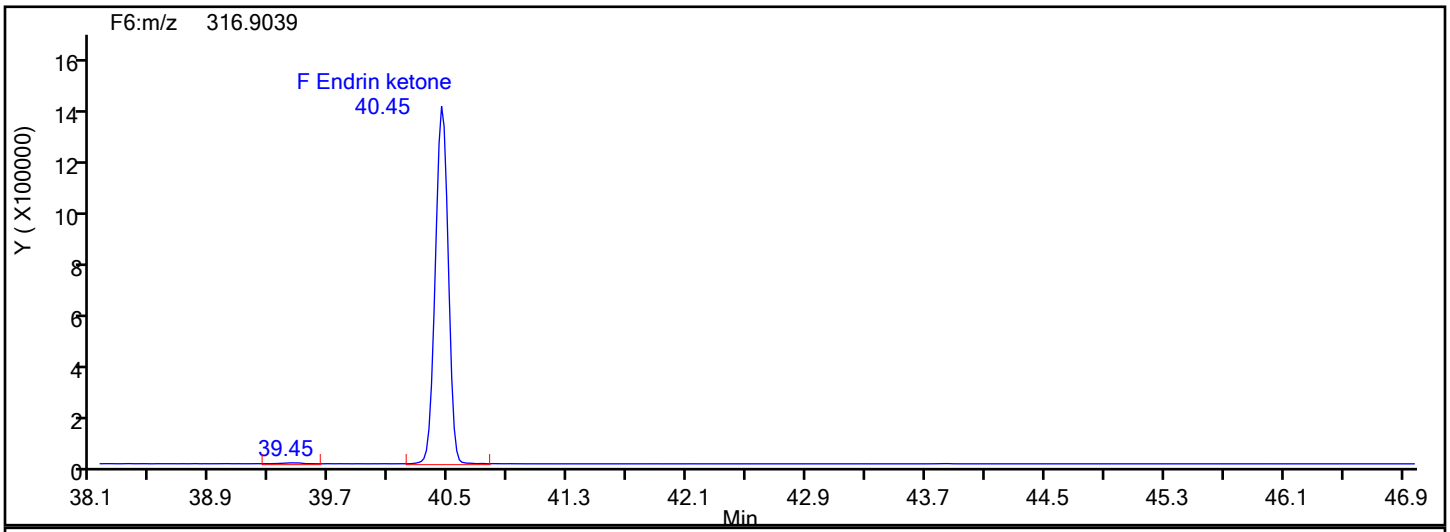
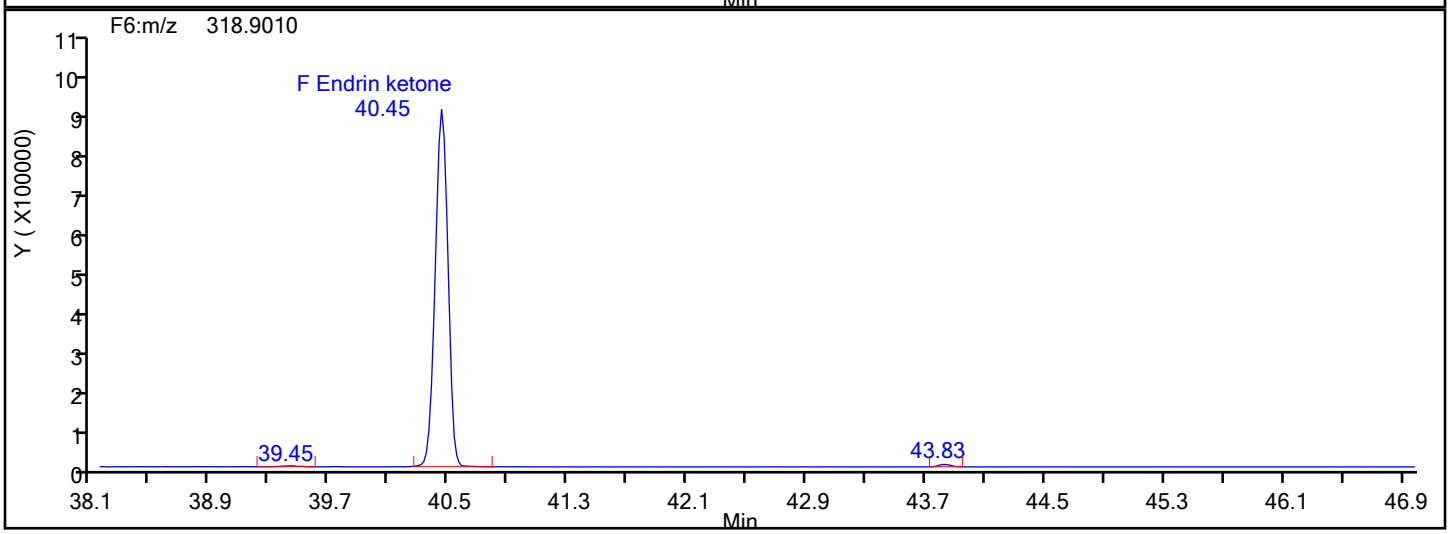
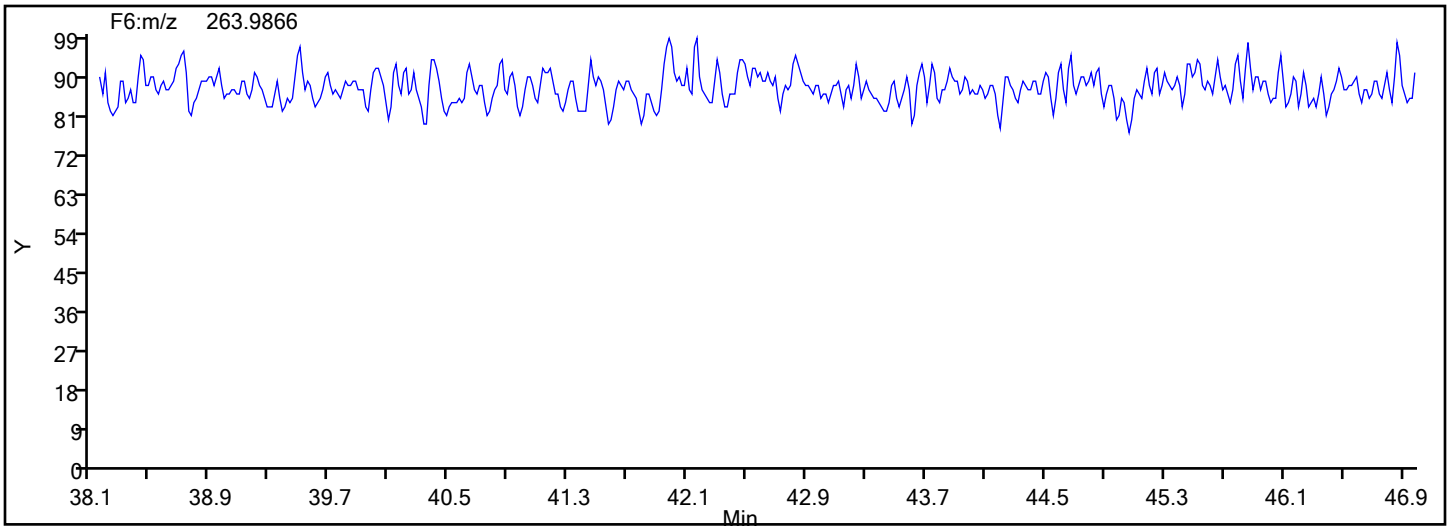
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





Endrin ketone Lock Mass



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Eurofins Knoxville

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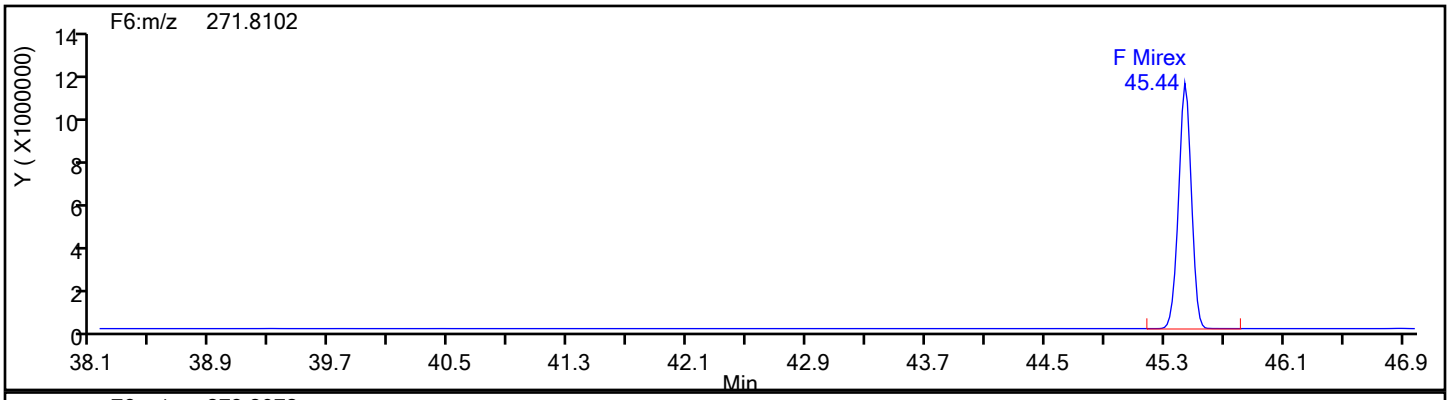

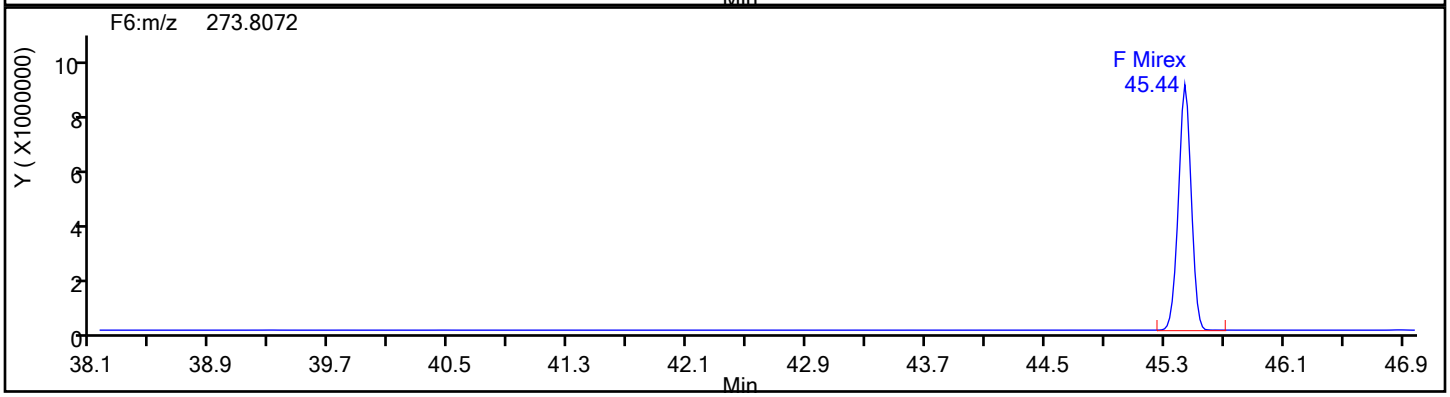

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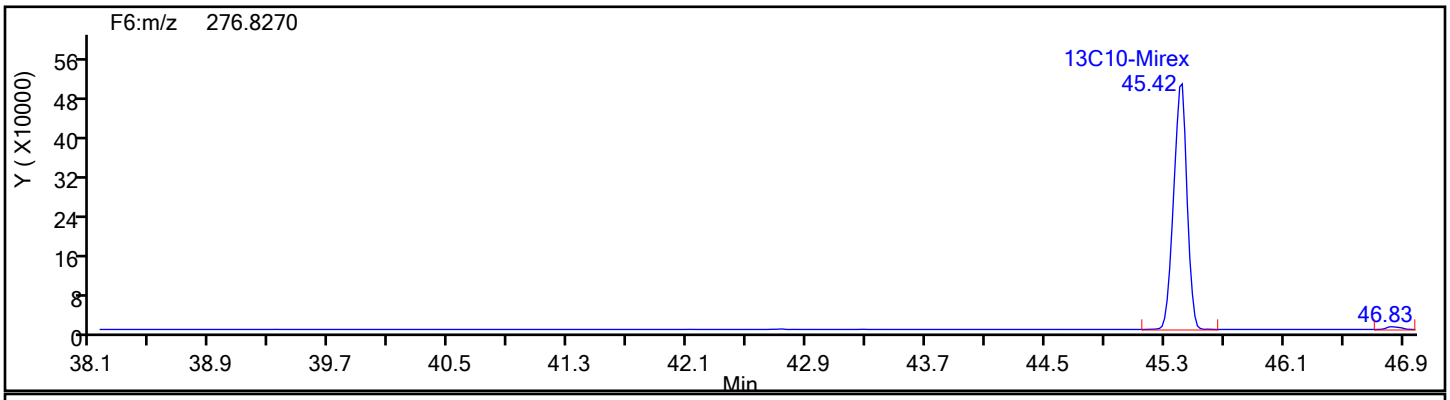

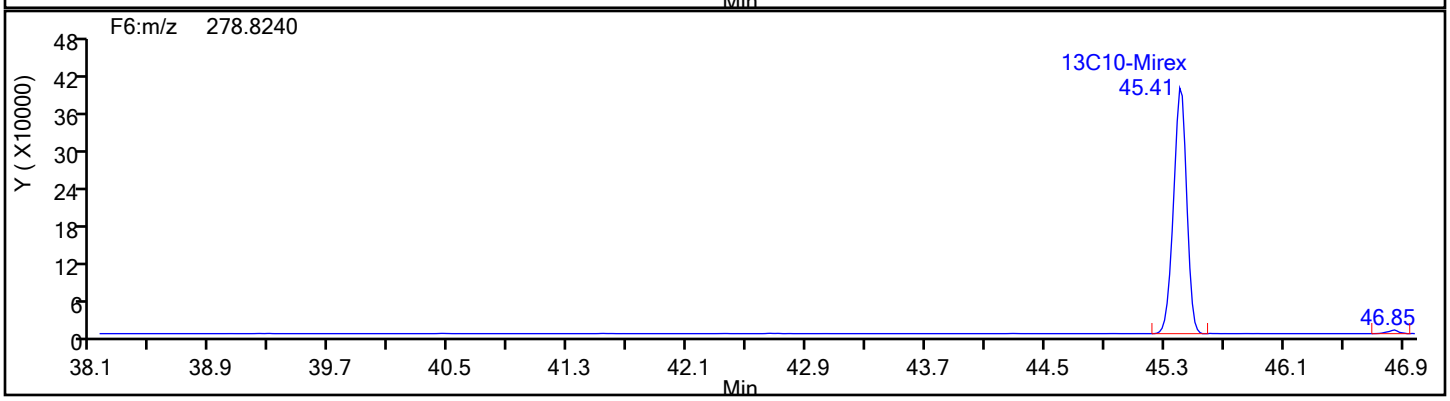

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Eurofins Knoxville

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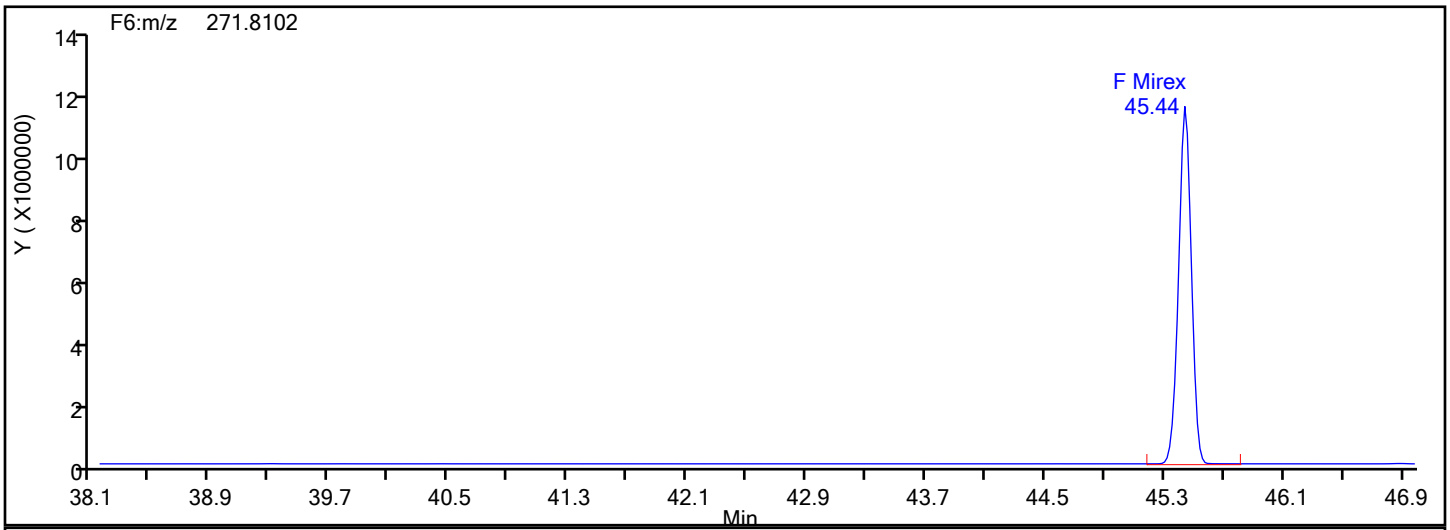
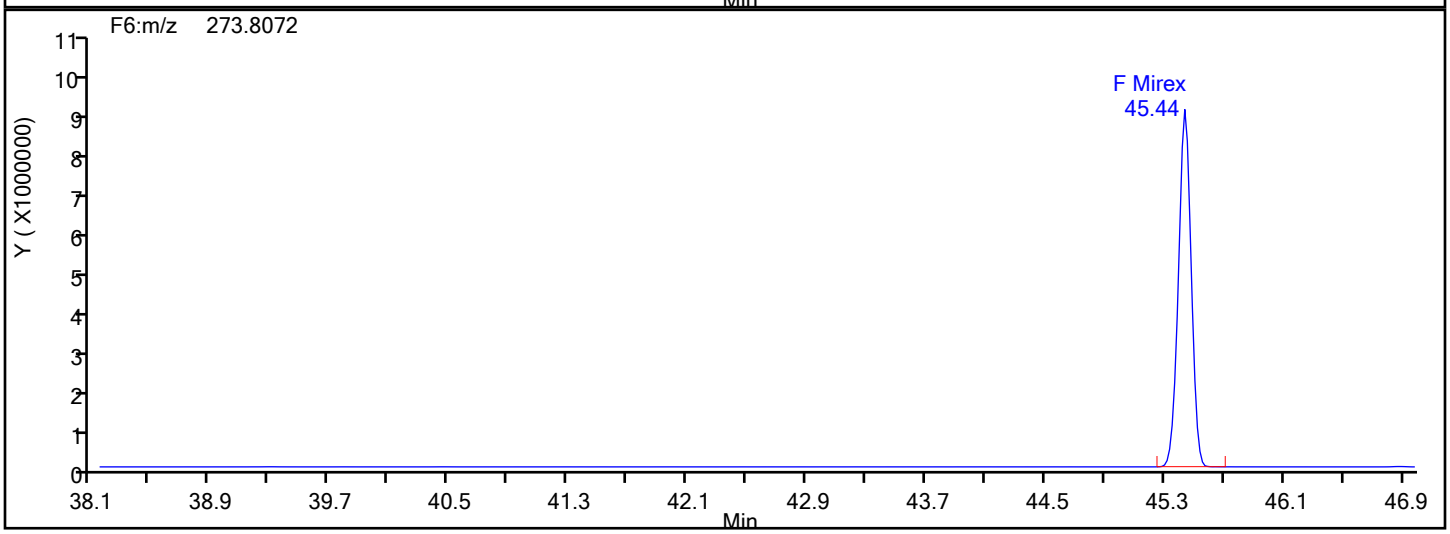
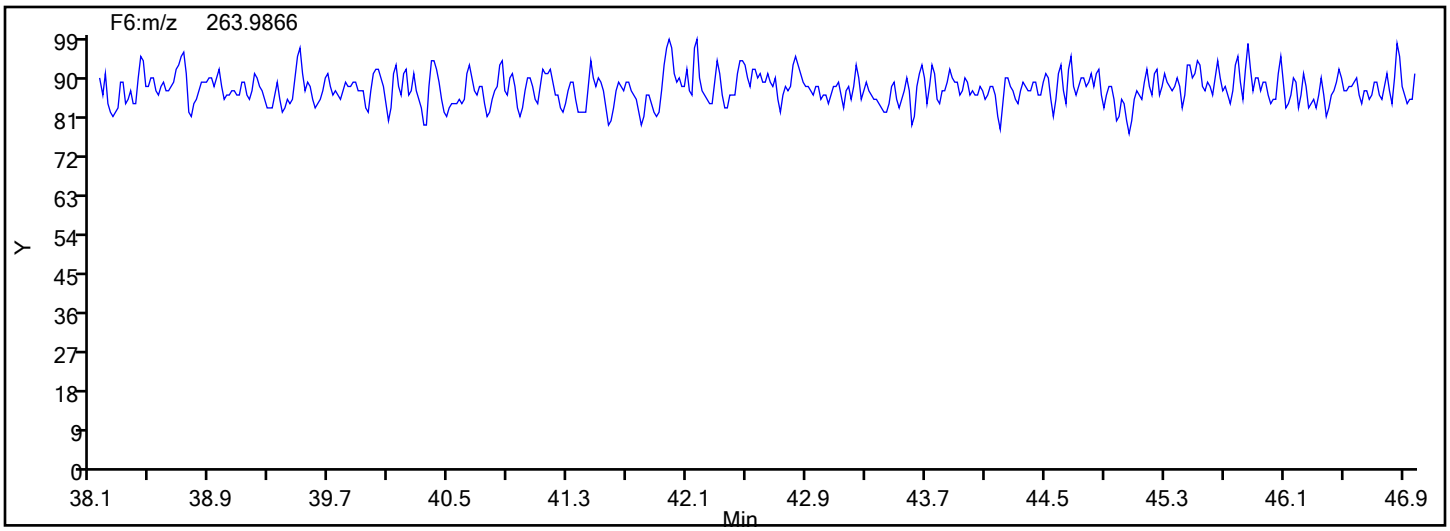




Mirex Lock Mass



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Eurofins Knoxville

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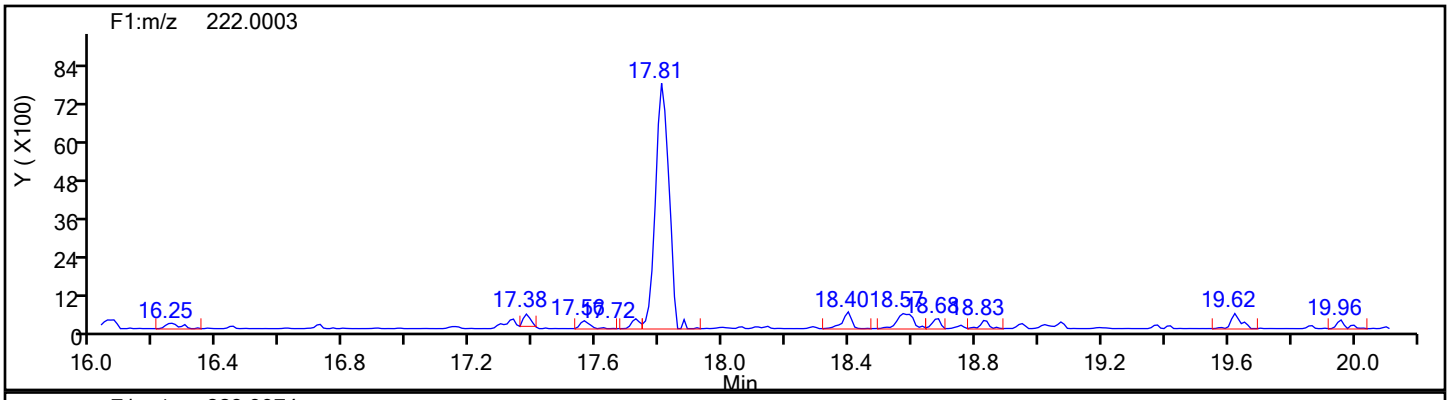
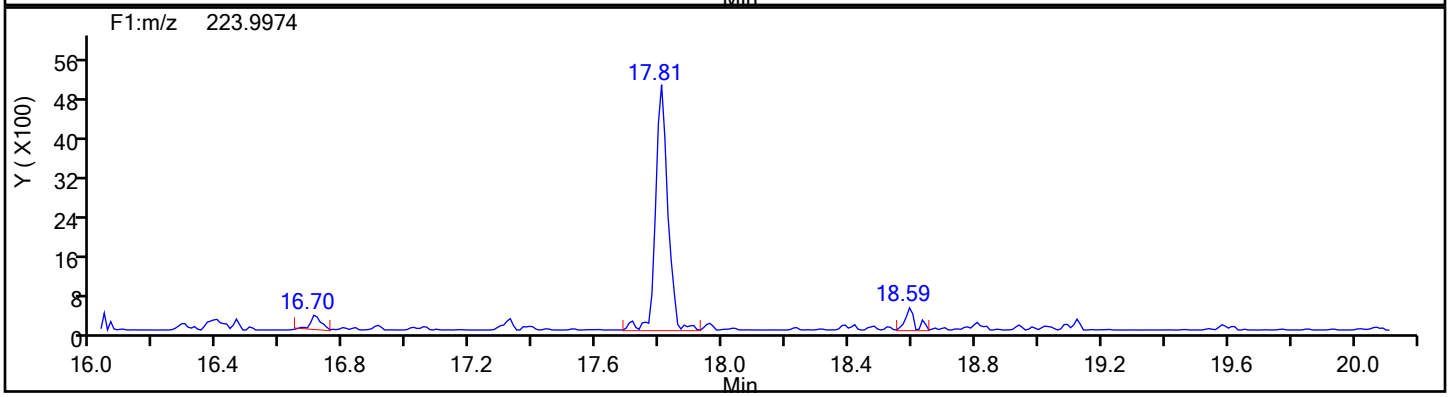
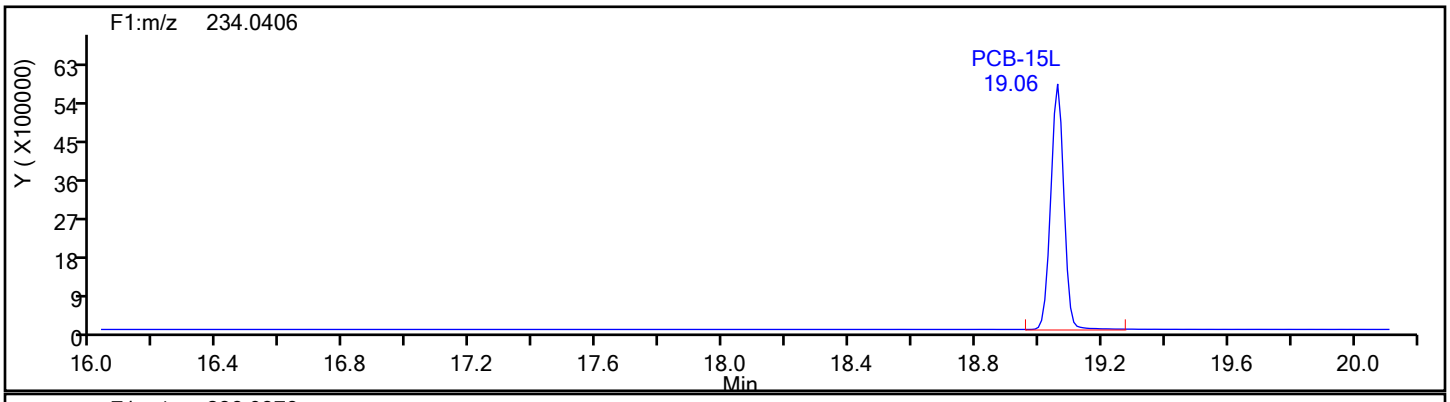
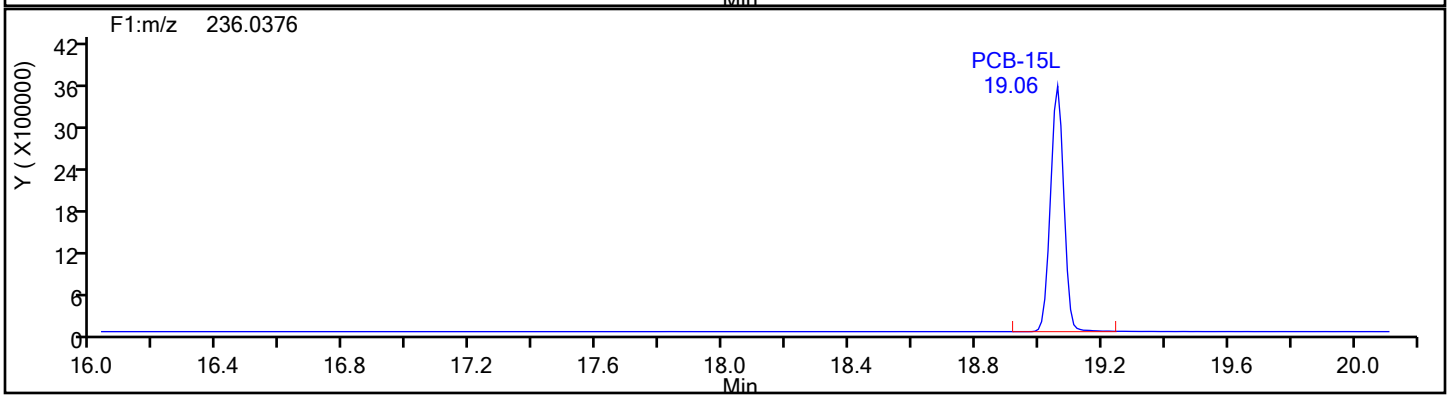
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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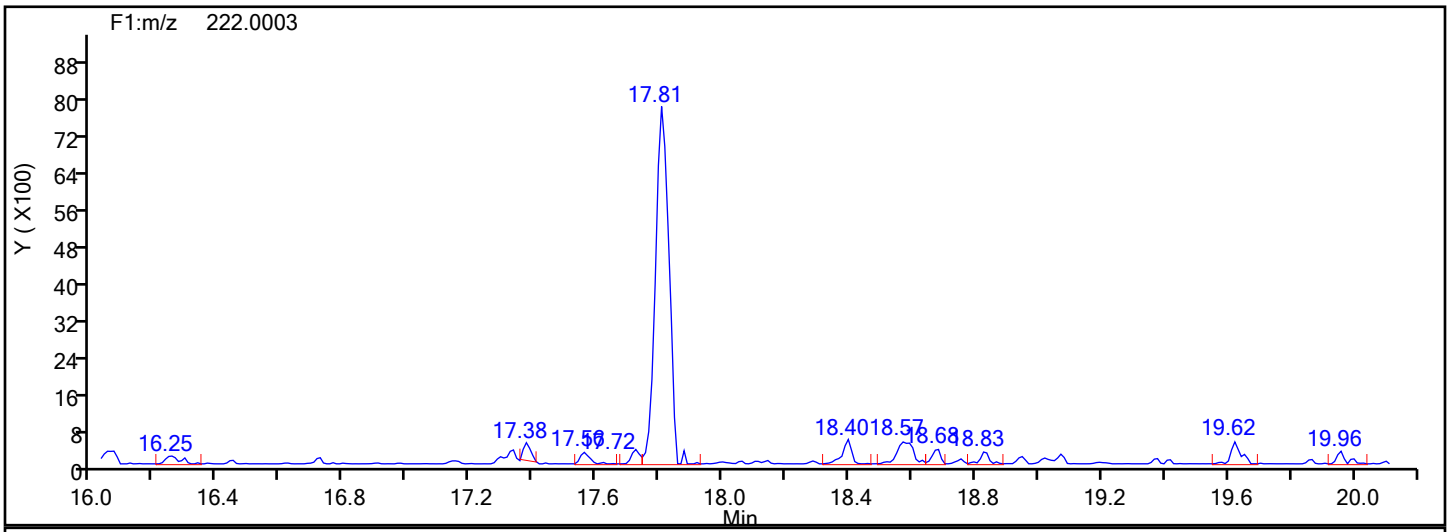
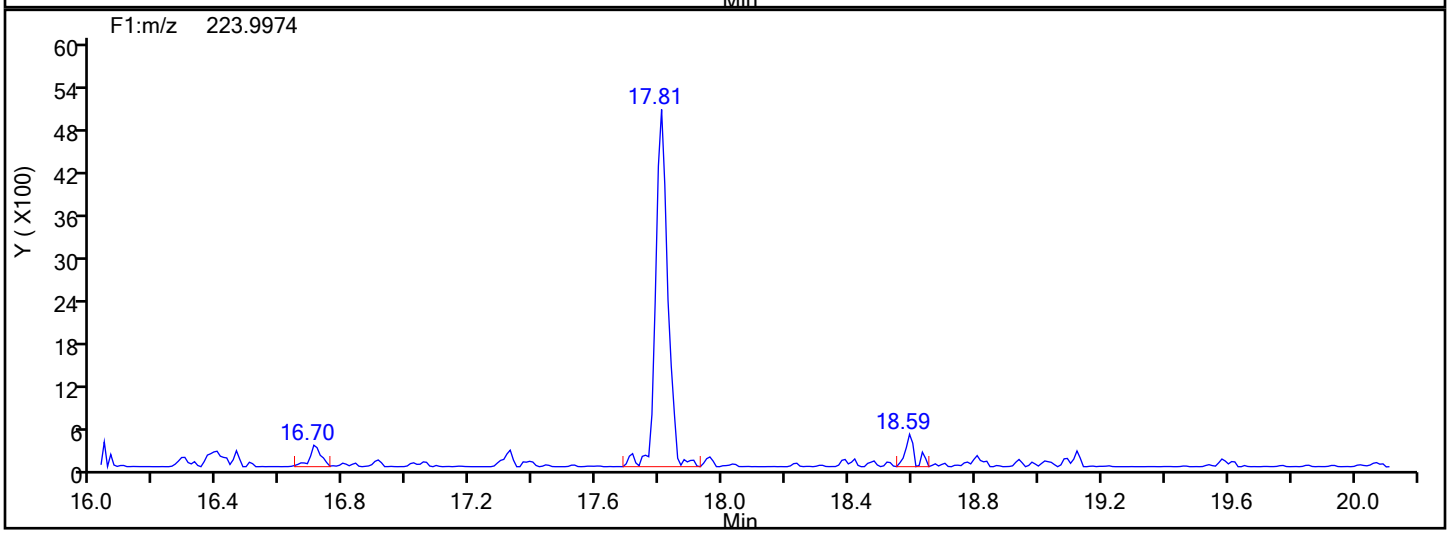
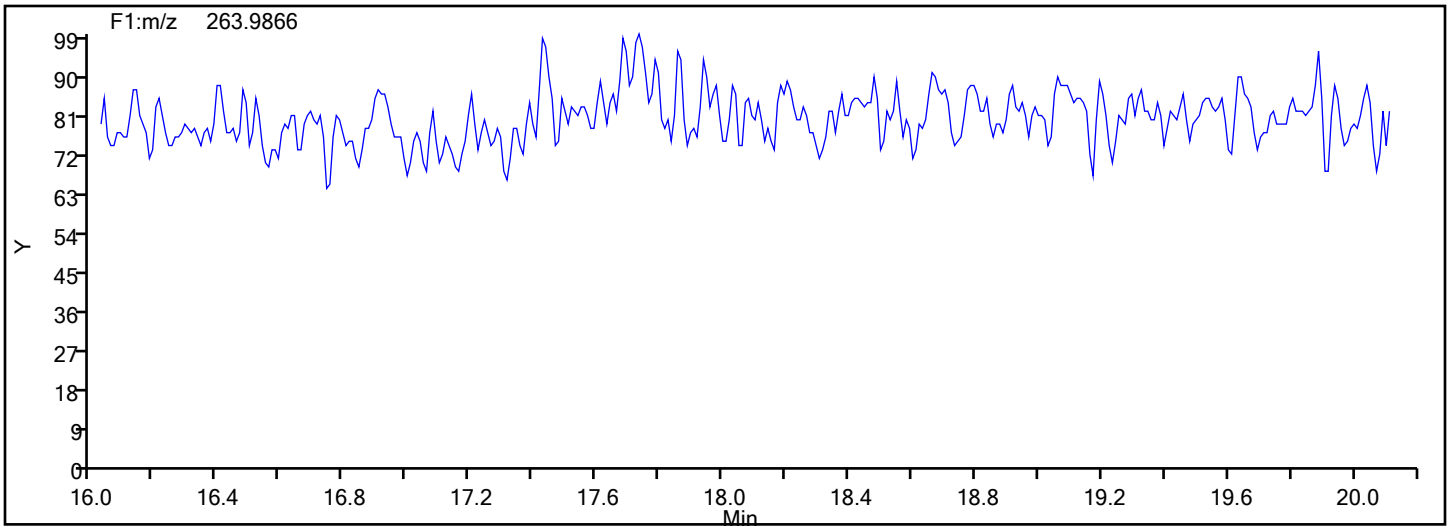
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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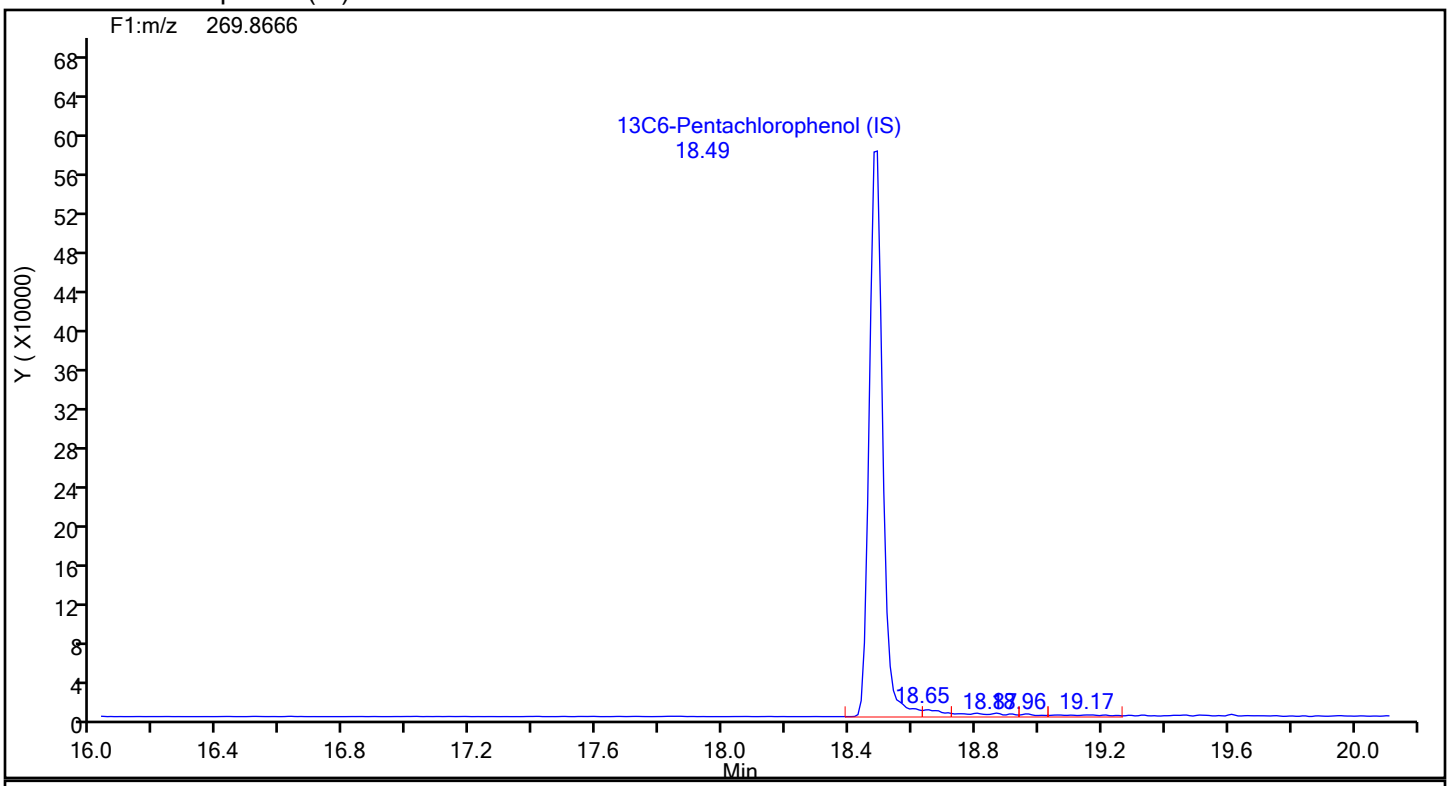
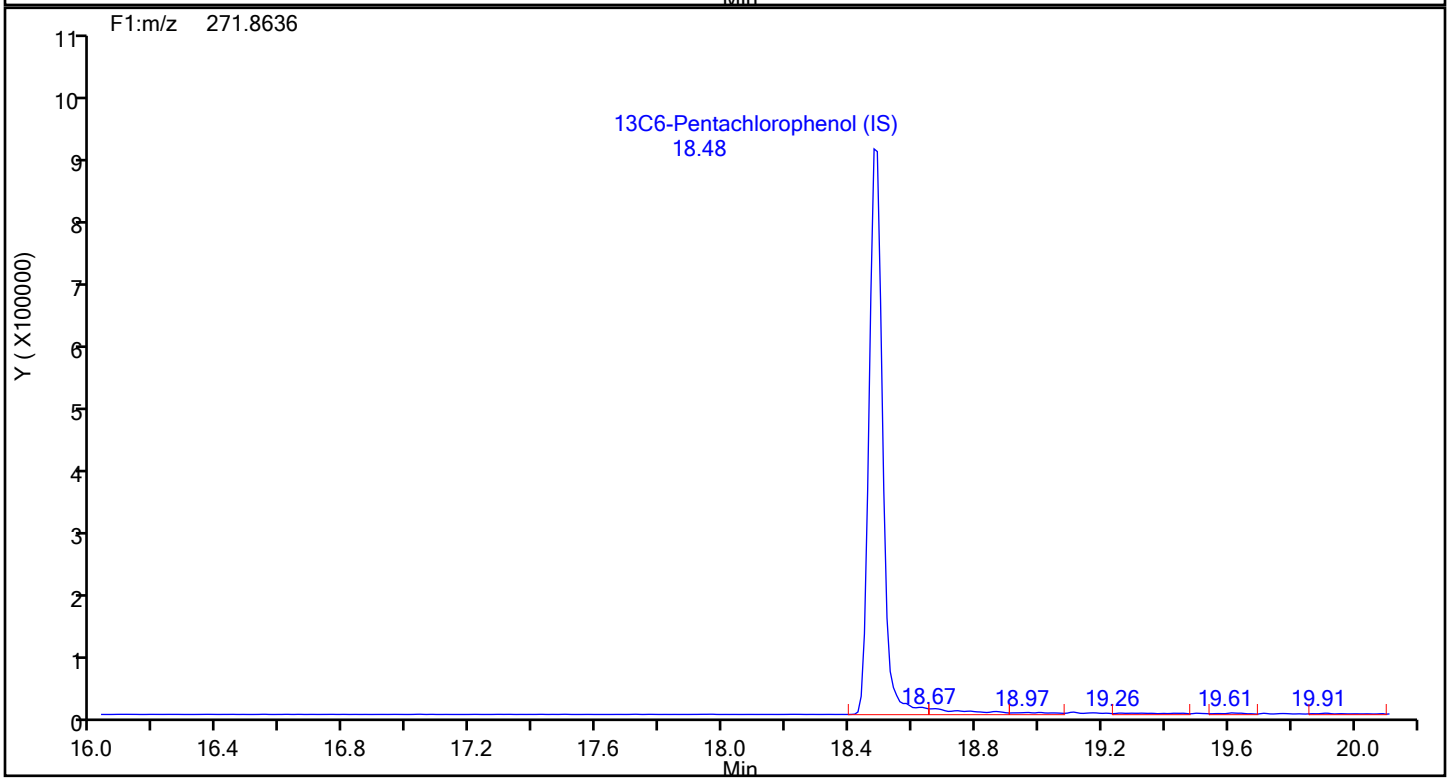
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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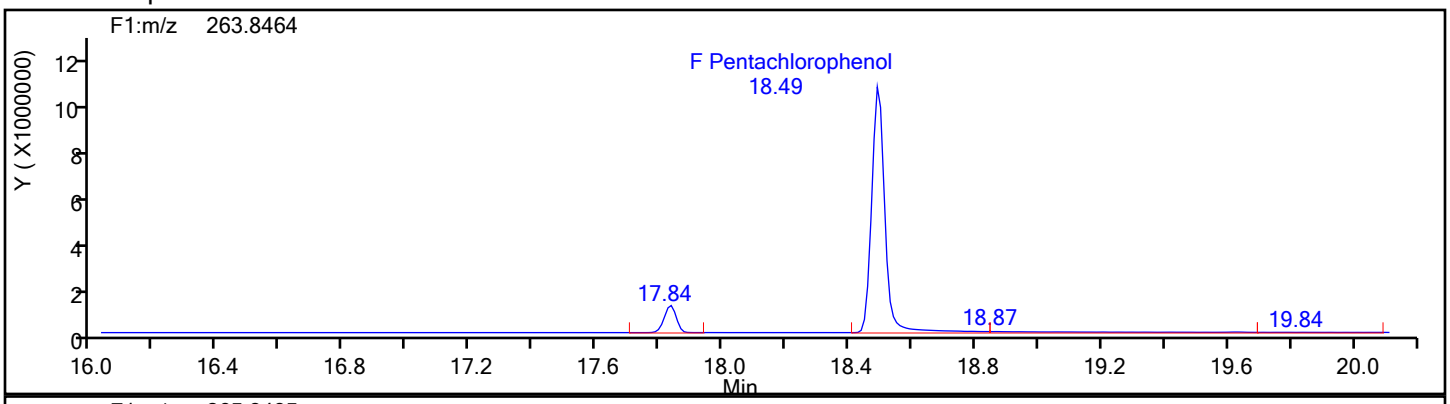
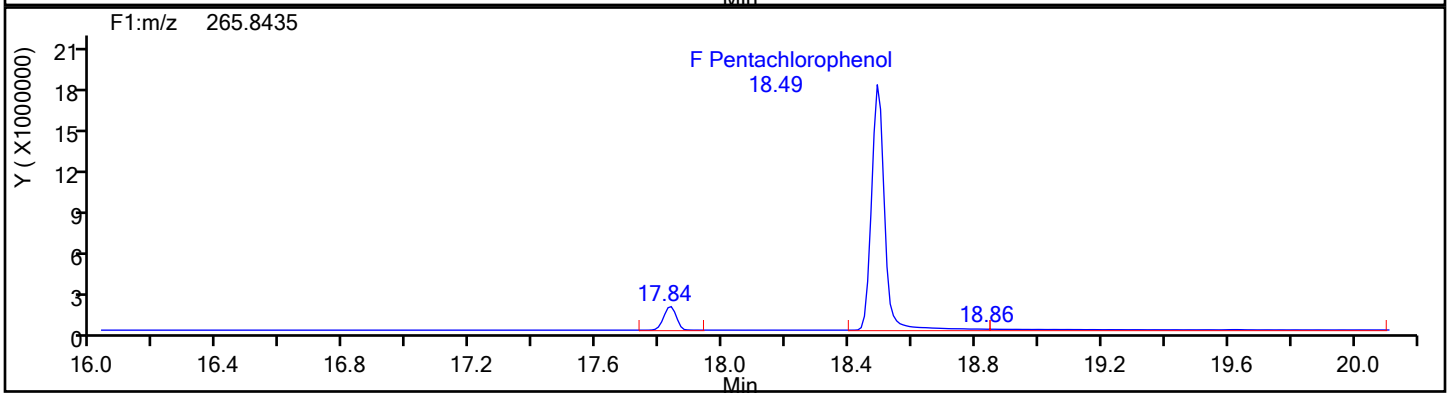
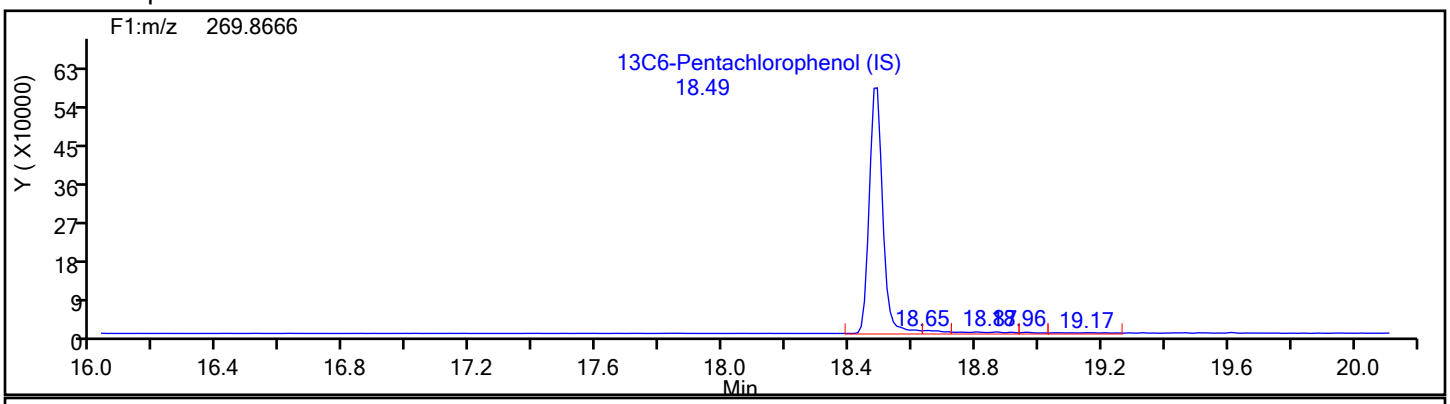
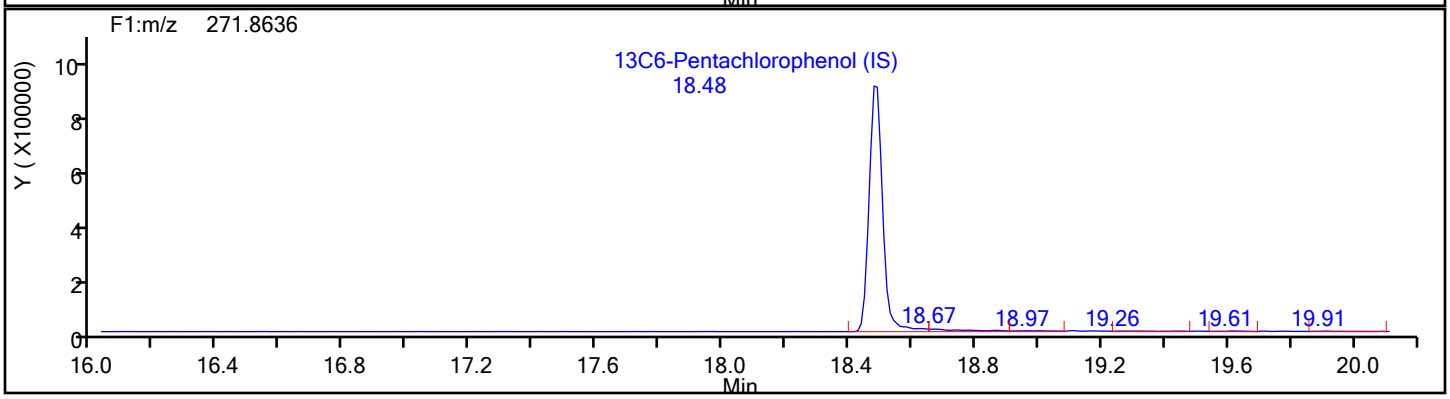
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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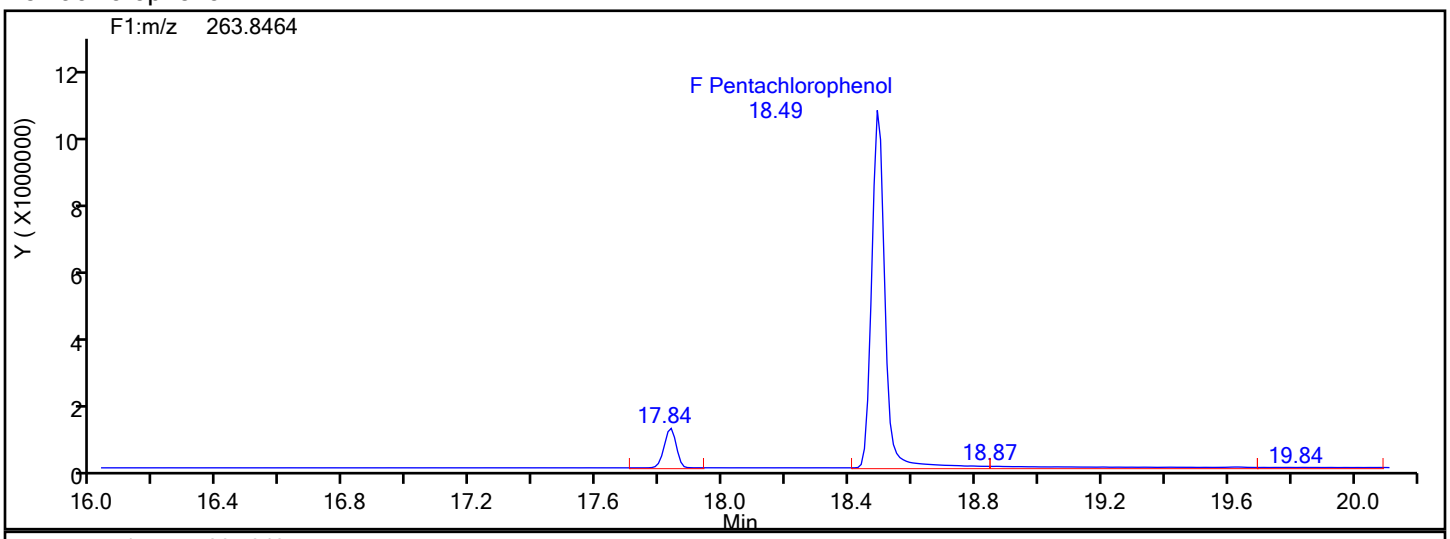
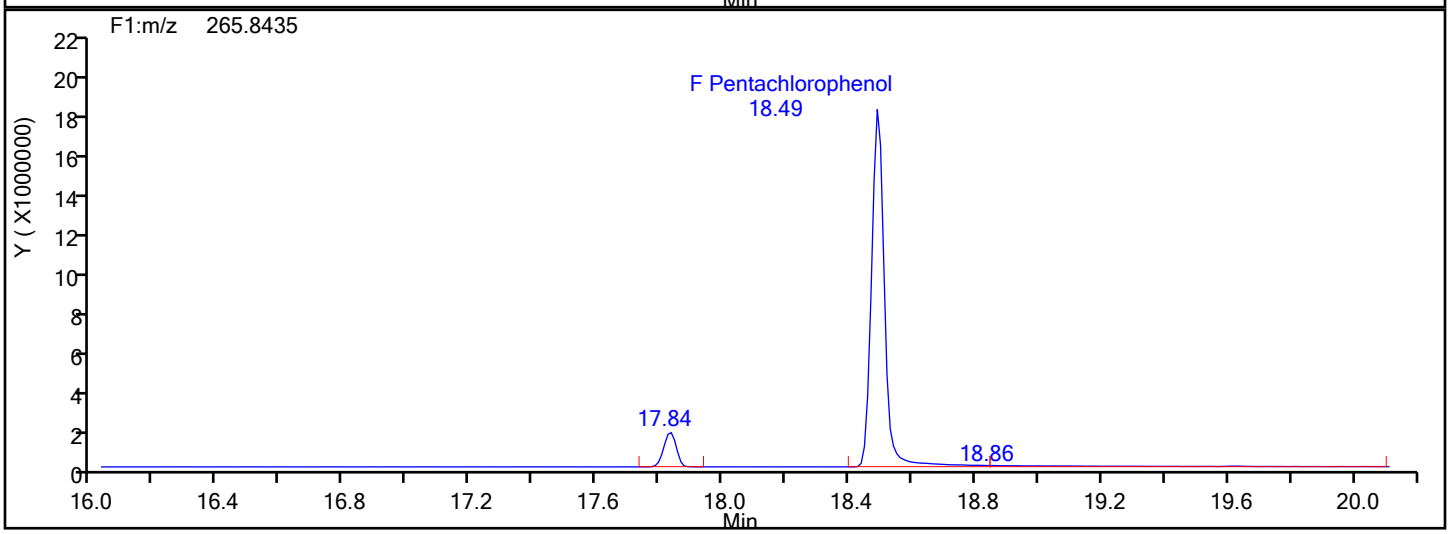
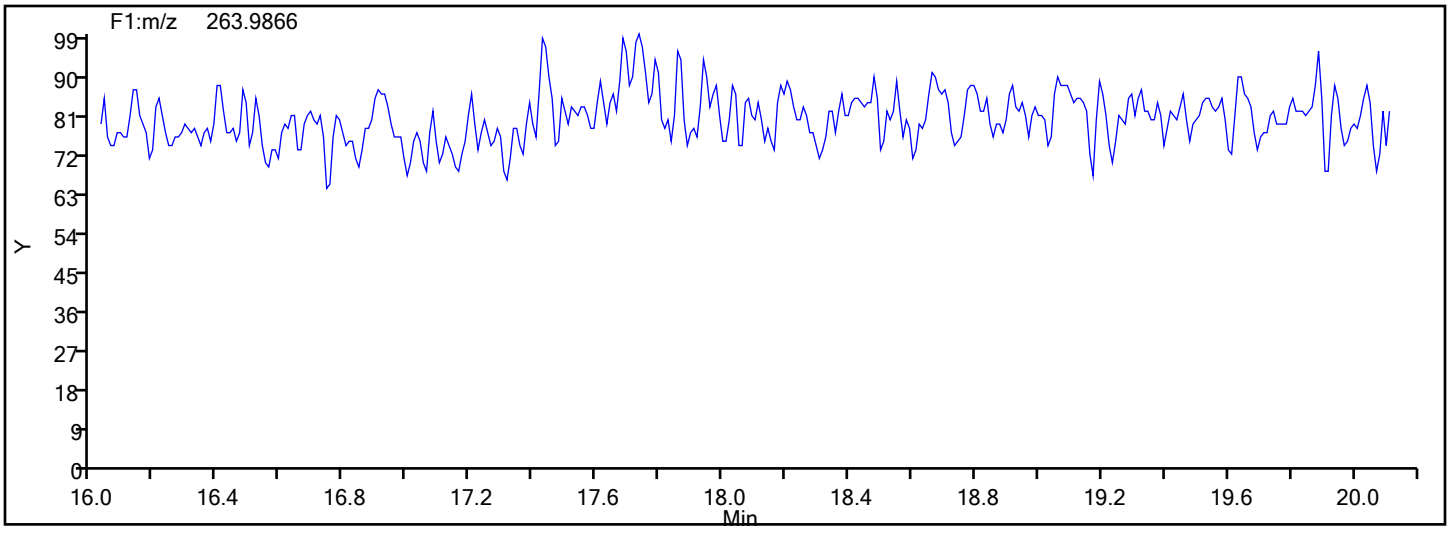
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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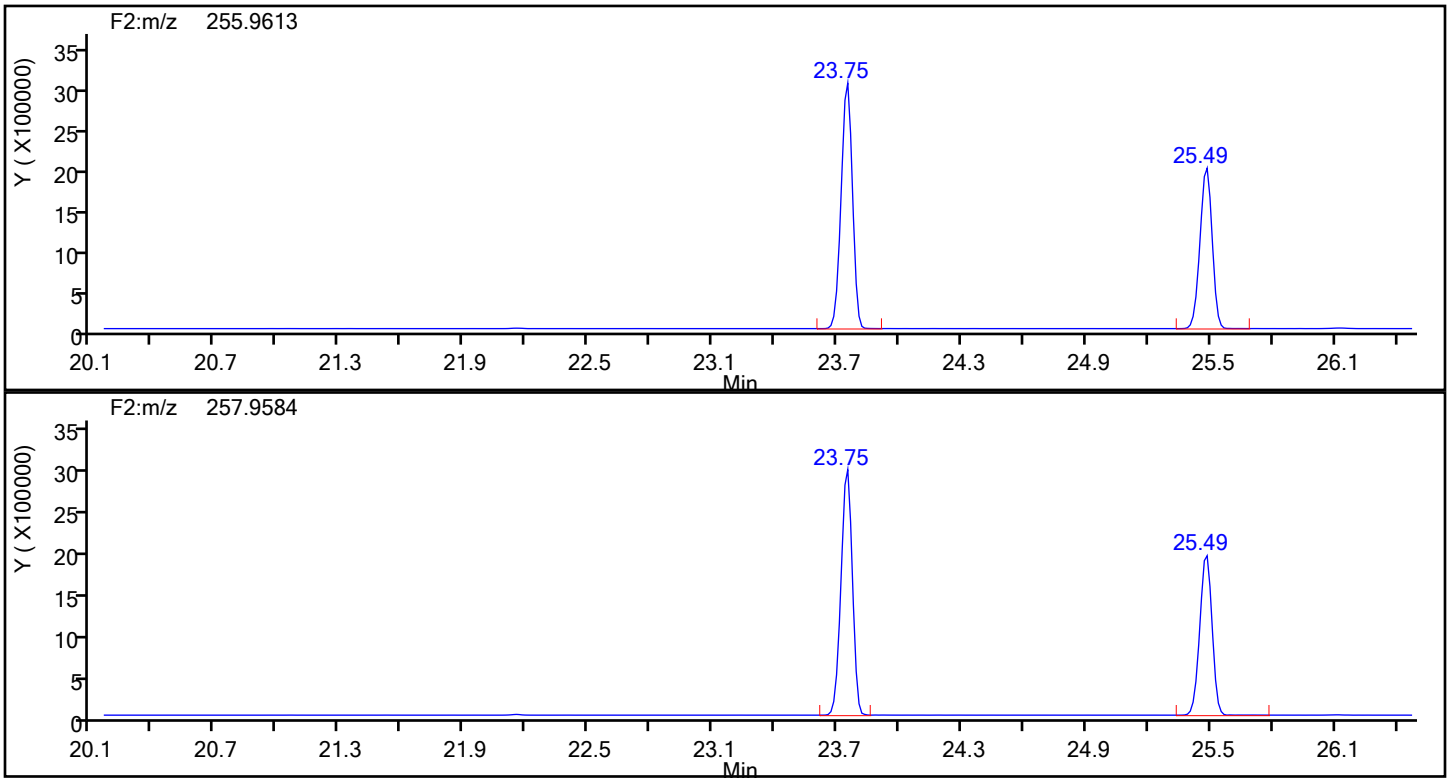
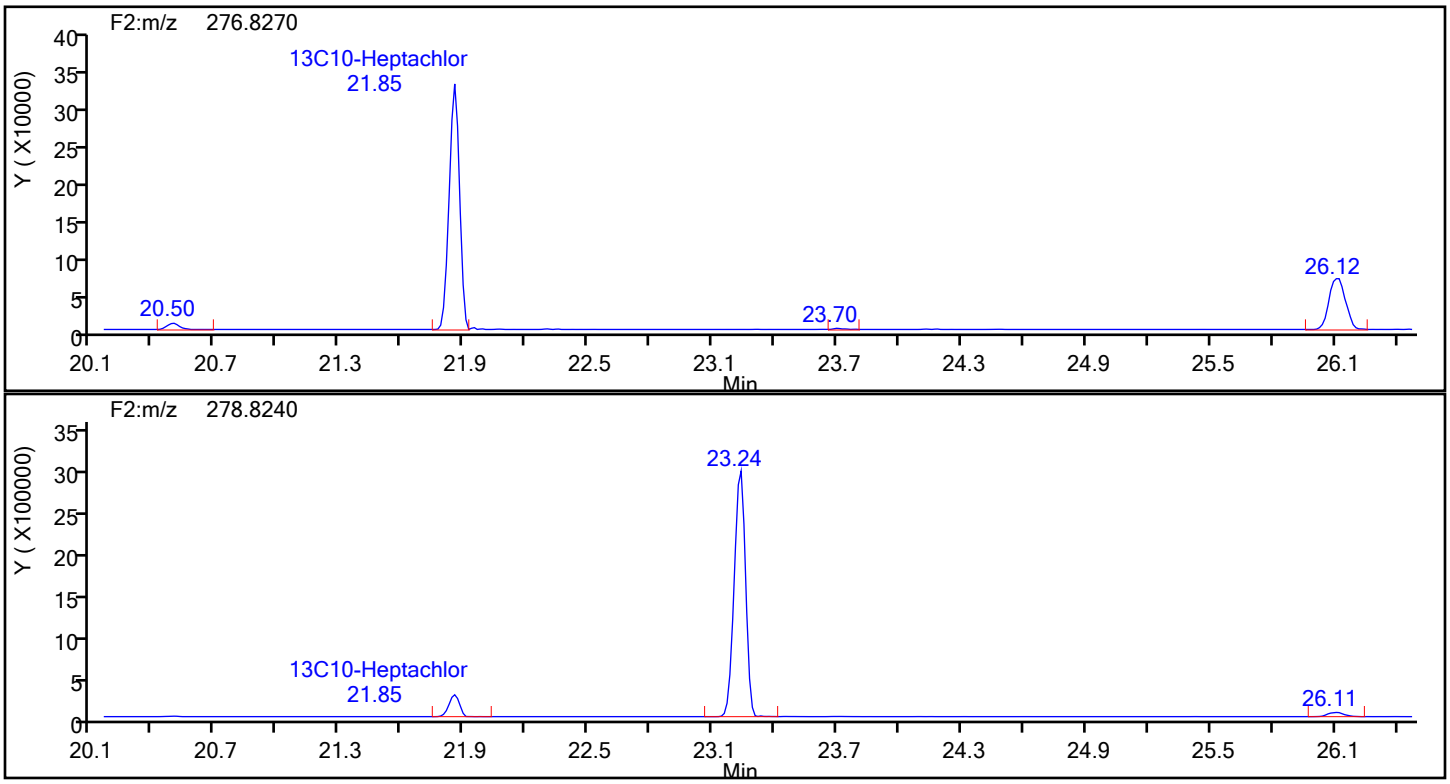
PCB-36



PCB-36 Standards



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Eurofins Knoxville

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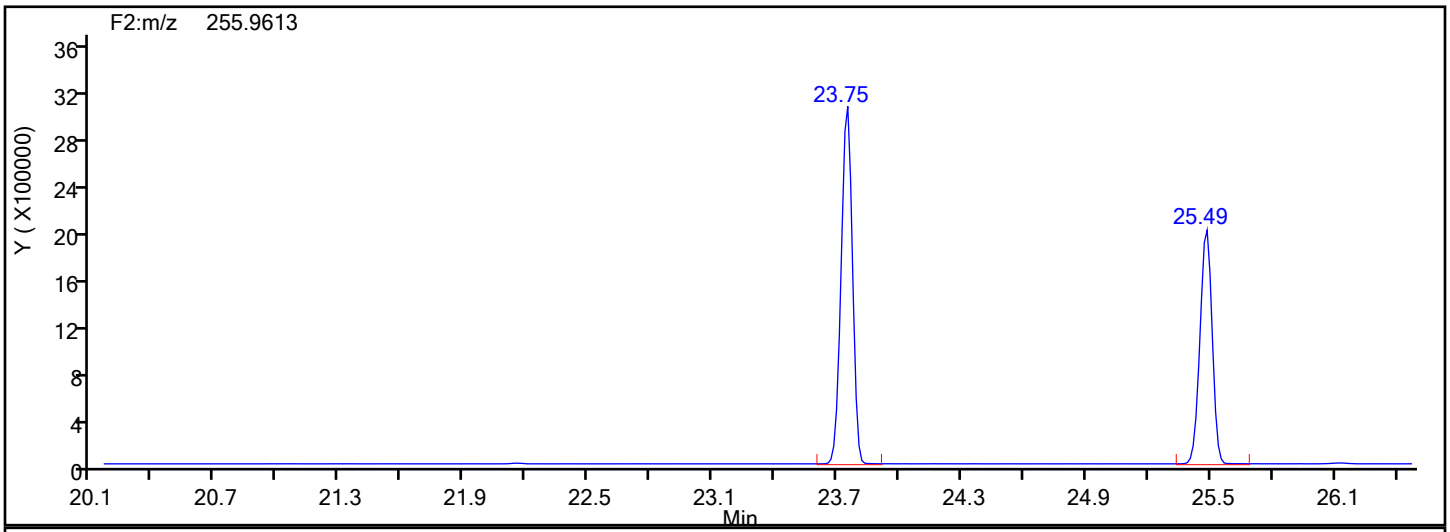
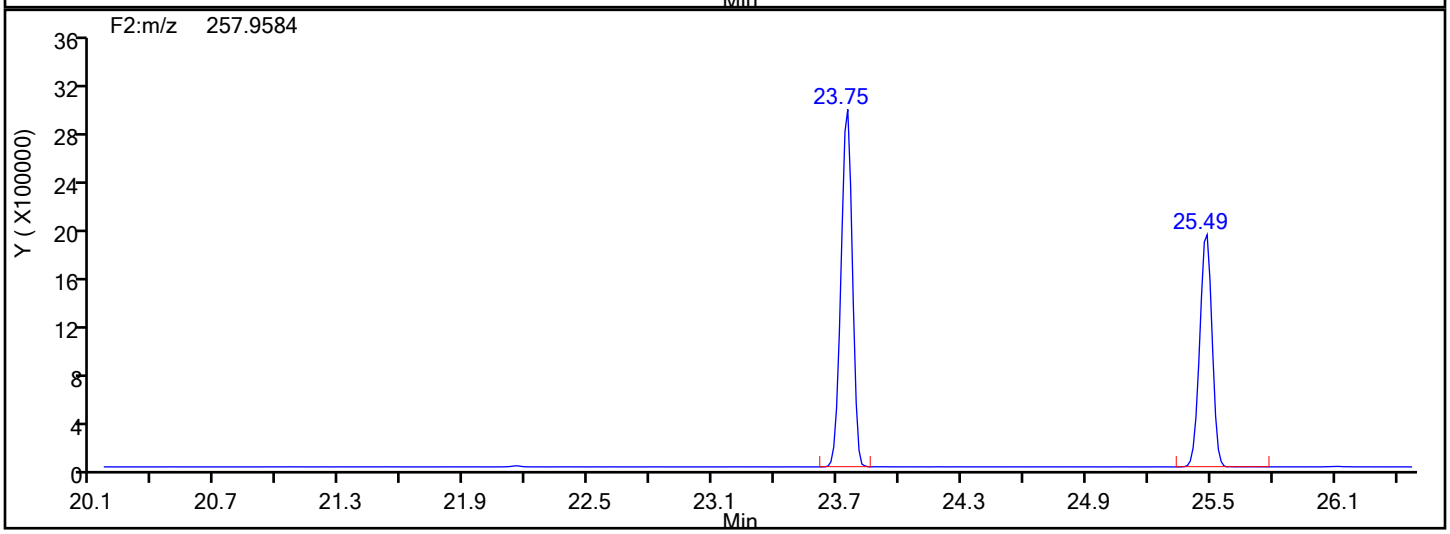
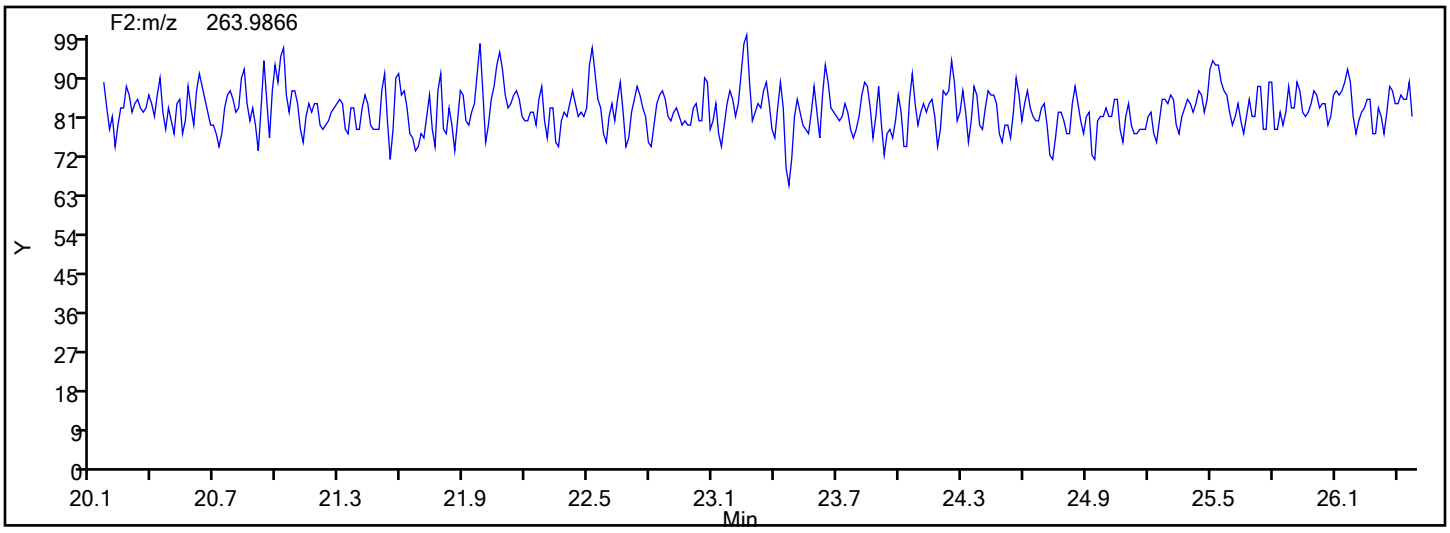
PCB-36





PCB-36 Lock Mass



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Eurofins Knoxville

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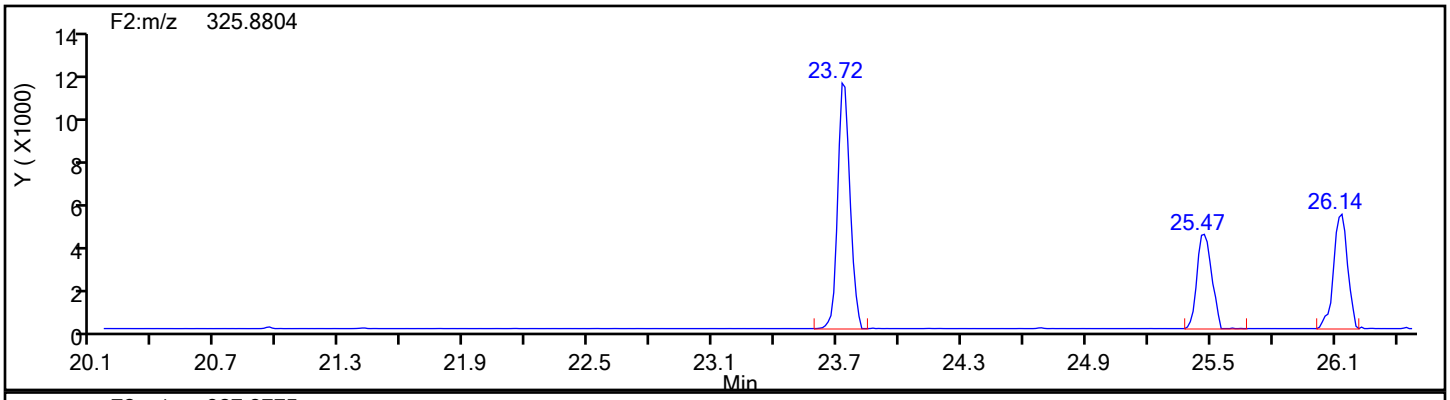
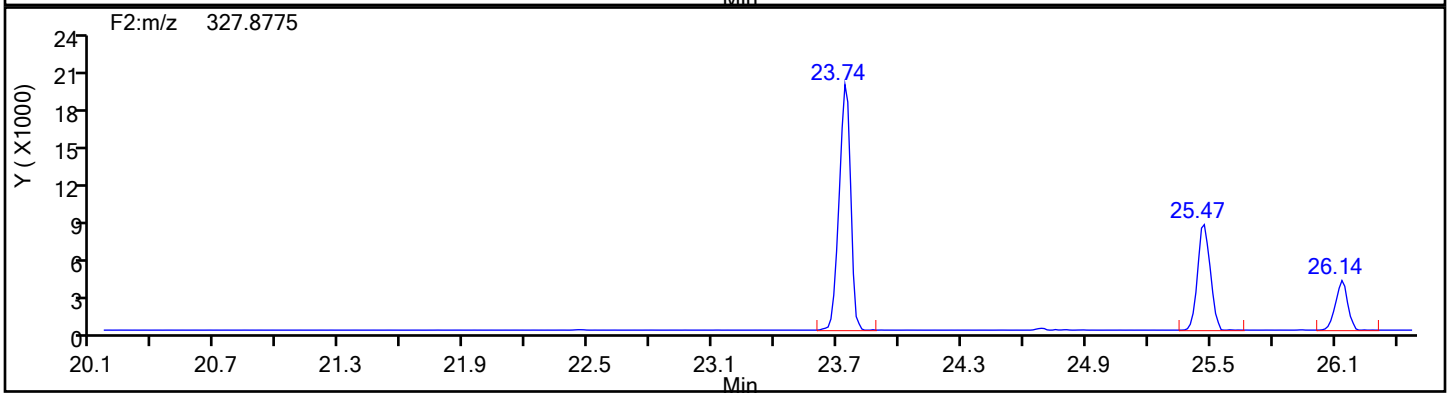
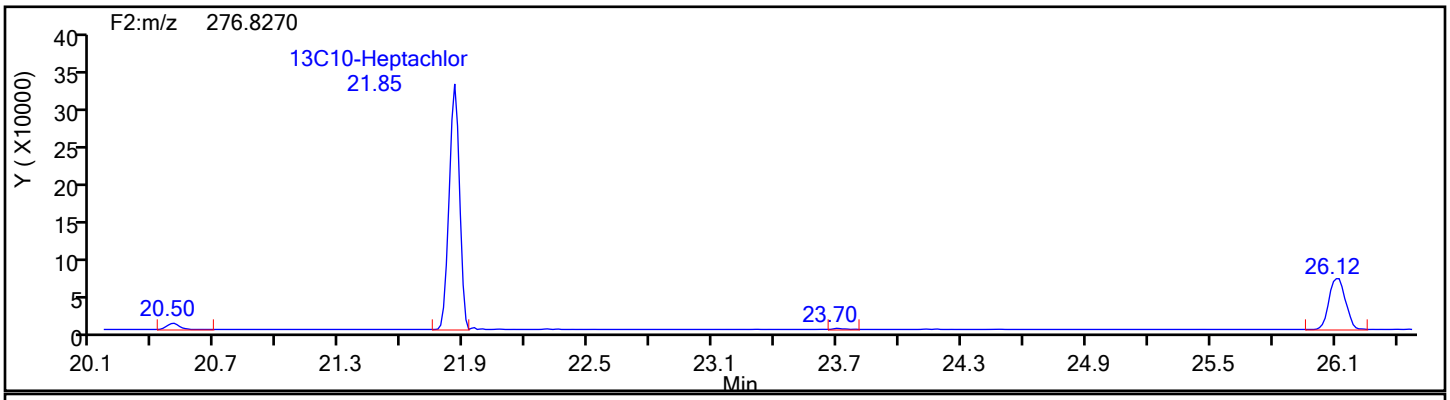
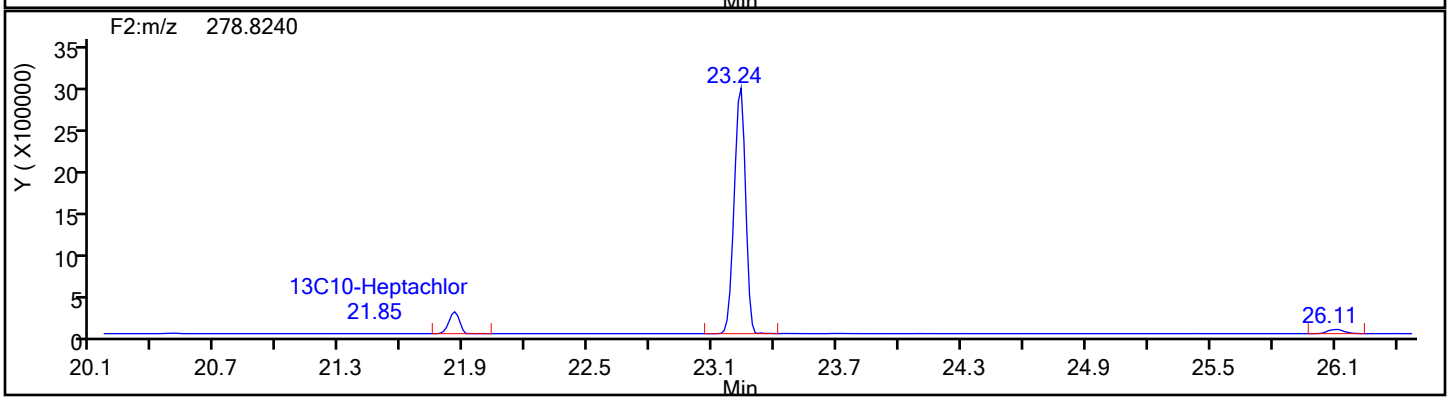
PCB-104





PCB-104 Standards





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Eurofins Knoxville

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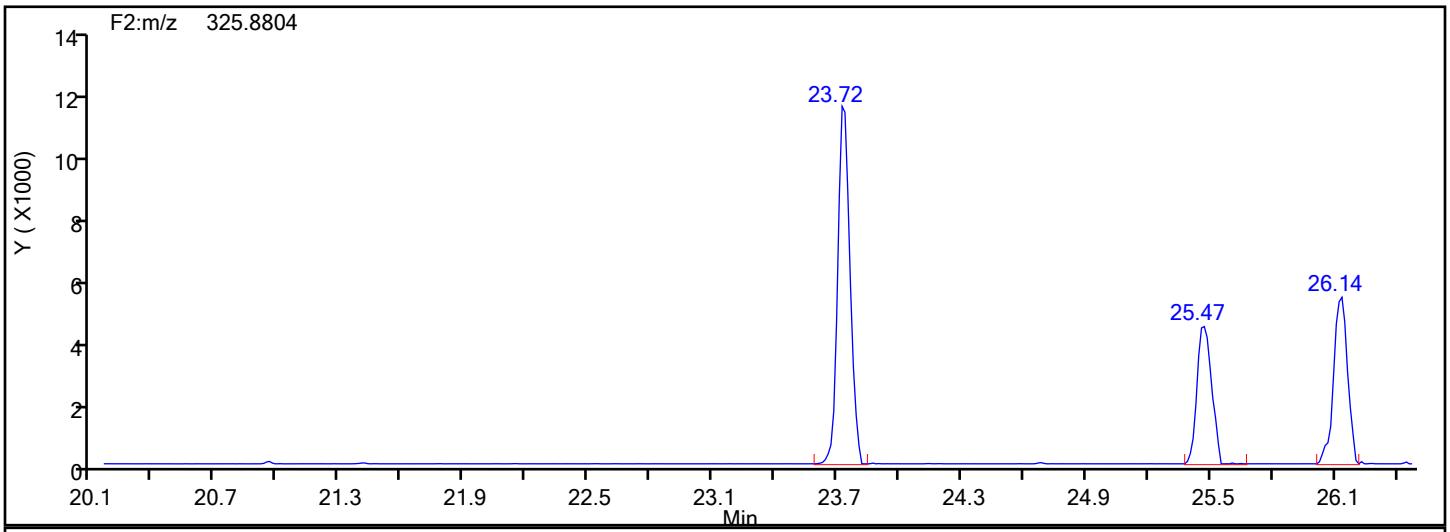
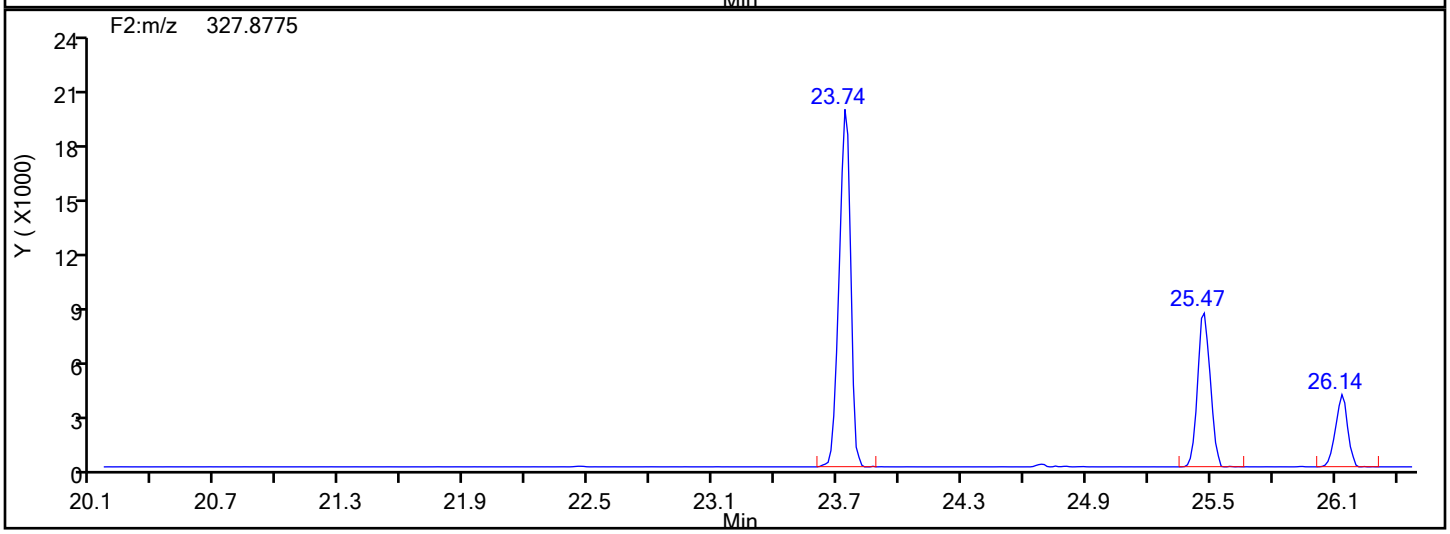
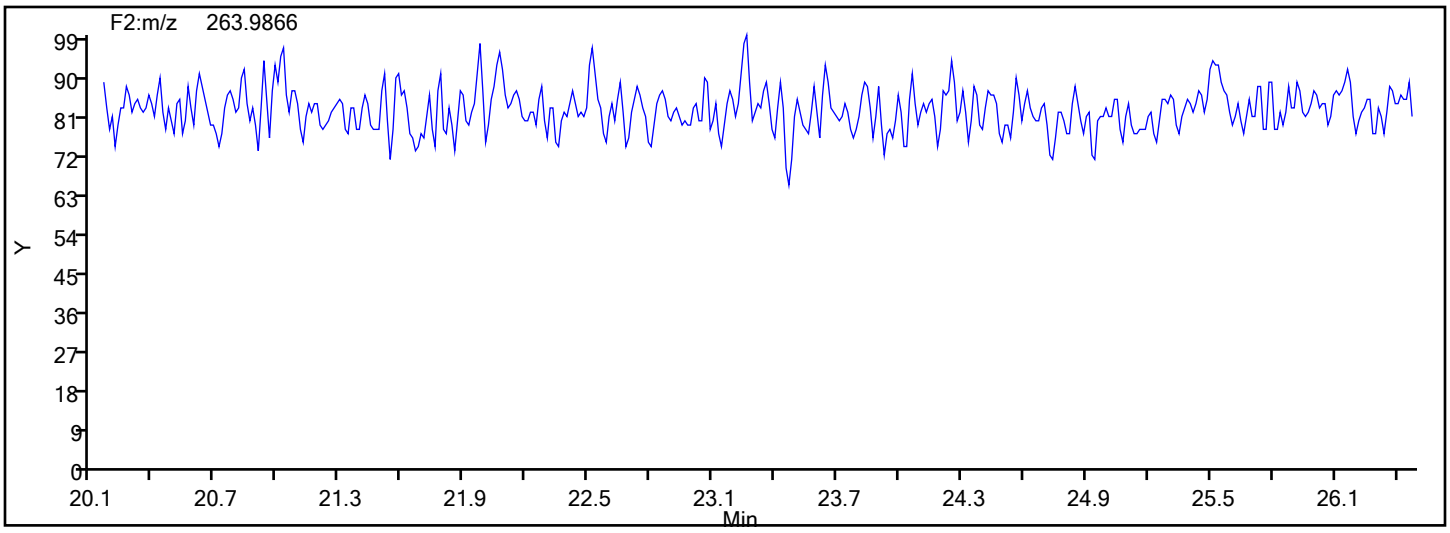
PCB-104





PCB-104 Lock Mass



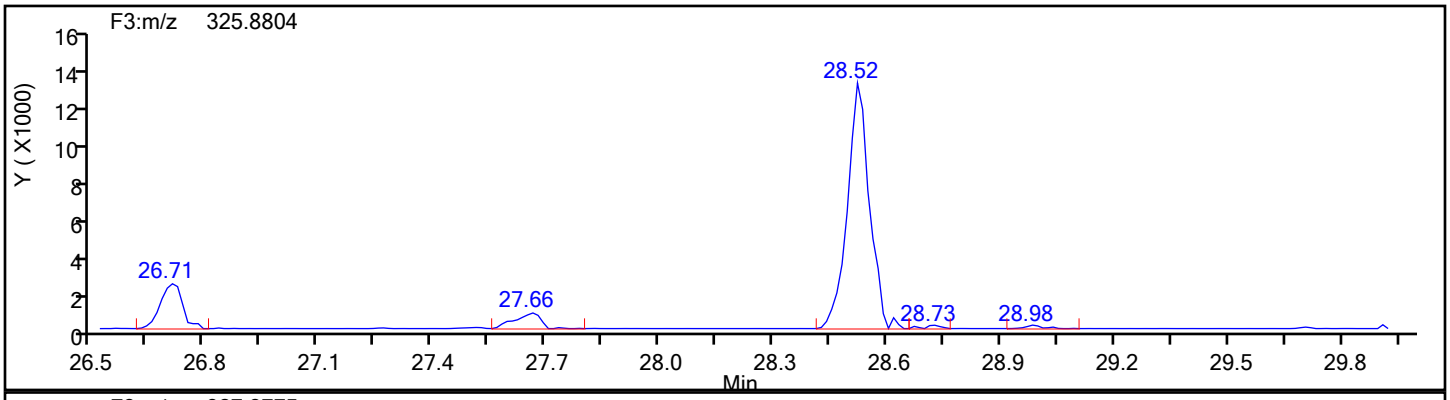
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

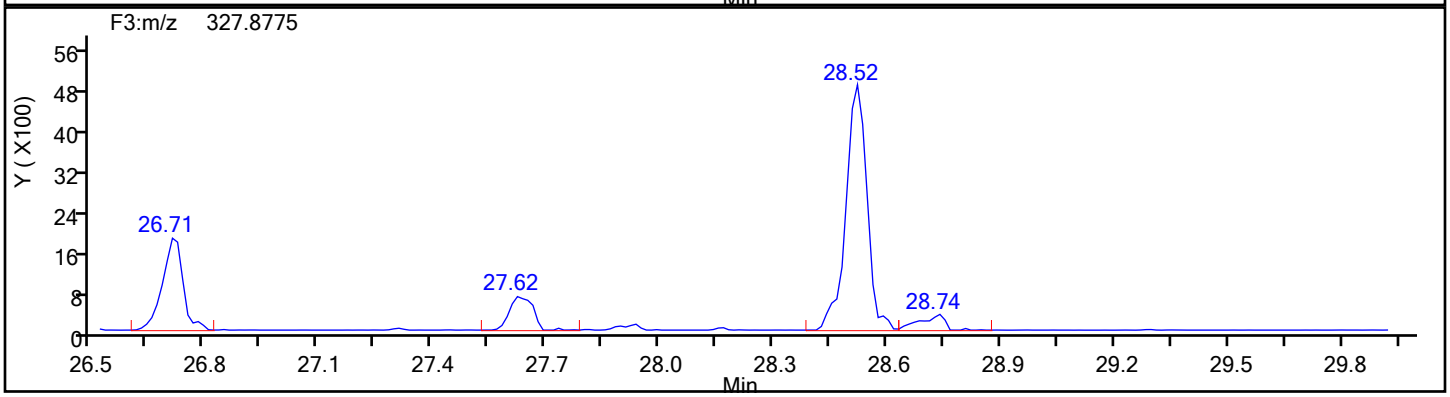
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

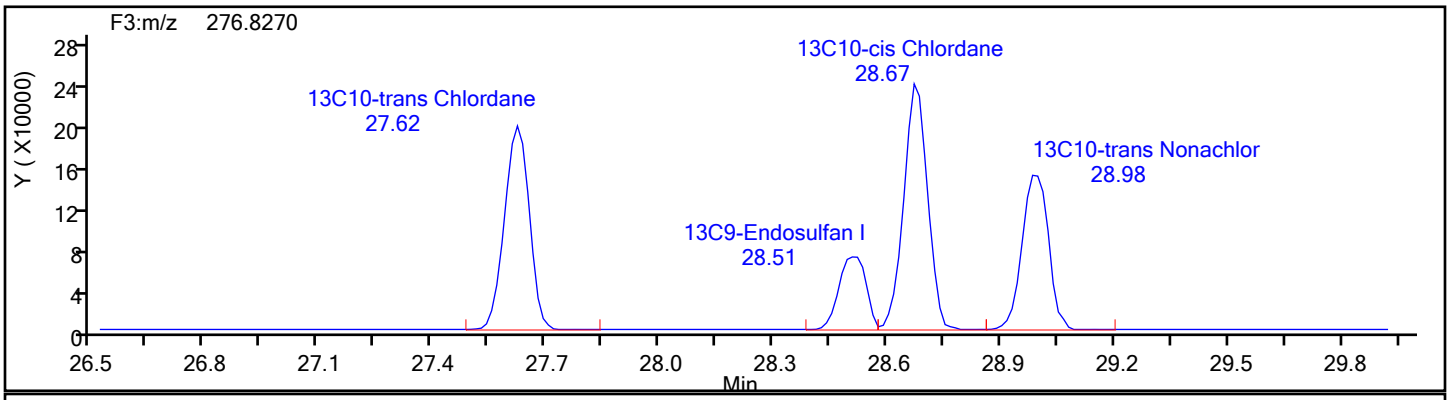
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

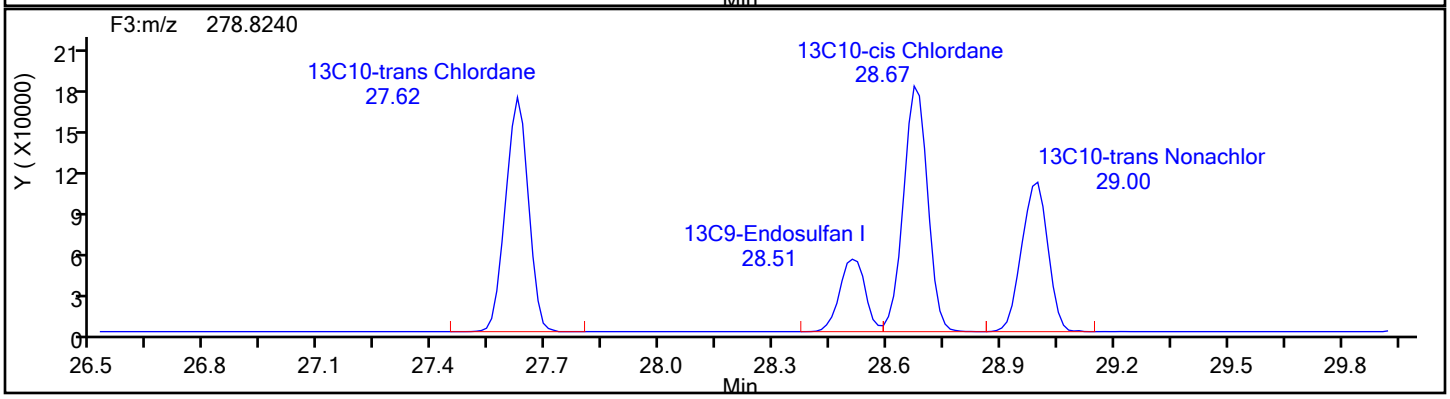
PCB-121





PCB-121 Standards



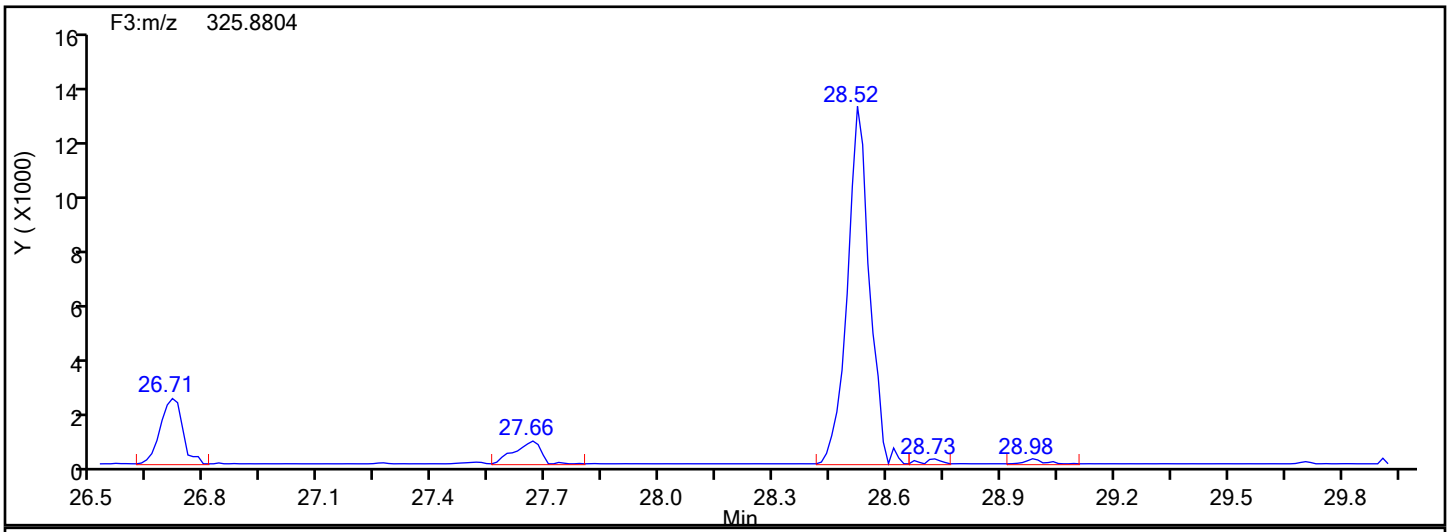


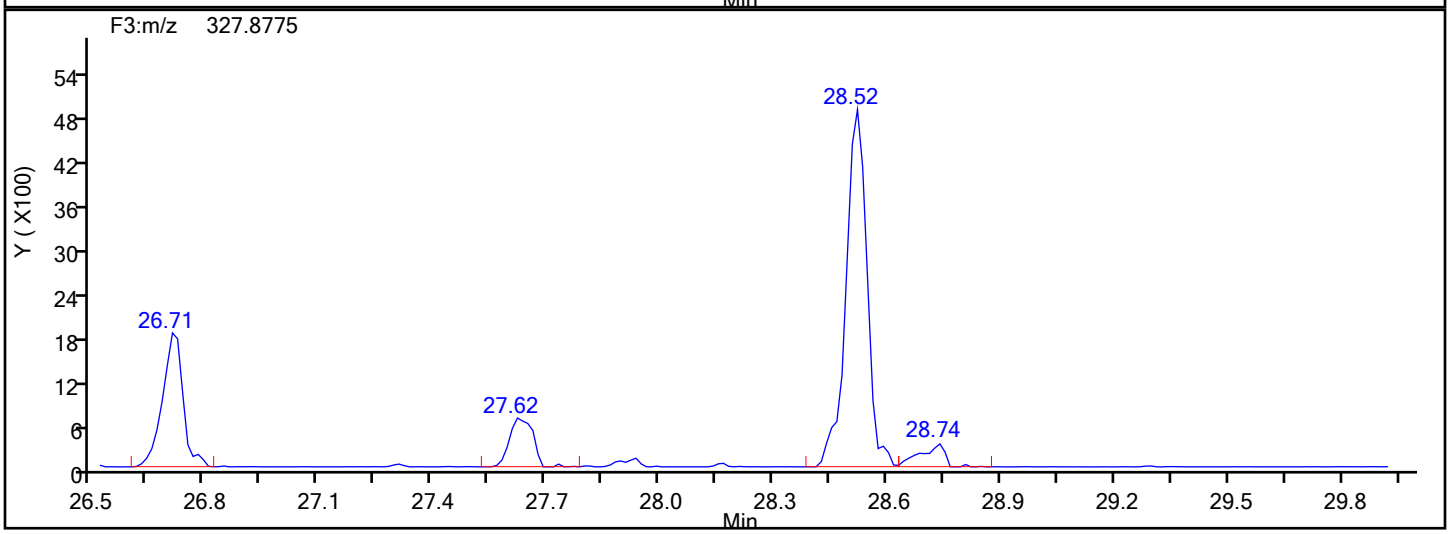
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

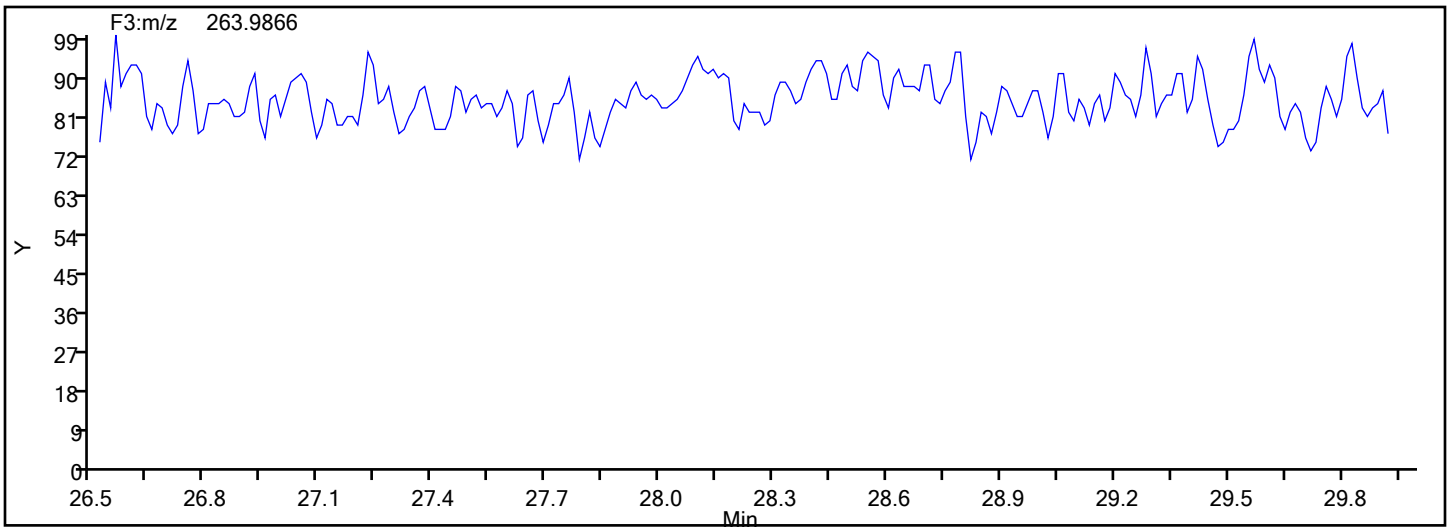
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



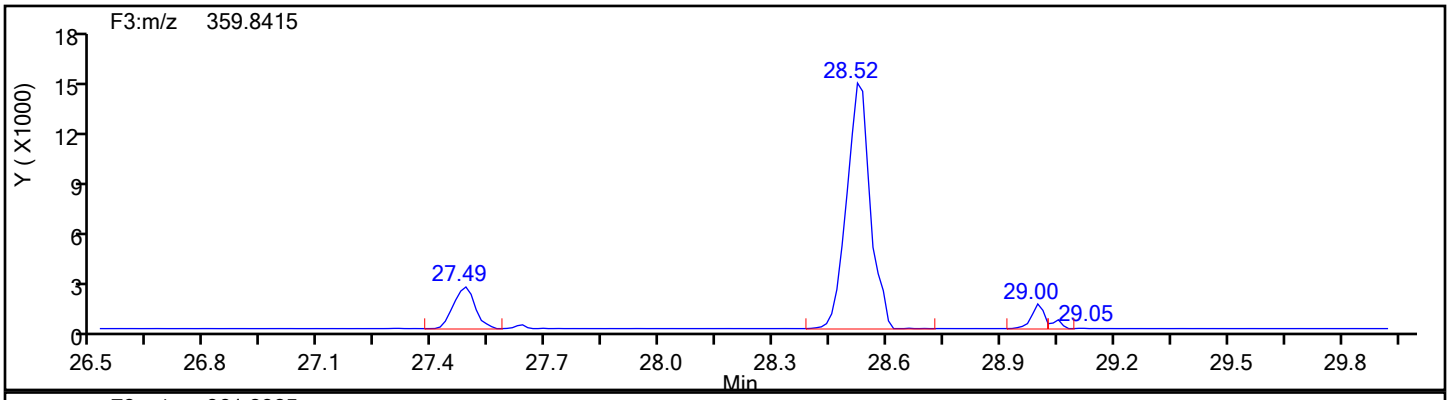
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

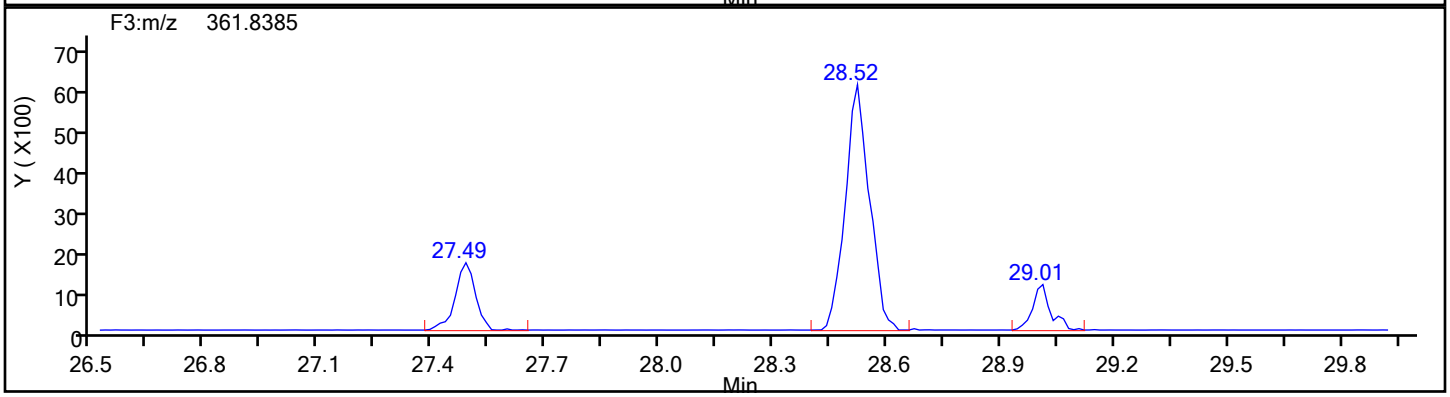
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

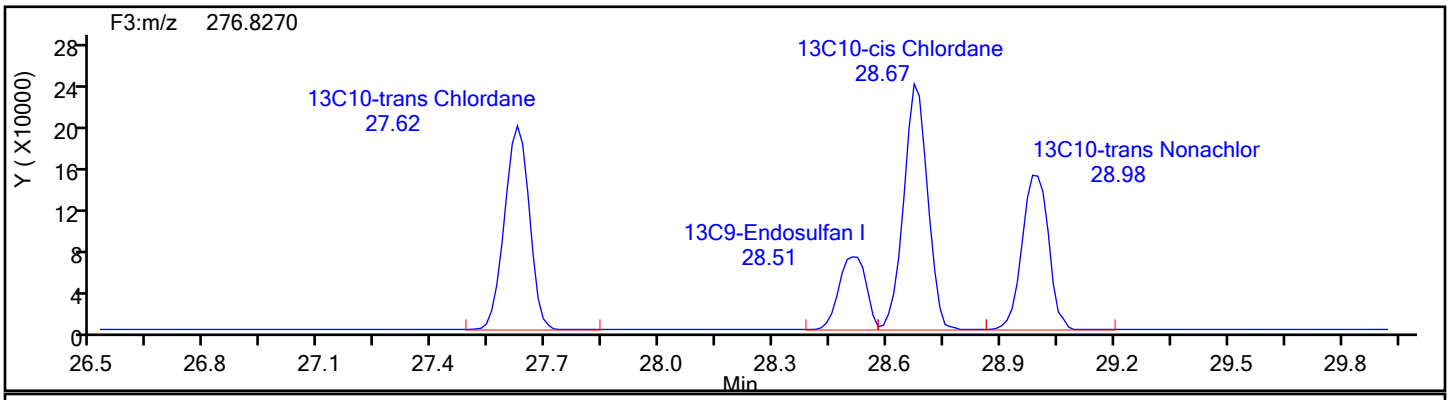
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

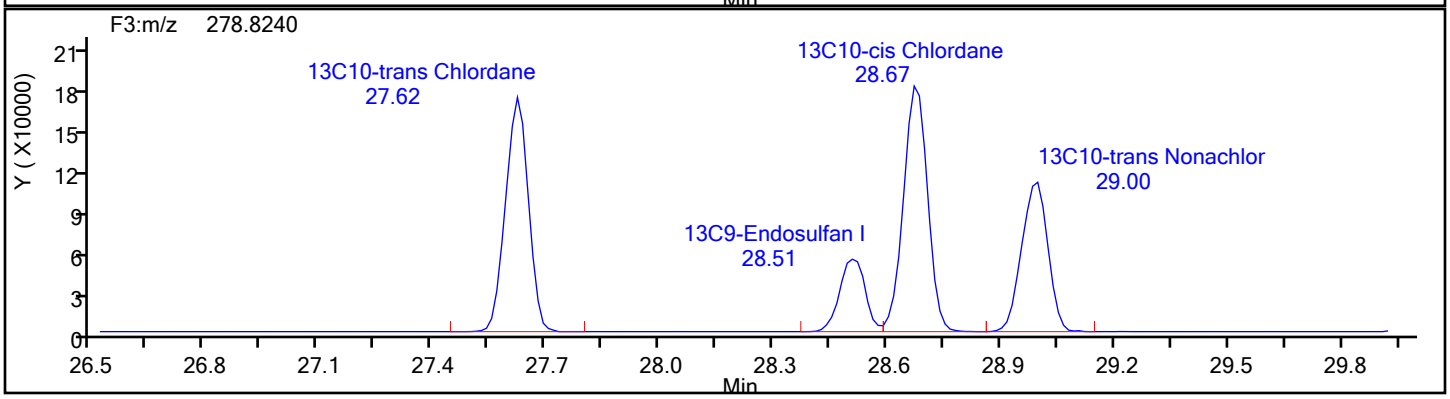
PCB-142





PCB-142 Standards



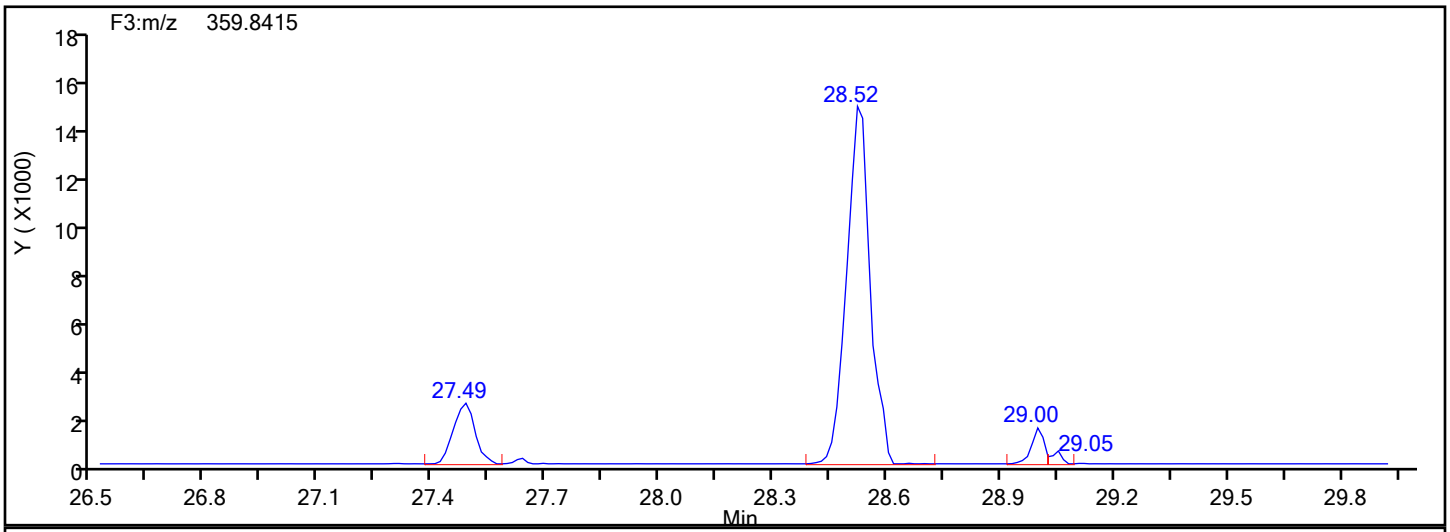


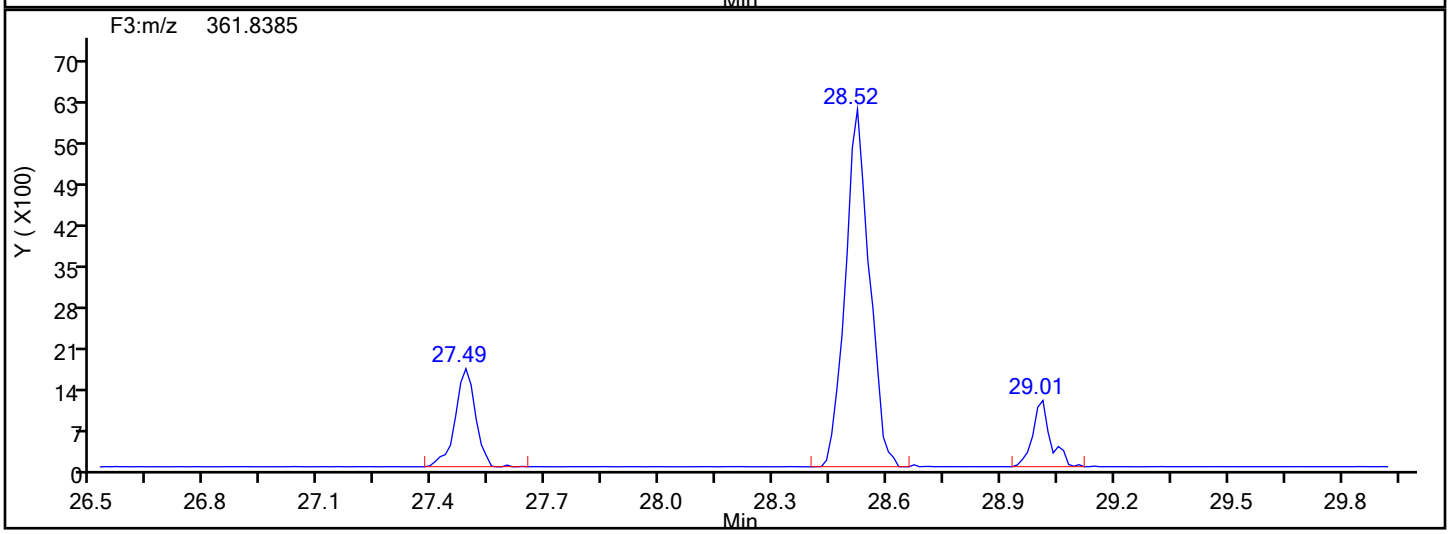
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

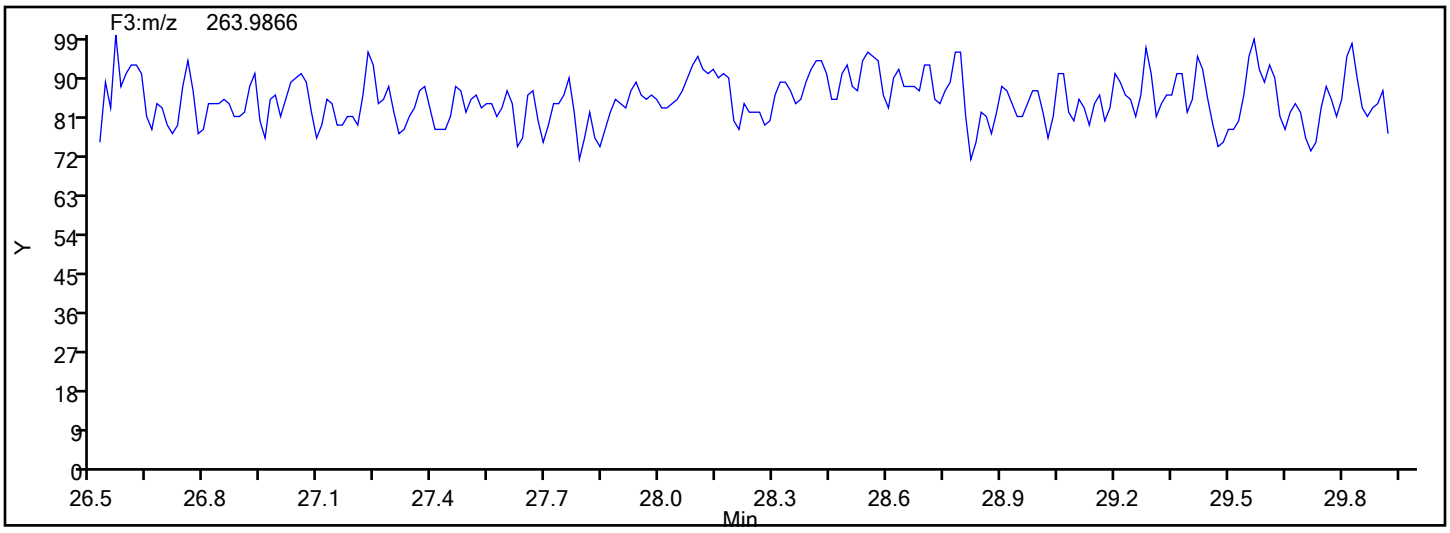
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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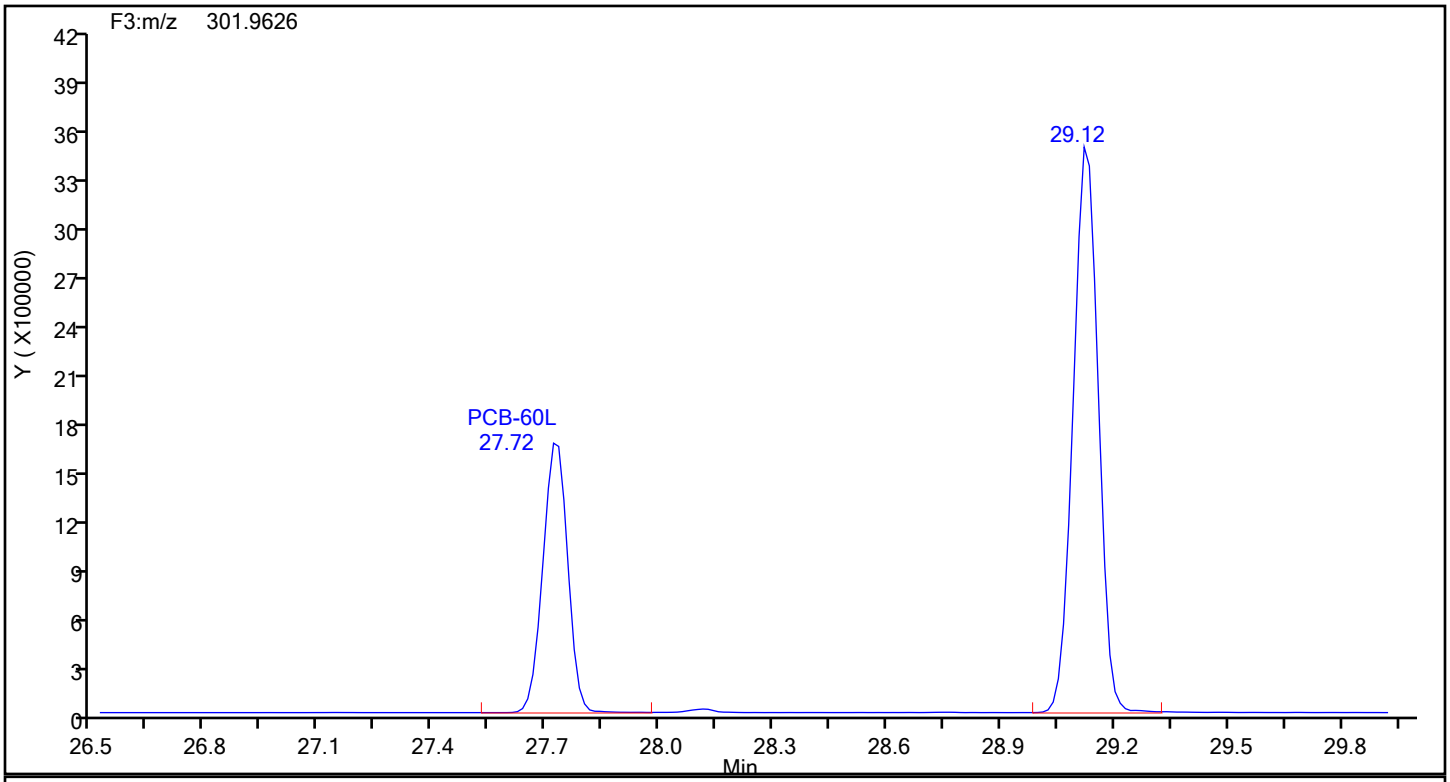
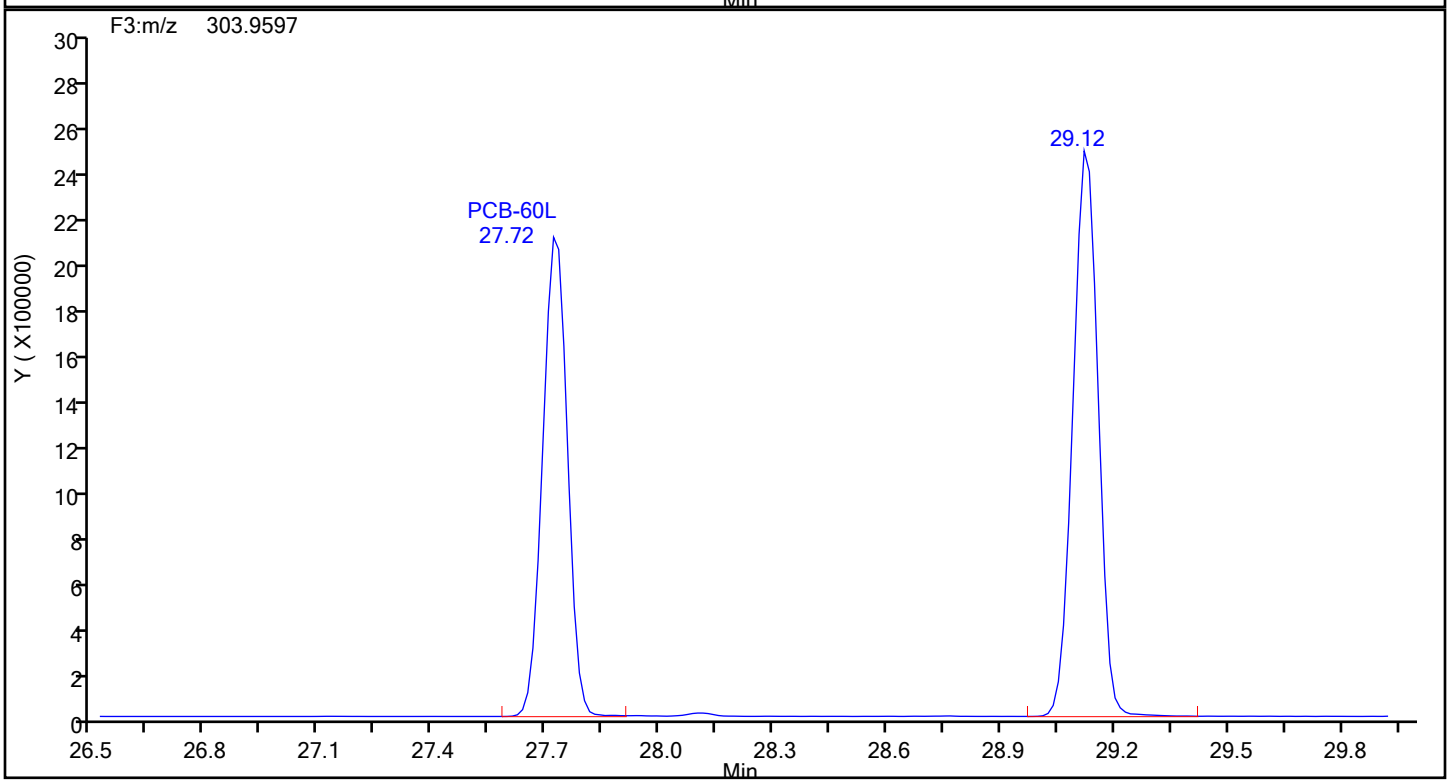
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





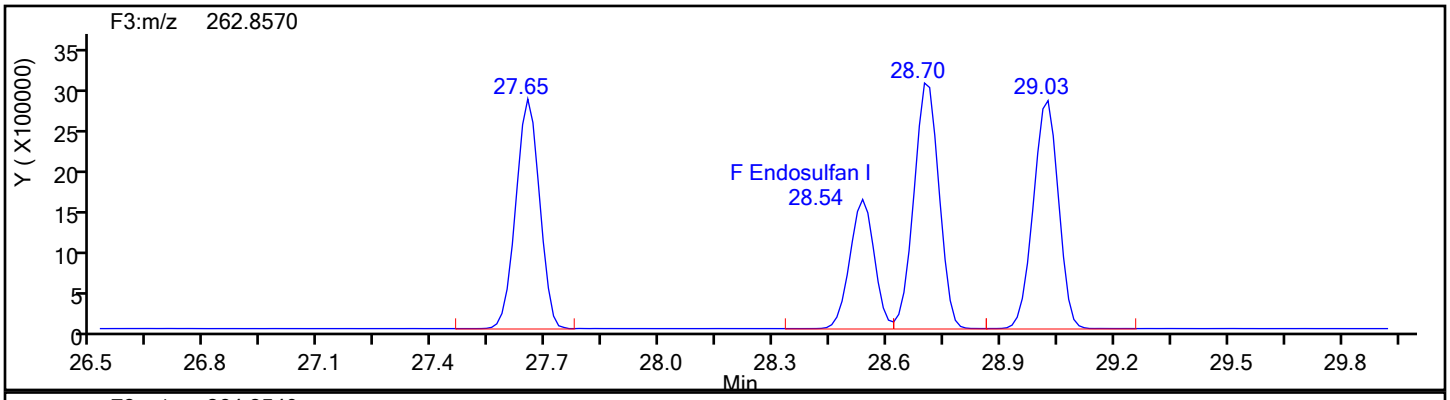
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

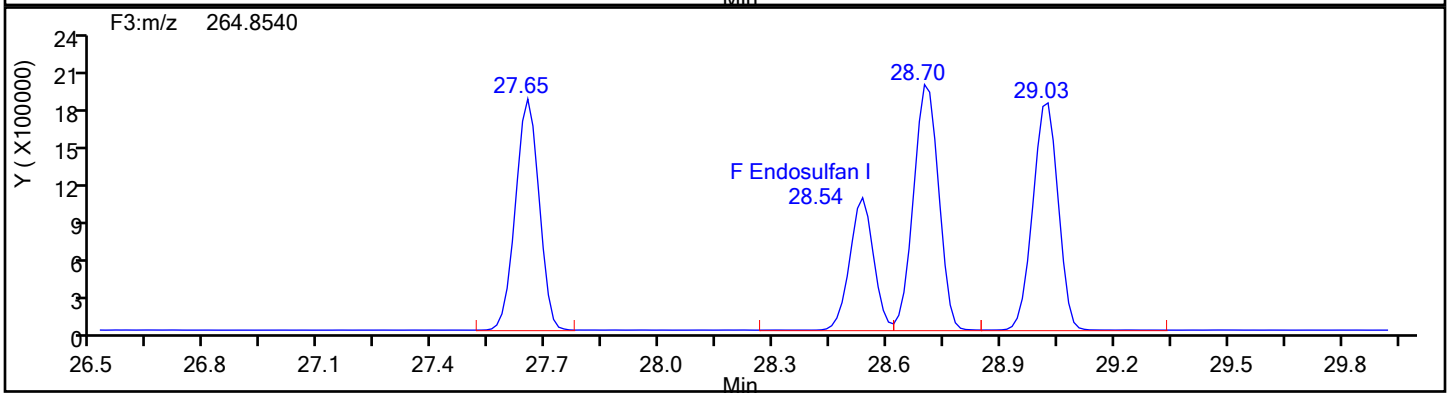
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

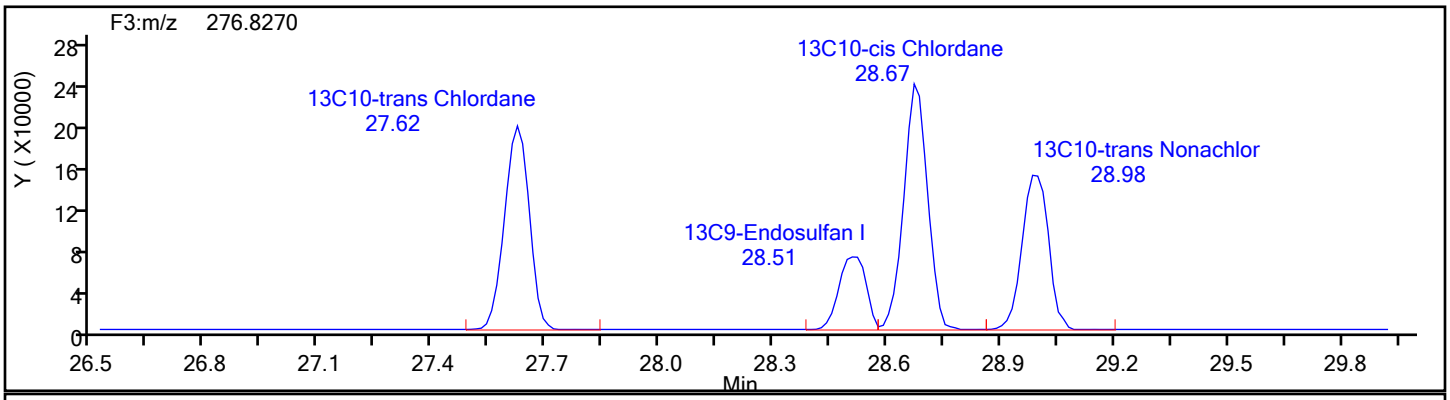
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

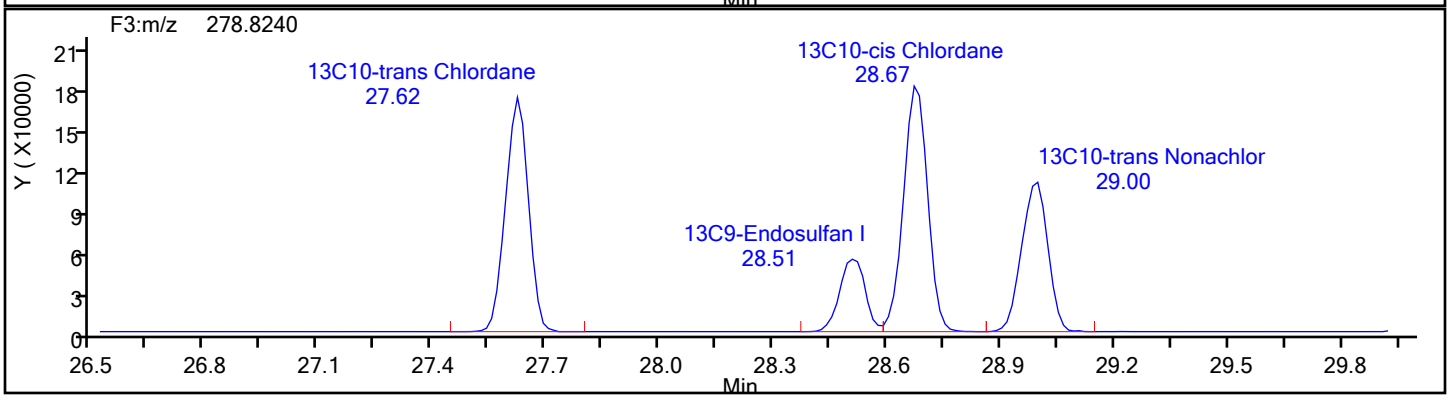
Endosulfan I





Endosulfan I Standards





Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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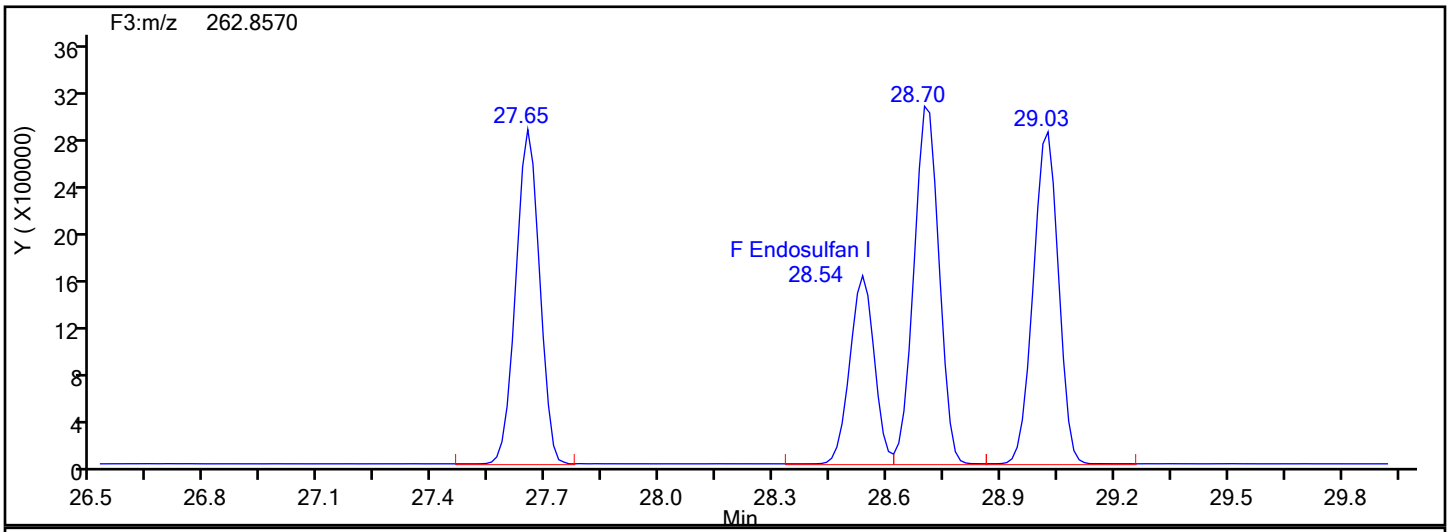
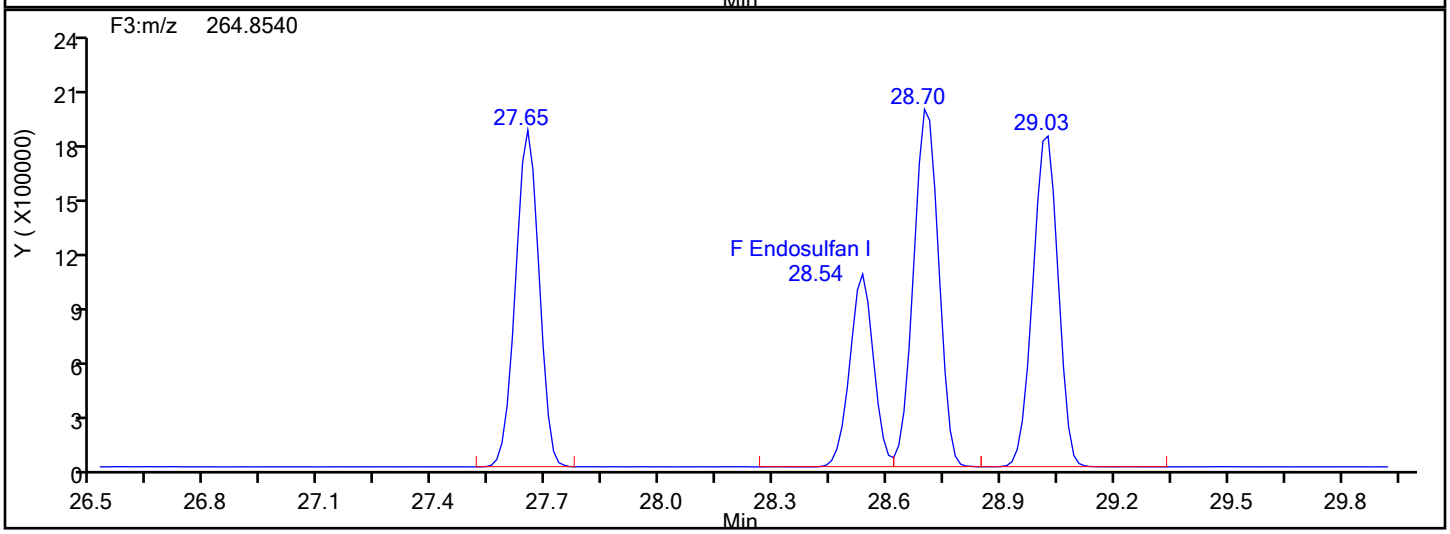
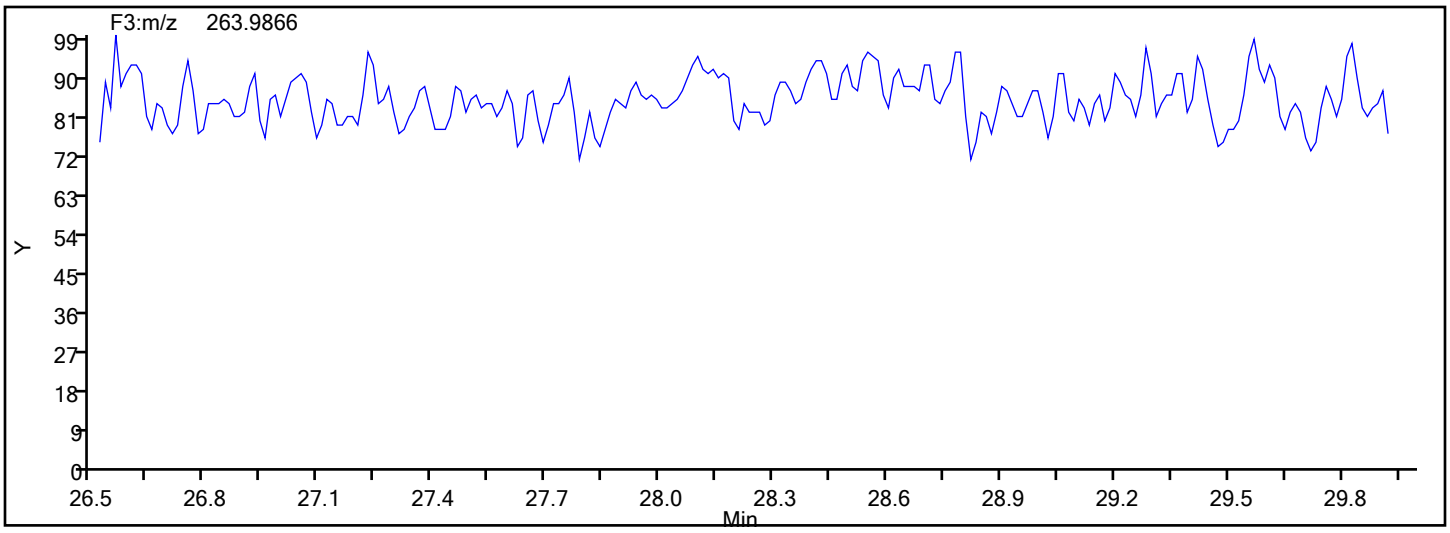
Endosulfan I





Endosulfan I Lock Mass



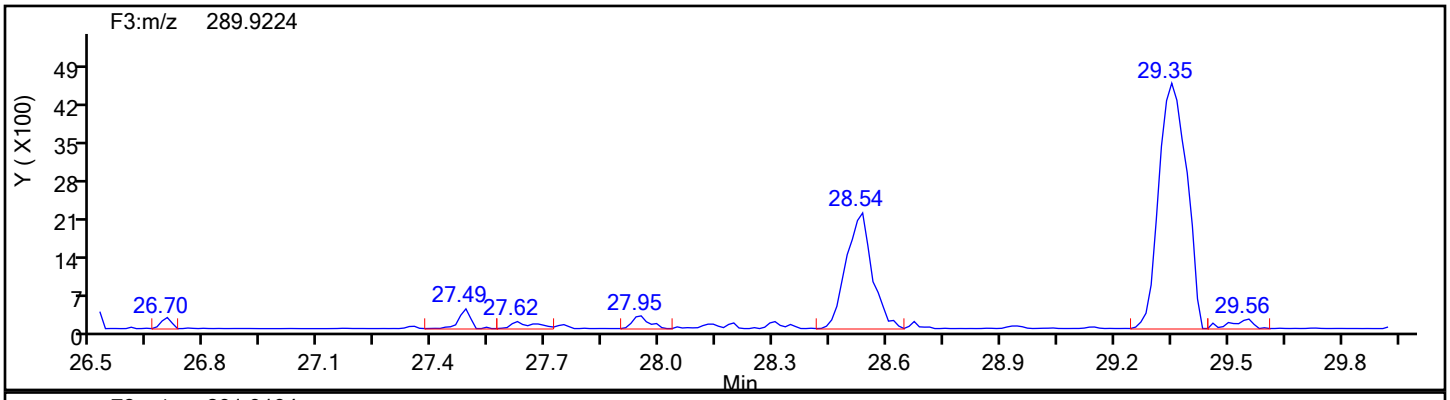
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

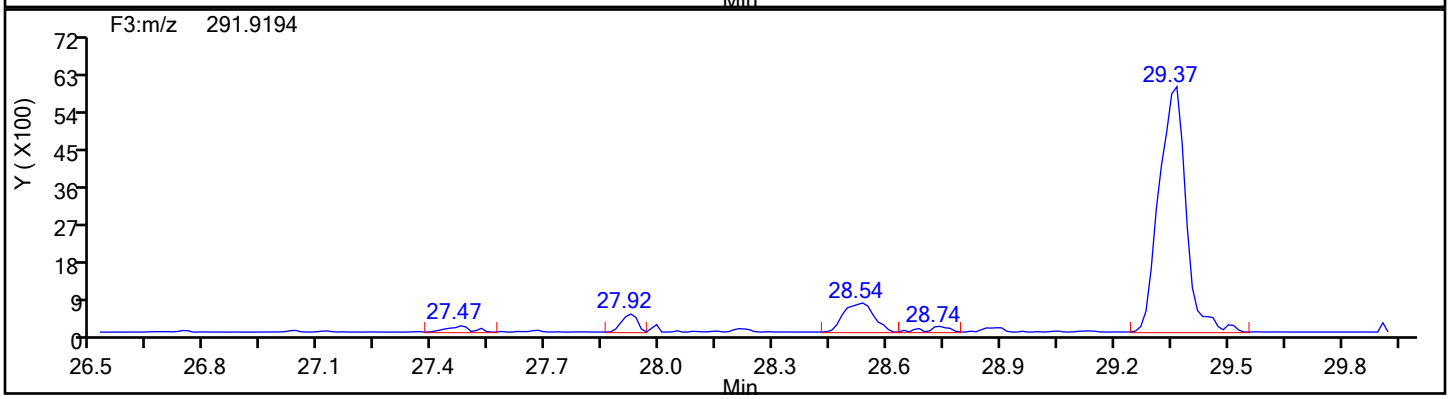
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

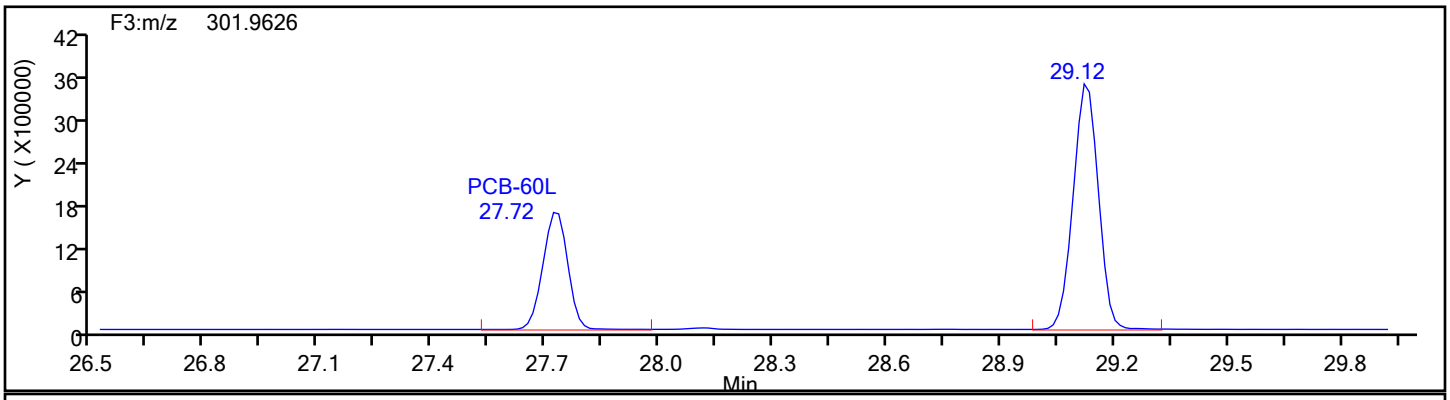
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

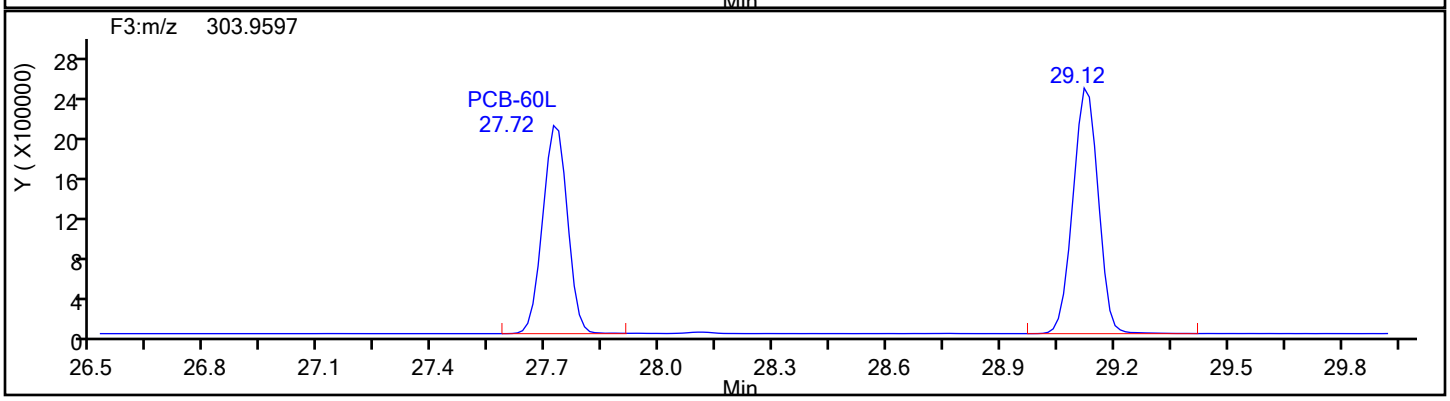
PCB-78





PCB-78 Standards





Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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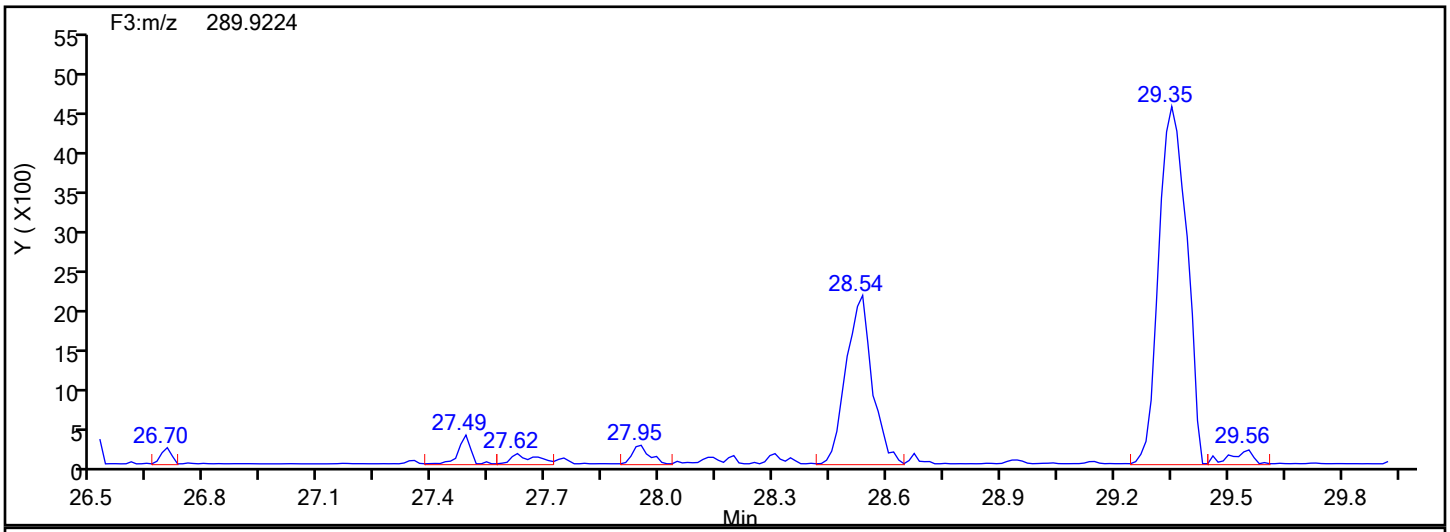
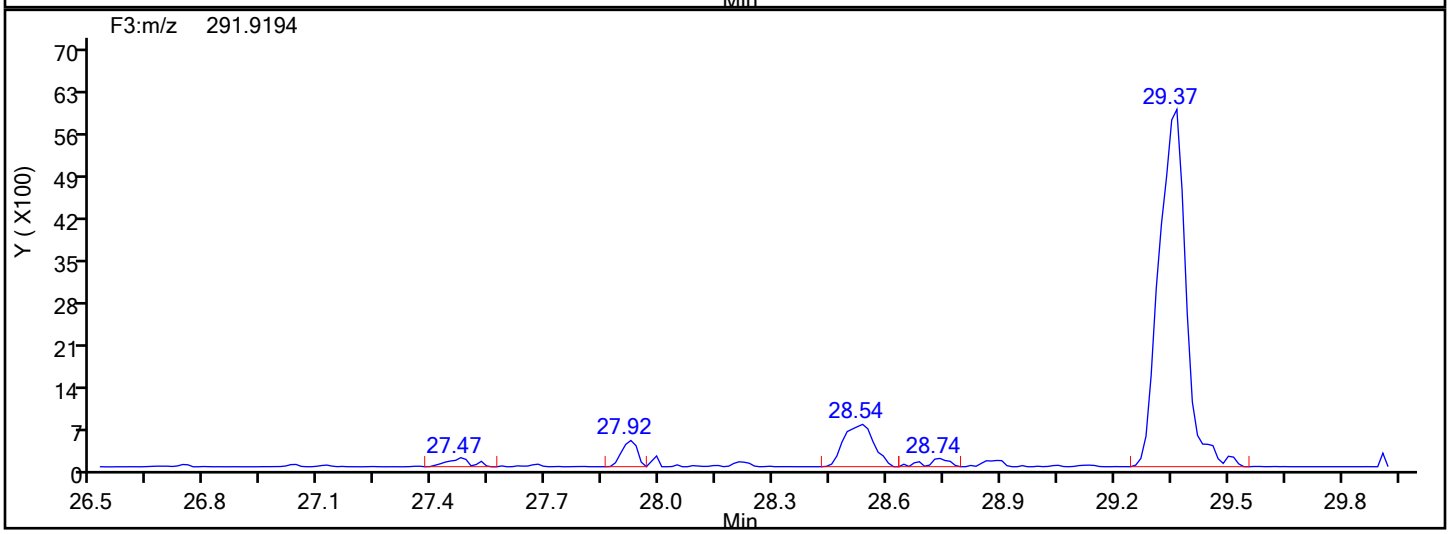
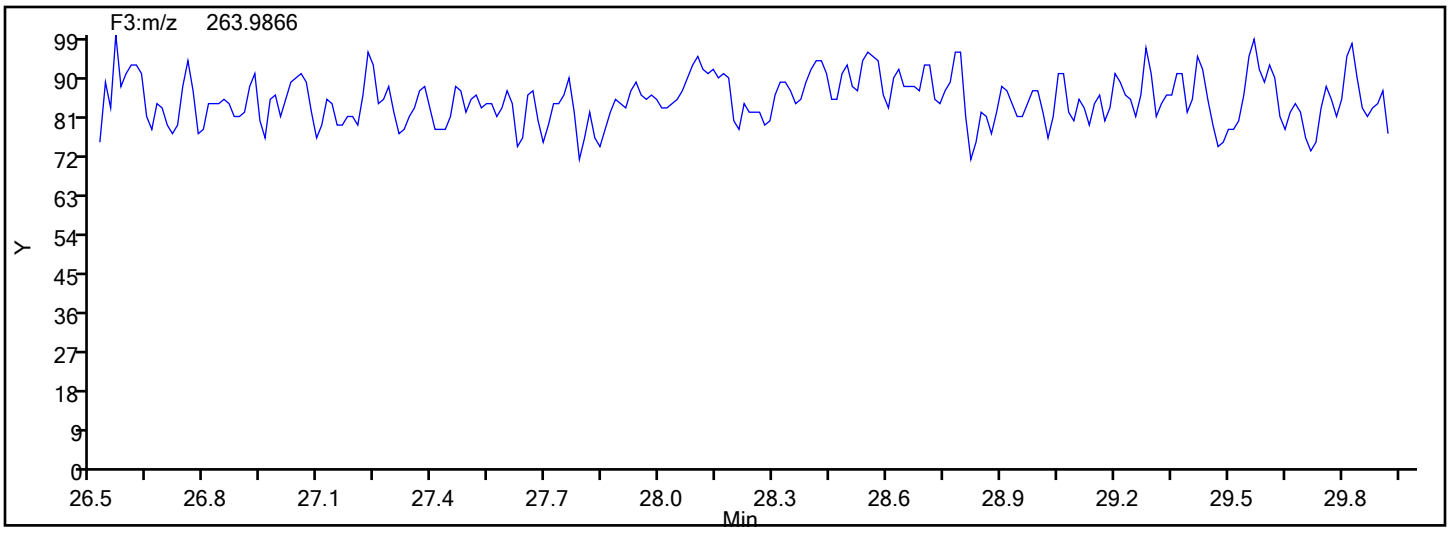
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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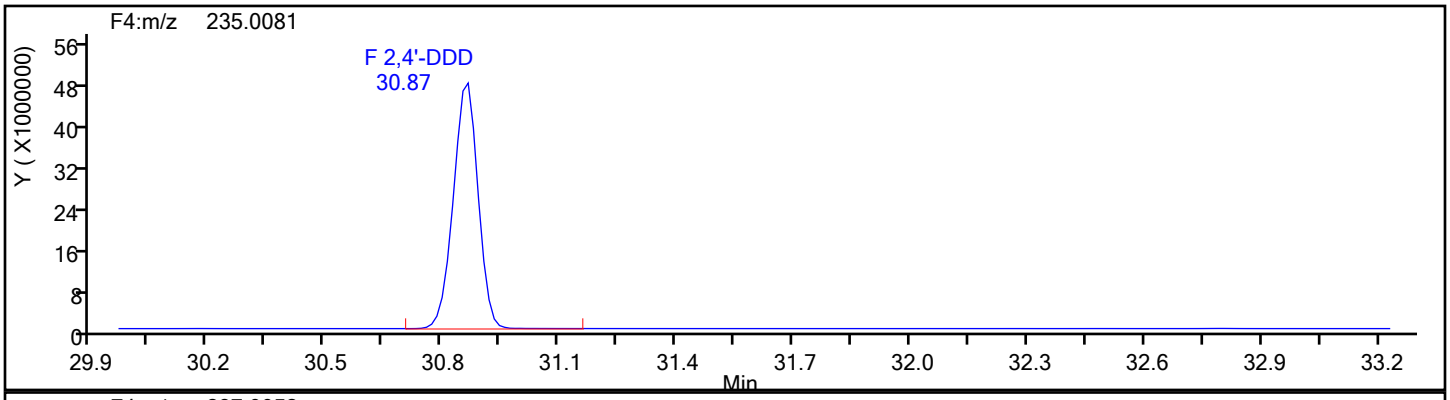
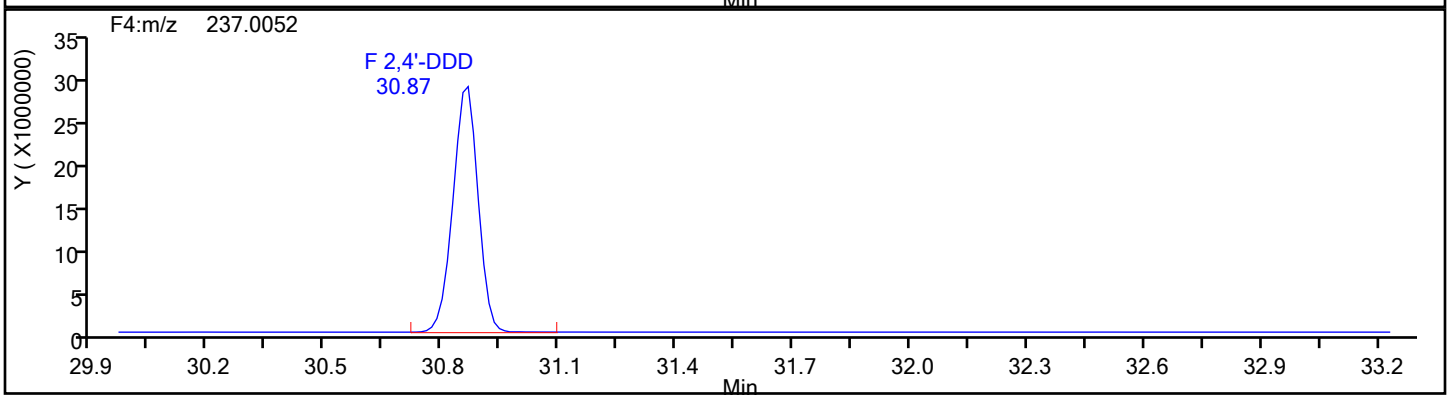
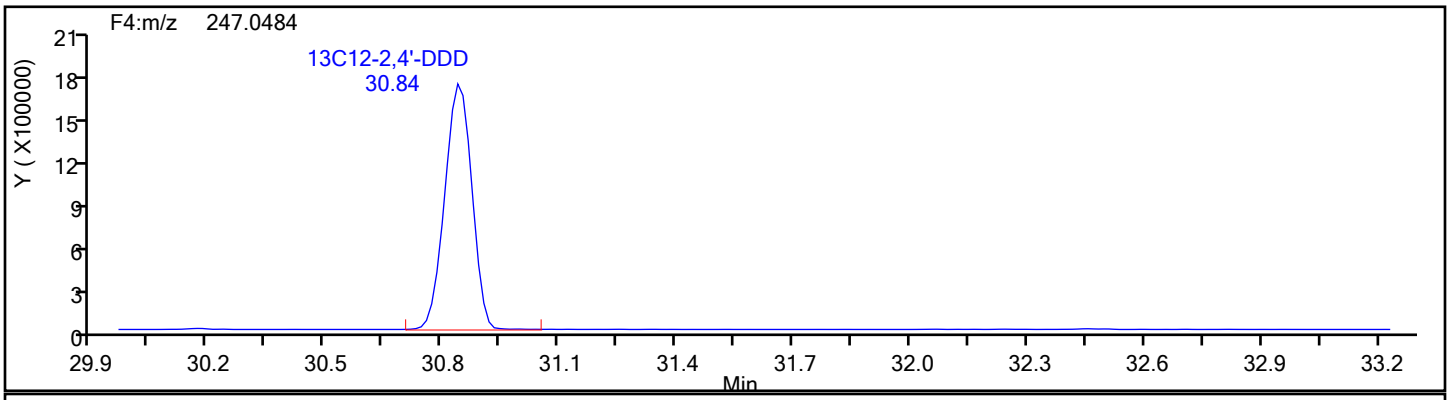
Column Type:	RTX-5	Column Dia:	0.32 mm

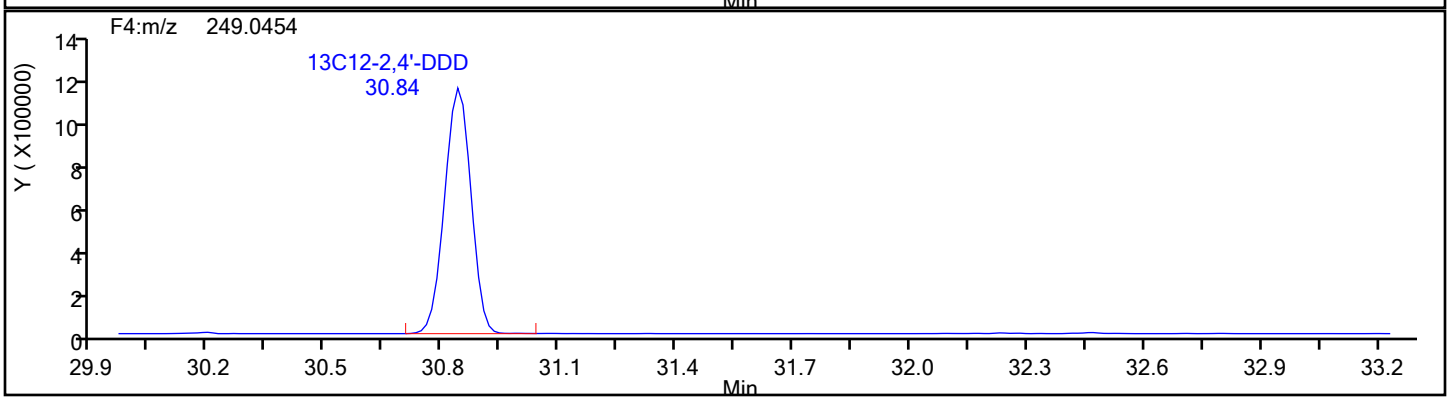
2,4'-DDD





2,4'-DDD Standards





Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d		
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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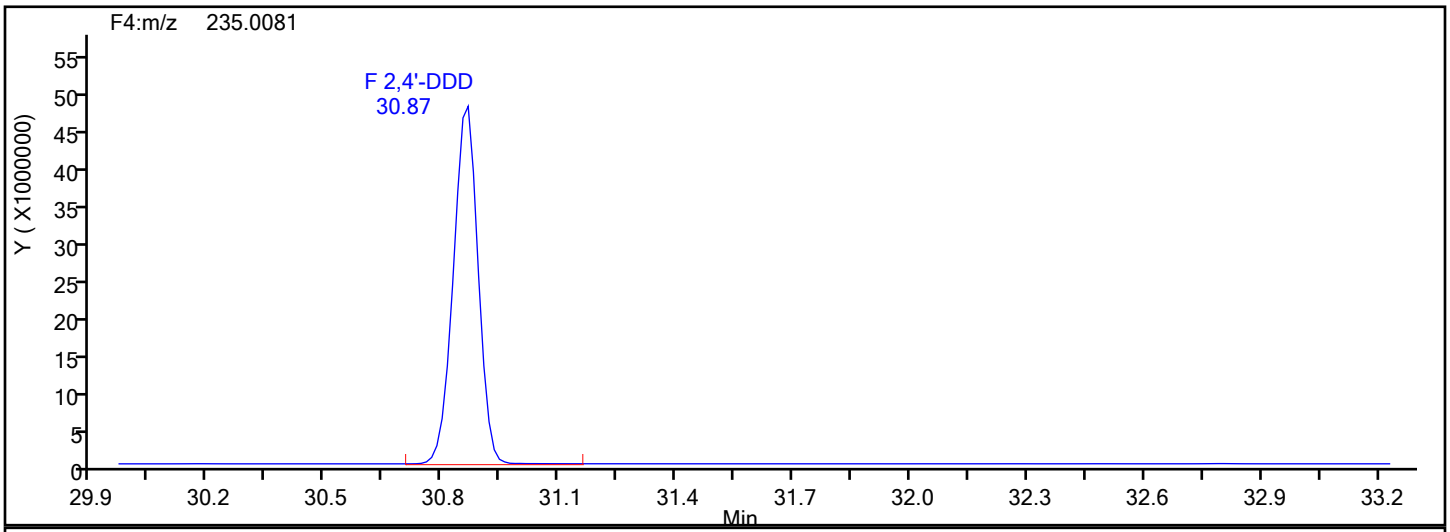
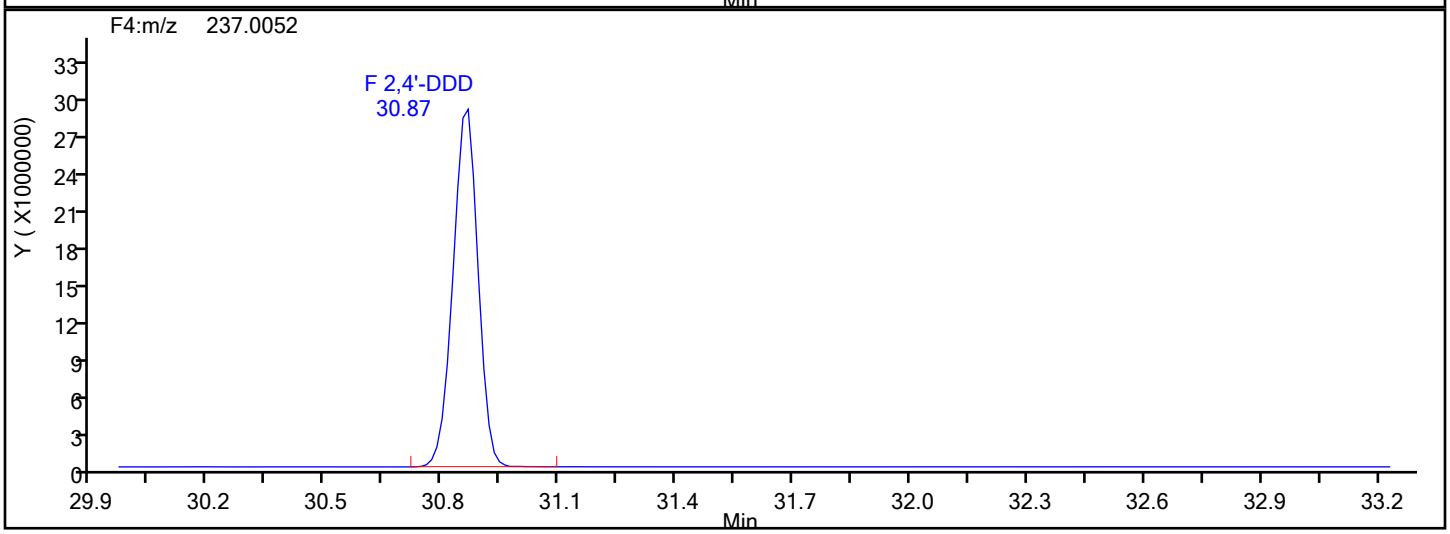
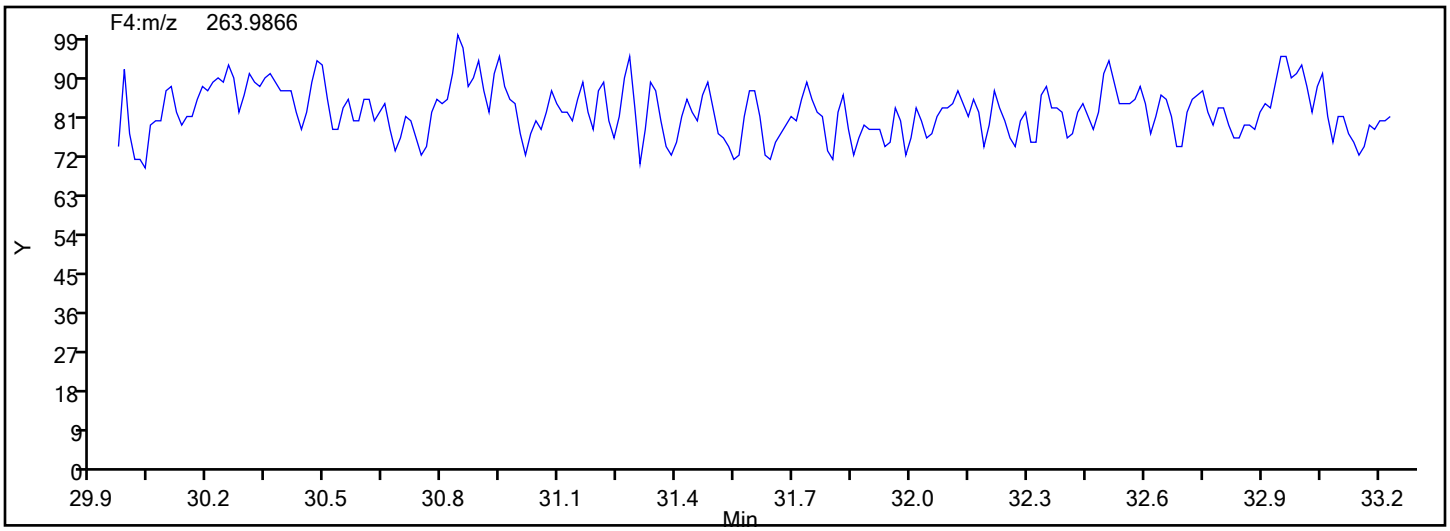
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



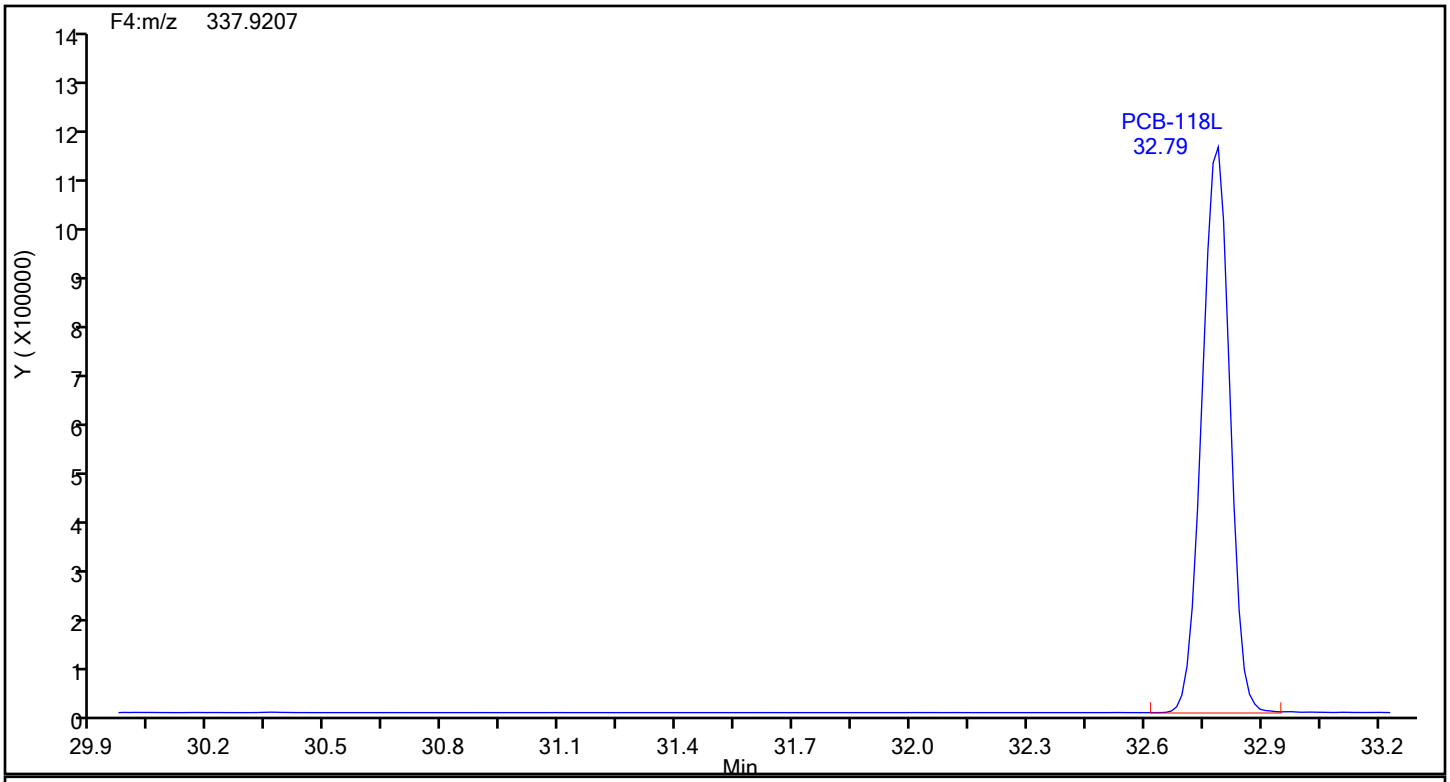
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

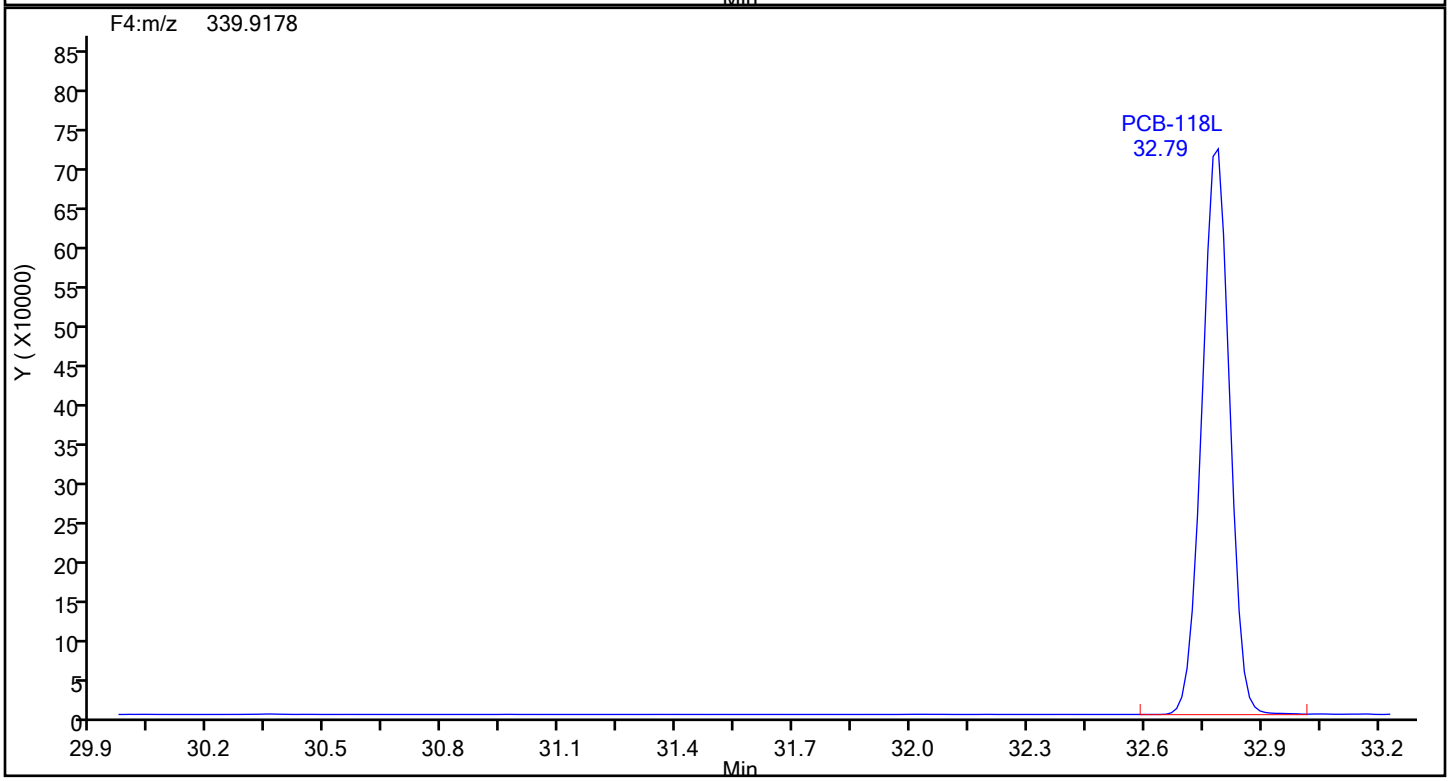
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





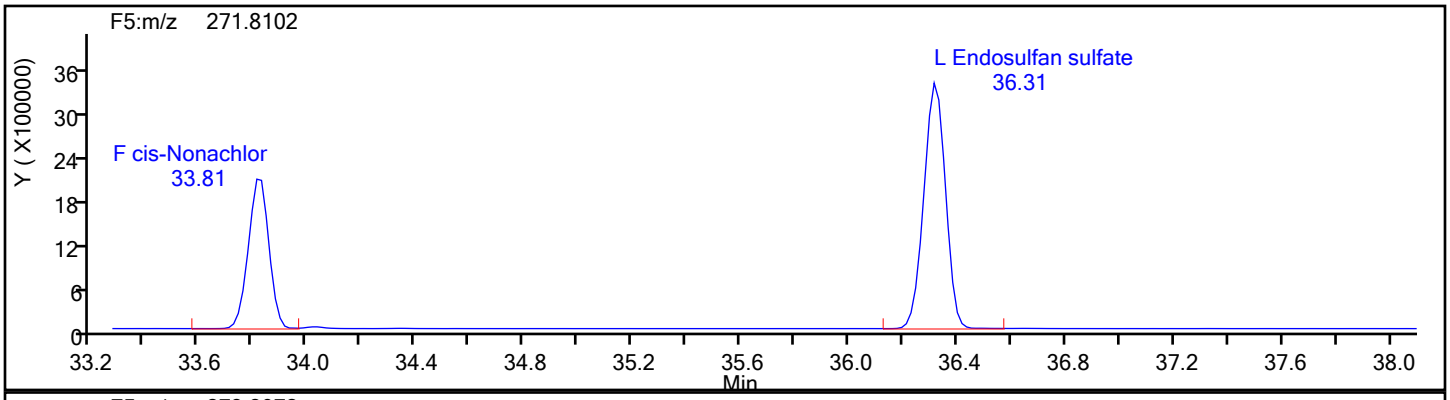
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

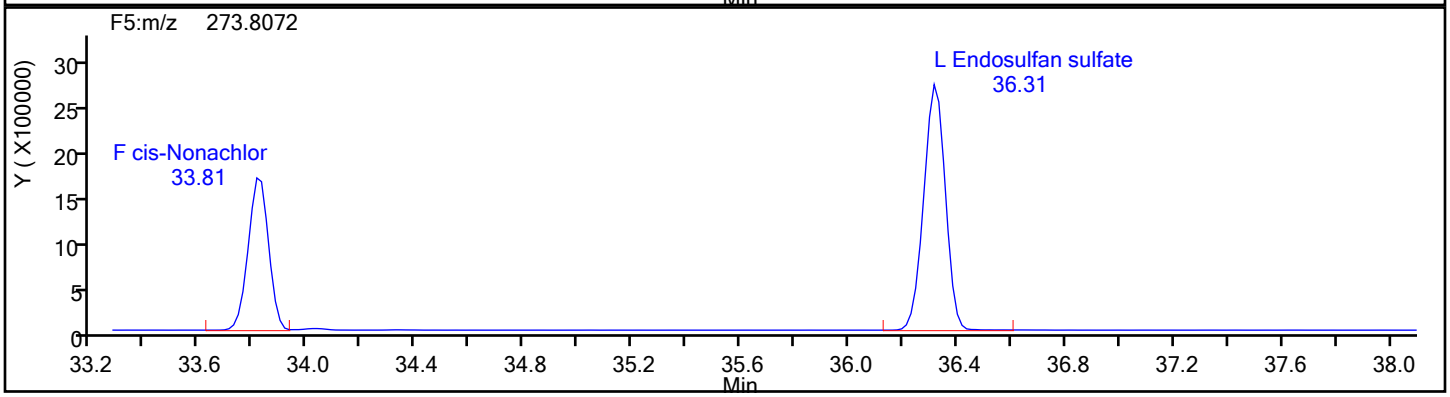
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

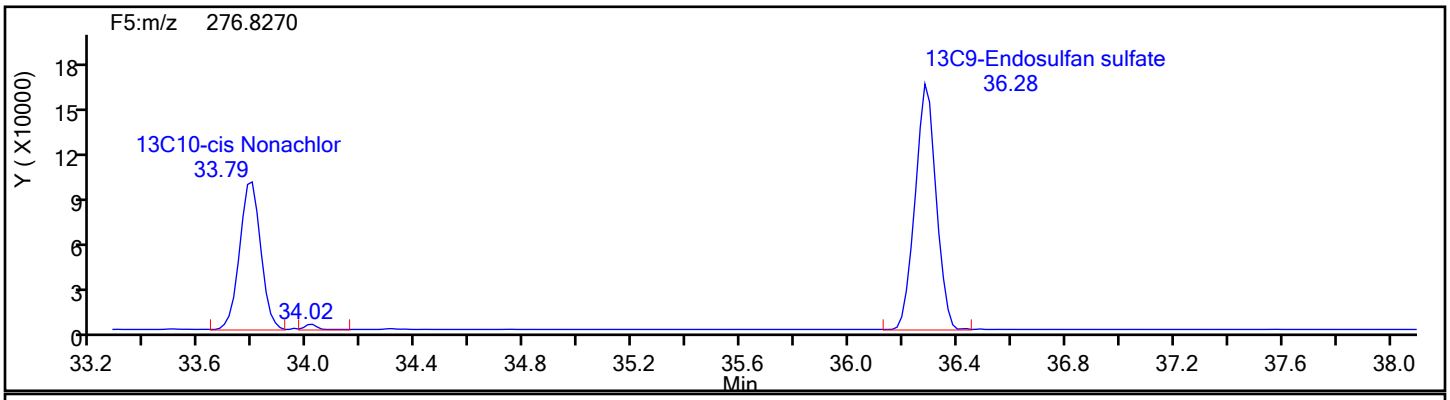
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

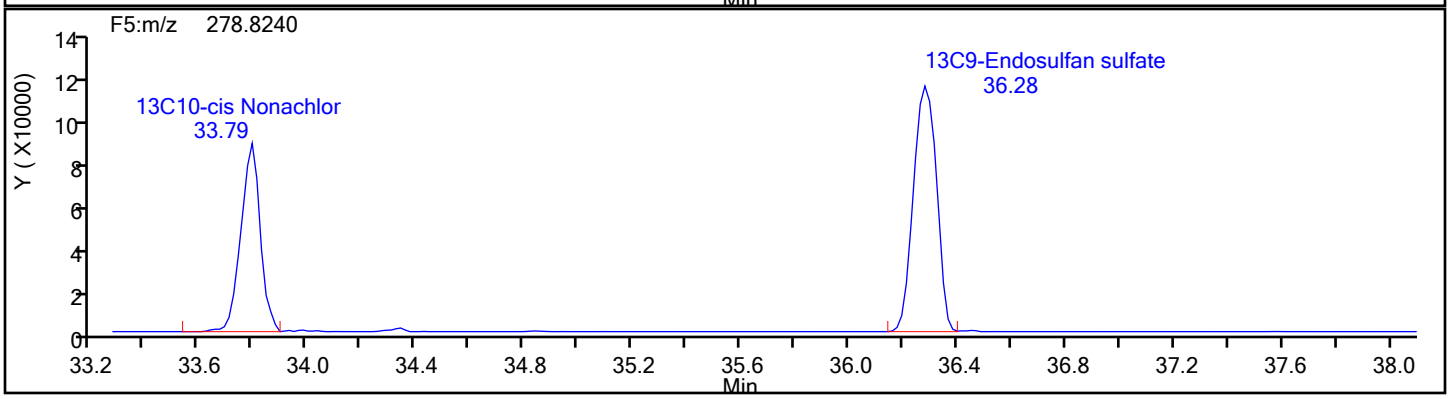
Nonachlor





Nonachlor Standards



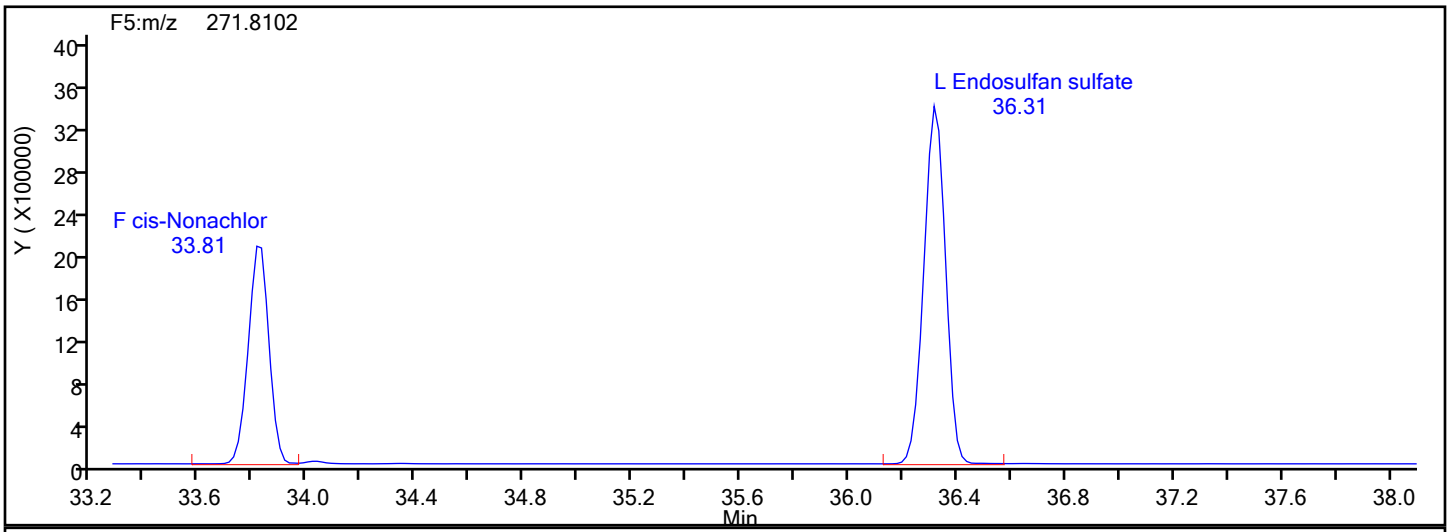


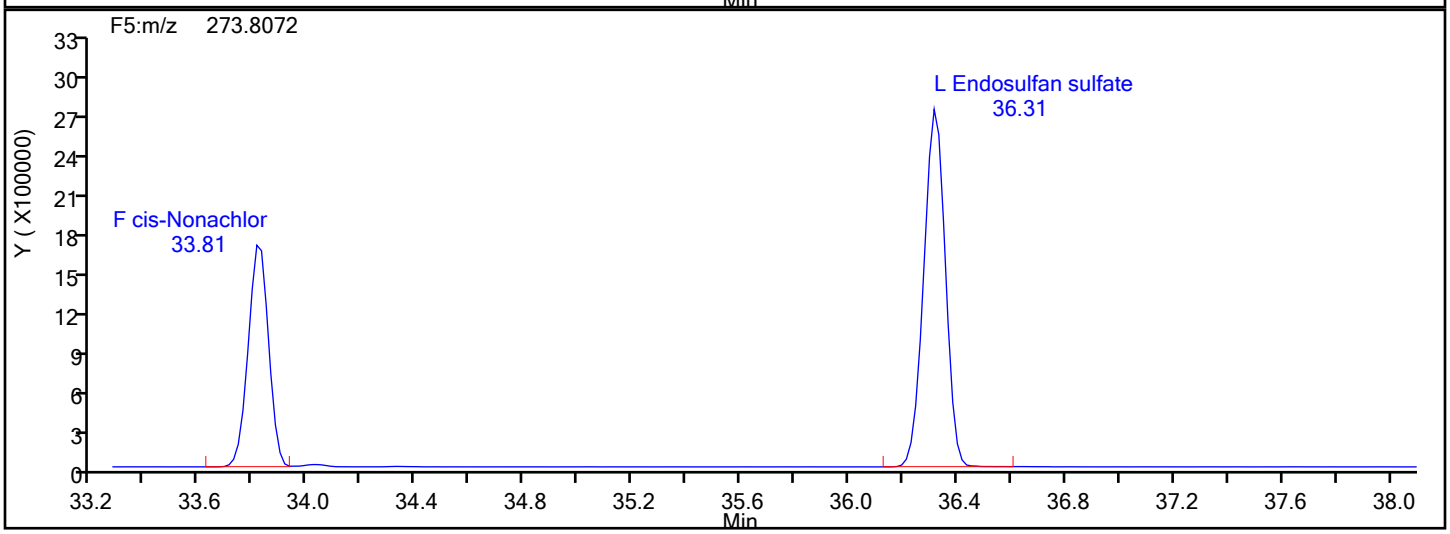
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

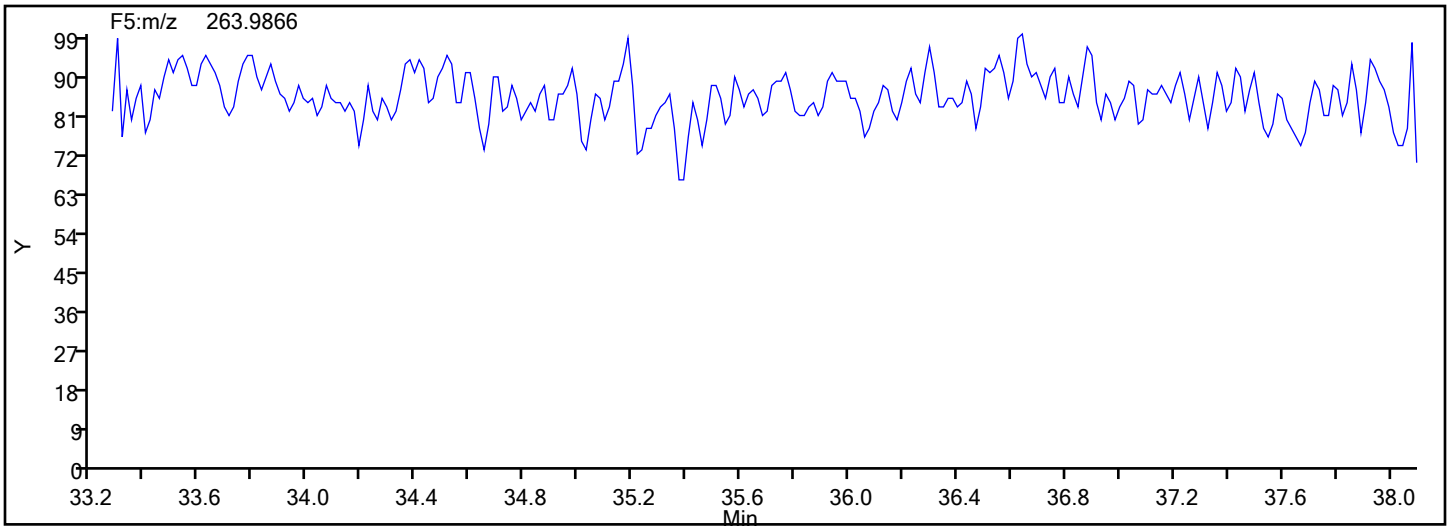
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



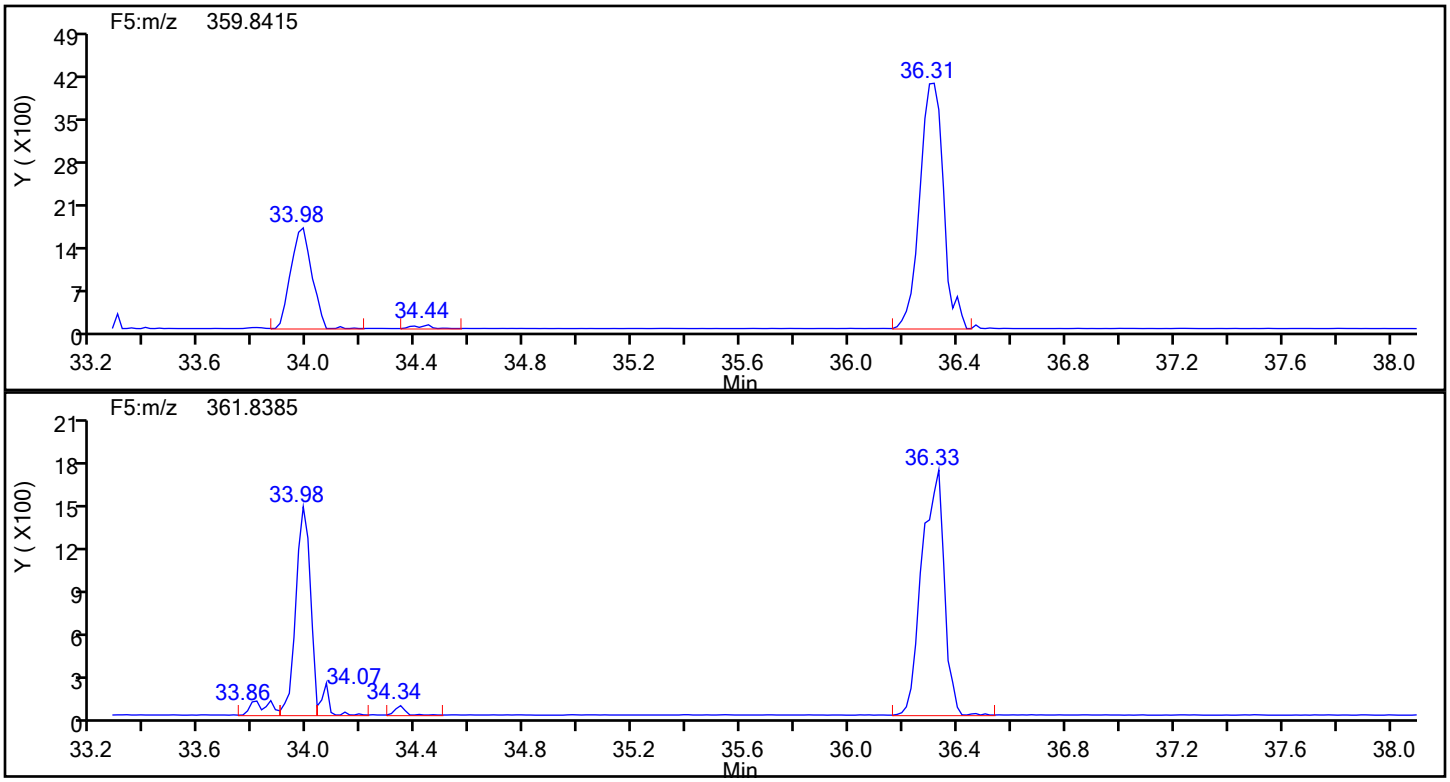
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

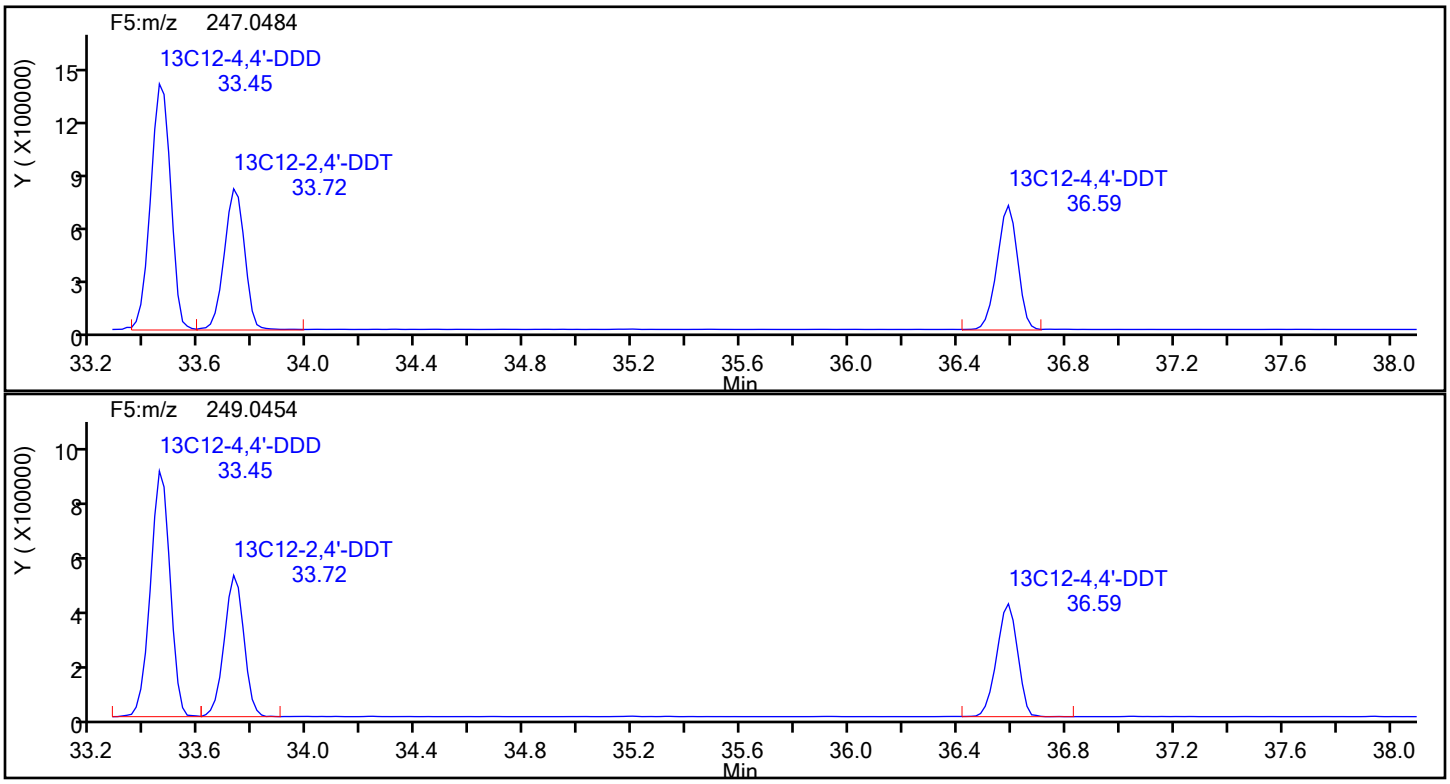
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

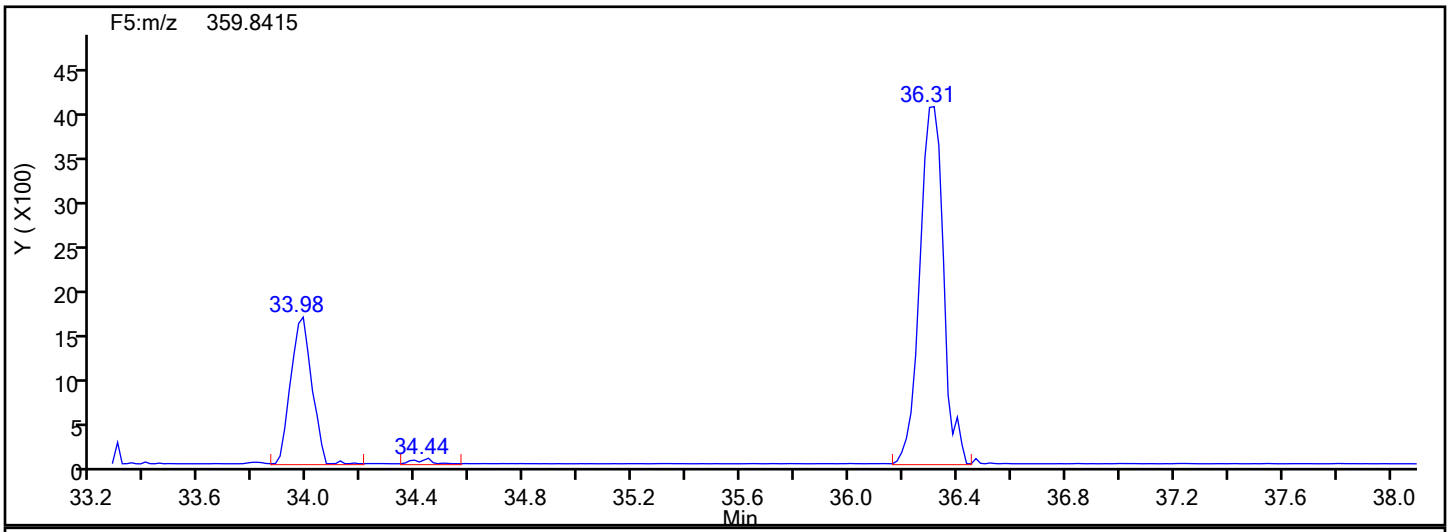


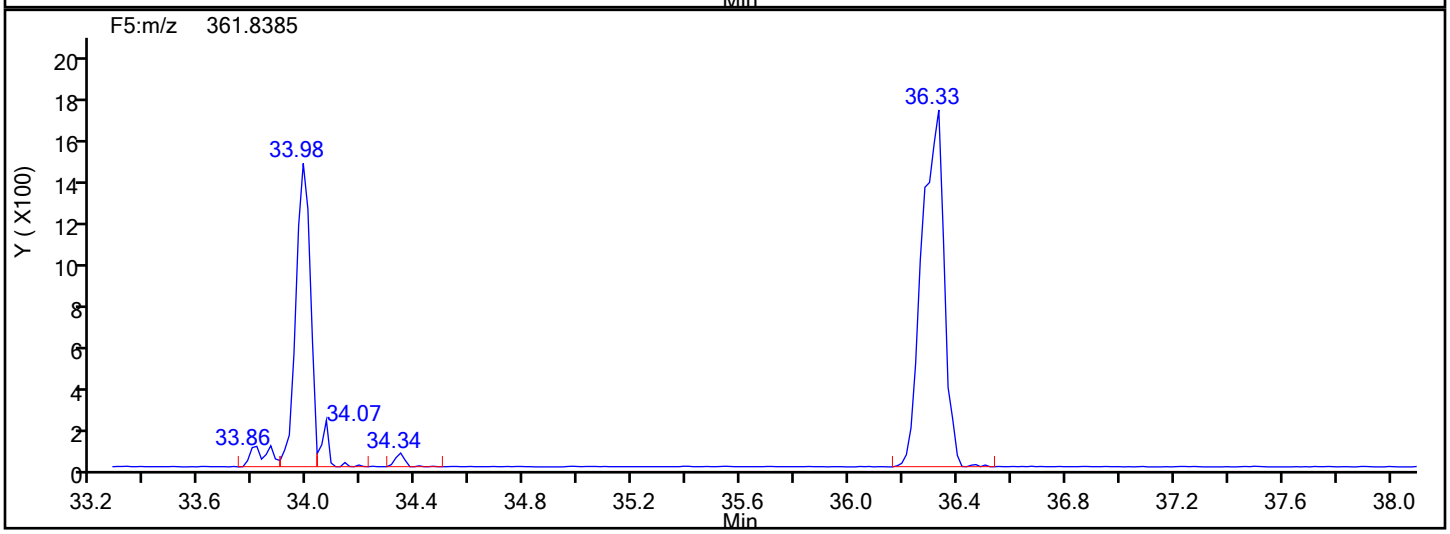
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

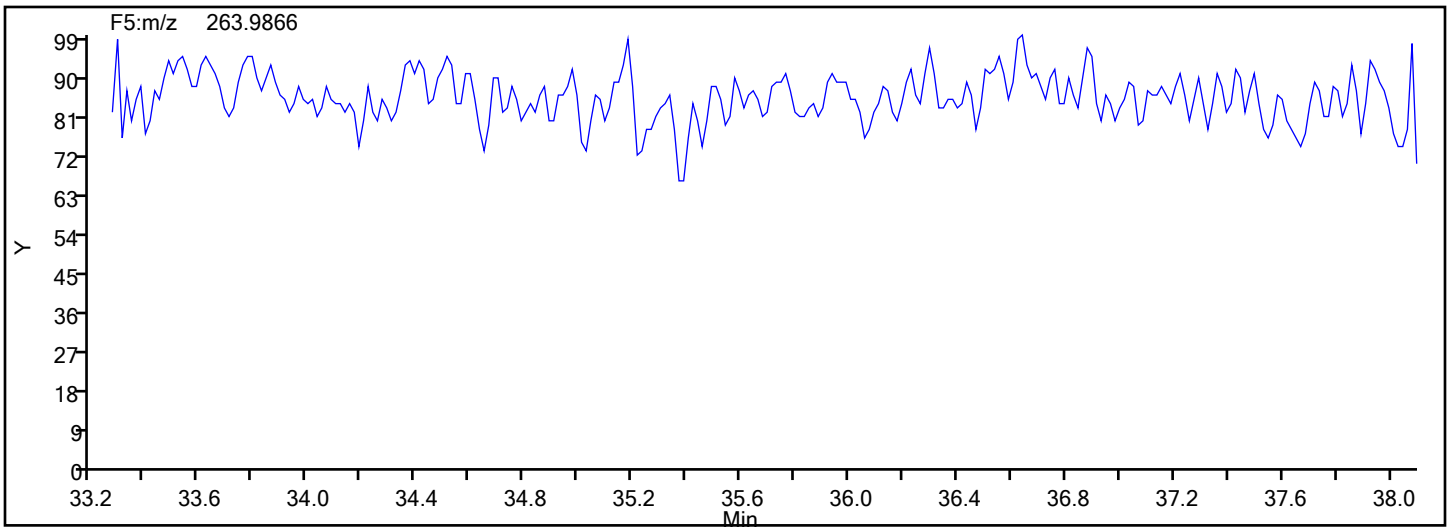
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass

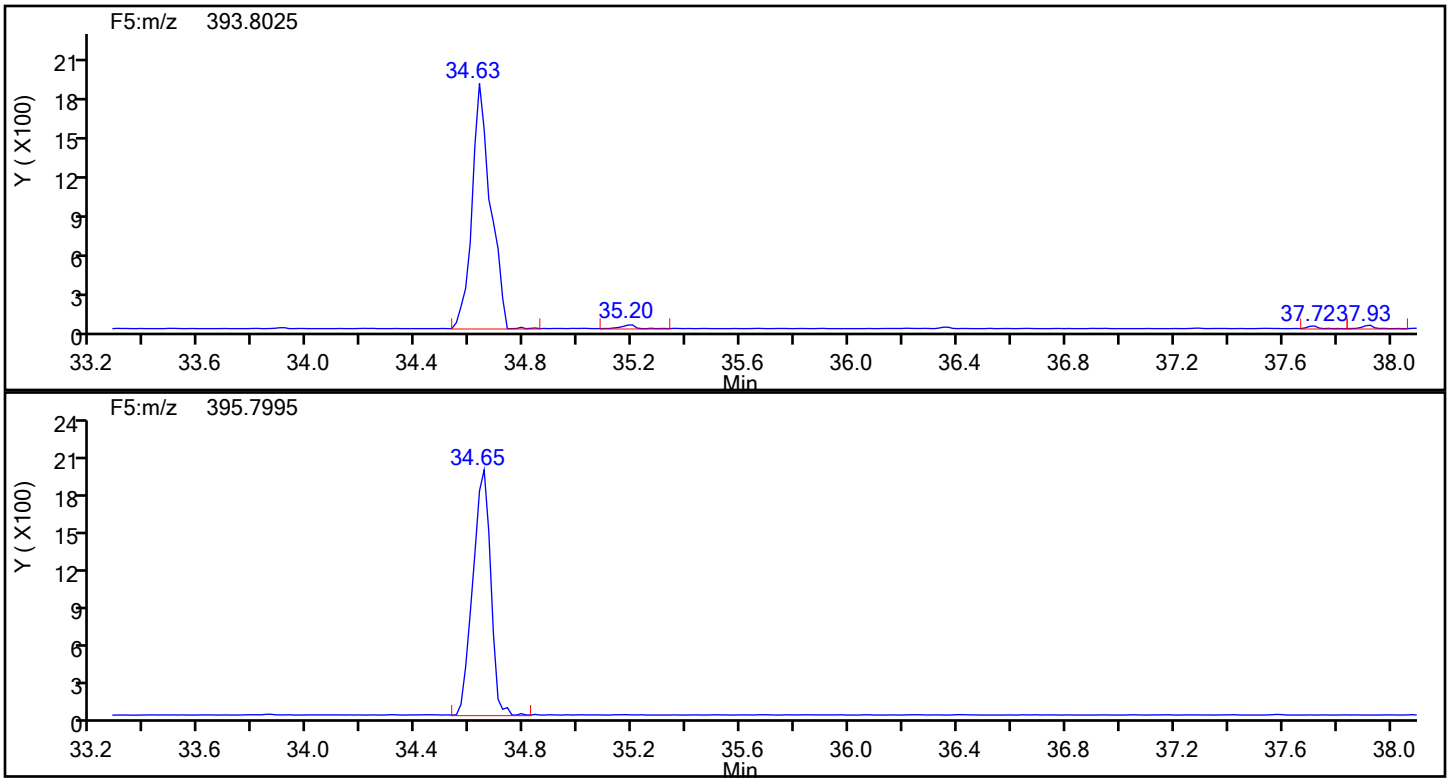


Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

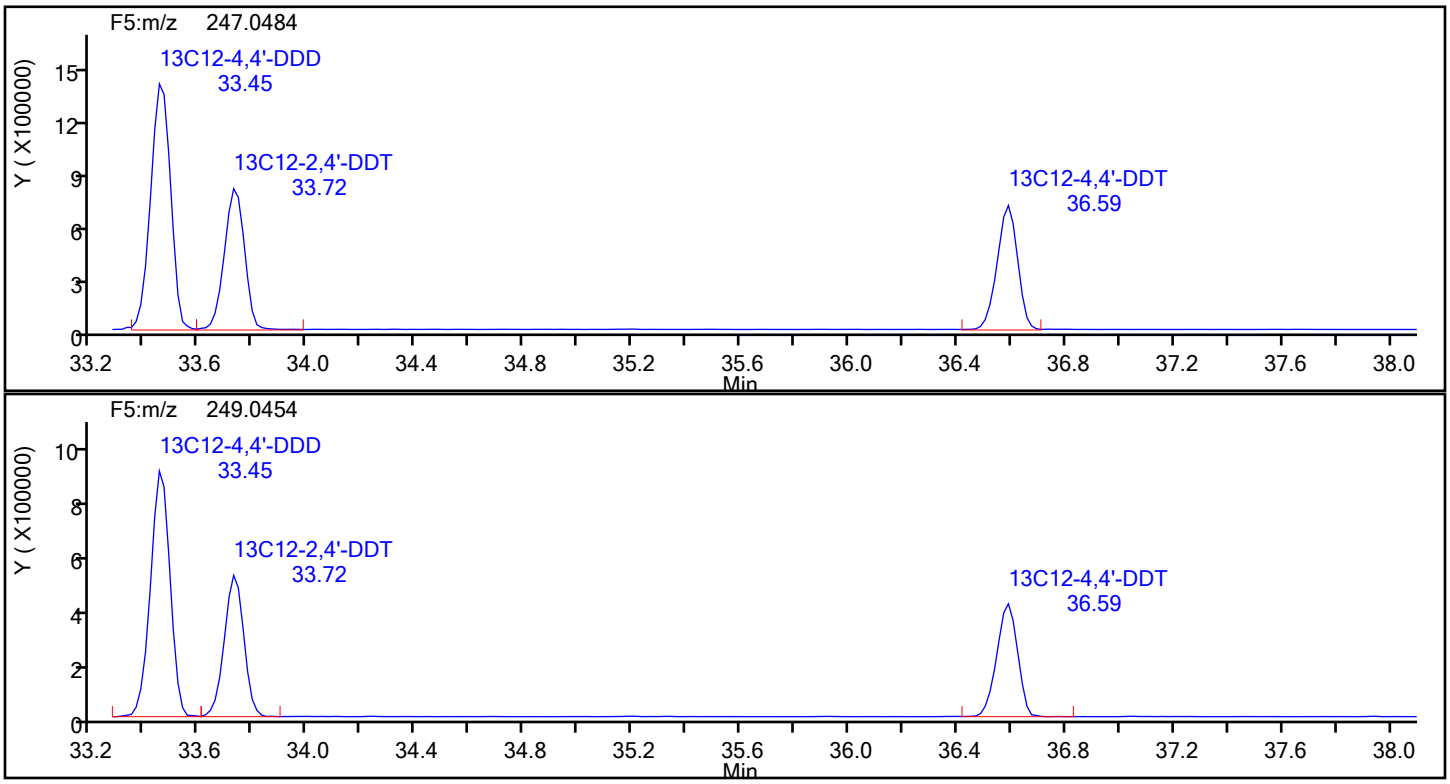
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184



PCB-184 Standards

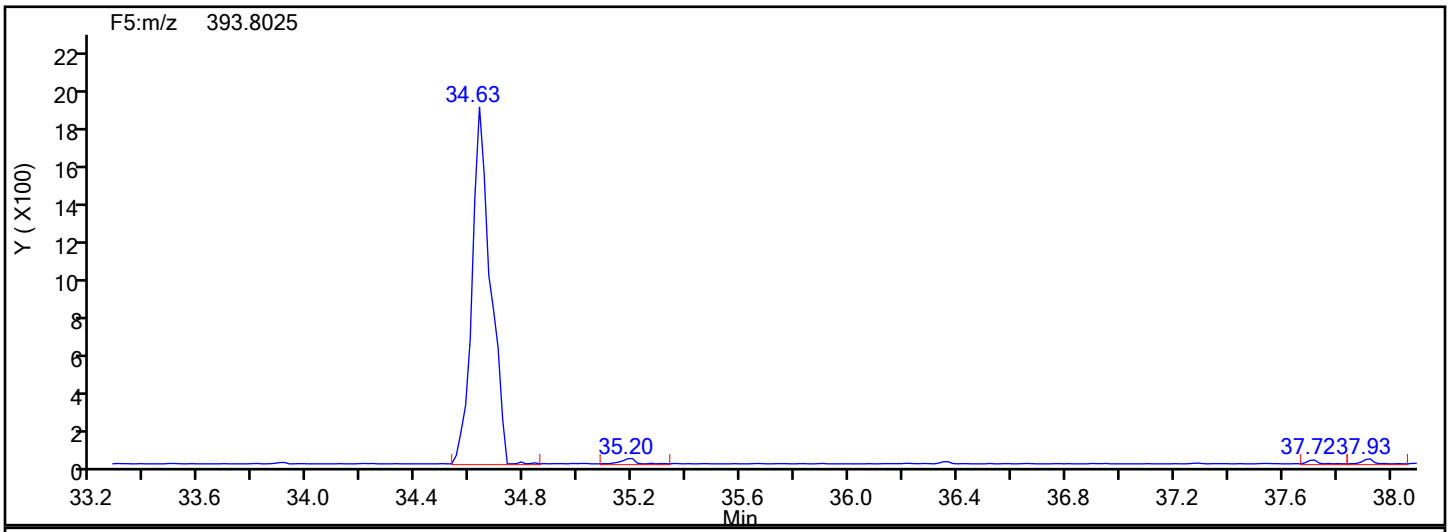


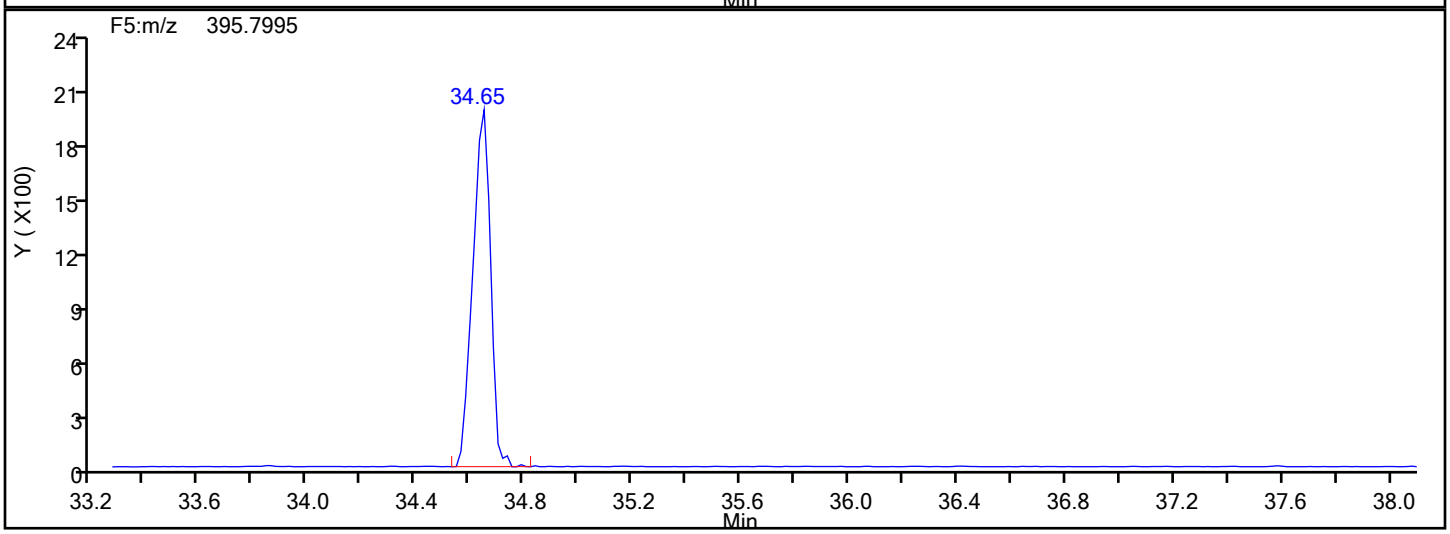
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

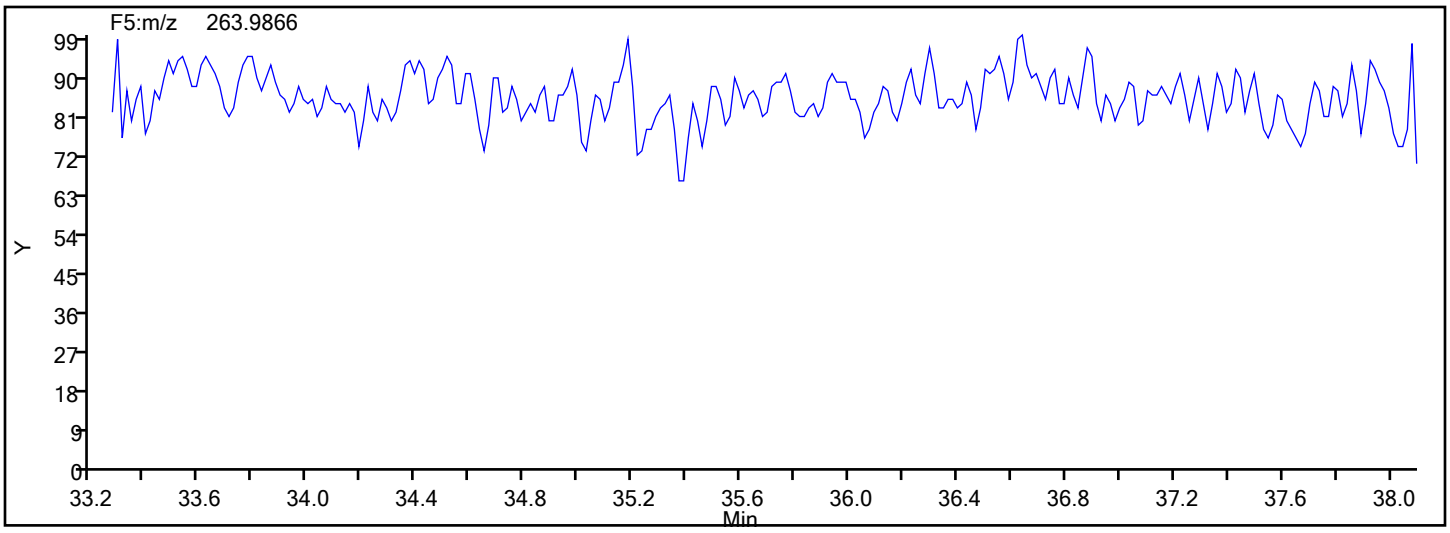
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d		
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



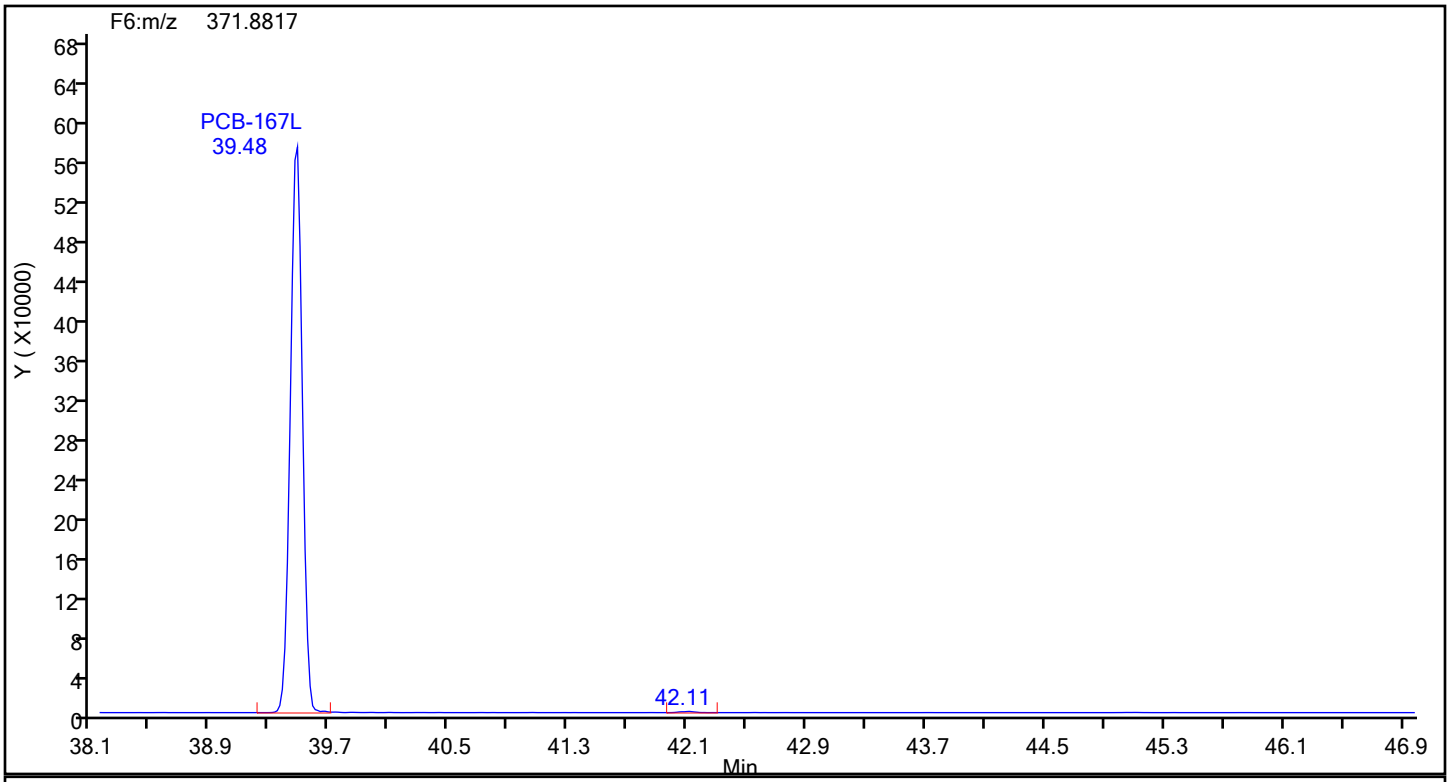
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

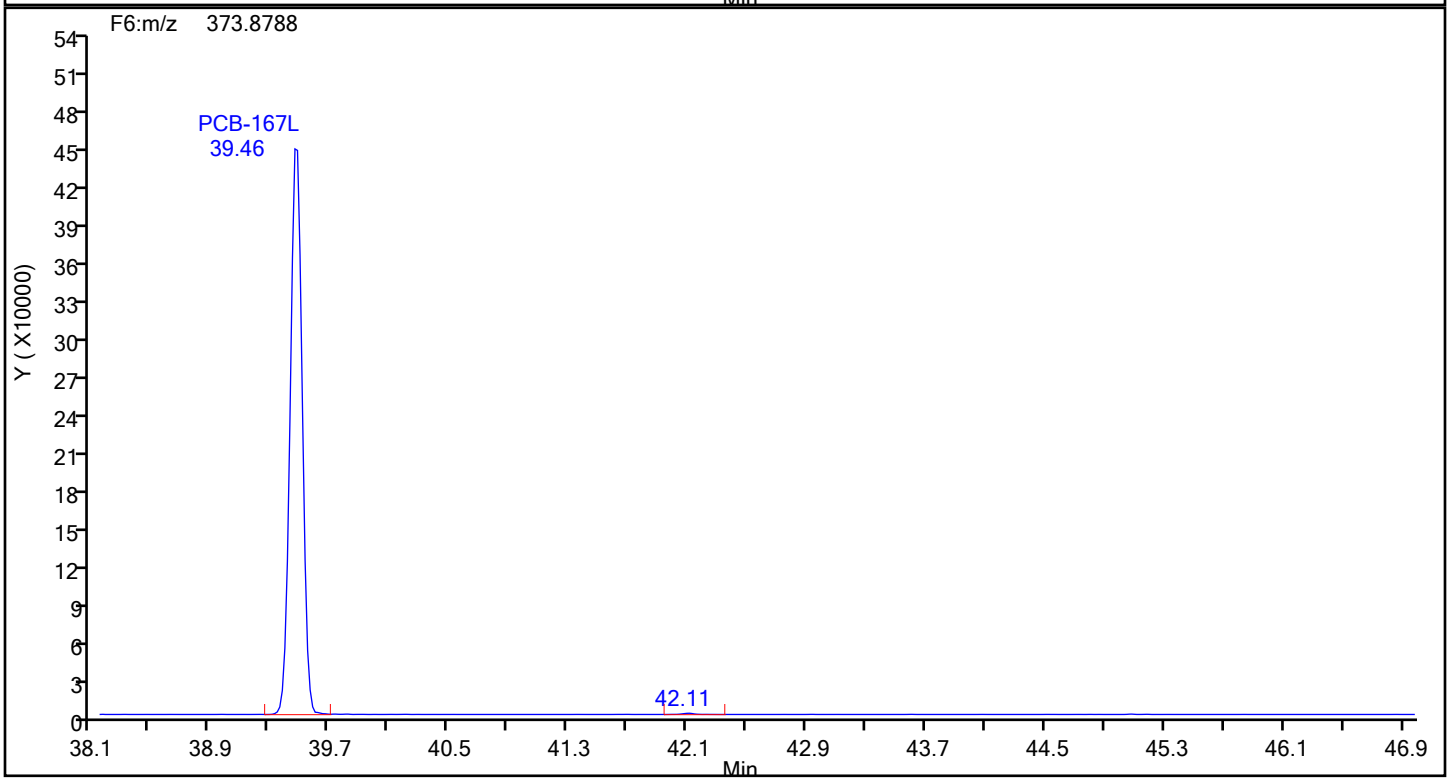
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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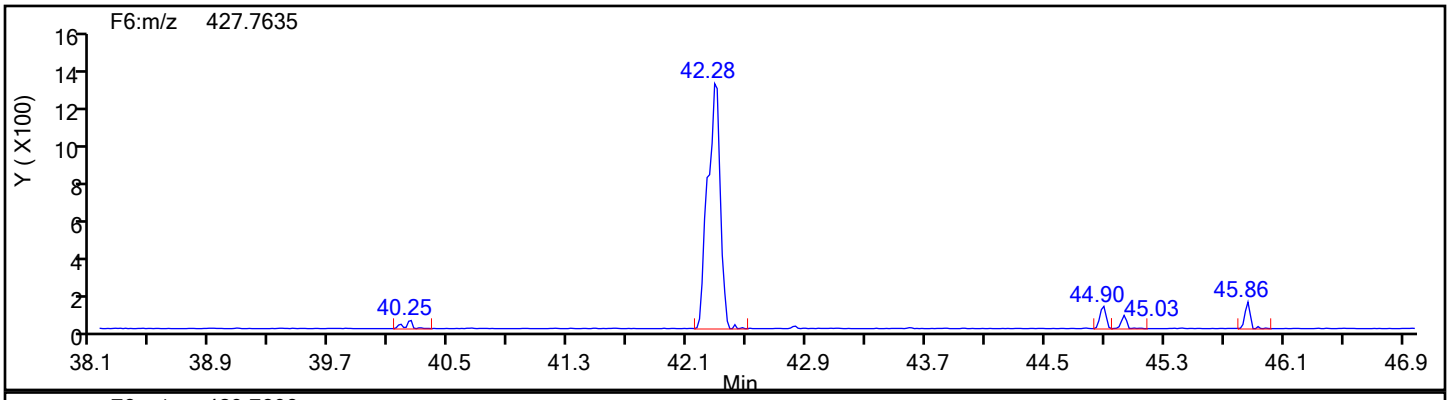
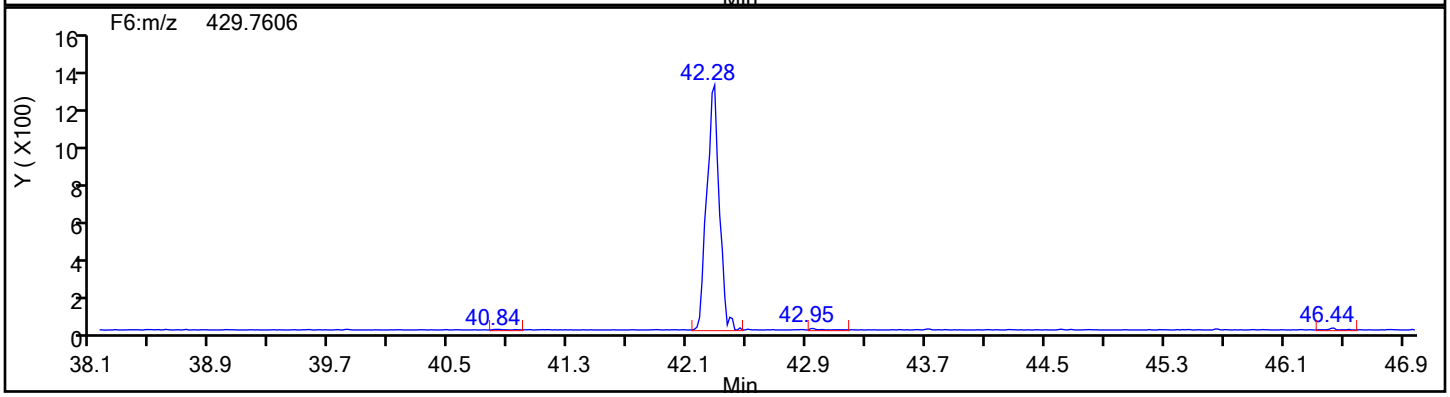
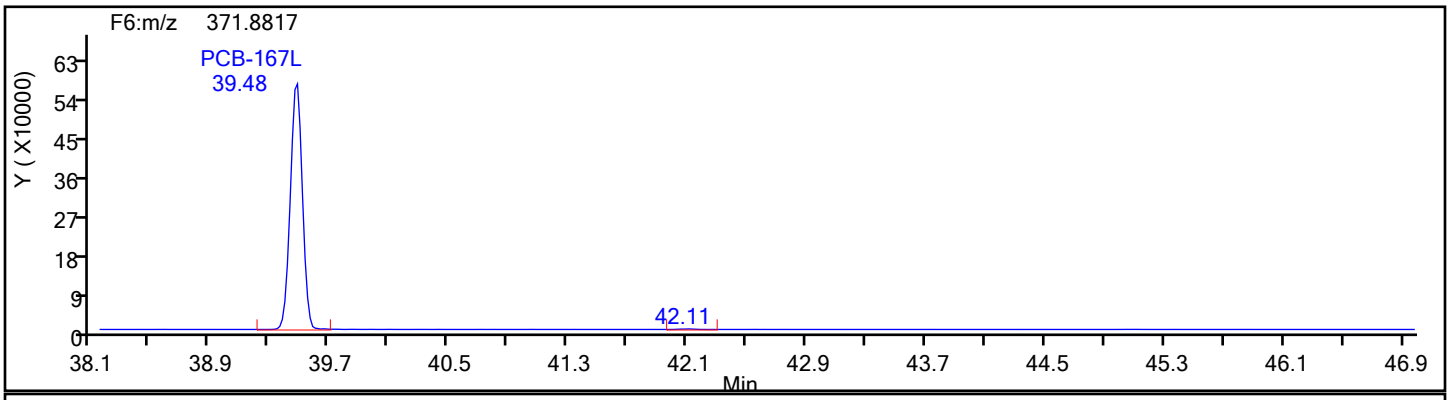
Column Type:	RTX-5	Column Dia:	0.32 mm

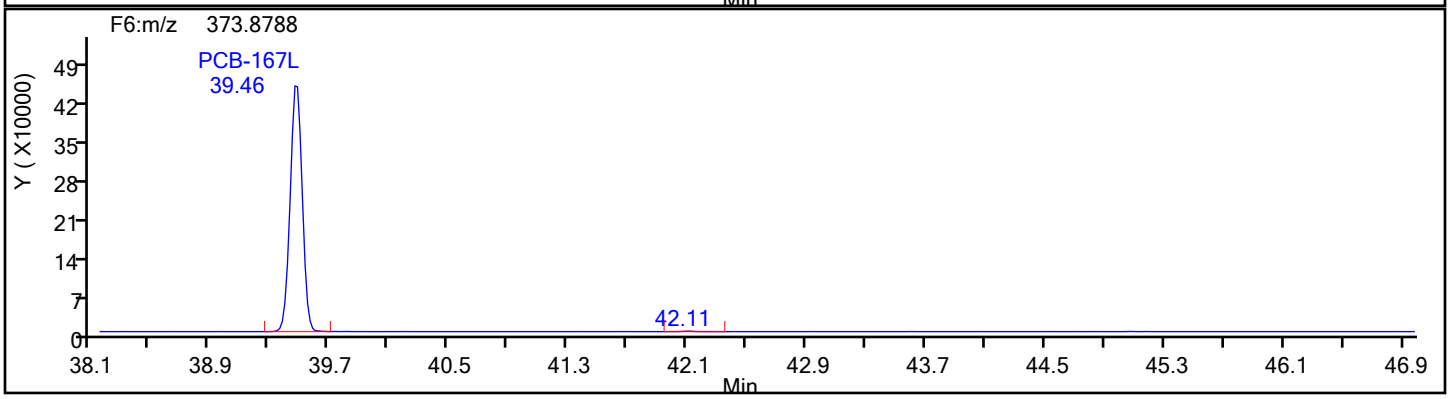
PCB-204





PCB-204 Standards



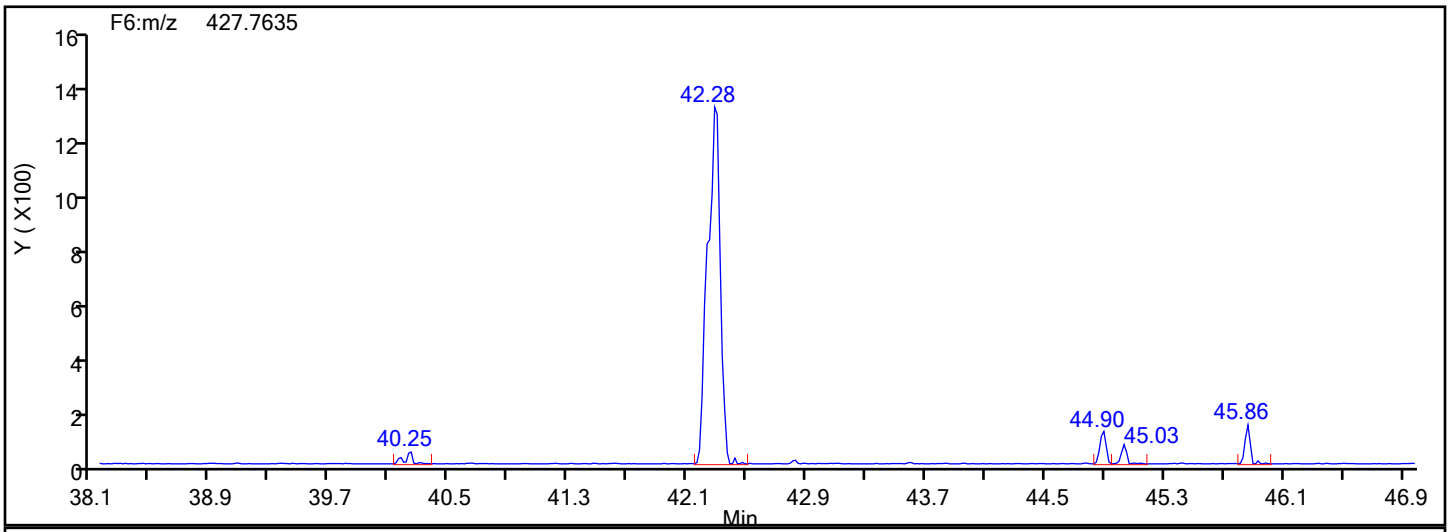


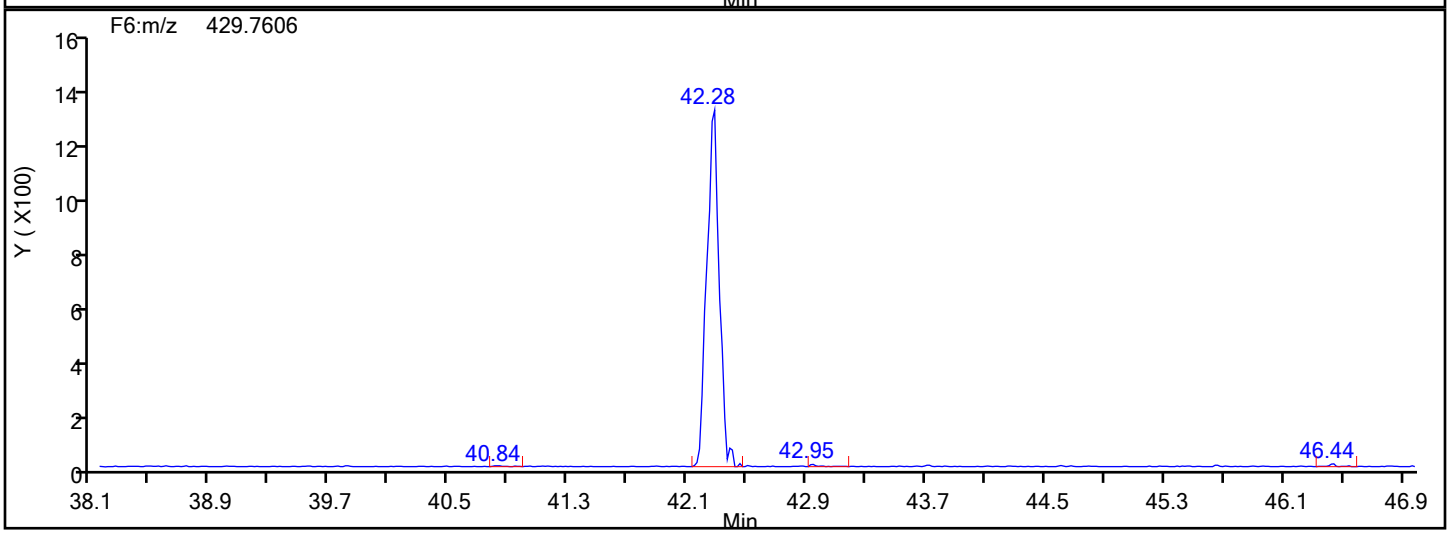
Report Date: 24-Mar-2025 13:06:46 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

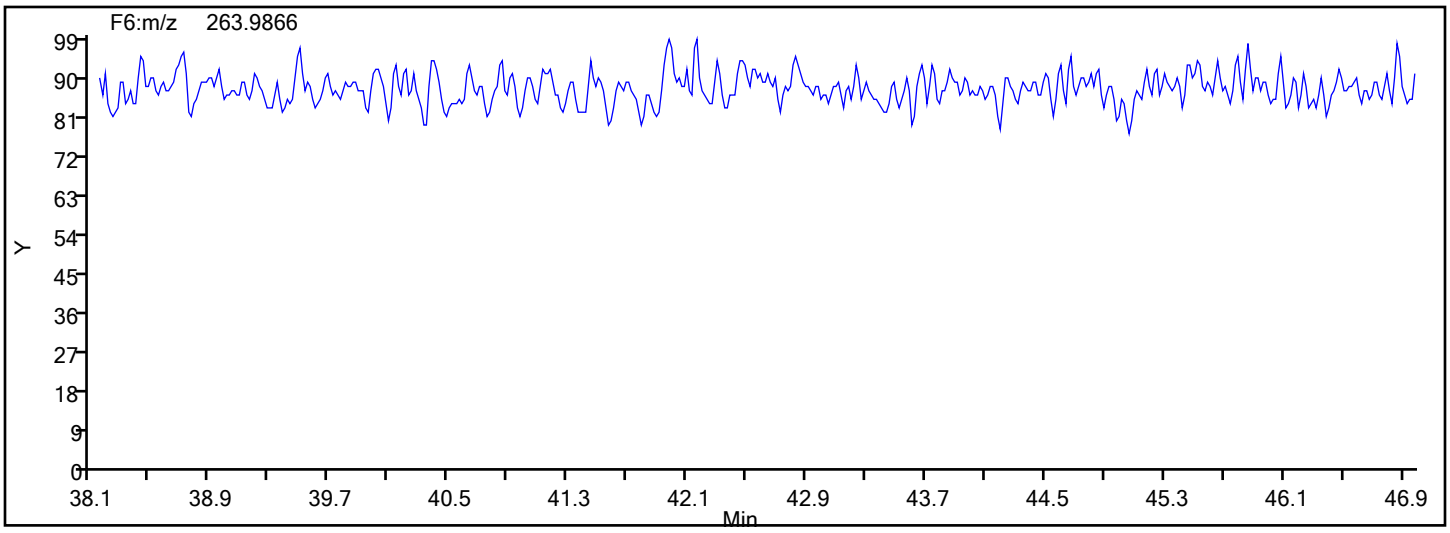
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d		
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



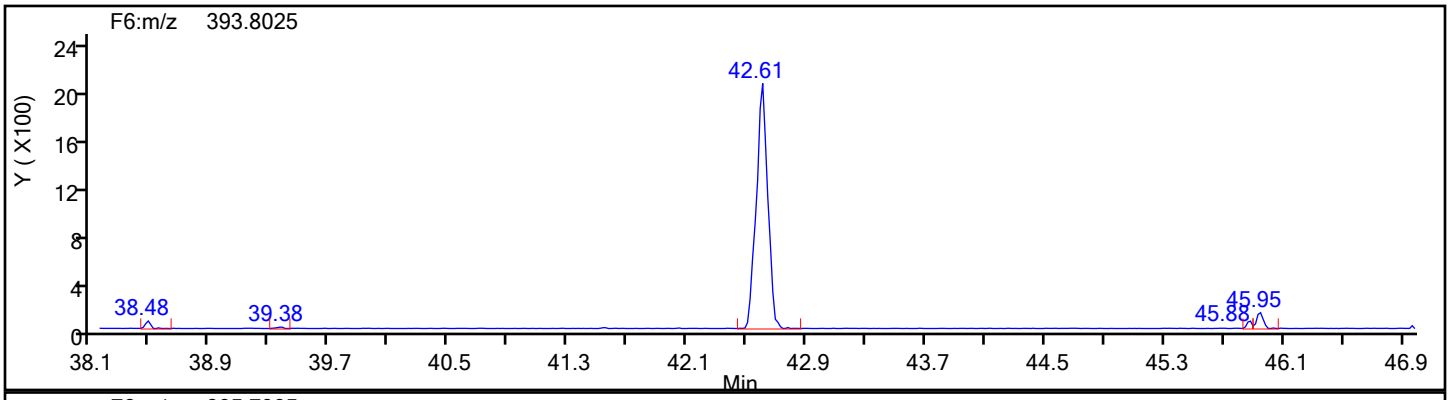
Report Date: 24-Mar-2025 13:06:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

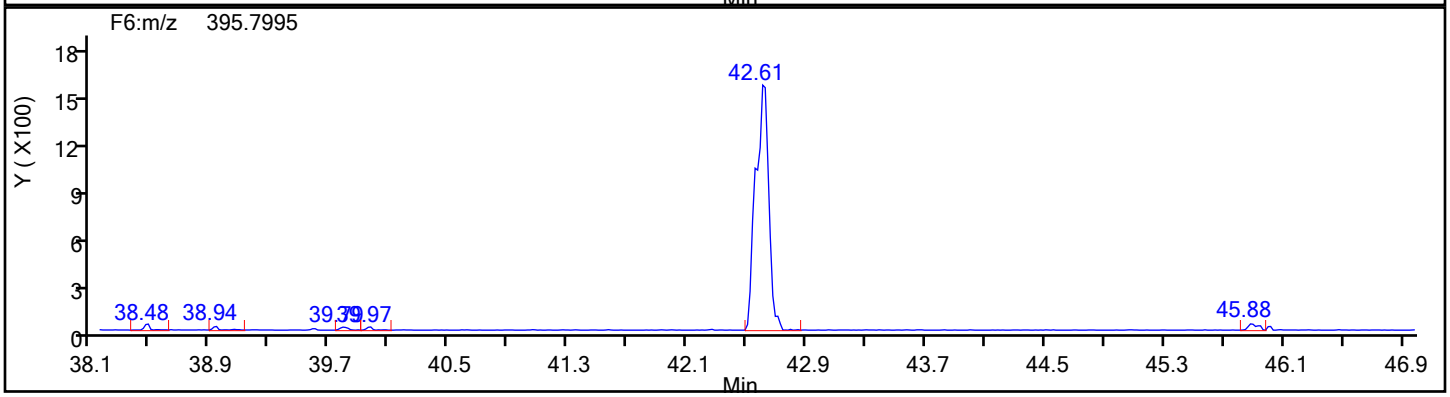
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

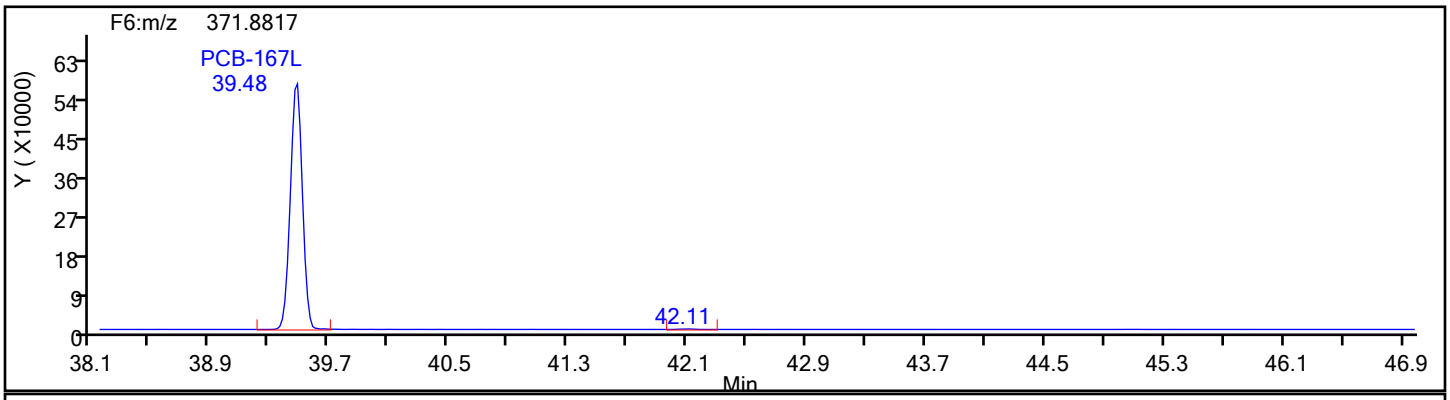
Injection Date:	20-Mar-2025 01:05:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

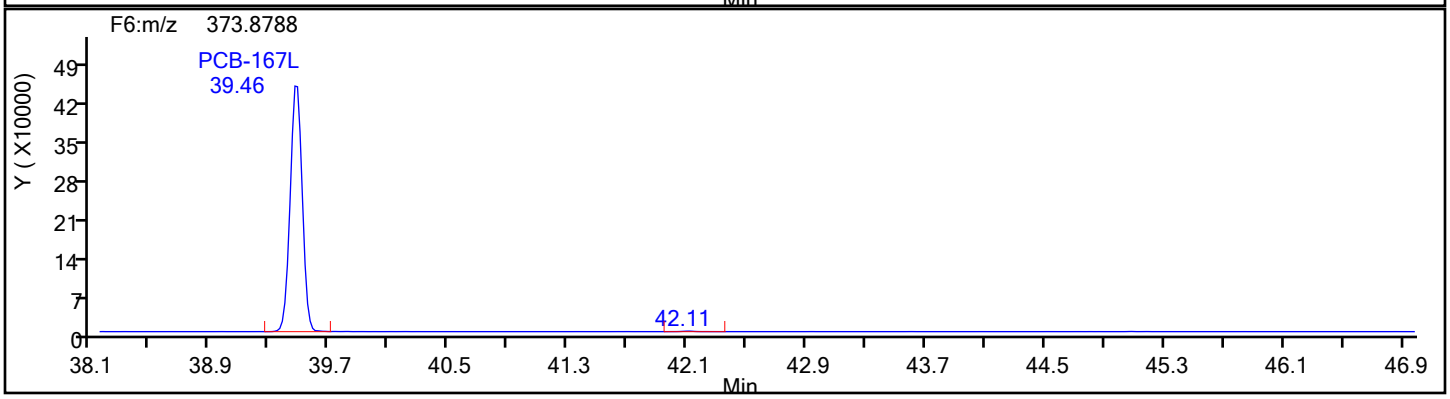
PCB-192





PCB-192 Standards





Report Date: 24-Mar-2025 13:06:47 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d
Injection Date: 20-Mar-2025 01:05:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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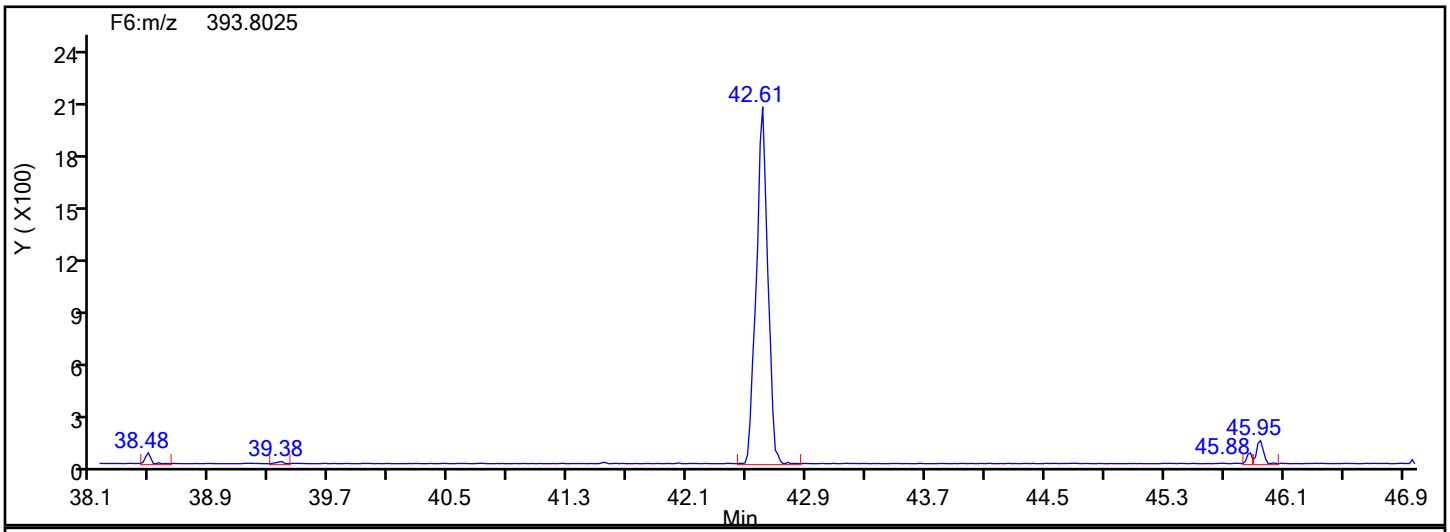
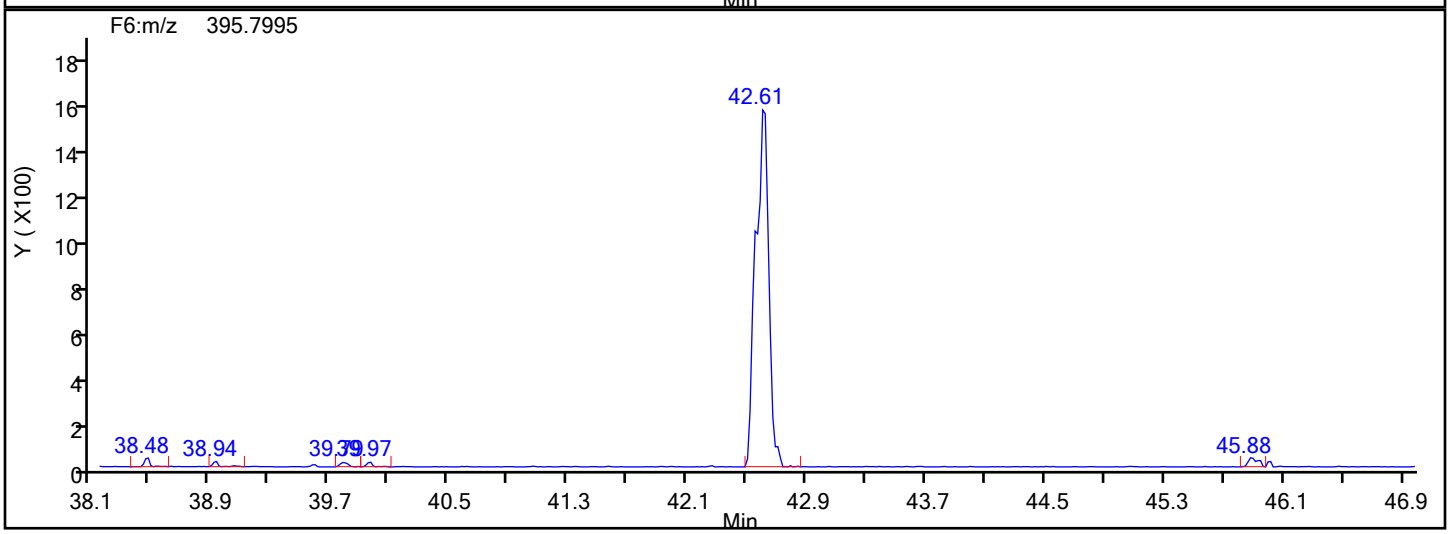
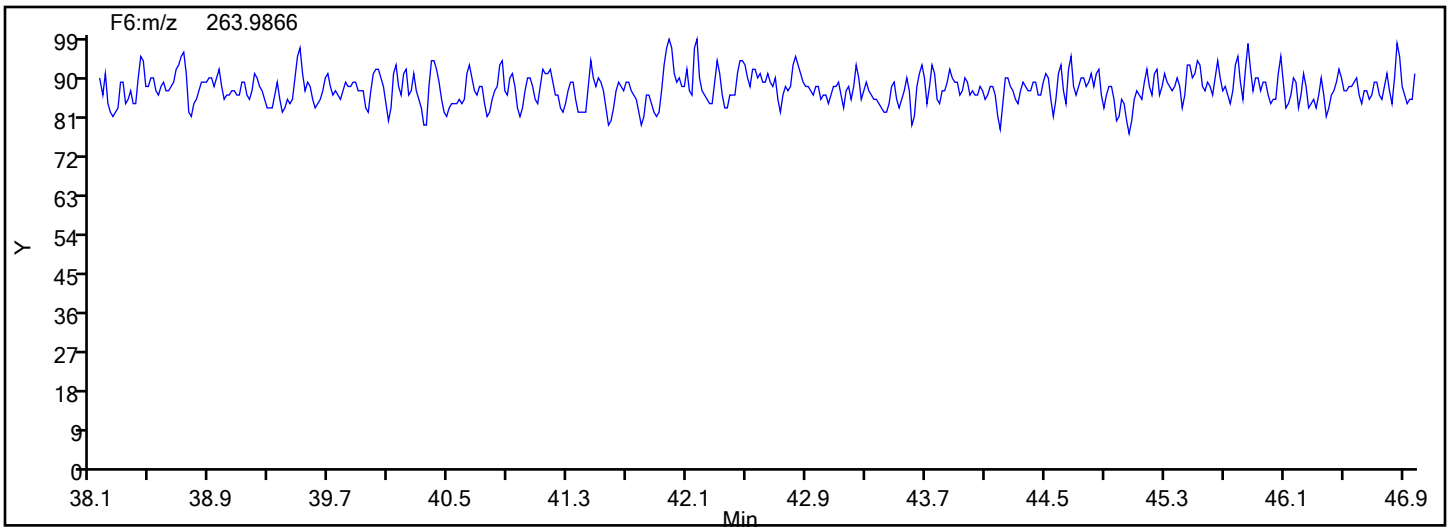
Client ID:
Worklist#: 97380 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 99200

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2025 14:50 Calibration End Date: 05/02/2025 22:08 Calibration ID: 6170

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-99200/1	d3250502ip1_20250502144728.d
Level 2	IC 140-99200/2	d3250502ip2.d
Level 3	IC 140-99200/3	d3250502ip3.d
Level 4	IC 140-99200/4	d3250502ip4.d
Level 5	IC 140-99200/5	d3250502ip5.d
Level 6	IC 140-99200/6	d3250502ip6.d
Level 7	IC 140-99200/7	d3250502ip7.d
Level 8	IC 140-99200/8	d3250502ip8.d
Level 9	IC 140-99200/9	d3250502ip9.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Pentachlorophenol	1.0425 0.9494	1.0804 0.9586	1.0465 1.0068	0.9471 1.1784	0.9868	Ave		1.0218				7.4		35.0			
13C6-alpha BHC	0.2540 0.2379	0.2533 0.2378	0.2464 0.2332	0.2425 0.2389	0.2399	Ave		0.2427				3.0		35.0			
13C6-Hexachlorobenzene	0.2871 0.2672	0.2814 0.2705	0.2826 0.2655	0.2797 0.2750	0.2736	Ave		0.2759				2.7		35.0			
13C6-beta BHC	0.2053 0.1825	0.1985 0.1821	0.1976 0.1809	0.1875 0.1869	0.1814	Ave		0.1892				4.8		35.0			
13C6-gamma BHC	0.2152 0.1952	0.2084 0.2005	0.2019 0.2052	0.1962 0.2075	0.1962	Ave		0.2029				3.3		35.0			
13C6-delta BHC	0.1911 0.1658	0.1783 0.1673	0.1777 0.1728	0.1609 0.1625	0.1698	Ave		0.1718				5.5		35.0			
13C10-Heptachlor	0.1773 0.1590	0.1696 0.1577	0.1672 0.1572	0.1657 0.1477	0.1646	Ave		0.1629				5.3		35.0			
13C12-Aldrin	0.1570 0.1466	0.1668 0.1468	0.1530 0.1439	0.1594 0.1419	0.1496	Ave		0.1517				5.4		35.0			
13C10-cis Heptachlor Epoxide	0.2985 0.2554	0.2606 0.2567	0.2731 0.2647	0.2651 0.2614	0.2725	Ave		0.2676				4.9		35.0			
13C10-oxy Chlordane	0.0829 0.0611	0.0654 0.0745	0.0717 0.0725	0.0706 0.0646	0.0735	Ave		0.0708				9.1		35.0			
13C10-trans Chlordane	0.3511 0.3149	0.3355 0.3147	0.3269 0.3111	0.3367 0.3020	0.3078	Ave		0.3223				5.0		35.0			
13C12-2,4'-DDE	4.7559 4.5693	4.5860 4.3882	4.4421 4.4733	4.4342 4.5136	4.5194	Ave		4.5202				2.4		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 99200

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x.3 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2025 14:50 Calibration End Date: 05/02/2025 22:08 Calibration ID: 6170

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
13C9-Endosulfan I	0.0949 0.0906	0.0957 0.0882	0.0921 0.0851	0.0885 0.0816	0.0923	Ave		0.0899				5.1		35.0			
13C10-cis Chlordane	0.3271 0.3028	0.3014 0.2968	0.2968 0.2947	0.2903 0.2744	0.2943	Ave		0.2976				4.6		35.0			
13C10-trans Nonachlor	0.3177 0.2766	0.3100 0.2766	0.2911 0.2707	0.2852 0.2482	0.2810	Ave		0.2841				7.3		35.0			
13C12-4,4'-DDE	3.2316 3.1330	3.2578 3.1918	3.0777 3.0681	3.1146 3.2763	3.0505	Ave		3.1557				2.7		35.0			
13C12-Dieldrin	0.2693 0.2821	0.2778 0.2883	0.2699 0.2717	0.2732 0.2919	0.2751	Ave		0.2777				2.9		35.0			
13C12-2,4'-DDD	3.3476 3.4951	3.5452 3.4729	3.4085 3.3902	3.4005 3.5798	3.3167	Ave		3.4396				2.6		35.0			
13C12-Endrin	0.1971 0.1979	0.1943 0.1888	0.1939 0.1876	0.1921 0.2017	0.2007	Ave		0.1949				2.5		35.0			
13C9-Endosulfan II	0.0515 0.0462	0.0463 0.0479	0.0472 0.0459	0.0501 0.0450	0.0463	Ave		0.0474				4.4		35.0			
13C12-4,4'-DDD	3.0430 2.7627	2.9033 3.0456	2.9093 2.7966	2.9610 3.0383	2.8788	Ave		2.9265				3.6		35.0			
13C12-2,4'-DDT	2.0887 2.0379	2.0788 2.0620	2.0434 1.9984	1.9786 1.9676	2.0797	Ave		2.0372				2.2		35.0			
13C10-cis Nonachlor	0.2317 0.2174	0.2363 0.2209	0.2196 0.2244	0.2234 0.2288	0.2158	Ave		0.2243				3.1		35.0			
13C12-Endrin Aldehyde	0.0427 0.0467	0.0459 0.0429	0.0419 0.0419	0.0439 0.0352	0.0410	Ave		0.0424				7.8		35.0			
13C9-Endosulfan sulfate	0.3740 0.3555	0.3502 0.3408	0.3483 0.3397	0.3259 0.3340	0.3495	Ave		0.3464				4.0		35.0			
13C12-4,4'-DDT	1.8927 1.8581	1.8786 1.7796	1.8117 1.7268	1.7912 1.6950	1.8209	Ave		1.8061				3.7		35.0			
13C11-Endrin Ketone	0.1085 0.1078	0.1044 0.1028	0.1006 0.1023	0.1023 0.1070	0.1047	Ave		0.1045				2.7		35.0			
13C12-Methoxychlor	2.0240 1.8656	1.9335 1.8403	1.8417 1.8267	1.8542 1.7889	1.9010	Ave		1.8751				3.7		35.0			
13C10-Mirex	2.1969 1.8792	2.2536 1.9039	1.8884 1.9197	1.9407 1.9159	1.9480	Ave		1.9829				7.1		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 99200

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2025 14:50 | Calibration End Date: 05/02/2025 22:08 | Calibration ID: 6170

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-99200/1	d3250502ip1_20250502144728.d
Level 2	IC 140-99200/2	d3250502ip2.d
Level 3	IC 140-99200/3	d3250502ip3.d
Level 4	IC 140-99200/4	d3250502ip4.d
Level 5	IC 140-99200/5	d3250502ip5.d
Level 6	IC 140-99200/6	d3250502ip6.d
Level 7	IC 140-99200/7	d3250502ip7.d
Level 8	IC 140-99200/8	d3250502ip8.d
Level 9	IC 140-99200/9	d3250502ip9.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Pentachlorophenol	13PCP	Ave	317058 21973899	404902 36188548	1061375 83115007	2018105 197867858	6963118	50.0 2000	100 3000	200 5000	500 10000	1000
13C6-alpha BHC	PCB15L	Ave	8481171 7801883	7764638 8018495	7686853 8071978	7141901 7760661	7857869	100 100	100 100	100 100	100 100	100
13C6-Hexachlorobenzene	PCB15L	Ave	9586199 8761809	8627437 9121137	8816594 9190105	8238607 8934062	8964478	100 100	100 100	100 100	100 100	100
13C6-beta BHC	PCB15L	Ave	6855556 5982950	6086499 6138636	6163475 6261708	5521645 6071499	5942310	100 100	100 100	100 100	100 100	100
13C6-gamma BHC	PCB15L	Ave	7185327 6401012	6389397 6759352	6298336 7103692	5778370 6739972	6427763	100 100	100 100	100 100	100 100	100
13C6-delta BHC	PCB15L	Ave	6380627 5437799	5465110 5638595	5543799 5982062	4739171 5278753	5562944	100 100	100 100	100 100	100 100	100
13C10-Heptachlor	PCB15L	Ave	5919756 5214783	5198487 5318091	5214265 5441351	4880486 4797466	5390971	100 100	100 100	100 100	100 100	100
13C12-Aldrin	PCB15L	Ave	5242671 4805727	5114324 4949455	4772408 4981354	4694492 4610649	4899477	100 100	100 100	100 100	100 100	100
13C10-cis Heptachlor Epoxide	PCB101L	Ave	1887432 1516885	1570260 1623001	1612945 1663134	1513032 1574006	1647398	100 100	100 100	100 100	100 100	100
13C10-oxy Chlordane	PCB101L	Ave	524367 363074	393827 471336	423567 455607	403064 388757	444242	100 100	100 100	100 100	100 100	100

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-40836-1 Analy Batch No.: 99200

SDG No.:

Instrument ID: D3PST GC Column: RTX-5(60x. ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2025 14:50 Calibration End Date: 05/02/2025 22:08 Calibration ID: 6170

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
13C10-trans Chlordane	PCB101L	Ave	2220205	2021797	1930745	1922004	1860511	100	100	100	100	100
			1870486	1989748	1954913	1818197		100	100	100	100	
13C12-2,4'-DDE	PCB101L	Ave	30075589	27633203	26232675	25309878	27317746	100	100	100	100	100
			27138627	27746873	28111457	27176193		100	100	100	100	
13C9-Endosulfan I	PCB101L	Ave	600086	576418	543826	504884	558042	100	100	100	100	100
			538118	557893	534718	491013		100	100	100	100	
13C10-cis Chlordane	PCB101L	Ave	2068842	1815973	1752463	1656970	1778961	100	100	100	100	100
			1798688	1876836	1851784	1652420		100	100	100	100	
13C10-trans Nonachlor	PCB101L	Ave	2009317	1868042	1718909	1628106	1698702	100	100	100	100	100
			1642865	1748927	1701153	1494647		100	100	100	100	
13C12-4,4'-DDE	PCB118L	Ave	21122144	18951347	17695083	17160840	18171087	100	100	100	100	100
			17788735	18837858	19009722	18216369		100	100	100	100	
13C12-Dieldrin	PCB118L	Ave	1759987	1615793	1551655	1505305	1638869	100	100	100	100	100
			1601702	1701723	1683523	1623215		100	100	100	100	
13C12-2,4'-DDD	PCB118L	Ave	21880215	20623281	19597353	18736370	19756616	100	100	100	100	100
			19845051	20496604	21005573	19904132		100	100	100	100	
13C12-Endrin	PCB118L	Ave	1287960	1130199	1114762	1058377	1195791	100	100	100	100	100
			1123806	1114387	1162458	1121739		100	100	100	100	
13C9-Endosulfan II	PCB118L	Ave	336322	269274	271219	275992	276000	100	100	100	100	100
			262408	282514	284455	250438		100	100	100	100	
13C12-4,4'-DDD	PCB118L	Ave	19889061	16889311	16726968	16314904	17148029	100	100	100	100	100
			15686242	17975000	17327403	16893323		100	100	100	100	
13C12-2,4'-DDT	PCB118L	Ave	13652099	12092917	11748525	10901598	12388310	100	100	100	100	100
			11570888	12169646	12382125	10940290		100	100	100	100	
13C10-cis Nonachlor	PCB118L	Ave	1514232	1374869	1262319	1231058	1285510	100	100	100	100	100
			1234228	1303936	1390196	1272399		100	100	100	100	
13C12-Endrin Aldehyde	PCB118L	Ave	279292	266805	240952	241670	244319	100	100	100	100	100
			264983	253001	259495	195668		100	100	100	100	

FORM VI
PESTICIDES BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1 | Analy Batch No.: 99200

SDG No.:

Instrument ID: D3PST | GC Column: RTX-5(60x. ID: 0.32(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2025 14:50 | Calibration End Date: 05/02/2025 22:08 | Calibration ID: 6170

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
13C9-Endosulfan sulfate	PCB118L	Ave	2444429 2018685	2037183 2011246	2002515 2104849	1795453 1856997	2081756	100 100	100 100	100 100	100 100	100
13C12-4,4'-DDT	PCB118L	Ave	12370727 10550237	10928280 10503102	10416561 10698872	9869485 9424179	10846486	100 100	100 100	100 100	100 100	100
13C11-Endrin Ketone	PCB118L	Ave	709368 612198	607422 606696	578424 633625	563716 595032	623476	100 100	100 100	100 100	100 100	100
13C12-Methoxychlor	PCB118L	Ave	13228754 10592638	11247586 10861545	10589060 11318017	10216286 9946218	11323878	100 100	100 100	100 100	100 100	100
13C10-Mirex	PCB138L	Ave	6754499 5619613	6014300 5923914	5573812 6040041	5369348 5670523	5857977	100 100	100 100	100 100	100 100	100

Curve Type Legend:
Ave = Average ISTD

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	02 May 2025 14:03
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

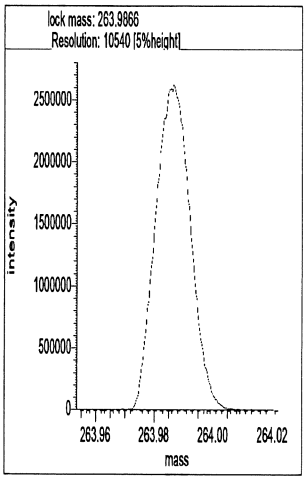
Segment 1

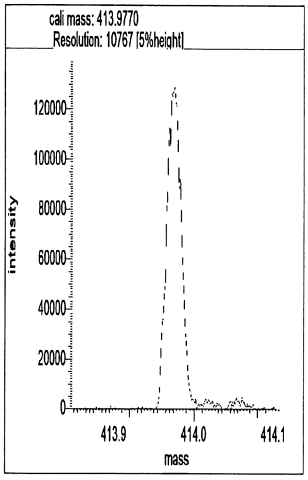
_d3250502ri 2

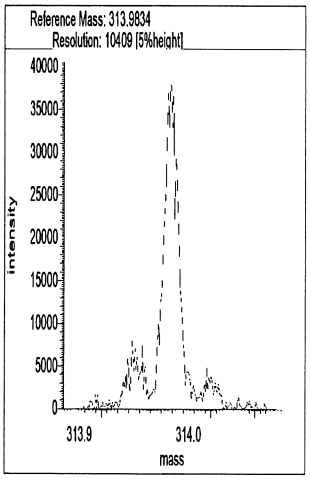
Lock mass 263.9866 [m/z] Resolution: 10540 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10767 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10409 [5%height]





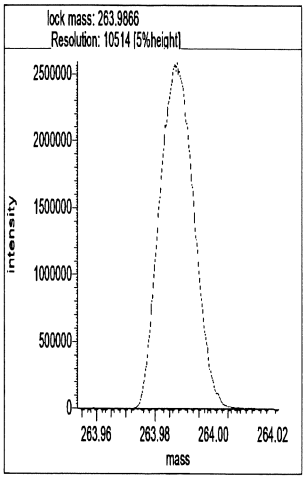


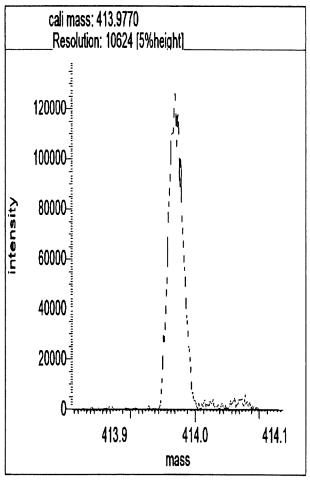
Segment 2

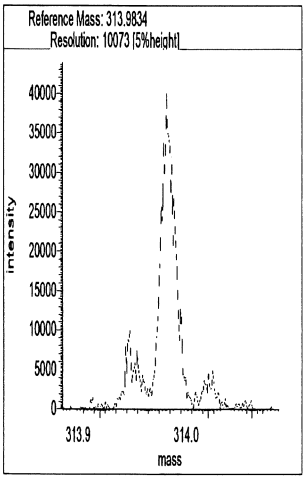
Lock mass 263.9866 [m/z] Resolution: 10514 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10624 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10073 [5%height]





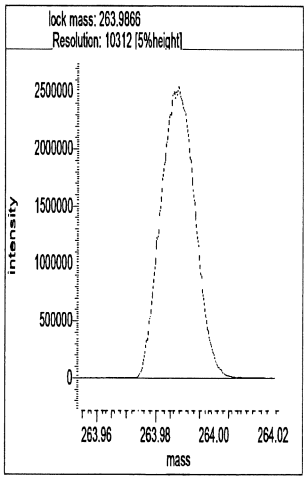


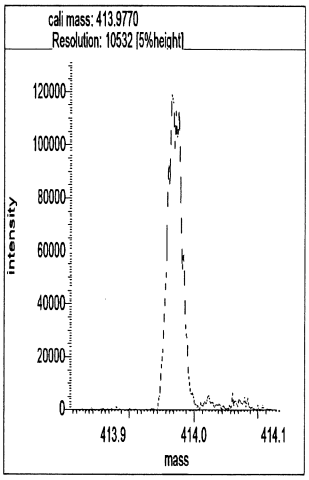
Segment 3

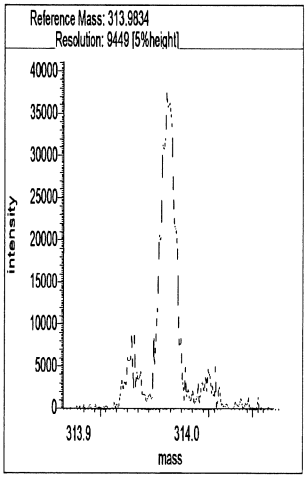
Lock mass 263.9866 [m/z] Resolution: 10312 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10532 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9449 [5%height]





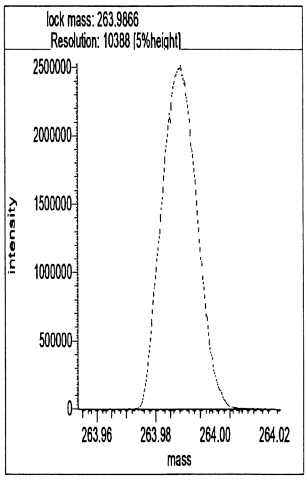


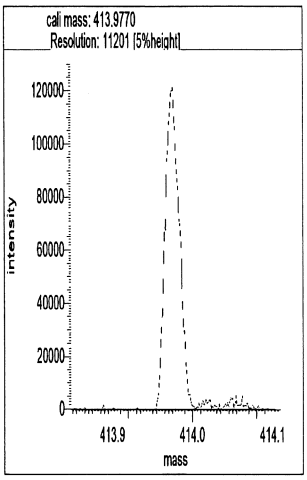
Segment 4

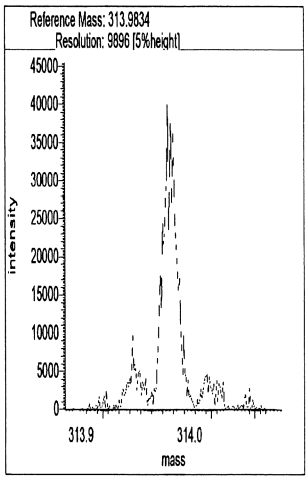
Lock mass 263.9866 [m/z] Resolution: 10388 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11201 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9896 [5%height]





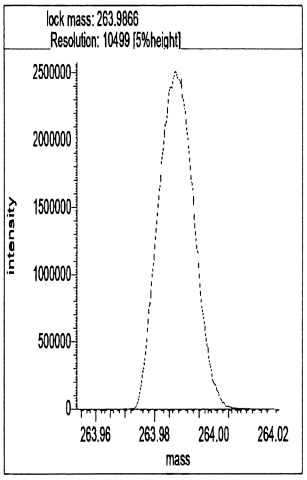


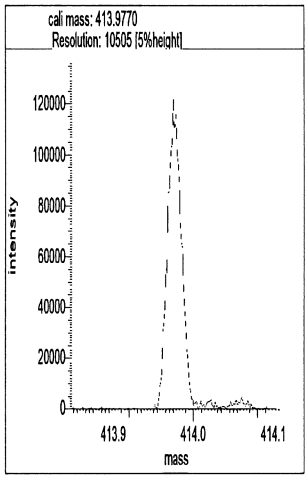
Segment 5

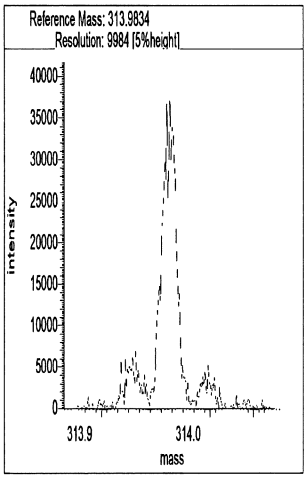
Lock mass 263.9866 [m/z] Resolution: 10499 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10505 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9984 [5%height]





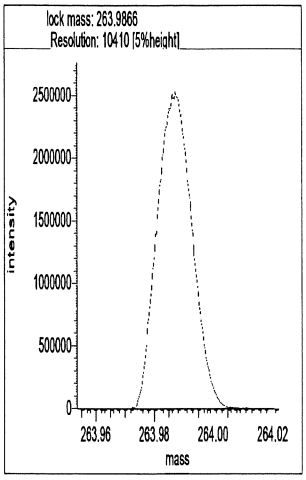


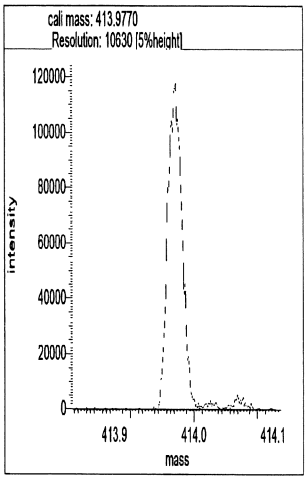
Segment 6

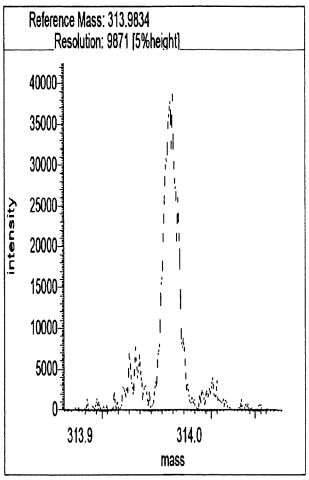
Lock mass 263.9866 [m/z] Resolution: 10410 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10630 [5%height]

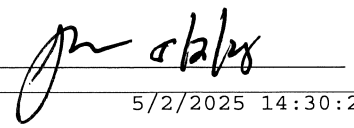
Ref. mass 313.9834 [m/z] Resolution: 9871 [5%height]


lock mass: 263.9866
Resolution: 10410 [5%height]
intensity
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 10630 [5%height]
intensity
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9871 [5%height]
intensity
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

```
Reports
14:29:38:  Peak matching procedure started
14:29:38:
14:29:39:  Reference mass: 263.98656
14:29:39:  Sample mass: 414.0
14:29:40:
14:29:40:  Finding reference mass
14:29:41:  Finding sample mass
14:29:42:
14:29:47:  [1]    413.9735 amu, mean: 413.9735
14:29:50:  [2]    413.9748 amu, mean: 413.9741     SD: 0.90 mmu or: 2.17 ppm
14:29:54:  [3]    413.9745 amu, mean: 413.9743     SD: 0.67 mmu or: 1.62 ppm
14:29:57:  [4]    413.9738 amu, mean: 413.9741     SD: 0.59 mmu or: 1.43 ppm
14:30:00:  [5]    413.9747 amu, mean: 413.9743     SD: 0.57 mmu or: 1.38 ppm
14:30:03:  [6]    413.9754 amu, mean: 413.9744     SD: 0.69 mmu or: 1.66 ppm
14:30:06:  [7]    413.9753 amu, mean: 413.9746     SD: 0.70 mmu or: 1.70 ppm
14:30:09:  [8]    413.9751 amu, mean: 413.9746     SD: 0.68 mmu or: 1.63 ppm
14:30:13:  [9]    413.9749 amu, mean: 413.9747     SD: 0.64 mmu or: 1.55 ppm
14:30:16:  [10]    413.9755 amu, mean: 413.9747     SD: 0.66 mmu or: 1.59 ppm
14:30:19:  [11]    413.9760 amu, mean: 413.9749     SD: 0.73 mmu or: 1.77 ppm
14:30:19:
14:30:19:  Stop requested. Please wait for procedure to finish.
14:30:19:
14:30:22:
14:30:23:  Peakmatching stopped
```

Signature 

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-May-2025 14:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 17:59:54 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 05-May-2025 17:59:54

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:22	8481171	0.81	0.2427	104.7	104.7	0.4376	0.4376	105	
D 13C6-beta BHC	18:21	6855556	0.80	0.1892	108.5	108.5	0.5613	0.5613	109	
D 13C6-gamma BHC	18:38	7185327	0.81	0.2029	106.0	106.0	0.5233	0.5233	106	
D 13C6-delta BHC	19:36	6380627	0.80	0.1718	111.2	111.2	0.6181	0.6181	111	
D 13C10-Heptachlor	21:51	5919756	1.28	0.1629	108.8	108.8	0.0150	0.0150	109	
D 13C6-Hexachlorobenzene	17:41	9586199	1.29	0.2759	104.1	104.1	0.000155	0.000155	104	
D 13C12-Aldrin	23:42	5242671	1.58	0.1517	103.5	103.5	0.0708	0.0708	104	
D 13C10-oxy Chlordane	26:07	524367	0.98	0.0708	117.2	117.2	0.006945	0.006945	117	
D 13C10-cis Heptachlor Epoxide	26:04	1887432	1.23	0.2676	111.6	111.6	0.0123	0.0123	112	
D 13C12-2,4'-DDE	27:54	30075589	1.60	4.5202	105.2	105.2	0.0903	0.0903	105	
D 13C10-trans Chlordane	27:36	2220205	1.37	0.3223	108.9	108.9	0.0447	0.0447	109	
D 13C10-cis Chlordane	28:39	2068842	1.28	0.2976	109.9	109.9	0.0484	0.0484	110	
D 13C10-trans Nonachlor	28:58	2009317	1.25	0.2841	111.8	111.8	0.0507	0.0507	112	
D 13C9-Endosulfan I	28:29	600086	1.24	0.0899	105.6	105.6	0.1601	0.1601	106	
D 13C12-4,4'-DDE	30:07	21122144	1.61	3.1557	102.4	102.4	0.0759	0.0759	102	
D 13C12-4,4'-DDD	33:25	19889061	1.57	2.9265	104.0	104.0	0.0185	0.0185	104	
D 13C12-2,4'-DDT	33:42	13652099	1.58	2.0372	102.5	102.5	0.0266	0.0266	103	
D 13C12-4,4'-DDT	36:34	12370727	1.58	1.8061	104.8	104.8	0.0299	0.0299	105	
D 13C12-Dieldrin	30:21	1759987	1.64	0.2777	97.0	97.0	0.0947	0.0947	96.96	
D 13C12-Endrin	32:01	1287960	1.58	0.1949	101.1	101.1	0.1349	0.1349	101	
D 13C9-Endosulfan II	32:45	336322	1.26	0.0474	108.6	108.6	0.4710	0.4710	109	
D 13C12-Endrin Aldehyde	34:17	279292	1.88	0.0424	100.7	100.7	1.018	1.018	101	
D 13C12-Methoxychlor	41:54	13228754	22.61	1.8751	107.9	107.9	0.0391	0.0391	108	
D 13C11-Endrin Ketone	40:23	709368	1.55	0.1045	103.9	103.9	0.4939	0.4939	104	
D 13C10-Mirex	45:21	6754499	1.28	1.9829	110.8	110.8	0.0300	0.0300	111	
* PCB-15L	19:03	33394541	1.64		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:30	3041303	0.66		500.0	500.0				M
Pentachlorophenol	18:31	317058	0.69	1.0218	51.0	51.0	0.2788	0.2788	102	M
* PCB-101L	28:05	6323862	1.58		100.0	100.0				
* PCB-118L	32:45	6536038	1.61		100.0	100.0				
* PCB-138L	36:57	3074504	1.32		100.0	100.0				
* PCB-60L	27:42	14246504	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:49	21880215	1.57	3.4396	97.3	97.3	0.0498	0.0498	97.33	
D 13C10-cis Nonachlor	33:46	1514232	1.33	0.2243	103.3	103.3	0.0837	0.0837	103	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	2444429	1.35	0.3464	108.0	108.0	0.0542	0.0542	108	
* PCB-167L	39:27	3246804	1.30		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

61L0.51699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-May-2025 14:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 17:59:54 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 05-May-2025 17:59:54

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:22	17:21	1	0.912	3791455	1427227	2869	7172	497		
224.9317	17:22	17:21	1	0.912	4689716	1765771	2102	5255	840	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:20	1	0.964	3039902	1110808	2869	7172	387		
224.9317	18:21	18:20	1	0.964	3815654	1384712	2102	5255	659	0.80(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:37	1	0.979	3211437	1071449	2869	7172	373		
224.9317	18:38	18:37	1	0.979	3973890	1346497	2102	5255	641	0.81(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:34	2	1.029	2836690	902974	2869	7172	315		
224.9317	19:36	19:34	2	1.029	3543937	1160387	2102	5255	552	0.80(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:51	21:49	2	1.147	3318800	927023	60	150	15450		
278.8240	21:51	21:49	2	1.147	2600956	727714	54	135	13476	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:40	1	0.929	5396780	1965732	1	2	1965732		
291.8273	17:41	17:40	1	0.929	4189419	1542251	1	2	1542251	1.29(0.93-1.55)	
13C12-Aldrin											
269.8805	23:42	23:41	1	1.244	3213463	832897	348	870	2393		
271.8775	23:42	23:41	1	1.244	2029208	533881	155	387	3444	1.58(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:07	26:05	2	0.930	259238	60864	1	2	60864		
398.8358	26:06	26:05	1	0.930	265129	62201	2	5	31101	0.98(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:04	26:03	1	0.929	1041812	236998	9	22	26333		
364.8748	26:04	26:03	1	0.929	845620	203055	10	25	20306	1.23(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:52	2	0.994	18514585	4337468	1527	3817	2841		
260.0376	27:54	27:52	2	0.994	11561004	2702982	798	1995	3387	1.60(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:34	2	0.983	1282422	292198	53	132	5513		
278.8240	27:36	27:34	2	0.983	937783	216184	29	72	7455	1.37(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:38	1	1.020	1160495	254136	53	132	4795		
278.8240	28:40	28:38	2	1.021	908347	205529	29	72	7087	1.28(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:58	28:57	1	1.032	1115878	235963	53	132	4452		
278.8240	28:58	28:57	1	1.032	893439	195405	29	72	6738	1.25(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:28	1	1.015	332524	68027	53	132	1284		
278.8240	28:30	28:28	2	1.015	267562	53282	29	72	1837	1.24(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:07	30:06	1	0.920	13030162	2691585	841	2102	3200		
260.0376	30:07	30:06	1	0.920	8091982	1666050	435	1087	3830	1.61(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:24	1	1.020	12139505	2389315	198	495	12067		
249.0454	33:25	33:24	1	1.020	7749556	1554358	90	225	17271	1.57(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:41	1	1.029	8365035	1606193	198	495	8112		
249.0454	33:42	33:41	1	1.029	5287064	1014273	90	225	11270	1.58(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:34	36:31	2	1.116	7572396	1432194	198	495	7233		
249.0454	36:34	36:31	2	1.116	4798331	893063	90	225	9923	1.58(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:20	1	0.927	1092917	226985	128	320	1773		
271.8775	30:21	30:20	1	0.927	667070	147645	12	30	12304	1.64(1.16-1.94)	
13C12-Endrin											
269.8805	32:01	31:59	2	0.978	789232	160182	128	320	1251		
271.8775	32:01	31:59	2	0.978	498728	109112	12	30	9093	1.58(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:45	32:44	0	1.000	187390	41839	84	210	498		
278.8240	32:45	32:44	0	1.000	148932	35533	35	87	1015	1.26(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:16	1	1.046	182395	32855	89	222	369		
358.9361	34:17	34:16	1	1.046	96897	18365	141	352	130	1.88(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	2	1.279	12668473	2199180	348	870	6319		
240.1510	41:54	41:52	2	1.279	560281	99251	42	105	2363	22.61(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:23	40:22	1	1.233	430750	70306	189	472	372		
329.9379	40:23	40:22	1	1.233	278618	47713	86	215	555	1.55(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:20	1	1.227	3793752	626952	77	192	8142		
278.8240	45:21	45:20	1	1.227	2960747	489668	60	150	8161	1.28(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:02	1		20743227	7309565	120	300	60913		
236.0376	19:03	19:02	1		12651314	4393616	46	115	95513	1.64(1.16-1.93)	
13C6-Pentachlorophenol (IS)											M
269.8666	18:30	18:27	4		1207572	161603	83	207	1947		M
271.8636	18:30	18:27	4		1833731	236810	53	132	4468	0.66(0.00-0.00)	M
Pentachlorophenol											M
263.8464	18:31	18:28	4	1.001	129600	12190	77	192	158		M
265.8435	18:30	18:28	3	1.000	187458	19437	14	35	1388	0.69(0.00-0.00)	M
PCB-101L											
337.9207	28:05	28:04	1		3873397	871047	2	5	435524		
339.9178	28:05	28:04	1		2450465	553272	14	35	39519	1.58(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:43	2		4028405	819518	36	90	22764		
339.9178	32:45	32:43	2		2507633	511605	41	102	12478	1.61(1.16-1.94)	
PCB-138L											
371.8817	36:57	36:55	2		1746720	329085	34	85	9679		
373.8788	36:57	36:55	2		1327784	246519	30	75	8217	1.32(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:41	1		6422214	1431905	73	182	19615		
303.9597	27:42	27:41	1		7824290	1767677	61	152	28978	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:47	2	0.941	13359844	2766402	463	1157	5975		
249.0454	30:49	30:47	2	0.941	8520371	1793274	449	1122	3994	1.57(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:46	33:44	2	1.031	864871	166672	77	192	2165		
278.8240	33:46	33:44	2	1.031	649361	123071	23	57	5351	1.33(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:14	1	1.107	1402380	255726	77	192	3321		
278.8240	36:15	36:14	1	1.107	1042049	190292	23	57	8274	1.35(0.93-1.55)	
PCB-167L											
371.8817	39:27	39:25	2		1835020	329939	11	27	29994		
373.8788	39:27	39:25	2		1411784	251513	22	55	11432	1.30(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Reagents:

61L0.51699PCP_00001 Amount Added: 20.00 Units: uL

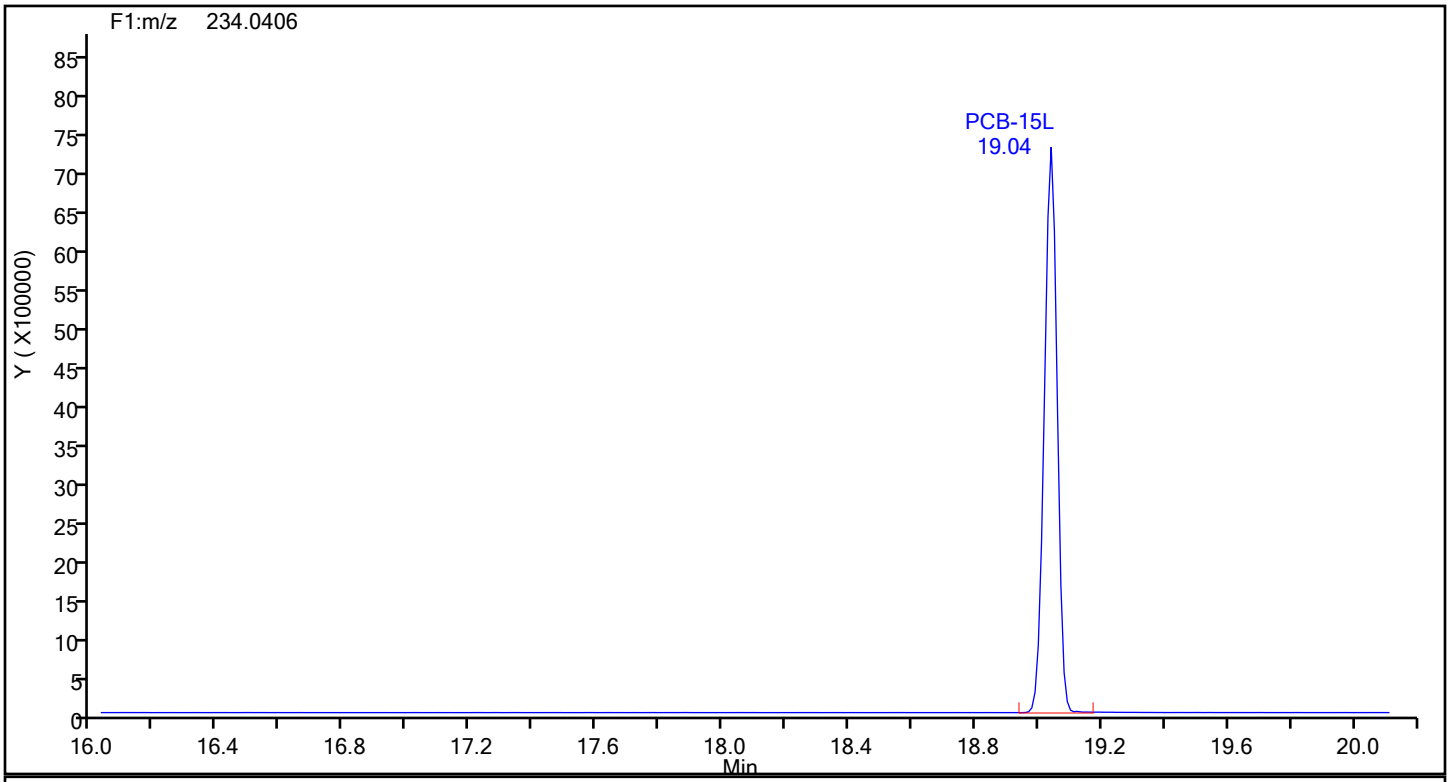
Report Date: 05-May-2025 17:59:55 Chrom Revision: 2.3 18-Apr-2025 15:35:42

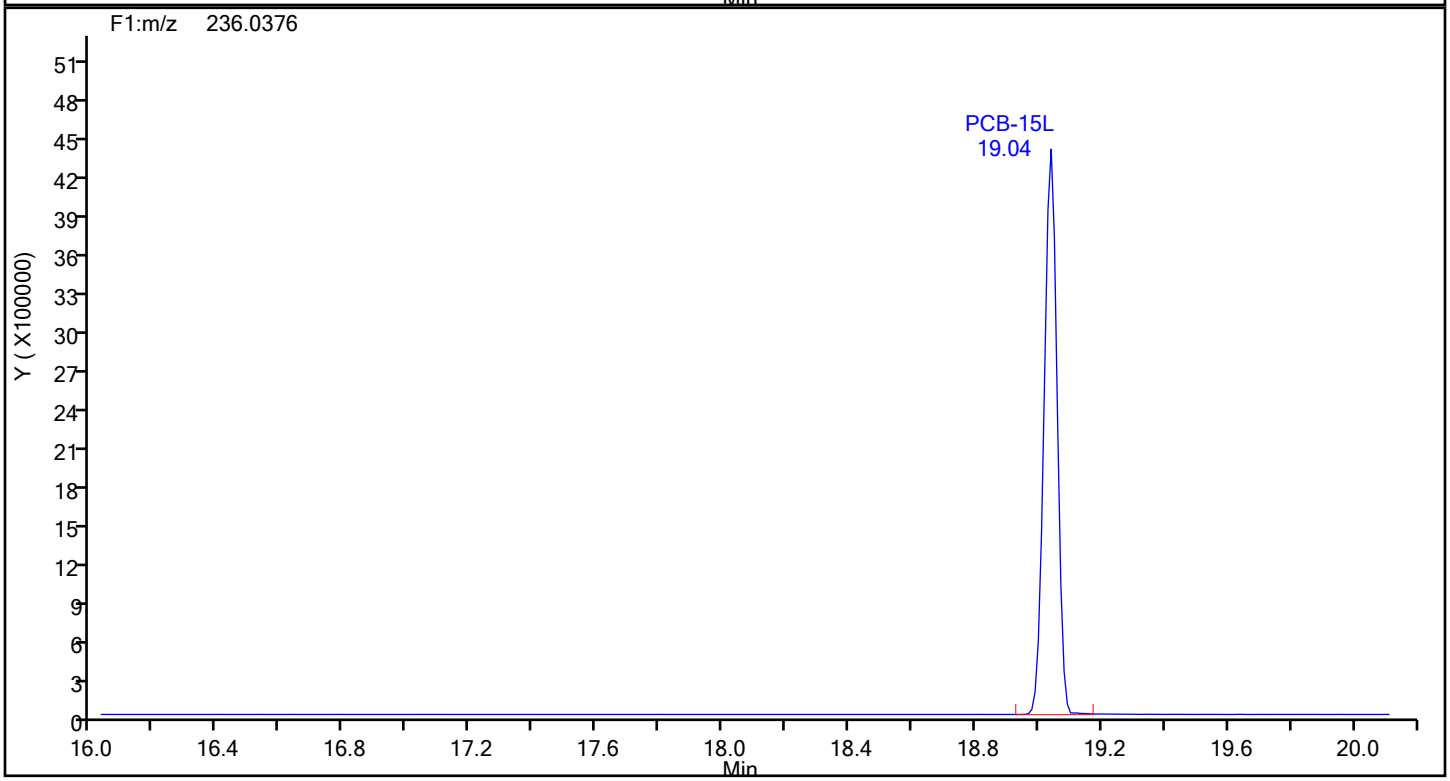
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





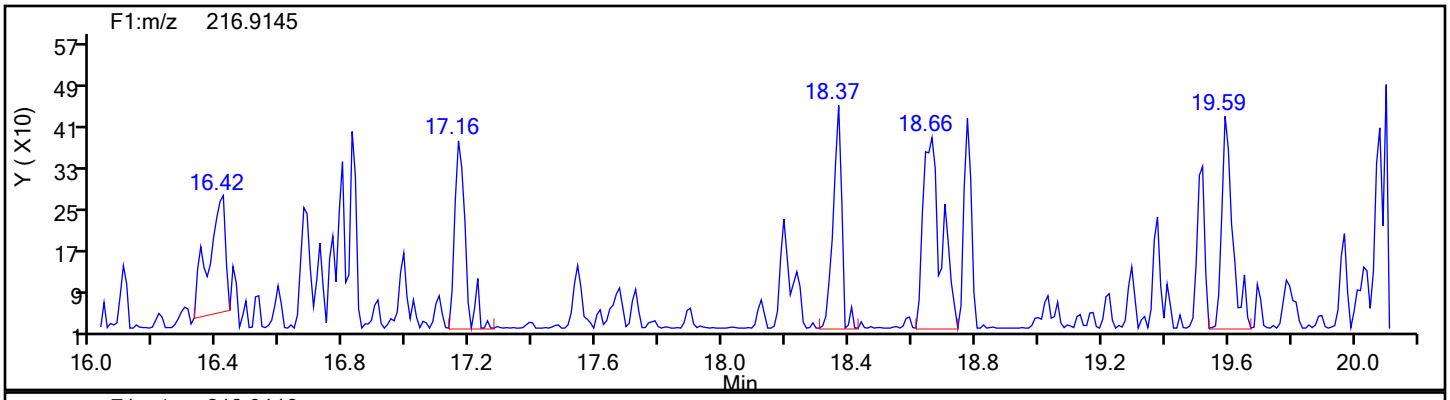
Report Date: 05-May-2025 17:59:55 Chrom Revision: 2.3 18-Apr-2025 15:35:42

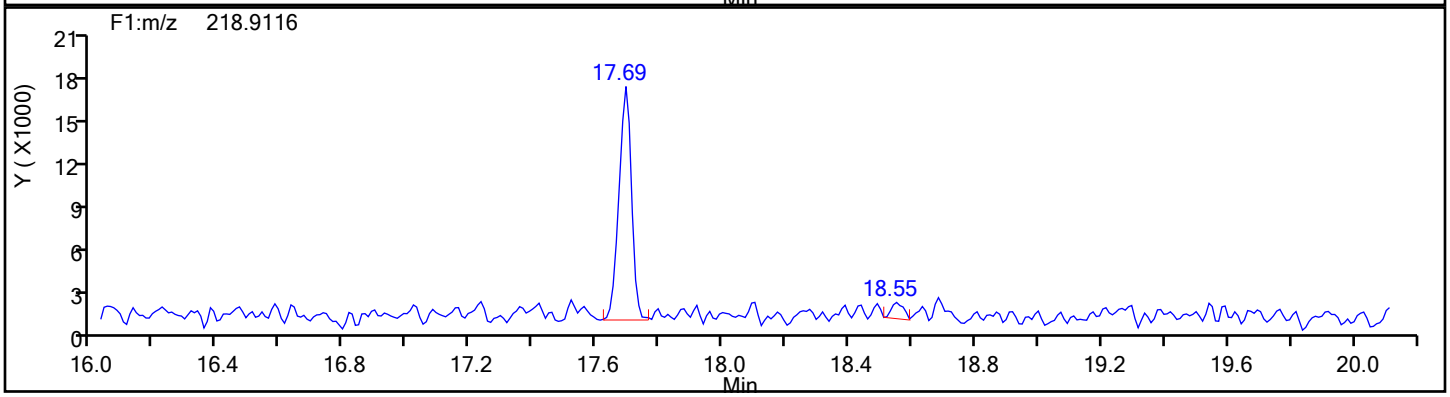
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

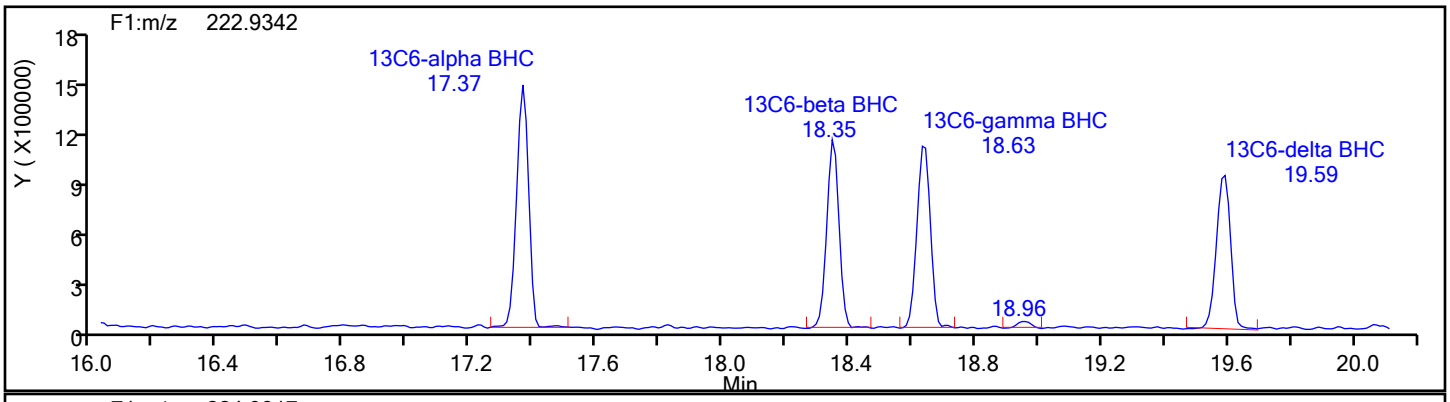
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

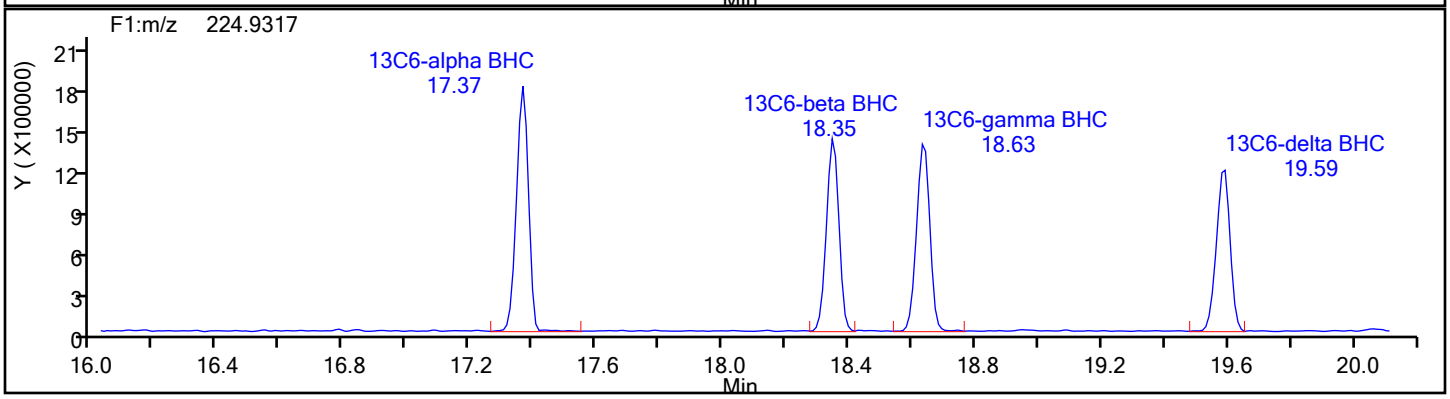
BHC





BHC Standards





Report Date: 05-May-2025 17:59:55 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Client ID:			
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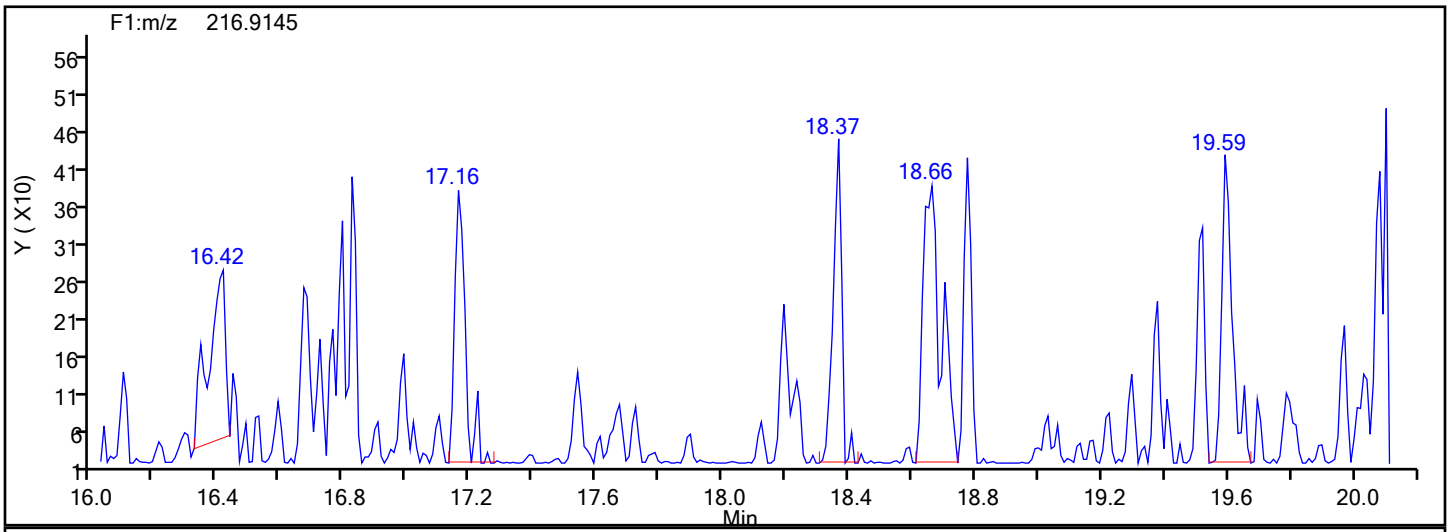
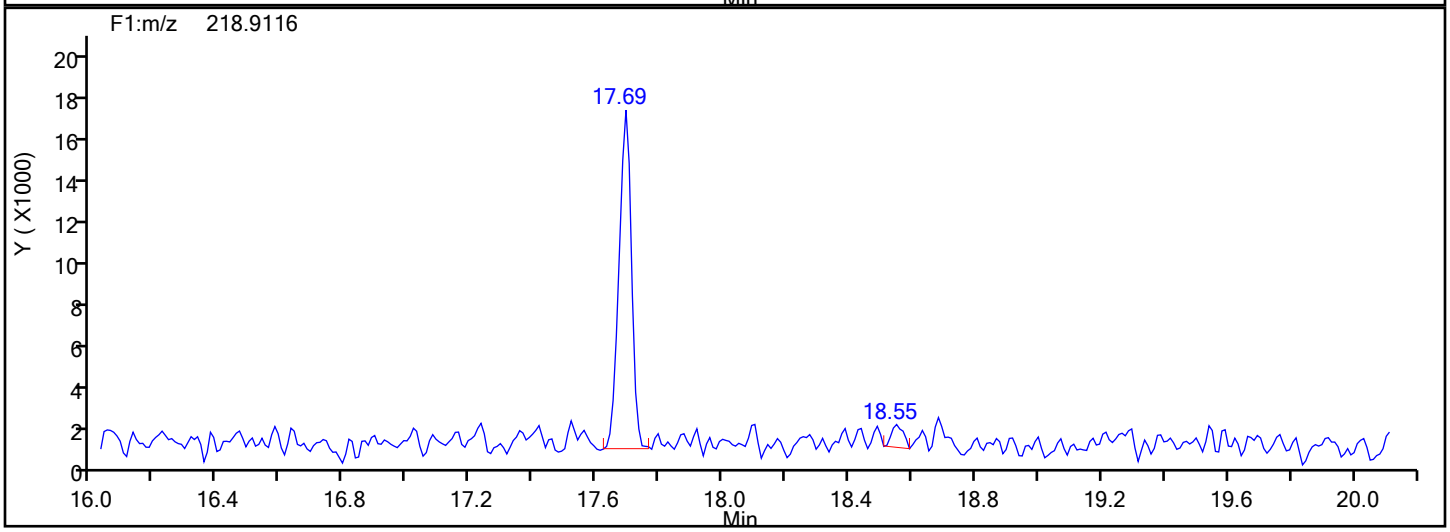
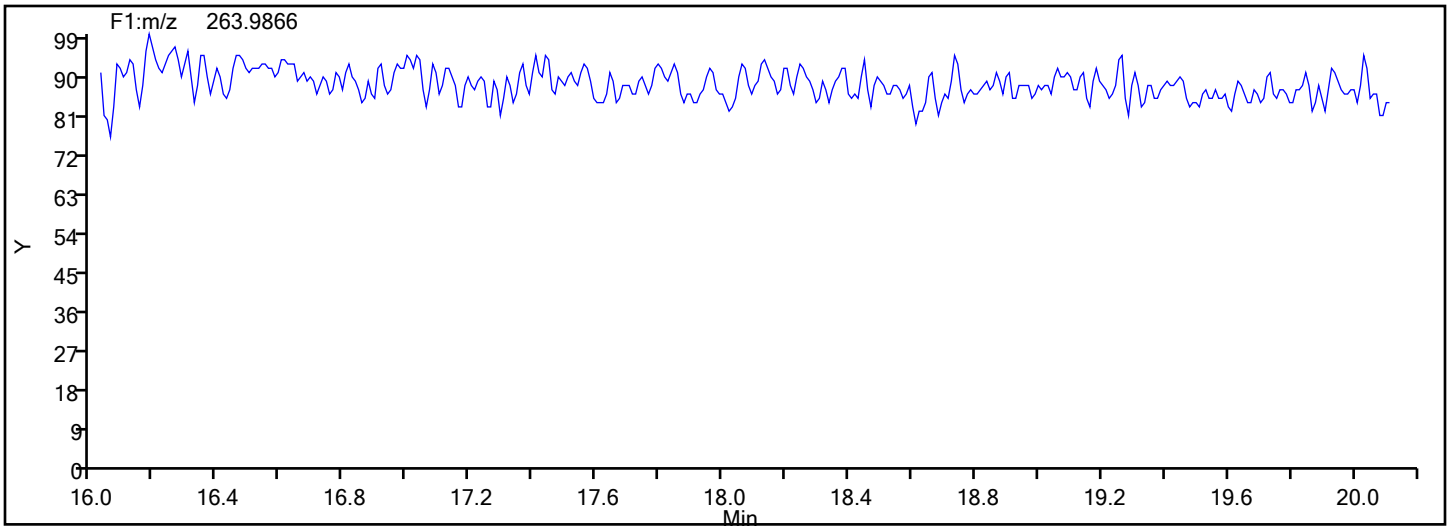
BHC





BHC Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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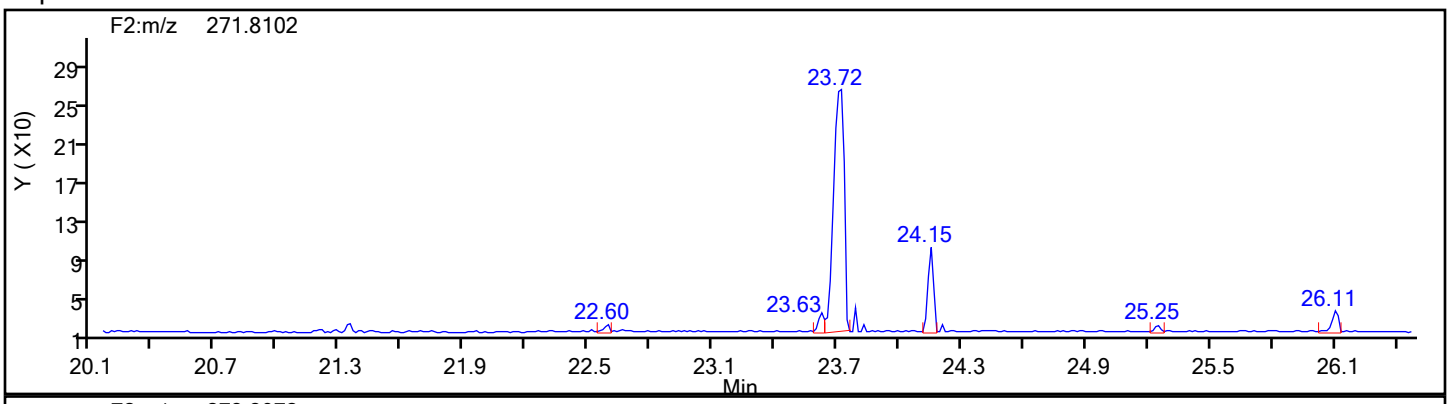
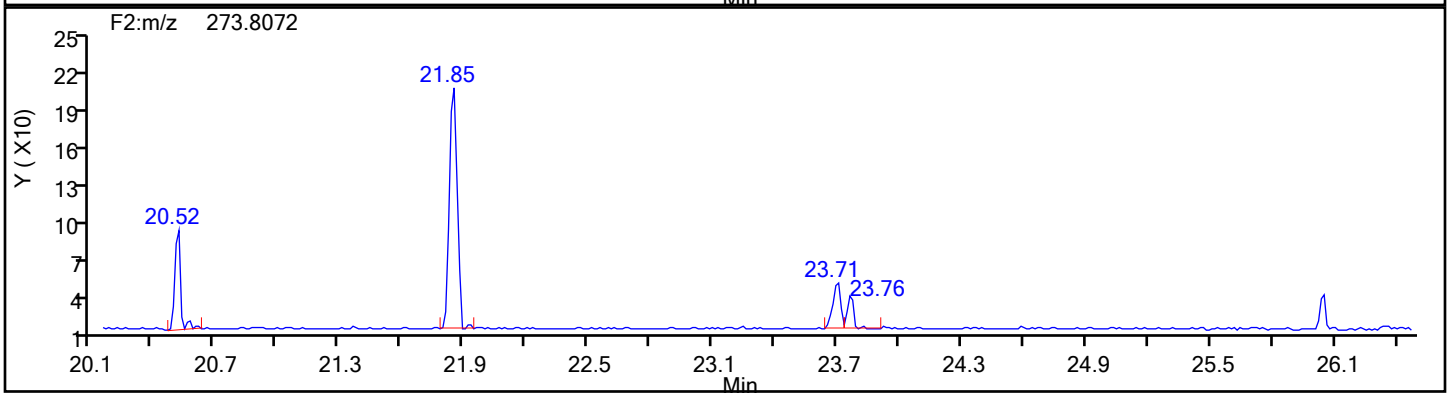
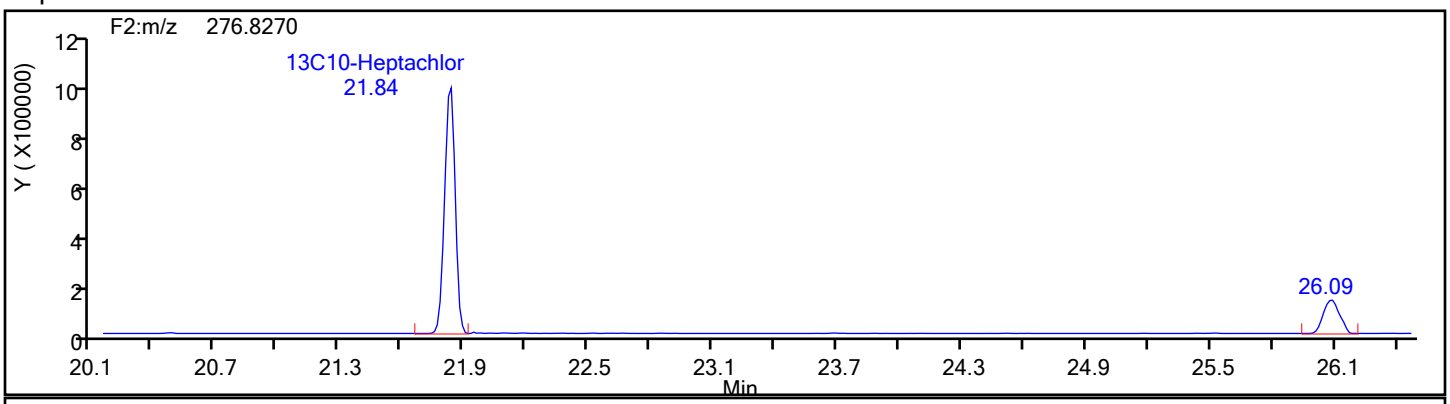
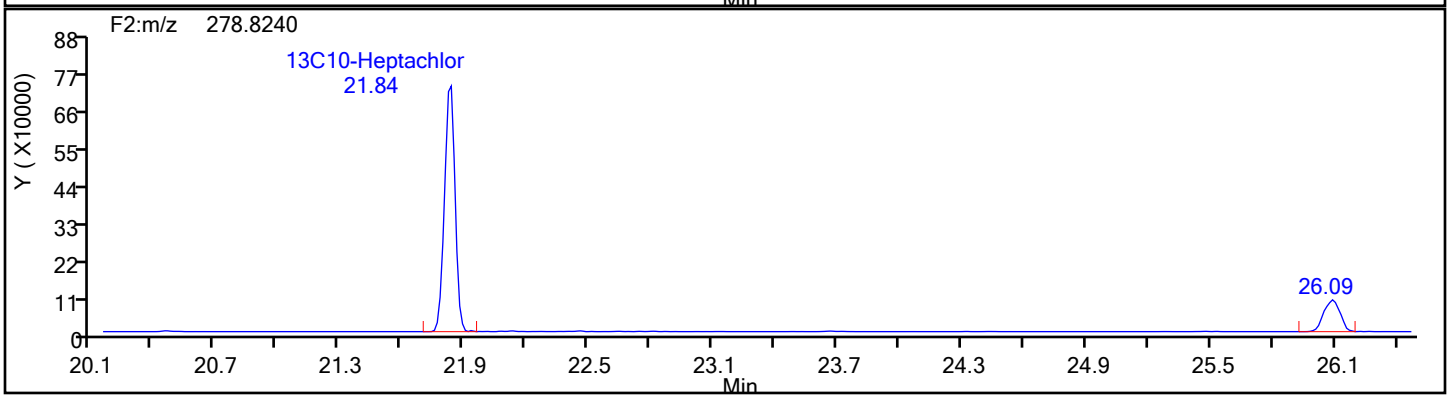
Heptachlor





Heptachlor Standards





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Eurofins Knoxville

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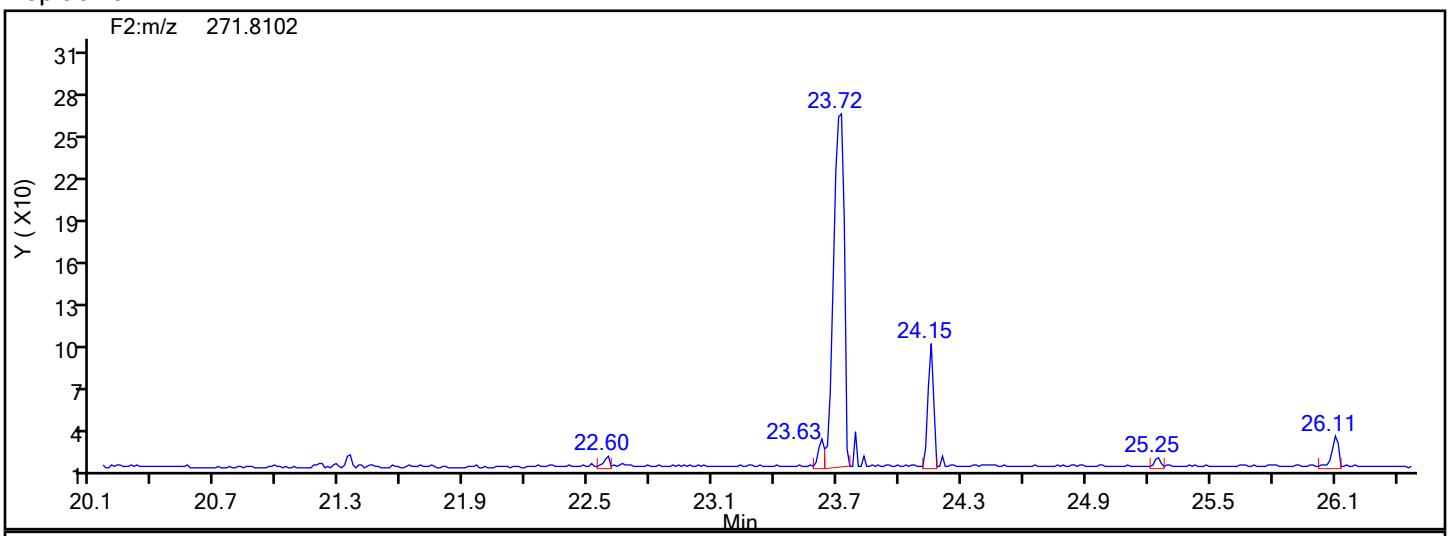
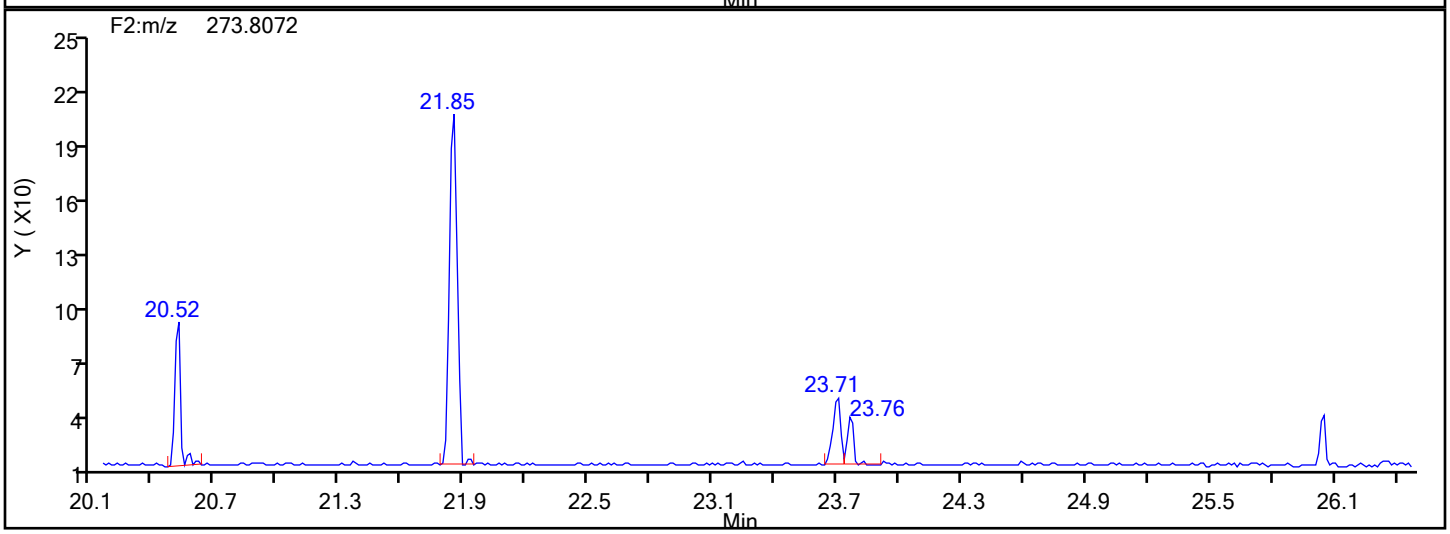
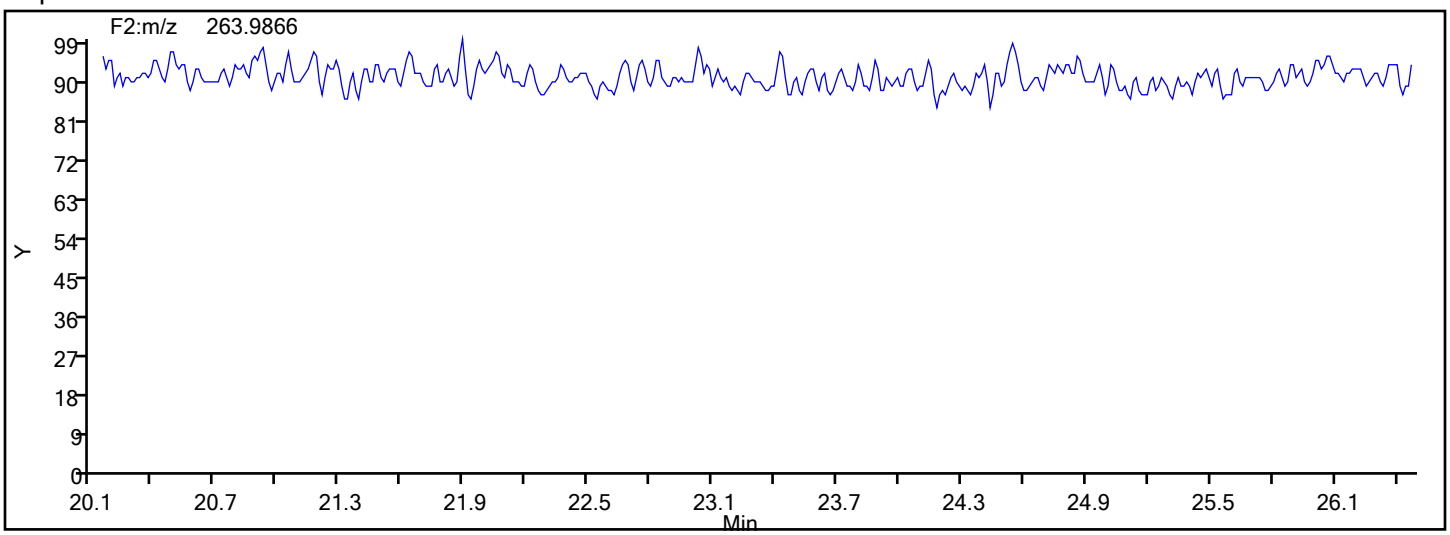
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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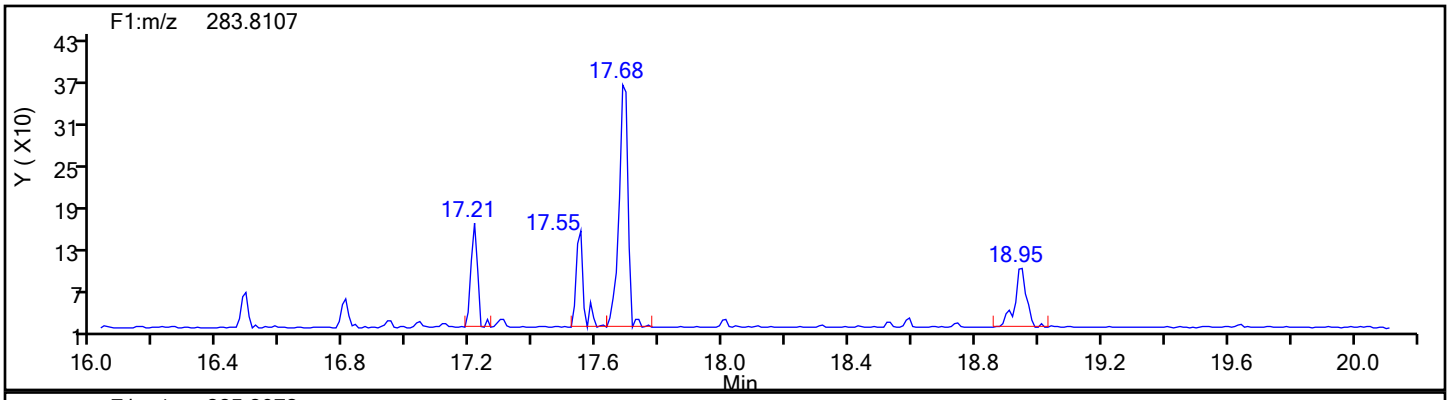
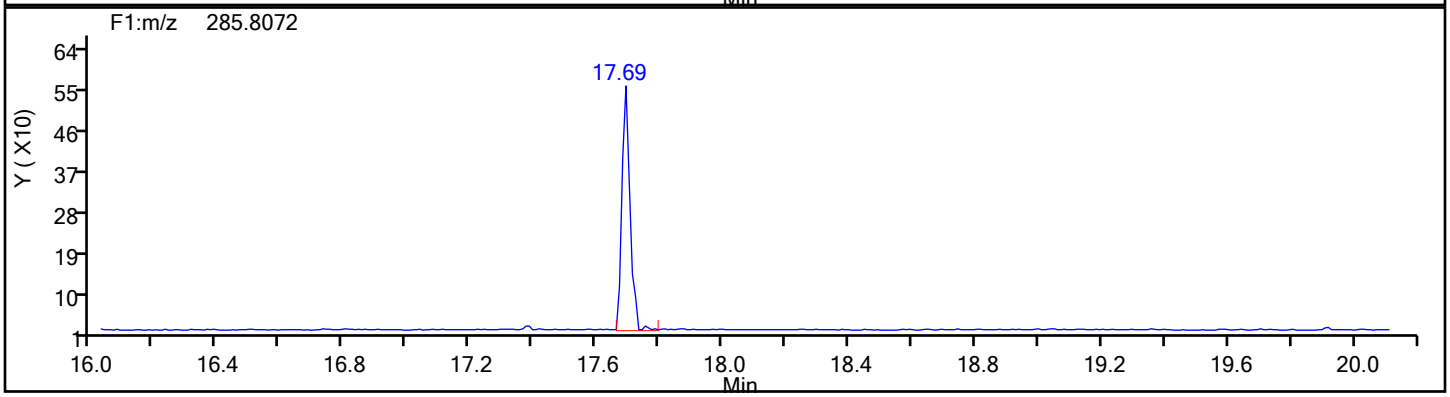
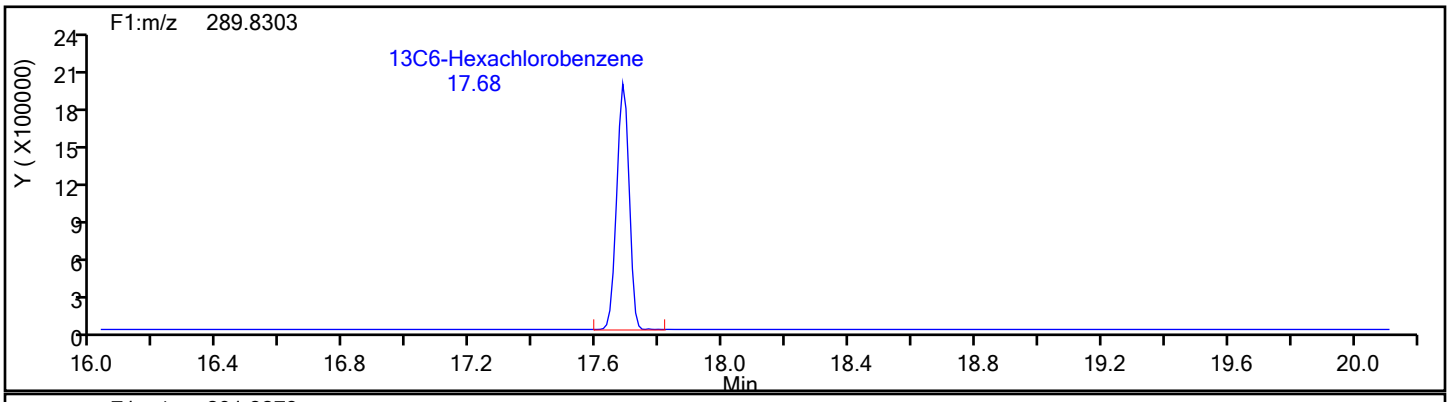
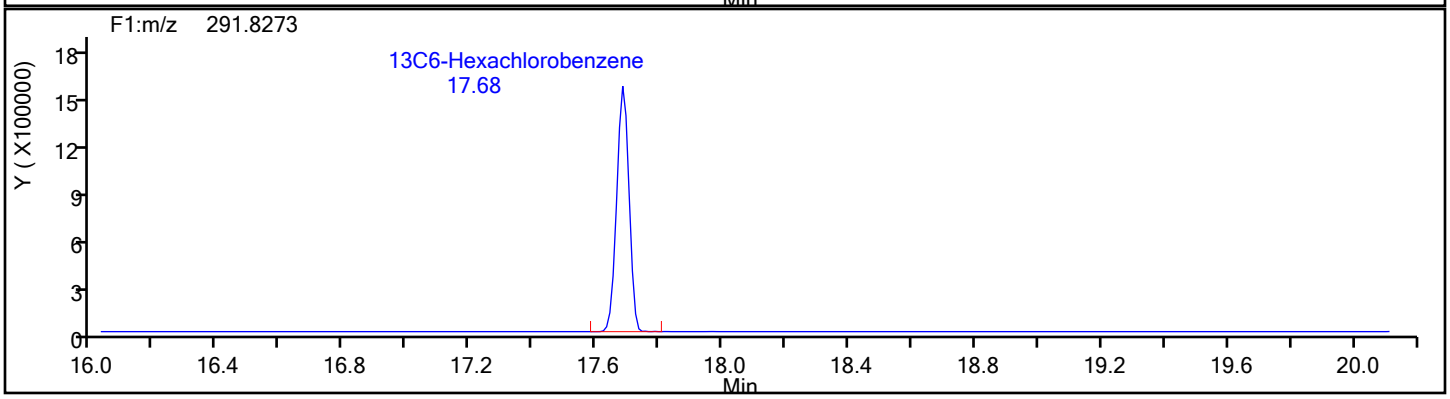
Hexachlorobenzene





Hexachlorobenzene Standards





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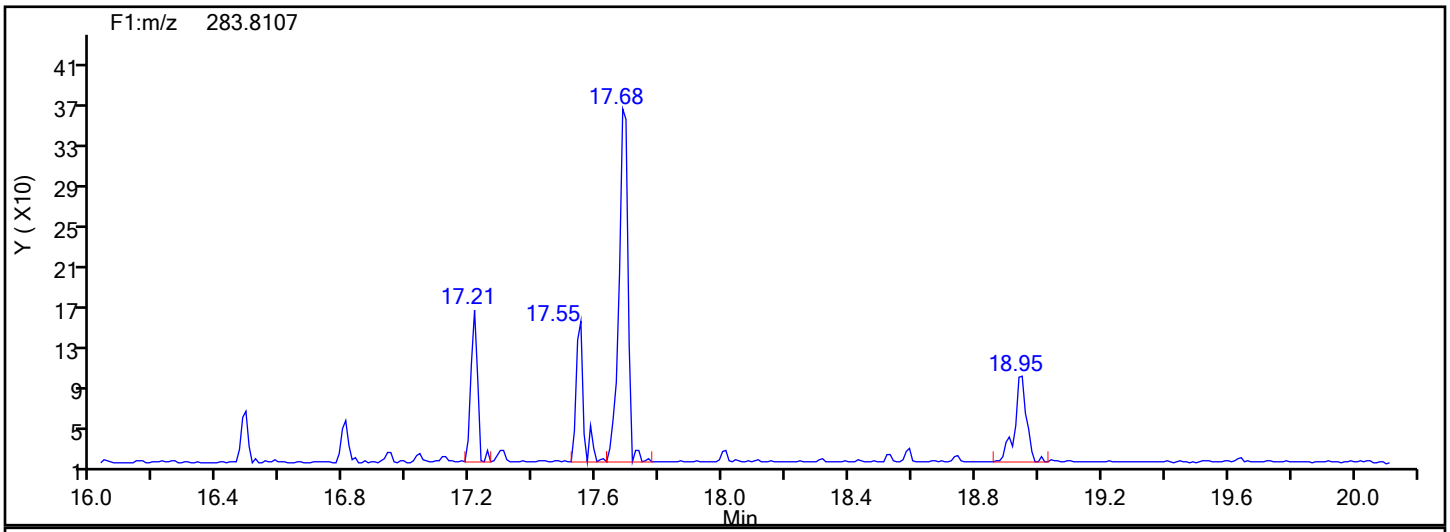
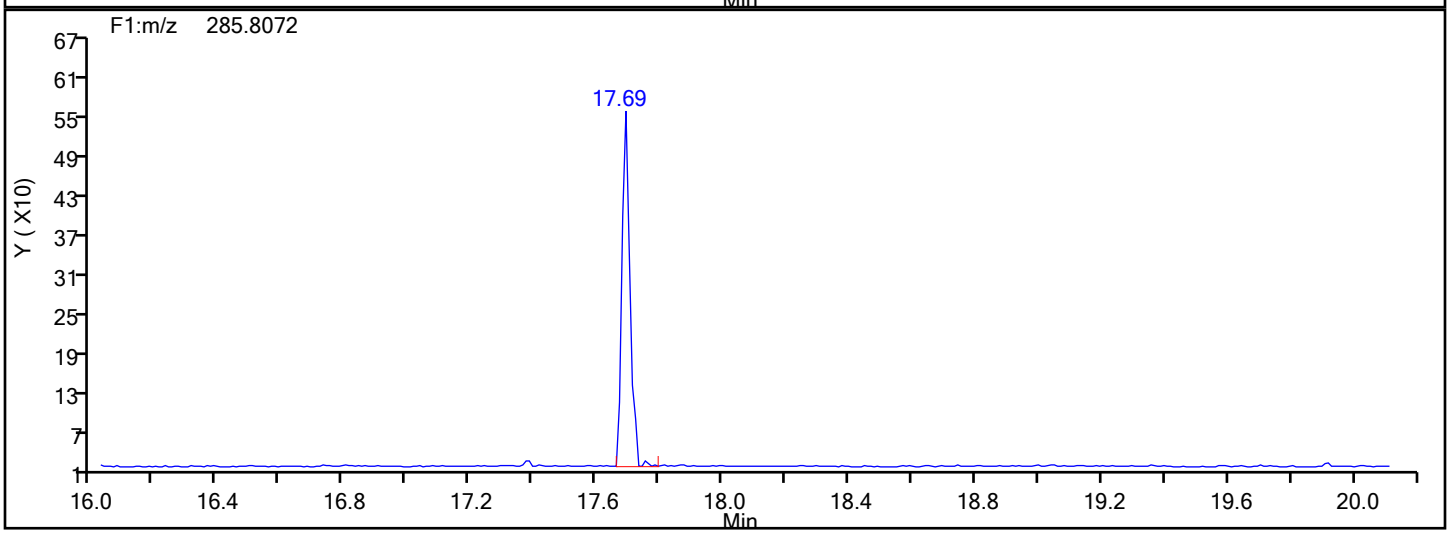
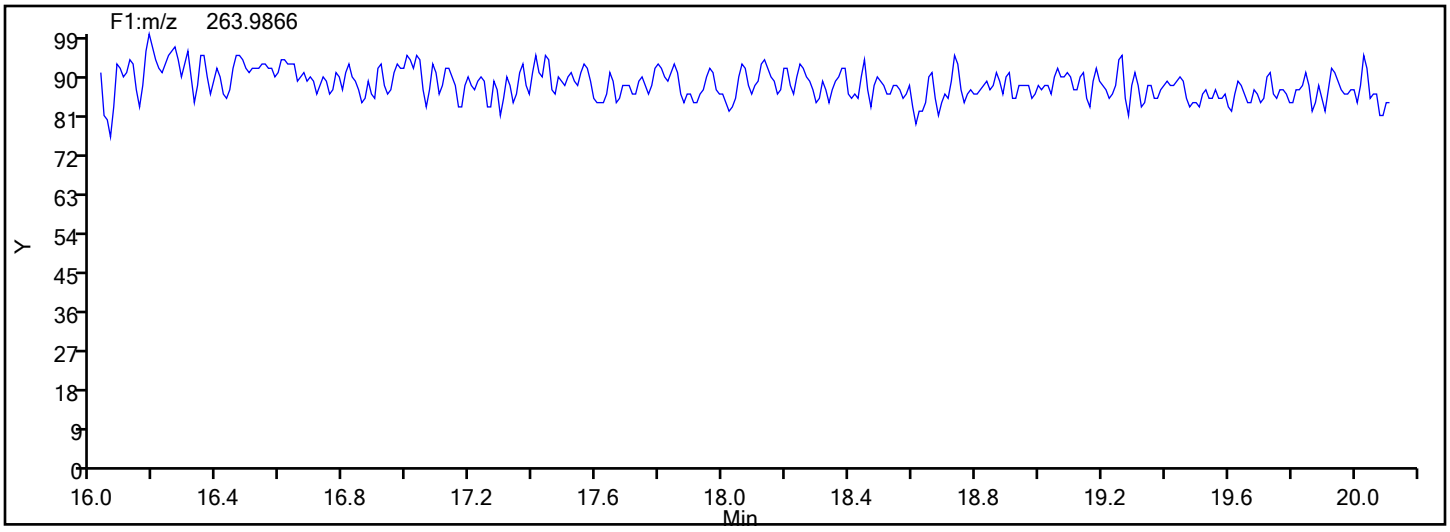
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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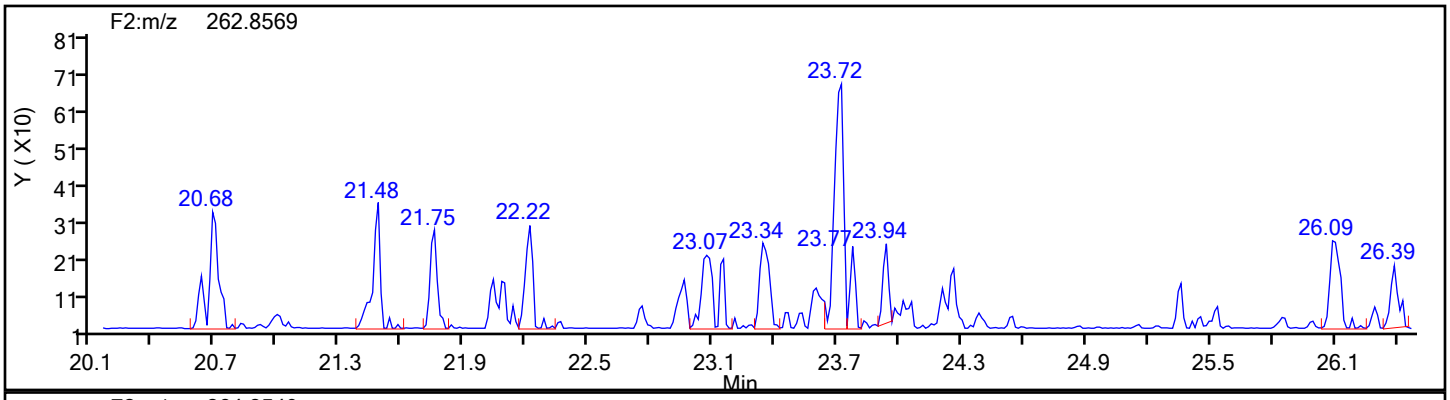
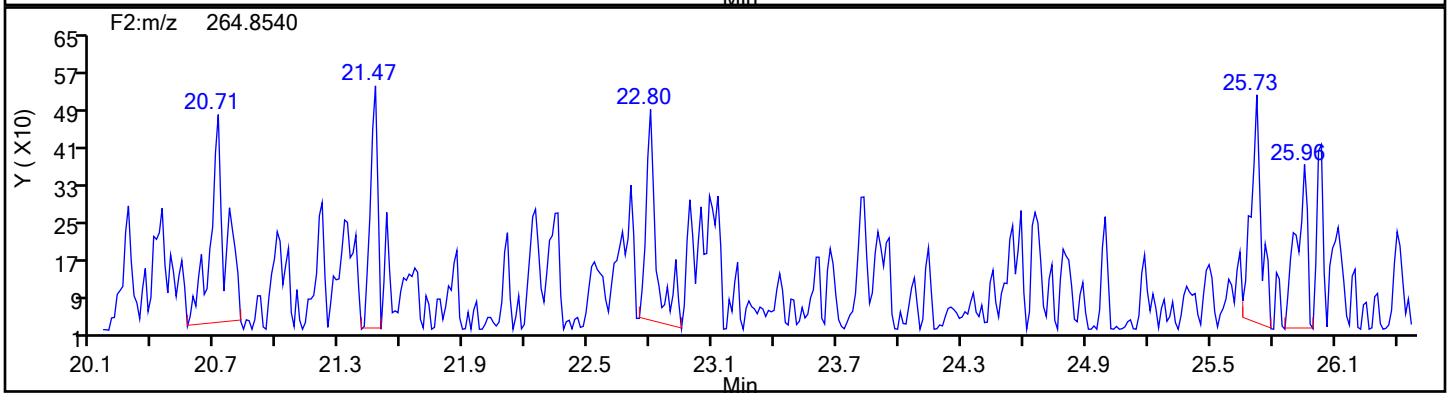
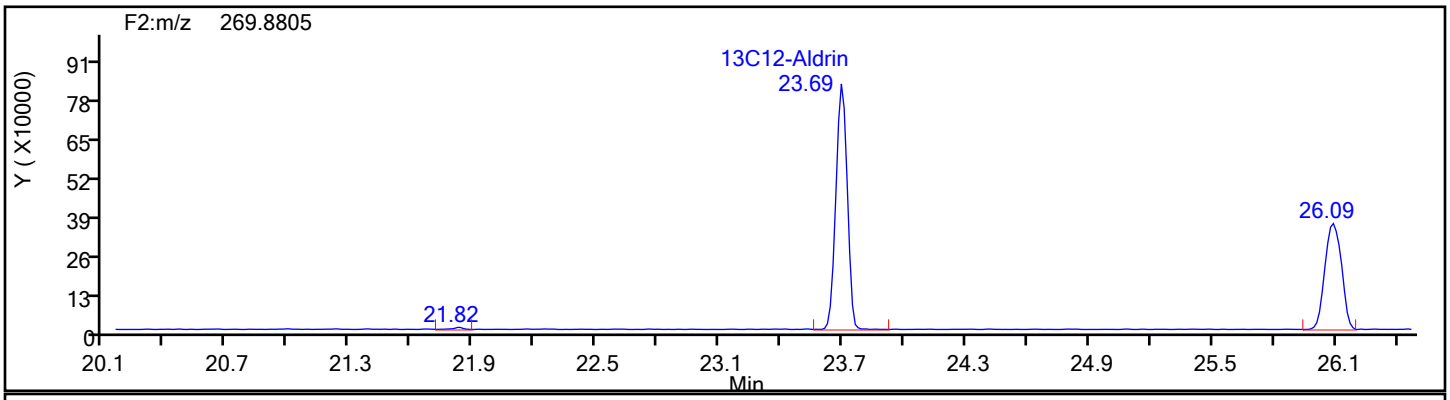
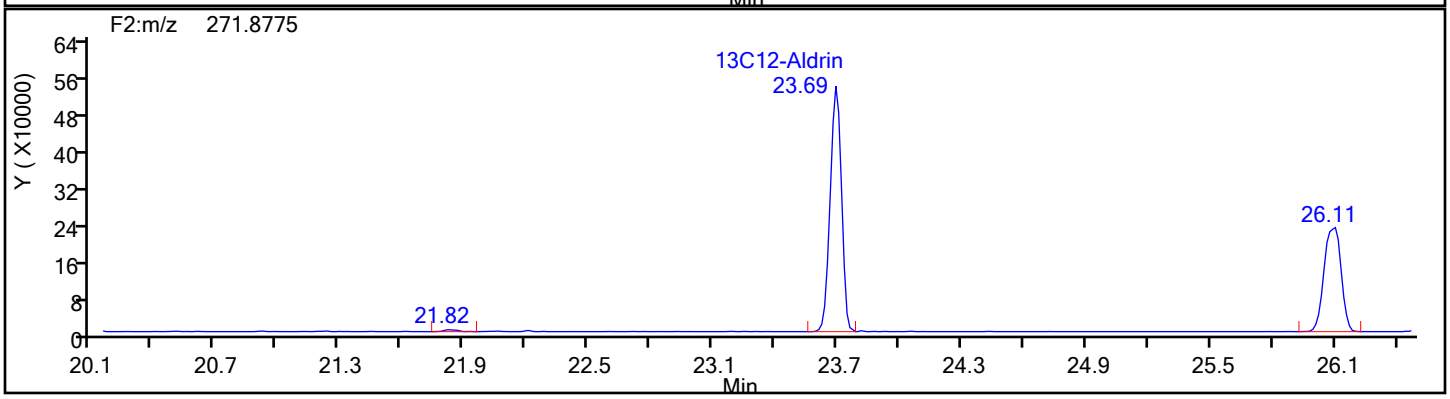
Aldrin





Aldrin Standards





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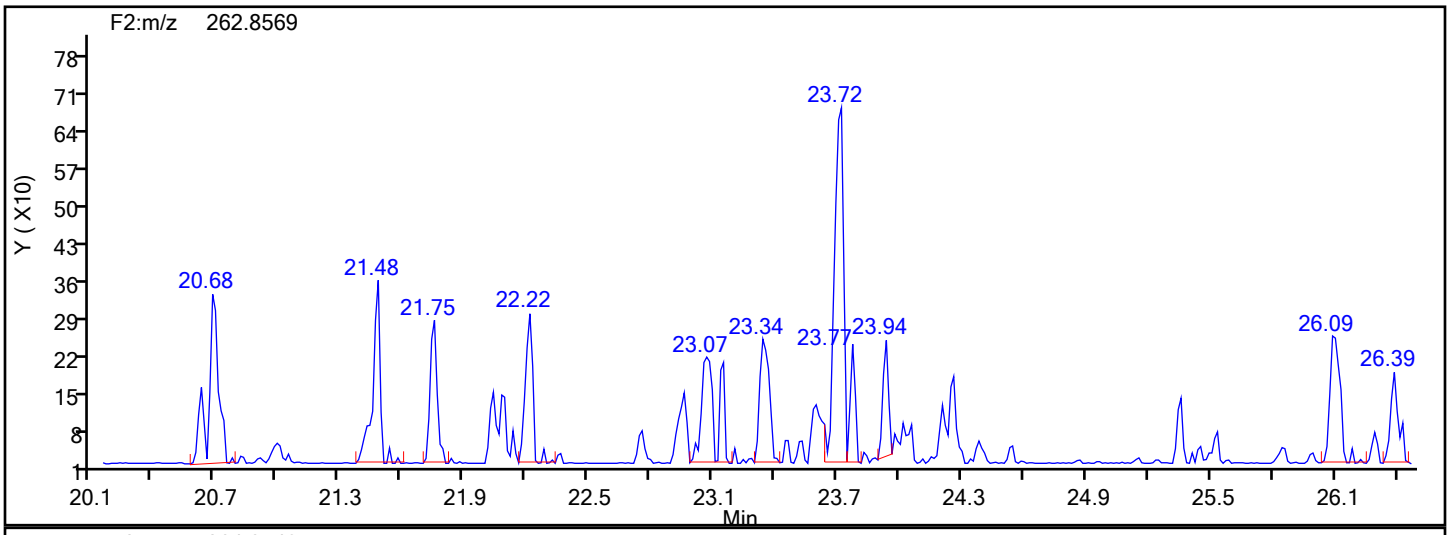
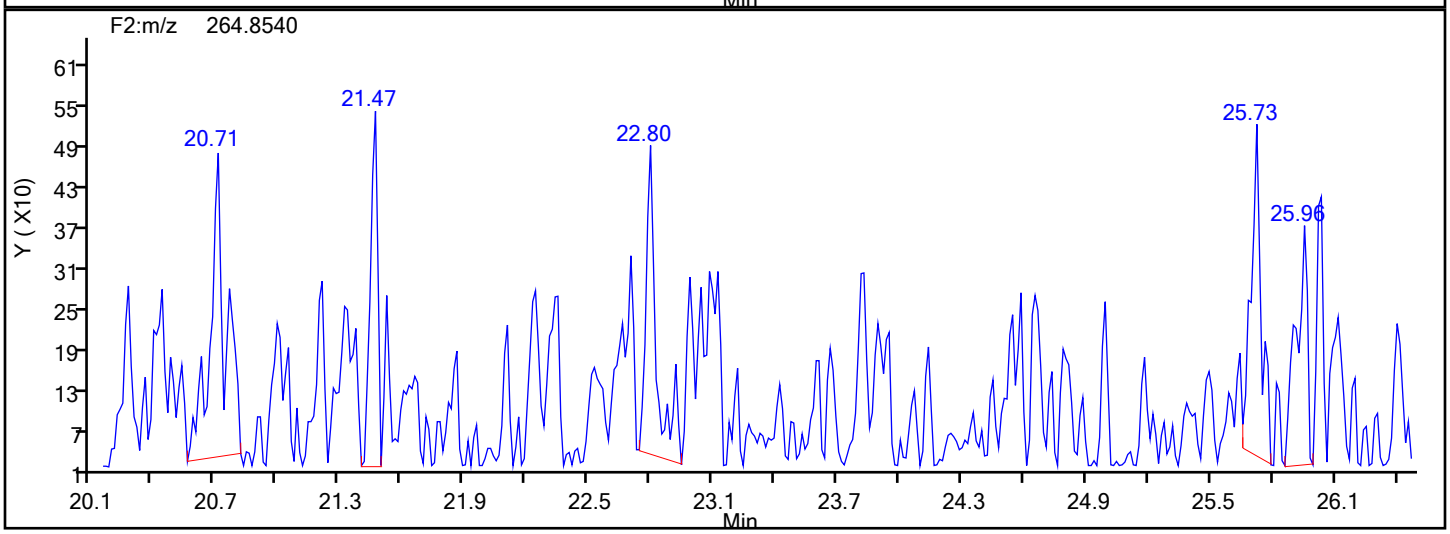
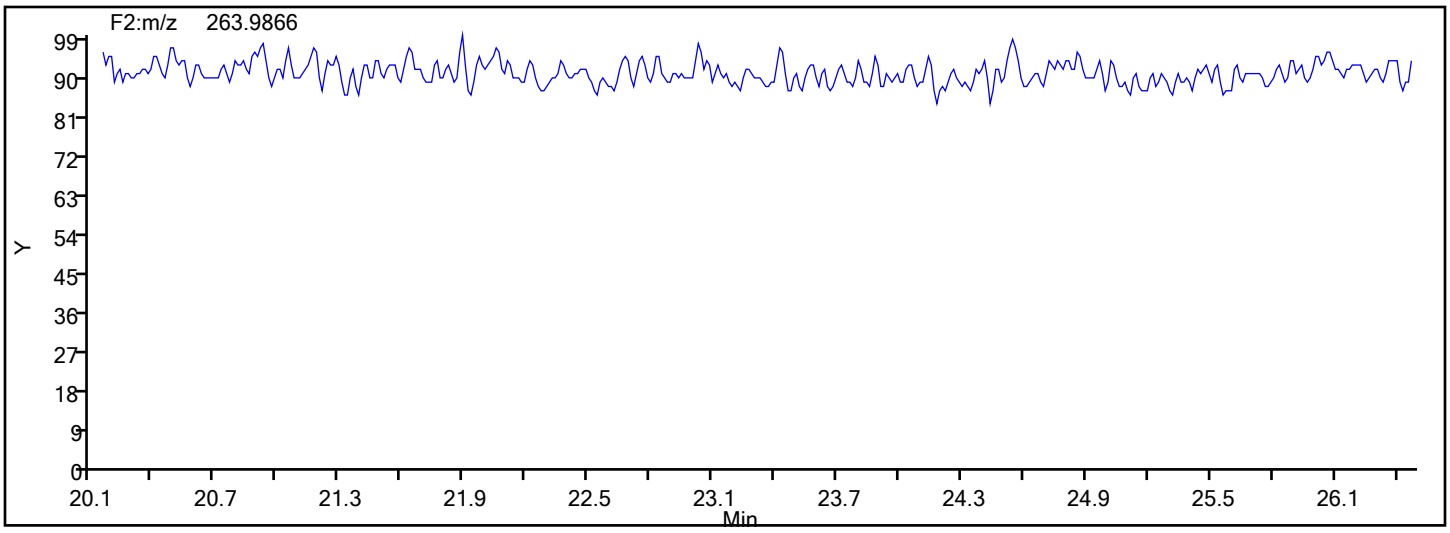
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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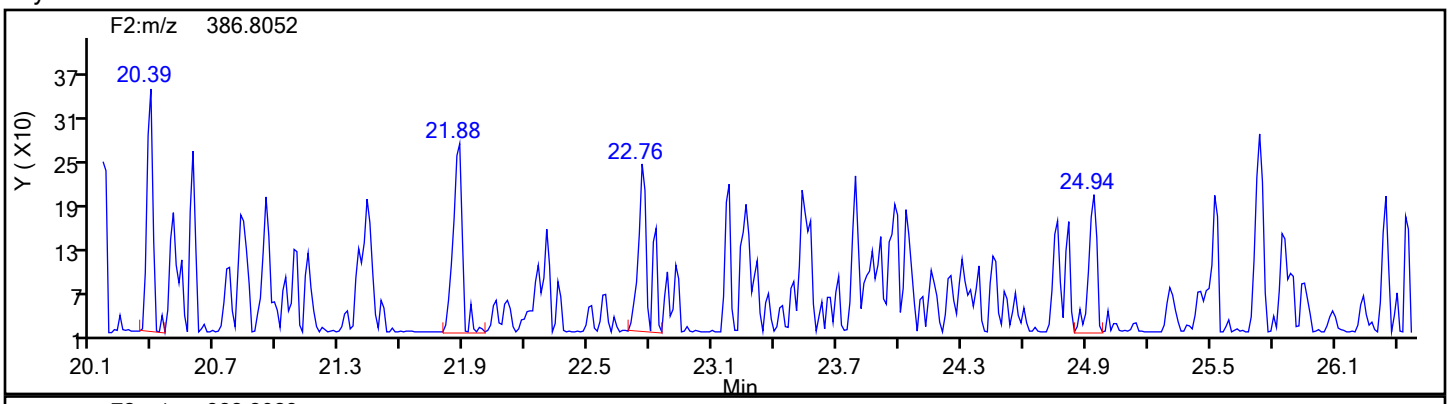
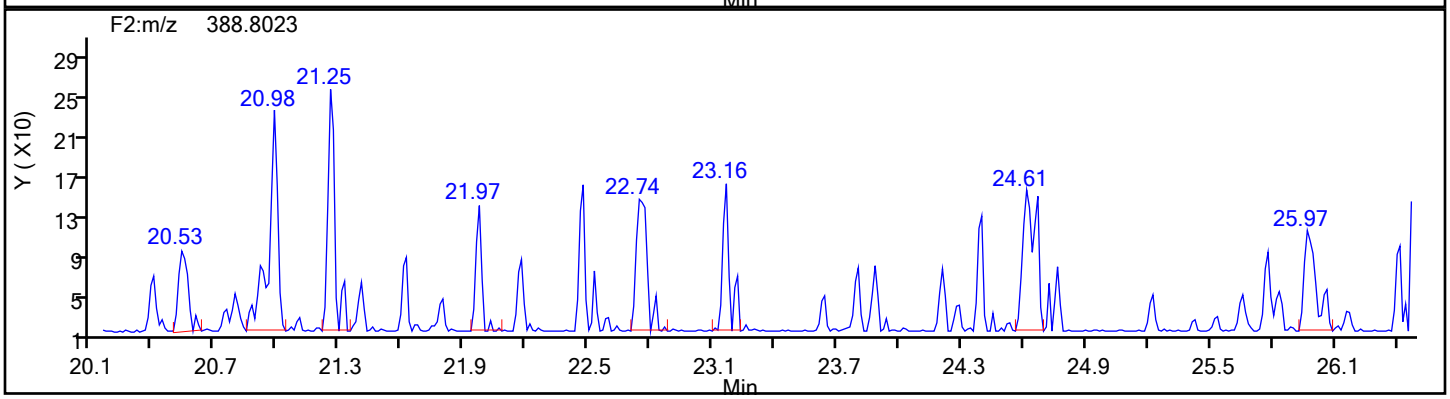
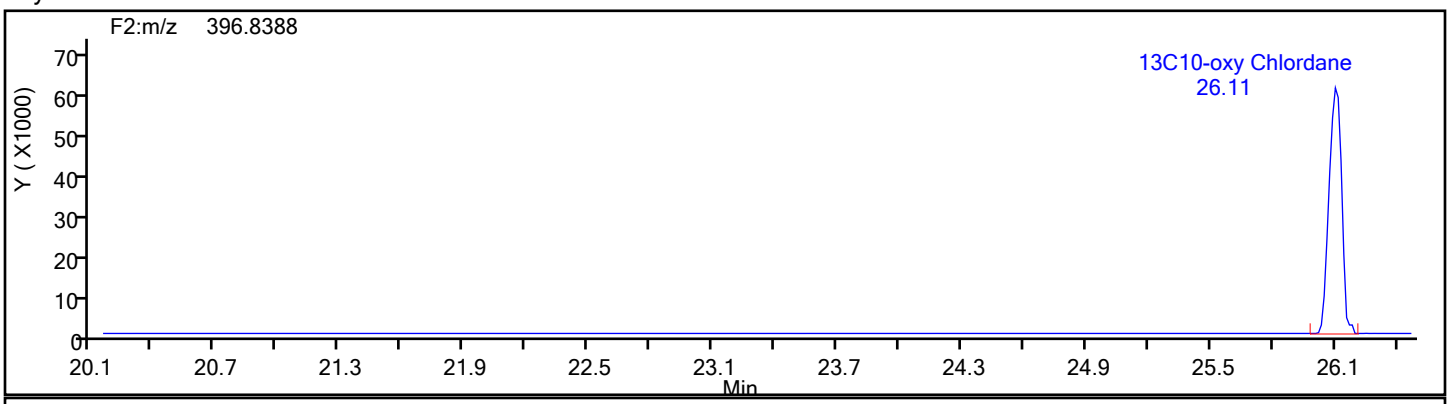
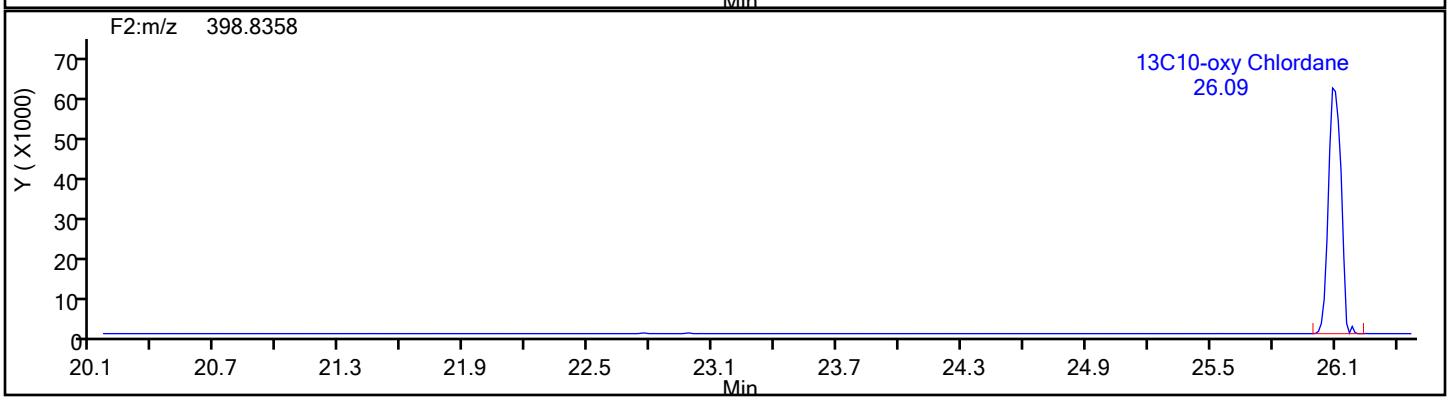
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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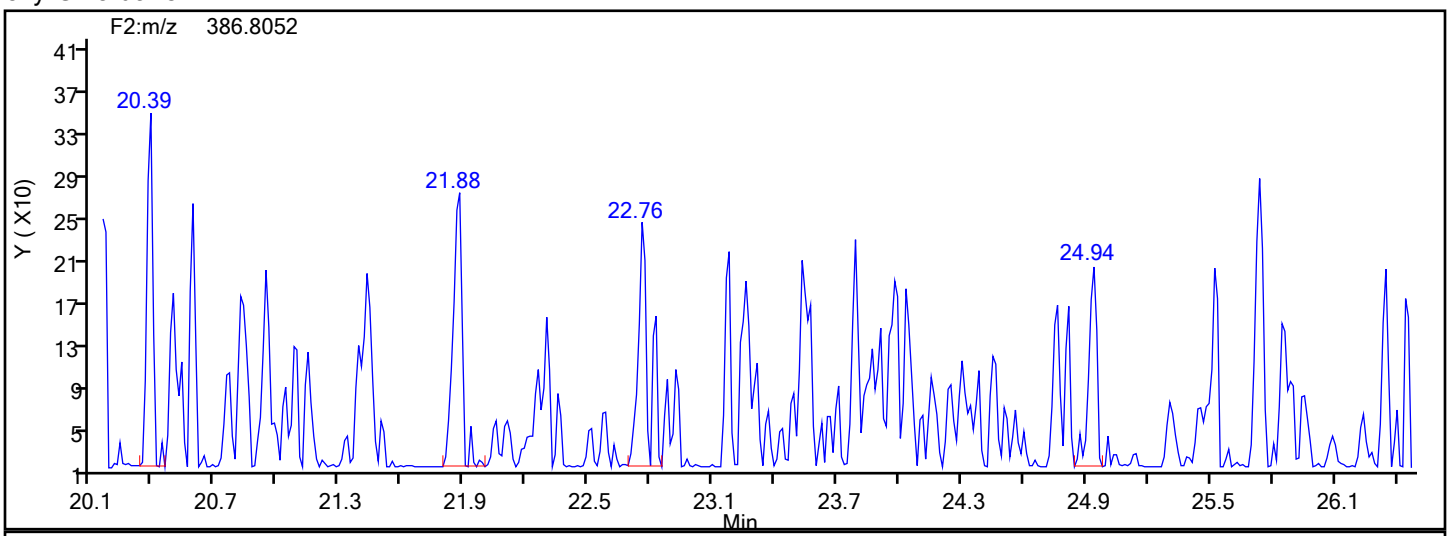
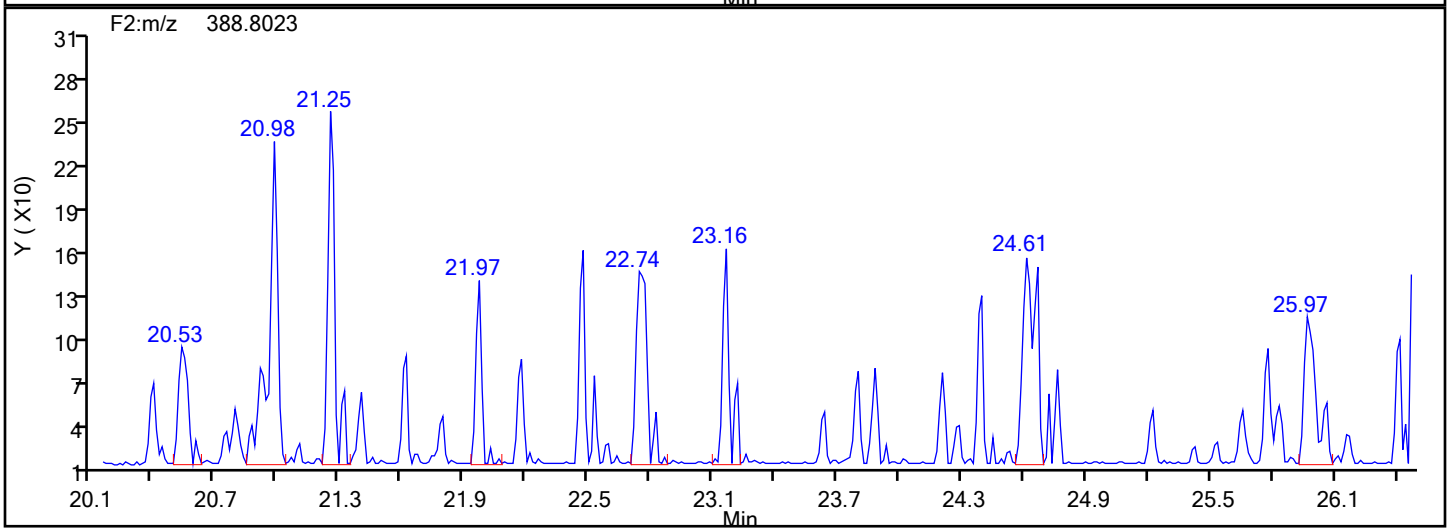
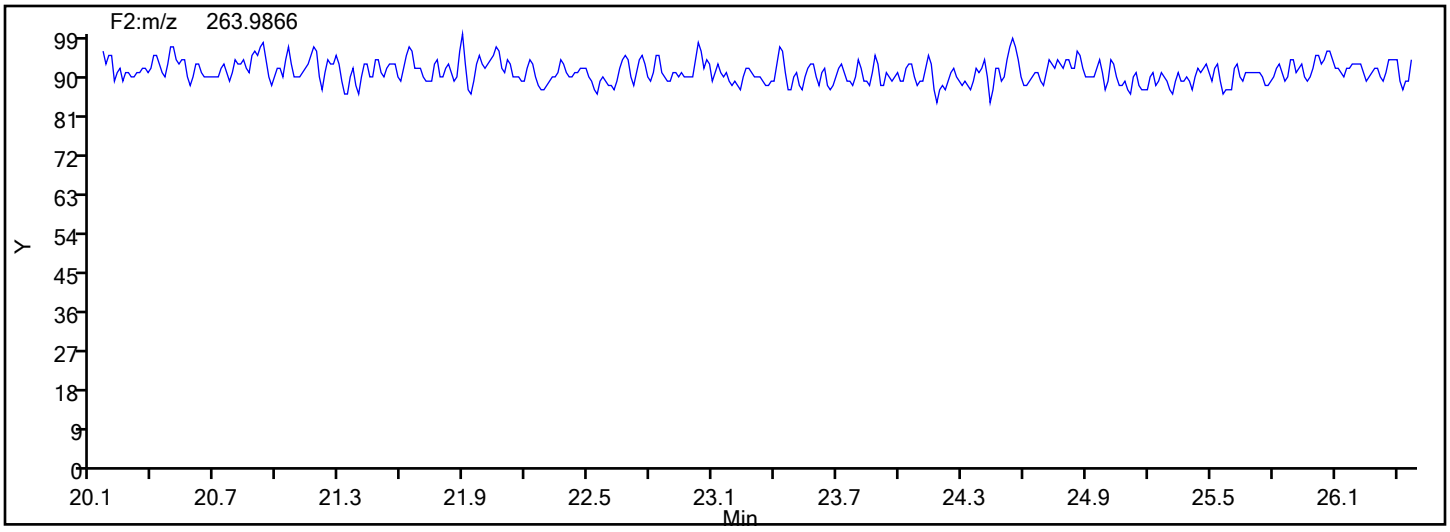
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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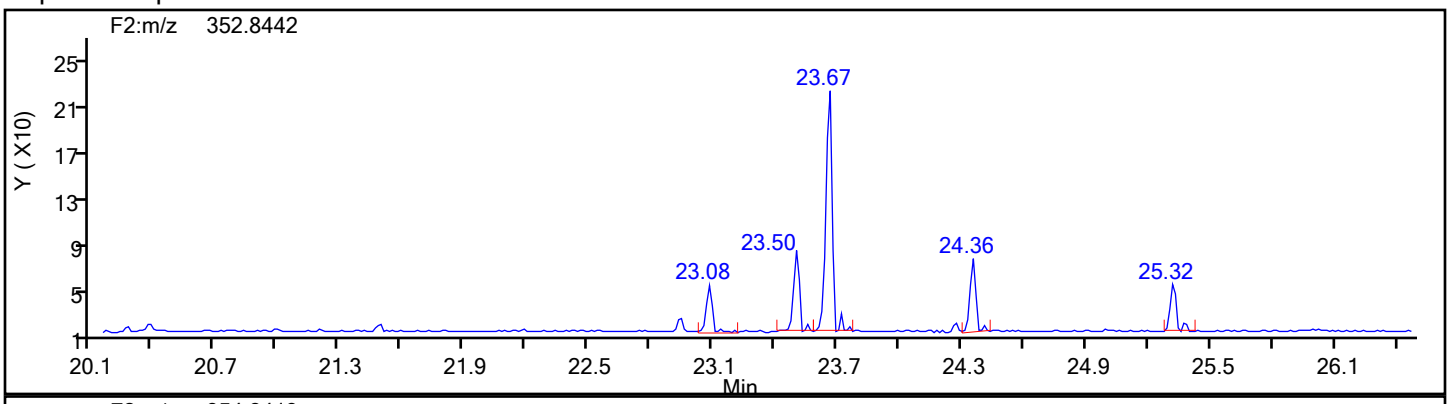
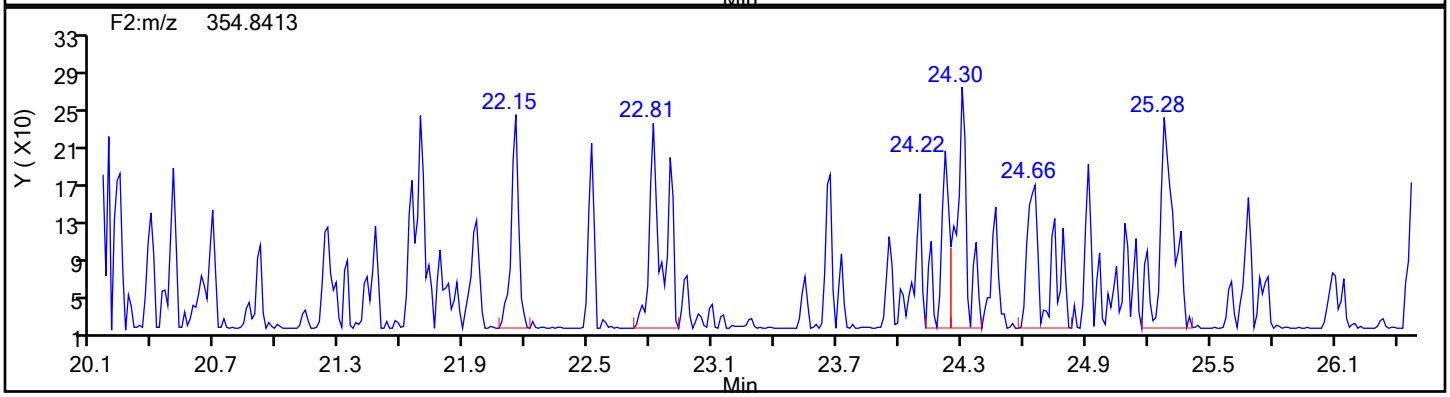
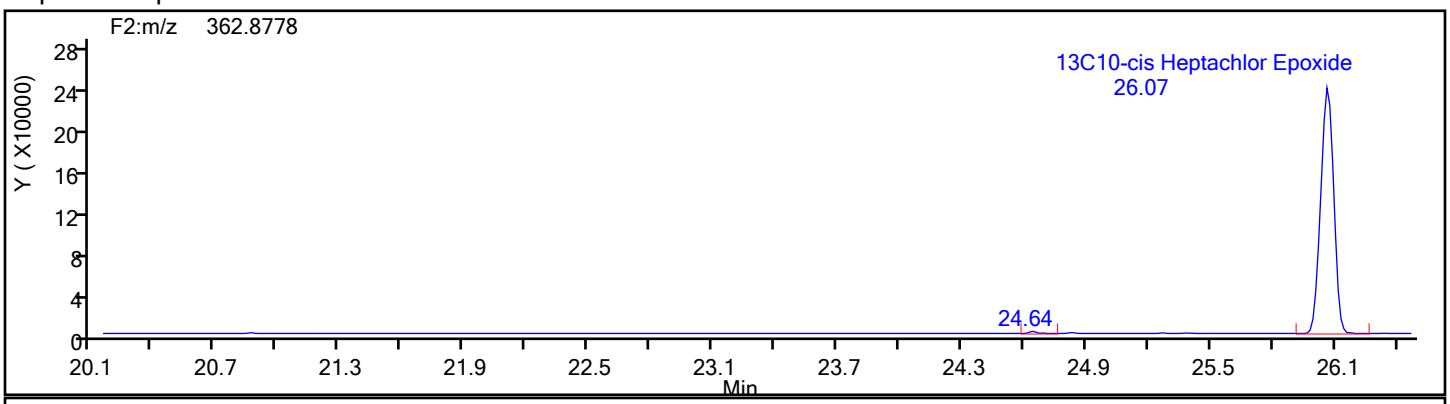
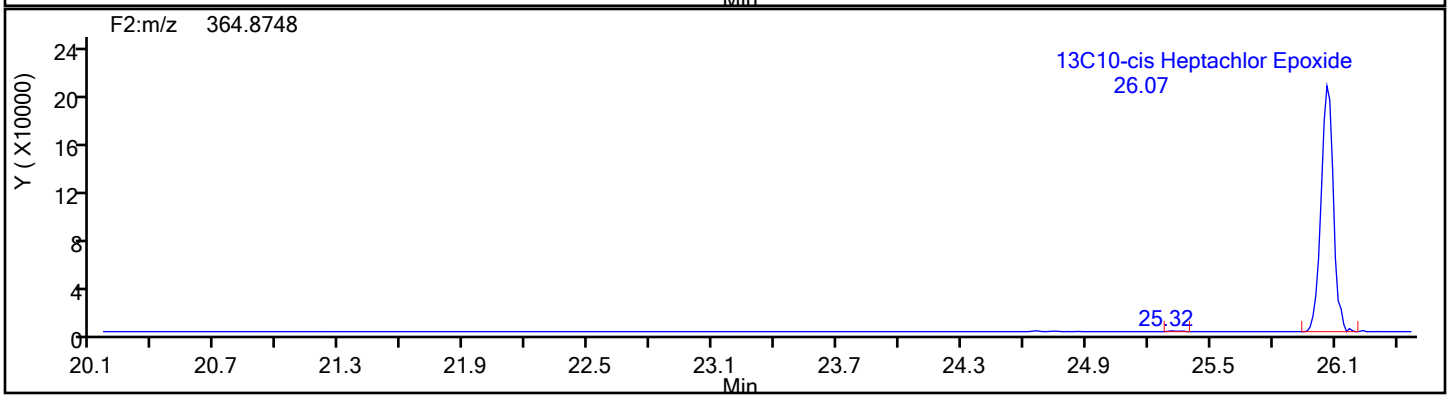
Heptachlor epoxide





Heptachlor epoxide Standards





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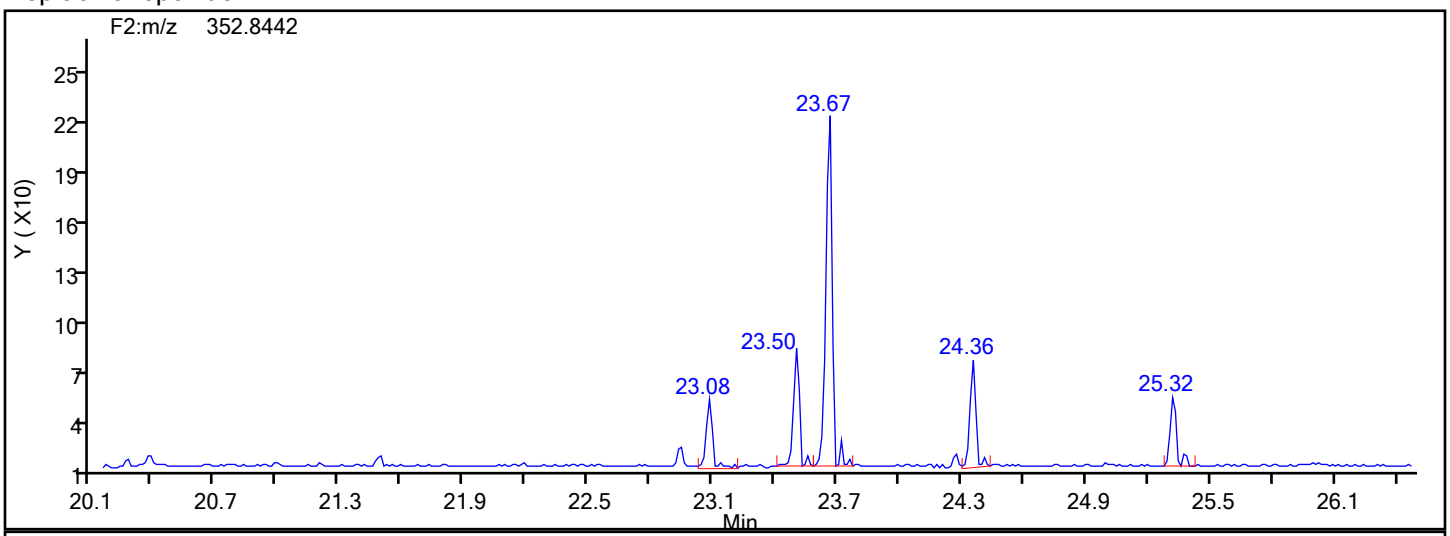
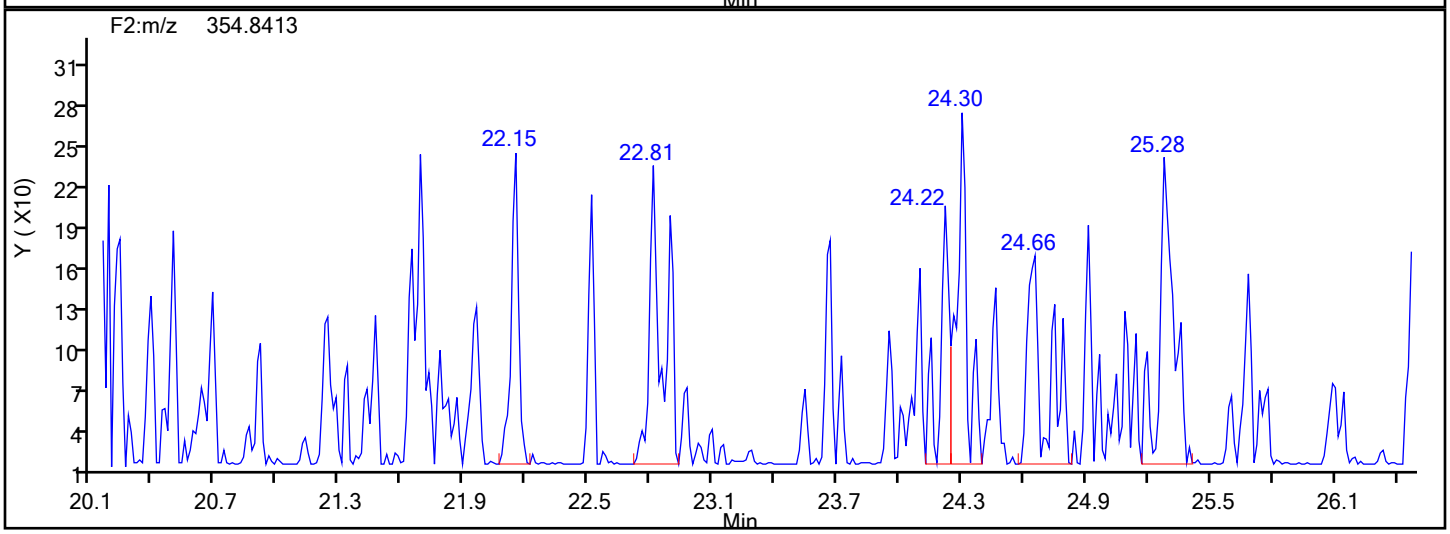
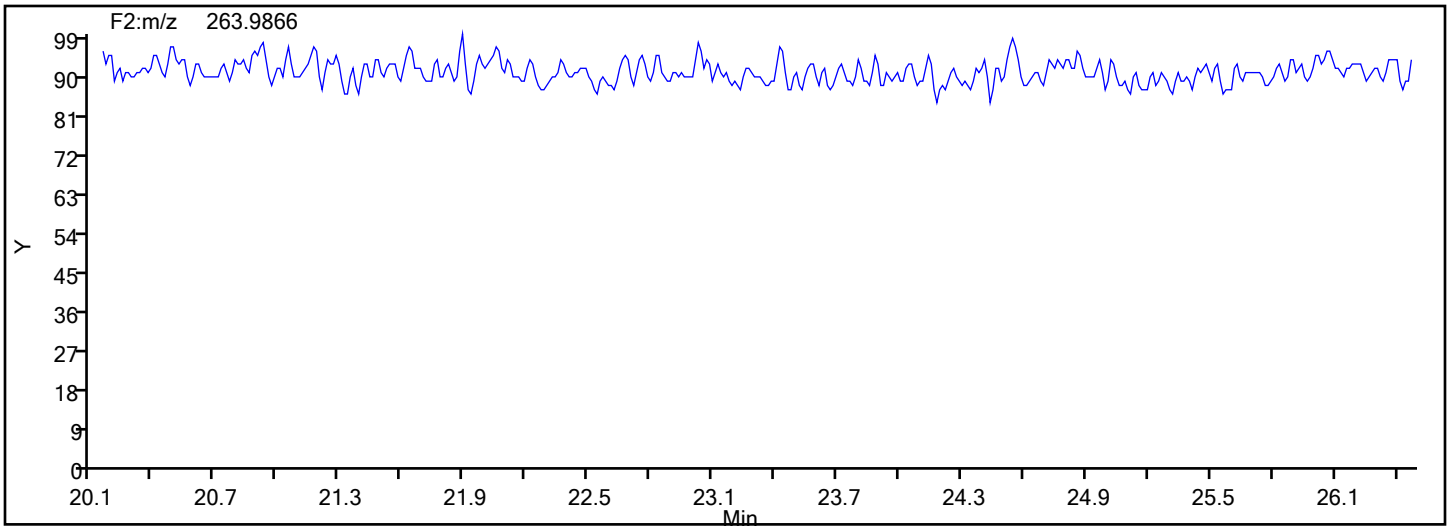
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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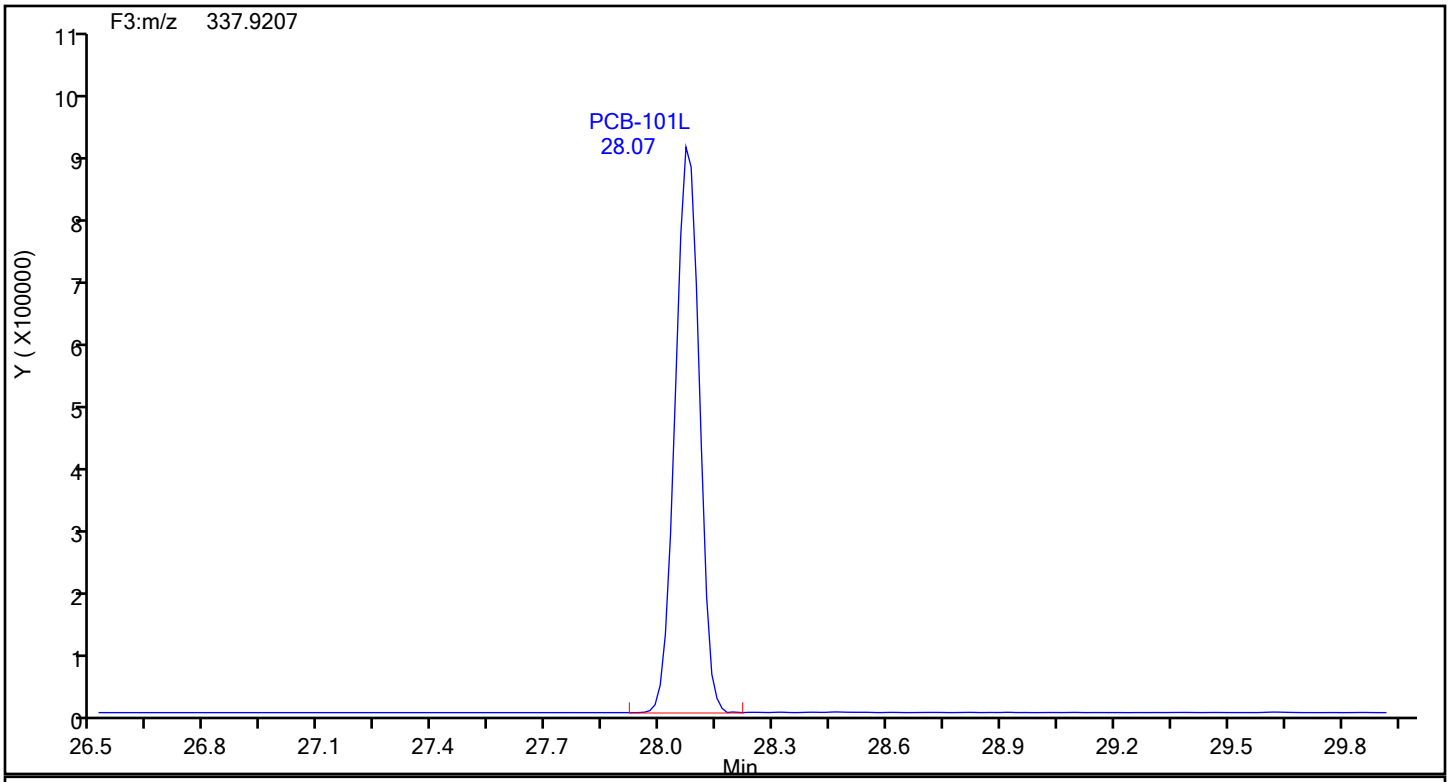
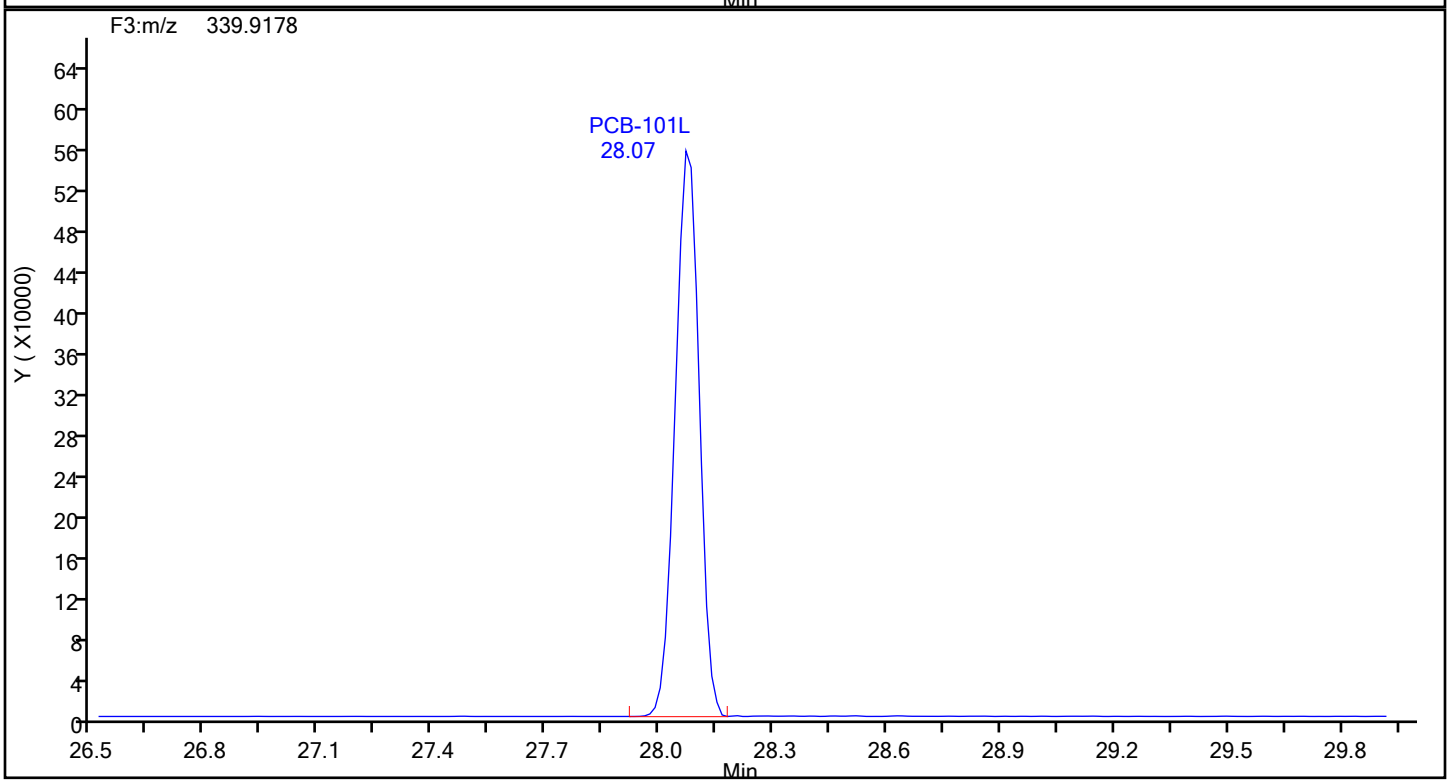
PCB-101L Standards





Report Date: 05-May-2025 17:59:56 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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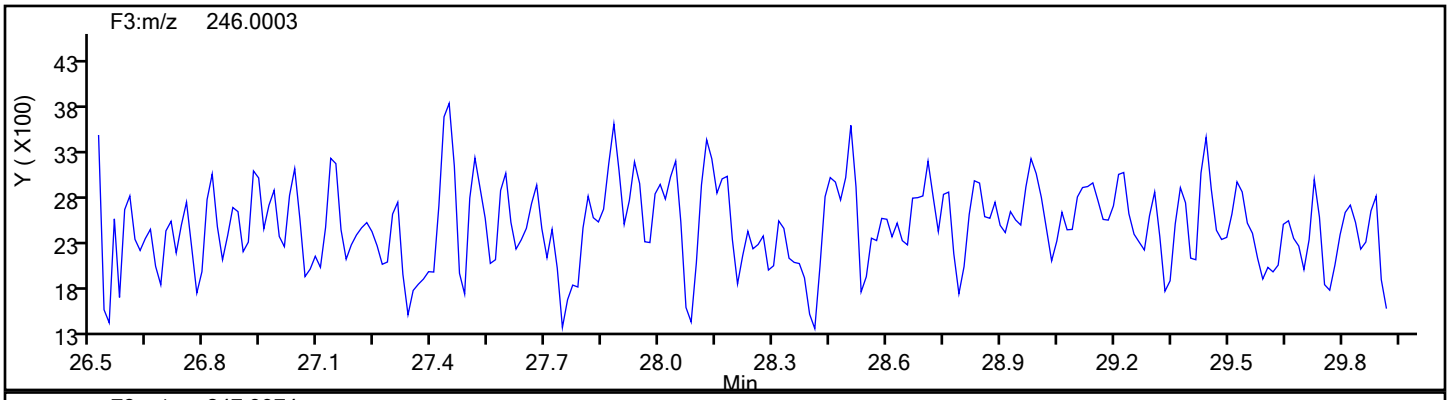
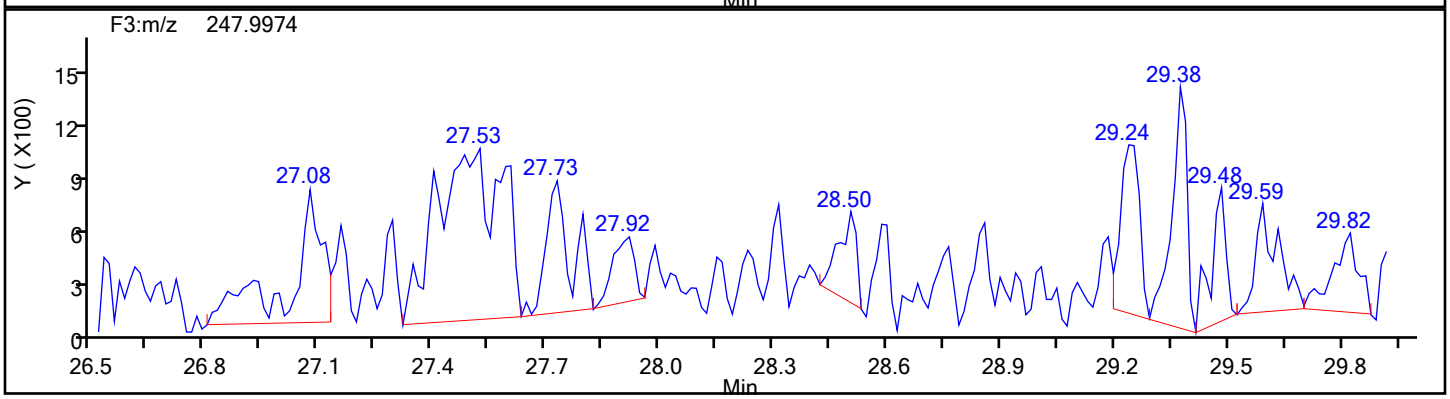
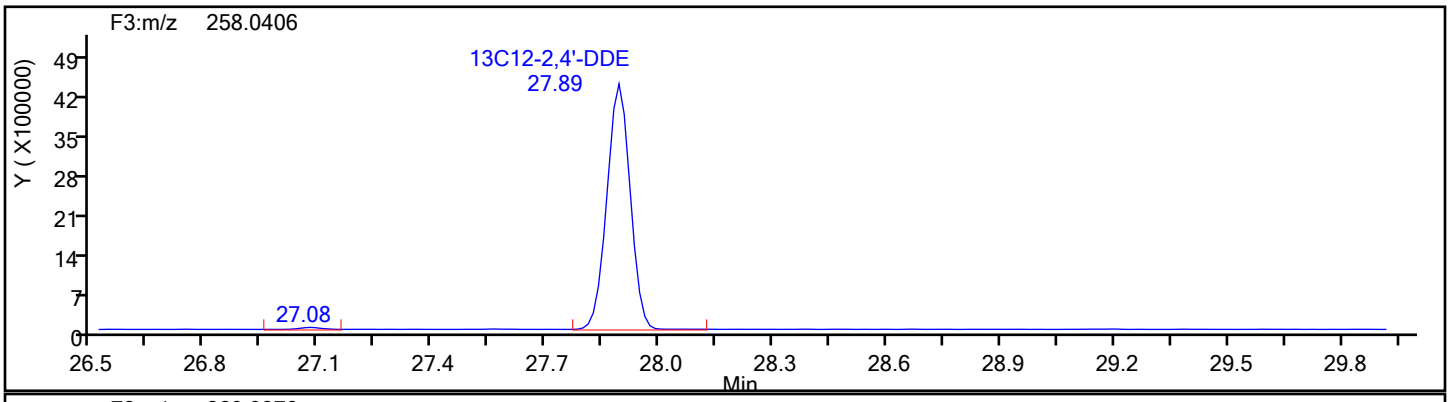
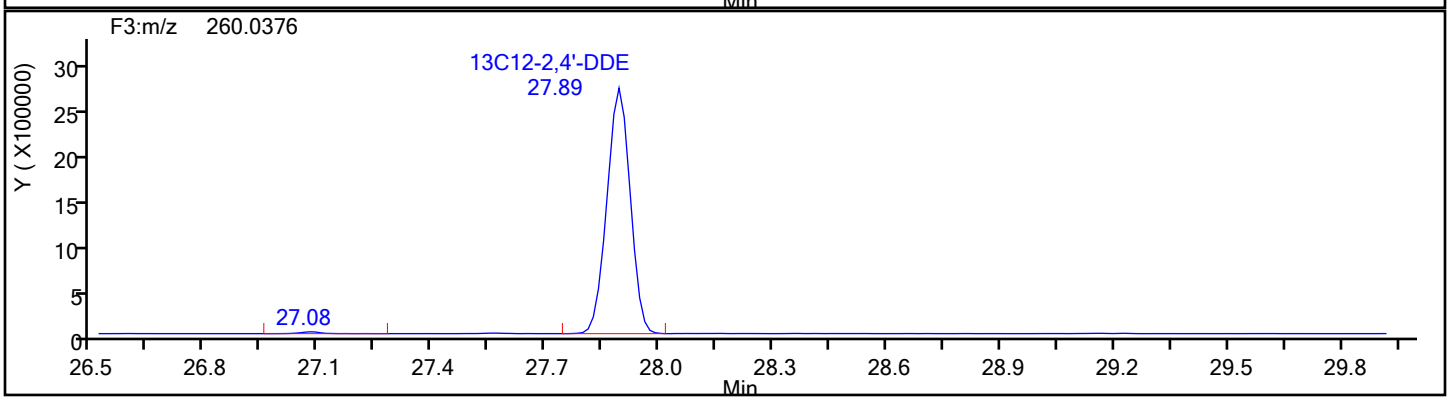
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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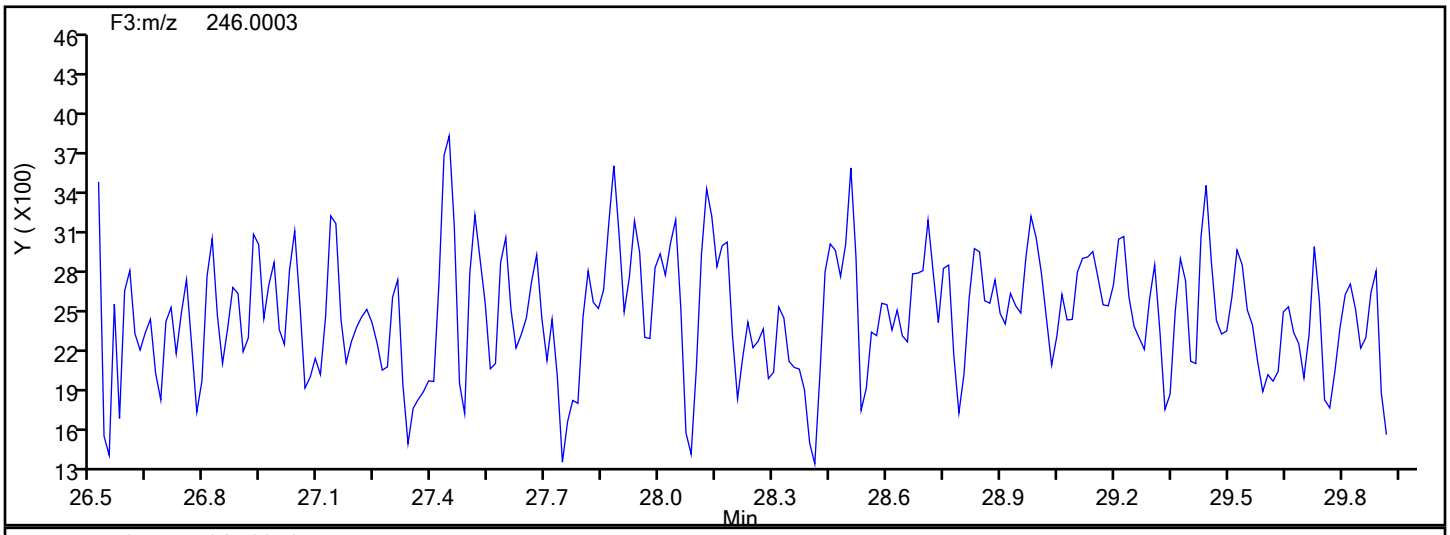
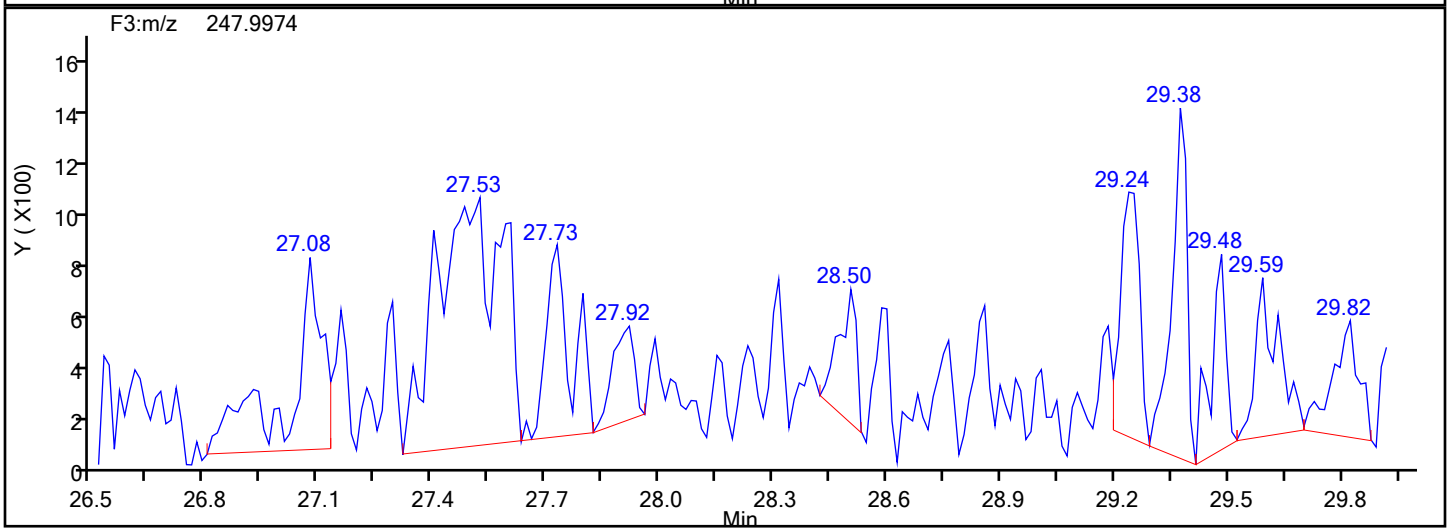
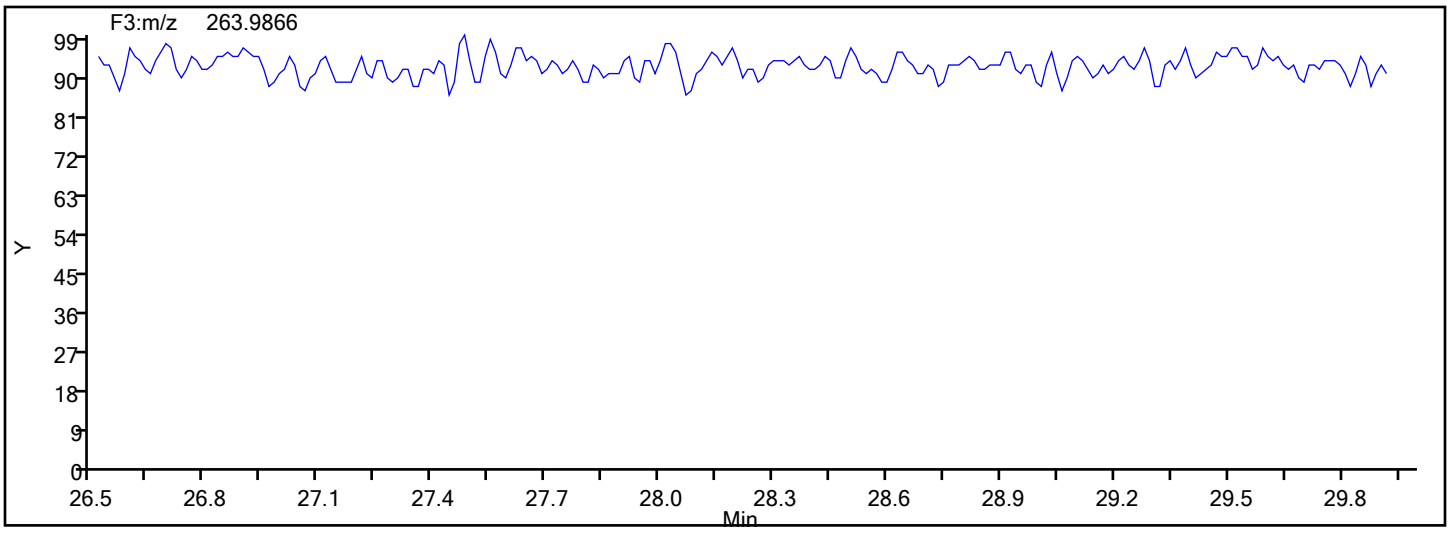
2,4'-DDE





2,4'-DDE Lock Mass



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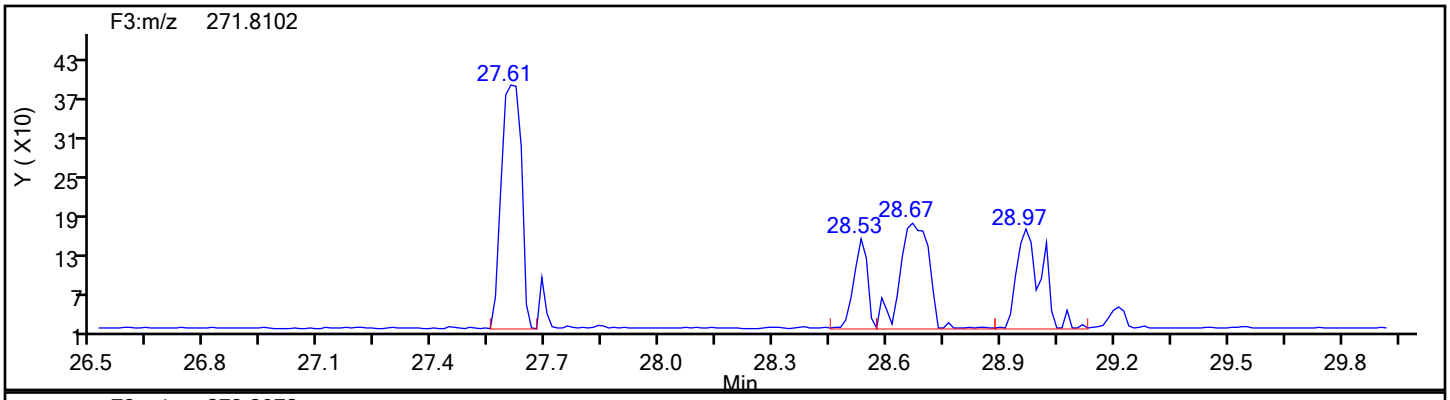
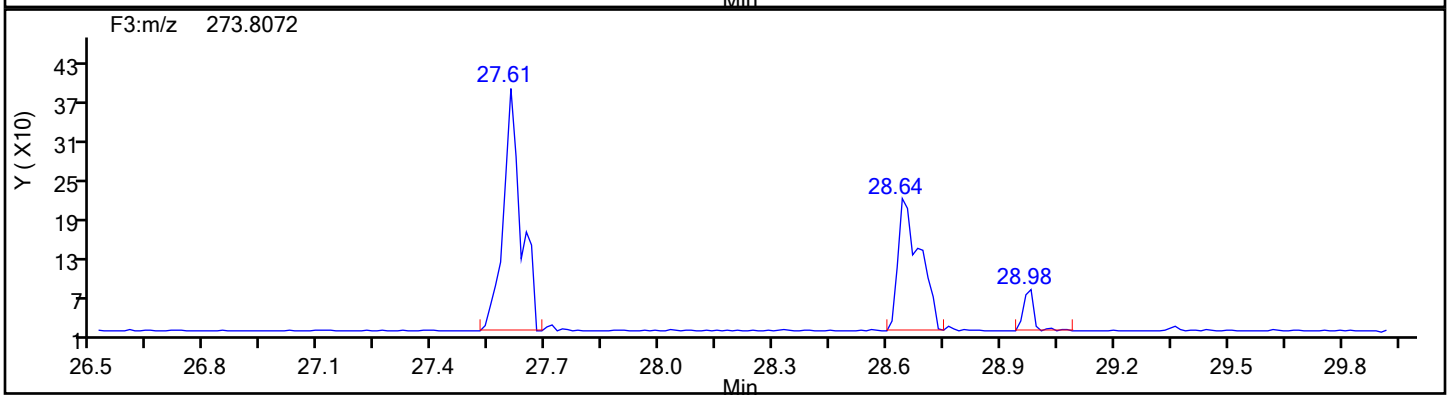
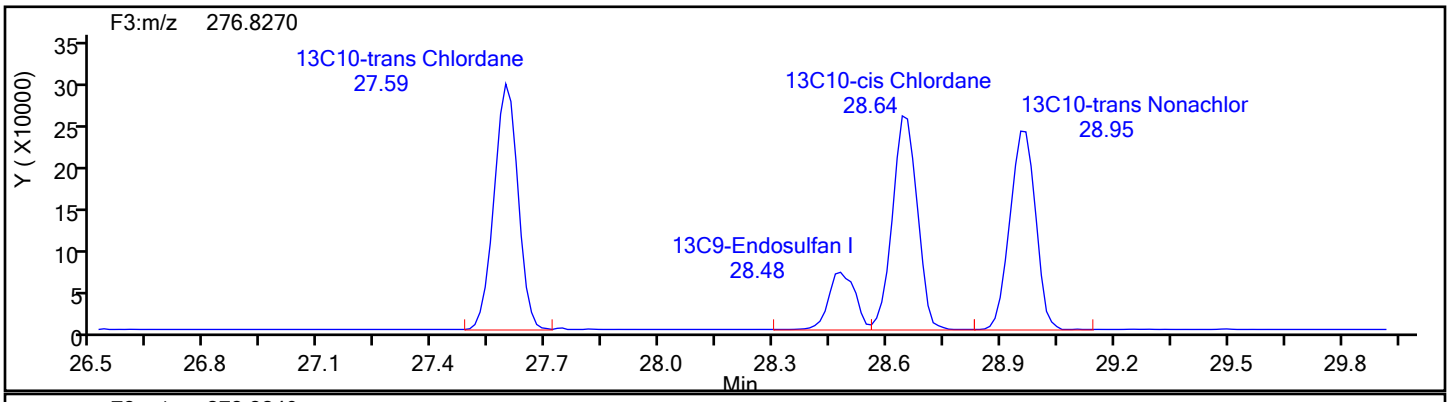
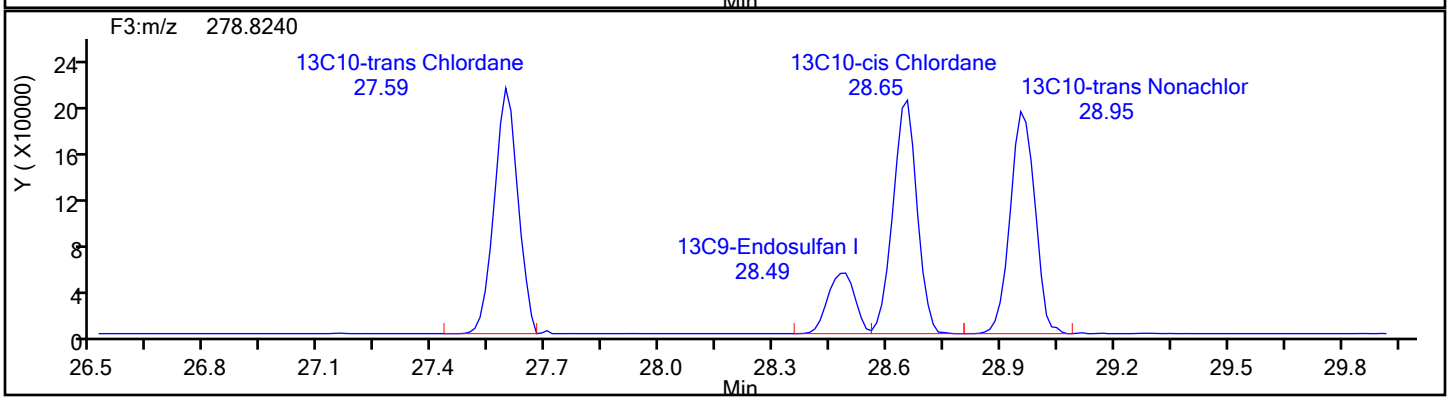
Chlordane





Chlordane Standards





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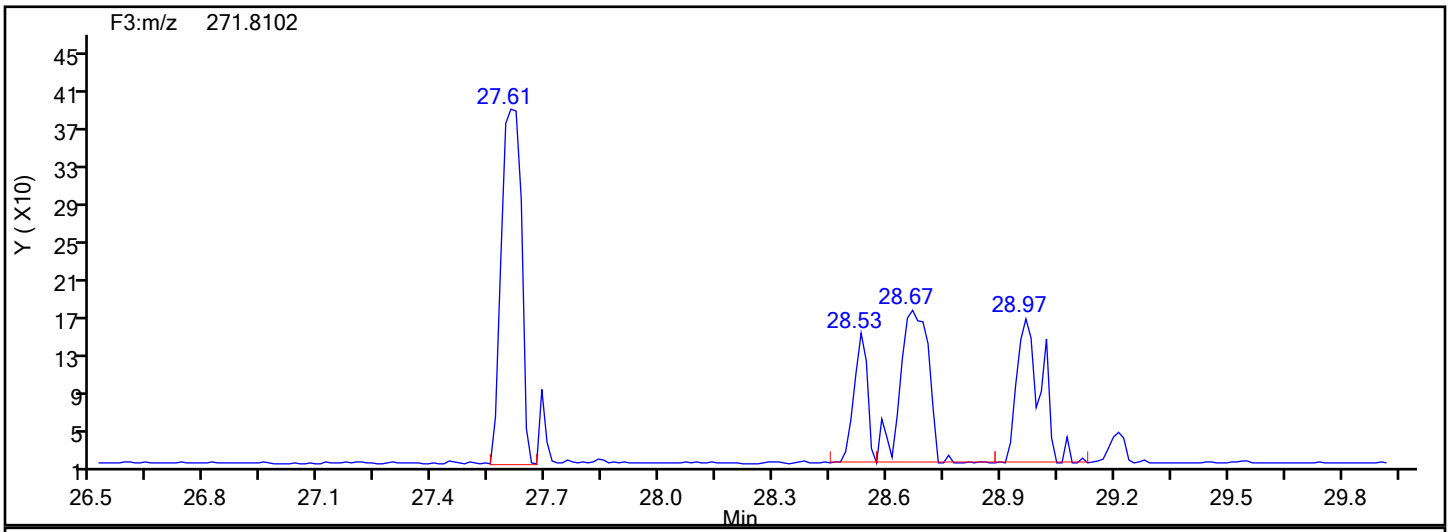
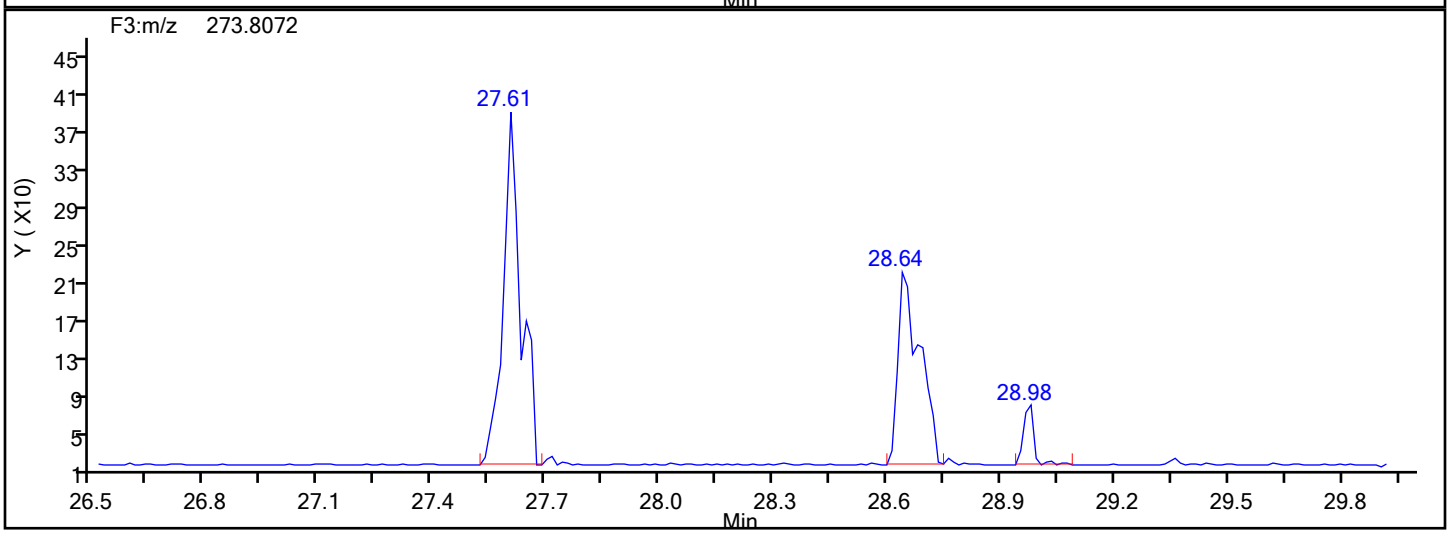
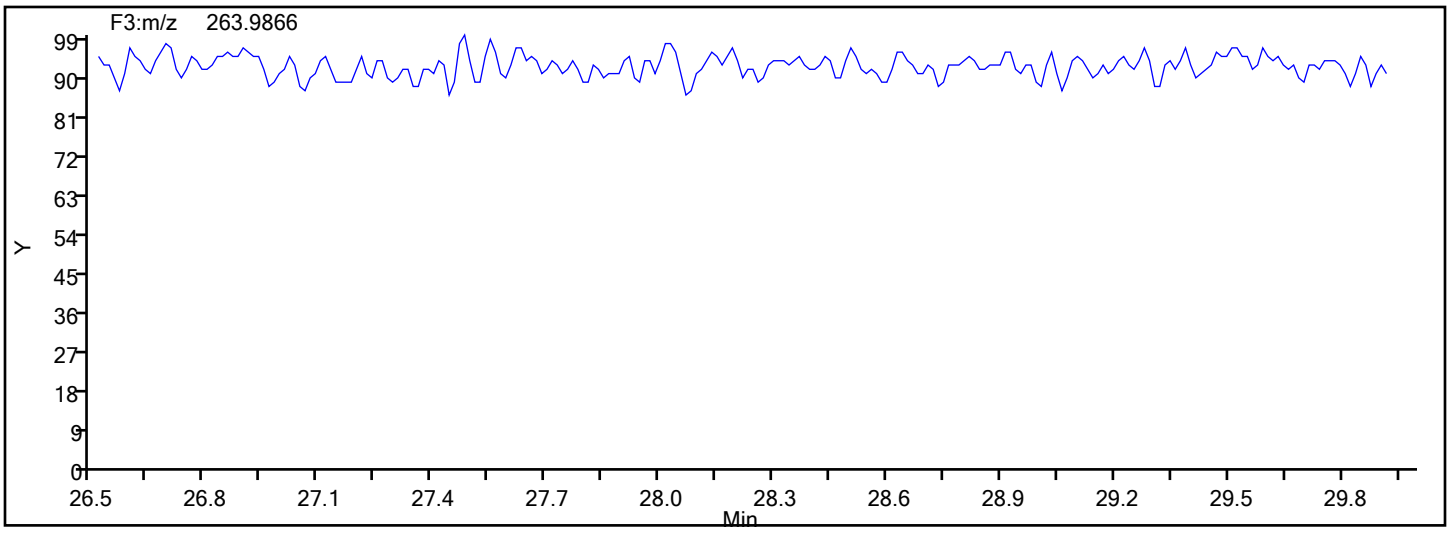
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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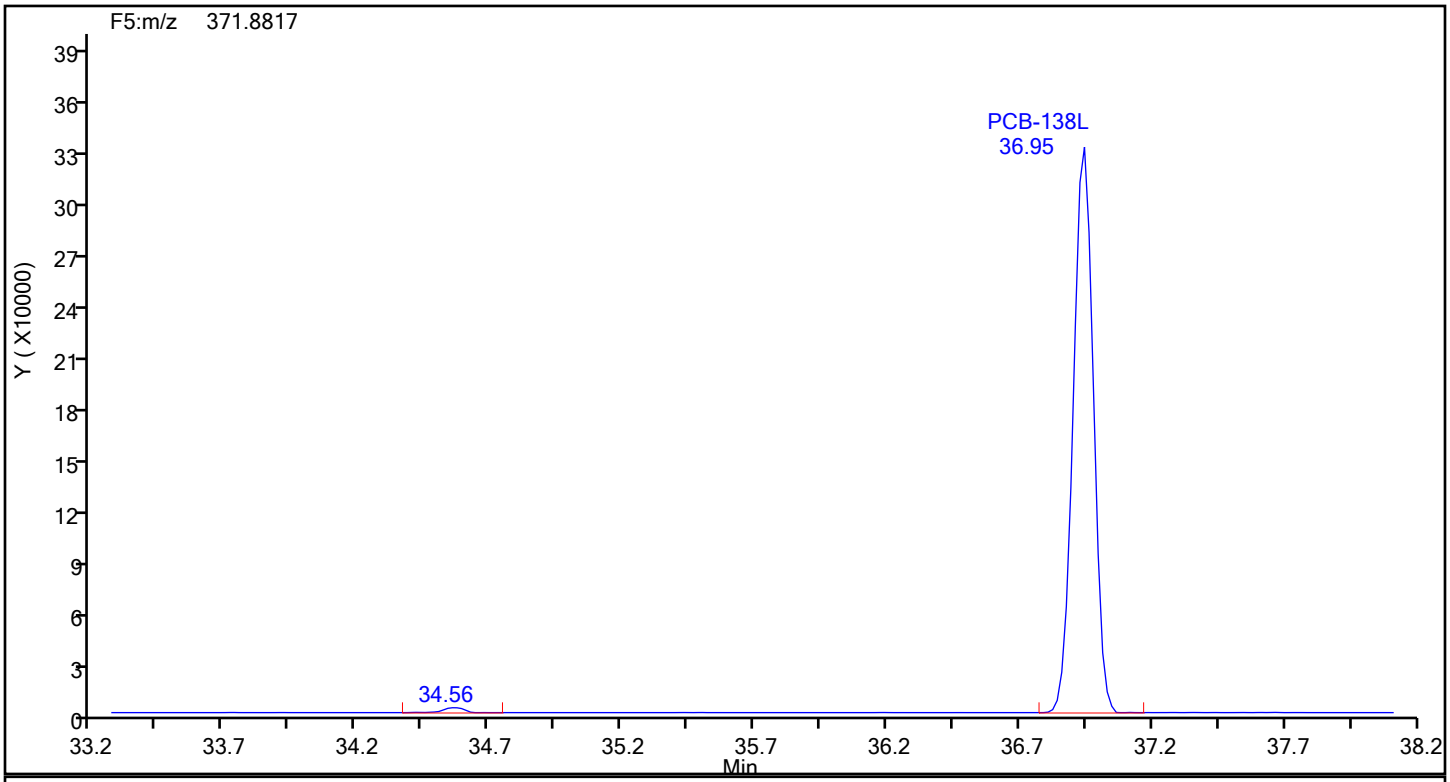
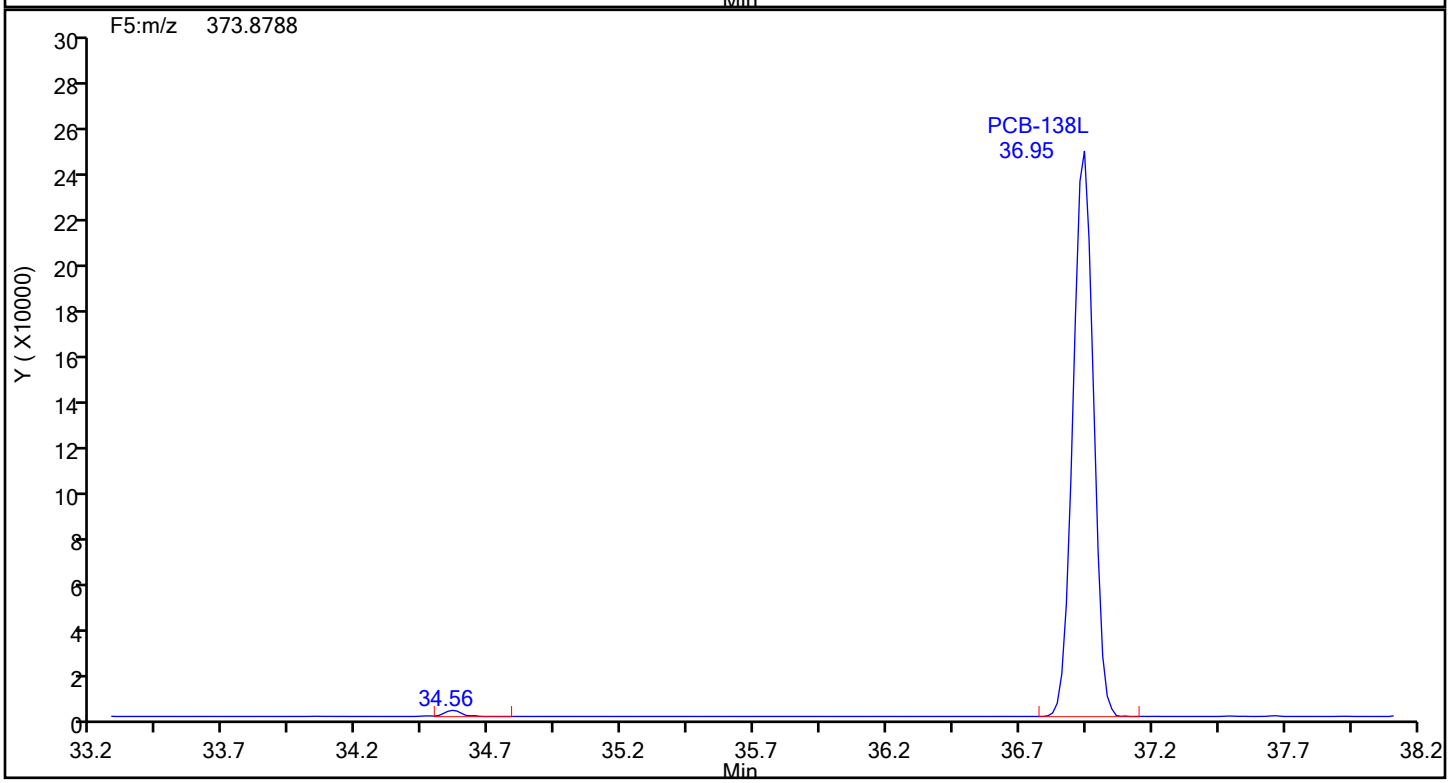
PCB-138L Standards





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Eurofins Knoxville

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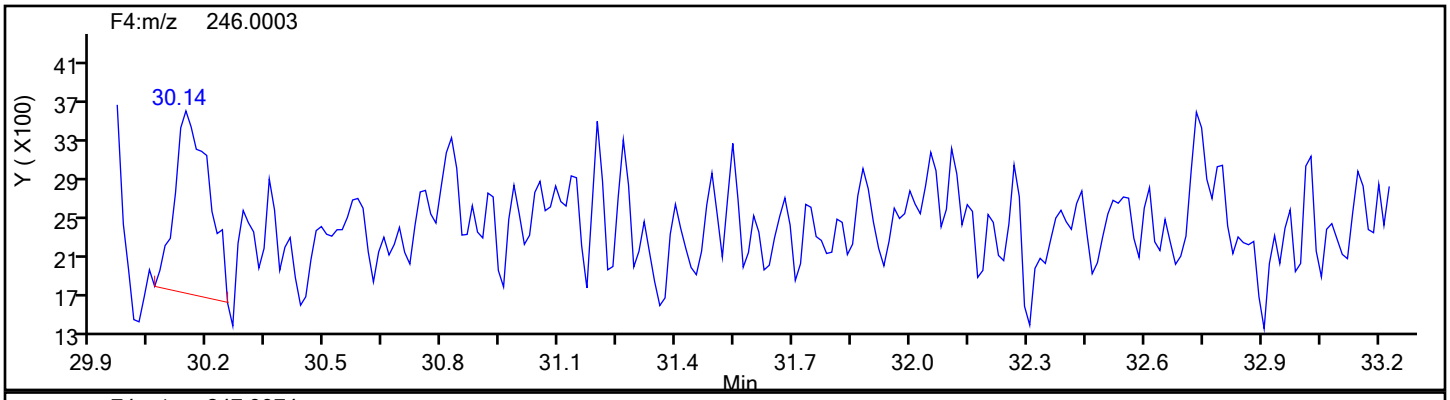
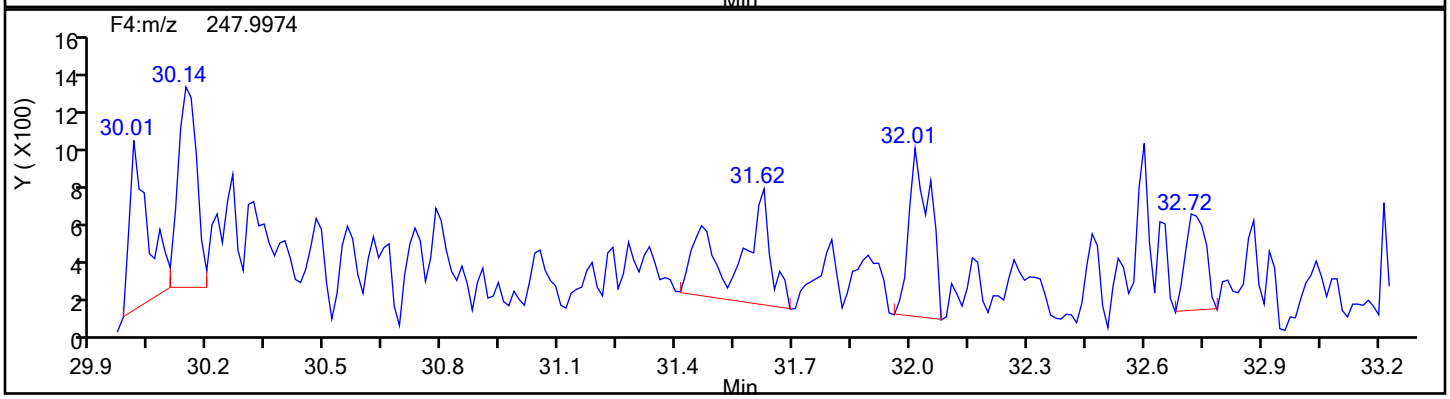
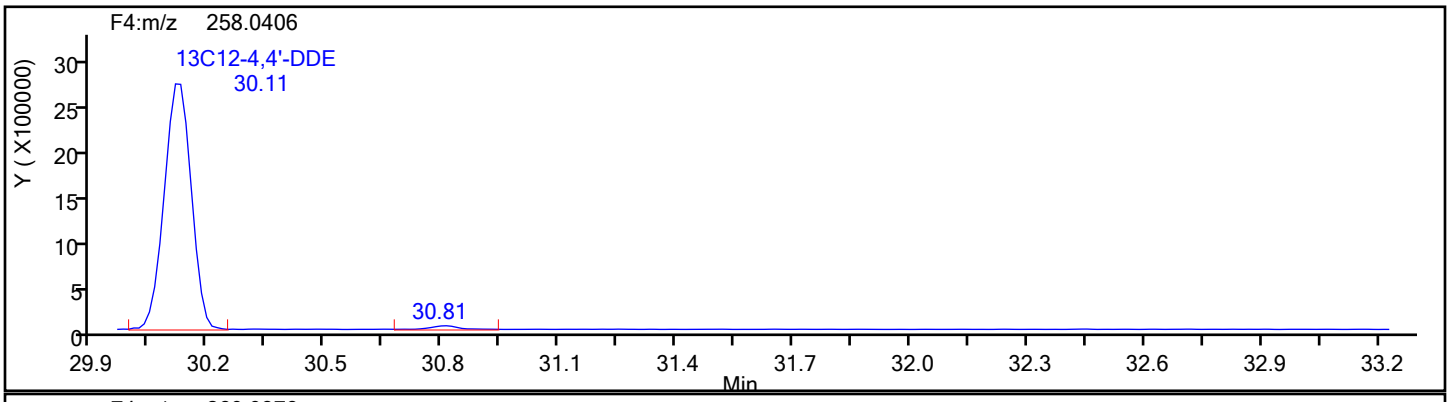
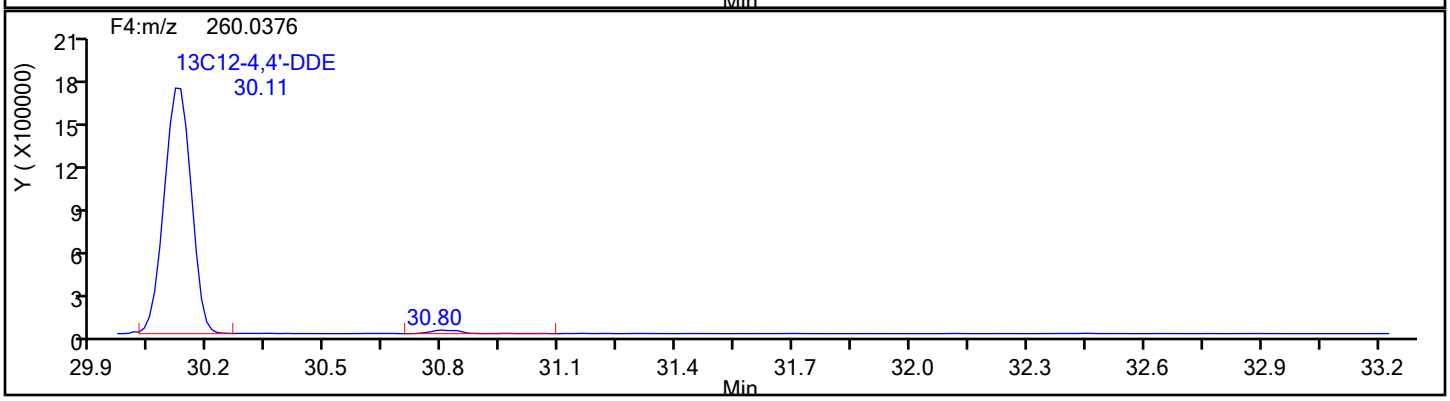
4,4'-DDE





4,4'-DDE Standards





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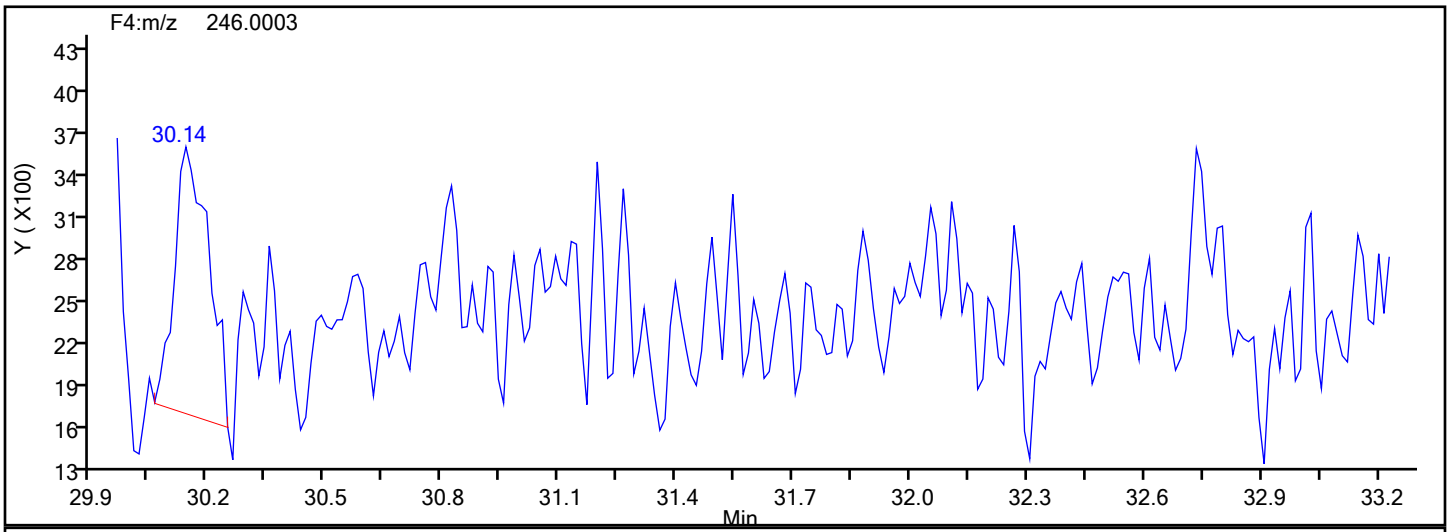
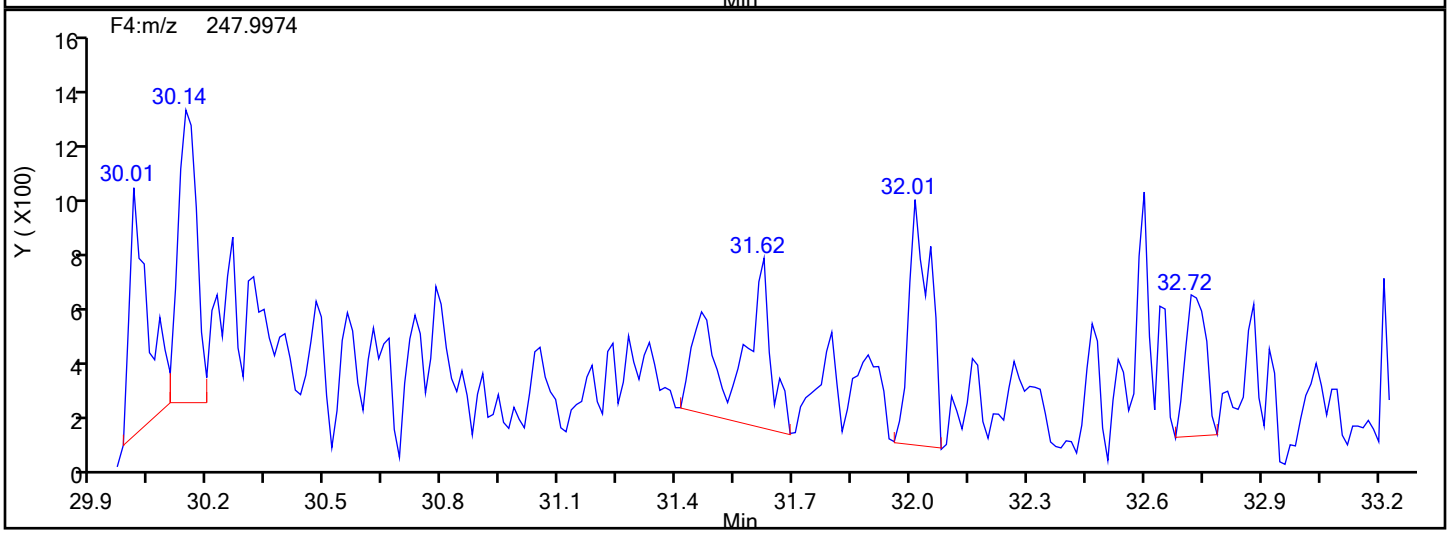
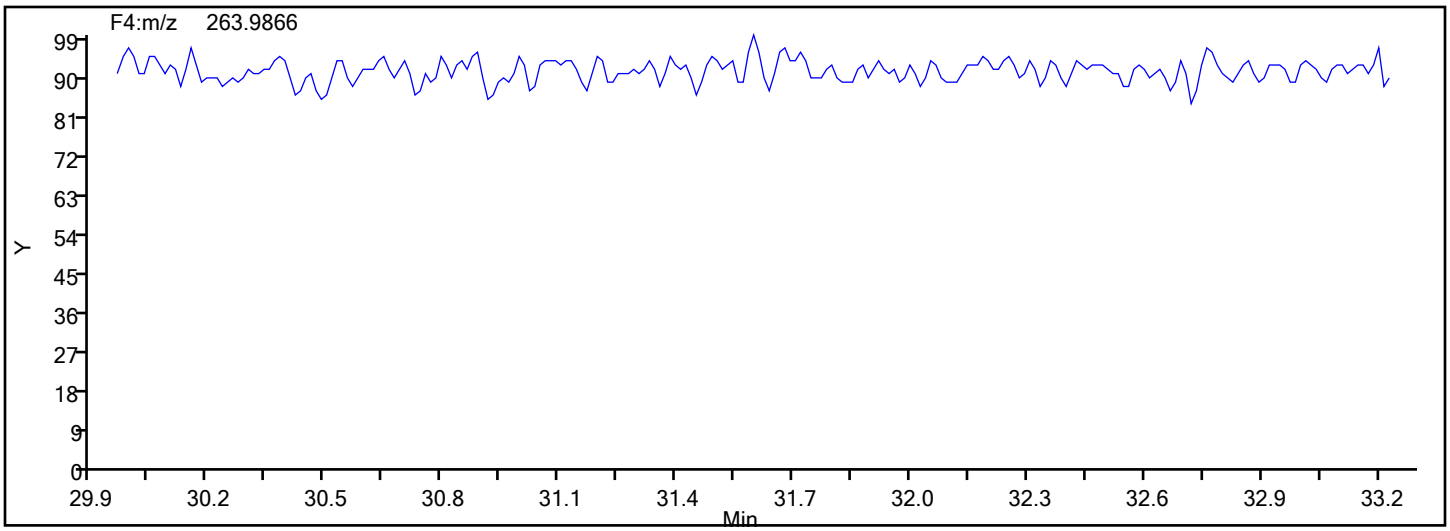
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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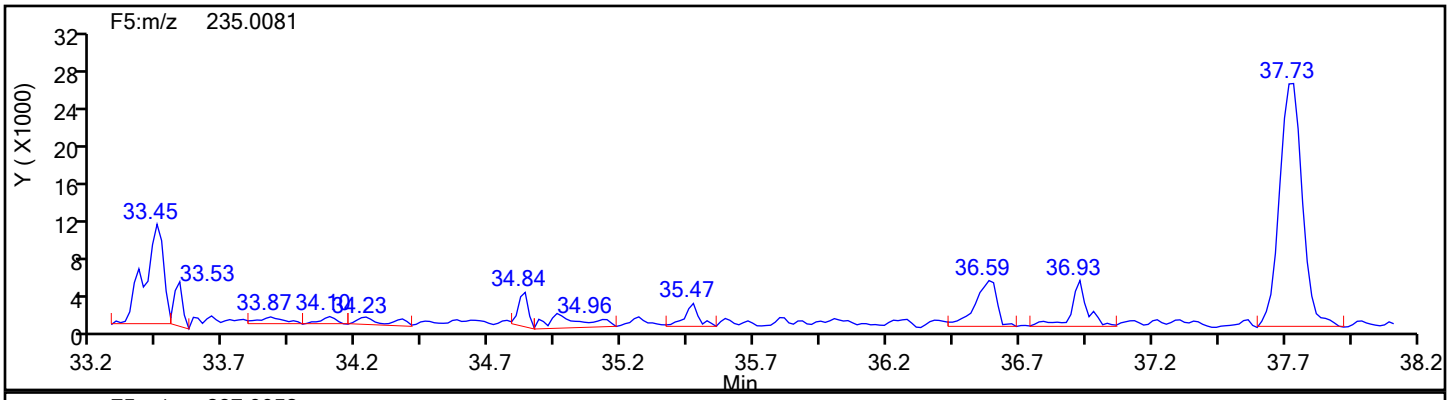
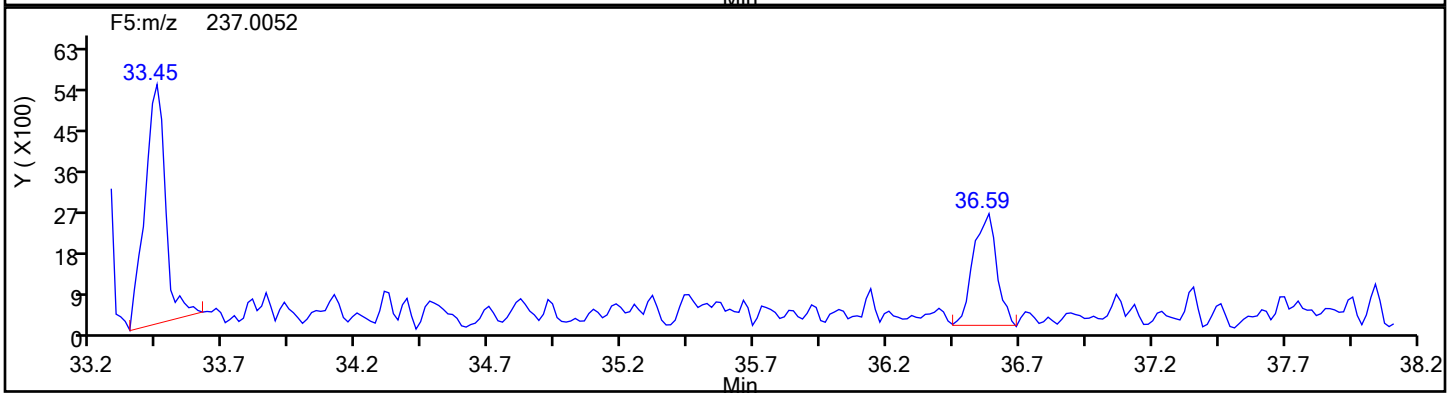
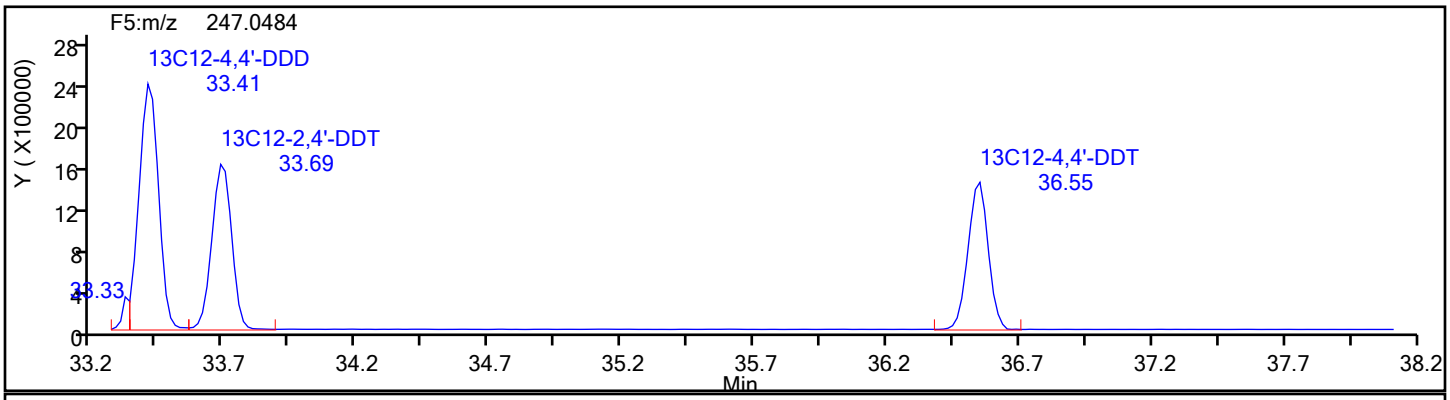
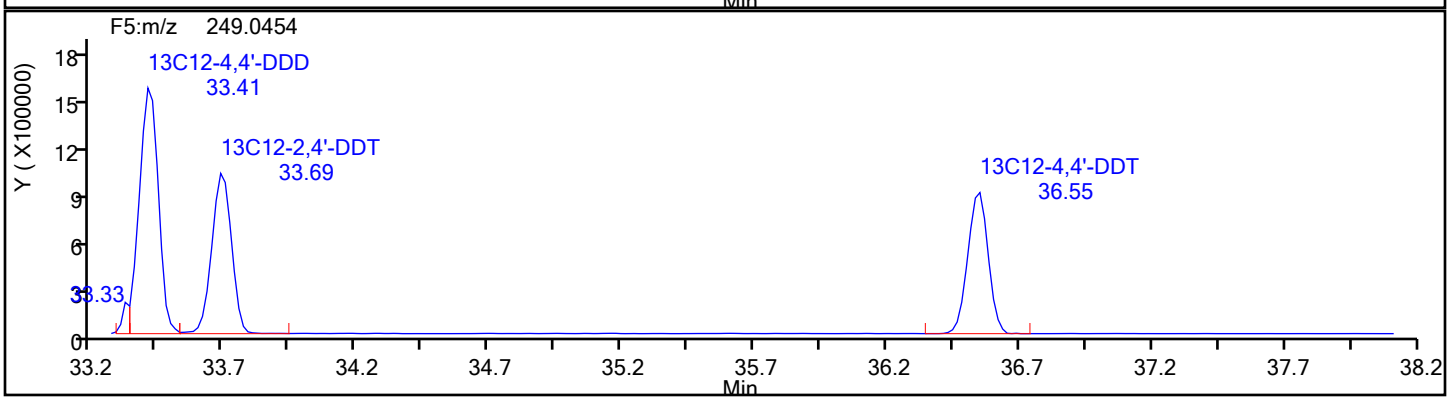




DDD Standards





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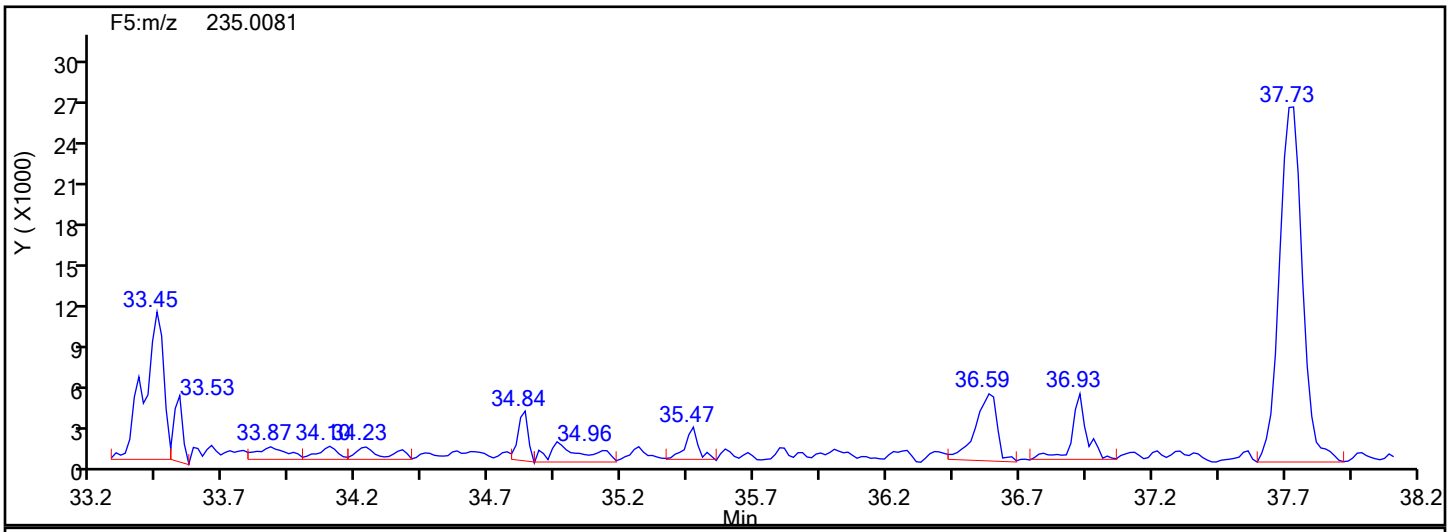
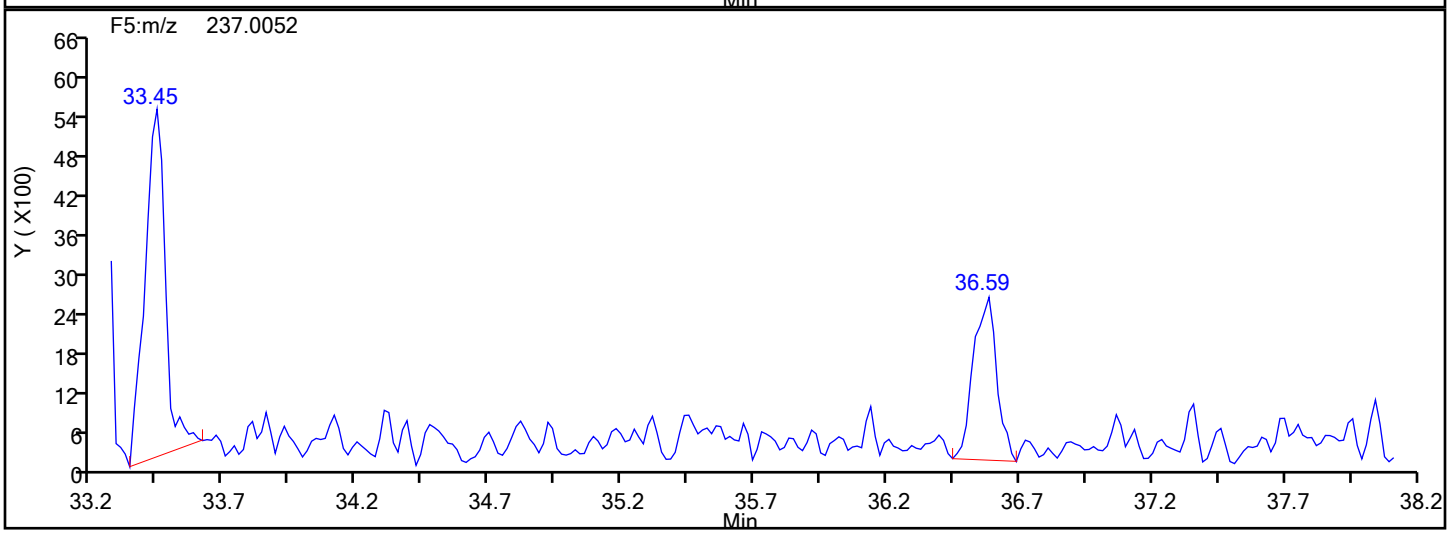
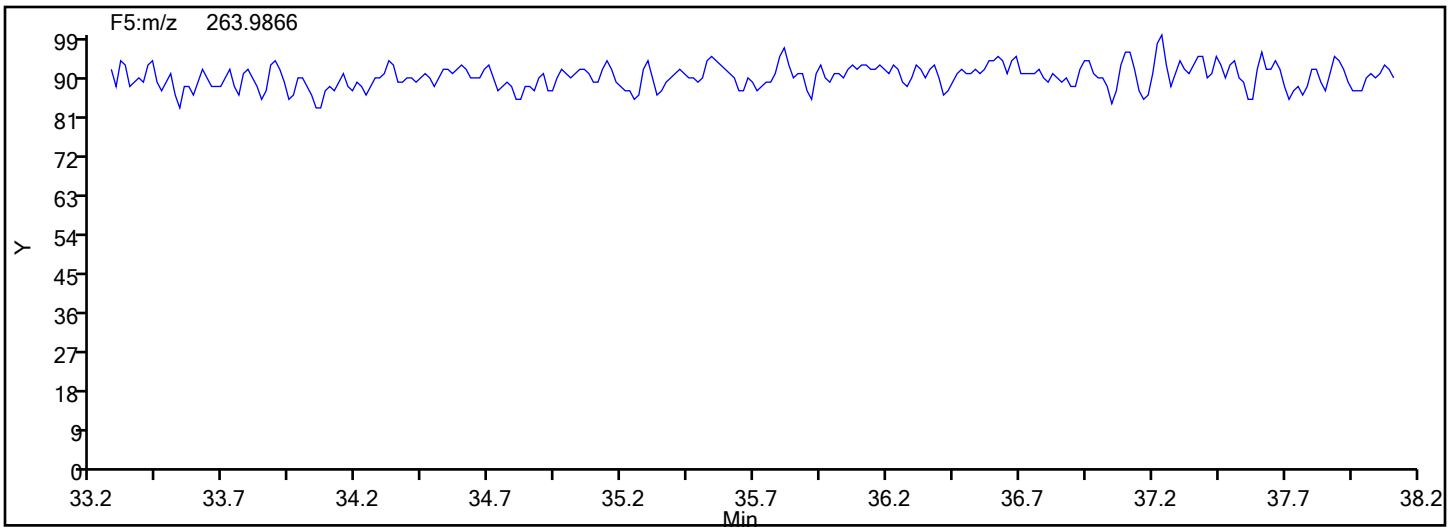
DDD





DDD Lock Mass



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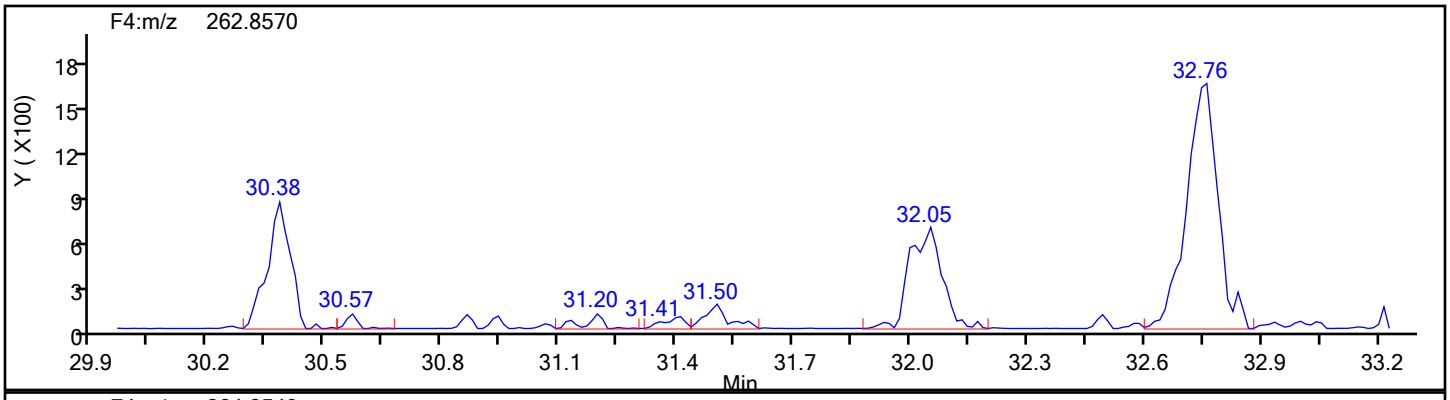

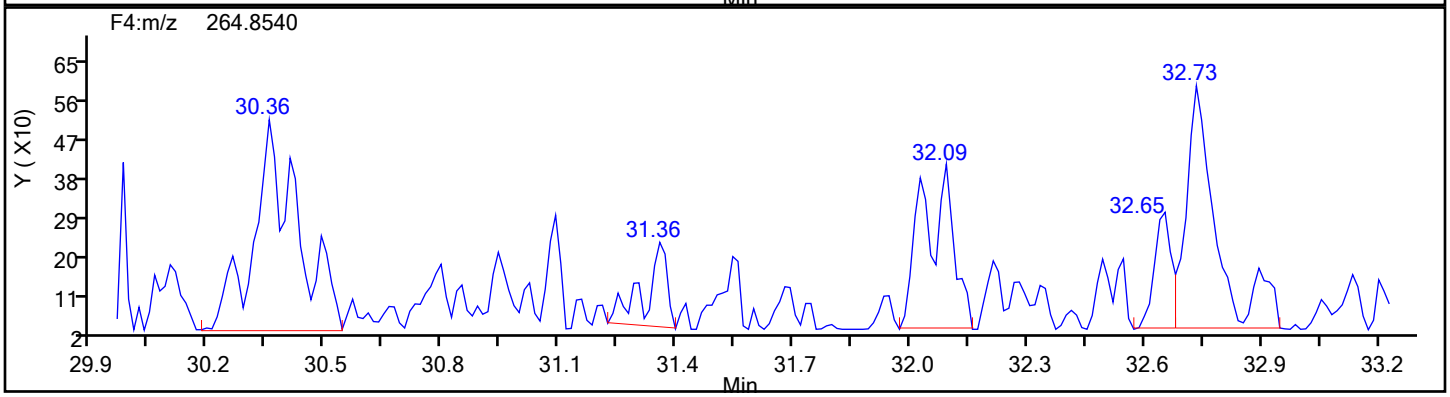

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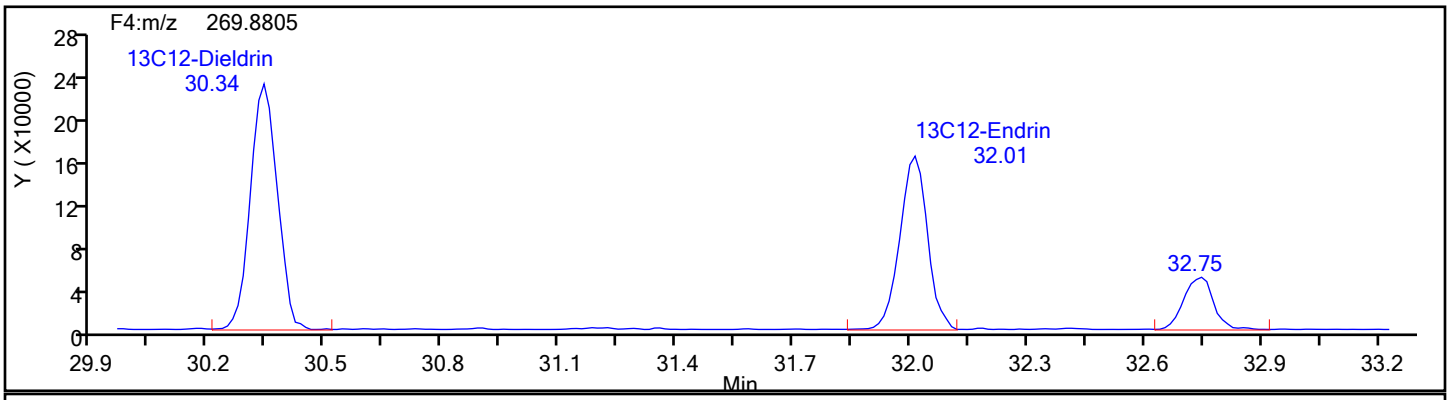

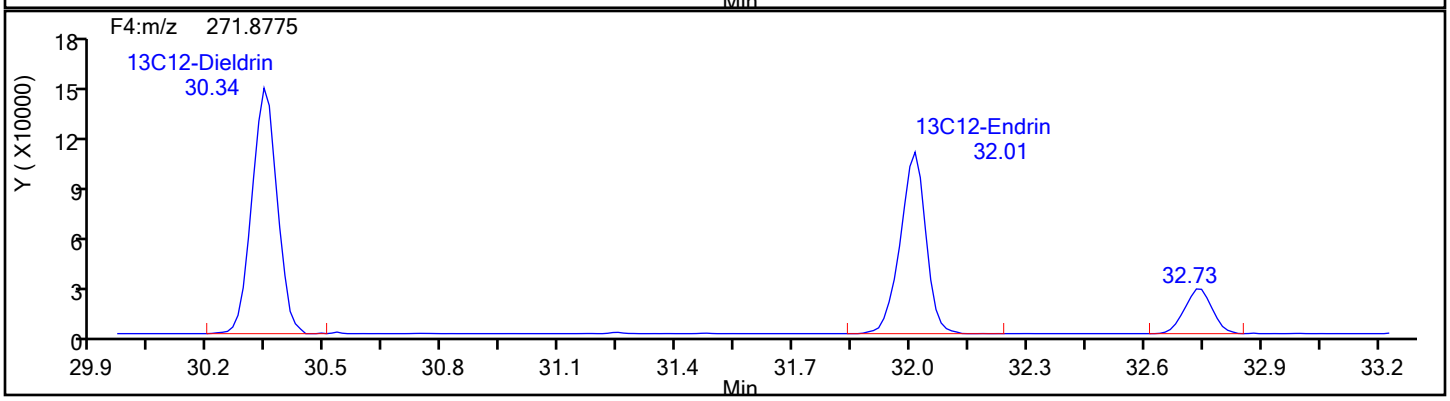

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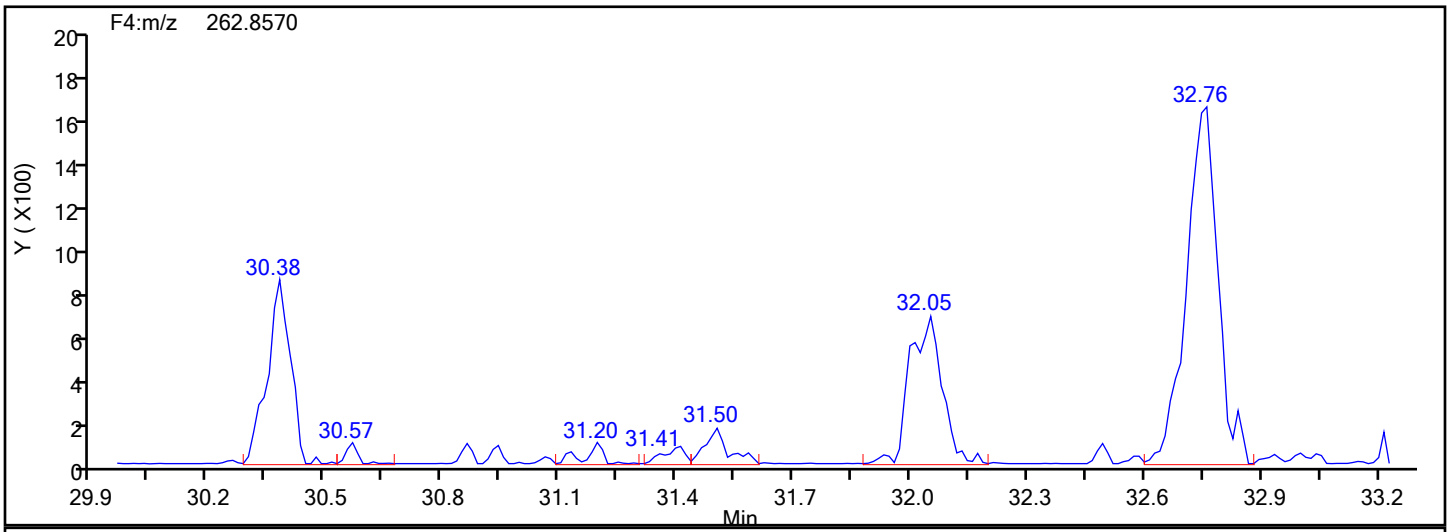

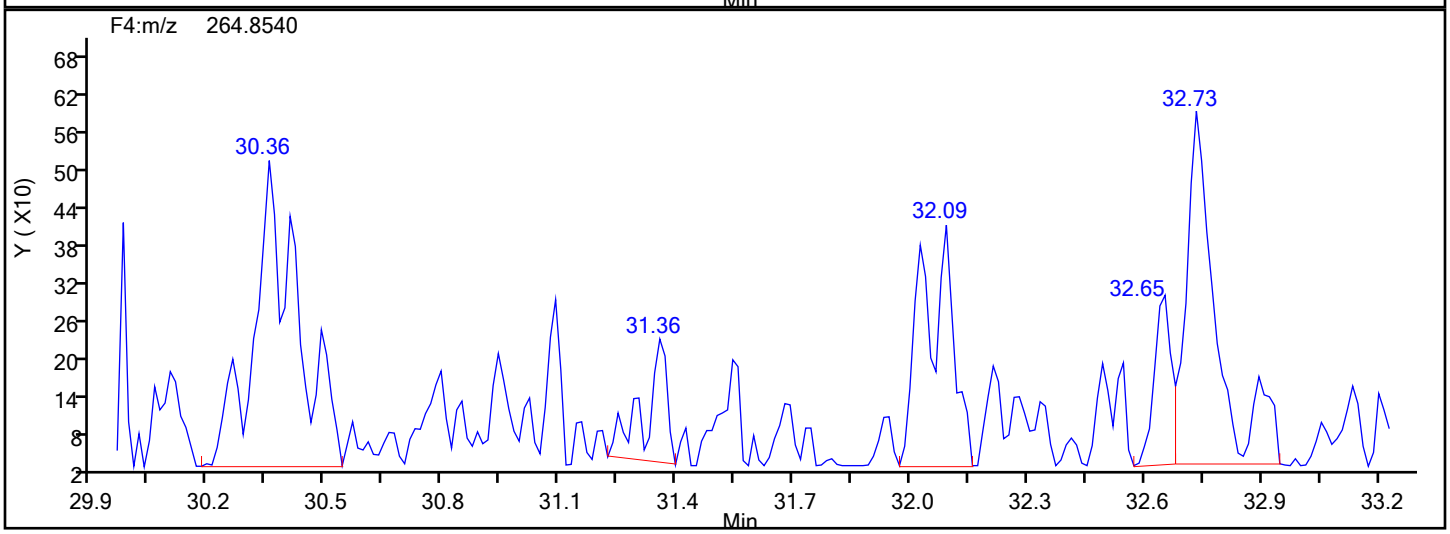

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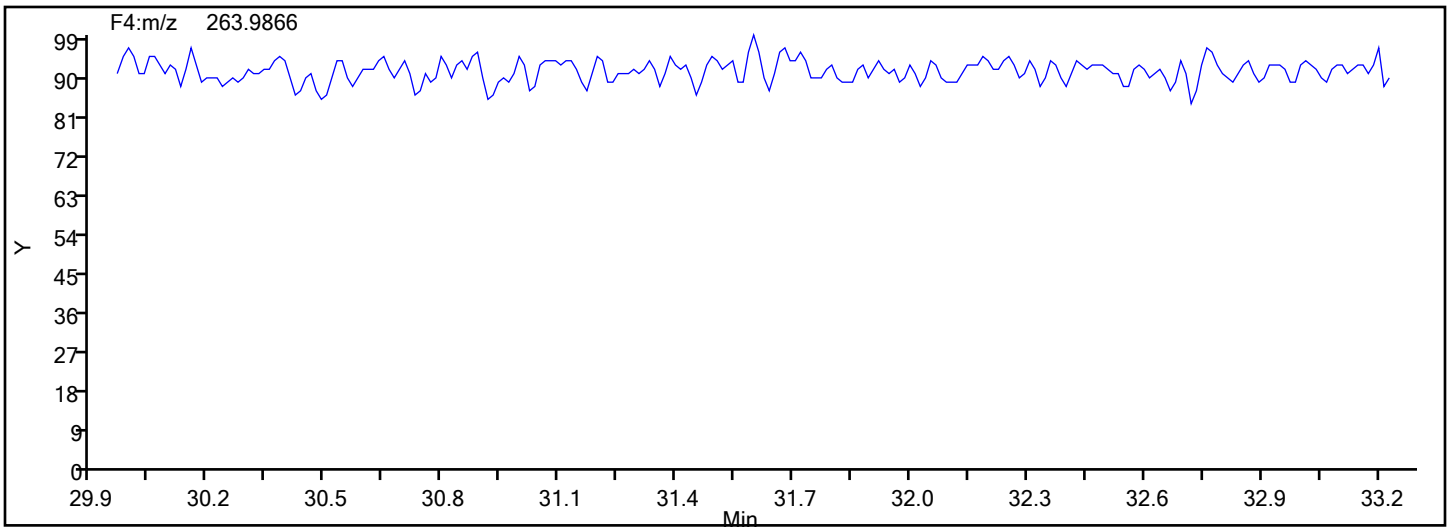

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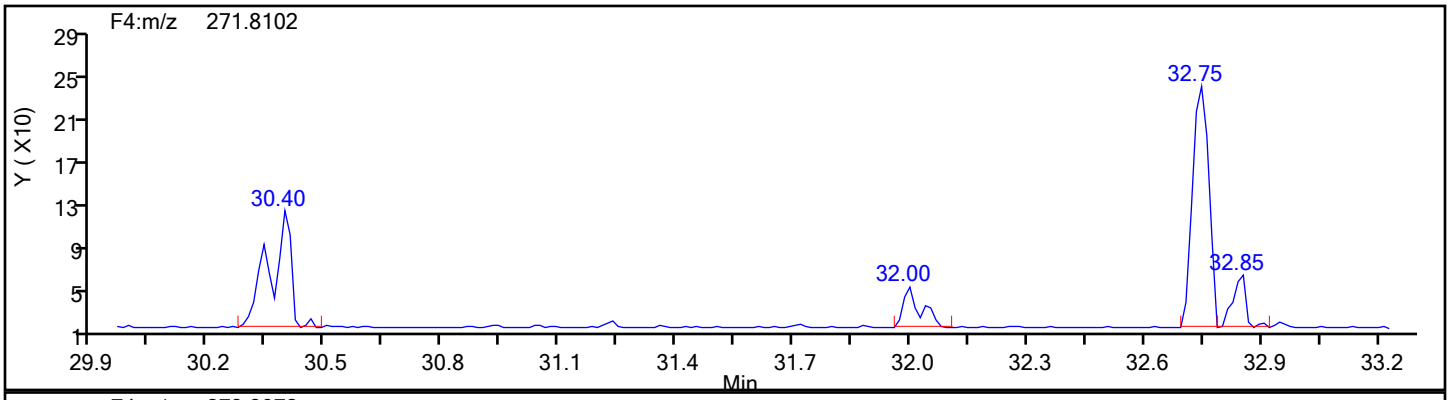
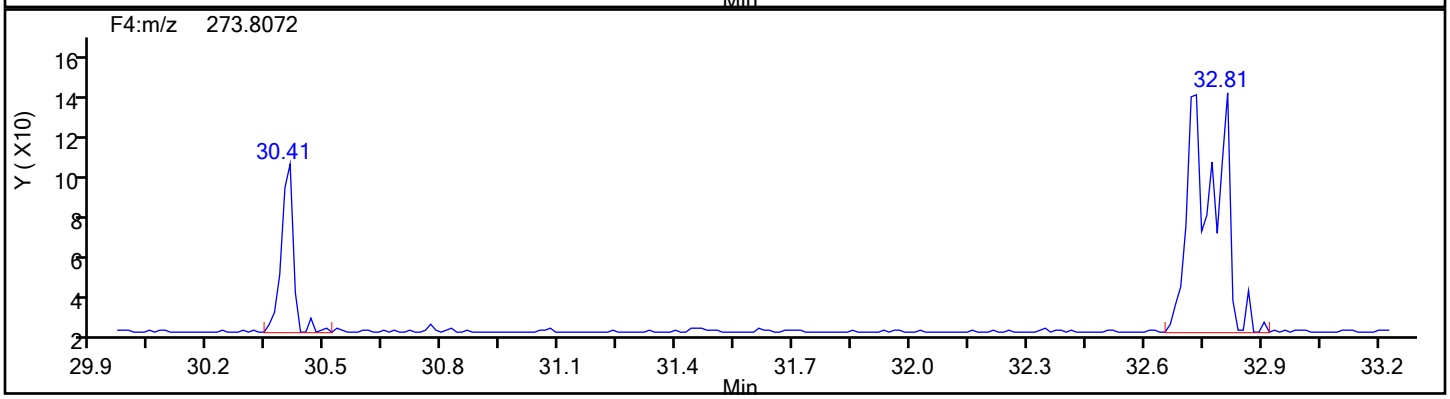
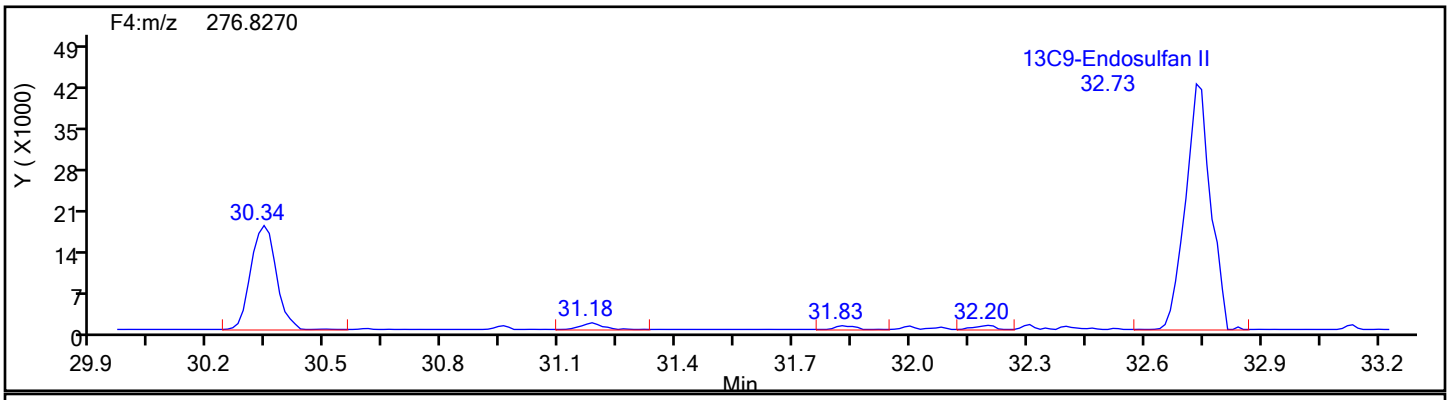
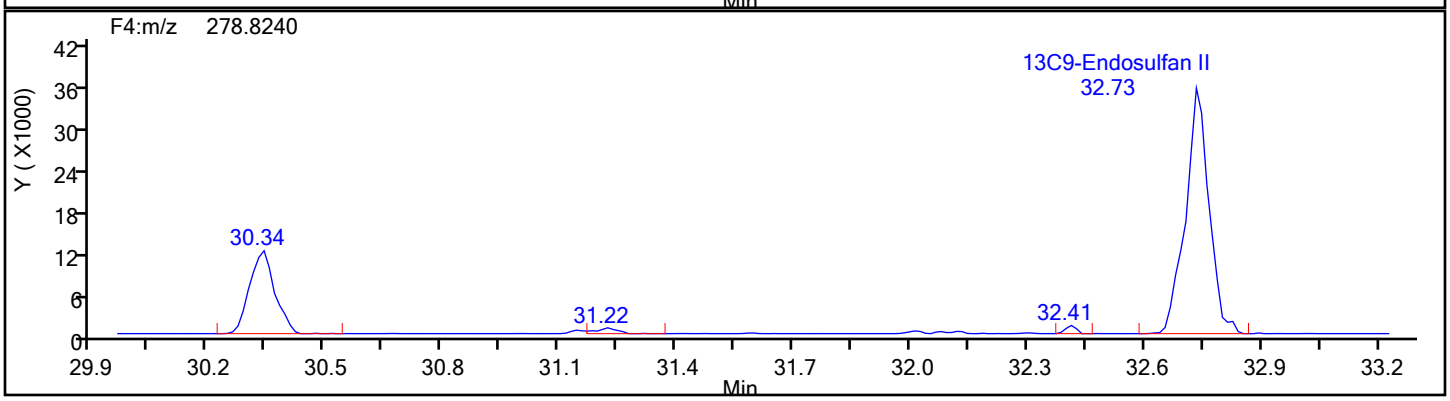
Endosulfan II





Endosulfan II Standards





Report Date: 05-May-2025 17:59:56 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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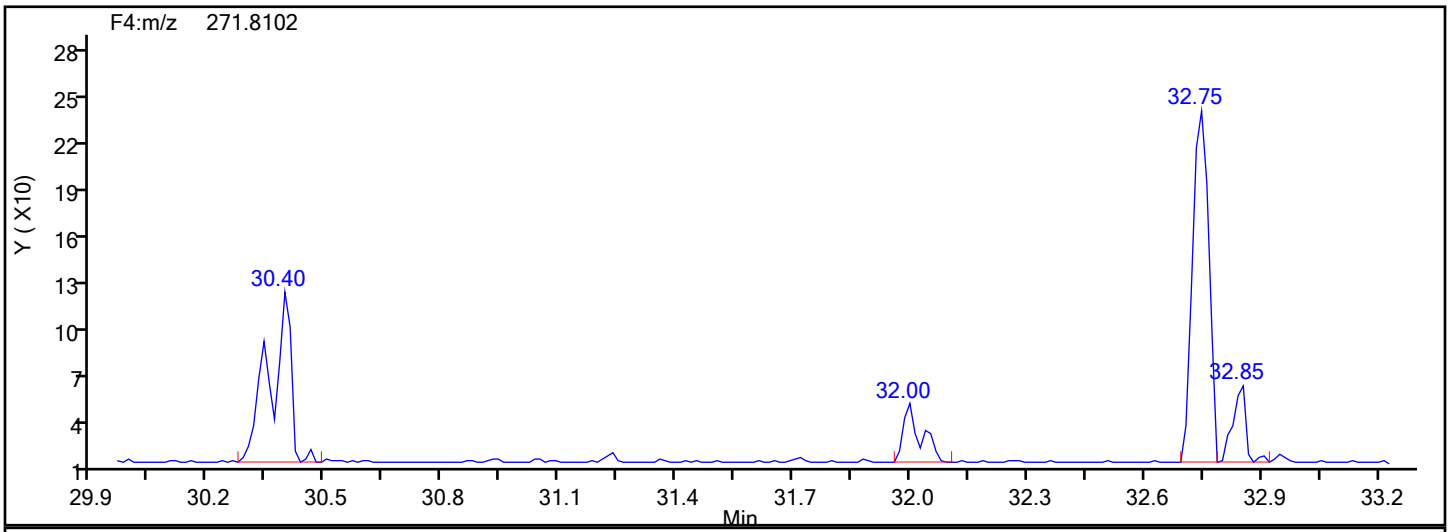
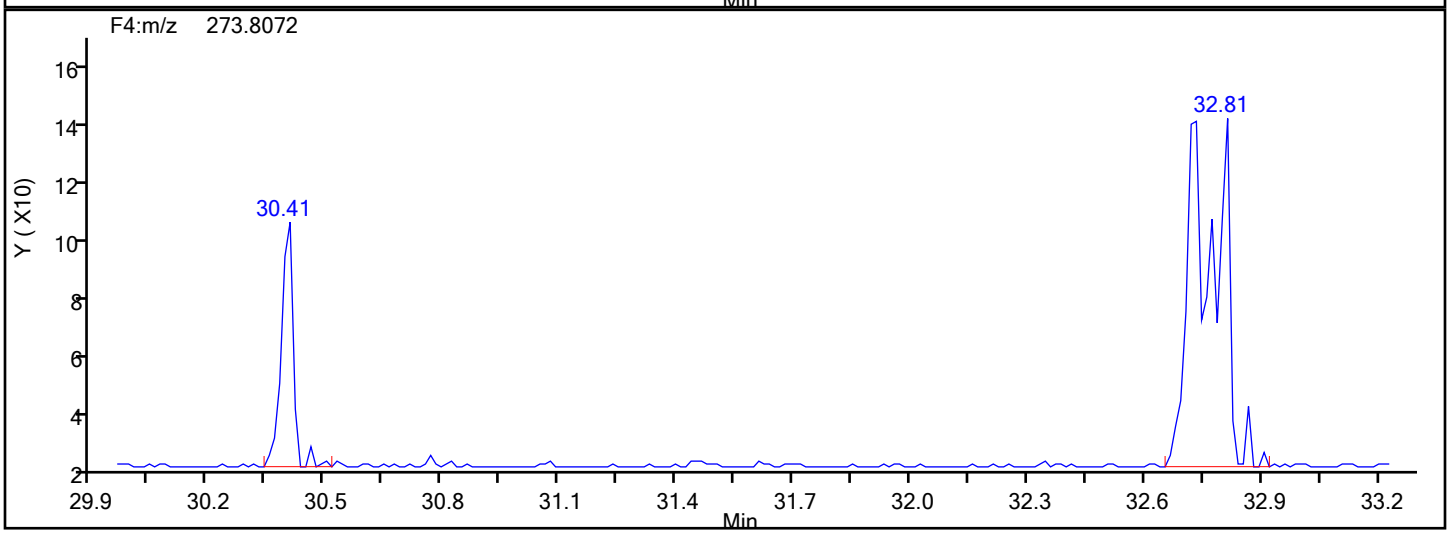
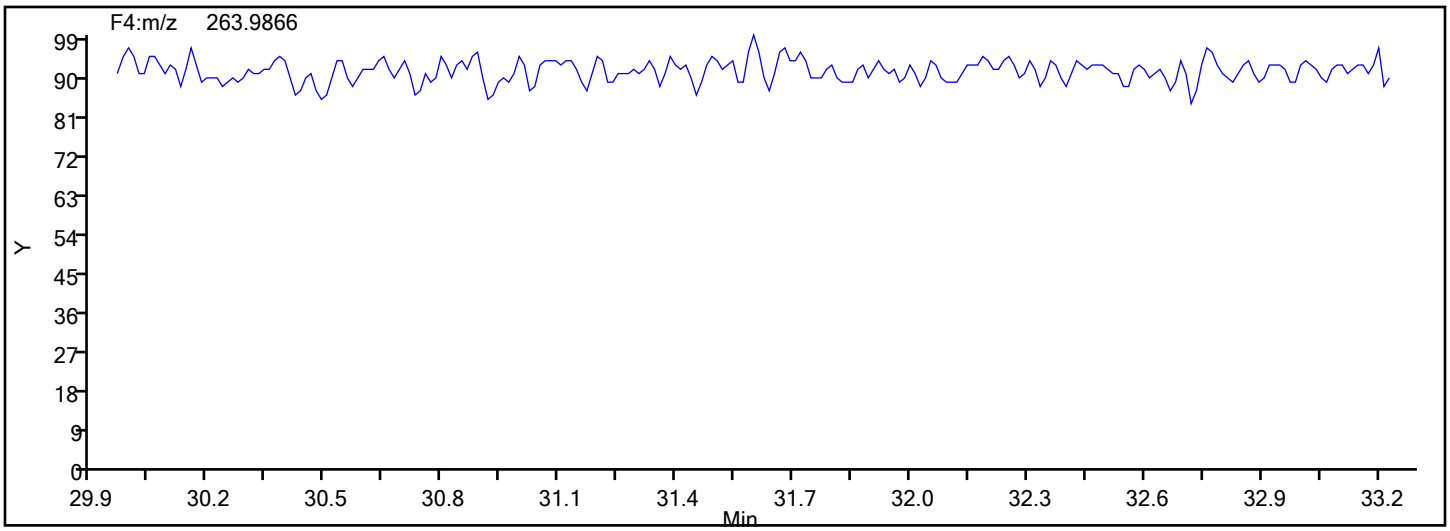
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan II





Endosulfan II Lock Mass



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Eurofins Knoxville

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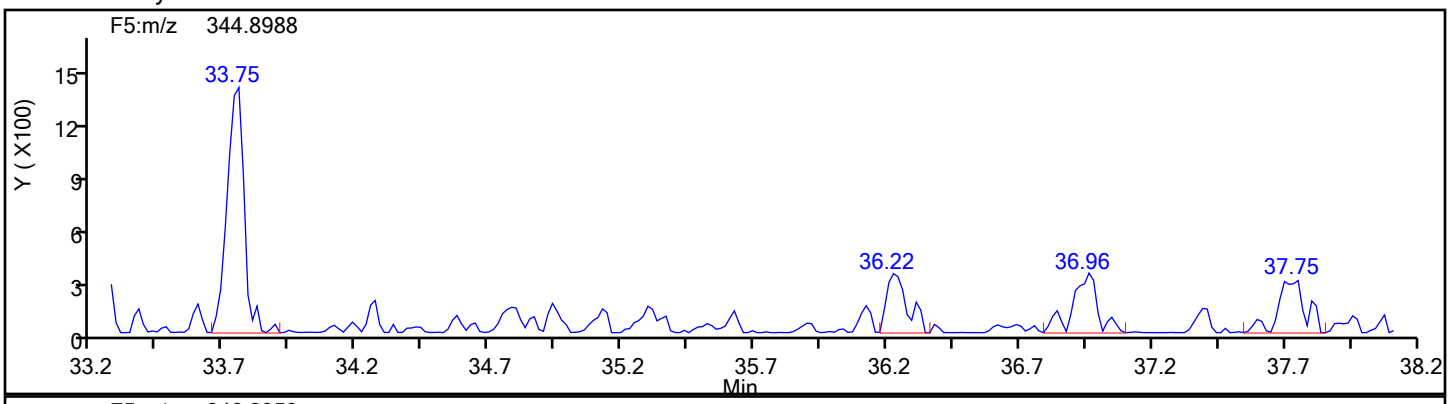

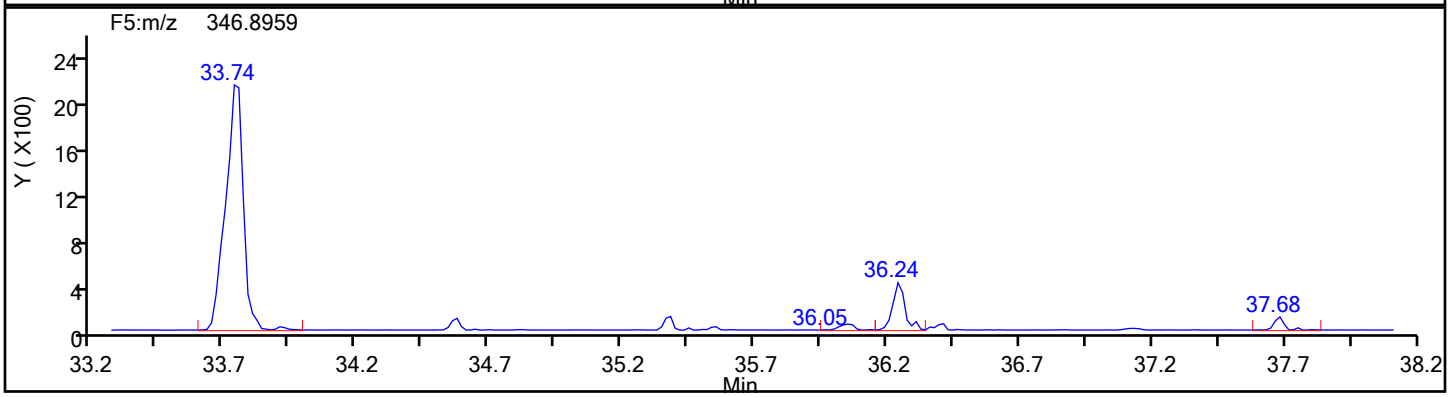

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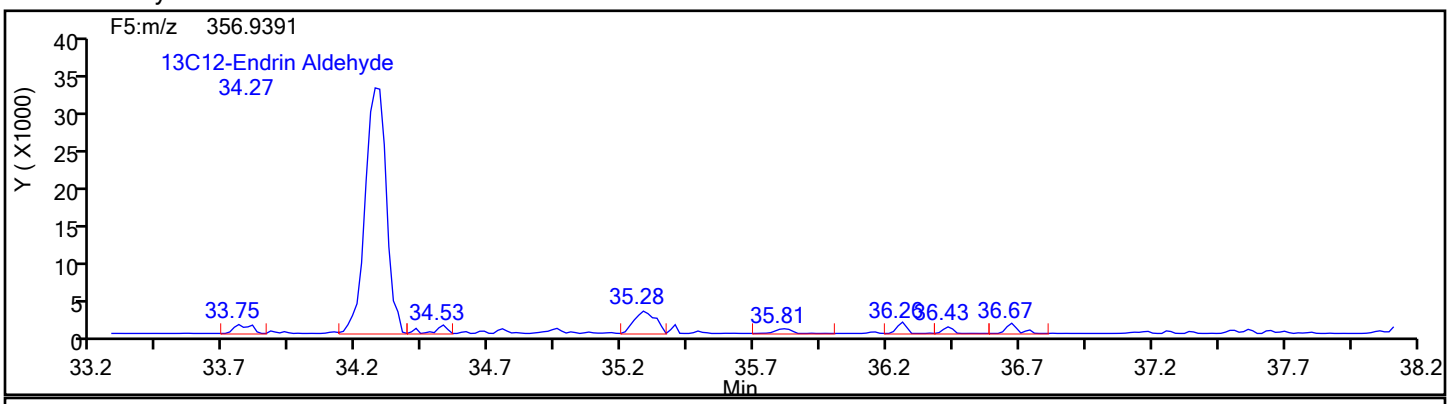

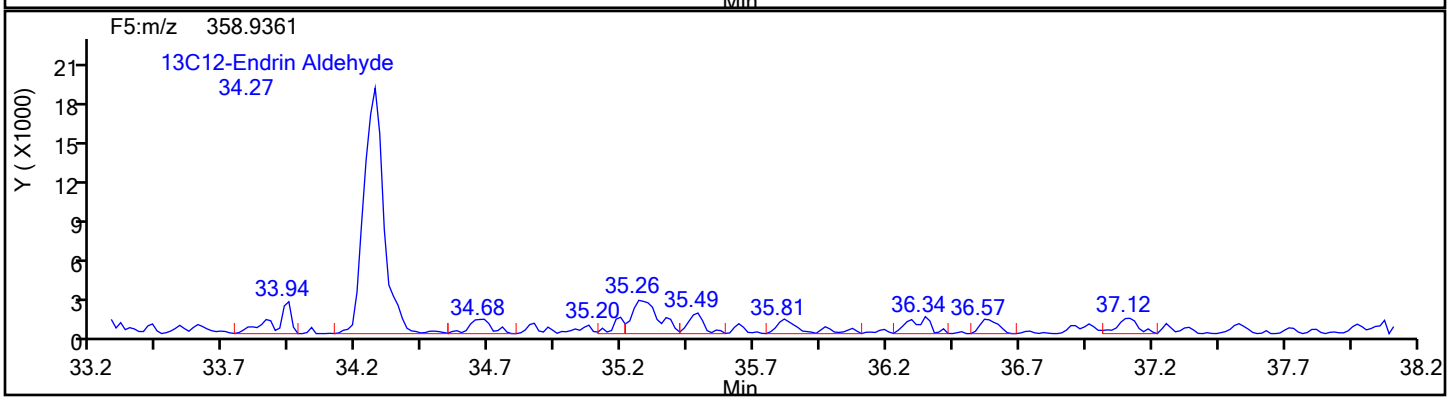

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Eurofins Knoxville

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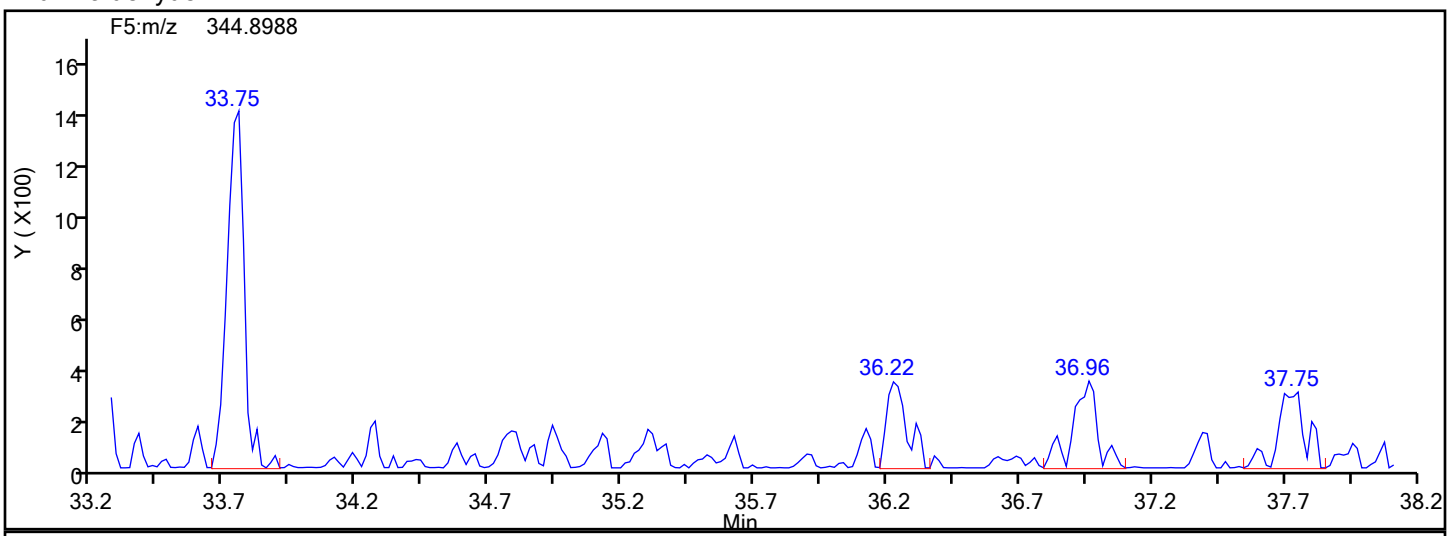
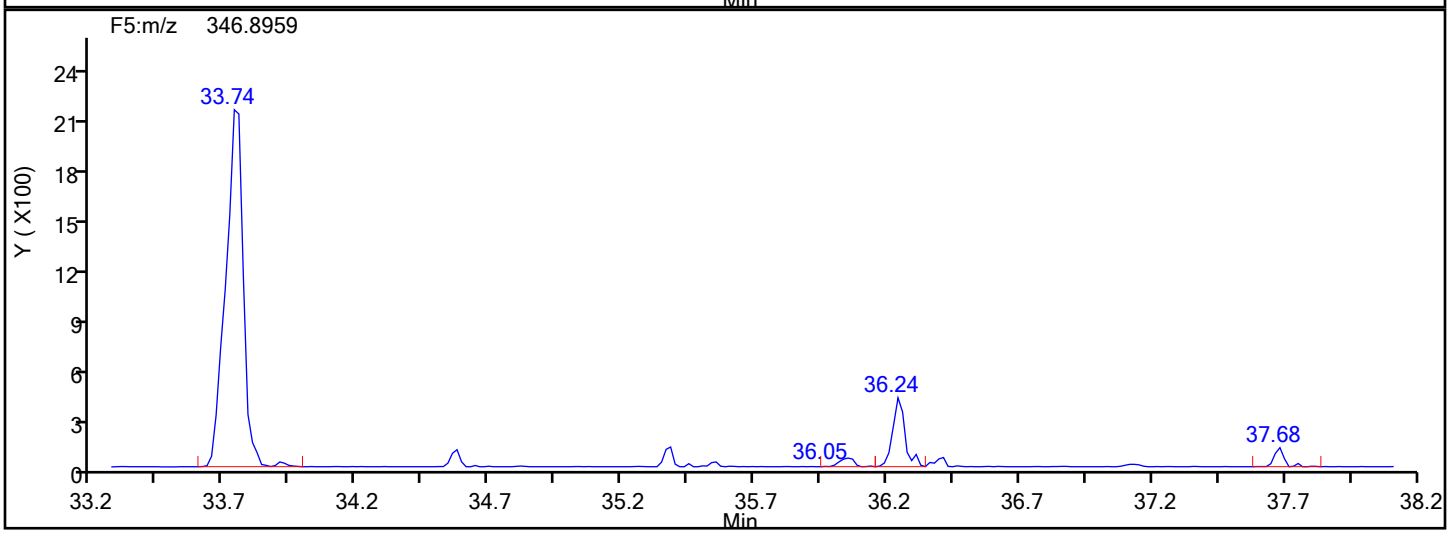
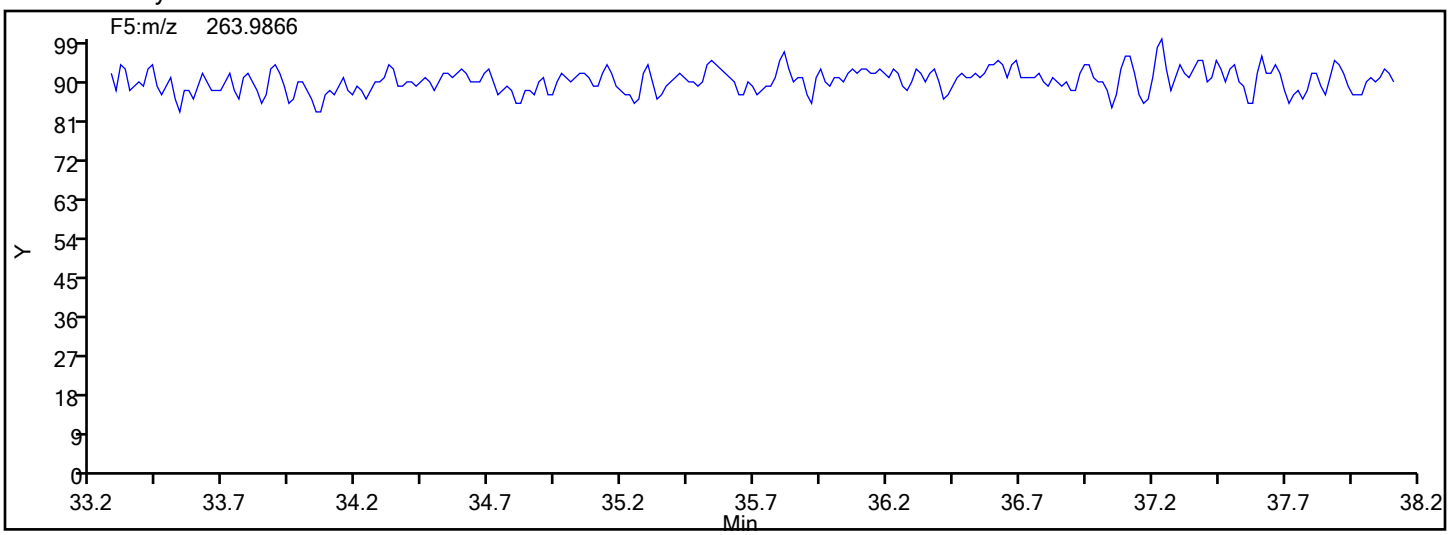




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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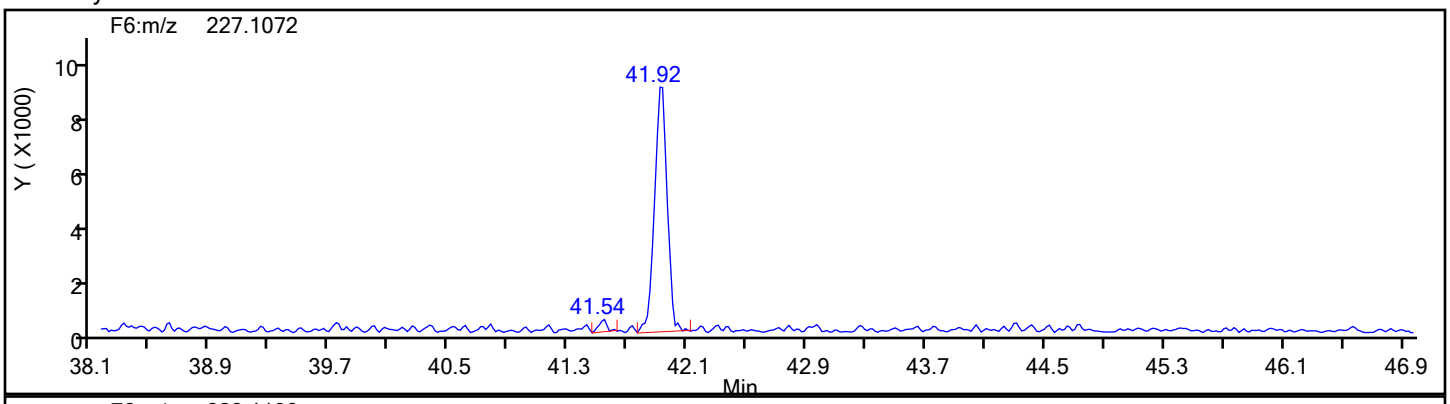
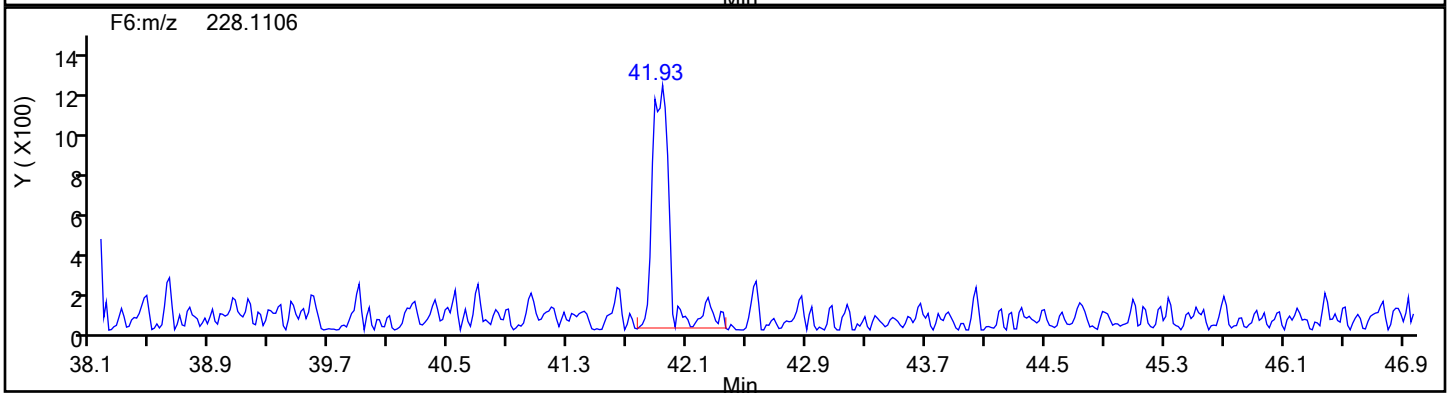
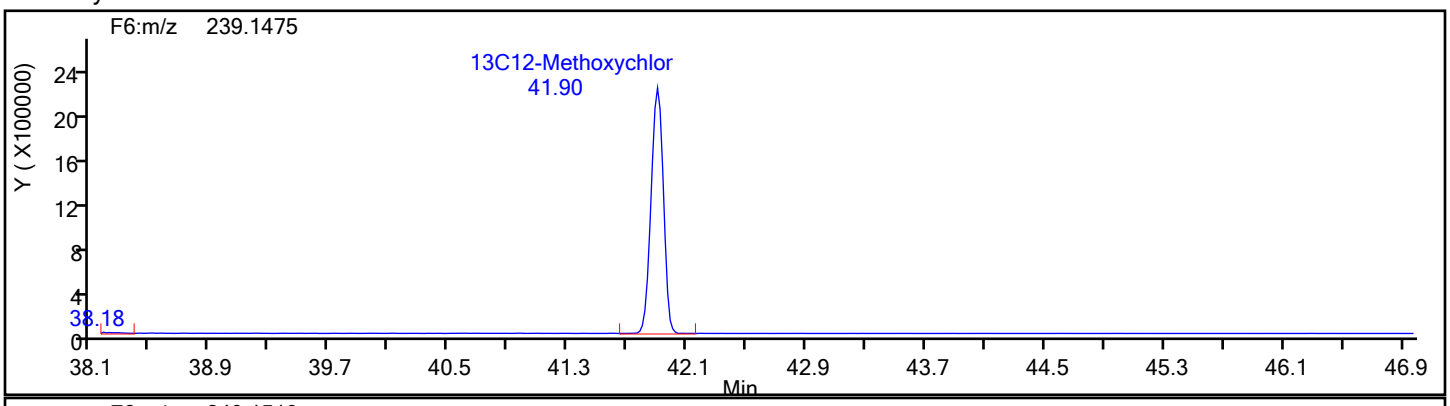
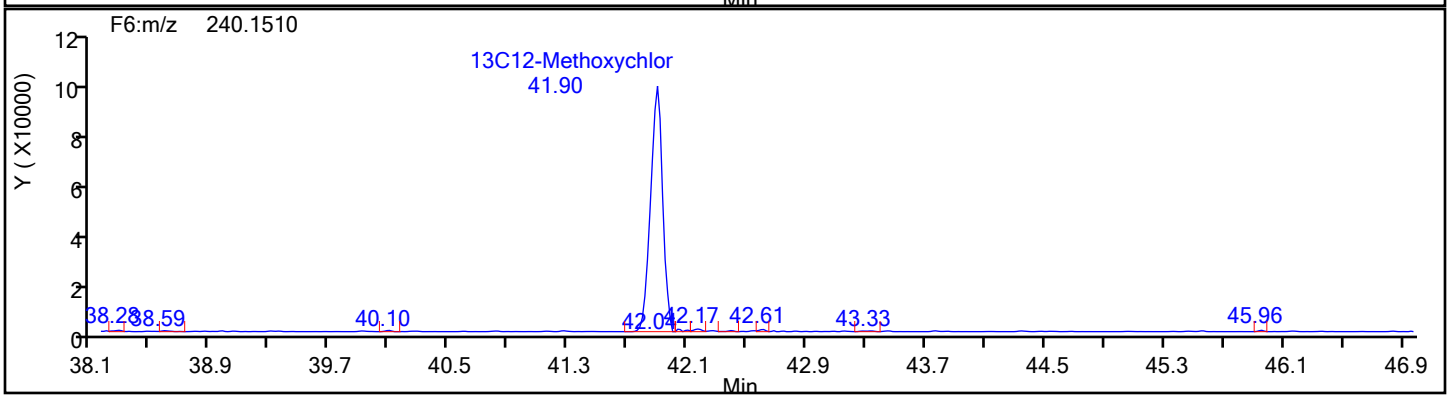
Methoxychlor





Methoxychlor Standards





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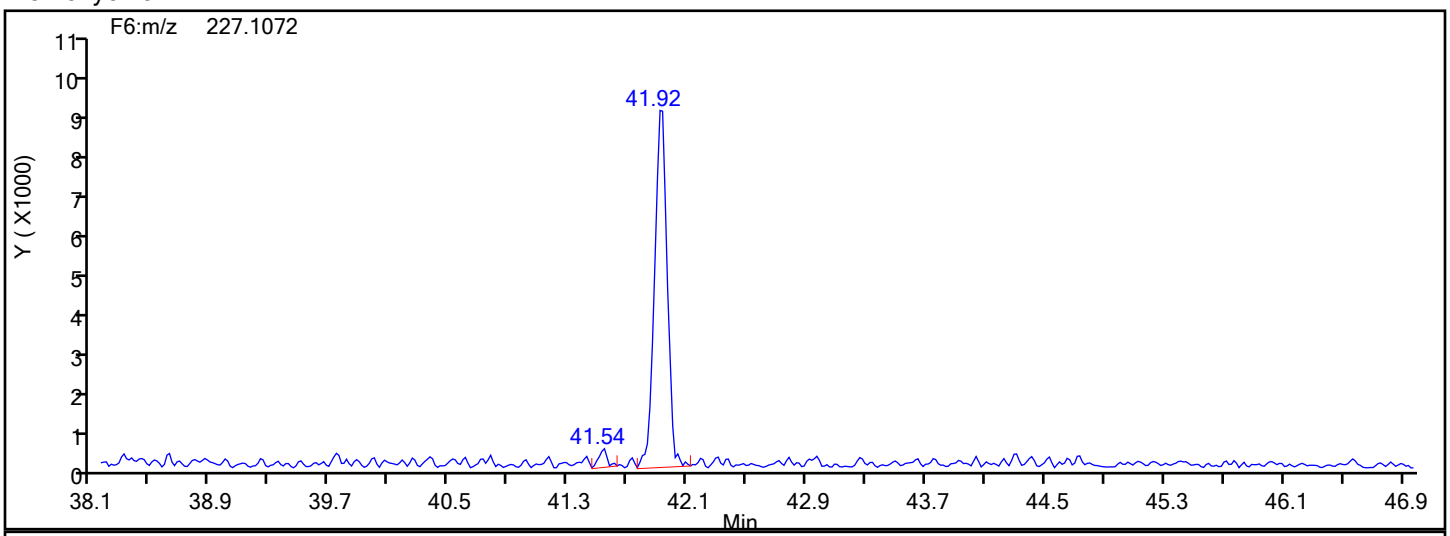
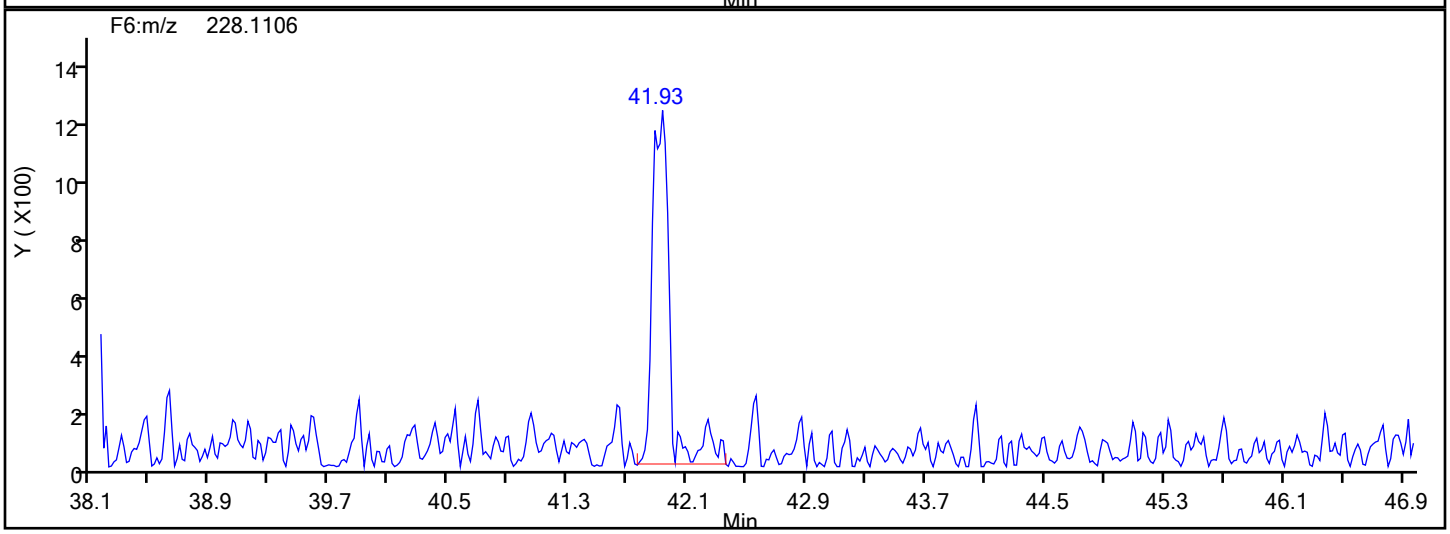
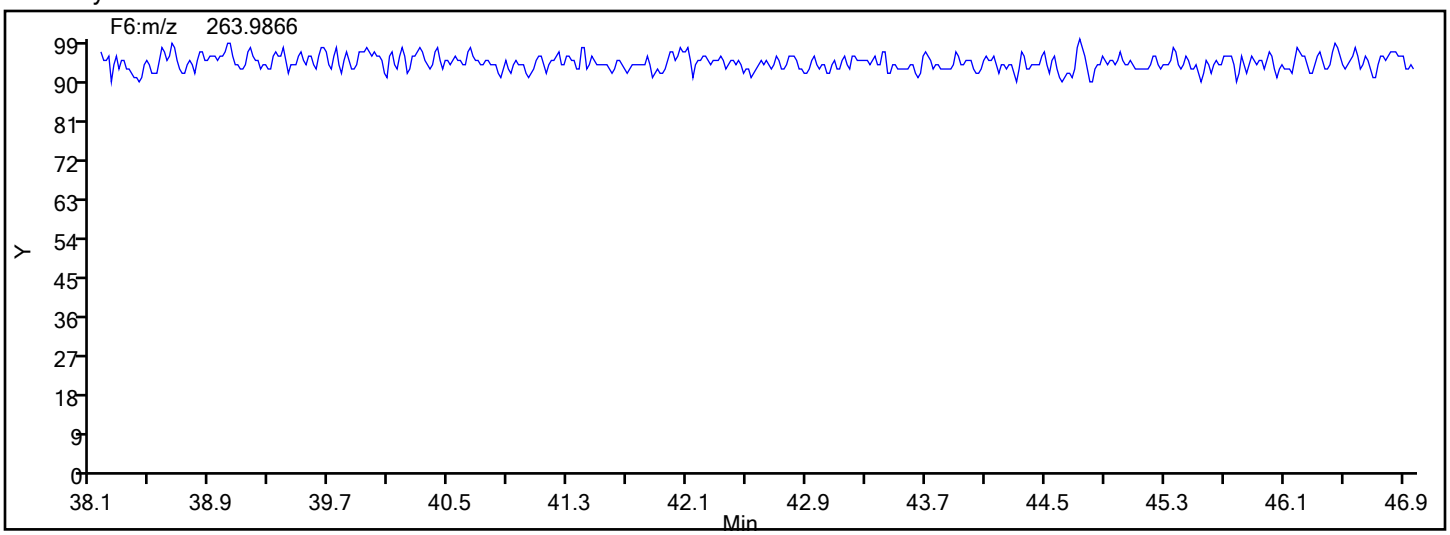
Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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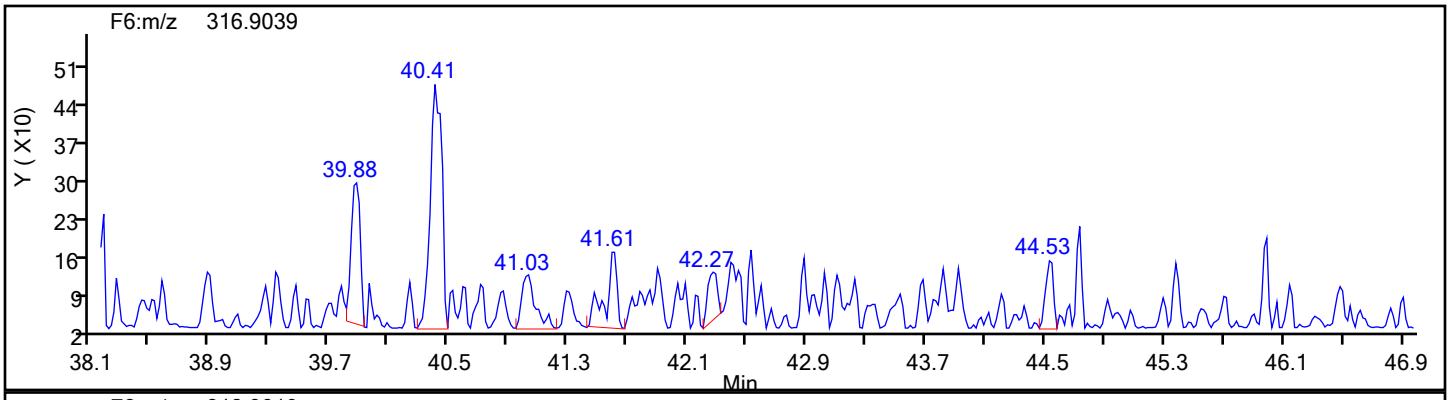
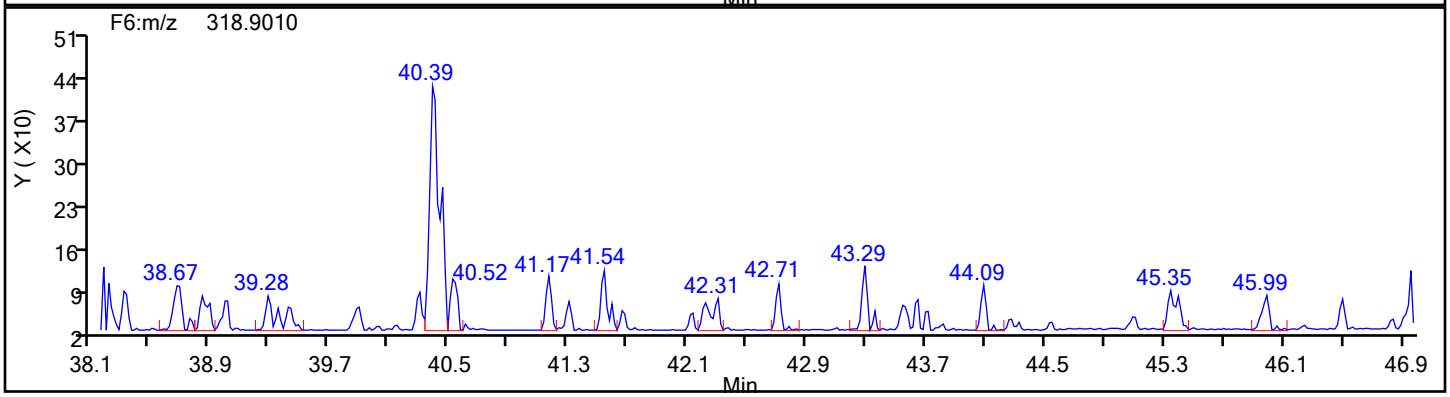
Endrin ketone





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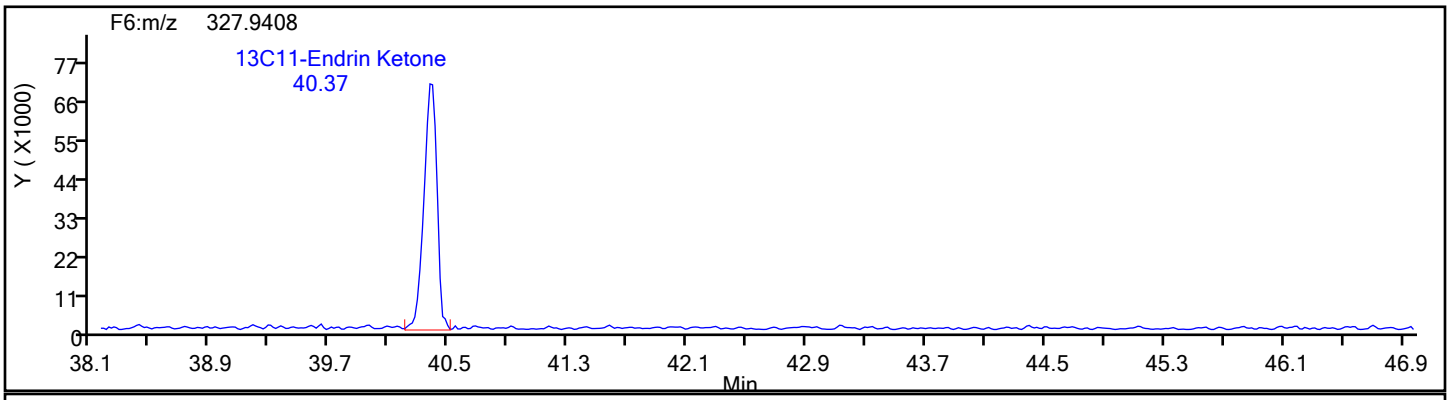

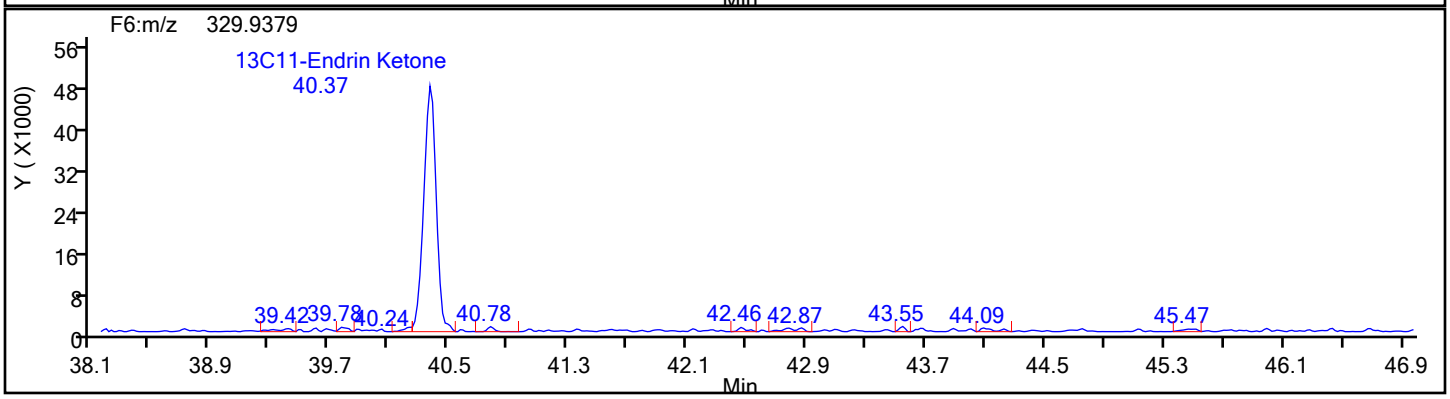

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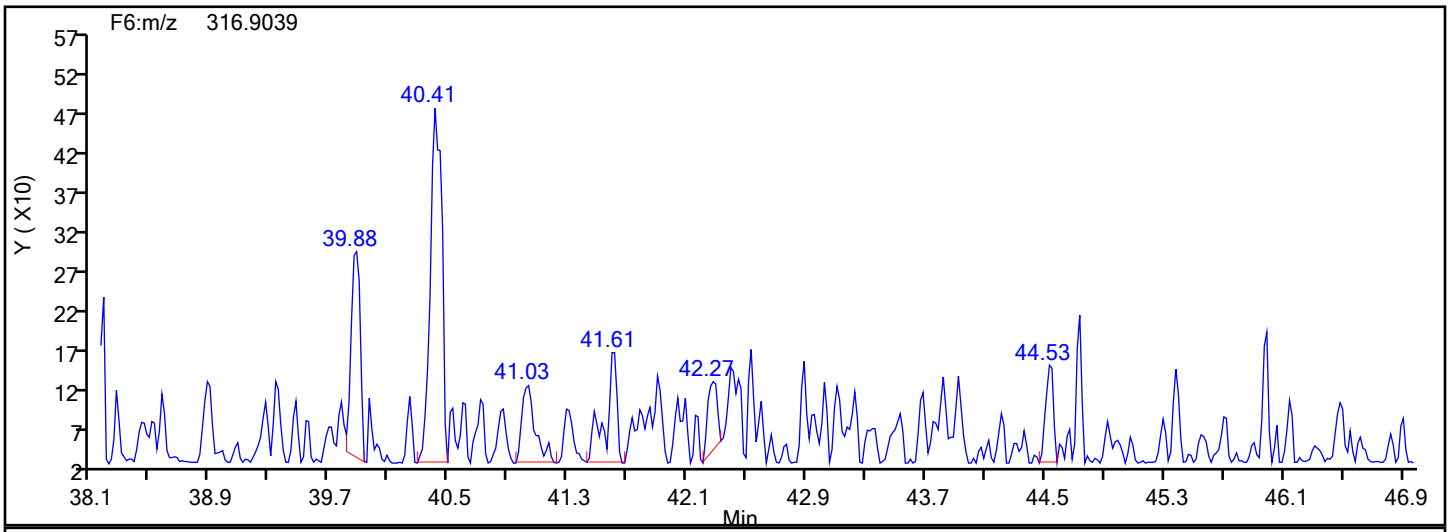
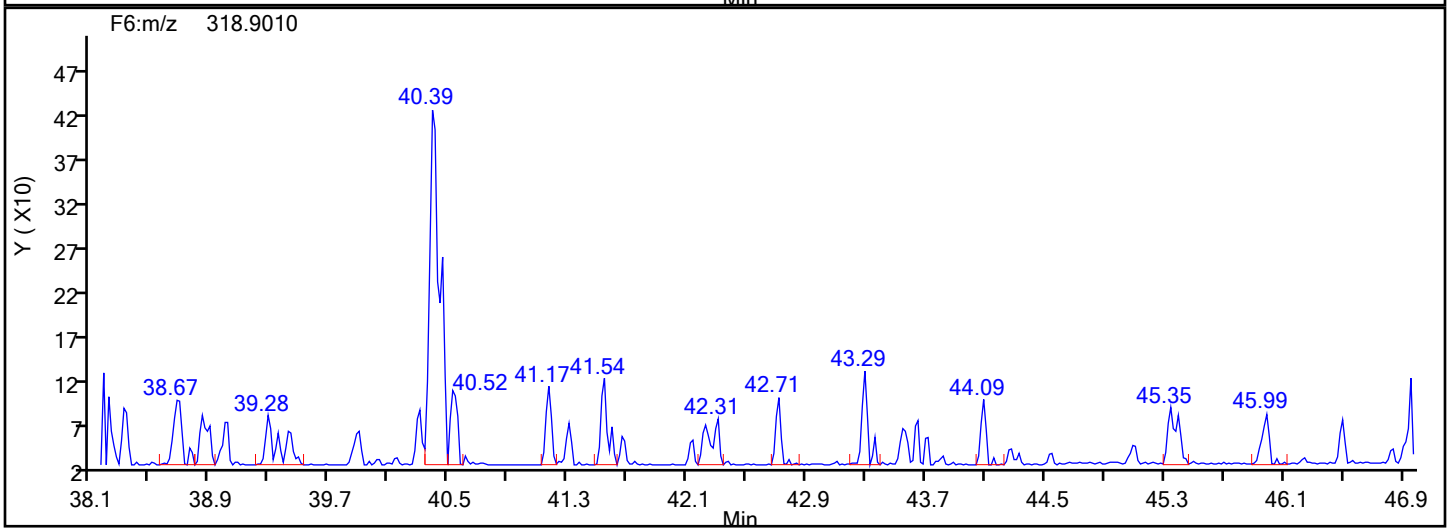
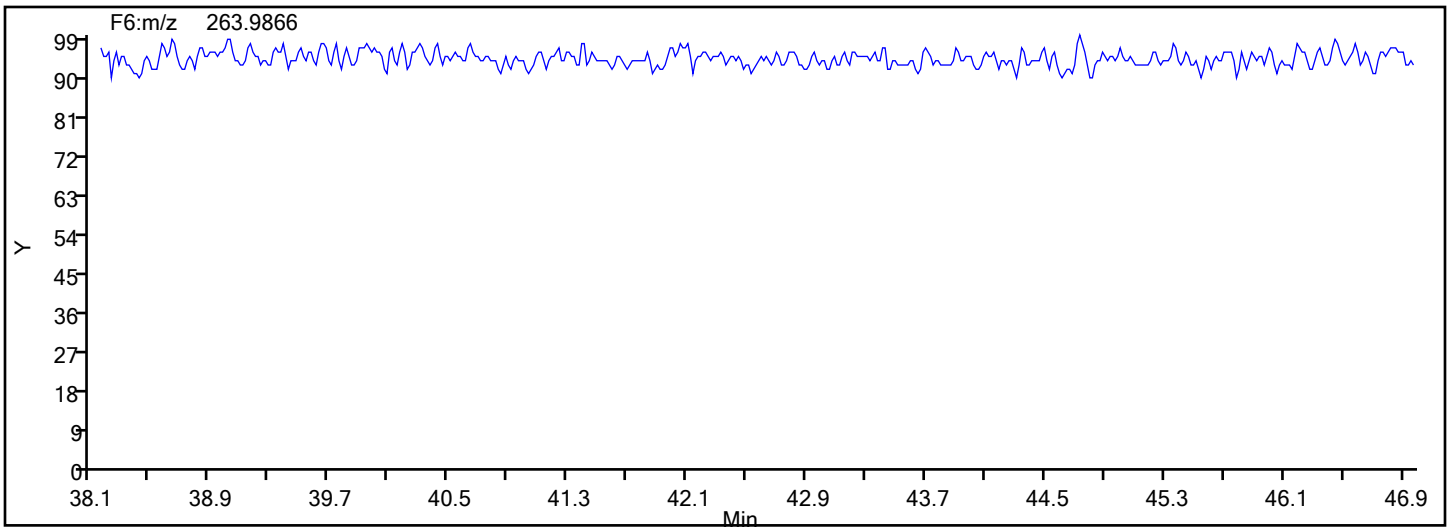




Endrin ketone Lock Mass



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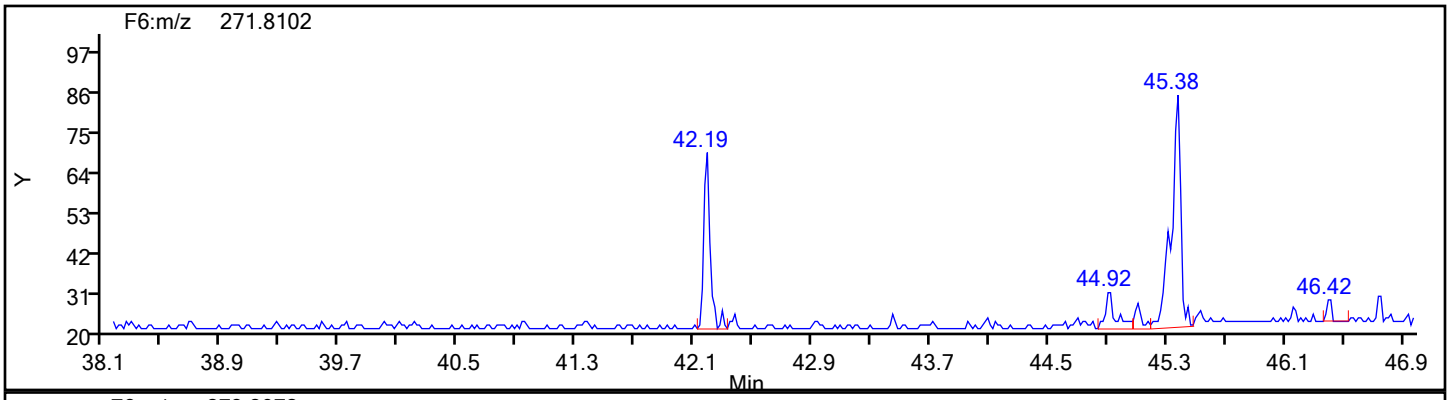
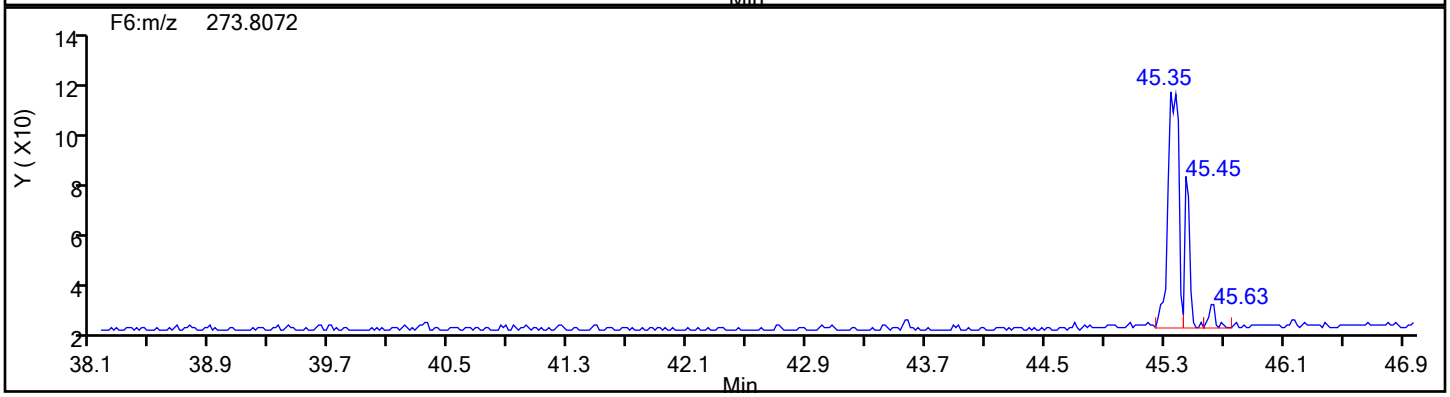
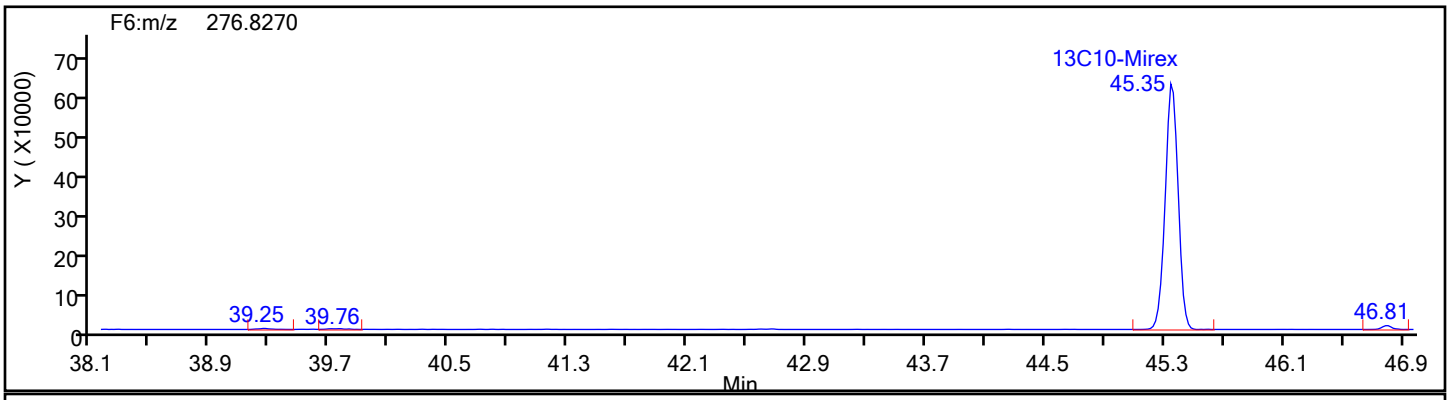
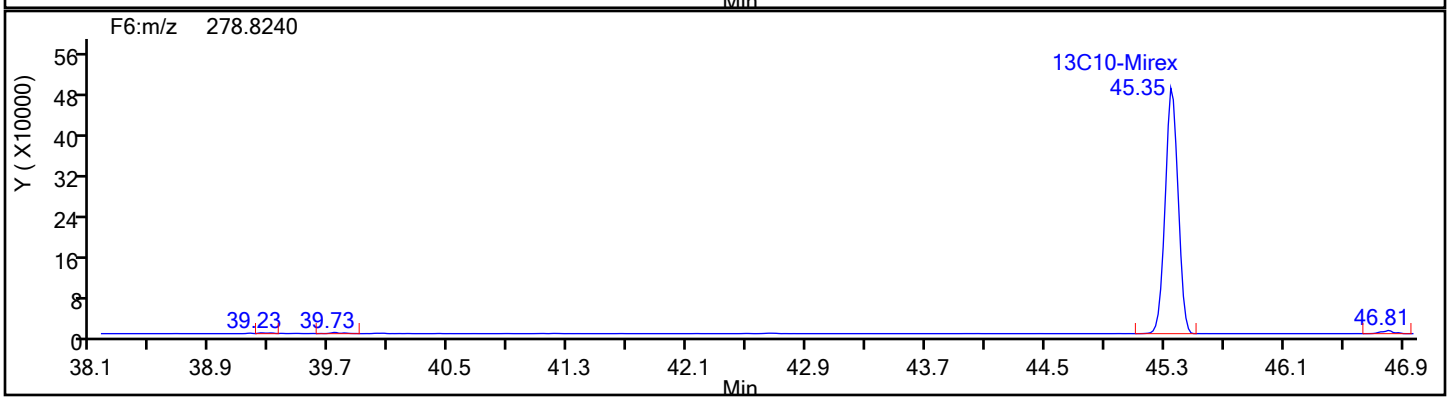




Mirex Standards





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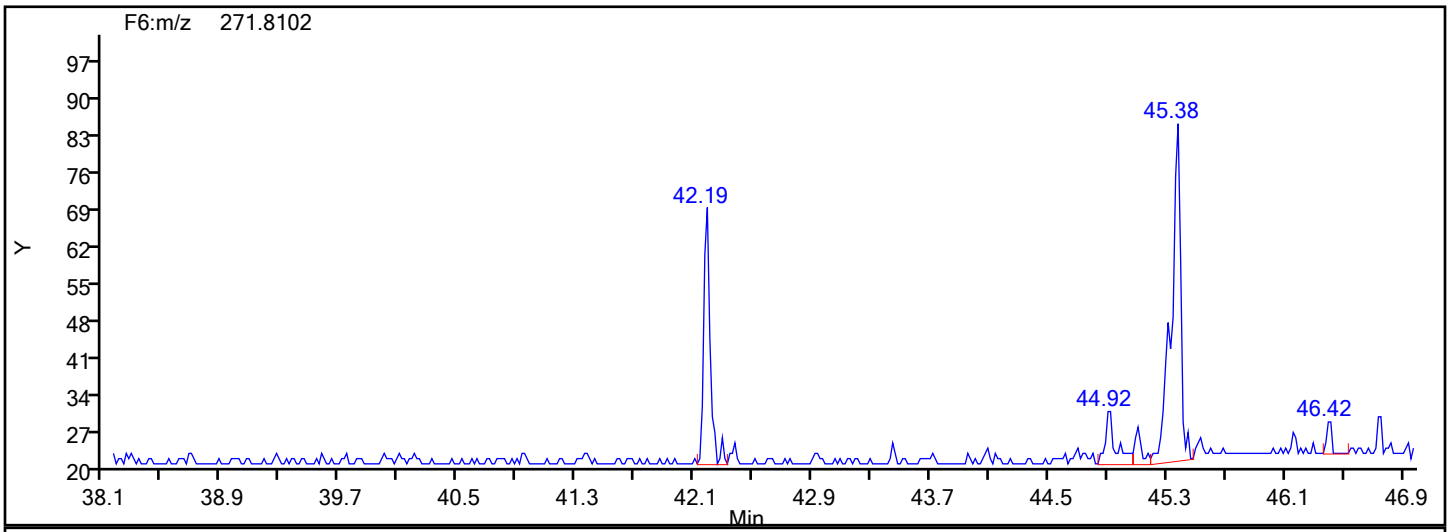
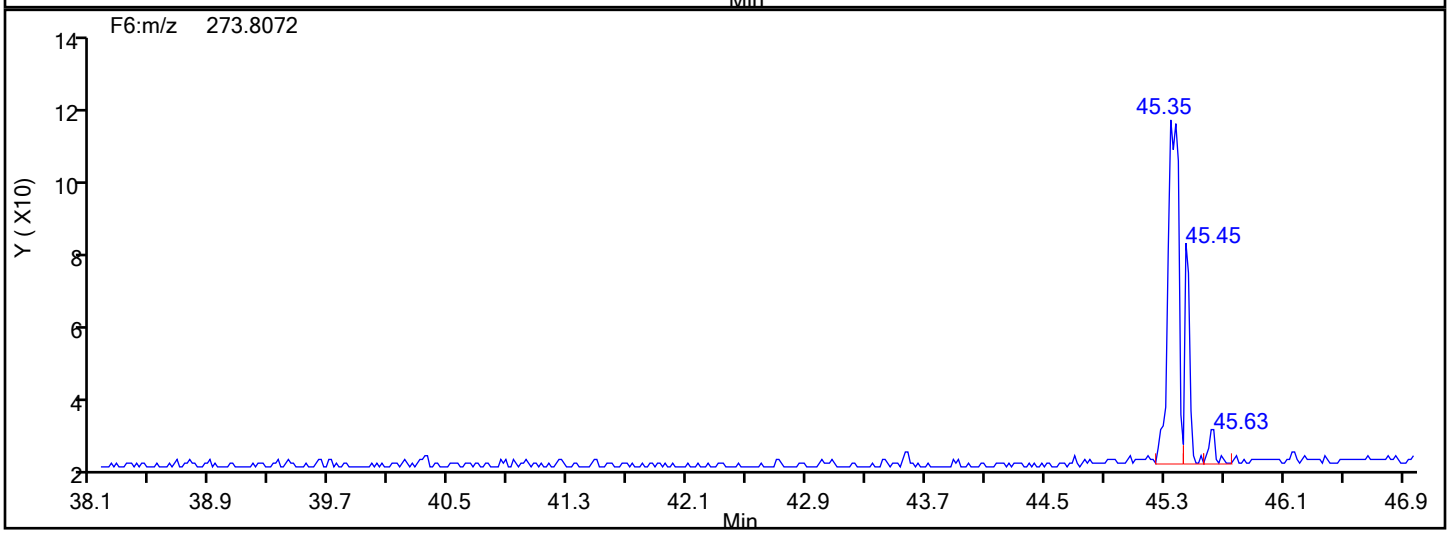
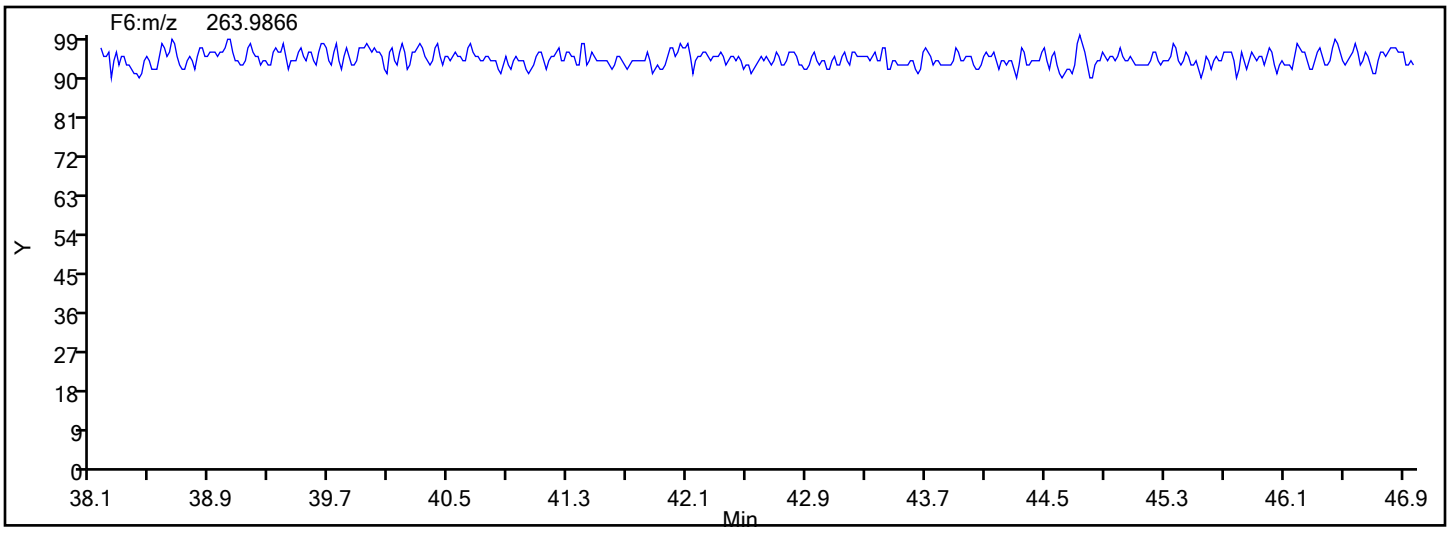
Mirex





Mirex Lock Mass



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Eurofins Knoxville

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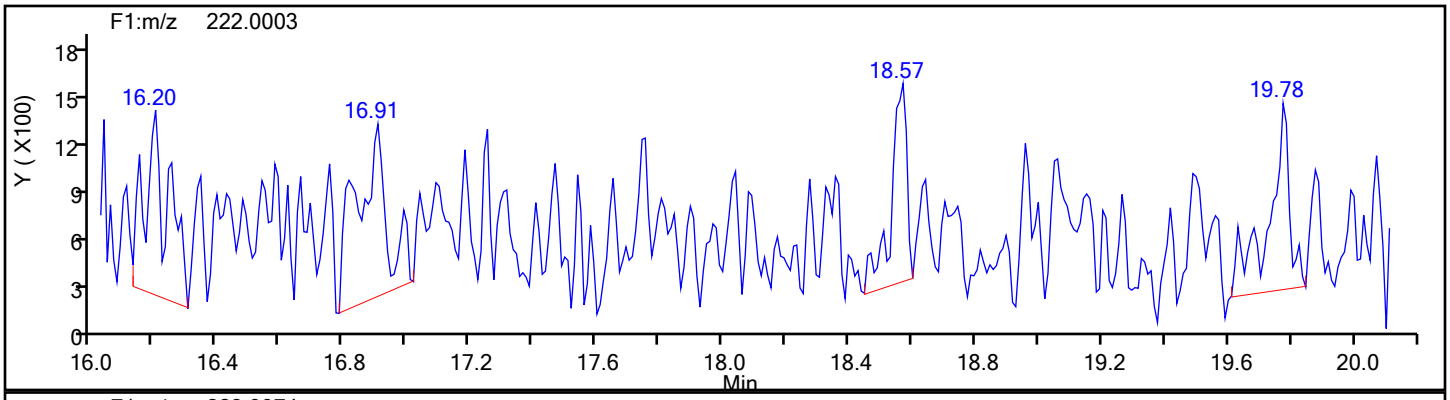
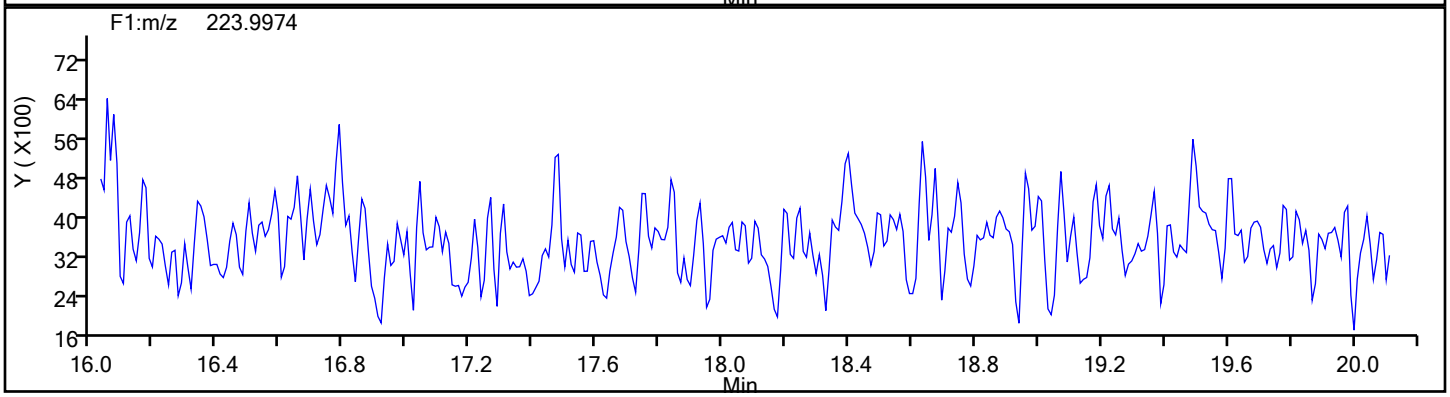
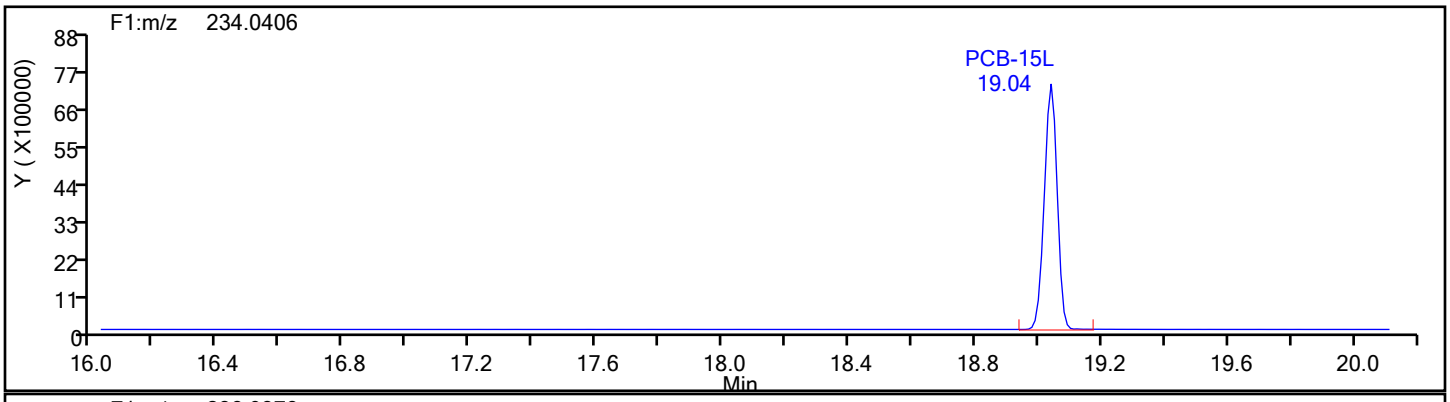
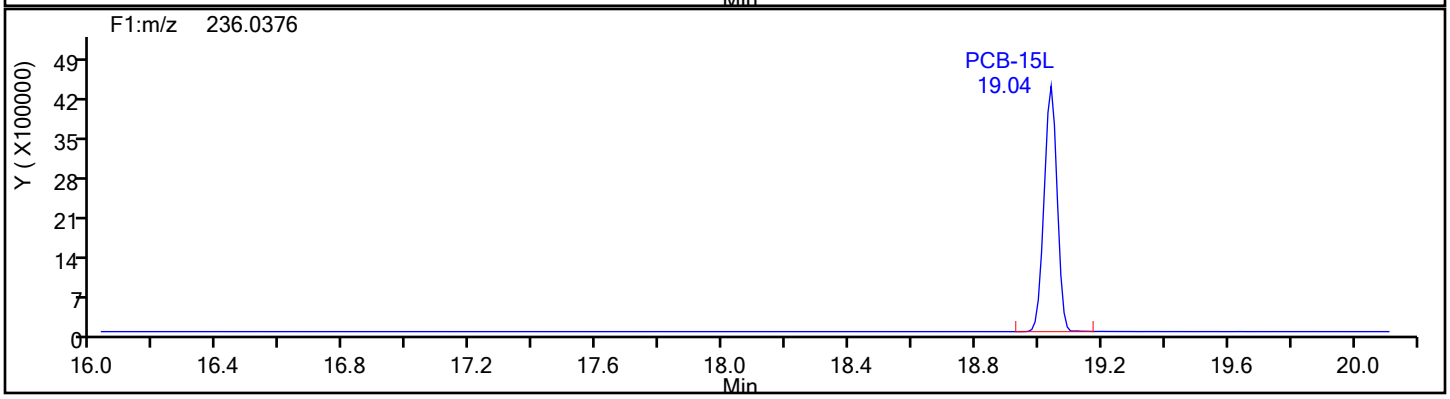
PCB-14





PCB-14 Standards





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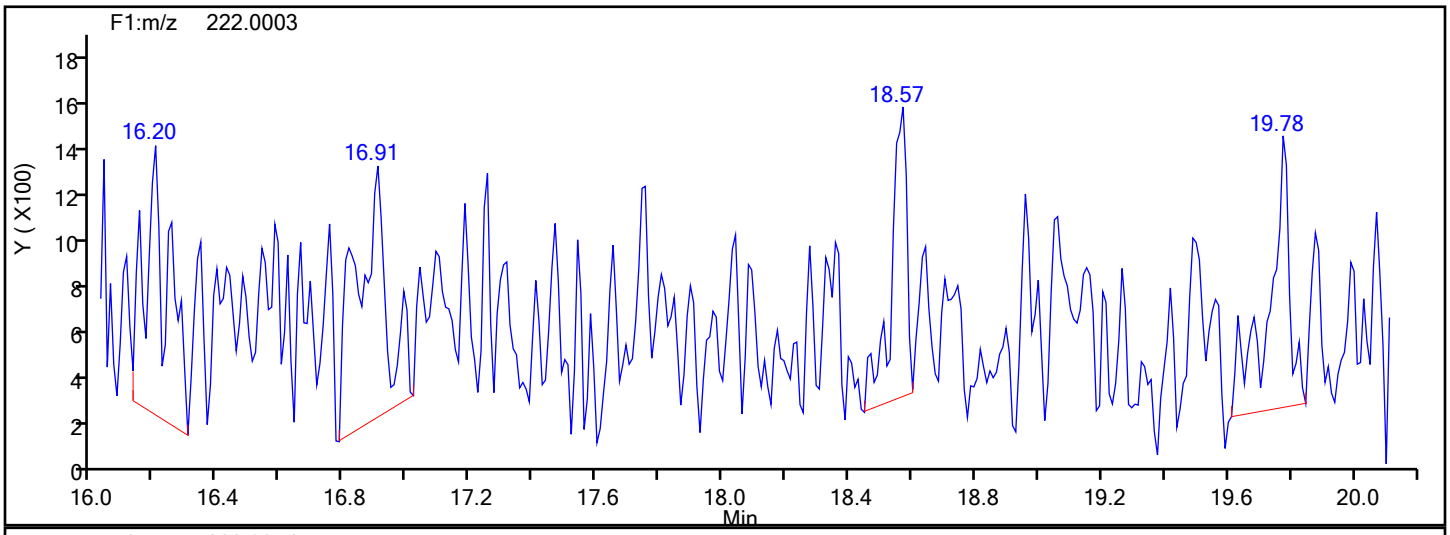
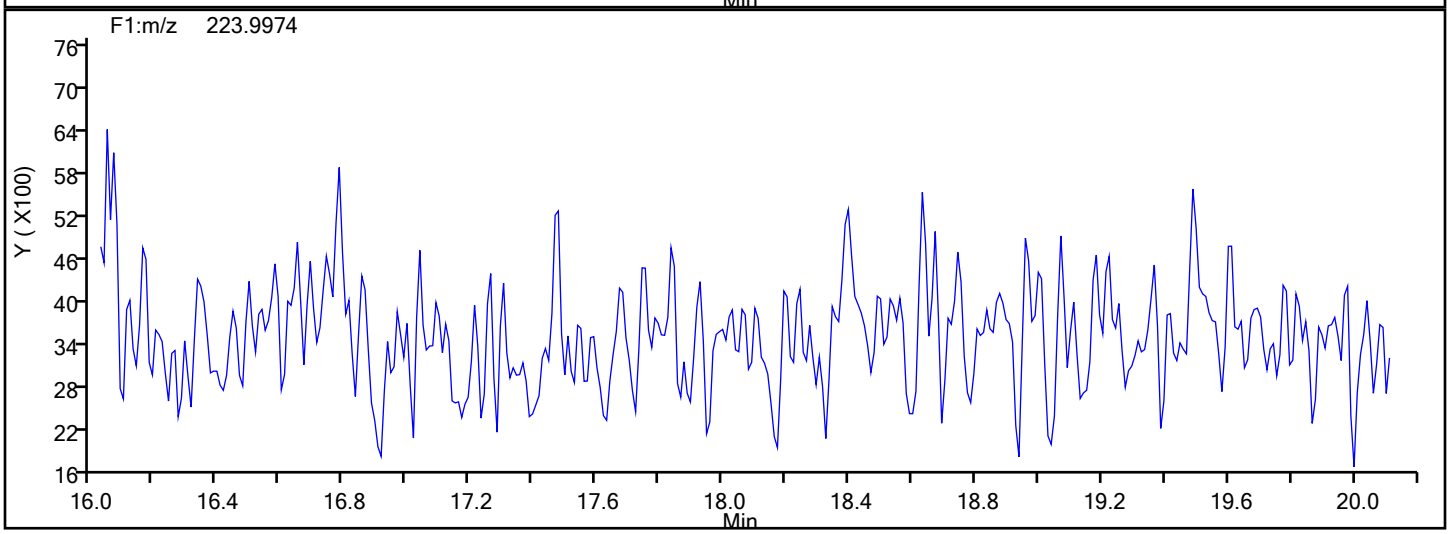
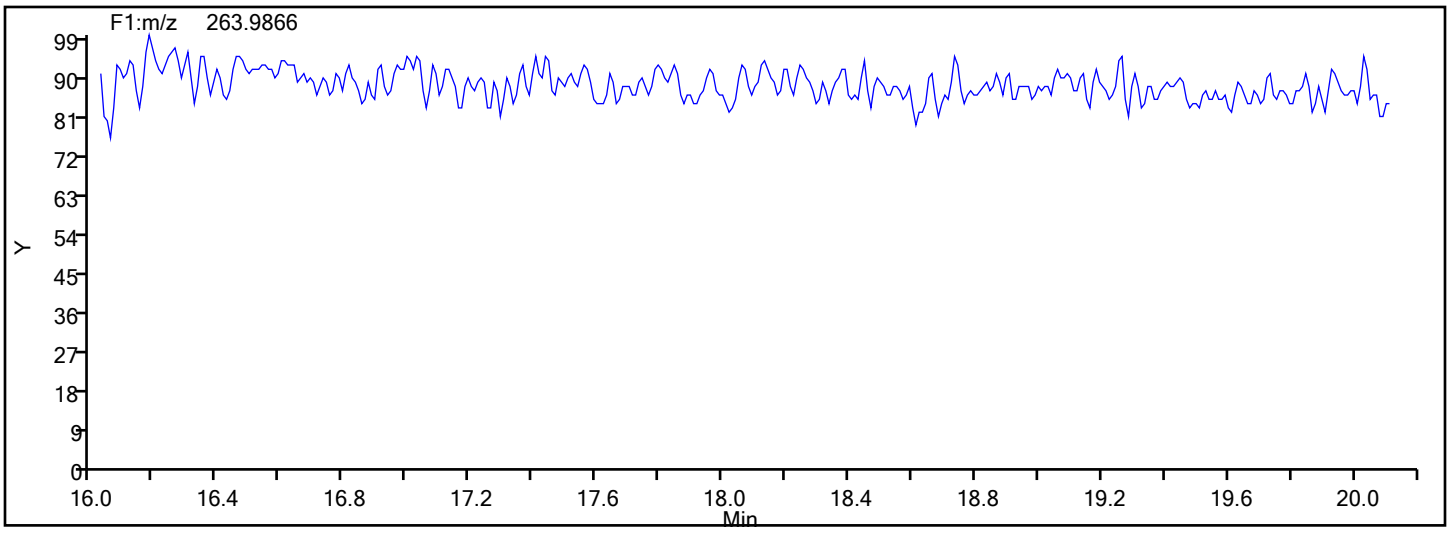
PCB-14





PCB-14 Lock Mass



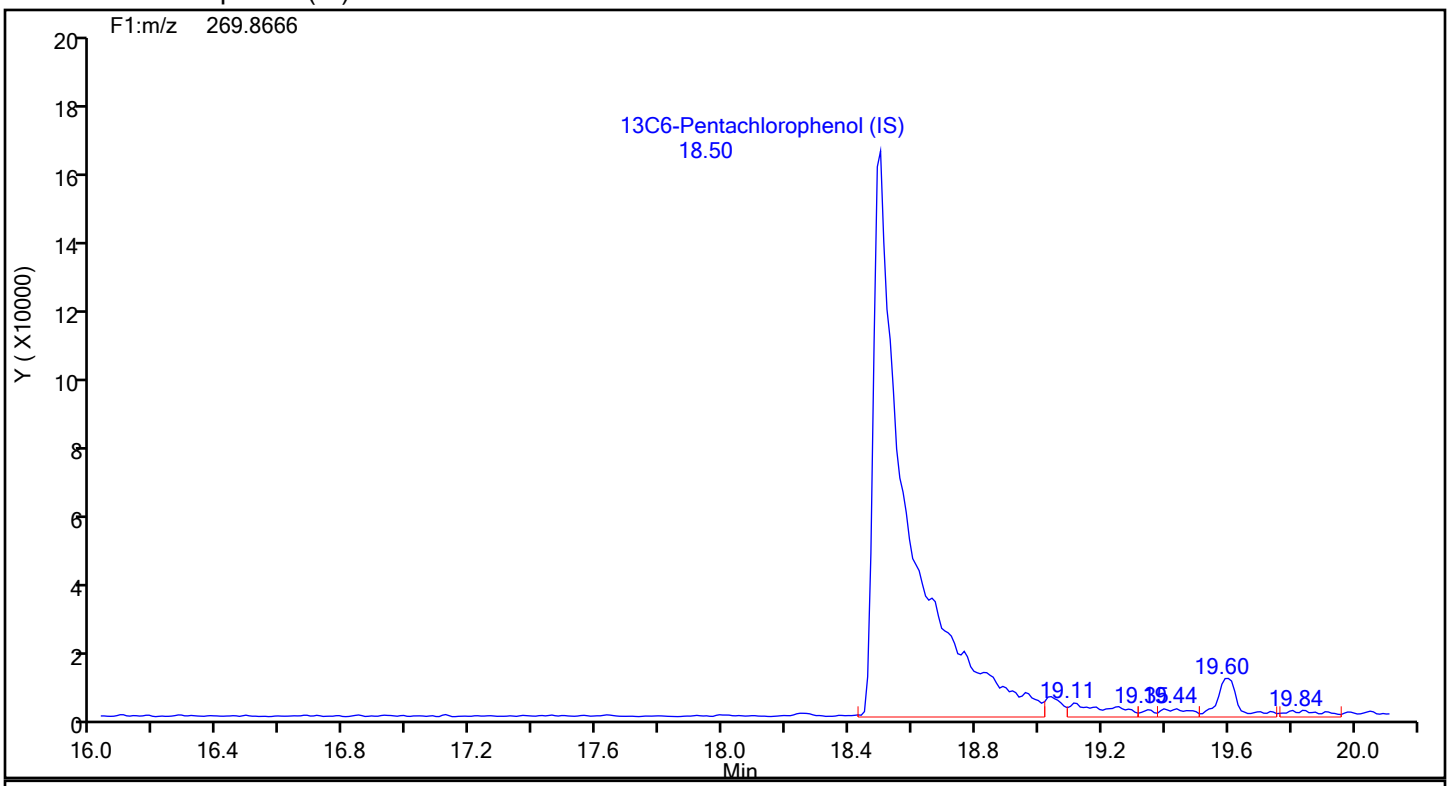
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

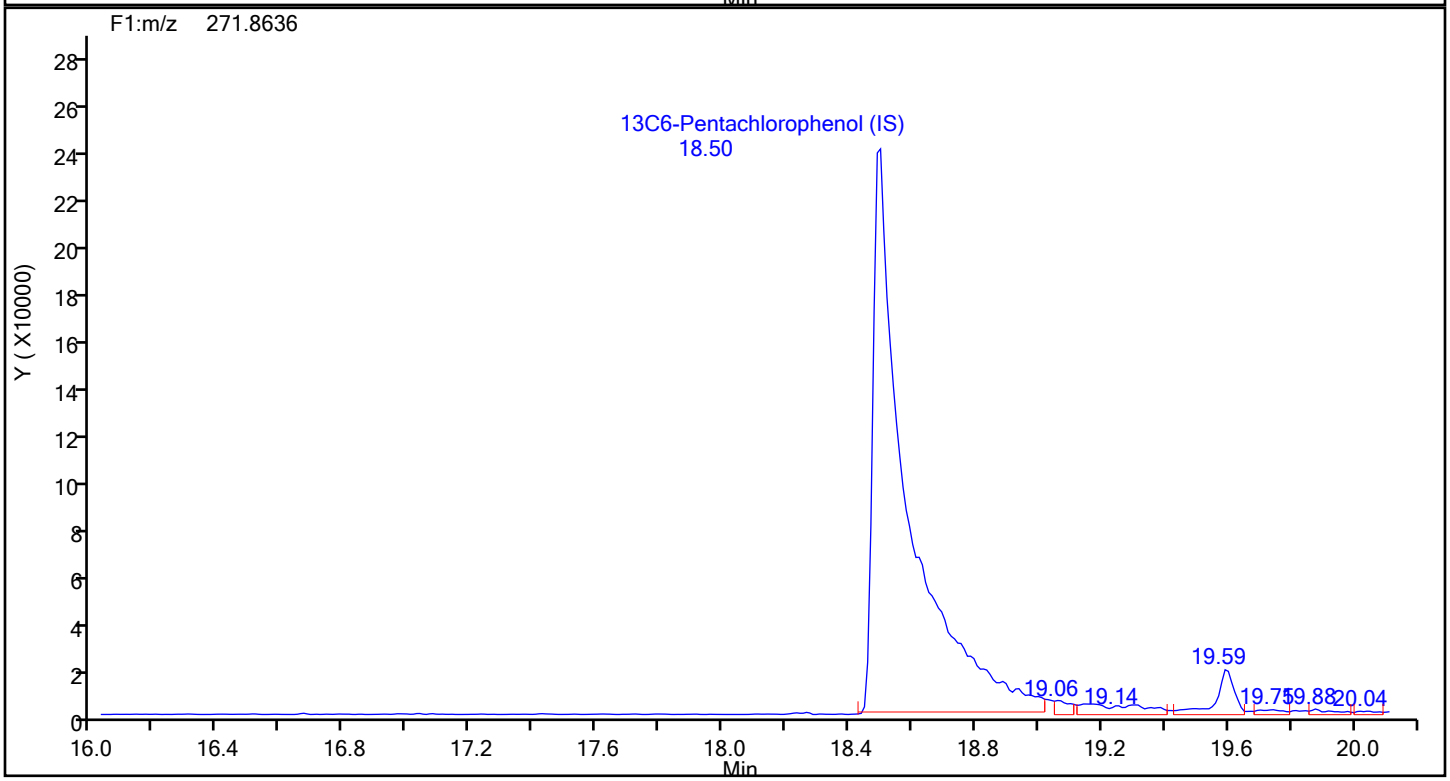
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

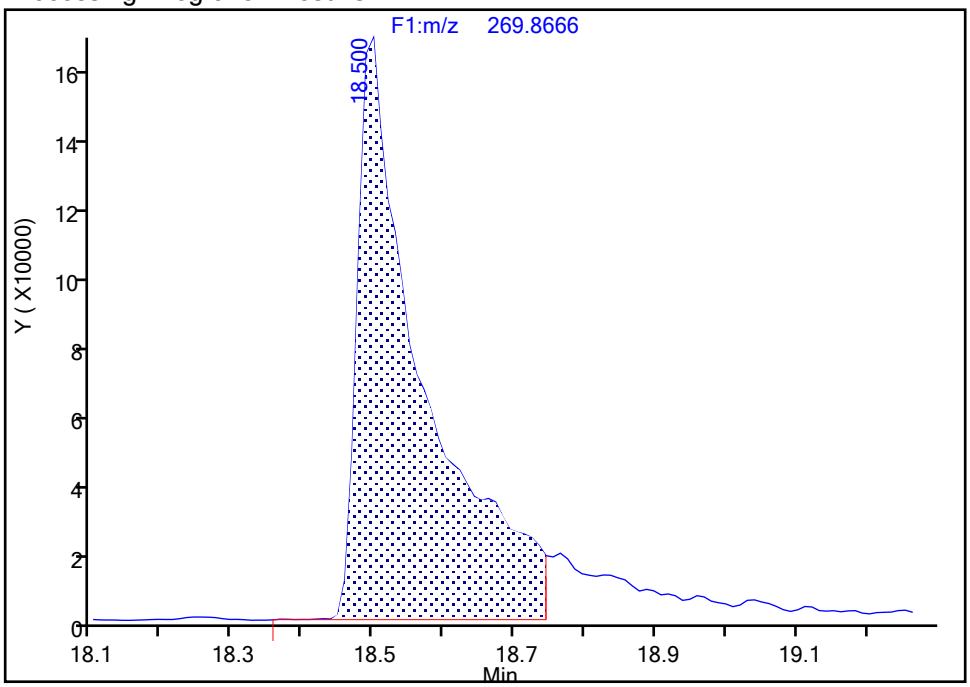
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d				
Injection Date:	02-May-2025 14:50:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

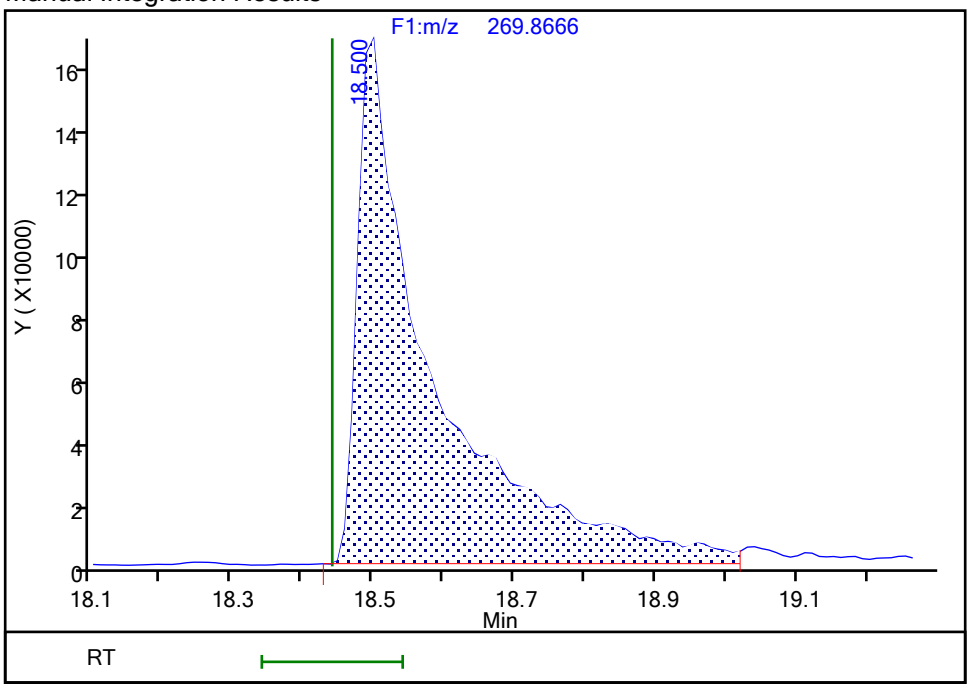
Processing Integration Results

RT: 18.50
Area: 1046866
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 1207572
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:24 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

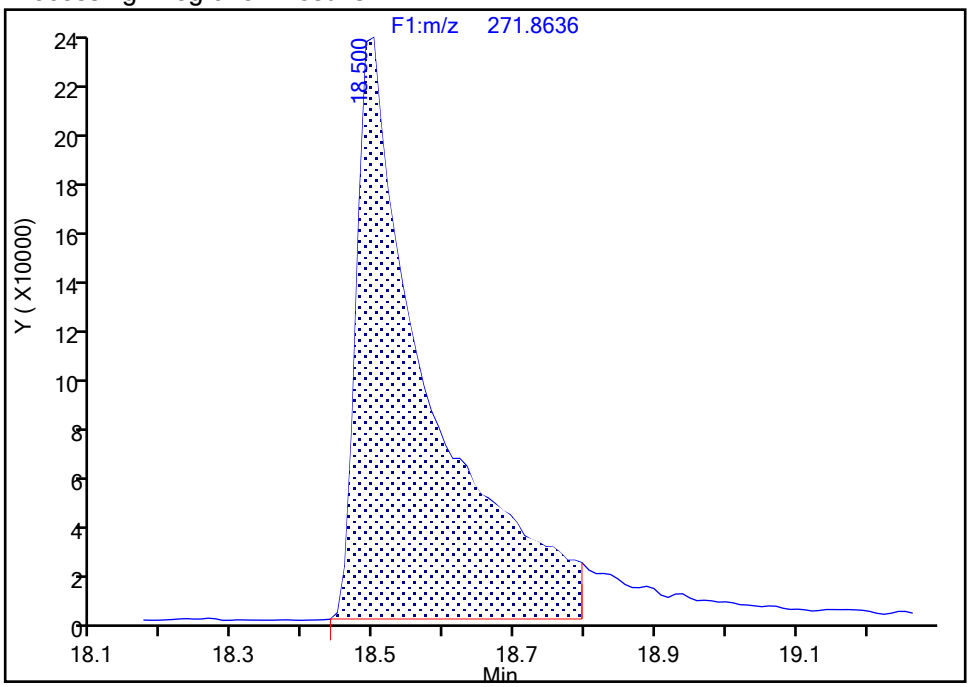
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d				
Injection Date:	02-May-2025 14:50:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 2

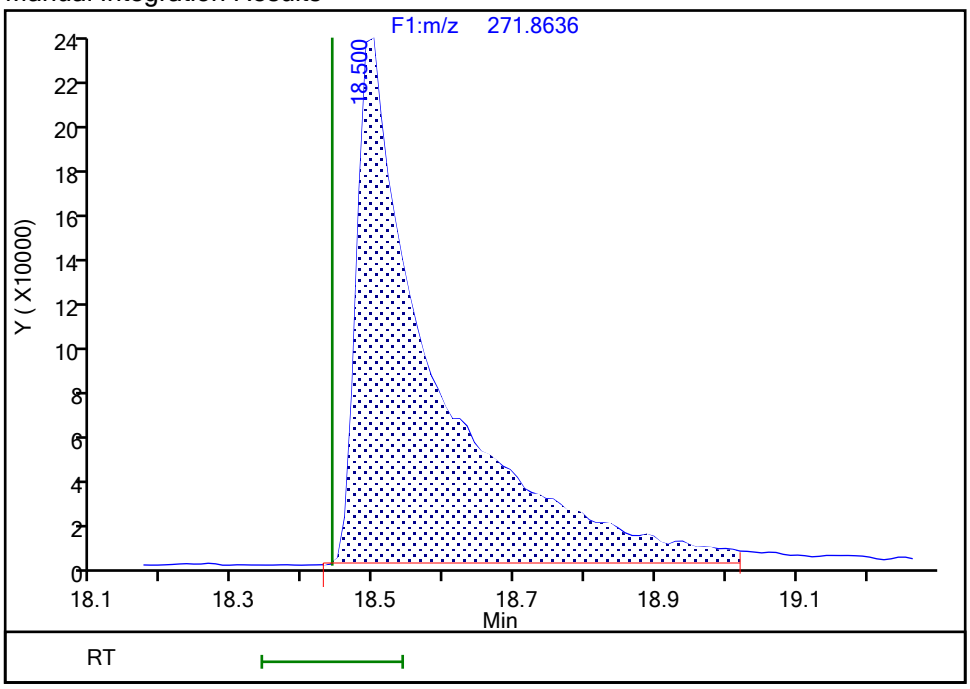
Processing Integration Results

RT: 18.50
Area: 1684199
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 1833731
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:31 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

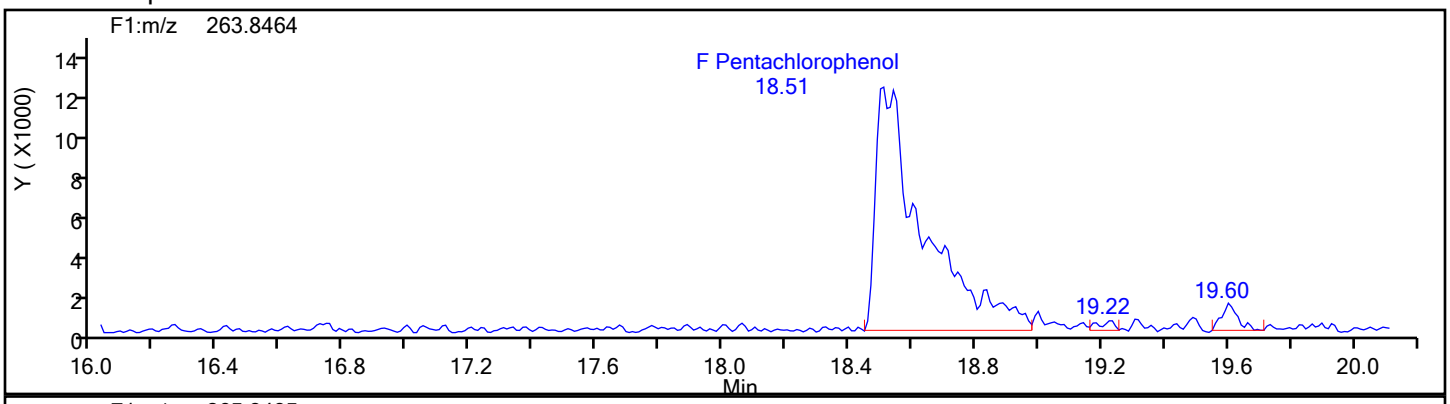
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

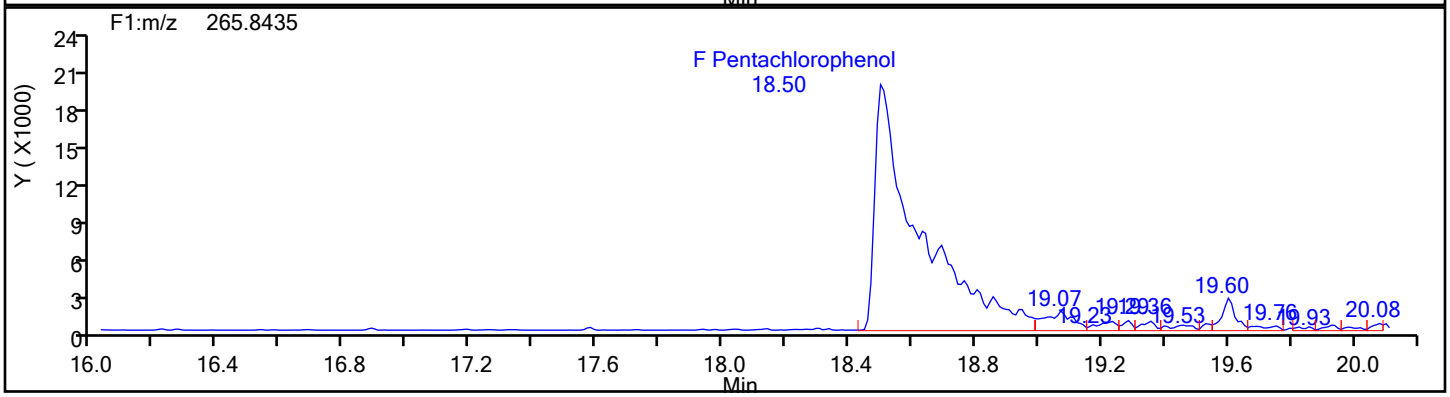
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

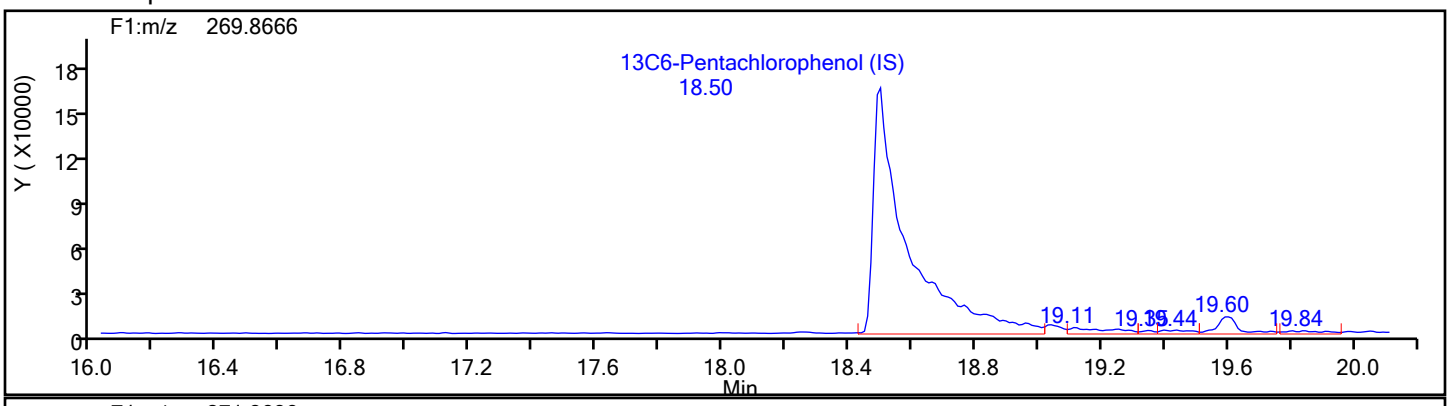
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

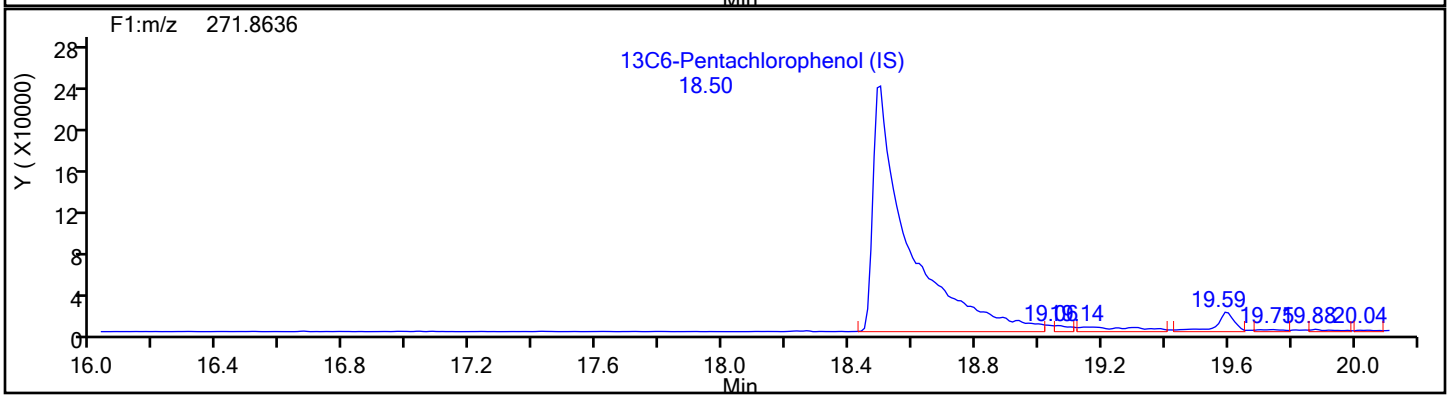
Pentachlorophenol





Pentachlorophenol Standards





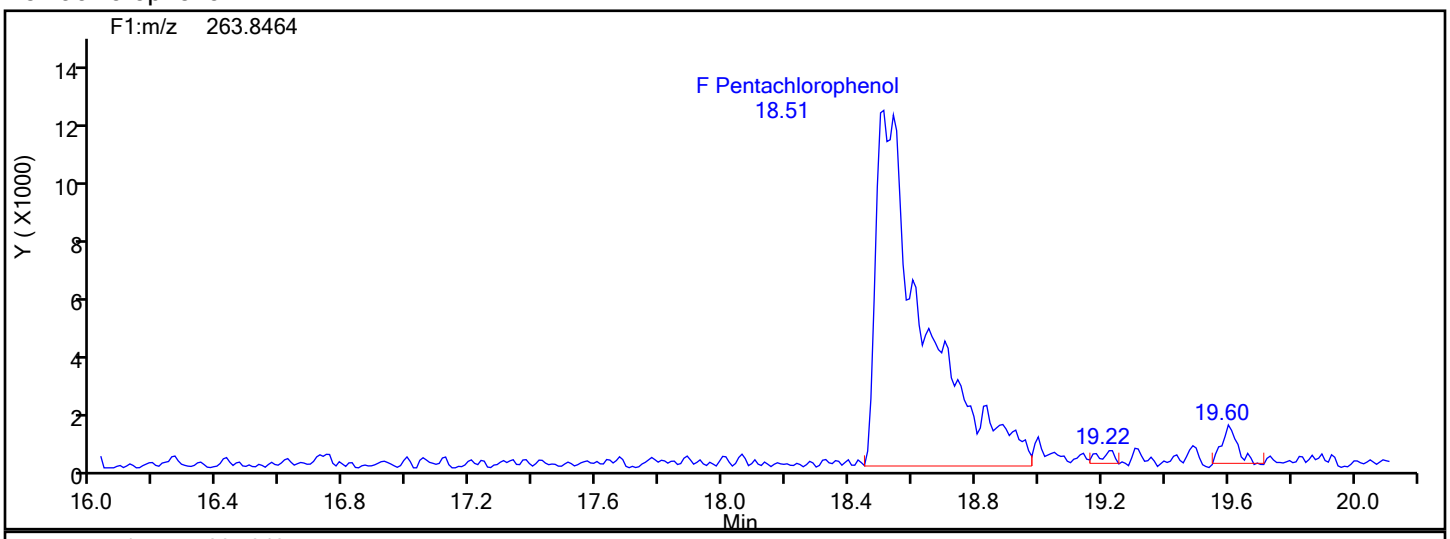
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

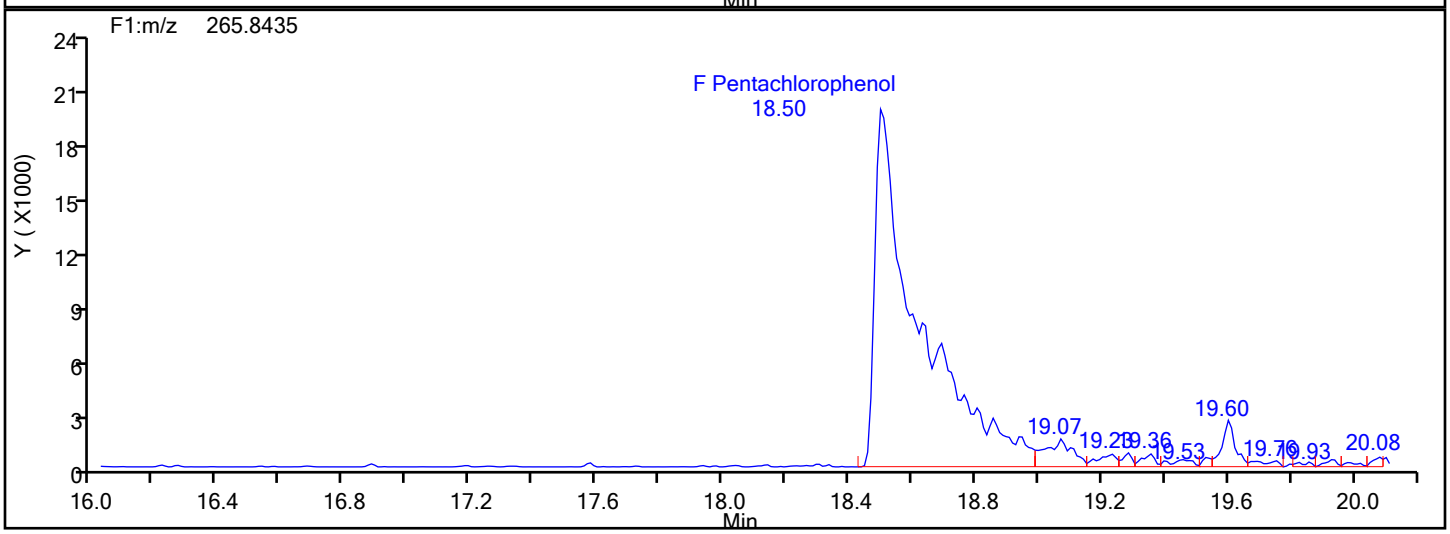
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

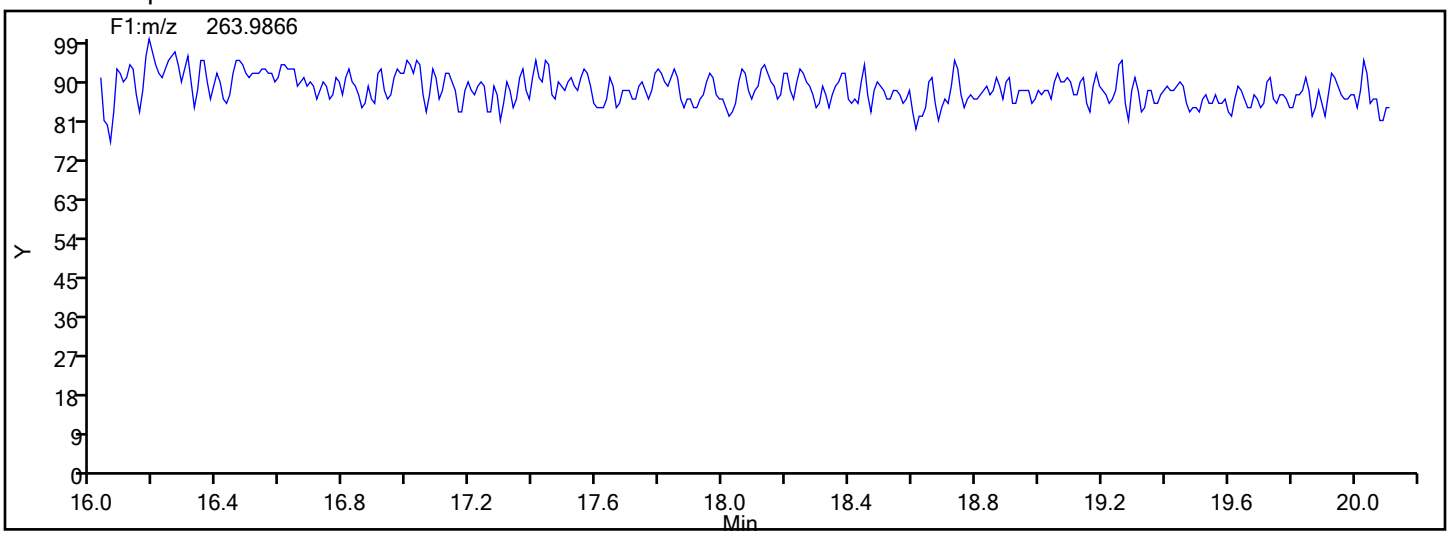
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

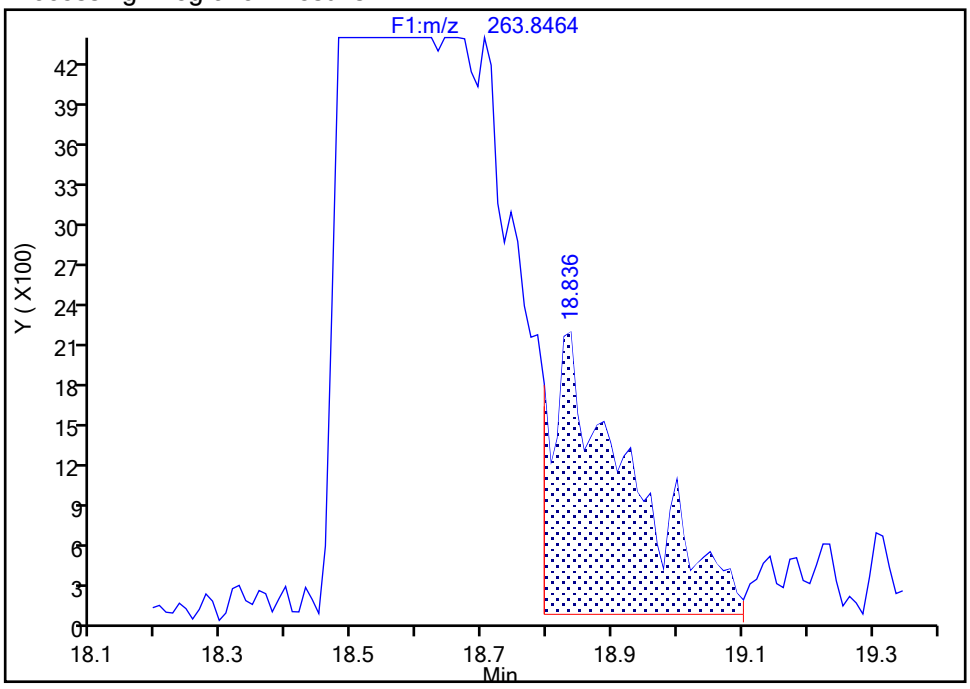
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d
Injection Date: 02-May-2025 14:50:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 1

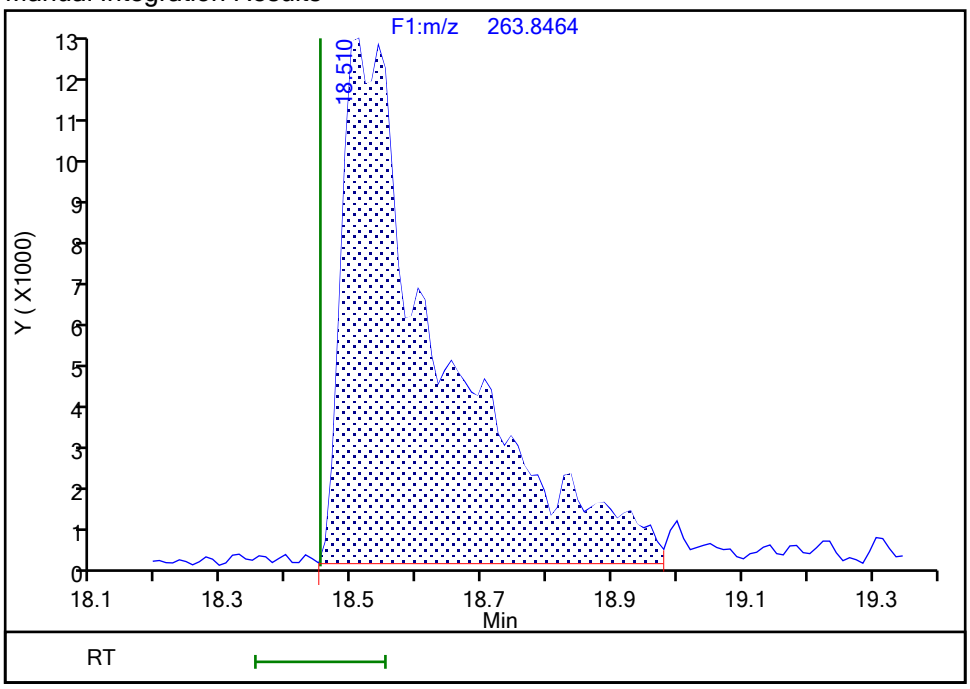
Processing Integration Results

RT: 18.84
Area: 16637
Amount: 50.000000
Amount Units: pg/ul



Manual Integration Results

RT: 18.51
Area: 129600
Amount: 51.011846
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:47 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

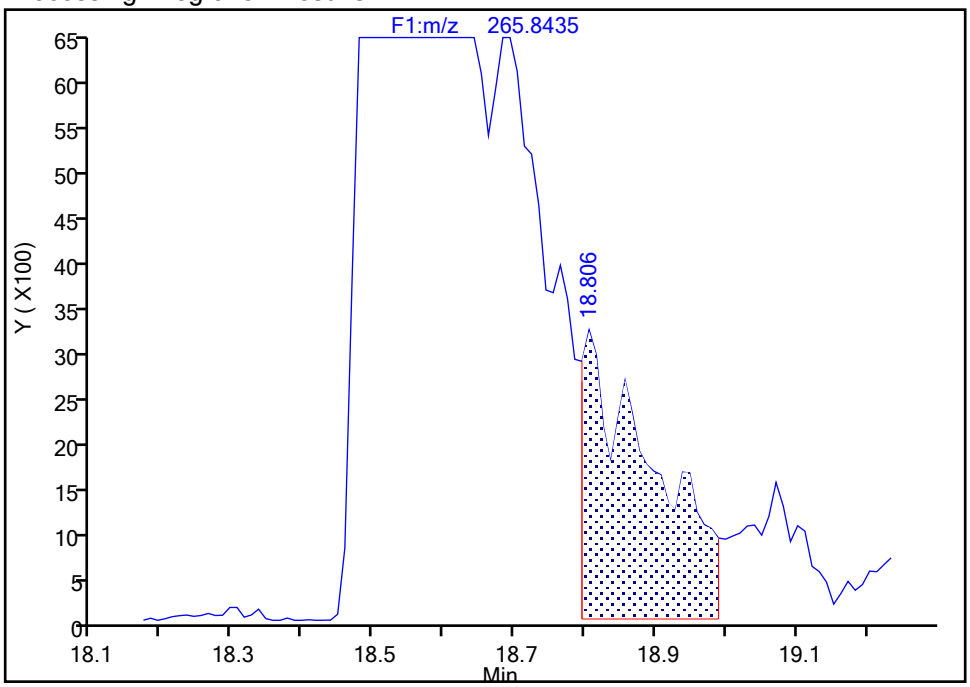
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d				
Injection Date:	02-May-2025 14:50:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 2

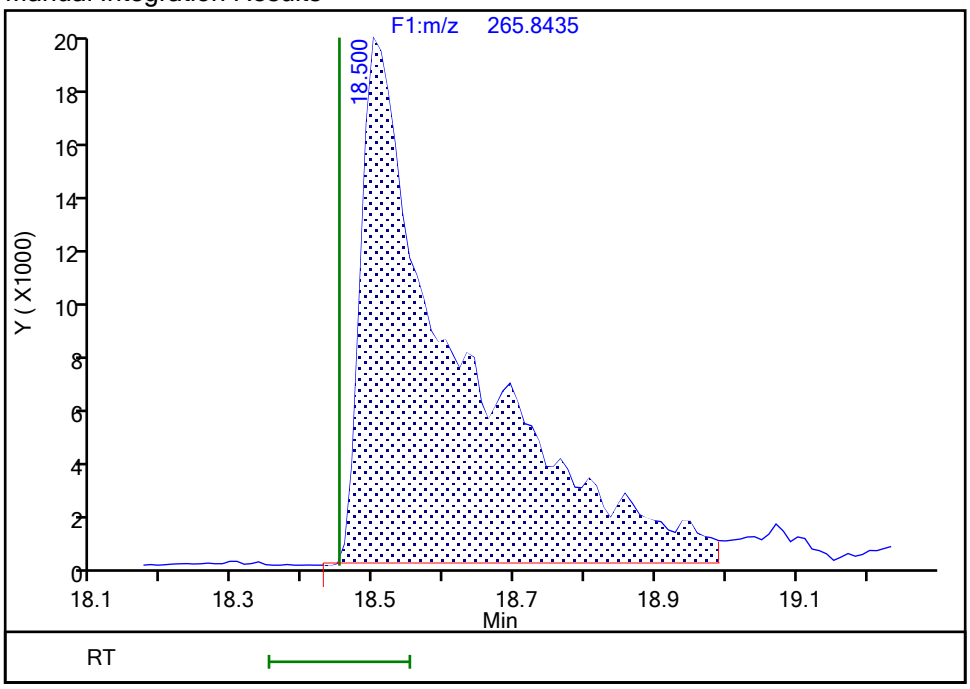
Processing Integration Results

RT: 18.81
Area: 21423
Amount: 50.000000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 187458
Amount: 51.011846
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:58 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

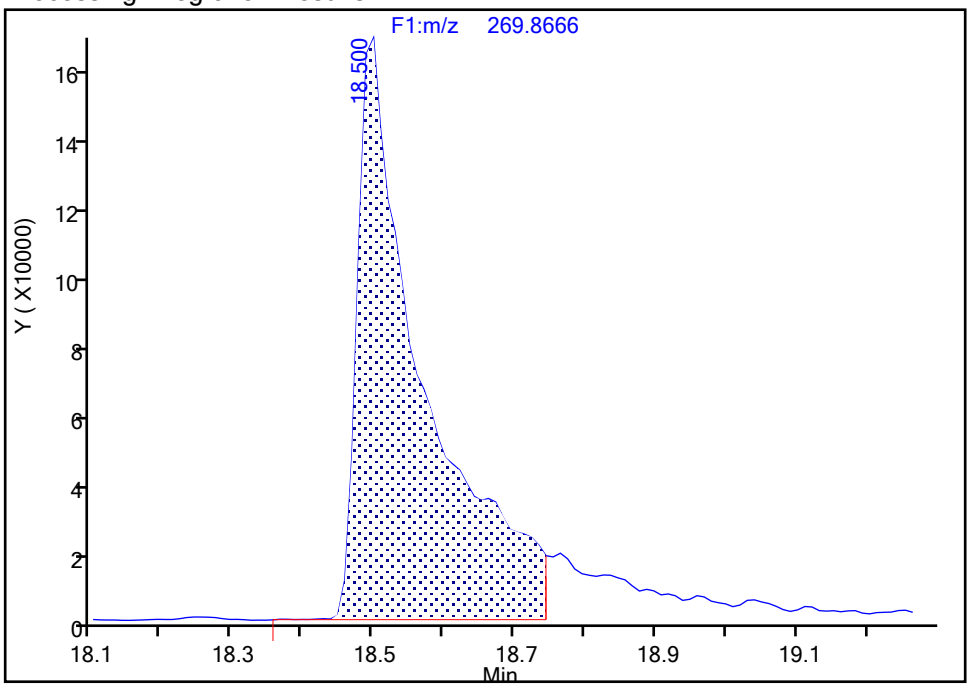
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d				
Injection Date:	02-May-2025 14:50:00	Instrument ID:	D3PST		
Lims ID:	IC L1				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

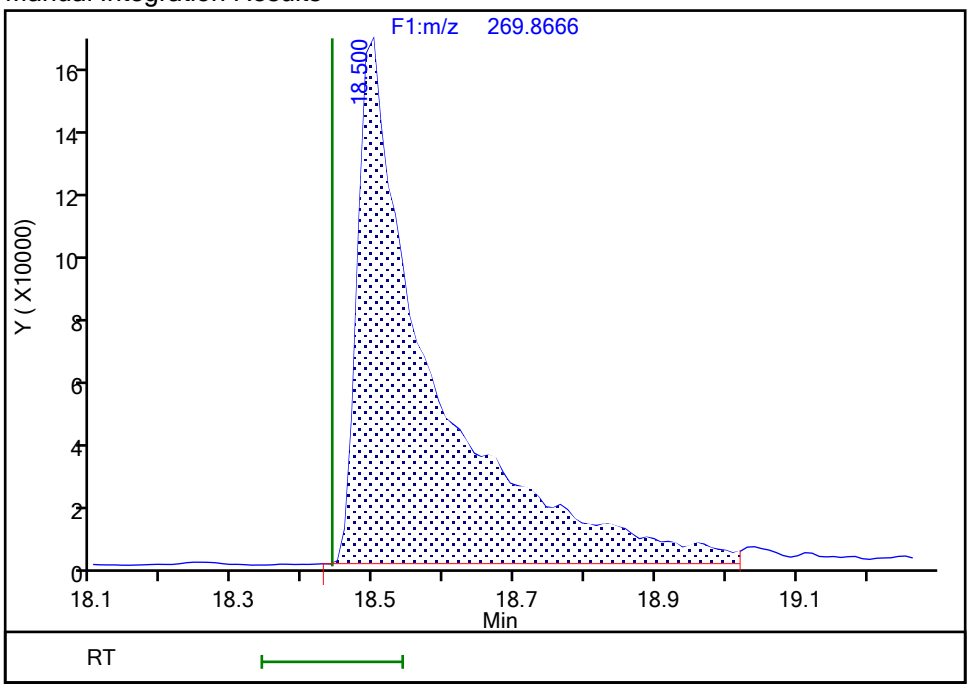
Processing Integration Results

RT: 18.50
Area: 1046866
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 1207572
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:24 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

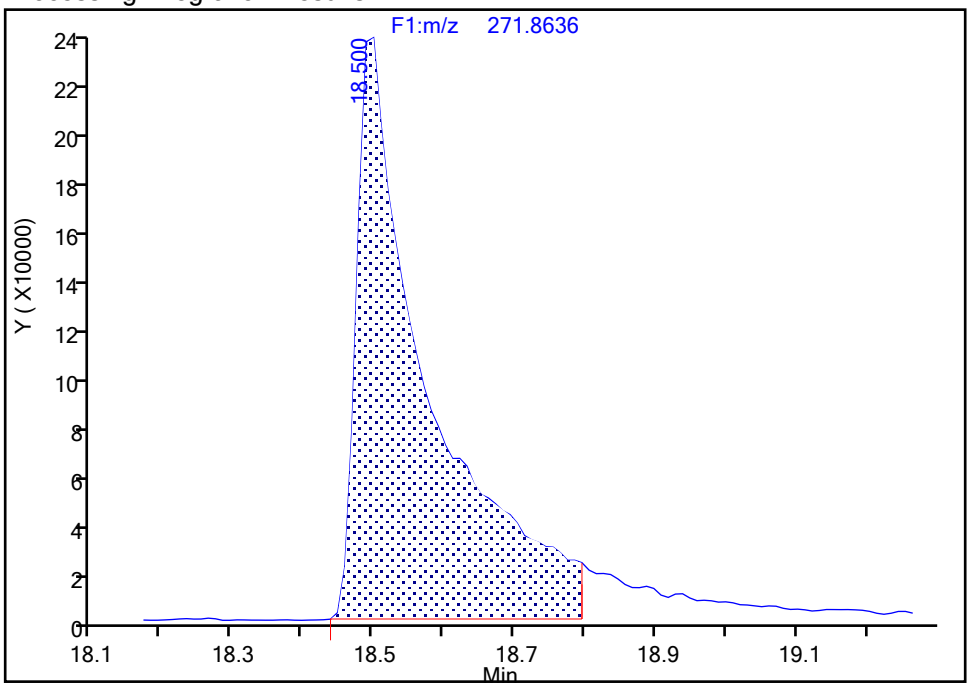
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d
Injection Date: 02-May-2025 14:50:00 Instrument ID: D3PST
Lims ID: IC L1
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 2

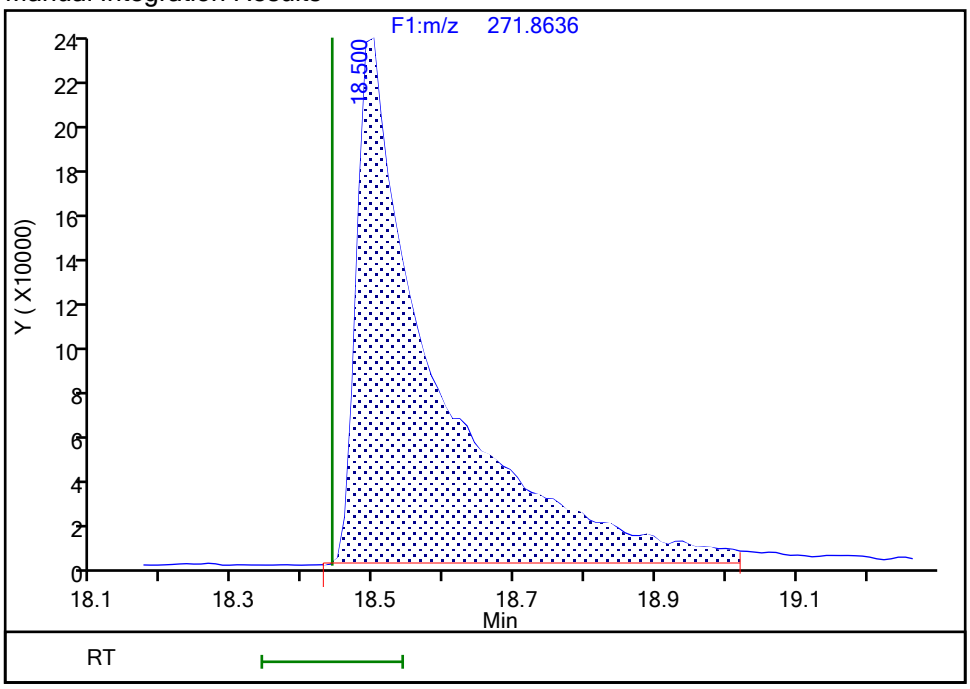
Processing Integration Results

RT: 18.50
Area: 1684199
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 1833731
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:42:31 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

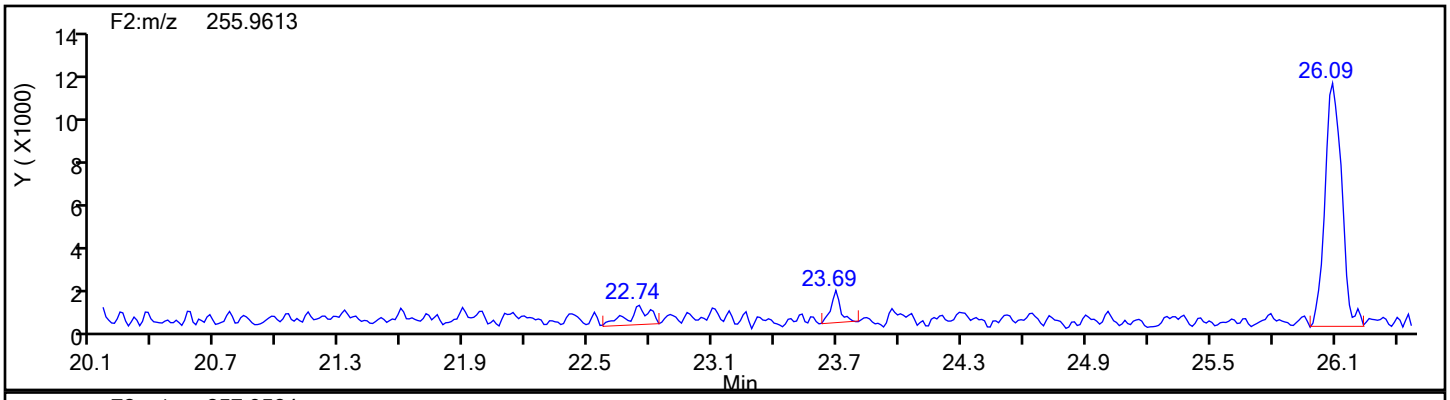
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

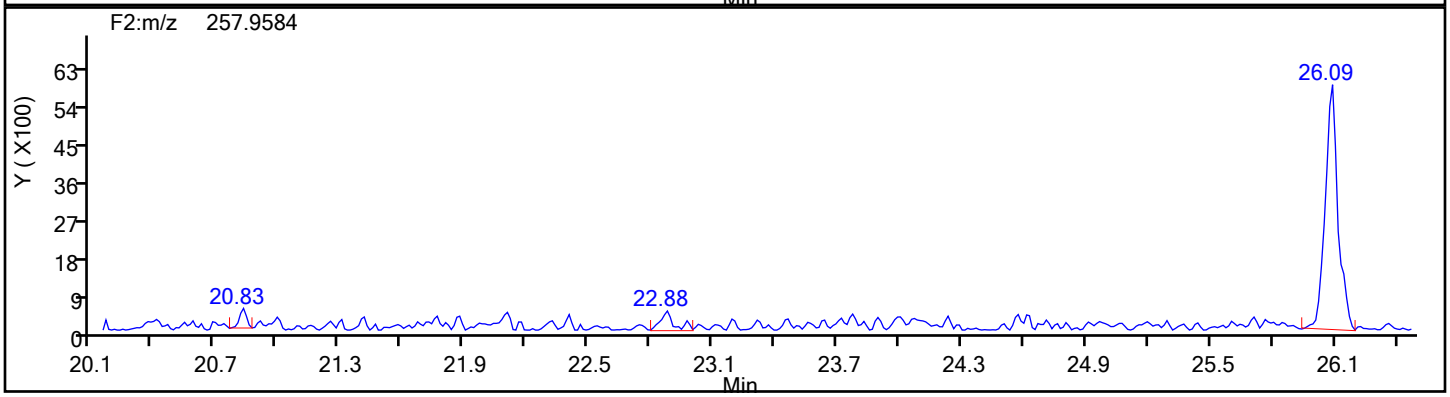
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

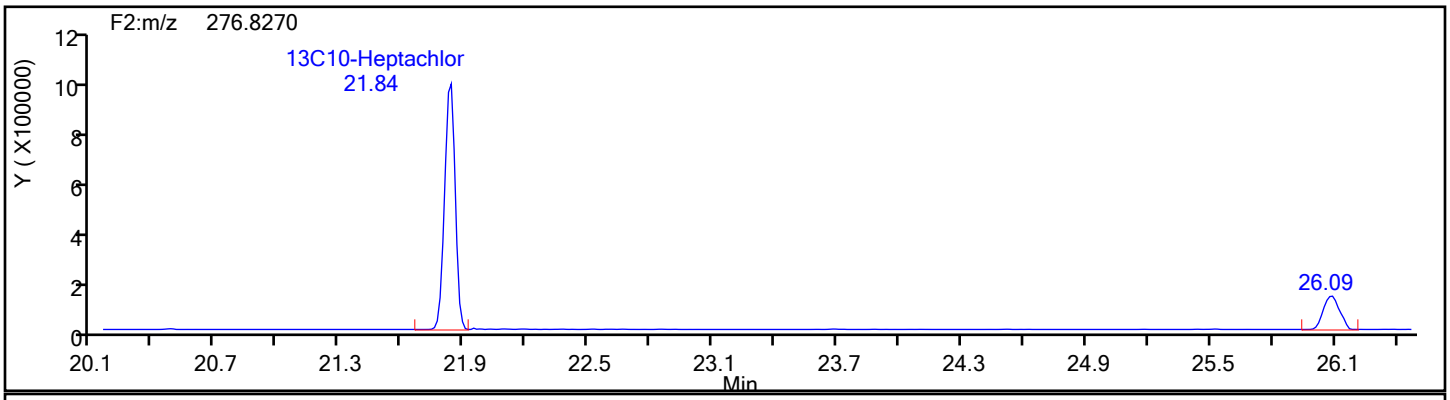
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

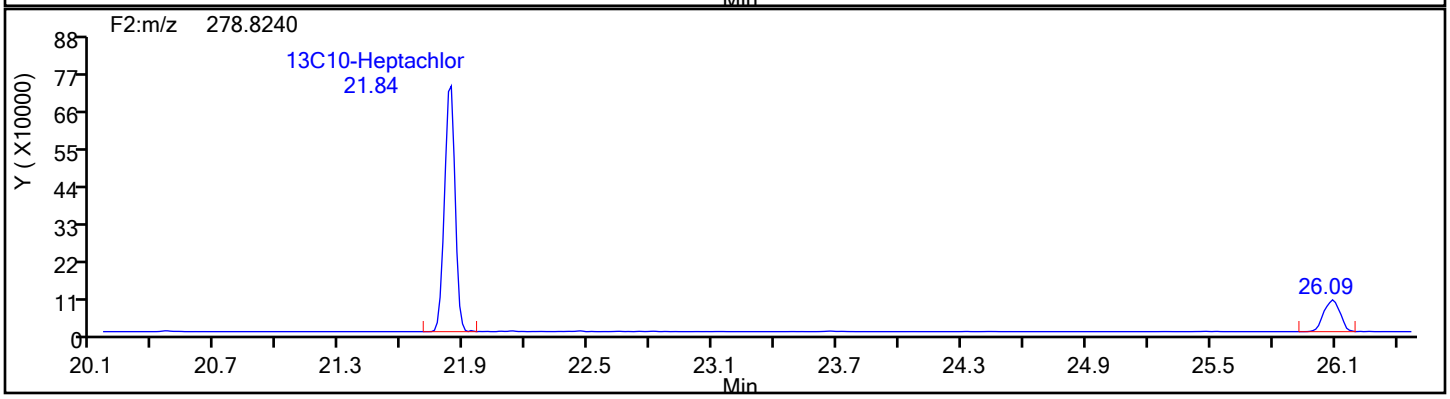
PCB-36





PCB-36 Standards





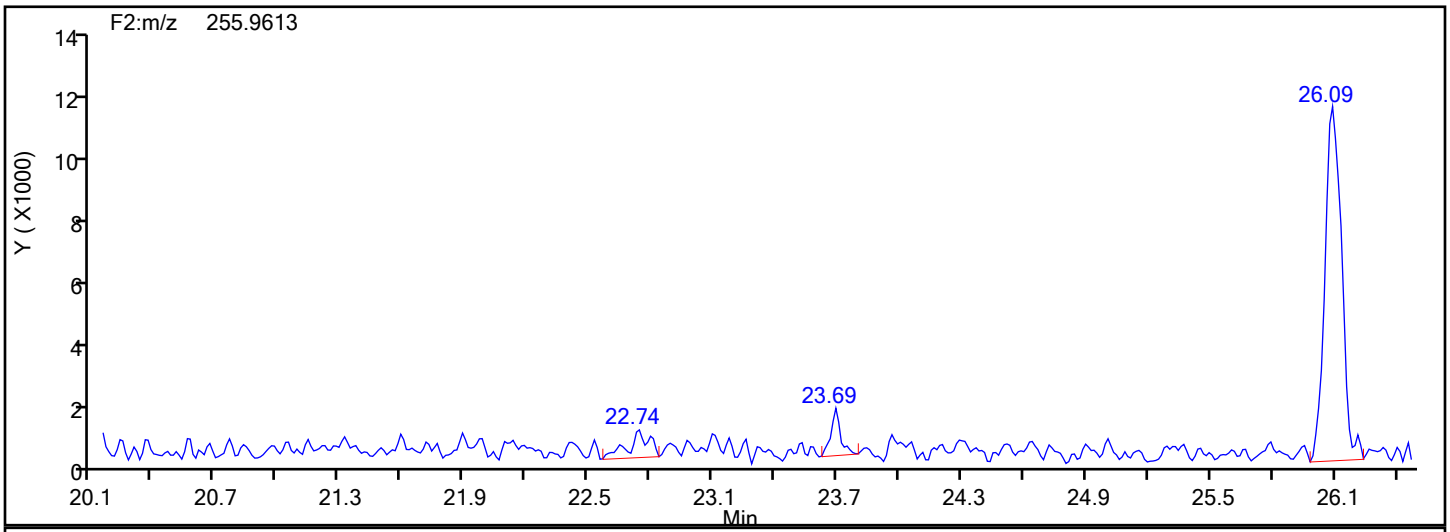
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

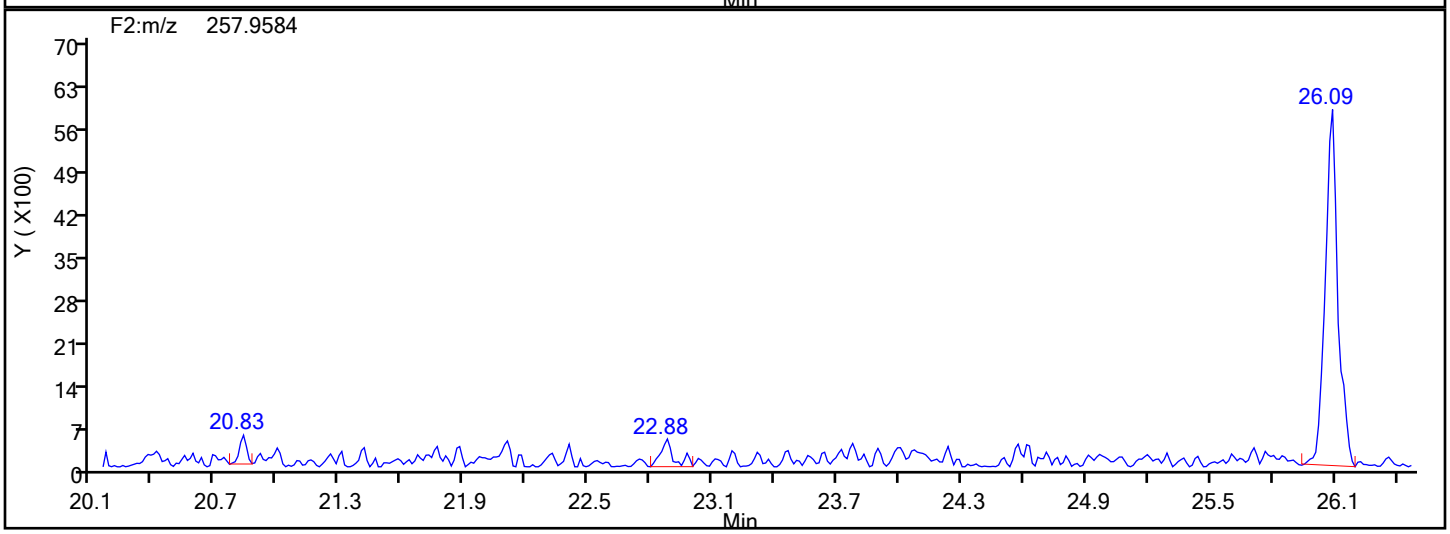
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

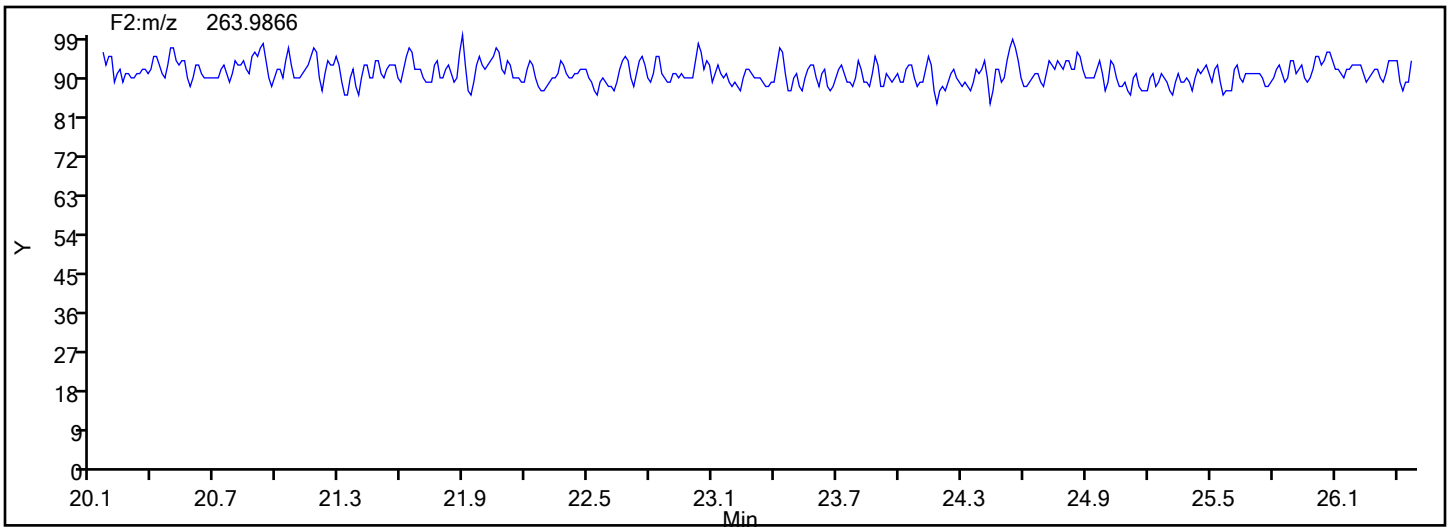
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



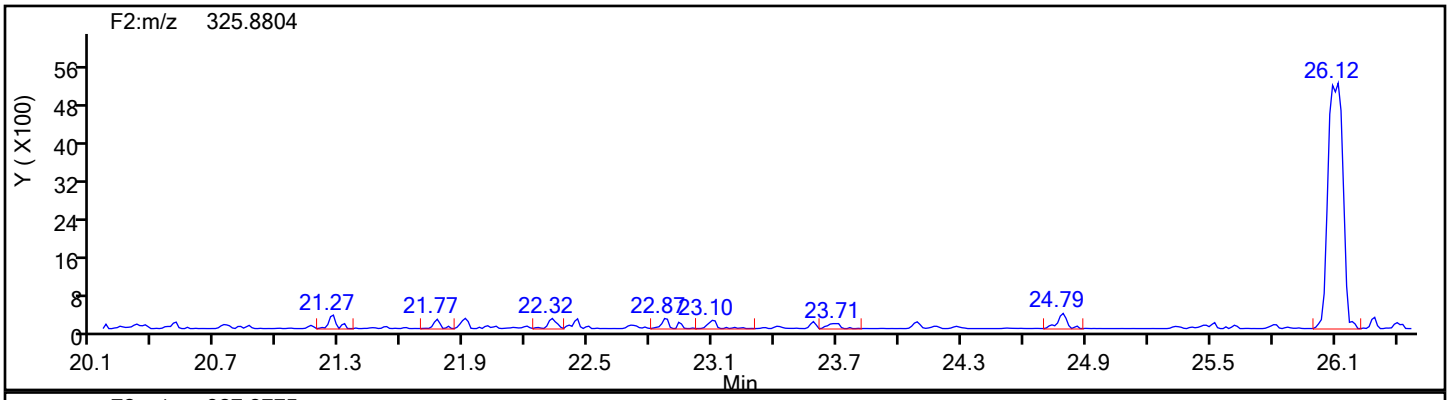
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

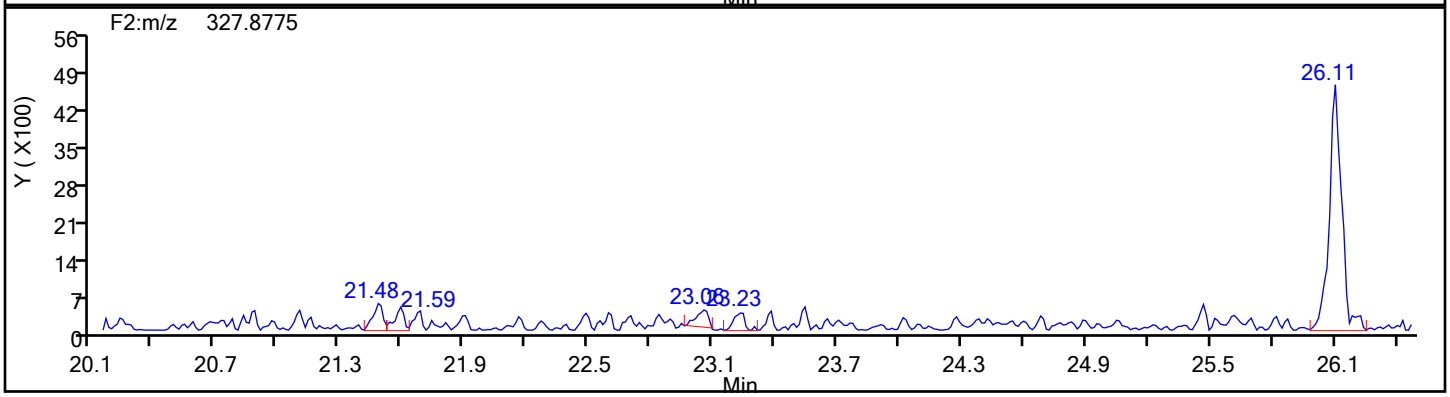
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

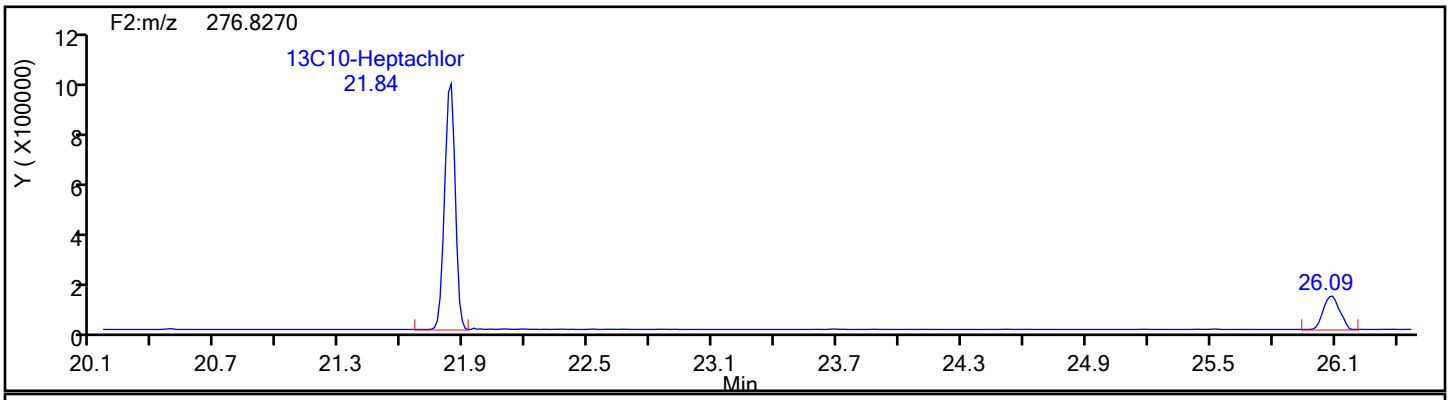
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

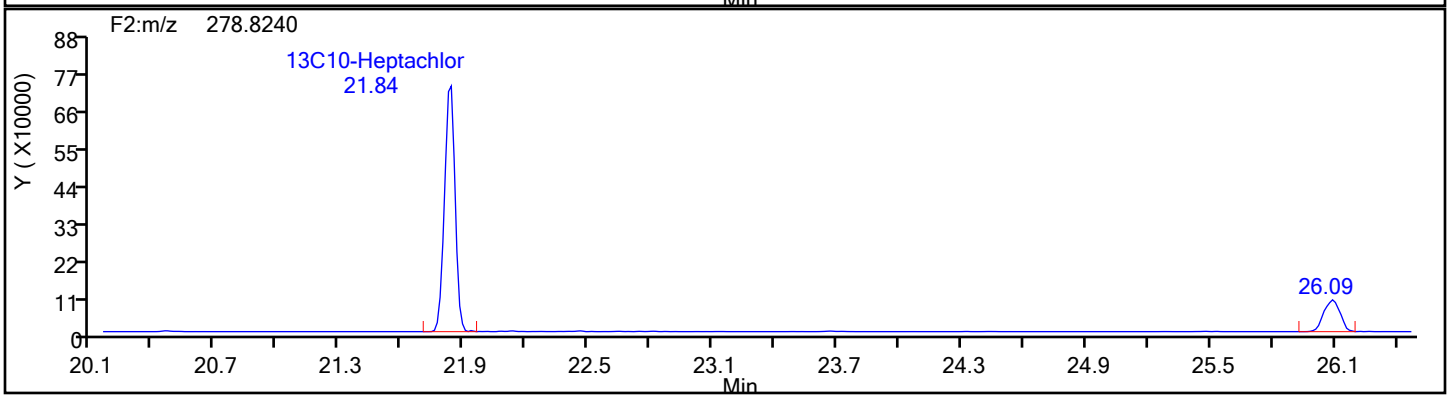
PCB-104





PCB-104 Standards





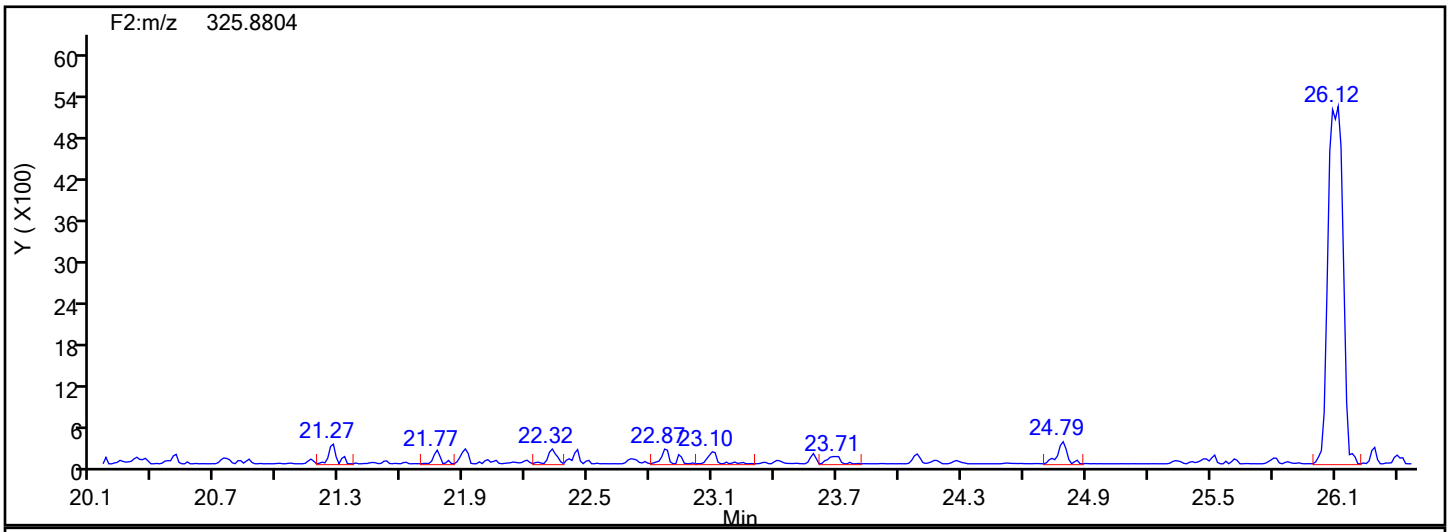
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

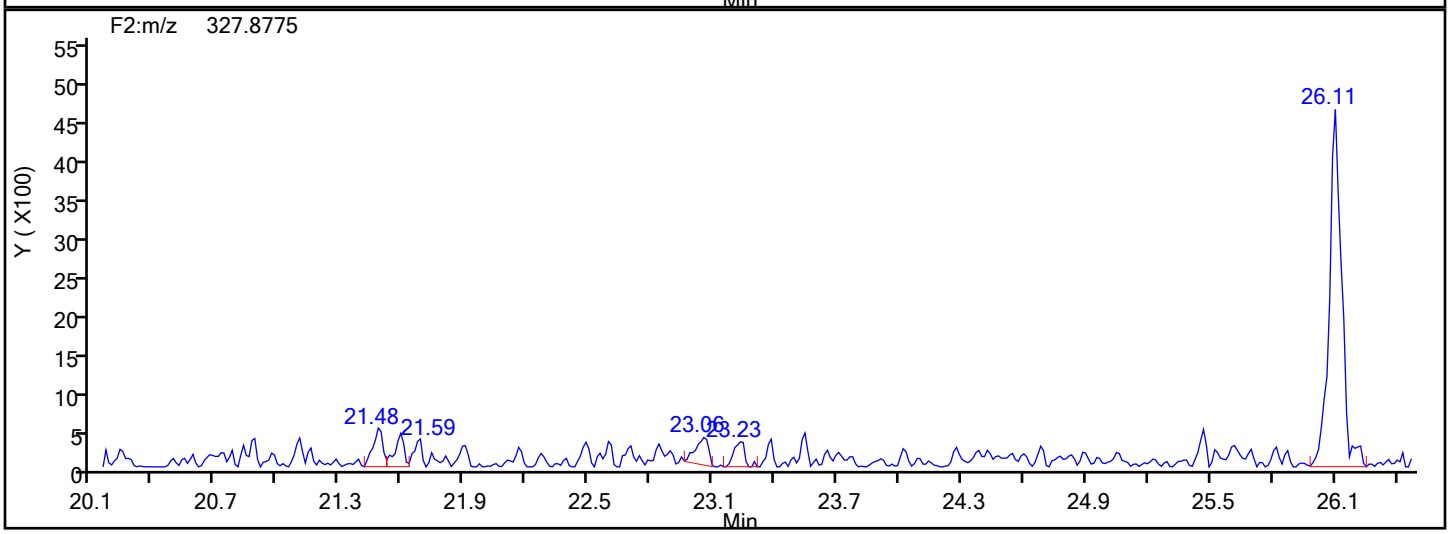
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

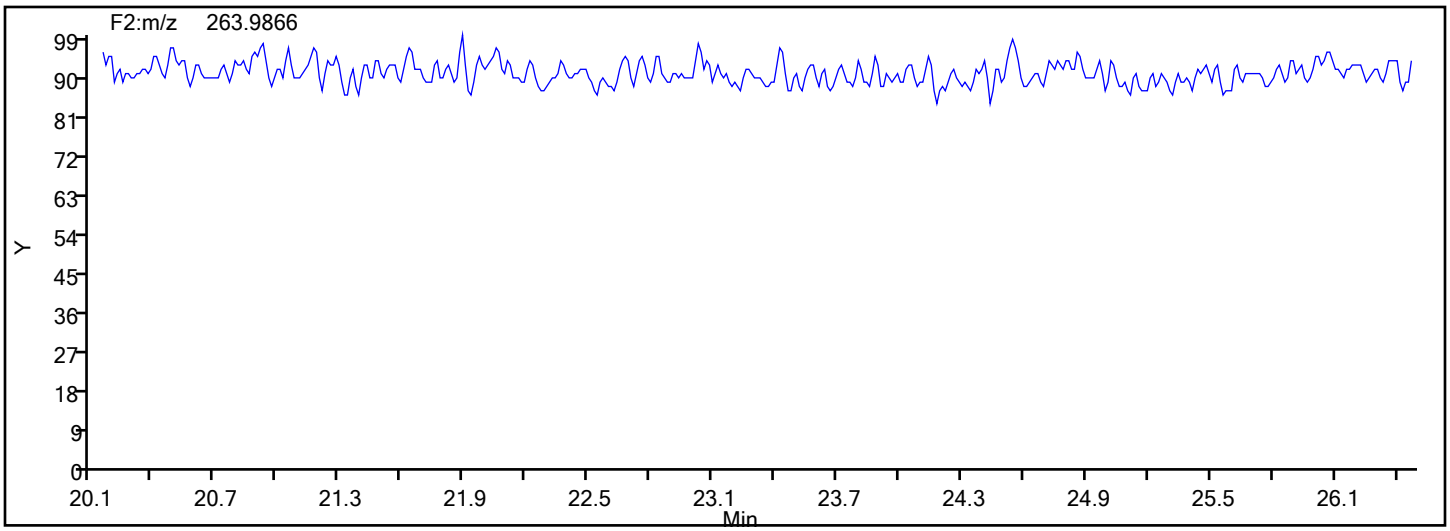
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



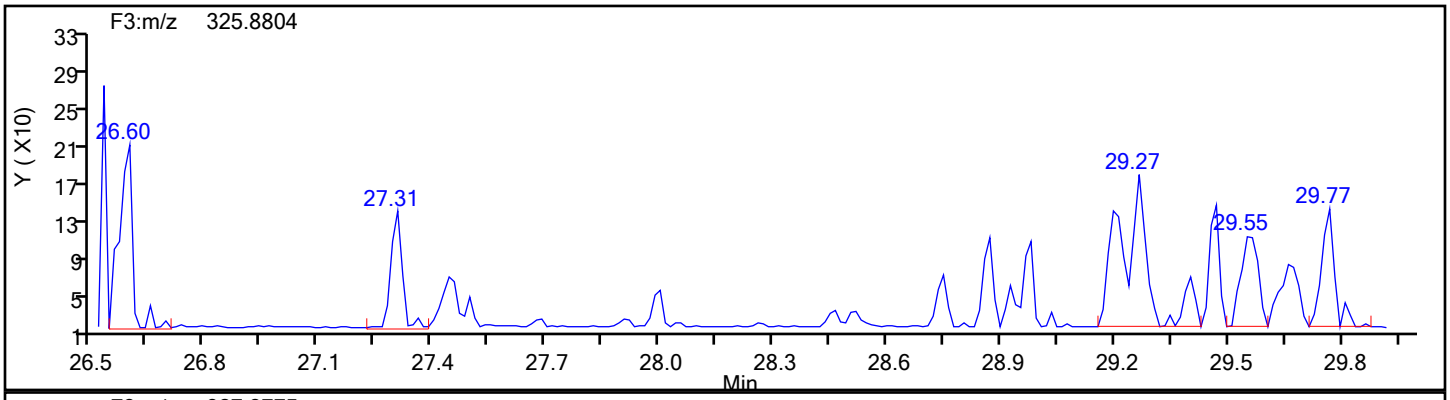
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

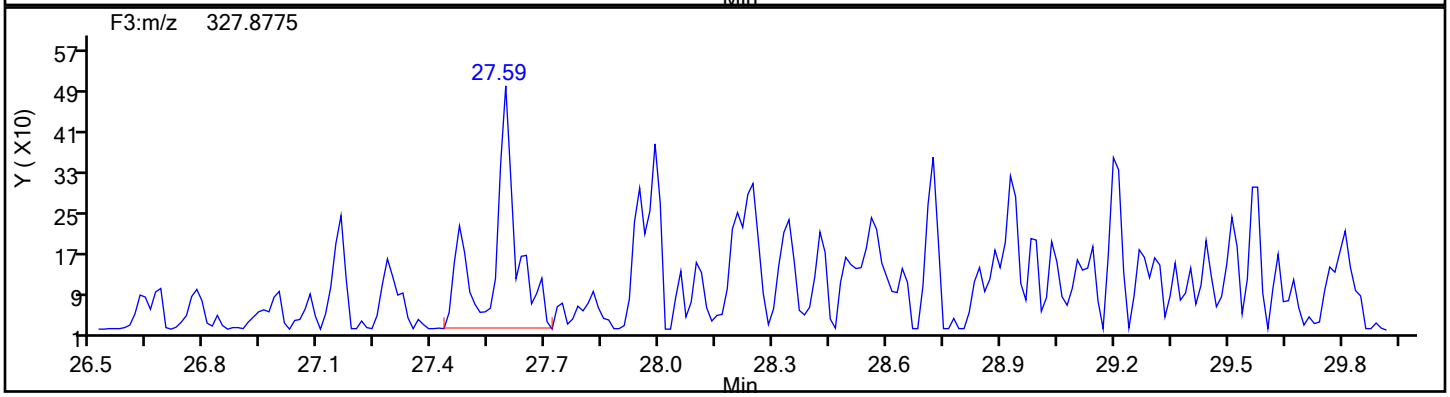
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

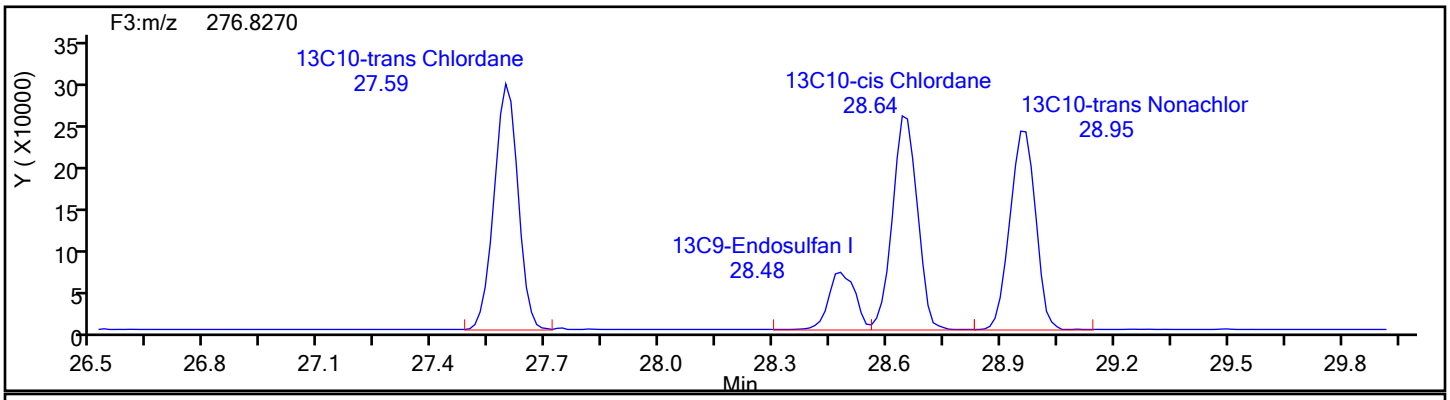
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

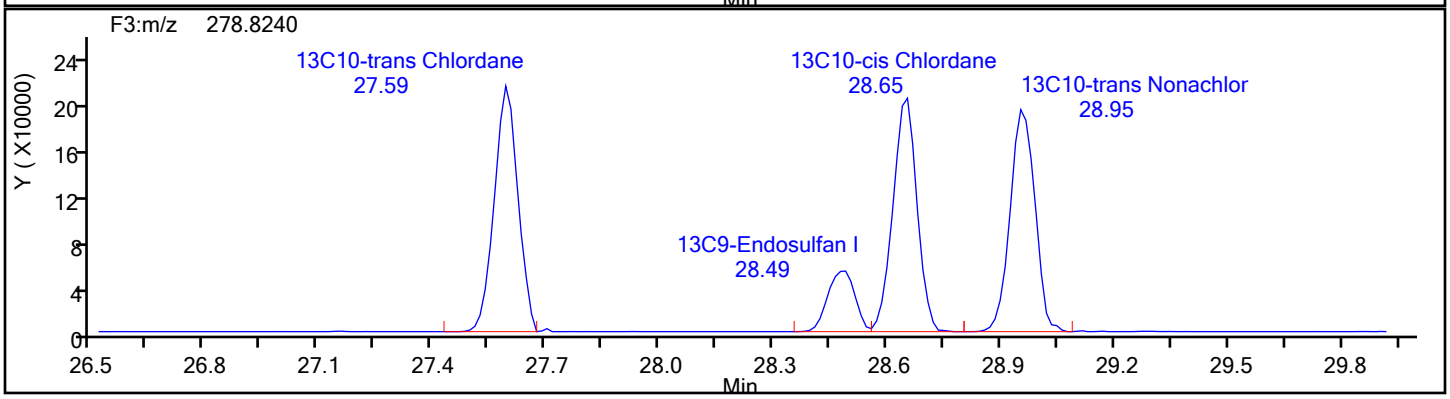
PCB-121





PCB-121 Standards





Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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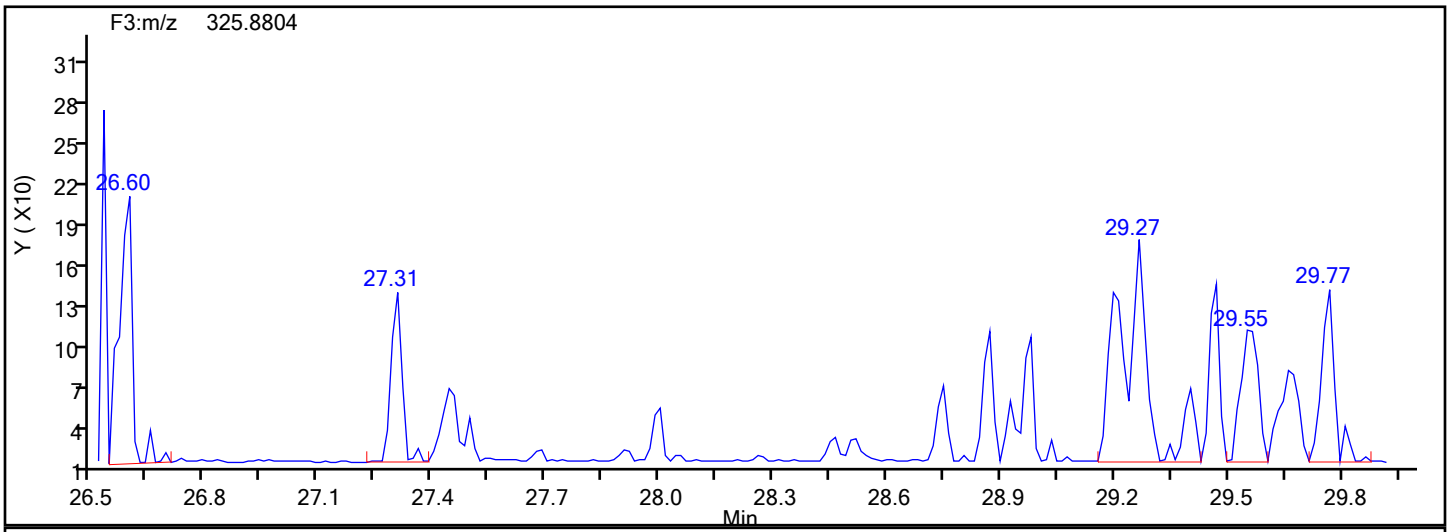
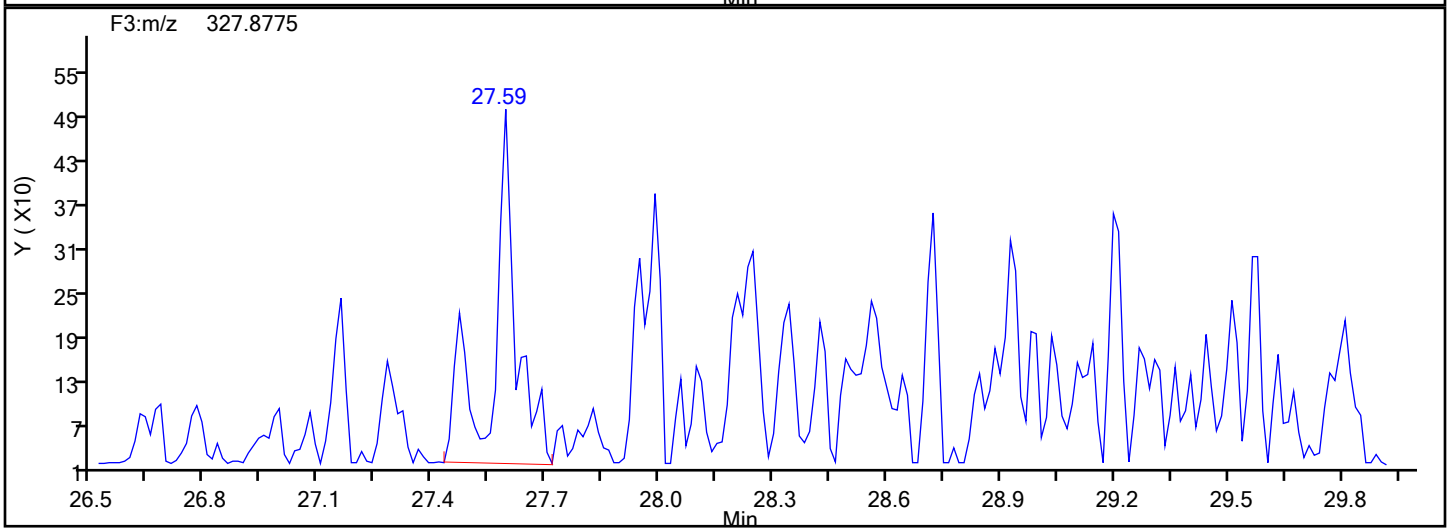
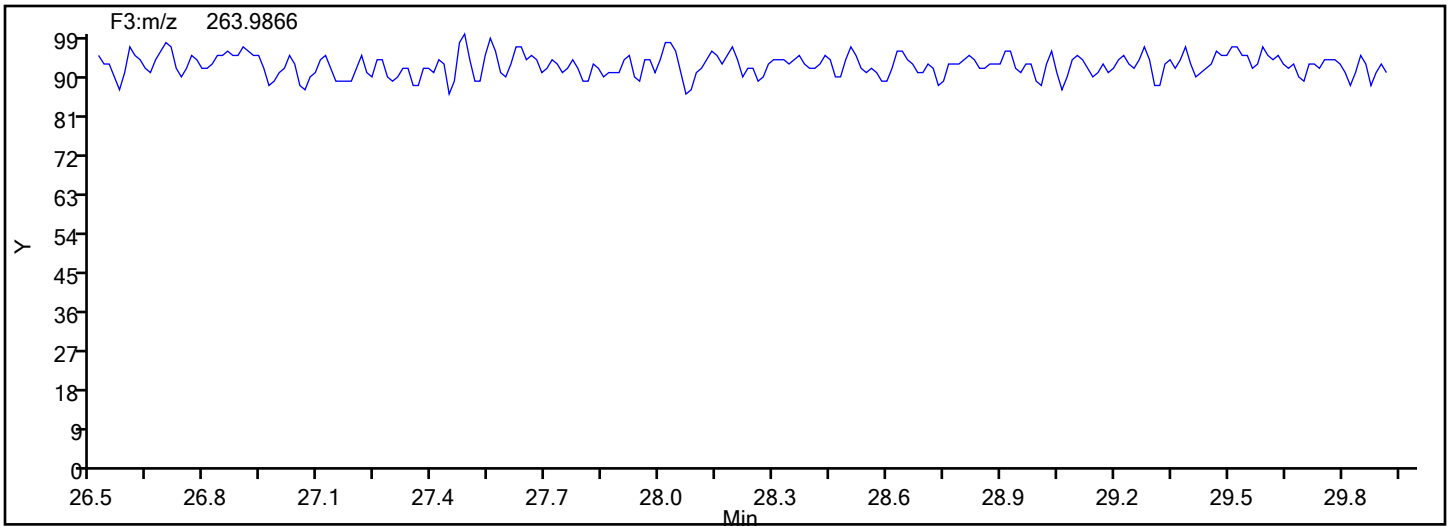
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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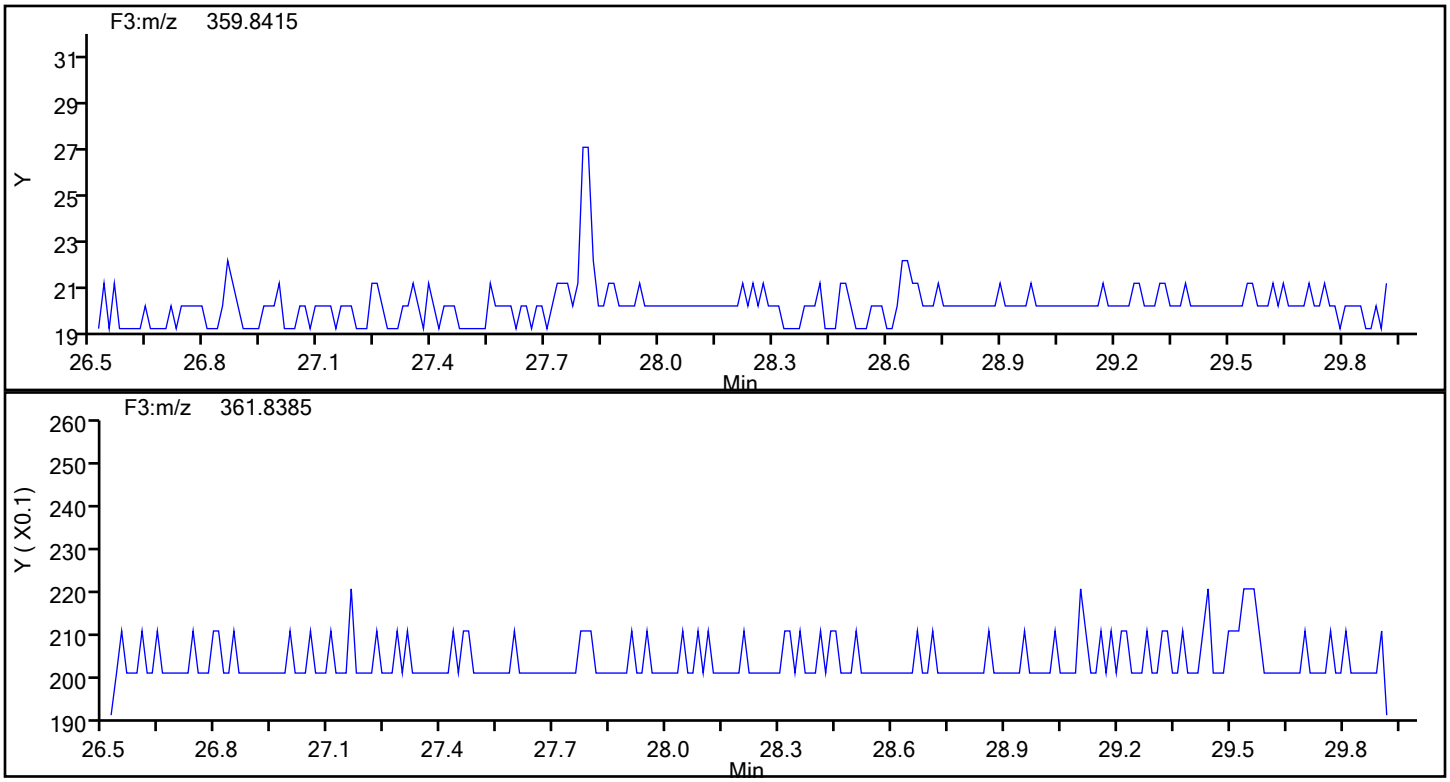
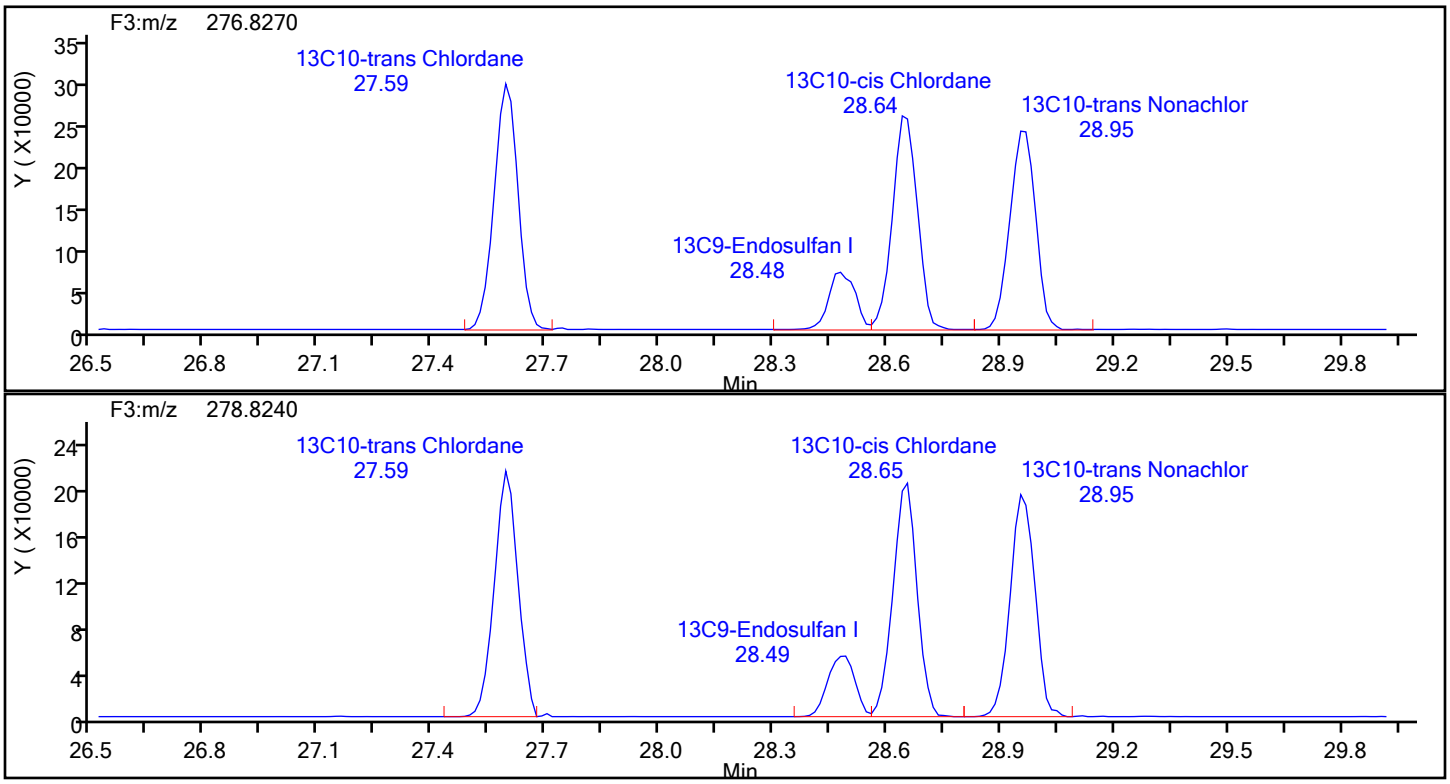
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards



Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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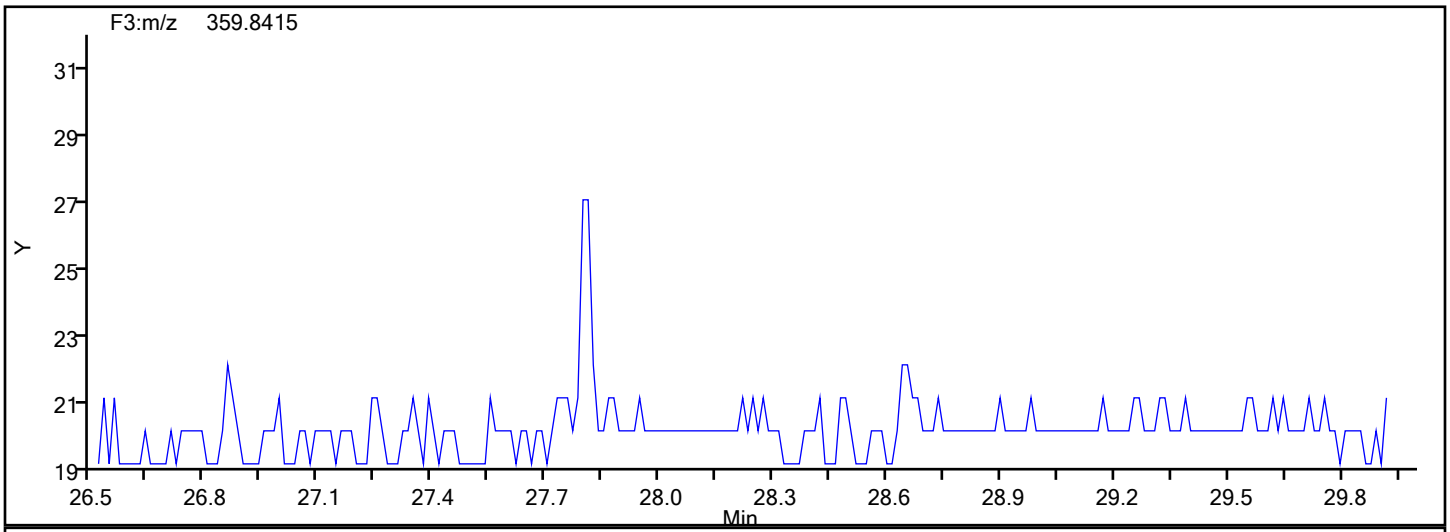
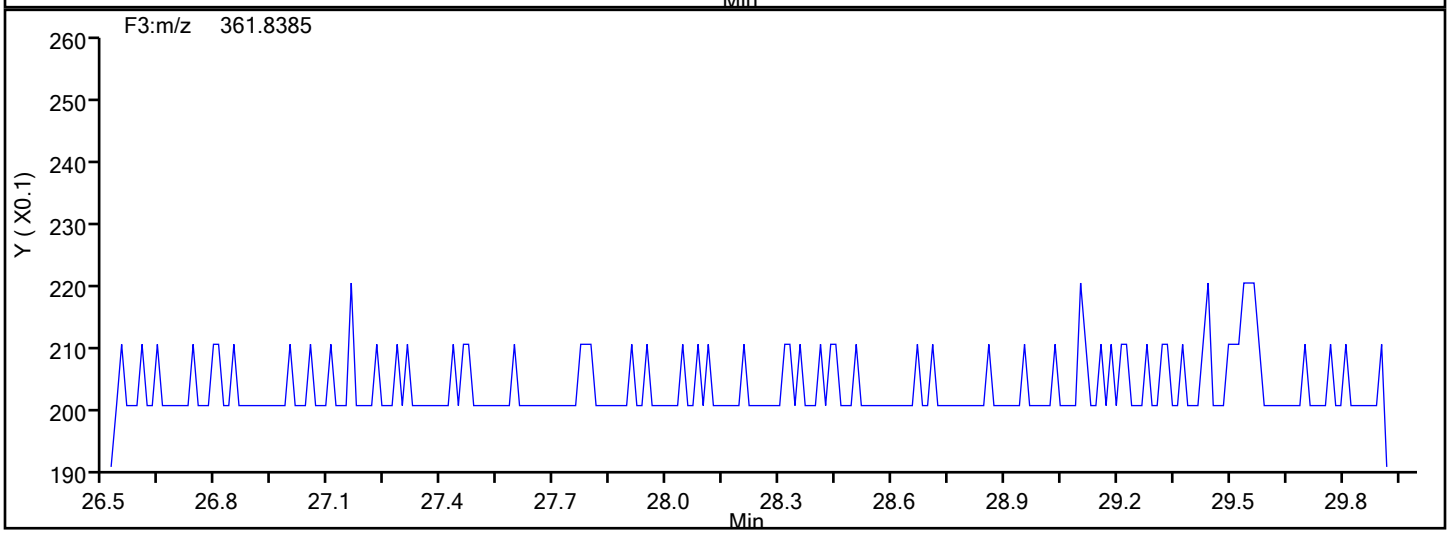
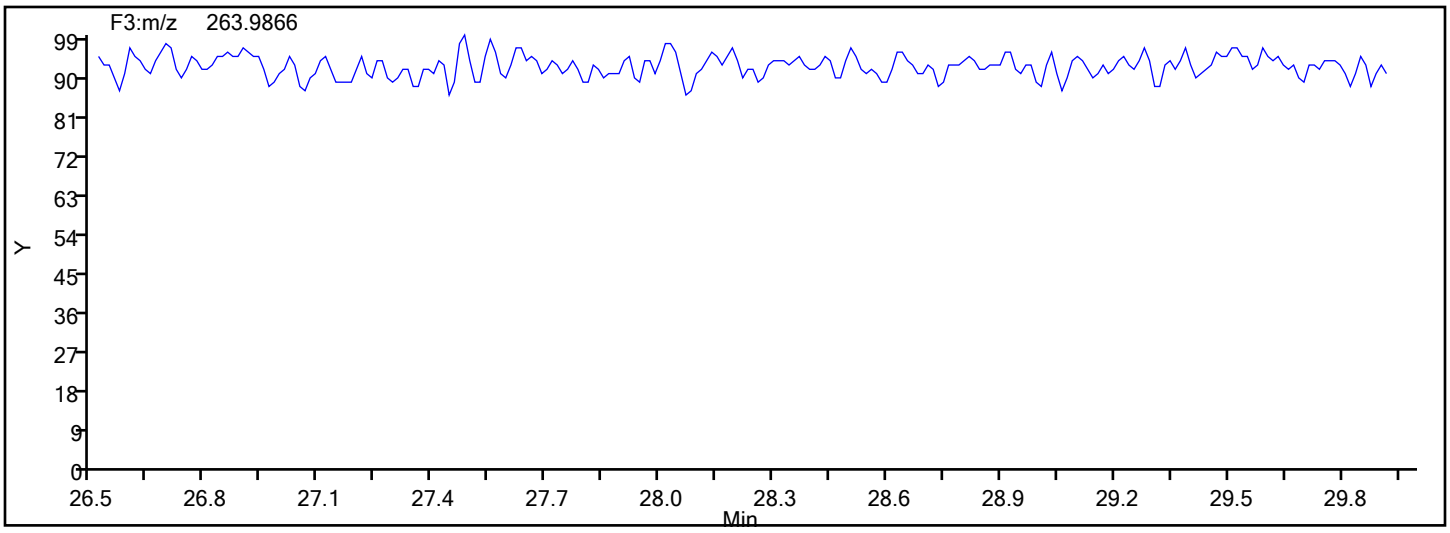
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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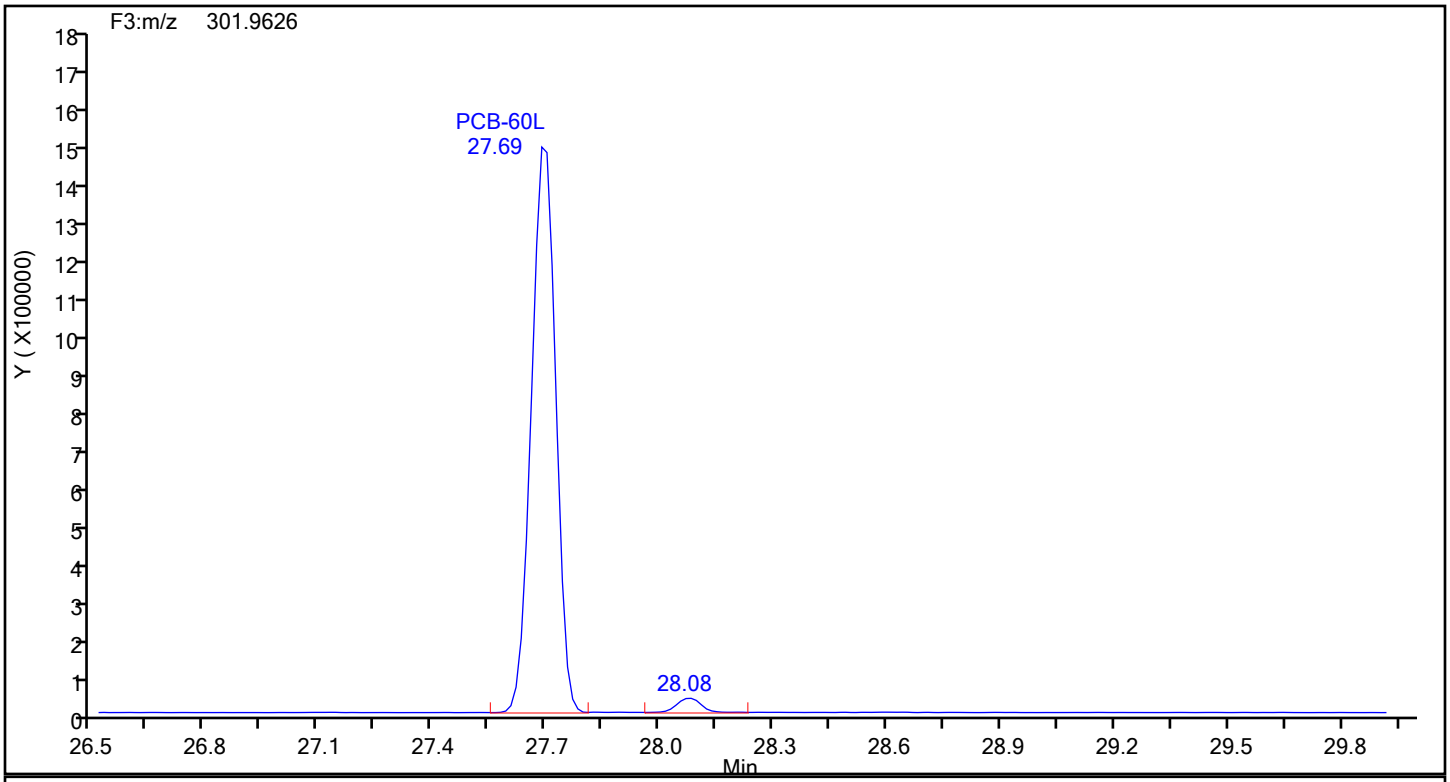
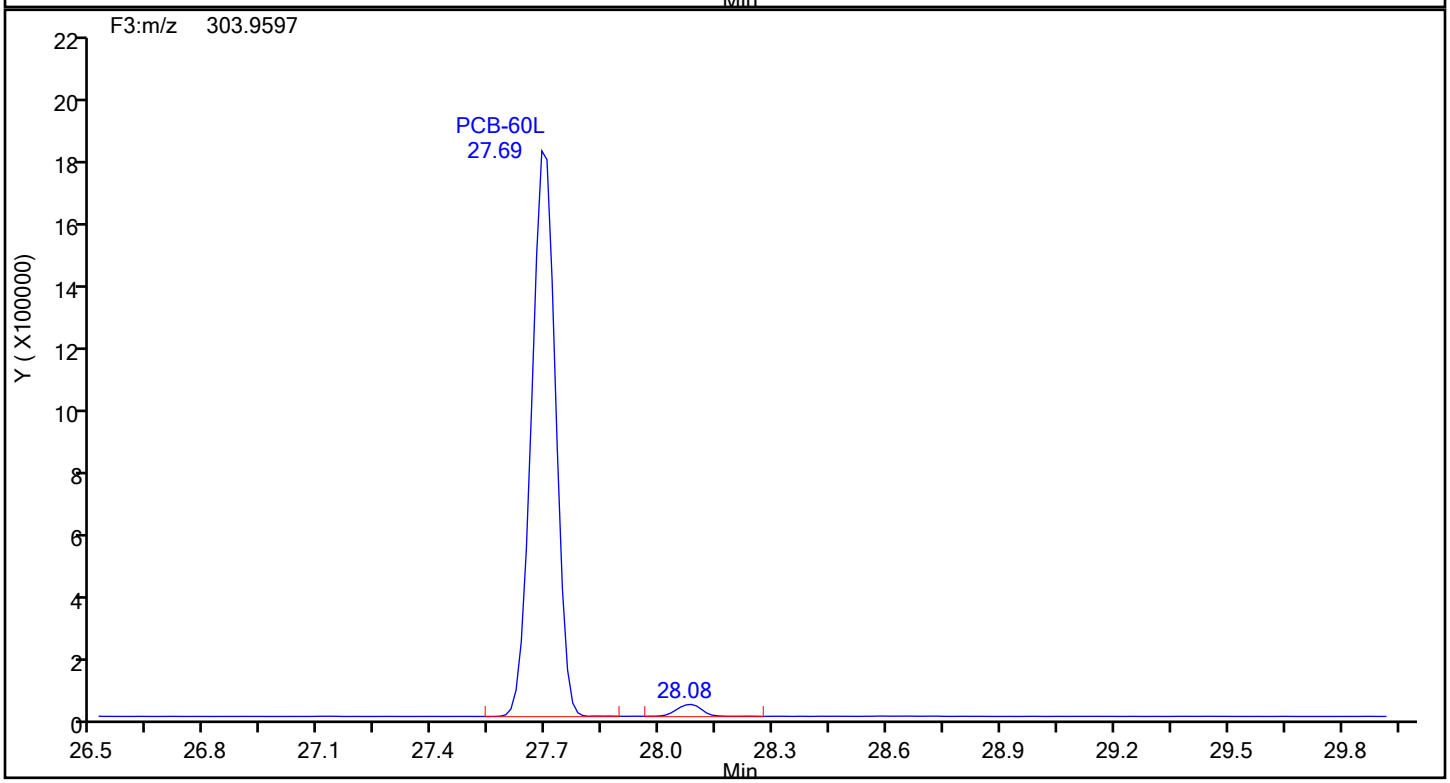
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





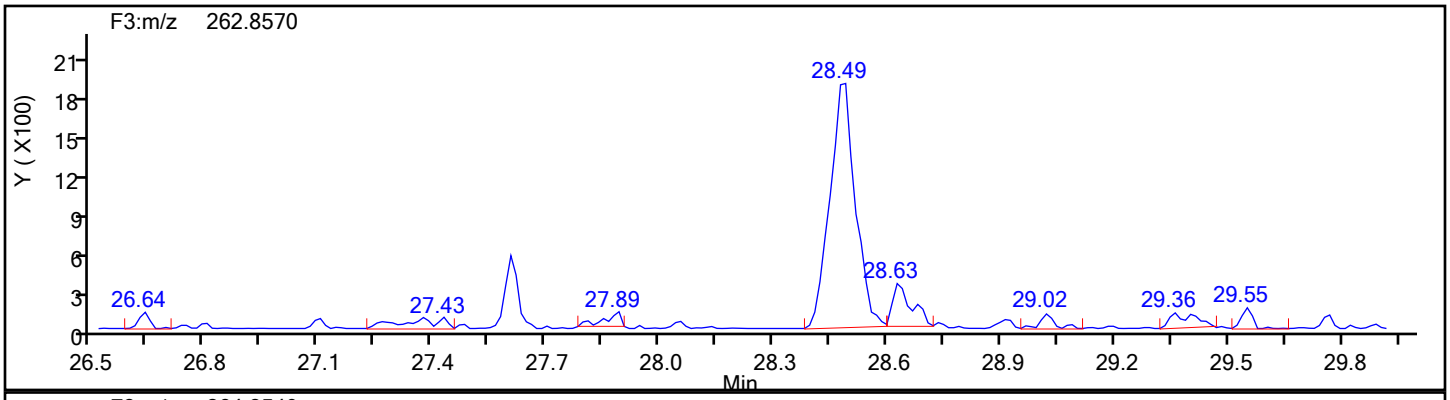
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

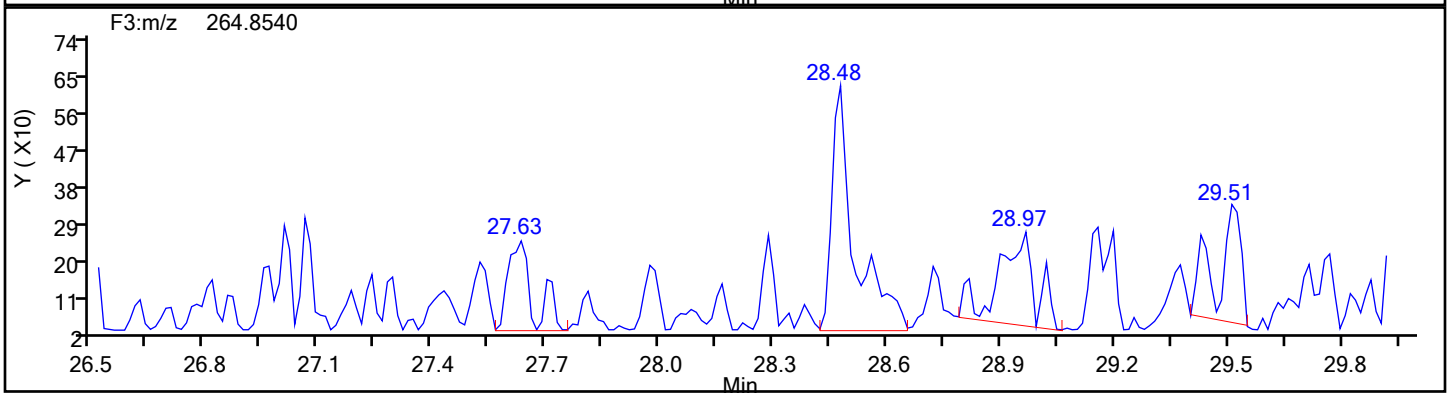
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

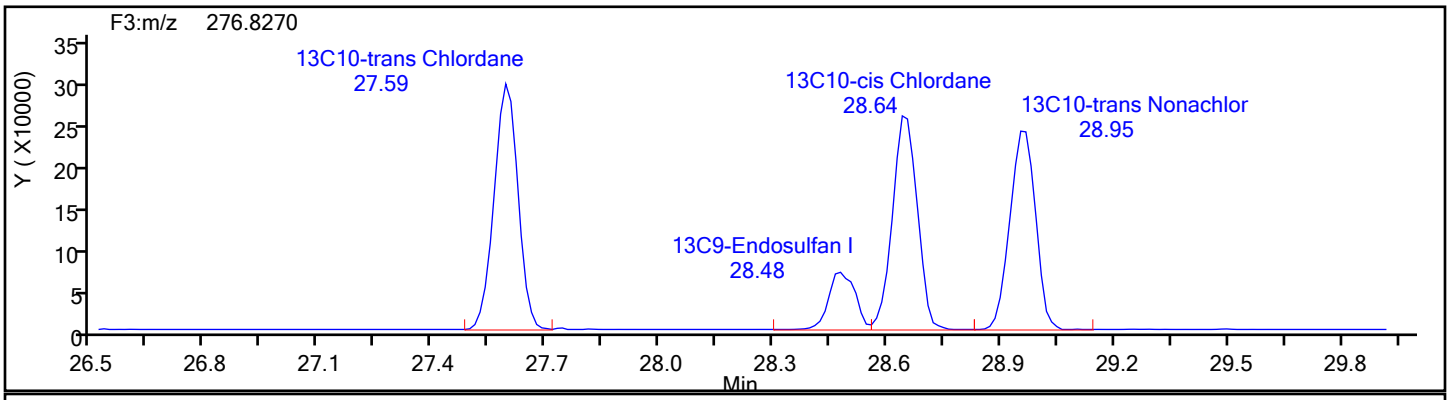
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

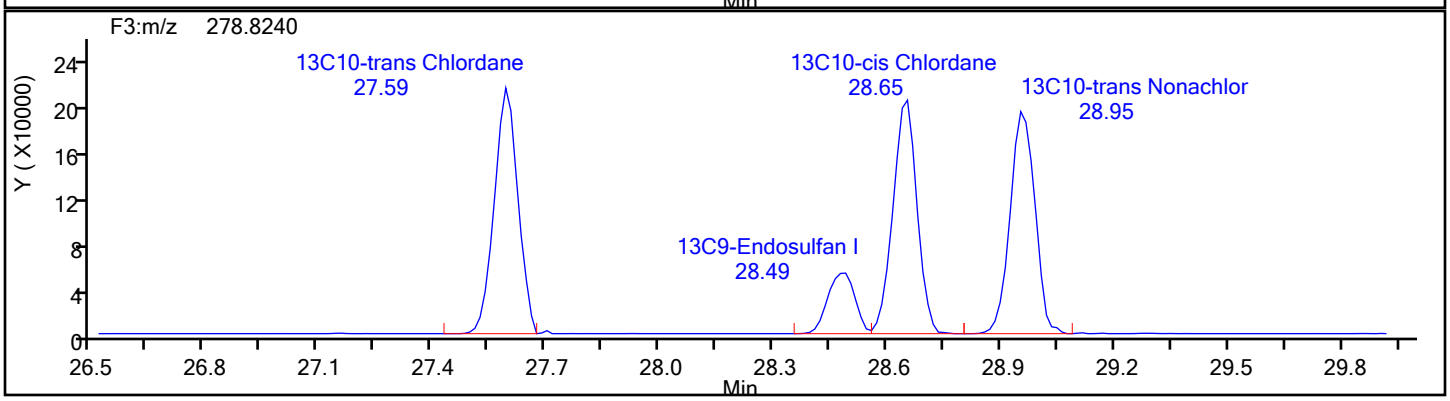
Endosulfan I





Endosulfan I Standards





Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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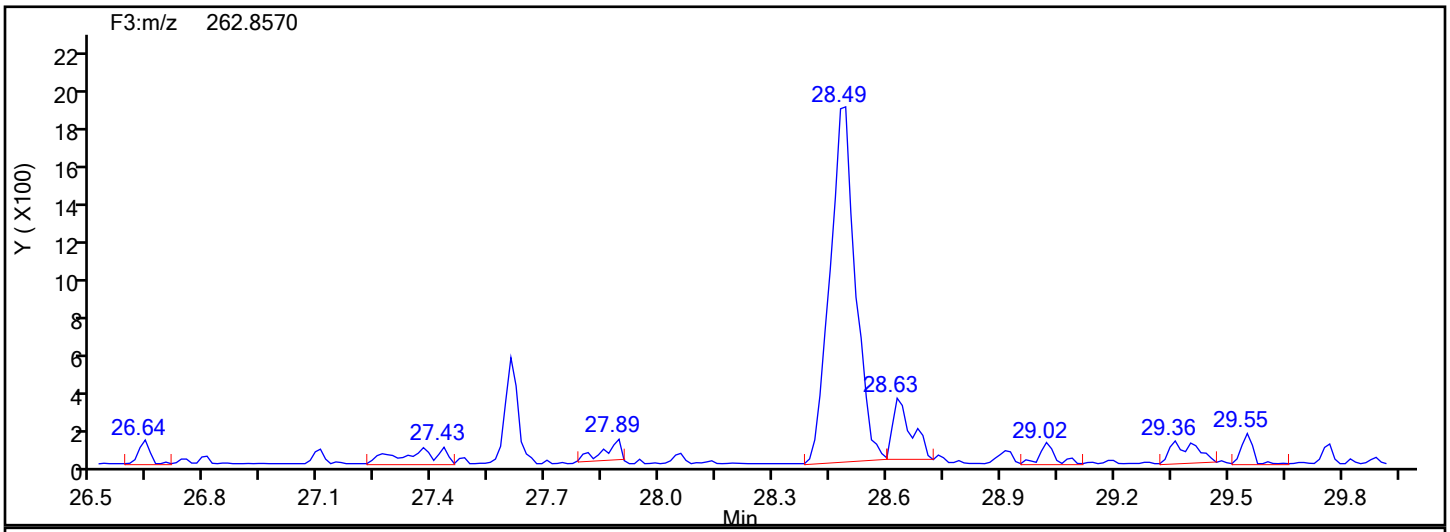
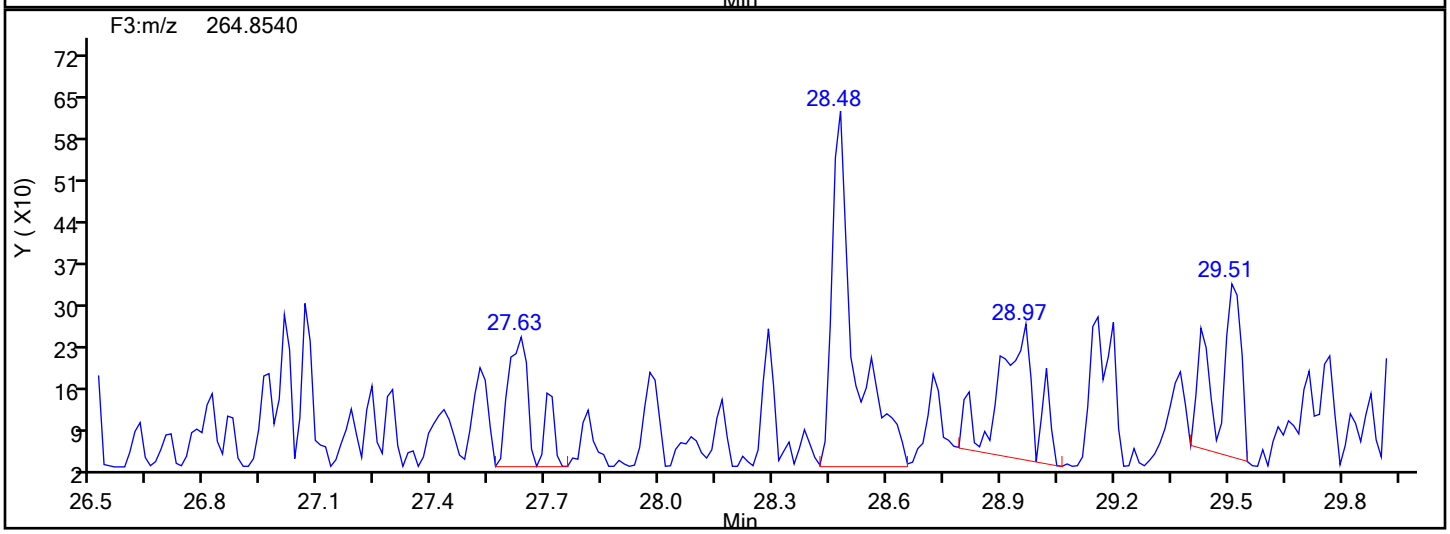
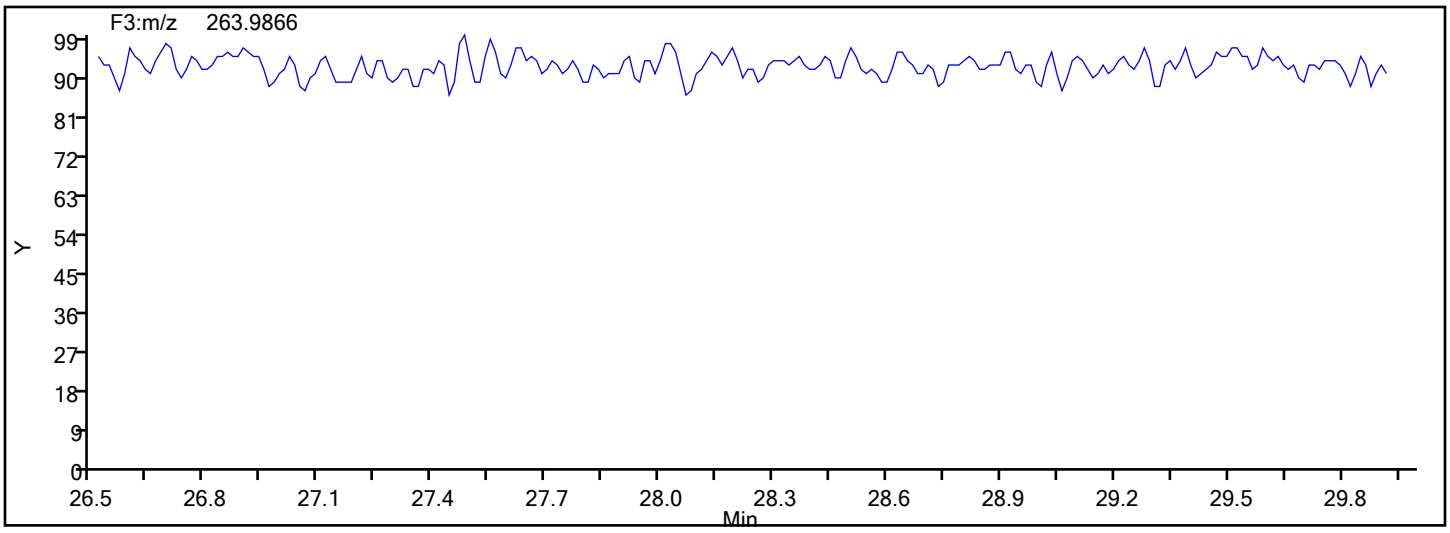
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



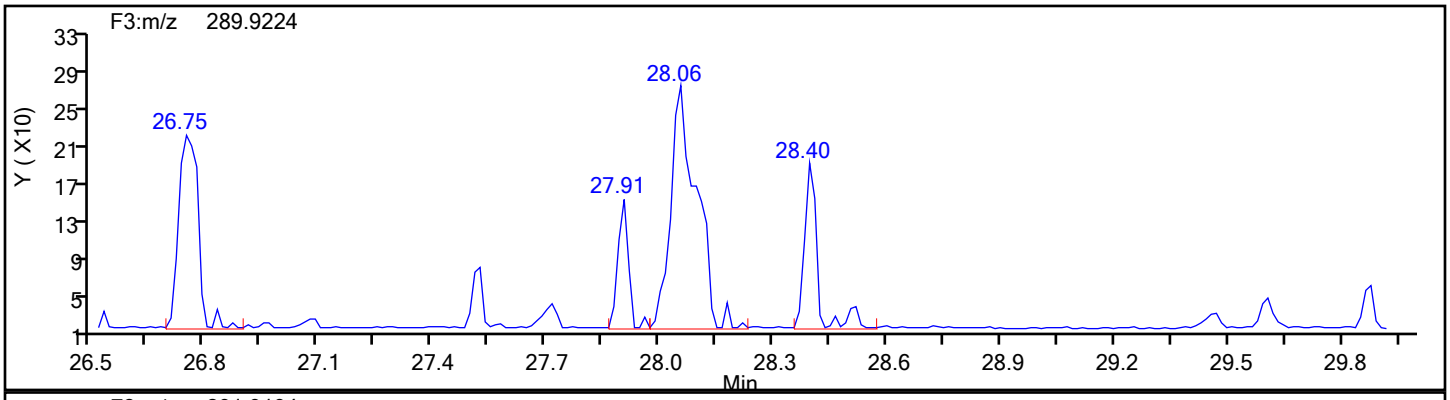
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

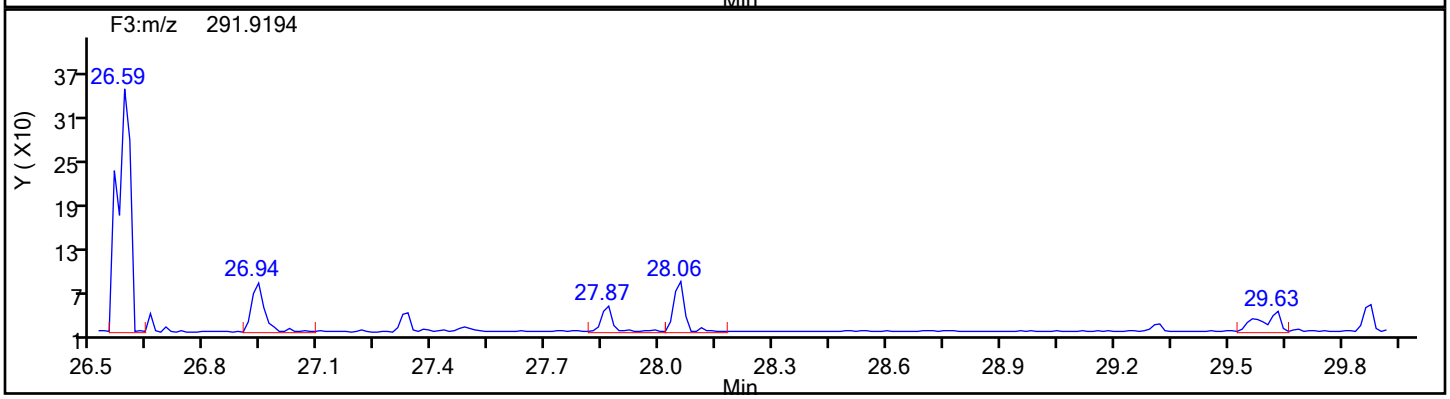
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

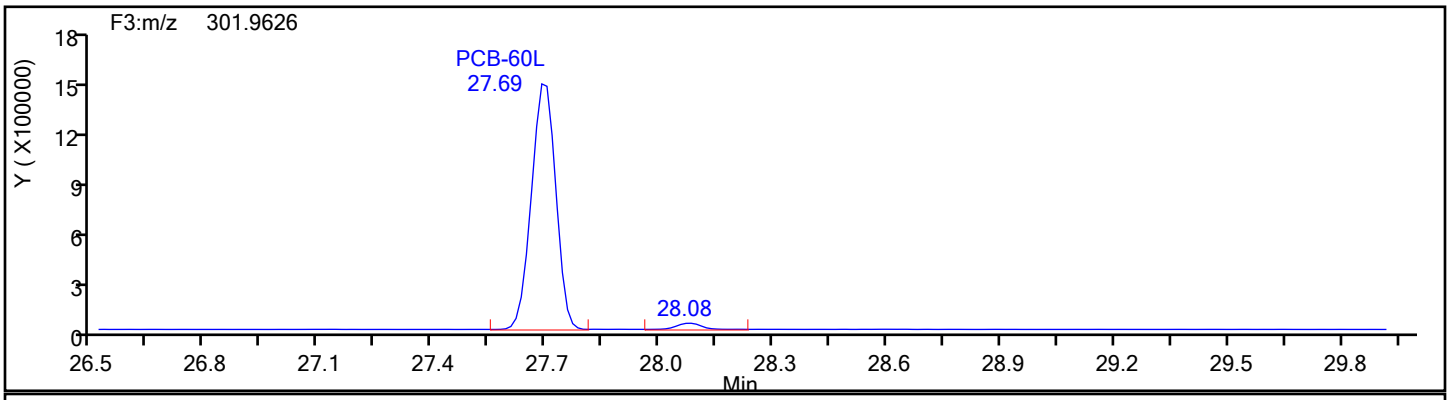
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

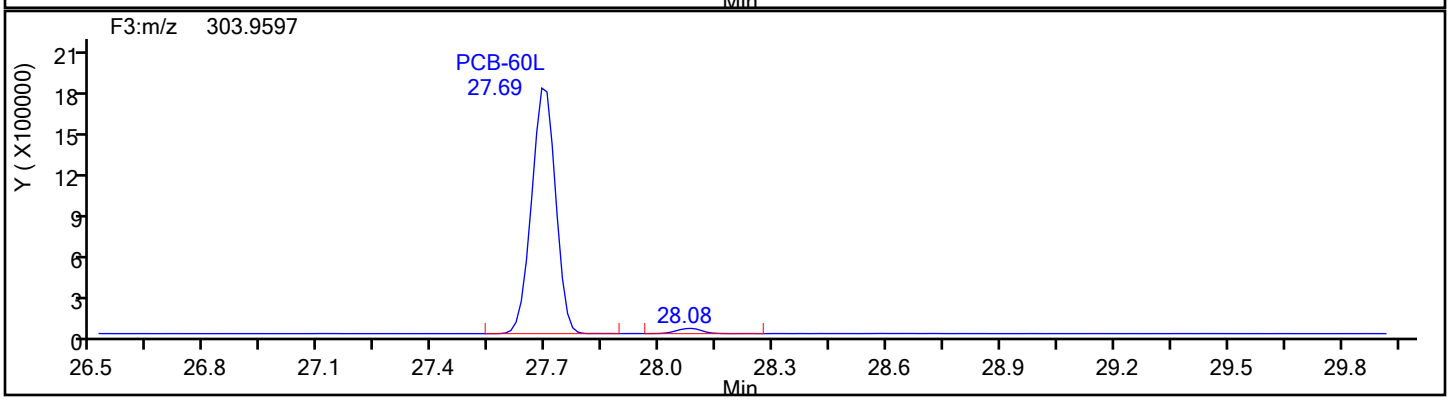
PCB-78





PCB-78 Standards





Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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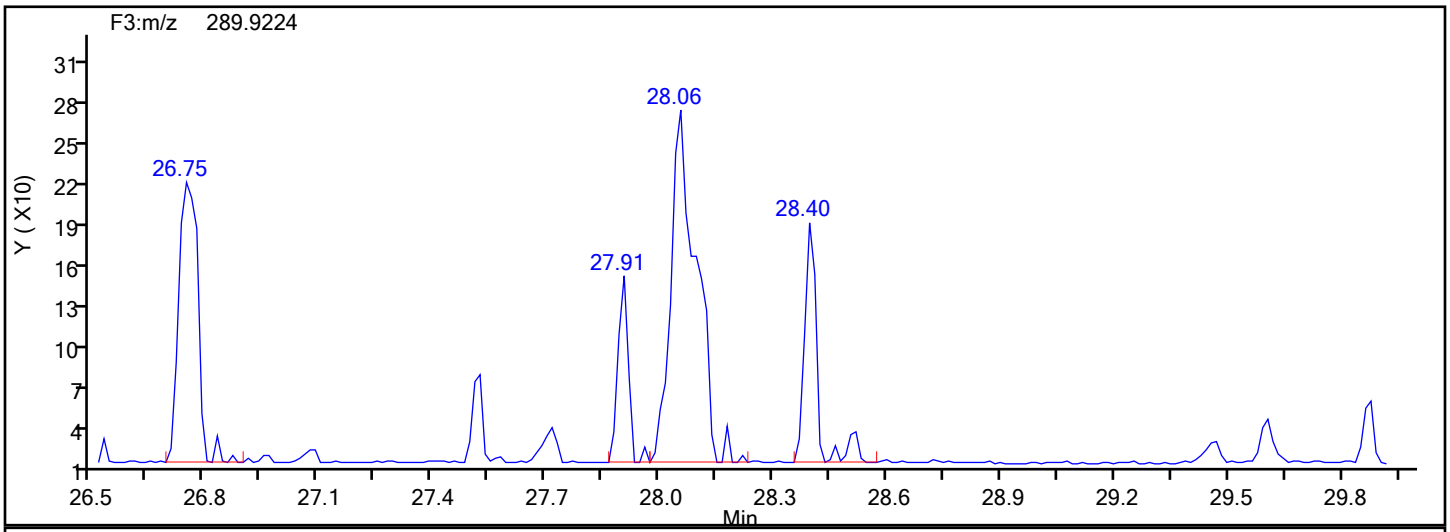
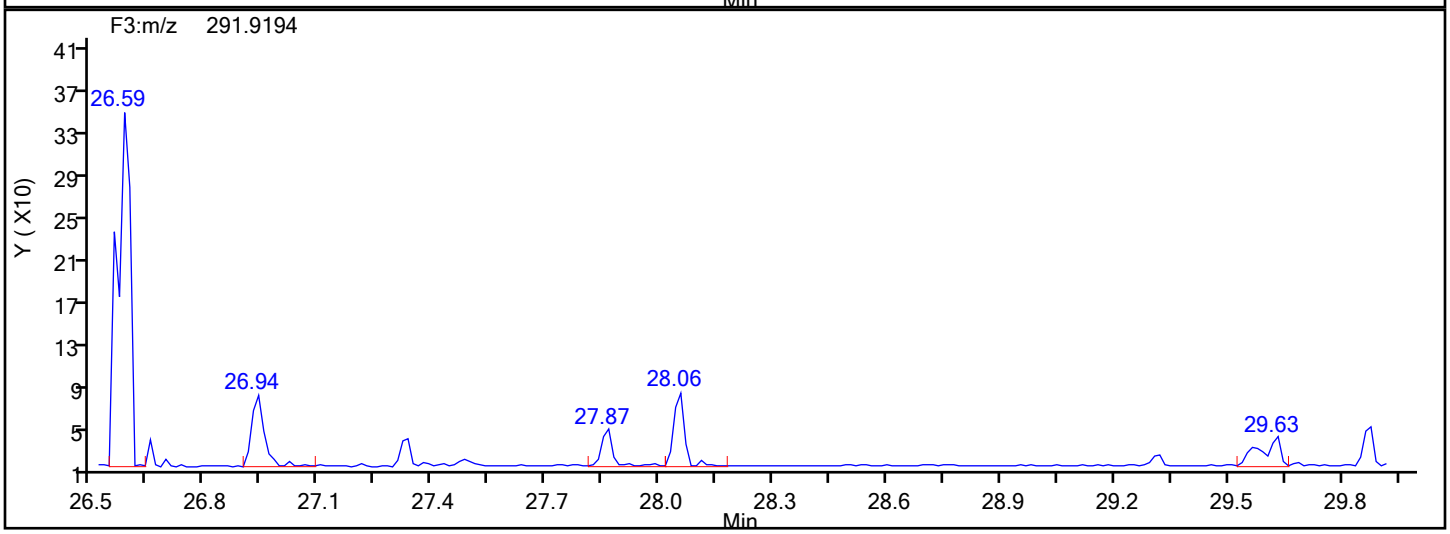
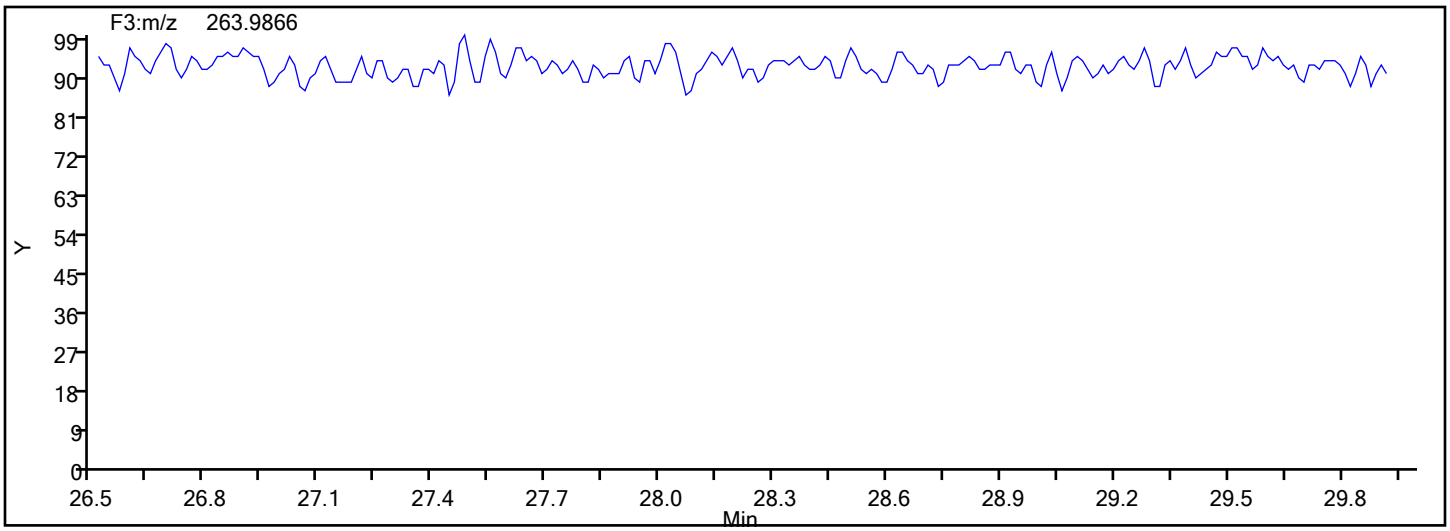
PCB-78





PCB-78 Lock Mass



Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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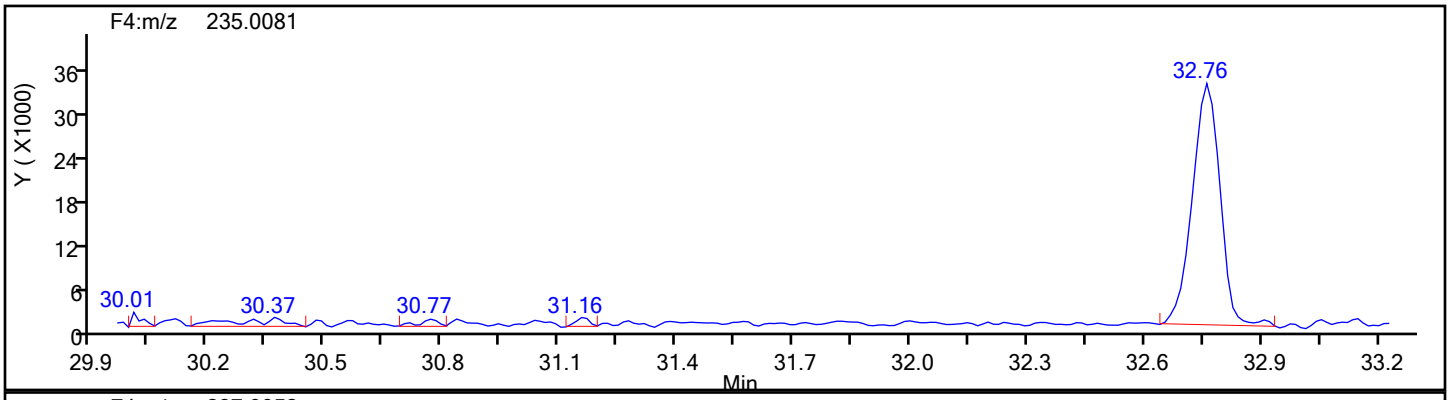
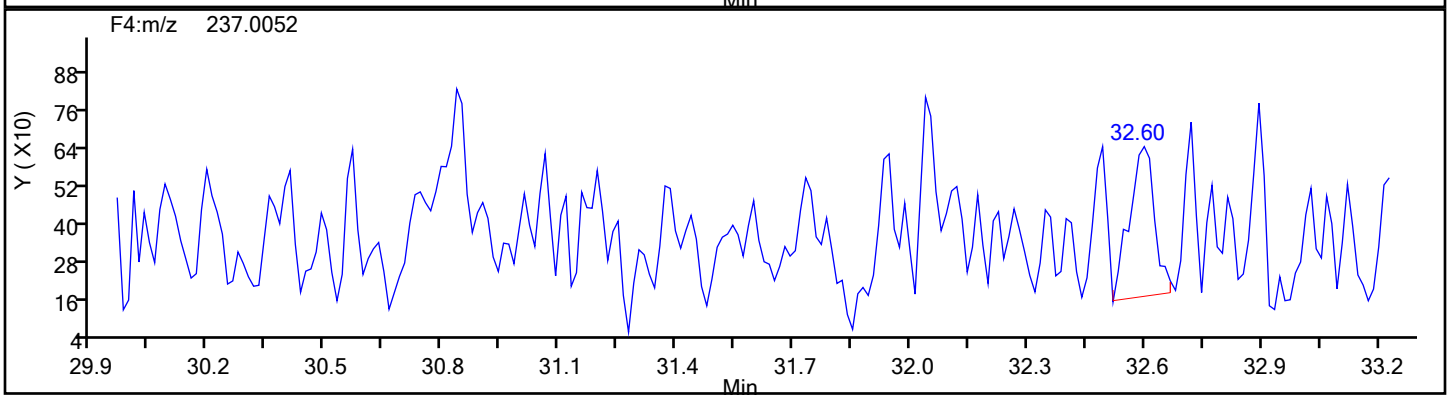
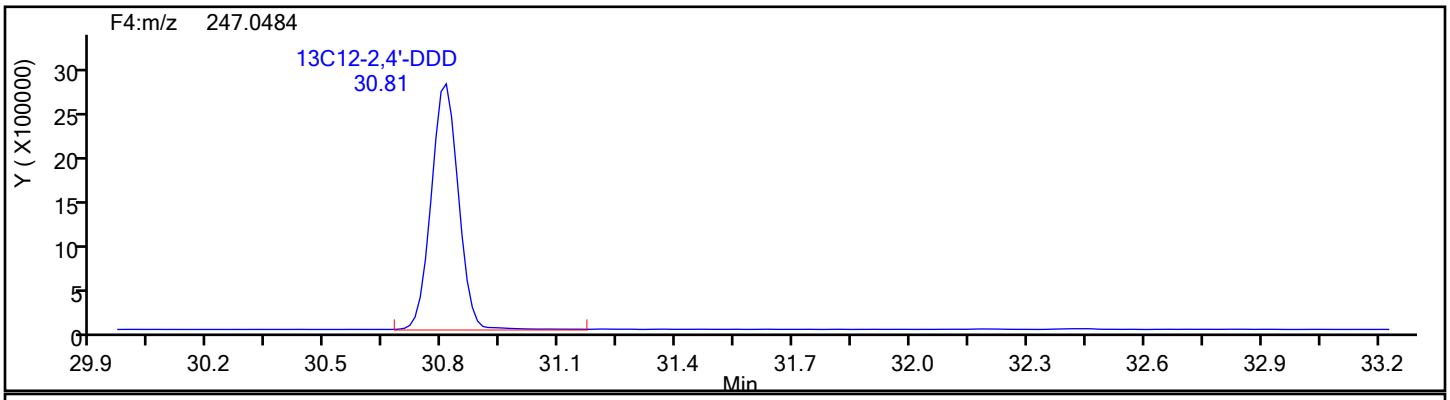
Column Type:	RTX-5	Column Dia:	0.32 mm

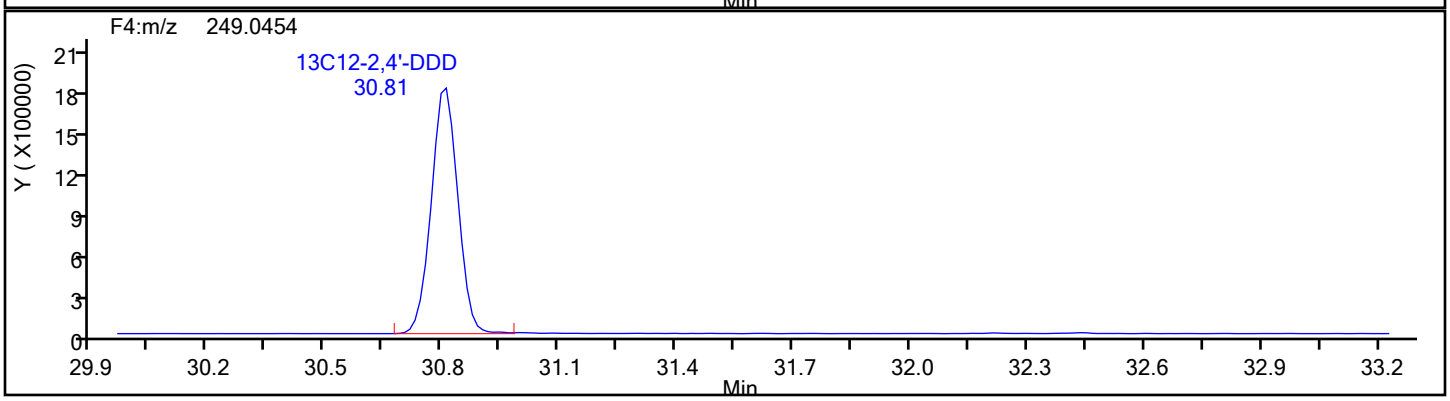
2,4'-DDD





2,4'-DDD Standards



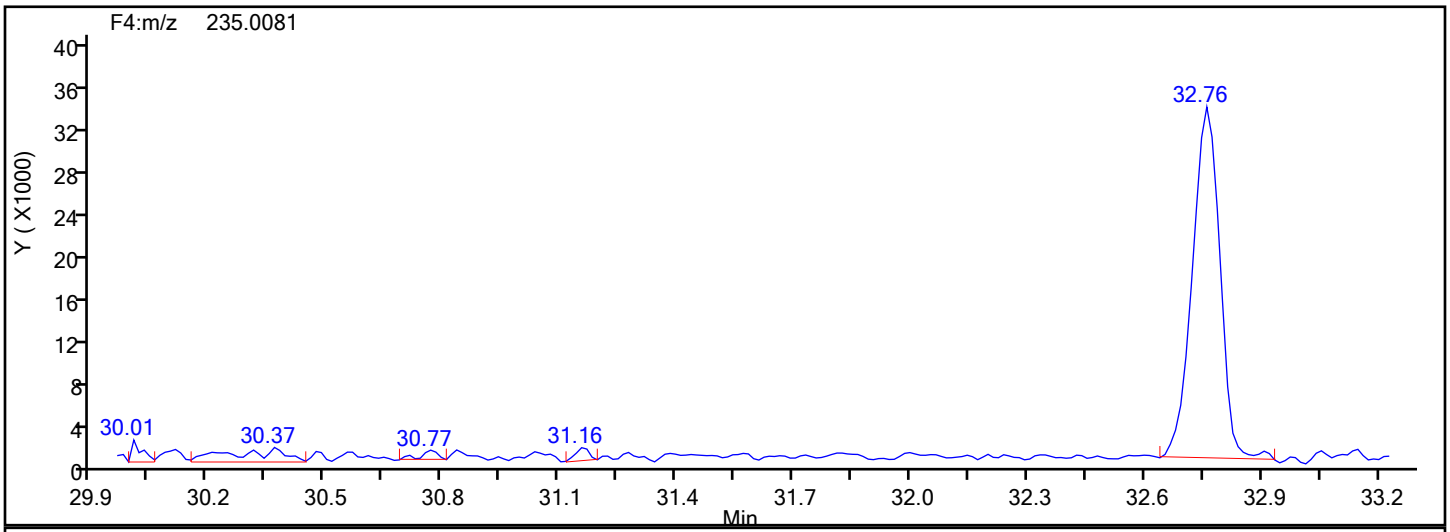


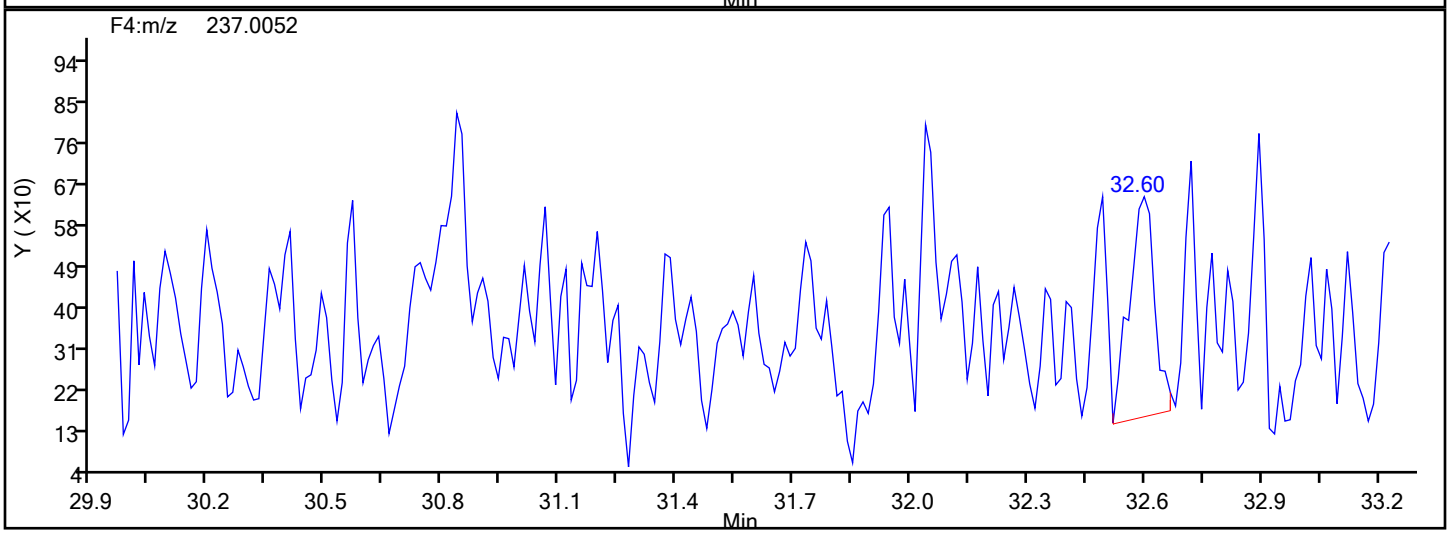
Report Date: 05-May-2025 17:59:57 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

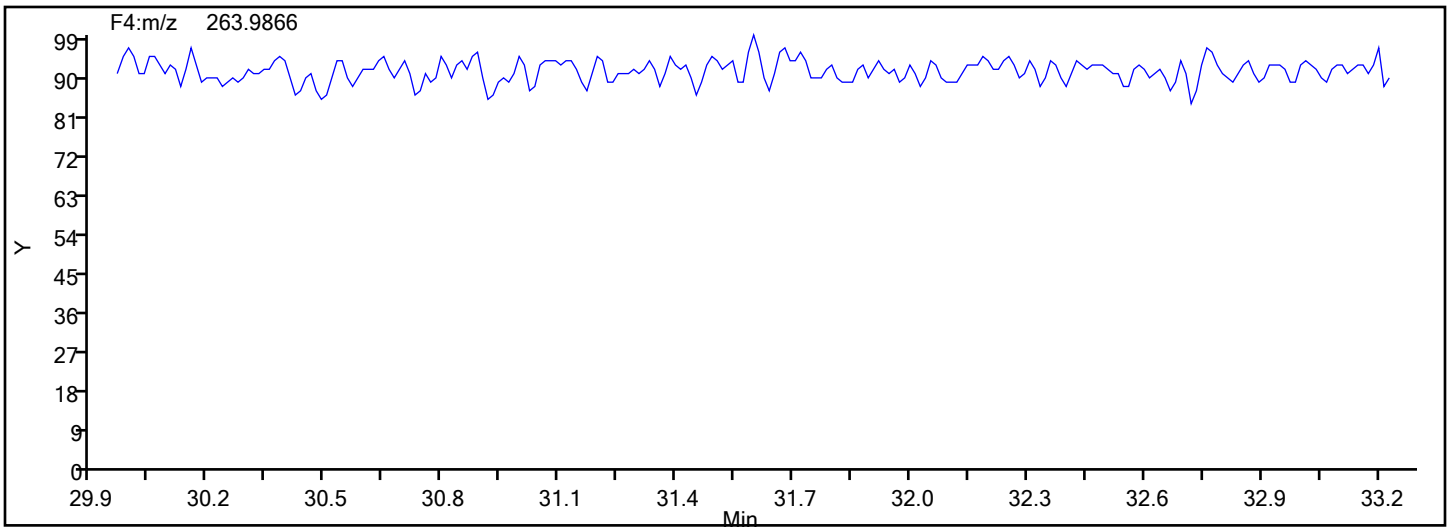
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d		
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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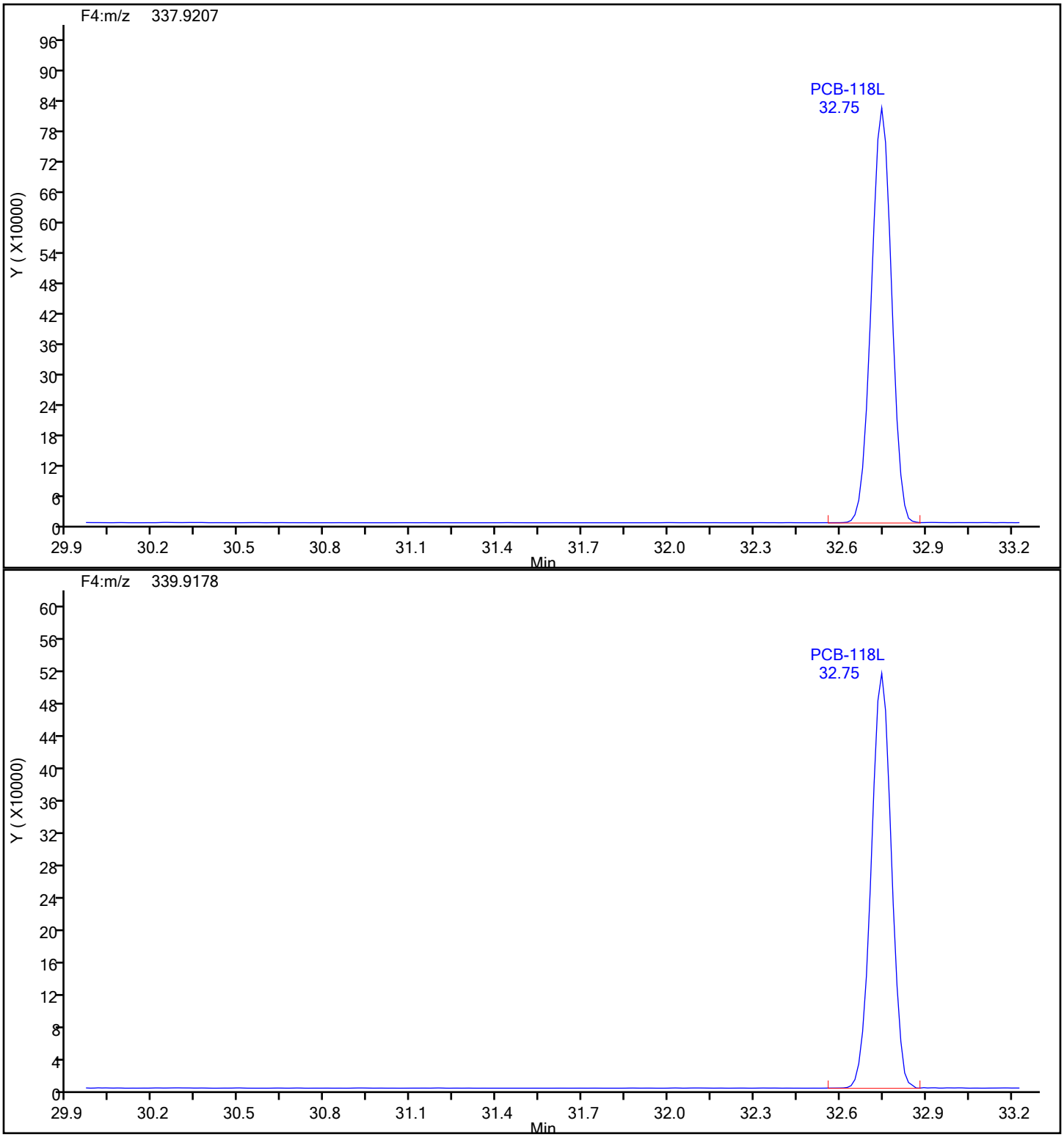
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



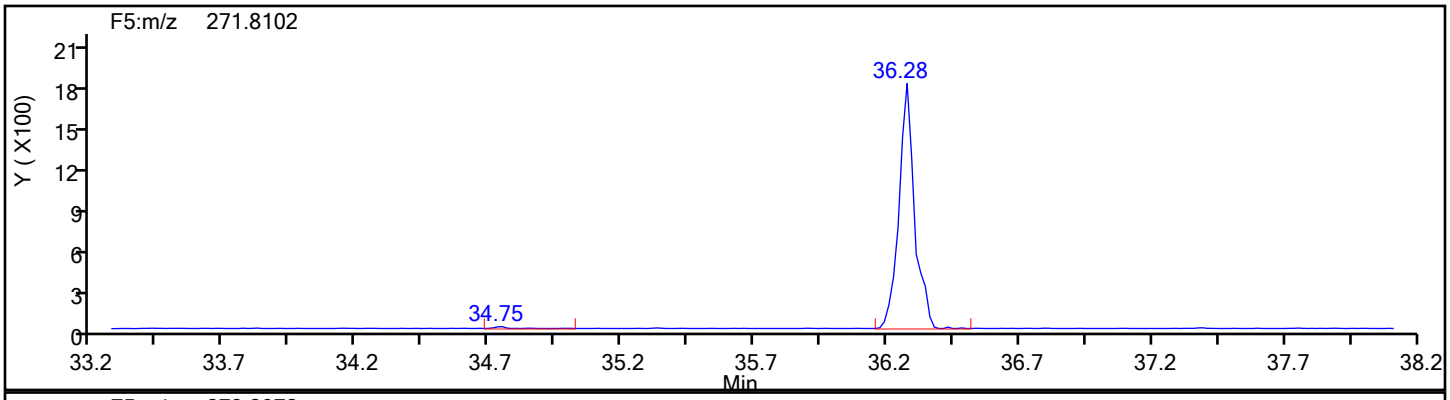
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

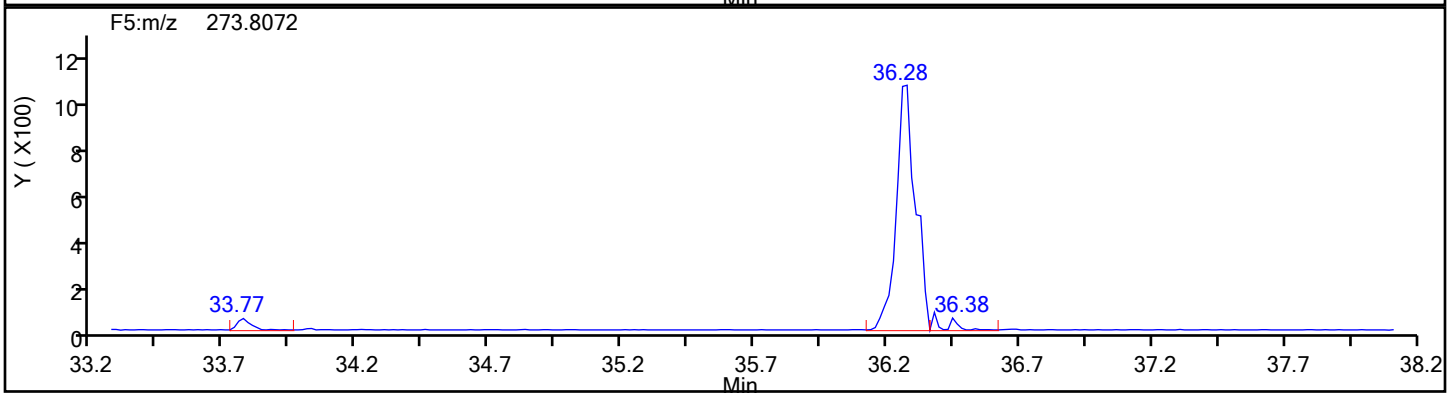
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

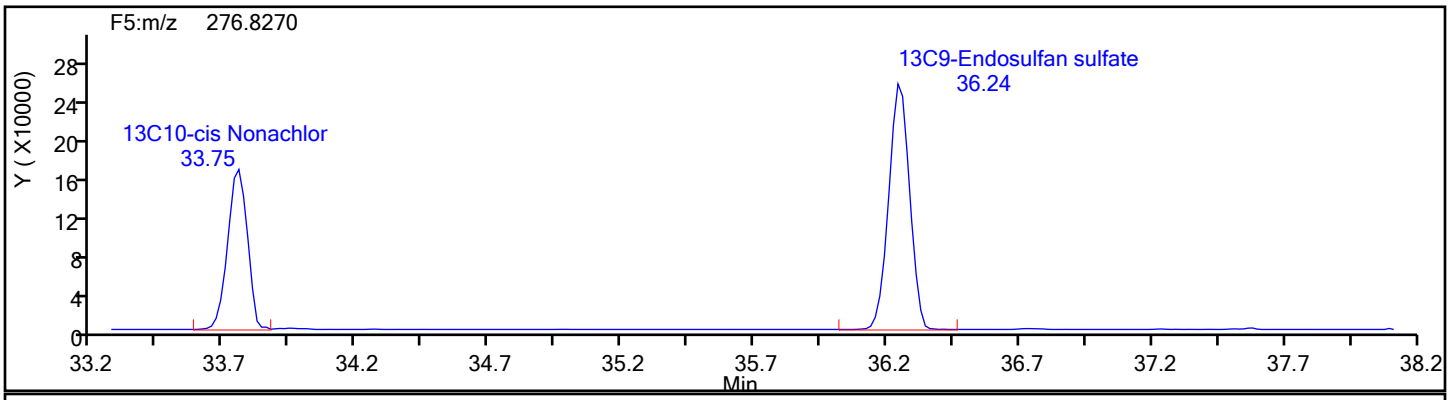
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

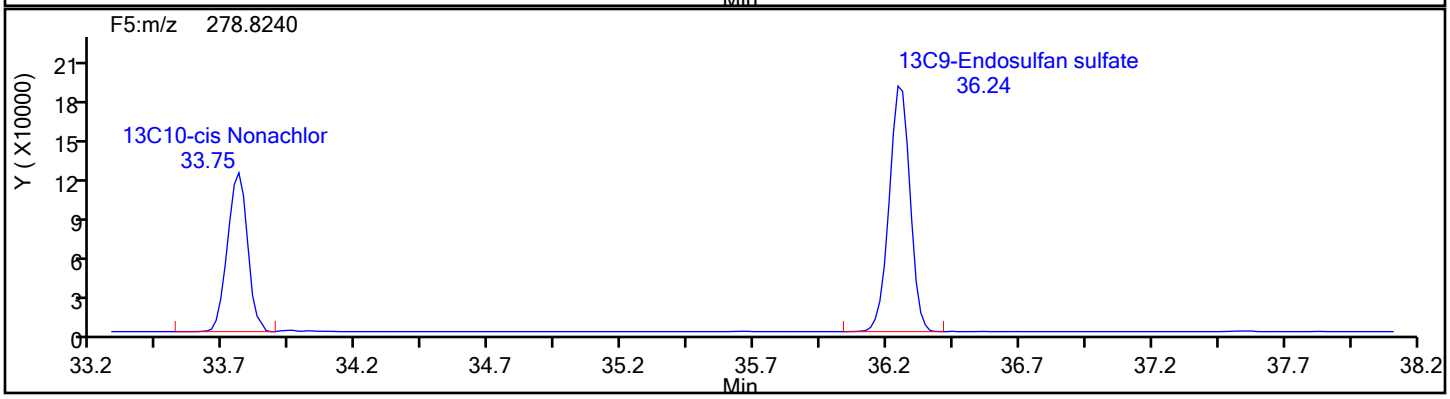
Nonachlor





Nonachlor Standards



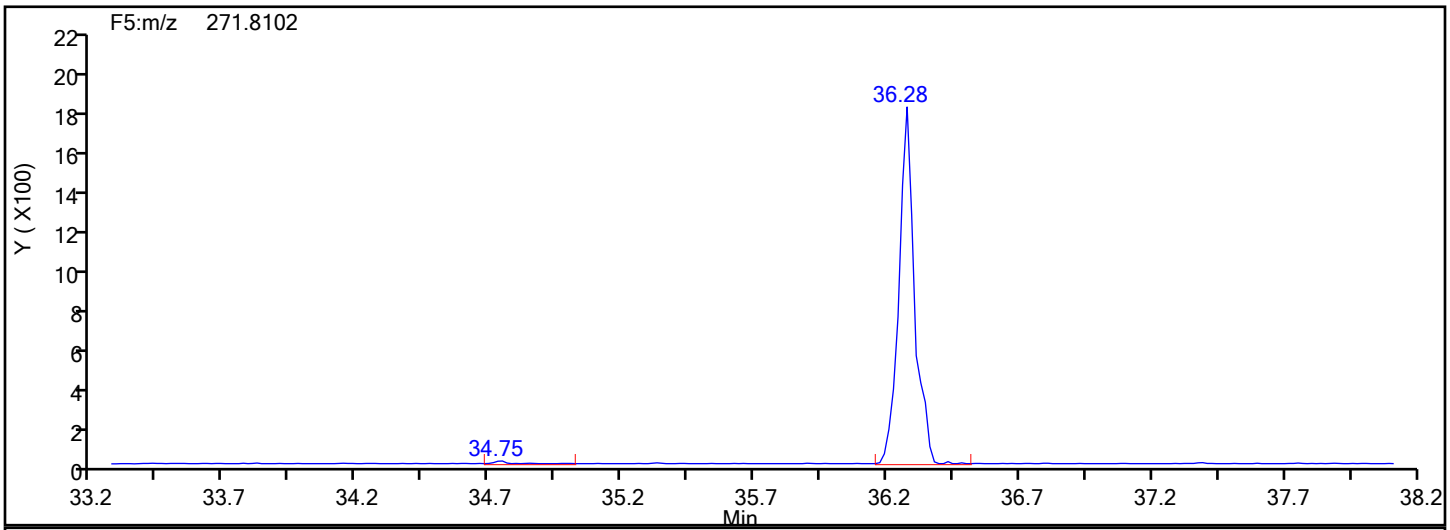


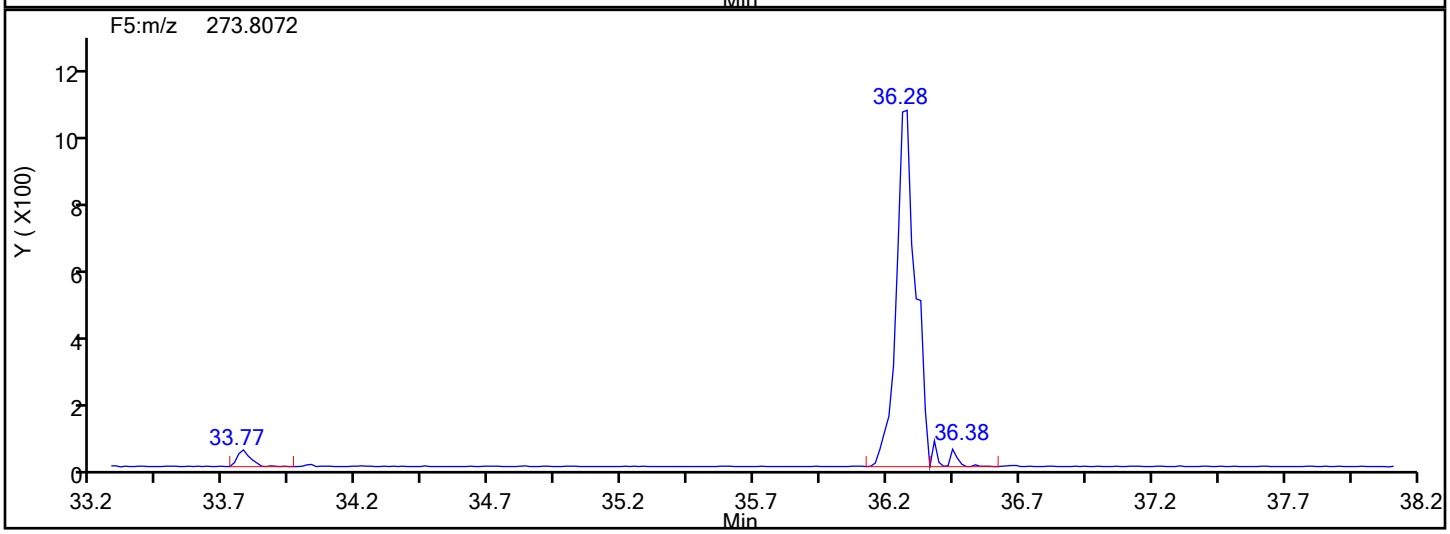
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

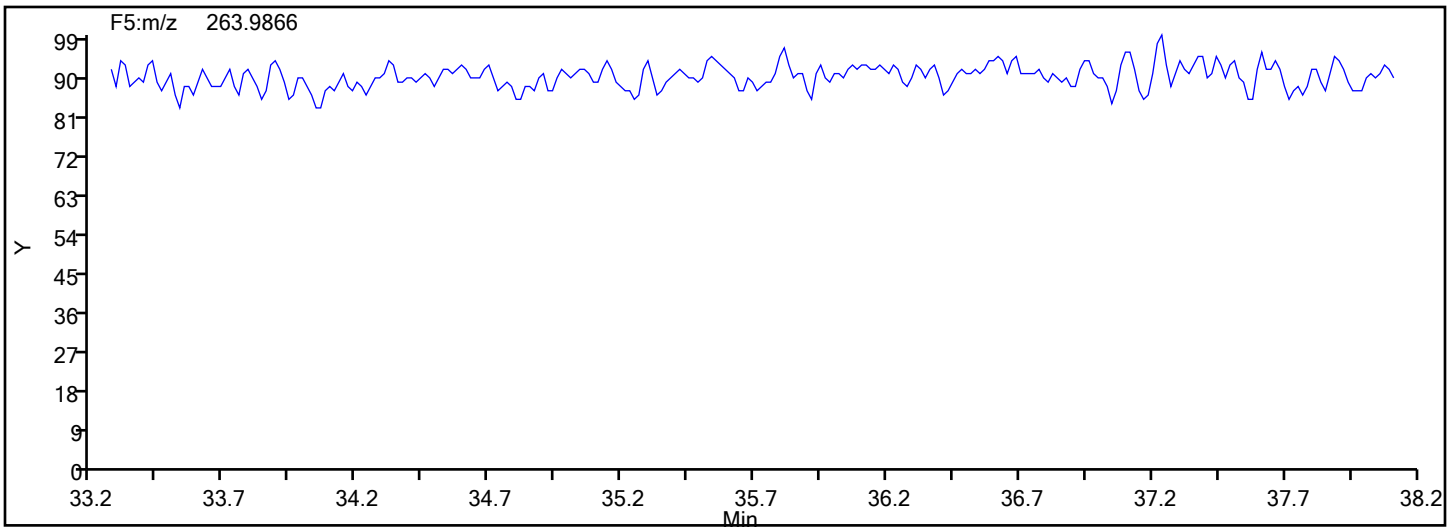
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d		
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



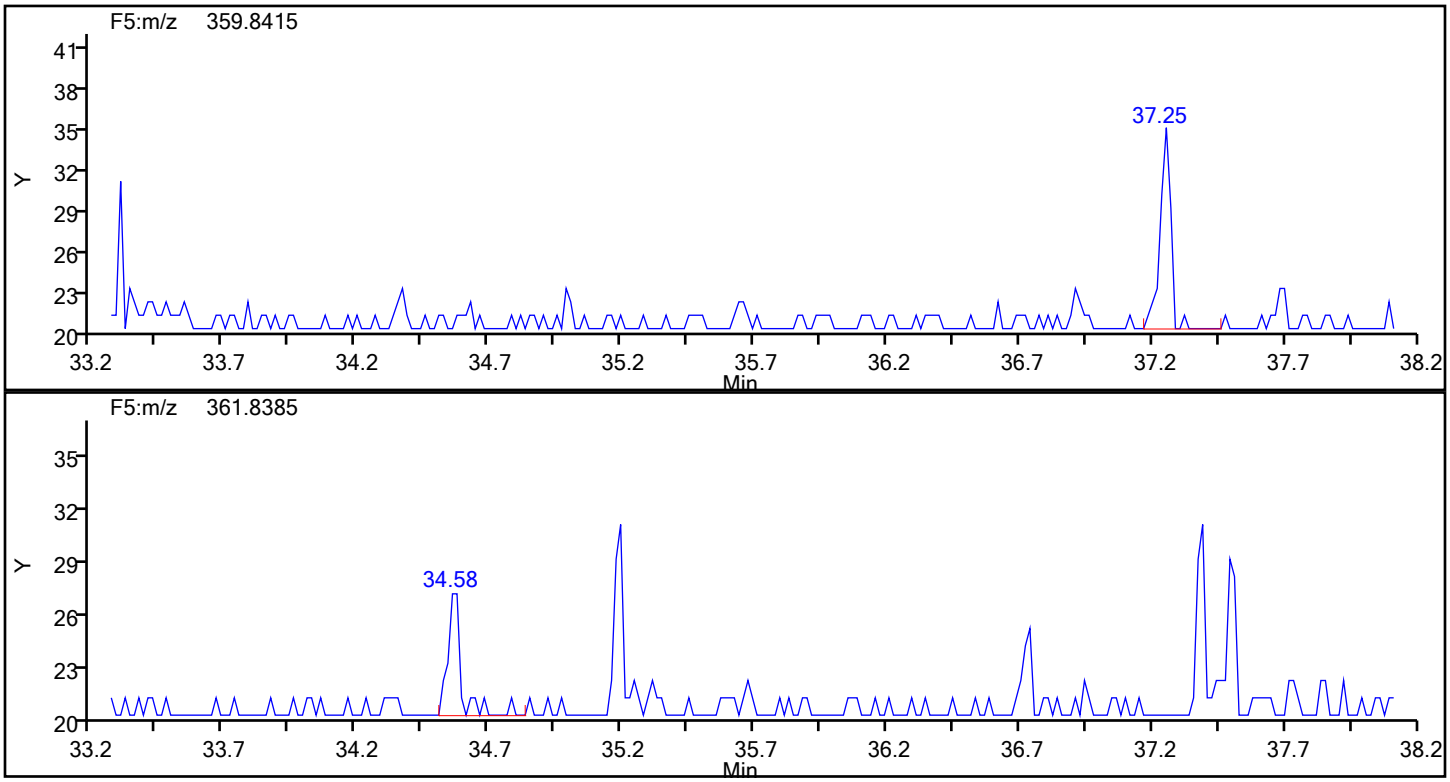
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

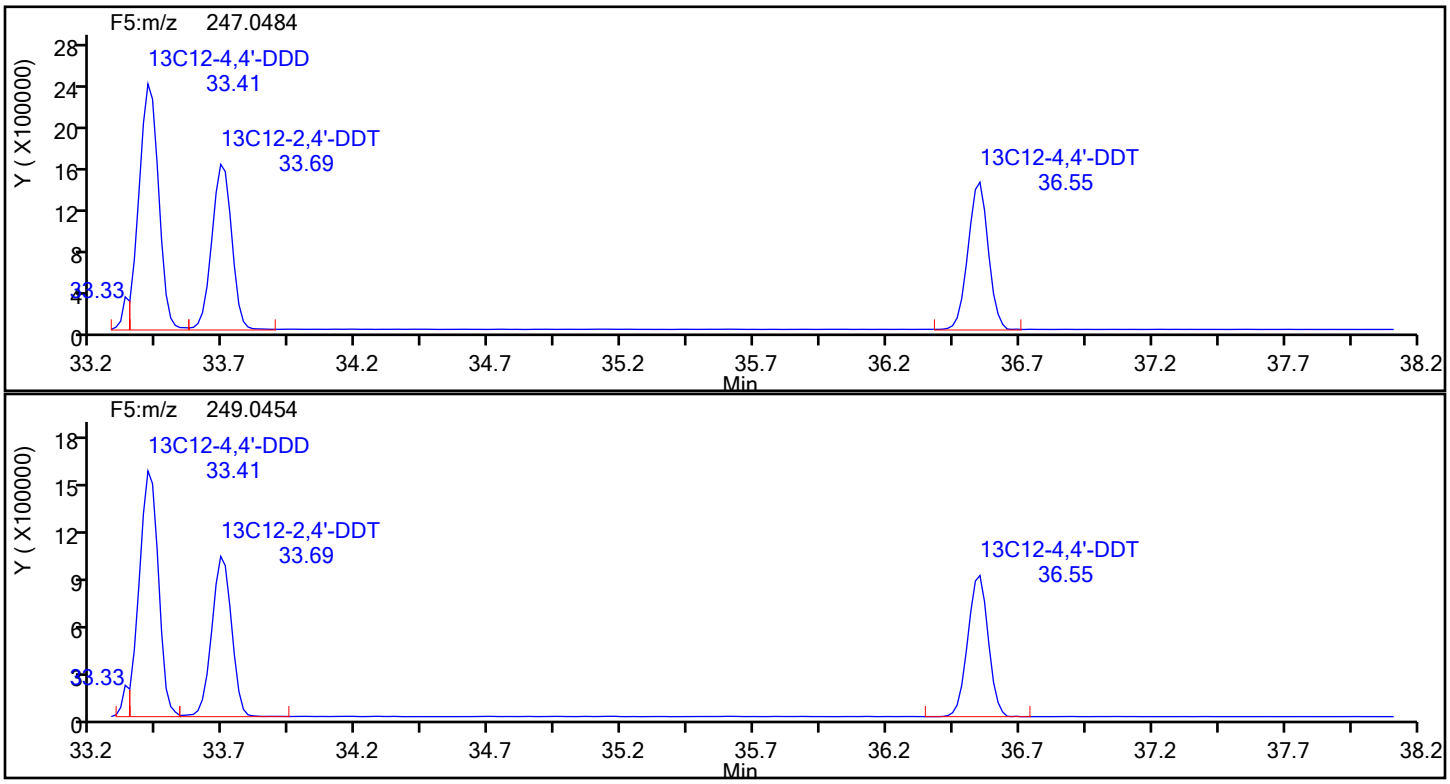
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



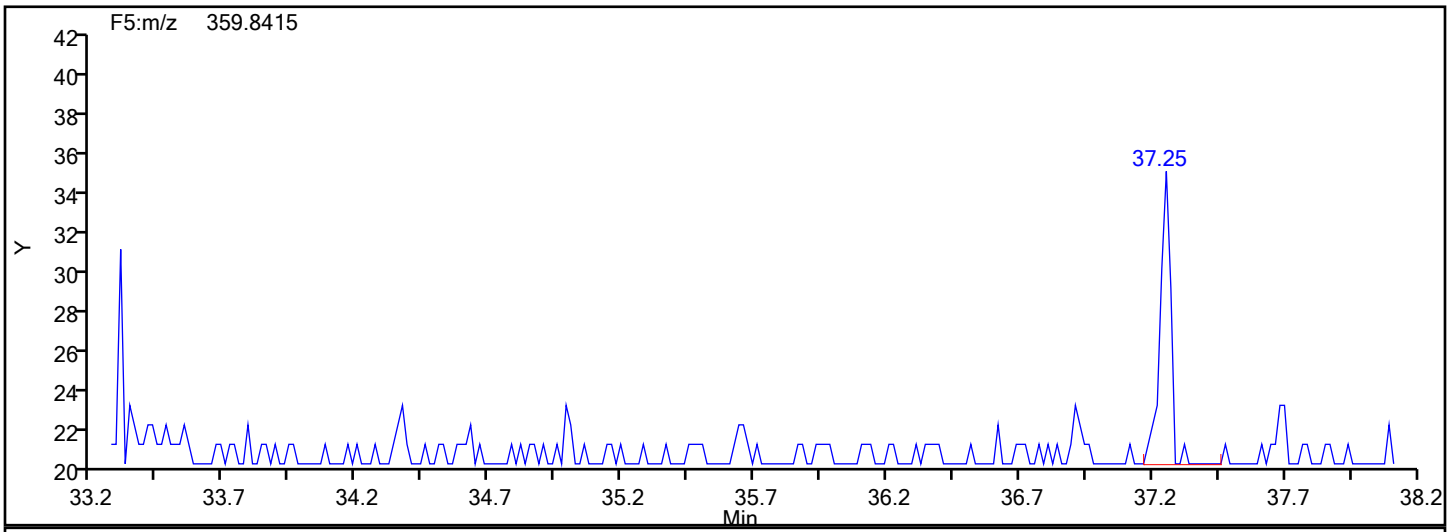
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

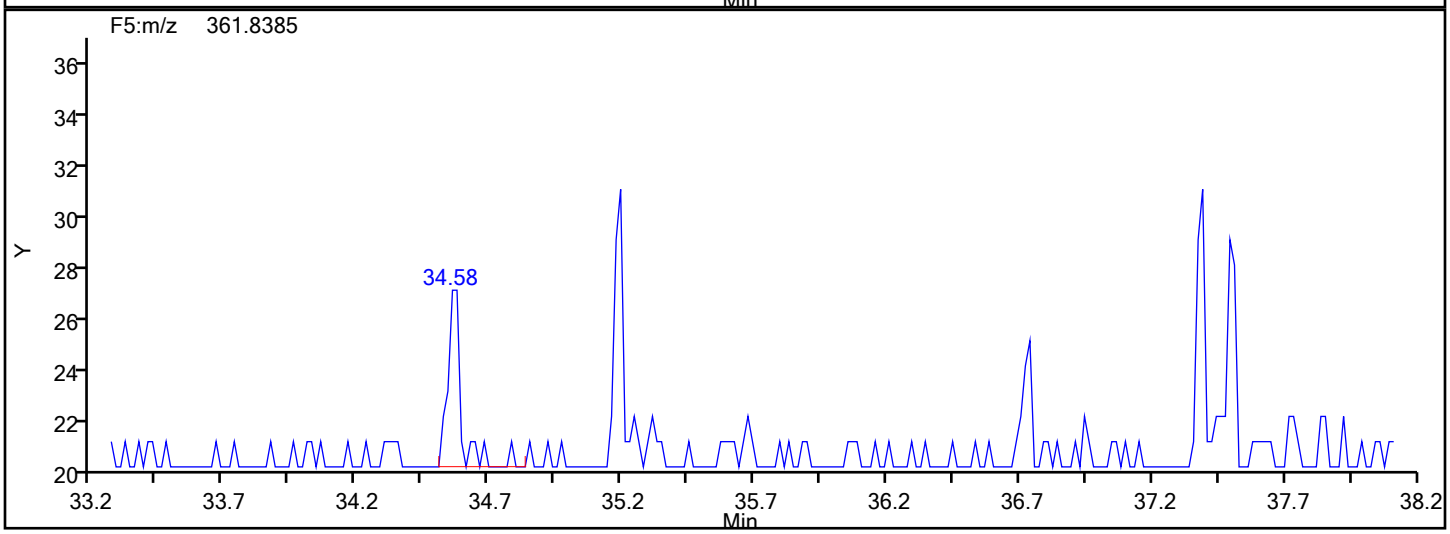
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

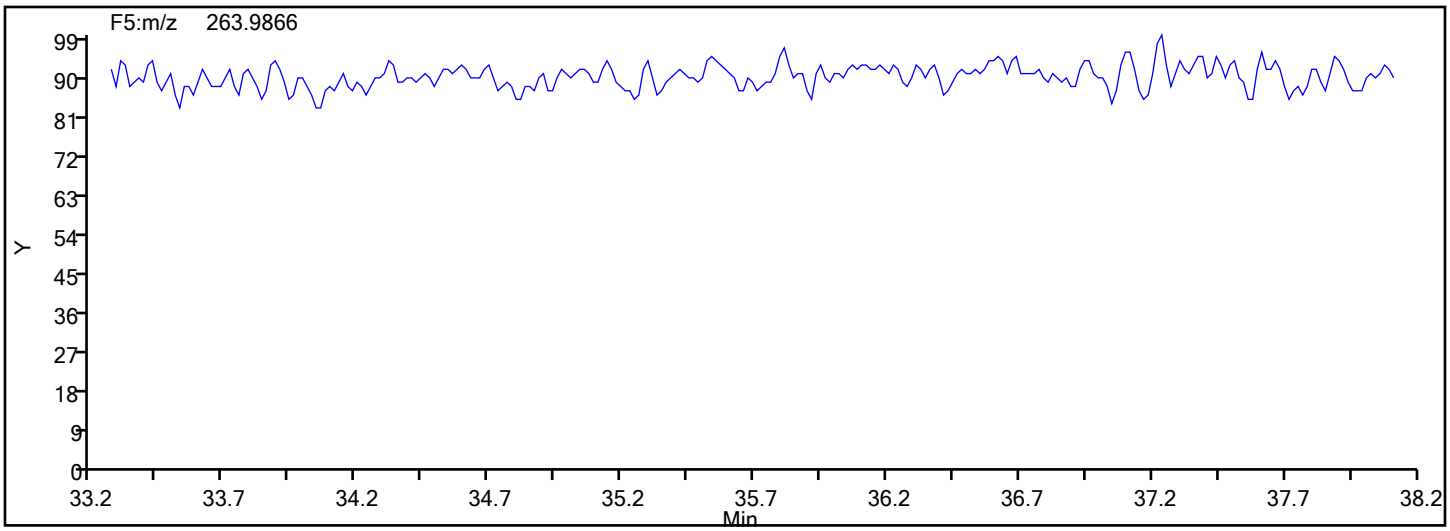
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



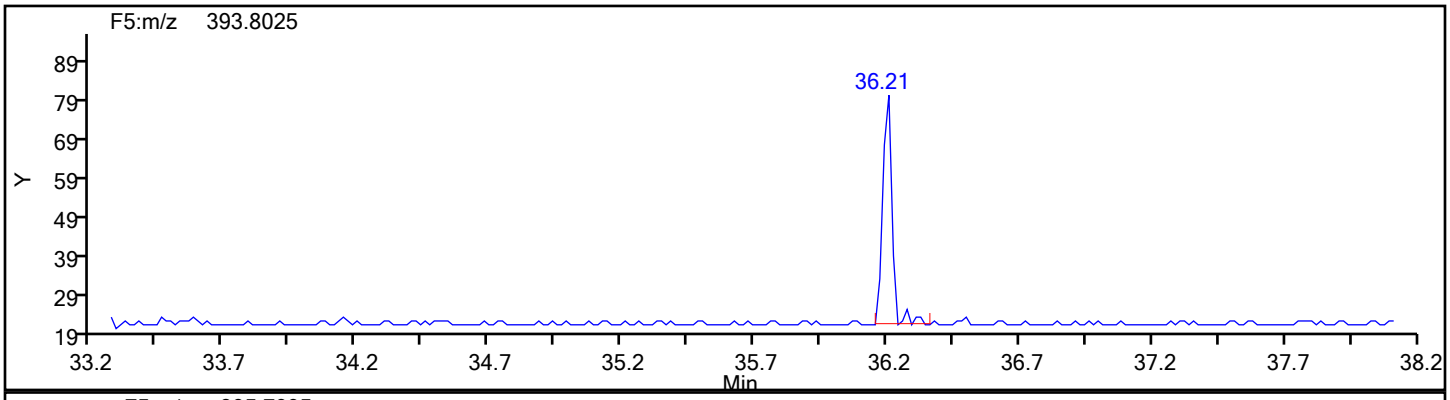
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

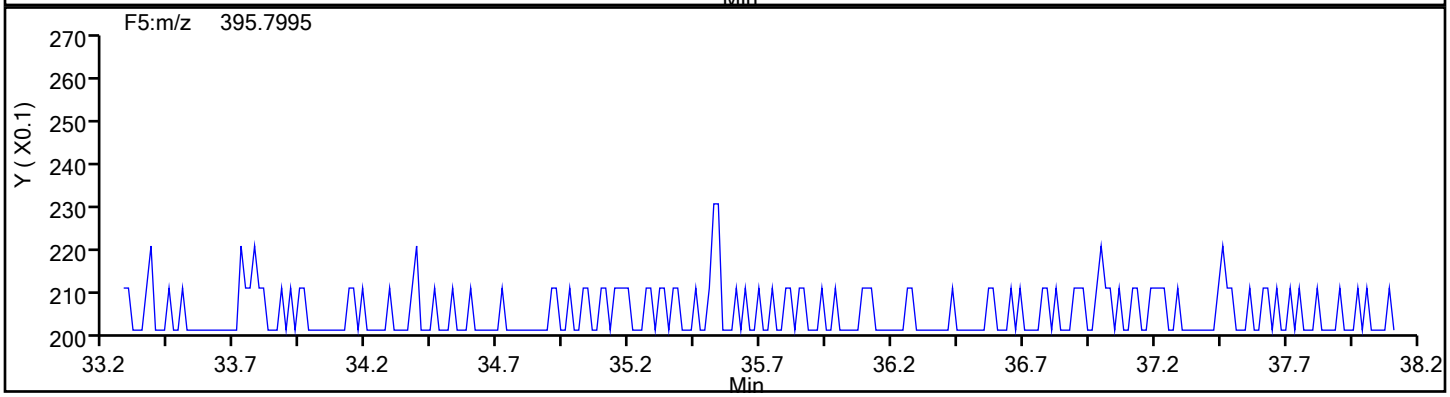
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

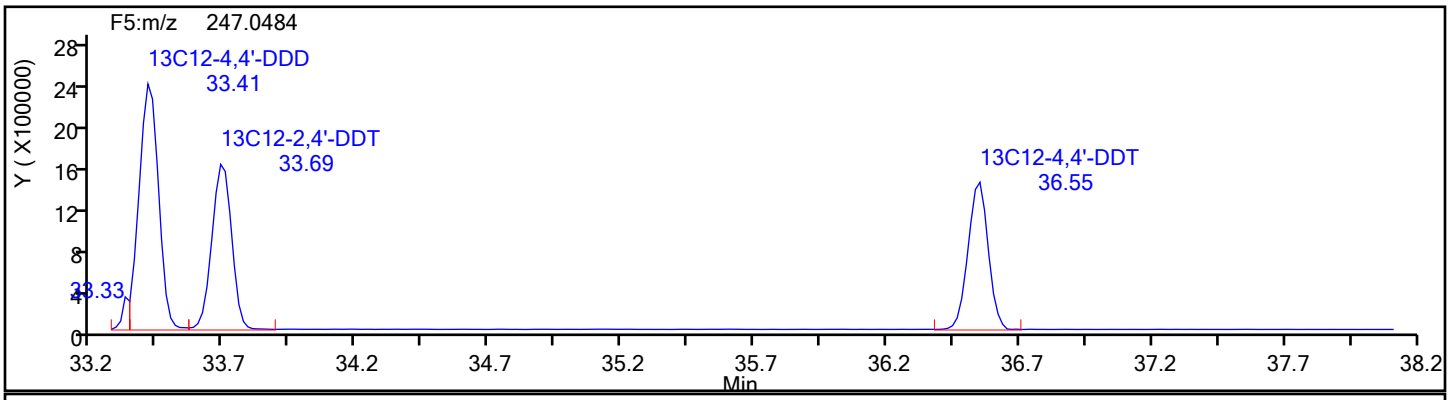
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

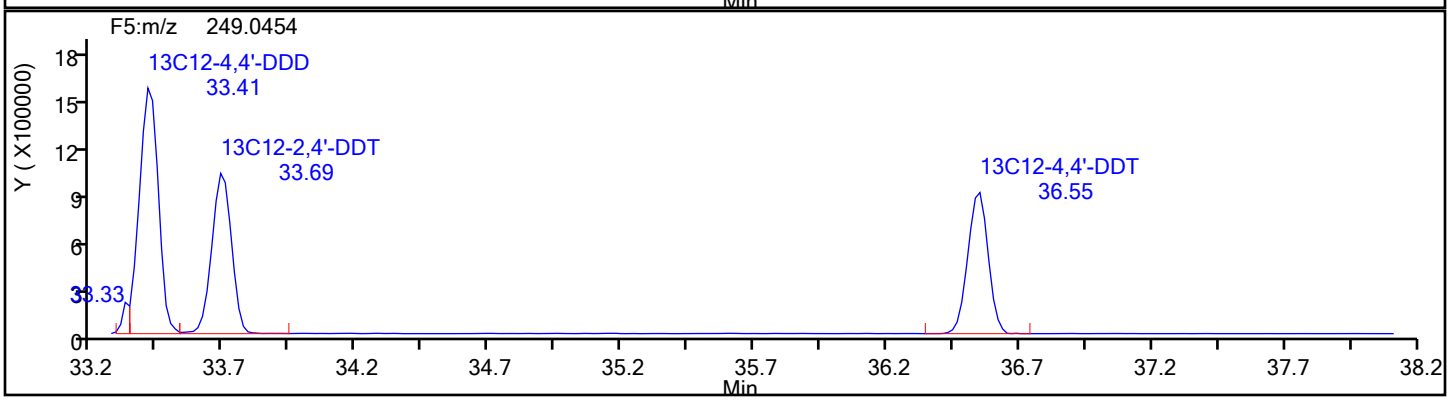
PCB-184





PCB-184 Standards





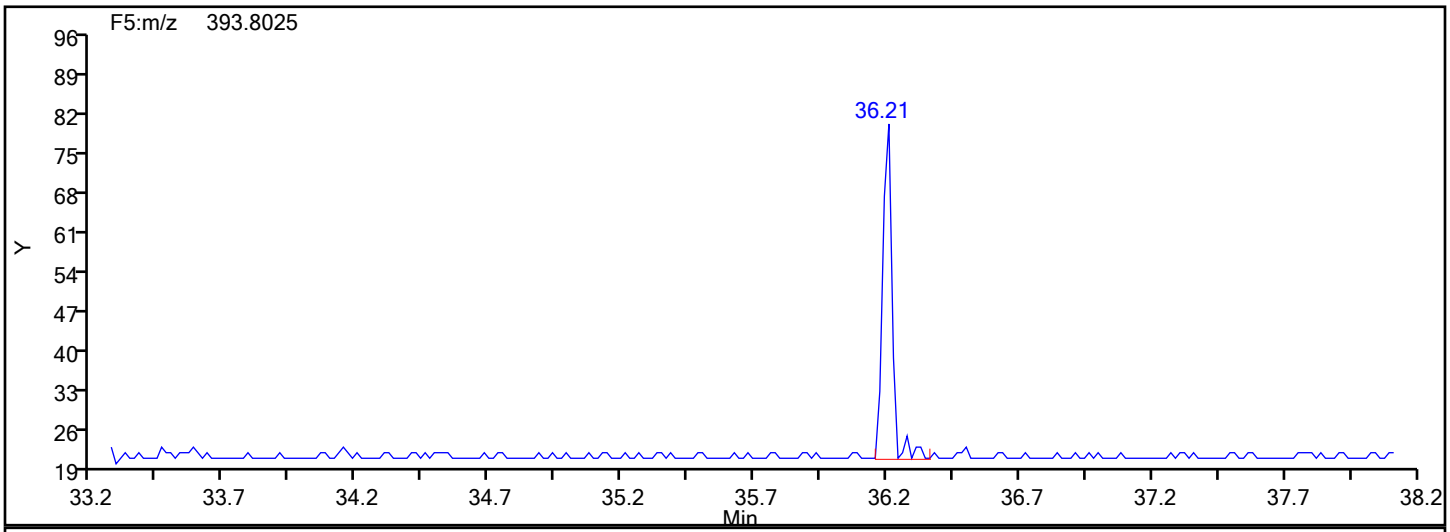
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

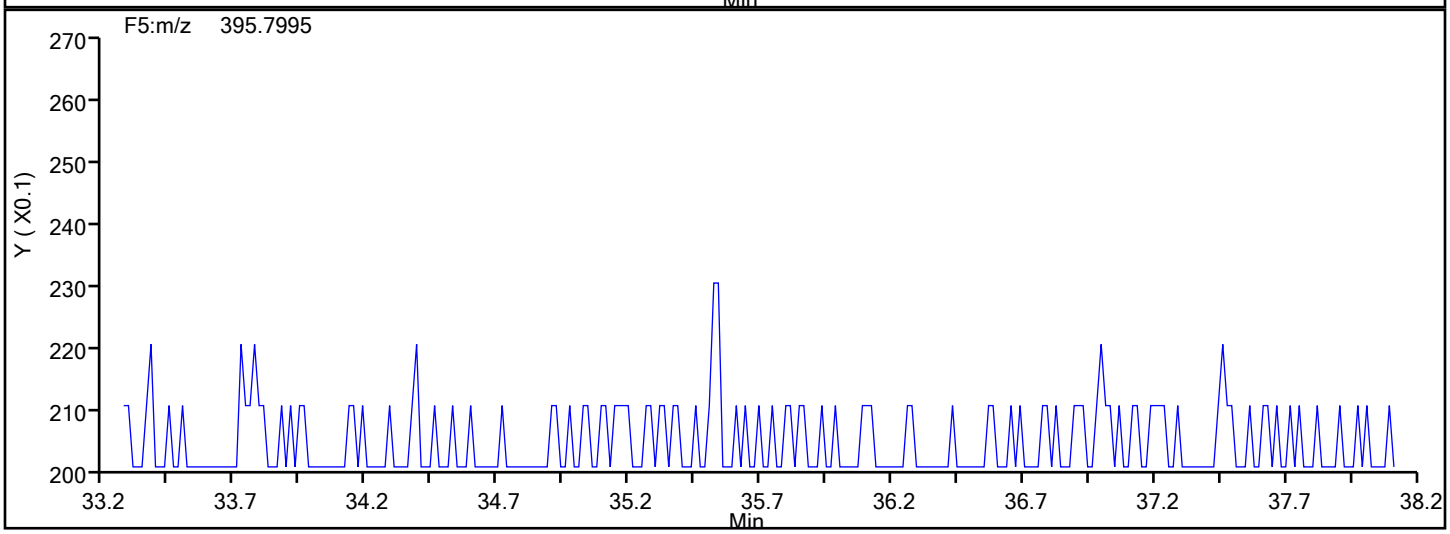
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

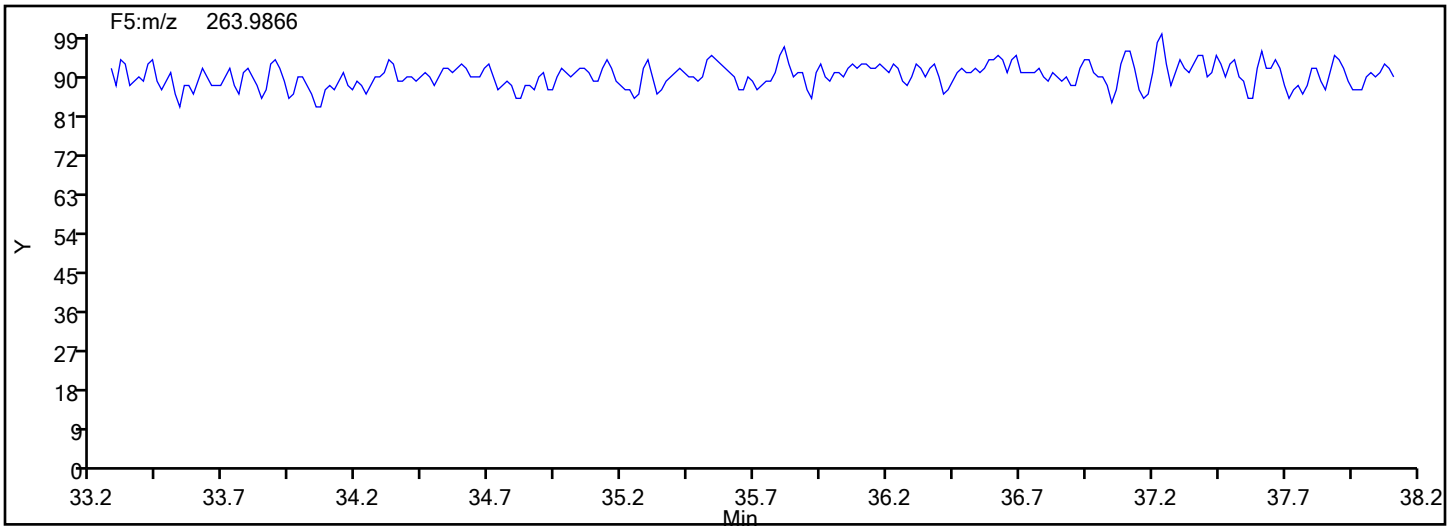
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



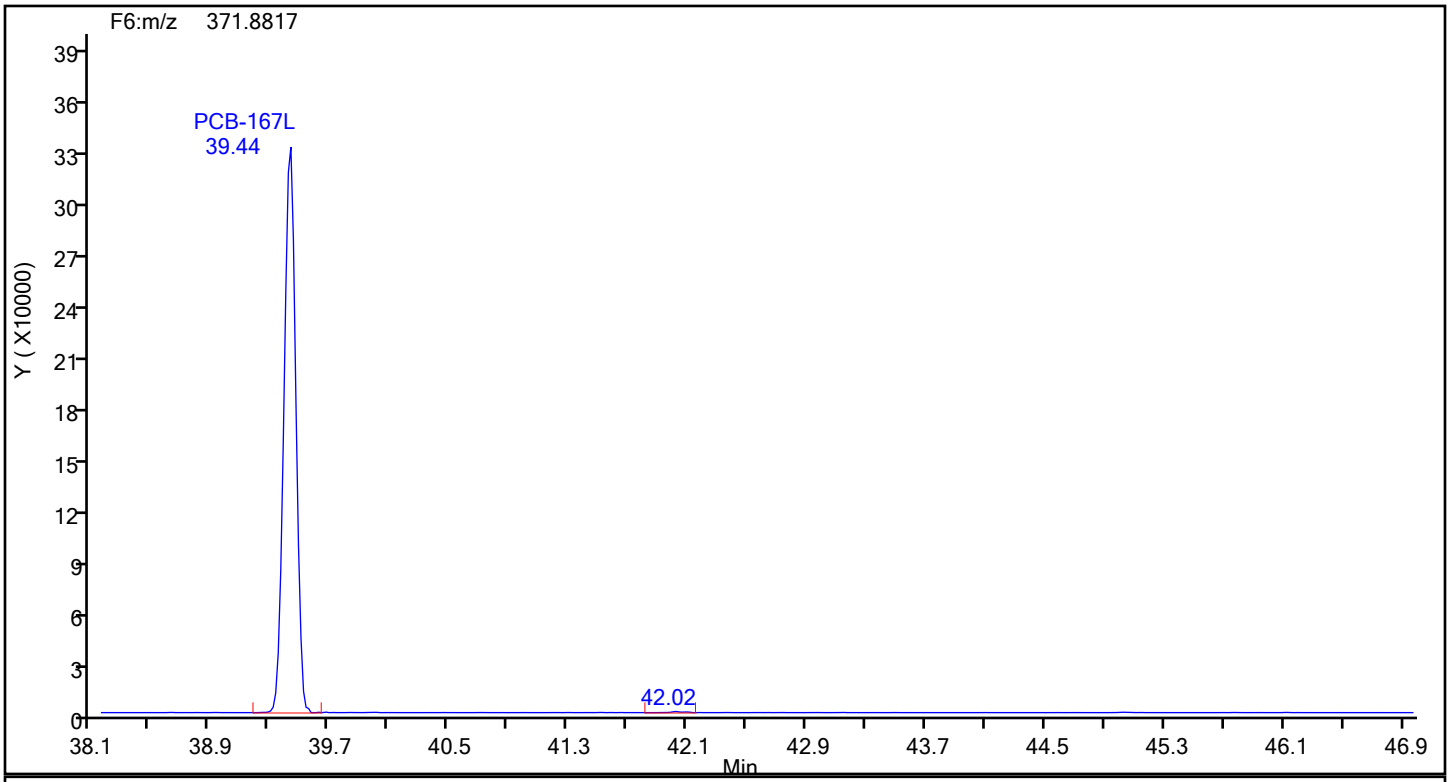
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

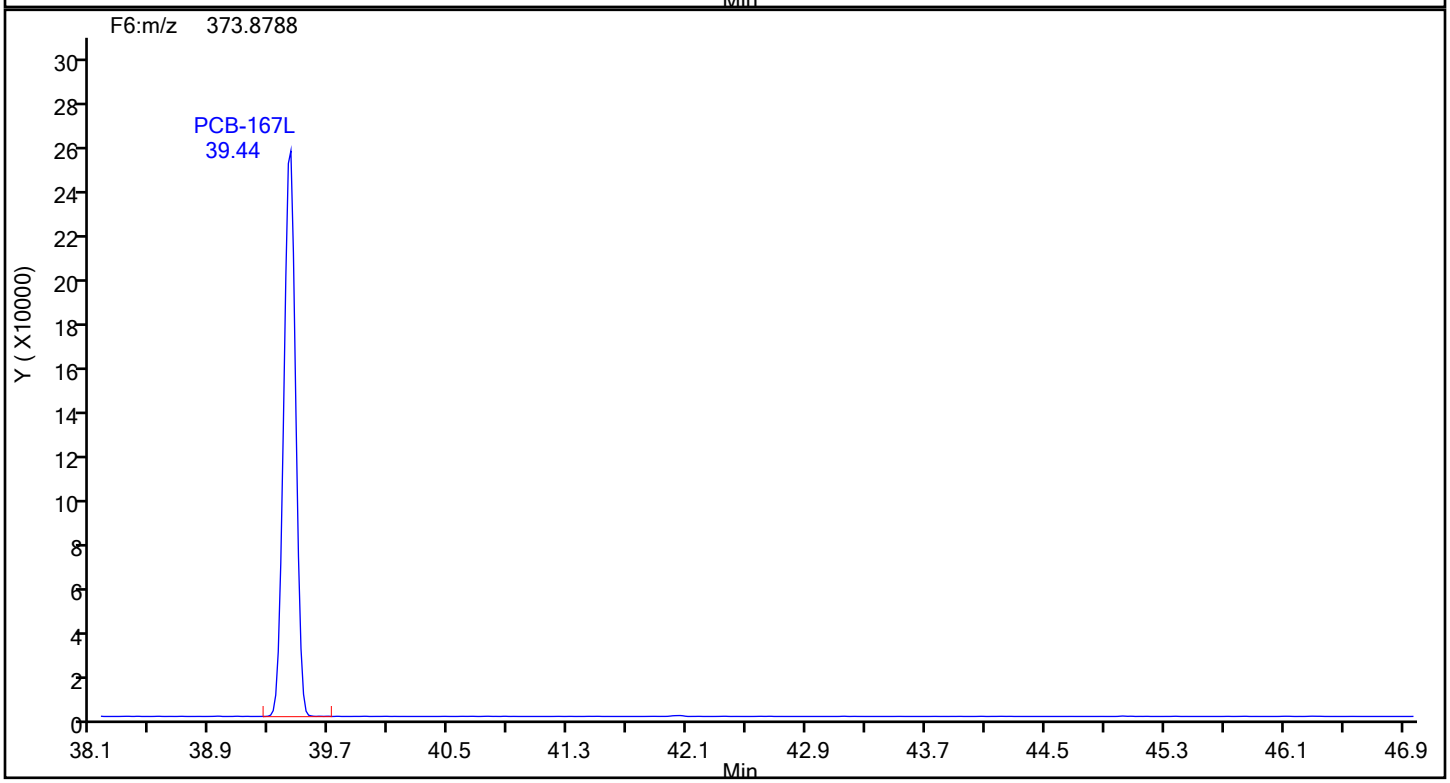
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





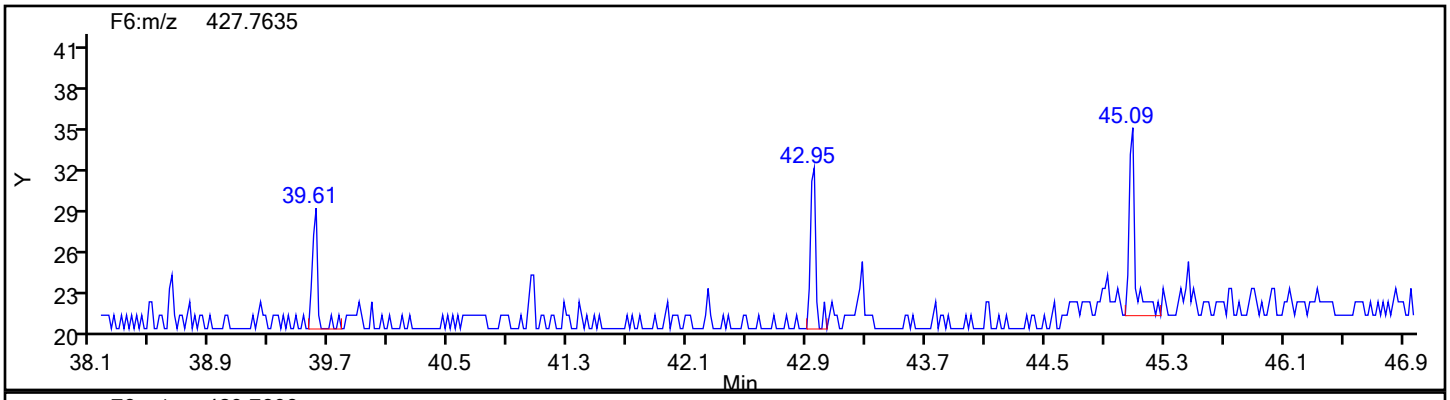
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

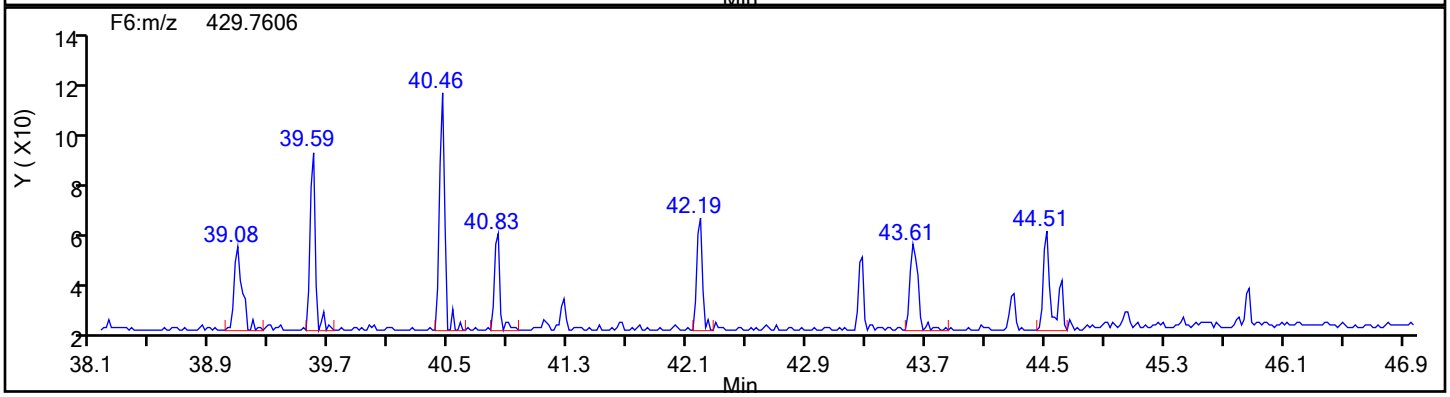
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

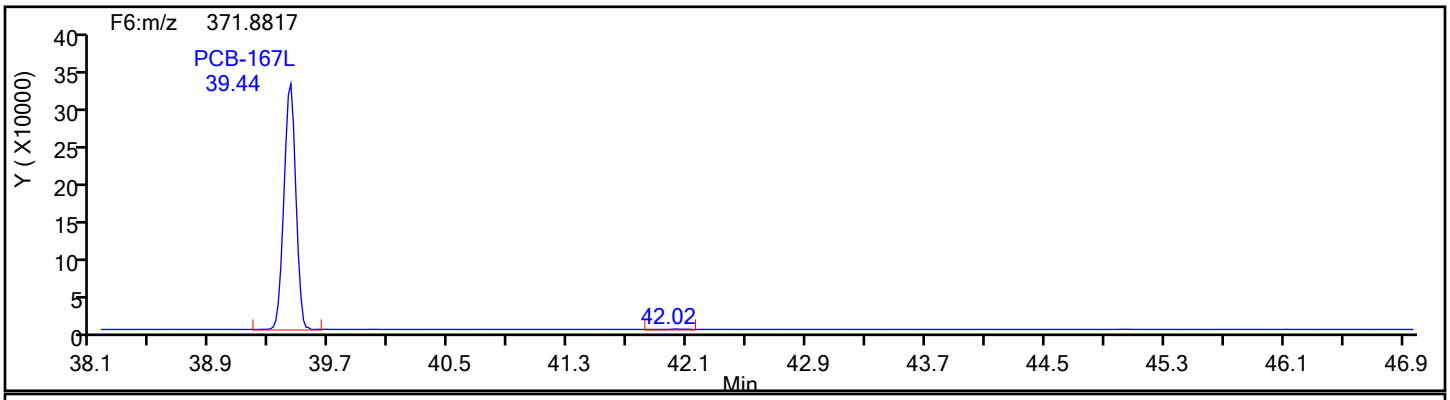
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

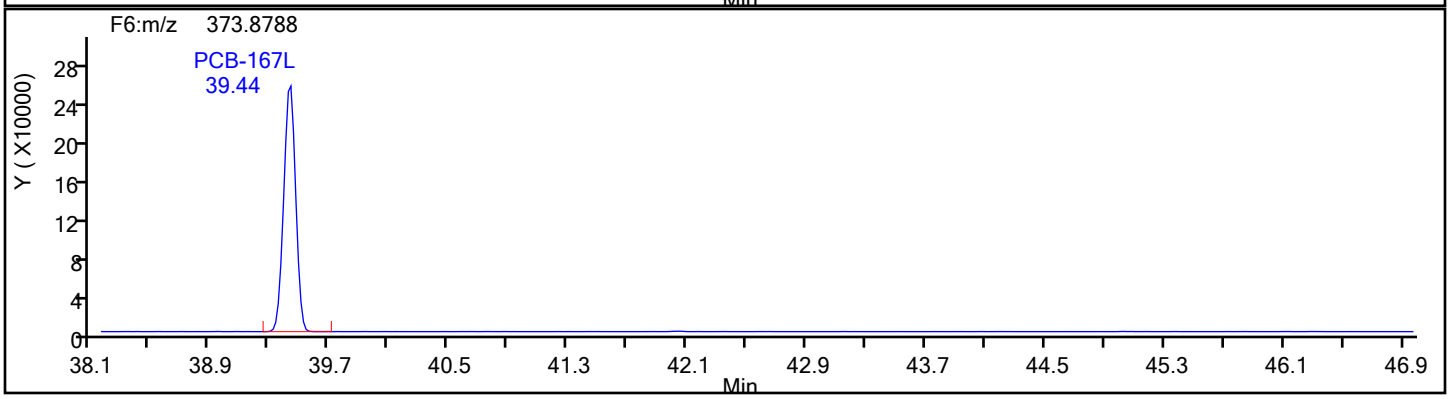
PCB-204





PCB-204 Standards



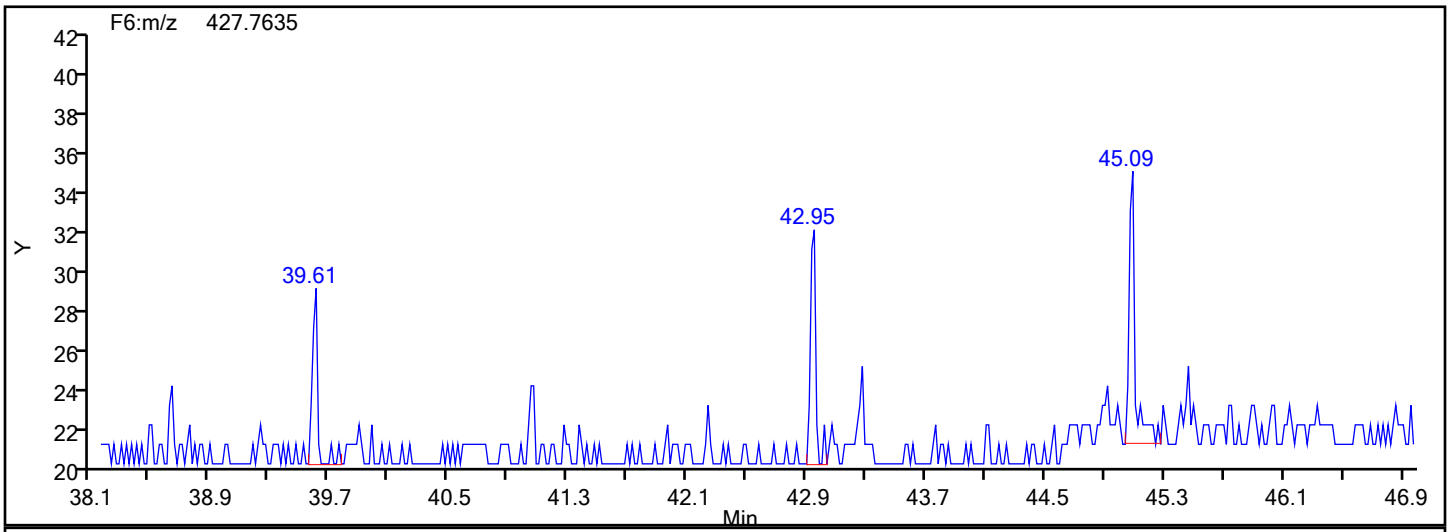


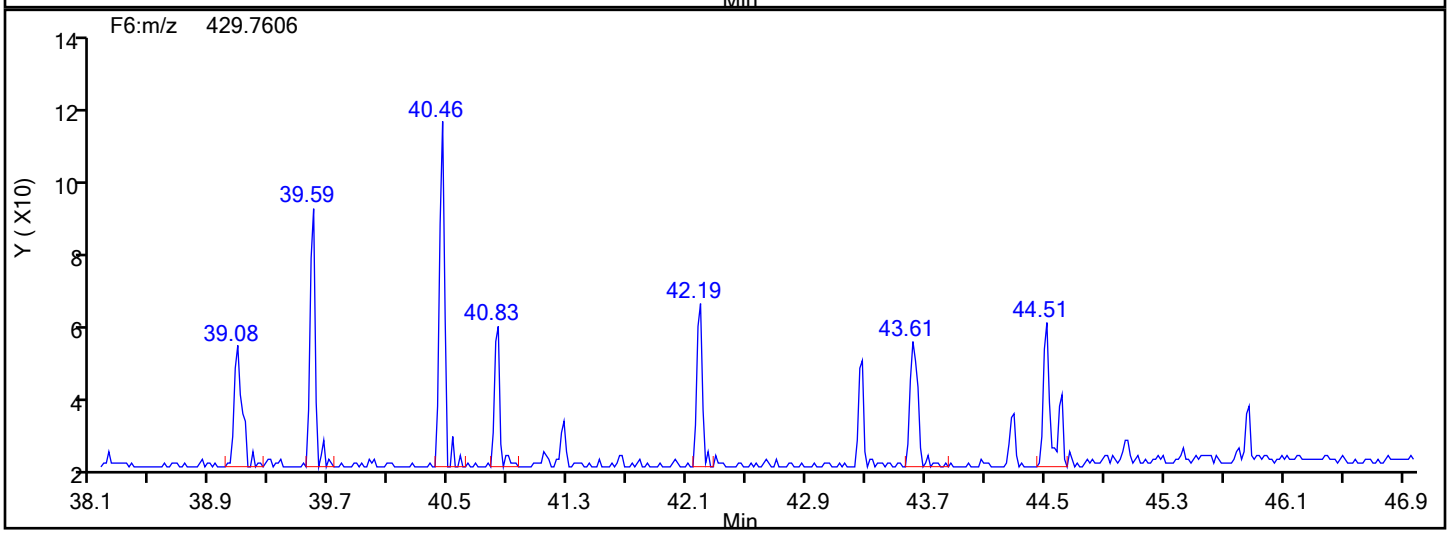
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

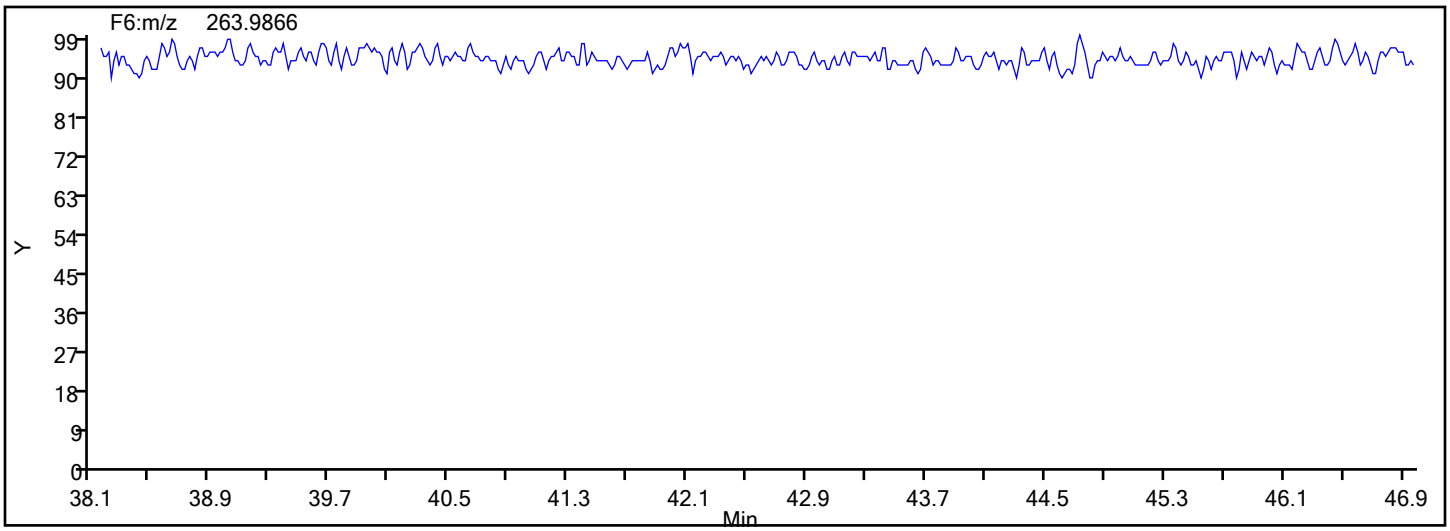
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d		
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



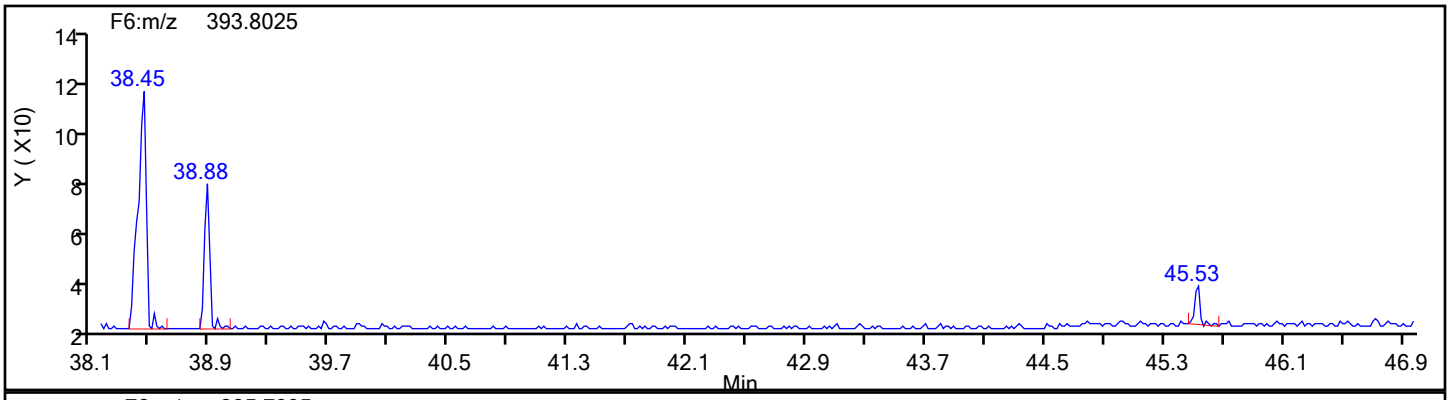
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

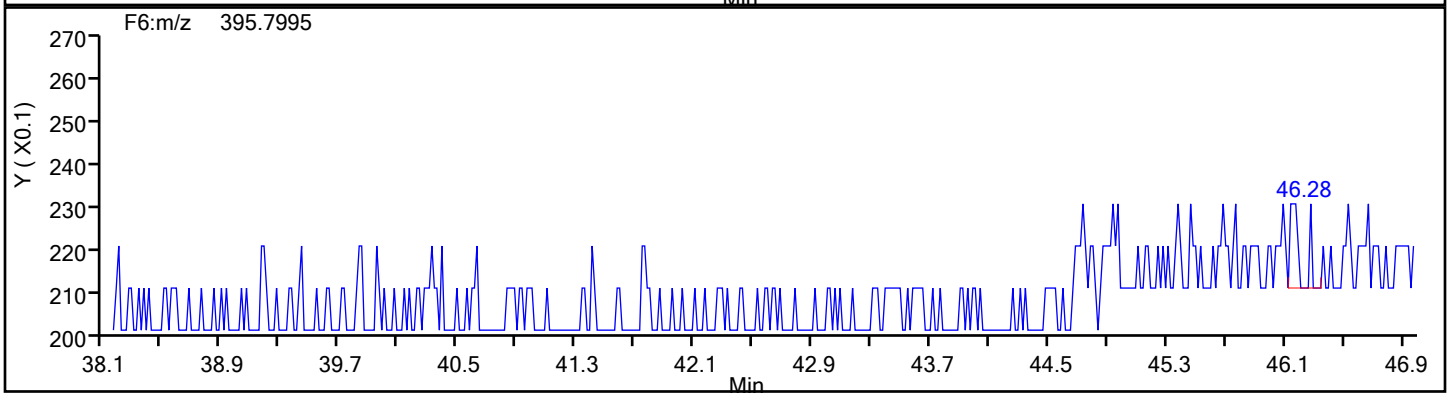
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

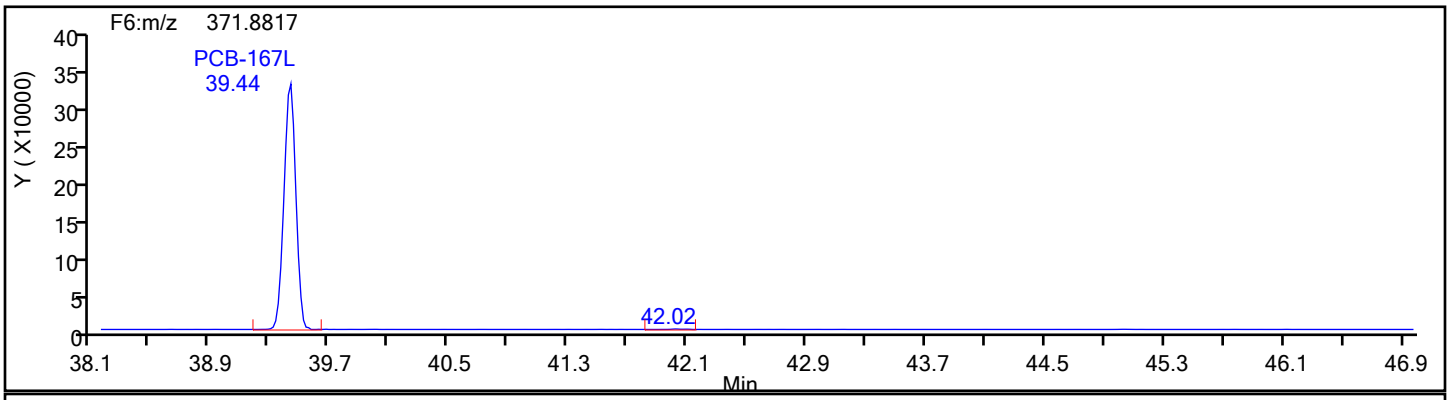
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

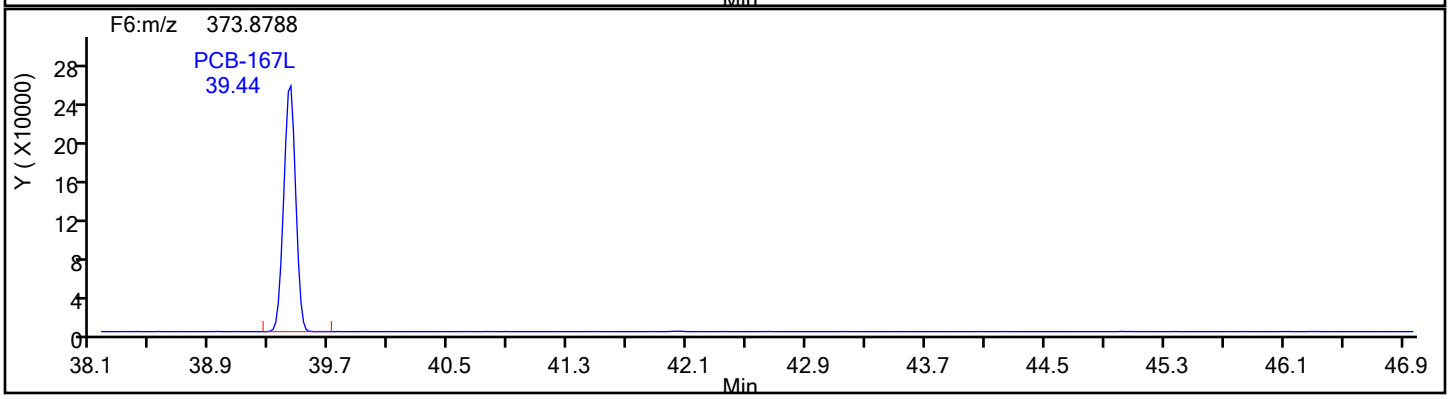
PCB-192





PCB-192 Standards





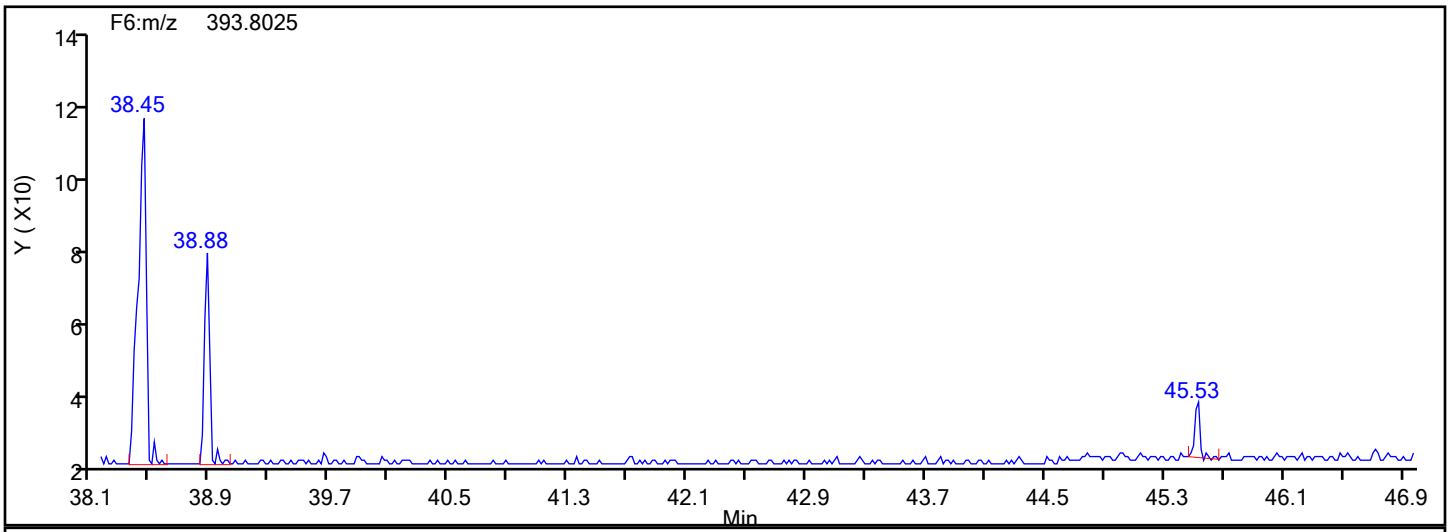
Report Date: 05-May-2025 17:59:58 Chrom Revision: 2.3 18-Apr-2025 15:35:42

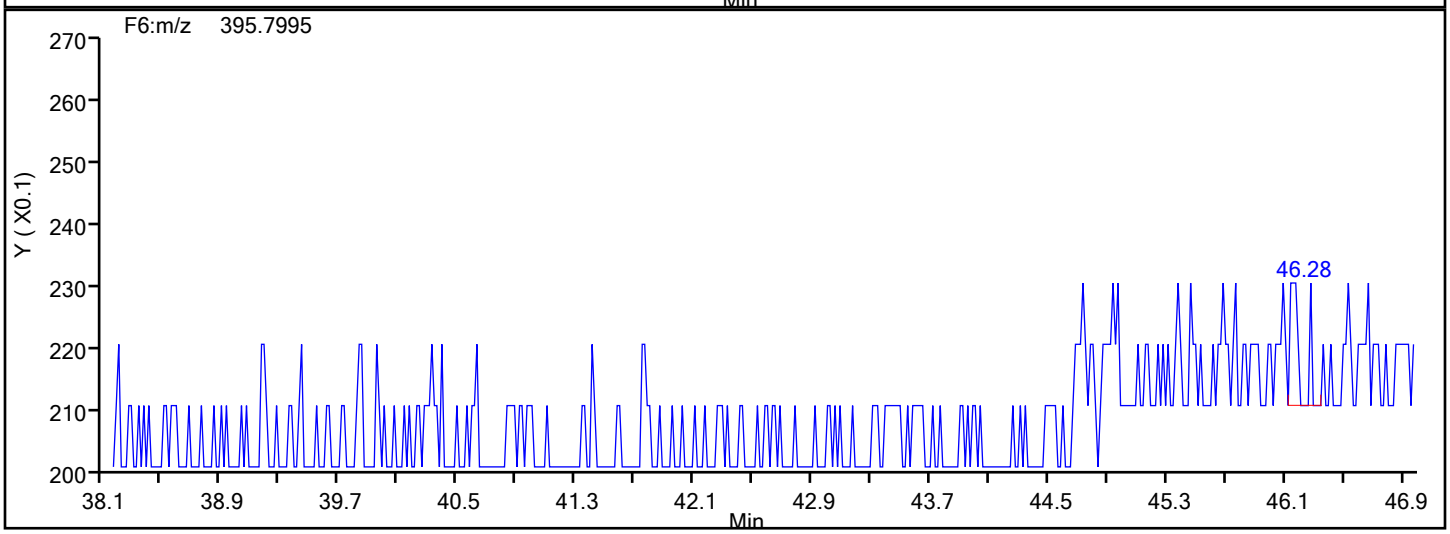
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip1_20250502144728.d

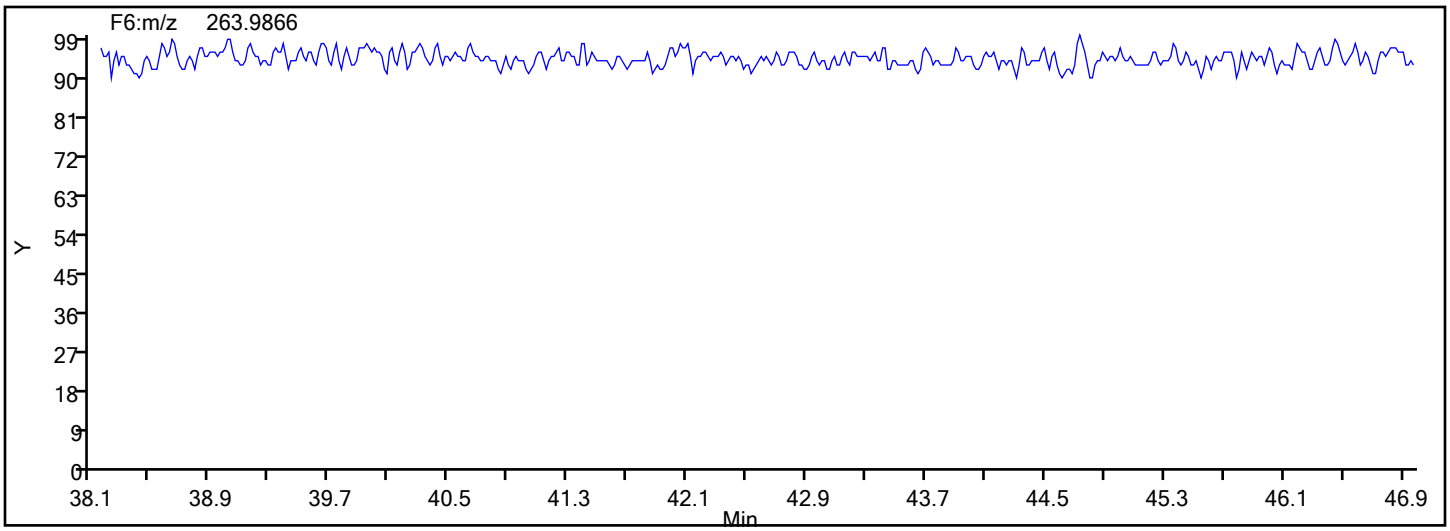
Injection Date:	02-May-2025 14:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-May-2025 15:45:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 02-May-2025 16:44:53

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:21	7764638	0.82	0.2427	104.4	104.4	0.2844	0.2844	104	
D 13C6-beta BHC	18:21	6086499	0.81	0.1892	104.9	104.9	0.3647	0.3647	105	
D 13C6-gamma BHC	18:38	6389397	0.83	0.2029	102.7	102.7	0.3400	0.3400	103	
D 13C6-delta BHC	19:35	5465110	0.83	0.1718	103.8	103.8	0.4017	0.4017	104	
D 13C10-Heptachlor	21:49	5198487	1.27	0.1629	104.1	104.1	0.0181	0.0181	104	
D 13C6-Hexachlorobenzene	17:41	8627437	1.27	0.2759	102.0	102.0	0.000172	0.000172	102	
D 13C12-Aldrin	23:41	5114324	1.63	0.1517	110.0	110.0	0.0425	0.0425	110	
D 13C10-oxy Chlordane	26:05	393827	1.10	0.0708	92.4	92.4	0.005198	0.005198	92.37	
D 13C10-cis Heptachlor Epoxide	26:04	1570260	1.36	0.2676	97.4	97.4	0.005499	0.005499	97.40	
D 13C12-2,4'-DDE	27:52	27633203	1.56	4.5202	101.5	101.5	0.0932	0.0932	101	
D 13C10-trans Chlordane	27:35	2021797	1.29	0.3223	104.1	104.1	0.0548	0.0548	104	
D 13C10-cis Chlordane	28:38	1815973	1.25	0.2976	101.3	101.3	0.0593	0.0593	101	
D 13C10-trans Nonachlor	28:57	1868042	1.30	0.2841	109.1	109.1	0.0621	0.0621	109	
D 13C9-Endosulfan I	28:28	576418	1.35	0.0899	106.4	106.4	0.1964	0.1964	106	
D 13C12-4,4'-DDE	30:07	18951347	1.58	3.1557	103.2	103.2	0.0659	0.0659	103	
D 13C12-4,4'-DDD	33:24	16889311	1.59	2.9265	99.2	99.2	0.0182	0.0182	99.21	
D 13C12-2,4'-DDT	33:41	12092917	1.61	2.0372	102.0	102.0	0.0261	0.0261	102	
D 13C12-4,4'-DDT	36:32	10928280	1.59	1.8061	104.0	104.0	0.0295	0.0295	104	
D 13C12-Dieldrin	30:20	1615793	1.66	0.2777	100.0	100.0	0.0920	0.0920	100	
D 13C12-Endrin	32:00	1130199	1.52	0.1949	99.7	99.7	0.1311	0.1311	99.68	
D 13C9-Endosulfan II	32:43	269274	1.11	0.0474	97.7	97.7	0.0676	0.0676	97.71	
D 13C12-Endrin Aldehyde	34:15	266805	1.36	0.0424	108.1	108.1	0.6263	0.6263	108	
D 13C12-Methoxychlor	41:54	11247586	23.04	1.8751	103.1	103.1	0.0361	0.0361	103	
D 13C11-Endrin Ketone	40:22	607422	1.55	0.1045	99.9	99.9	0.3563	0.3563	99.93	
D 13C10-Mirex	45:21	6014300	1.28	1.9829	113.7	113.7	0.0279	0.0279	114	
* PCB-15L	19:02	30657718	1.64		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	1873908	0.65		500.0	500.0				M
Pentachlorophenol	18:31	404902	0.68	1.0218	105.7	105.7	0.3636	0.3636	106	M
* PCB-101L	28:04	6025554	1.59		100.0	100.0				
* PCB-118L	32:44	5817273	1.61		100.0	100.0				
* PCB-138L	36:56	2668766	1.29		100.0	100.0				
* PCB-60L	27:41	12882166	0.83		100.0	100.0				
D 13C12-2,4'-DDD	30:47	20623281	1.56	3.4396	103.1	103.1	0.0459	0.0459	103	
D 13C10-cis Nonachlor	33:45	1374869	1.22	0.2243	105.4	105.4	0.0259	0.0259	105	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:14	2037183	1.31	0.3464	101.1	101.1	0.0167	0.0167	101	
* PCB-167L	39:26	2872578	1.27		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

61L11699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 05-May-2025 18:00:01 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-May-2025 15:45:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:00 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 02-May-2025 16:44:53

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:21	17:21	0	0.912	3489286	1275109	1812	4530	704		
224.9317	17:21	17:21	0	0.912	4275352	1591752	1097	2742	1451	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:20	1	0.964	2717294	965362	1812	4530	533		
224.9317	18:21	18:20	1	0.964	3369205	1186301	1097	2742	1081	0.81(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:37	0	0.979	2893707	1025832	1812	4530	566		
224.9317	18:38	18:37	0	0.979	3495690	1244617	1097	2742	1135	0.83(0.58-0.96)	
13C6-delta BHC											
222.9342	19:35	19:34	0	1.029	2483546	824099	1812	4530	455		
224.9317	19:35	19:34	0	1.029	2981564	991243	1097	2742	904	0.83(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:49	21:49	1	1.147	2909316	799132	79	197	10116		
278.8240	21:49	21:49	1	1.147	2289171	647294	45	112	14384	1.27(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:40	0	0.929	4829314	1743430	1	2	1743430		
291.8273	17:41	17:40	0	0.929	3798123	1360268	1	2	1360268	1.27(0.93-1.55)	
13C12-Aldrin											
269.8805	23:41	23:41	1	1.245	3170186	840980	189	472	4450		
271.8775	23:41	23:41	1	1.245	1944138	527986	83	207	6361	1.63(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:05	26:05	1	0.930	206402	53992	1	2	53992		
398.8358	26:05	26:05	1	0.930	187425	44471	1	2	44471	1.10(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:04	26:03	1	0.929	905758	213306	7	17	30472		
364.8748	26:04	26:03	1	0.929	664502	154990	1	2	154990	1.36(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:52	27:52	0	0.993	16856444	3802745	1456	3640	2612		
260.0376	27:53	27:52	1	0.994	10776759	2419134	836	2090	2894	1.56(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:35	27:34	1	0.983	1137161	260176	40	100	6504		
278.8240	27:35	27:34	0	0.983	884636	201420	56	140	3597	1.29(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:38	28:38	0	1.020	1007711	231677	40	100	5792		
278.8240	28:38	28:38	0	1.020	808262	181683	56	140	3244	1.25(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:57	28:57	0	1.032	1057165	240120	40	100	6003		
278.8240	28:57	28:57	0	1.032	810877	168764	56	140	3014	1.30(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:28	28:28	0	1.014	330938	76725	40	100	1918		
278.8240	28:28	28:28	0	1.015	245480	54137	56	140	967	1.35(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:07	30:06	0	0.920	11595344	2504648	644	1610	3889		
260.0376	30:07	30:06	0	0.920	7356003	1588725	317	792	5012	1.58(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:24	33:24	0	1.021	10374374	2205227	121	302	18225		
249.0454	33:24	33:24	0	1.021	6514937	1392477	125	312	11140	1.59(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:41	33:41	0	1.029	7453294	1450256	121	302	11986		
249.0454	33:41	33:41	0	1.029	4639623	904589	125	312	7237	1.61(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:32	36:31	0	1.116	6711801	1223853	121	302	10114		
249.0454	36:32	36:31	0	1.116	4216479	772563	125	312	6181	1.59(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:20	30:20	0	0.927	1008626	198605	83	207	2393		
271.8775	30:20	30:20	0	0.927	607167	124770	35	87	3565	1.66(1.16-1.94)	
13C12-Endrin											
269.8805	32:00	31:59	0	0.978	681623	131325	83	207	1582		
271.8775	32:00	31:59	0	0.978	448576	92495	35	87	2643	1.52(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:43	32:44	-1	1.000	141942	27579	6	15	4597		
278.8240	32:43	32:44	-1	1.000	127332	24548	9	22	2728	1.11(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:15	34:16	-1	1.046	153815	27082	50	125	542		
358.9361	34:16	34:16	0	1.047	112990	19728	73	182	270	1.36(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	1	1.280	10779693	1884597	274	685	6878		
240.1510	41:53	41:52	0	1.280	467893	74325	39	97	1906	23.04(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.233	369298	62139	135	337	460		
329.9379	40:22	40:22	0	1.233	238124	38668	37	92	1045	1.55(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:20	1	1.228	3375080	536889	62	155	8660		
278.8240	45:21	45:20	1	1.228	2639220	422914	50	125	8458	1.28(0.93-1.55)	
PCB-15L											
234.0406	19:02	19:02	0		19063905	6571493	55	137	119482		
236.0376	19:02	19:02	0		11593813	3967229	14	35	283374	1.64(1.16-1.93)	
13C6-Pentachlorophenol (IS)											M
269.8666	18:29	18:27	2		736758	90957	46	115	1977		M
271.8636	18:29	18:27	2		1137150	137826	31	77	4446	0.65(0.00-0.00)	M
Pentachlorophenol											M
263.8464	18:31	18:28	3	1.001	163676	16217	62	155	262		M
265.8435	18:30	18:28	2	1.001	241226	21641	6	15	3607	0.68(0.00-0.00)	M
PCB-101L											
337.9207	28:04	28:04	0		3701682	831867	1	2	831867		
339.9178	28:04	28:04	0		2323872	527573	7	17	75368	1.59(1.16-1.94)	
PCB-118L											
337.9207	32:44	32:43	0		3589244	706280	34	85	20773		
339.9178	32:44	32:43	0		2228029	448538	27	67	16613	1.61(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:55	1		1504029	285942	34	85	8410		
373.8788	36:56	36:55	1		1164737	220259	27	67	8158	1.29(1.16-1.94)	
PCB-60L											
301.9626	27:41	27:41	0		5834429	1329155	59	147	22528		
303.9597	27:41	27:41	0		7047737	1585137	63	157	25161	0.83(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:47	30:47	0	0.941	12580915	2659676	400	1000	6649		
249.0454	30:47	30:47	0	0.941	8042366	1671405	330	825	5065	1.56(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:44	1	1.031	754961	139913	26	65	5381		
278.8240	33:45	33:44	1	1.031	619908	116457	1	2	116457	1.22(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:14	36:14	0	1.107	1153862	218160	26	65	8391		
278.8240	36:14	36:14	0	1.107	883321	167784	1	2	167784	1.31(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:25	1		1609223	287184	4	10	71796		
373.8788	39:25	39:25	0		1263355	225478	4	10	56370	1.27(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Reagents:

61L11699PCP_00001 Amount Added: 20.00 Units: uL

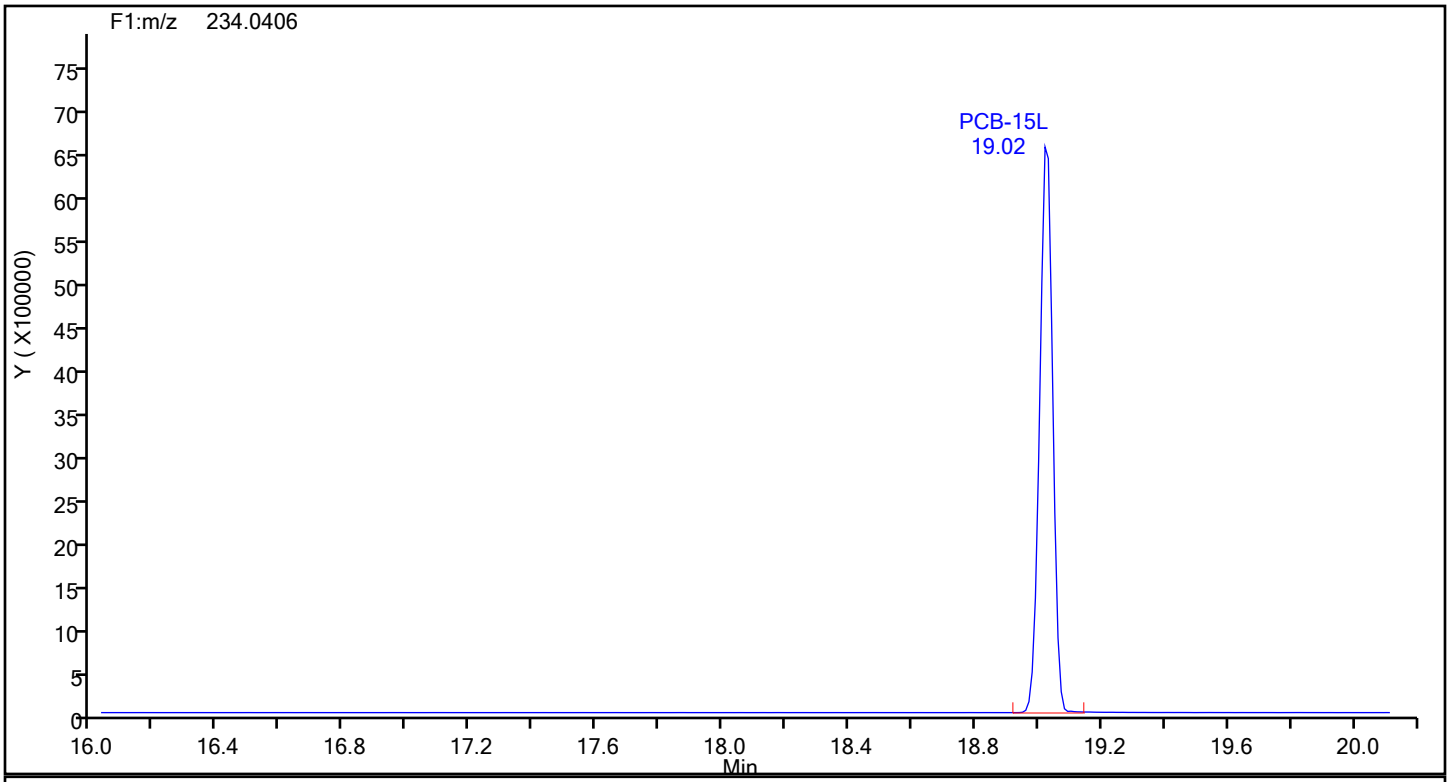
Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

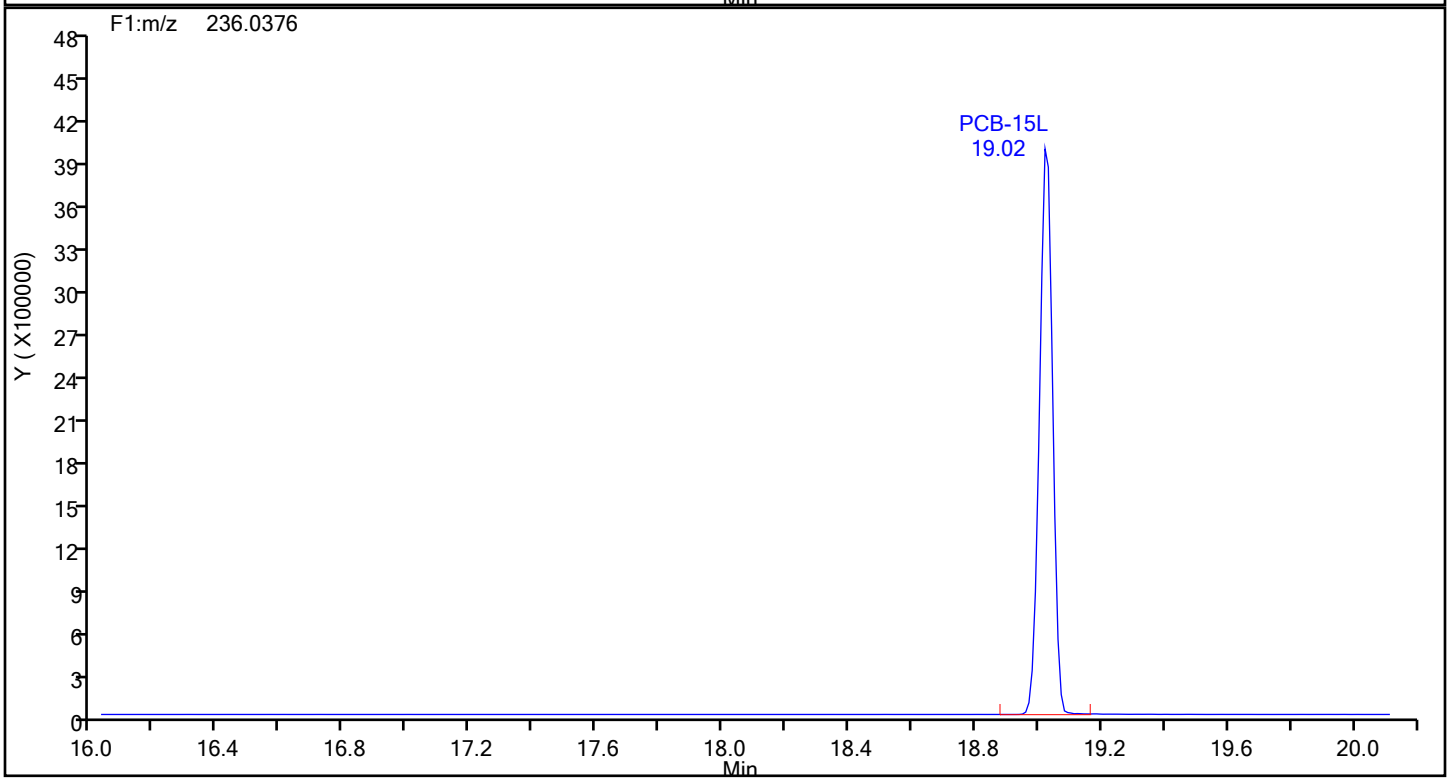
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





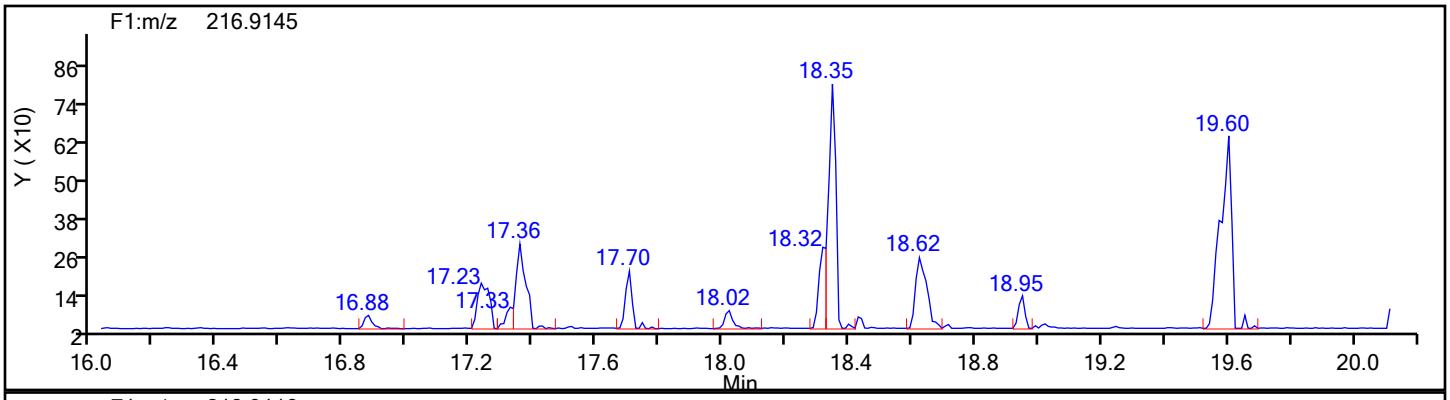
Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

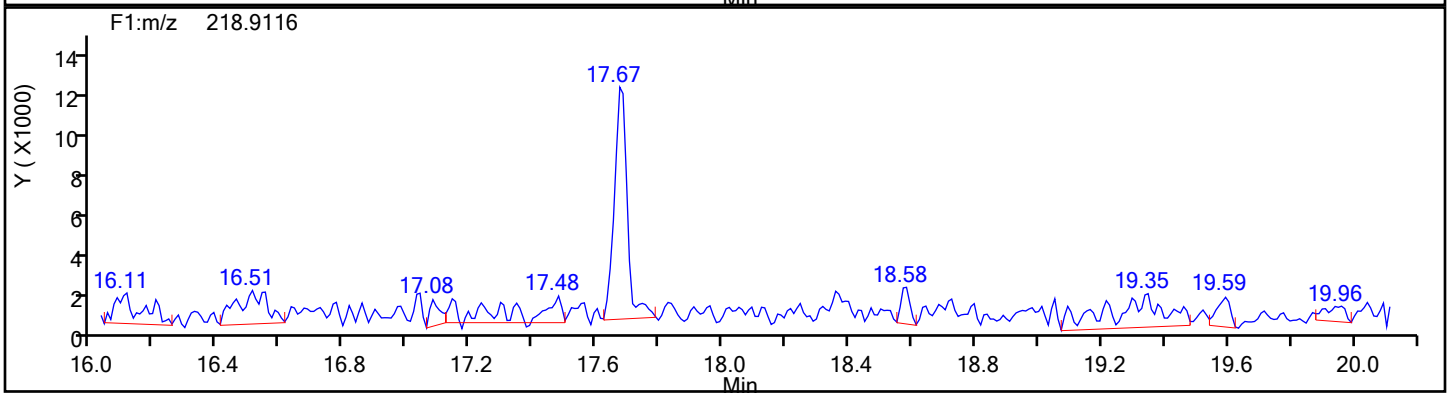
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

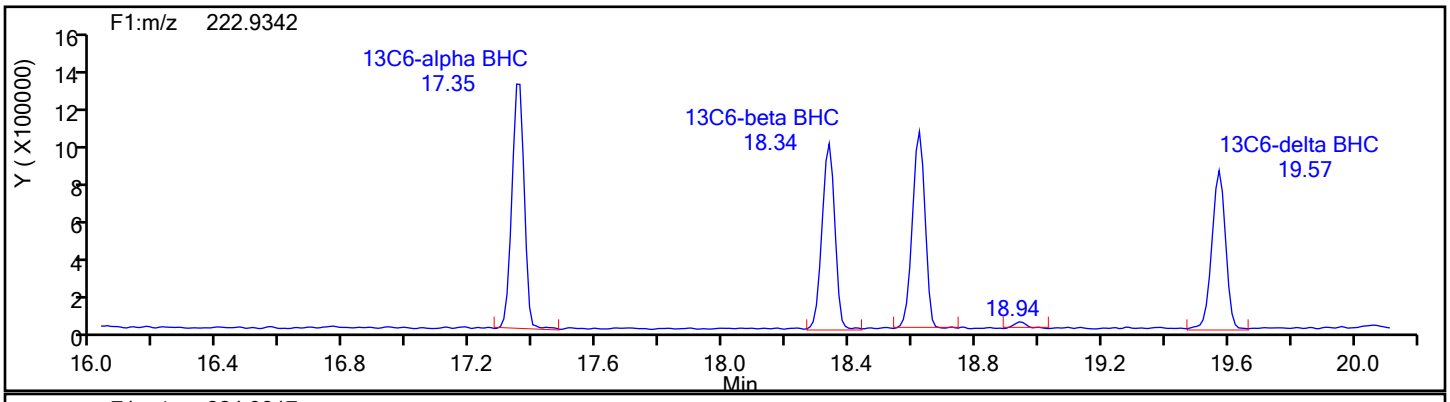
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

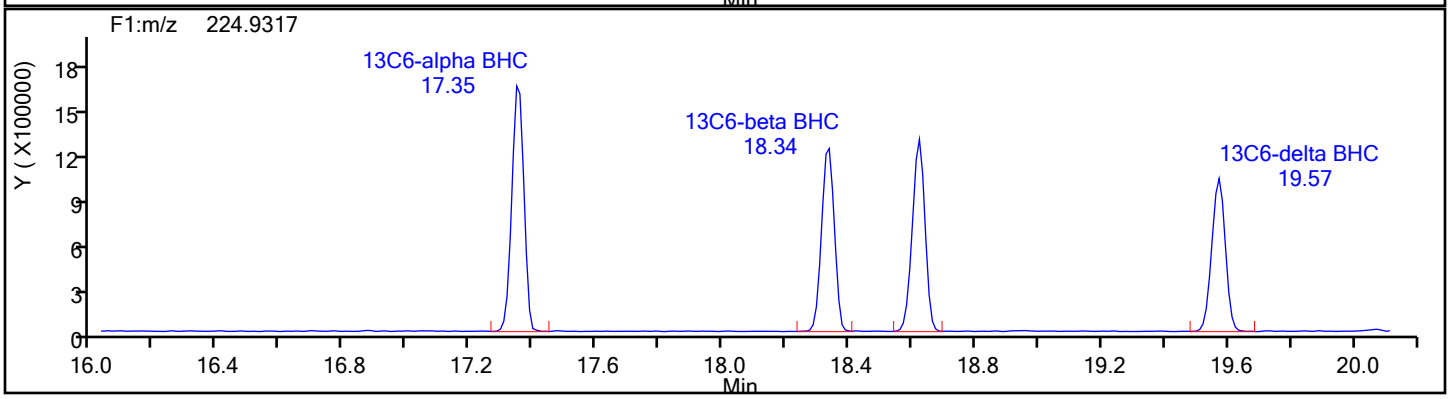
BHC





BHC Standards





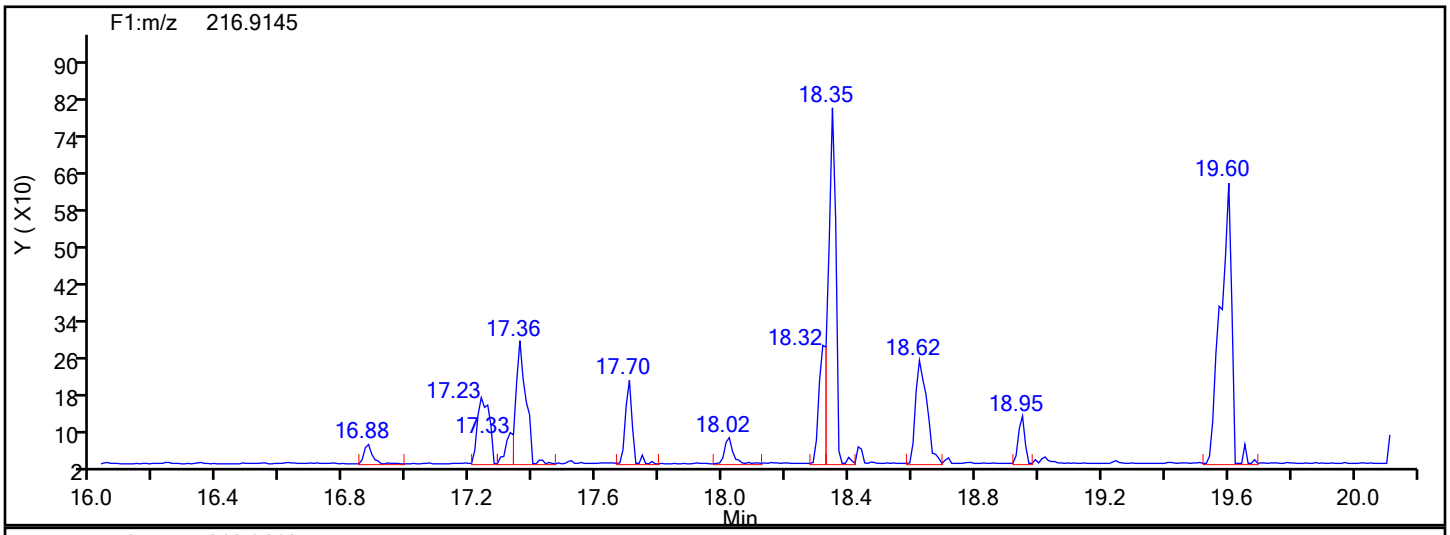
Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

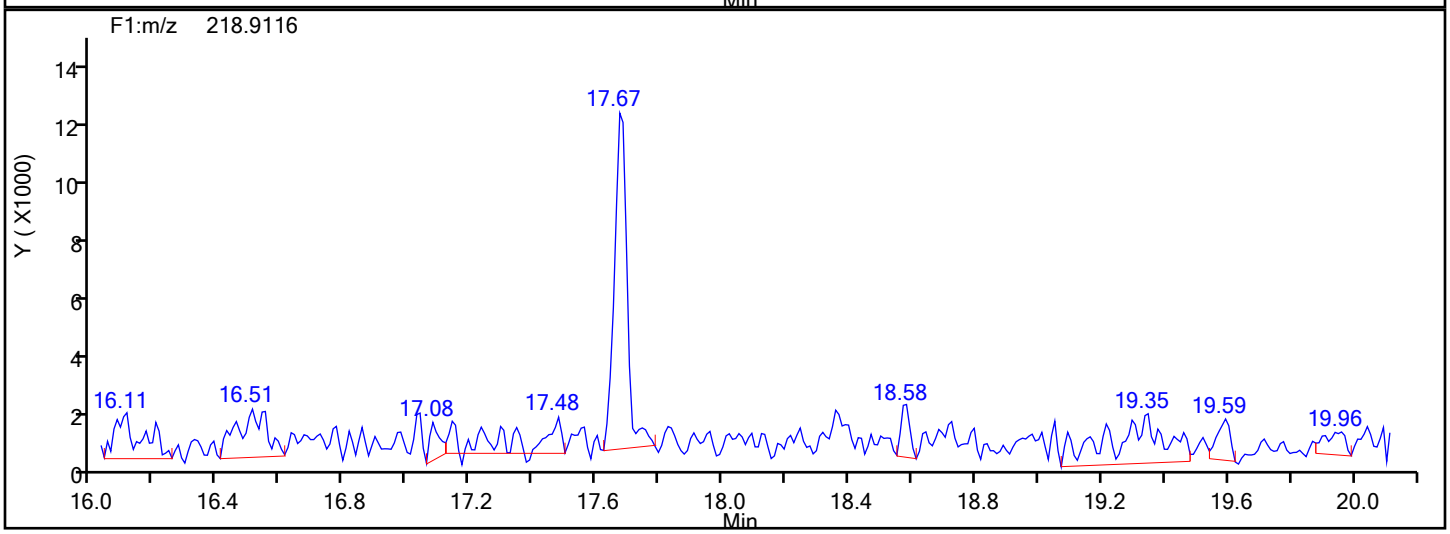
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

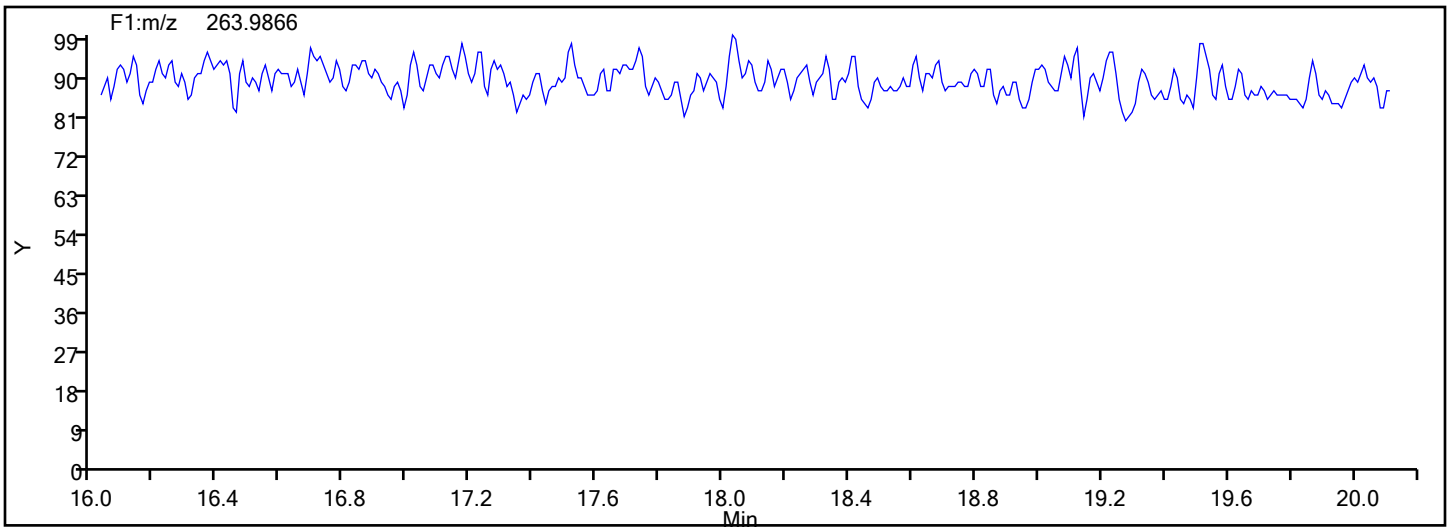
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



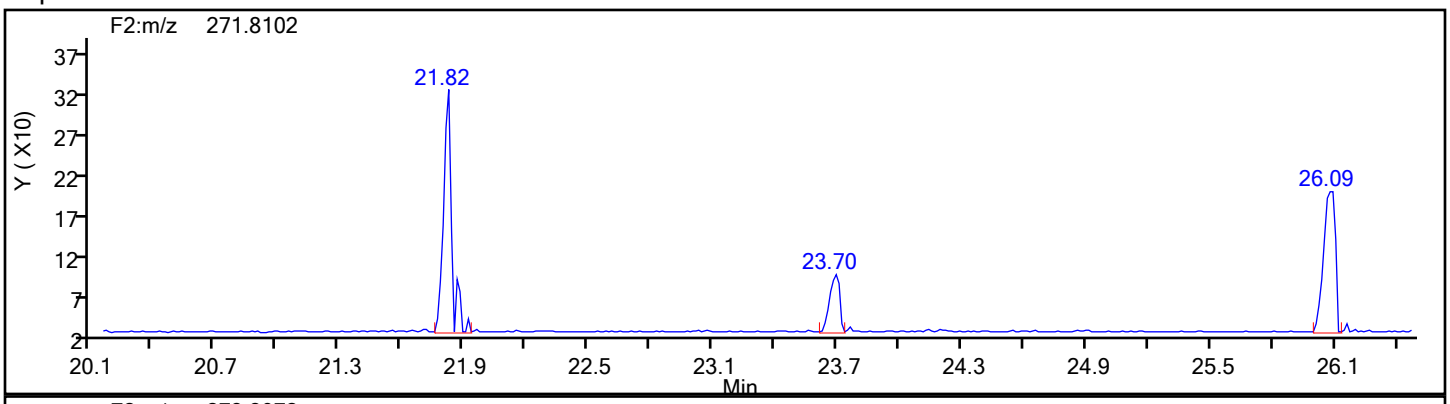
Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

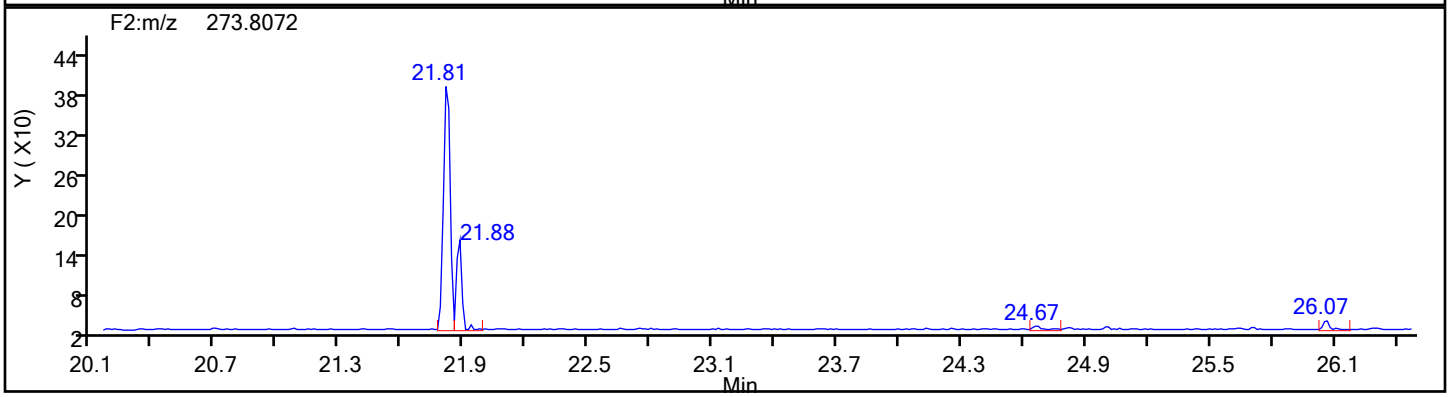
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

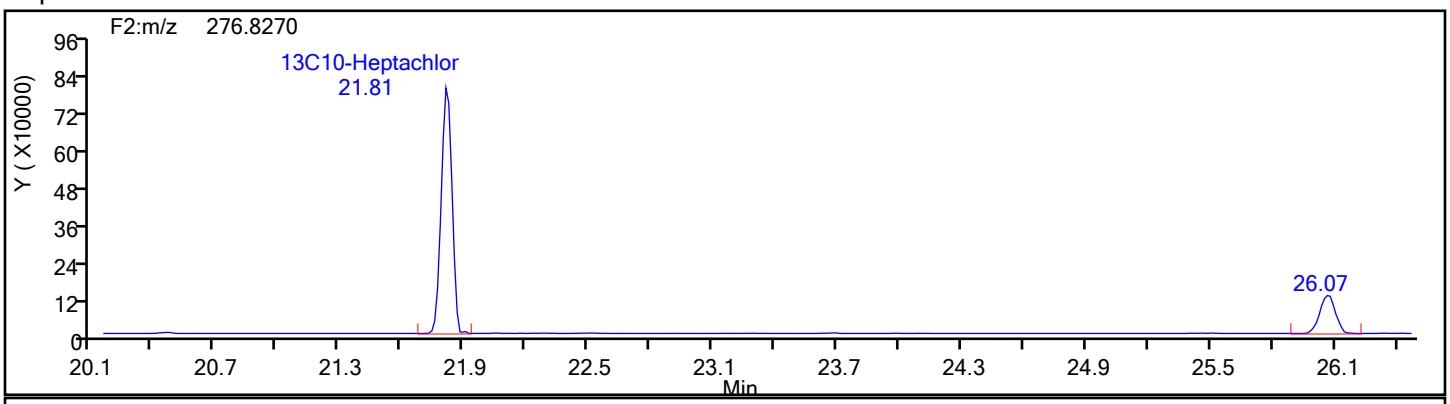
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

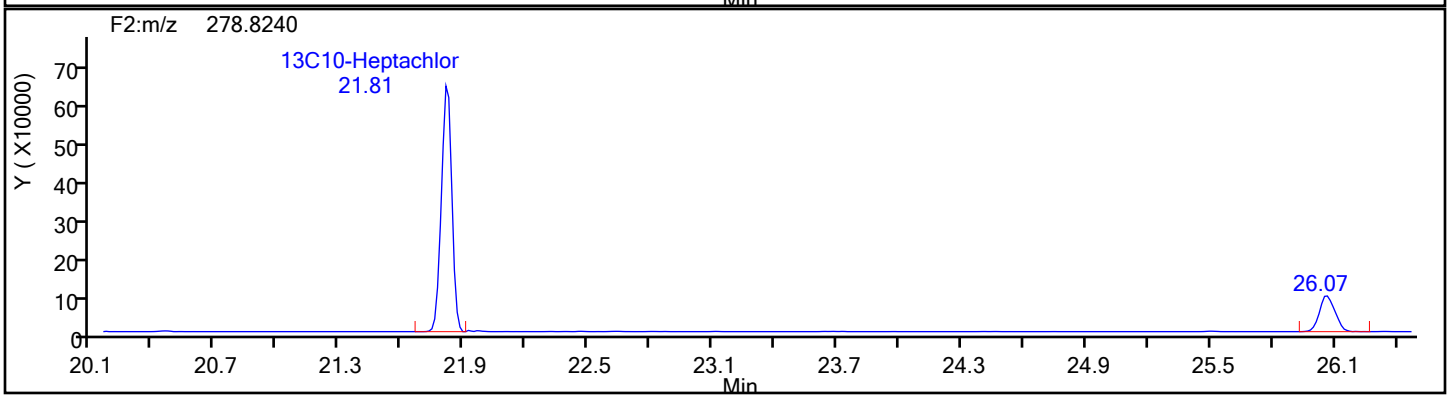
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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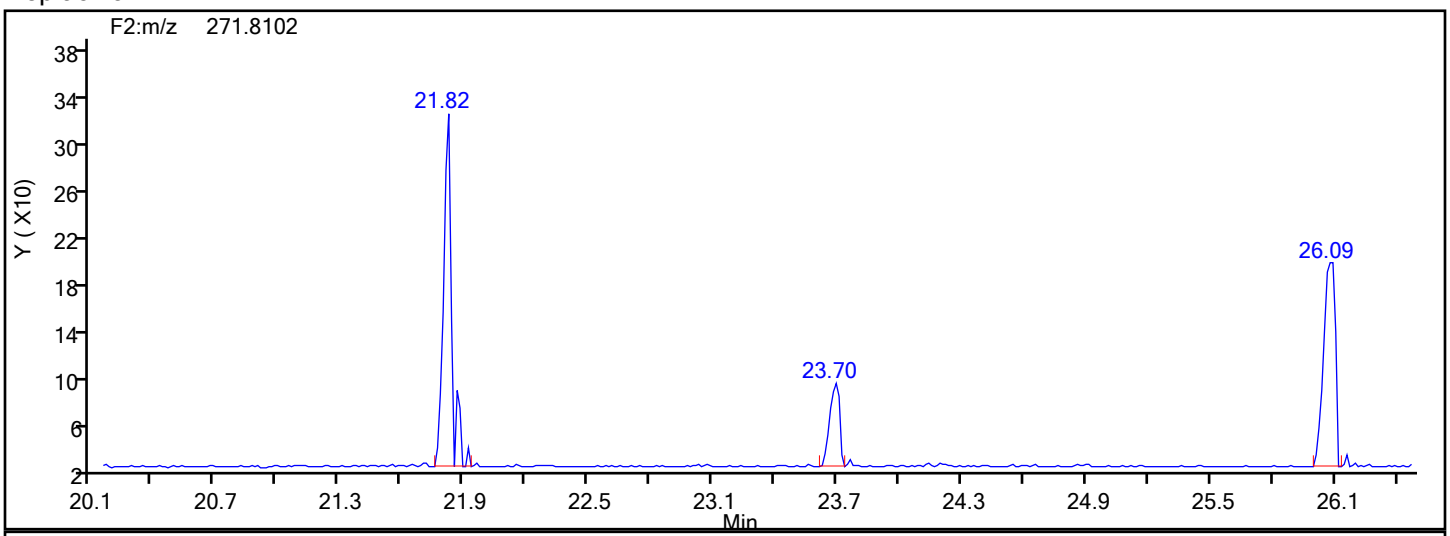
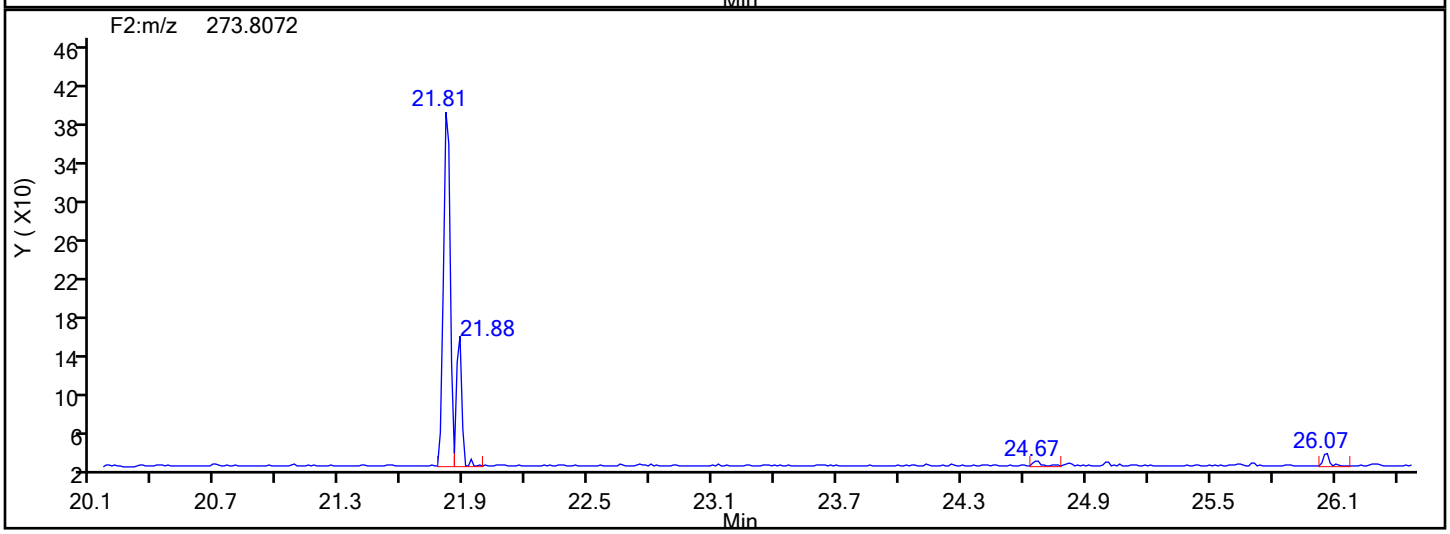
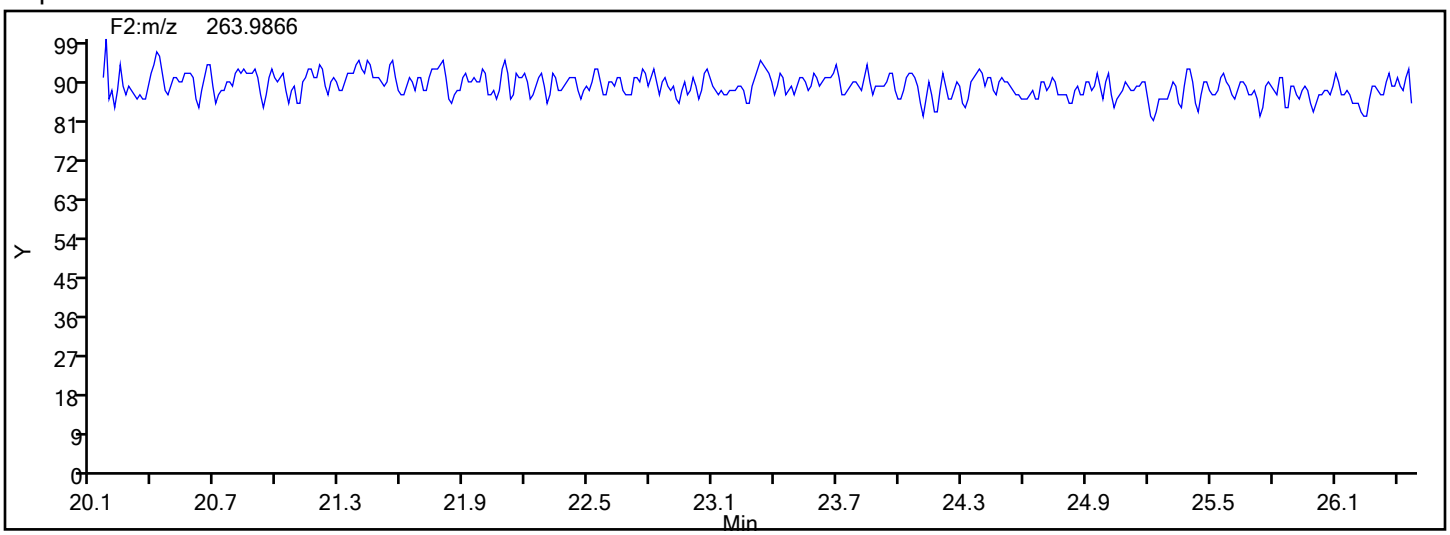
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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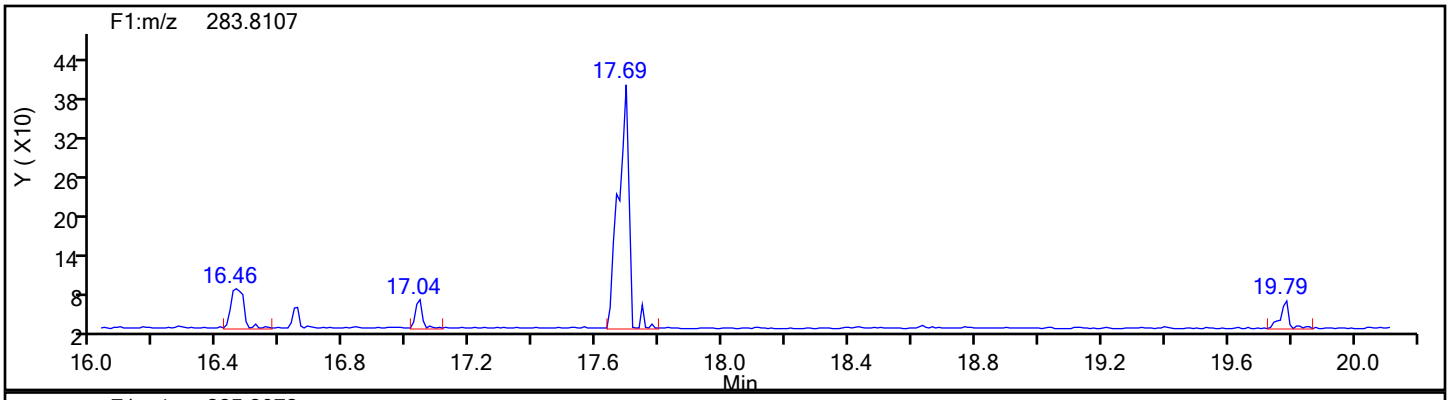
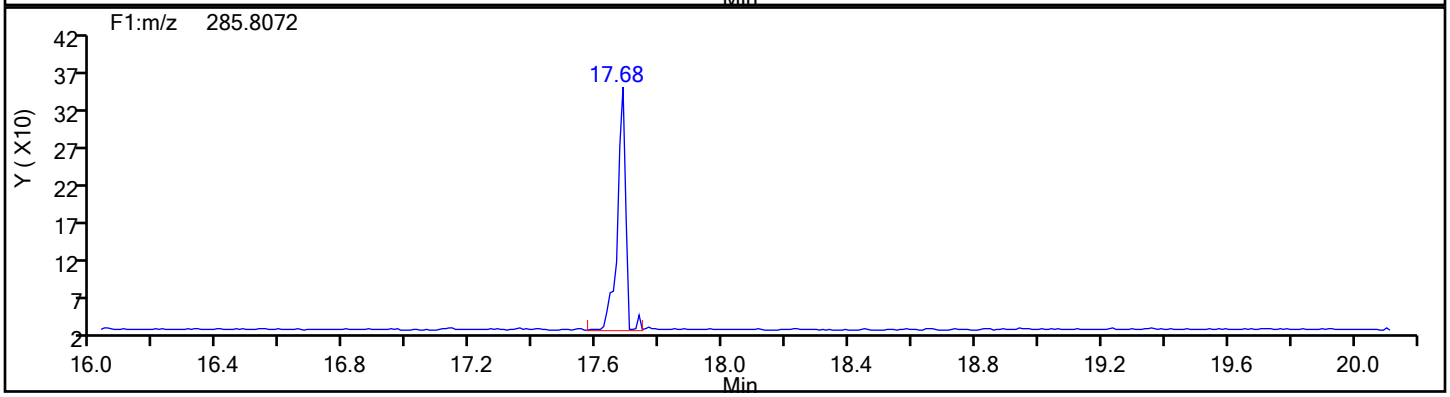
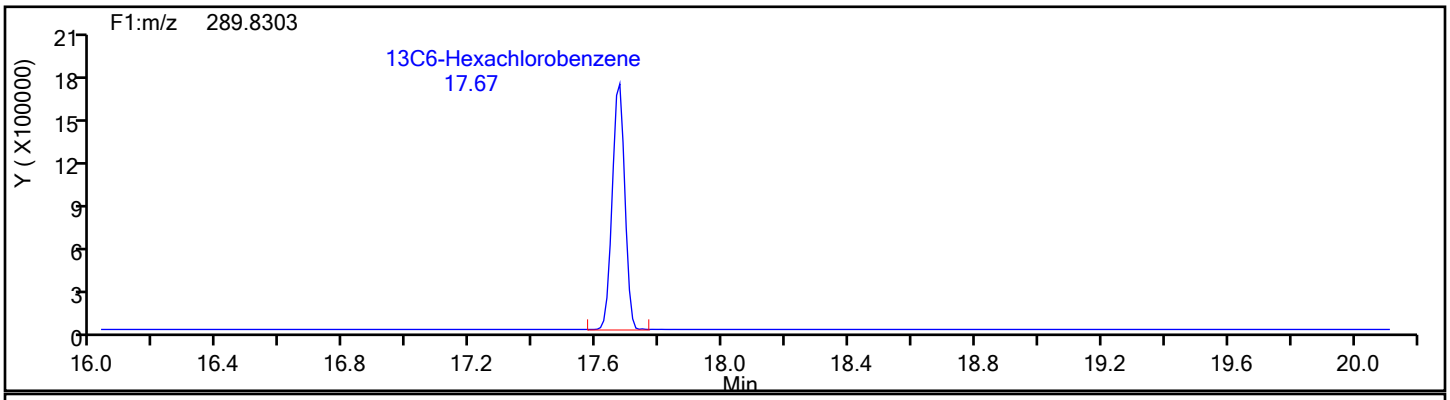
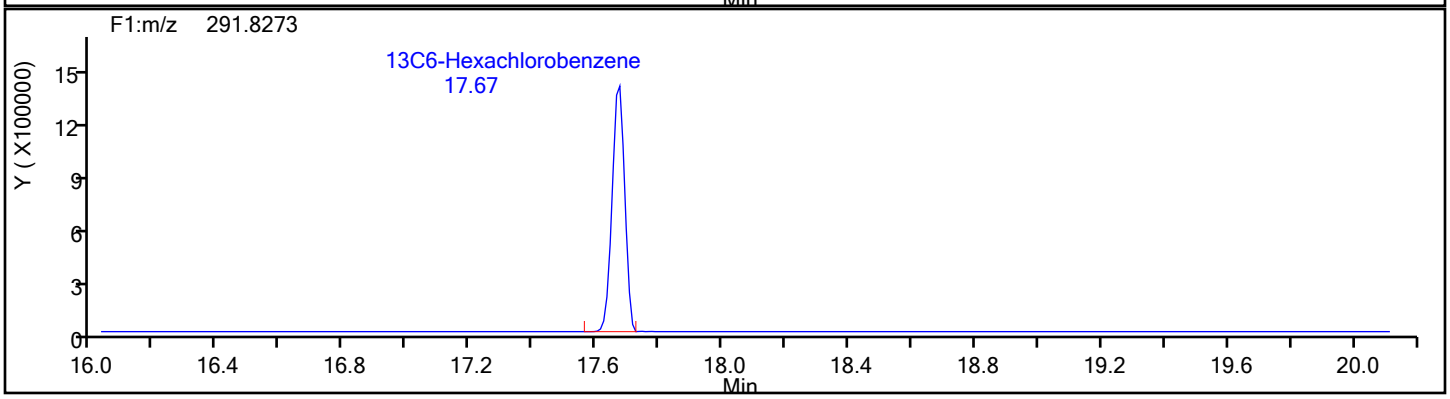
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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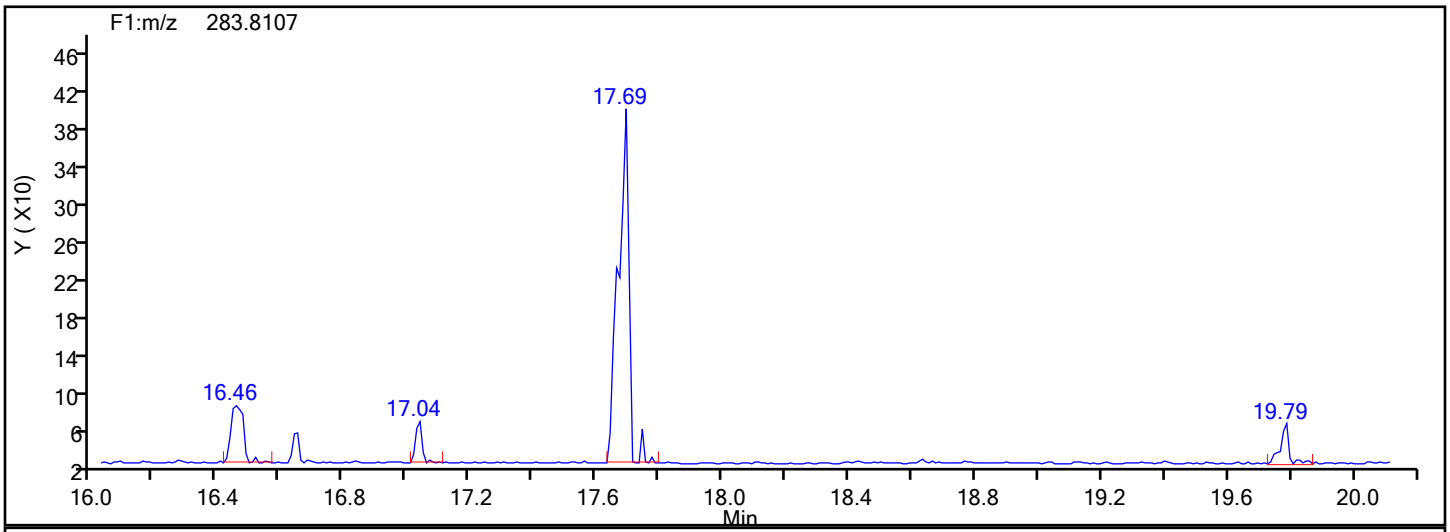
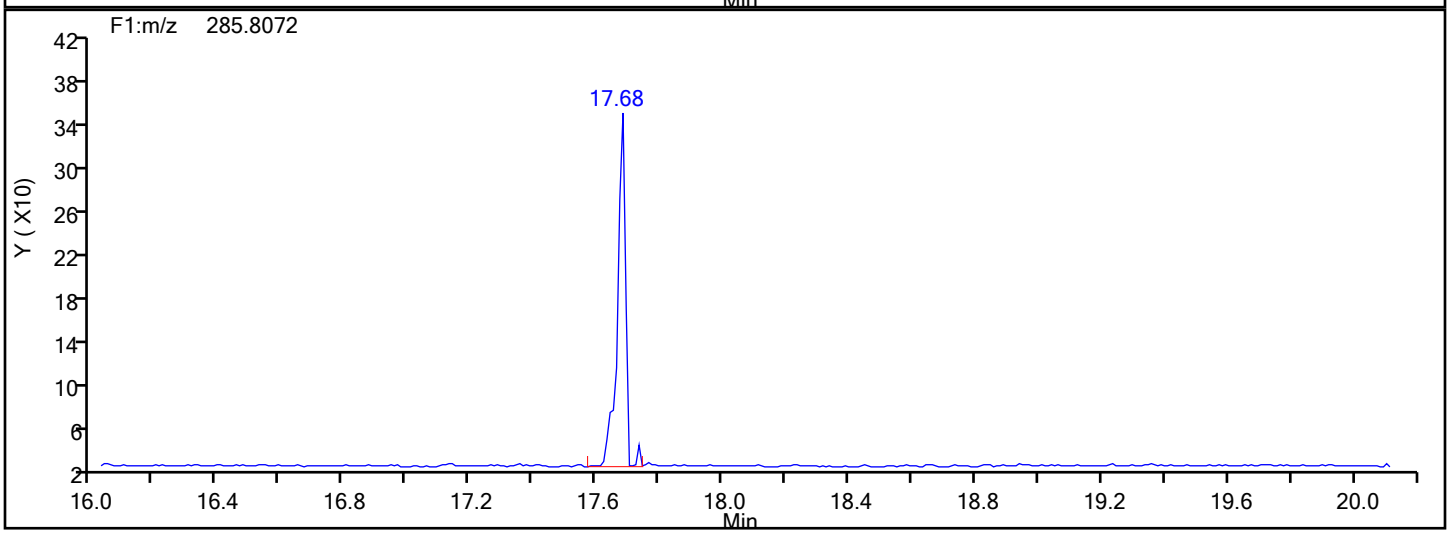
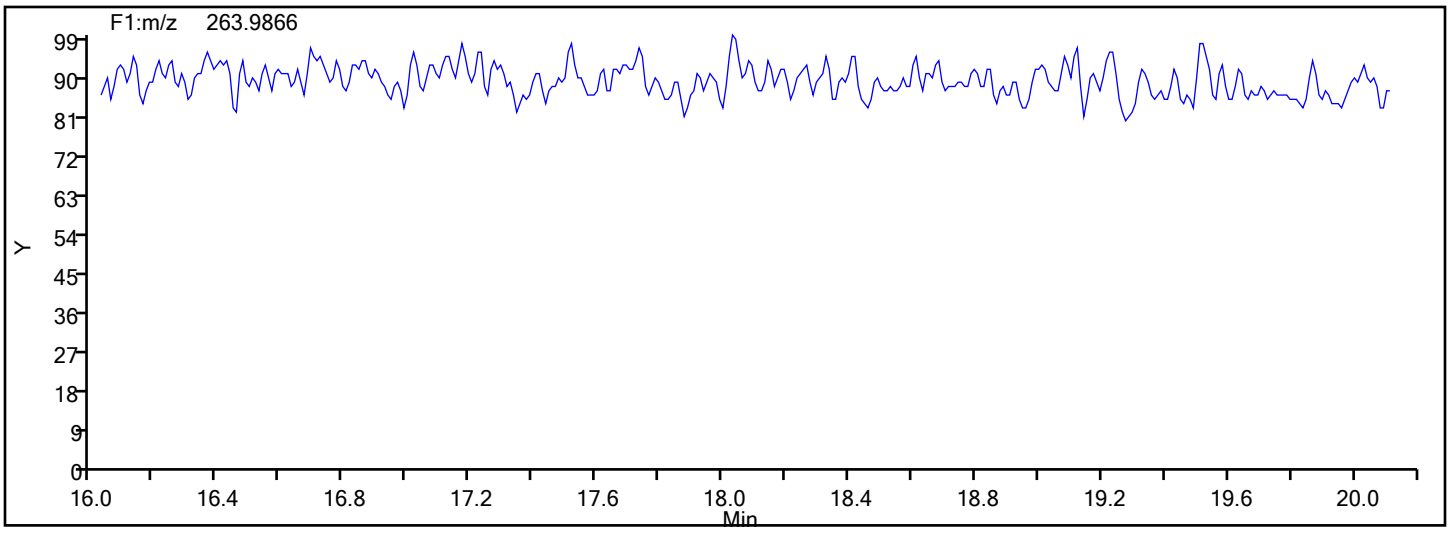
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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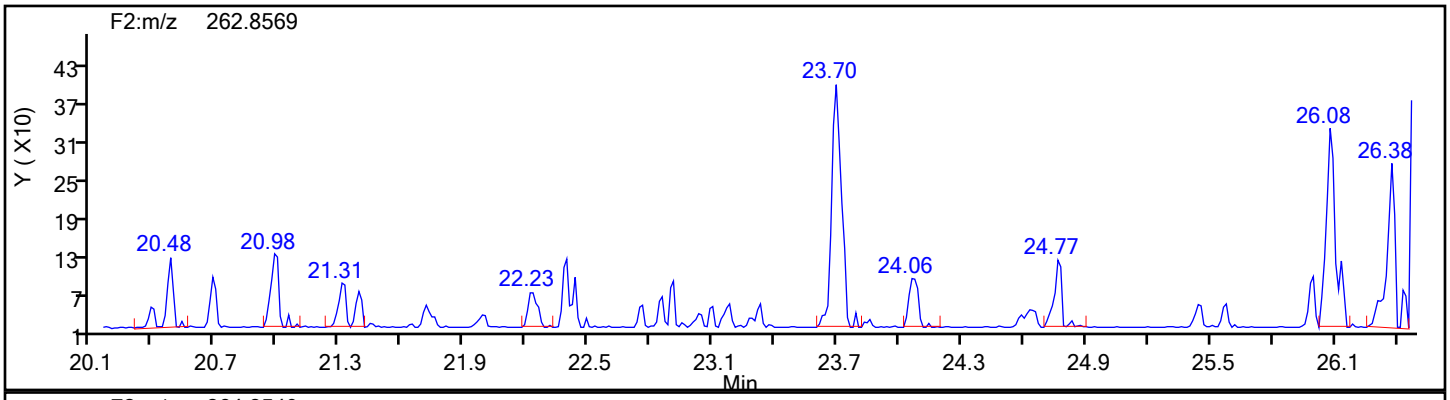
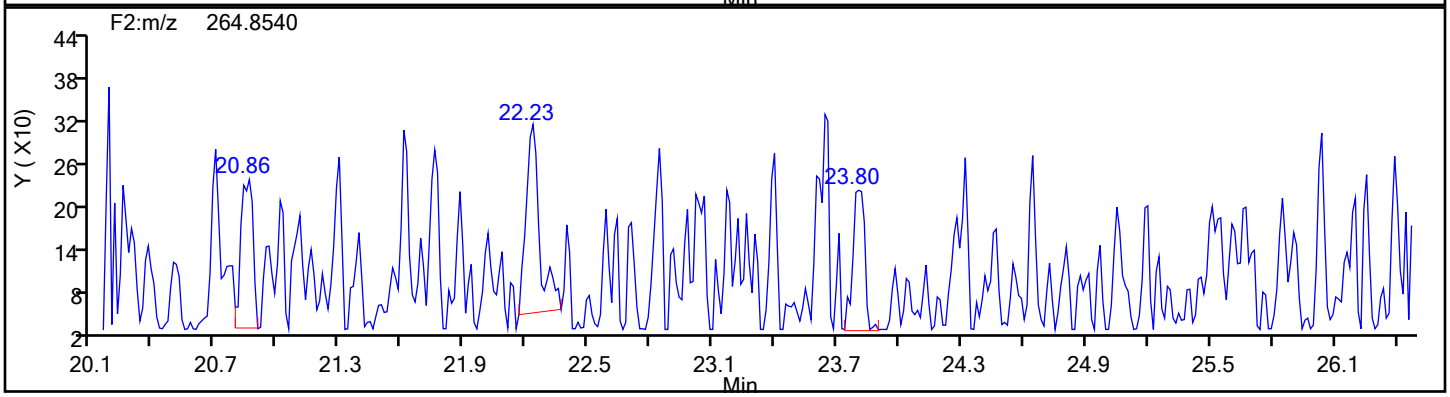
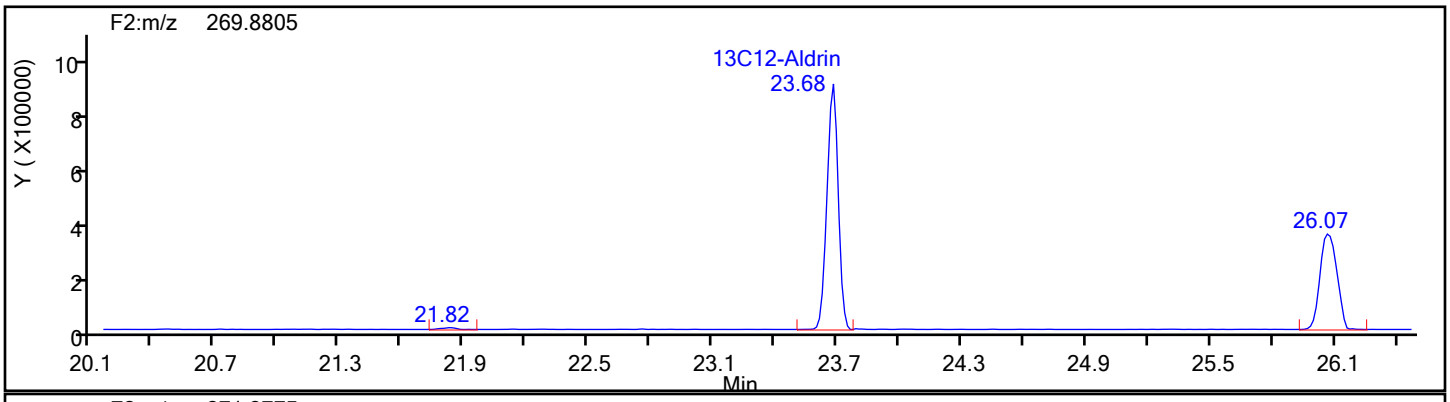
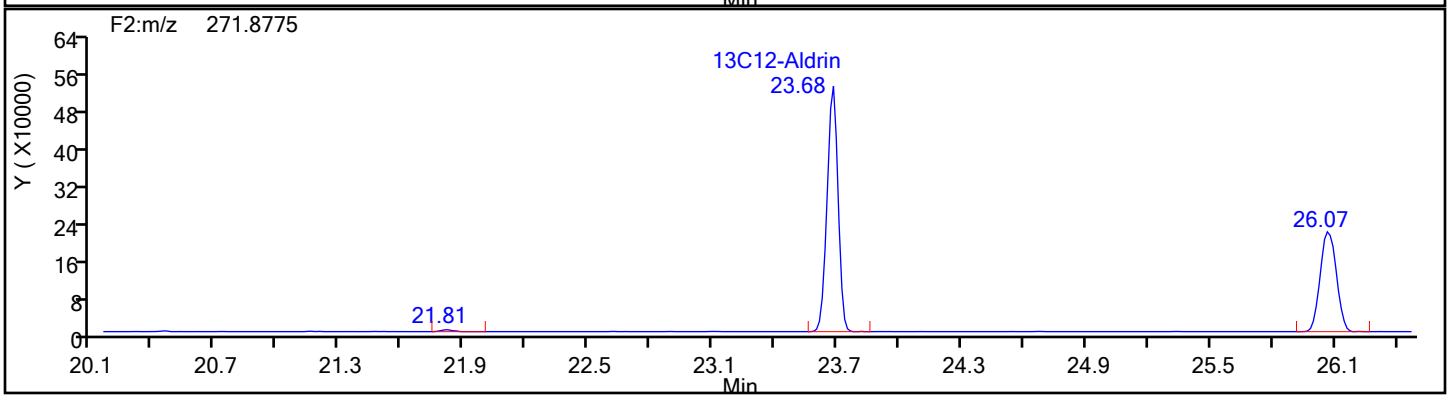
Aldrin





Aldrin Standards





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Eurofins Knoxville

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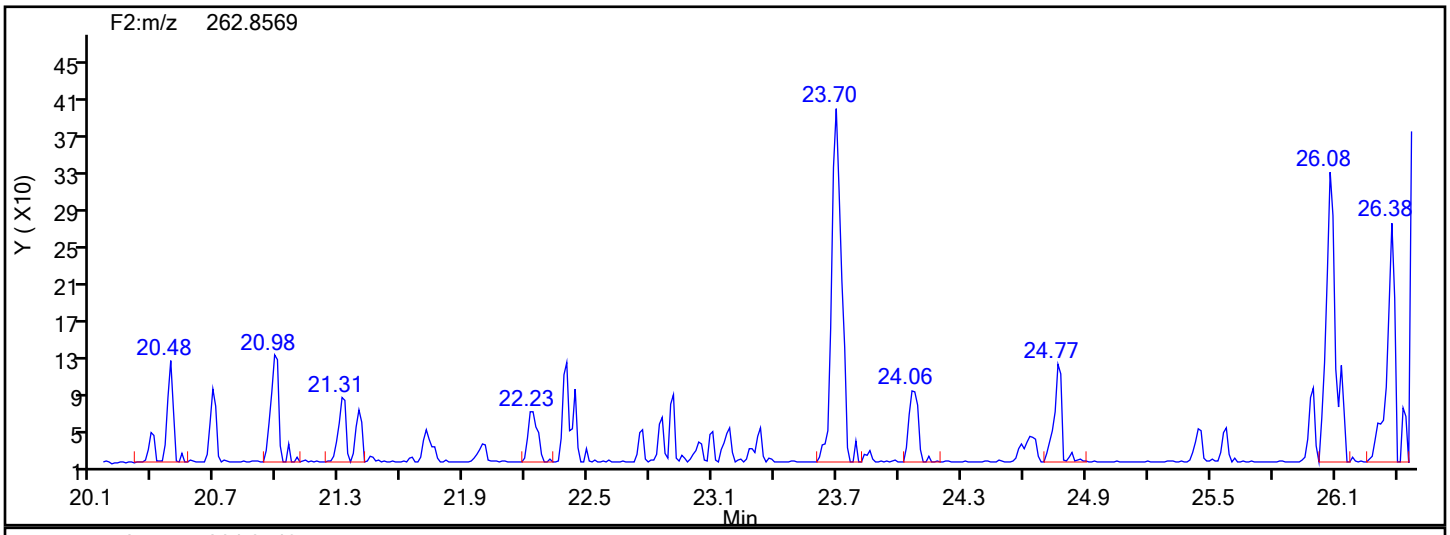
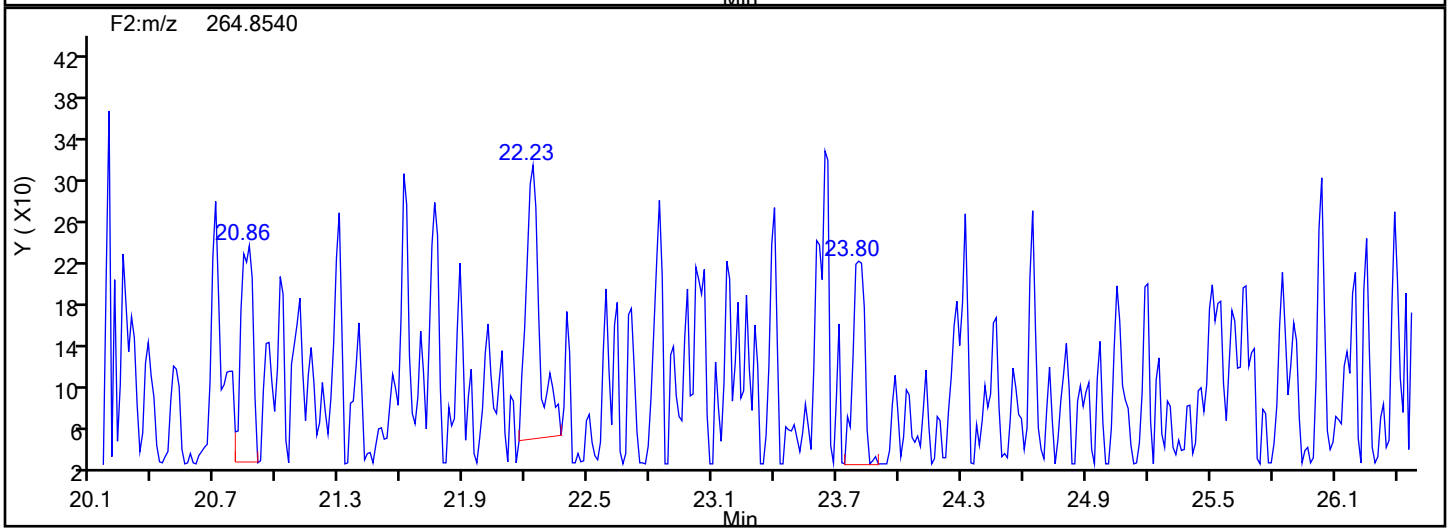
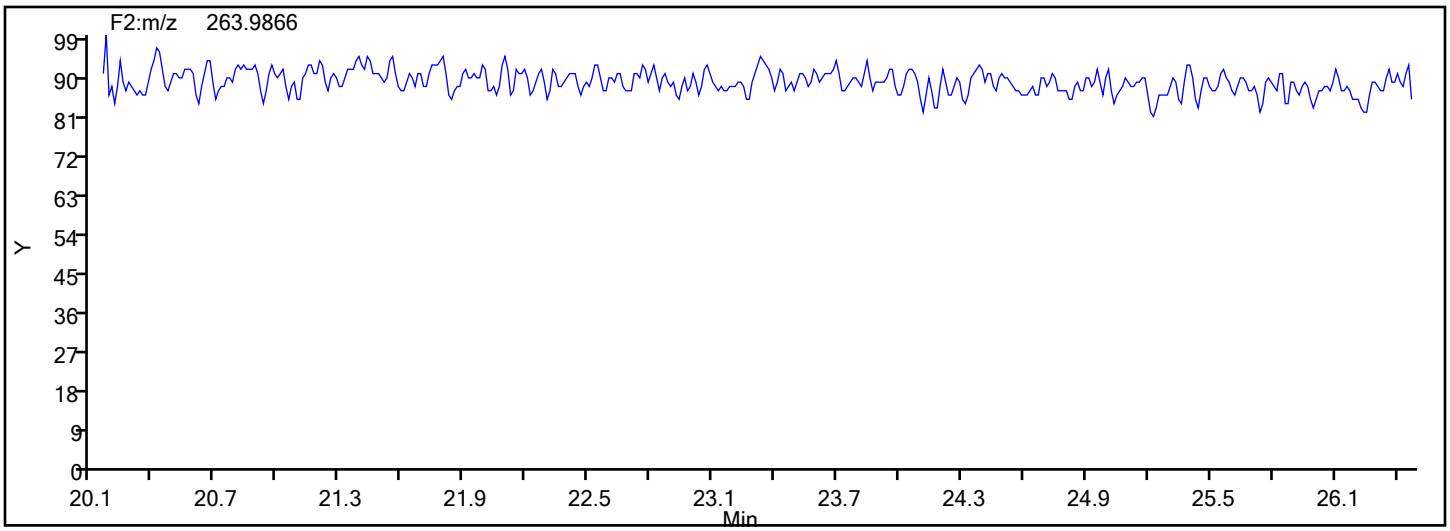
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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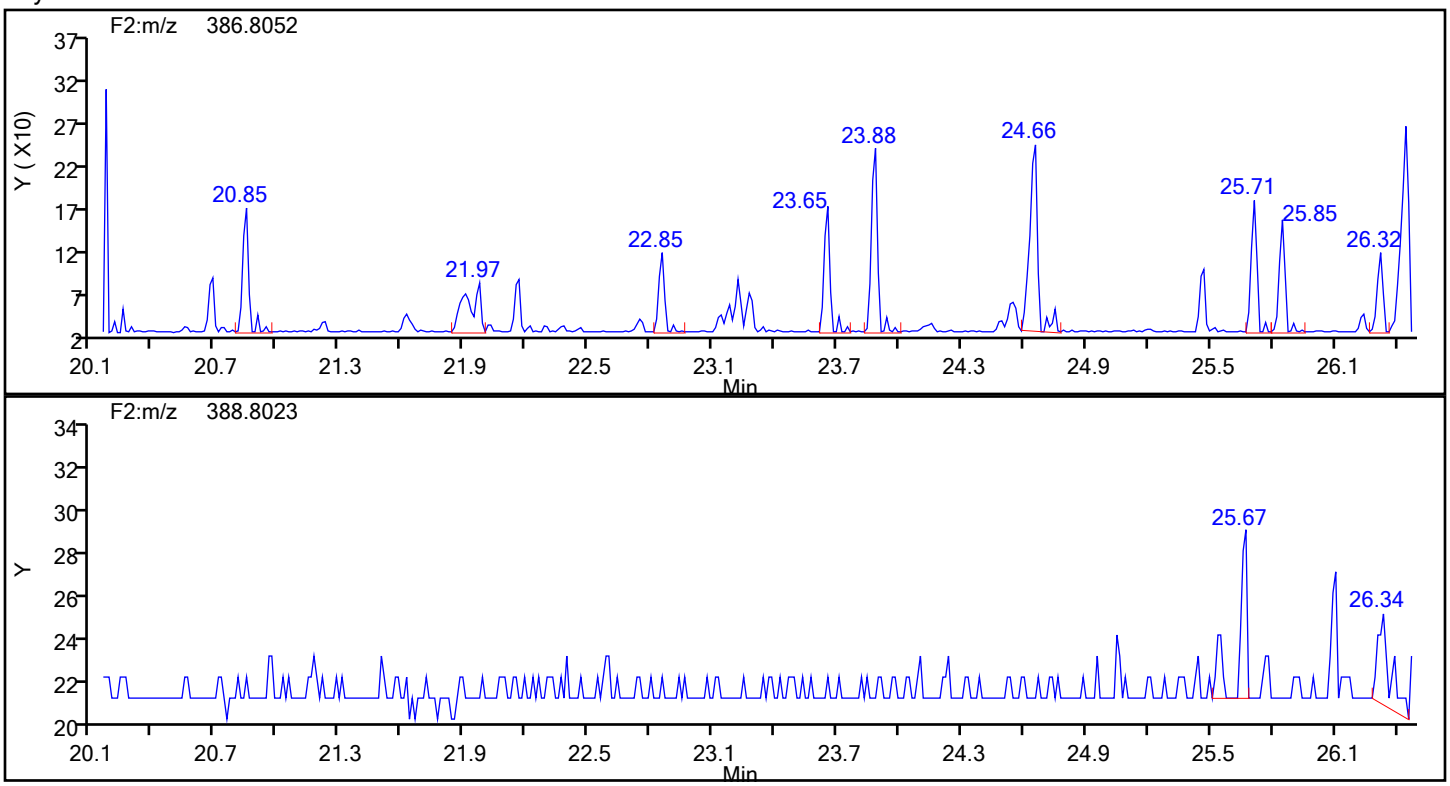
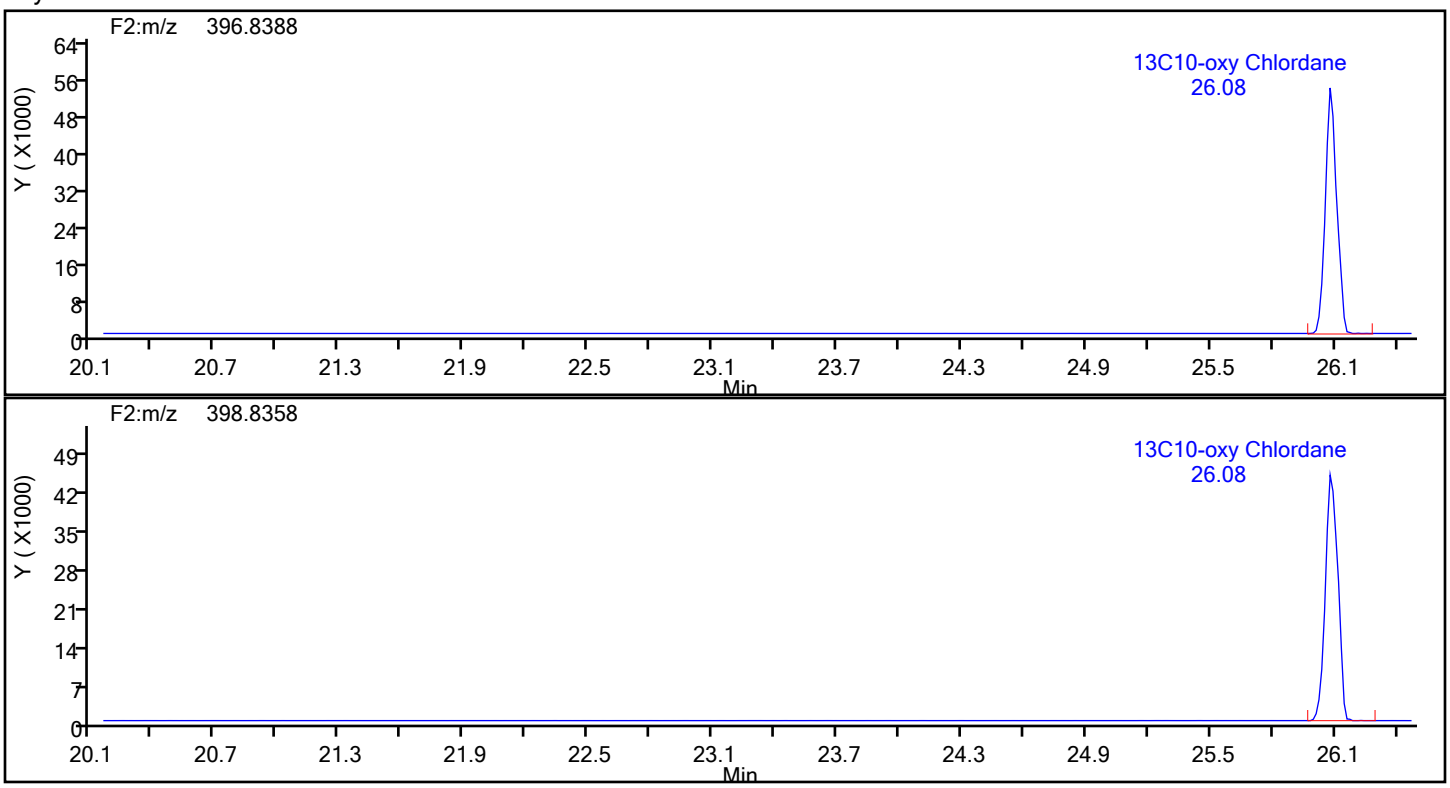
oxy-Chlordane



oxy-Chlordane Standards



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Eurofins Knoxville

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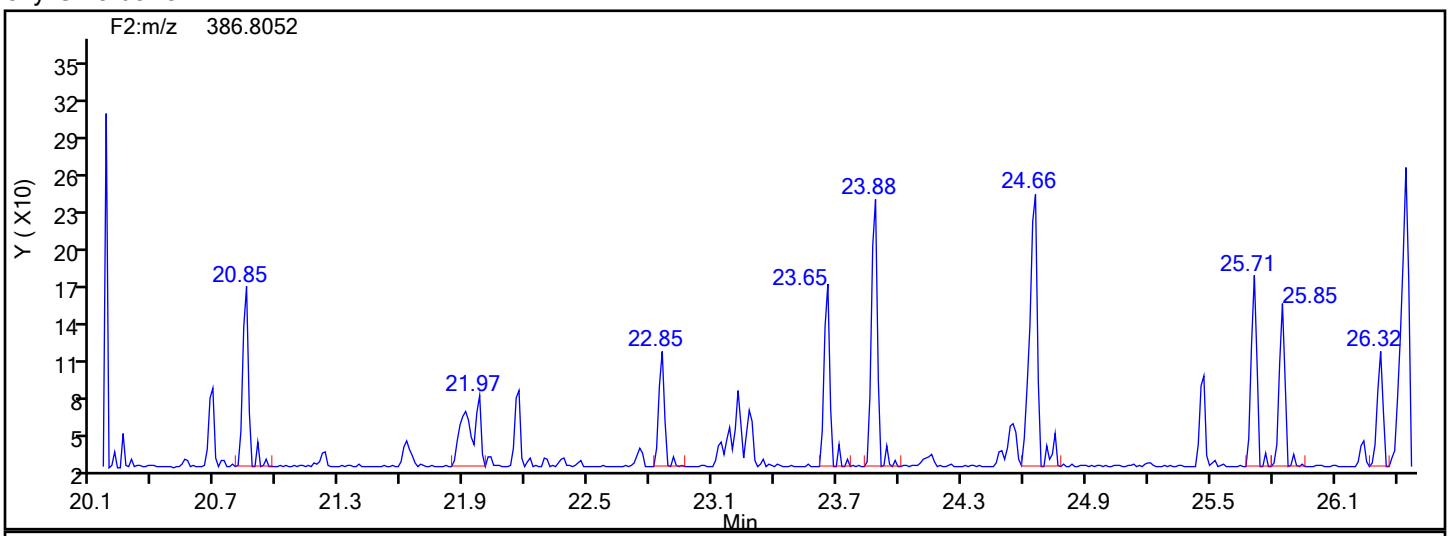
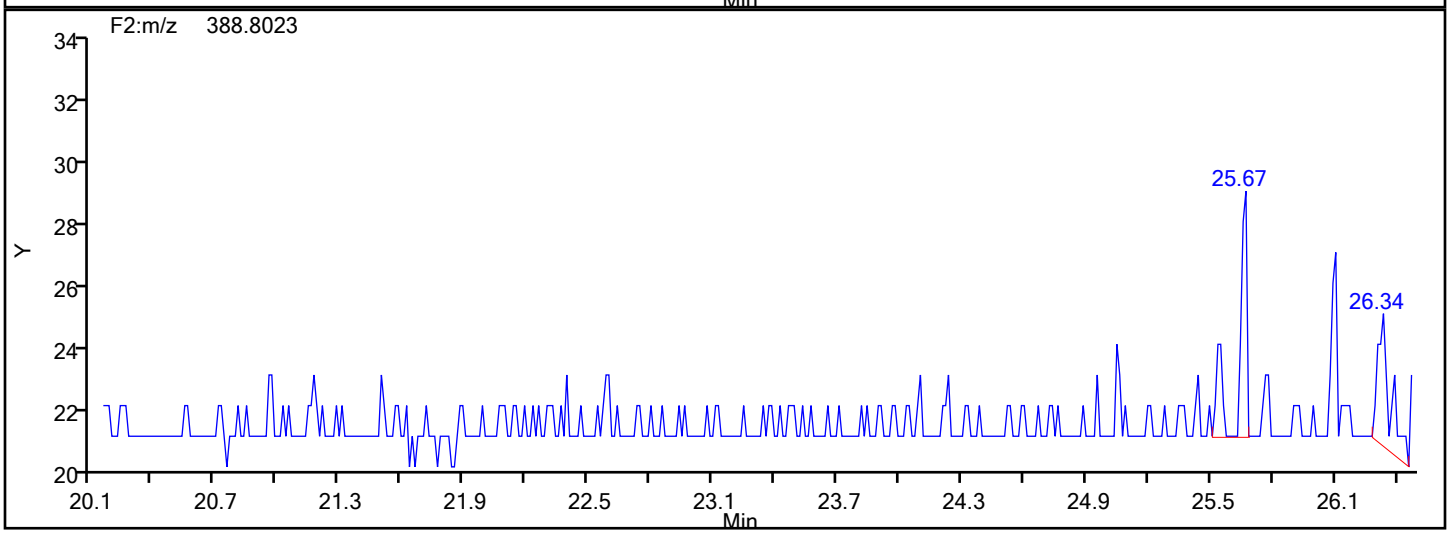
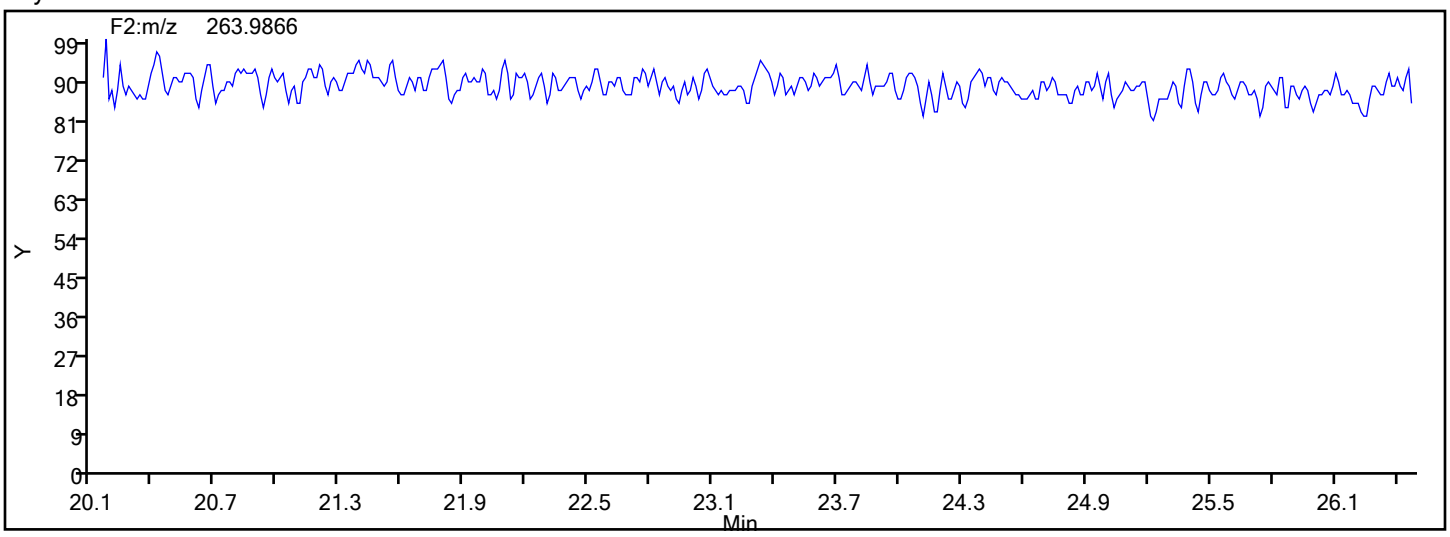
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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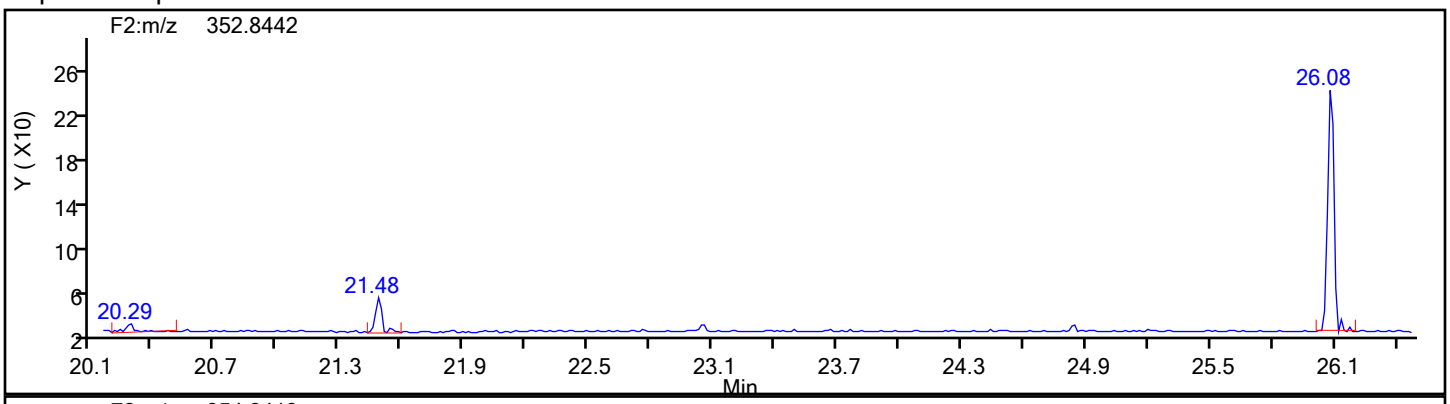
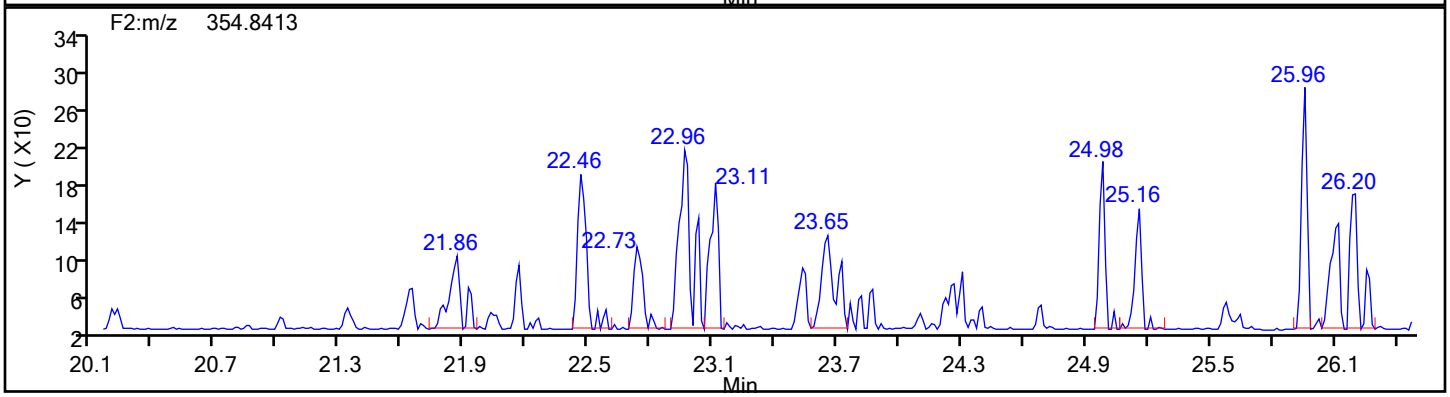
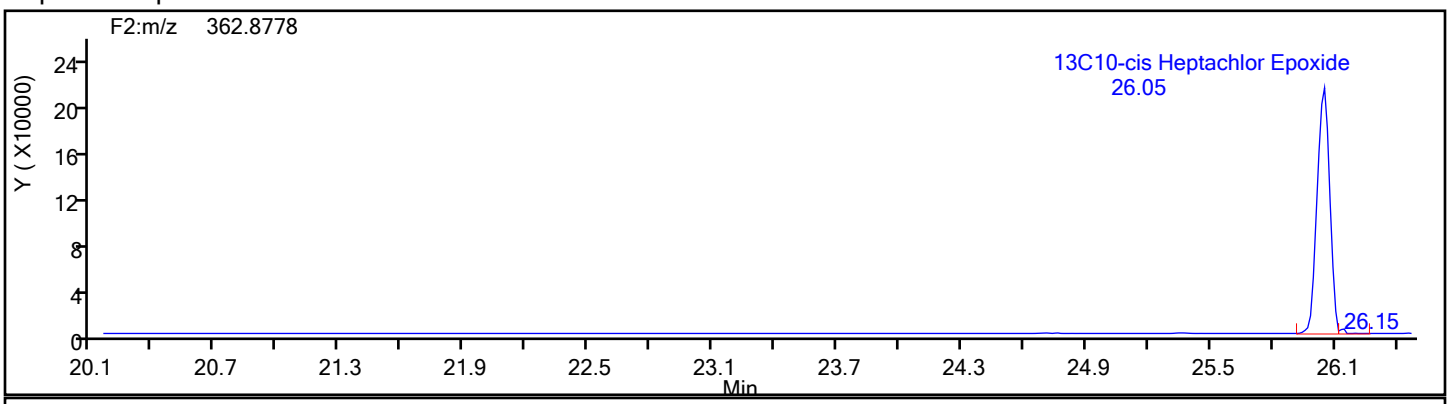
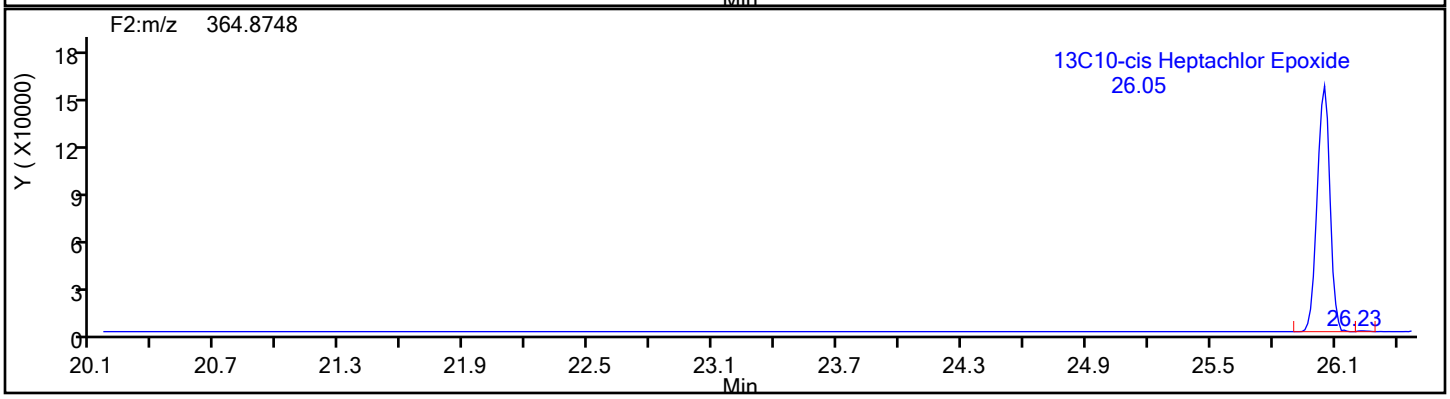
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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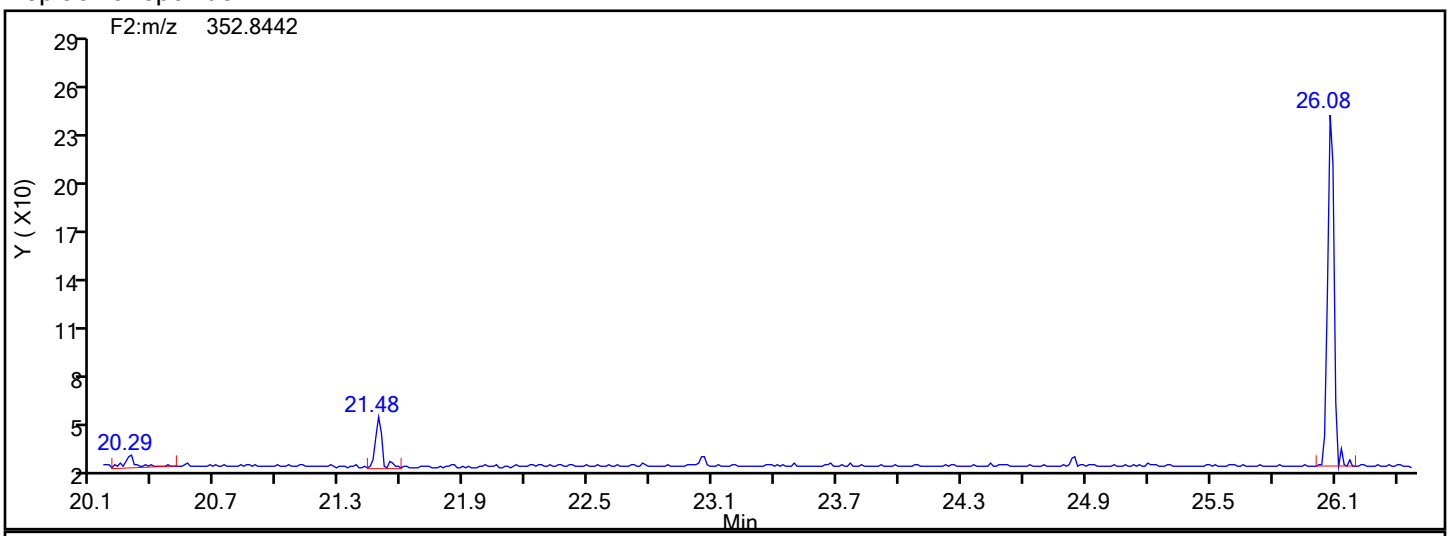
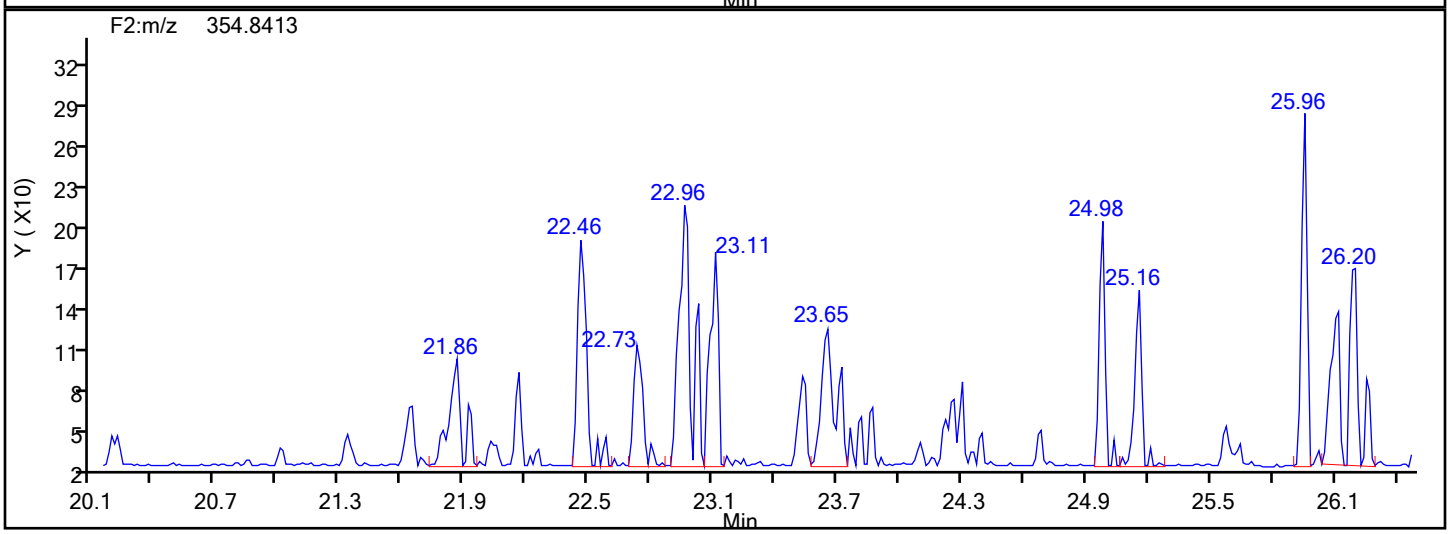
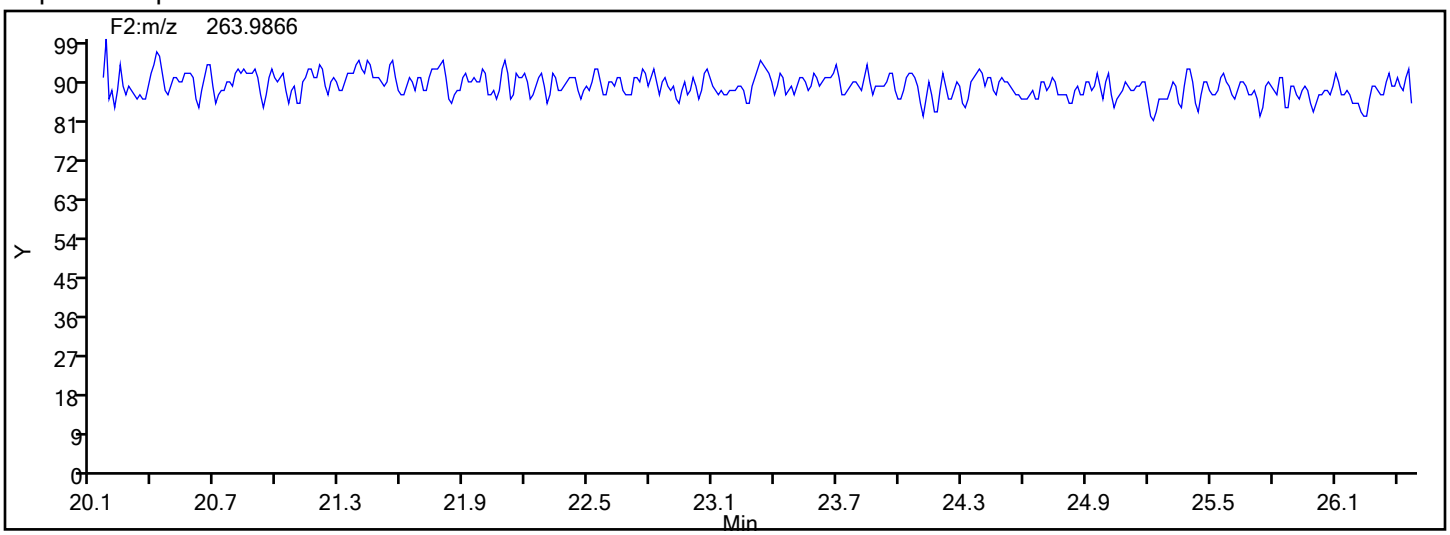
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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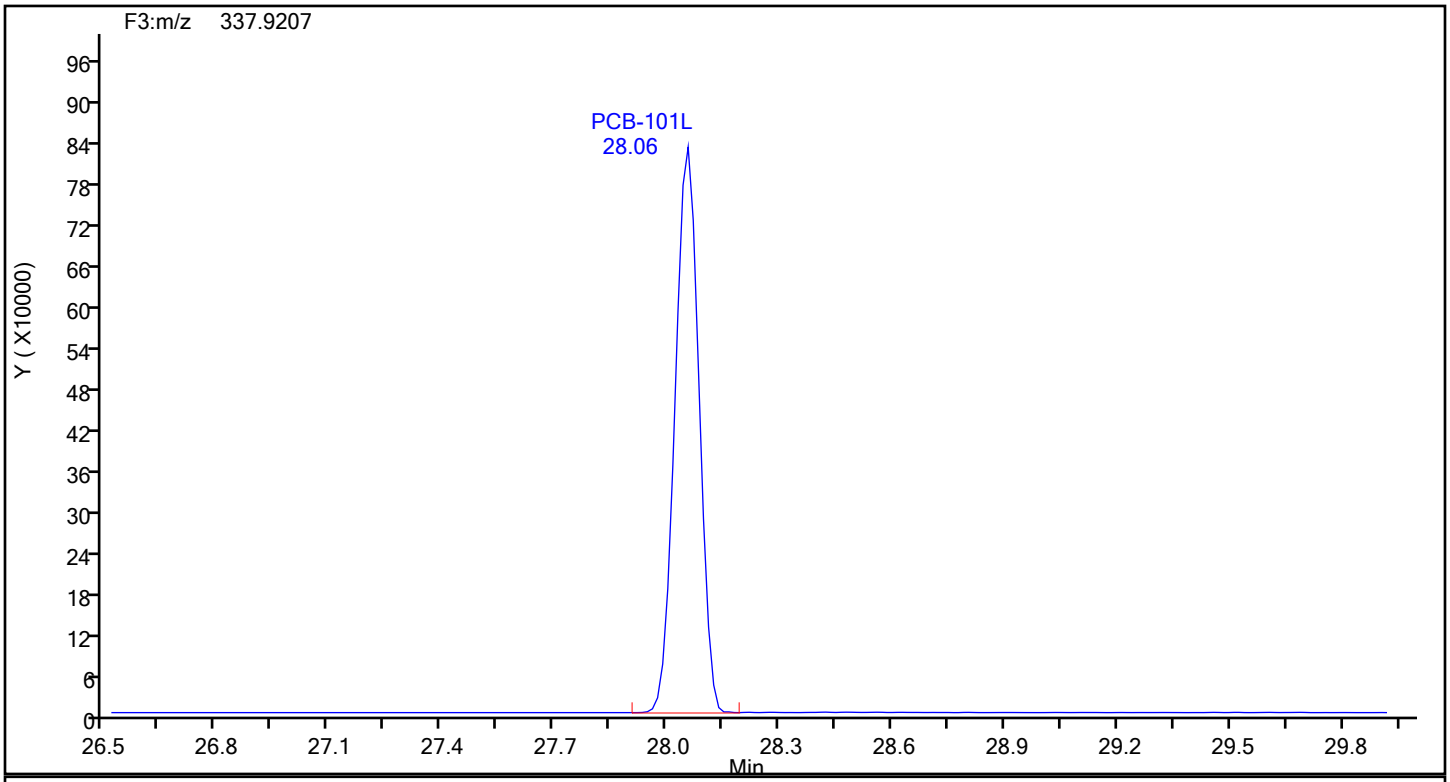
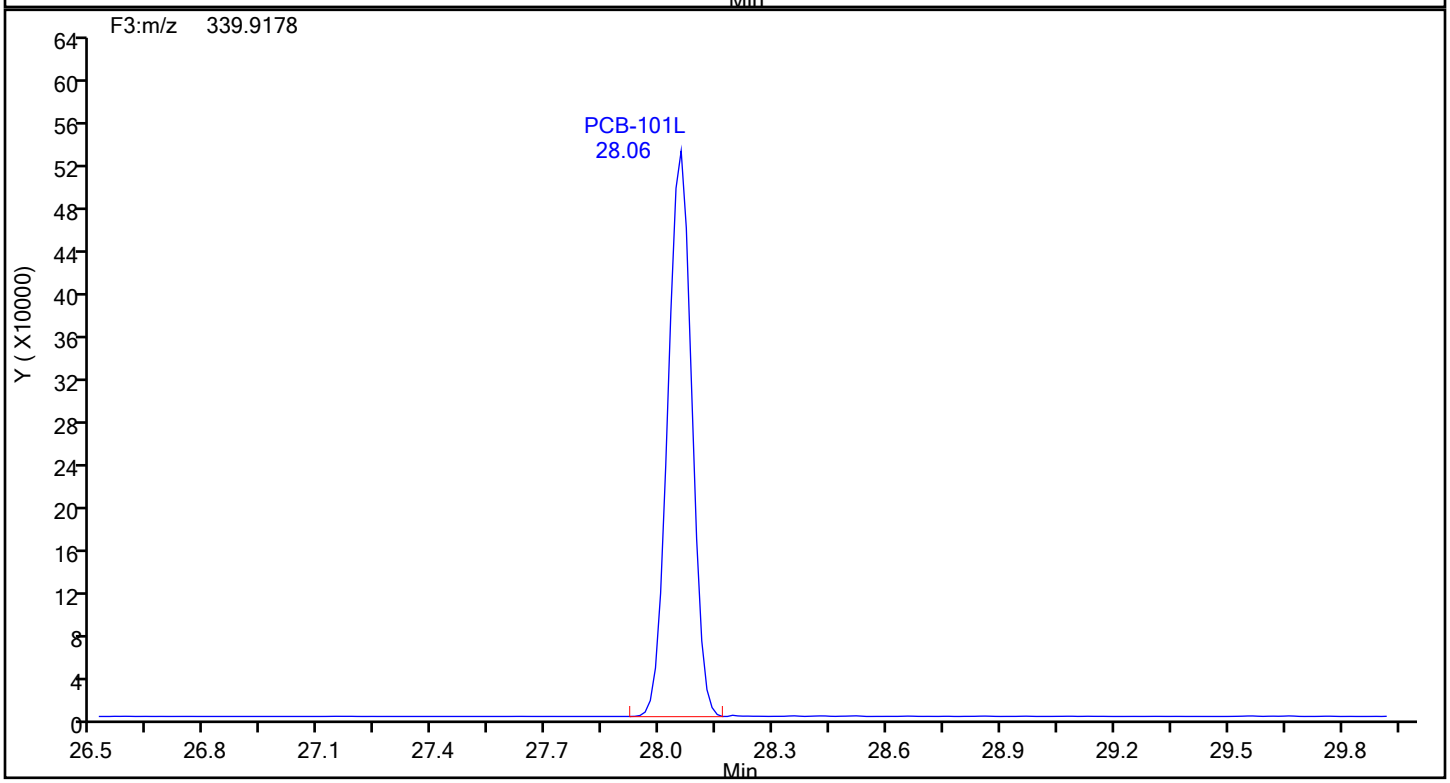
PCB-101L Standards





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Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
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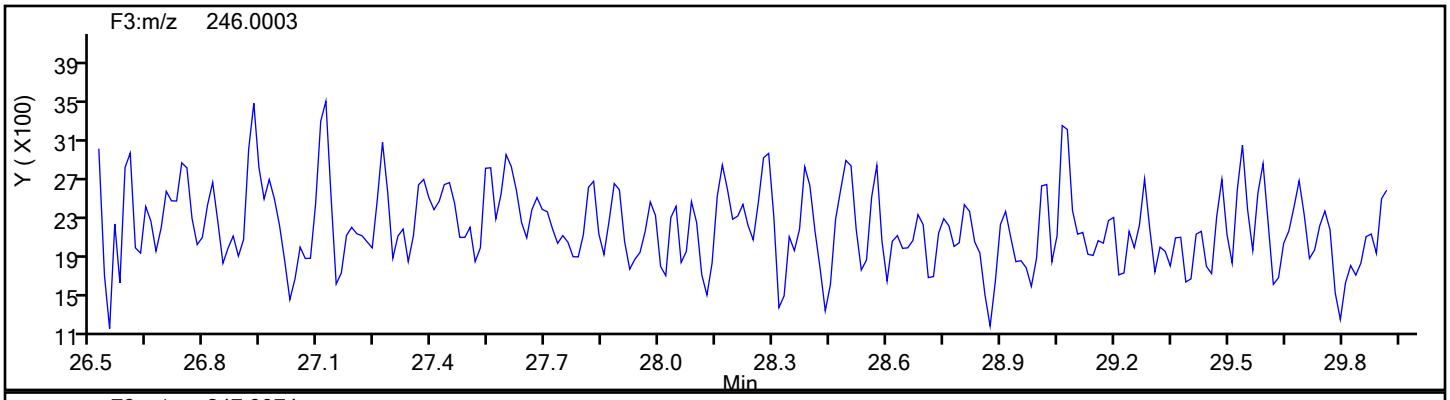
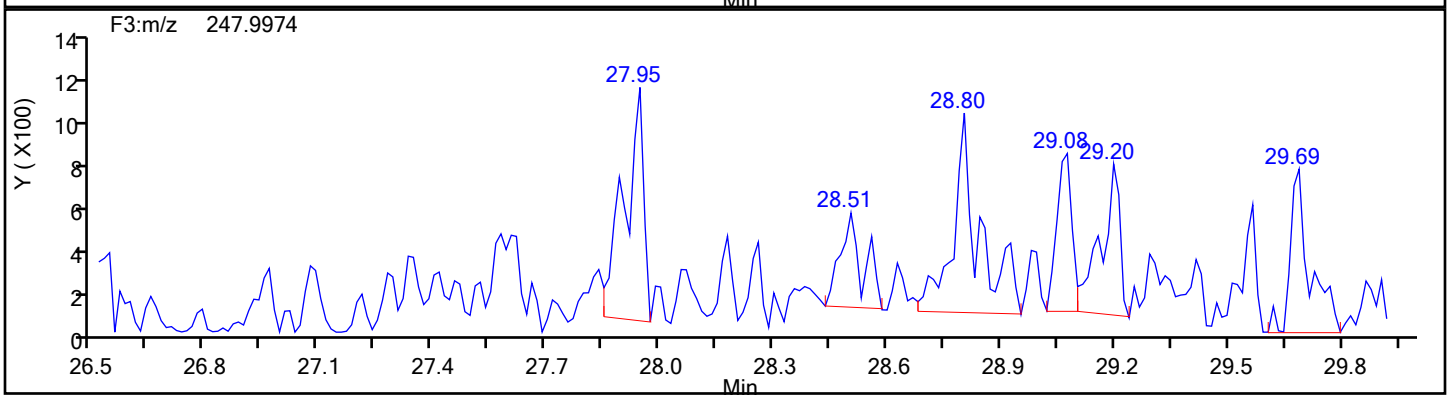
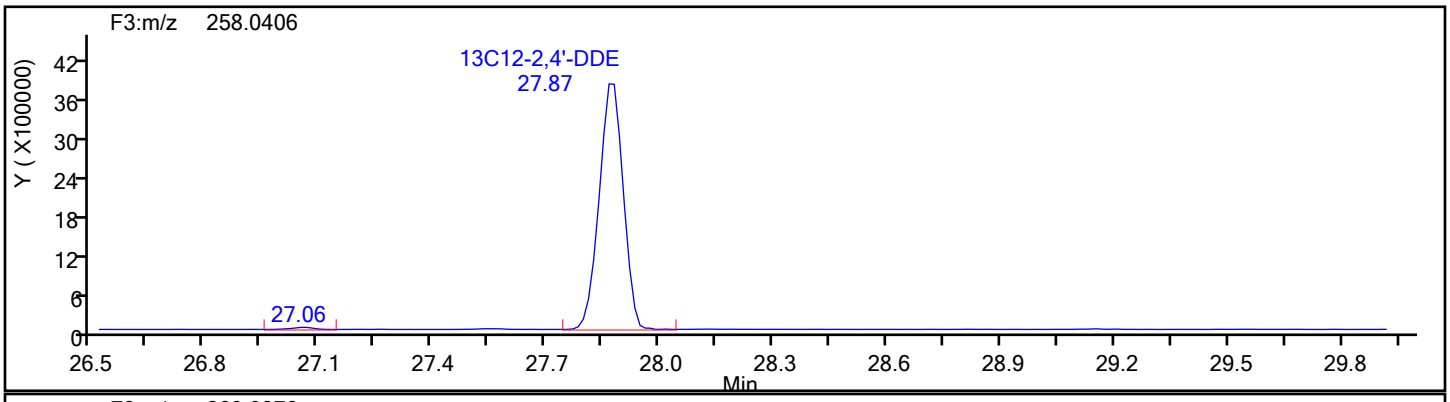
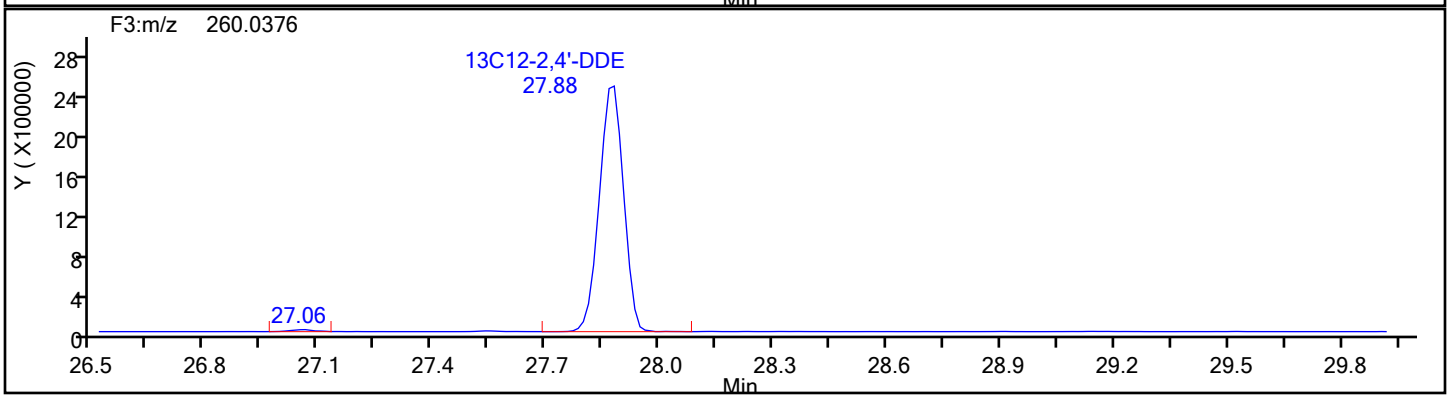
2,4'-DDE





2,4'-DDE Standards





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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
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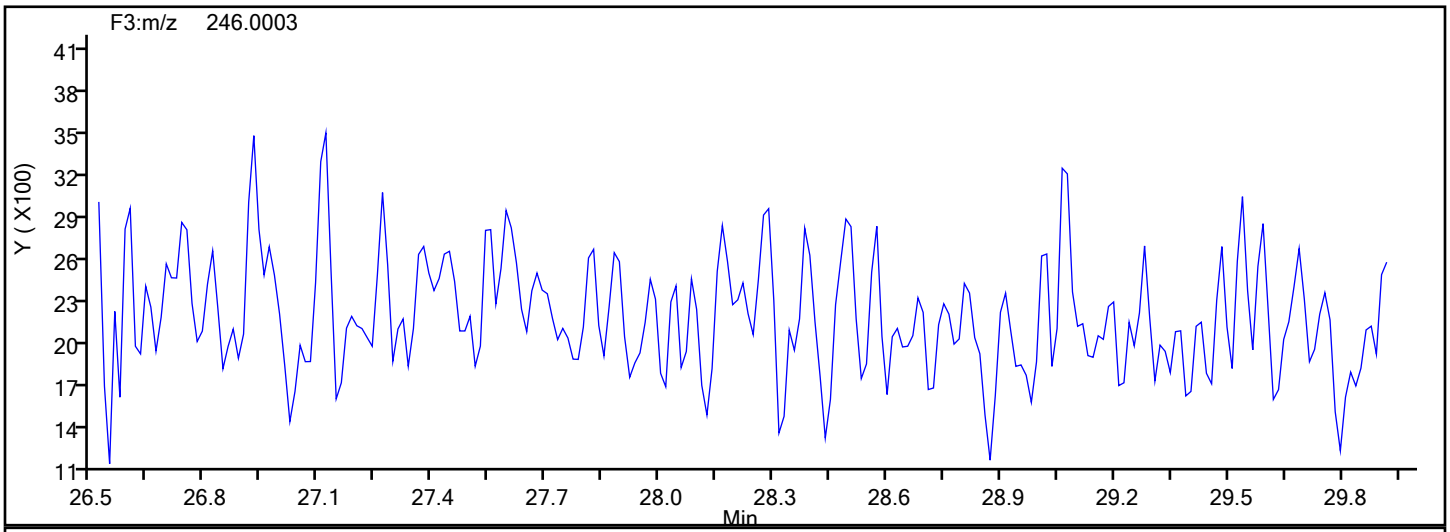
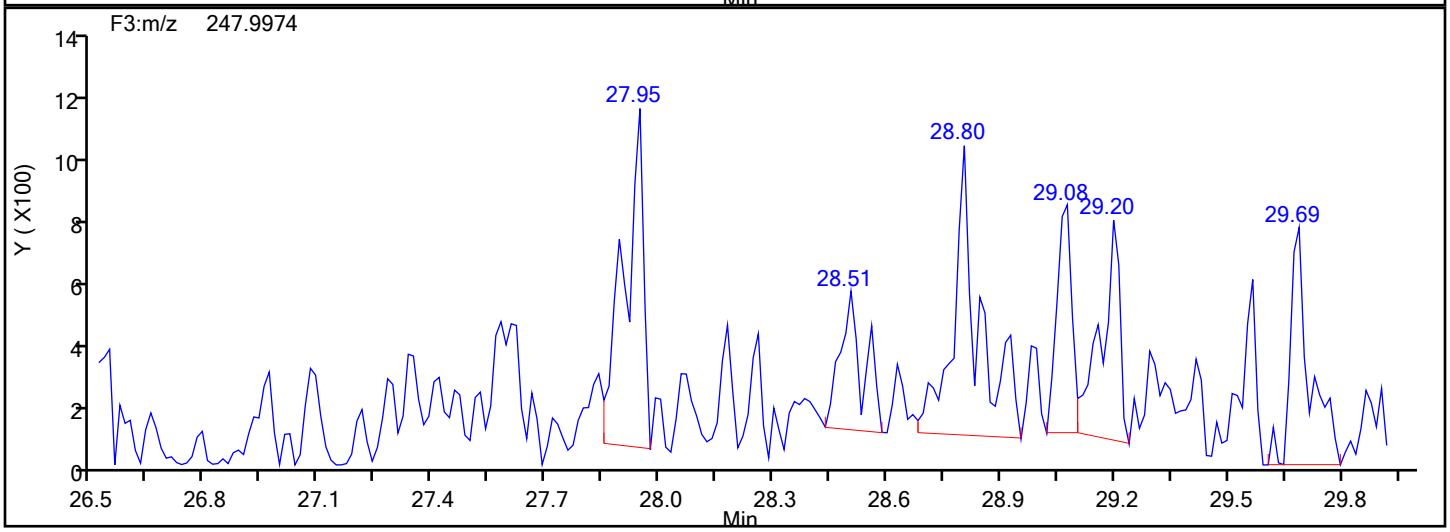
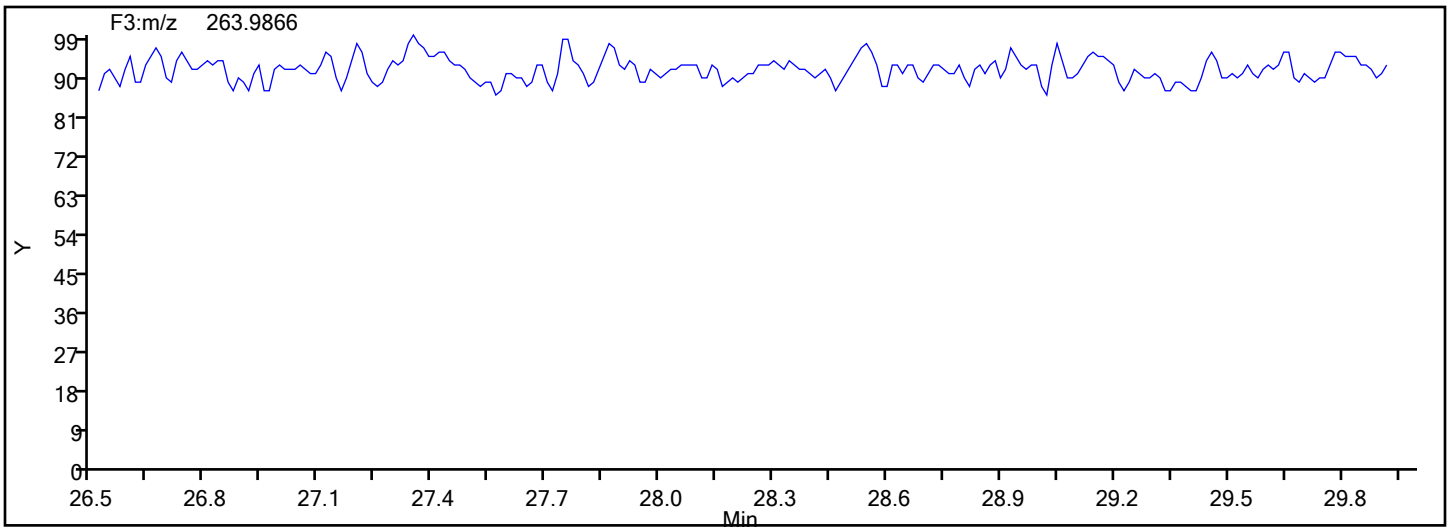
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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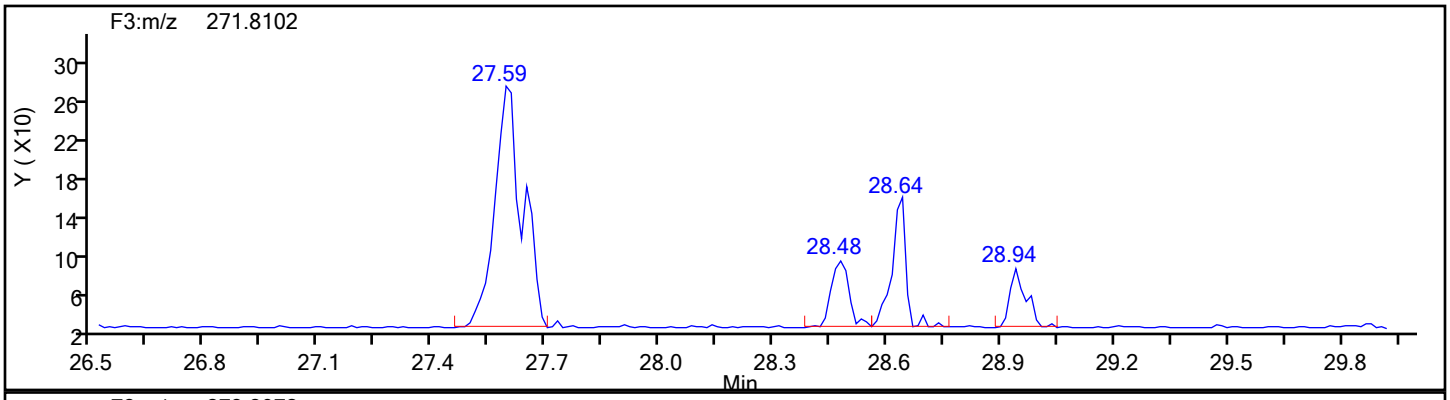
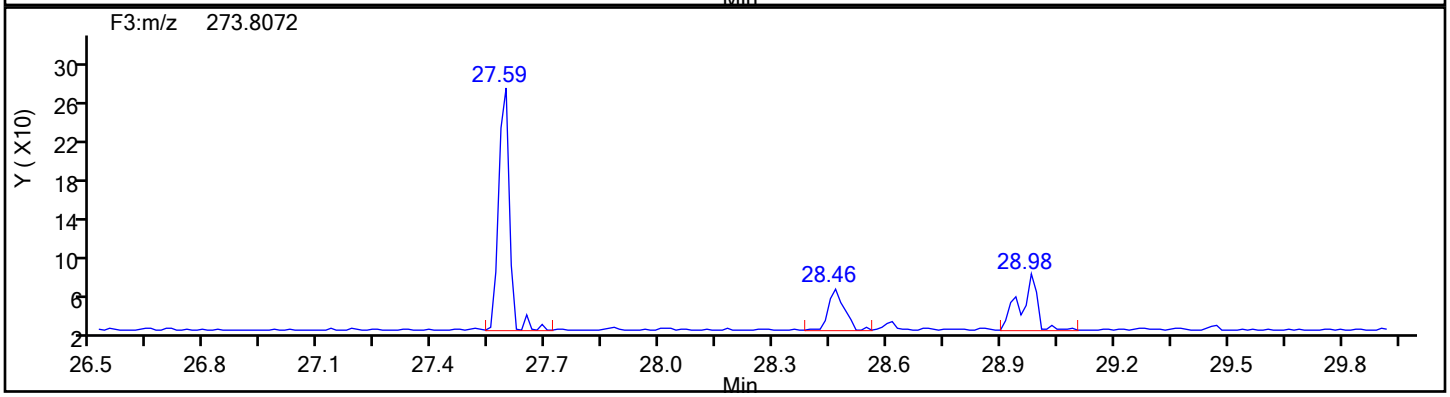
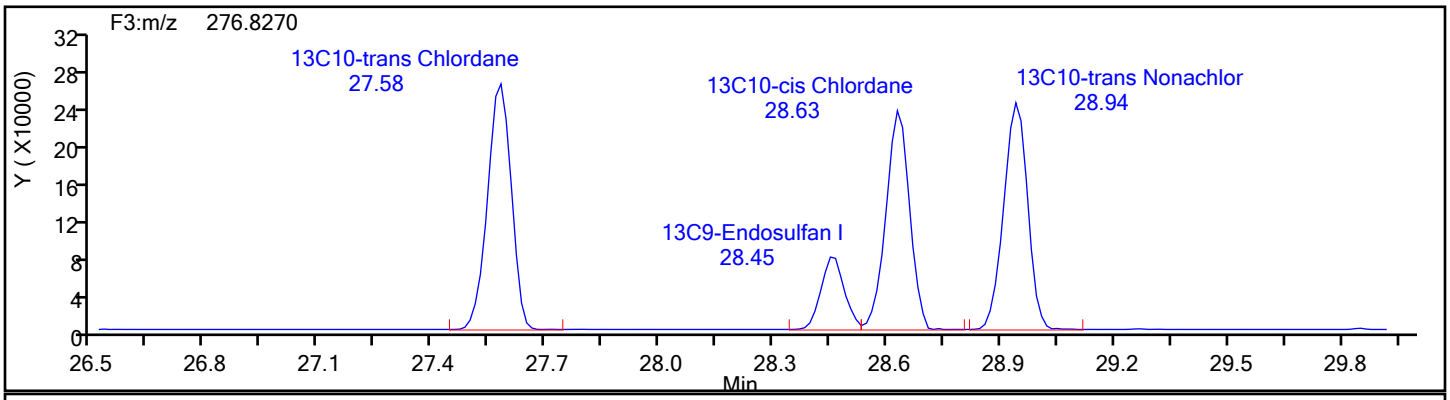
Column Type:	RTX-5	Column Dia:	0.32 mm

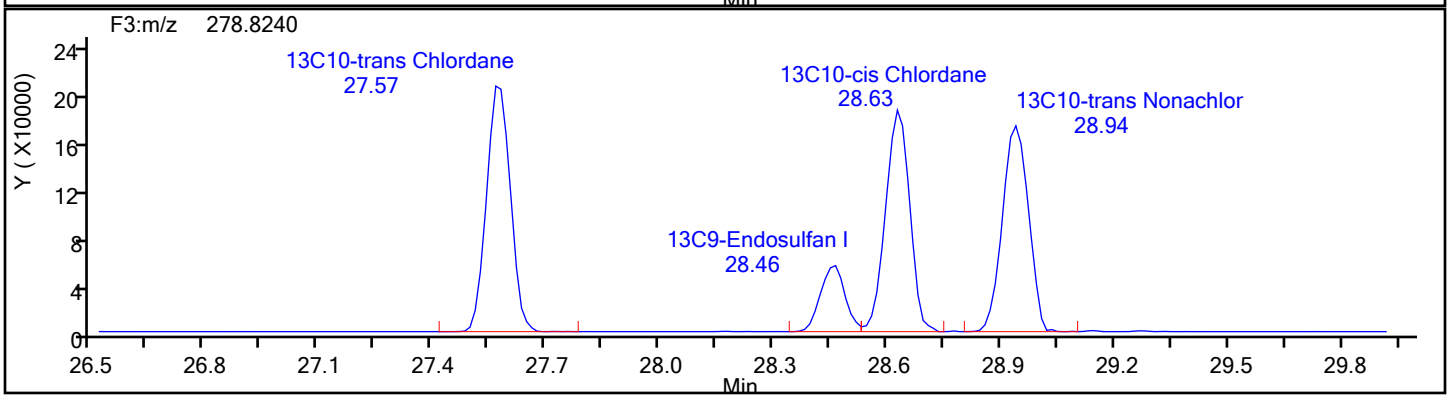
Chlordane





Chlordane Standards





Report Date: 05-May-2025 18:00:02 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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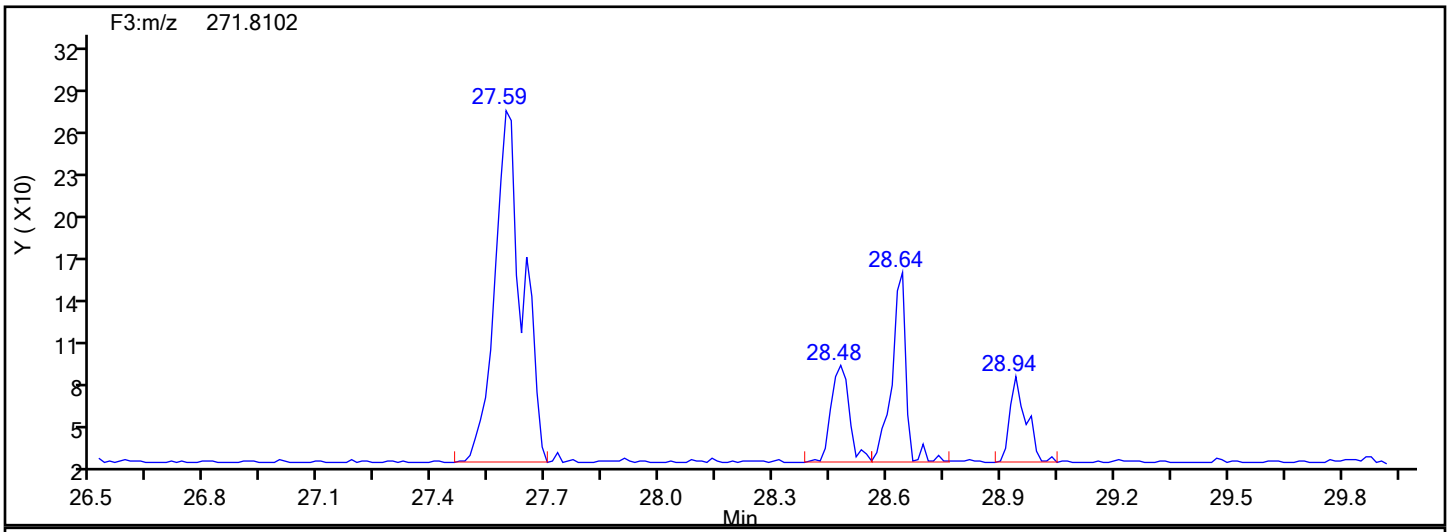
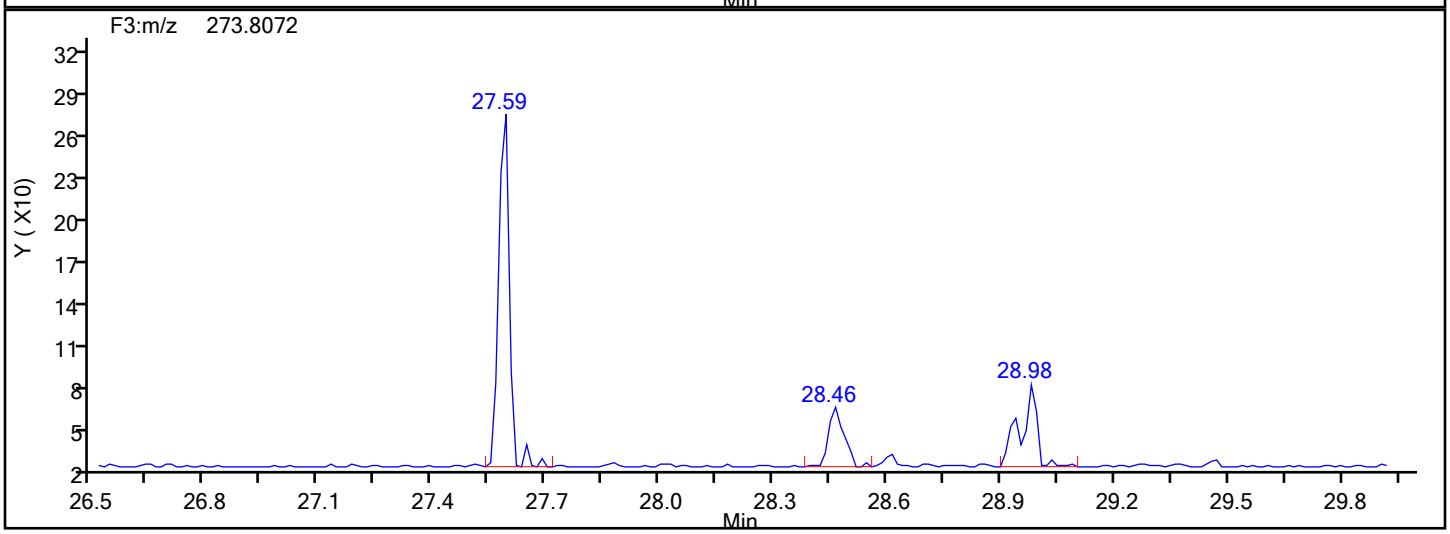
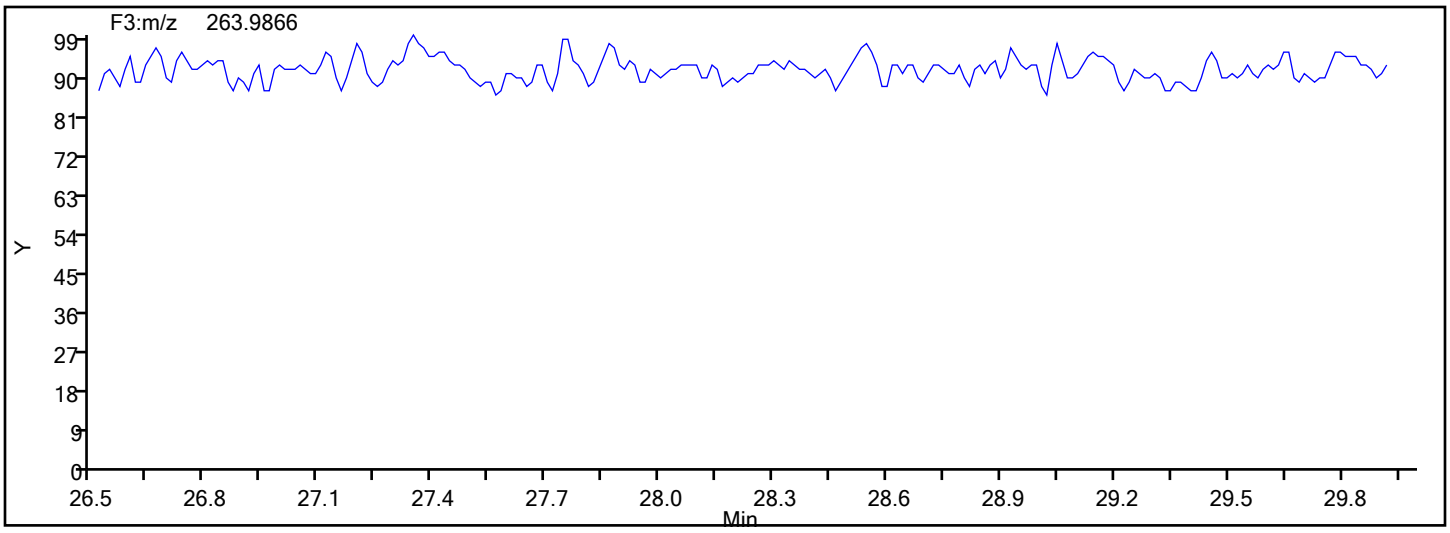




Chlordane Lock Mass



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Eurofins Knoxville

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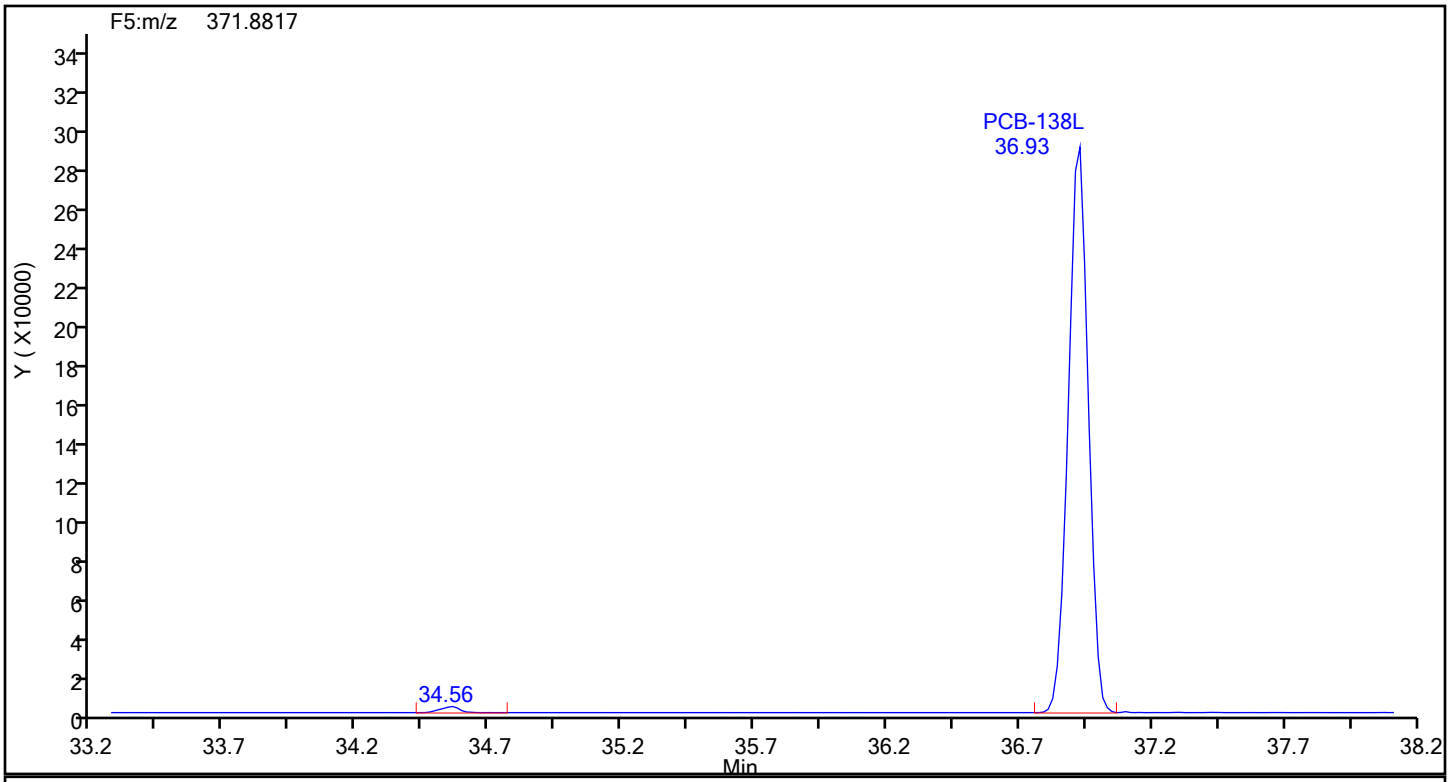
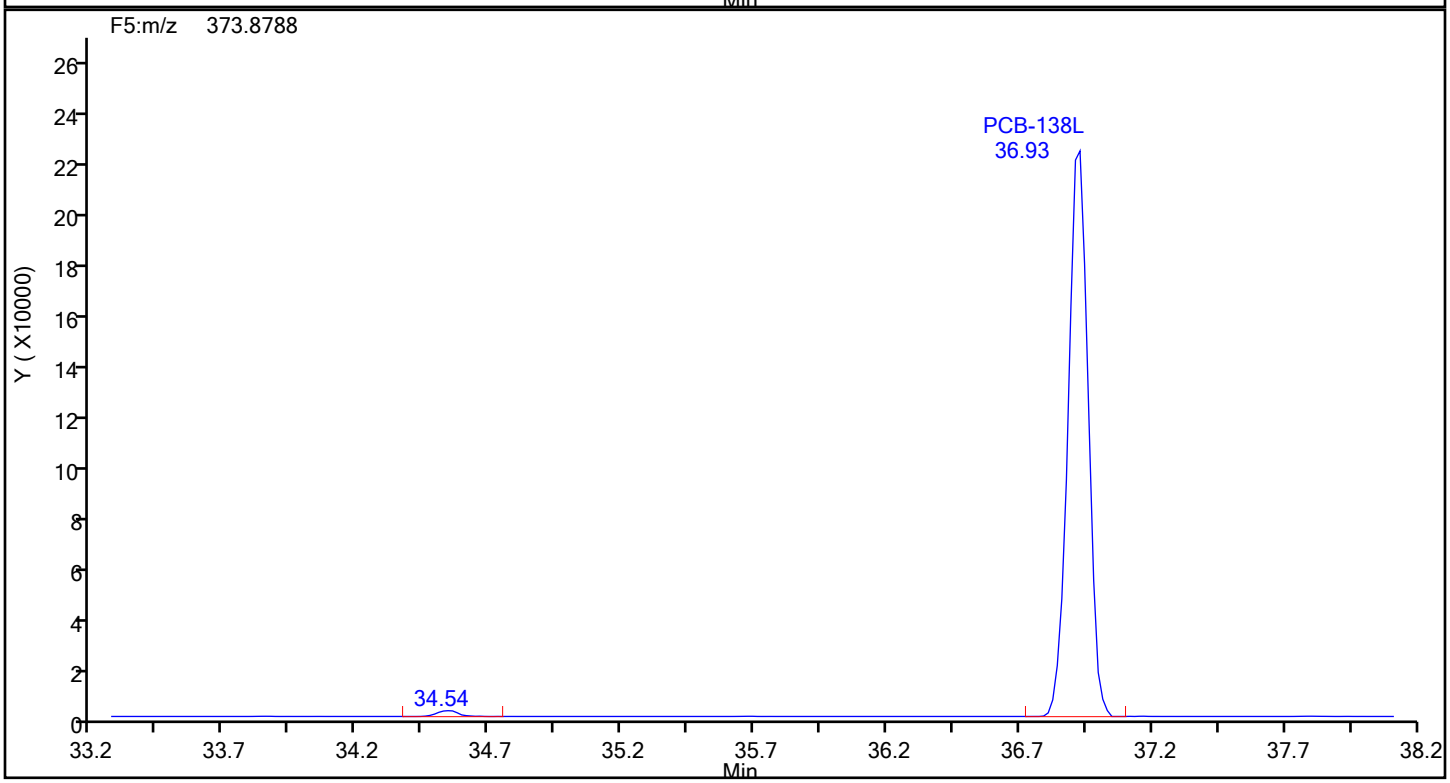
PCB-138L Standards





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Eurofins Knoxville

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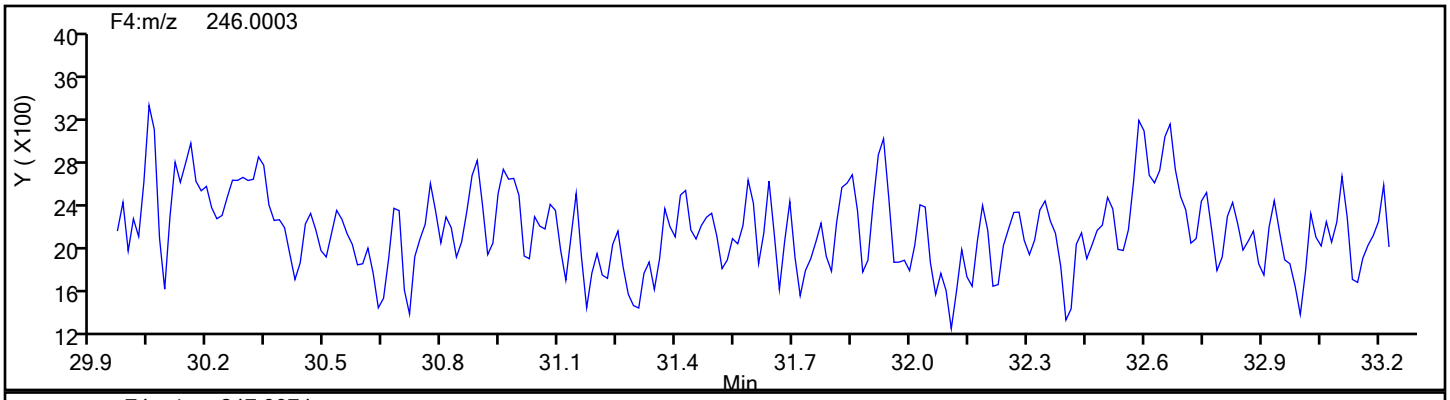
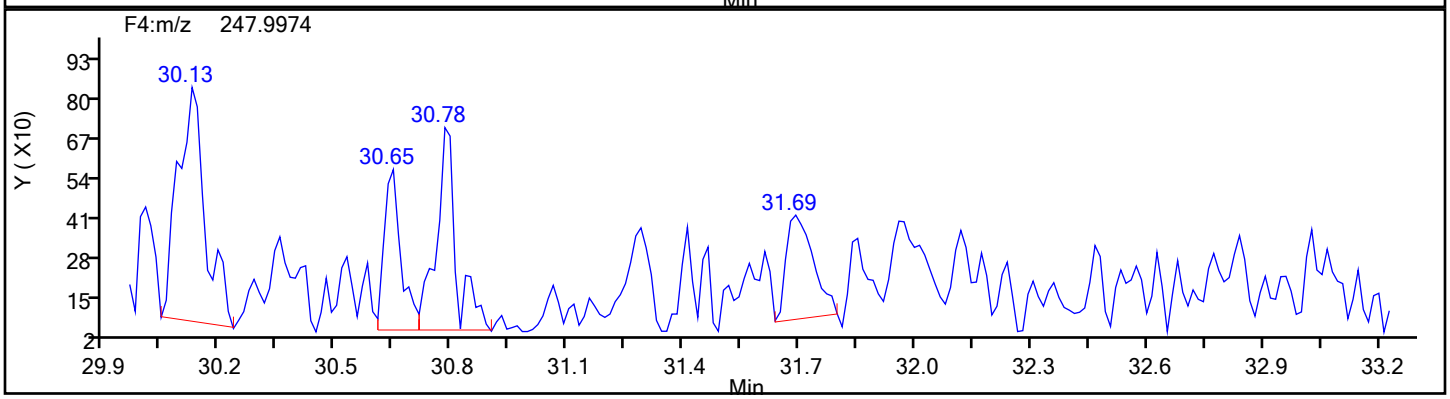
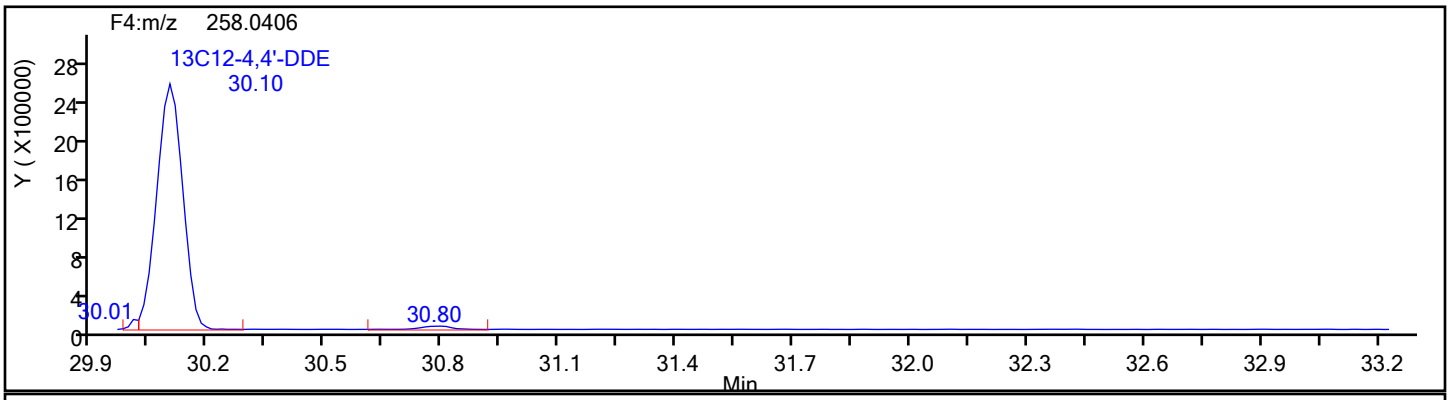
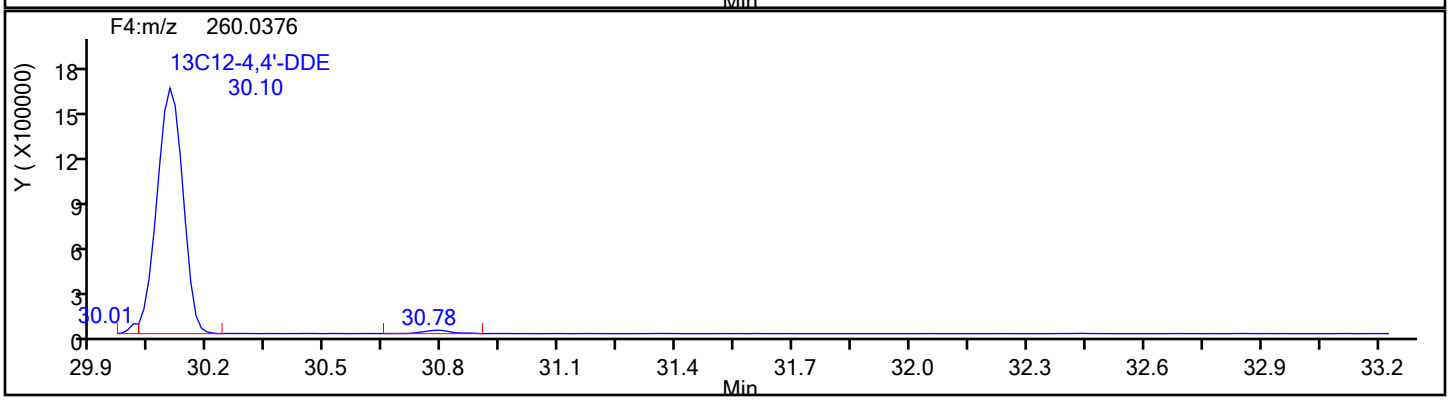
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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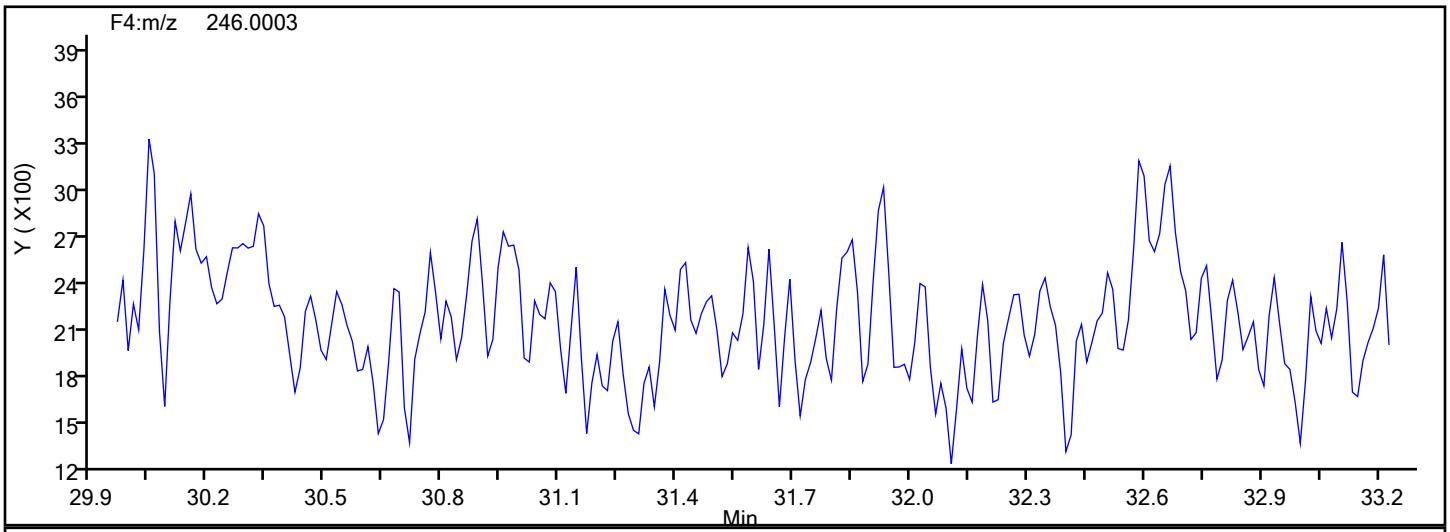
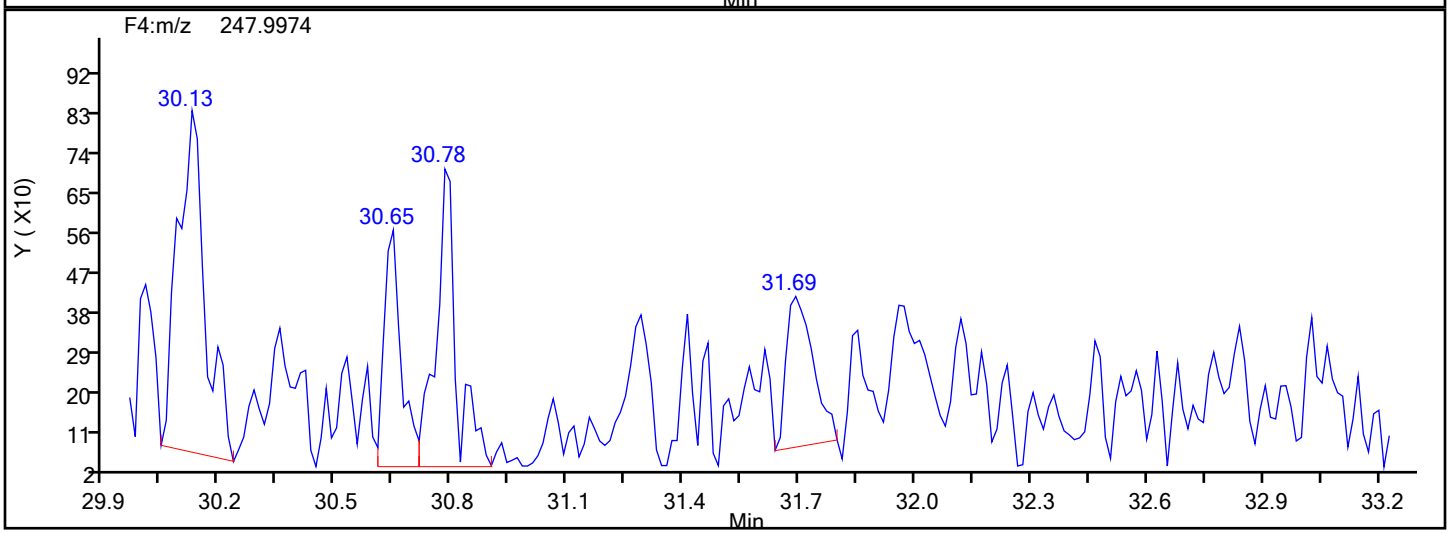
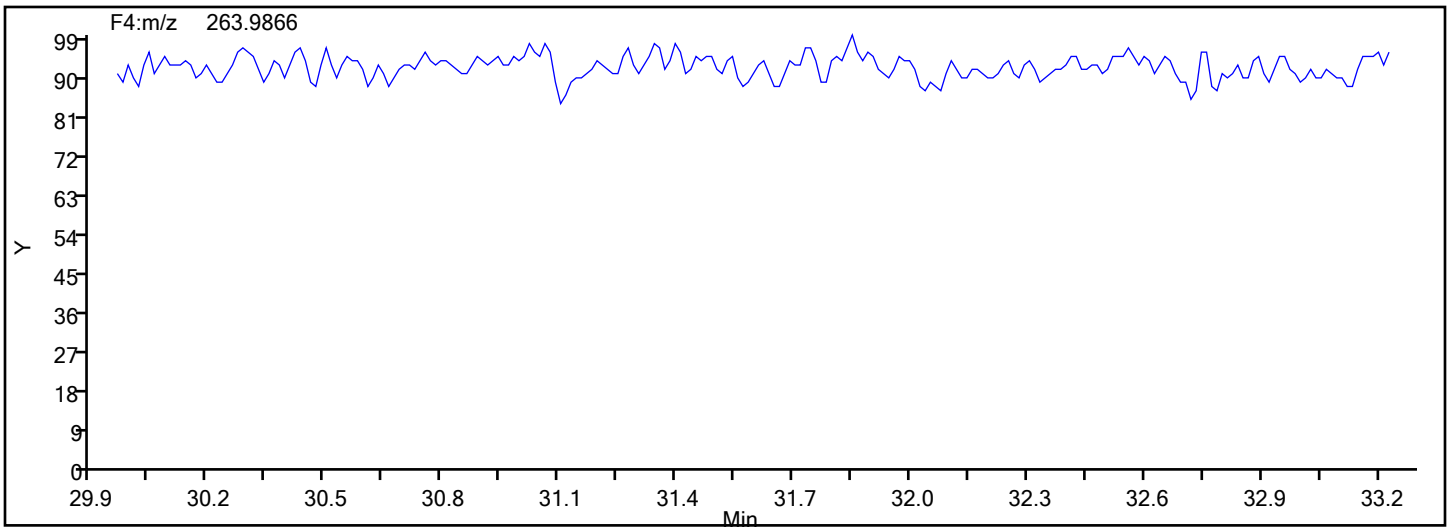




4,4'-DDE Lock Mass



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Eurofins Knoxville

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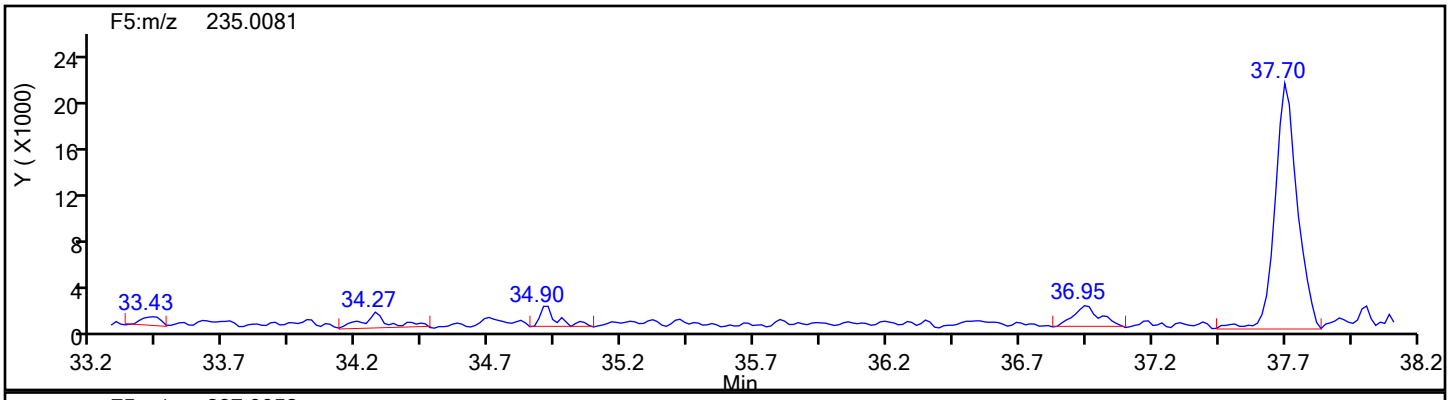
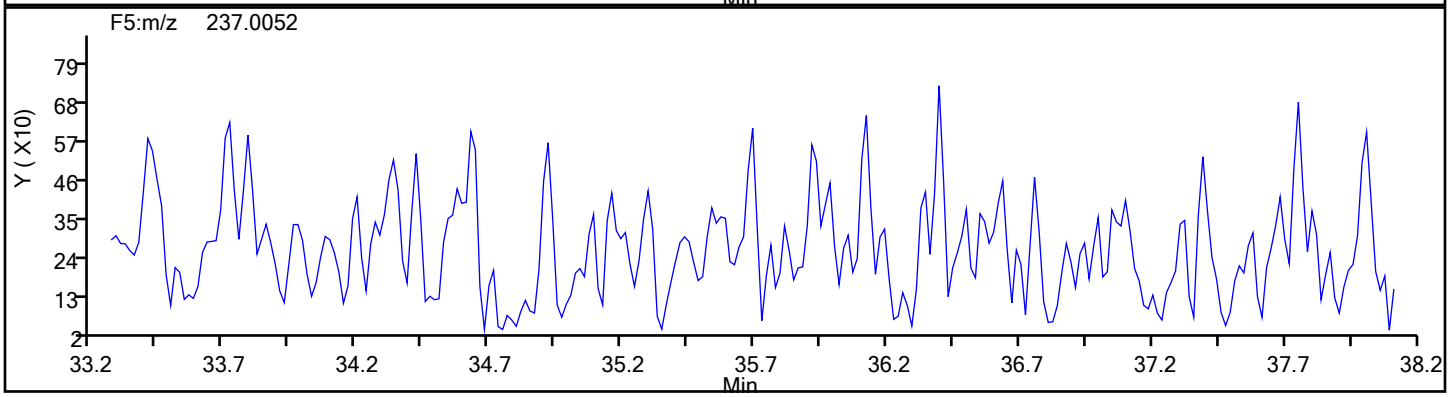
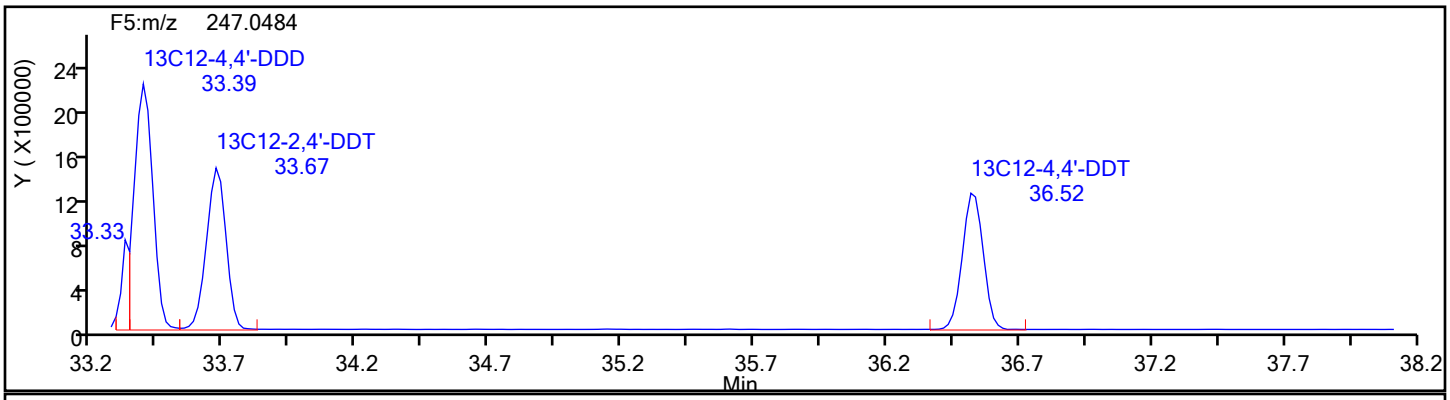
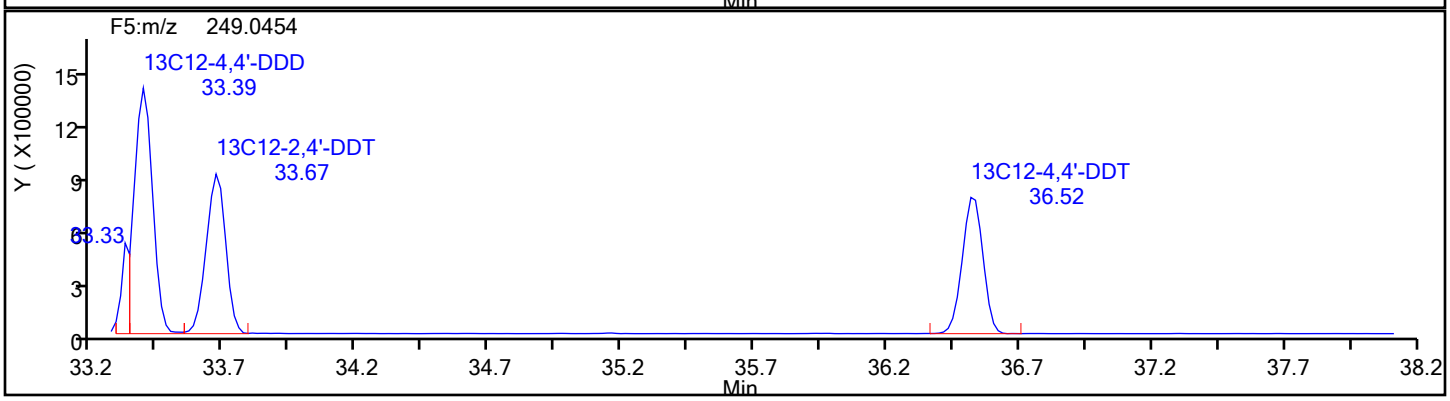
DDD





DDD Standards





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Eurofins Knoxville

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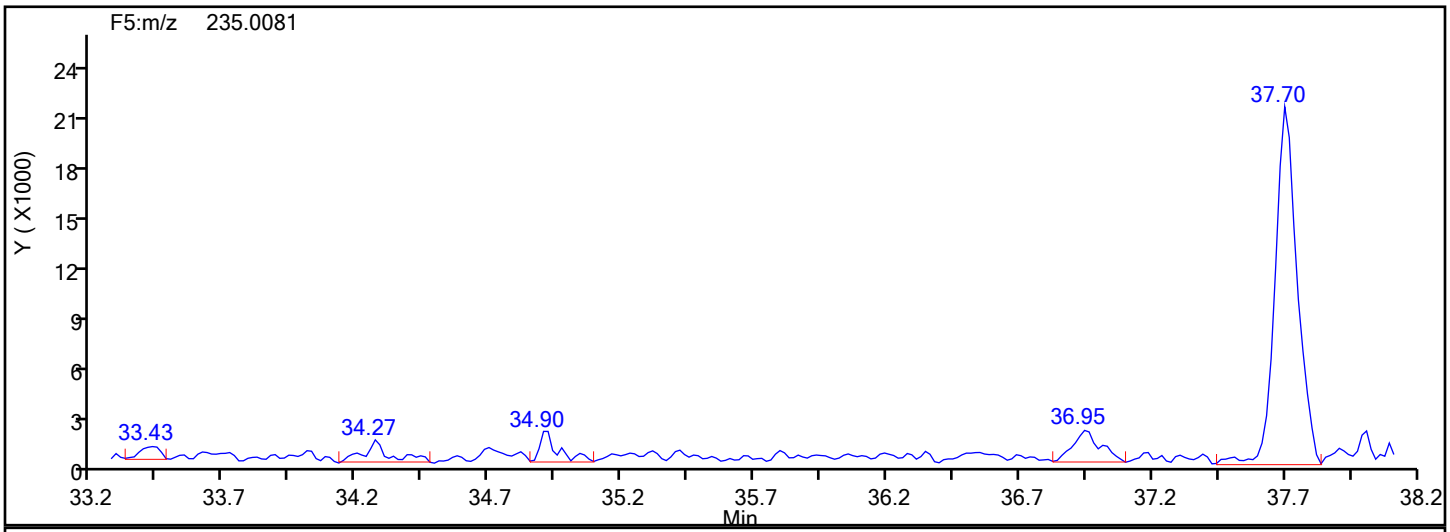
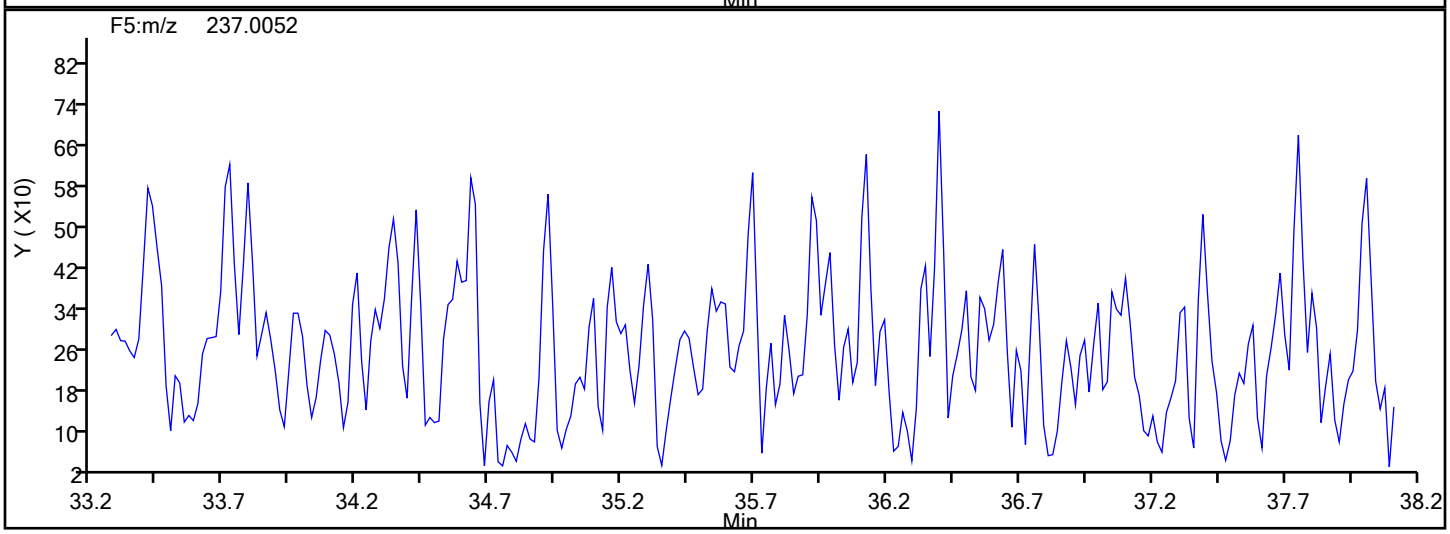
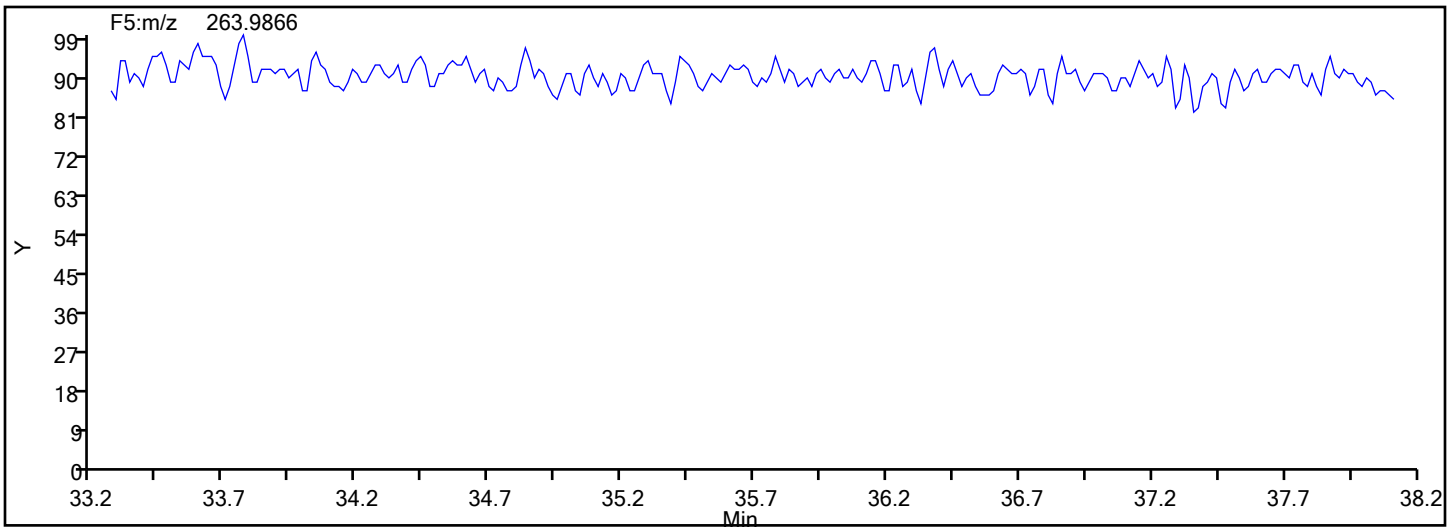




DDD Lock Mass



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Eurofins Knoxville

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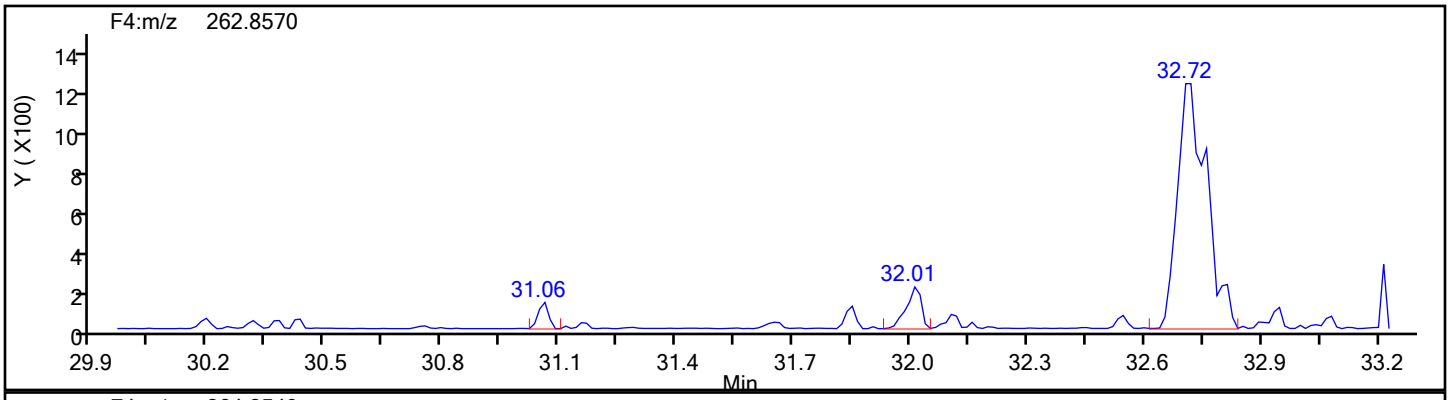

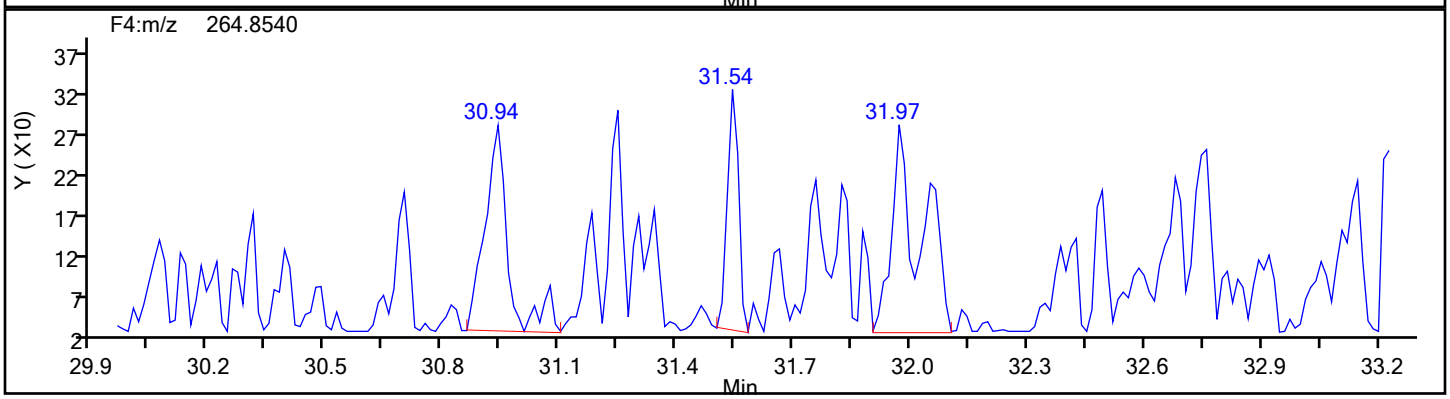

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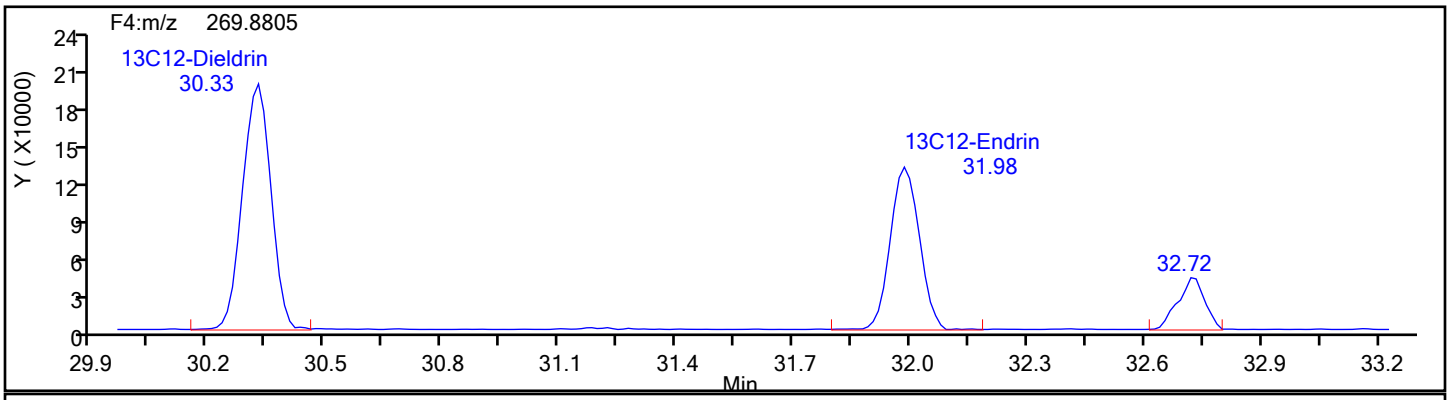

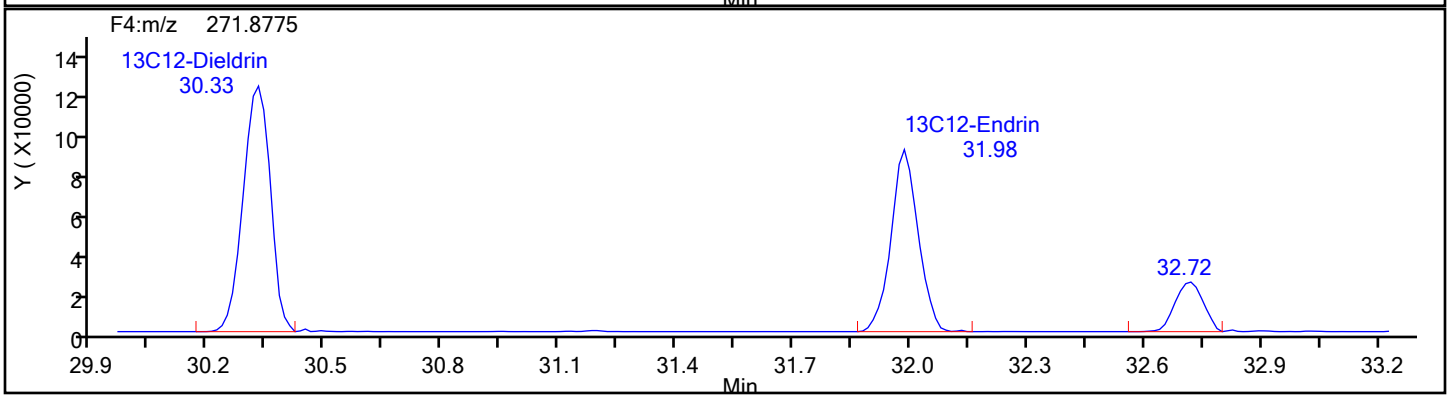

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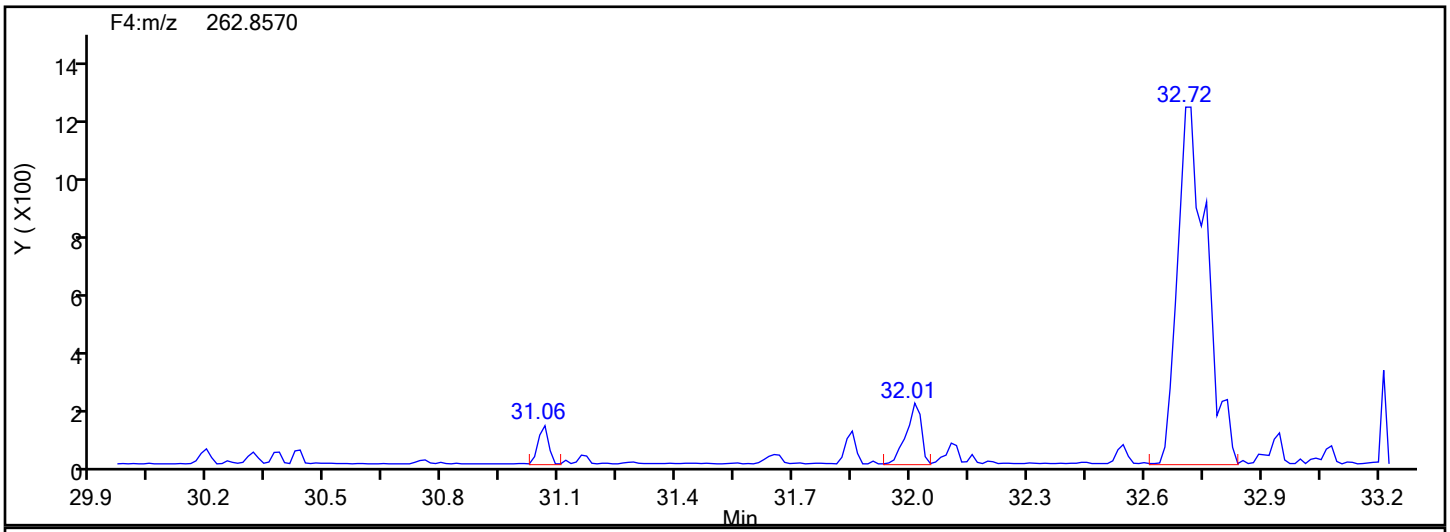
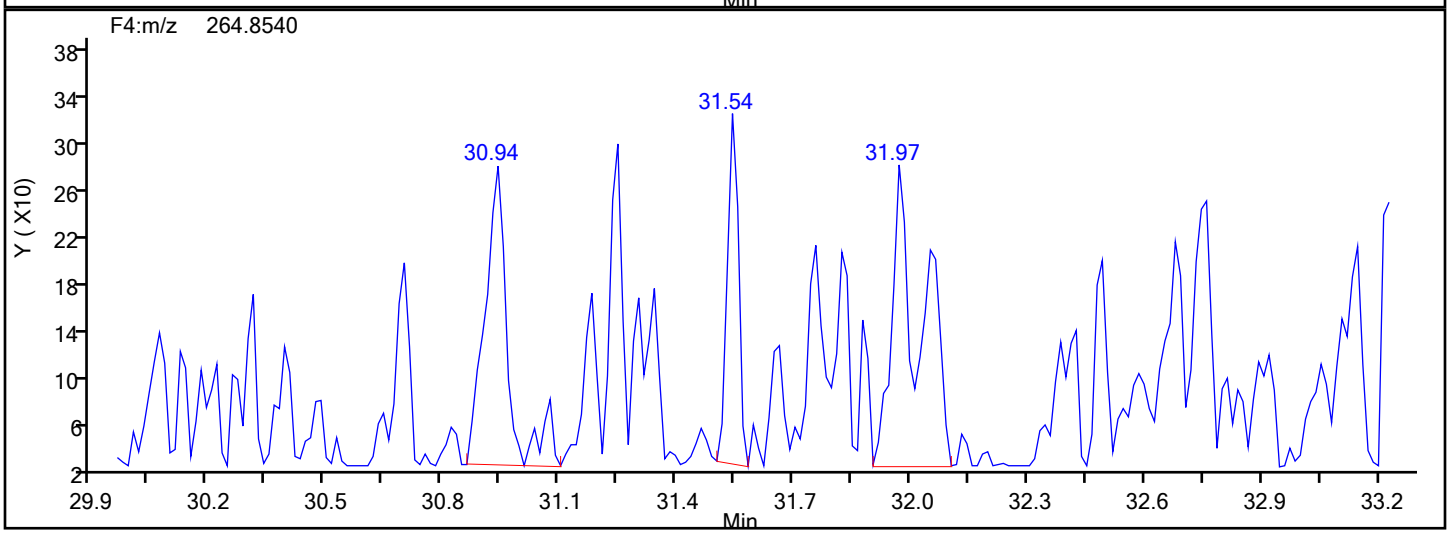
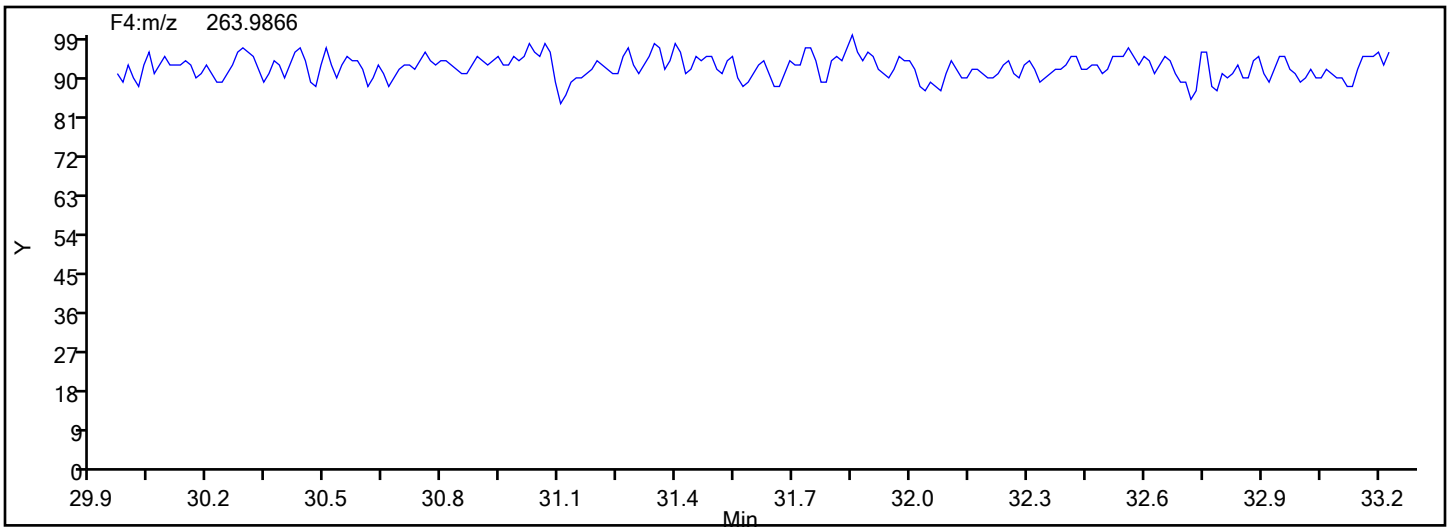




Dieldrin Lock Mass



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Eurofins Knoxville

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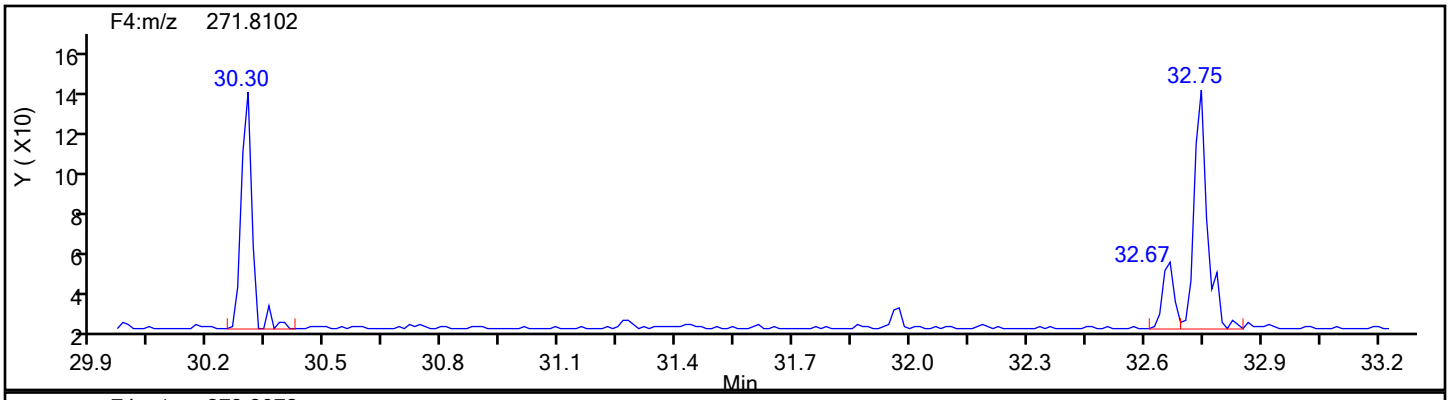
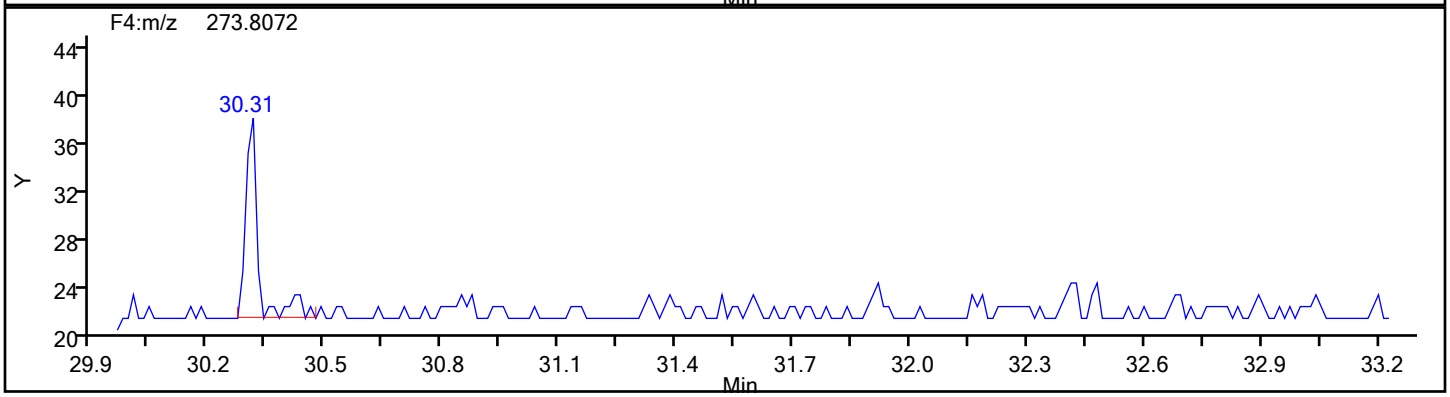
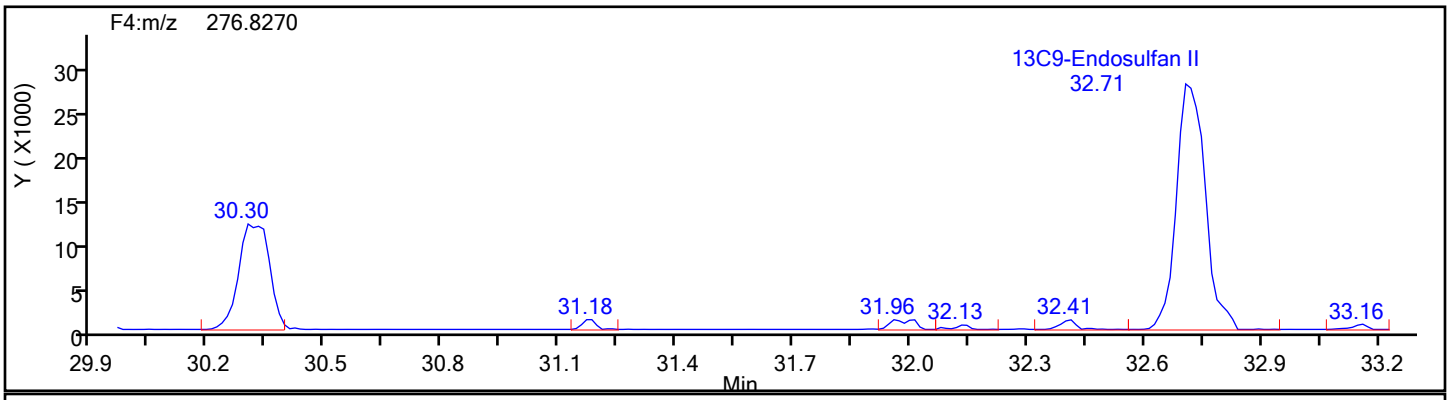
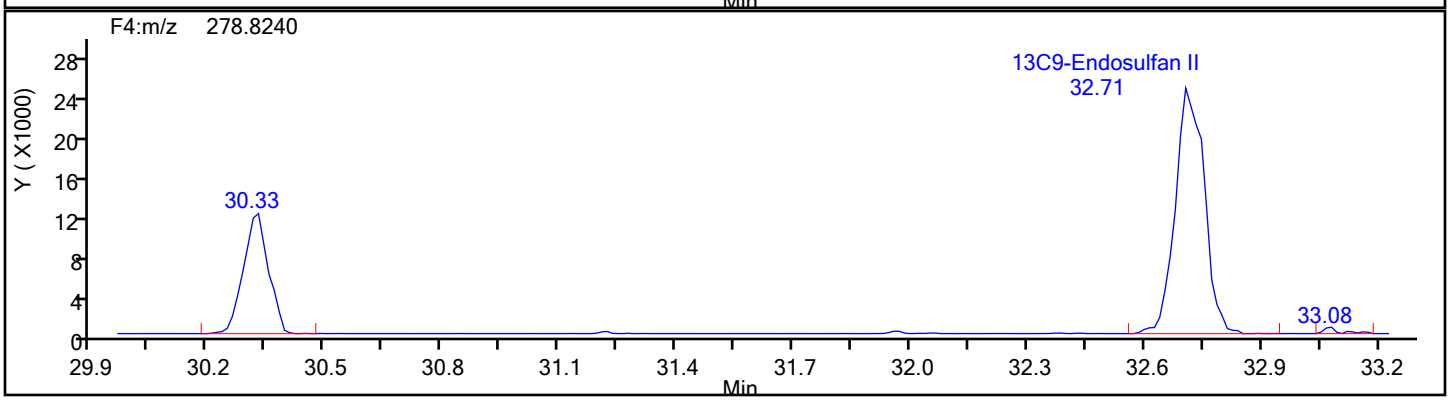
Endosulfan II





Endosulfan II Standards





Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
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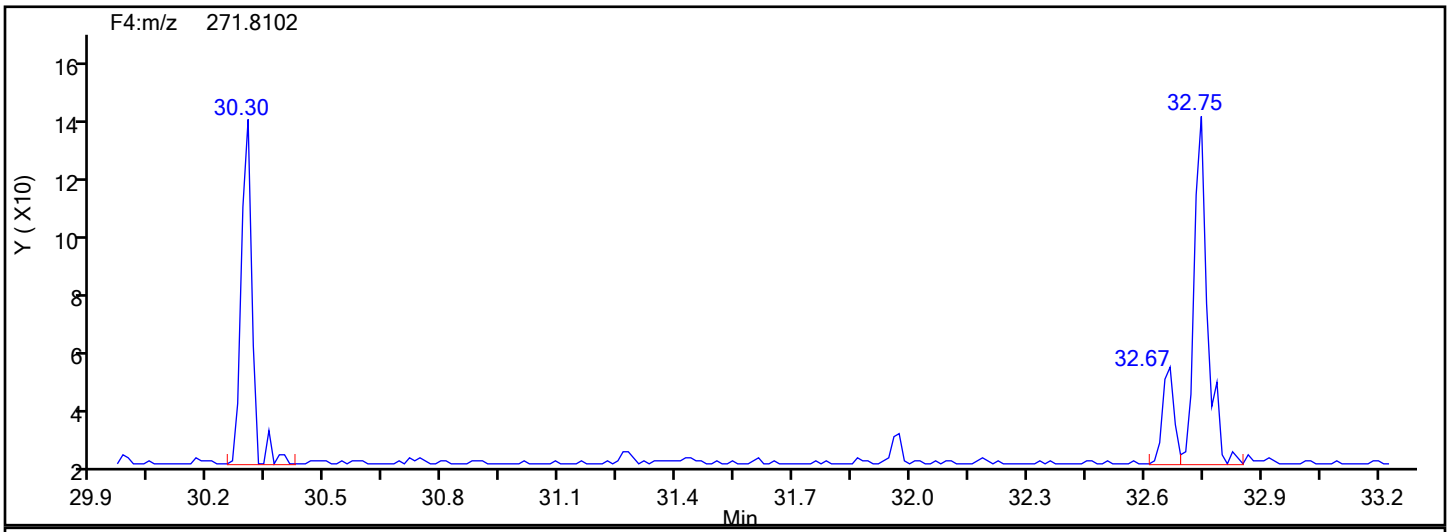
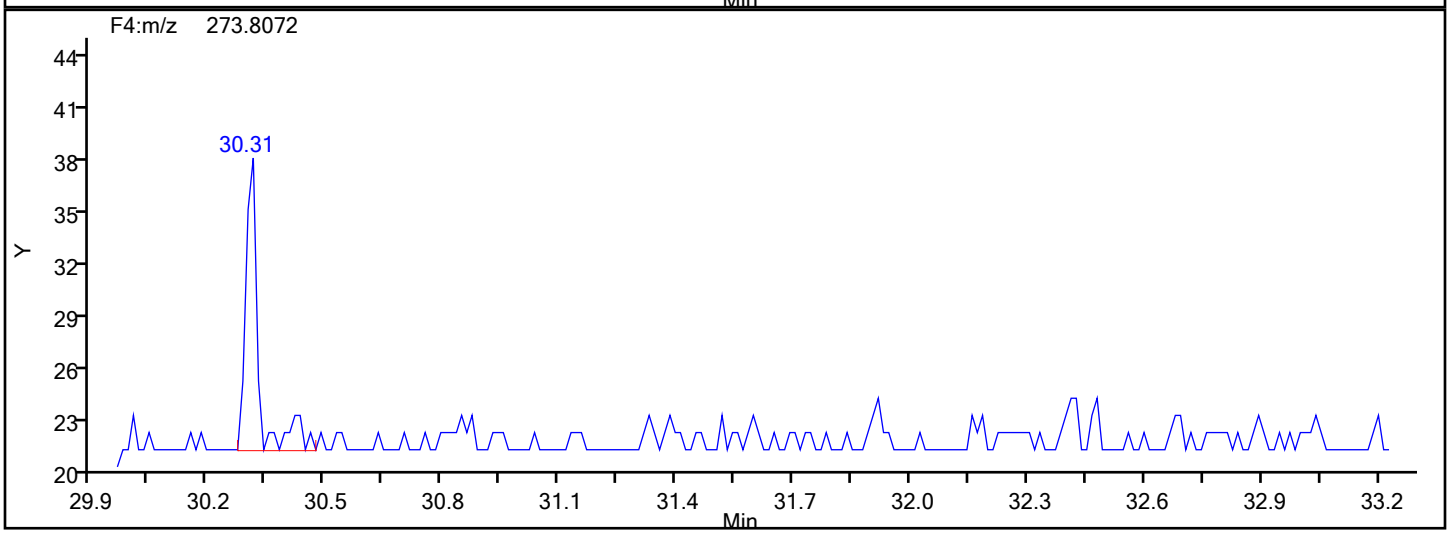
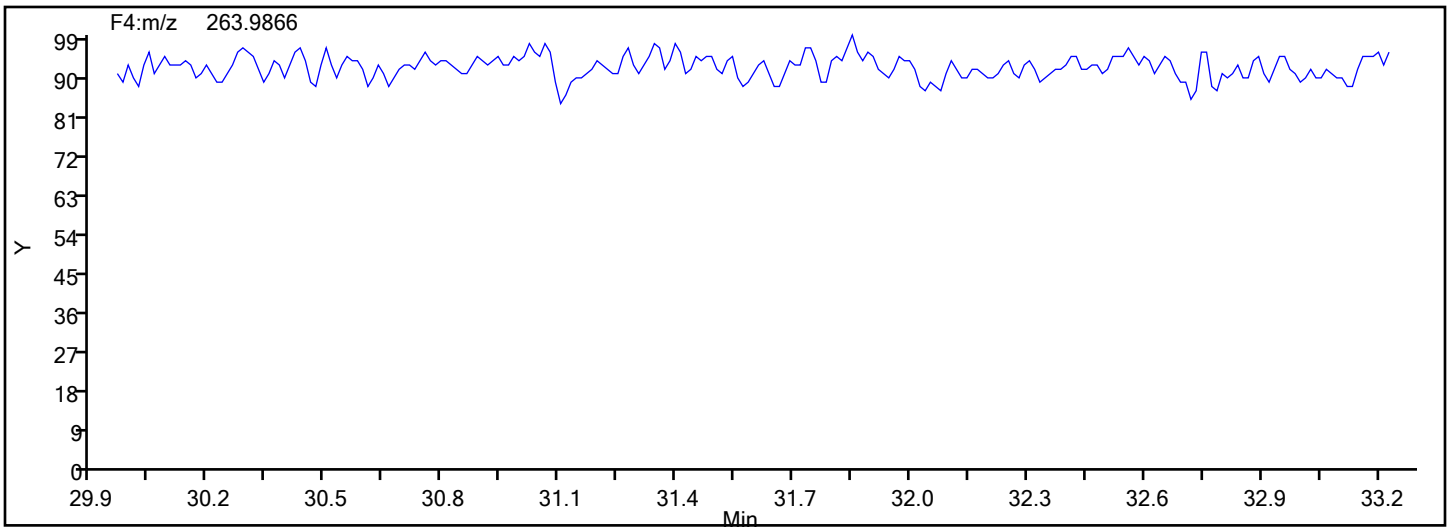




Endosulfan II Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
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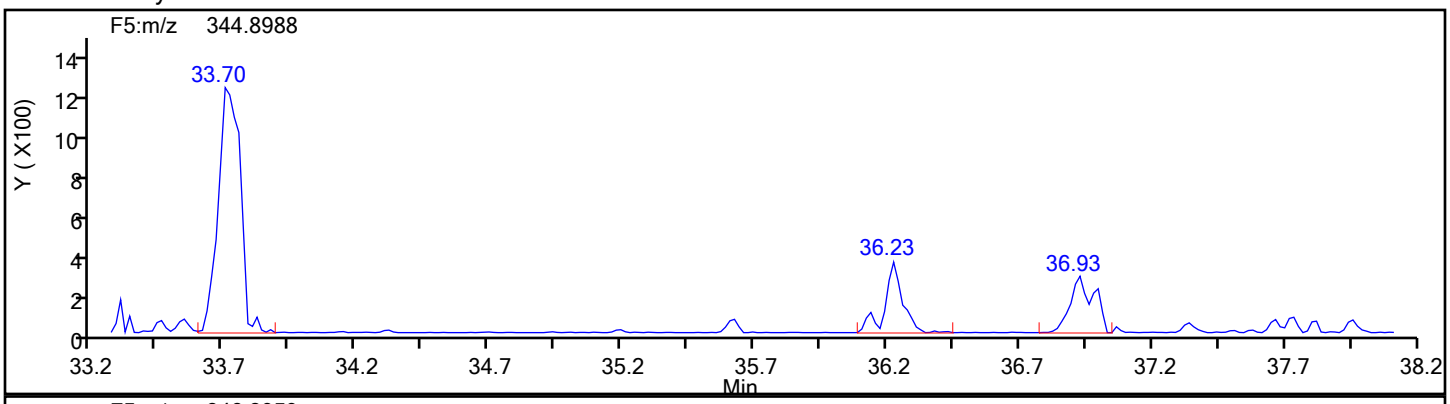
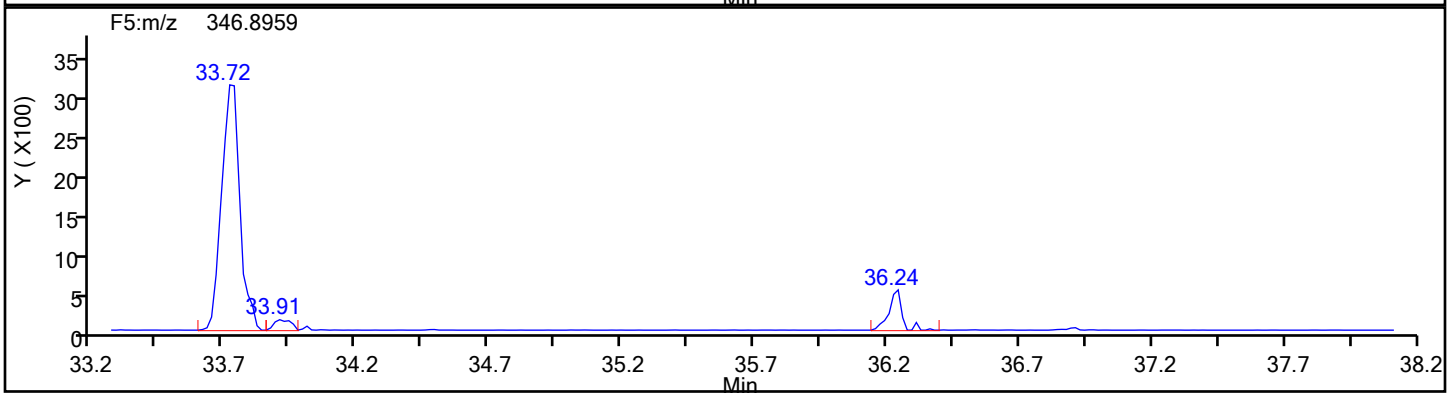
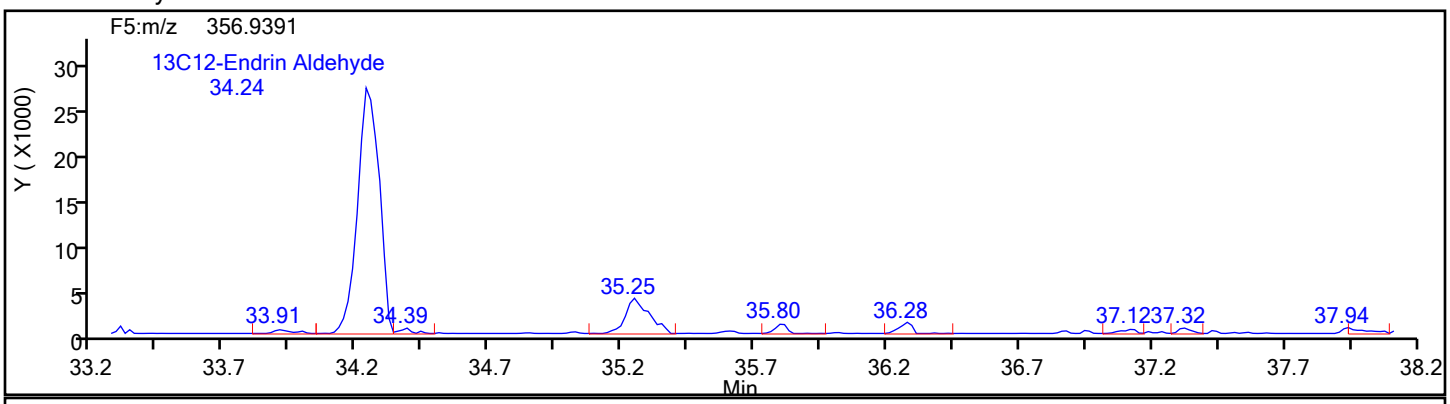
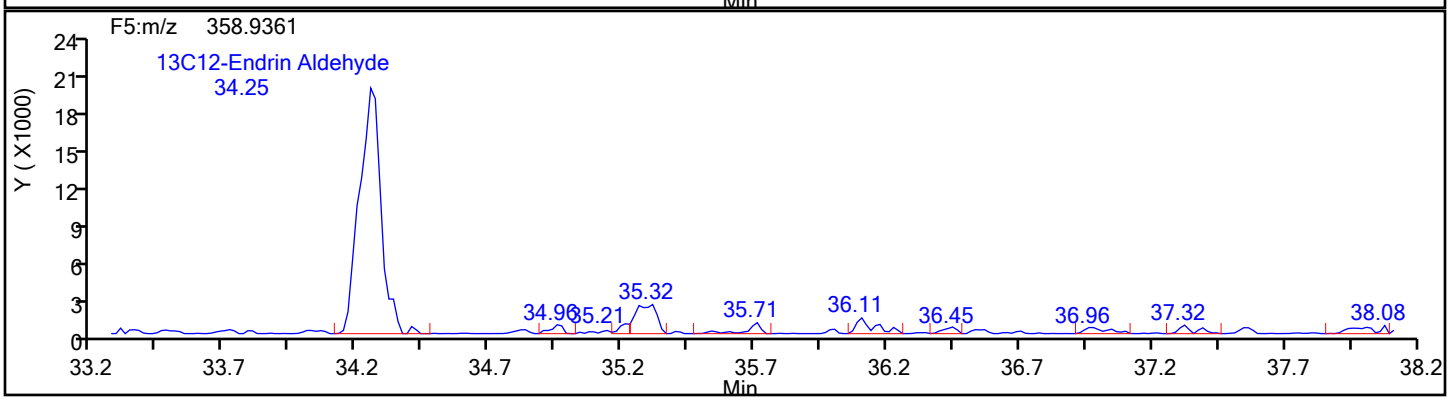
Endrin aldehyde





Endrin aldehyde Standards





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Eurofins Knoxville

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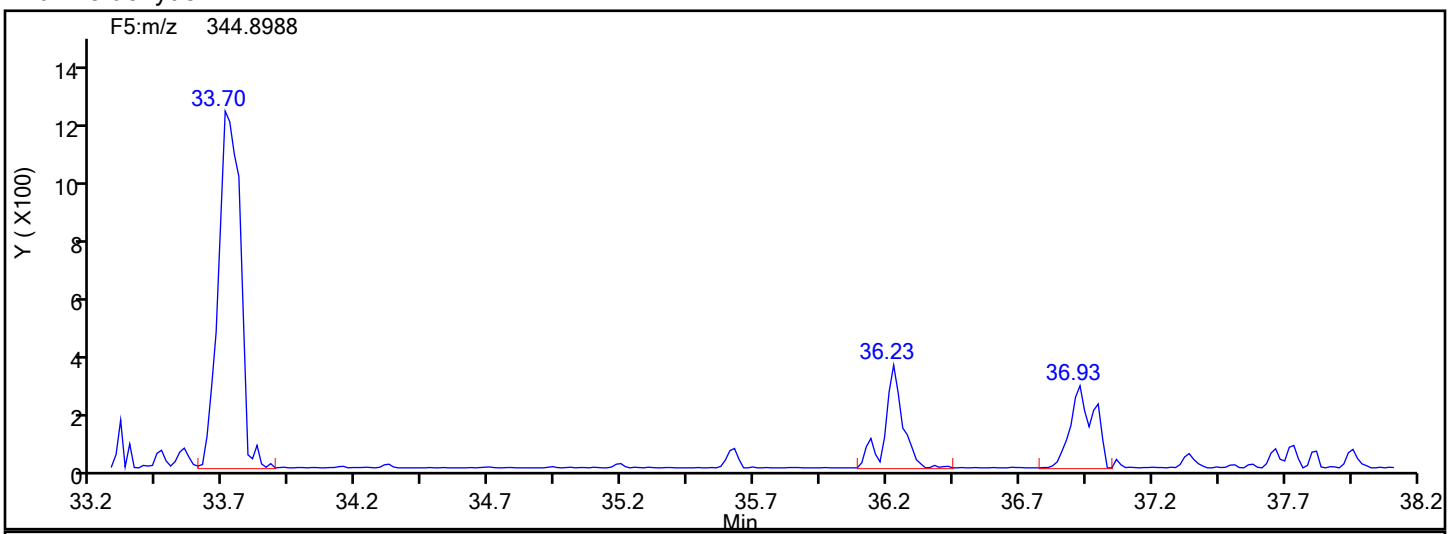
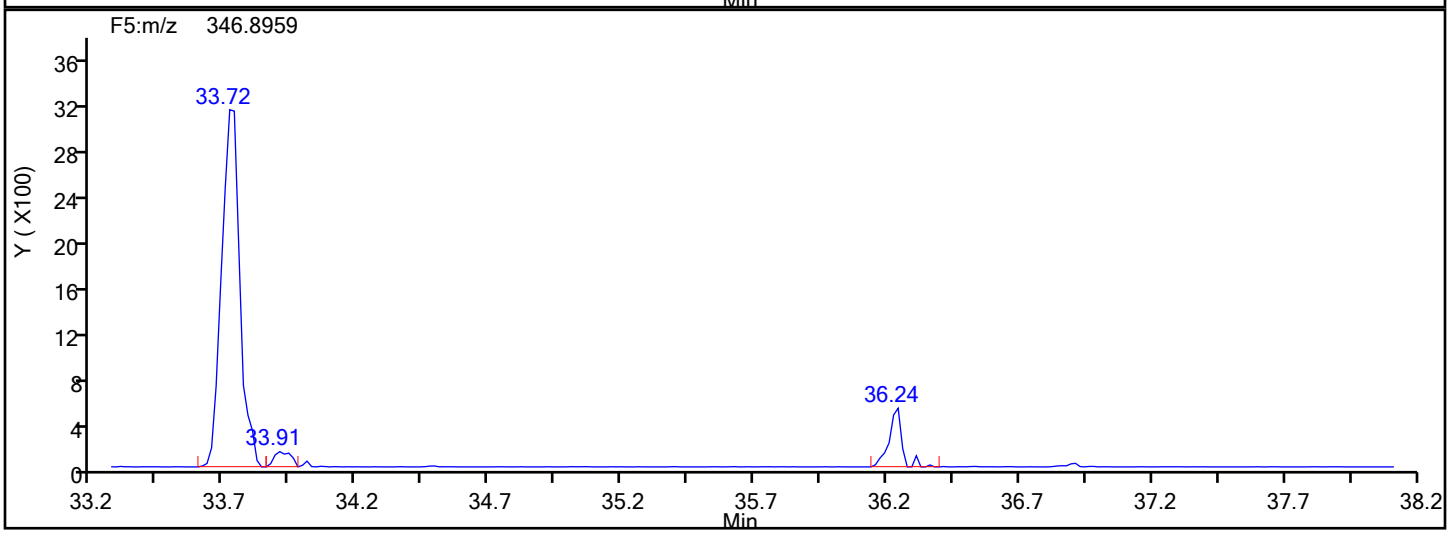
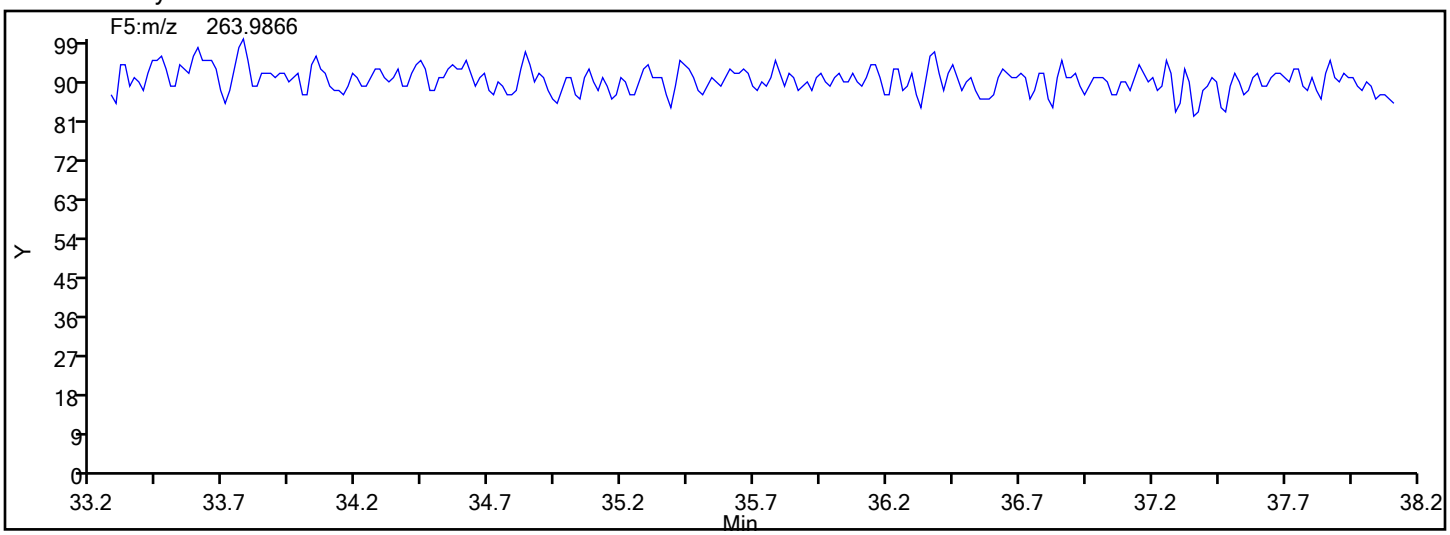
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Endrin aldehyde





Endrin aldehyde Lock Mass



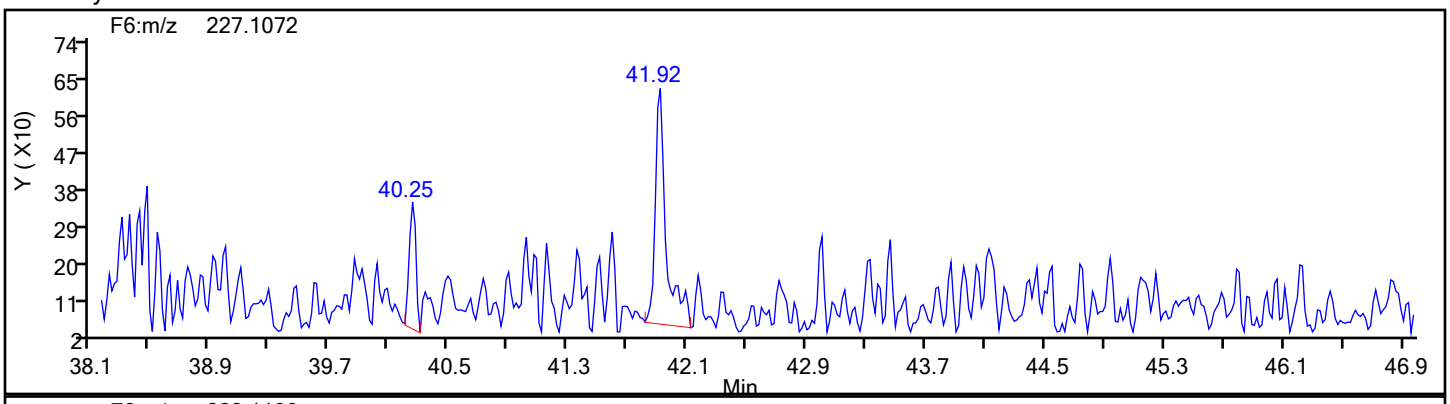
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

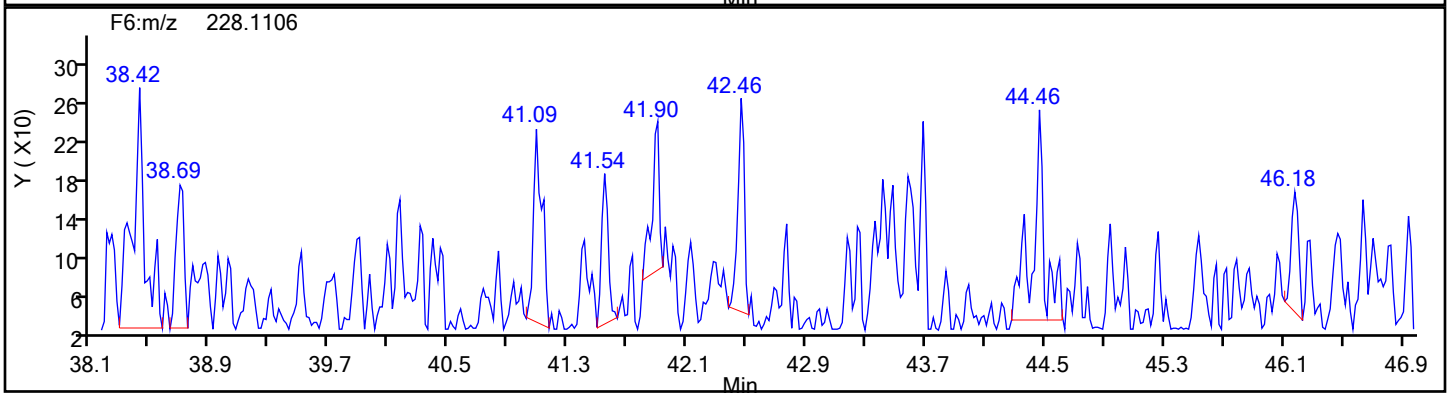
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

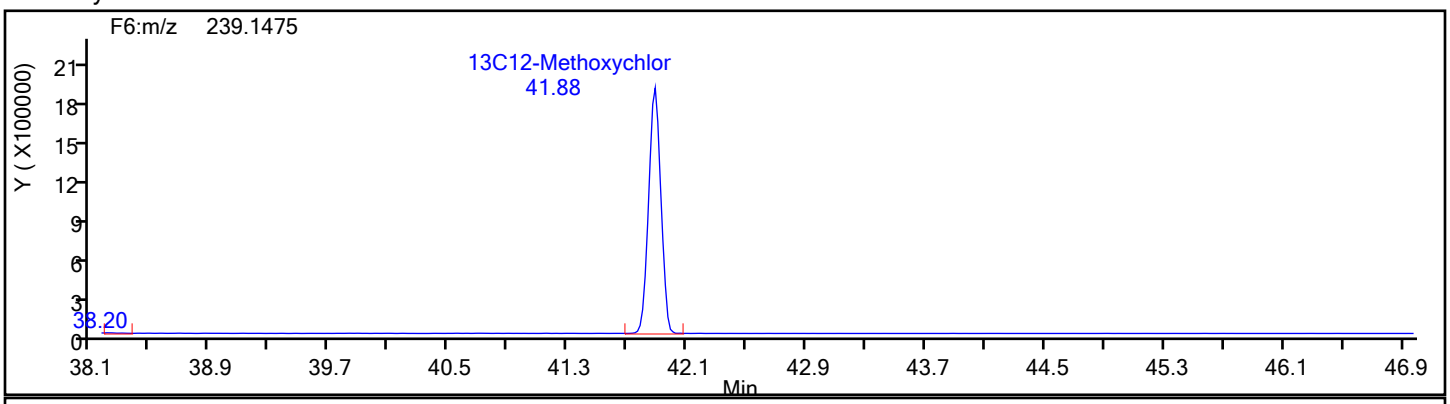
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

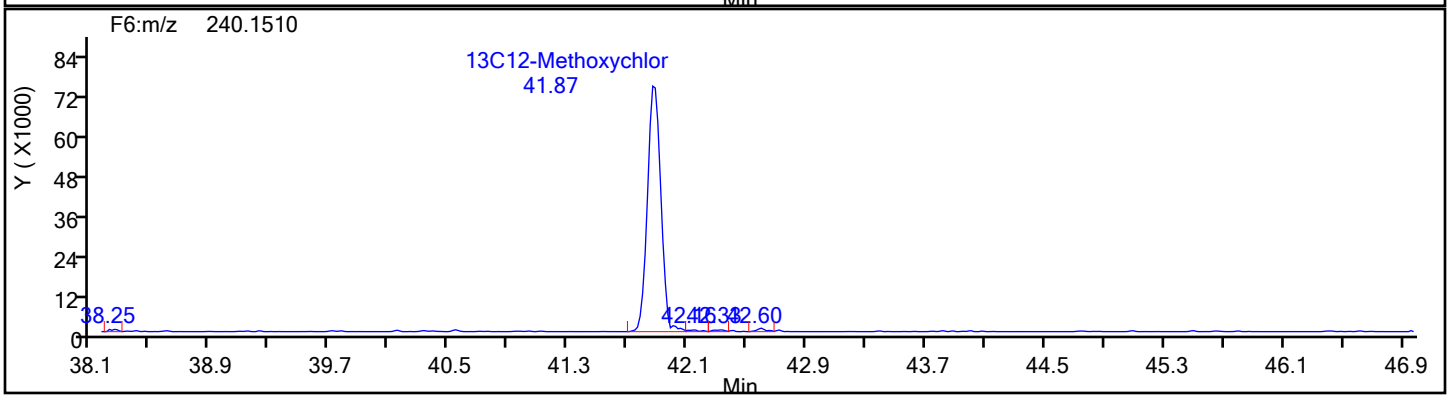
Methoxychlor





Methoxychlor Standards





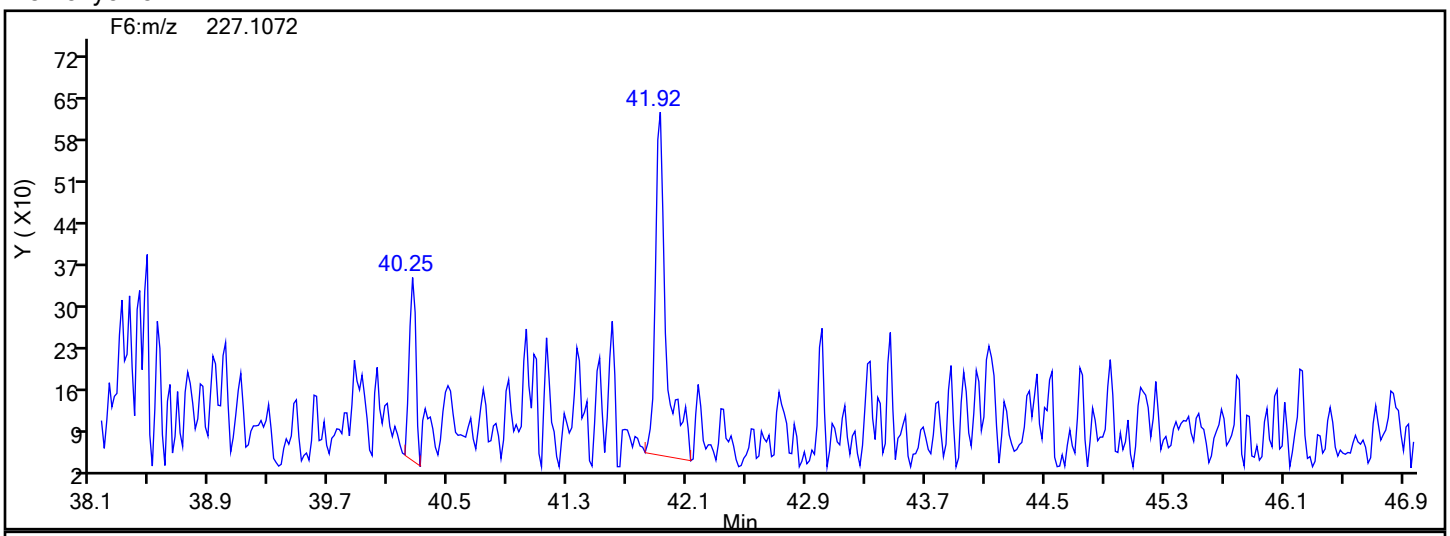
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

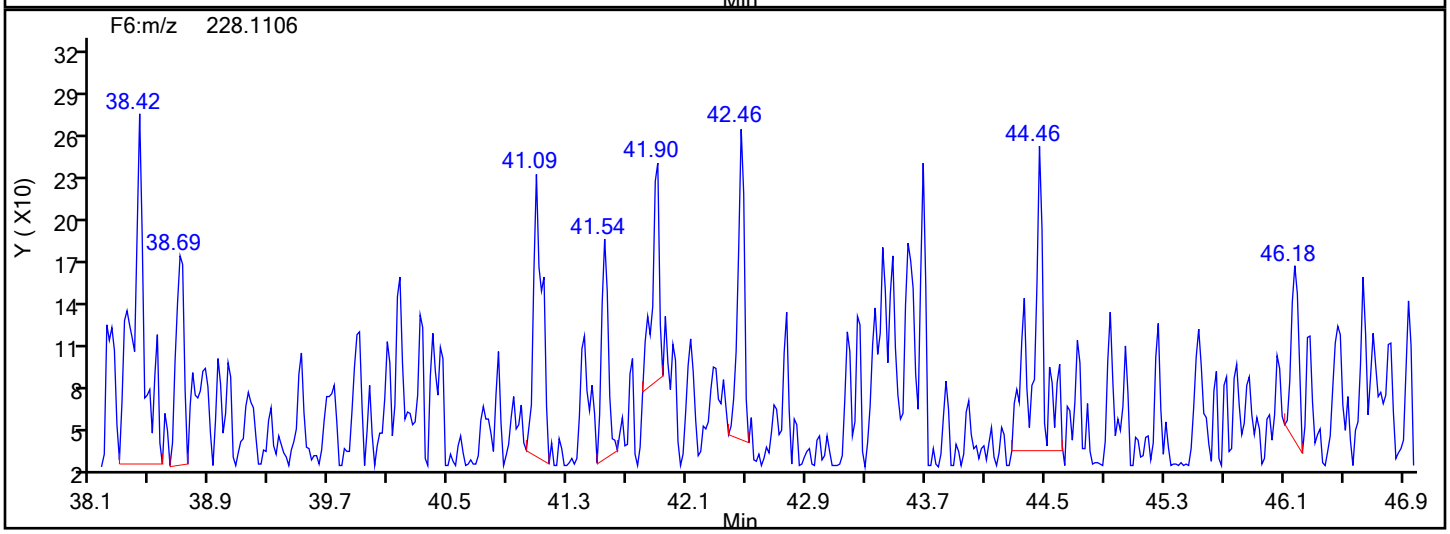
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

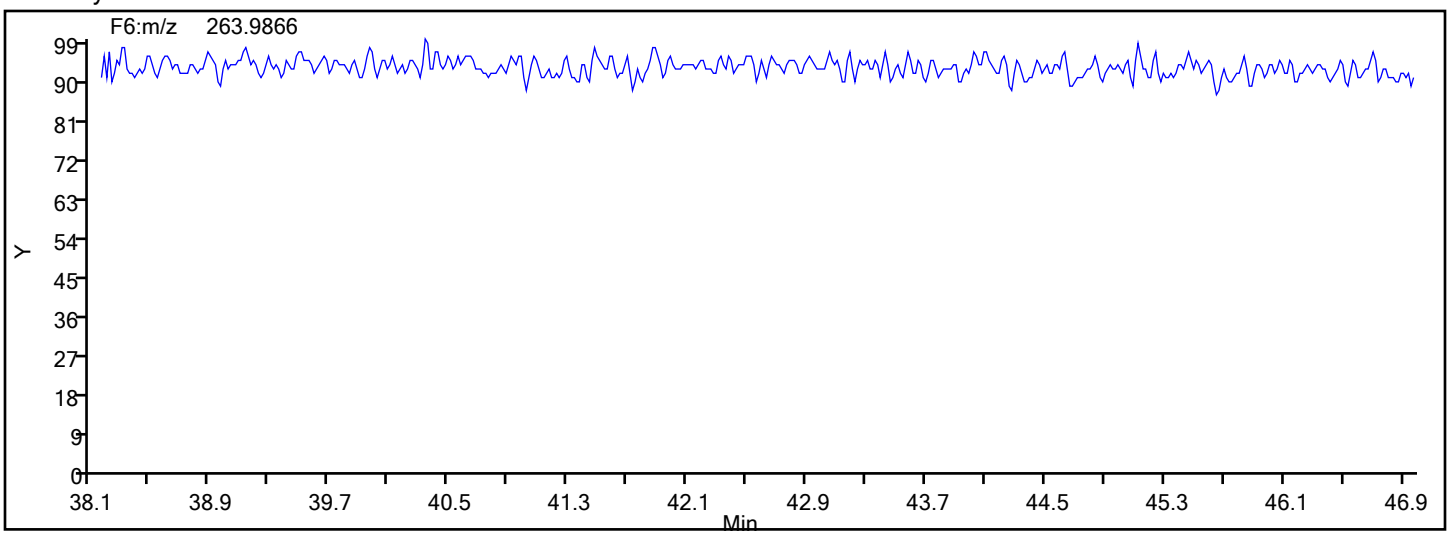
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

Methoxychlor





Methoxychlor Lock Mass



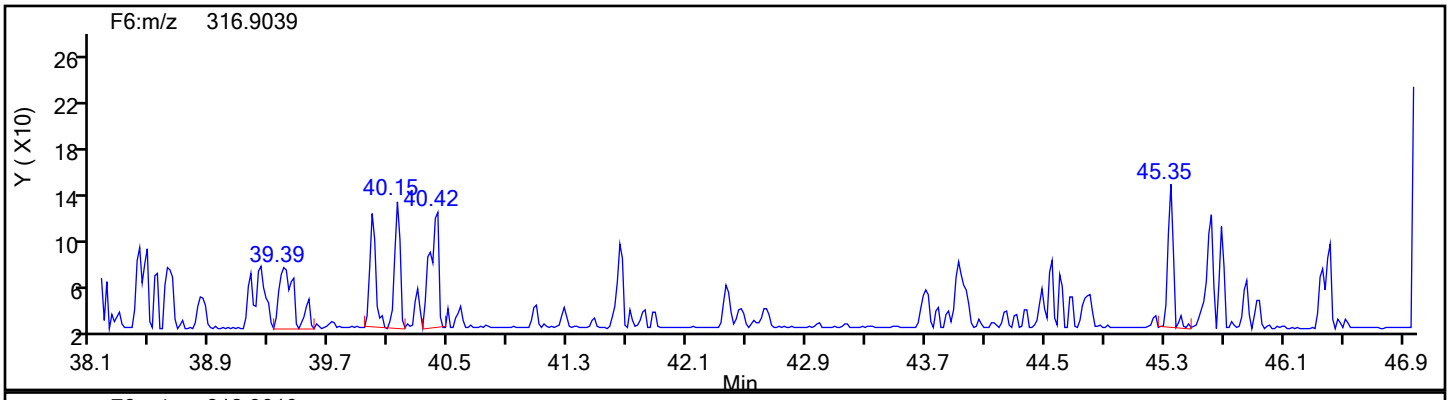
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

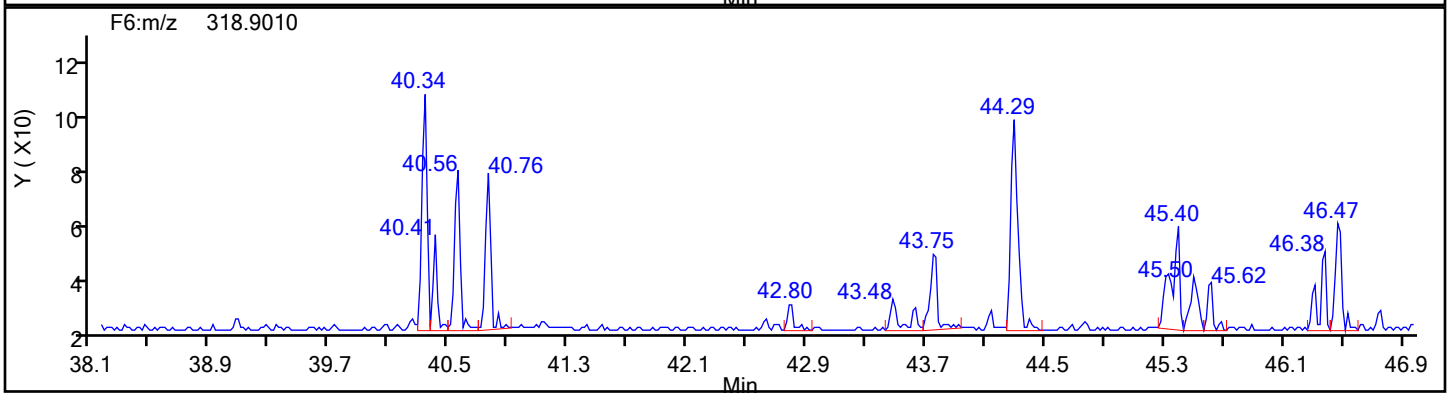
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

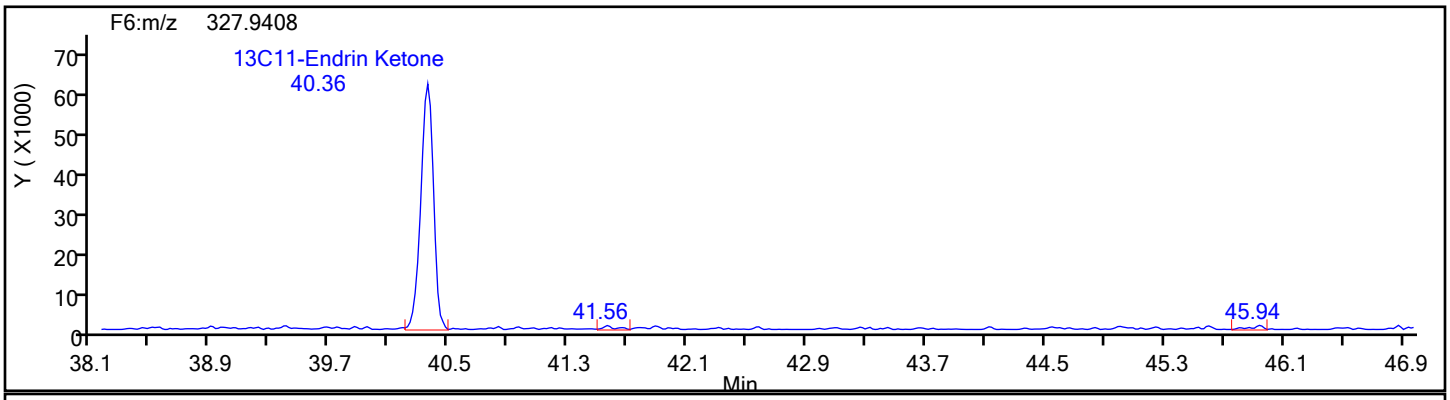
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

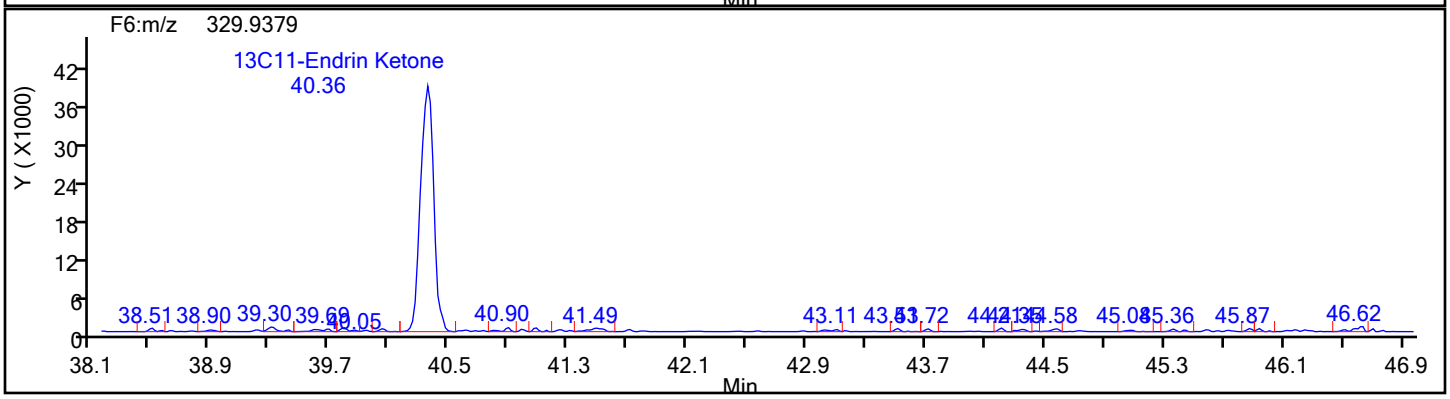
Endrin ketone





Endrin ketone Standards





Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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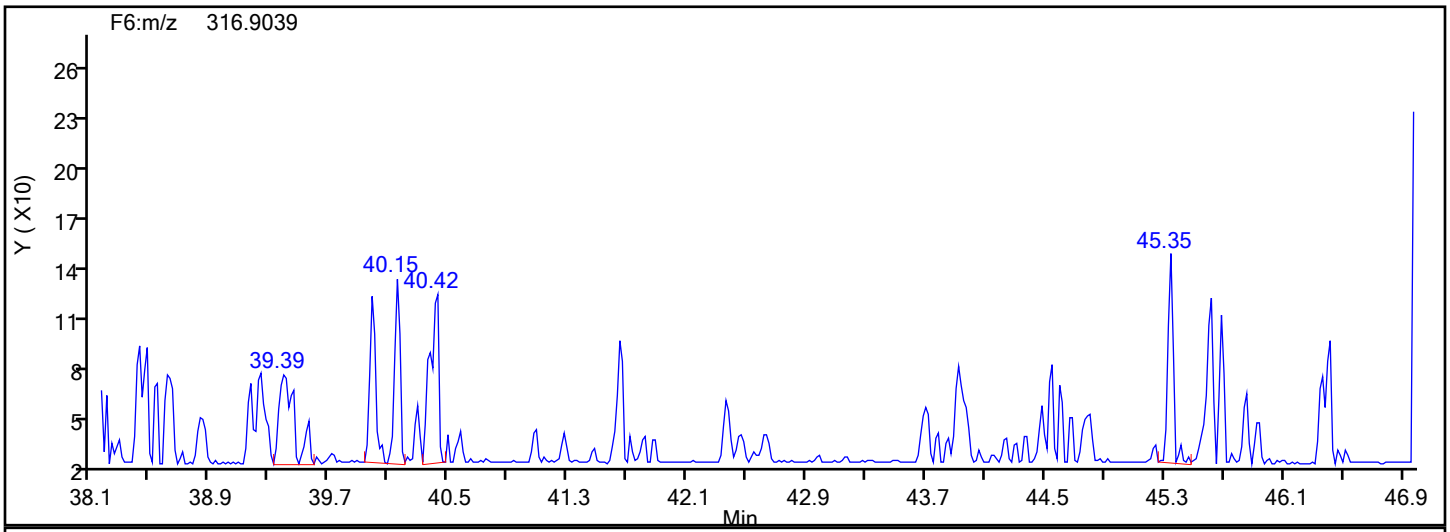
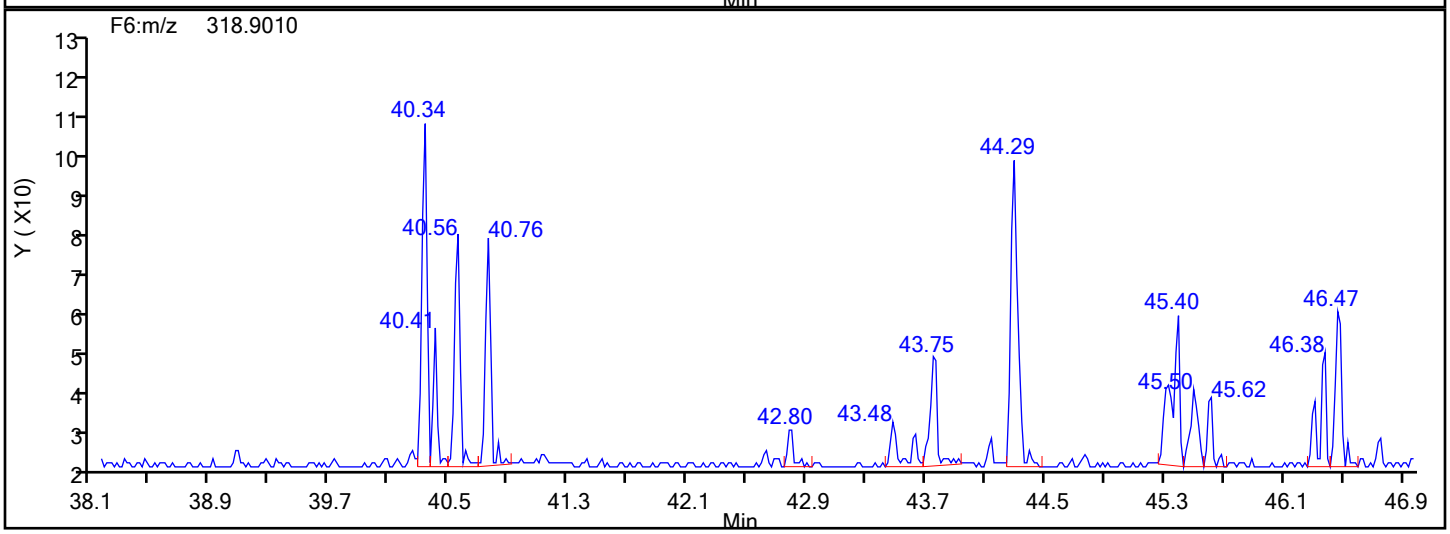
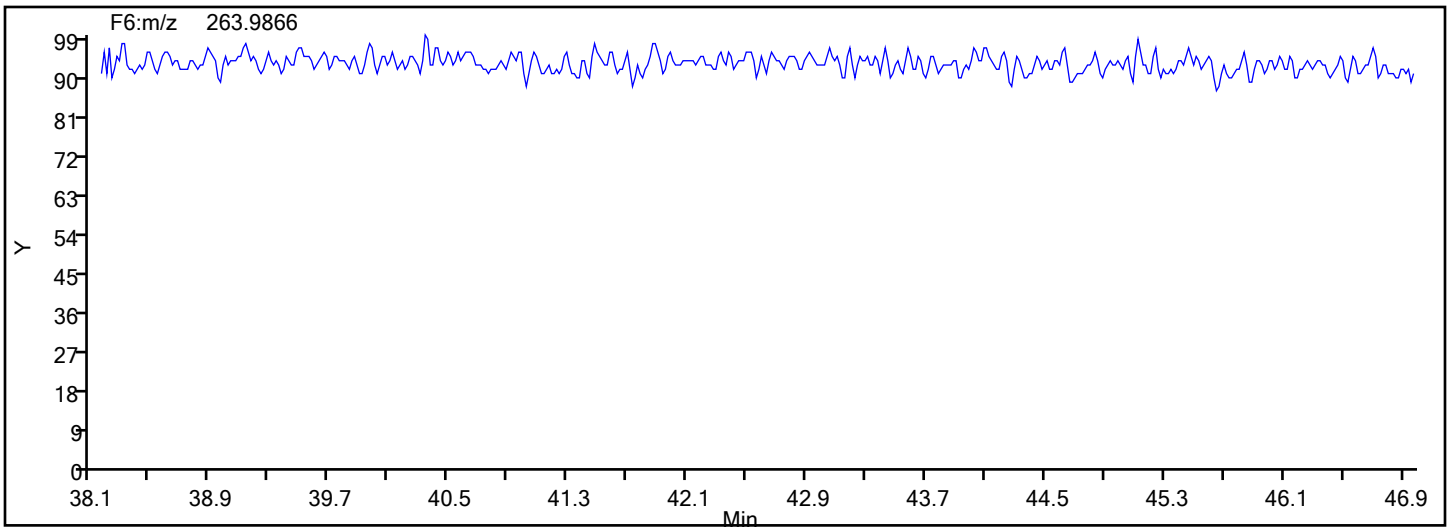
Endrin ketone





Endrin ketone Lock Mass



Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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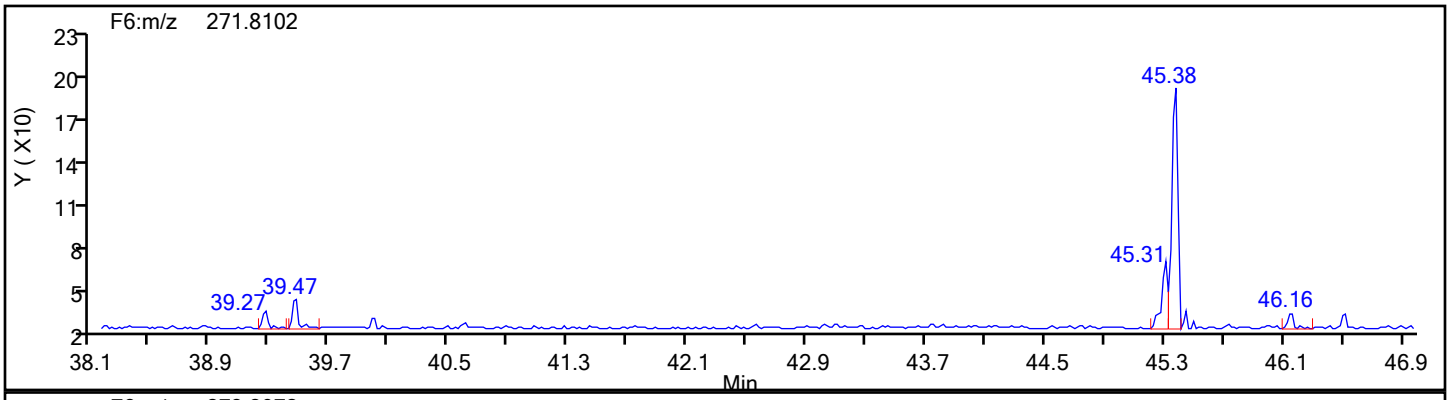
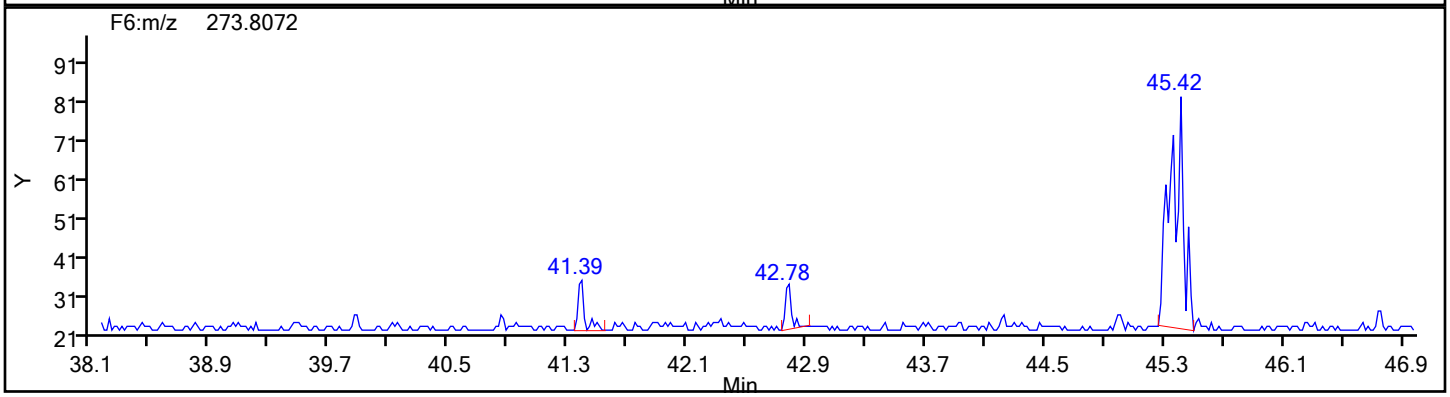
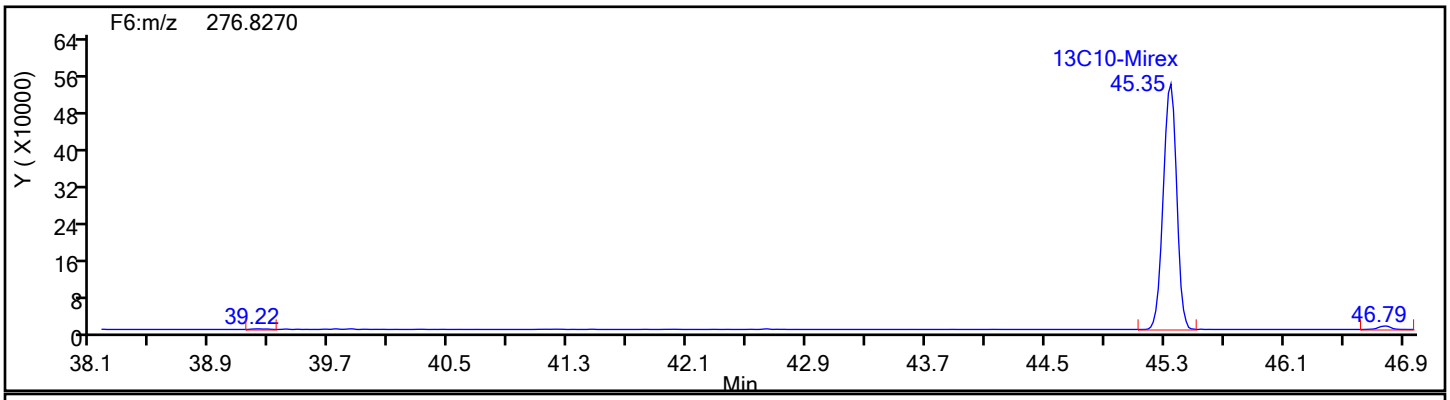
Column Type:	RTX-5	Column Dia:	0.32 mm

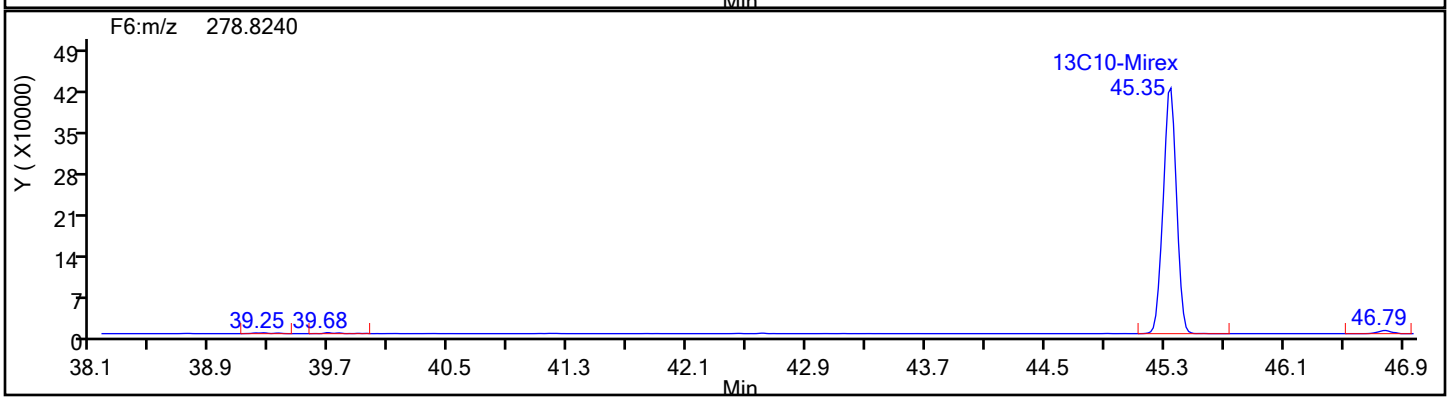
Mirex





Mirex Standards





Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d		
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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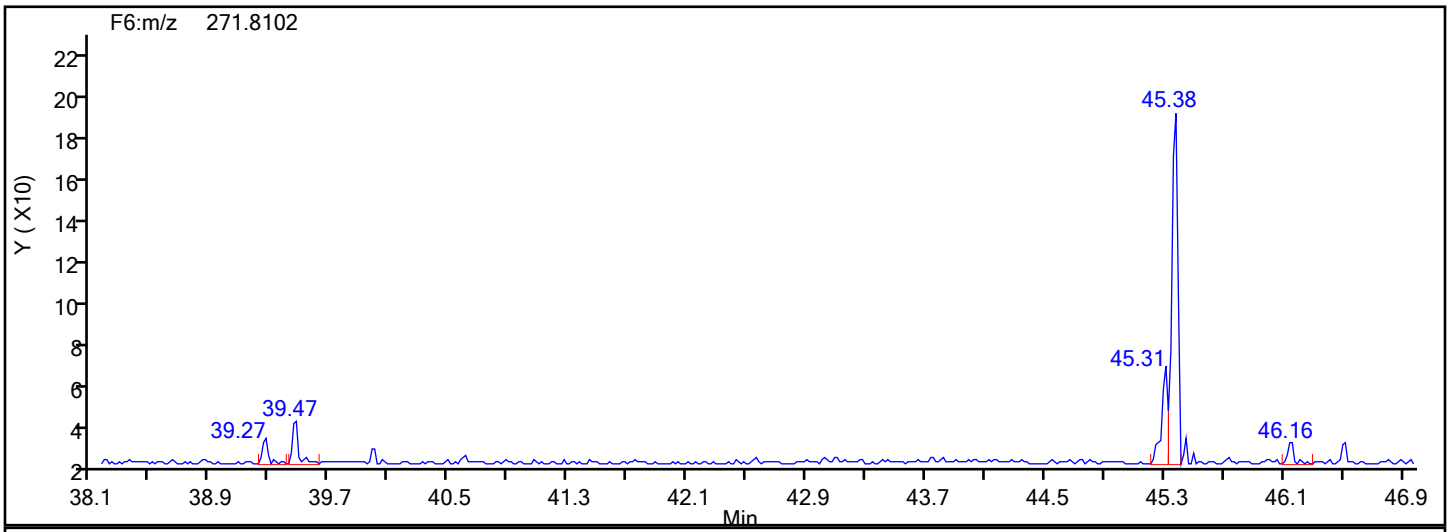
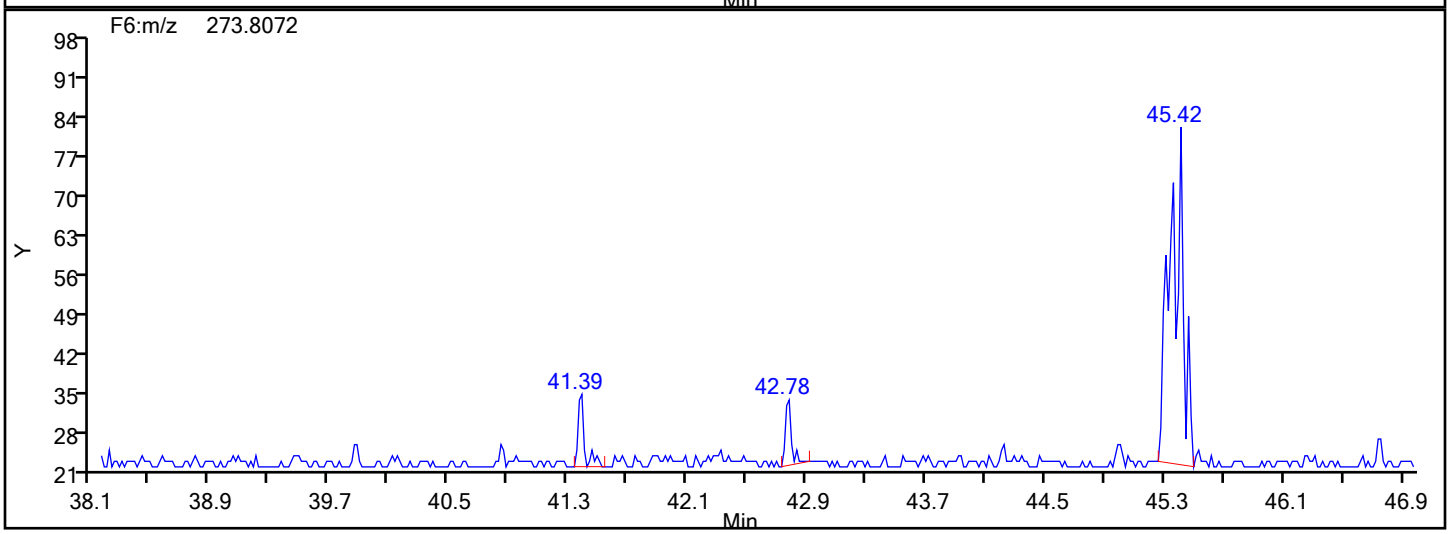
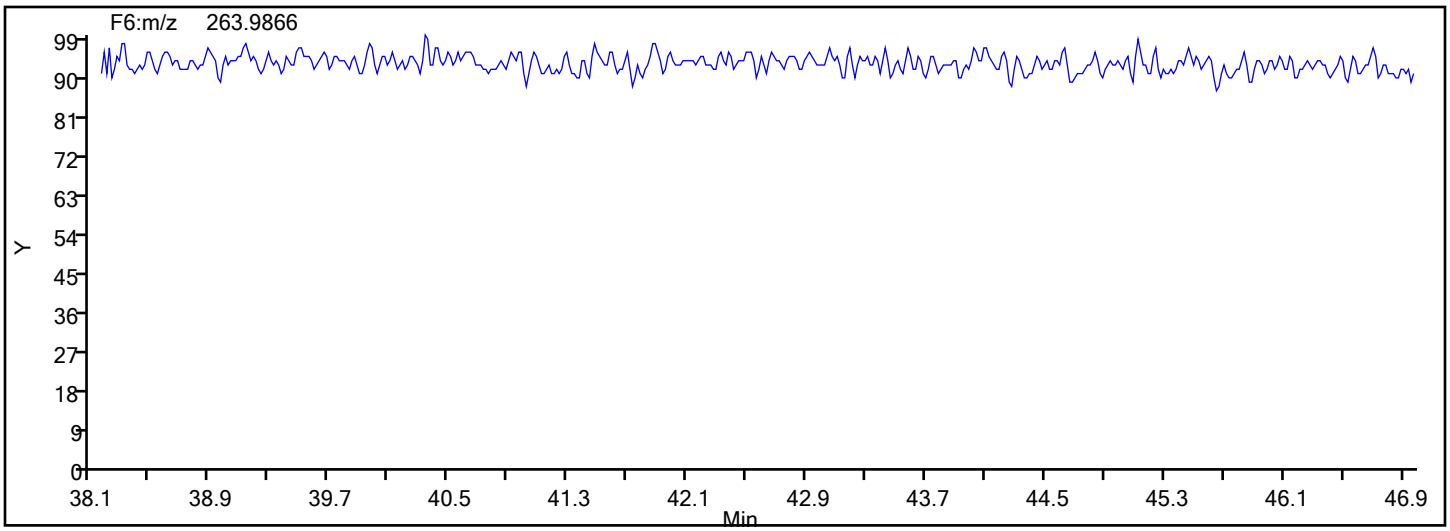
Mirex





Mirex Lock Mass



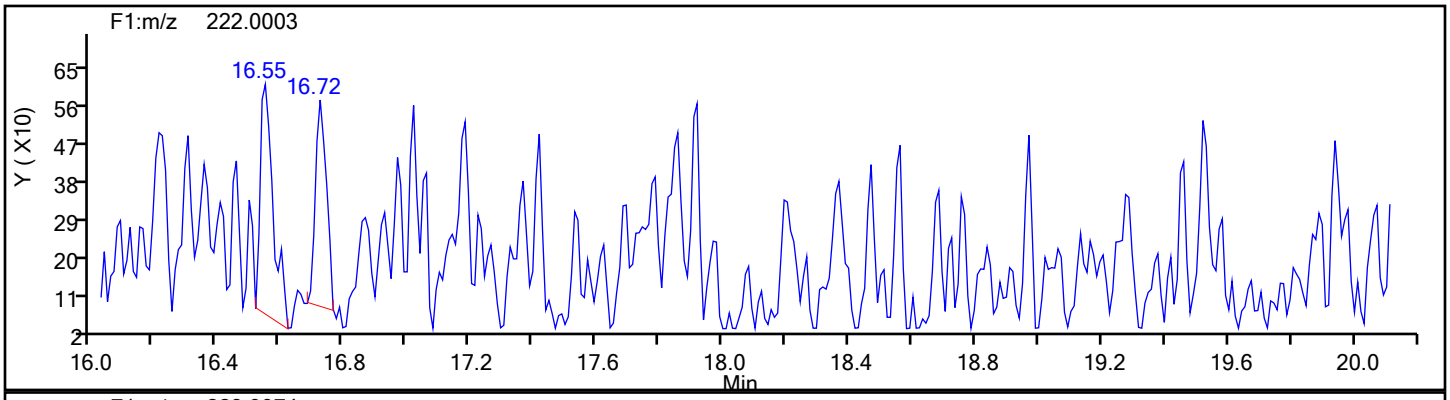
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

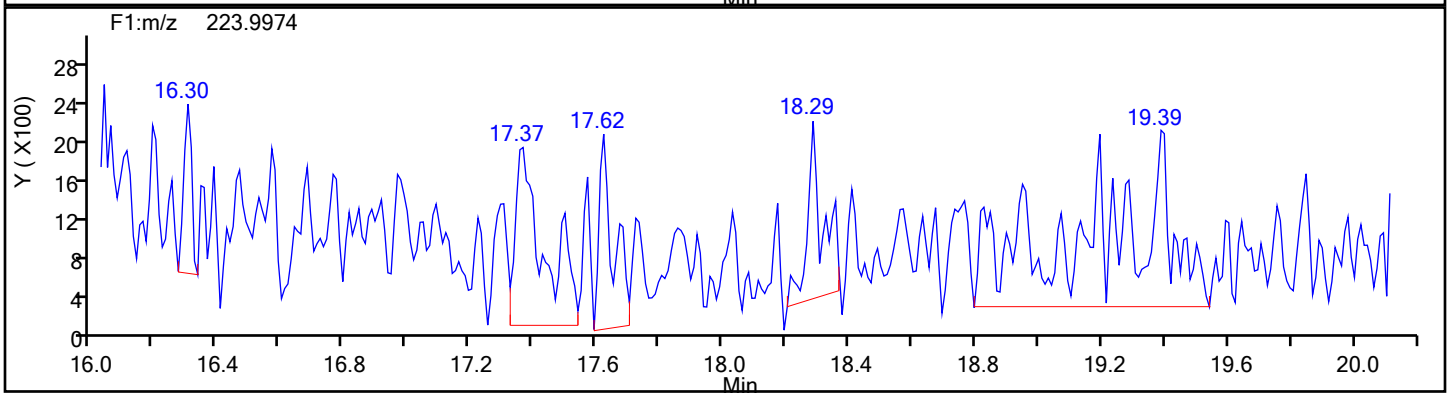
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

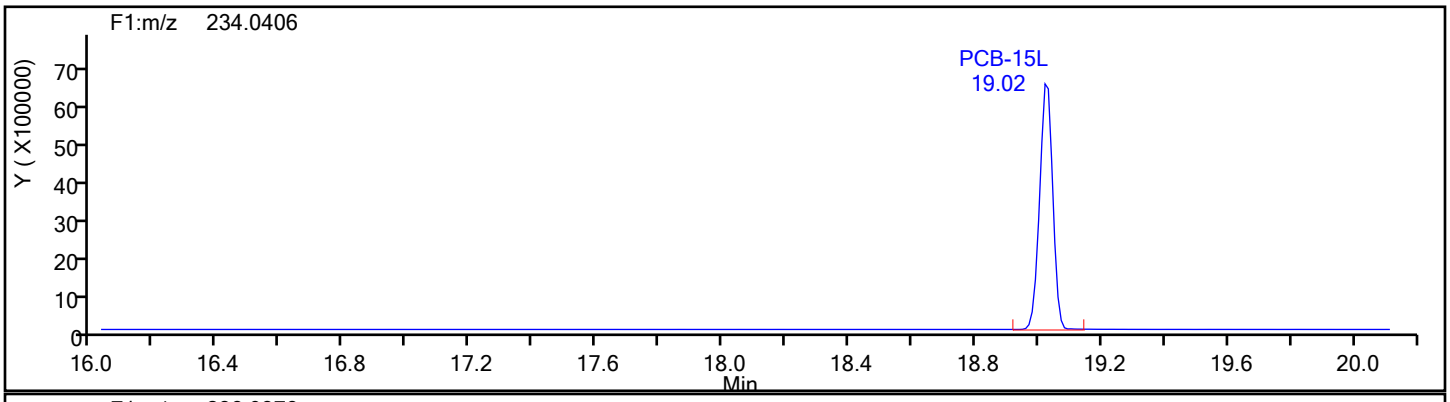
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

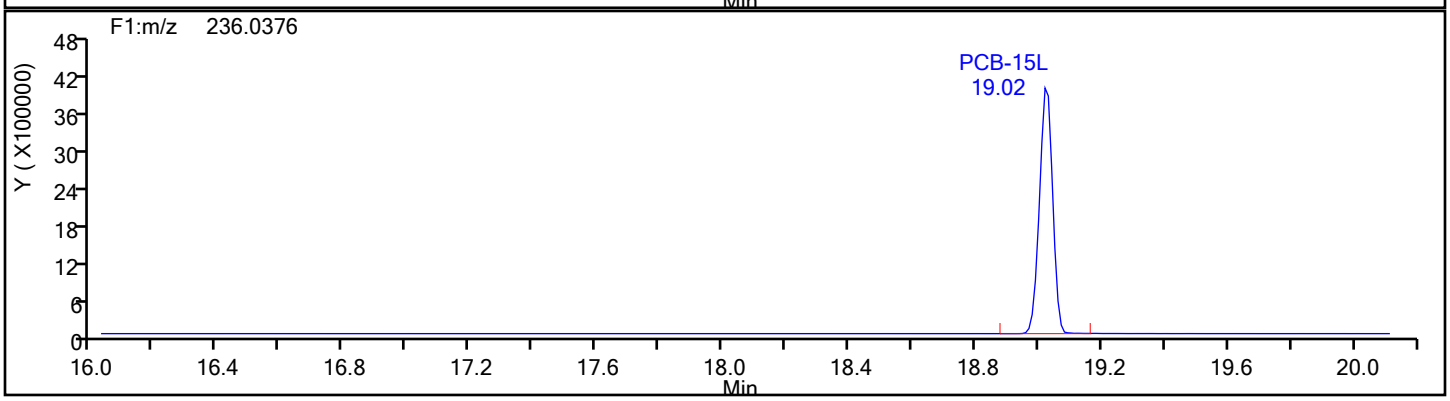
PCB-14





PCB-14 Standards





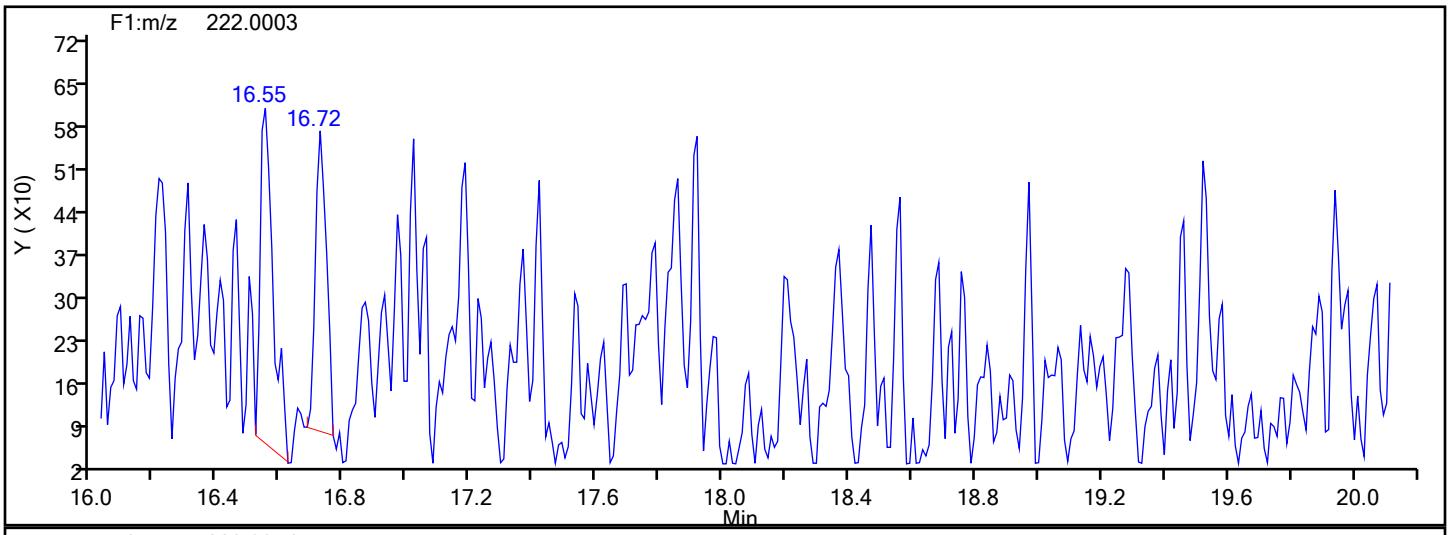
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

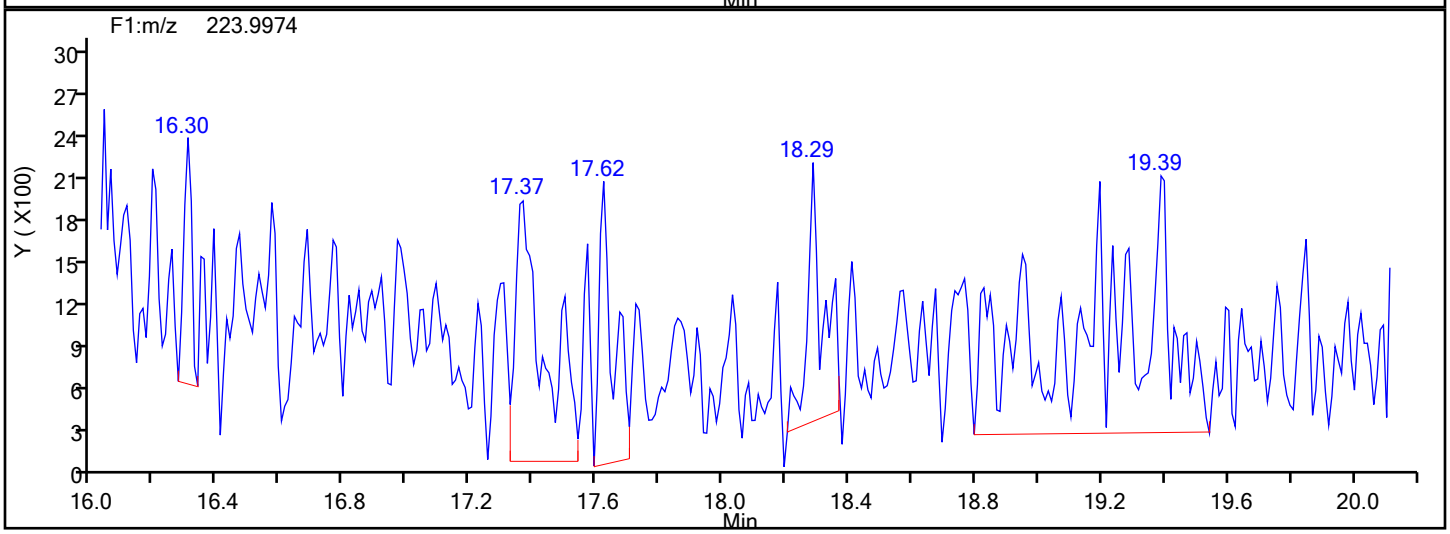
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

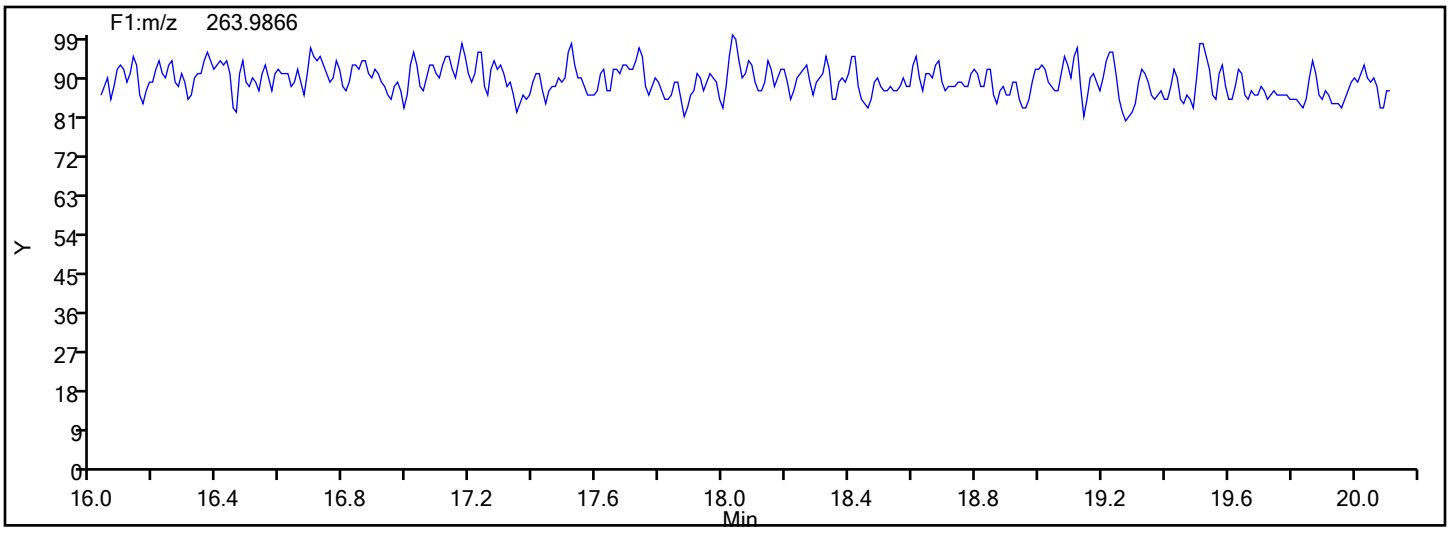
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



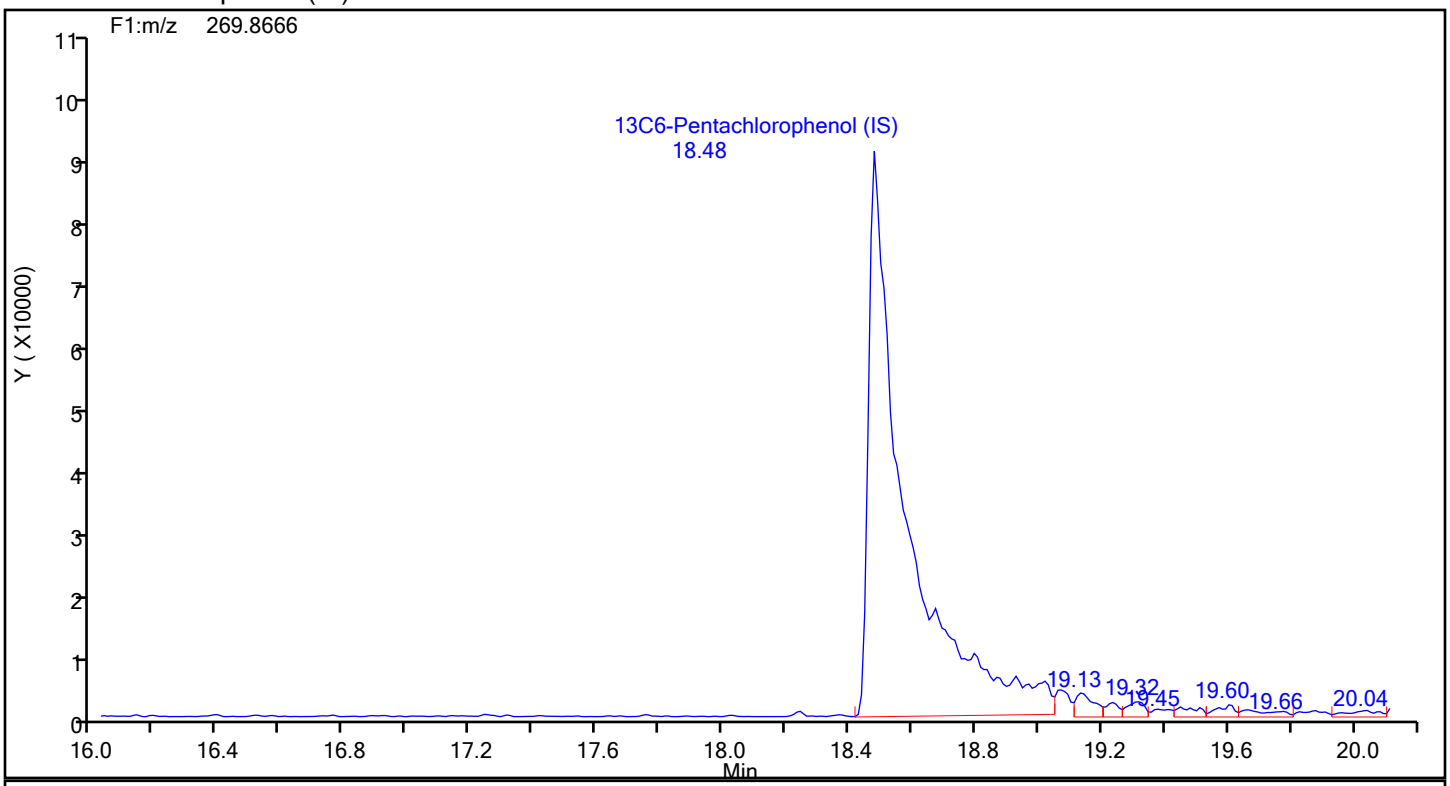
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

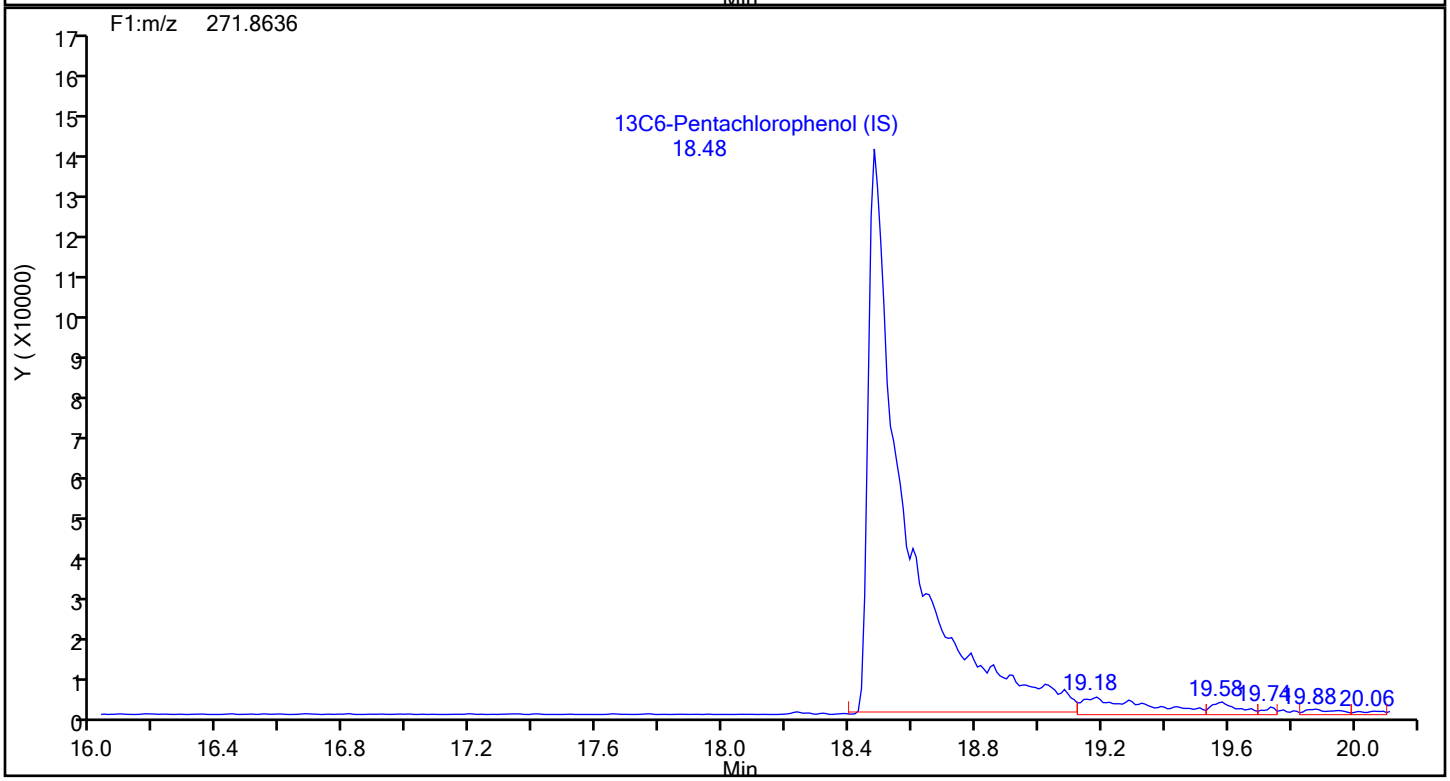
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

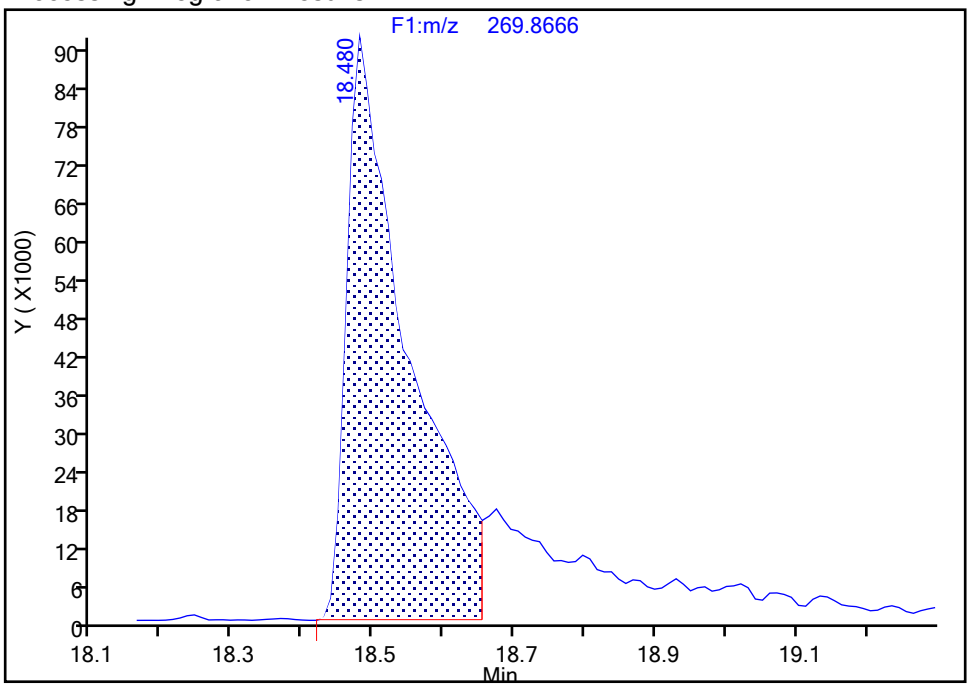
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d				
Injection Date:	02-May-2025 15:45:00	Instrument ID:	D3PST		
Lims ID:	IC L2				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

Processing Integration Results

RT: 18.48
Area: 551351
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
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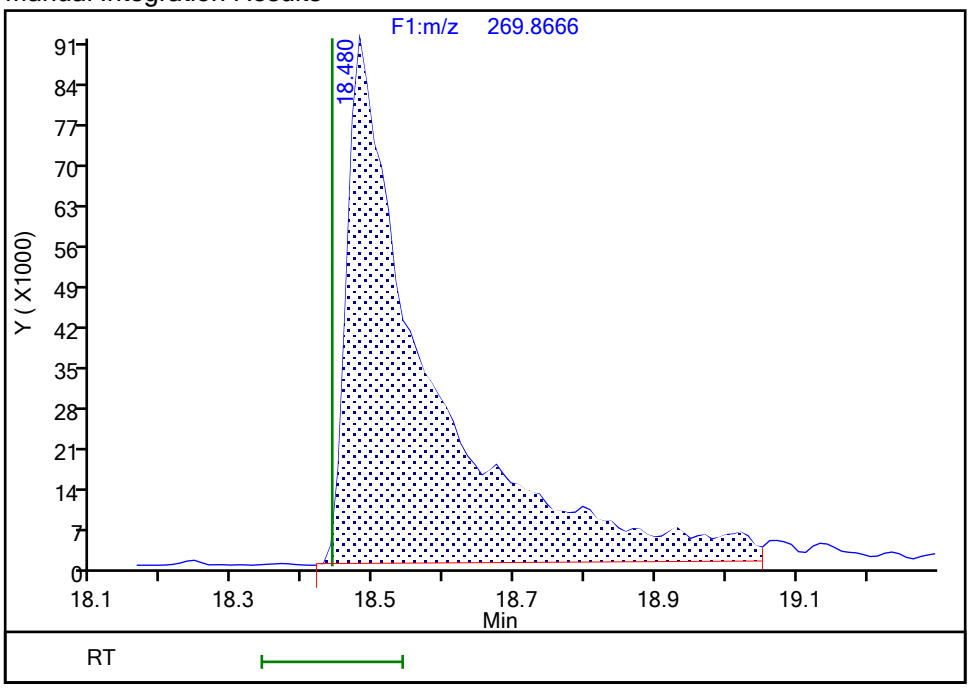
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:43:42 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

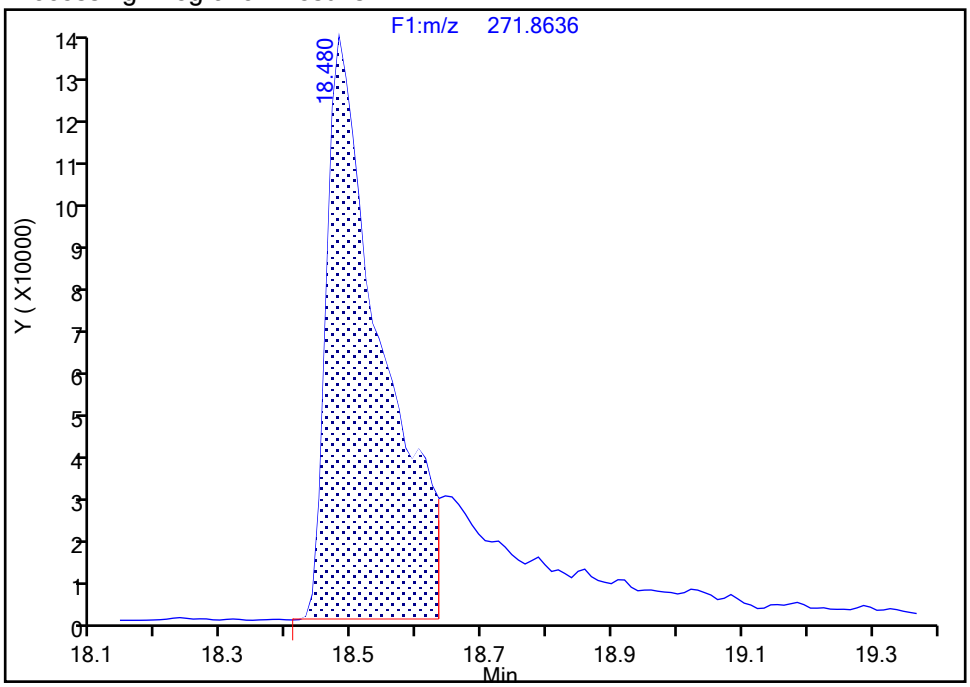
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d				
Injection Date:	02-May-2025 15:45:00	Instrument ID:	D3PST		
Lims ID:	IC L2				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 2

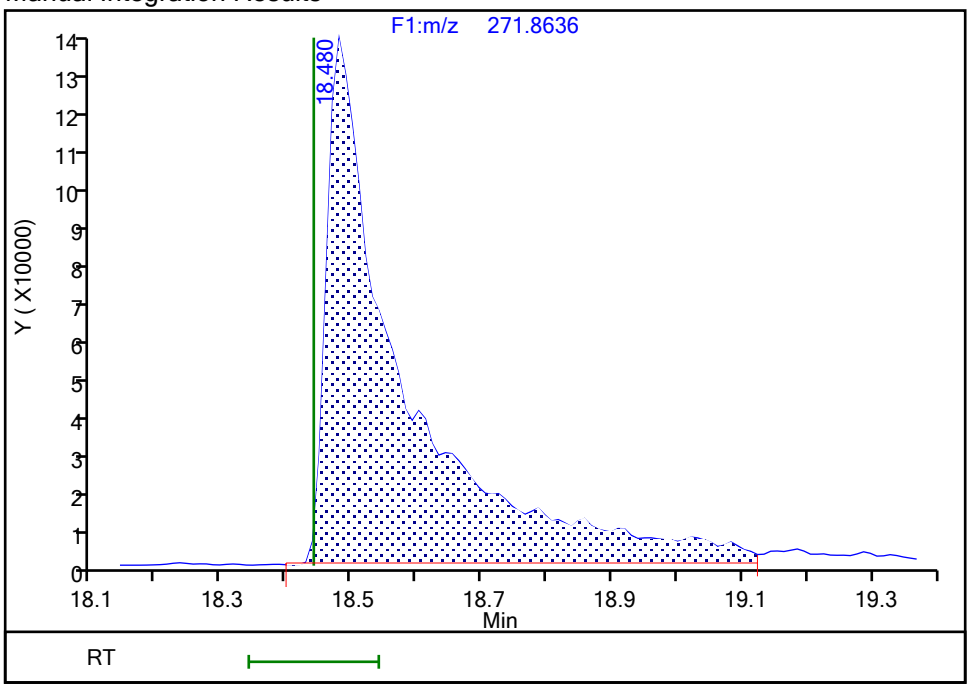
Processing Integration Results

RT: 18.48
Area: 798034
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 1137150
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:43:50 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

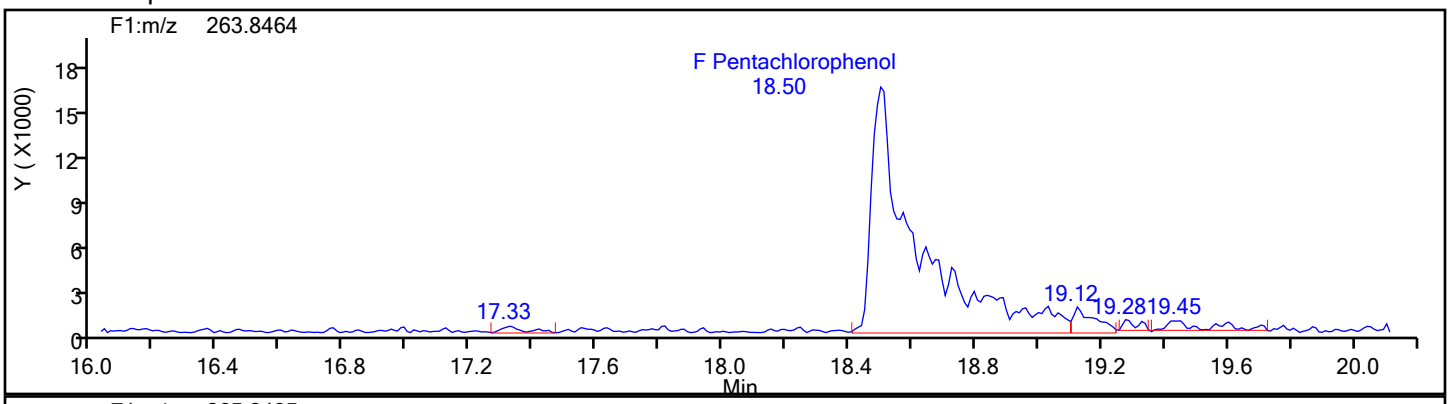
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

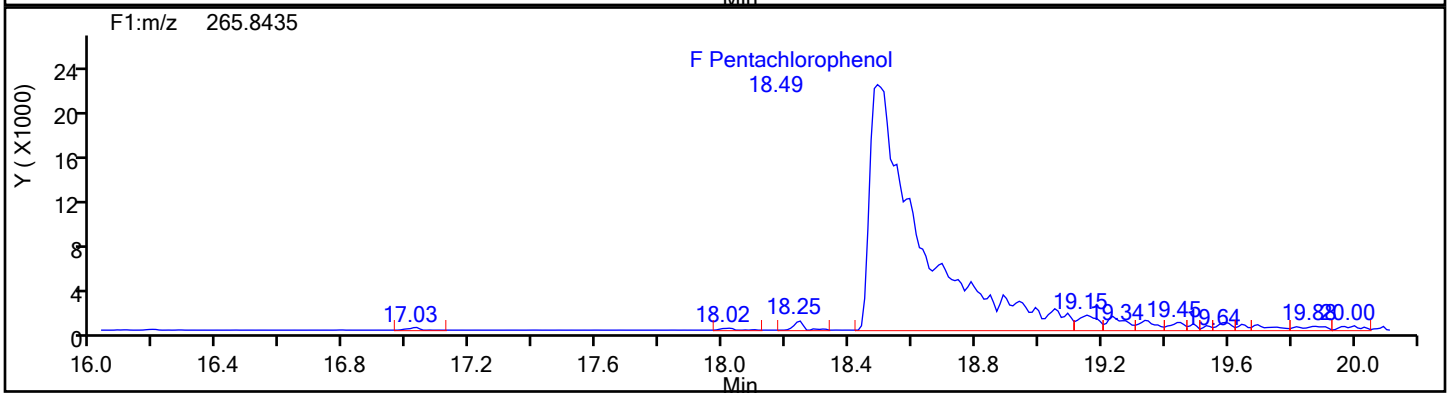
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

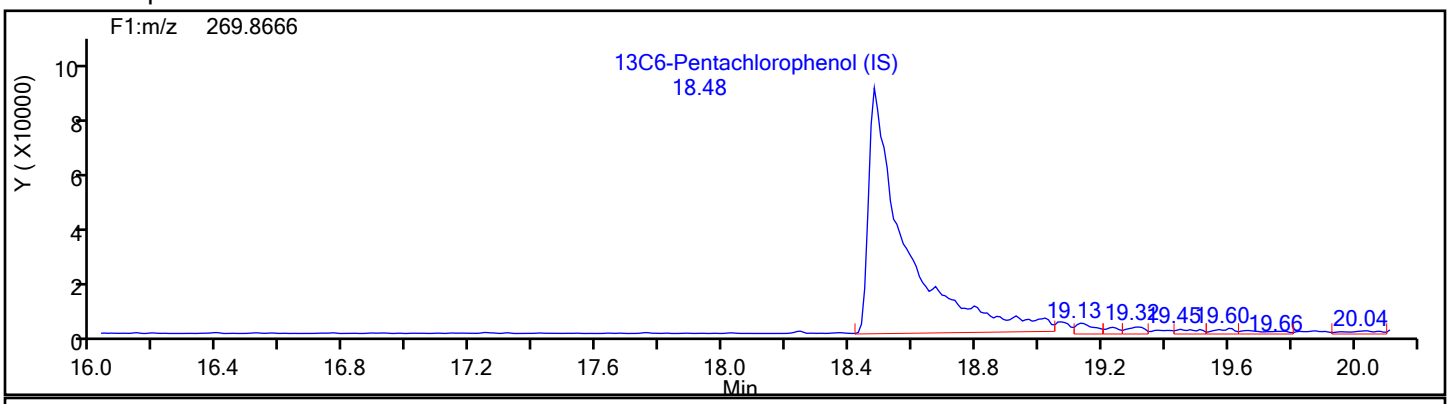
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

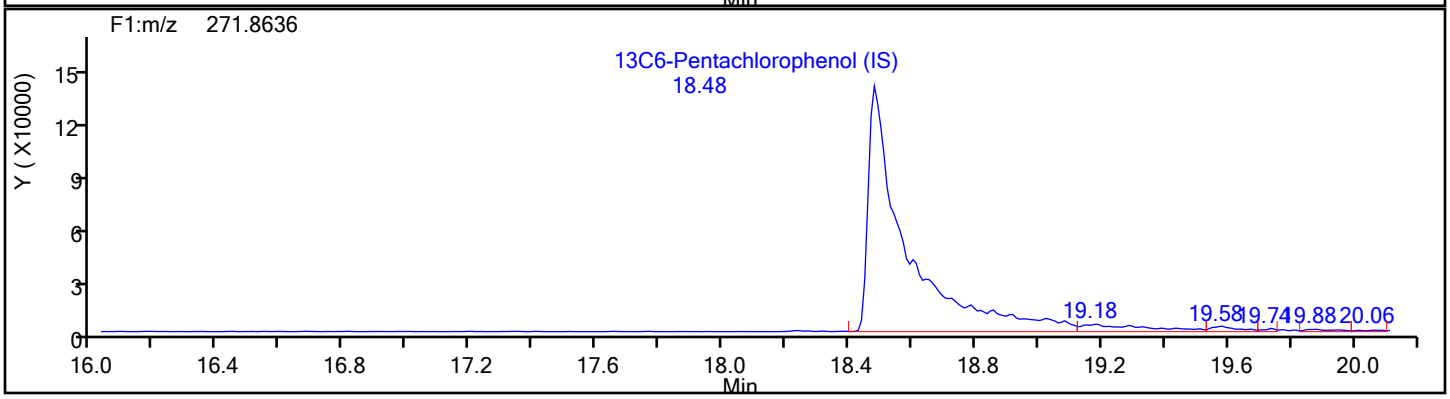
Pentachlorophenol





Pentachlorophenol Standards



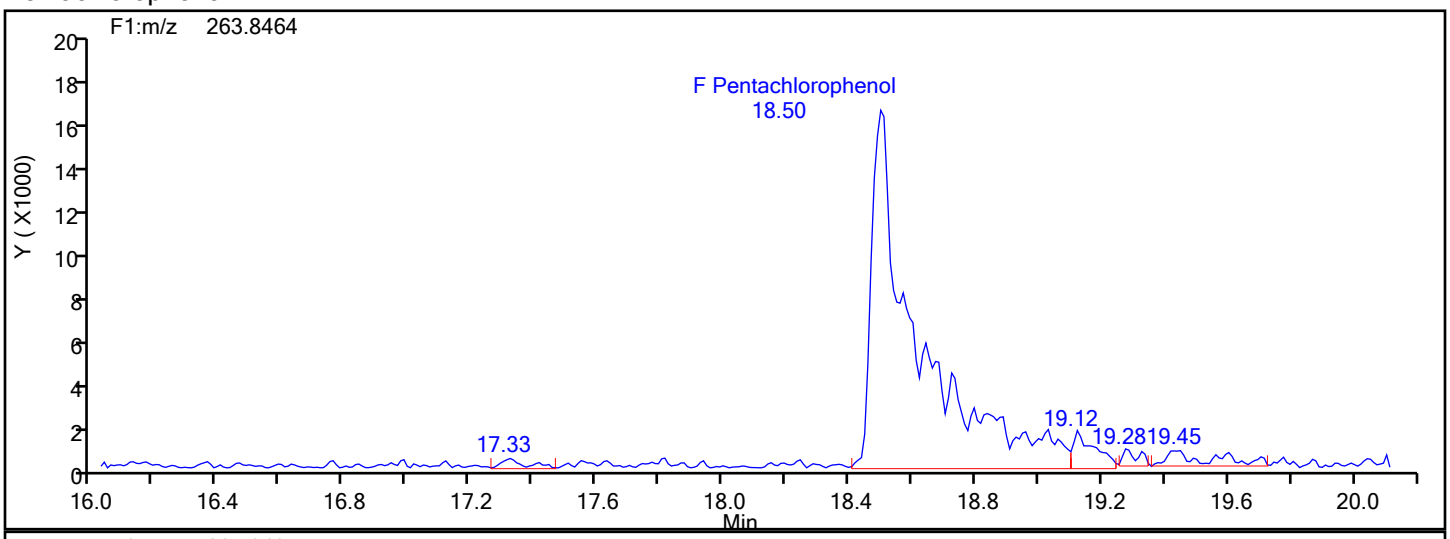


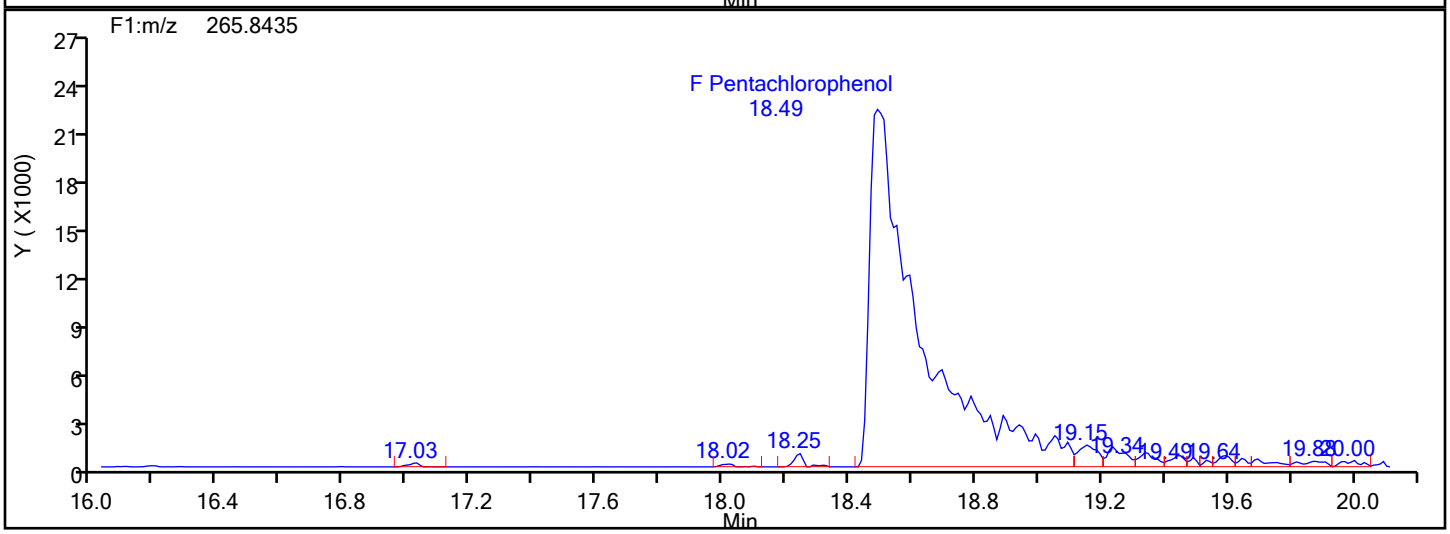
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

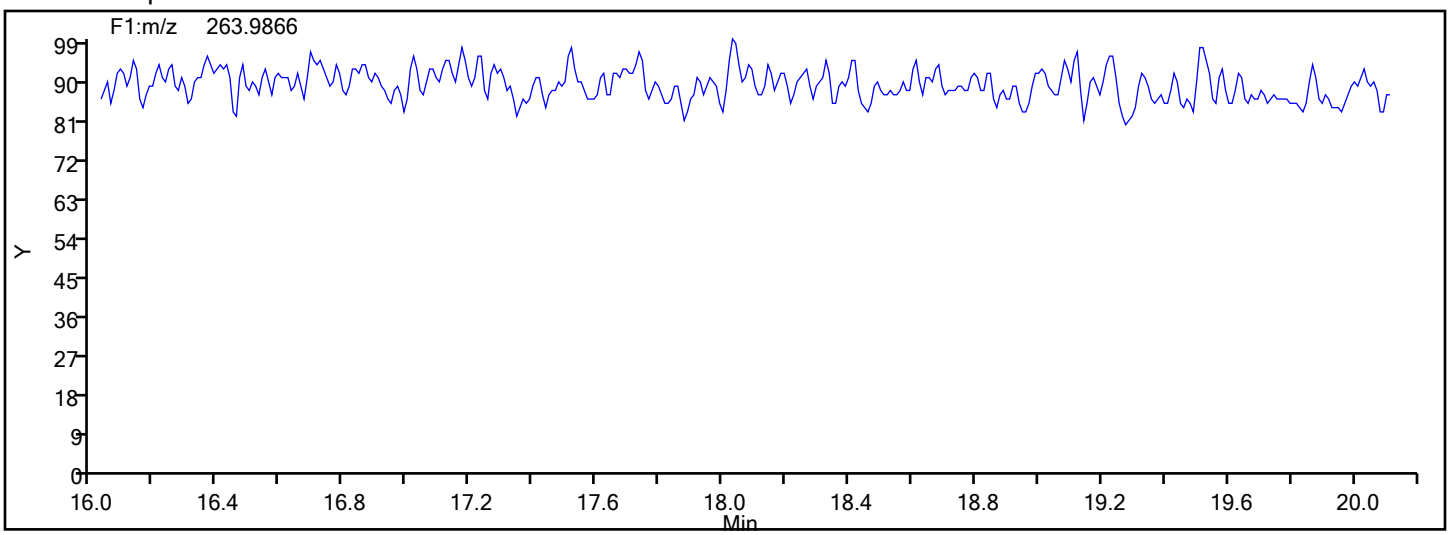
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

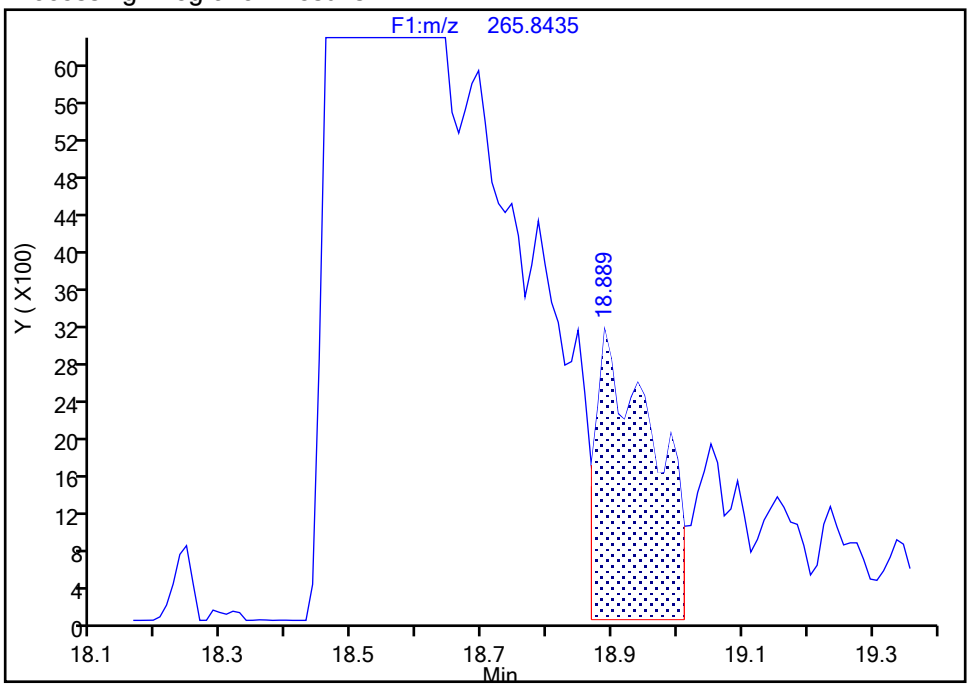
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Instrument ID: D3PST
Lims ID: IC L2
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 2

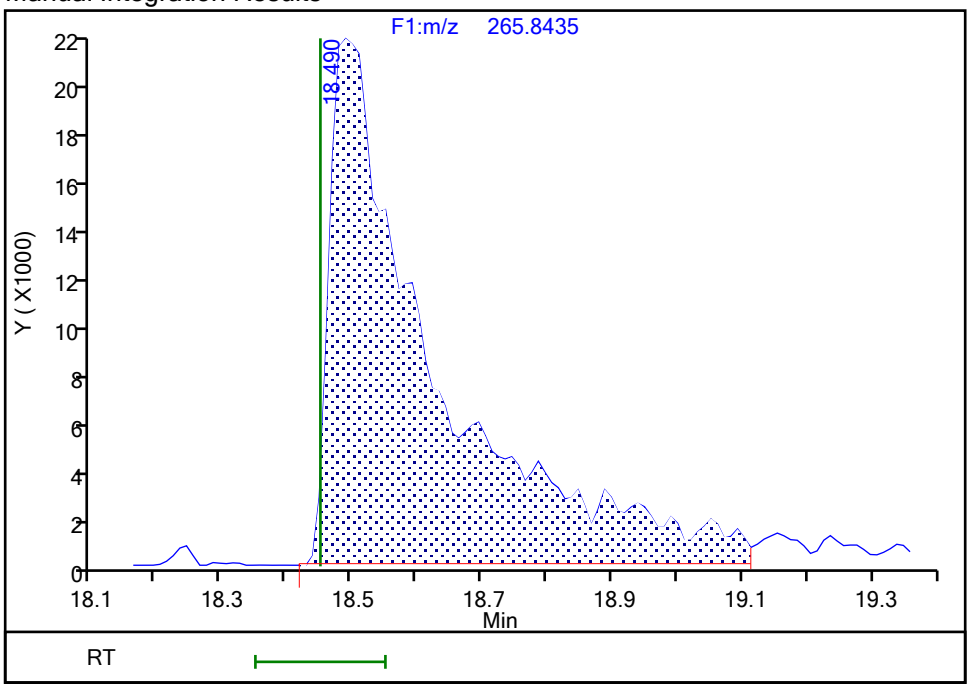
Processing Integration Results

RT: 18.89
Area: 18383
Amount: 11.106505
Amount Units: pg/ul



Manual Integration Results

RT: 18.49
Area: 241226
Amount: 105.7289
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:44:38 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

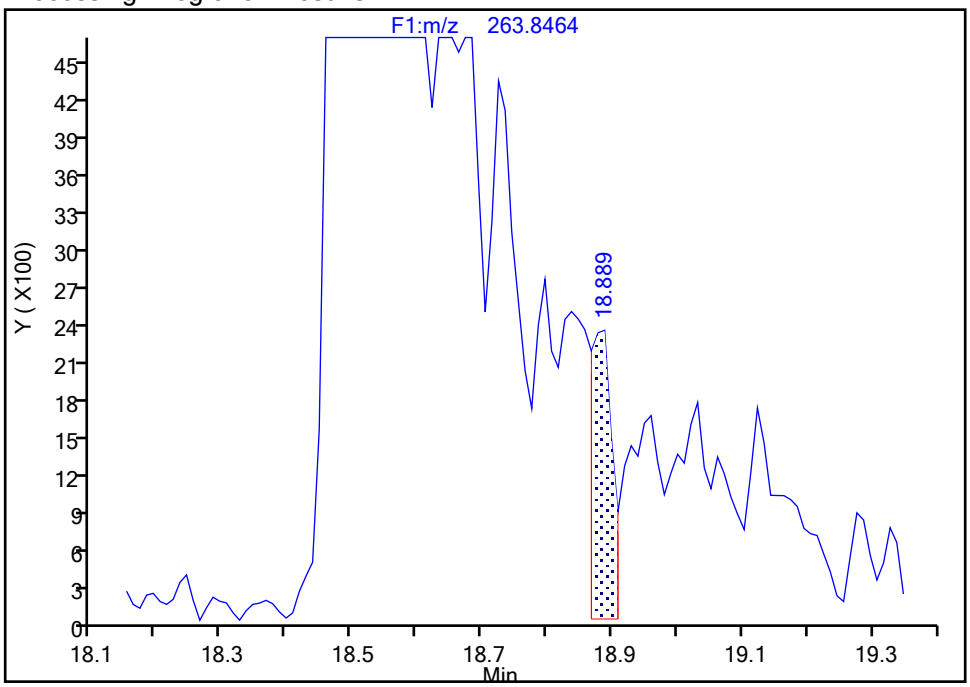
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d				
Injection Date:	02-May-2025 15:45:00	Instrument ID:	D3PST		
Lims ID:	IC L2				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

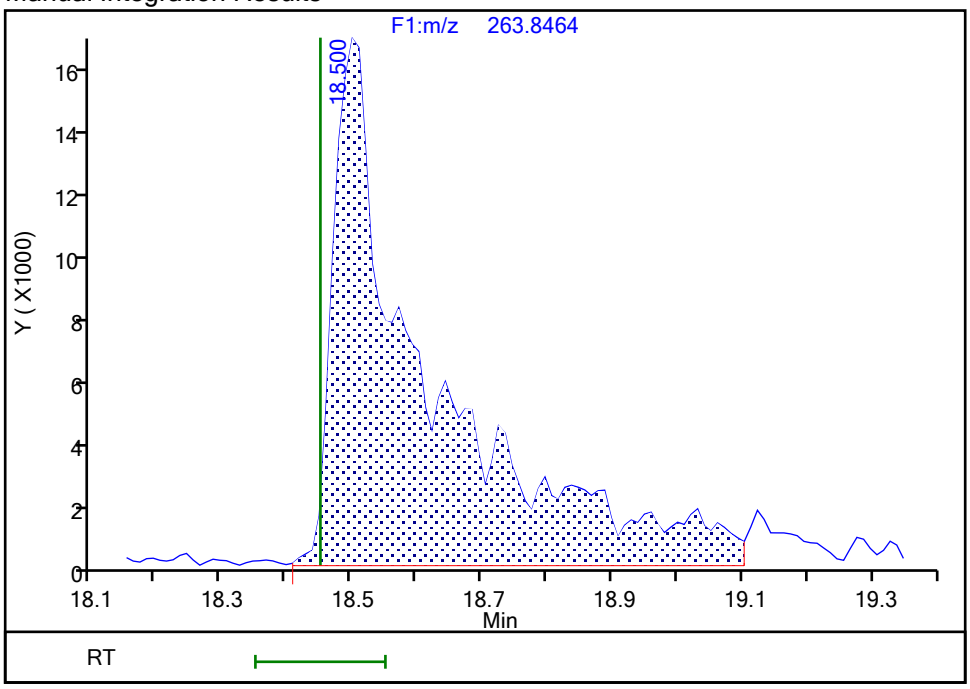
Processing Integration Results

RT: 18.89
Area: 4590
Amount: 11.106505
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 163676
Amount: 105.7289
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:44:47 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

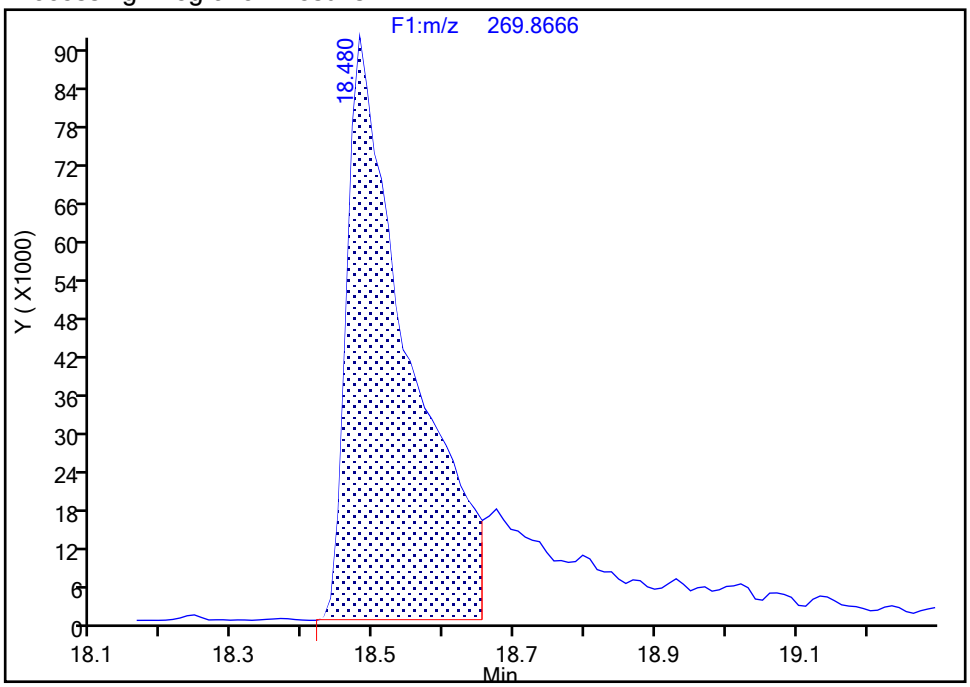
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d				
Injection Date:	02-May-2025 15:45:00	Instrument ID:	D3PST		
Lims ID:	IC L2				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

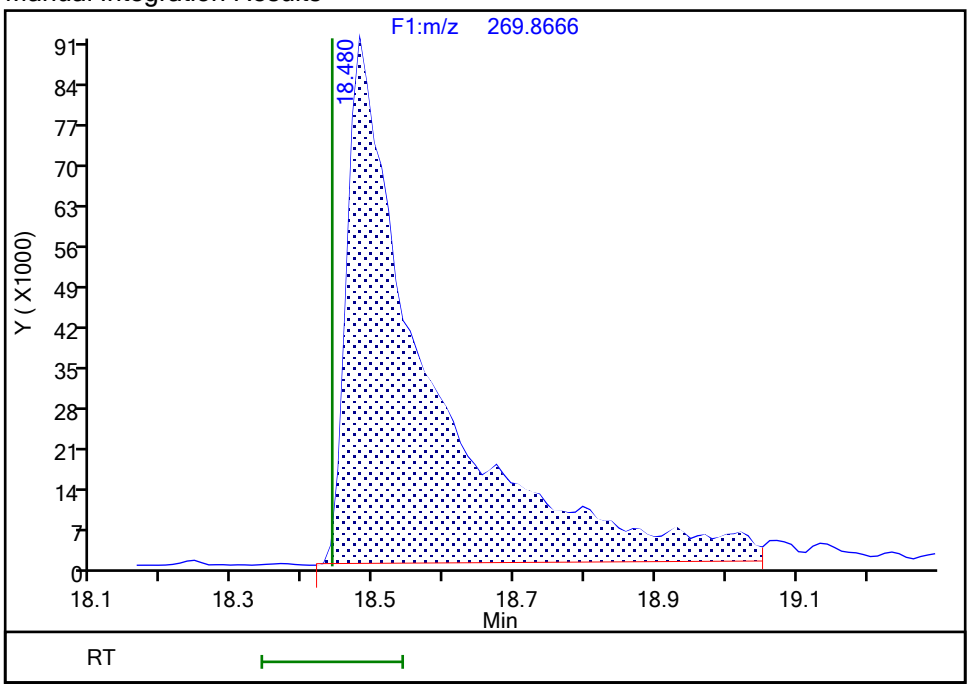
Processing Integration Results

RT: 18.48
Area: 551351
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 736758
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:43:42 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

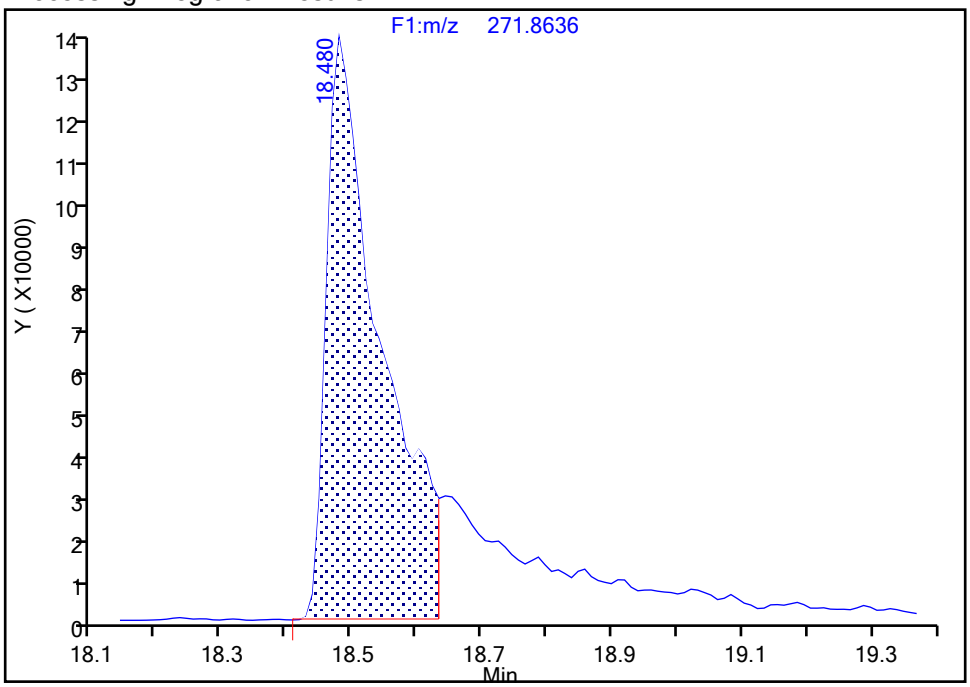
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d				
Injection Date:	02-May-2025 15:45:00	Instrument ID:	D3PST		
Lims ID:	IC L2				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 2

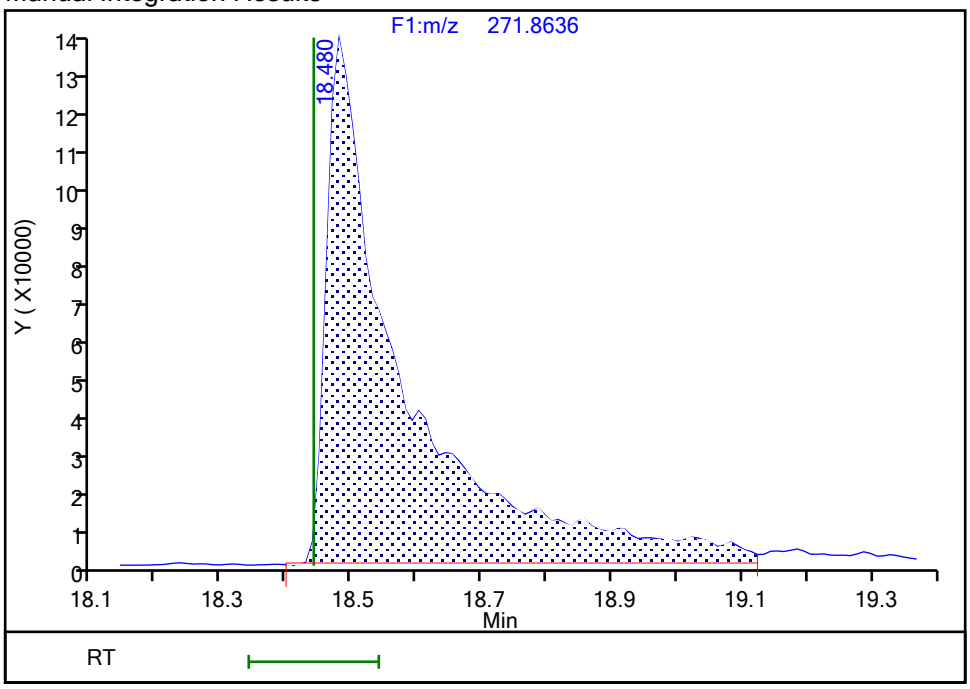
Processing Integration Results

RT: 18.48
Area: 798034
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 1137150
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 02-May-2025 16:43:50 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

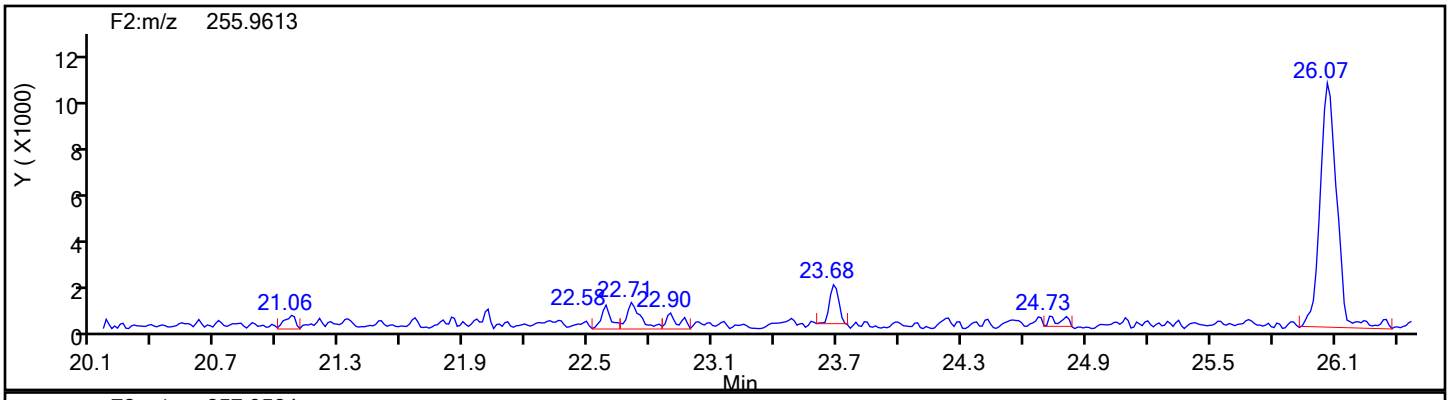
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

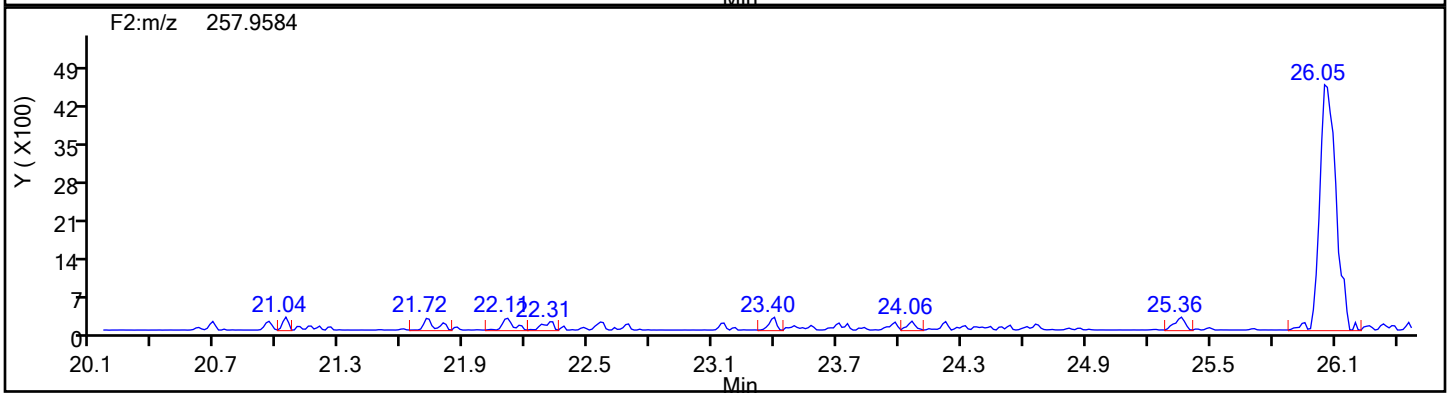
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

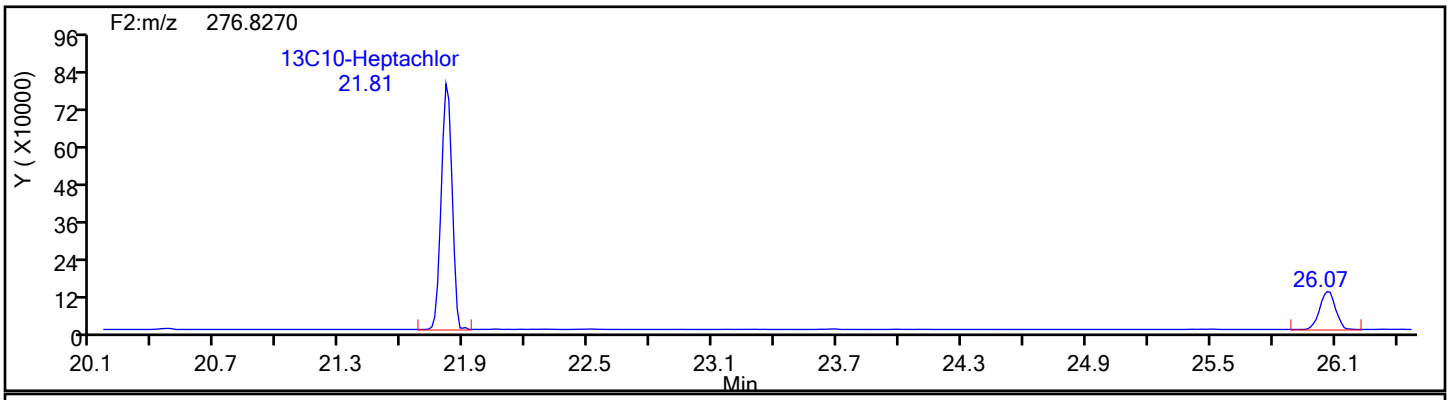
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

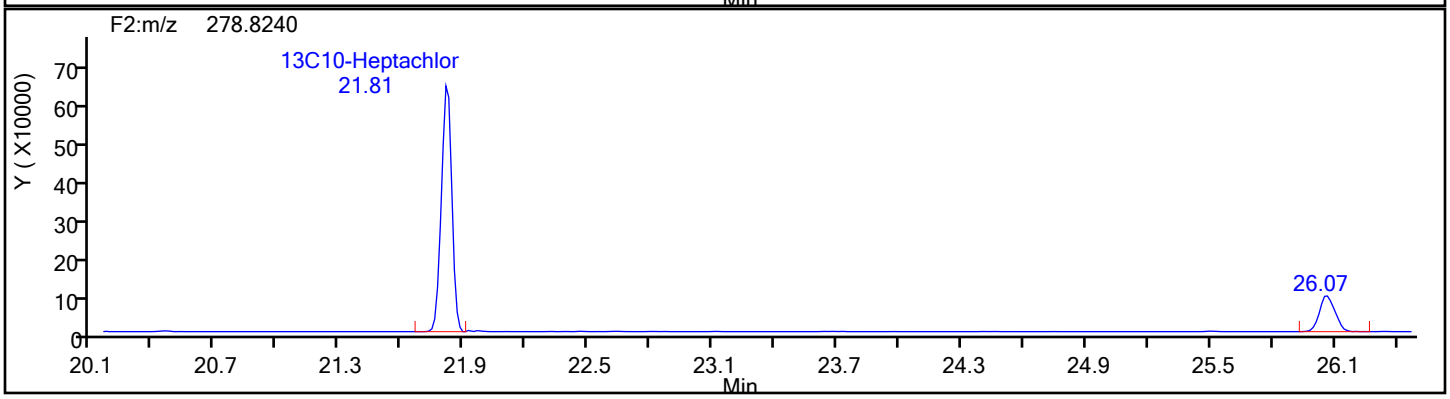
PCB-36





PCB-36 Standards





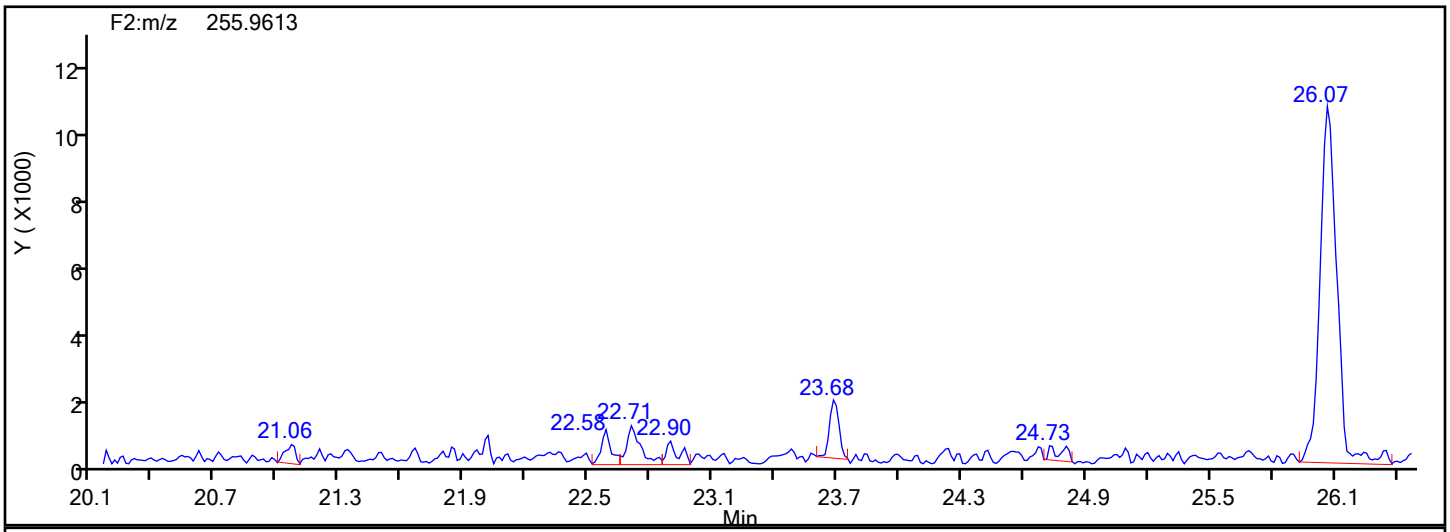
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

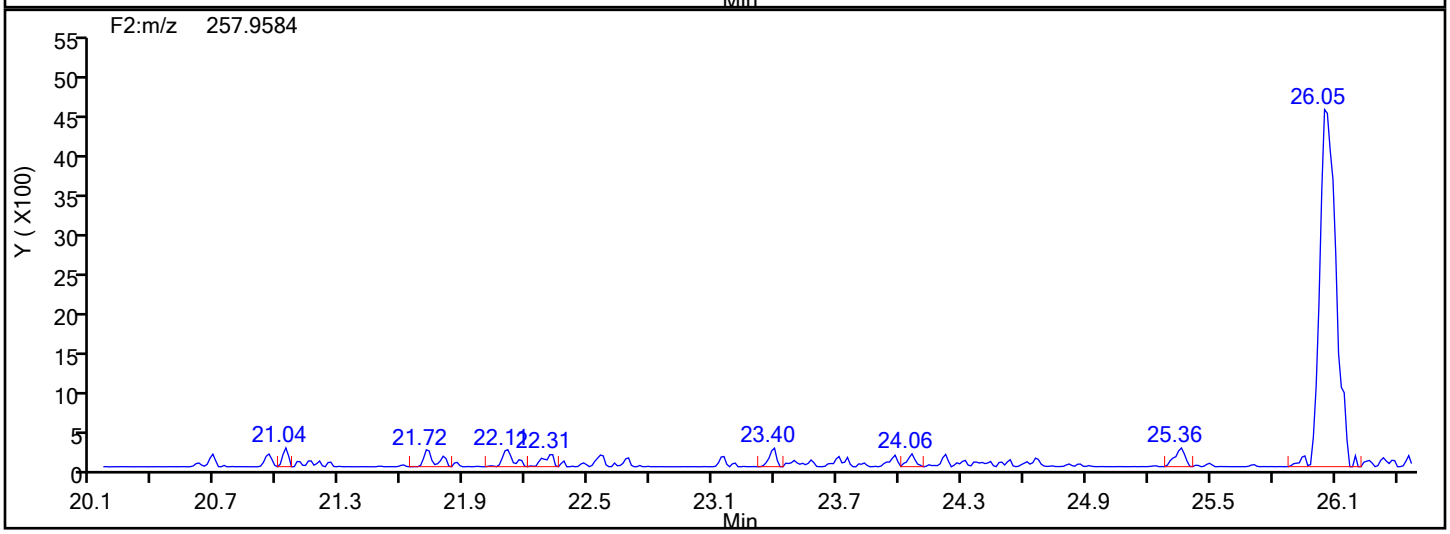
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

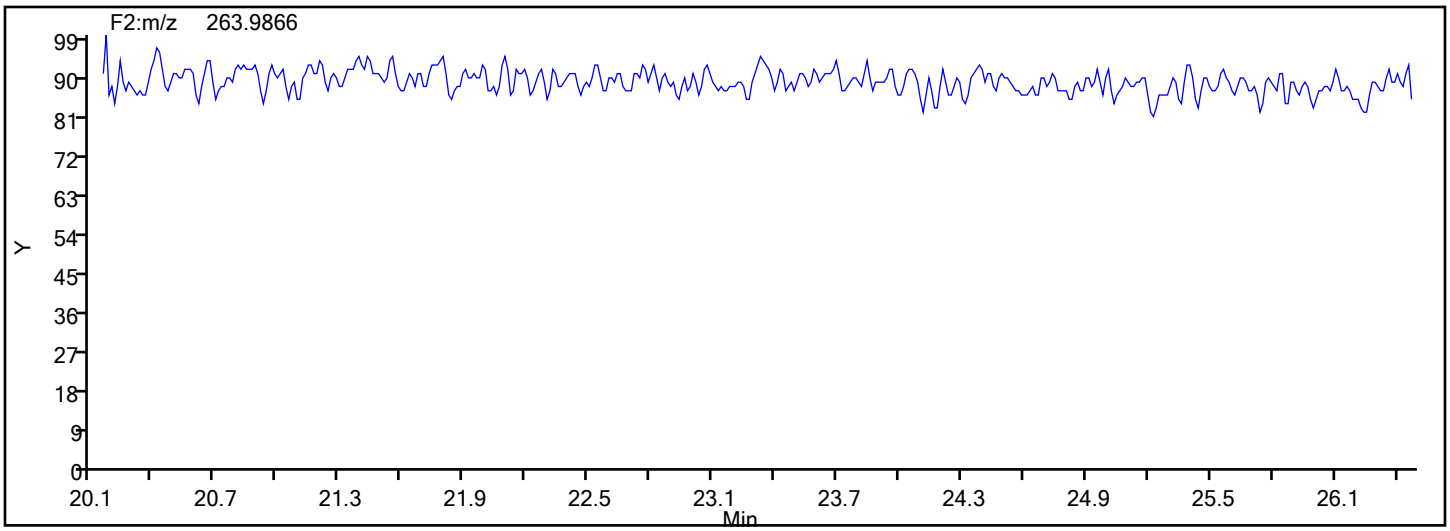
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



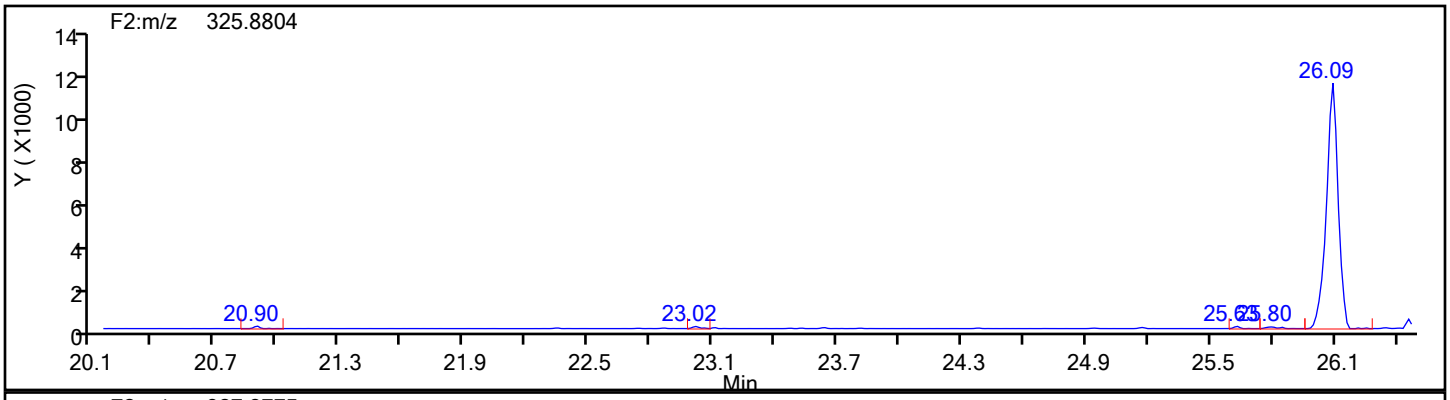
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

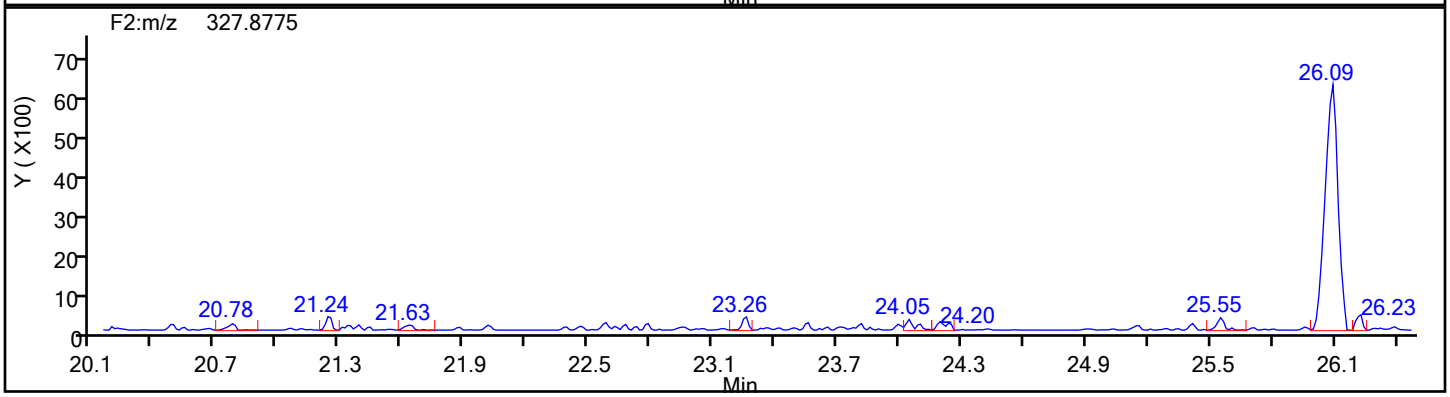
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

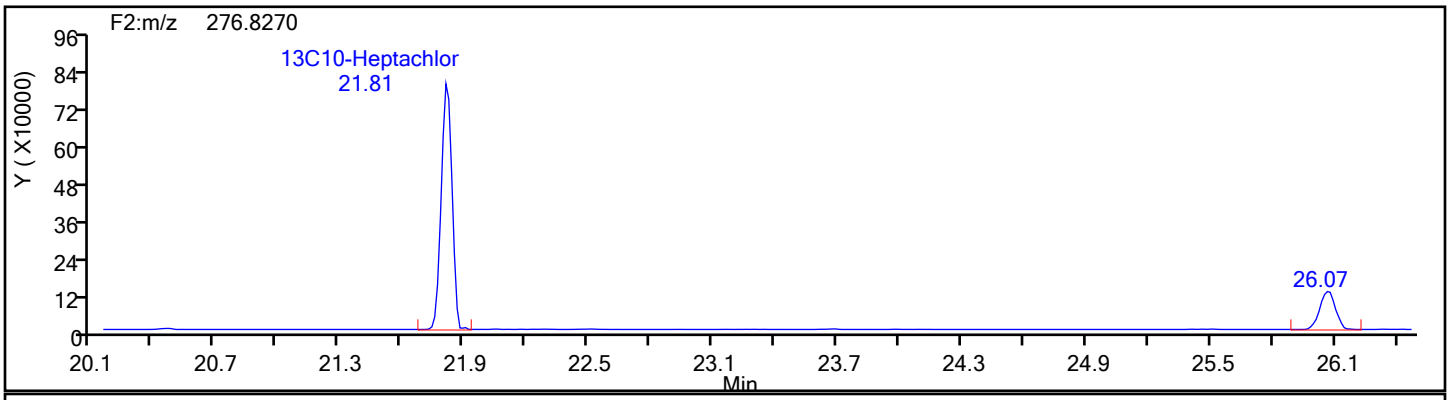
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

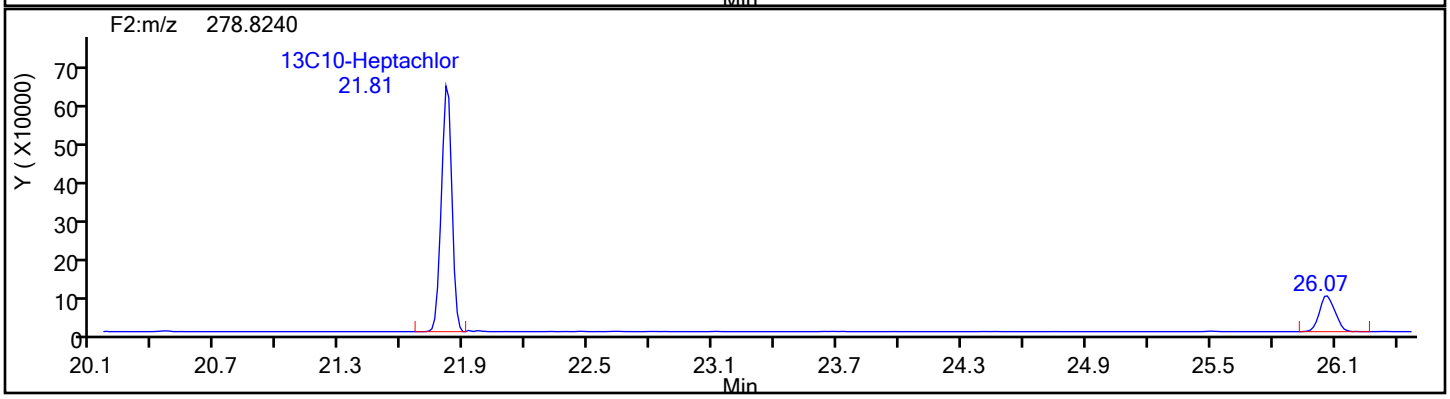
PCB-104





PCB-104 Standards



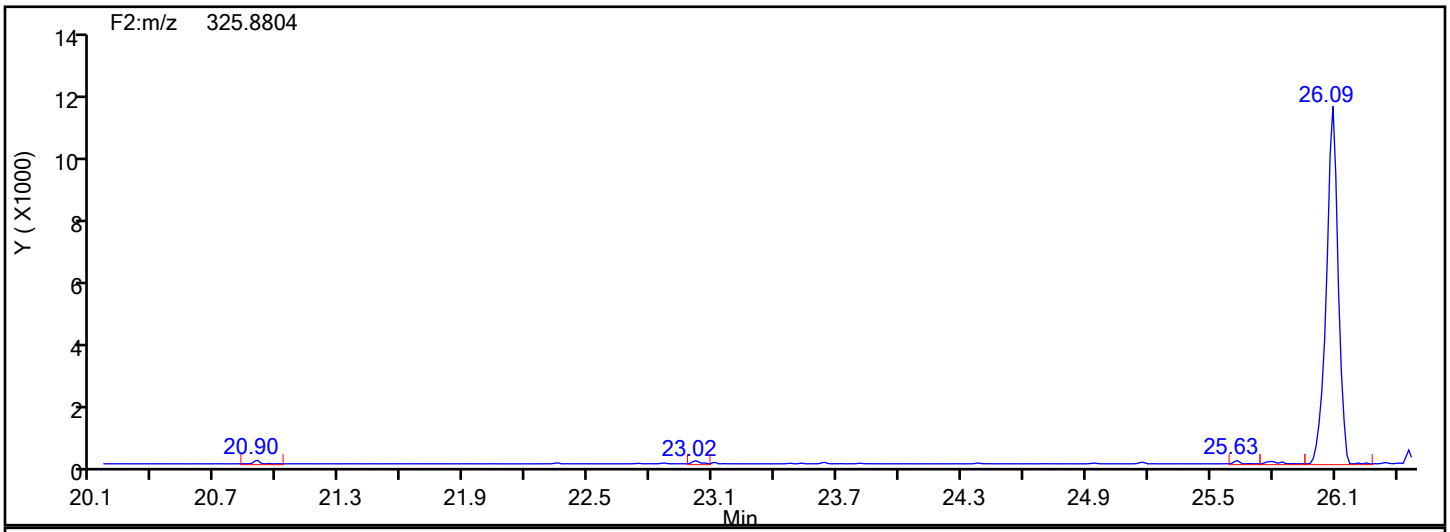


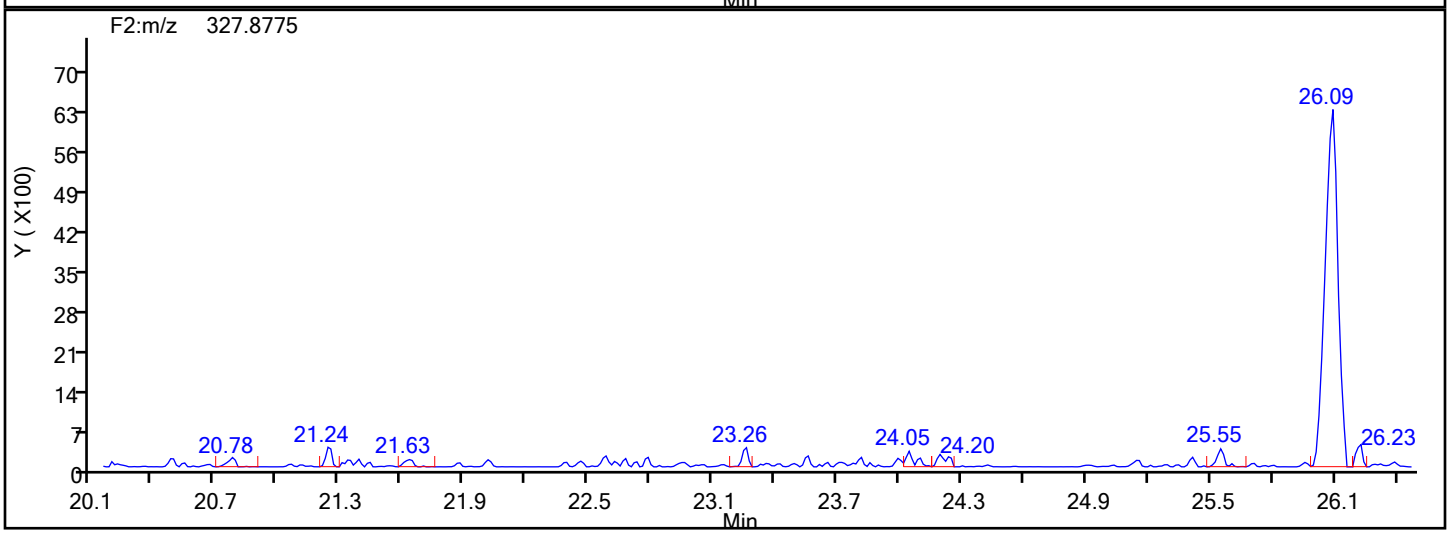
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

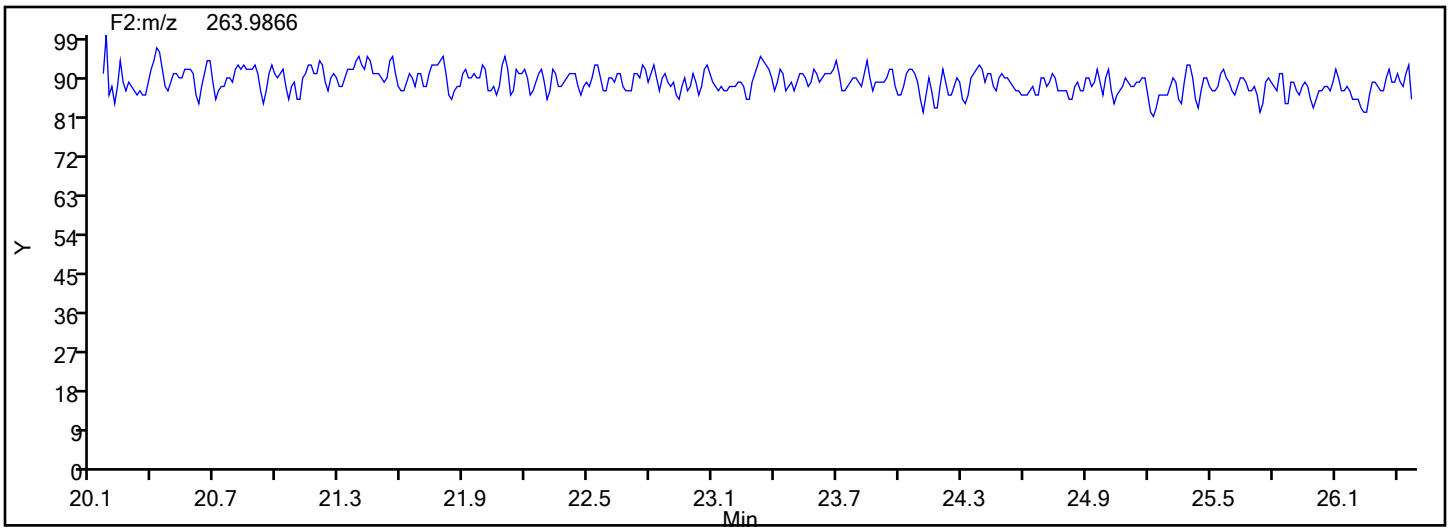
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



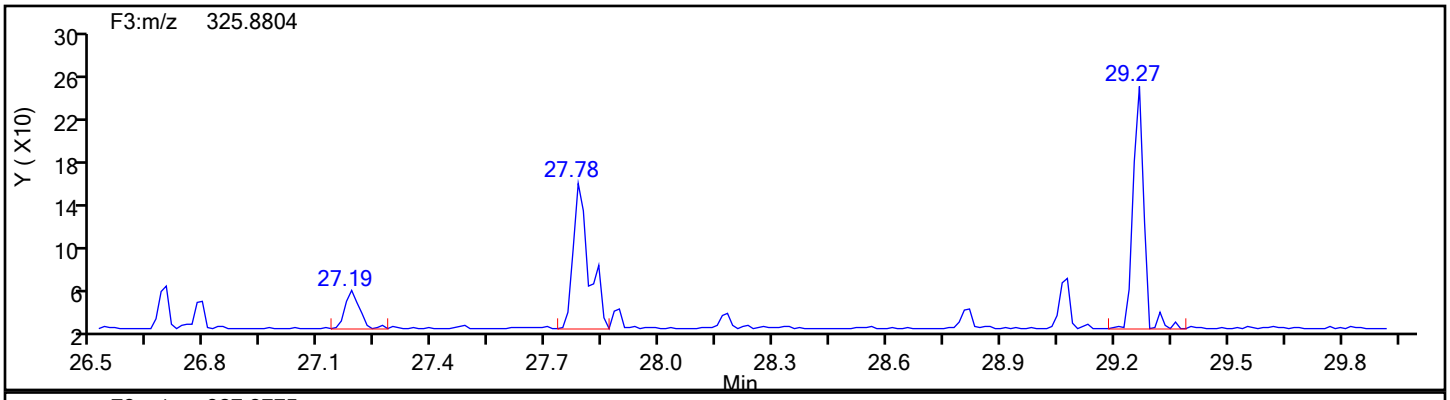
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

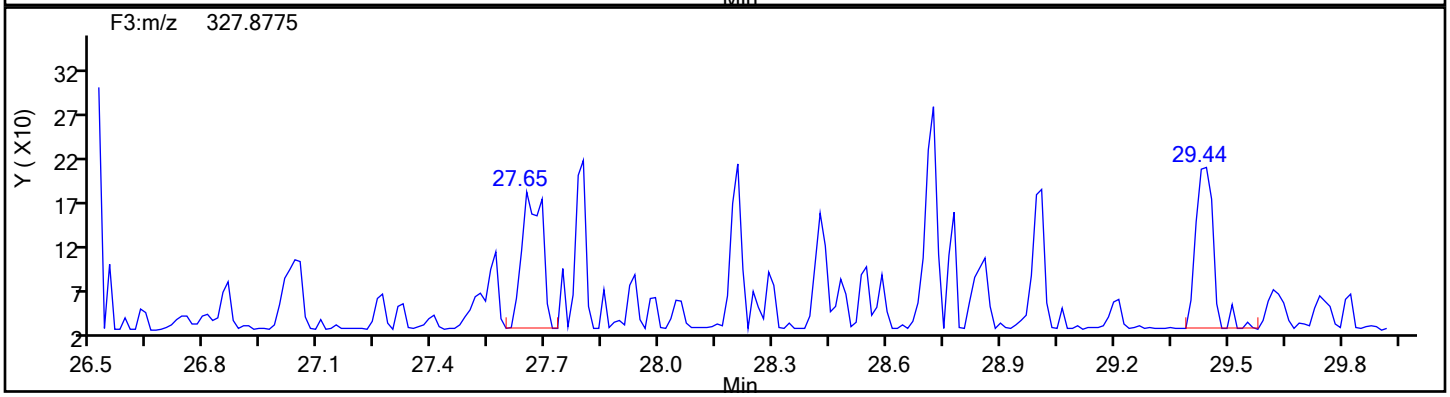
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

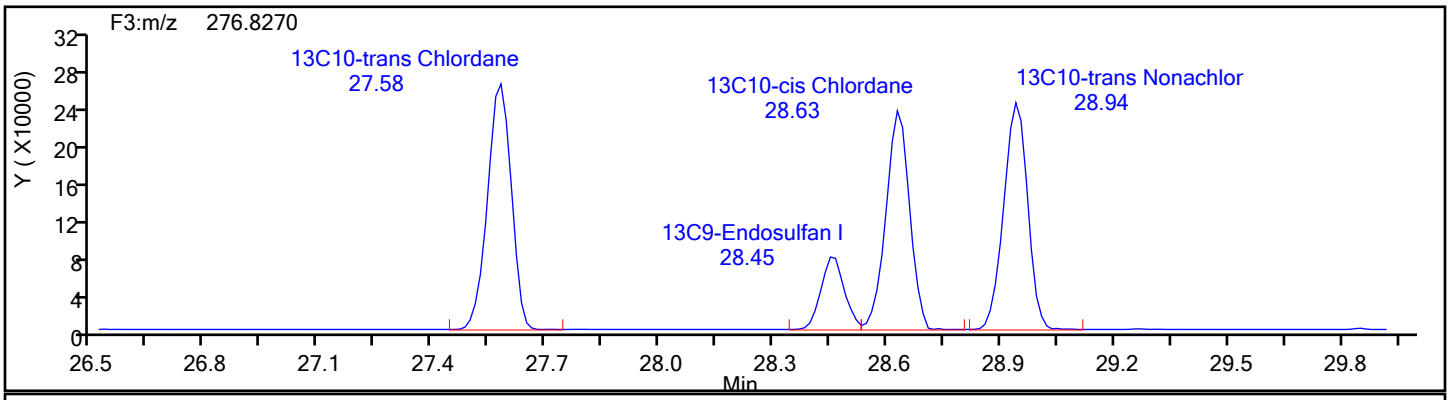
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

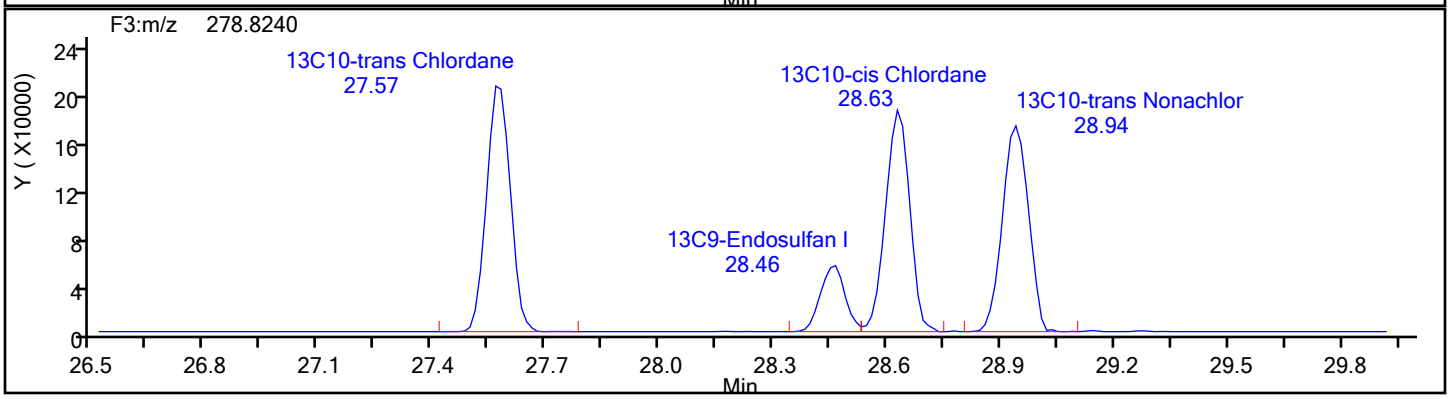
PCB-121





PCB-121 Standards



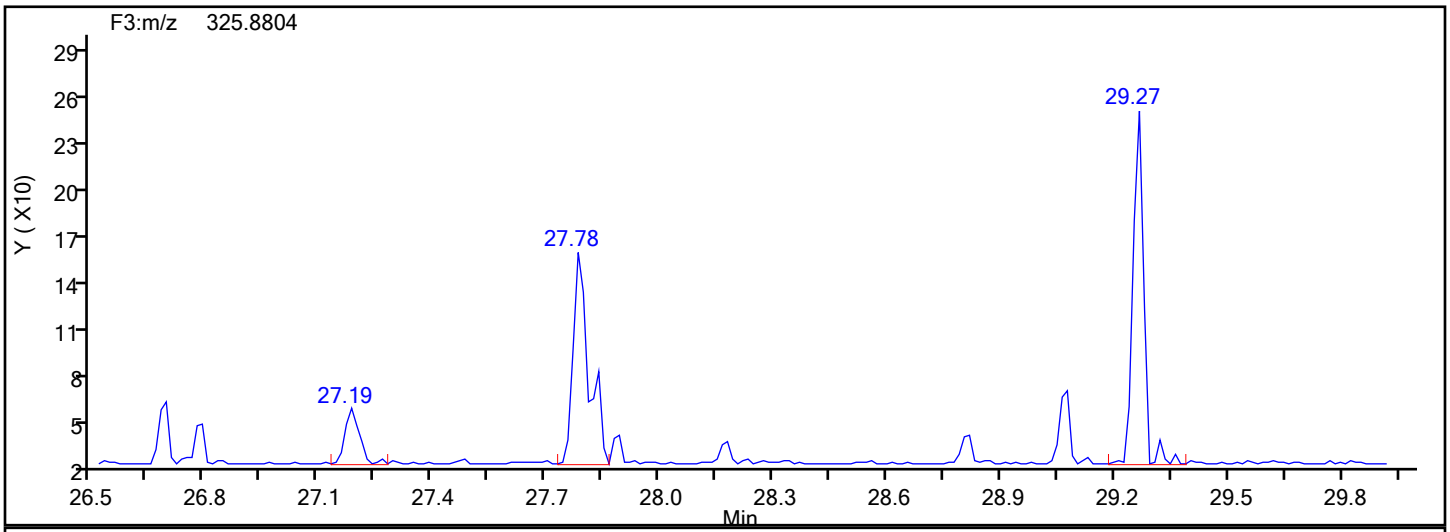


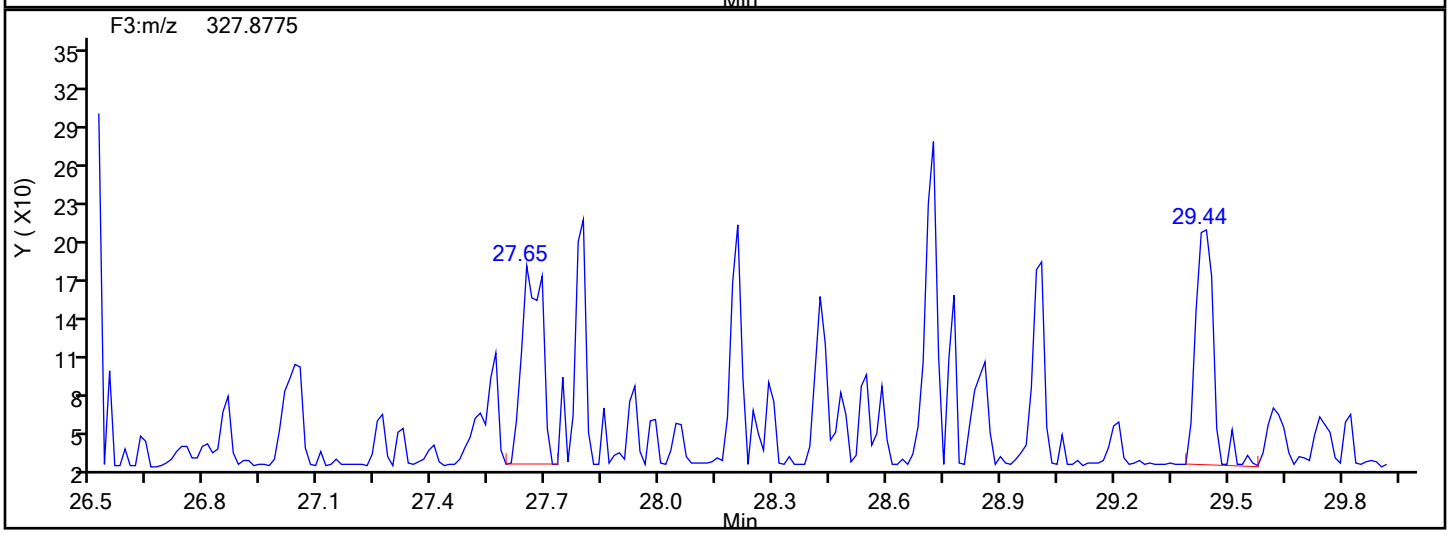
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

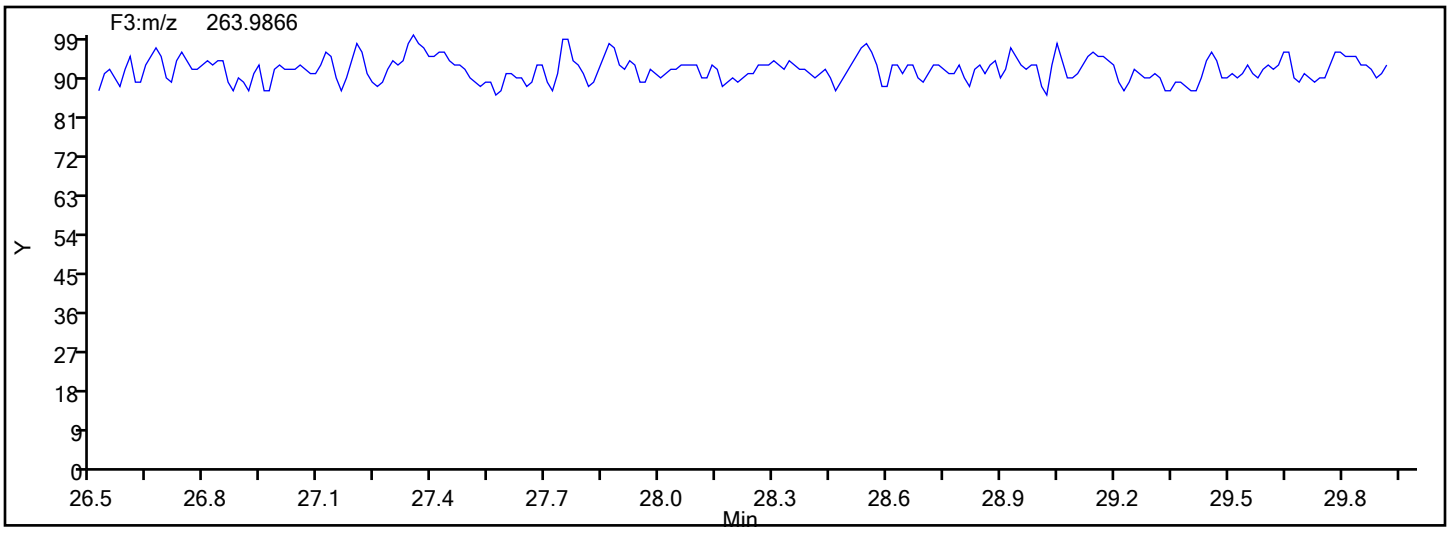
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



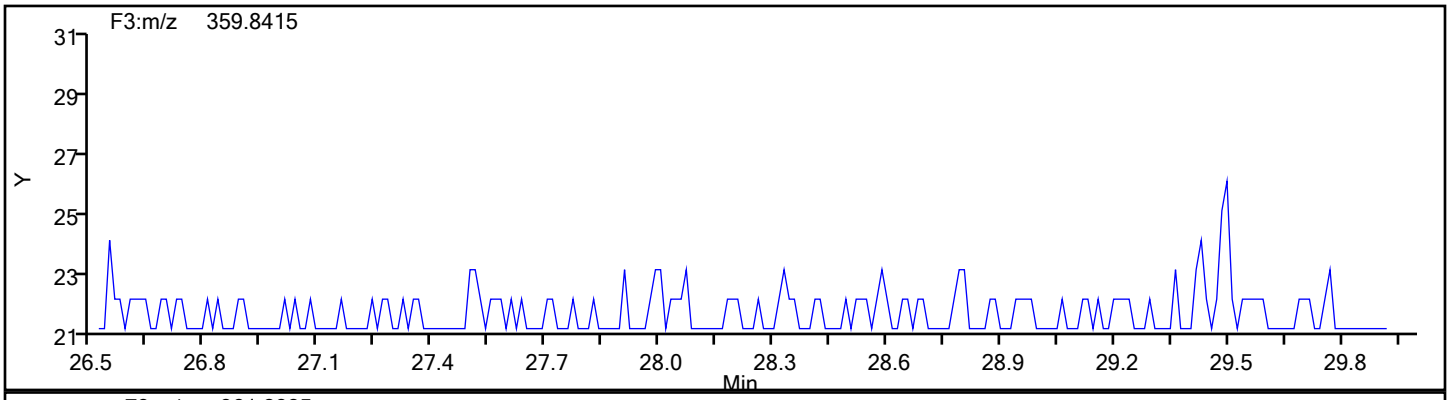
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

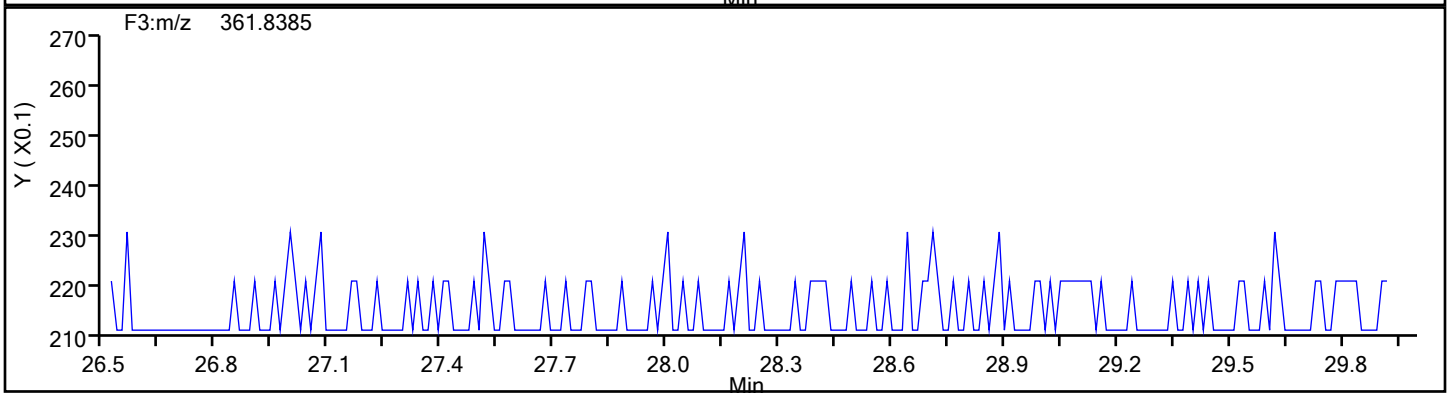
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

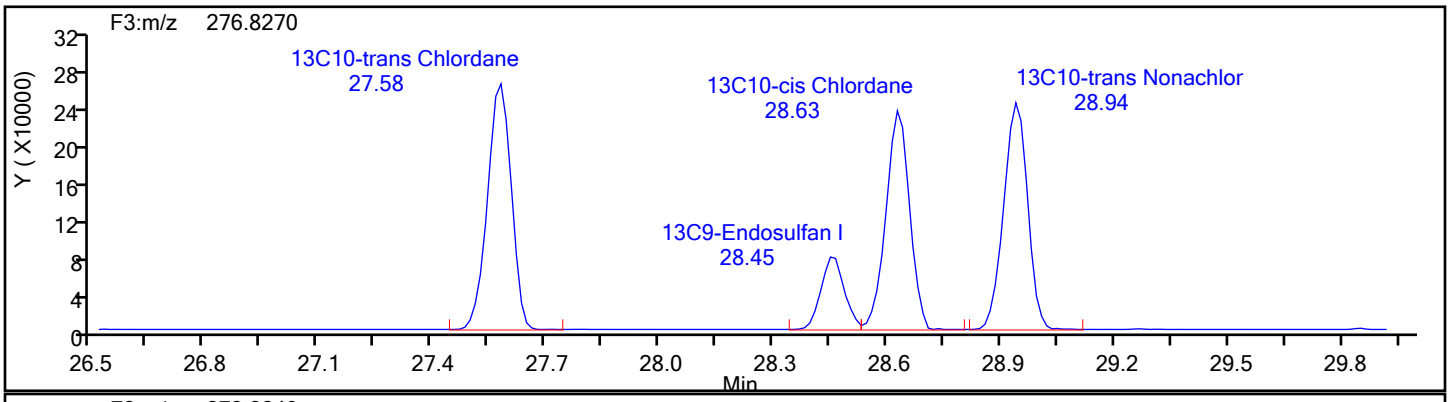
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

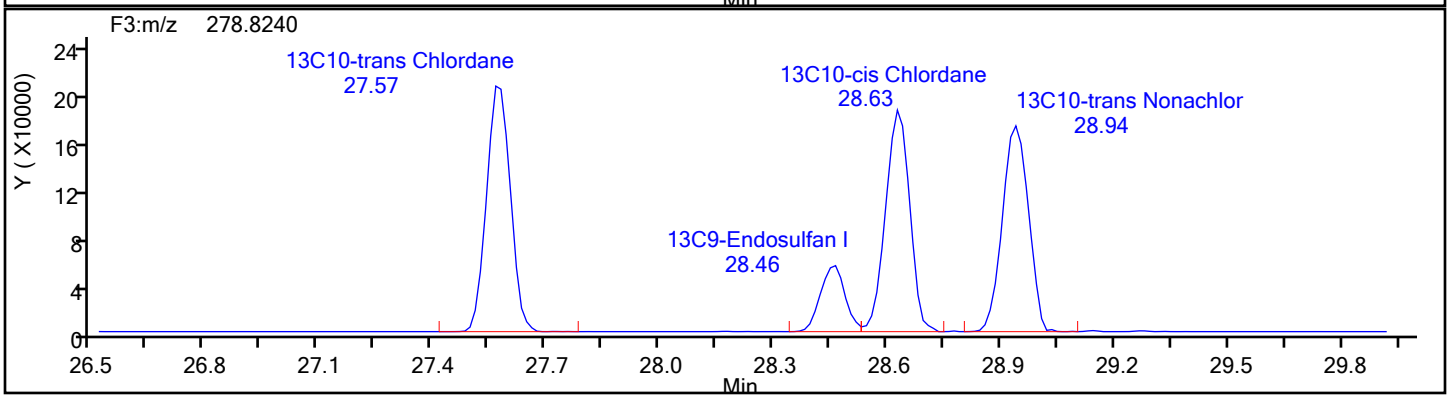
PCB-142





PCB-142 Standards





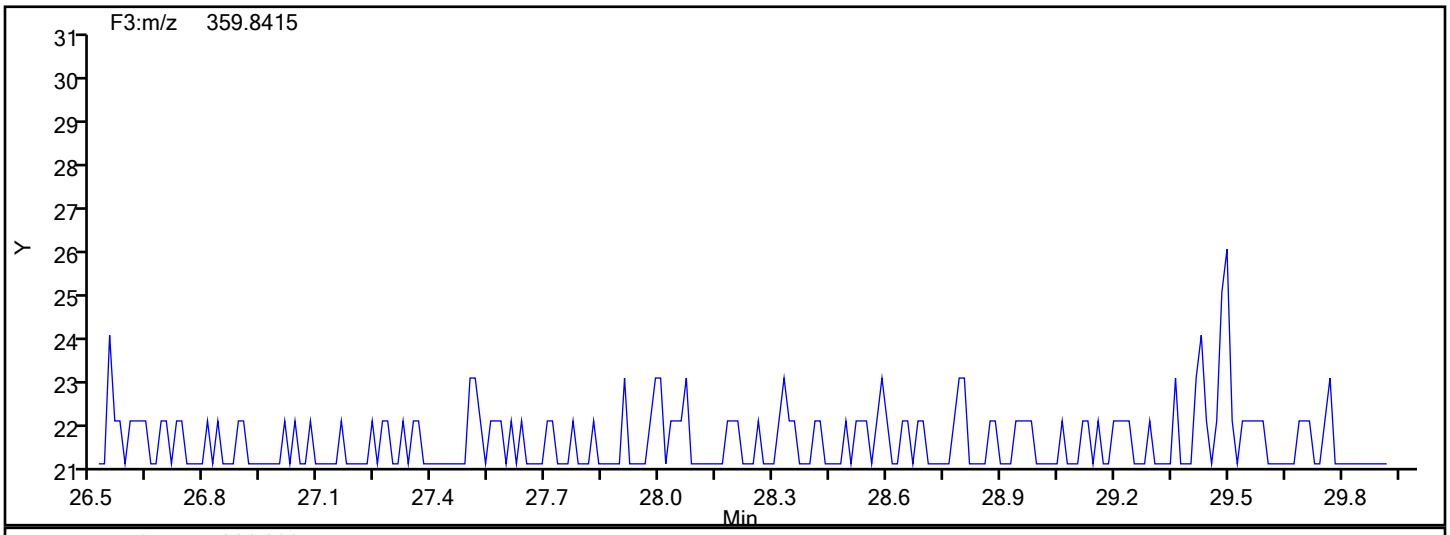
Report Date: 05-May-2025 18:00:03 Chrom Revision: 2.3 18-Apr-2025 15:35:42

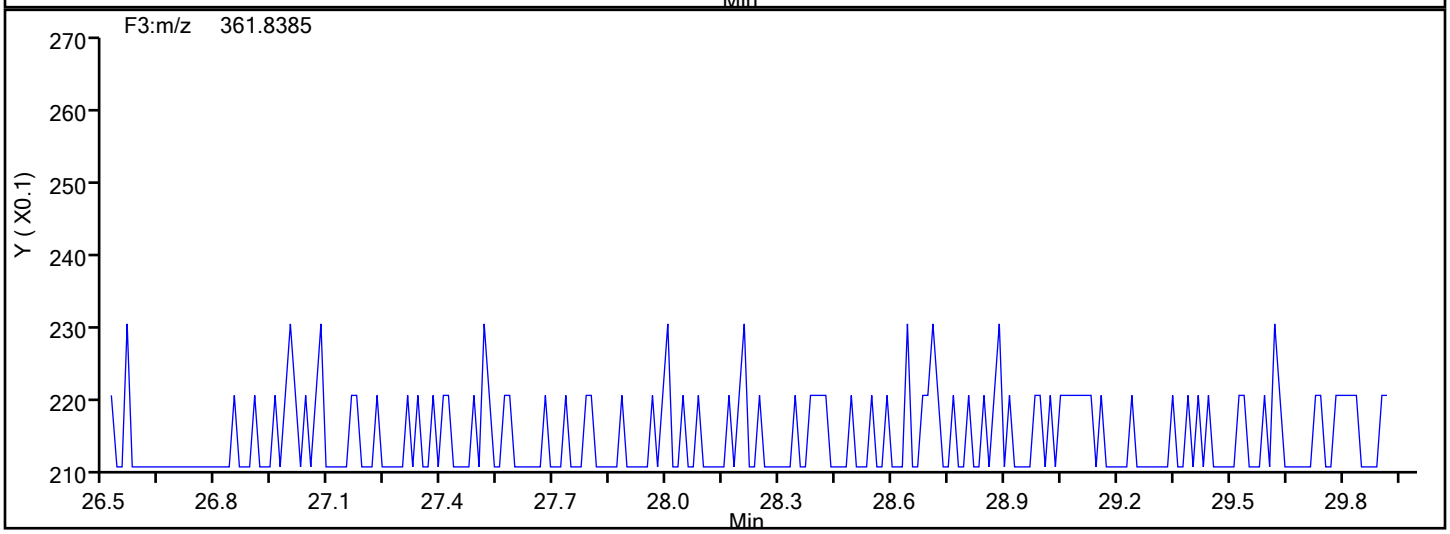
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

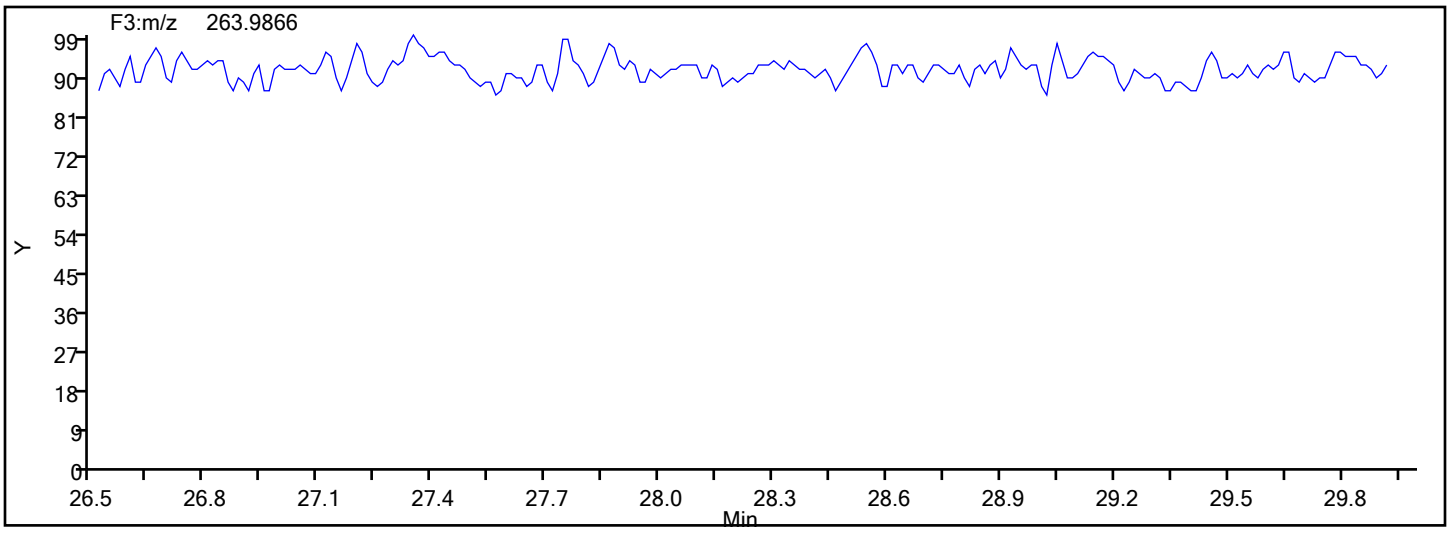
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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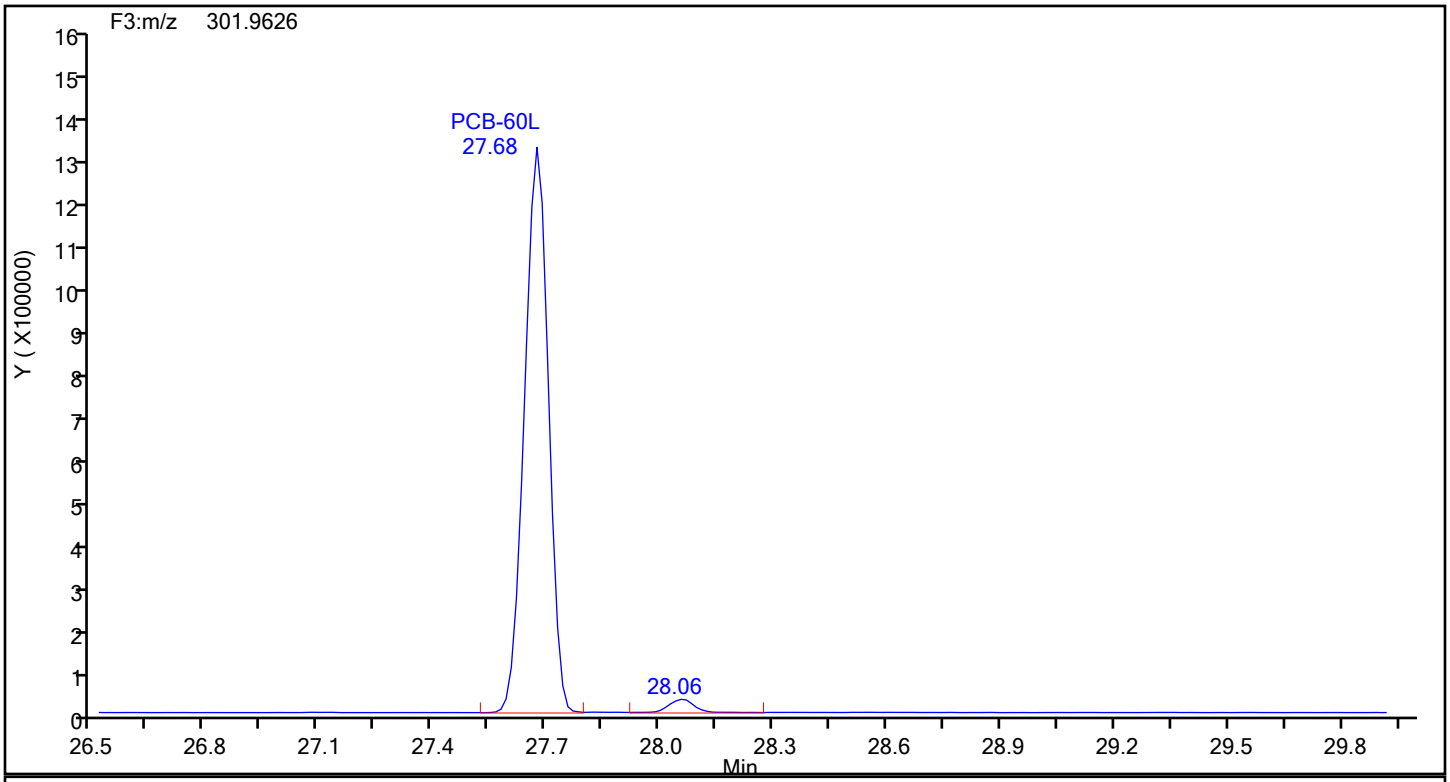
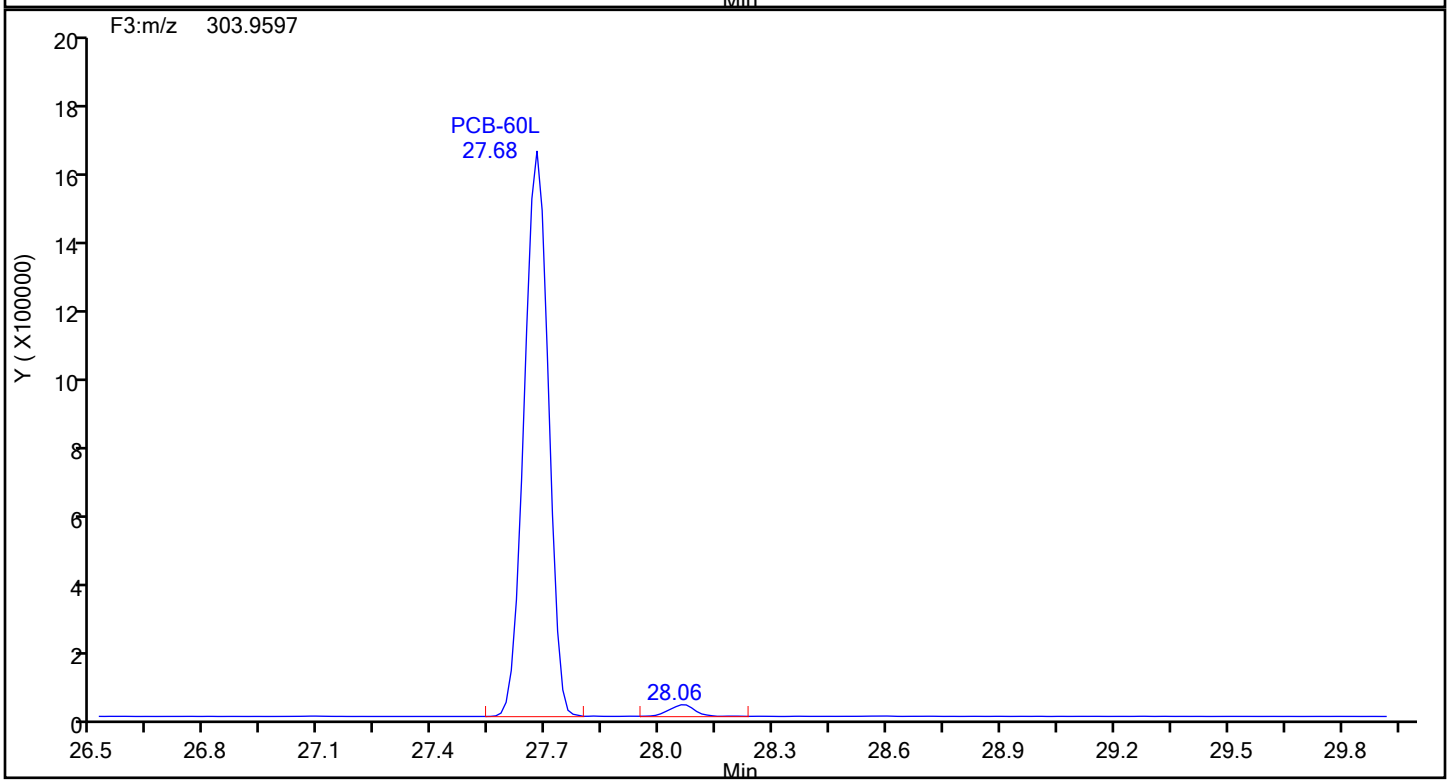
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

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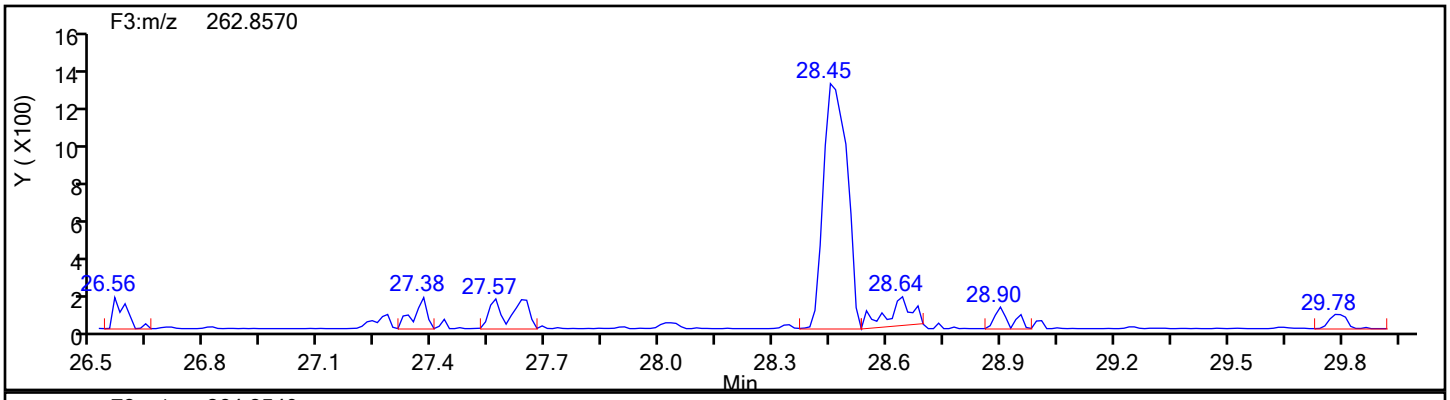
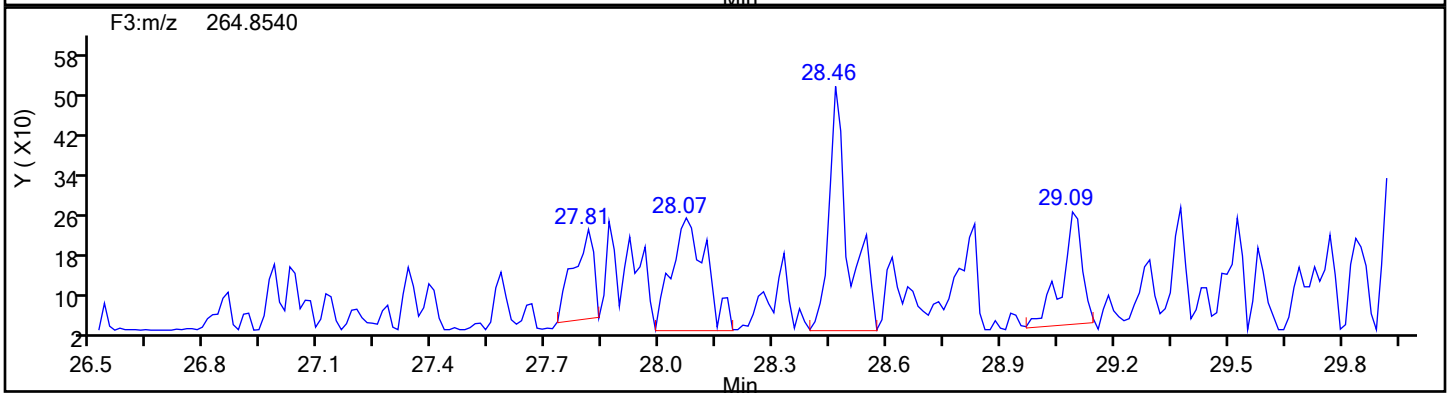
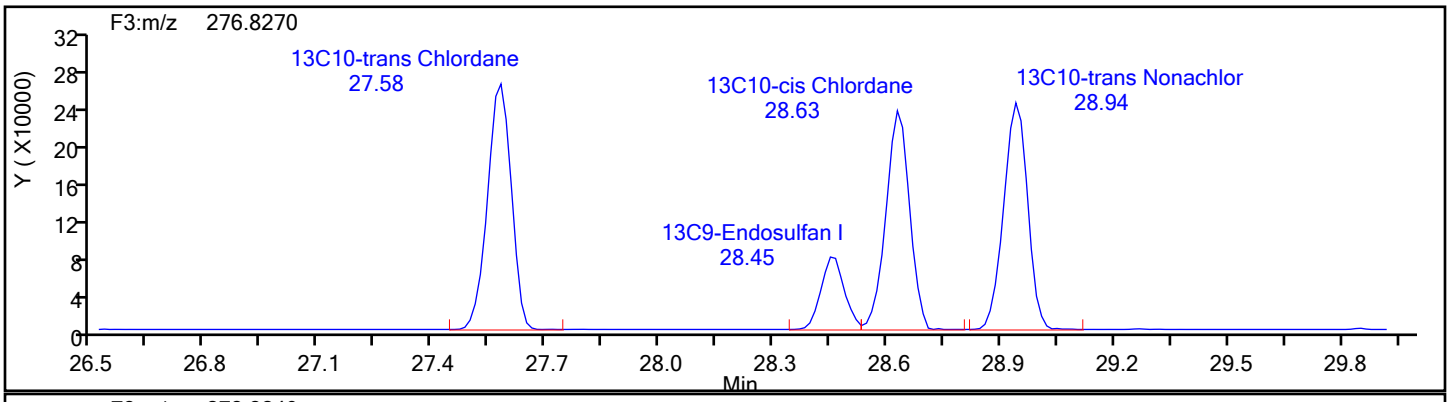
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

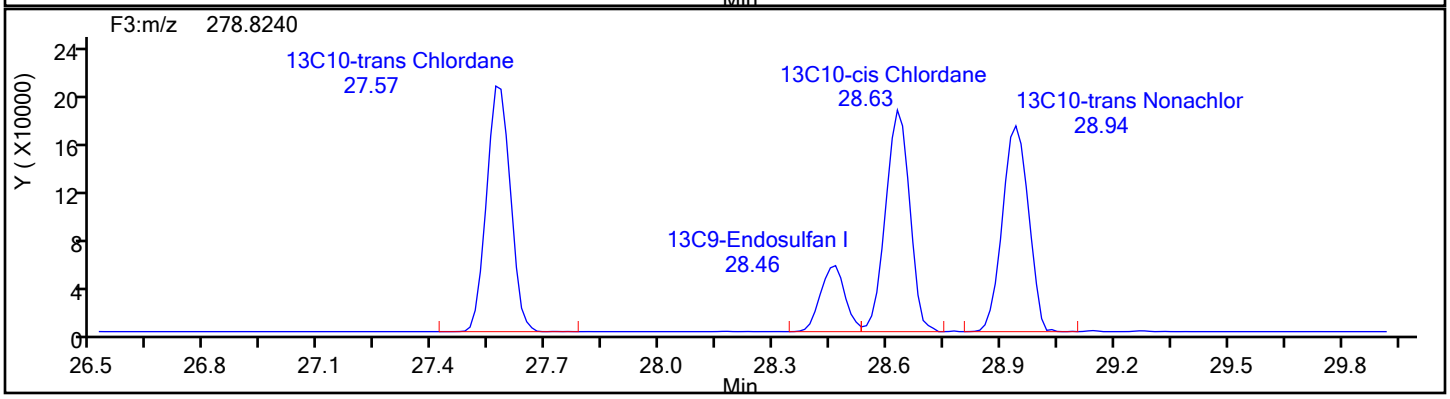
Endosulfan I





Endosulfan I Standards





Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Client ID:
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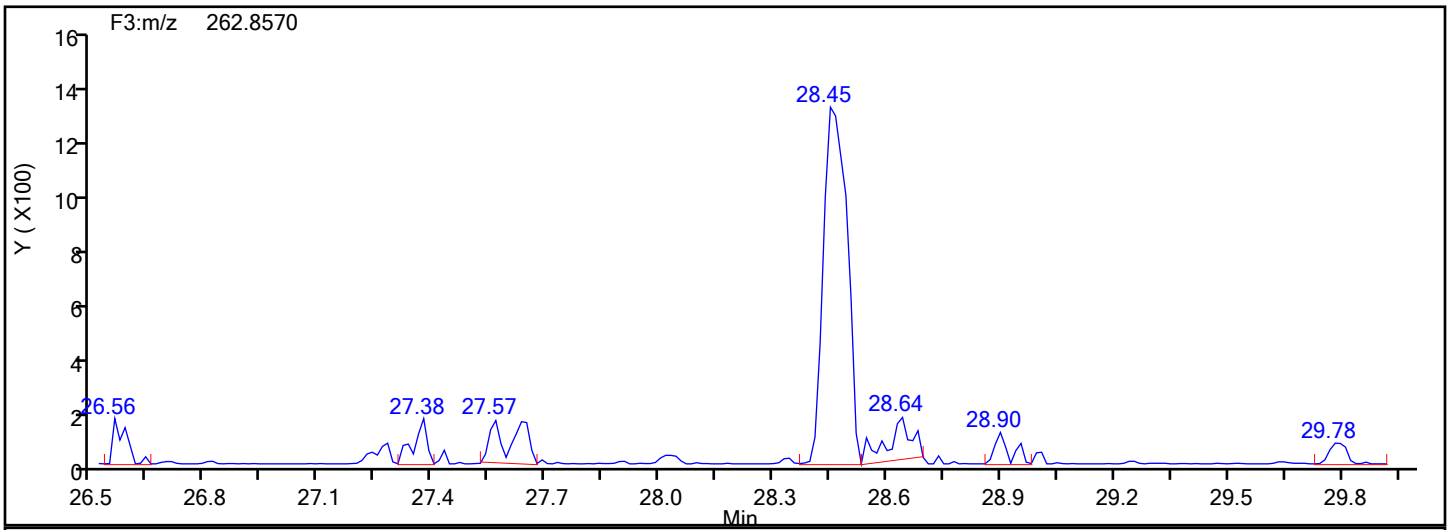
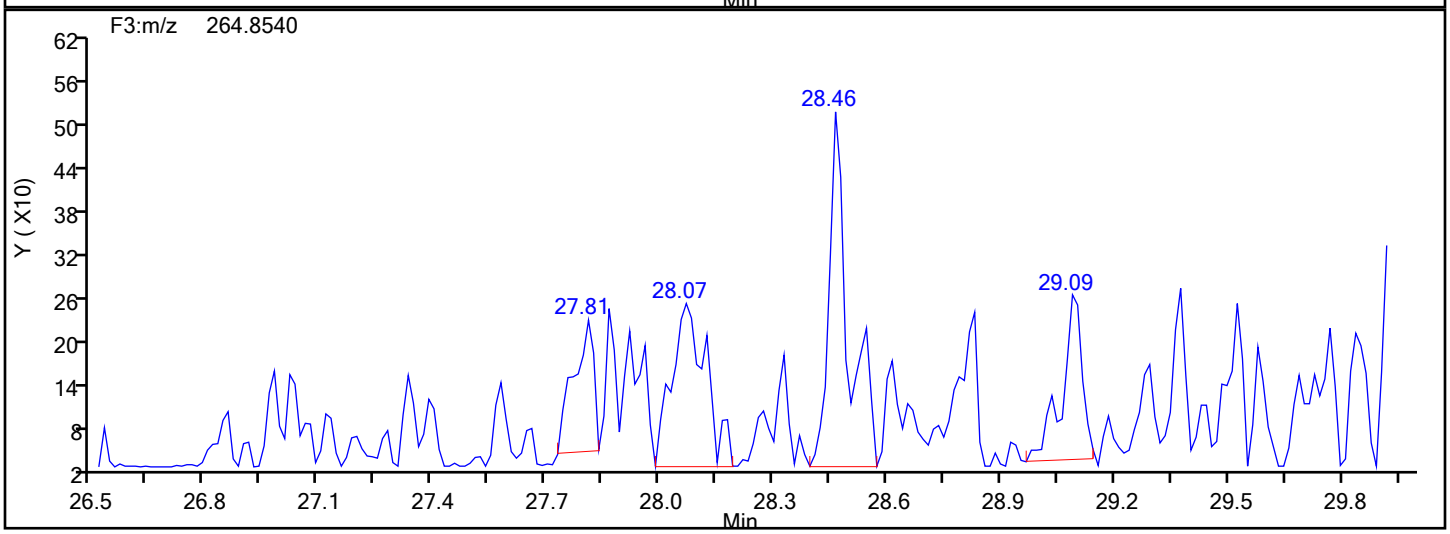
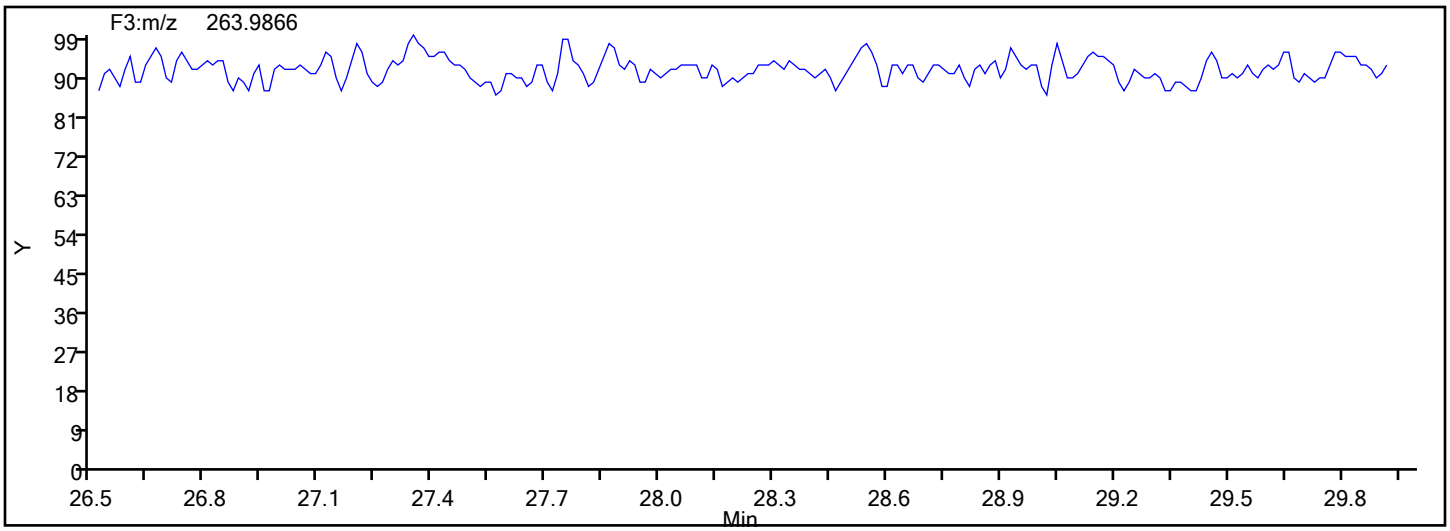
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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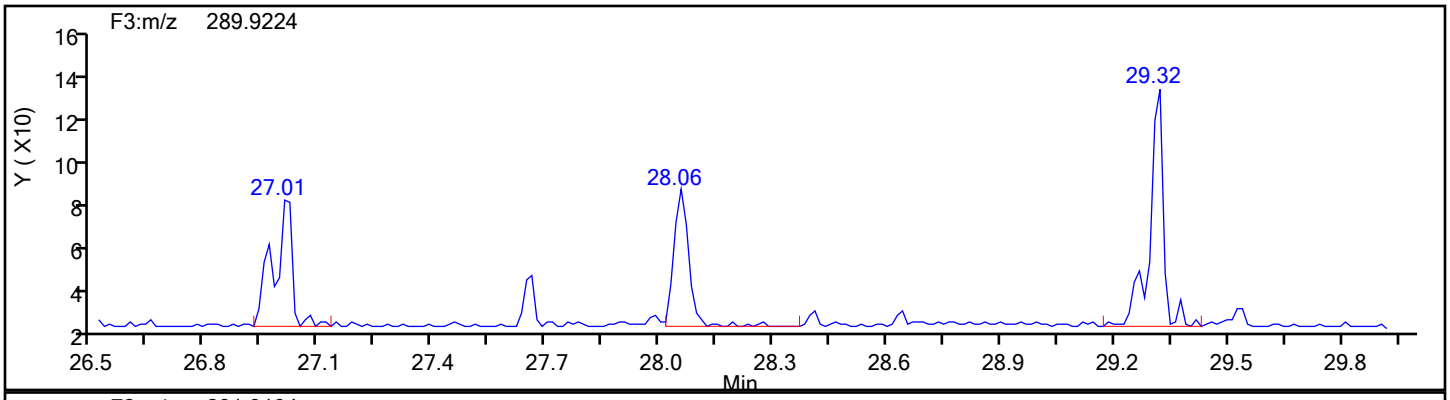
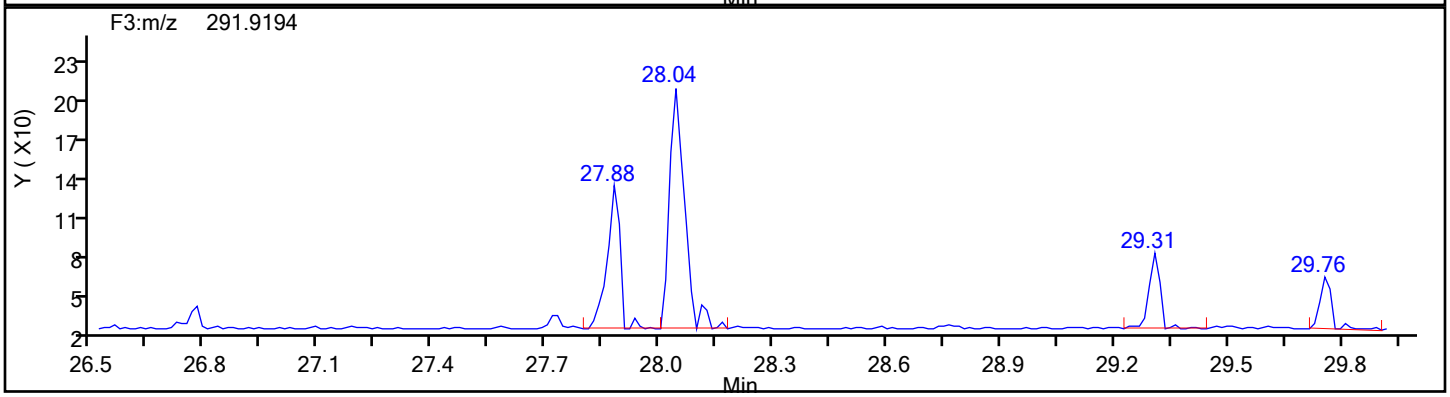
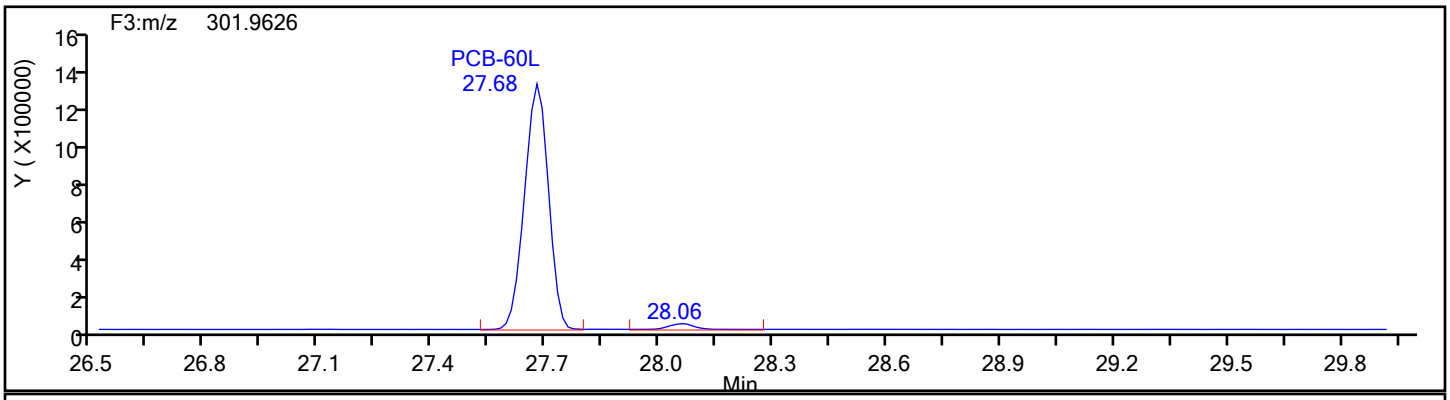
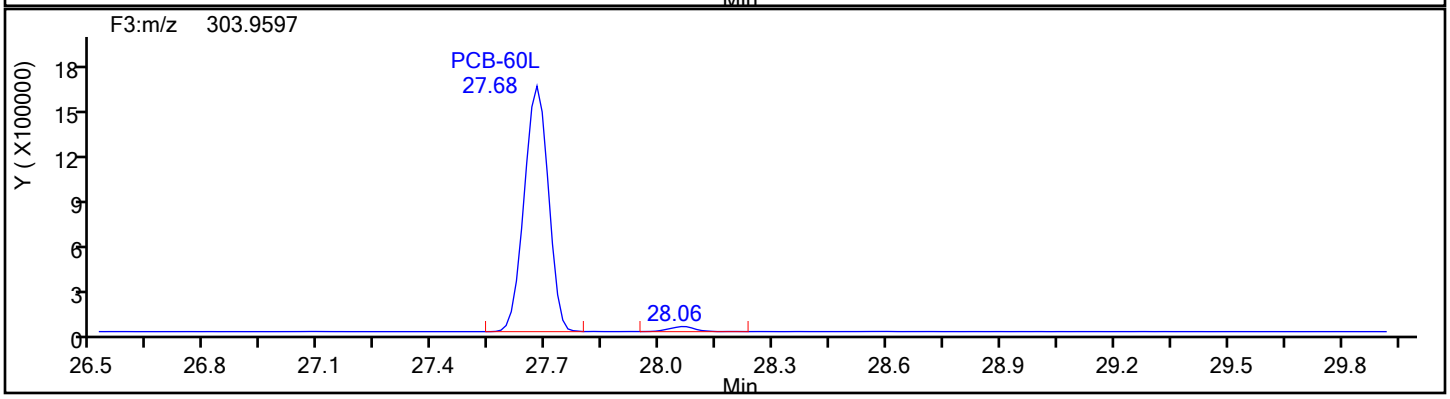
PCB-78





PCB-78 Standards





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Eurofins Knoxville

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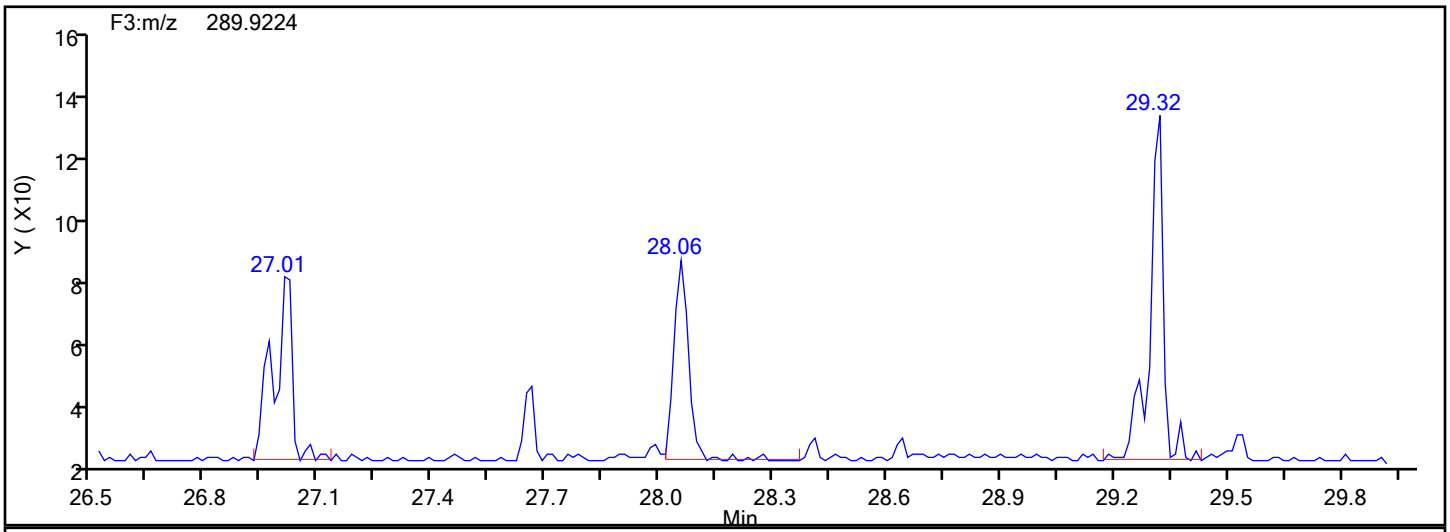
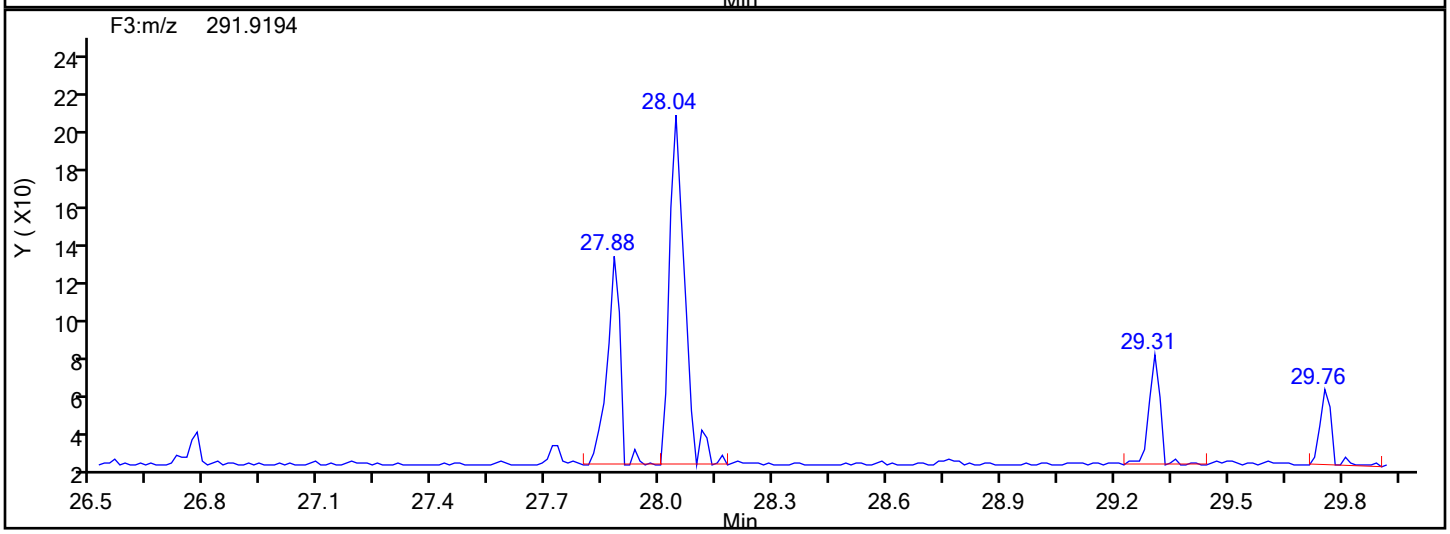
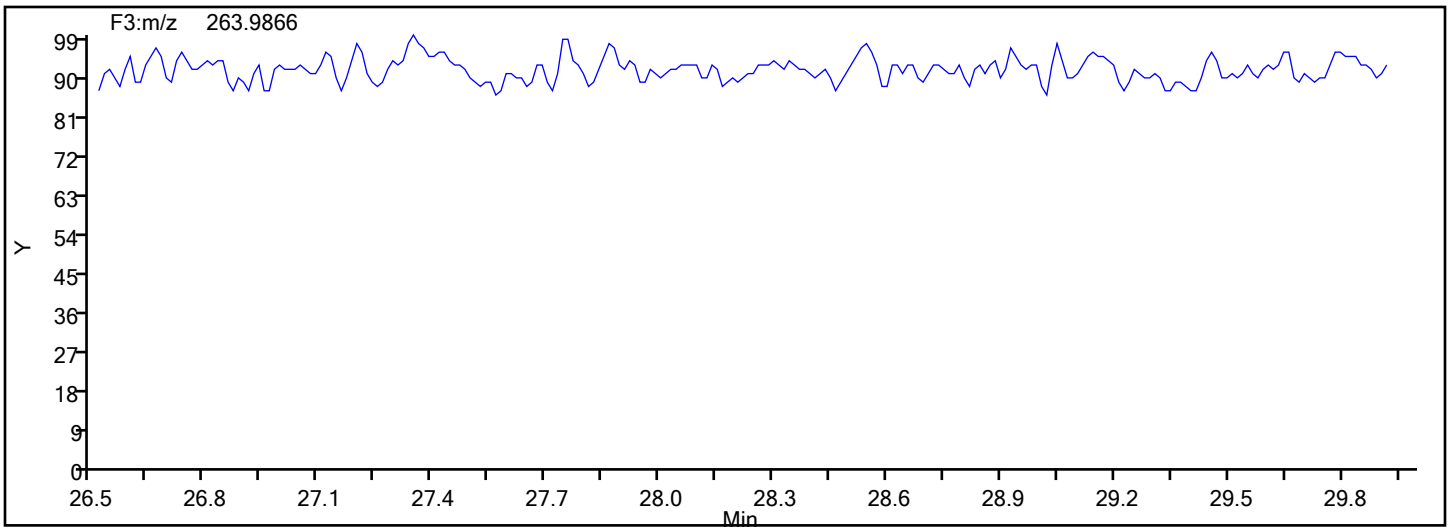
PCB-78





PCB-78 Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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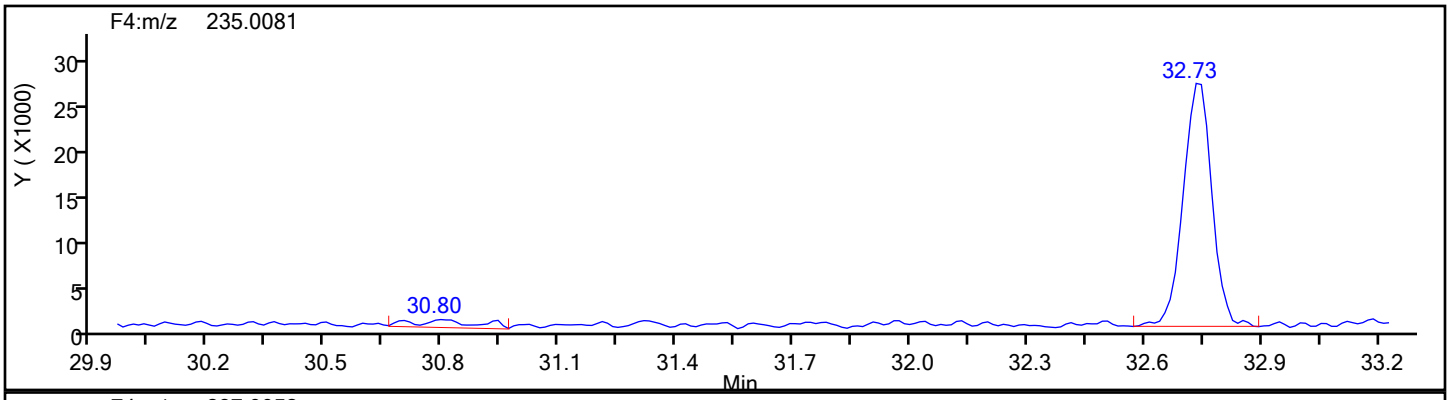
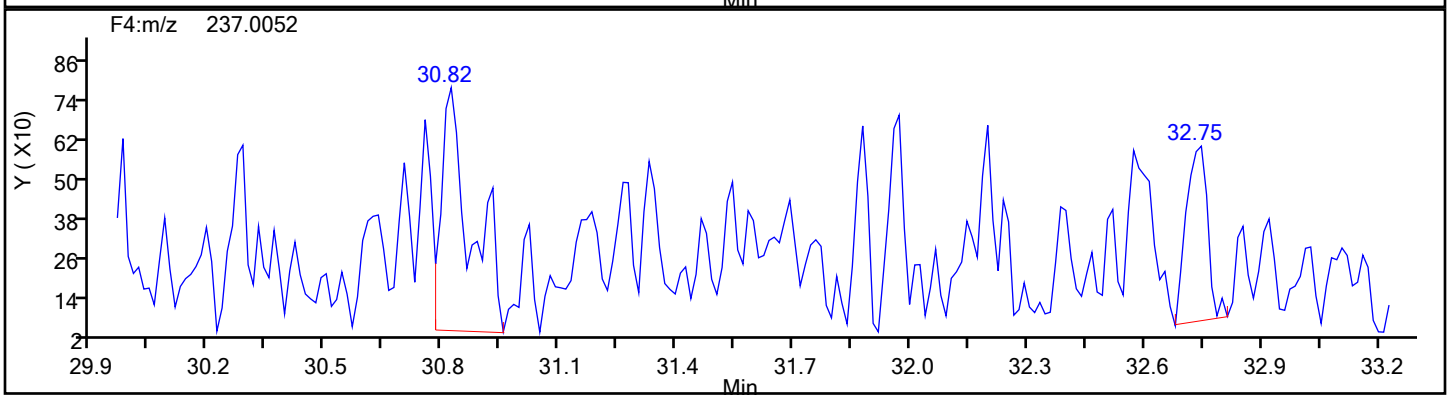
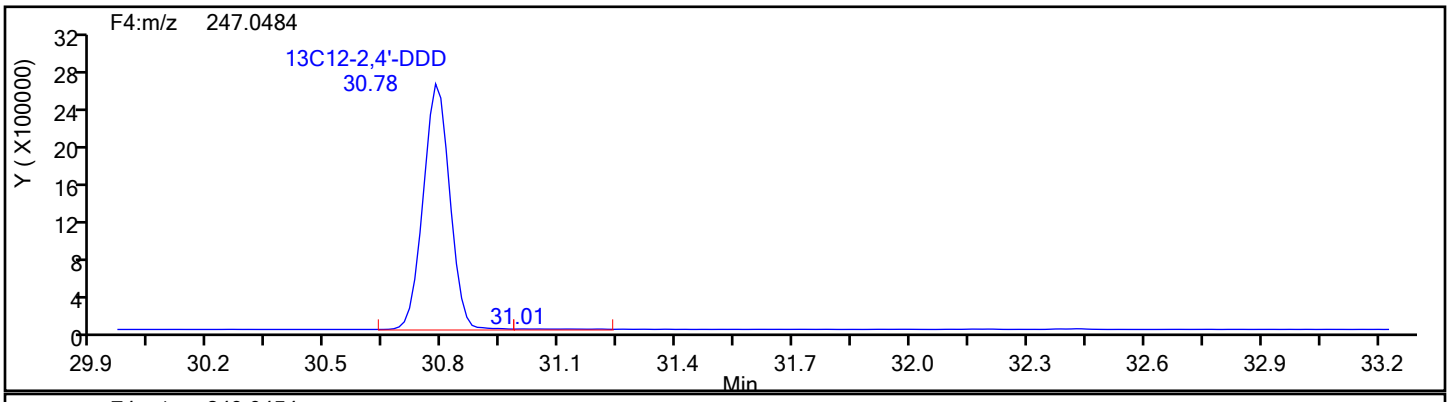
Column Type:	RTX-5	Column Dia:	0.32 mm

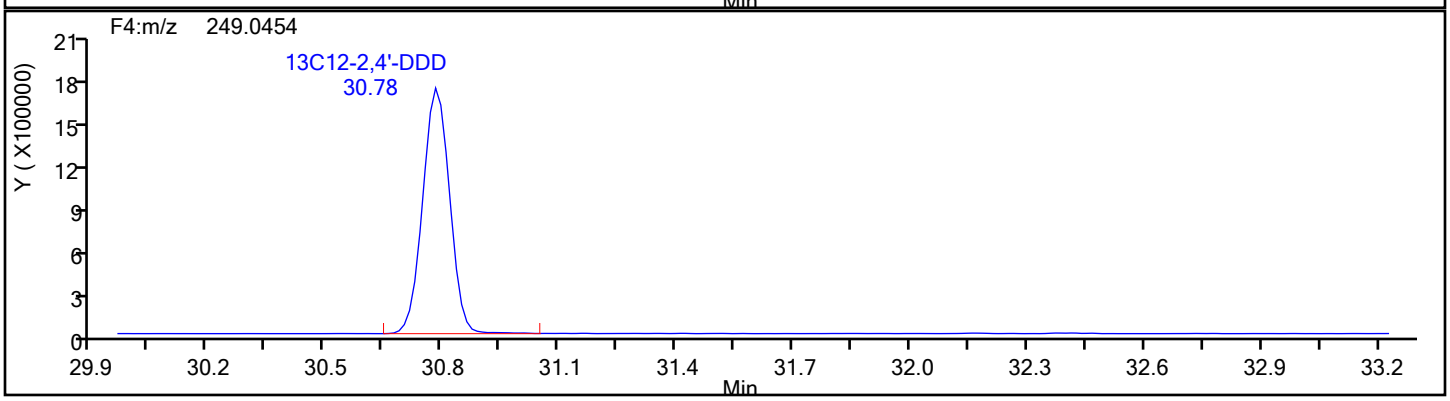
2,4'-DDD





2,4'-DDD Standards





Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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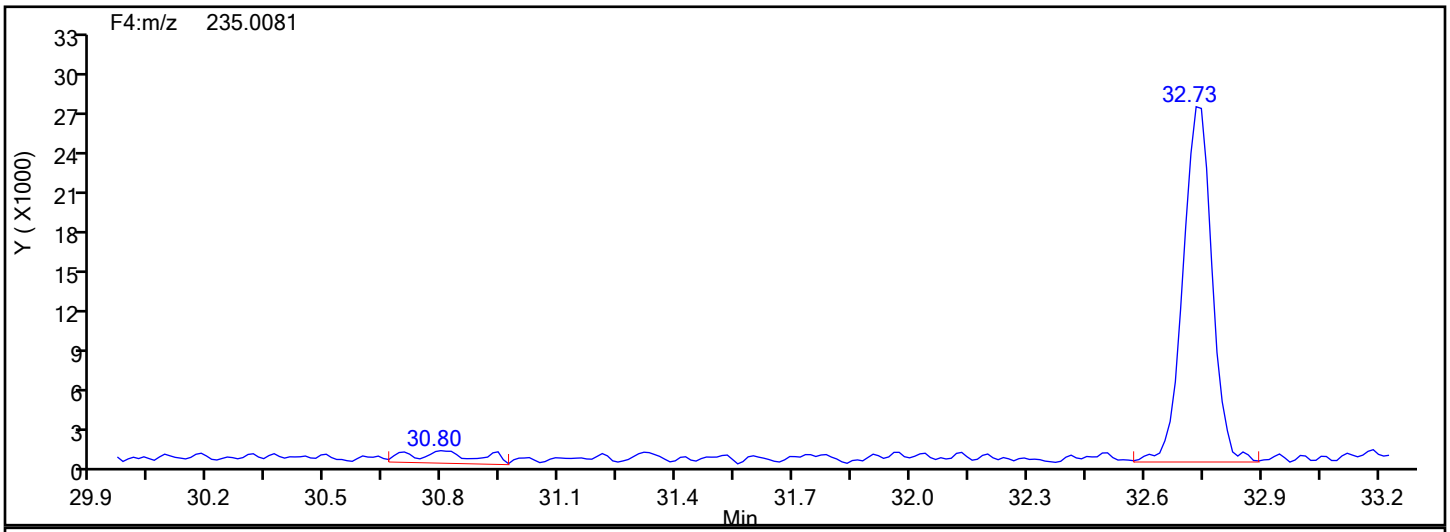
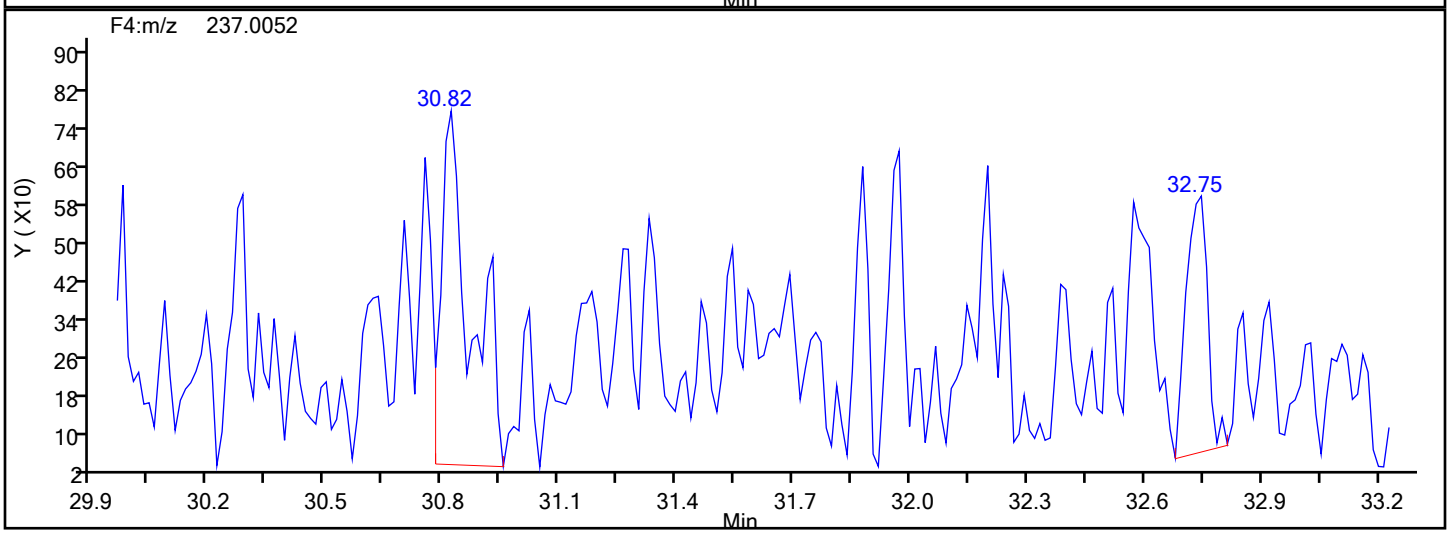
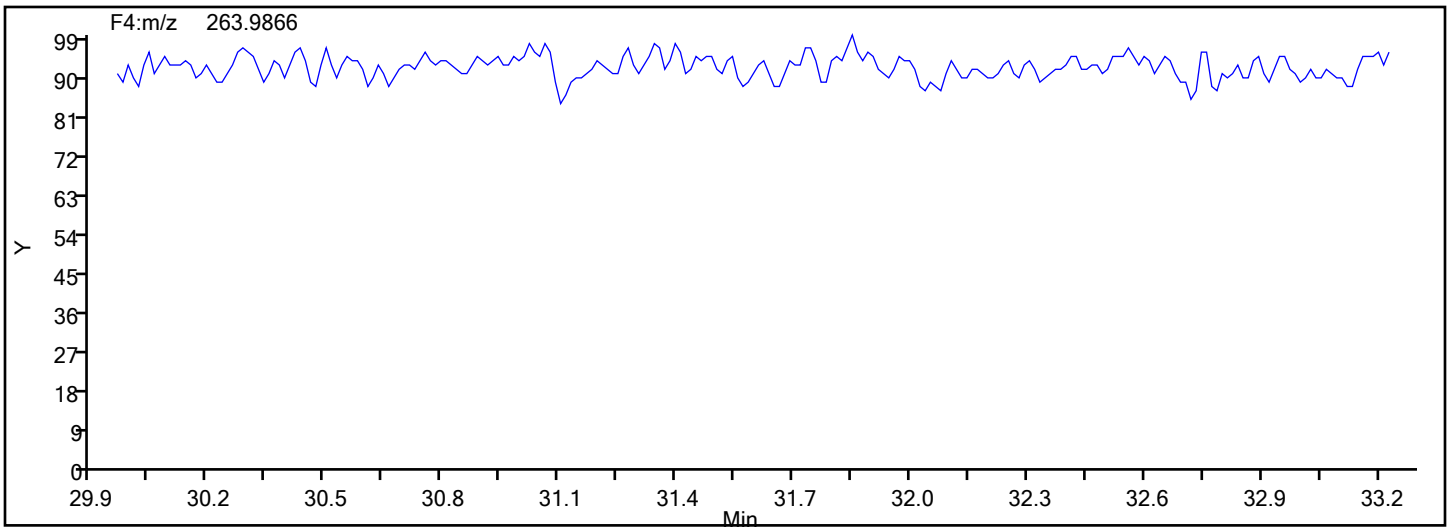
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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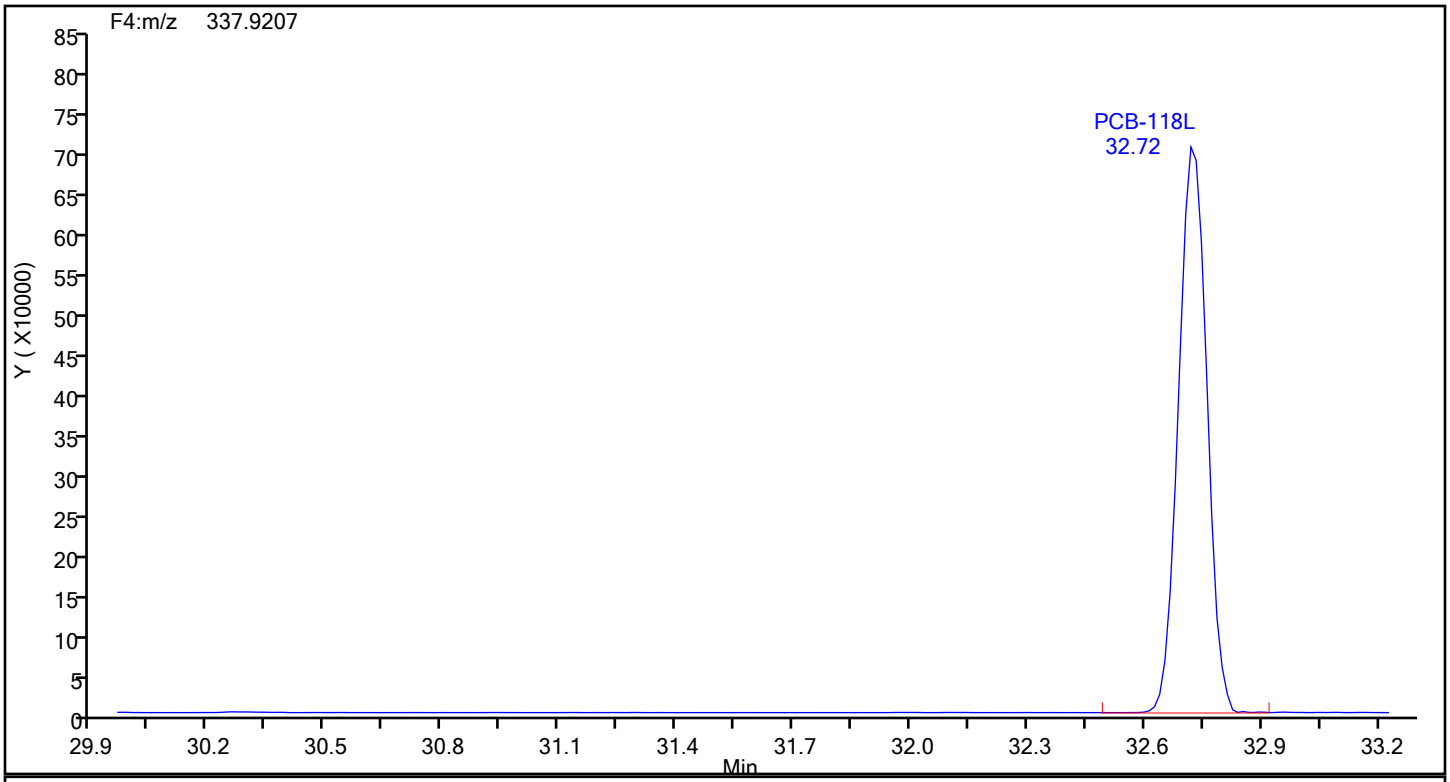
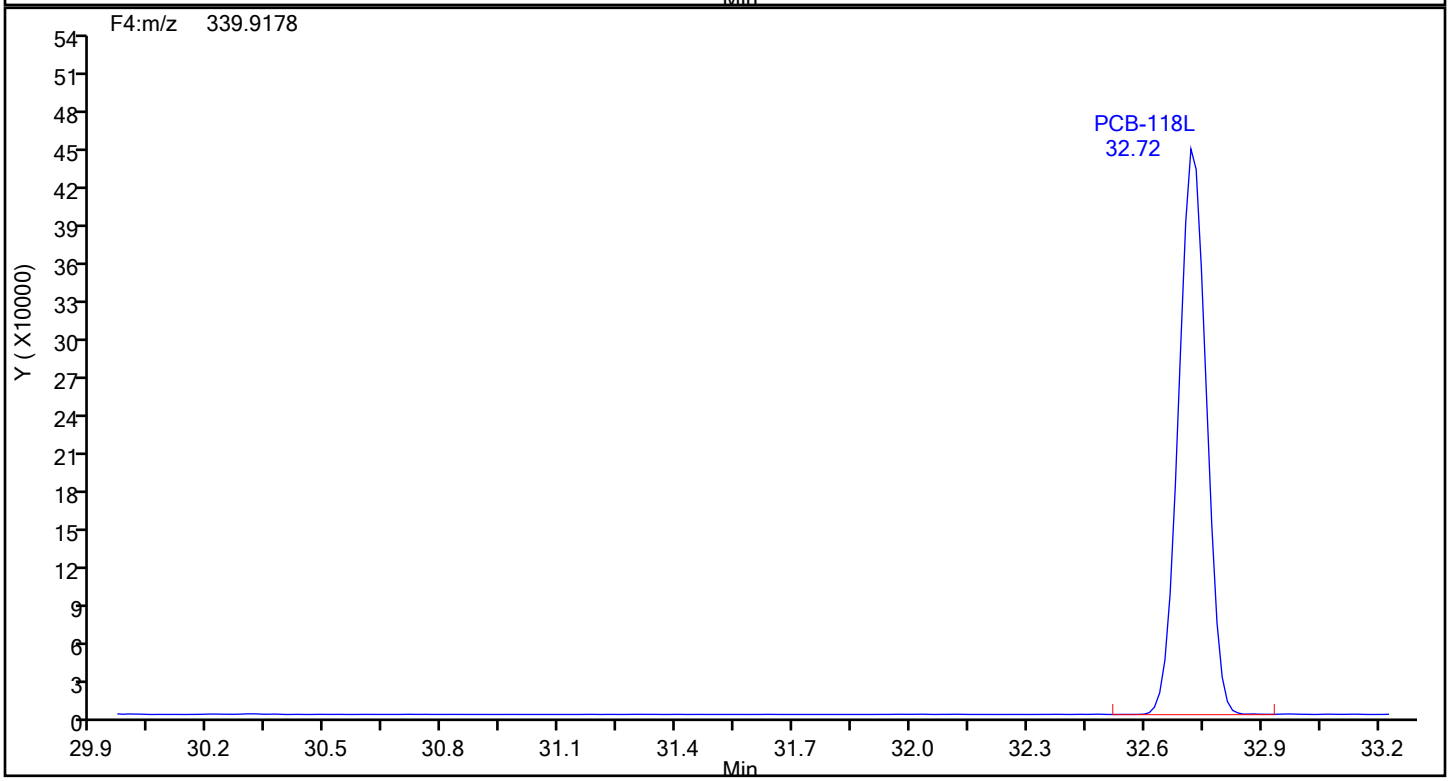
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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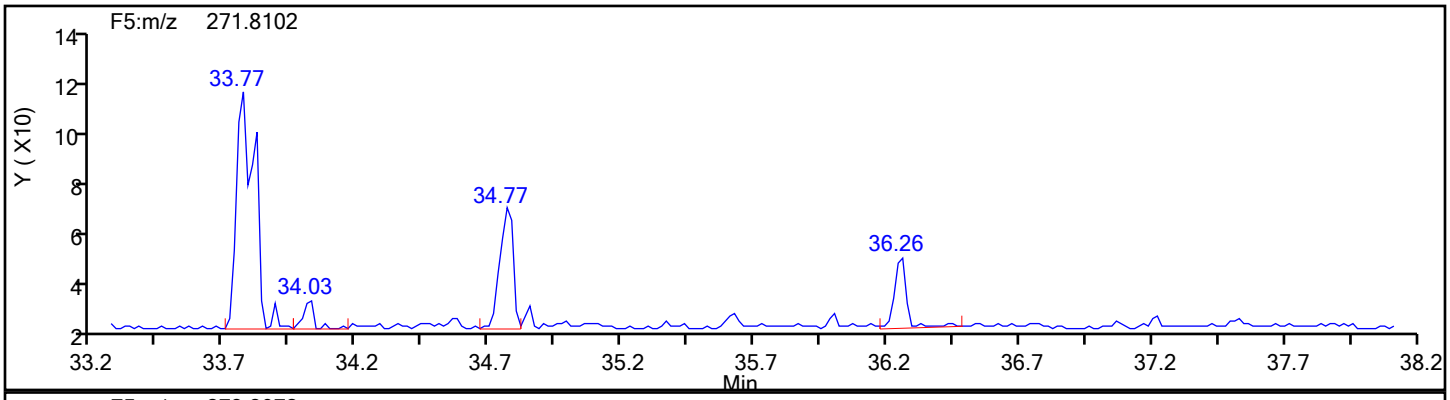
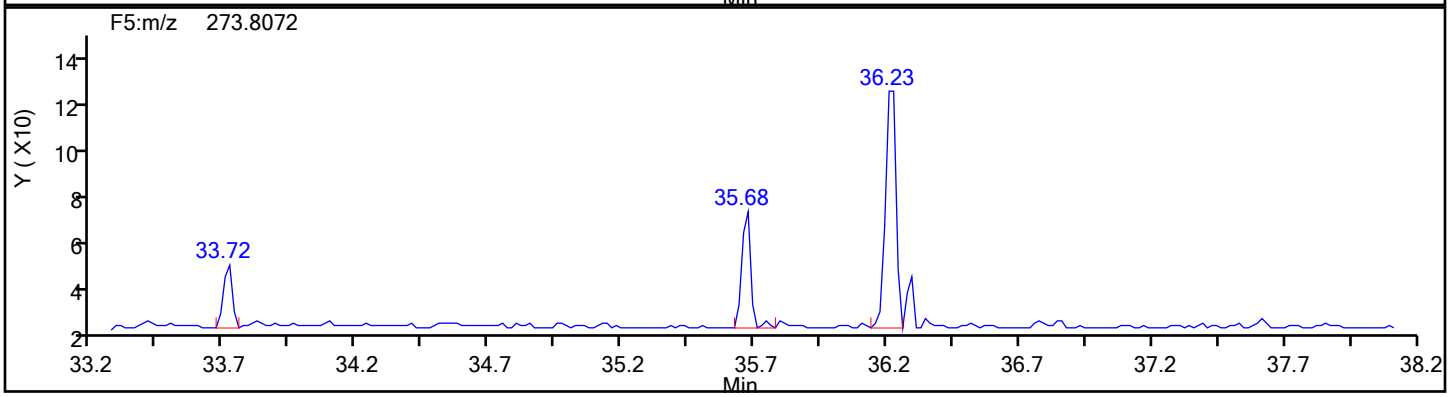
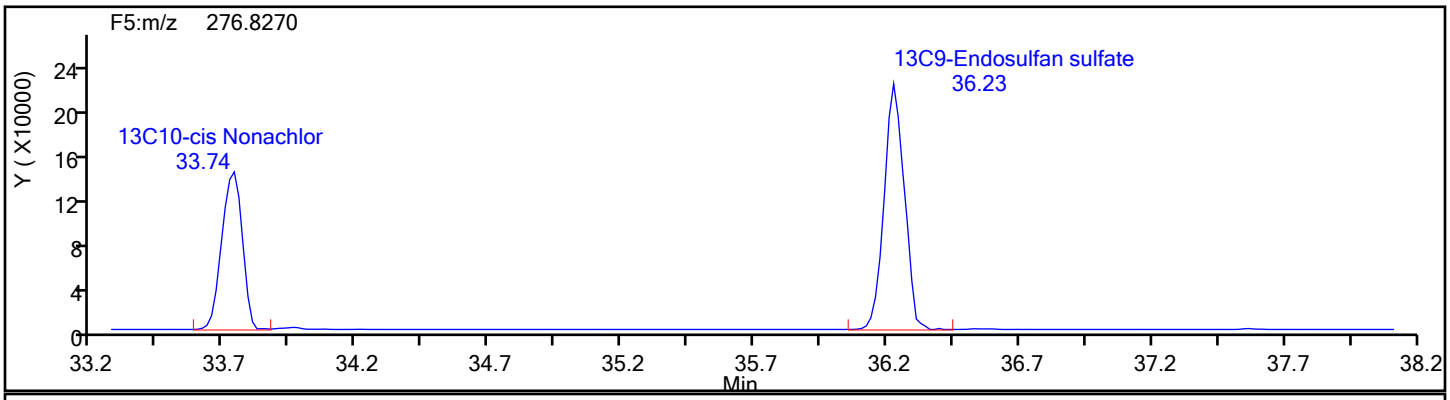
Column Type:	RTX-5	Column Dia:	0.32 mm

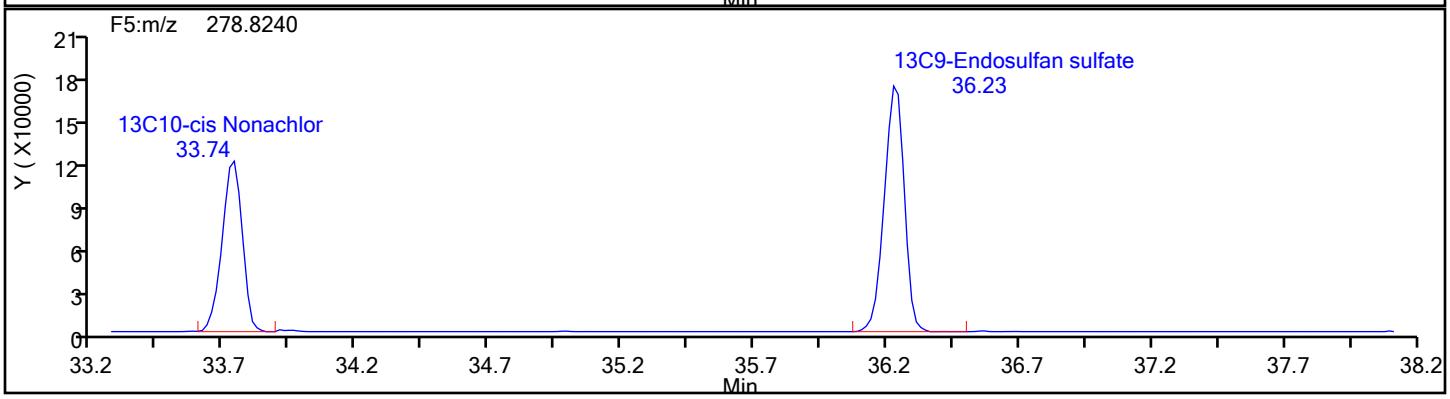
Nonachlor





Nonachlor Standards





Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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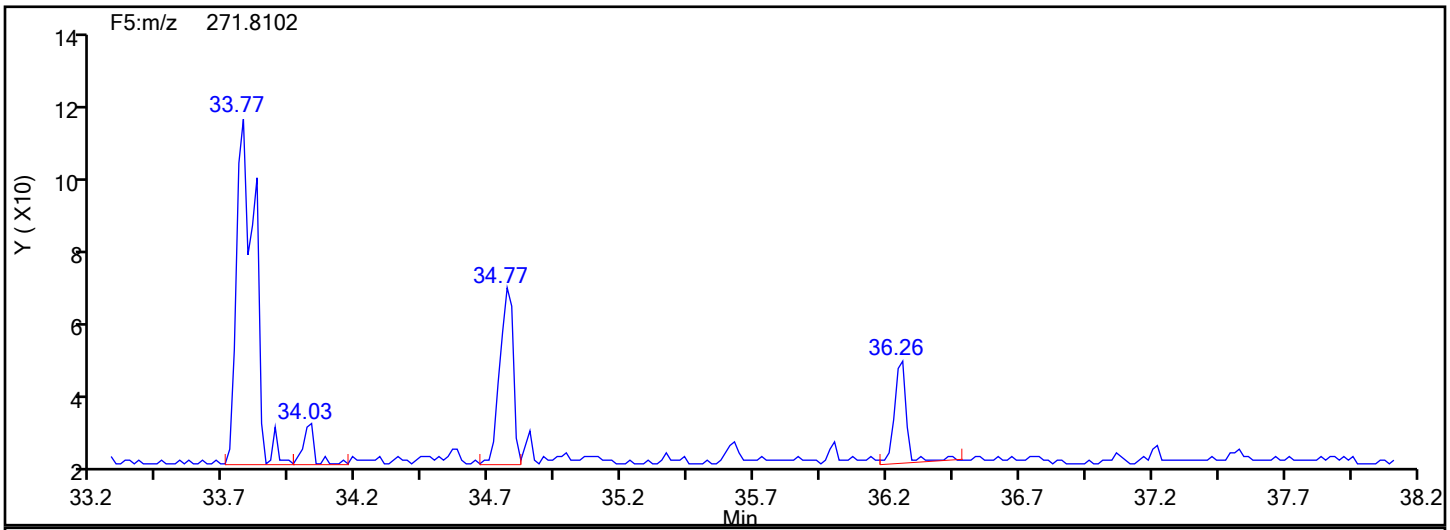
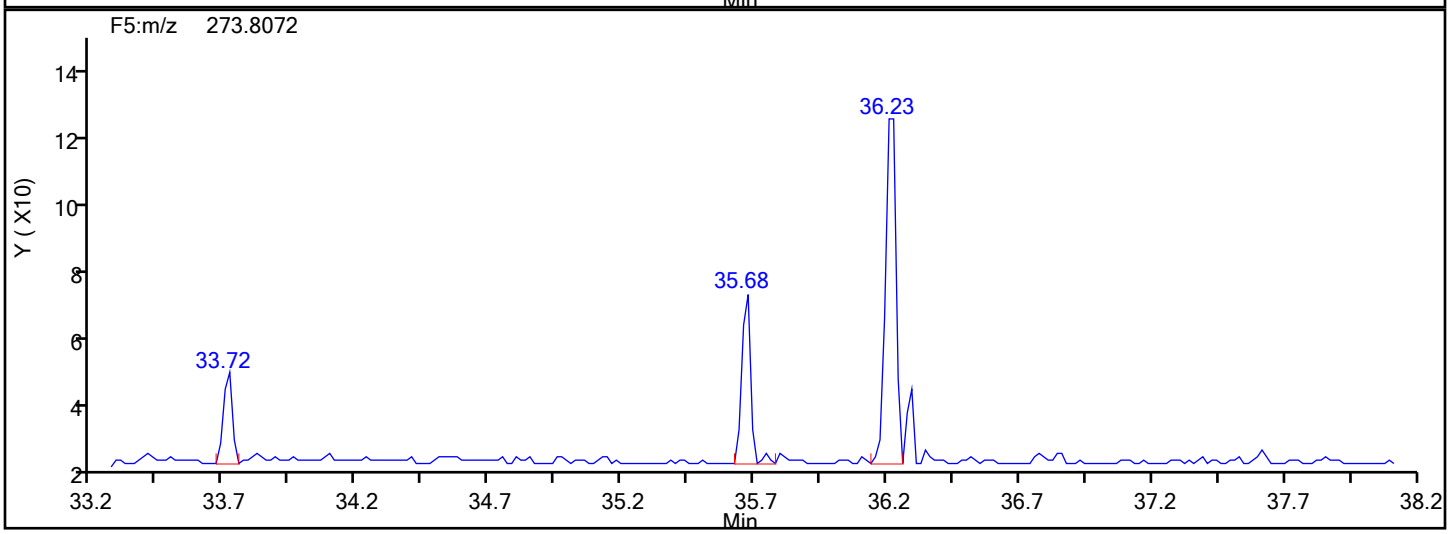
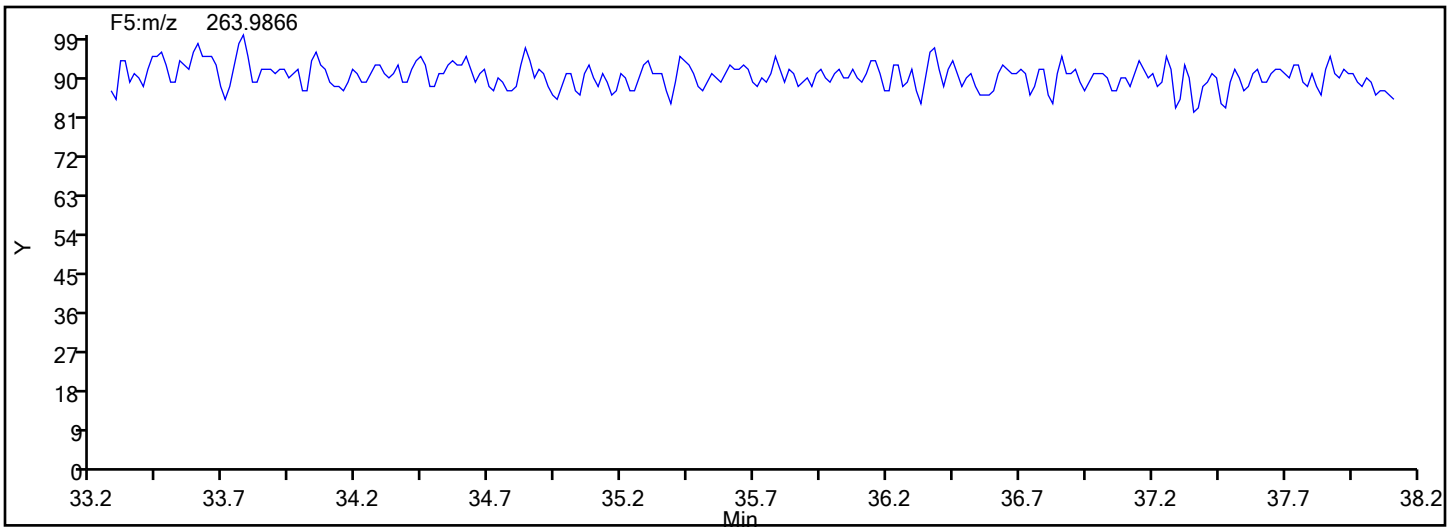
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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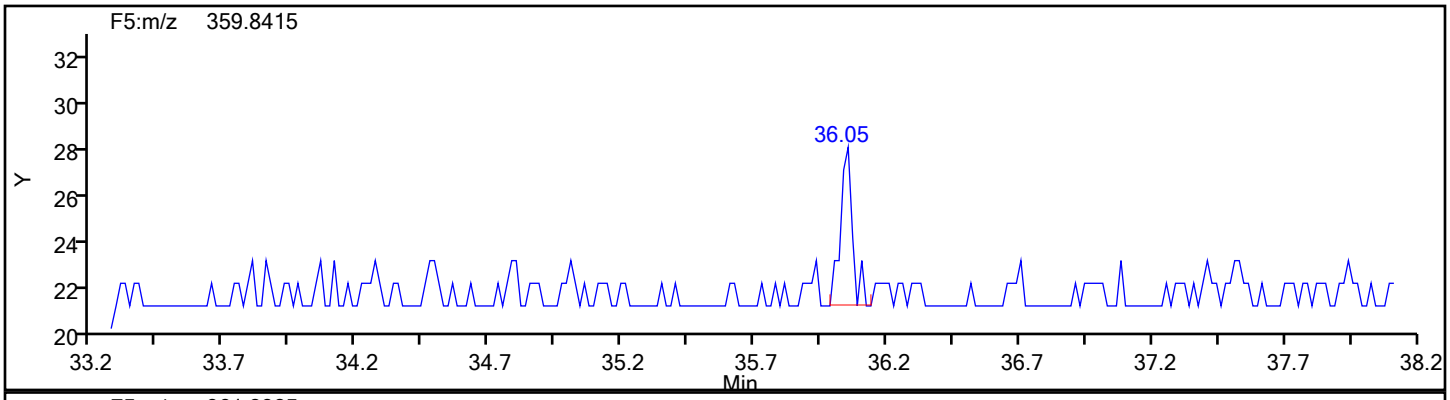
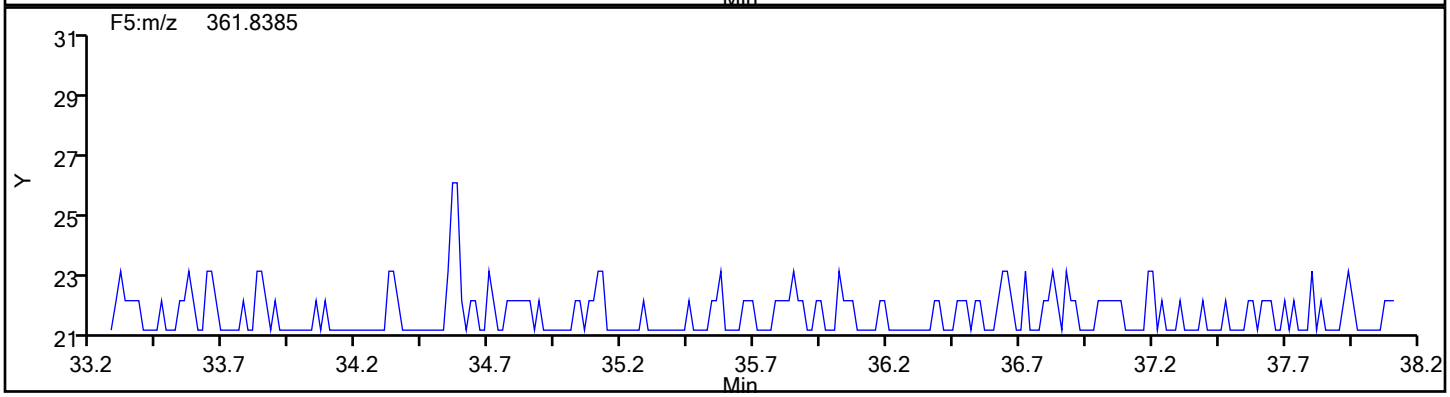
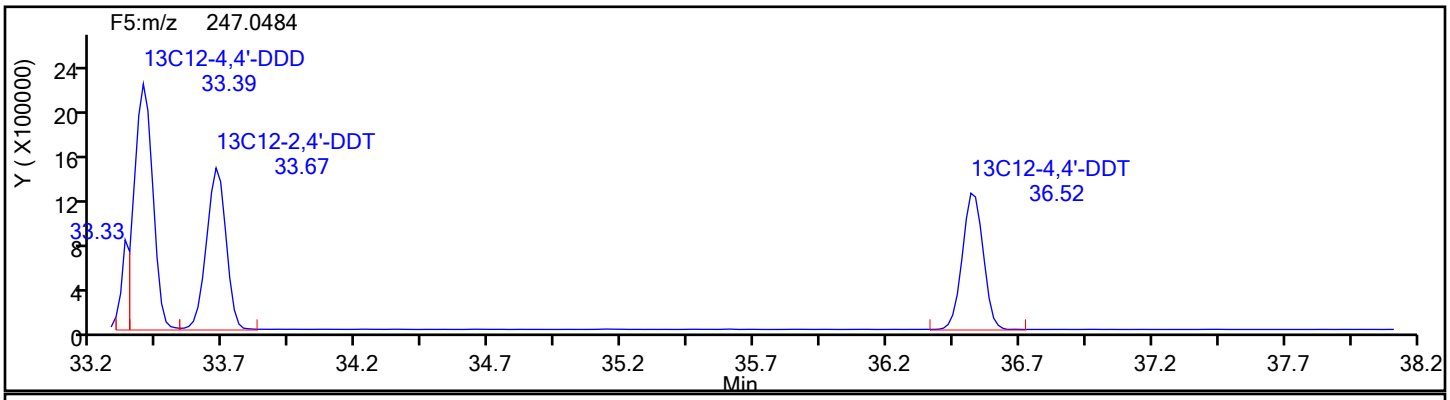
Column Type:	RTX-5	Column Dia:	0.32 mm

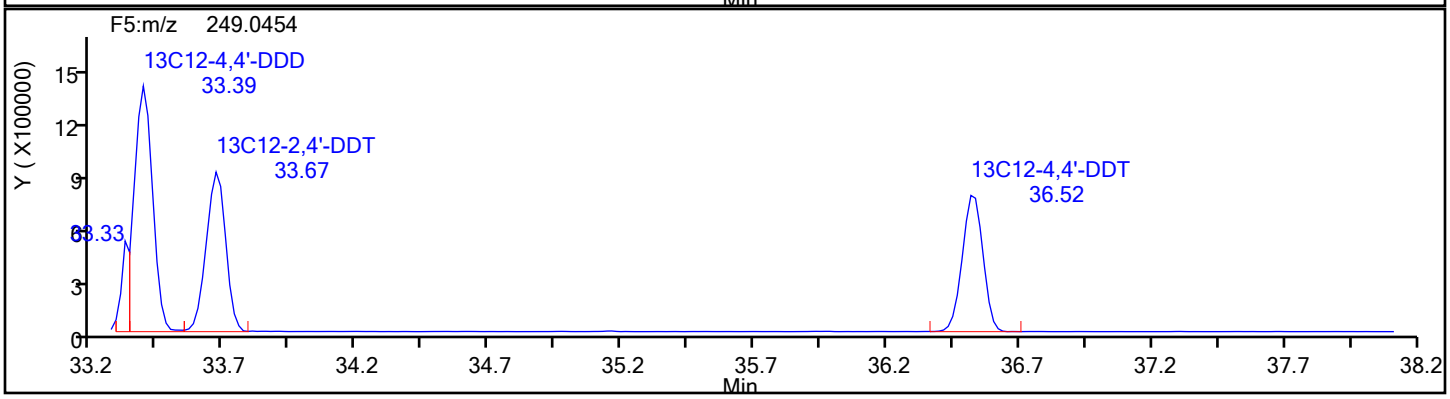
PCB-155





PCB-155 Standards



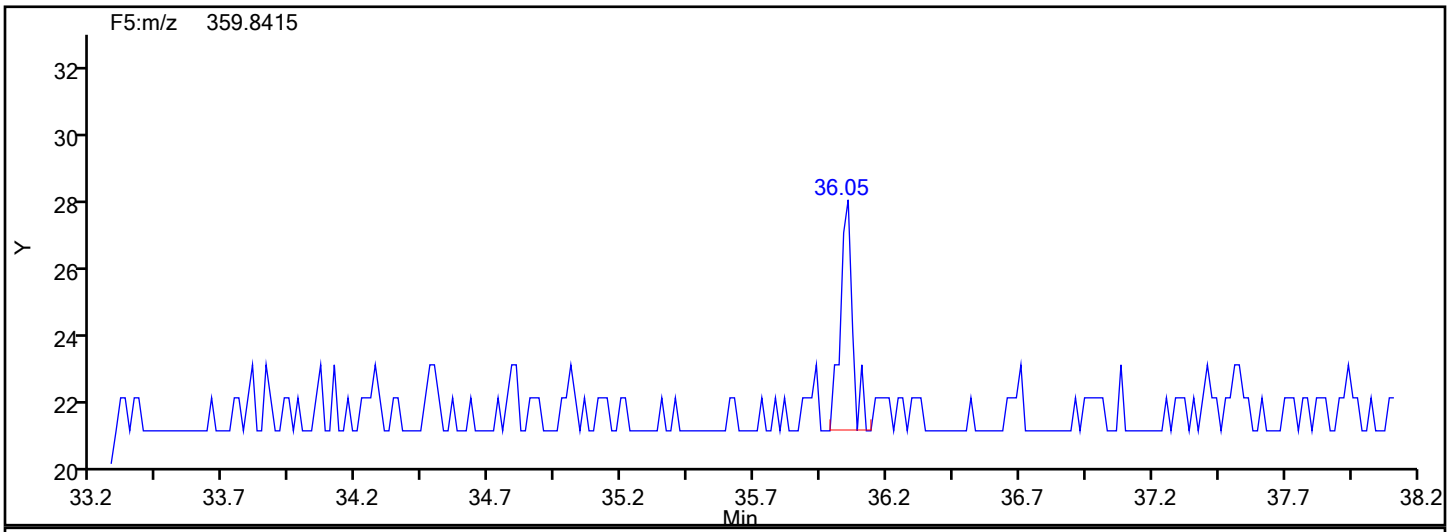


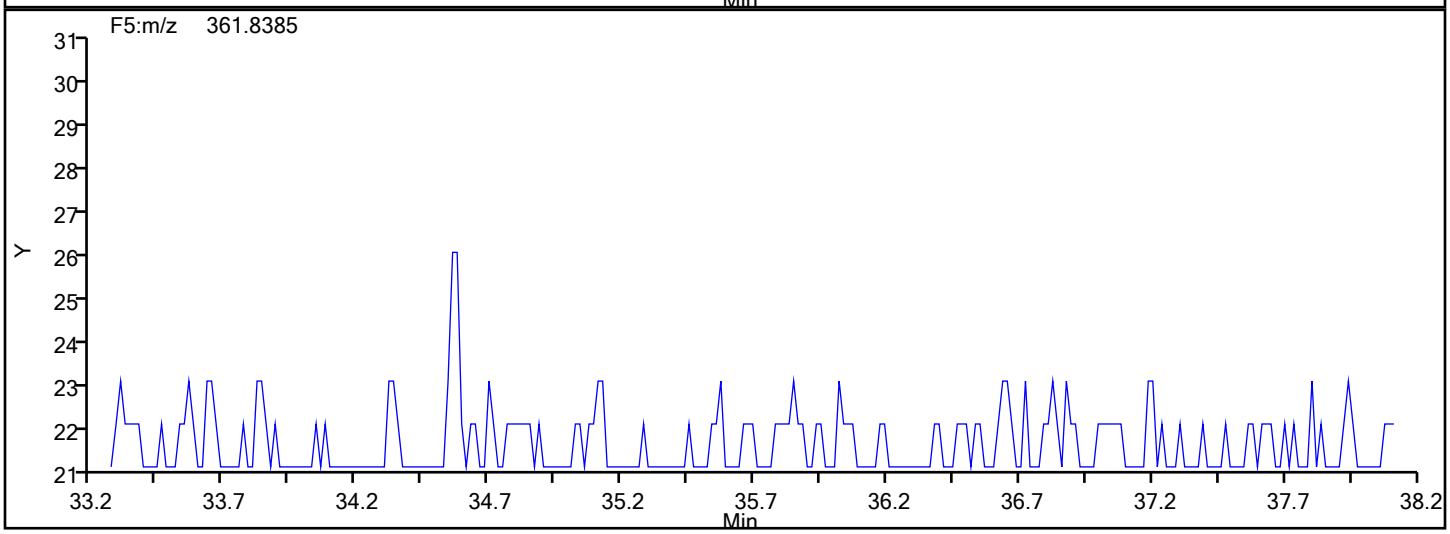
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

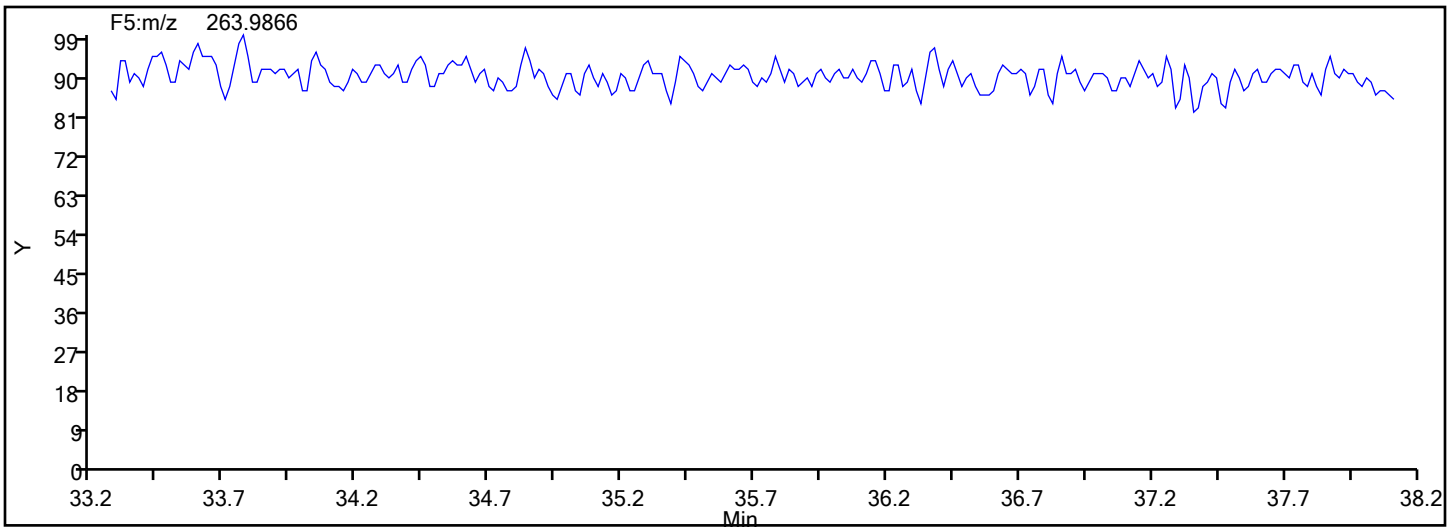
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



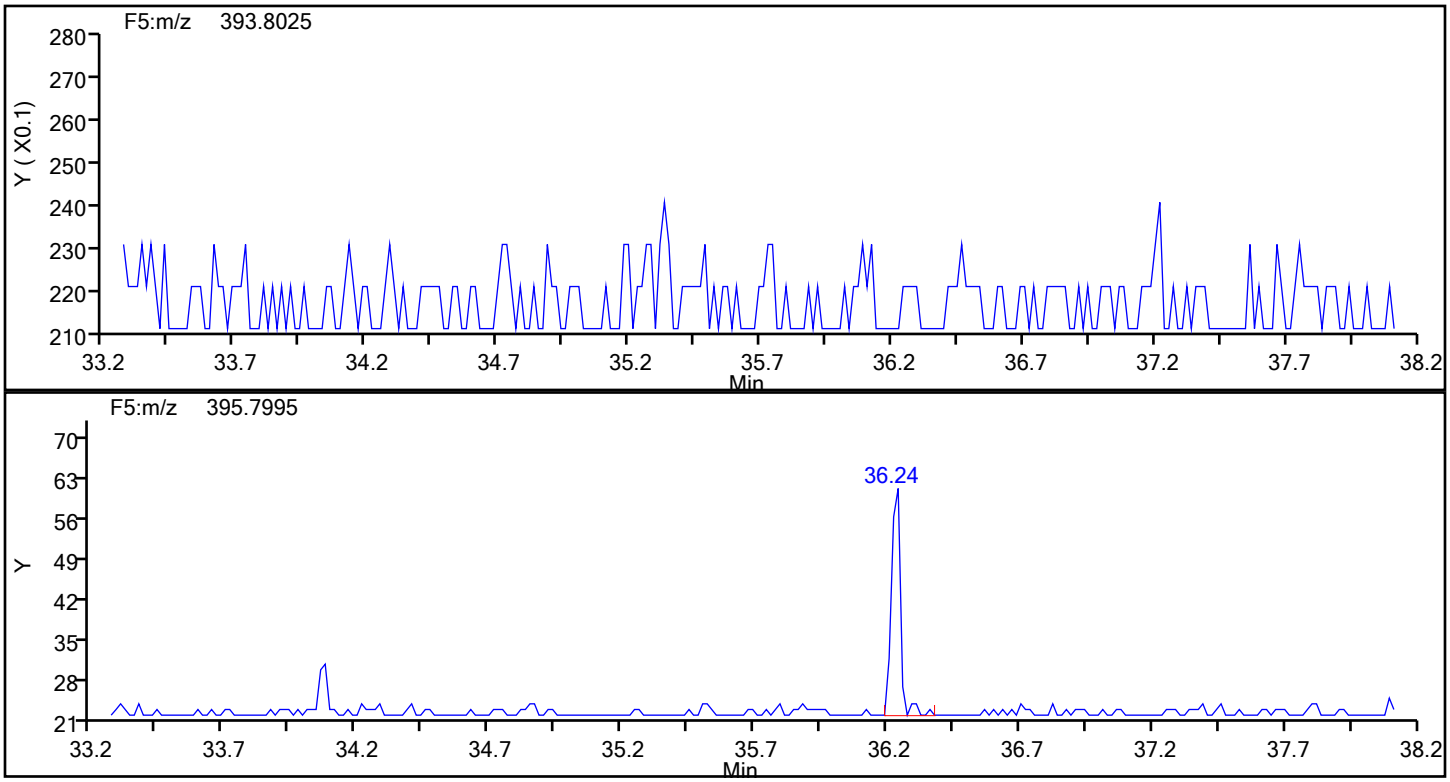
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

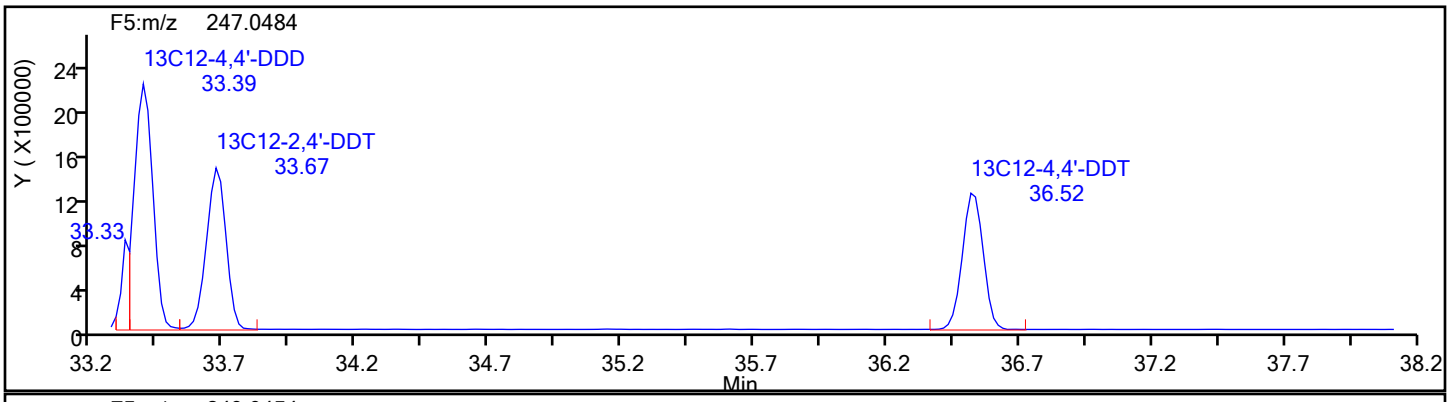
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

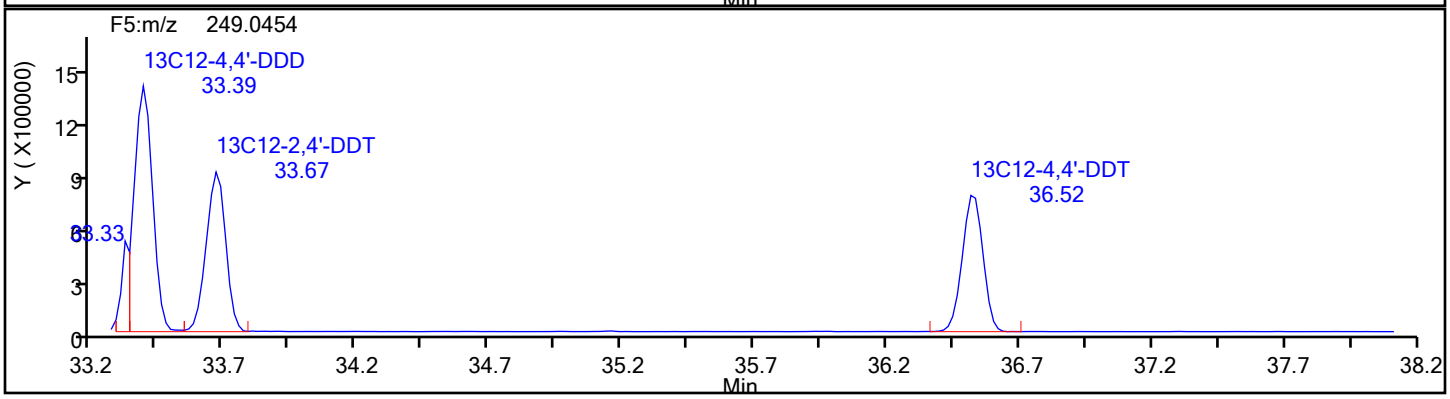
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



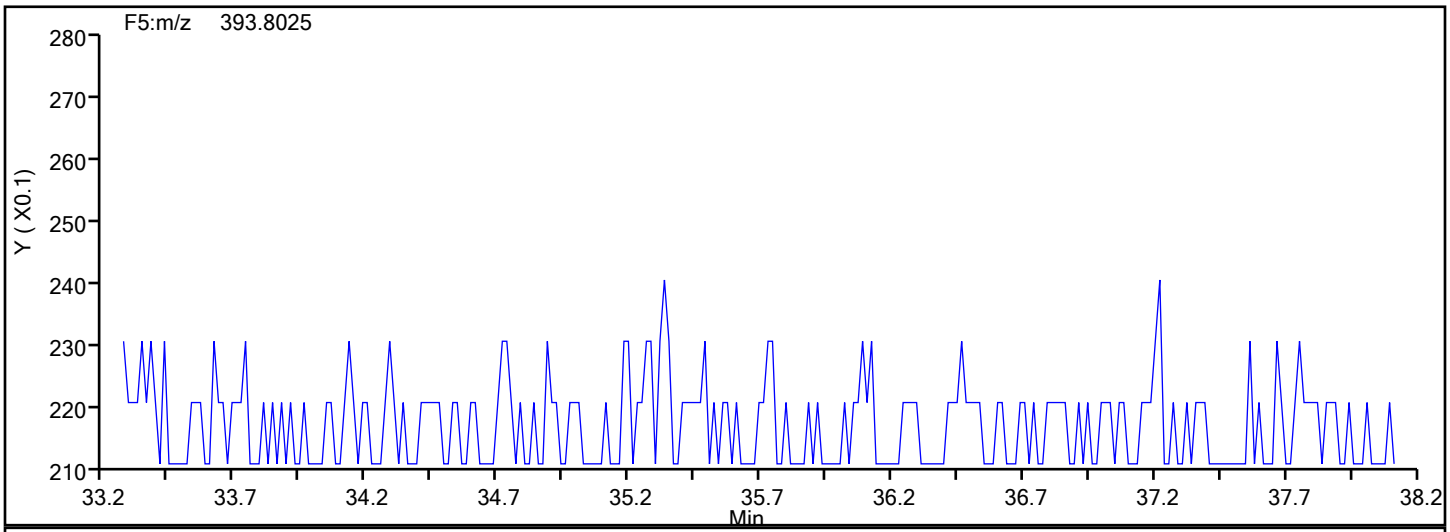


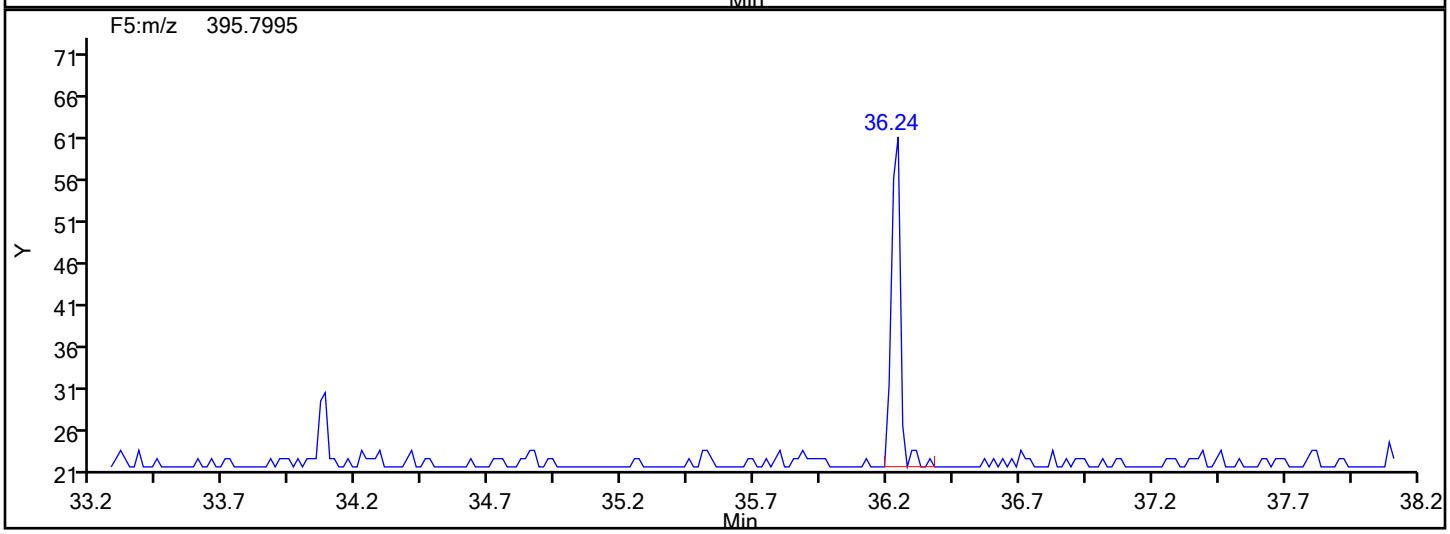
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

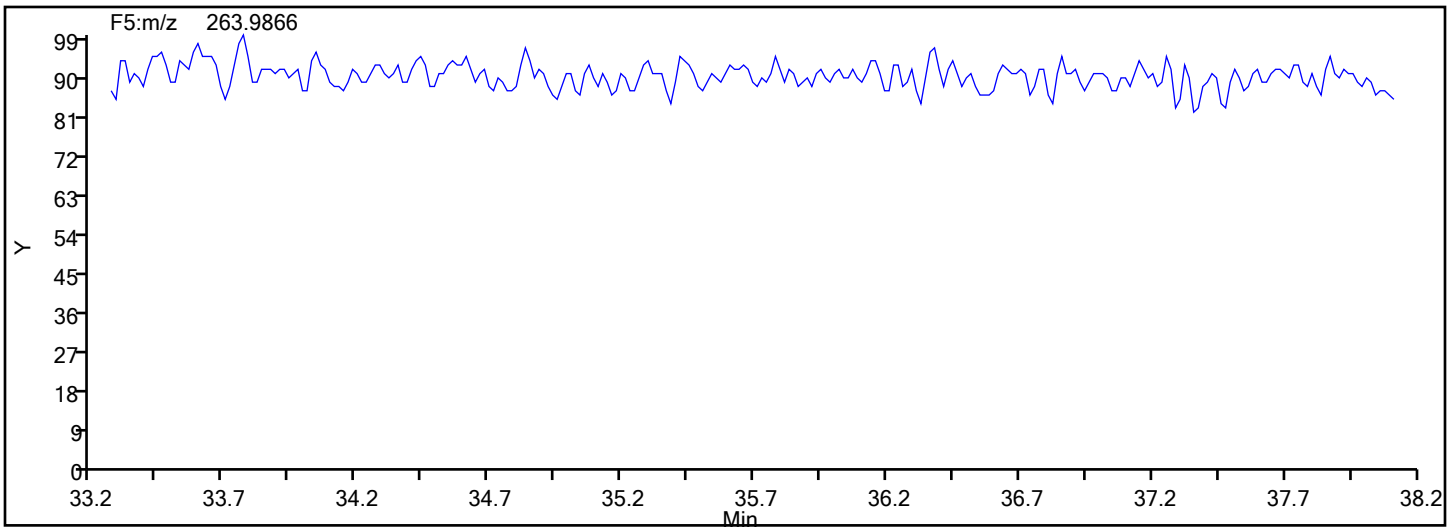
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



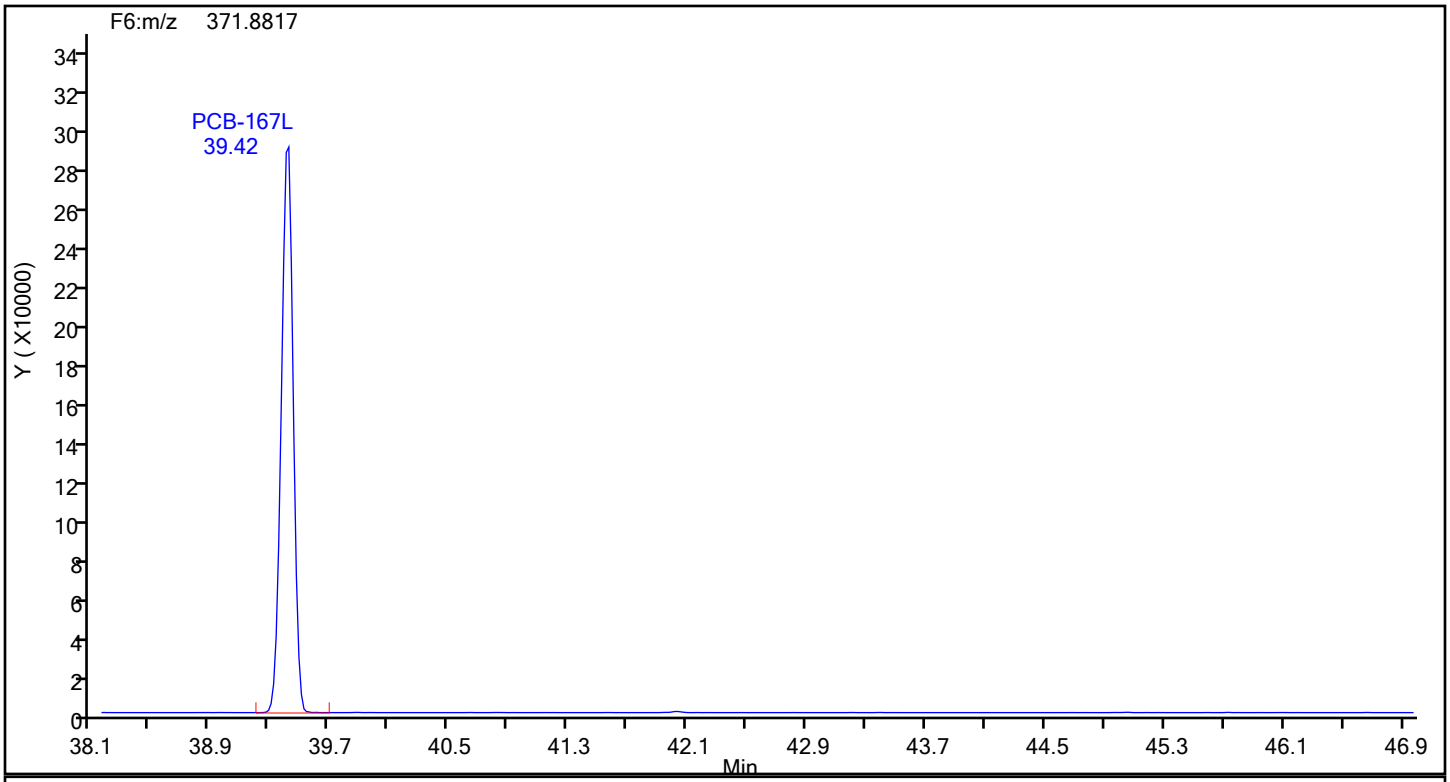
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

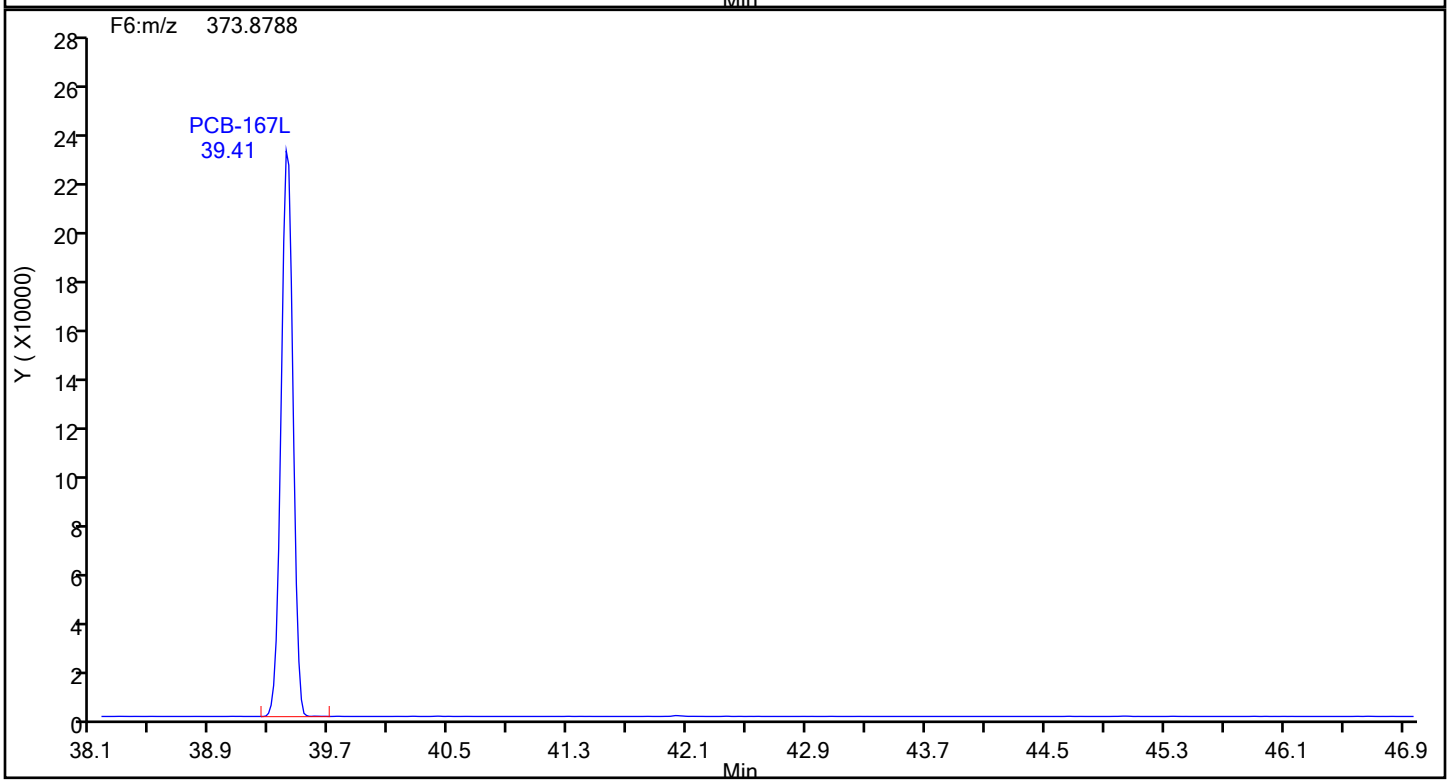
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





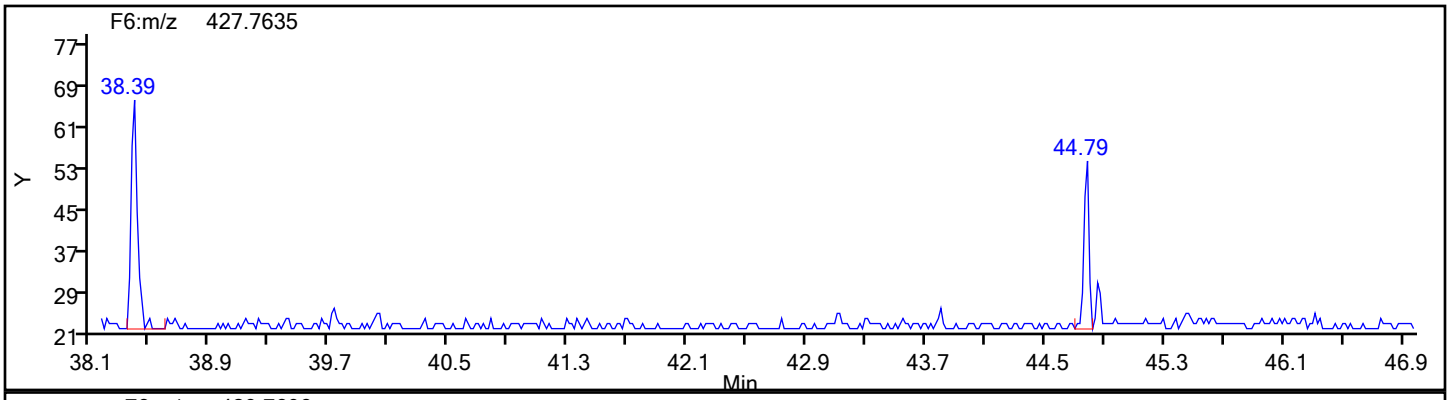
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

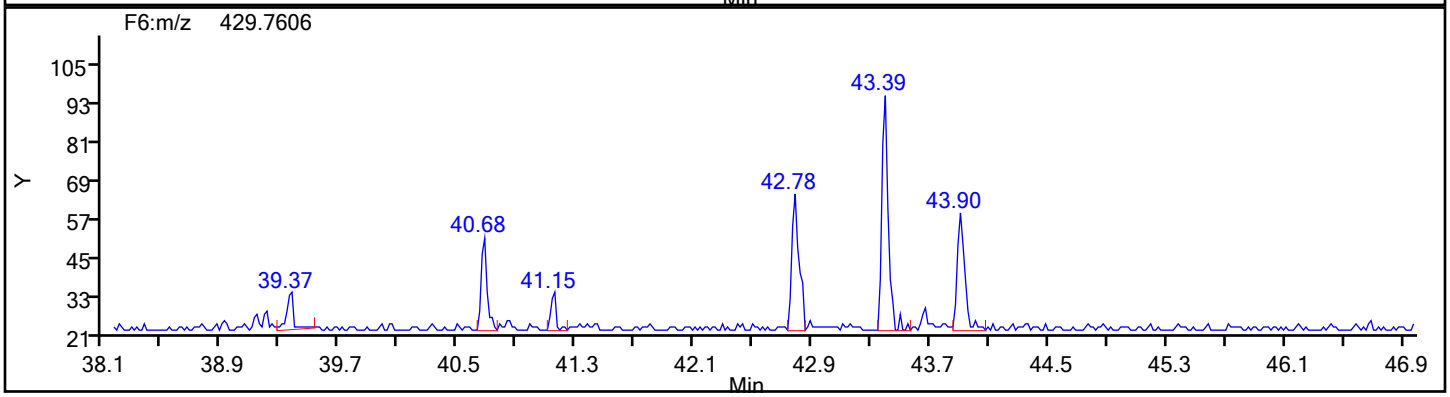
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

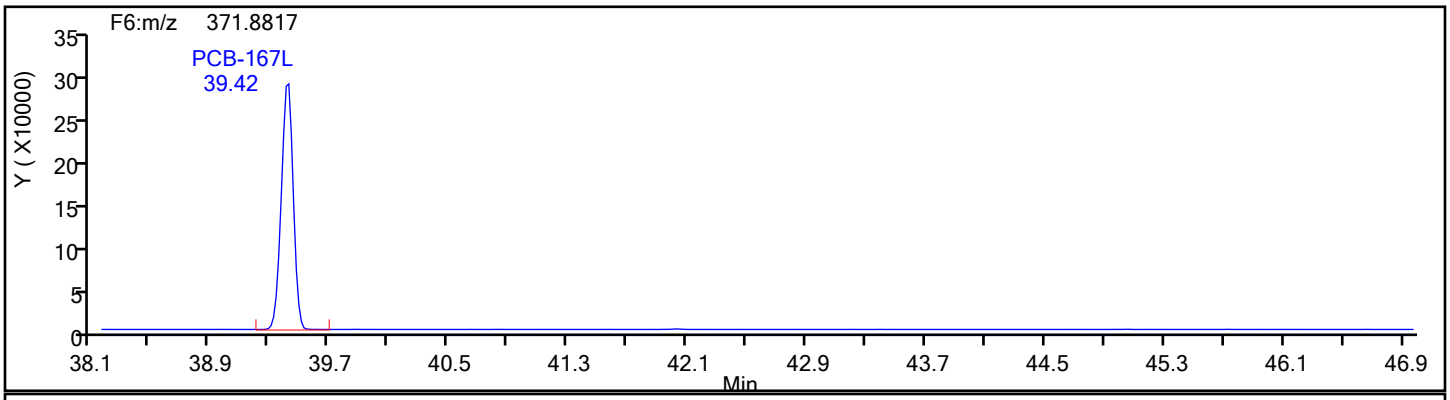
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

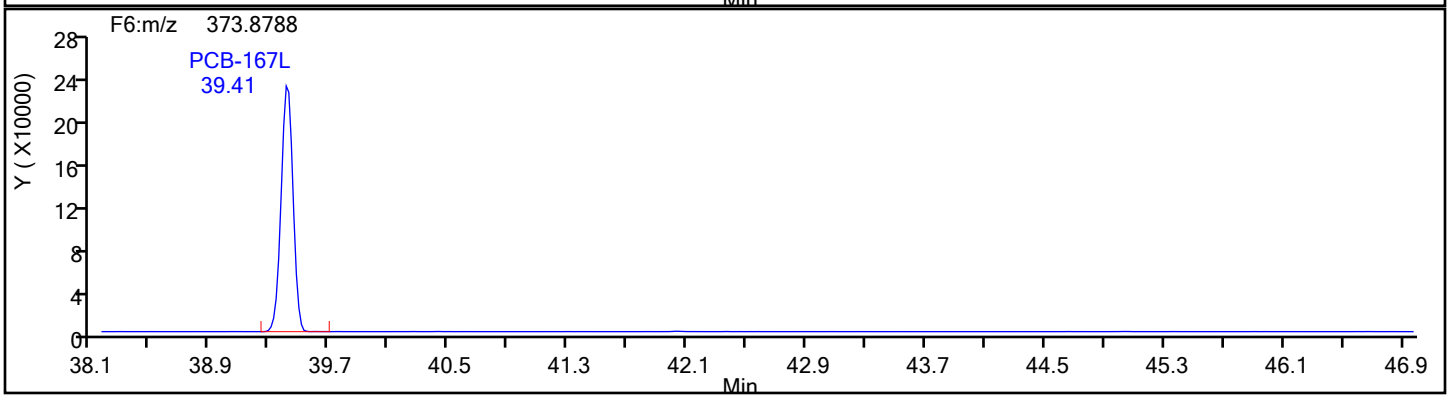
PCB-204





PCB-204 Standards



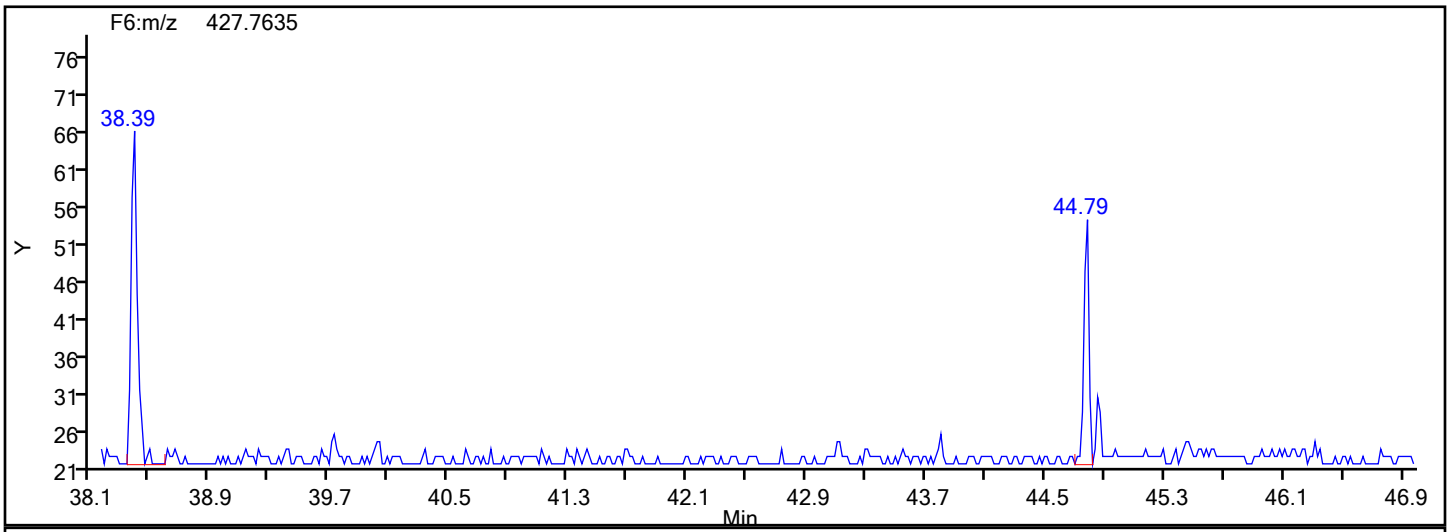


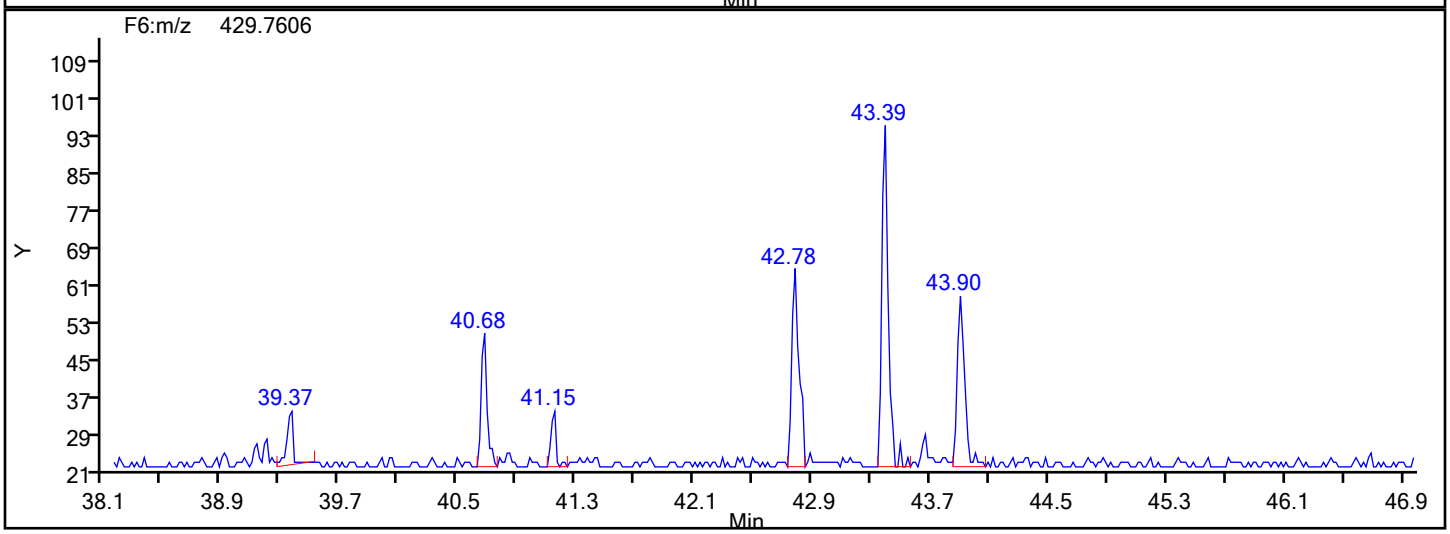
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

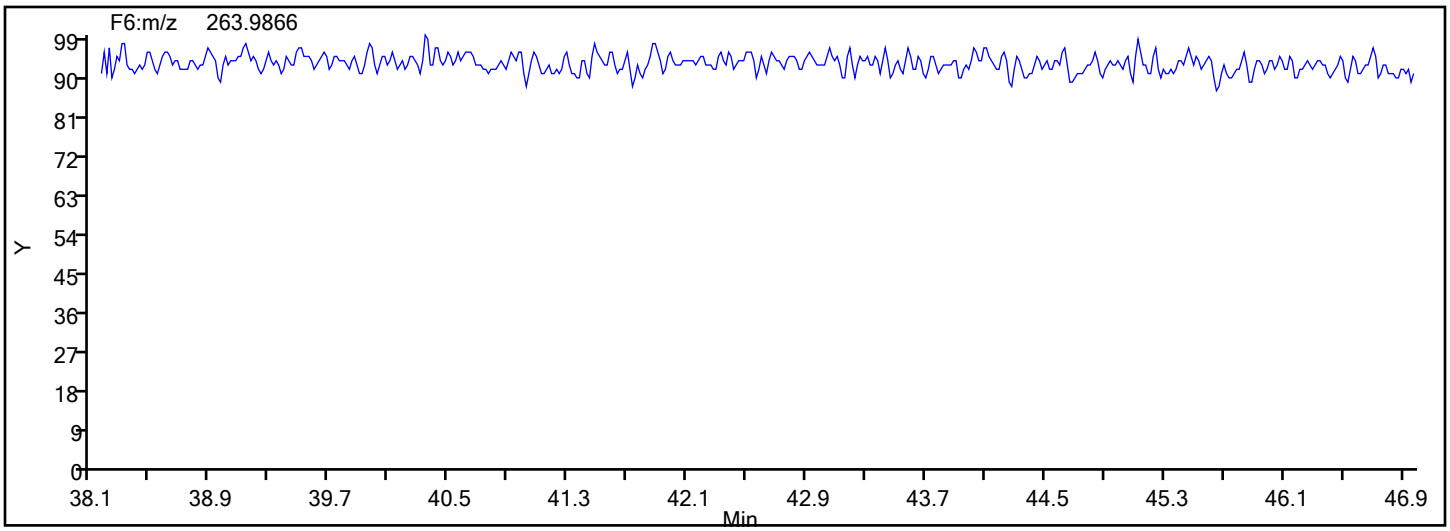
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d		
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



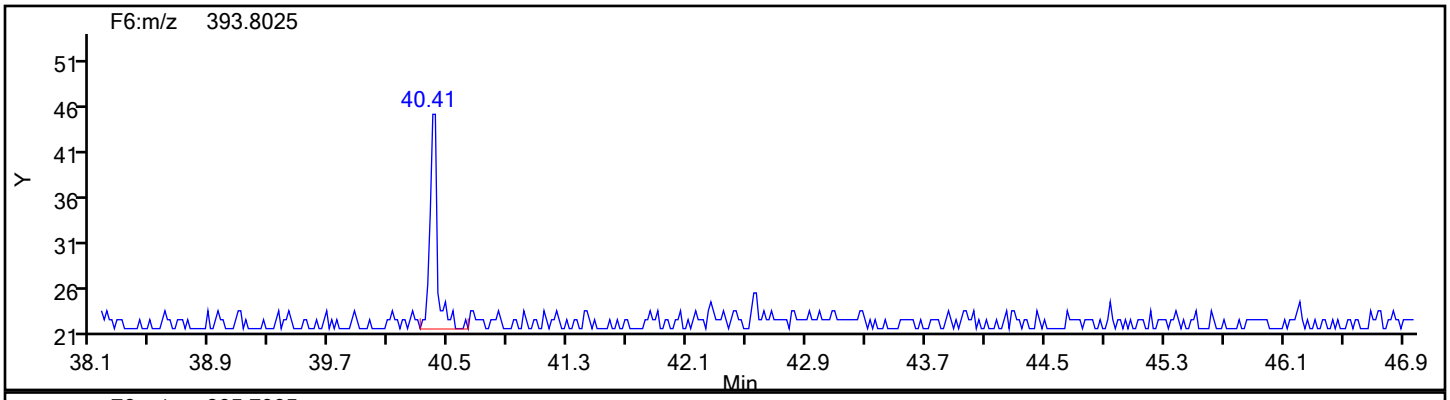
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

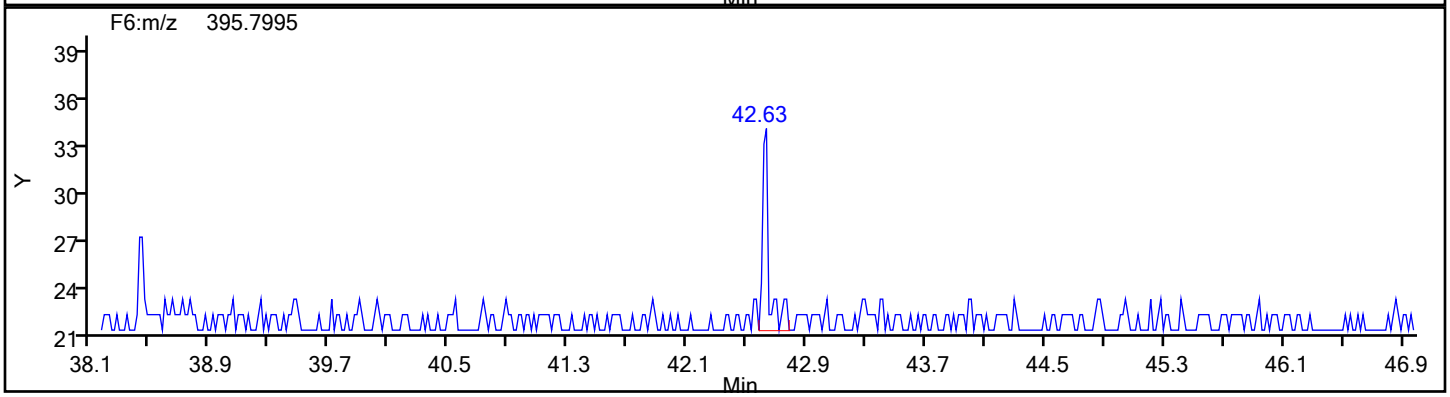
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d

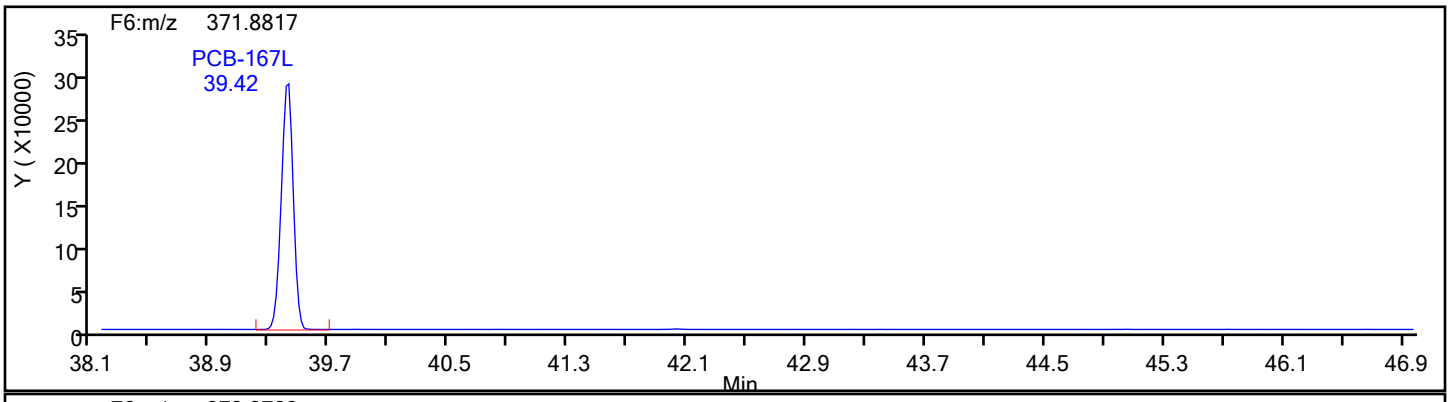
Injection Date:	02-May-2025 15:45:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	2
Column Type:	RTX-5	Column Dia:	0.32 mm

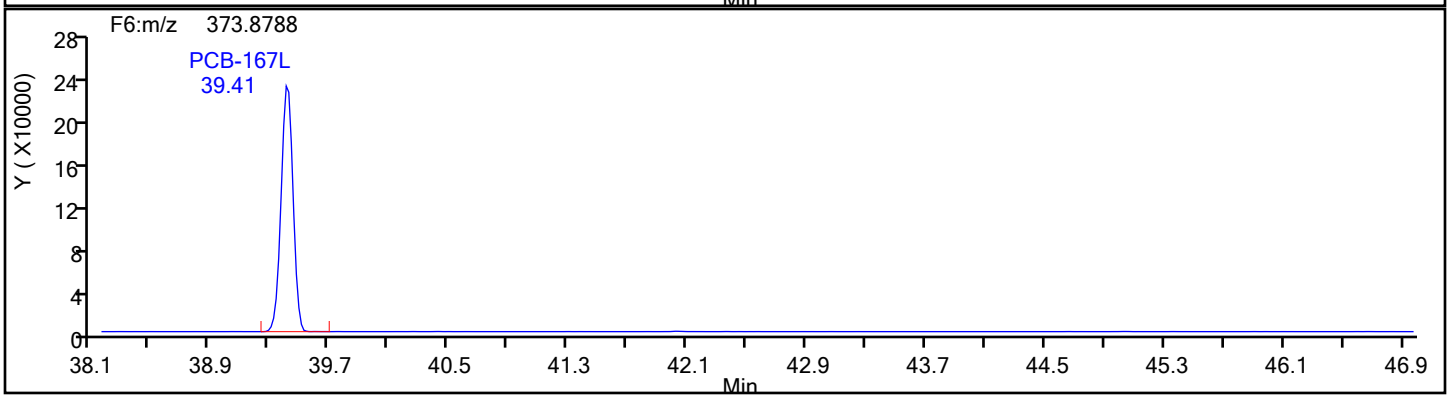
PCB-192





PCB-192 Standards



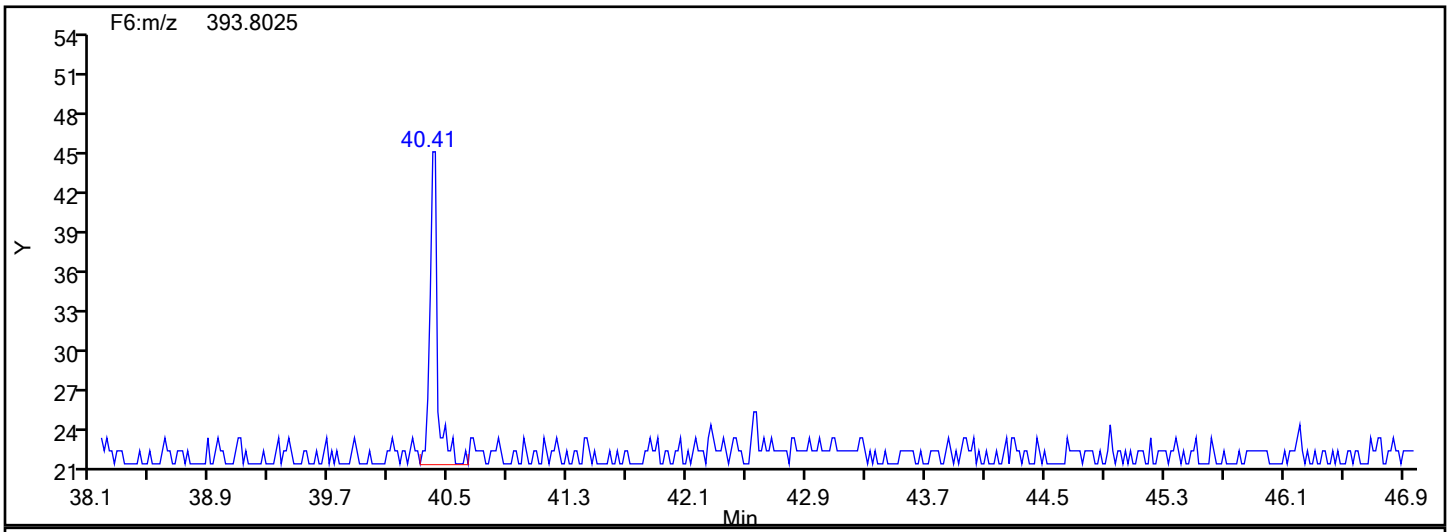


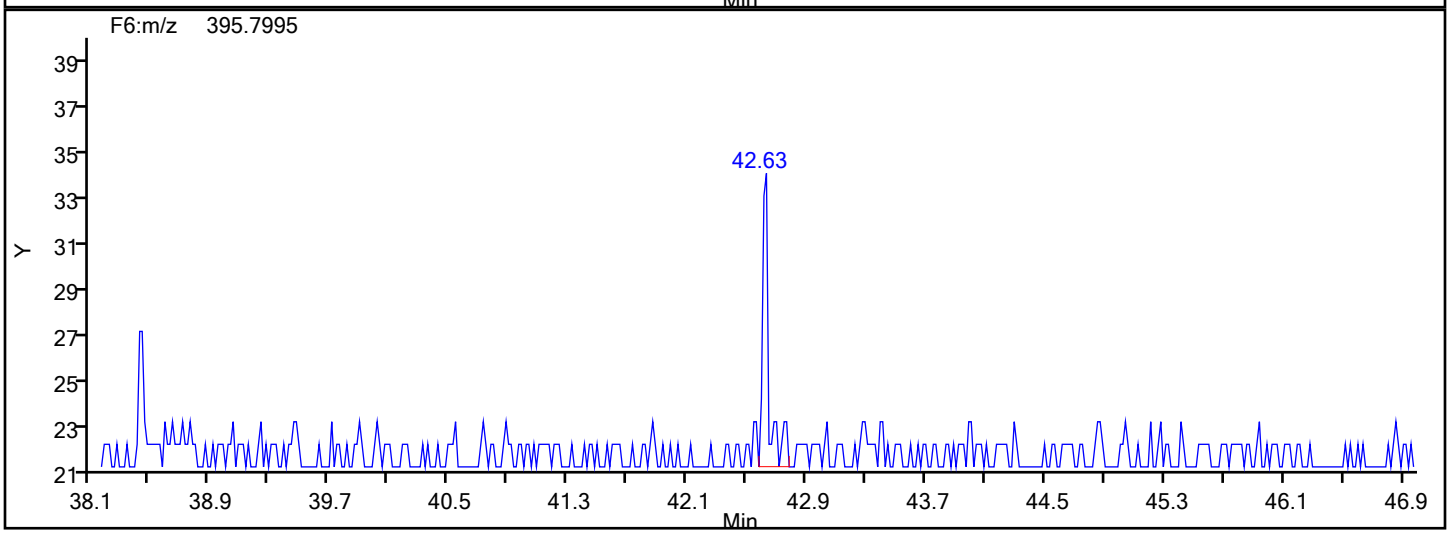
Report Date: 05-May-2025 18:00:04 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

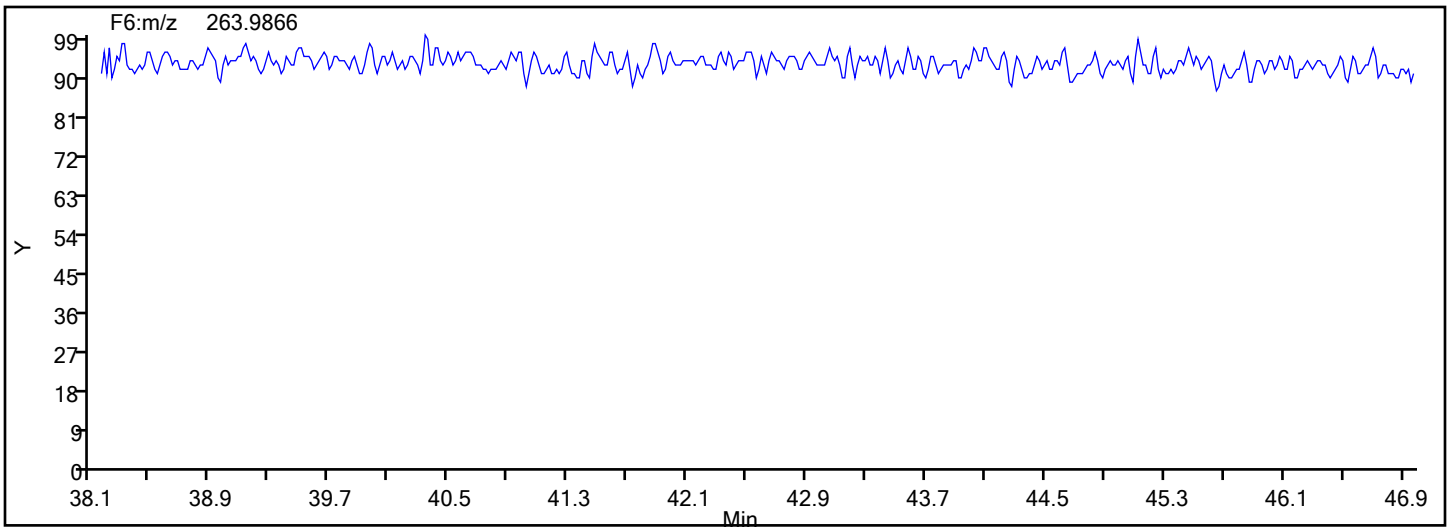
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip2.d
Injection Date: 02-May-2025 15:45:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 2
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 02-May-2025 16:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:07 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:23:39

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	7686853	0.80	0.2427	101.6	101.6	0.2277	0.2277	102	
D 13C6-beta BHC	18:21	6163475	0.82	0.1892	104.4	104.4	0.2920	0.2920	104	
D 13C6-gamma BHC	18:39	6298336	0.80	0.2029	99.5	99.5	0.2722	0.2722	99.50	
D 13C6-delta BHC	19:36	5543799	0.83	0.1718	103.4	103.4	0.3216	0.3216	103	
D 13C10-Heptachlor	21:50	5214265	1.29	0.1629	102.6	102.6	0.0182	0.0182	103	
D 13C6-Hexachlorobenzene	17:42	8816594	1.30	0.2759	102.5	102.5	0.000168	0.000168	102	
D 13C12-Aldrin	23:42	4772408	1.60	0.1517	100.9	100.9	0.0361	0.0361	101	
D 13C10-oxy Chlordane	26:07	423567	1.09	0.0708	101.4	101.4	0.0160	0.0160	101	
D 13C10-cis Heptachlor Epoxide	26:05	1612945	1.18	0.2676	102.1	102.1	0.007031	0.007031	102	
D 13C12-2,4'-DDE	27:54	26232675	1.57	4.5202	98.3	98.3	0.0784	0.0784	98.27	
D 13C10-trans Chlordane	27:36	1930745	1.29	0.3223	101.4	101.4	0.001634	0.001634	101	
D 13C10-cis Chlordane	28:39	1752463	1.24	0.2976	99.7	99.7	0.001770	0.001770	99.71	
D 13C10-trans Nonachlor	28:57	1718909	1.29	0.2841	102.4	102.4	0.001854	0.001854	102	
D 13C9-Endosulfan I	28:29	543826	1.45	0.0899	102.5	102.5	0.005861	0.005861	102	
D 13C12-4,4'-DDE	30:07	17695083	1.54	3.1557	97.5	97.5	0.0772	0.0772	97.53	
D 13C12-4,4'-DDD	33:25	16726968	1.56	2.9265	99.4	99.4	0.0158	0.0158	99.41	
D 13C12-2,4'-DDT	33:42	11748525	1.59	2.0372	100.3	100.3	0.0227	0.0227	100	
D 13C12-4,4'-DDT	36:32	10416561	1.56	1.8061	100.3	100.3	0.0257	0.0257	100	
D 13C12-Dieldrin	30:21	1551655	1.66	0.2777	97.2	97.2	0.0602	0.0602	97.18	
D 13C12-Endrin	32:00	1114762	1.58	0.1949	99.5	99.5	0.0858	0.0858	99.48	
D 13C9-Endosulfan II	32:44	271219	1.35	0.0474	99.6	99.6	0.2849	0.2849	99.57	
D 13C12-Endrin Aldehyde	34:16	240952	1.50	0.0424	98.7	98.7	0.3283	0.3283	98.74	
D 13C12-Methoxychlor	41:54	10589060	22.71	1.8751	98.2	98.2	0.0368	0.0368	98.22	
D 13C11-Endrin Ketone	40:23	578424	1.47	0.1045	96.3	96.3	0.3017	0.3017	96.28	
D 13C10-Mirex	45:21	5573812	1.33	1.9829	95.2	95.2	0.0253	0.0253	95.23	
* PCB-15L	19:03	31194127	1.64		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	2535501	0.64		500.0	500.0				M
Pentachlorophenol	18:30	1061375	0.61	1.0218	204.8	204.8	0.2248	0.2248	102	M
* PCB-101L	28:04	5905503	1.65		100.0	100.0				
* PCB-118L	32:45	5749488	1.62		100.0	100.0				
* PCB-138L	36:56	2951682	1.26		100.0	100.0				
* PCB-60L	27:42	12840619	0.83		100.0	100.0				
D 13C12-2,4'-DDD	30:49	19597353	1.59	3.4396	99.1	99.1	0.0493	0.0493	99.10	
D 13C10-cis Nonachlor	33:45	1262319	1.30	0.2243	97.9	97.9	0.0377	0.0377	97.90	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	2002515	1.29	0.3464	100.5	100.5	0.0244	0.0244	101	
* PCB-167L	39:26	2858754	1.29		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

61L21699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 02-May-2025 16:39:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:07 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:23:39

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:21	1	0.912	3421768	1320124	1626	4065	812		
224.9317	17:23	17:21	1	0.912	4265085	1632316	754	1885	2165	0.80(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:20	1	0.964	2782118	989236	1626	4065	608		
224.9317	18:21	18:20	1	0.964	3381357	1207922	754	1885	1602	0.82(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:37	1	0.979	2803700	973044	1626	4065	598		
224.9317	18:39	18:37	1	0.979	3494636	1228670	754	1885	1630	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:34	1	1.028	2508398	809596	1626	4065	498		
224.9317	19:36	19:34	1	1.028	3035401	984345	754	1885	1305	0.83(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:50	21:49	1	1.146	2936910	849060	85	212	9989		
278.8240	21:50	21:49	1	1.146	2277355	650327	43	107	15124	1.29(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:40	1	0.929	4983454	1841331	1	2	1841331		
291.8273	17:42	17:40	1	0.929	3833140	1421382	1	2	1421382	1.30(0.93-1.55)	
13C12-Aldrin											
269.8805	23:42	23:41	2	1.244	2939031	786796	159	397	4948		
271.8775	23:42	23:41	2	1.244	1833377	482779	77	192	6270	1.60(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:07	26:05	2	0.930	220599	48094	1	2	48094		
398.8358	26:06	26:05	1	0.930	202968	47852	5	12	9570	1.09(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:05	26:03	1	0.929	872007	210050	1	2	210050		
364.8748	26:05	26:03	1	0.929	740938	179575	9	22	19953	1.18(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:52	2	0.994	16035055	3715105	1144	2860	3247		
260.0376	27:54	27:52	2	0.994	10197620	2338819	740	1850	3161	1.57(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:34	2	0.983	1087240	249662	2	5	124831		
278.8240	27:36	27:34	2	0.983	843505	181615	1	2	181615	1.29(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:38	2	1.021	969668	215030	2	5	107515		
278.8240	28:39	28:38	2	1.021	782795	173060	1	2	173060	1.24(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:57	28:57	1	1.032	967977	208538	2	5	104269		
278.8240	28:57	28:57	1	1.032	750932	159834	1	2	159834	1.29(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:28	1	1.015	322283	65709	2	5	32855		
278.8240	28:29	28:28	1	1.015	221543	45775	1	2	45775	1.45(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:07	30:06	1	0.920	10728777	2293936	771	1927	2975		
260.0376	30:07	30:06	1	0.920	6966306	1479379	348	870	4251	1.54(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:24	1	1.020	10199521	2041274	92	230	22188		
249.0454	33:25	33:24	1	1.020	6527447	1284534	121	302	10616	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:41	1	1.029	7205160	1400028	92	230	15218		
249.0454	33:42	33:41	1	1.029	4543365	866428	121	302	7161	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:32	36:31	1	1.116	6350252	1216499	92	230	13223		
249.0454	36:32	36:31	1	1.116	4066309	775196	121	302	6407	1.56(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:20	1	0.927	968916	197571	29	72	6813		
271.8775	30:20	30:20	0	0.926	582739	118410	48	120	2467	1.66(1.16-1.94)	
13C12-Endrin											
269.8805	32:00	31:59	1	0.977	683066	142136	29	72	4901		
271.8775	32:00	31:59	1	0.977	431696	89129	48	120	1857	1.58(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:44	32:44	0	1.000	155867	29920	45	112	665		
278.8240	32:44	32:44	-1	0.999	115352	23765	17	42	1398	1.35(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:16	34:16	0	1.046	144571	28028	12	30	2336		
358.9361	34:17	34:16	1	1.047	96381	19213	52	130	369	1.50(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	2	1.280	10142373	1725909	285	712	6056		
240.1510	41:53	41:52	1	1.279	446687	74478	32	80	2327	22.71(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:23	40:22	1	1.233	344315	62078	105	262	591		
329.9379	40:23	40:22	1	1.233	234109	39783	40	100	995	1.47(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:20	1	1.228	3184056	512434	68	170	7536		
278.8240	45:21	45:20	1	1.228	2389756	384795	40	100	9620	1.33(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:02	1		19362684	6724060	52	130	129309		
236.0376	19:03	19:02	1		11831443	4046263	14	35	289019	1.64(1.16-1.93)	
13C6-Pentachlorophenol (IS)											M
269.8666	18:29	18:27	2		987473	186768	49	122	3812		M
271.8636	18:29	18:27	2		1548028	285535	49	122	5827	0.64(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:30	18:28	2	1.001	402955	57028	70	175	815		M
265.8435	18:29	18:28	2	1.000	658420	95532	17	42	5620	0.61(0.00-0.00)	M
PCB-101L											
337.9207	28:04	28:04	1		3676247	825331	1	2	825331		
339.9178	28:04	28:04	1		2229256	503622	16	40	31476	1.65(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:43	2		3552496	705916	32	80	22060		
339.9178	32:44	32:43	1		2196992	442281	28	70	15796	1.62(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:55	1		1647417	299343	30	75	9978		
373.8788	36:56	36:55	1		1304265	239214	25	62	9569	1.26(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:41	2		5813124	1317823	49	122	26894		
303.9597	27:42	27:41	2		7027495	1576160	46	115	34264	0.83(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:47	2	0.941	12027442	2415605	464	1160	5206		
249.0454	30:48	30:47	1	0.940	7569911	1539939	315	787	4889	1.59(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:44	1	1.030	714187	135496	26	65	5211		
278.8240	33:45	33:44	1	1.030	548132	101551	13	32	7812	1.30(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:14	1	1.107	1126191	215461	26	65	8287		
278.8240	36:14	36:14	0	1.106	876324	159461	13	32	12266	1.29(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:25	1		1608705	290416	6	15	48403		
373.8788	39:26	39:25	1		1250049	219404	4	10	54851	1.29(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Reagents:

61L21699PCP_00001 Amount Added: 20.00 Units: uL

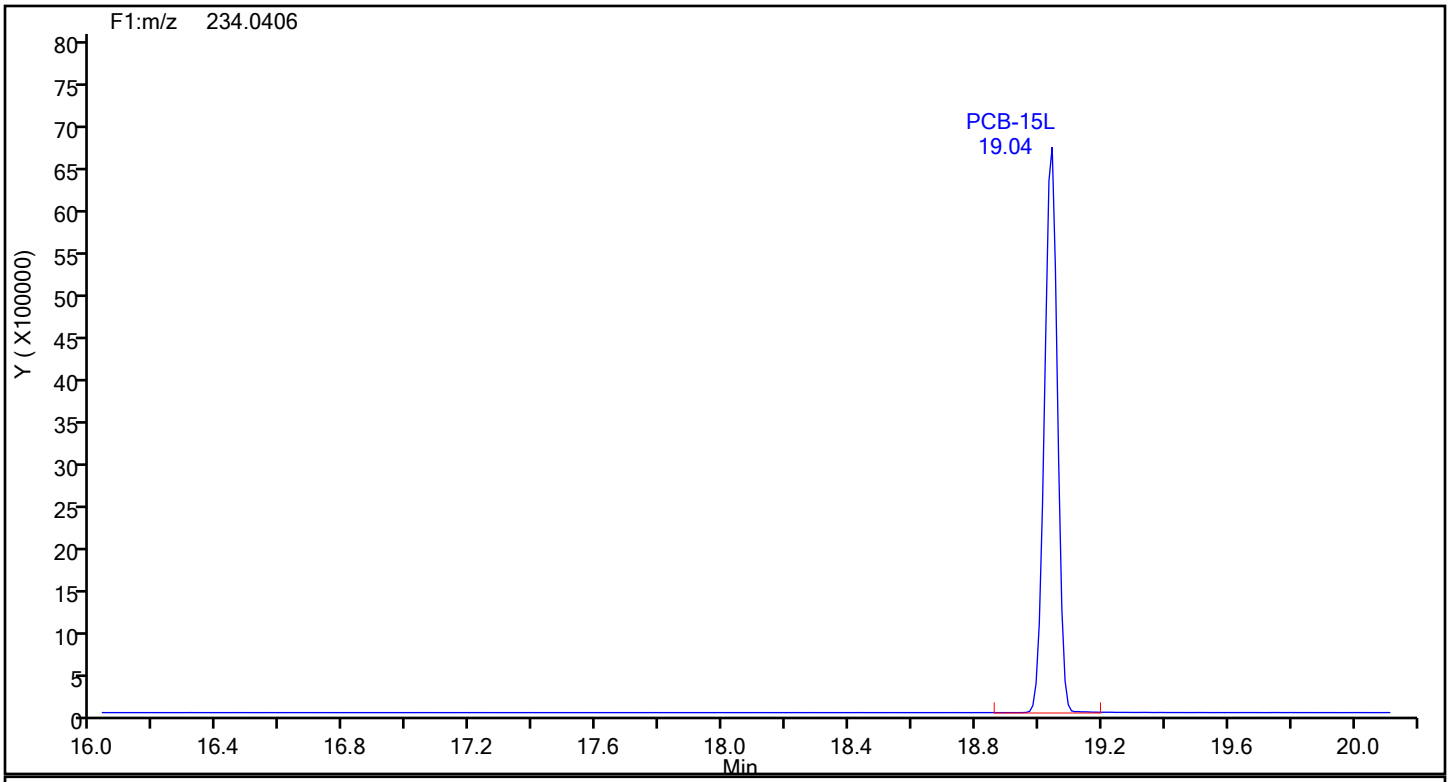
Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

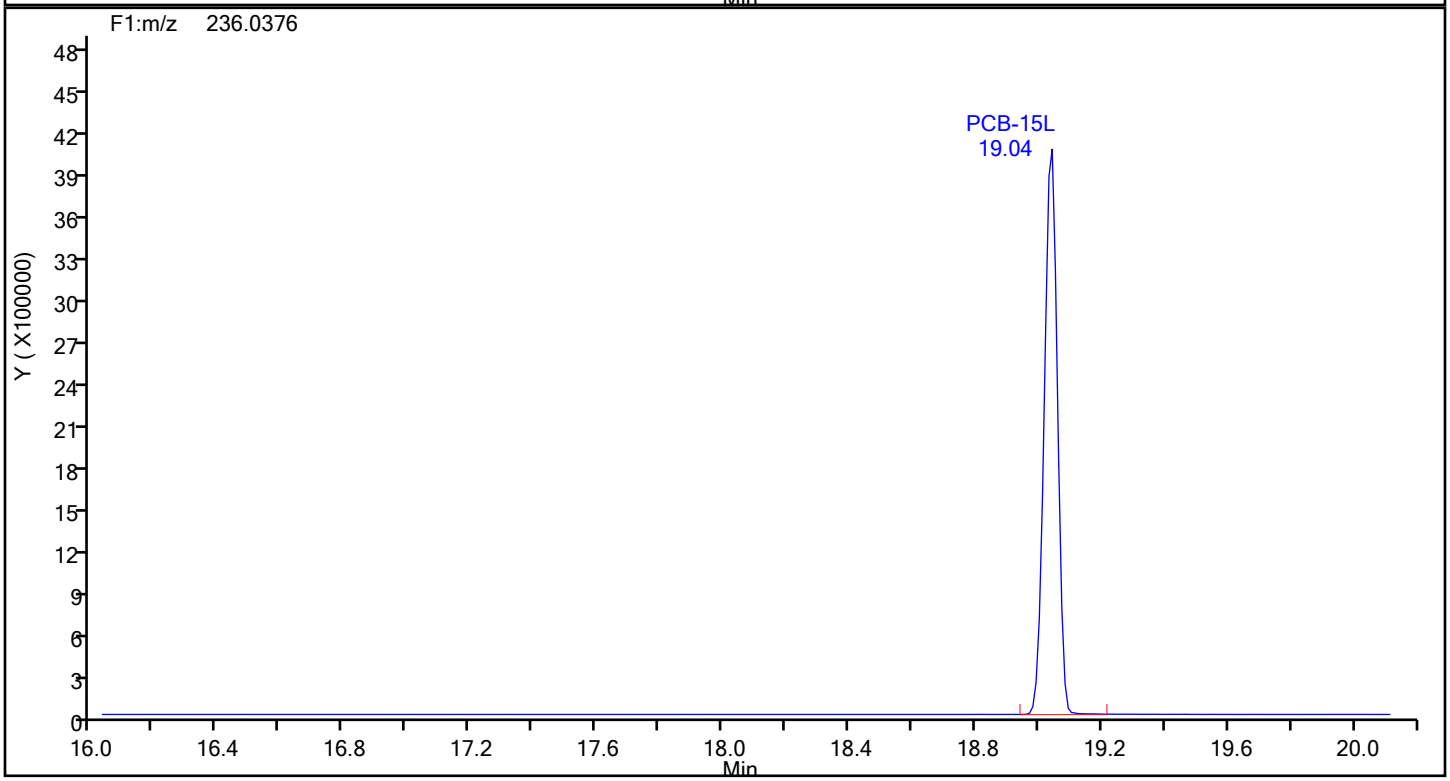
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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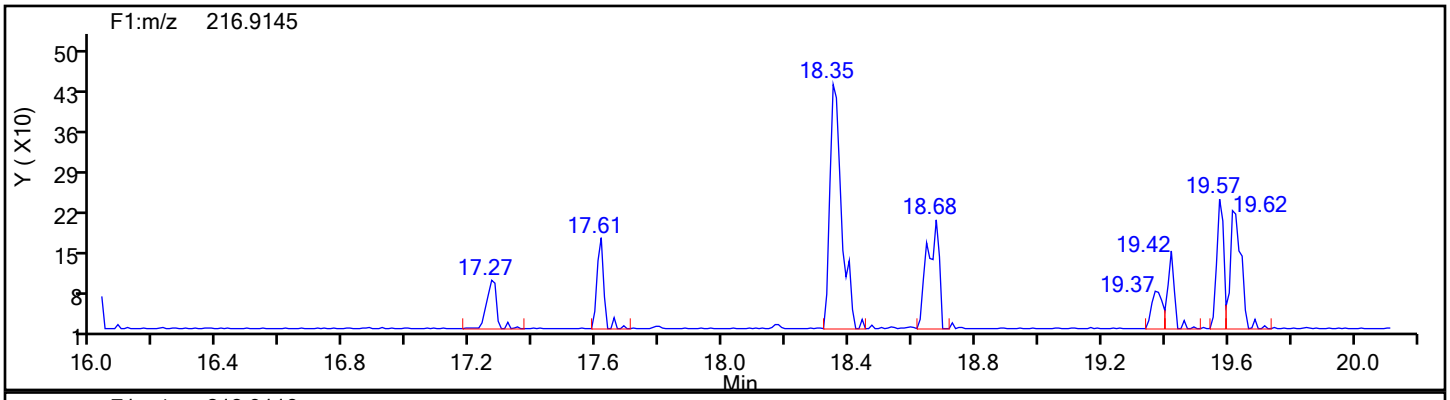
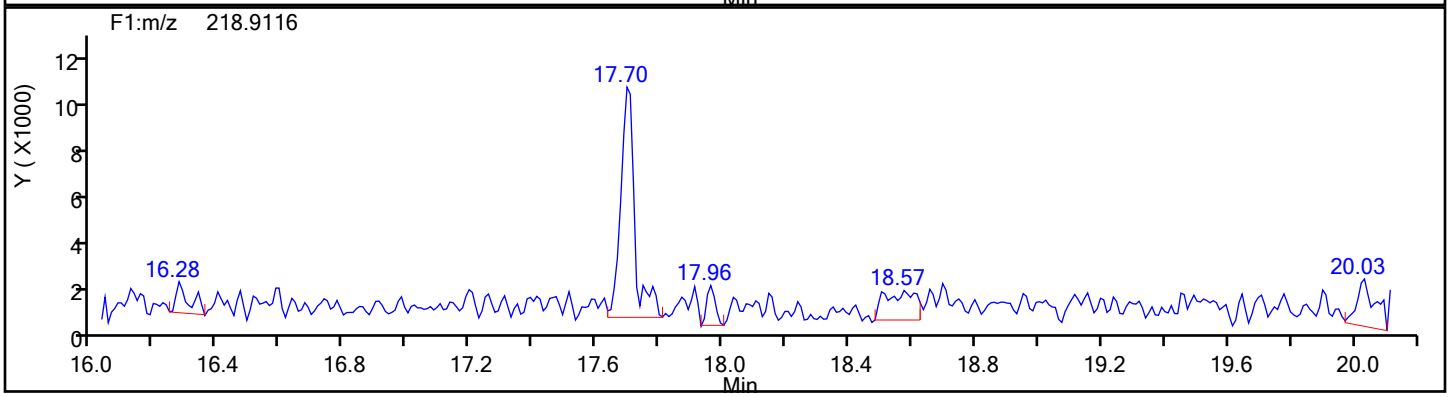
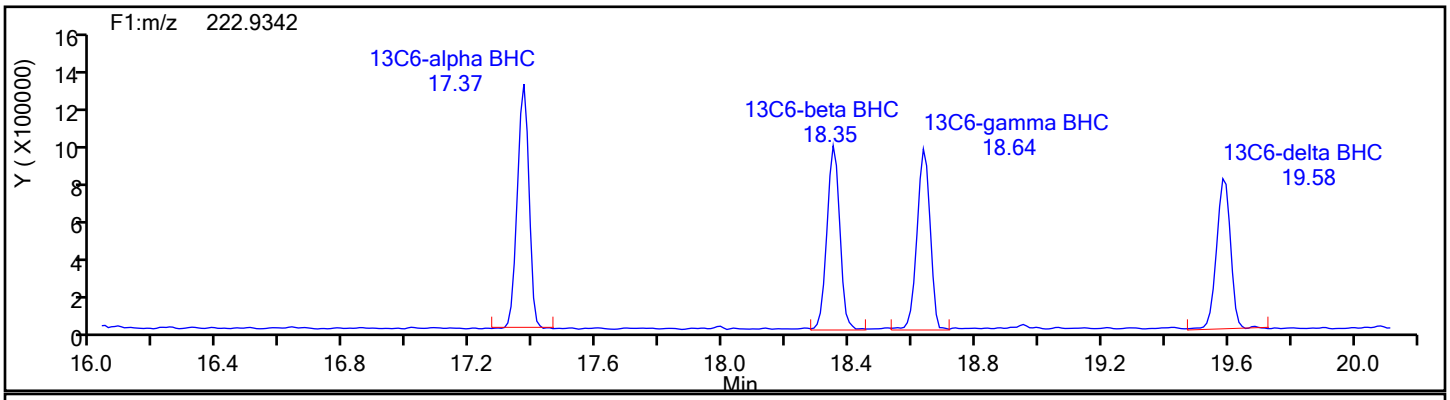
Column Type:	RTX-5	Column Dia:	0.32 mm

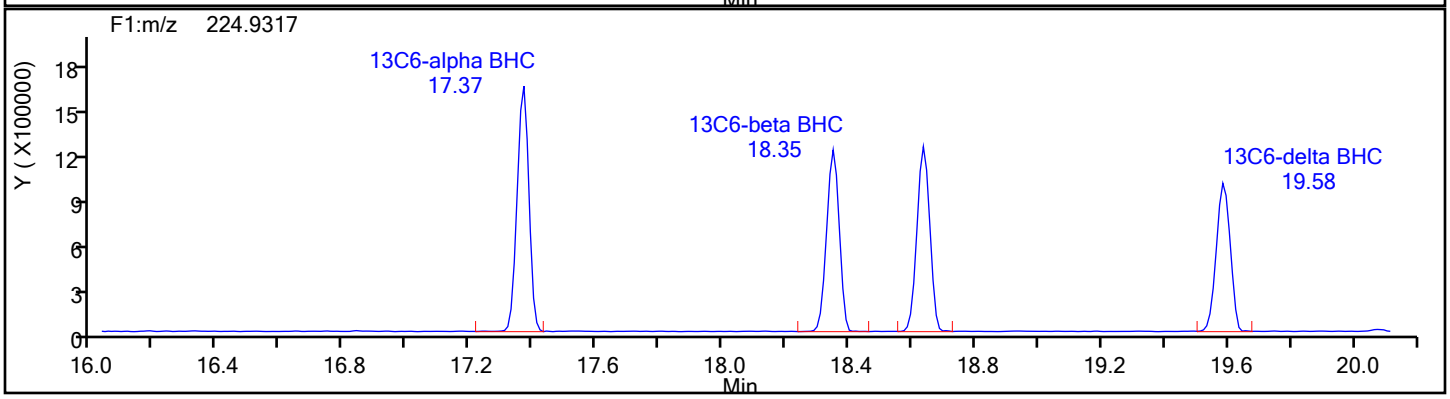
BHC





BHC Standards





Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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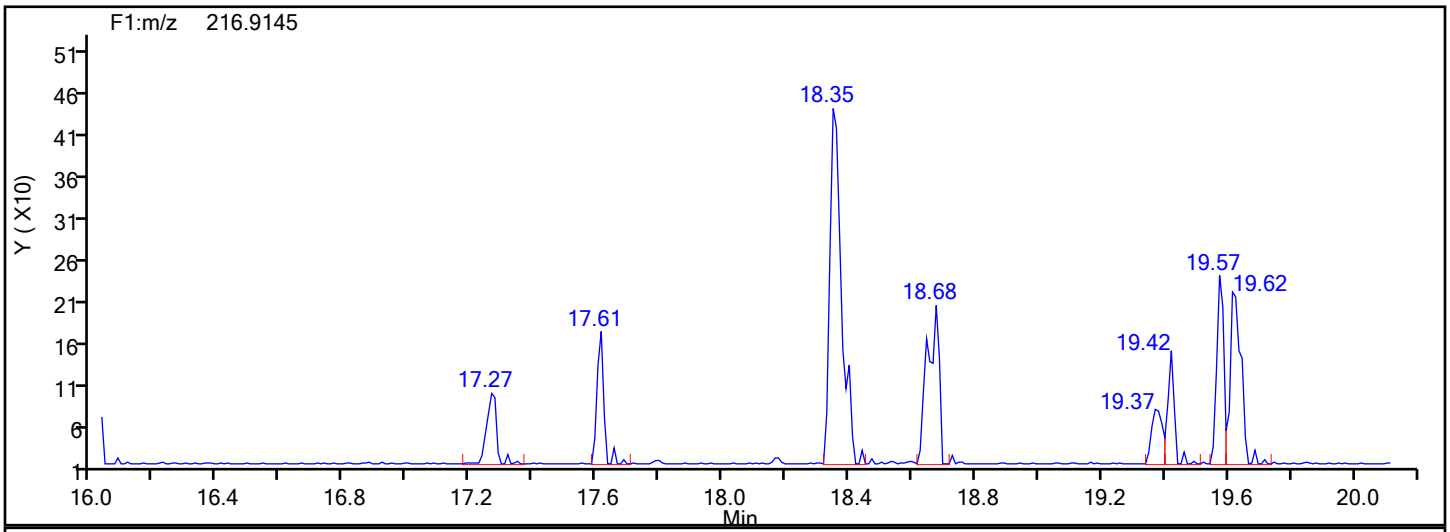
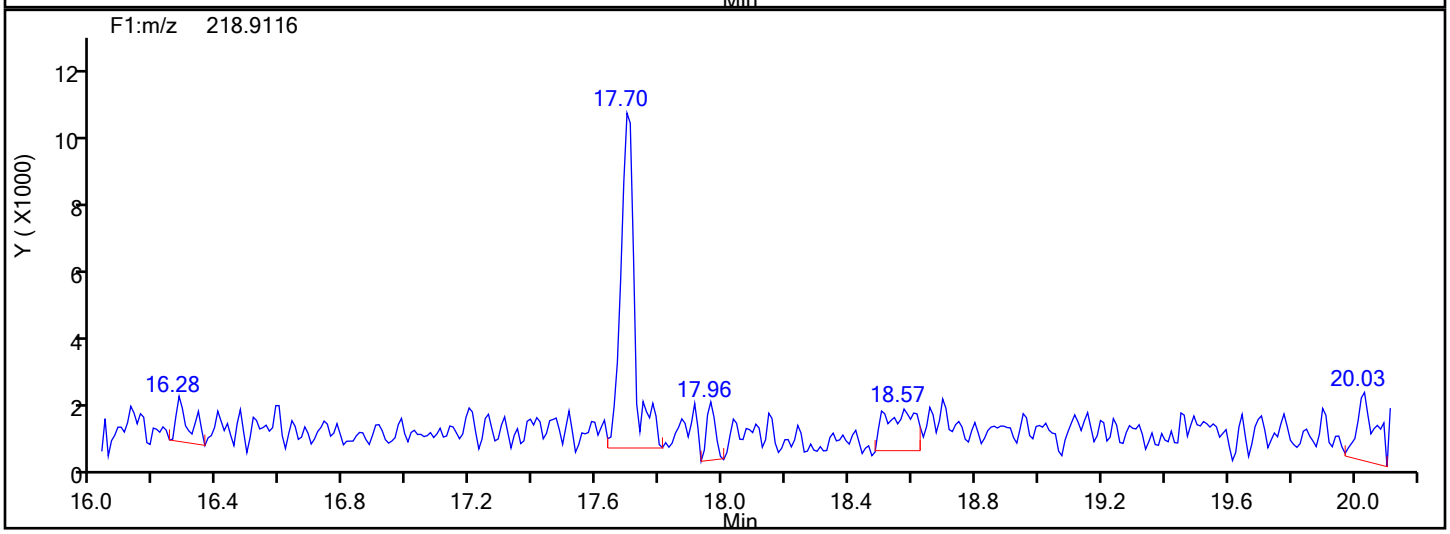
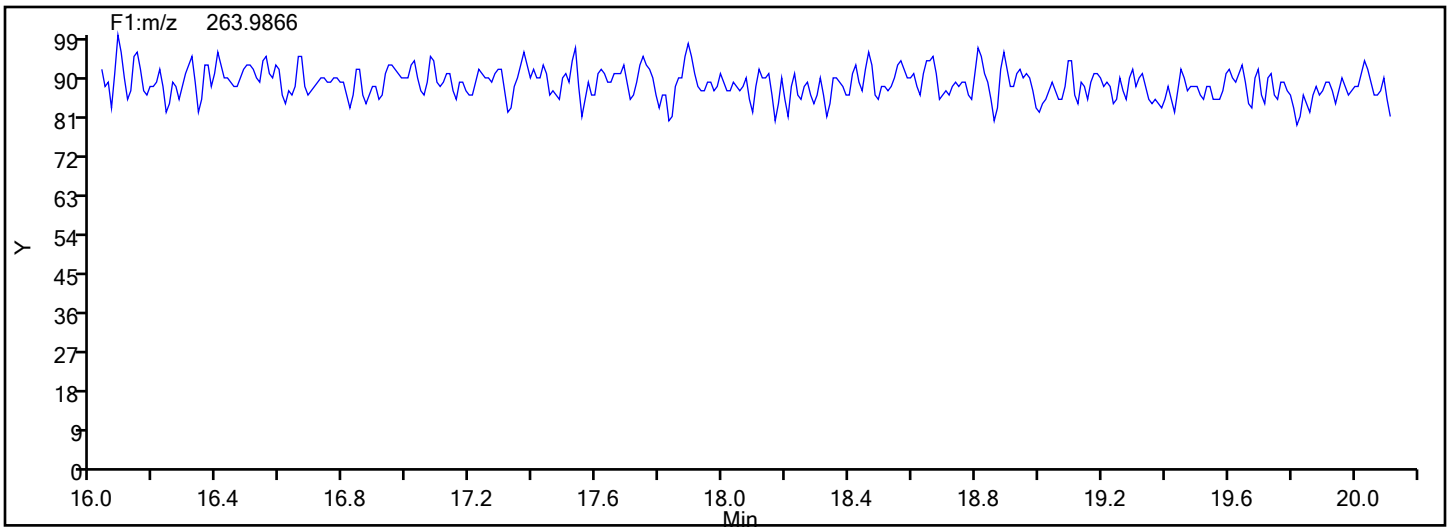
BHC





BHC Lock Mass



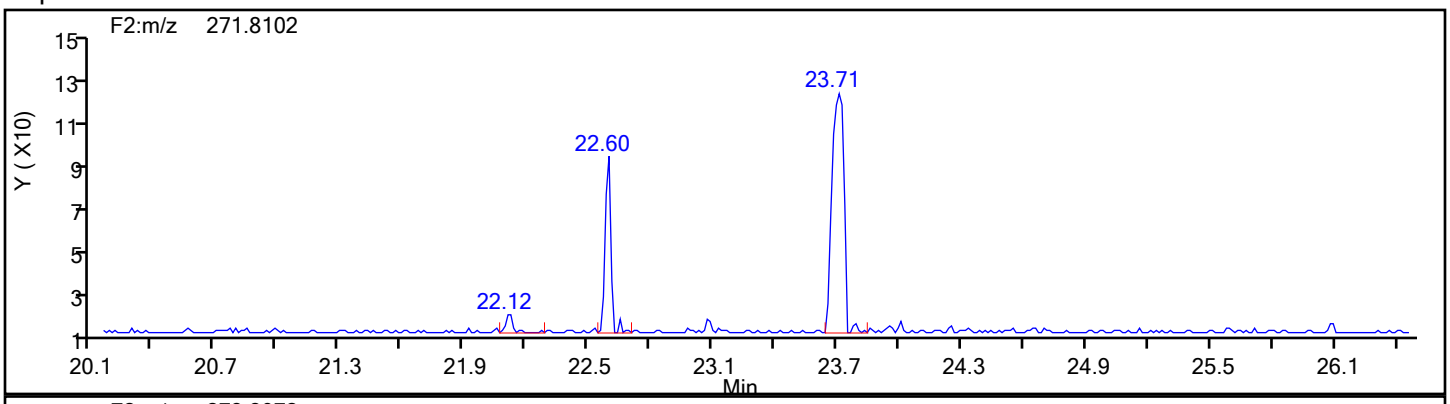
Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

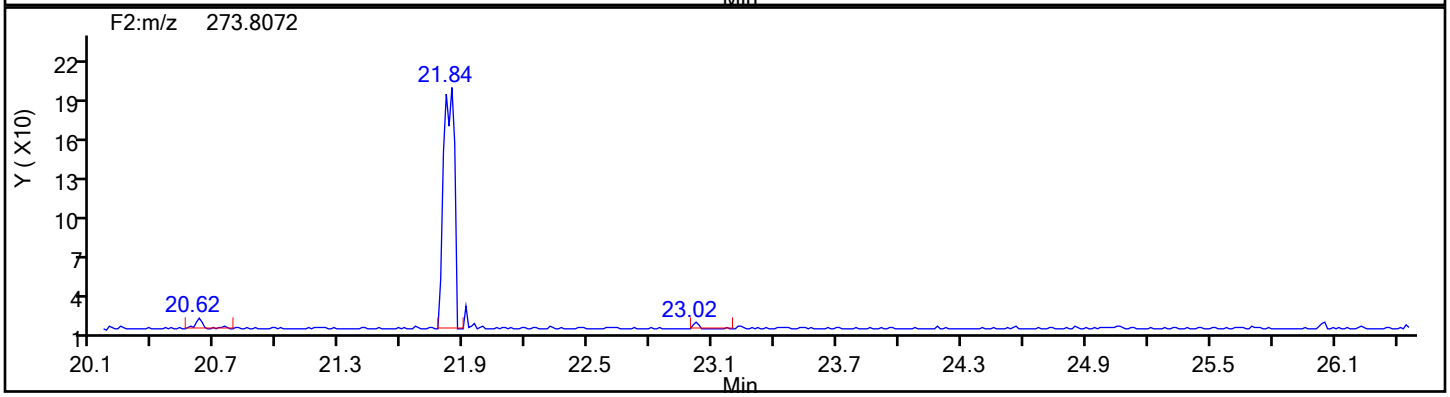
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

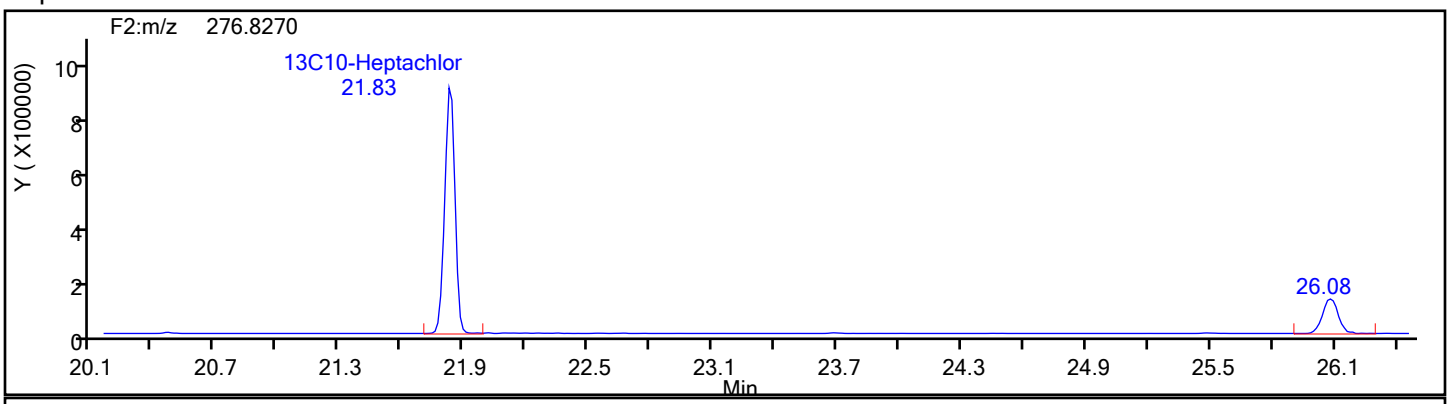
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

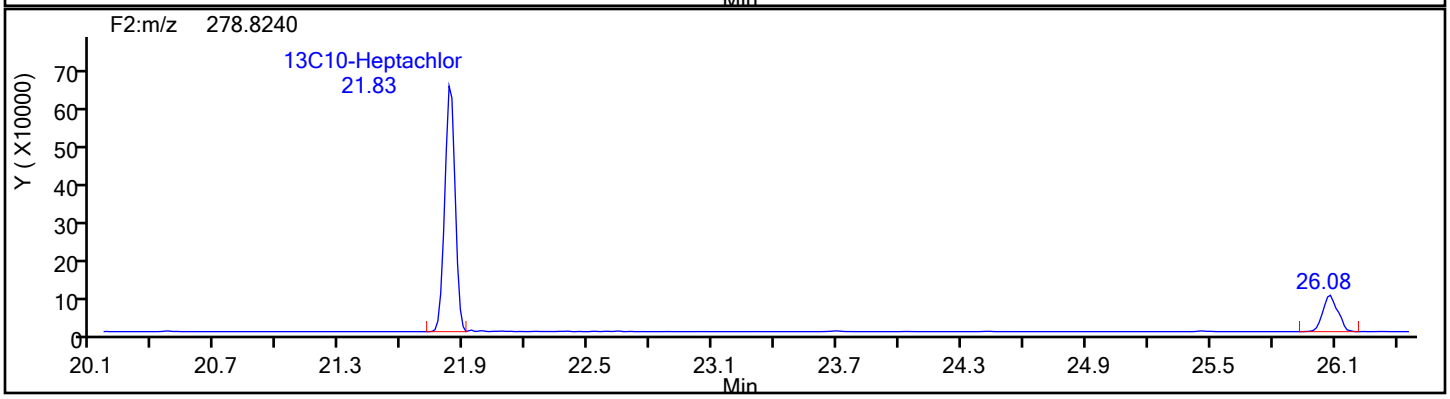
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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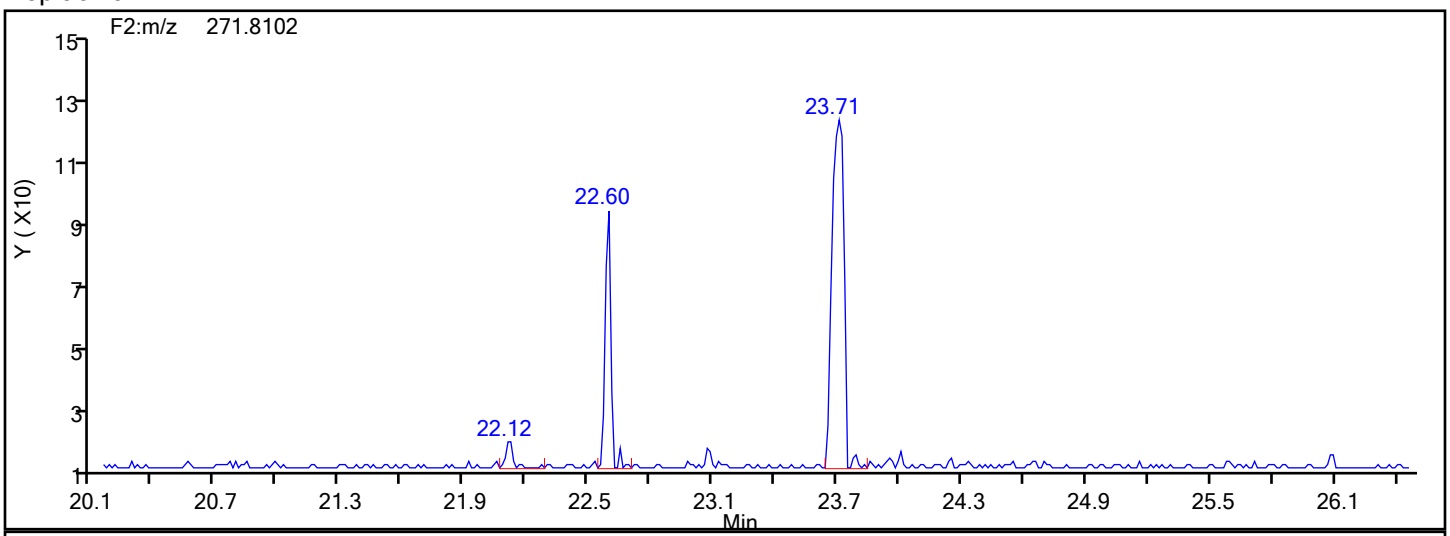
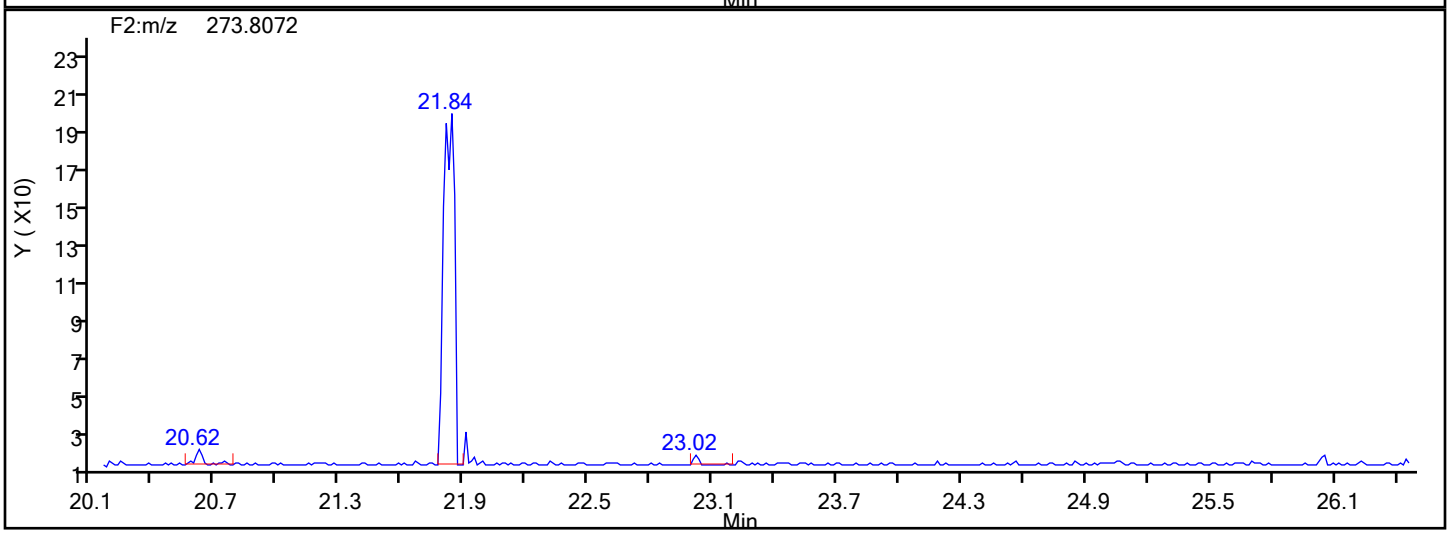
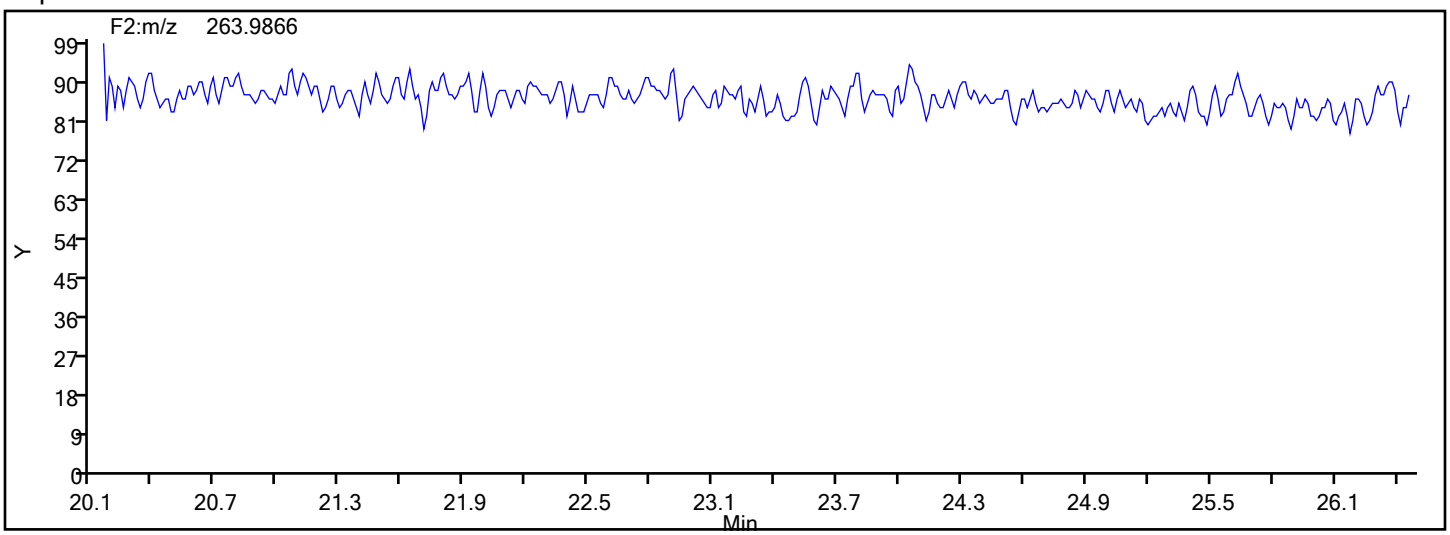
Heptachlor





Heptachlor Lock Mass



Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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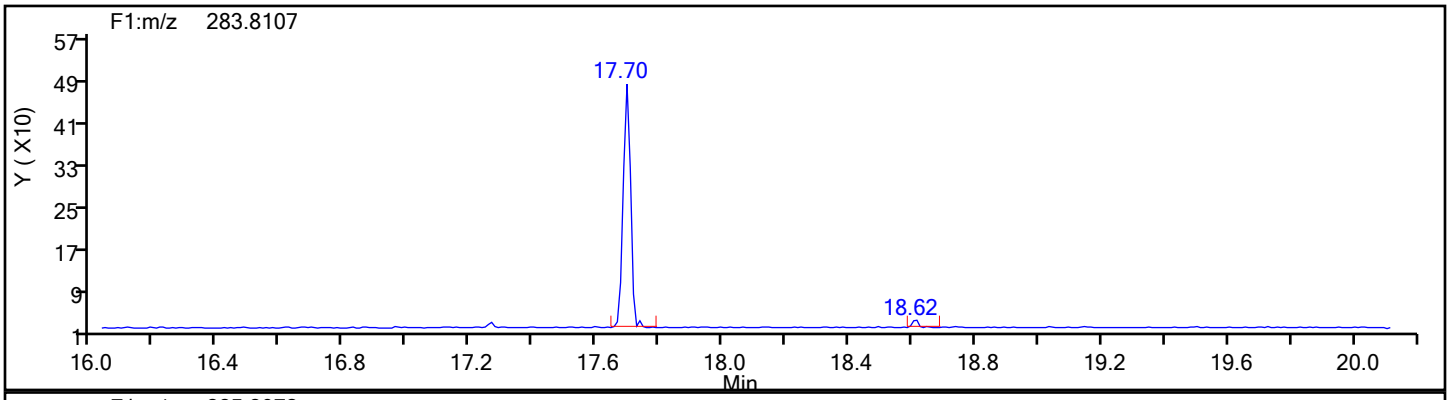
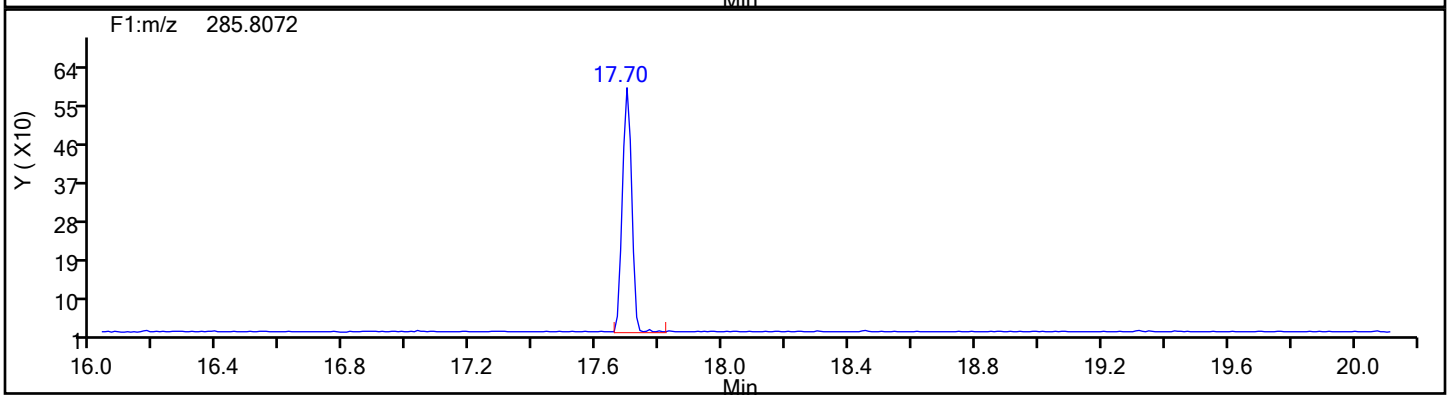
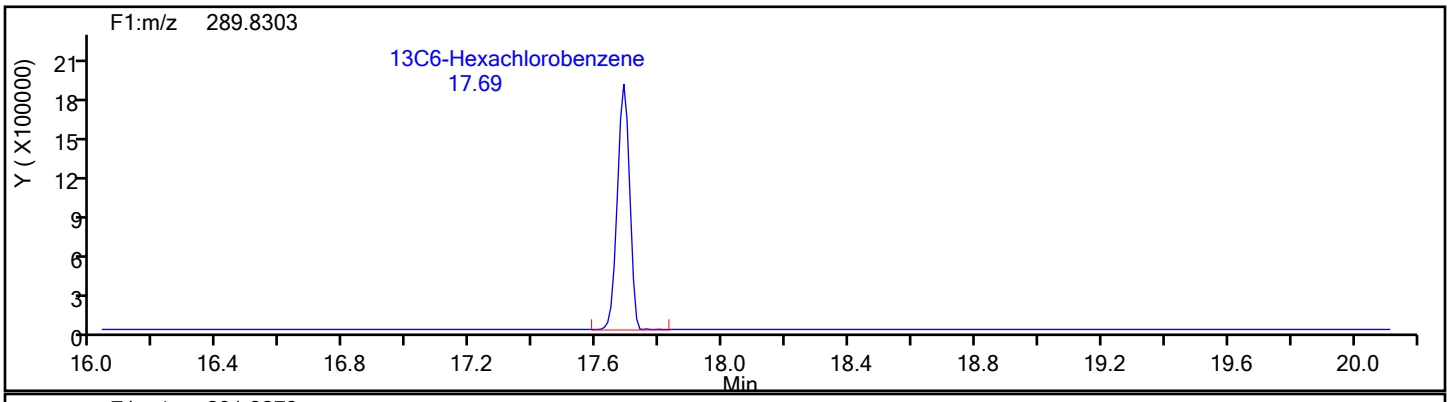
Column Type:	RTX-5	Column Dia:	0.32 mm

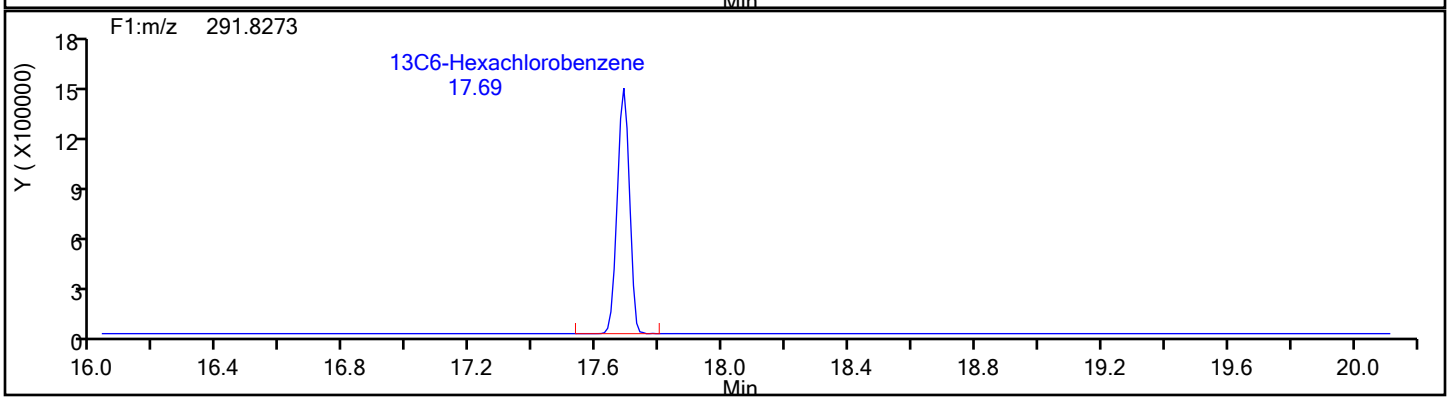
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

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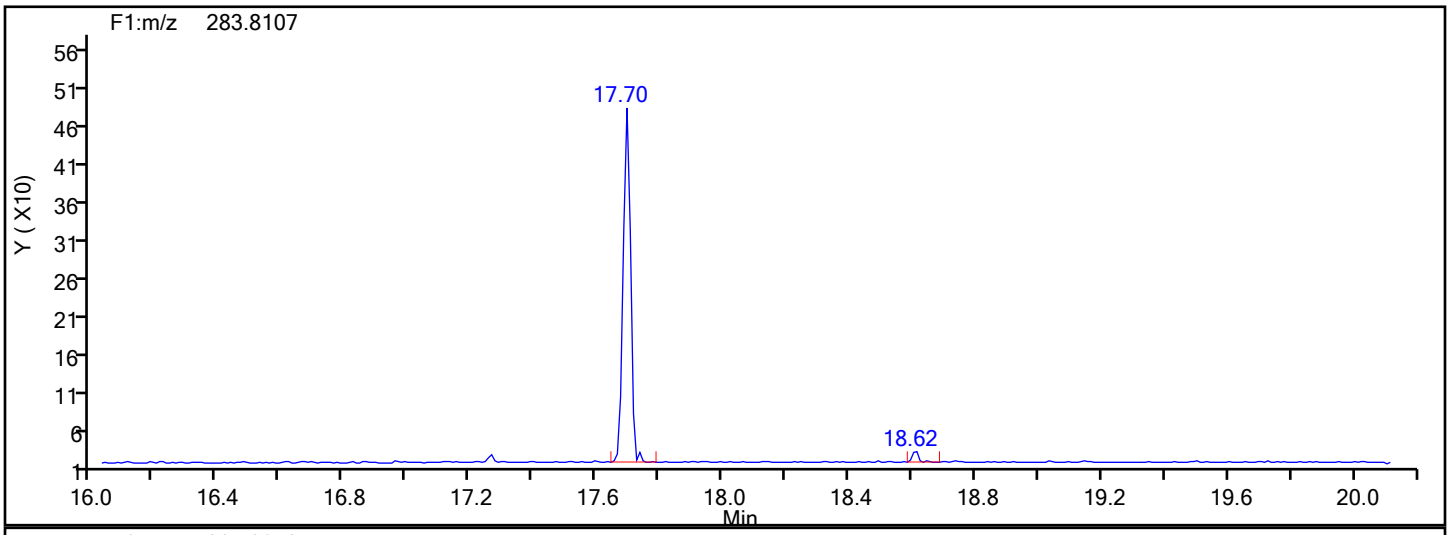
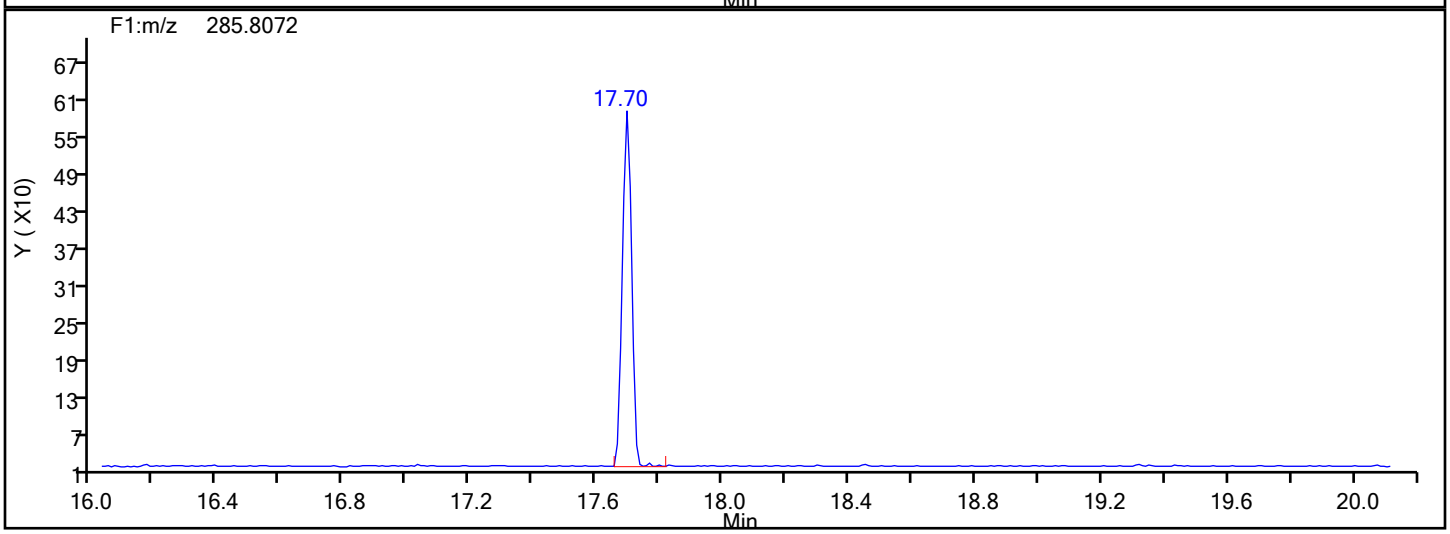
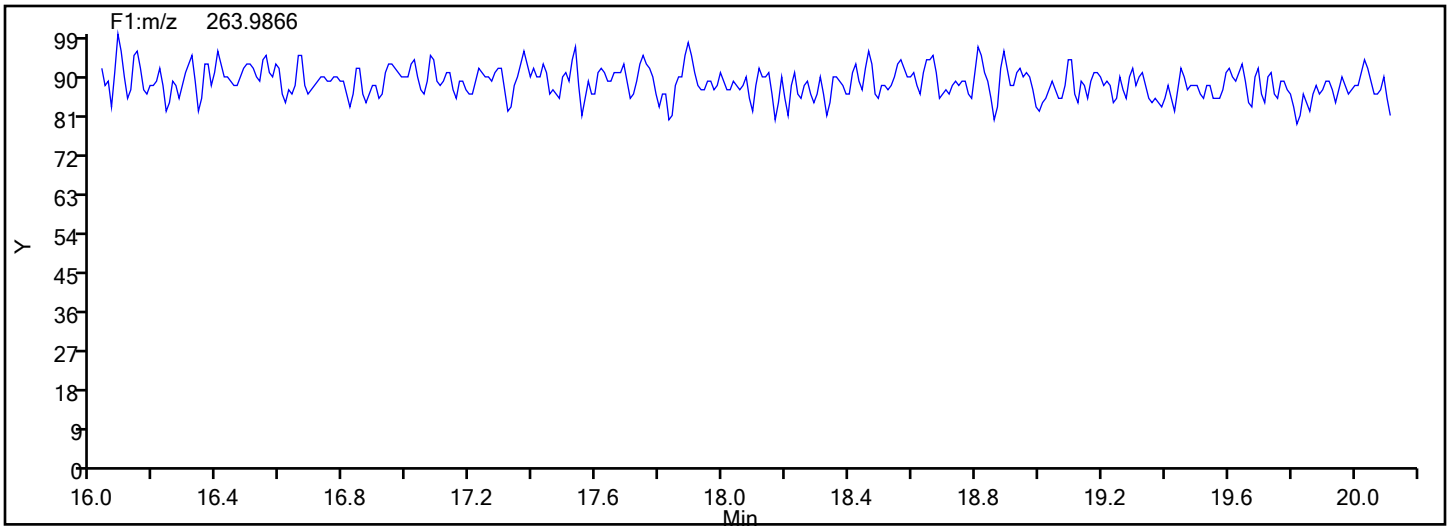
Column Type:	RTX-5	Column Dia:	0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 05-May-2025 18:00:08 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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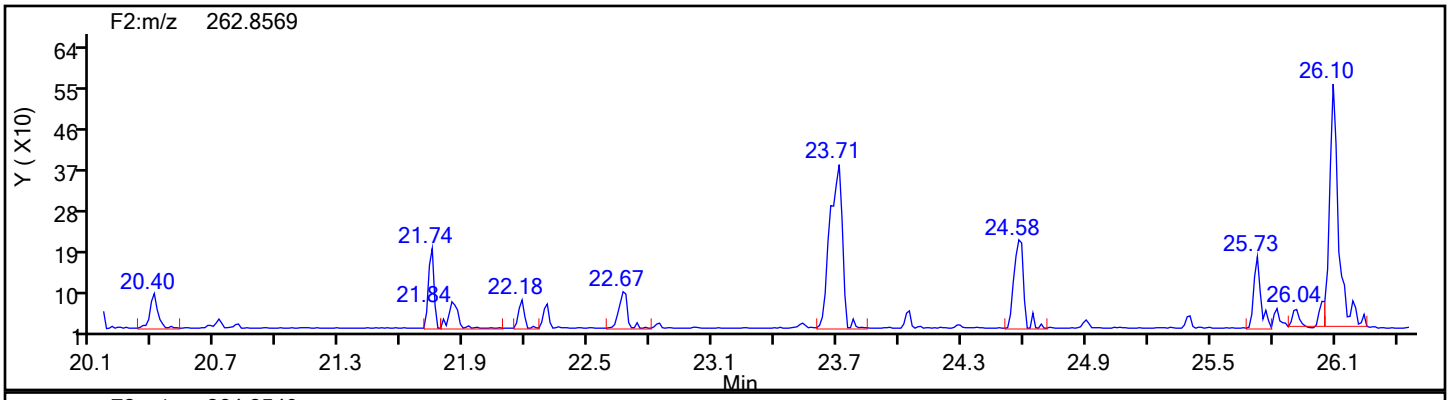
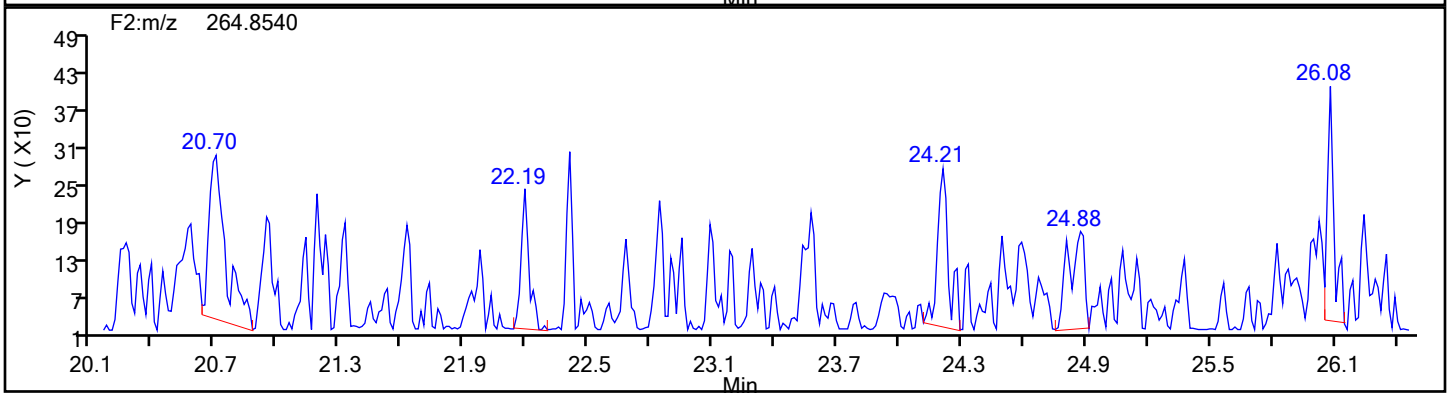
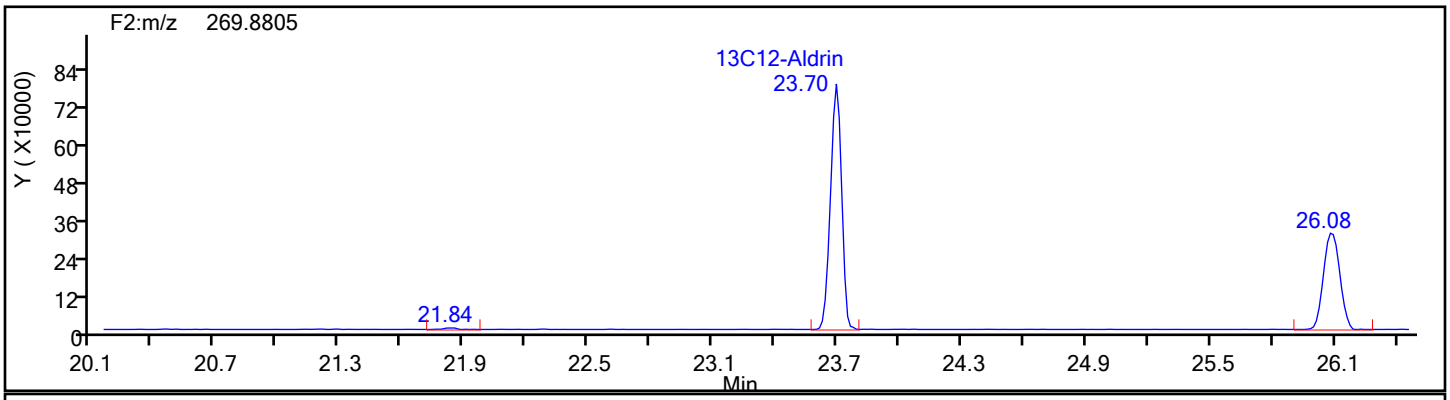
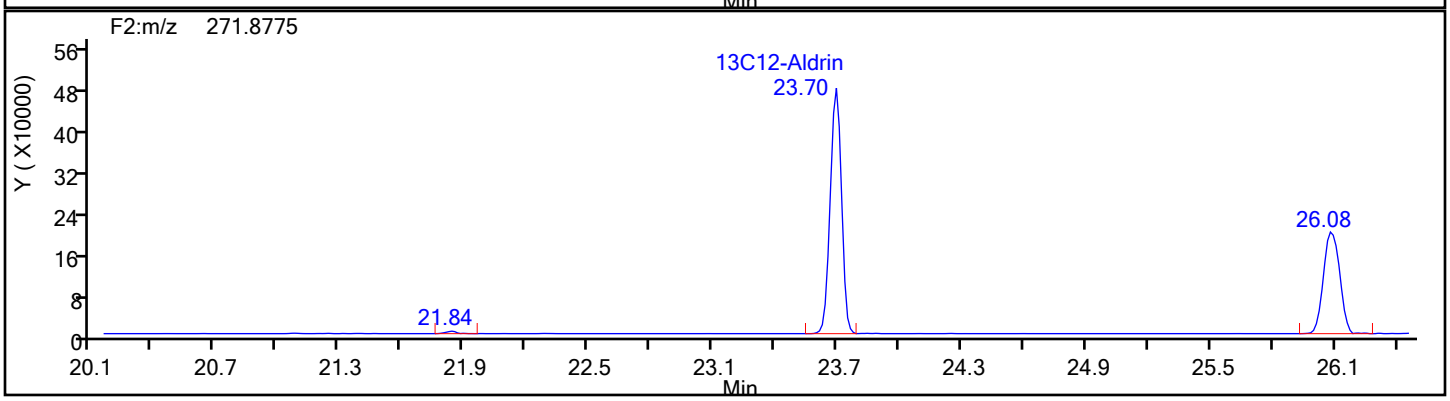
Aldrin





Aldrin Standards





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Eurofins Knoxville

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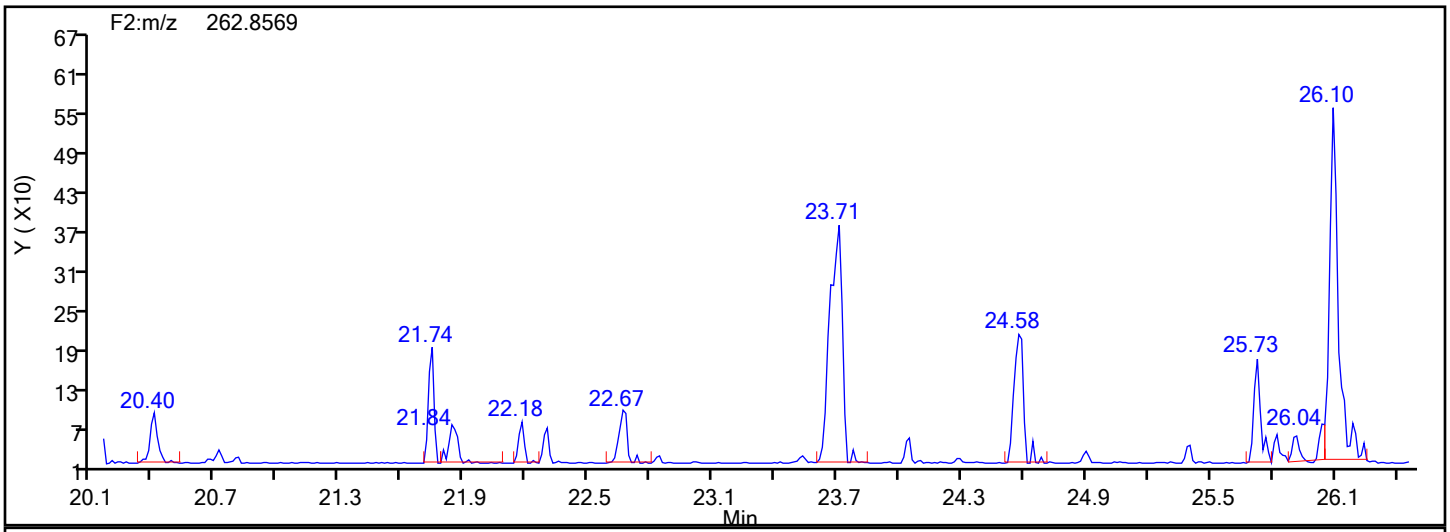
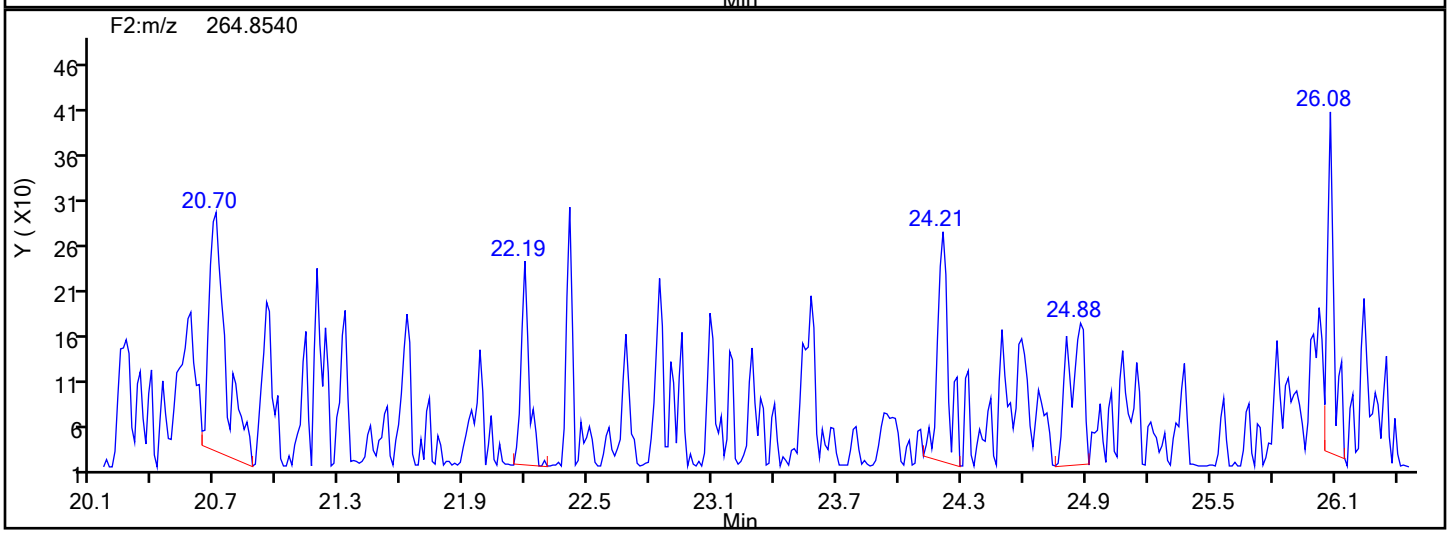
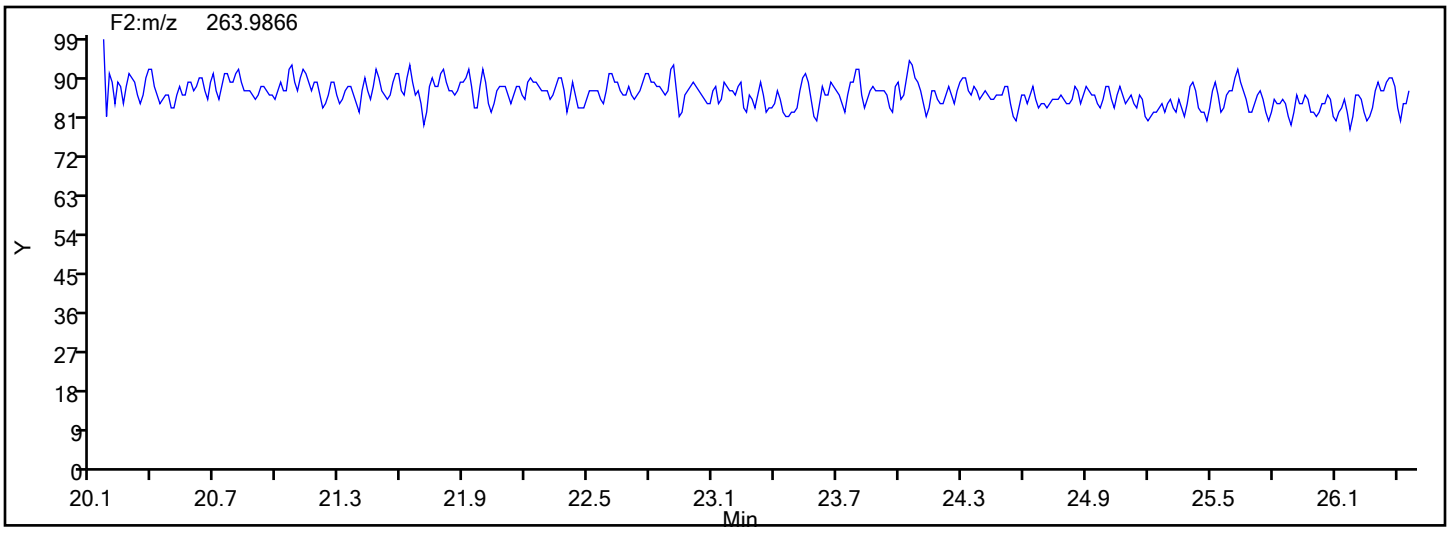
Aldrin





Aldrin Lock Mass



Report Date: 05-May-2025 18:00:09 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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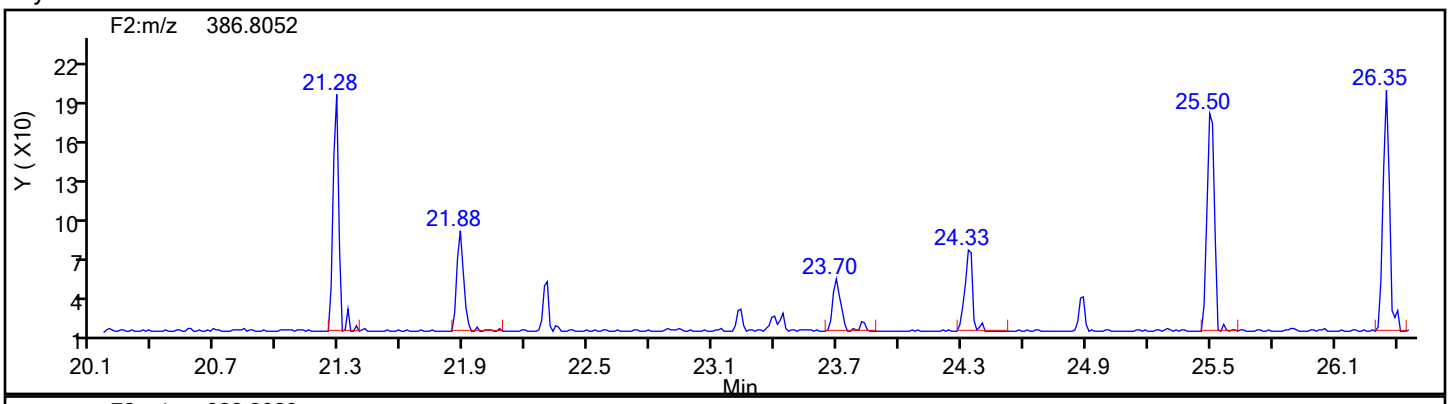
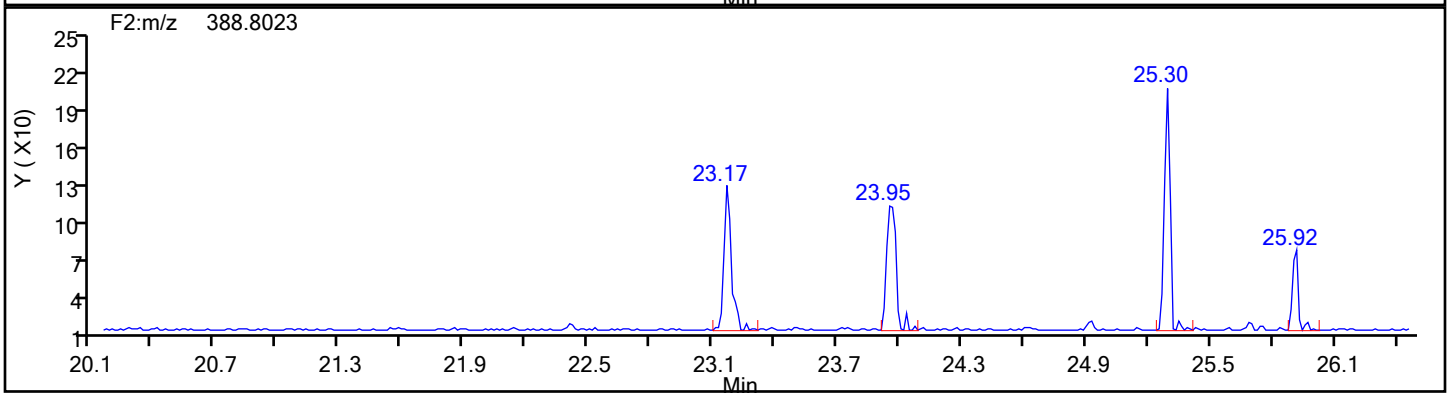
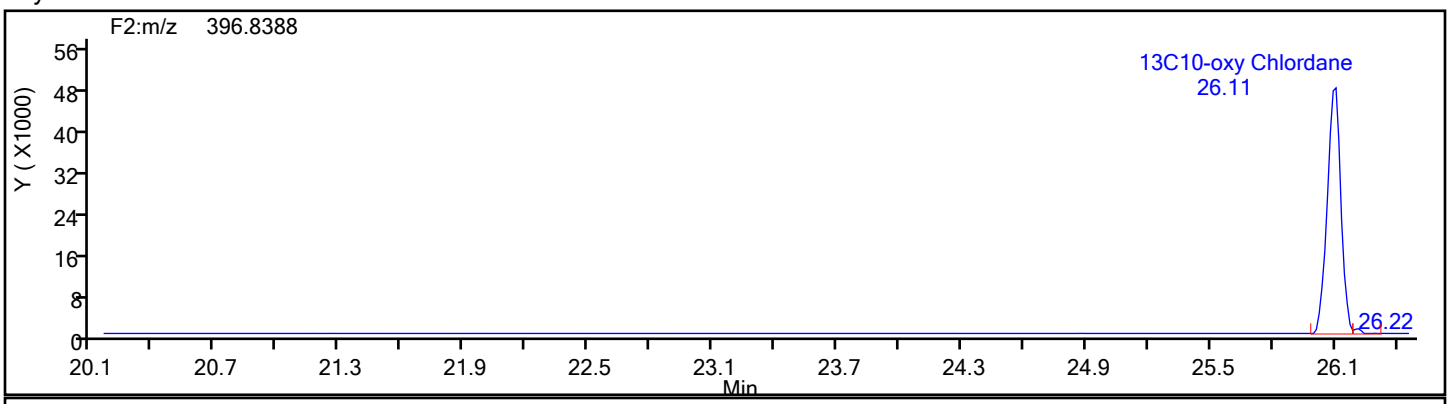
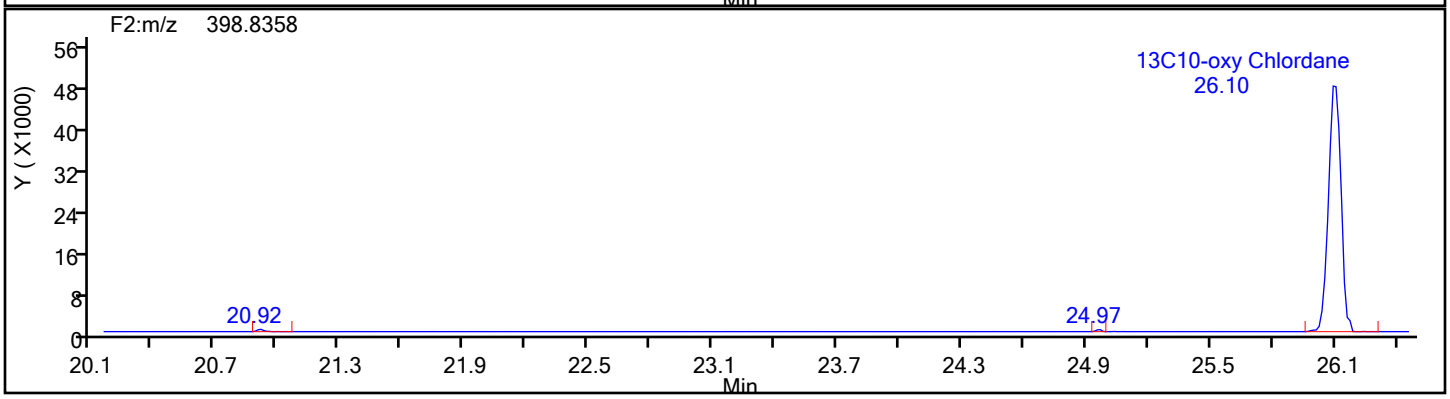
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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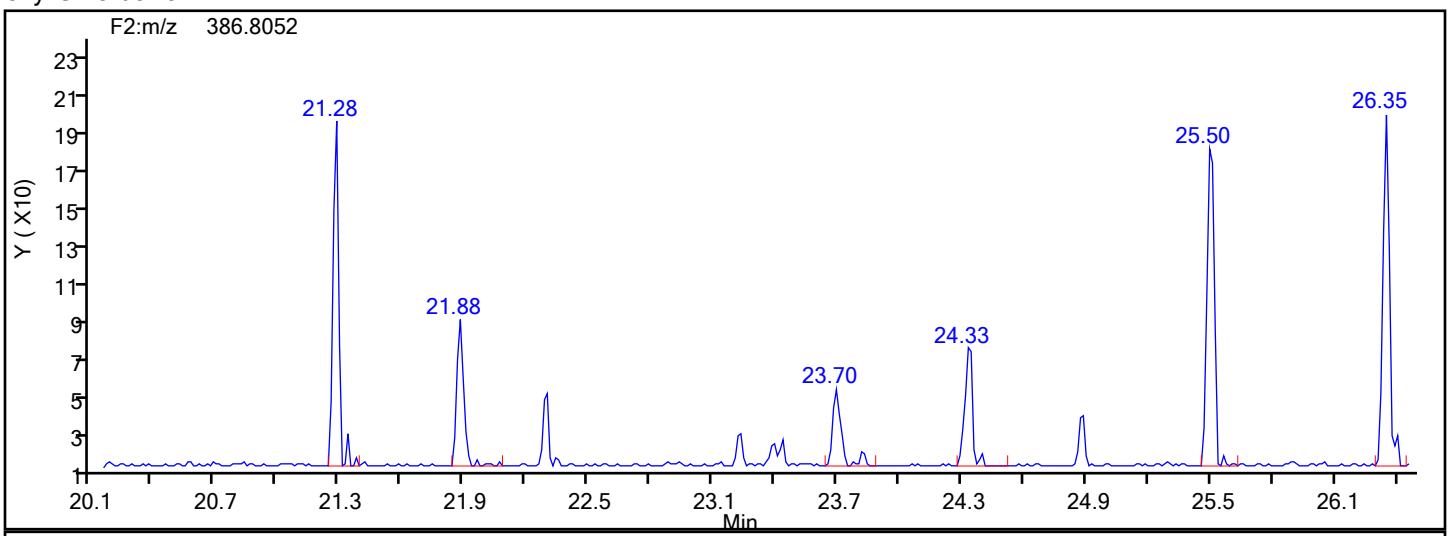
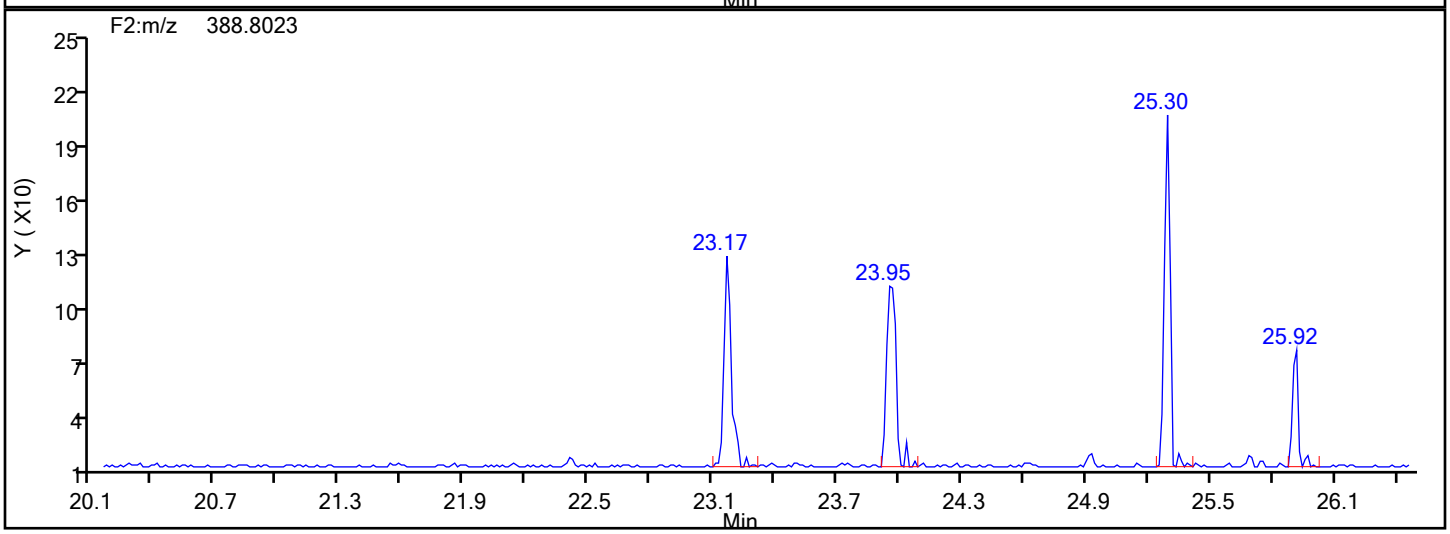
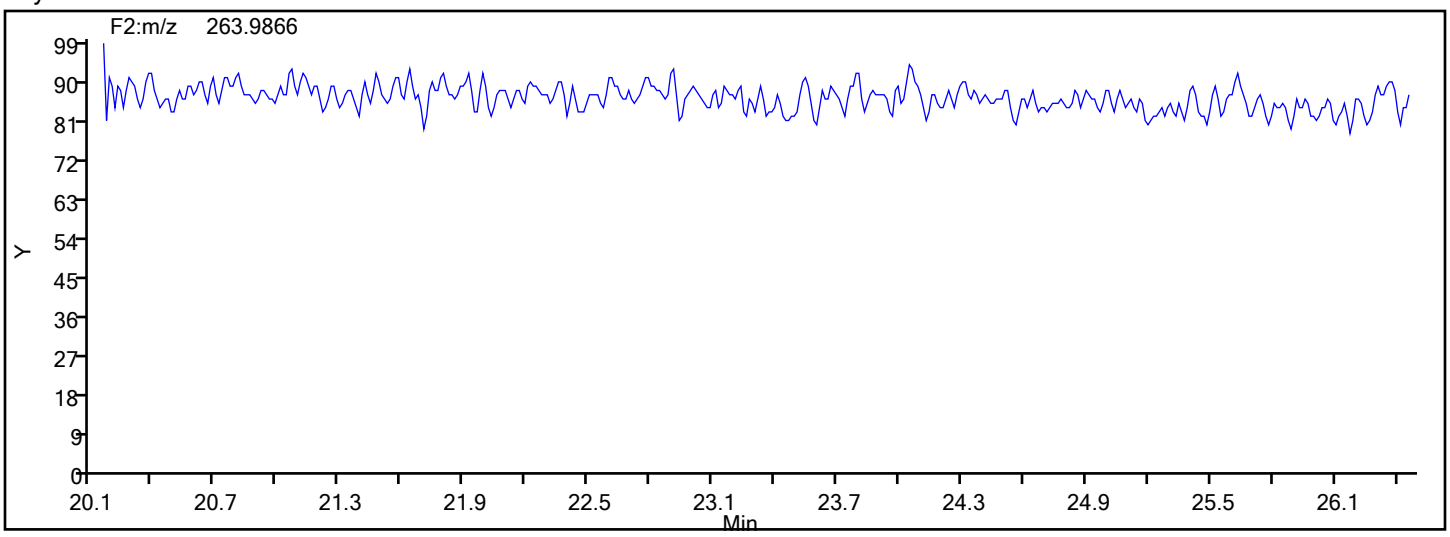
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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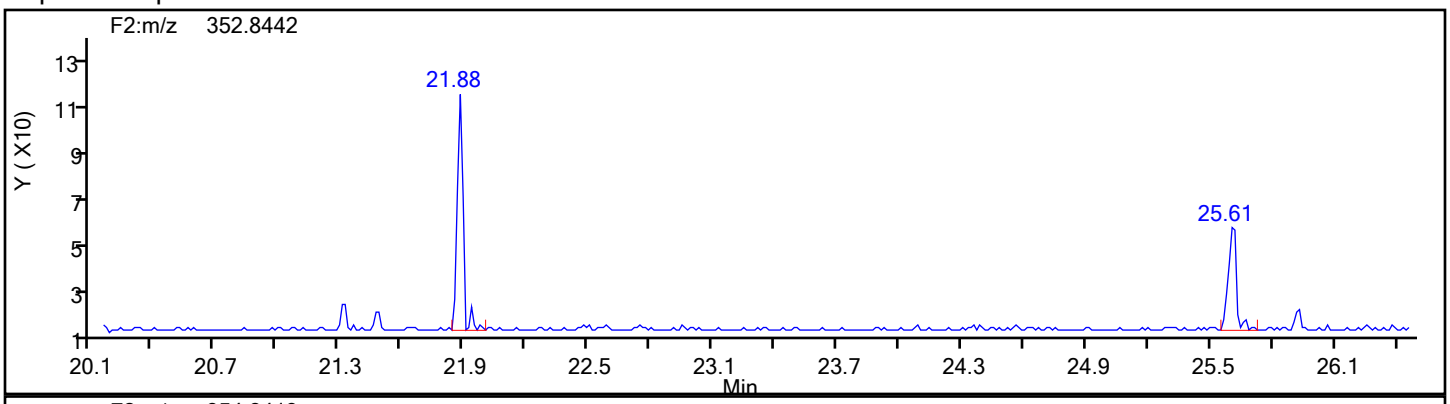
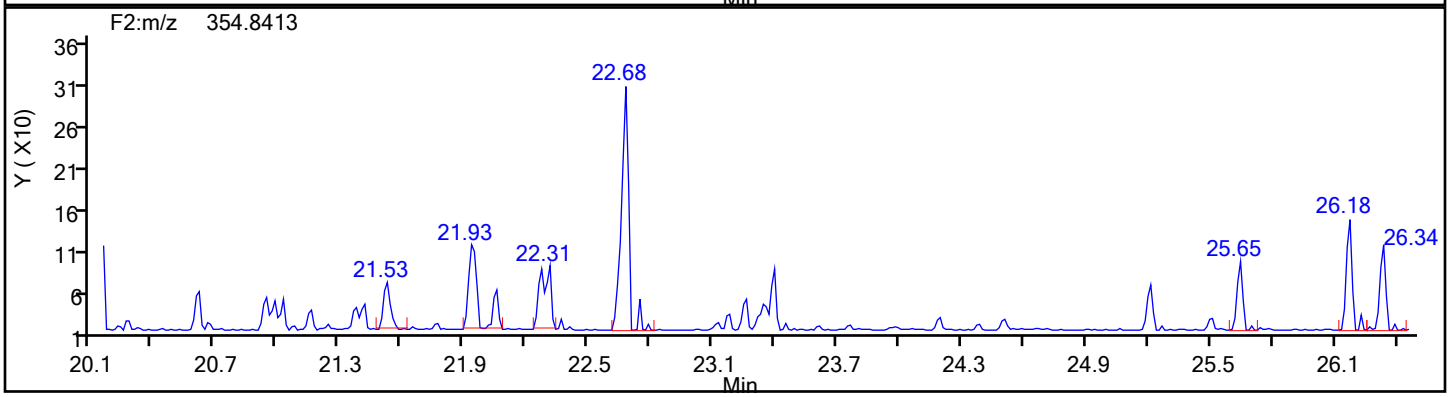
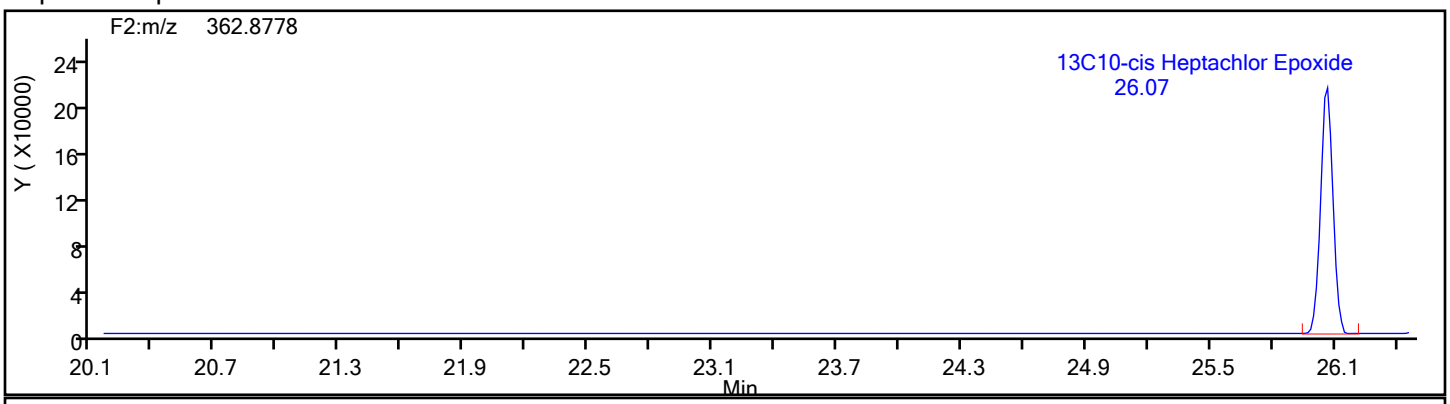
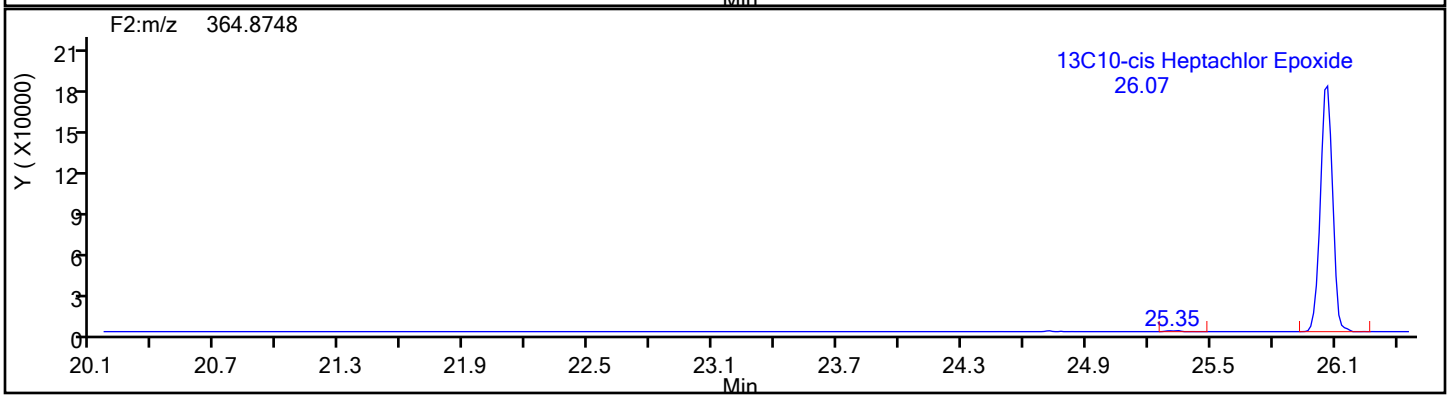
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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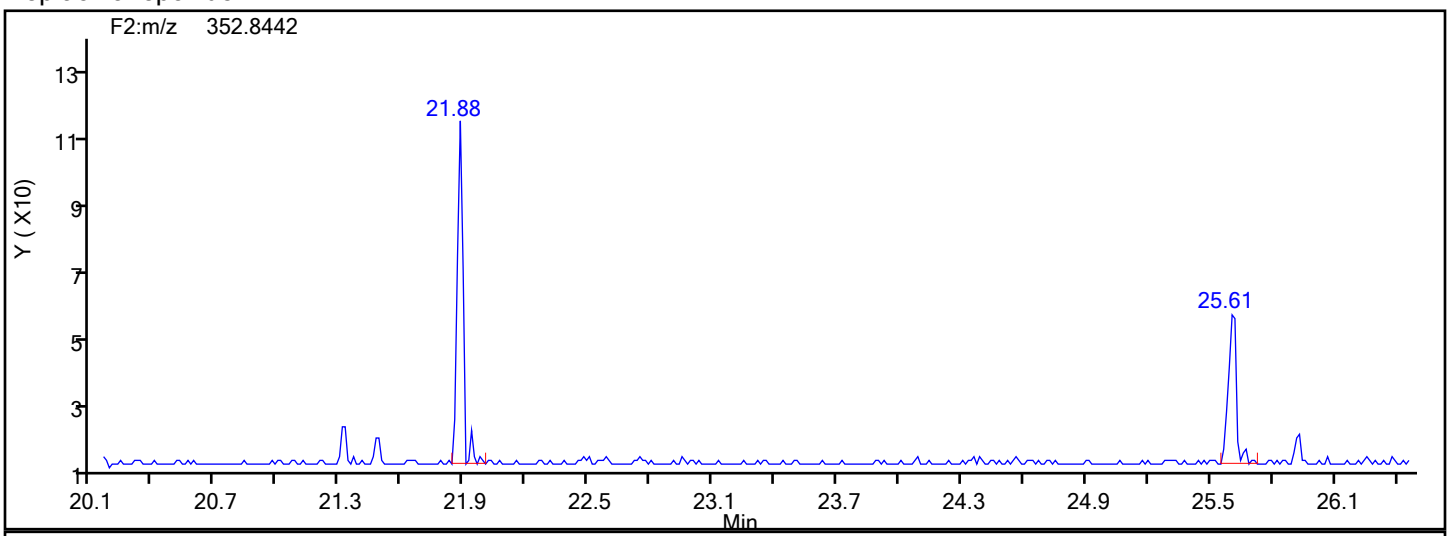
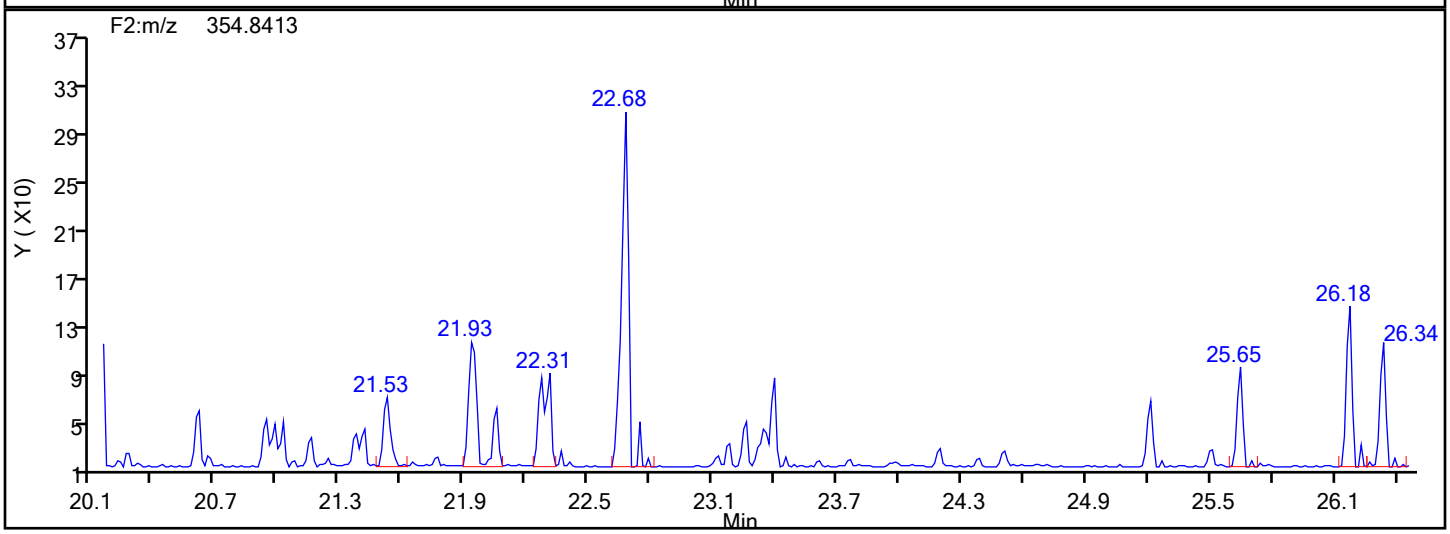
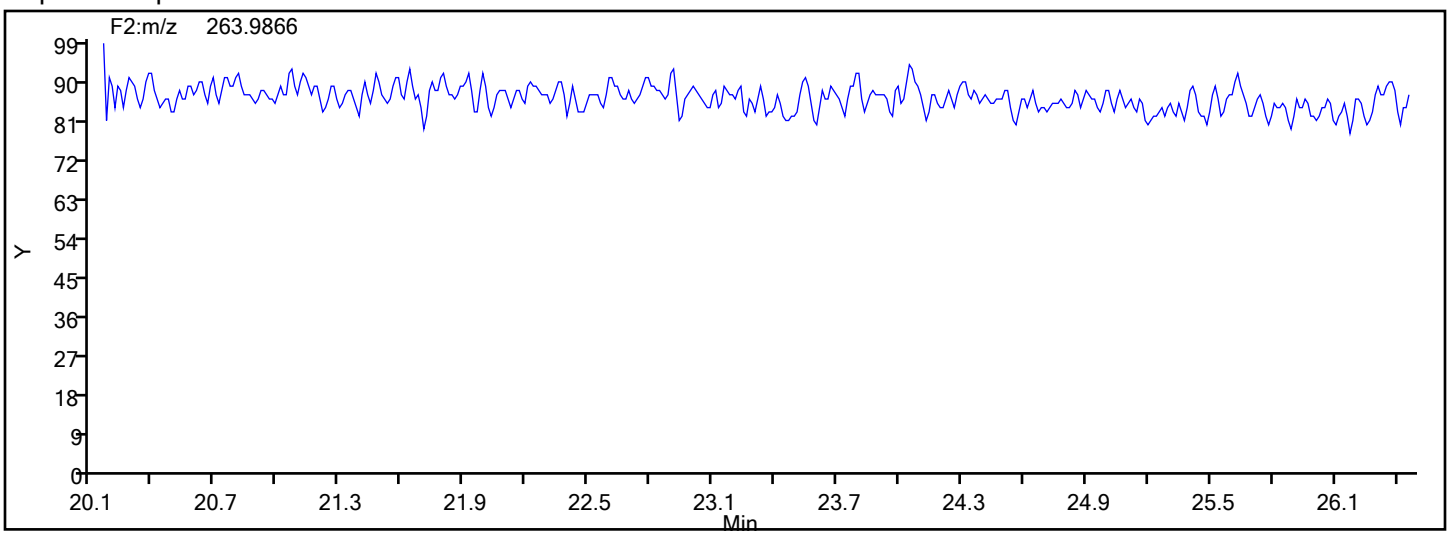
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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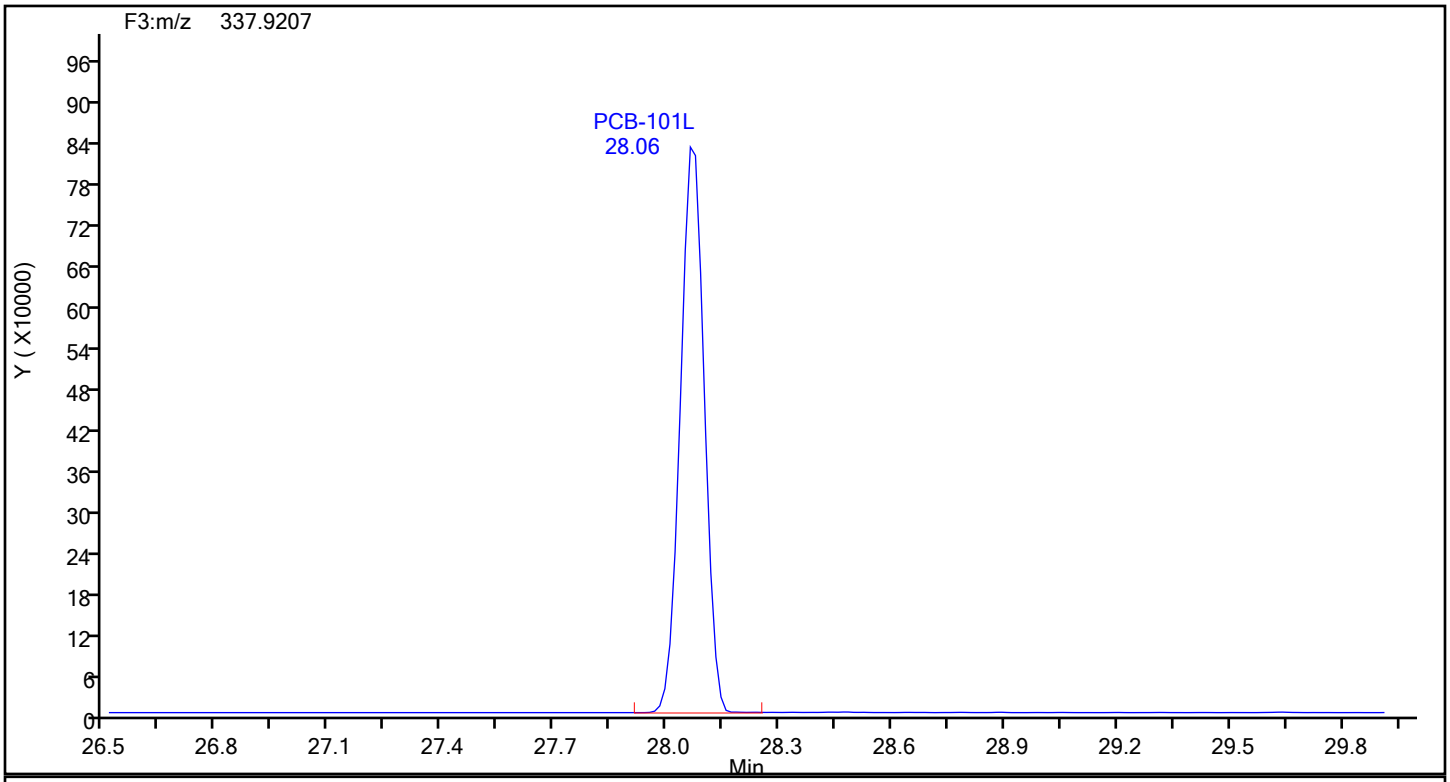
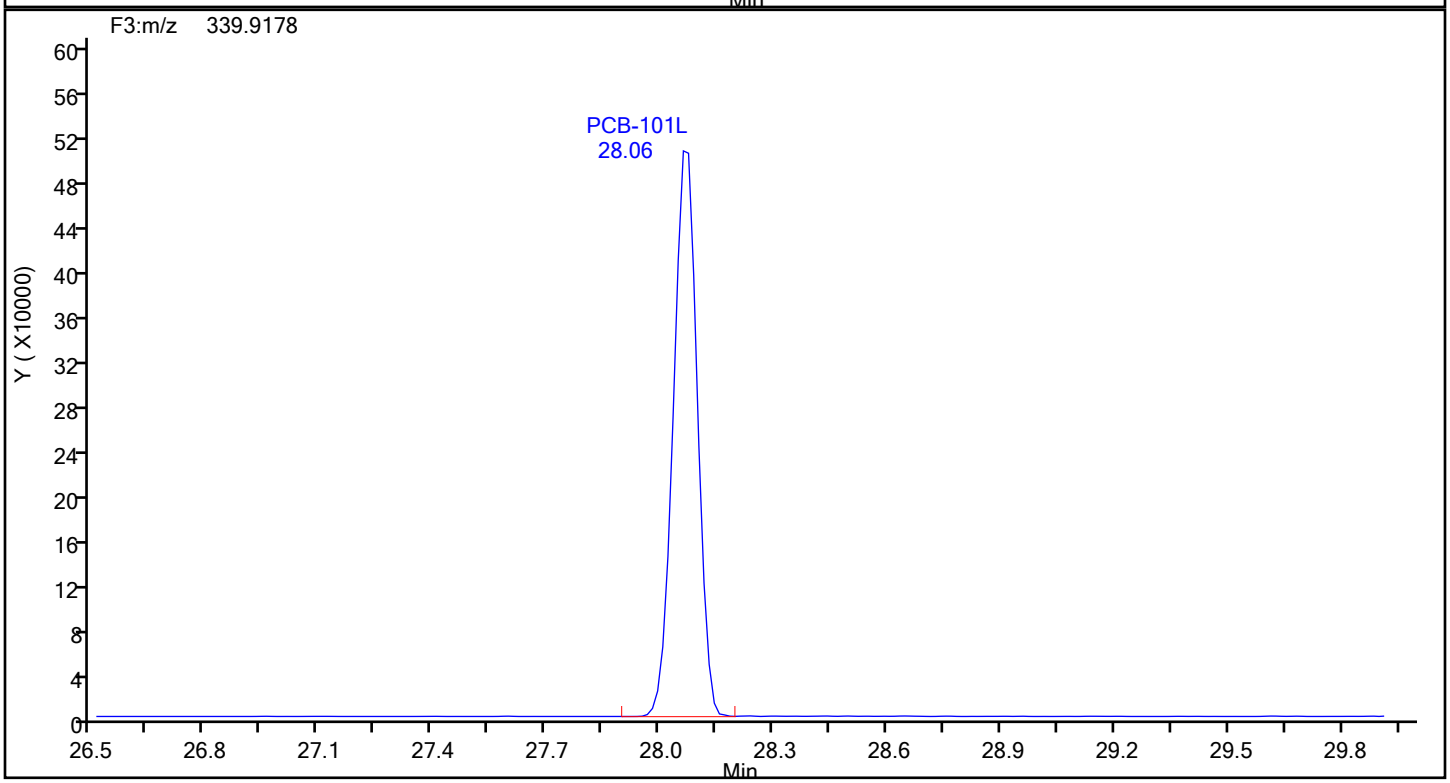
PCB-101L Standards





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Eurofins Knoxville

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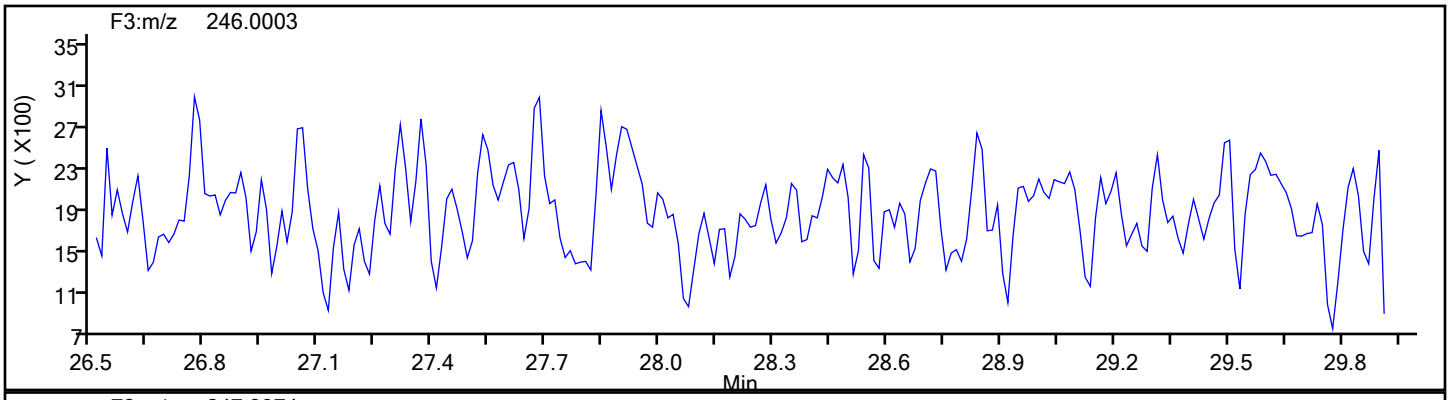
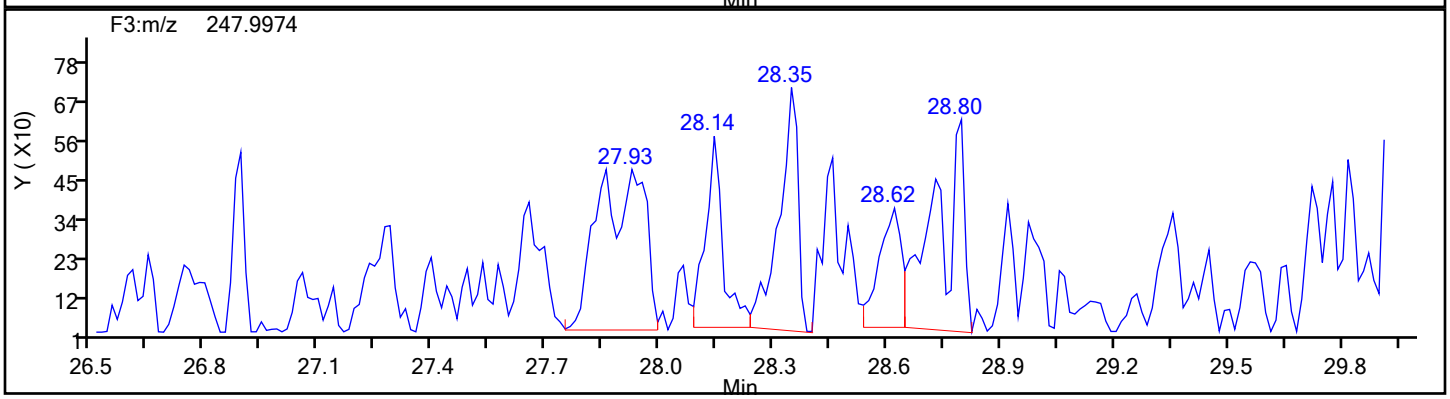
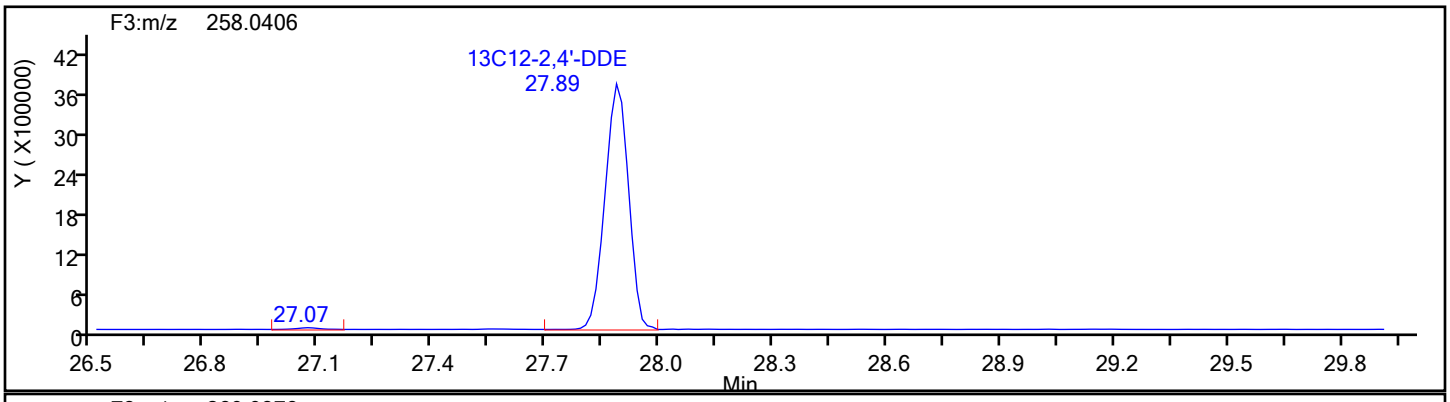
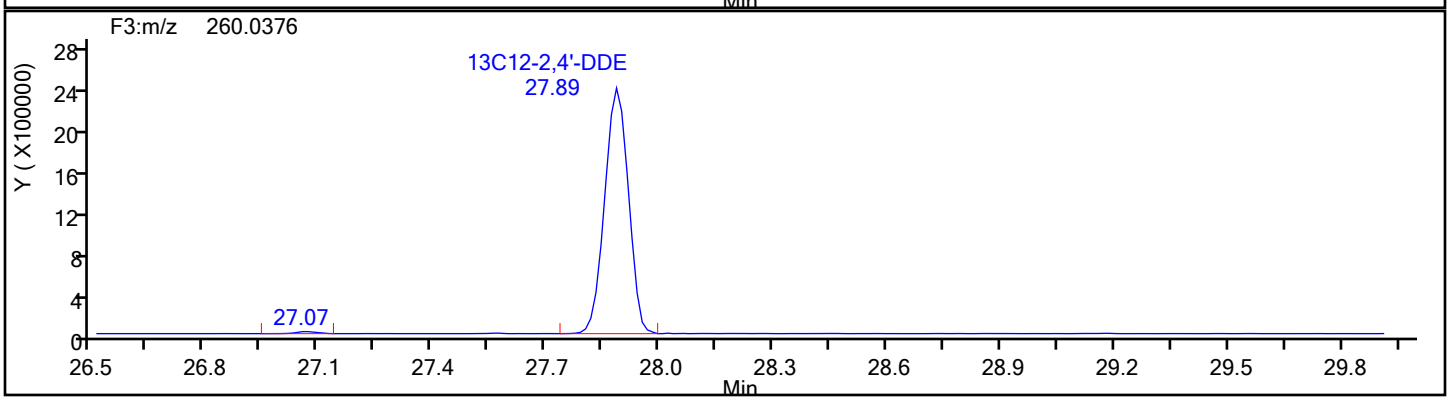
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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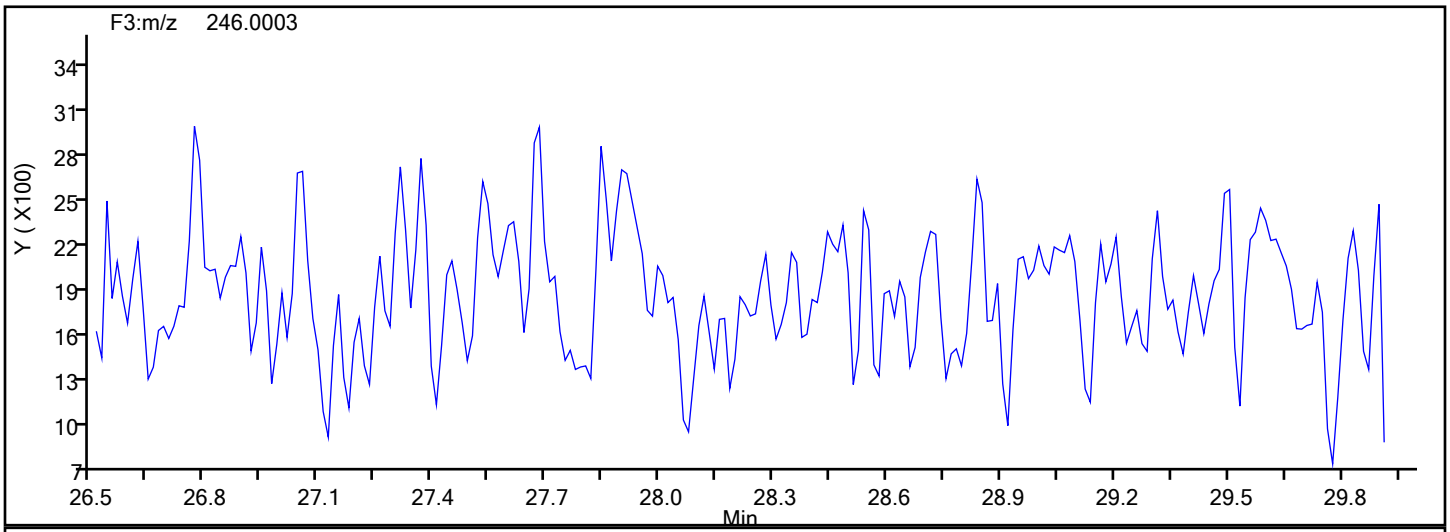
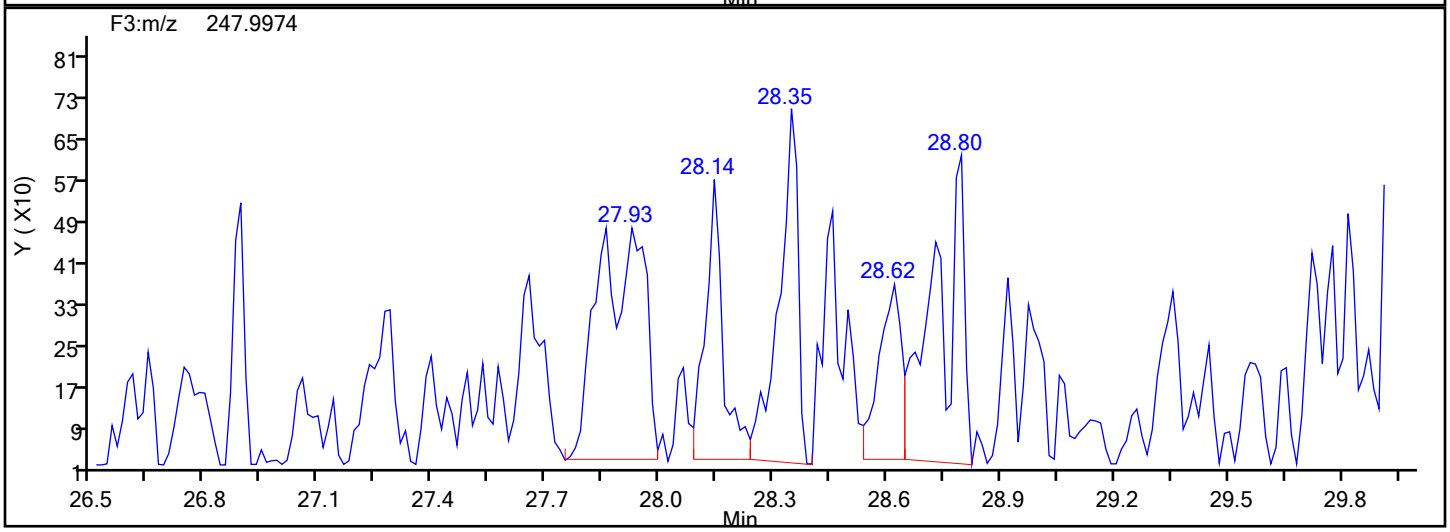
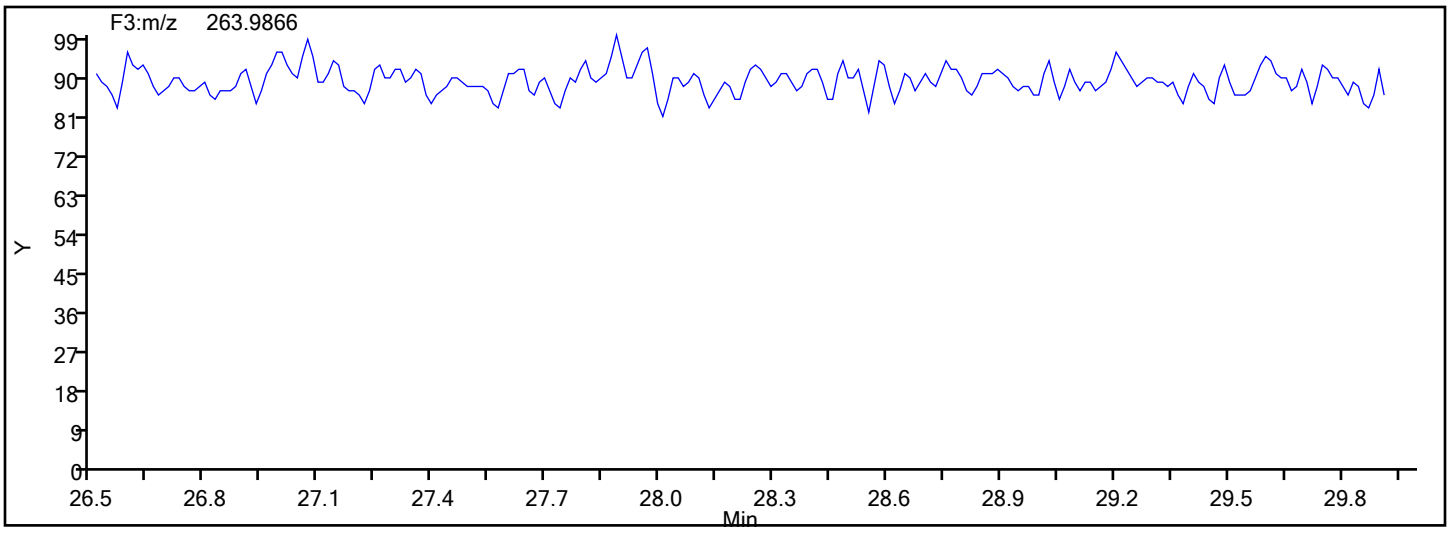
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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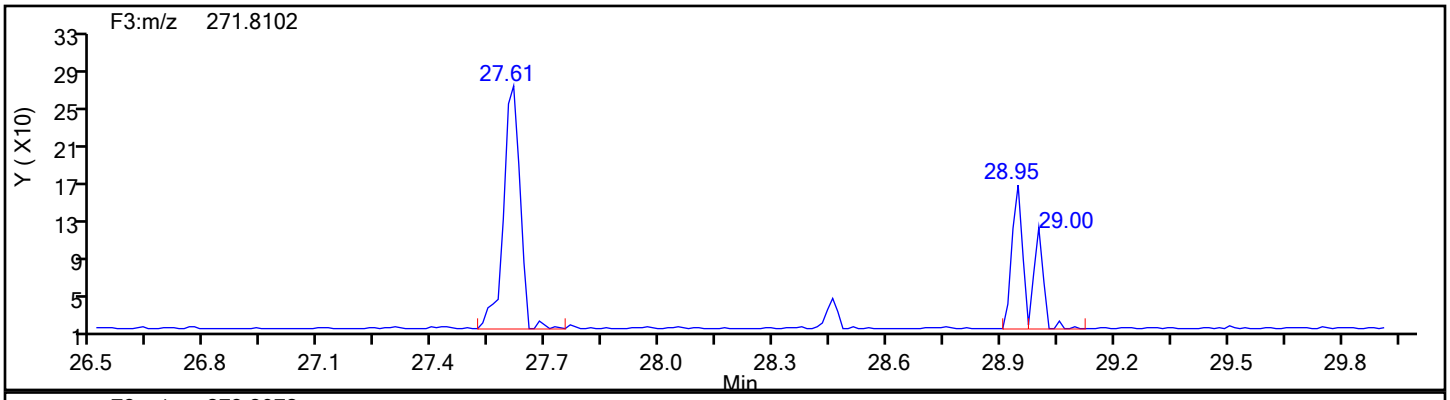
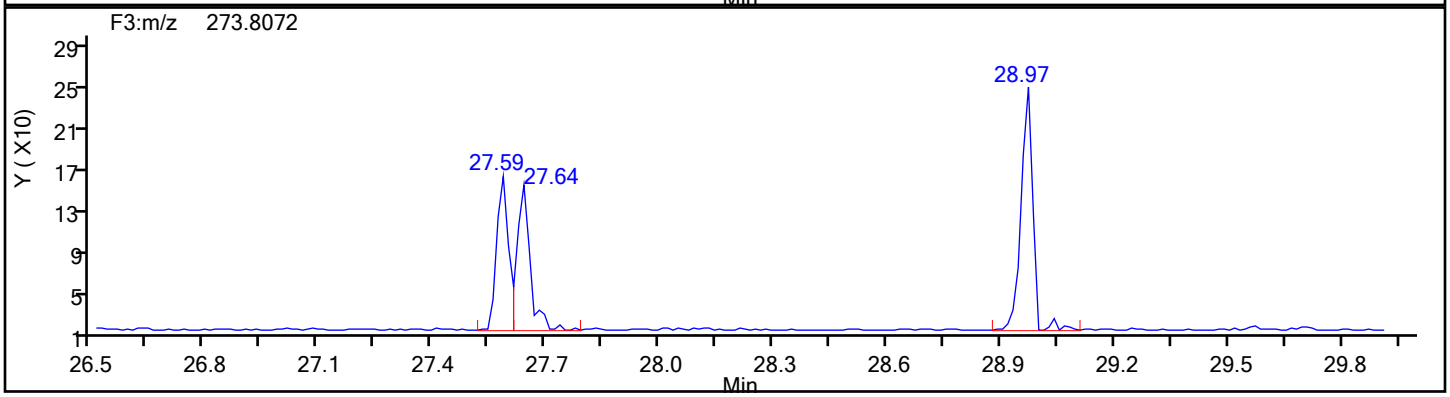
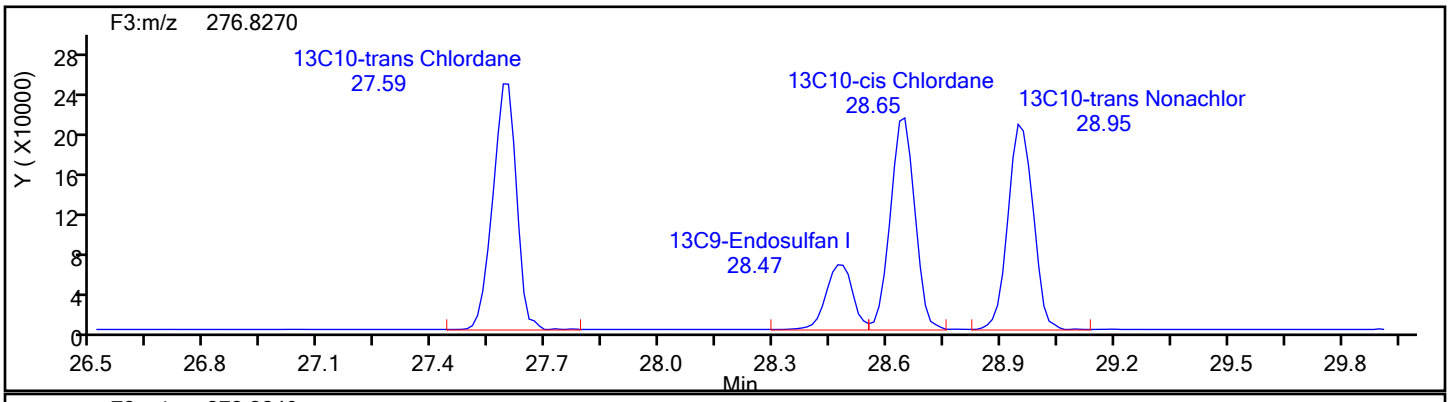
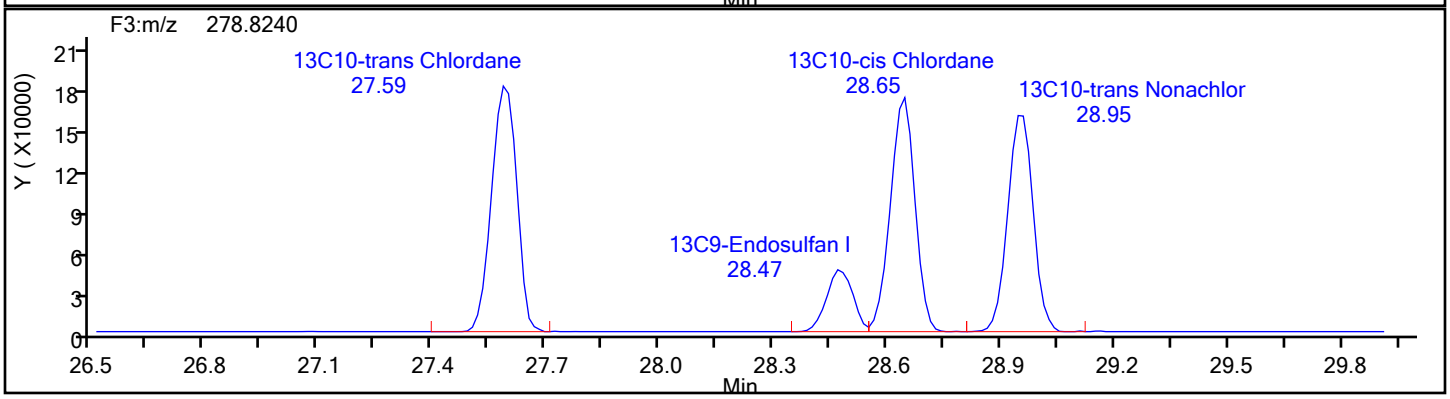
Chlordane





Chlordane Standards





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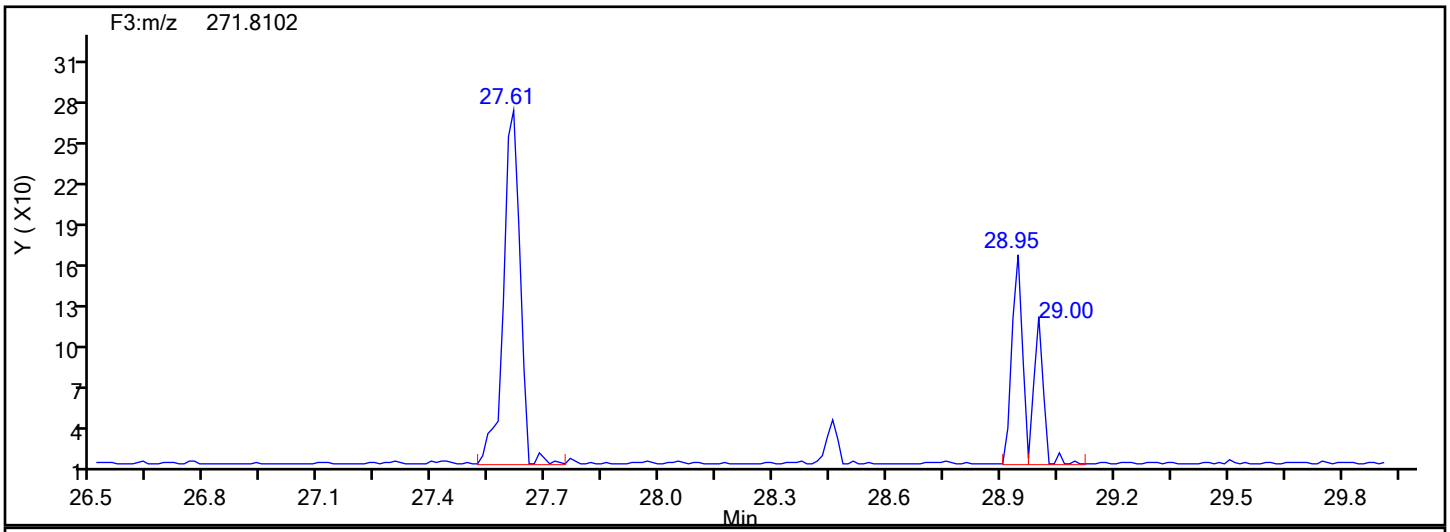
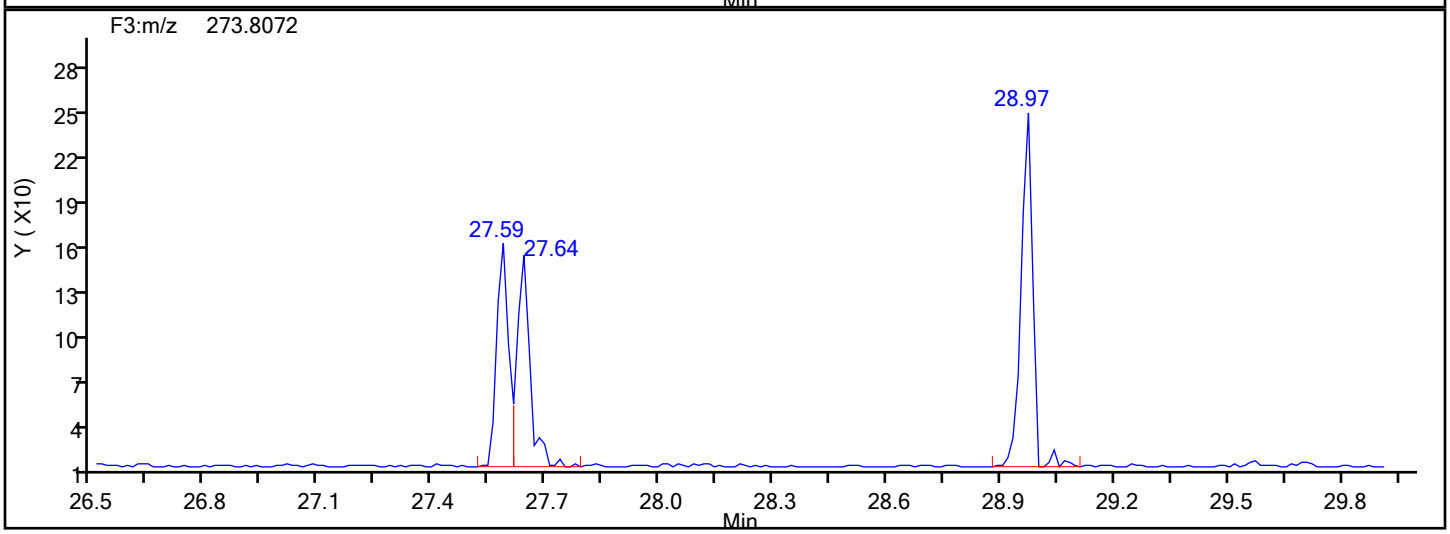
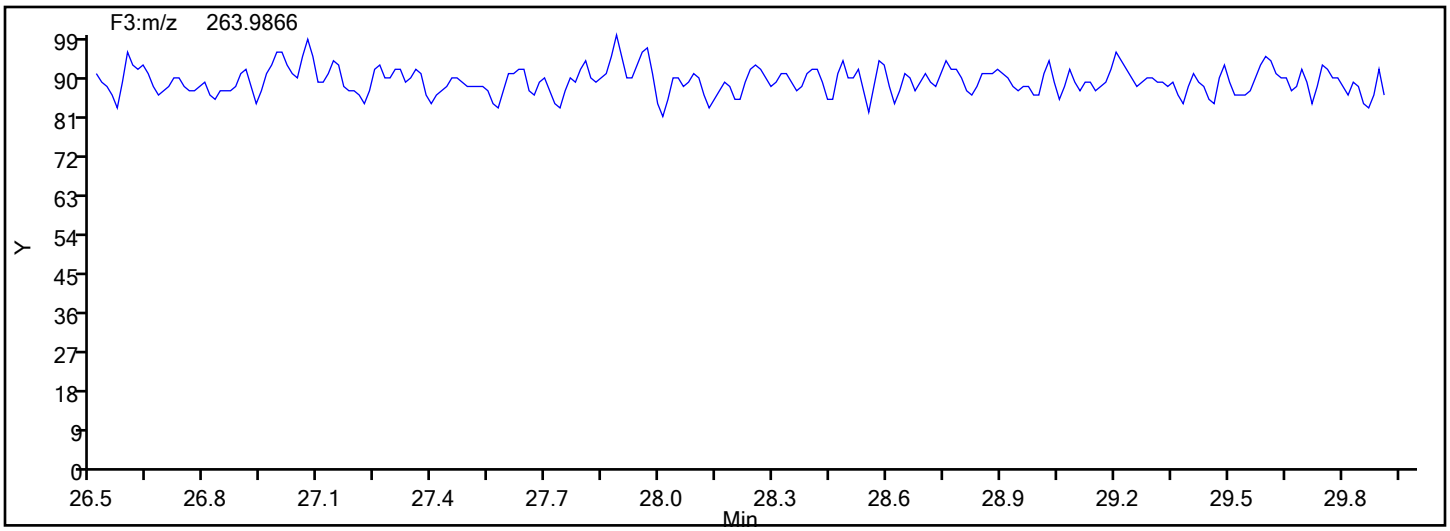
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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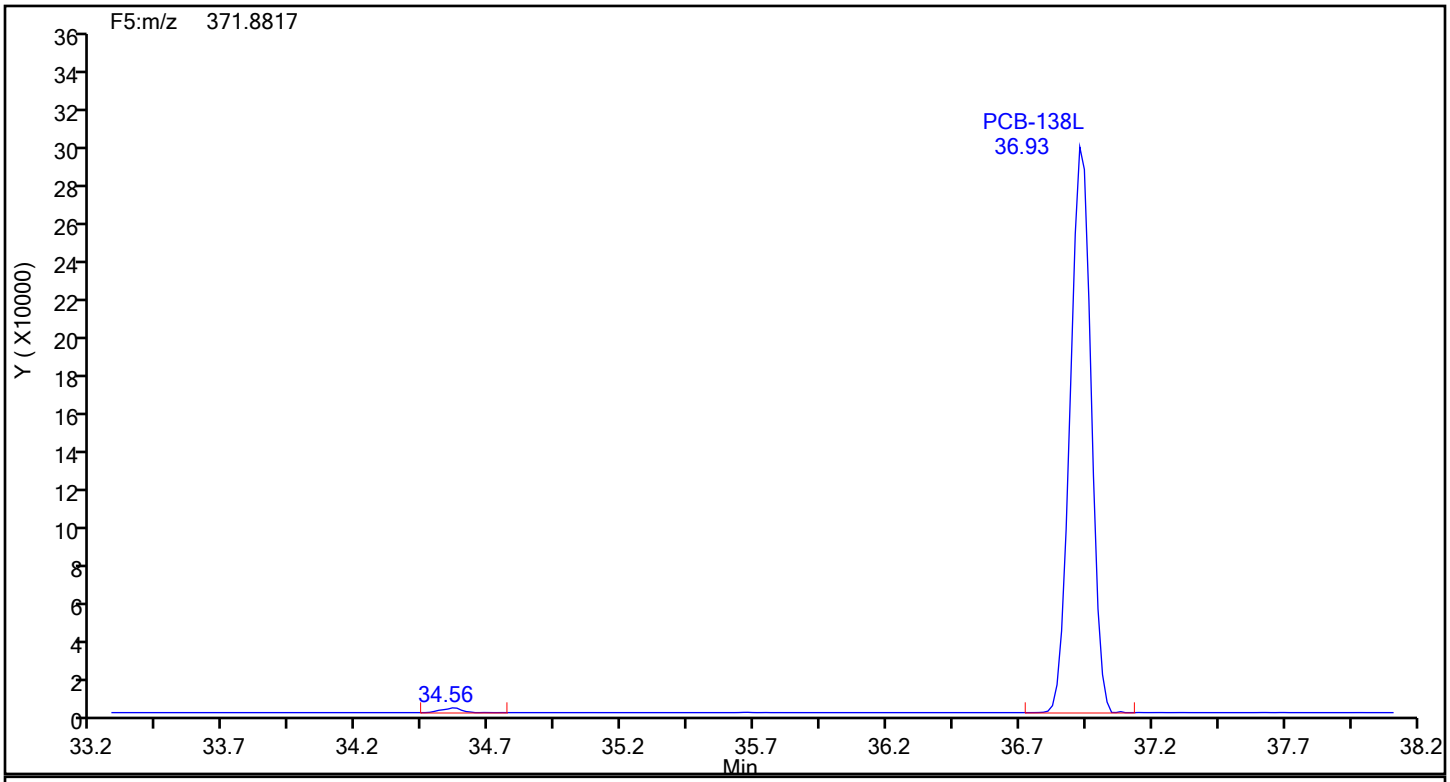
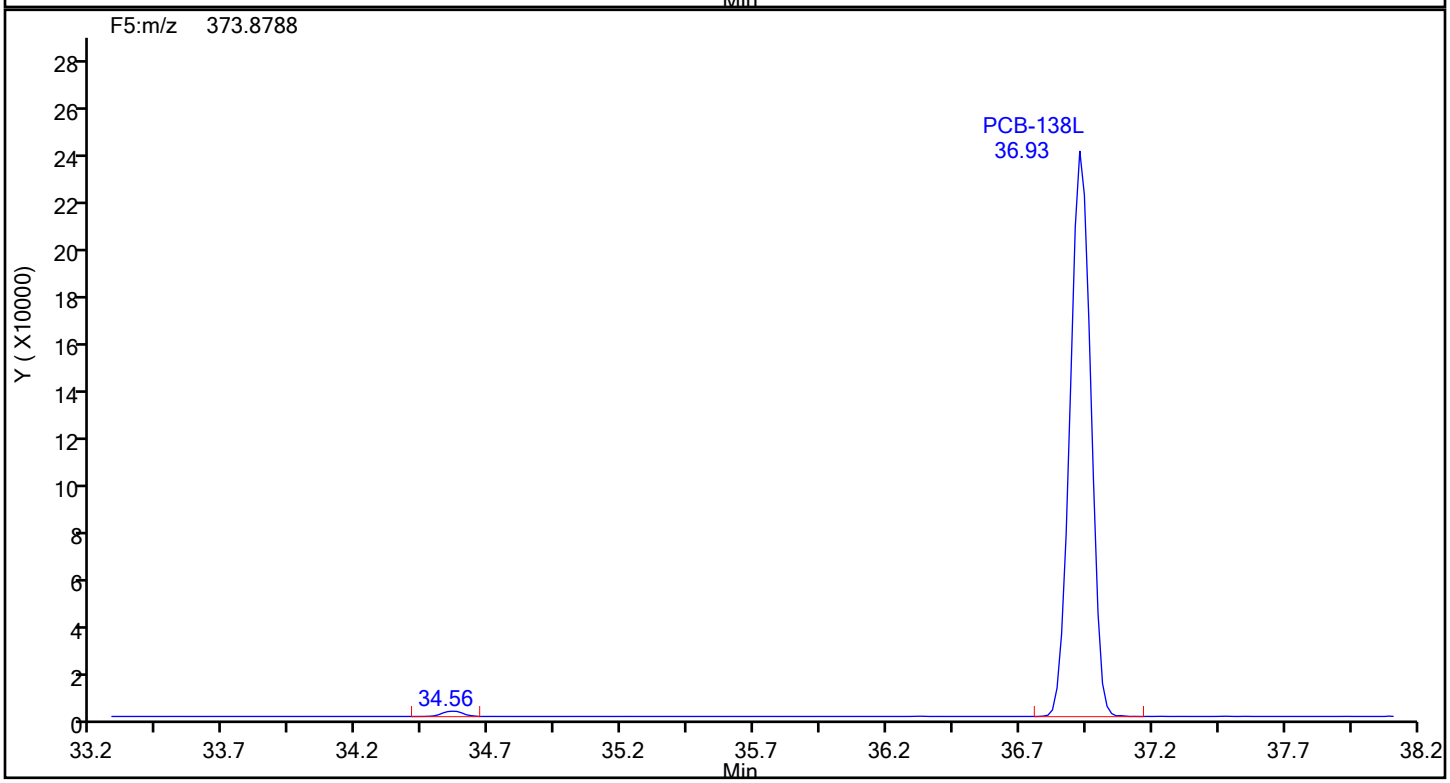
PCB-138L Standards





Report Date: 05-May-2025 18:00:09 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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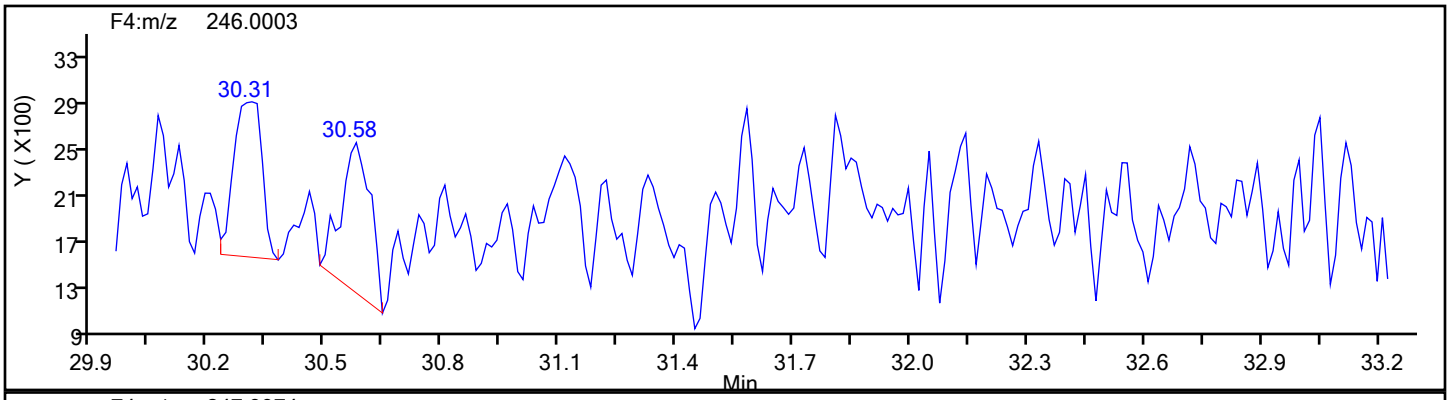
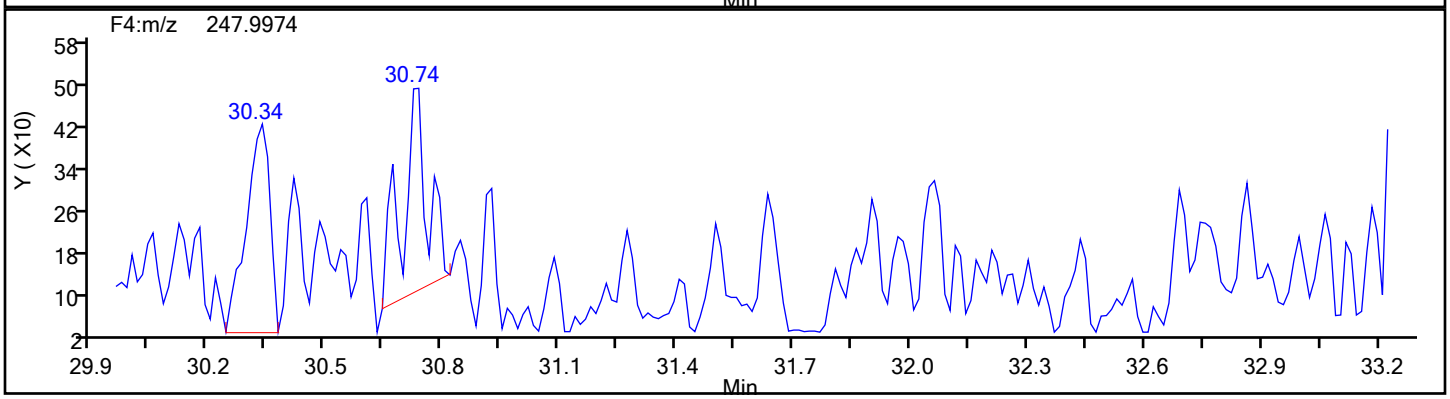
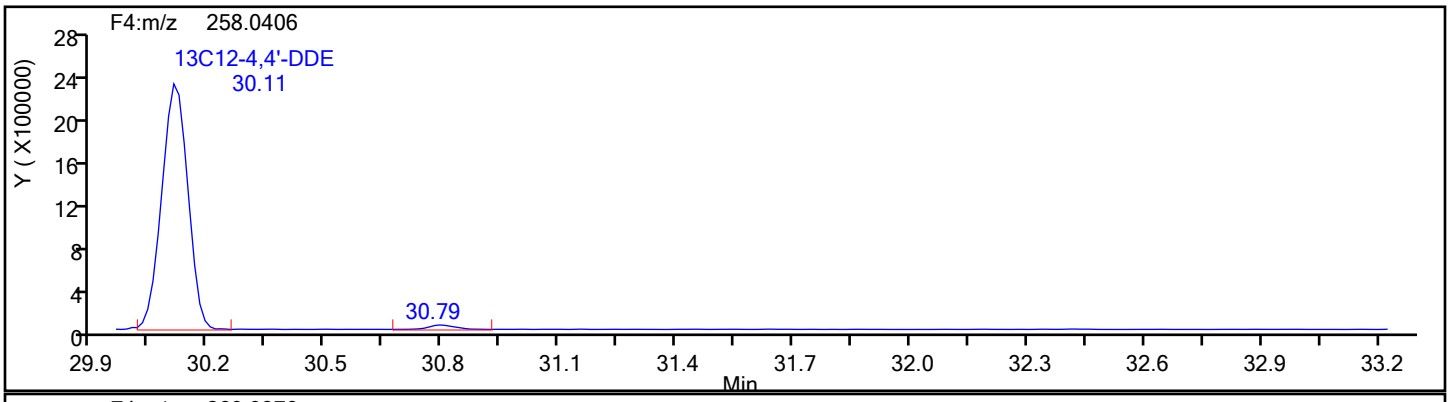
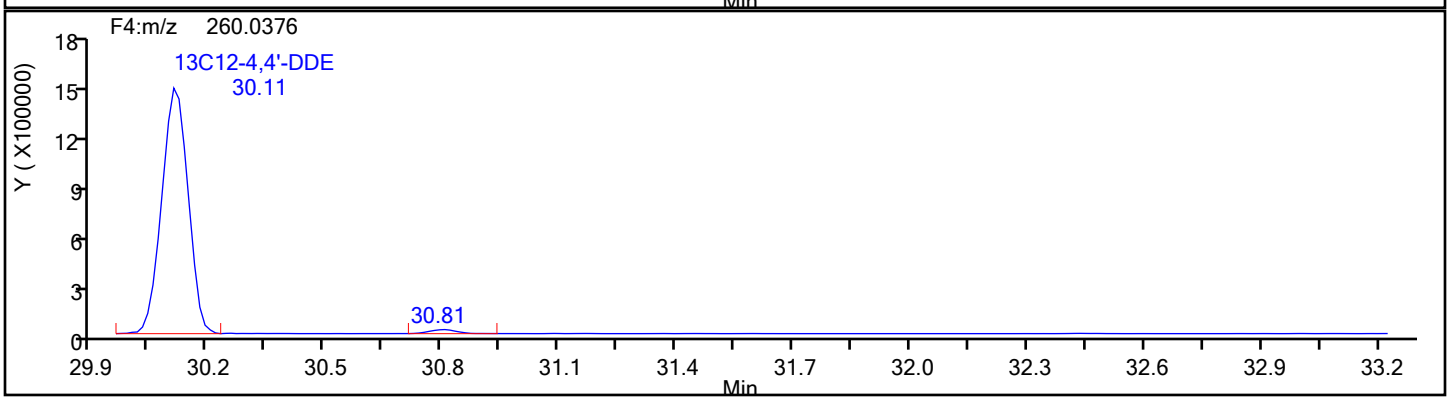
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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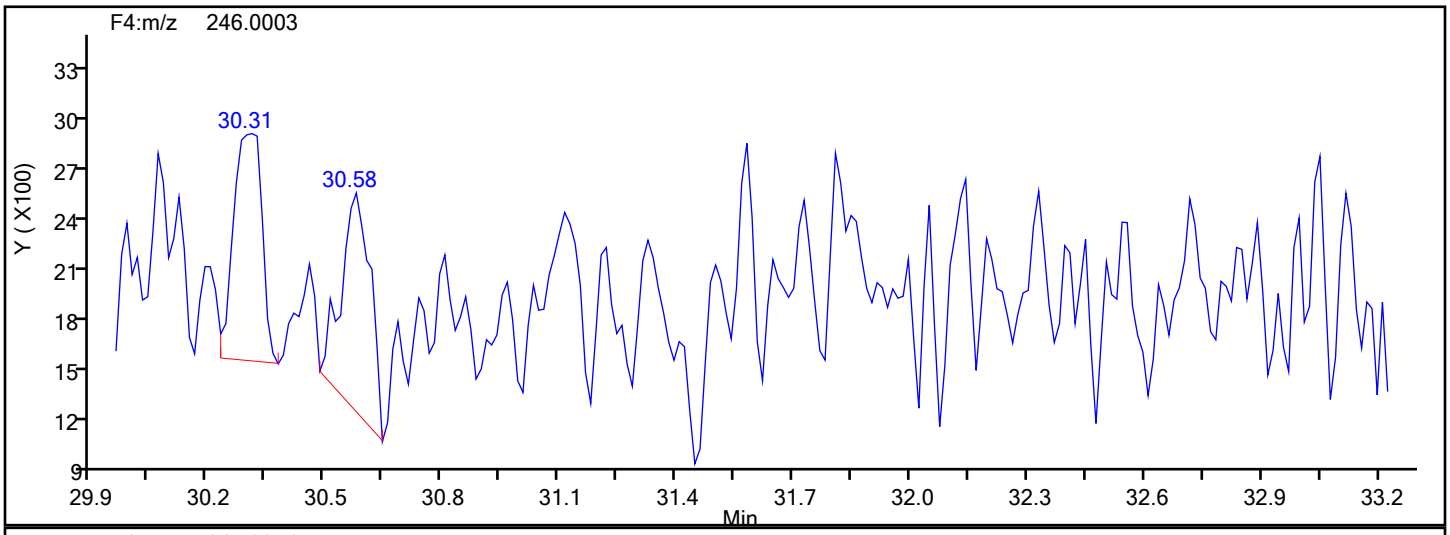
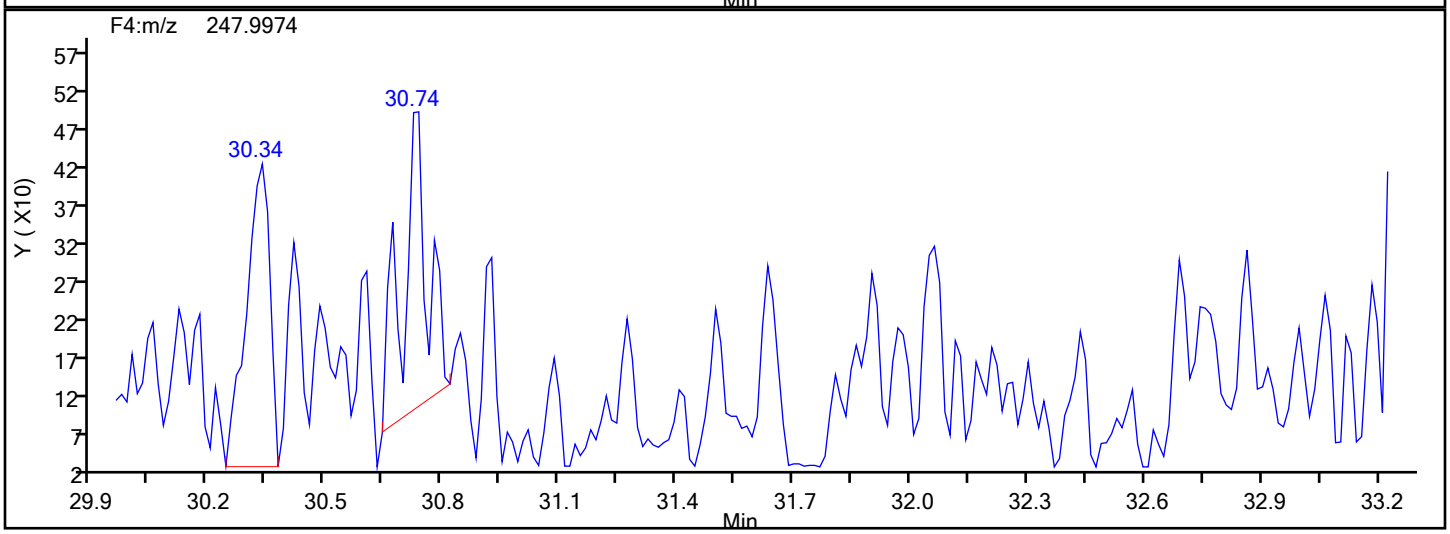
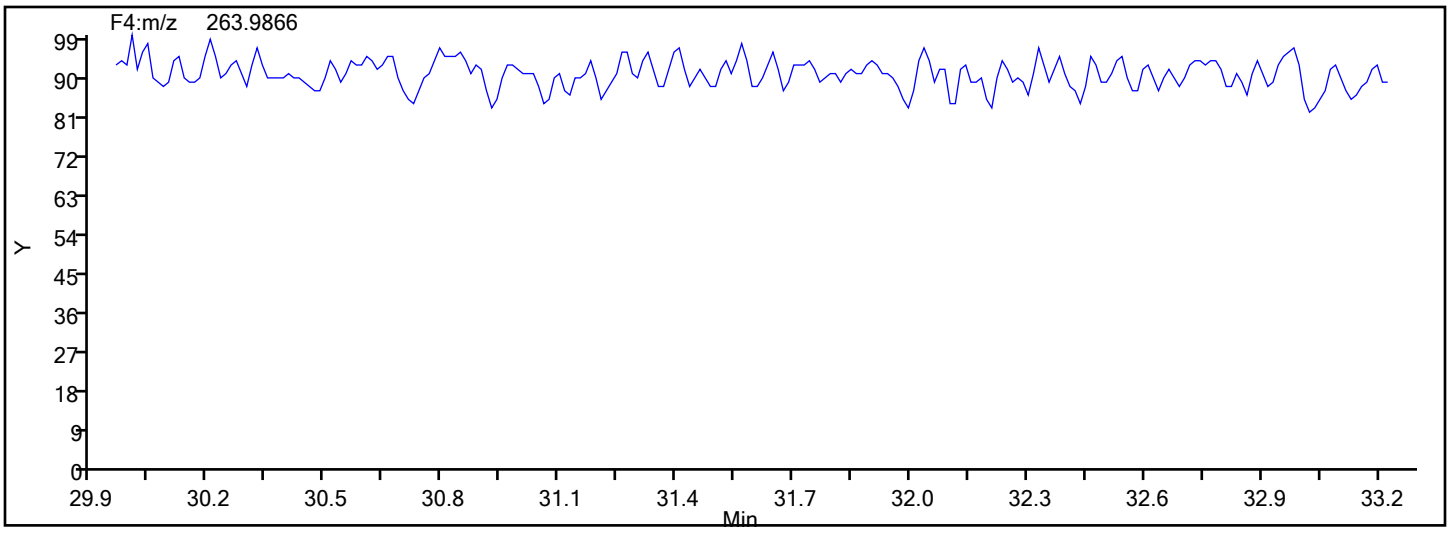




4,4'-DDE Lock Mass



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Eurofins Knoxville

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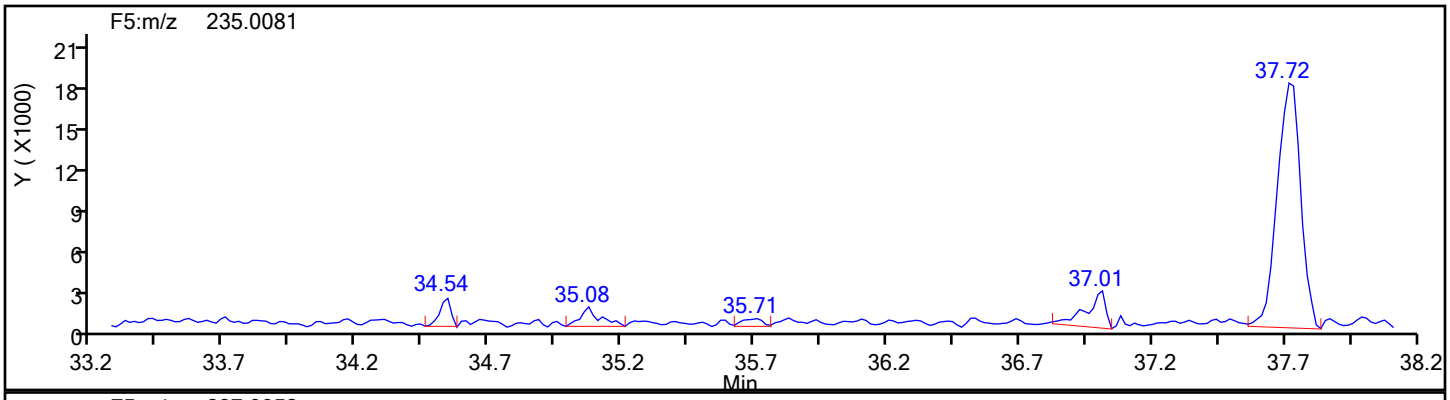
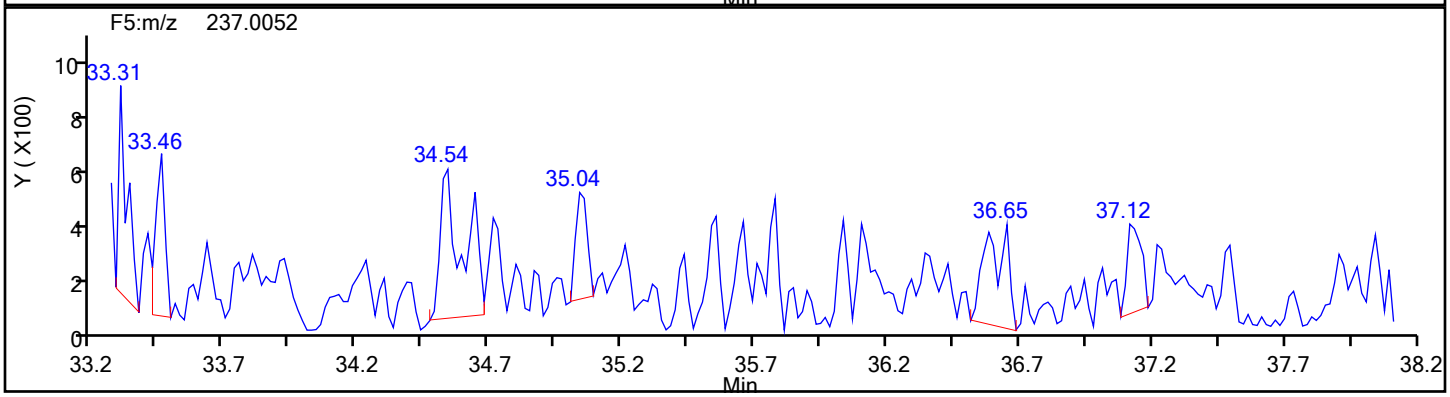
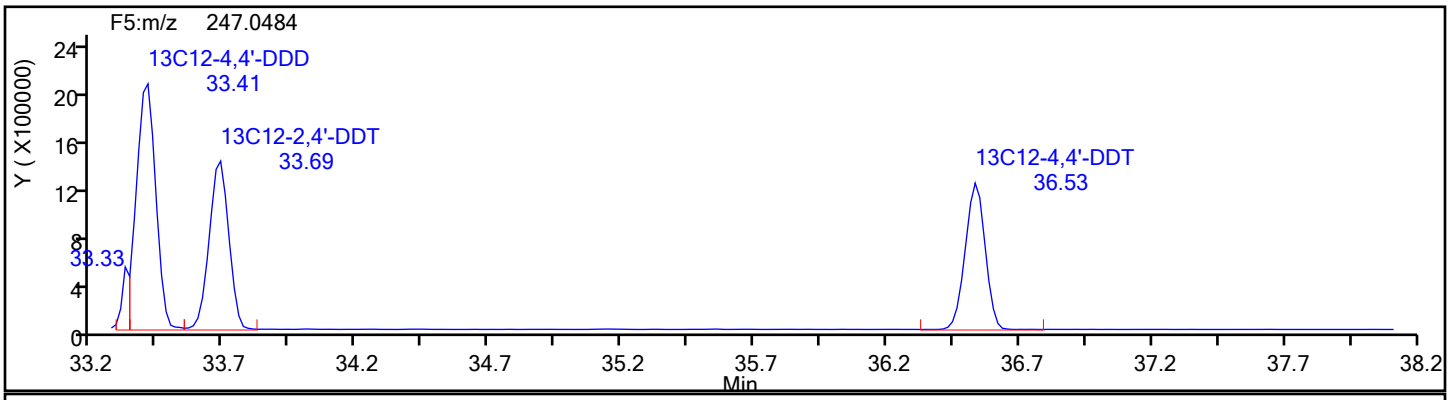
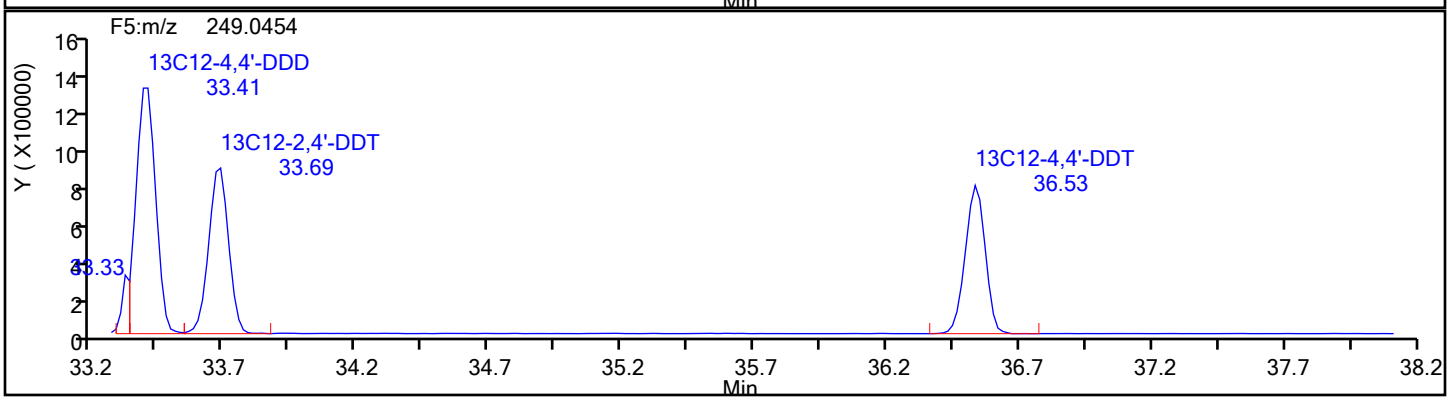




DDD Standards





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Eurofins Knoxville

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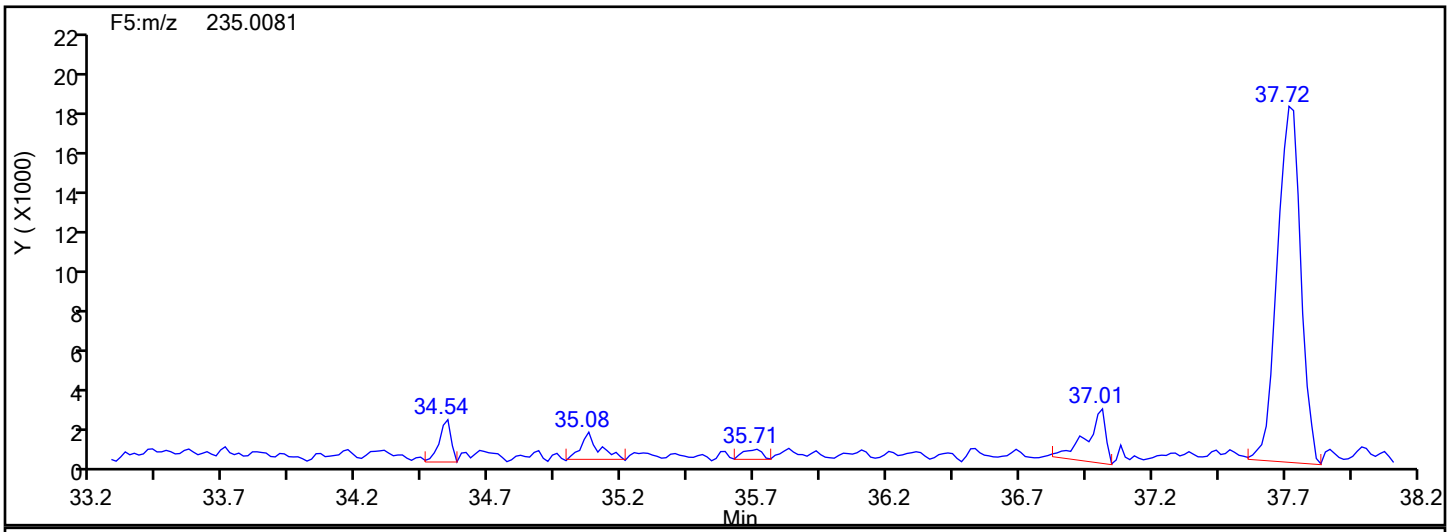
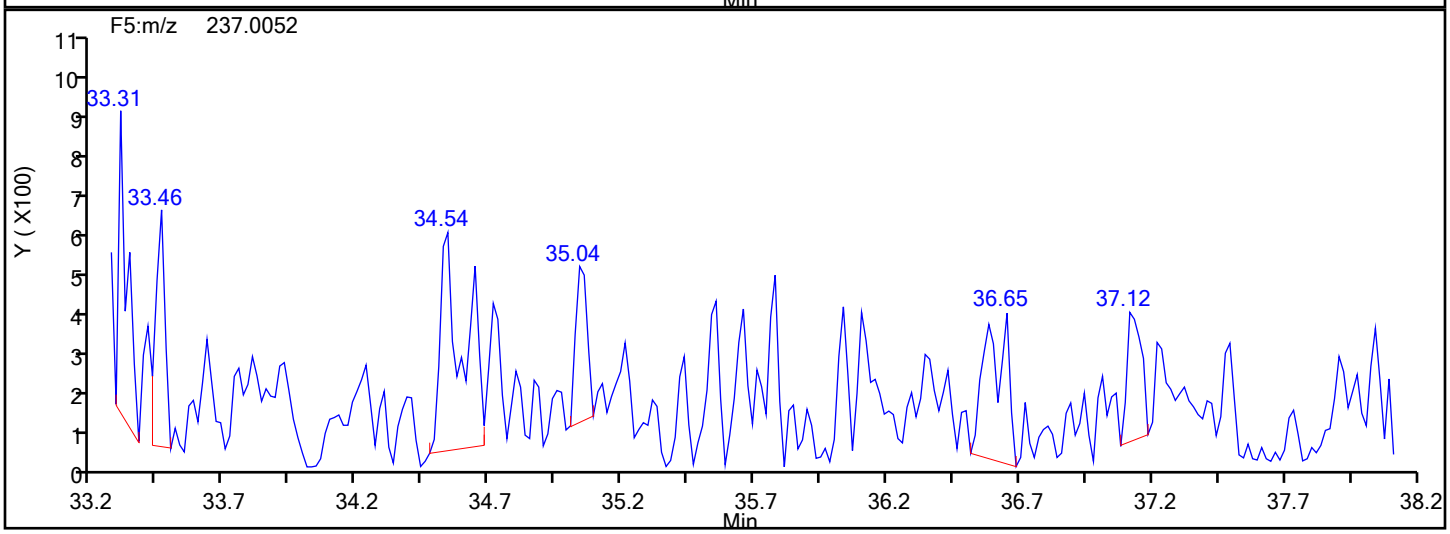
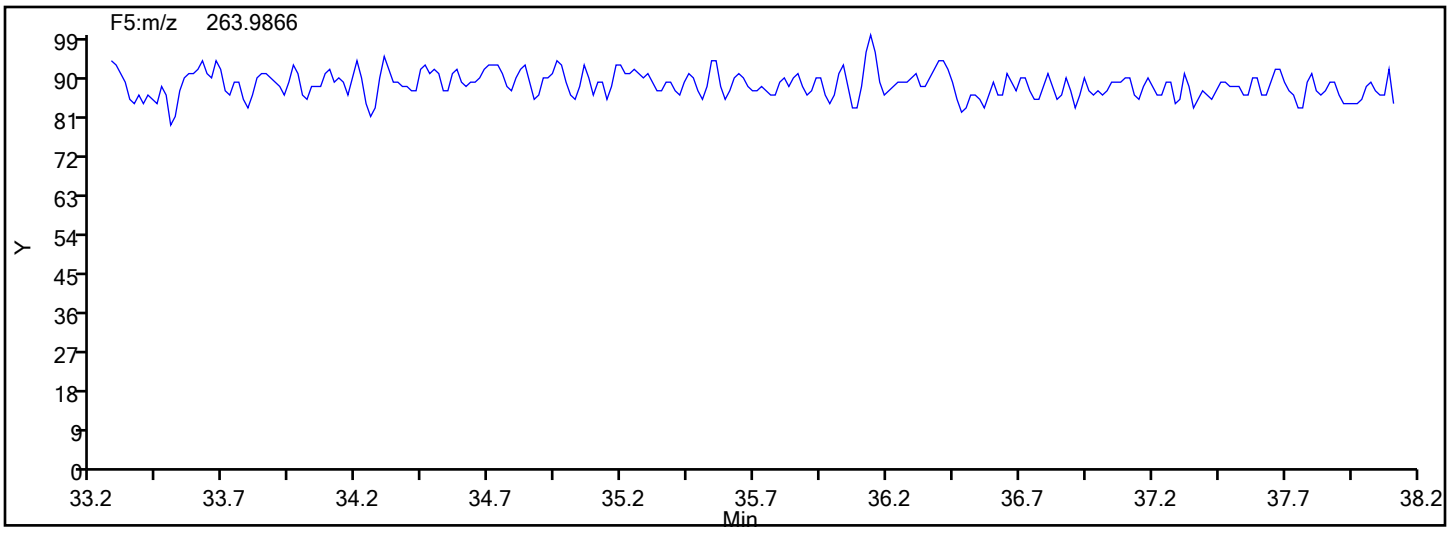




DDD Lock Mass



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Eurofins Knoxville

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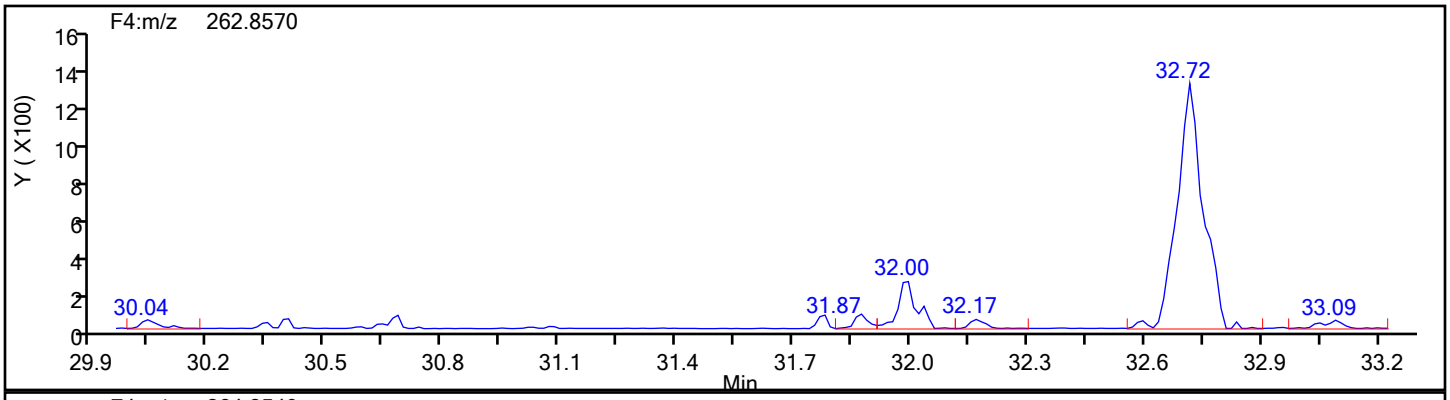

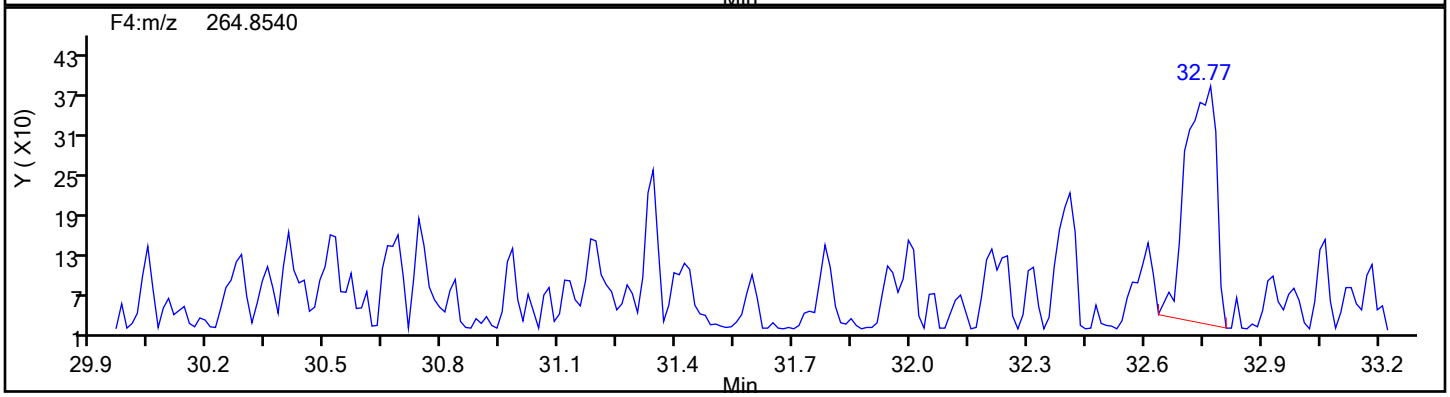

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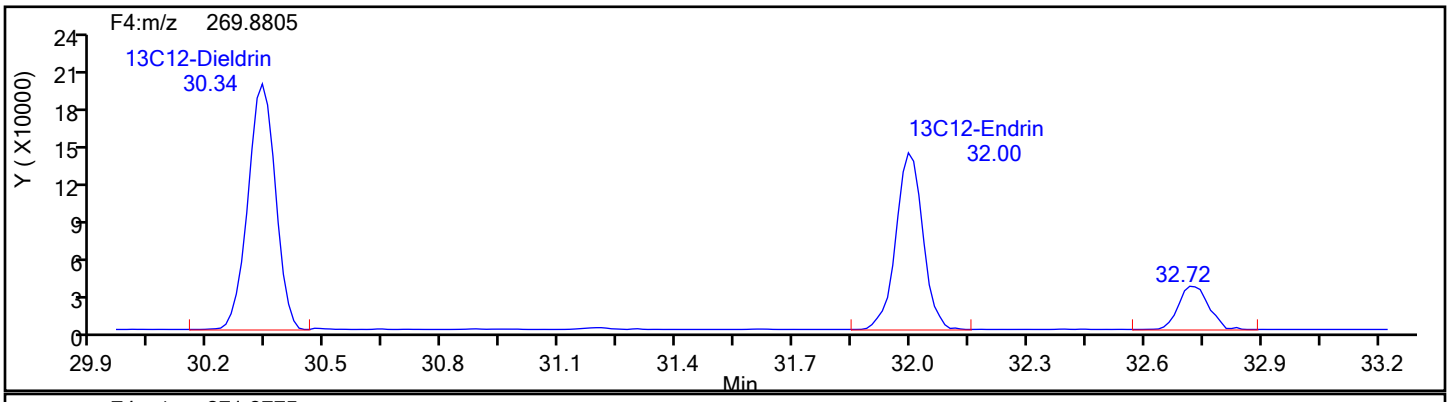

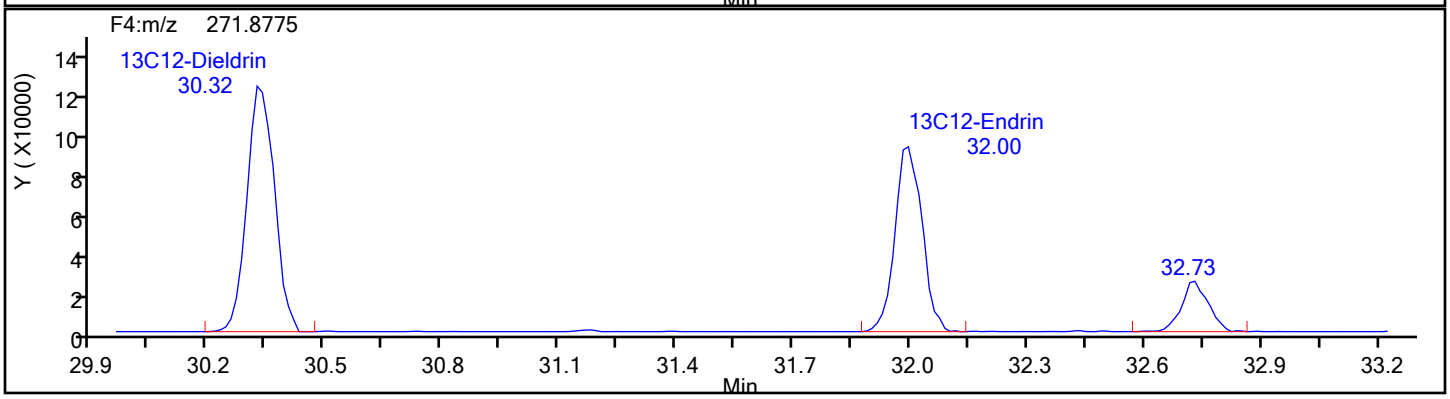

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Eurofins Knoxville

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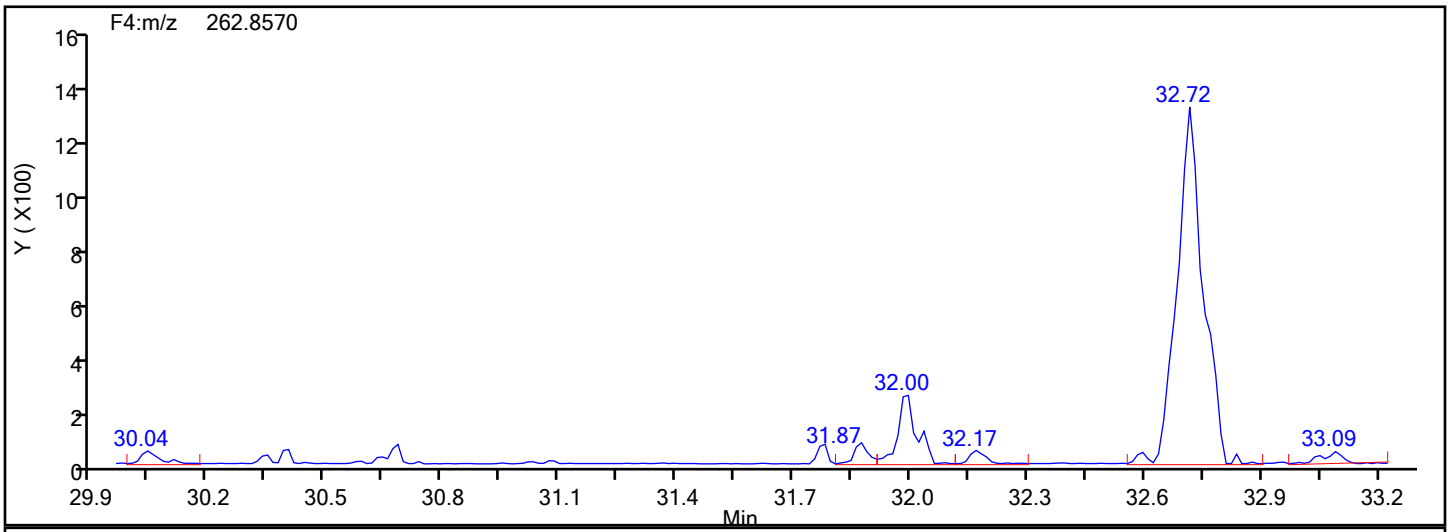
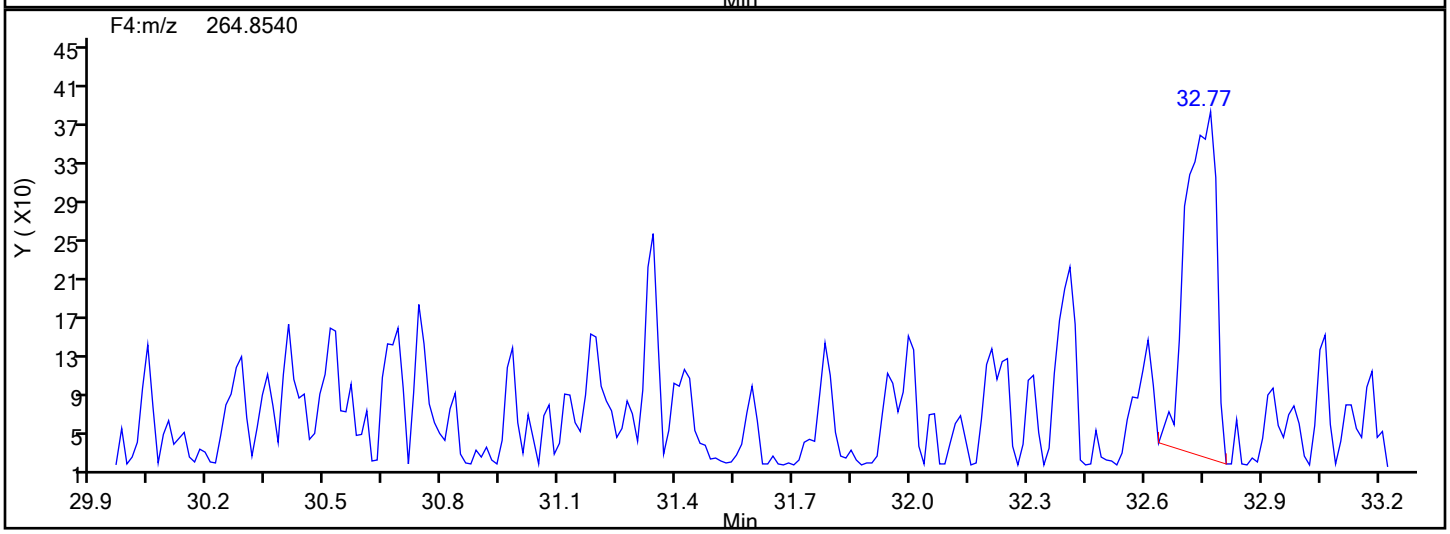
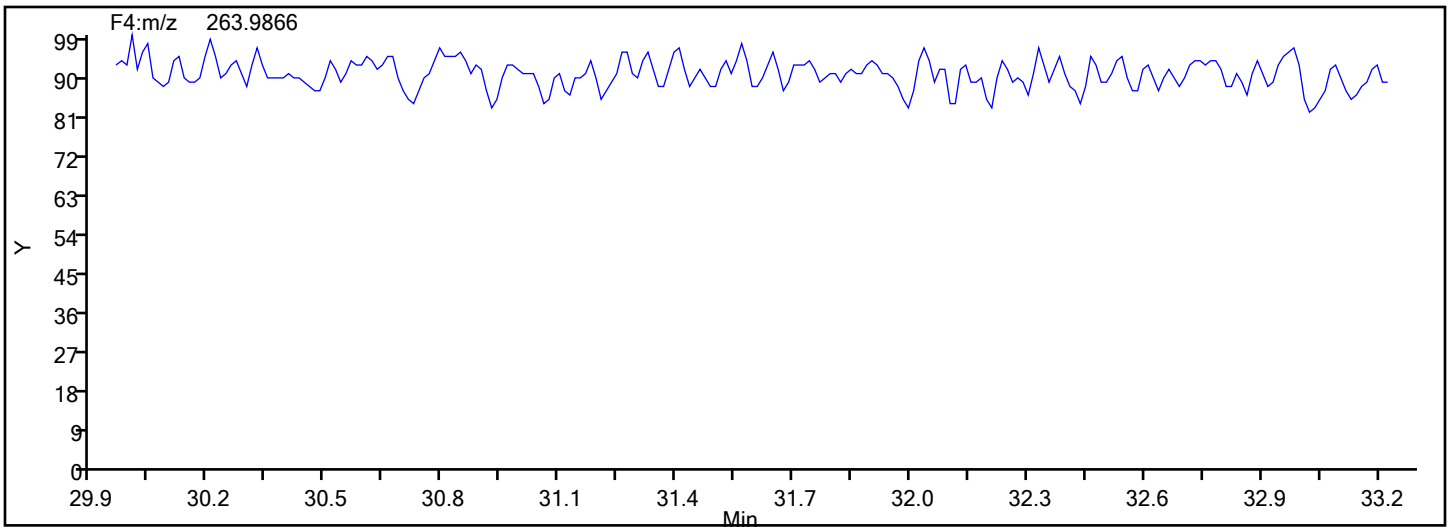




Dieldrin Lock Mass



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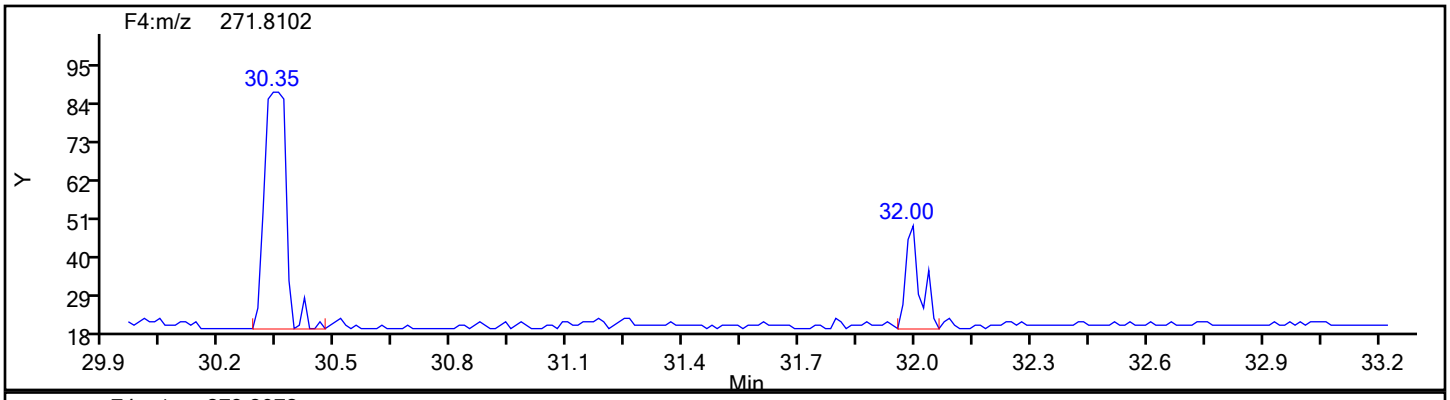
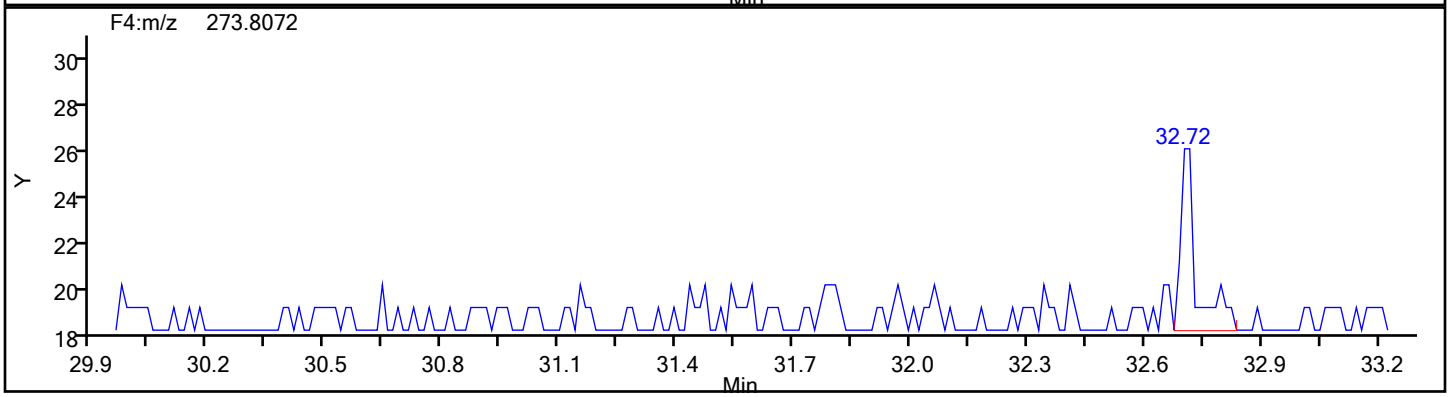
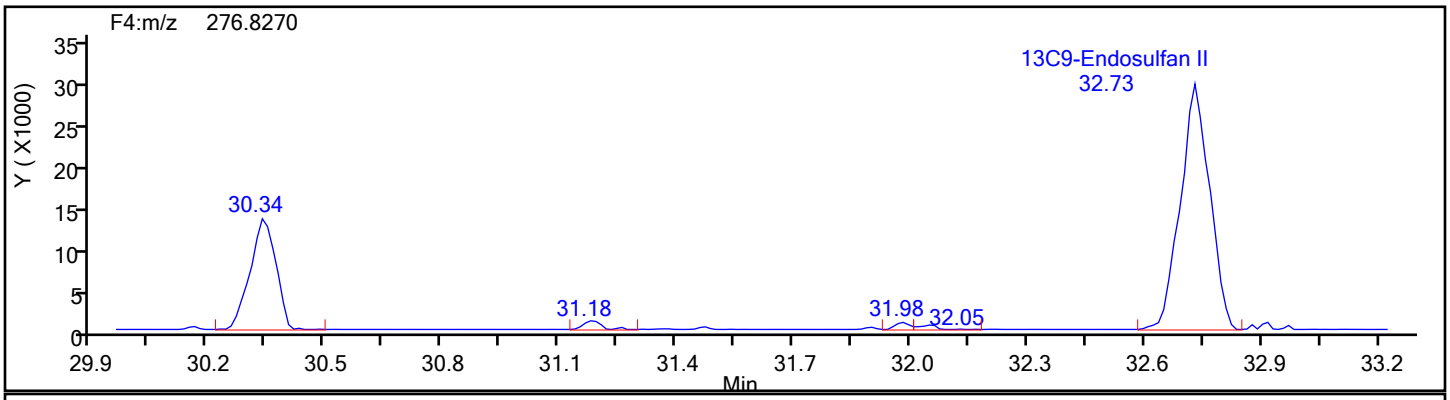
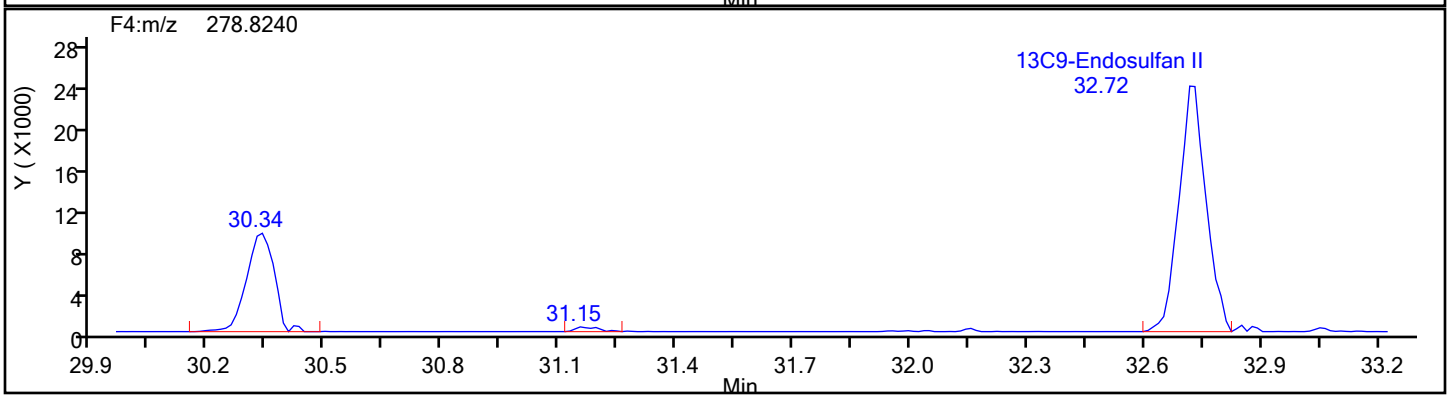
Endosulfan II





Endosulfan II Standards





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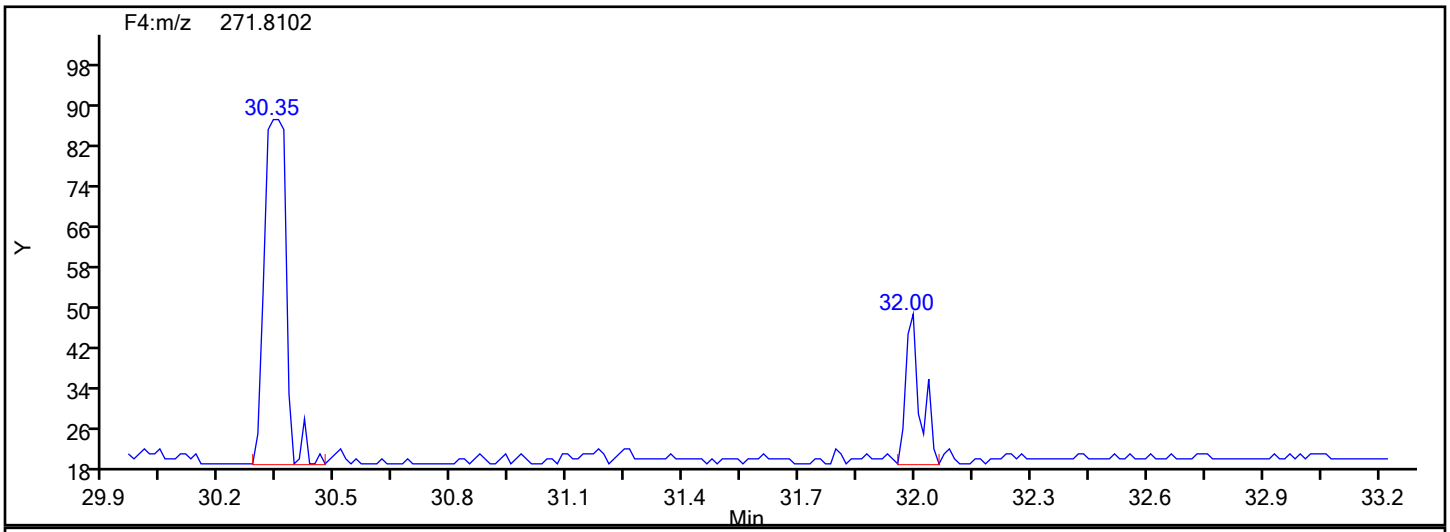
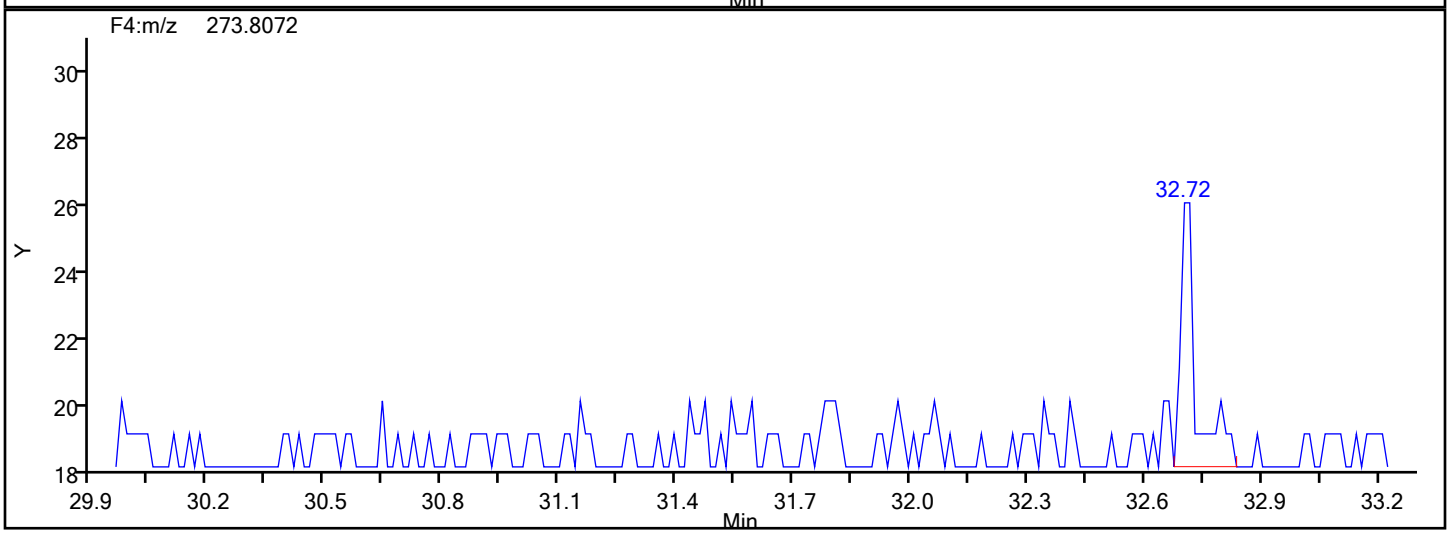
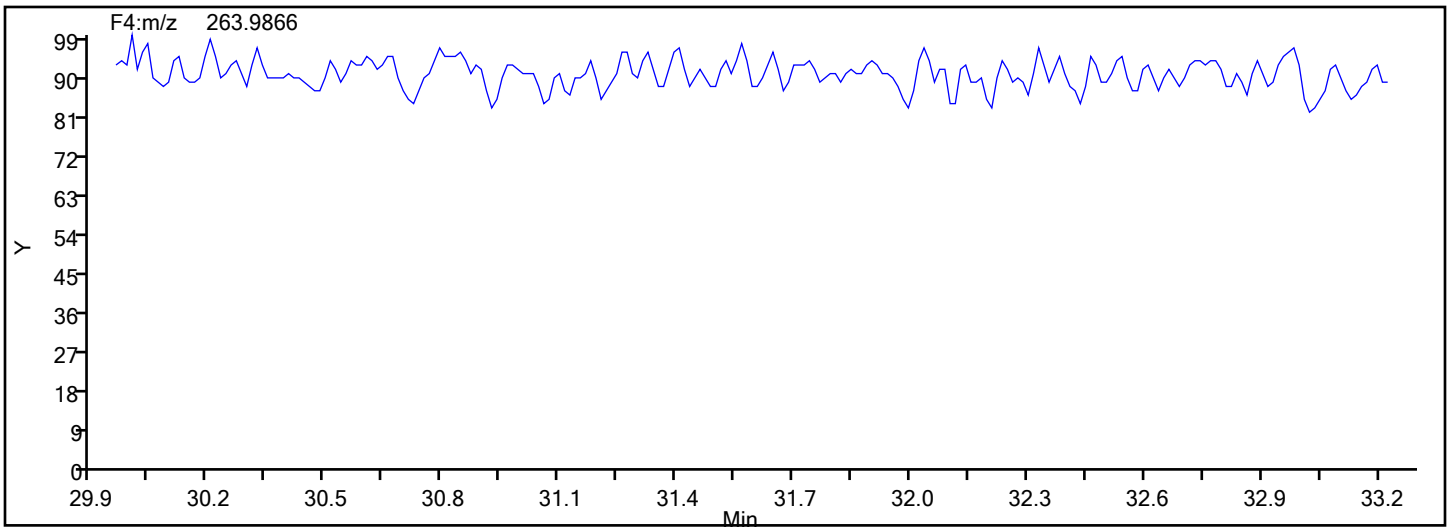




Endosulfan II Lock Mass



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Eurofins Knoxville

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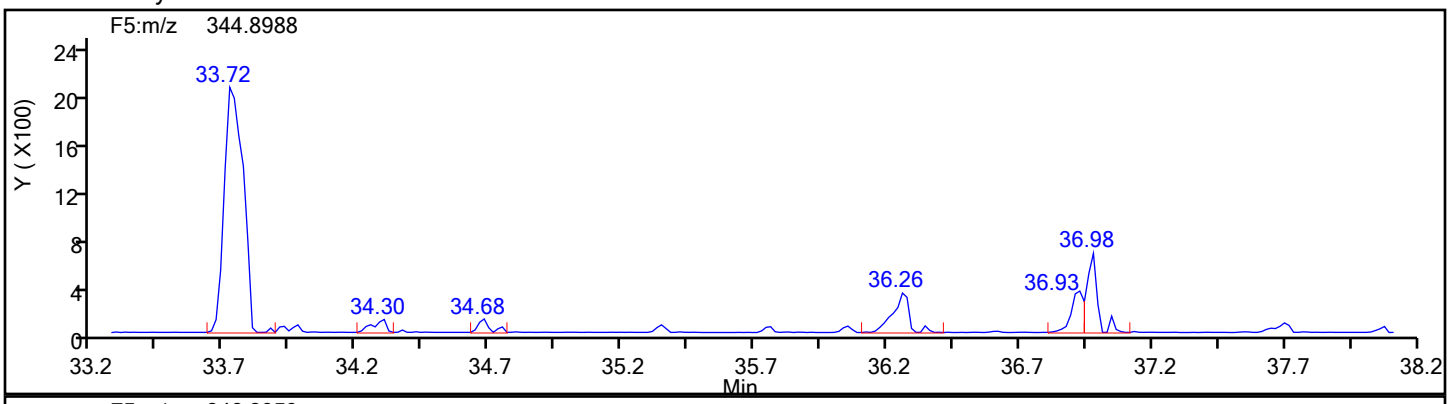
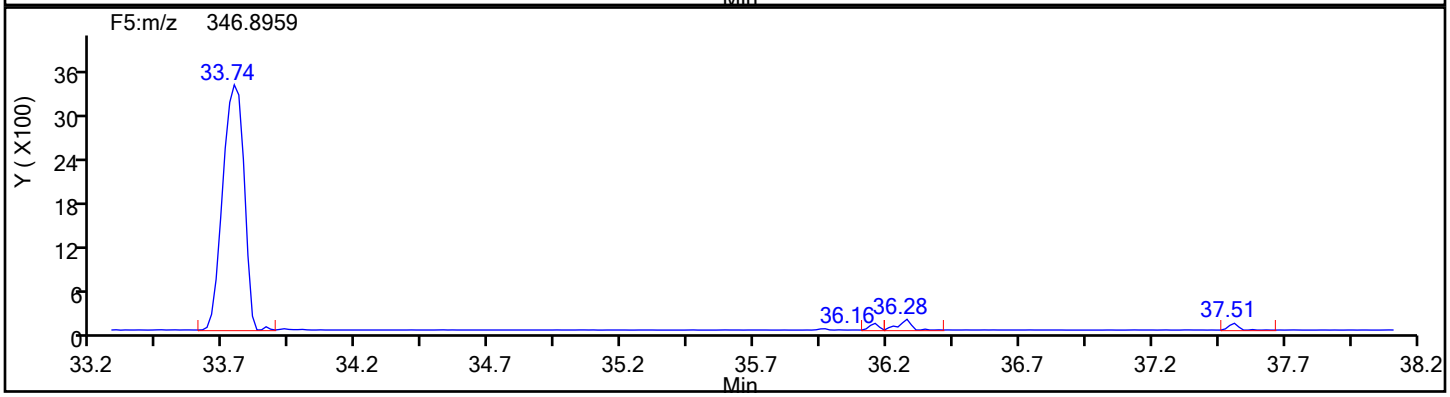
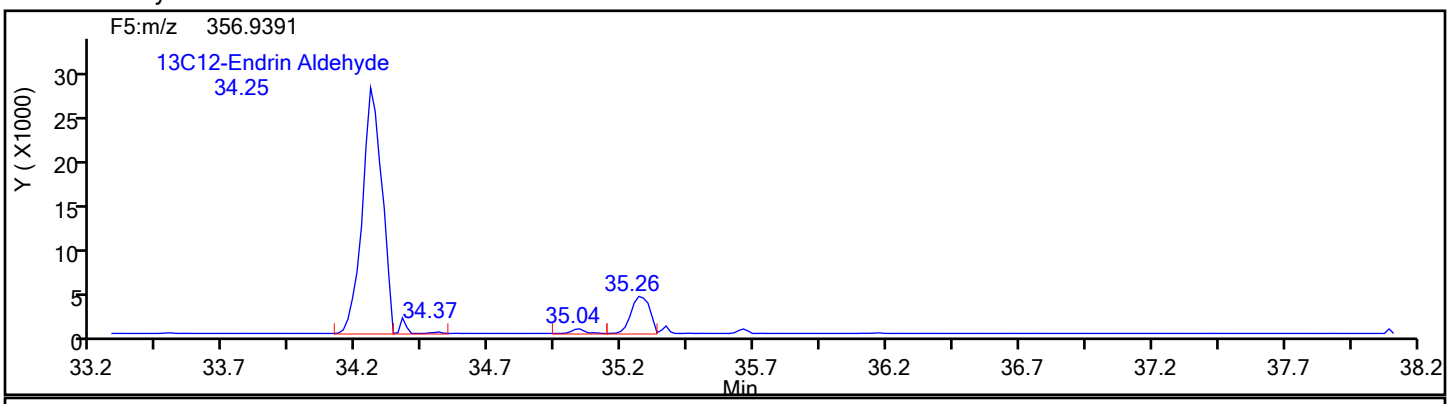
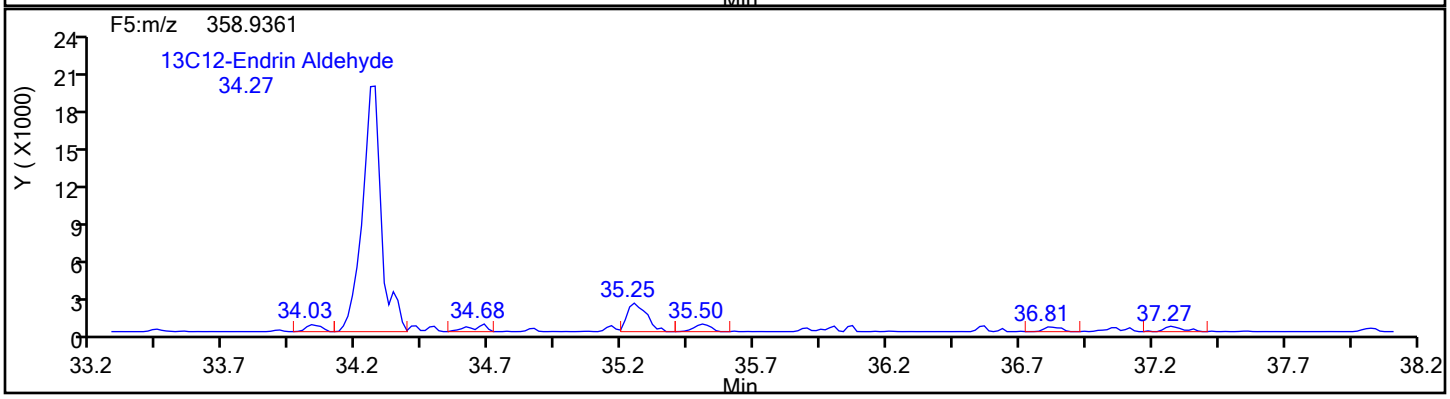
Endrin aldehyde





Endrin aldehyde Standards





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Eurofins Knoxville

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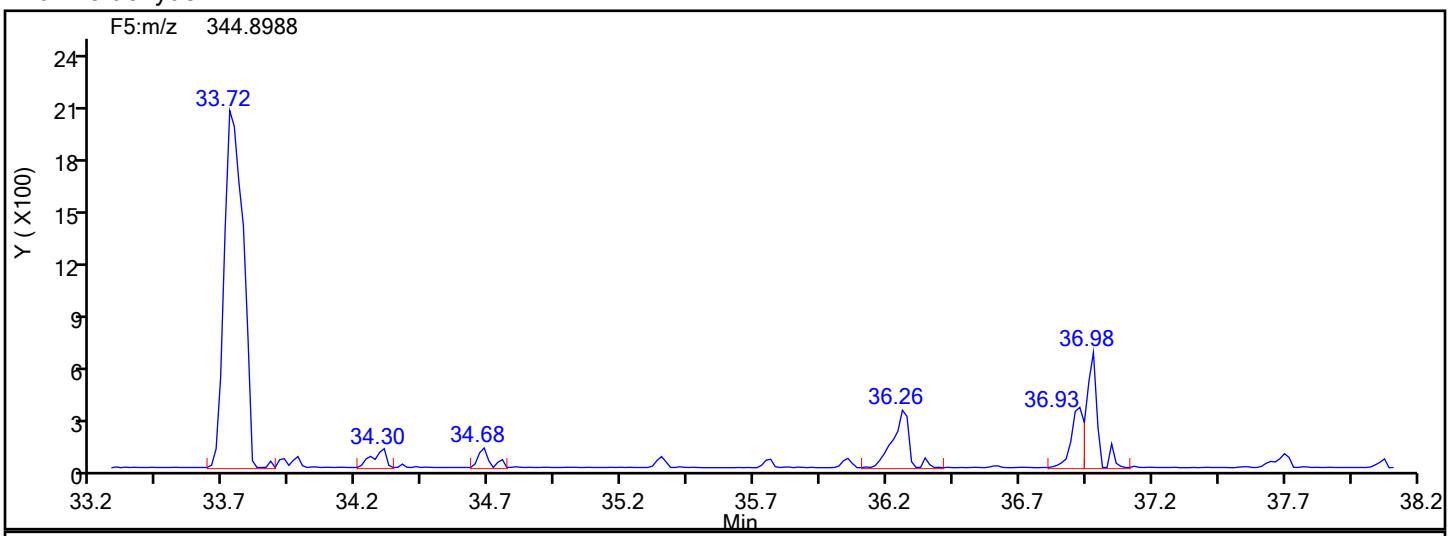
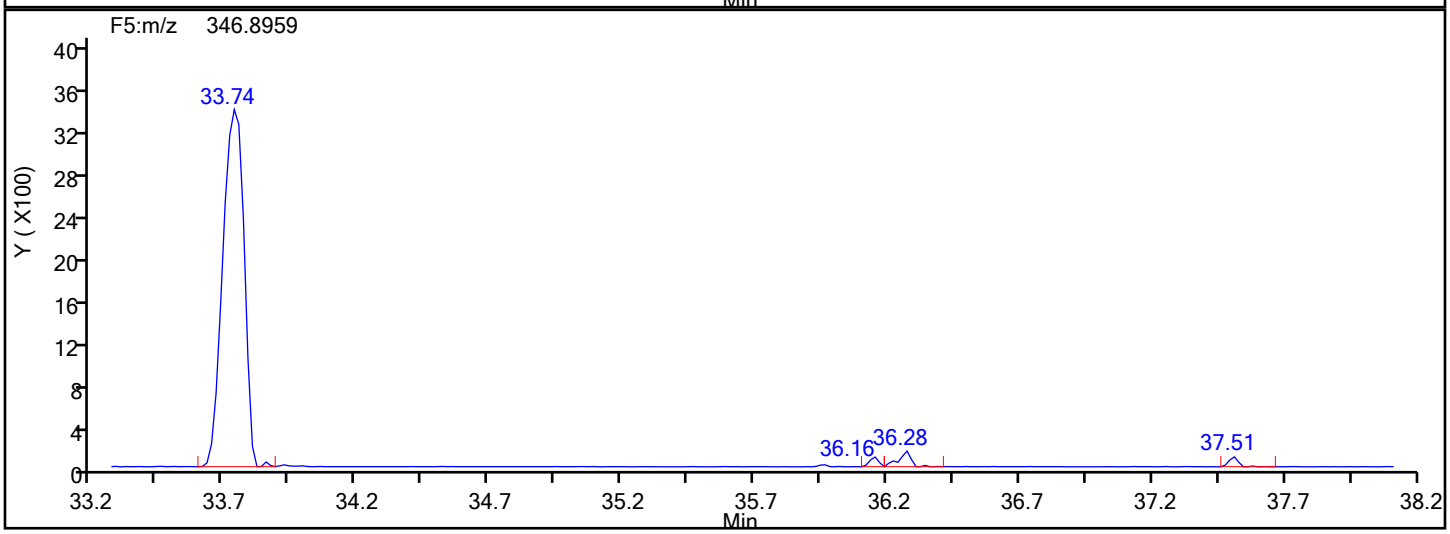
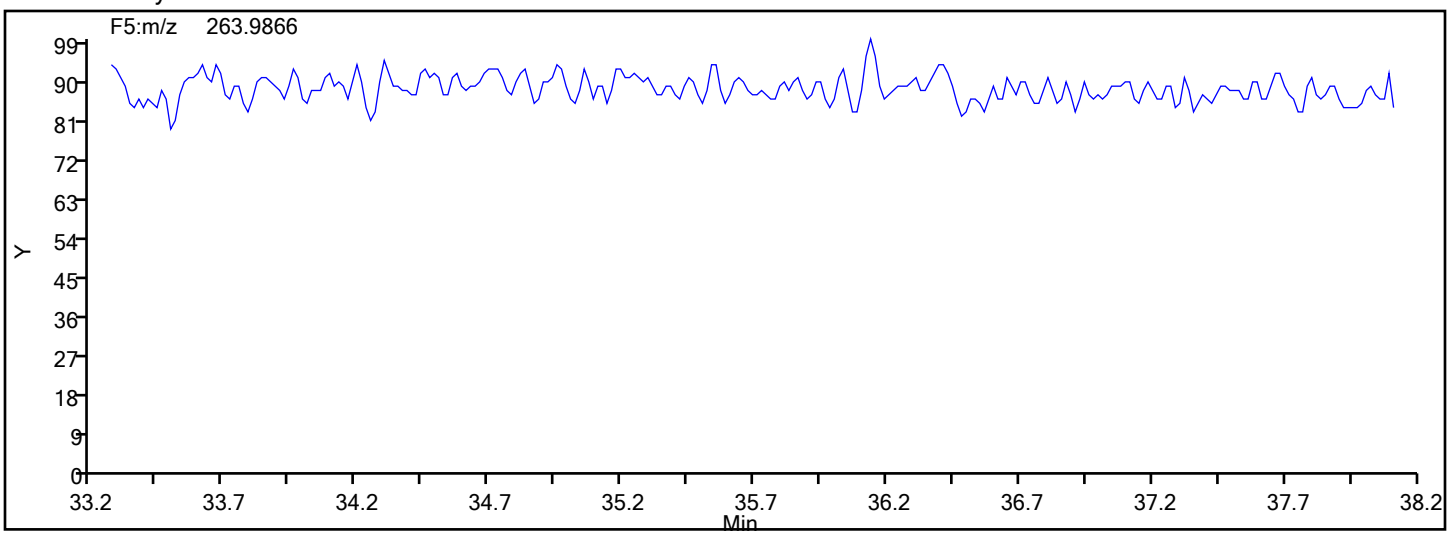
Endrin aldehyde





Endrin aldehyde Lock Mass



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Eurofins Knoxville

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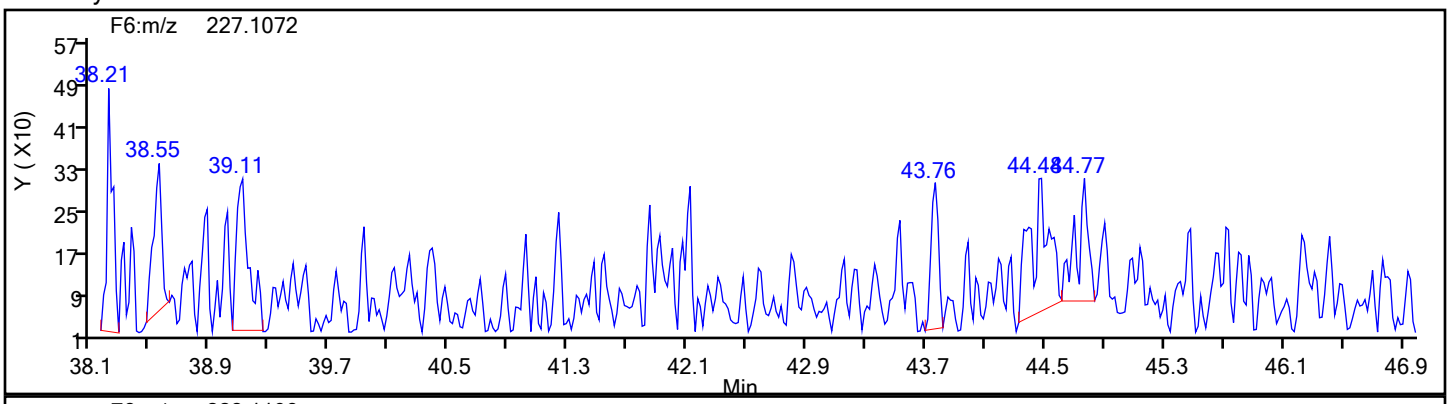
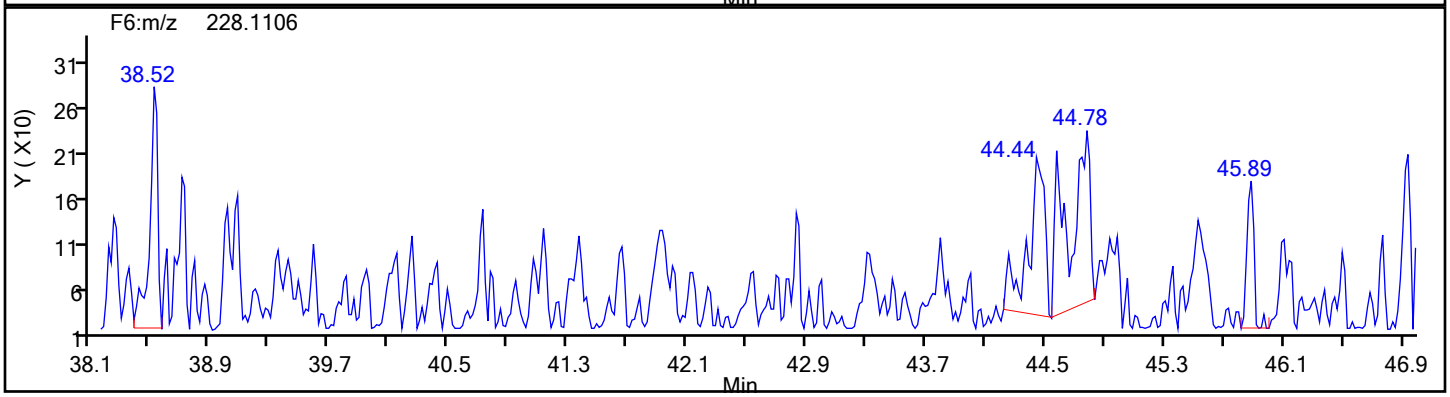
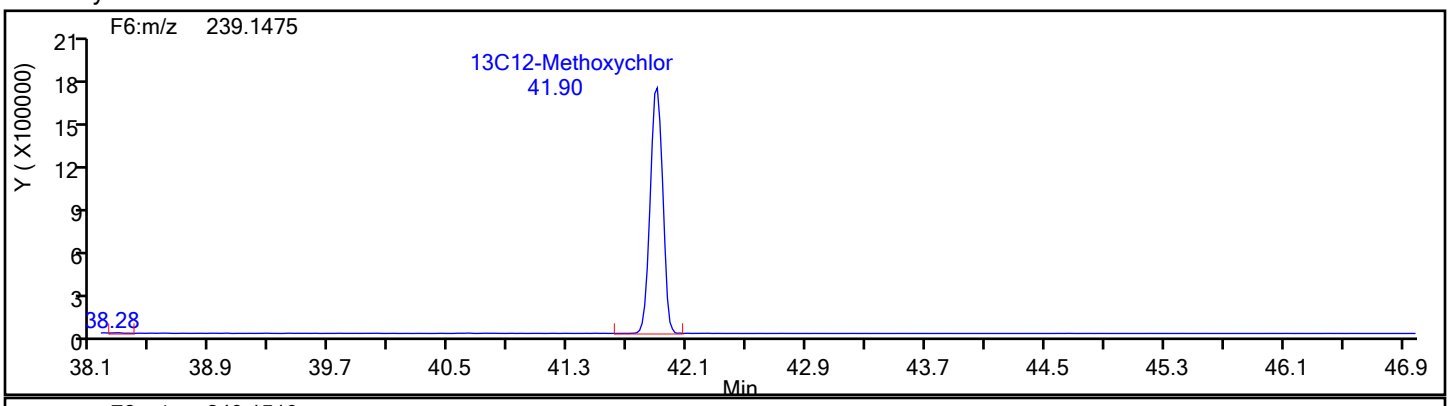
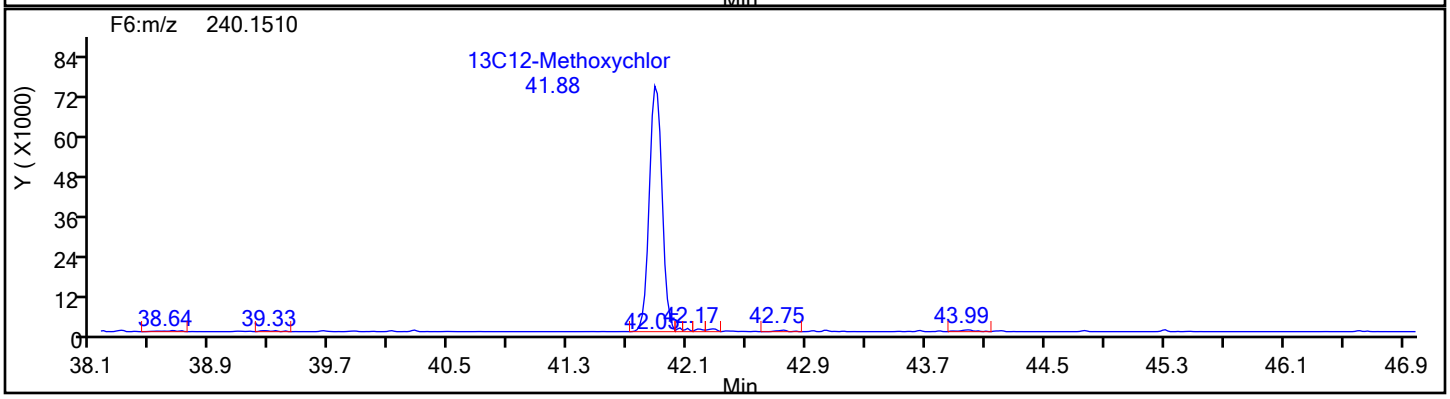
Methoxychlor





Methoxychlor Standards





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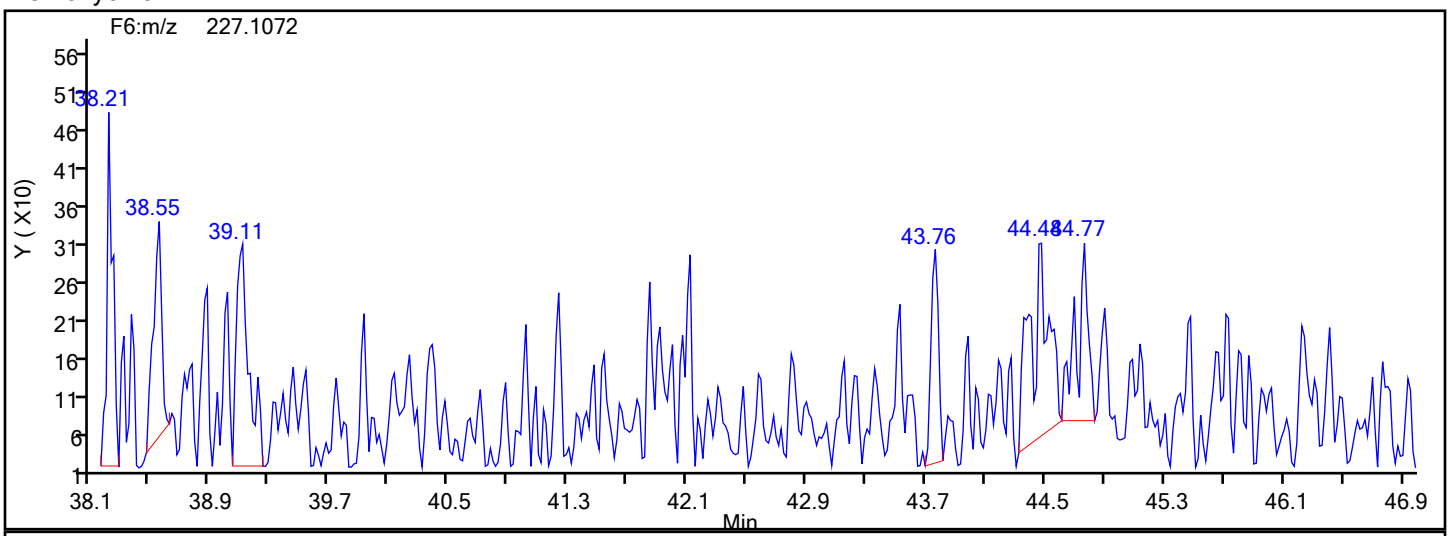
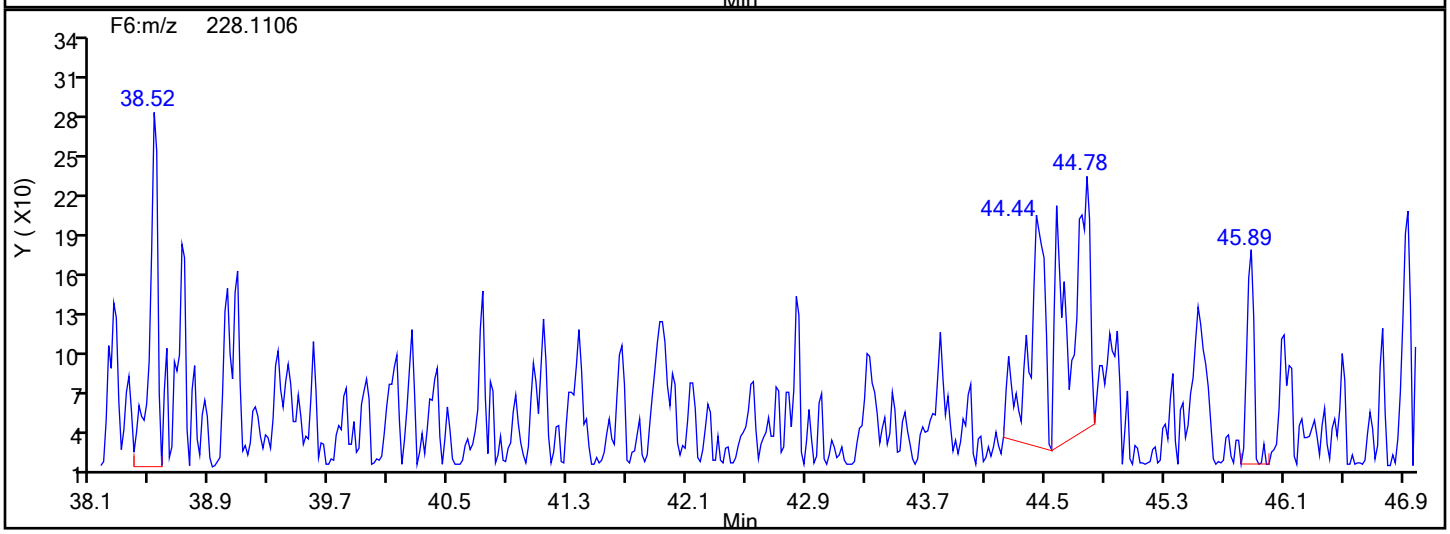
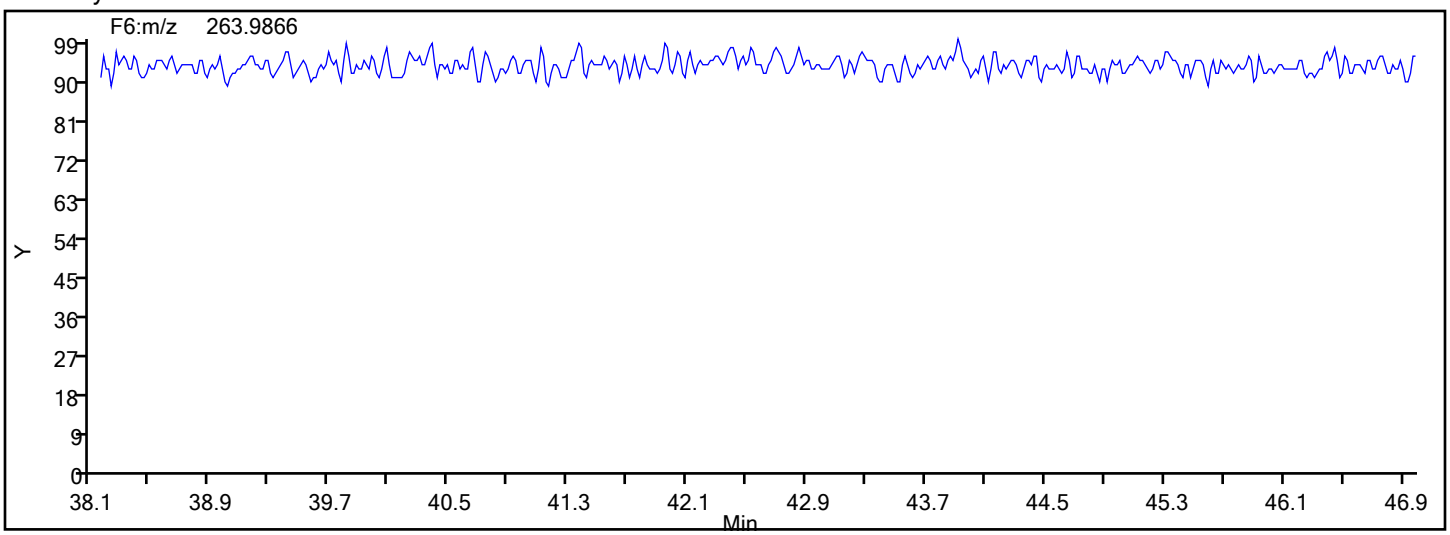
Methoxychlor





Methoxychlor Lock Mass



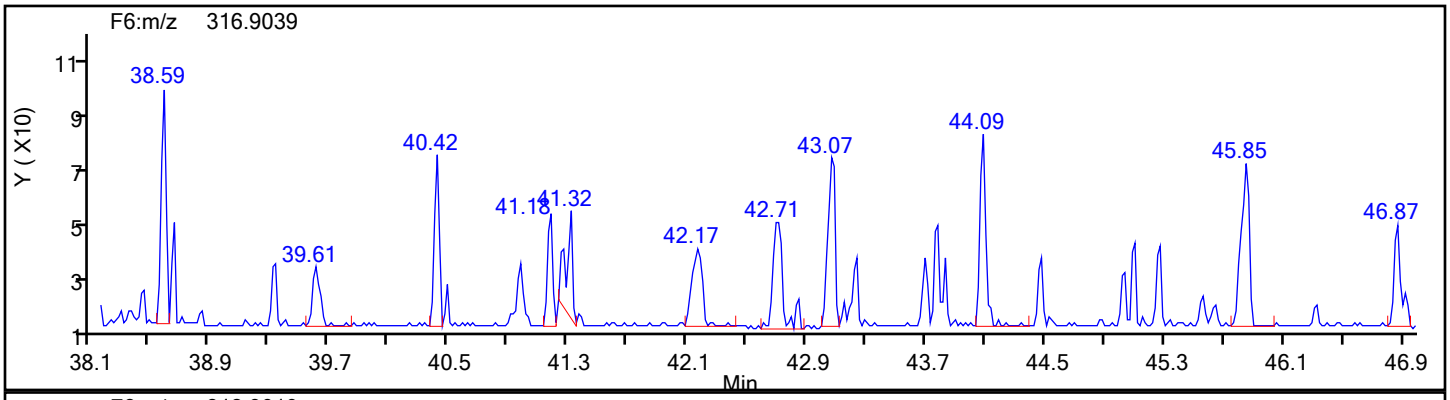
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

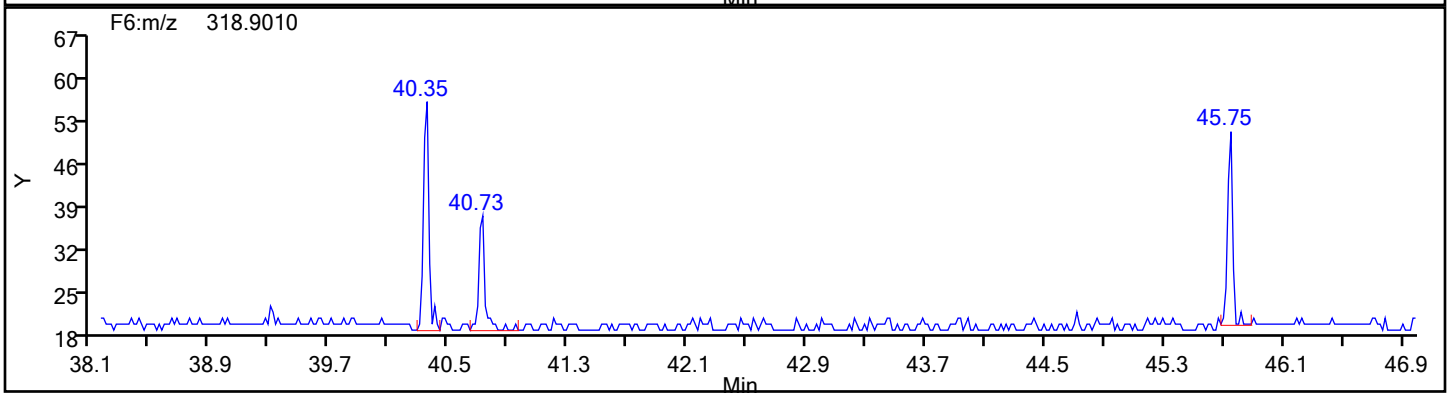
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

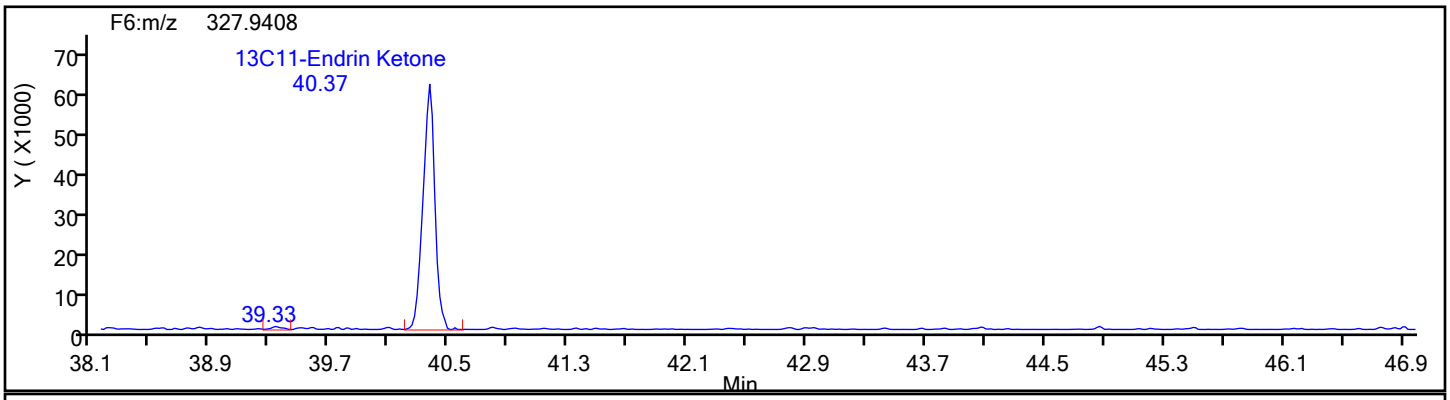
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

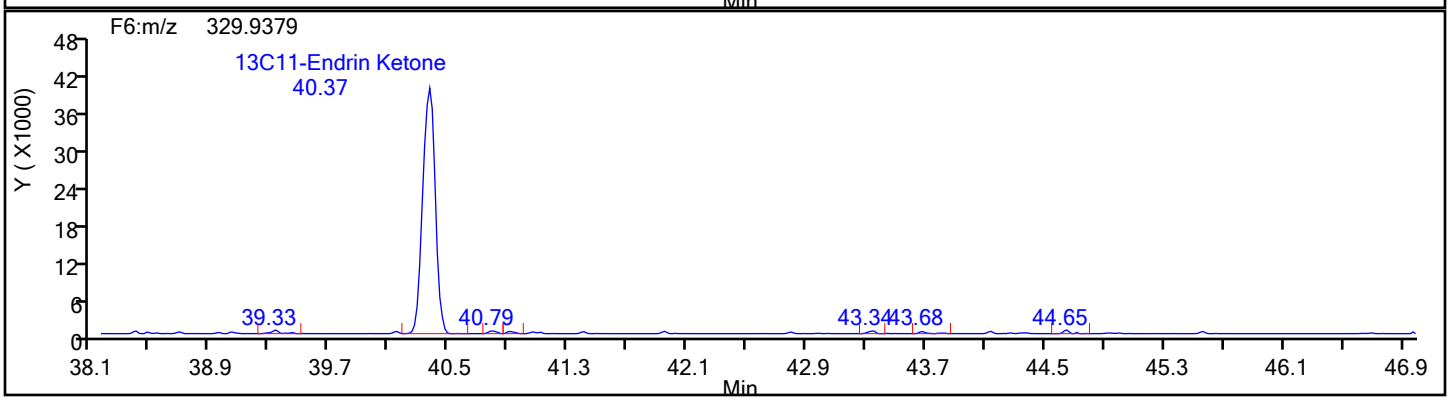
Endrin ketone





Endrin ketone Standards



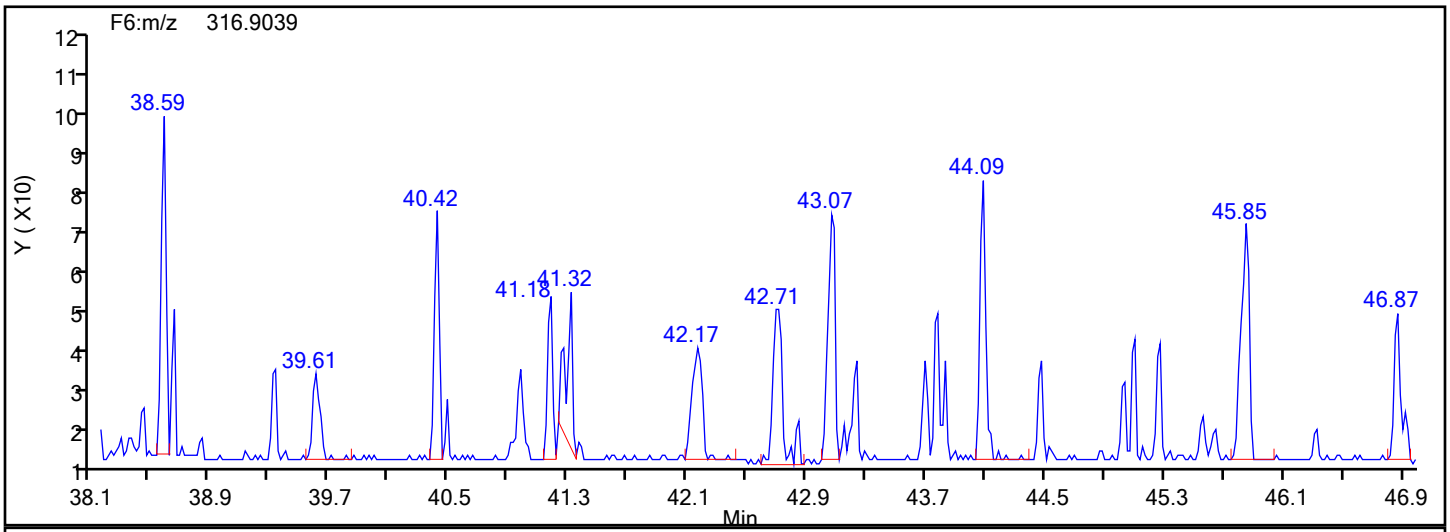


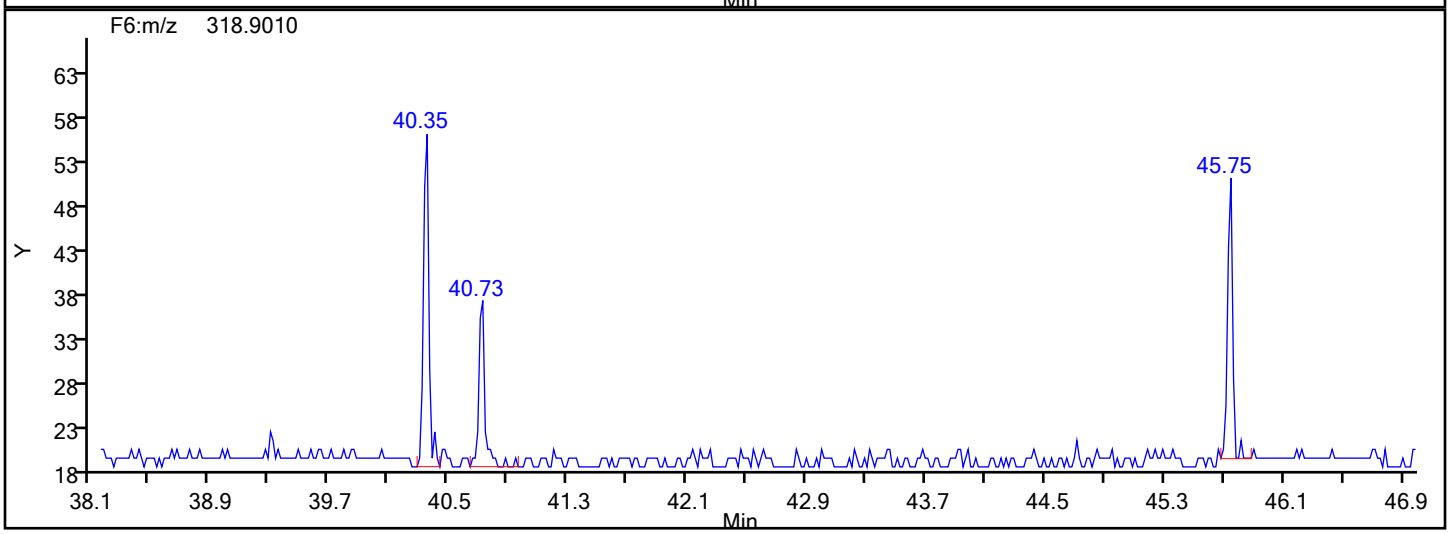
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

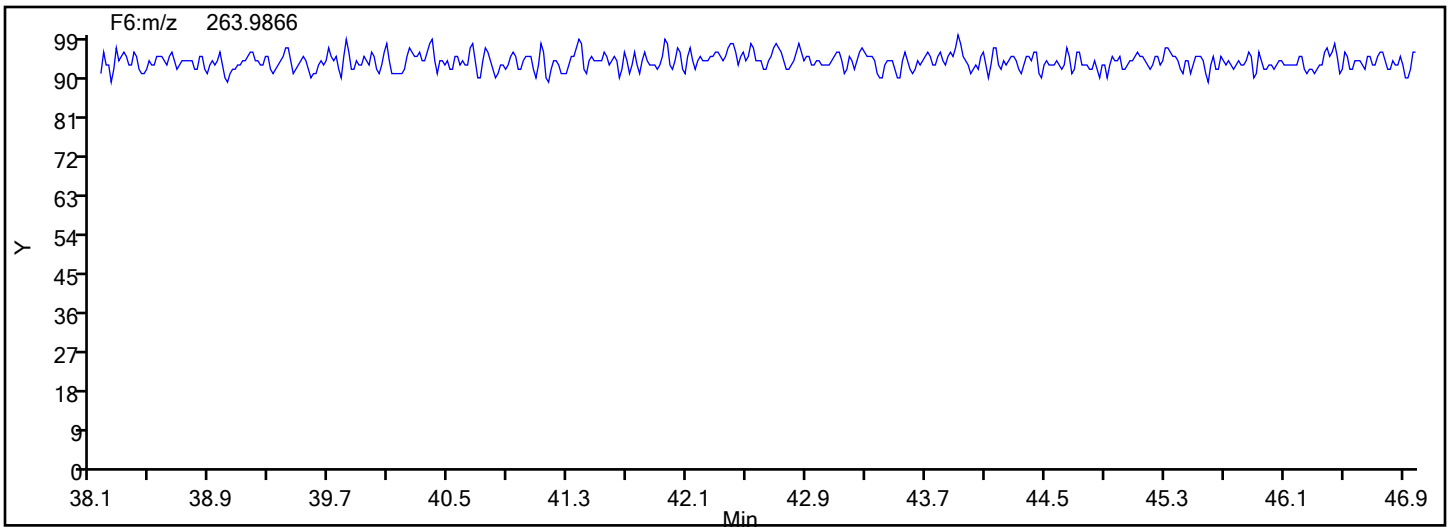
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





Endrin ketone Lock Mass



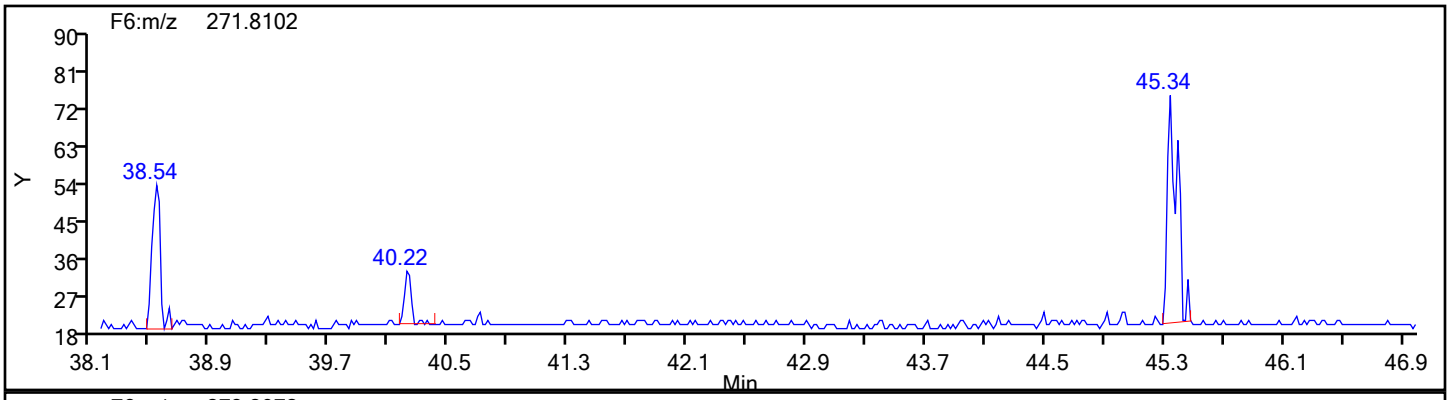
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

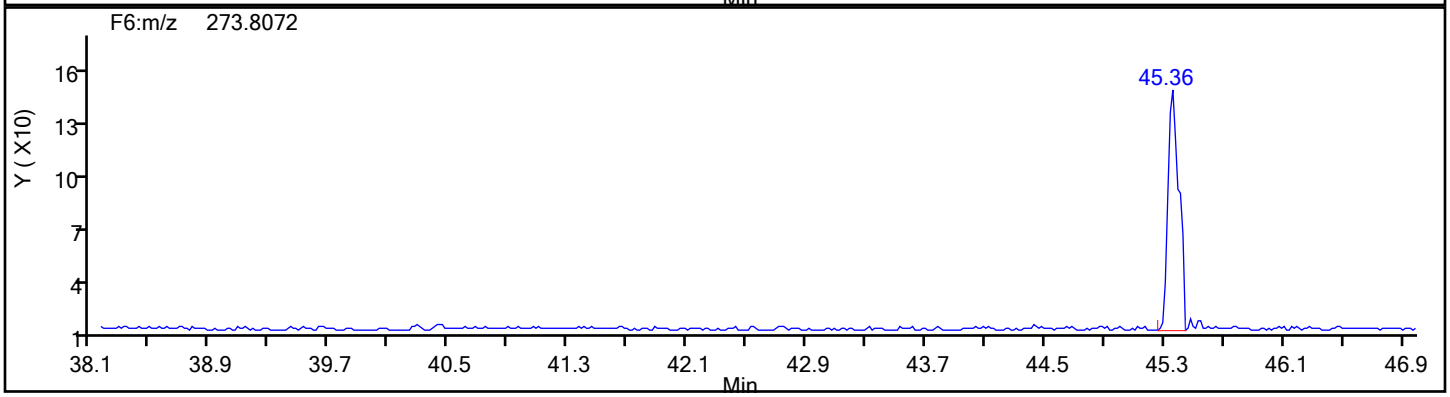
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

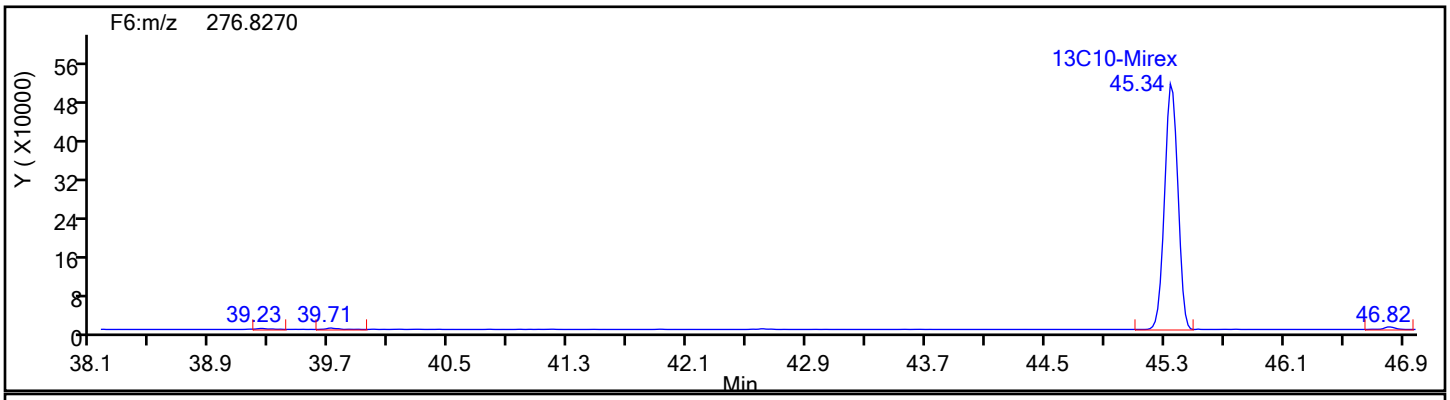
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

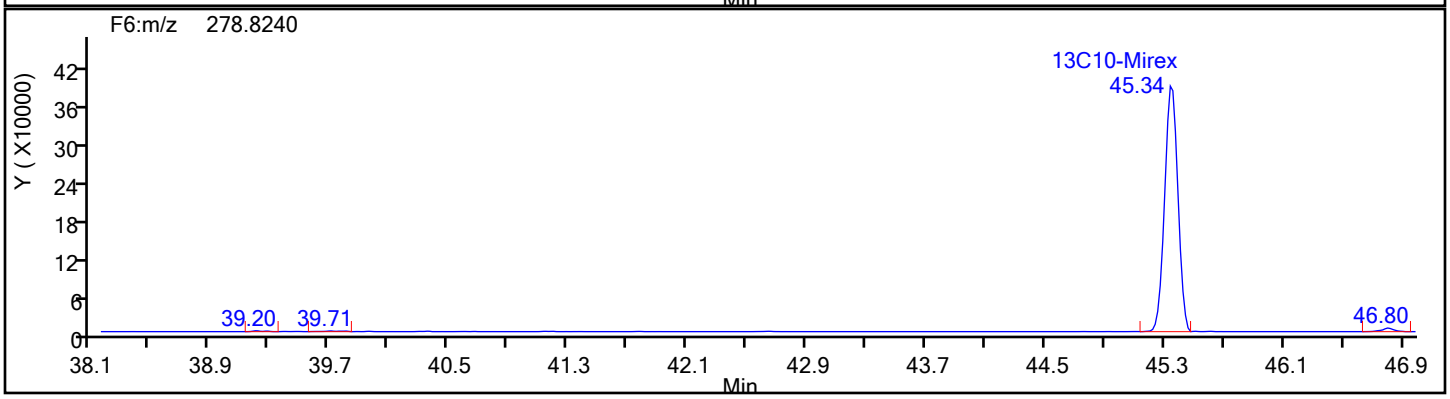
Mirex





Mirex Standards



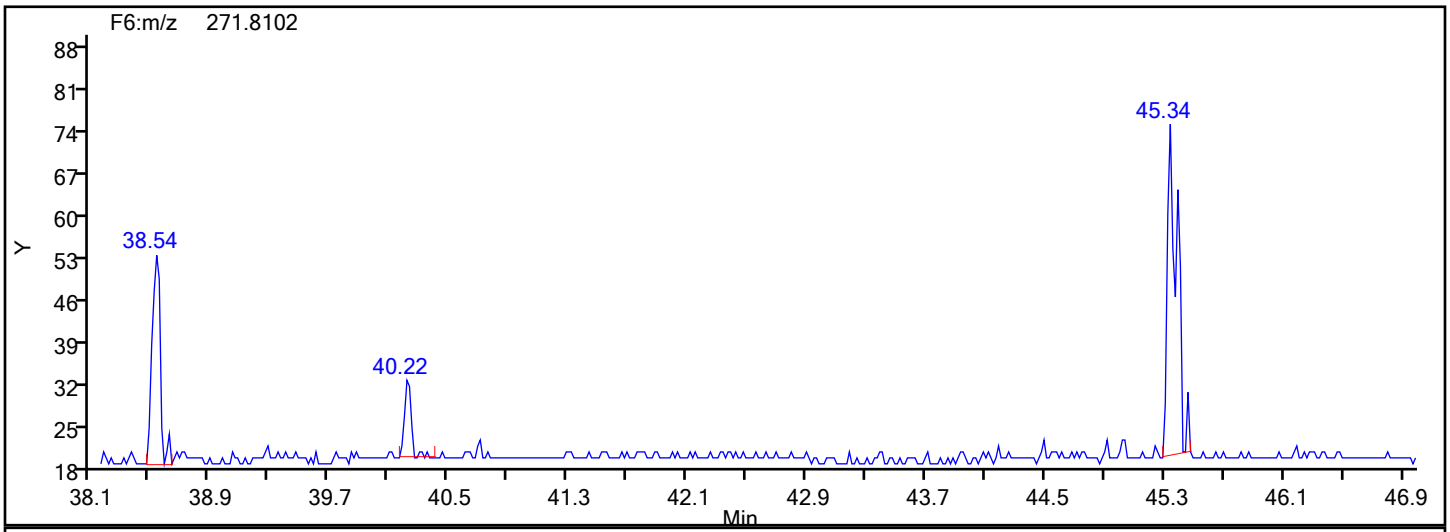


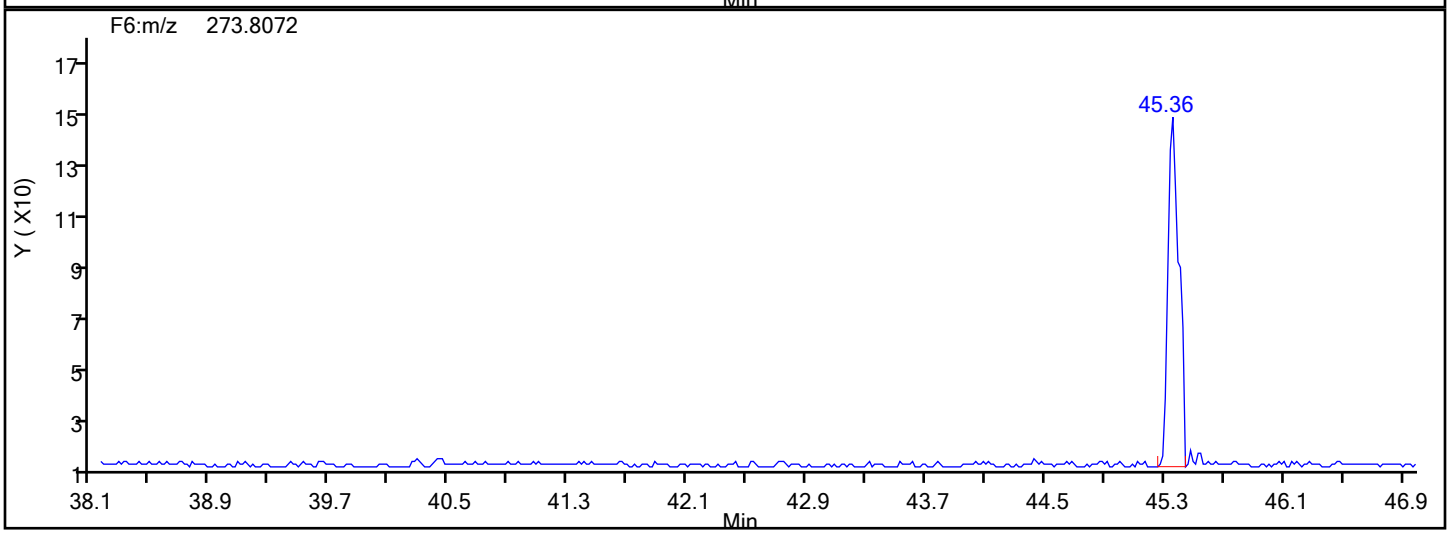
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

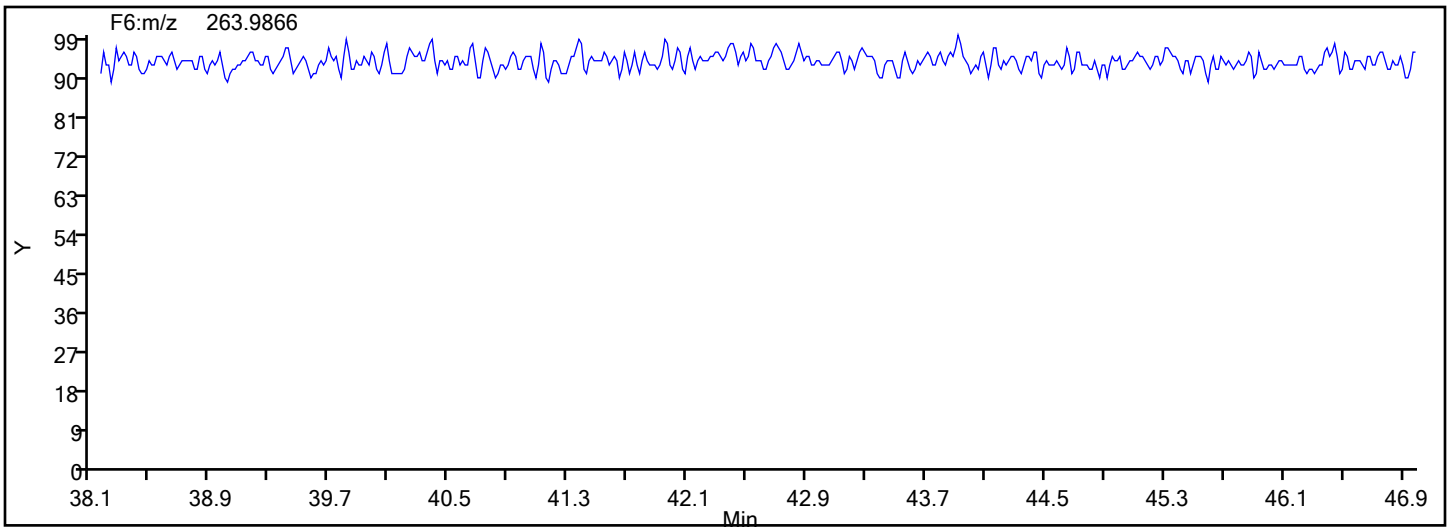
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



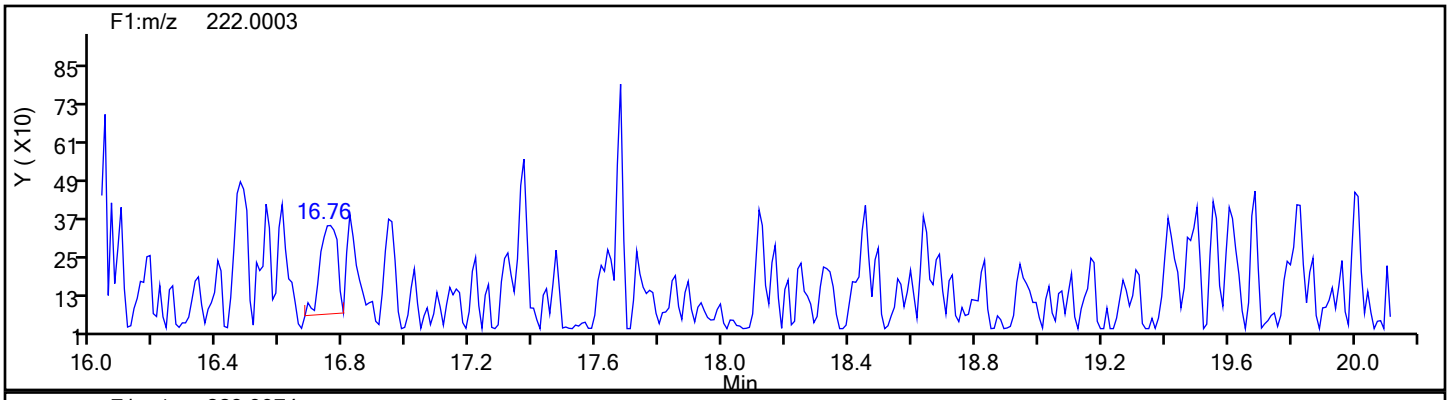
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

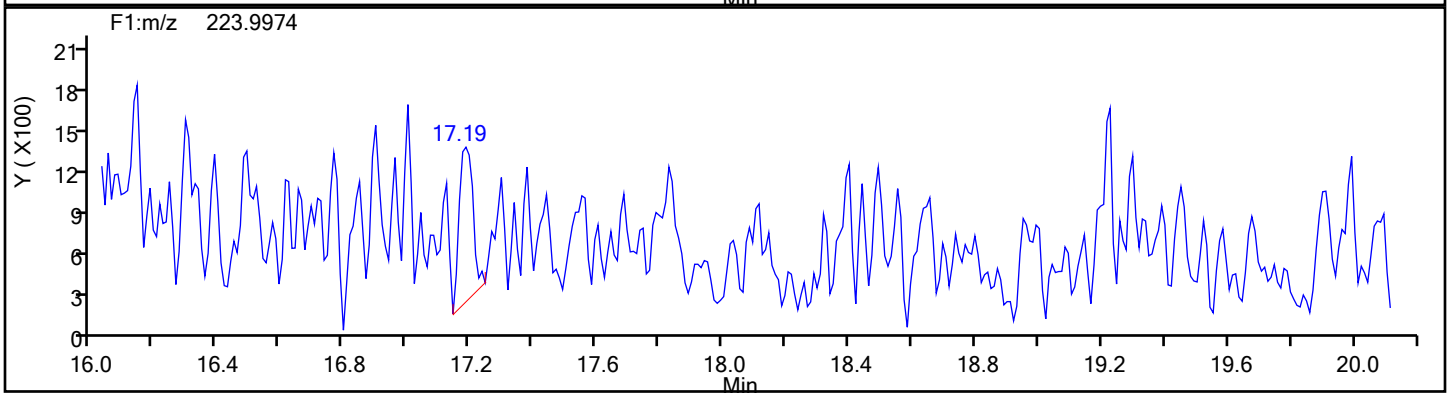
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

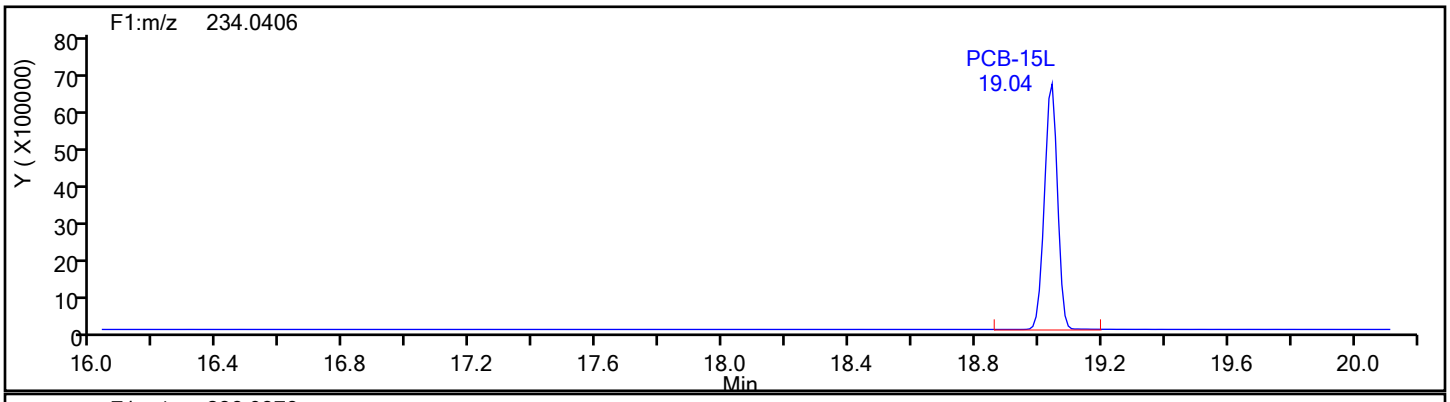
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

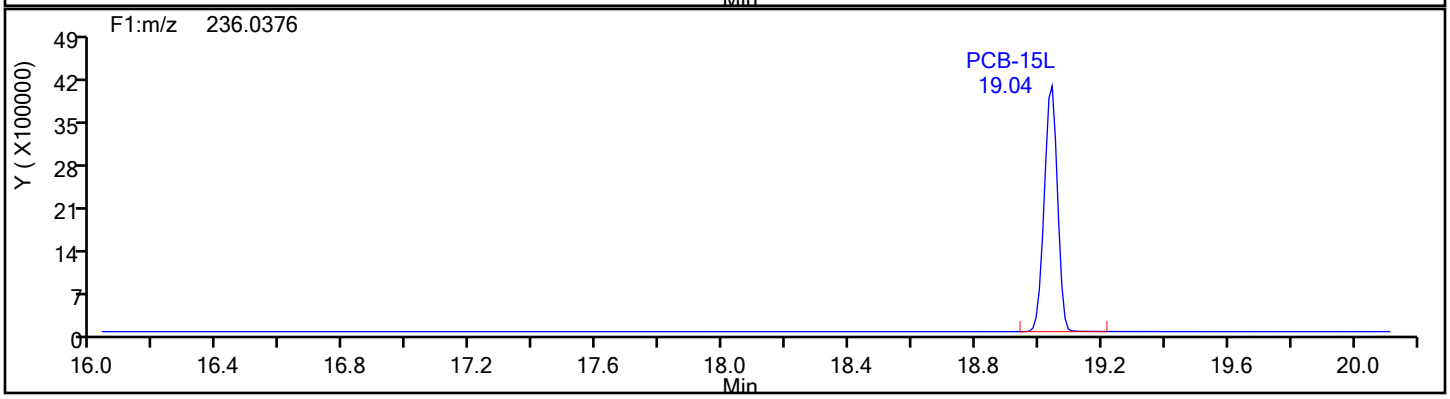
PCB-14





PCB-14 Standards





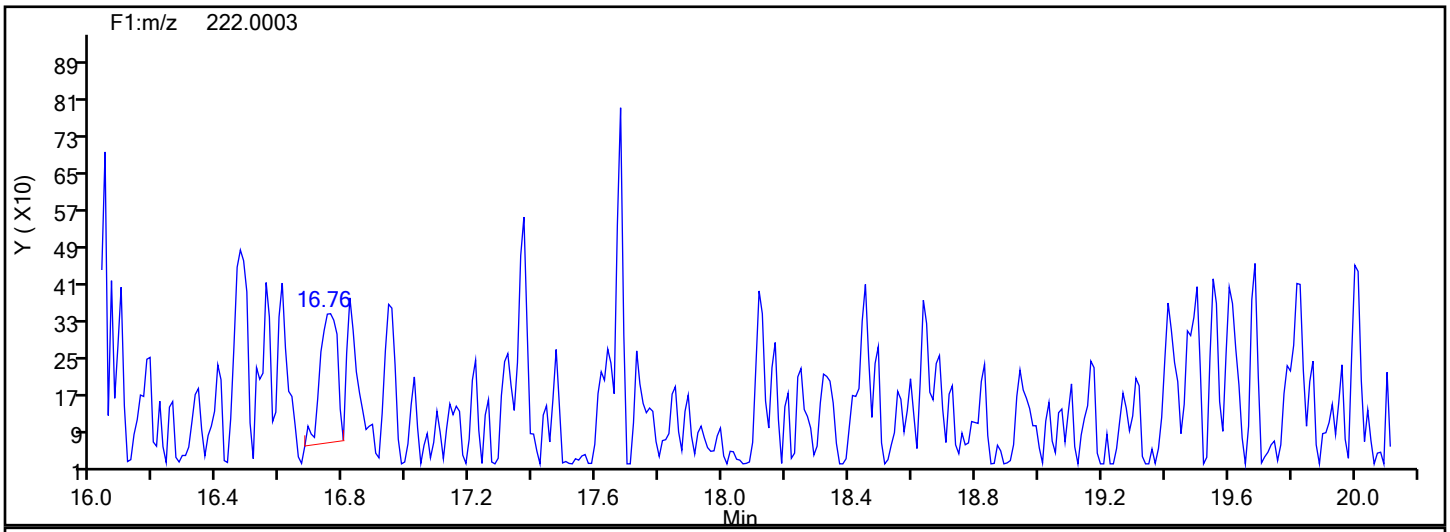
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

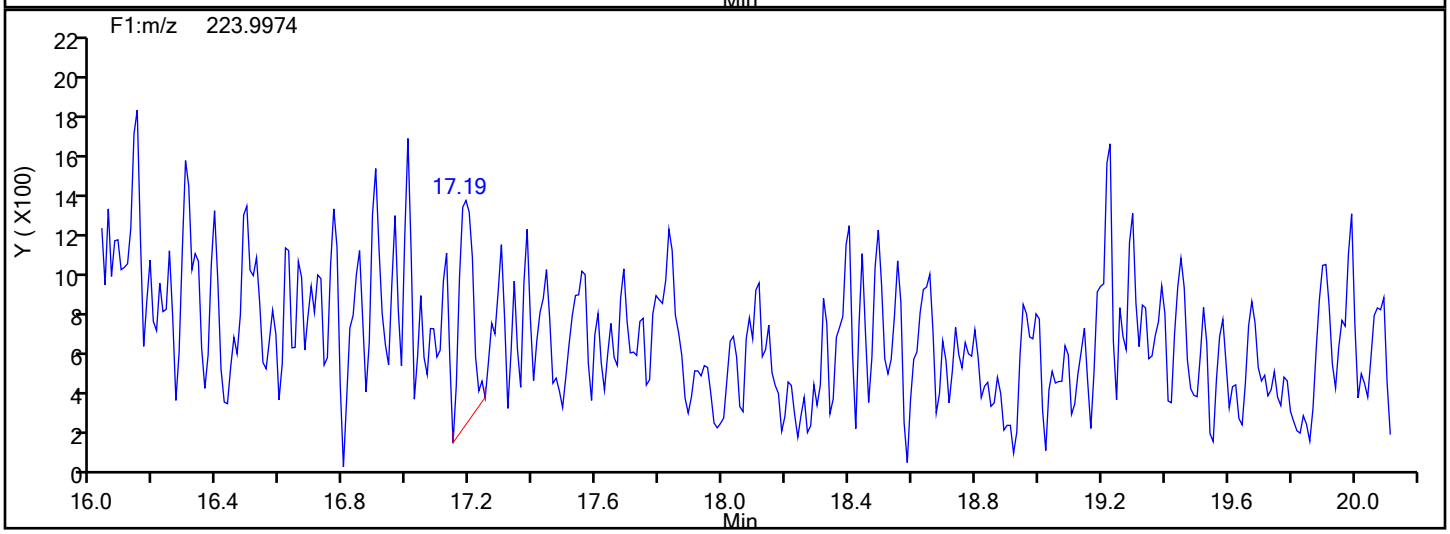
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

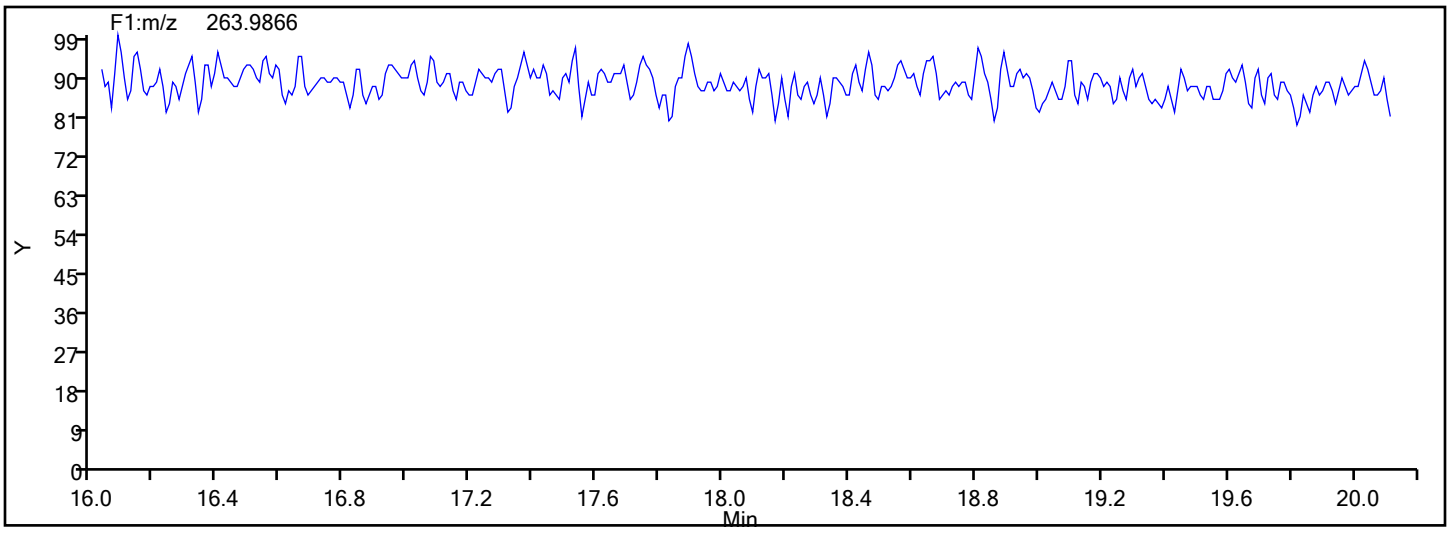
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



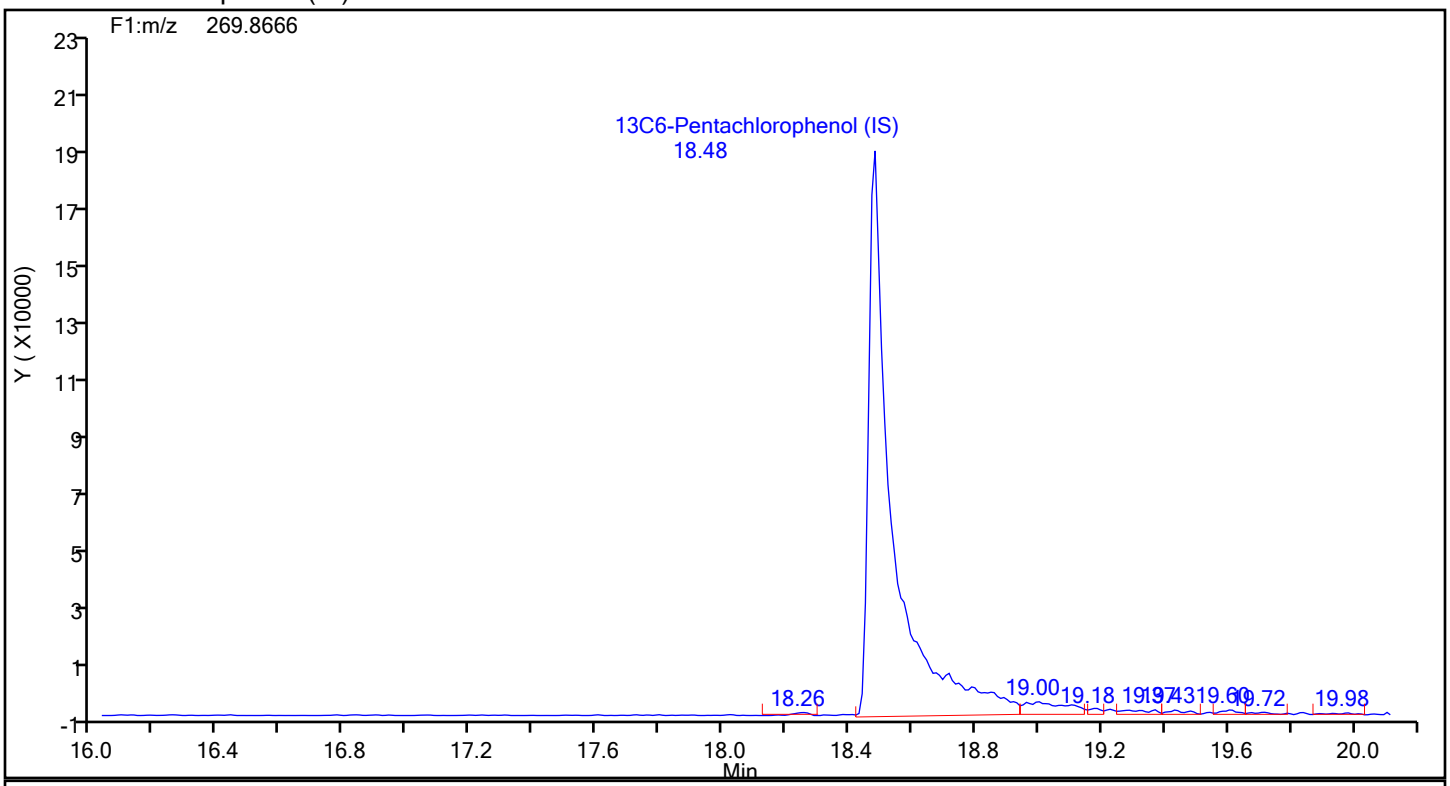
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

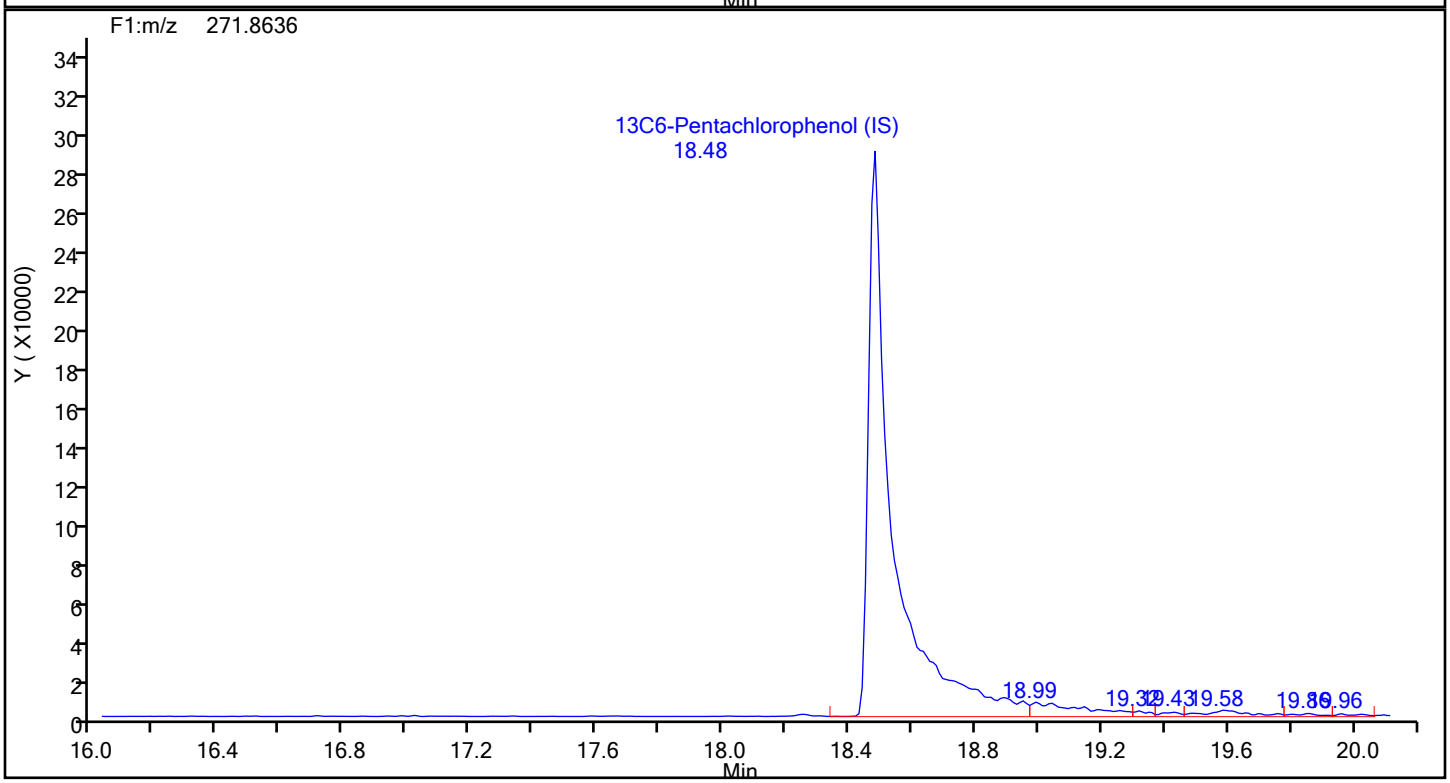
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

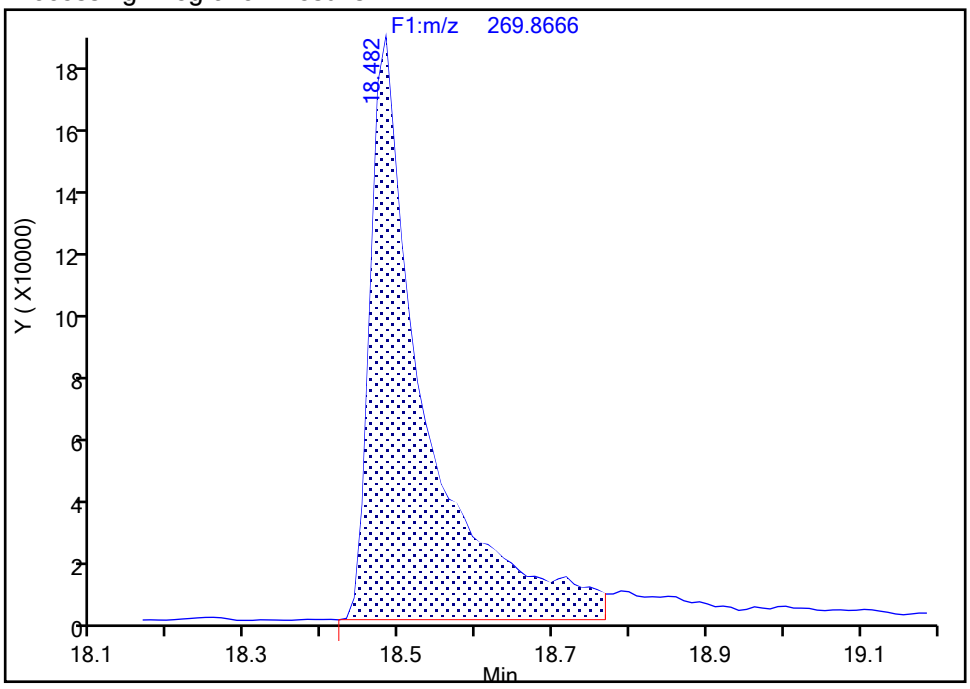
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

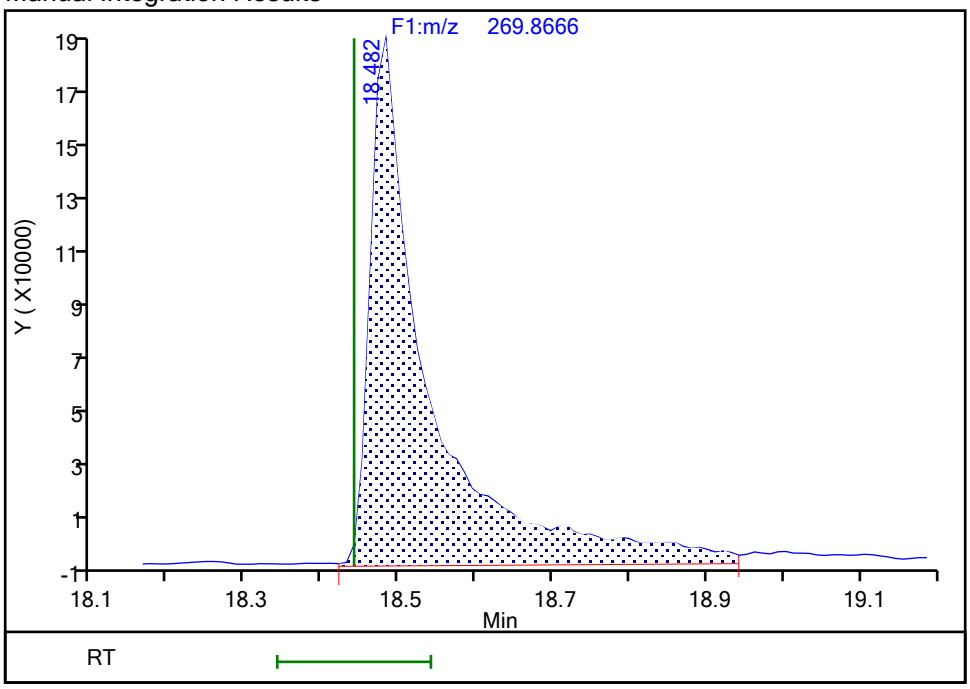
Processing Integration Results

RT: 18.48
Area: 919895
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 987473
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:23:34 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

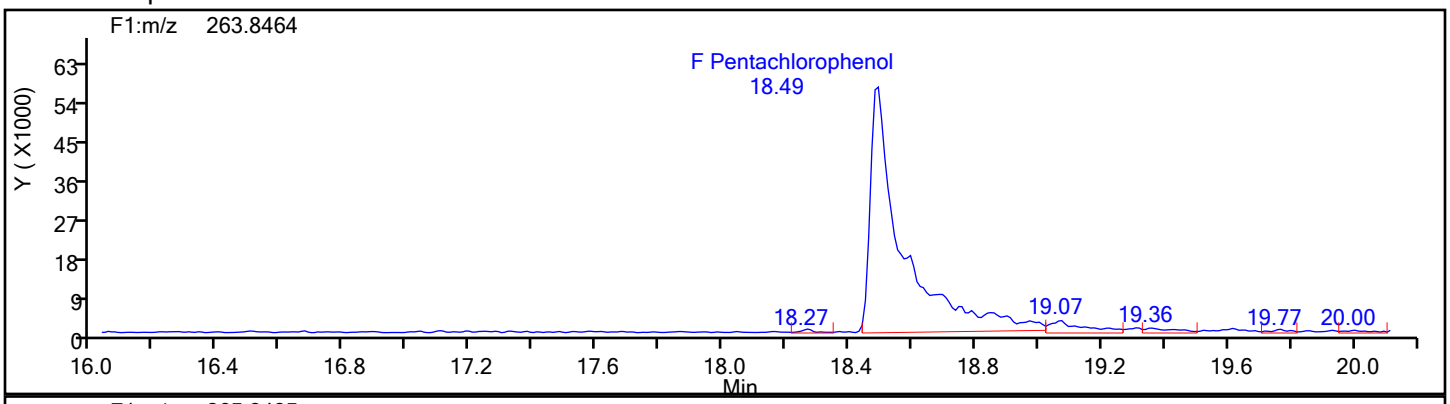
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

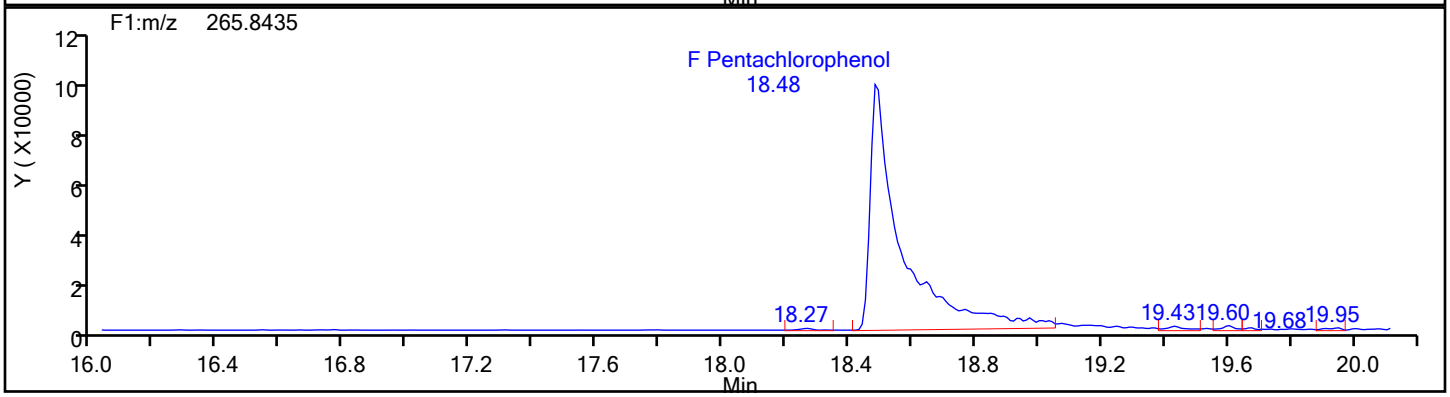
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

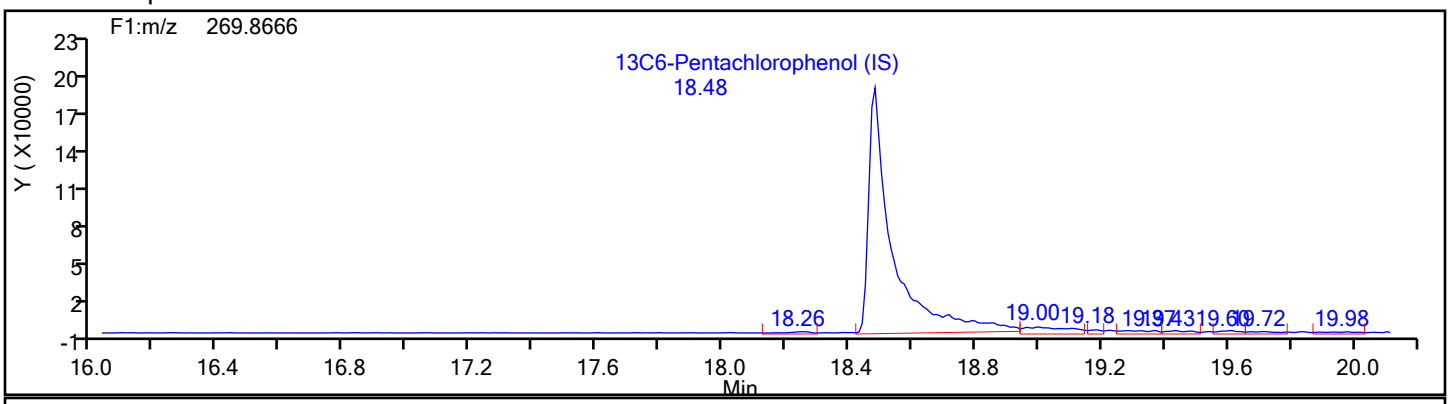
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

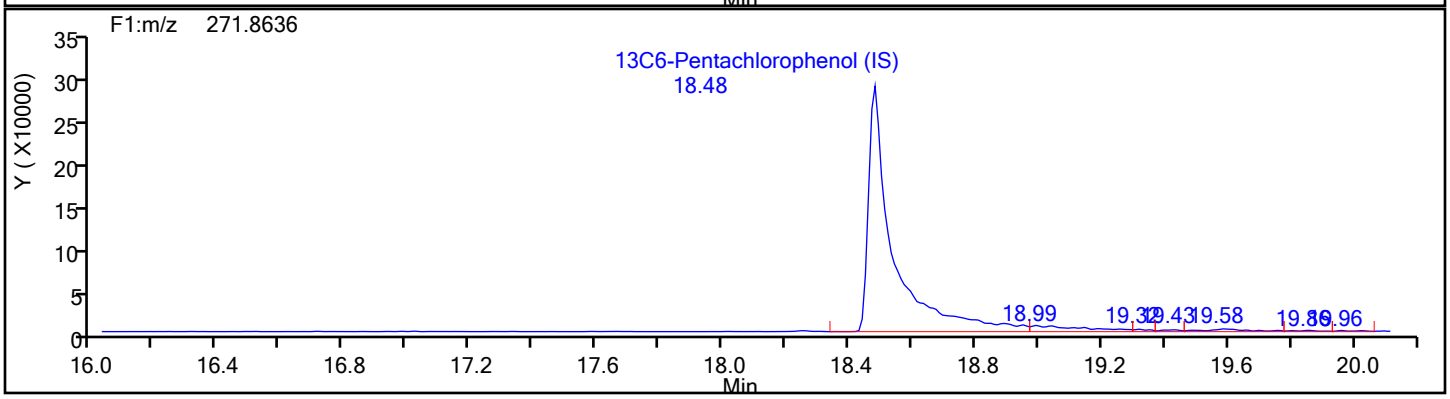
Pentachlorophenol





Pentachlorophenol Standards



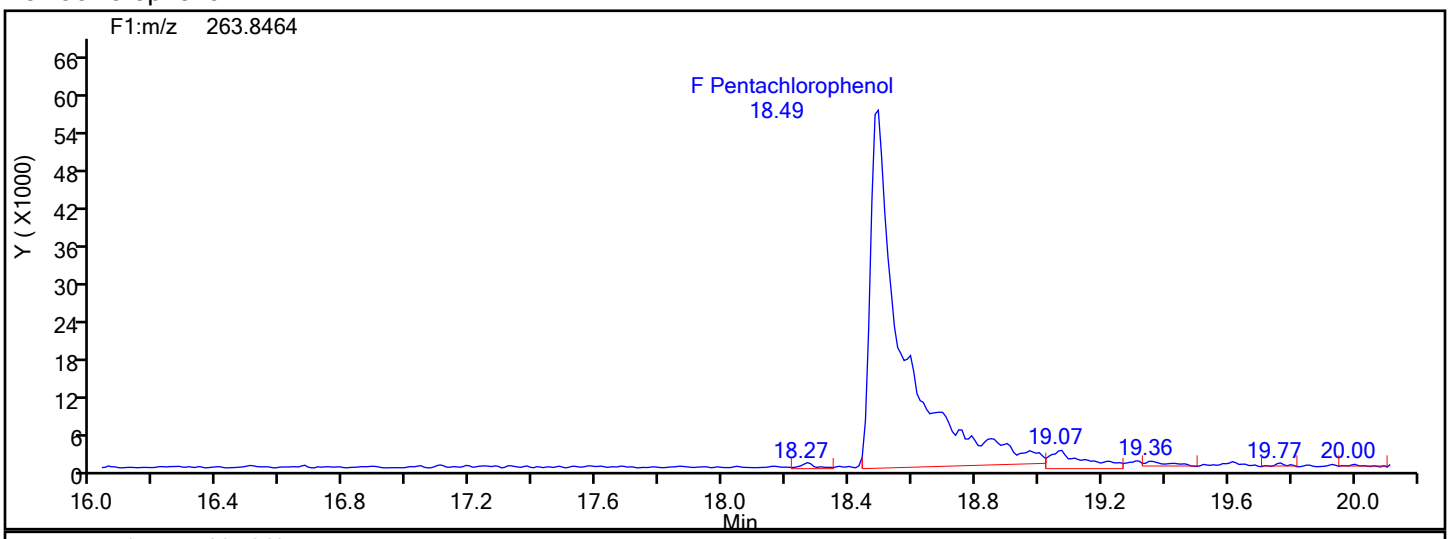


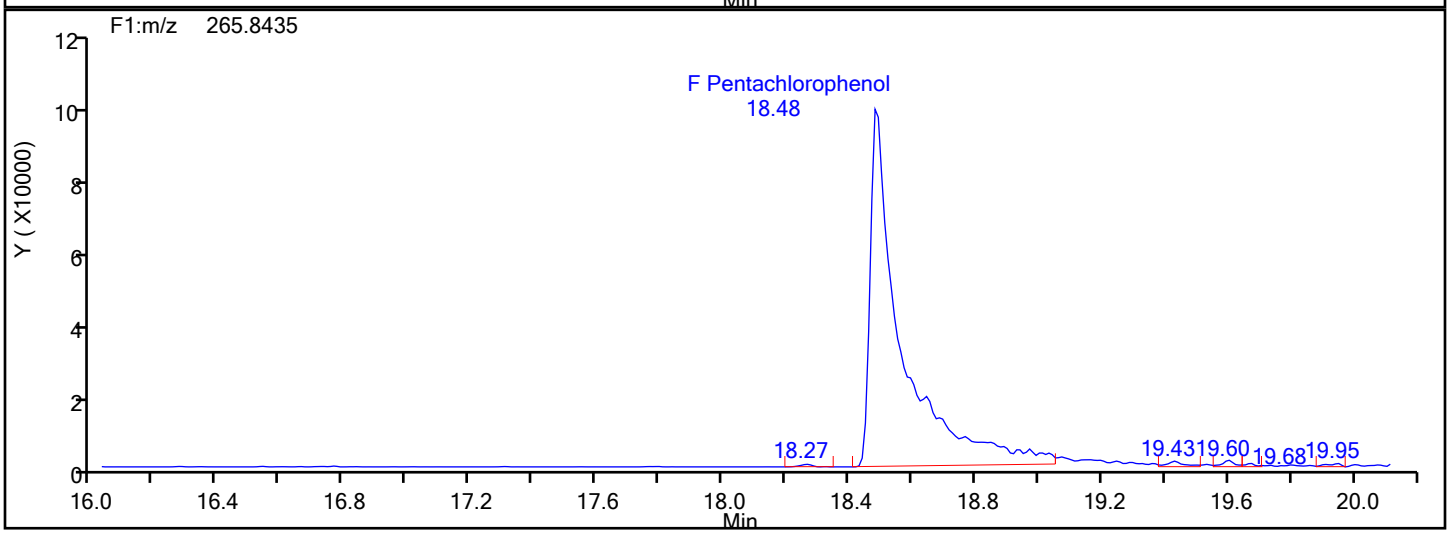
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

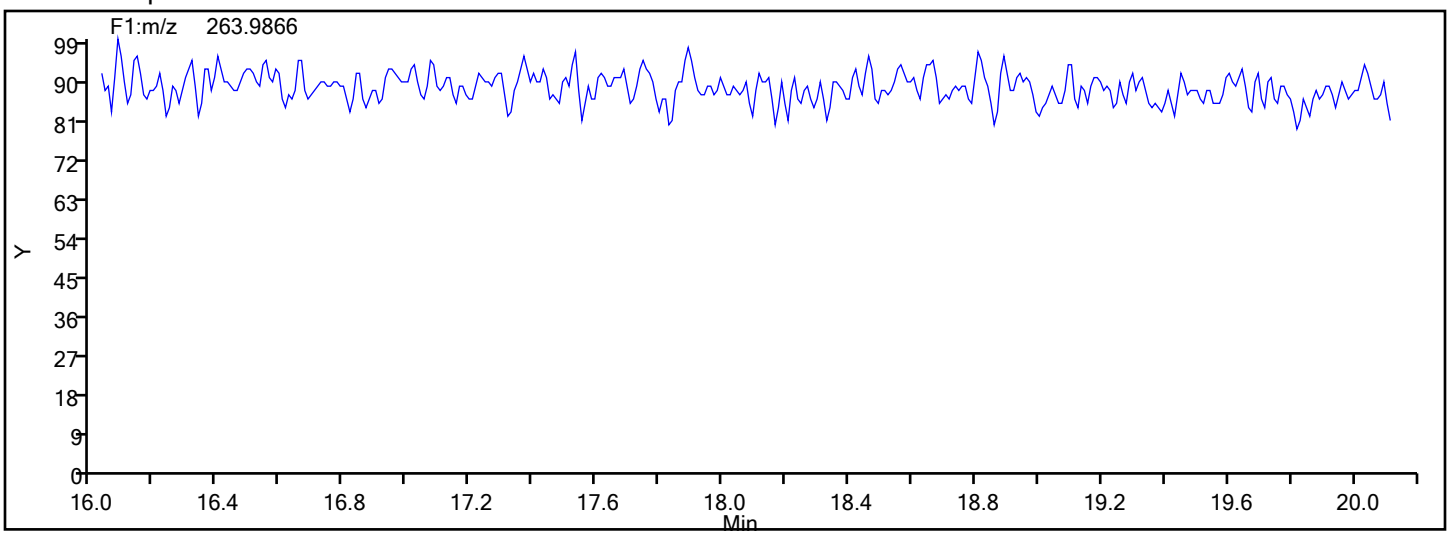
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

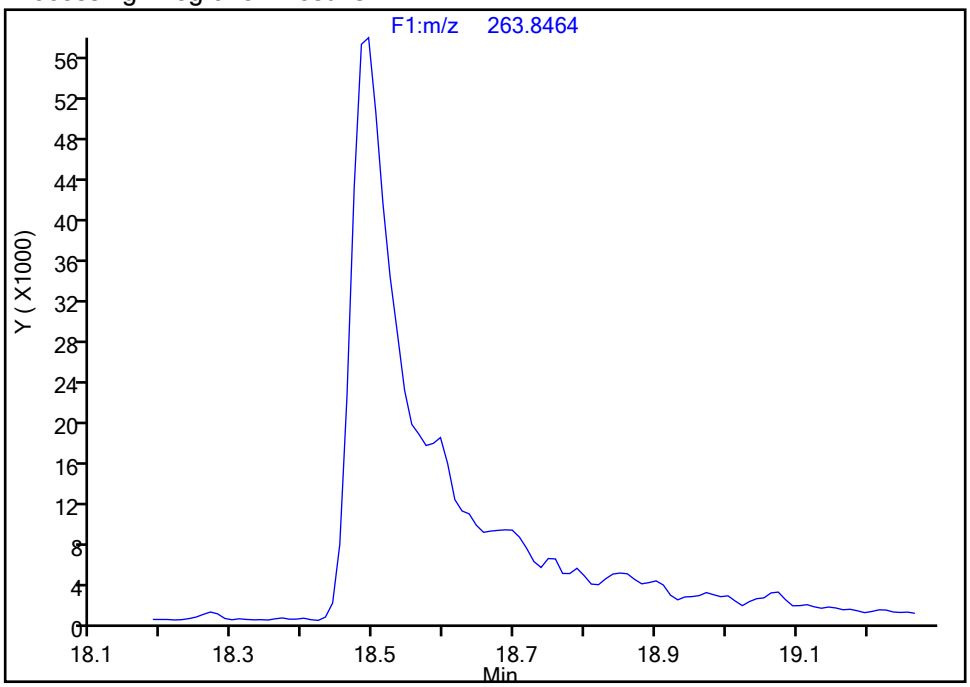
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 1

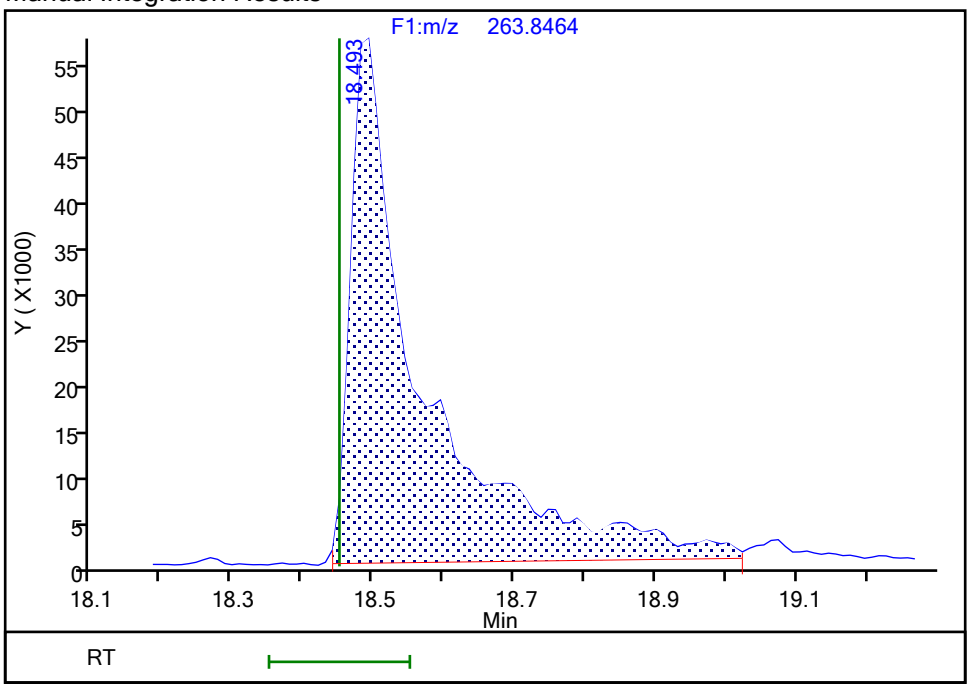
Not Detected
Expected RT: 18.45

Processing Integration Results



Manual Integration Results

RT: 18.49
Area: 402955
Amount: 204.8317
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:23:02 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

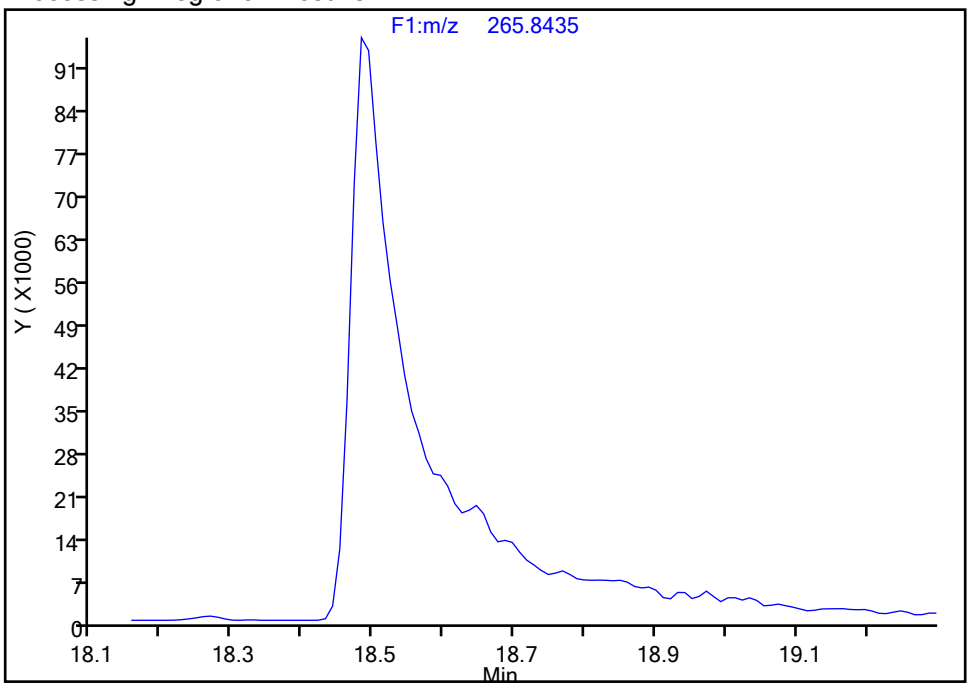
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 2

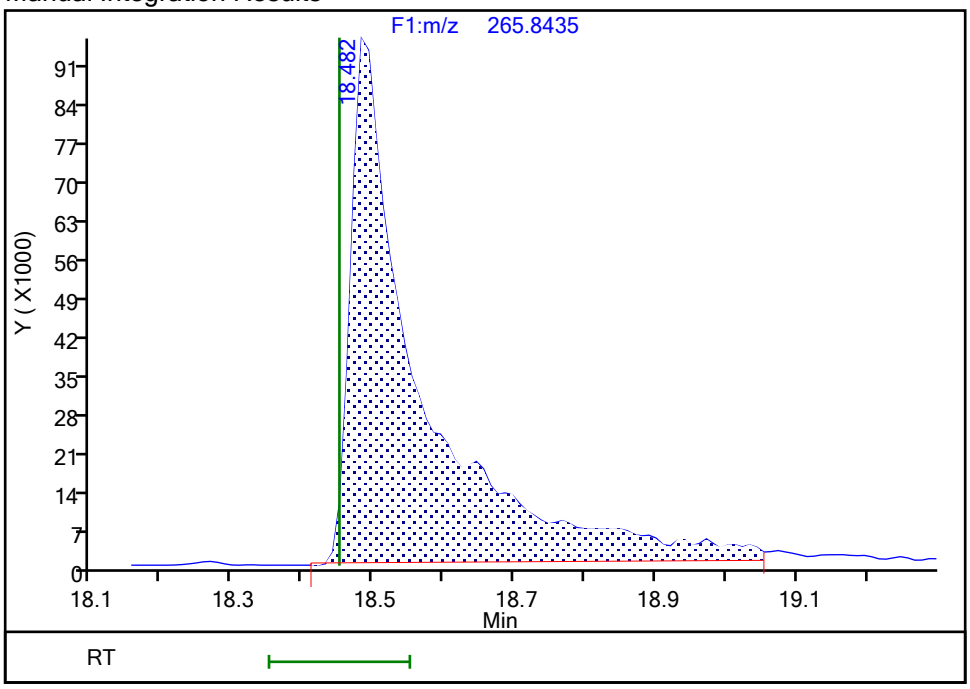
Not Detected
Expected RT: 18.45

Processing Integration Results



Manual Integration Results

RT: 18.48
Area: 658420
Amount: 204.8317
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:23:21 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

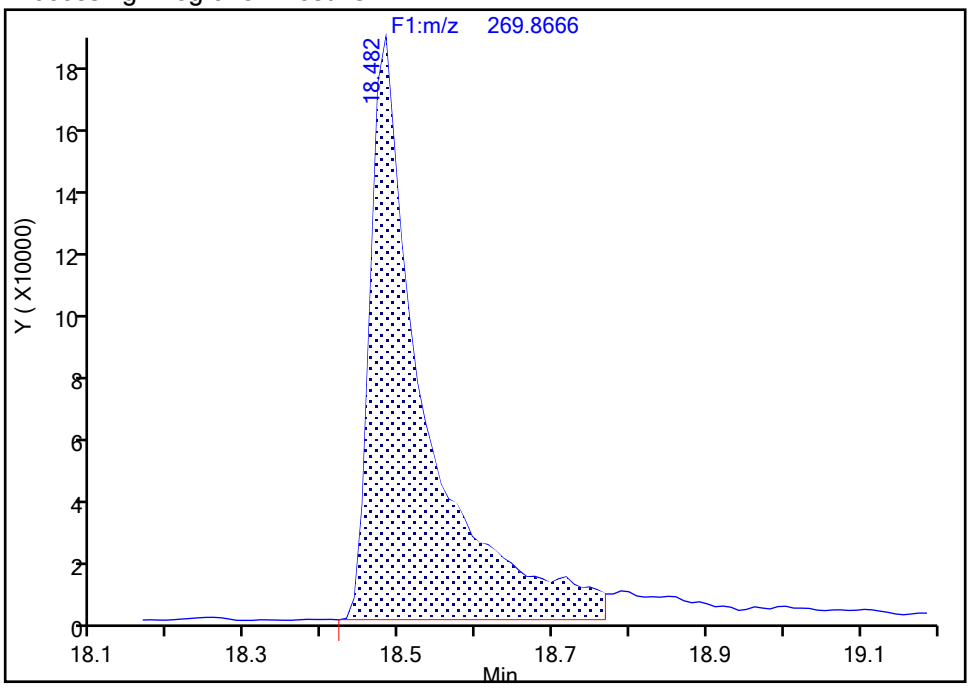
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Instrument ID: D3PST
Lims ID: IC L3
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

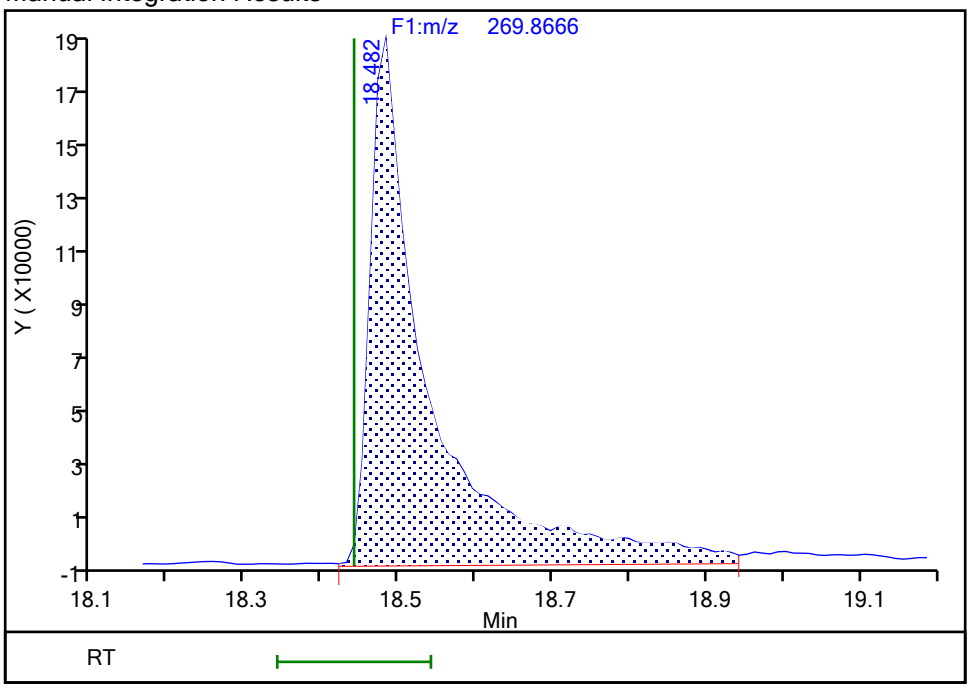
Processing Integration Results

RT: 18.48
Area: 919895
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 987473
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:23:34 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

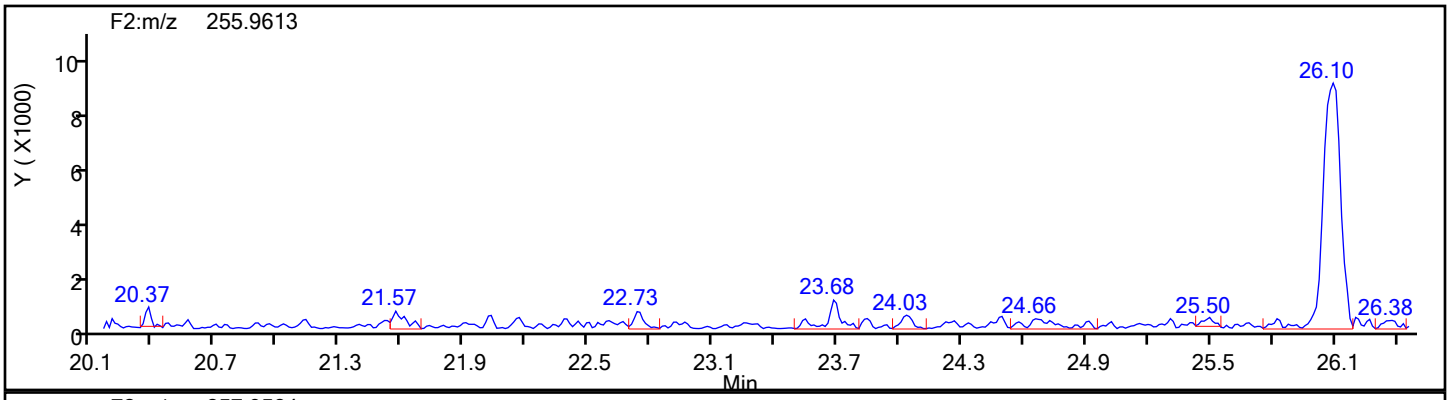
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

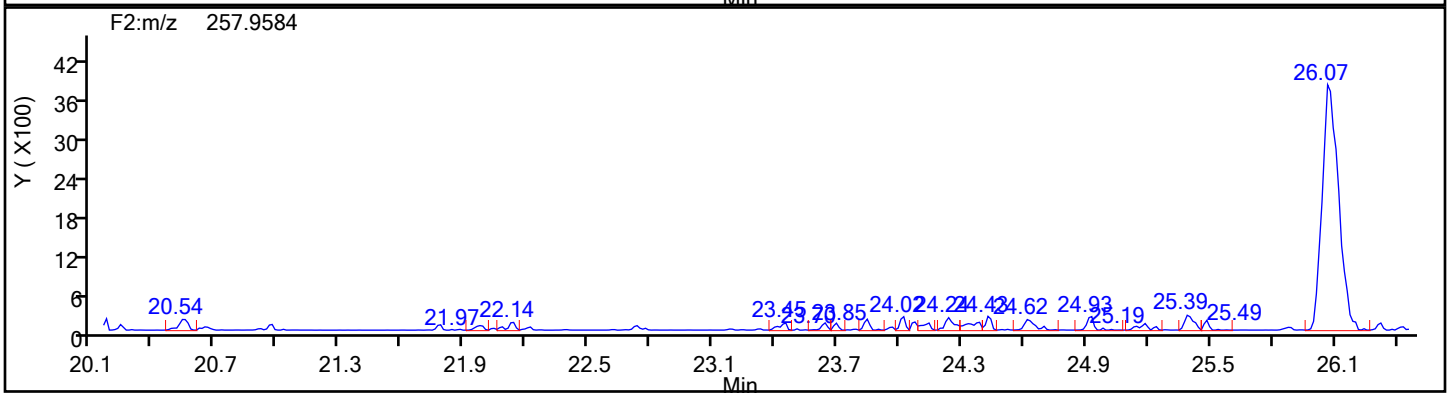
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

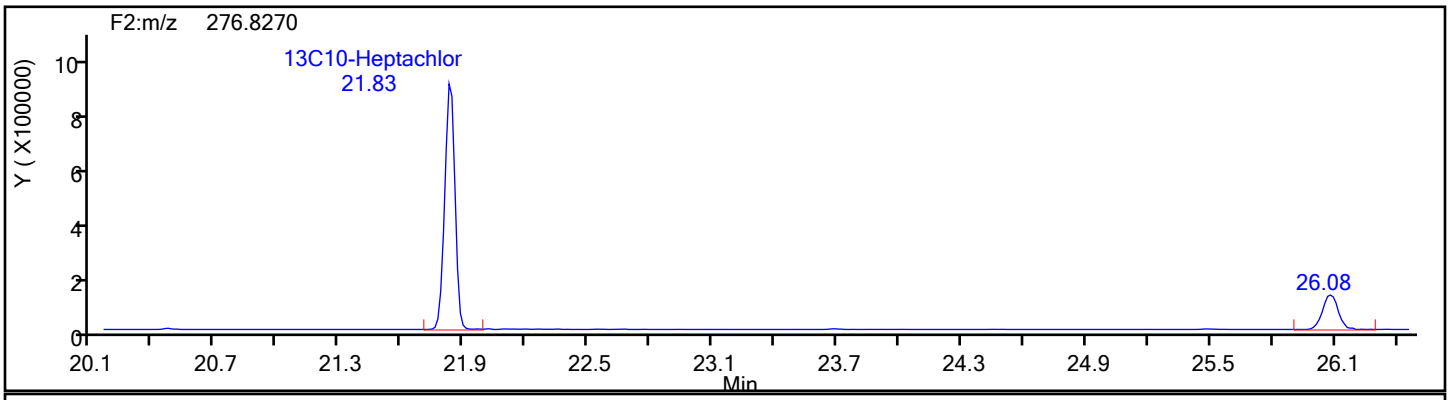
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

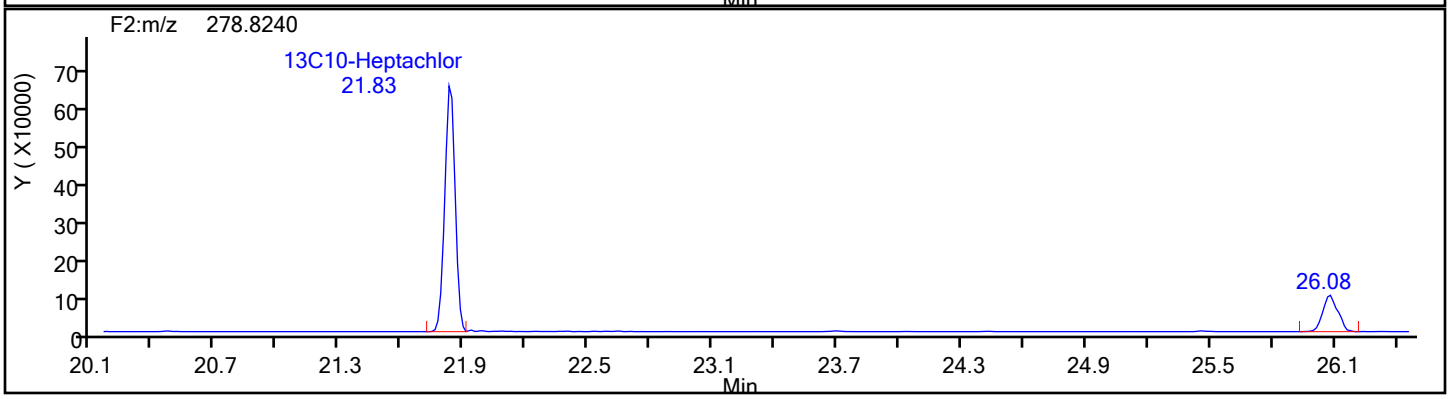
PCB-36





PCB-36 Standards



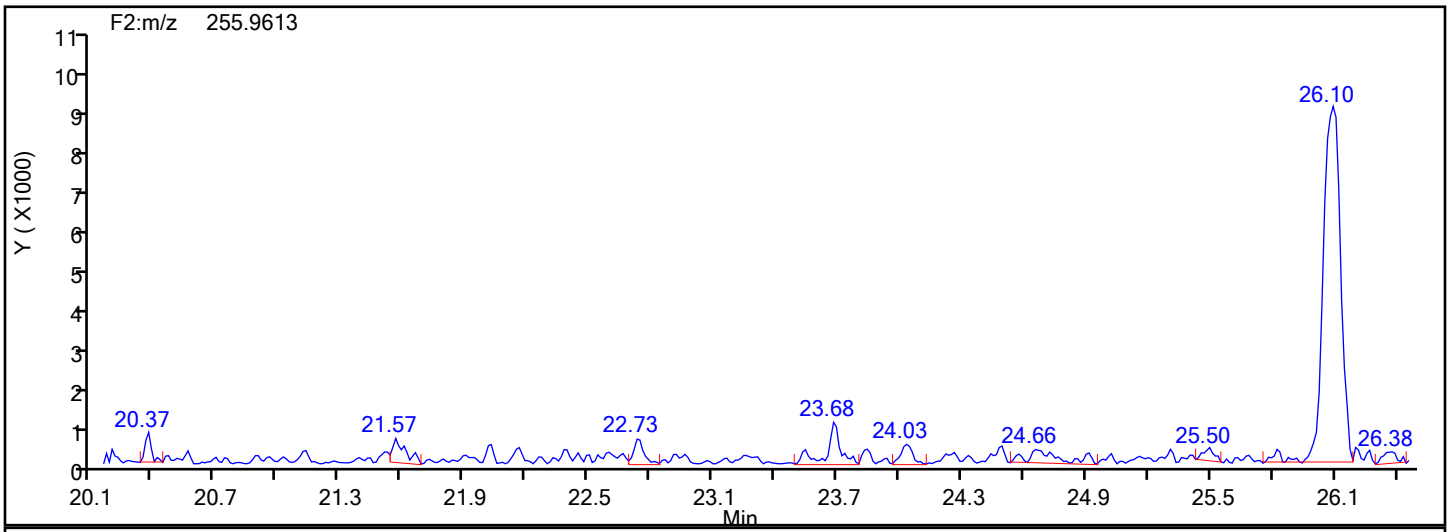


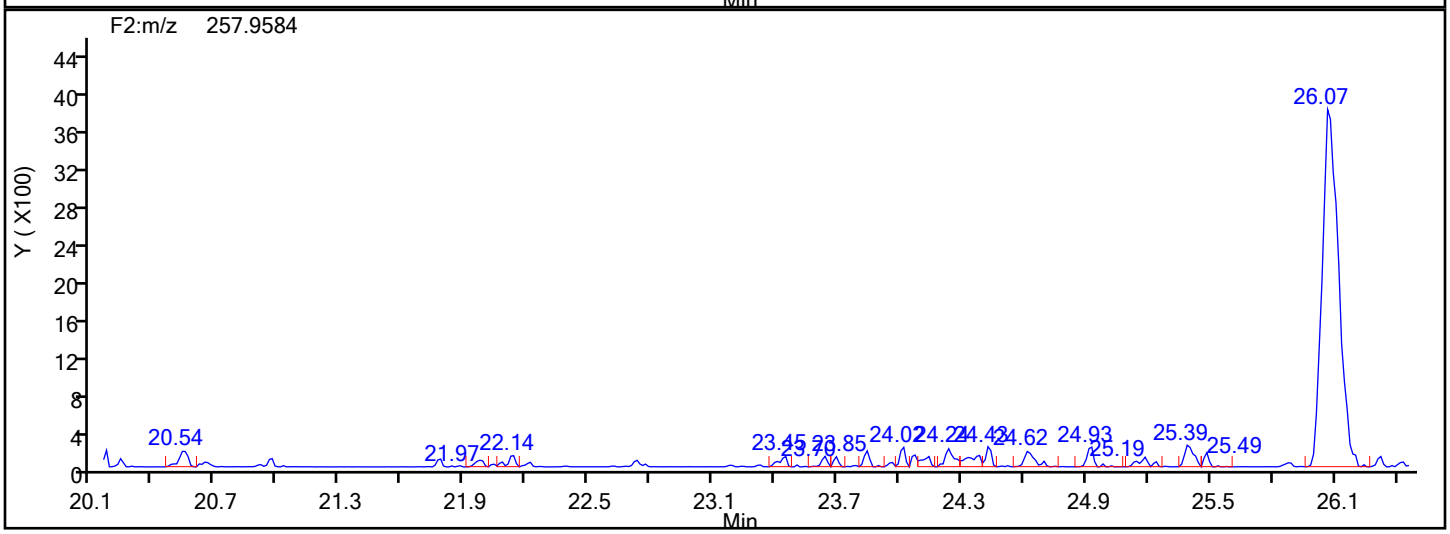
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

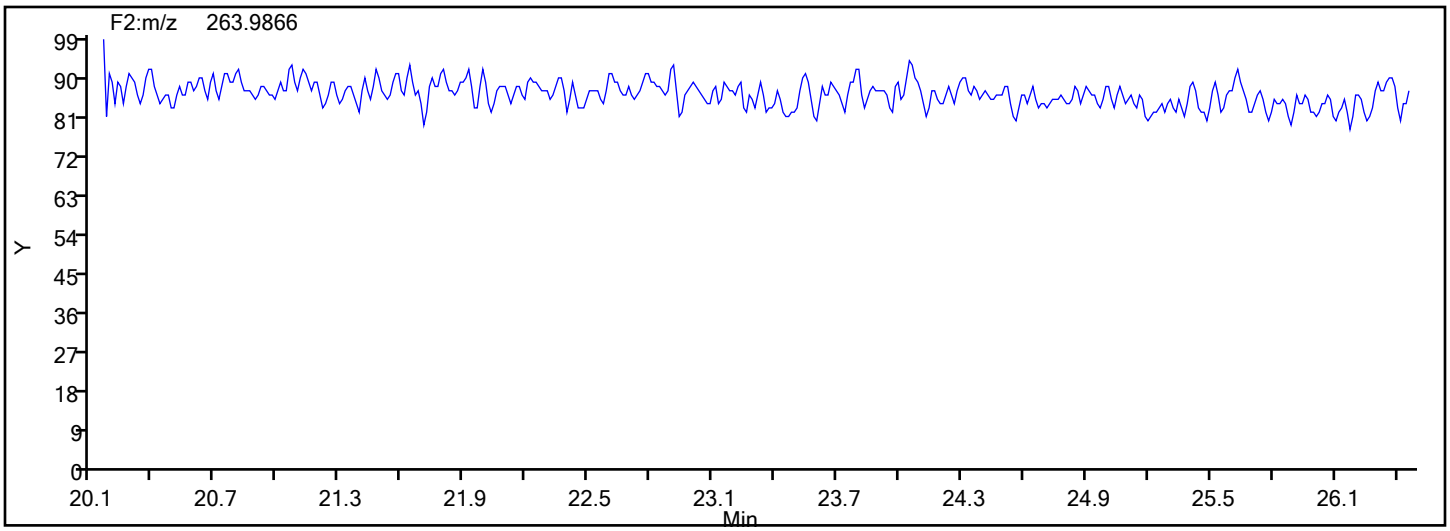
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



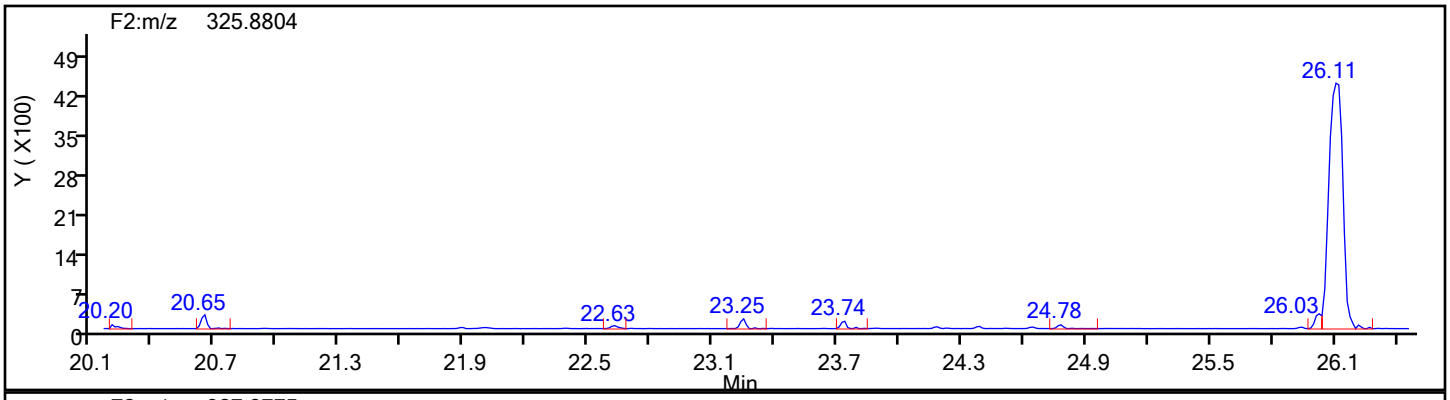
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

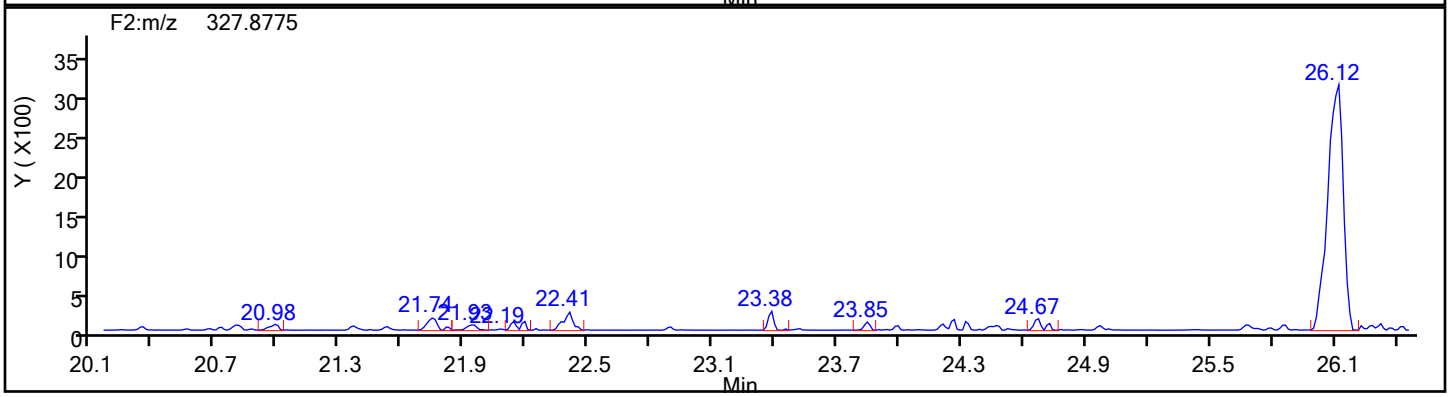
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

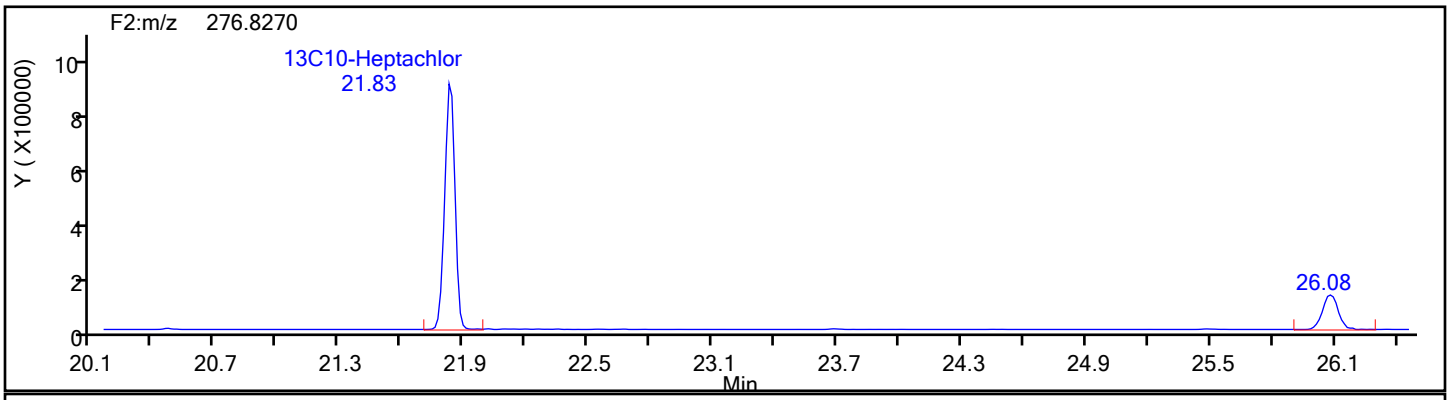
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

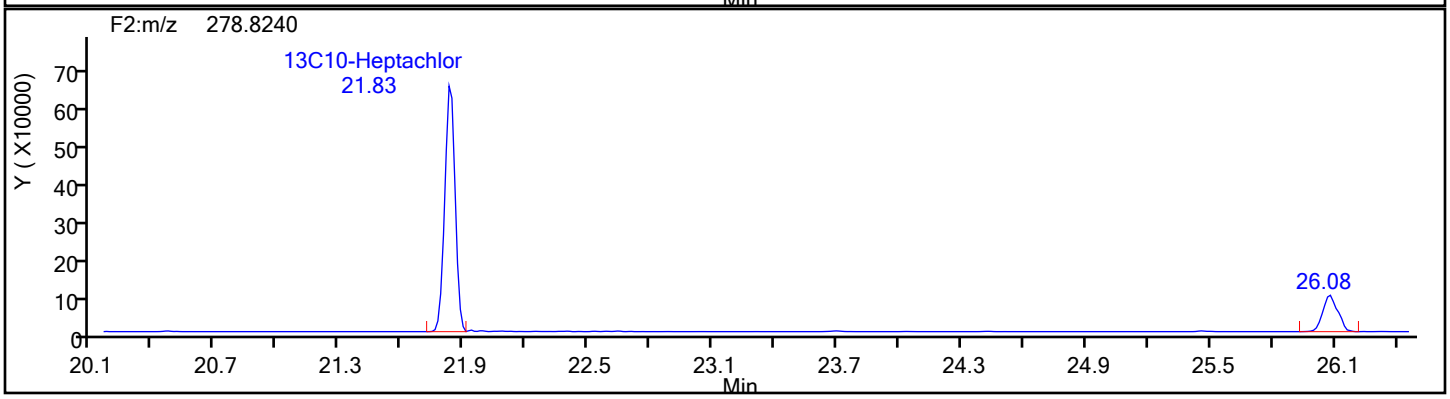
PCB-104





PCB-104 Standards



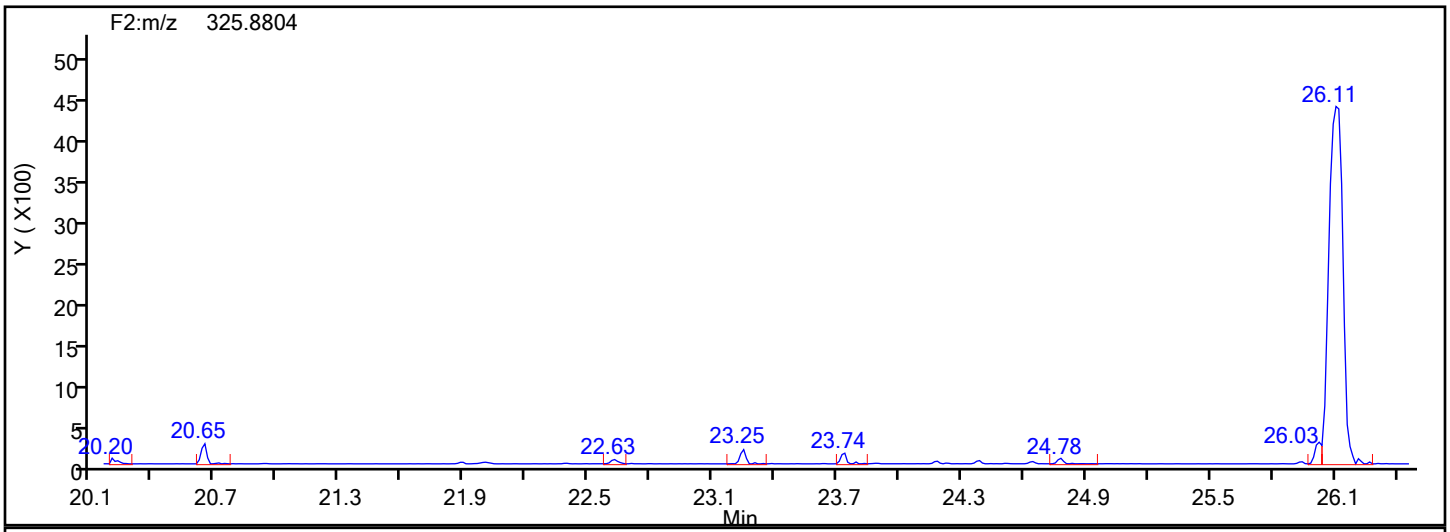


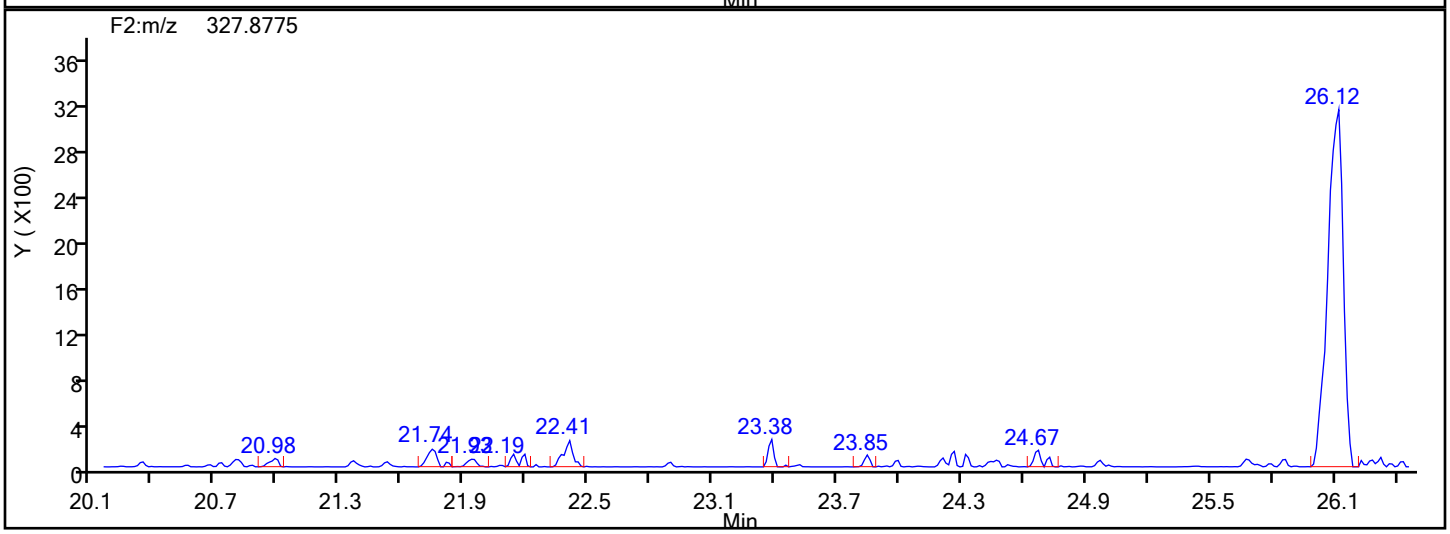
Report Date: 05-May-2025 18:00:10 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

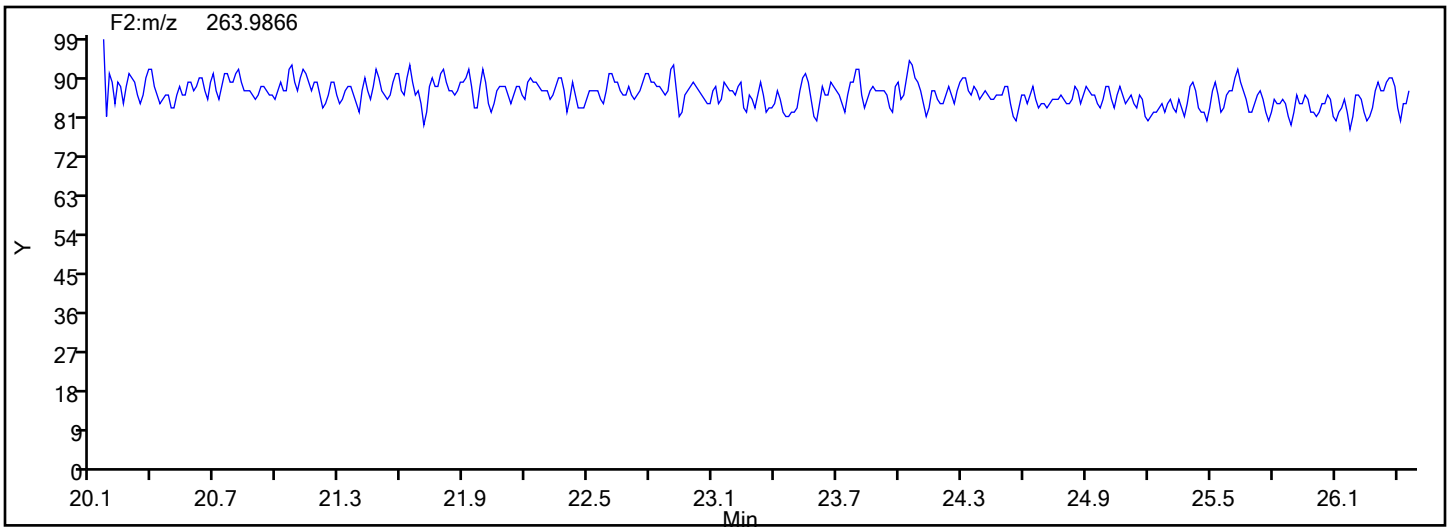
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



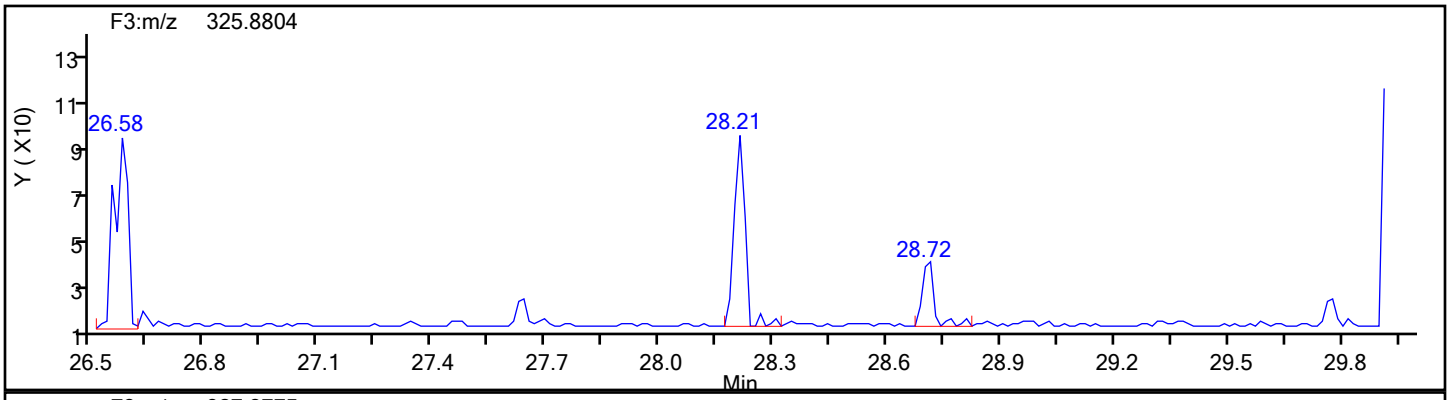
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

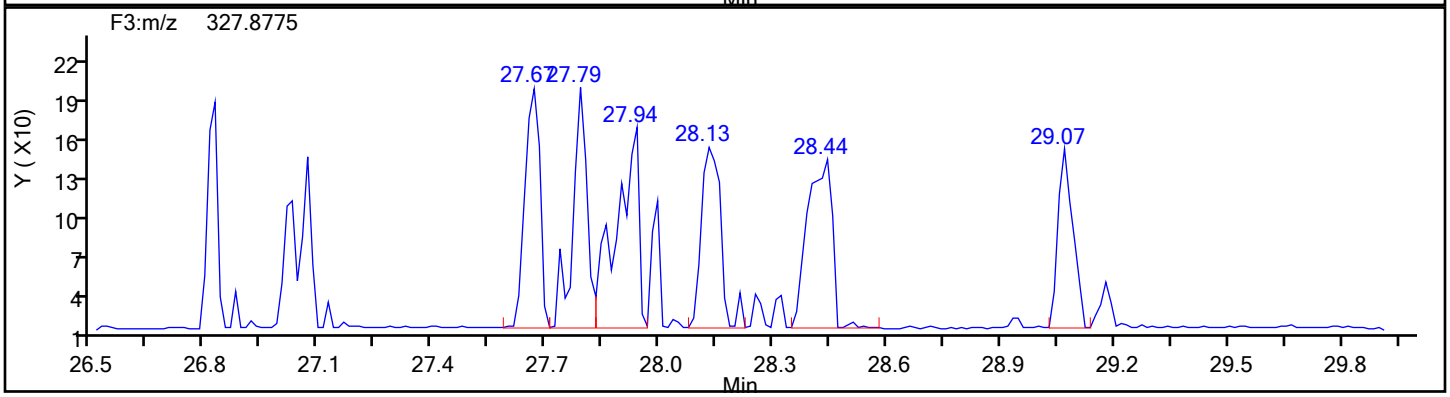
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

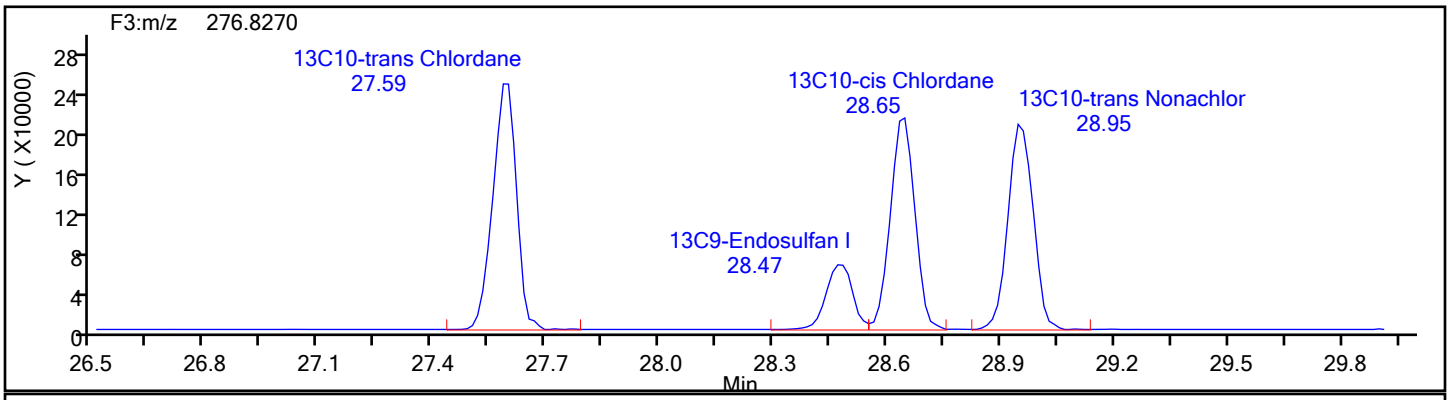
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

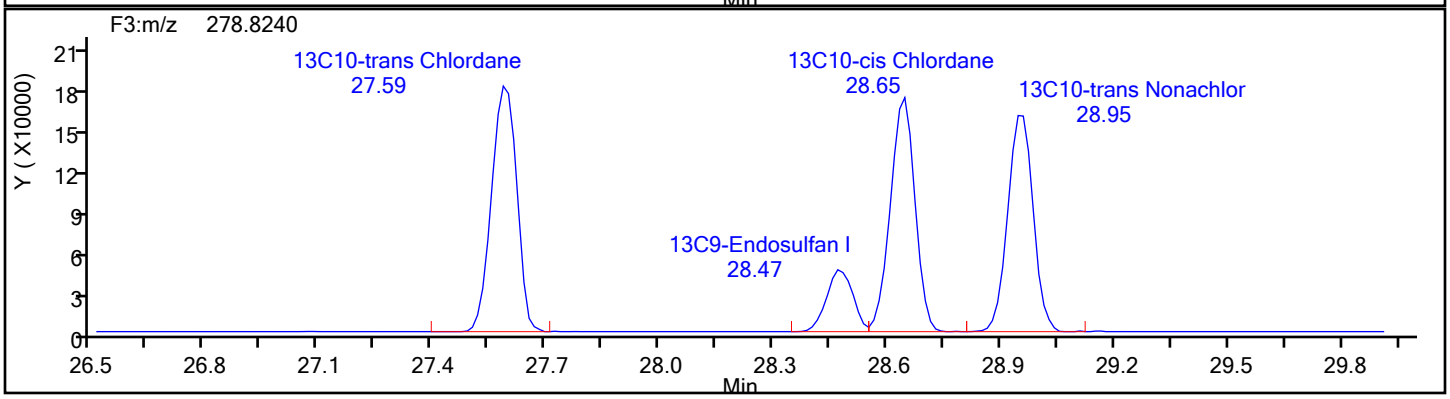
PCB-121





PCB-121 Standards



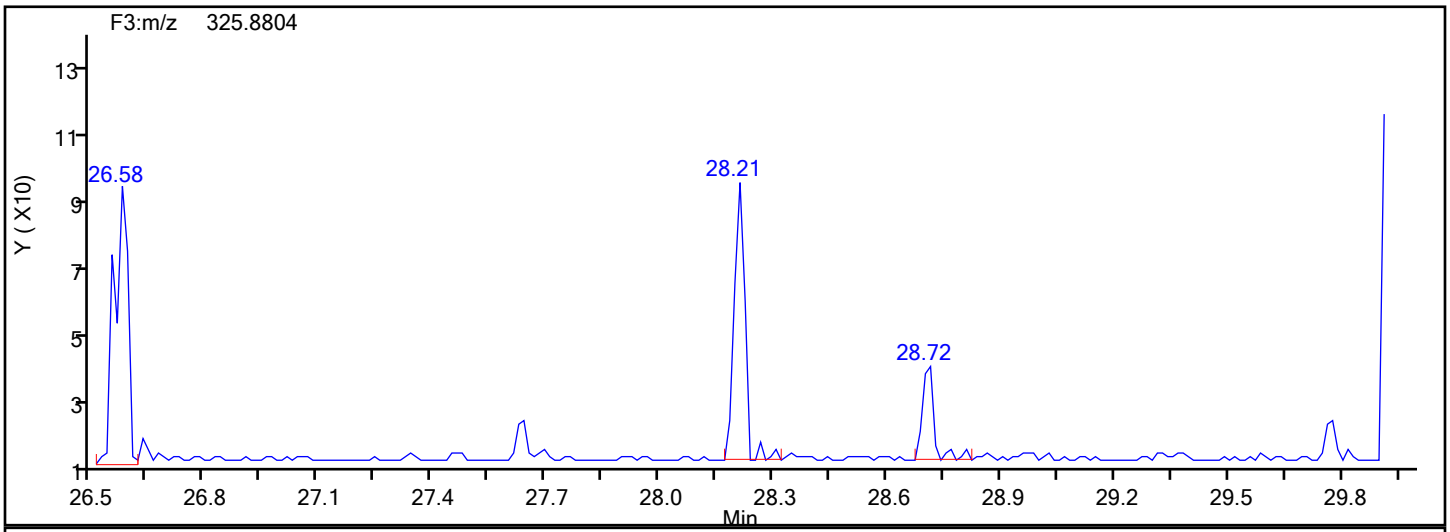


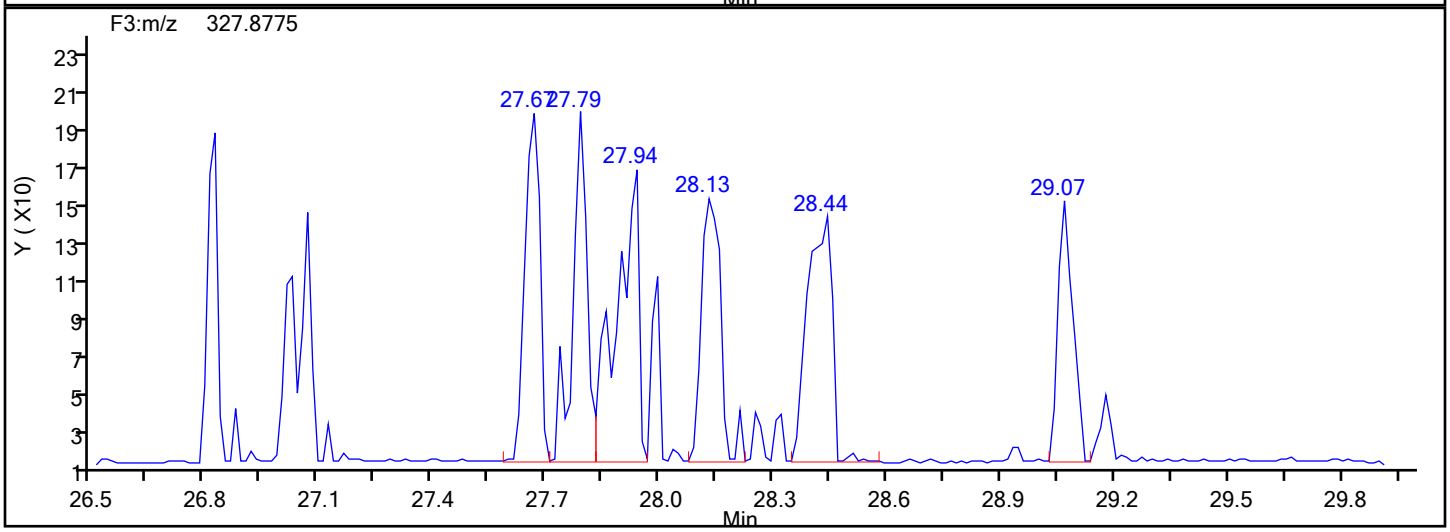
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

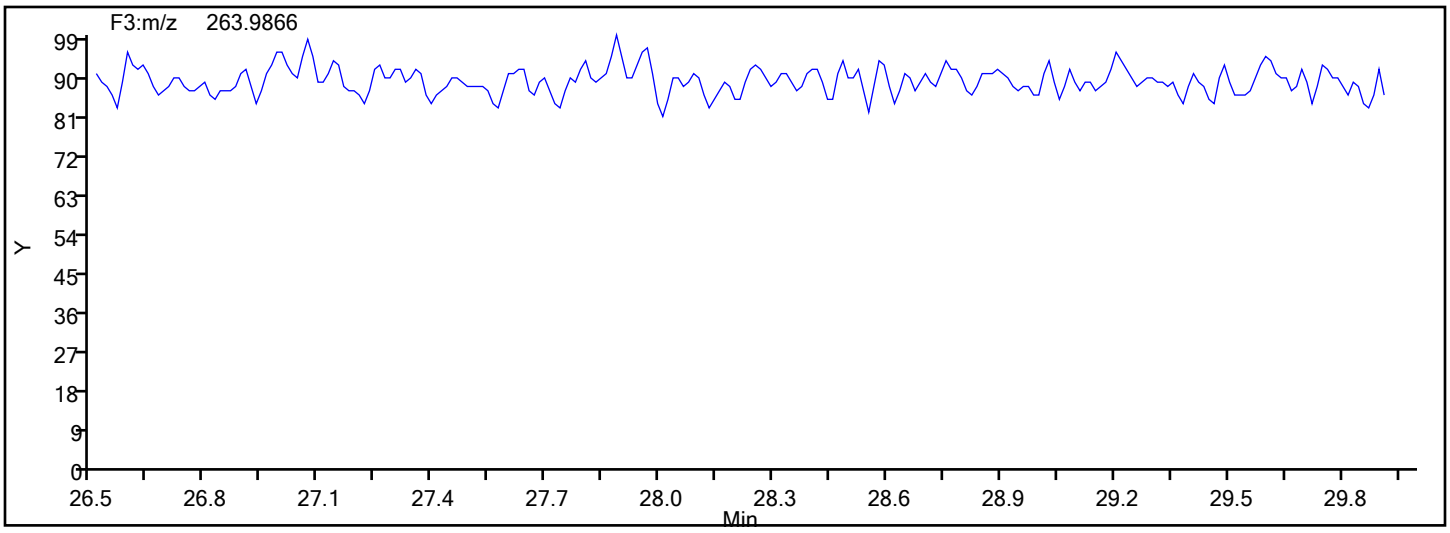
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



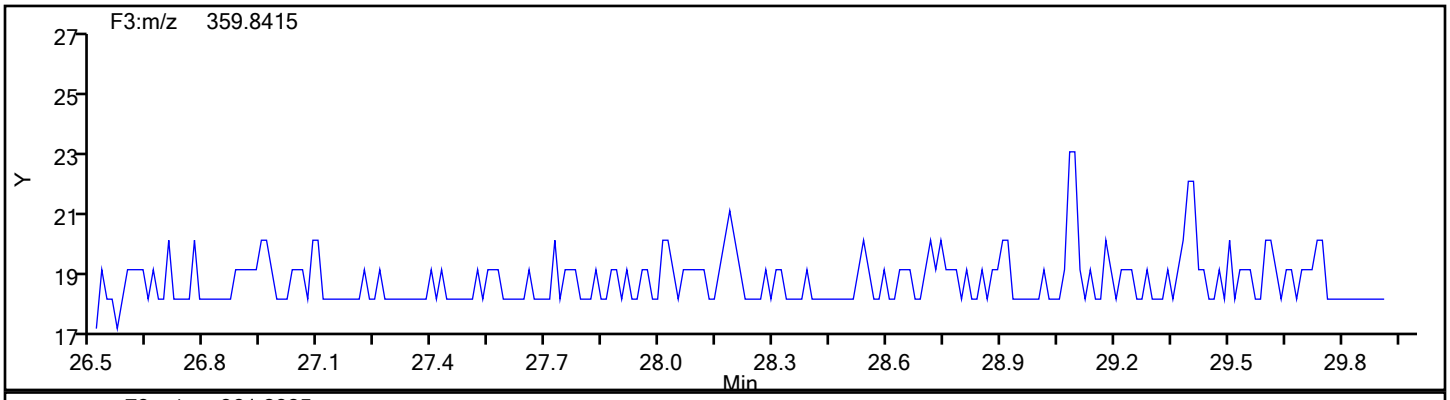
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

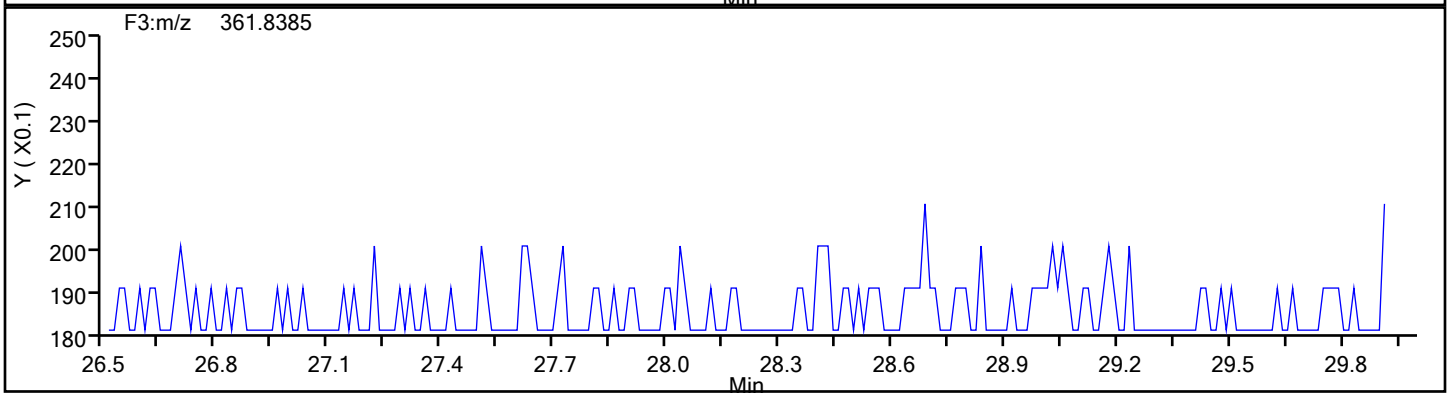
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

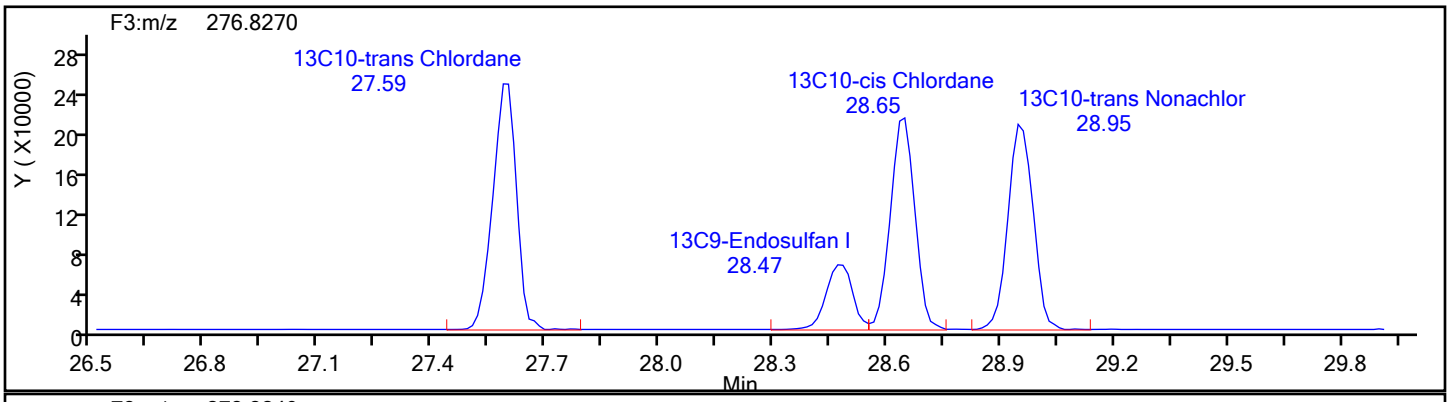
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

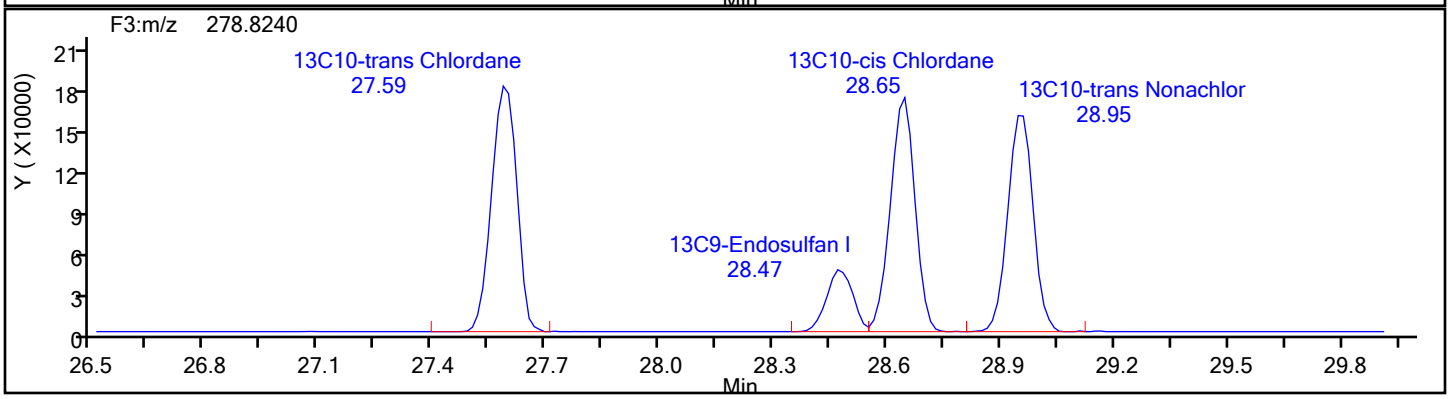
PCB-142





PCB-142 Standards



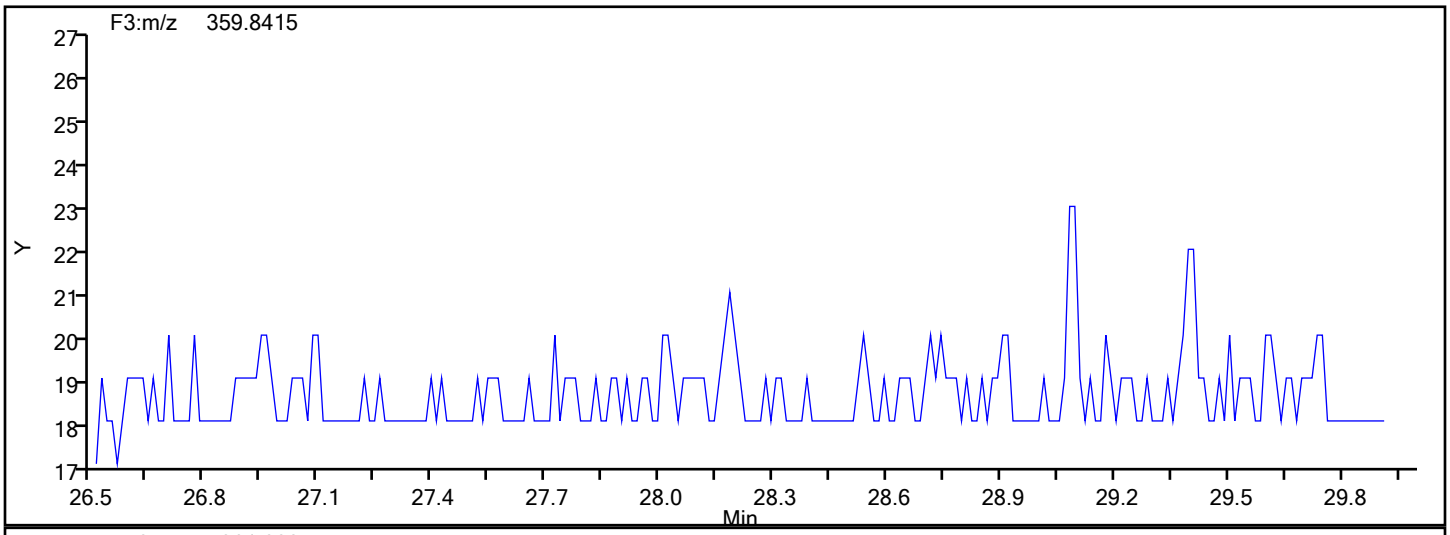


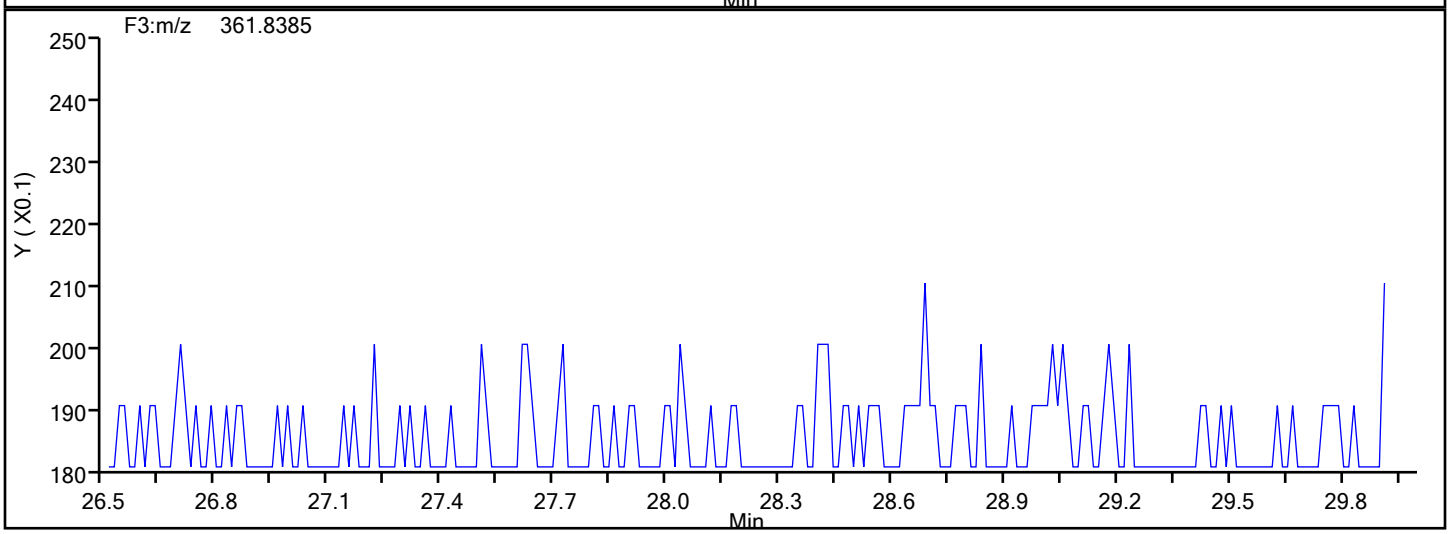
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

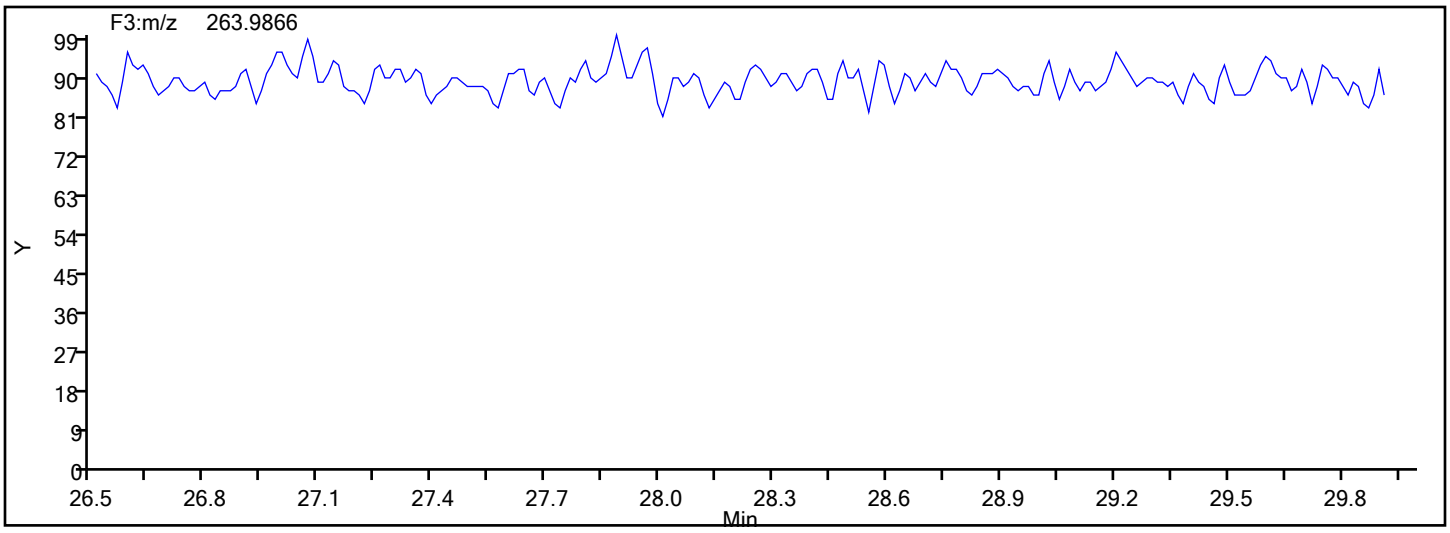
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



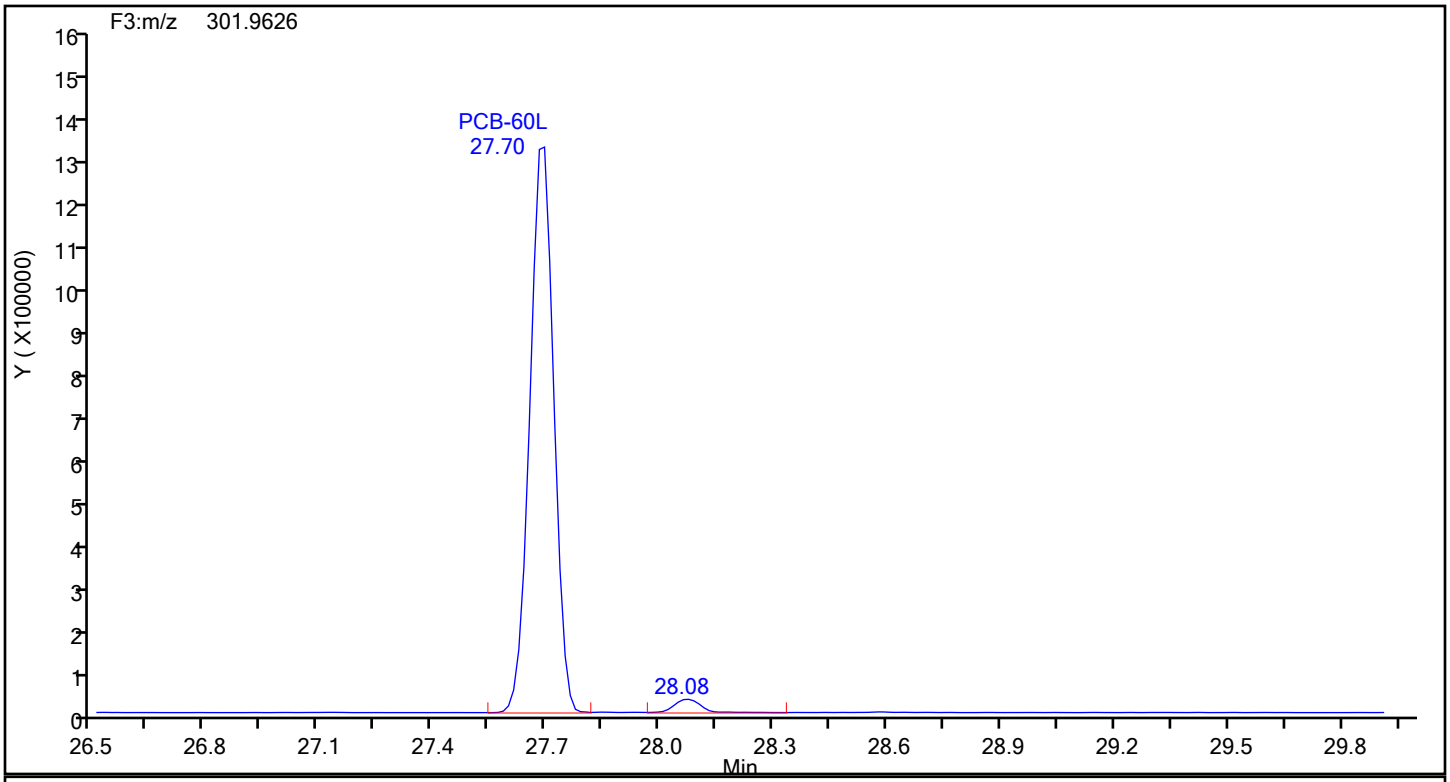
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

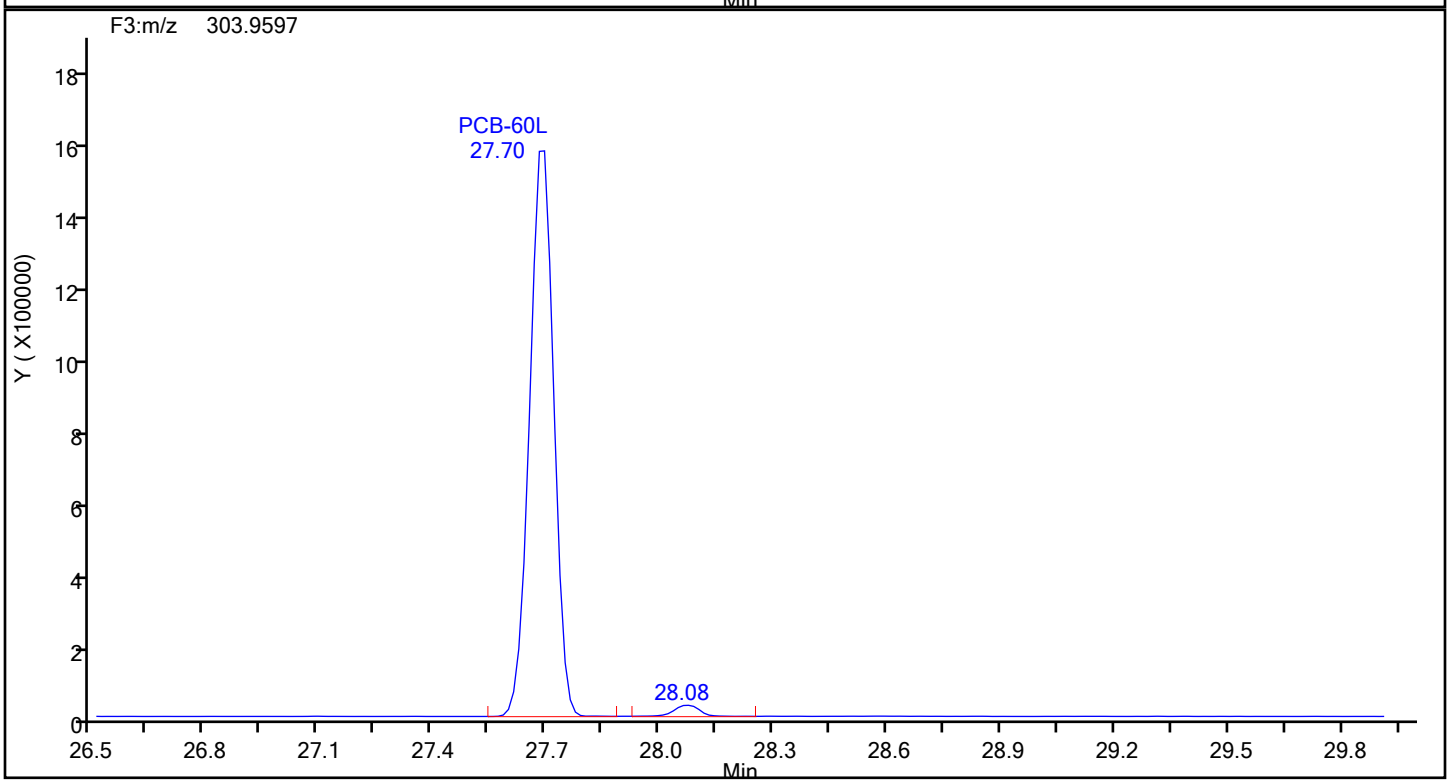
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards



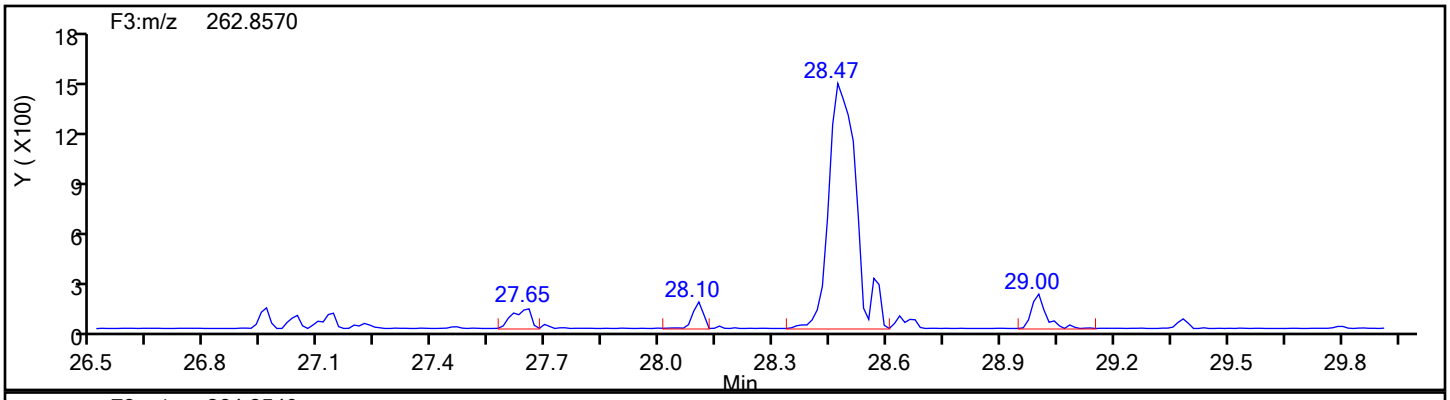


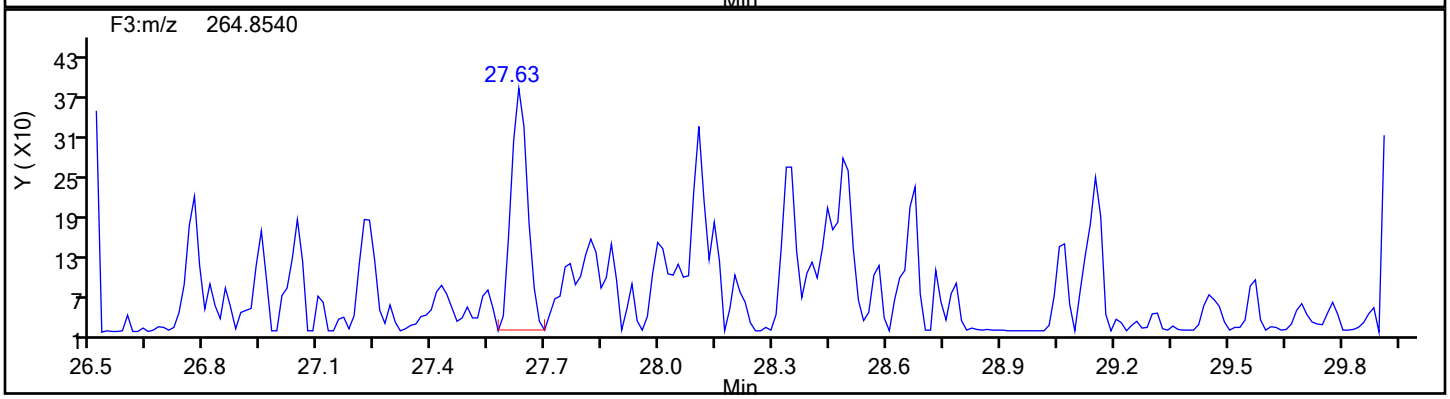
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

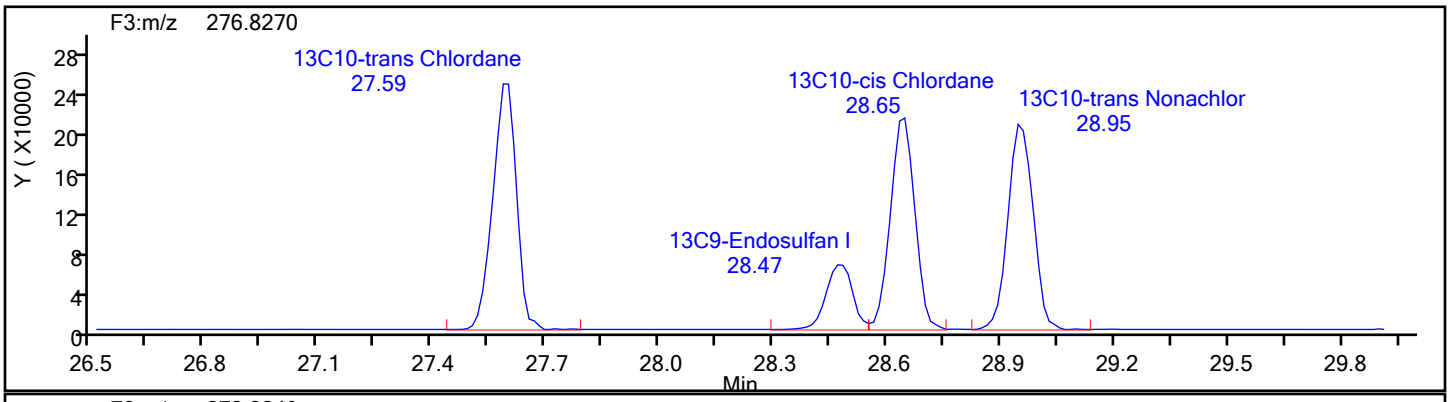
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

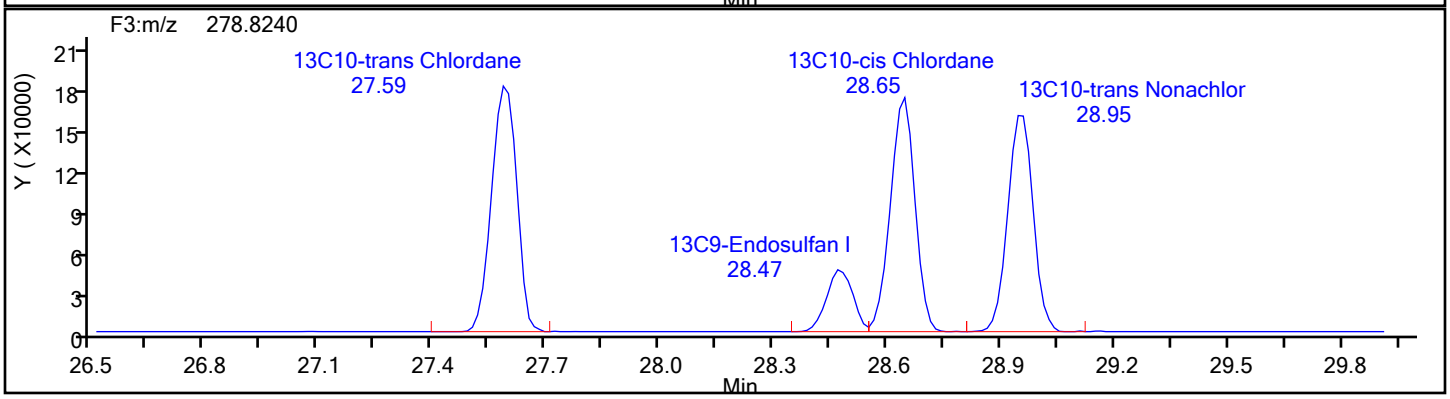
Endosulfan I





Endosulfan I Standards



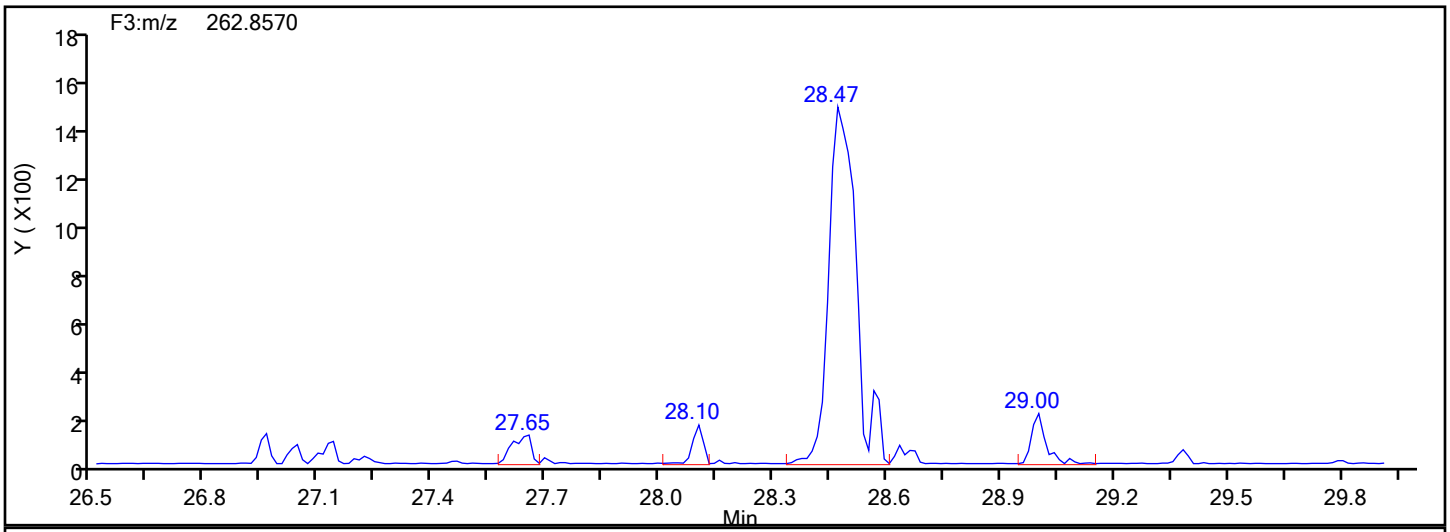


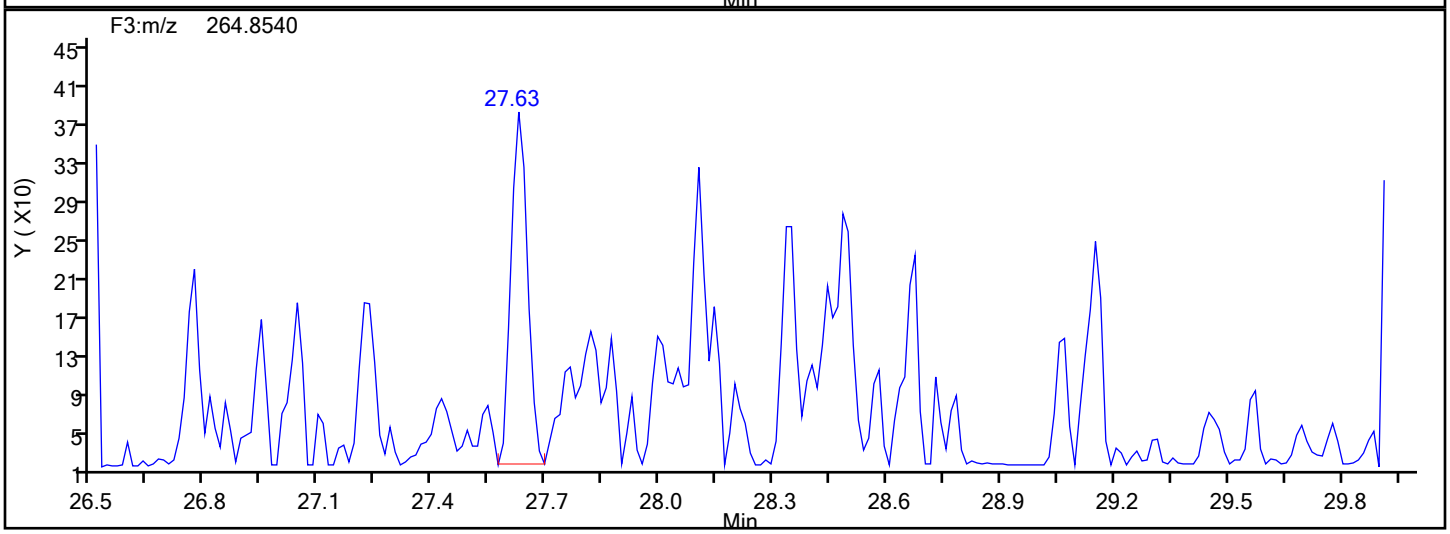
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

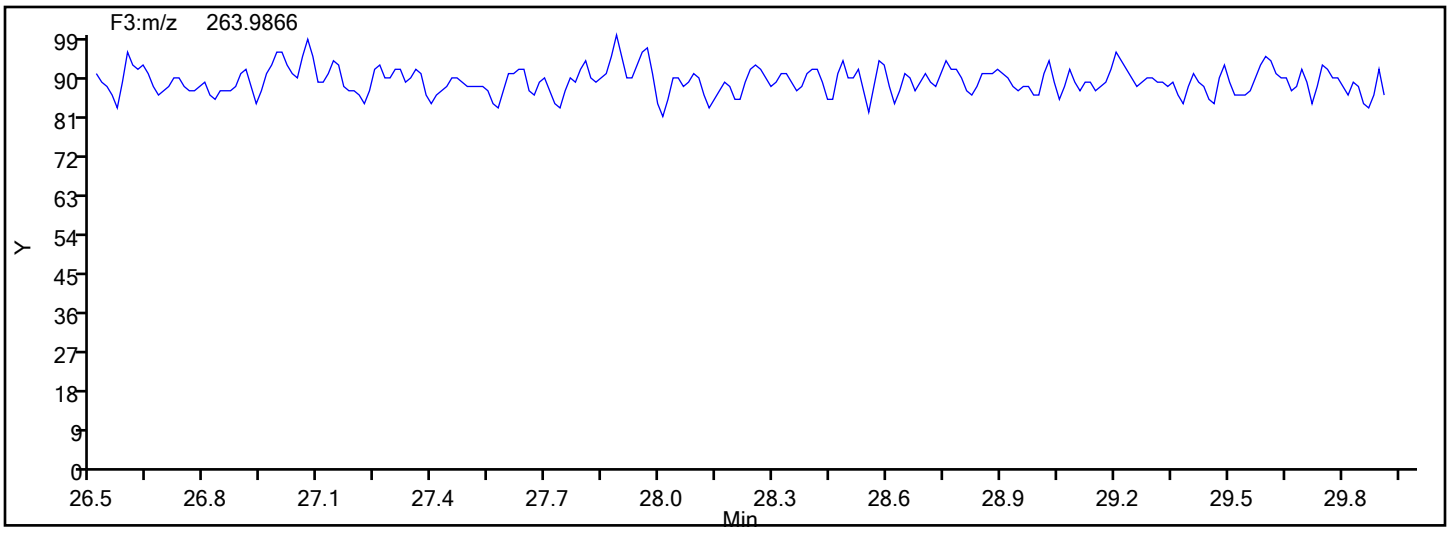
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



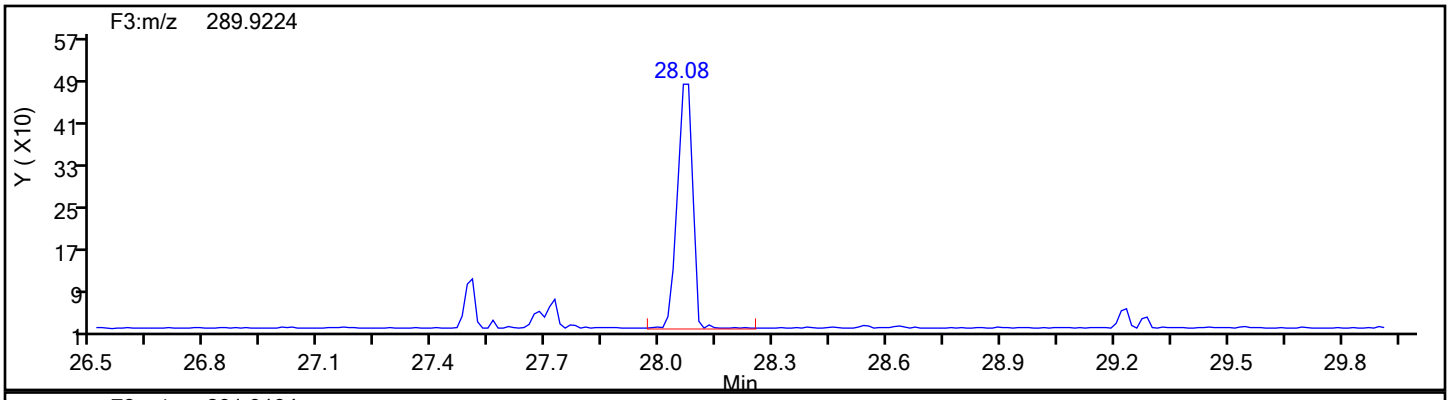
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

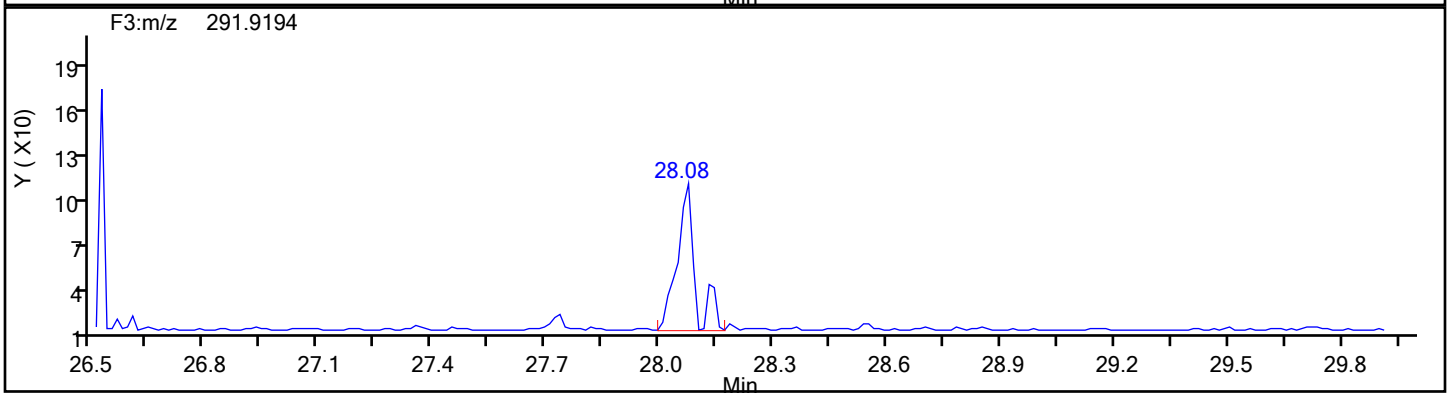
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

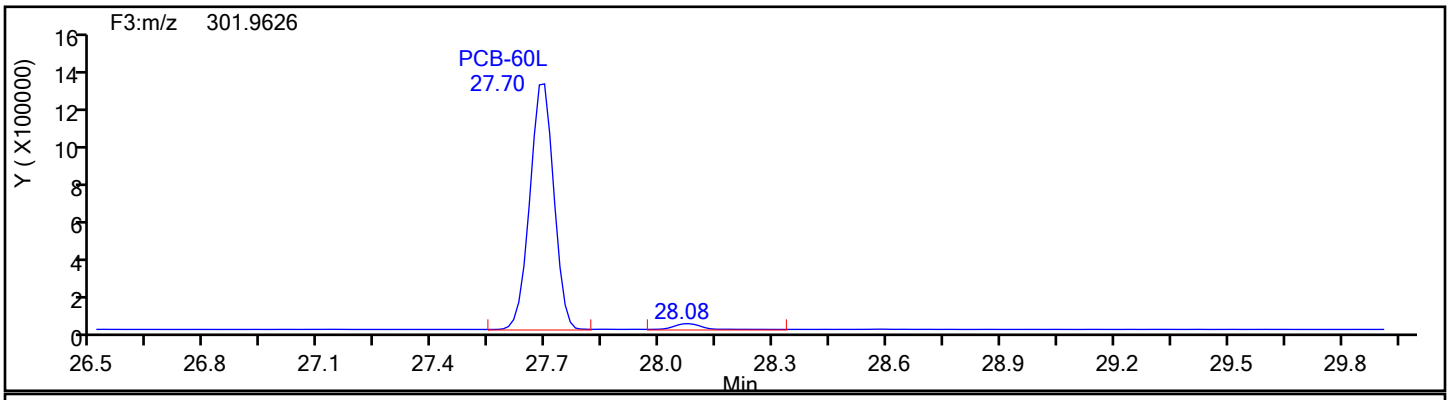
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

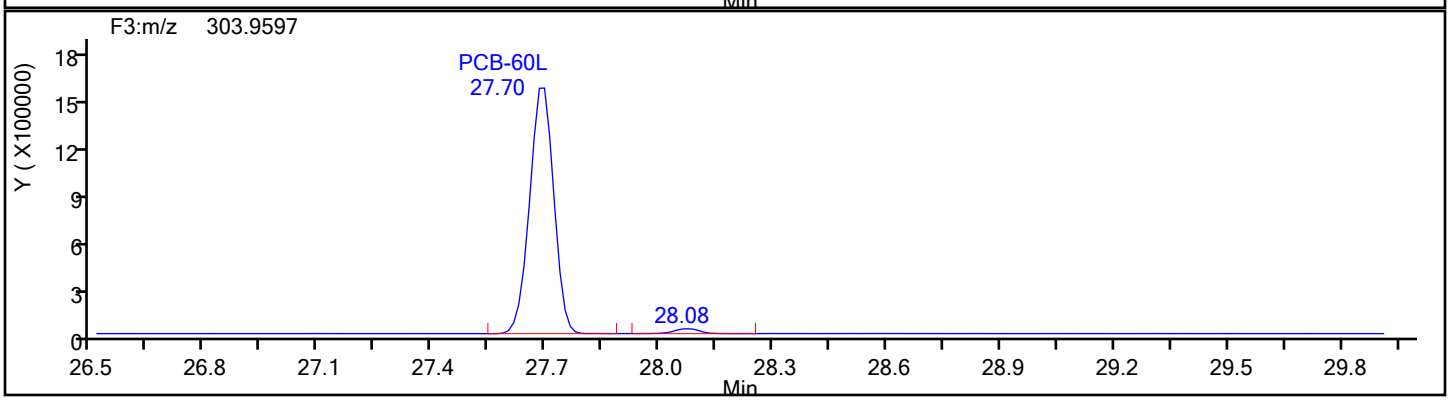
PCB-78





PCB-78 Standards



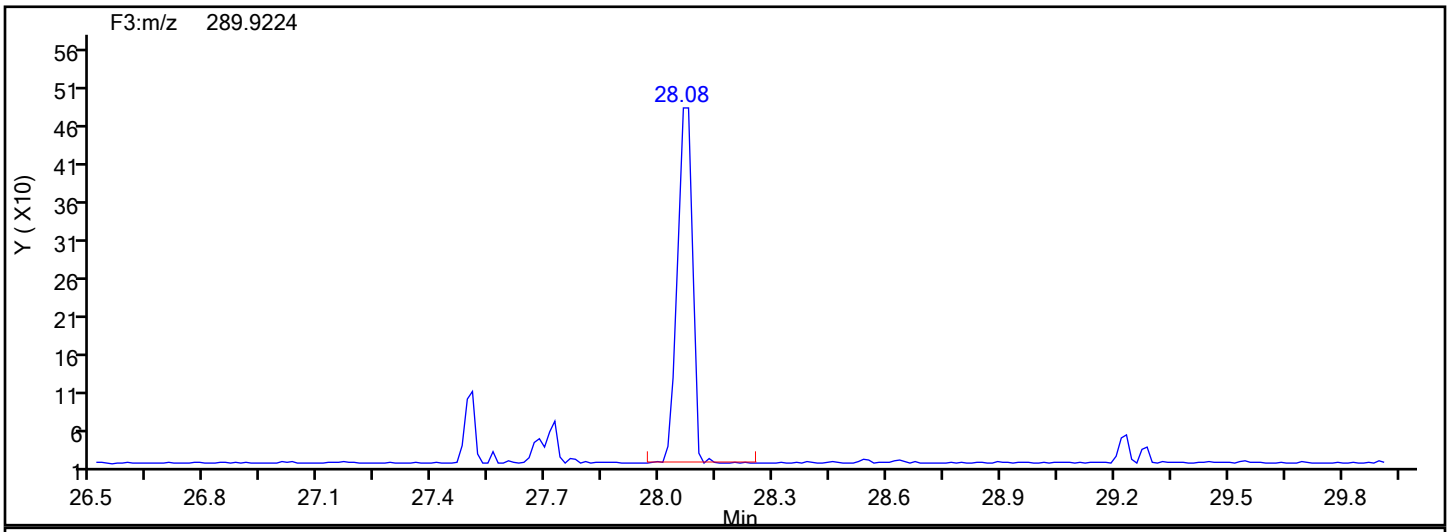


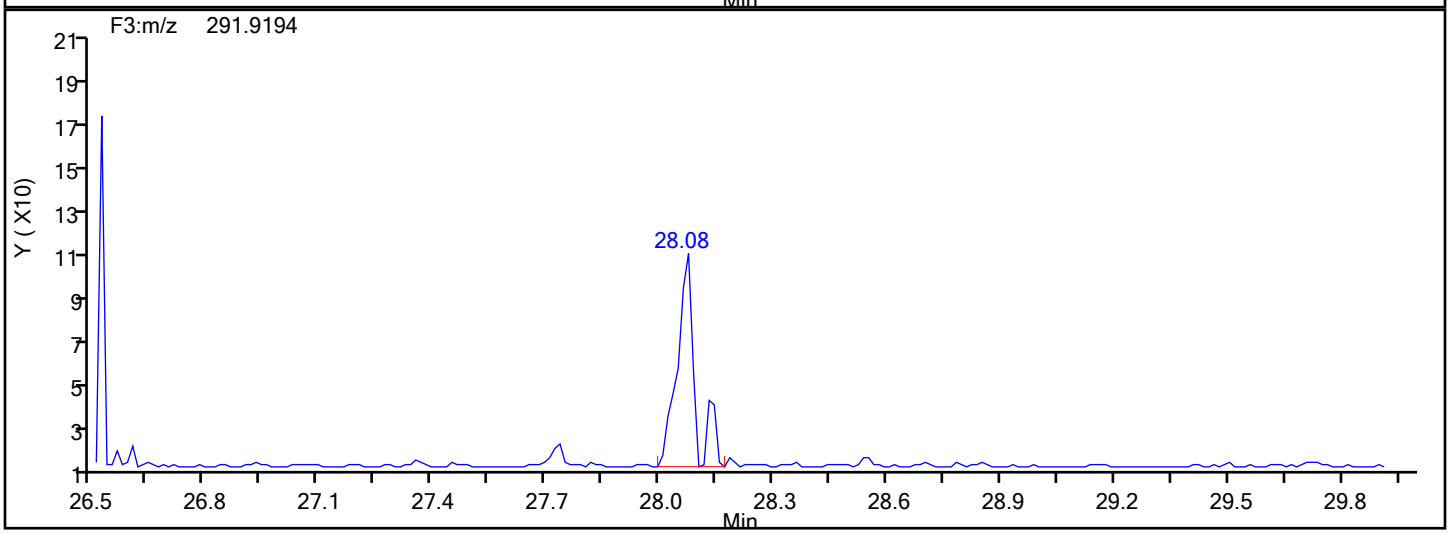
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

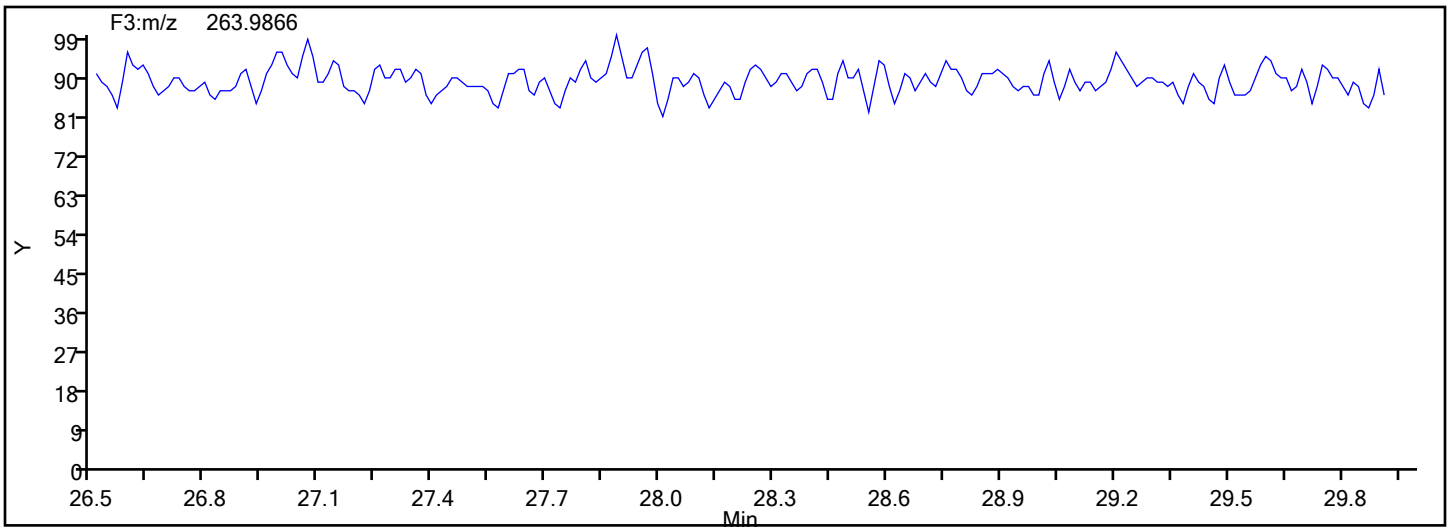
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



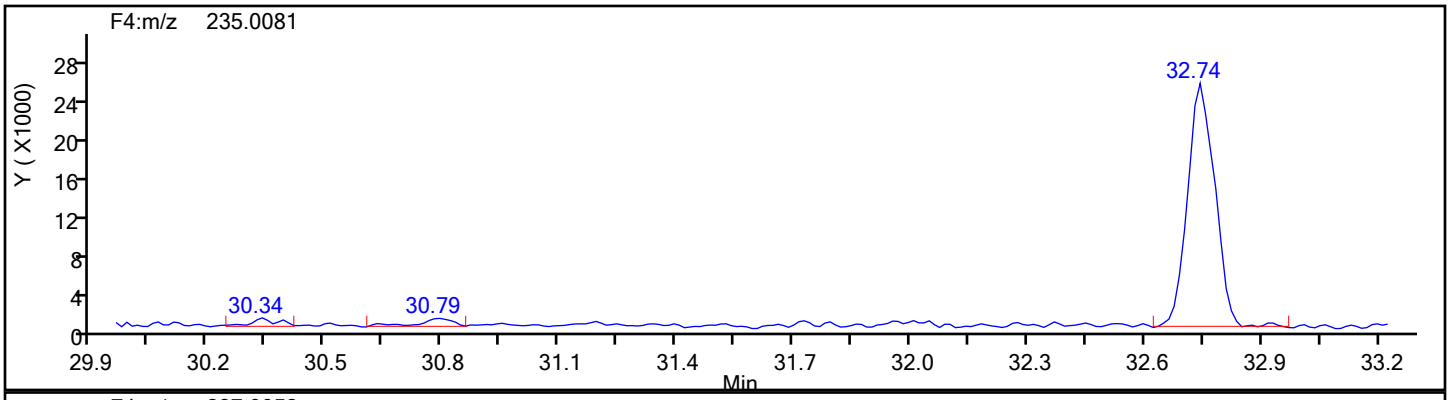
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

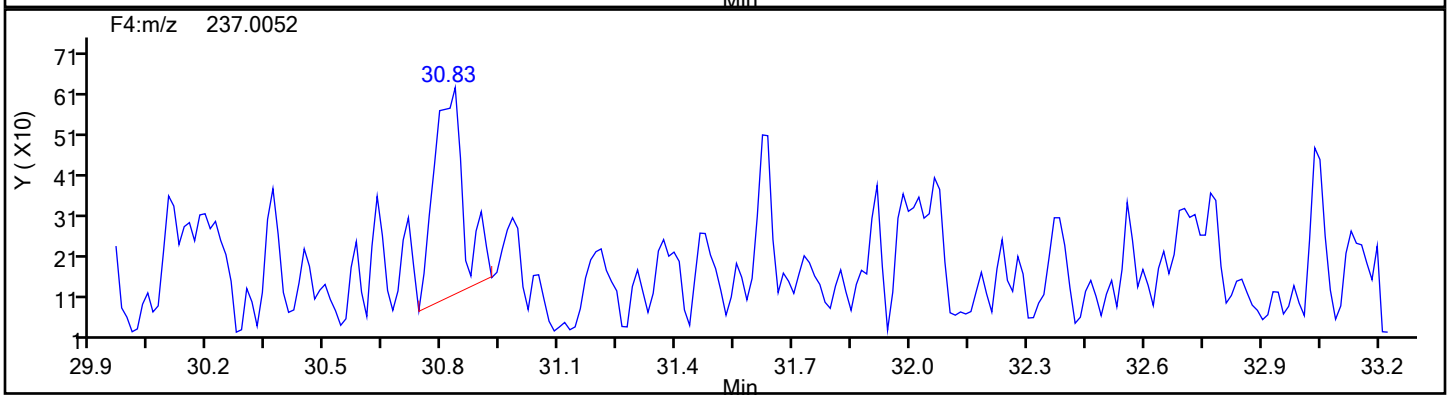
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

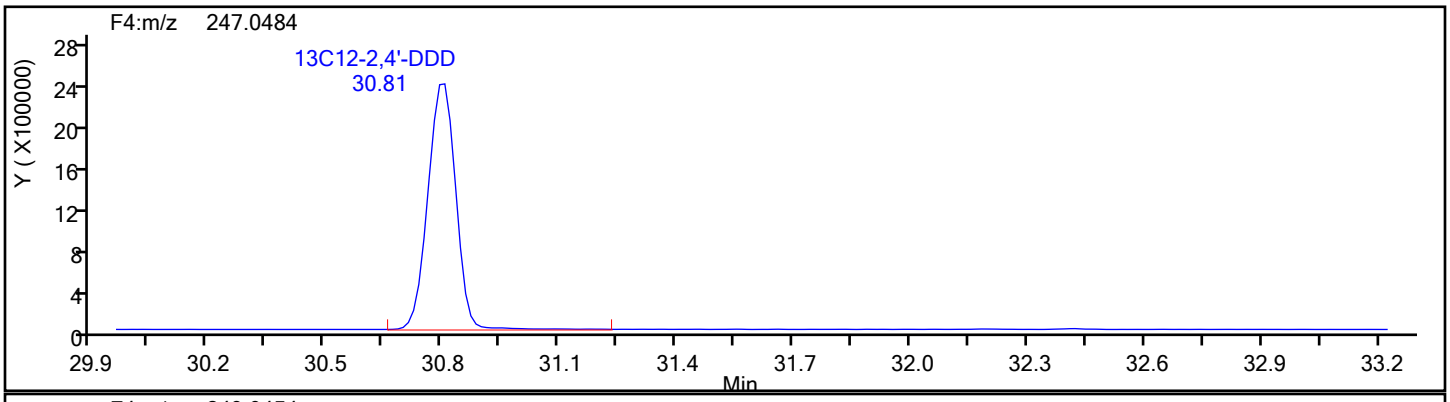
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

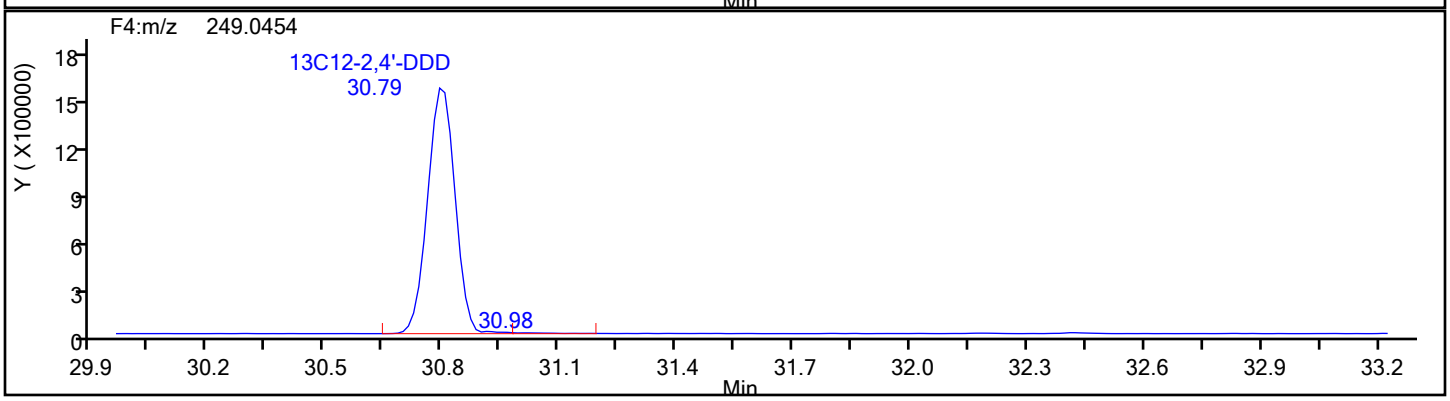
2,4'-DDD





2,4'-DDD Standards



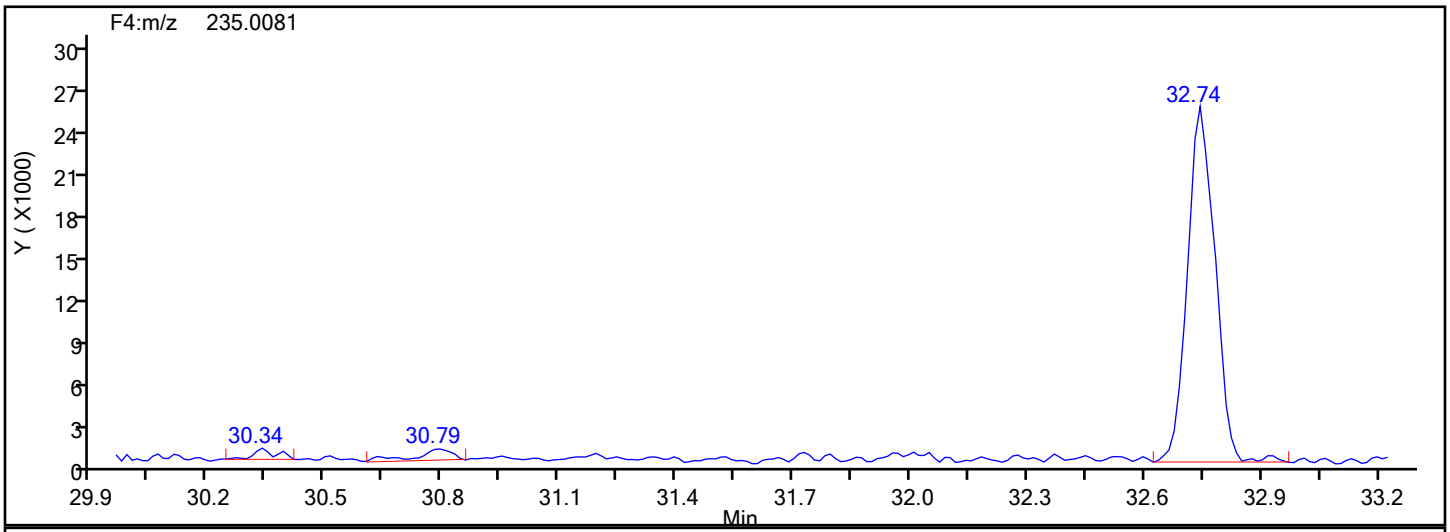


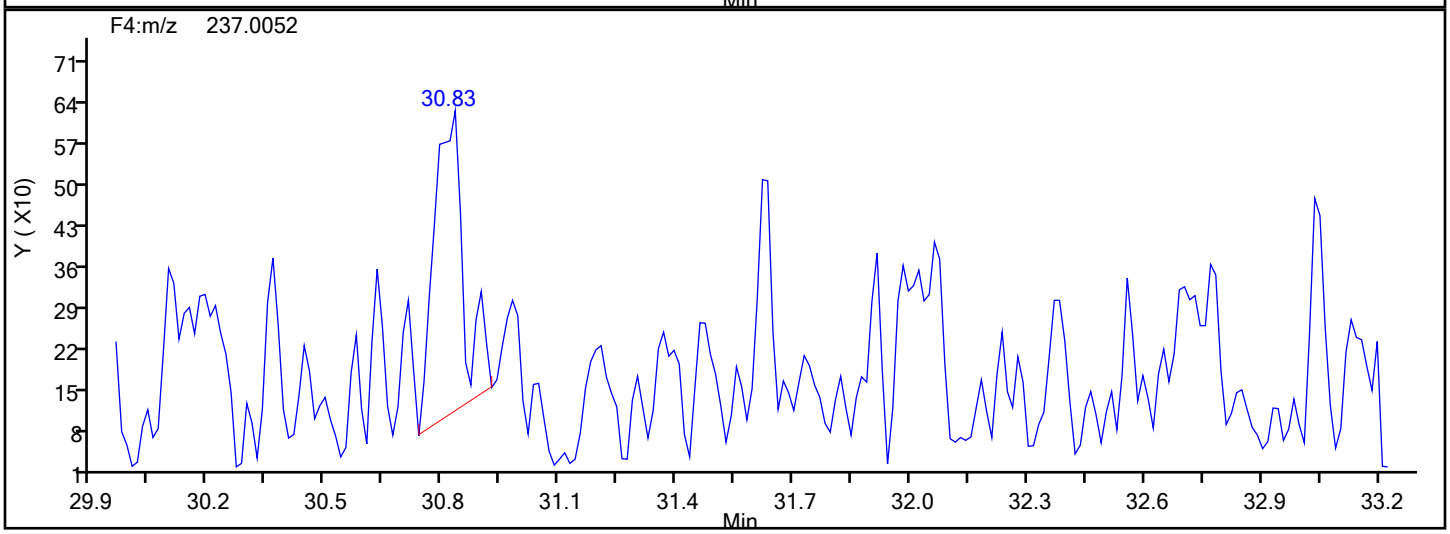
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

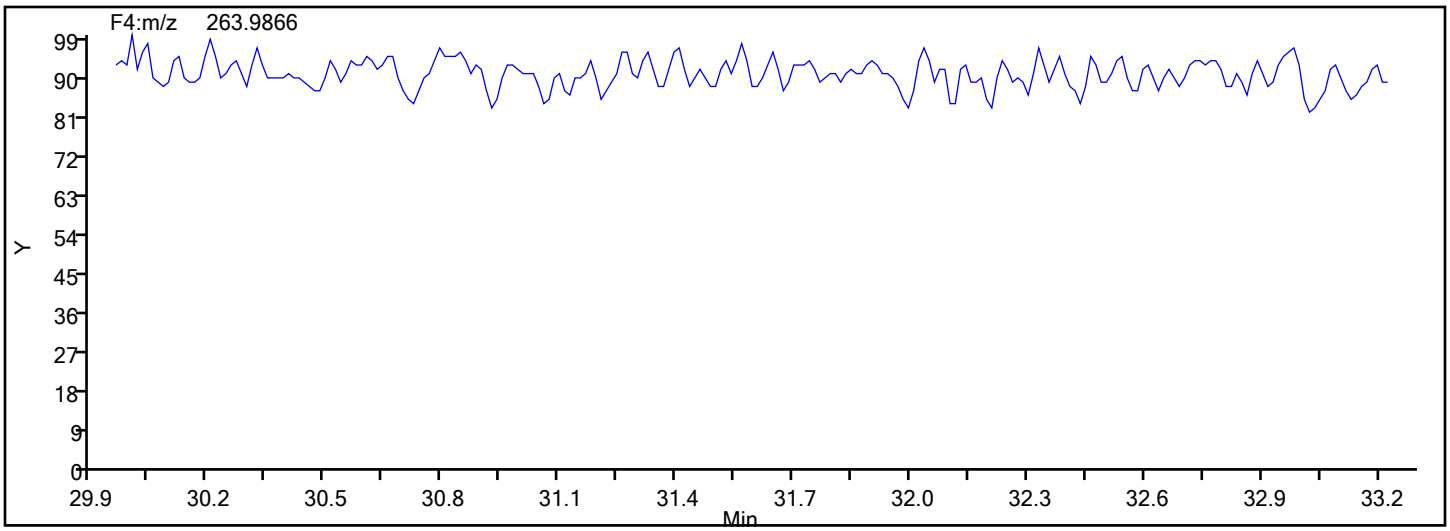
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



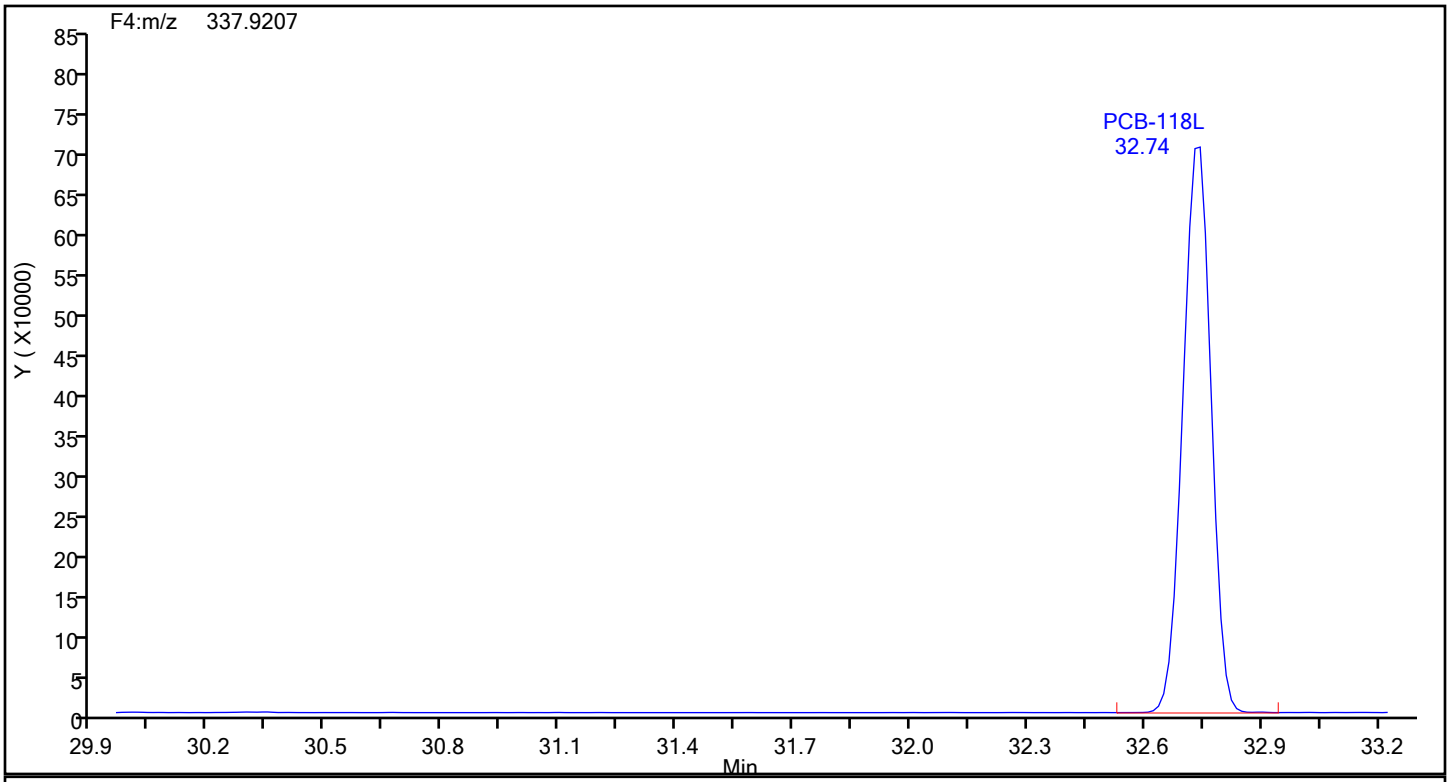
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

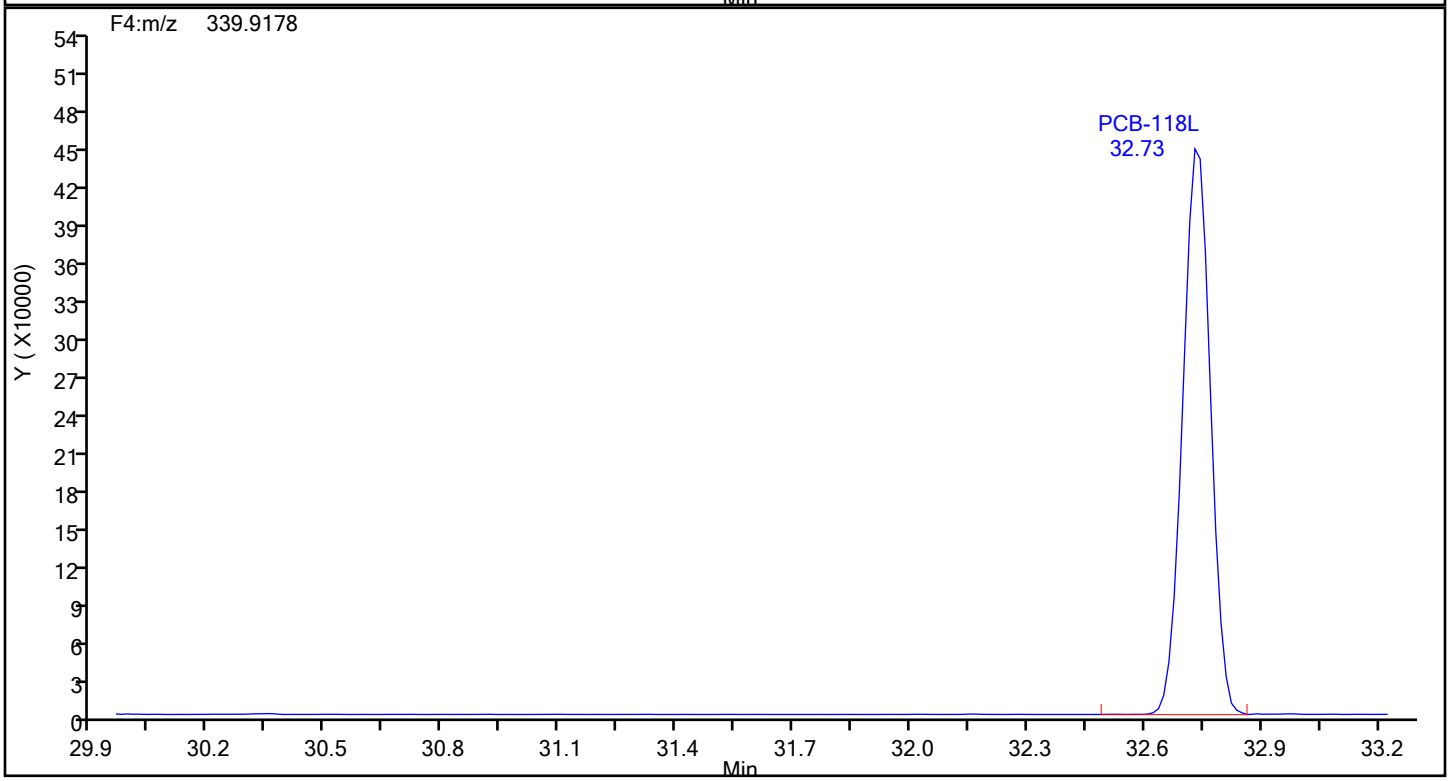
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





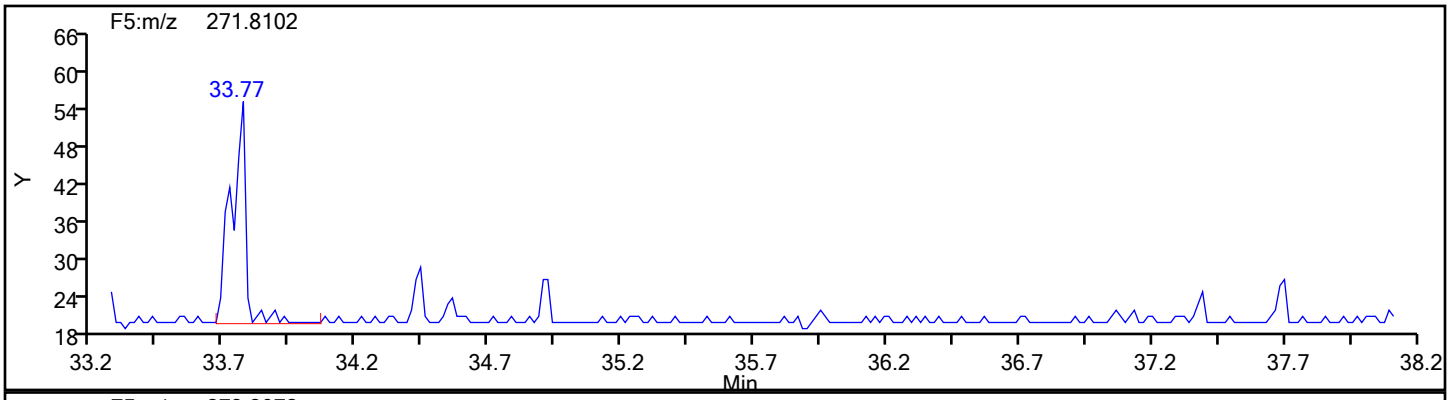
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

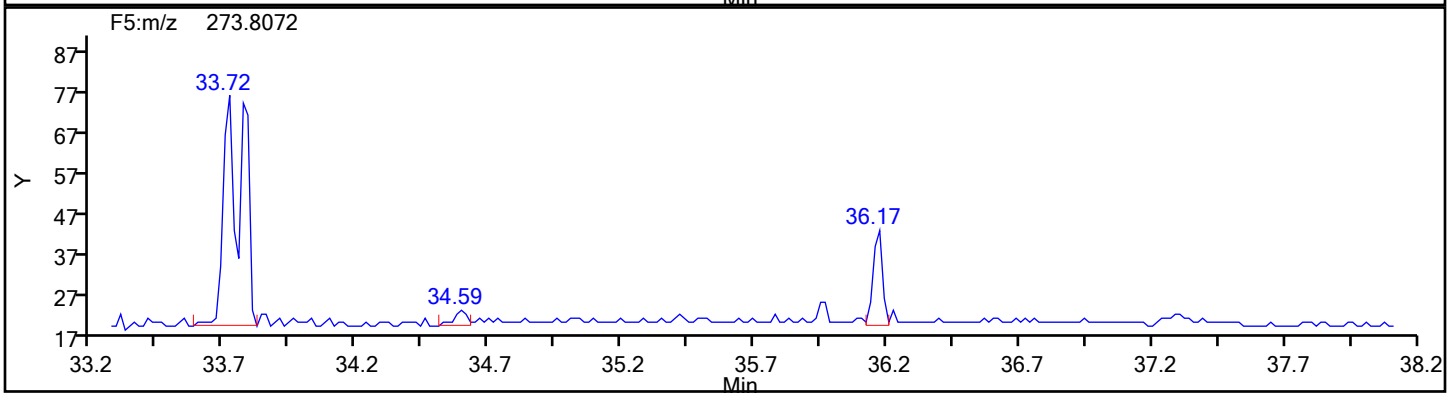
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

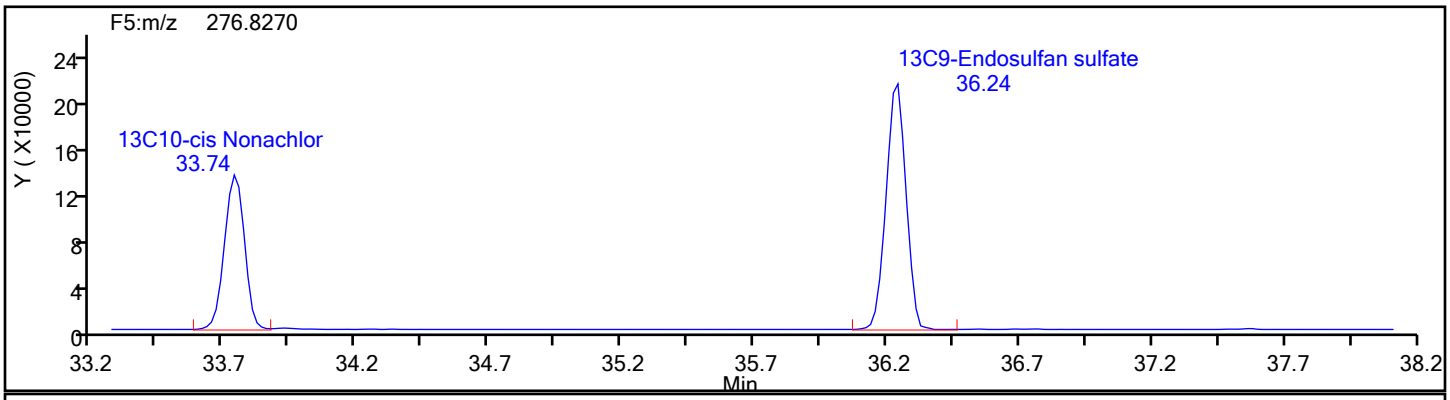
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

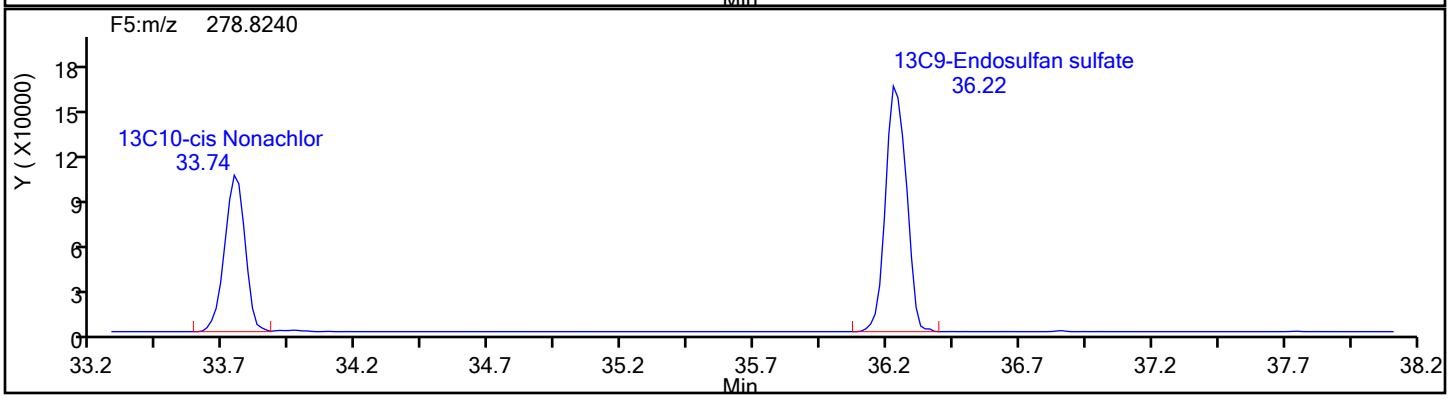
Nonachlor





Nonachlor Standards



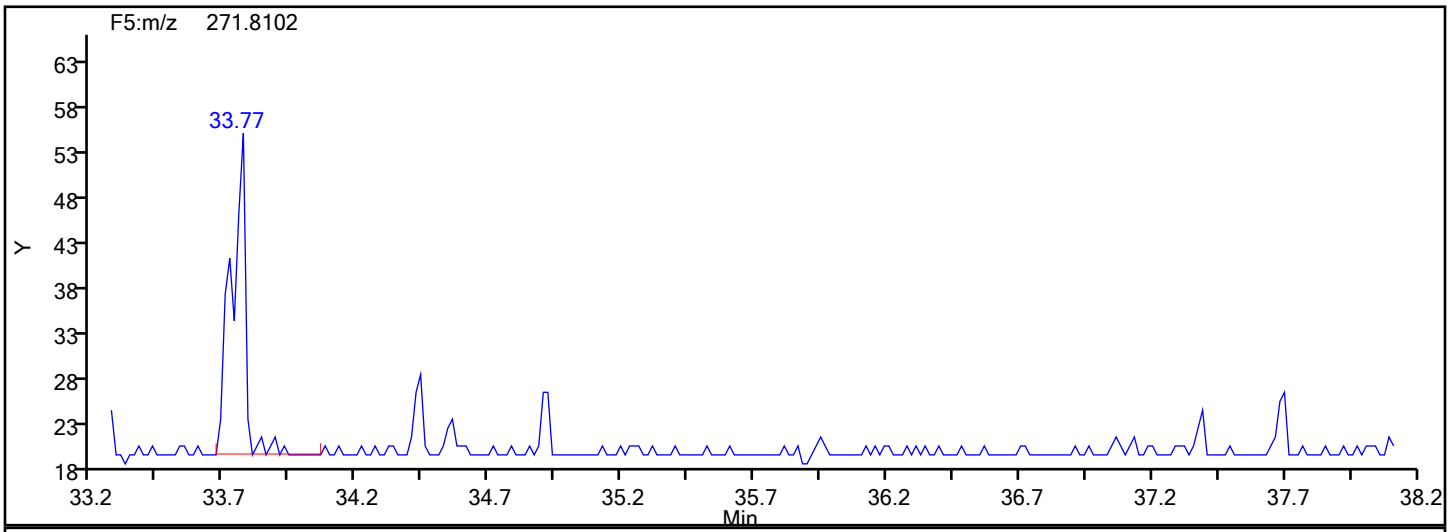


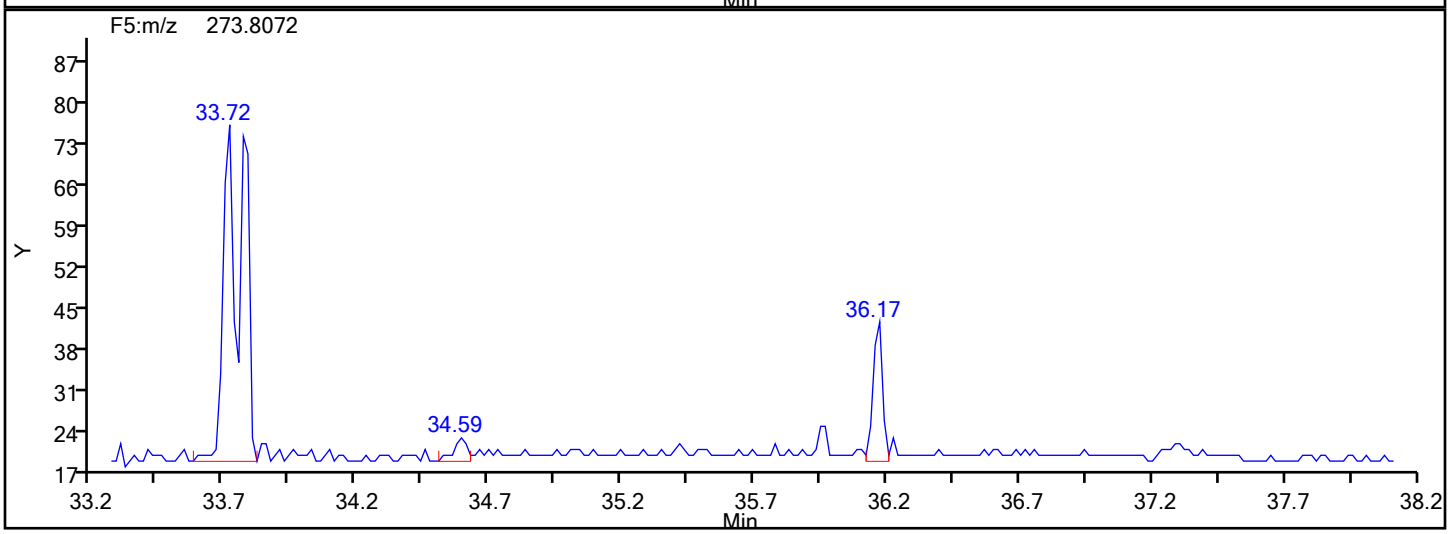
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

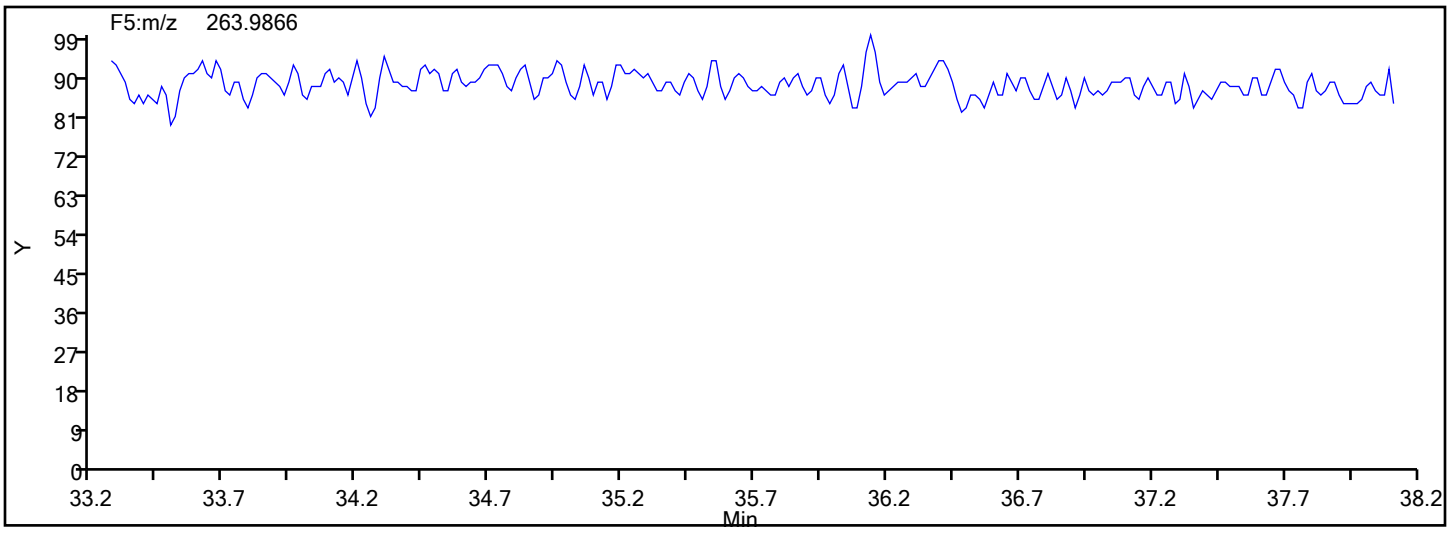
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



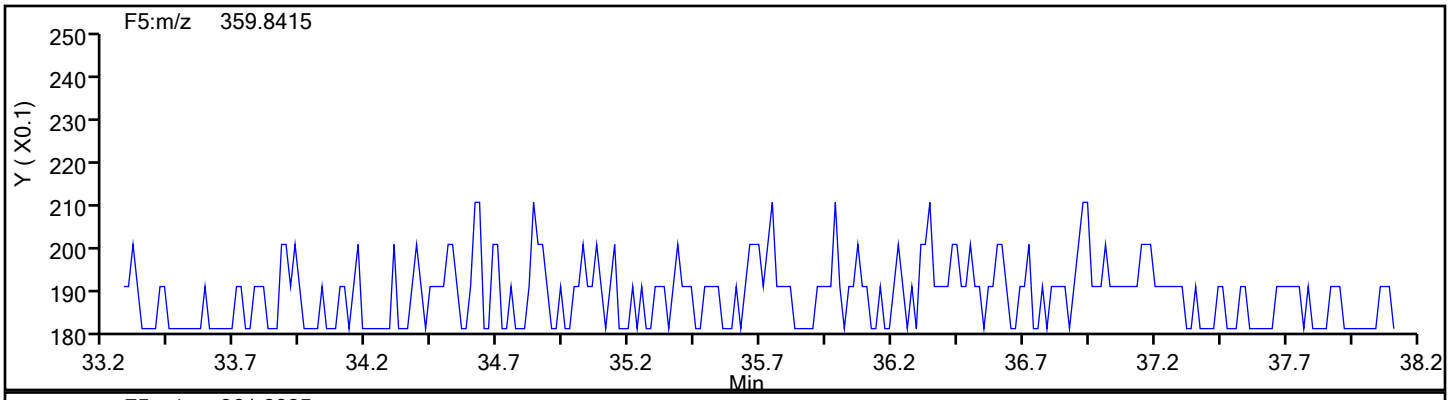
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

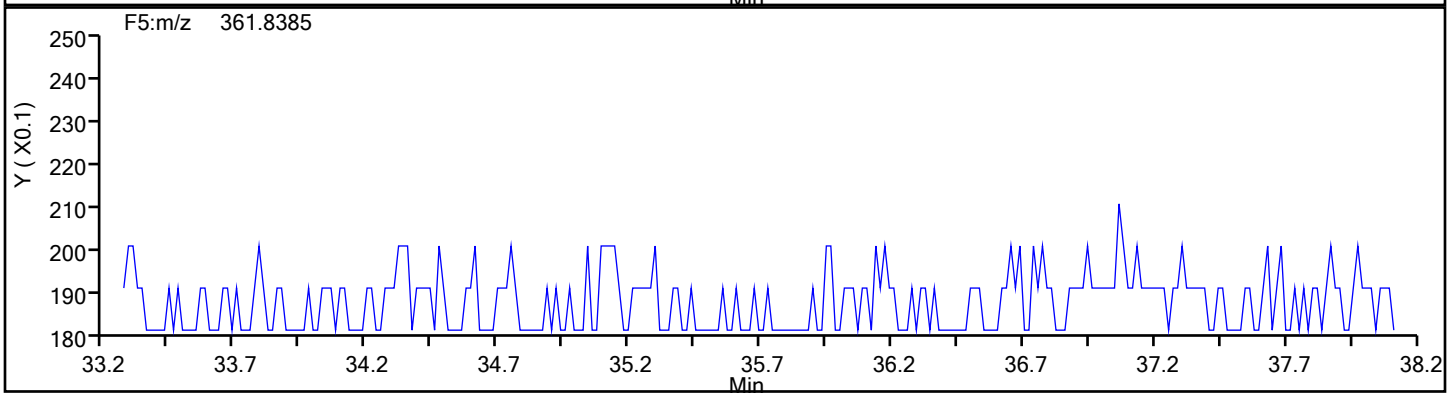
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

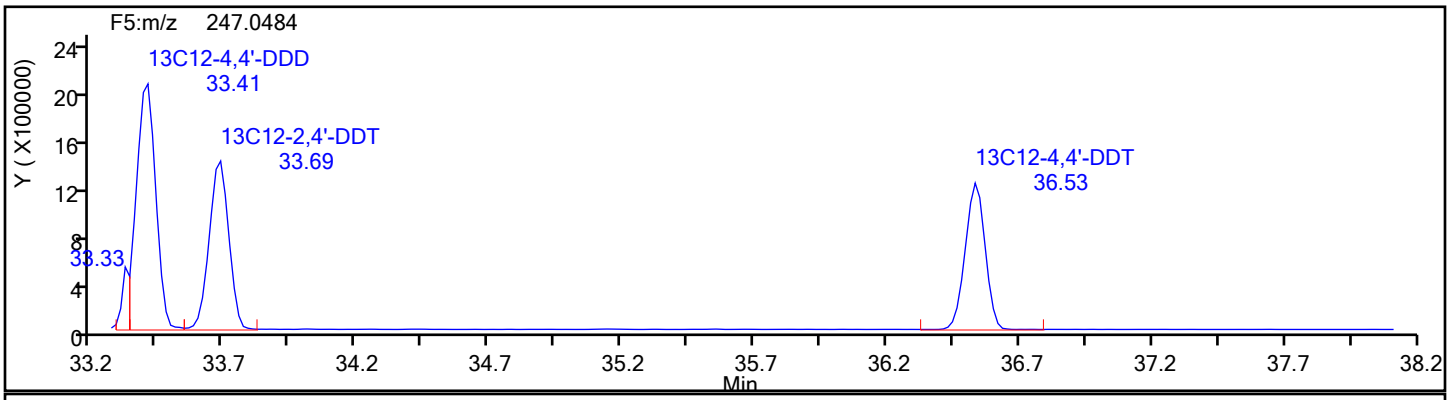
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

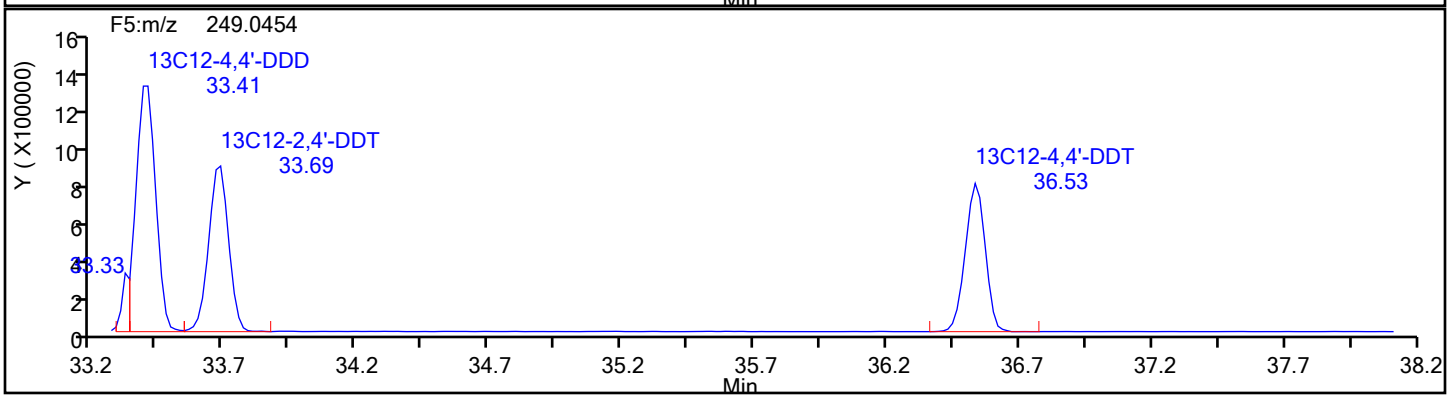
PCB-155





PCB-155 Standards





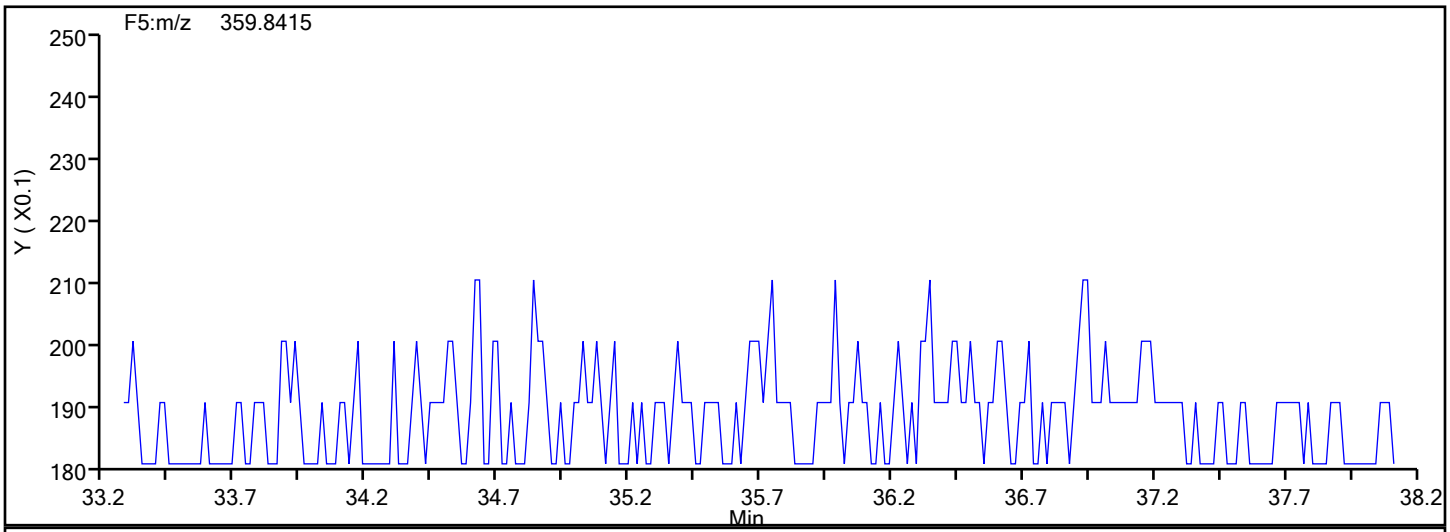
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

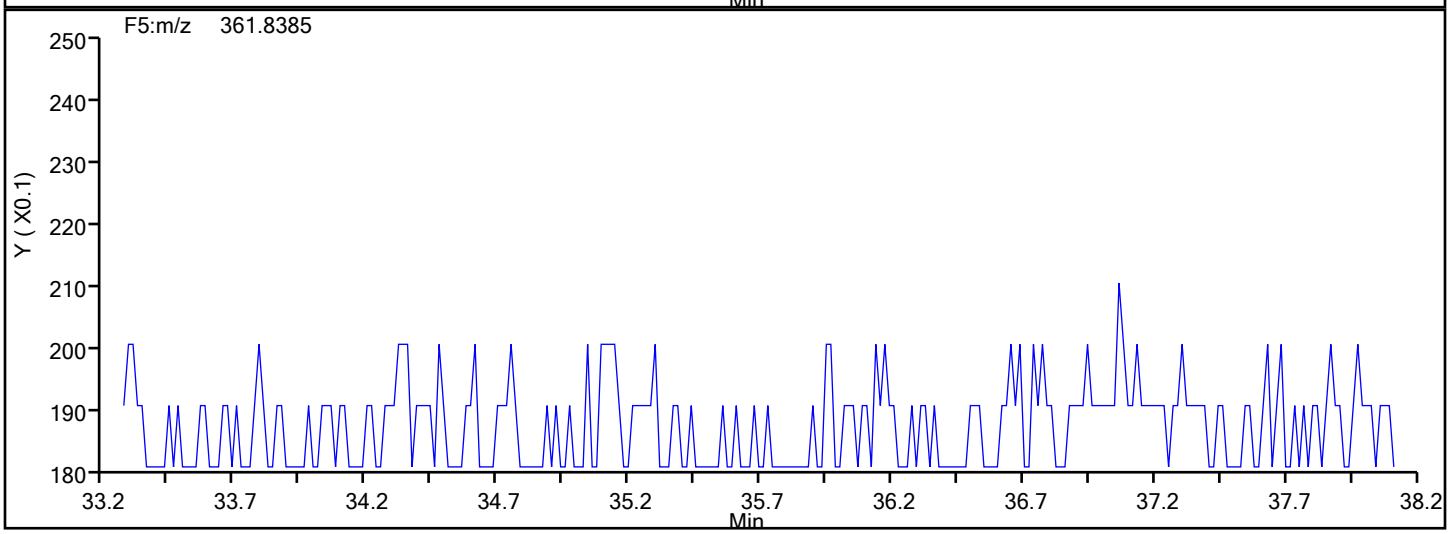
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

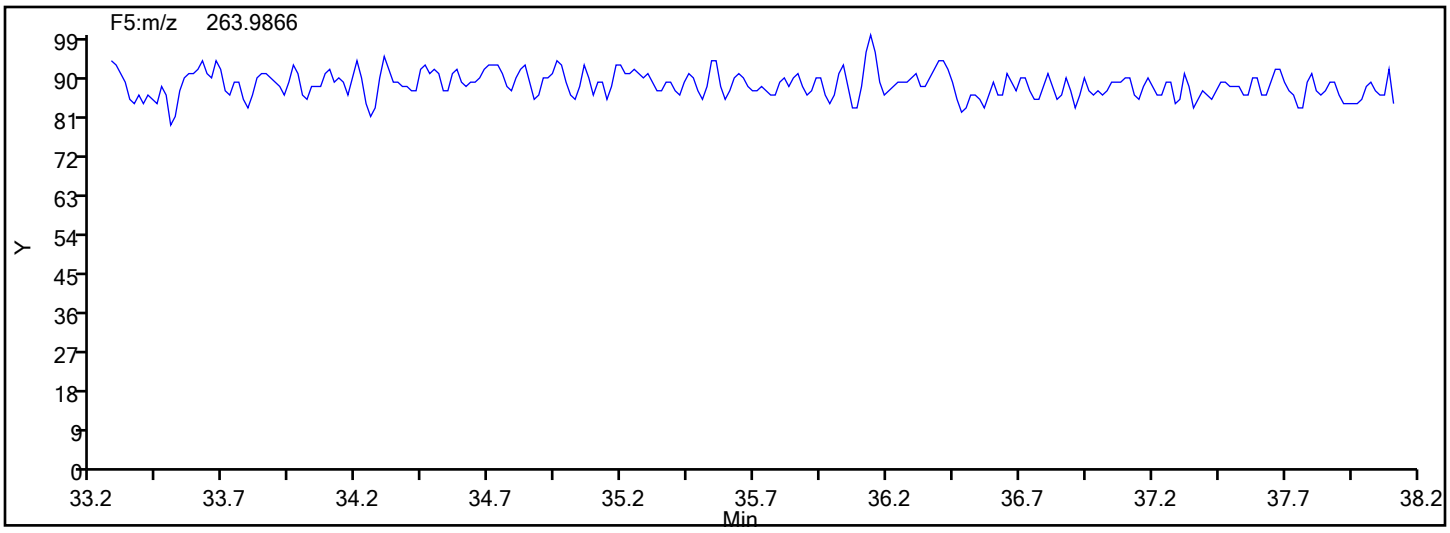
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



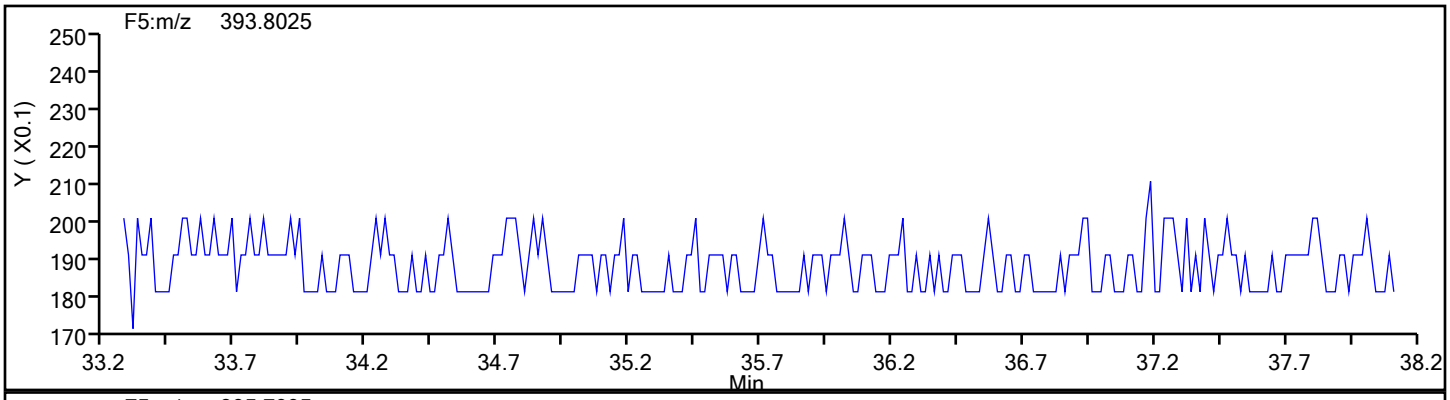
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

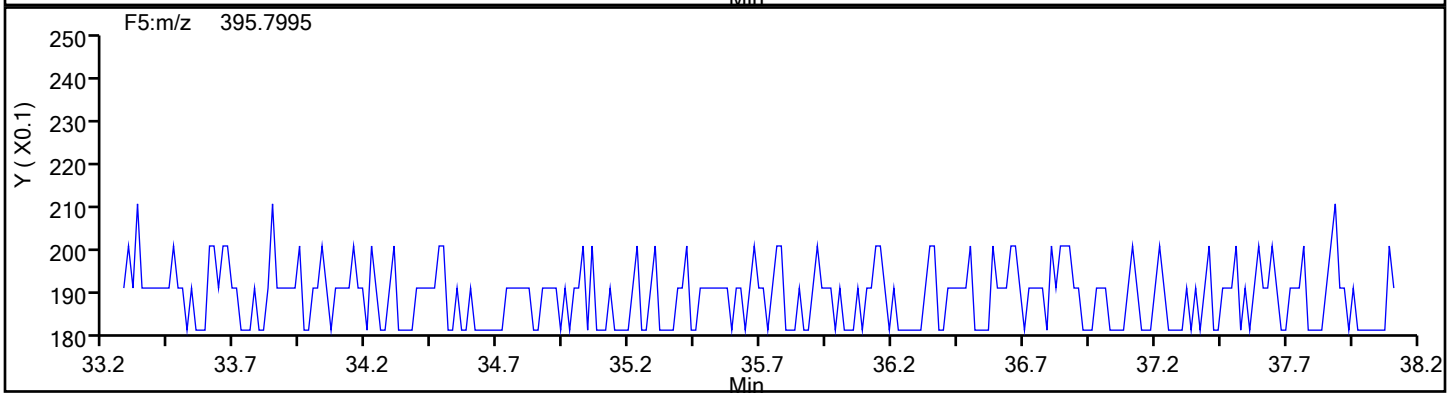
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

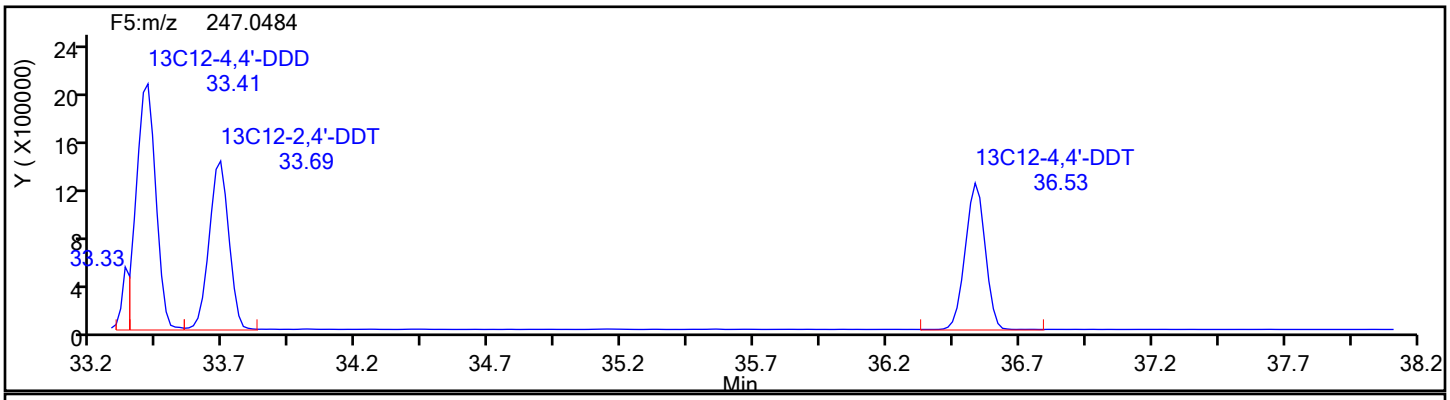
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

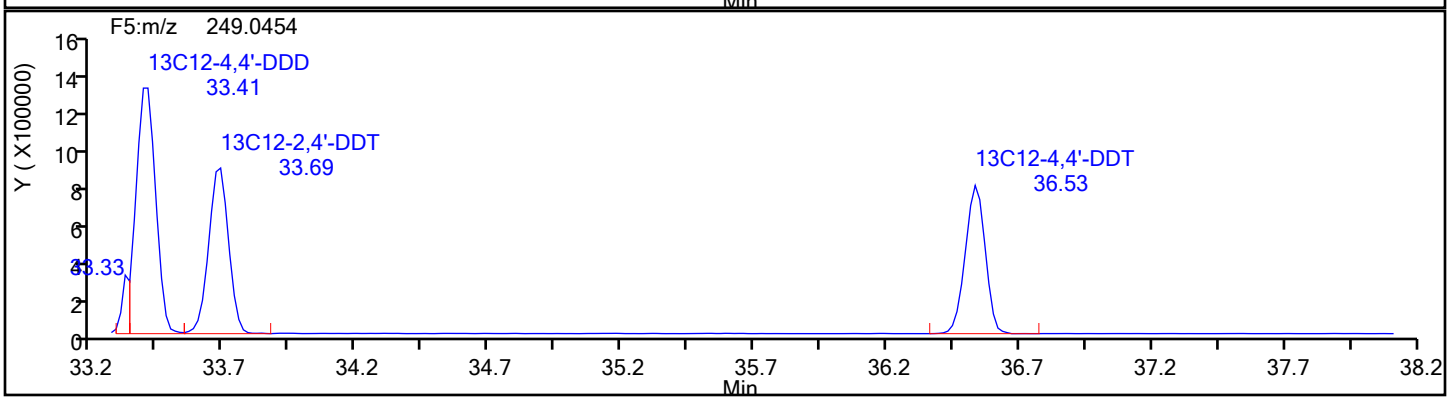
PCB-184





PCB-184 Standards





Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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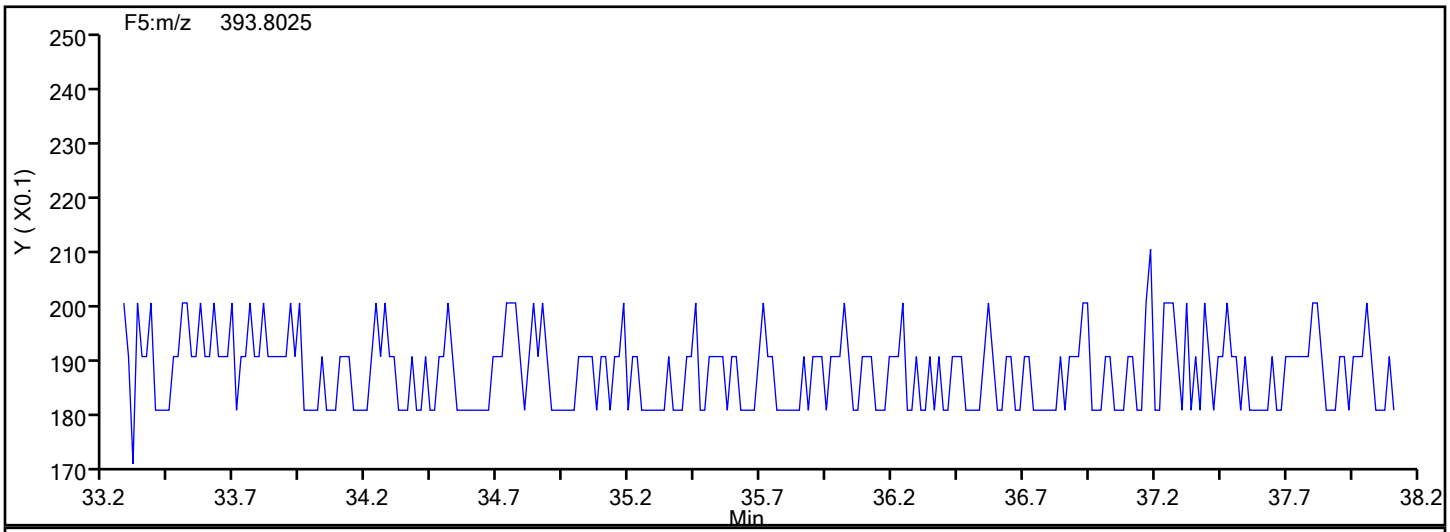
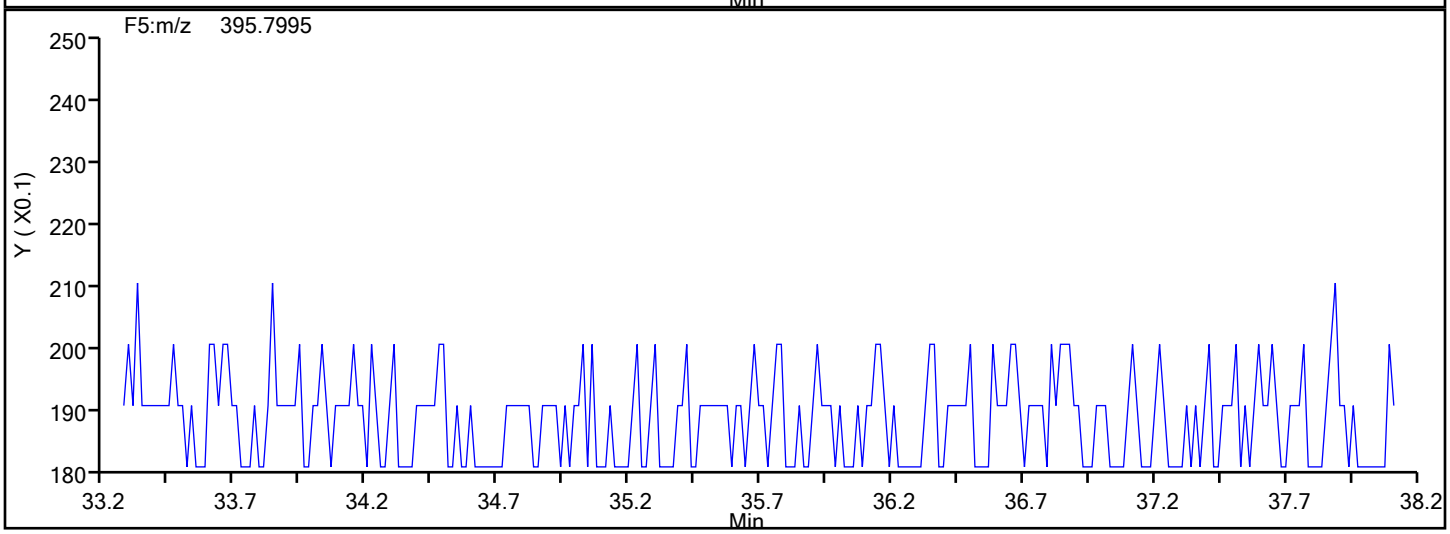
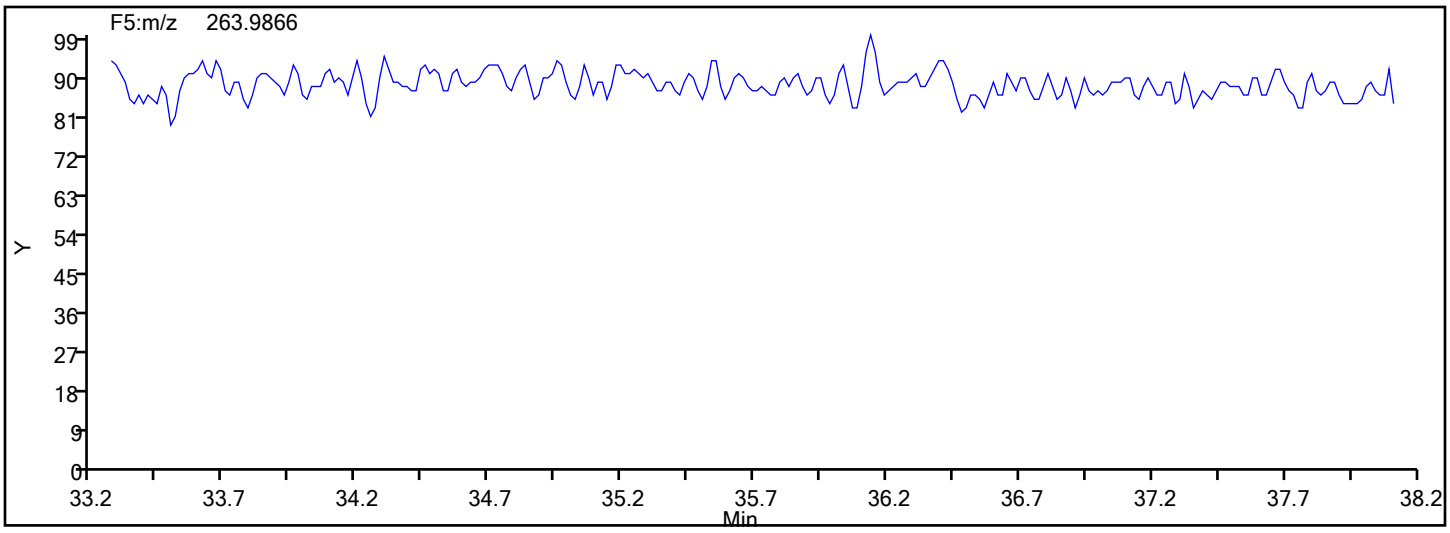
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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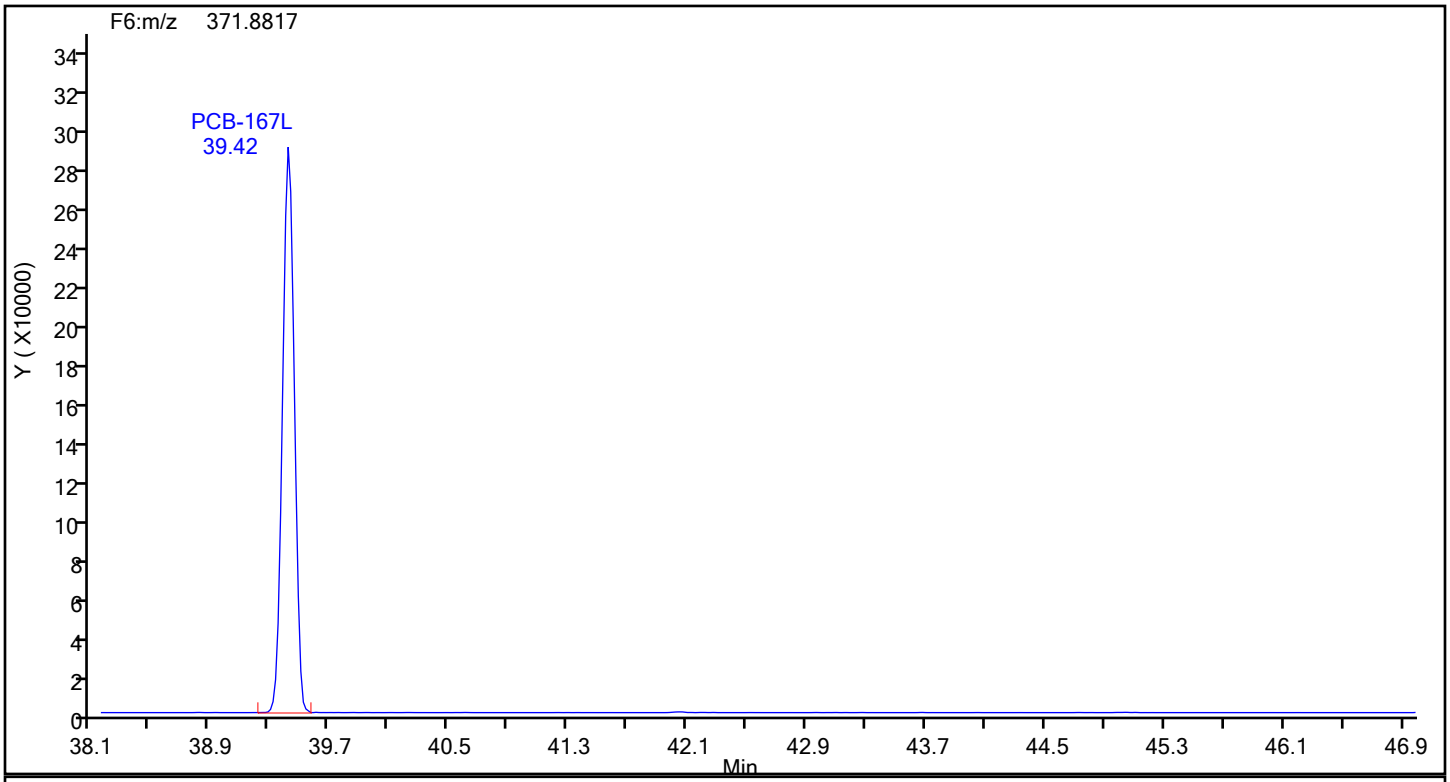
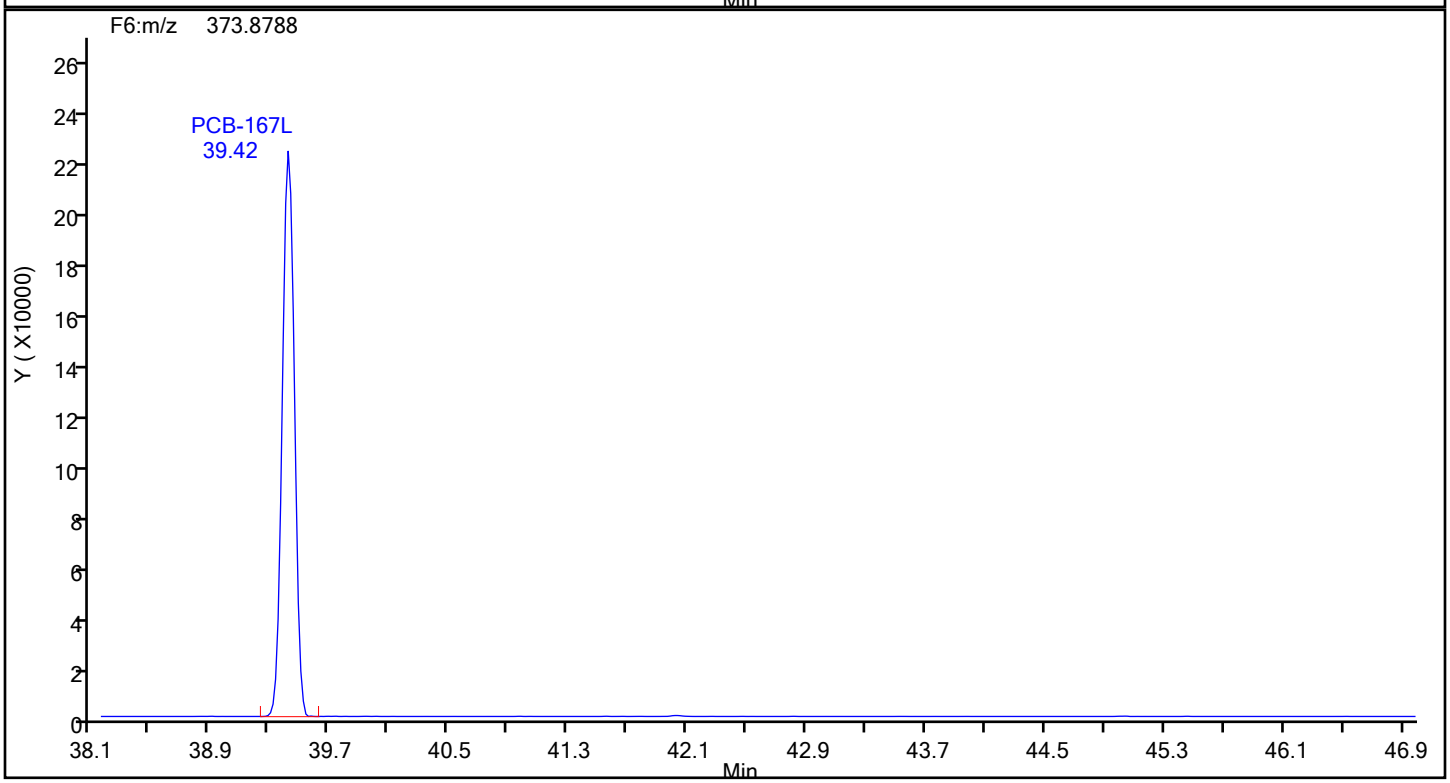
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





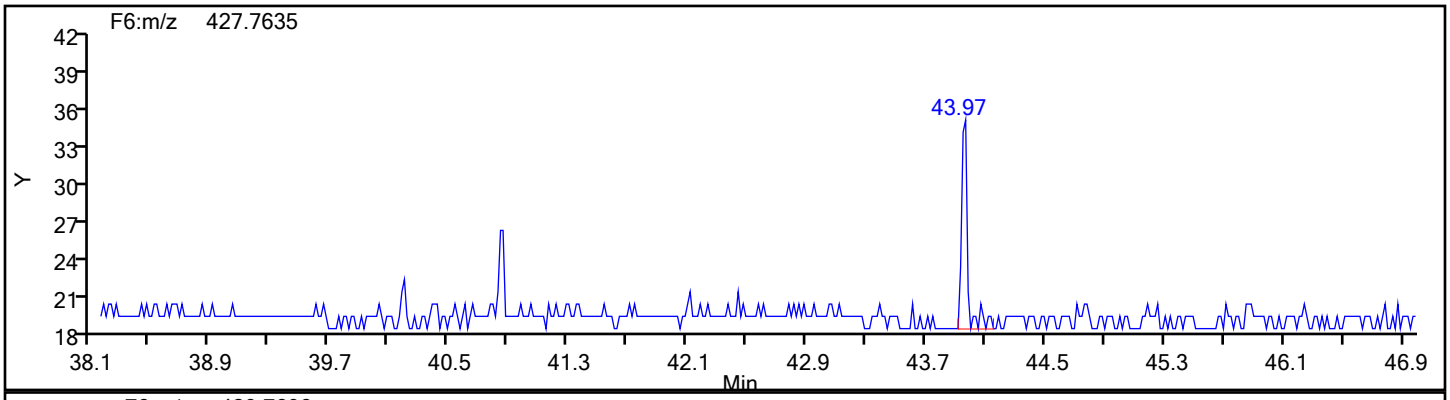
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

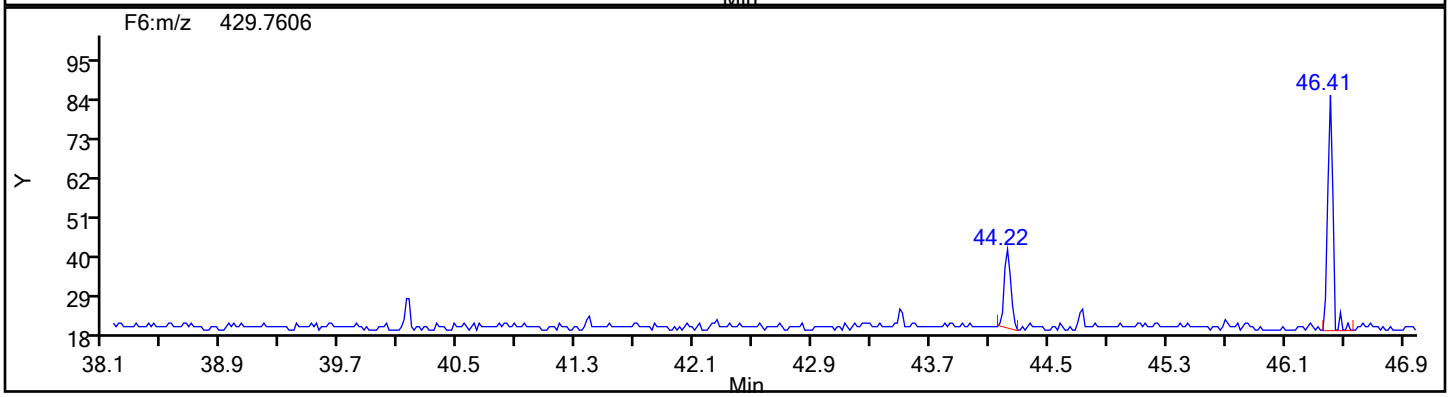
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

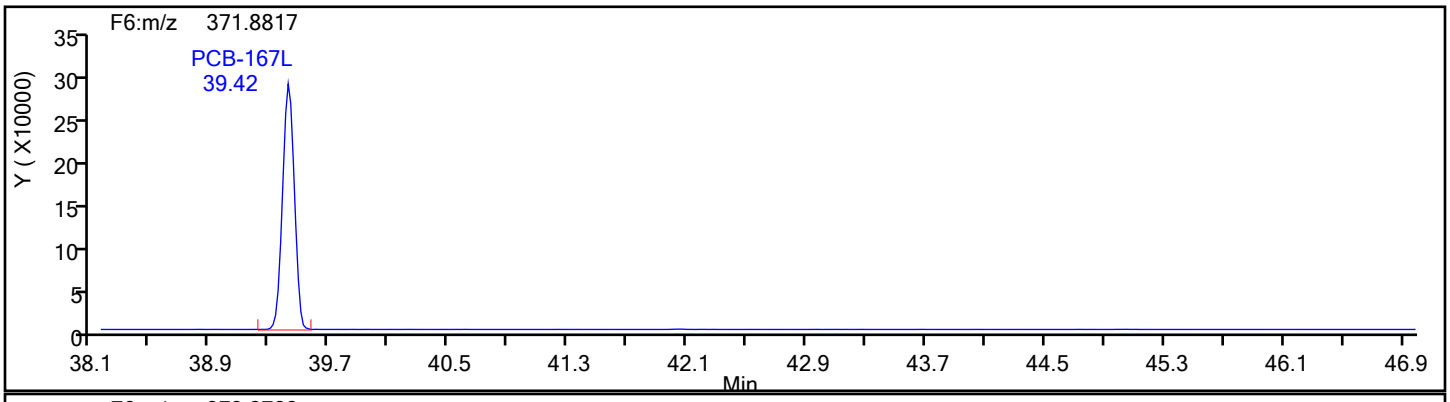
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

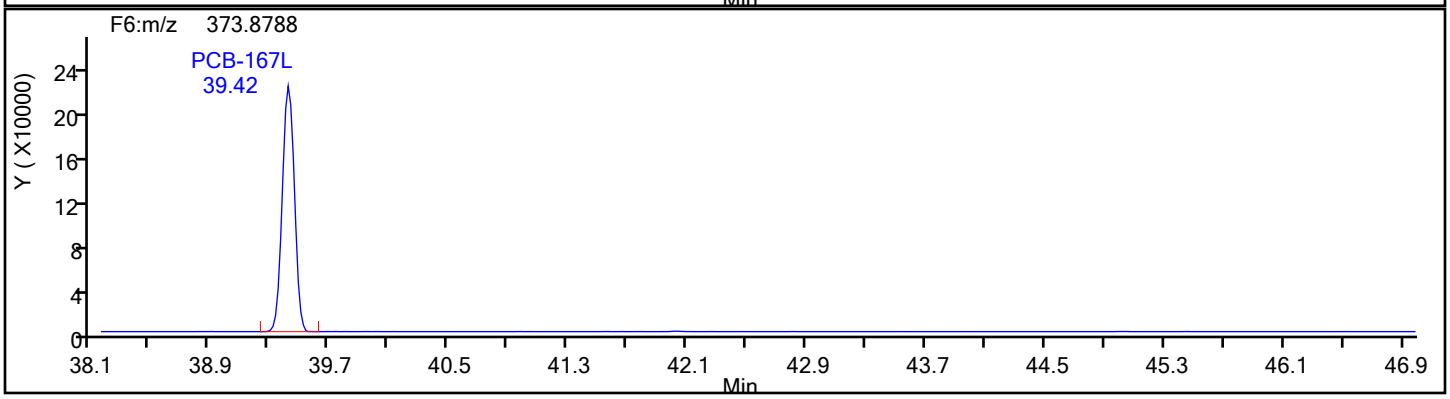
PCB-204





PCB-204 Standards



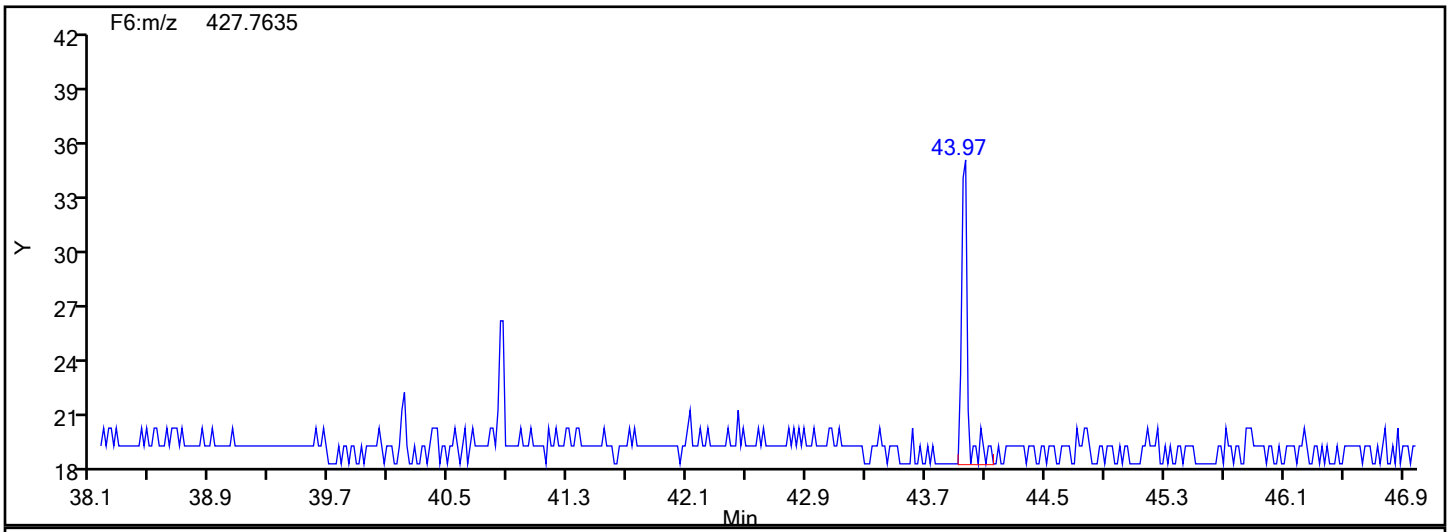


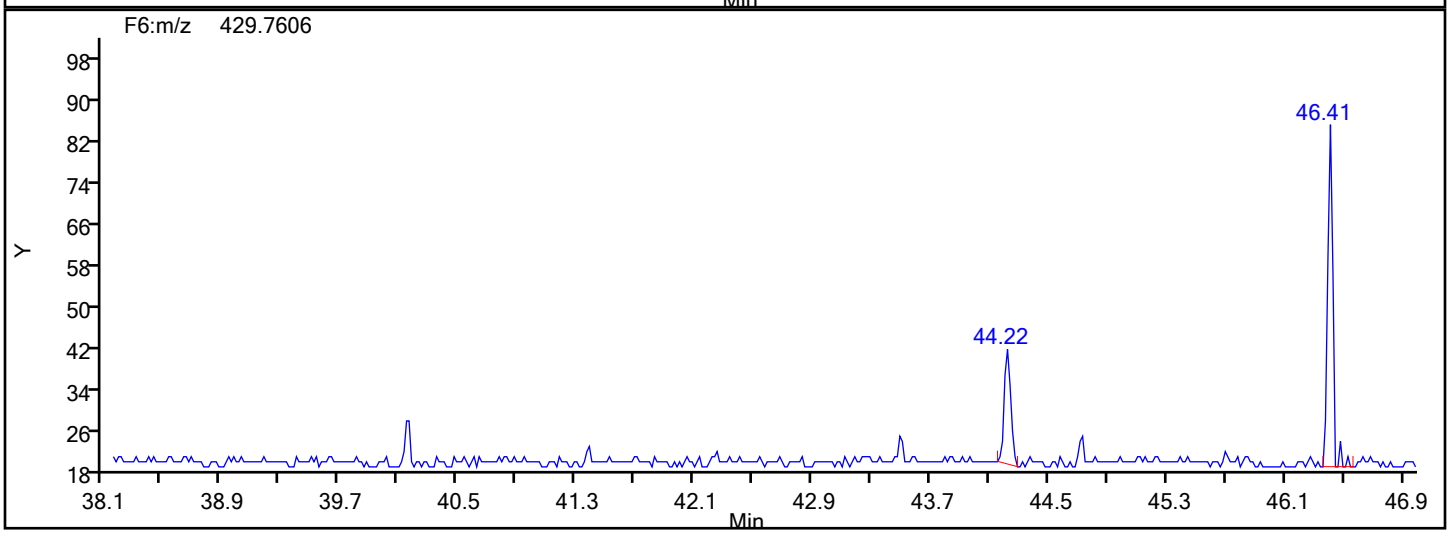
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

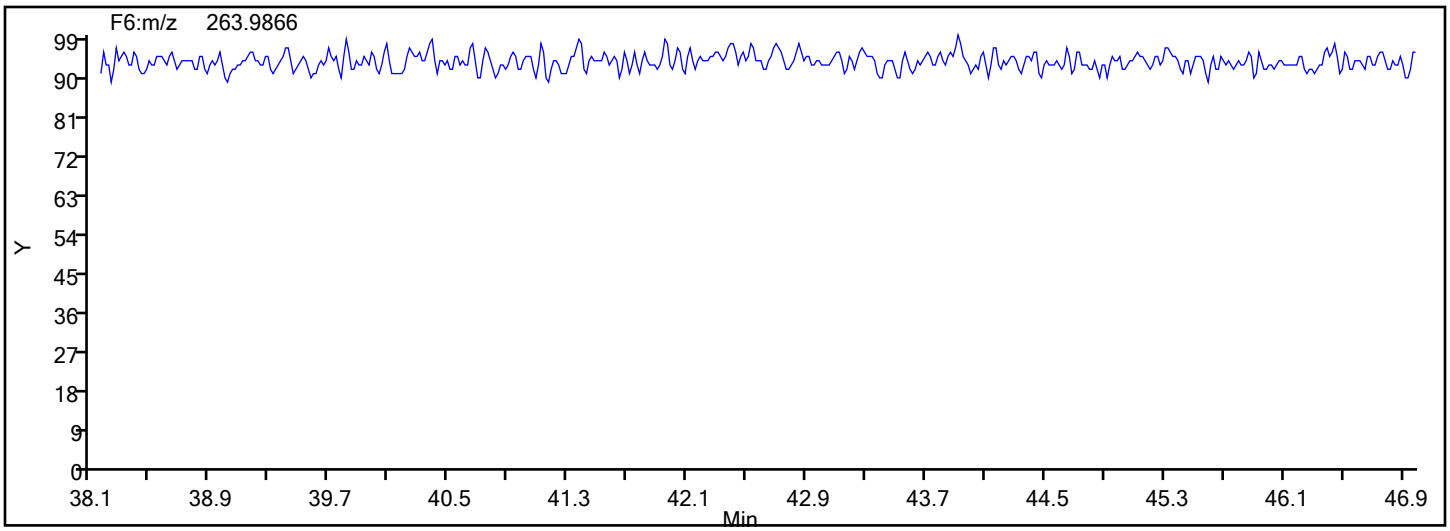
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d		
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



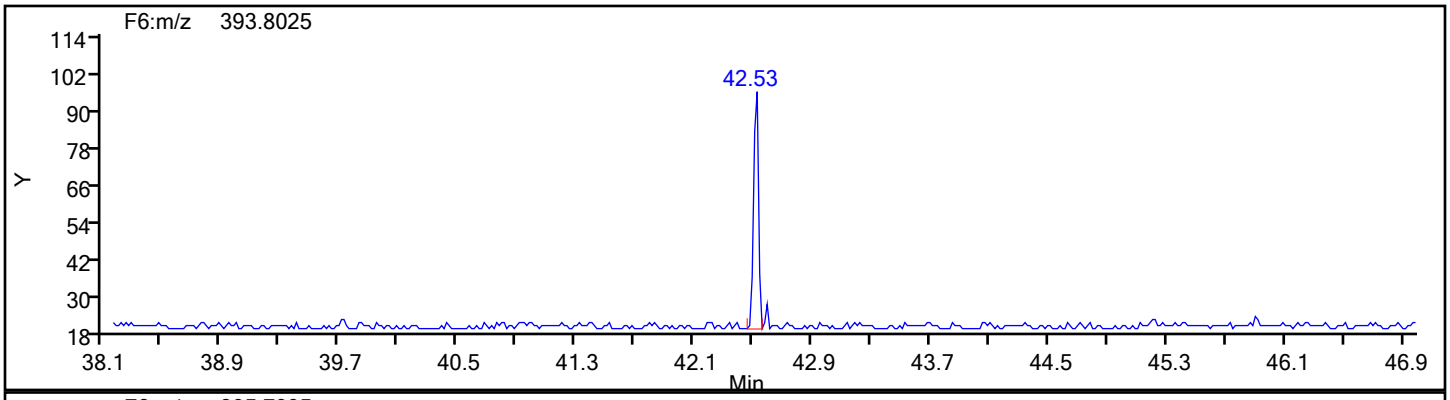
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

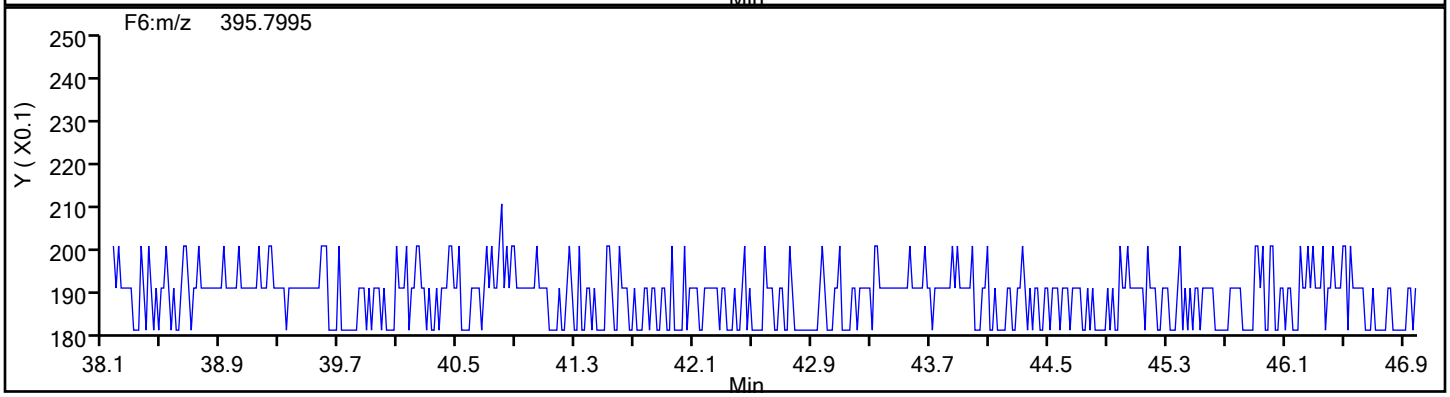
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d

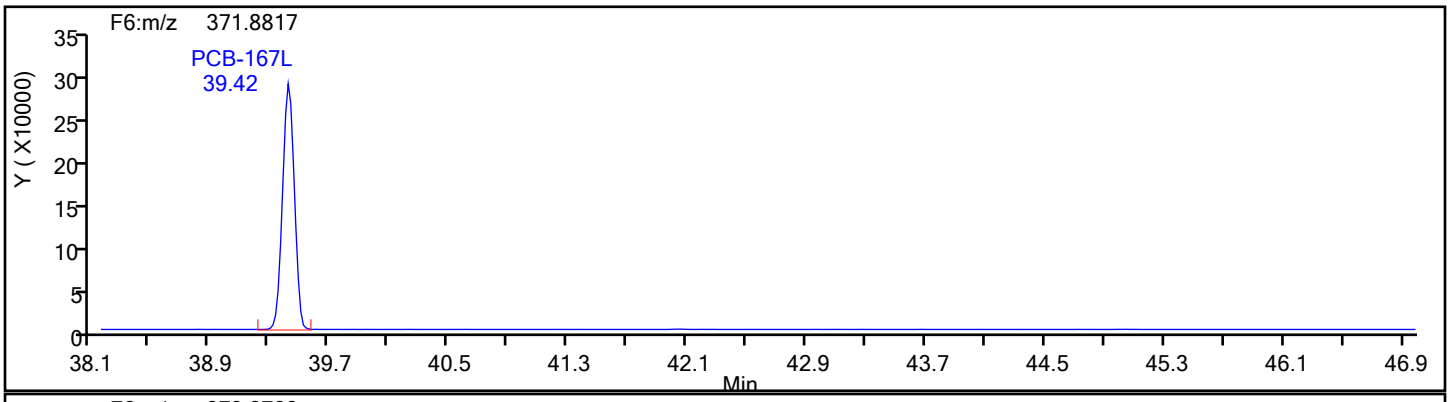
Injection Date:	02-May-2025 16:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	3
Column Type:	RTX-5	Column Dia:	0.32 mm

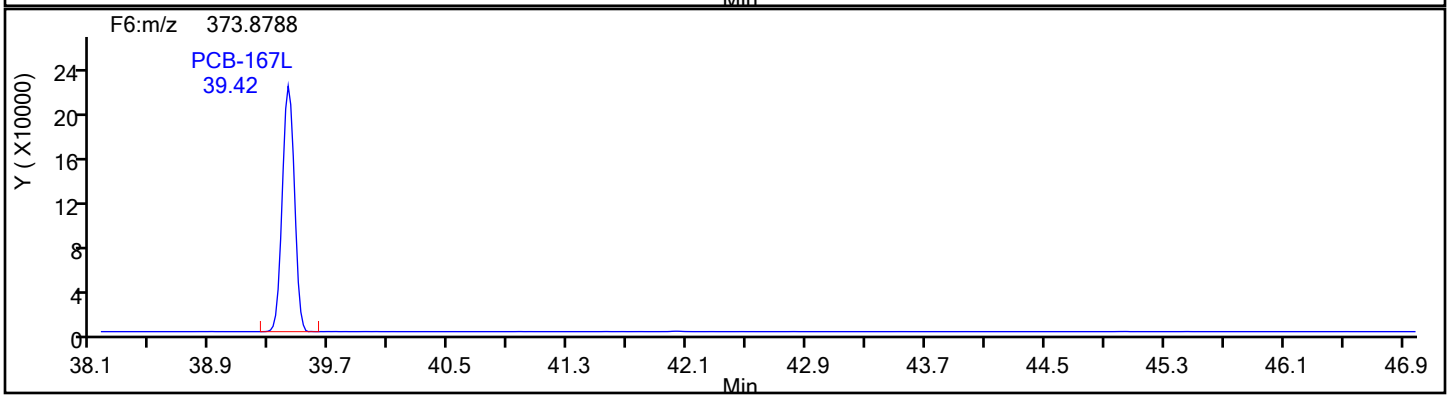
PCB-192





PCB-192 Standards



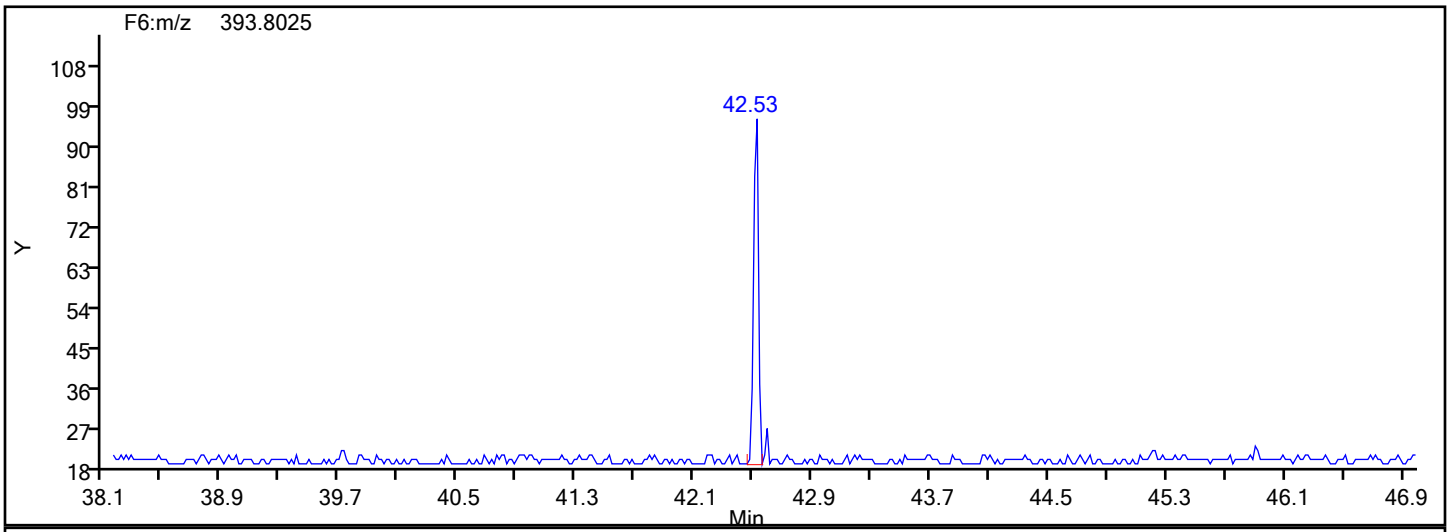


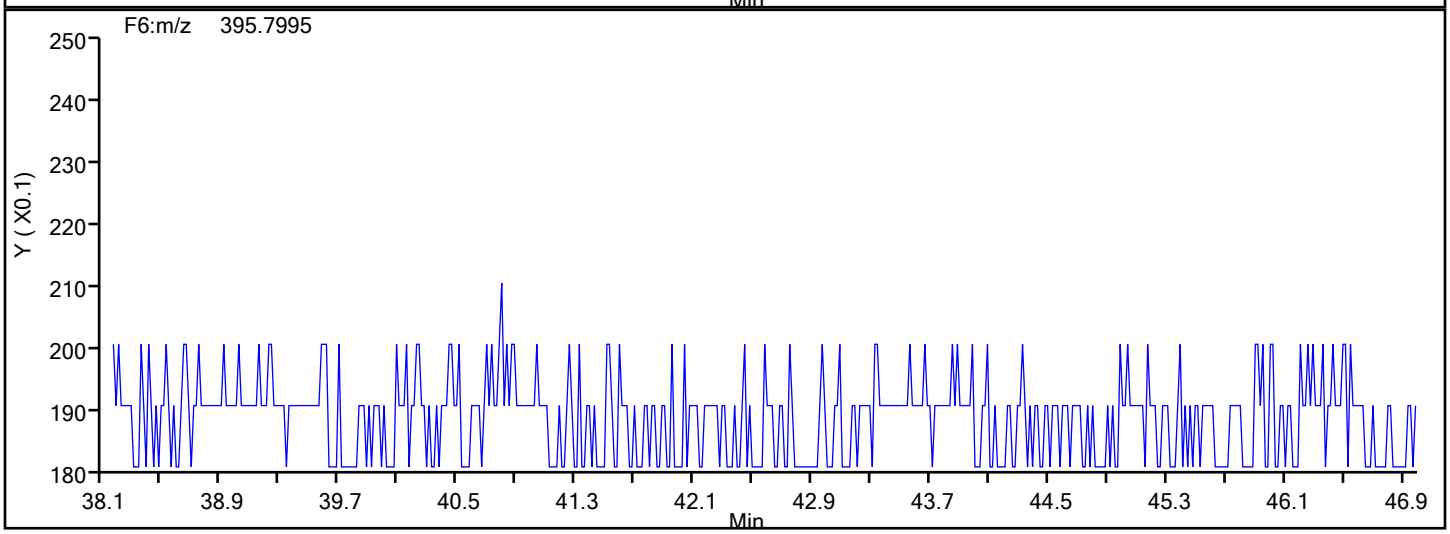
Report Date: 05-May-2025 18:00:11 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

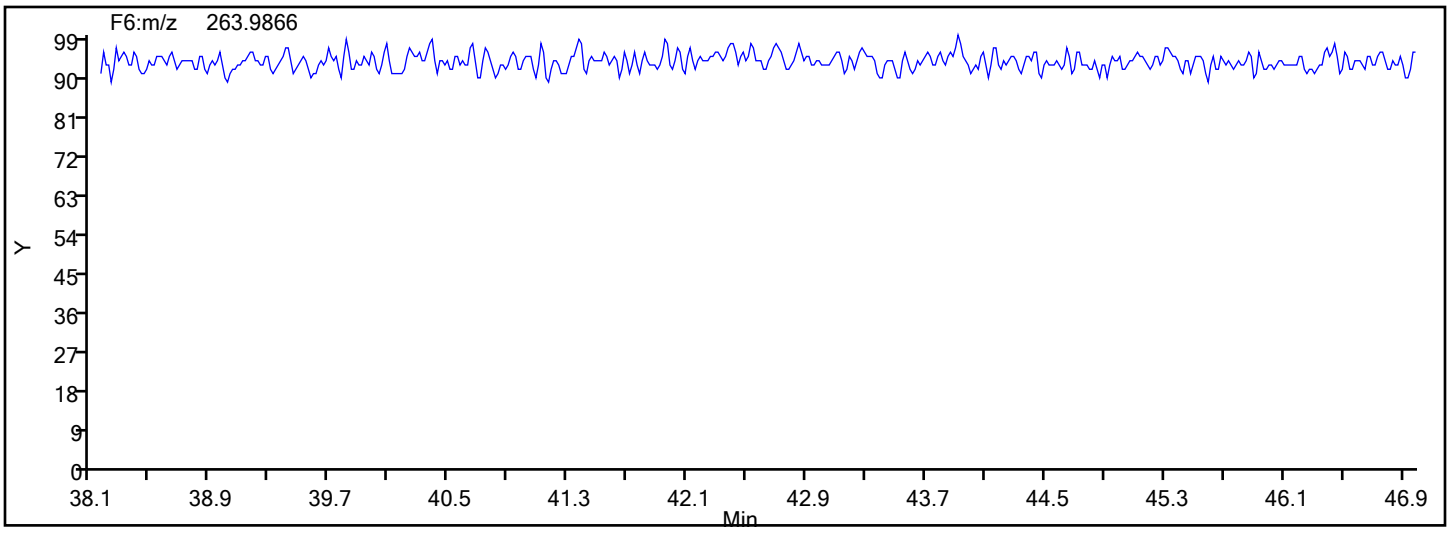
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip3.d
Injection Date: 02-May-2025 16:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 3
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-May-2025 17:34:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:14 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:24:48

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	7141901	0.81	0.2427	99.9	99.9	0.2022	0.2022	99.93	
D 13C6-beta BHC	18:21	5521645	0.82	0.1892	99.1	99.1	0.2593	0.2593	99.10	
D 13C6-gamma BHC	18:39	5778370	0.82	0.2029	96.7	96.7	0.2417	0.2417	96.68	
D 13C6-delta BHC	19:36	4739171	0.79	0.1718	93.7	93.7	0.2855	0.2855	93.66	
D 13C10-Heptachlor	21:50	4880486	1.26	0.1629	101.7	101.7	0.0333	0.0333	102	
D 13C6-Hexachlorobenzene	17:42	8238607	1.30	0.2759	101.4	101.4	0.000174	0.000174	101	
D 13C12-Aldrin	23:42	4694492	1.62	0.1517	105.1	105.1	0.0339	0.0339	105	
D 13C10-oxy Chlordane	26:07	403064	1.16	0.0708	99.8	99.8	0.005414	0.005414	99.79	
D 13C10-cis Heptachlor Epoxide	26:05	1513032	1.28	0.2676	99.1	99.1	0.003437	0.003437	99.08	
D 13C12-2,4'-DDE	27:54	25309878	1.60	4.5202	98.1	98.1	0.0879	0.0879	98.10	
D 13C10-trans Chlordane	27:37	1922004	1.20	0.3223	104.5	104.5	0.0361	0.0361	104	
D 13C10-cis Chlordane	28:39	1656970	1.30	0.2976	97.5	97.5	0.0391	0.0391	97.54	
D 13C10-trans Nonachlor	28:58	1628106	1.26	0.2841	100.4	100.4	0.0410	0.0410	100	
D 13C9-Endosulfan I	28:30	504884	1.30	0.0899	98.4	98.4	0.1296	0.1296	98.42	
D 13C12-4,4'-DDE	30:08	17160840	1.59	3.1557	98.7	98.7	0.0763	0.0763	98.70	
D 13C12-4,4'-DDD	33:25	16314904	1.56	2.9265	101.2	101.2	0.0132	0.0132	101	
D 13C12-2,4'-DDT	33:42	10901598	1.60	2.0372	97.1	97.1	0.0190	0.0190	97.12	
D 13C12-4,4'-DDT	36:33	9869485	1.59	1.8061	99.2	99.2	0.0214	0.0214	99.18	
D 13C12-Dieldrin	30:21	1505305	1.61	0.2777	98.4	98.4	0.0977	0.0977	98.38	
D 13C12-Endrin	32:01	1058377	1.55	0.1949	98.6	98.6	0.1392	0.1392	98.55	
D 13C9-Endosulfan II	32:45	275992	1.49	0.0474	105.7	105.7	0.4156	0.4156	106	
D 13C12-Endrin Aldehyde	34:17	241670	1.48	0.0424	103.3	103.3	0.3814	0.3814	103	
D 13C12-Methoxychlor	41:54	10216286	22.93	1.8751	98.9	98.9	0.0355	0.0355	98.88	
D 13C11-Endrin Ketone	40:22	563716	1.68	0.1045	97.9	97.9	0.3283	0.3283	97.91	
D 13C10-Mirex	45:21	5369348	1.29	1.9829	97.9	97.9	0.0251	0.0251	97.87	
* PCB-15L	19:03	29453266	1.63		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	2130740	0.66		500.0	500.0				M
Pentachlorophenol	18:29	2018105	0.64	1.0218	463.5	463.5	0.2858	0.2858	92.69	M
* PCB-101L	28:05	5707907	1.61		100.0	100.0				
* PCB-118L	32:45	5509877	1.63		100.0	100.0				
* PCB-138L	36:56	2766722	1.29		100.0	100.0				
* PCB-60L	27:42	12159113	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:49	18736370	1.56	3.4396	98.9	98.9	0.0521	0.0521	98.86	
D 13C10-cis Nonachlor	33:45	1231058	1.29	0.2243	99.6	99.6	0.009754	0.009754	99.63	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	1795453	1.33	0.3464	94.1	94.1	0.006314	0.006314	94.06	
* PCB-167L	39:26	2806697	1.27		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

61L31699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-May-2025 17:34:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:14 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:24:48

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:21	1	0.912	3190262	1200204	1452	3630	827		
224.9317	17:23	17:21	1	0.912	3951639	1532449	591	1477	2593	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:20	1	0.964	2488145	873358	1452	3630	601		
224.9317	18:21	18:20	1	0.964	3033500	1106221	591	1477	1872	0.82(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:37	2	0.979	2609119	884944	1452	3630	609		
224.9317	18:39	18:37	1	0.979	3169251	1088358	591	1477	1842	0.82(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:34	2	1.029	2090159	683908	1452	3630	471		
224.9317	19:36	19:34	2	1.029	2649012	860663	591	1477	1456	0.79(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:50	21:49	2	1.146	2716201	761471	103	257	7393		
278.8240	21:50	21:49	2	1.146	2164285	601003	123	307	4886	1.26(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:40	1	0.929	4651620	1691318	1	2	1691318		
291.8273	17:42	17:40	1	0.929	3586987	1316419	1	2	1316419	1.30(0.93-1.55)	
13C12-Aldrin											
269.8805	23:42	23:41	2	1.244	2900982	758207	133	332	5701		
271.8775	23:42	23:41	2	1.244	1793510	467670	81	202	5774	1.62(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:07	26:05	2	0.930	216603	50969	1	2	50969		
398.8358	26:07	26:05	2	0.930	186461	45061	1	2	45061	1.16(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:05	26:03	2	0.929	849738	202884	2	5	101442		
364.8748	26:05	26:03	2	0.929	663294	170743	3	7	56914	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:52	2	0.993	15573152	3497099	1346	3365	2598		
260.0376	27:54	27:52	2	0.993	9736726	2150684	729	1822	2950	1.60(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:37	27:34	2	0.983	1048262	231406	51	127	4537		
278.8240	27:36	27:34	2	0.983	873742	196425	10	25	19643	1.20(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:38	2	1.020	936868	213317	51	127	4183		
278.8240	28:39	28:38	2	1.020	720102	161122	10	25	16112	1.30(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:58	28:57	2	1.031	908245	197751	51	127	3877		
278.8240	28:58	28:57	2	1.031	719861	151367	10	25	15137	1.26(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:30	28:28	2	1.015	285472	62616	51	127	1228		
278.8240	28:30	28:28	2	1.015	219412	48107	10	25	4811	1.30(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:08	30:06	2	0.920	10541593	2251281	689	1722	3267		
260.0376	30:08	30:06	2	0.920	6619247	1423345	412	1030	3455	1.59(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:24	1	1.020	9945814	2003788	60	150	33396		
249.0454	33:25	33:24	1	1.020	6369090	1281764	117	292	10955	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:41	1	1.029	6709025	1296259	60	150	21604		
249.0454	33:42	33:41	1	1.029	4192573	827917	117	292	7076	1.60(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:33	36:31	1	1.116	6063944	1131226	60	150	18854		
249.0454	36:33	36:31	1	1.116	3805541	732305	117	292	6259	1.59(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:20	1	0.927	928899	198213	84	210	2360		
271.8775	30:22	30:20	2	0.927	576406	119912	40	100	2998	1.61(1.16-1.94)	
13C12-Endrin											
269.8805	32:01	31:59	2	0.978	643063	136576	84	210	1626		
271.8775	32:00	31:59	1	0.977	415314	76105	40	100	1903	1.55(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:45	32:44	1	1.000	165094	33736	46	115	733		
278.8240	32:45	32:44	1	1.000	110898	24547	44	110	558	1.49(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:16	1	1.047	144134	28391	27	67	1052		
358.9361	34:16	34:16	0	1.046	97536	18576	47	117	395	1.48(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	1	1.279	9789281	1743833	269	672	6483		
240.1510	41:54	41:52	1	1.279	427005	71698	35	87	2049	22.93(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.233	353240	60900	102	255	597		
329.9379	40:23	40:22	1	1.233	210476	35259	55	137	641	1.68(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:20	1	1.228	3022879	472908	56	140	8445		
278.8240	45:21	45:20	1	1.228	2346469	379959	44	110	8635	1.29(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:02	1		18271533	6485913	39	97	166306		
236.0376	19:03	19:02	1		11181733	3924806	8	20	490601	1.63(1.16-1.93)	
13C6-Pentachlorophenol (IS)											M
269.8666	18:29	18:27	2		848555	176234	42	105	4196		M
271.8636	18:29	18:27	2		1282185	272353	43	107	6334	0.66(0.00-0.00)	
Pentachlorophenol											M
263.8464	18:29	18:28	2	1.000	788799	139373	77	192	1810		M
265.8435	18:29	18:28	2	1.000	1229306	208334	28	70	7441	0.64(0.00-0.00)	M
PCB-101L											
337.9207	28:05	28:04	2		3519690	802833	1	2	802833		
339.9178	28:05	28:04	2		2188217	502230	2	5	251115	1.61(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:43	2		3416326	708803	28	70	25314		
339.9178	32:45	32:43	2		2093551	434061	27	67	16076	1.63(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:55	1		1559680	280491	39	97	7192		
373.8788	36:56	36:55	1		1207042	222565	28	70	7949	1.29(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:41	2		5493043	1261533	44	110	28671		
303.9597	27:42	27:41	2		6666070	1516829	33	82	45965	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:47	2	0.941	11430172	2384294	424	1060	5623		
249.0454	30:49	30:47	2	0.941	7306198	1518898	396	990	3836	1.56(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:44	1	1.030	692761	129432	9	22	14381		
278.8240	33:46	33:44	2	1.031	538297	105966	1	2	105966	1.29(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:14	1	1.107	1025501	180049	9	22	20005		
278.8240	36:15	36:14	1	1.107	769952	144307	1	2	144307	1.33(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:25	1		1571713	282611	4	10	70653		
373.8788	39:26	39:25	1		1234984	222554	4	10	55639	1.27(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Reagents:

61L31699PCP_00001 Amount Added: 20.00 Units: uL

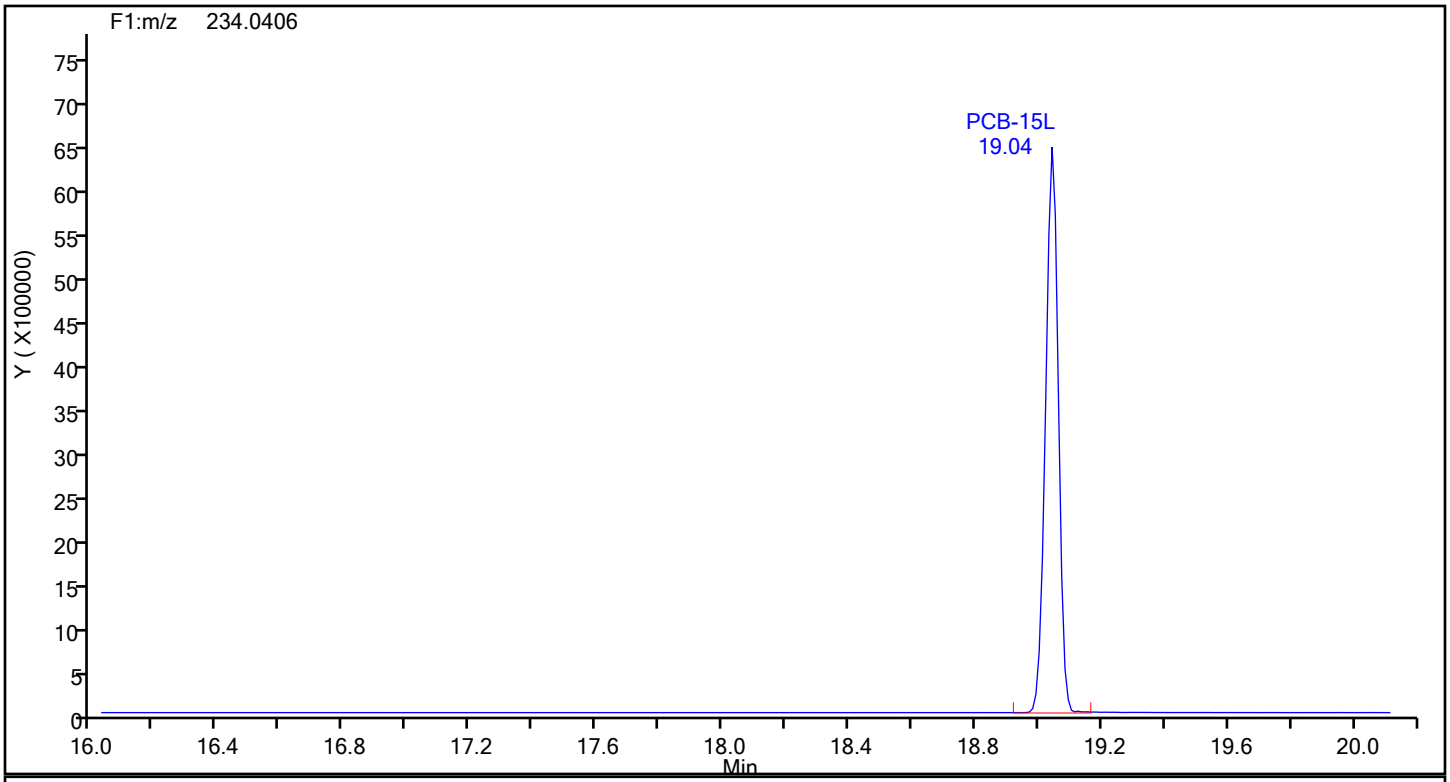
Report Date: 05-May-2025 18:00:15 Chrom Revision: 2.3 18-Apr-2025 15:35:42

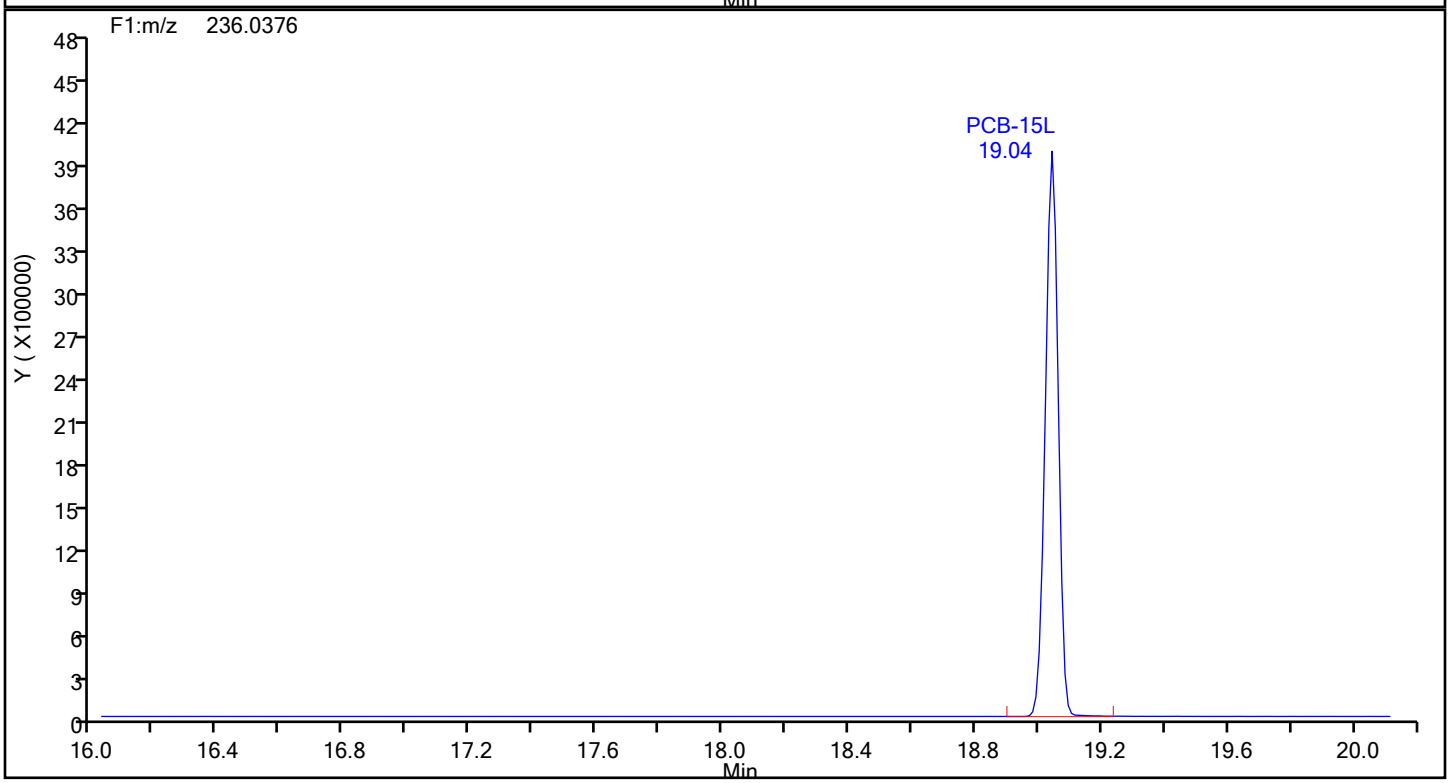
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





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Eurofins Knoxville

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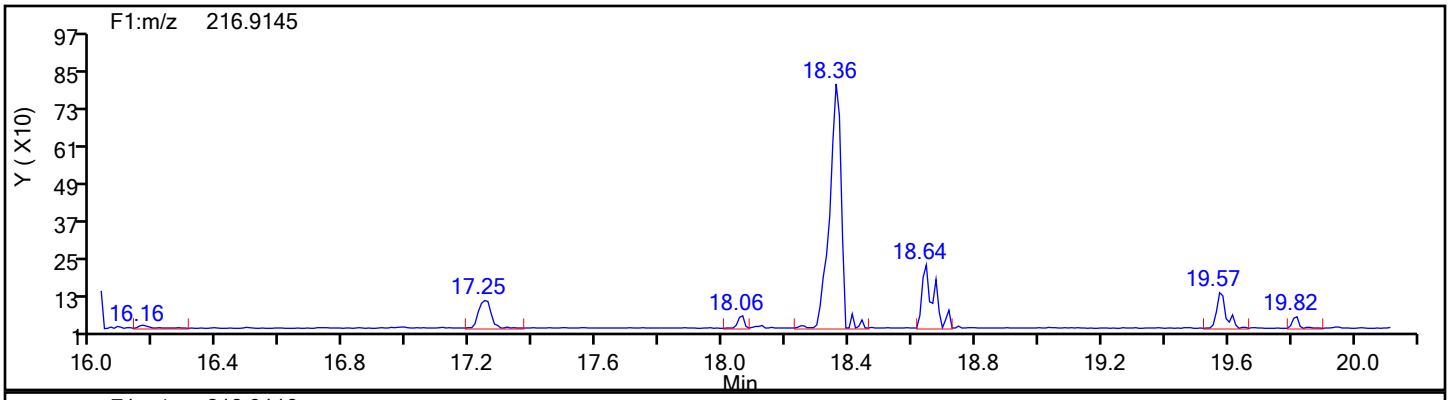
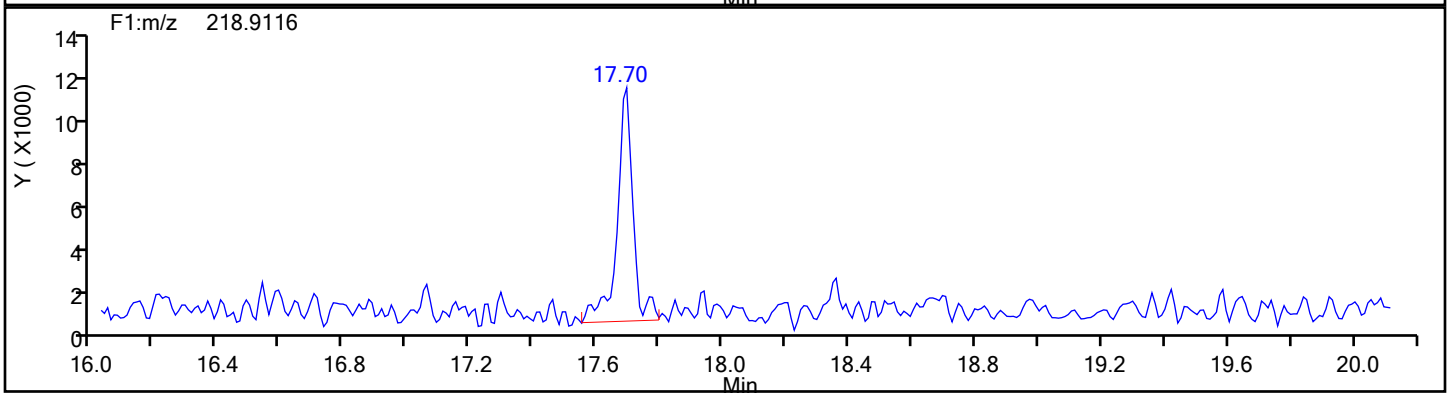
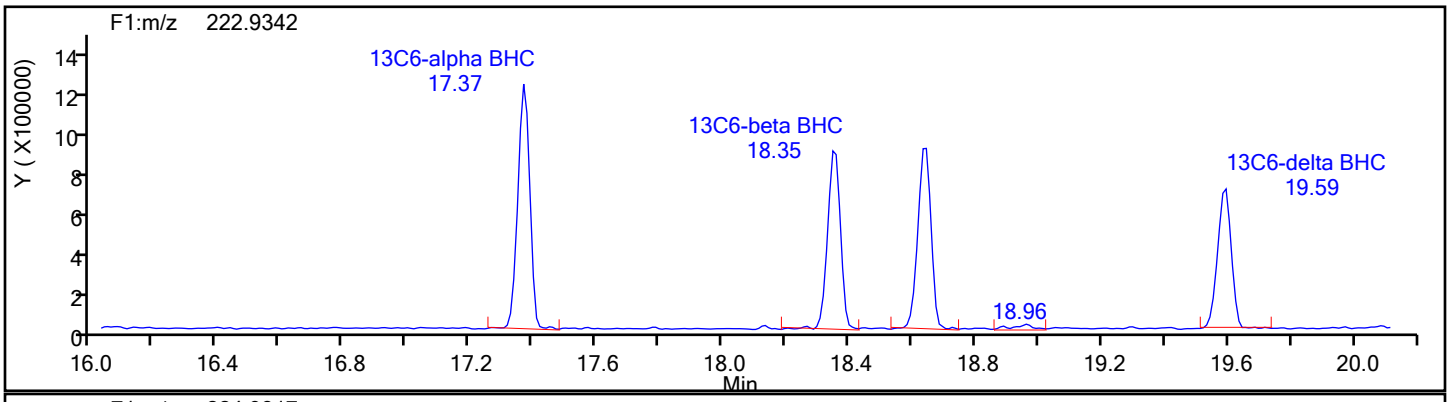
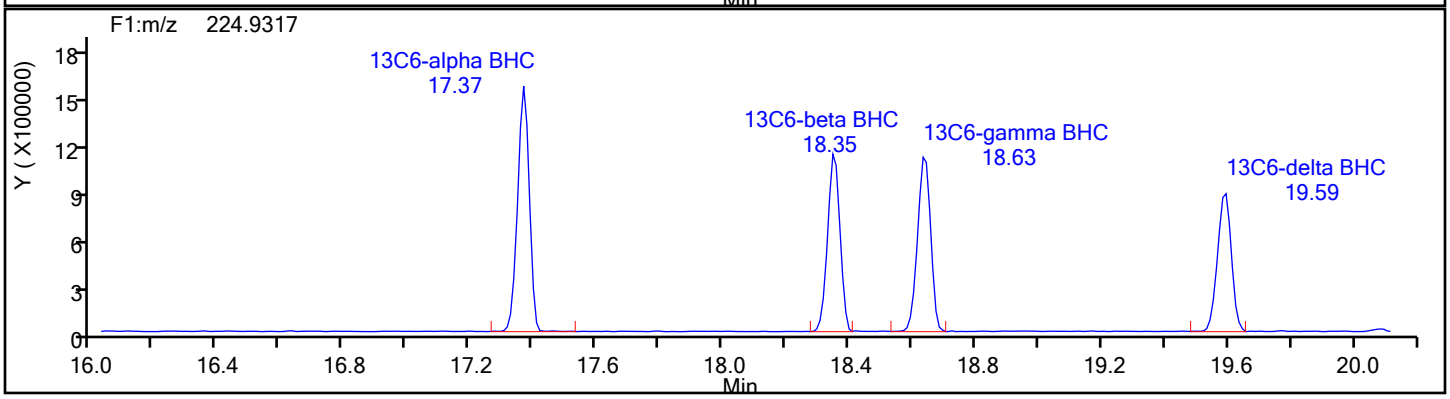
BHC





BHC Standards





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Eurofins Knoxville

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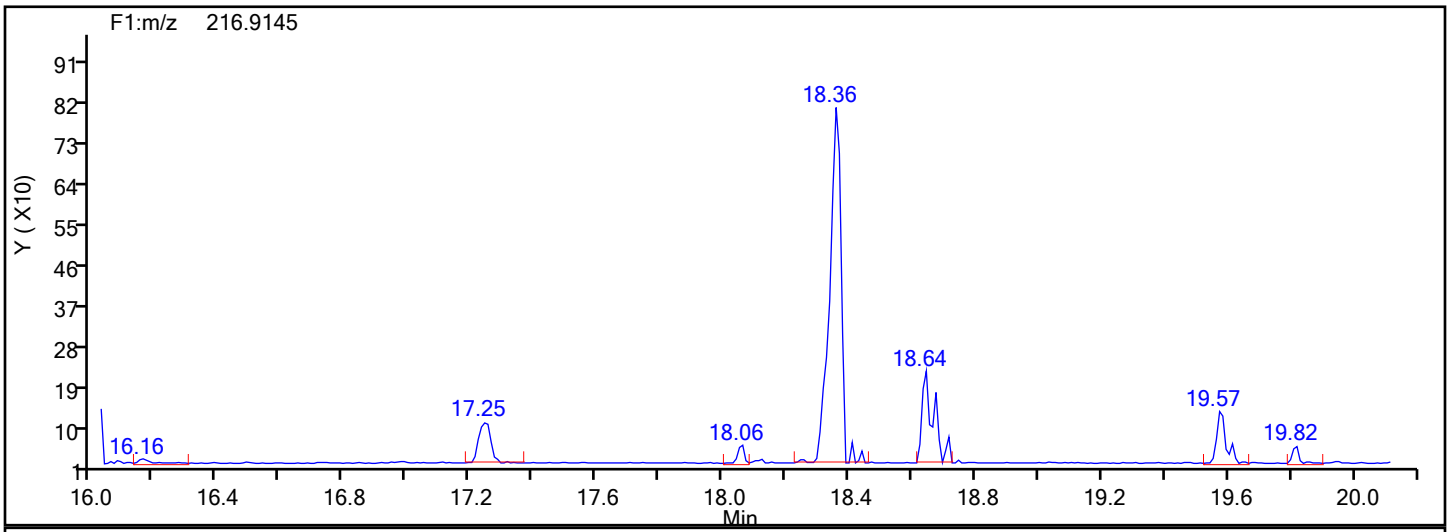
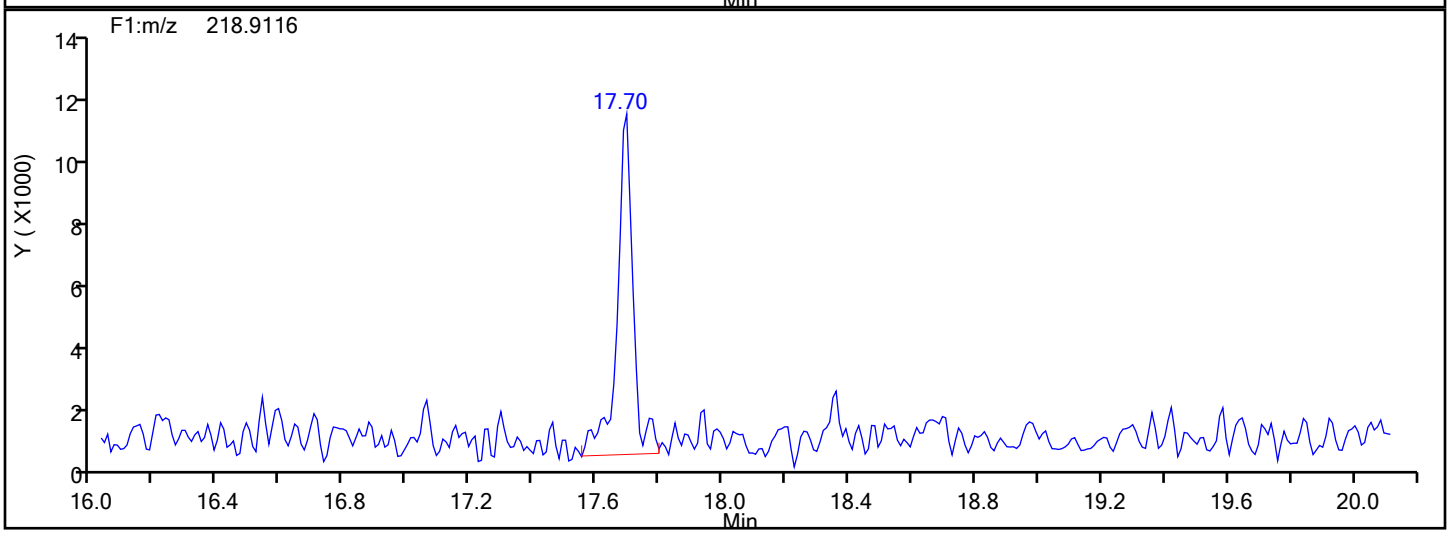
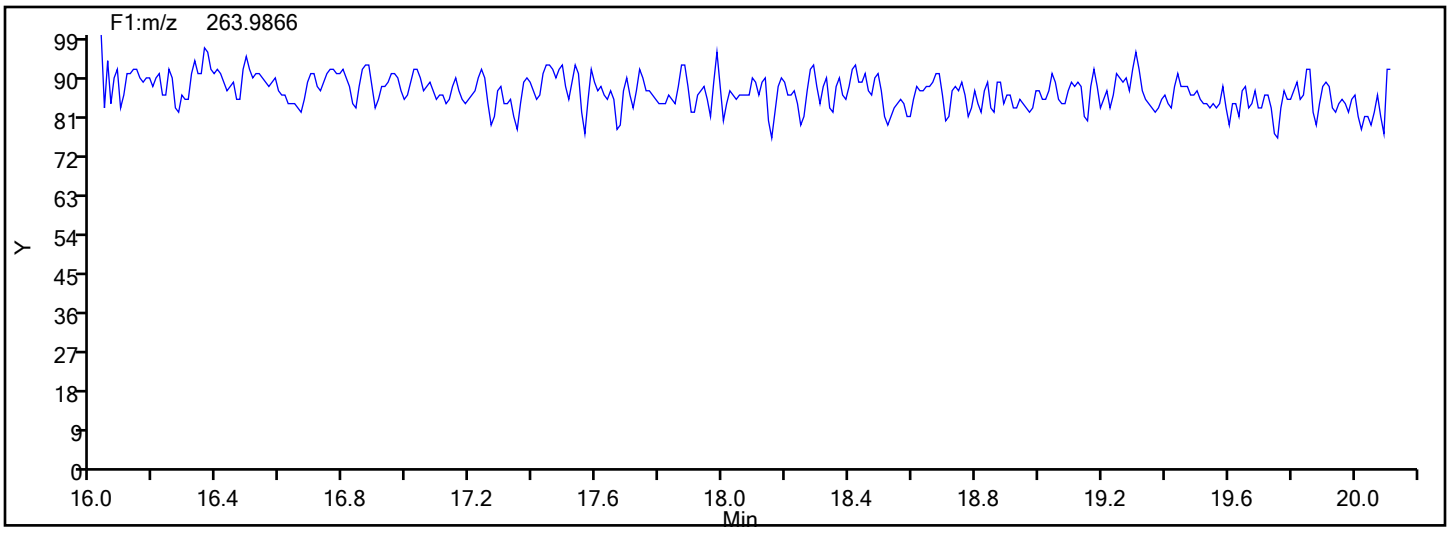
BHC





BHC Lock Mass



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Eurofins Knoxville

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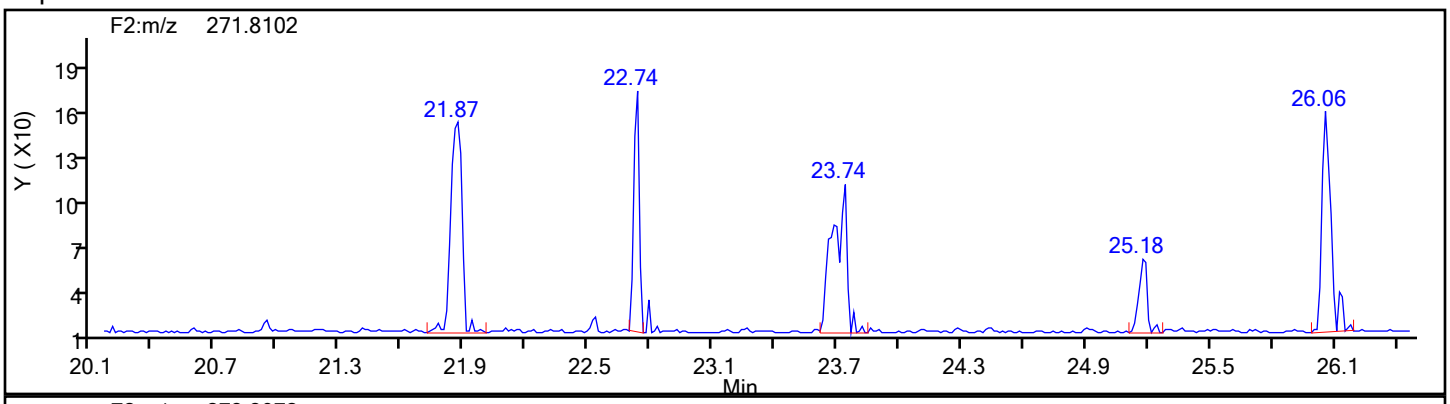
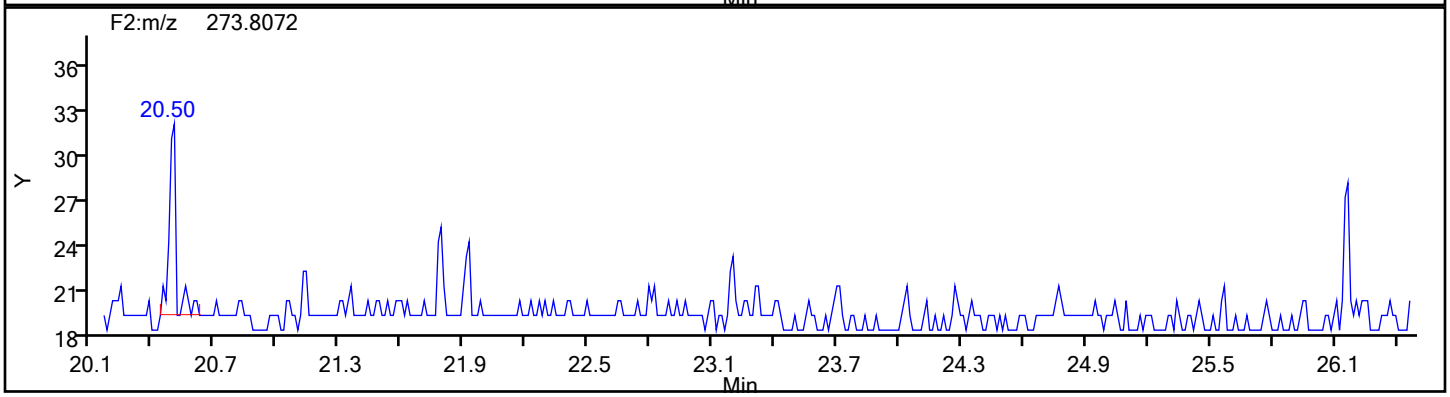
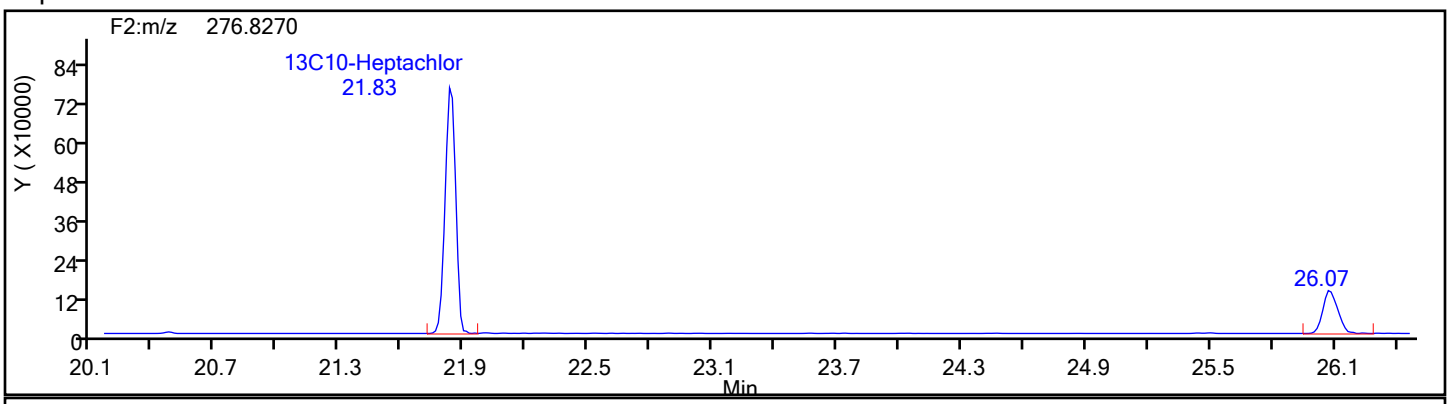
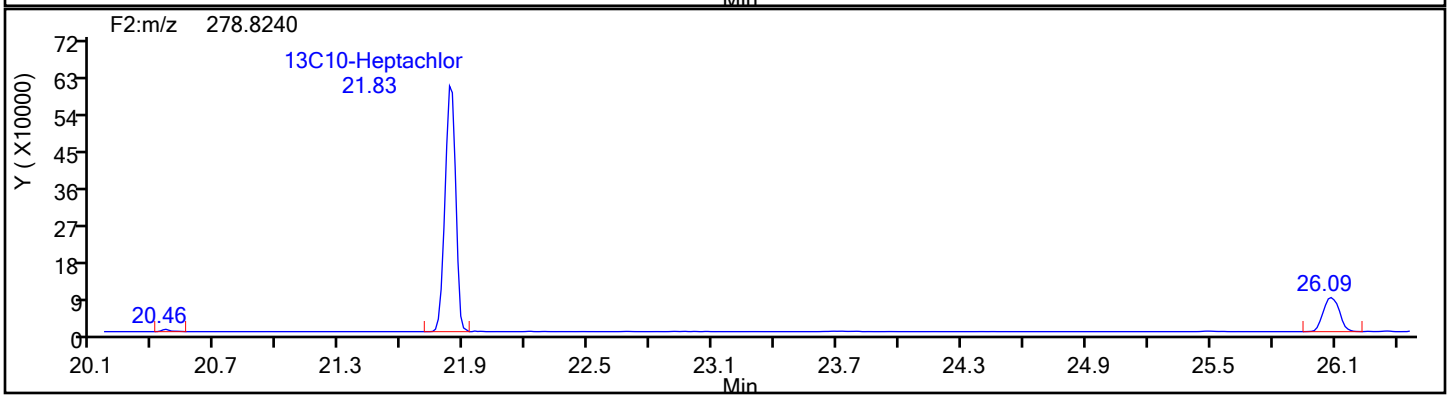
Heptachlor





Heptachlor Standards





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Eurofins Knoxville

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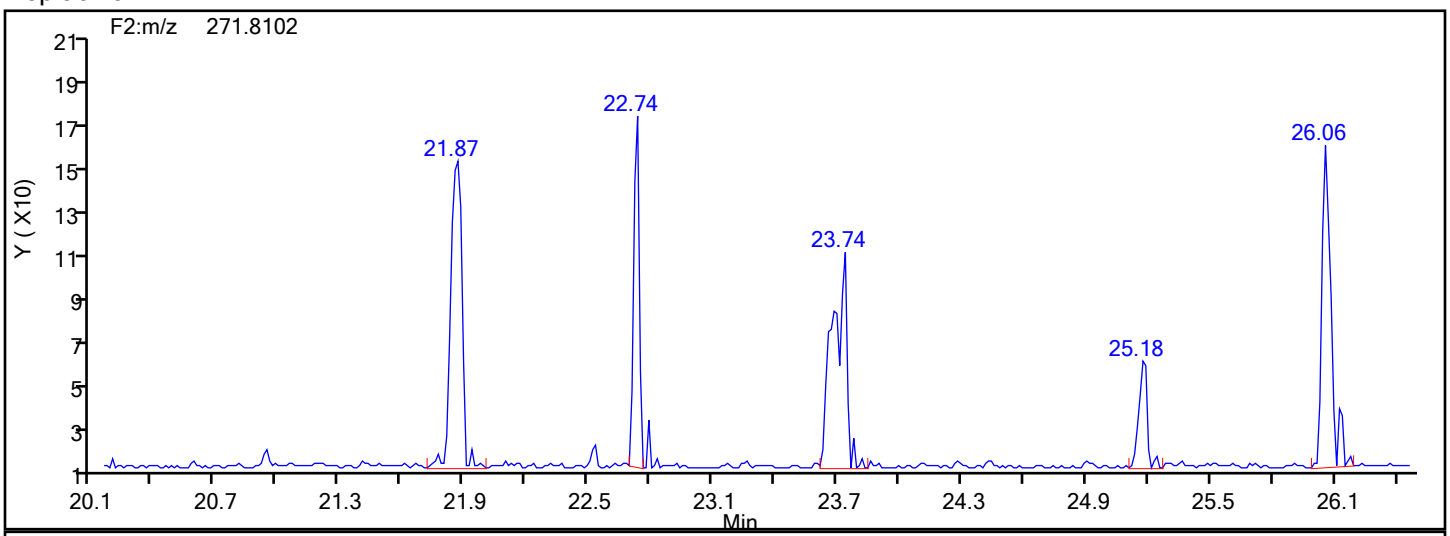
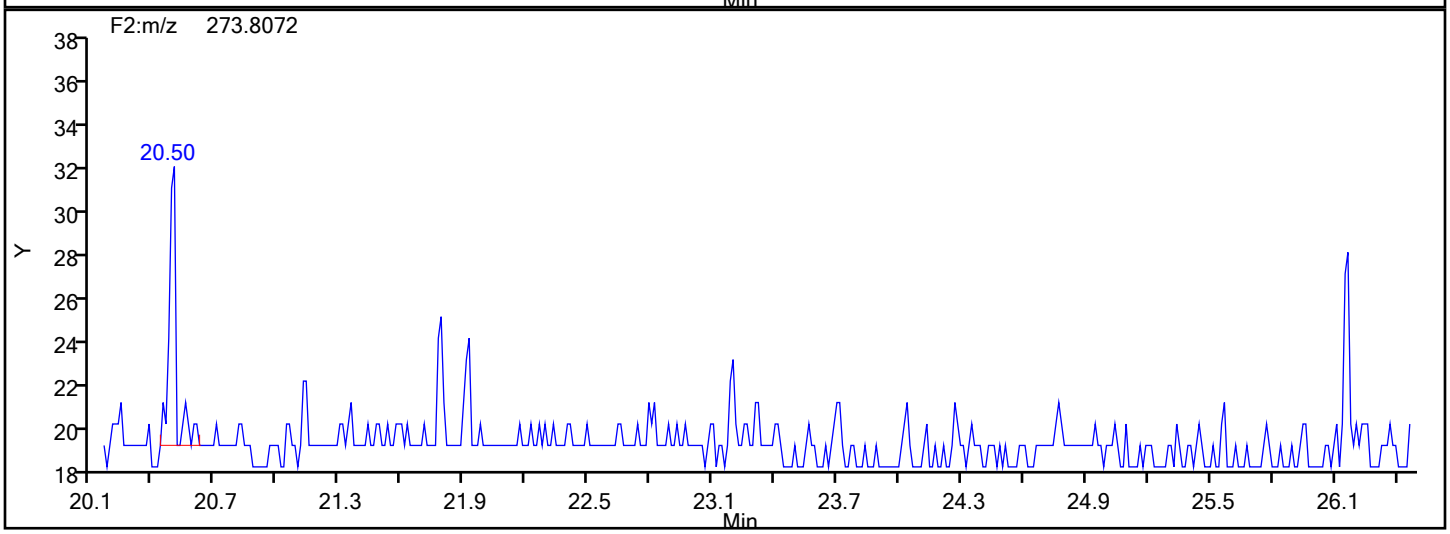
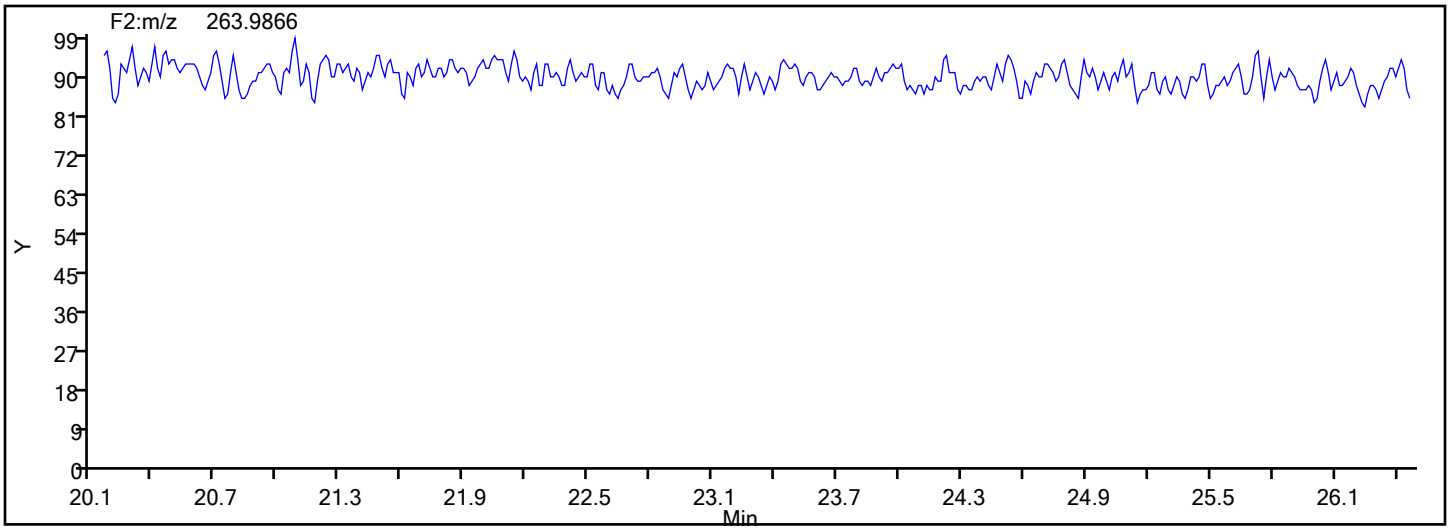
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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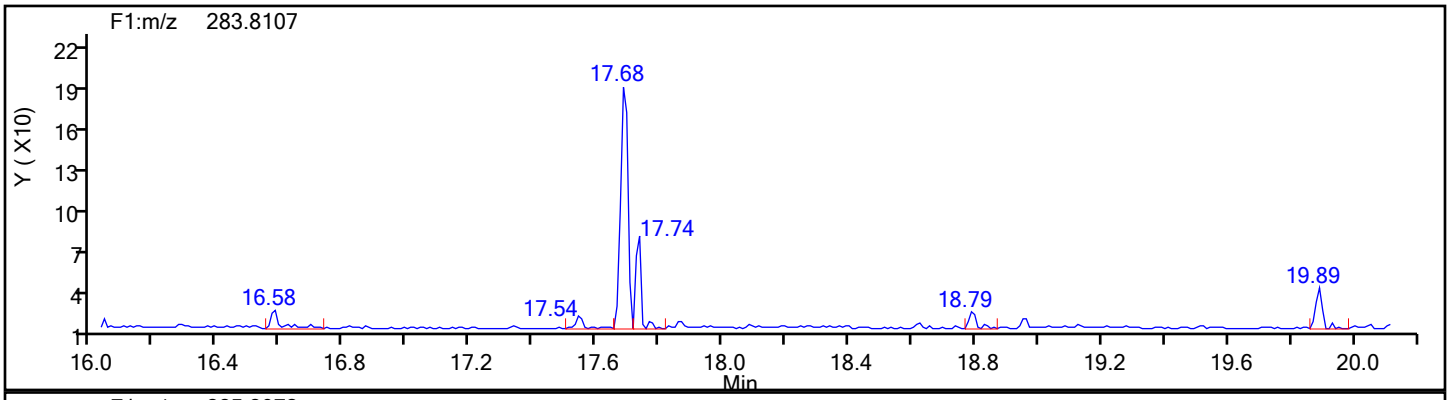
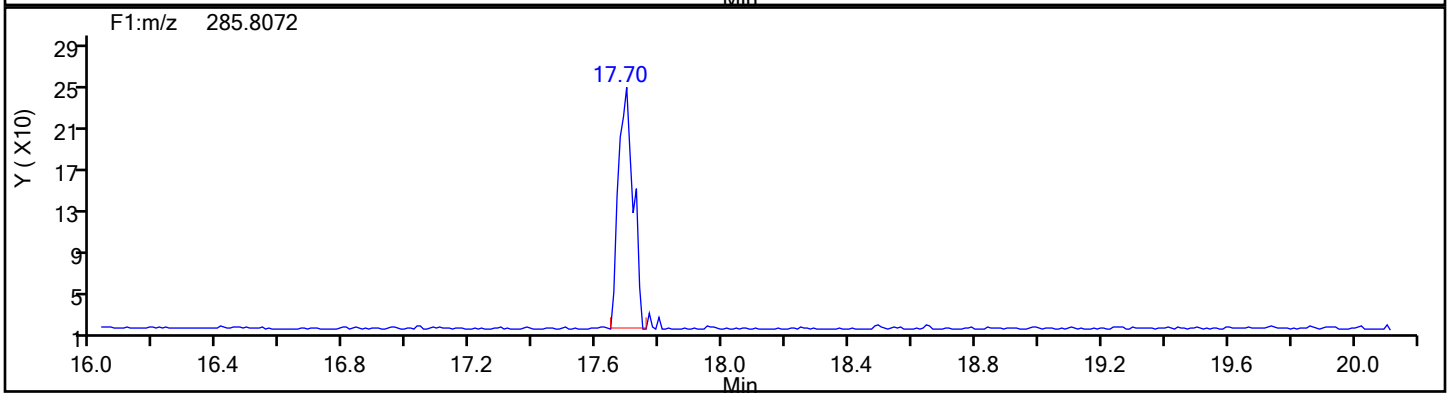
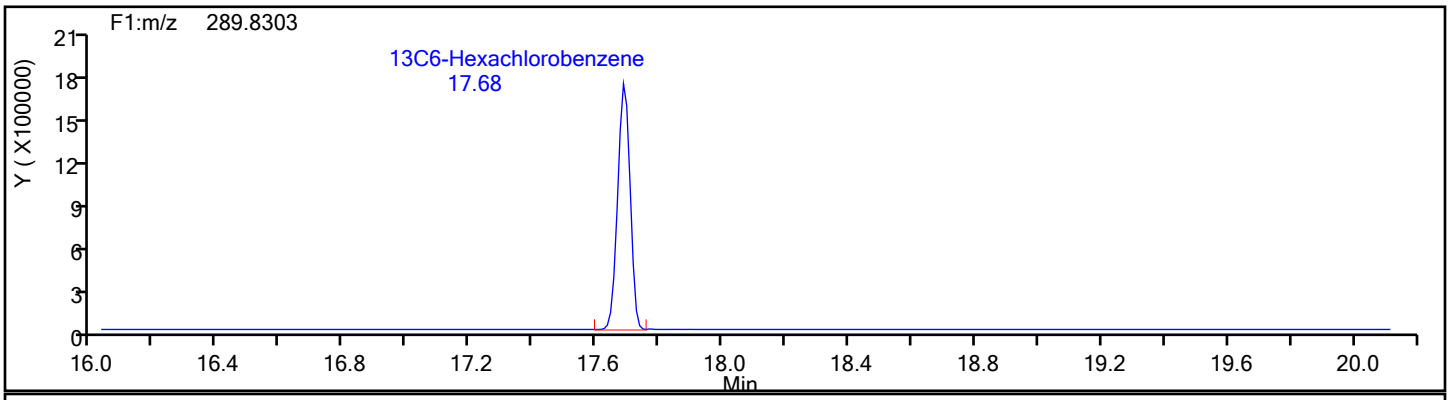
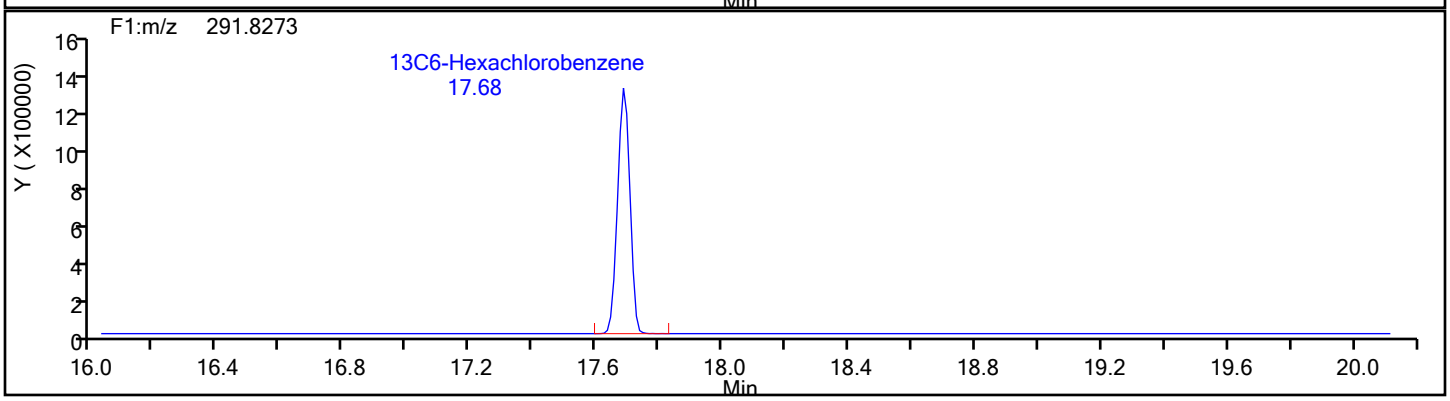
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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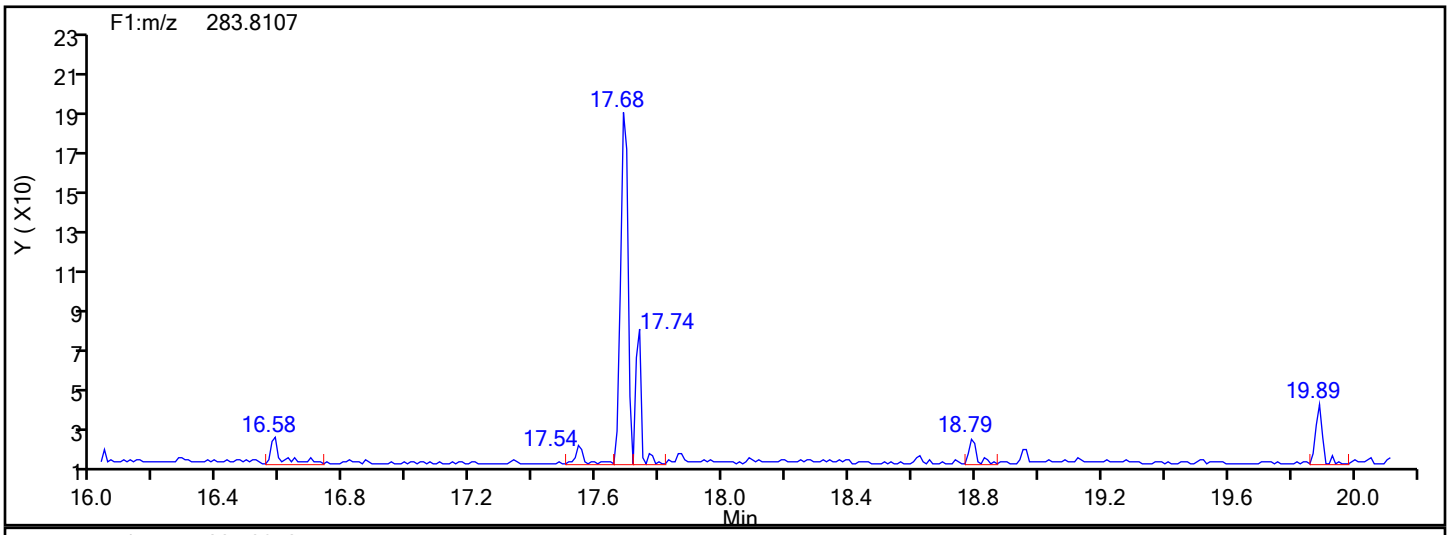
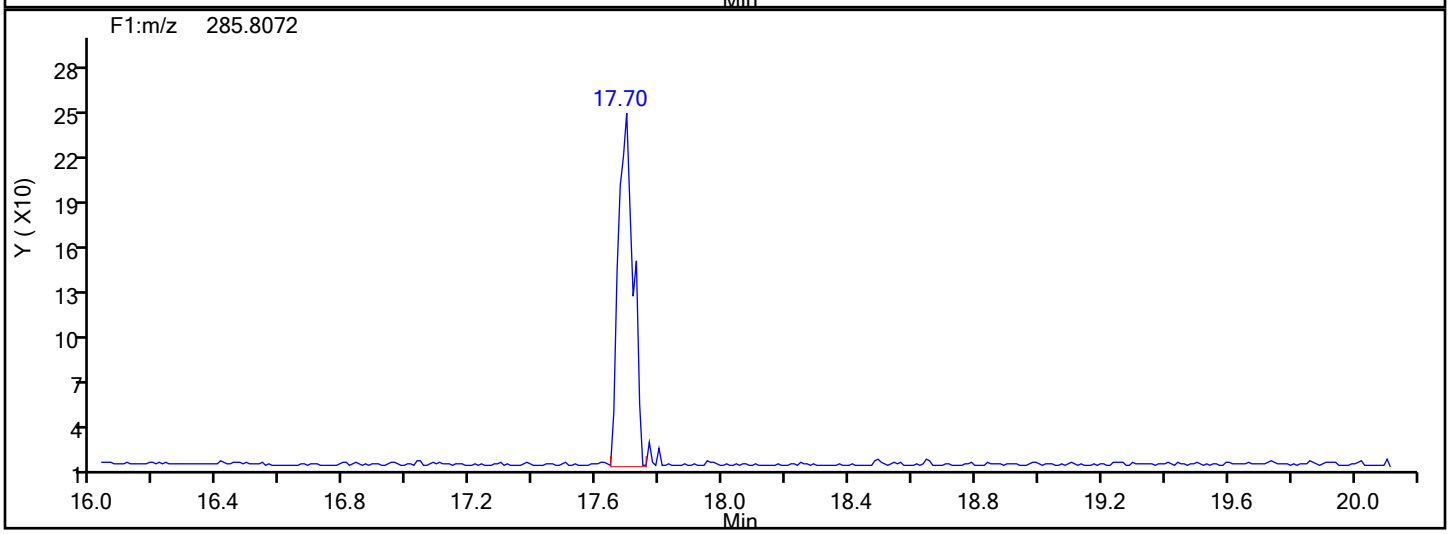
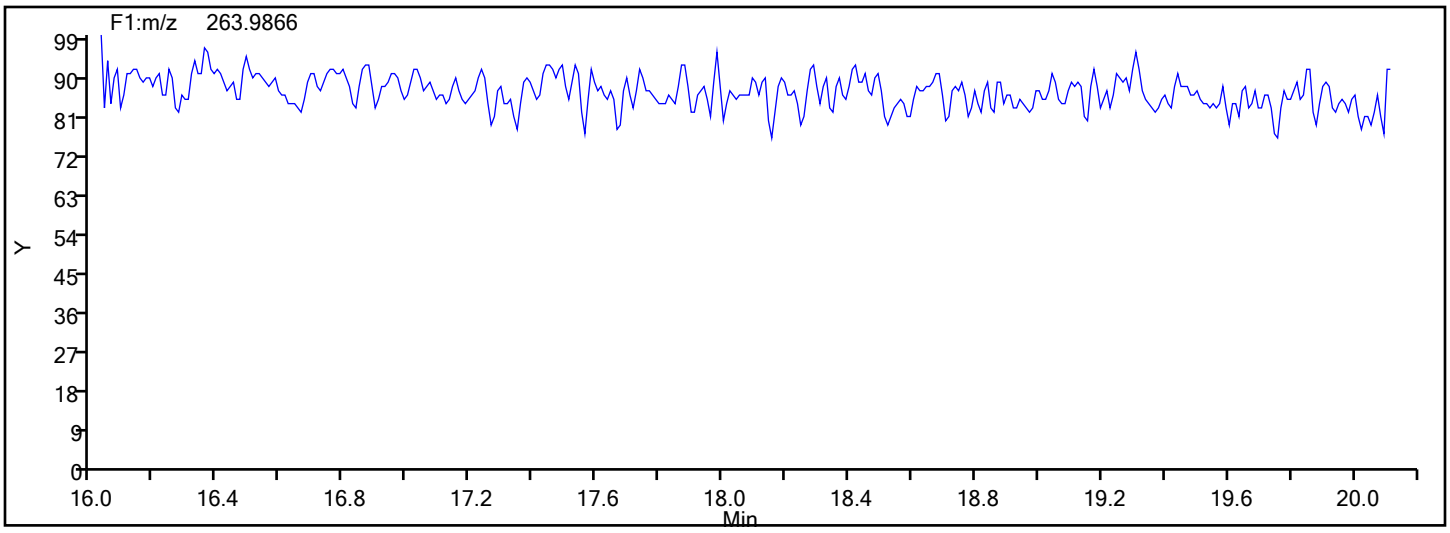
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
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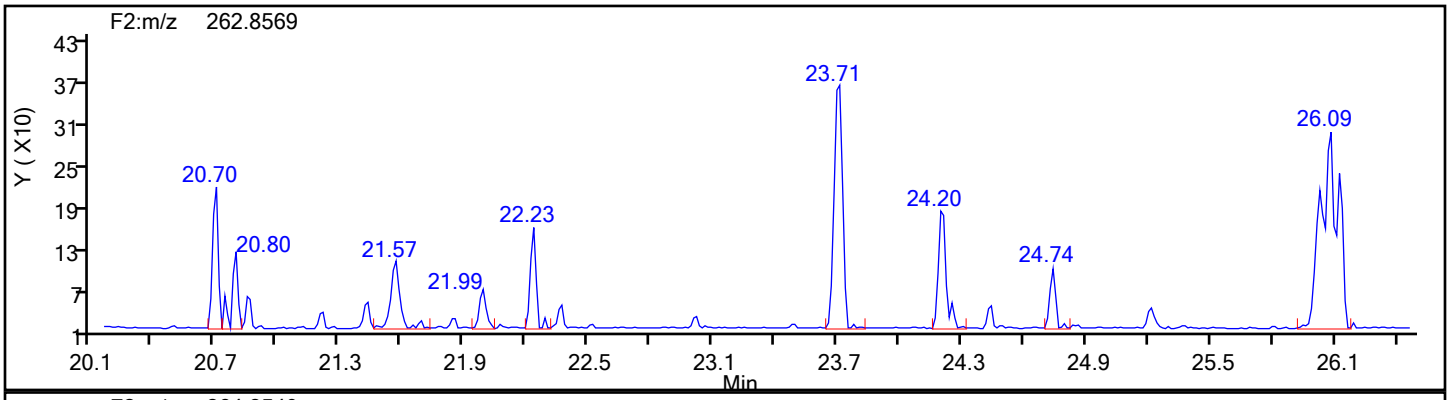
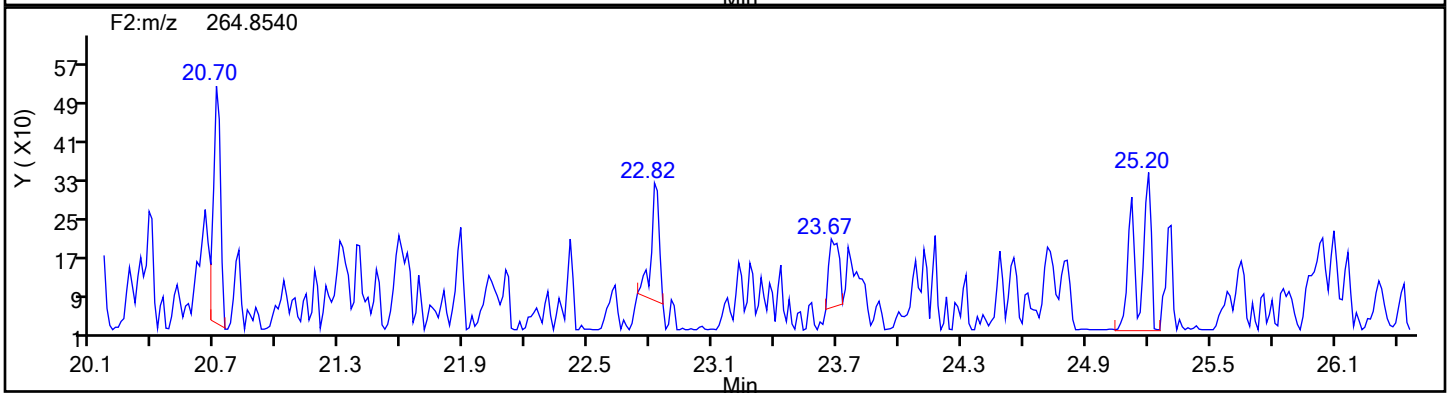
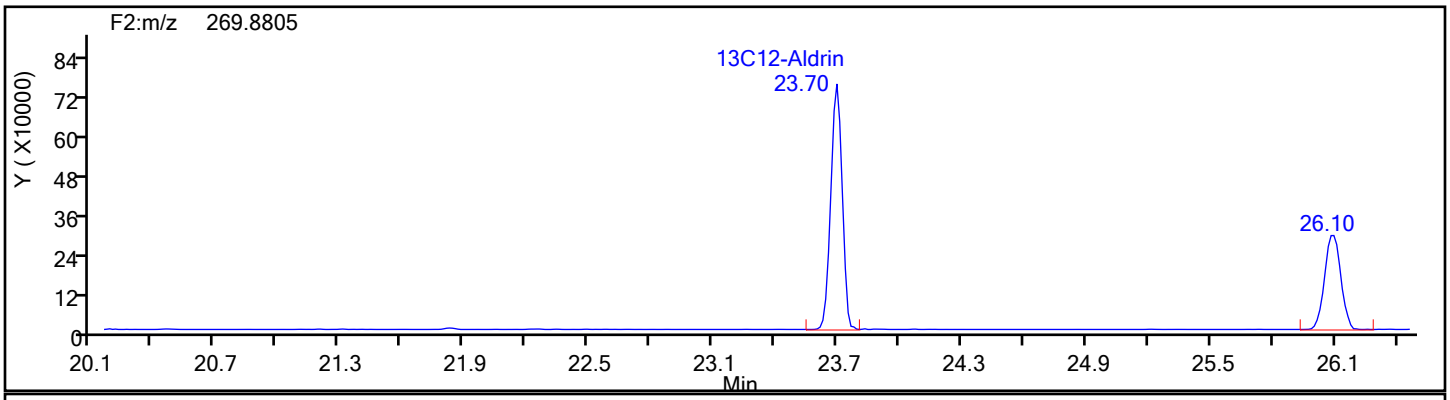
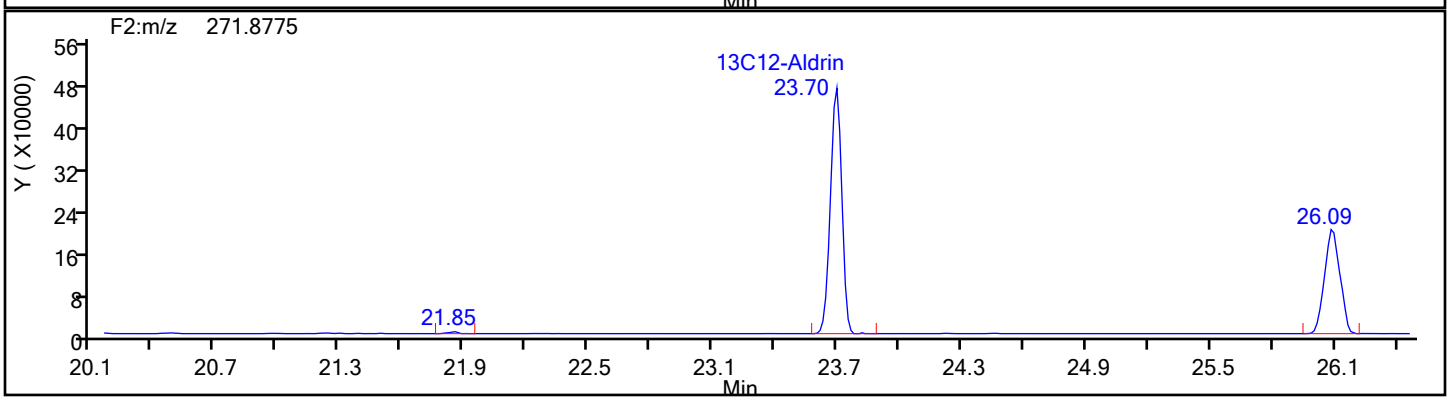
Aldrin





Aldrin Standards





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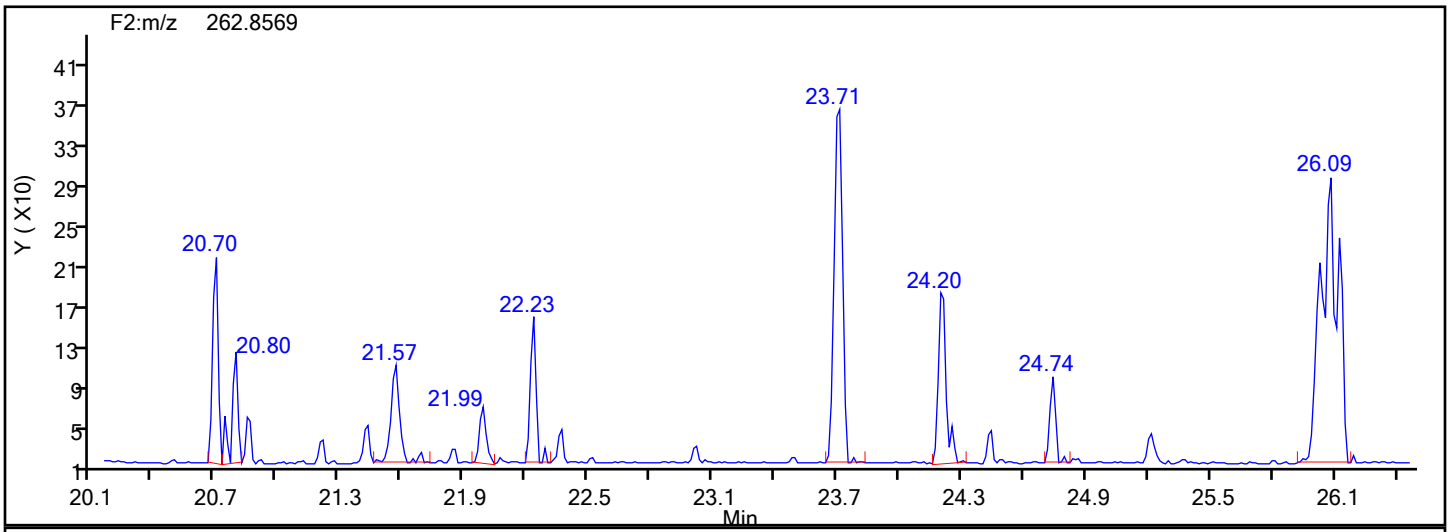
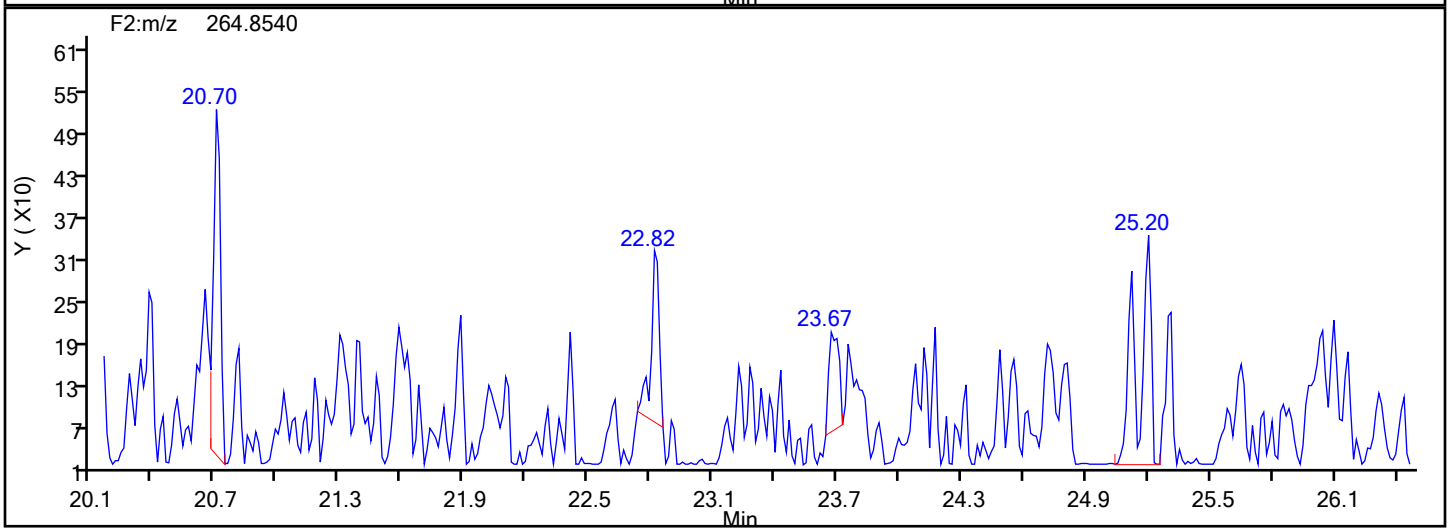
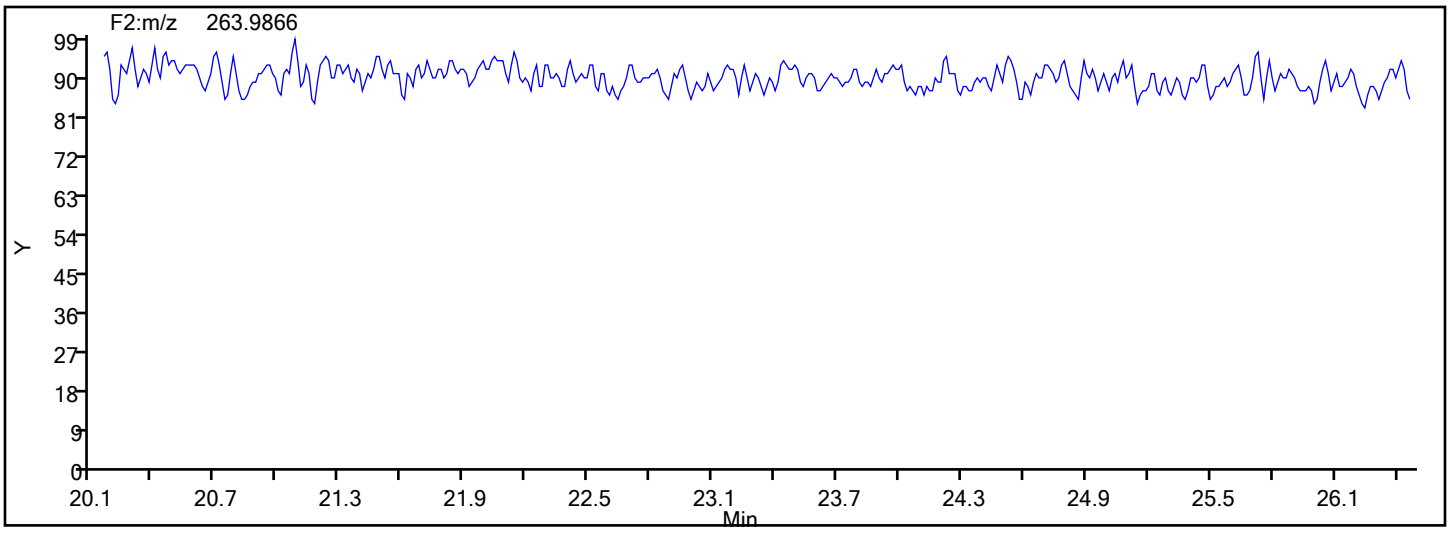




Aldrin Lock Mass



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Eurofins Knoxville

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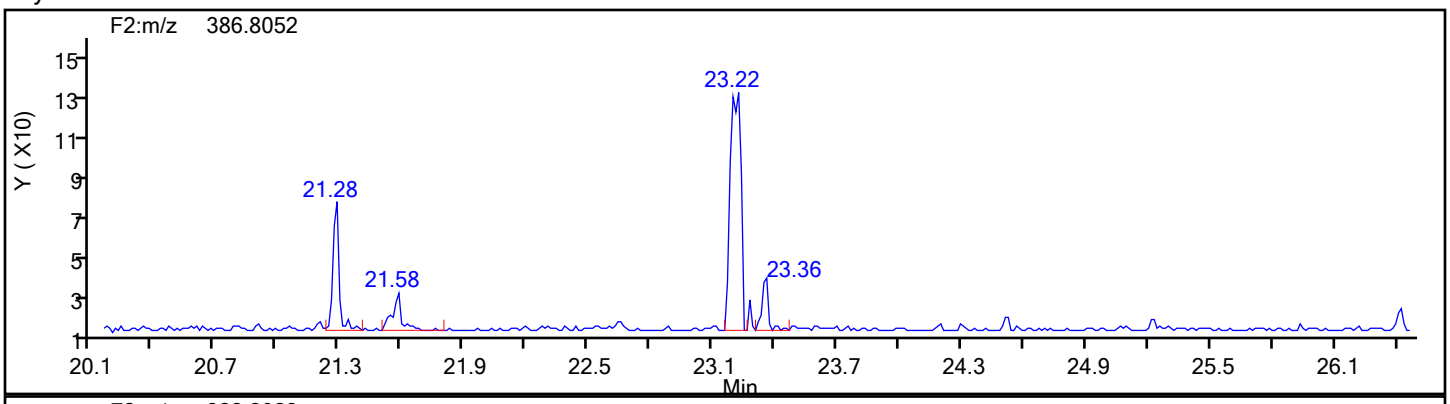
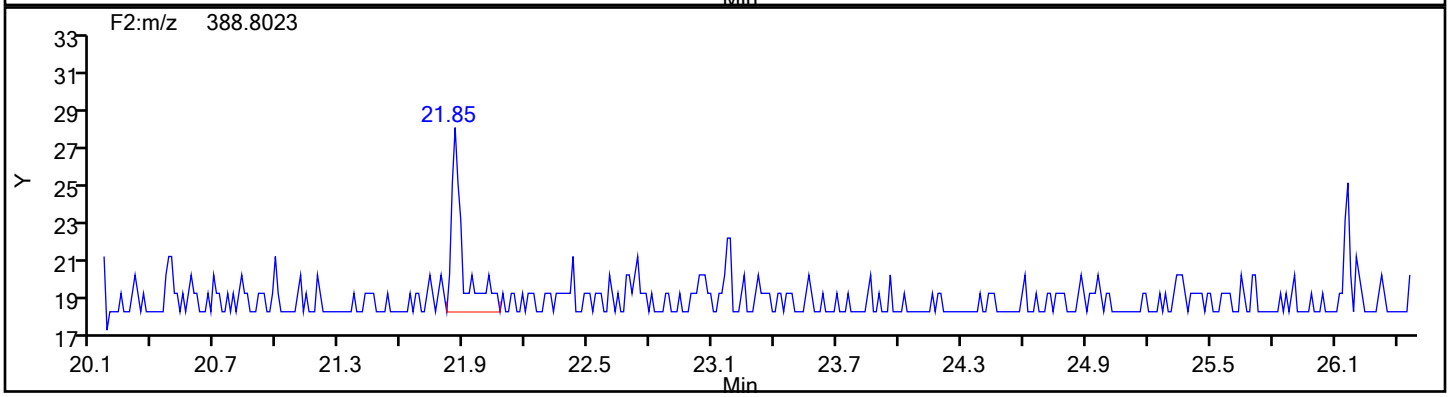
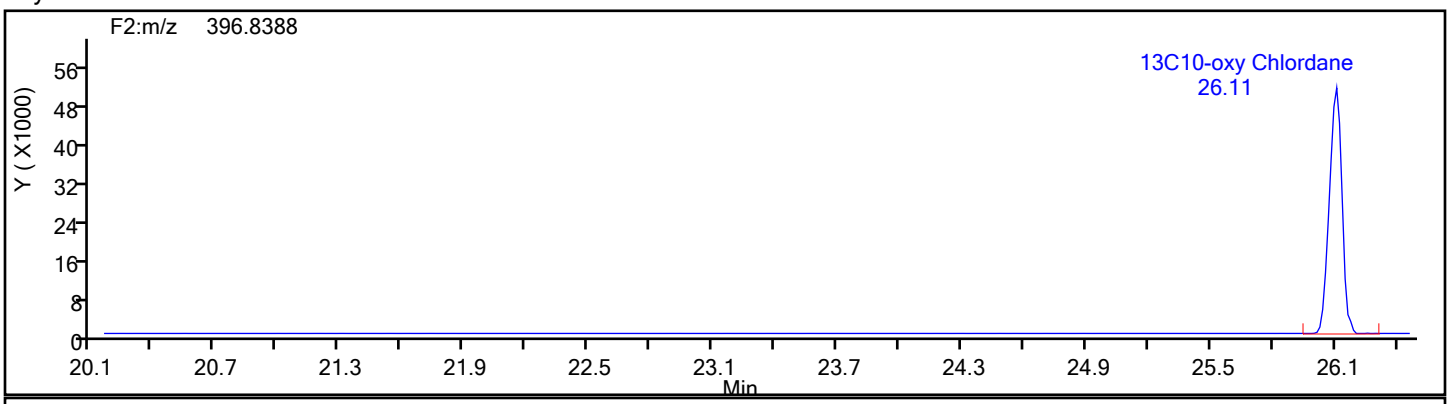
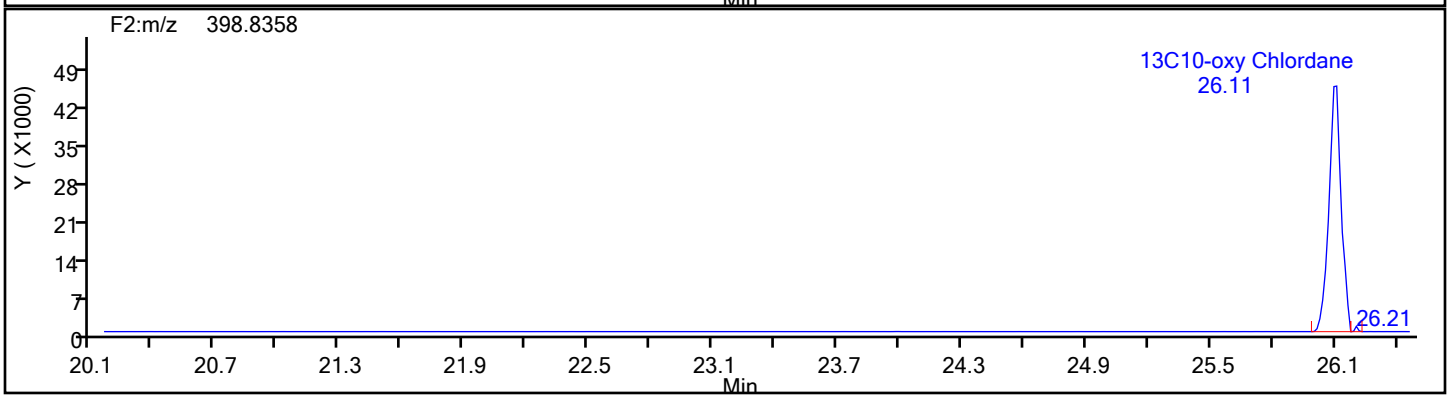
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
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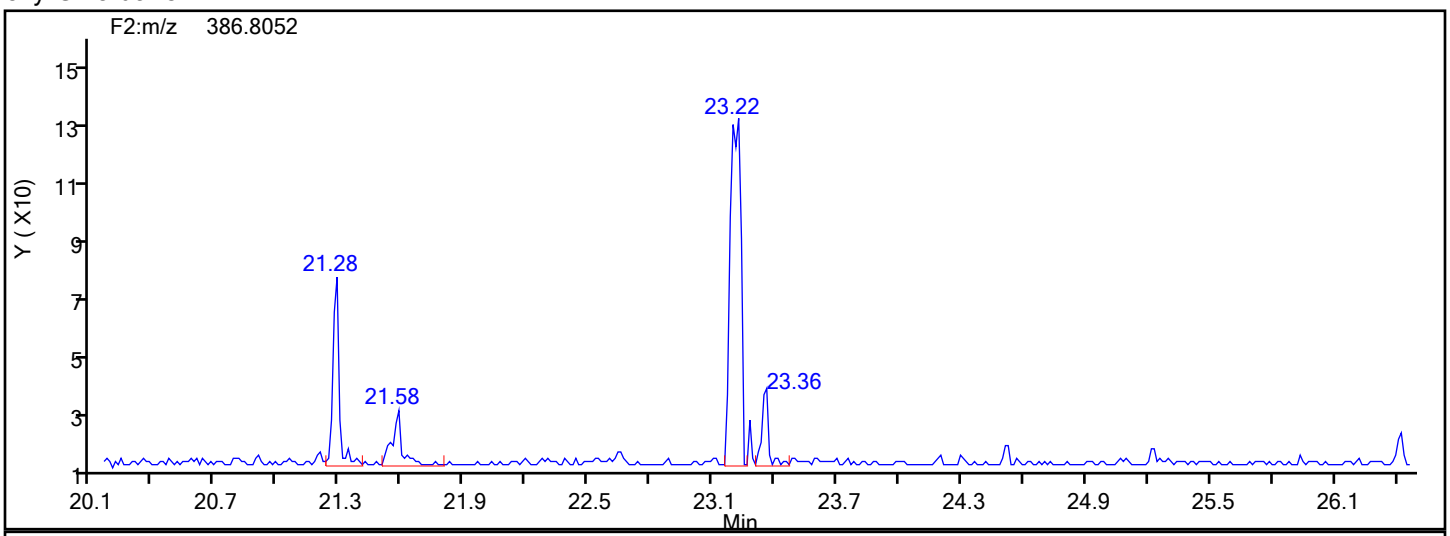
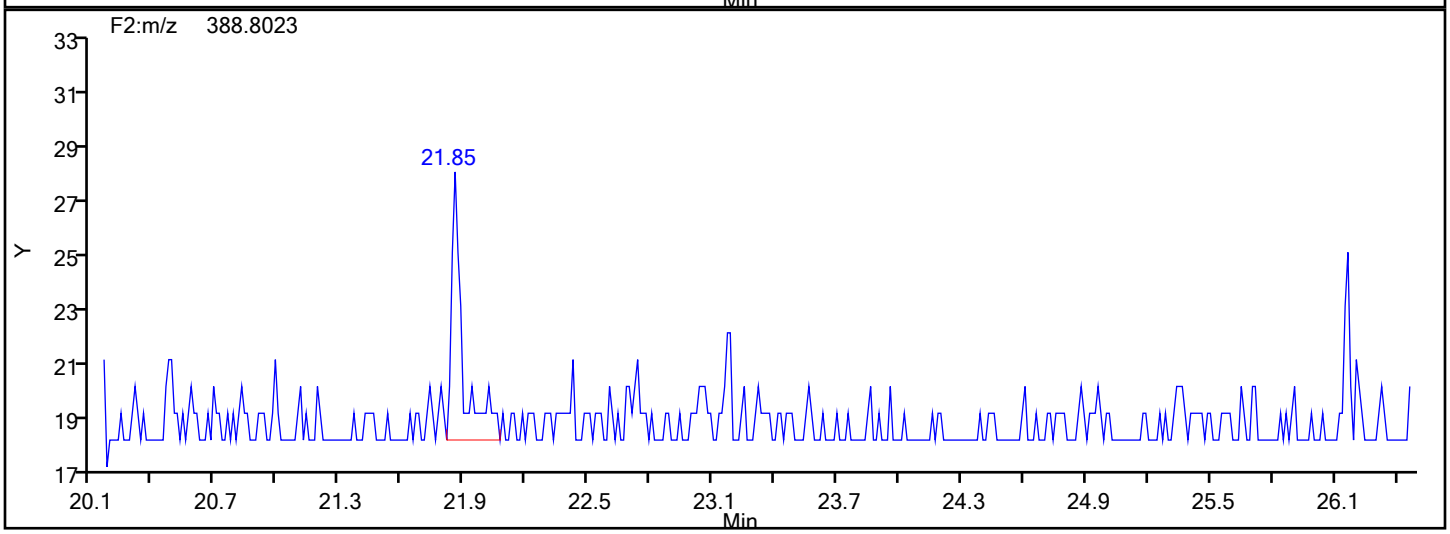
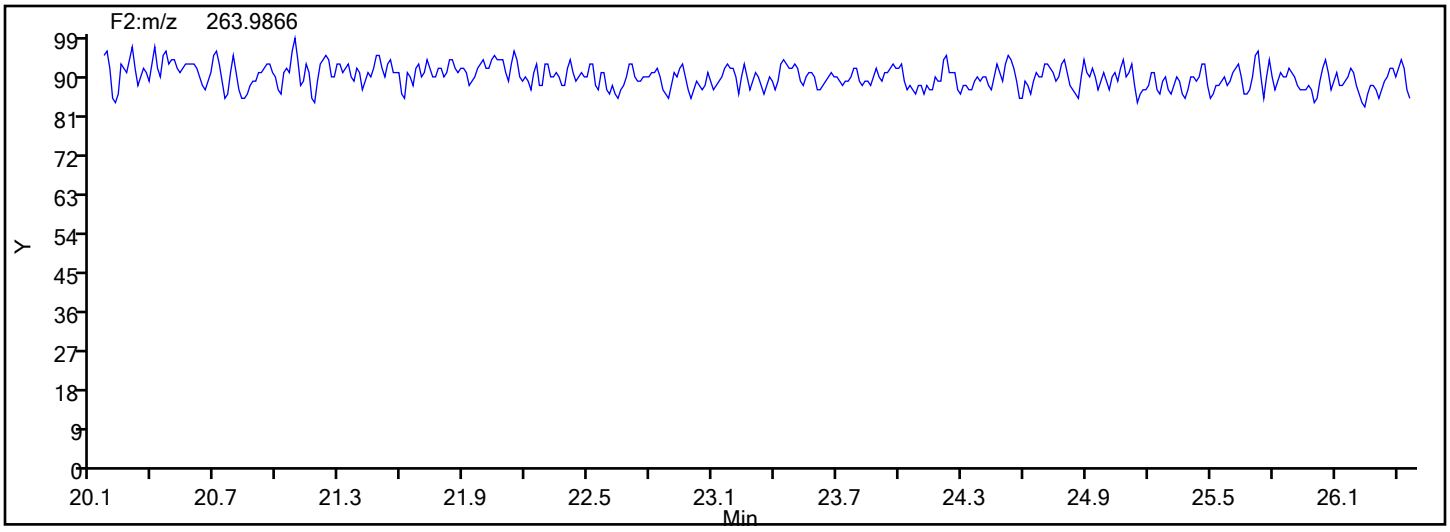
oxy-Chlordane





oxy-Chlordane Lock Mass



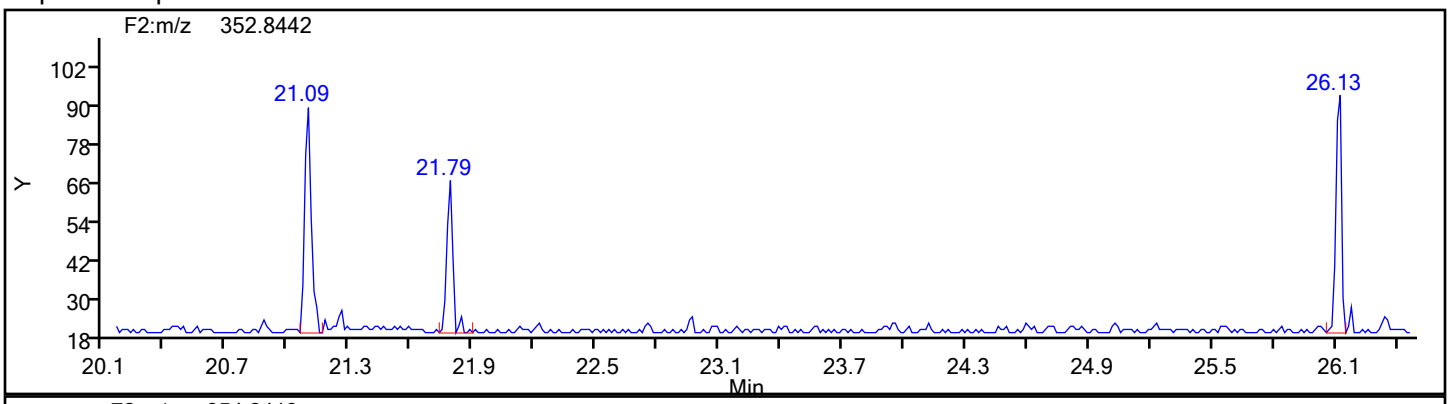
Report Date: 05-May-2025 18:00:15 Chrom Revision: 2.3 18-Apr-2025 15:35:42

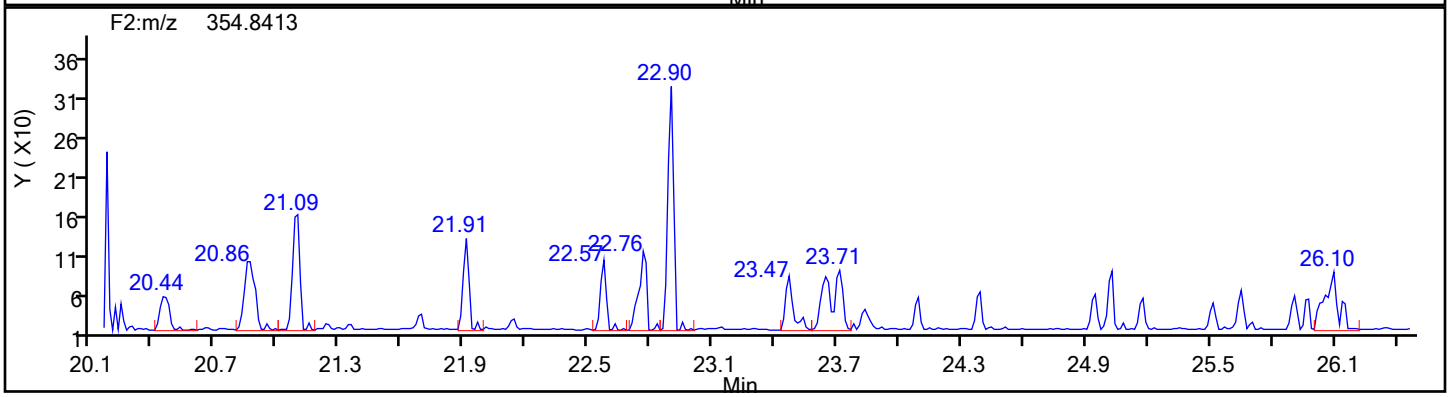
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

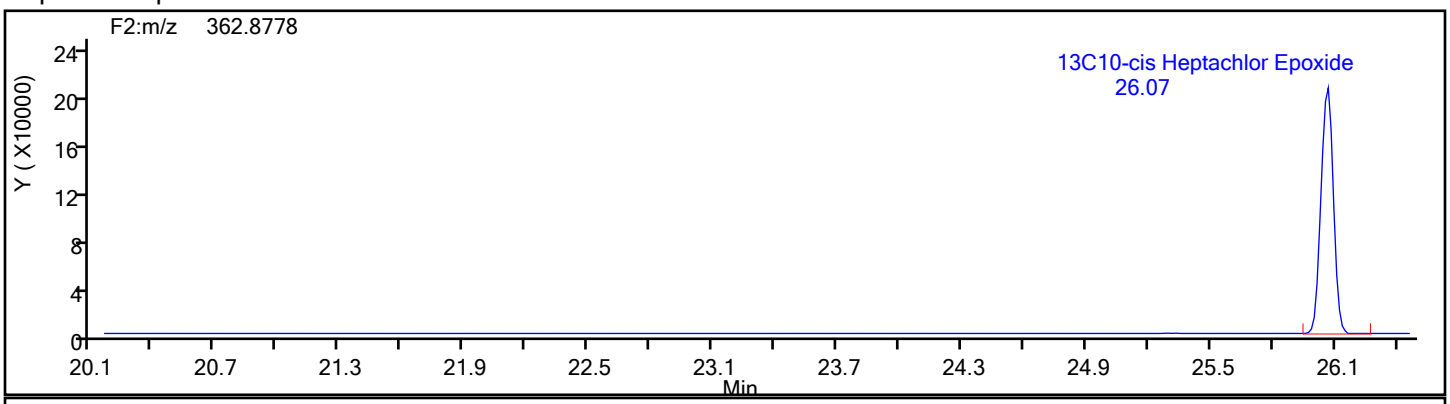
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

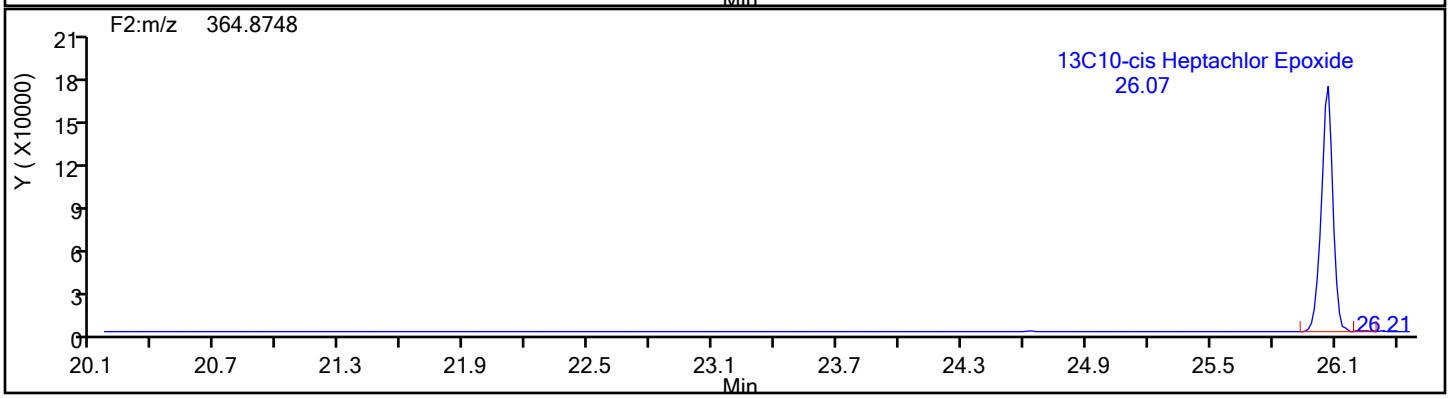
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
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Client ID:
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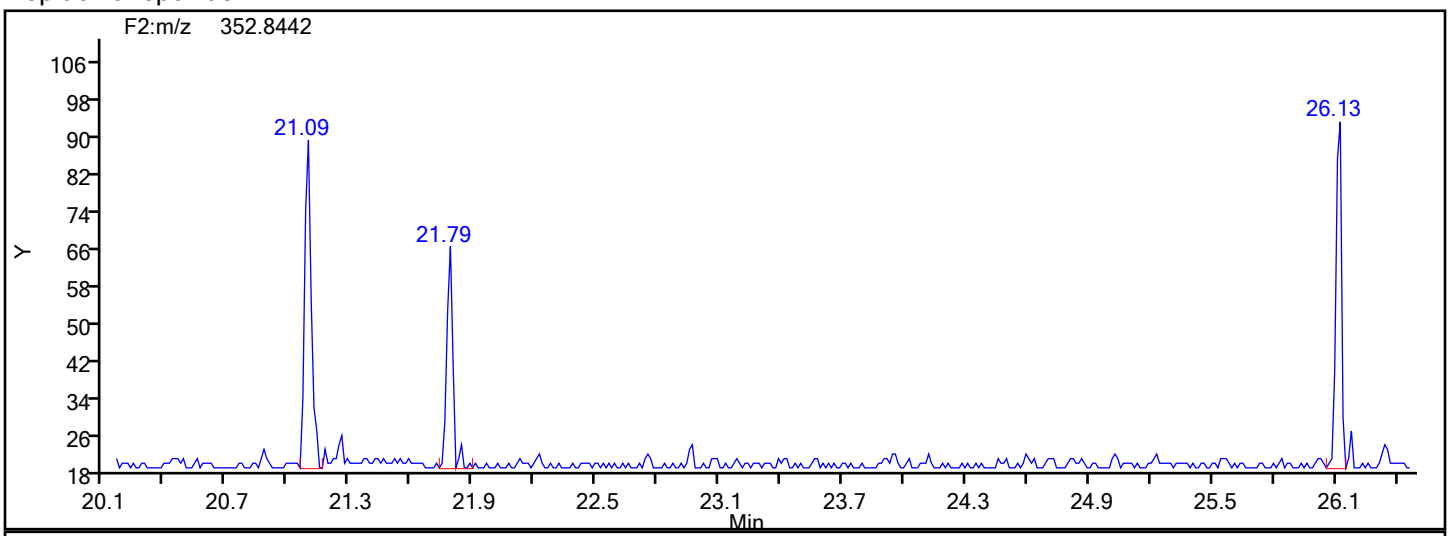
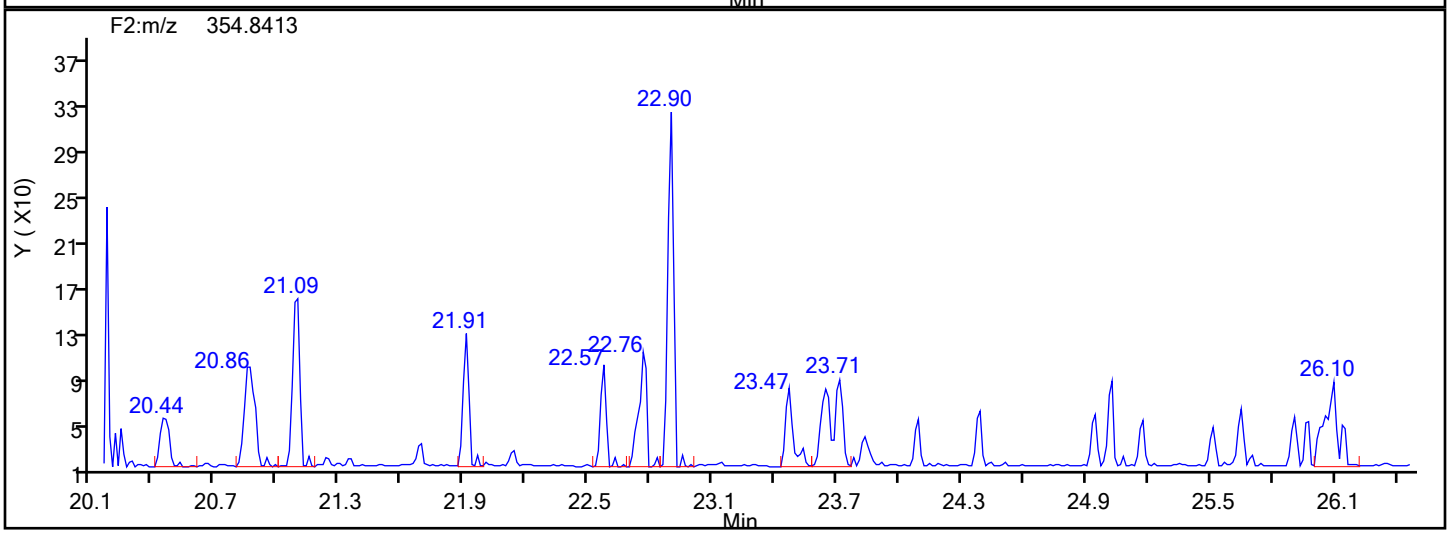
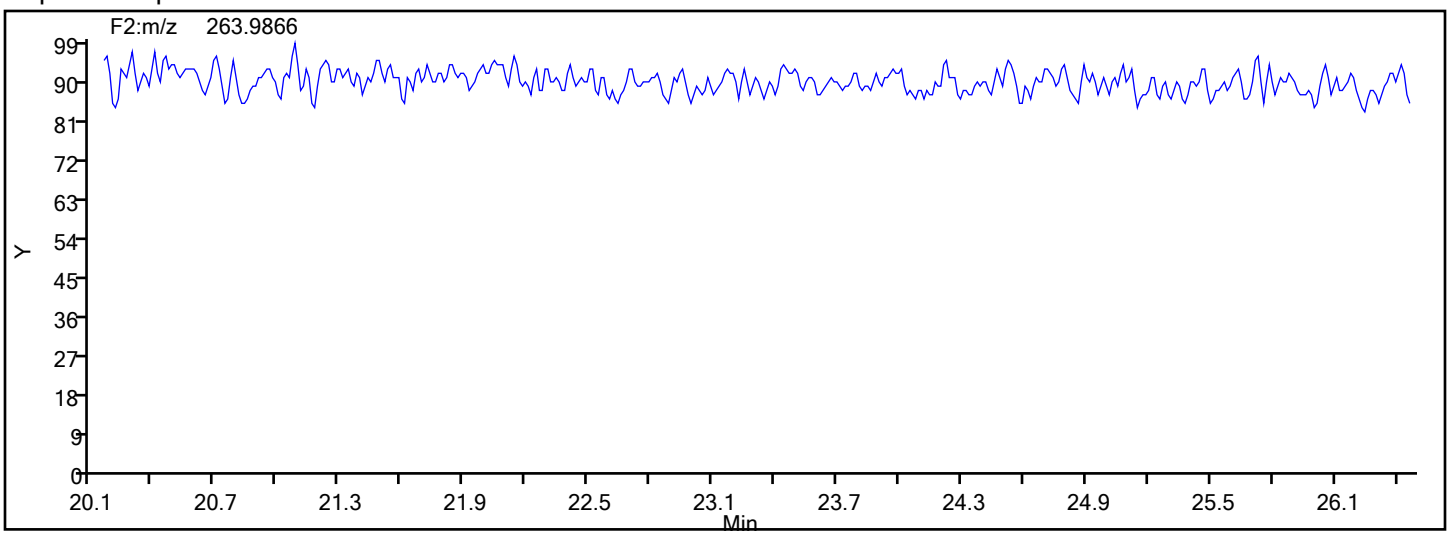
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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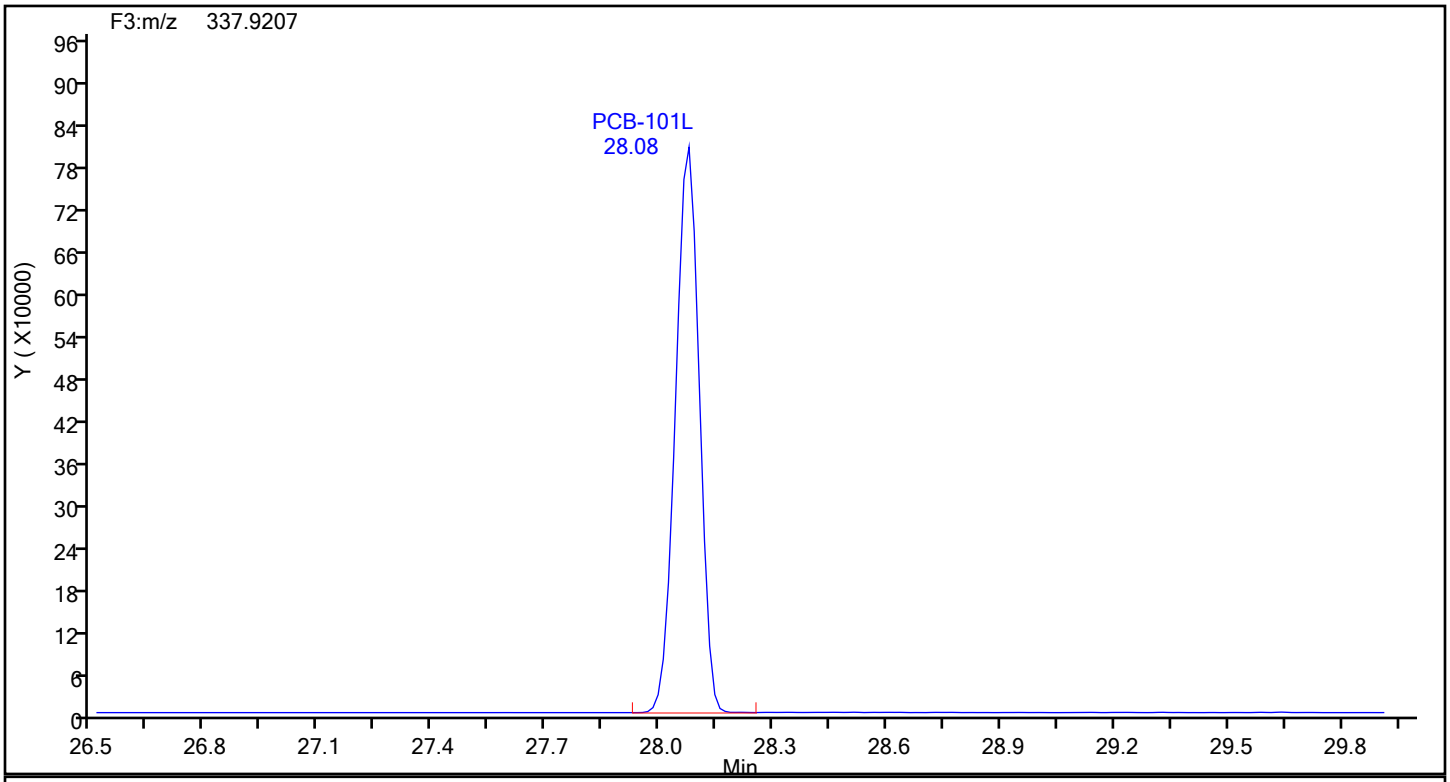
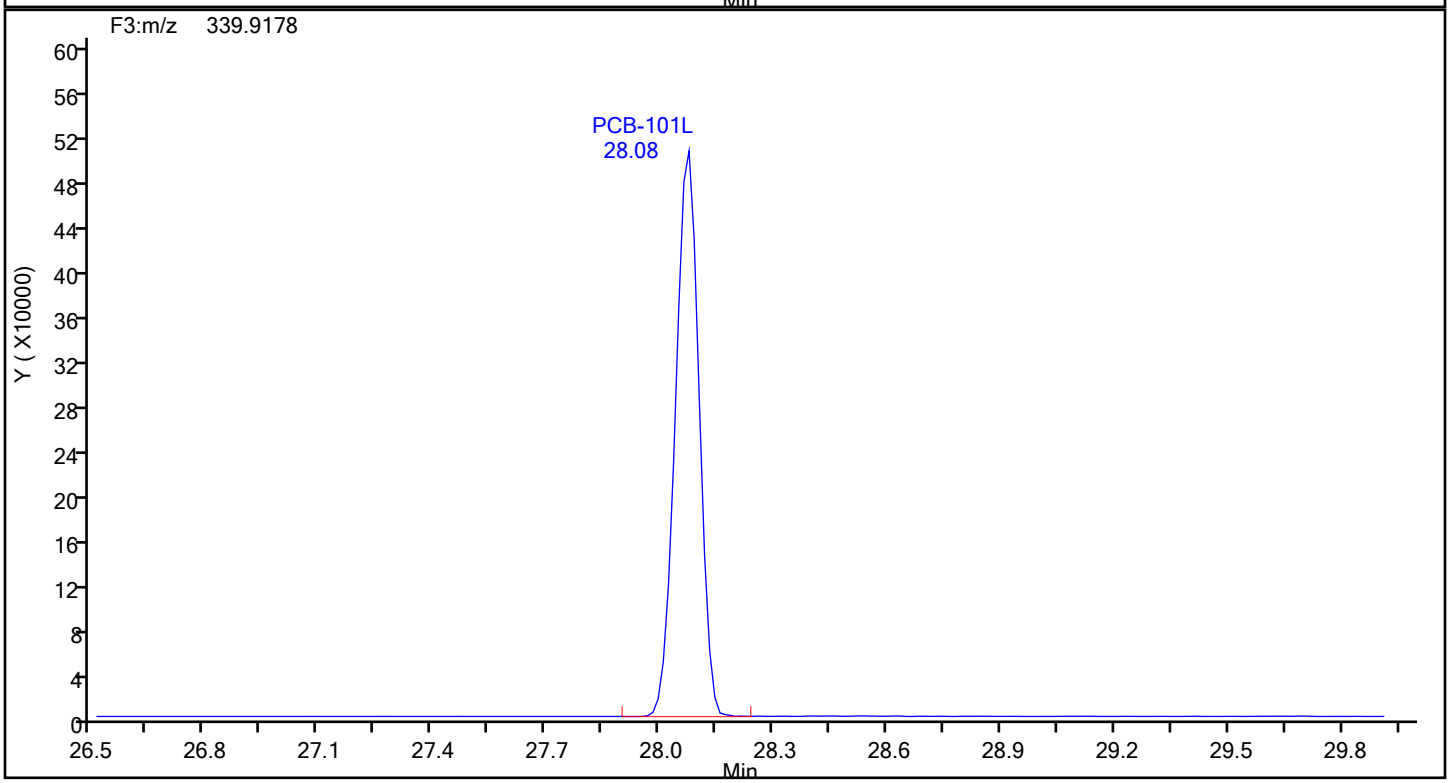
PCB-101L Standards





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Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
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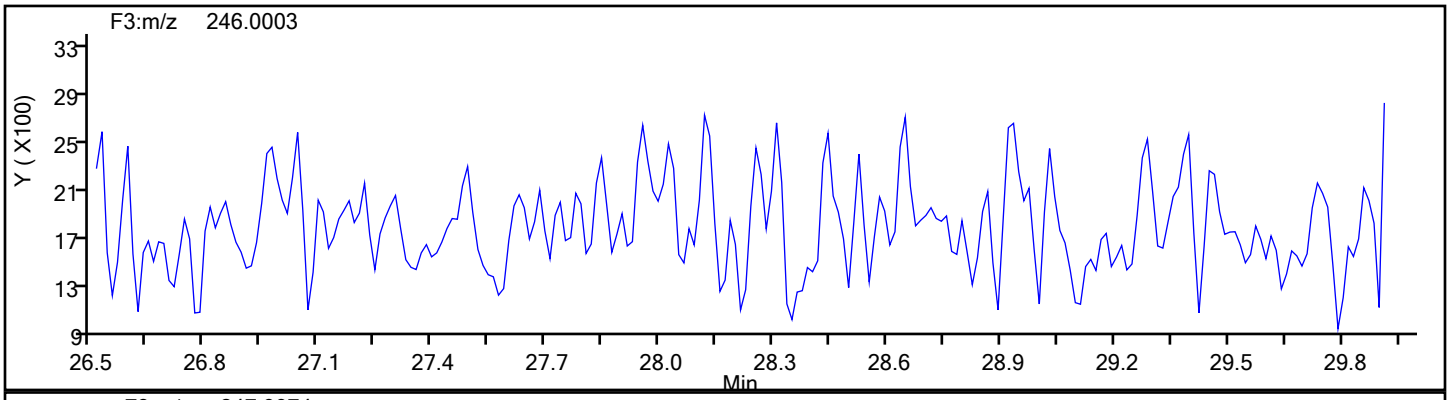
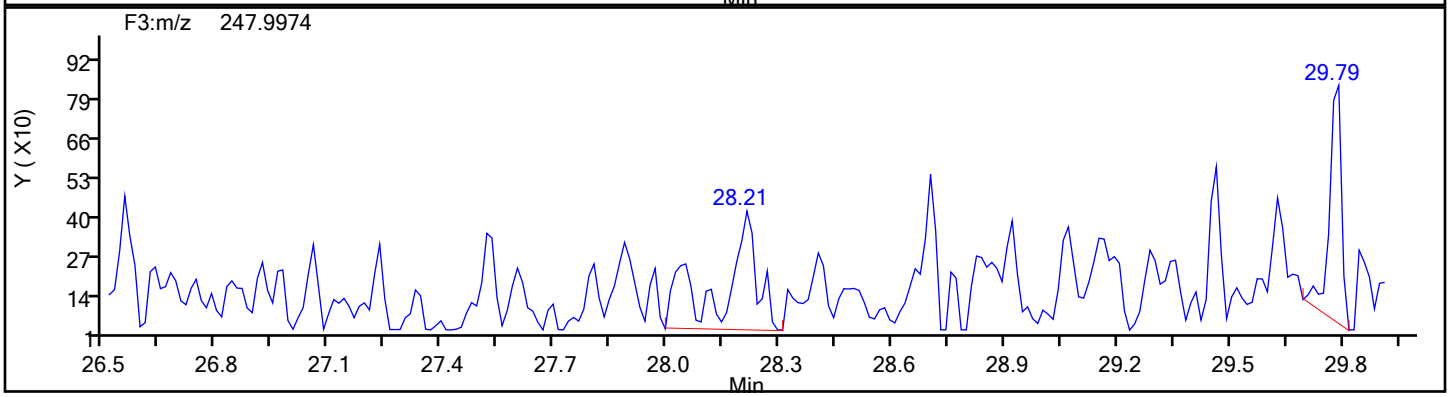
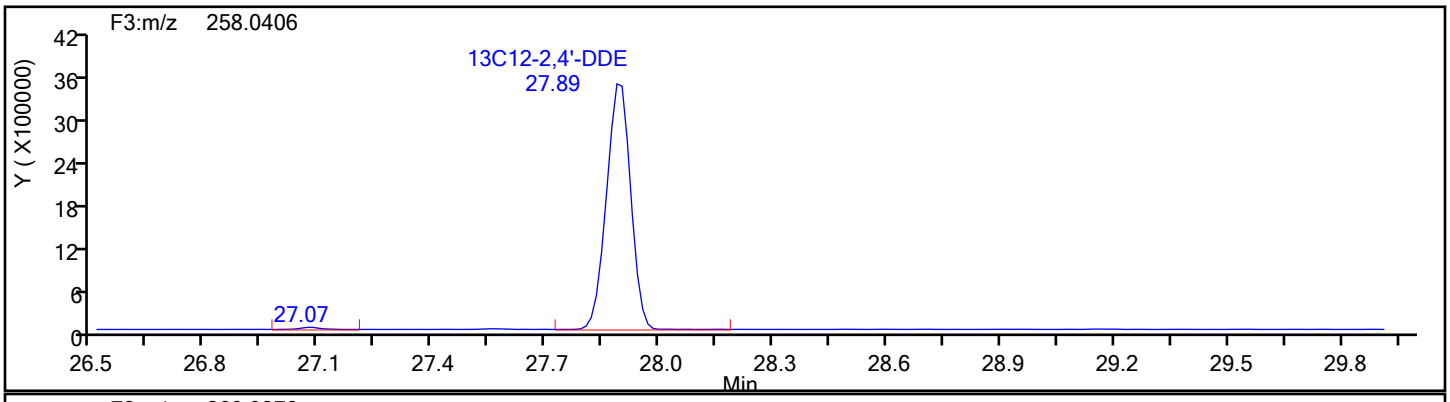
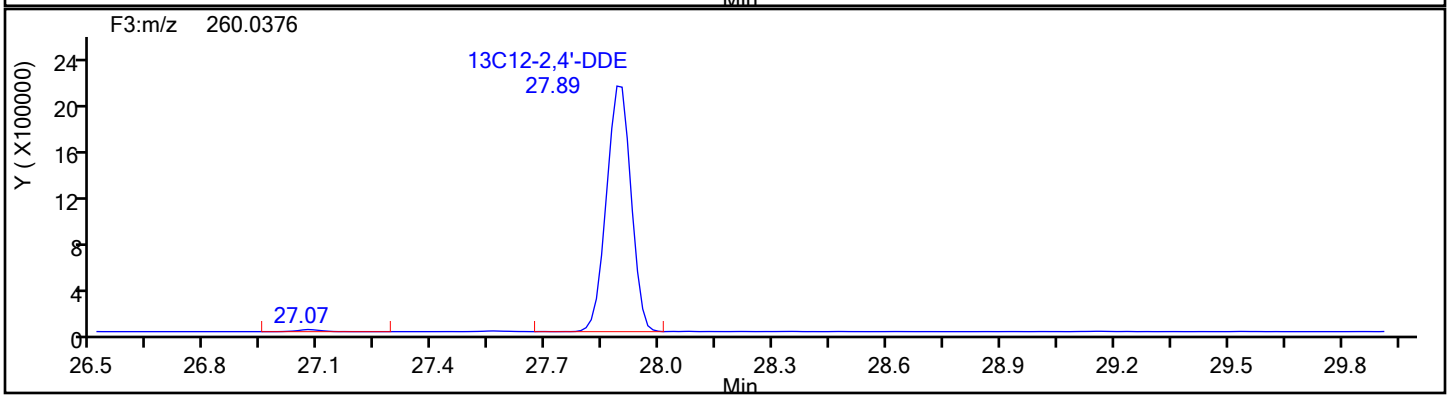
2,4'-DDE





2,4'-DDE Standards





Report Date: 05-May-2025 18:00:15 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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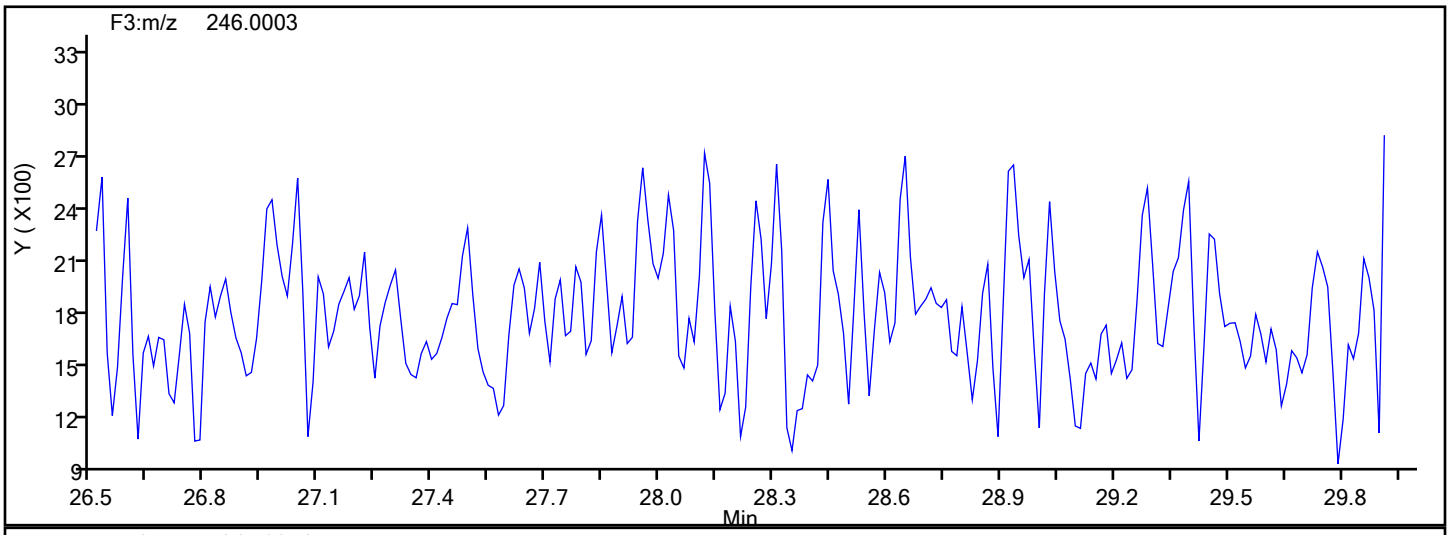
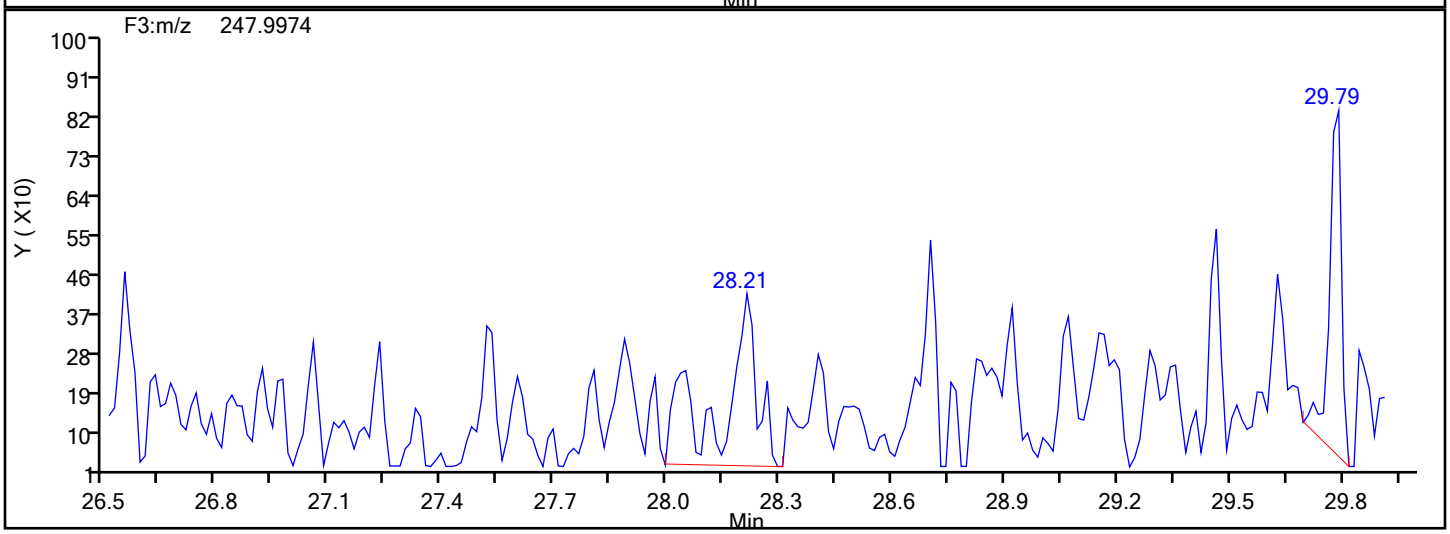
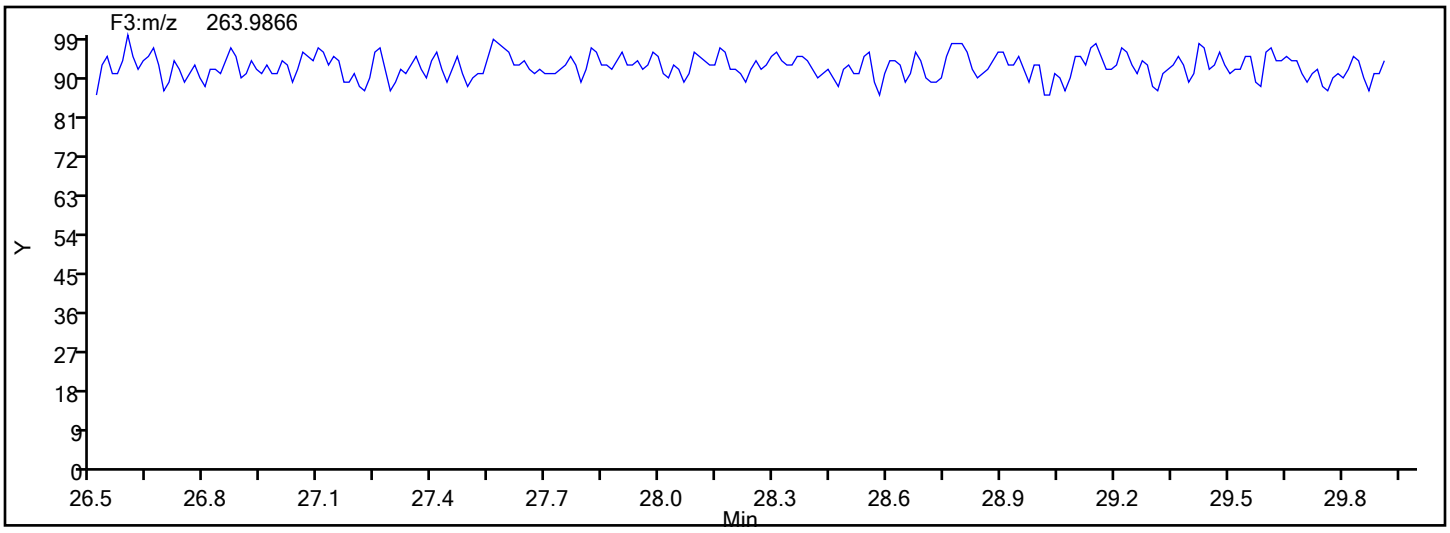
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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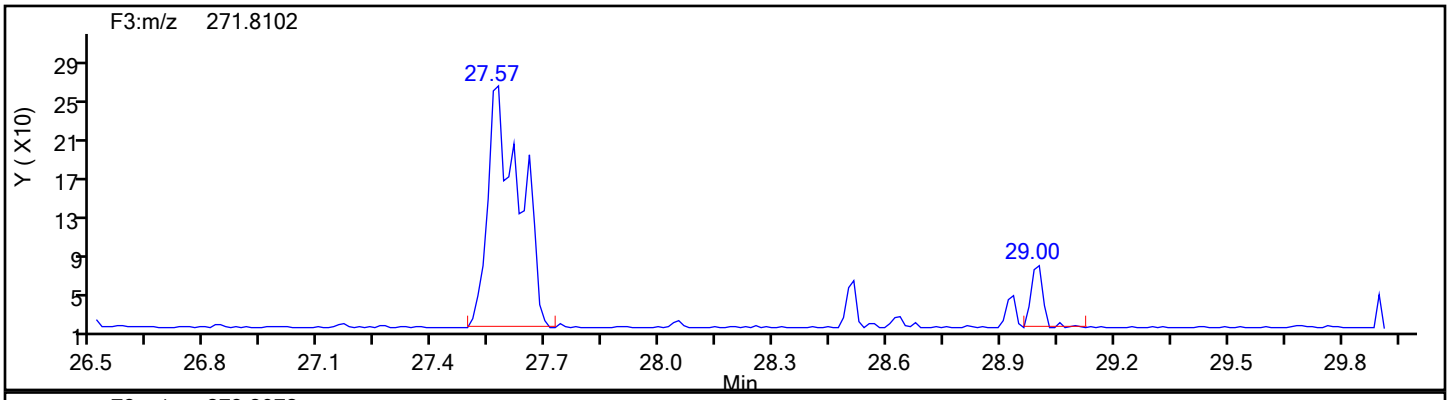
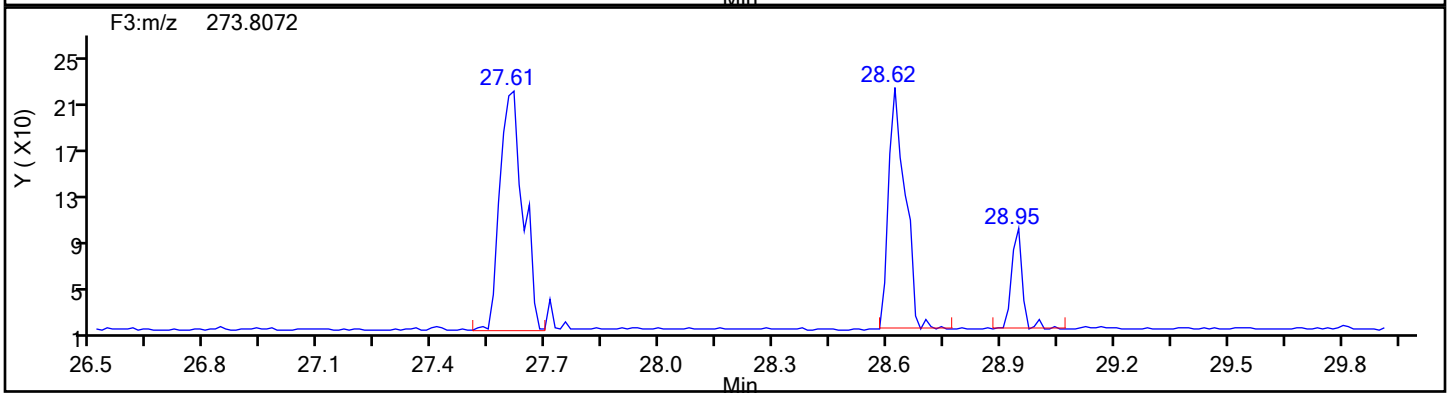
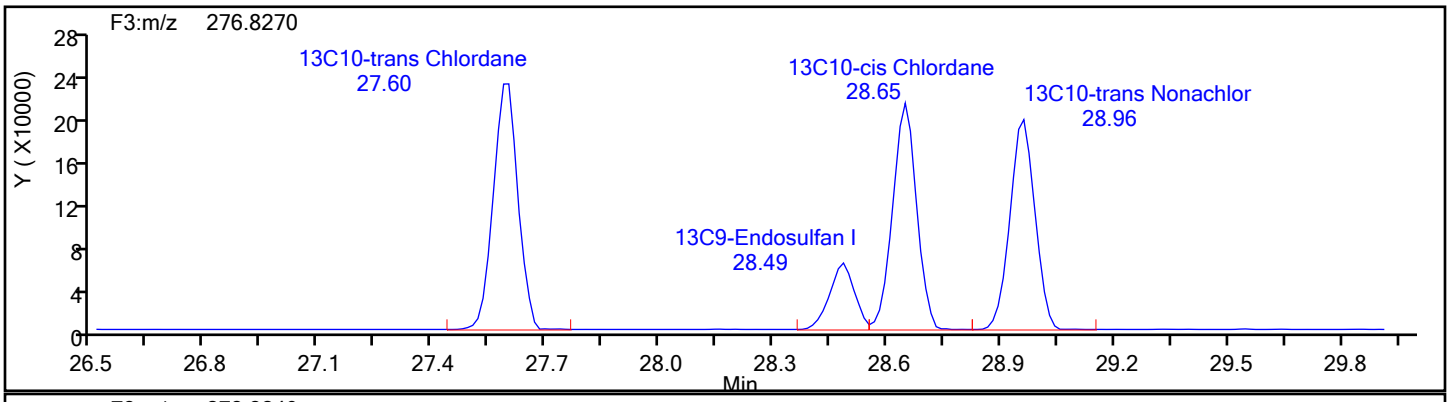
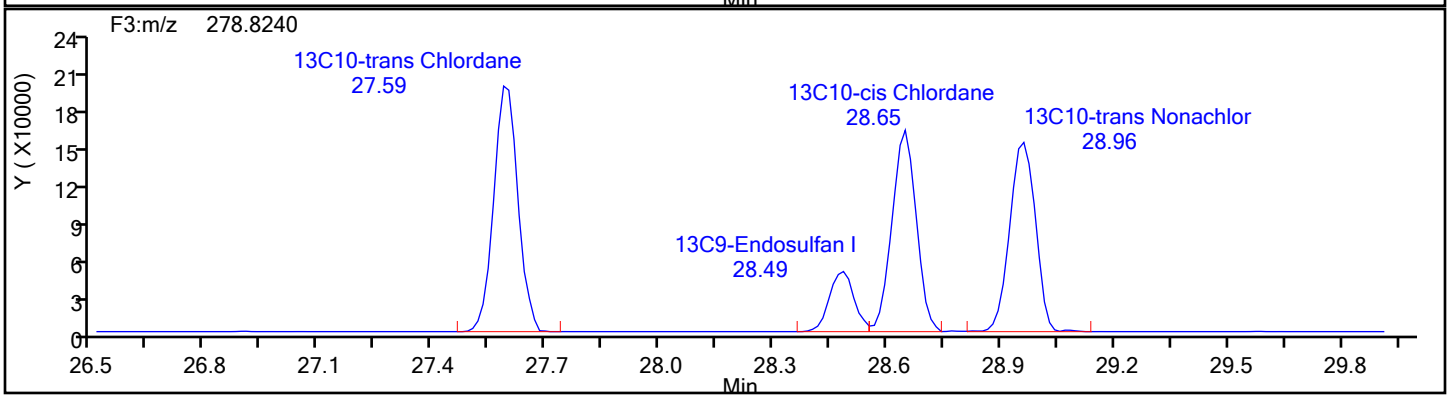
Chlordane





Chlordane Standards





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Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
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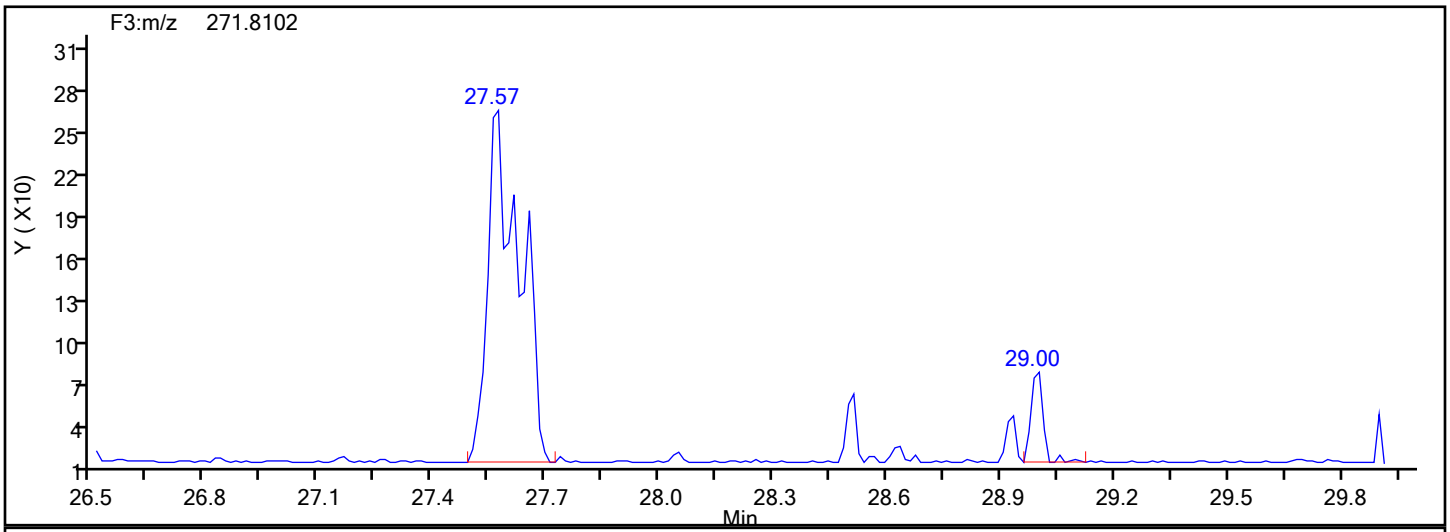
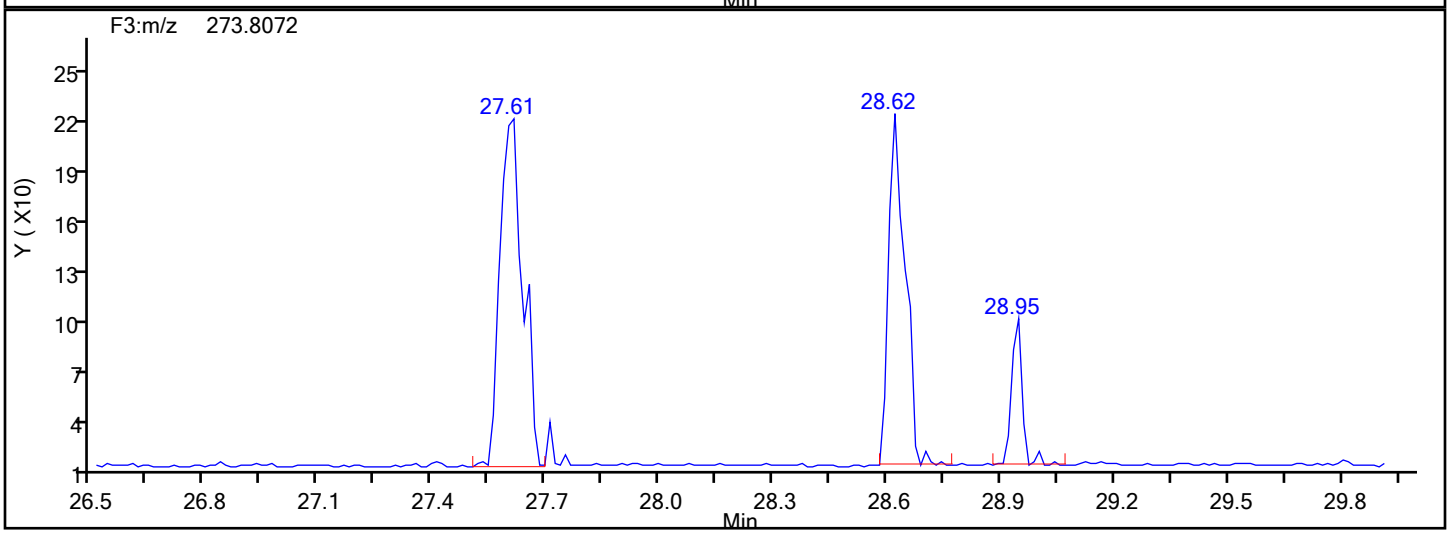
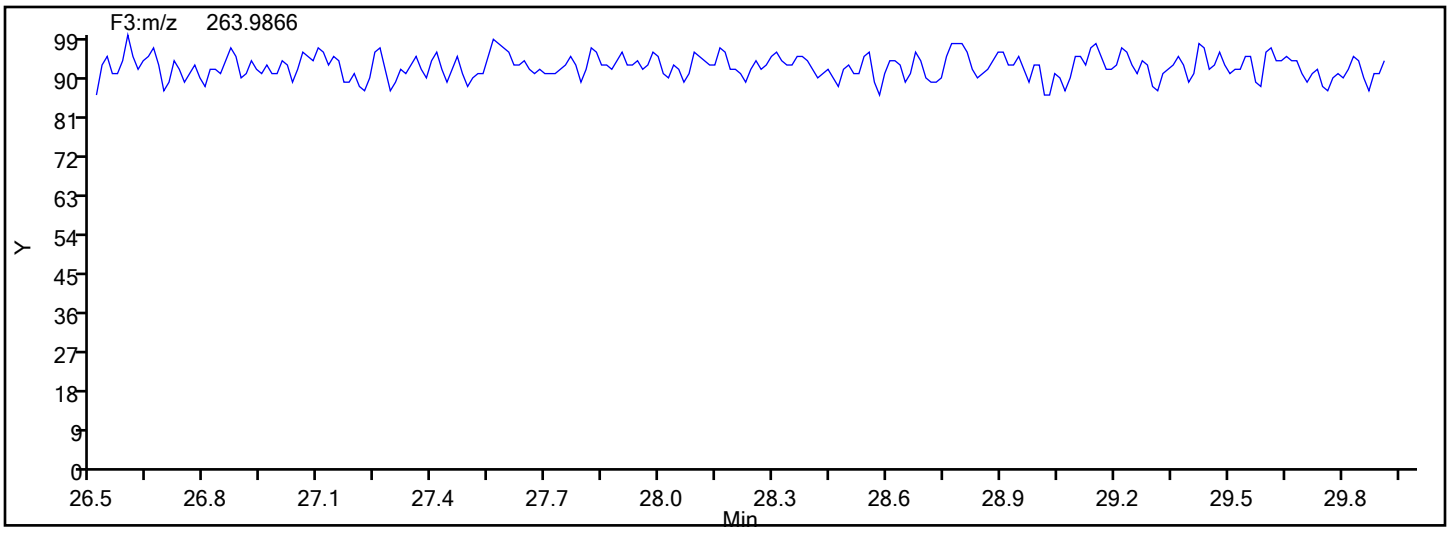
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
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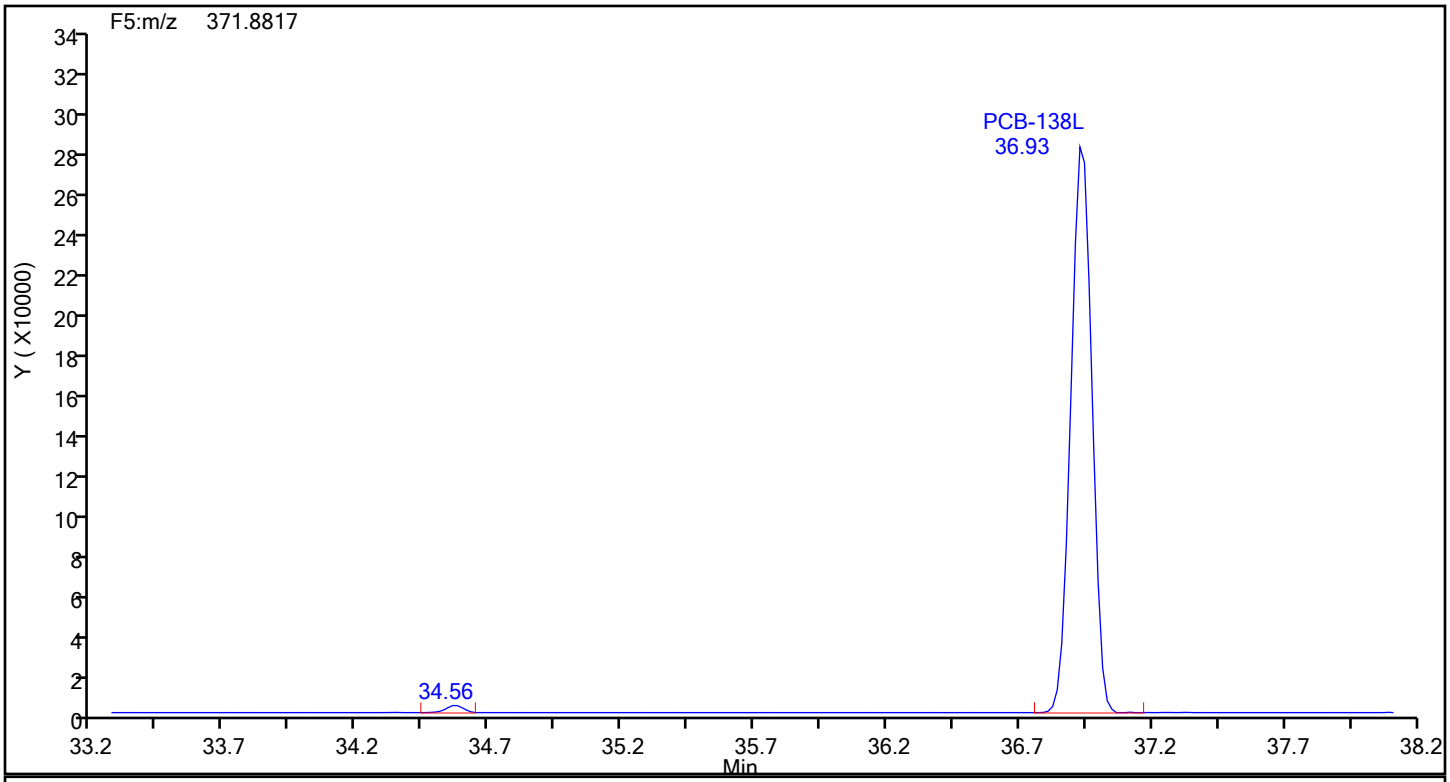
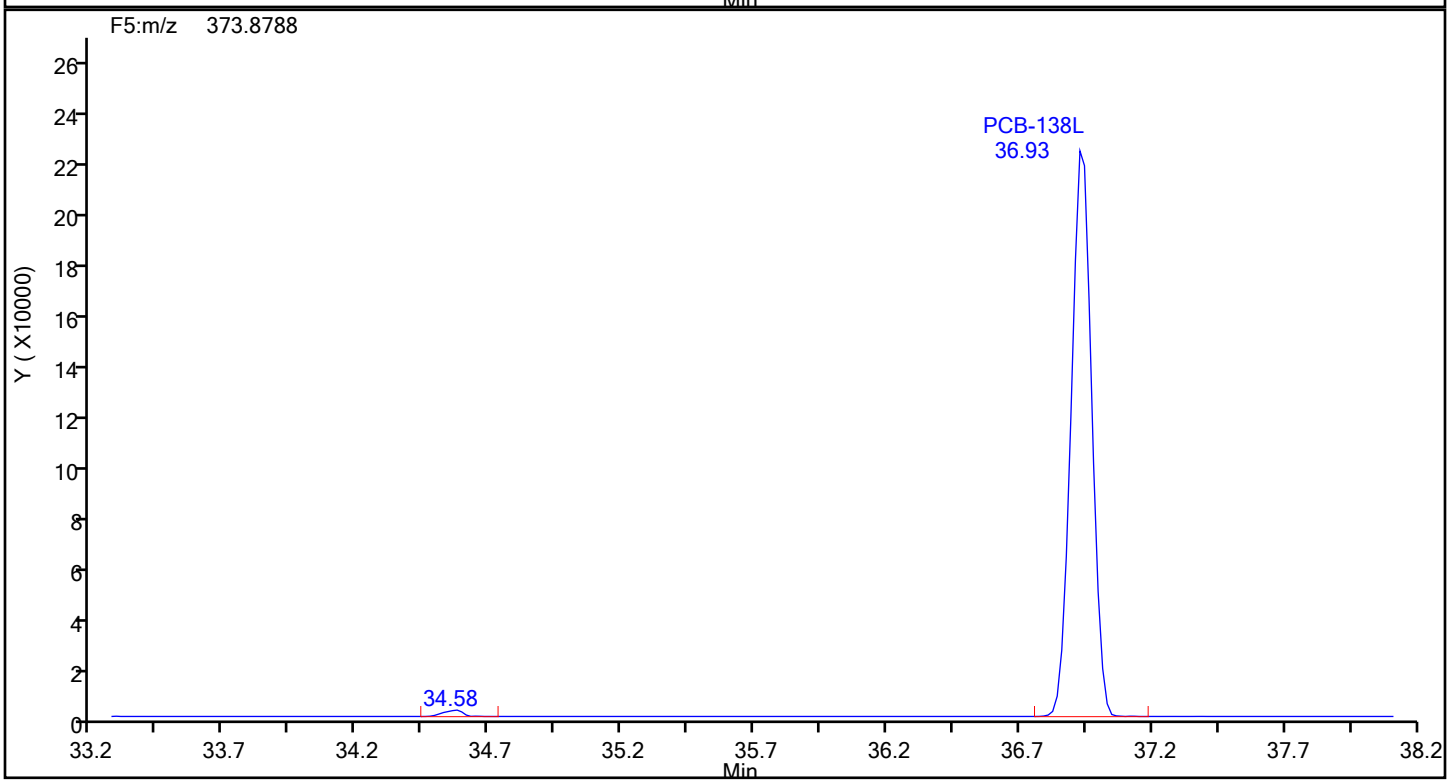
PCB-138L Standards





Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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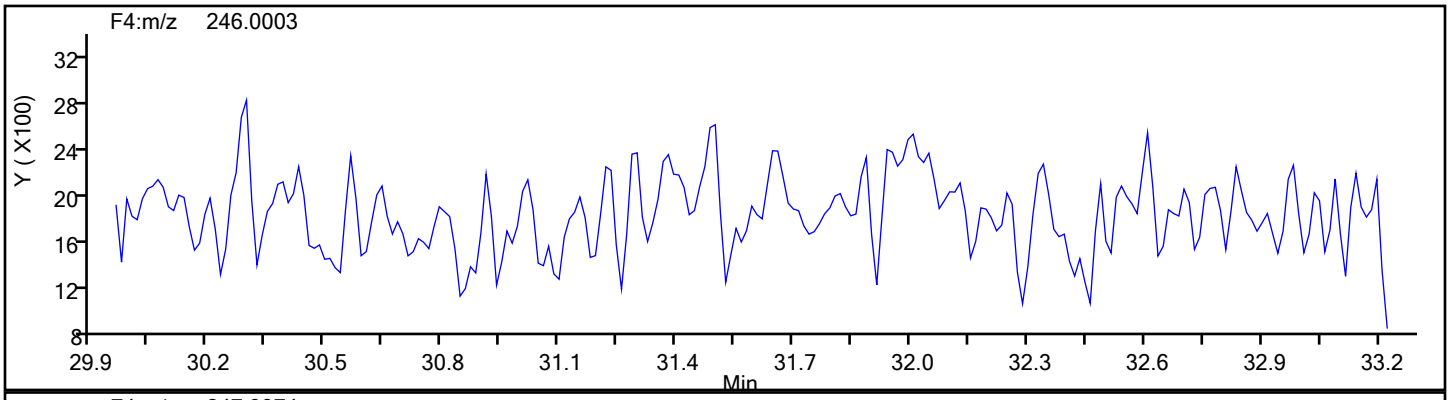
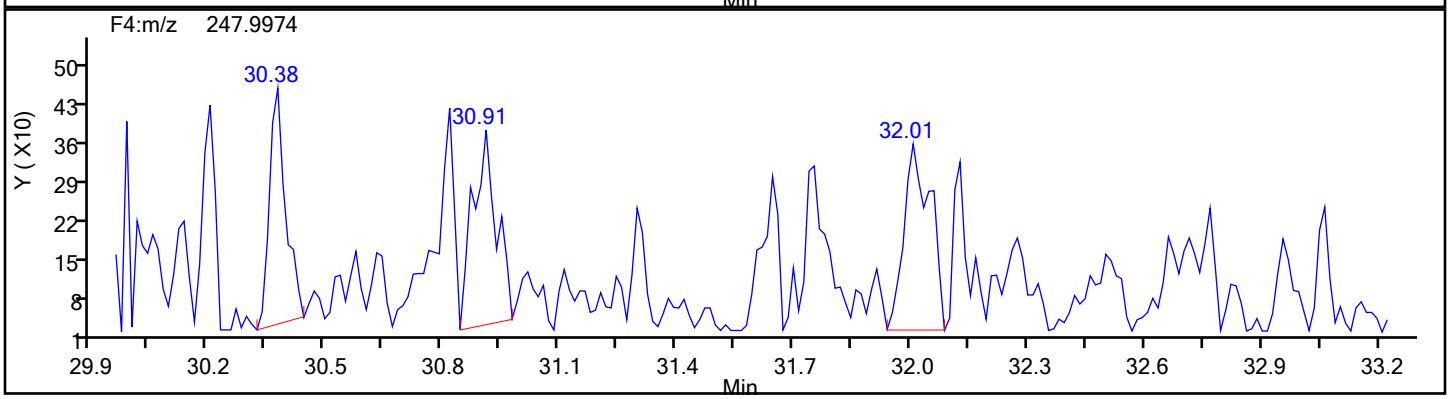
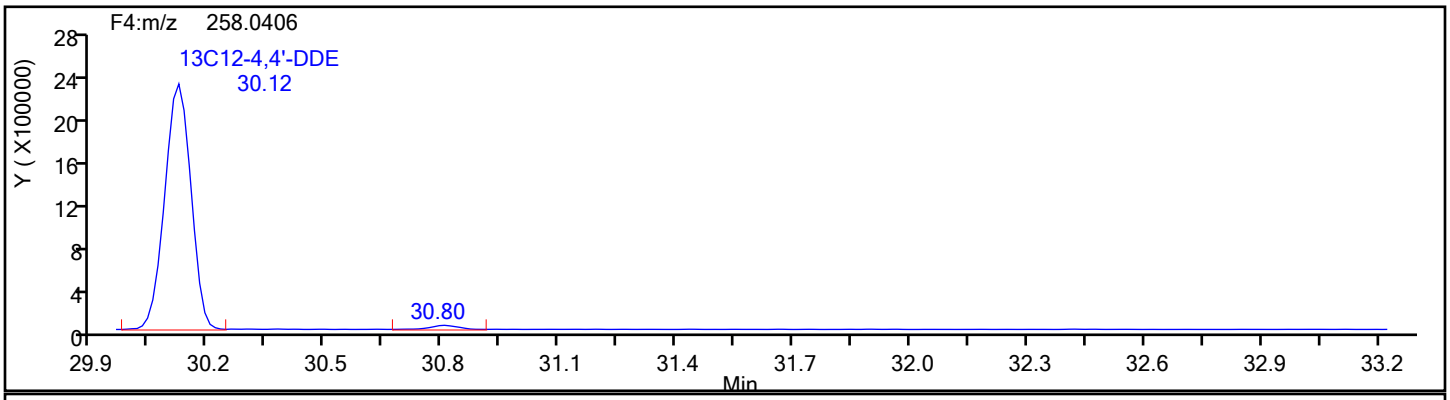
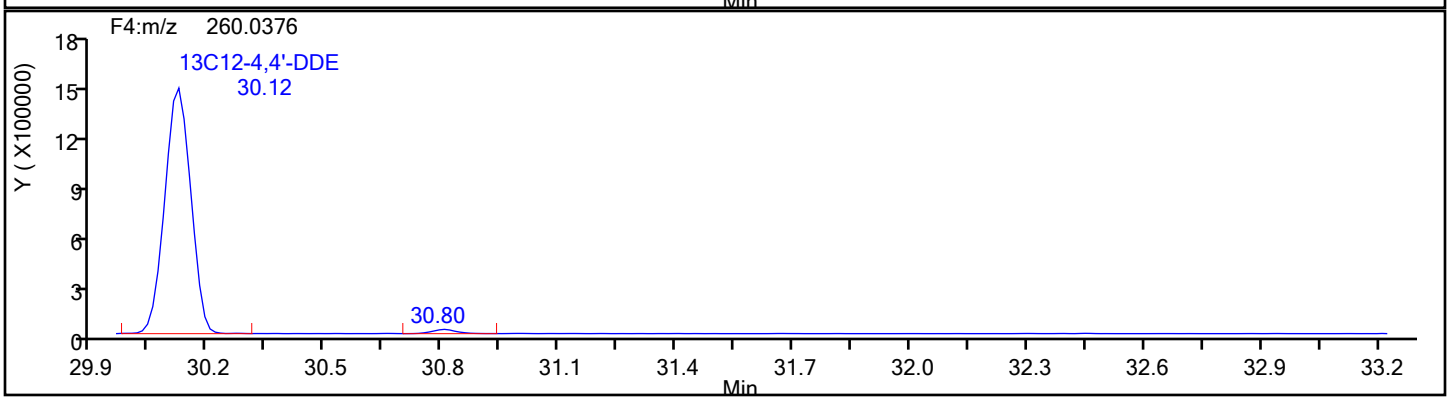
4,4'-DDE





4,4'-DDE Standards





Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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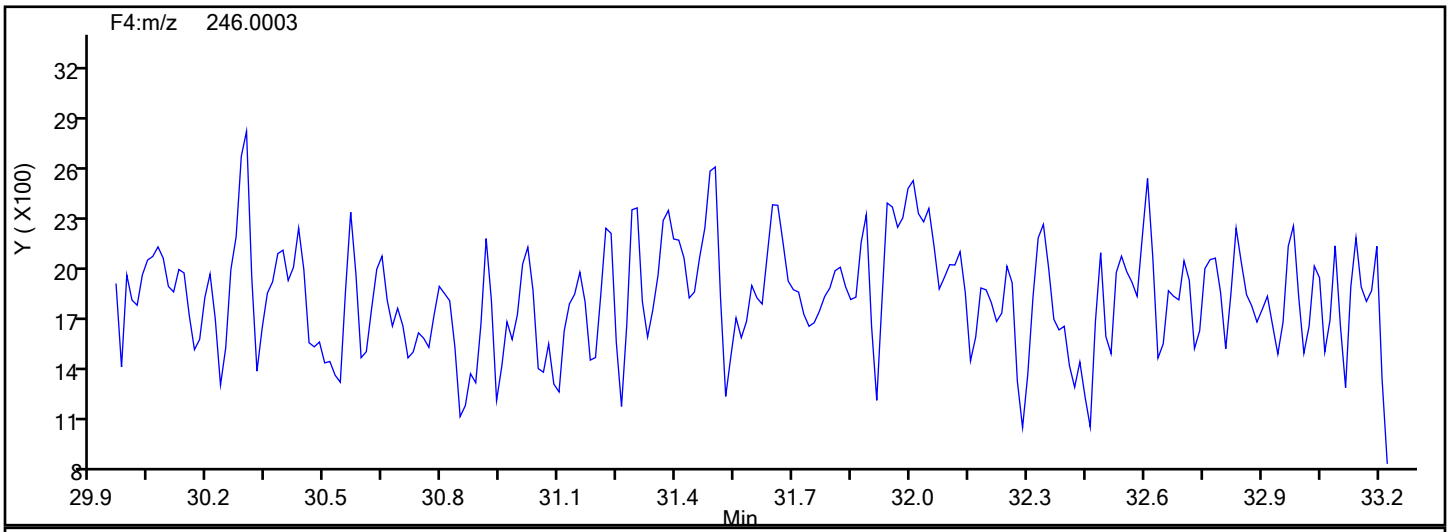
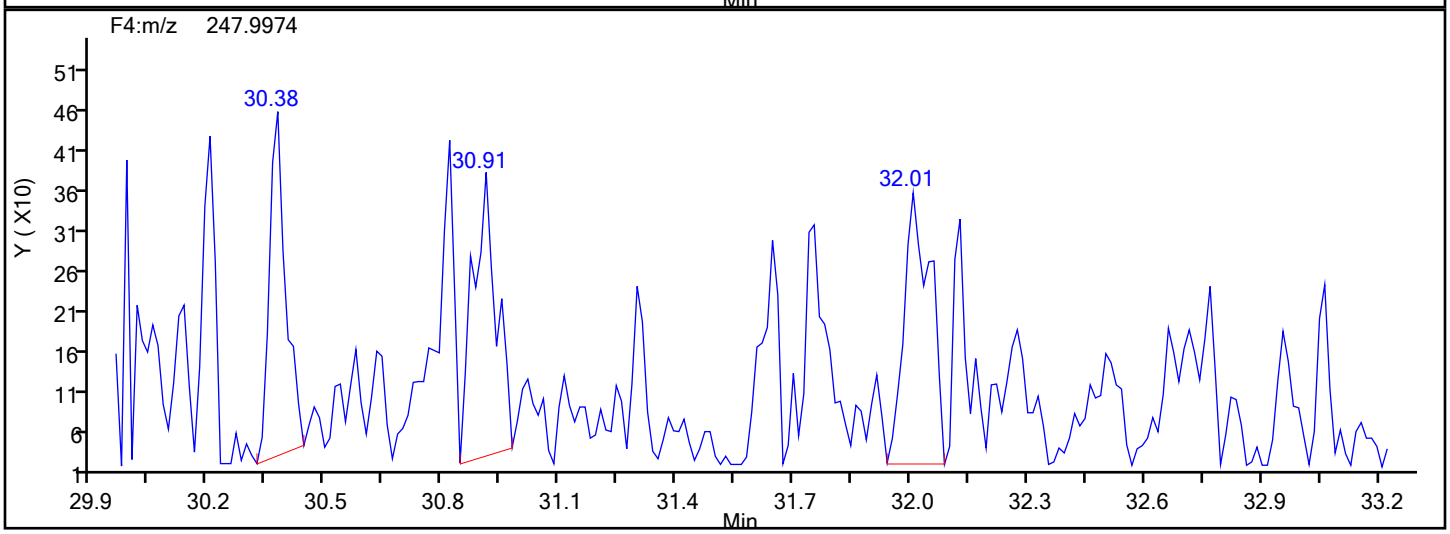
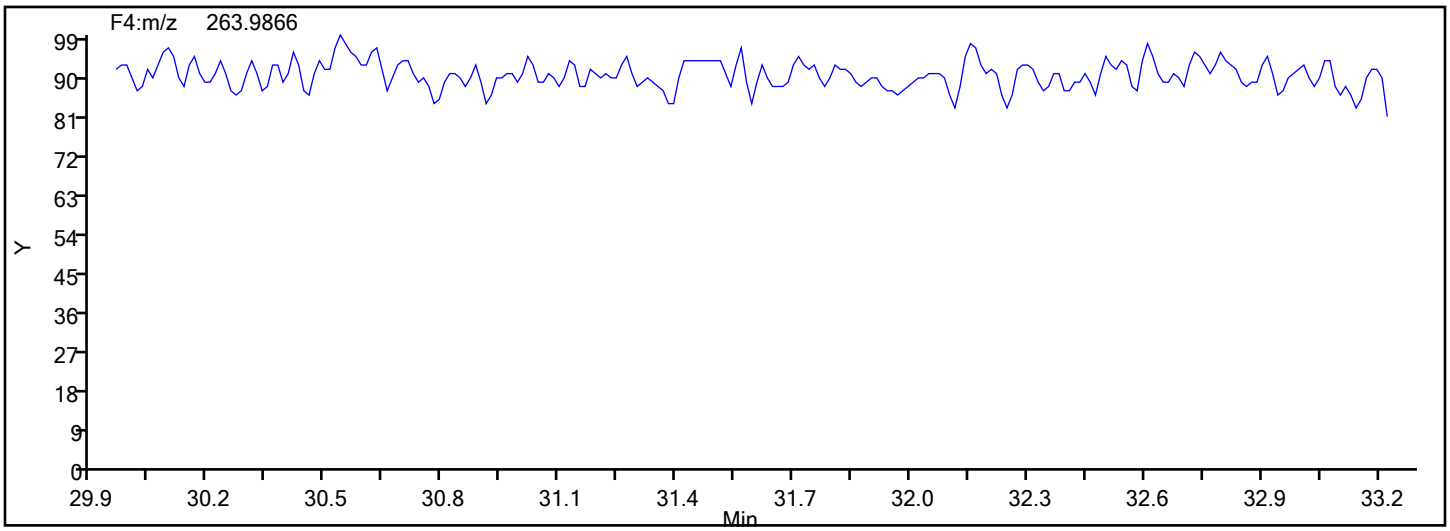
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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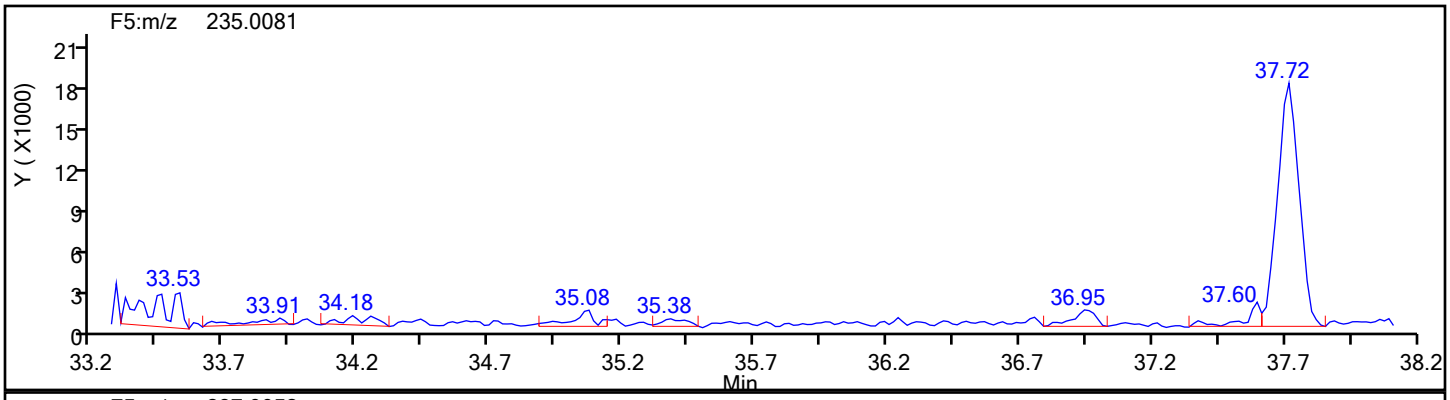
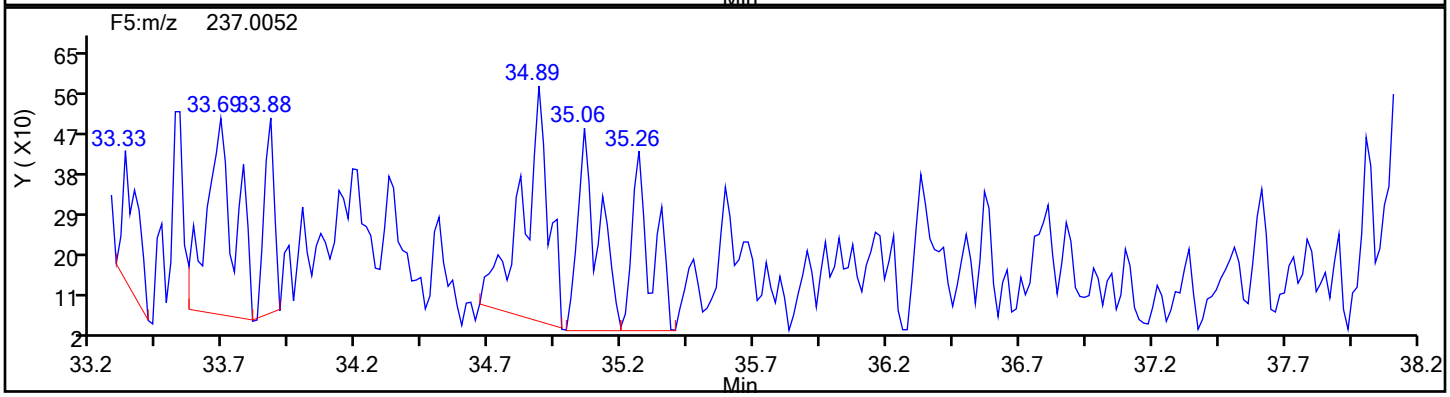
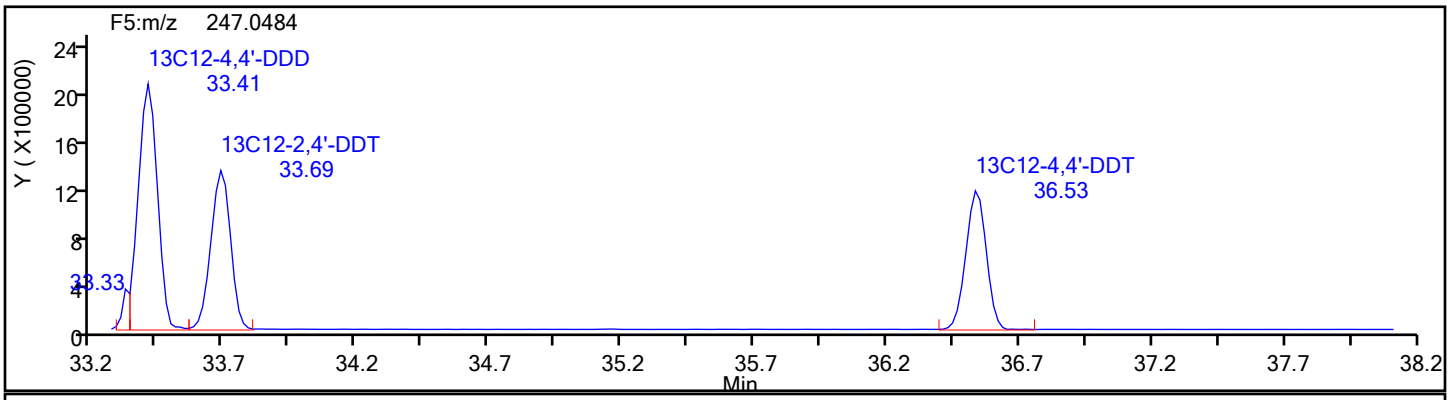
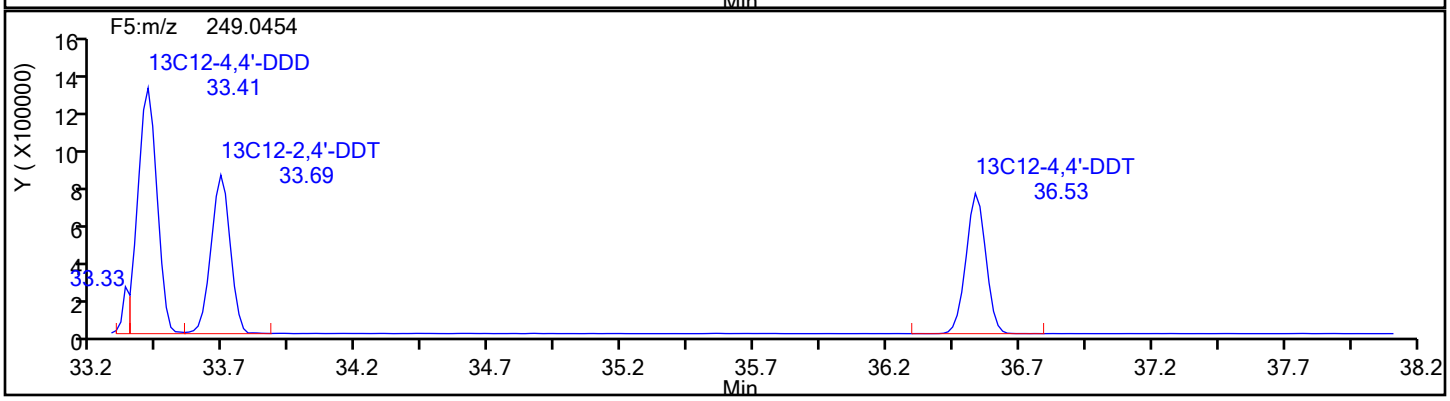
DDD





DDD Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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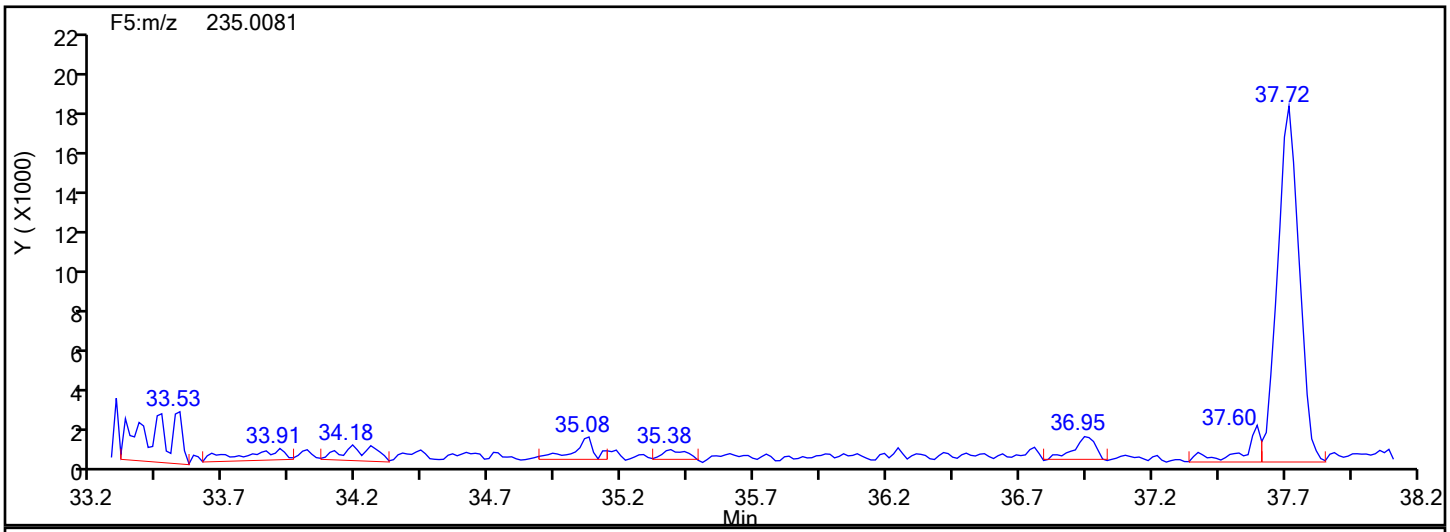
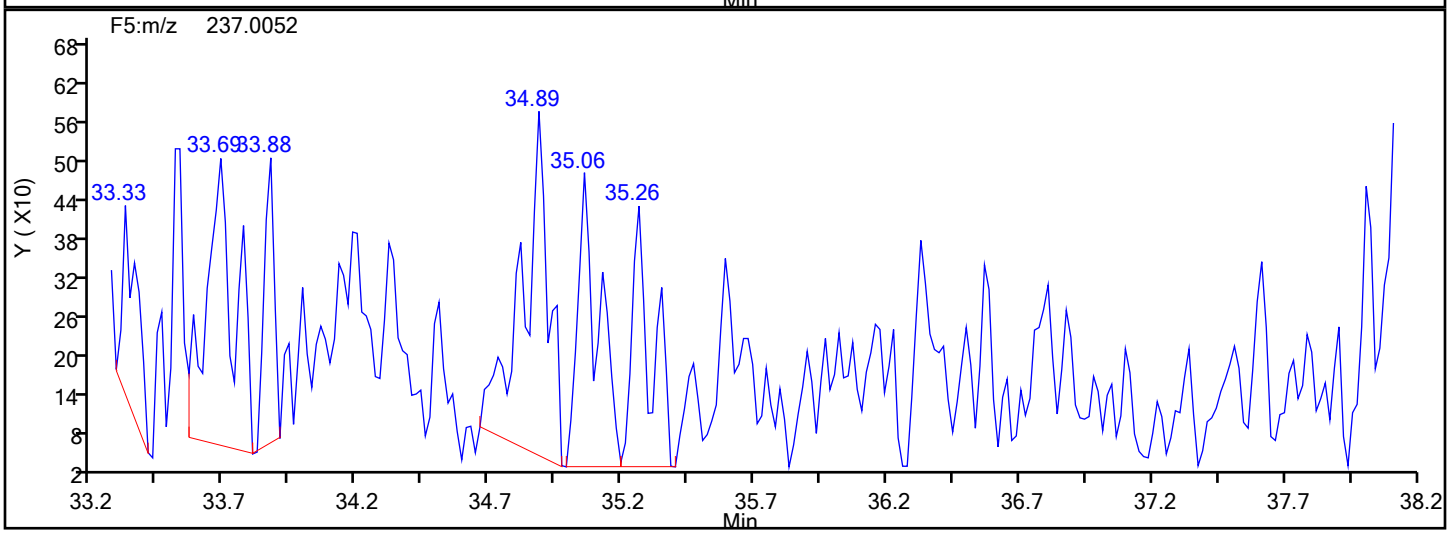
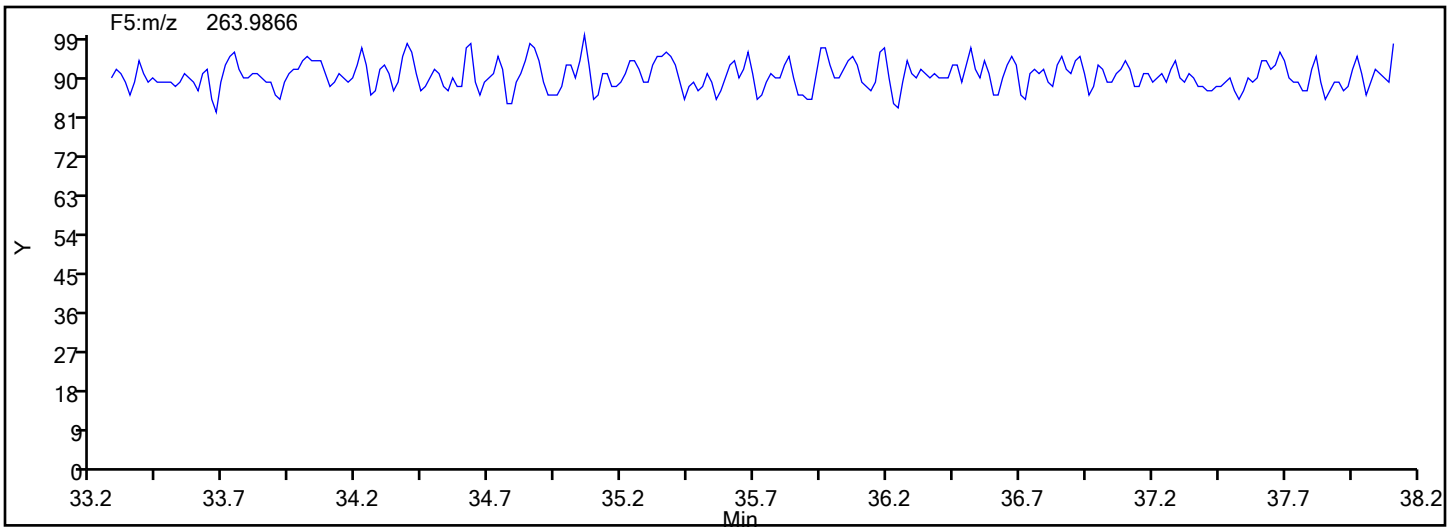
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

DDD





DDD Lock Mass



Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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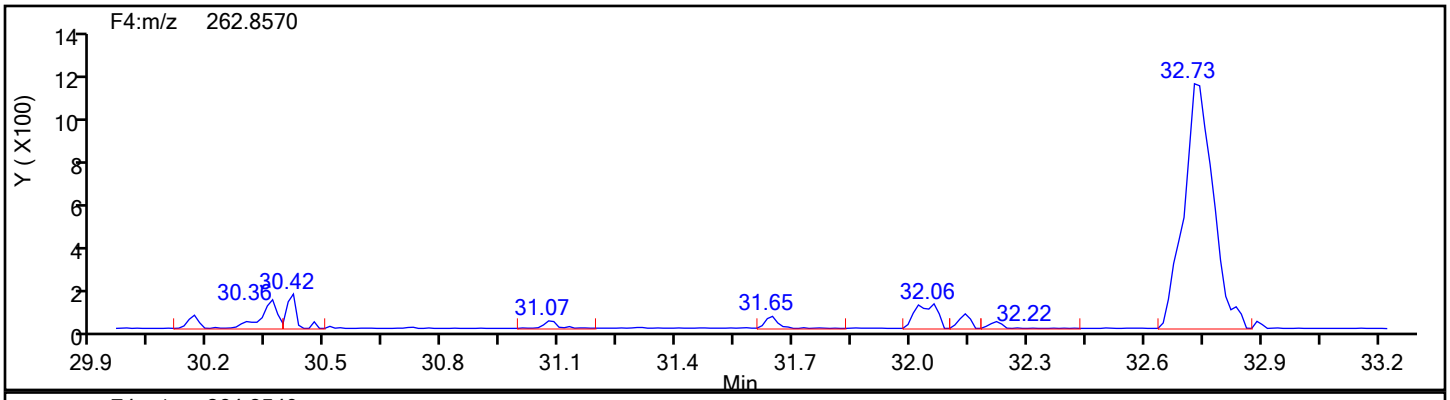

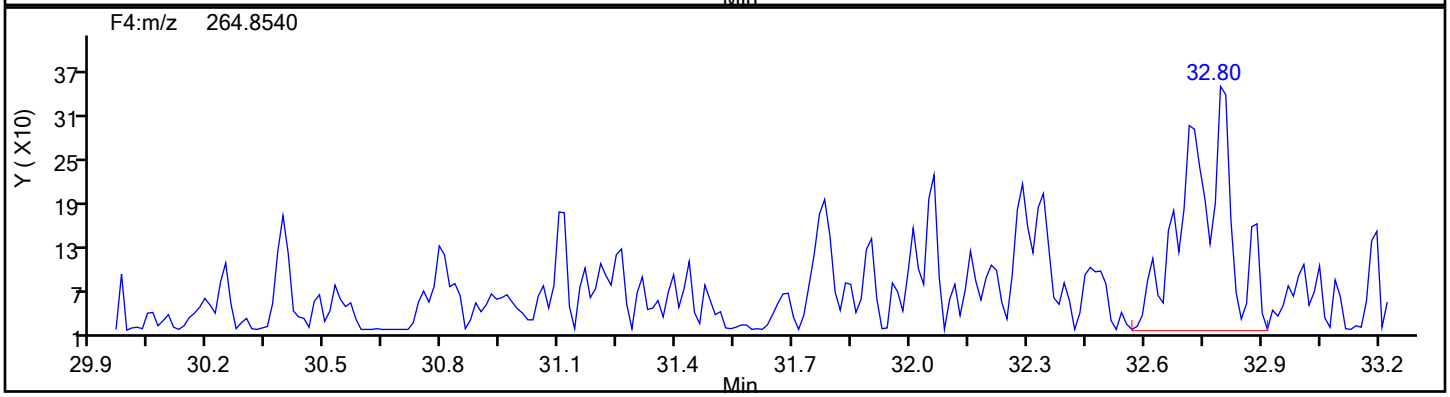

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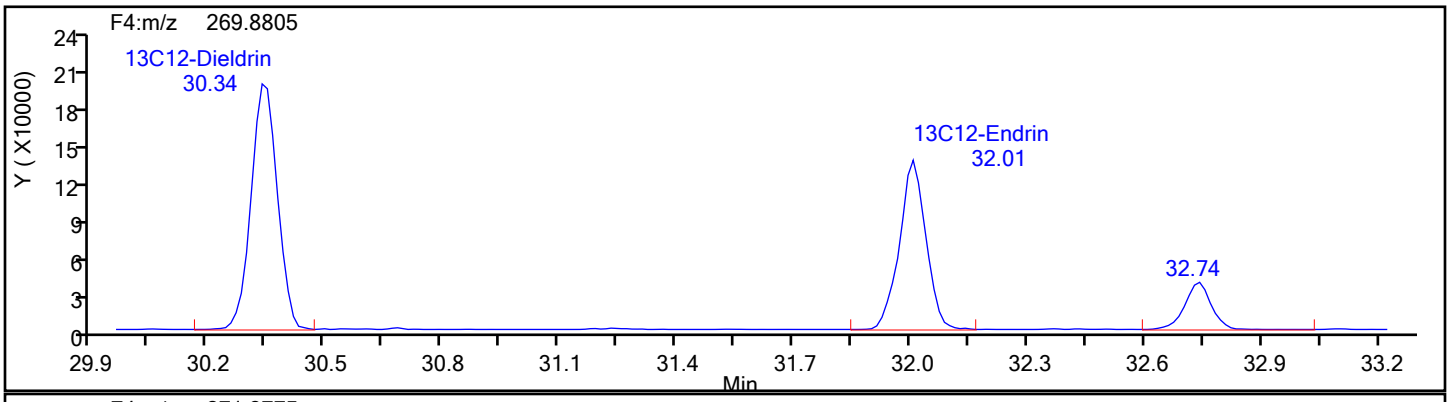

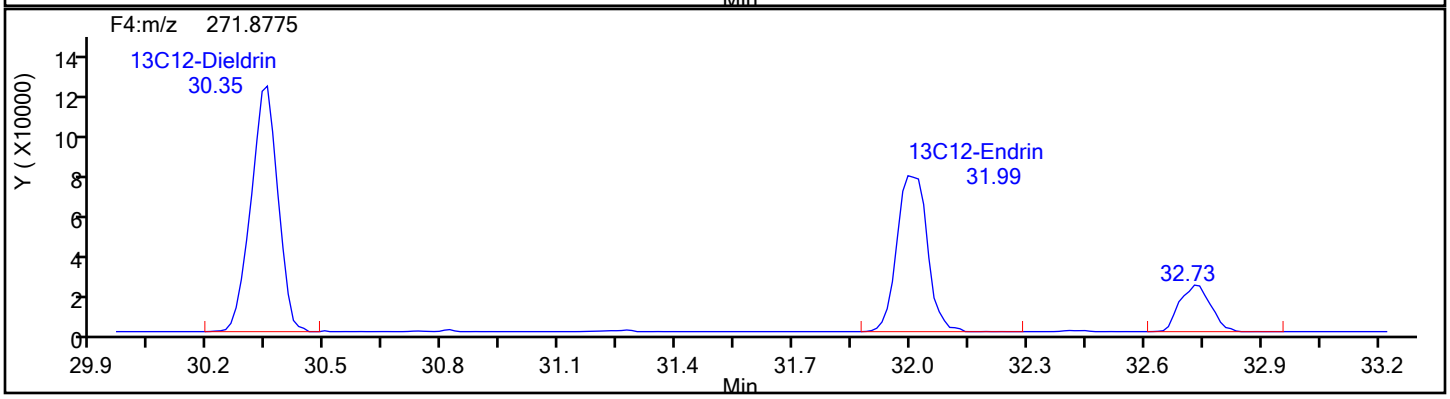

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Eurofins Knoxville

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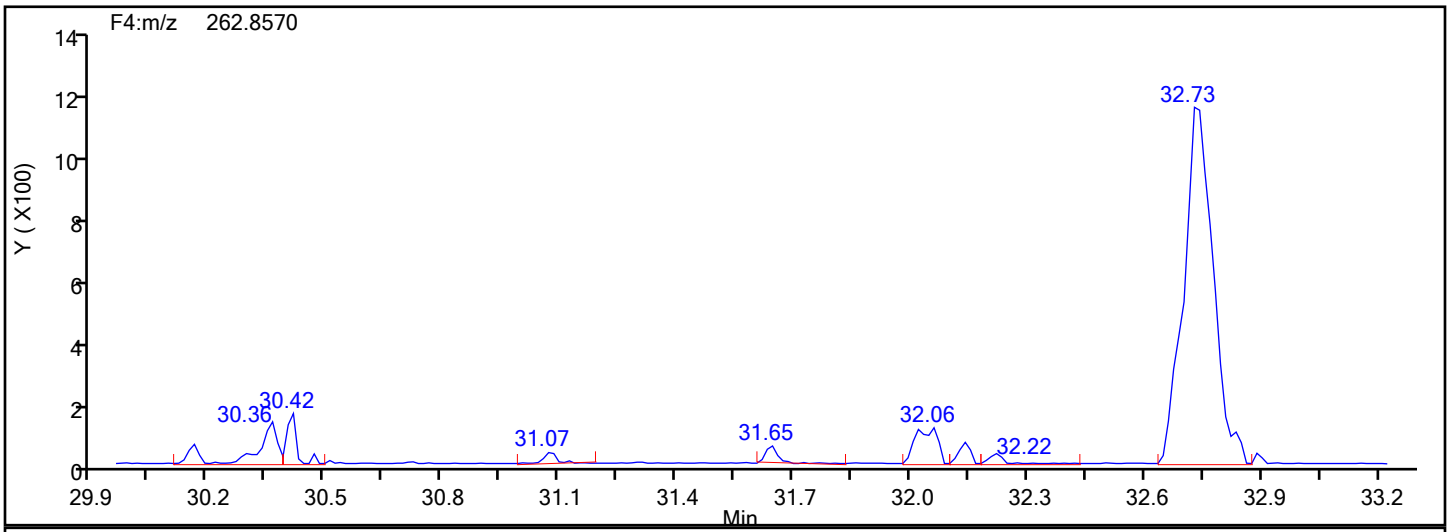
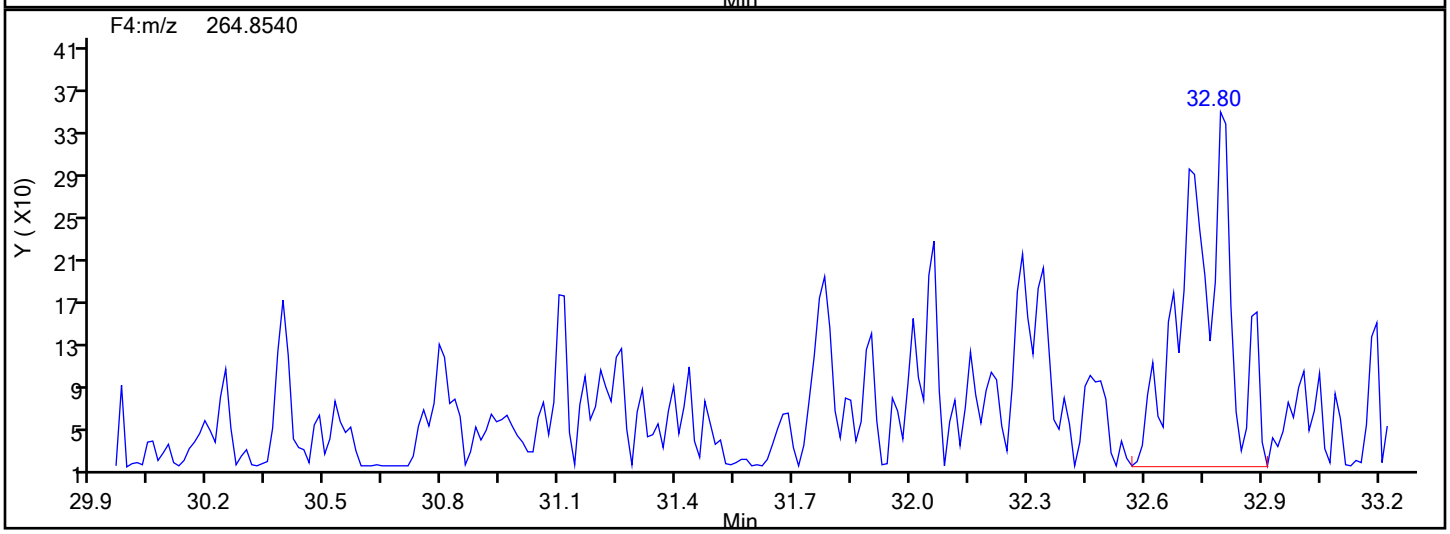
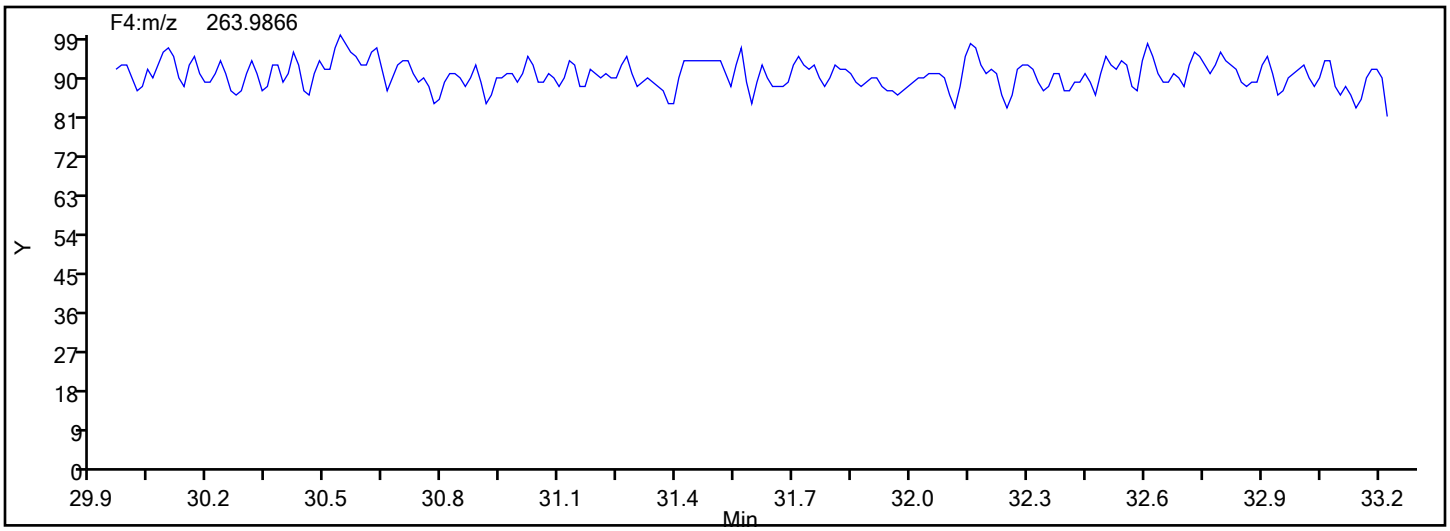




Dieldrin Lock Mass



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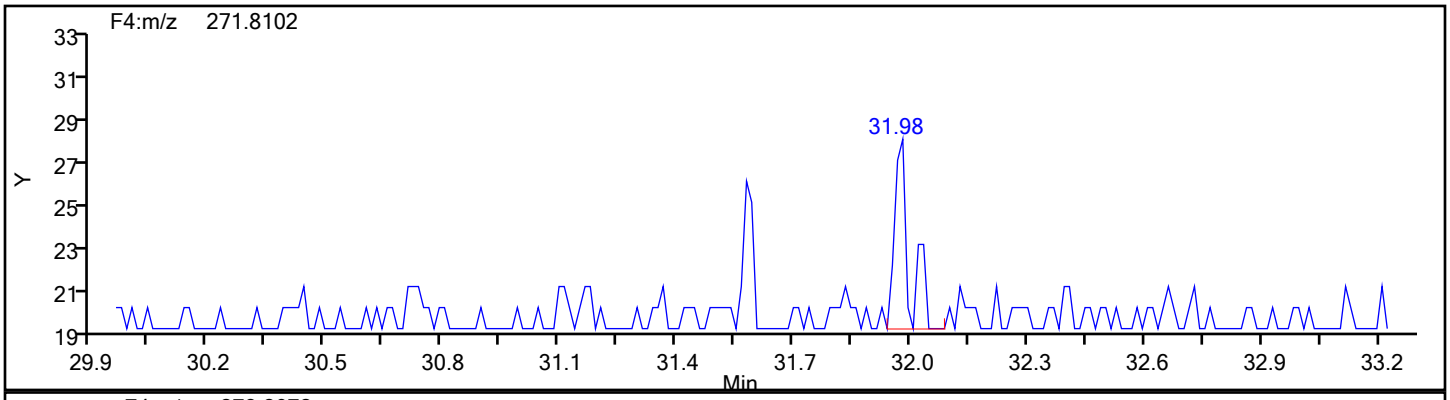

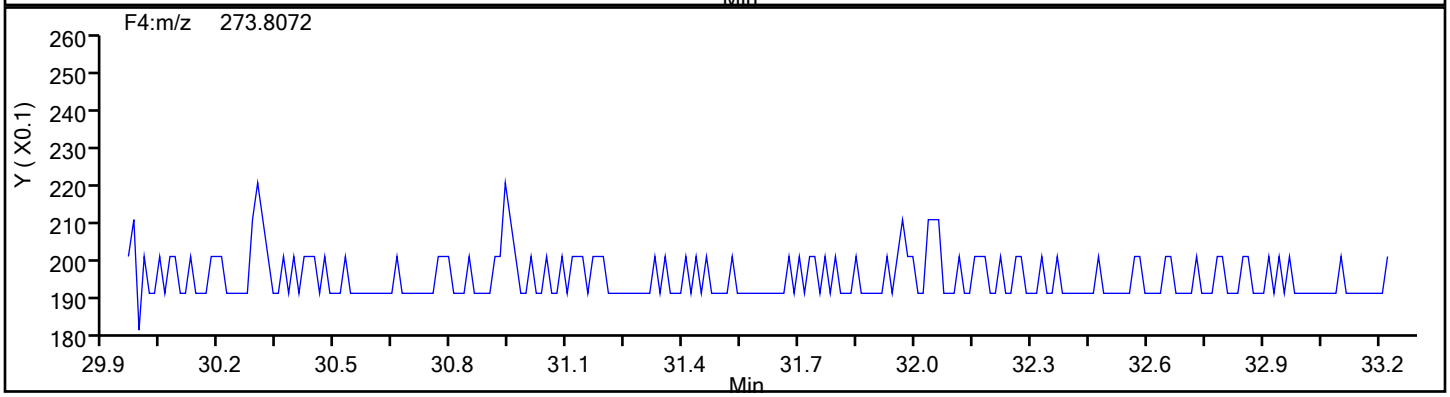

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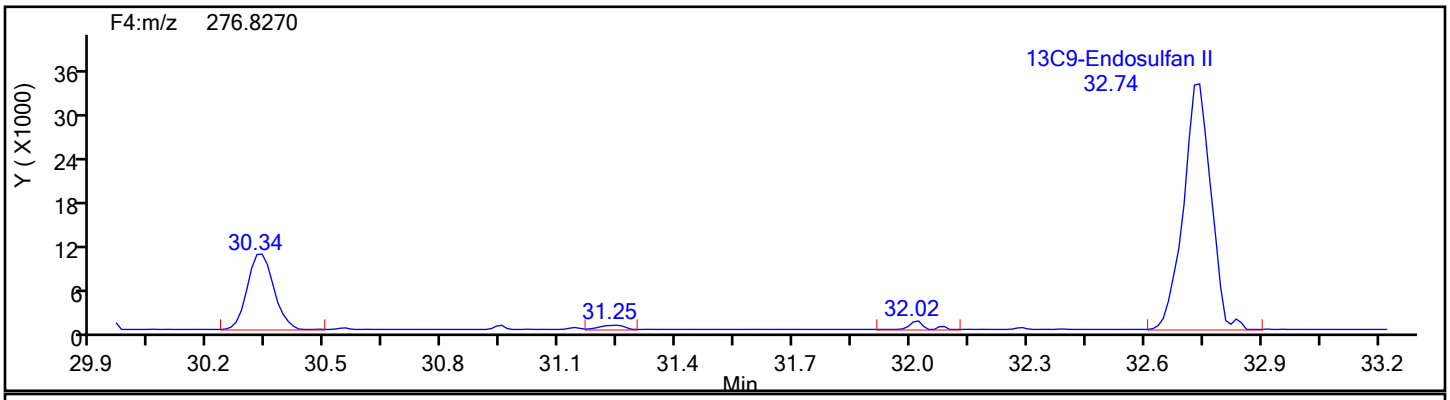

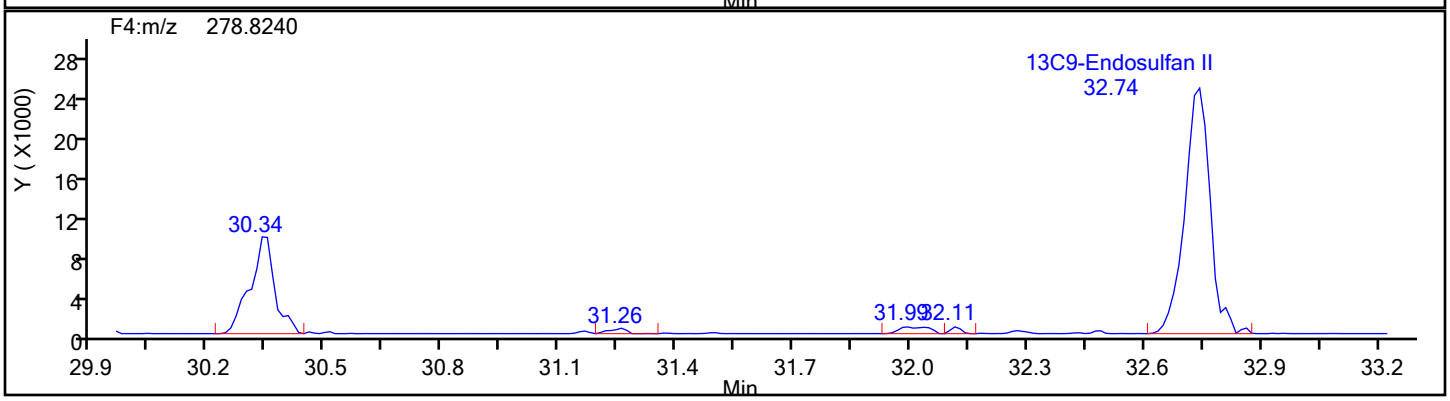

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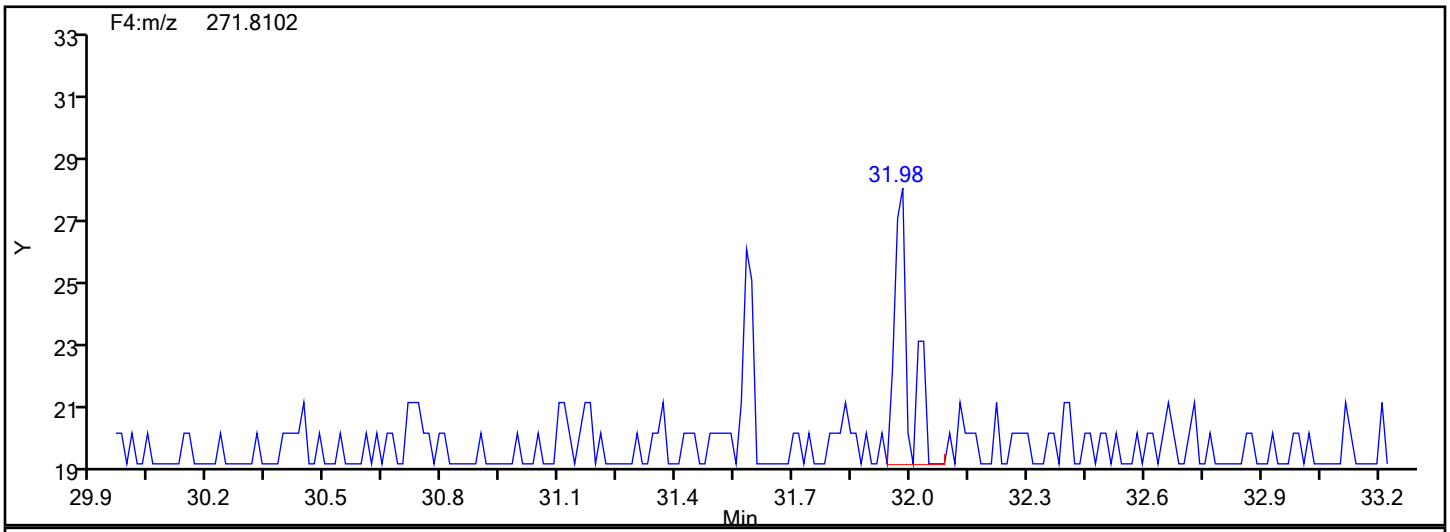

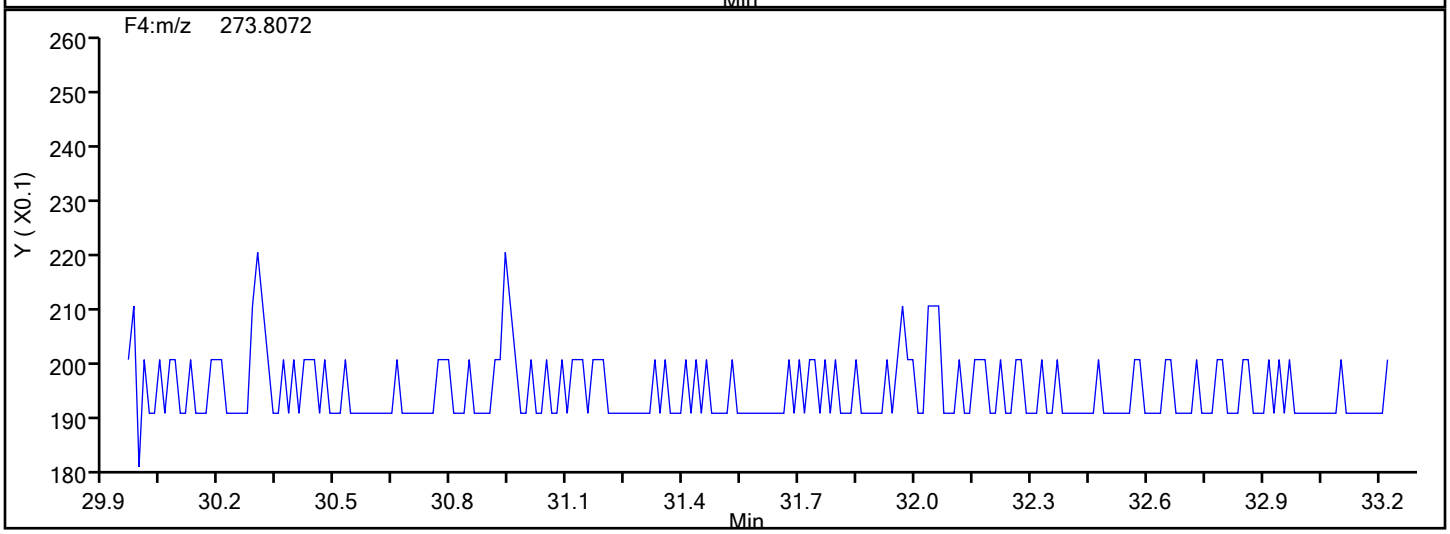

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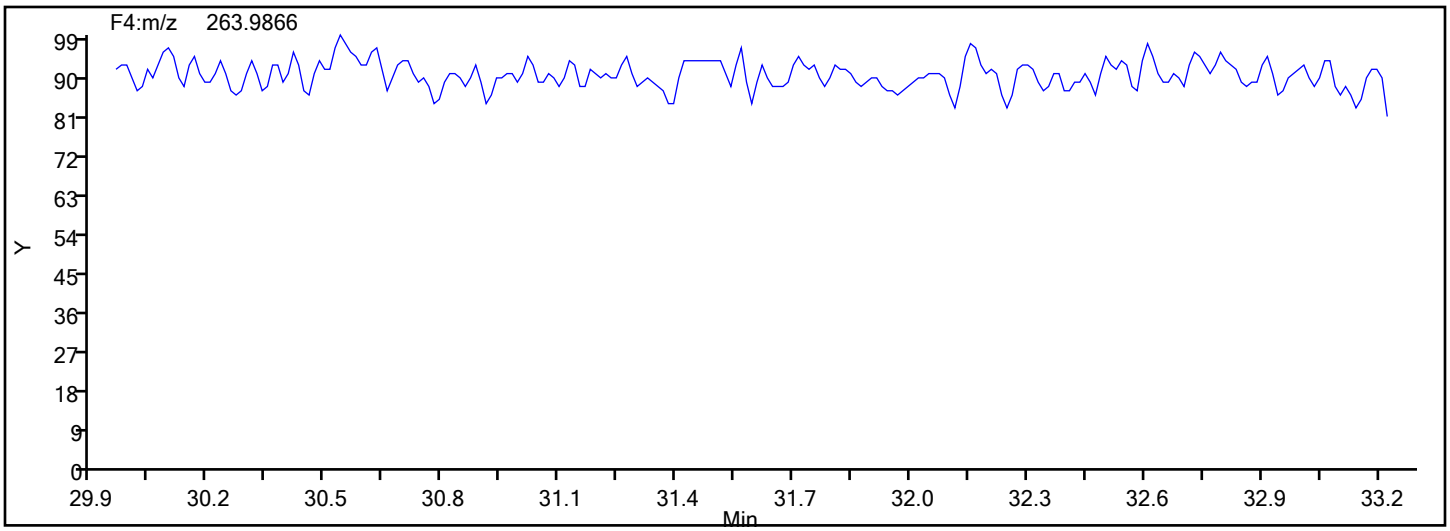

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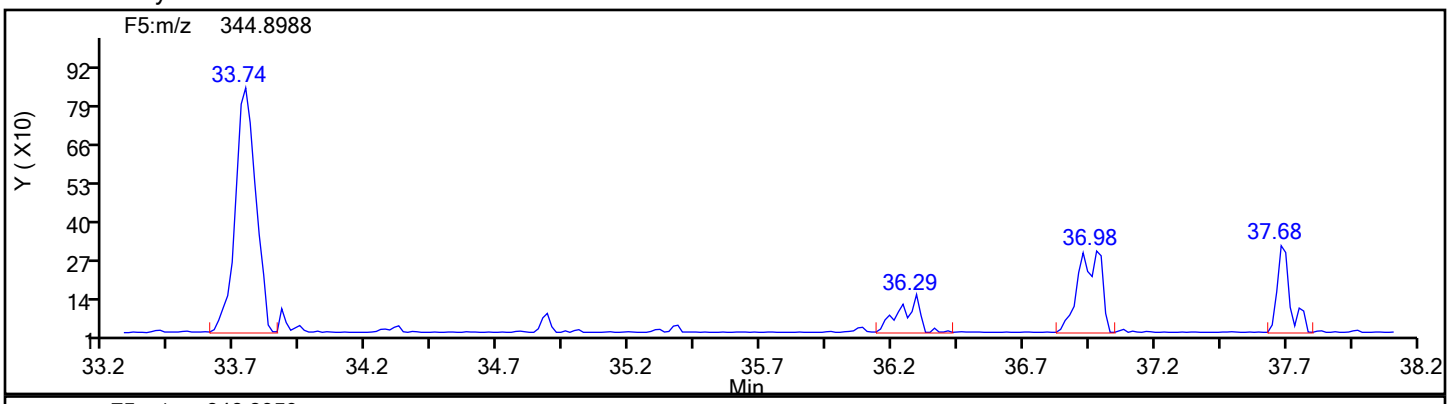
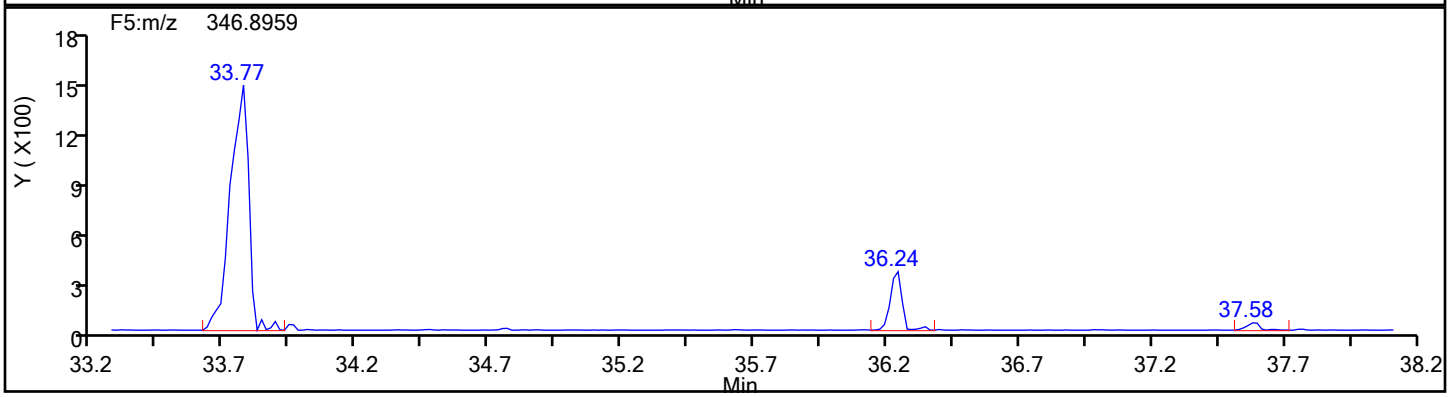
Endrin aldehyde





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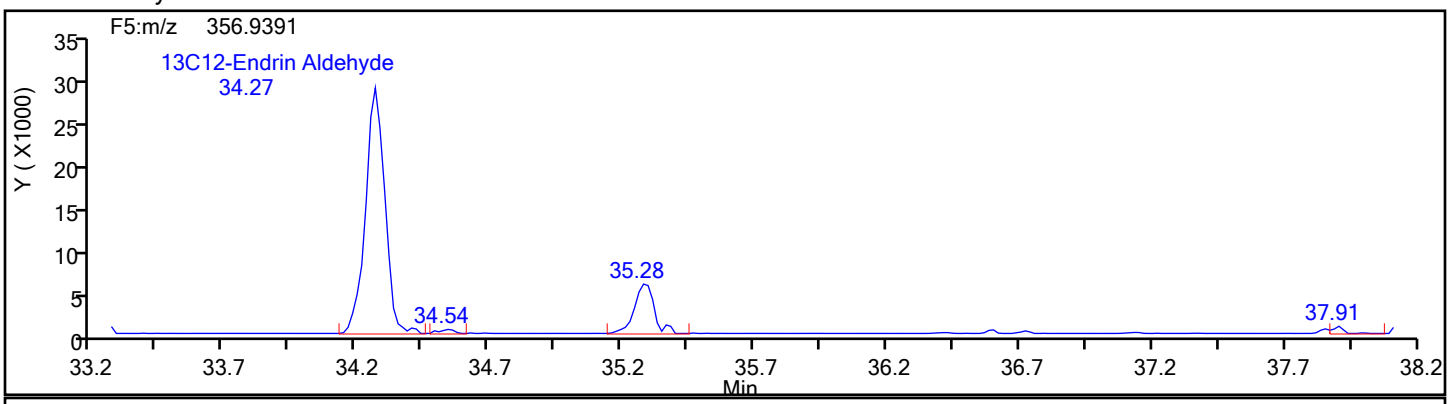

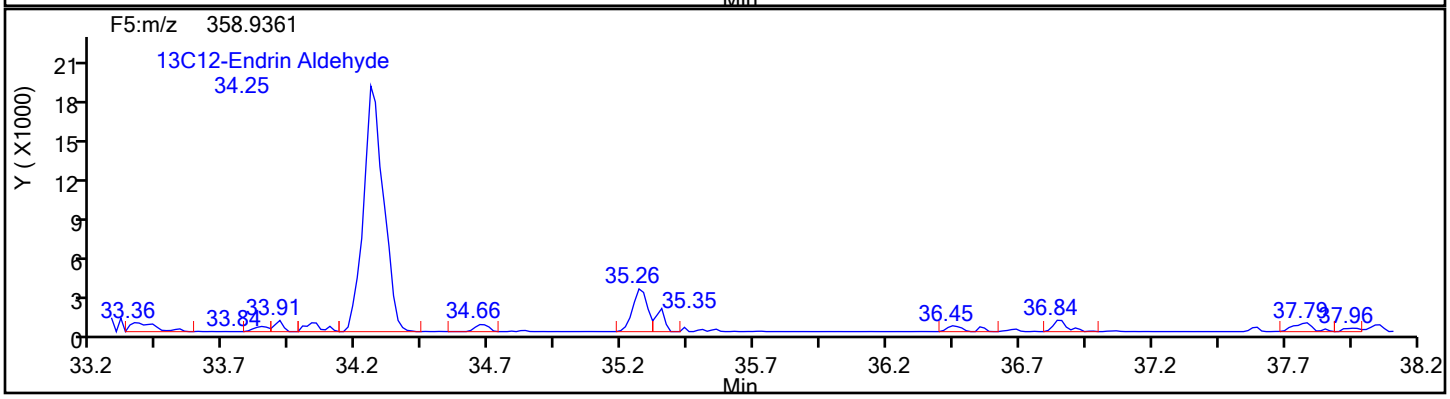

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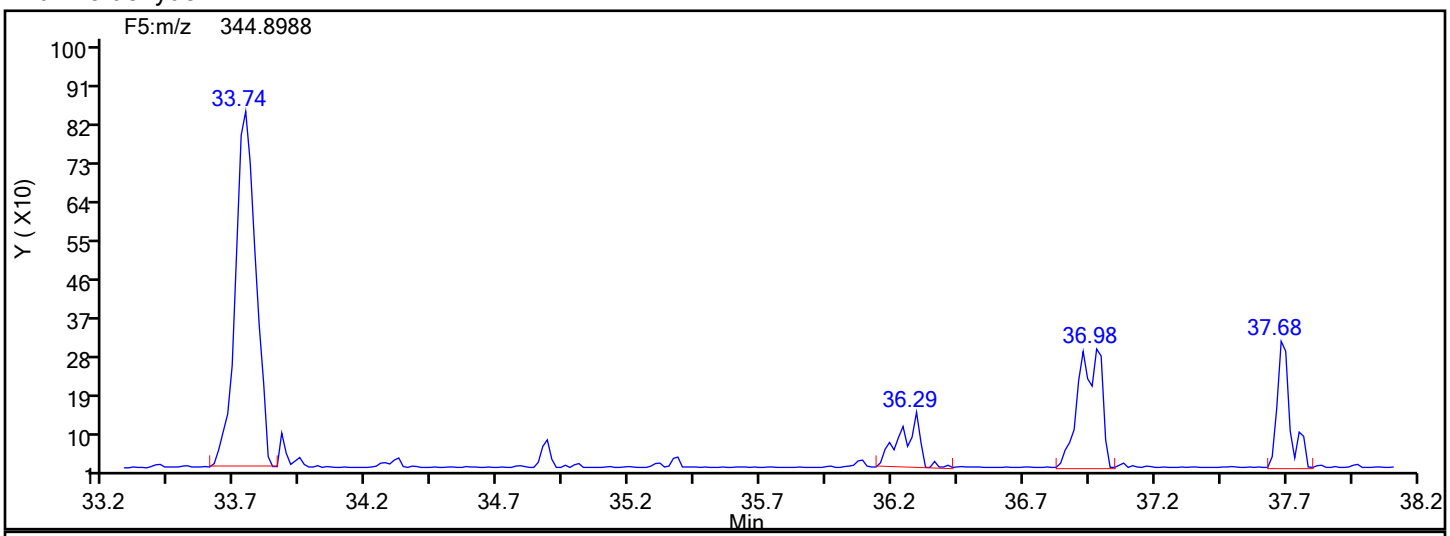

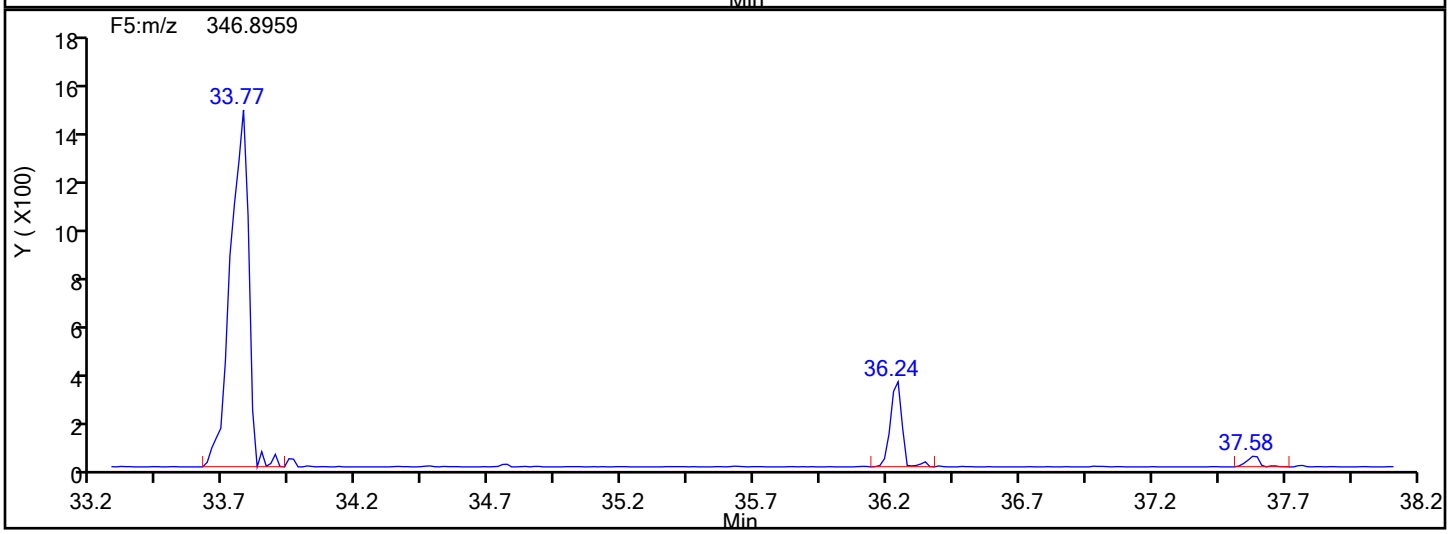

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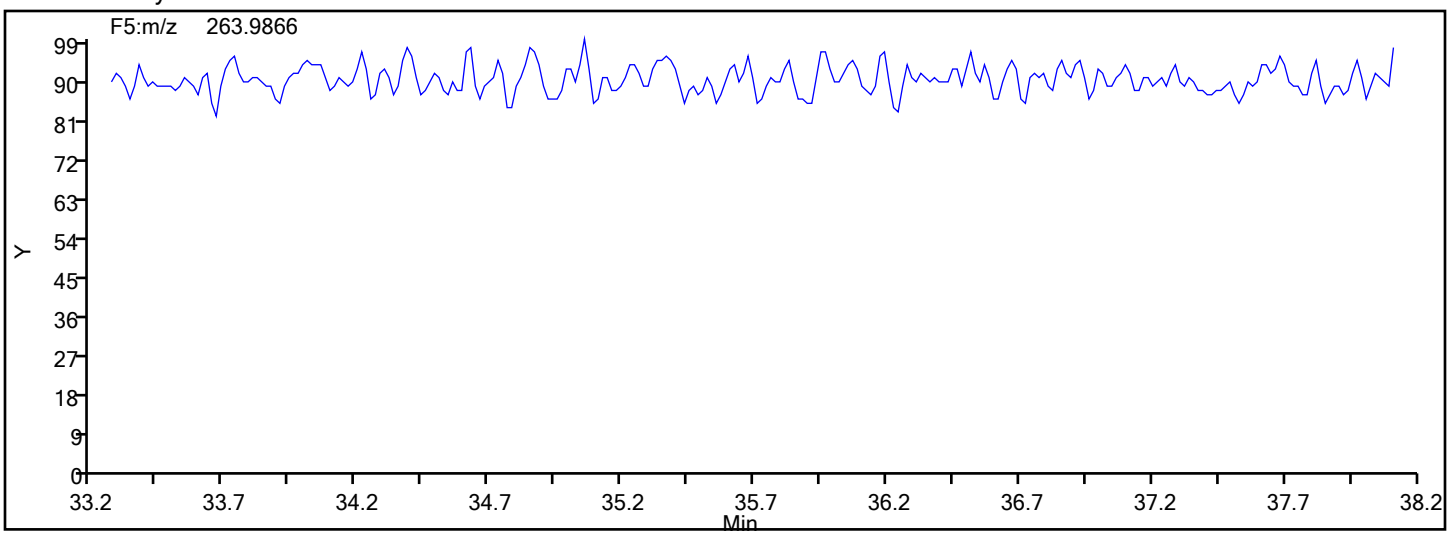

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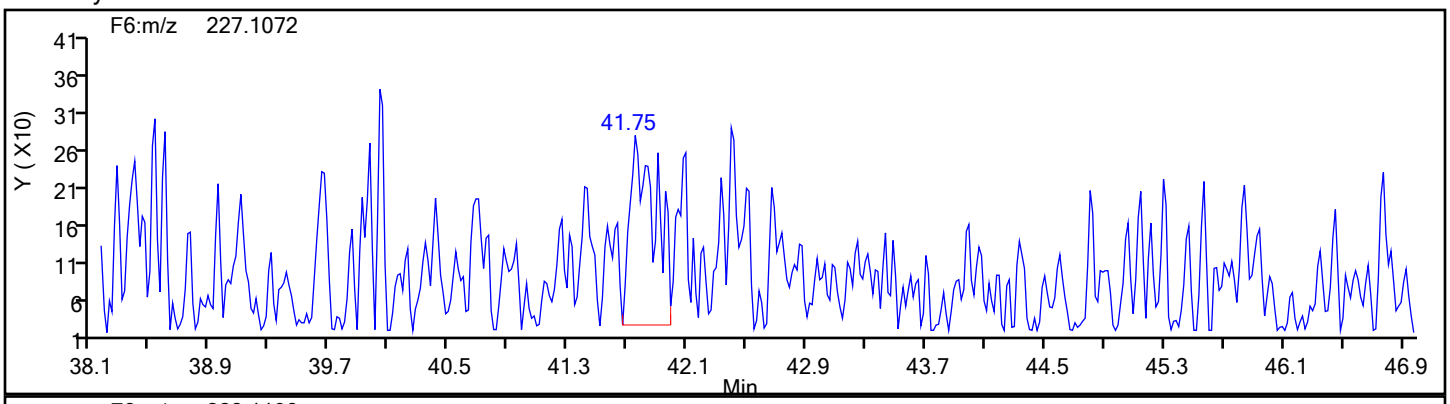
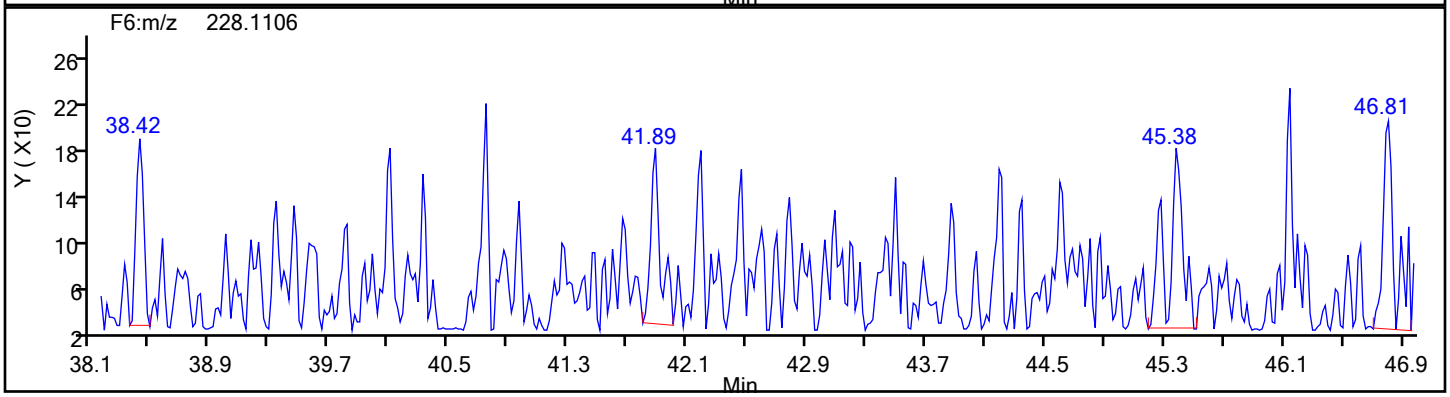
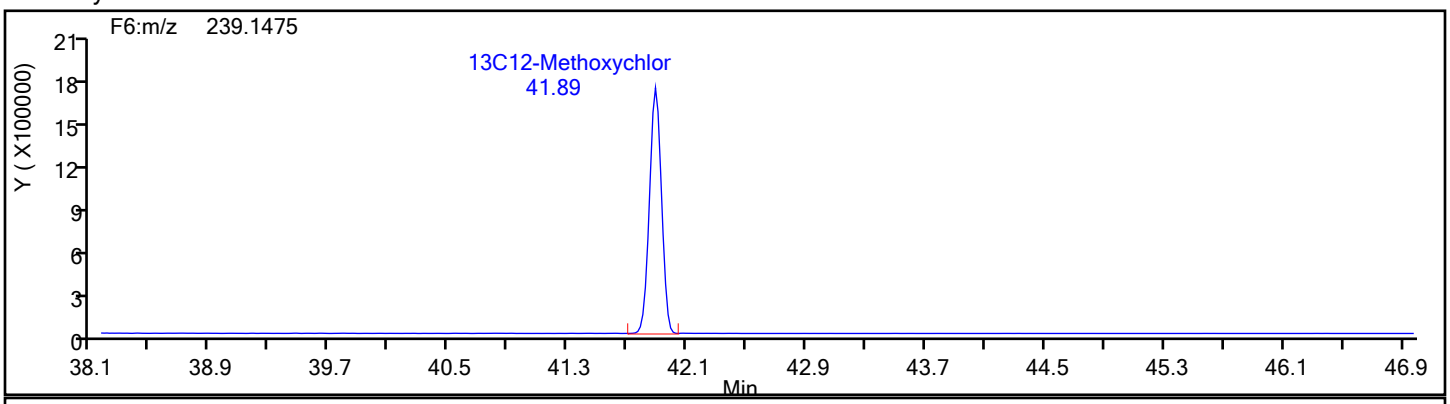
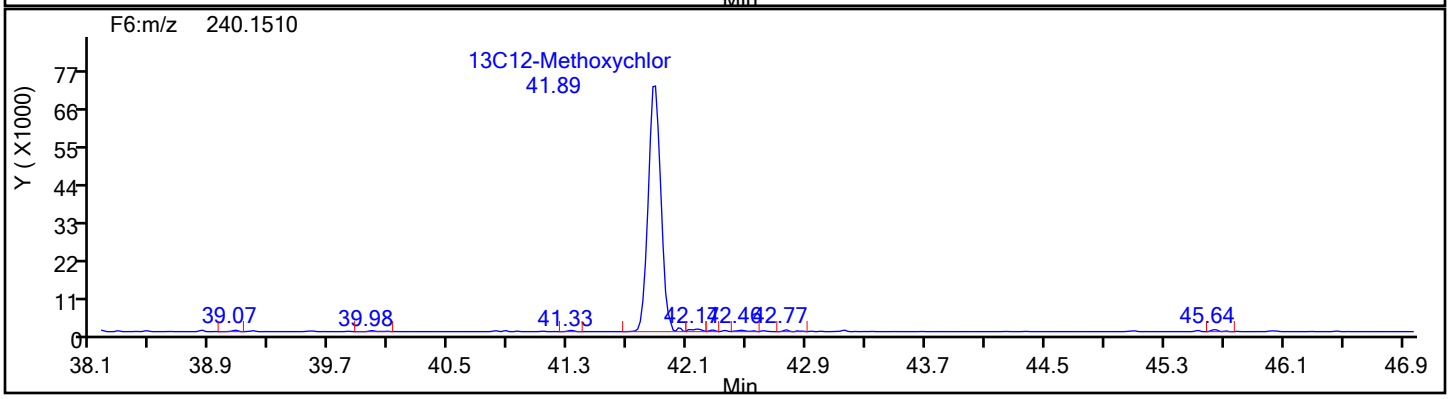




Methoxychlor Standards





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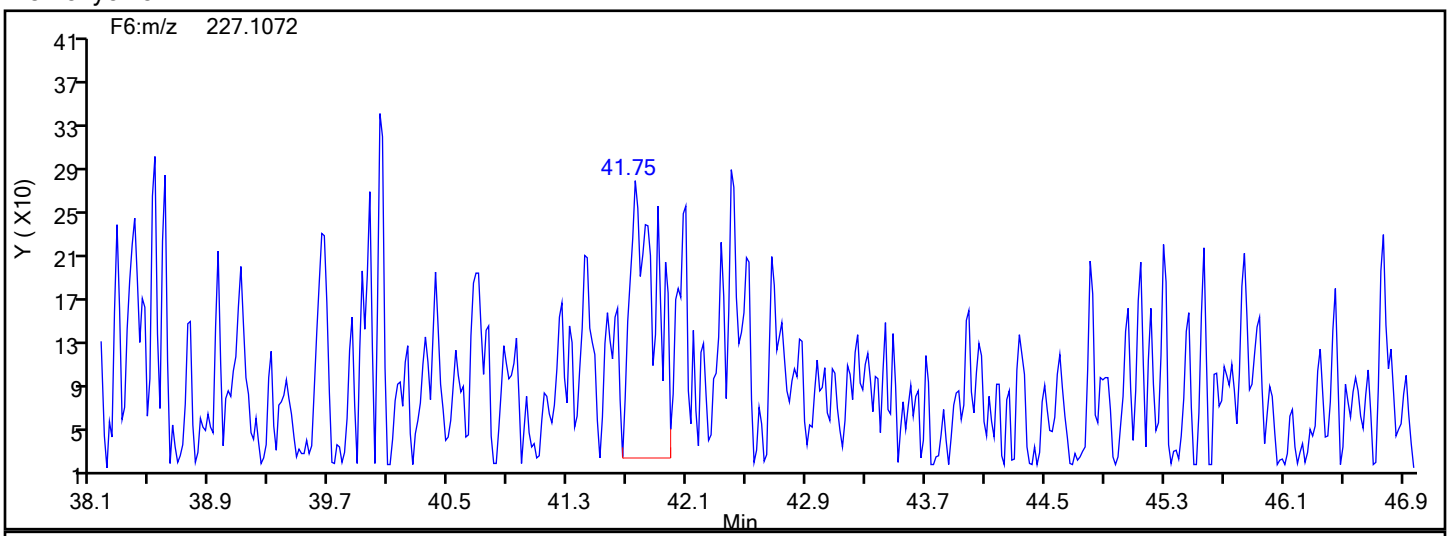
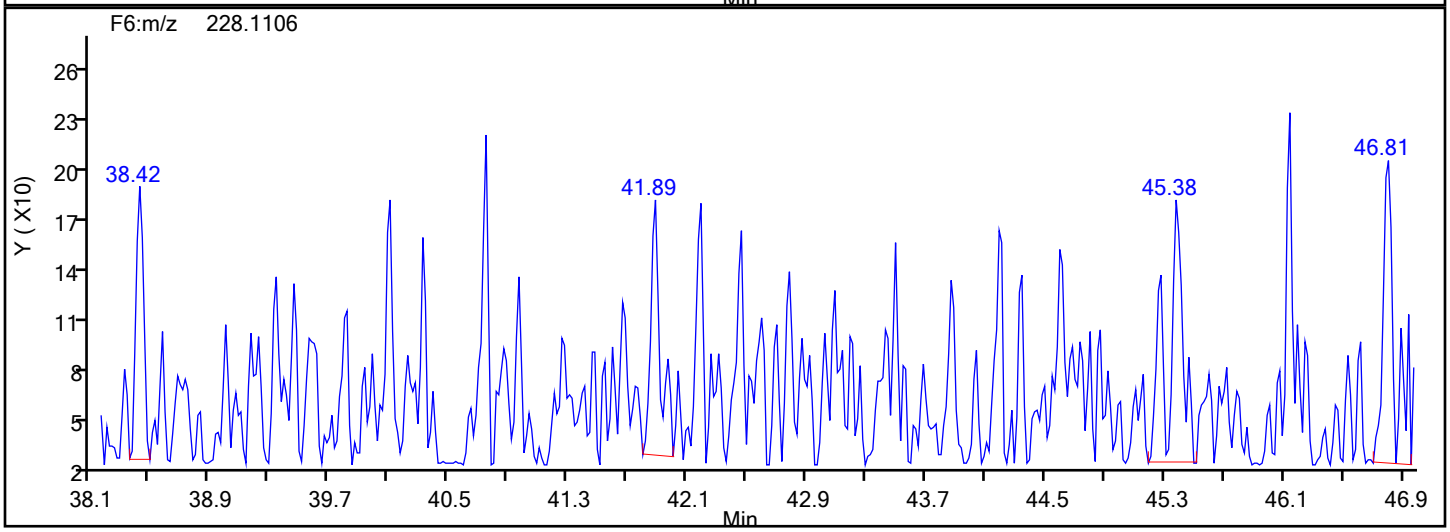
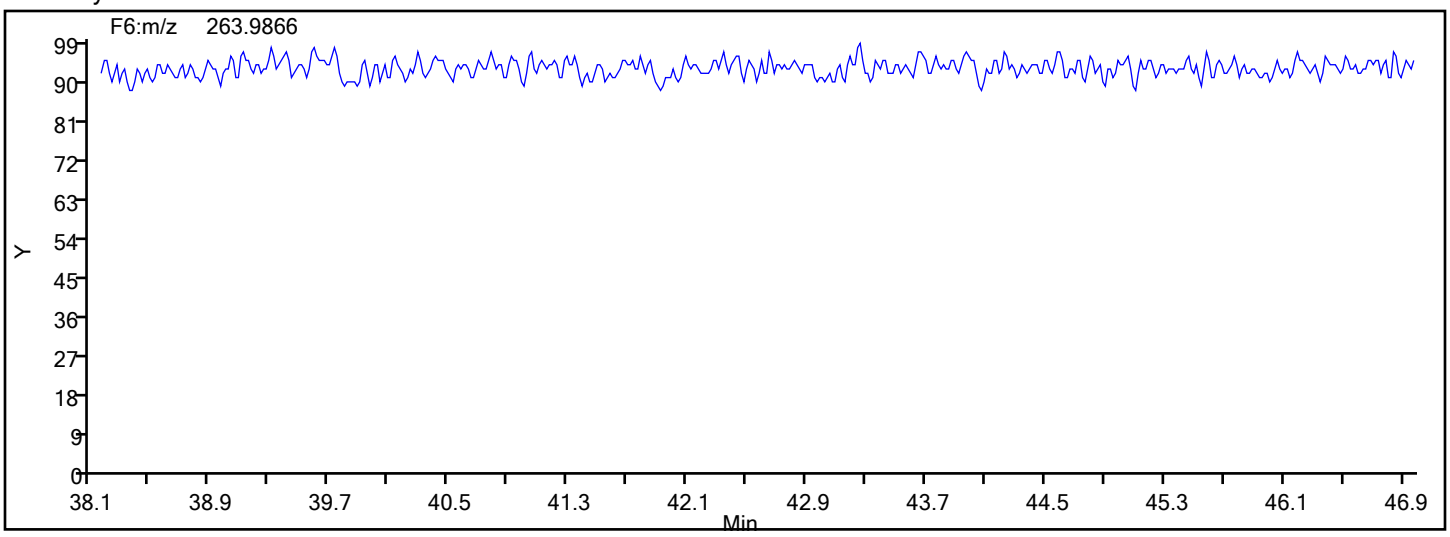




Methoxychlor Lock Mass



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Eurofins Knoxville

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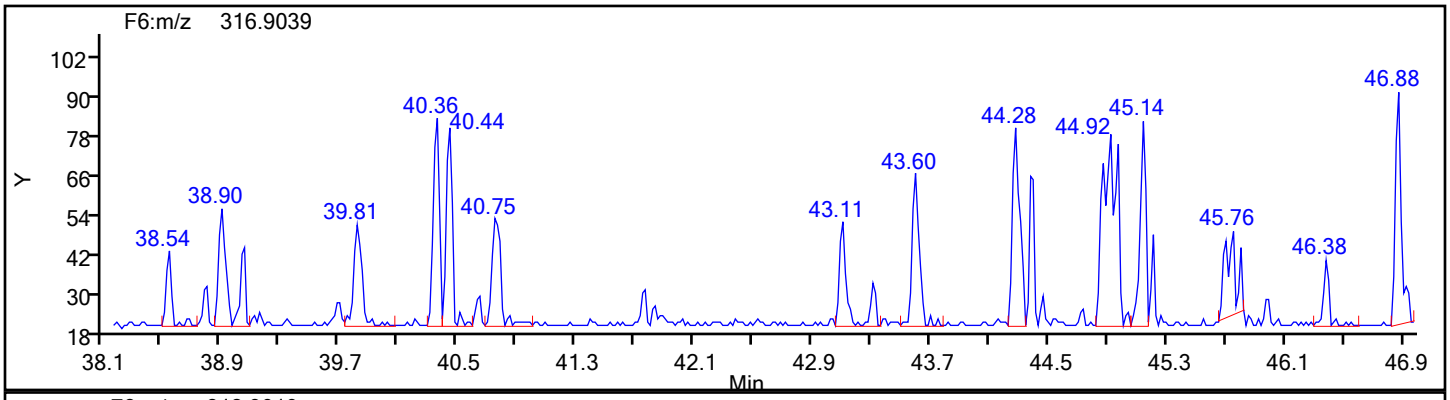
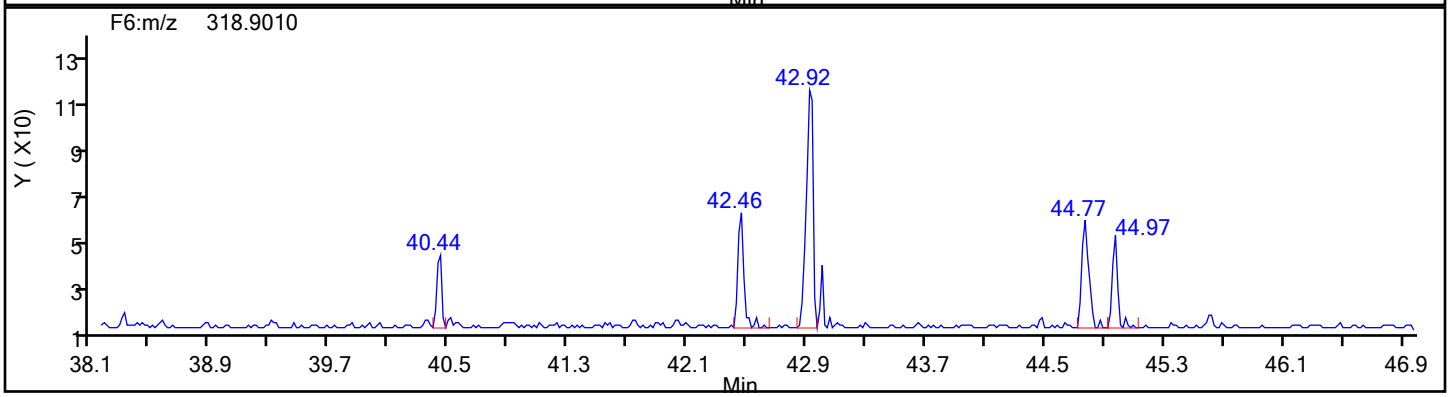
Endrin ketone





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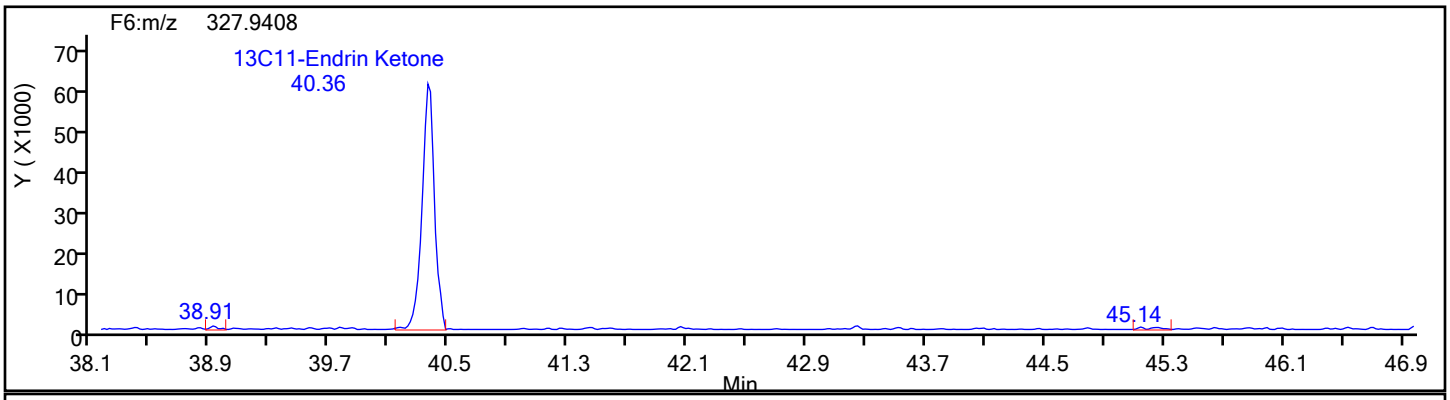

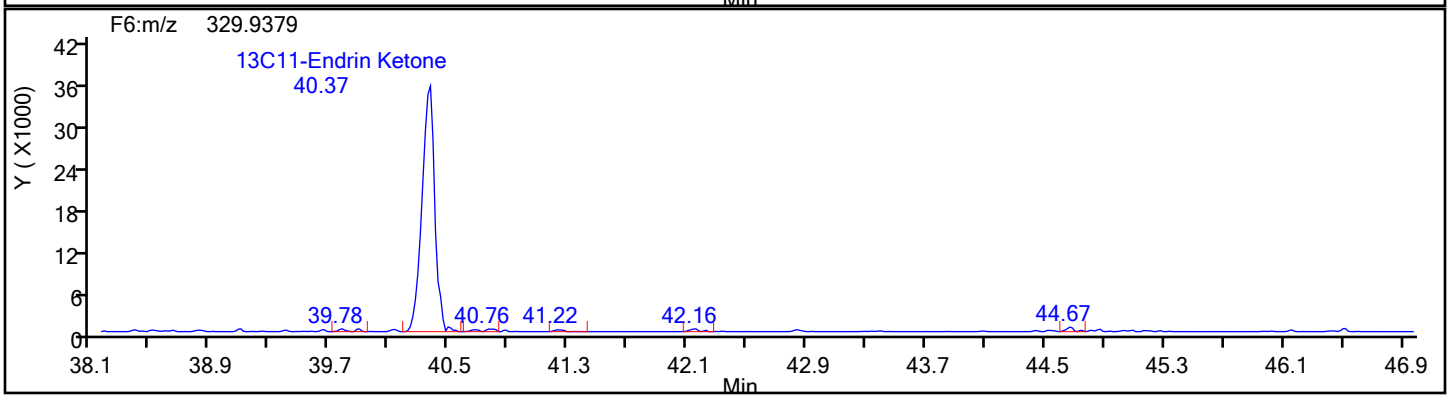

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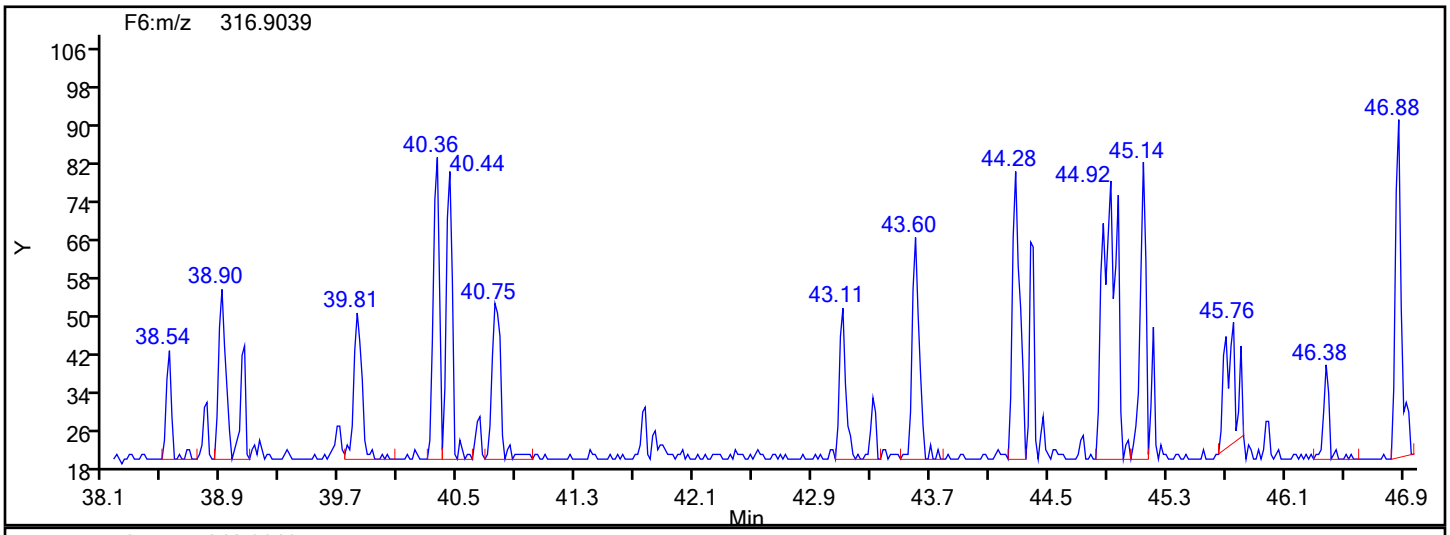

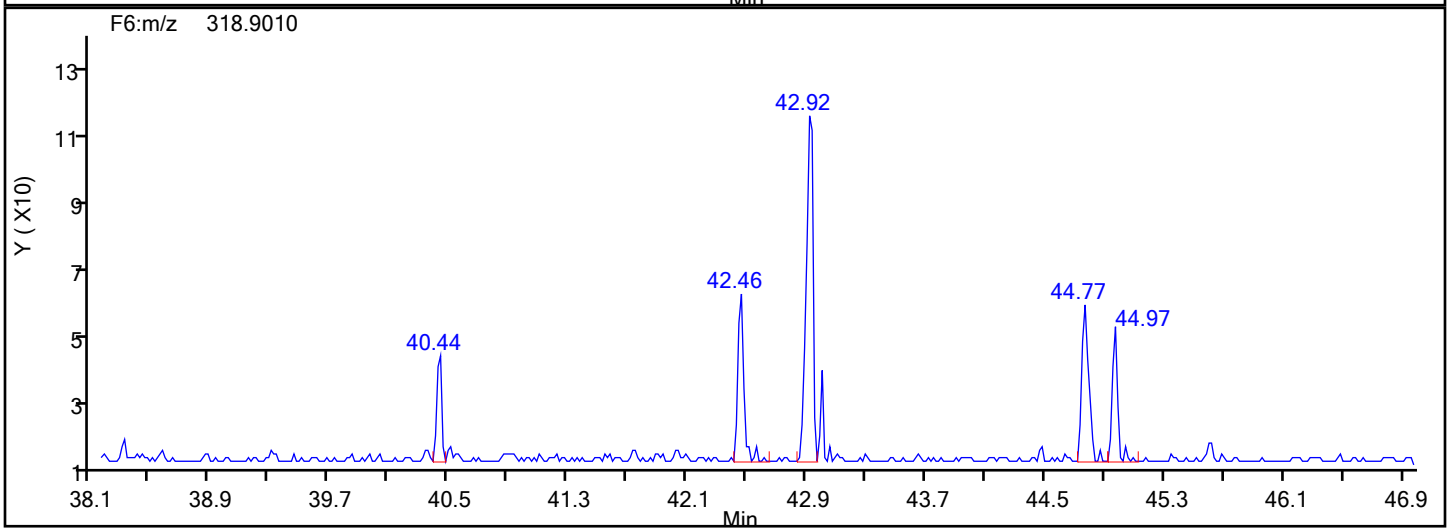

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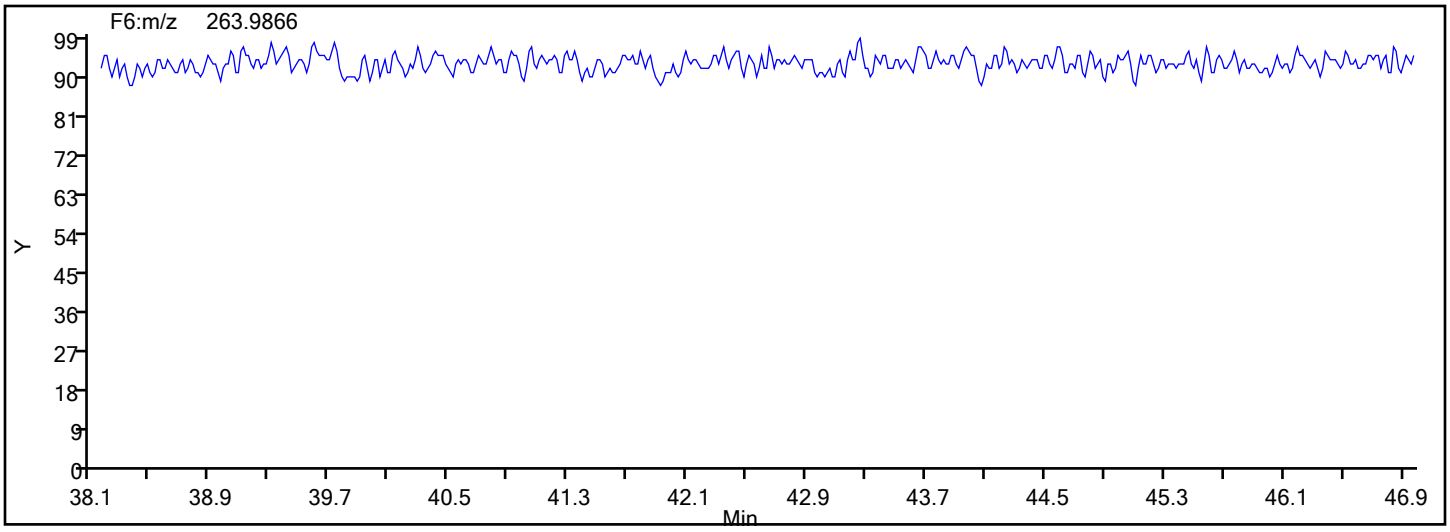

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Eurofins Knoxville

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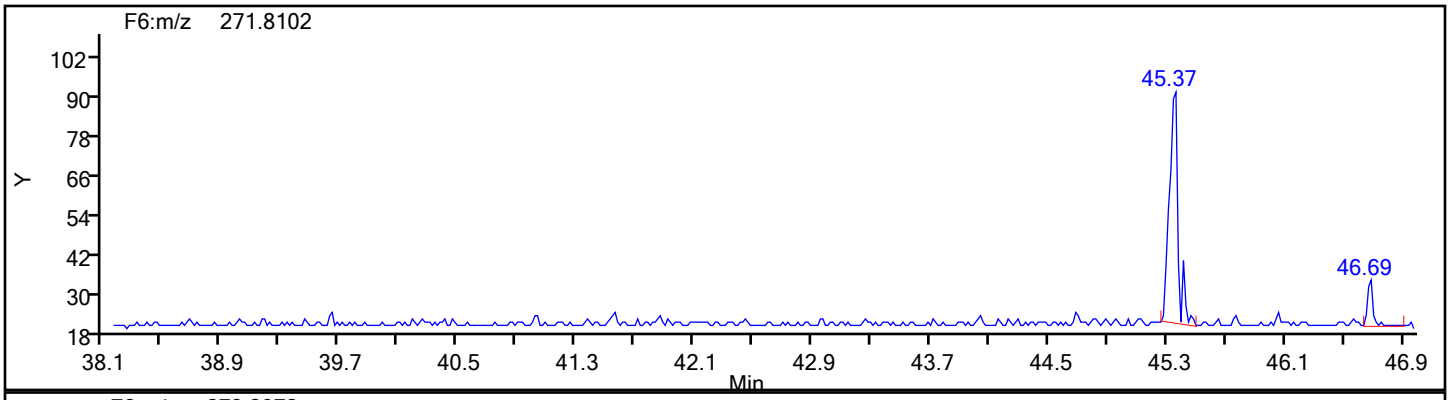
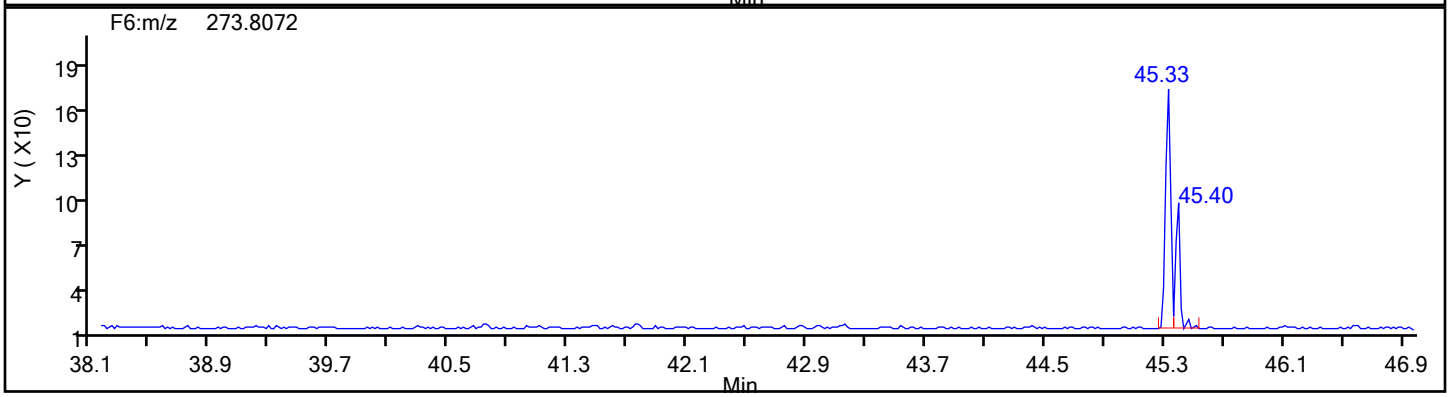
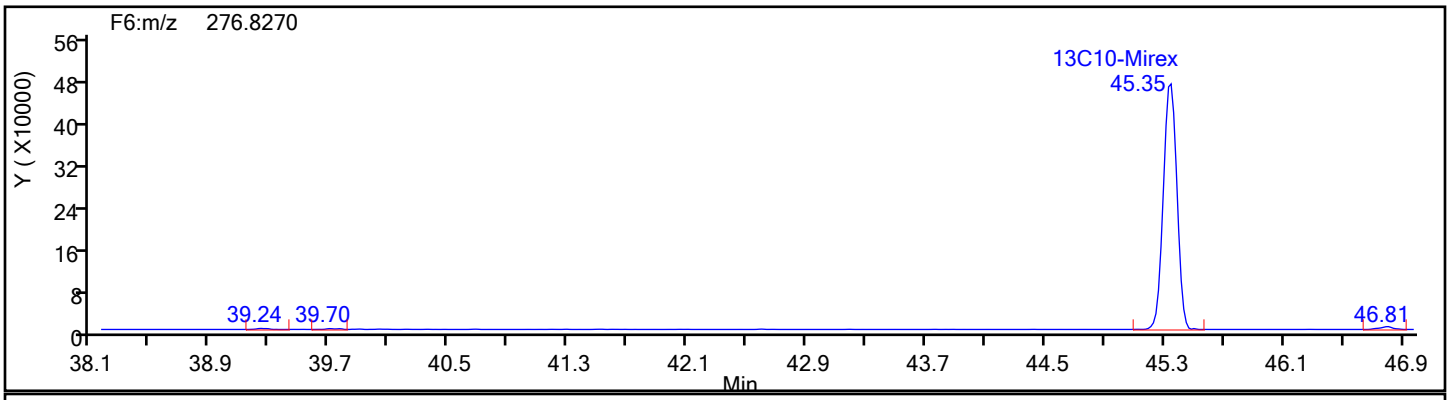
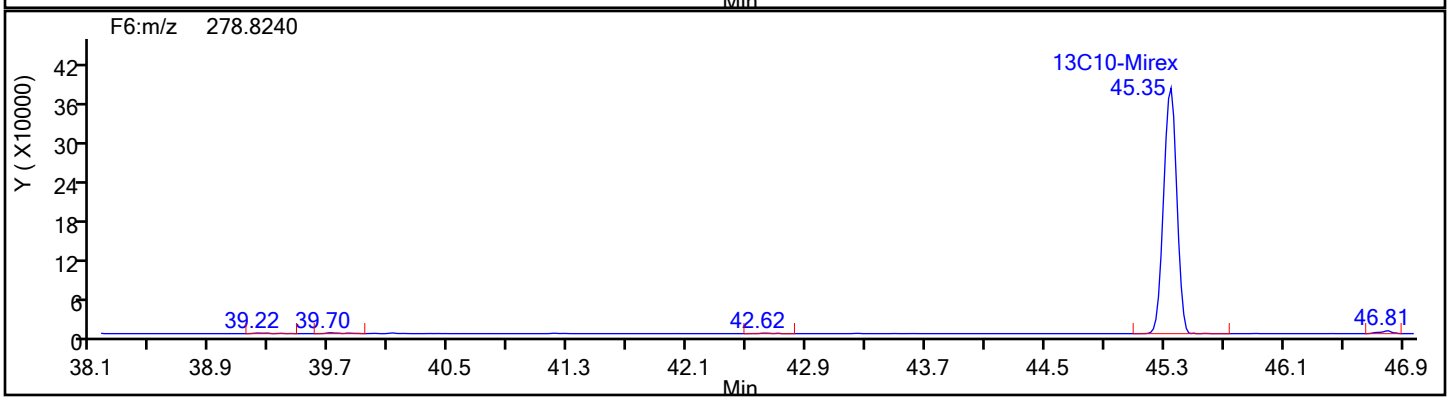
Mirex





Mirex Standards





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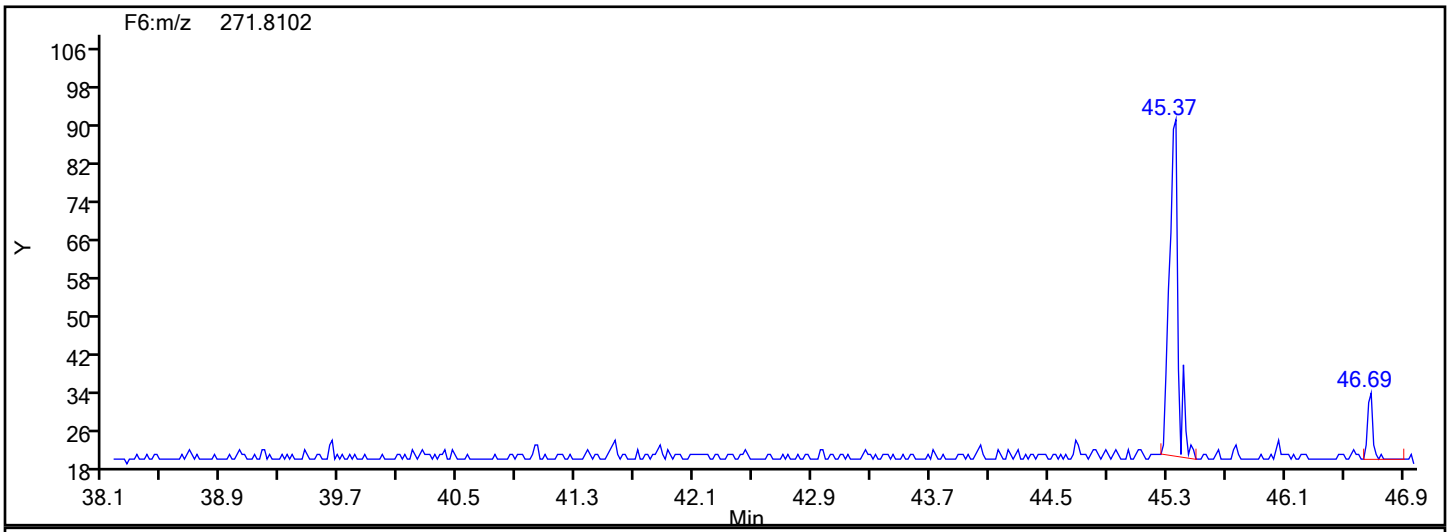
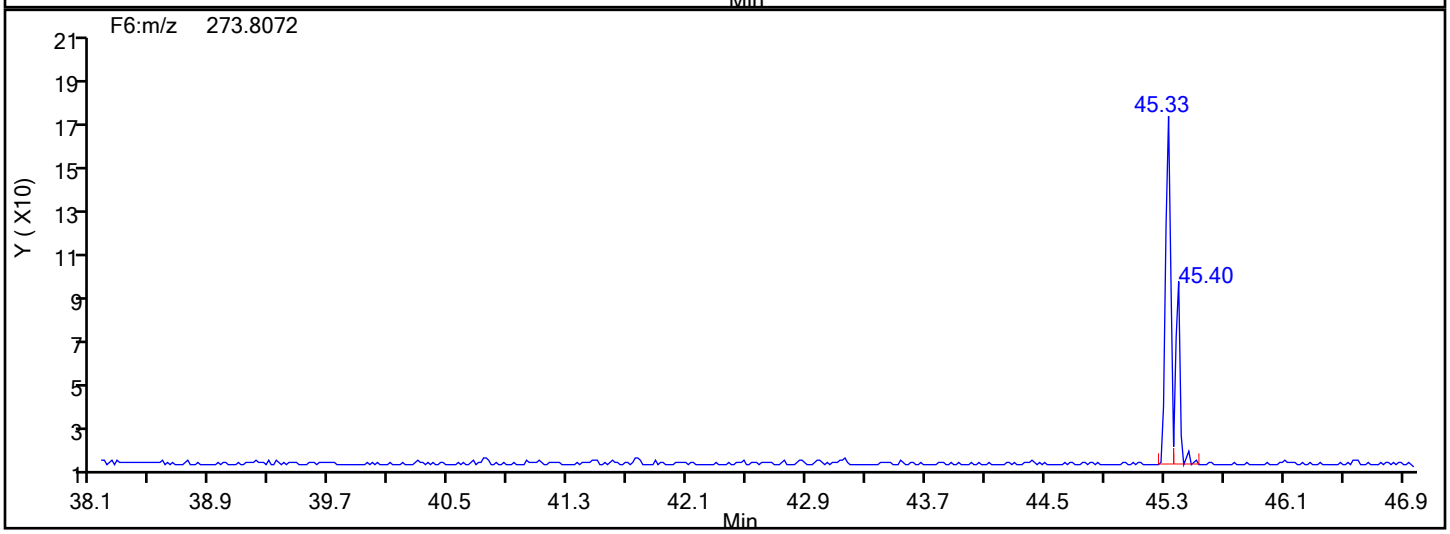
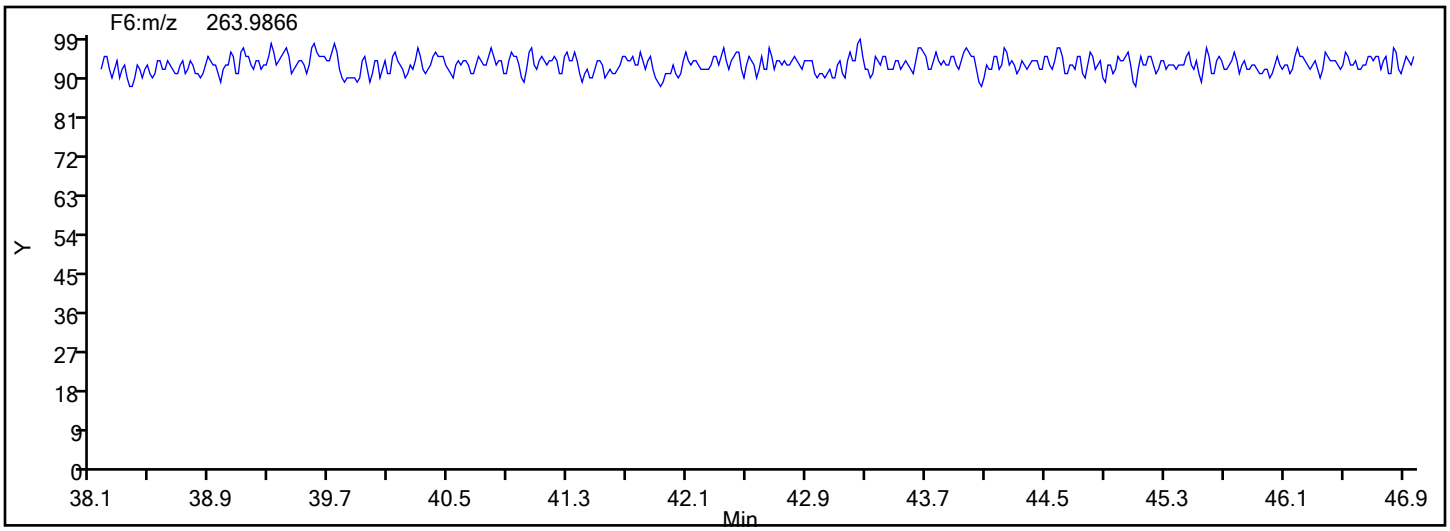
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



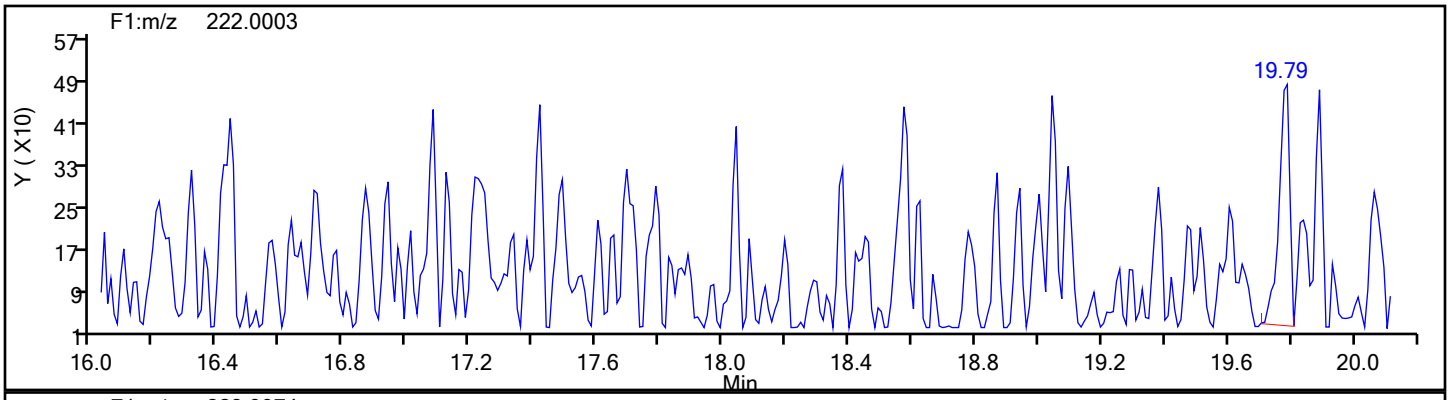
Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

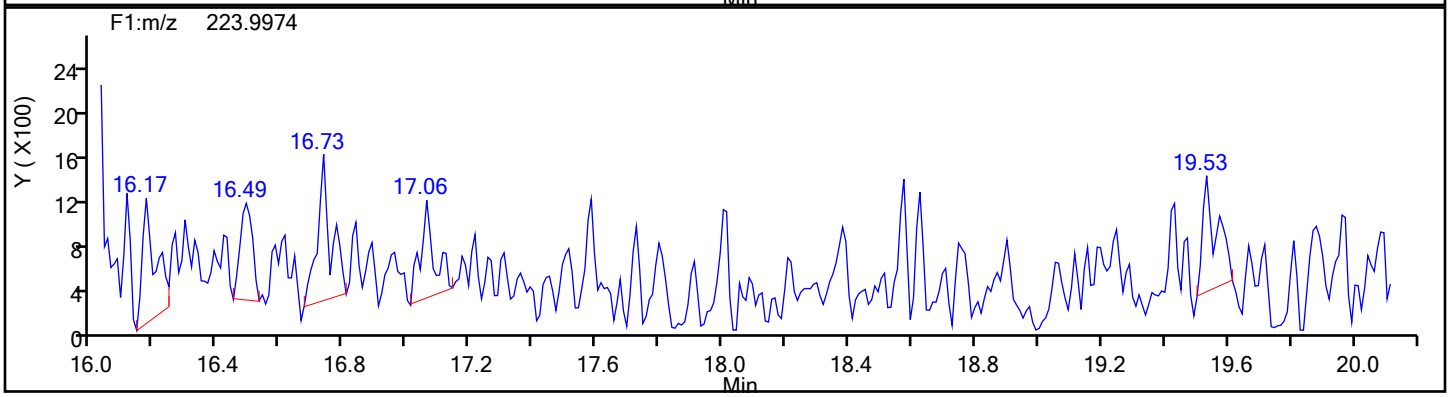
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

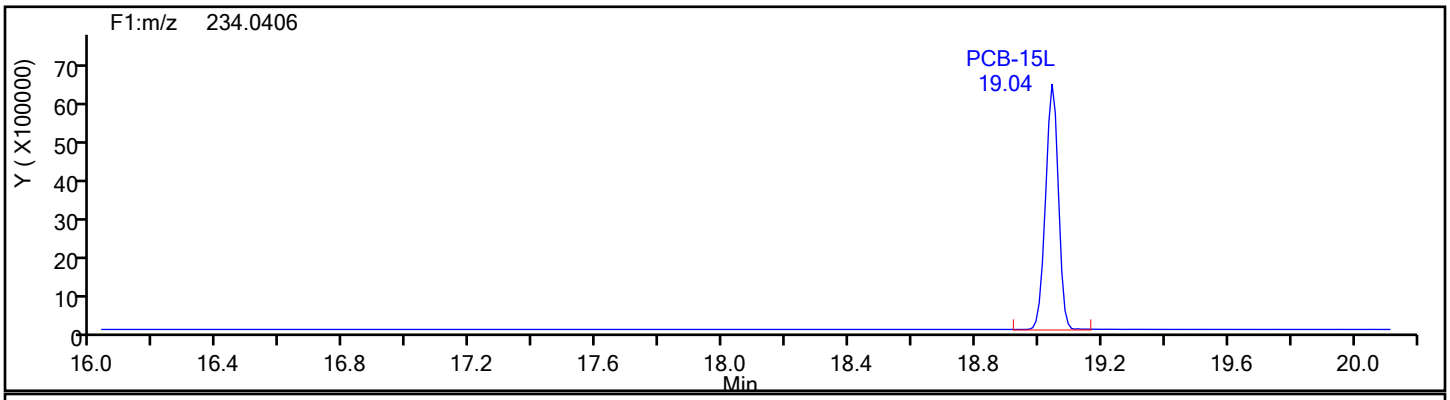
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

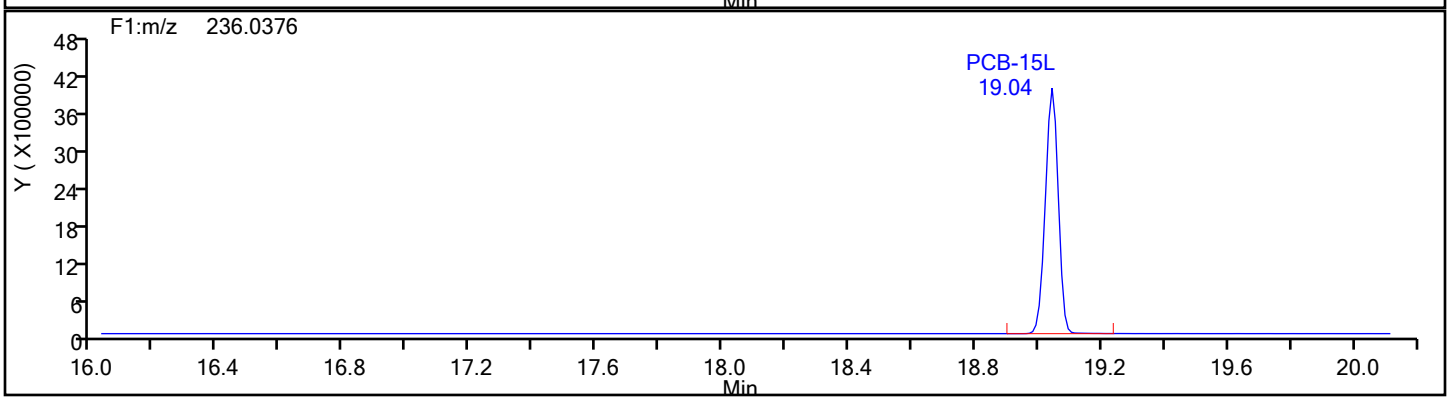
PCB-14





PCB-14 Standards



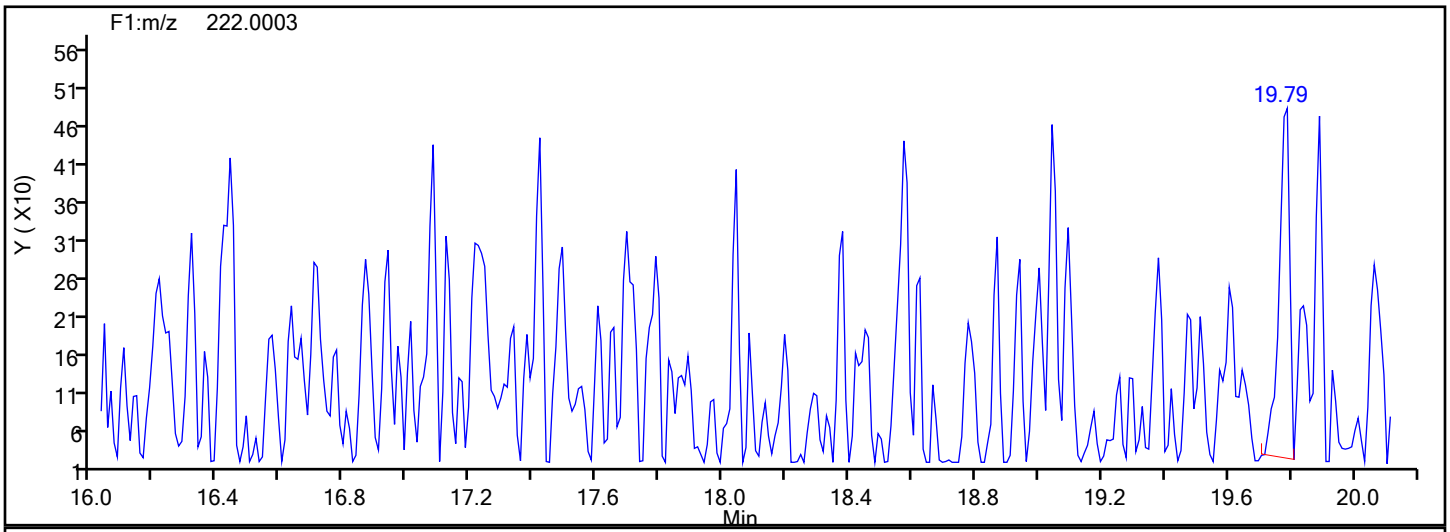


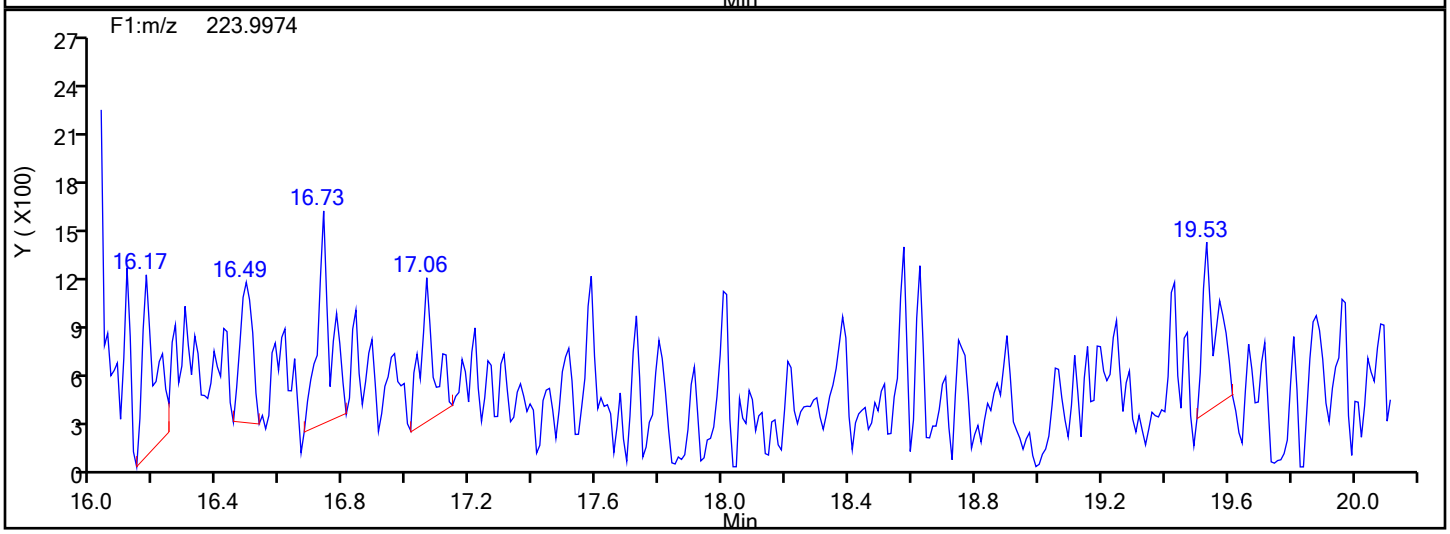
Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

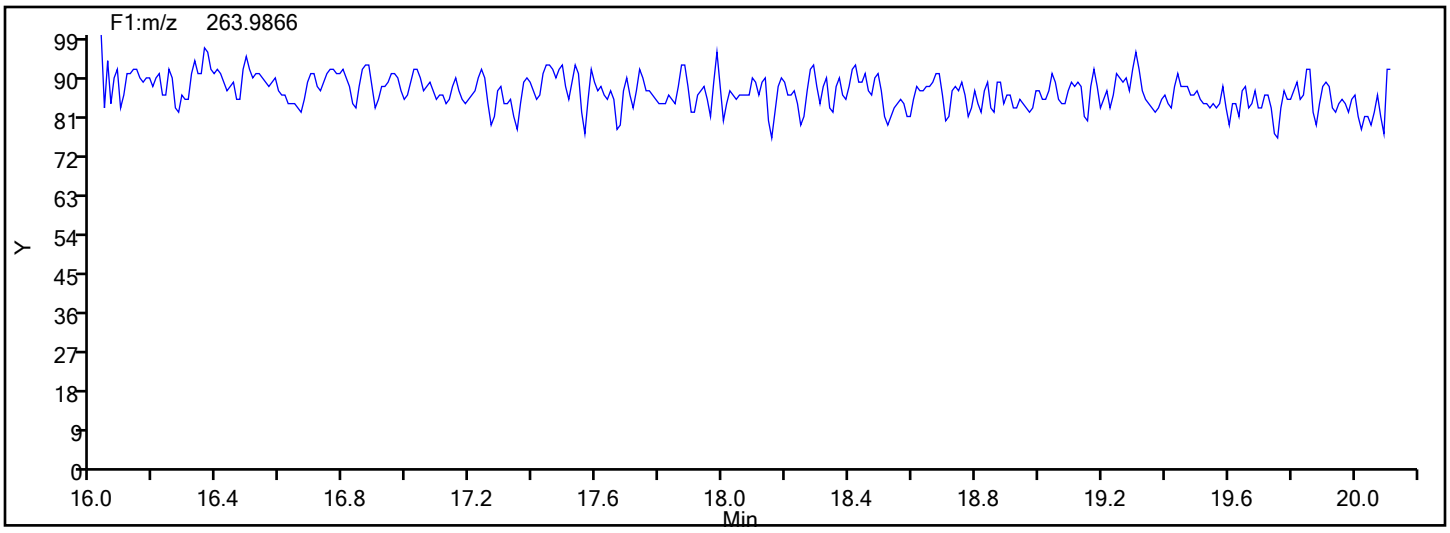
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



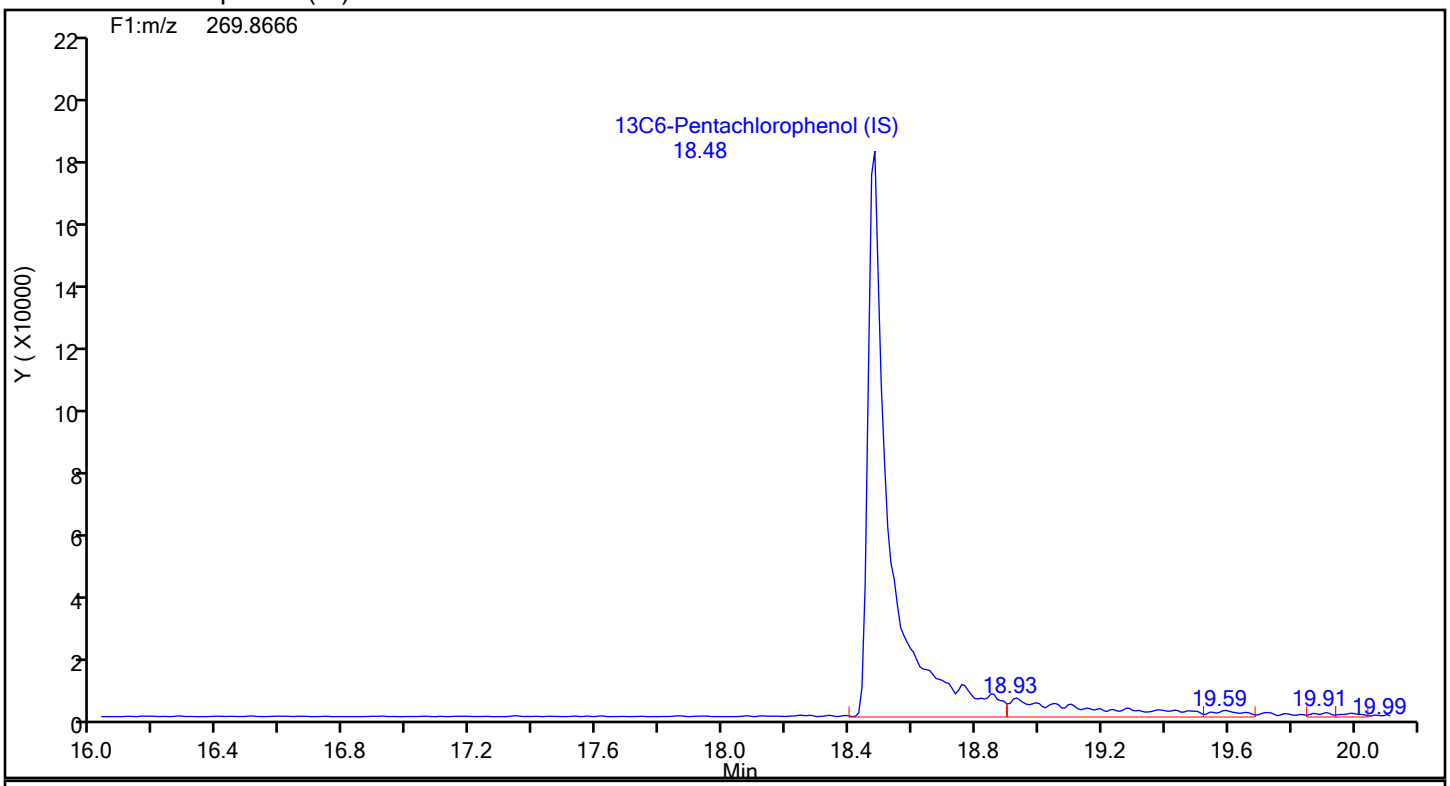
Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

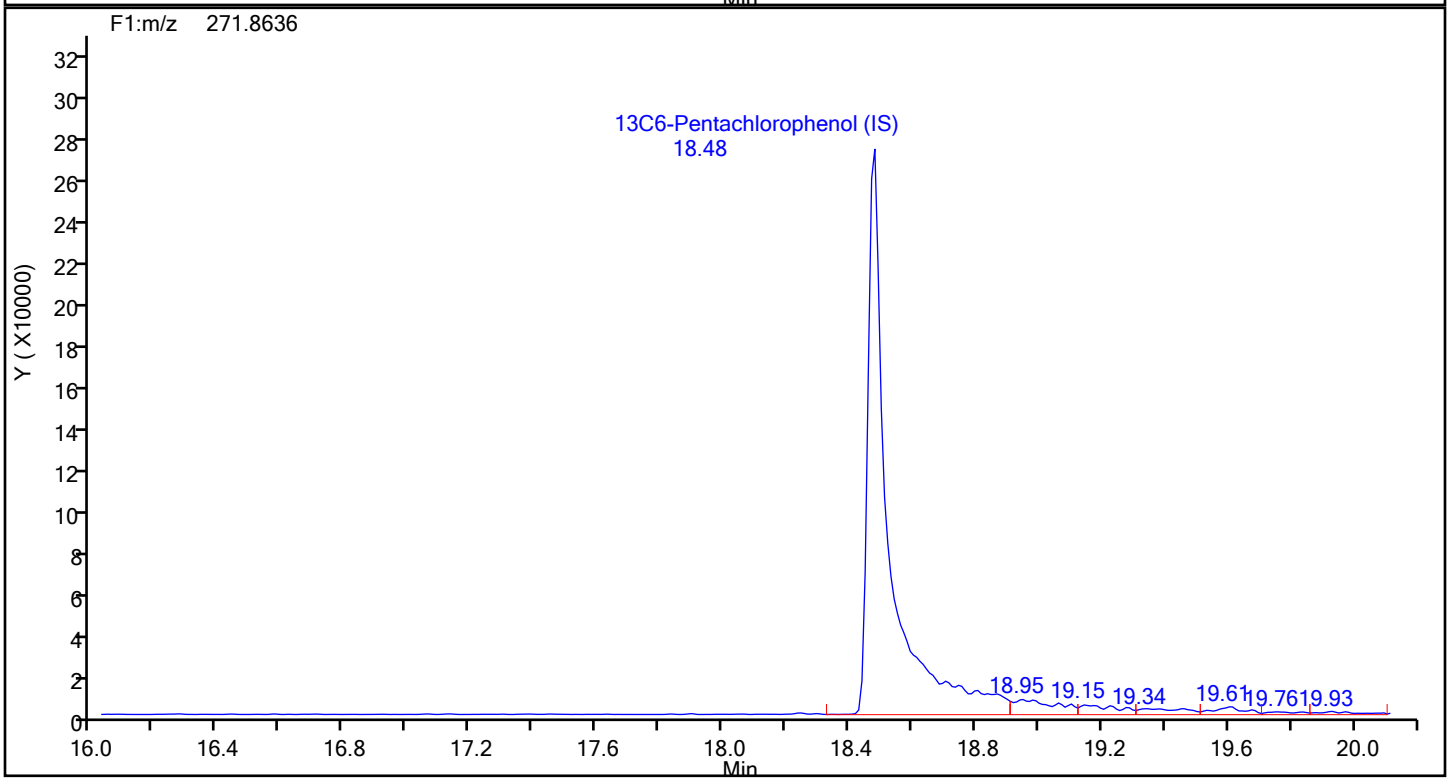
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

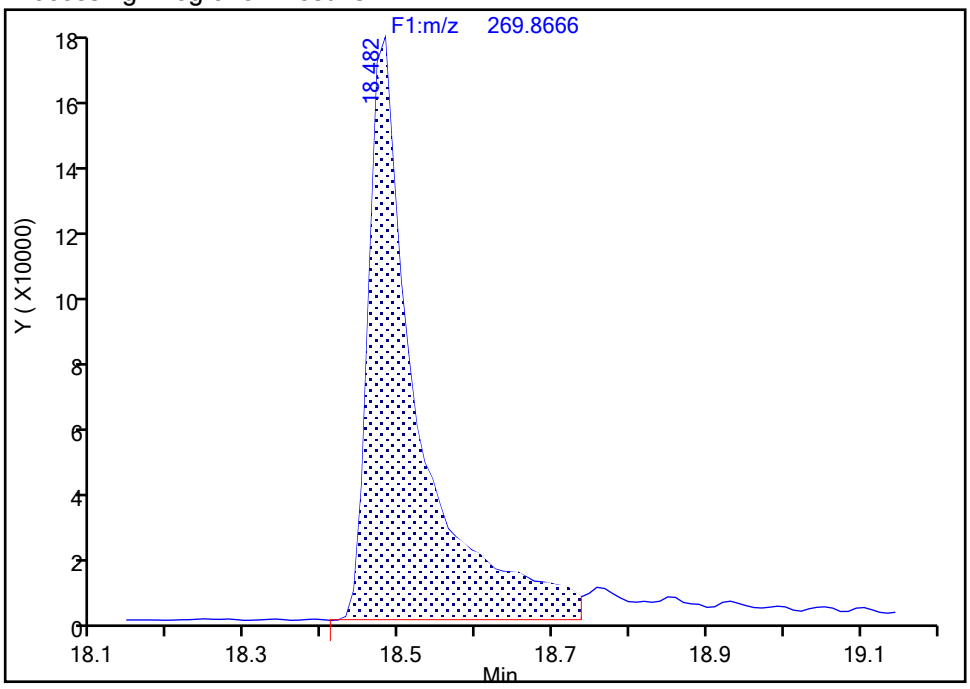
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d				
Injection Date:	02-May-2025 17:34:00	Instrument ID:	D3PST		
Lims ID:	IC L4				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

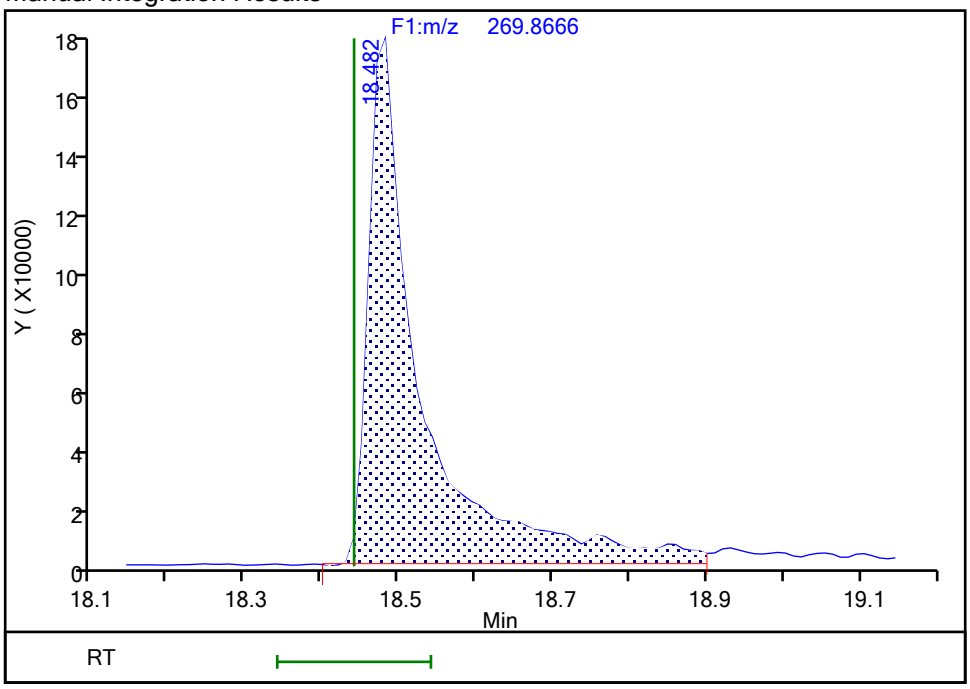
Processing Integration Results

RT: 18.48
Area: 786261
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 848555
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:24:02 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

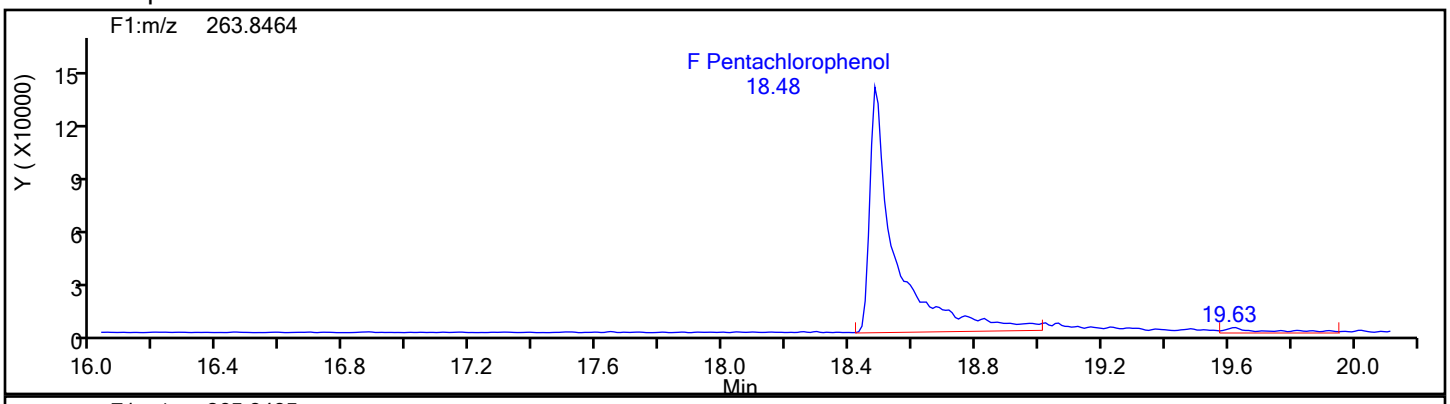
Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

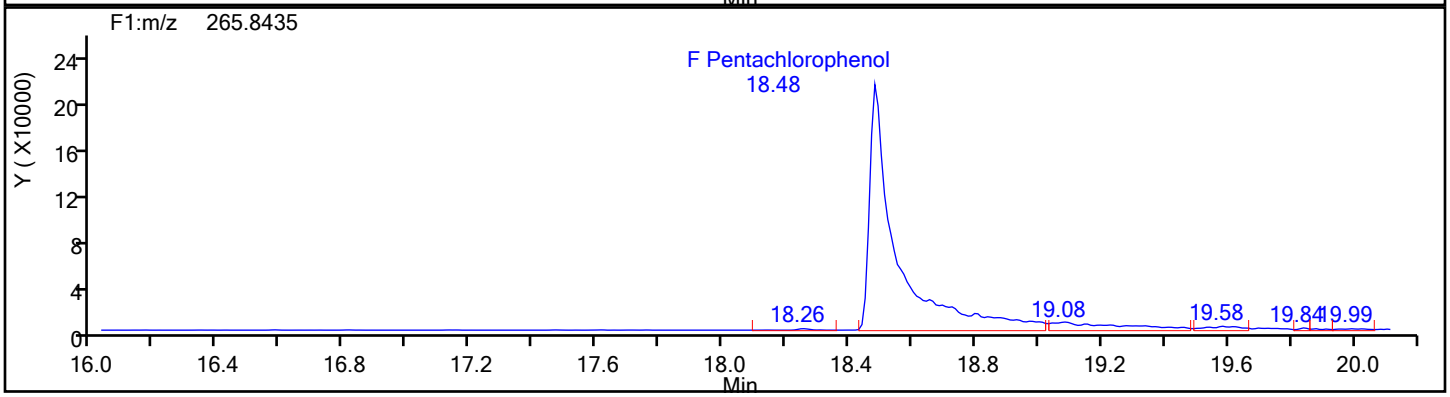
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

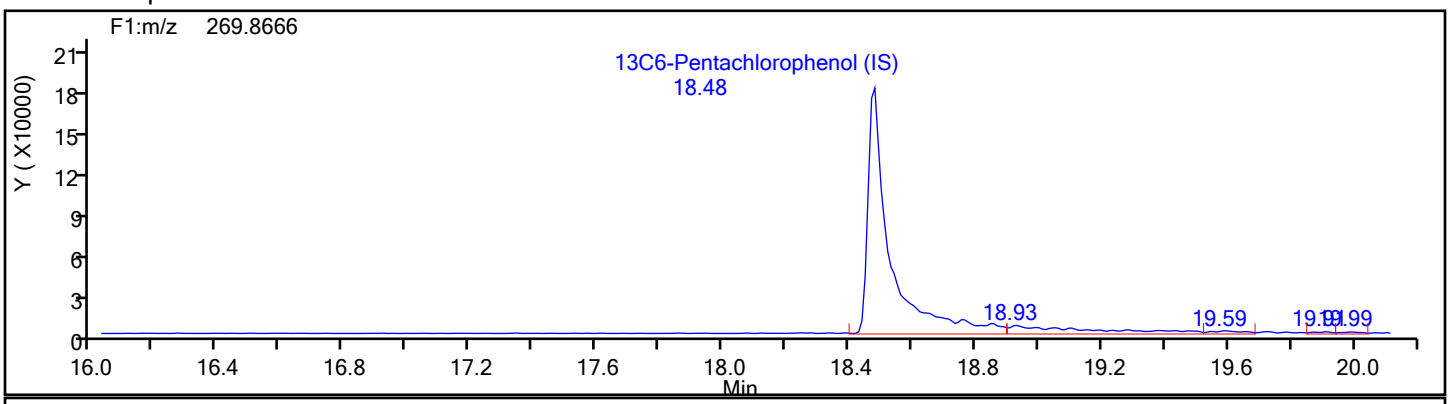
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

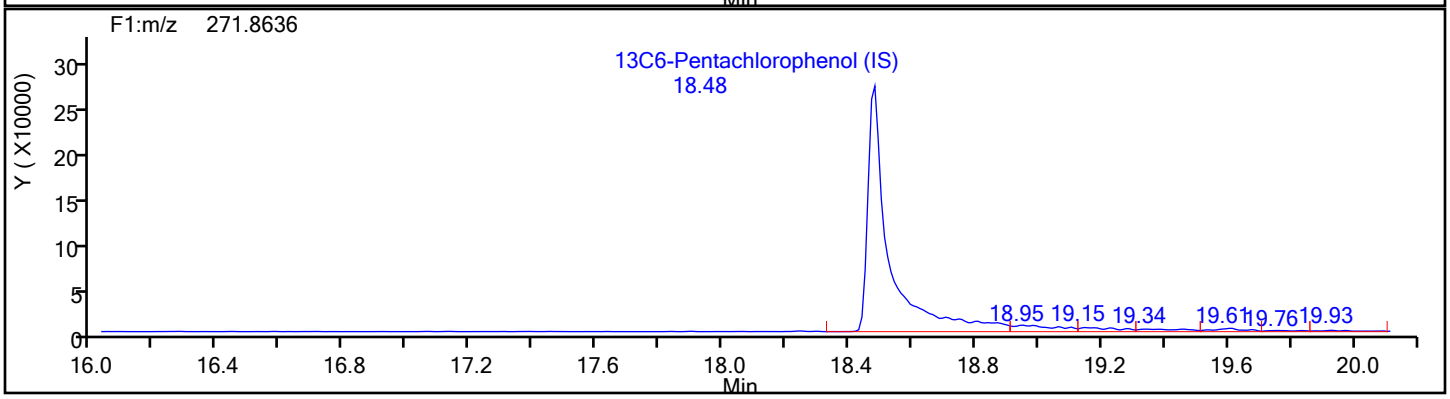
Pentachlorophenol





Pentachlorophenol Standards



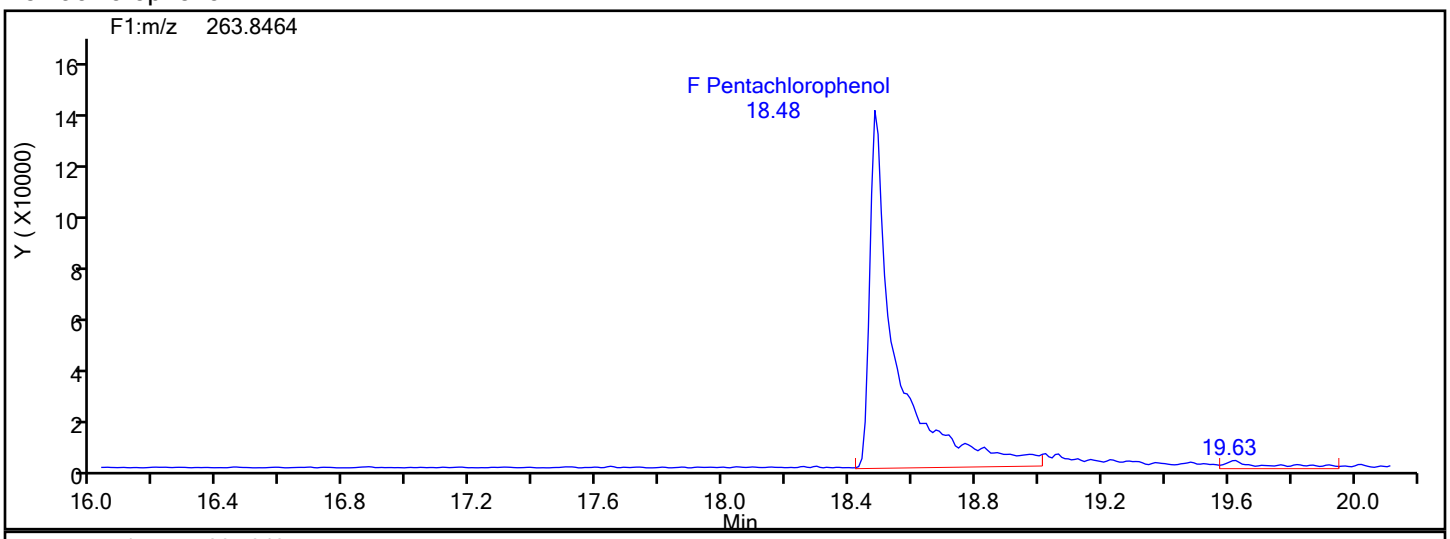


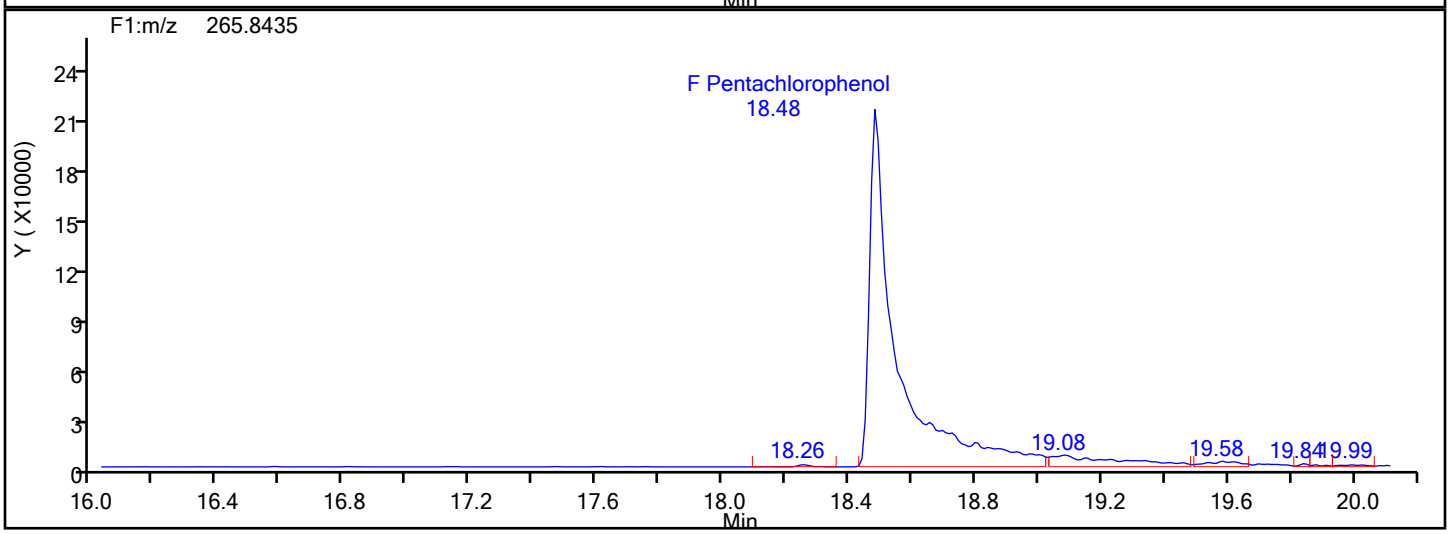
Report Date: 05-May-2025 18:00:16 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

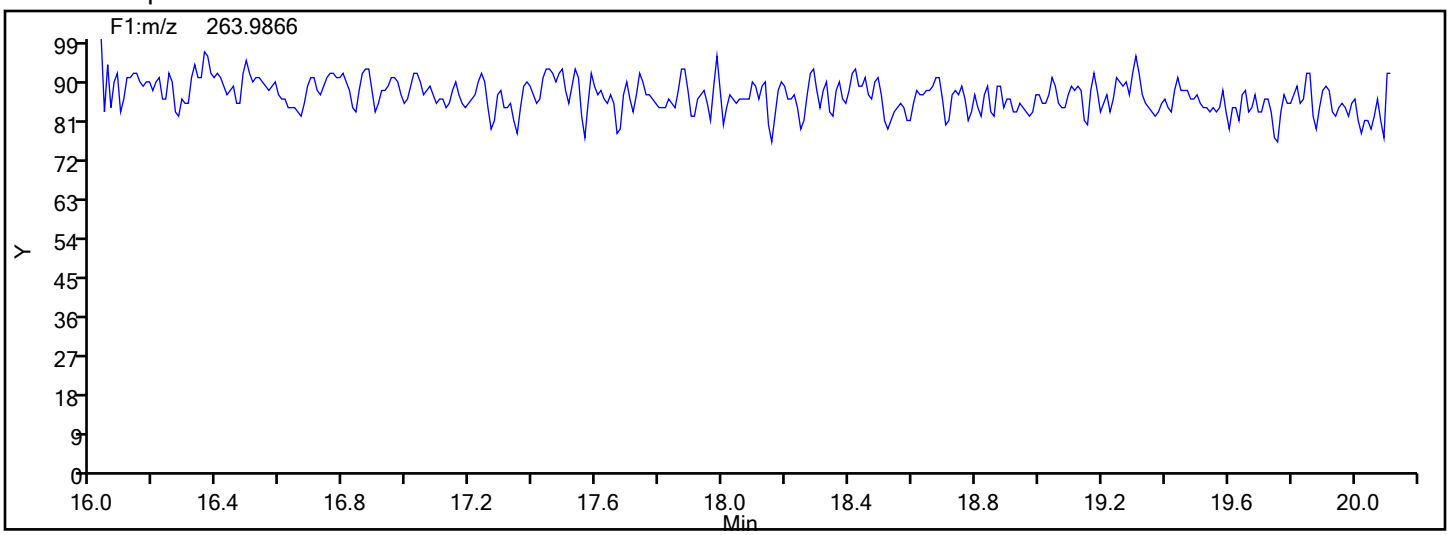
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

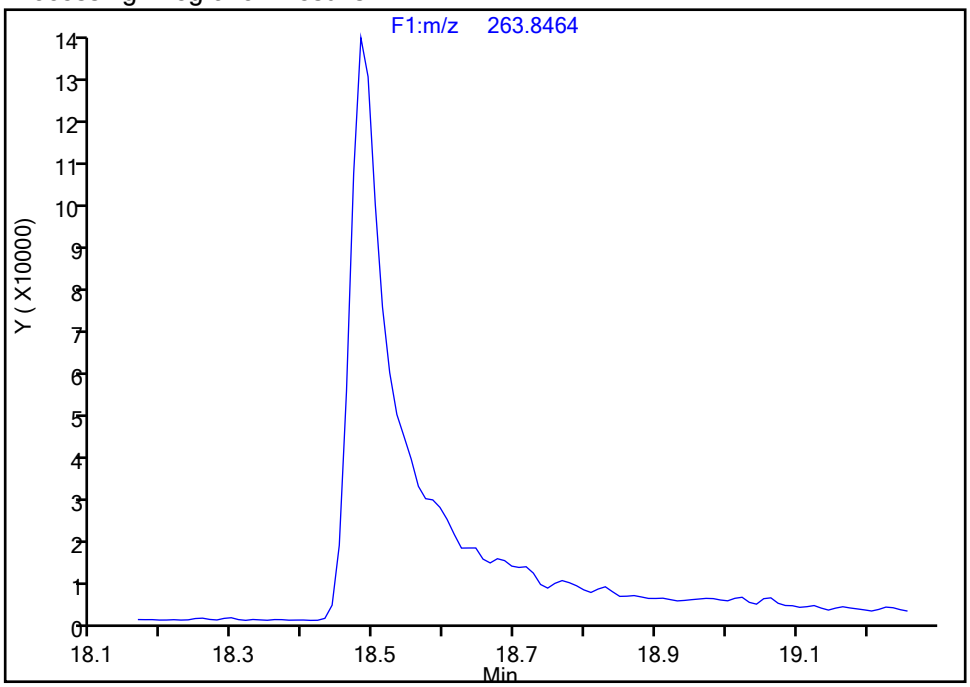
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d				
Injection Date:	02-May-2025 17:34:00	Instrument ID:	D3PST		
Lims ID:	IC L4				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

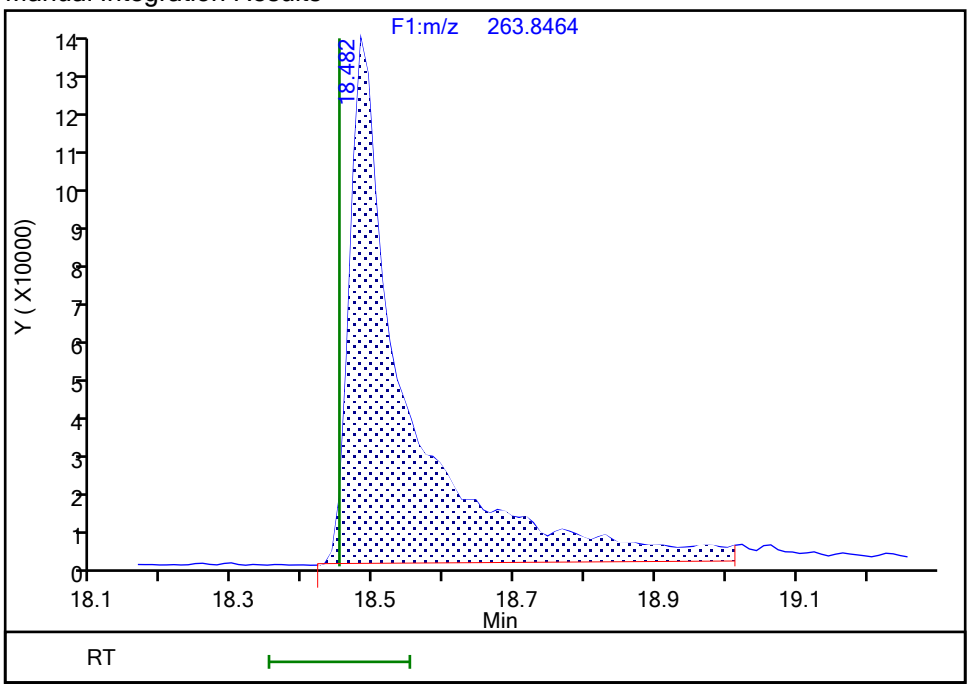
Not Detected
Expected RT: 18.45

Processing Integration Results



Manual Integration Results

RT: 18.48
Area: 788799
Amount: 463.4526
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:24:30 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

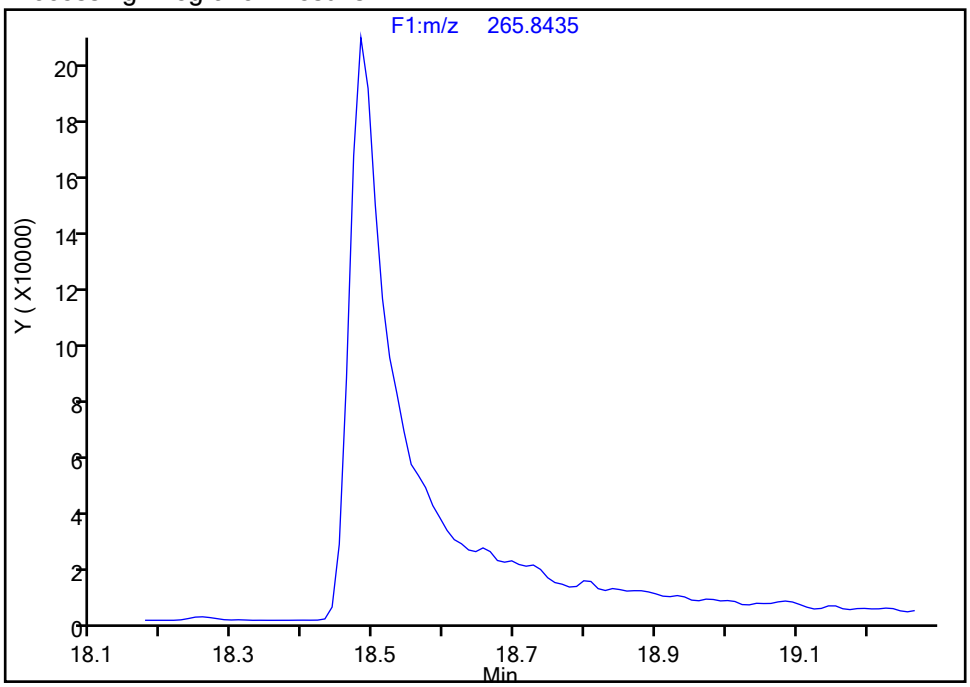
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Instrument ID: D3PST
Lims ID: IC L4
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 2

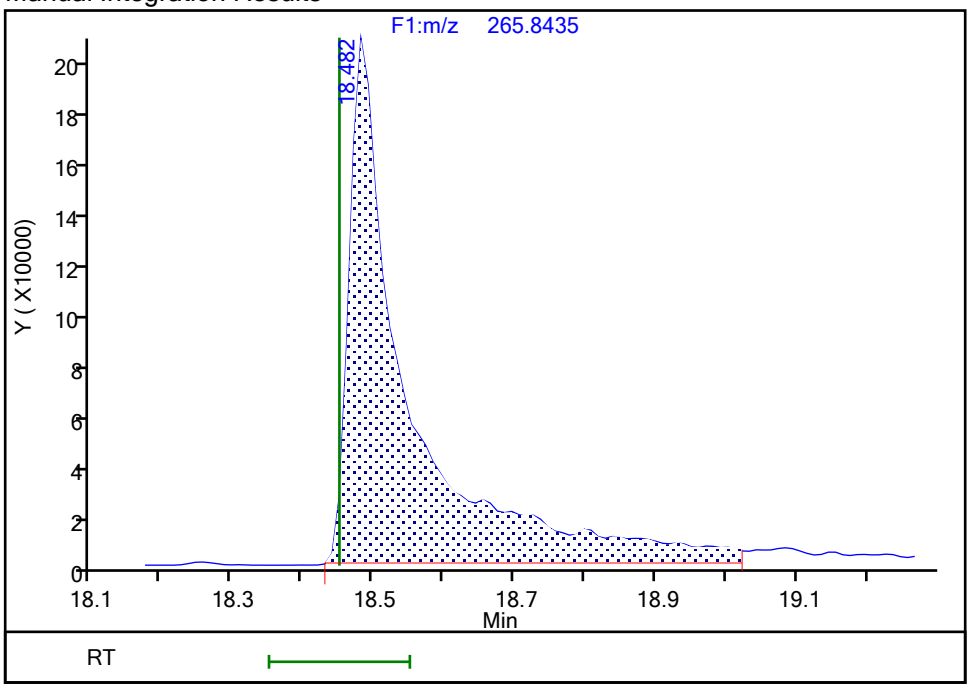
Not Detected
Expected RT: 18.45

Processing Integration Results



Manual Integration Results

RT: 18.48
Area: 1229306
Amount: 463.4526
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:24:37 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

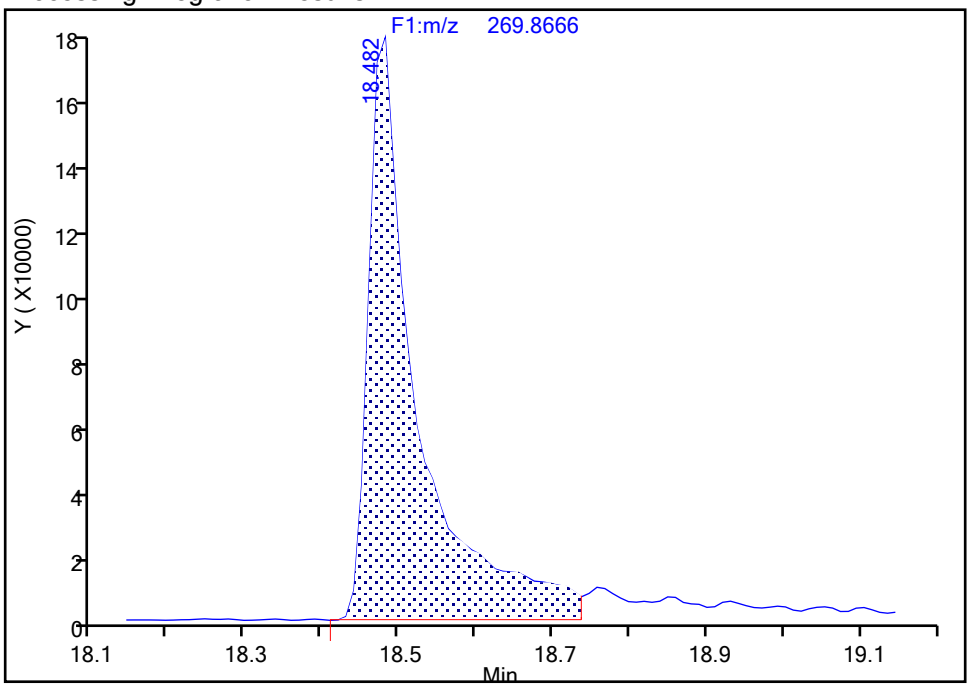
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d				
Injection Date:	02-May-2025 17:34:00	Instrument ID:	D3PST		
Lims ID:	IC L4				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

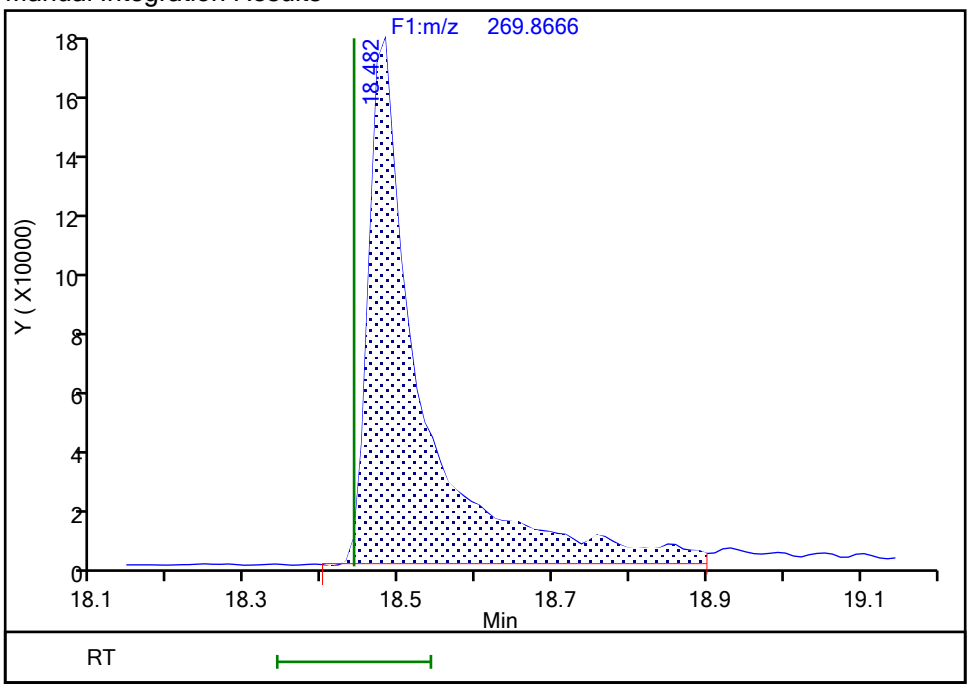
Processing Integration Results

RT: 18.48
Area: 786261
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 848555
Amount: 500.0000
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:24:02 -04:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

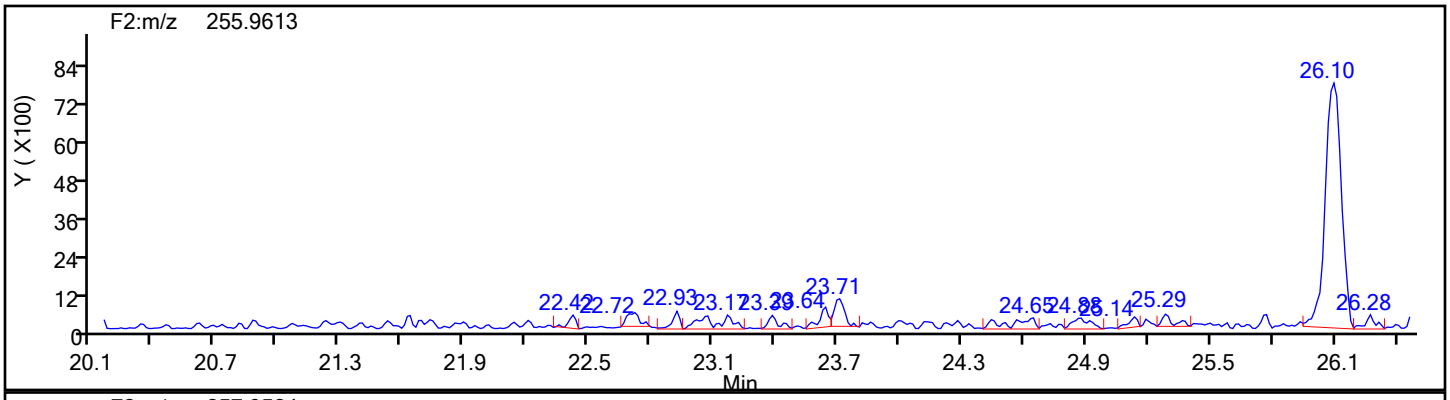
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

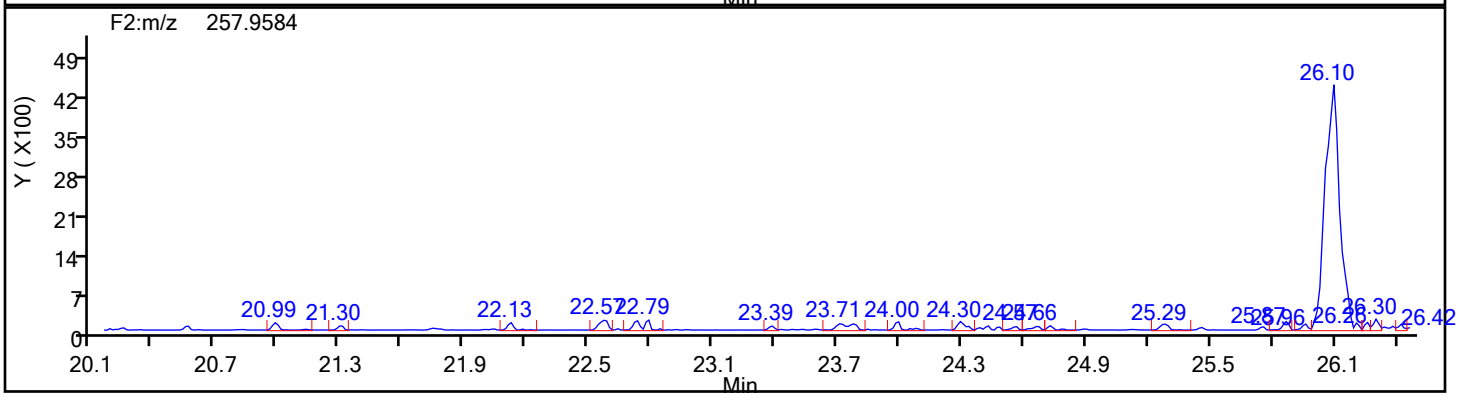
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

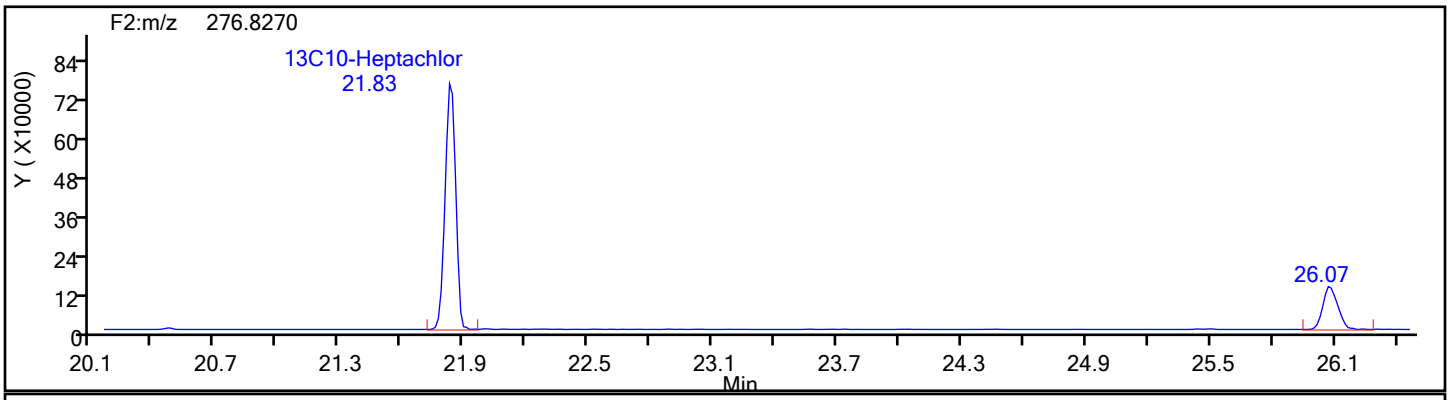
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

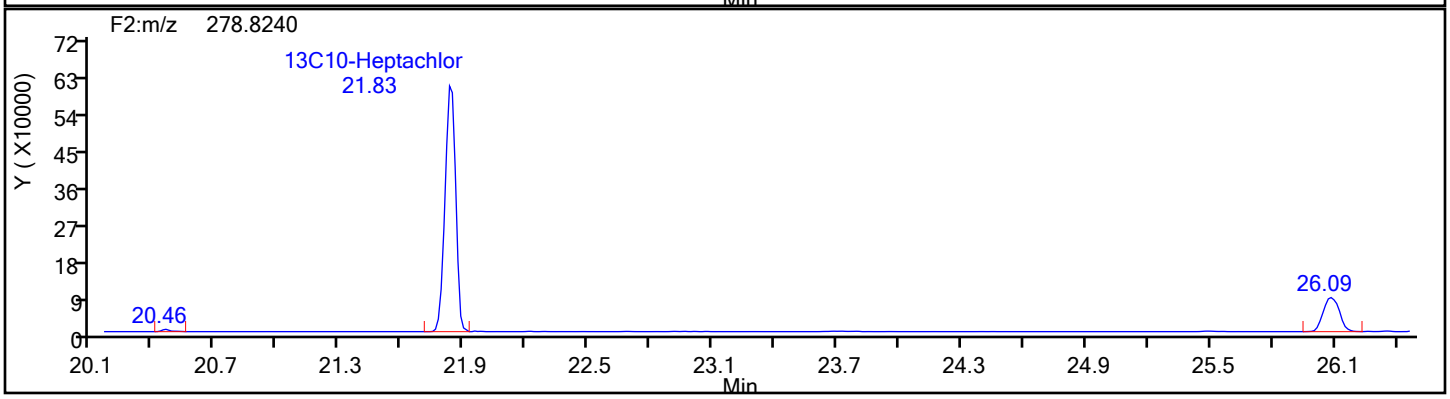
PCB-36





PCB-36 Standards



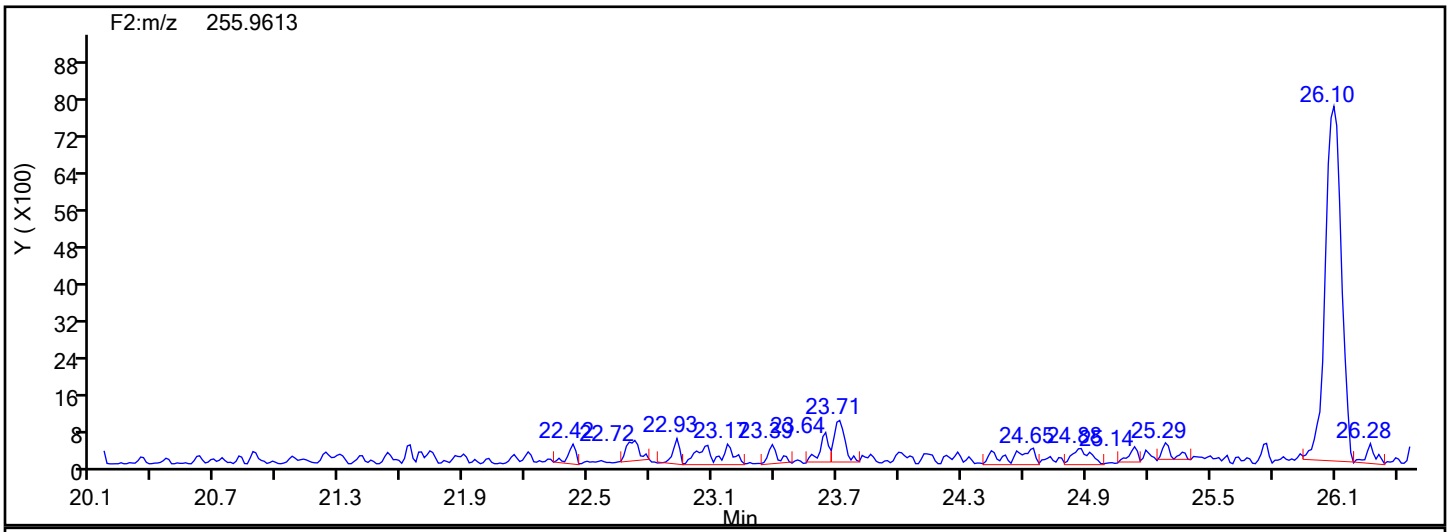


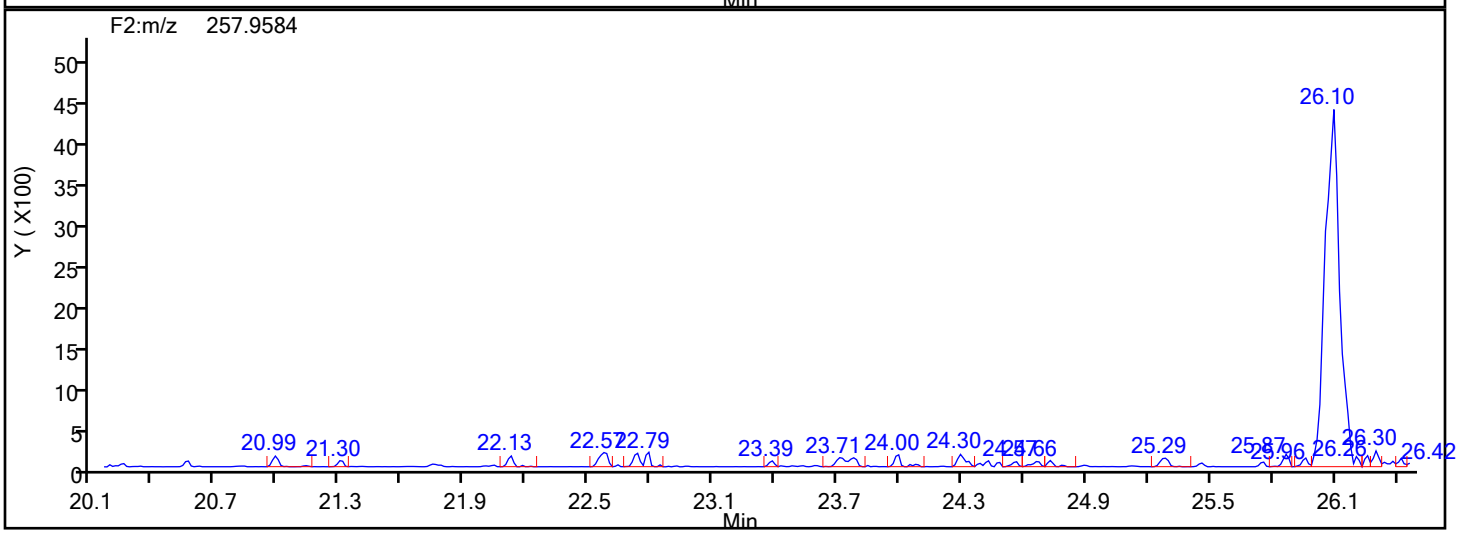
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

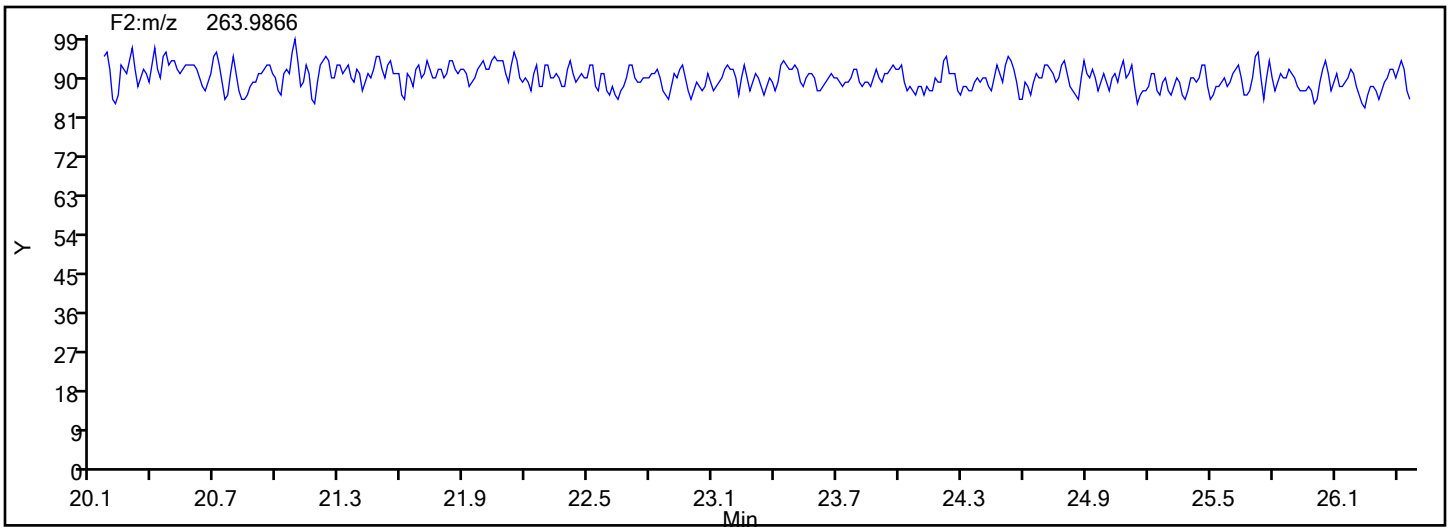
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



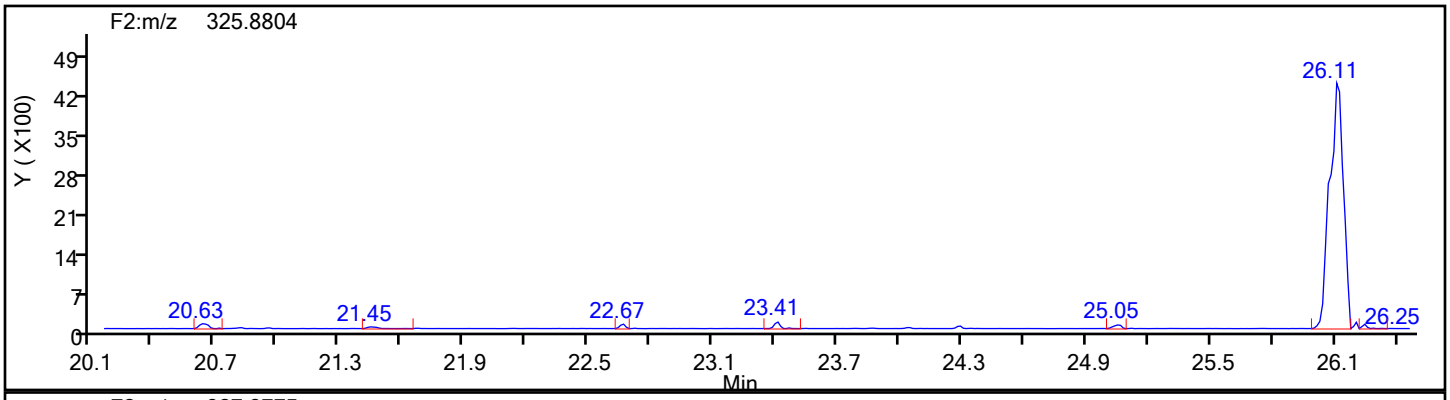
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

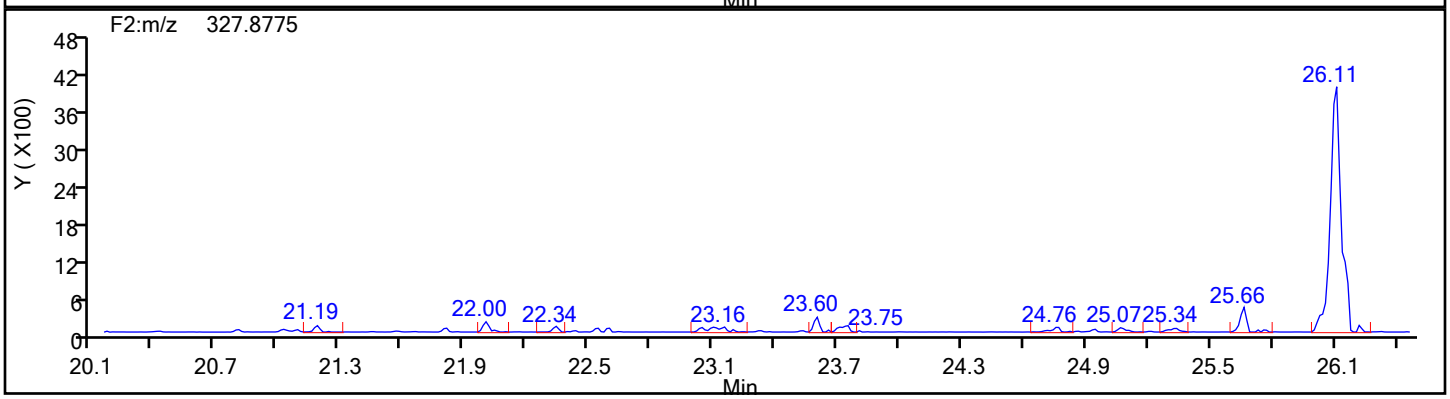
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

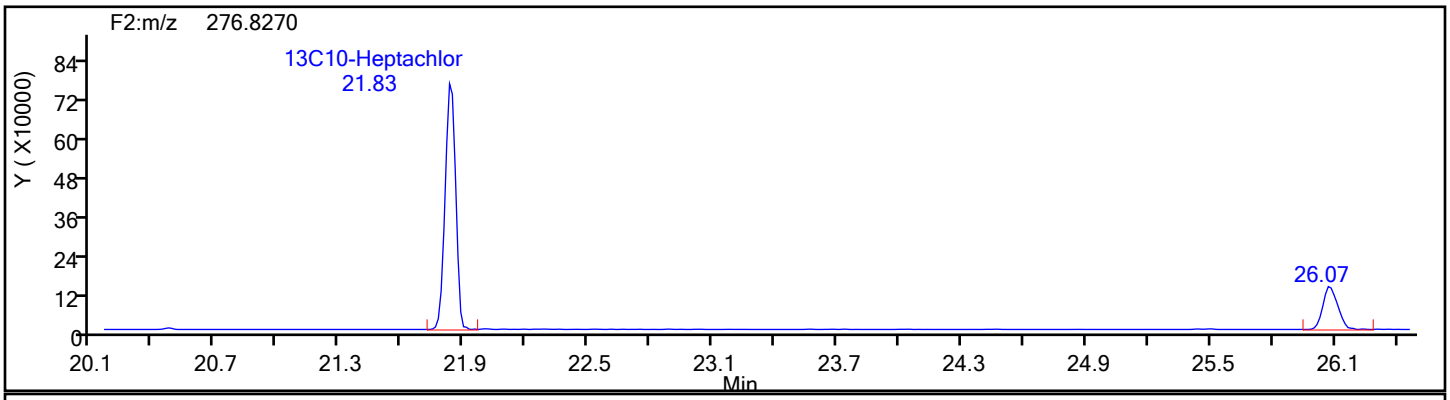
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

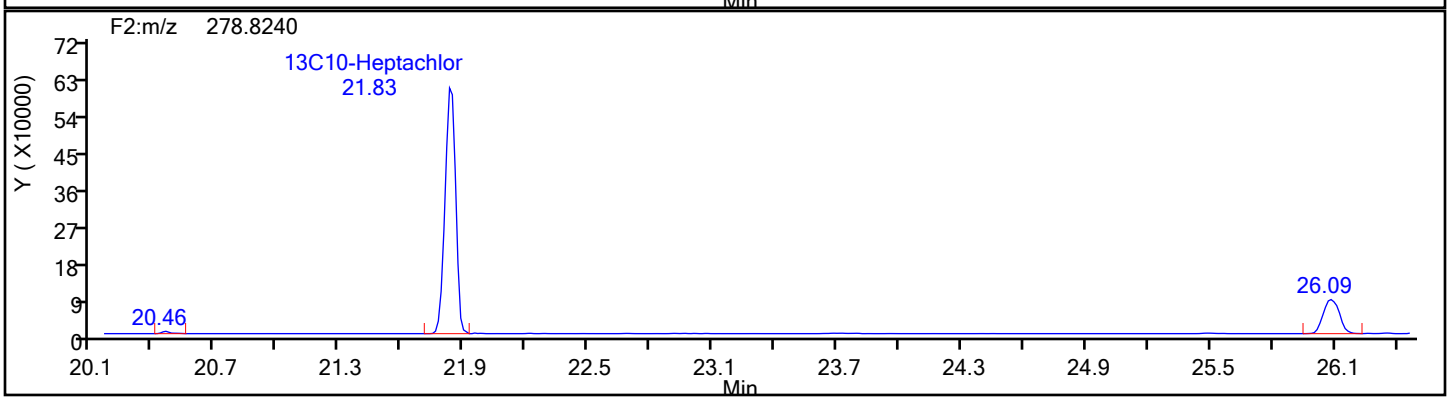
PCB-104





PCB-104 Standards



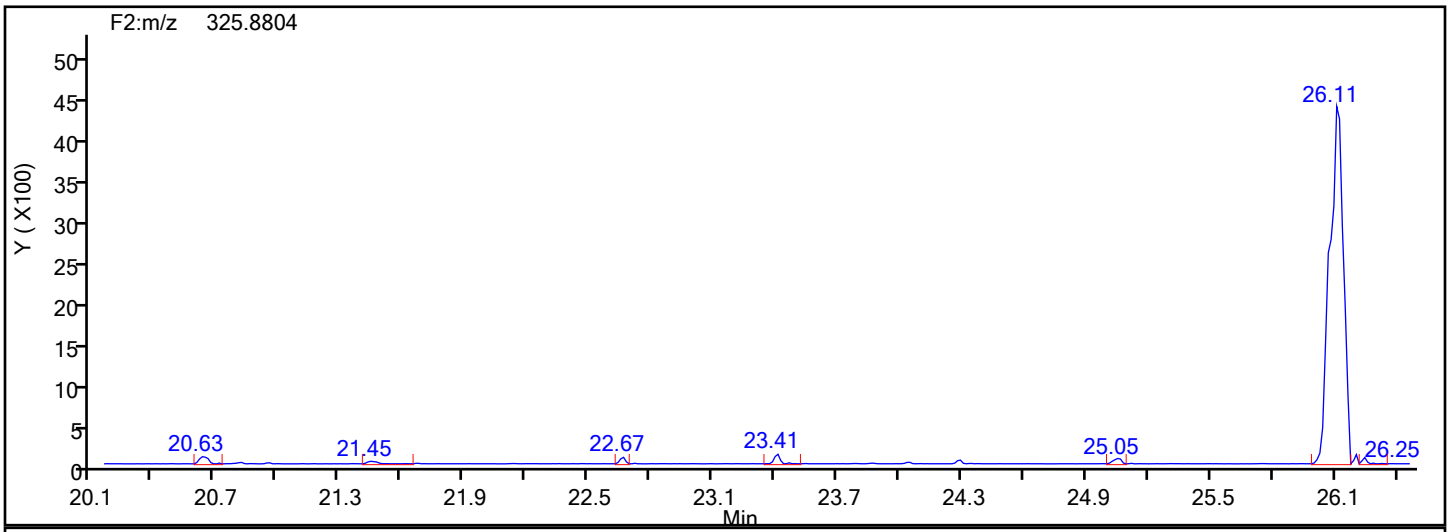


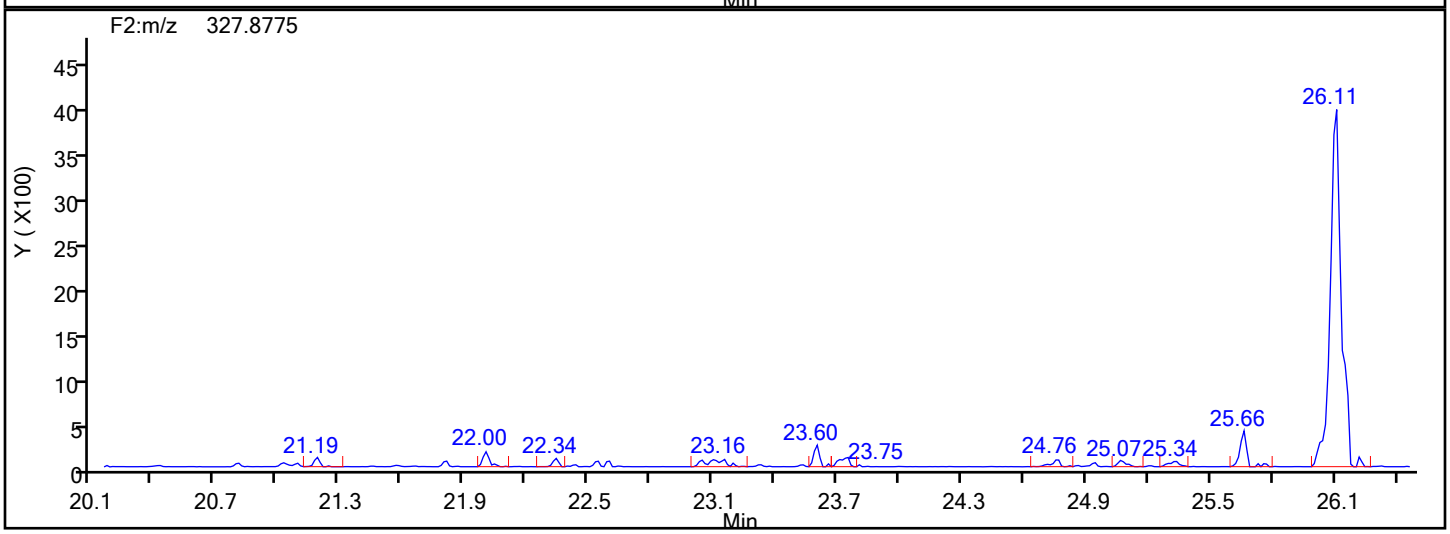
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

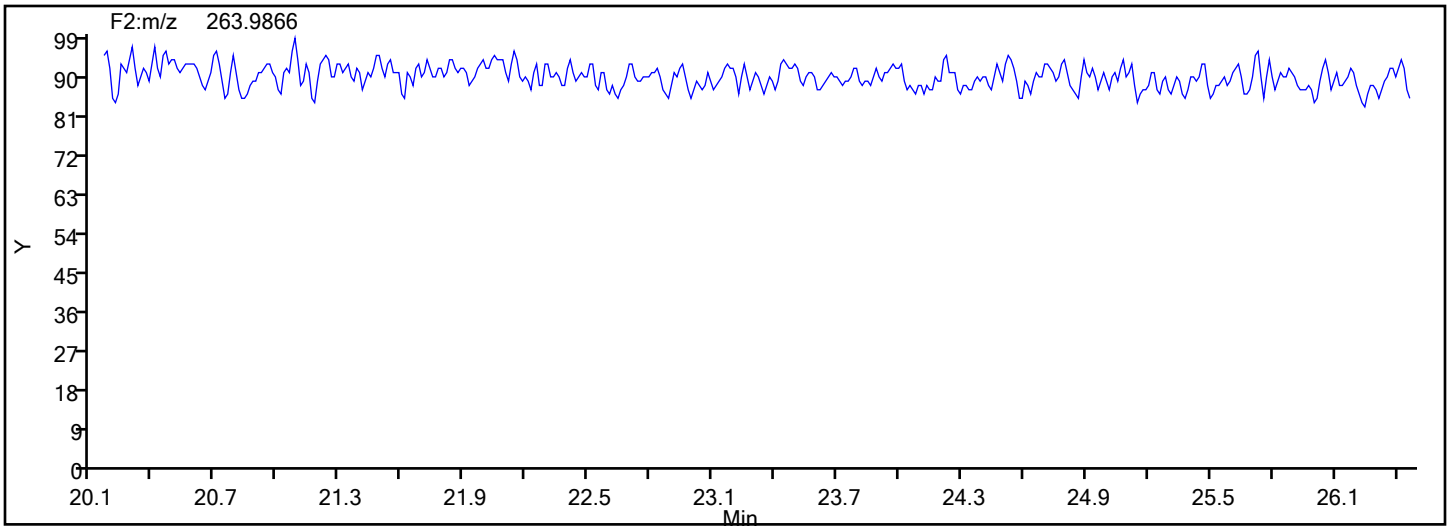
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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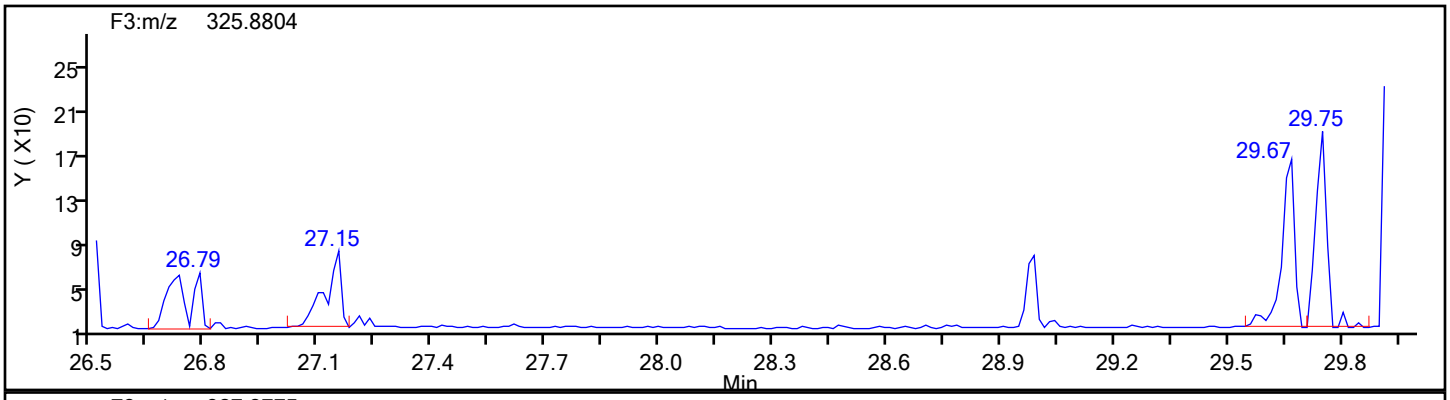
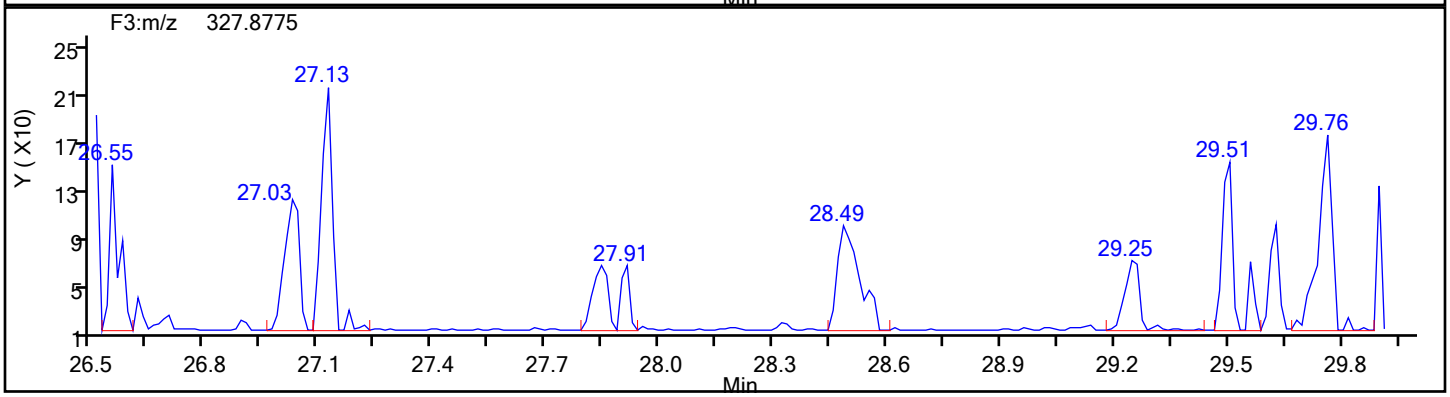
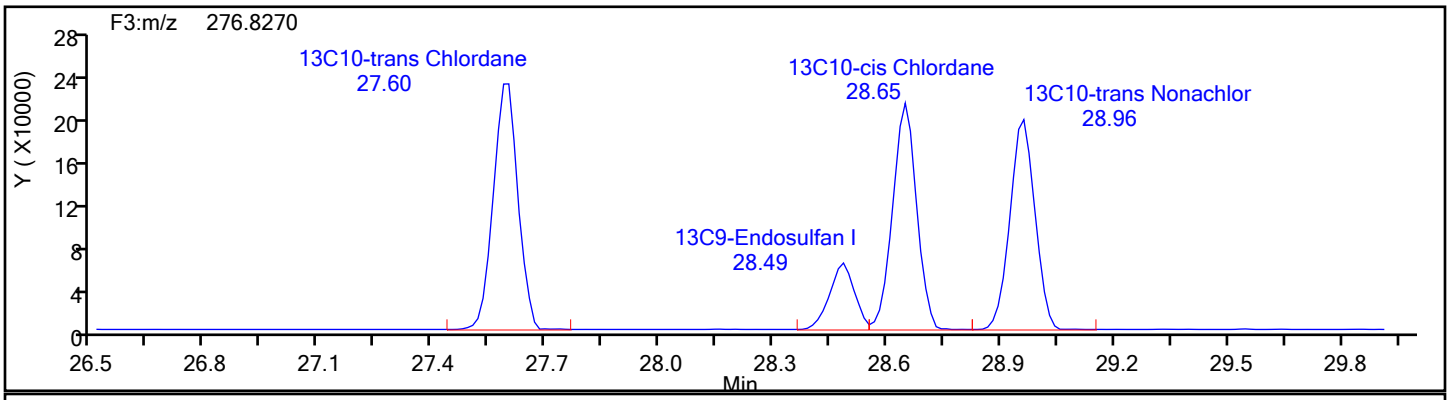
Column Type:	RTX-5	Column Dia:	0.32 mm

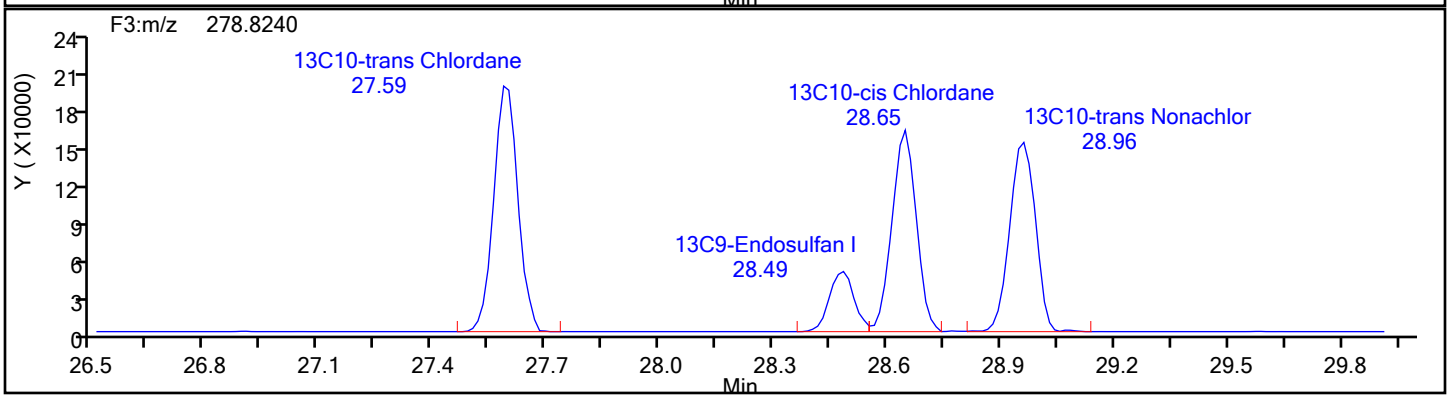
PCB-121





PCB-121 Standards



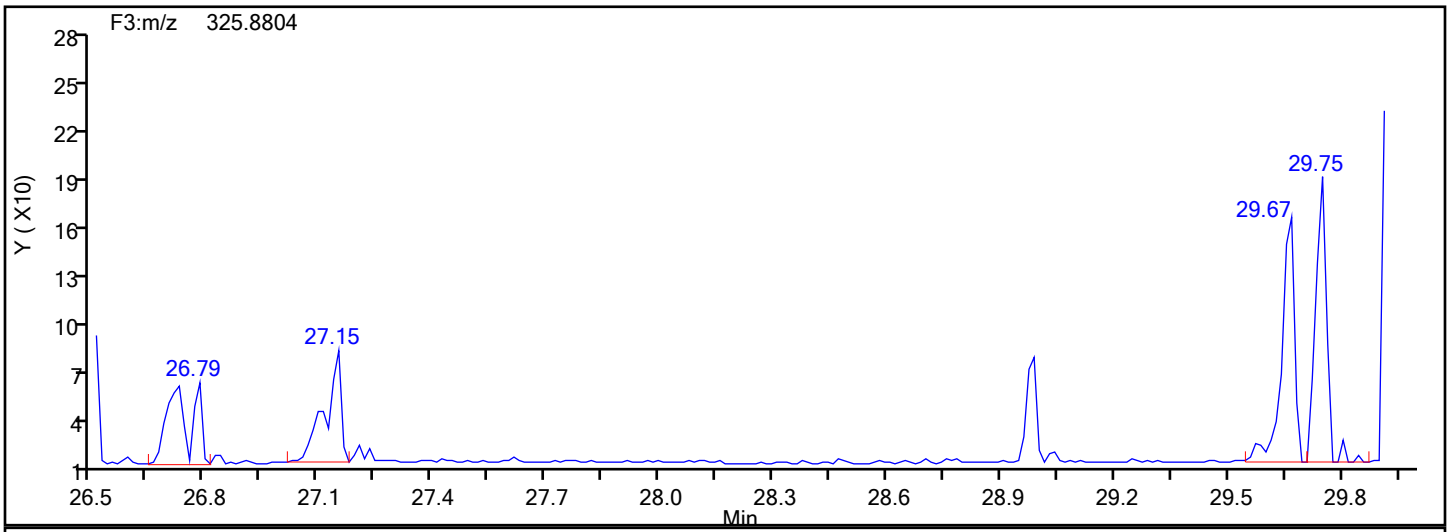


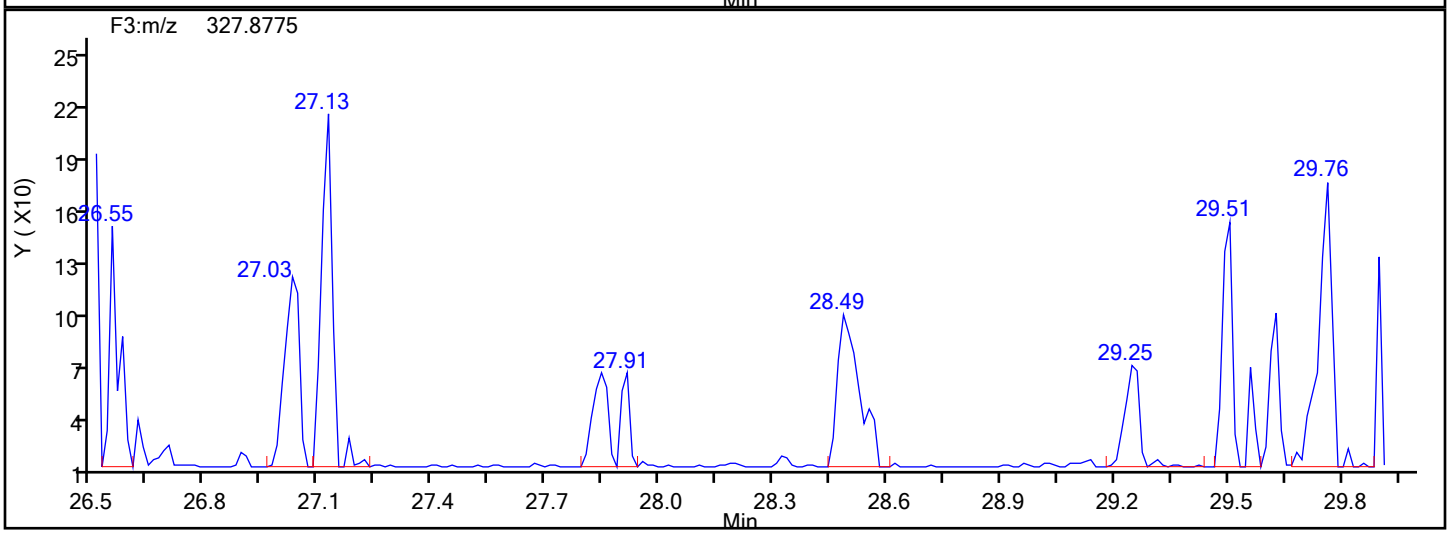
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

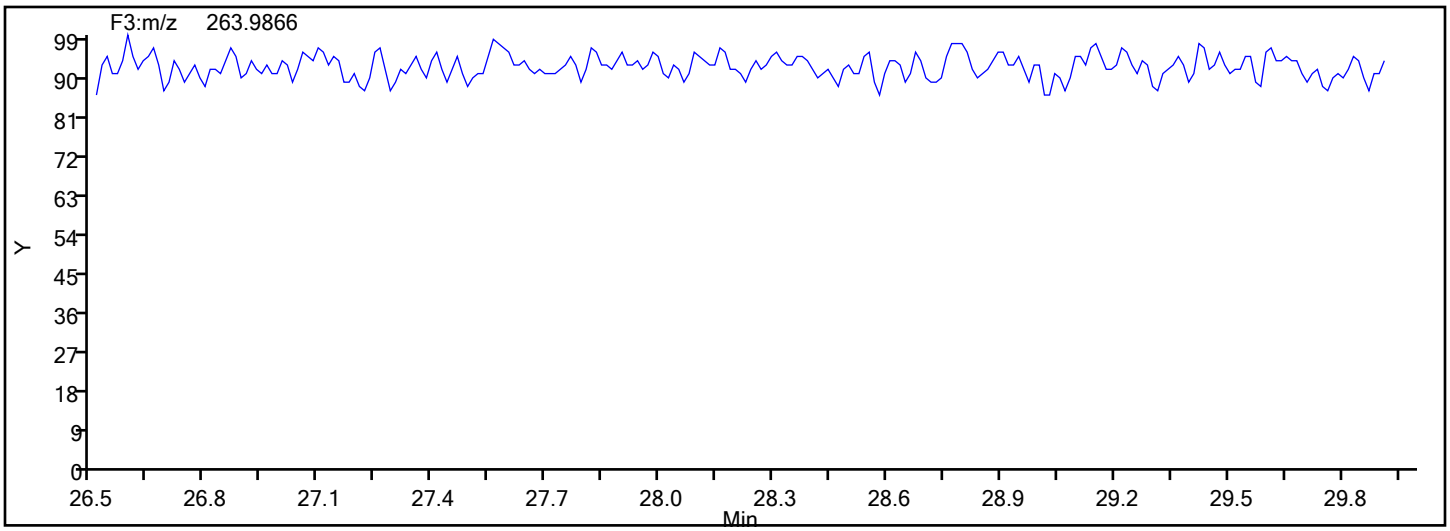
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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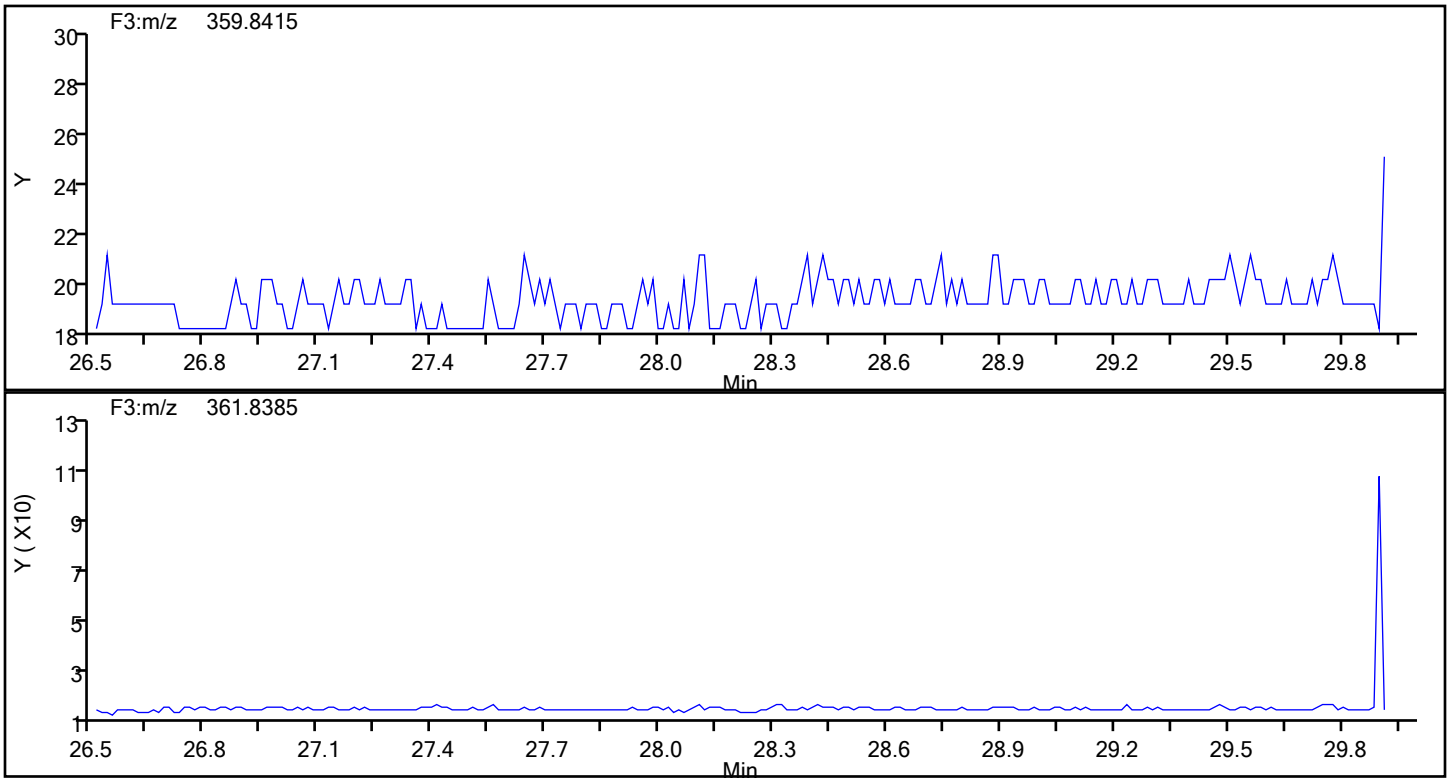
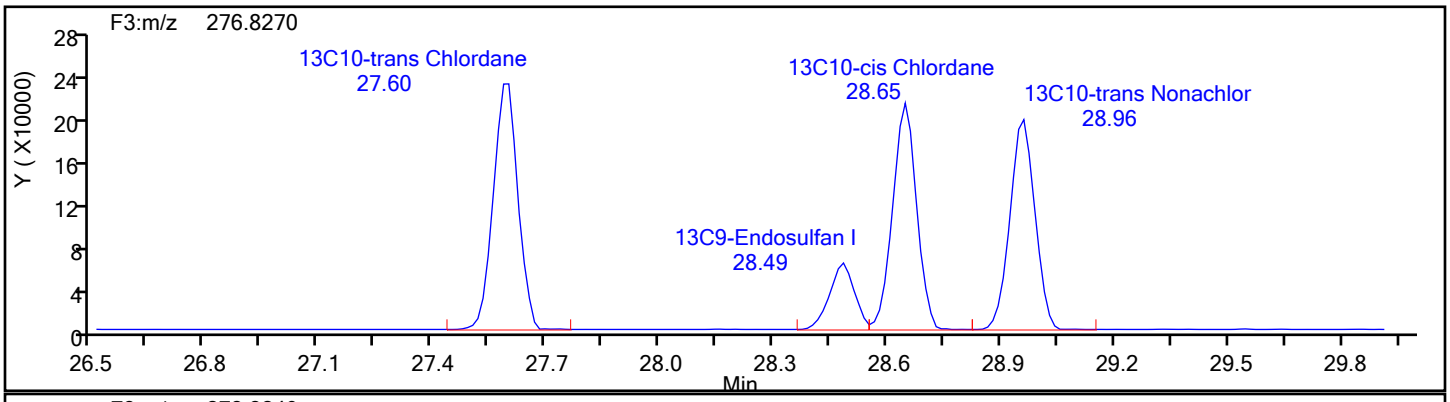
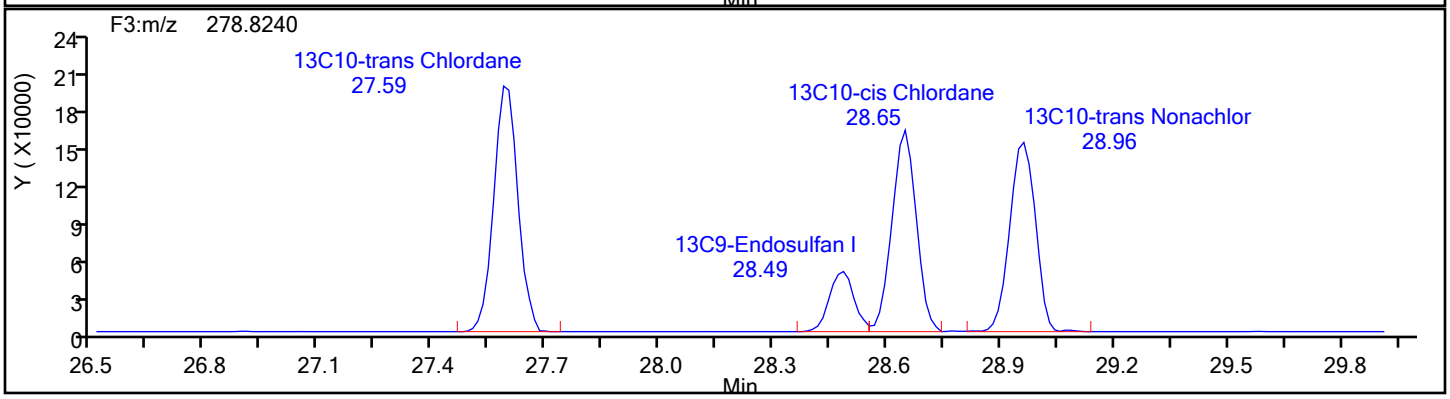
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards





Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Client ID:
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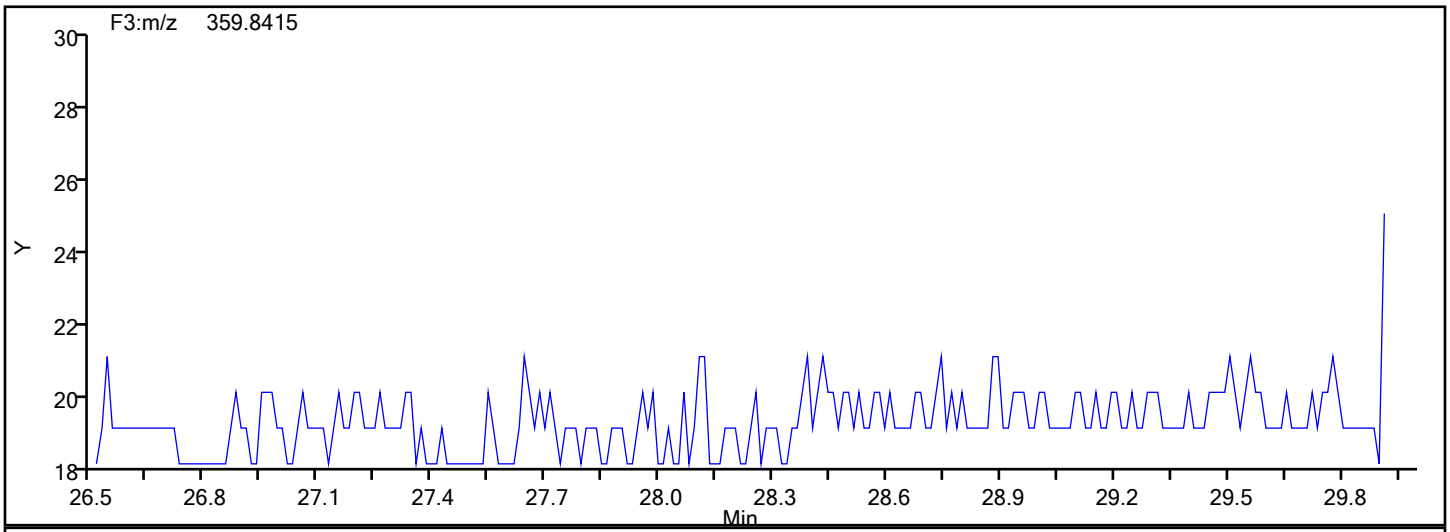
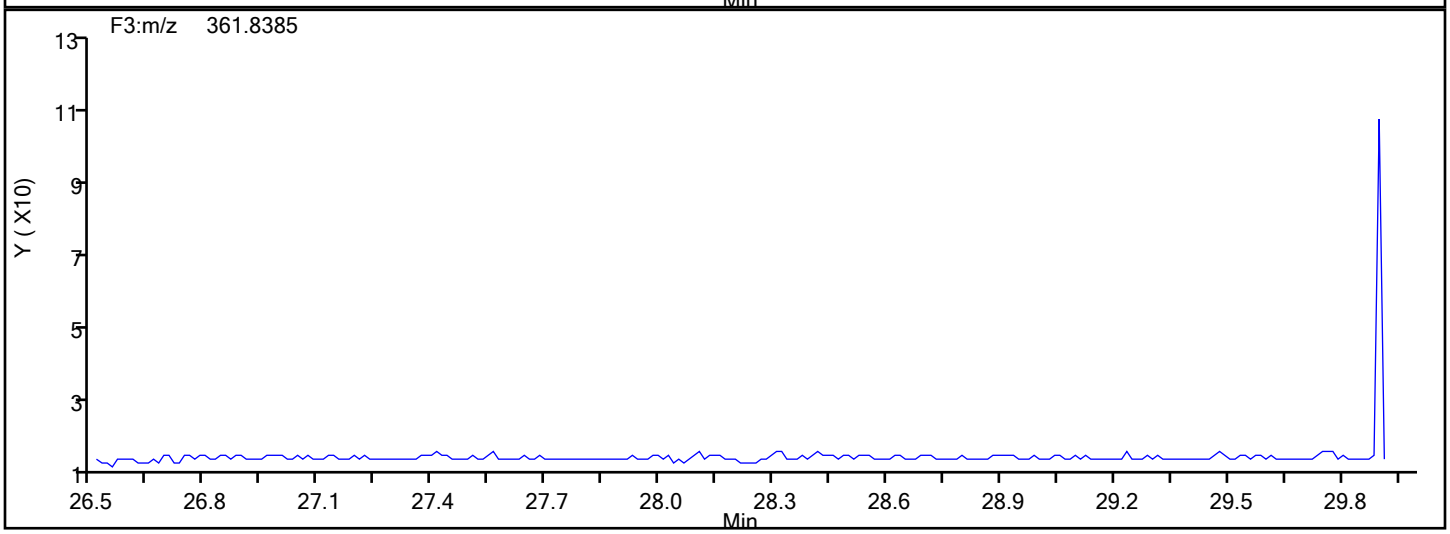
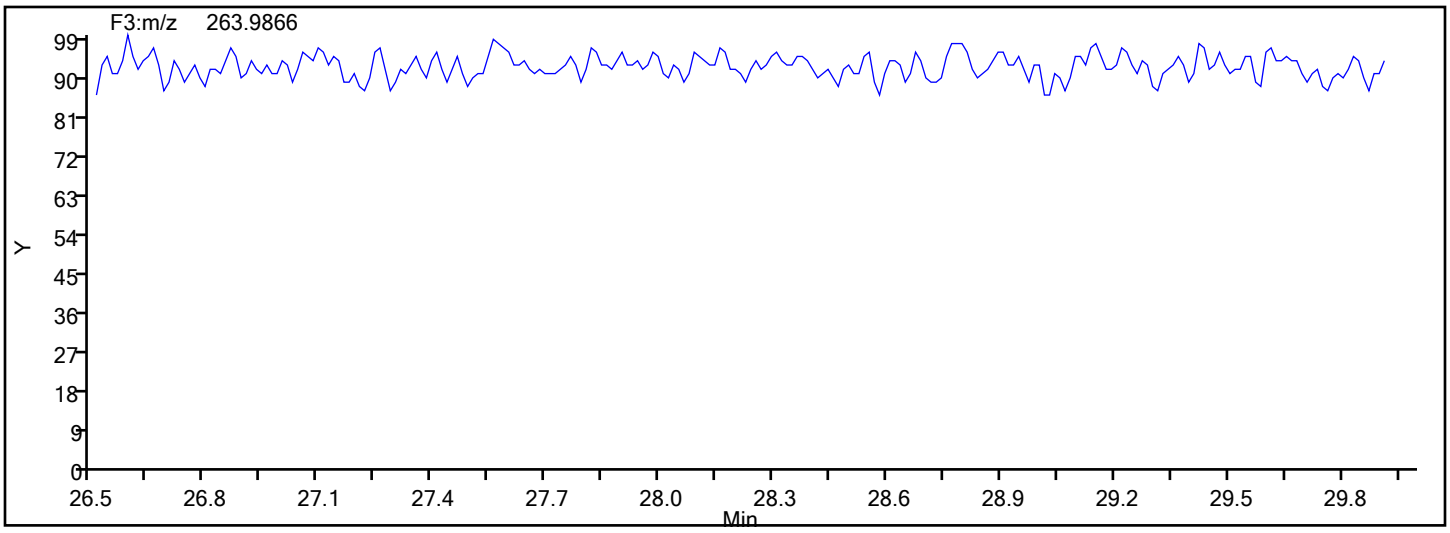
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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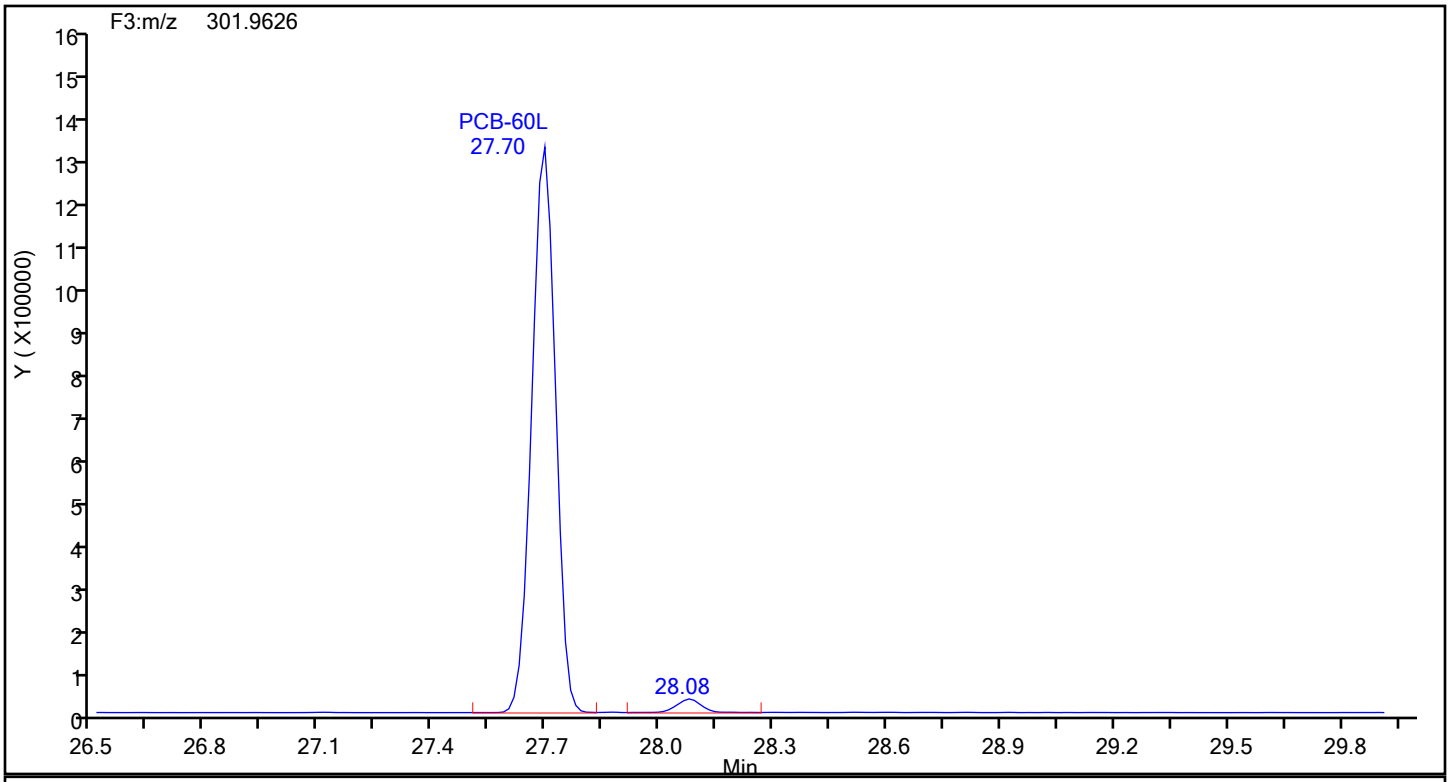
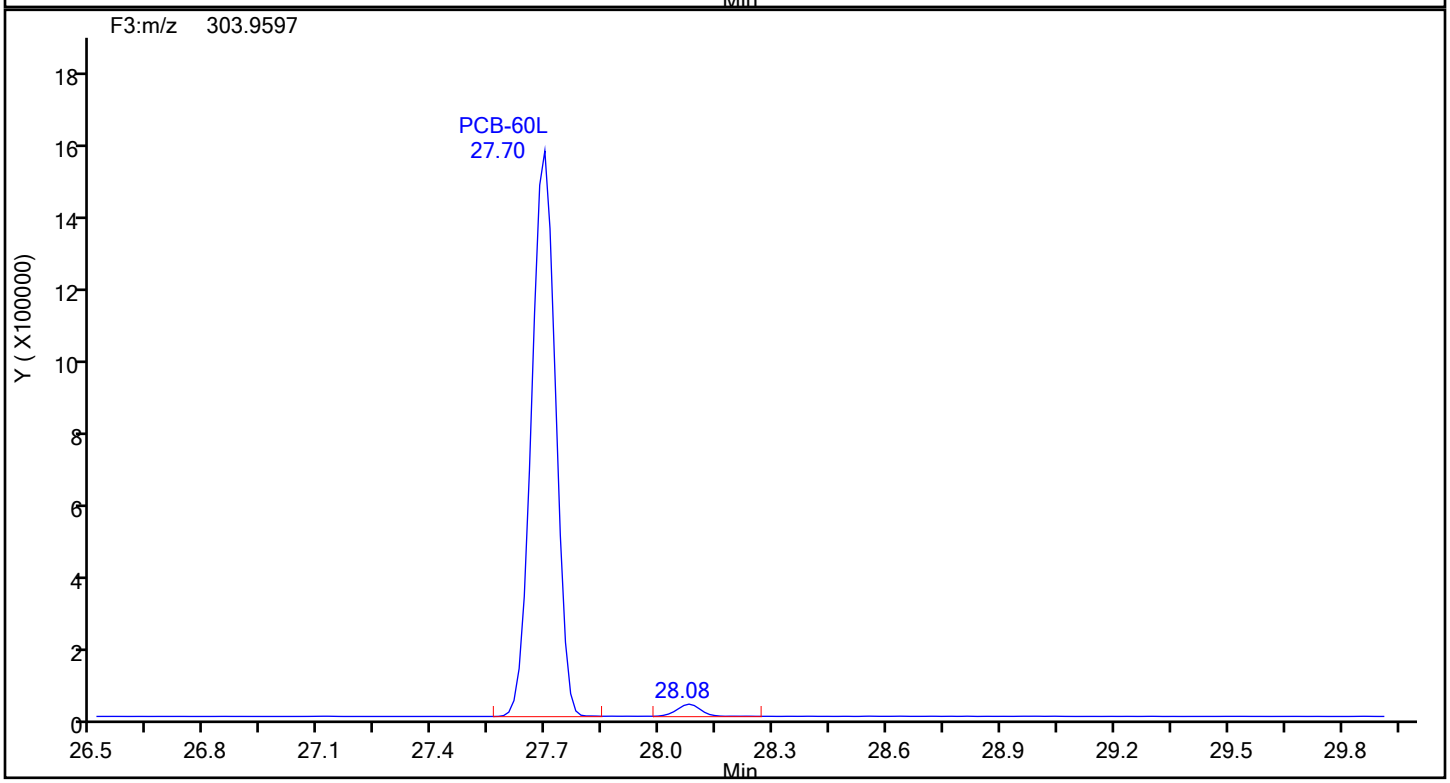
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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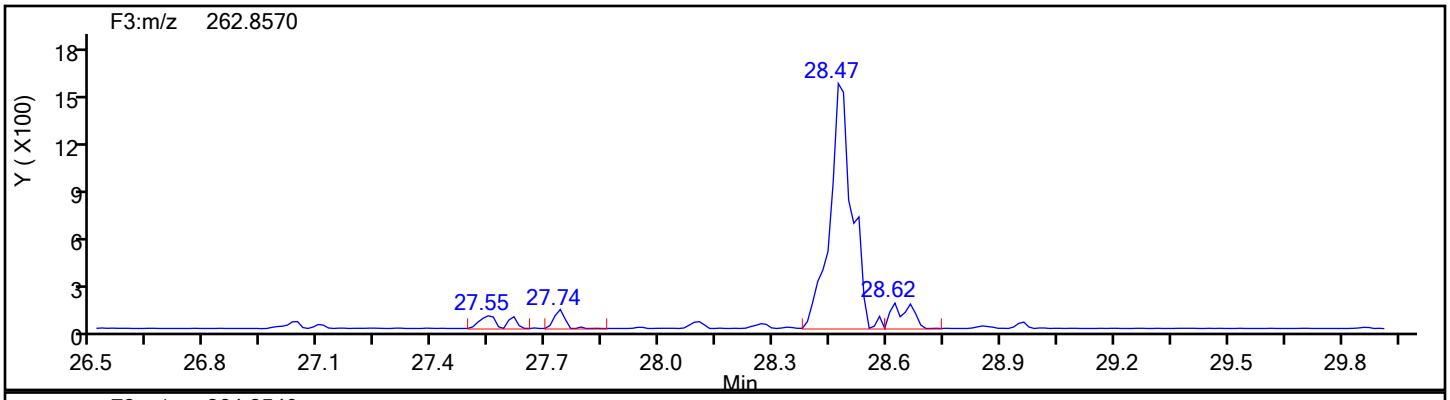
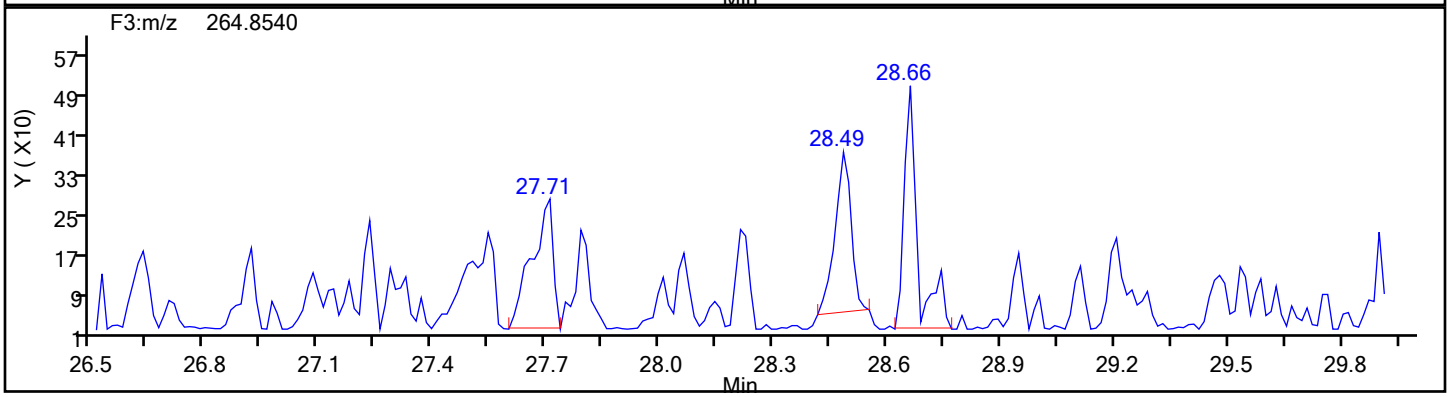
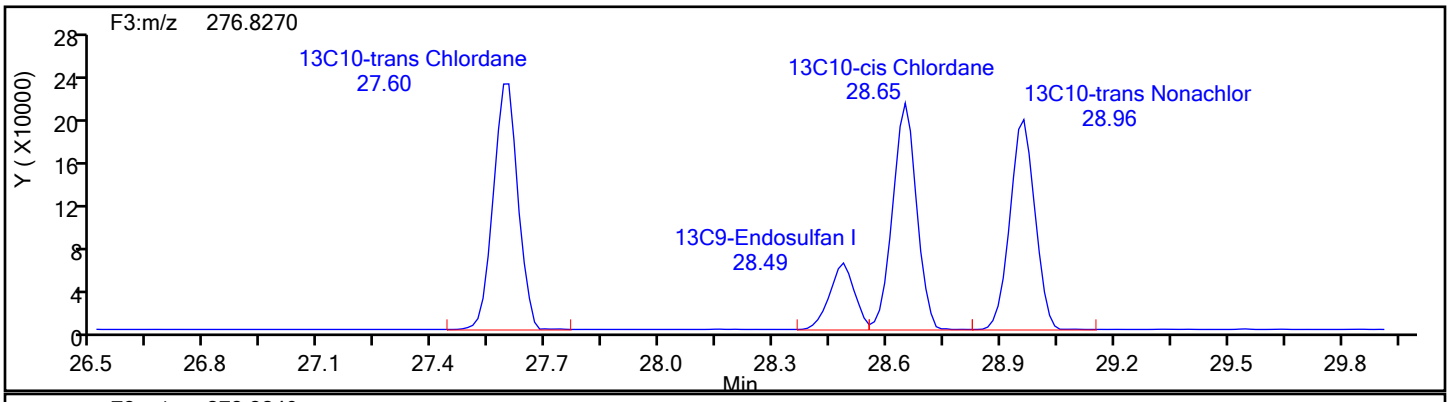
Column Type:	RTX-5	Column Dia:	0.32 mm

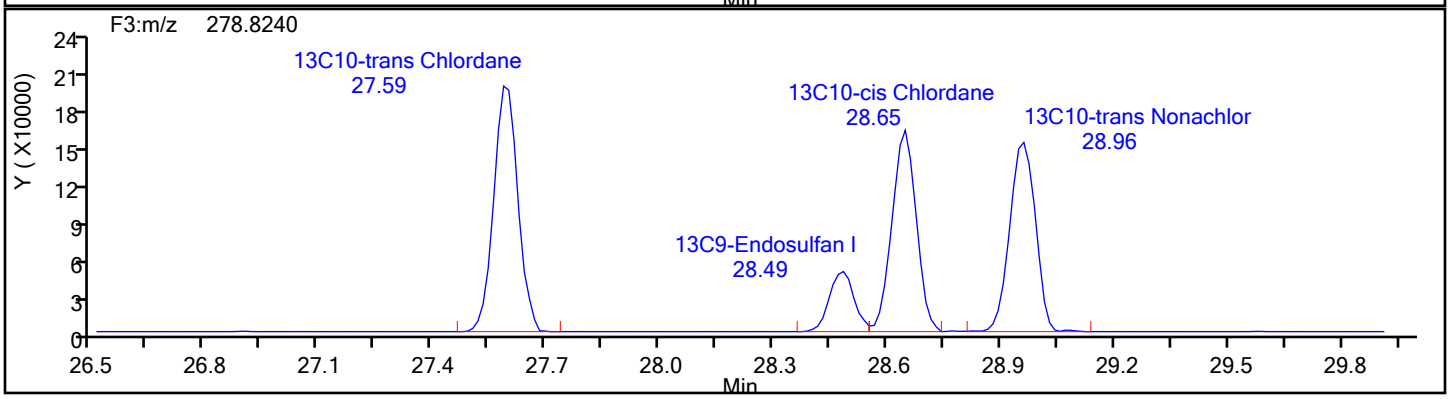
Endosulfan I





Endosulfan I Standards





Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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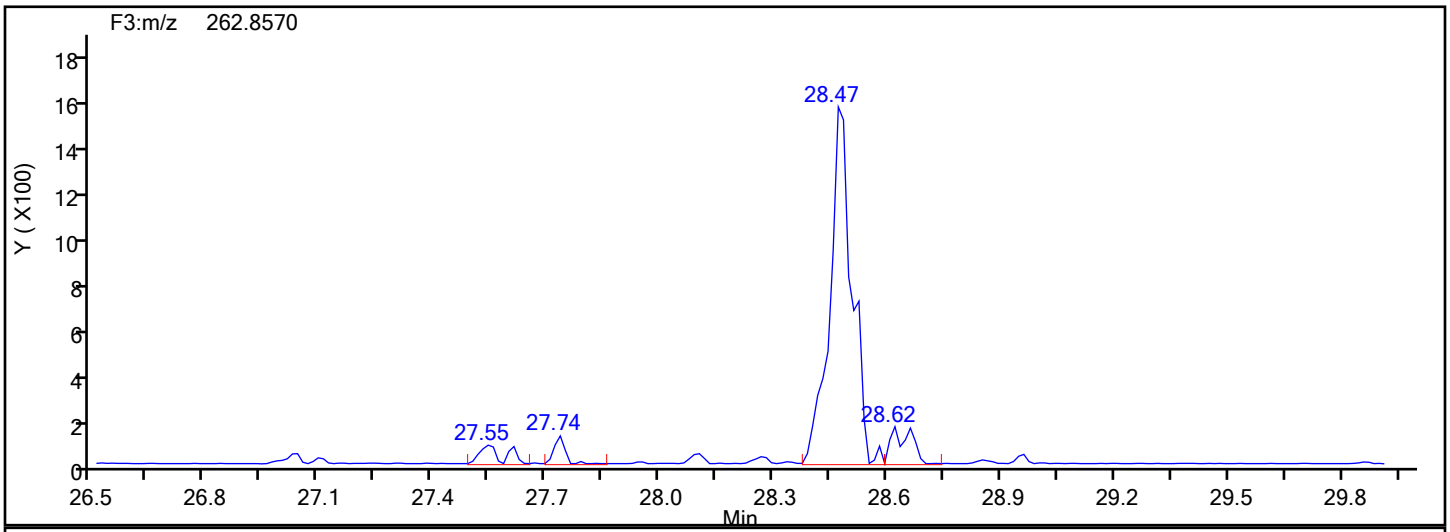
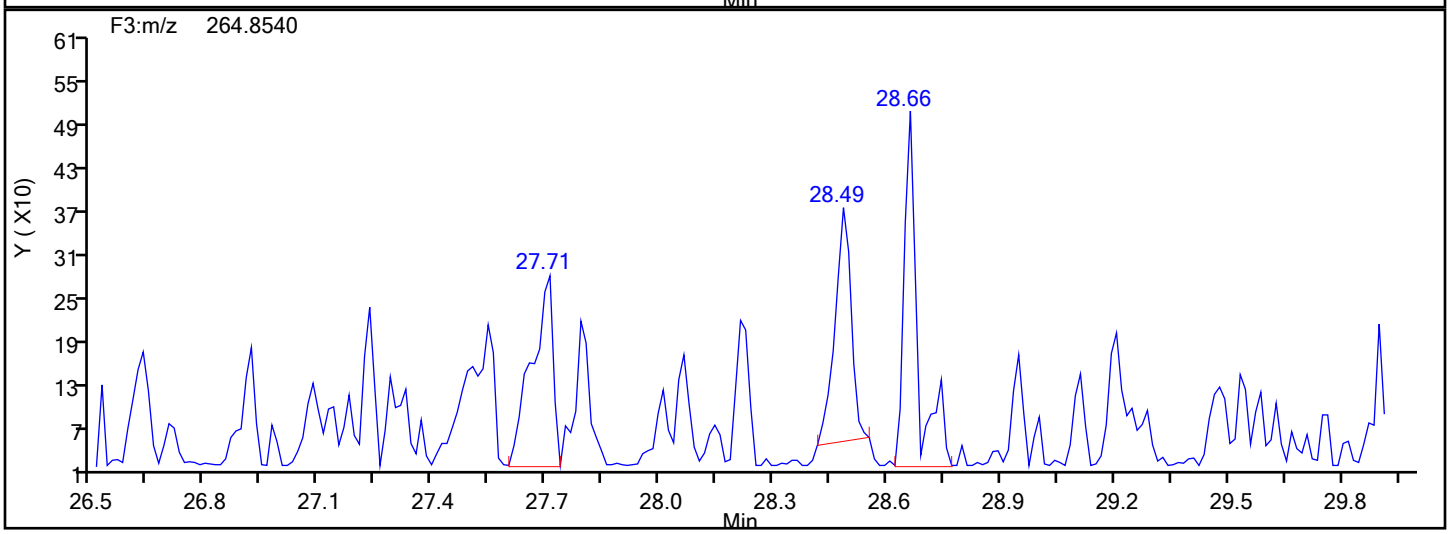
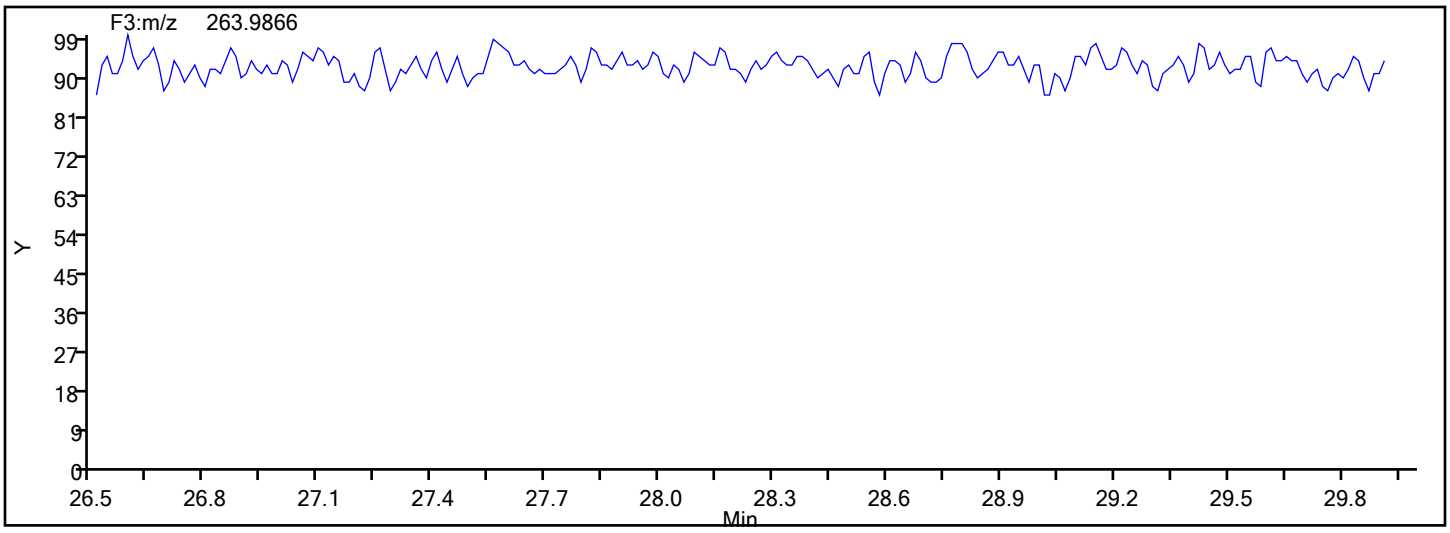
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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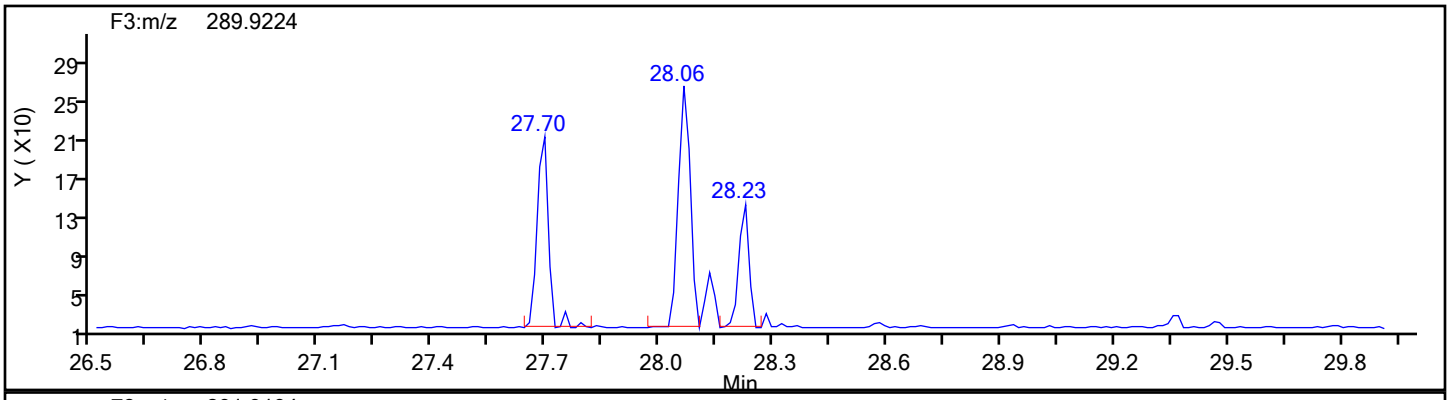
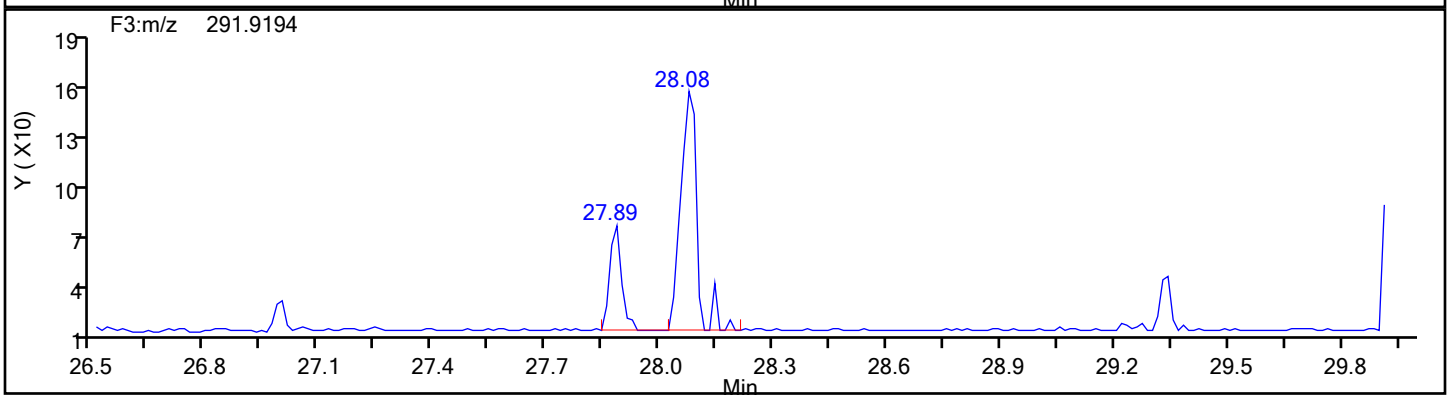
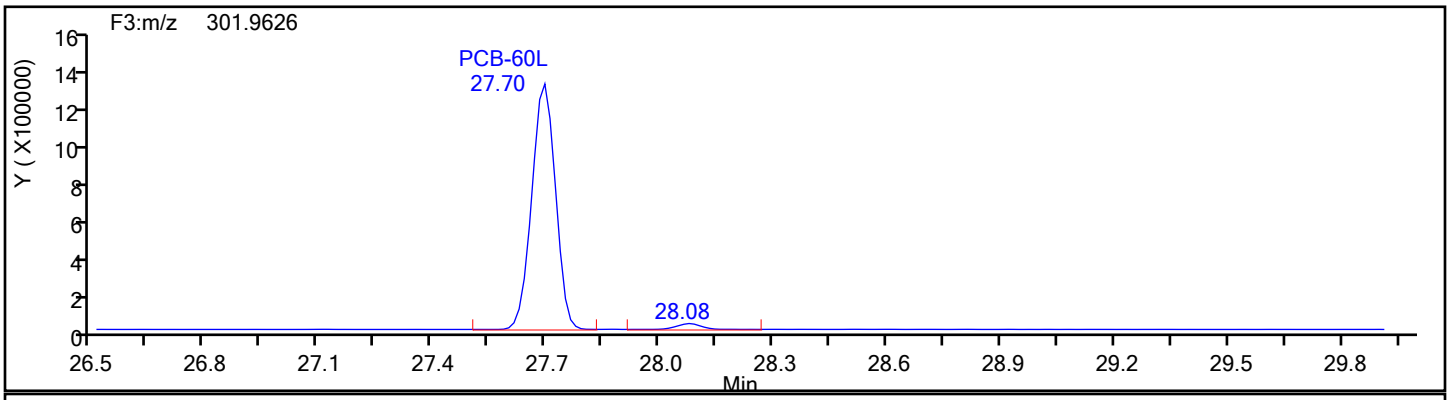
Column Type:	RTX-5	Column Dia:	0.32 mm

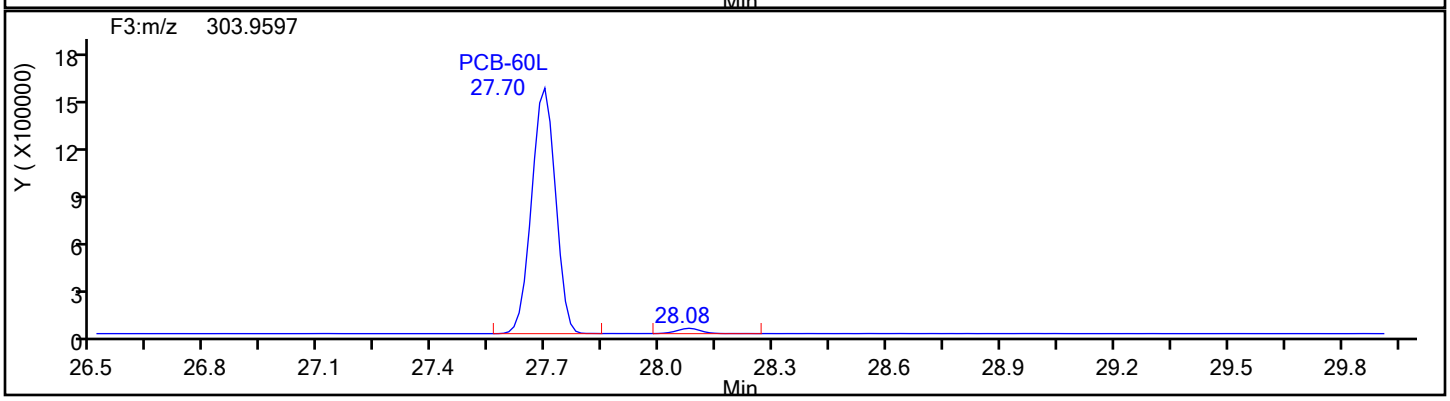
PCB-78





PCB-78 Standards





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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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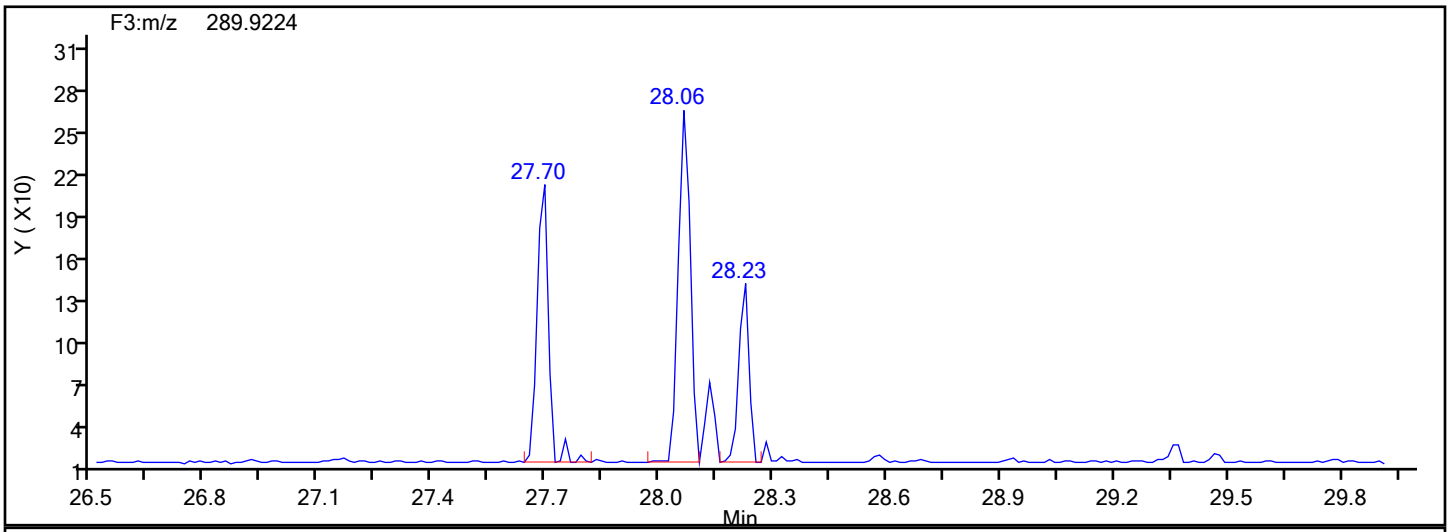
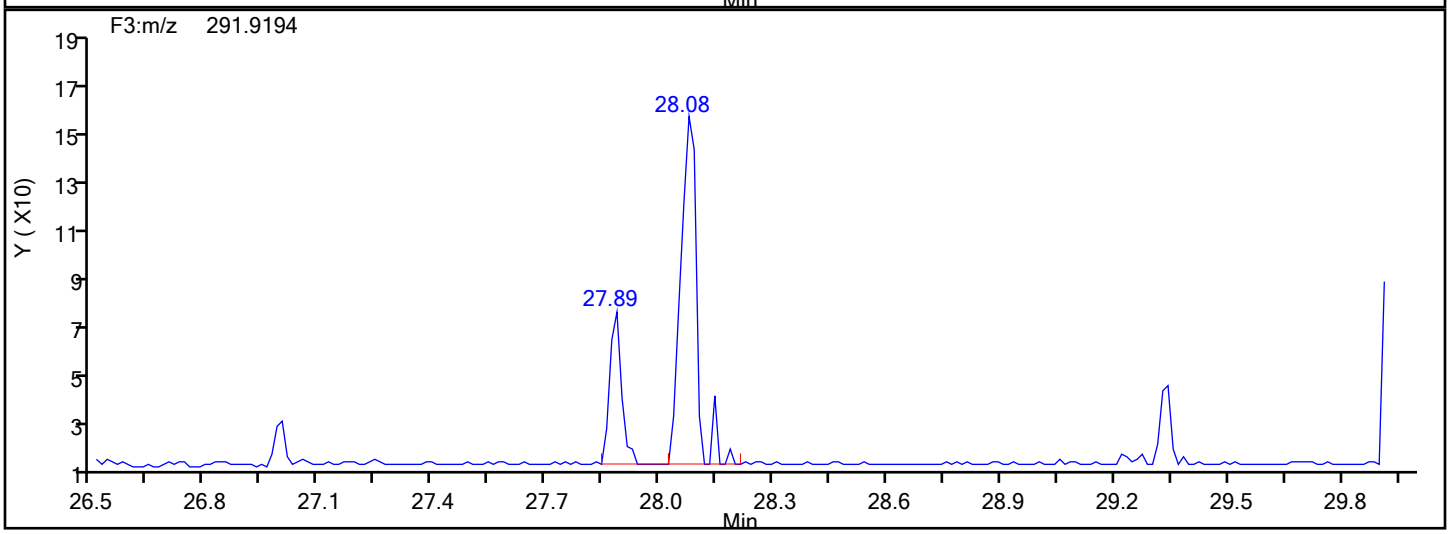
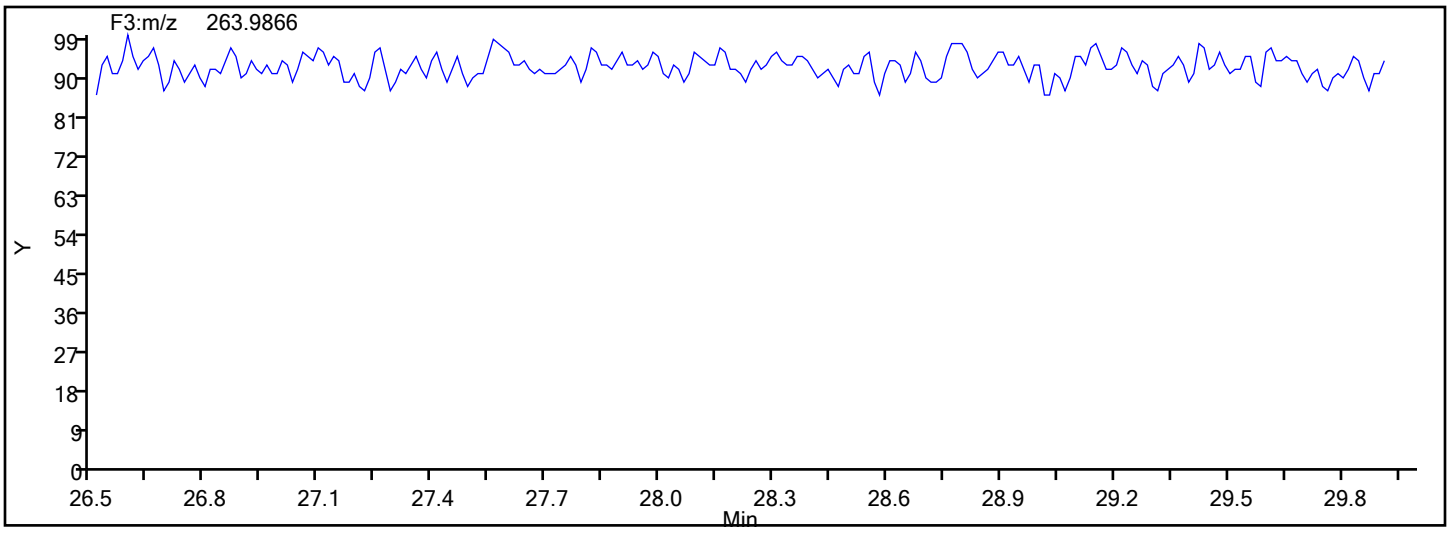
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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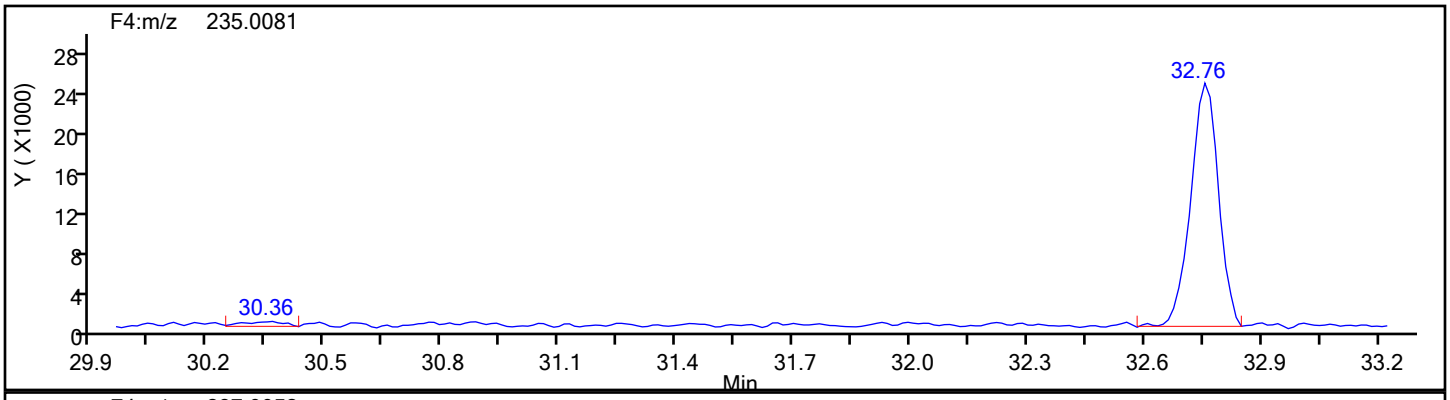
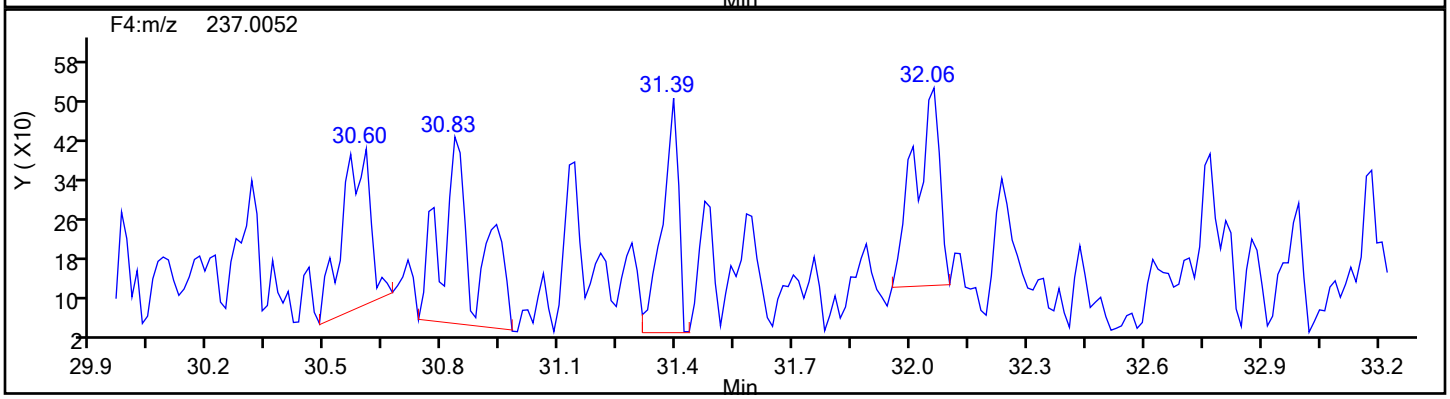
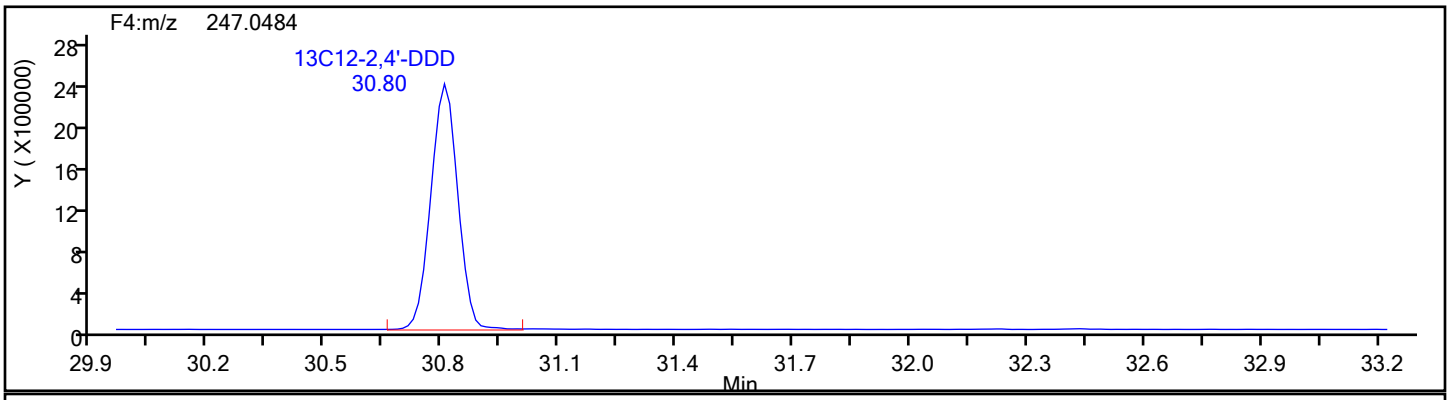
Column Type:	RTX-5	Column Dia:	0.32 mm

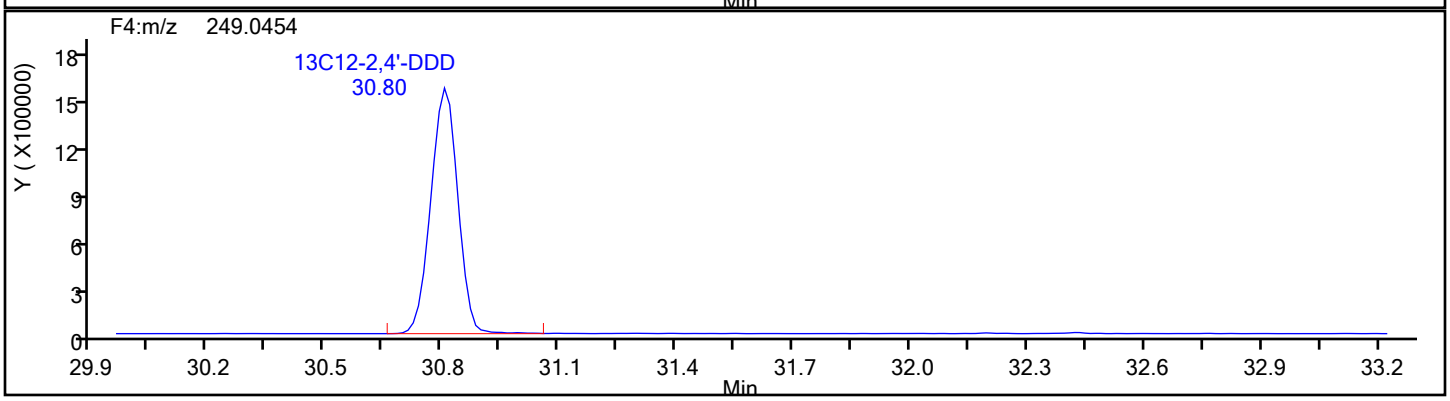
2,4'-DDD





2,4'-DDD Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
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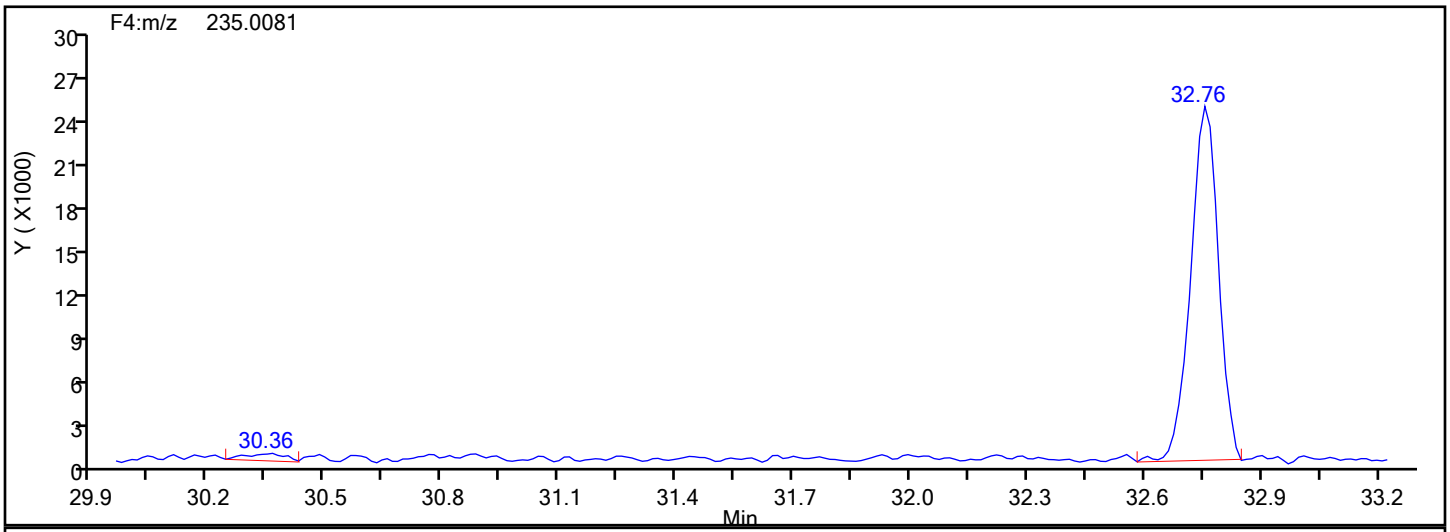
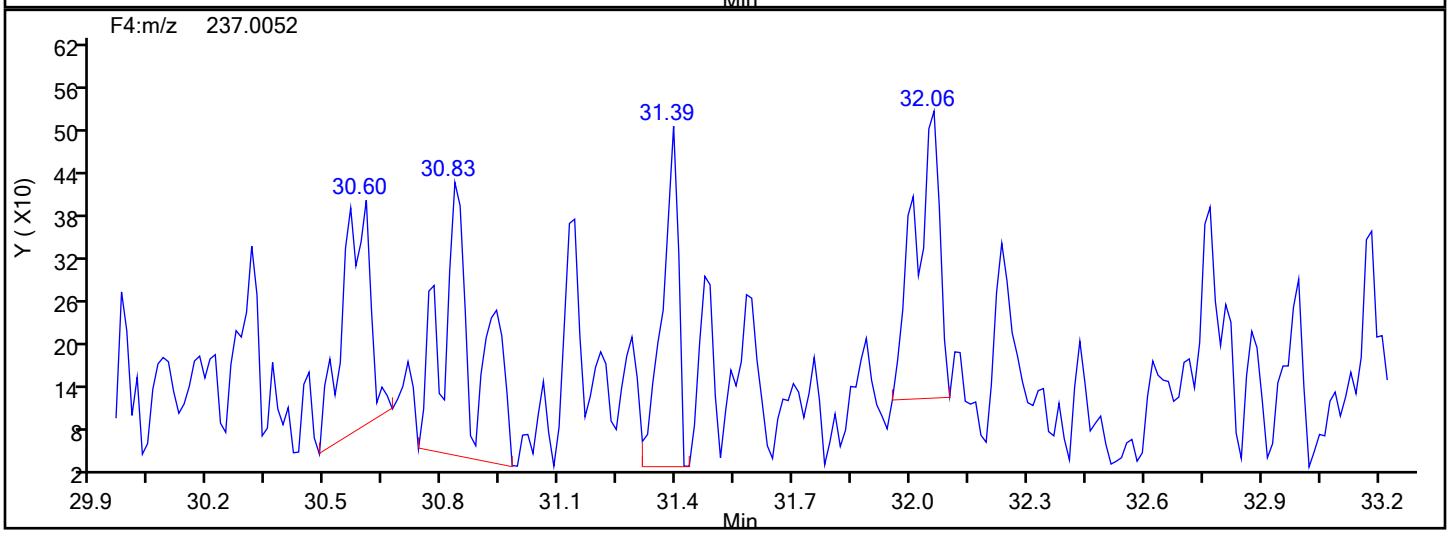
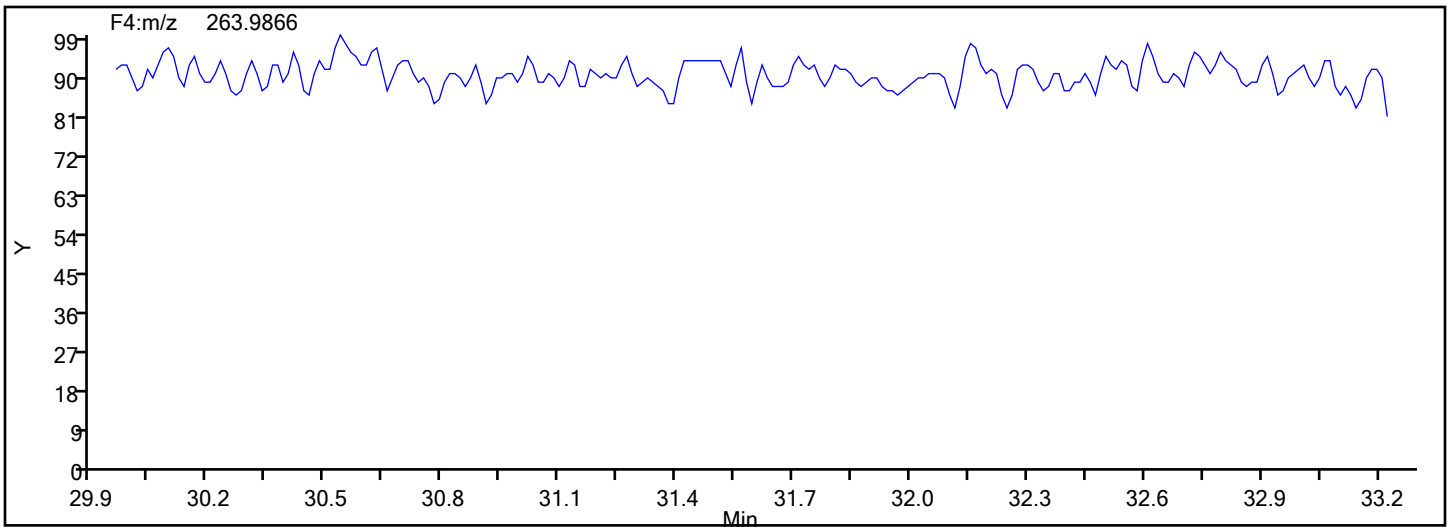
2,4'-DDD





2,4'-DDD Lock Mass



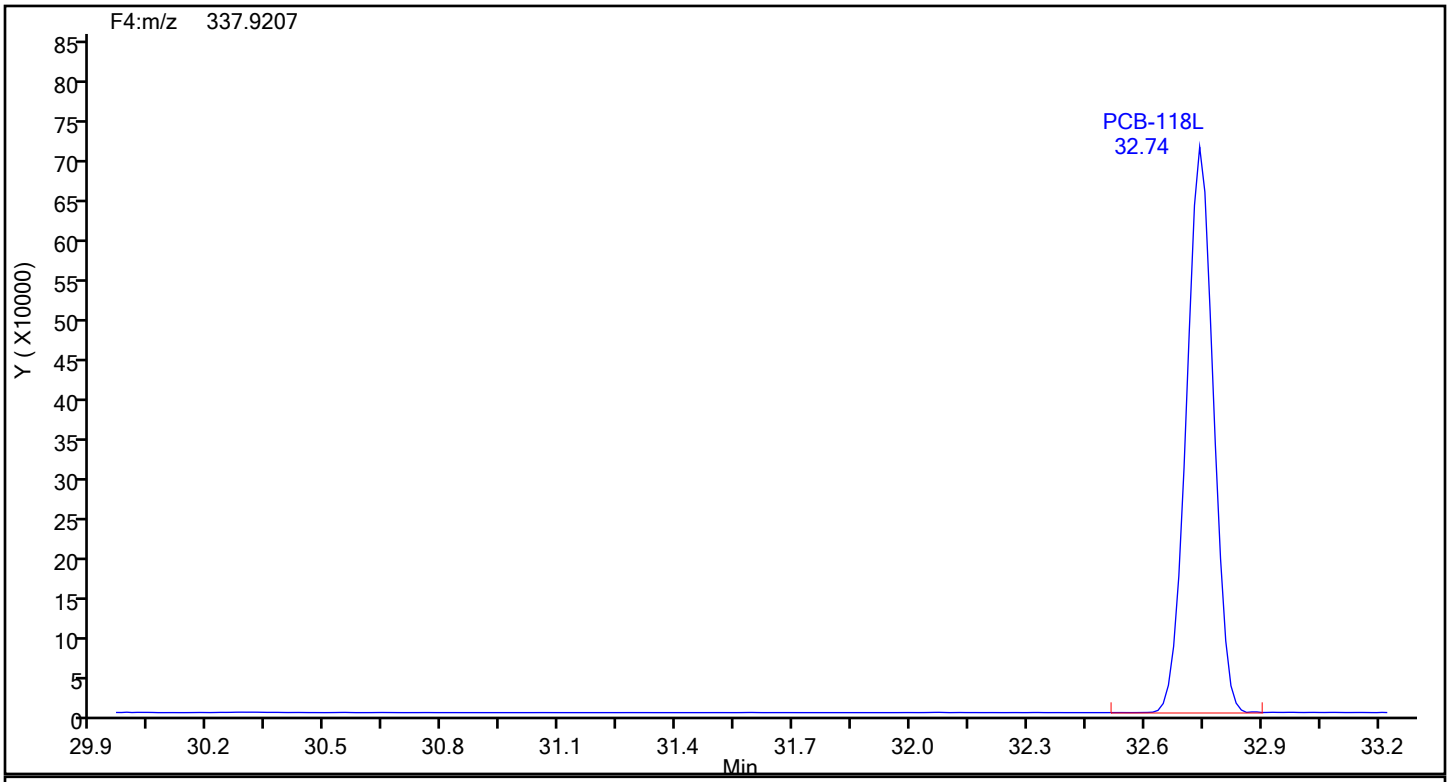
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

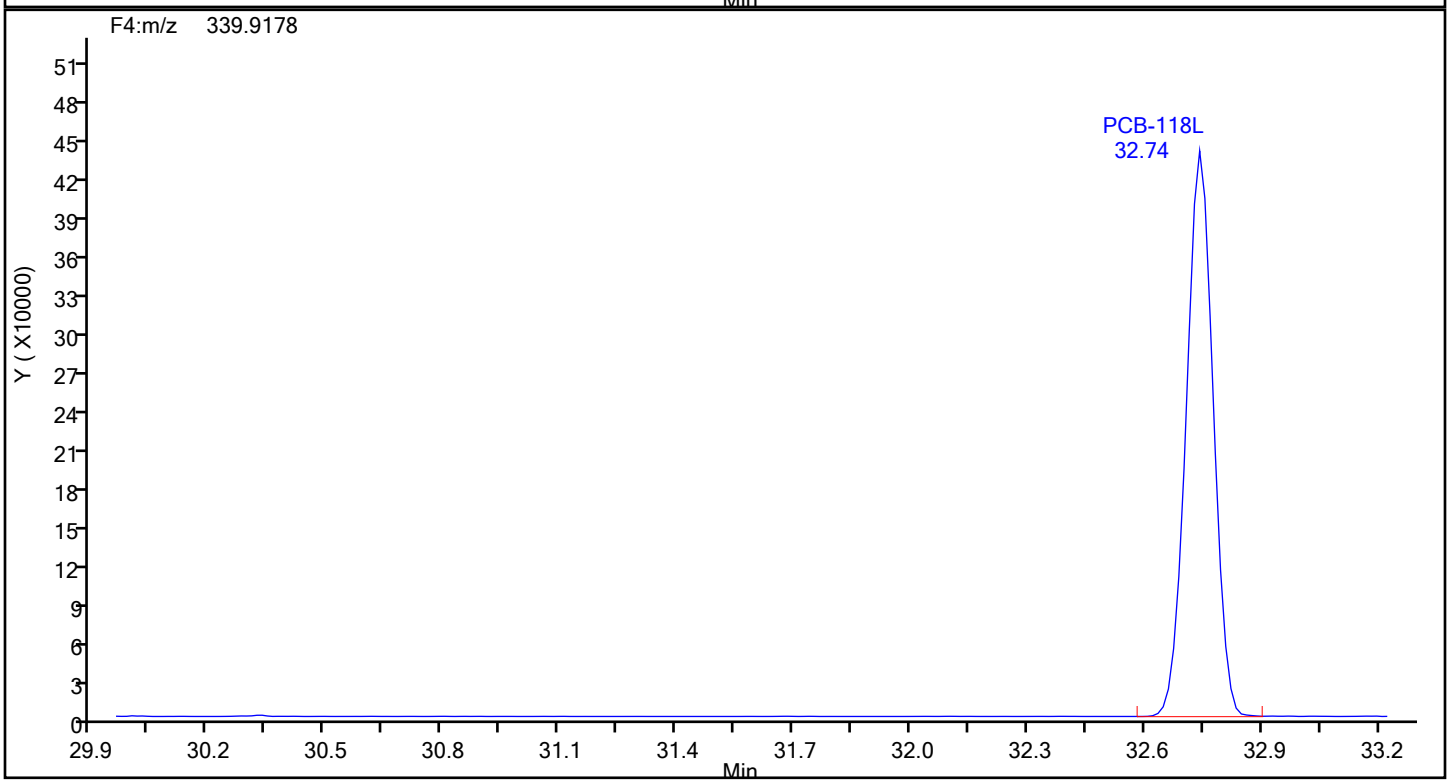
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





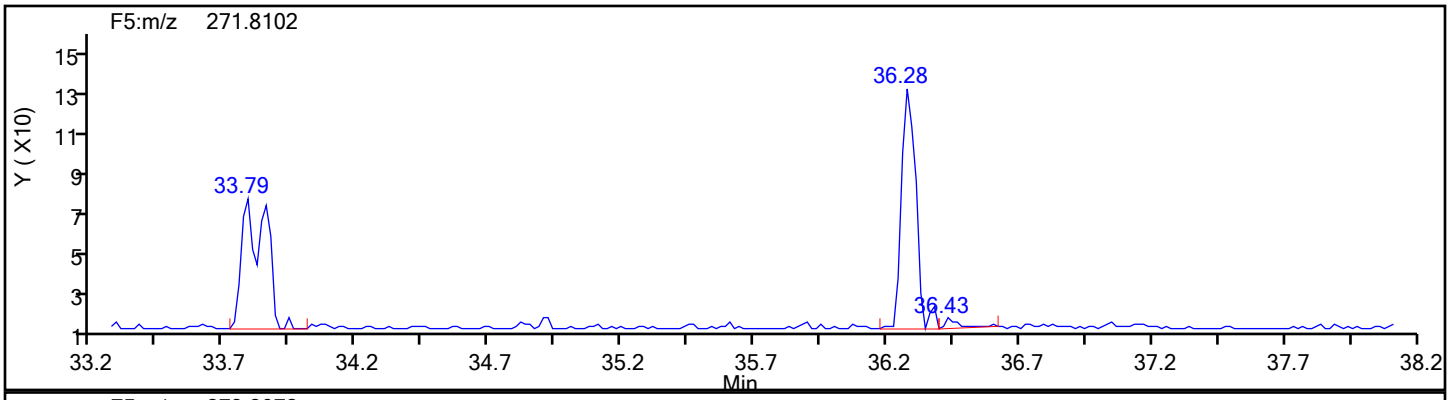
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

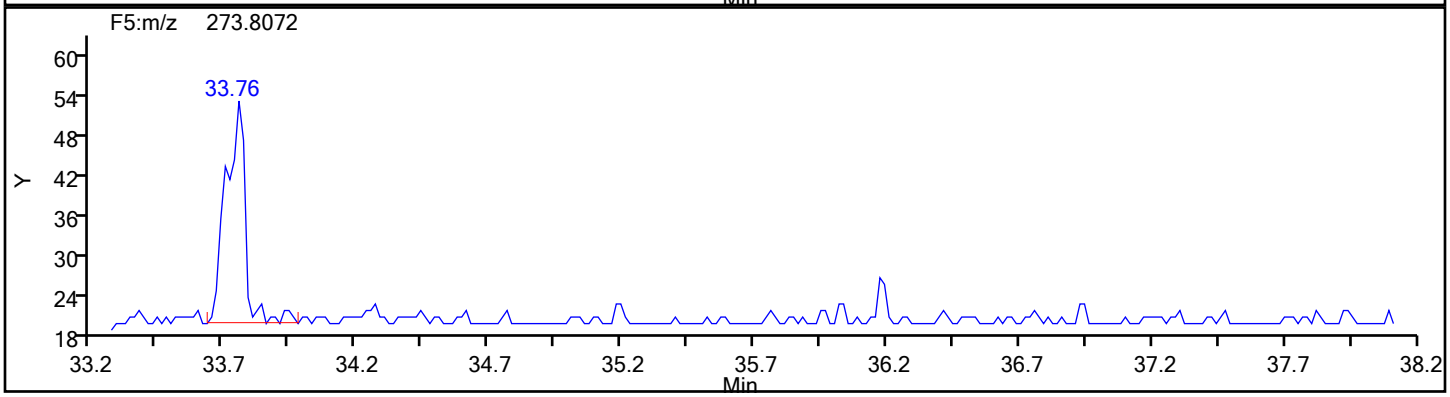
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

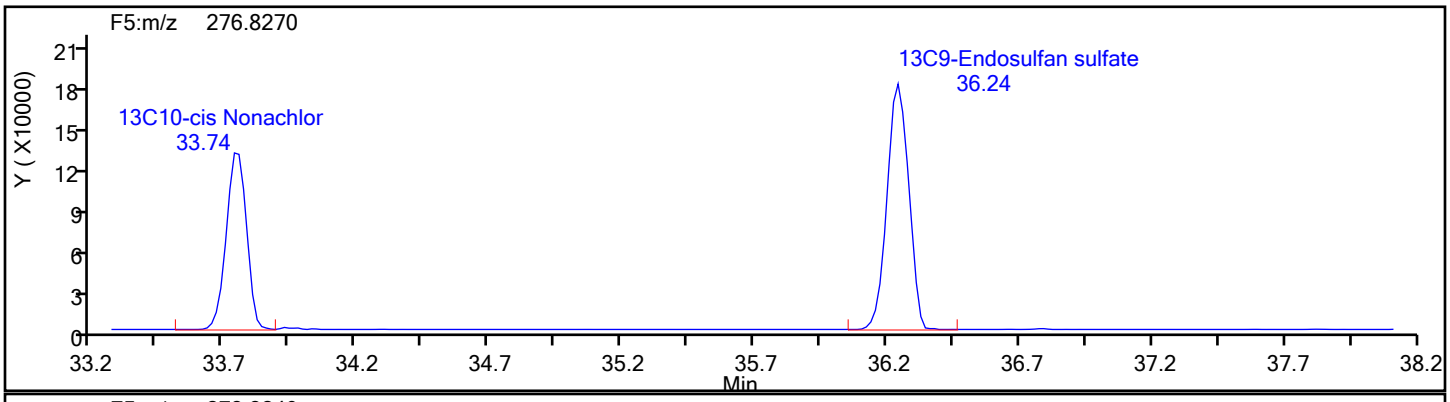
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

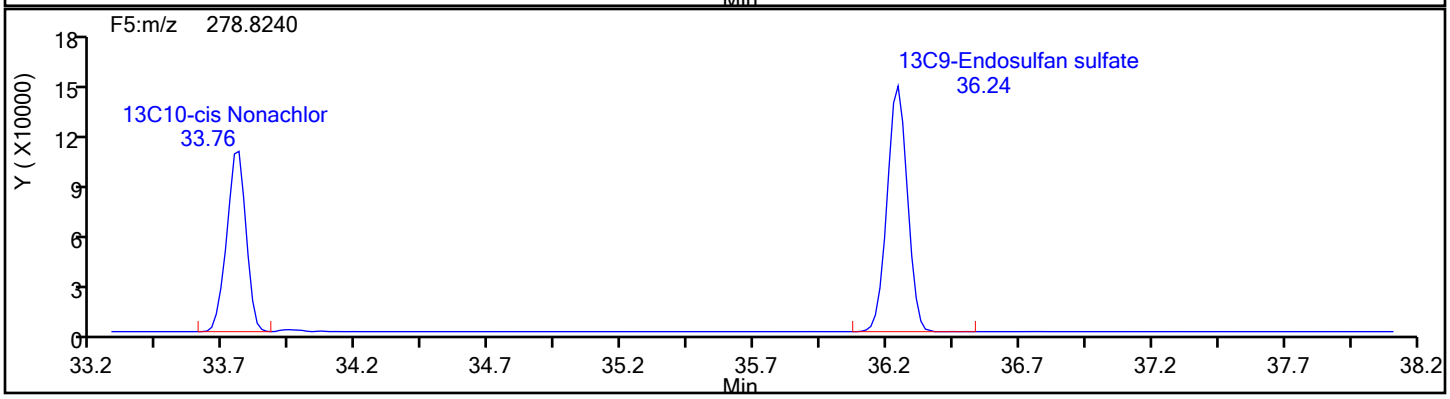
Nonachlor





Nonachlor Standards



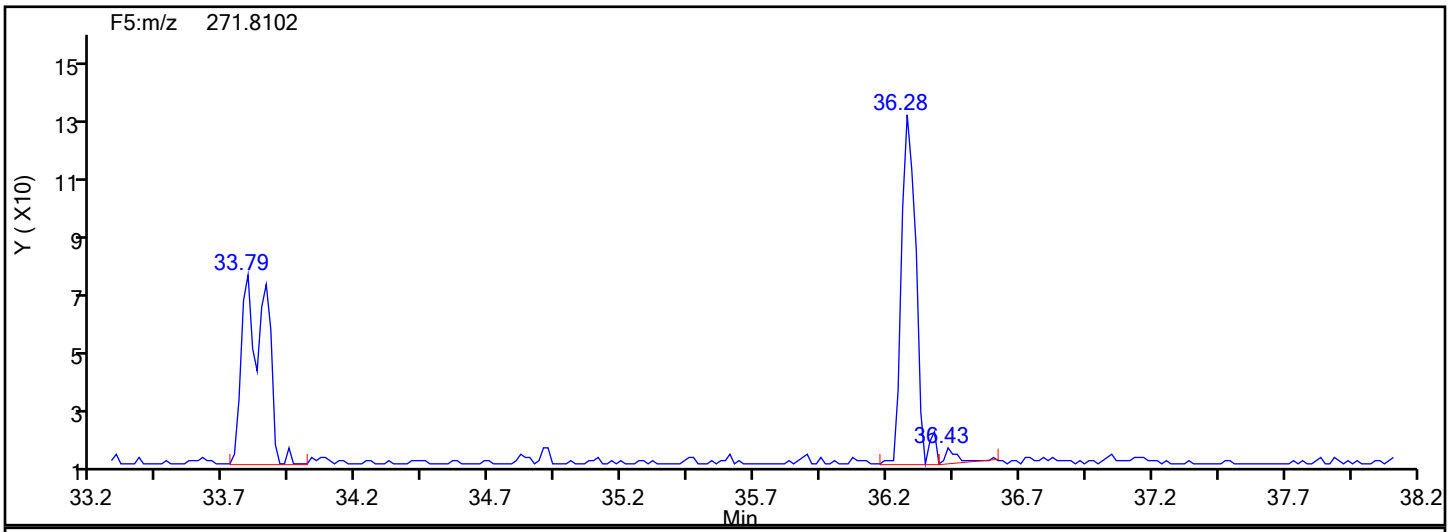


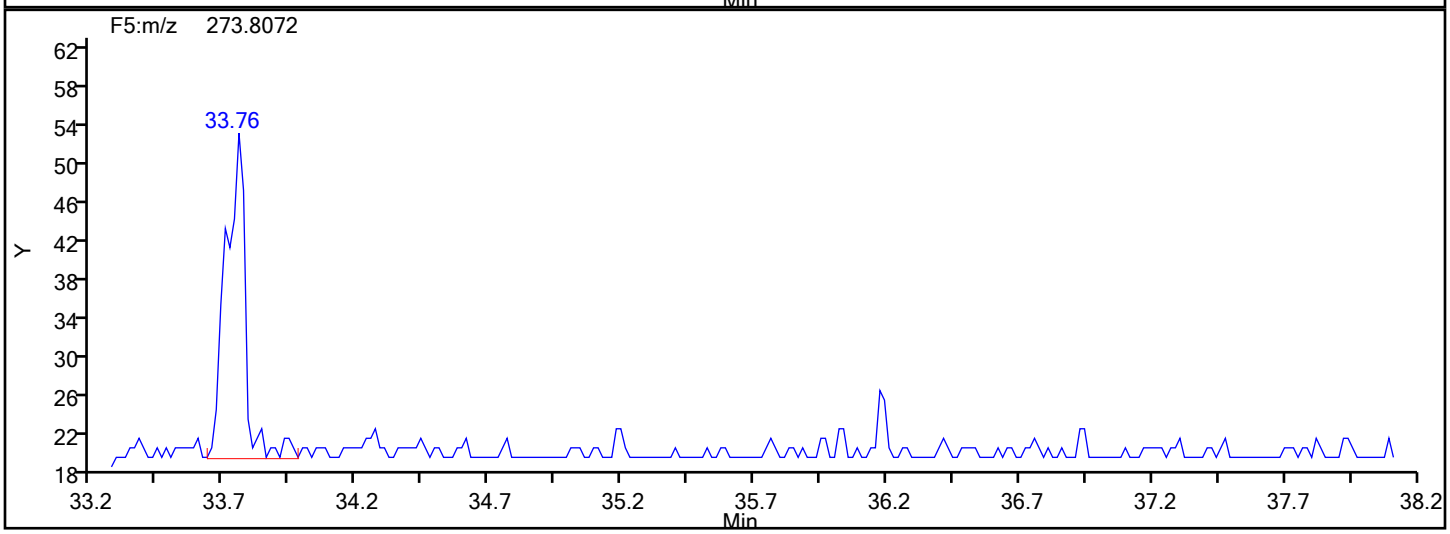
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

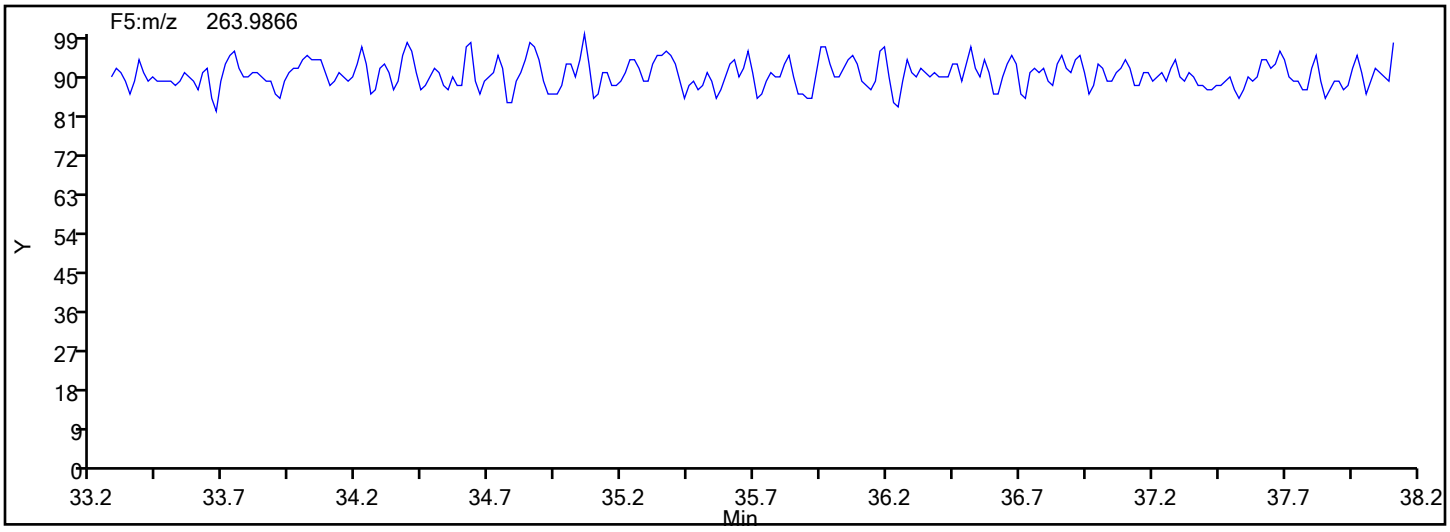
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



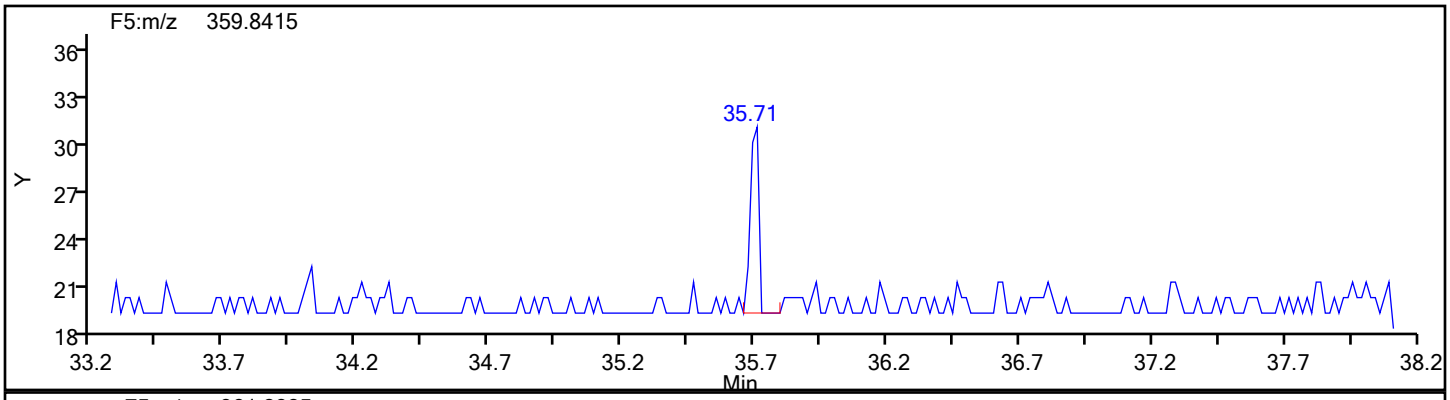
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

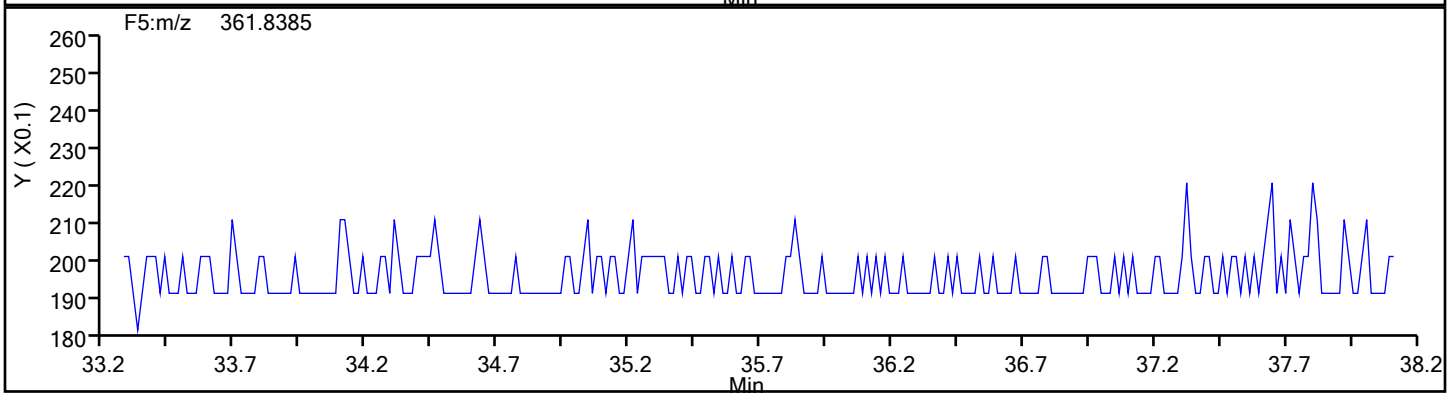
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

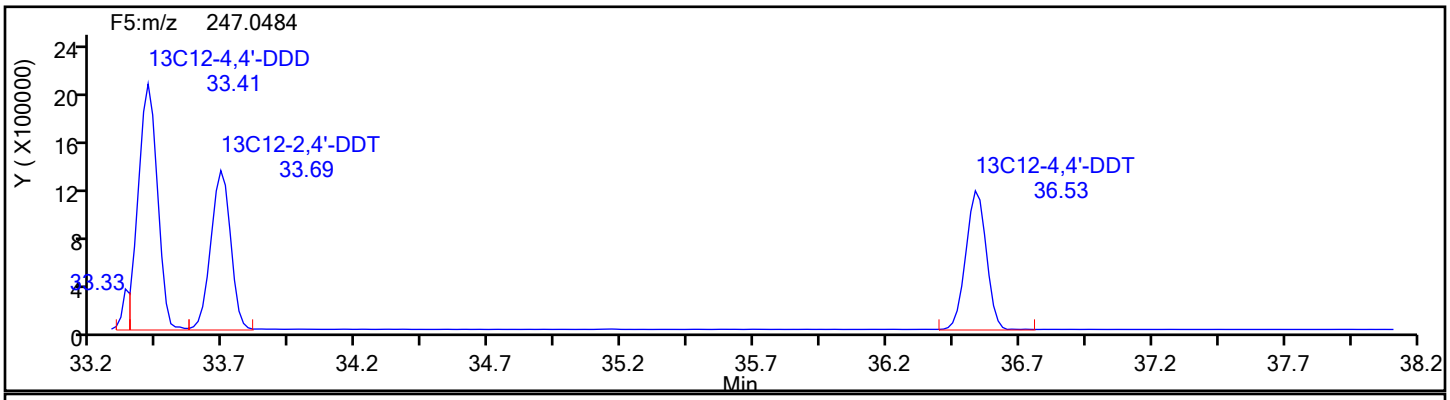
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

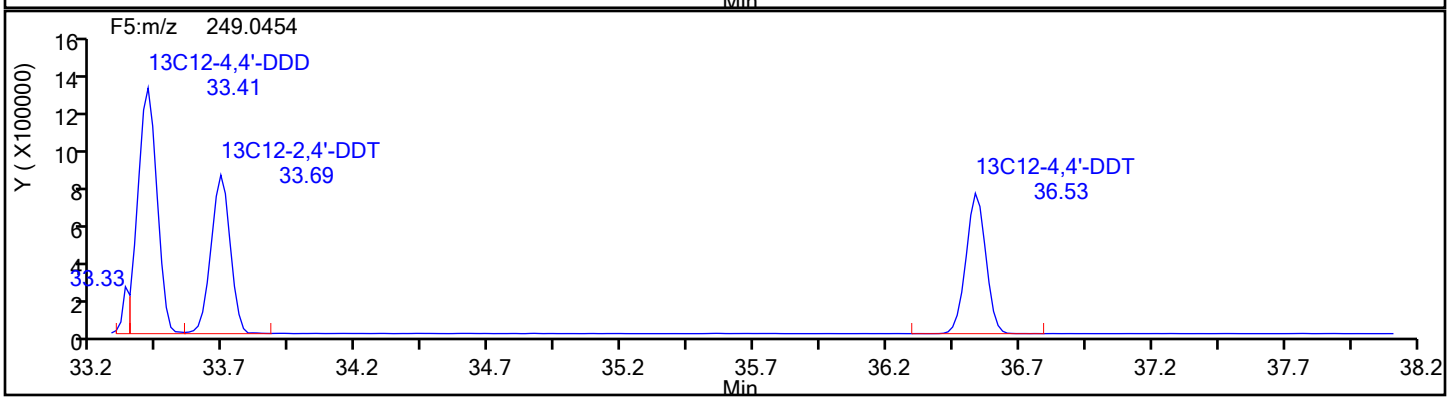
PCB-155





PCB-155 Standards



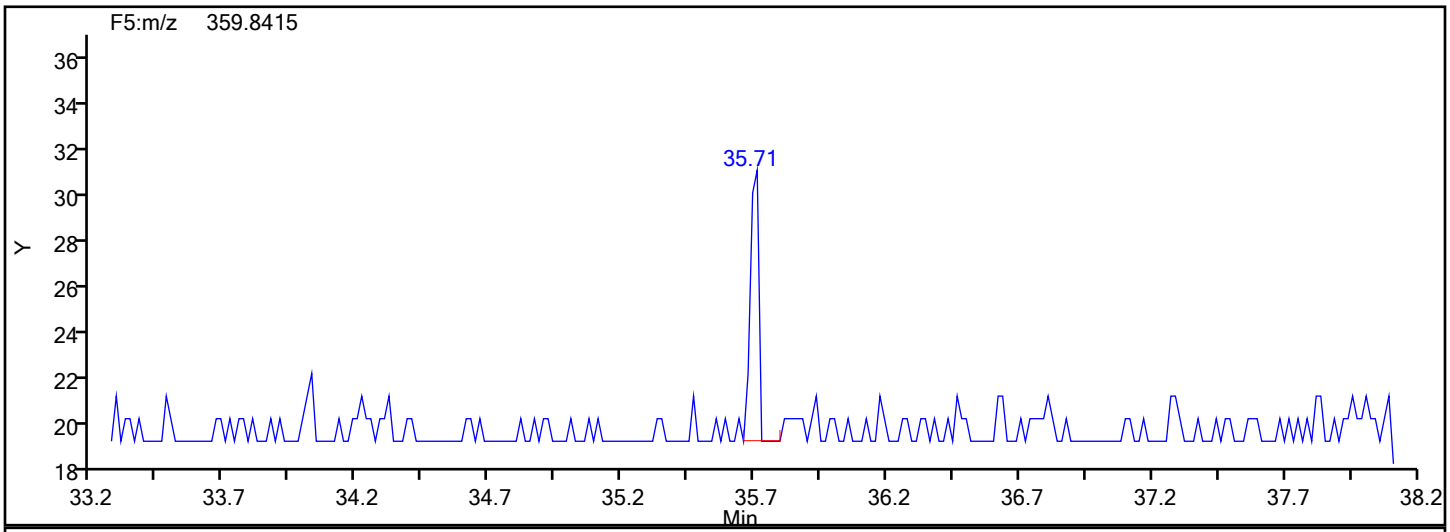


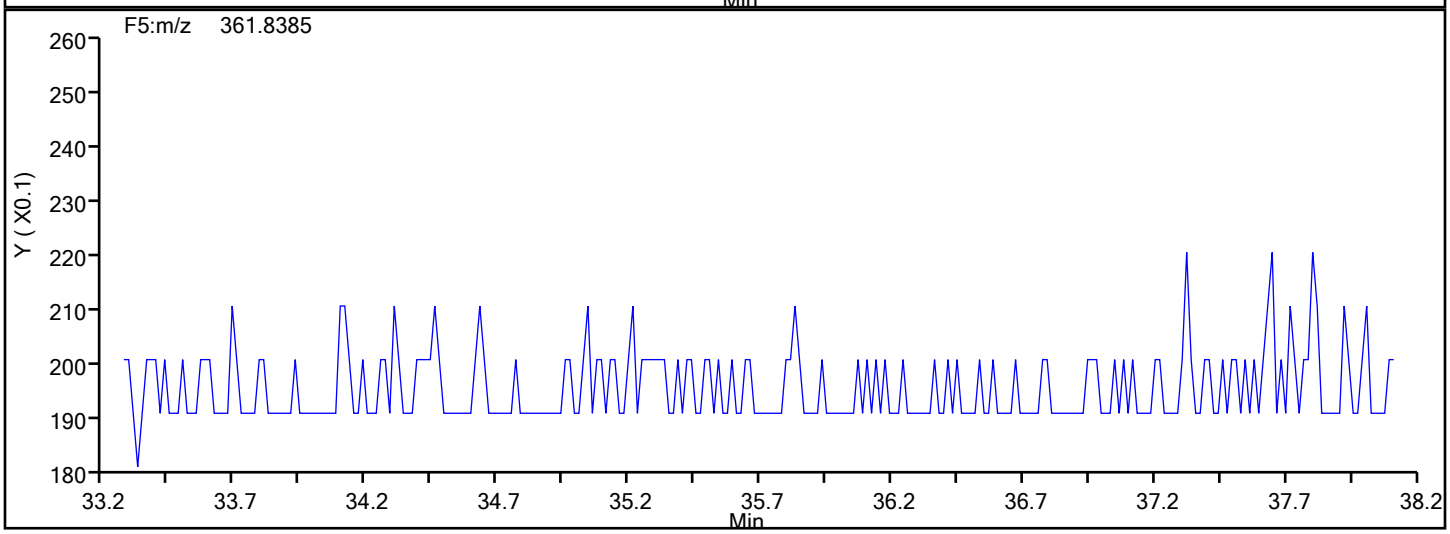
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

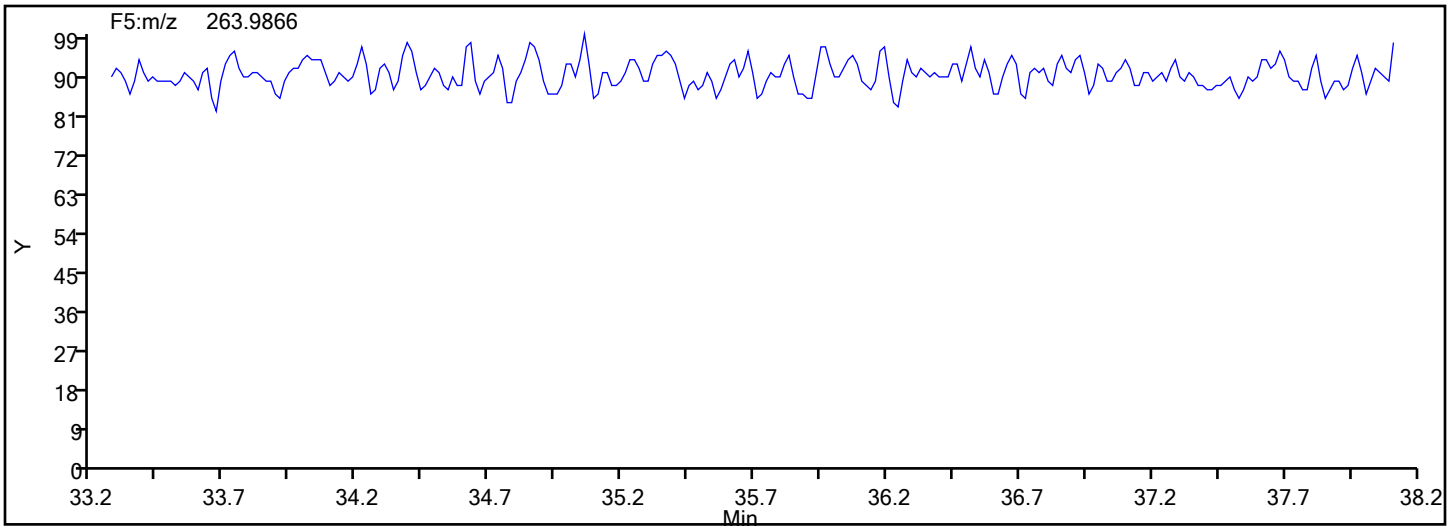
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass

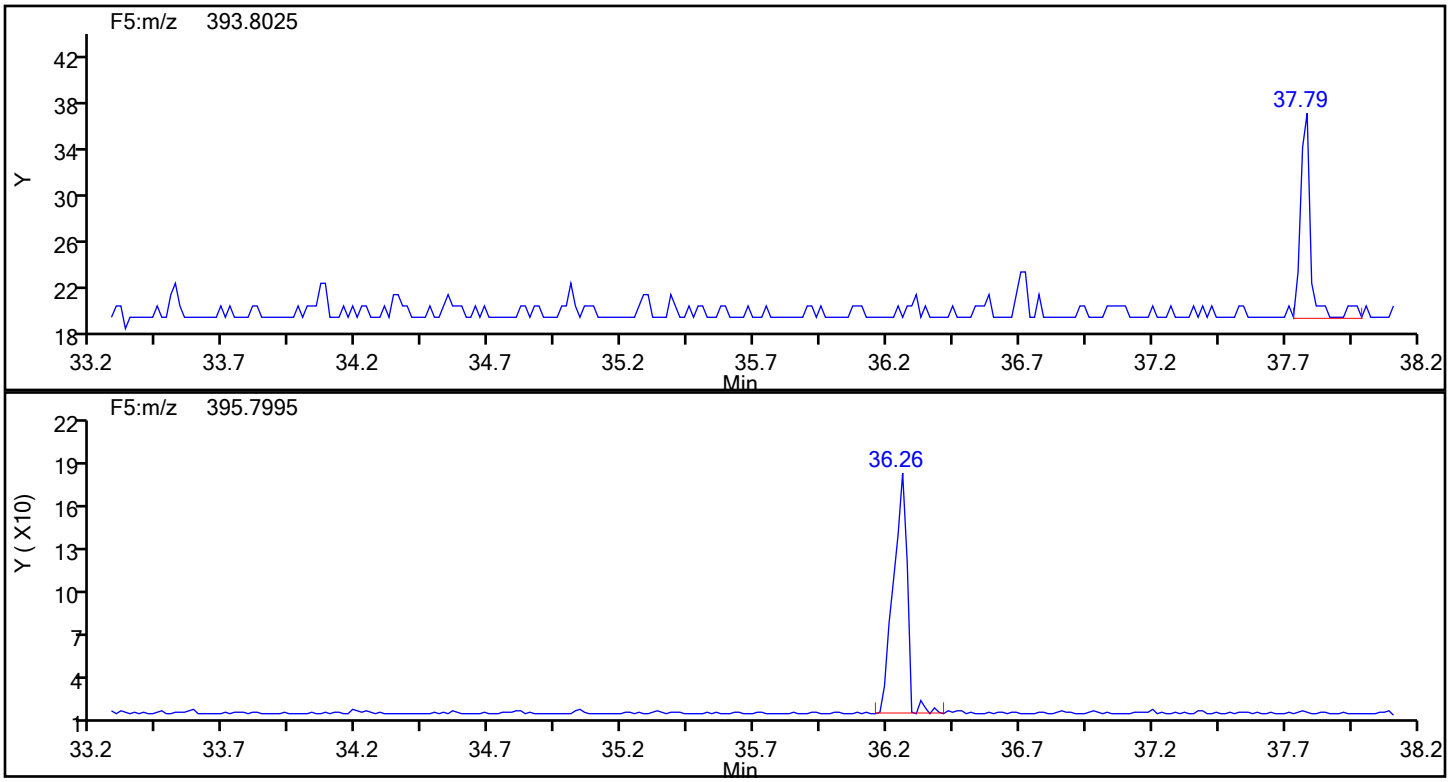


Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

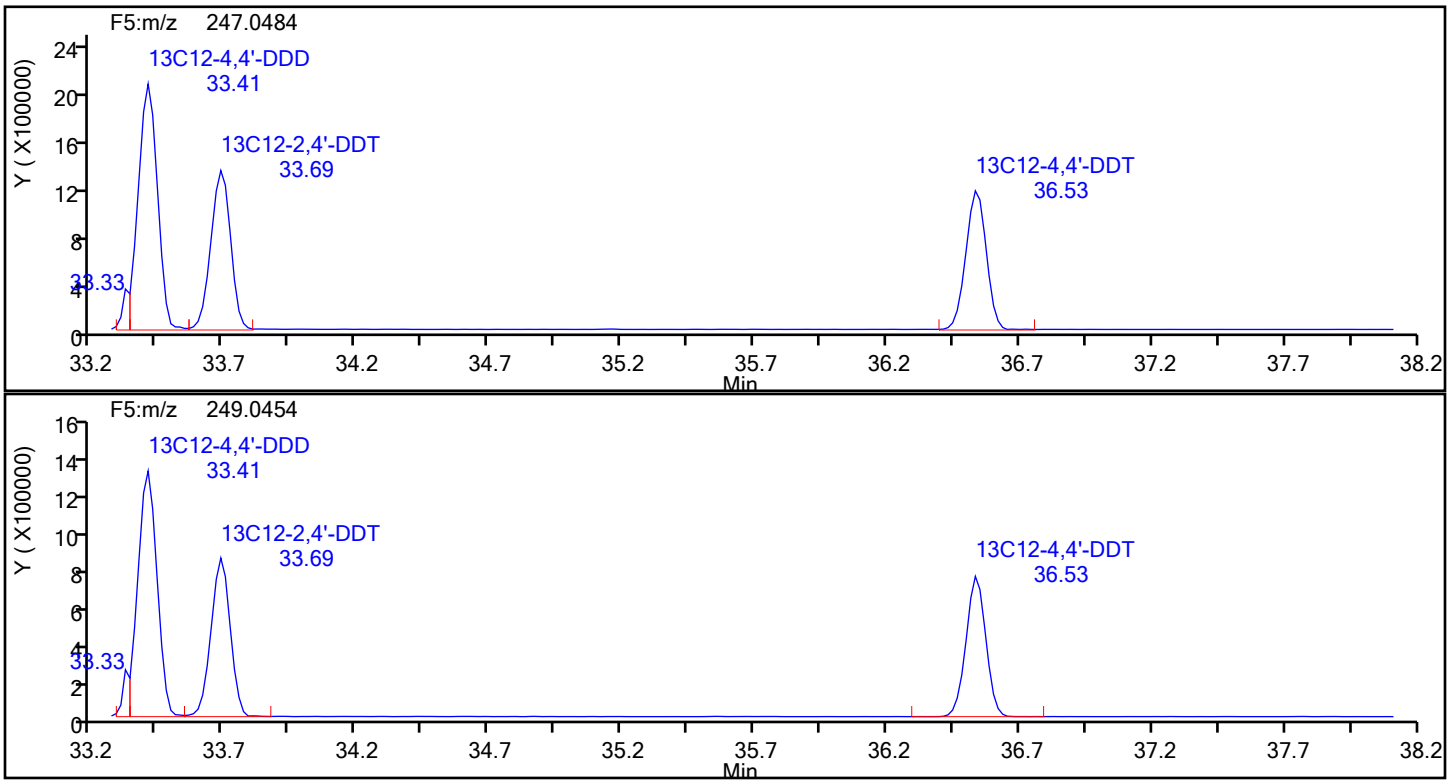
Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

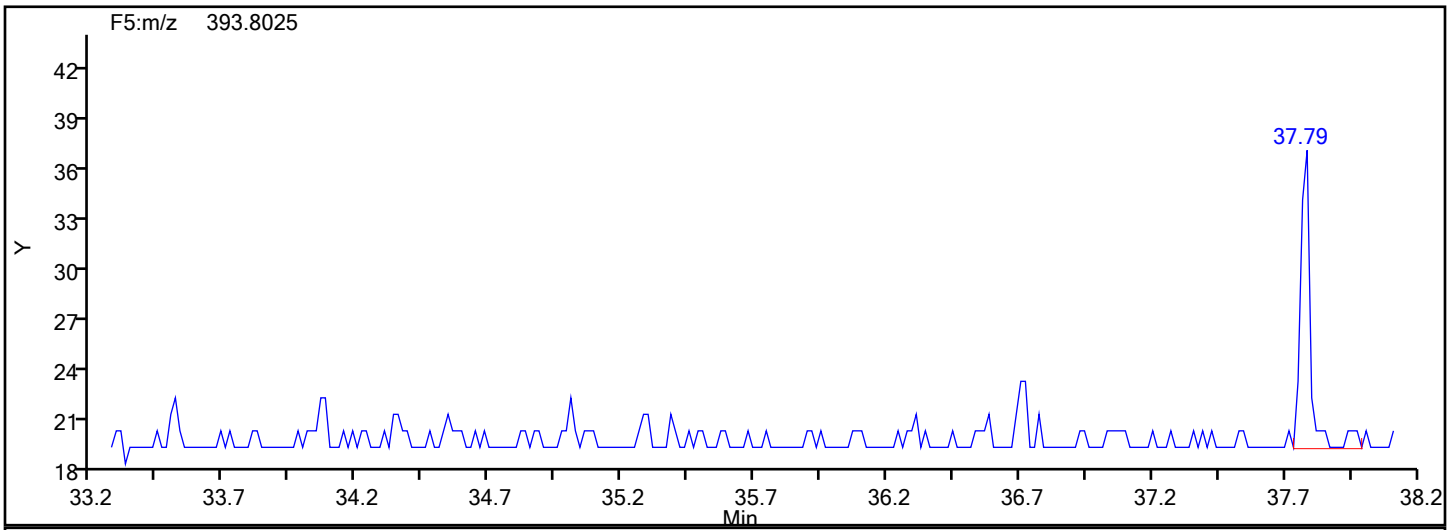


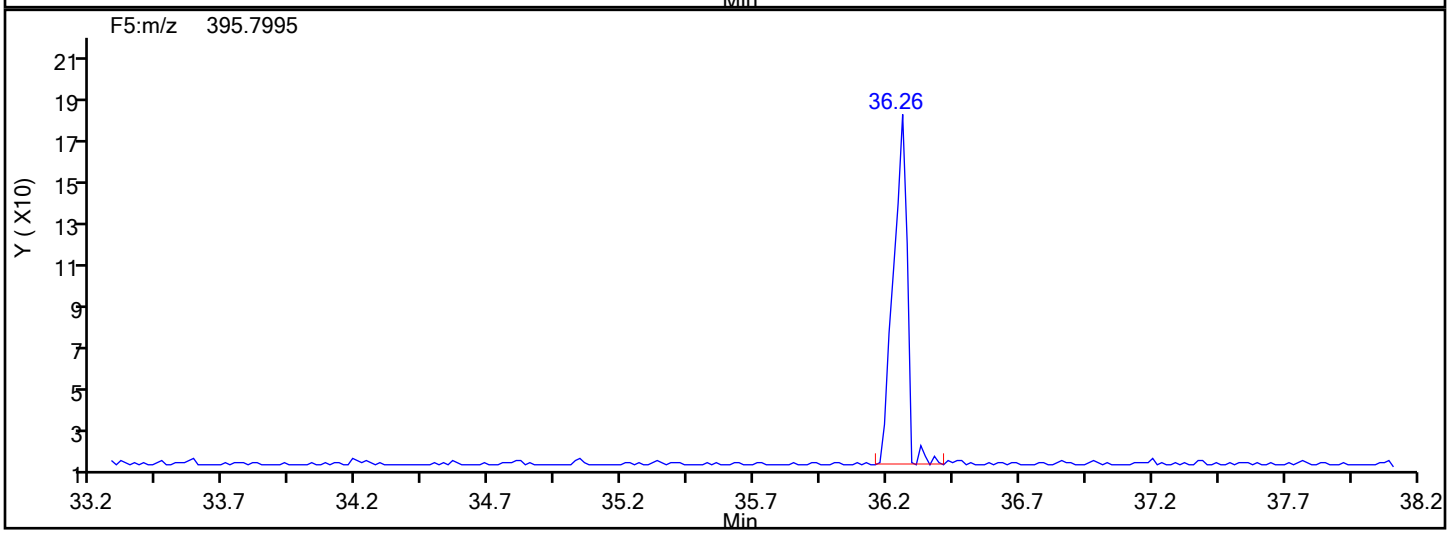
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

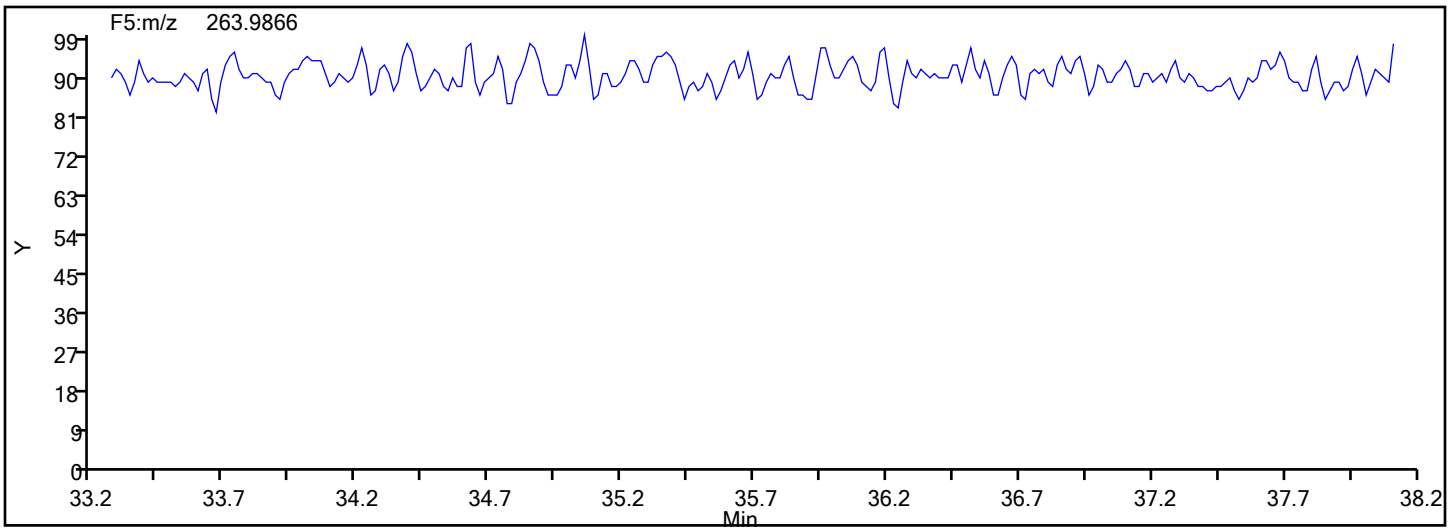
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

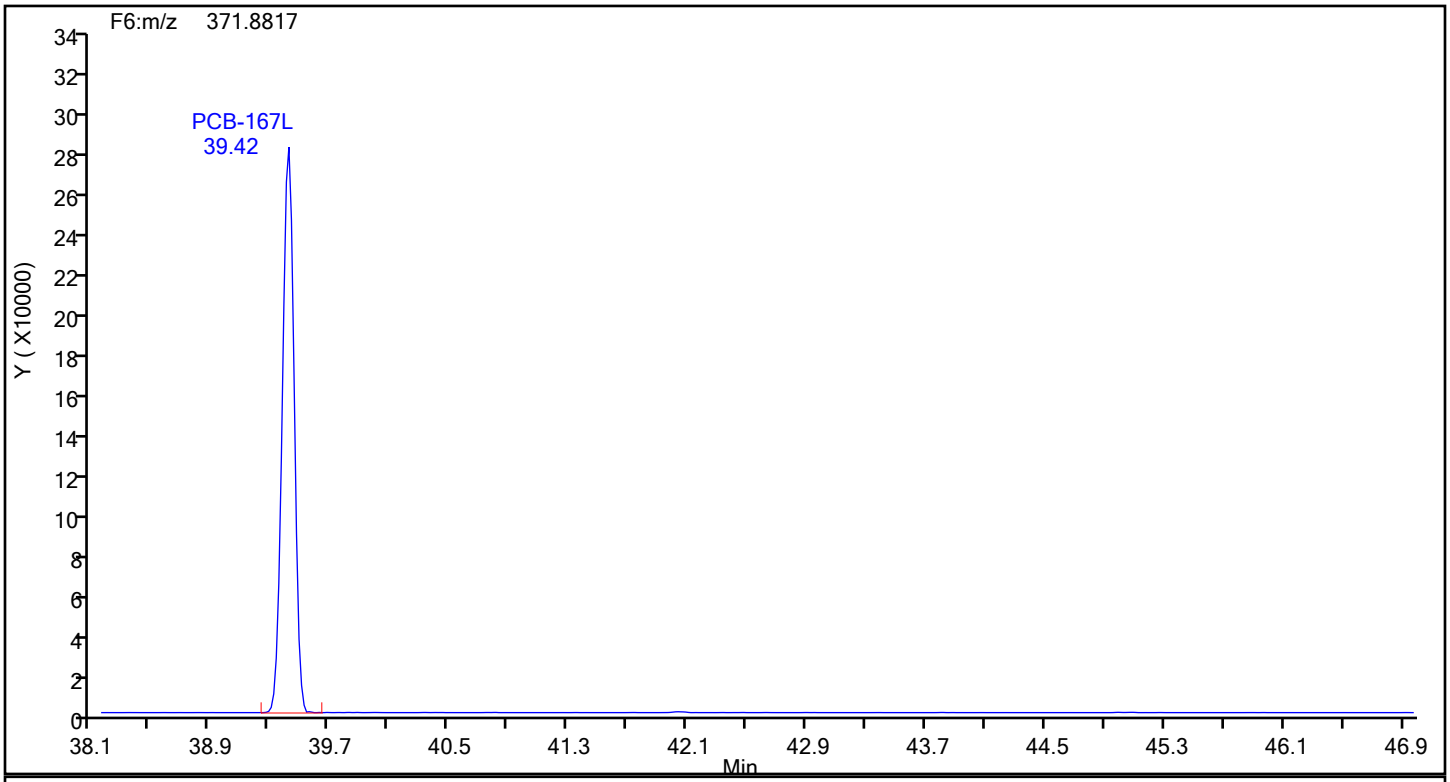


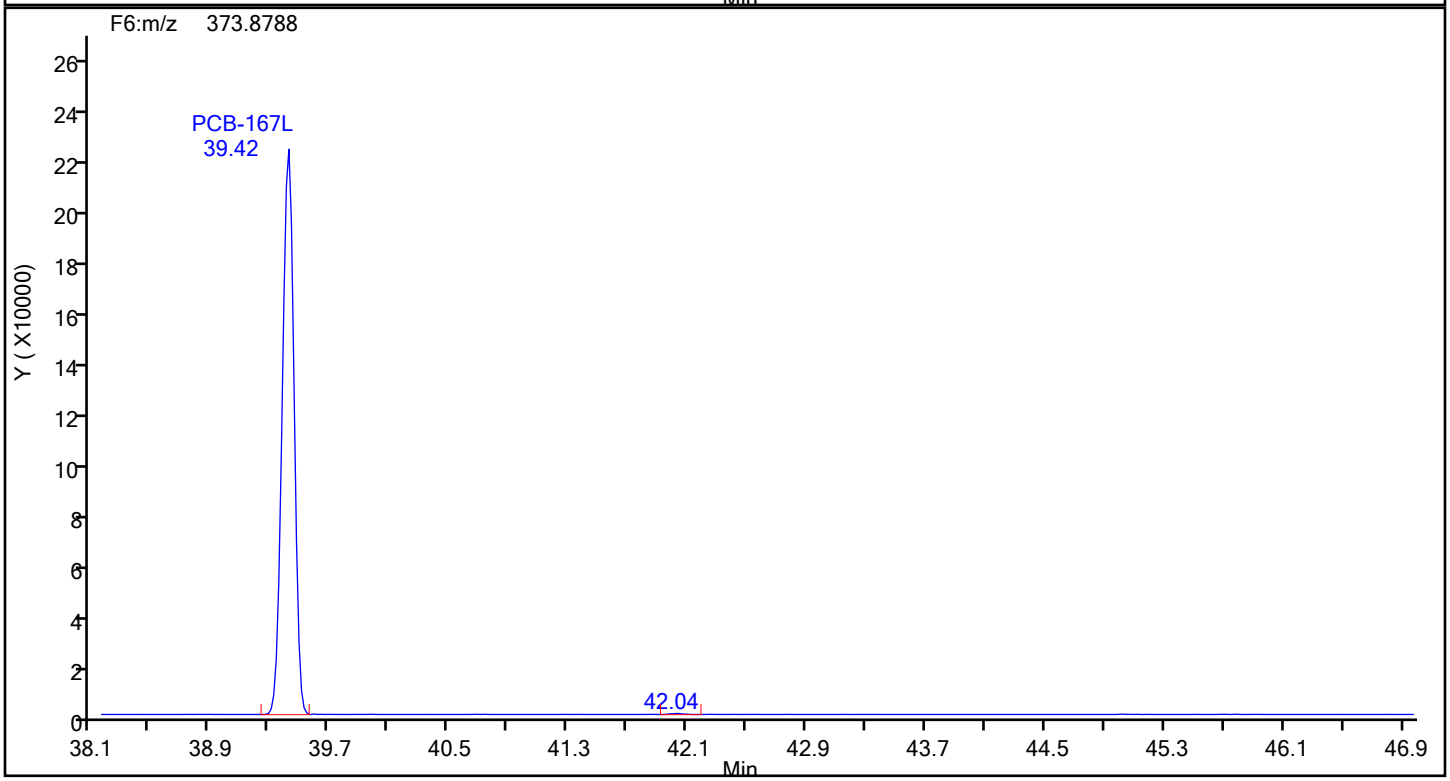
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





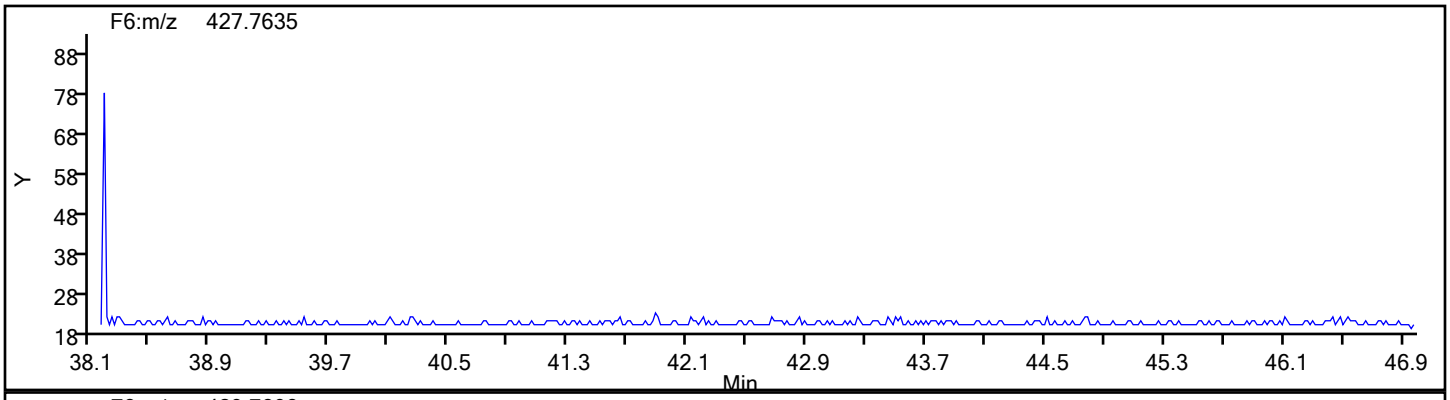
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

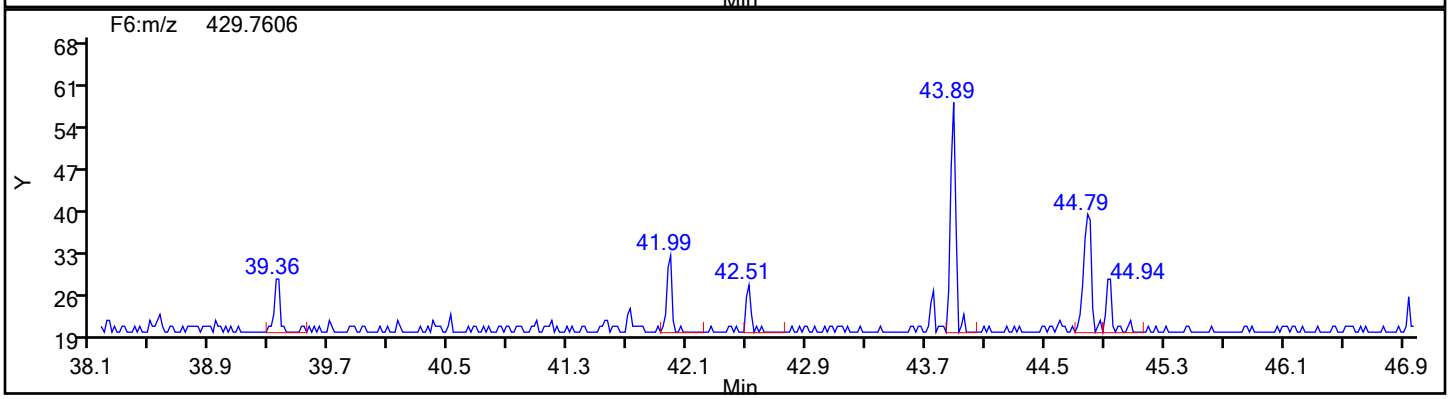
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

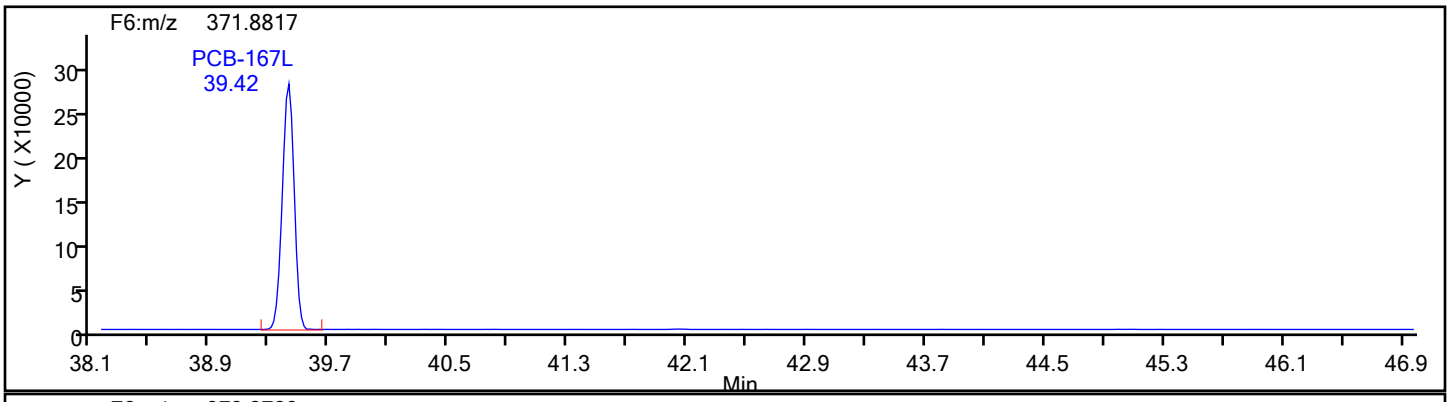
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

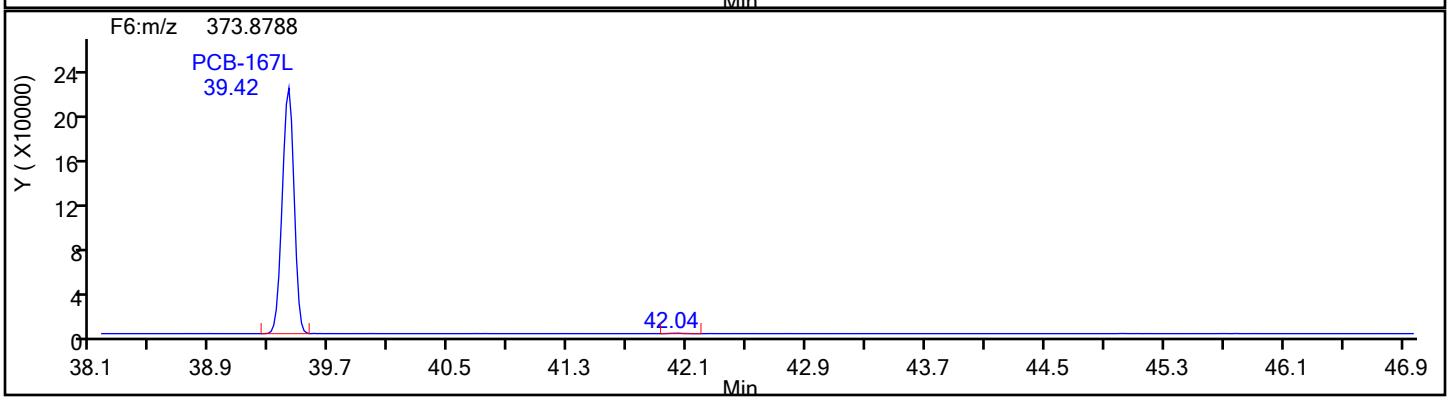
PCB-204





PCB-204 Standards



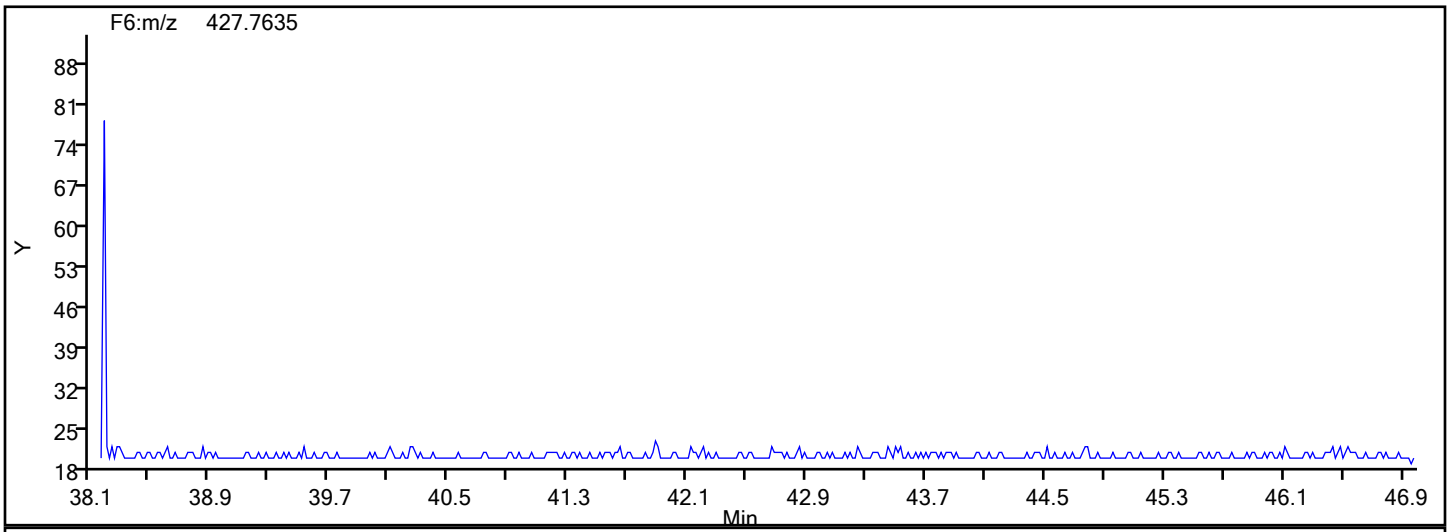


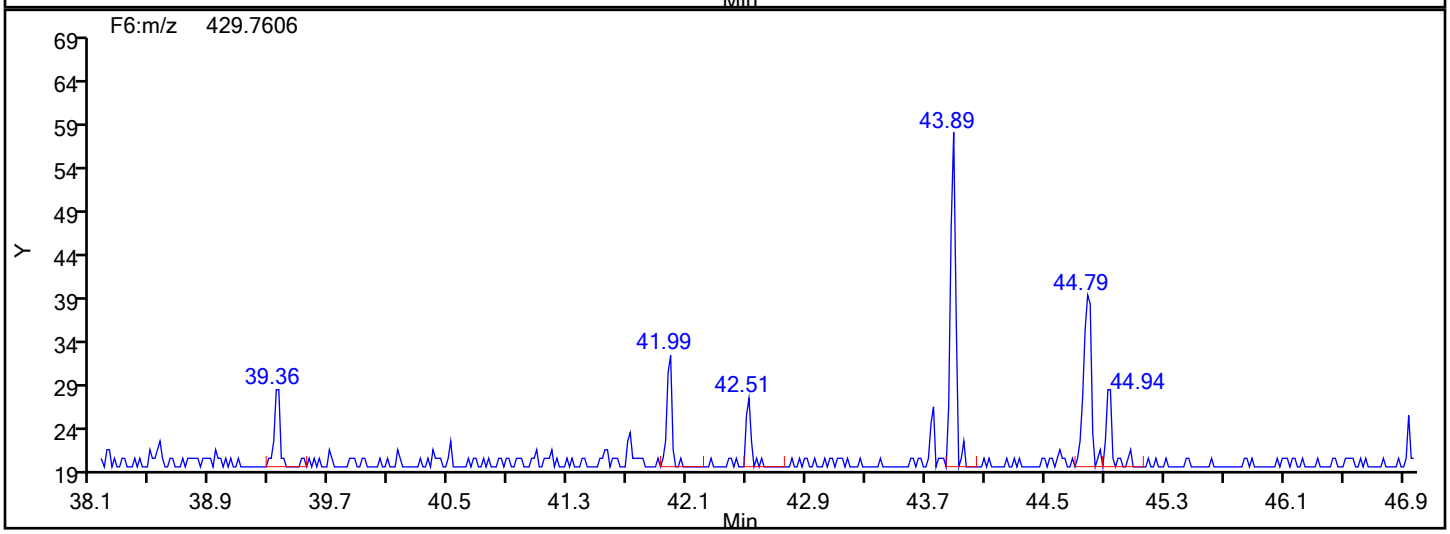
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

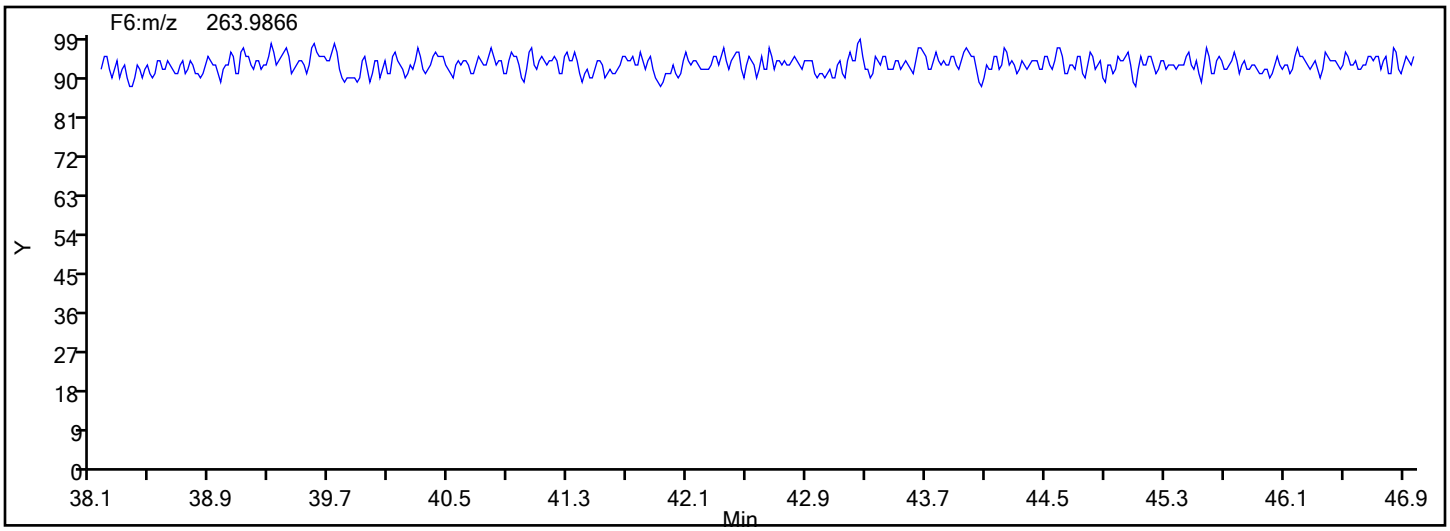
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d
Injection Date: 02-May-2025 17:34:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 4
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-204





PCB-204 Lock Mass



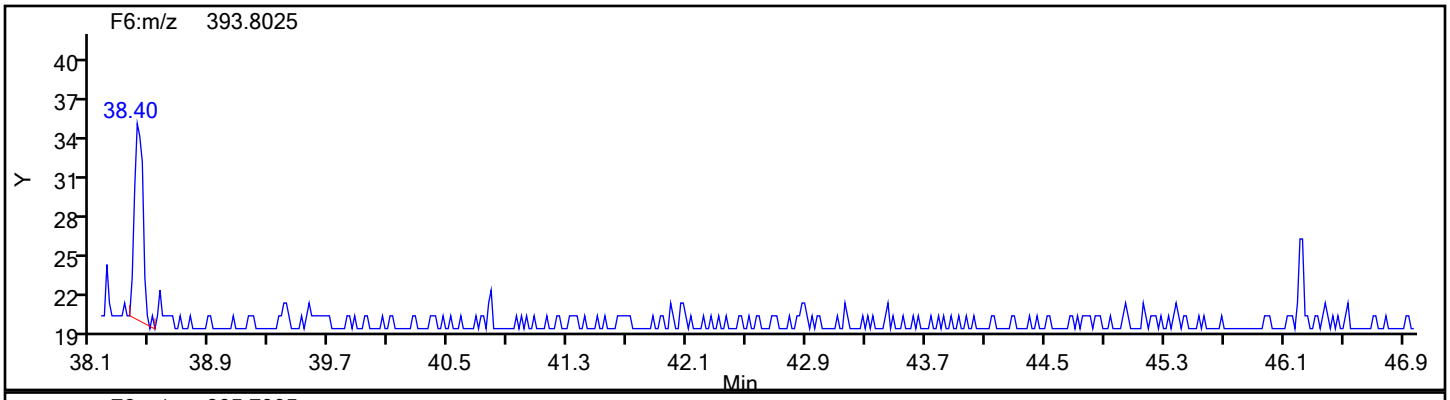
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

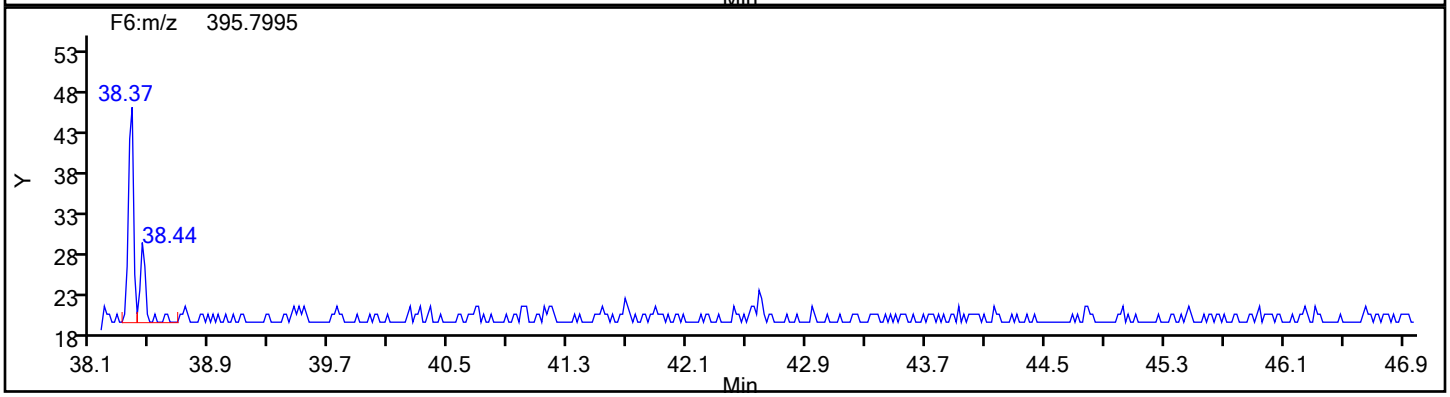
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d

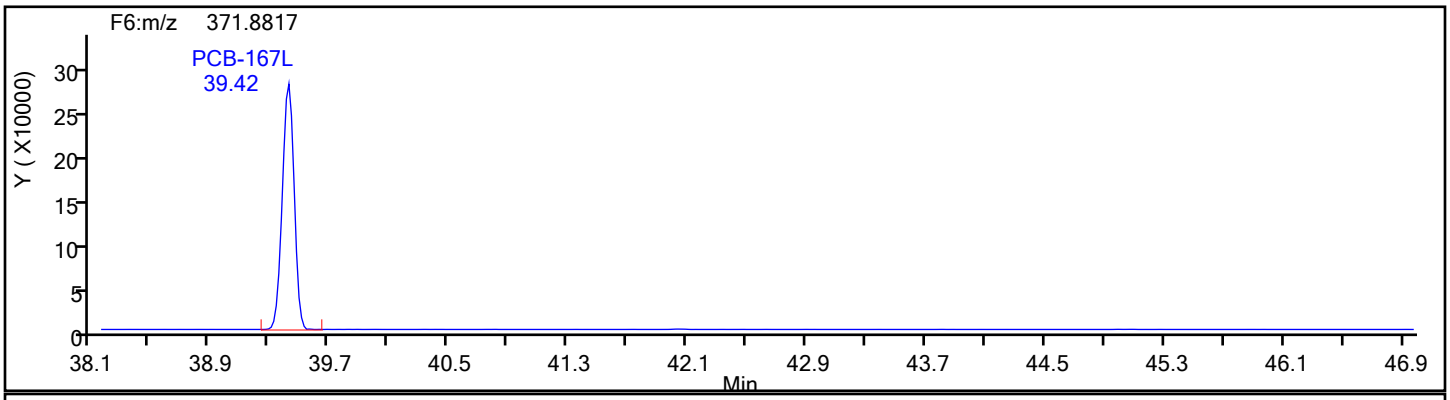
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

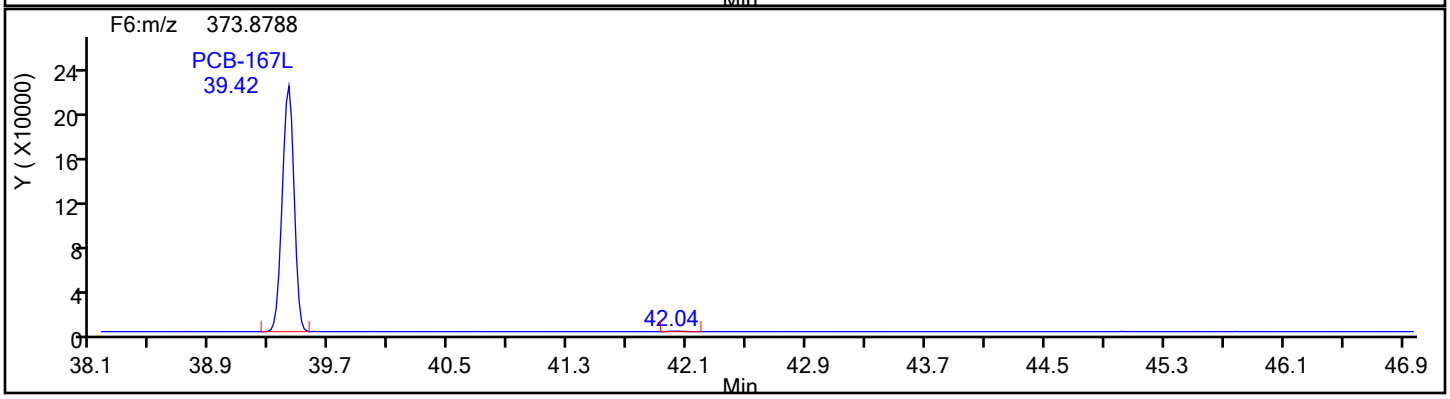
PCB-192





PCB-192 Standards



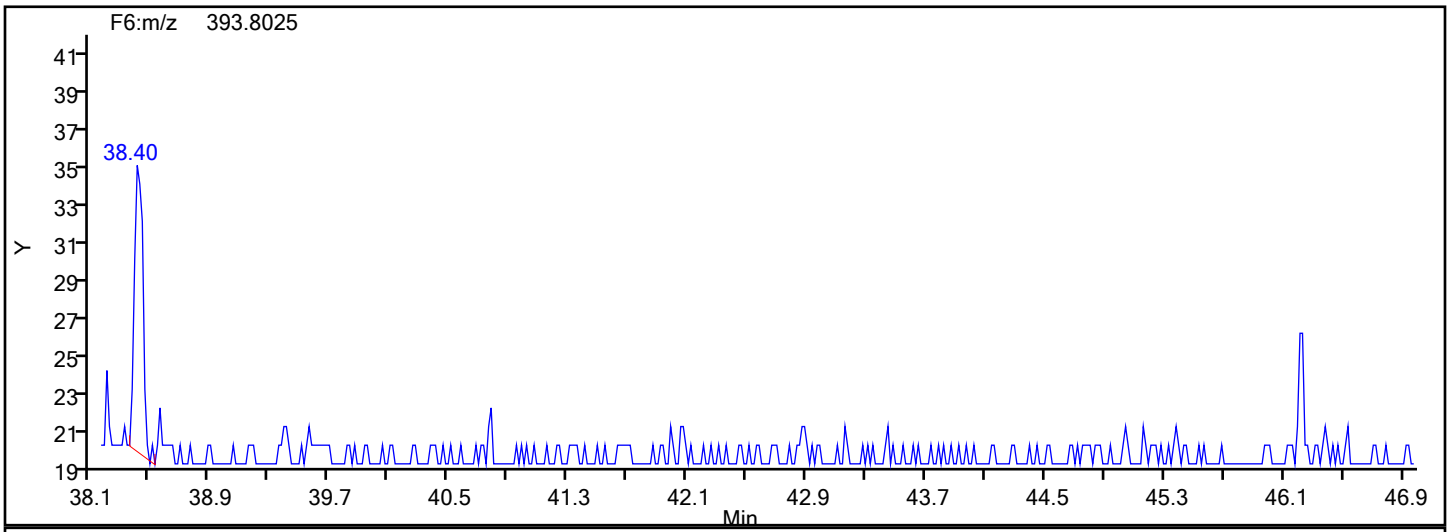


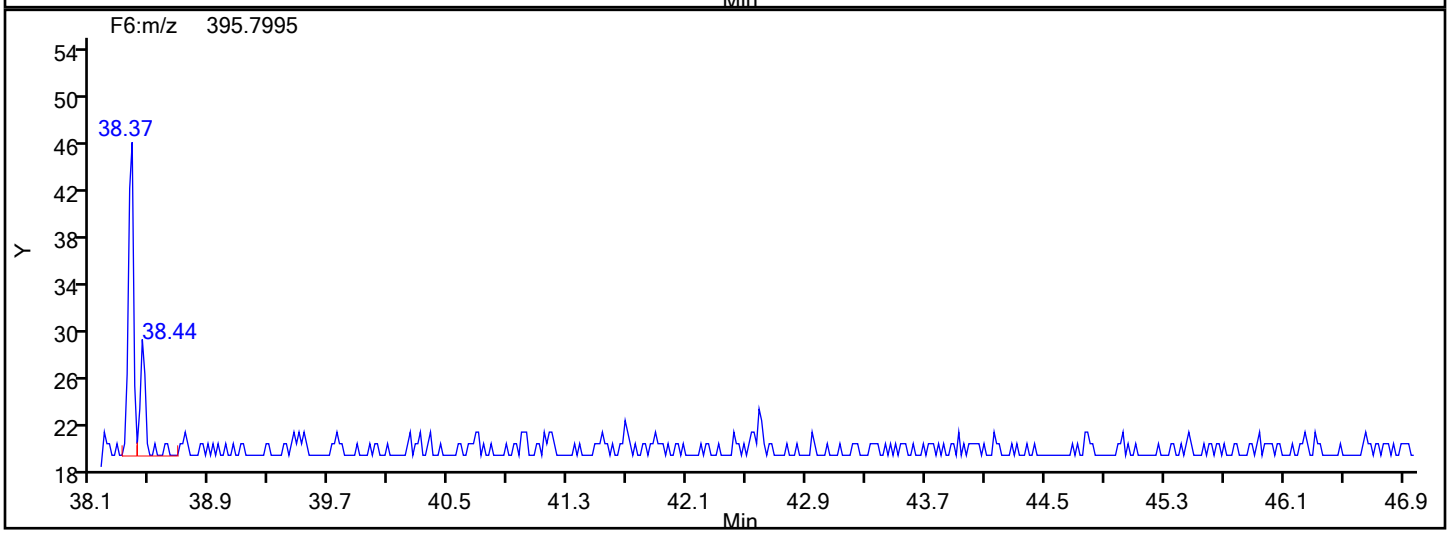
Report Date: 05-May-2025 18:00:17 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

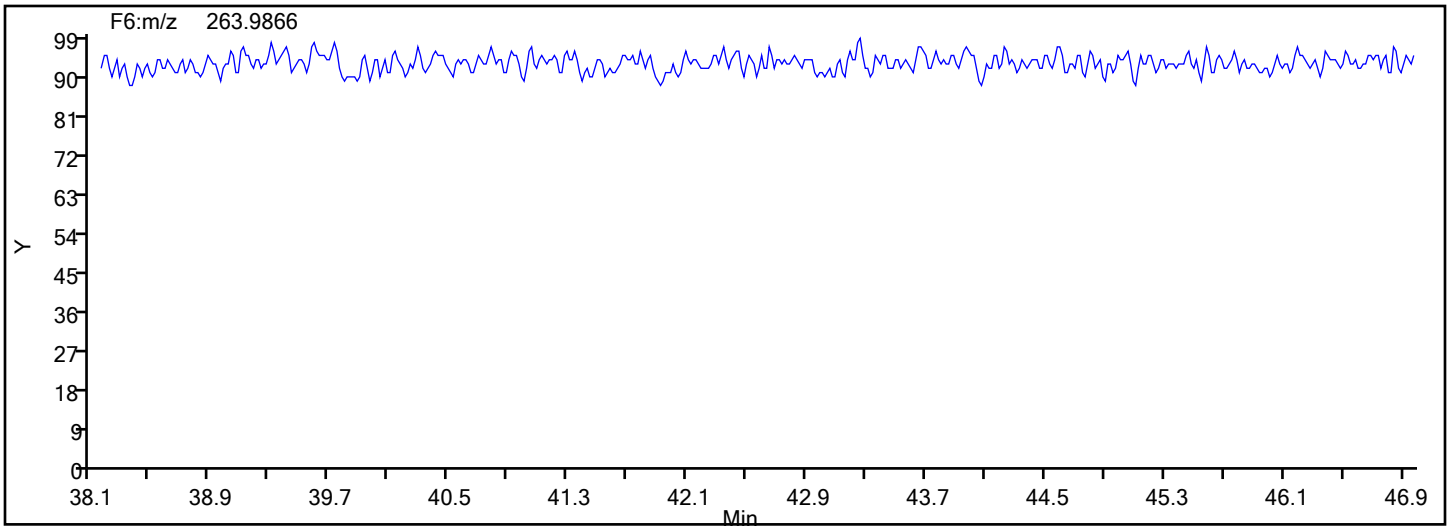
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip4.d		
Injection Date:	02-May-2025 17:34:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	4
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-May-2025 18:29:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:20 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:07

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:22	7857869	0.82	0.2427	98.8	98.8	0.2002	0.2002	98.85	
D 13C6-beta BHC	18:21	5942310	0.79	0.1892	95.9	95.9	0.2568	0.2568	95.88	
D 13C6-gamma BHC	18:38	6427763	0.80	0.2029	96.7	96.7	0.2394	0.2394	96.69	
D 13C6-delta BHC	19:35	5562944	0.79	0.1718	98.8	98.8	0.2828	0.2828	98.84	
D 13C10-Heptachlor	21:49	5390971	1.28	0.1629	101.0	101.0	0.0114	0.0114	101	
D 13C6-Hexachlorobenzene	17:41	8964478	1.31	0.2759	99.2	99.2	0.000162	0.000162	99.19	
D 13C12-Aldrin	23:41	4899477	1.64	0.1517	98.6	98.6	0.0358	0.0358	98.61	
D 13C10-oxy Chlordane	26:06	444242	1.05	0.0708	103.9	103.9	0.005152	0.005152	104	
D 13C10-cis Heptachlor Epoxide	26:04	1647398	1.31	0.2676	101.9	101.9	0.0136	0.0136	102	
D 13C12-2,4'-DDE	27:53	27317746	1.58	4.5202	100.0	100.0	0.0767	0.0767	99.98	
D 13C10-trans Chlordane	27:35	1860511	1.25	0.3223	95.5	95.5	0.0728	0.0728	95.50	
D 13C10-cis Chlordane	28:39	1778961	1.24	0.2976	98.9	98.9	0.0789	0.0789	98.88	
D 13C10-trans Nonachlor	28:57	1698702	1.28	0.2841	98.9	98.9	0.0826	0.0826	98.91	
D 13C9-Endosulfan I	28:29	558042	1.22	0.0899	102.7	102.7	0.2612	0.2612	103	
D 13C12-4,4'-DDE	30:07	18171087	1.59	3.1557	96.7	96.7	0.0723	0.0723	96.67	
D 13C12-4,4'-DDD	33:25	17148029	1.62	2.9265	98.4	98.4	0.0109	0.0109	98.37	
D 13C12-2,4'-DDT	33:42	12388310	1.60	2.0372	102.1	102.1	0.0156	0.0156	102	
D 13C12-4,4'-DDT	36:32	10846486	1.56	1.8061	100.8	100.8	0.0176	0.0176	101	
D 13C12-Dieldrin	30:20	1638869	1.68	0.2777	99.1	99.1	0.0225	0.0225	99.07	
D 13C12-Endrin	32:00	1195791	1.50	0.1949	103.0	103.0	0.0321	0.0321	103	
D 13C9-Endosulfan II	32:44	276000	1.29	0.0474	97.8	97.8	0.4225	0.4225	97.80	
D 13C12-Endrin Aldehyde	34:17	244319	1.49	0.0424	96.6	96.6	0.5502	0.5502	96.64	
D 13C12-Methoxychlor	41:53	11323878	22.88	1.8751	101.4	101.4	0.0358	0.0358	101	
D 13C11-Endrin Ketone	40:22	623476	1.64	0.1045	100.2	100.2	0.2913	0.2913	100	
D 13C10-Mirex	45:21	5857977	1.25	1.9829	98.2	98.2	0.0248	0.0248	98.24	
* PCB-15L	19:02	32761436	1.66		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:28	3528235	0.66		500.0	500.0				
Pentachlorophenol	18:28	6963118	0.64	1.0218	965.7	965.7	0.1911	0.1911	96.57	a
* PCB-101L	28:04	6044525	1.62		100.0	100.0				
* PCB-118L	32:44	5956669	1.61		100.0	100.0				
* PCB-138L	36:56	3007119	1.26		100.0	100.0				
* PCB-60L	27:42	13210023	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:48	19756616	1.59	3.4396	96.4	96.4	0.0570	0.0570	96.43	
D 13C10-cis Nonachlor	33:45	1285510	1.37	0.2243	96.2	96.2	0.0156	0.0156	96.23	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	2081756	1.23	0.3464	100.9	100.9	0.0101	0.0101	101	
* PCB-167L	39:26	3106773	1.27		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Lims ID: IC L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-May-2025 18:29:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:20 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:07

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:22	17:22	0	0.912	3550793	1372149	1508	3770	910		
224.9317	17:22	17:22	0	0.912	4307076	1627442	666	1665	2444	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:21	0	0.964	2619316	928448	1508	3770	616		
224.9317	18:21	18:21	0	0.964	3322994	1187811	666	1665	1784	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:38	0	0.979	2857724	990116	1508	3770	657		
224.9317	18:38	18:38	0	0.979	3570039	1279659	666	1665	1921	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19:35	19:35	0	1.029	2462799	854337	1508	3770	567		
224.9317	19:35	19:35	0	1.029	3100145	1028093	666	1665	1544	0.79(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:49	21:49	0	1.147	3025811	849250	31	77	27395		
278.8240	21:49	21:49	0	1.147	2365160	657171	52	130	12638	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:41	0	0.929	5084055	1868395	1	2	1868395		
291.8273	17:41	17:41	0	0.929	3880423	1422187	1	2	1422187	1.31(0.93-1.55)	
13C12-Aldrin											
269.8805	23:41	23:41	0	1.245	3045263	806815	154	385	5239		
271.8775	23:41	23:41	0	1.245	1854214	495915	89	222	5572	1.64(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:06	26:06	0	0.930	227485	53463	1	2	53463		
398.8358	26:06	26:06	0	0.930	216757	48996	1	2	48996	1.05(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:04	26:04	0	0.929	935742	224274	11	27	20389		
364.8748	26:04	26:04	0	0.929	711656	166014	9	22	18446	1.31(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:53	27:53	0	0.994	16731070	3847337	1250	3125	3078		
260.0376	27:53	27:53	0	0.994	10586676	2402545	653	1632	3679	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:35	27:35	0	0.983	1033596	235924	69	172	3419		
278.8240	27:35	27:35	0	0.983	826915	192759	60	150	3213	1.25(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:39	0	1.021	984048	220839	69	172	3201		
278.8240	28:38	28:39	-1	1.020	794913	175131	60	150	2919	1.24(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:57	28:57	0	1.032	952521	210483	69	172	3050		
278.8240	28:57	28:57	0	1.032	746181	170152	60	150	2836	1.28(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:29	0	1.015	307229	67701	69	172	981		
278.8240	28:28	28:29	-1	1.015	250813	53214	60	150	887	1.22(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:07	30:07	0	0.920	11166053	2413624	724	1810	3334		
260.0376	30:07	30:07	0	0.920	7005034	1540930	371	927	4153	1.59(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:25	0	1.021	10592568	2117420	65	162	32576		
249.0454	33:25	33:25	0	1.021	6555461	1294274	88	220	14708	1.62(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:42	0	1.029	7629442	1439799	65	162	22151		
249.0454	33:42	33:42	0	1.029	4758868	886902	88	220	10078	1.60(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:32	36:32	0	1.116	6606339	1247633	65	162	19194		
249.0454	36:32	36:32	0	1.116	4240147	806023	88	220	9159	1.56(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:20	30:20	0	0.926	1026947	205031	5	12	41006		
271.8775	30:20	30:20	0	0.926	611922	127755	25	62	5110	1.68(1.16-1.94)	
13C12-Endrin											
269.8805	32:00	32:00	0	0.978	718086	139795	5	12	27959		
271.8775	32:00	32:00	0	0.978	477705	95175	25	62	3807	1.50(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:44	32:44	0	1.000	155317	32794	47	117	698		
278.8240	32:44	32:44	-1	1.000	120683	23420	49	122	478	1.29(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:17	0	1.047	146347	26960	62	155	435		
358.9361	34:16	34:17	-1	1.046	97972	20167	50	125	403	1.49(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:53	41:53	0	1.279	10849723	1862177	297	742	6270		
240.1510	41:53	41:53	0	1.279	474155	80590	25	62	3224	22.88(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.233	387069	67648	109	272	621		
329.9379	40:23	40:22	1	1.233	236407	39522	37	92	1068	1.64(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:21	0	1.228	3254060	517099	63	157	8208		
278.8240	45:21	45:21	0	1.228	2603917	408390	47	117	8689	1.25(0.93-1.55)	
PCB-15L											
234.0406	19:02	19:02	0		20429310	6991183	49	122	142677		
236.0376	19:02	19:02	0		12332126	4196292	9	22	466255	1.66(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		1408920	398253	51	127	7809		
271.8636	18:28	18:28	0		2119315	618211	60	150	10304	0.66(0.00-0.00)	
Pentachlorophenol											a
263.8464	18:28	18:28	0	1.001	2708472	681210	84	210	8110		a
265.8435	18:28	18:28	0	1.001	4254646	1056819	75	187	14091	0.64(0.00-0.00)	
PCB-101L											
337.9207	28:04	28:04	0		3737636	852801	1	2	852801		
339.9178	28:05	28:04	1		2306889	518687	4	10	129672	1.62(1.16-1.94)	
PCB-118L											
337.9207	32:44	32:44	0		3672286	739435	34	85	21748		
339.9178	32:44	32:44	0		2284383	459647	33	82	13929	1.61(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:56	0		1677839	313515	32	80	9797		
373.8788	36:56	36:56	0		1329280	246651	27	67	9135	1.26(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:42	0		5954327	1328167	47	117	28259		
303.9597	27:42	27:42	0		7255696	1619696	64	160	25308	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:48	30:48	0	0.941	12134570	2480328	534	1335	4645		
249.0454	30:48	30:48	0	0.941	7622046	1546172	407	1017	3799	1.59(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:45	0	1.031	743577	139955	4	10	34989		
278.8240	33:45	33:45	0	1.031	541933	106708	13	32	8208	1.37(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:15	0	1.107	1146844	208733	4	10	52183		
278.8240	36:15	36:15	0	1.107	934912	170444	13	32	13111	1.23(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:26	0		1736752	309208	3	7	103069		
373.8788	39:26	39:26	0		1370021	243411	5	12	48682	1.27(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

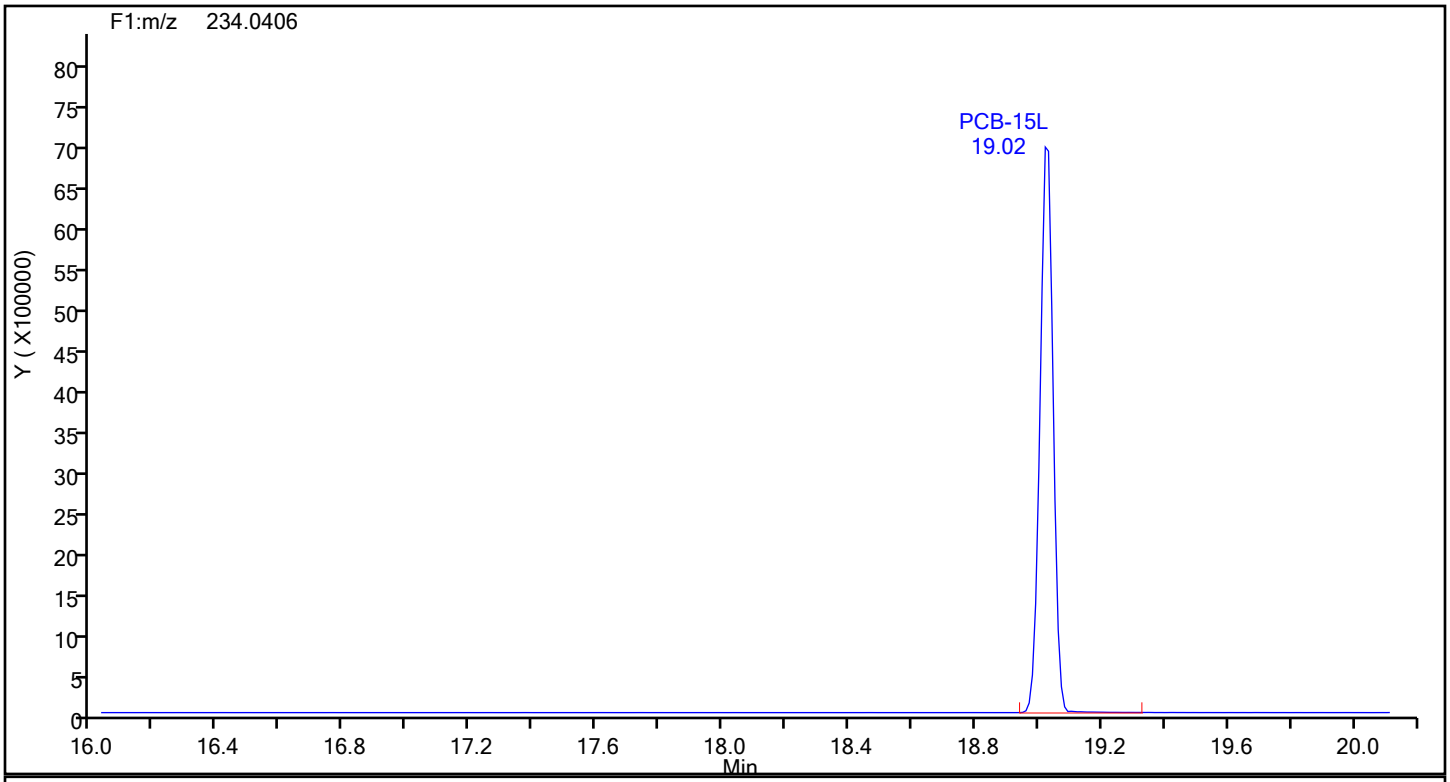
Report Date: 05-May-2025 18:00:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

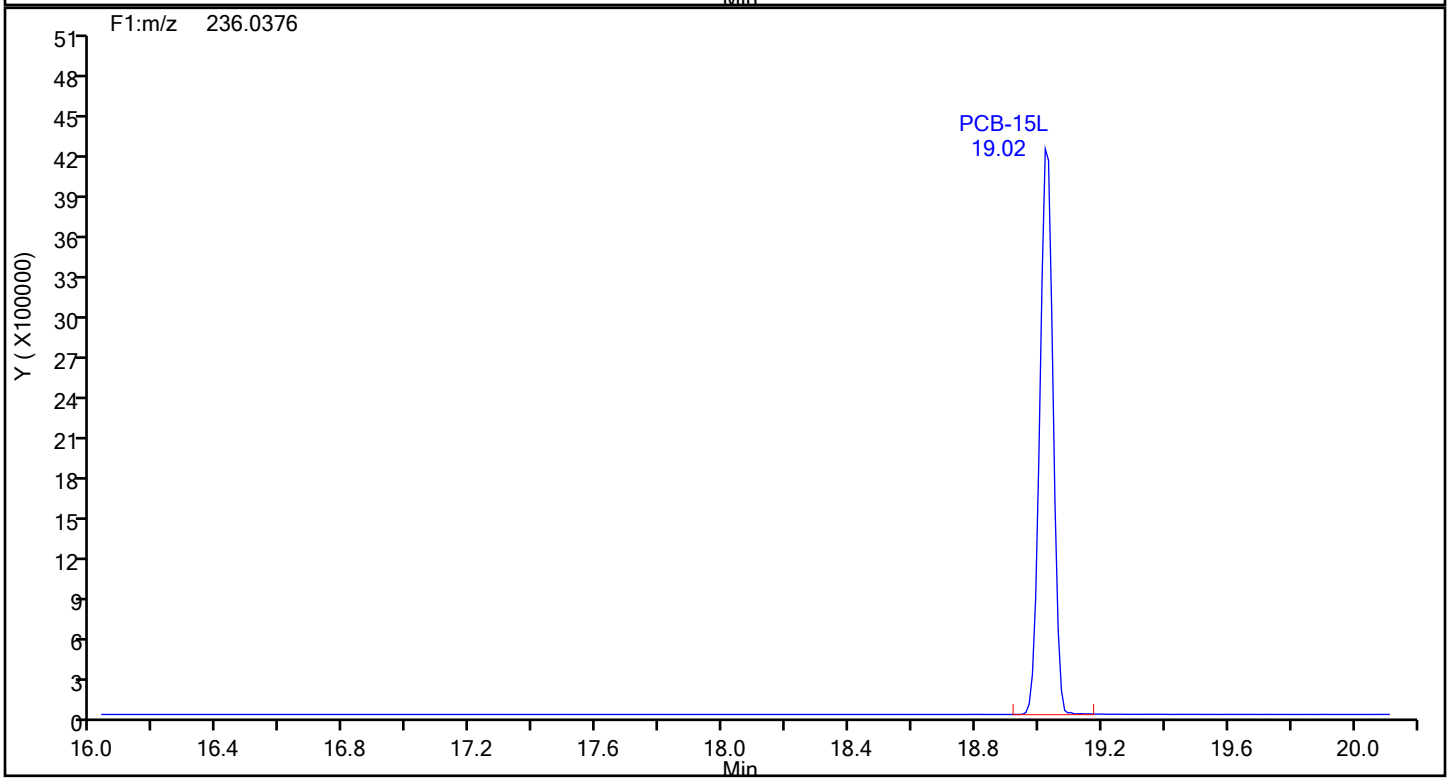
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





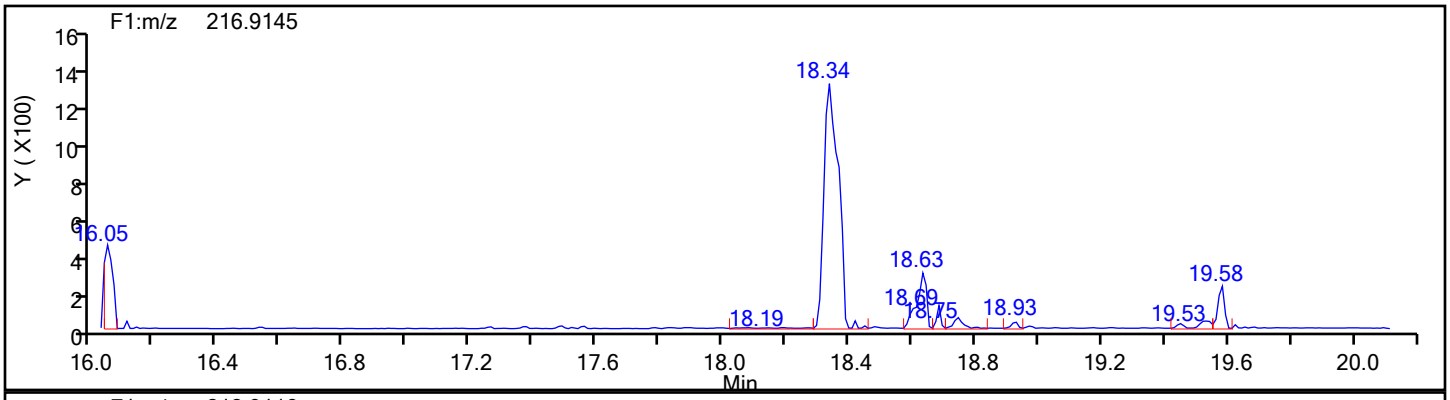
Report Date: 05-May-2025 18:00:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

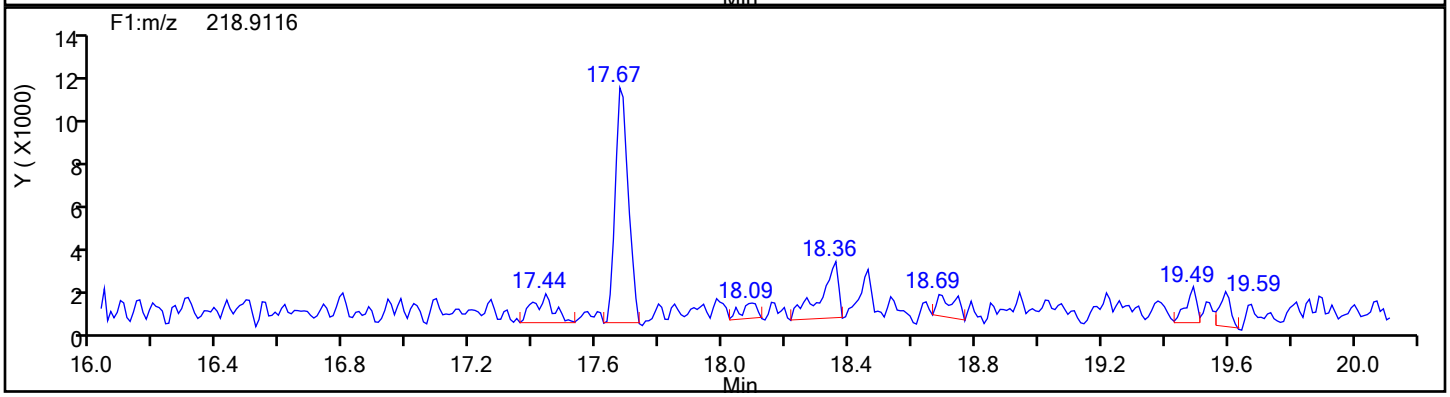
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

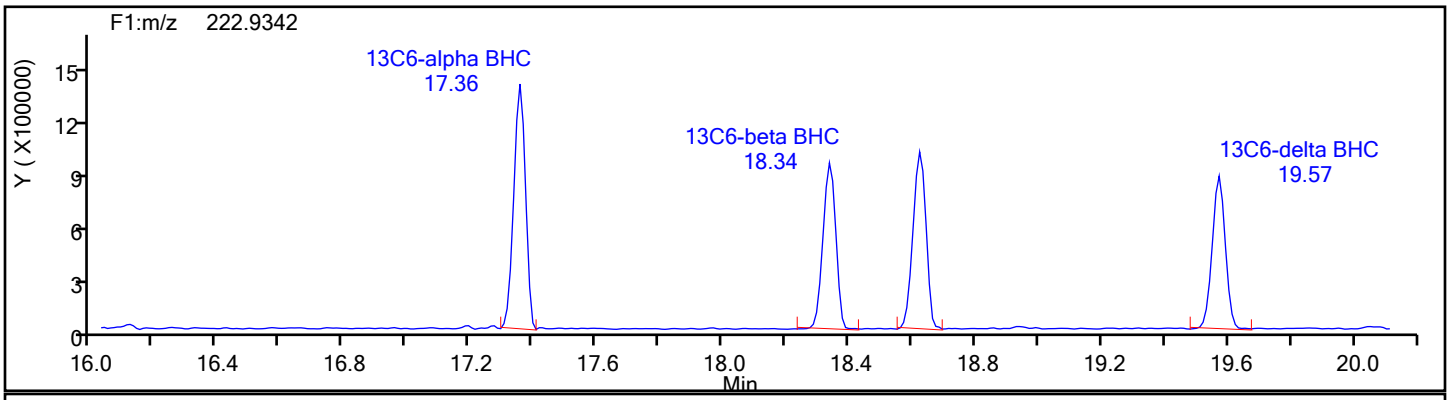
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

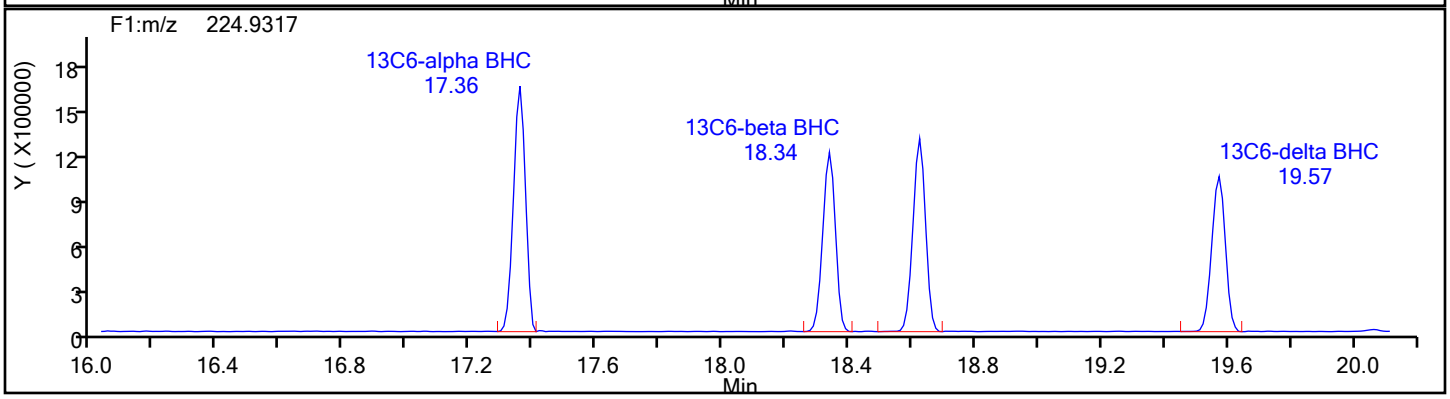
BHC





BHC Standards





Report Date: 05-May-2025 18:00:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
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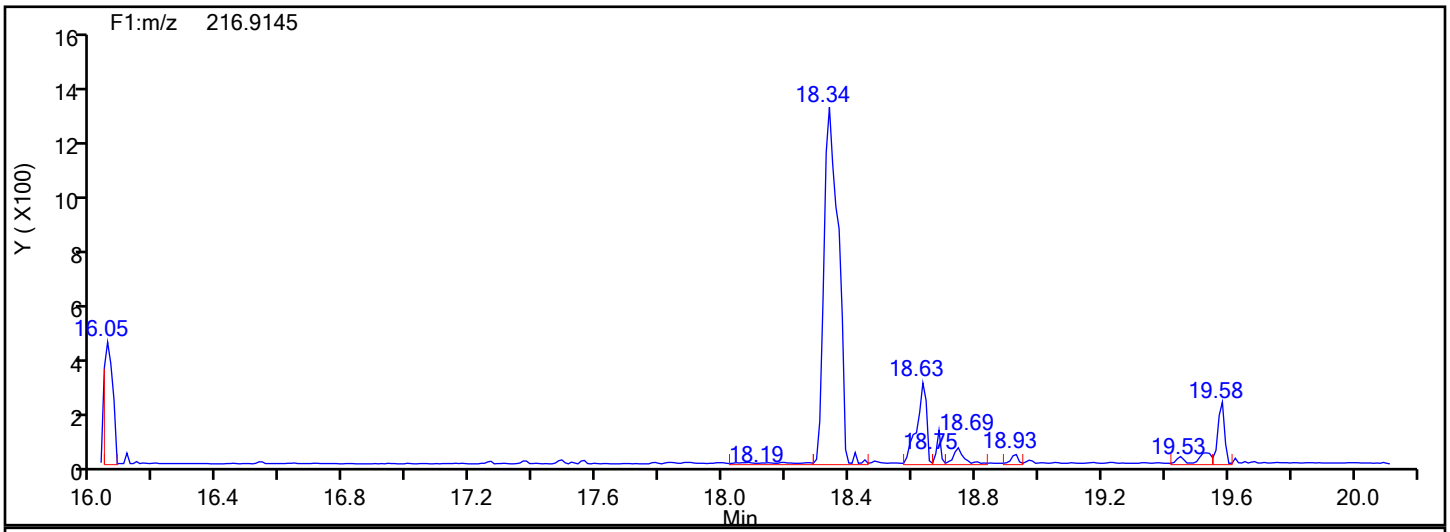
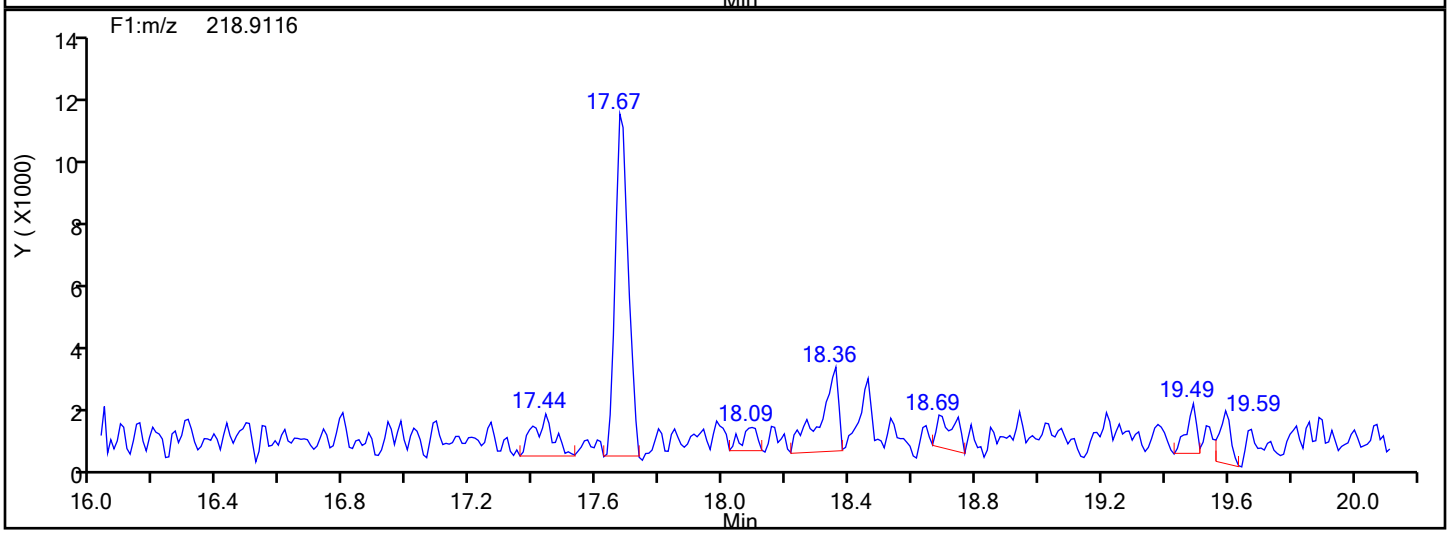
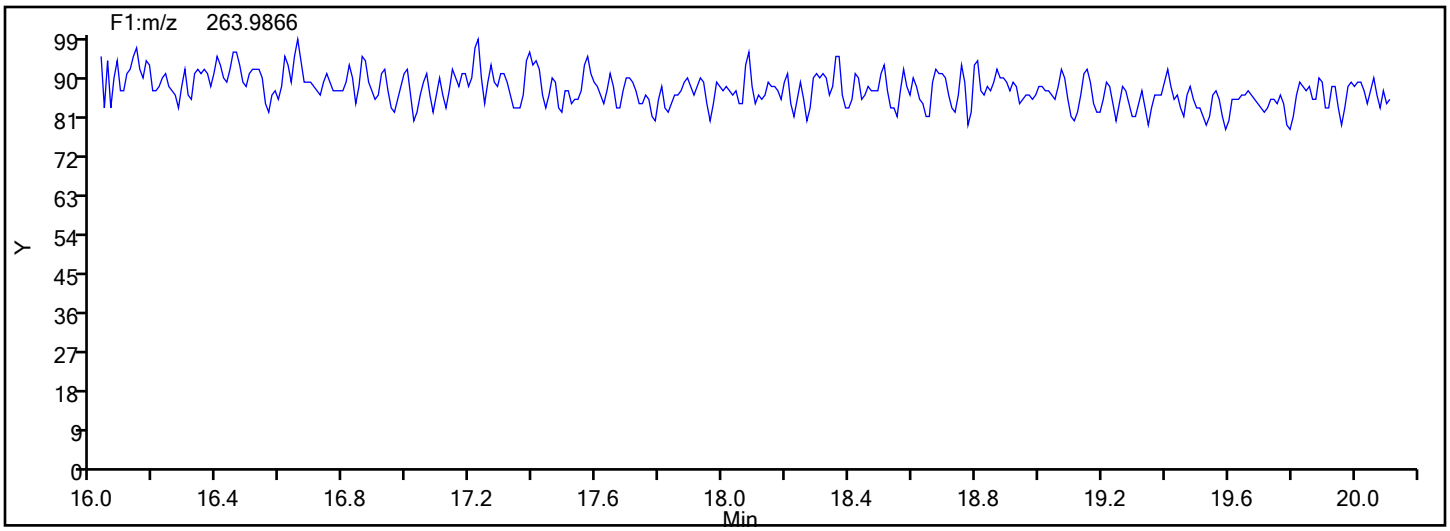
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



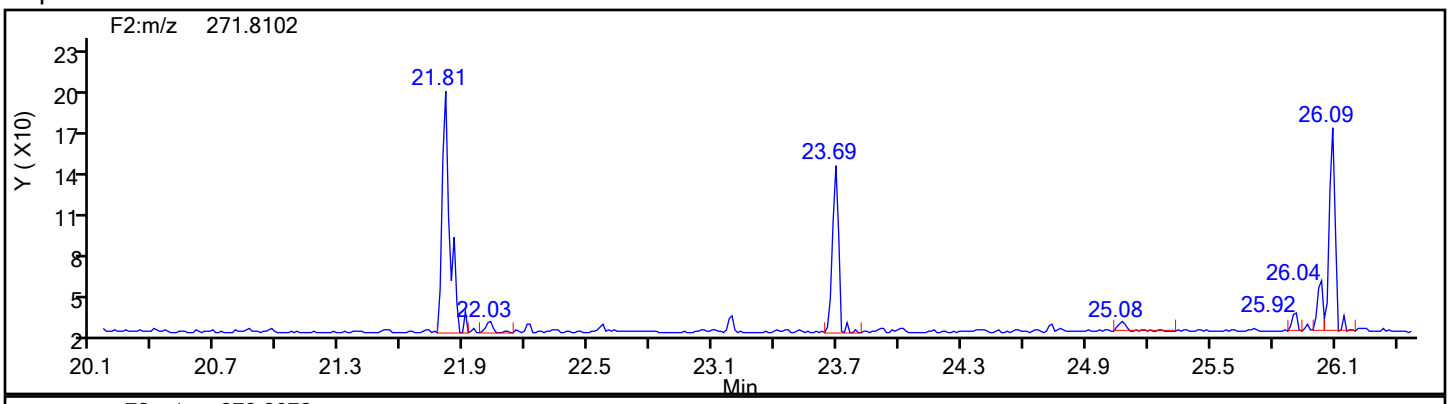
Report Date: 05-May-2025 18:00:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

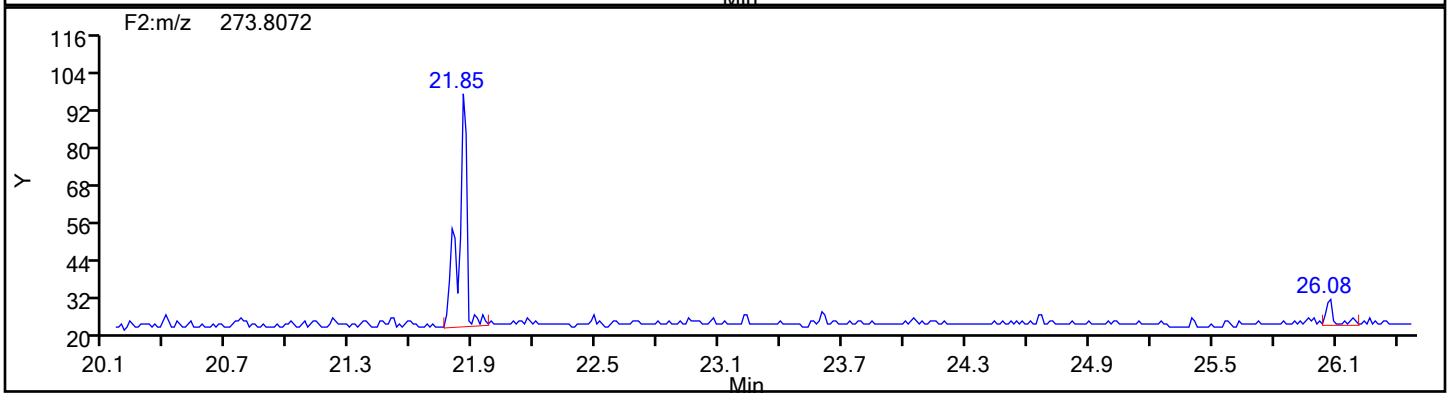
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

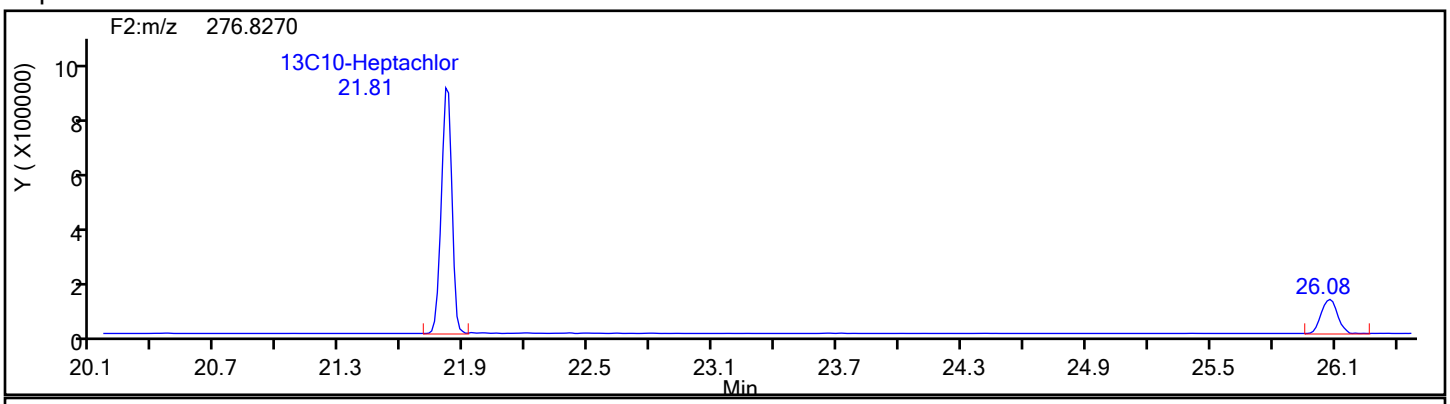
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

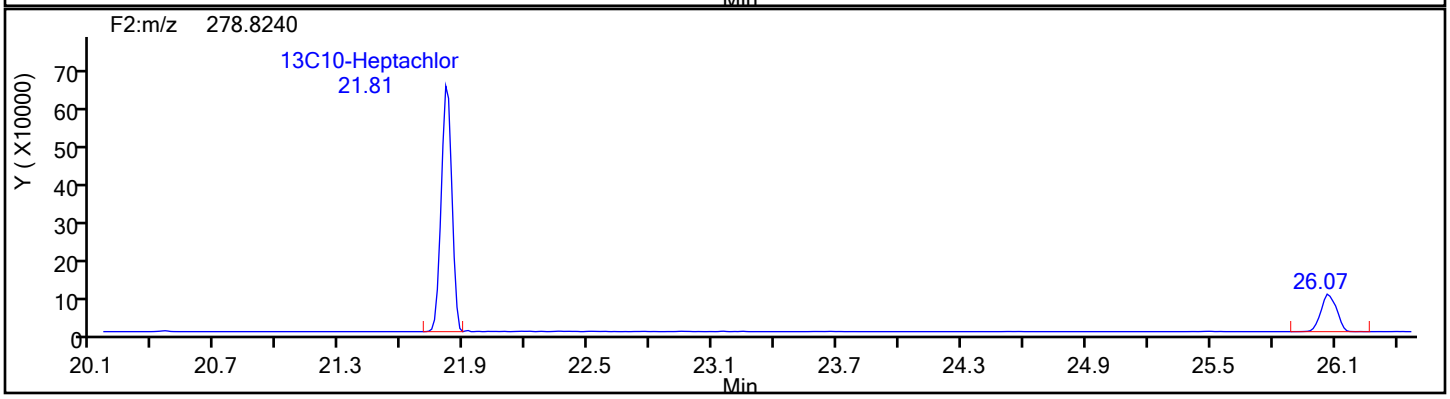
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:21 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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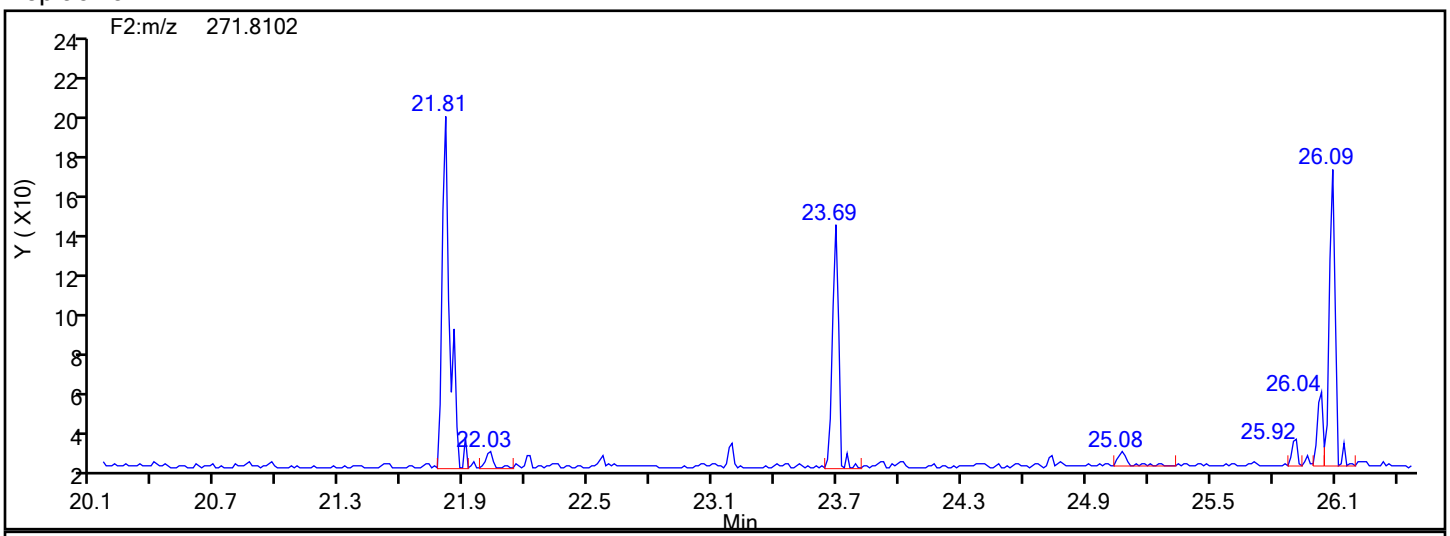
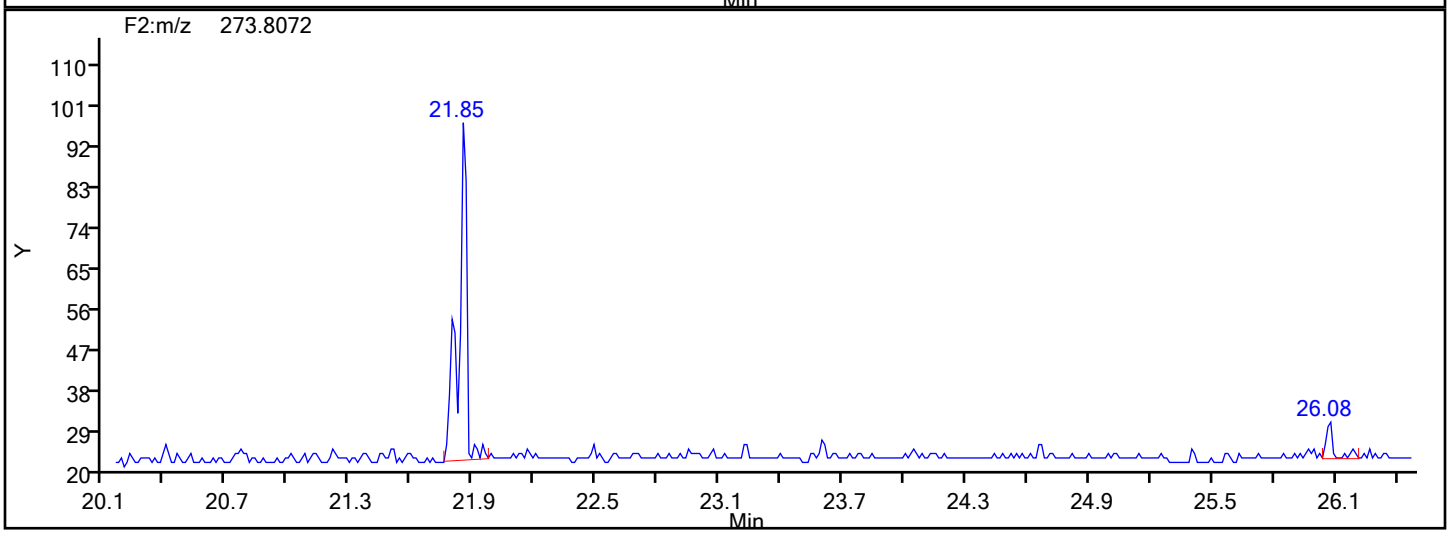
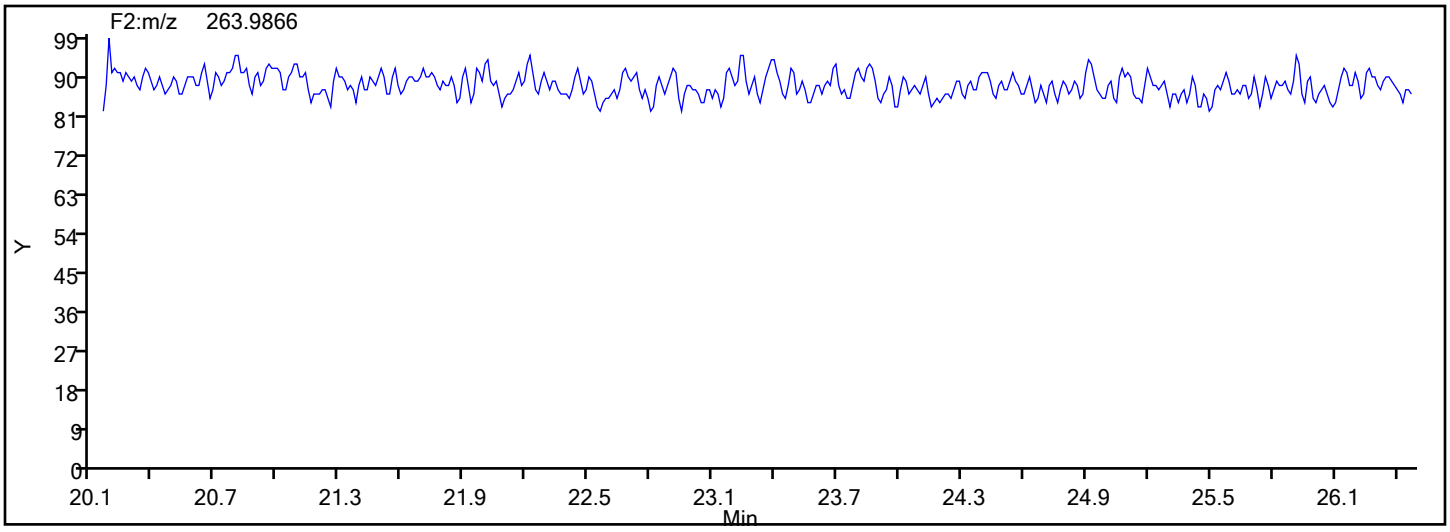
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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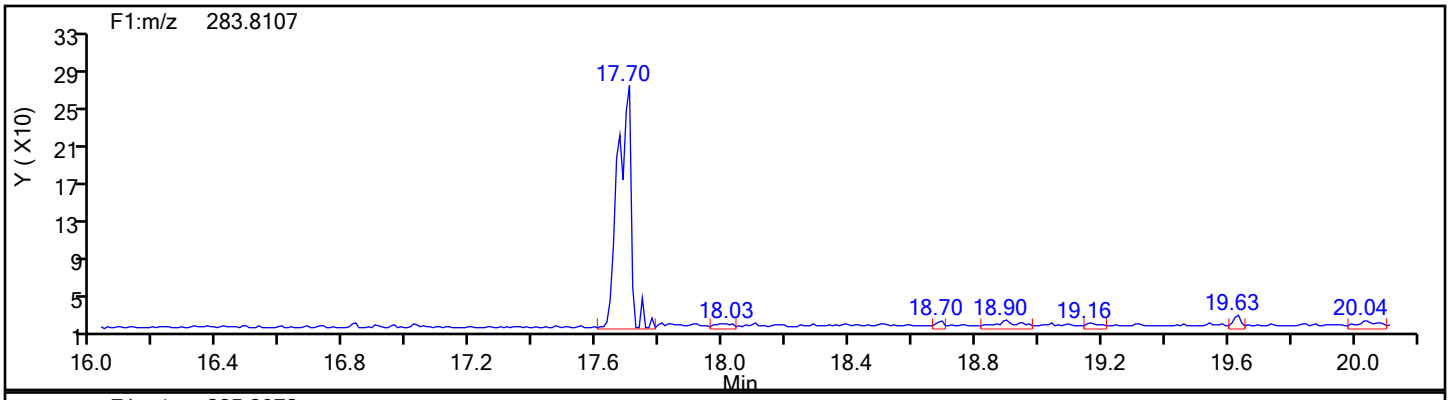
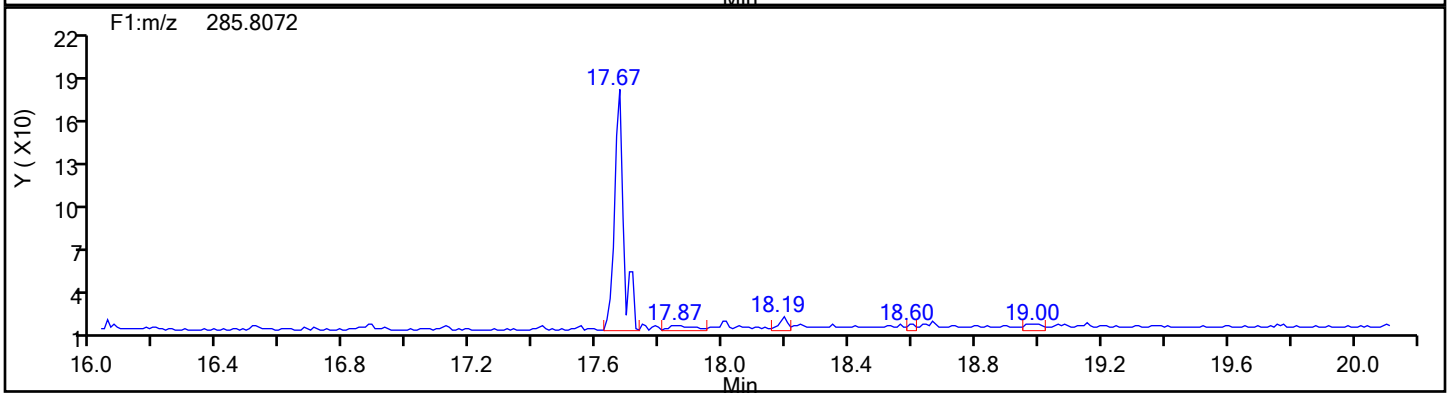
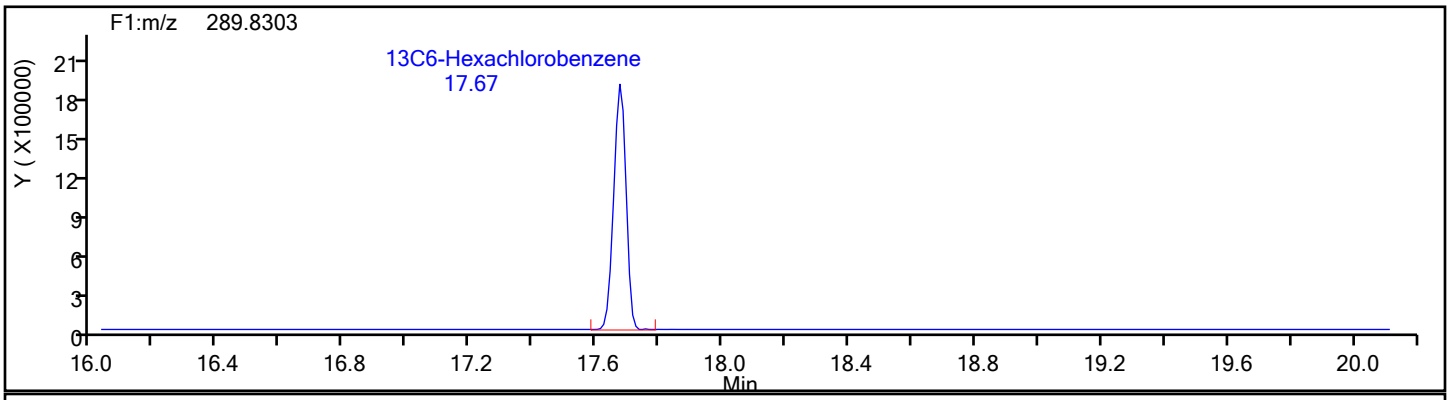
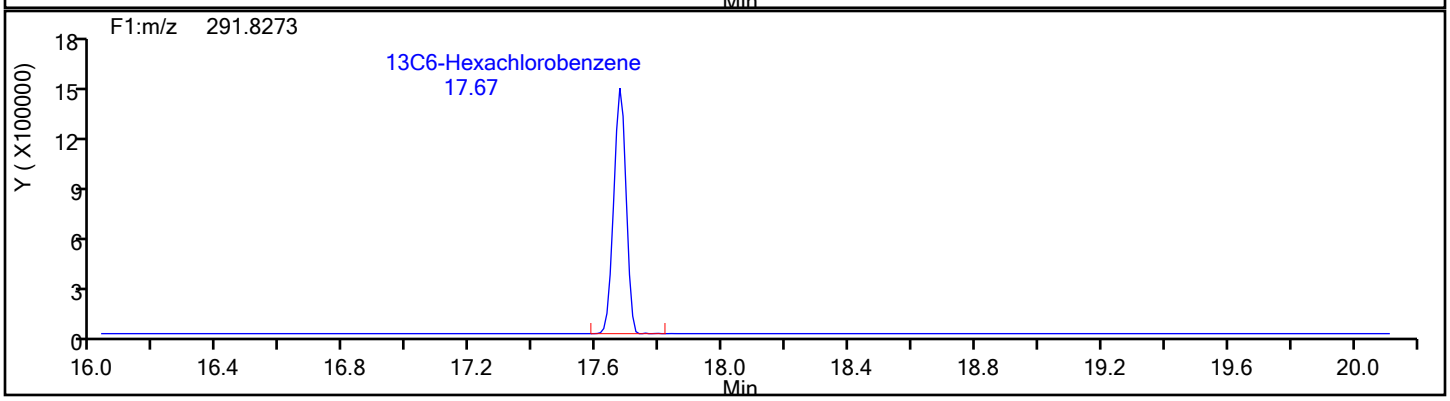
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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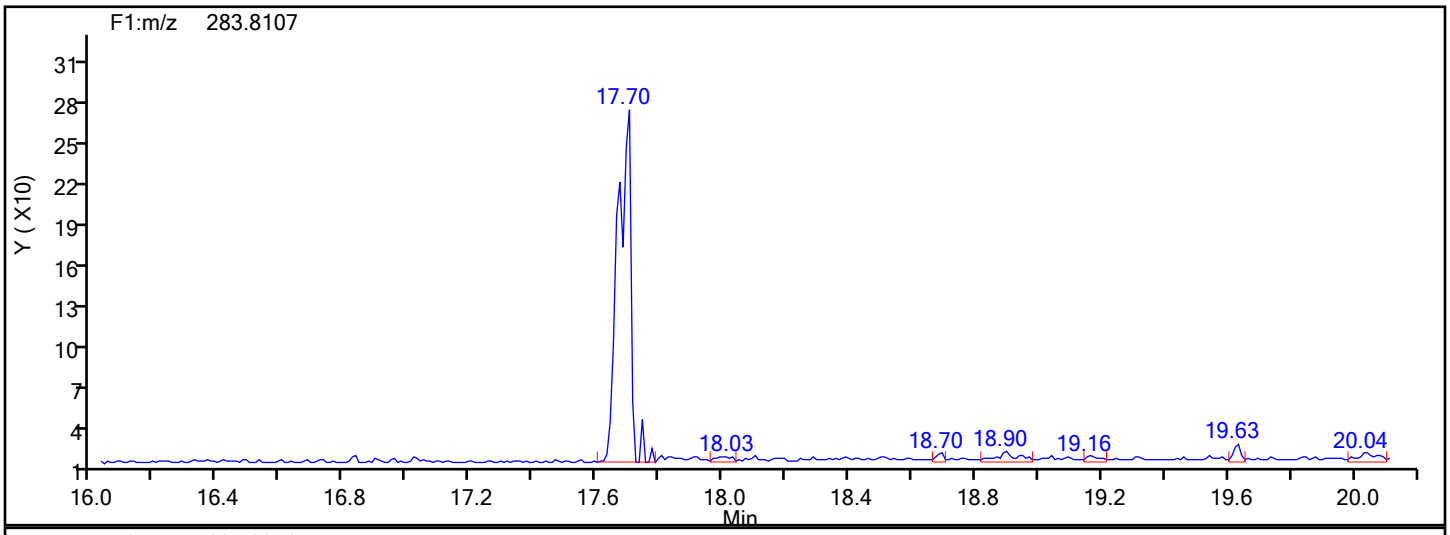
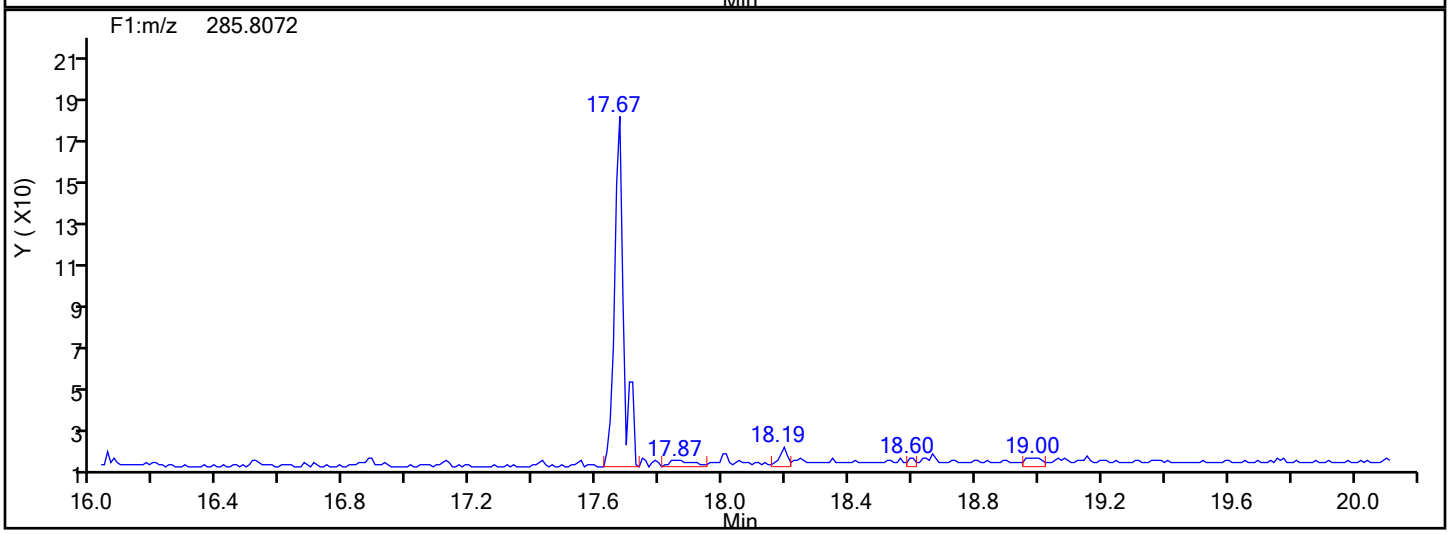
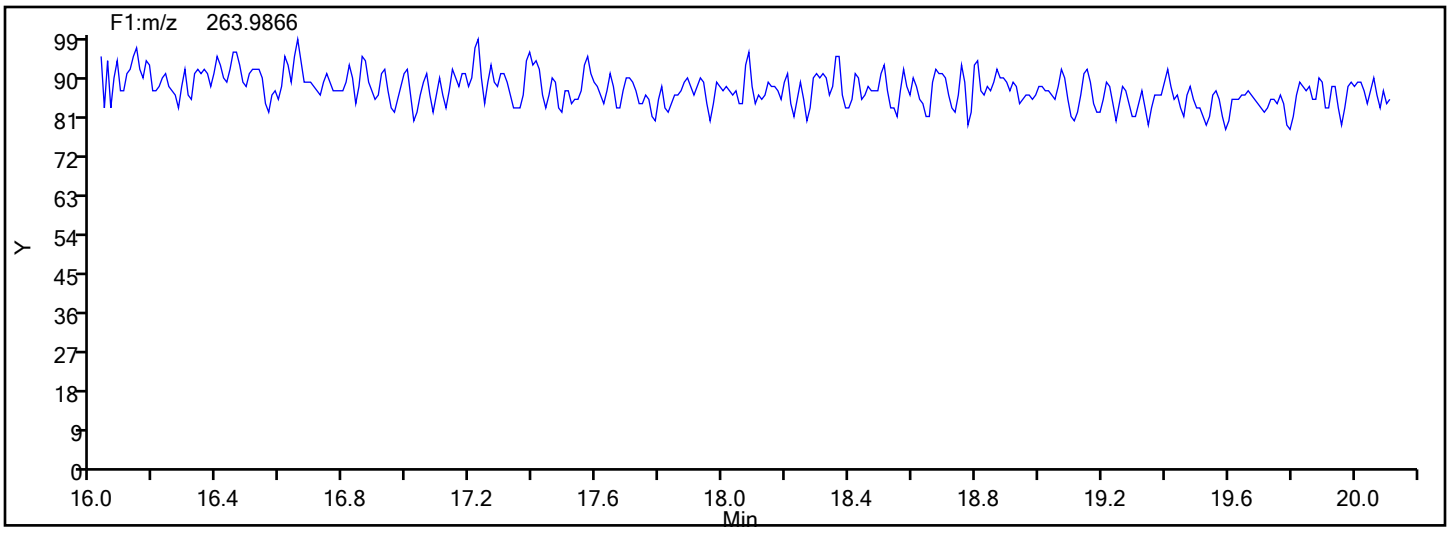
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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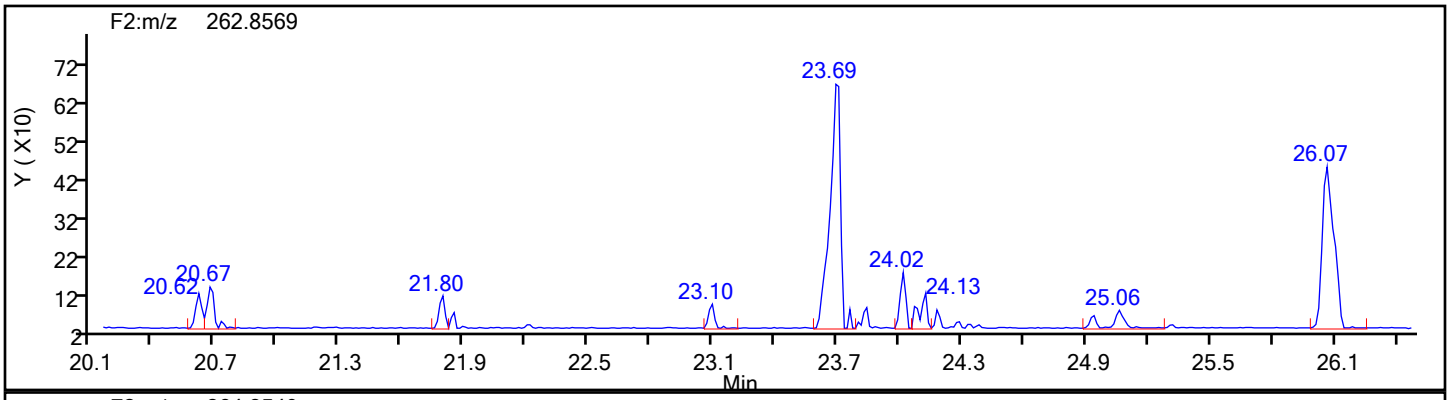
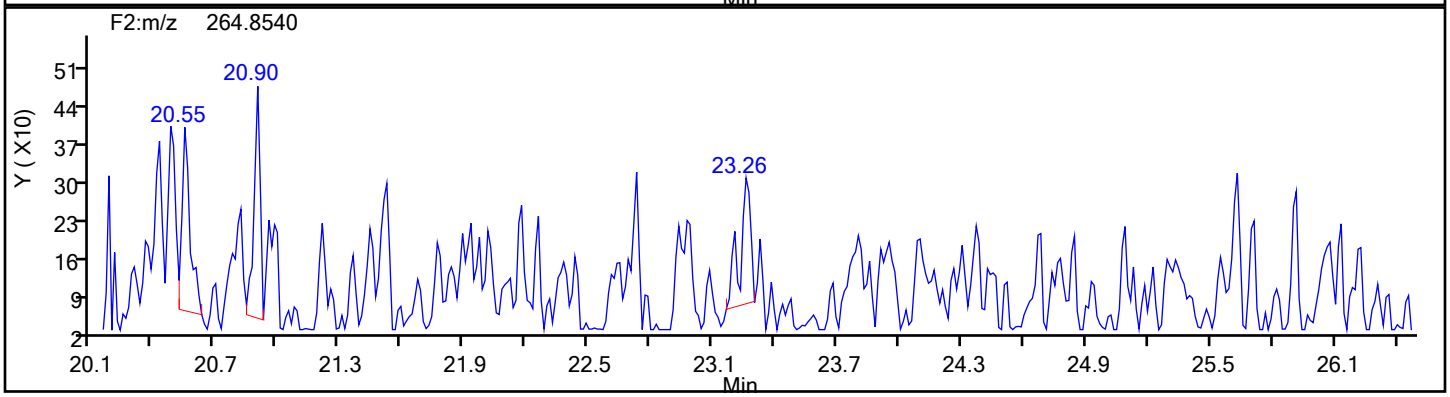
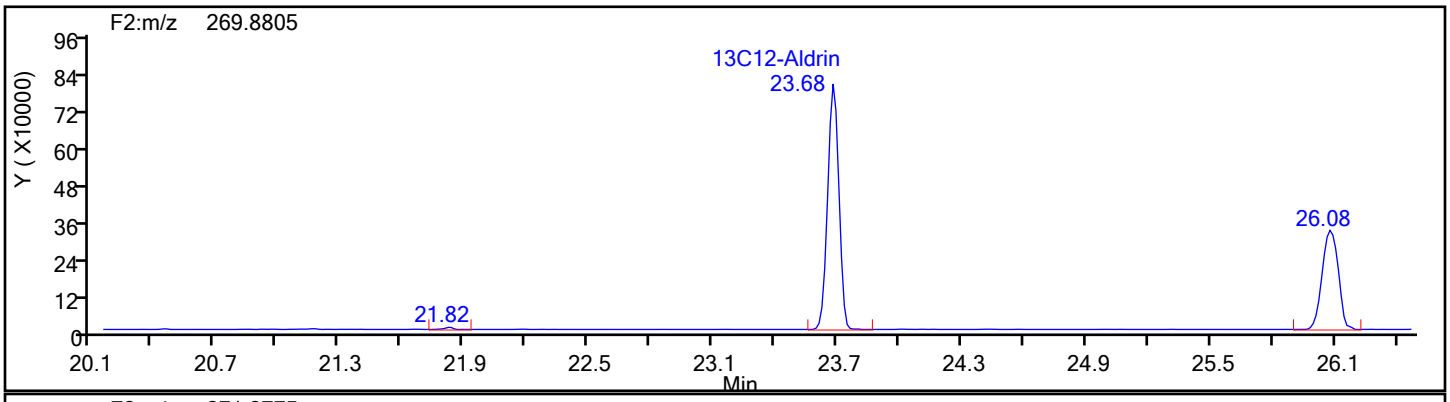
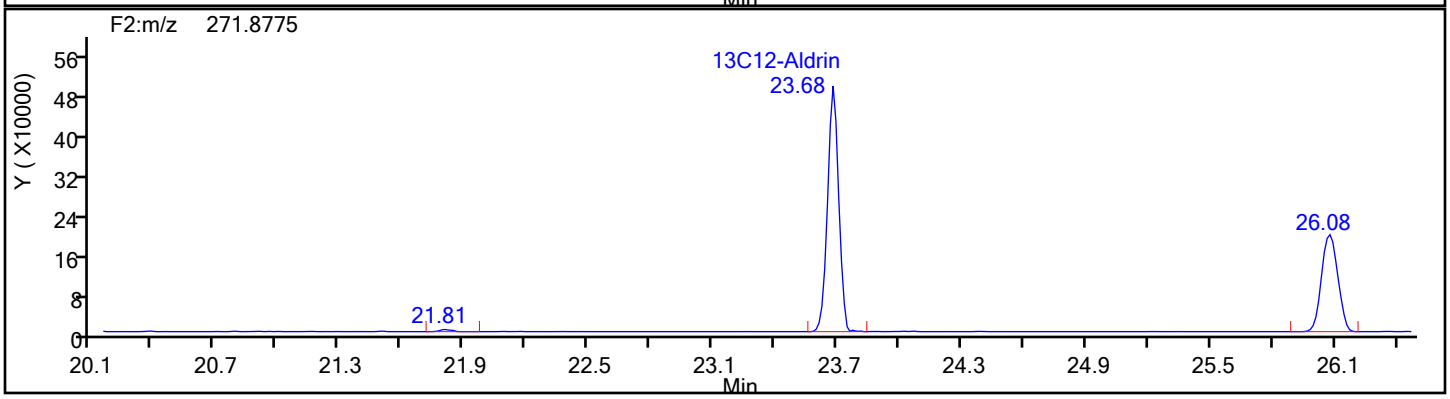
Aldrin





Aldrin Standards





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Eurofins Knoxville

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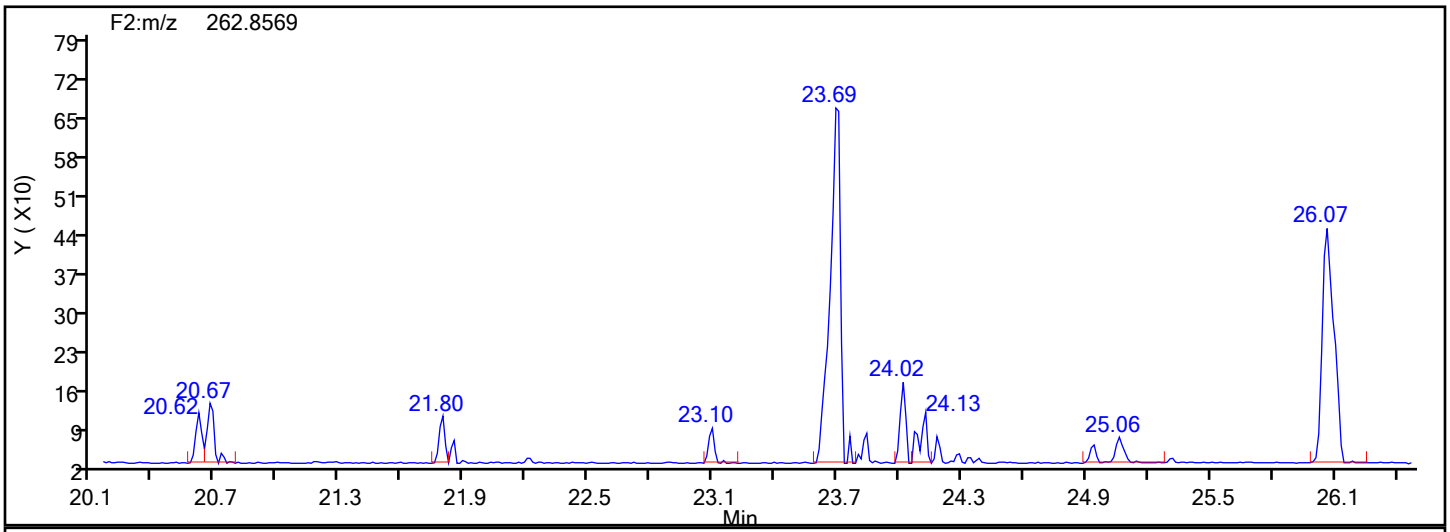
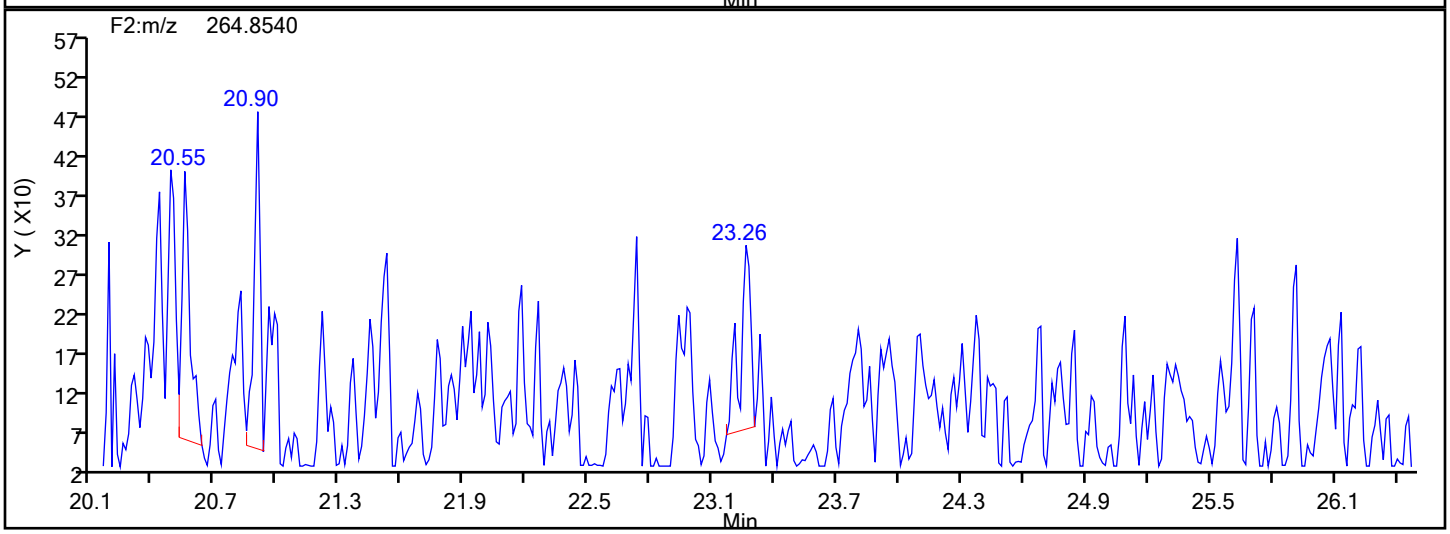
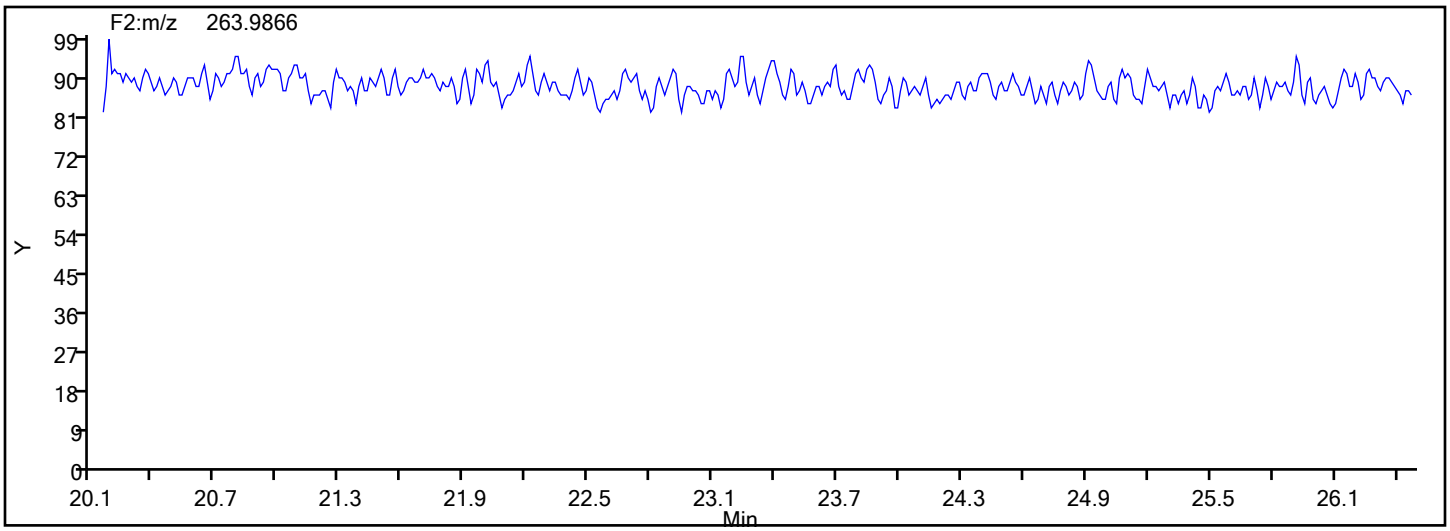




Aldrin Lock Mass



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Eurofins Knoxville

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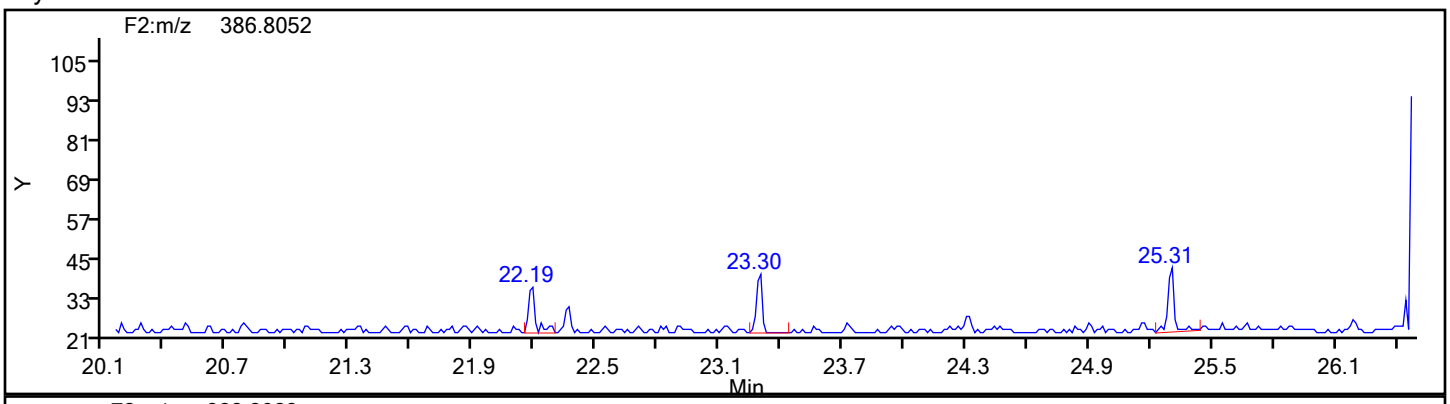
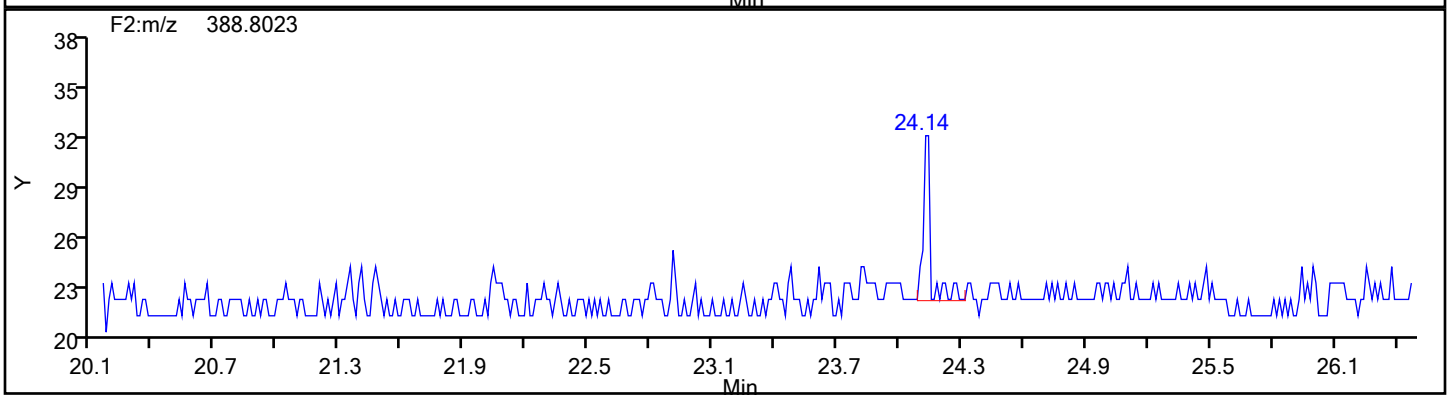
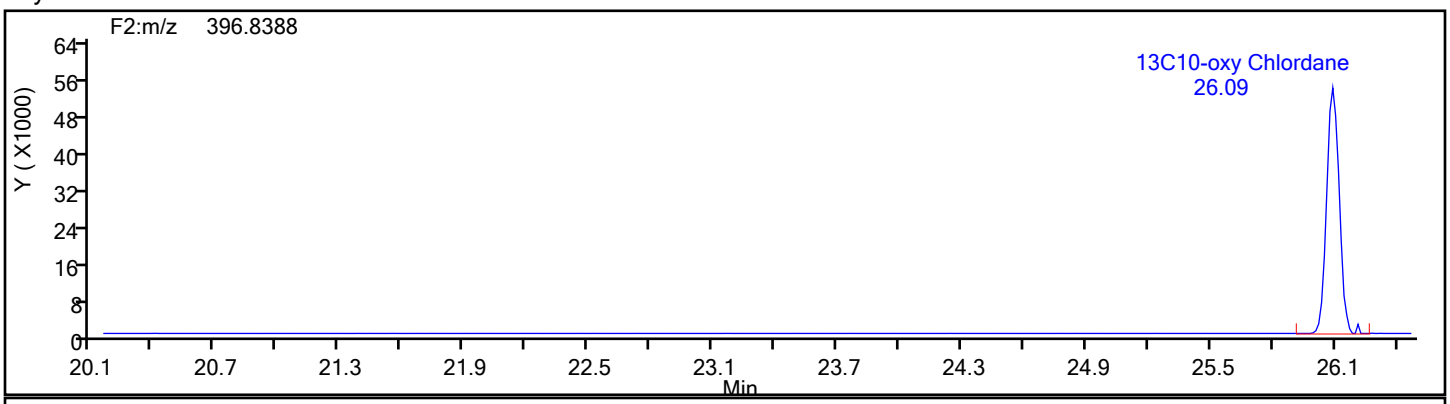
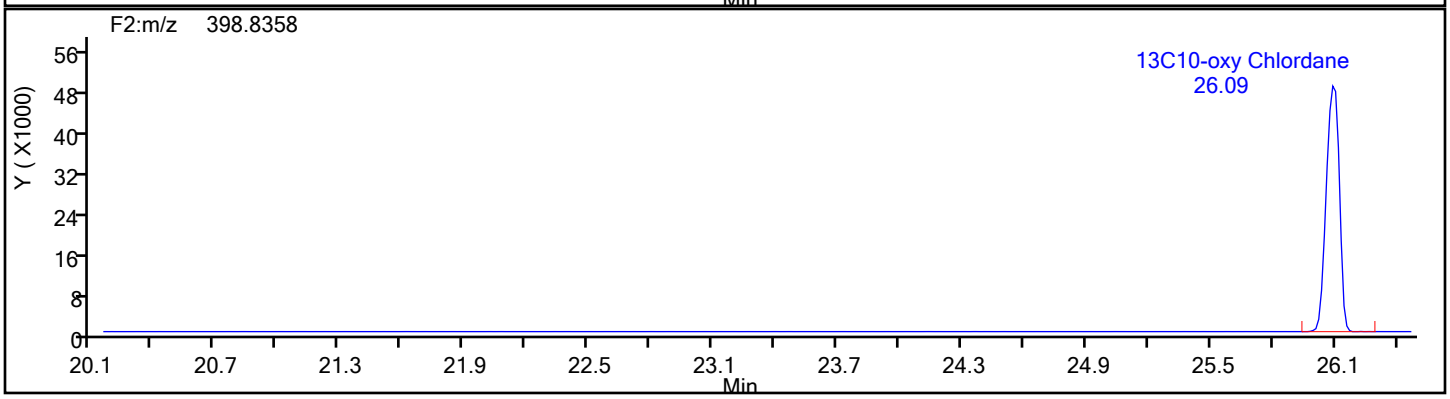
oxy-Chlordane





oxy-Chlordane Standards





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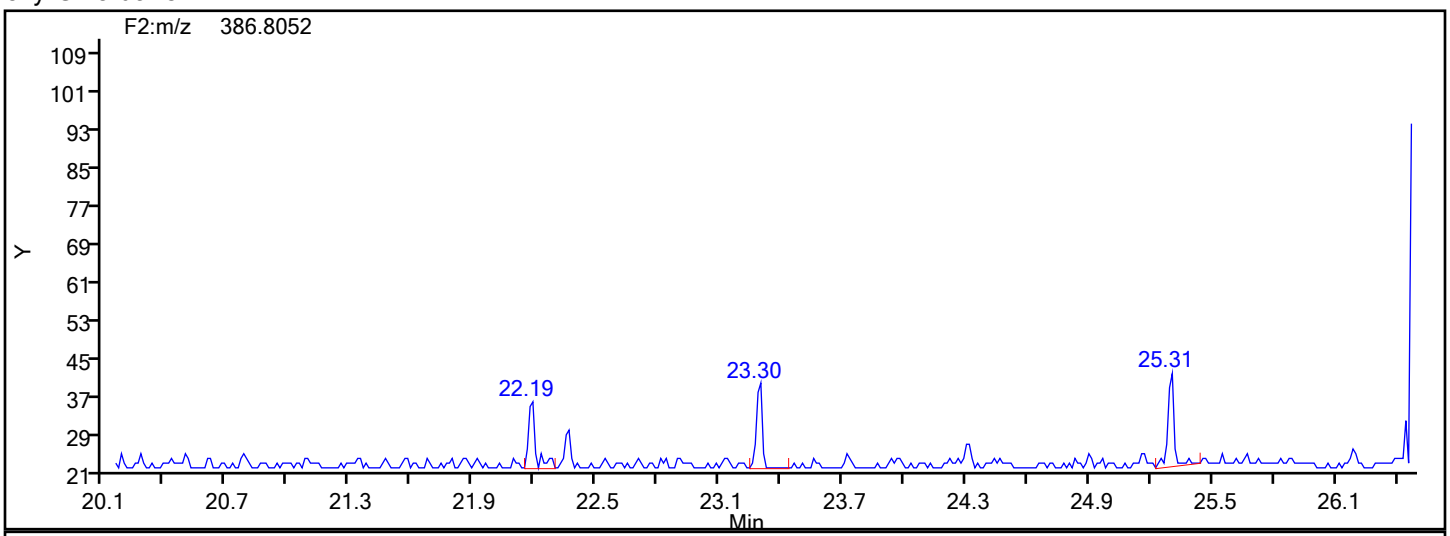
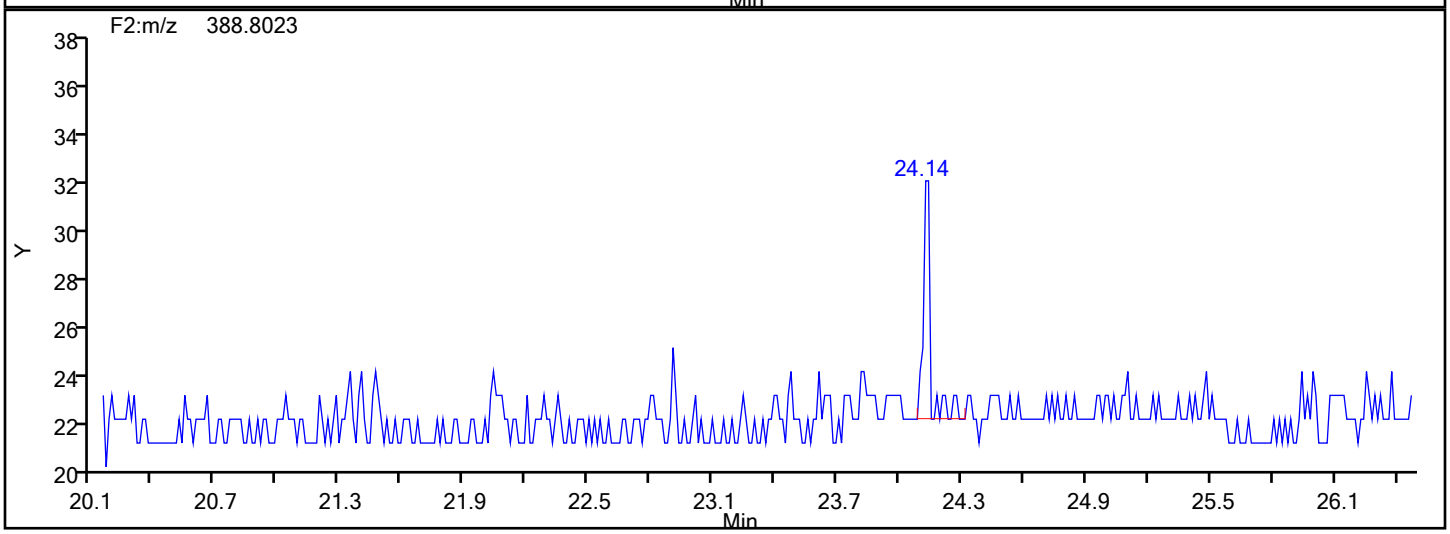
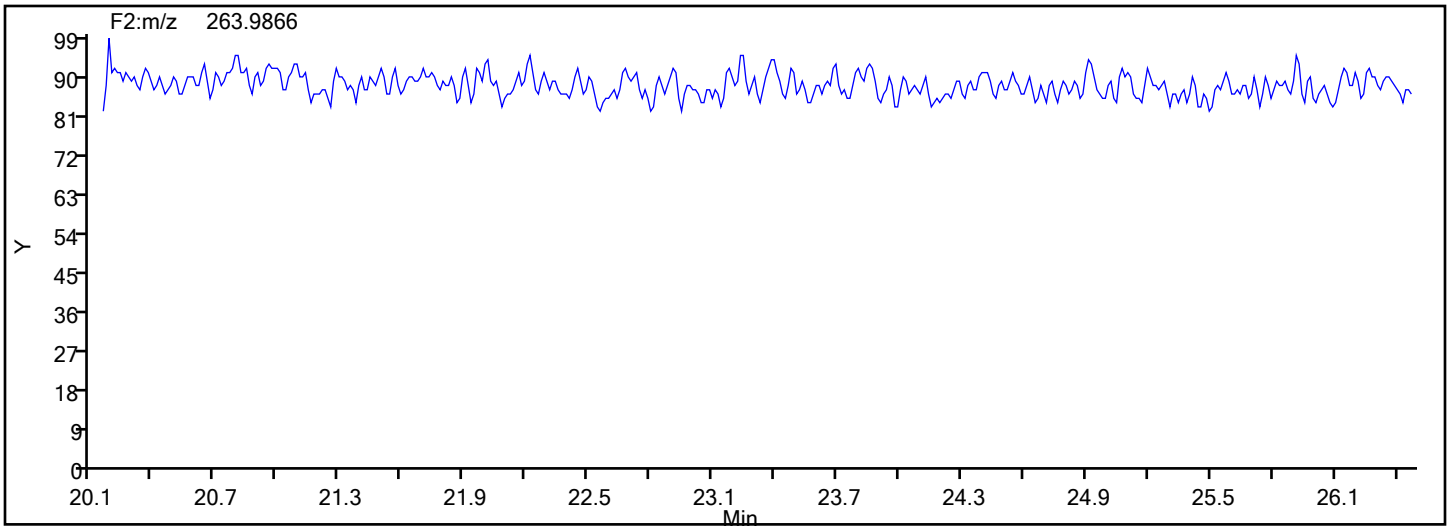
oxy-Chlordane





oxy-Chlordane Lock Mass



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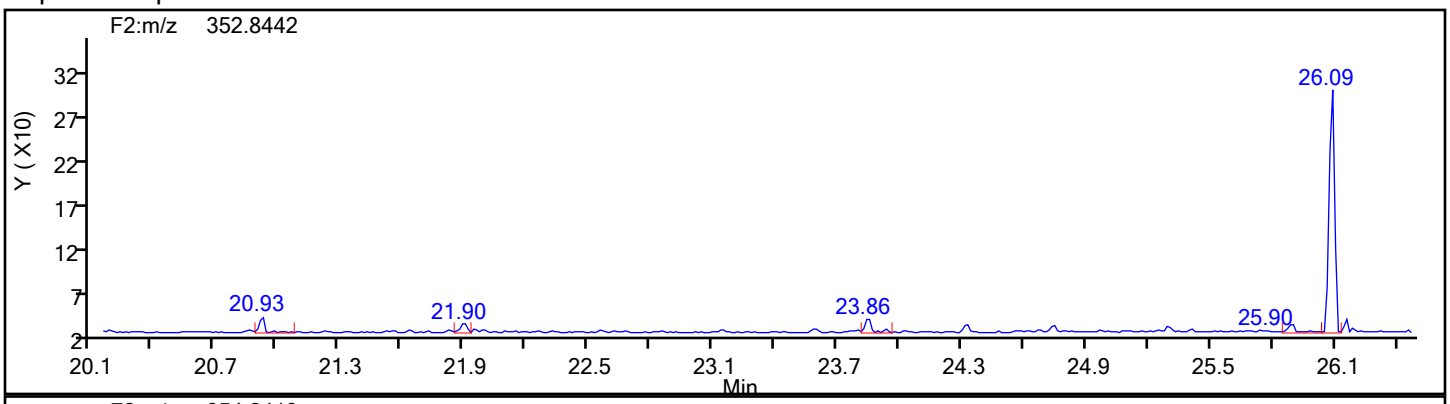
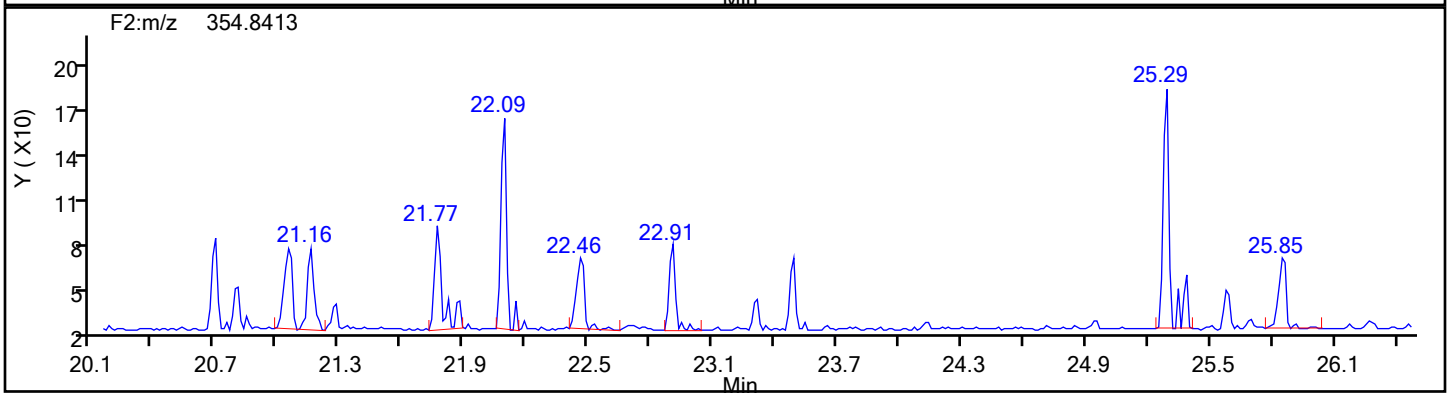
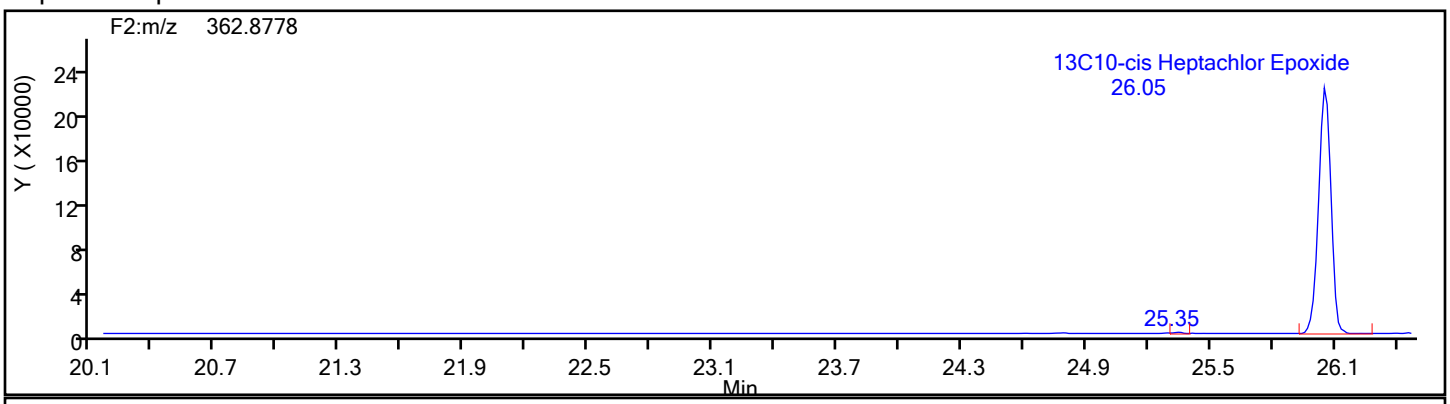
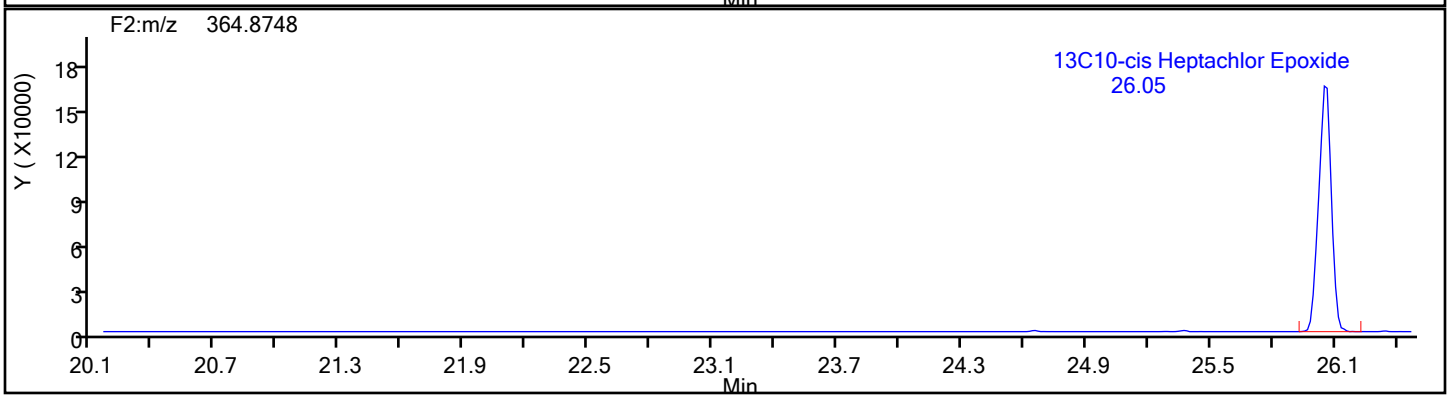
Heptachlor epoxide





Heptachlor epoxide Standards





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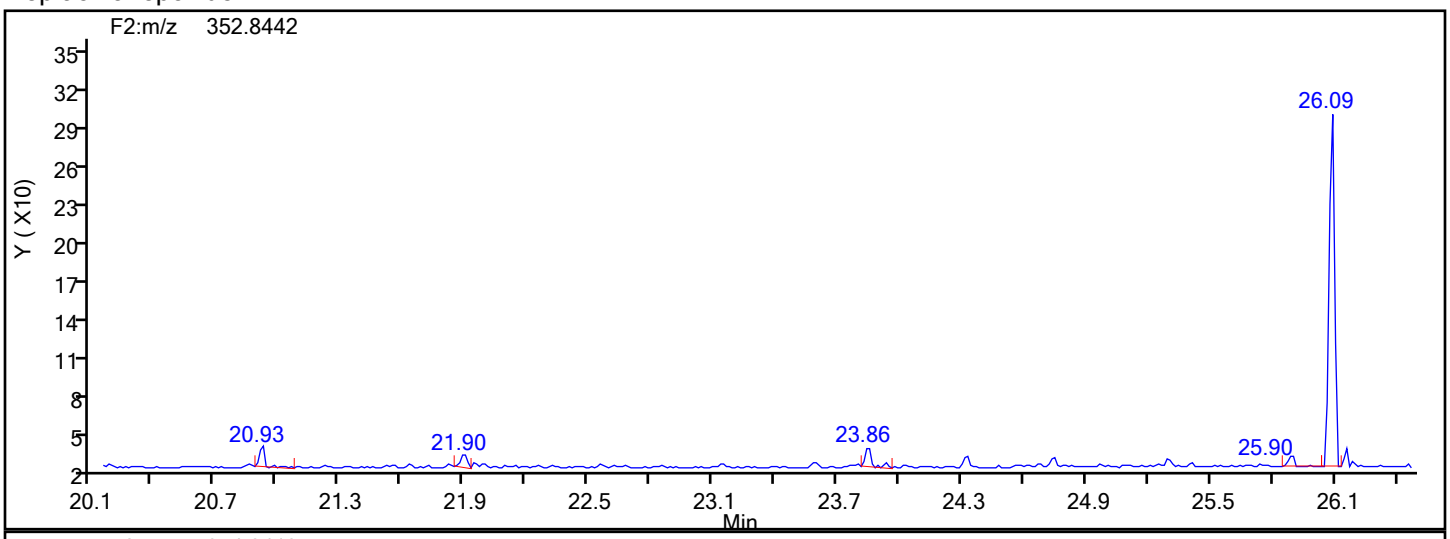
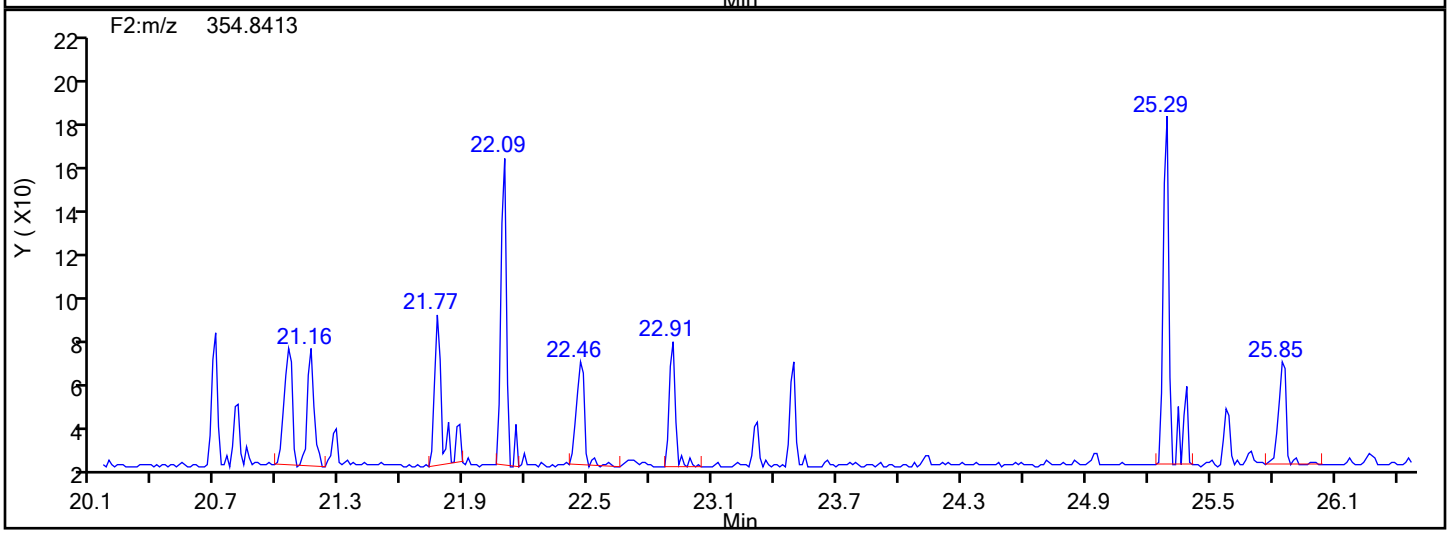
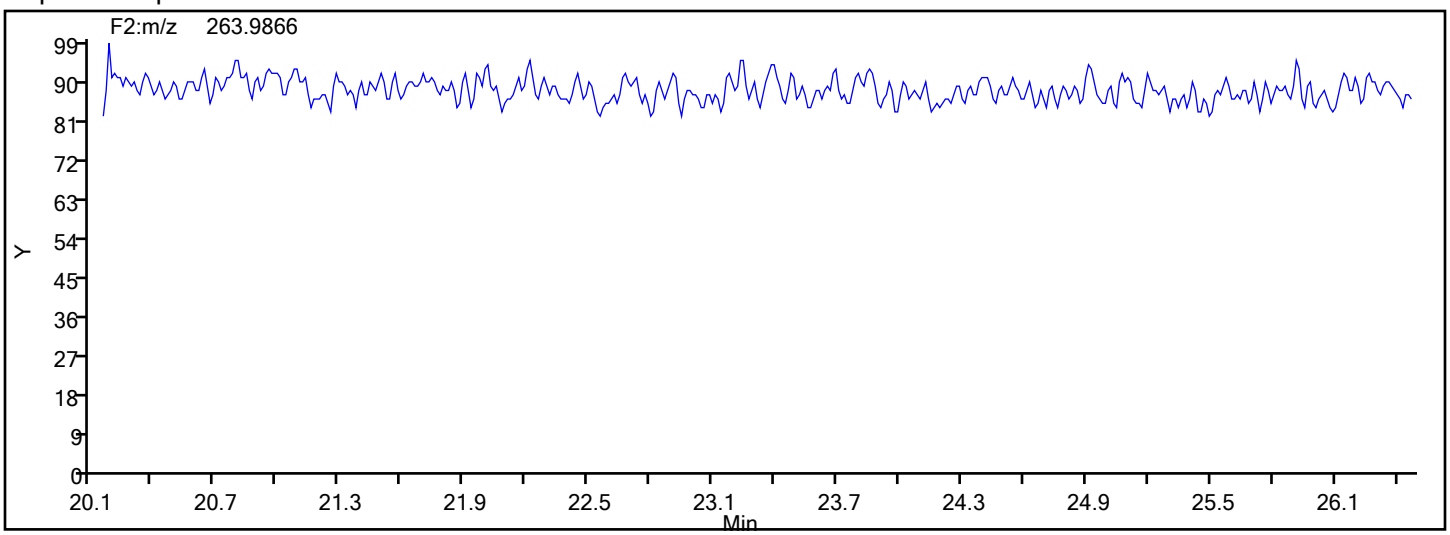
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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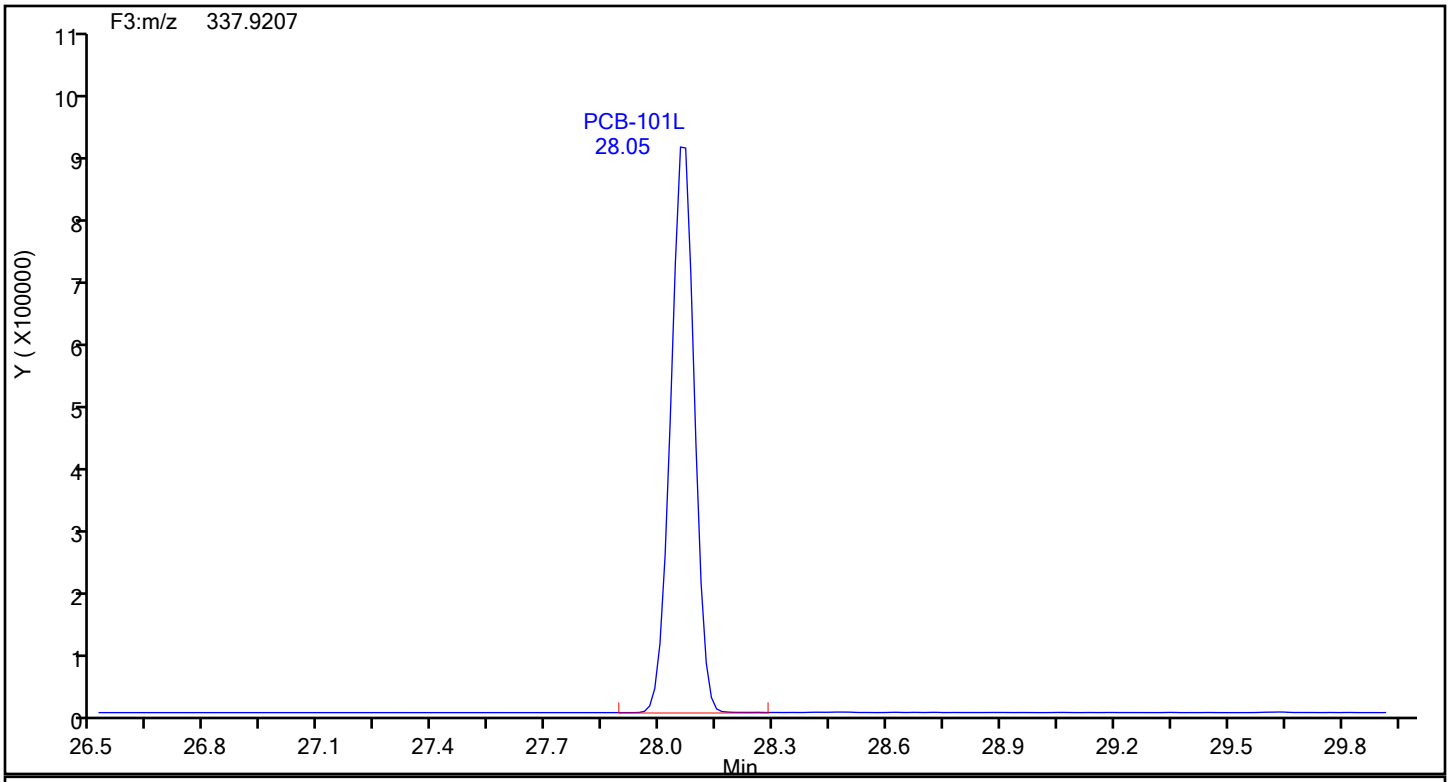
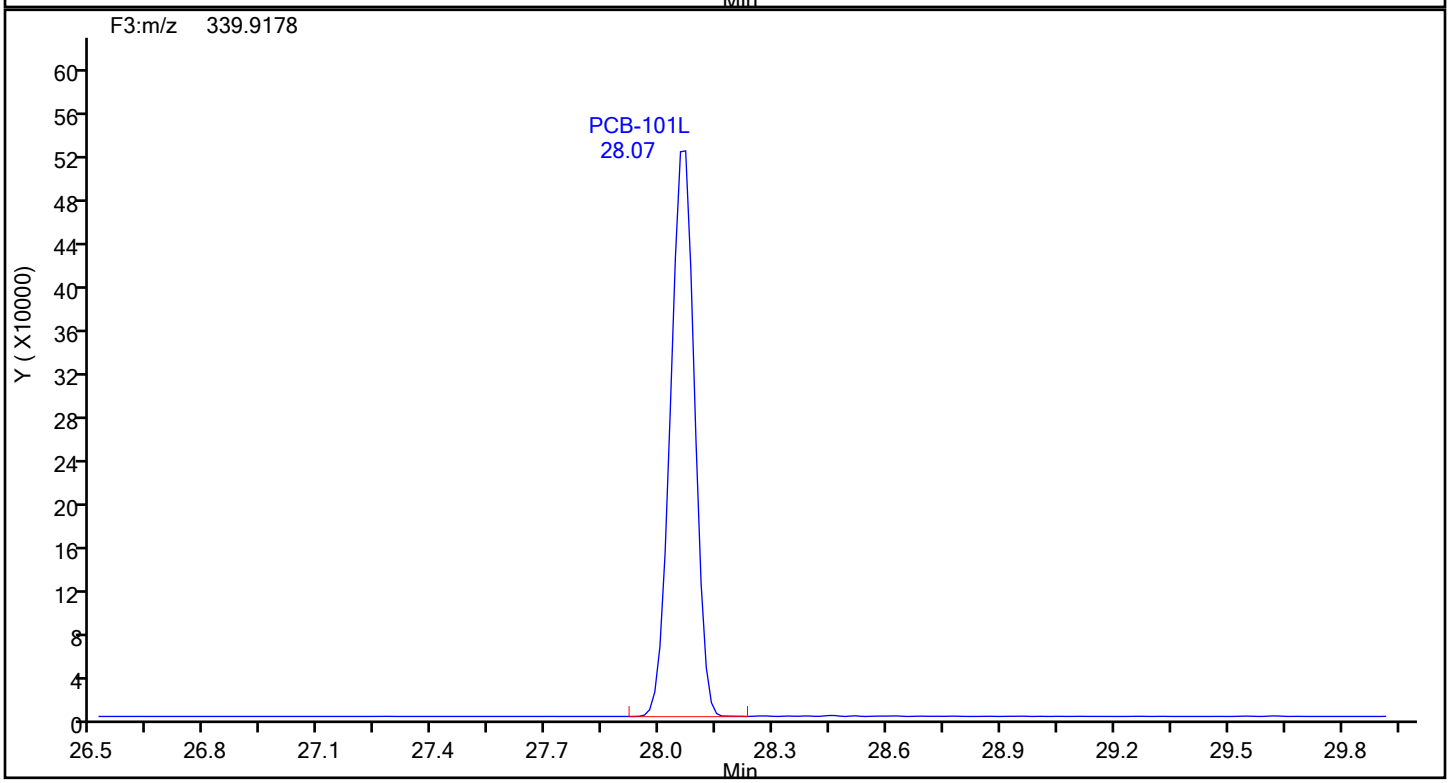
PCB-101L Standards





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Eurofins Knoxville

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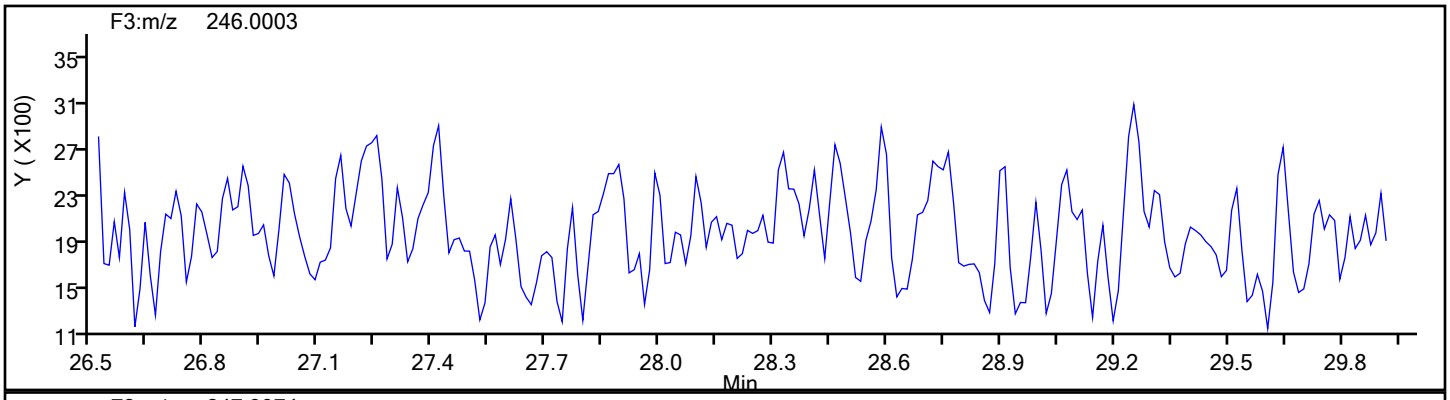
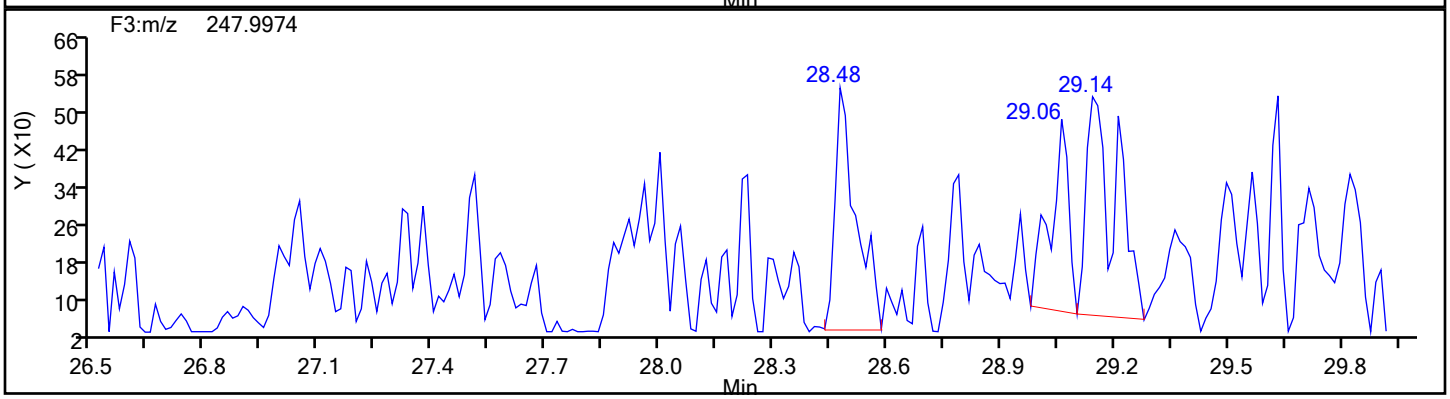
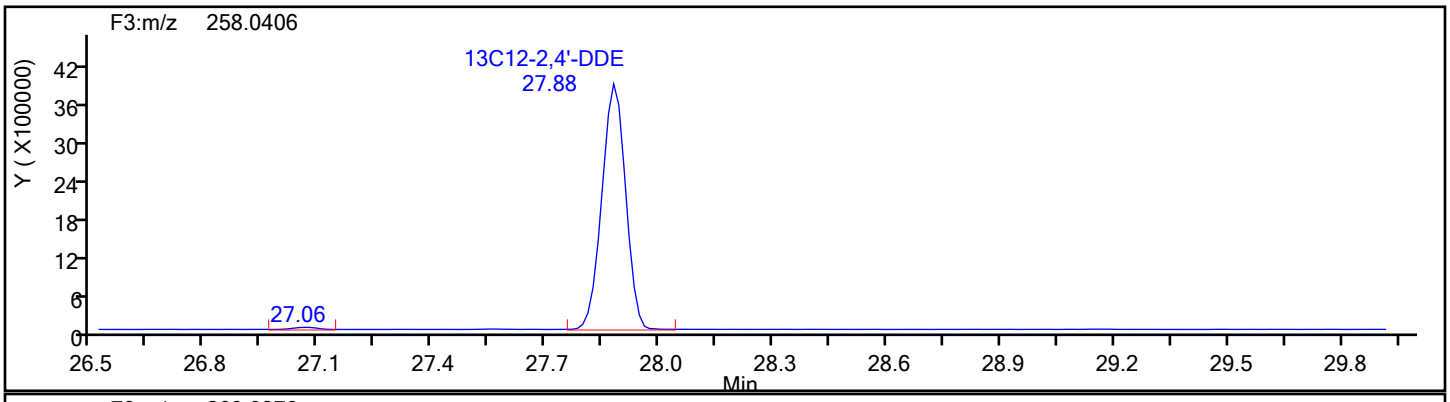
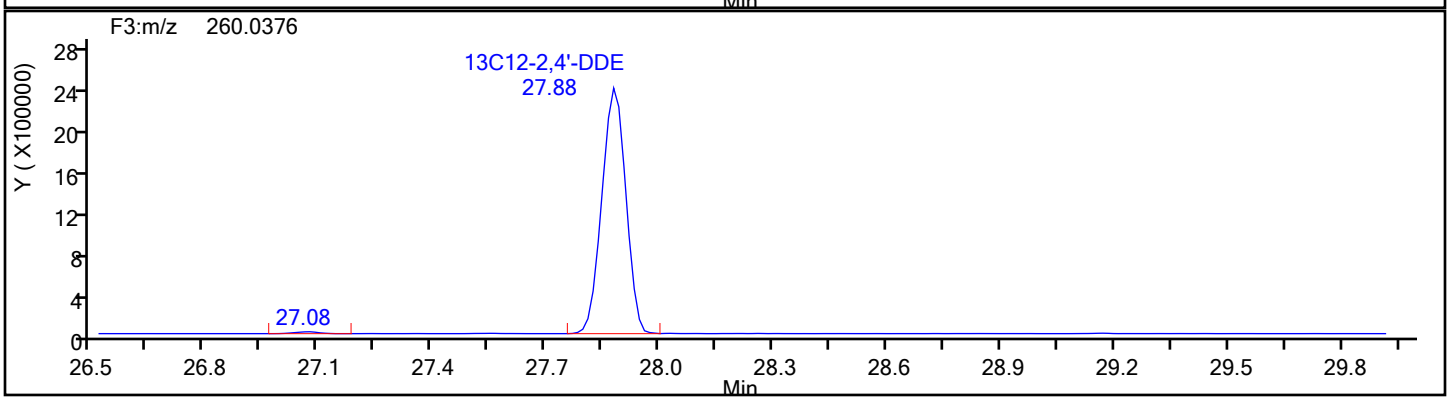
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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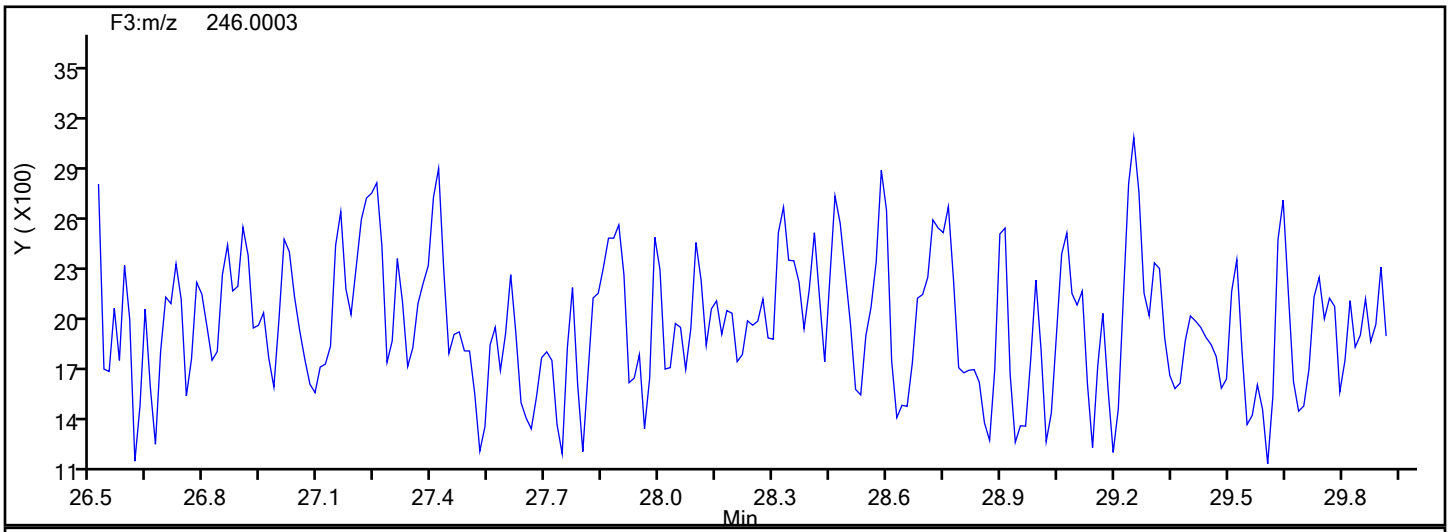
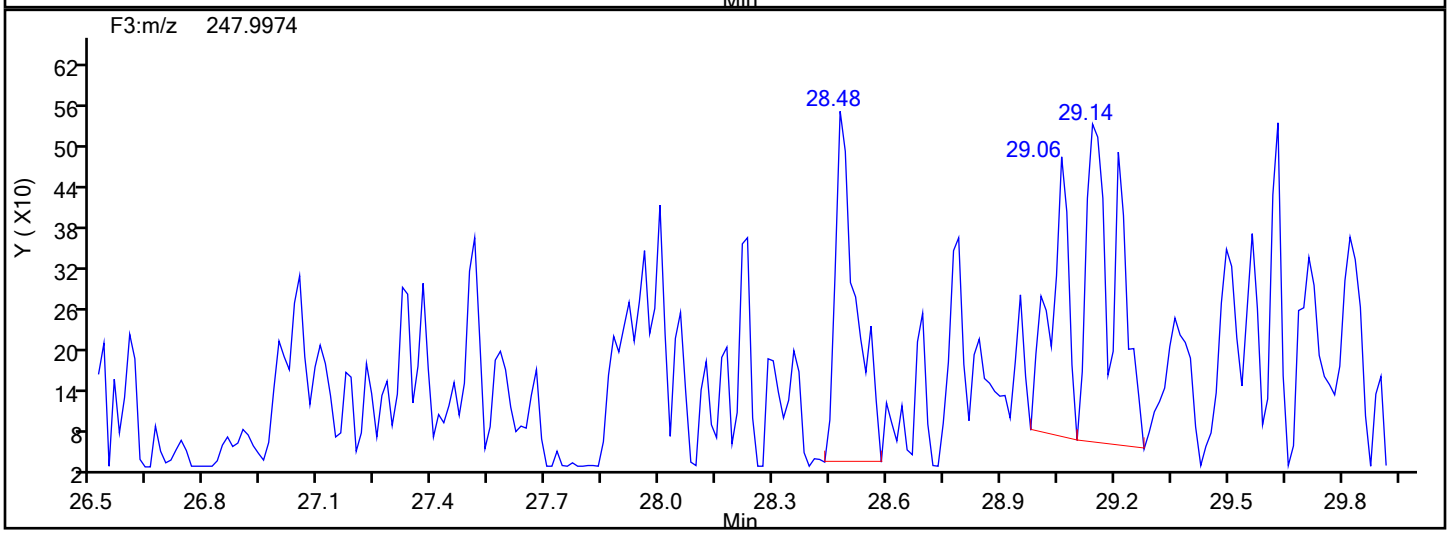
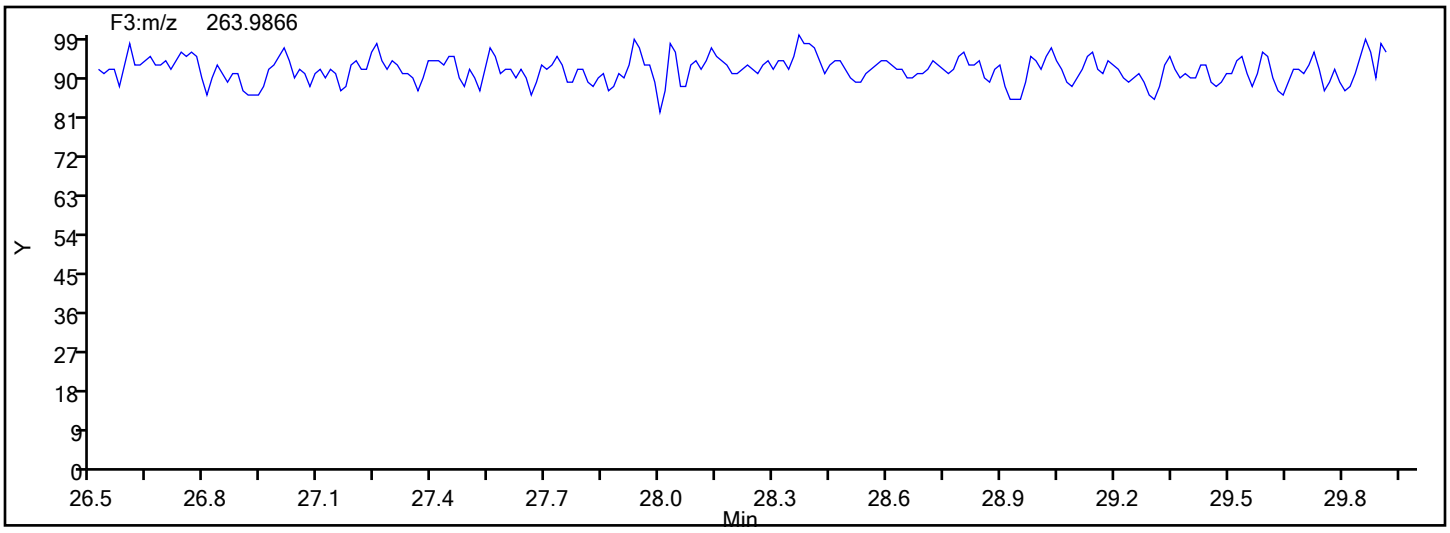
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 05-May-2025 18:00:22 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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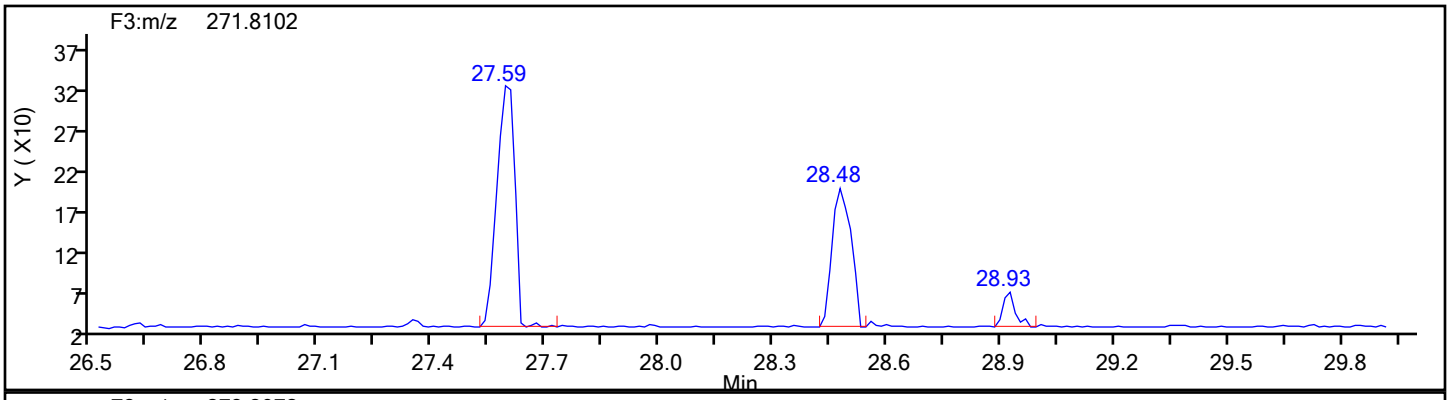
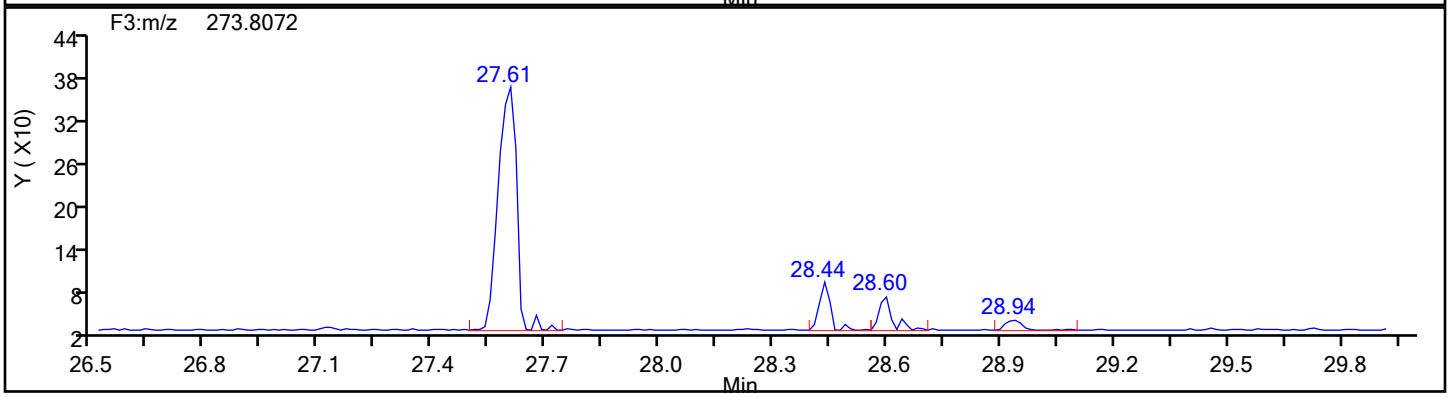
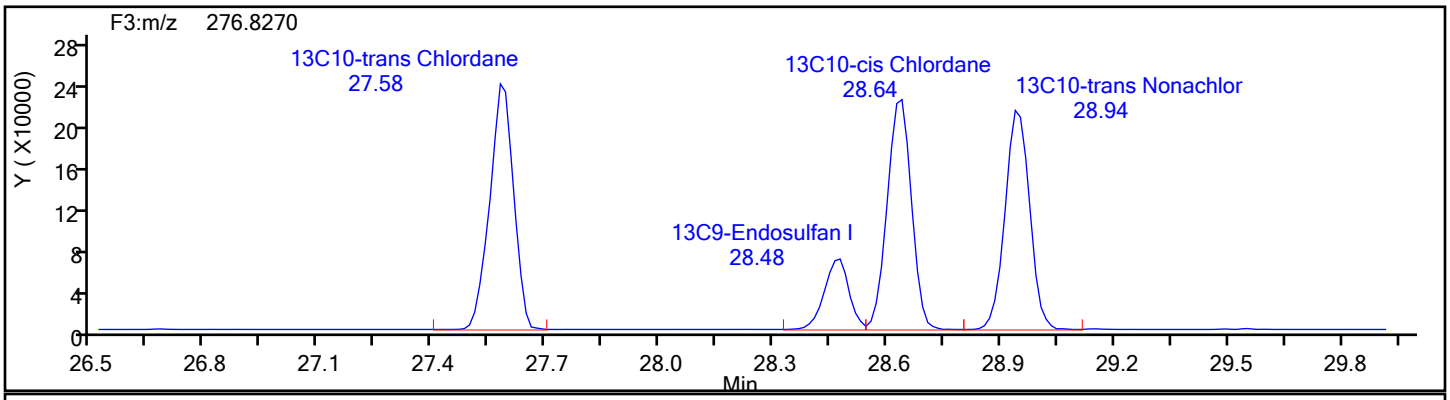
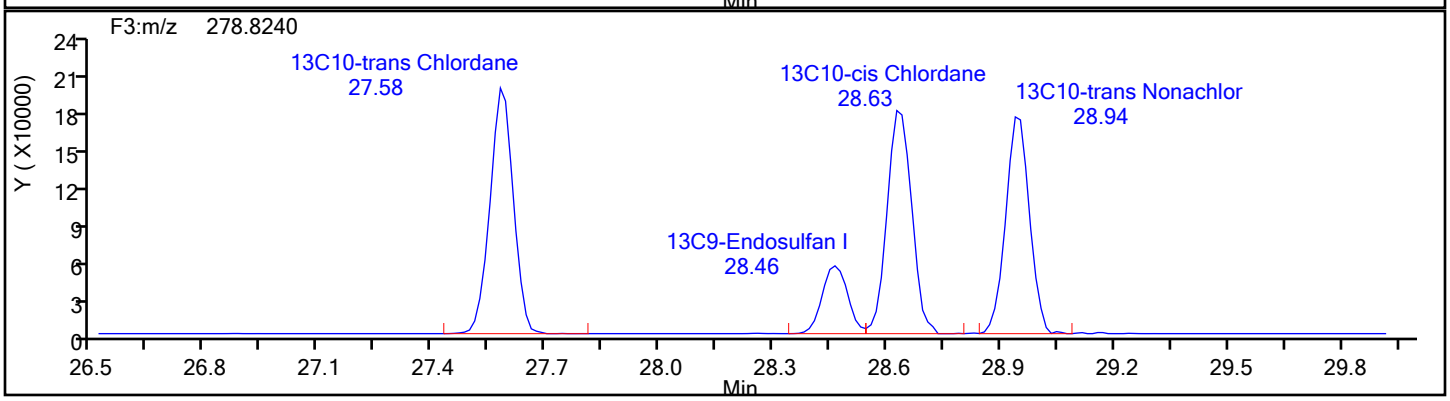
Chlordane





Chlordane Standards





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Eurofins Knoxville

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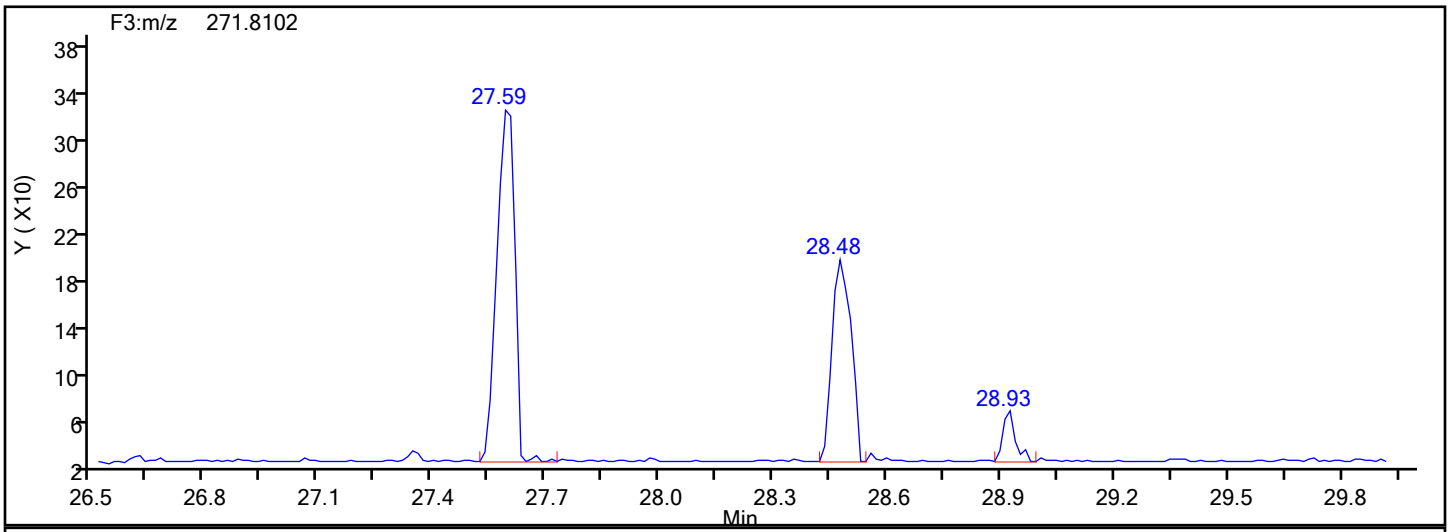
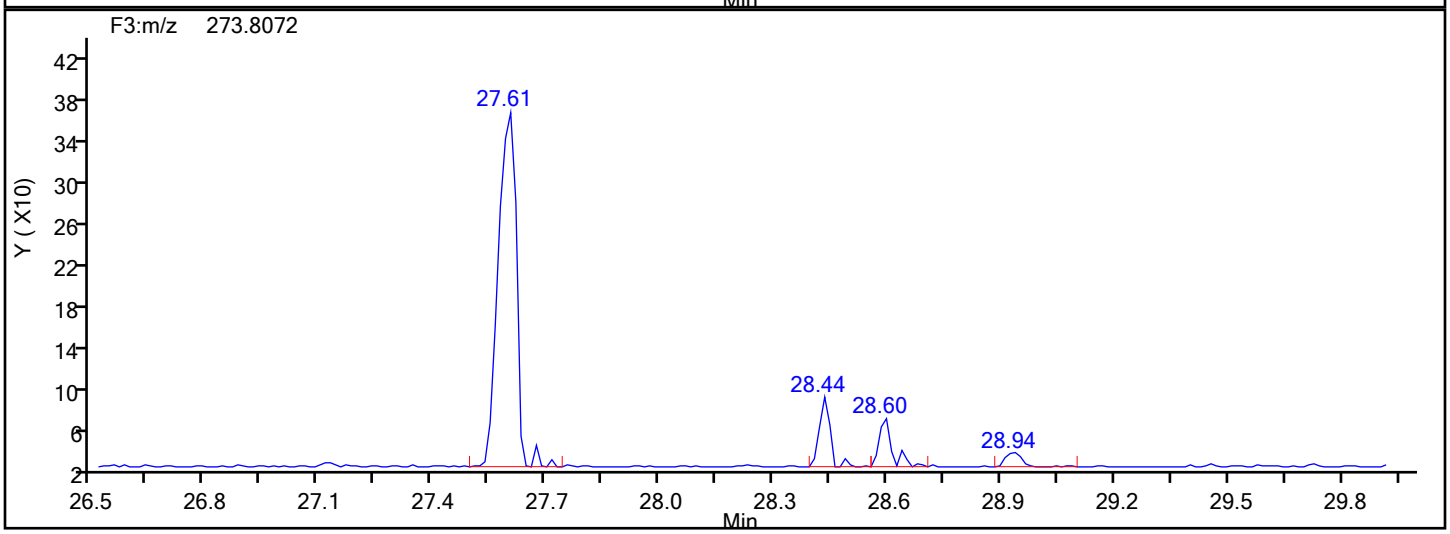
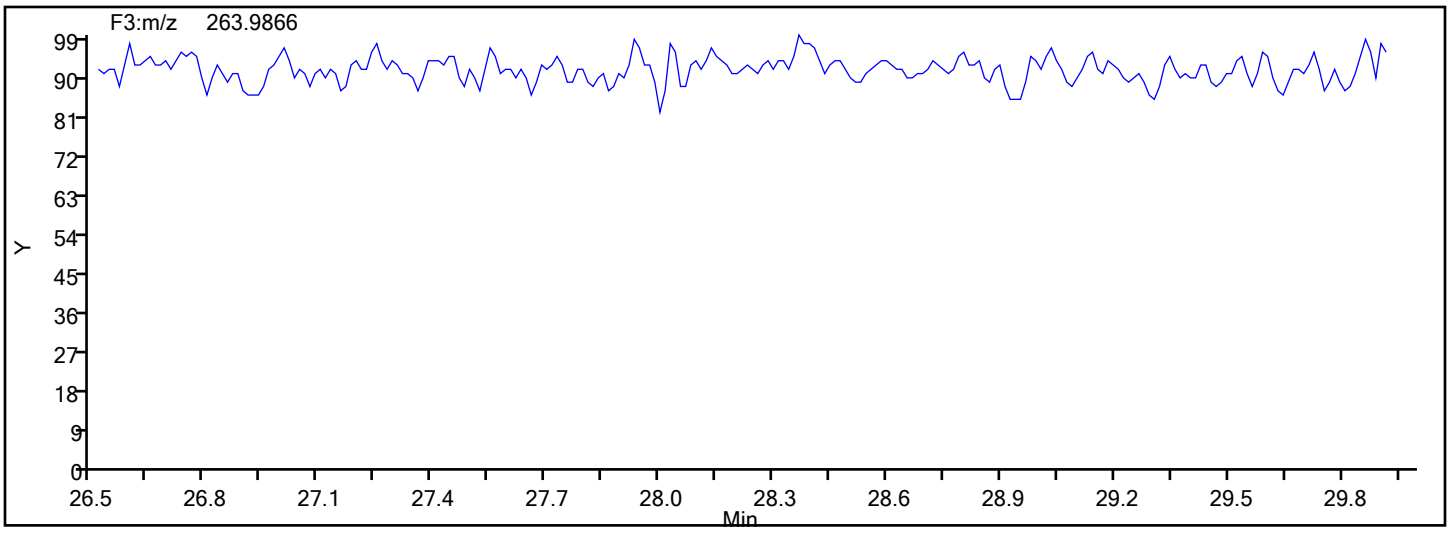
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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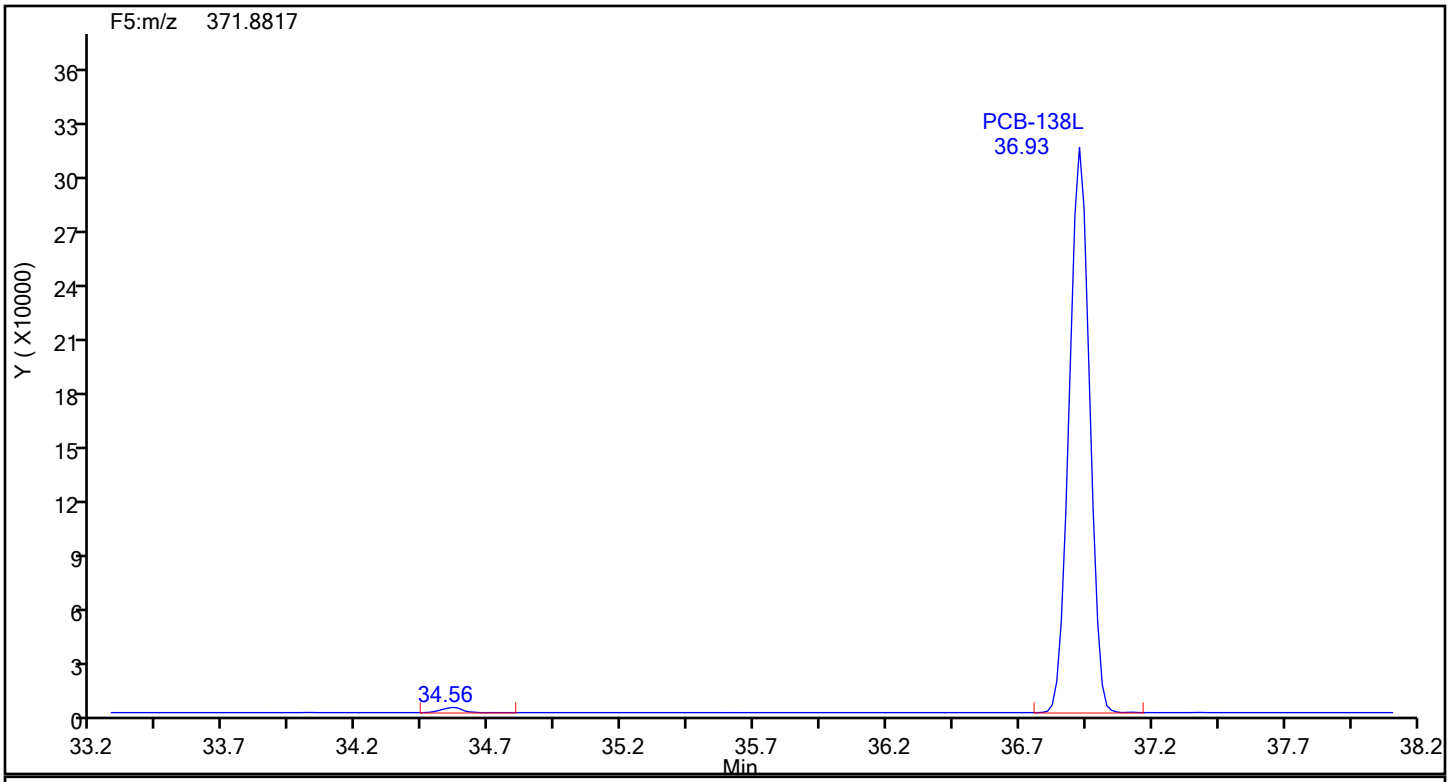
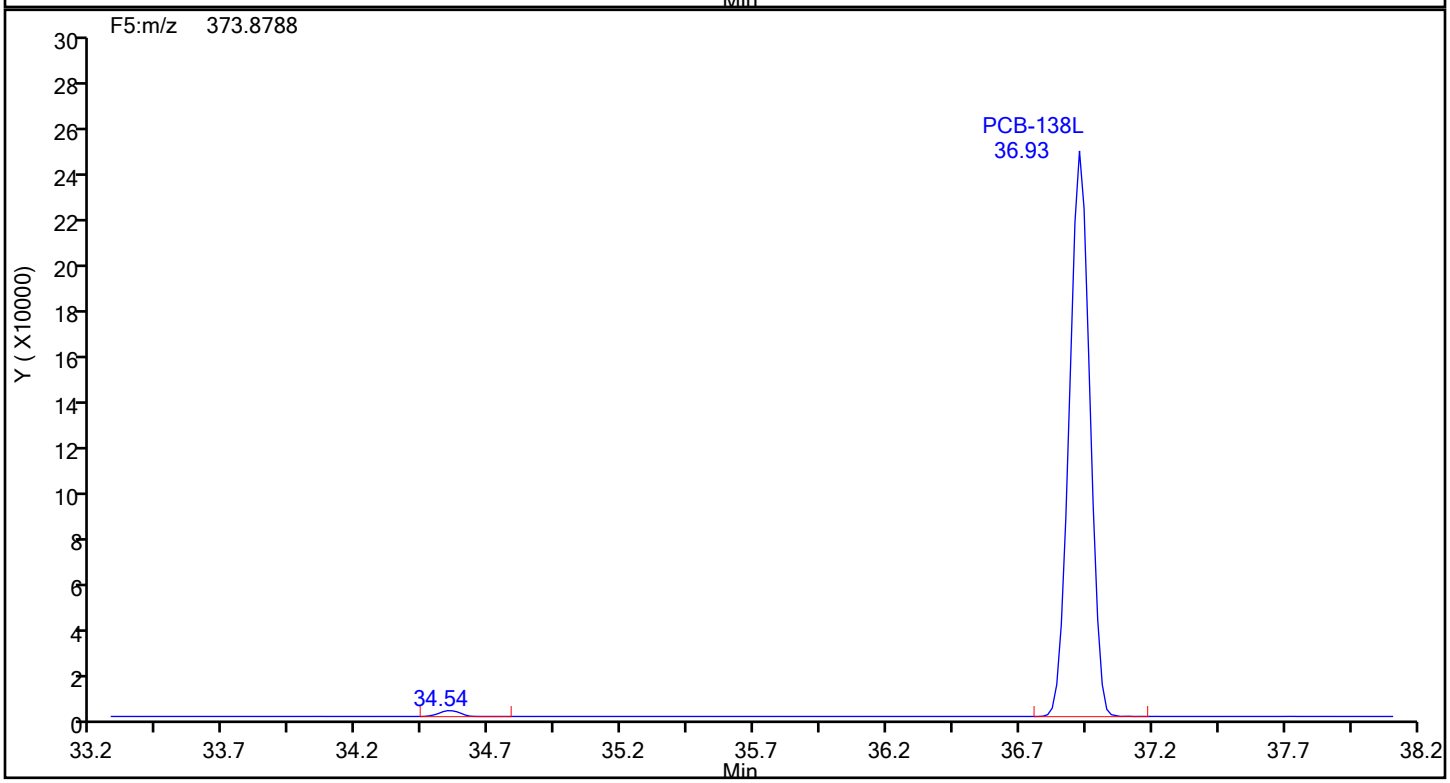
PCB-138L Standards





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Eurofins Knoxville

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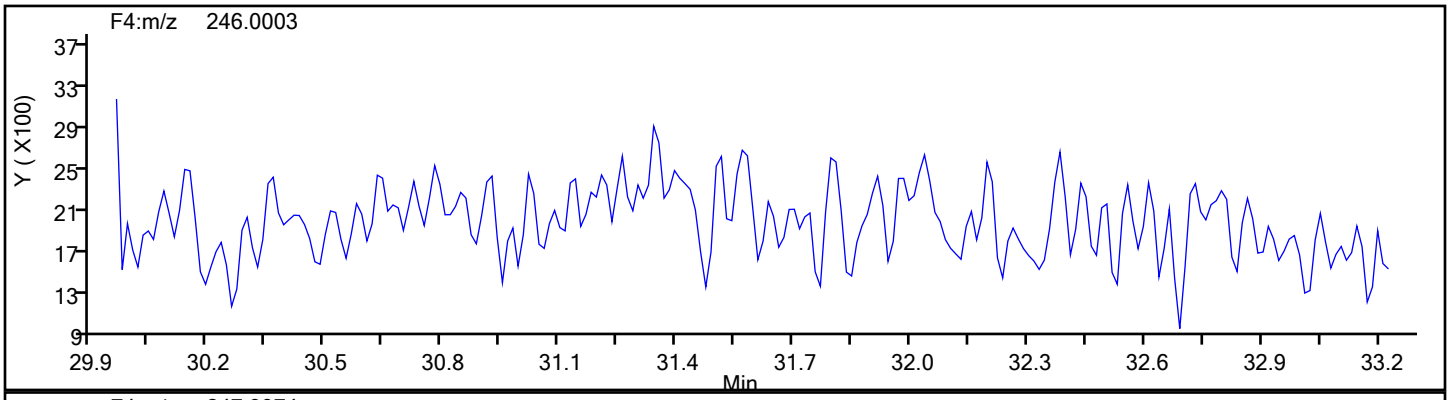
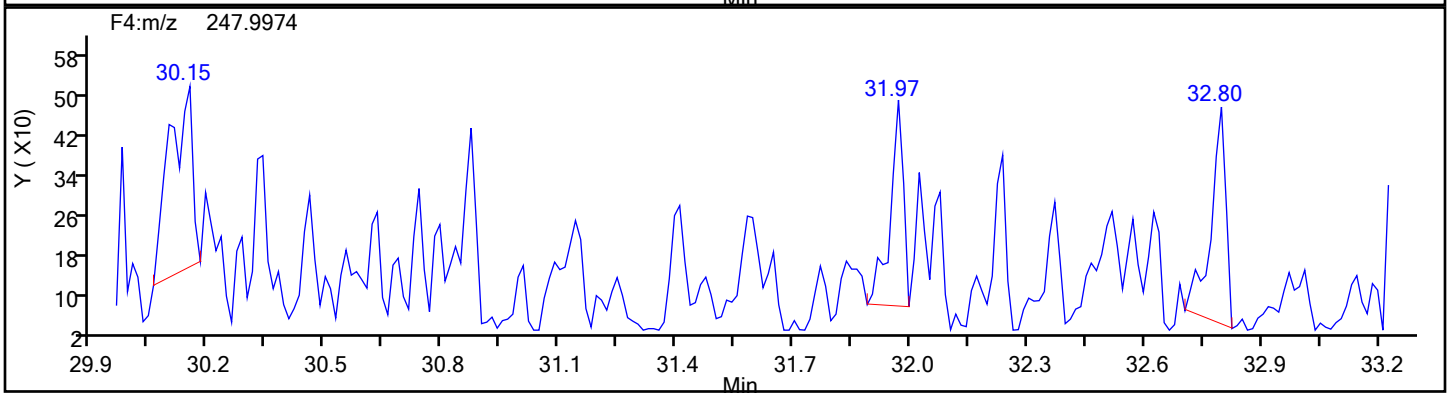
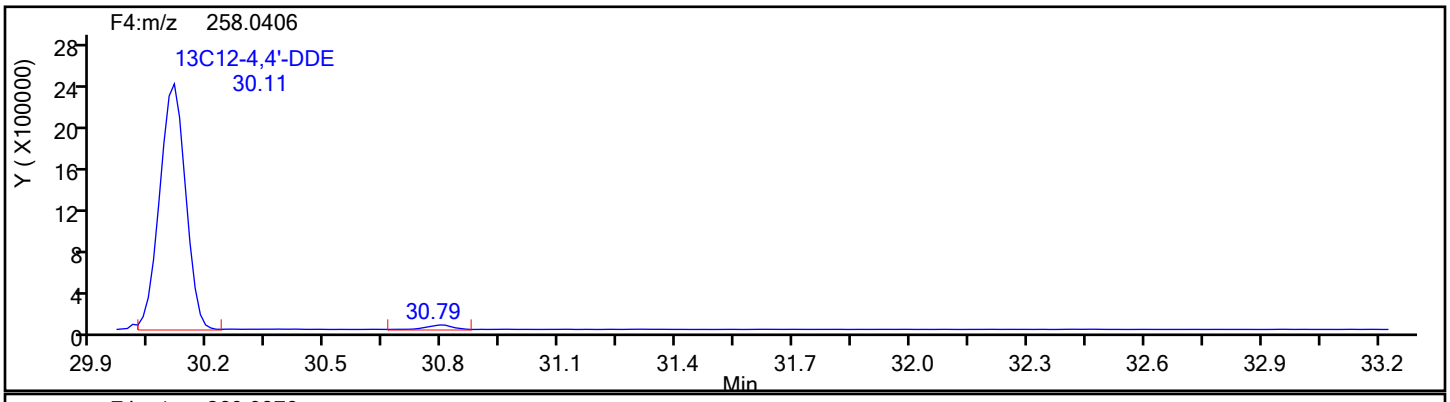
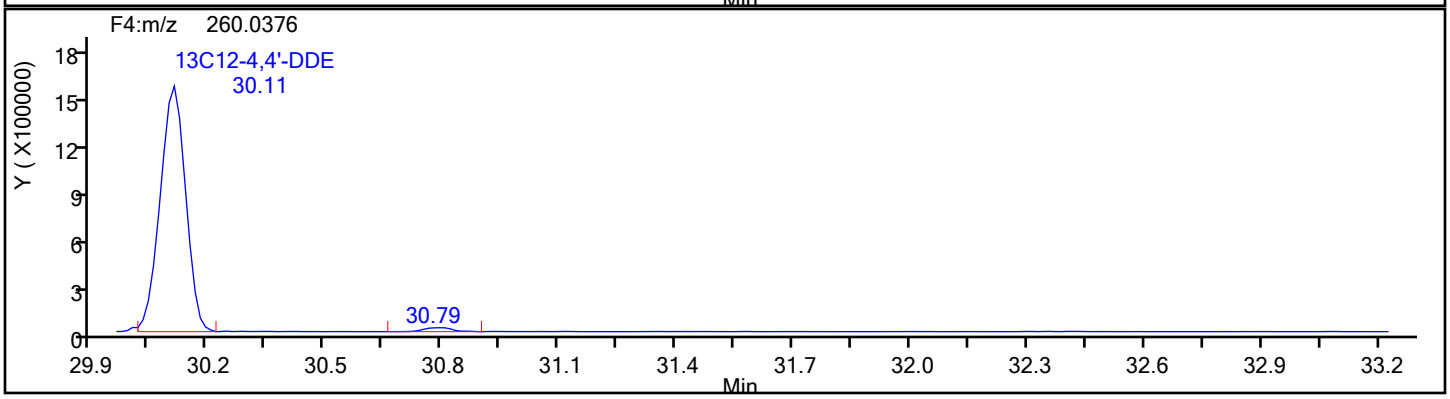
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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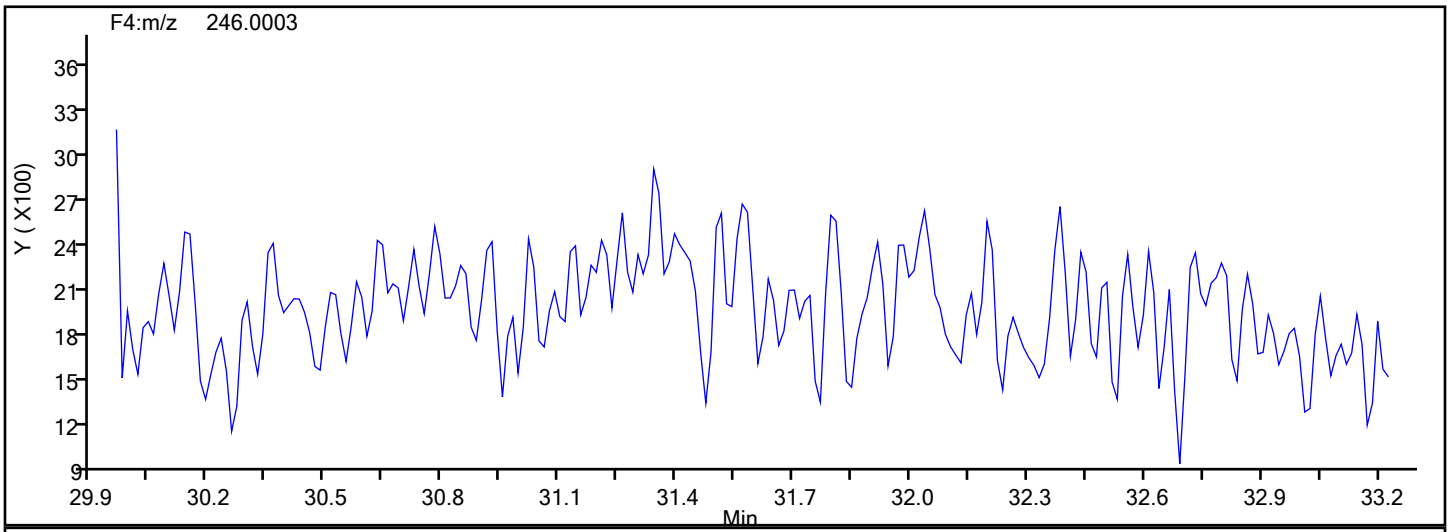
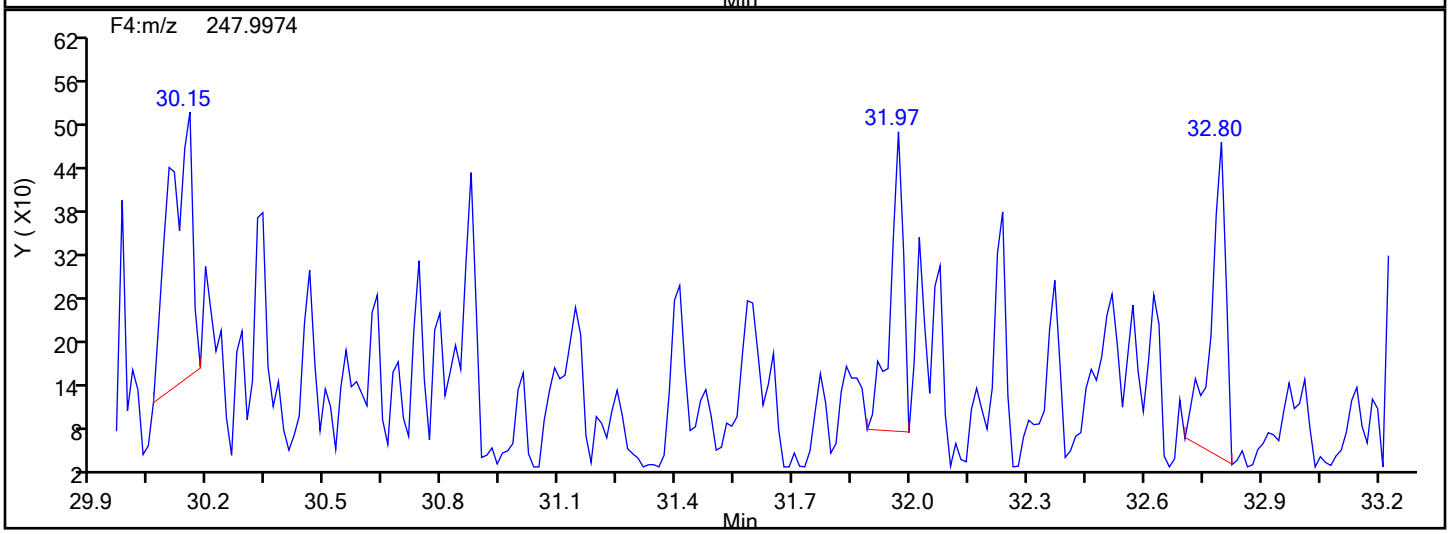
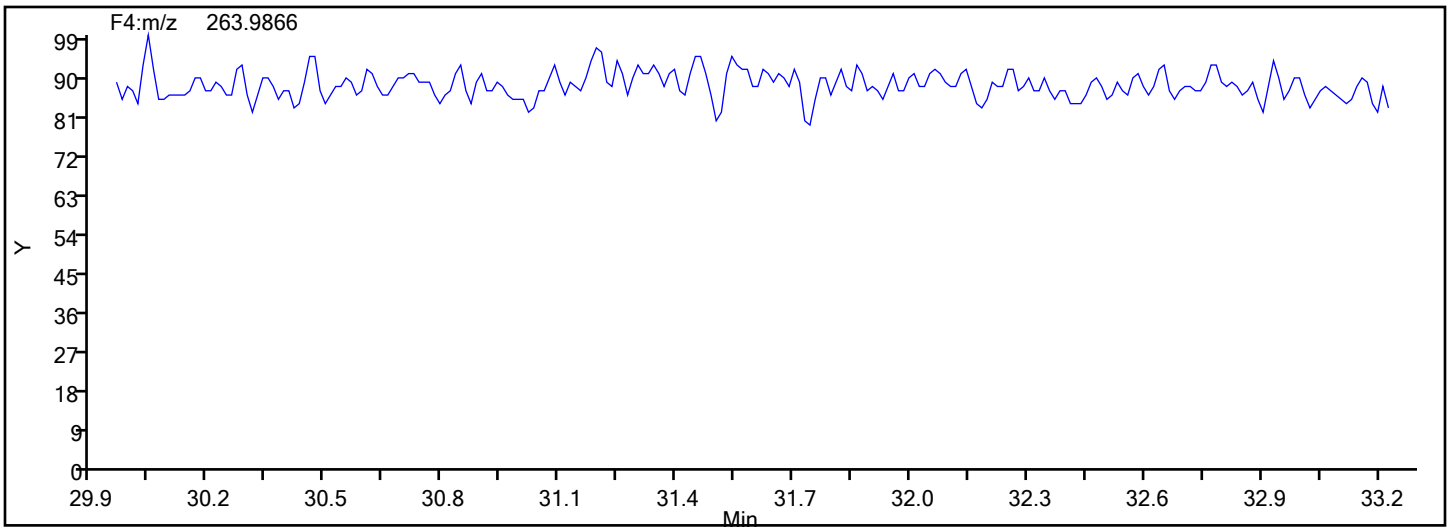
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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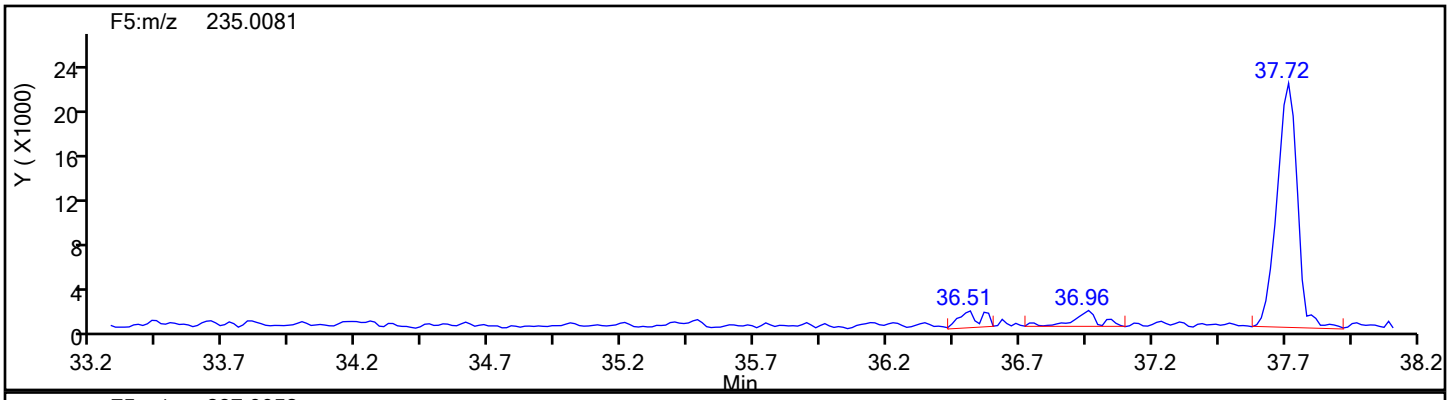
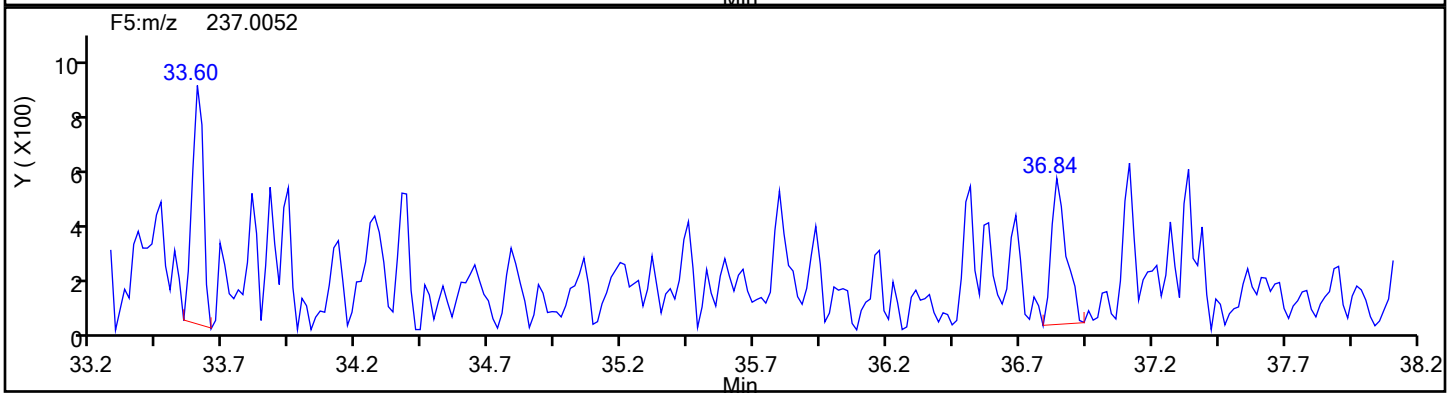
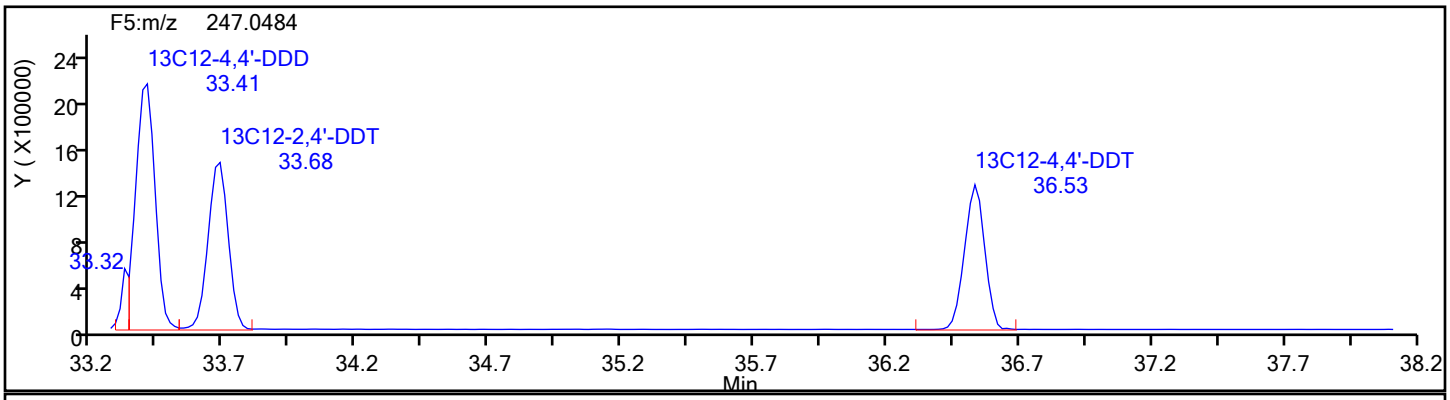
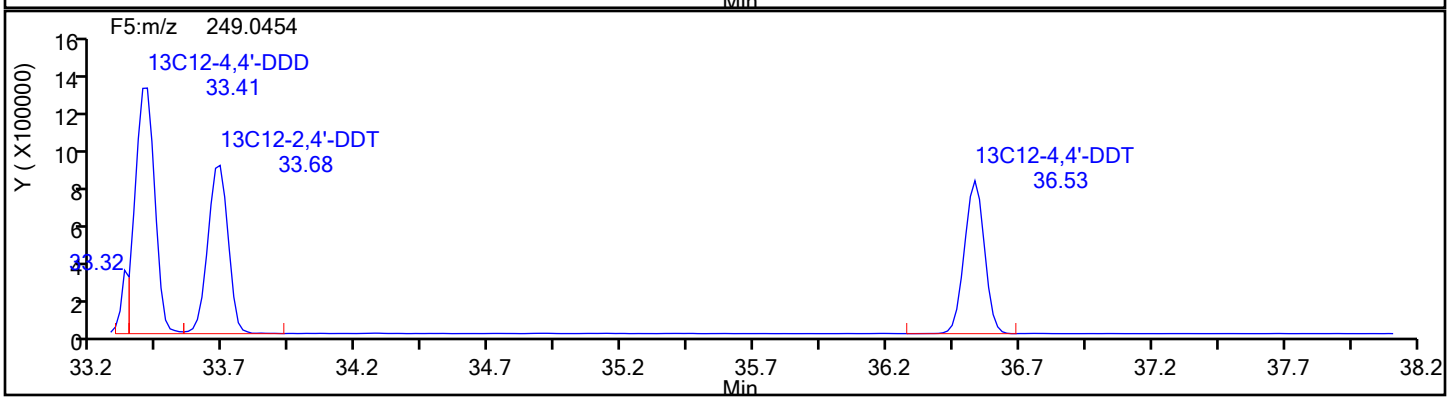
DDD





DDD Standards





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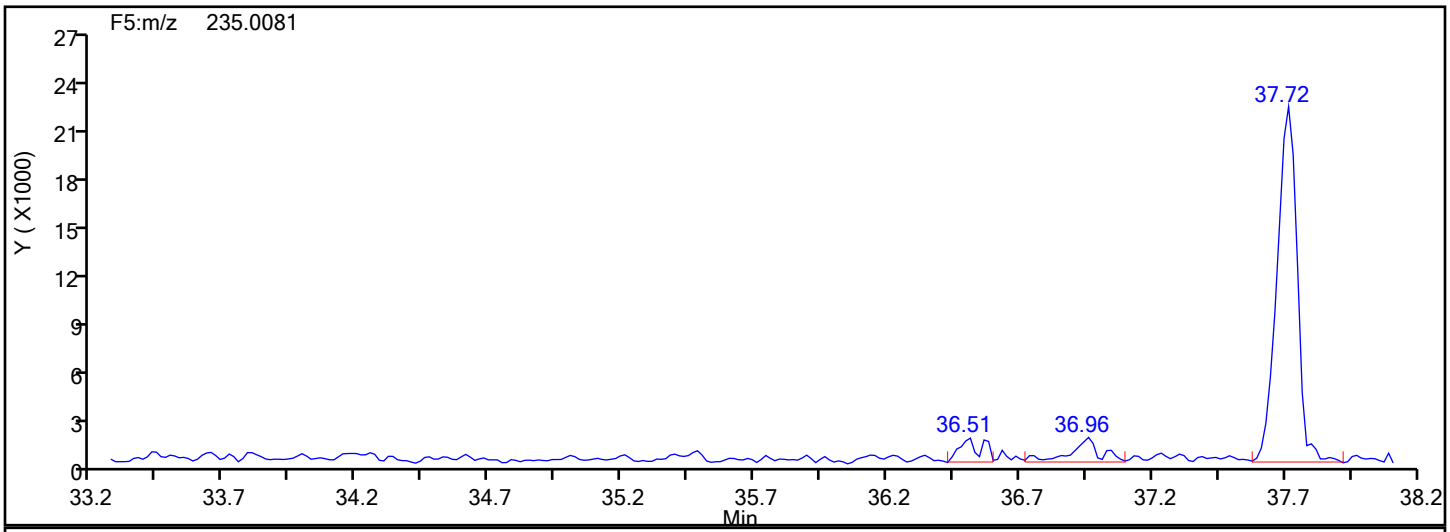
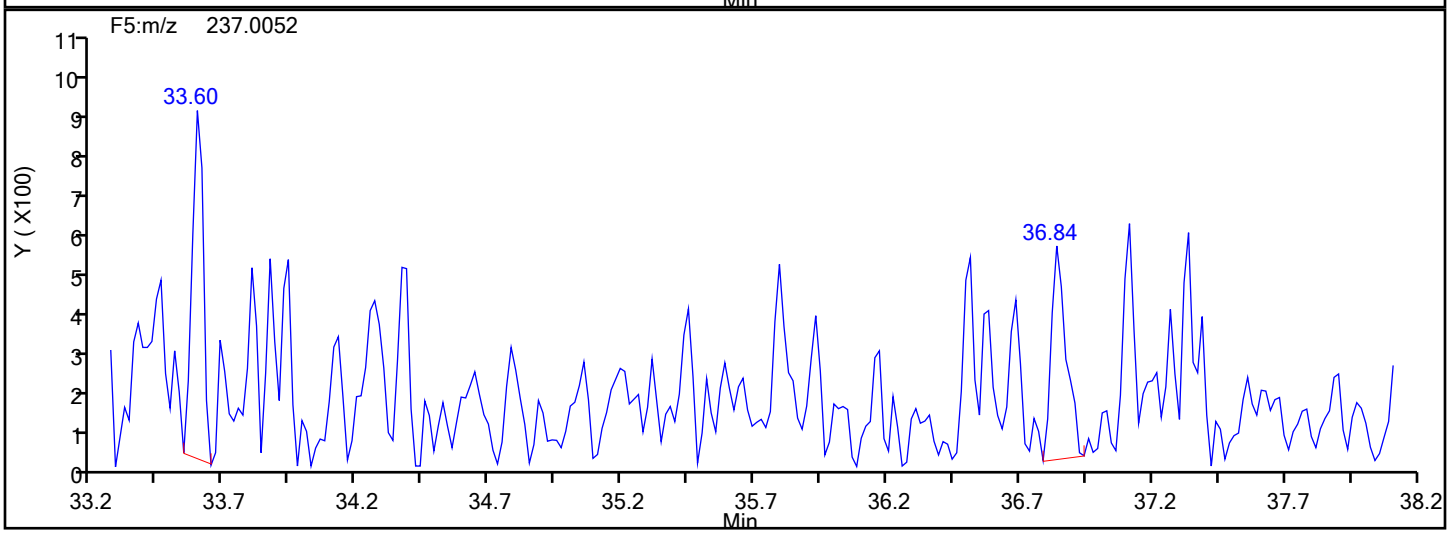
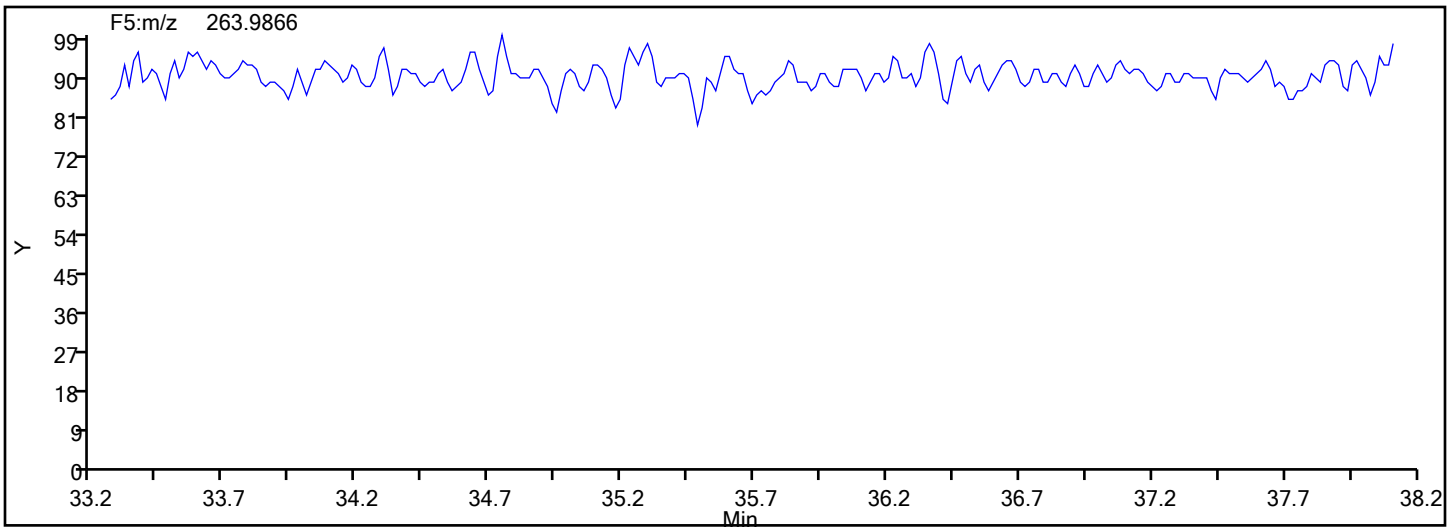




DDD Lock Mass



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Eurofins Knoxville

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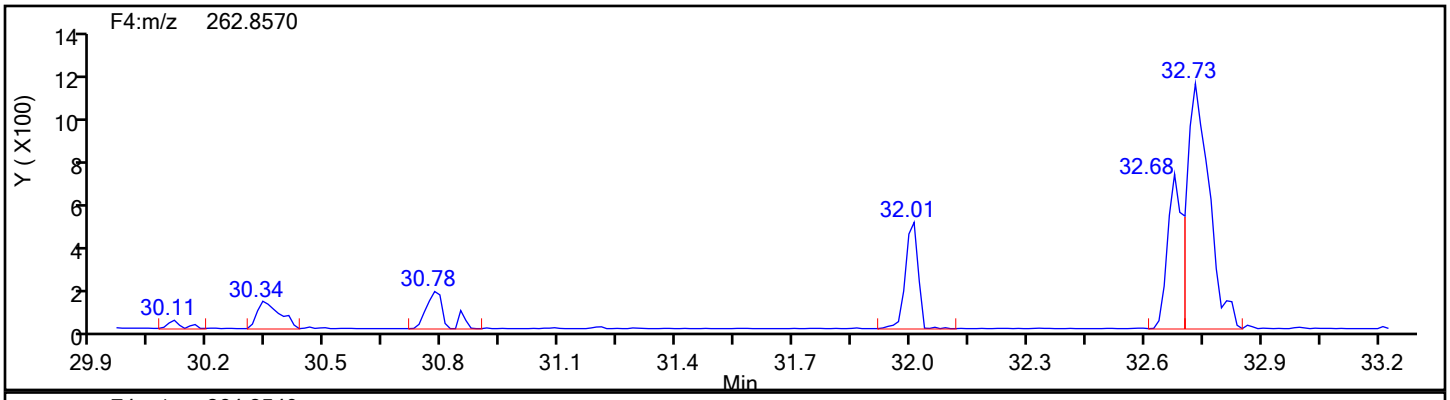

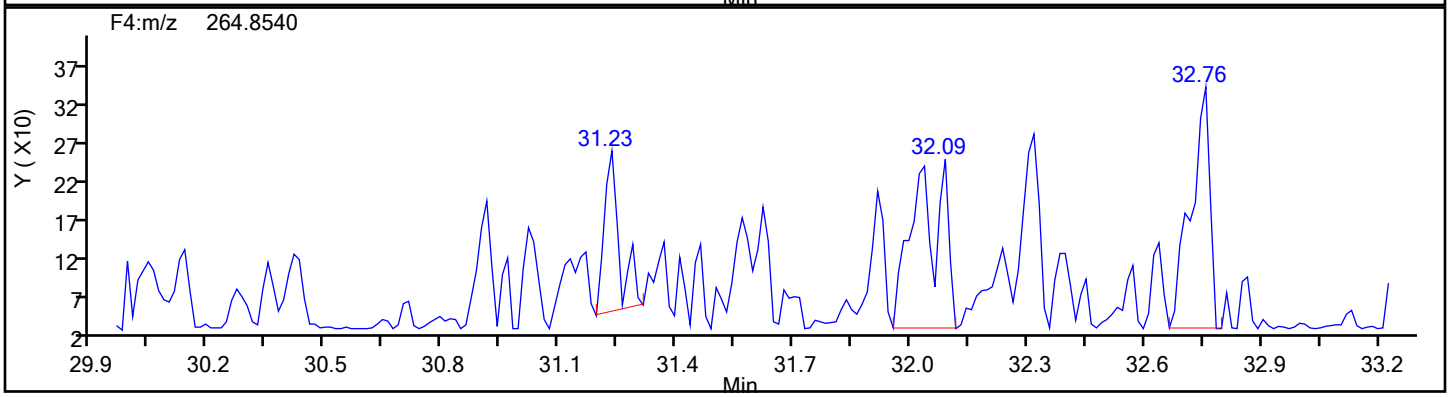

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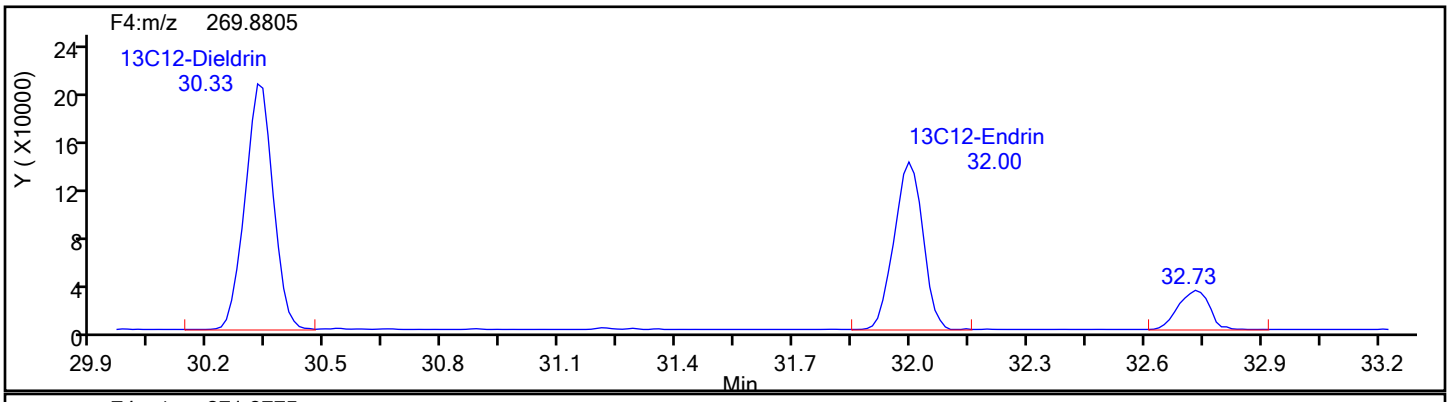

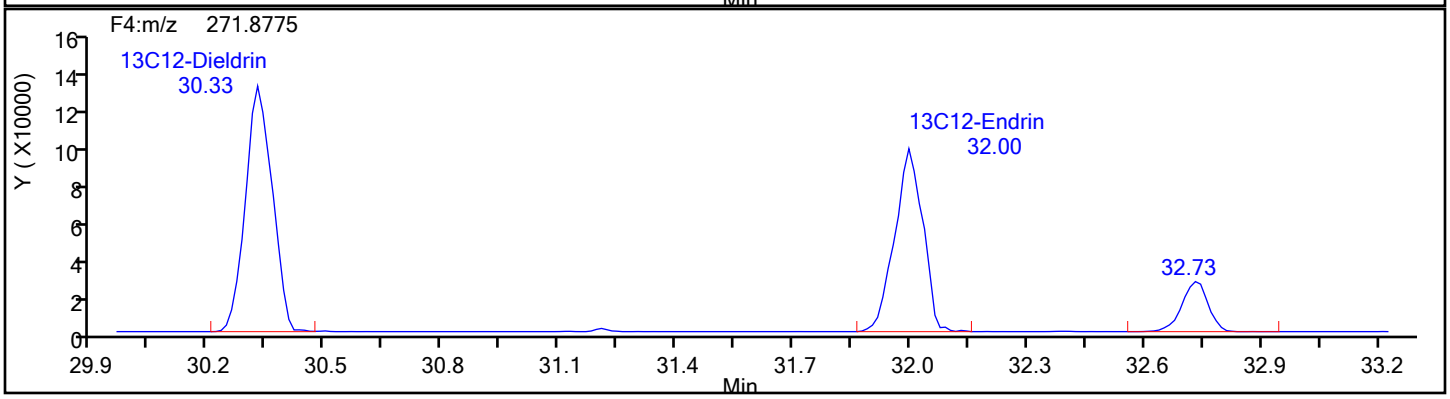

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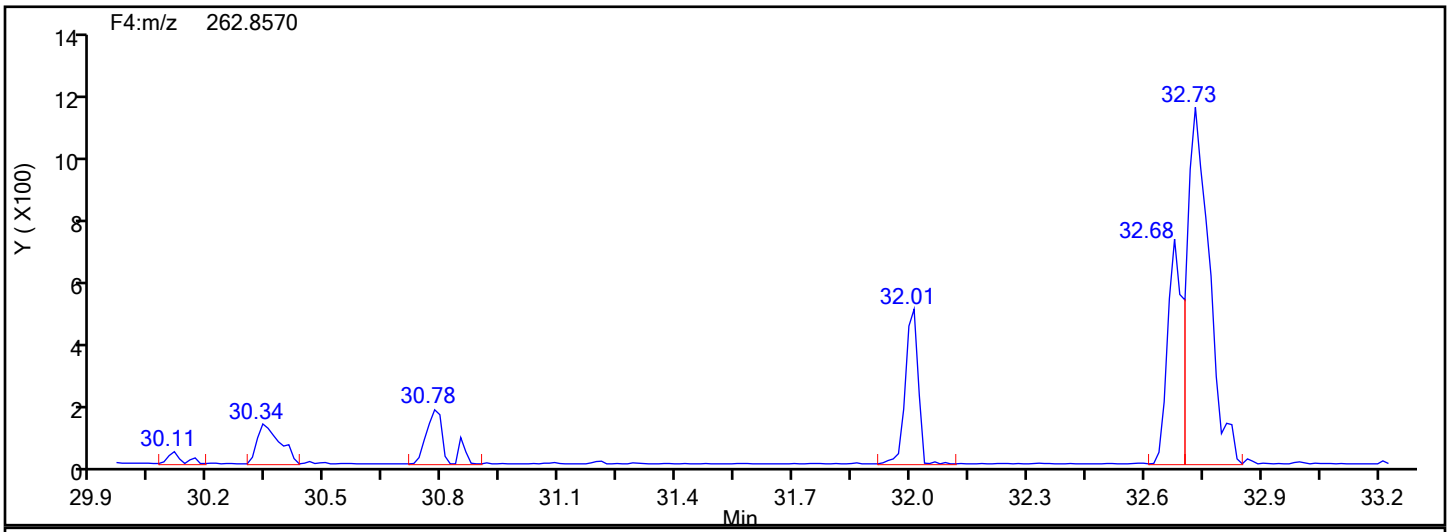
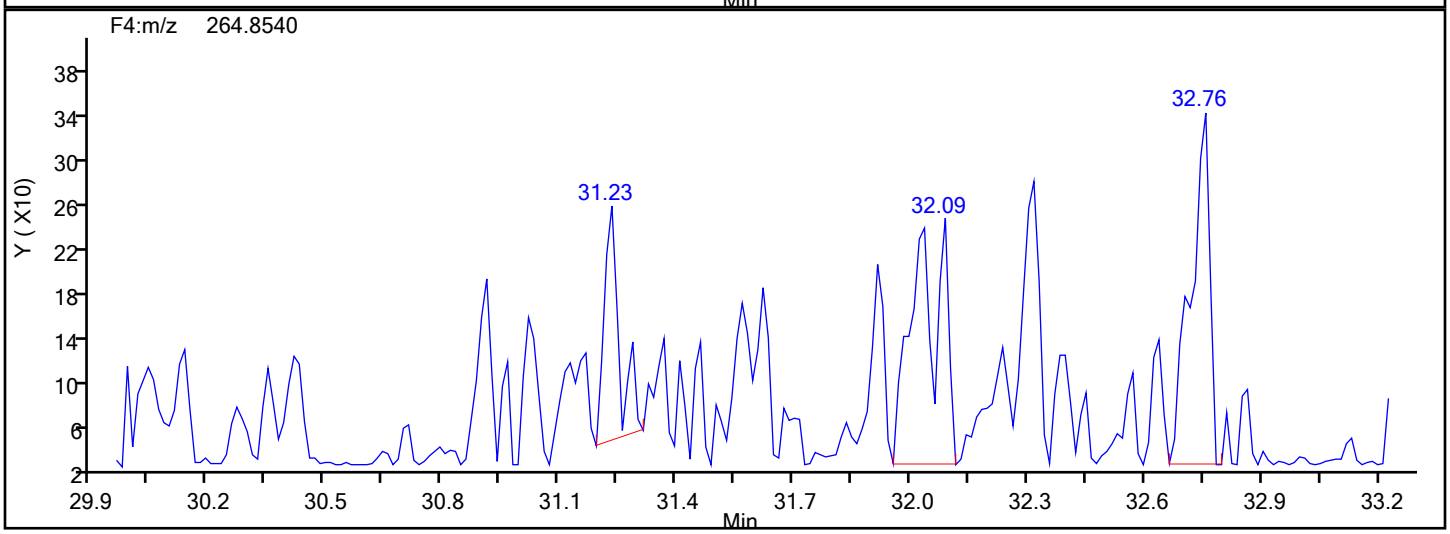
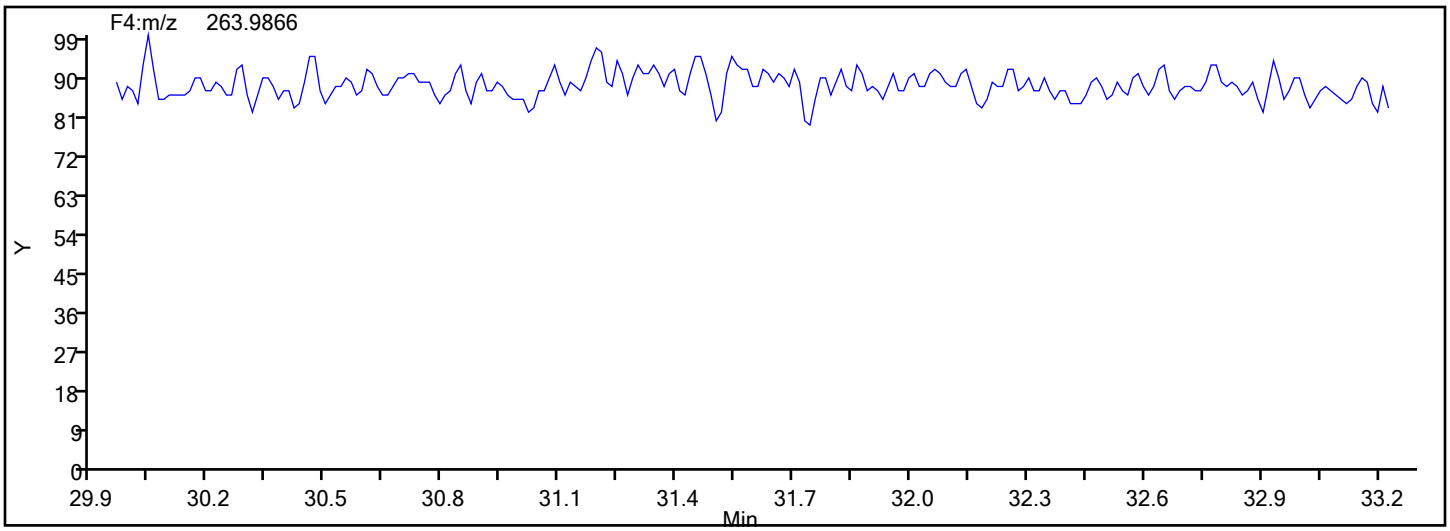




Dieldrin Lock Mass



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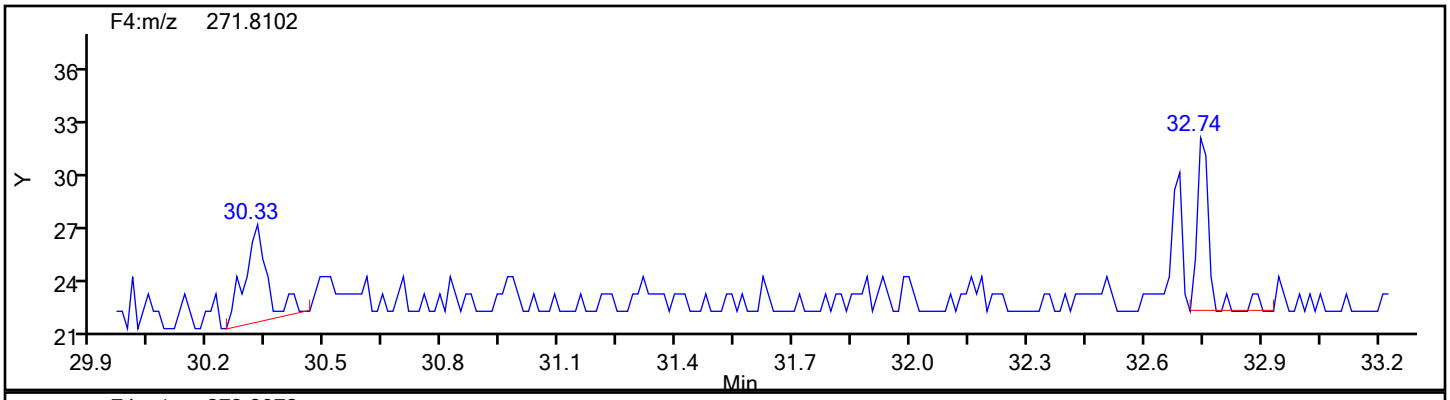
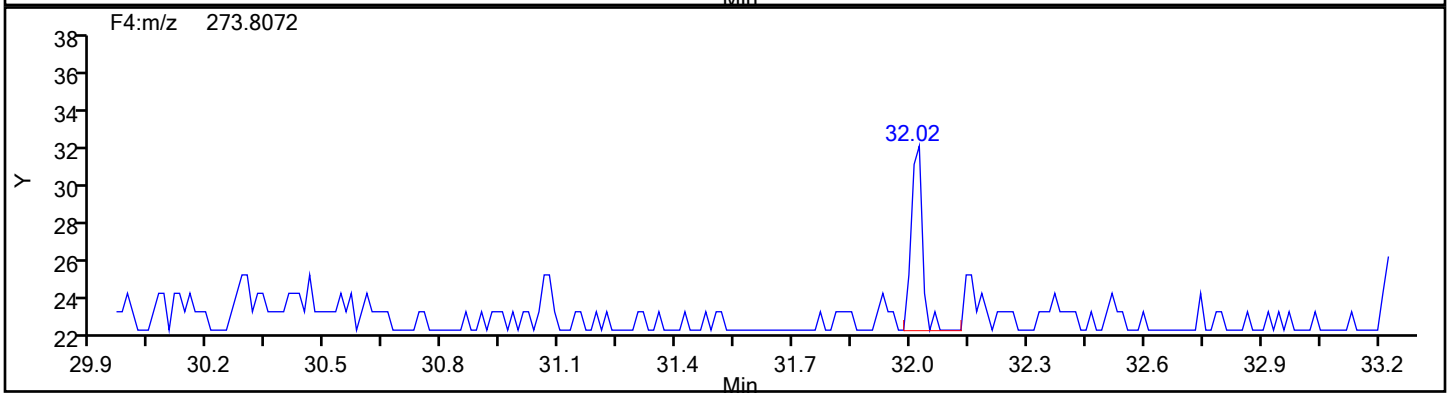
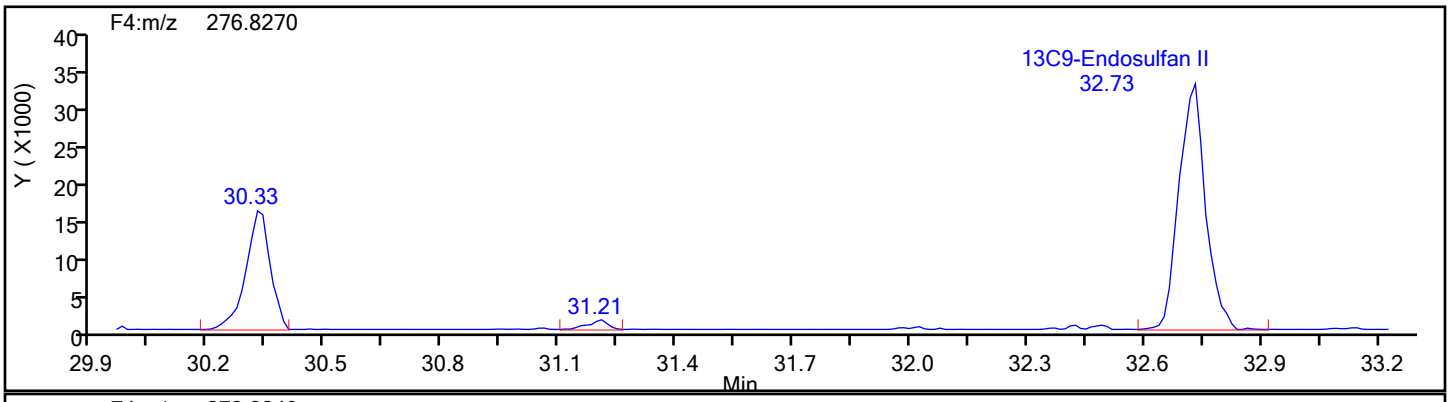
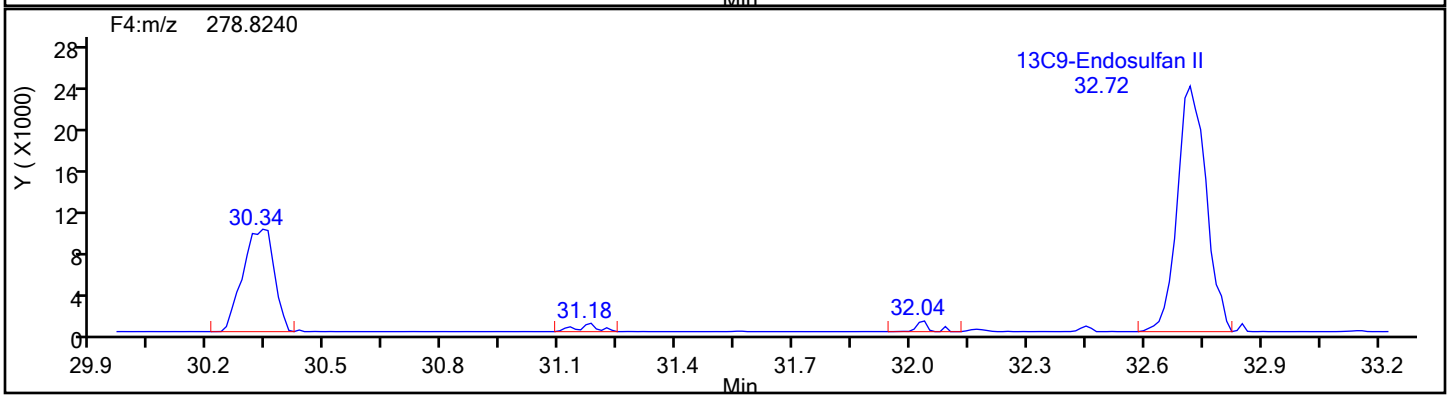
Endosulfan II





Endosulfan II Standards





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Eurofins Knoxville

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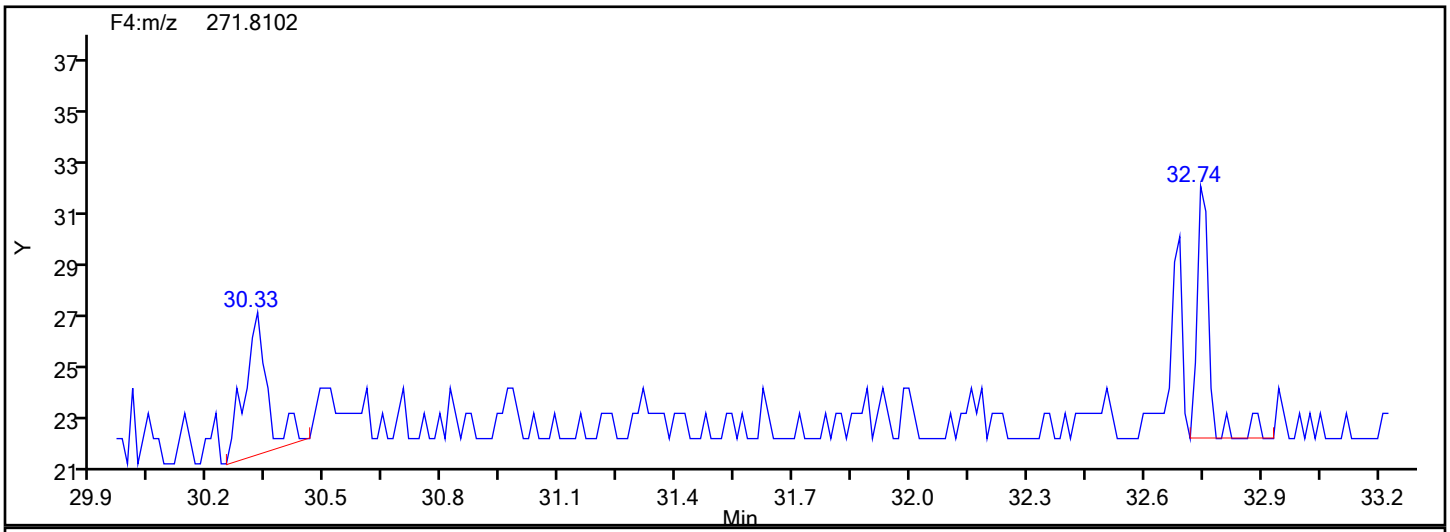
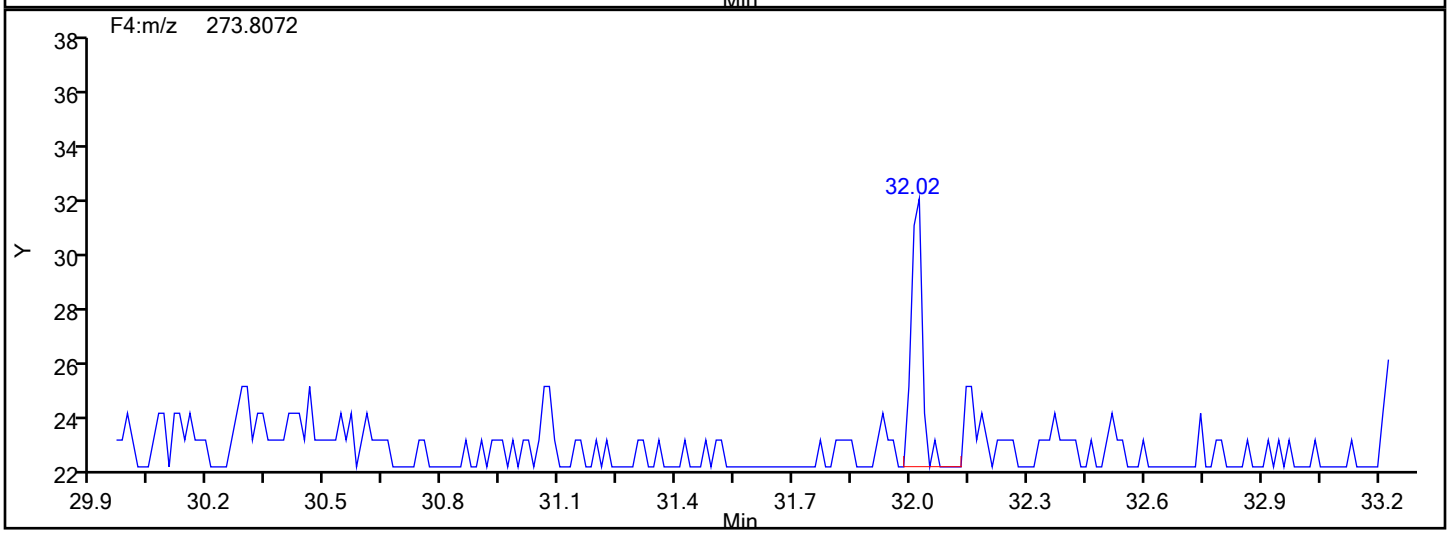
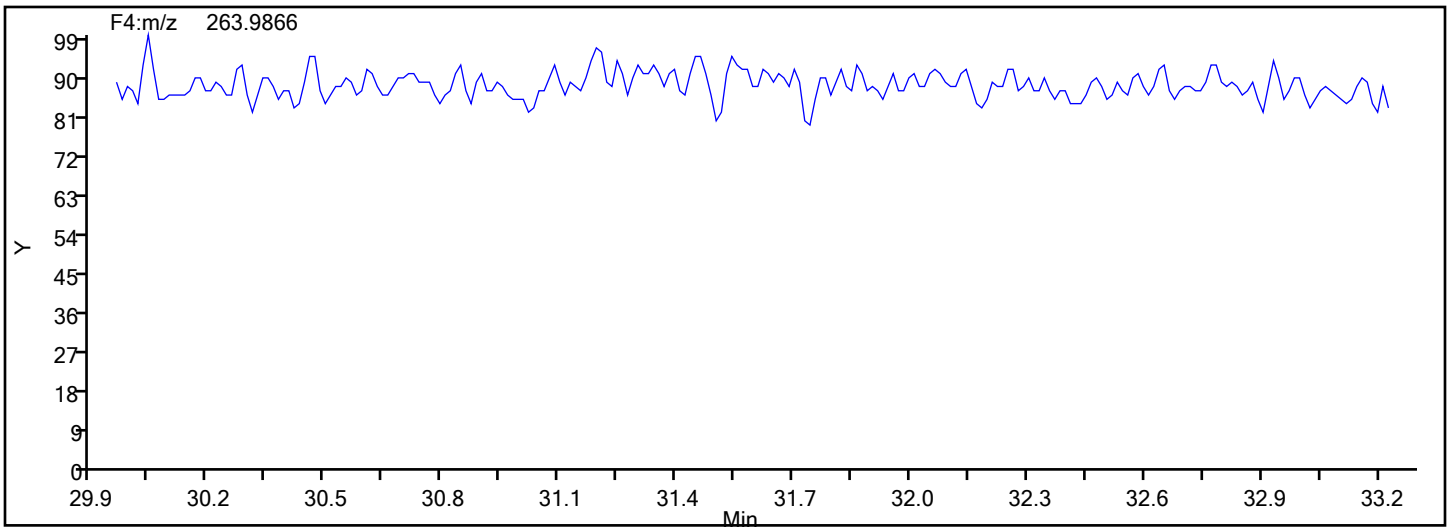
Endosulfan II





Endosulfan II Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
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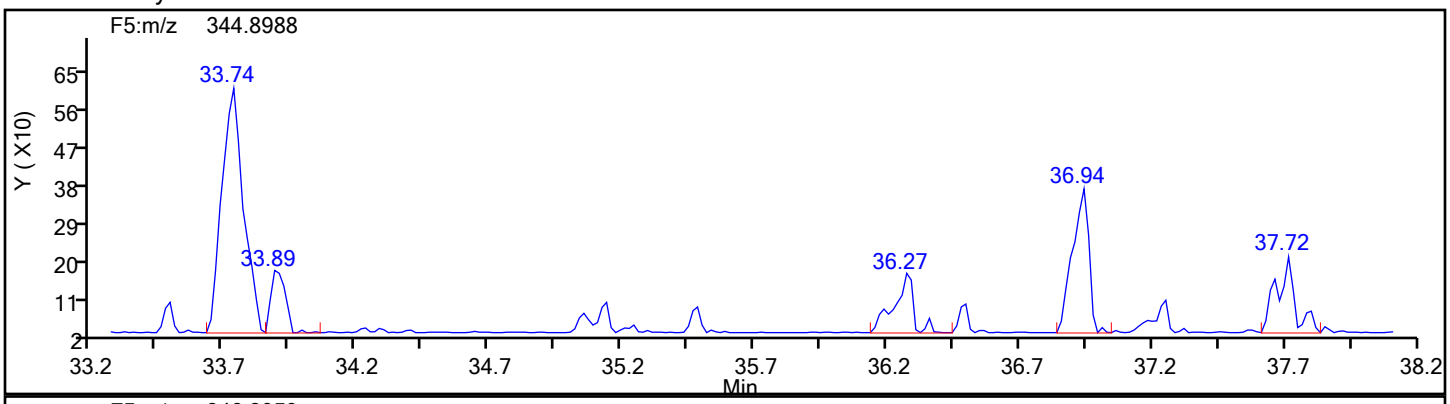
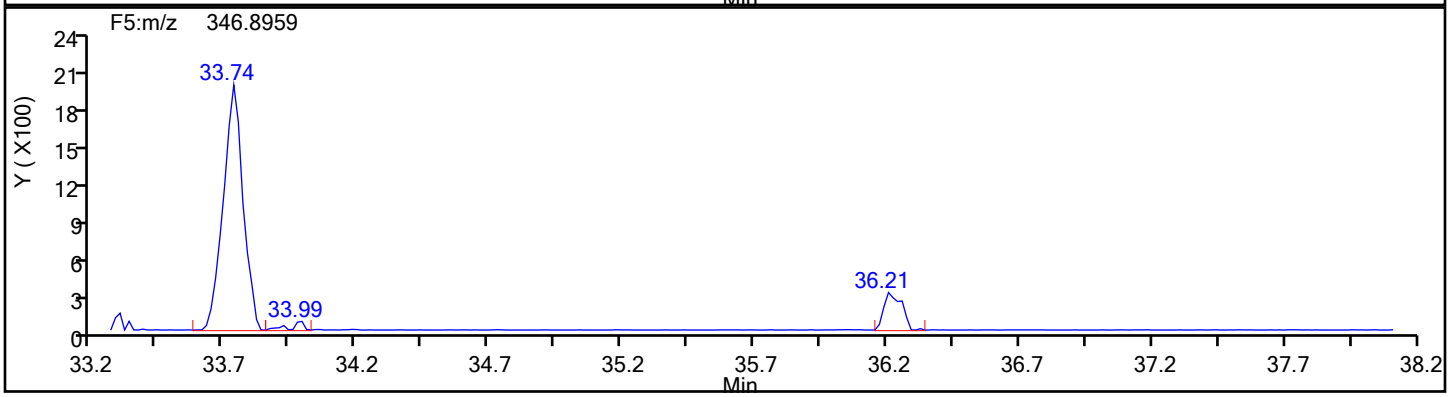
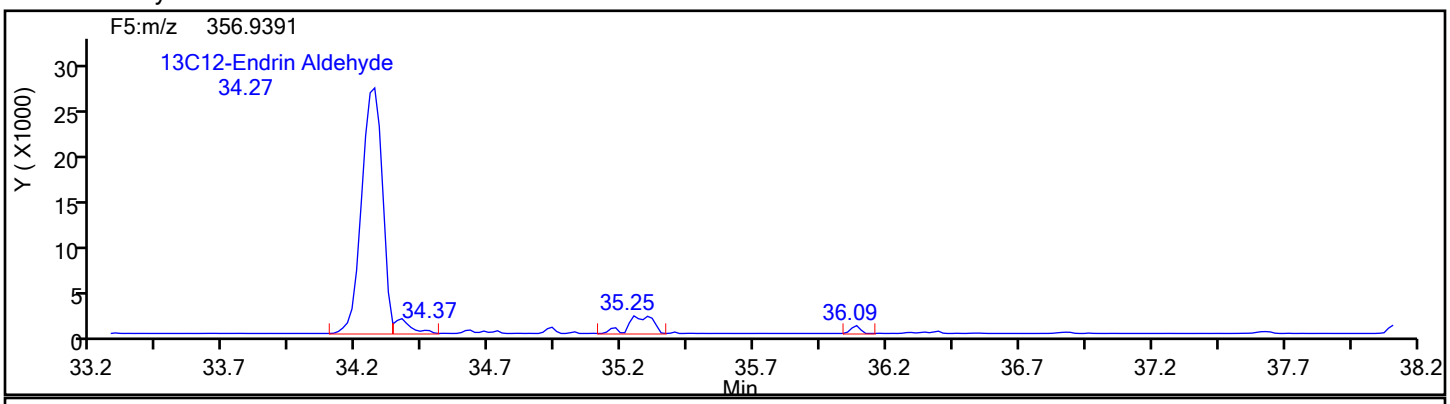
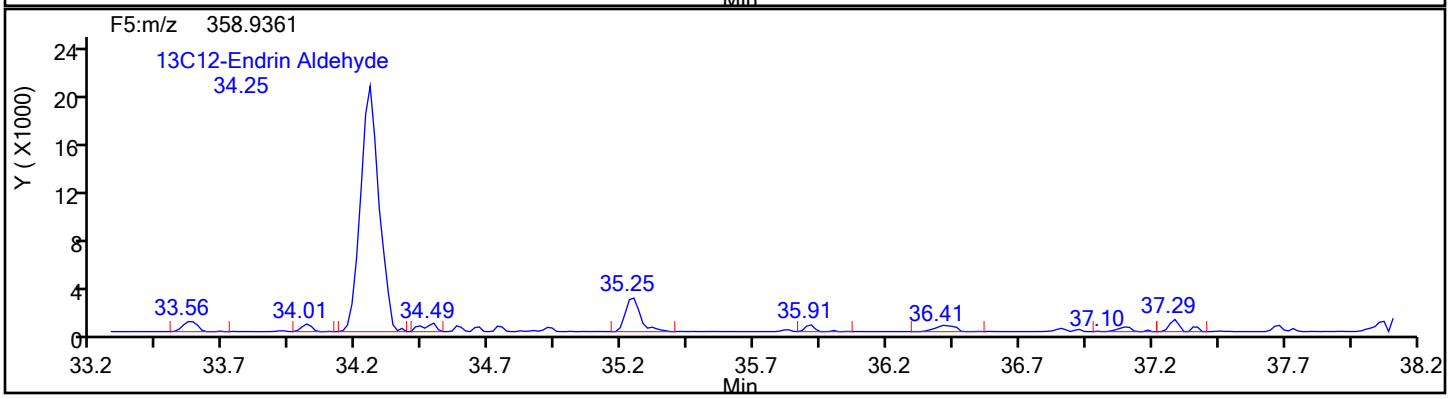
Endrin aldehyde





Endrin aldehyde Standards





Report Date: 05-May-2025 18:00:22 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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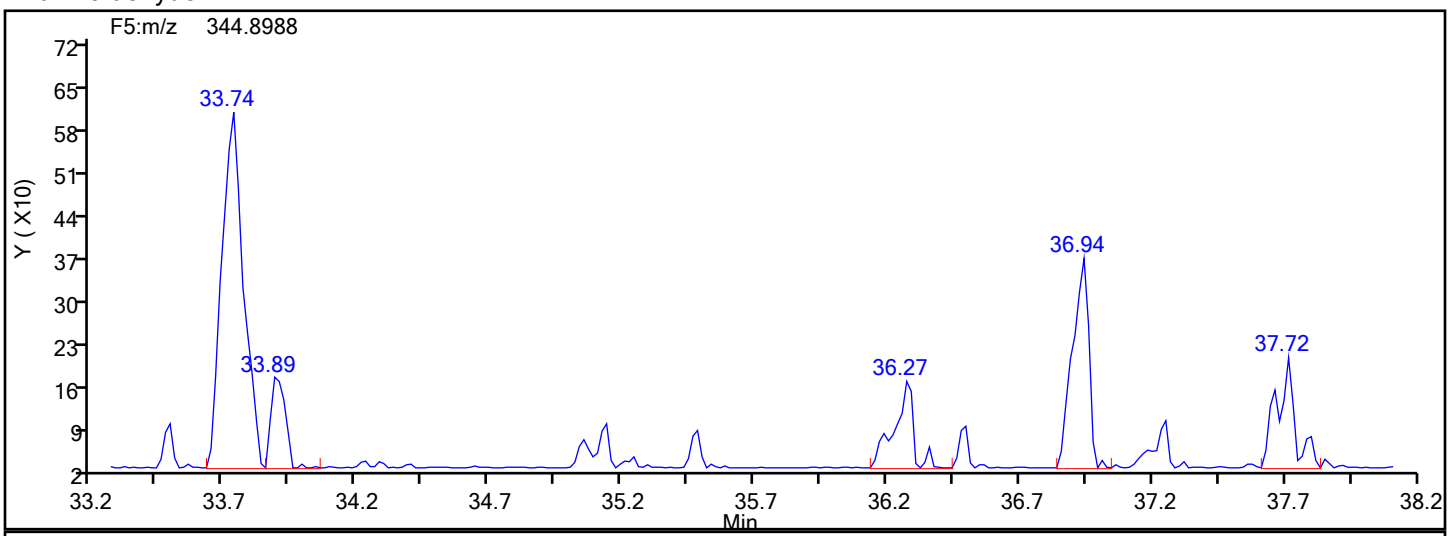
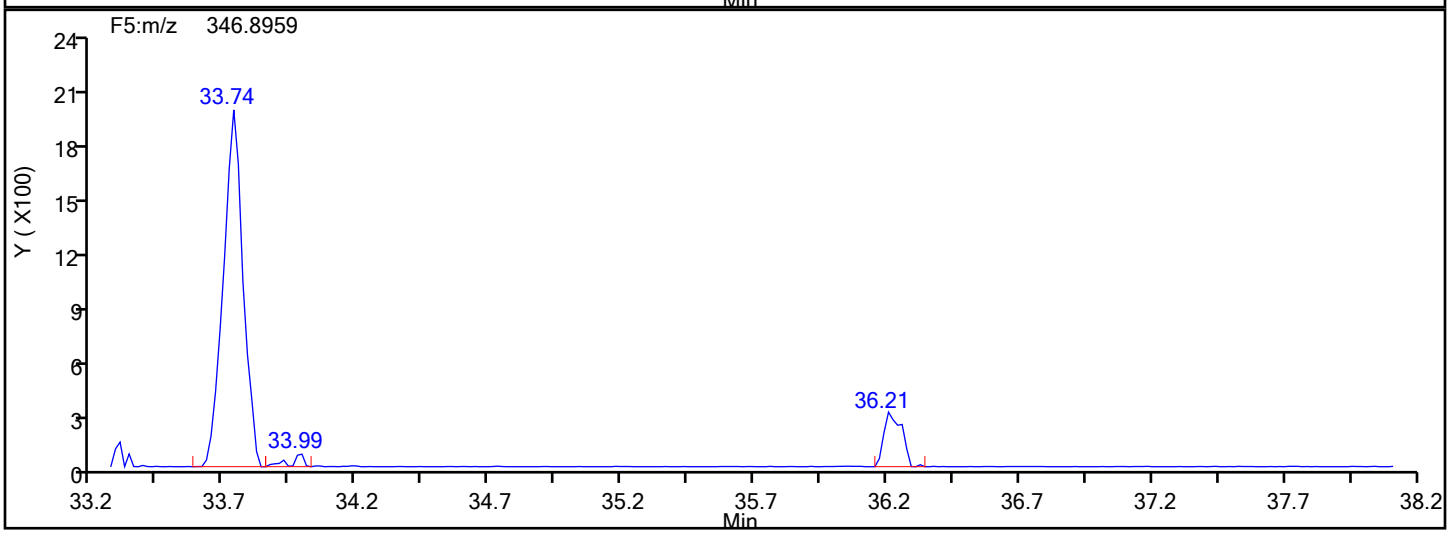
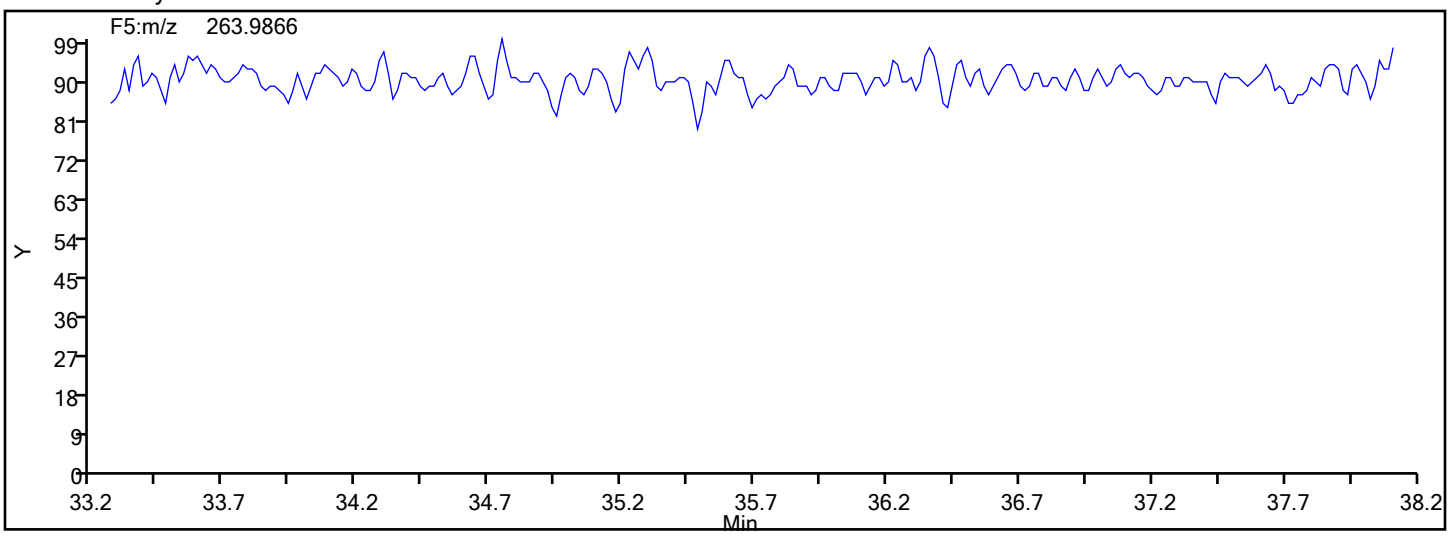




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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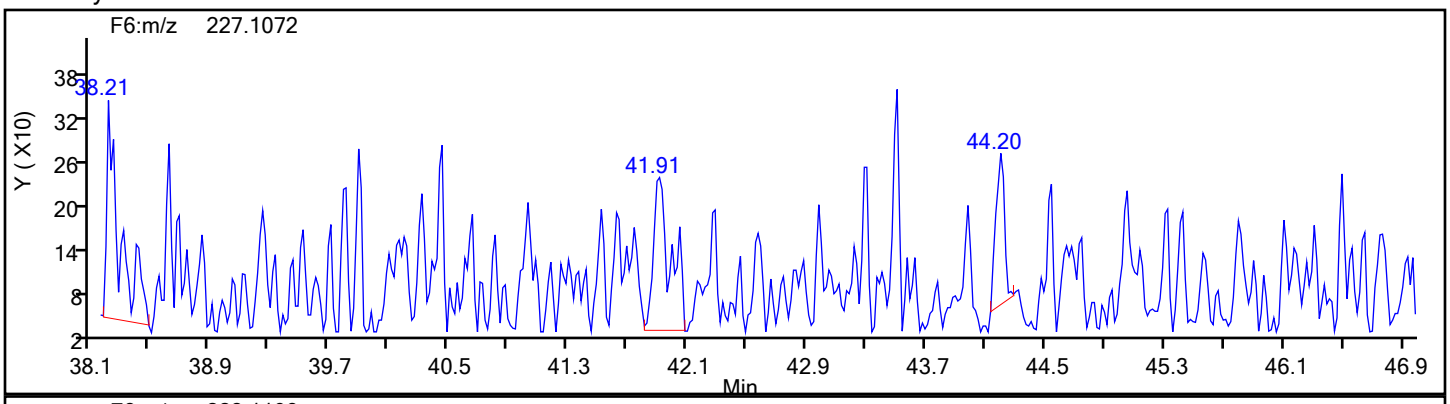
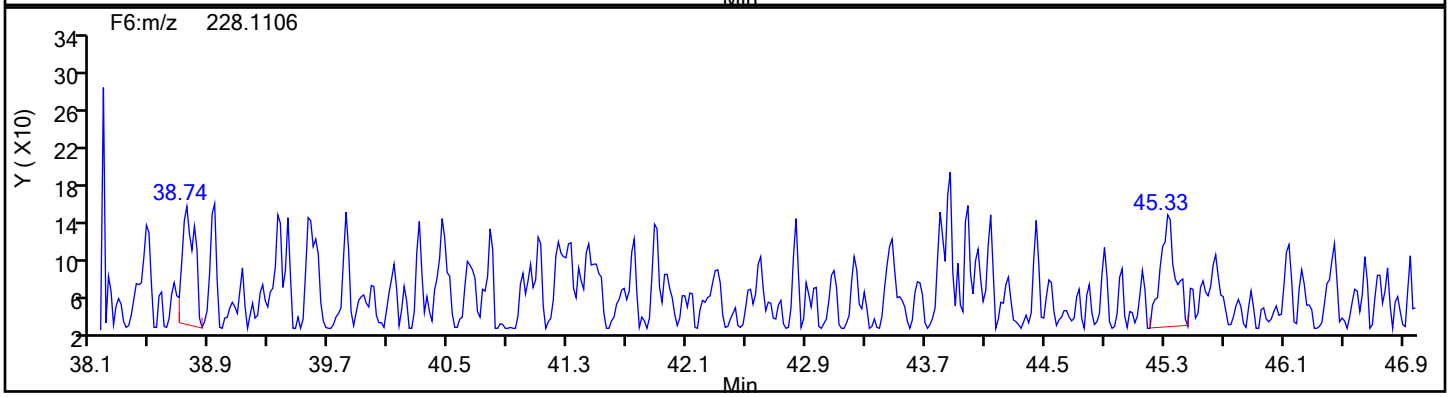
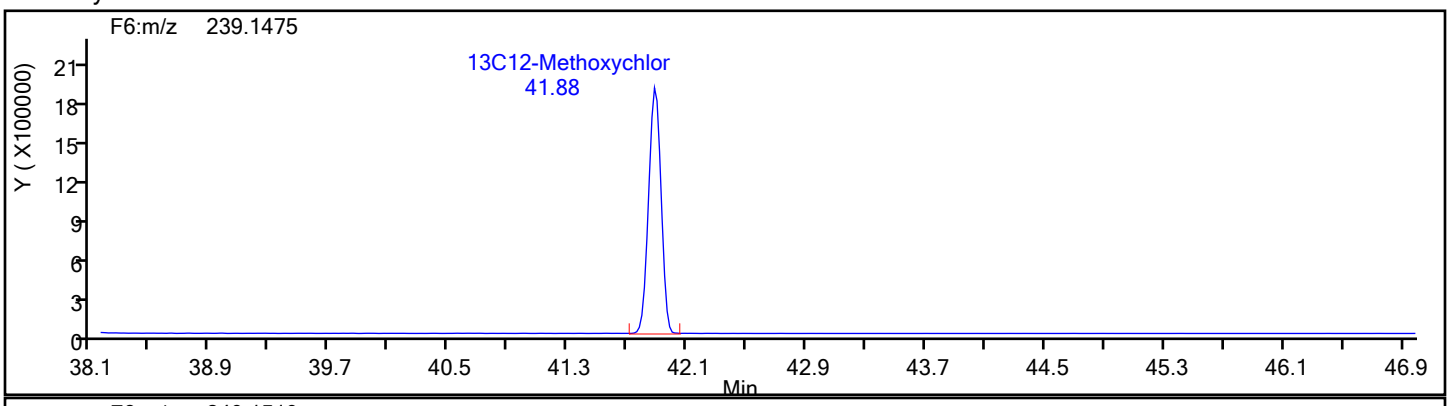
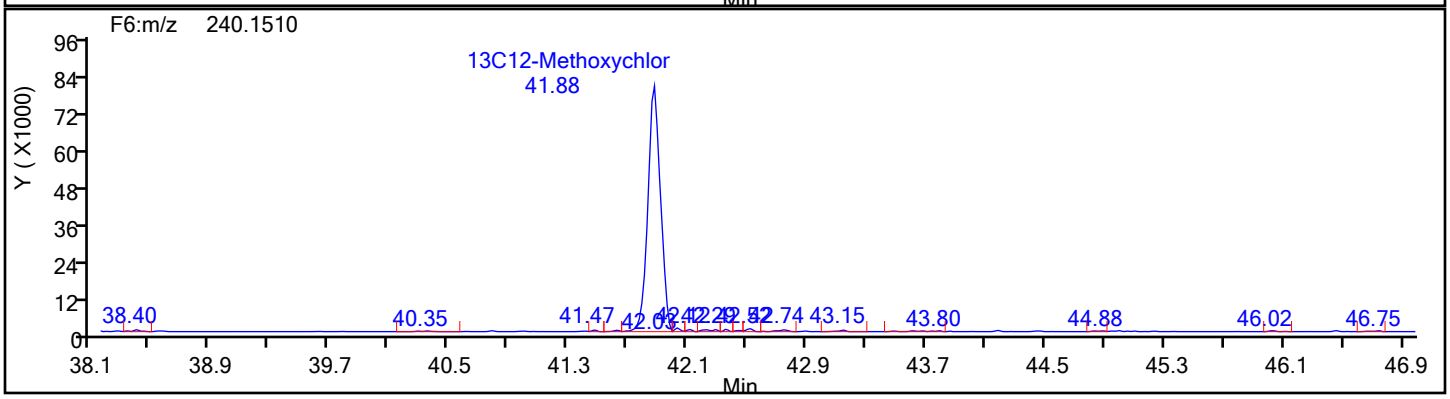
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

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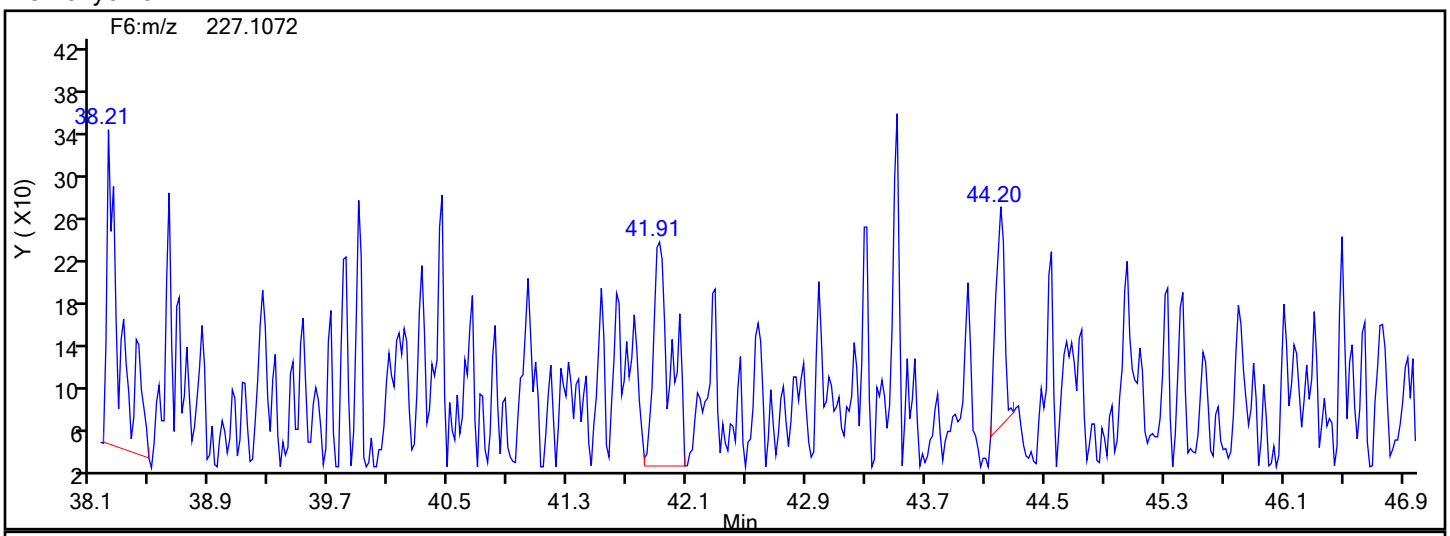
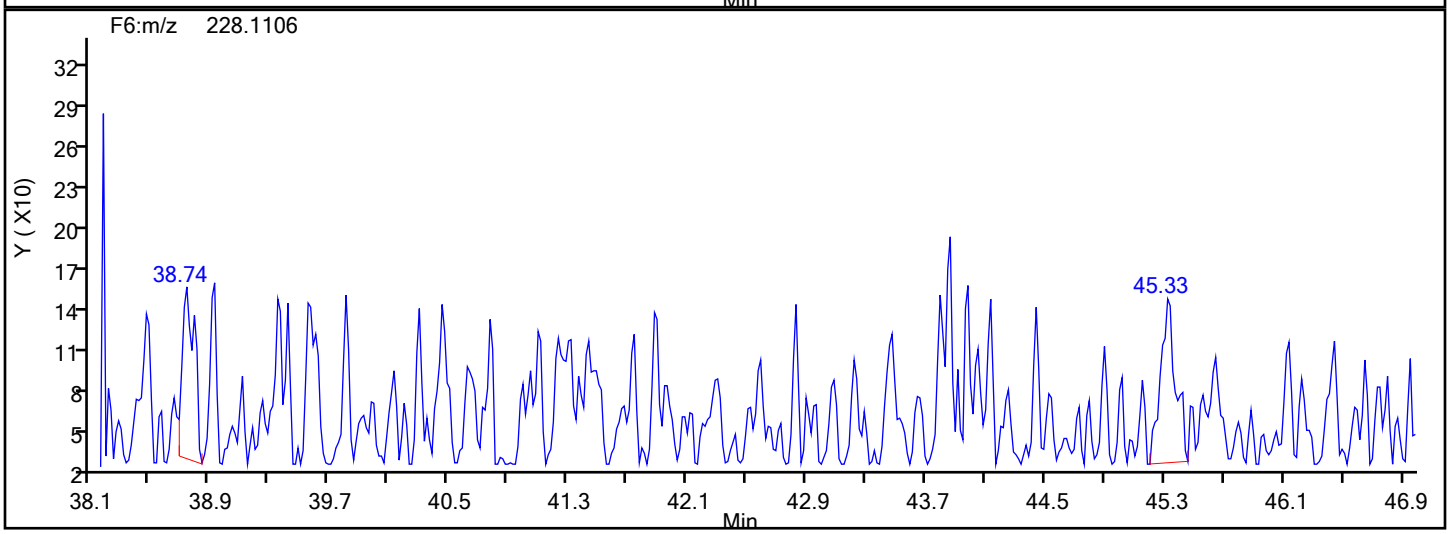
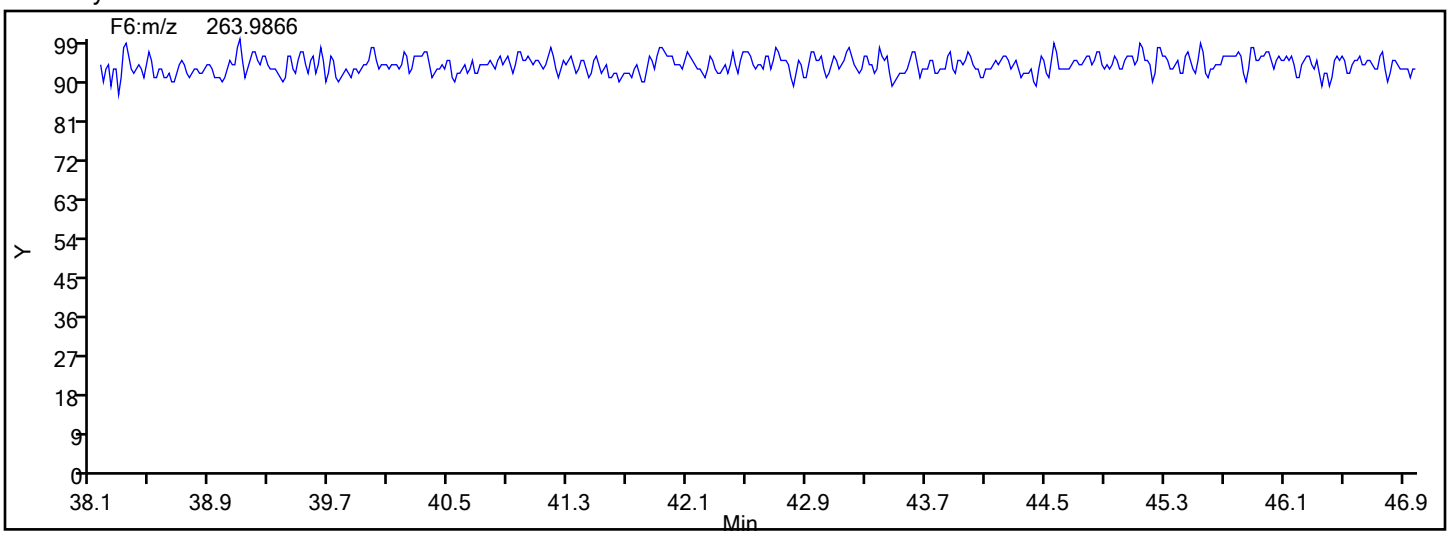
Methoxychlor





Methoxychlor Lock Mass



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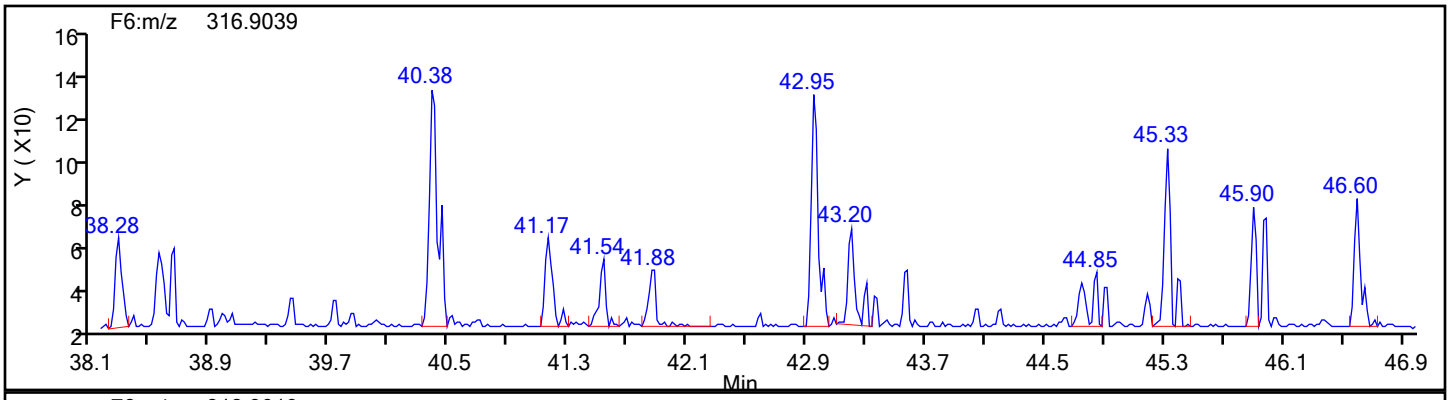
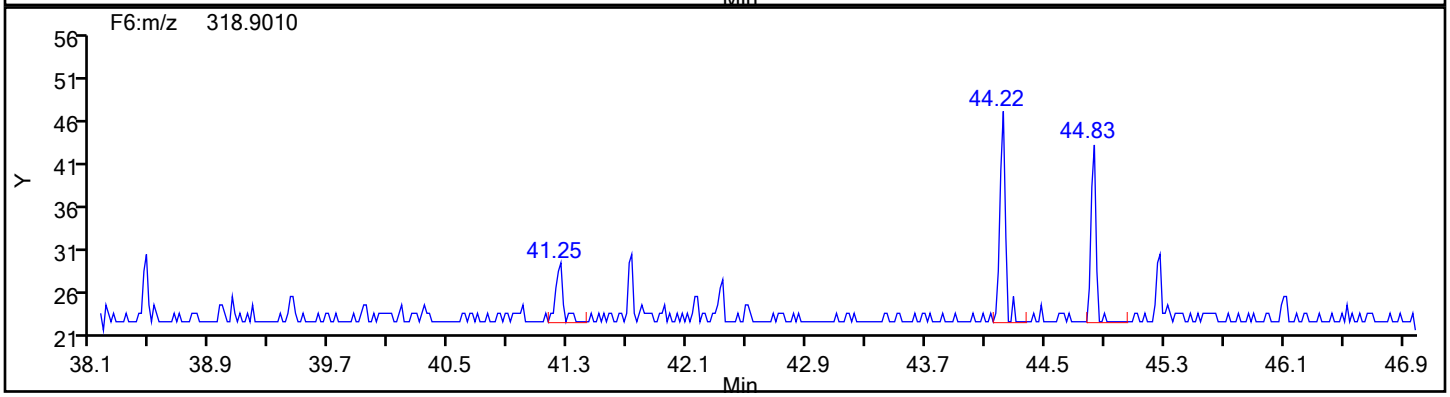
Endrin ketone





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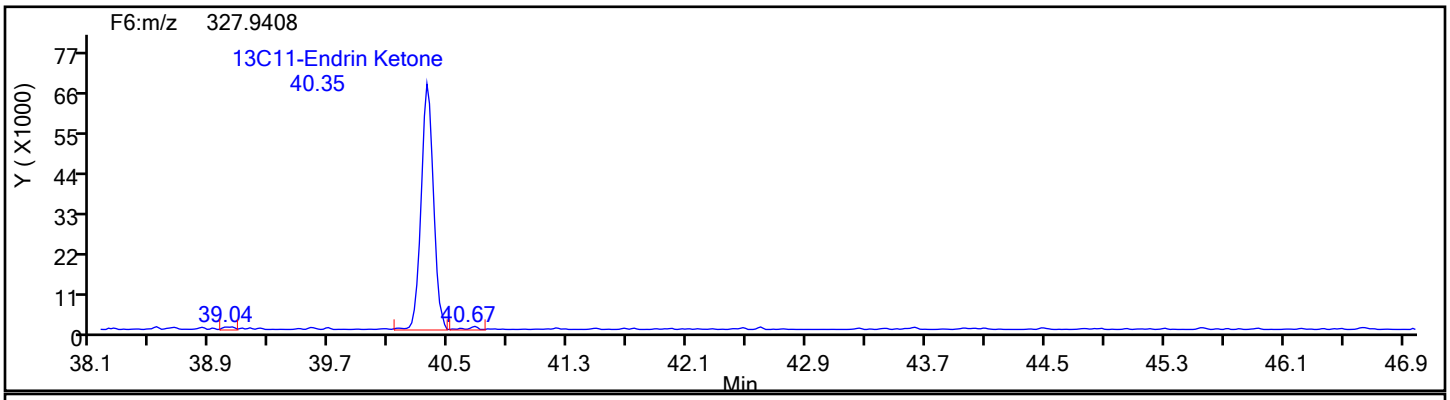

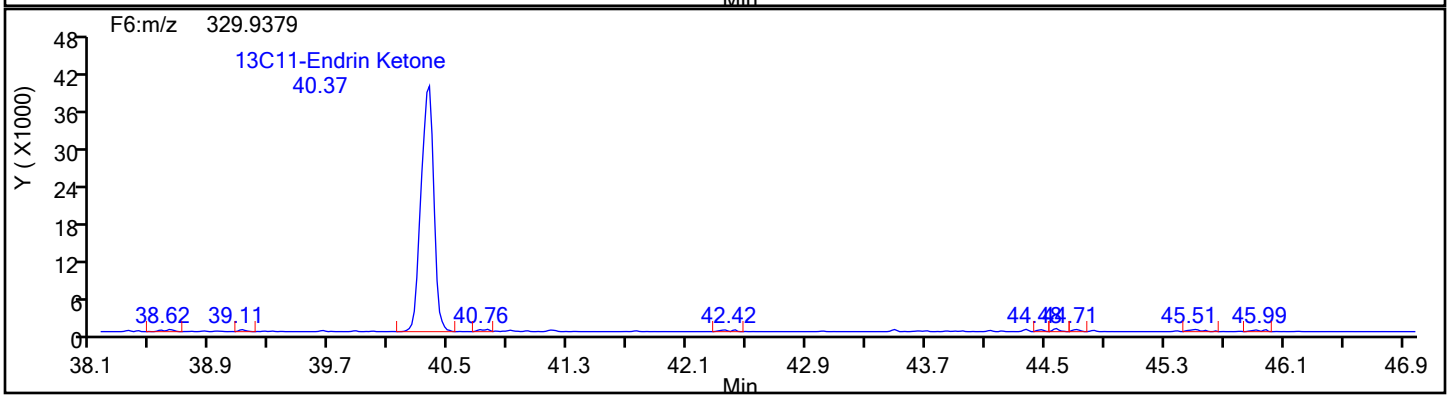

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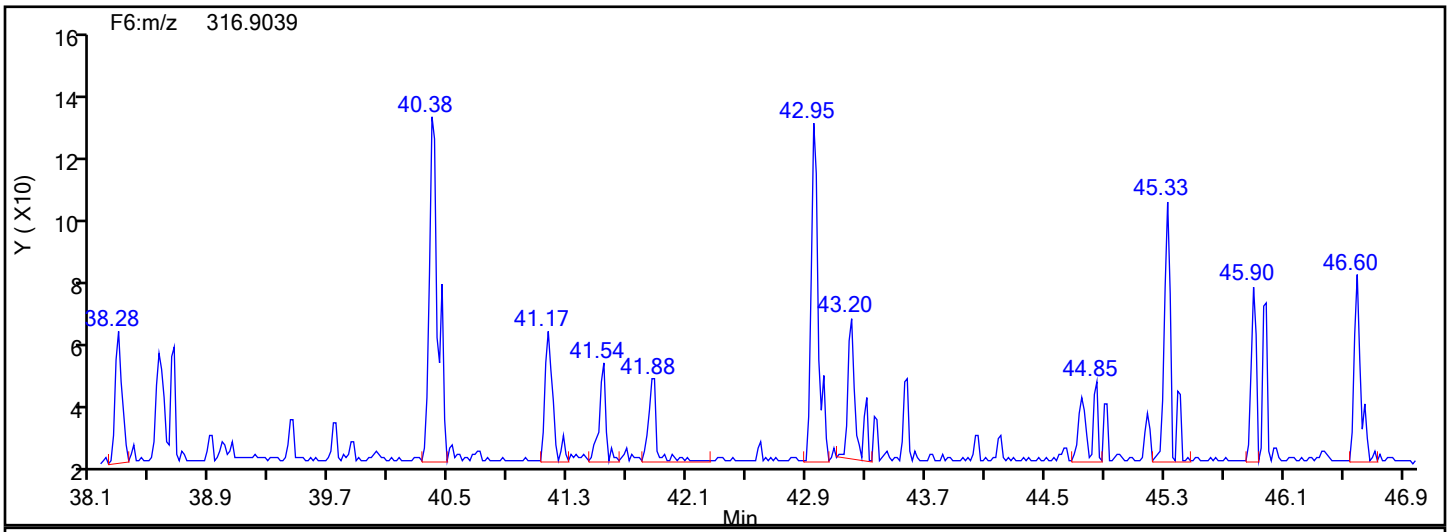
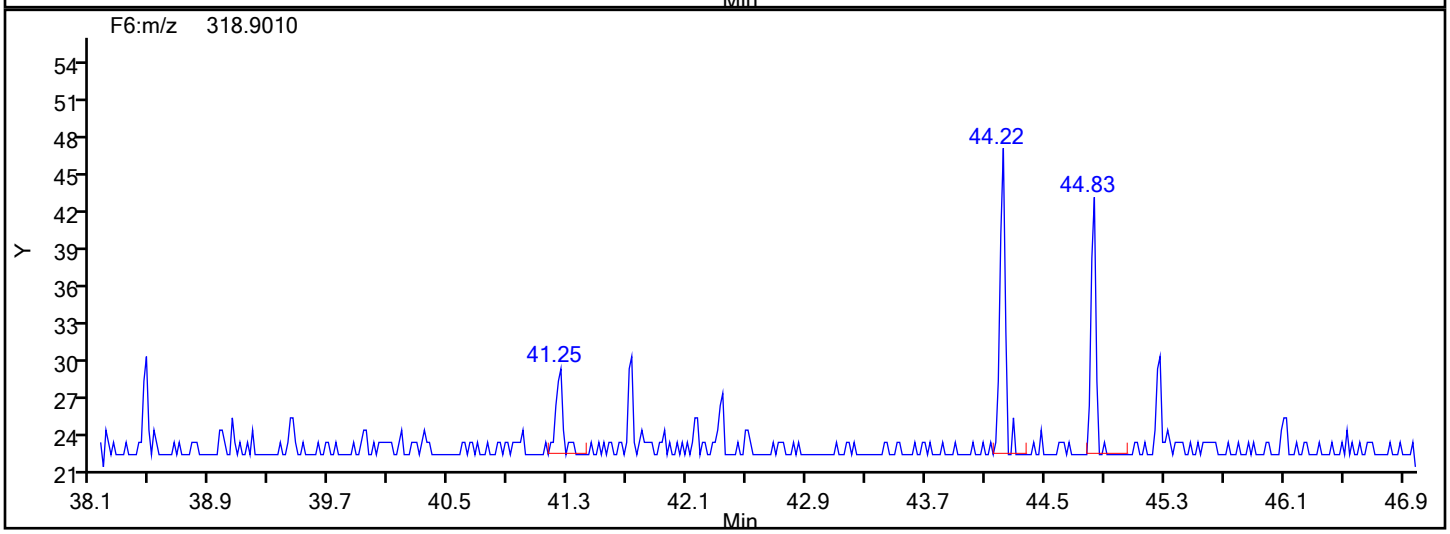
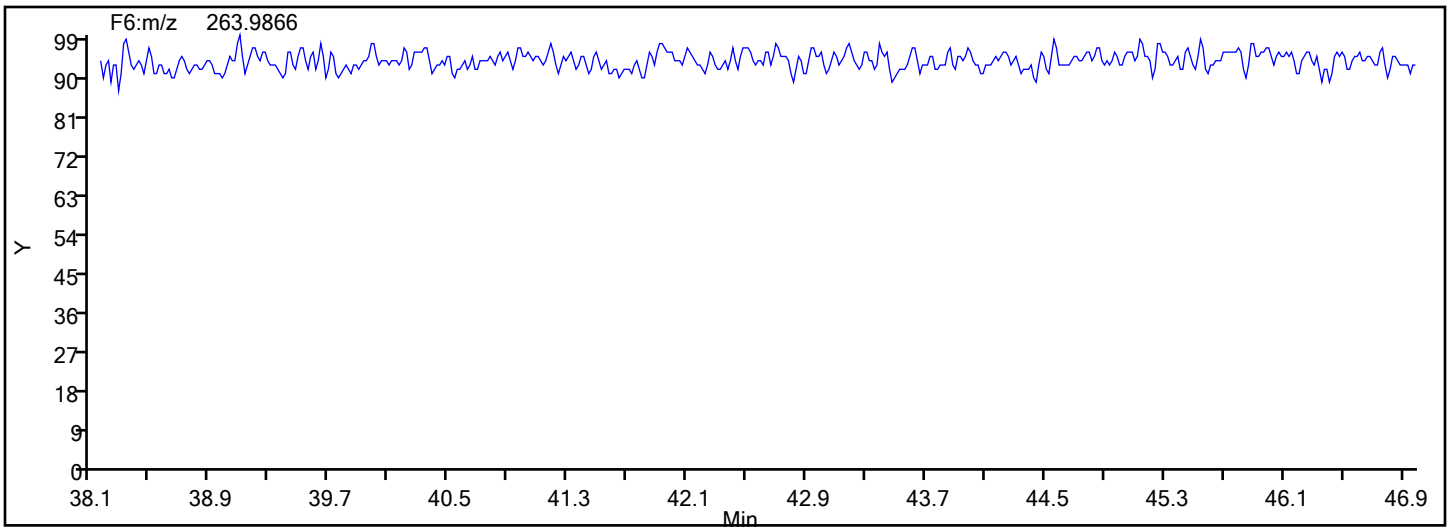




Endrin ketone Lock Mass



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Eurofins Knoxville

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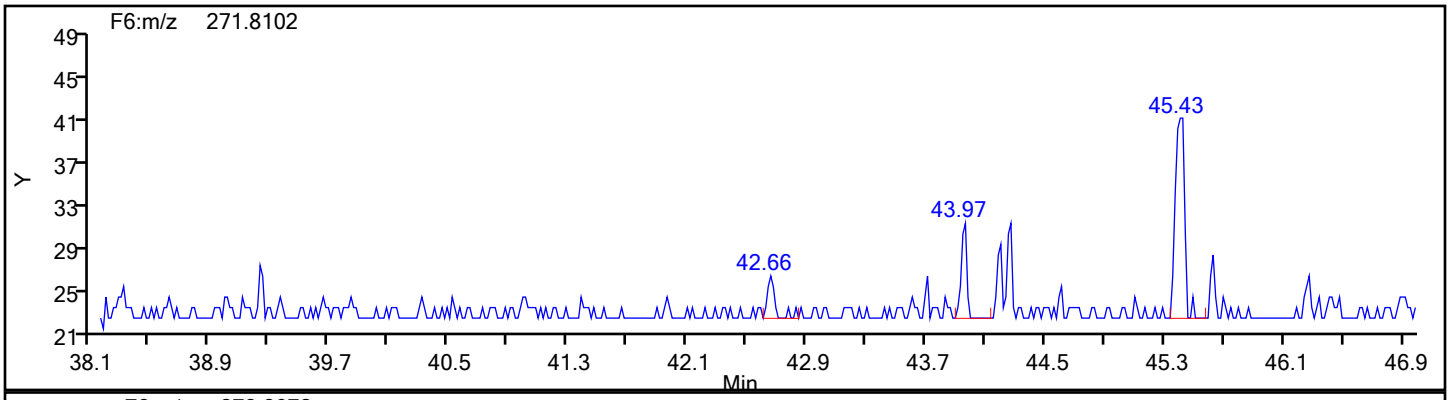
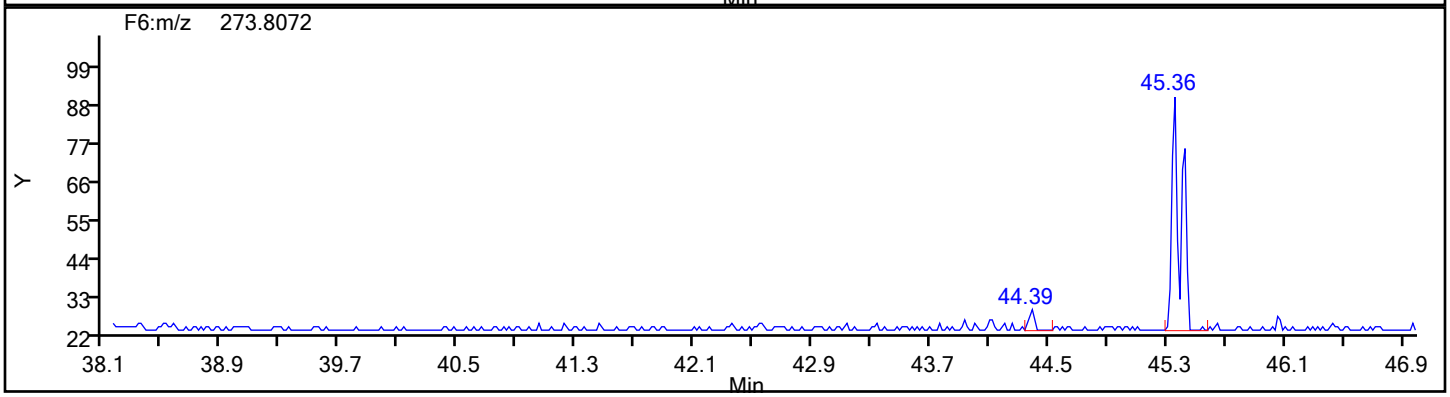
Mirex





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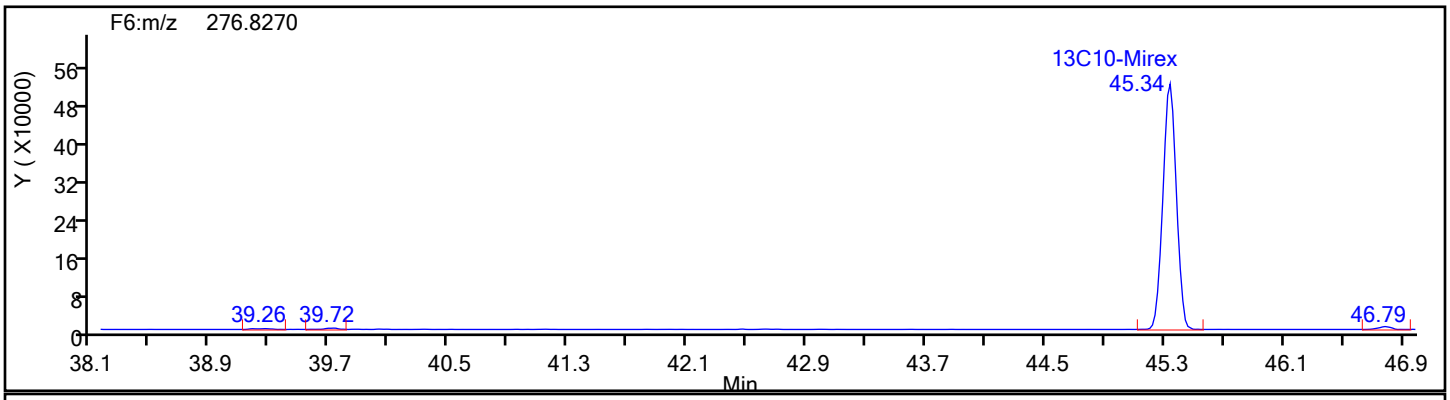

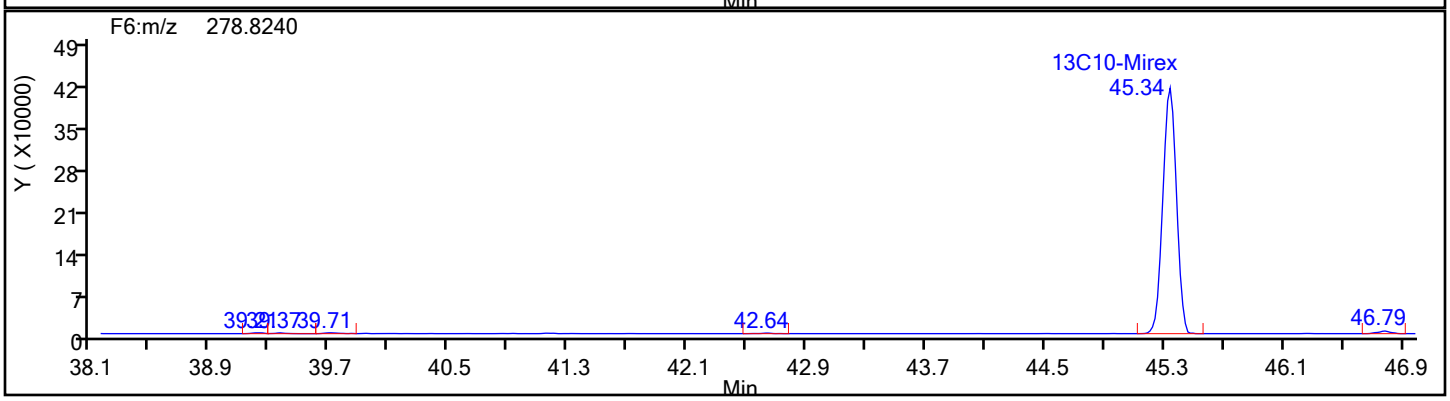

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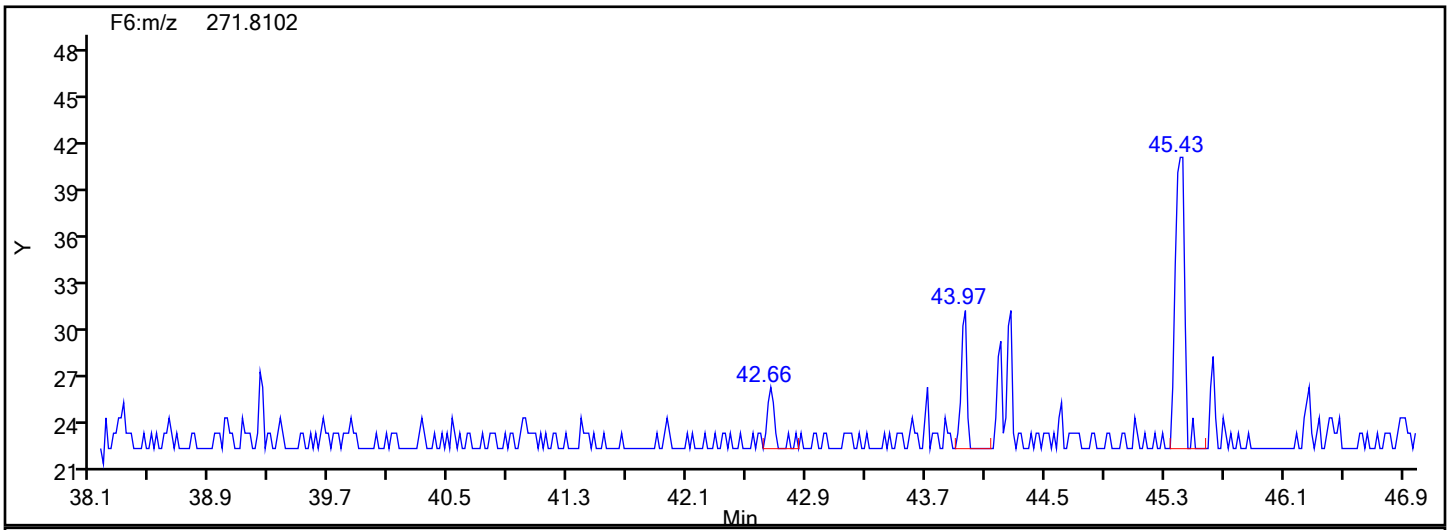

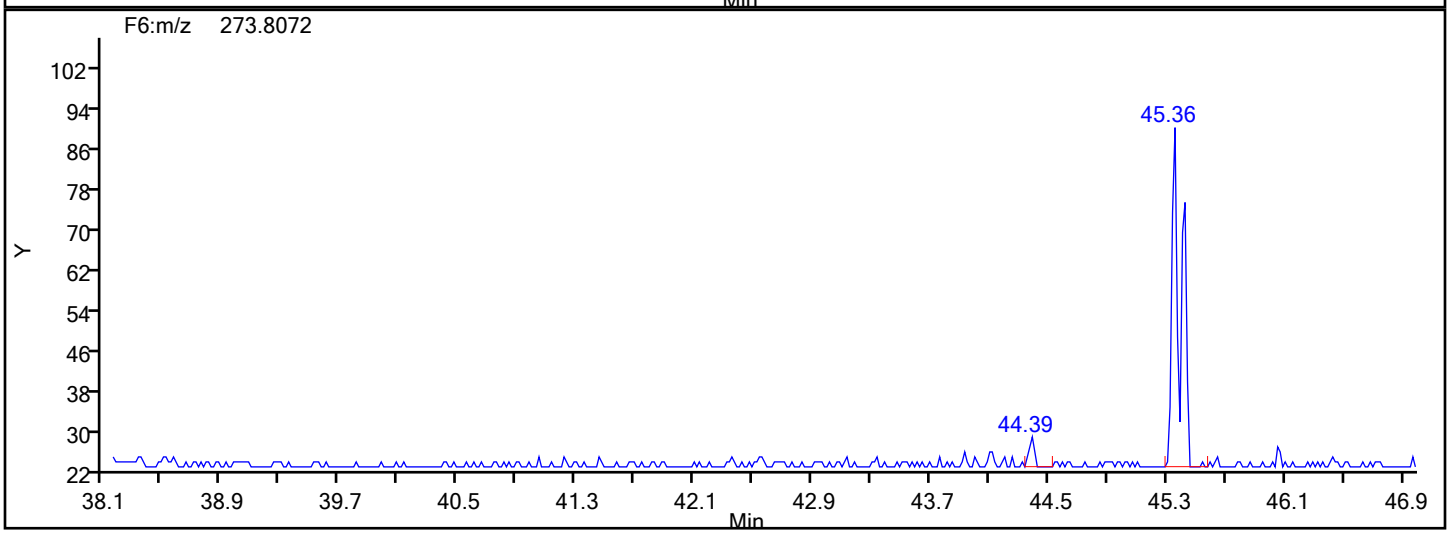

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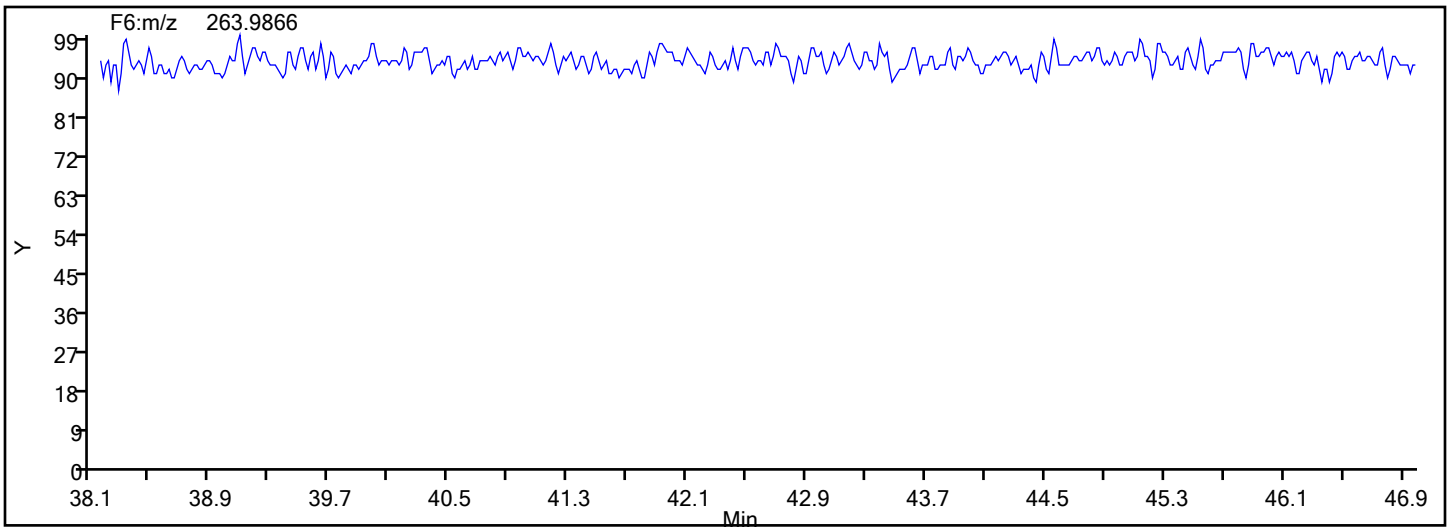

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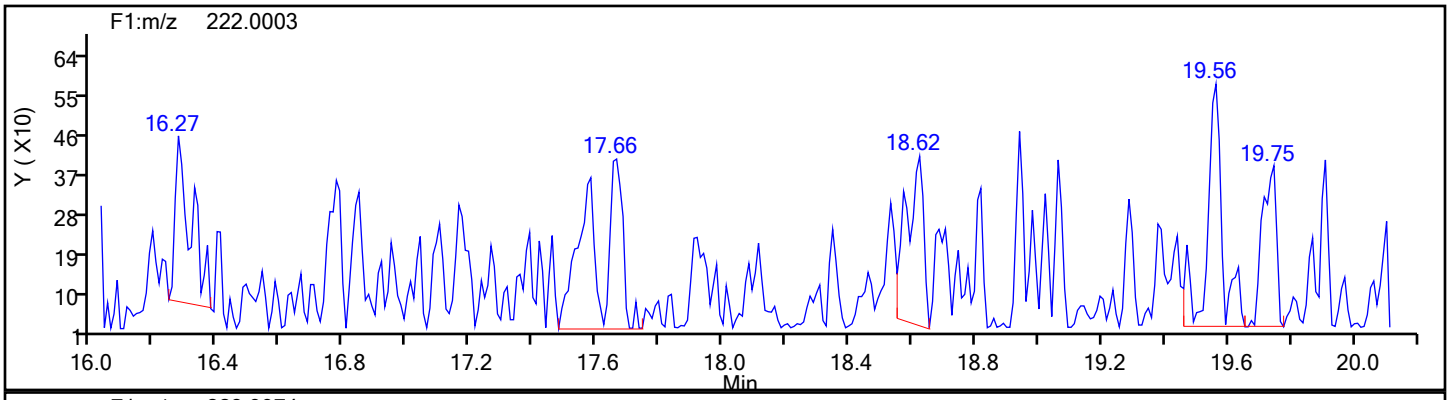
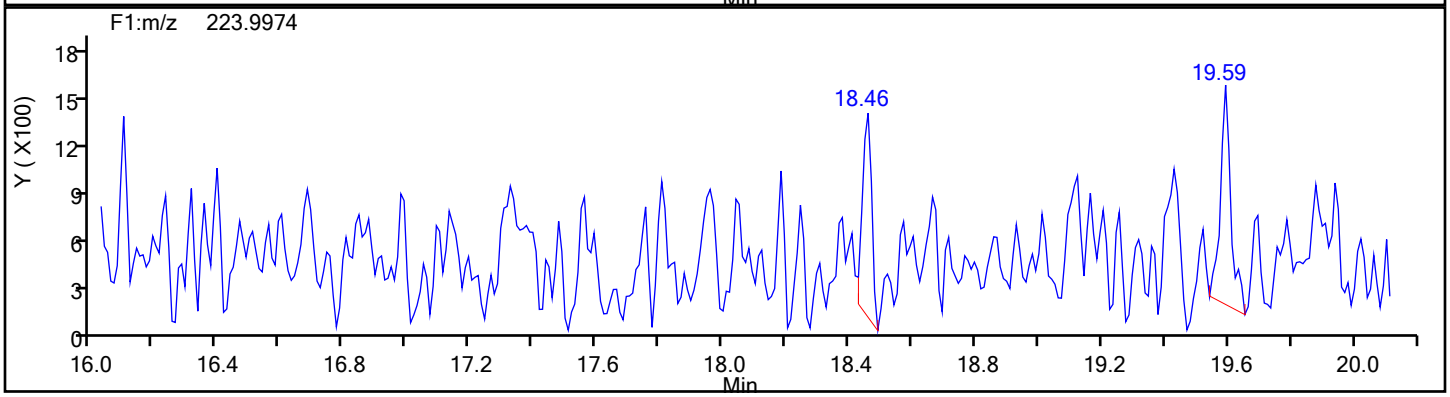
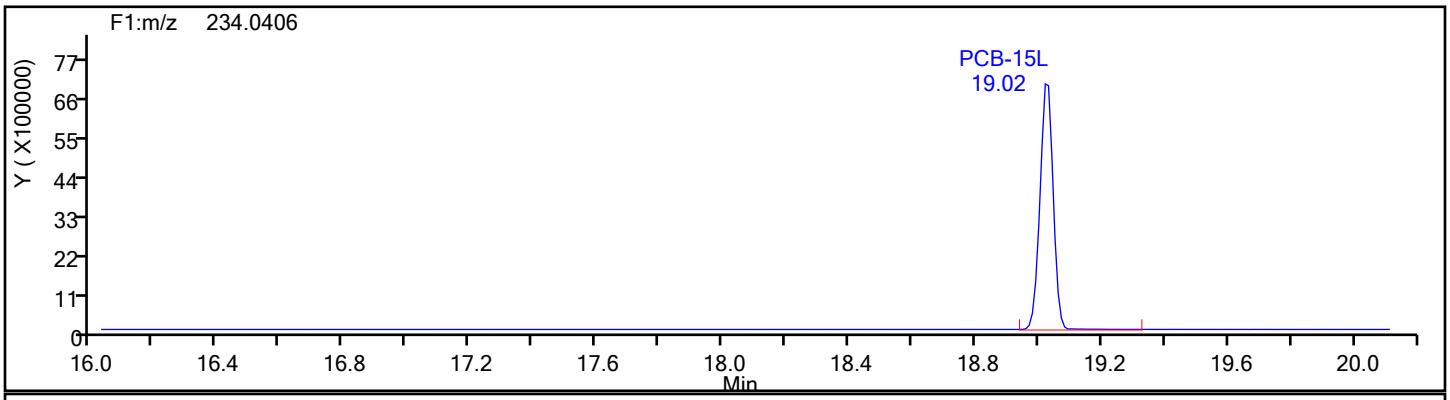
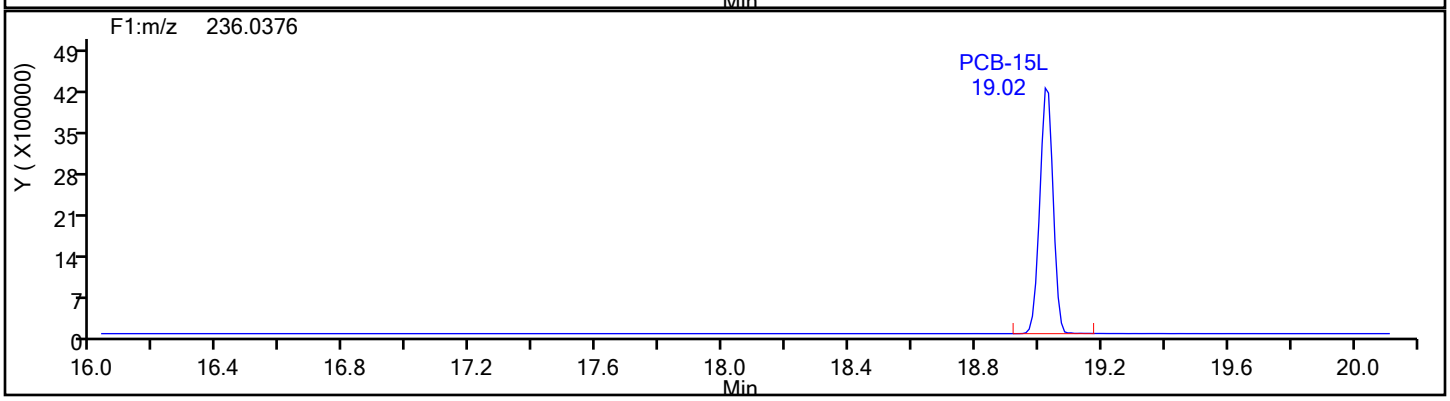
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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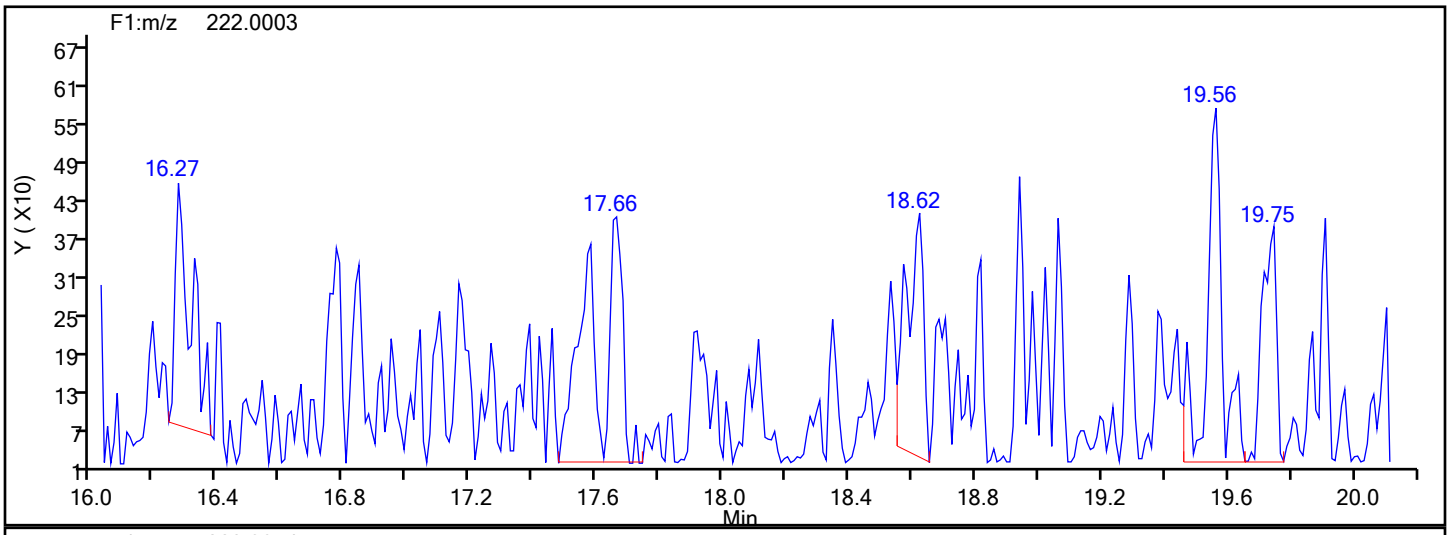
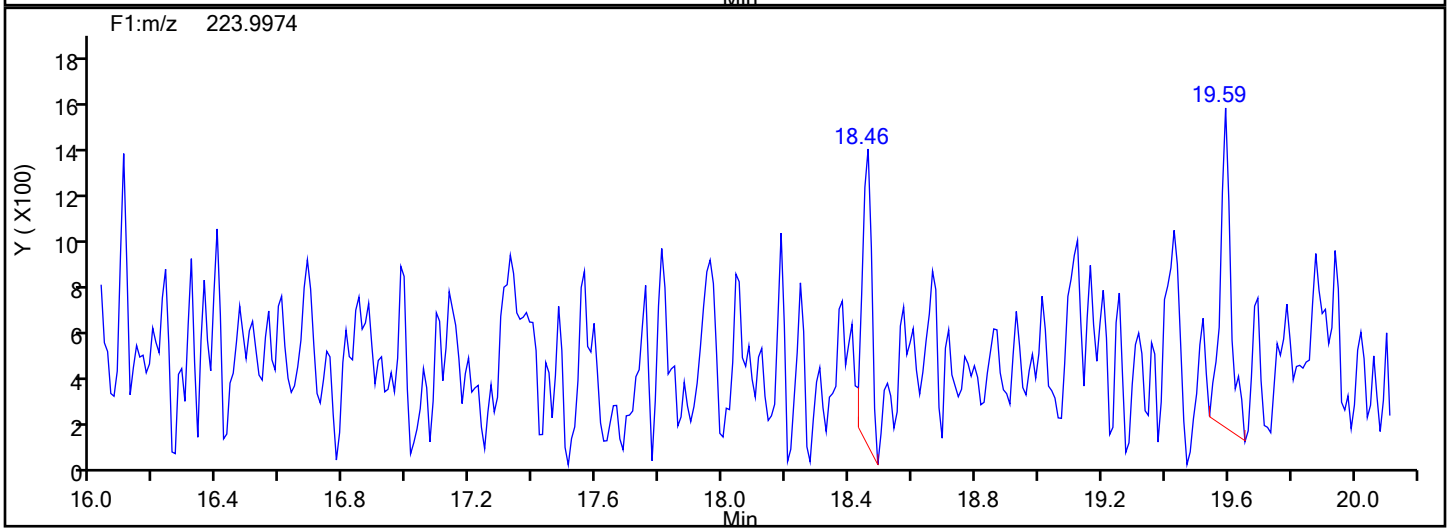
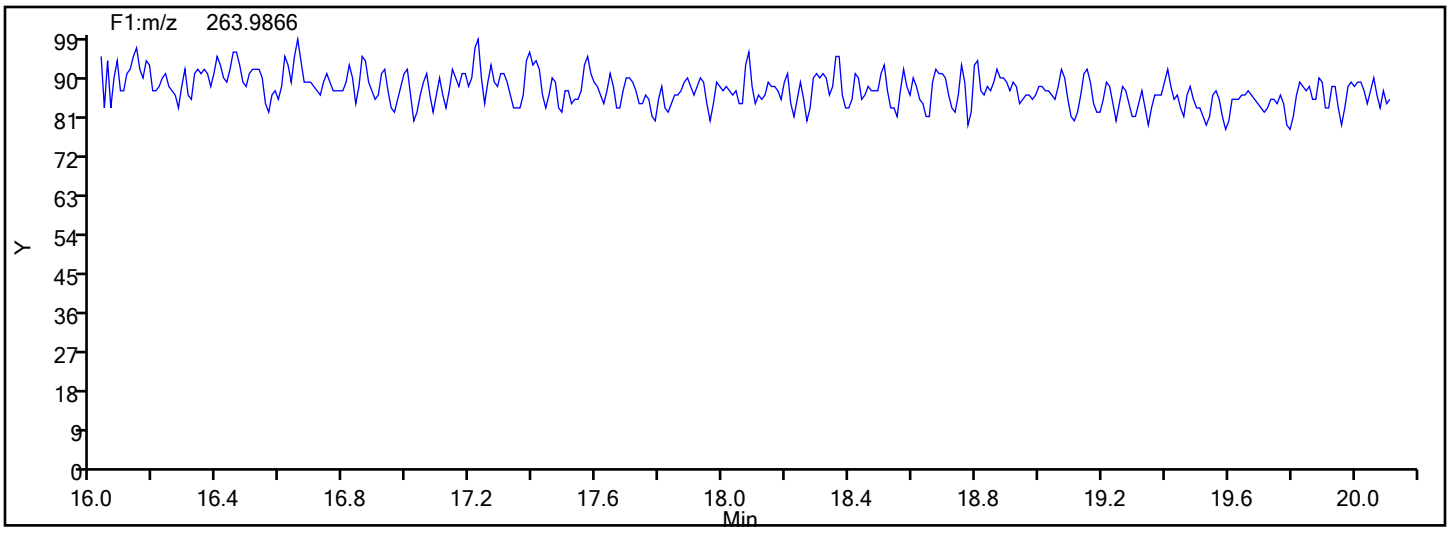
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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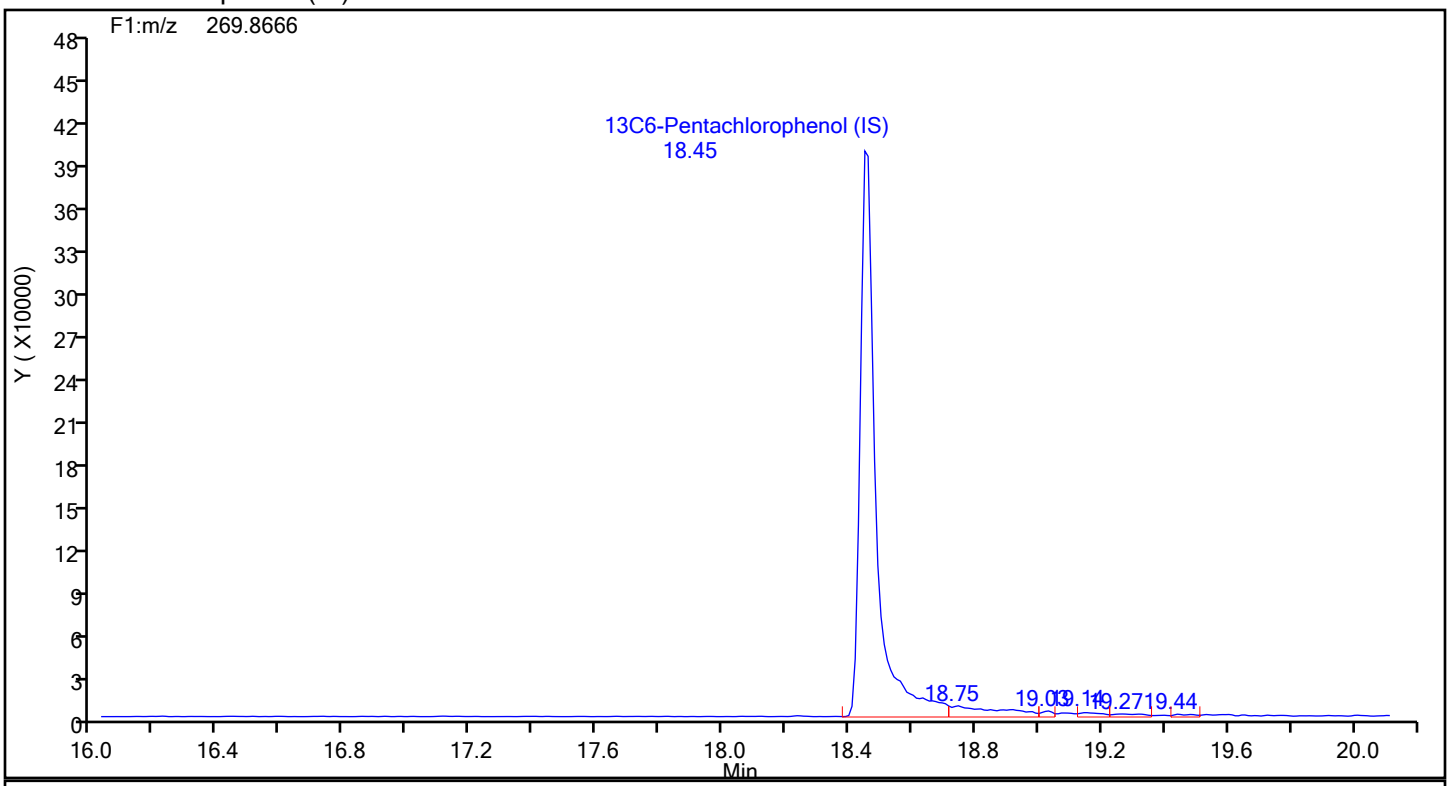
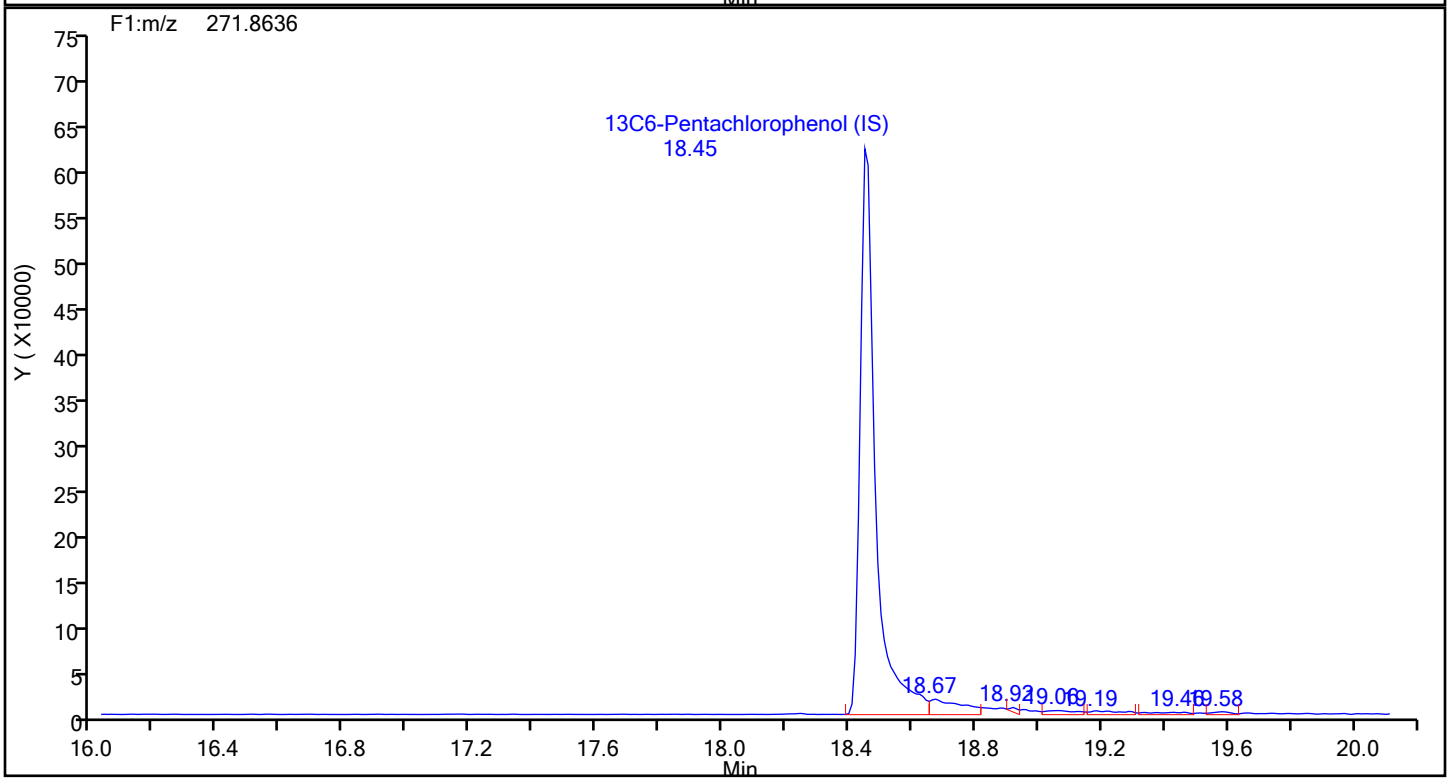
13C6-Pentachlorophenol (IS) Standards





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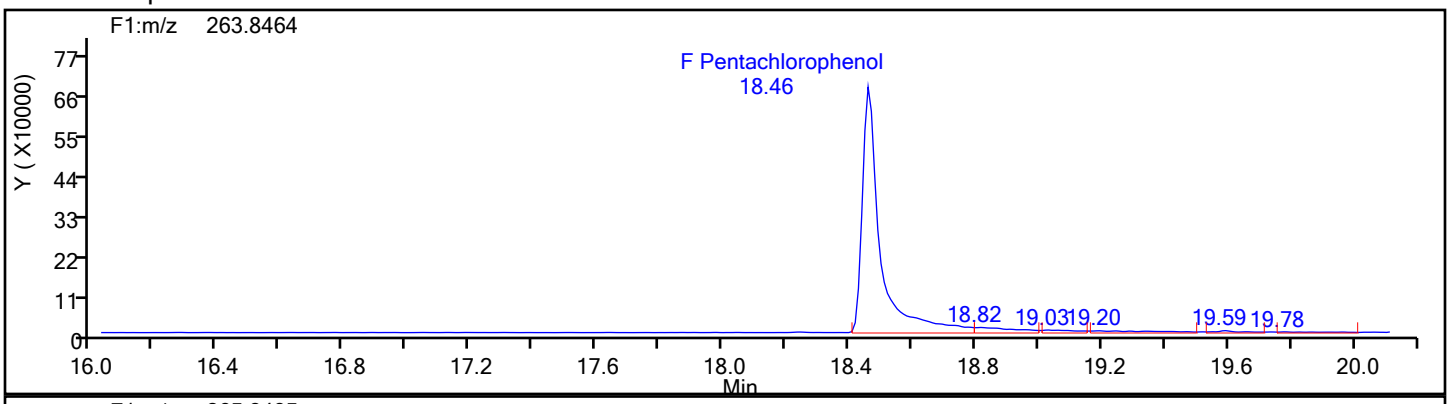
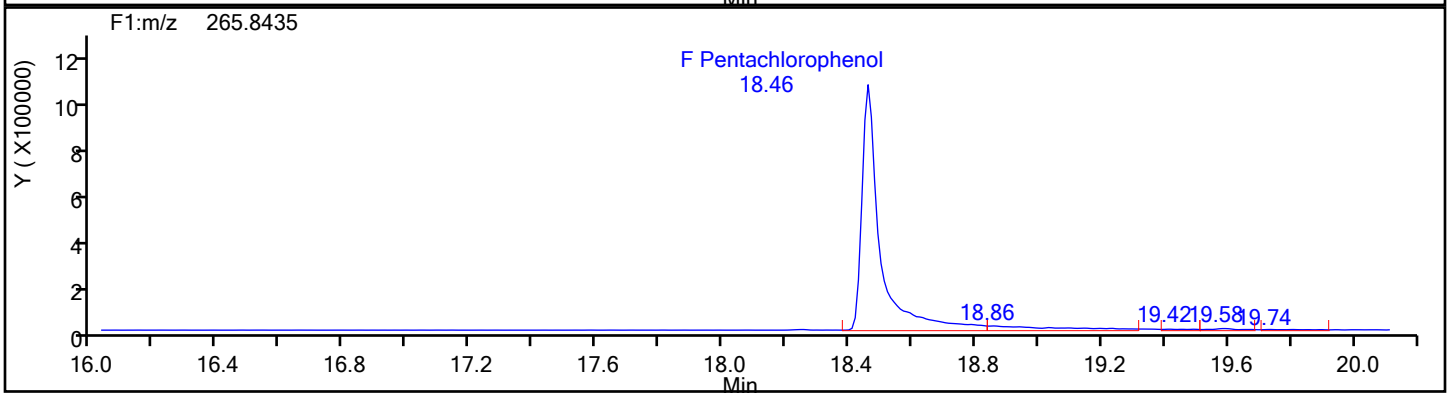
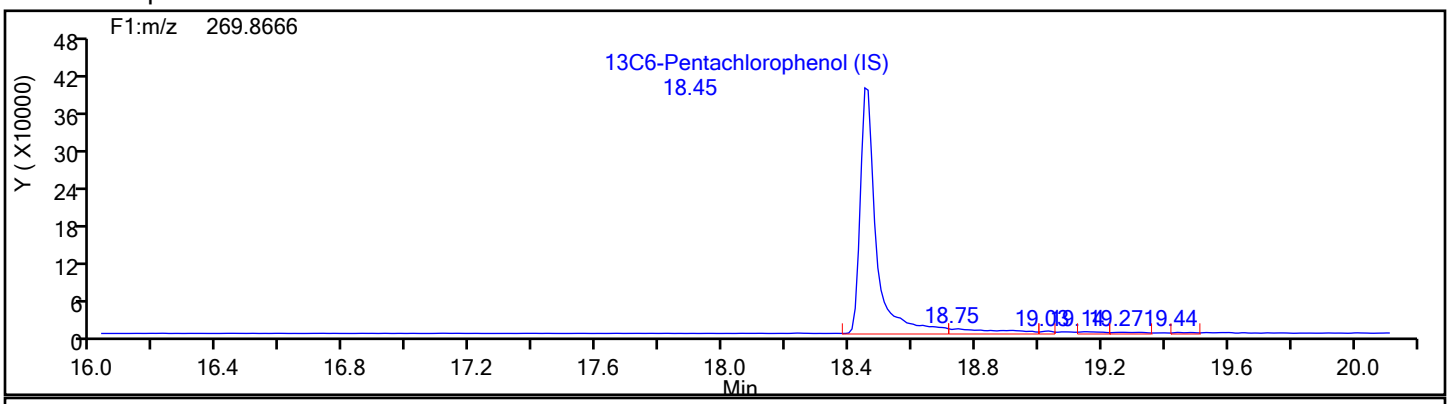
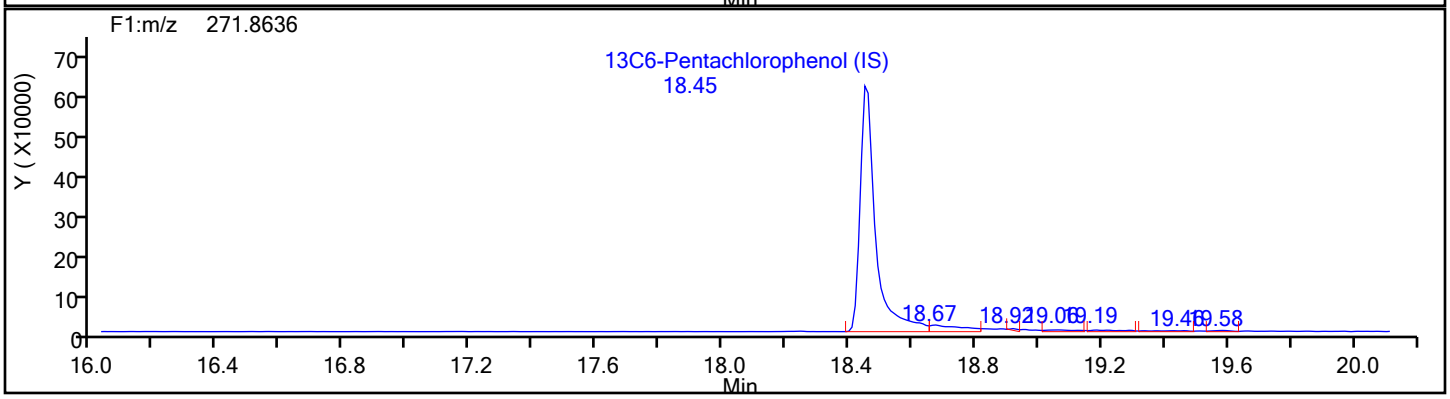
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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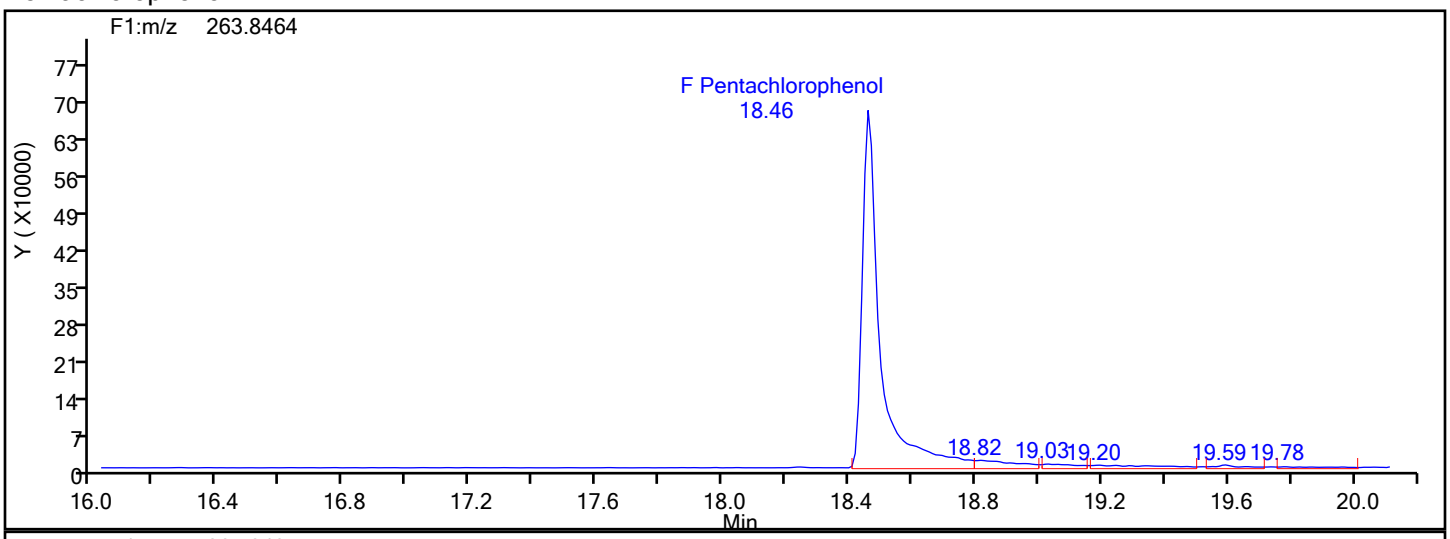
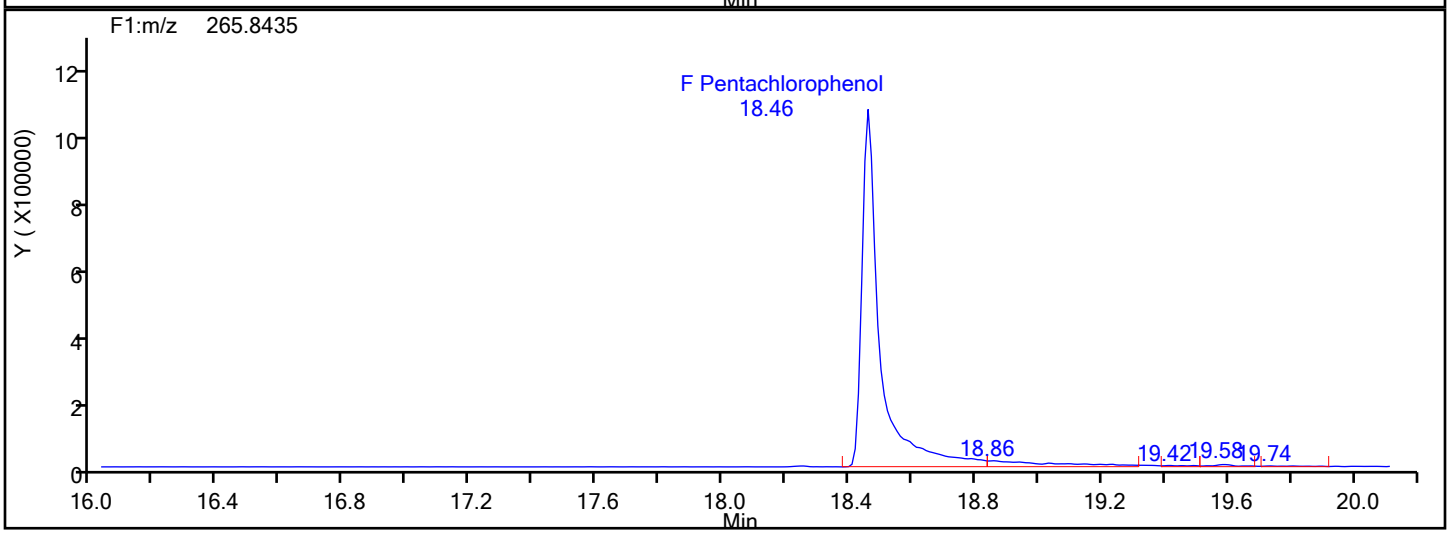
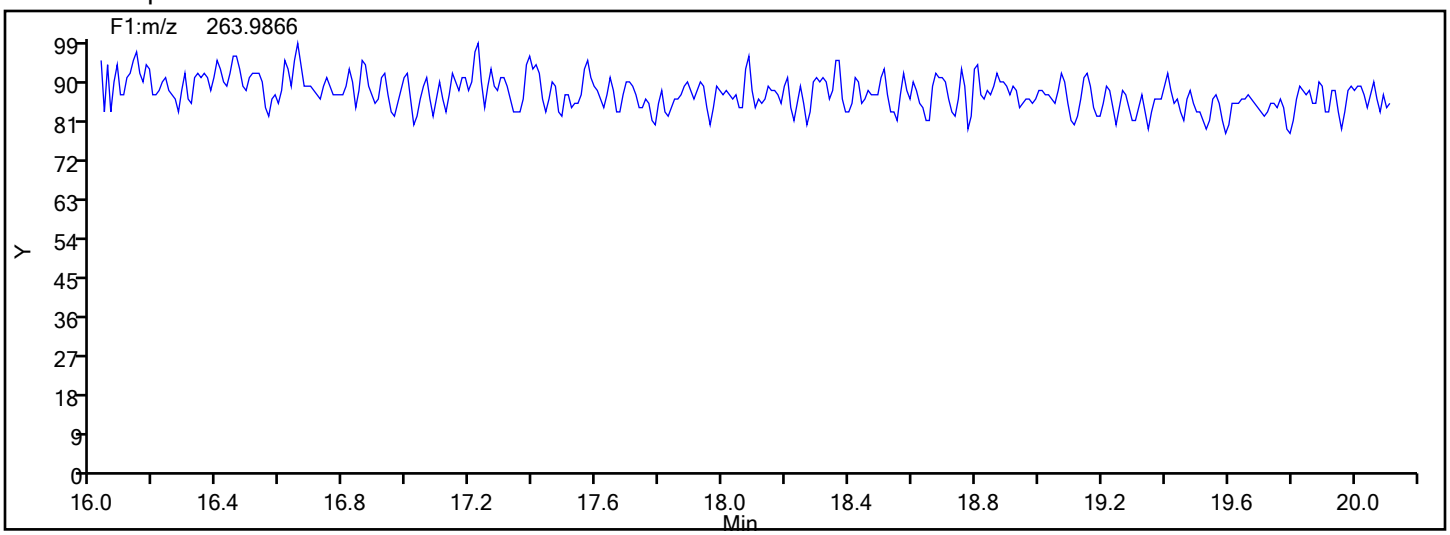
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

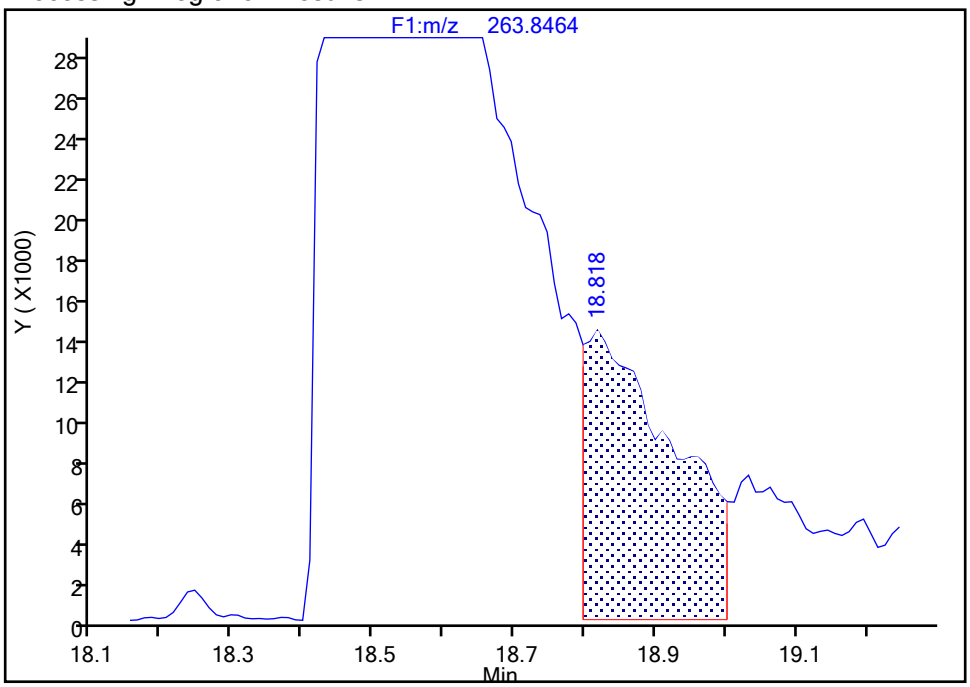
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d				
Injection Date:	02-May-2025 18:29:00	Instrument ID:	D3PST		
Lims ID:	IC L5				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

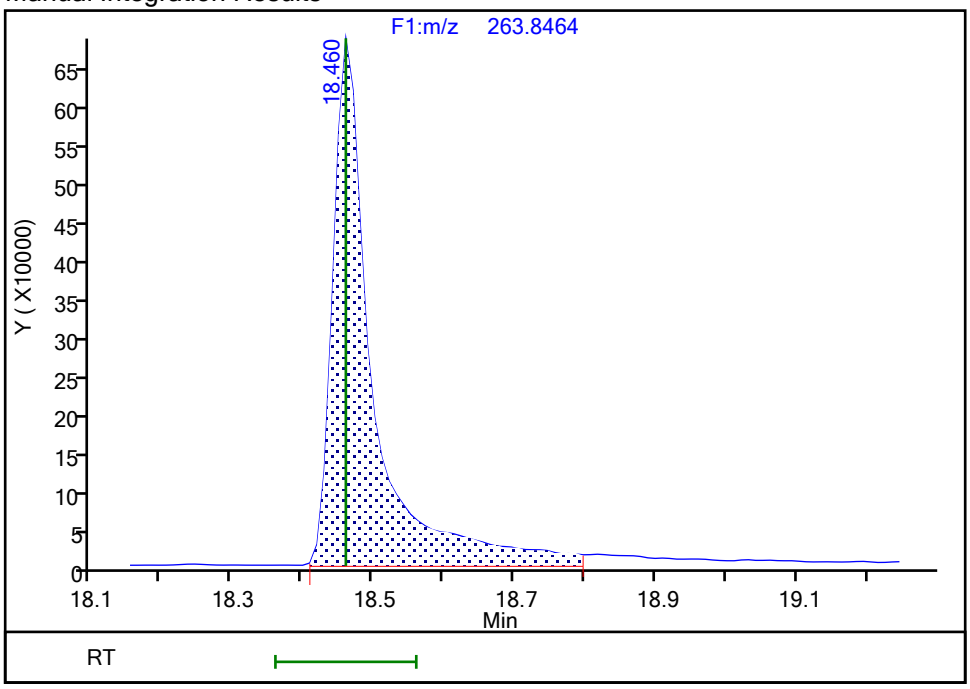
Processing Integration Results

RT: 18.82
Area: 123351
Amount: 108.8189
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 2708472
Amount: 965.6912
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:24:59 -04:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

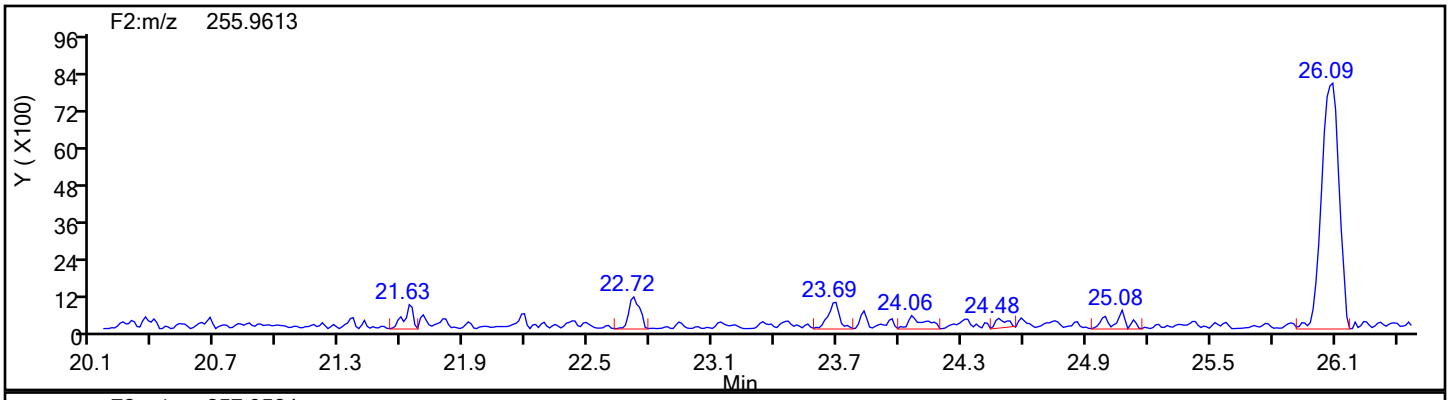
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

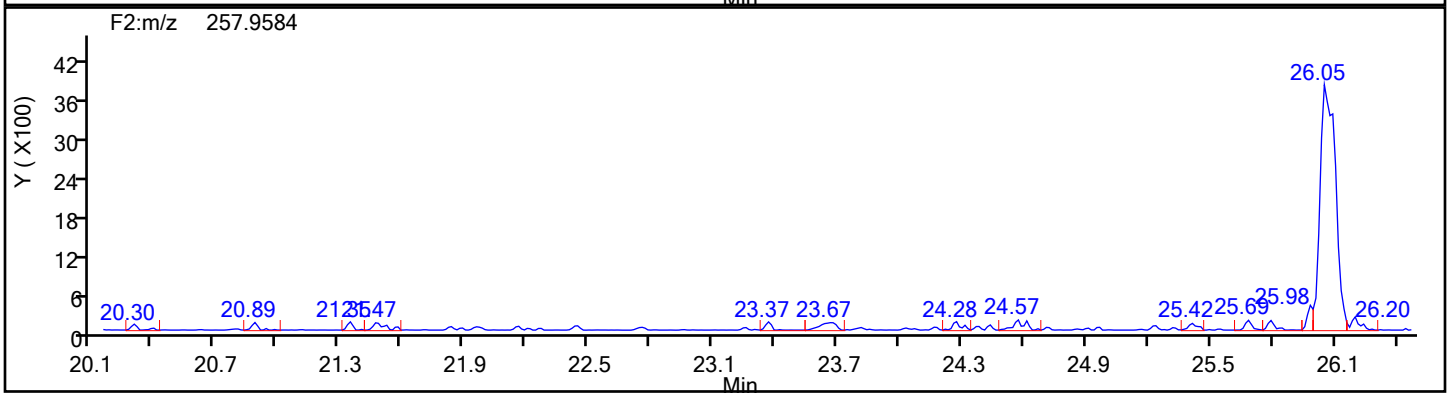
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

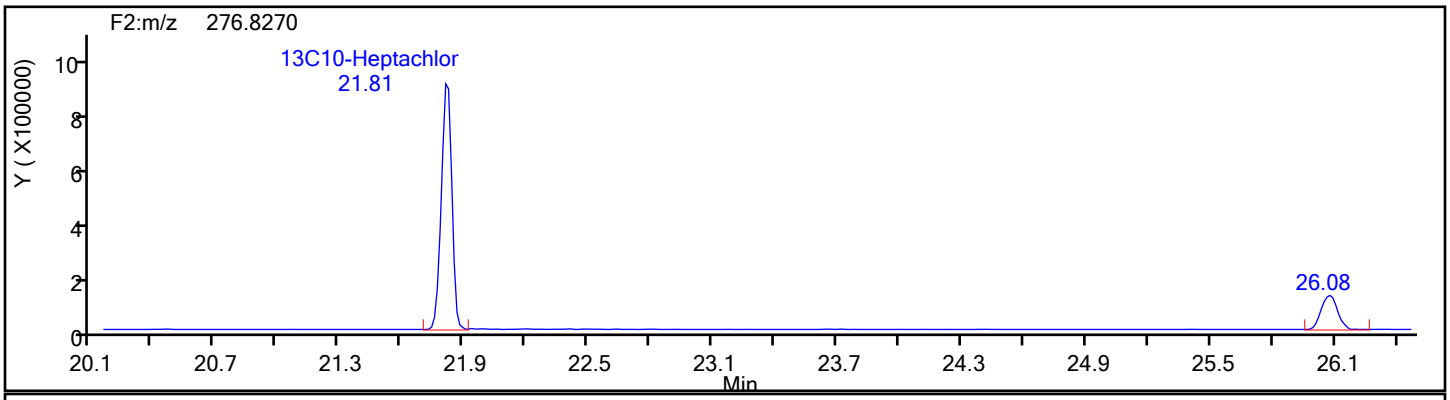
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

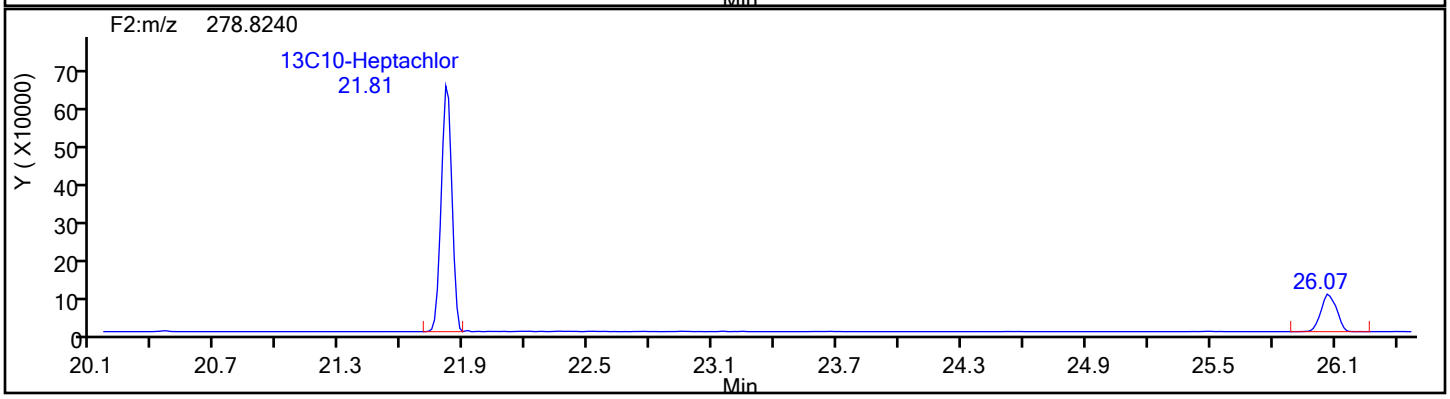
PCB-36





PCB-36 Standards



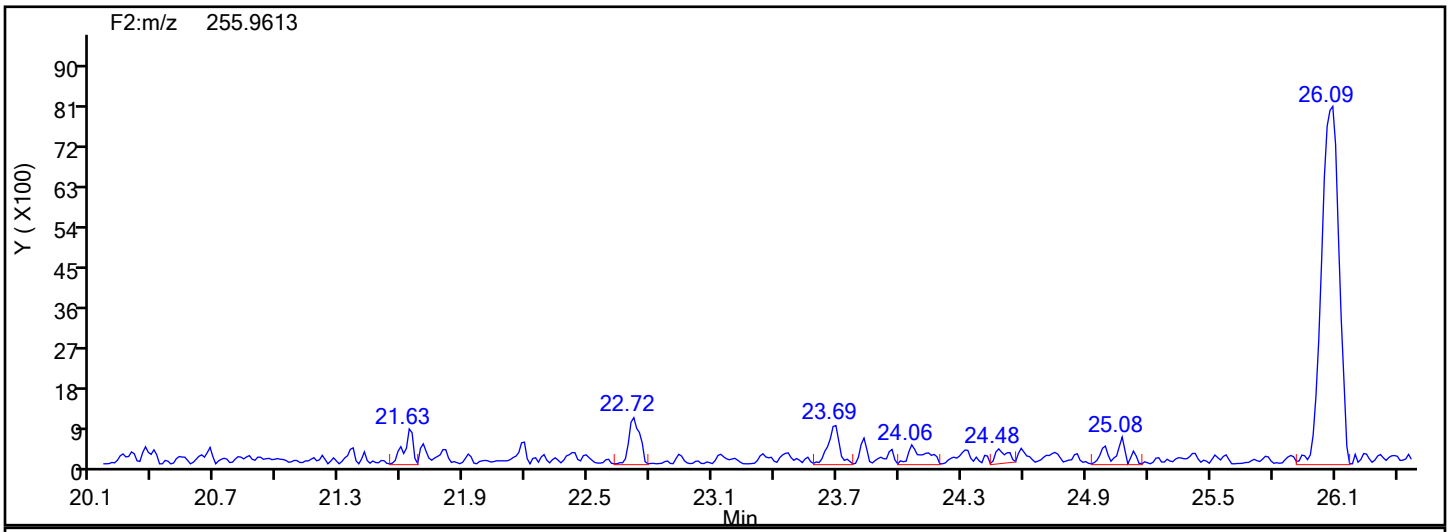


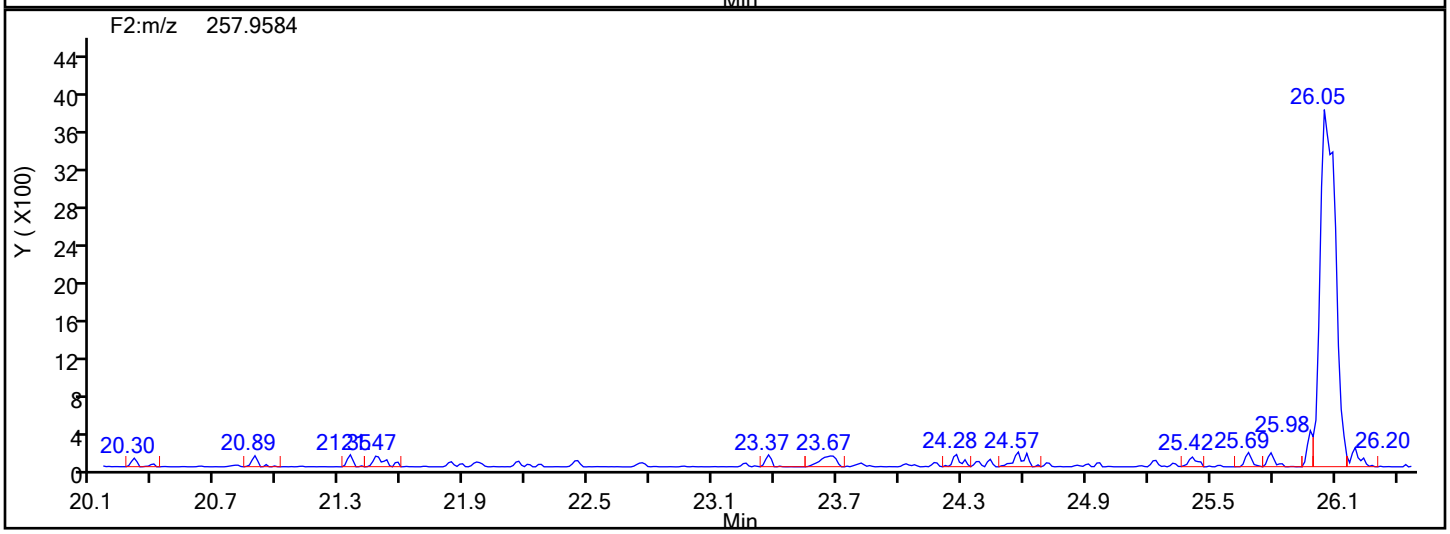
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

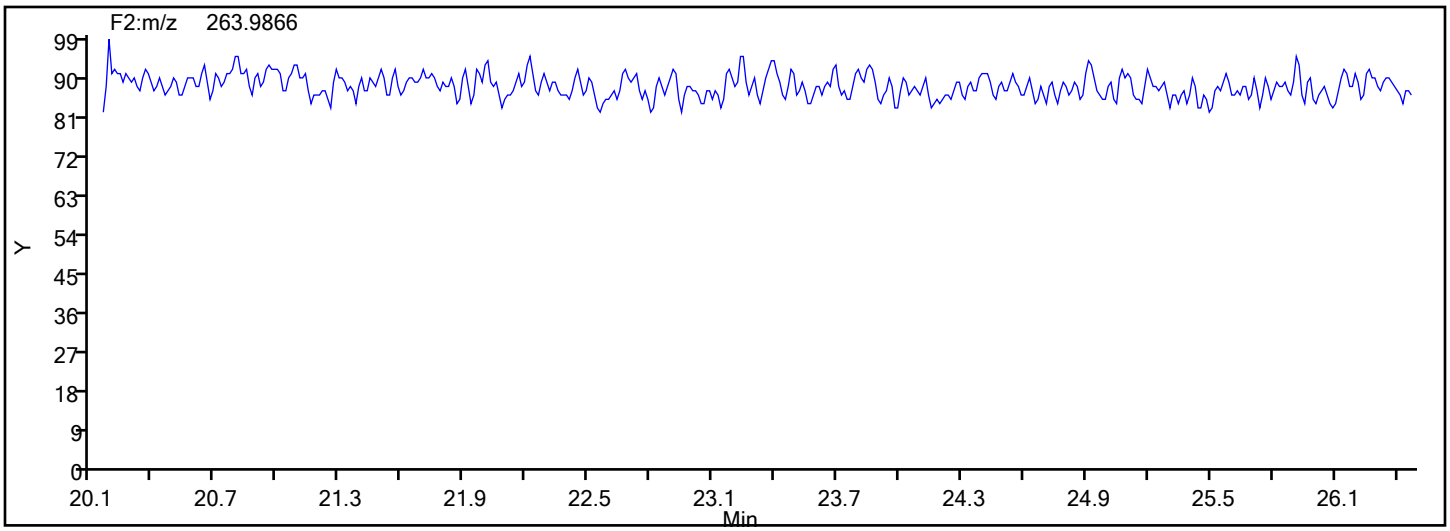
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



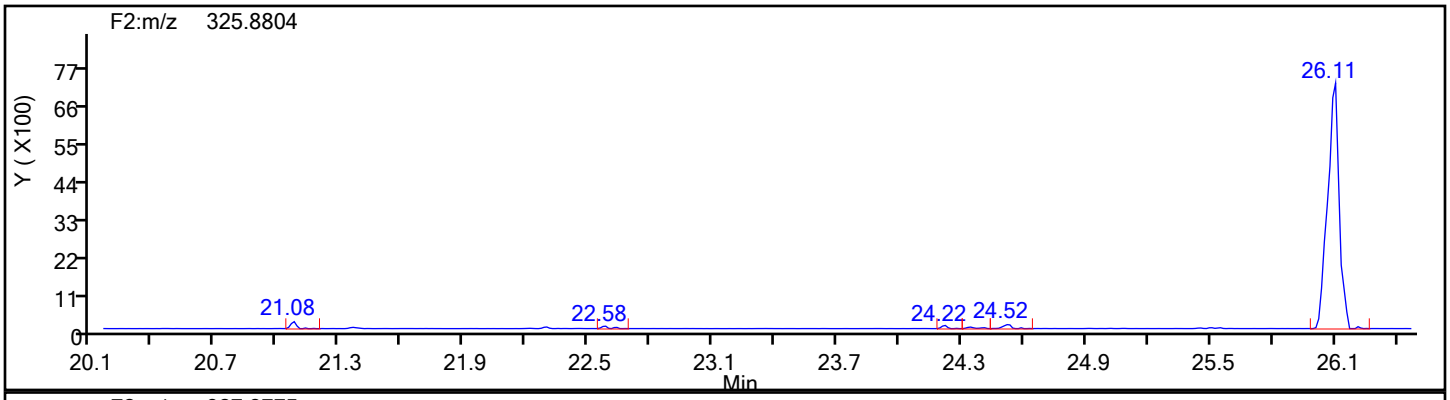
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

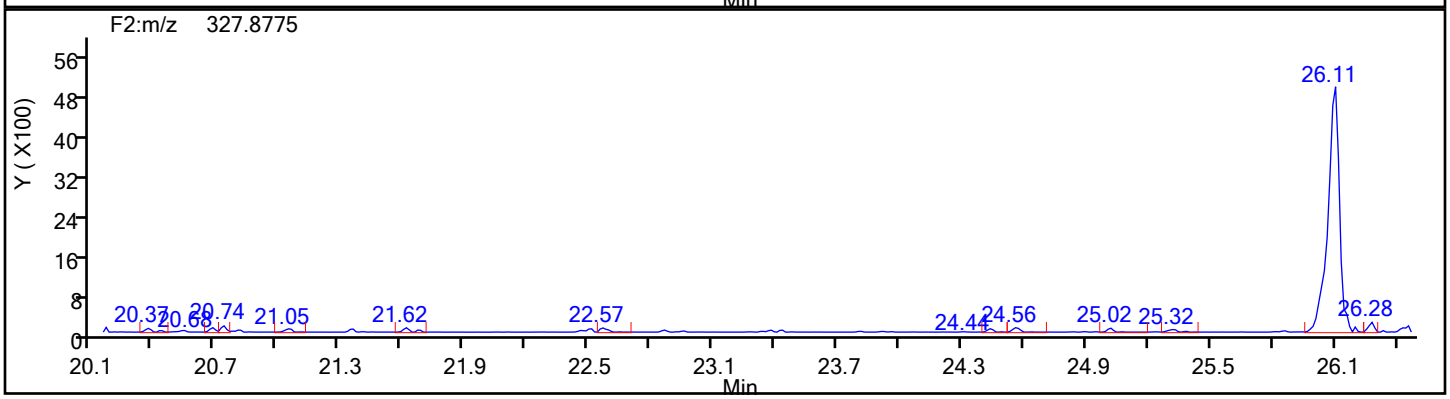
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

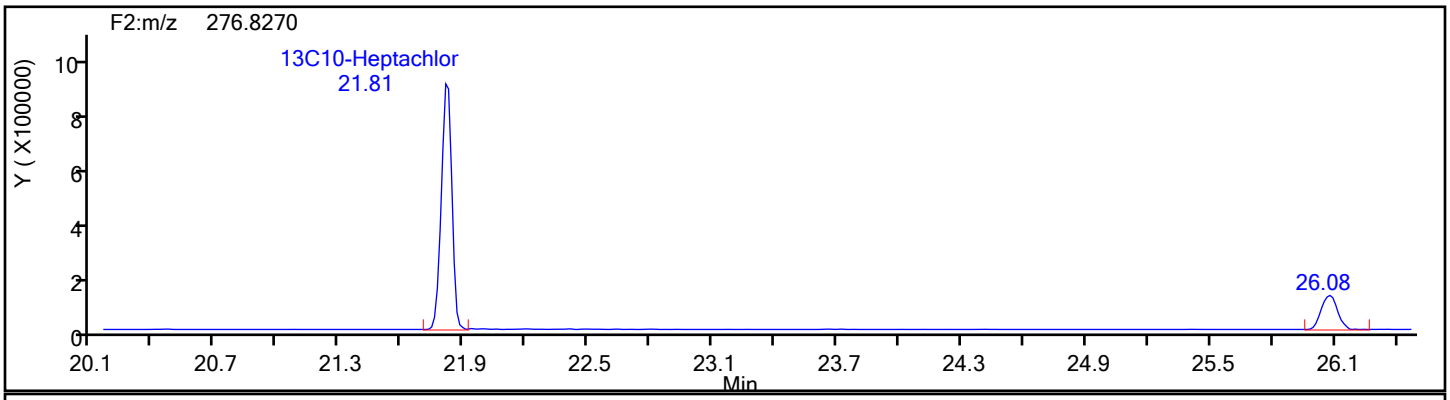
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

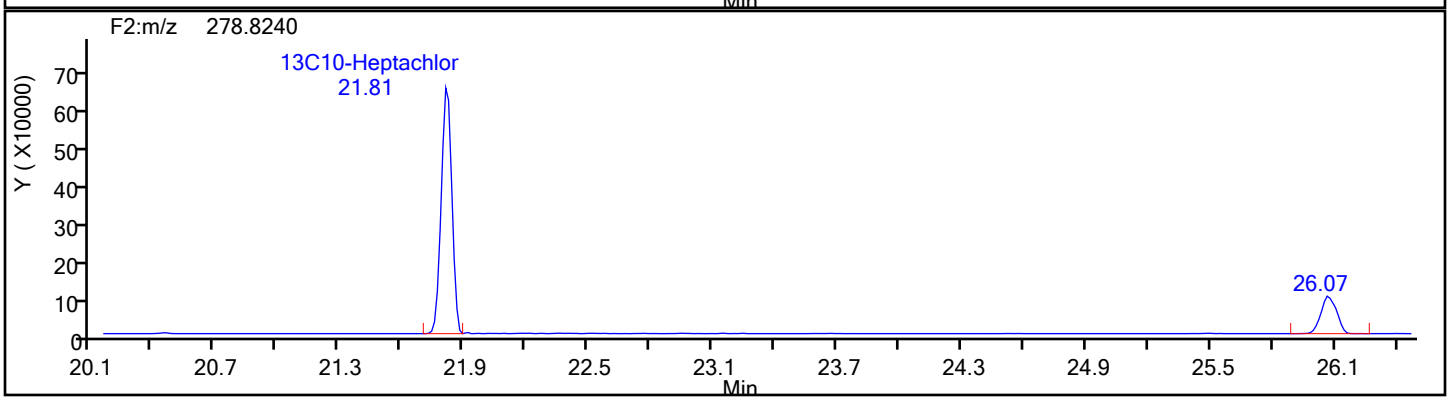
PCB-104





PCB-104 Standards



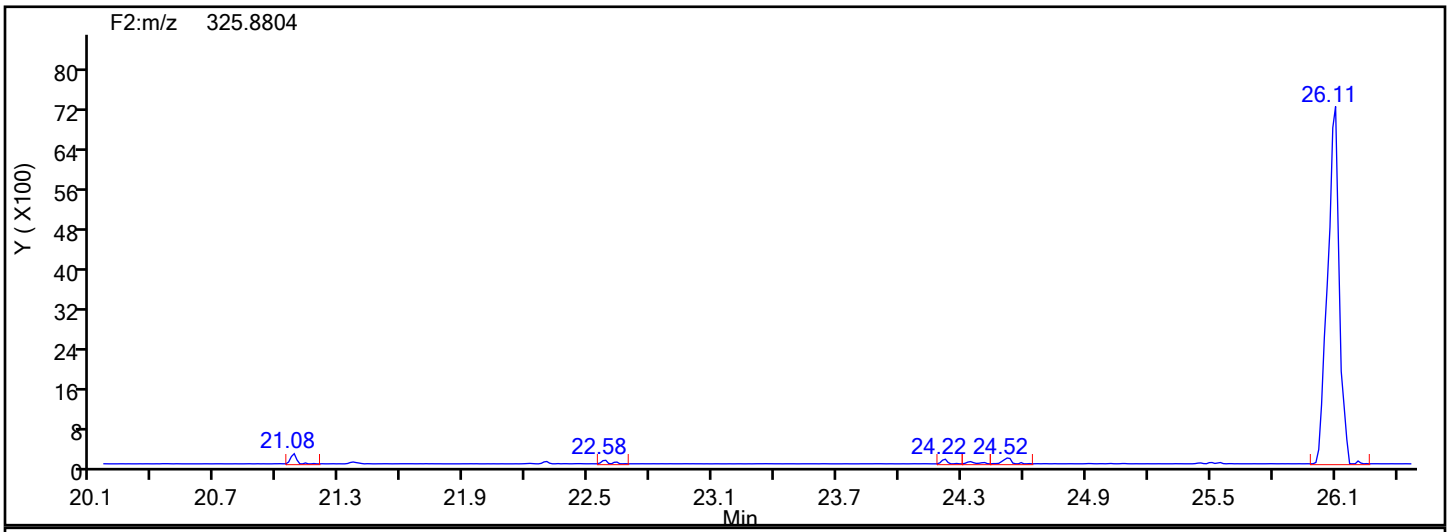


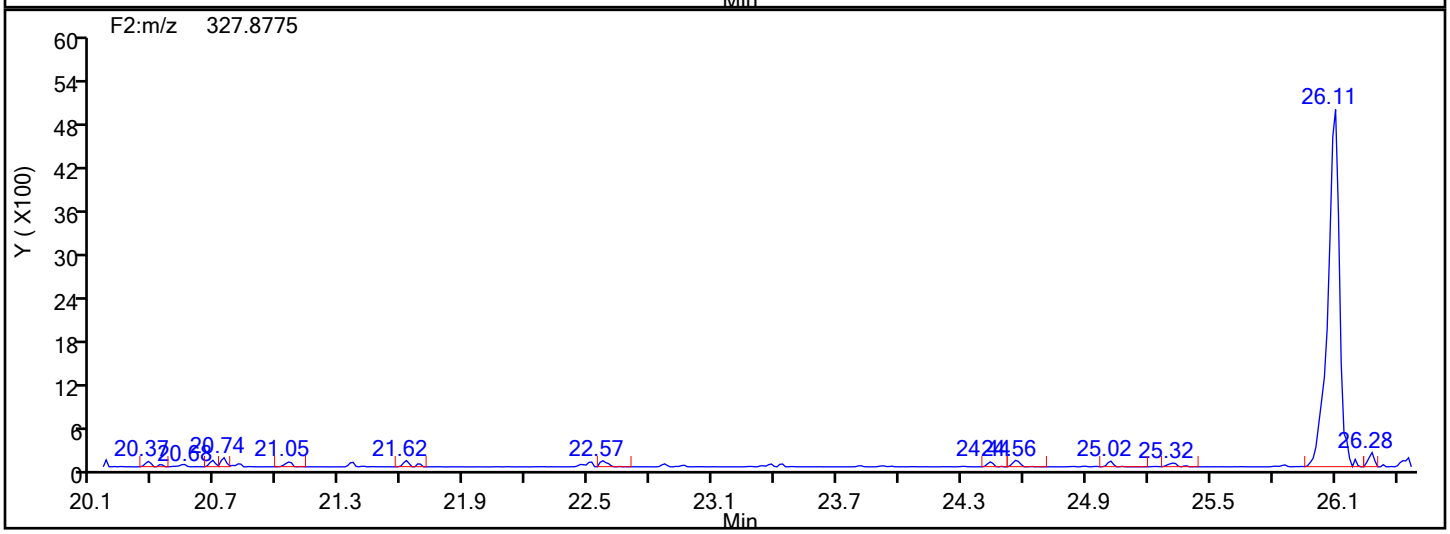
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

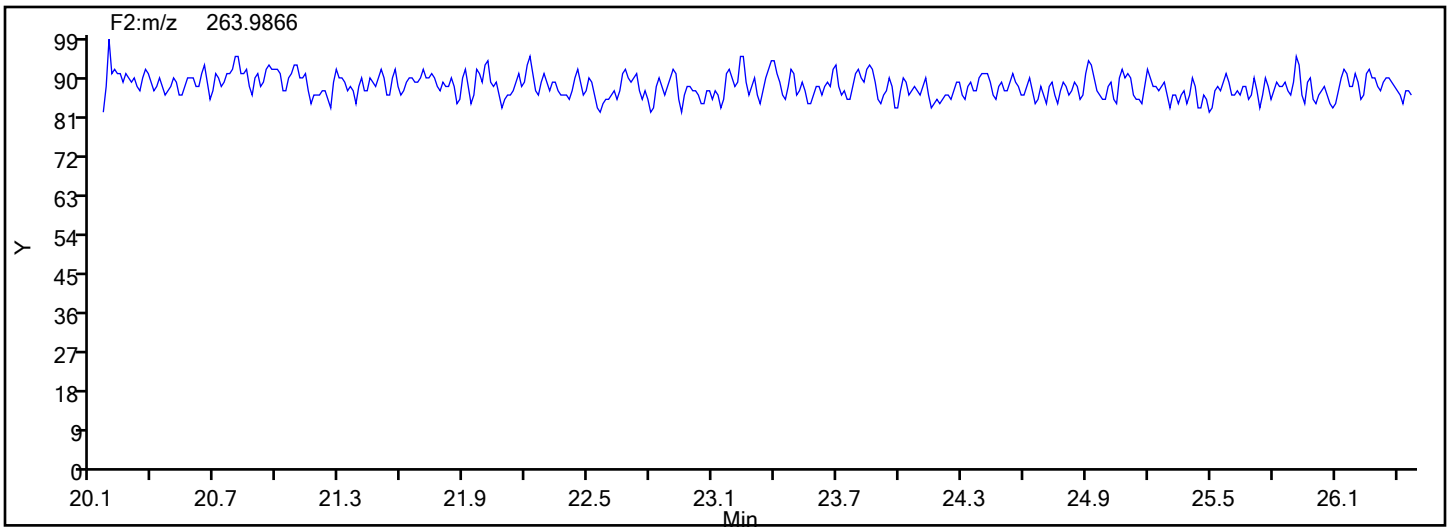
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



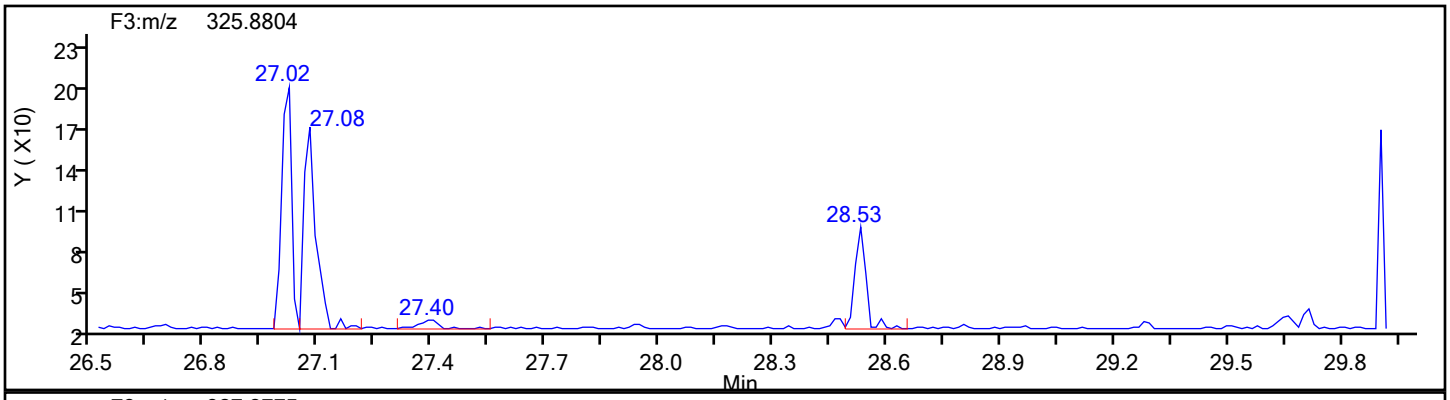
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

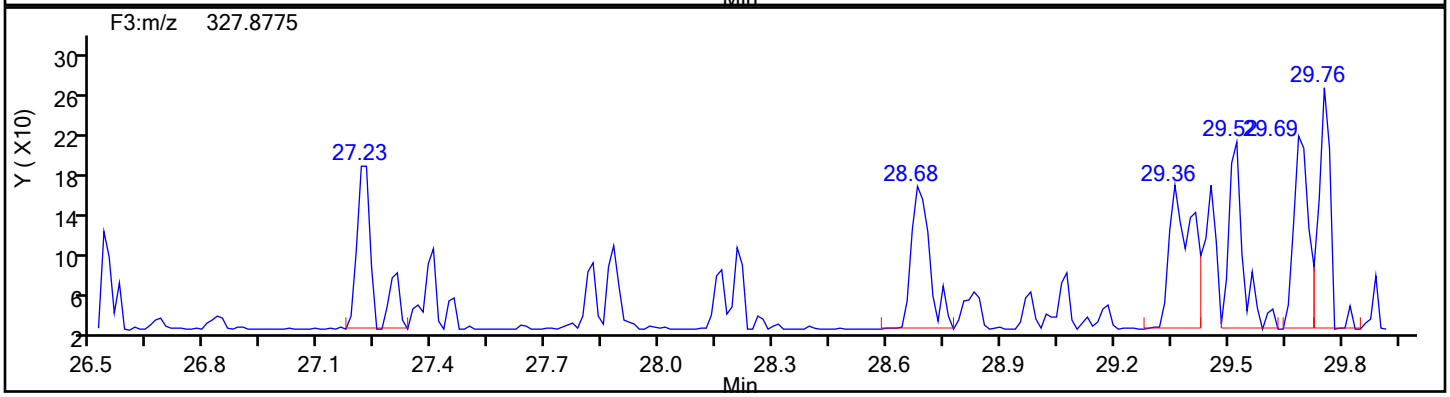
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

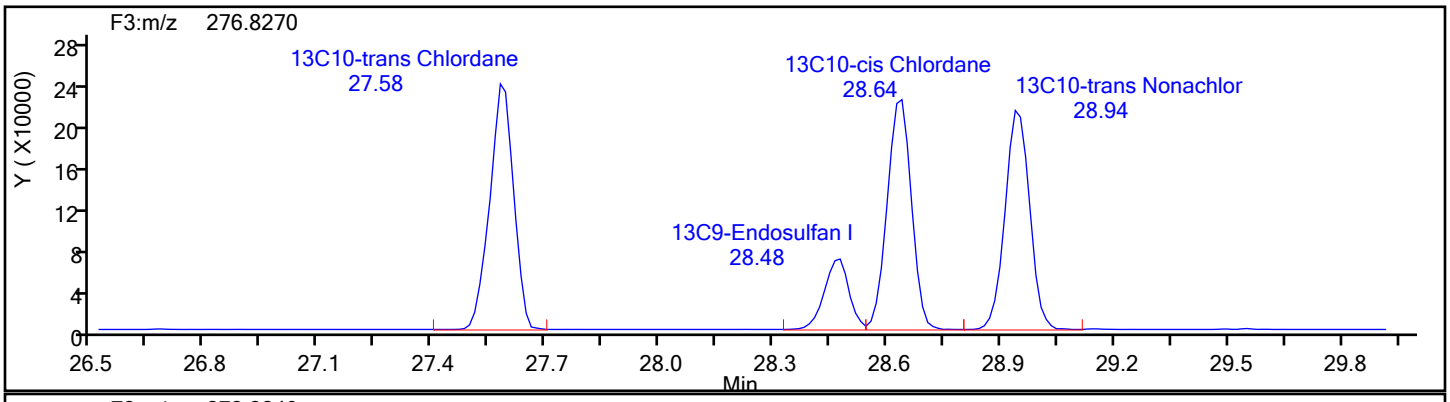
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

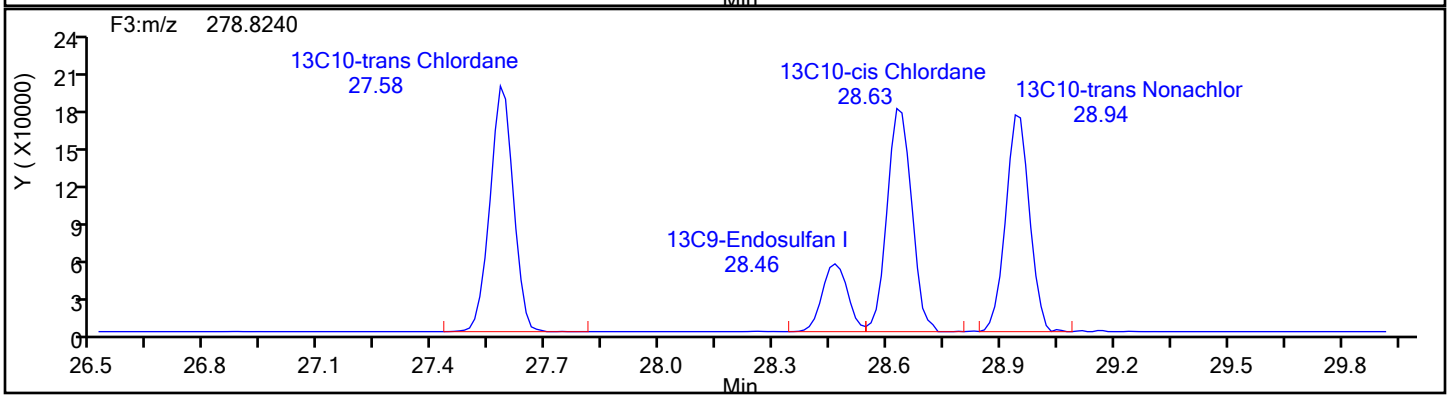
PCB-121





PCB-121 Standards





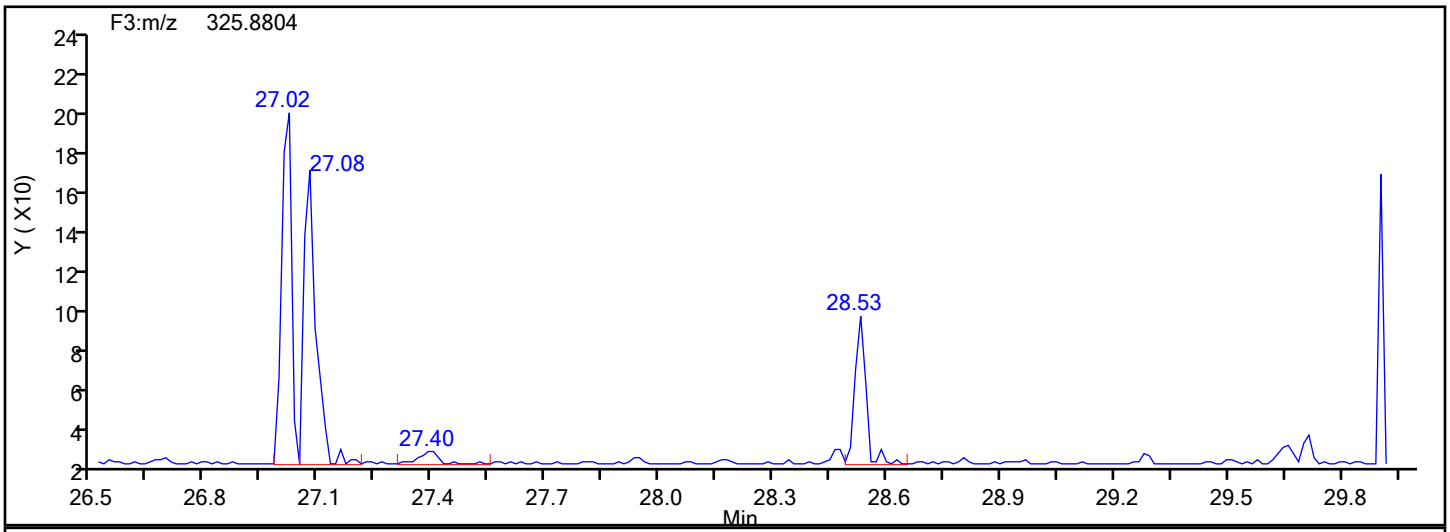
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

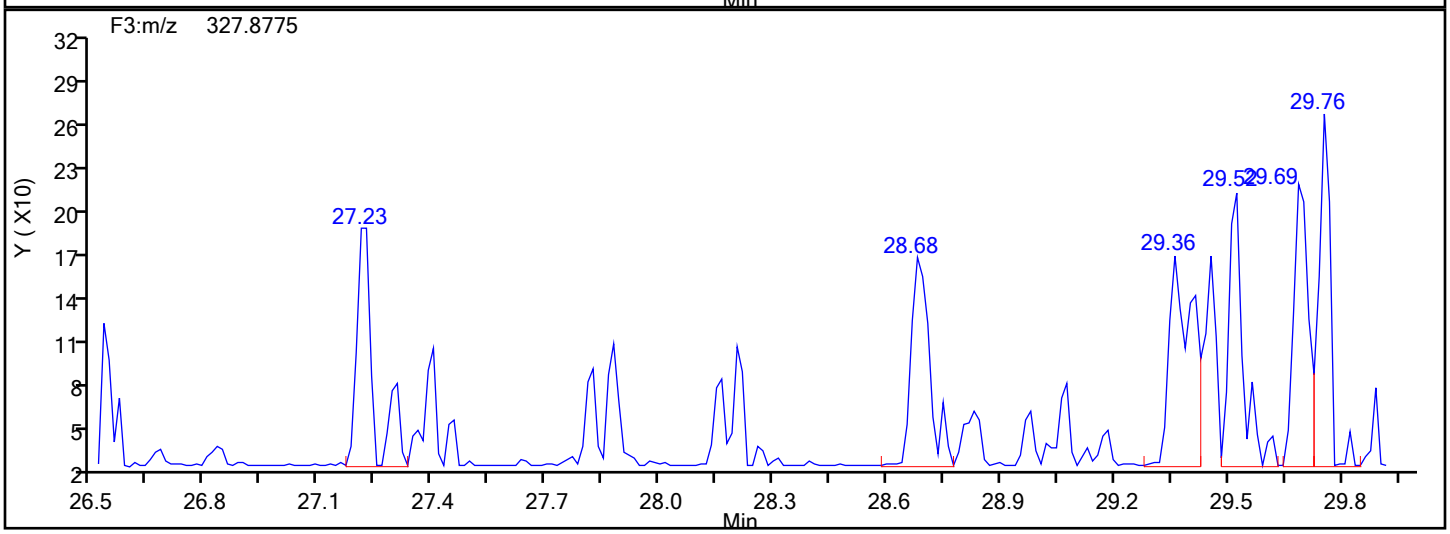
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

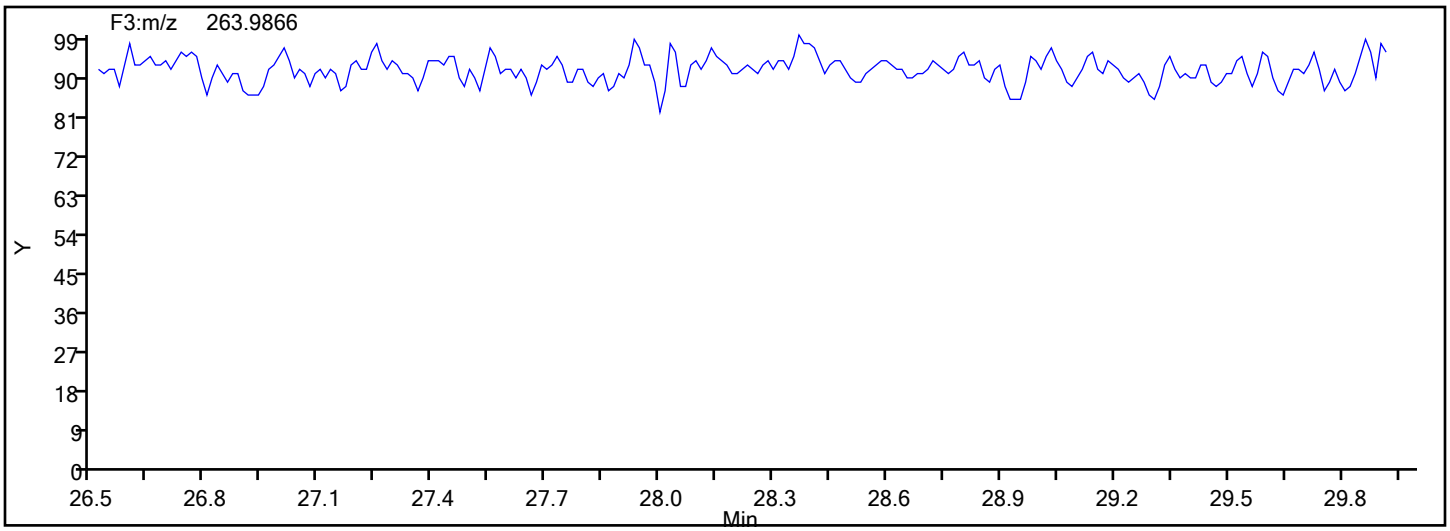
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



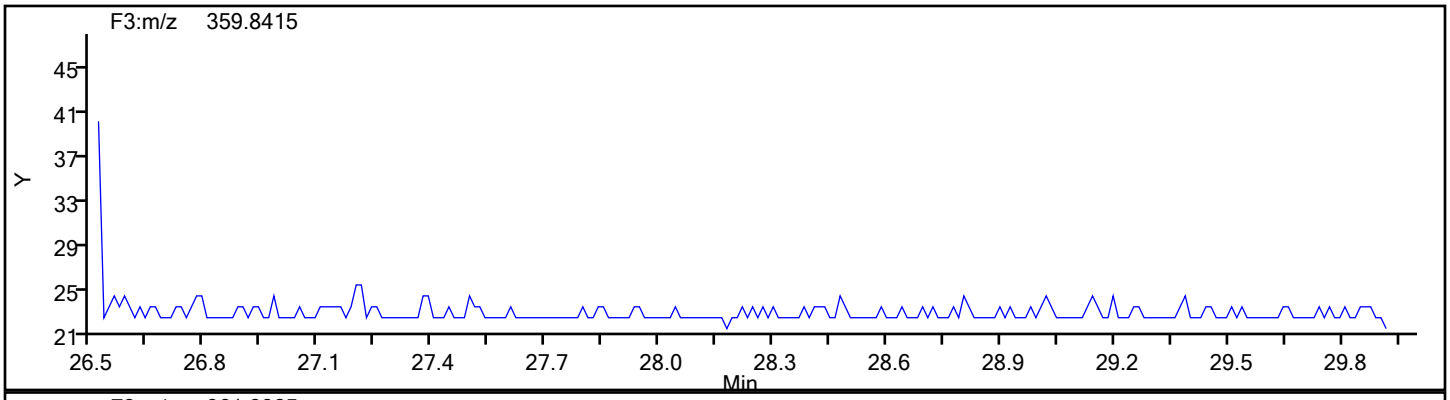
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

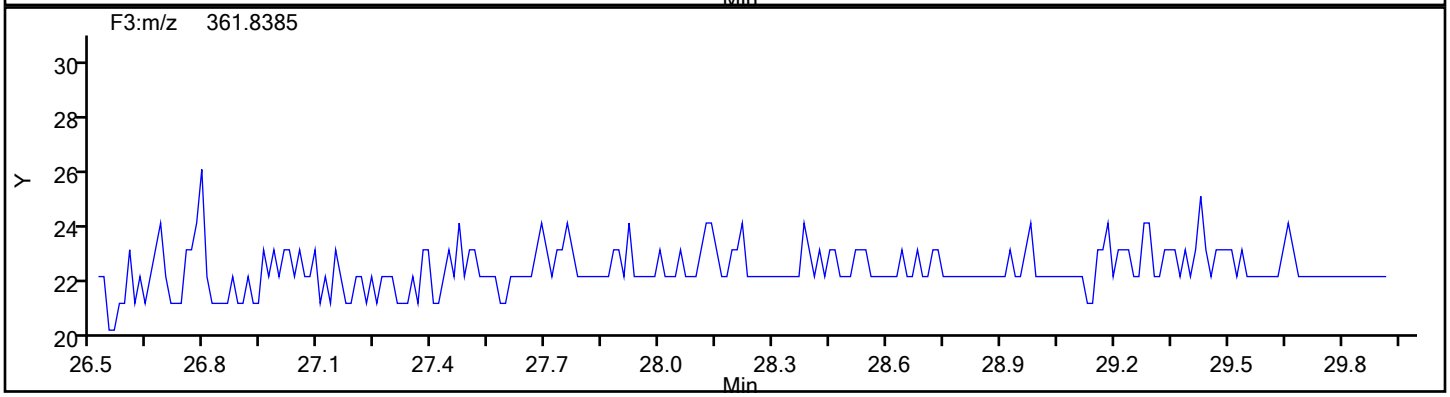
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

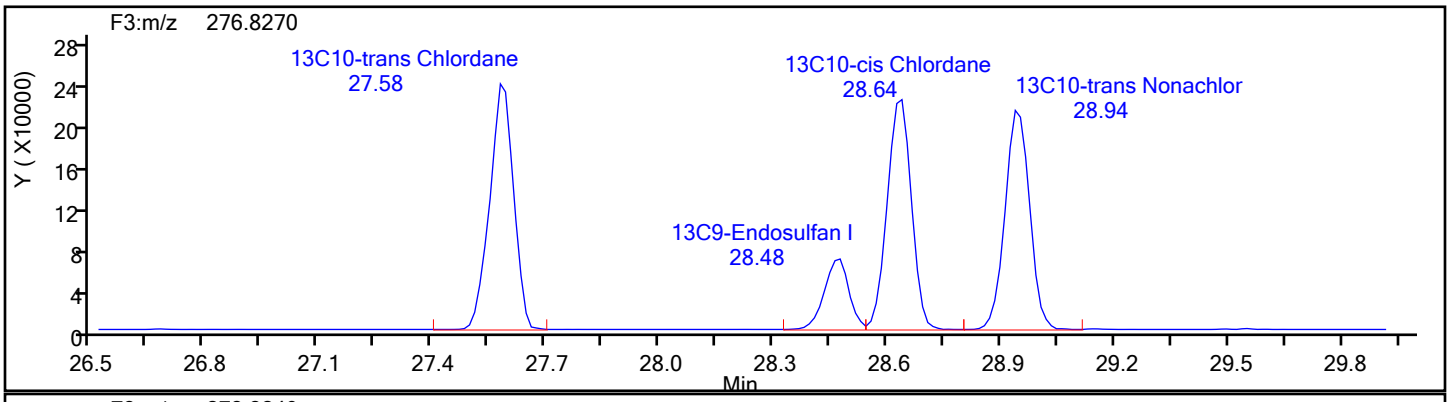
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

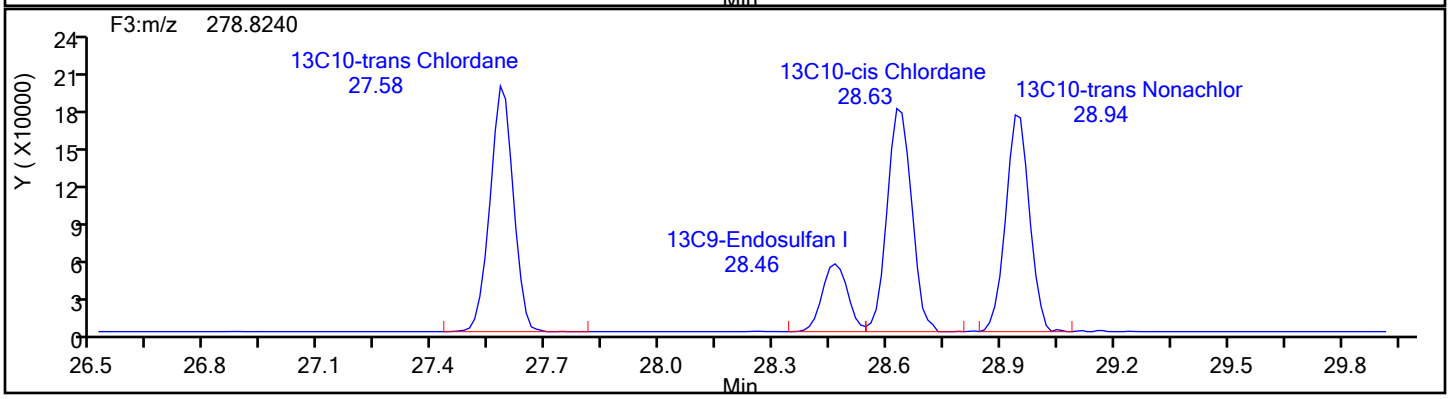
PCB-142





PCB-142 Standards



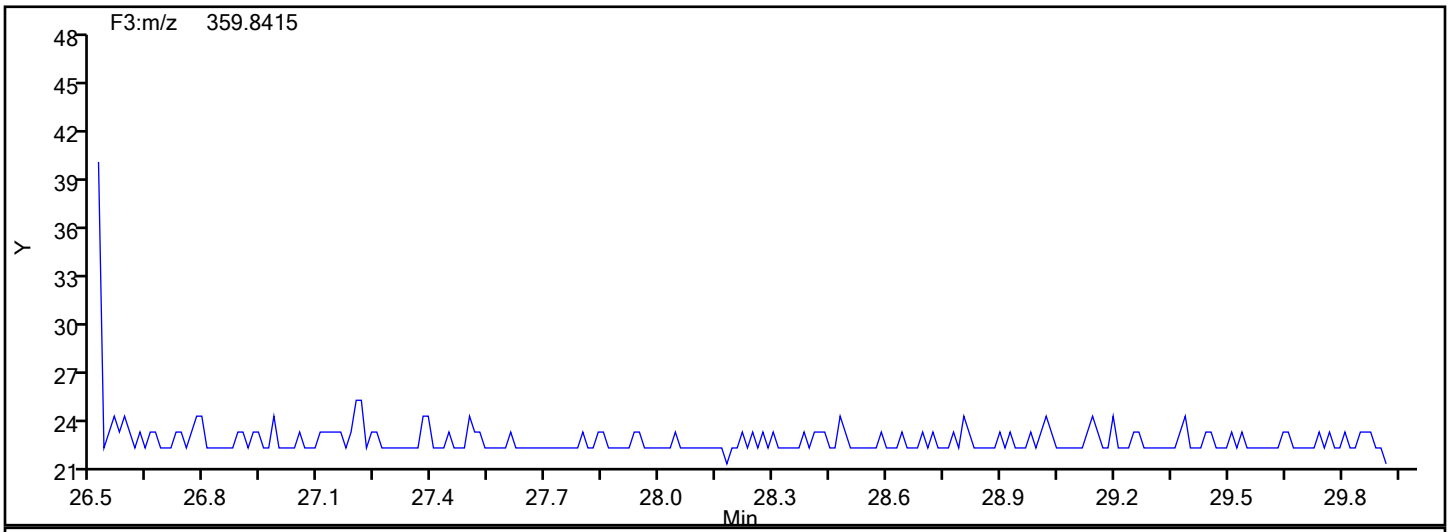


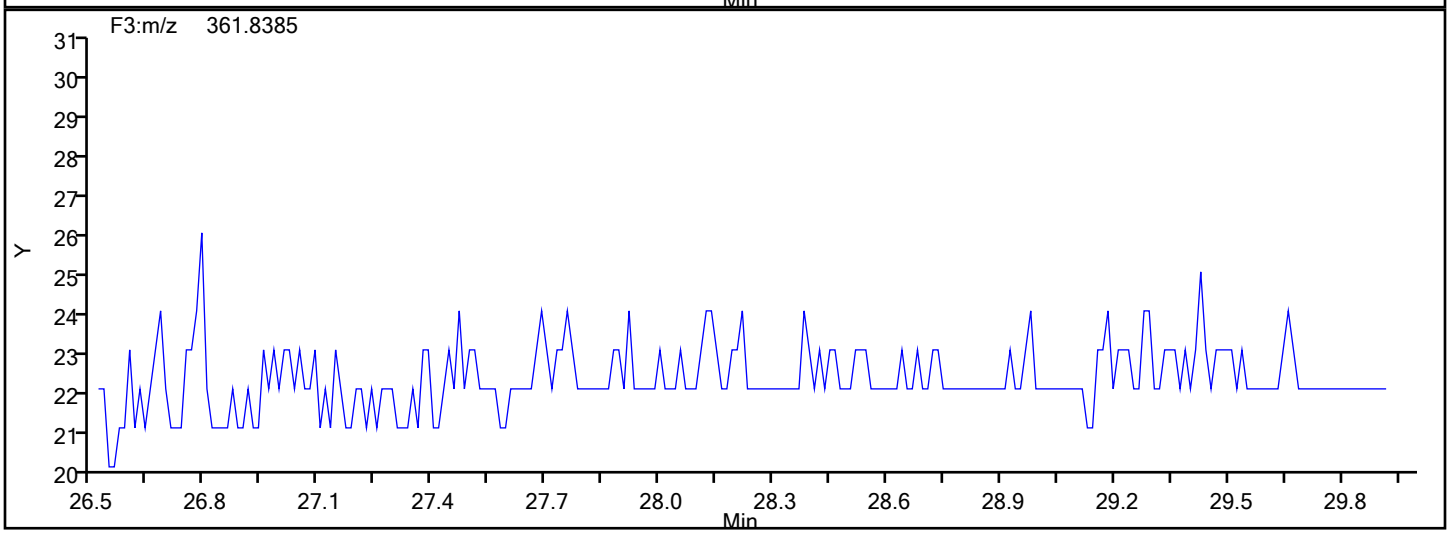
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

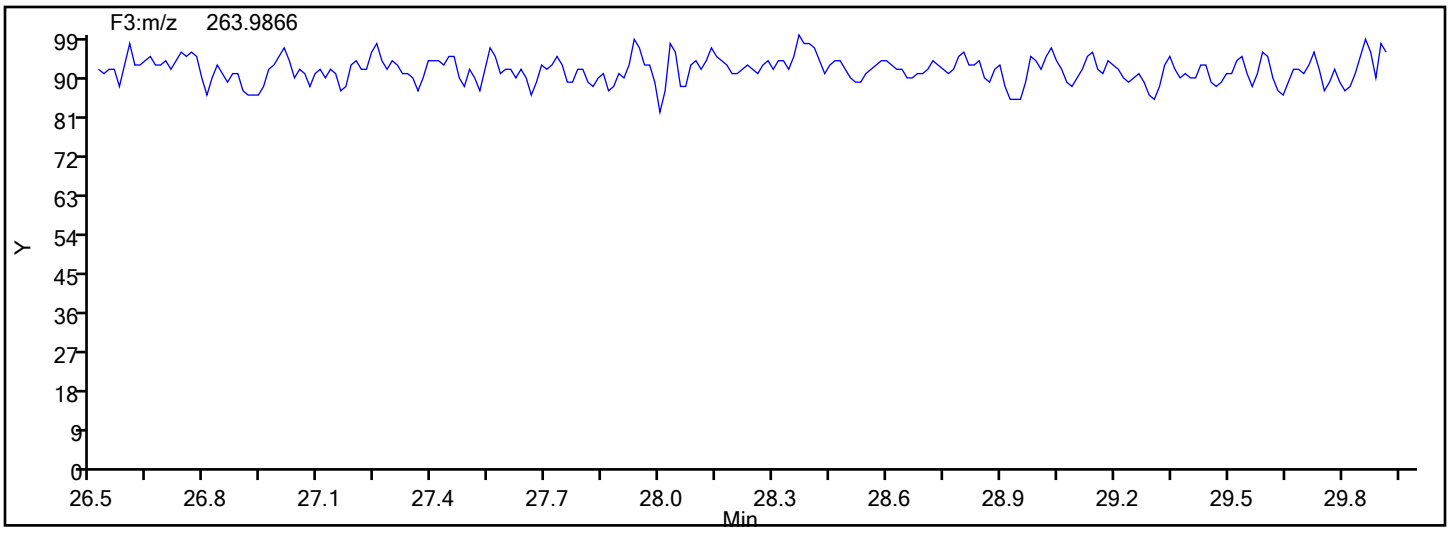
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



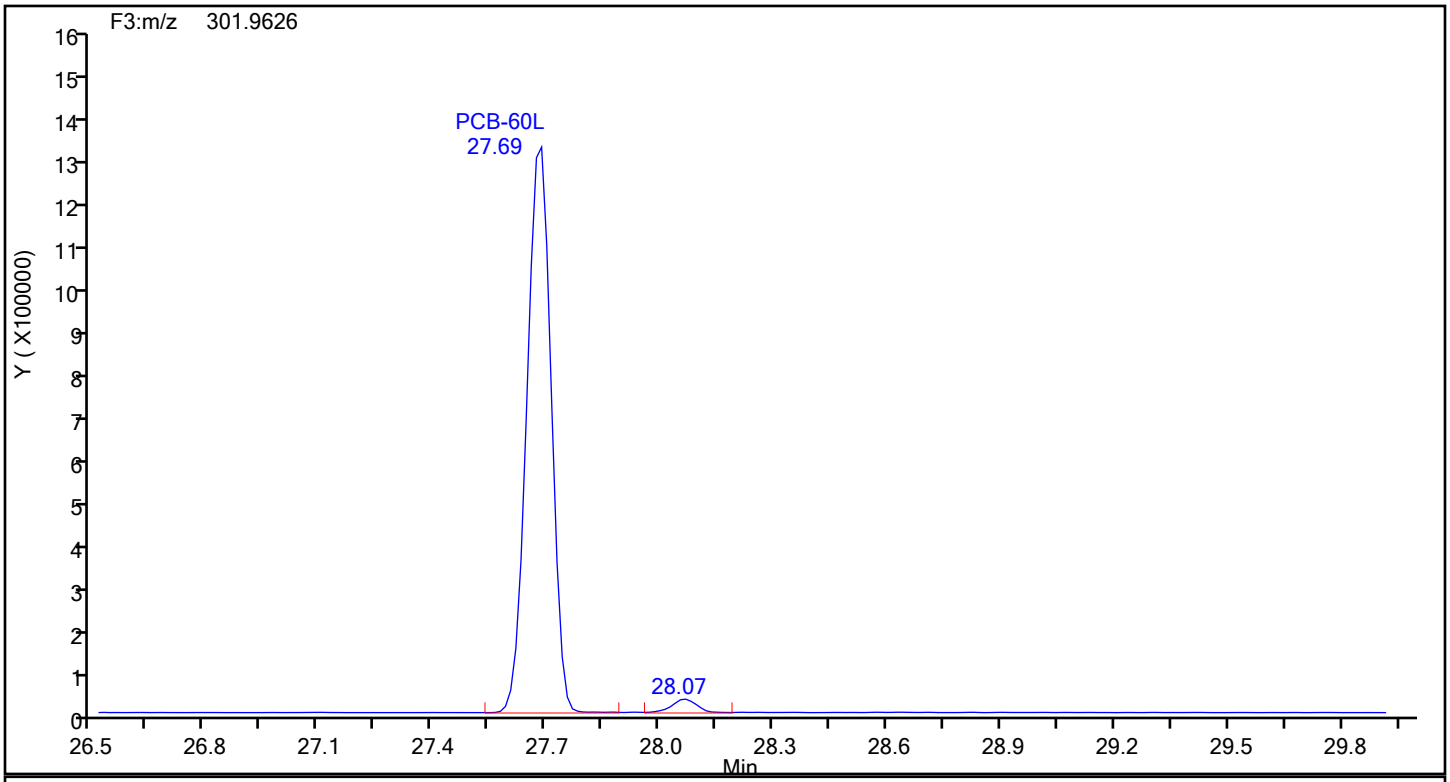
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

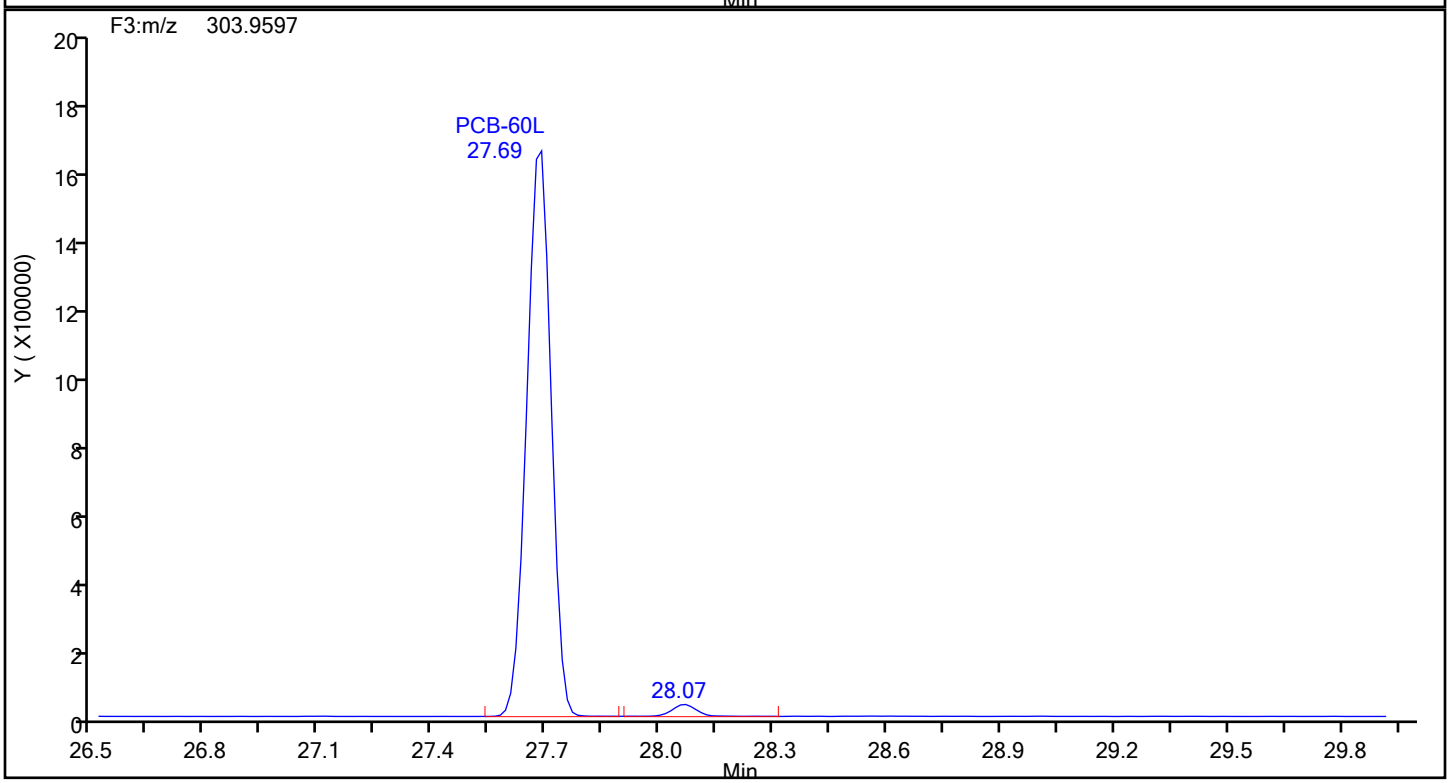
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





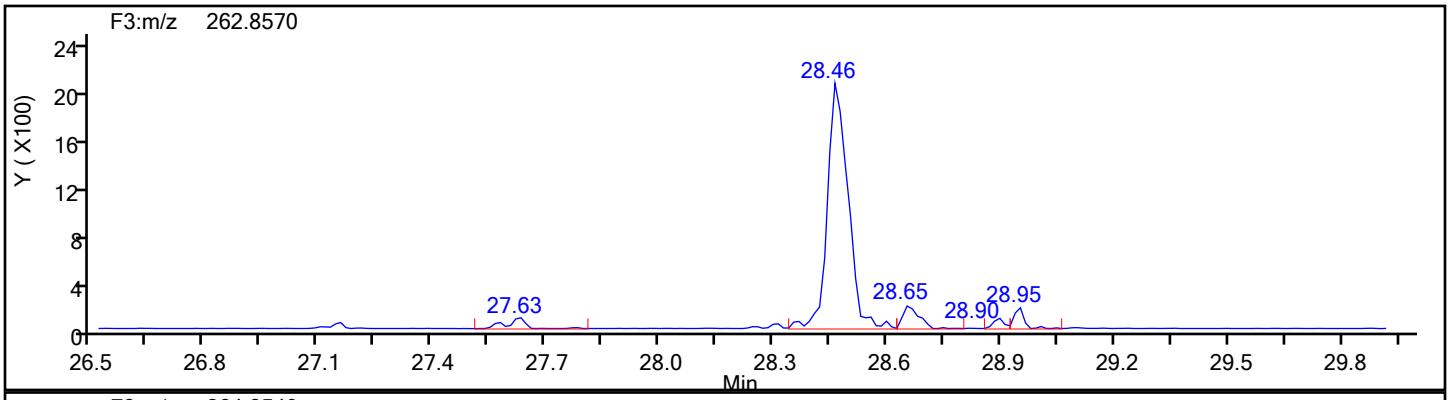
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

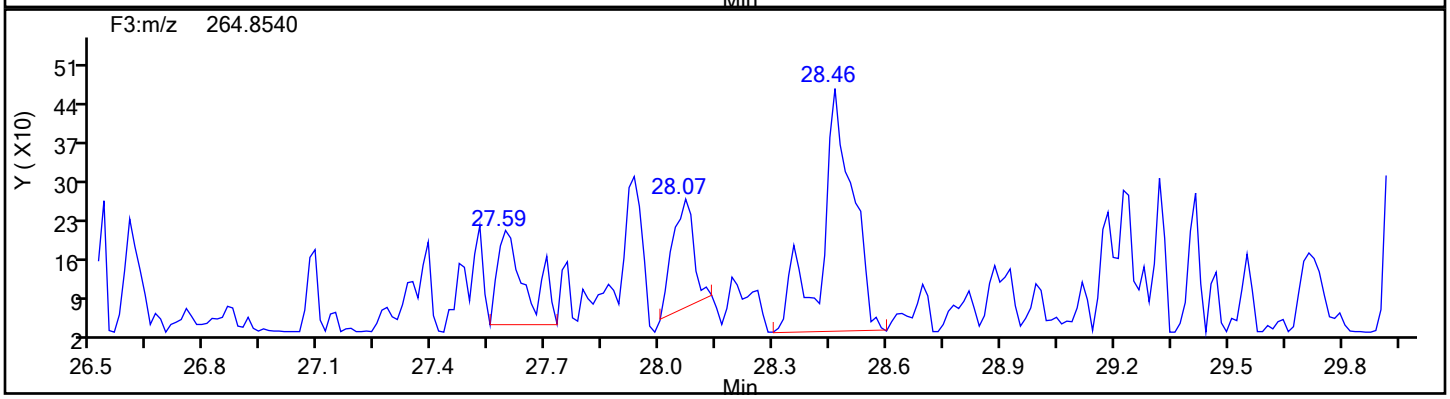
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

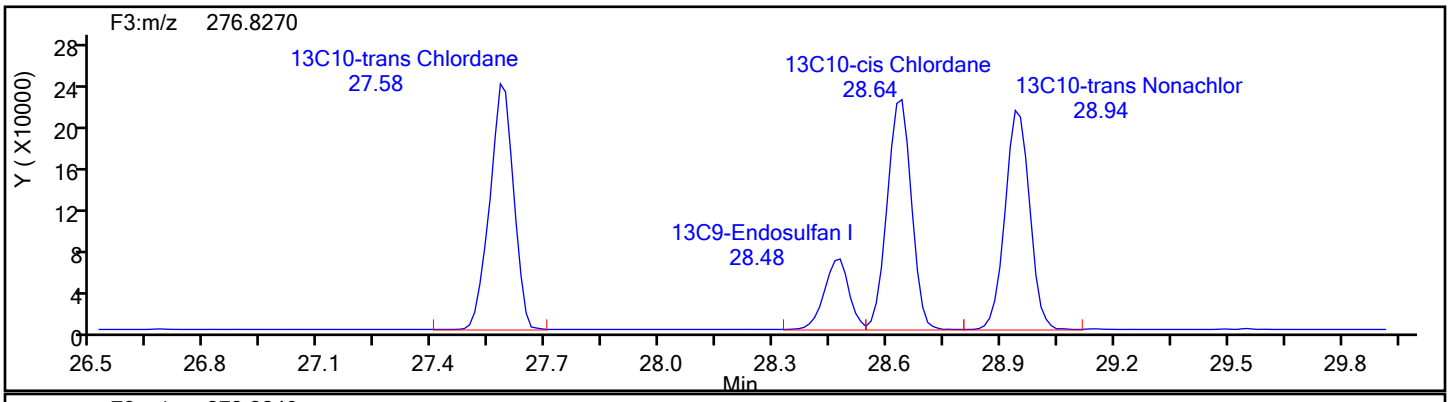
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

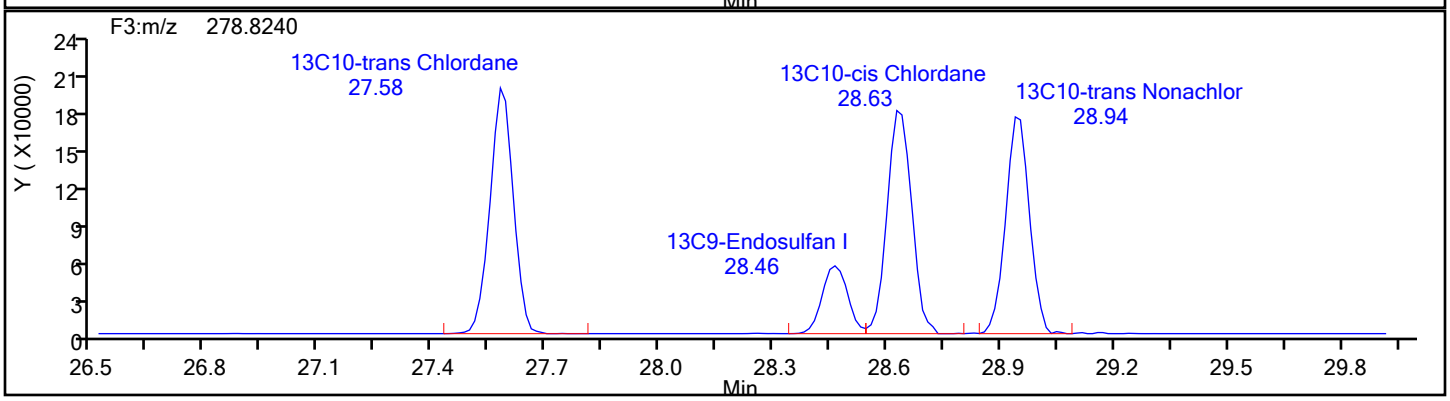
Endosulfan I





Endosulfan I Standards



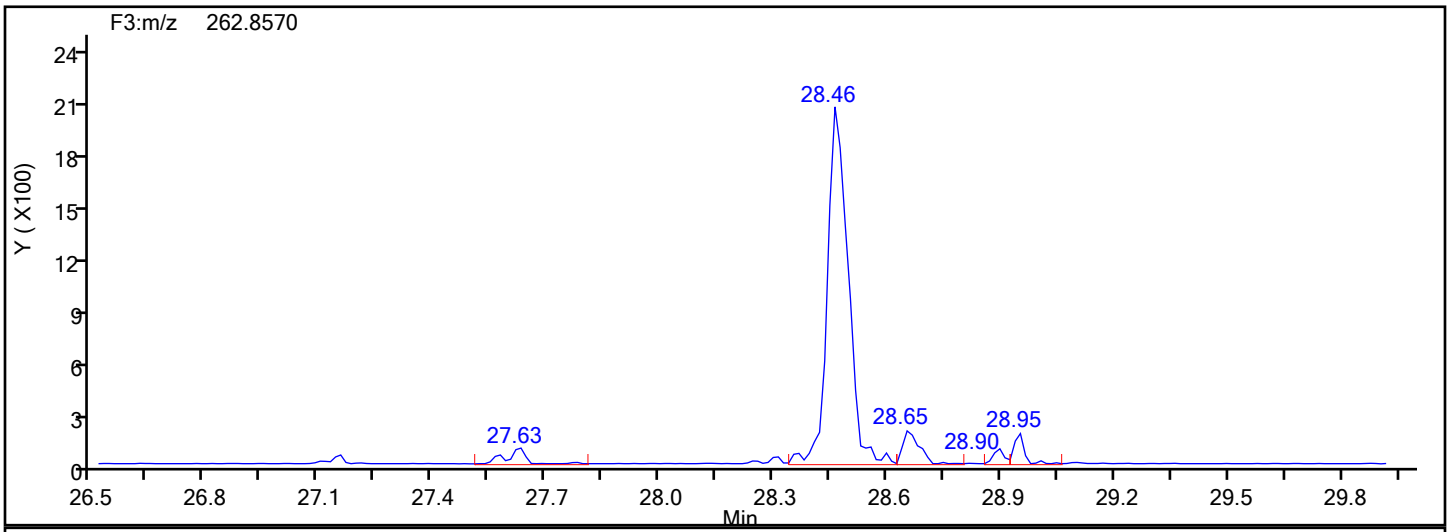


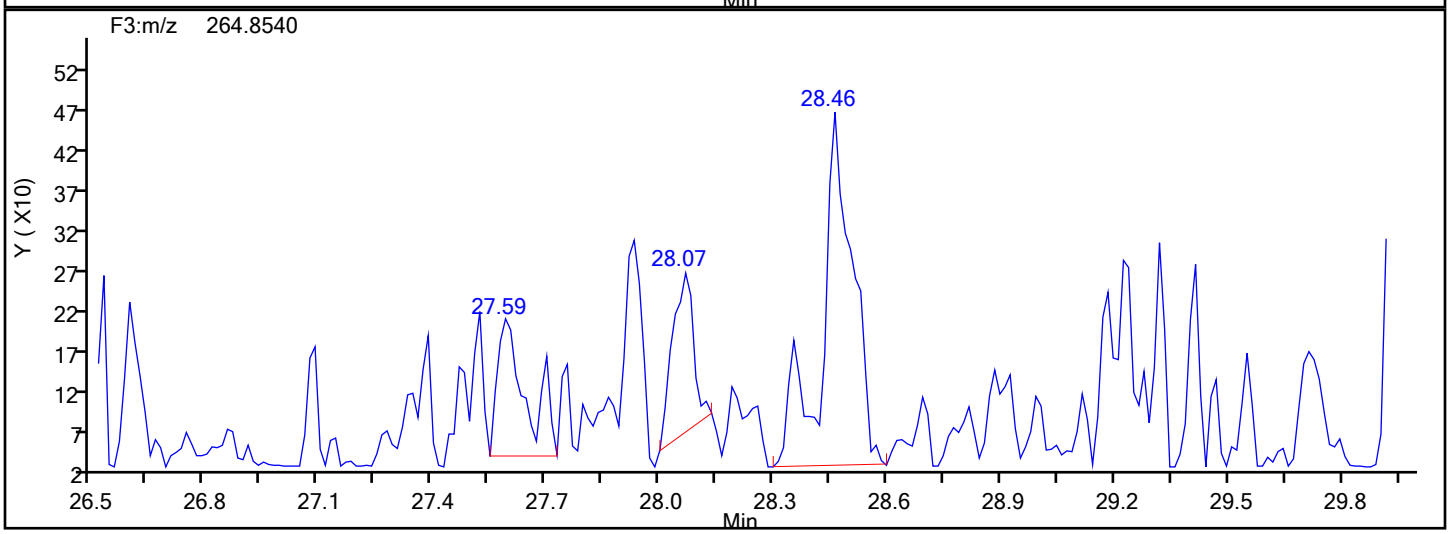
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

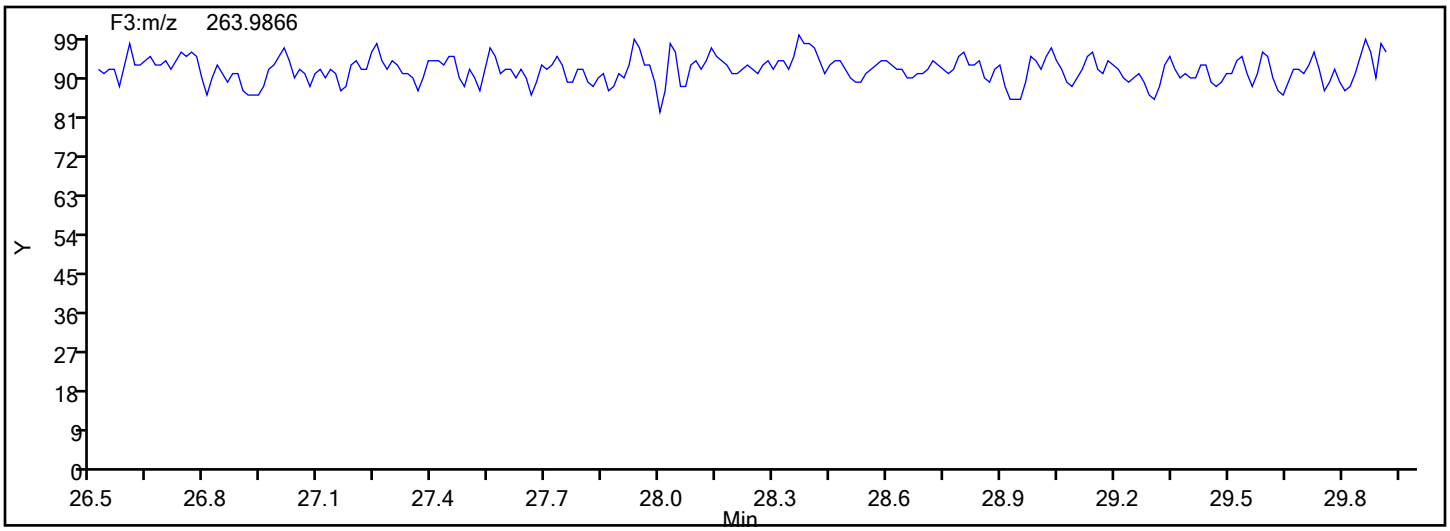
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



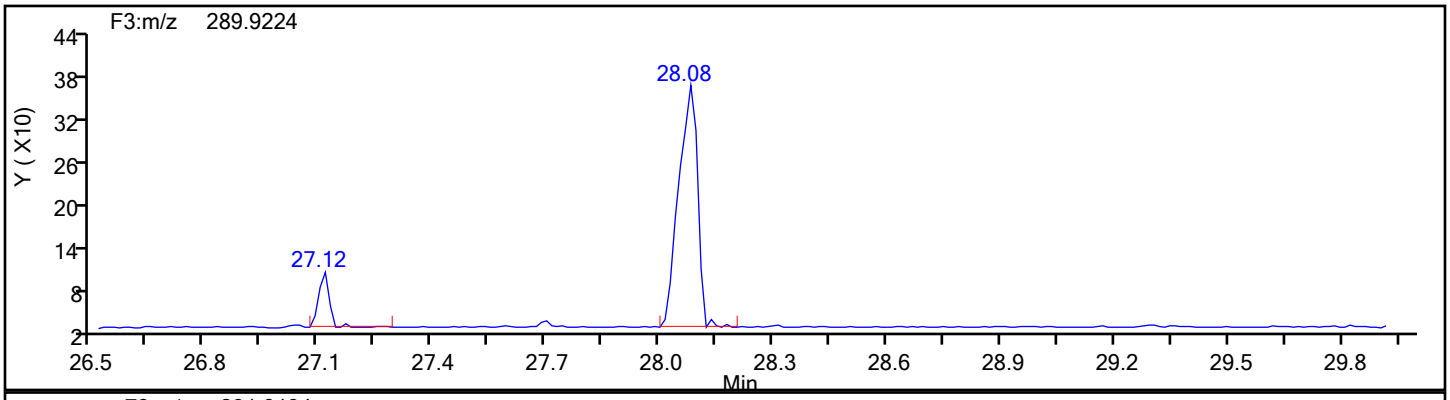
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

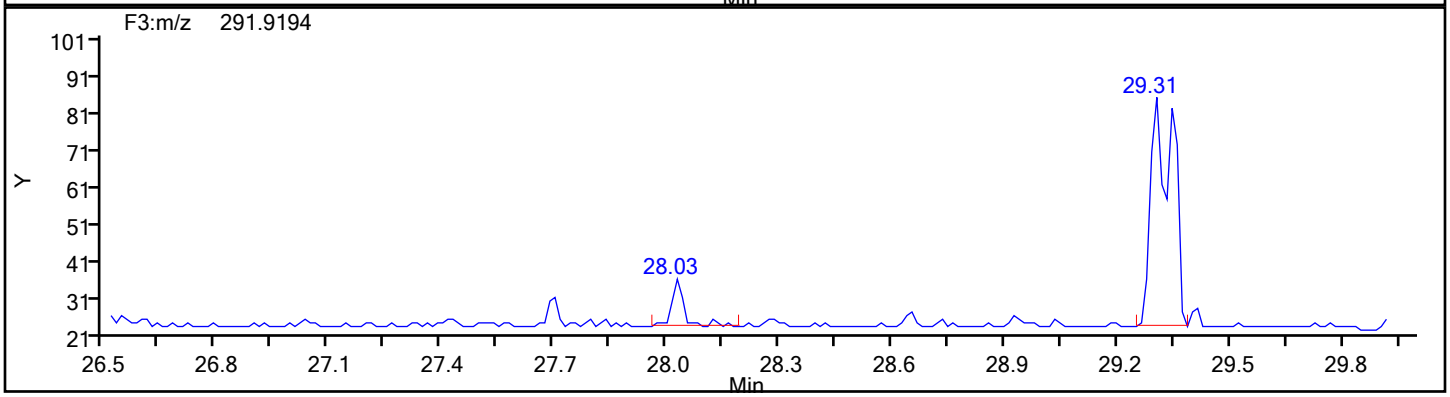
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

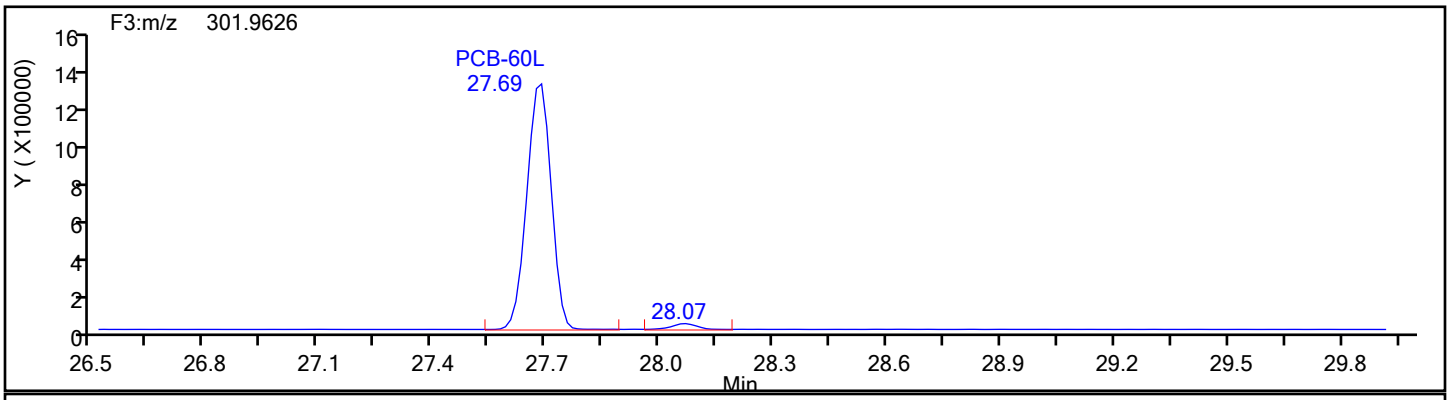
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

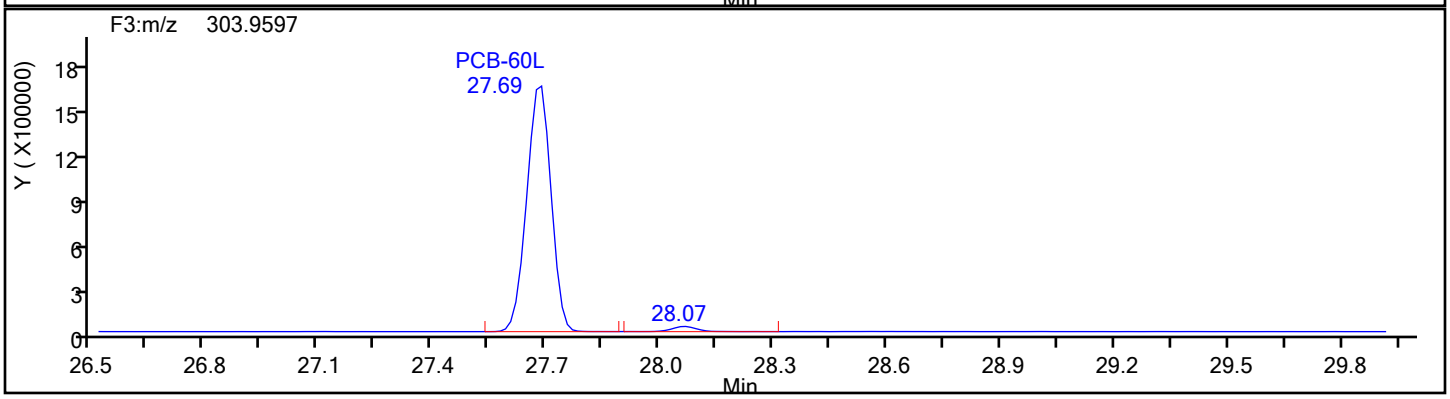
PCB-78





PCB-78 Standards





Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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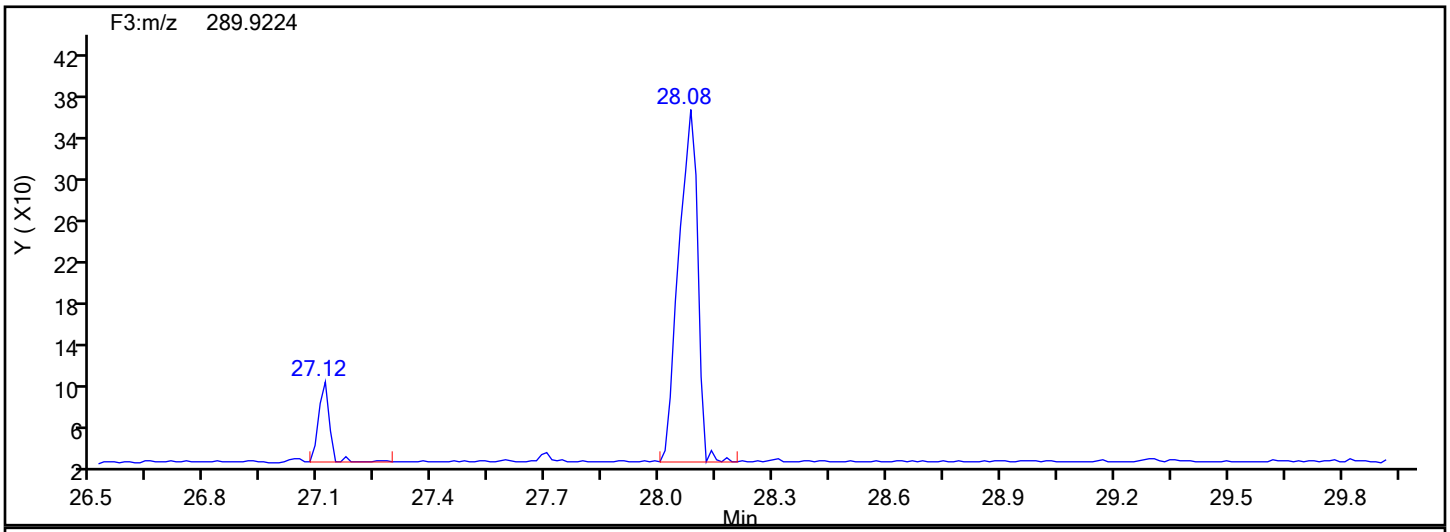
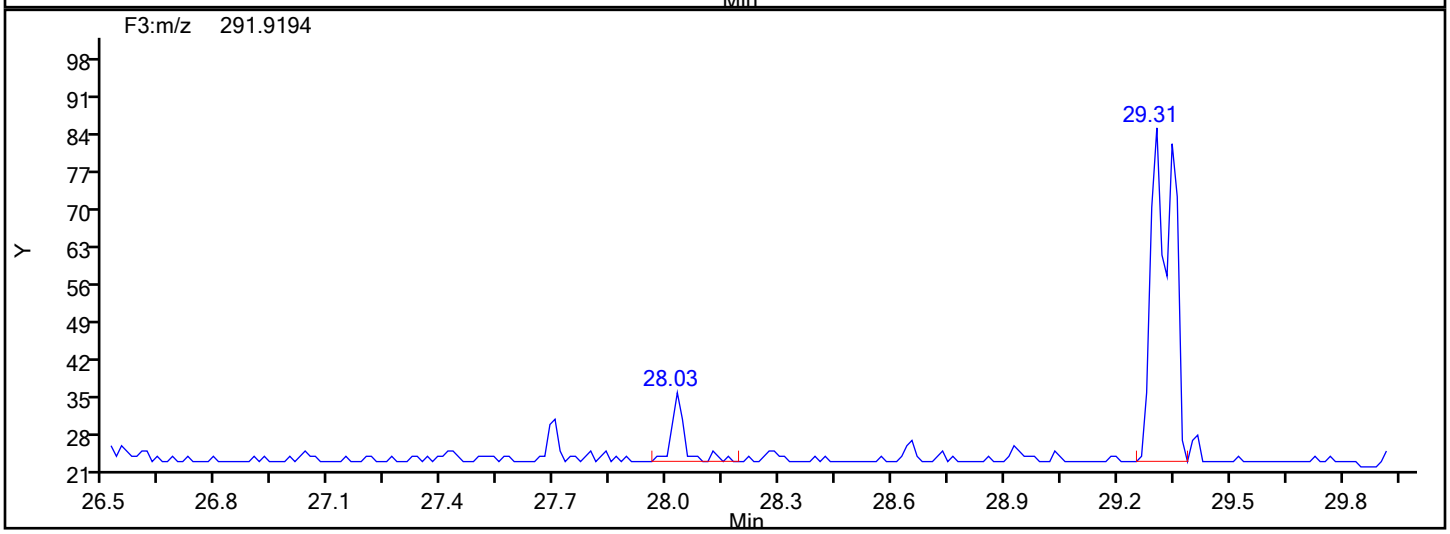
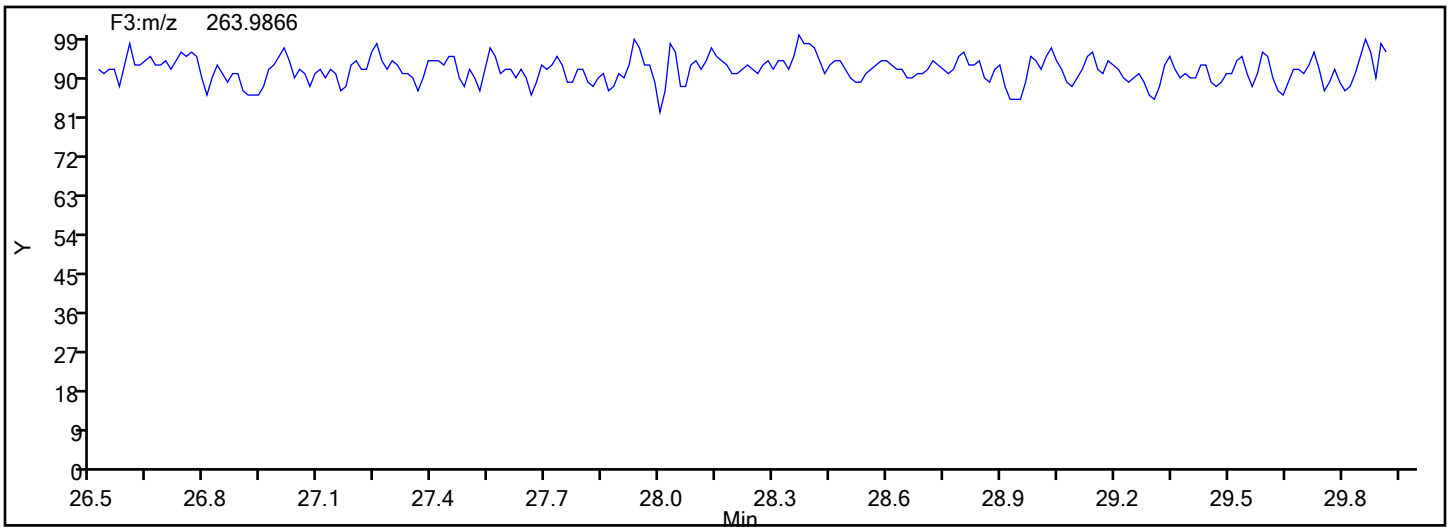
PCB-78





PCB-78 Lock Mass



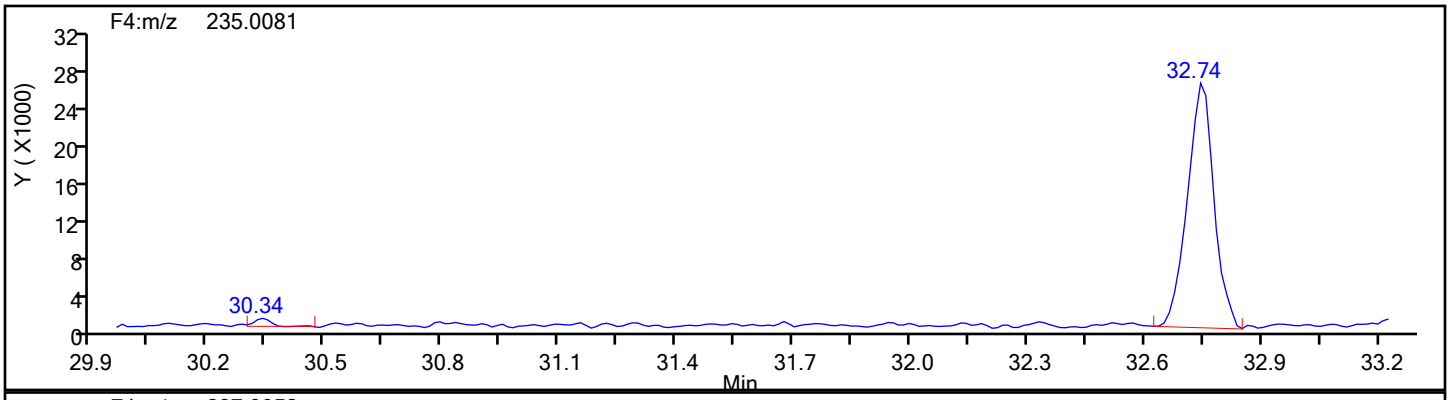
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

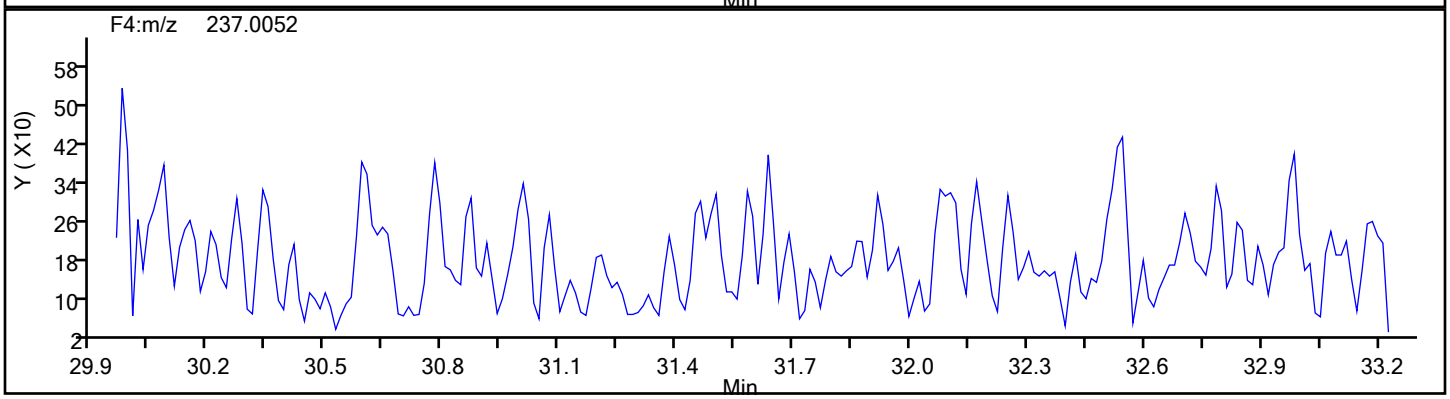
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

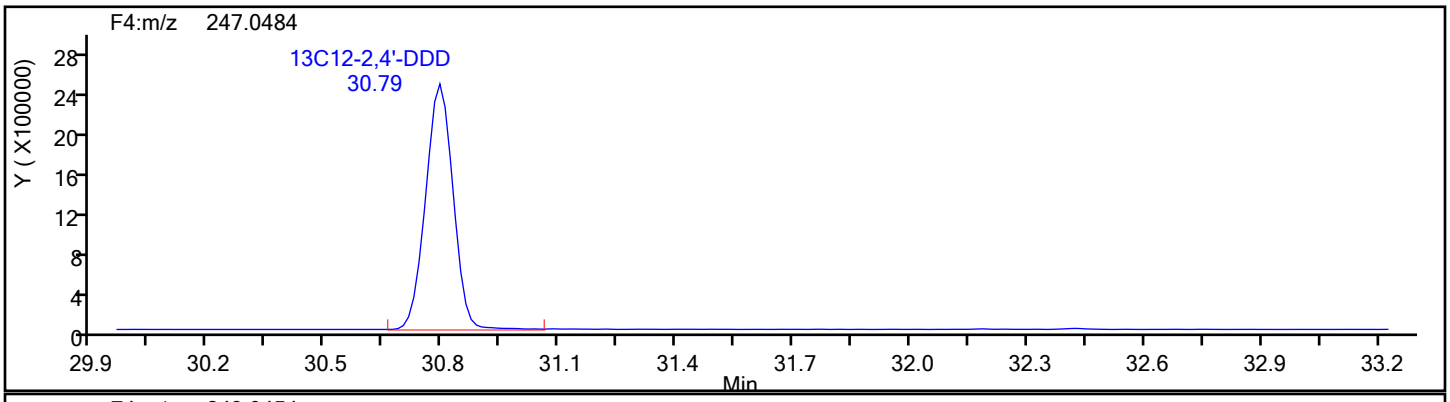
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

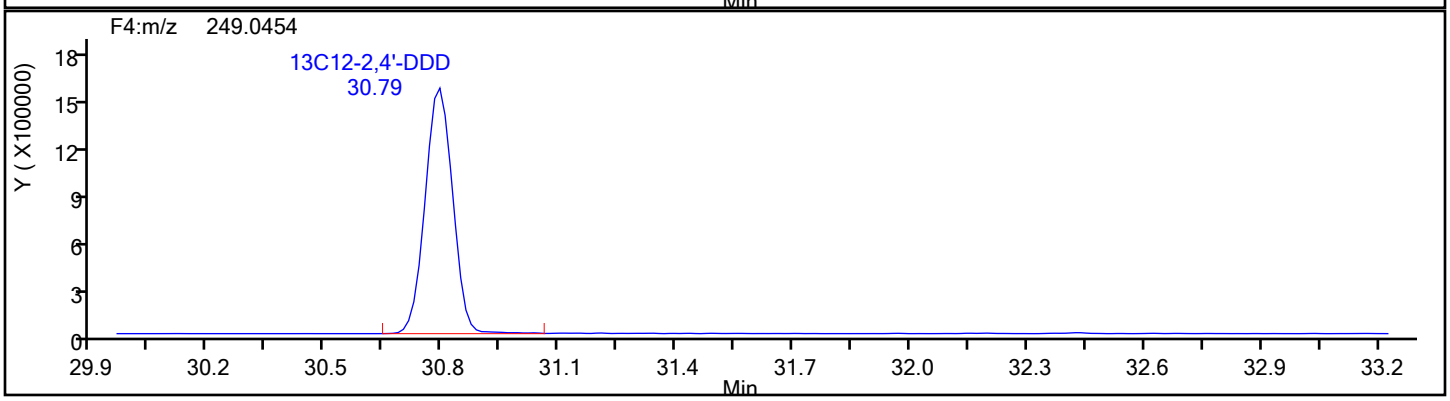
2,4'-DDD





2,4'-DDD Standards





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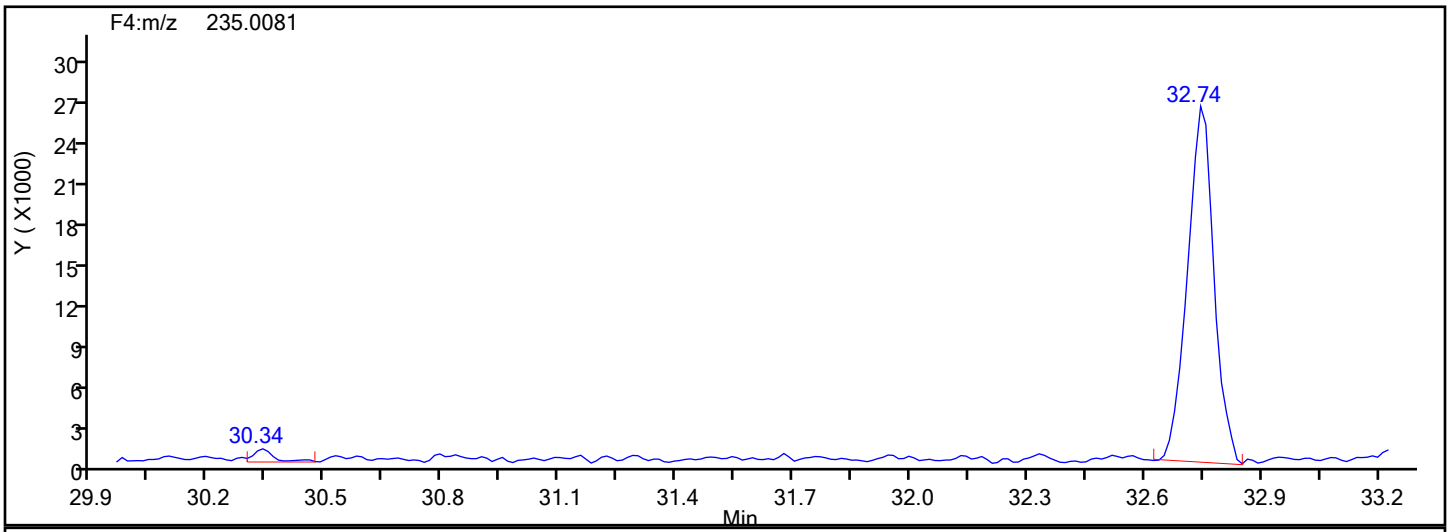
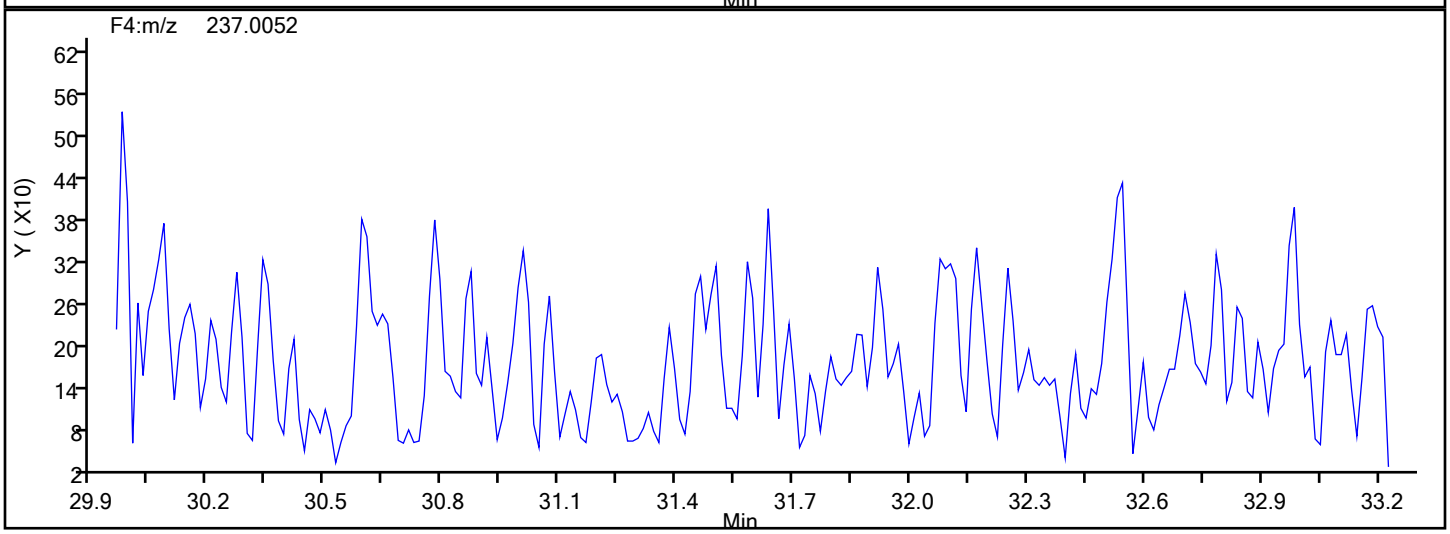
Eurofins Knoxville

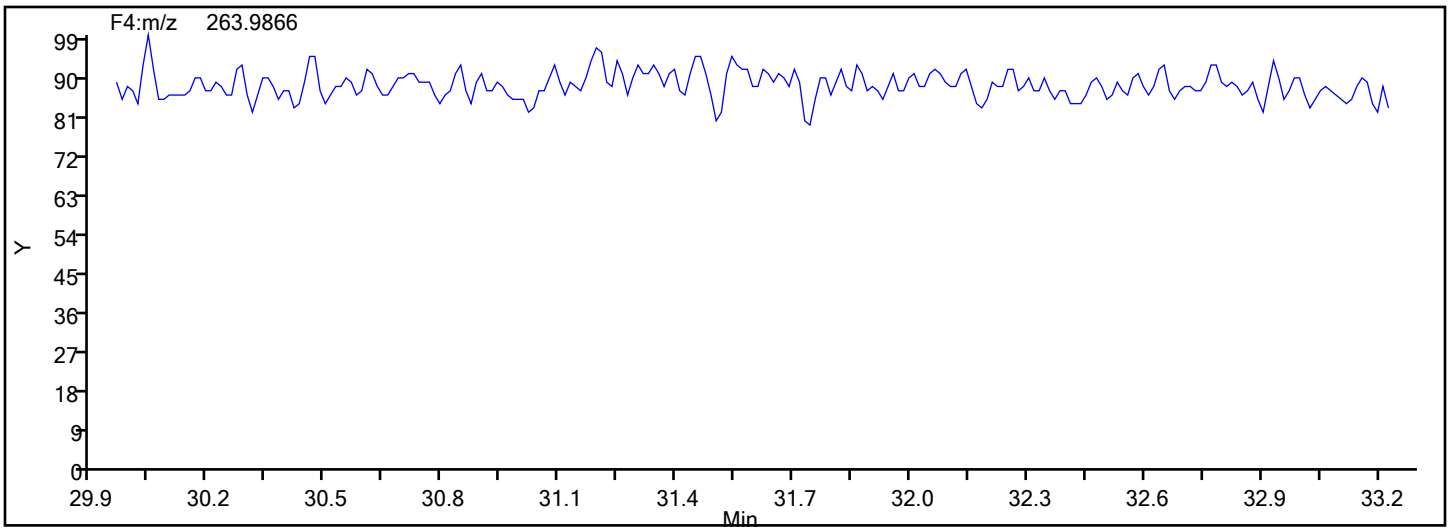
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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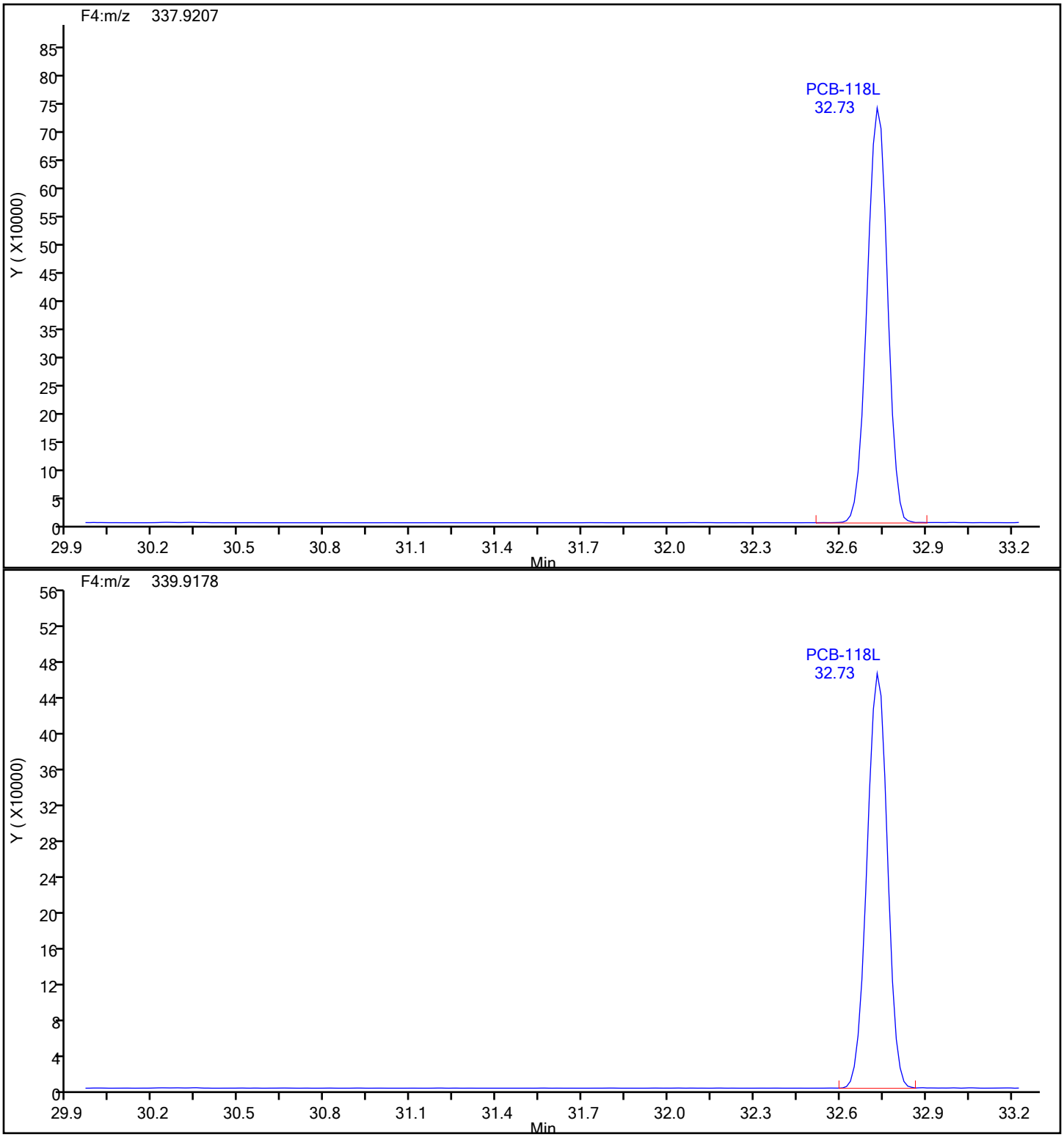
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards

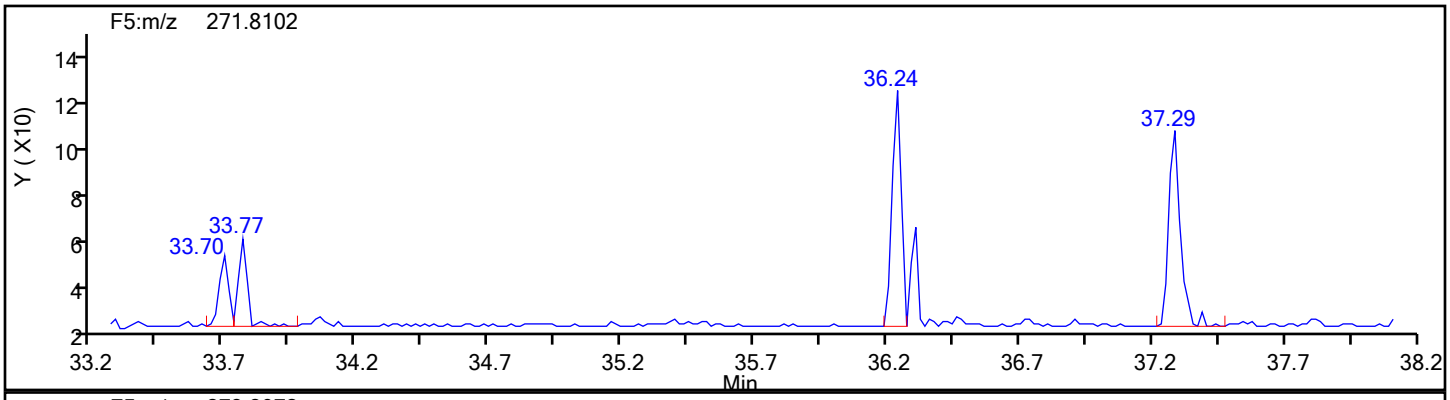


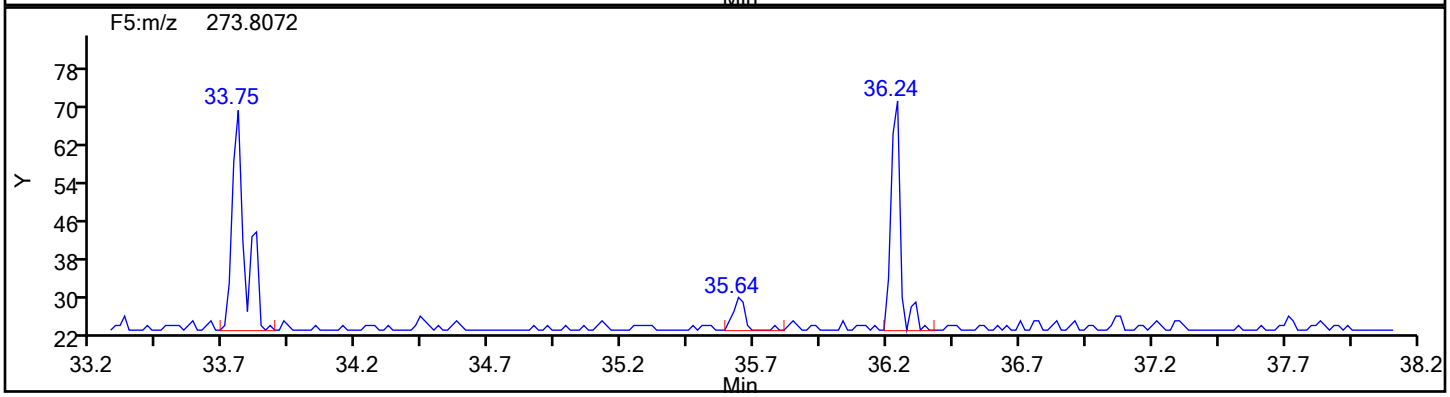
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

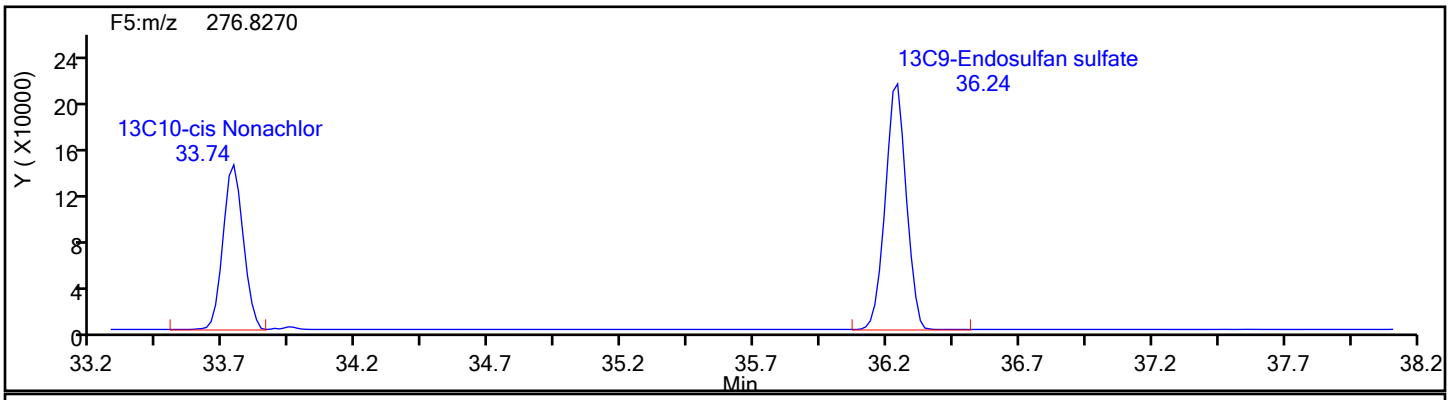
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

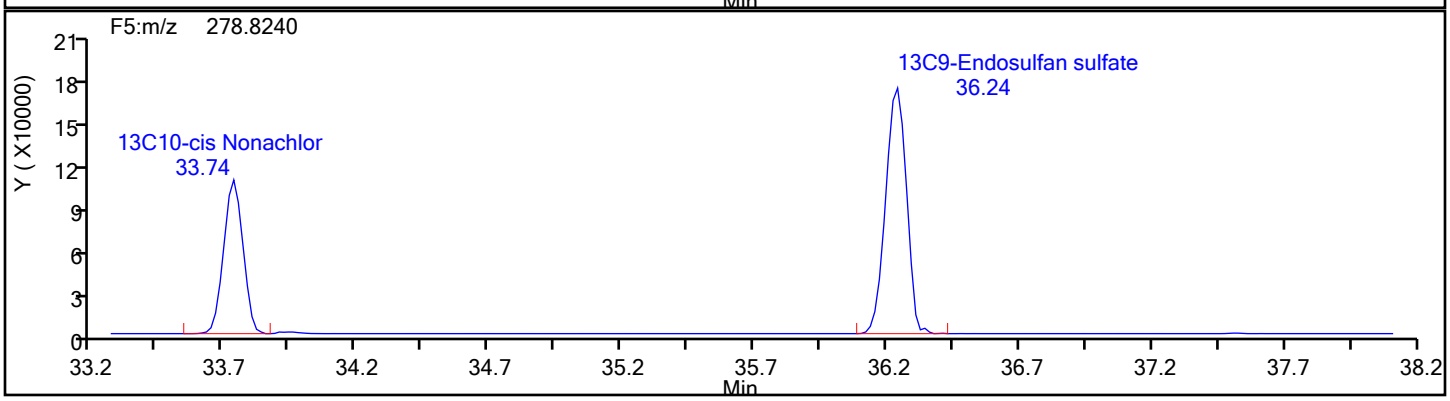
Nonachlor





Nonachlor Standards





Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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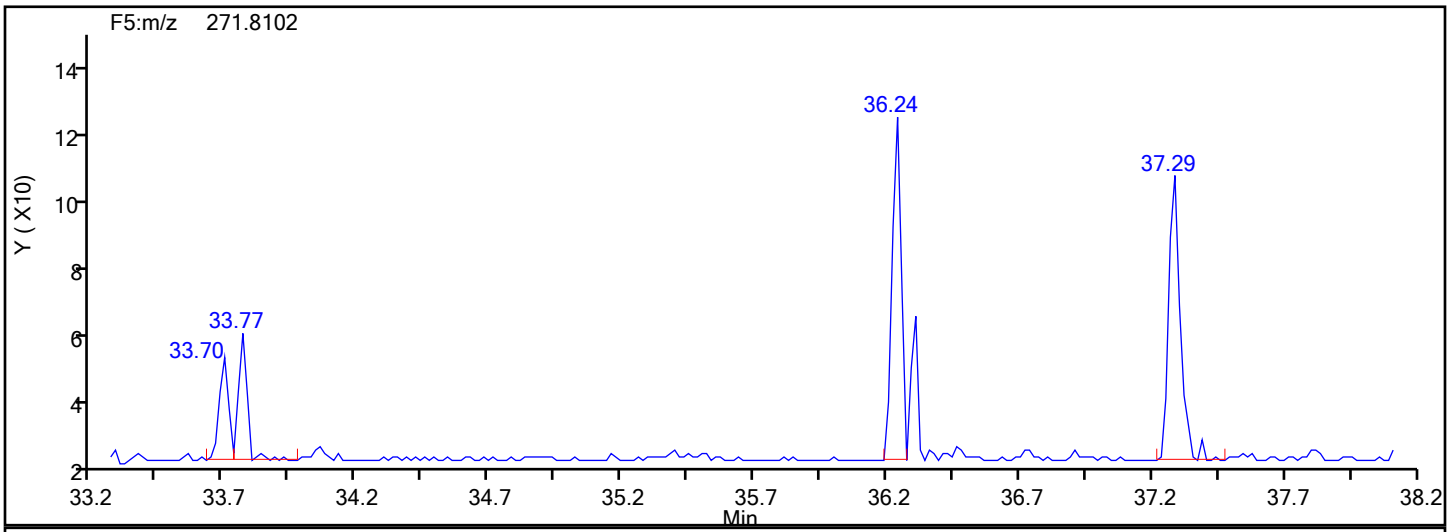
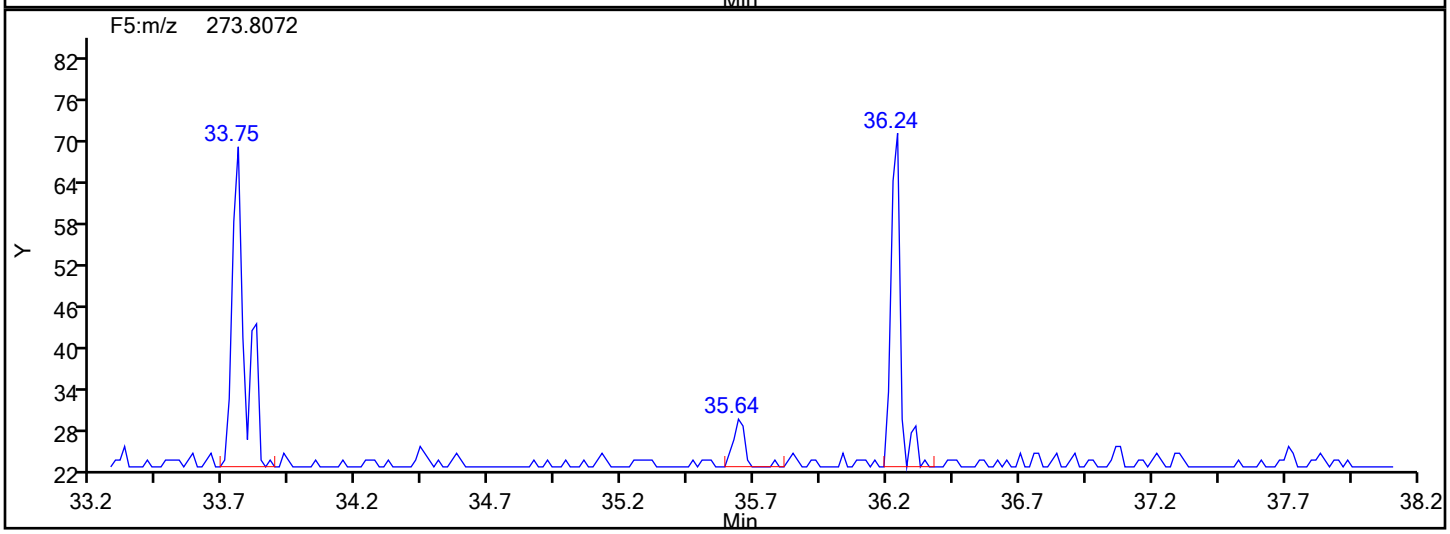
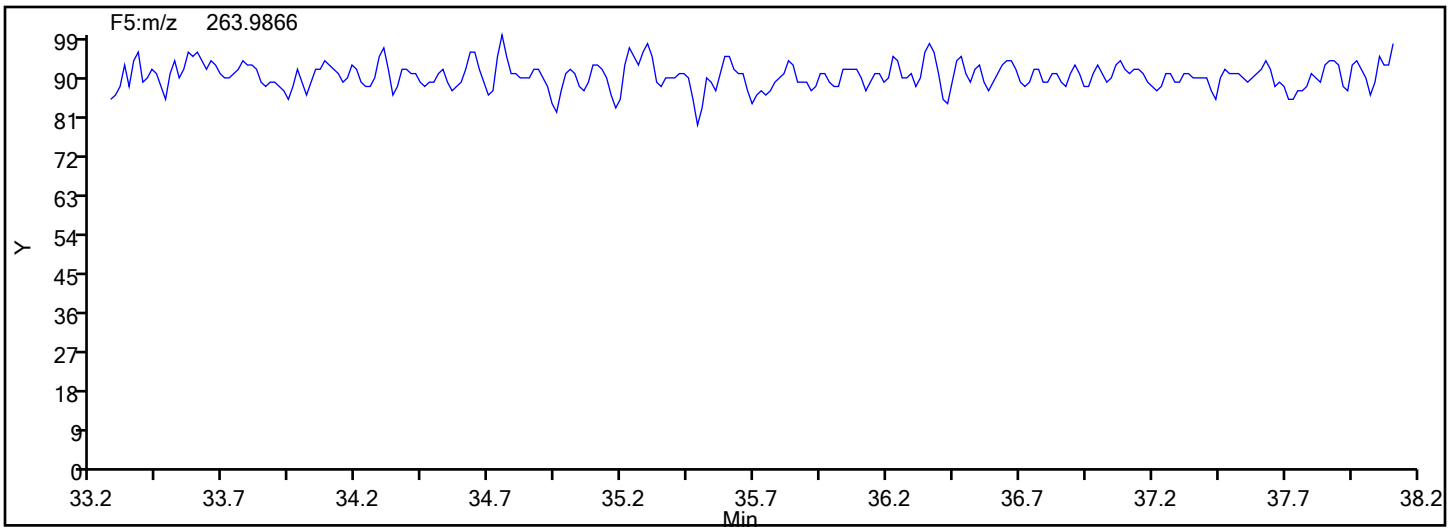
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



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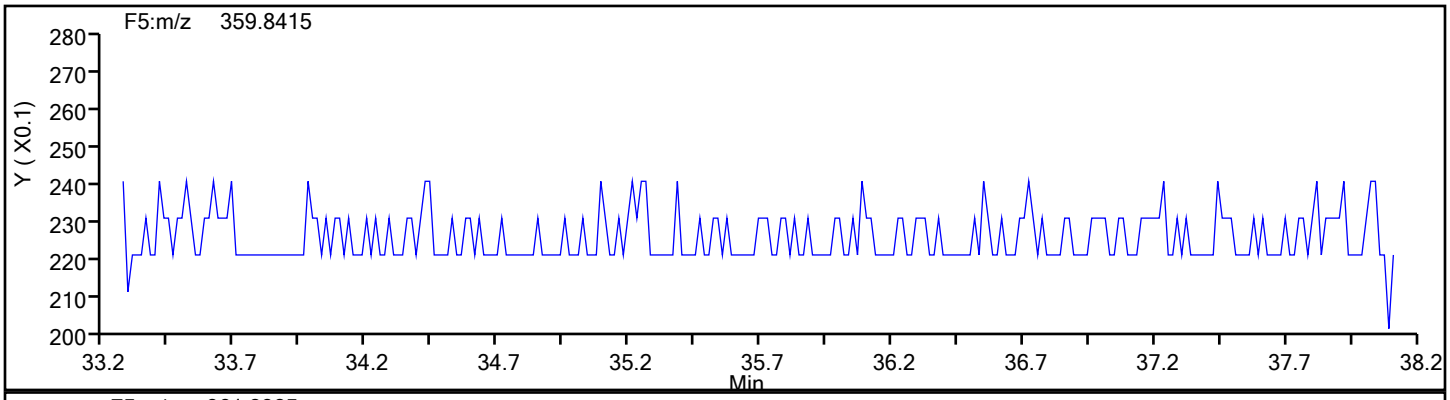
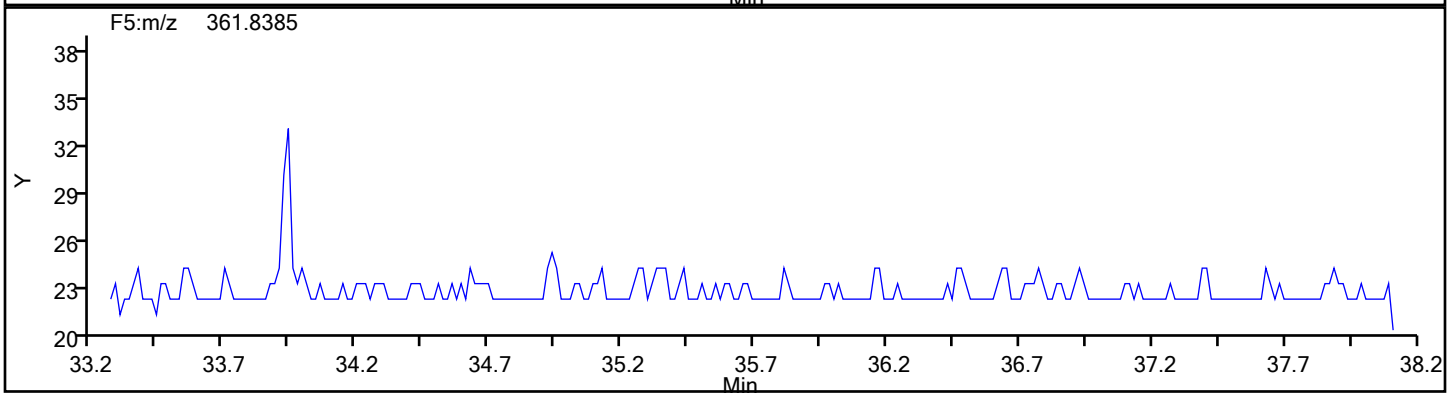
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

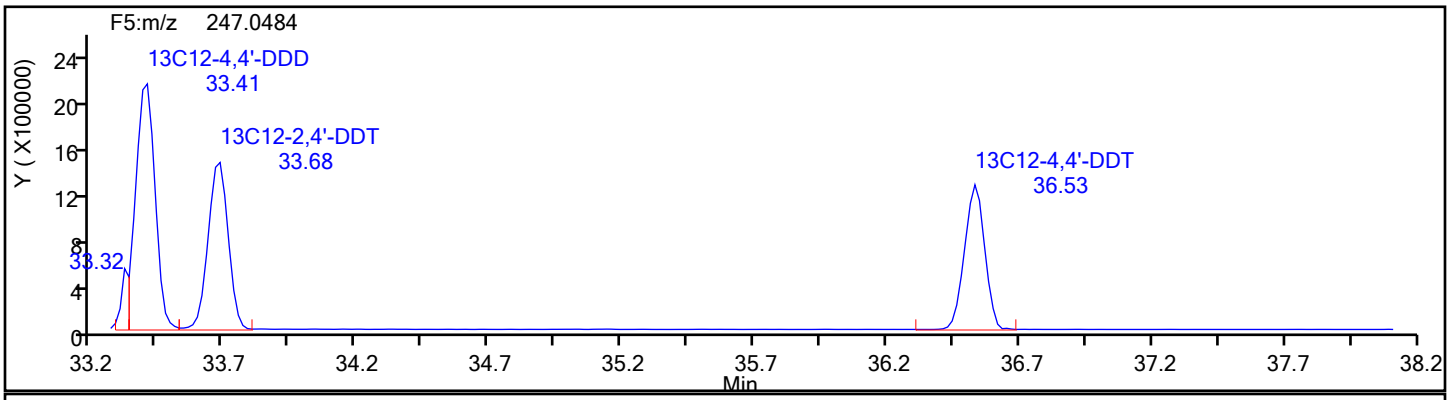
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

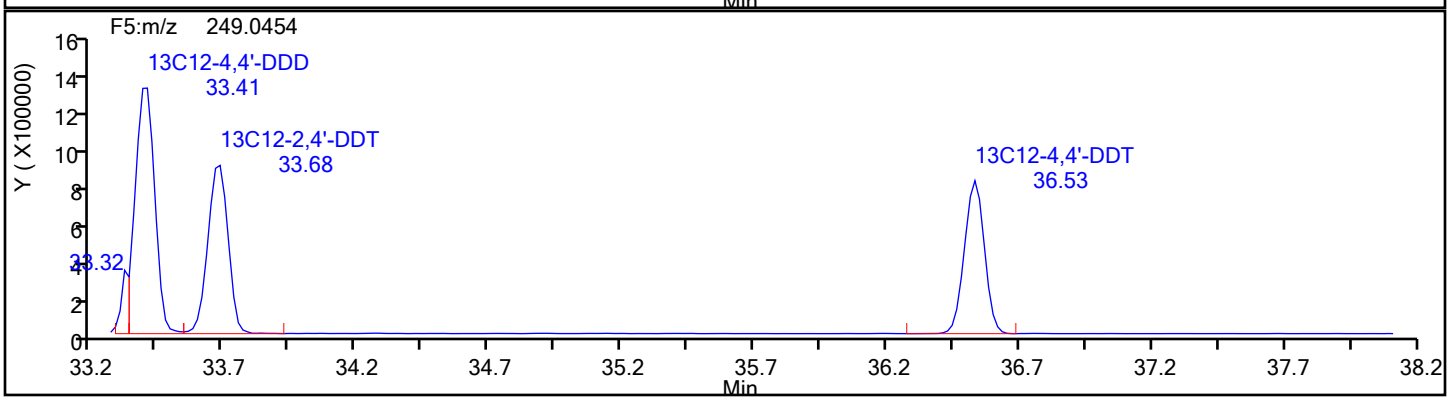
PCB-155





PCB-155 Standards



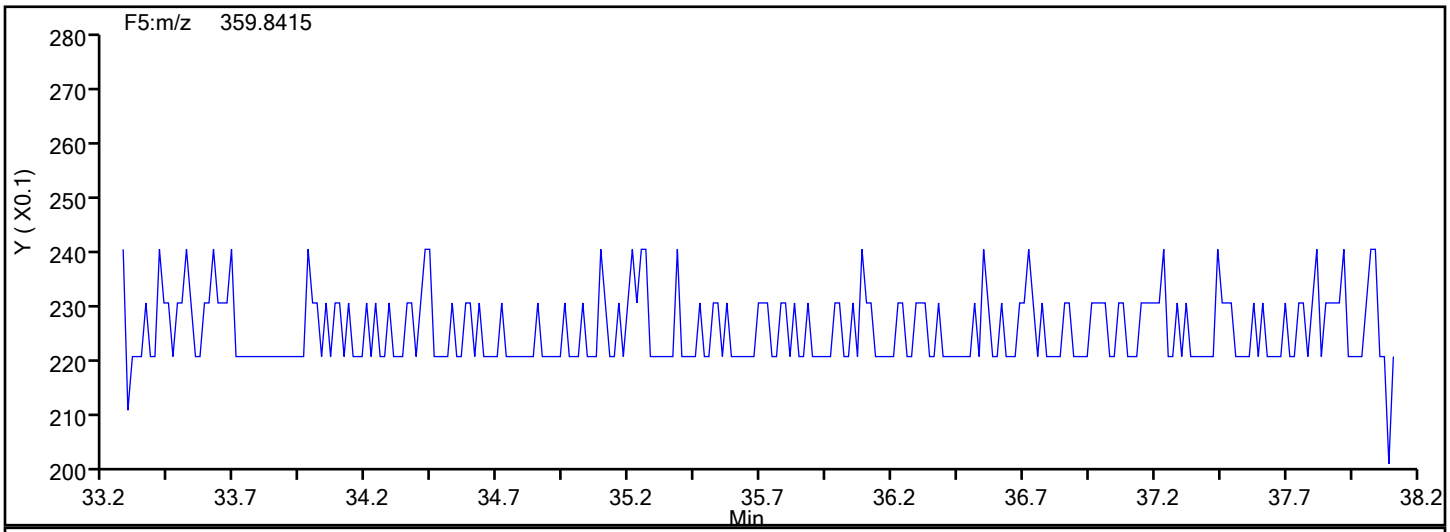


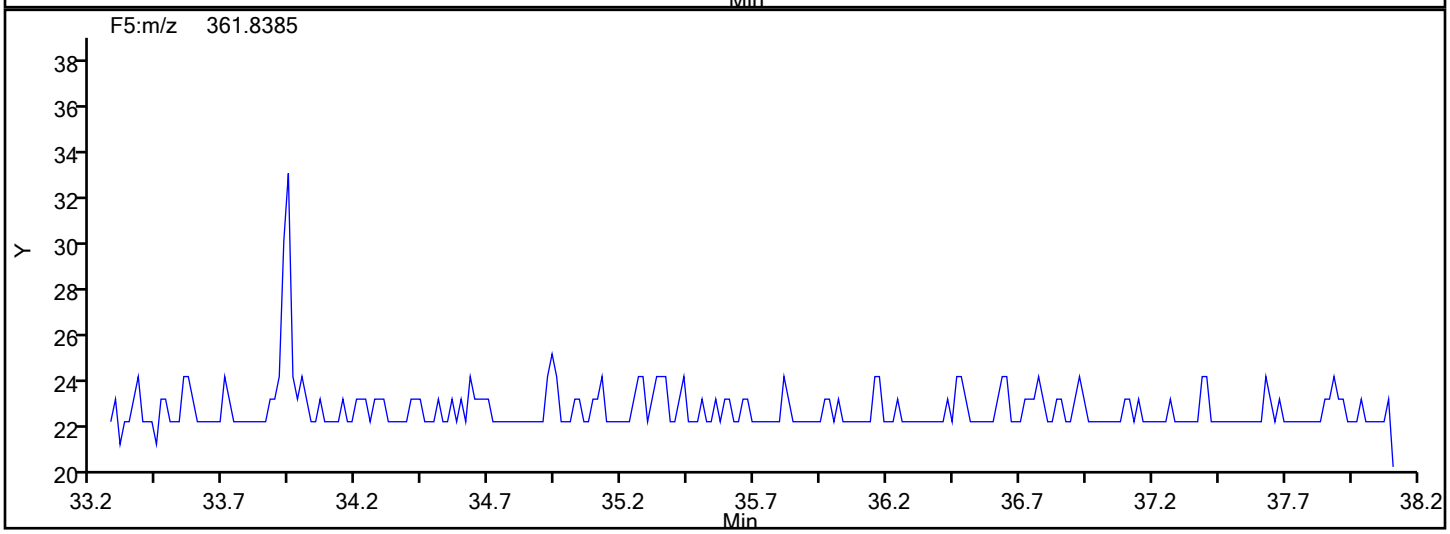
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

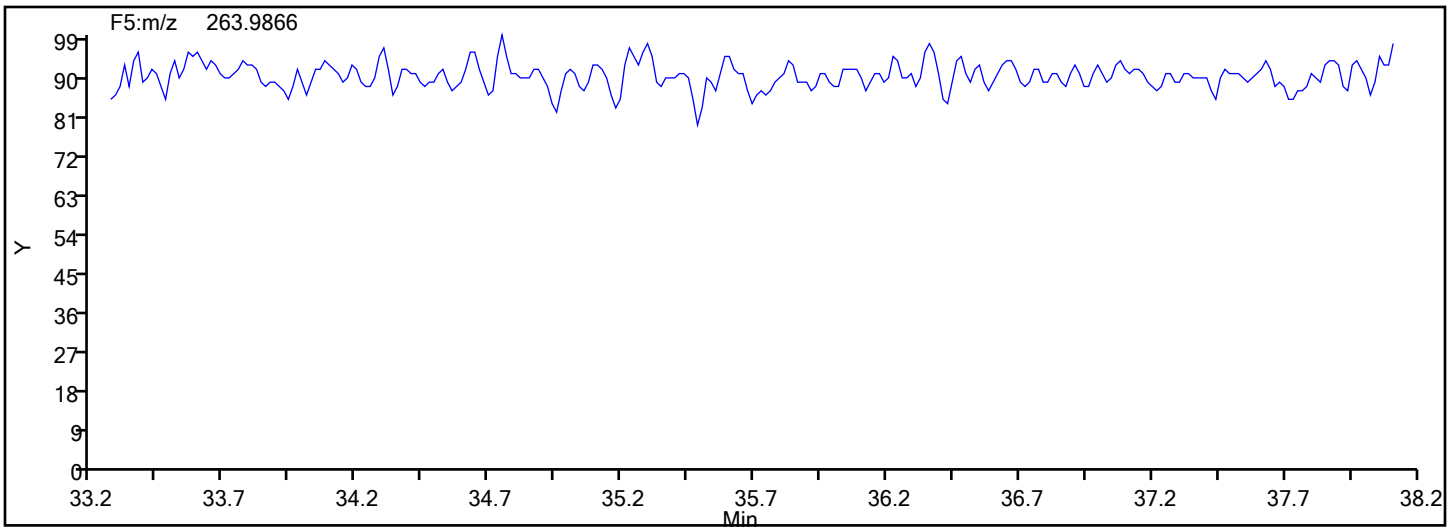
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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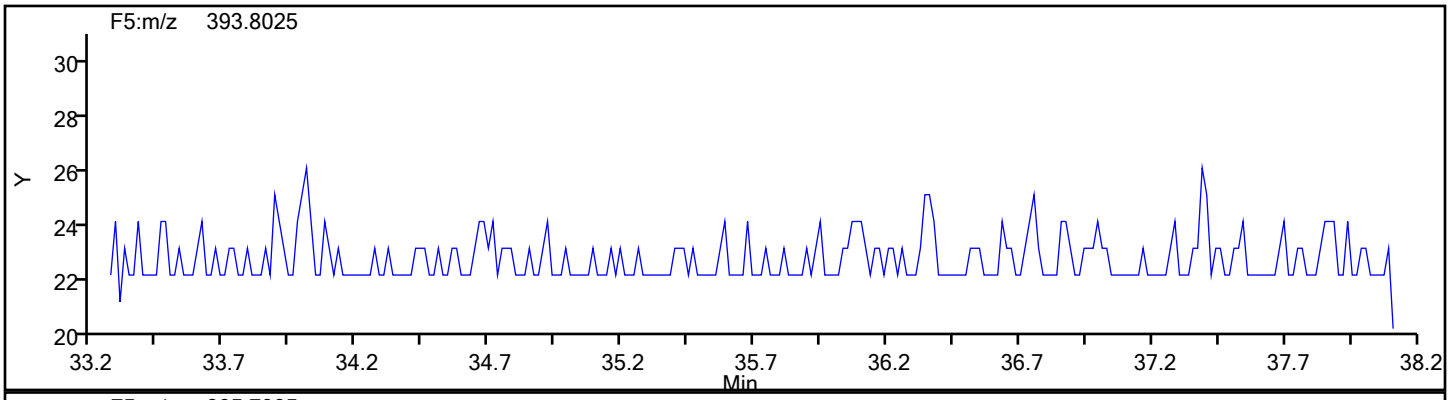
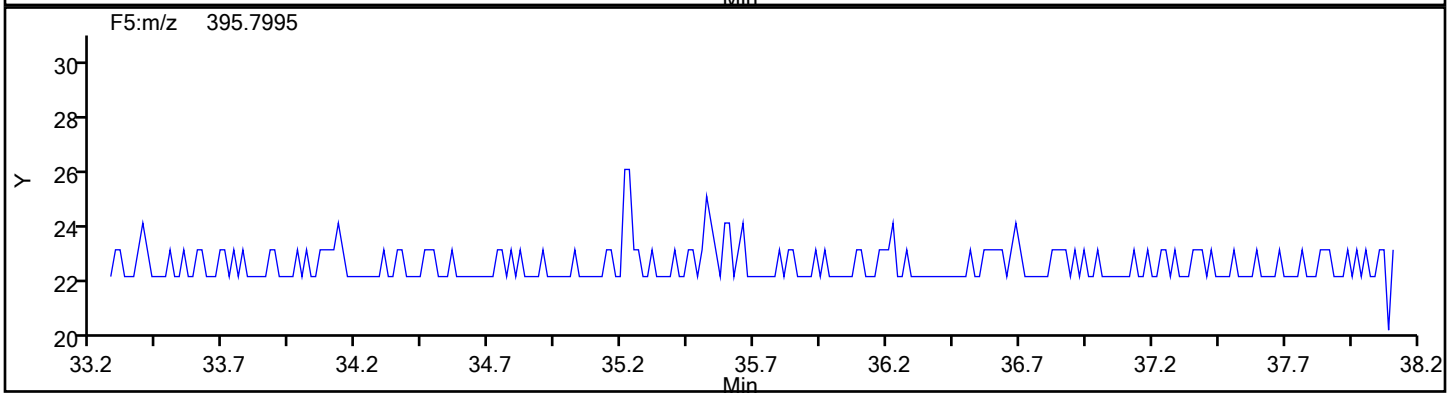
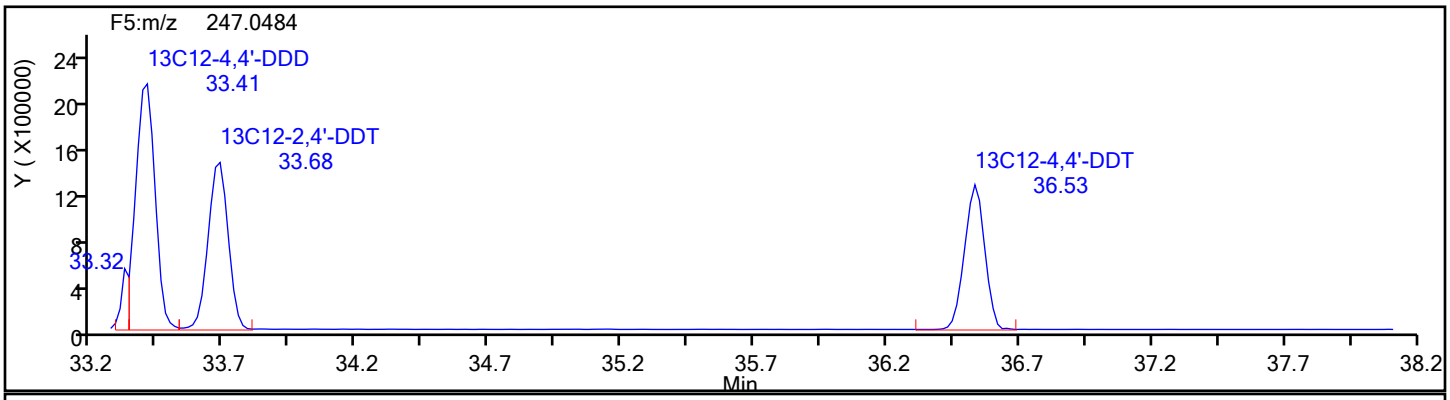
Column Type:	RTX-5	Column Dia:	0.32 mm

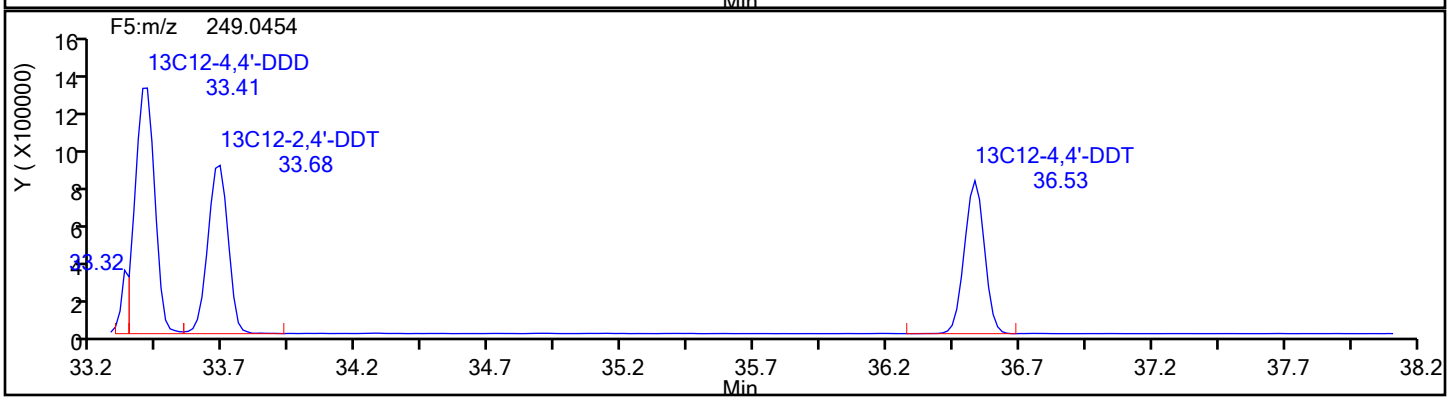
PCB-184





PCB-184 Standards





Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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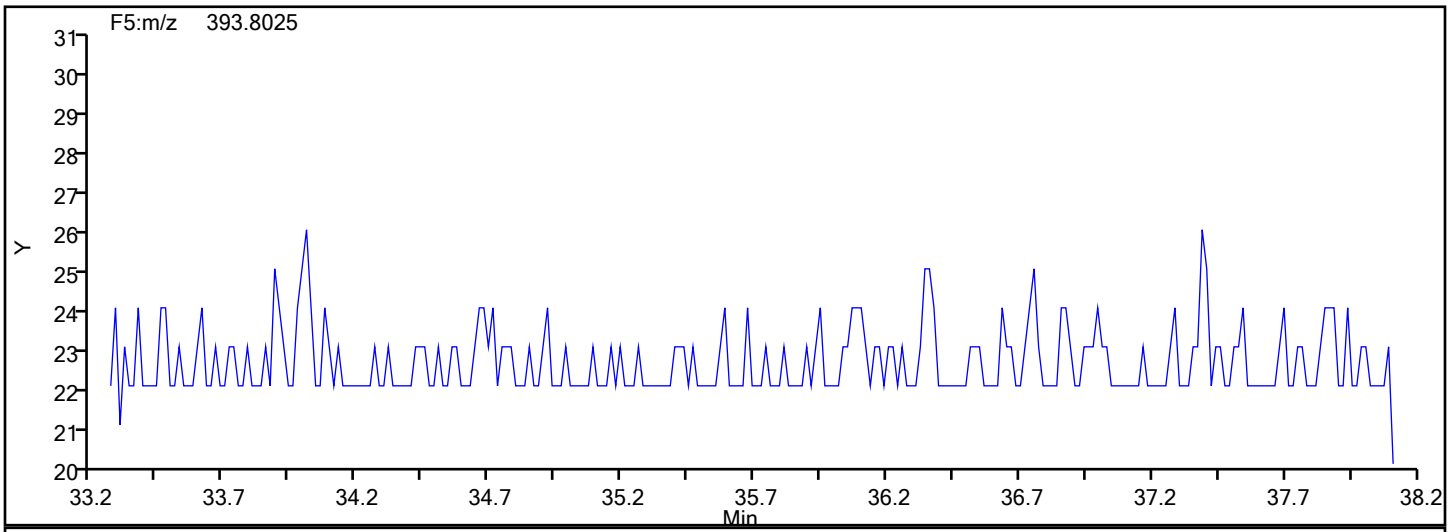
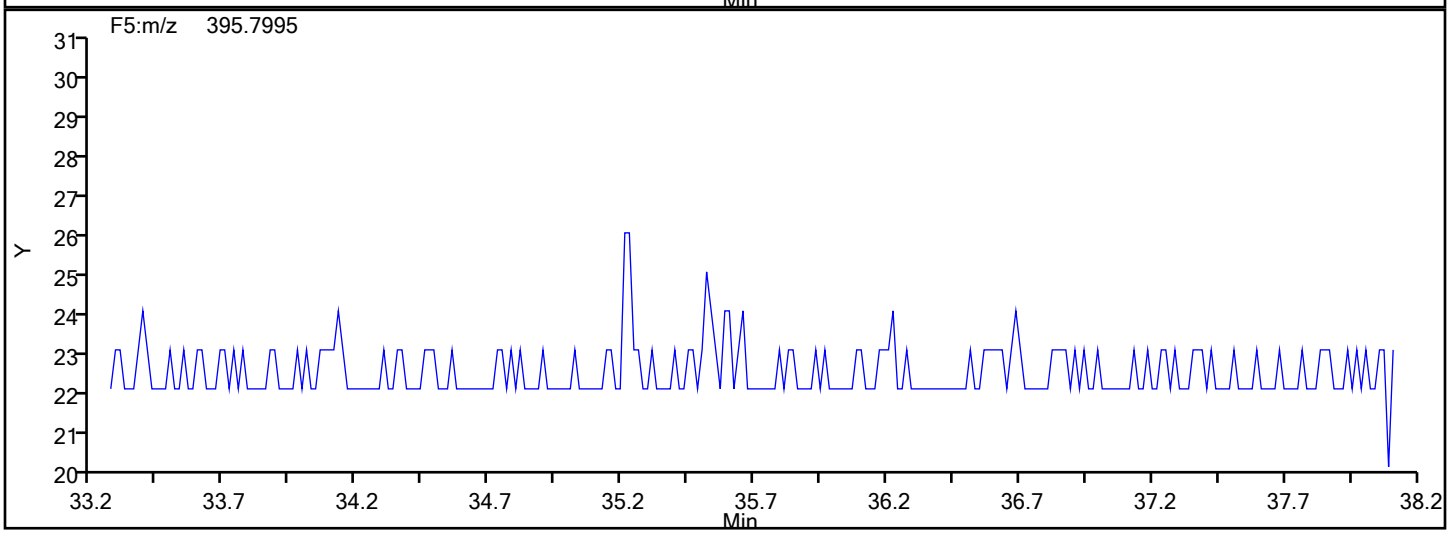
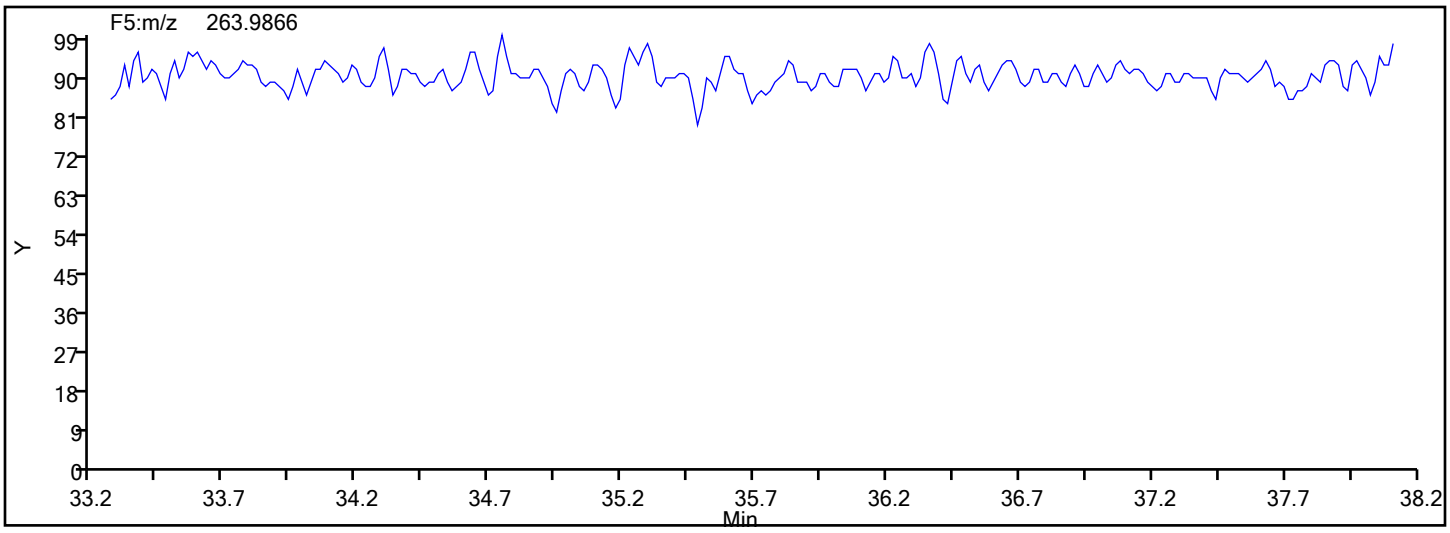
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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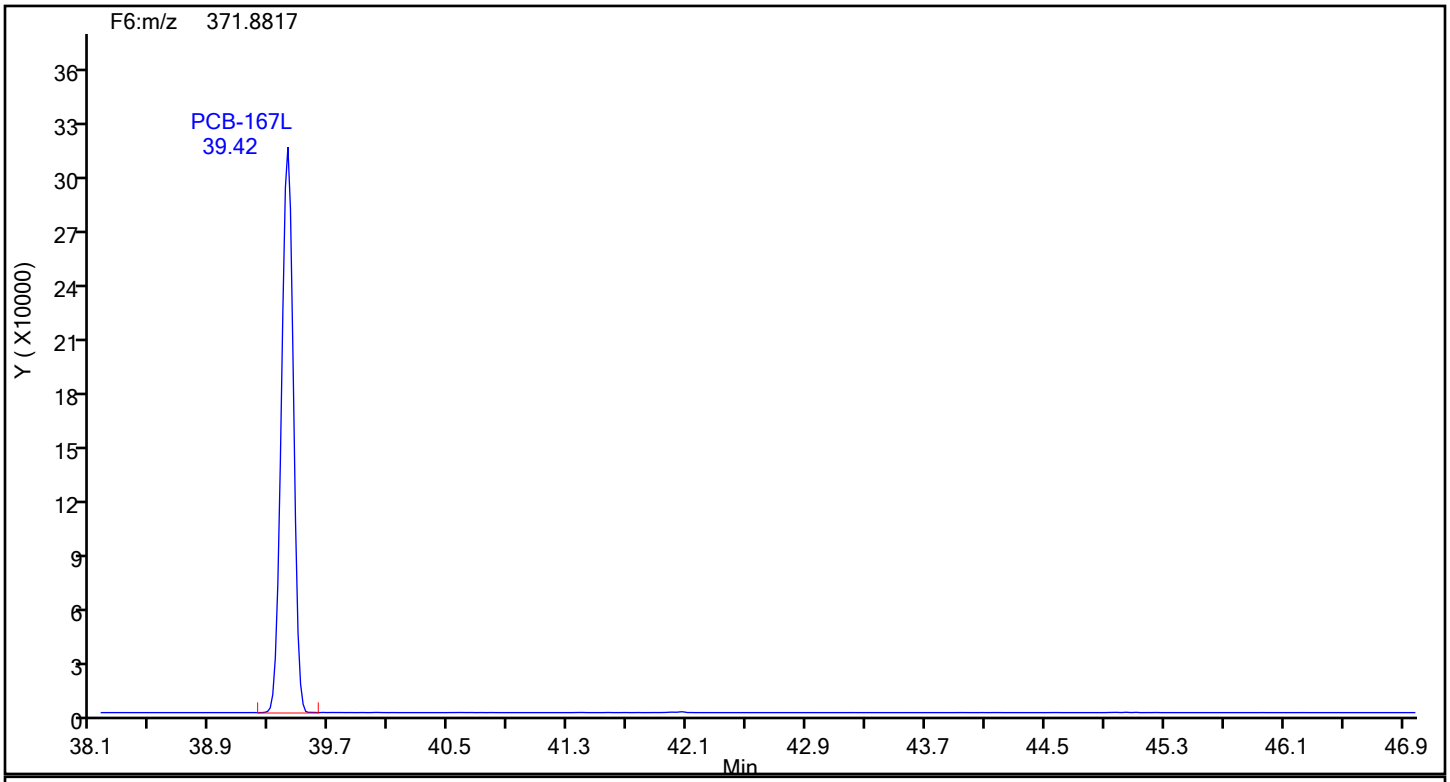
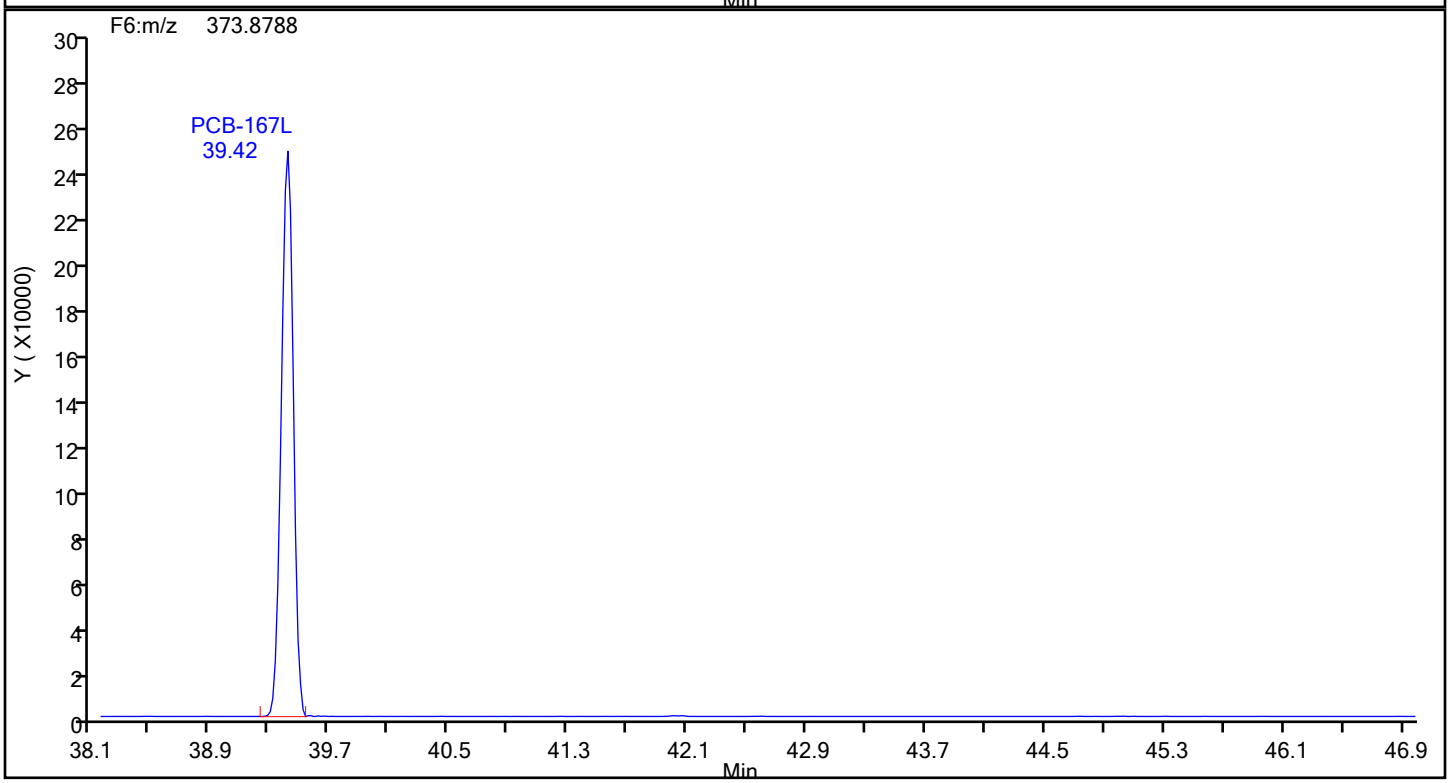
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards



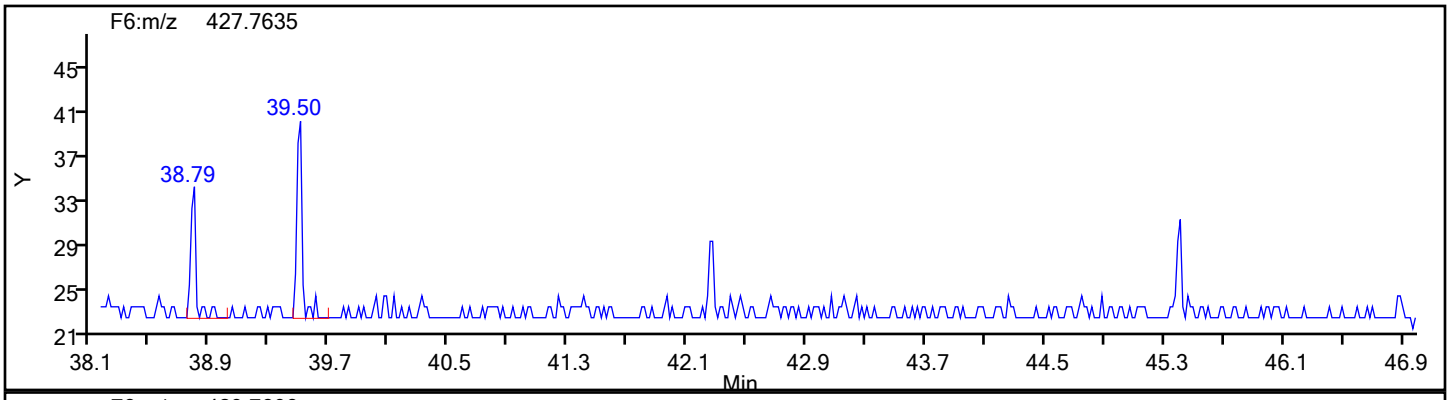


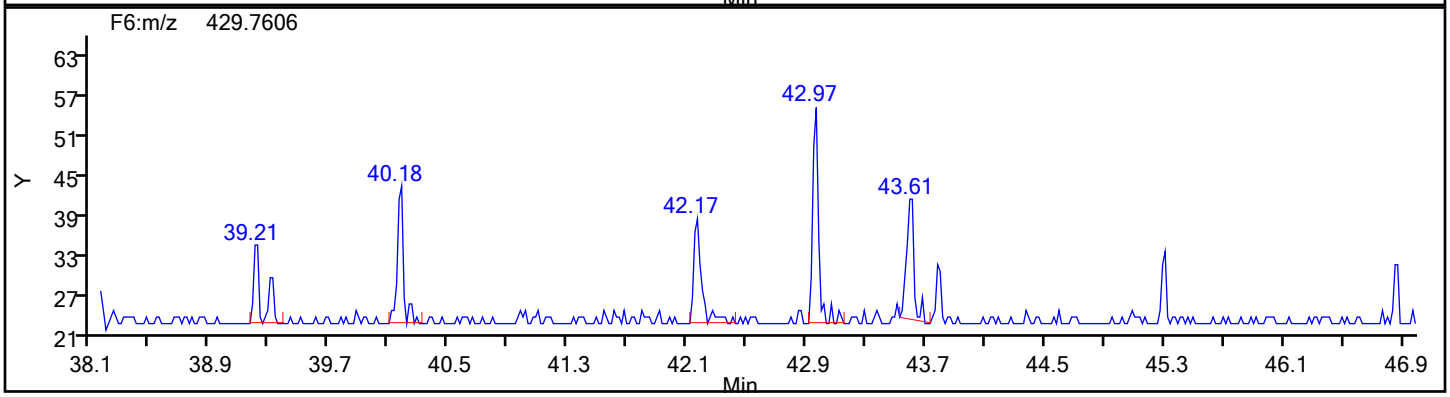
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

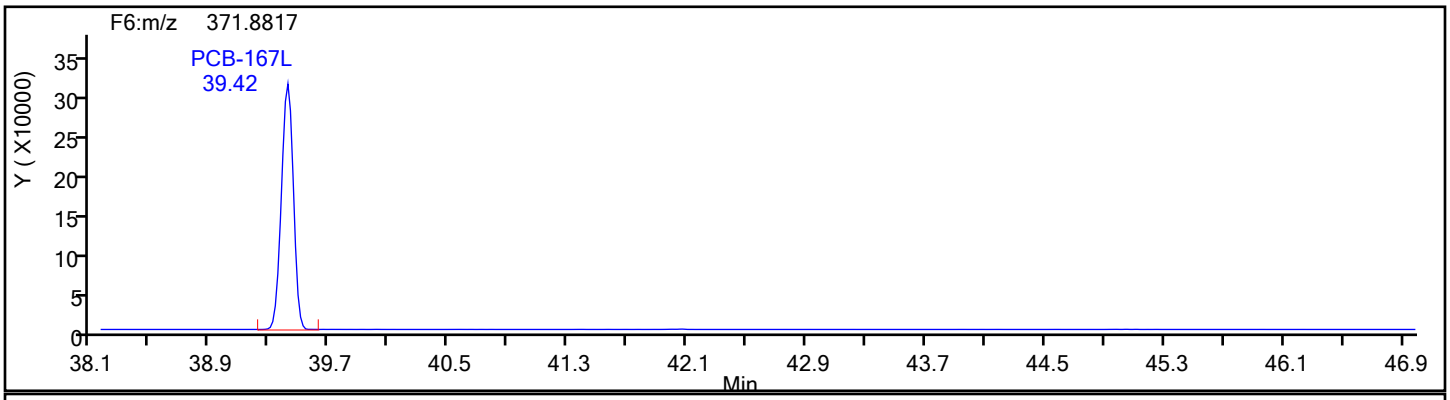
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

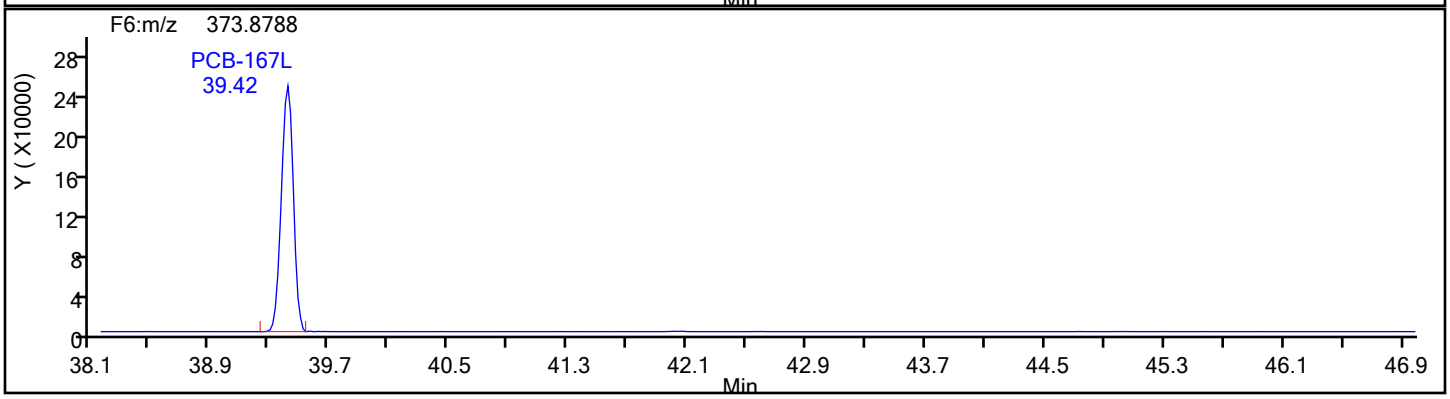
PCB-204





PCB-204 Standards



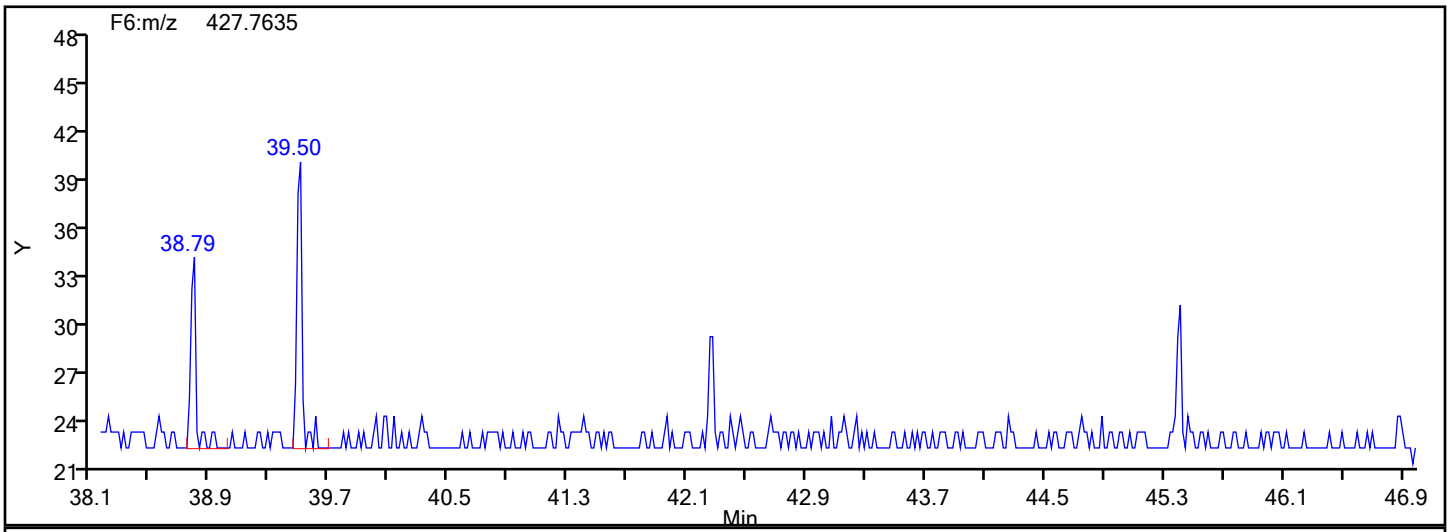


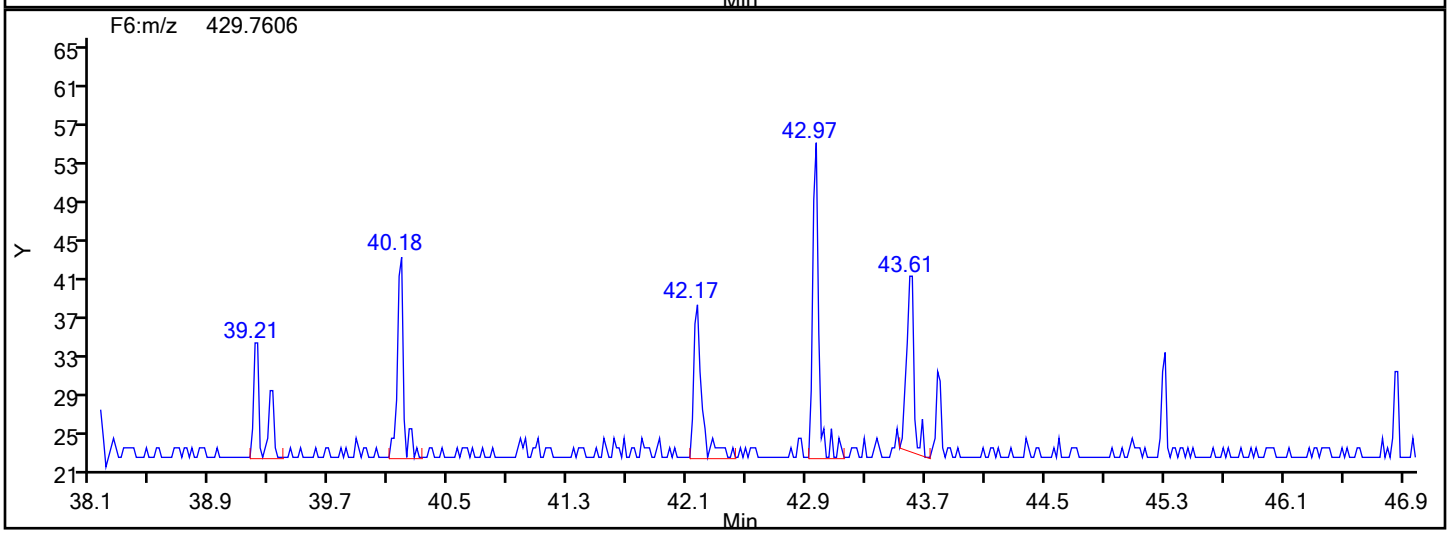
Report Date: 05-May-2025 18:00:23 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

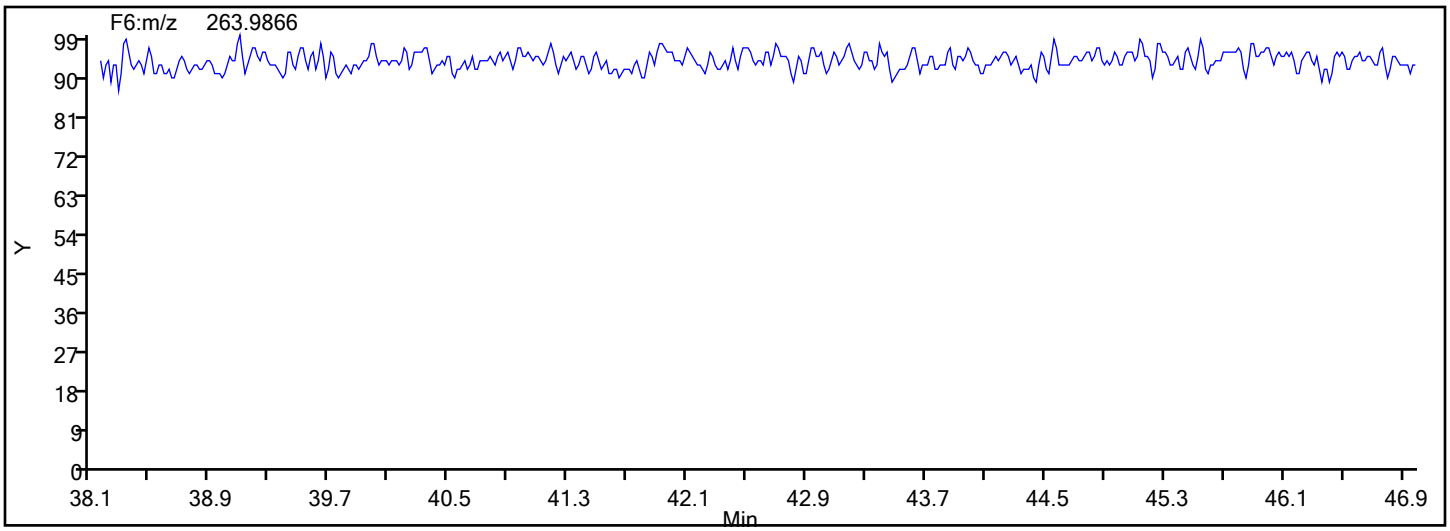
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d		
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



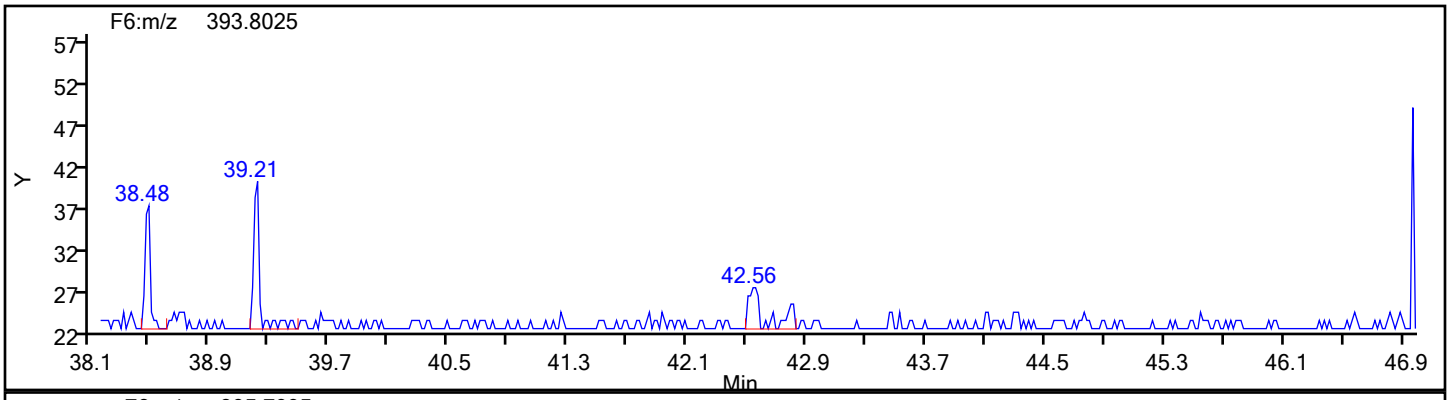
Report Date: 05-May-2025 18:00:24 Chrom Revision: 2.3 18-Apr-2025 15:35:42

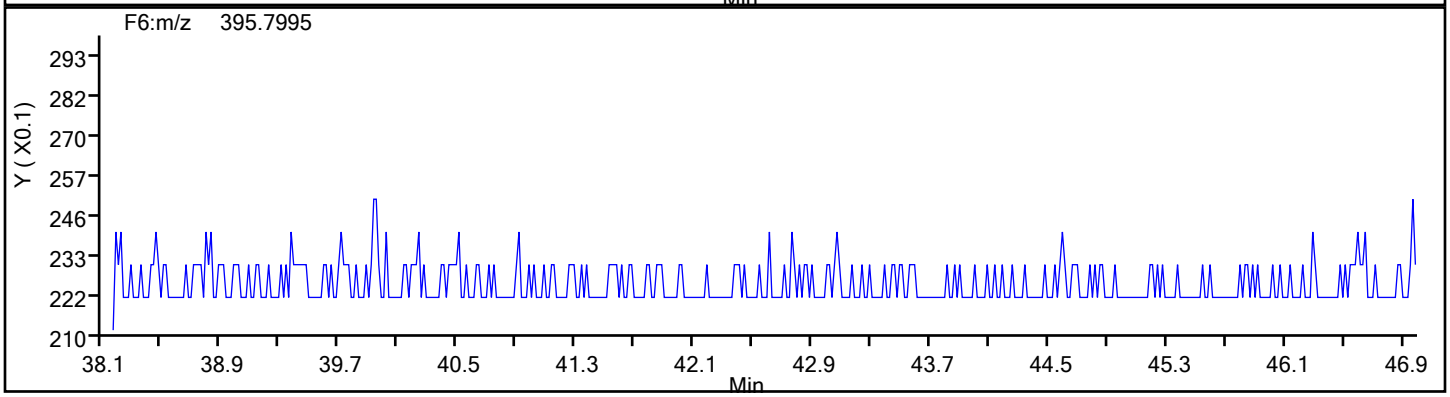
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d

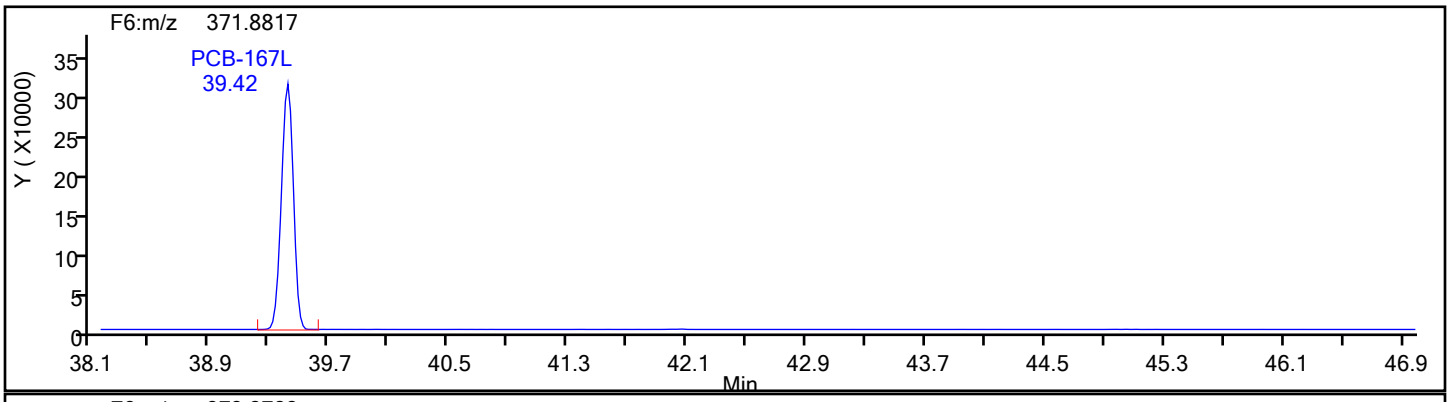
Injection Date:	02-May-2025 18:29:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	5
Column Type:	RTX-5	Column Dia:	0.32 mm

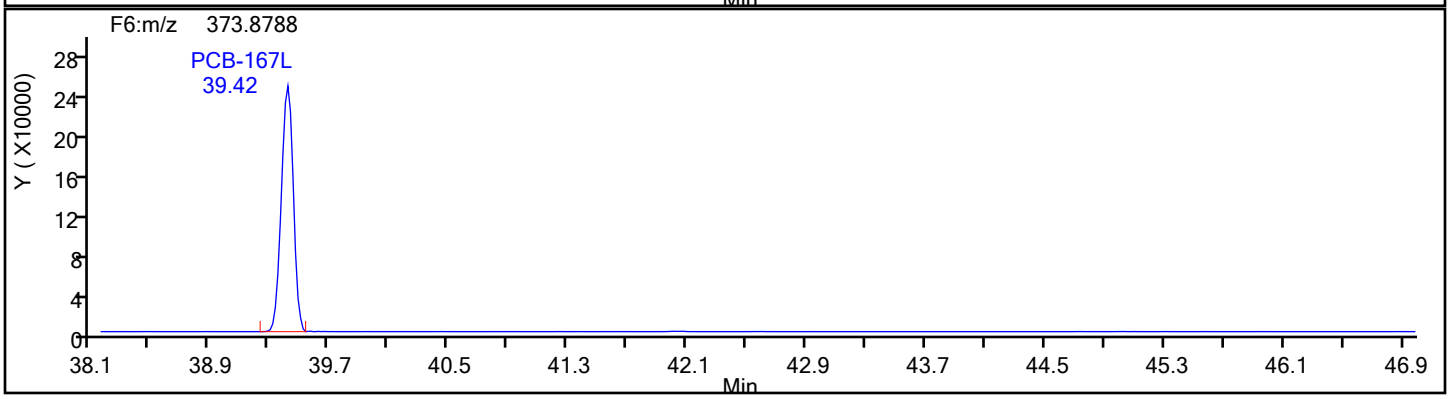
PCB-192





PCB-192 Standards



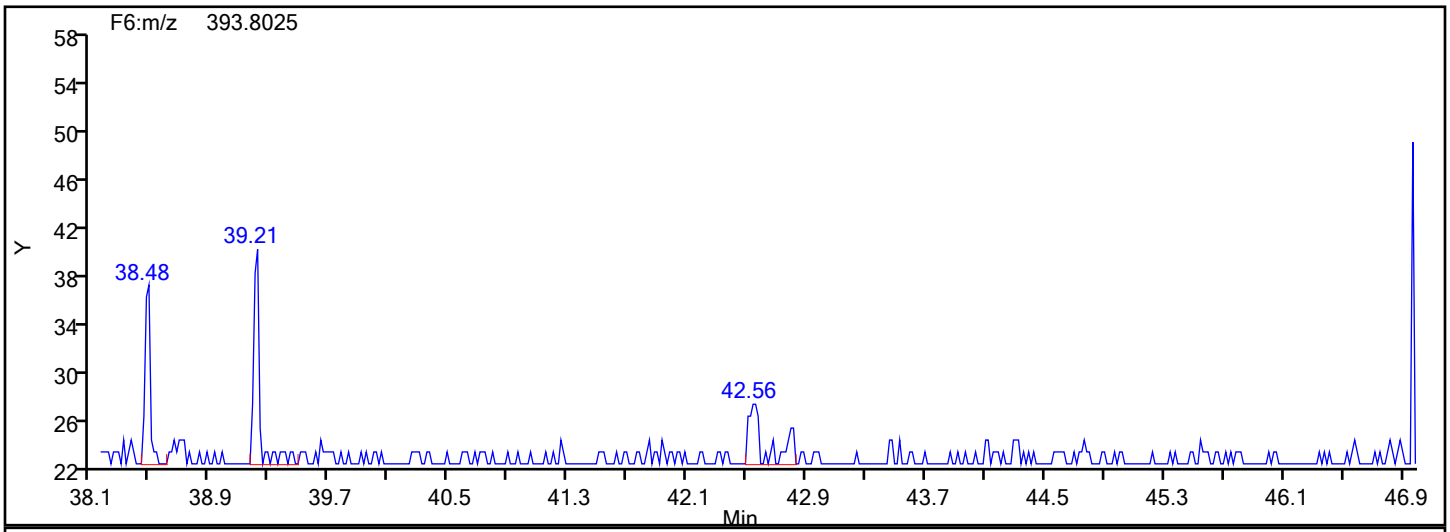


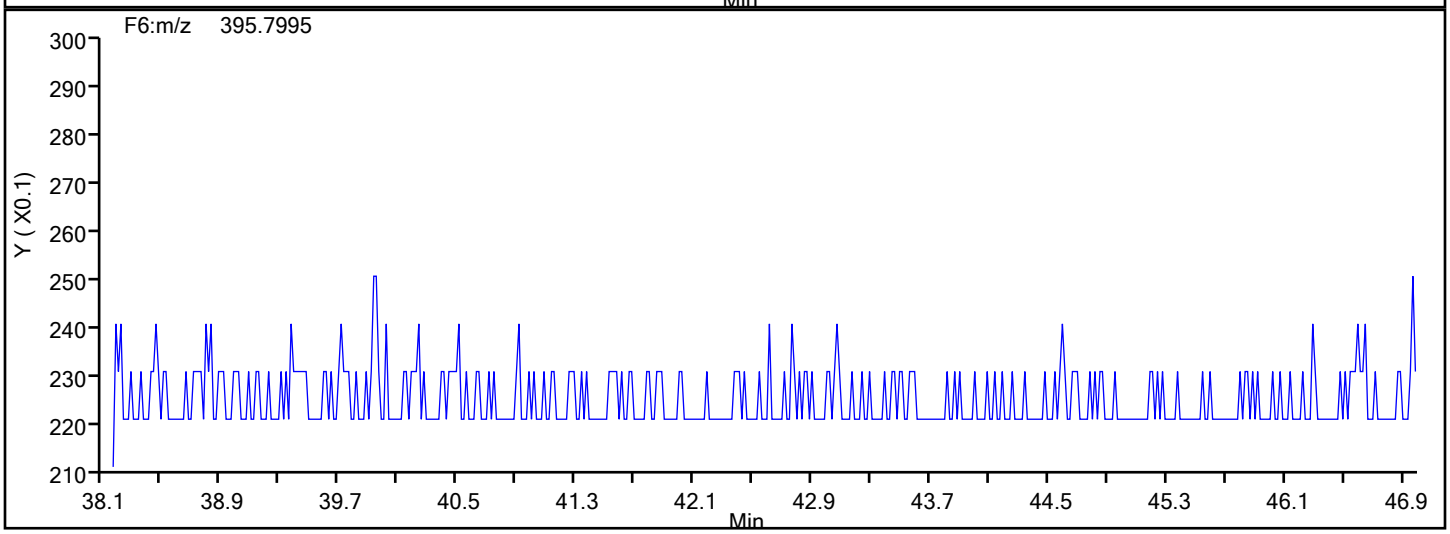
Report Date: 05-May-2025 18:00:24 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

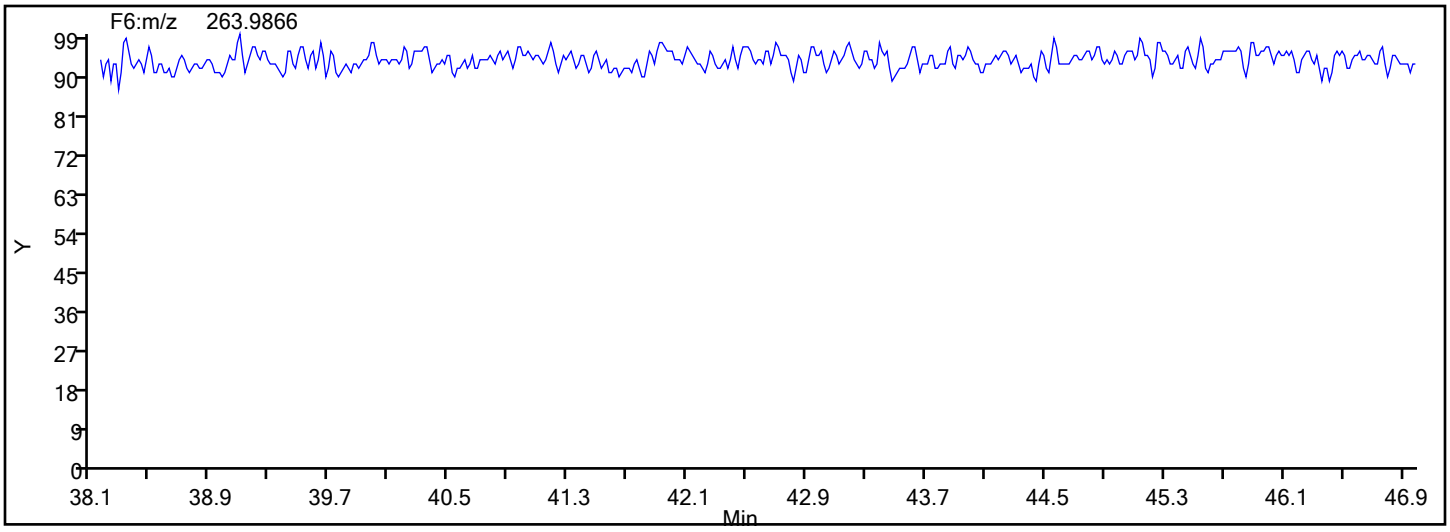
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip5.d
Injection Date: 02-May-2025 18:29:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 5
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-May-2025 19:23:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:28 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:21	7801883	0.81	0.2427	98.1	98.1	0.1818	0.1818	98.06	
D 13C6-beta BHC	18:20	5982950	0.82	0.1892	96.4	96.4	0.2332	0.2332	96.45	
D 13C6-gamma BHC	18:37	6401012	0.80	0.2029	96.2	96.2	0.2174	0.2174	96.20	
D 13C6-delta BHC	19:34	5437799	0.79	0.1718	96.5	96.5	0.2568	0.2568	96.53	
D 13C10-Heptachlor	21:49	5214783	1.27	0.1629	97.6	97.6	0.0145	0.0145	97.64	
D 13C6-Hexachlorobenzene	17:40	8761809	1.28	0.2759	96.9	96.9	0.000159	0.000159	96.86	
D 13C12-Aldrin	23:41	4805727	1.57	0.1517	96.6	96.6	0.0356	0.0356	96.64	
D 13C10-oxy Chlordane	26:05	363074	1.14	0.0708	86.4	86.4	0.005273	0.005273	86.39	
D 13C10-cis Heptachlor Epoxide	26:03	1516885	1.29	0.2676	95.5	95.5	0.0195	0.0195	95.46	
D 13C12-2,4'-DDE	27:52	27138627	1.59	4.5202	101.1	101.1	0.0847	0.0847	101	
D 13C10-trans Chlordane	27:34	1870486	1.28	0.3223	97.7	97.7	0.0201	0.0201	97.71	
D 13C10-cis Chlordane	28:38	1798688	1.29	0.2976	101.8	101.8	0.0218	0.0218	102	
D 13C10-trans Nonachlor	28:57	1642865	1.36	0.2841	97.3	97.3	0.0228	0.0228	97.35	
D 13C9-Endosulfan I	28:28	538118	1.22	0.0899	100.8	100.8	0.0722	0.0722	101	
D 13C12-4,4'-DDE	30:06	17788735	1.62	3.1557	99.3	99.3	0.0735	0.0735	99.28	
D 13C12-4,4'-DDD	33:24	15686242	1.55	2.9265	94.4	94.4	0.0107	0.0107	94.40	
D 13C12-2,4'-DDT	33:41	11570888	1.59	2.0372	100.0	100.0	0.0153	0.0153	100	
D 13C12-4,4'-DDT	36:31	10550237	1.56	1.8061	102.9	102.9	0.0173	0.0173	103	
D 13C12-Dieldrin	30:20	1601702	1.62	0.2777	101.6	101.6	0.0430	0.0430	102	
D 13C12-Endrin	31:59	1123806	1.62	0.1949	101.5	101.5	0.0612	0.0612	102	
D 13C9-Endosulfan II	32:44	262408	1.26	0.0474	97.6	97.6	0.2873	0.2873	97.55	
D 13C12-Endrin Aldehyde	34:16	264983	1.63	0.0424	110.0	110.0	0.3108	0.3108	110	
D 13C12-Methoxychlor	41:52	10592638	23.58	1.8751	99.5	99.5	0.0345	0.0345	99.49	
D 13C11-Endrin Ketone	40:22	612198	1.59	0.1045	103.2	103.2	0.3297	0.3297	103	
D 13C10-Mirex	45:20	5619613	1.26	1.9829	94.8	94.8	0.0248	0.0248	94.77	
* PCB-15L	19:02	32790151	1.65		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:27	5786444	0.64		500.0	500.0				
Pentachlorophenol	18:28	21973899	0.66	1.0218	1858.2	1858.2	0.1673	0.1673	92.91	a
* PCB-101L	28:04	5939381	1.62		100.0	100.0				
* PCB-118L	32:43	5677886	1.62		100.0	100.0				
* PCB-138L	36:55	2990483	1.28		100.0	100.0				
* PCB-60L	27:41	12927833	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:47	19845051	1.58	3.4396	101.6	101.6	0.0490	0.0490	102	
D 13C10-cis Nonachlor	33:44	1234228	1.22	0.2243	96.9	96.9	0.0450	0.0450	96.93	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:14	2018685	1.38	0.3464	102.6	102.6	0.0291	0.0291	103	
* PCB-167L	39:25	3018210	1.29		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

61L51699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-May-2025 19:23:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:28 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:23

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:21	17:21	0	0.912	3496504	1311256	1441	3602	910		
224.9317	17:21	17:21	0	0.912	4305379	1645102	572	1430	2876	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18:20	18:20	0	0.964	2701077	981932	1441	3602	681		
224.9317	18:20	18:20	0	0.964	3281873	1210061	572	1430	2115	0.82(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:37	18:37	0	0.979	2839916	1012236	1441	3602	702		
224.9317	18:37	18:37	0	0.979	3561096	1256048	572	1430	2196	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19:34	19:34	0	1.028	2393259	830379	1441	3602	576		
224.9317	19:34	19:34	0	1.028	3044540	1011157	572	1430	1768	0.79(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:49	21:49	0	1.146	2921990	797212	61	152	13069		
278.8240	21:49	21:49	0	1.146	2292793	629855	47	117	13401	1.27(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:40	17:40	0	0.929	4913652	1773402	1	2	1773402		
291.8273	17:40	17:40	0	0.929	3848157	1431775	1	2	1431775	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:41	23:41	0	1.244	2935952	769589	167	417	4608		
271.8775	23:41	23:41	0	1.244	1869775	482302	79	197	6105	1.57(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:05	26:05	0	0.929	193534	48546	1	2	48546		
398.8358	26:06	26:05	1	0.930	169540	40200	1	2	40200	1.14(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:03	26:03	0	0.928	853509	198975	14	35	14213		
364.8748	26:03	26:03	0	0.928	663376	156967	14	35	11212	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:52	27:52	0	0.993	16676130	3794986	1204	3010	3152		
260.0376	27:52	27:52	0	0.993	10462497	2362334	848	2120	2786	1.59(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:34	27:34	0	0.983	1048430	228554	10	25	22855		
278.8240	27:35	27:34	1	0.983	822056	190727	25	62	7629	1.28(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:38	28:38	0	1.020	1013274	225850	10	25	22585		
278.8240	28:38	28:38	0	1.020	785414	178816	25	62	7153	1.29(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:57	28:57	0	1.032	945949	207238	10	25	20724		
278.8240	28:57	28:57	0	1.032	696916	156599	25	62	6264	1.36(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:28	28:28	0	1.015	295948	57855	10	25	5786		
278.8240	28:27	28:28	-1	1.014	242170	52255	25	62	2090	1.22(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:06	30:06	0	0.920	10992104	2364349	689	1722	3432		
260.0376	30:06	30:06	0	0.920	6796631	1483779	415	1037	3575	1.62(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:24	33:24	0	1.021	9535770	2019306	87	217	23210		
249.0454	33:24	33:24	0	1.021	6150472	1292856	62	155	20853	1.55(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:41	33:41	0	1.029	7098002	1373423	87	217	15786		
249.0454	33:41	33:41	0	1.029	4472886	855174	62	155	13793	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:31	36:31	0	1.116	6422679	1176444	87	217	13522		
249.0454	36:31	36:31	0	1.116	4127558	766115	62	155	12357	1.56(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:20	30:20	0	0.927	991189	205156	17	42	12068		
271.8775	30:19	30:20	-1	0.926	610513	134580	40	100	3365	1.62(1.16-1.94)	
13C12-Endrin											
269.8805	31:59	31:59	0	0.978	694469	145986	17	42	8587		
271.8775	31:59	31:59	0	0.978	429337	84055	40	100	2101	1.62(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:44	32:44	0	1.000	146551	30018	40	100	750		
278.8240	32:43	32:44	-2	1.000	115857	20714	25	62	829	1.26(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:16	34:16	0	1.047	164261	35304	8	20	4413		
358.9361	34:15	34:16	-1	1.046	100722	16261	55	137	296	1.63(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:52	41:52	0	1.280	10161630	1785545	259	647	6894		
240.1510	41:52	41:52	0	1.280	431008	70244	49	122	1434	23.58(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.233	375582	66050	129	322	512		
329.9379	40:21	40:22	-1	1.233	236616	40683	35	87	1162	1.59(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:20	45:20	0	1.228	3129430	491418	59	147	8329		
278.8240	45:20	45:20	0	1.228	2490183	391310	49	122	7986	1.26(0.93-1.55)	
PCB-15L											
234.0406	19:02	19:02	0		20395554	7146964	44	110	162431		
236.0376	19:02	19:02	0		12394597	4259216	12	30	354935	1.65(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:27	0		2258768	723970	59	147	12271		
271.8636	18:27	18:27	0		3527676	1094901	67	167	16342	0.64(0.00-0.00)	
Pentachlorophenol											a
263.8464	18:28	18:28	0	1.001	8701248	2472916	133	332	18593		a
265.8435	18:28	18:28	0	1.001	13272651	3788962	116	290	32663	0.66(0.00-0.00)	
PCB-101L											
337.9207	28:04	28:04	0		3671241	830888	2	5	415444		
339.9178	28:04	28:04	0		2268140	509151	3	7	169717	1.62(1.16-1.94)	
PCB-118L											
337.9207	32:43	32:43	0		3509250	732649	33	82	22201		
339.9178	32:43	32:43	0		2168636	457547	26	65	17598	1.62(1.16-1.94)	
PCB-138L											
371.8817	36:55	36:55	0		1679680	308521	31	77	9952		
373.8788	36:55	36:55	0		1310803	241114	27	67	8930	1.28(1.16-1.94)	
PCB-60L											
301.9626	27:41	27:41	0		5822224	1350460	50	125	27009		
303.9597	27:41	27:41	0		7105609	1630451	68	170	23977	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:47	30:47	0	0.941	12162678	2532608	463	1157	5470		
249.0454	30:47	30:47	0	0.941	7682373	1600258	340	850	4707	1.58(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:44	33:44	0	1.031	678796	131740	30	75	4391		
278.8240	33:44	33:44	0	1.031	555432	102305	18	45	5684	1.22(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:14	36:14	0	1.107	1171745	210243	30	75	7008		
278.8240	36:14	36:14	0	1.107	846940	160418	18	45	8912	1.38(0.93-1.55)	
PCB-167L											
371.8817	39:25	39:25	0		1697764	308221	10	25	30822		
373.8788	39:25	39:25	0		1320446	244542	10	25	24454	1.29(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

61L51699PCP_00001 Amount Added: 20.00 Units: uL

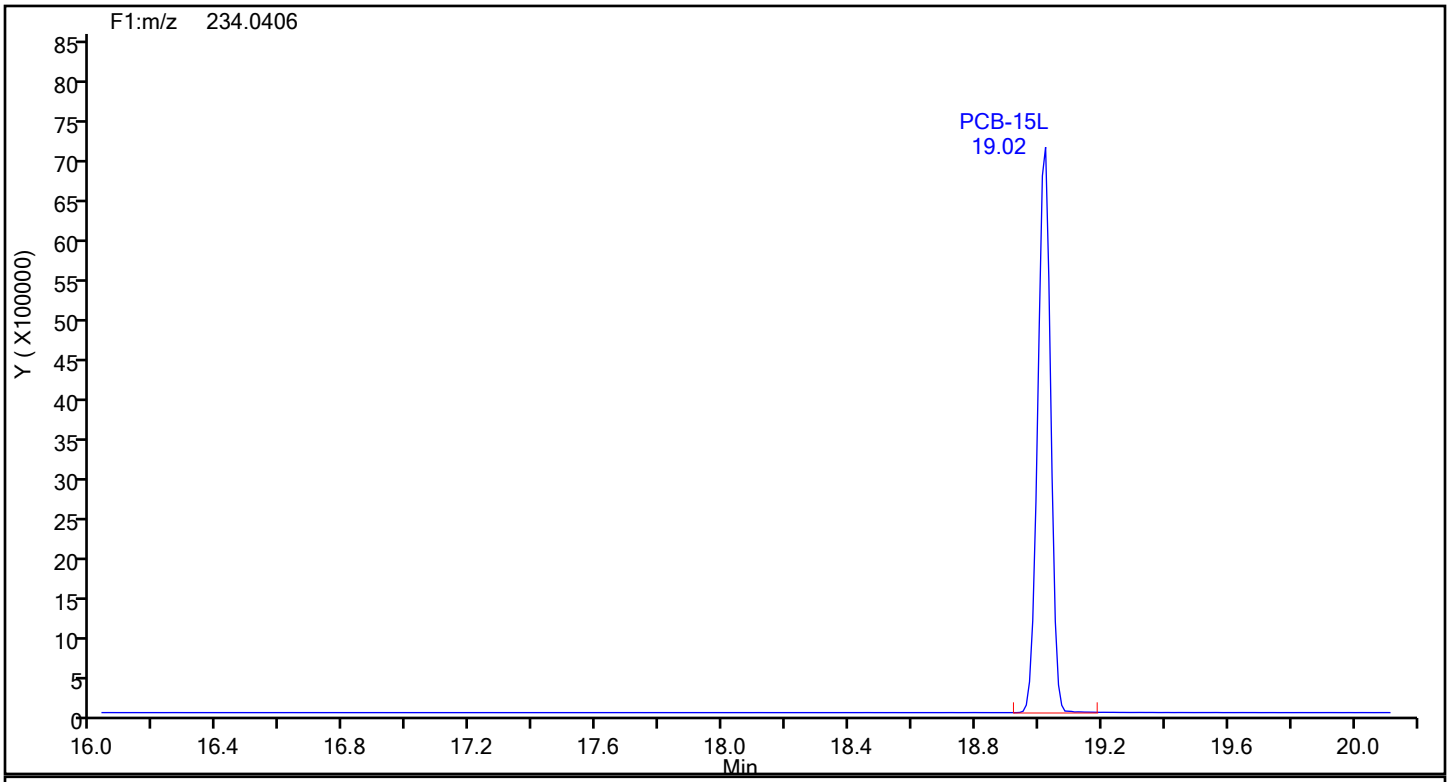
Report Date: 05-May-2025 18:00:29 Chrom Revision: 2.3 18-Apr-2025 15:35:42

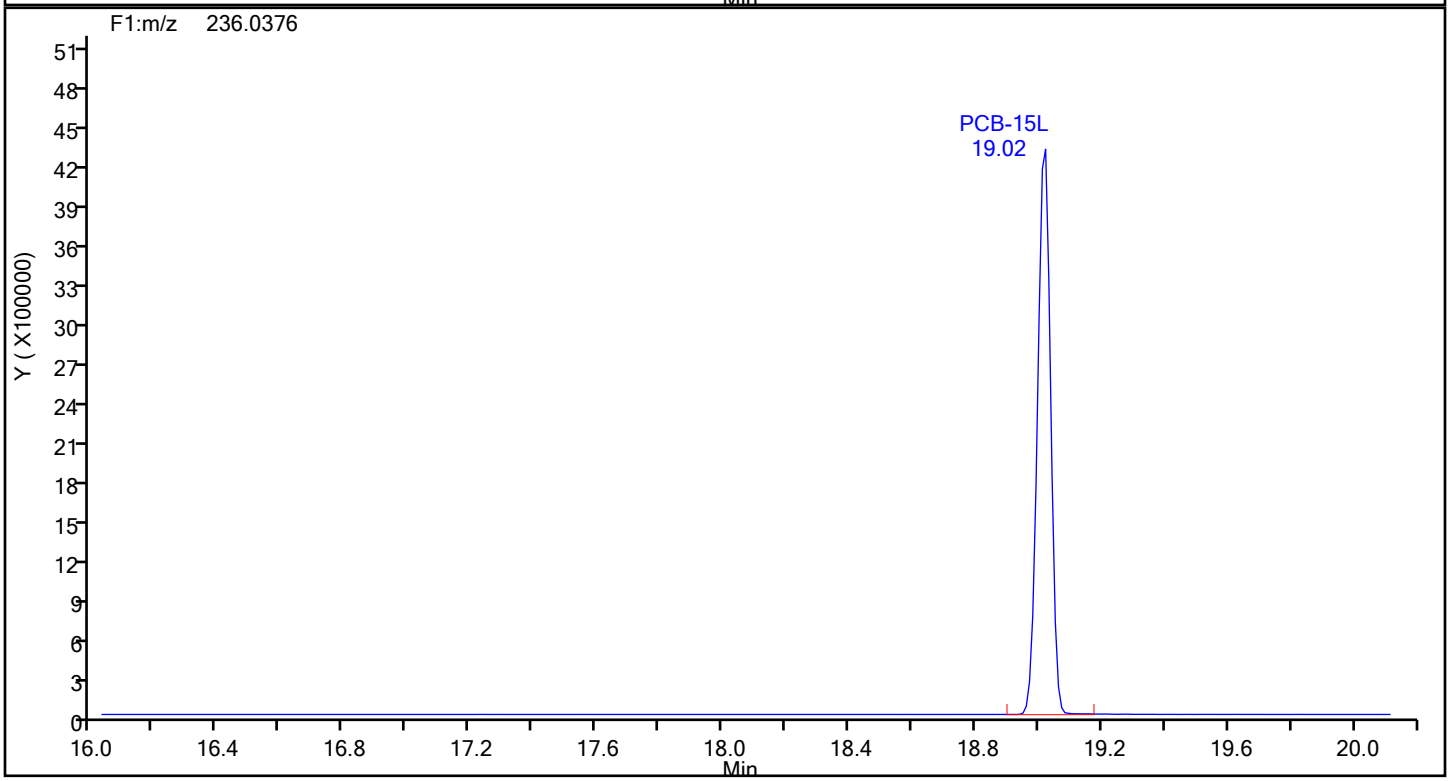
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 05-May-2025 18:00:29 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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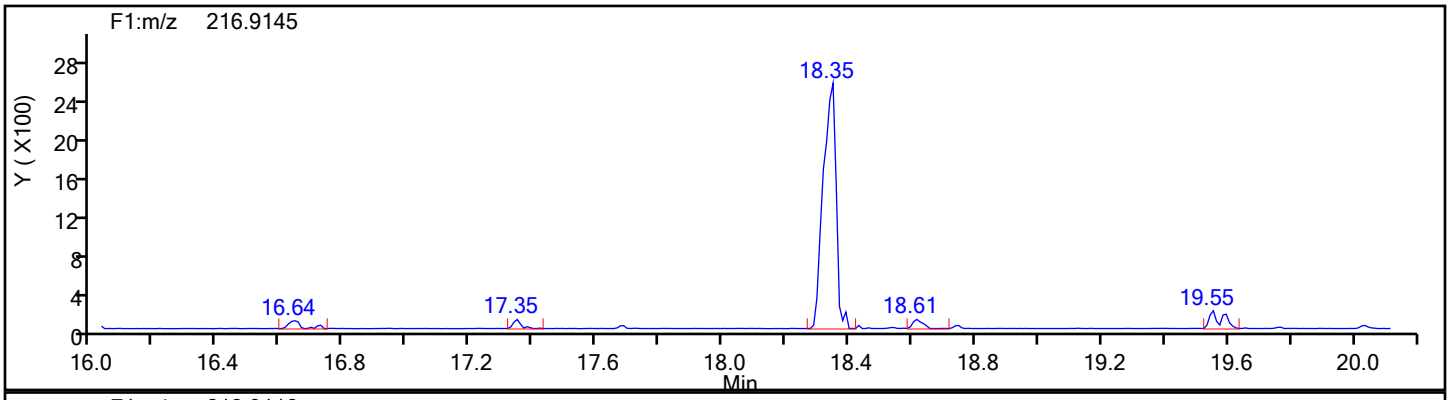
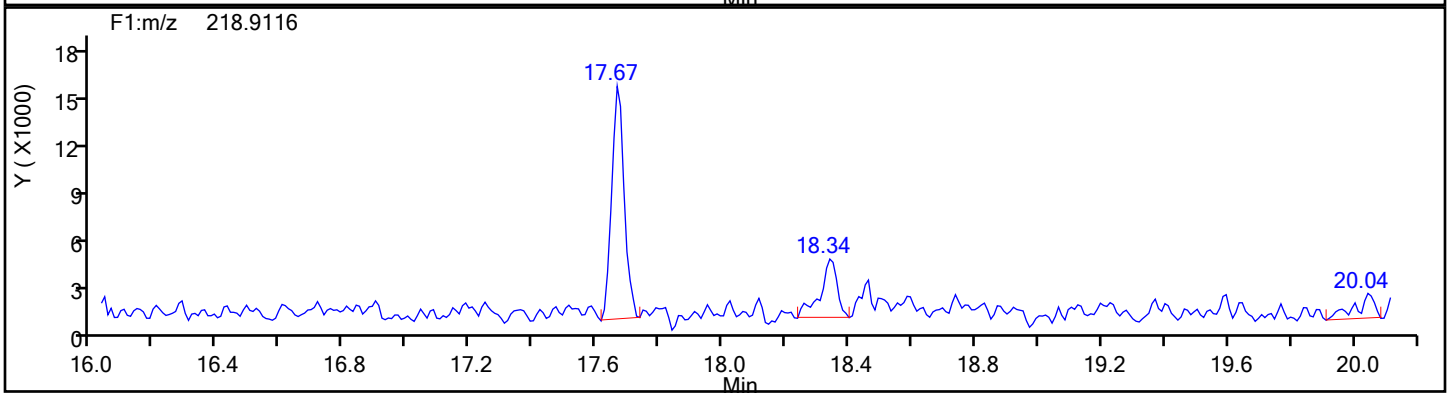
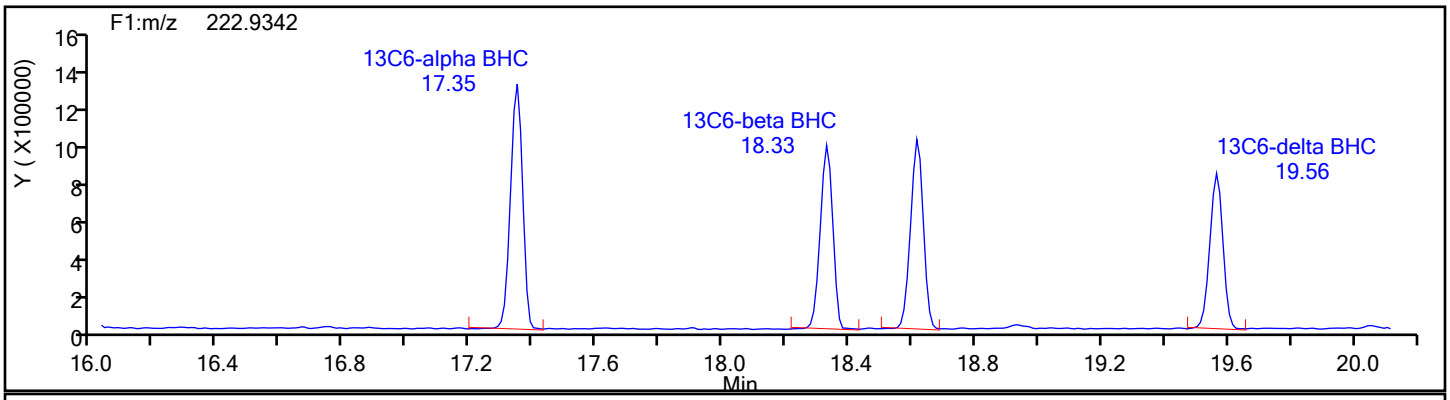
Column Type:	RTX-5	Column Dia:	0.32 mm

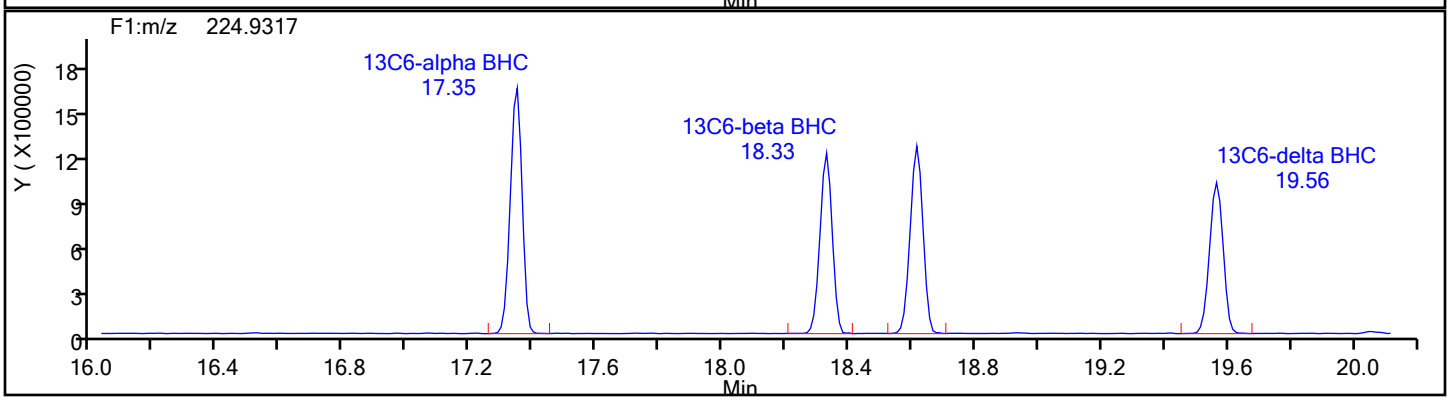
BHC





BHC Standards





Report Date: 05-May-2025 18:00:29 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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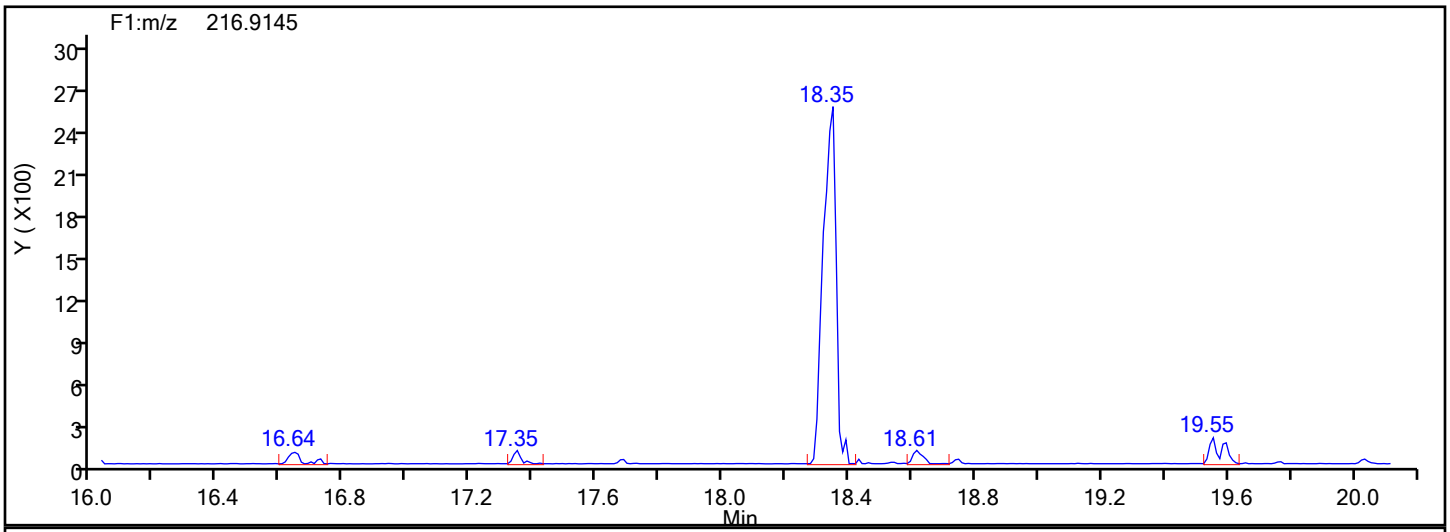
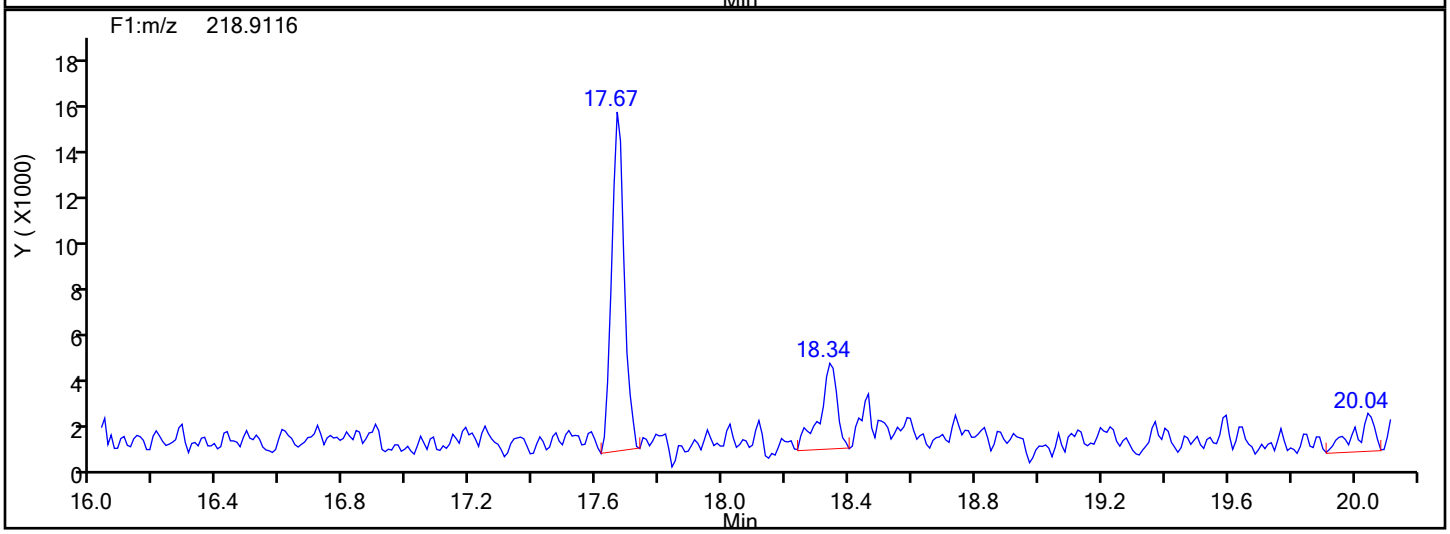
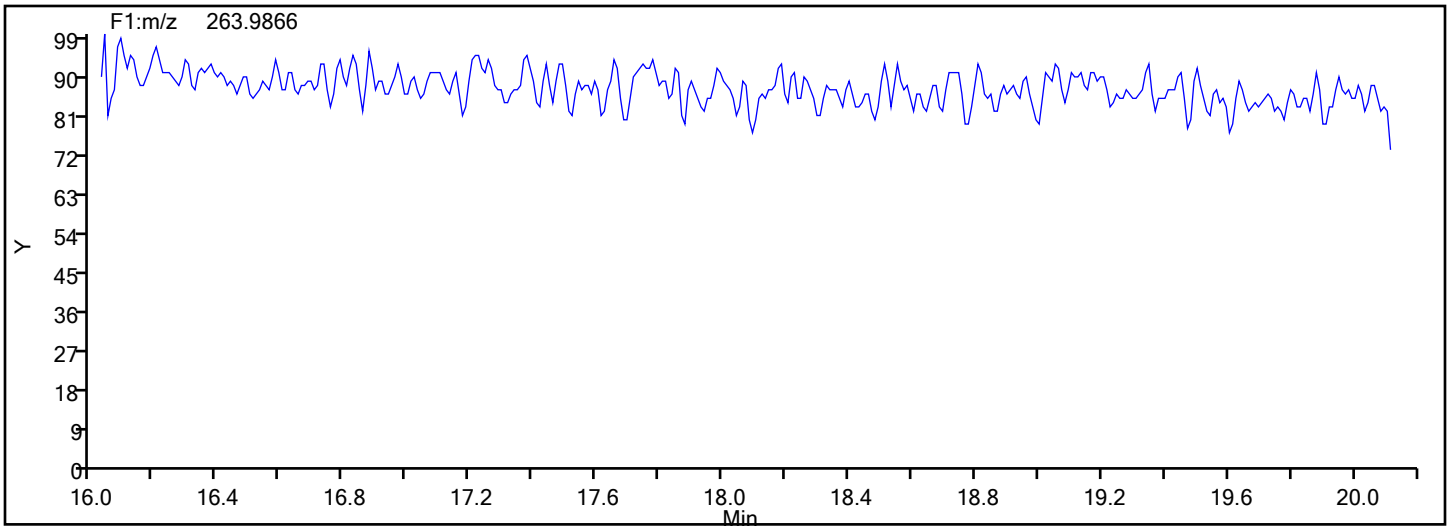
BHC





BHC Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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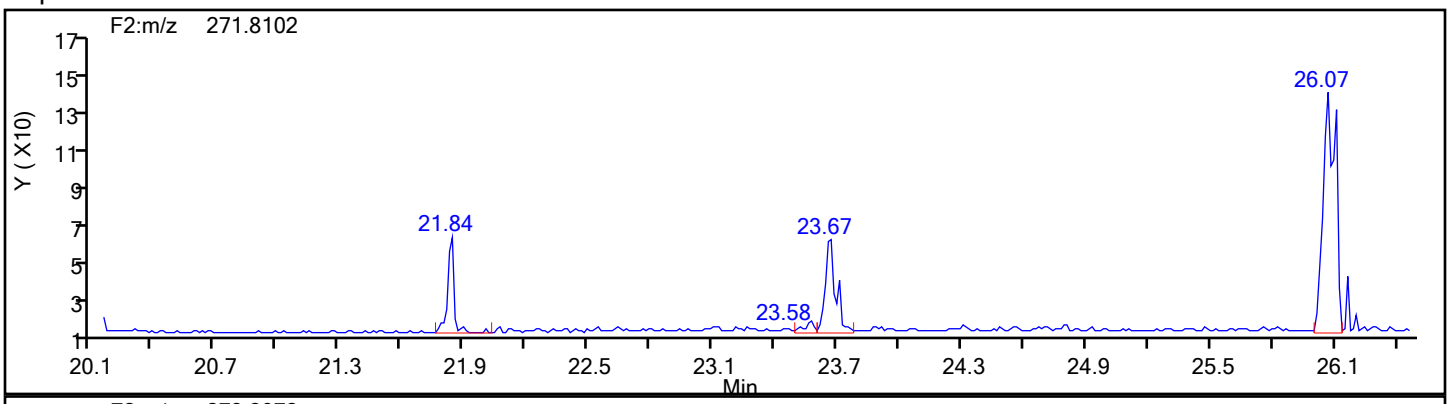
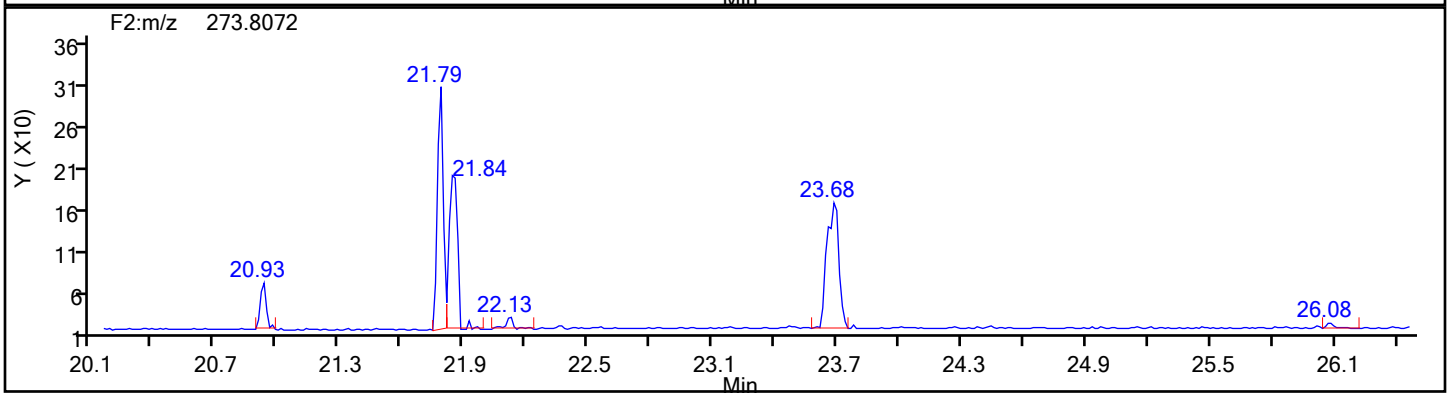
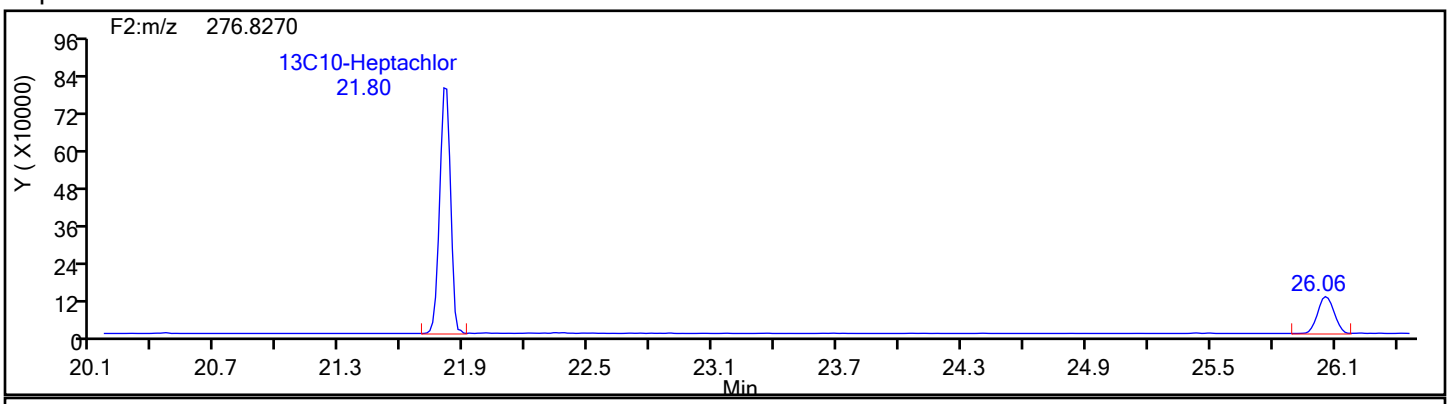
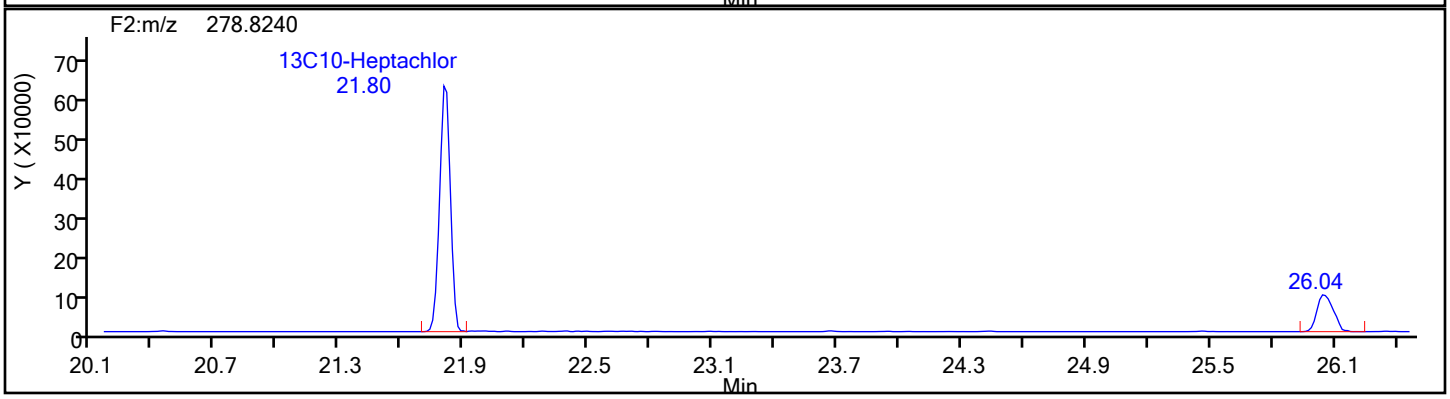
Heptachlor





Heptachlor Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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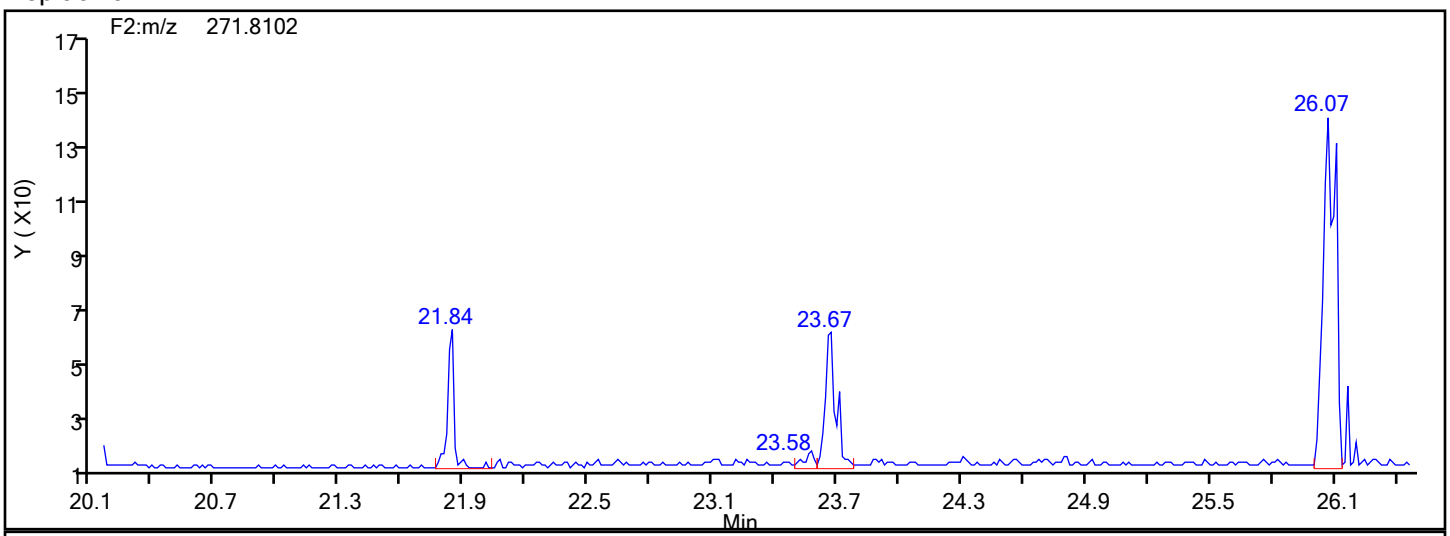
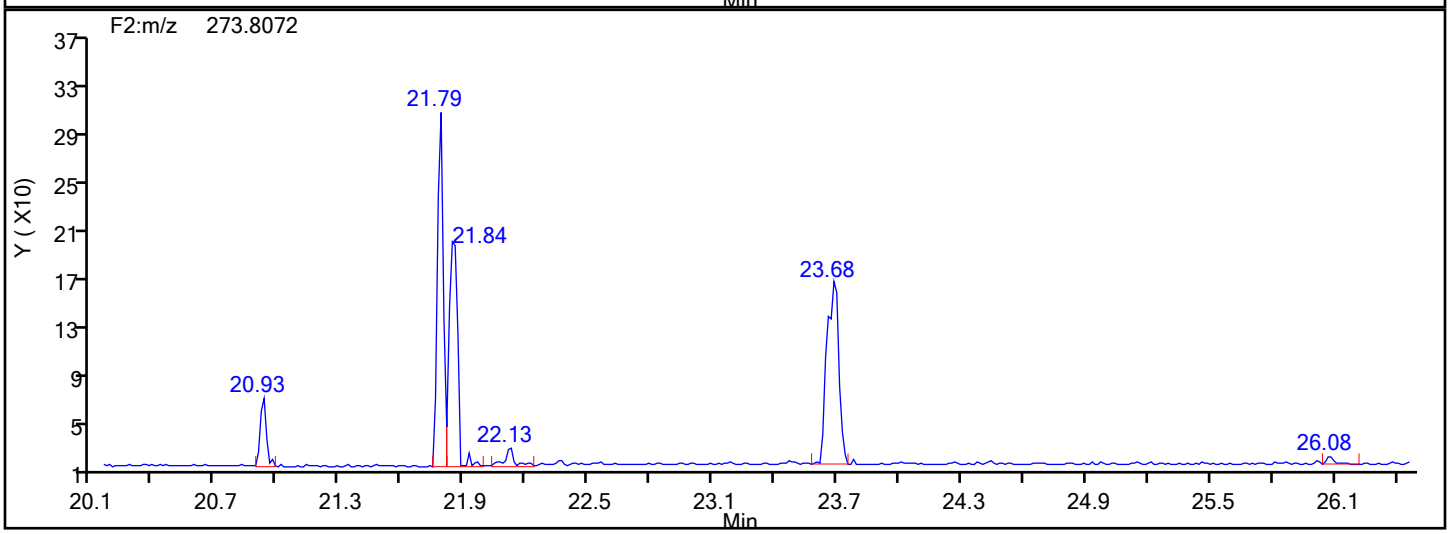
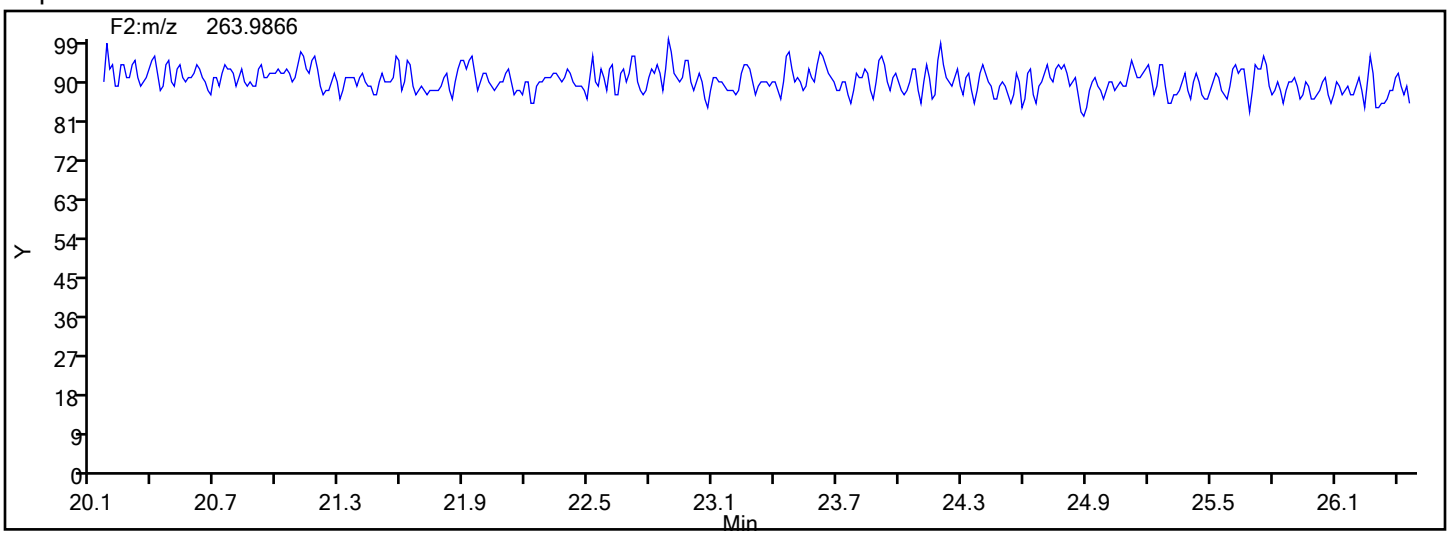
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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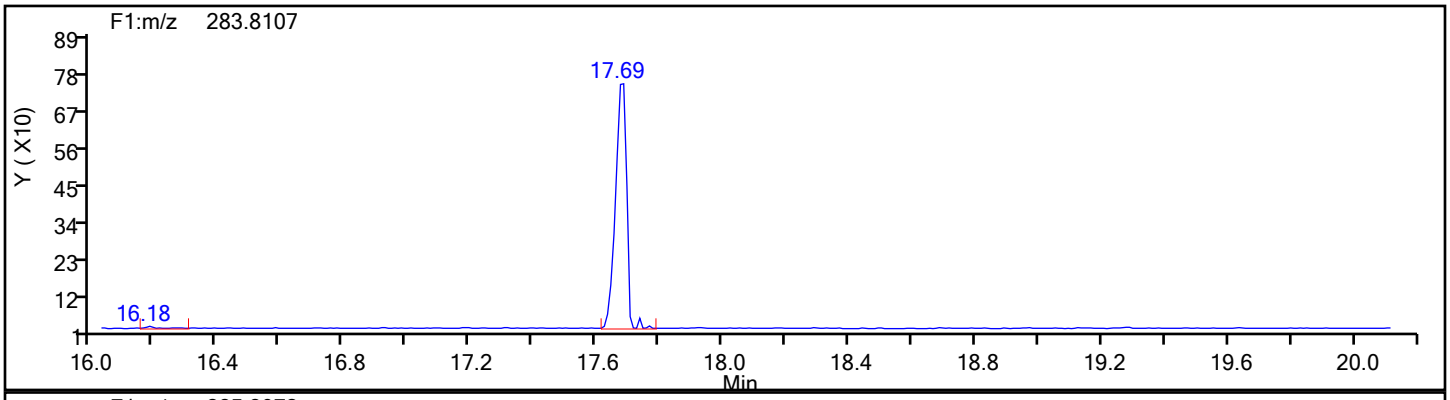
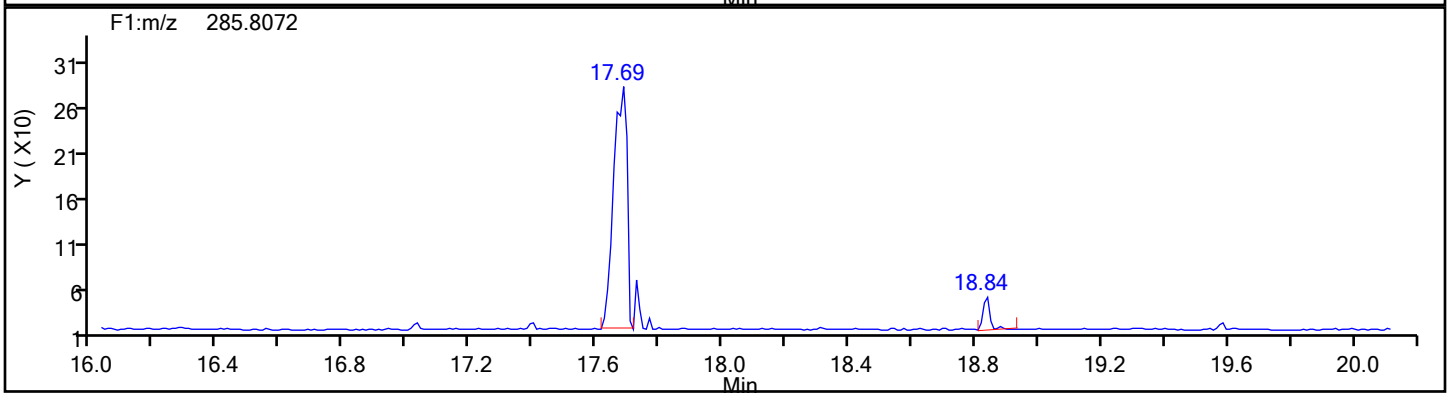
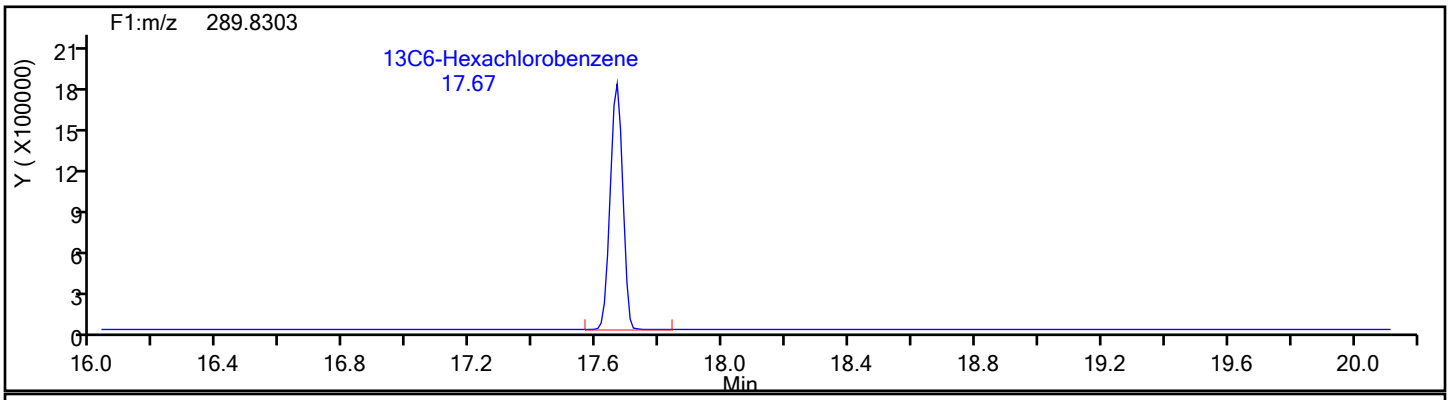
Column Type:	RTX-5	Column Dia:	0.32 mm

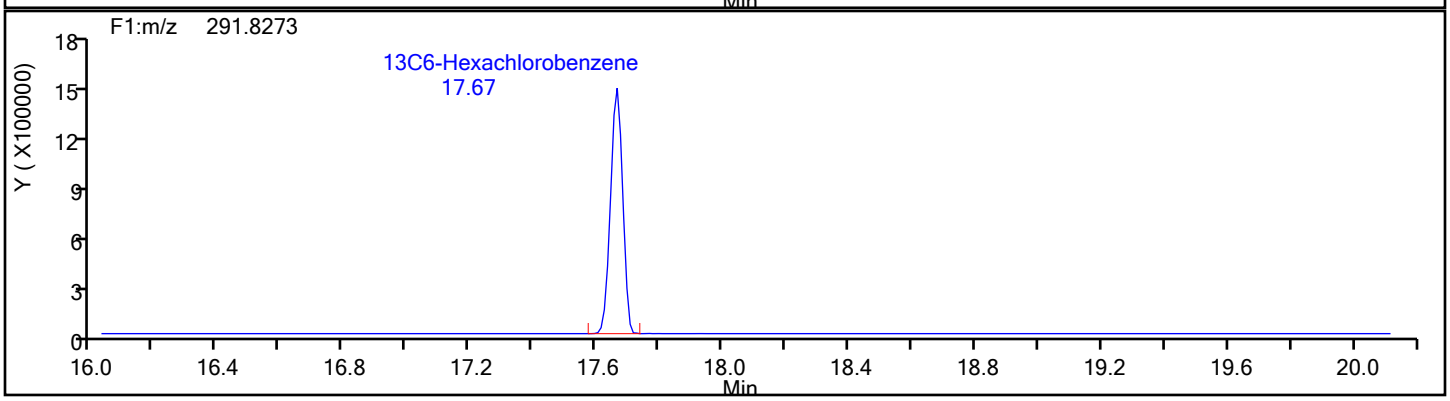
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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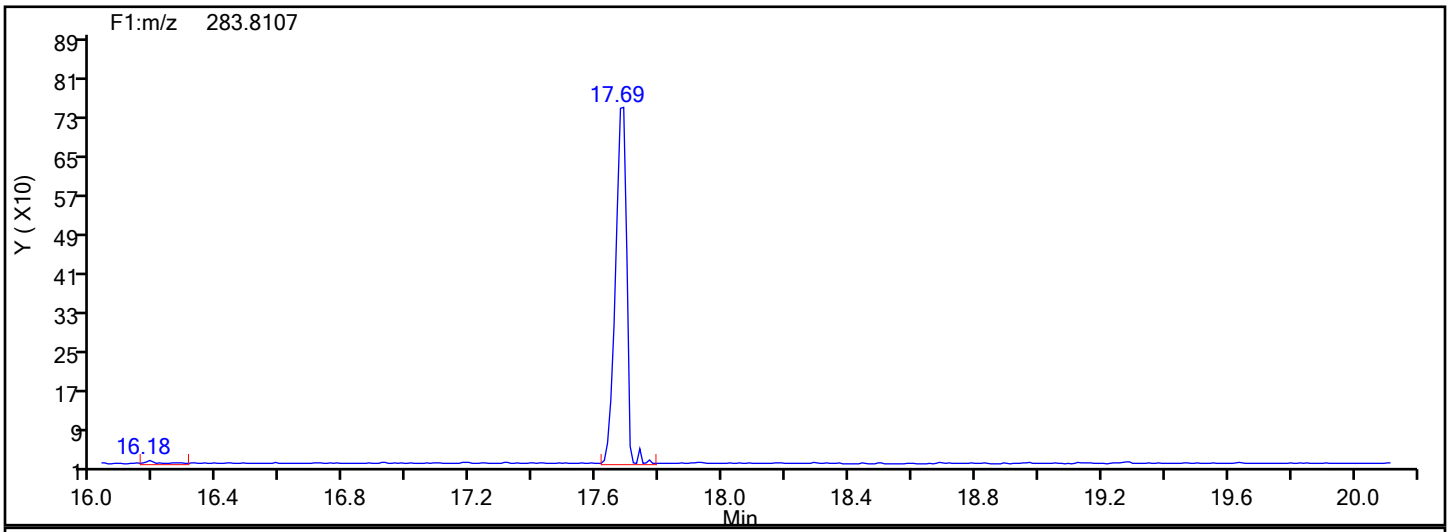
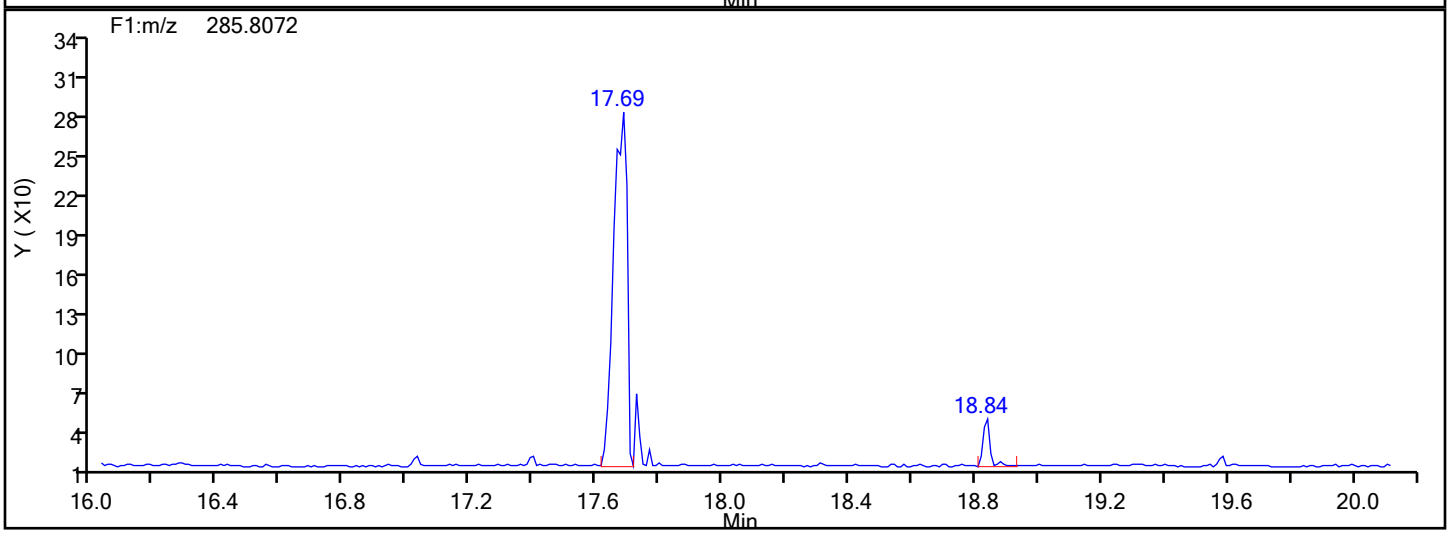
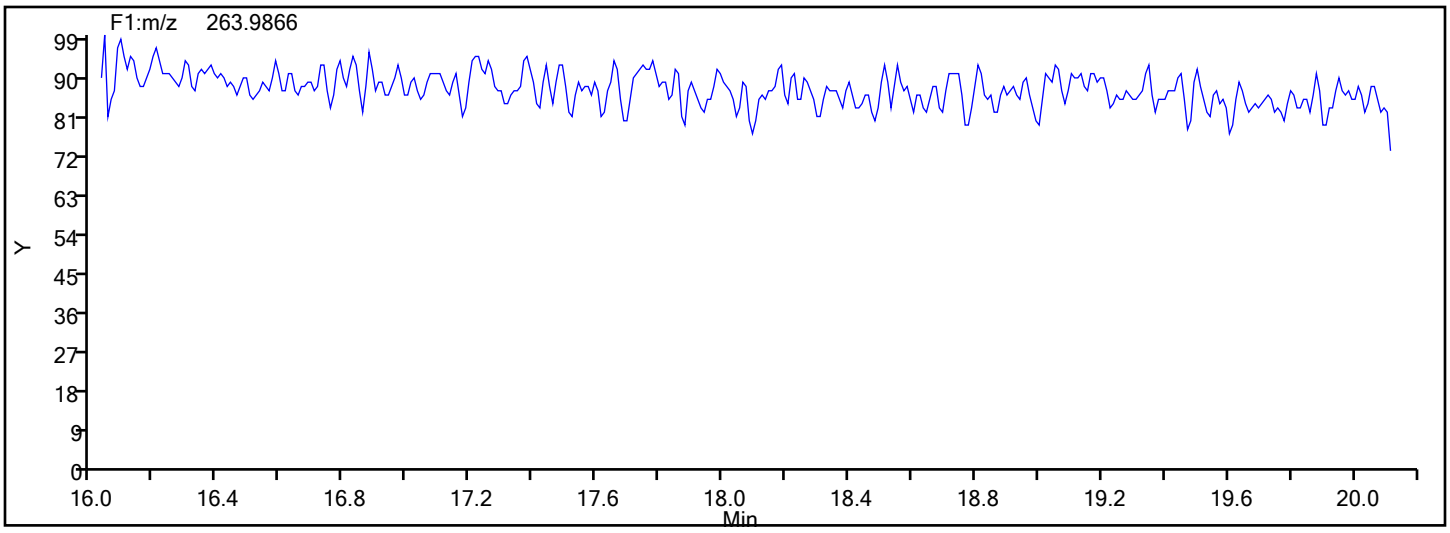
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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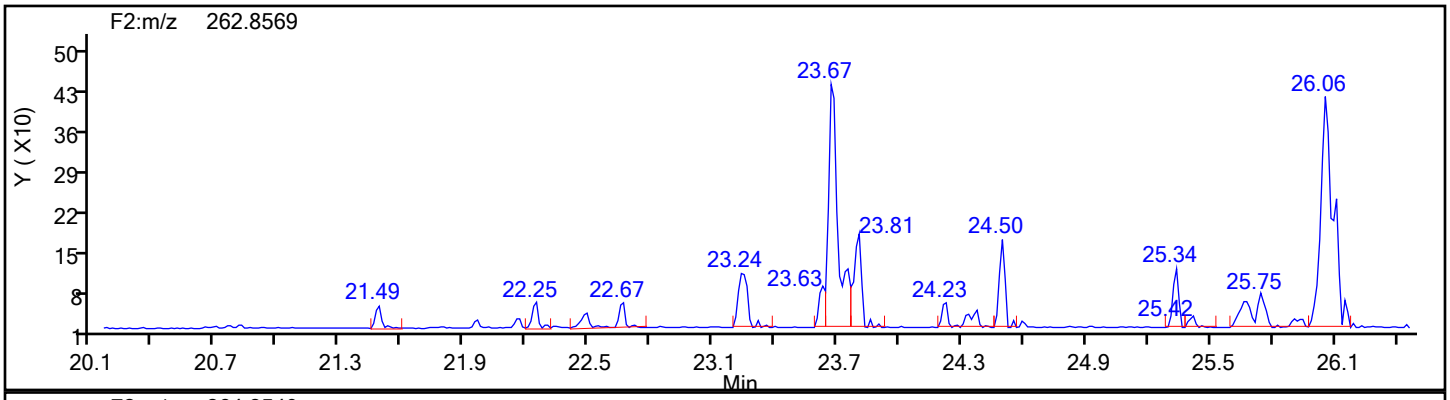
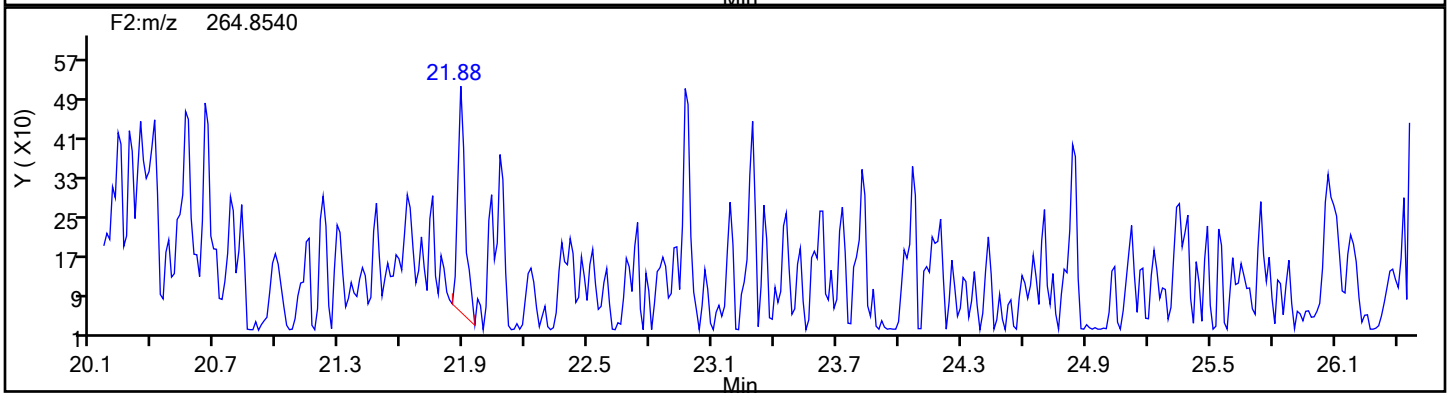
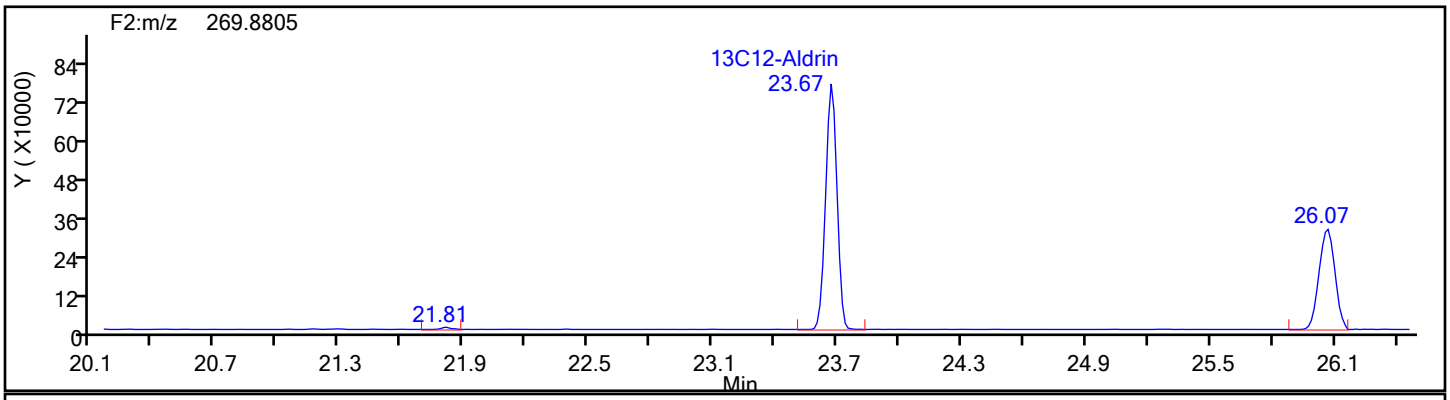
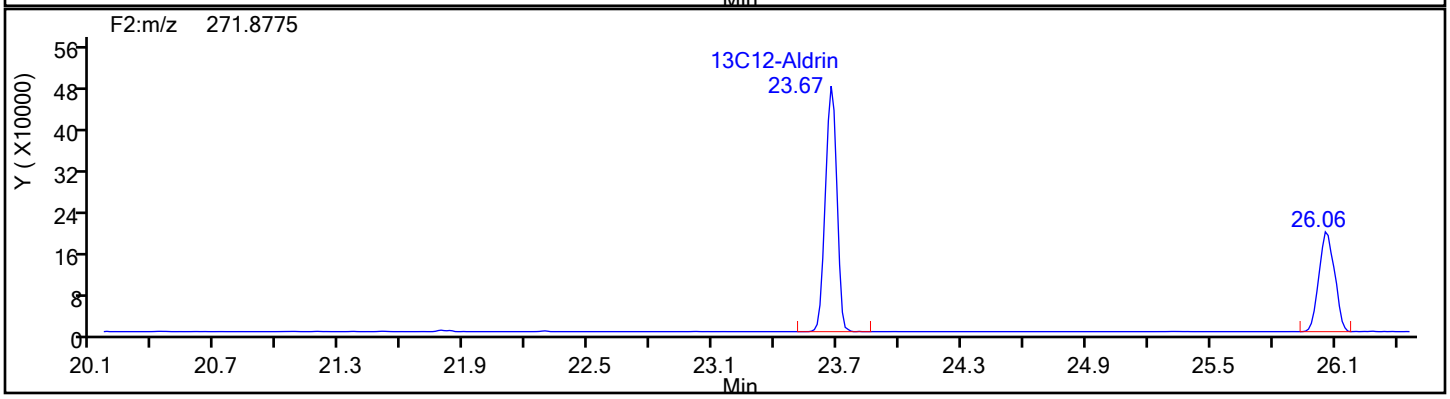
Aldrin





Aldrin Standards





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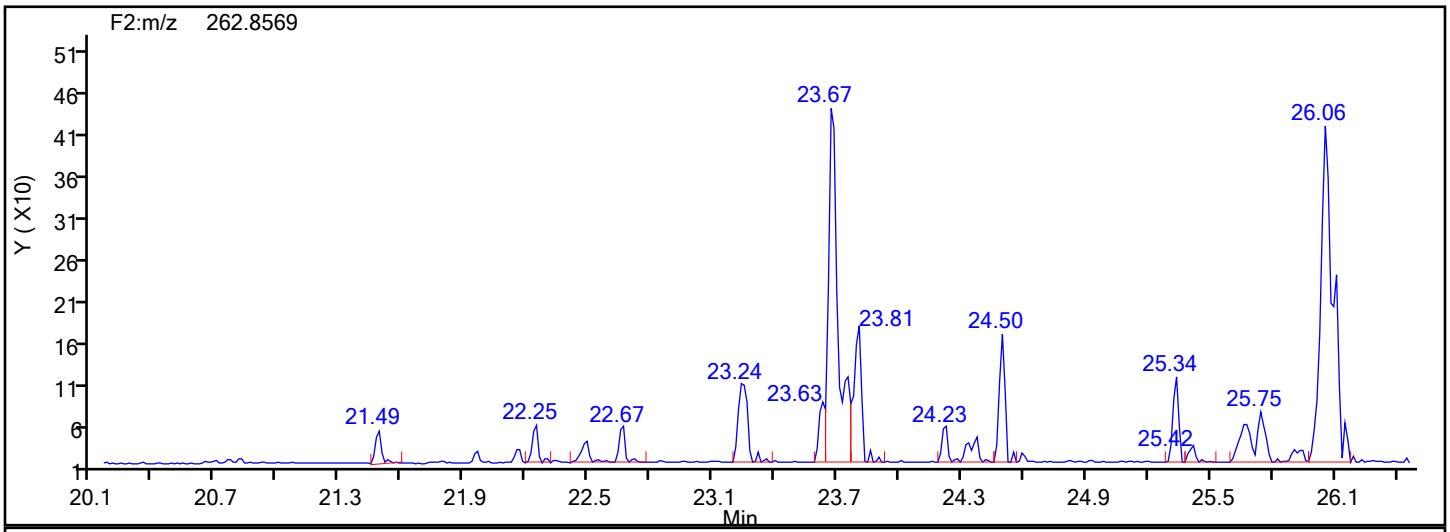
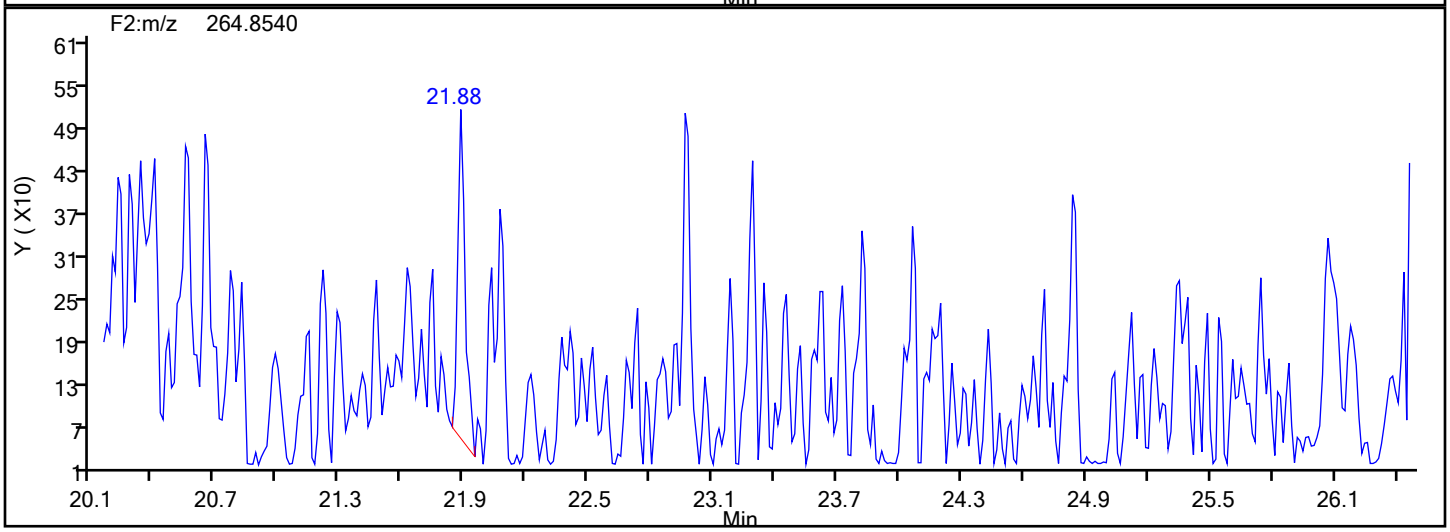
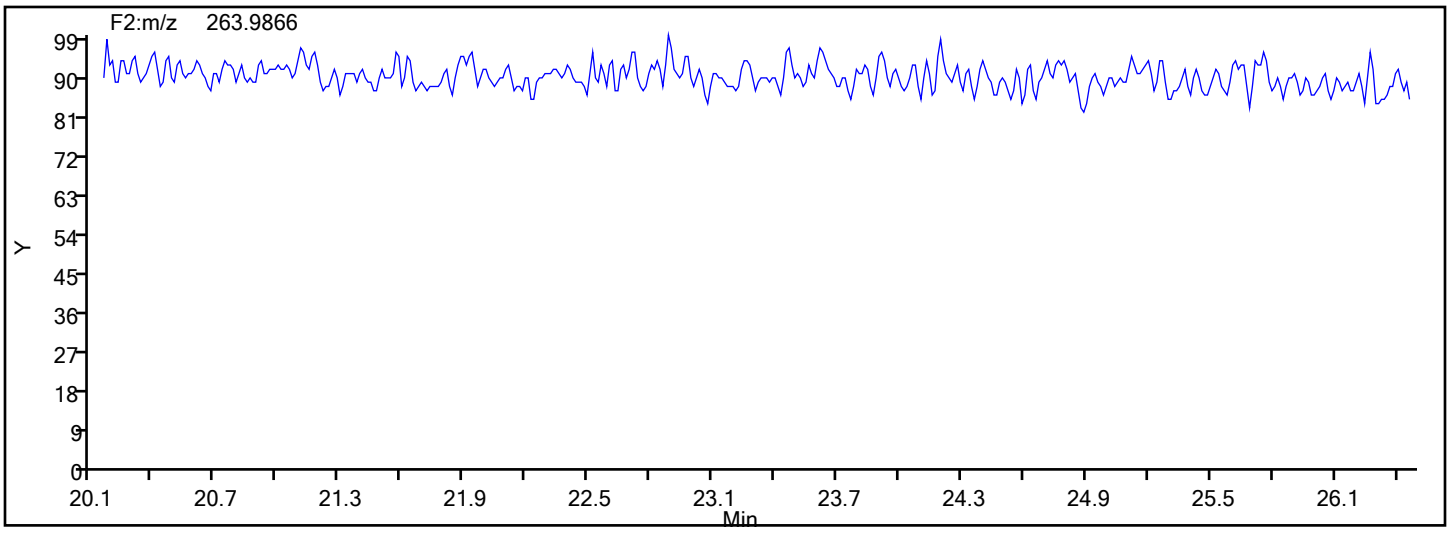




Aldrin Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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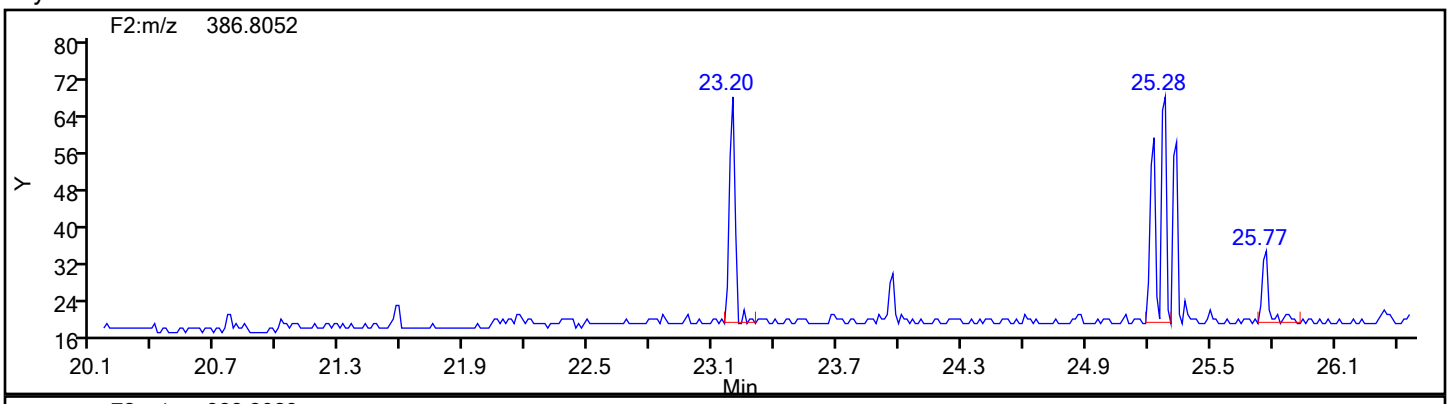
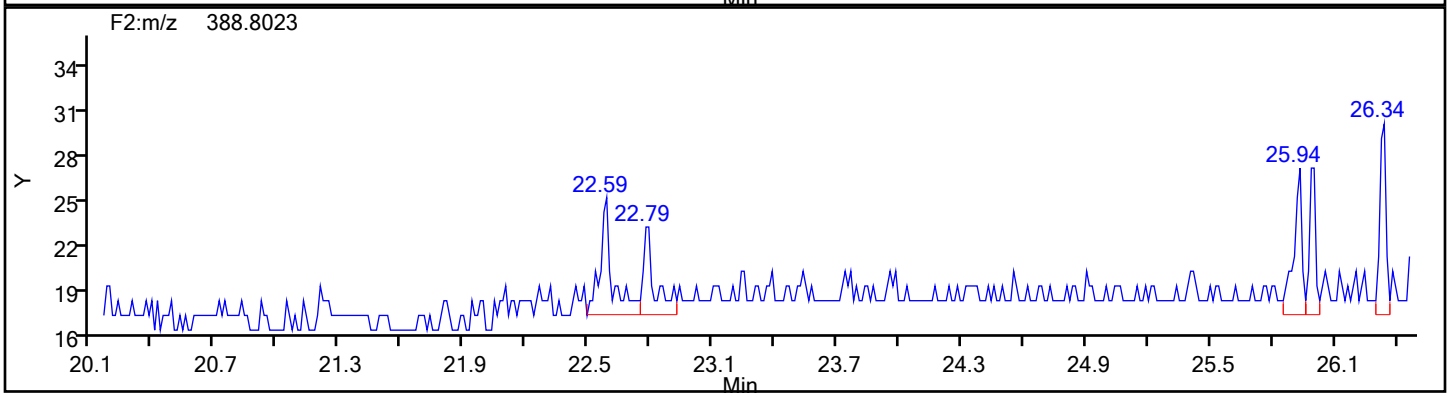
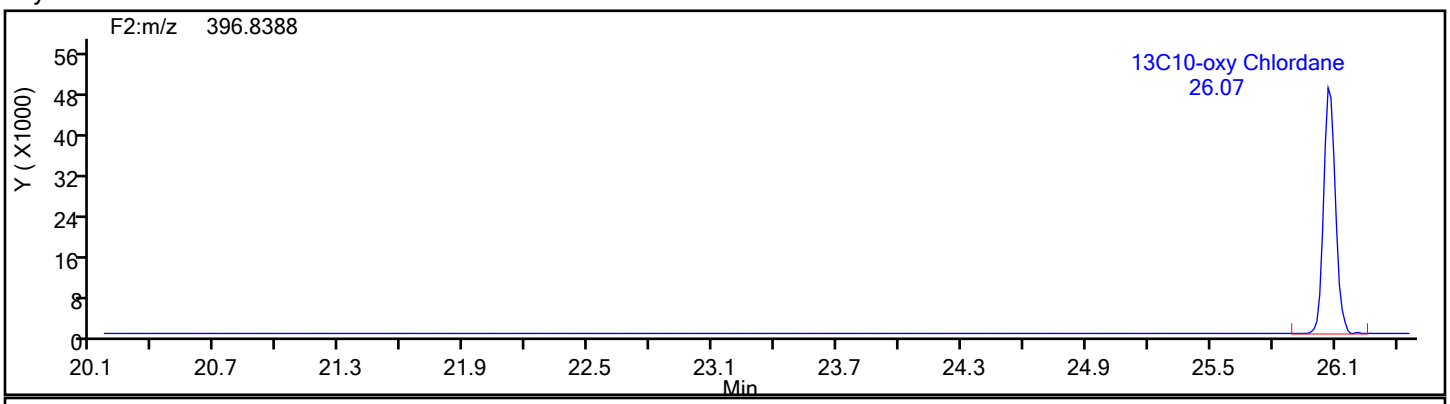
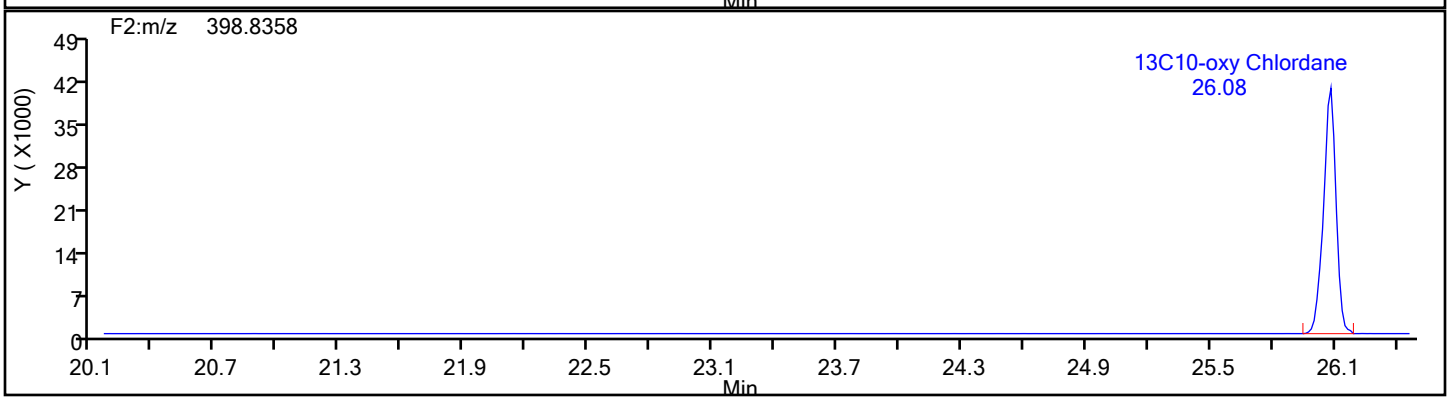
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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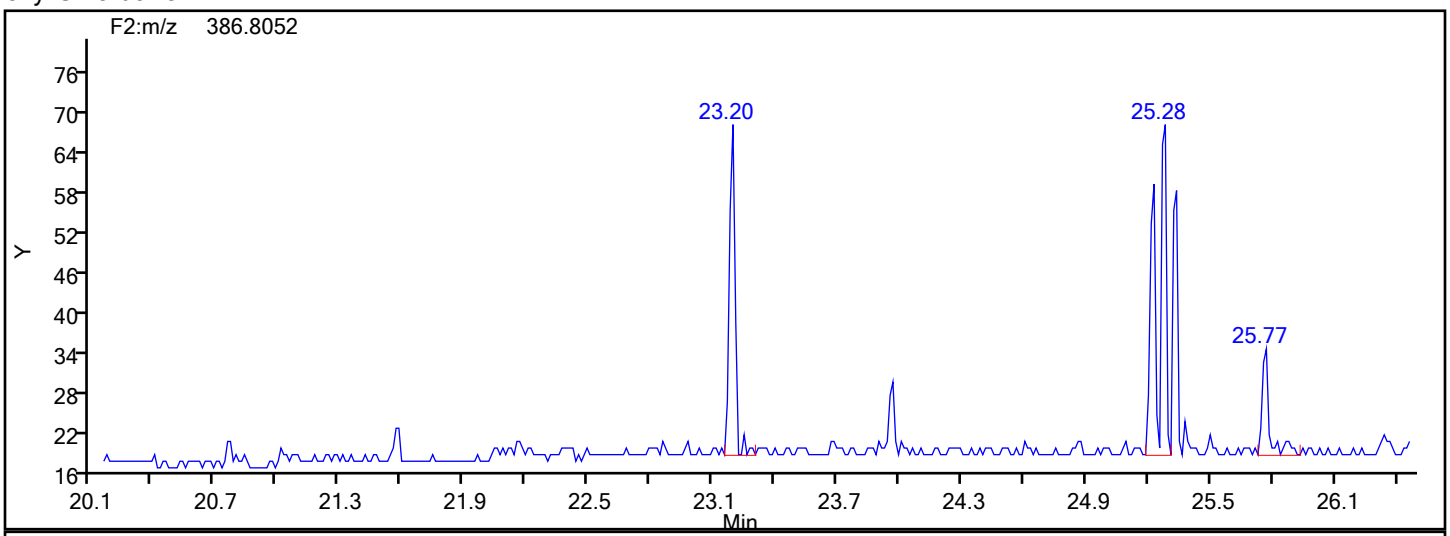
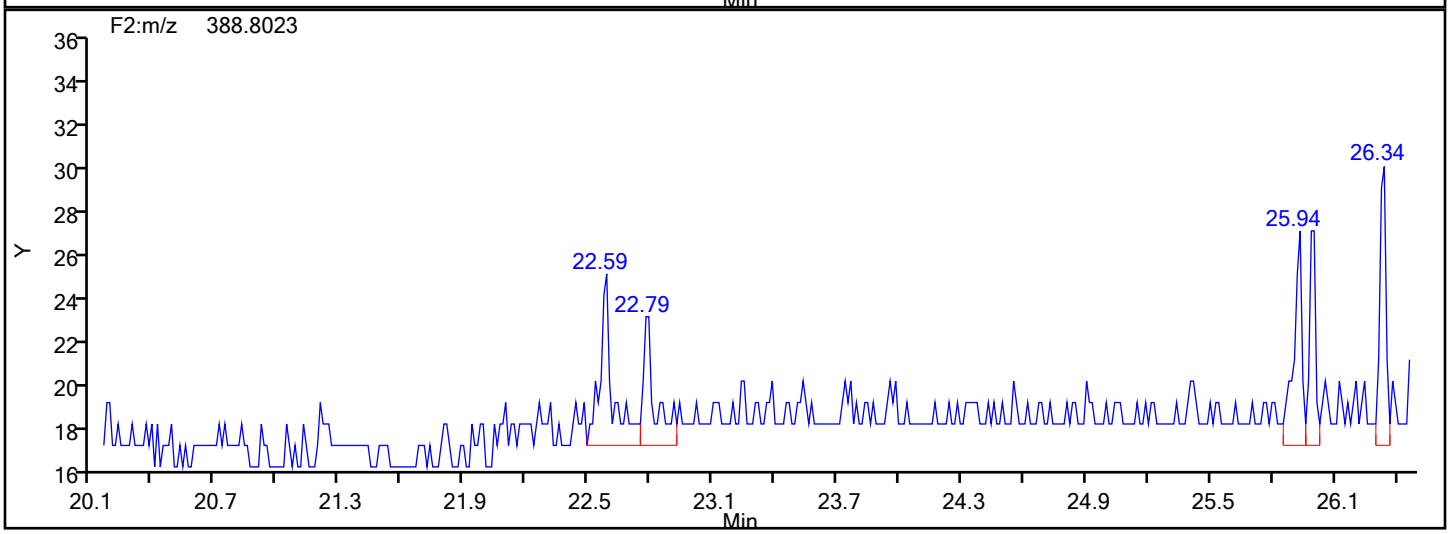
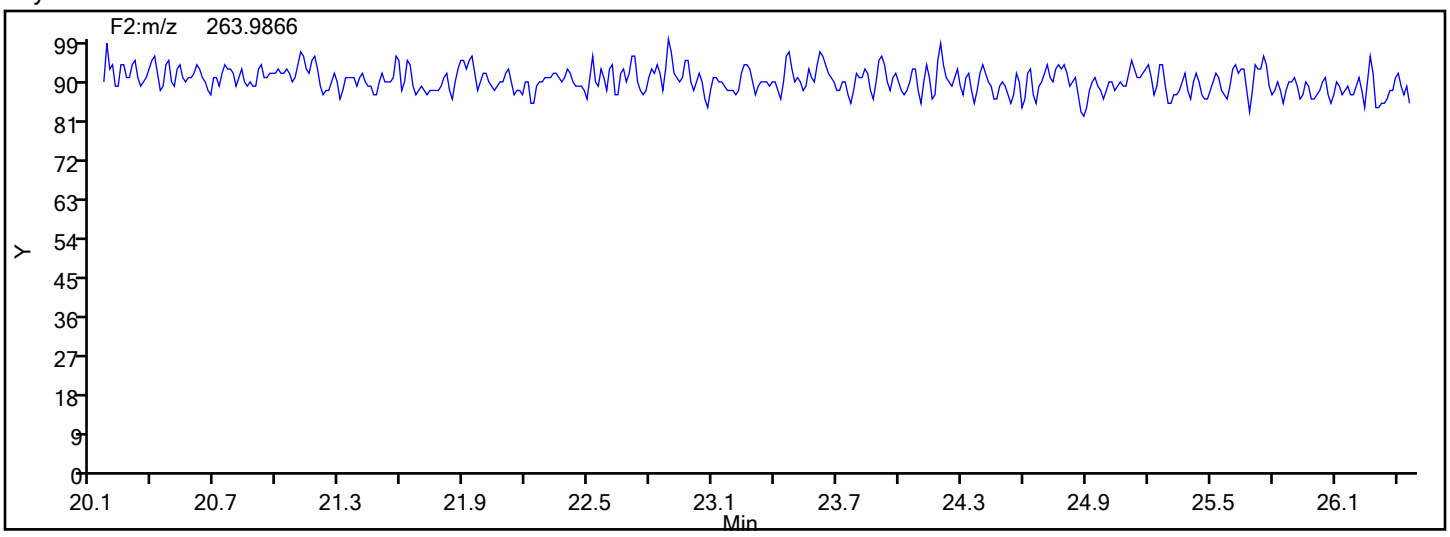
oxy-Chlordane





oxy-Chlordane Lock Mass



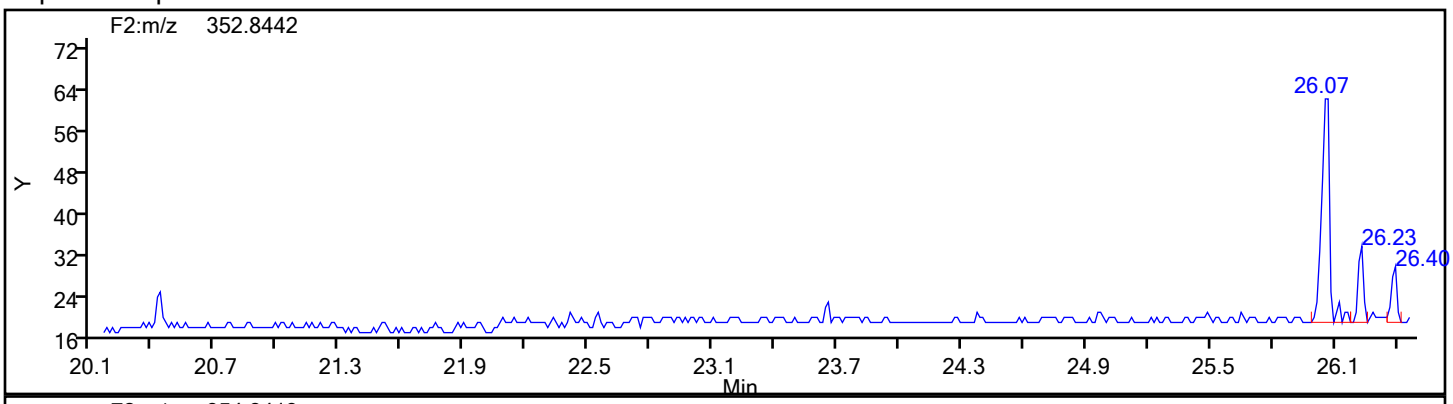
Report Date: 05-May-2025 18:00:29 Chrom Revision: 2.3 18-Apr-2025 15:35:42

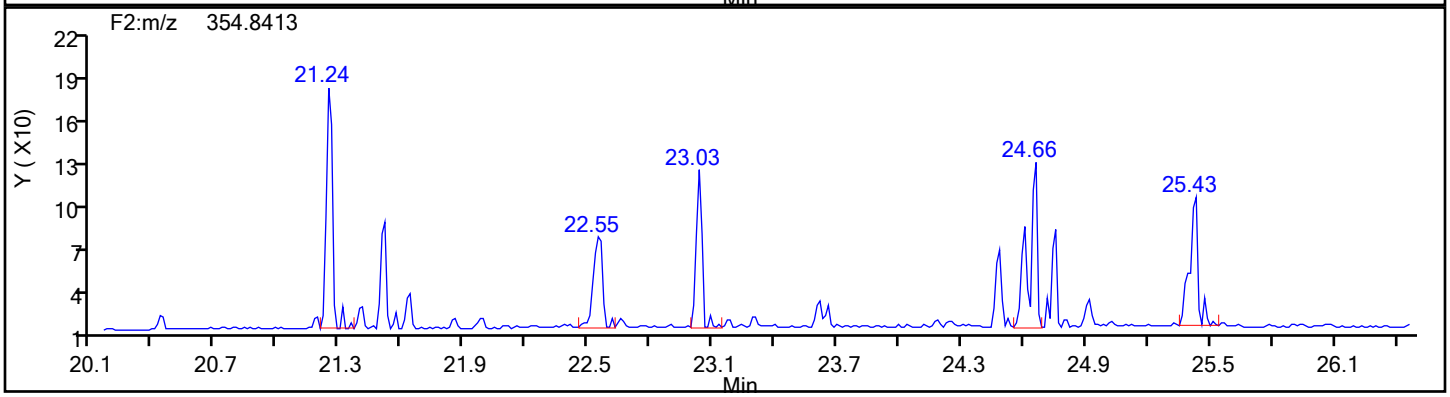
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

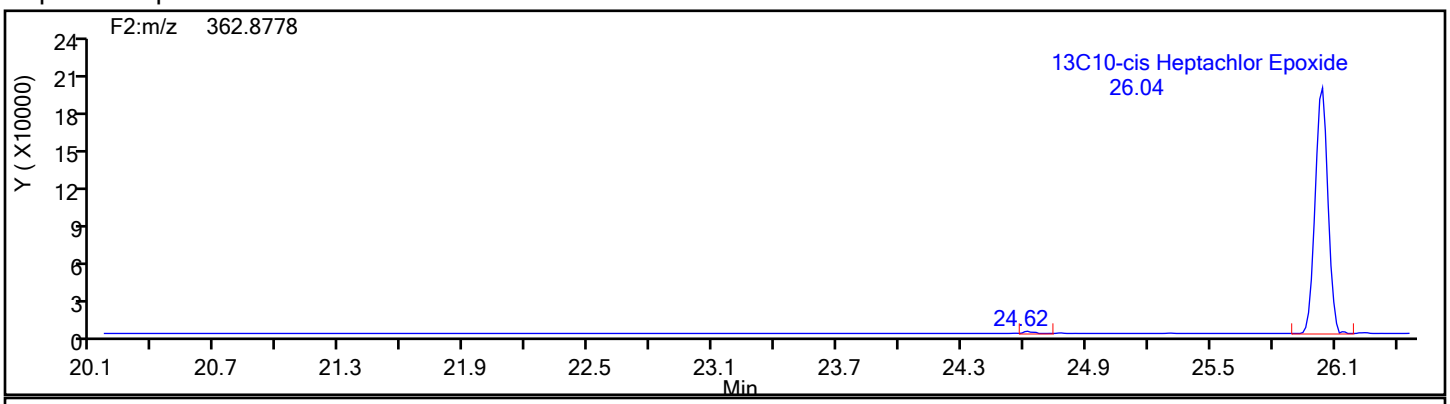
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

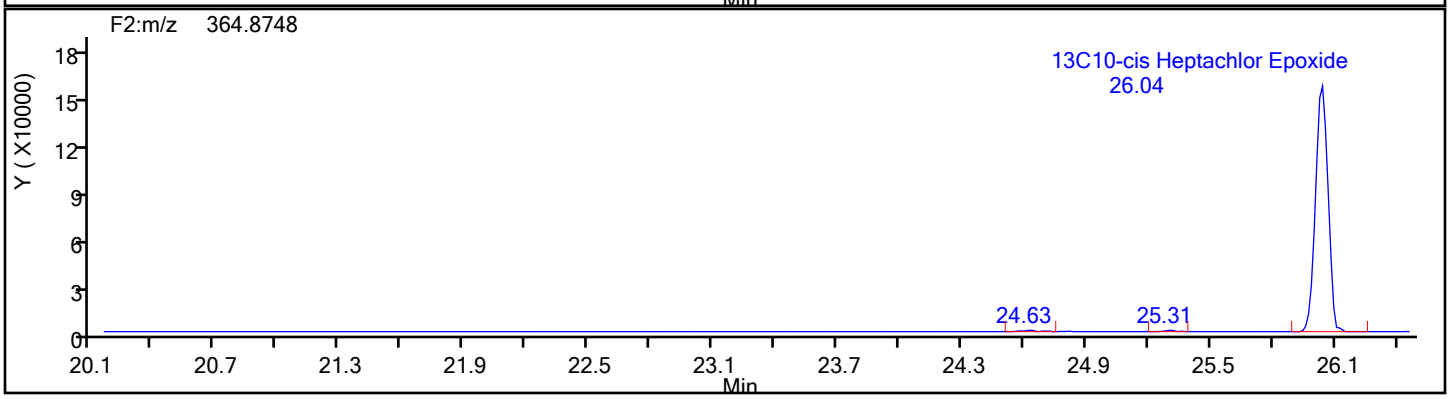
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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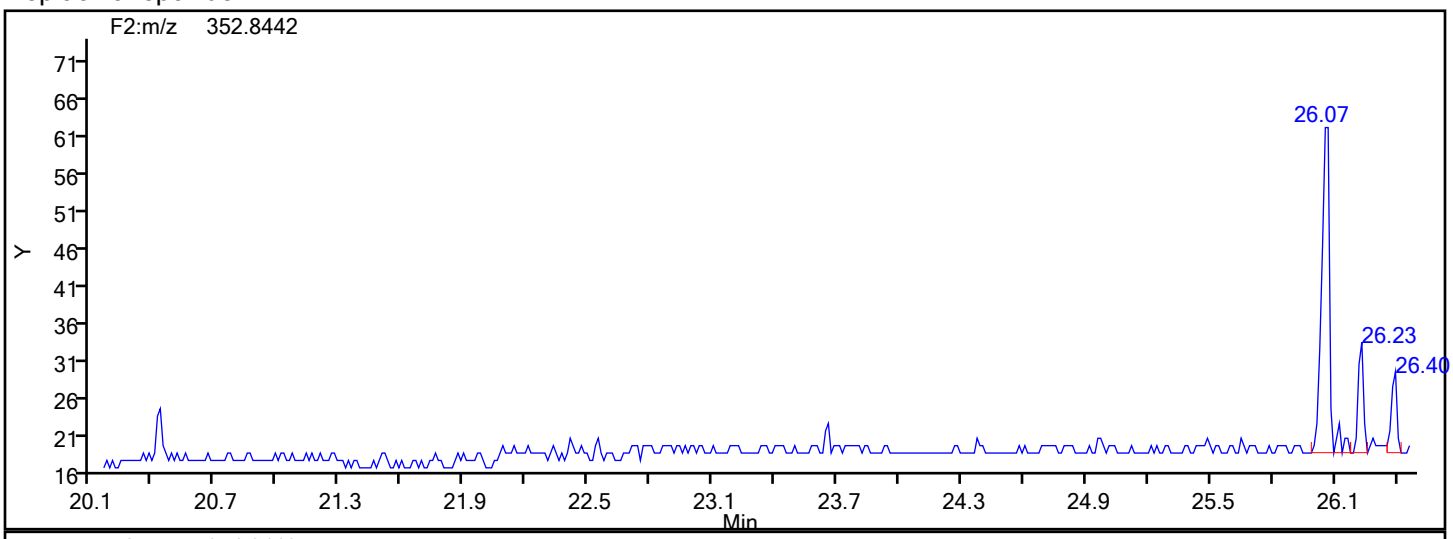
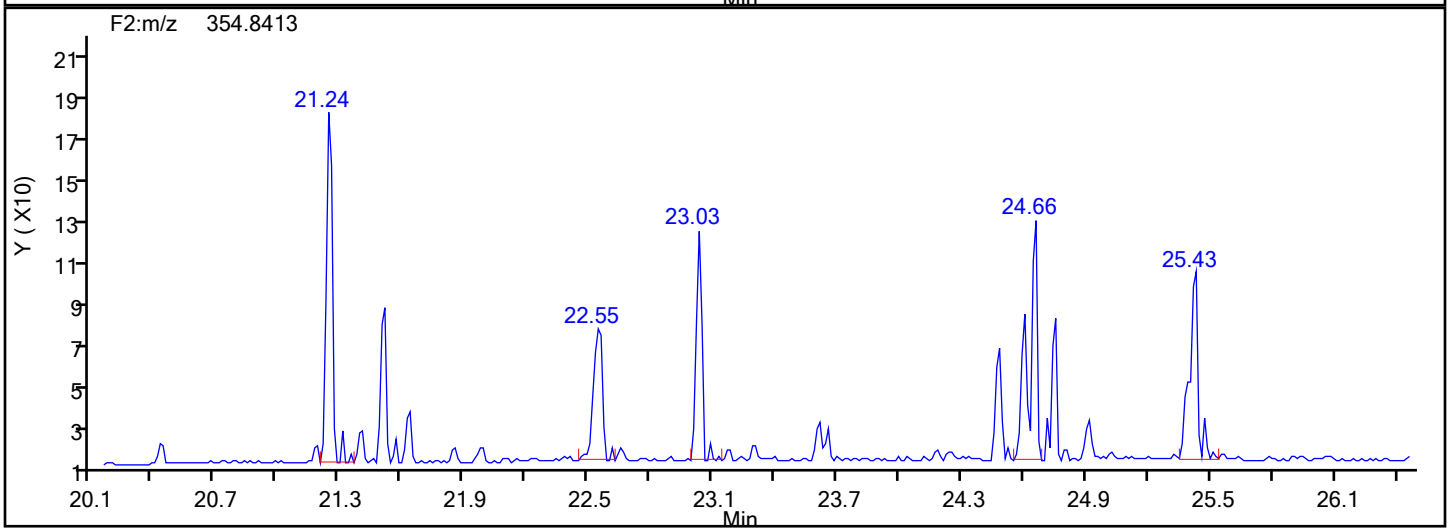
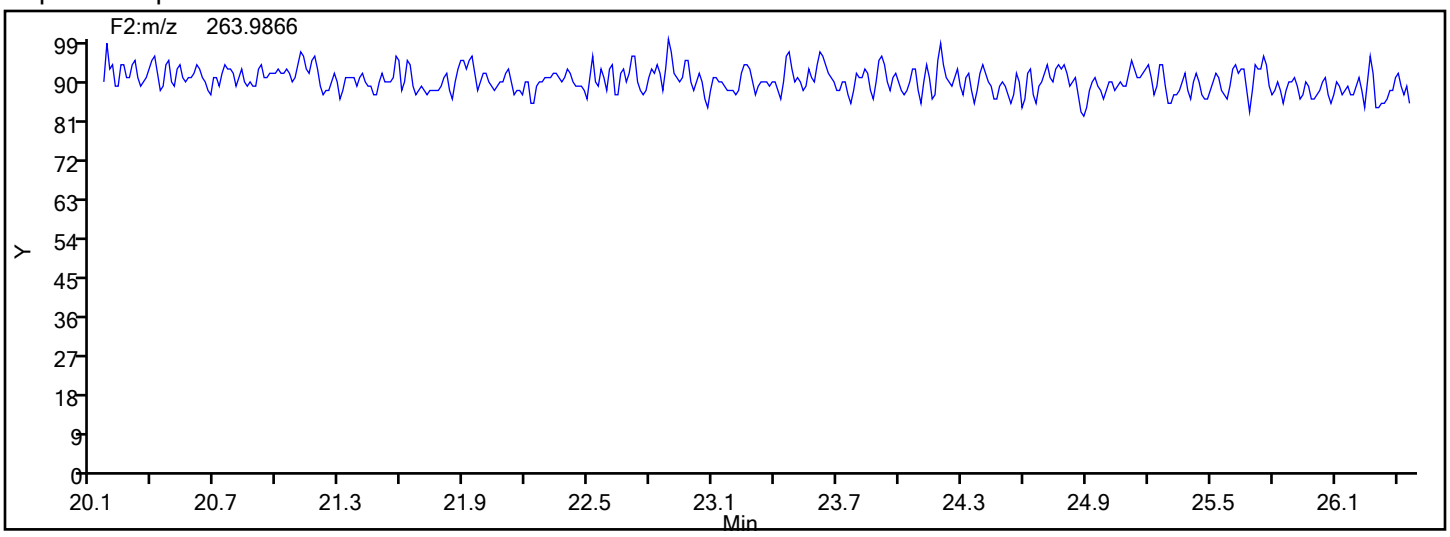
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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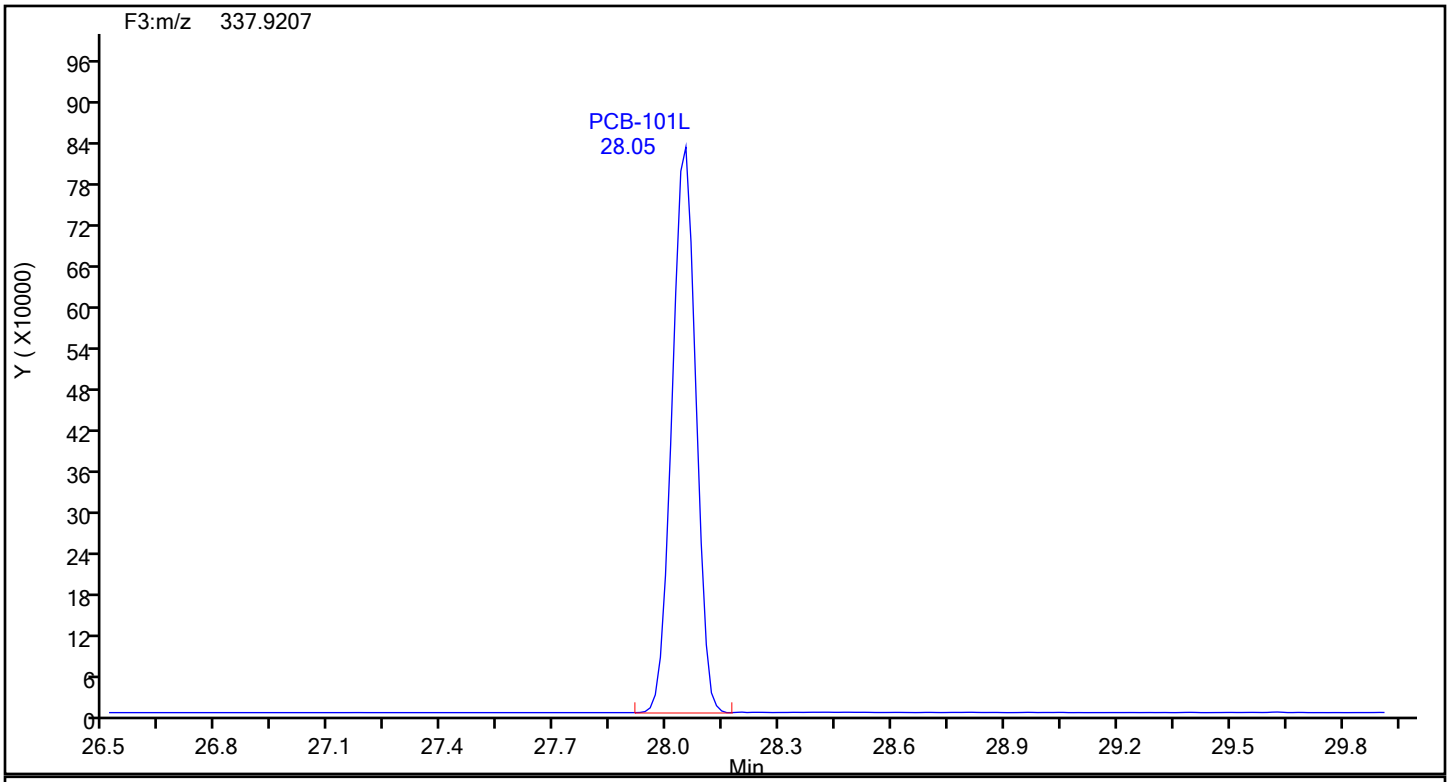
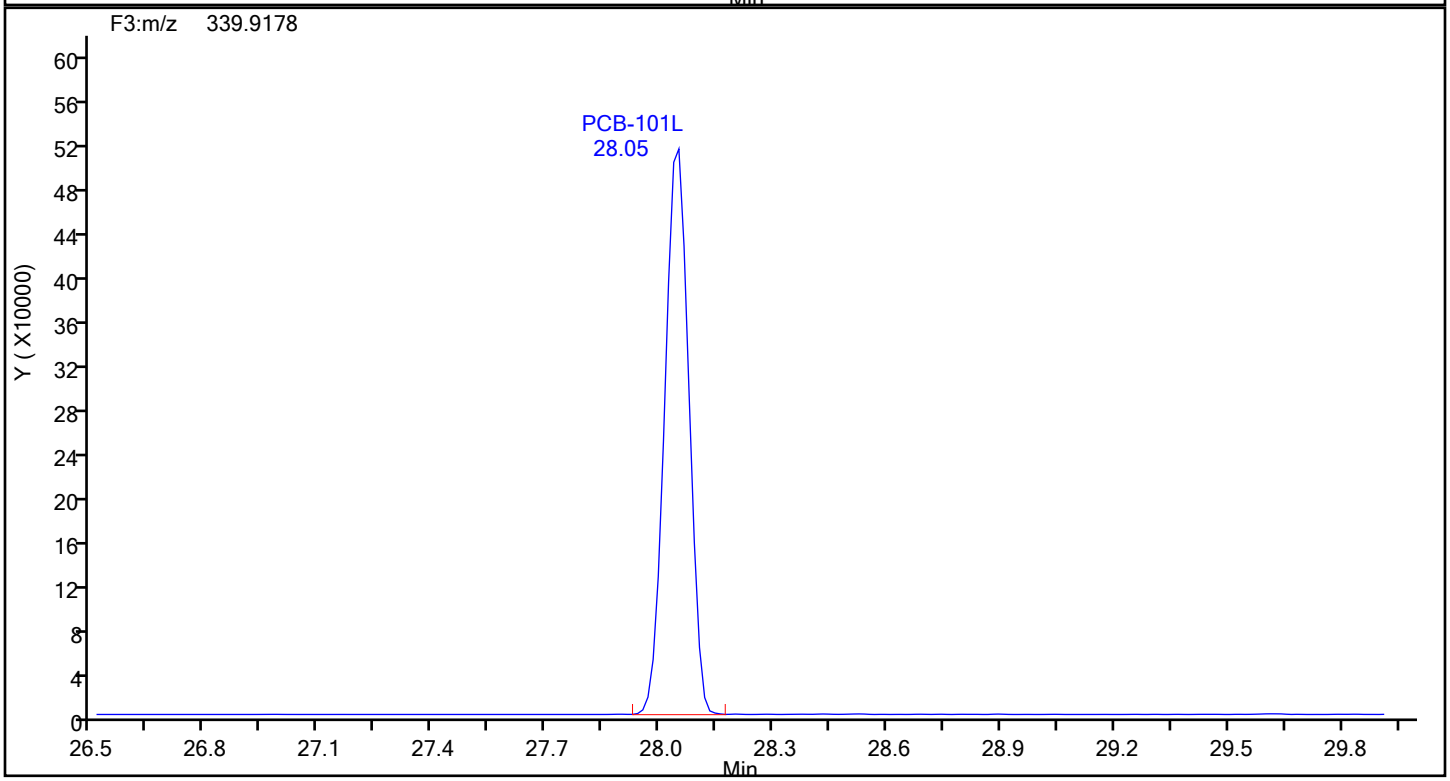
PCB-101L Standards





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Eurofins Knoxville

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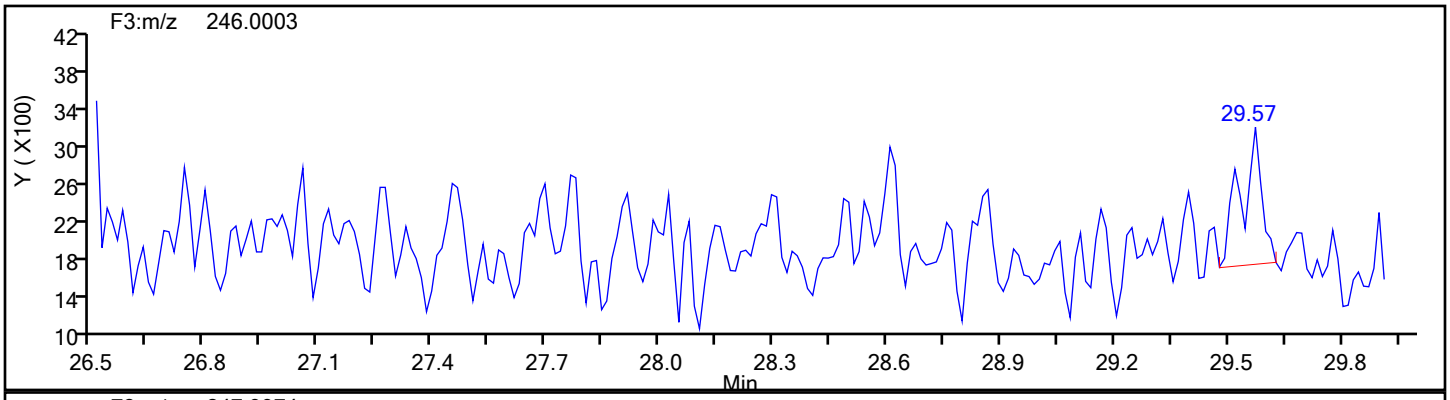
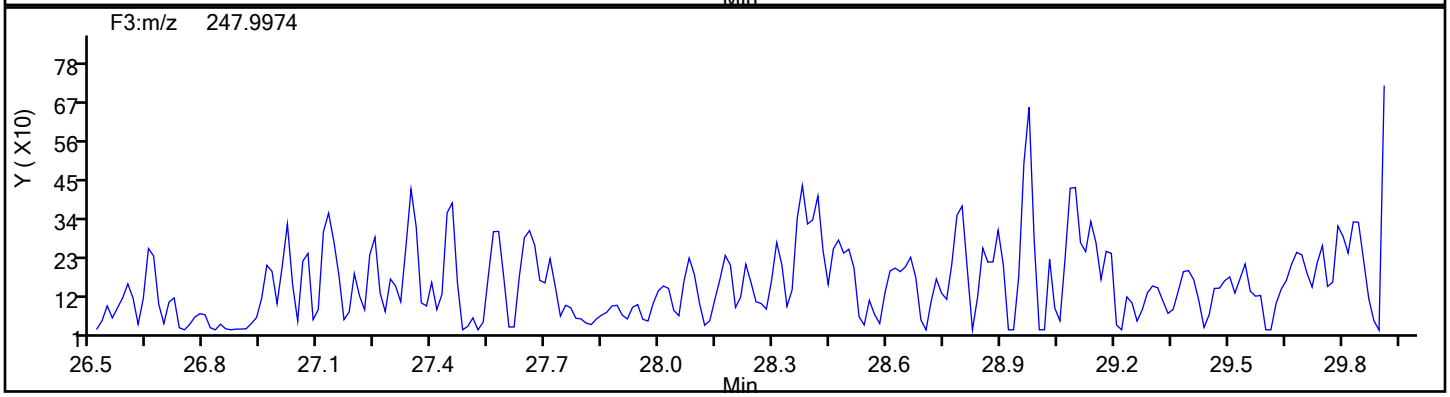
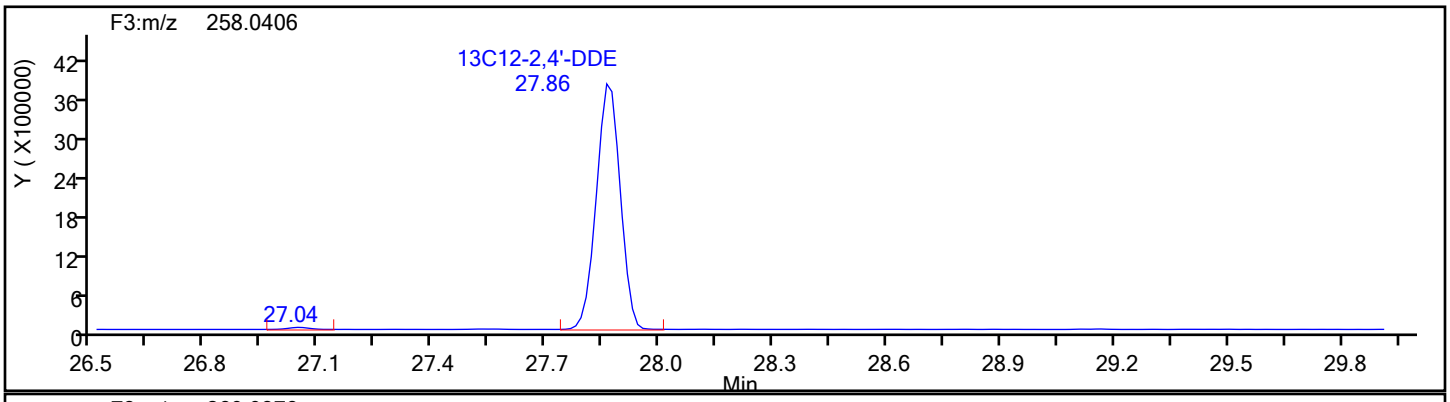
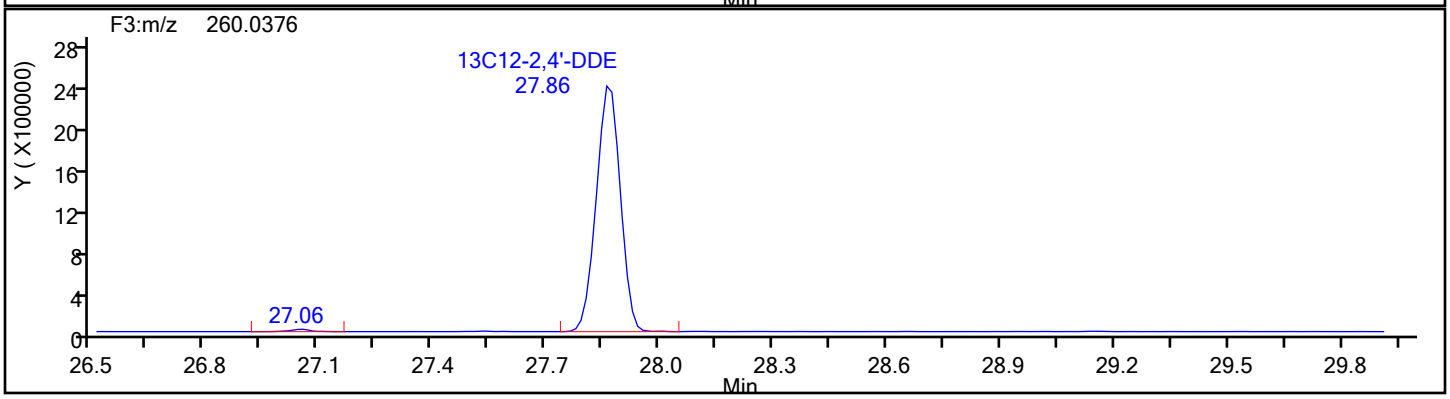
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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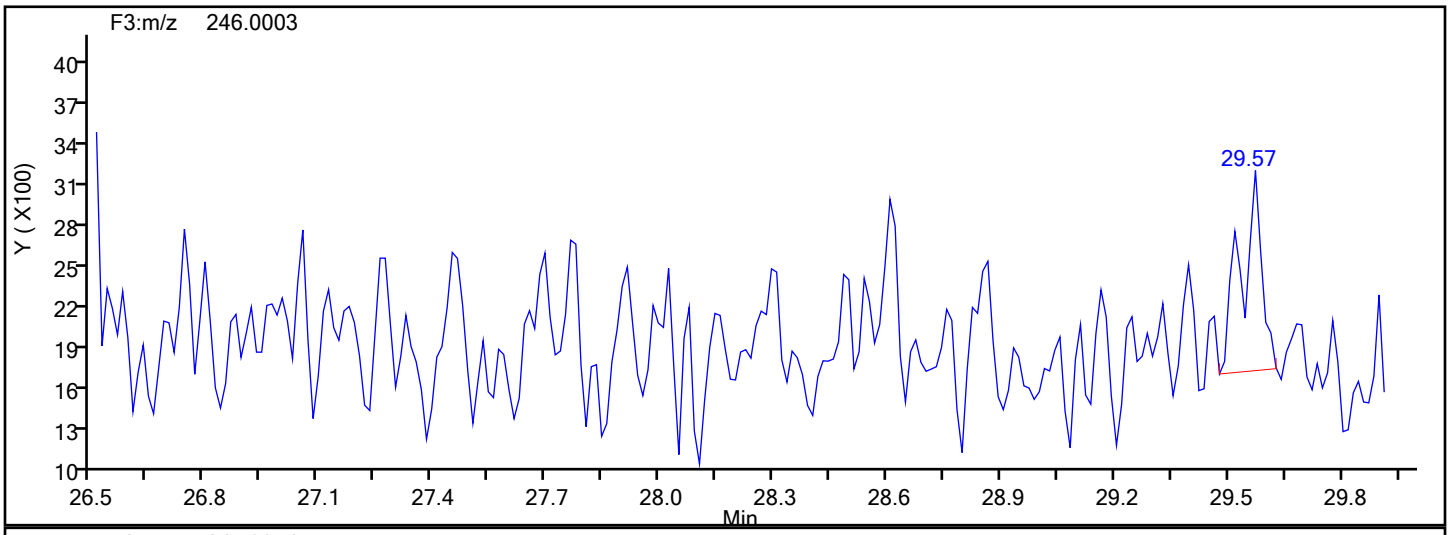
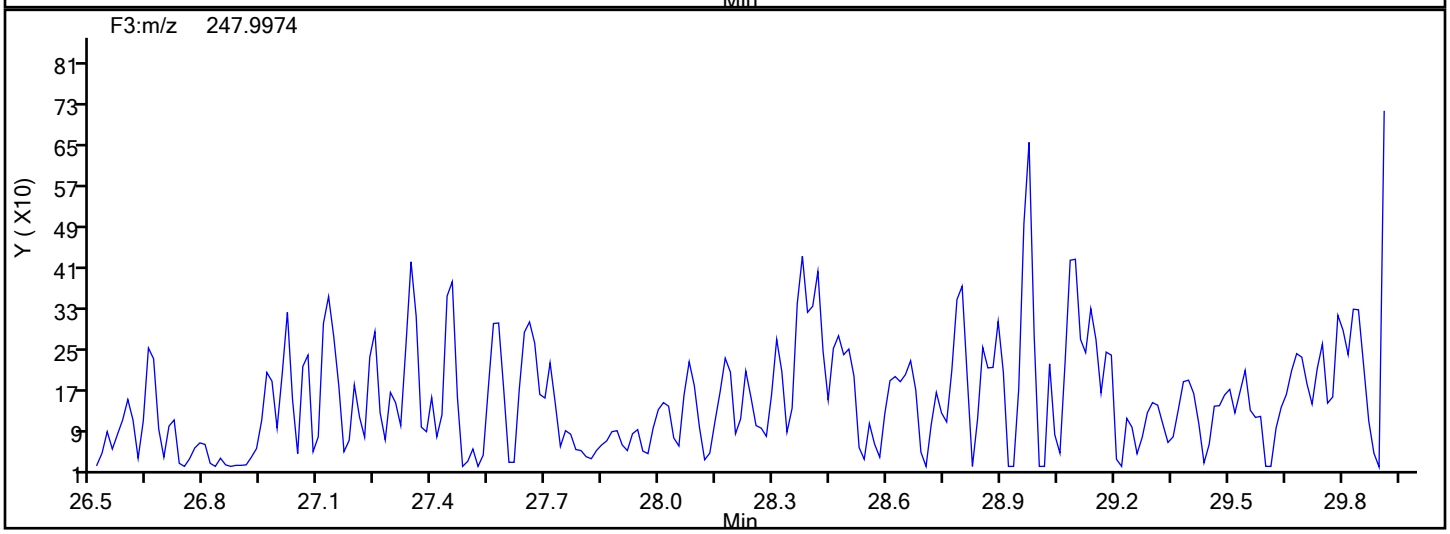
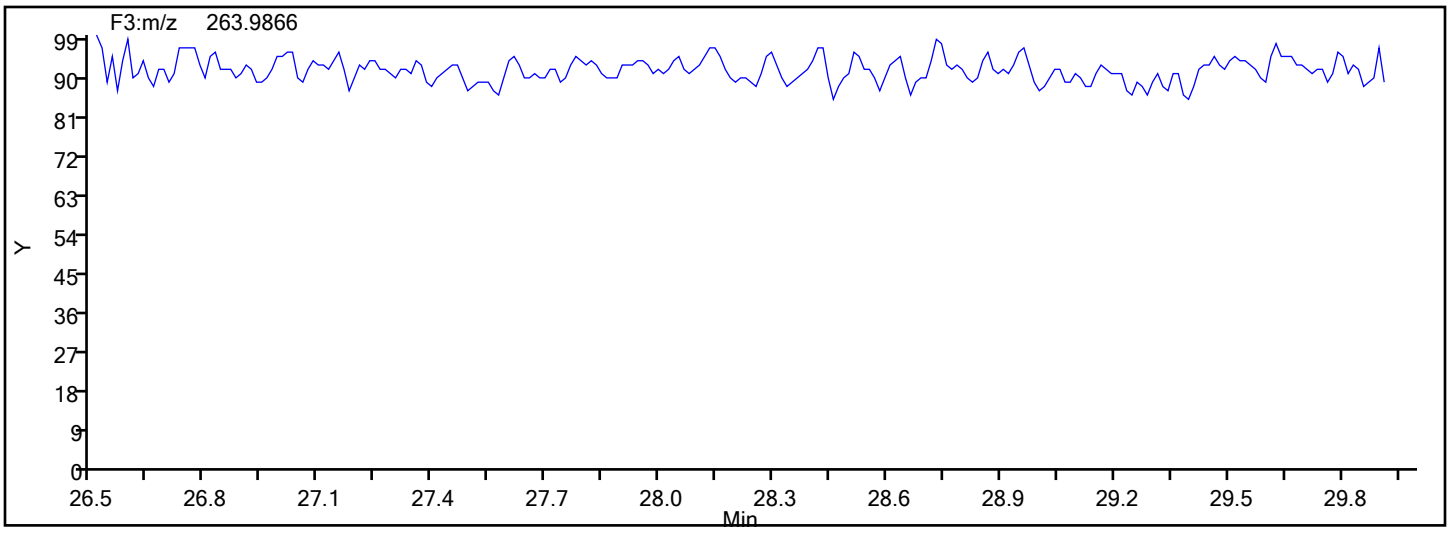
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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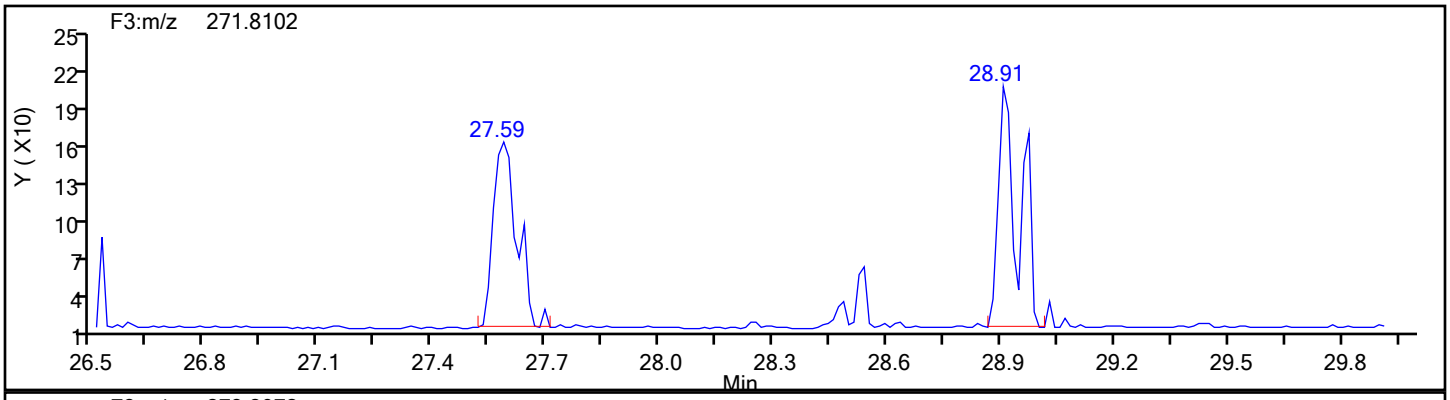
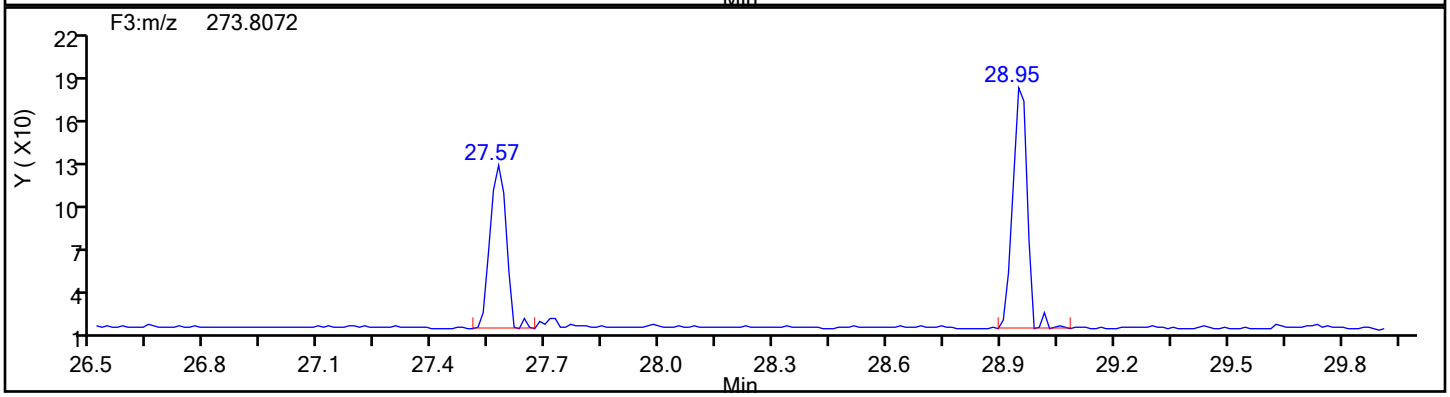
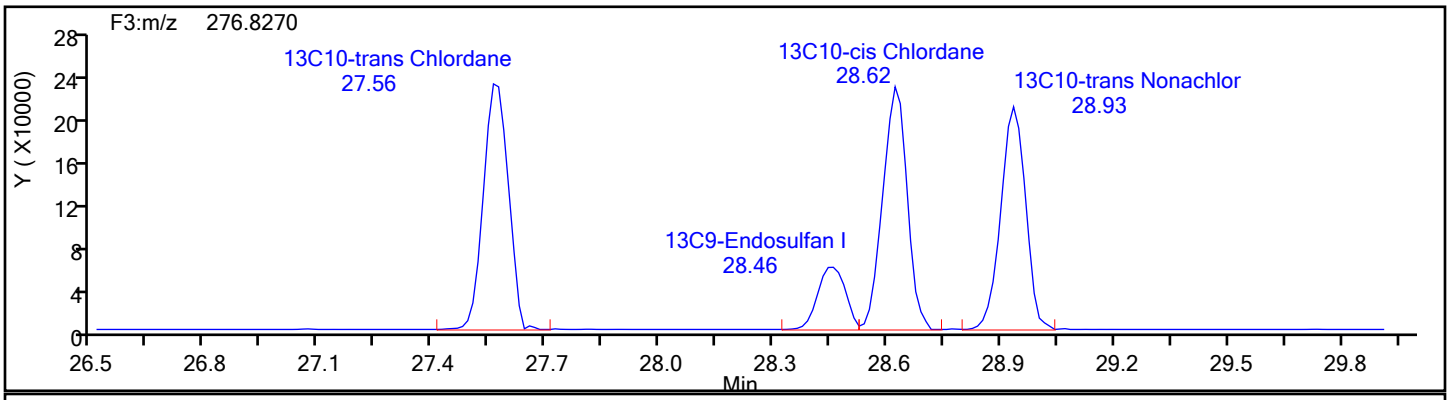
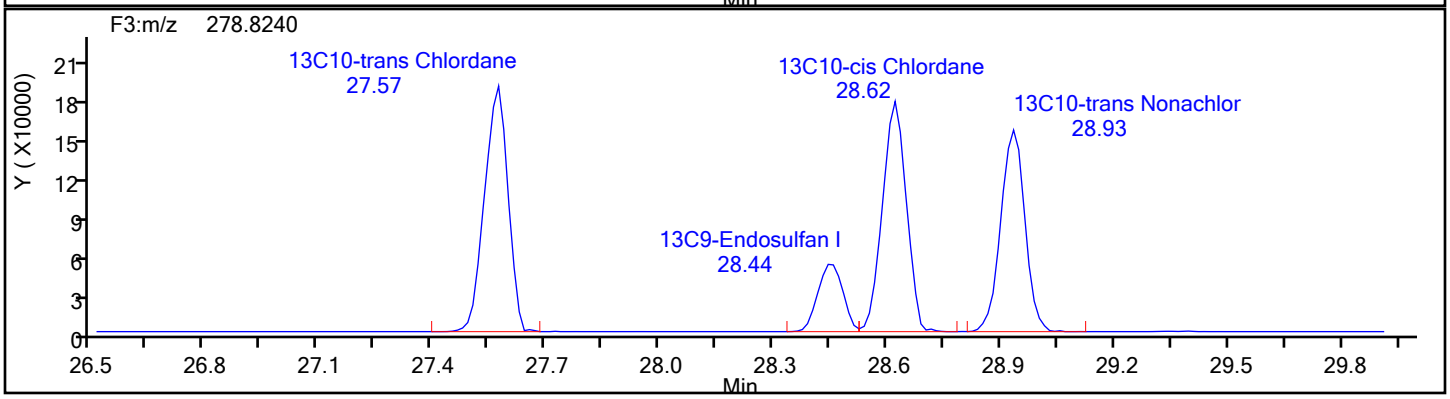
Chlordane





Chlordane Standards





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Eurofins Knoxville

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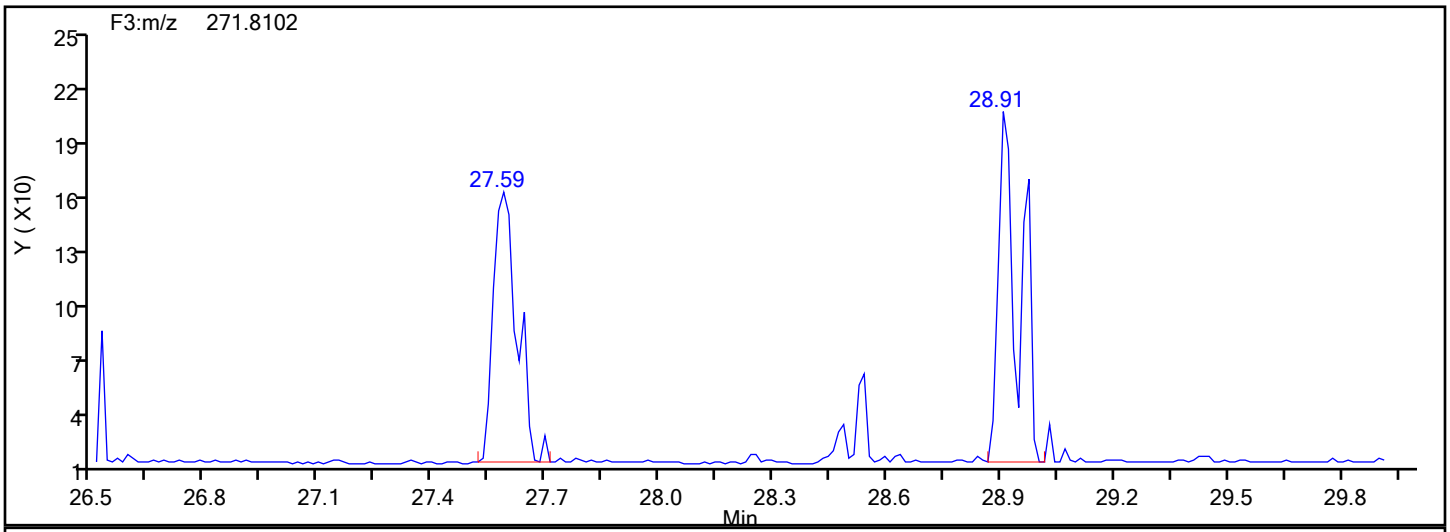
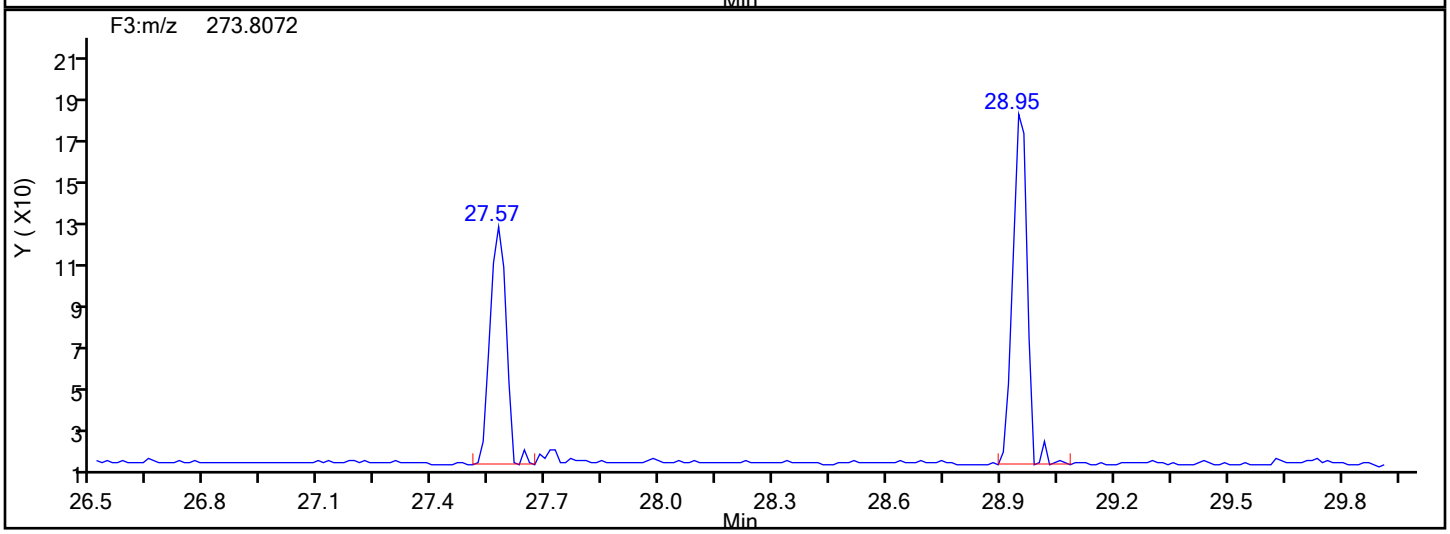
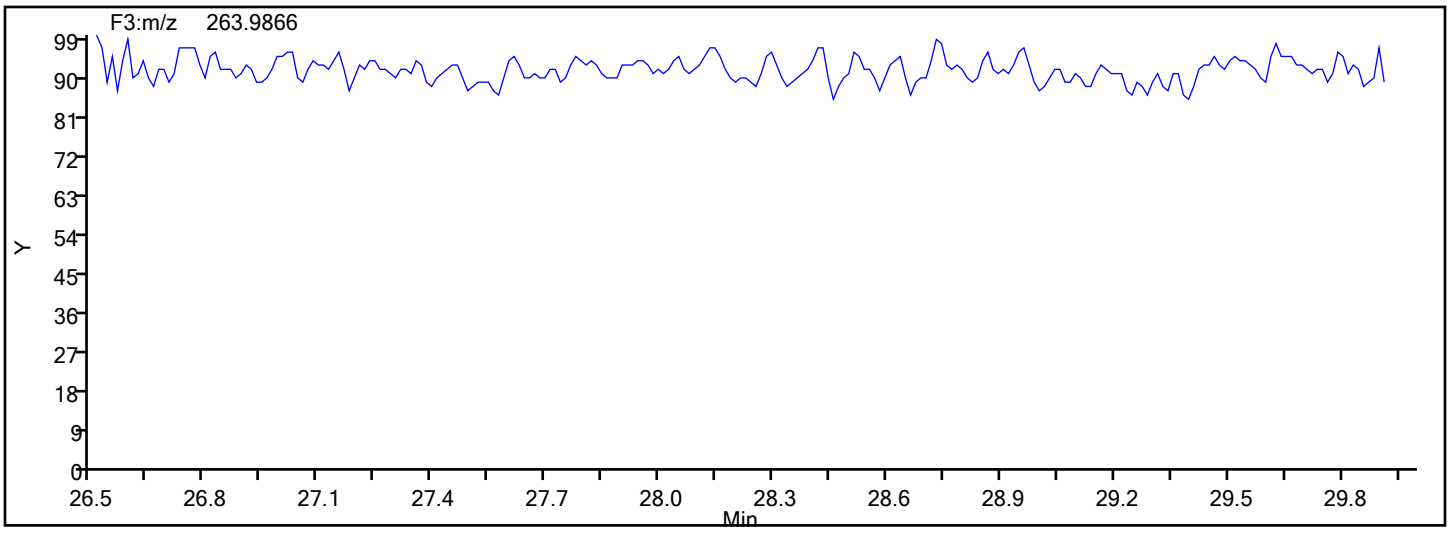
Chlordane





Chlordane Lock Mass



Report Date: 05-May-2025 18:00:30 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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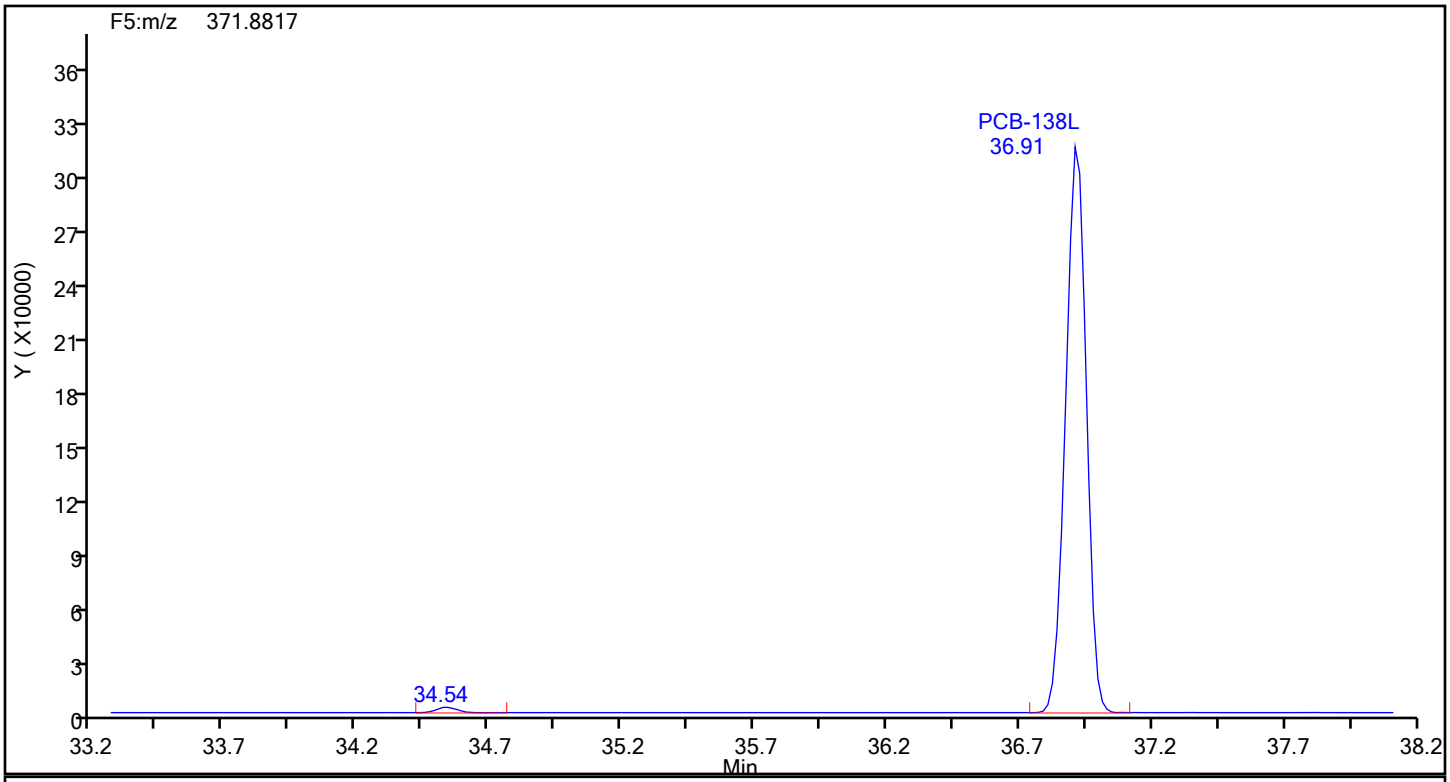
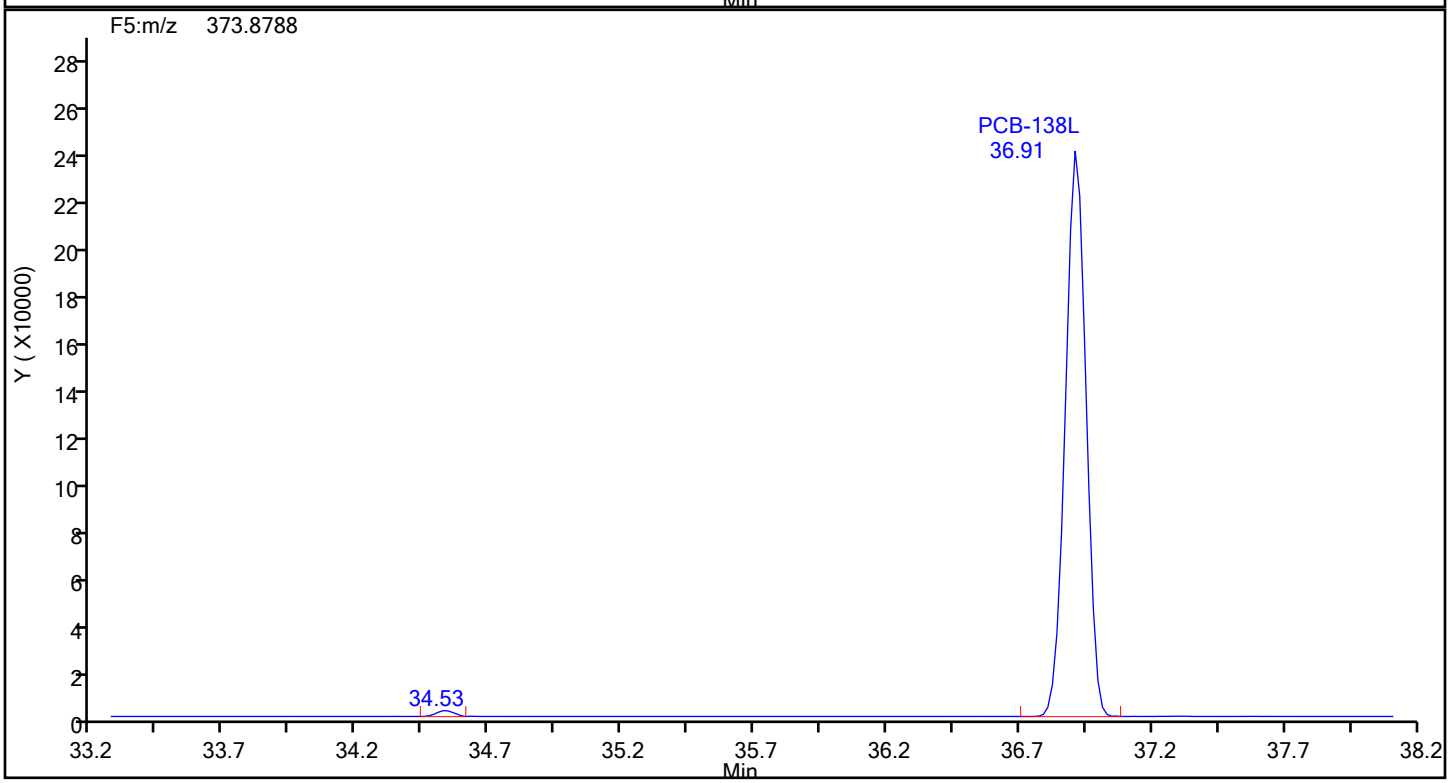
PCB-138L Standards





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Eurofins Knoxville

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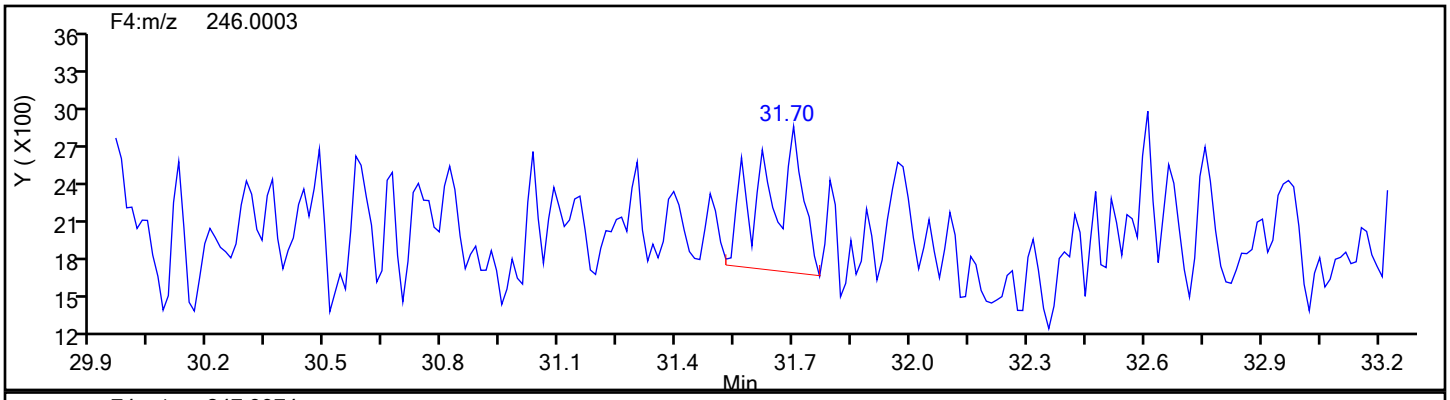
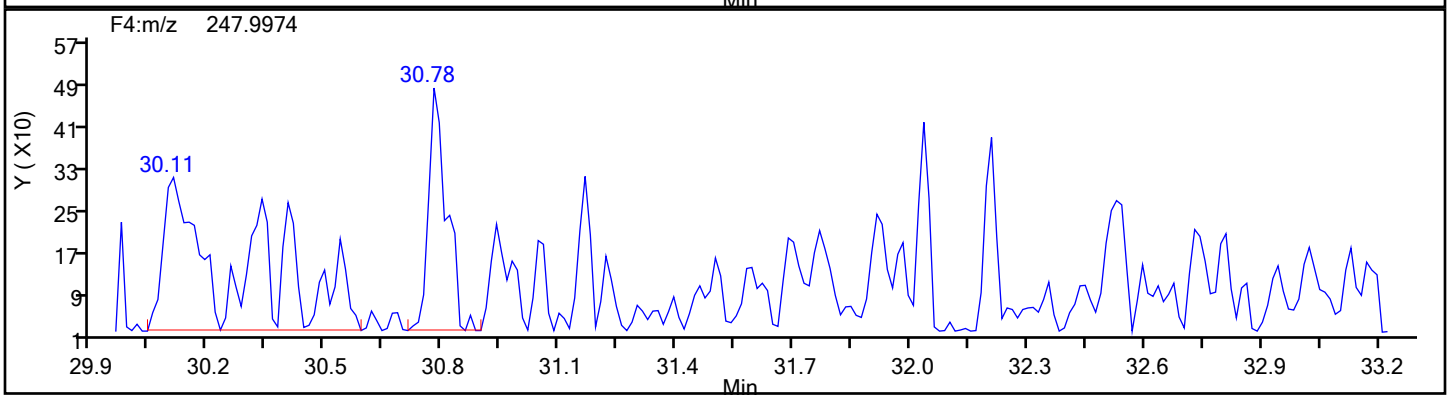
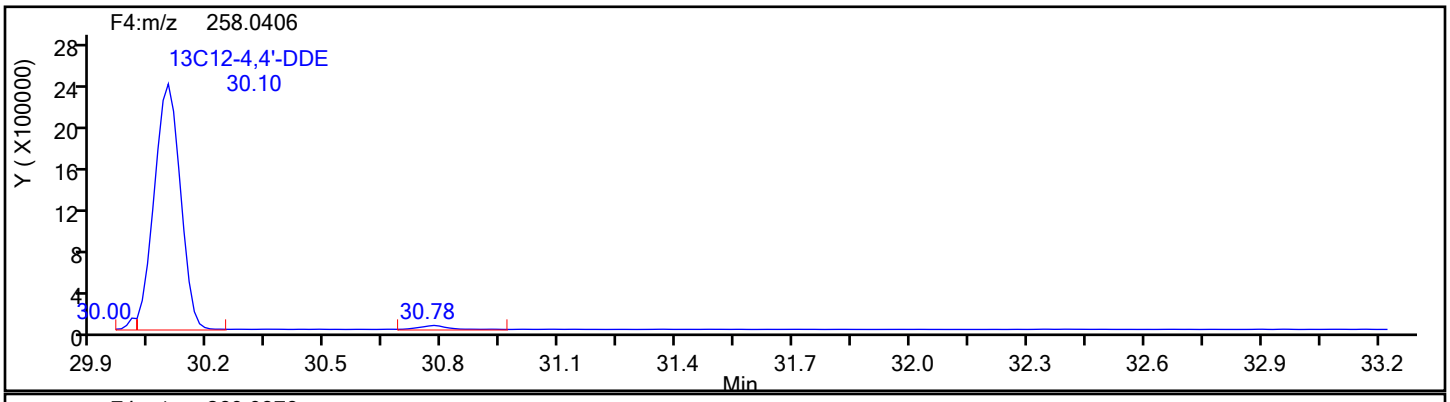
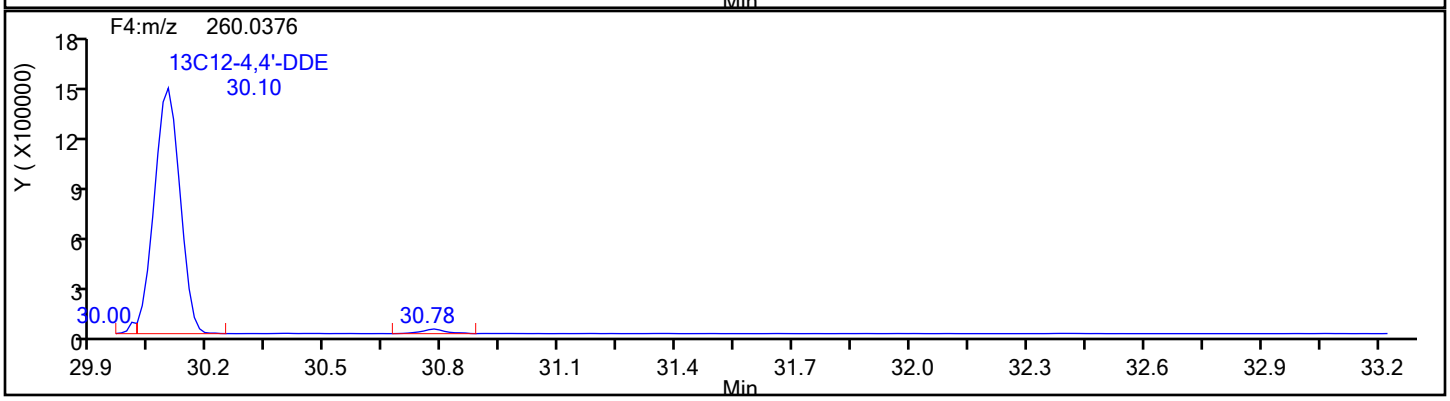
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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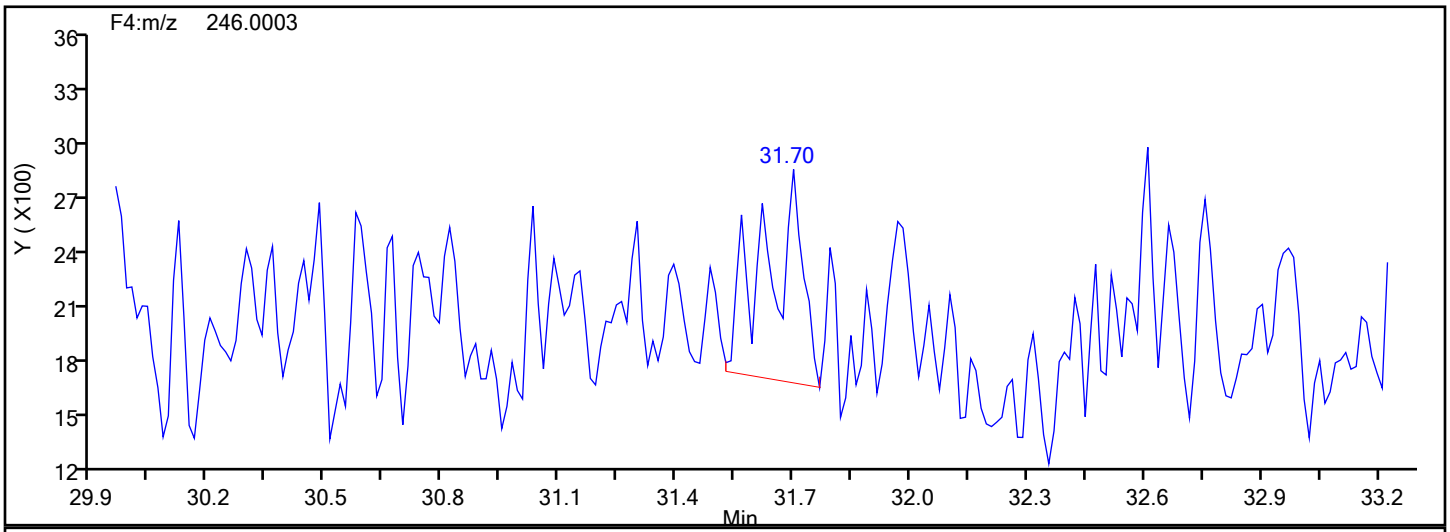
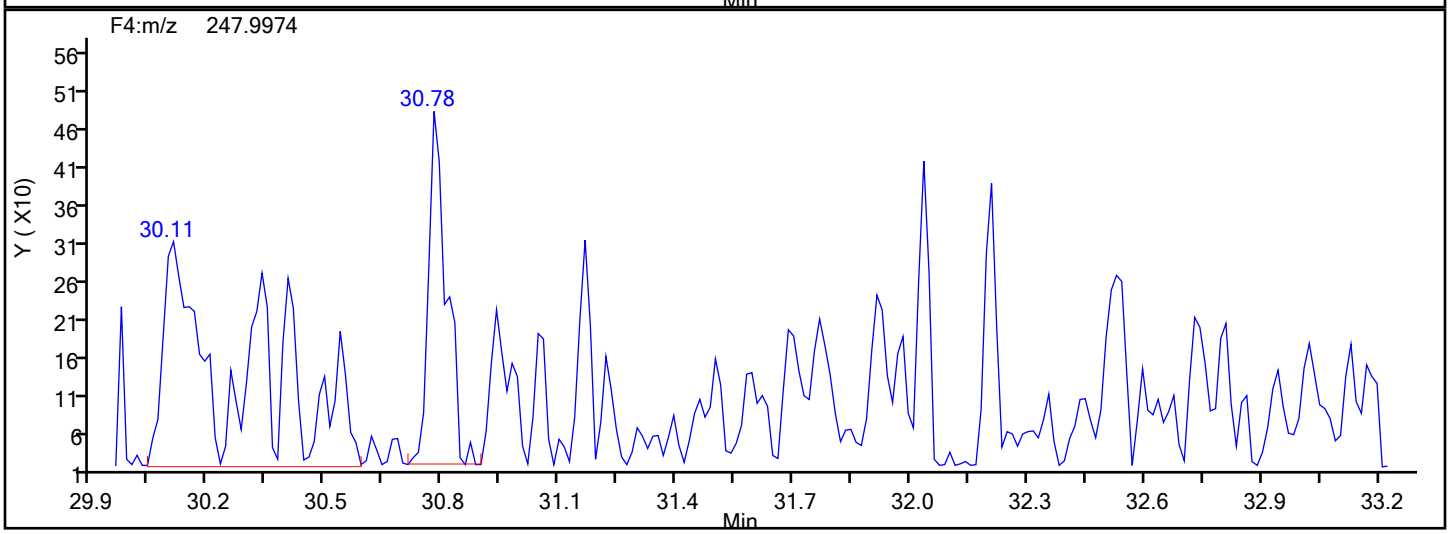
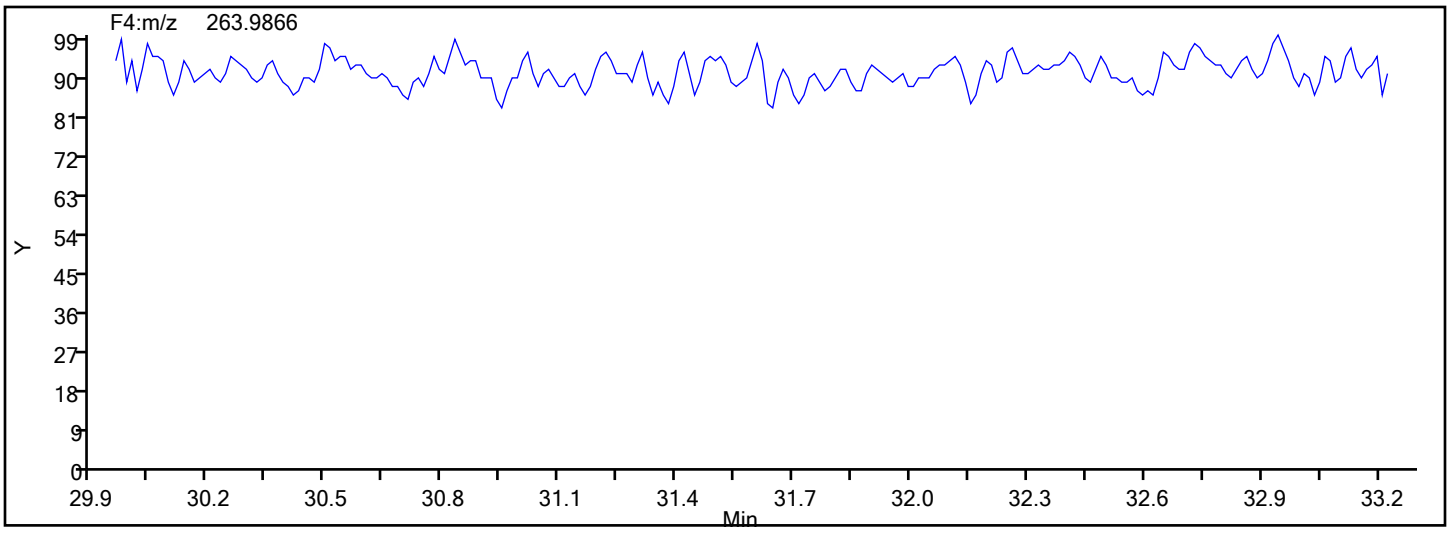
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
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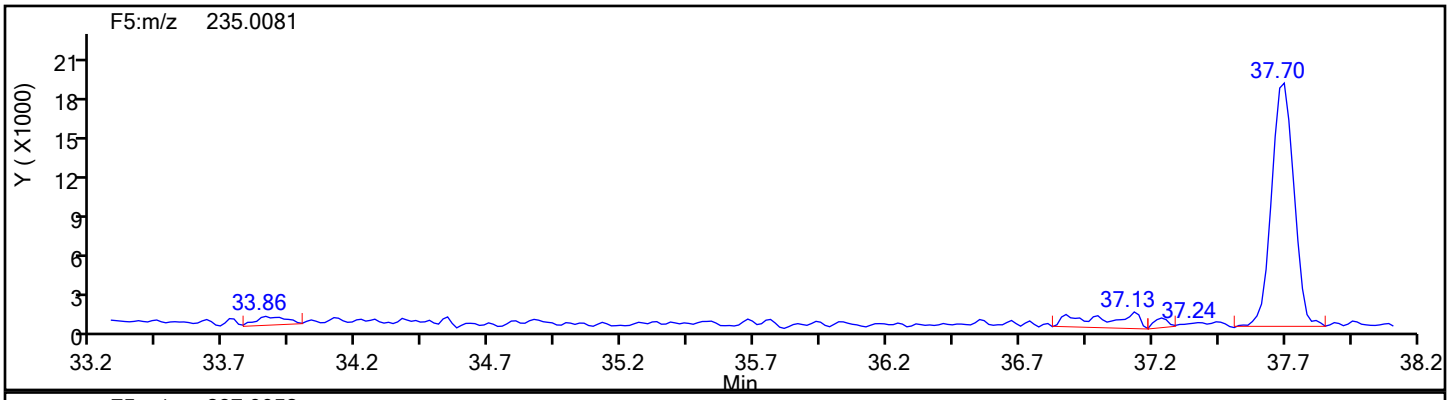
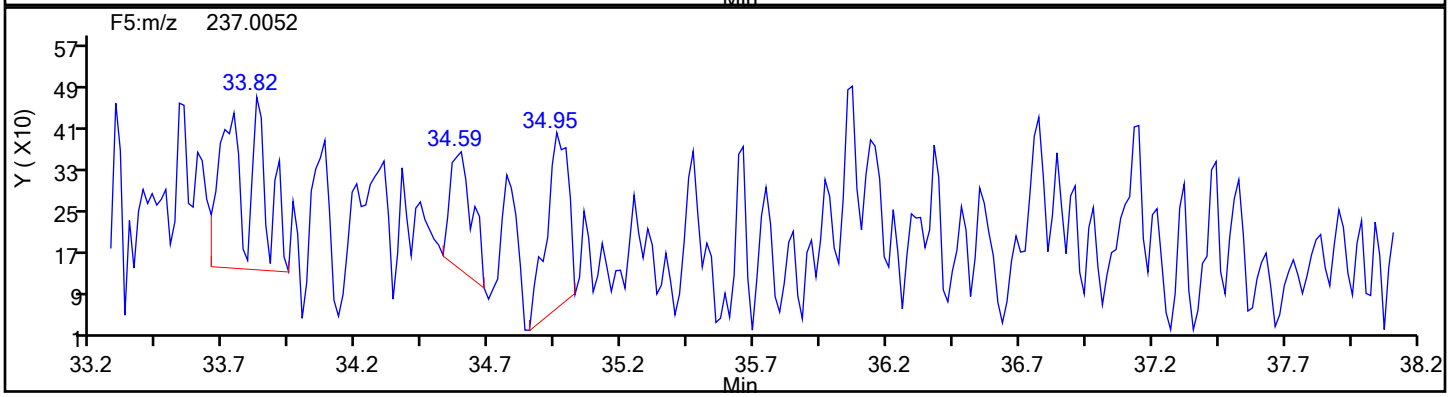
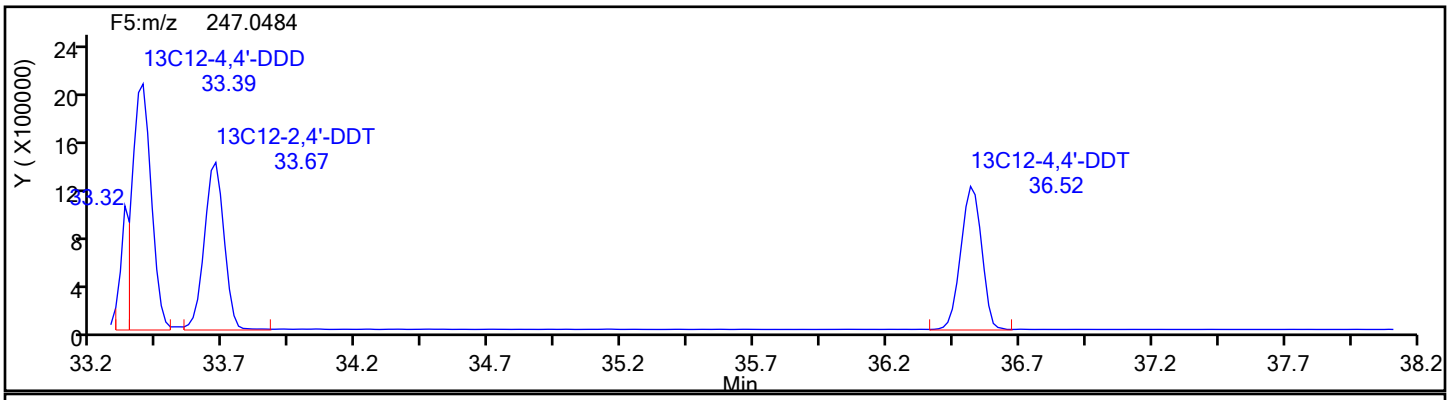
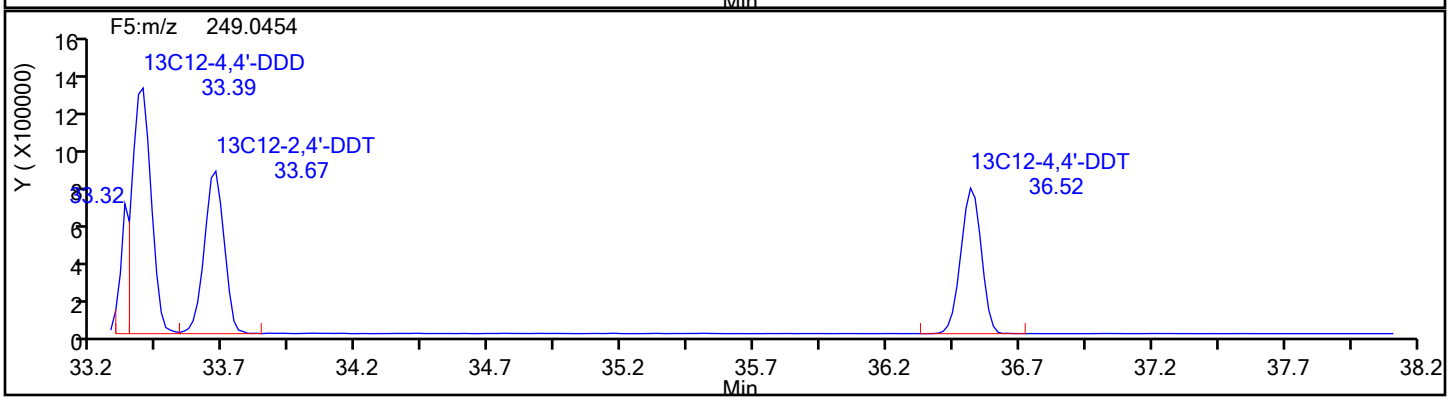
DDD





DDD Standards





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Eurofins Knoxville

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Client ID:			
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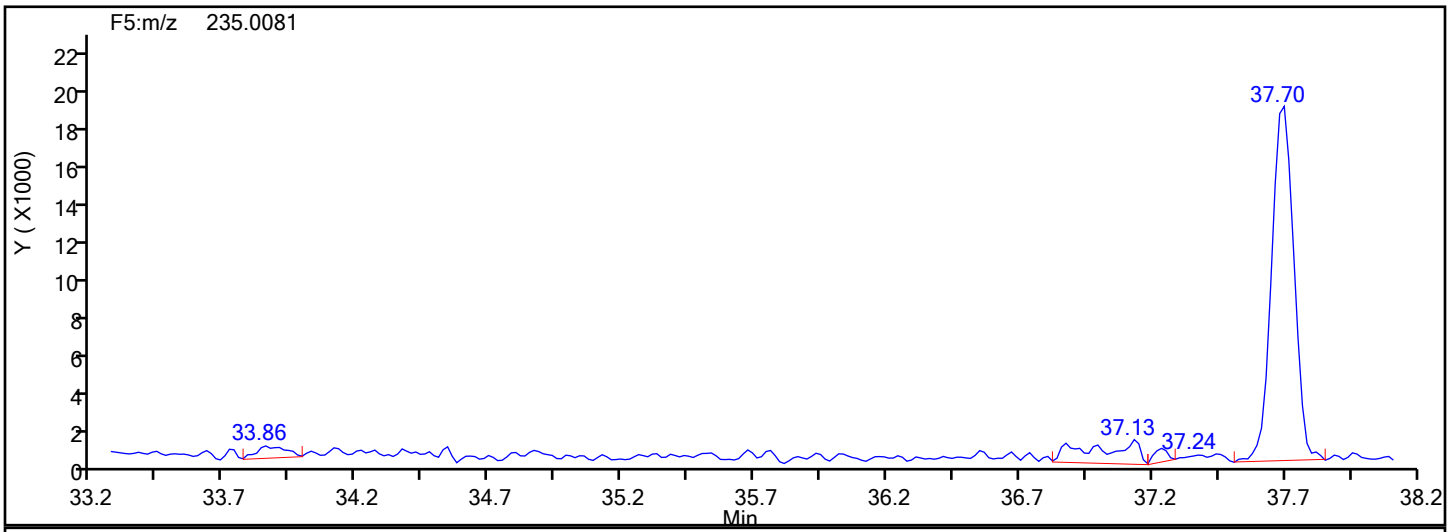
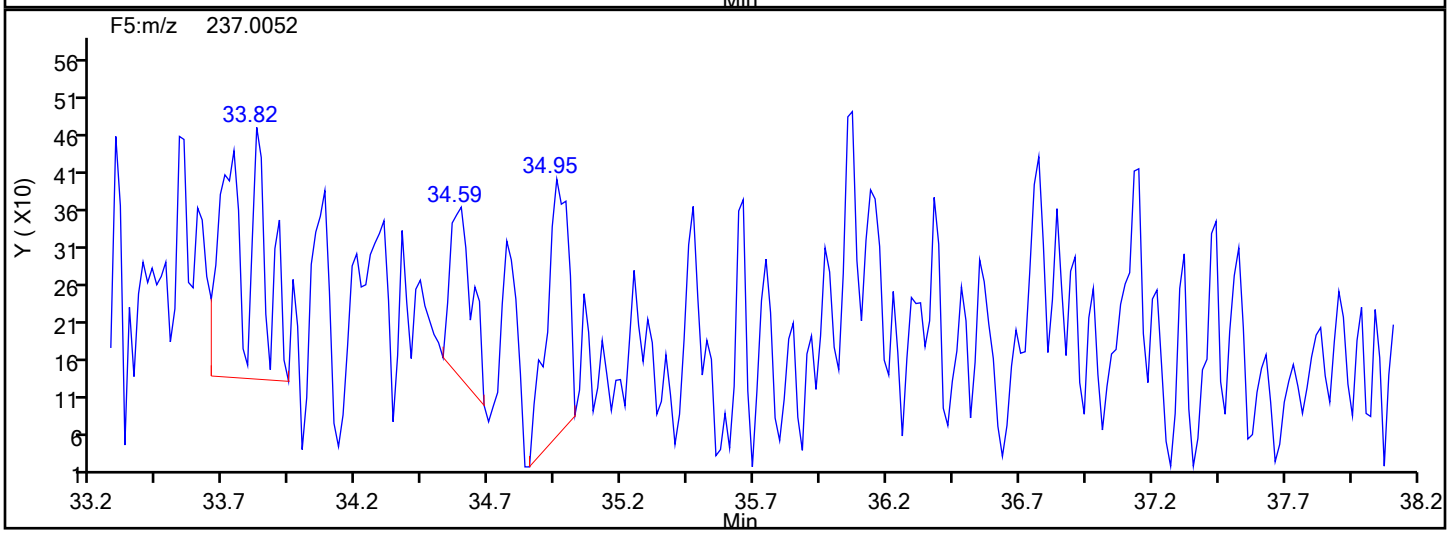
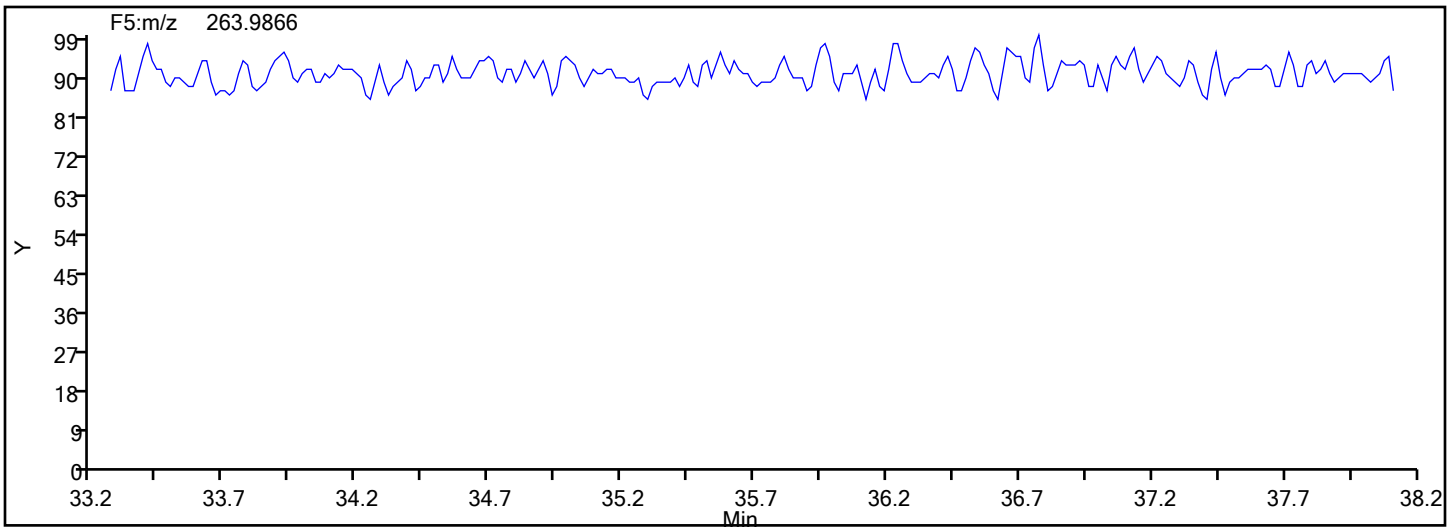
Column Type:	RTX-5	Column Dia:	0.32 mm

DDD





DDD Lock Mass



Report Date: 05-May-2025 18:00:30 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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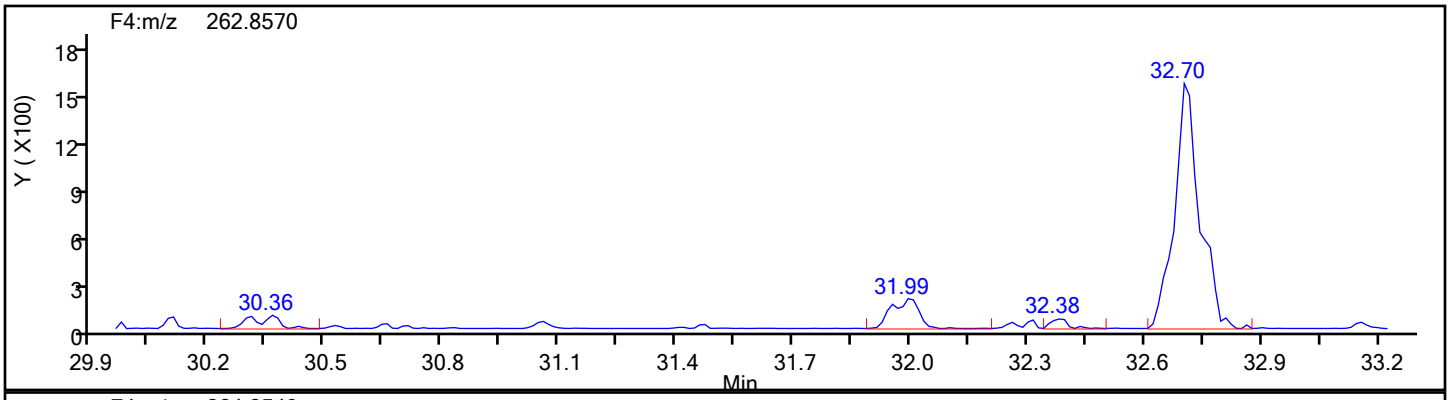

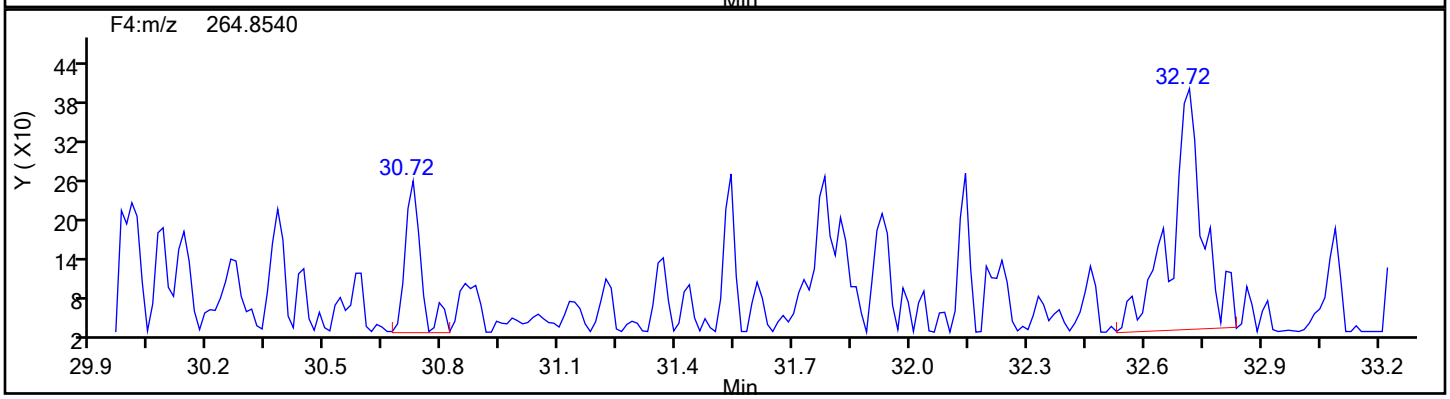

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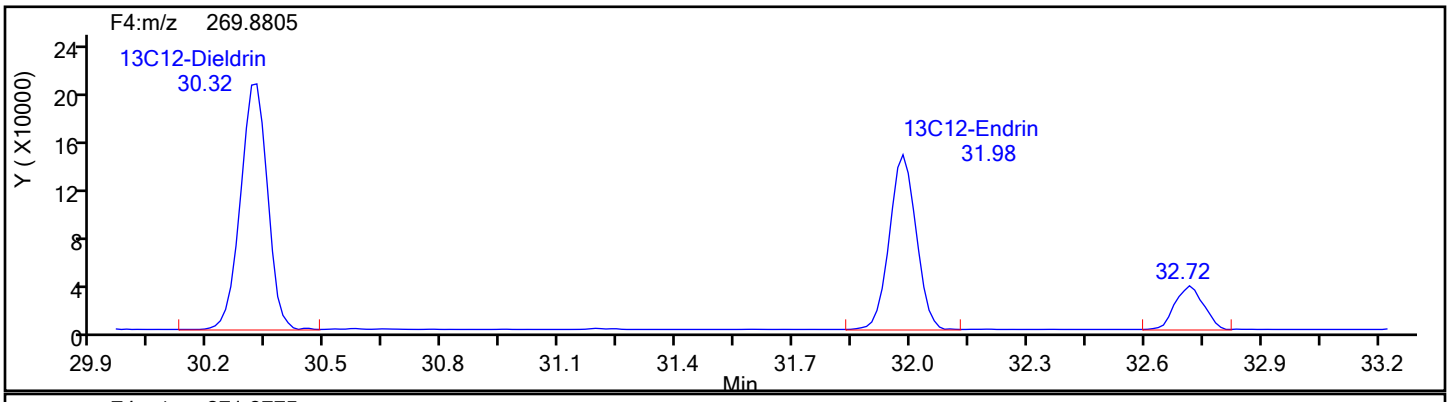

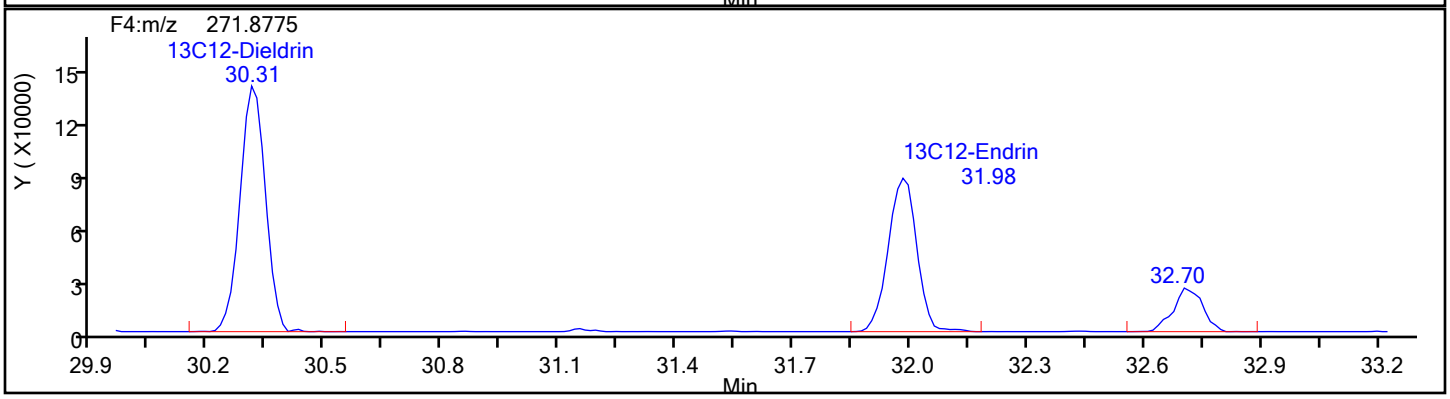

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Eurofins Knoxville

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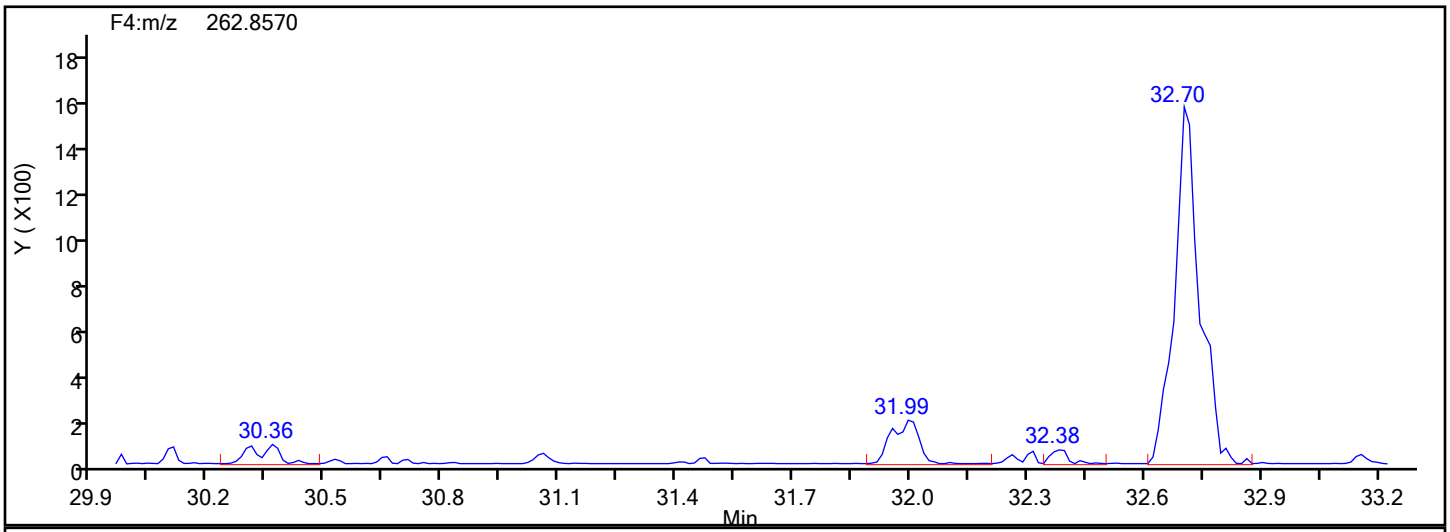
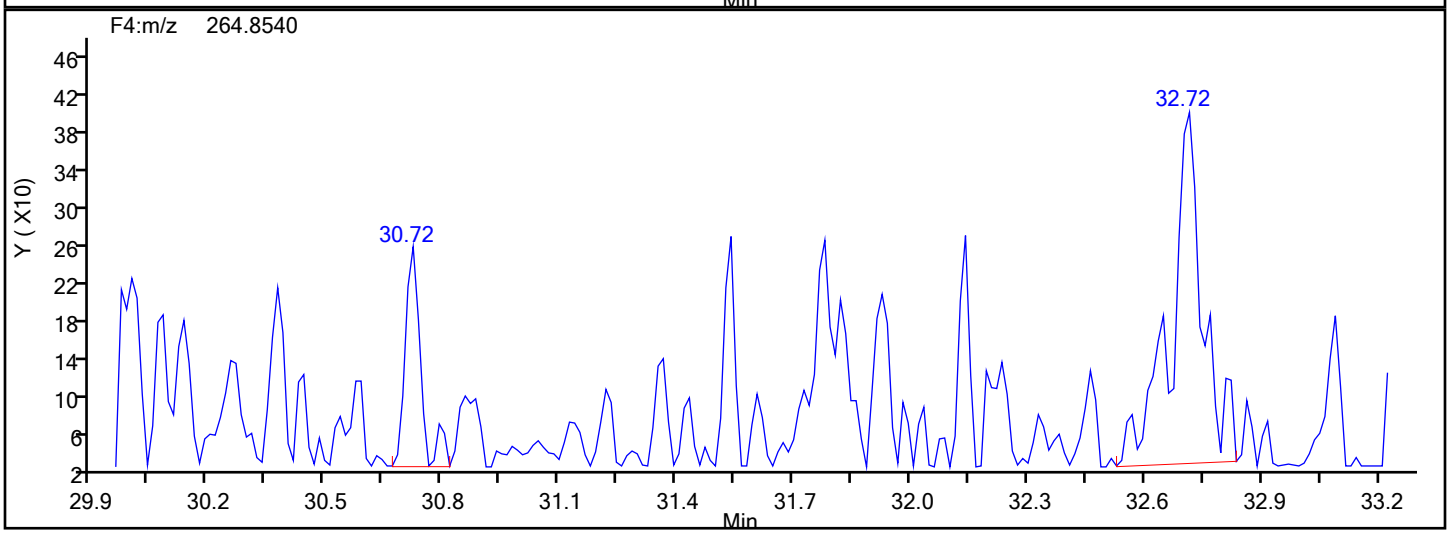
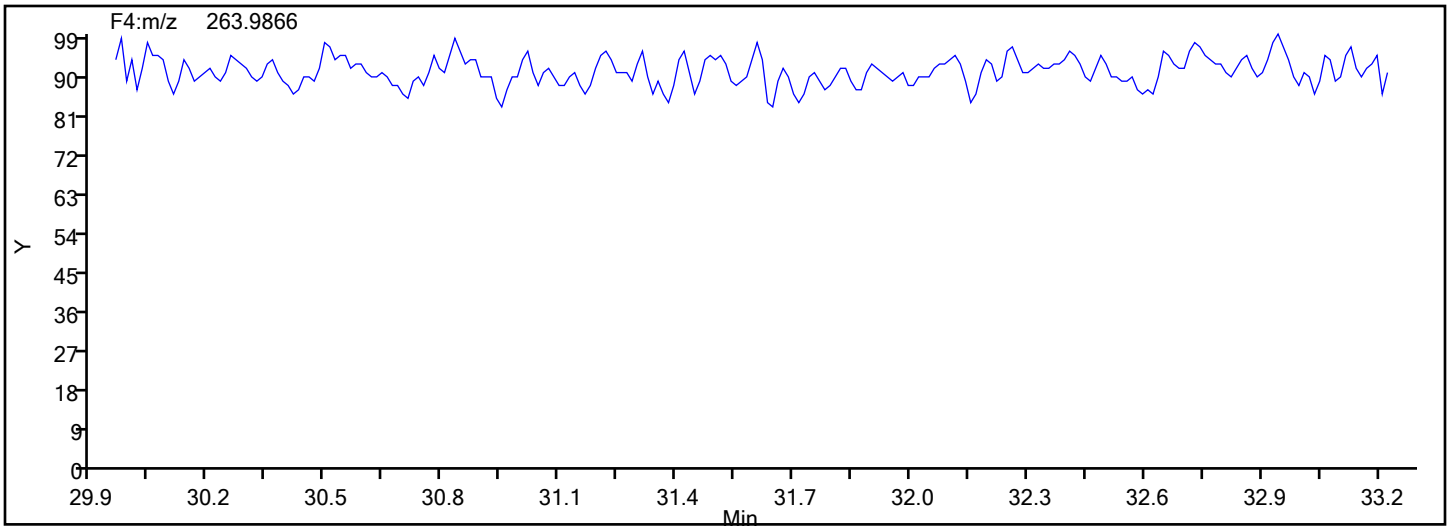




Dieldrin Lock Mass



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Eurofins Knoxville

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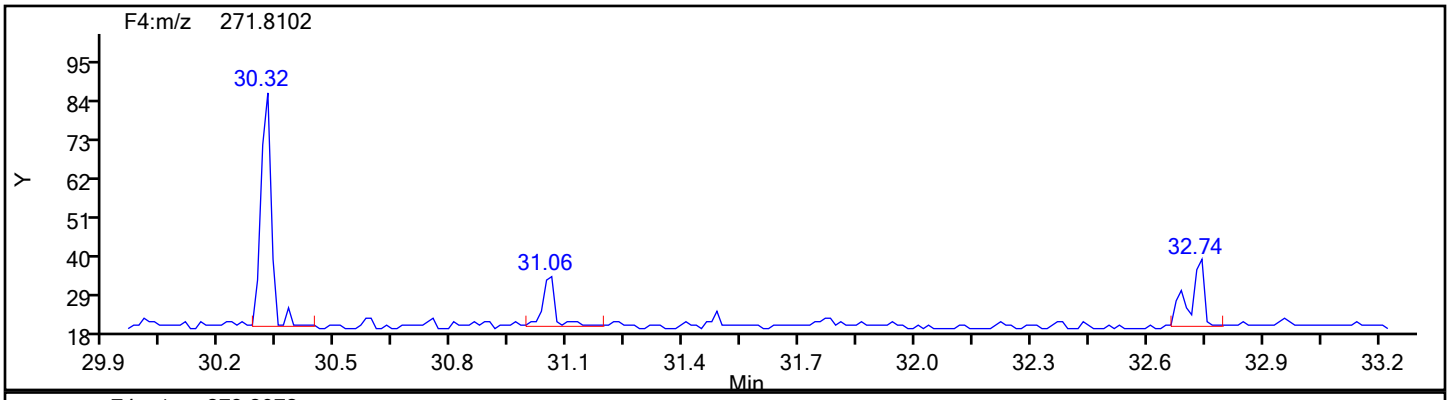
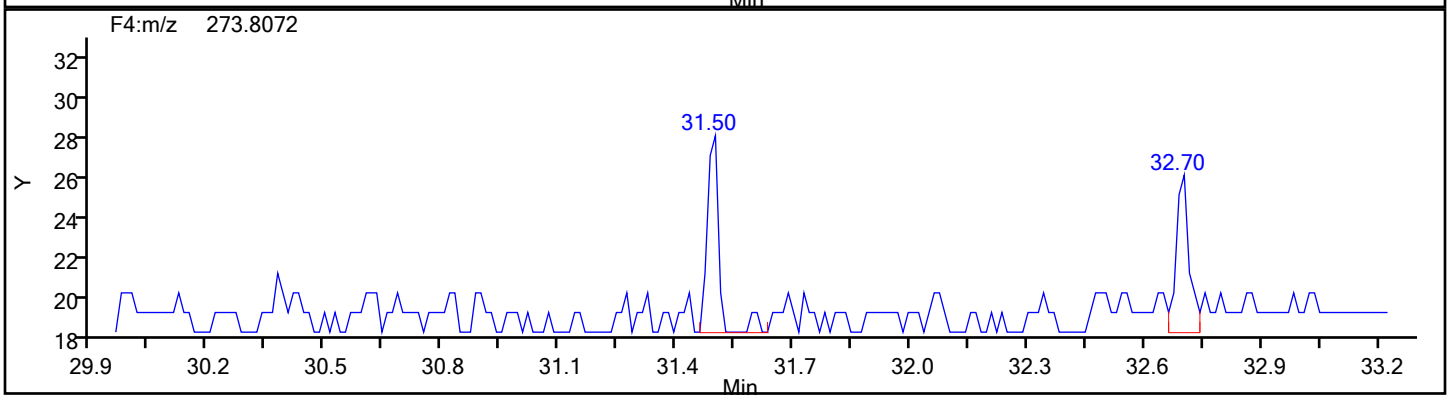
Endosulfan II





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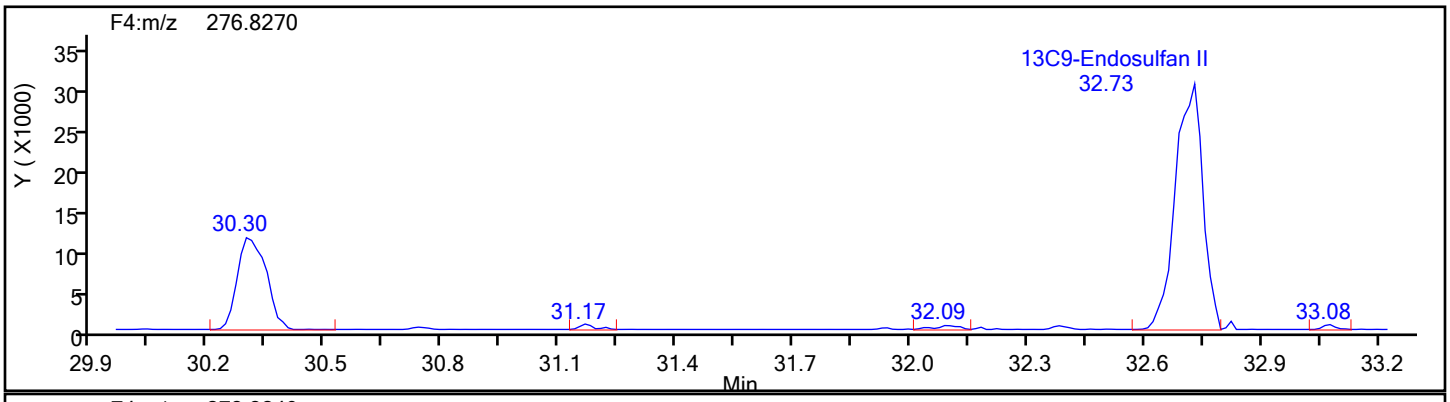

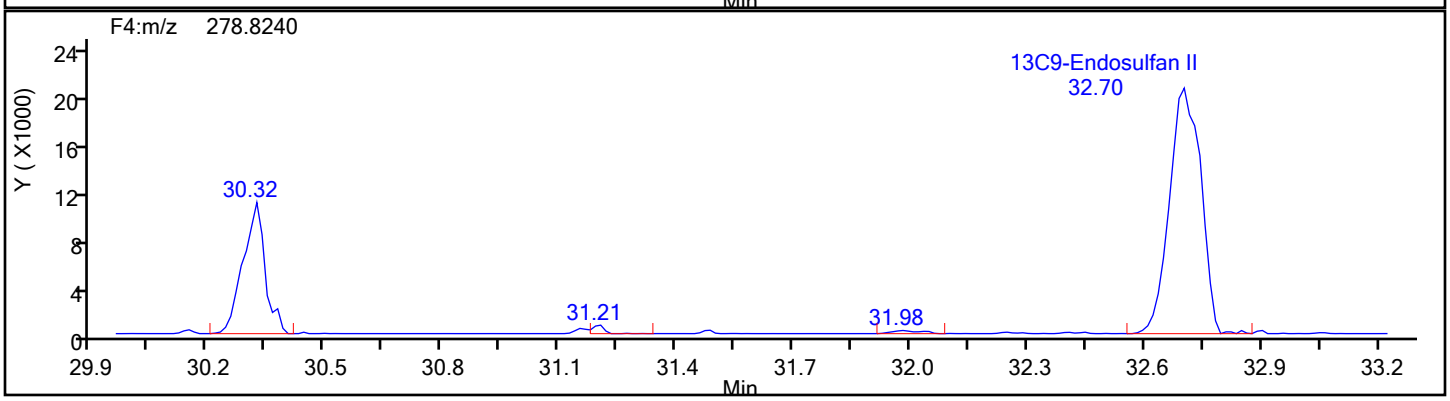

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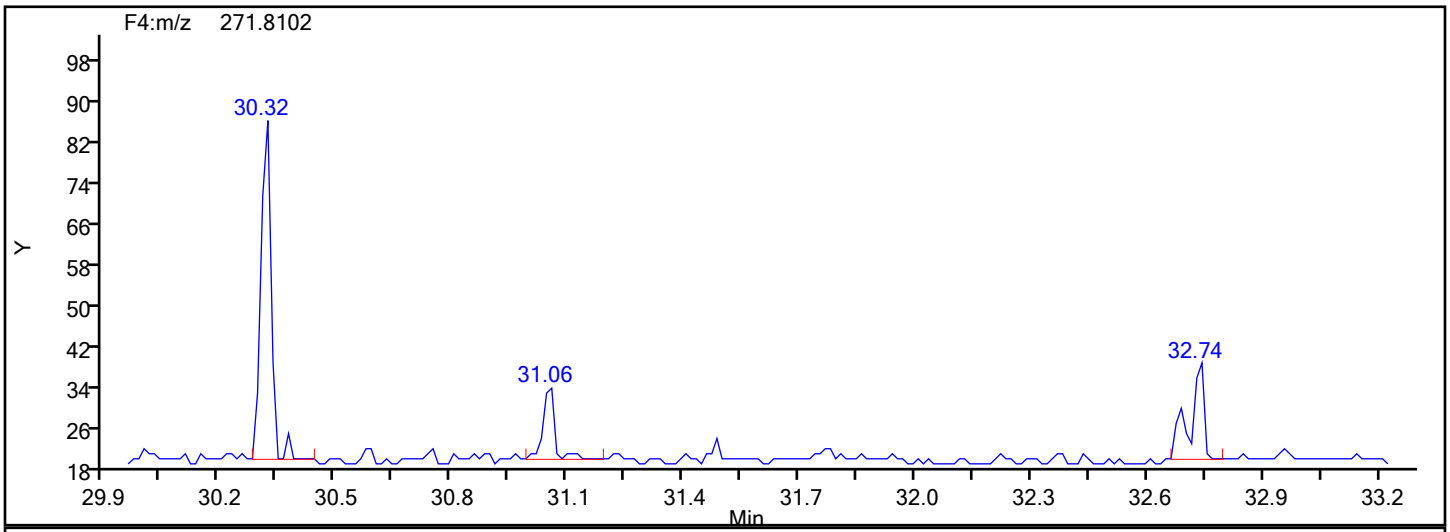

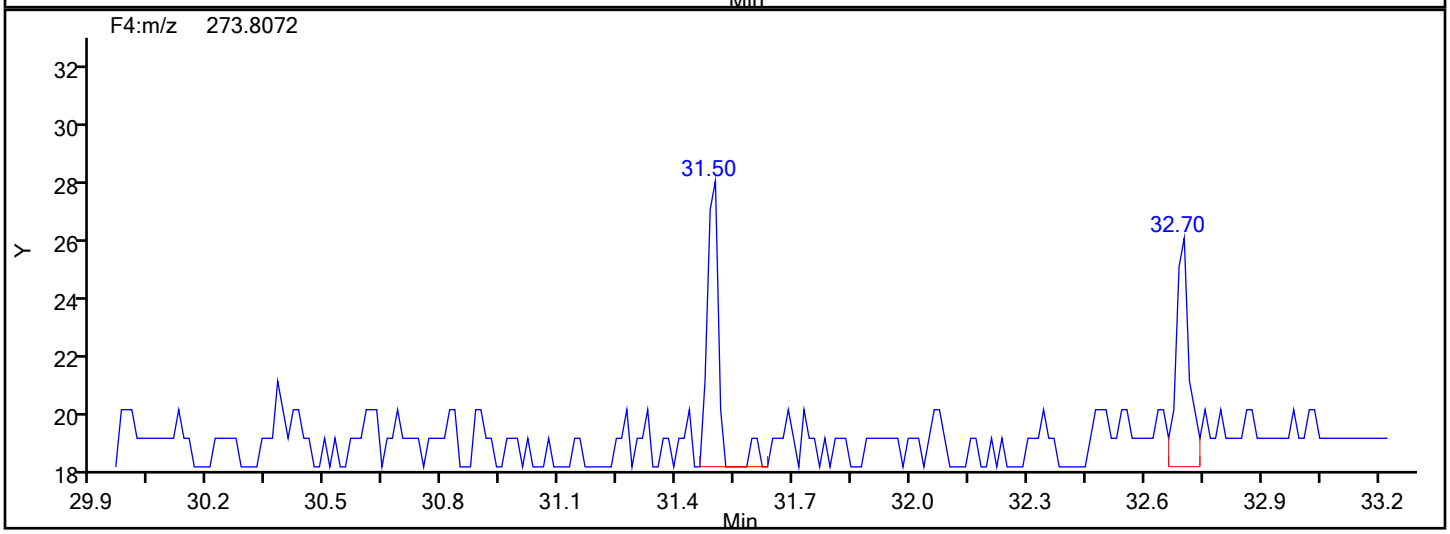

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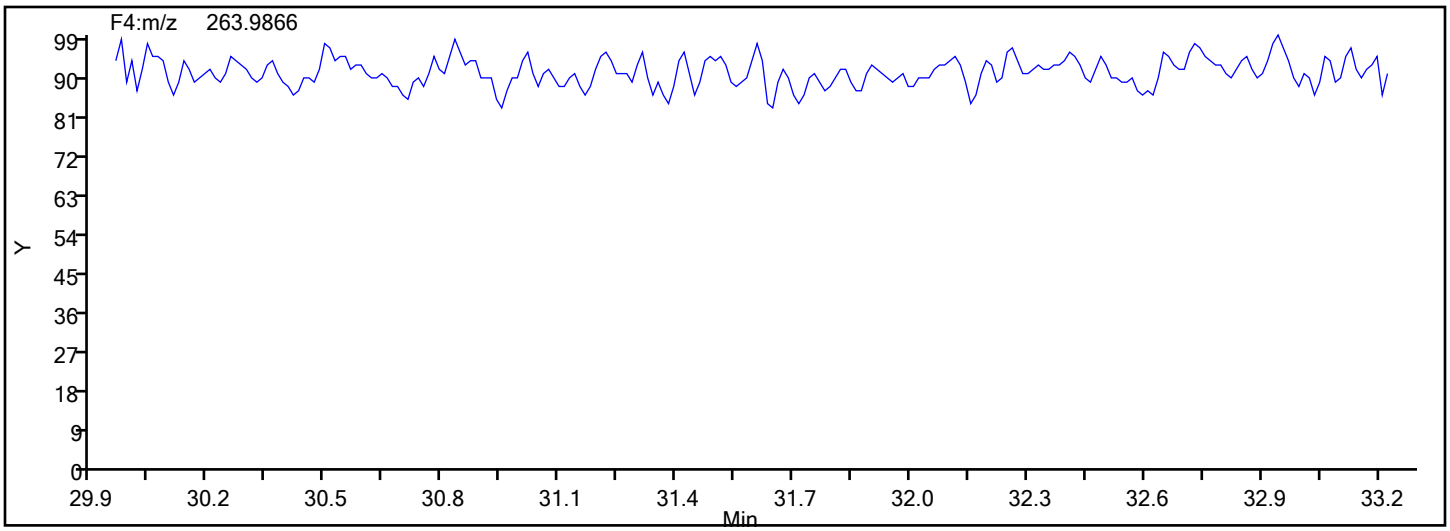

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Eurofins Knoxville

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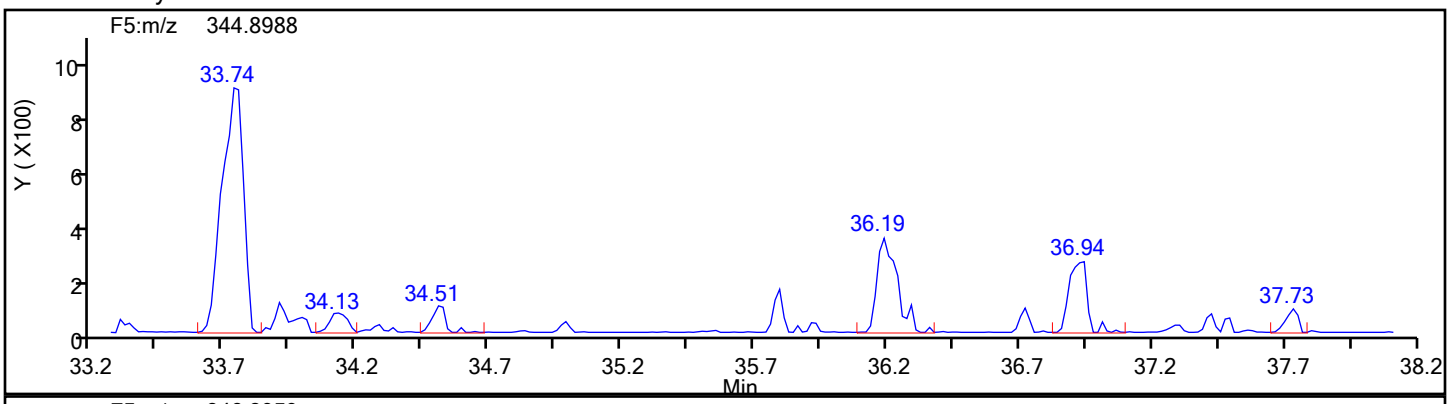

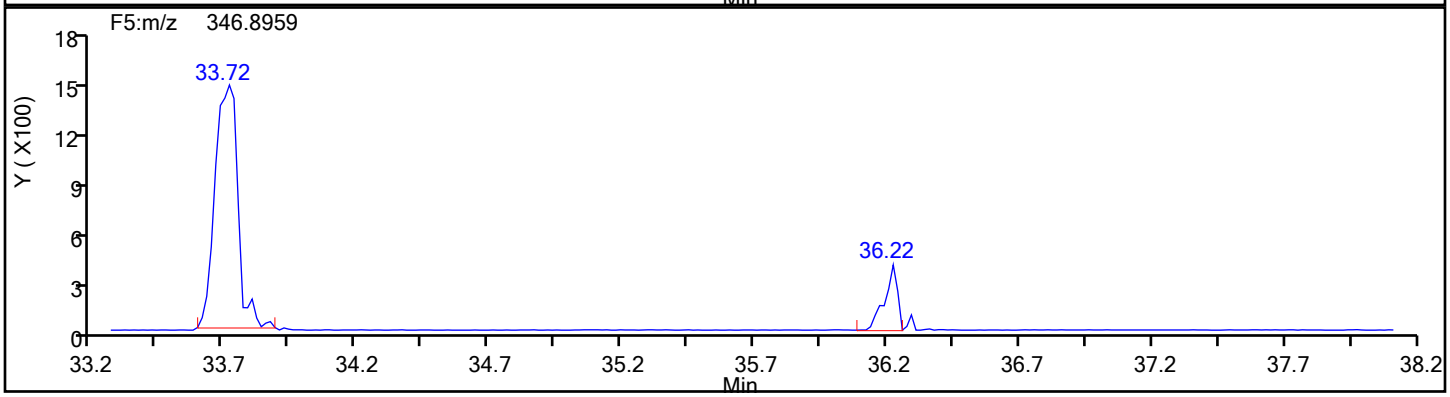

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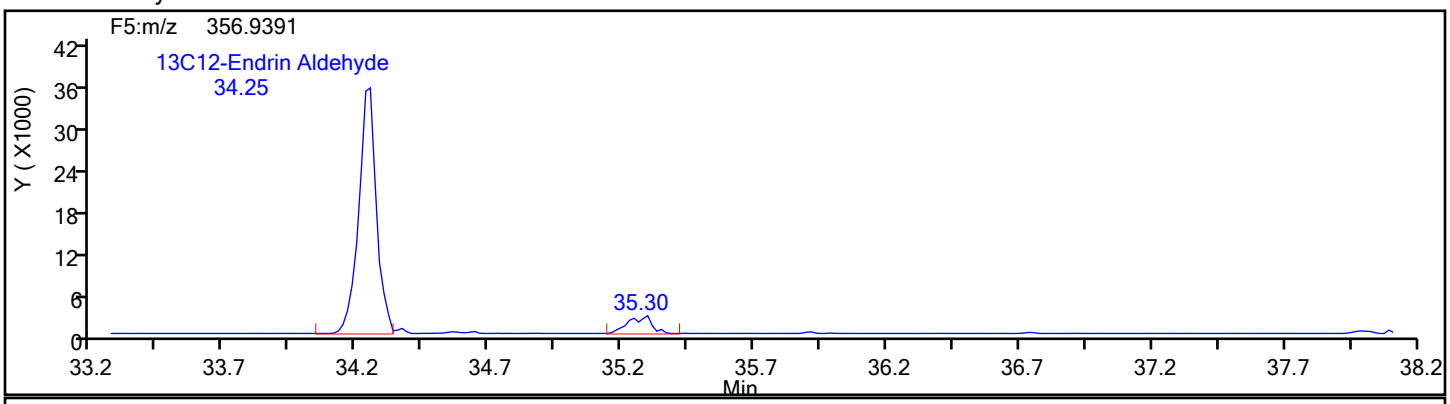

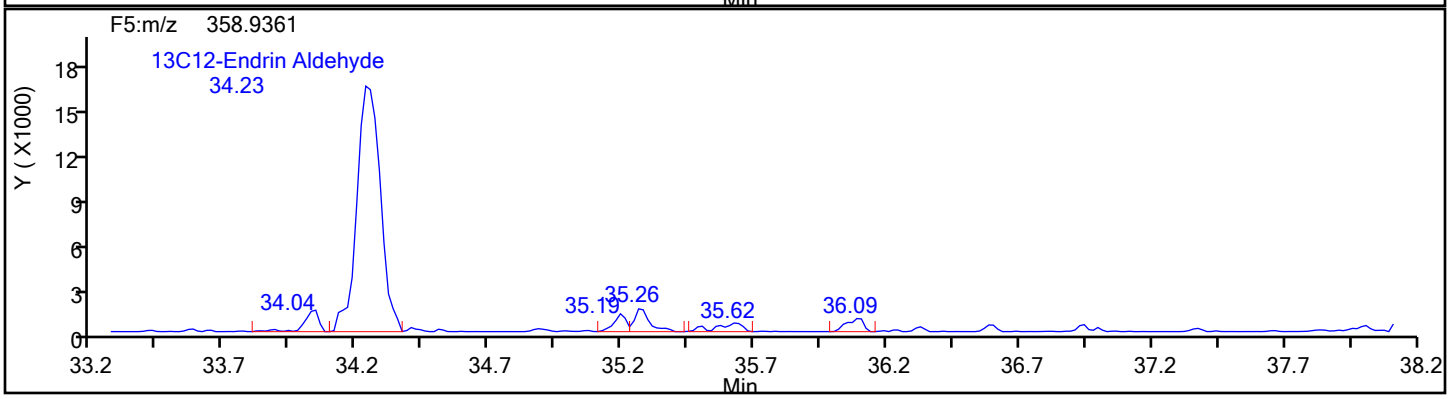

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Eurofins Knoxville

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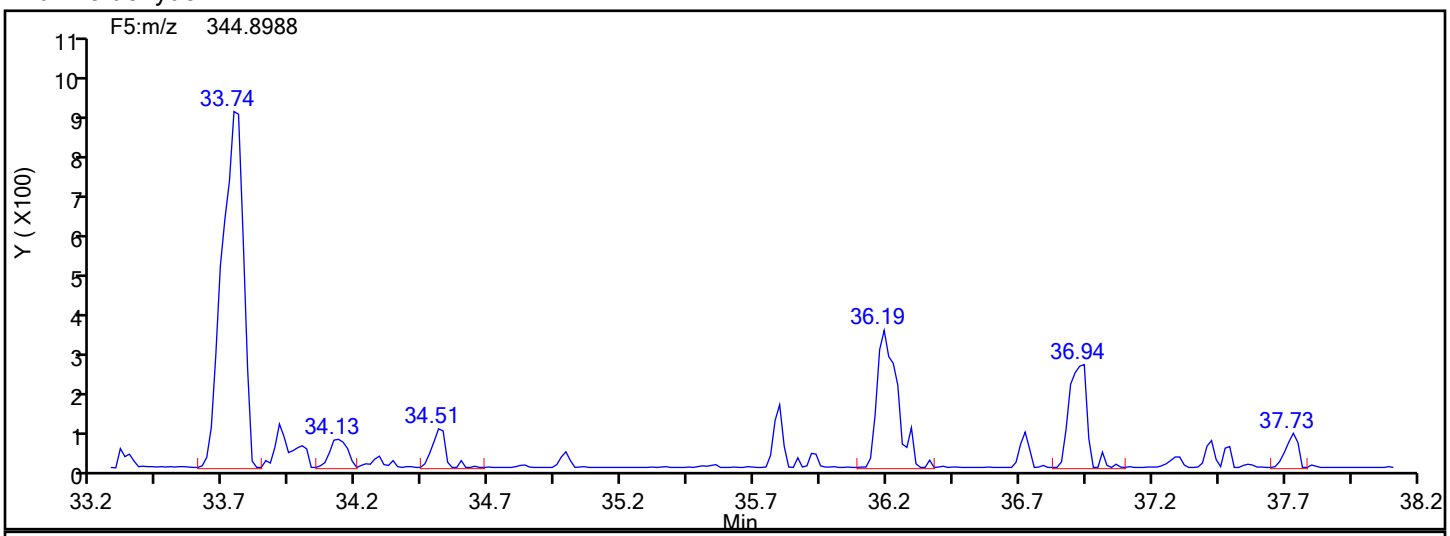
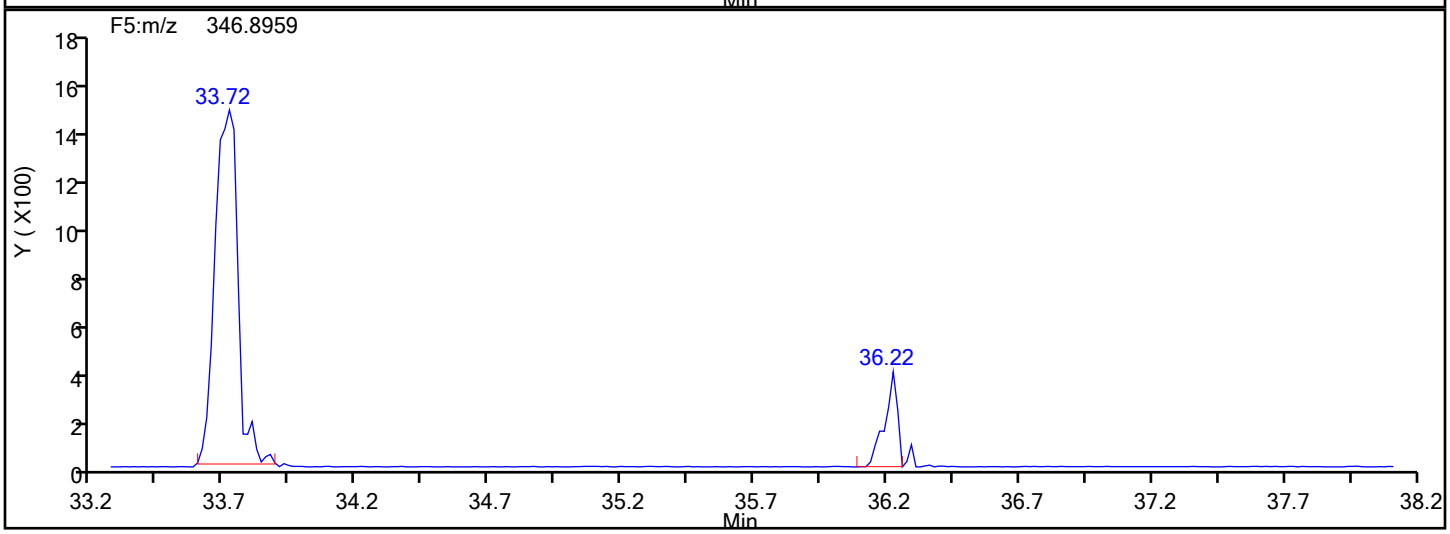
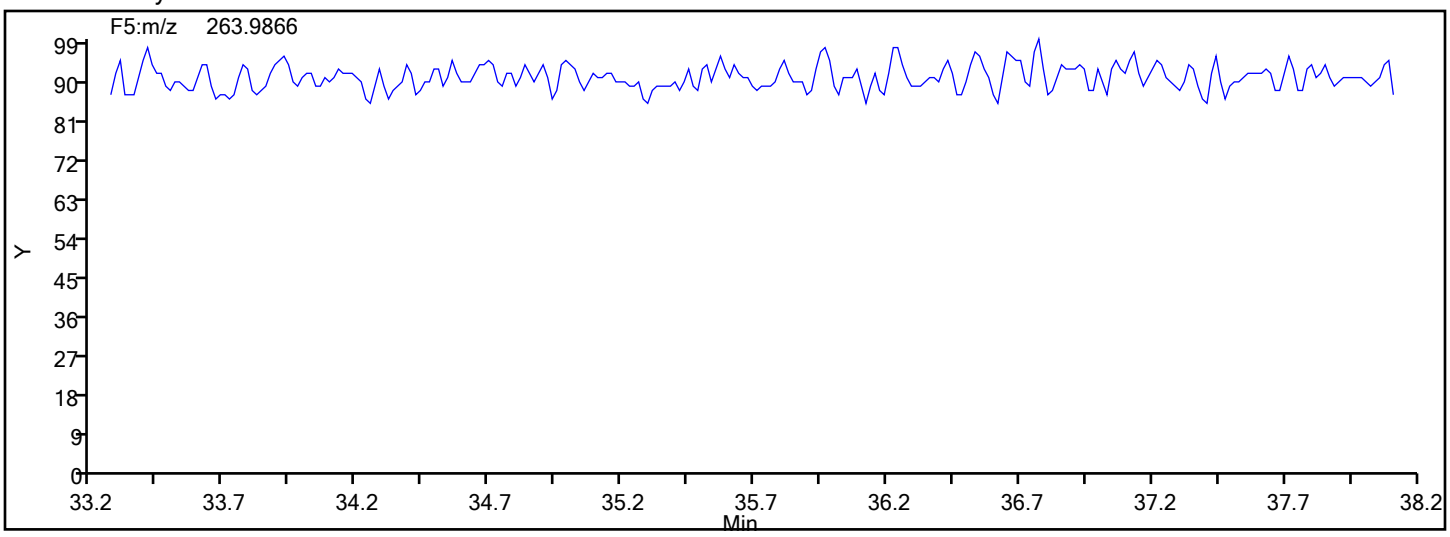




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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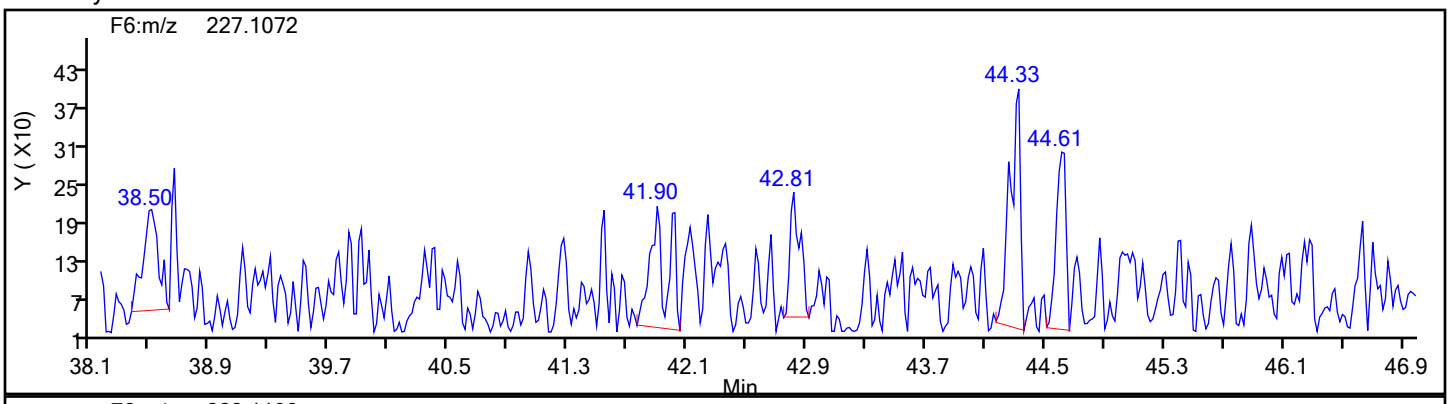
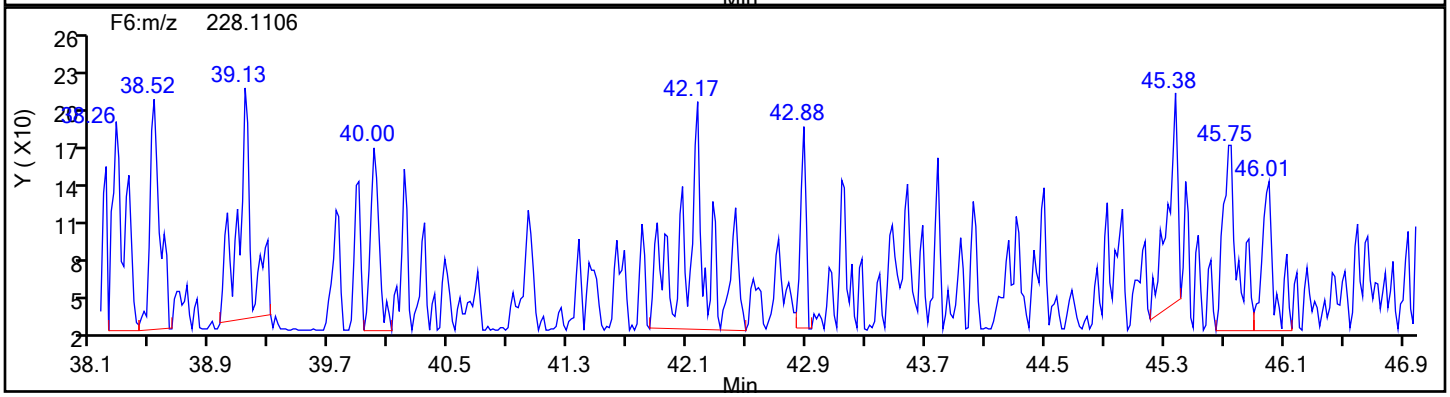
Methoxychlor





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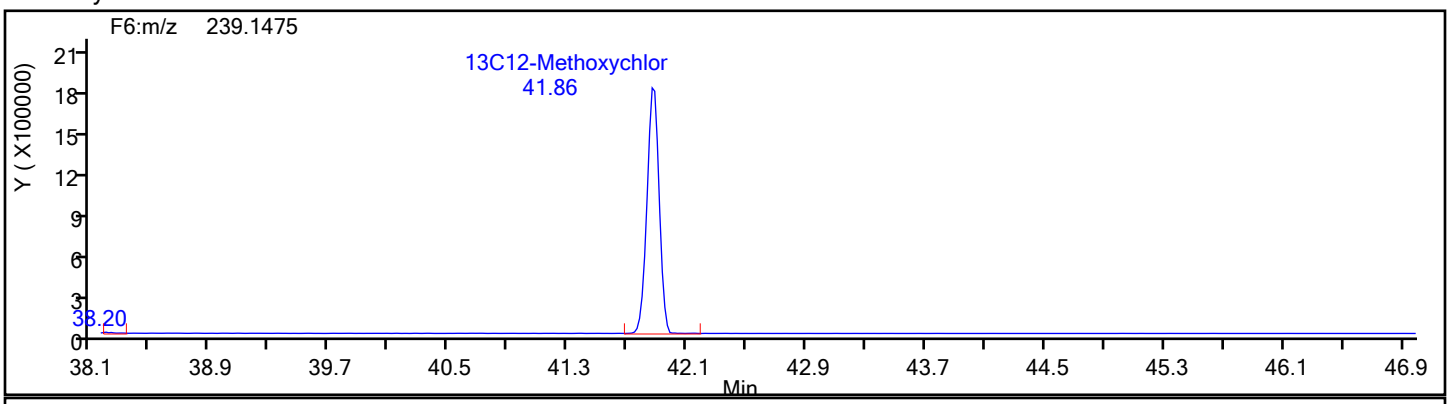

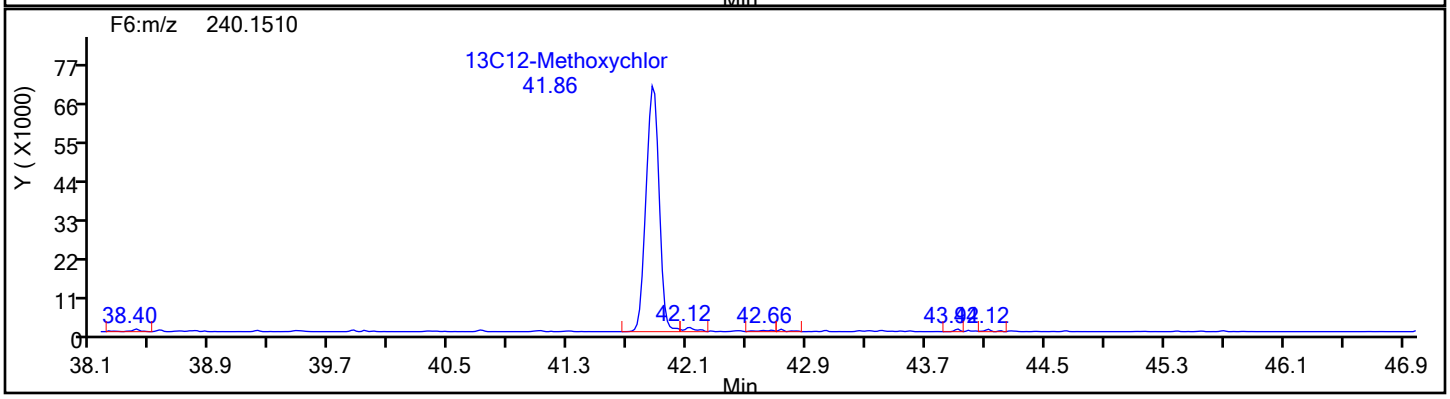

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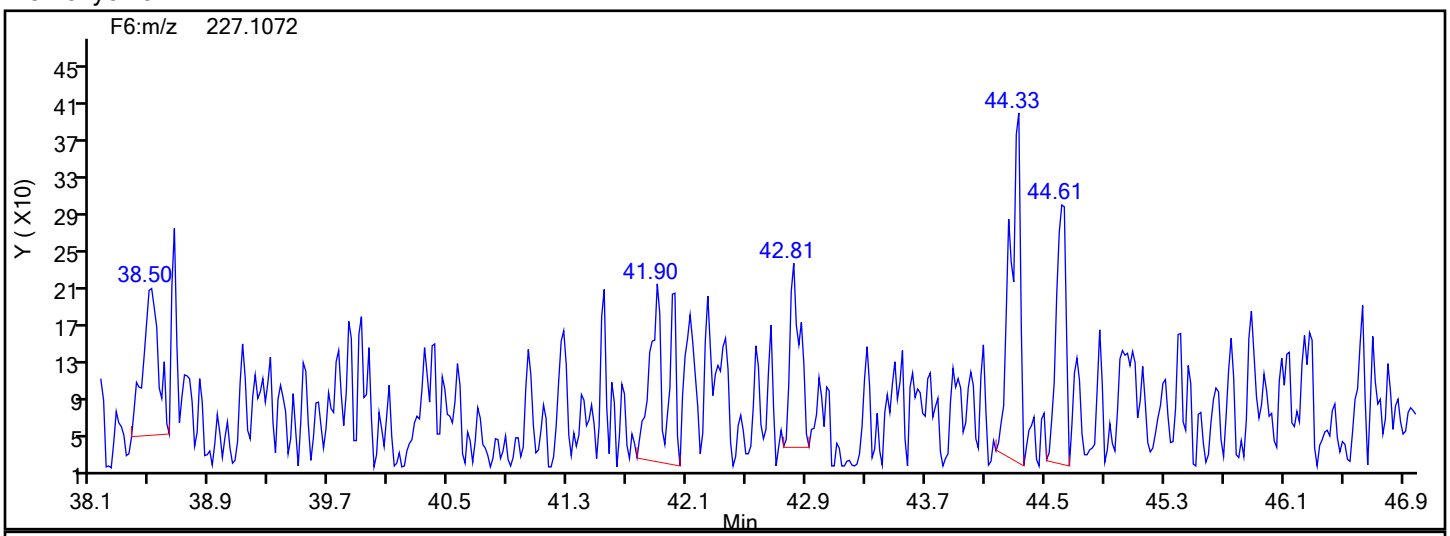
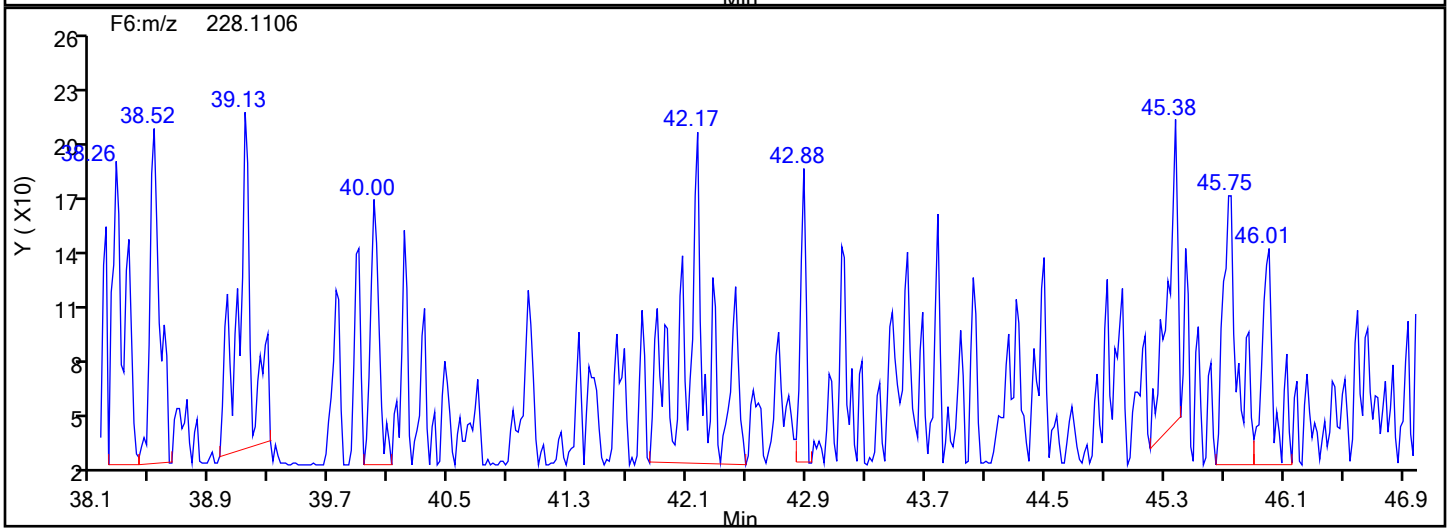
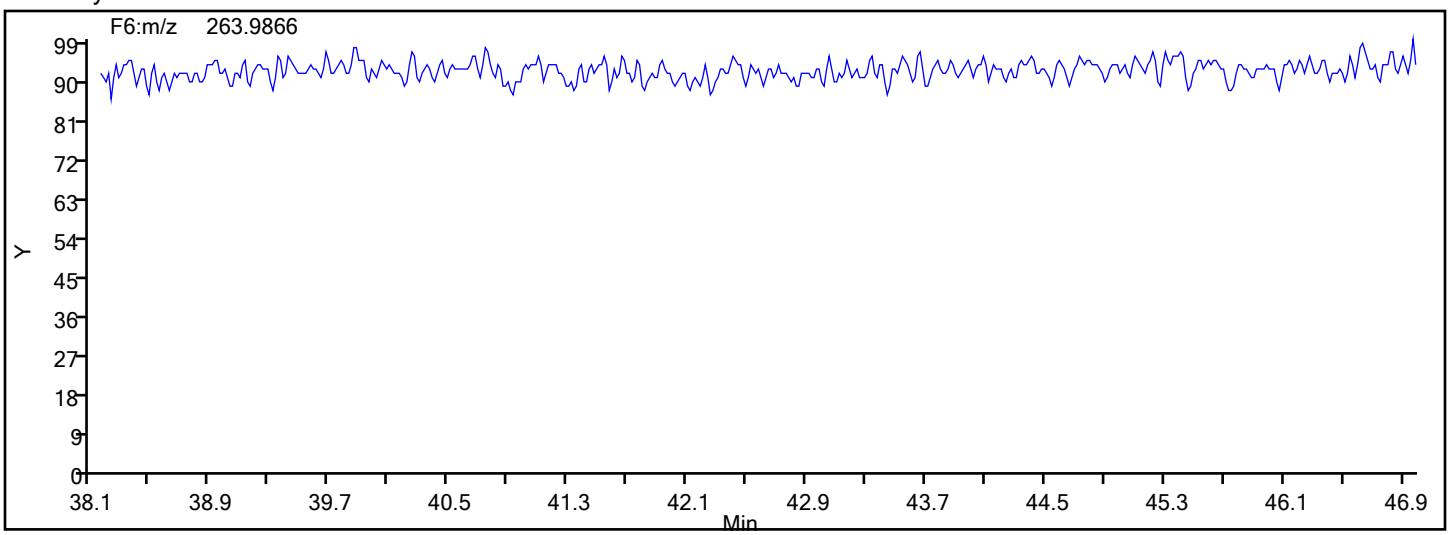




Methoxychlor Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
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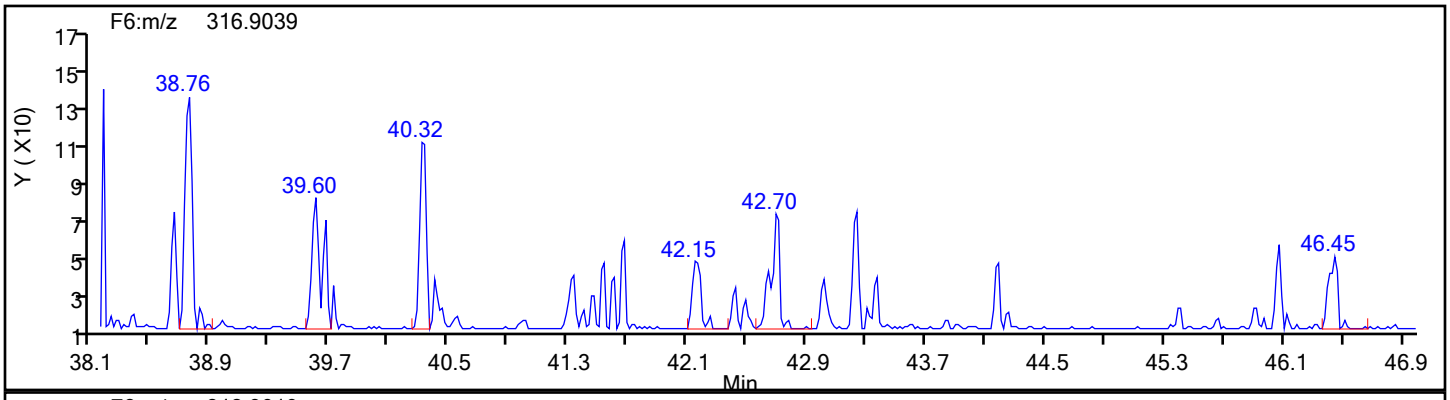

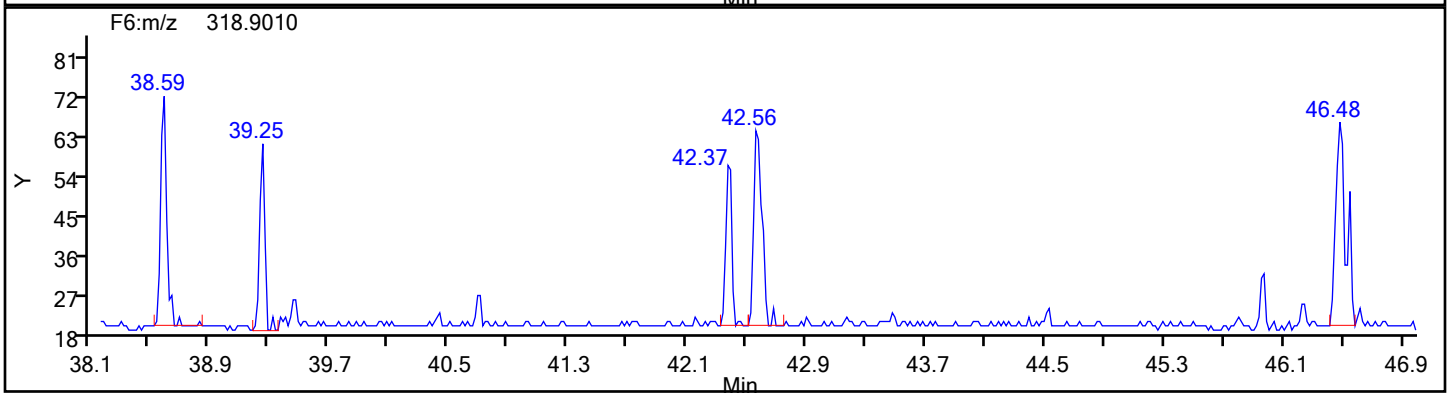

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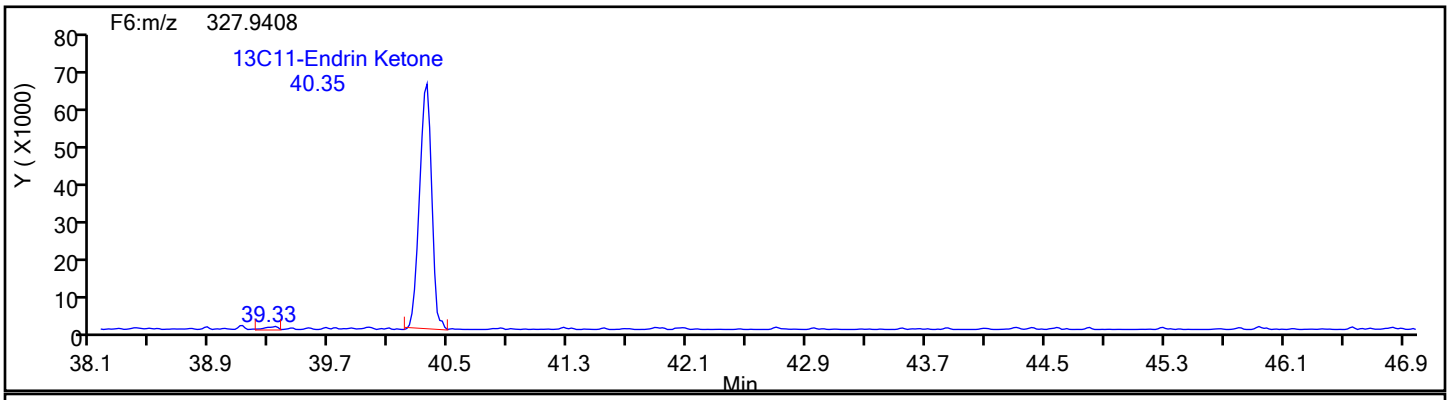

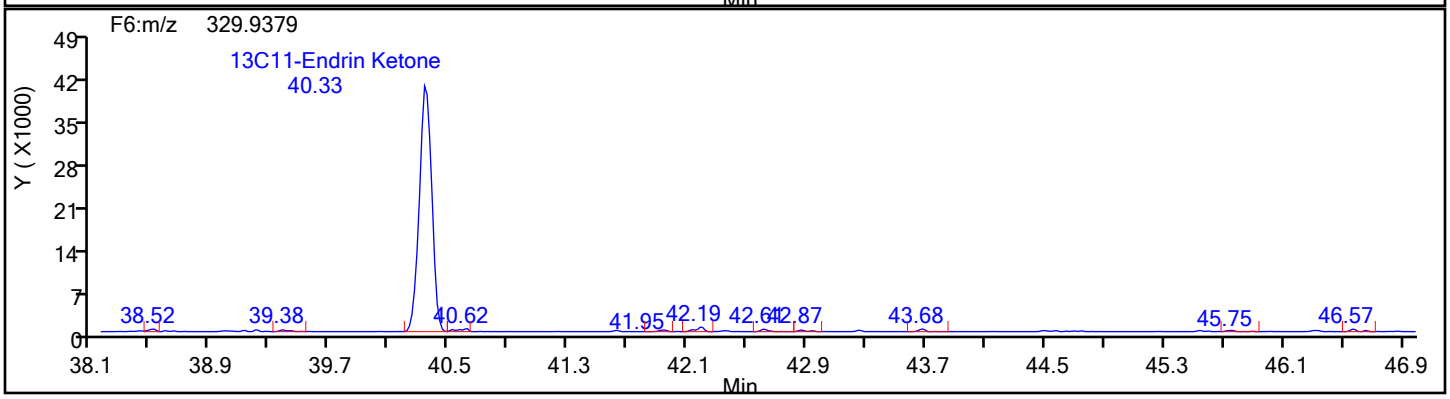

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Eurofins Knoxville

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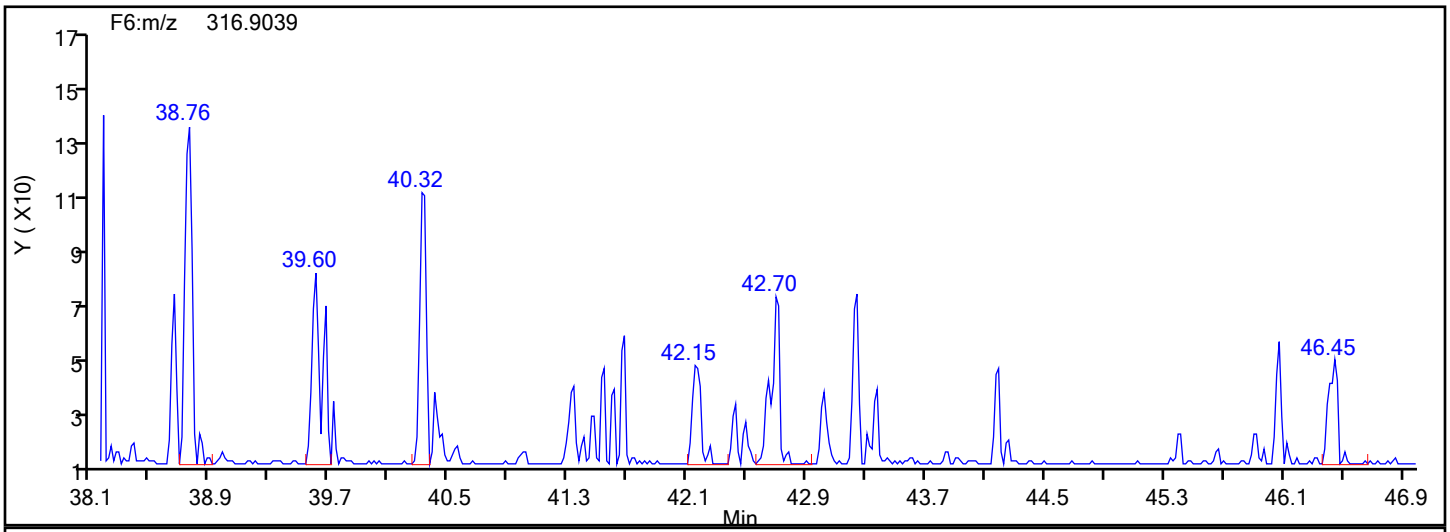
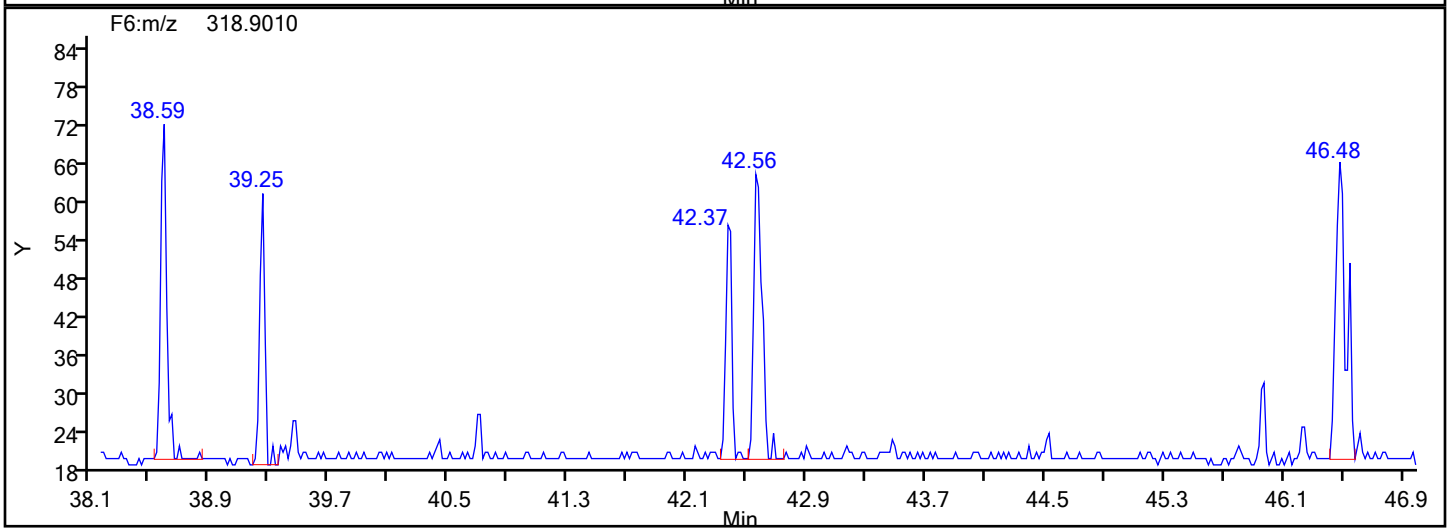
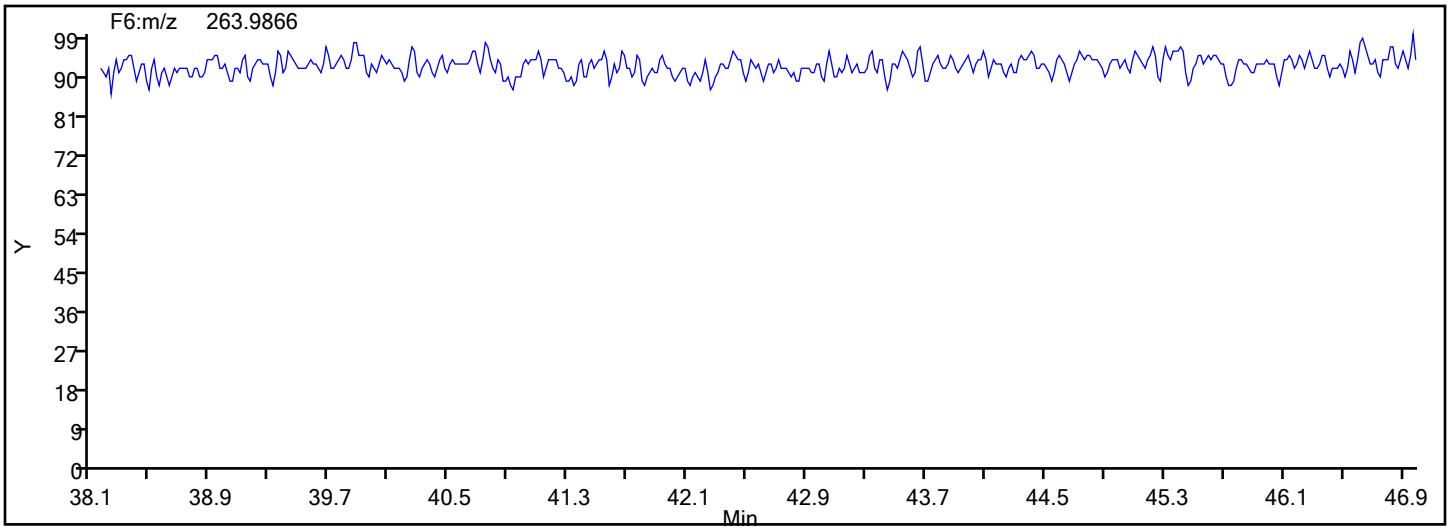




Endrin ketone Lock Mass



Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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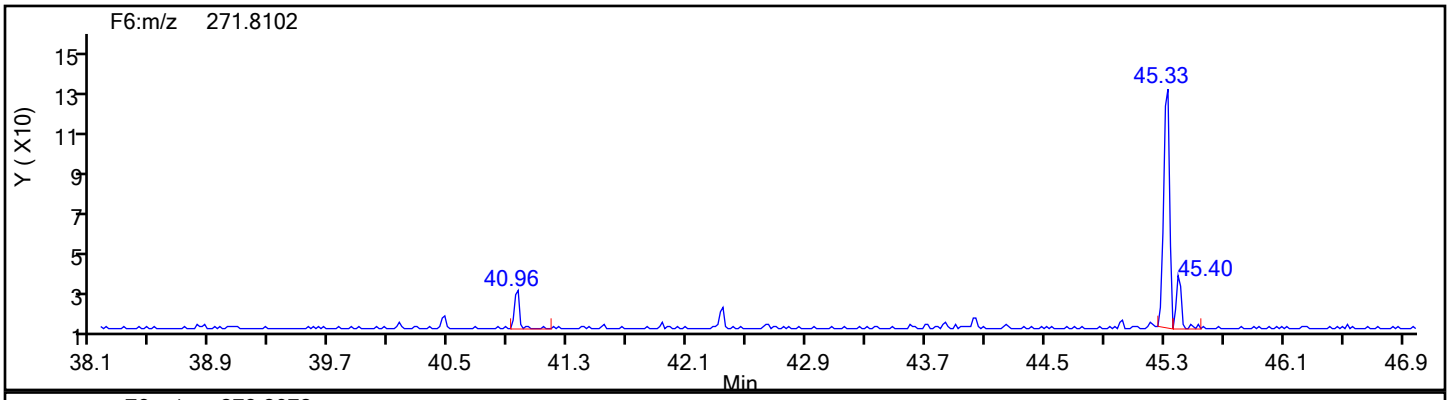
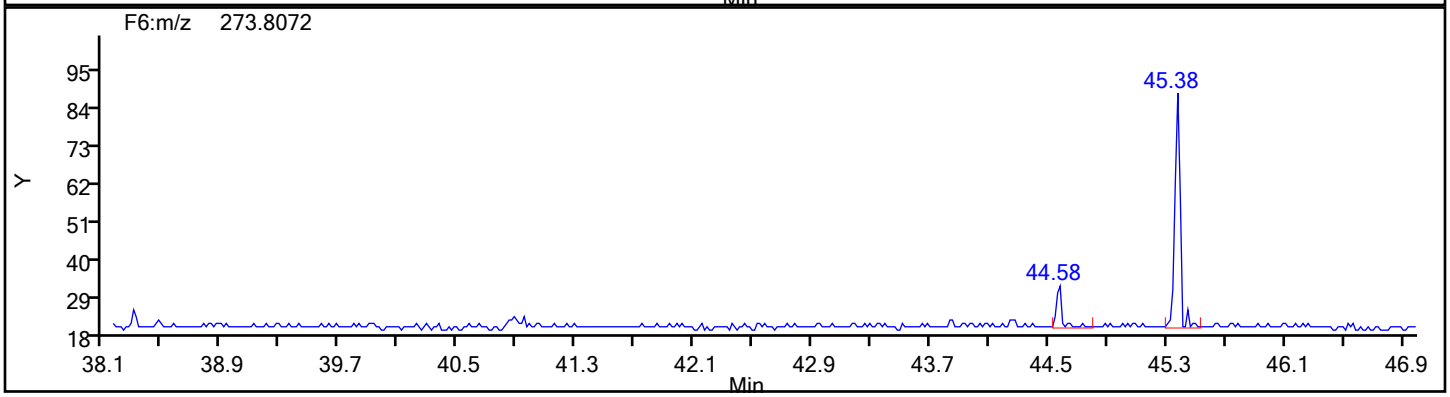
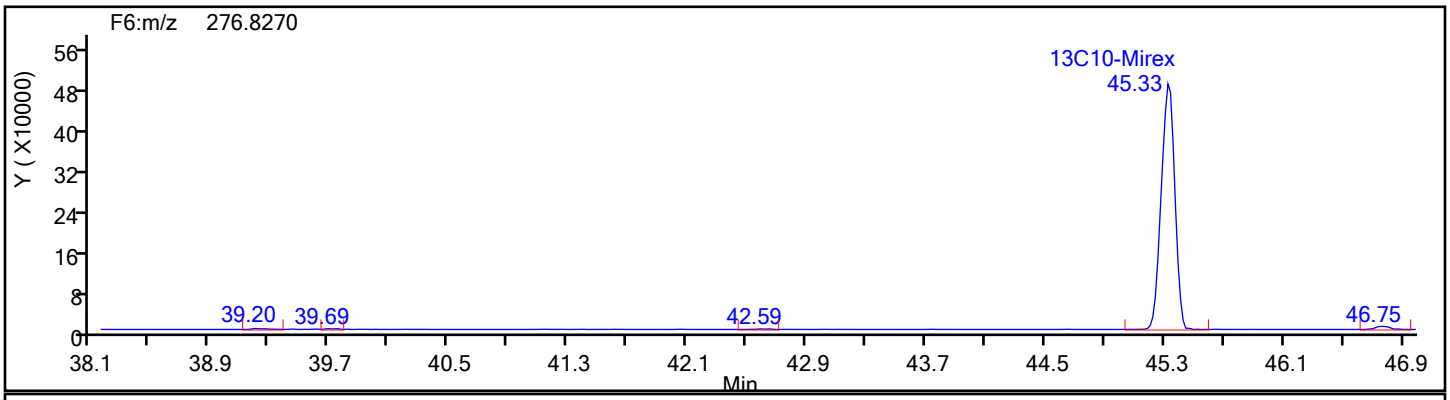
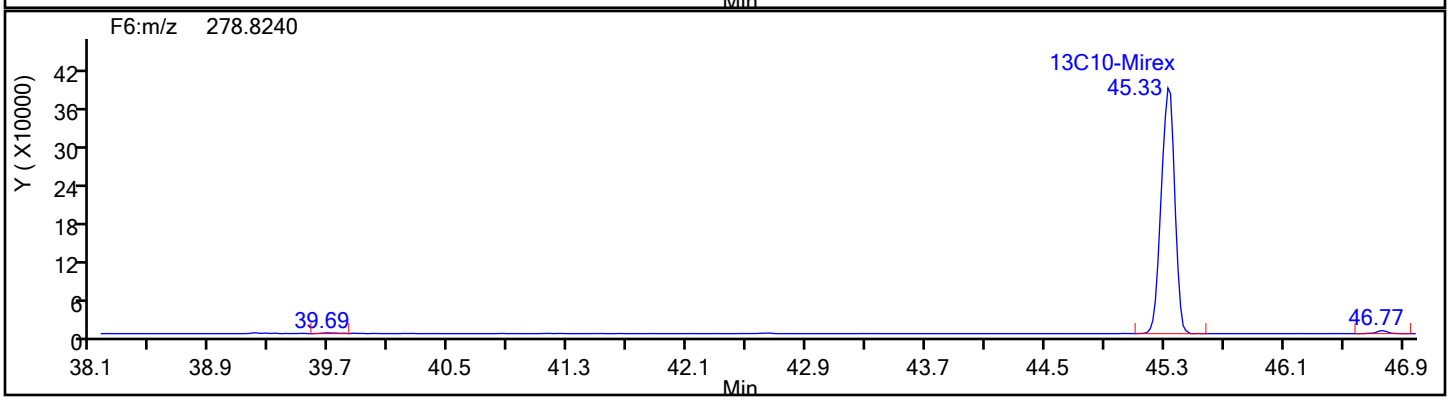
Mirex





Mirex Standards



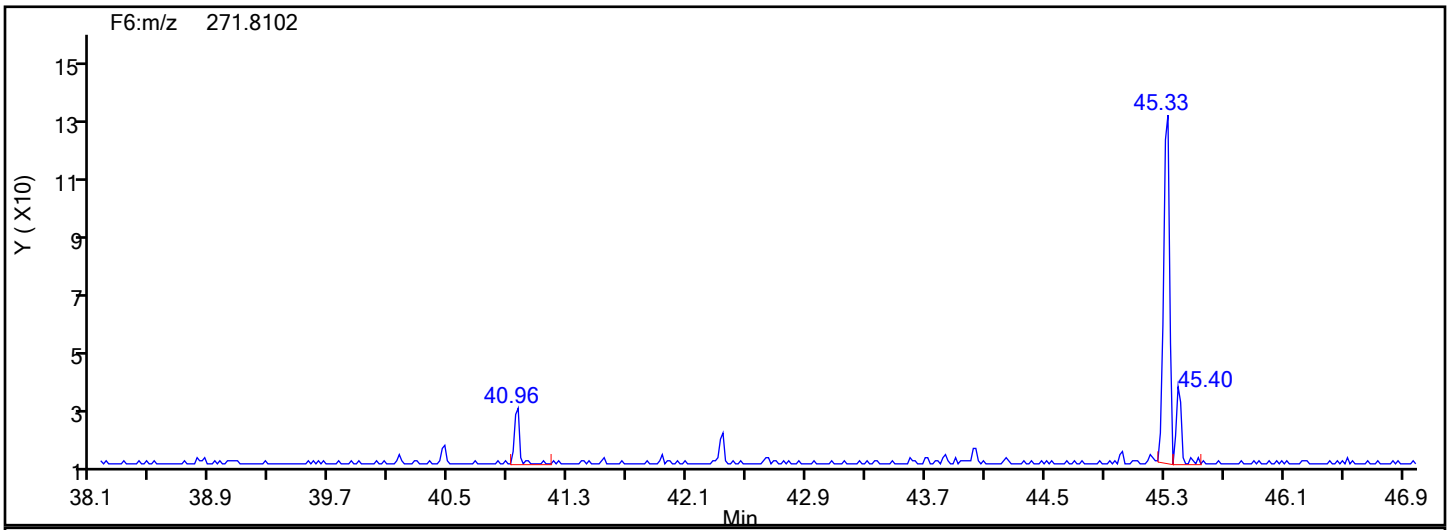


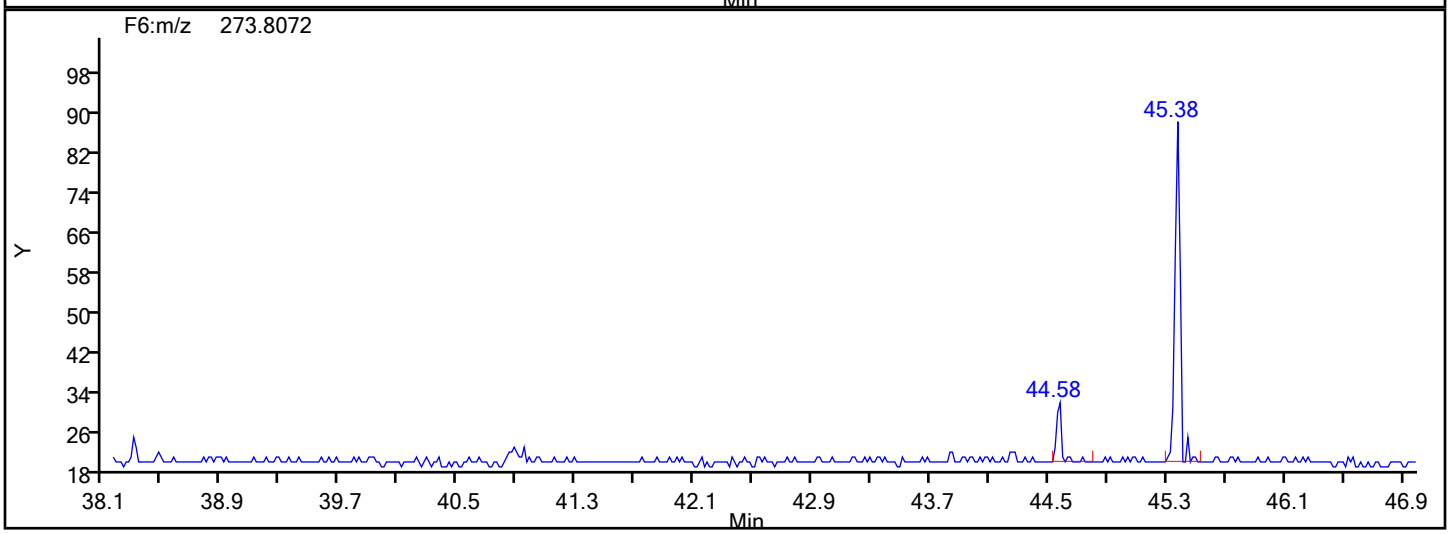
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

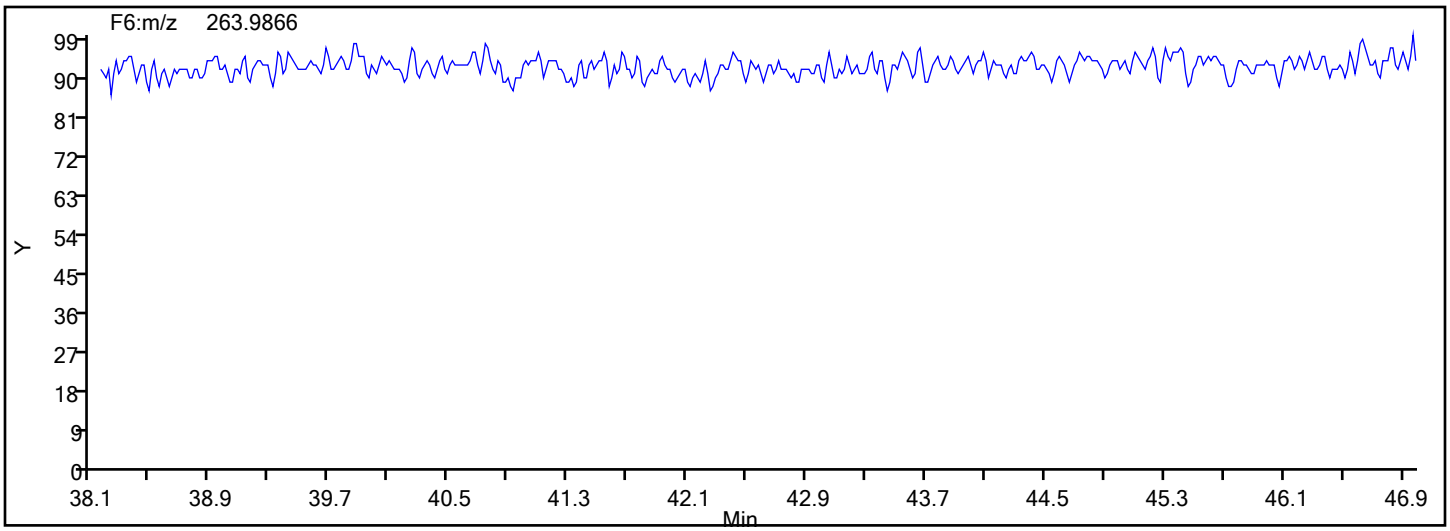
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



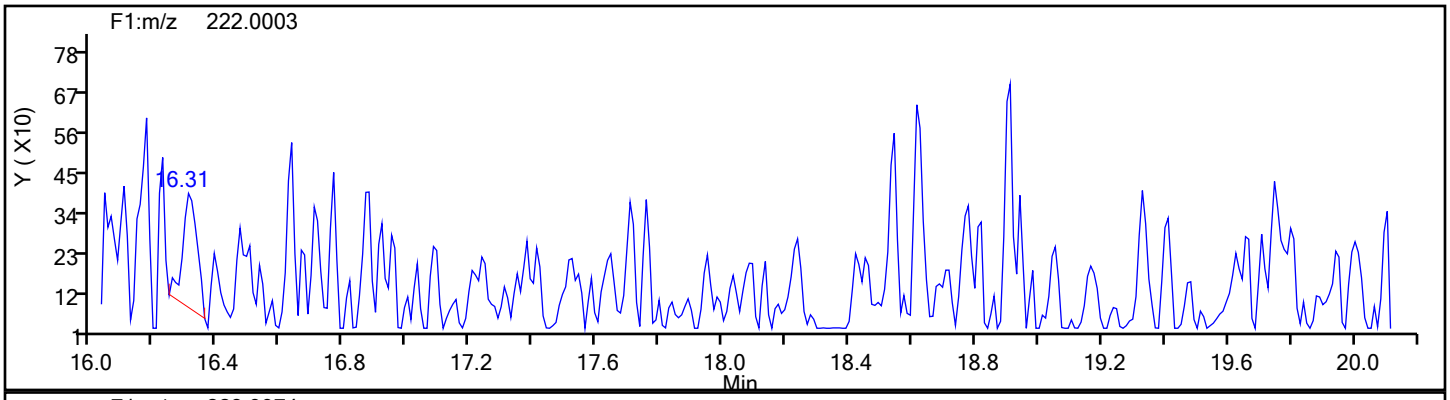
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

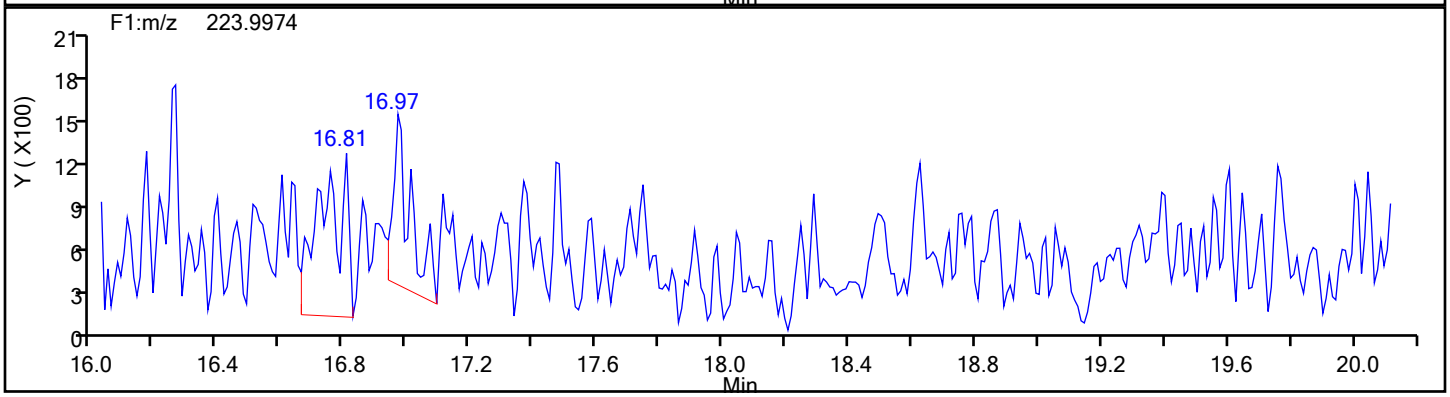
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

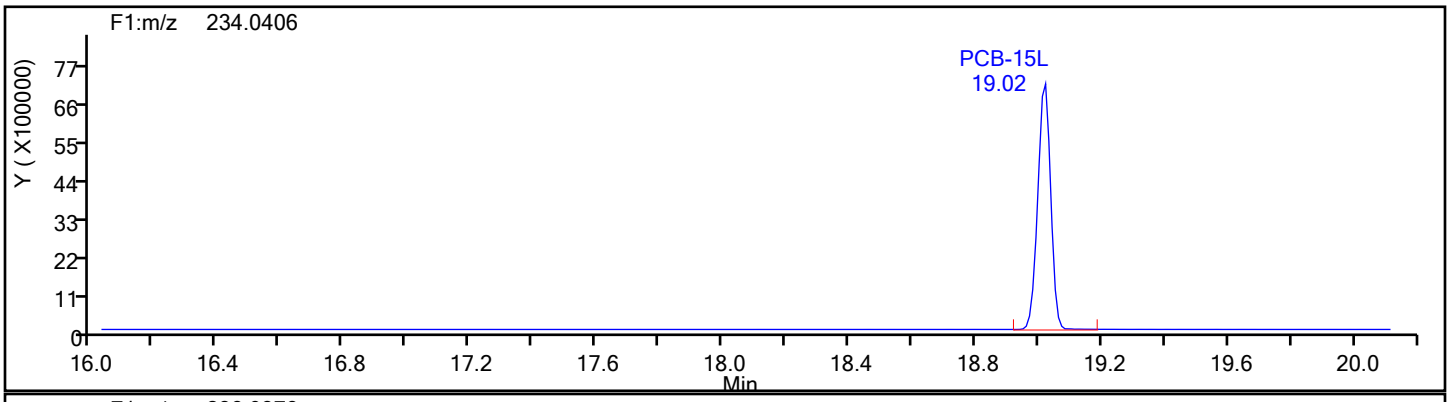
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

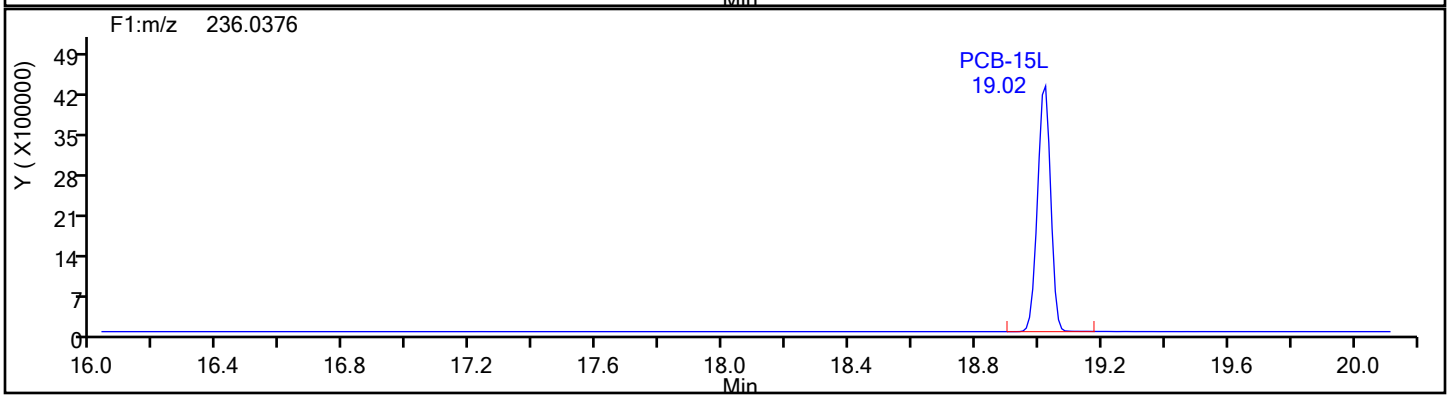
PCB-14





PCB-14 Standards





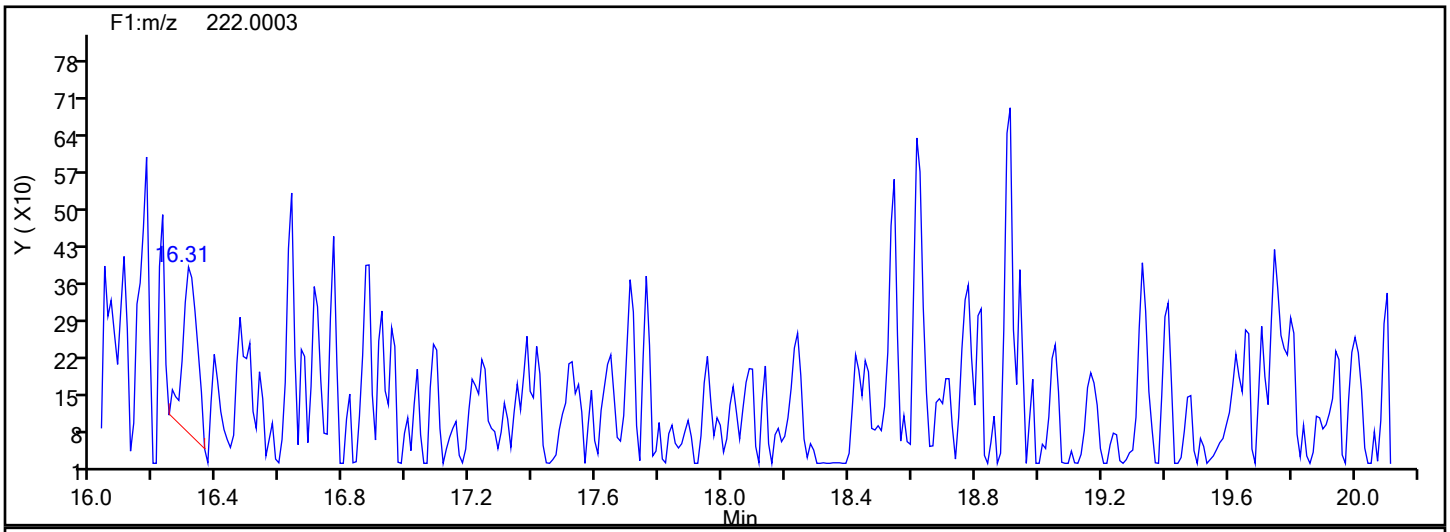
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

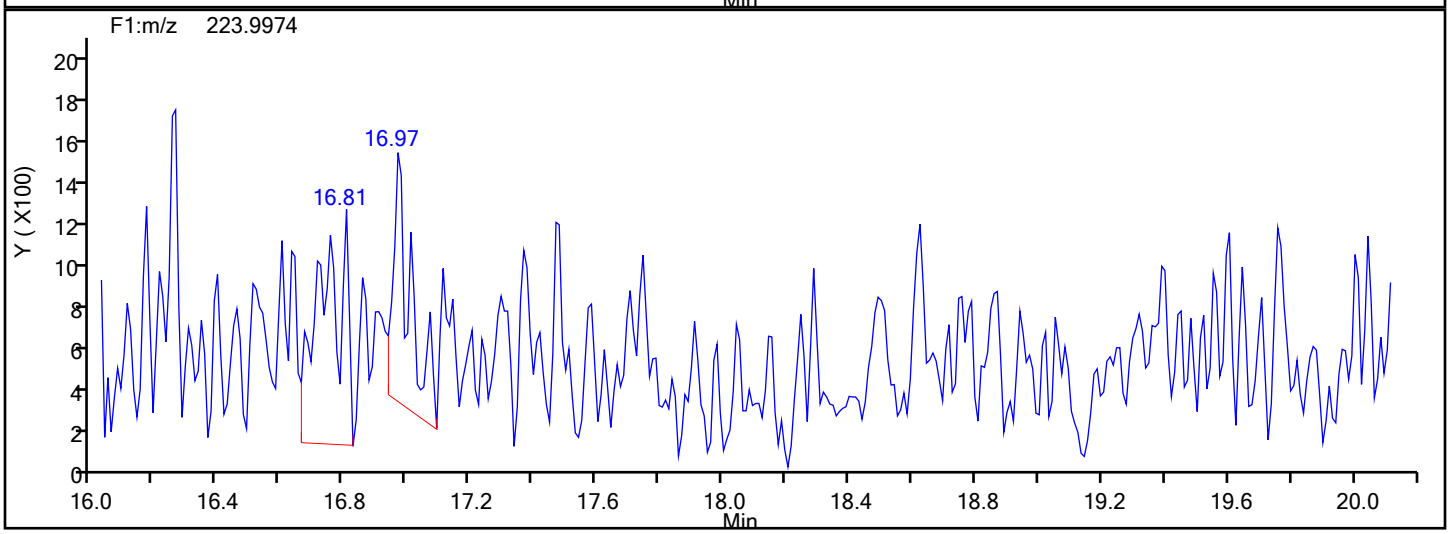
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

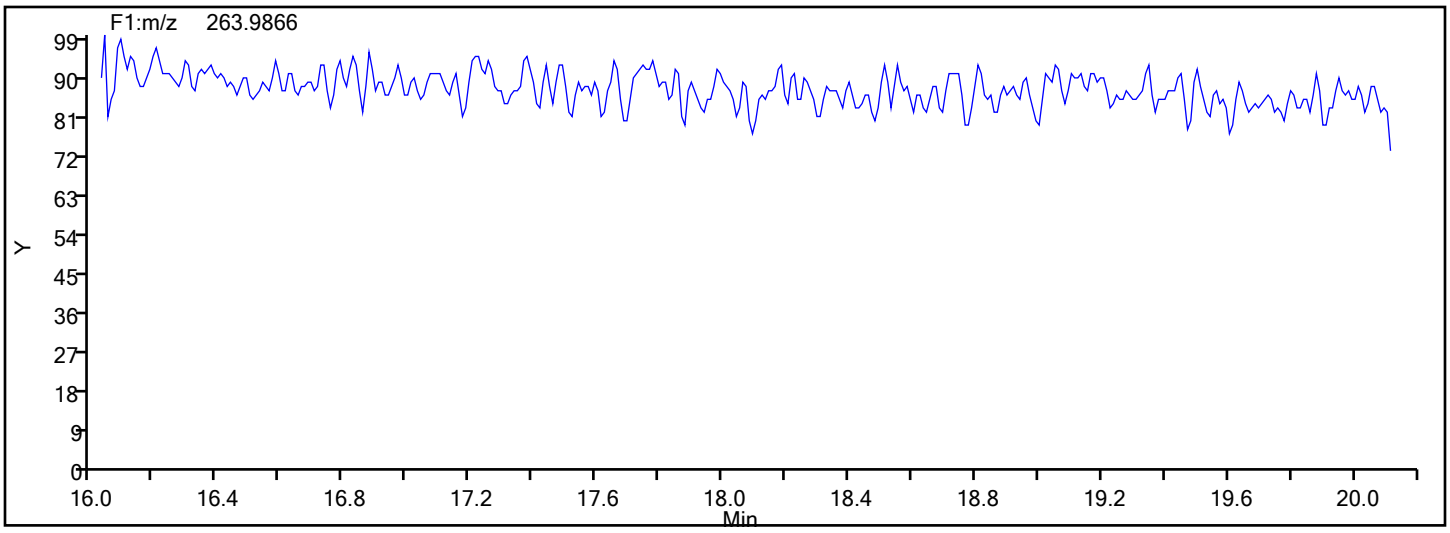
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



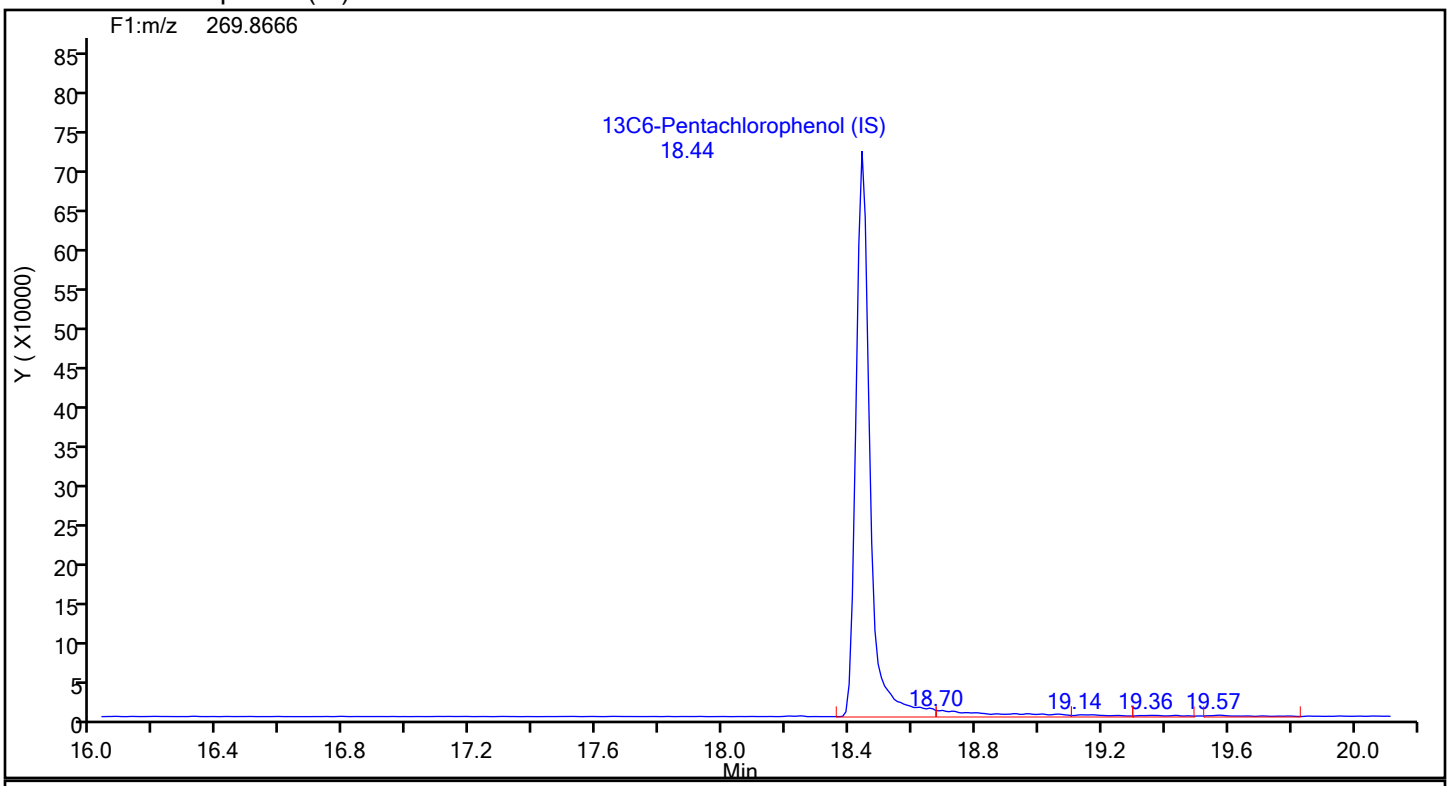
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

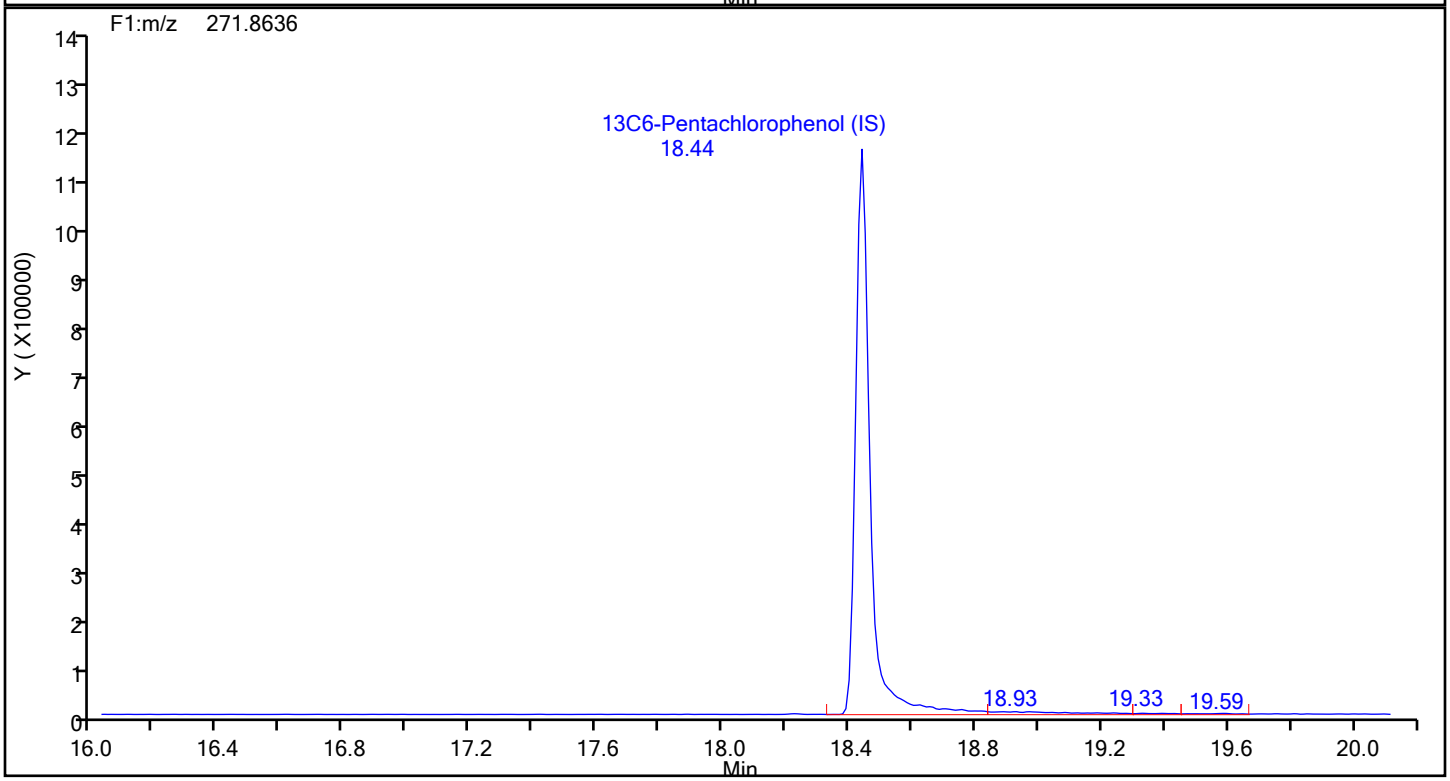
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





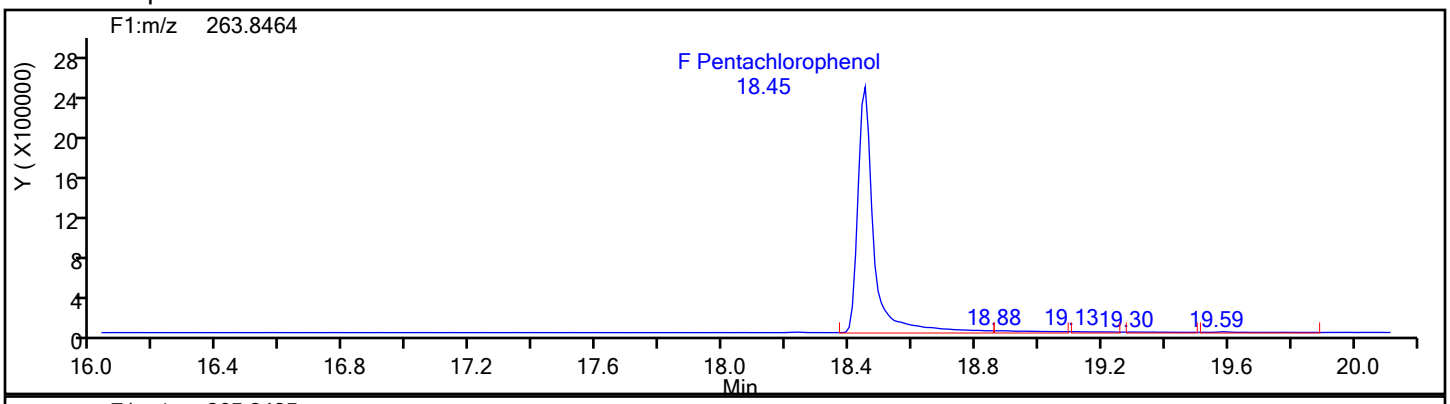
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

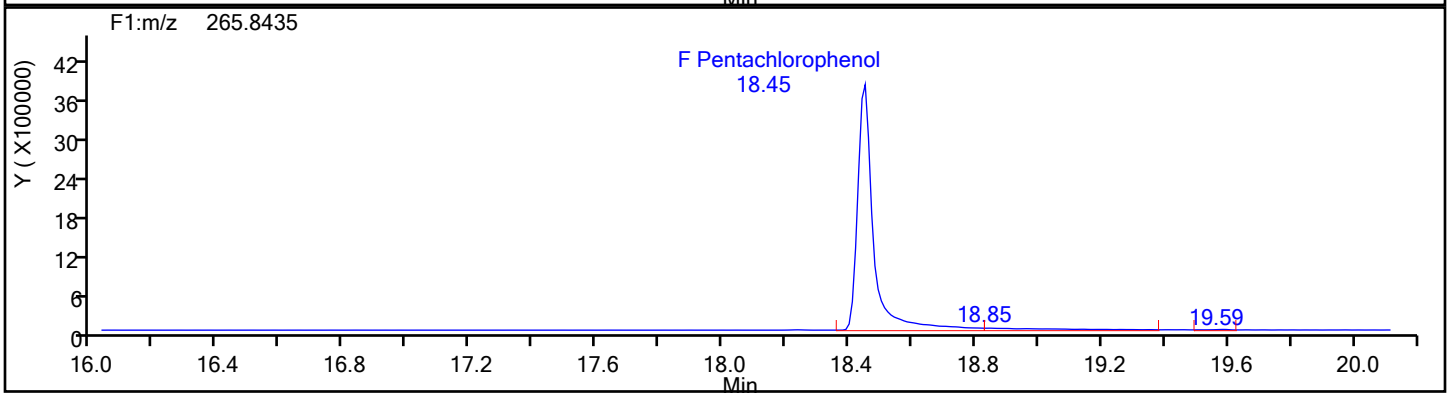
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

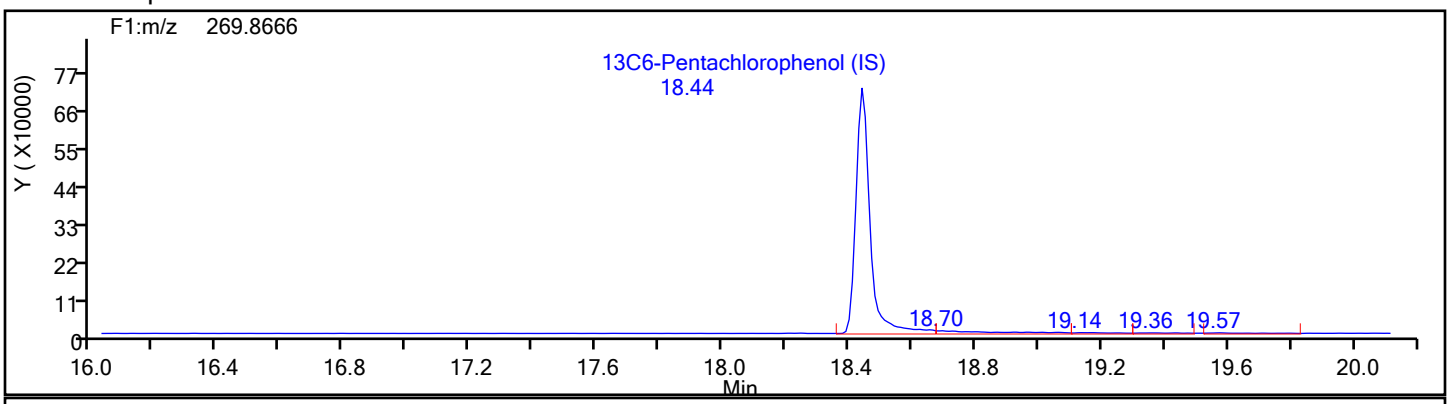
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

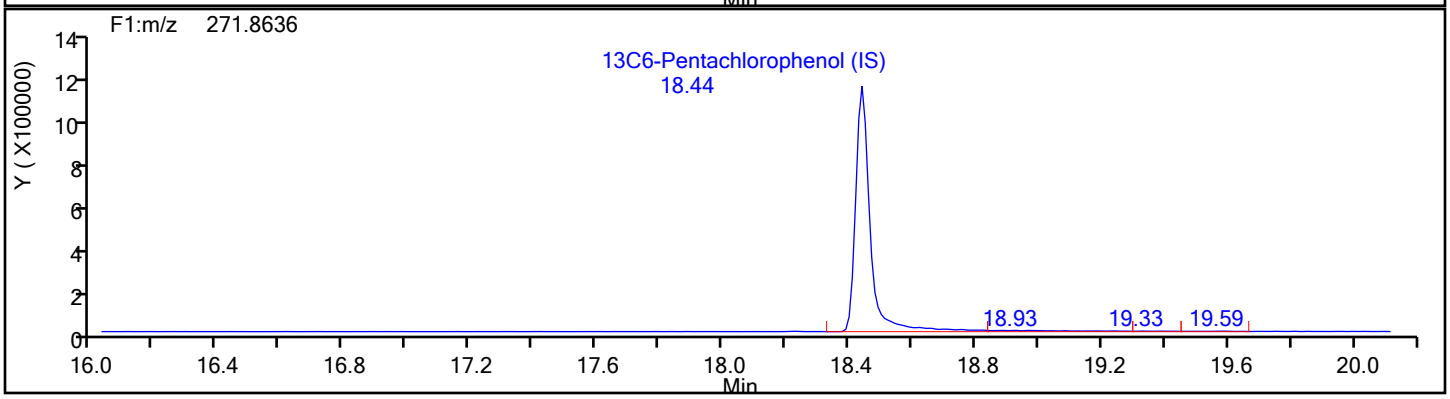
Pentachlorophenol





Pentachlorophenol Standards



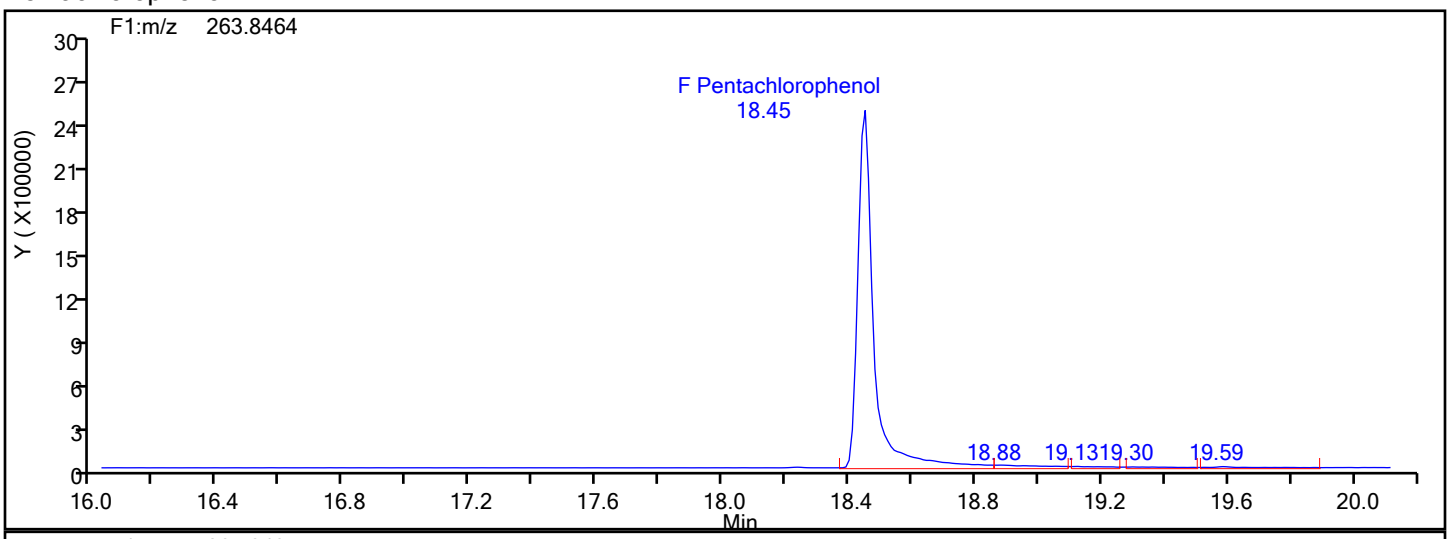


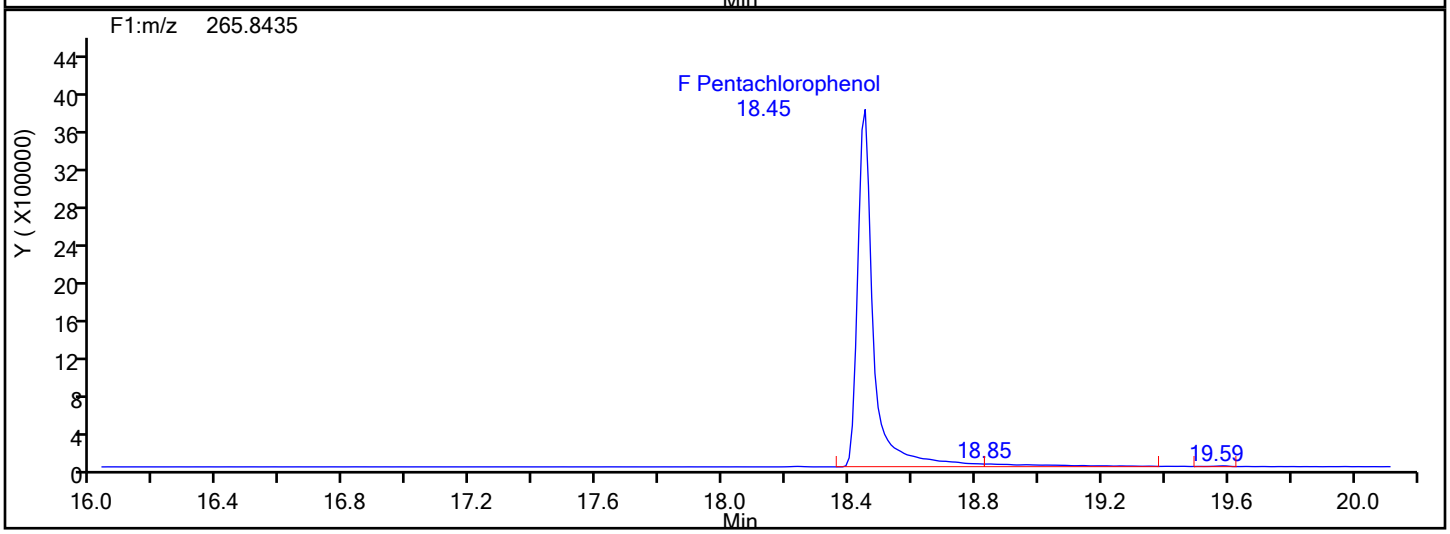
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

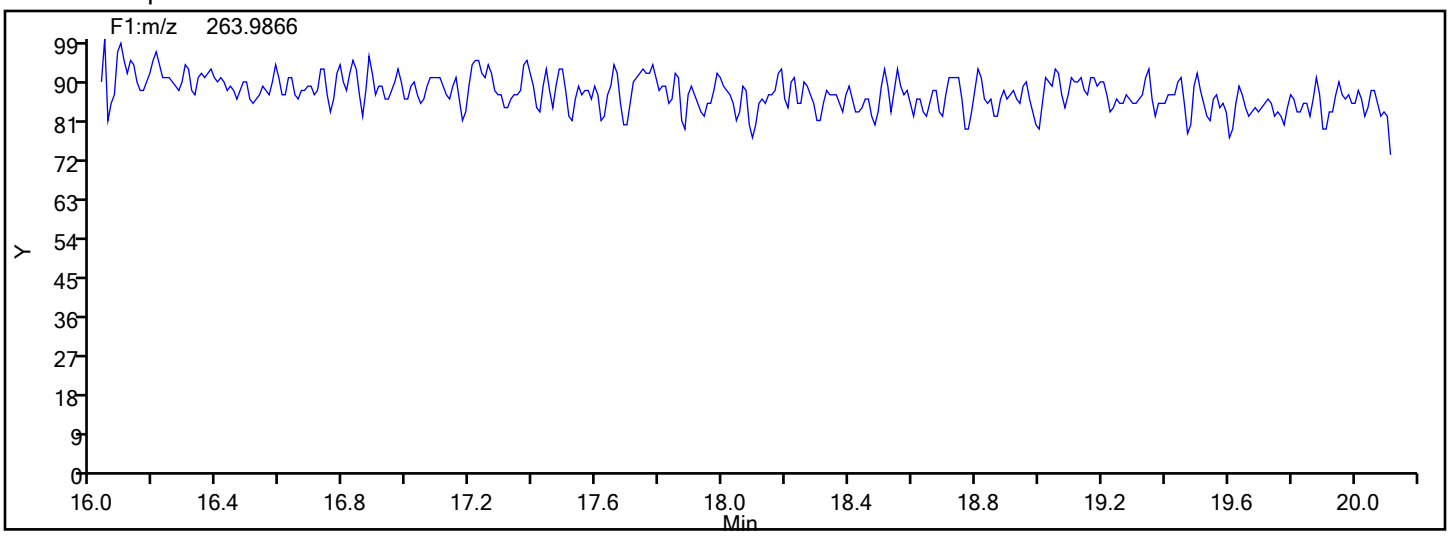
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

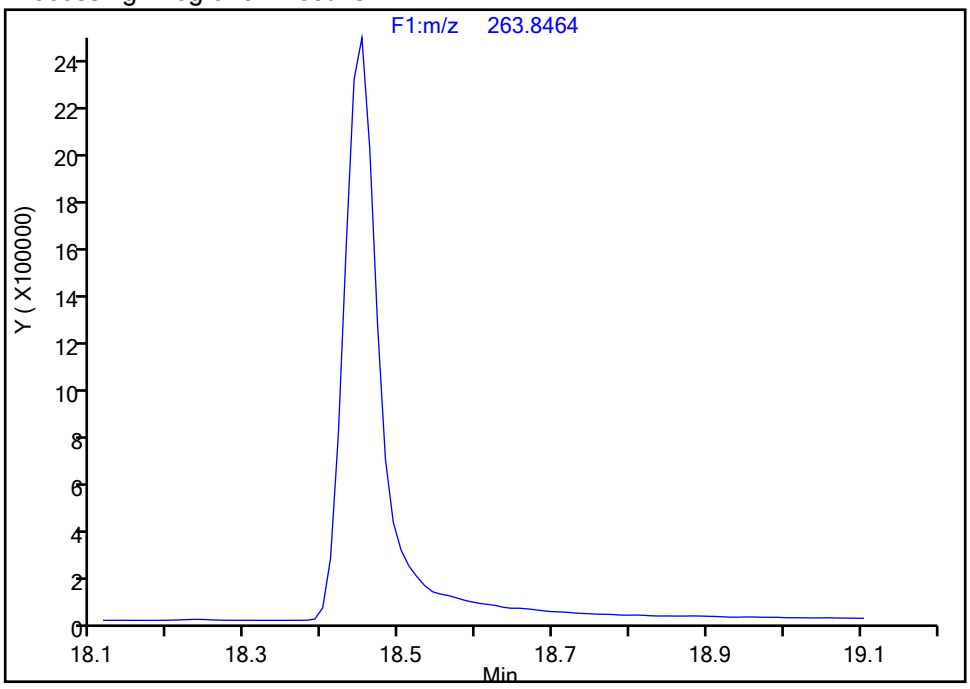
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d				
Injection Date:	02-May-2025 19:23:00	Instrument ID:	D3PST		
Lims ID:	IC L6				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

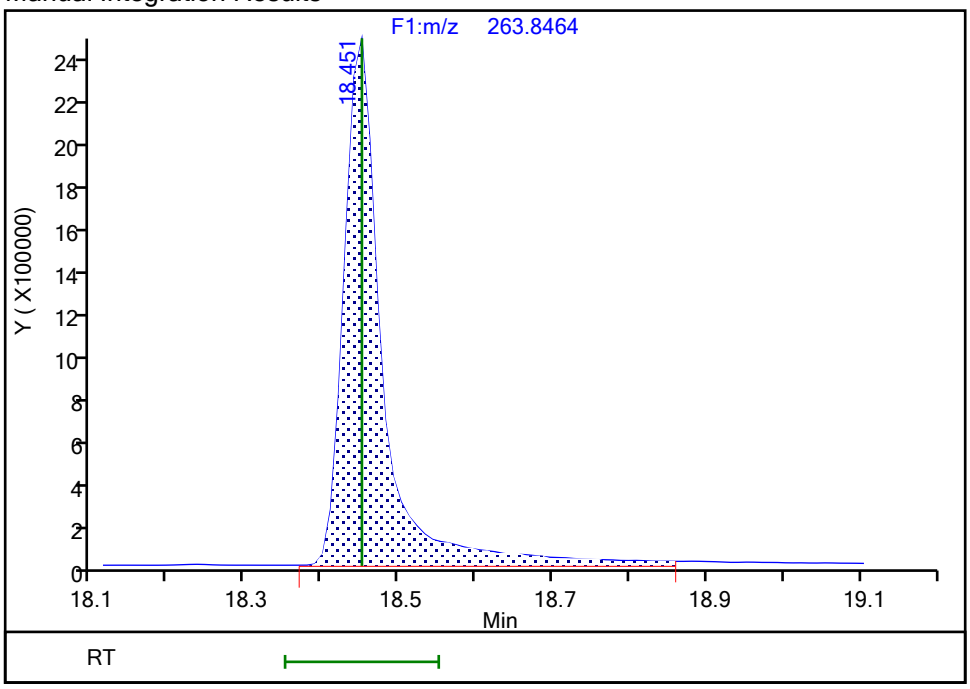
Not Detected
Expected RT: 18.45

Processing Integration Results



Manual Integration Results

RT: 18.45
Area: 8701248
Amount: 1858.1783
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:25:18 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

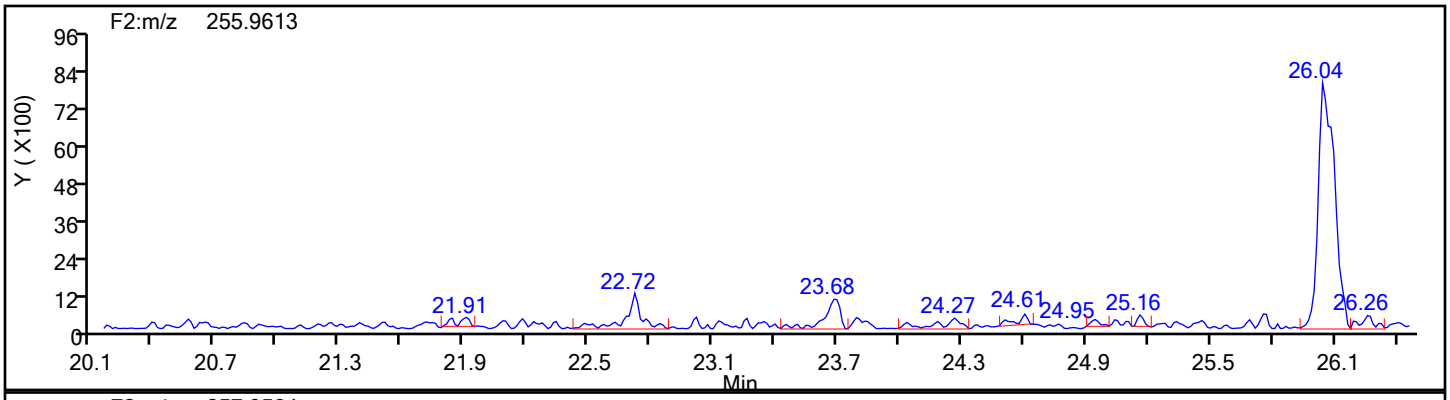
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

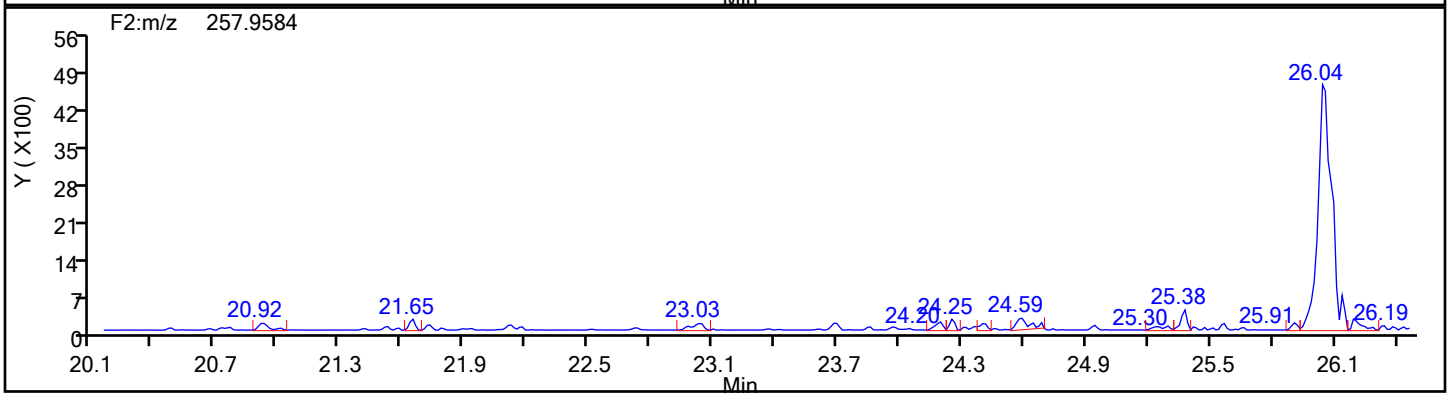
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

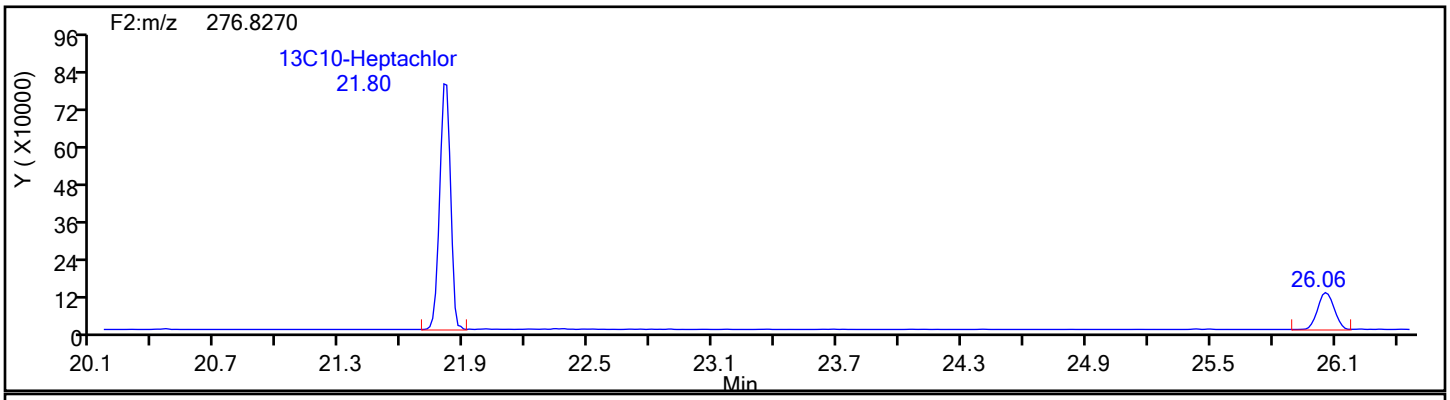
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

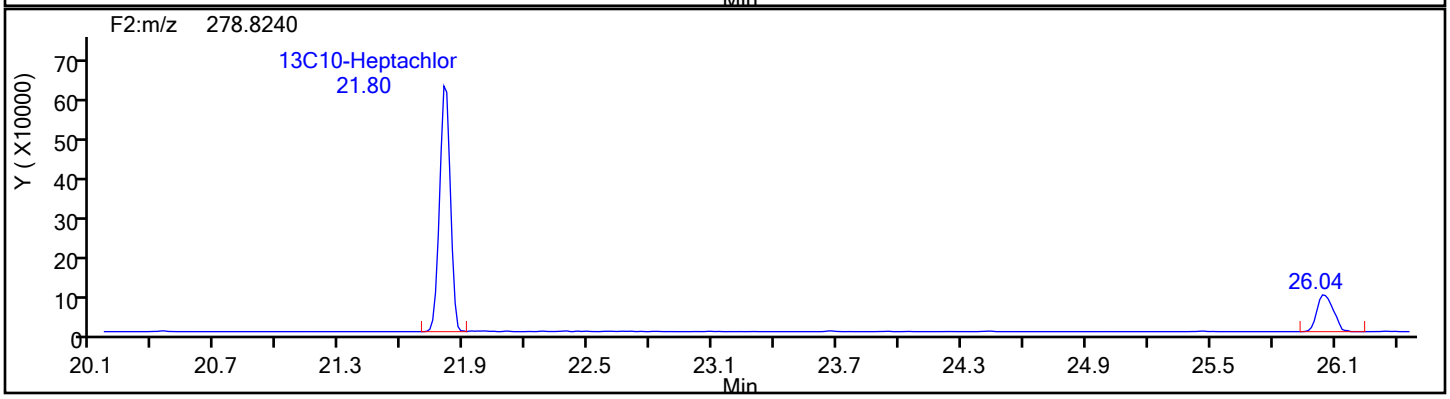
PCB-36





PCB-36 Standards



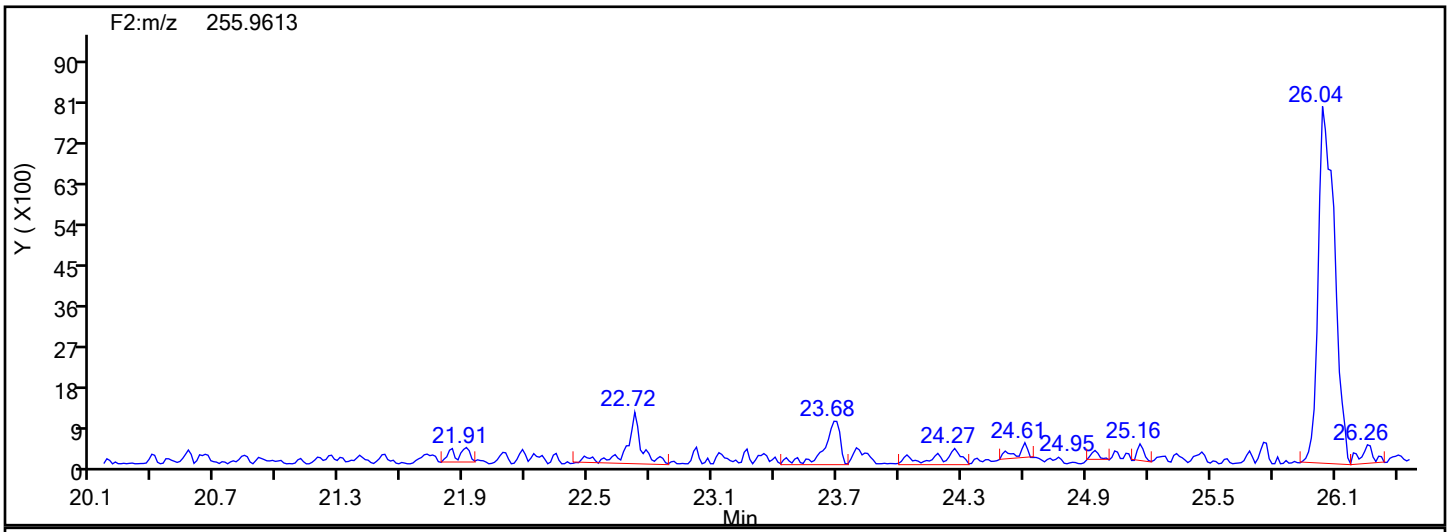


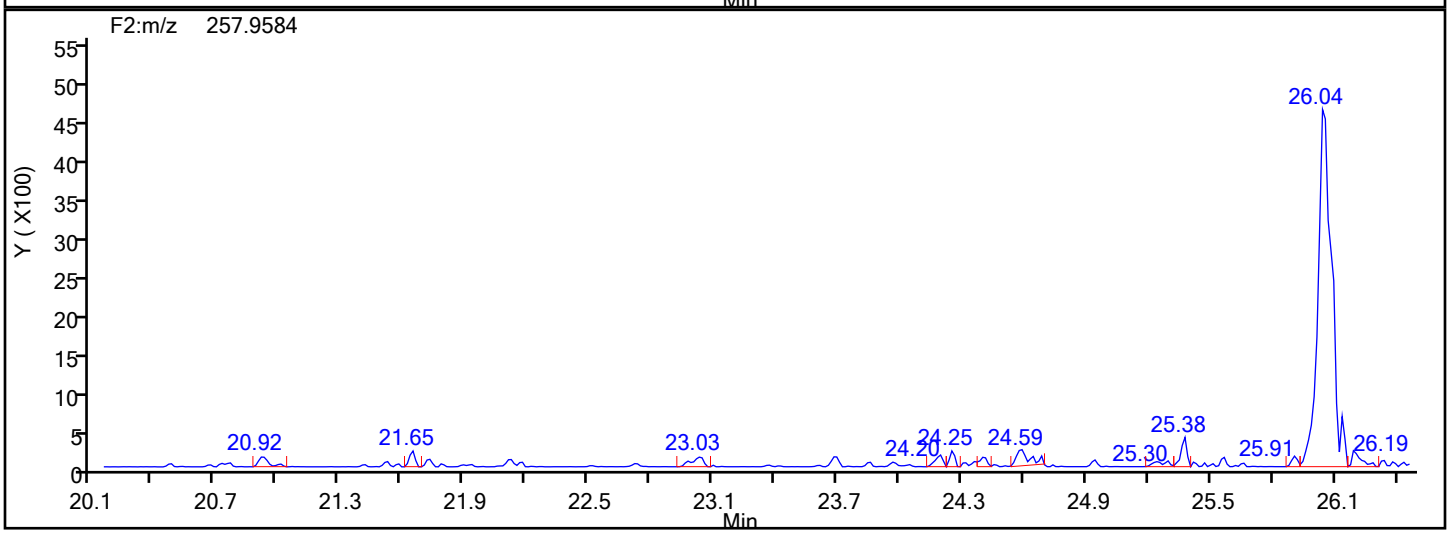
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

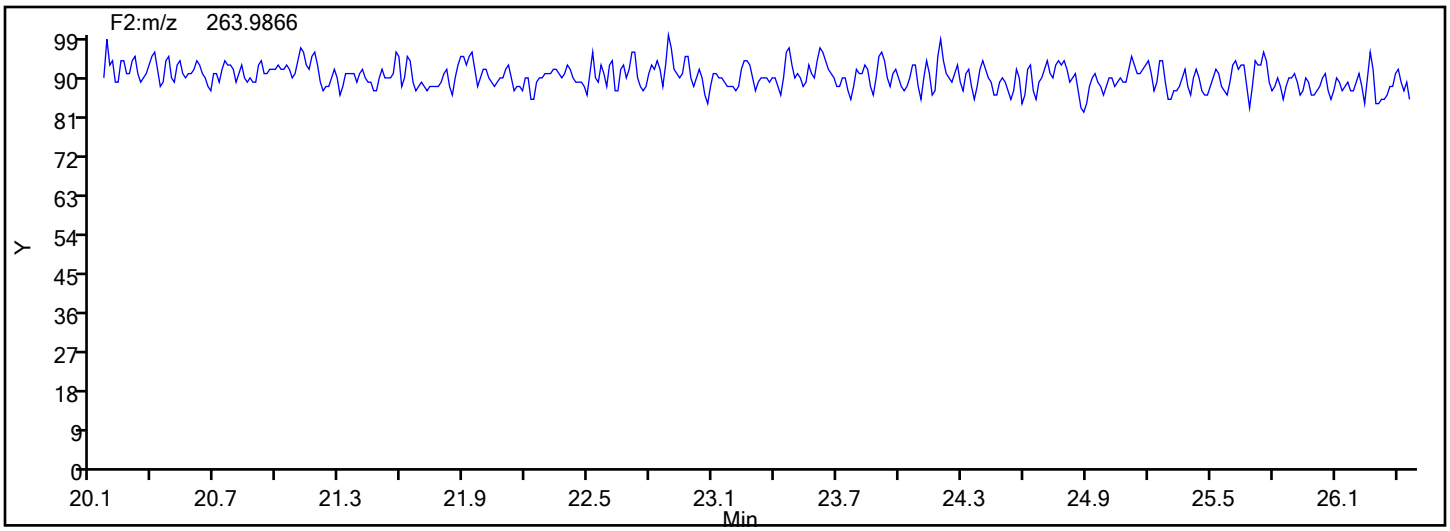
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



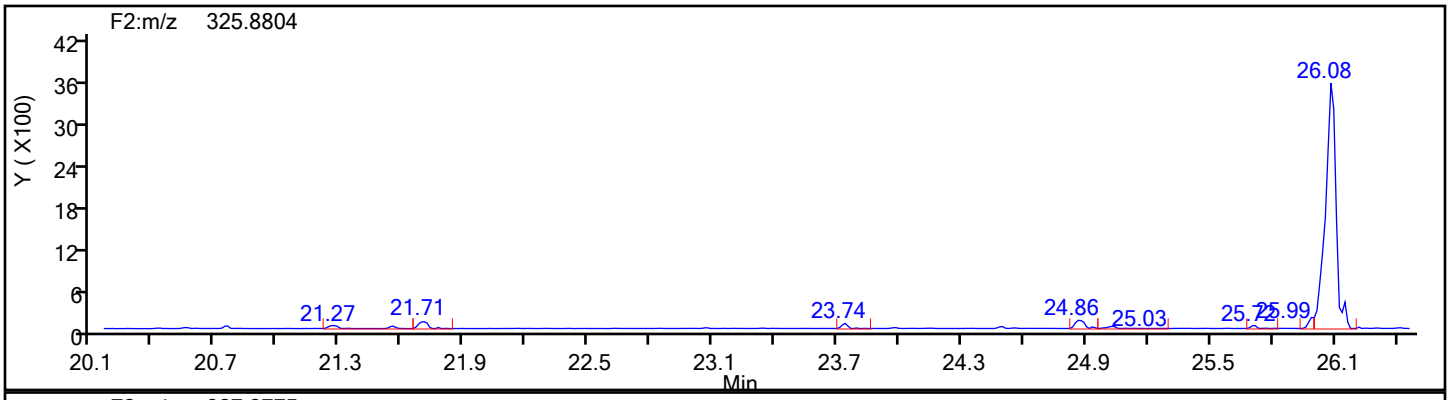
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

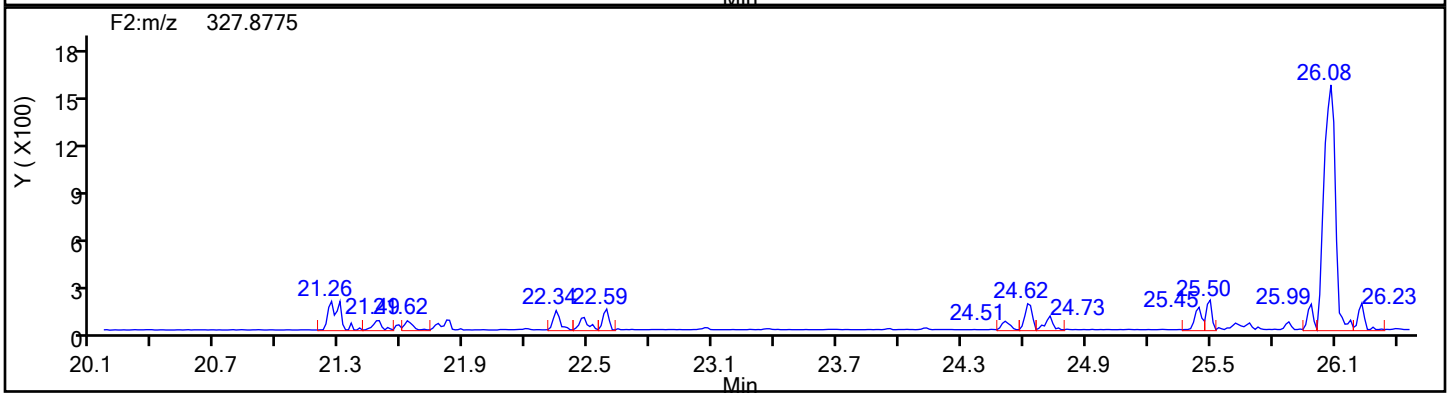
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

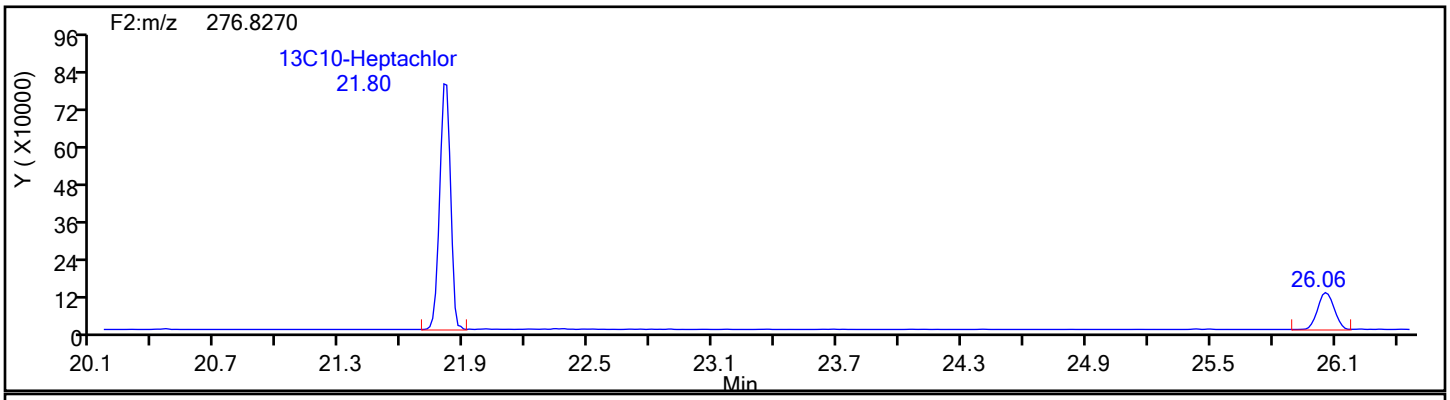
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

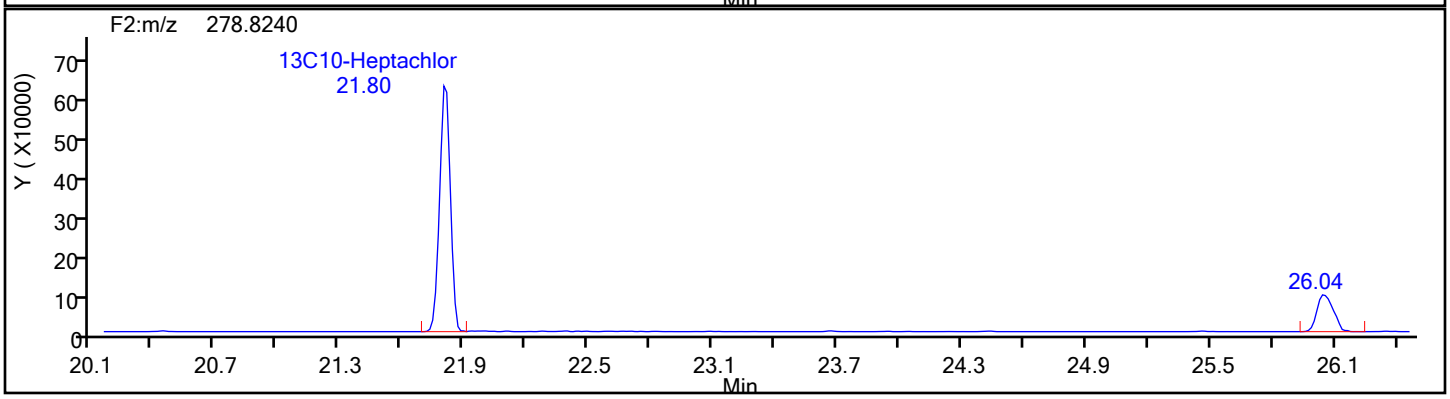
PCB-104





PCB-104 Standards





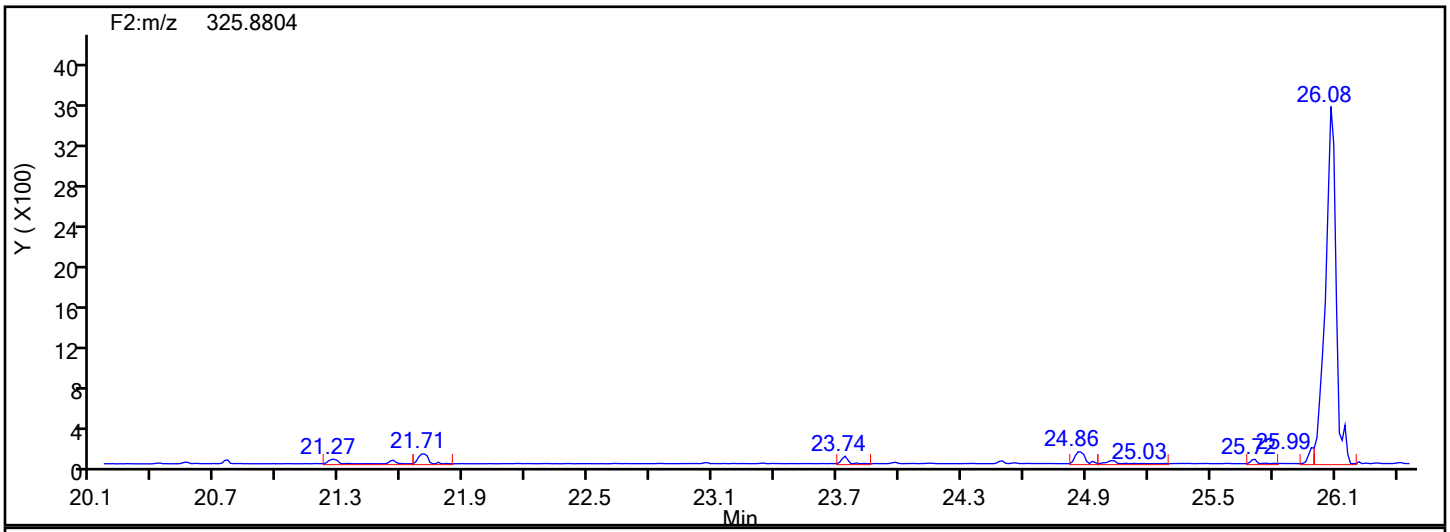
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

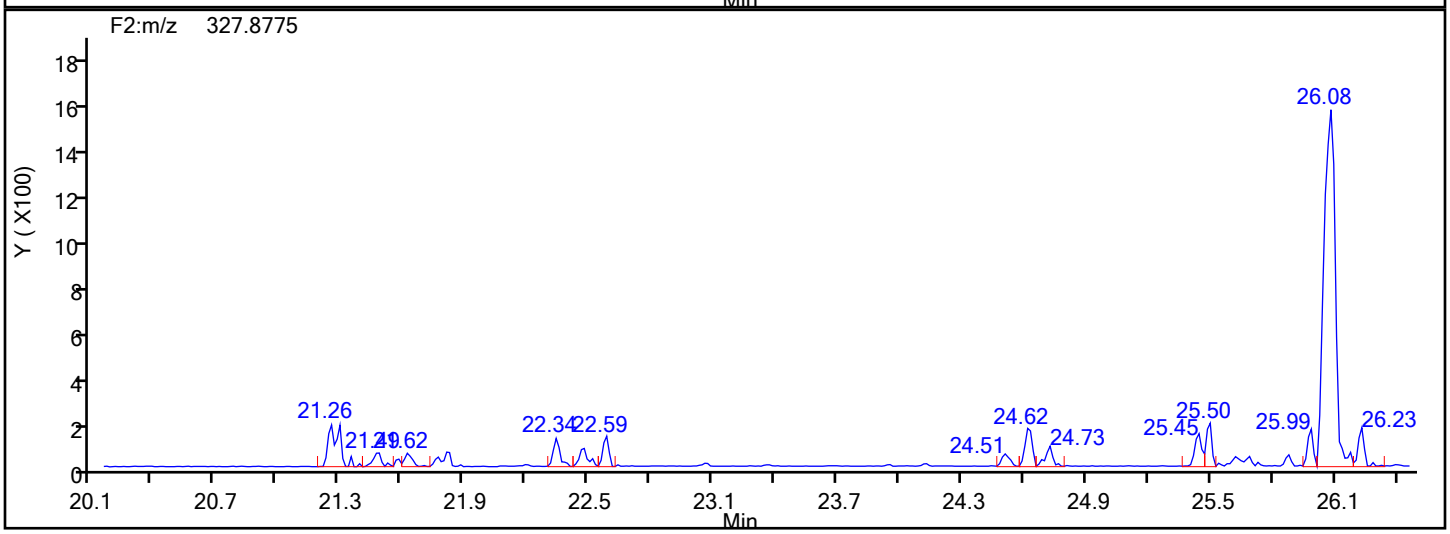
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

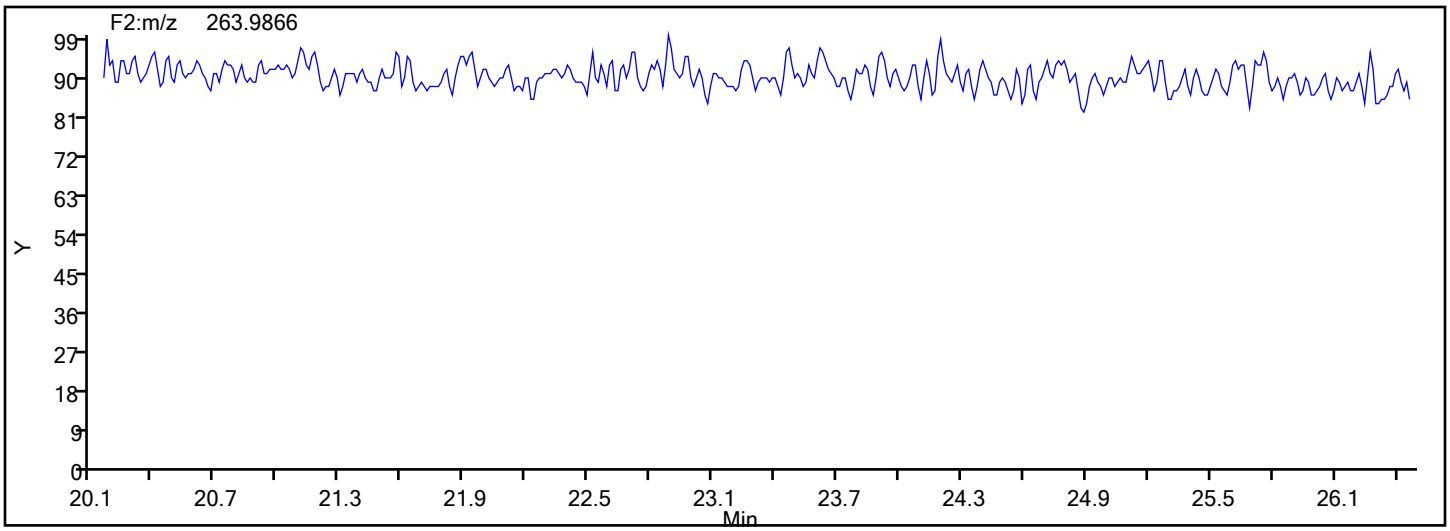
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



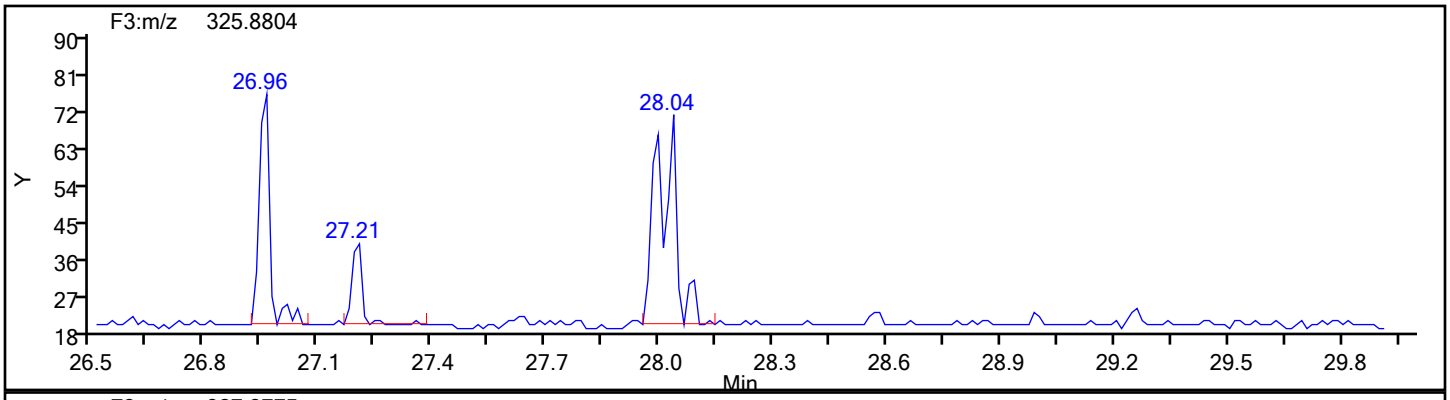
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

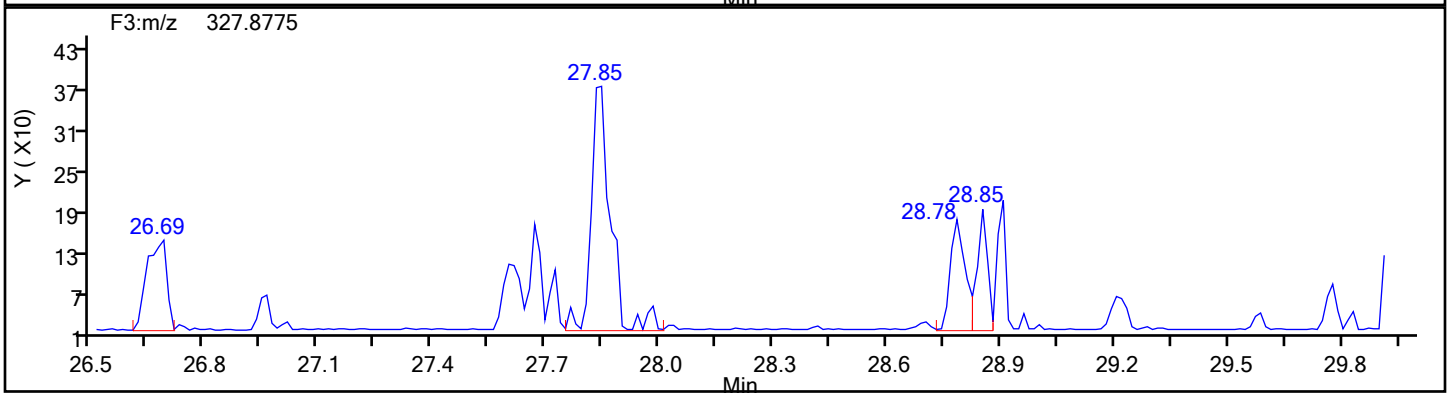
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

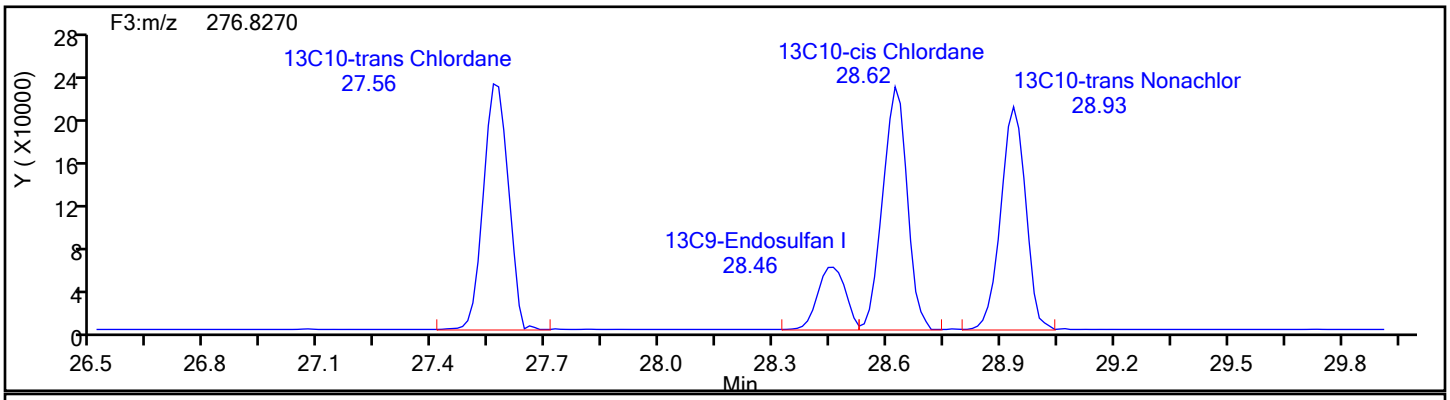
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

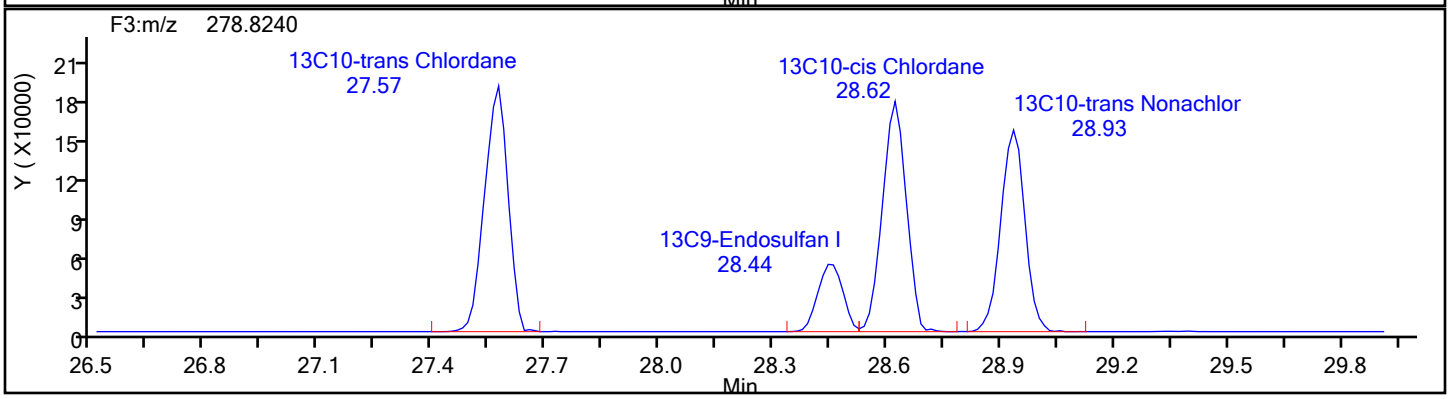
PCB-121





PCB-121 Standards



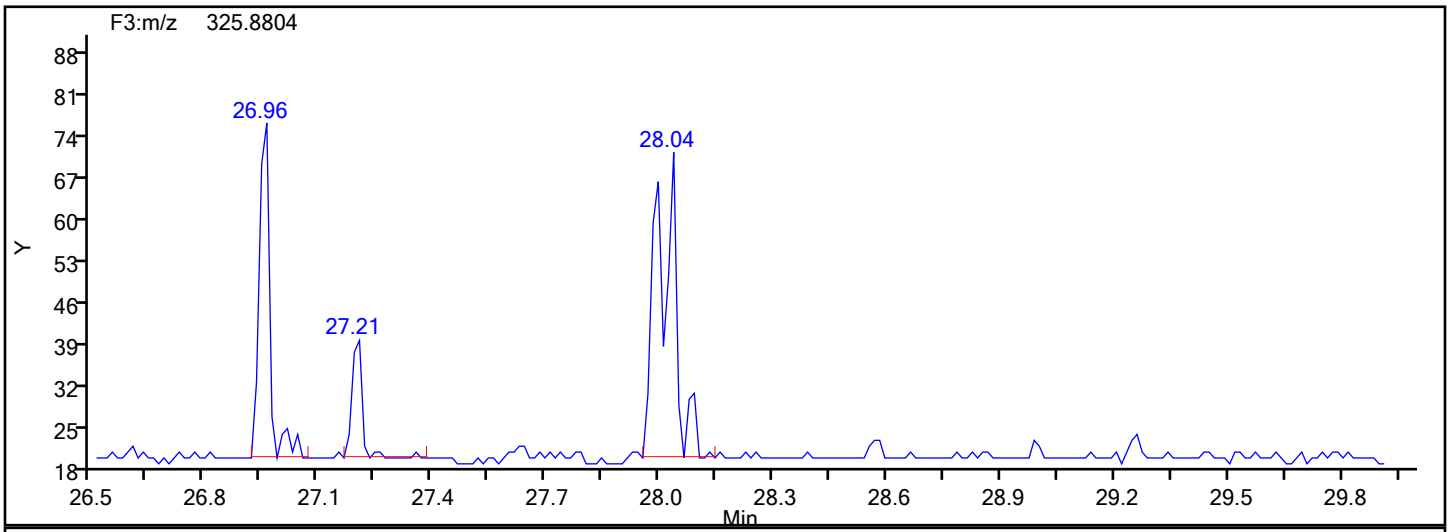


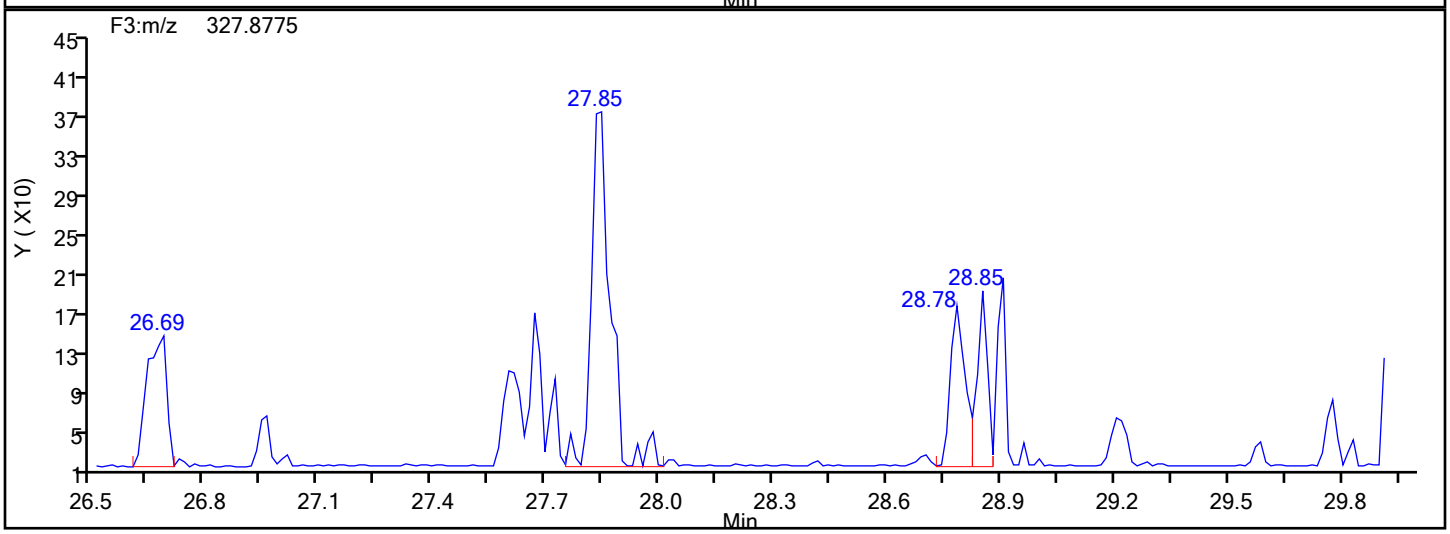
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

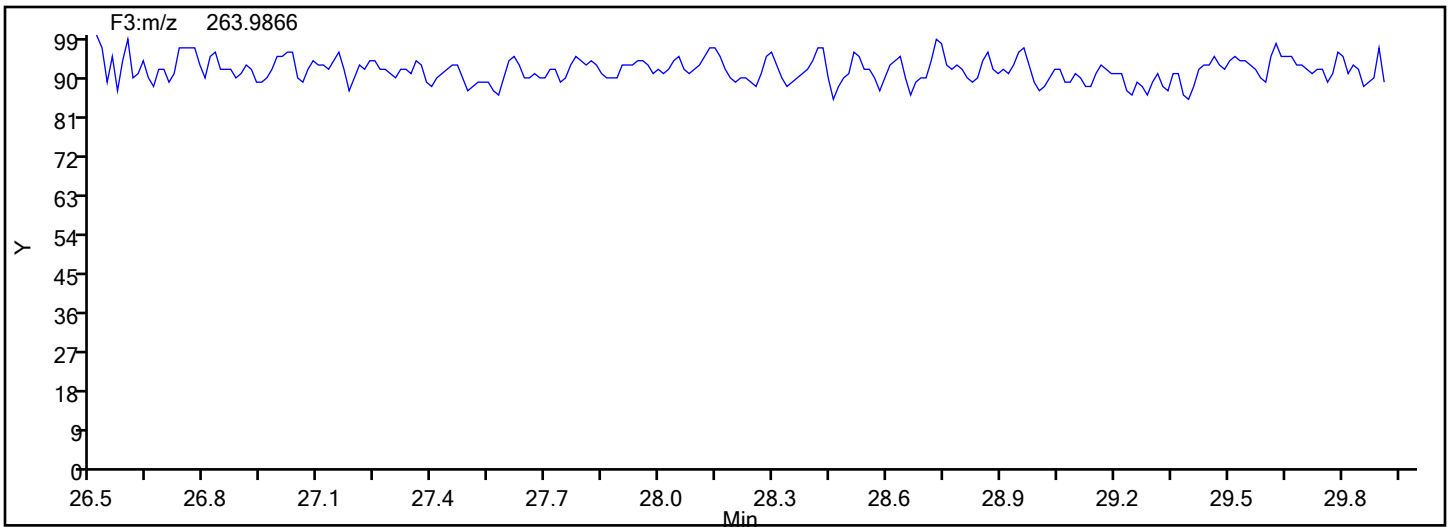
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



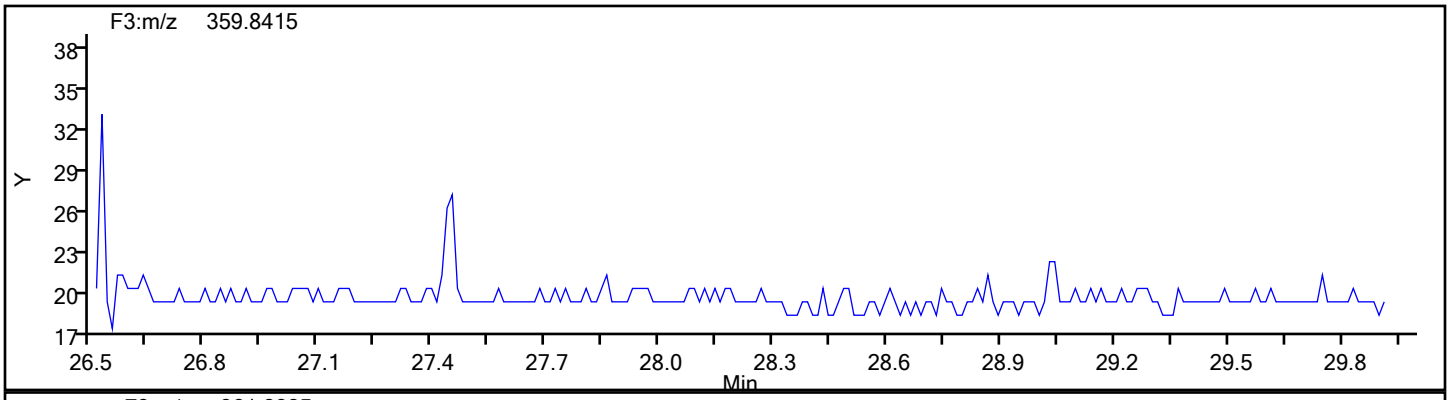
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

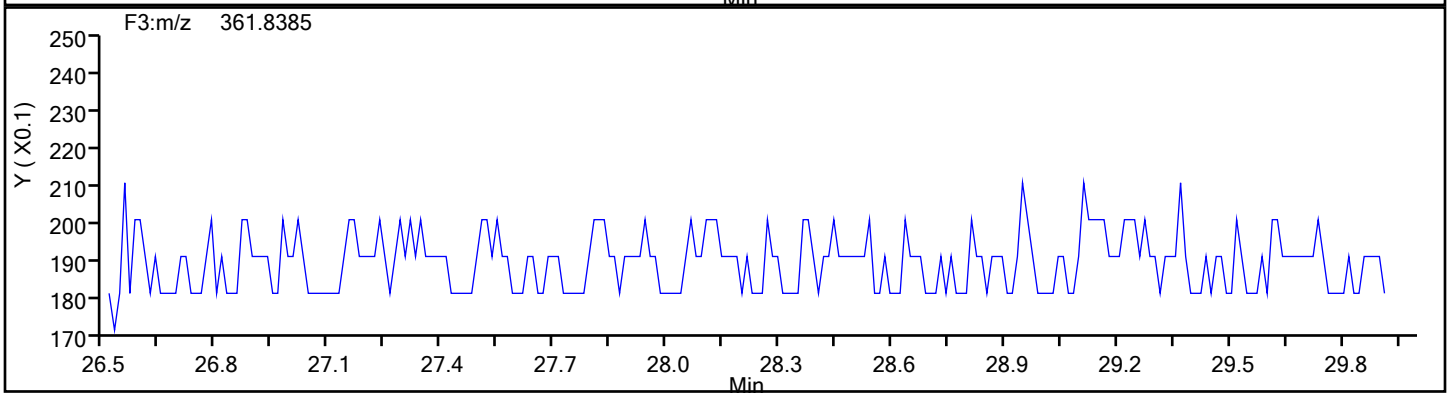
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

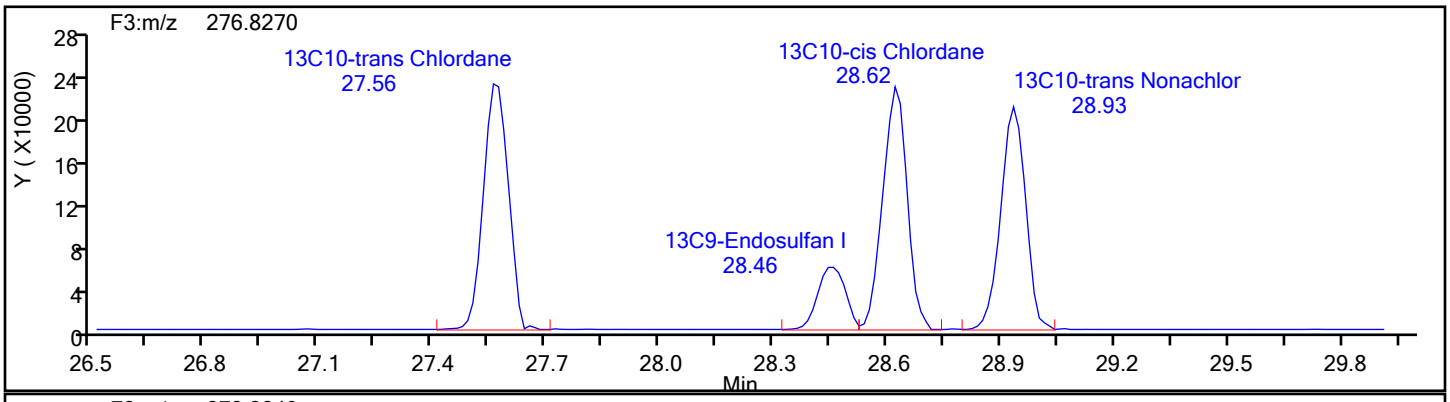
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

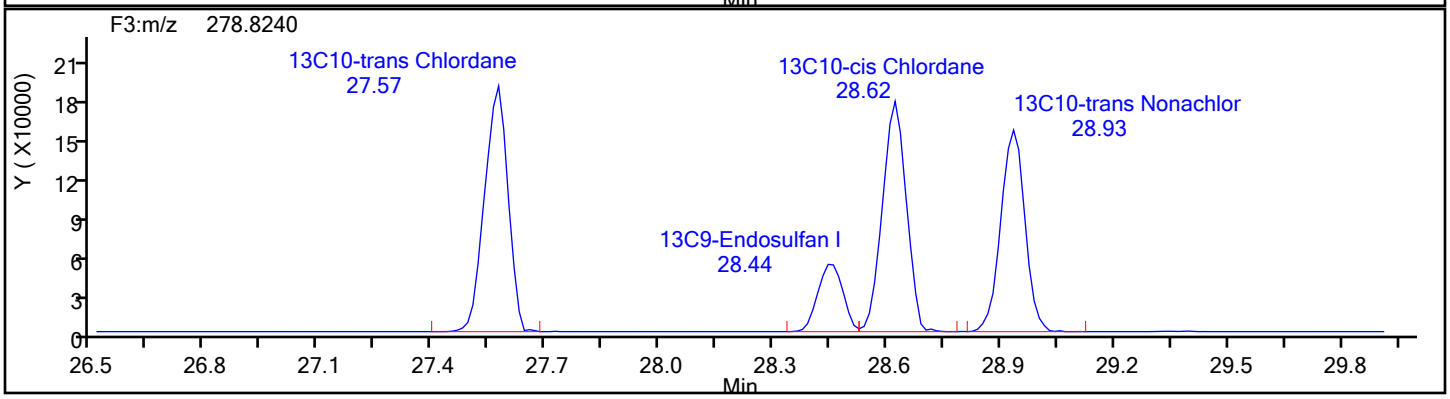
PCB-142





PCB-142 Standards



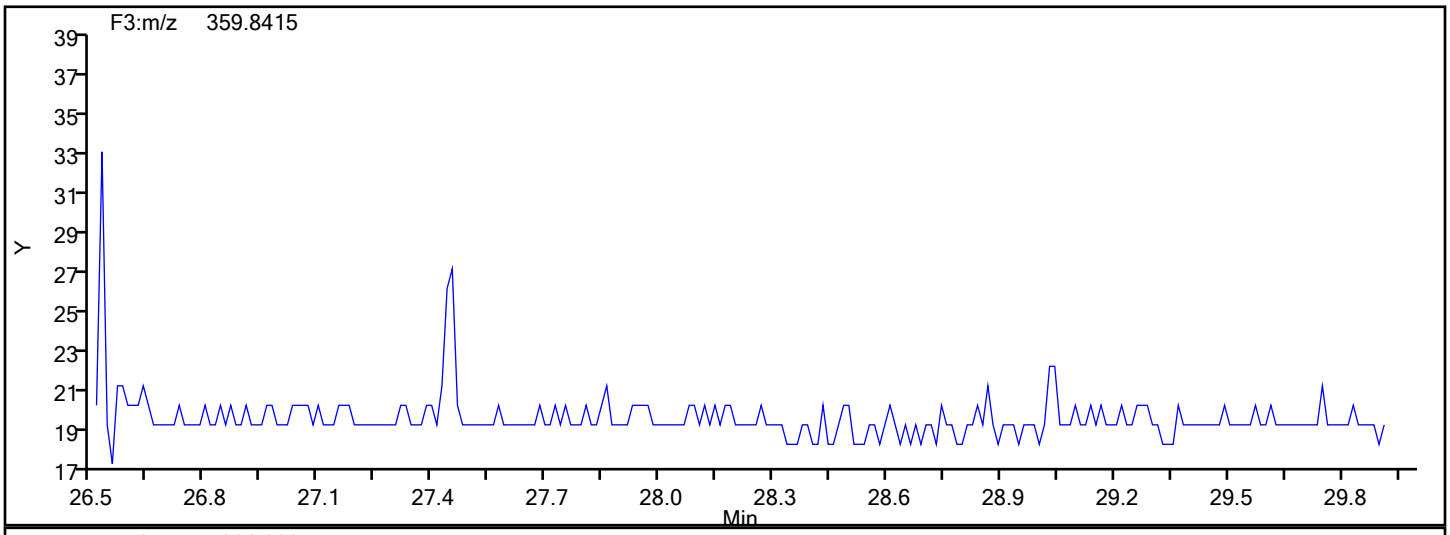


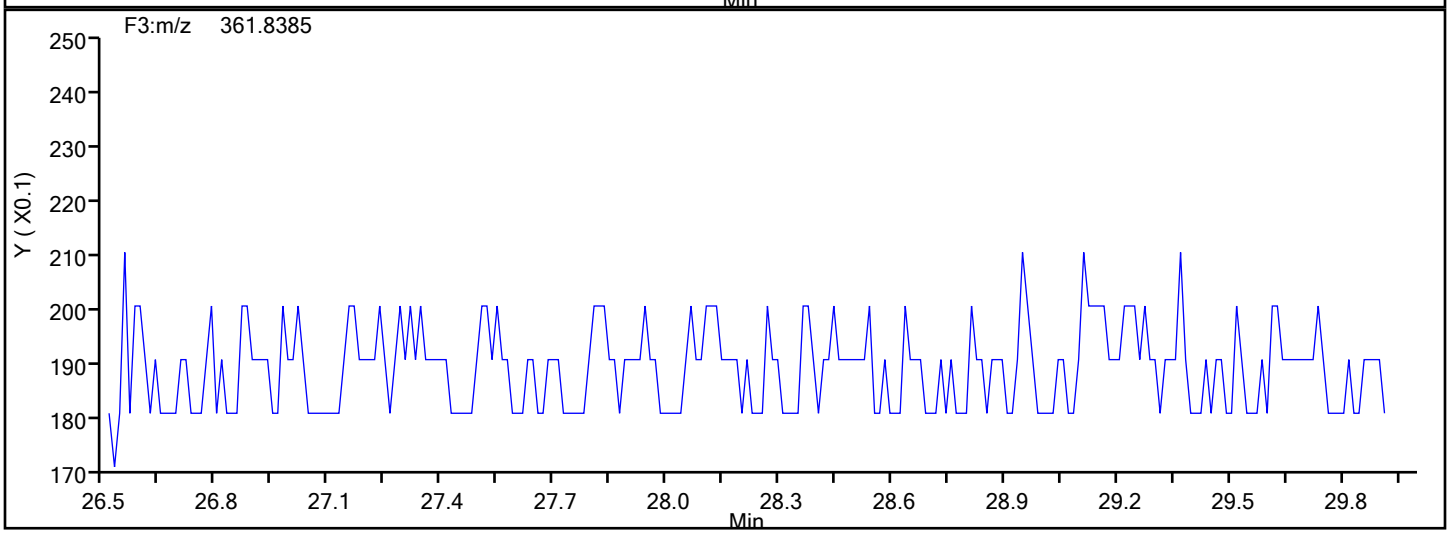
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

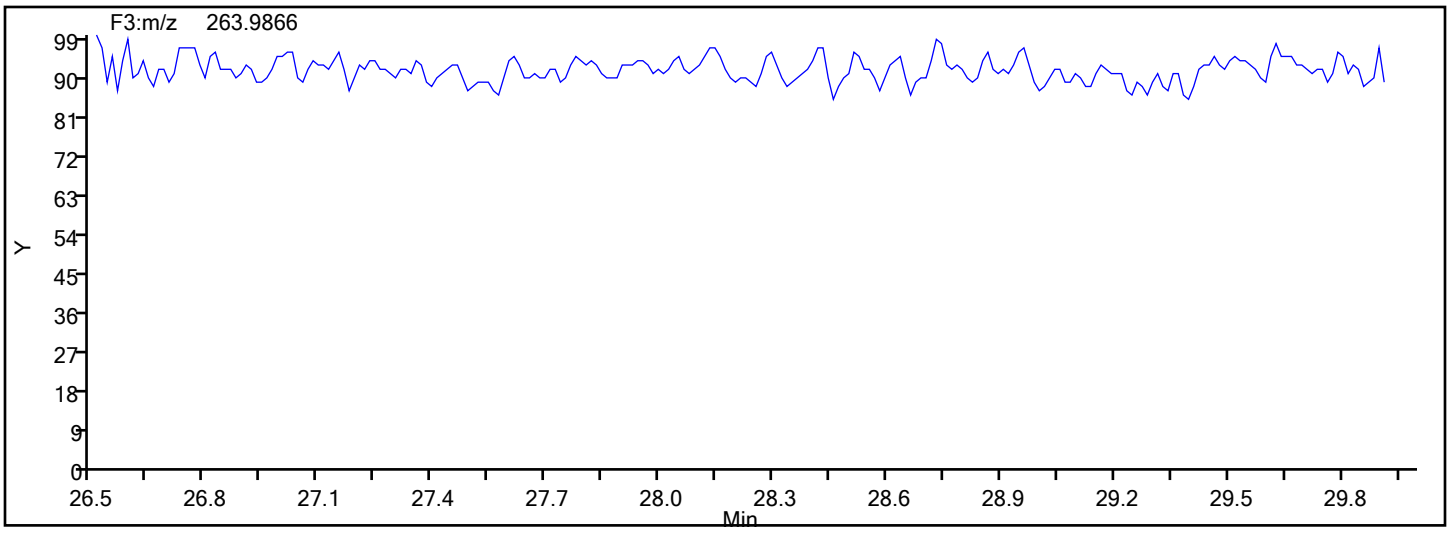
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass

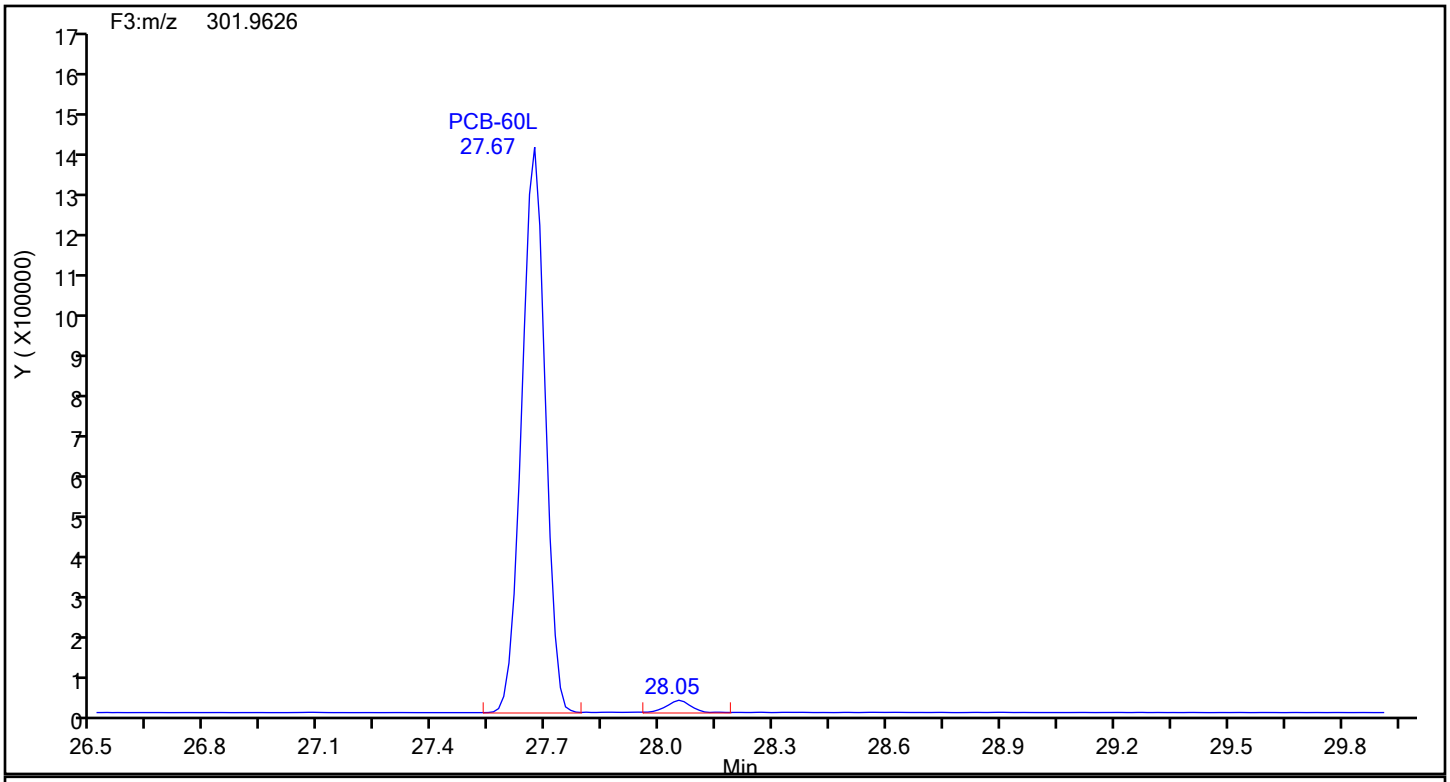


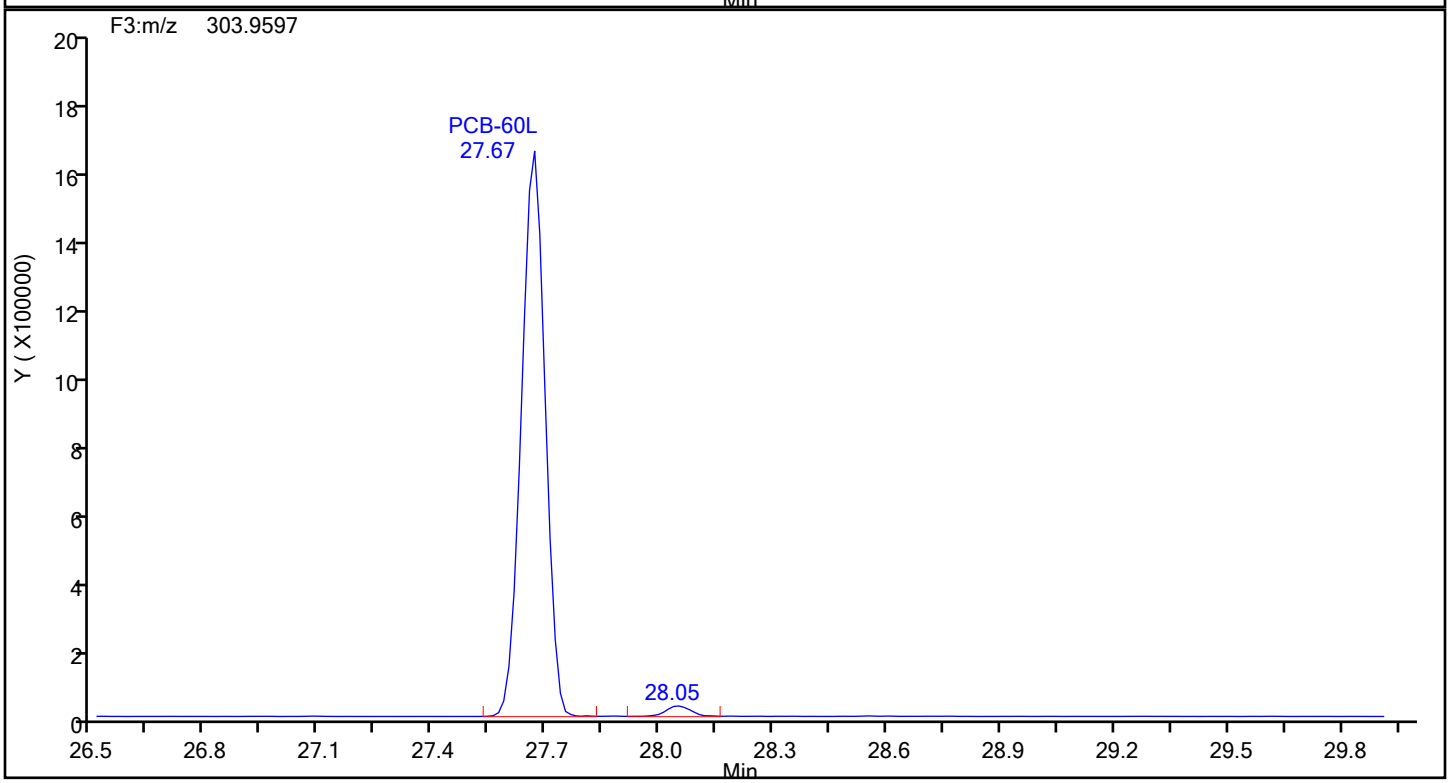
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





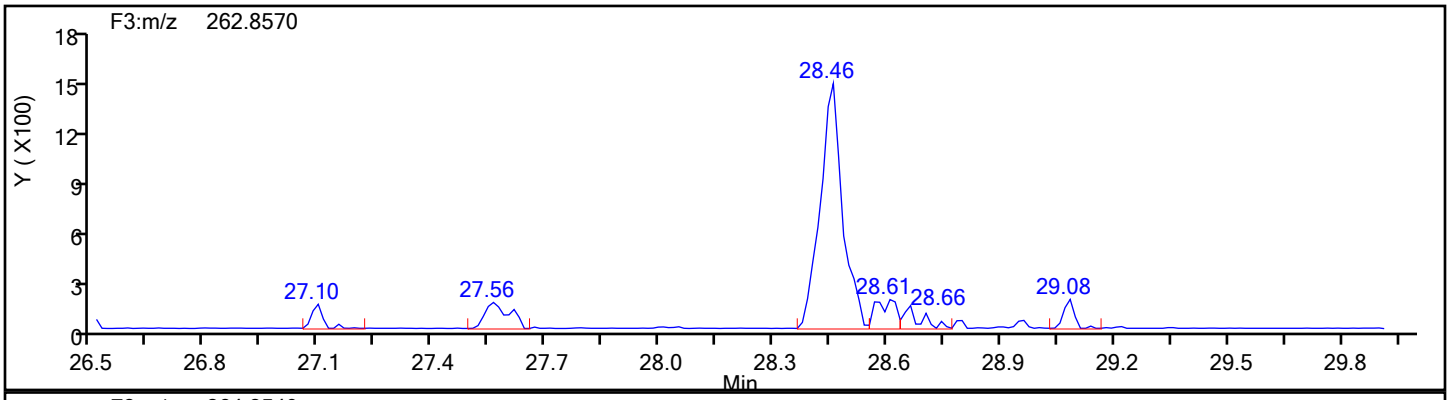
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

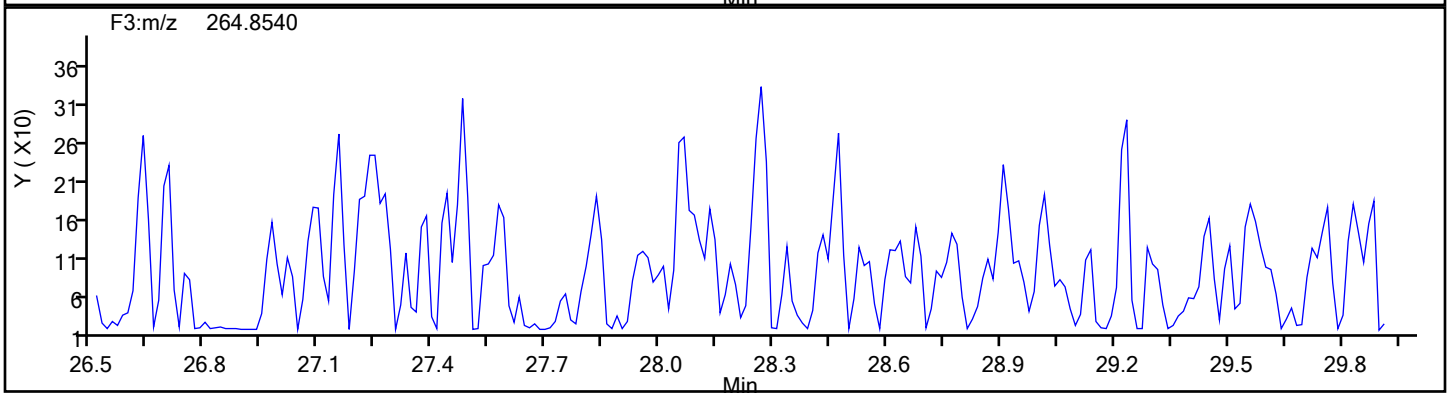
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

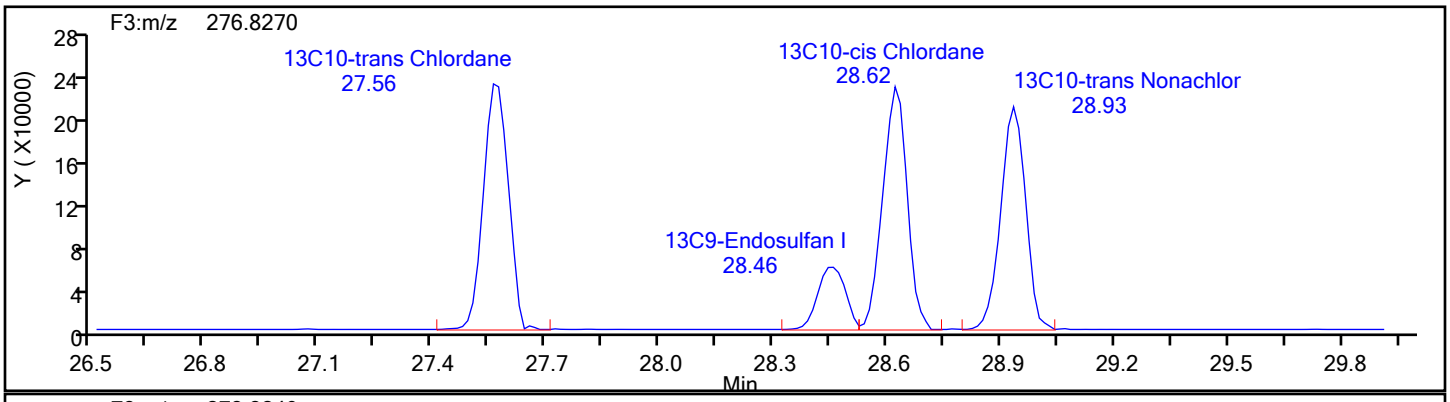
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

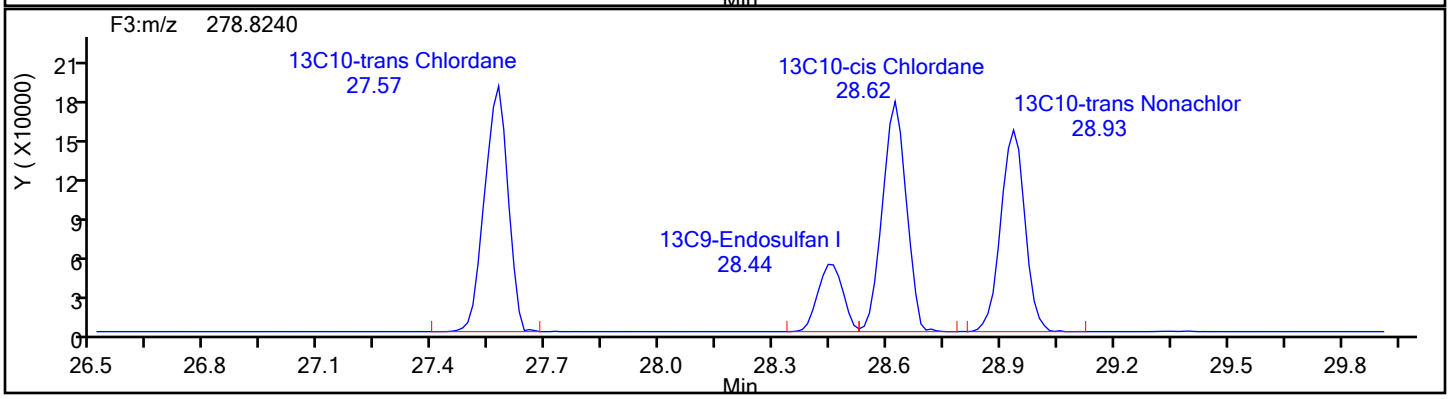
Endosulfan I





Endosulfan I Standards





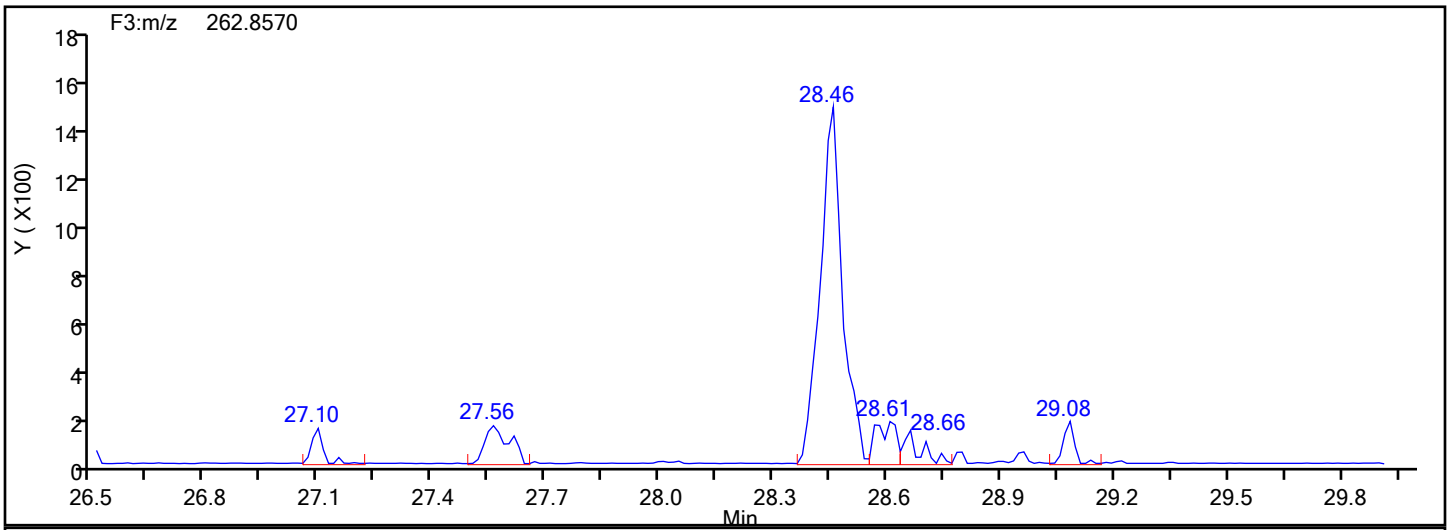
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

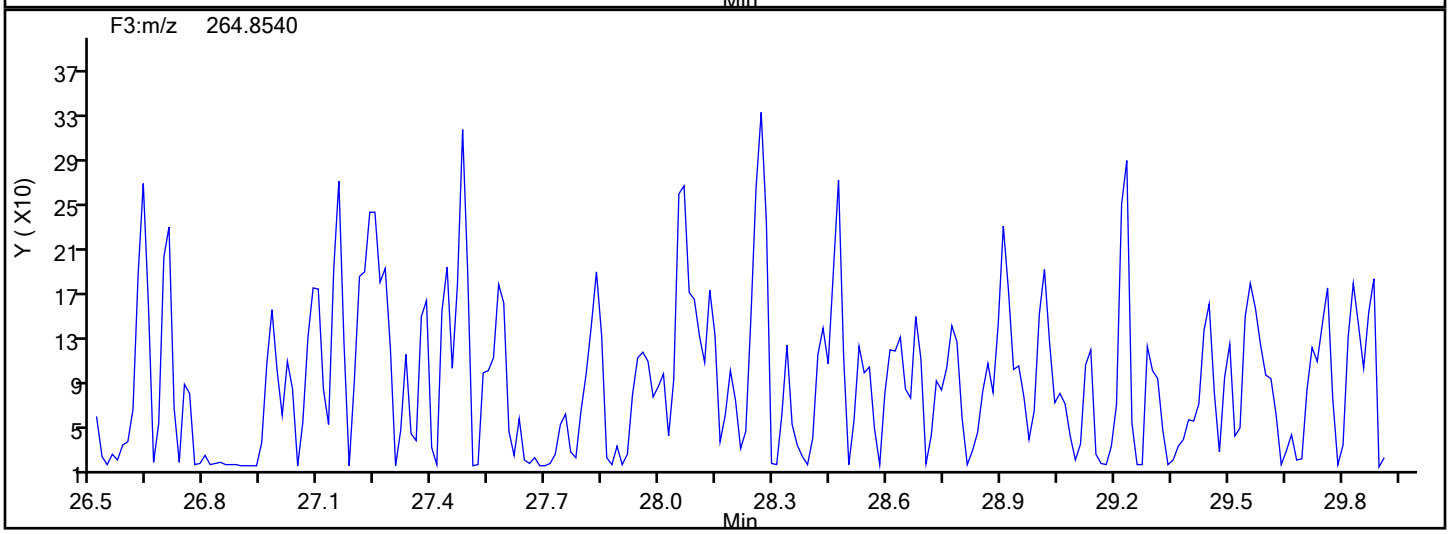
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

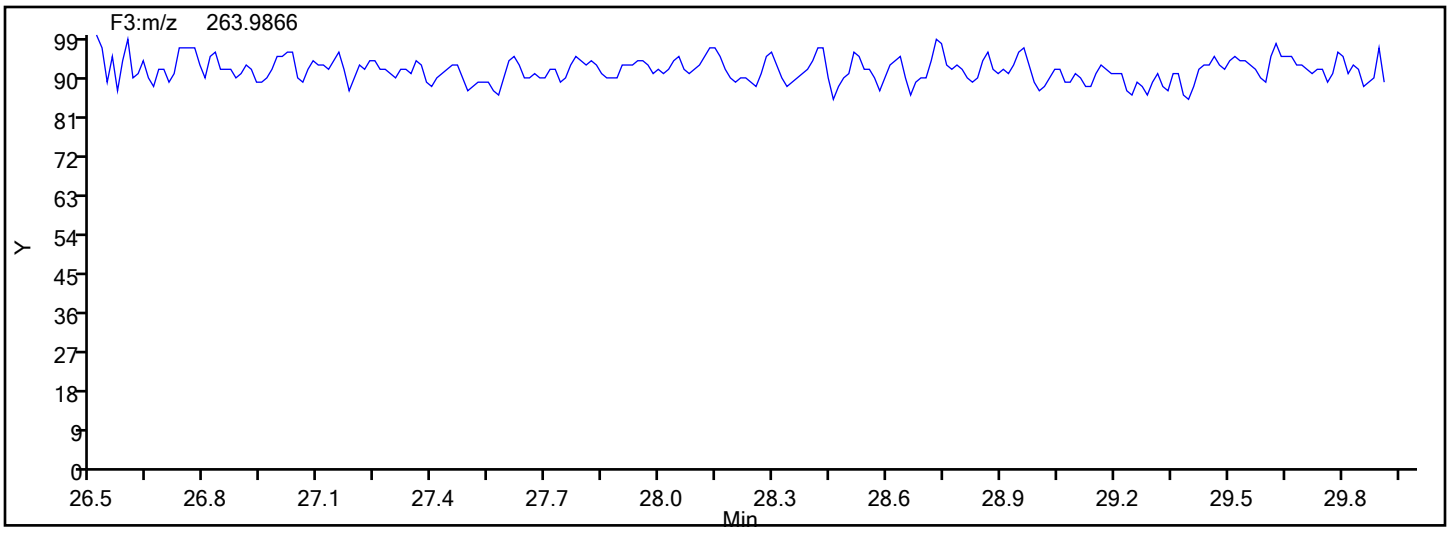
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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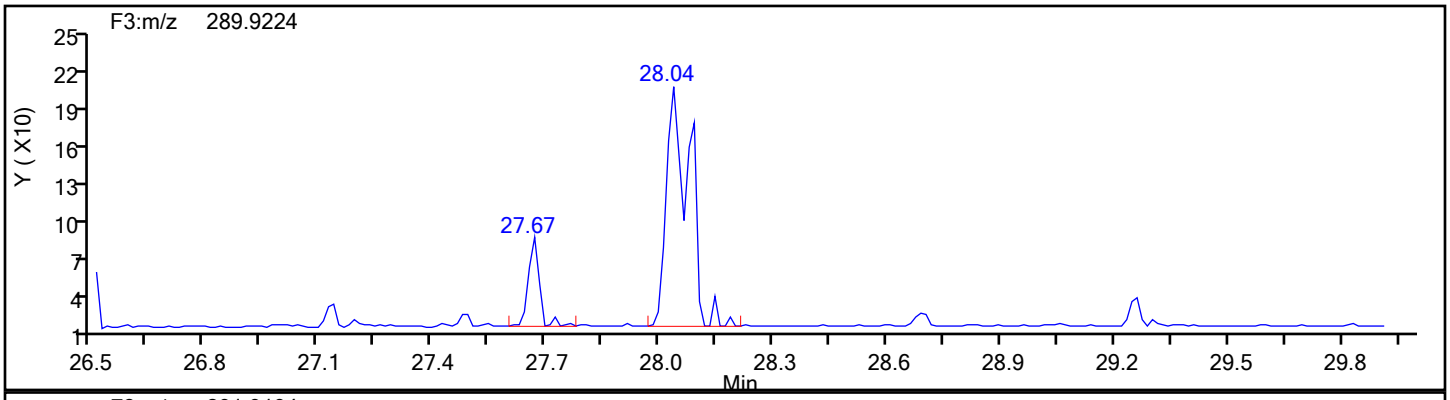
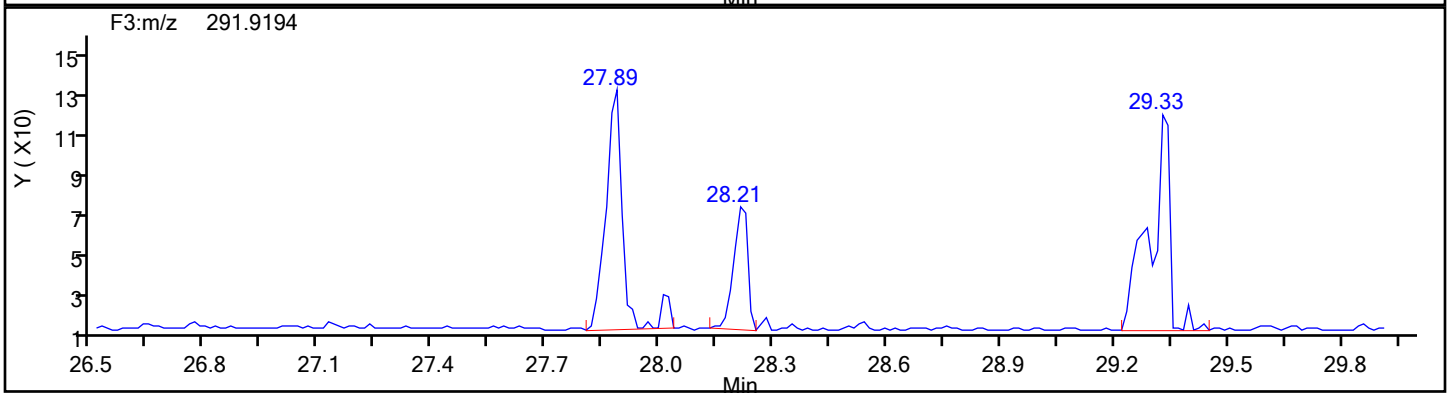
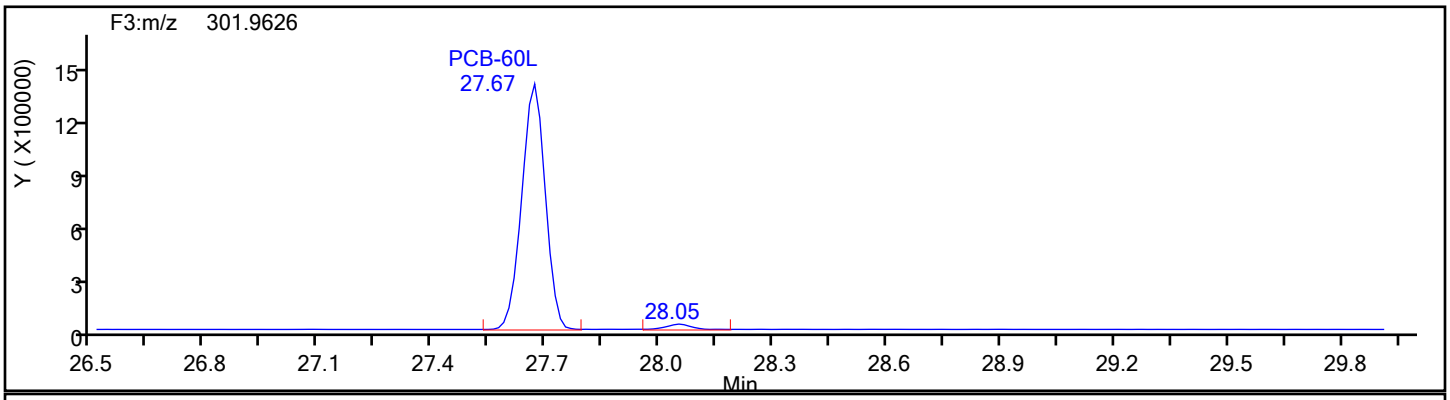
Column Type:	RTX-5	Column Dia:	0.32 mm

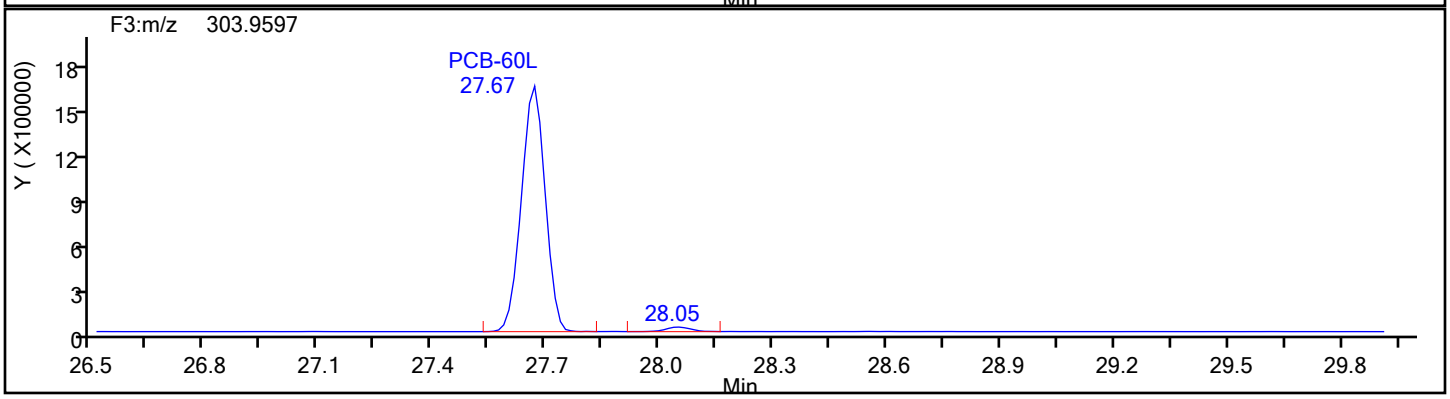
PCB-78





PCB-78 Standards



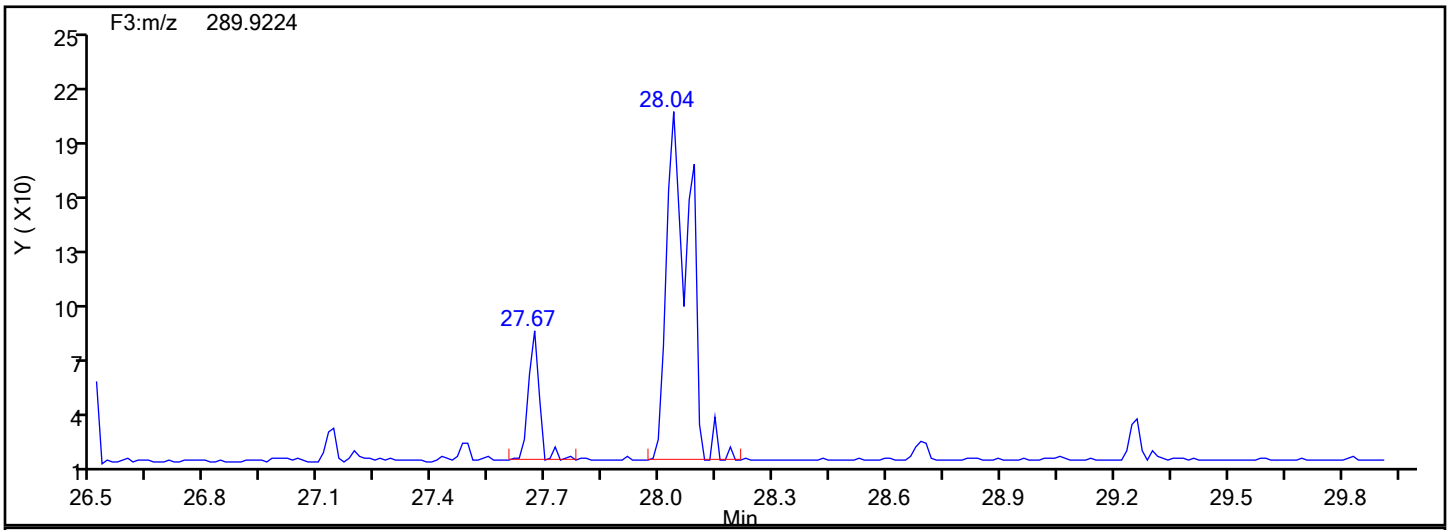


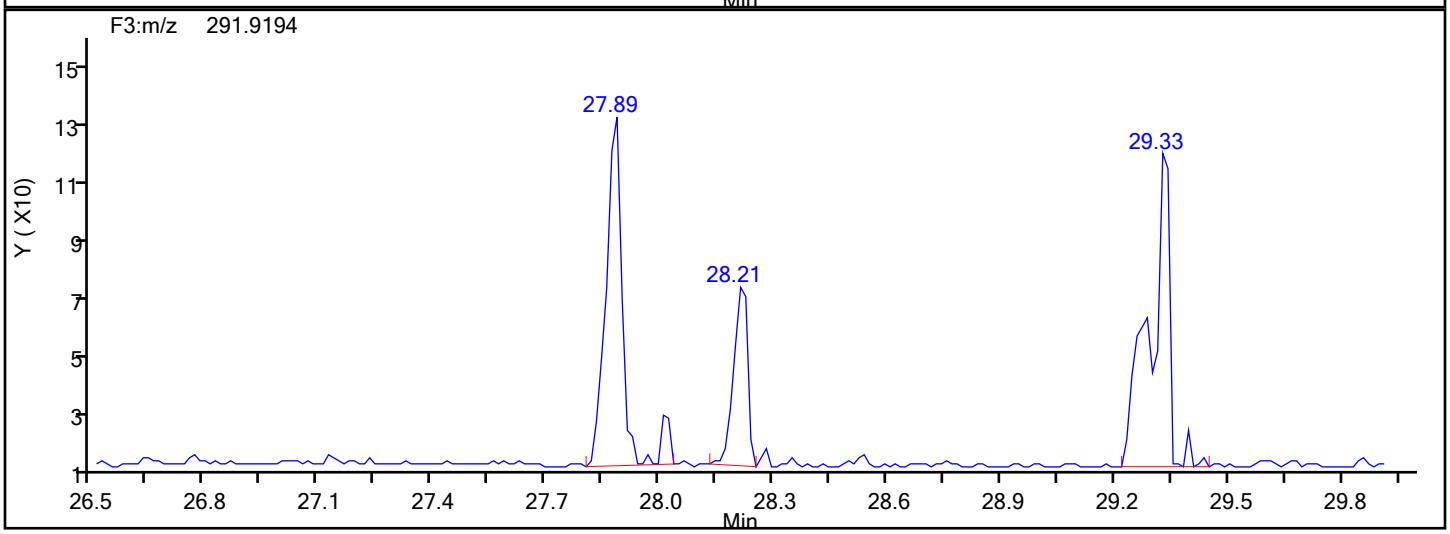
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

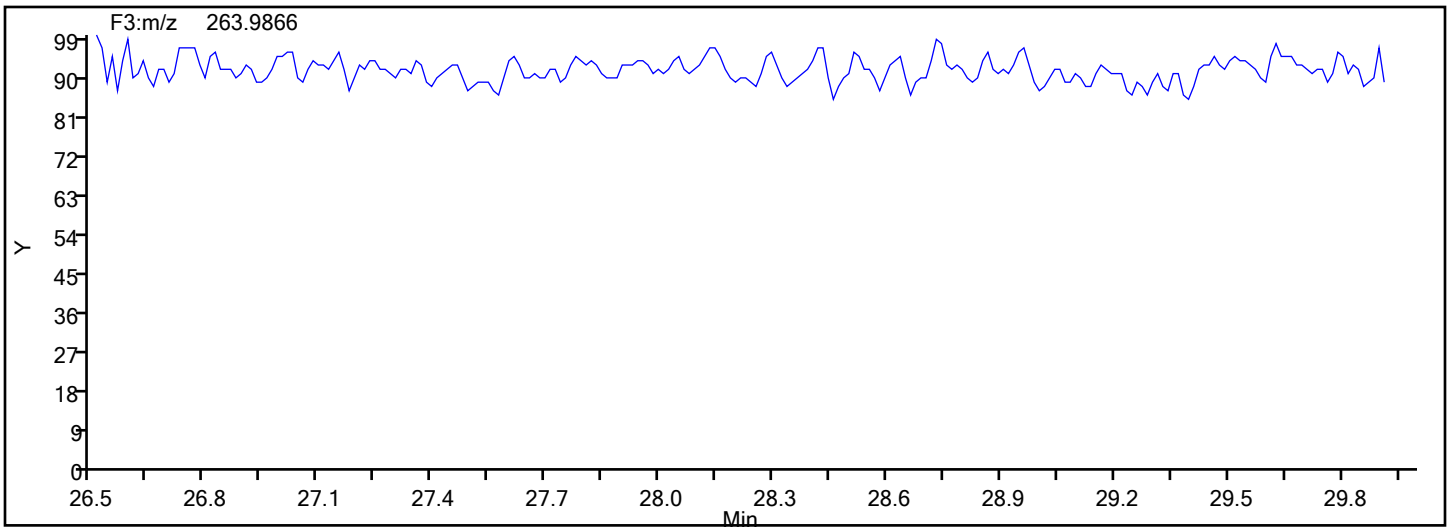
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



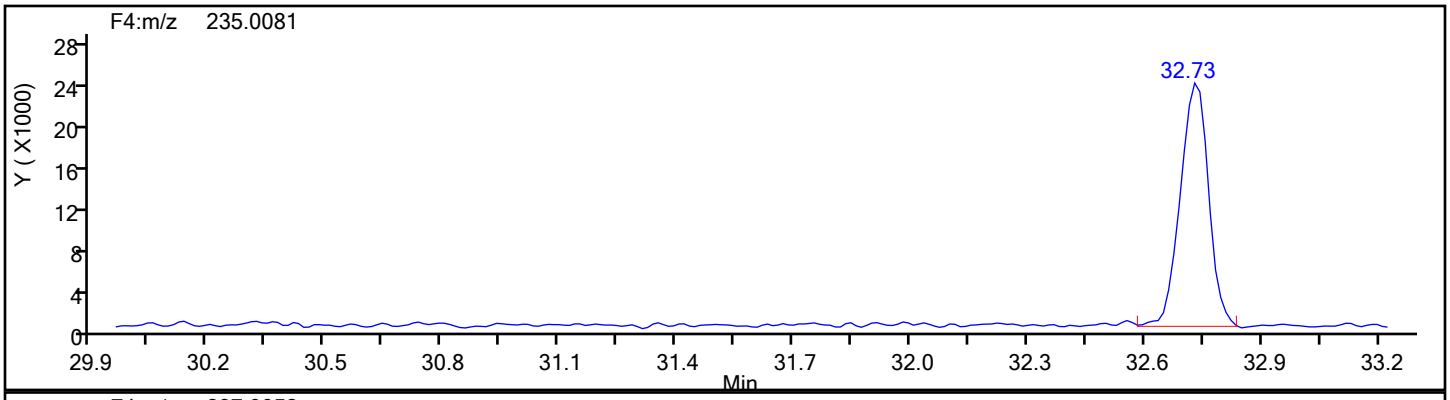
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

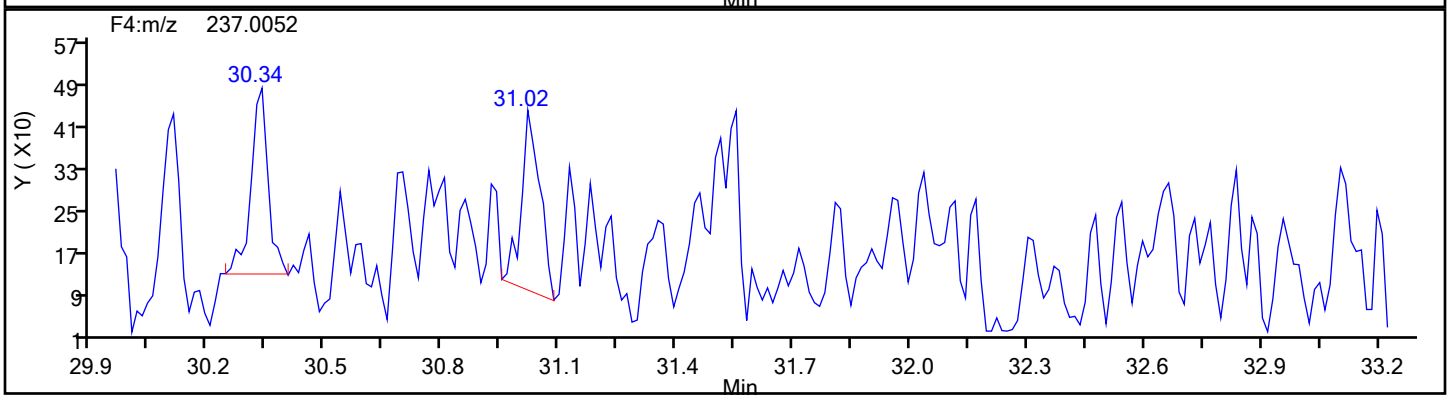
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

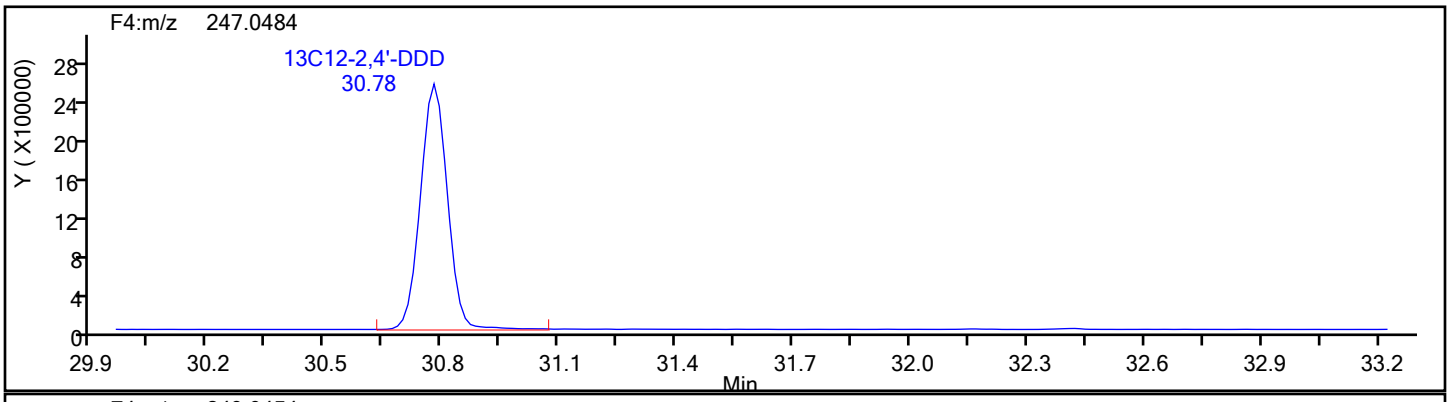
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

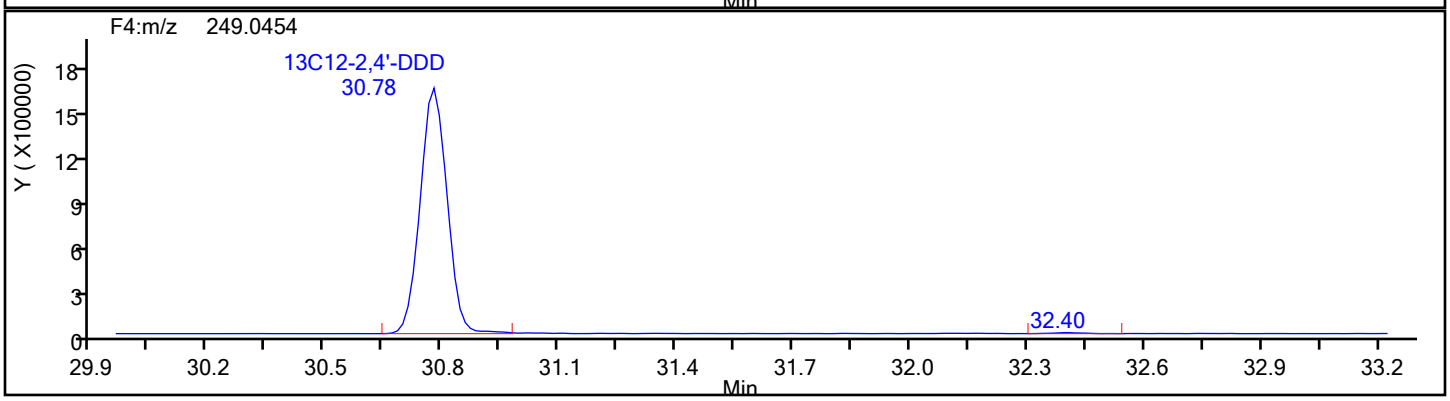
2,4'-DDD





2,4'-DDD Standards



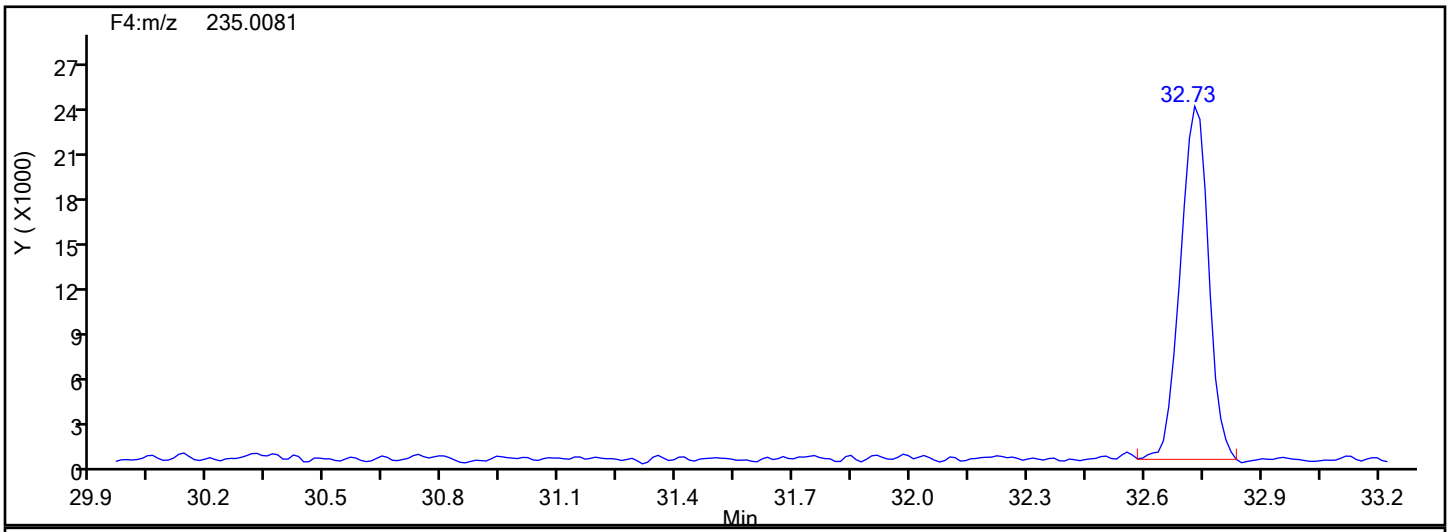


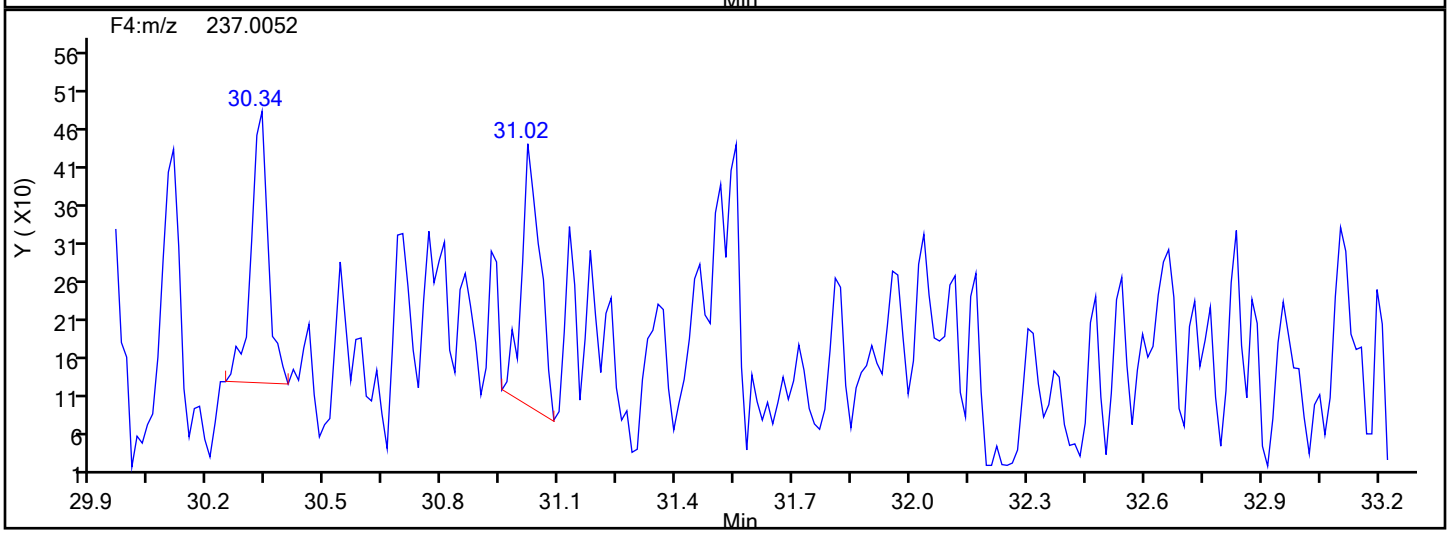
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

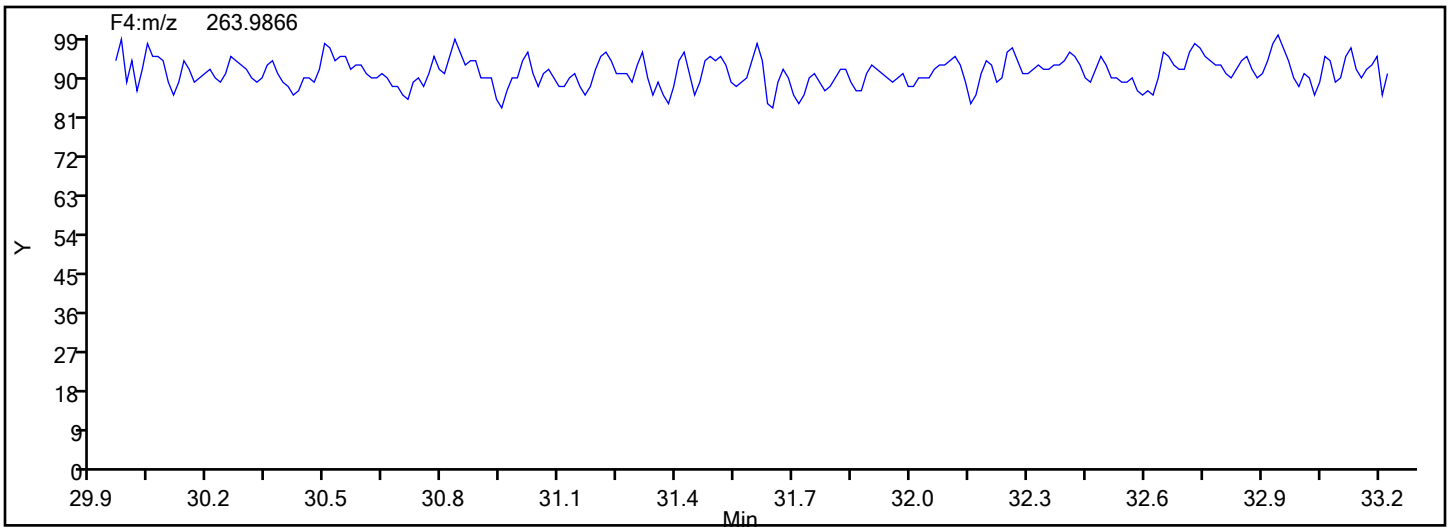
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



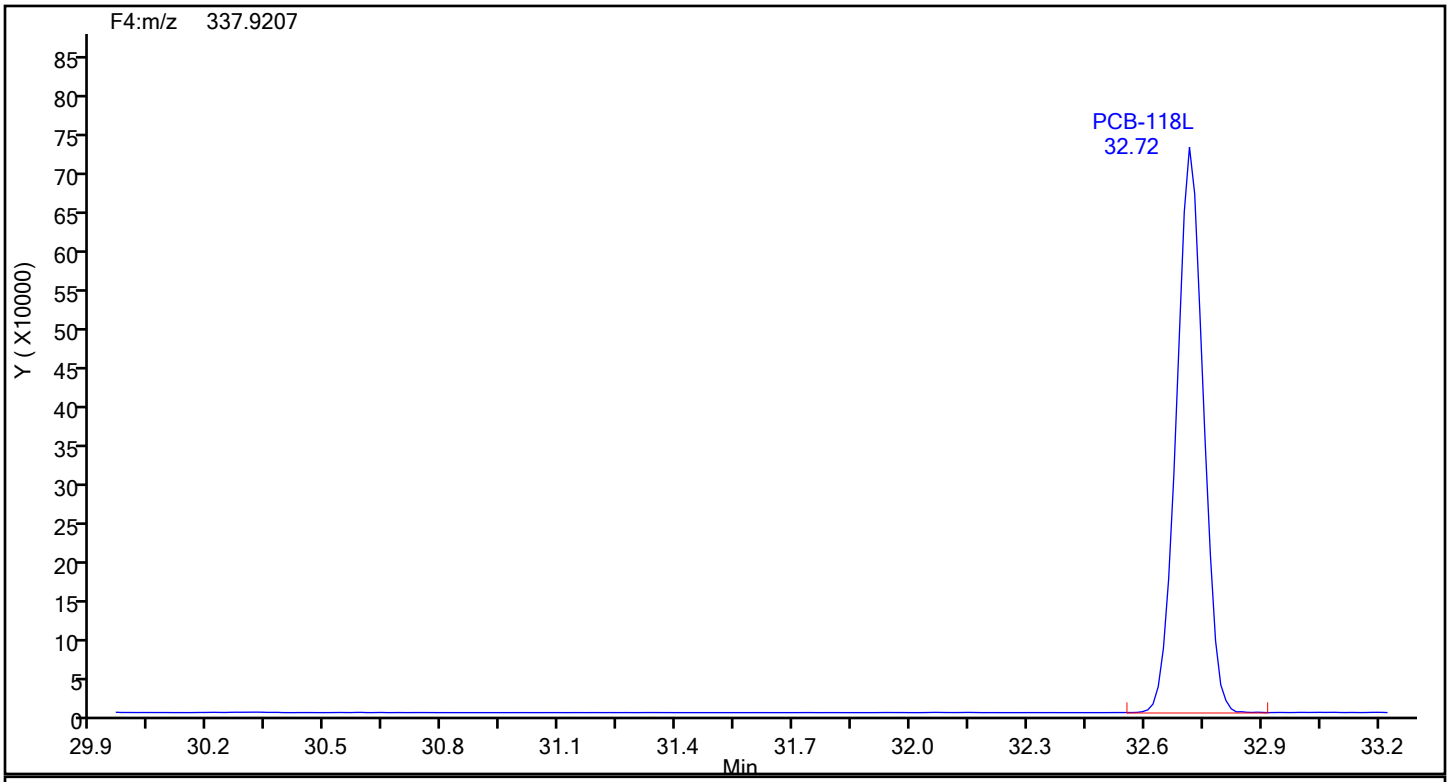
Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

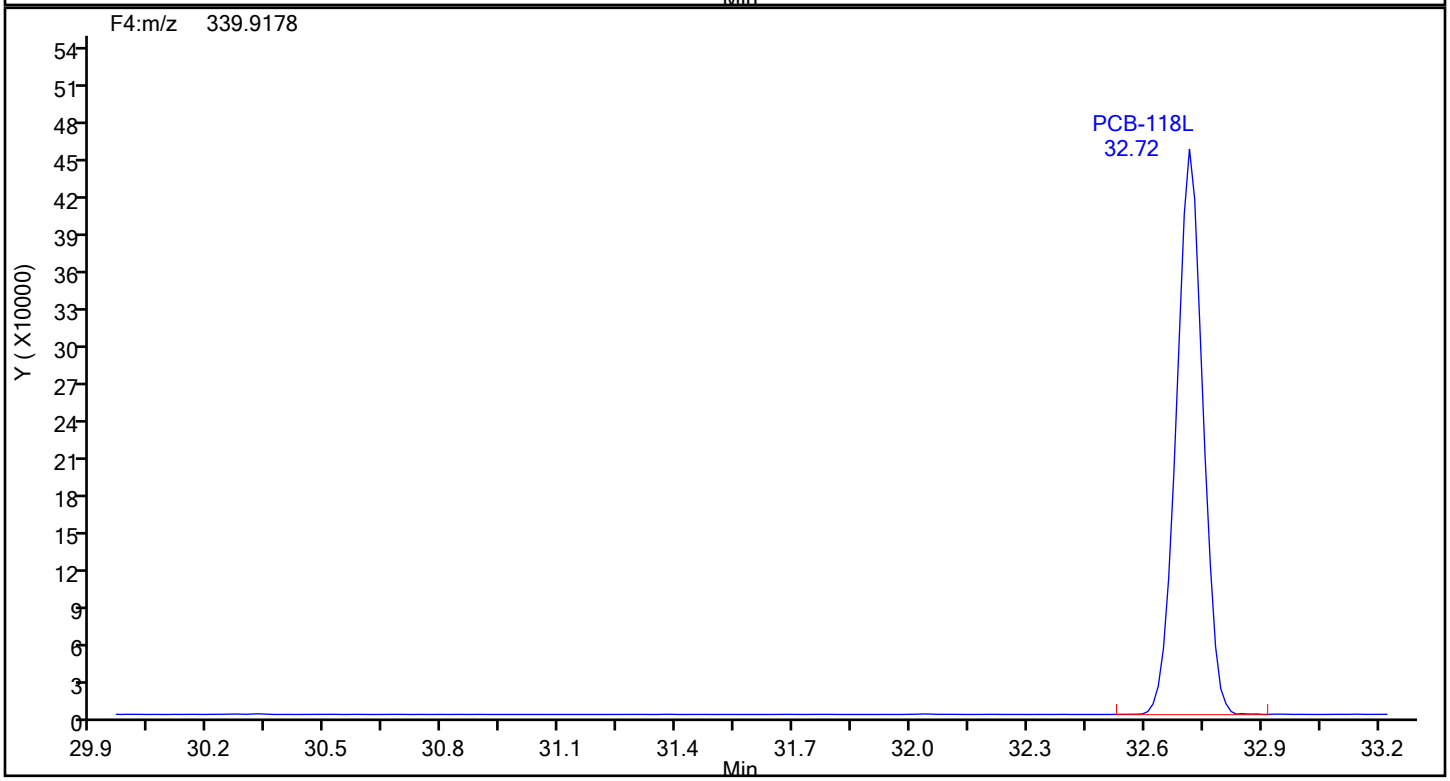
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





Report Date: 05-May-2025 18:00:31 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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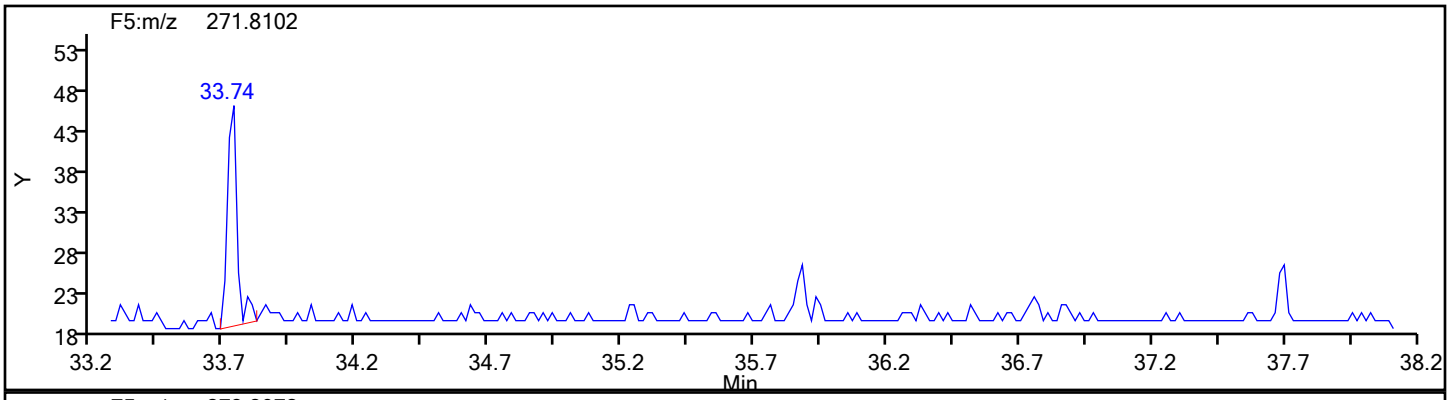
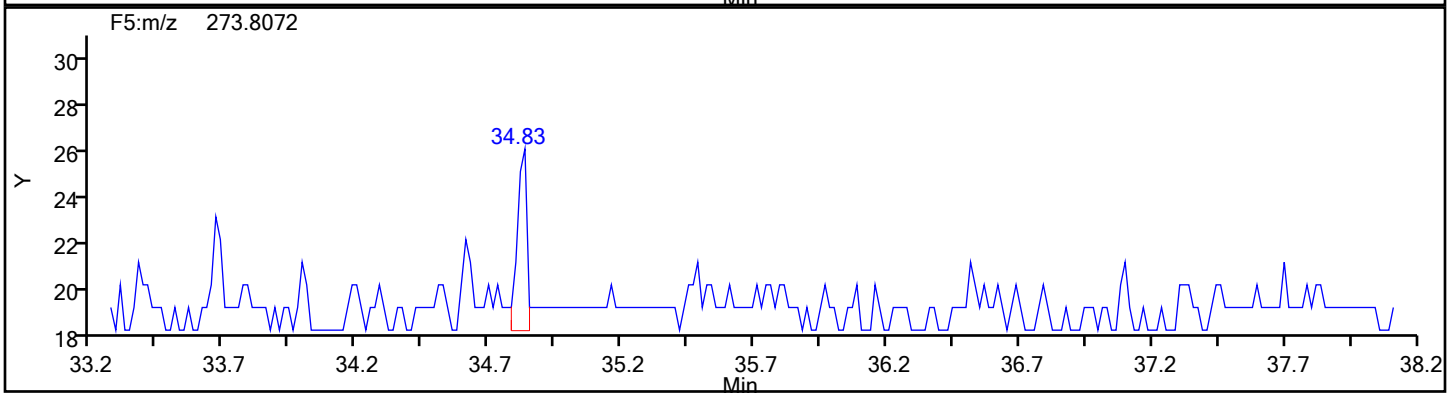
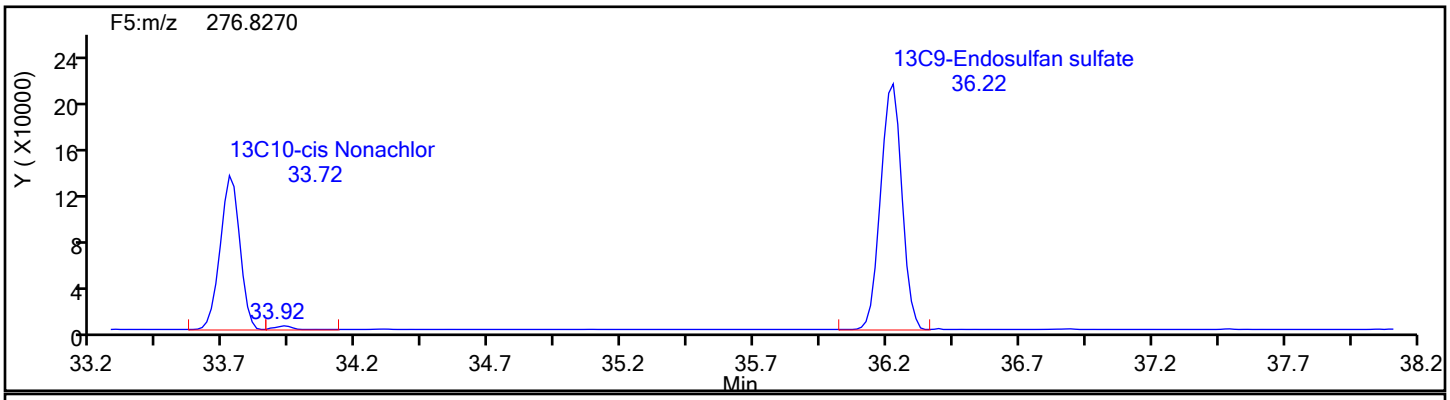
Column Type:	RTX-5	Column Dia:	0.32 mm

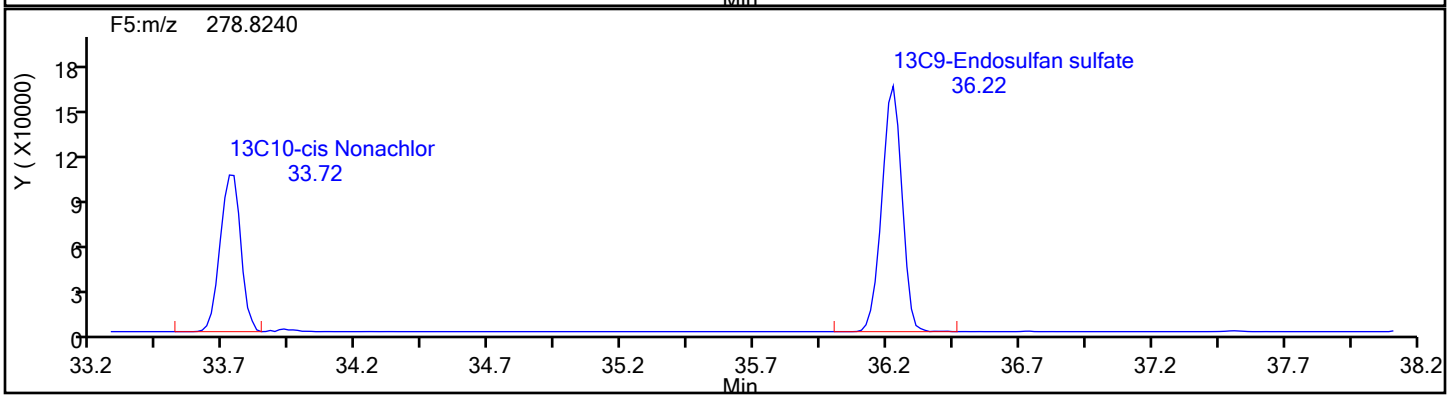
Nonachlor





Nonachlor Standards



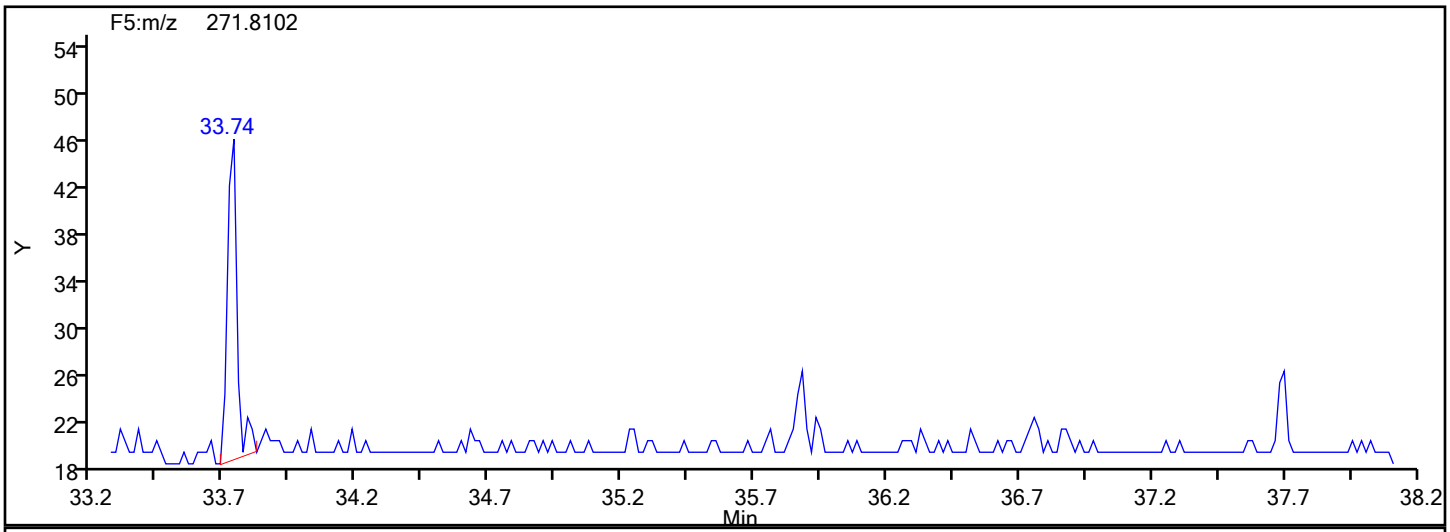


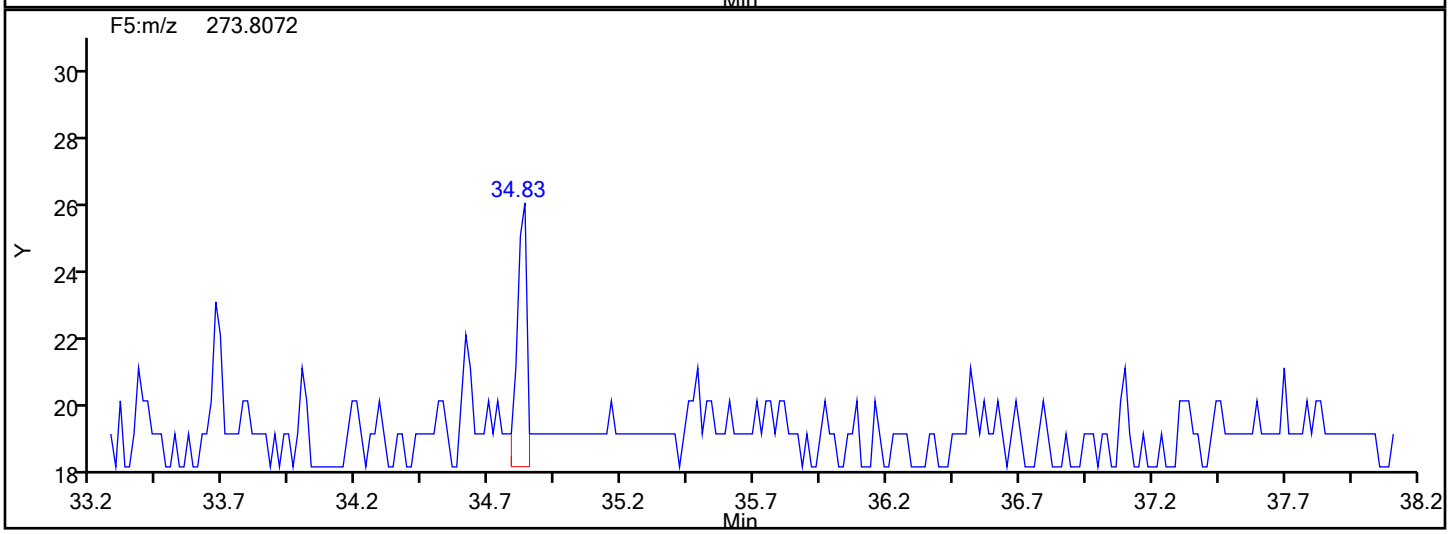
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

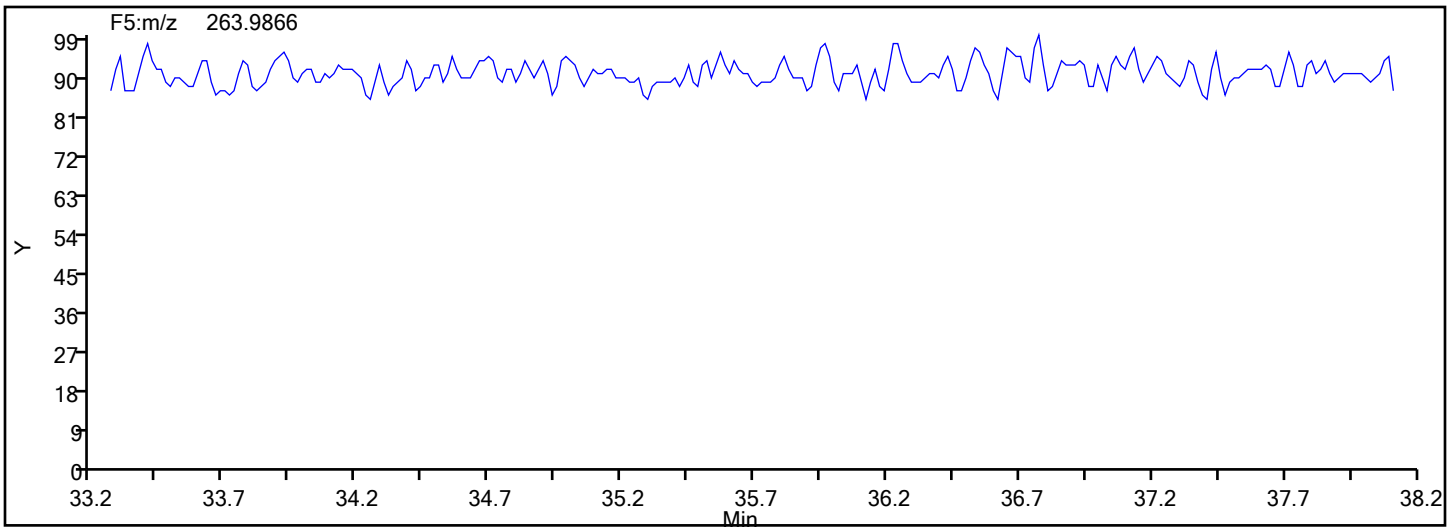
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



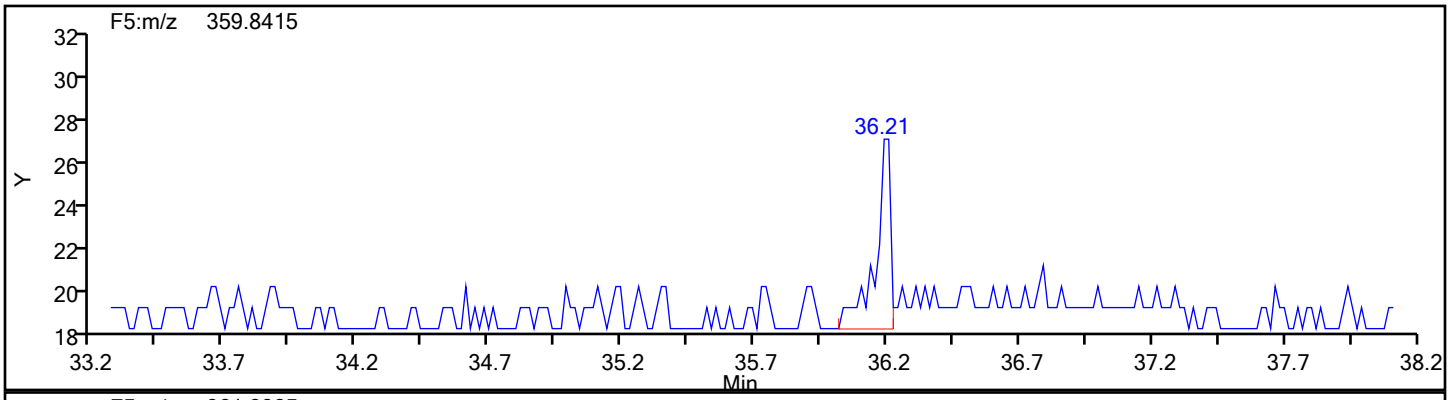
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

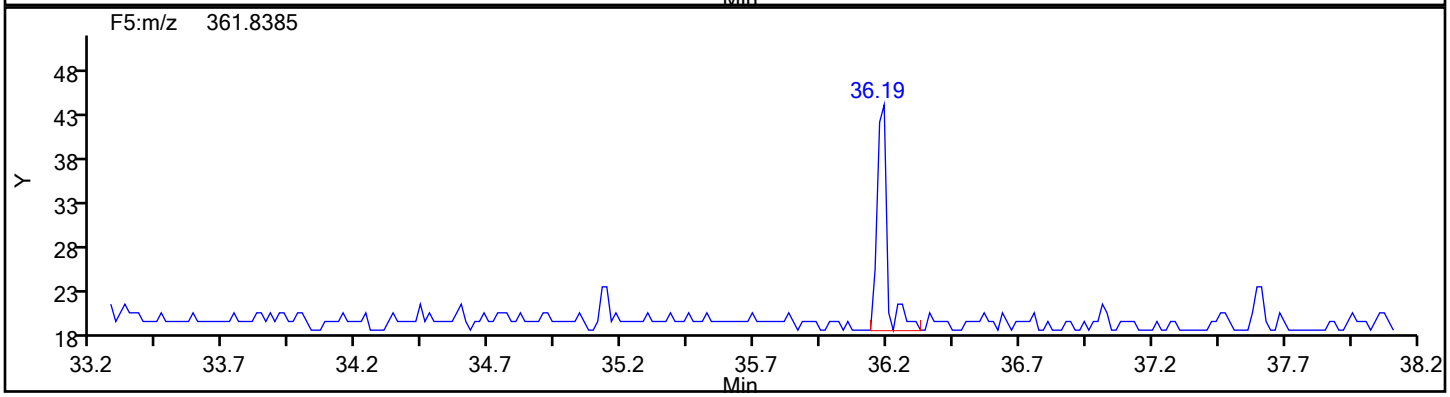
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

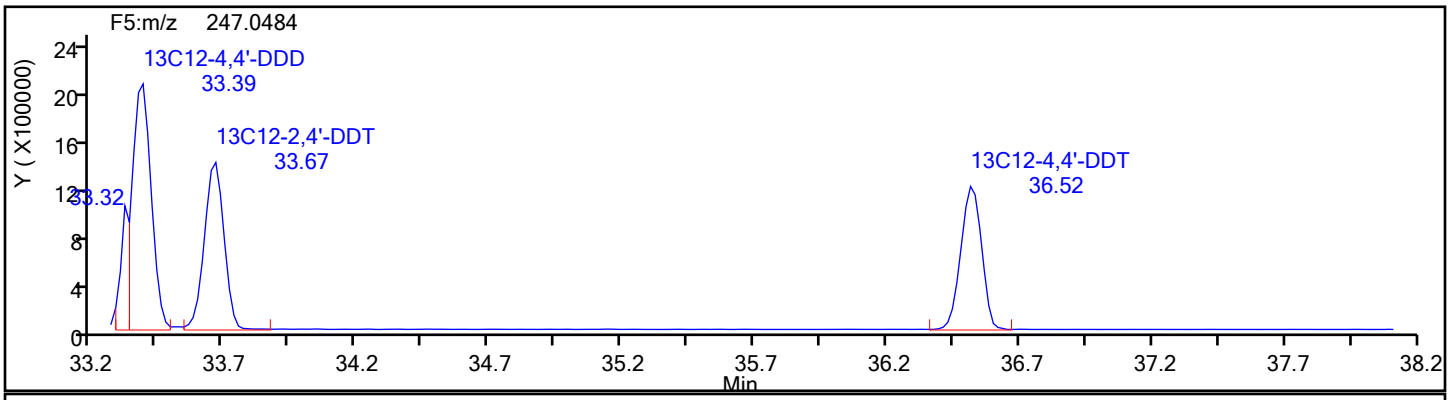
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

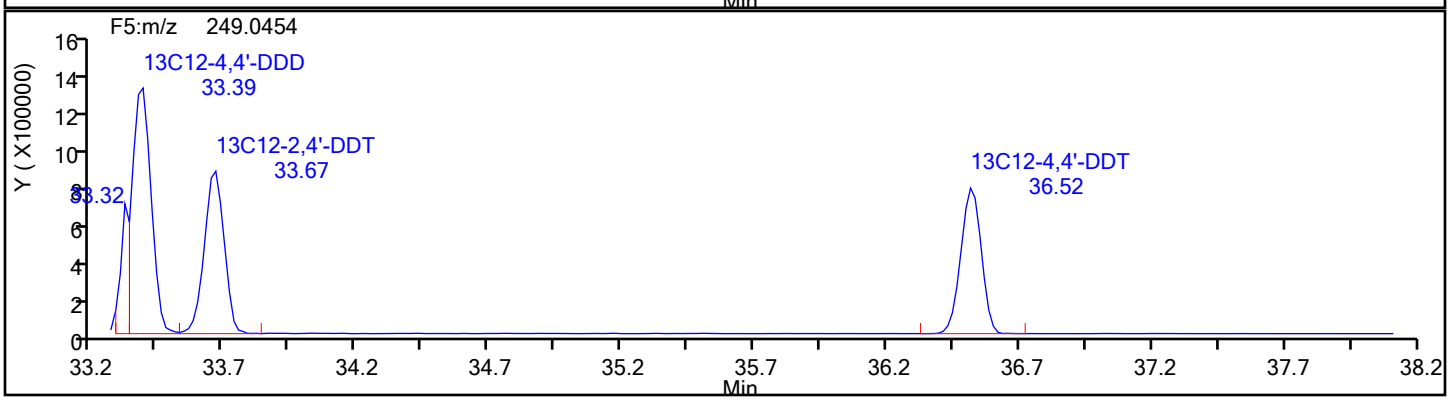
PCB-155





PCB-155 Standards



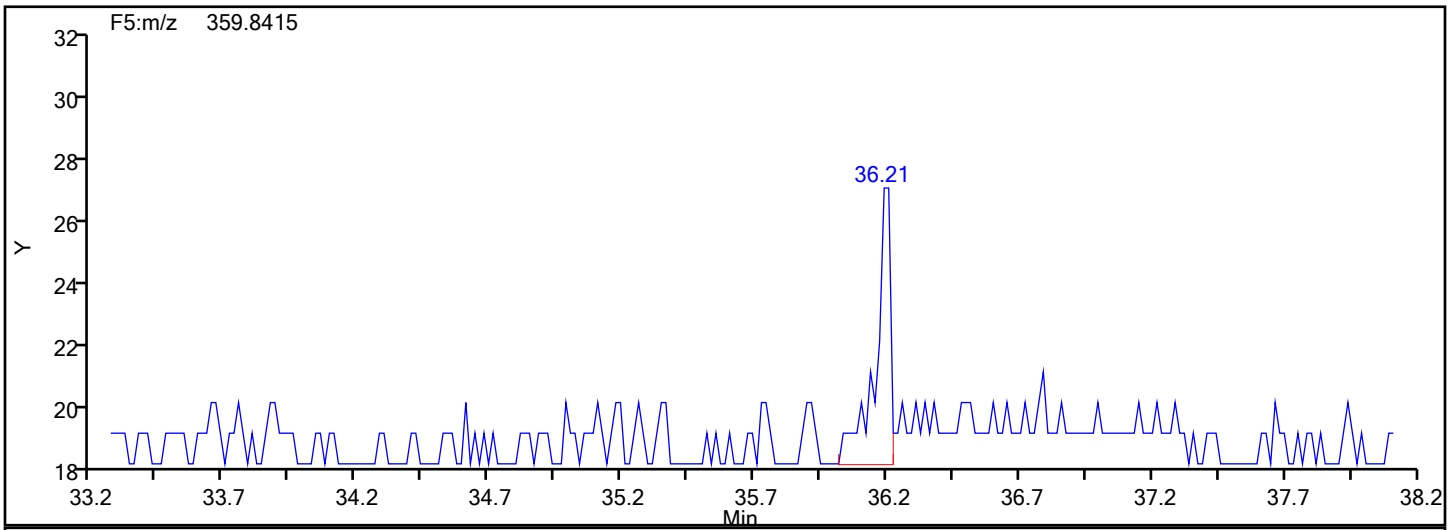


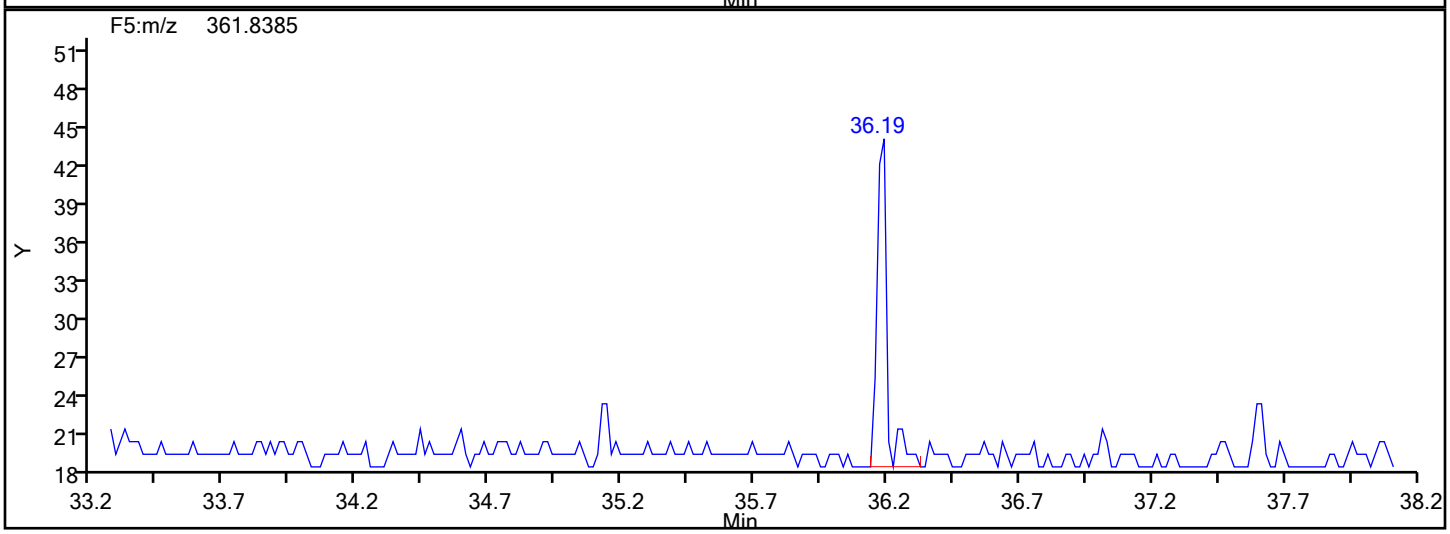
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

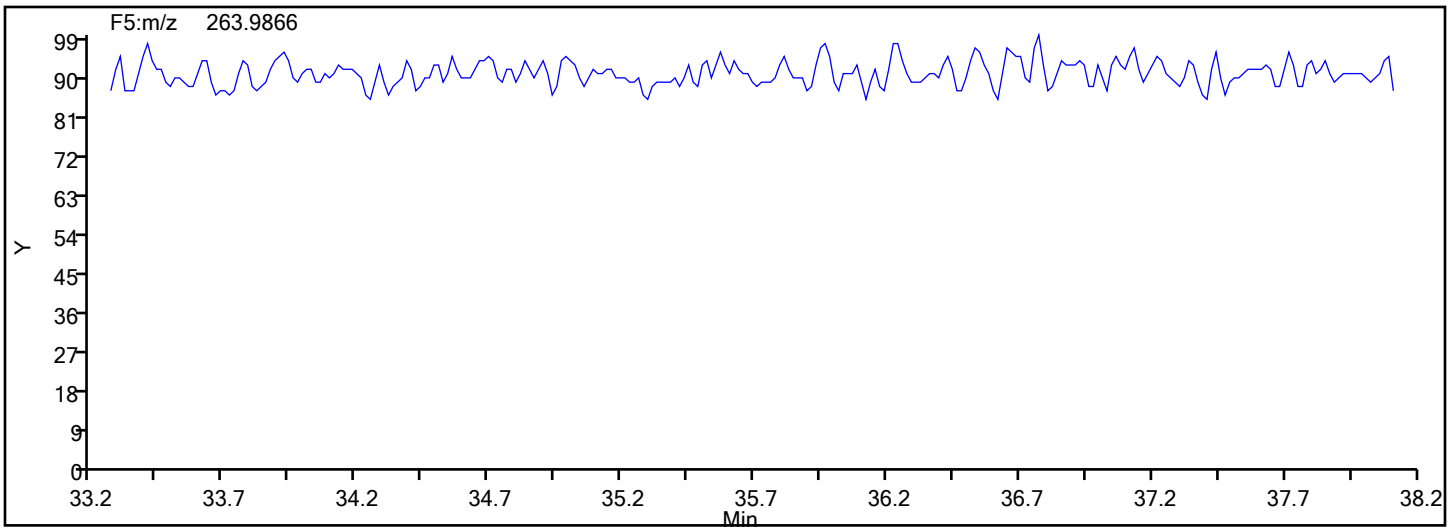
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



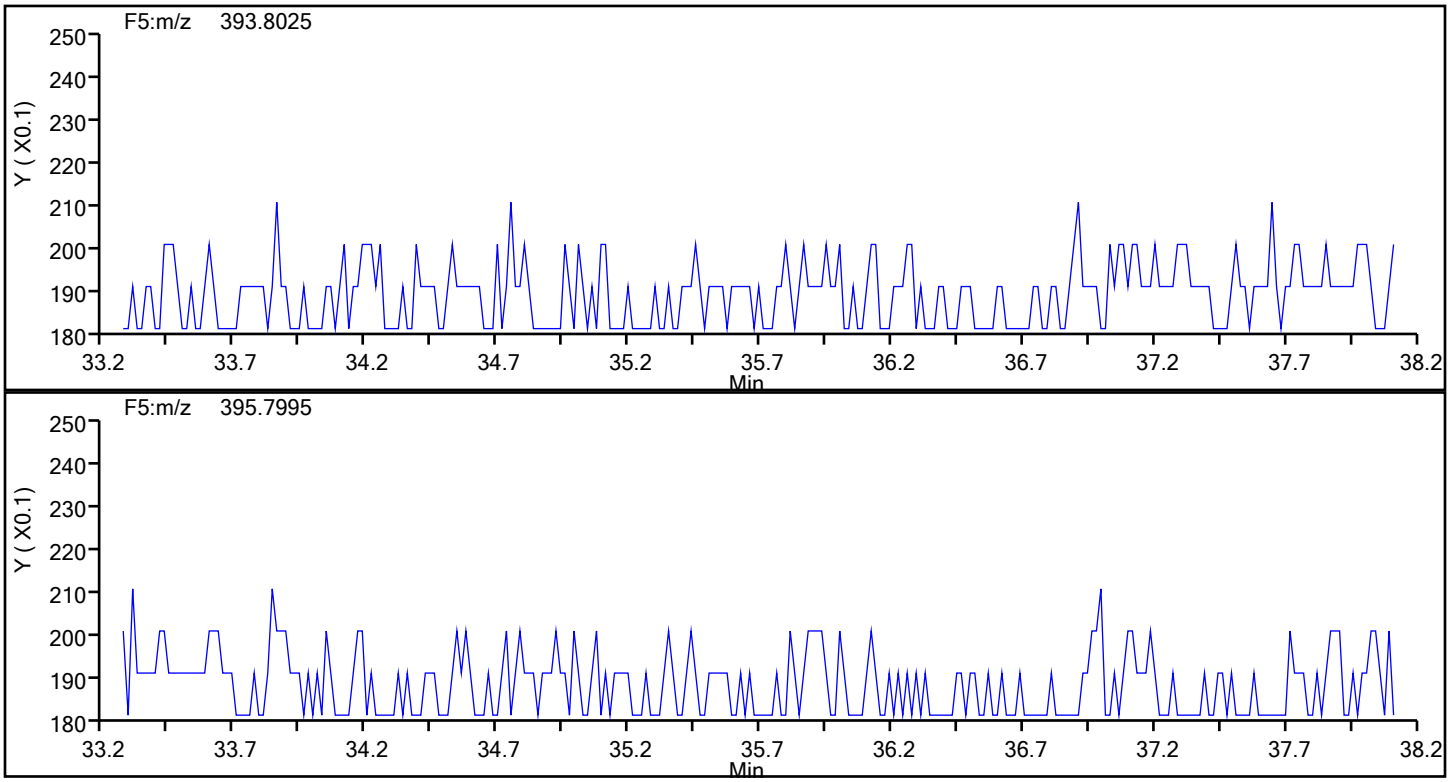
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

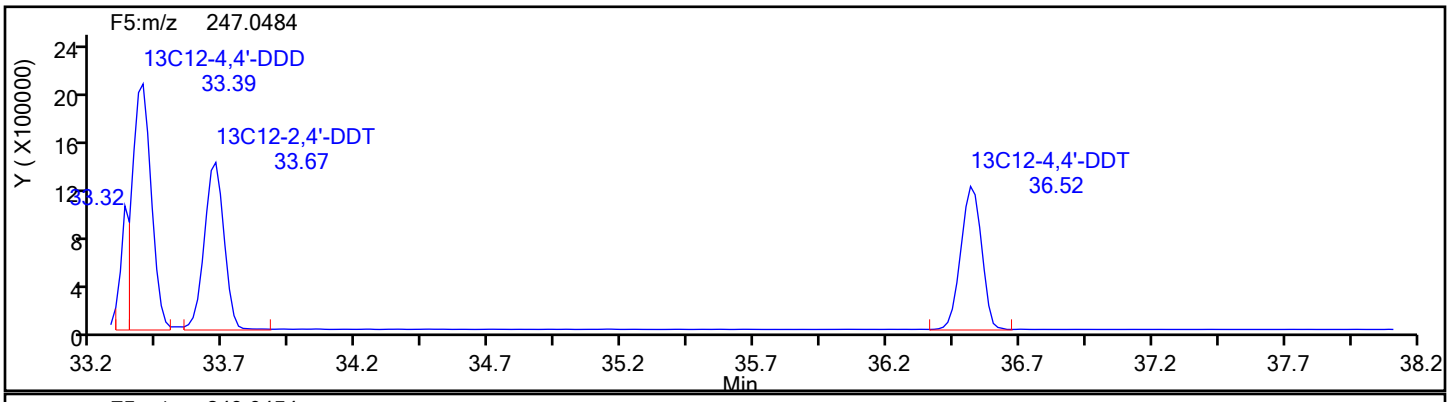
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

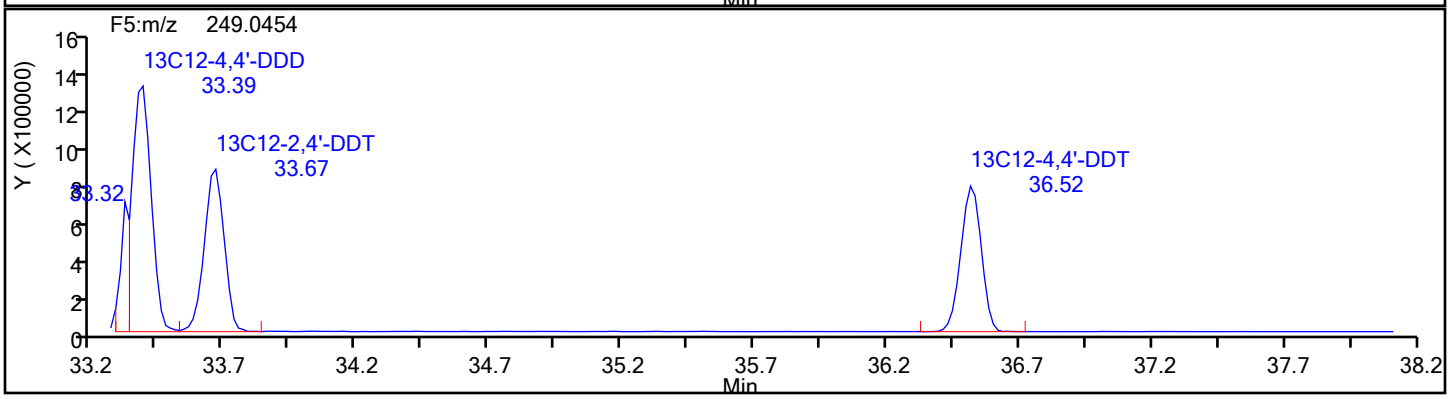
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



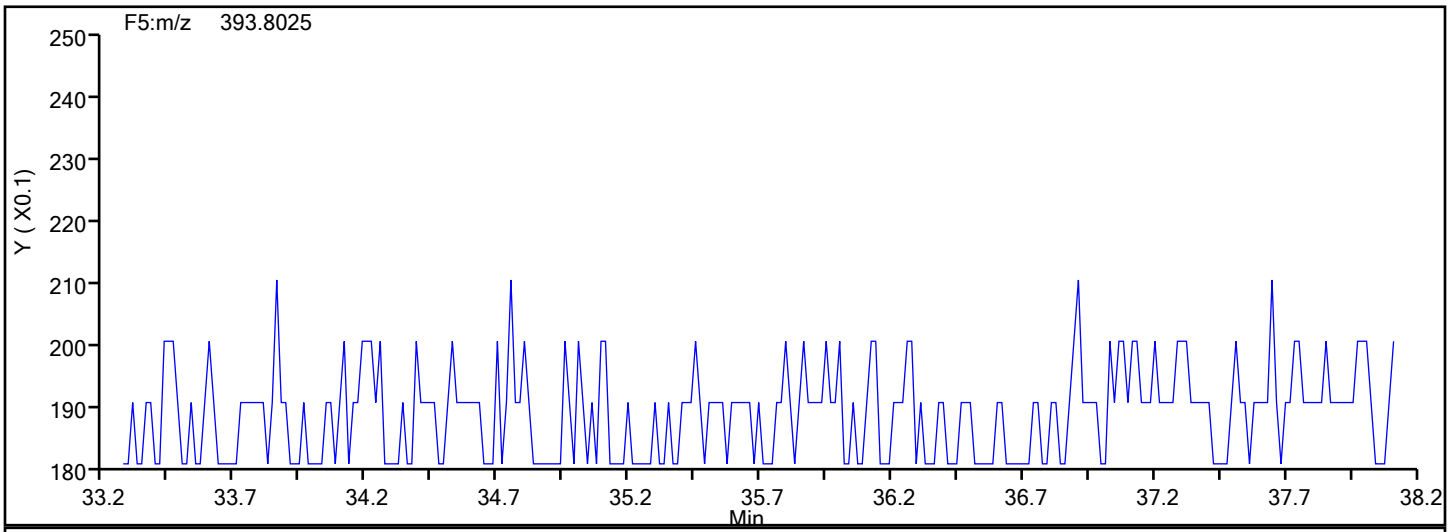


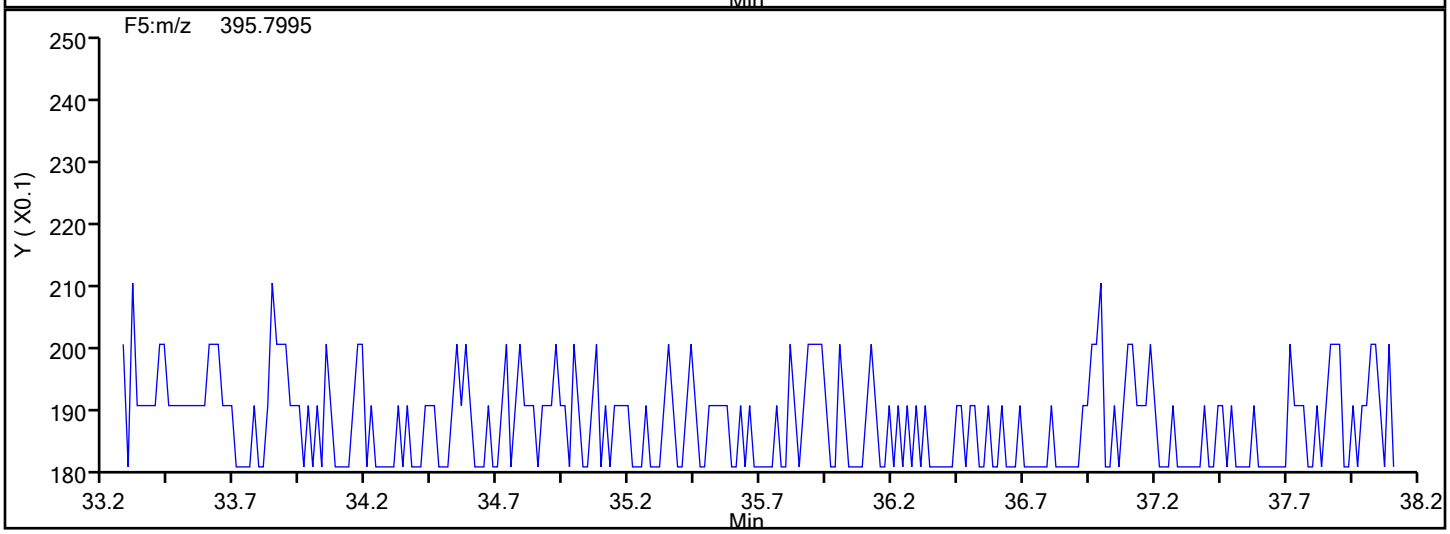
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

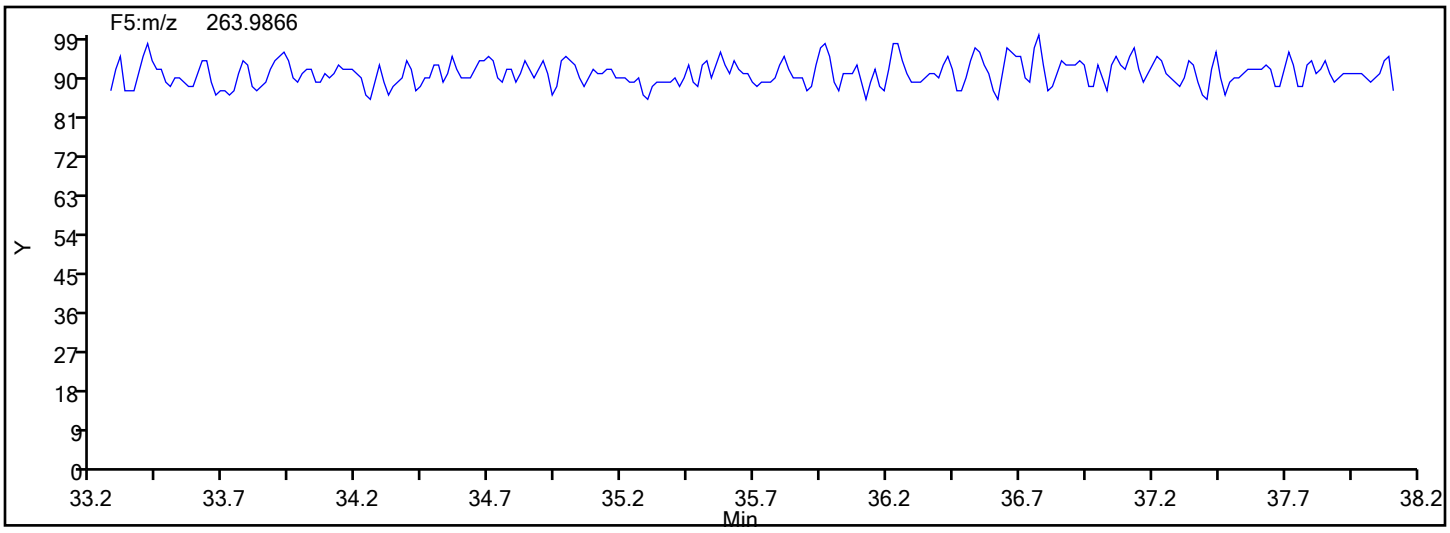
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

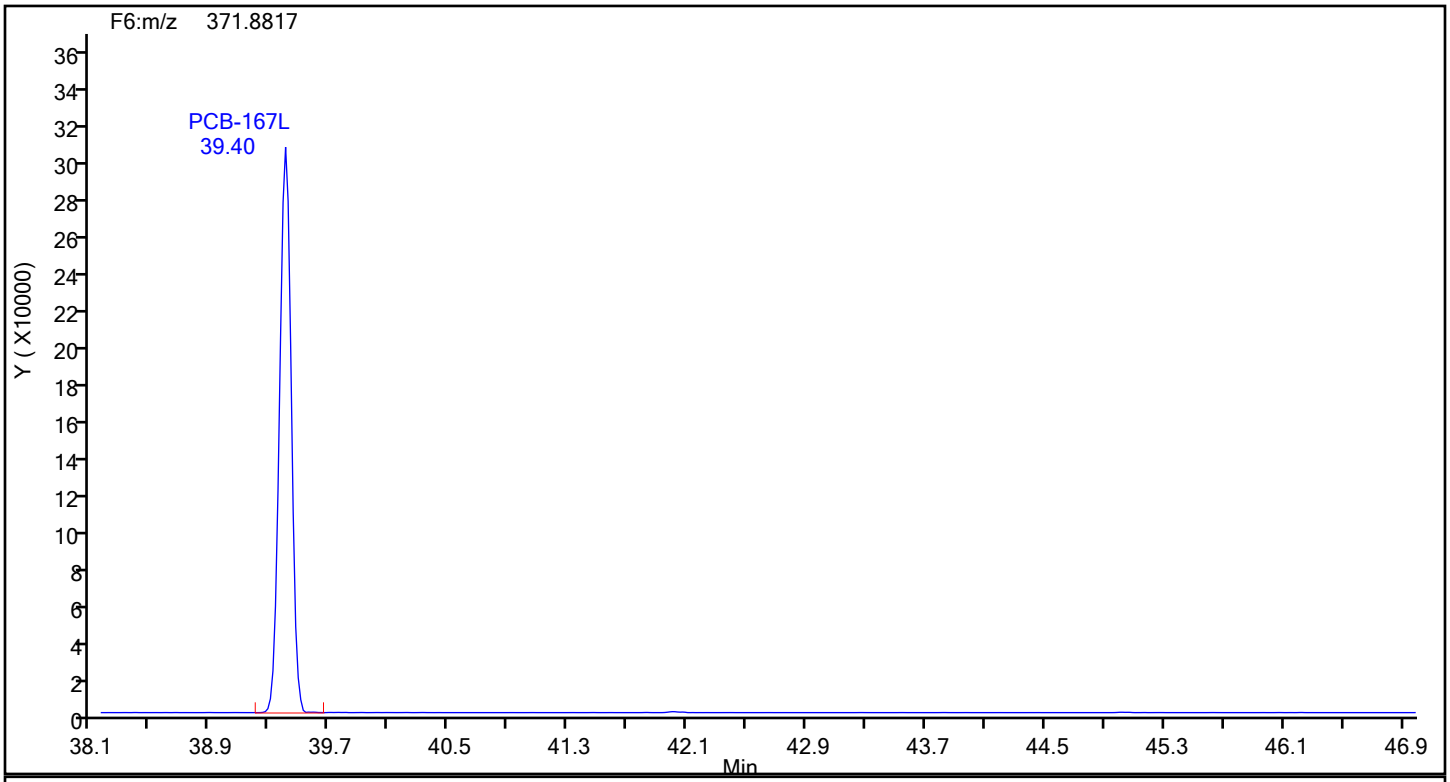


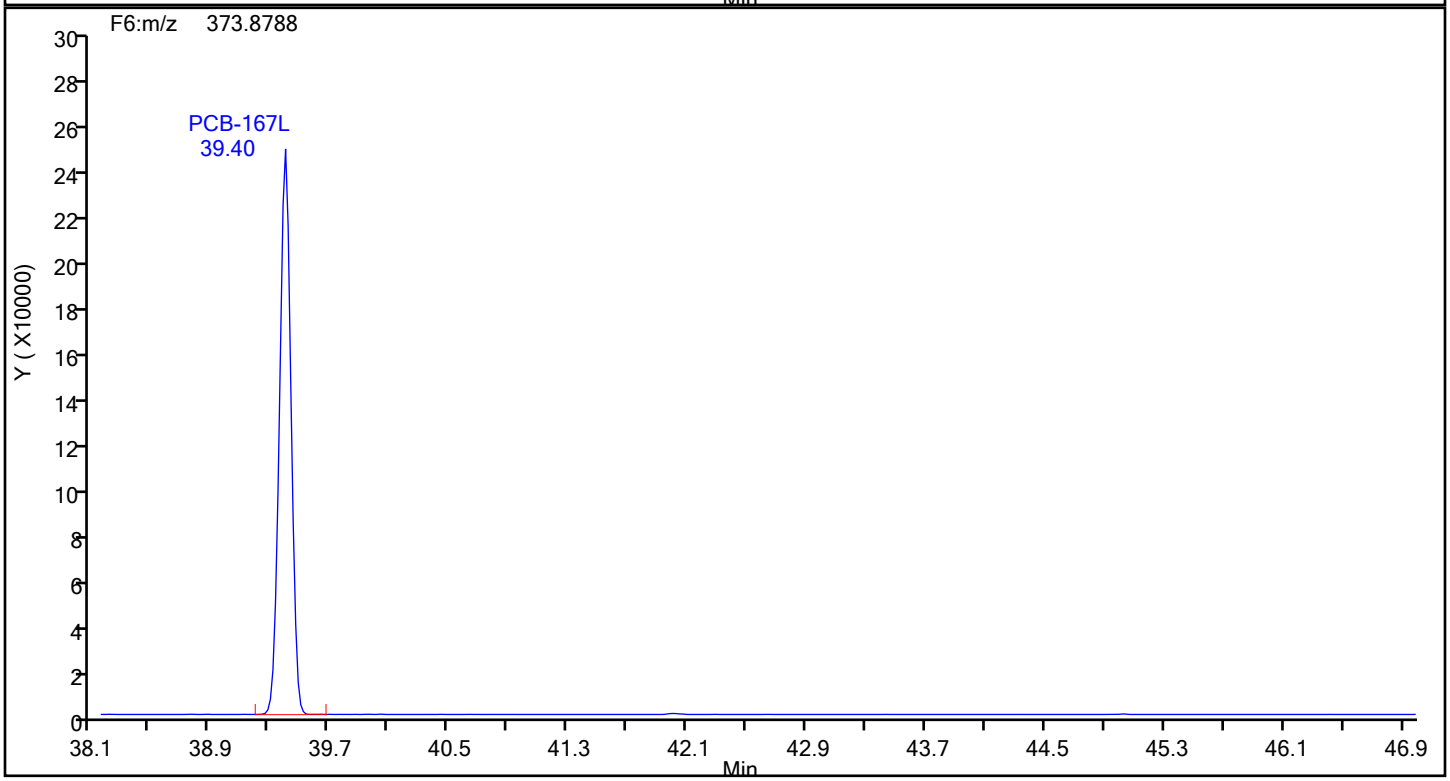
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d		
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





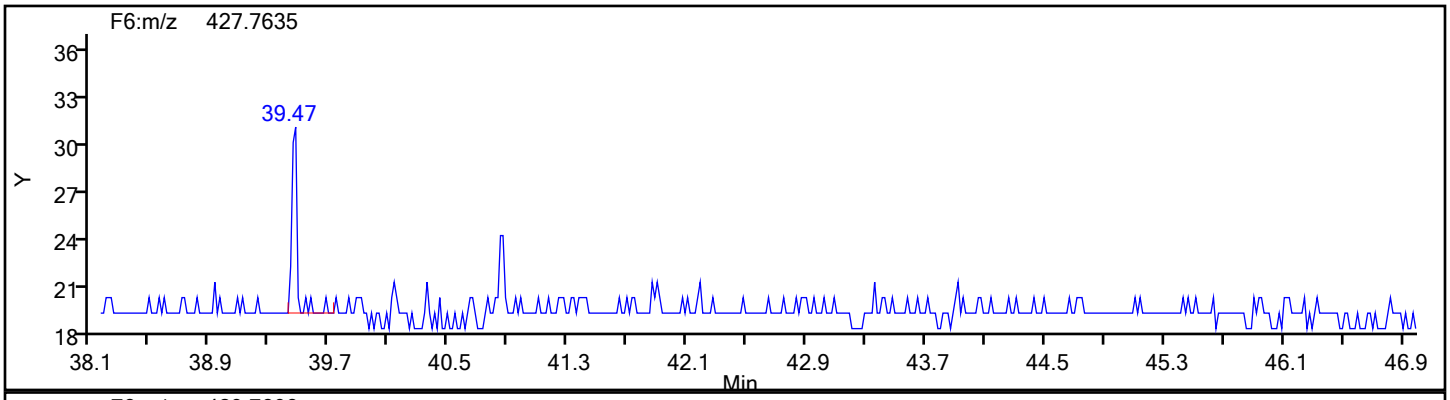
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

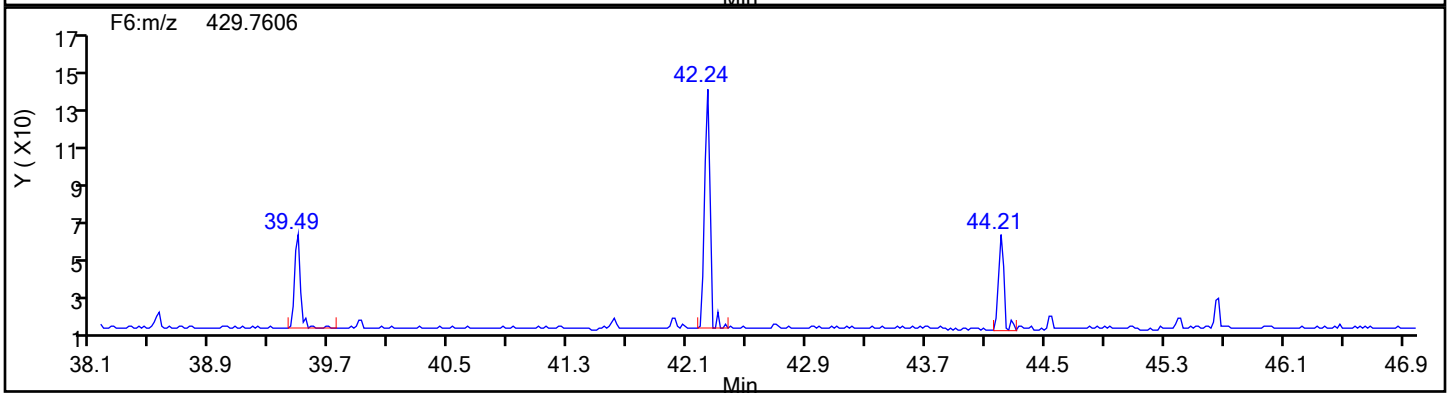
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

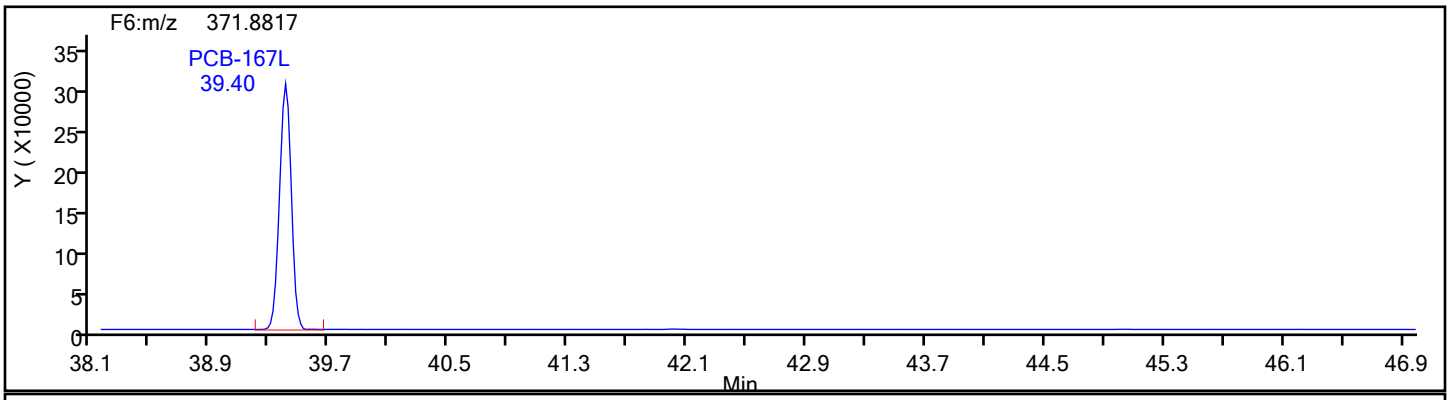
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

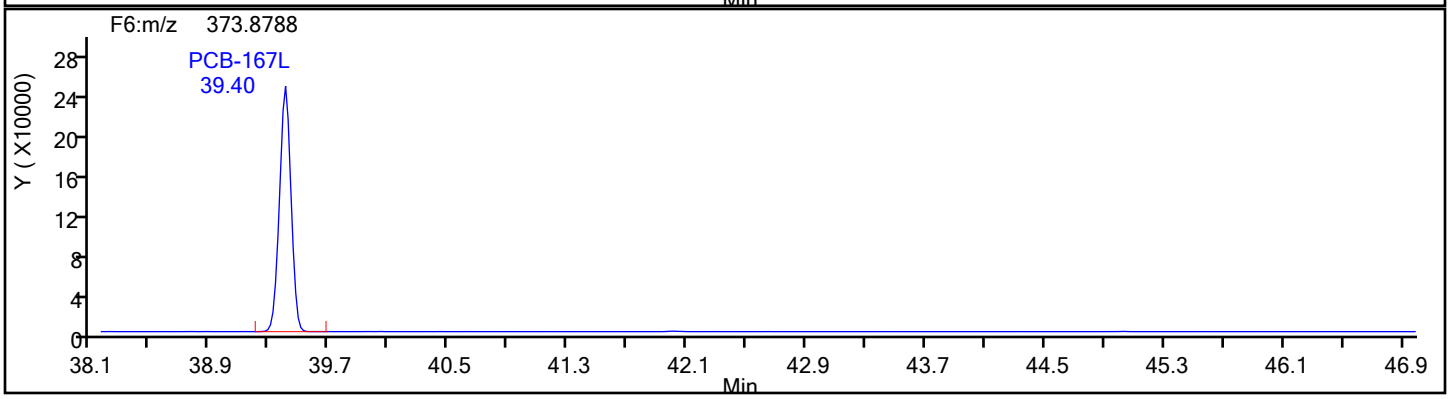
PCB-204





PCB-204 Standards



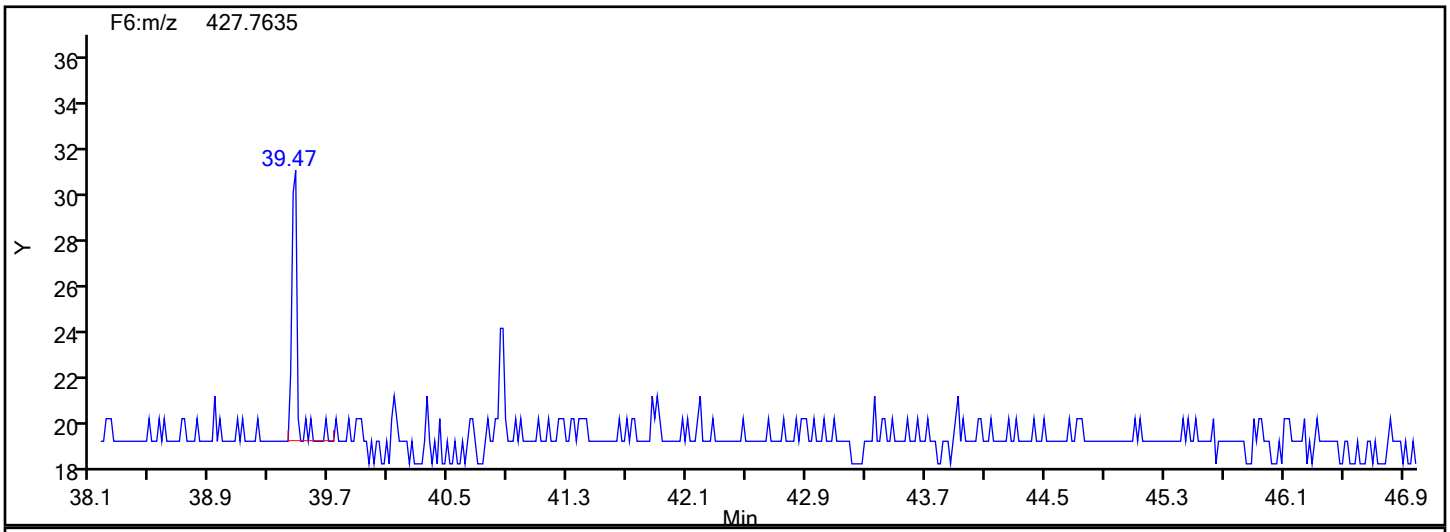


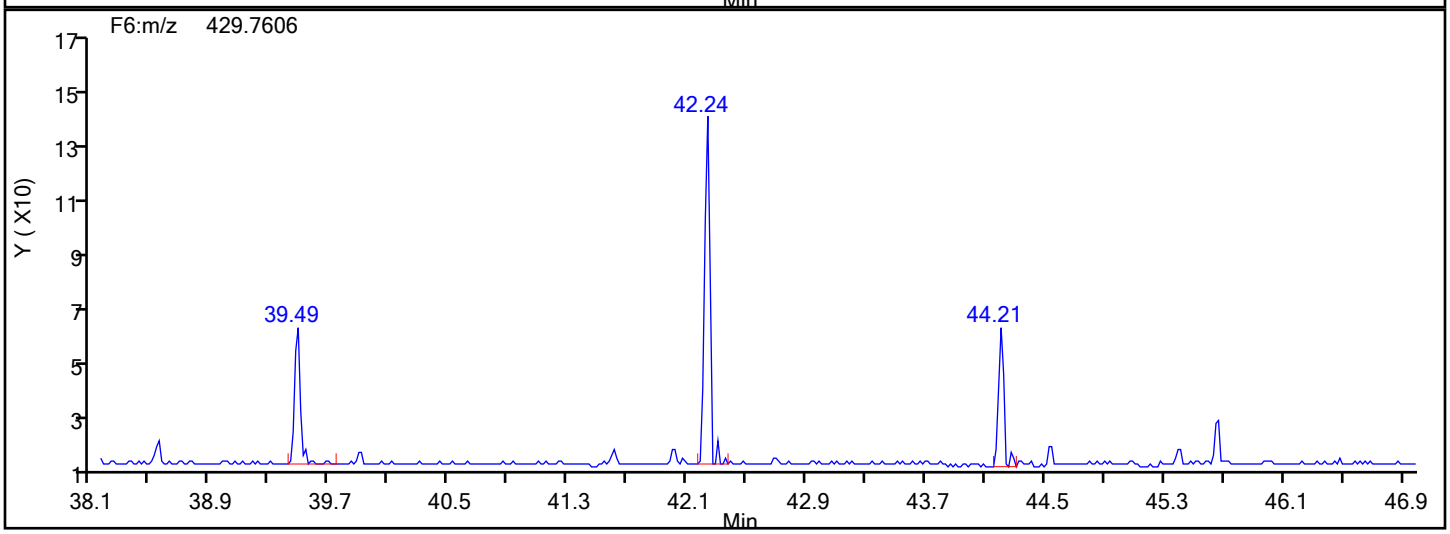
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

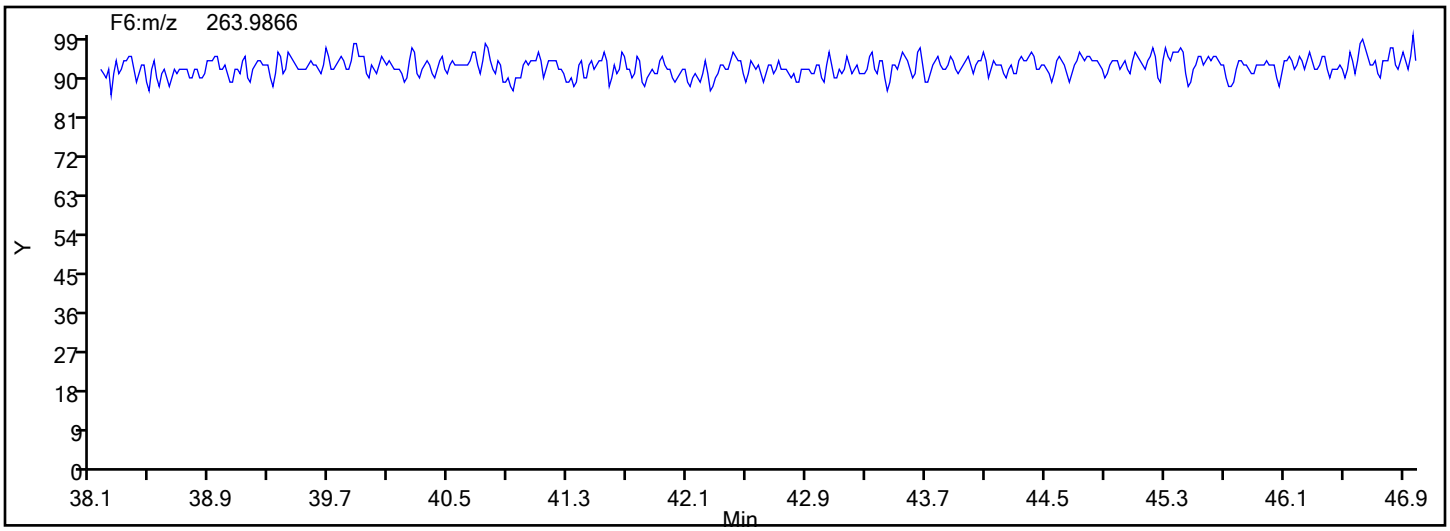
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-204





PCB-204 Lock Mass



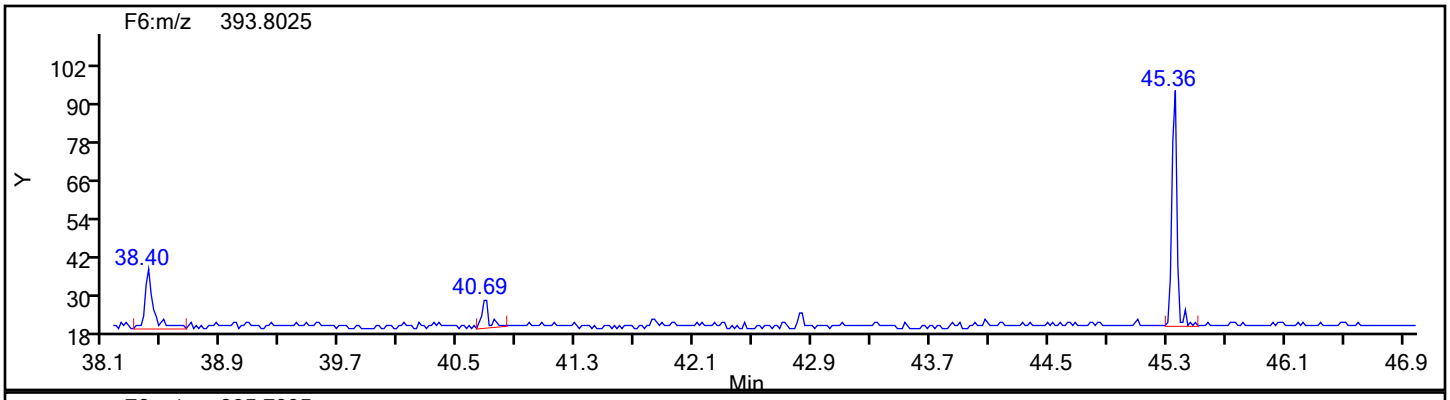
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

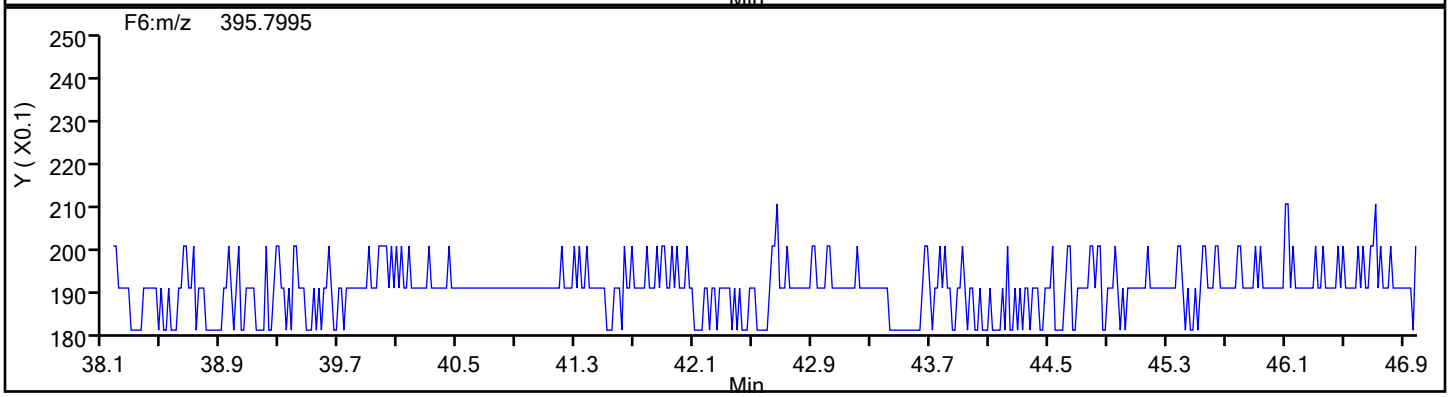
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d

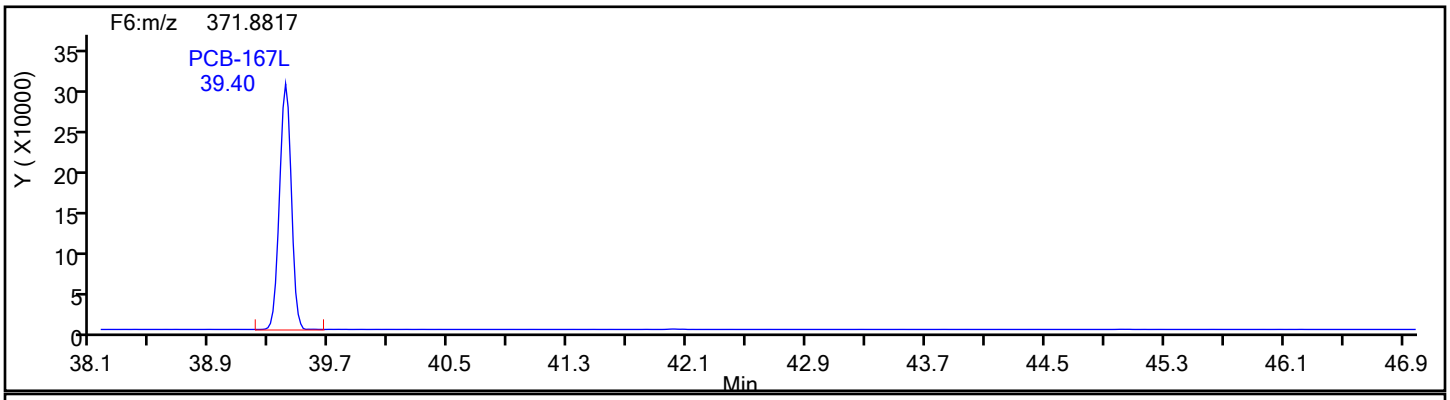
Injection Date:	02-May-2025 19:23:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	6
Column Type:	RTX-5	Column Dia:	0.32 mm

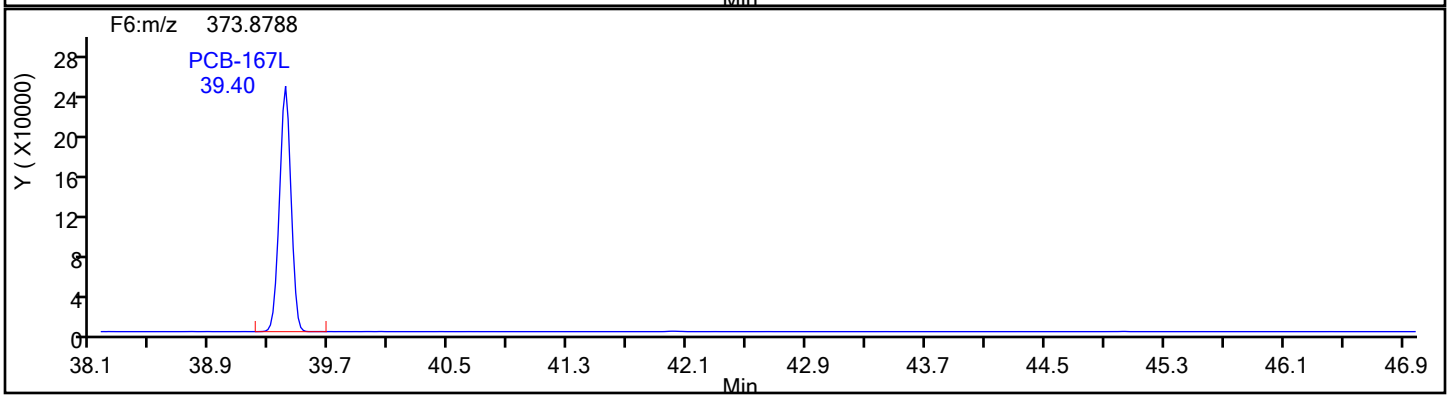
PCB-192





PCB-192 Standards



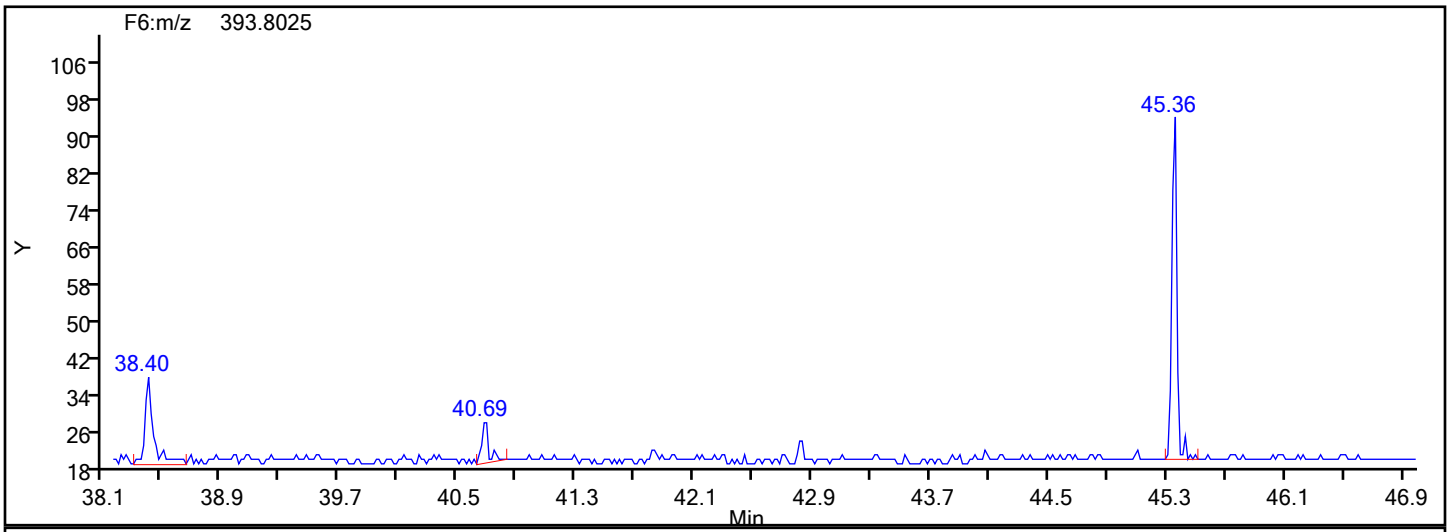


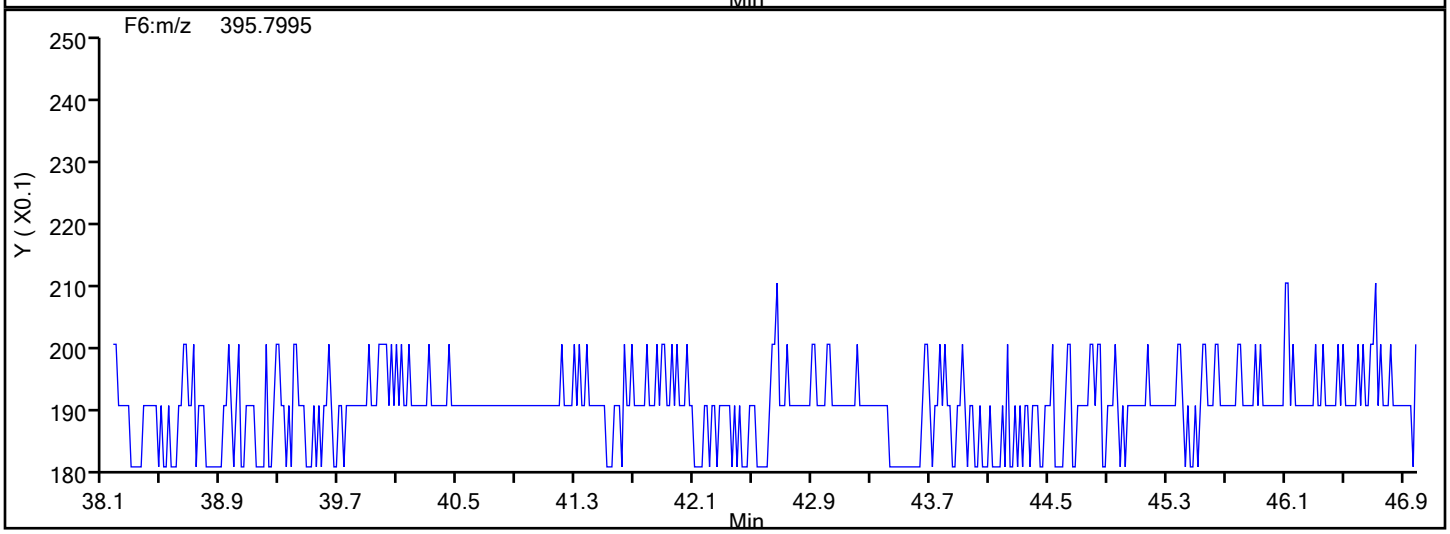
Report Date: 05-May-2025 18:00:32 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

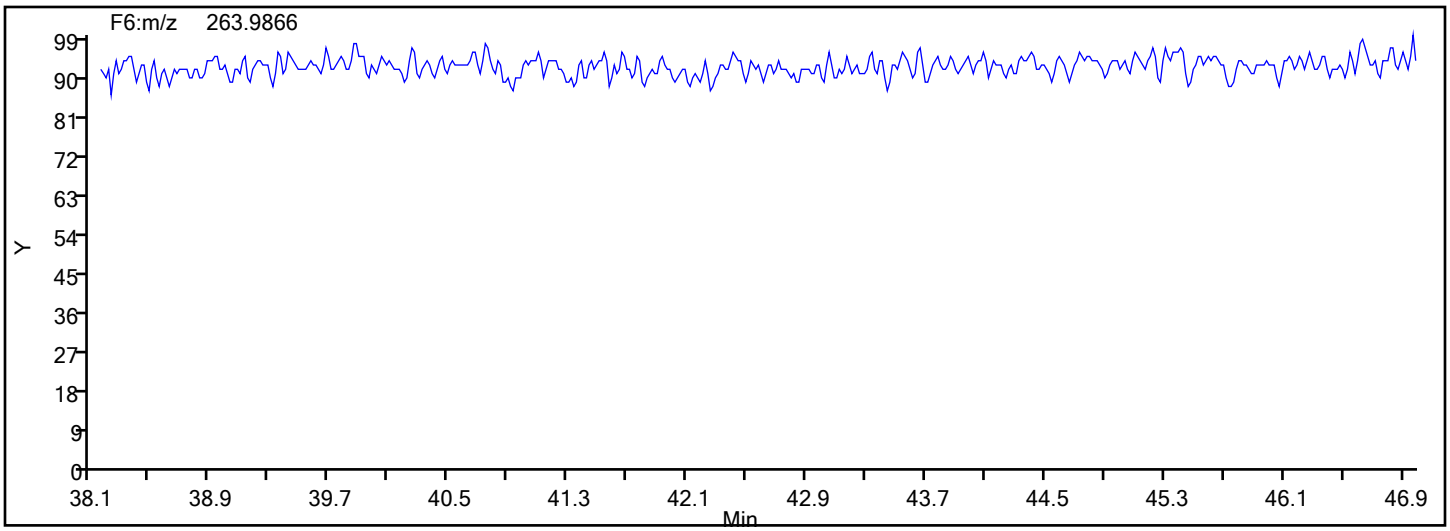
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip6.d
Injection Date: 02-May-2025 19:23:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 6
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-May-2025 20:18:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:35 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	8018495	0.81	0.2427	98.0	98.0	0.2803	0.2803	98.02	
D 13C6-beta BHC	18:22	6138636	0.82	0.1892	96.2	96.2	0.3595	0.3595	96.25	
D 13C6-gamma BHC	18:39	6759352	0.81	0.2029	98.8	98.8	0.3351	0.3351	98.80	
D 13C6-delta BHC	19:36	5638595	0.79	0.1718	97.4	97.4	0.3959	0.3959	97.35	
D 13C10-Heptachlor	21:51	5318091	1.28	0.1629	96.8	96.8	0.0184	0.0184	96.85	
D 13C6-Hexachlorobenzene	17:42	9121137	1.29	0.2759	98.1	98.1	0.000158	0.000158	98.07	
D 13C12-Aldrin	23:43	4949455	1.64	0.1517	96.8	96.8	0.0482	0.0482	96.80	
D 13C10-oxy Chlordane	26:07	471336	1.16	0.0708	105.3	105.3	0.004916	0.004916	105	
D 13C10-cis Heptachlor Epoxide	26:04	1623001	1.30	0.2676	95.9	95.9	0.0130	0.0130	95.94	
D 13C12-2,4'-DDE	27:54	27746873	1.61	4.5202	97.1	97.1	0.0797	0.0797	97.08	
D 13C10-trans Chlordane	27:36	1989748	1.31	0.3223	97.6	97.6	0.0453	0.0453	97.63	
D 13C10-cis Chlordane	28:40	1876836	1.27	0.2976	99.7	99.7	0.0491	0.0491	99.73	
D 13C10-trans Nonachlor	28:58	1748927	1.33	0.2841	97.3	97.3	0.0514	0.0514	97.34	
D 13C9-Endosulfan I	28:29	557893	1.31	0.0899	98.2	98.2	0.1626	0.1626	98.17	
D 13C12-4,4'-DDE	30:08	18837858	1.60	3.1557	101.1	101.1	0.0788	0.0788	101	
D 13C12-4,4'-DDD	33:25	17975000	1.60	2.9265	104.1	104.1	0.009339	0.009339	104	
D 13C12-2,4'-DDT	33:42	12169646	1.57	2.0372	101.2	101.2	0.0134	0.0134	101	
D 13C12-4,4'-DDT	36:33	10503102	1.57	1.8061	98.5	98.5	0.0151	0.0151	98.53	
D 13C12-Dieldrin	30:21	1701723	1.64	0.2777	103.8	103.8	0.1206	0.1206	104	
D 13C12-Endrin	32:01	1114387	1.62	0.1949	96.9	96.9	0.1719	0.1719	96.88	
D 13C9-Endosulfan II	32:45	282514	1.15	0.0474	101.0	101.0	0.3997	0.3997	101	
D 13C12-Endrin Aldehyde	34:16	253001	1.45	0.0424	101.0	101.0	0.3433	0.3433	101	
D 13C12-Methoxychlor	41:54	10861545	21.97	1.8751	98.1	98.1	0.0372	0.0372	98.15	
D 13C11-Endrin Ketone	40:23	606696	1.66	0.1045	98.4	98.4	0.2576	0.2576	98.38	
D 13C10-Mirex	45:22	5923914	1.29	1.9829	96.0	96.0	0.0289	0.0289	96.01	
* PCB-15L	19:03	33713452	1.65		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	6292078	0.65		500.0	500.0				
Pentachlorophenol	18:29	36188548	0.63	1.0218	2814.3	2814.3	0.1680	0.1680	93.81	a
* PCB-101L	28:05	6323106	1.59		100.0	100.0				
* PCB-118L	32:45	5901920	1.63		100.0	100.0				
* PCB-138L	36:57	3111518	1.29		100.0	100.0				
* PCB-60L	27:43	13441061	0.83		100.0	100.0				
D 13C12-2,4'-DDD	30:49	20496604	1.57	3.4396	101.0	101.0	0.0525	0.0525	101	
D 13C10-cis Nonachlor	33:46	1303936	1.36	0.2243	98.5	98.5	0.0220	0.0220	98.52	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	2011246	1.24	0.3464	98.4	98.4	0.0143	0.0143	98.37	
* PCB-167L	39:27	3081536	1.29		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

61L61699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-May-2025 20:18:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:35 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:40

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:21	2	0.913	3600231	1318678	2408	6020	548		
224.9317	17:23	17:21	2	0.913	4418264	1604883	718	1795	2235	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:20	2	0.964	2766274	1020624	2408	6020	424		
224.9317	18:22	18:20	2	0.964	3372362	1232424	718	1795	1716	0.82(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:37	2	0.979	3025263	1065618	2408	6020	443		
224.9317	18:39	18:37	2	0.979	3734089	1303924	718	1795	1816	0.81(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:34	2	1.029	2489981	820843	2408	6020	341		
224.9317	19:36	19:34	2	1.029	3148614	1027521	718	1795	1431	0.79(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:51	21:49	2	1.146	2985904	847030	79	197	10722		
278.8240	21:51	21:49	2	1.146	2332187	644068	59	147	10916	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:40	2	0.929	5139070	1854859	1	2	1854859		
291.8273	17:42	17:40	2	0.929	3982067	1452584	1	2	1452584	1.29(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:41	2	1.245	3072081	813182	216	540	3765		
271.8775	23:43	23:41	2	1.245	1877374	497599	120	300	4147	1.64(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:07	26:05	2	0.930	252684	61119	1	2	61119		
398.8358	26:07	26:05	2	0.930	218652	50964	1	2	50964	1.16(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:04	26:03	1	0.929	917181	222443	6	15	37074		
364.8748	26:04	26:03	1	0.929	705820	170106	14	35	12150	1.30(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:52	2	0.994	17132687	4016683	1380	3450	2911		
260.0376	27:54	27:52	2	0.994	10614186	2437578	691	1727	3528	1.61(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:34	2	0.983	1129726	252163	41	102	6150		
278.8240	27:37	27:34	3	0.984	860022	183611	43	107	4270	1.31(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:40	28:38	2	1.021	1051403	230168	41	102	5614		
278.8240	28:40	28:38	2	1.021	825433	183781	43	107	4274	1.27(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:58	28:57	2	1.032	999847	220308	41	102	5373		
278.8240	28:58	28:57	1	1.031	749080	158942	43	107	3696	1.33(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:28	1	1.015	316600	70031	41	102	1708		
278.8240	28:29	28:28	1	1.015	241293	54054	43	107	1257	1.31(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:08	30:06	2	0.920	11582245	2494714	803	2007	3107		
260.0376	30:08	30:06	2	0.920	7255613	1567416	406	1015	3861	1.60(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:24	1	1.020	11061793	2190896	89	222	24617		
249.0454	33:25	33:24	1	1.020	6913207	1409944	44	110	32044	1.60(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:41	1	1.029	7436334	1463053	89	222	16439		
249.0454	33:42	33:41	1	1.029	4733312	922226	44	110	20960	1.57(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:33	36:31	2	1.116	6418295	1154848	89	222	12976		
249.0454	36:33	36:31	2	1.116	4084807	788912	44	110	17930	1.57(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:20	1	0.927	1057724	232866	122	305	1909		
271.8775	30:21	30:20	1	0.927	643999	132118	41	102	3222	1.64(1.16-1.94)	
13C12-Endrin											
269.8805	32:01	31:59	2	0.978	688947	139748	122	305	1145		
271.8775	32:01	31:59	2	0.978	425440	81811	41	102	1995	1.62(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:45	32:44	1	1.000	150939	30262	63	157	480		
278.8240	32:44	32:44	0	1.000	131575	27978	29	72	965	1.15(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:16	34:16	0	1.046	149774	27203	16	40	1700		
358.9361	34:17	34:16	1	1.047	103227	19636	55	137	357	1.45(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	2	1.280	10388731	1825603	302	755	6045		
240.1510	41:54	41:52	2	1.280	472814	80552	37	92	2177	21.97(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:23	40:22	1	1.233	378963	62829	102	255	616		
329.9379	40:23	40:22	1	1.233	227733	39053	29	72	1347	1.66(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:22	45:20	2	1.228	3334682	549711	82	205	6704		
278.8240	45:22	45:20	2	1.228	2589232	427999	51	127	8392	1.29(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:02	1		20999545	7178224	52	130	138043		
236.0376	19:03	19:02	1		12713907	4313173	14	35	308084	1.65(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:29	18:27	2		2490017	815552	59	147	13823		
271.8636	18:29	18:27	2		3802061	1213979	57	142	21298	0.65(0.00-0.00)	
Pentachlorophenol											a
263.8464	18:29	18:28	2	1.001	13977177	4165948	137	342	30408		a
265.8435	18:29	18:28	2	1.001	22211371	6572414	142	355	46285	0.63(0.00-0.00)	
PCB-101L											
337.9207	28:05	28:04	1		3877583	878530	1	2	878530		
339.9178	28:05	28:04	1		2445523	558805	10	25	55881	1.59(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:43	2		3653940	751274	34	85	22096		
339.9178	32:45	32:43	2		2247980	463488	22	55	21068	1.63(1.16-1.94)	
PCB-138L											
371.8817	36:57	36:55	2		1751301	328372	45	112	7297		
373.8788	36:57	36:55	2		1360217	251835	26	65	9686	1.29(1.16-1.94)	
PCB-60L											
301.9626	27:43	27:41	2		6081614	1377424	103	257	13373		
303.9597	27:43	27:41	2		7359447	1664219	107	267	15553	0.83(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:47	2	0.941	12508032	2515338	496	1240	5071		
249.0454	30:49	30:47	2	0.941	7988572	1624320	381	952	4263	1.57(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:46	33:44	2	1.031	751583	142353	1	2	142353		
278.8240	33:46	33:44	2	1.031	552353	101993	23	57	4434	1.36(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:14	1	1.107	1113604	198499	1	2	198499		
278.8240	36:15	36:14	1	1.107	897642	166632	23	57	7245	1.24(0.93-1.55)	
PCB-167L											
371.8817	39:27	39:25	2		1737827	298120	3	7	99373		
373.8788	39:27	39:25	2		1343709	237072	6	15	39512	1.29(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

61L61699PCP_00001 Amount Added: 20.00 Units: uL

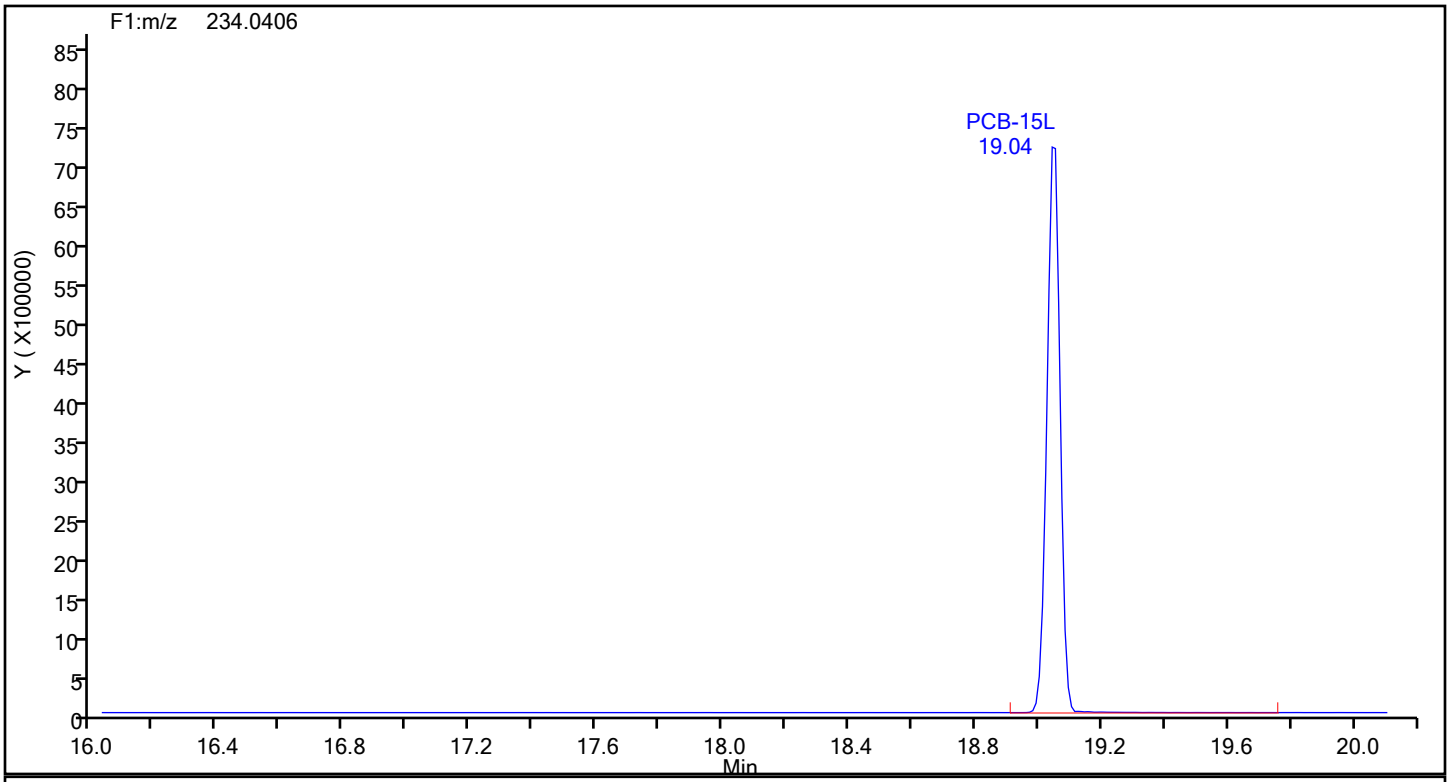
Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

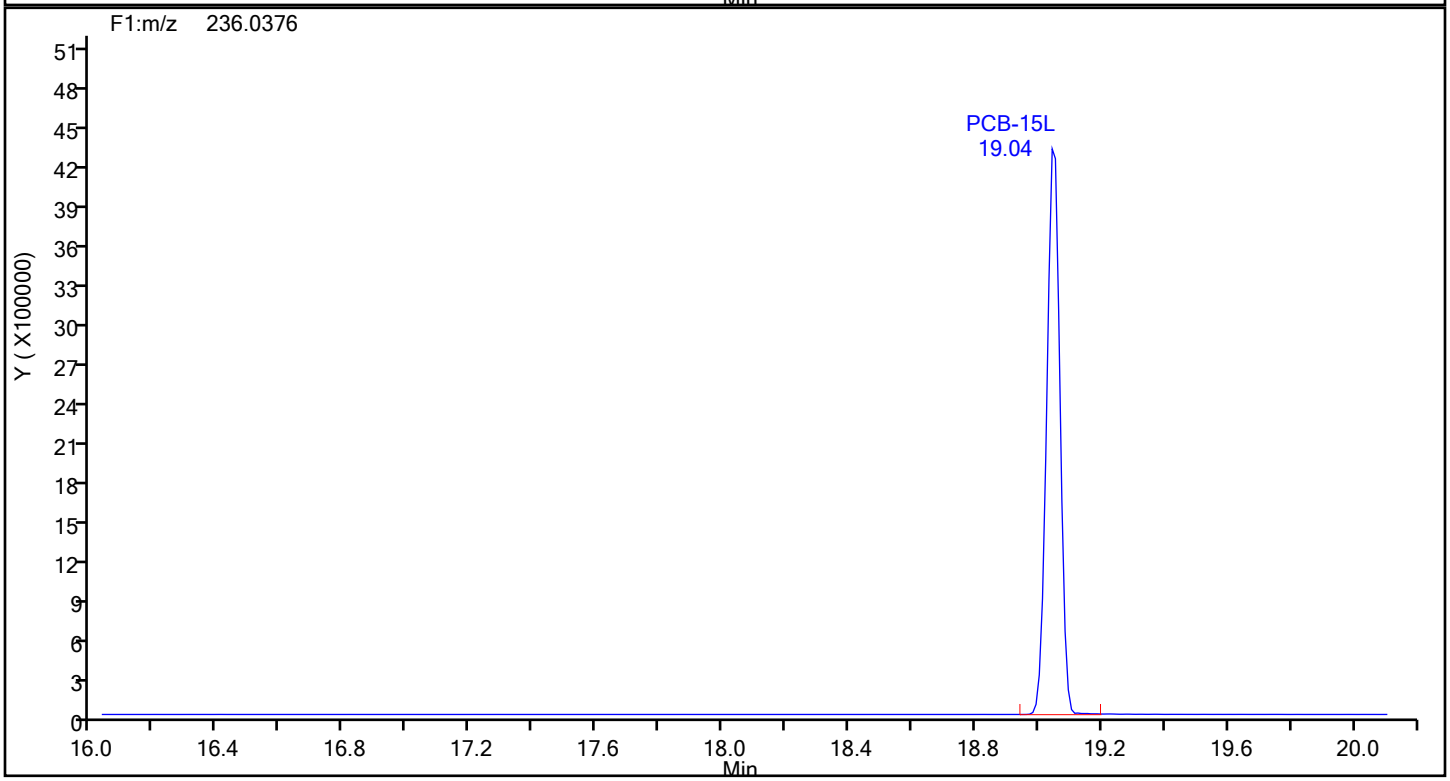
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





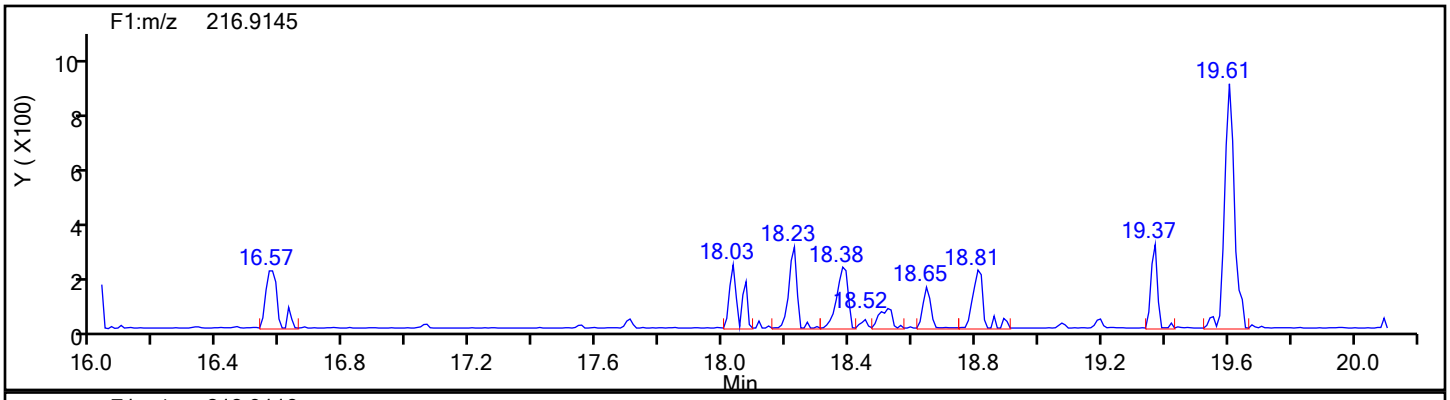
Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

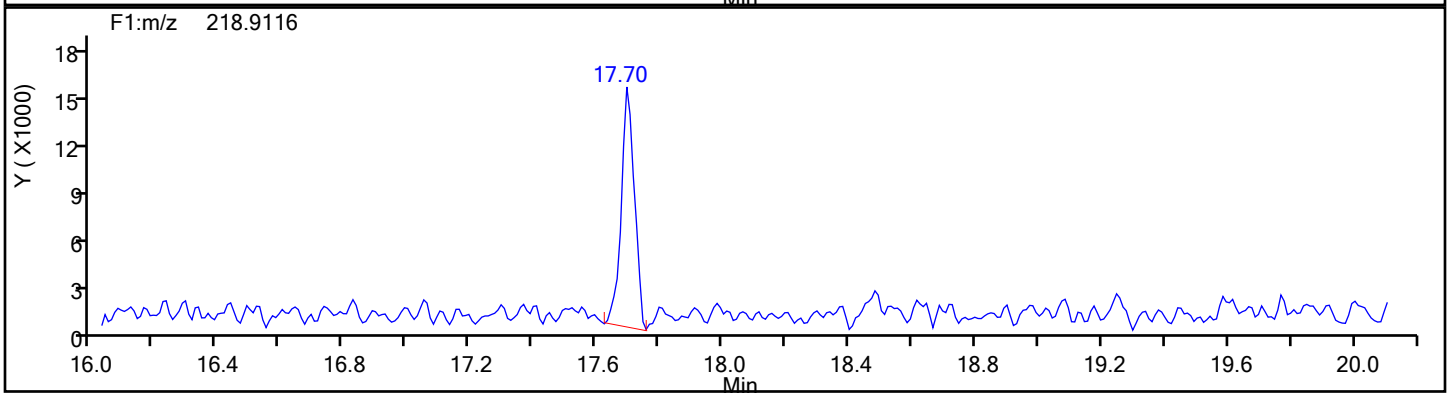
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

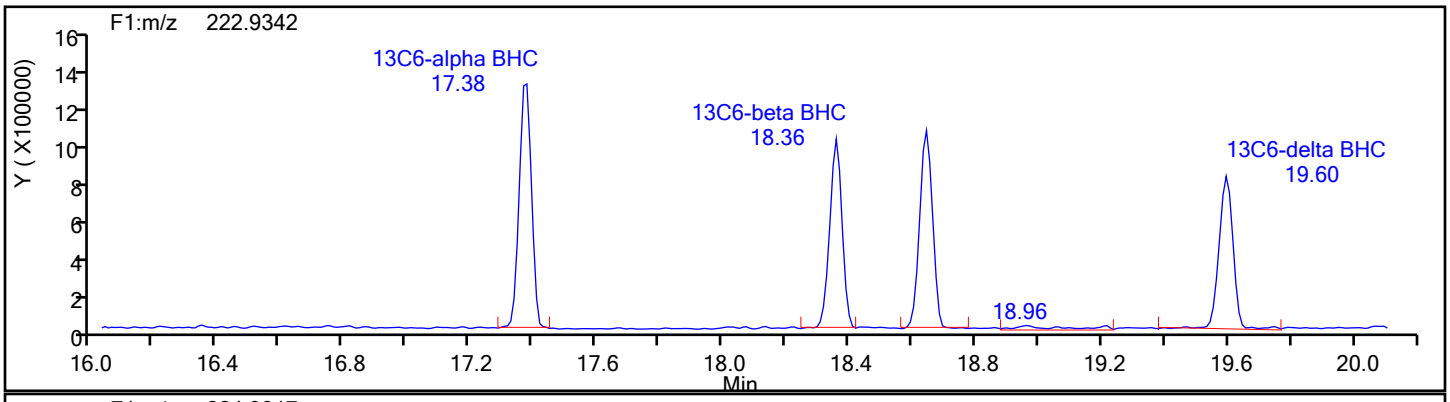
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

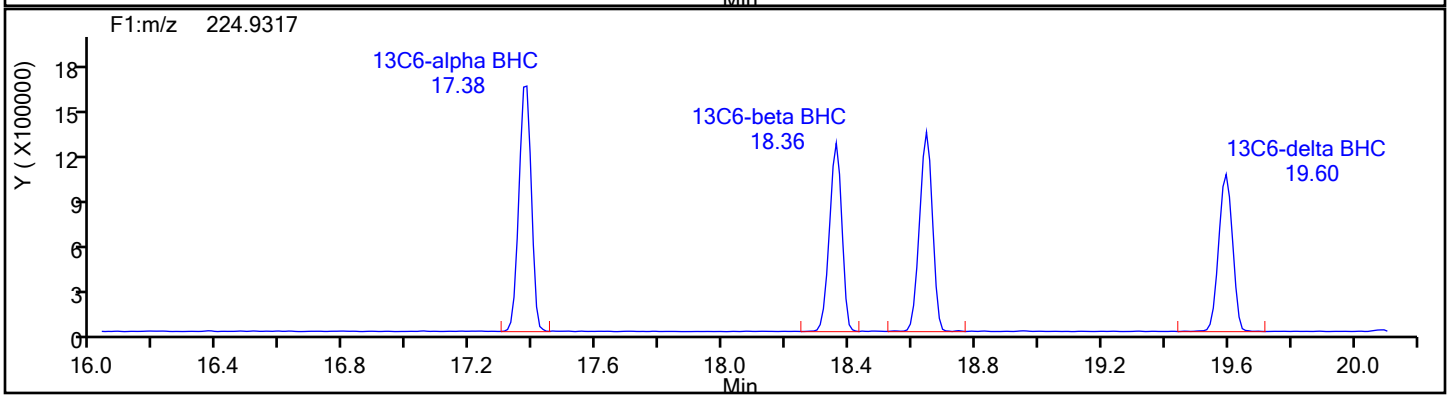
BHC





BHC Standards



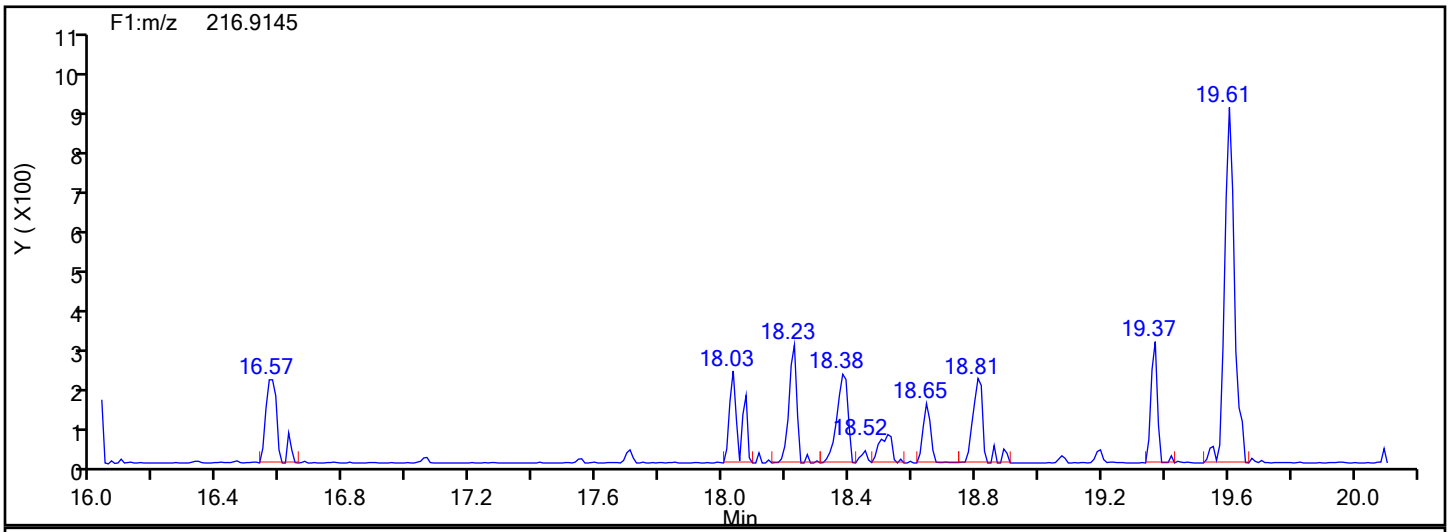


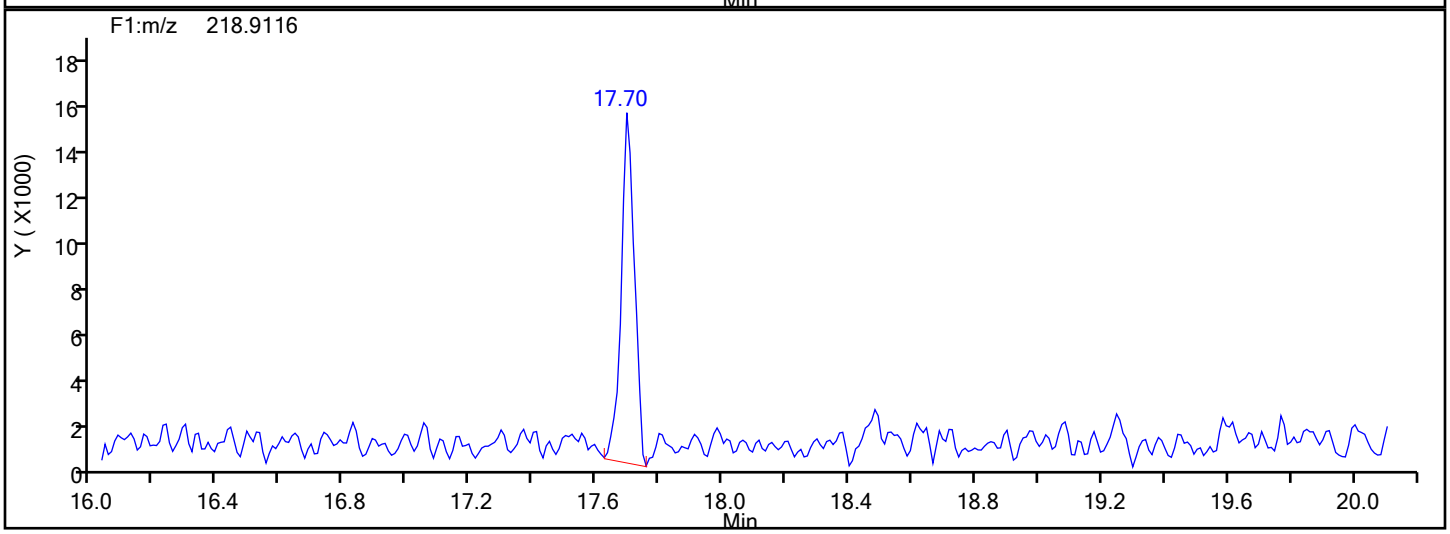
Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

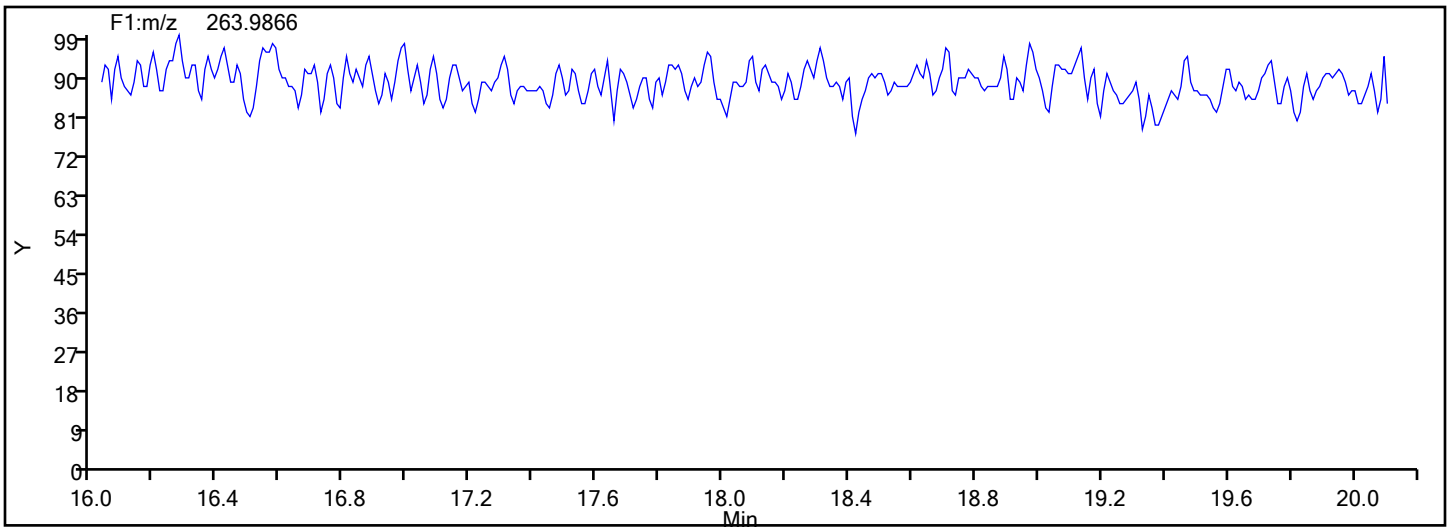
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



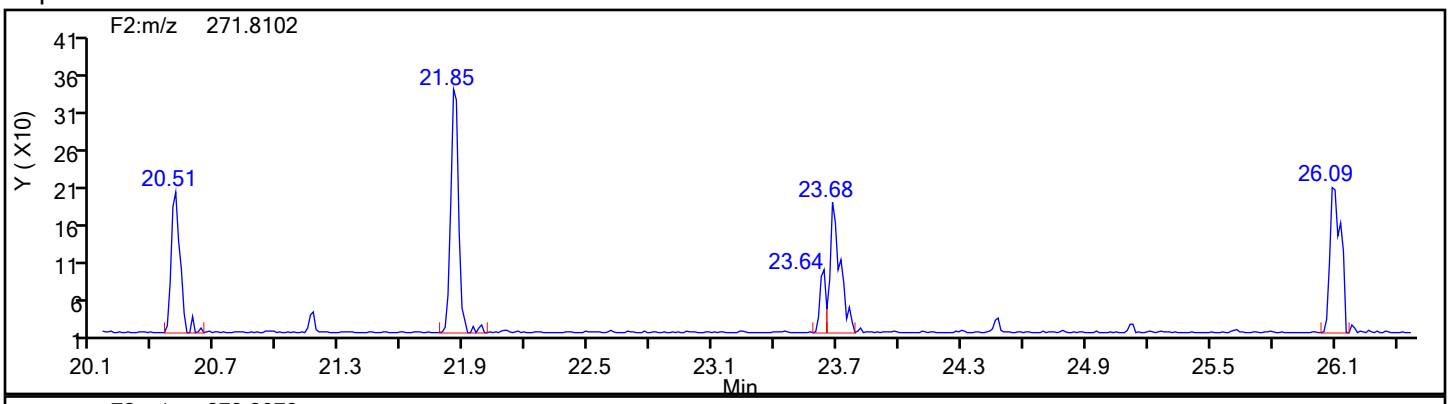
Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

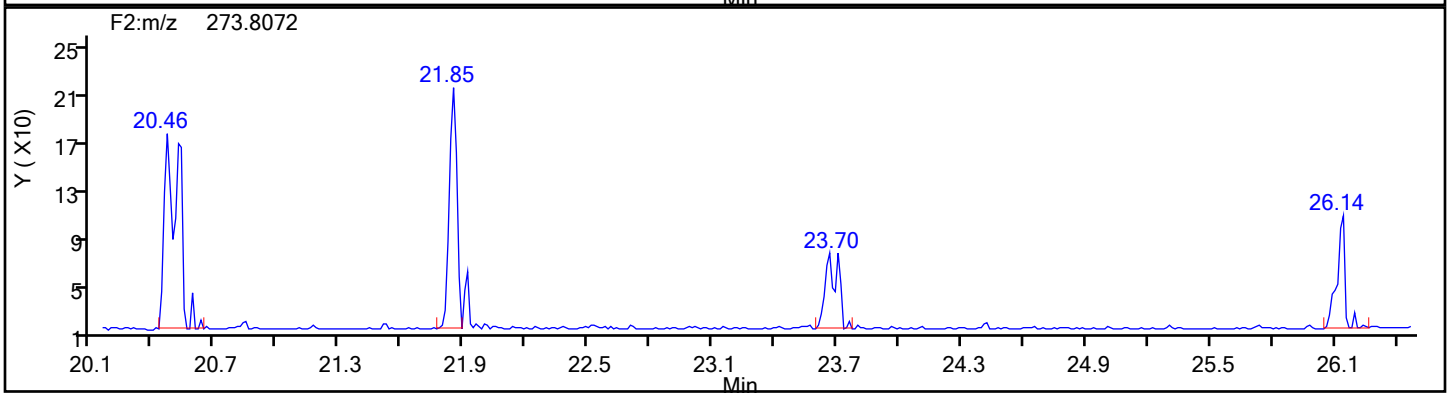
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

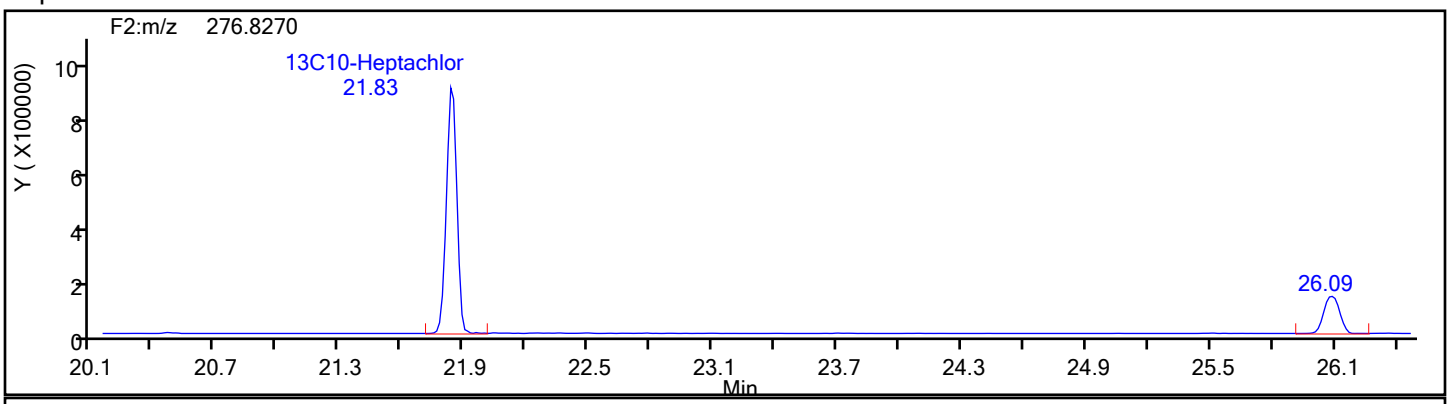
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

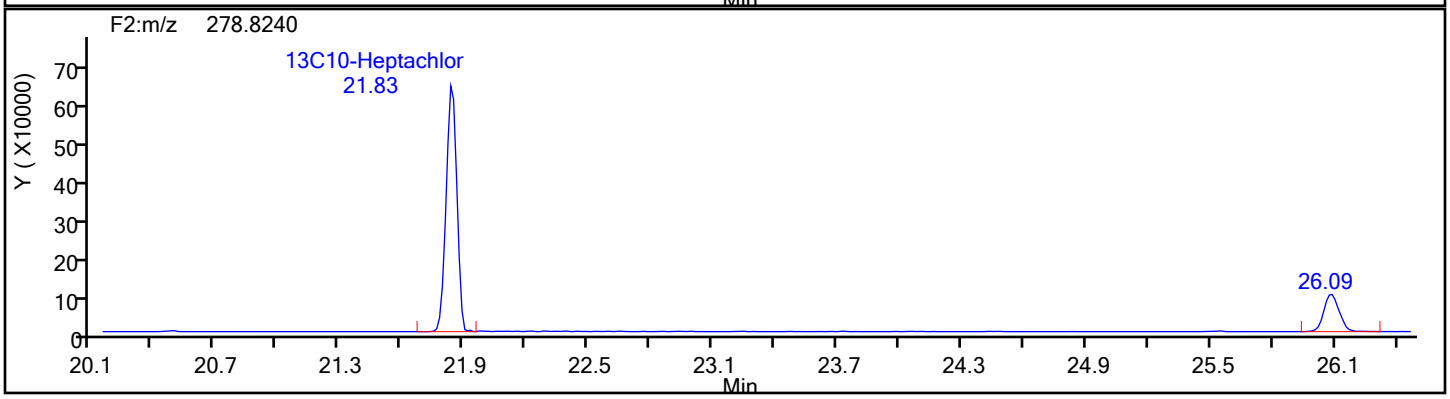
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
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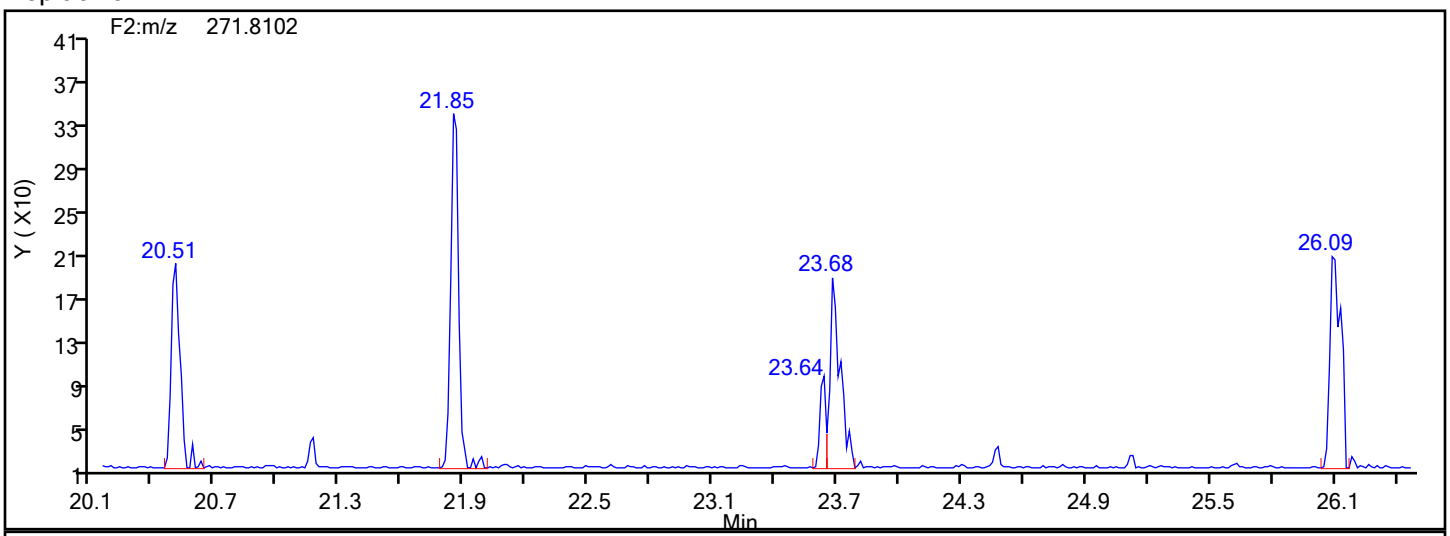
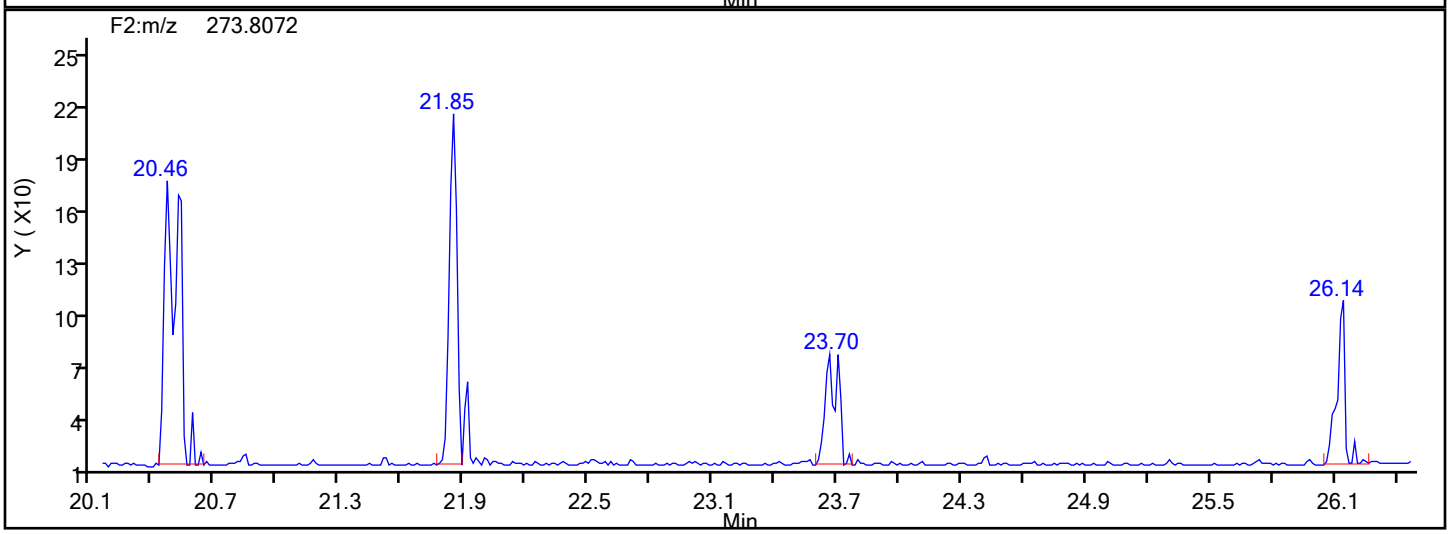
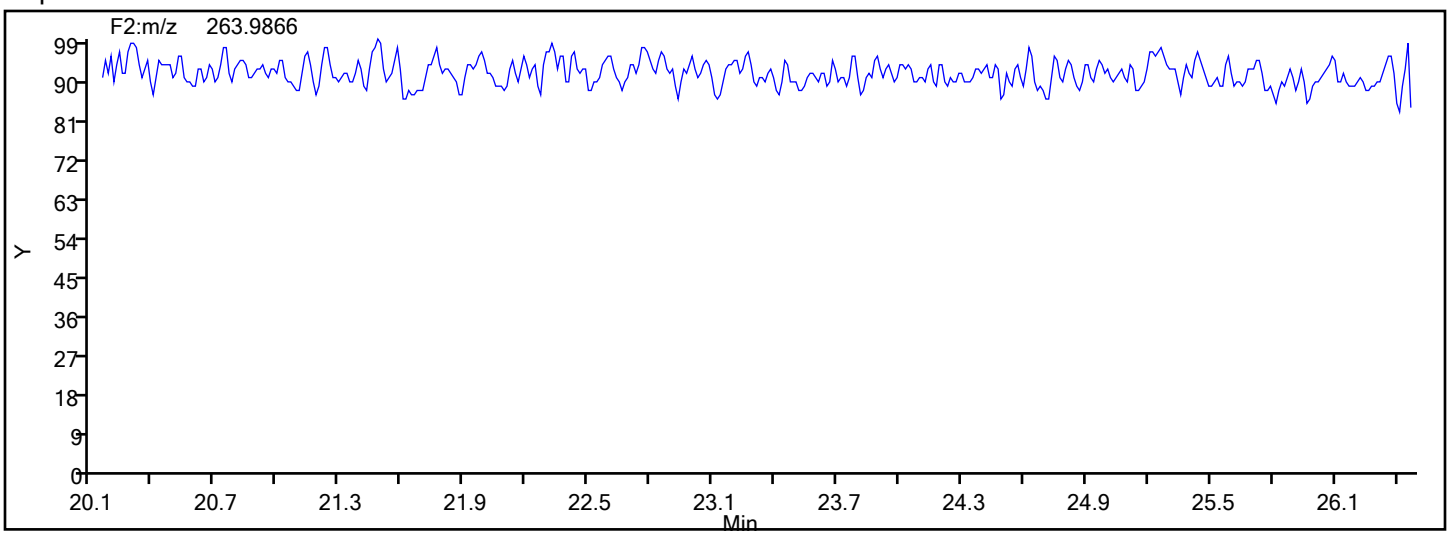
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



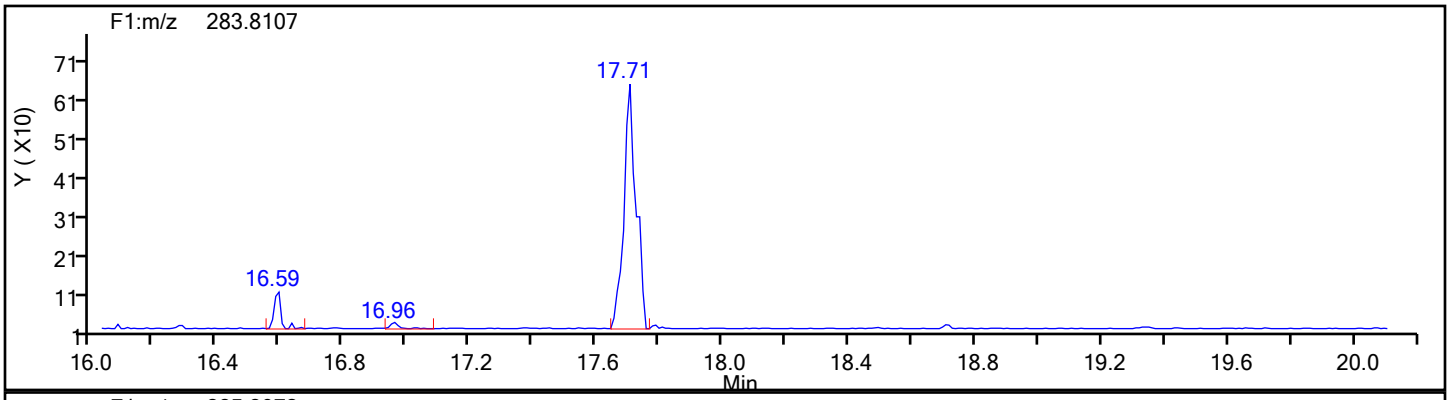
Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

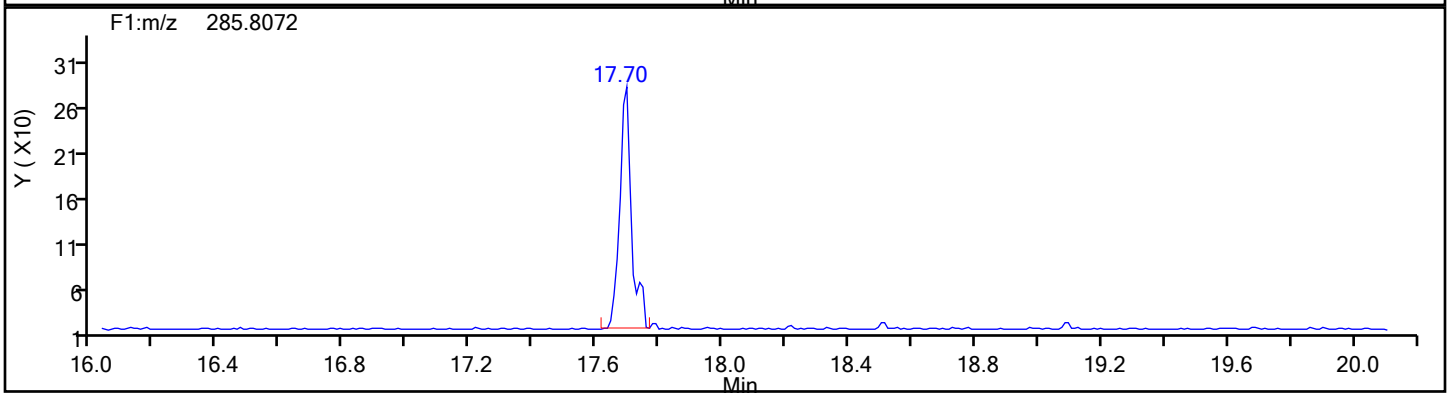
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

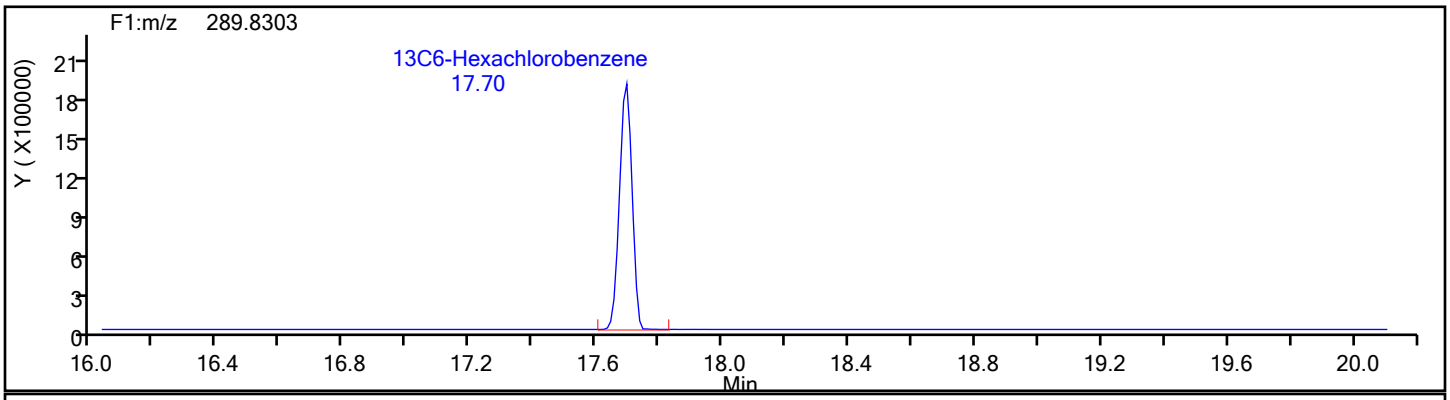
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

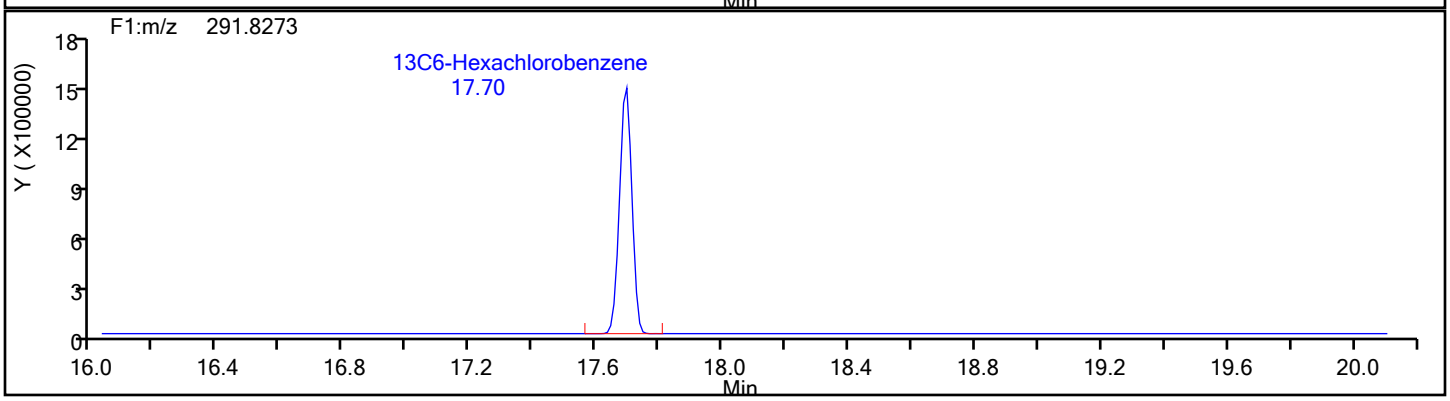
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 05-May-2025 18:00:36 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Client ID:
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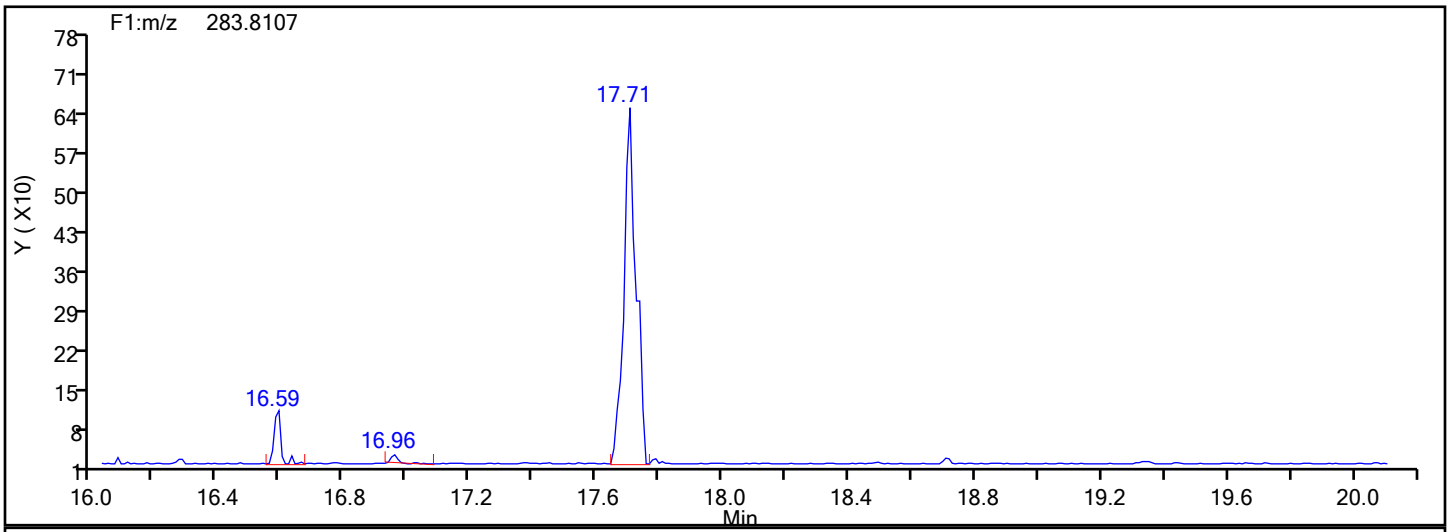
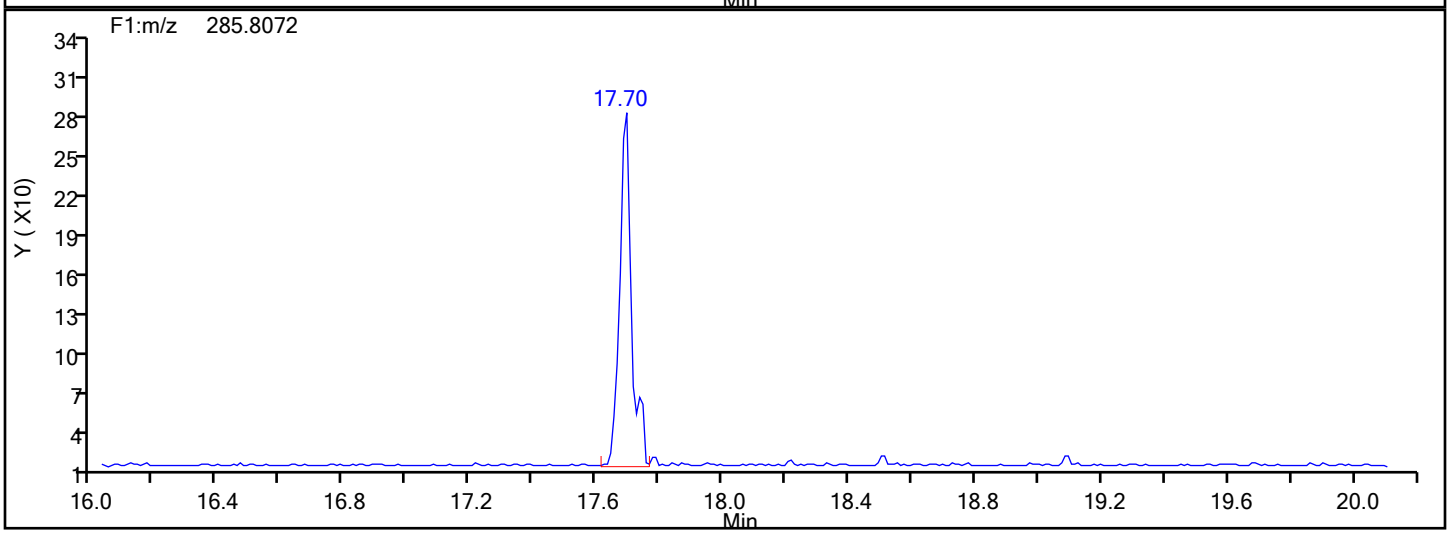
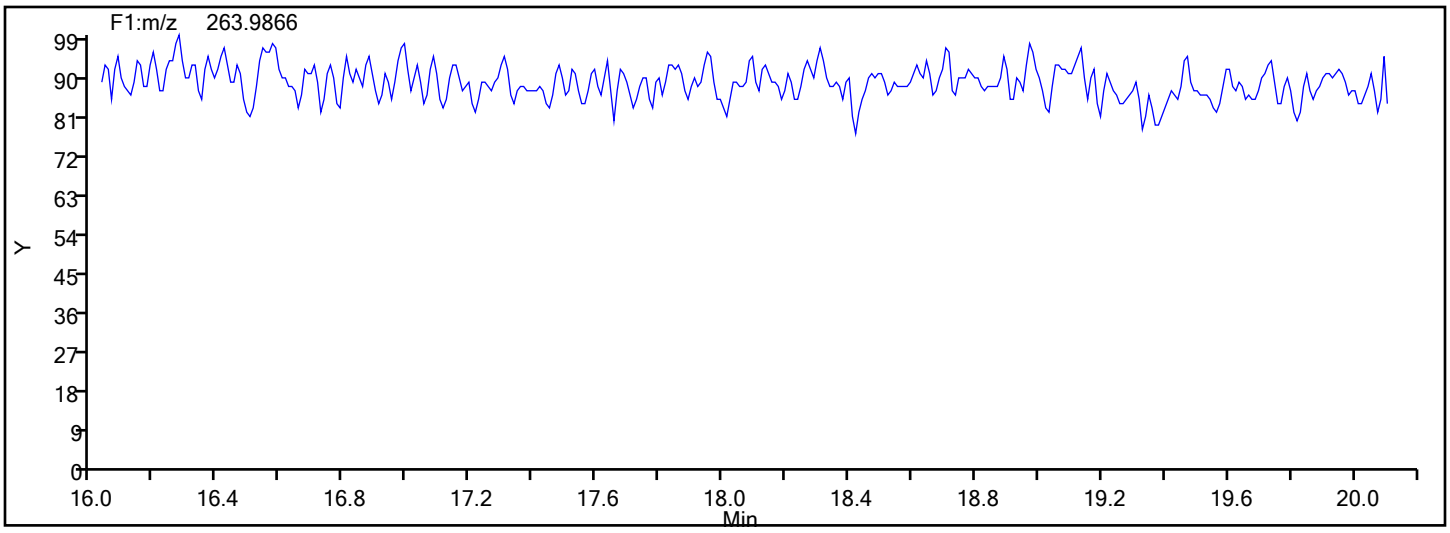
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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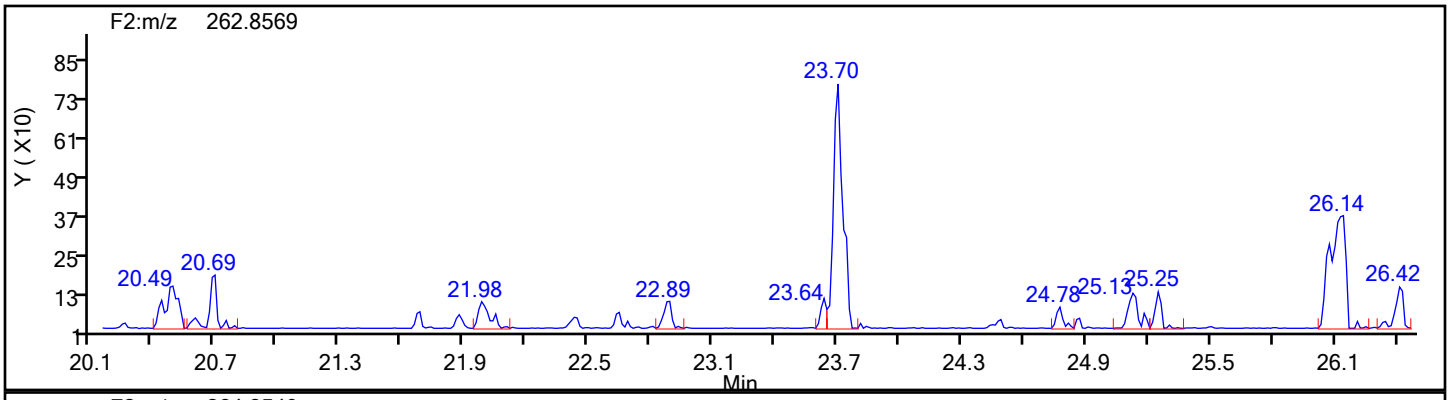
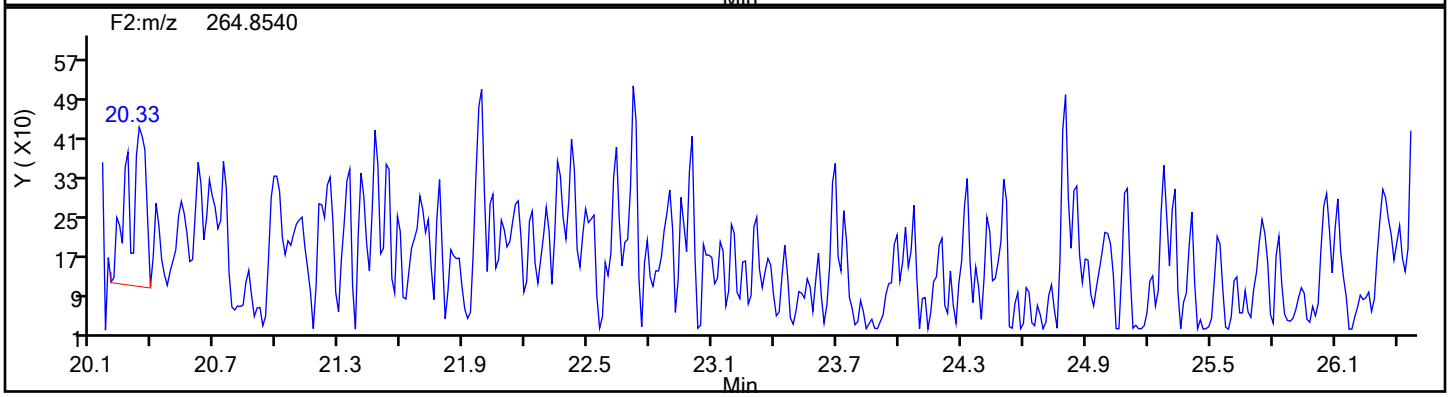
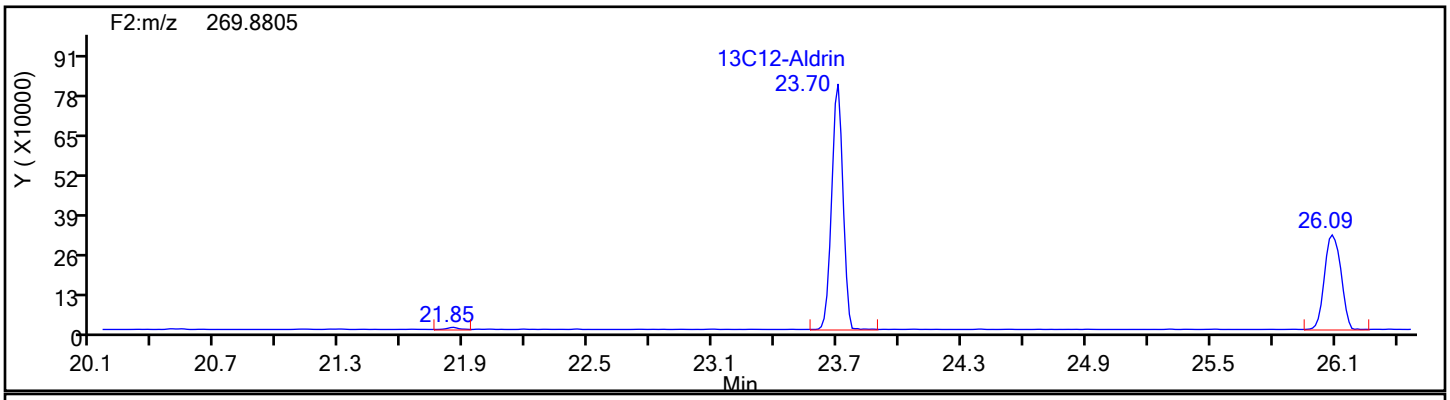
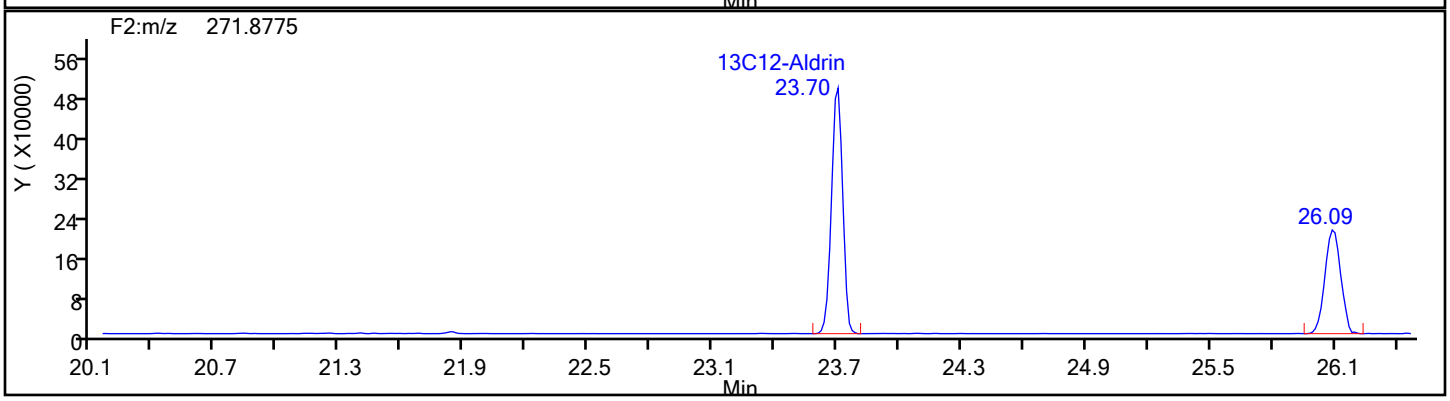
Aldrin





Aldrin Standards





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Eurofins Knoxville

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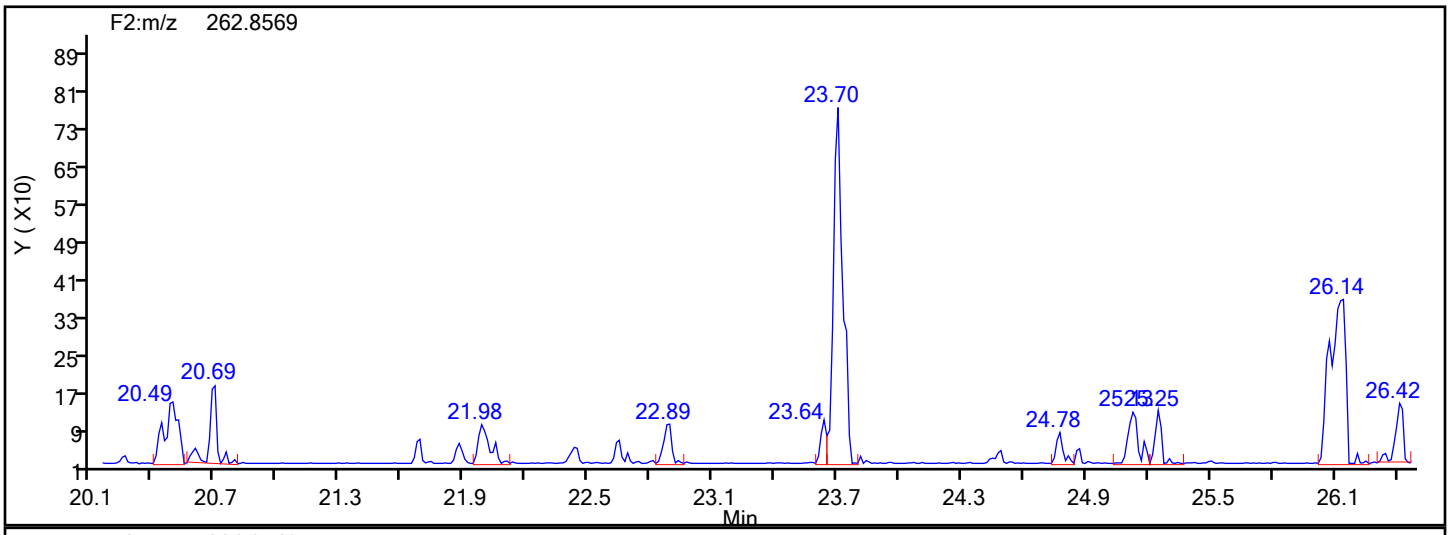
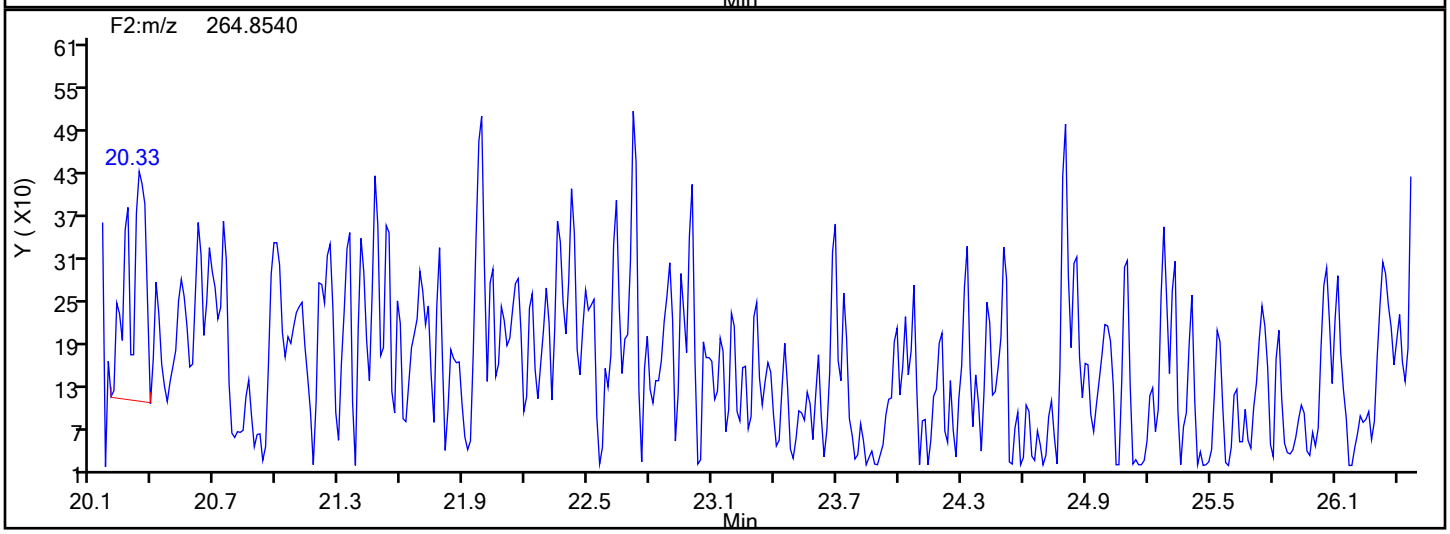
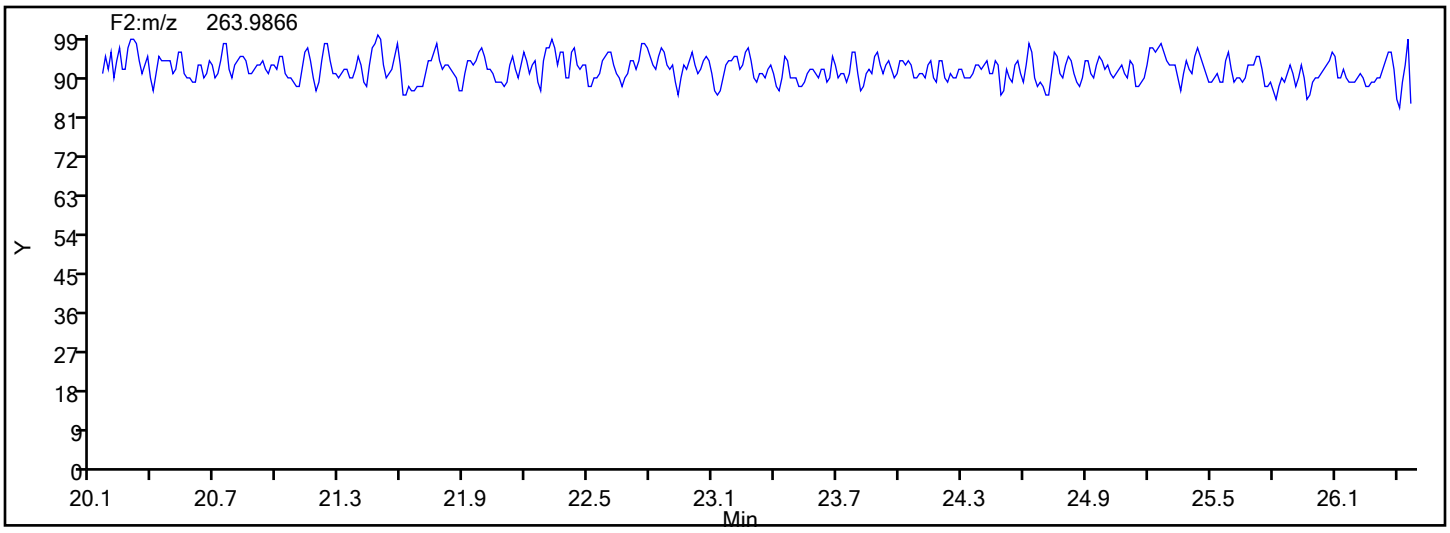
Aldrin





Aldrin Lock Mass



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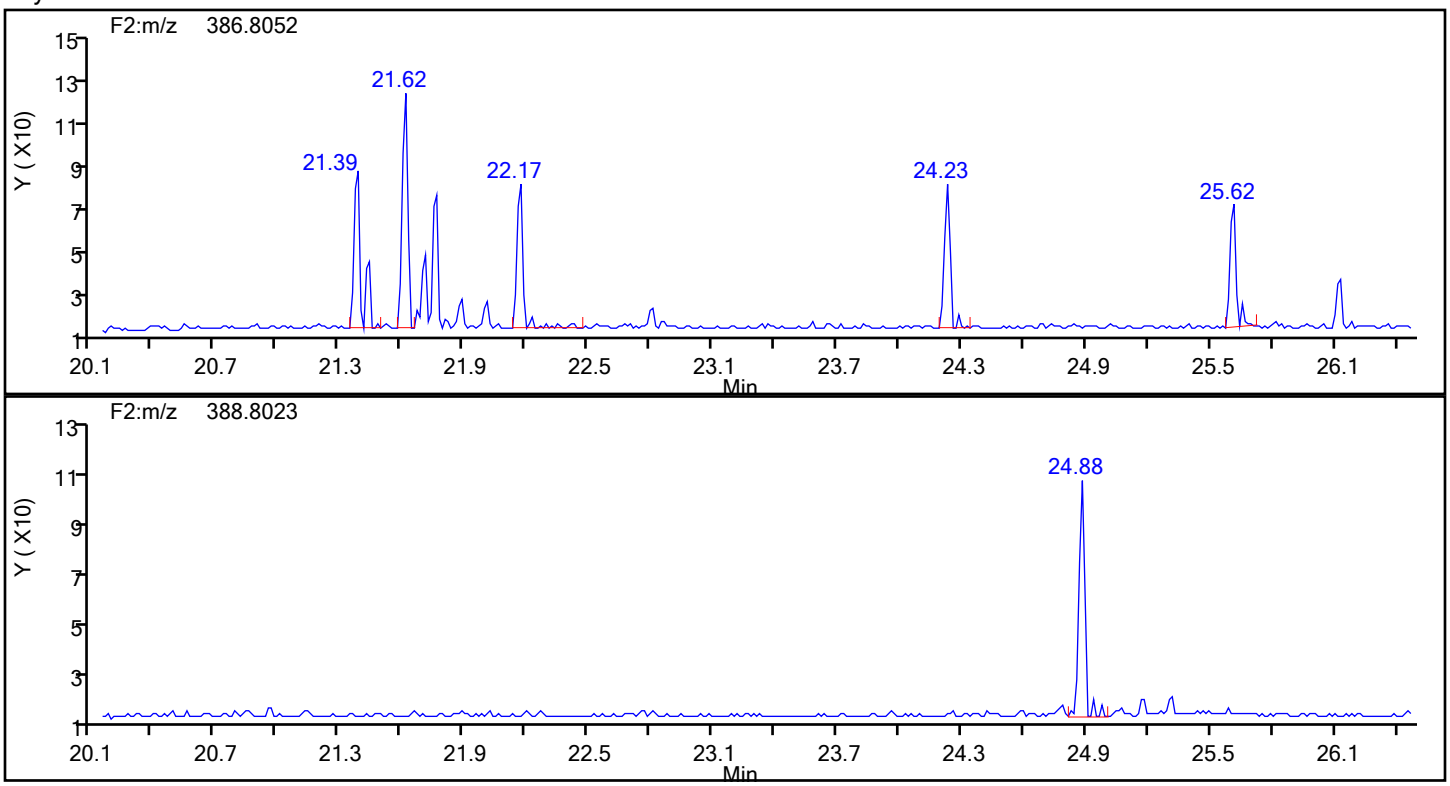
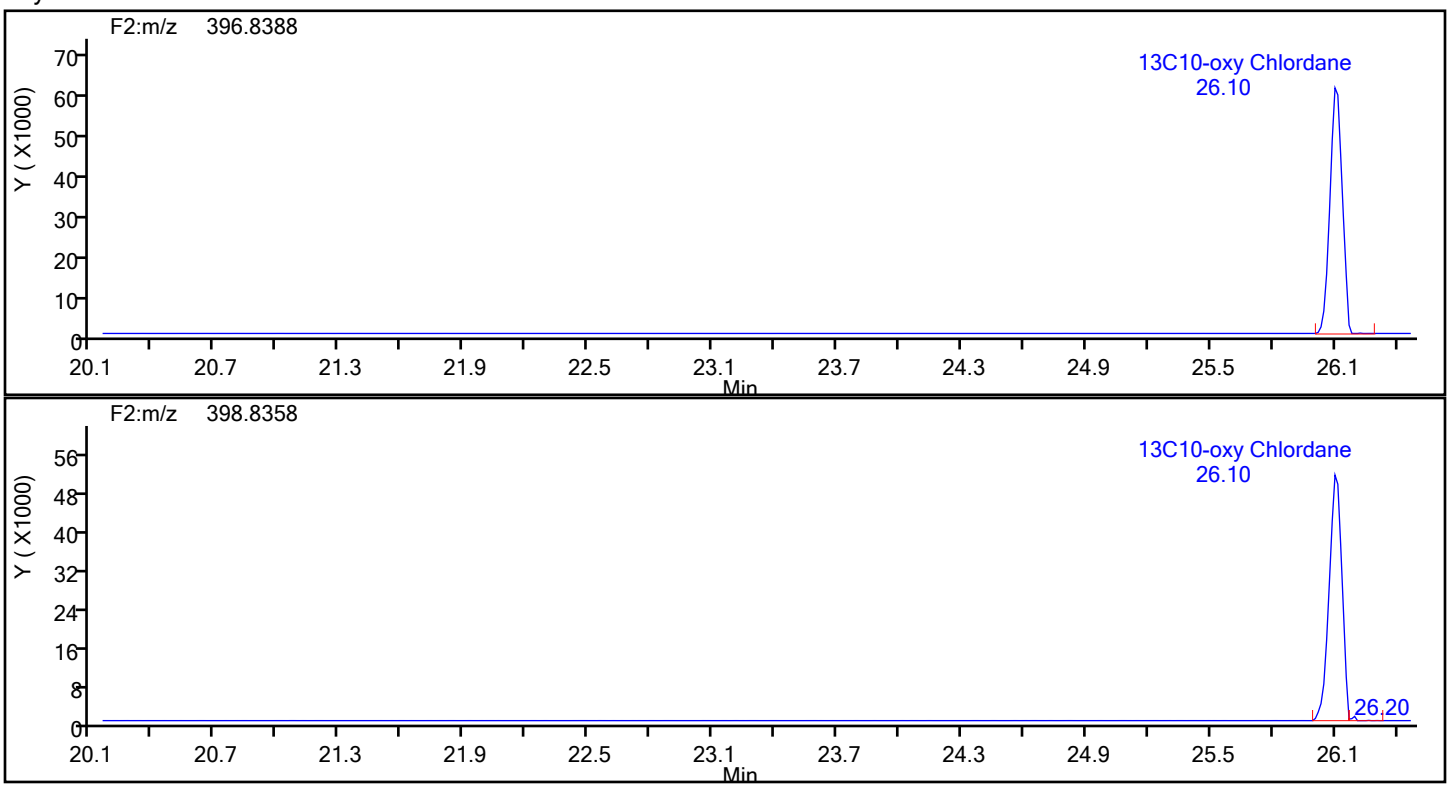
oxy-Chlordane



oxy-Chlordane Standards



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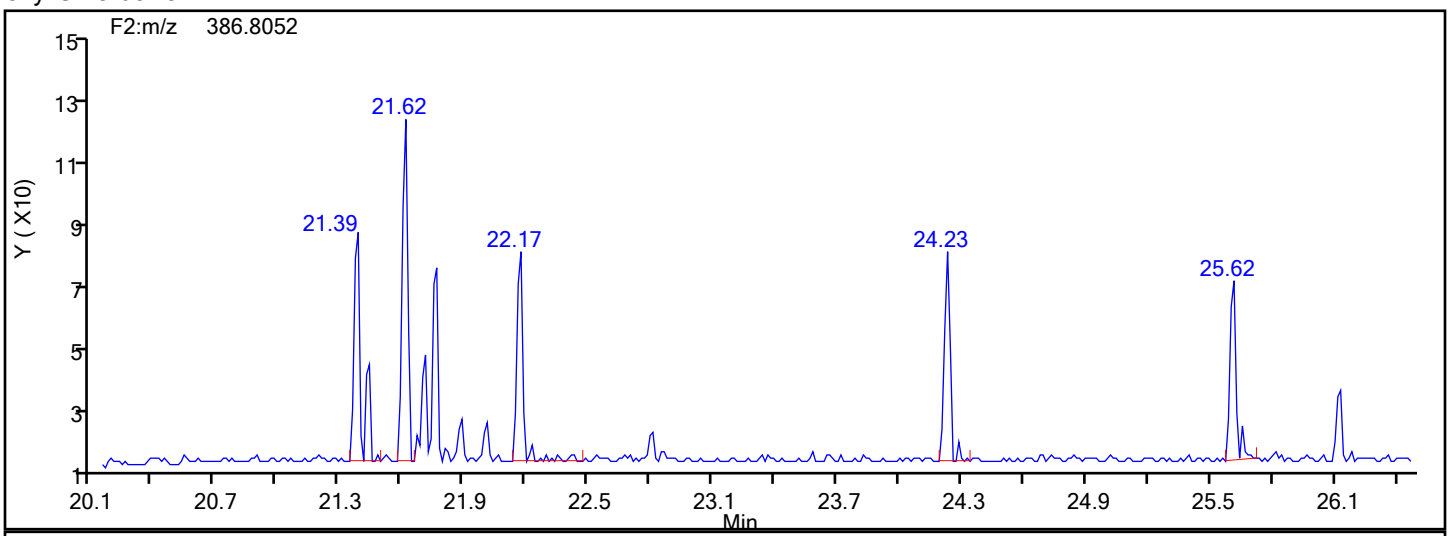
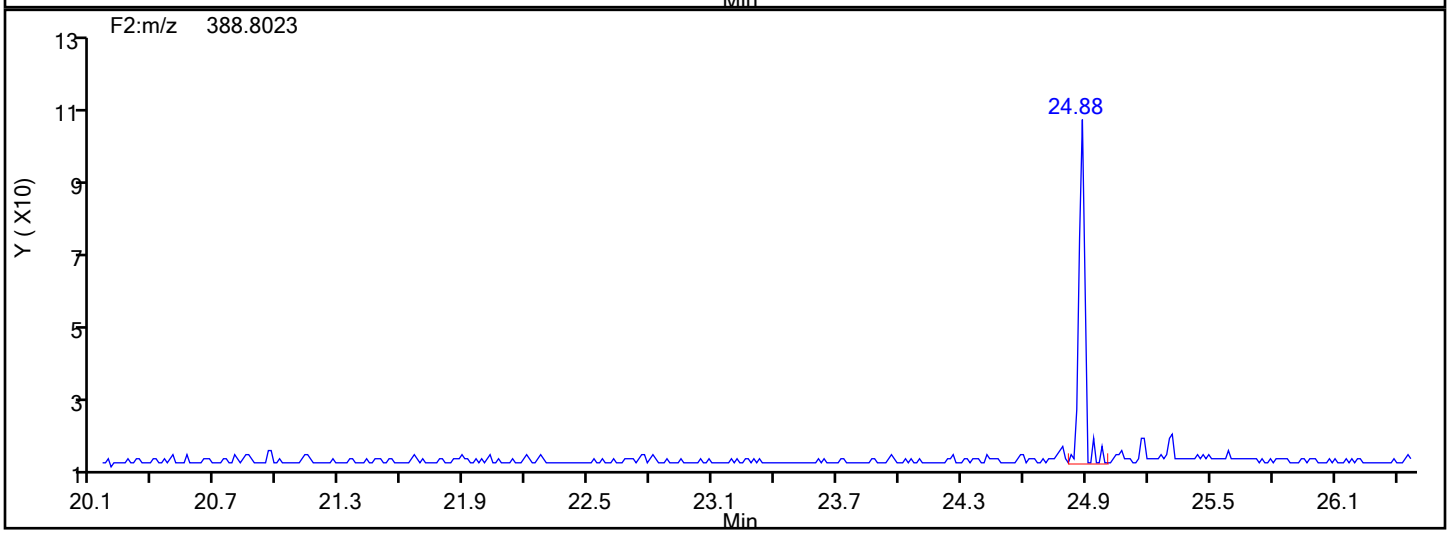
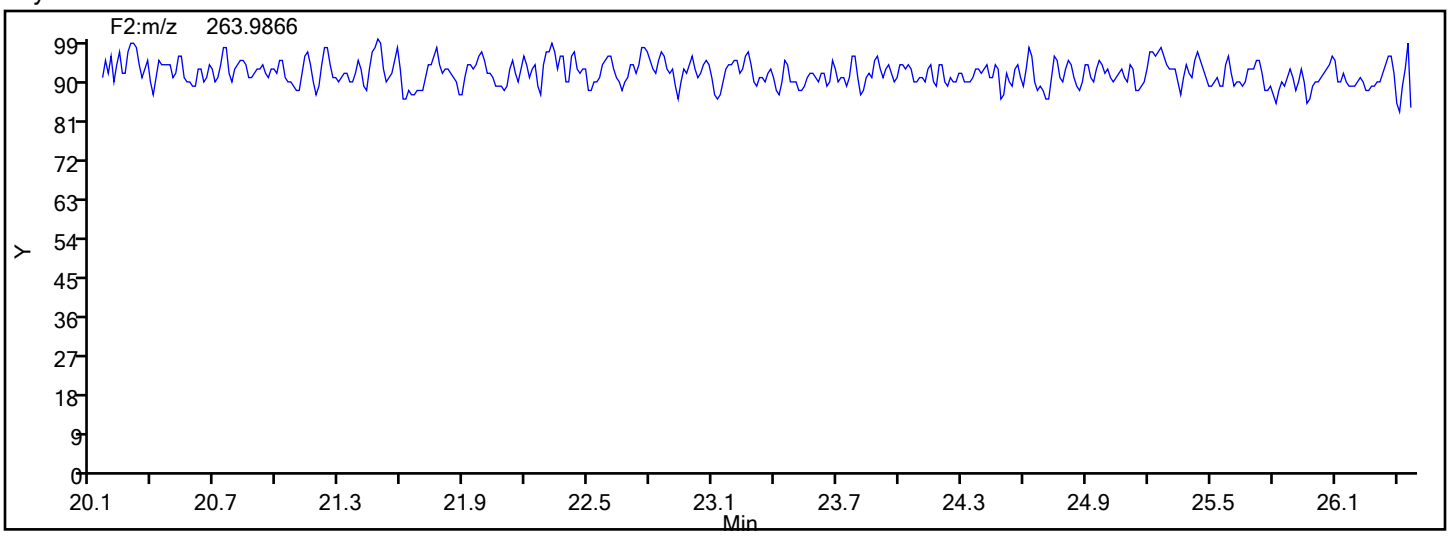
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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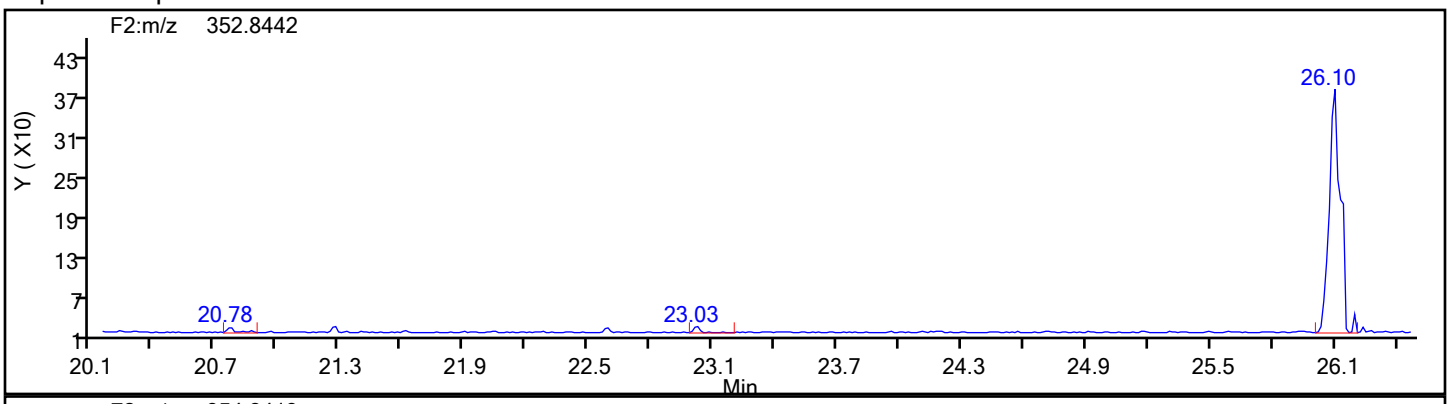
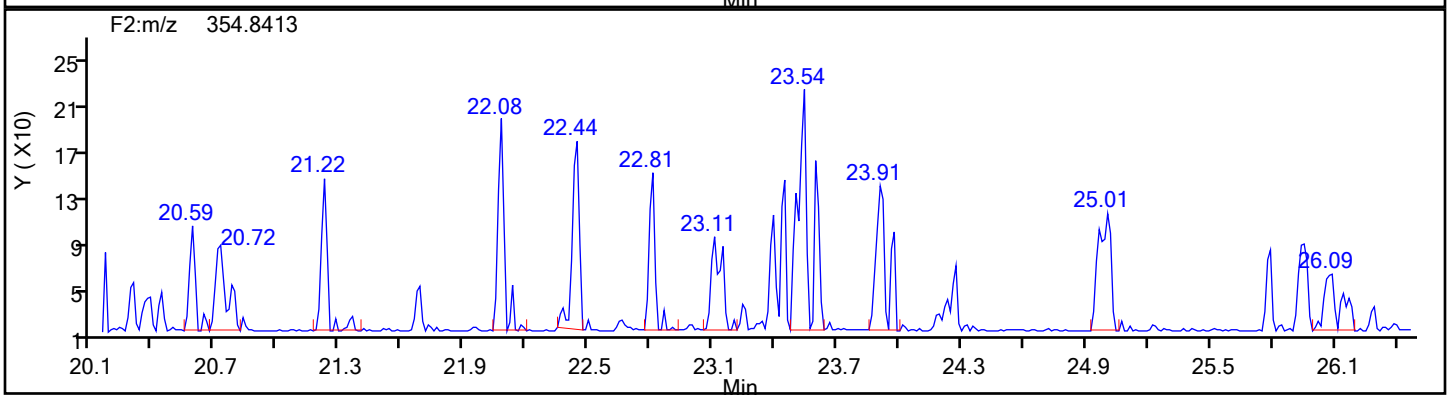
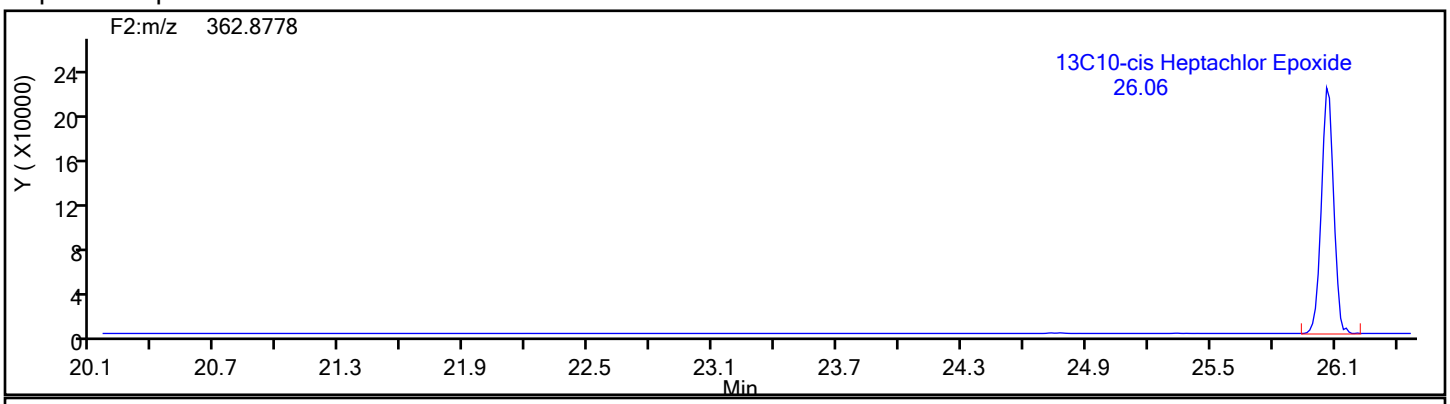
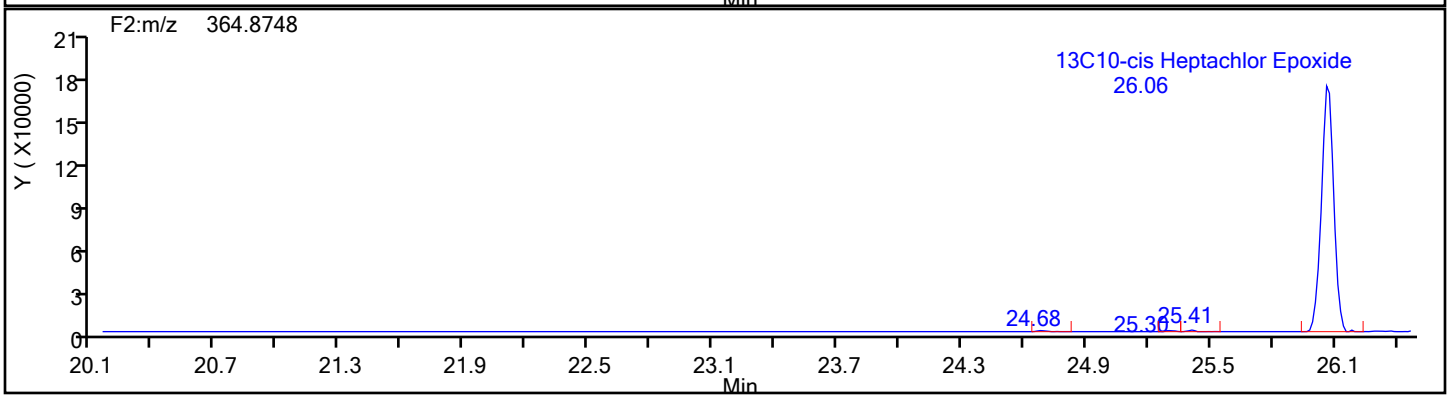
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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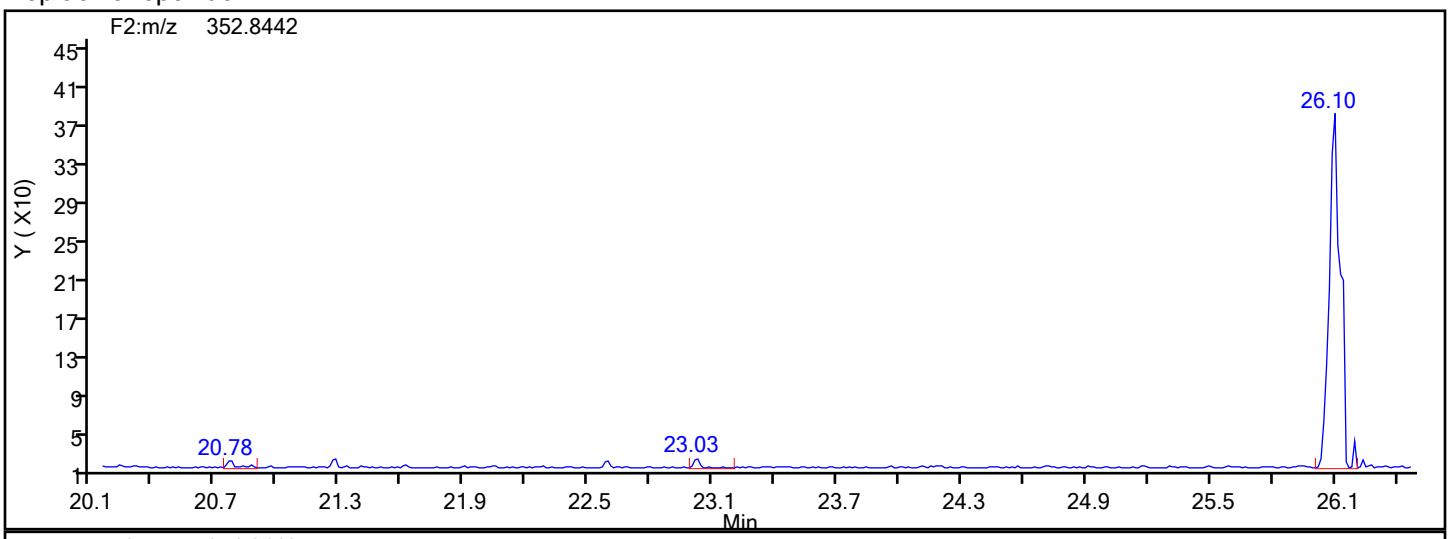
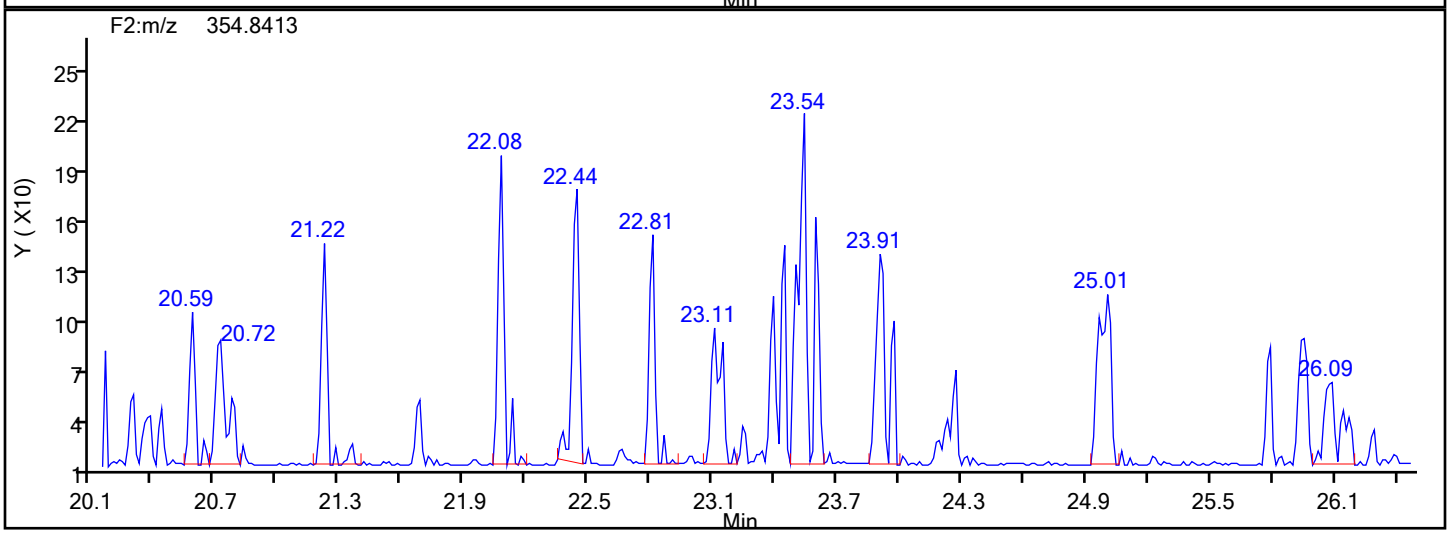
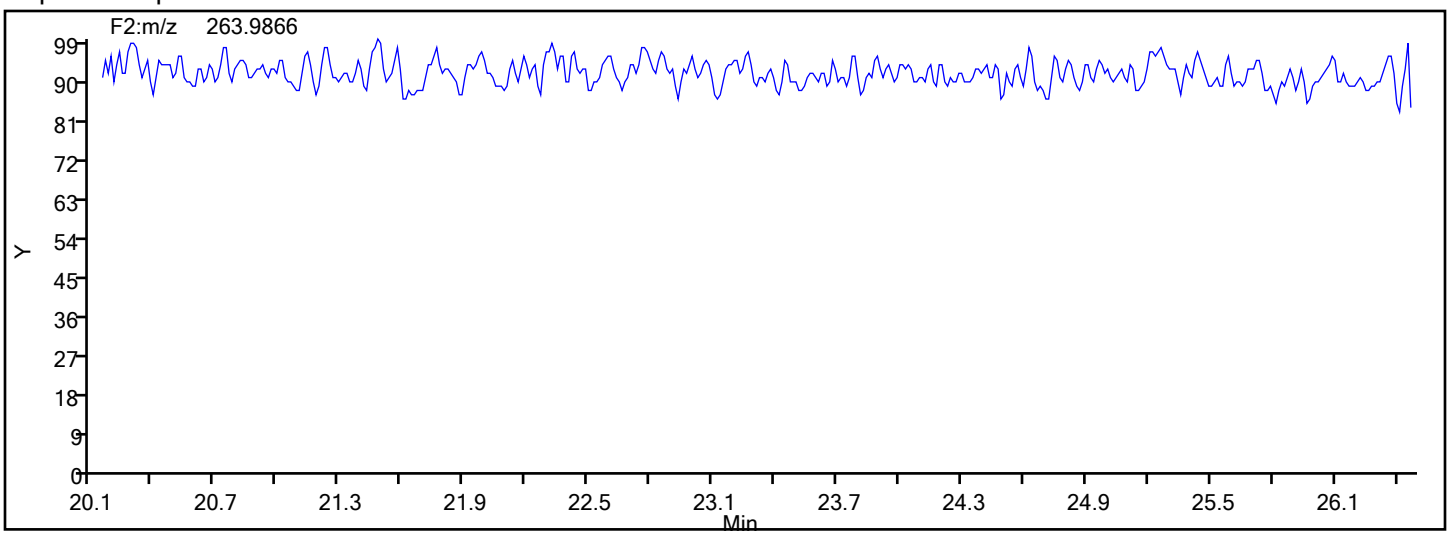
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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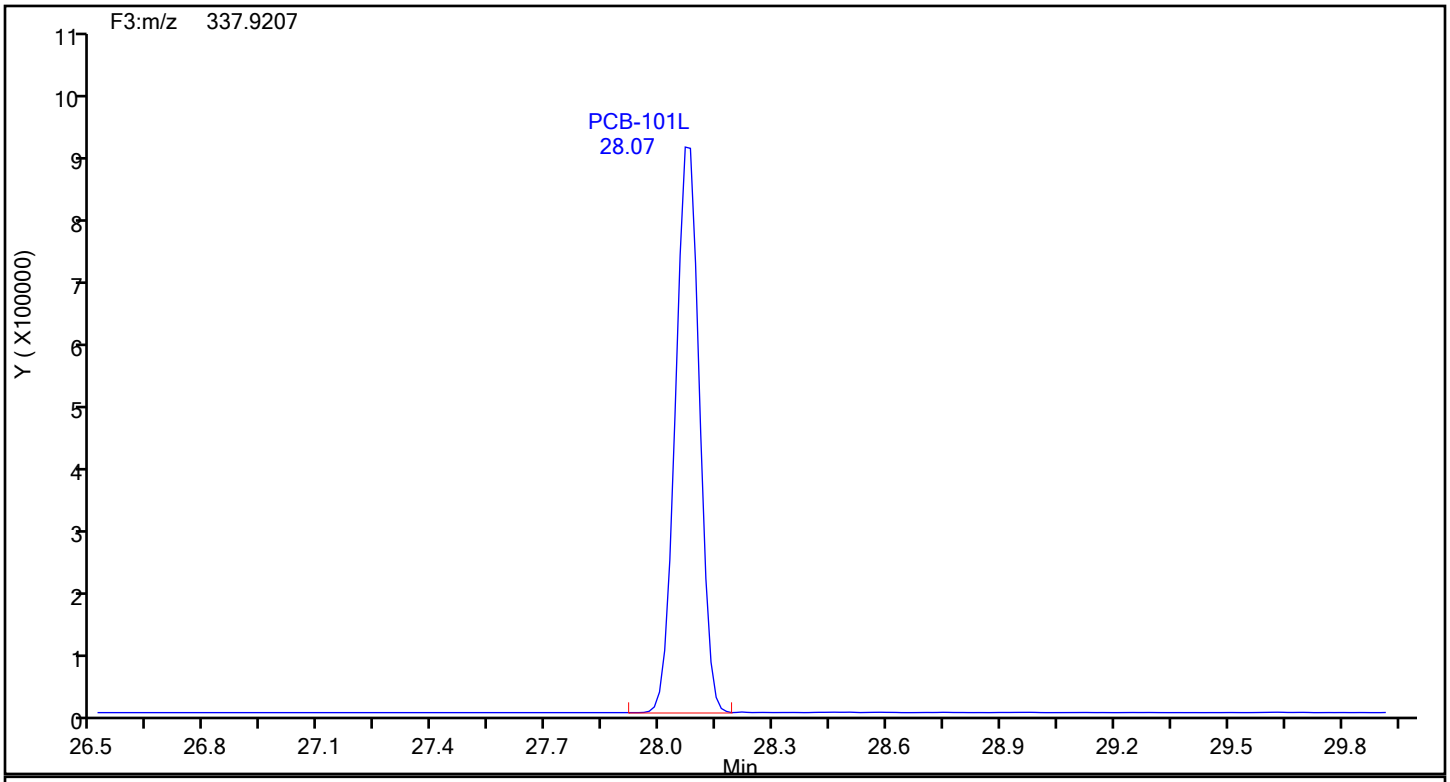
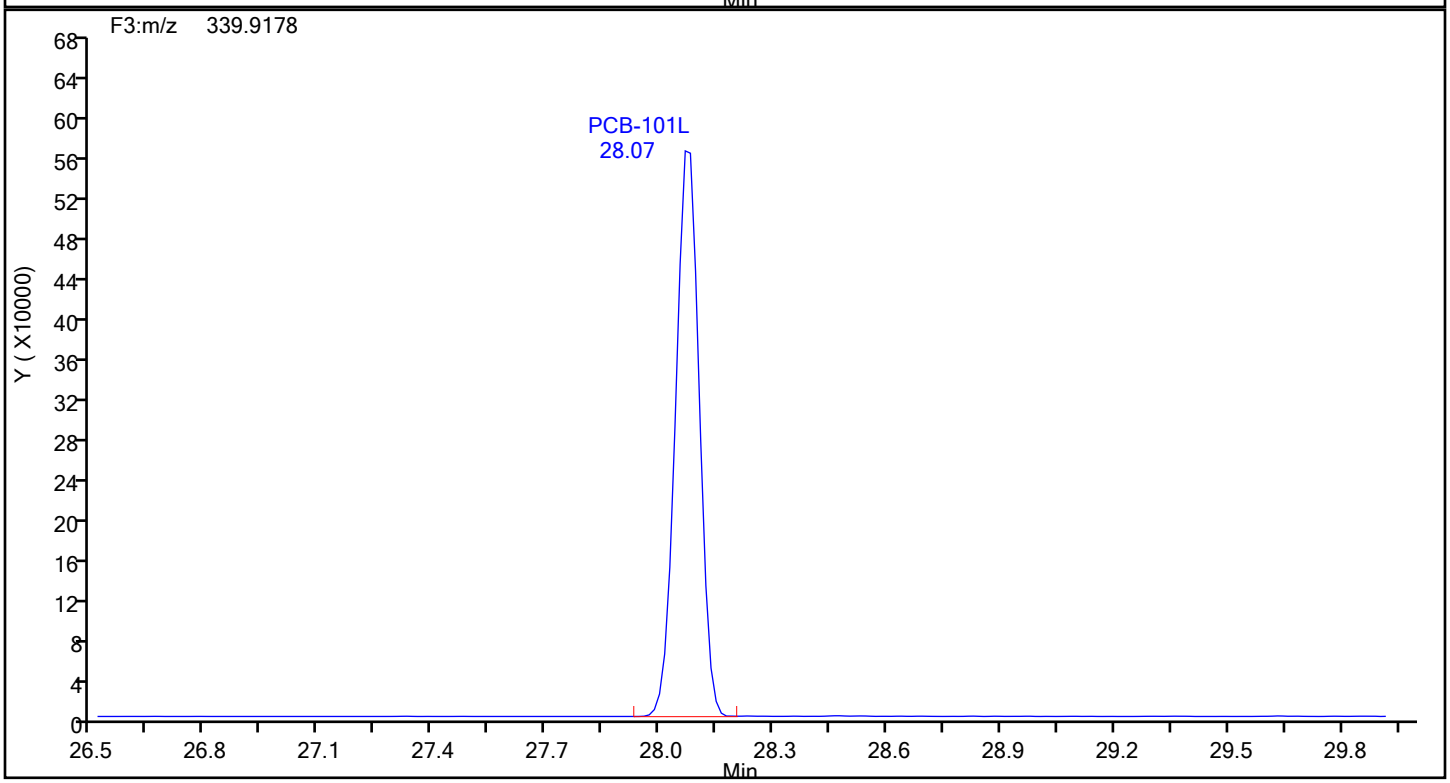
PCB-101L Standards





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Eurofins Knoxville

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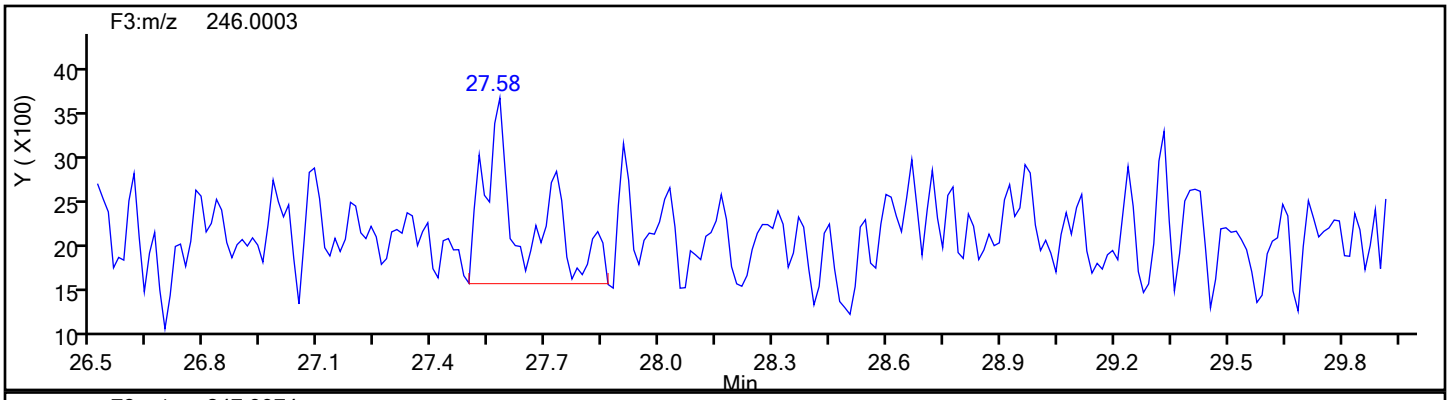
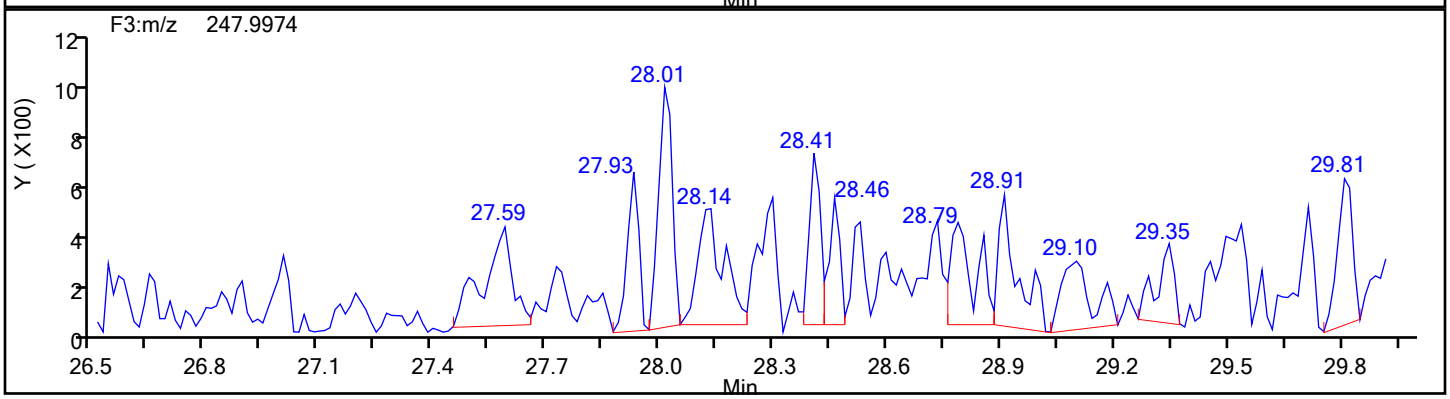
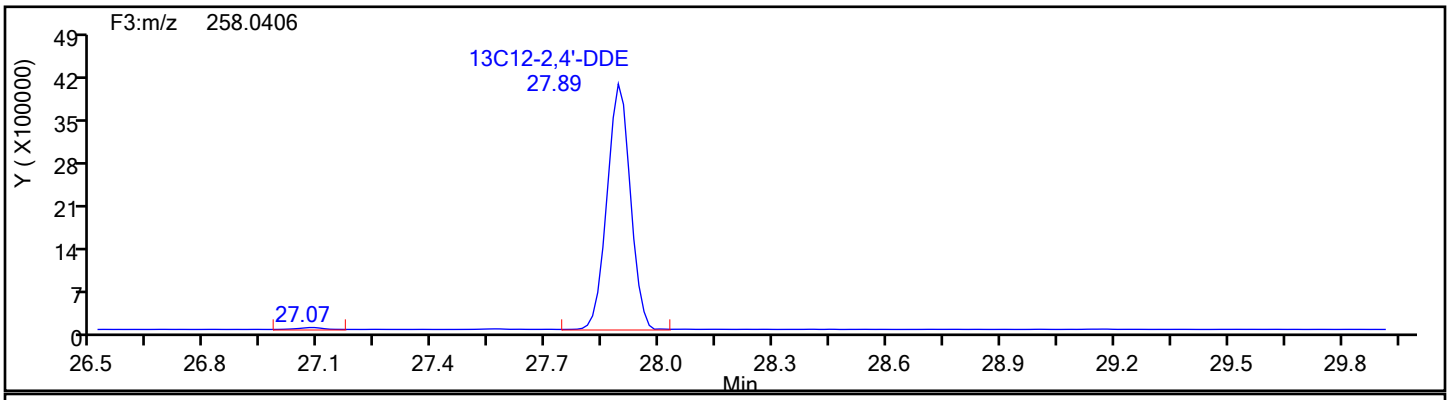
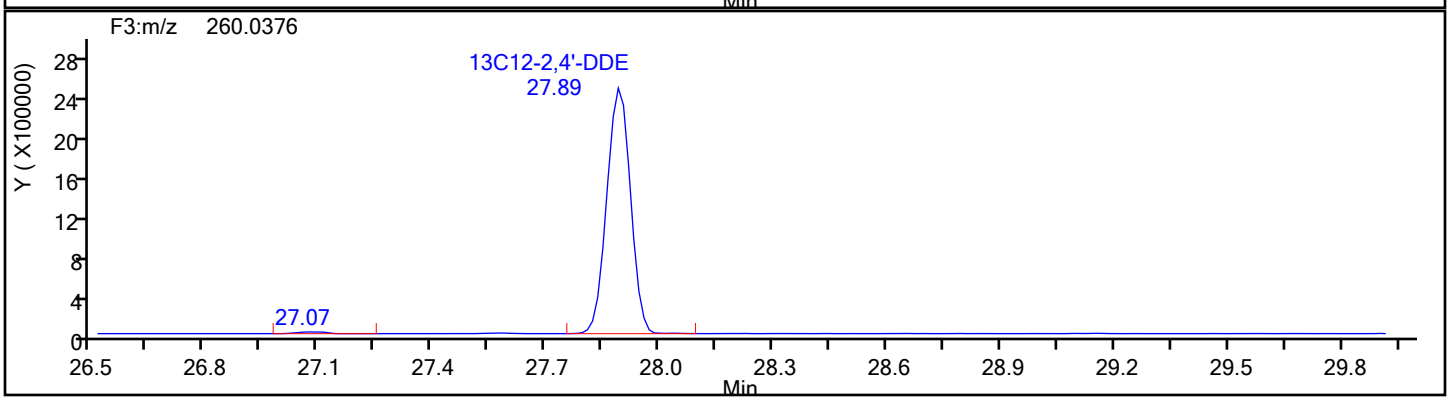
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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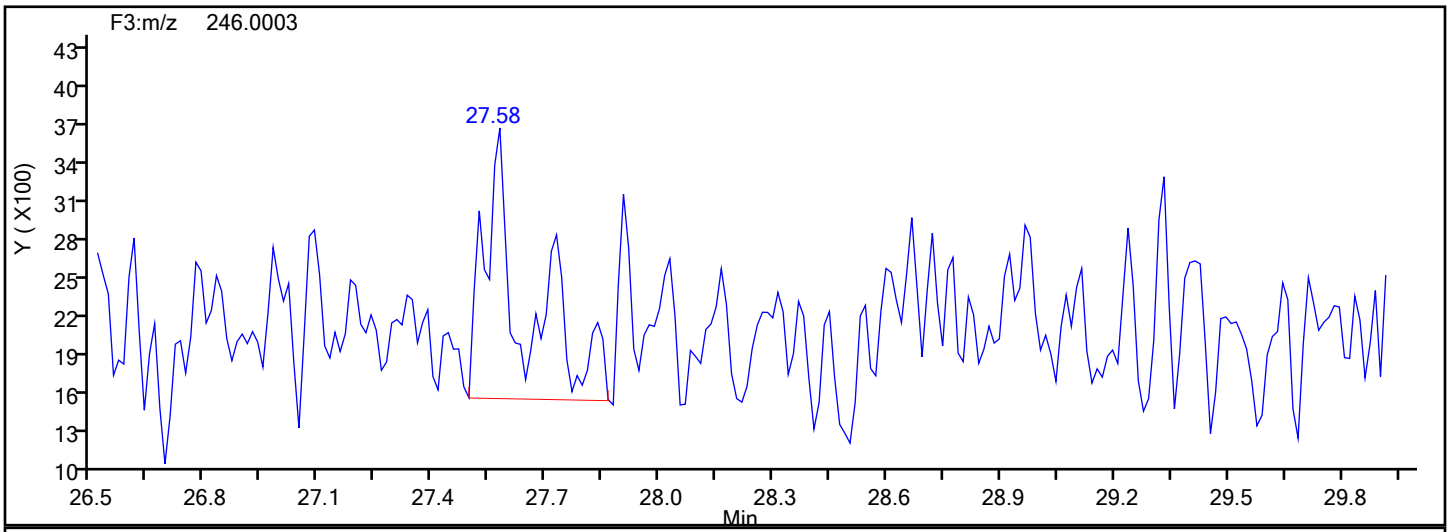
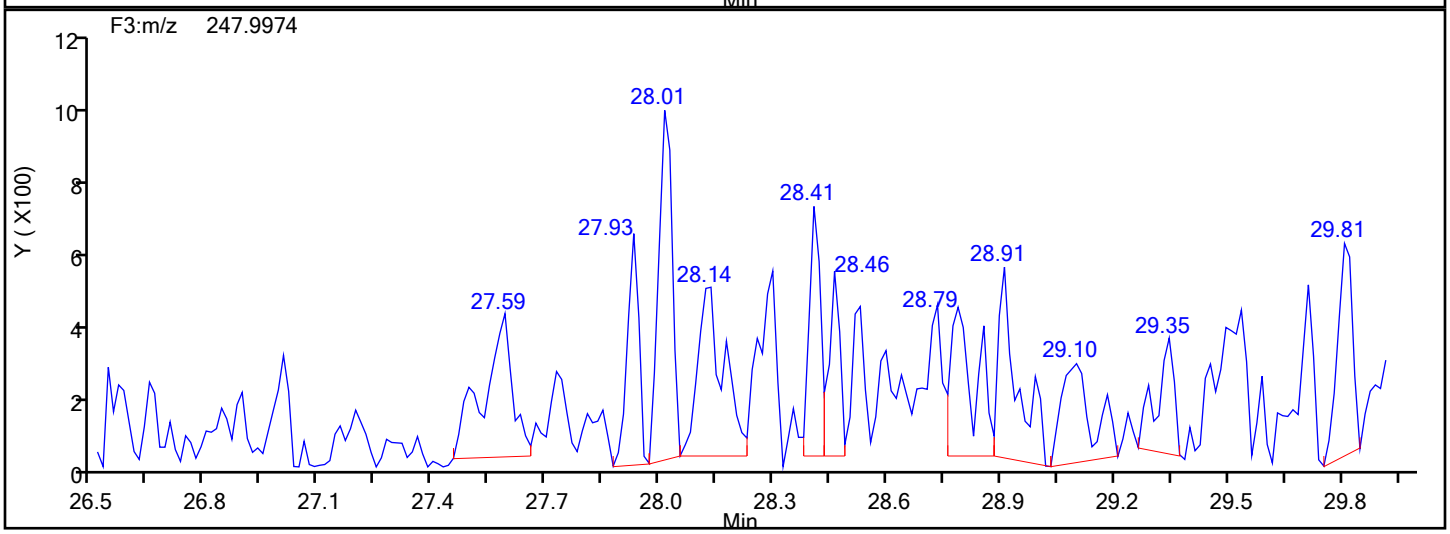
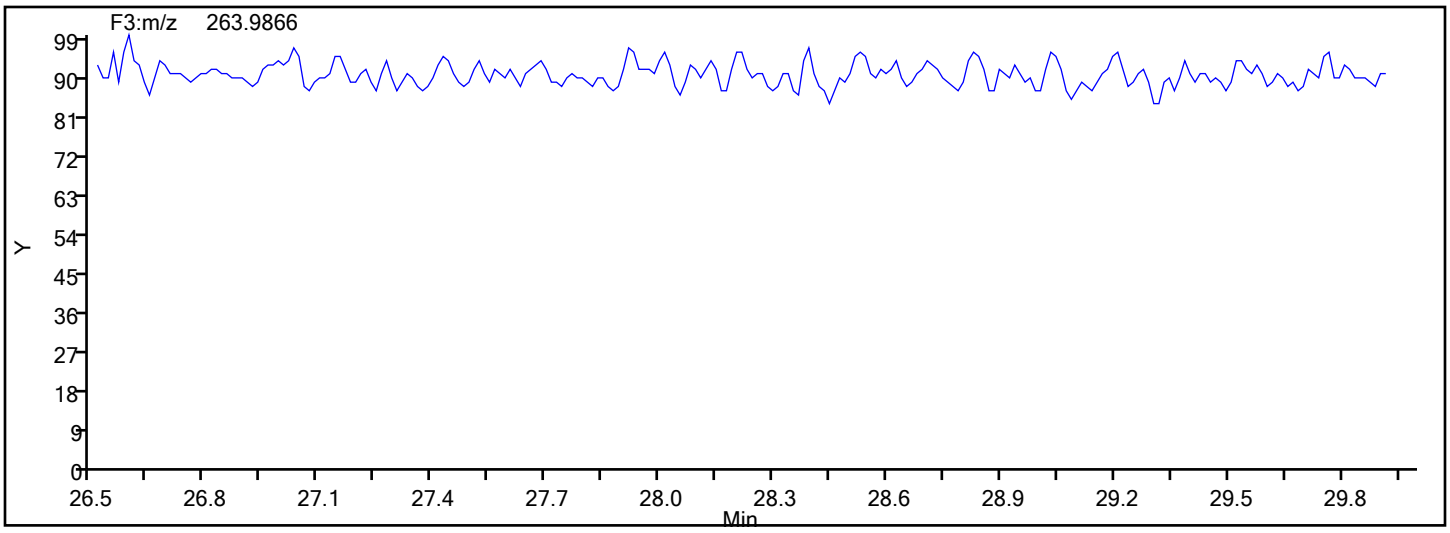
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
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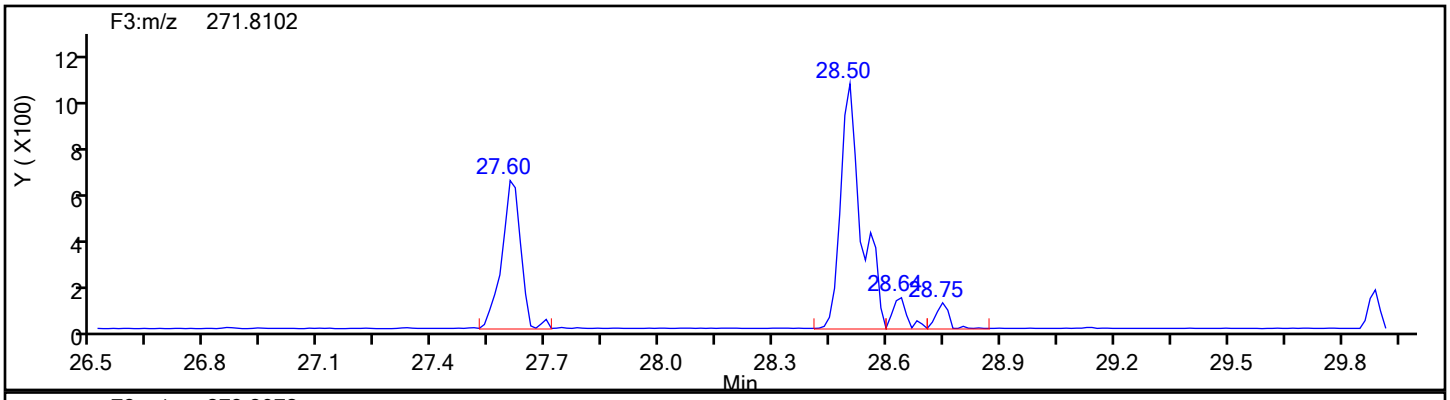
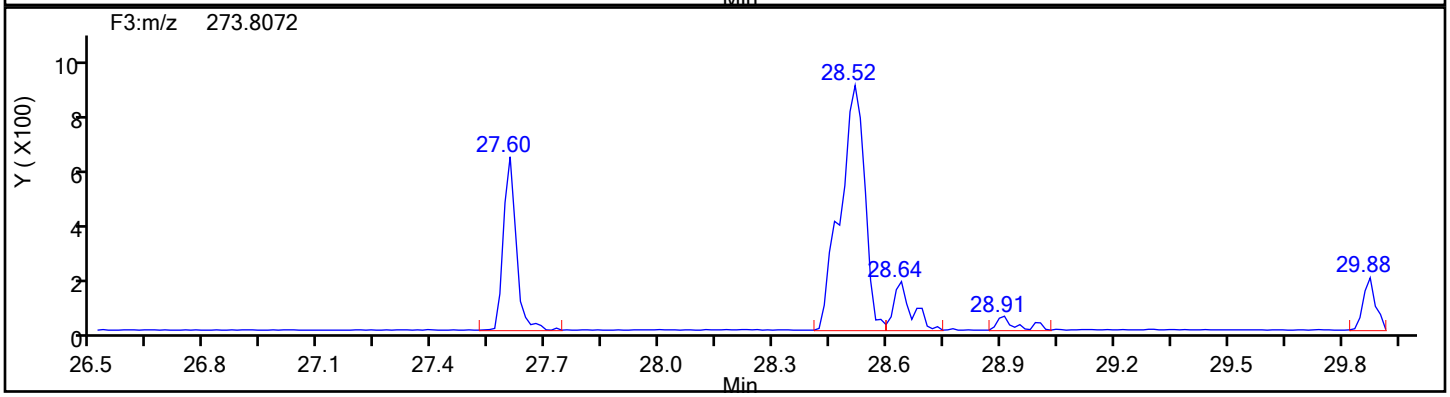
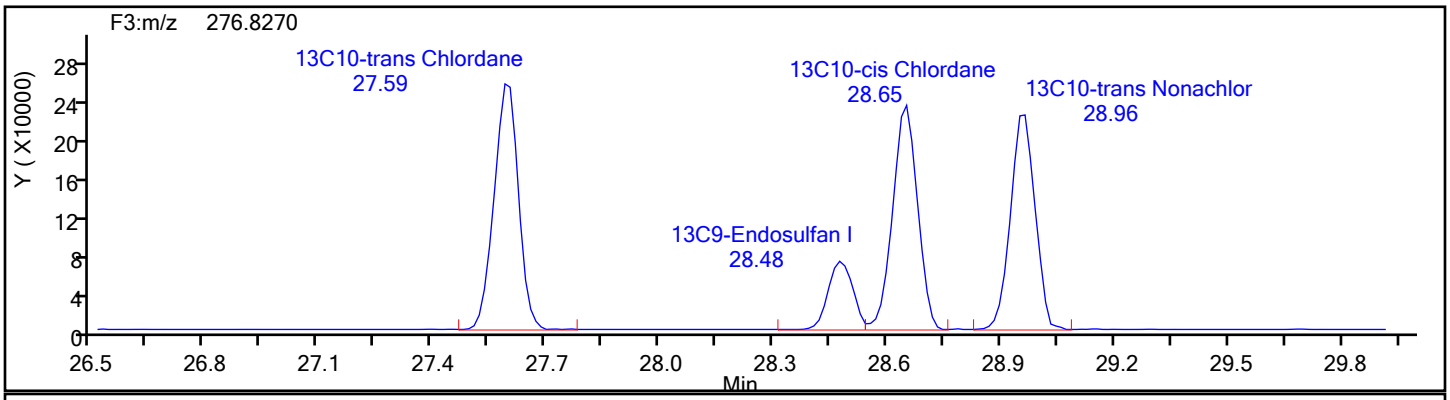
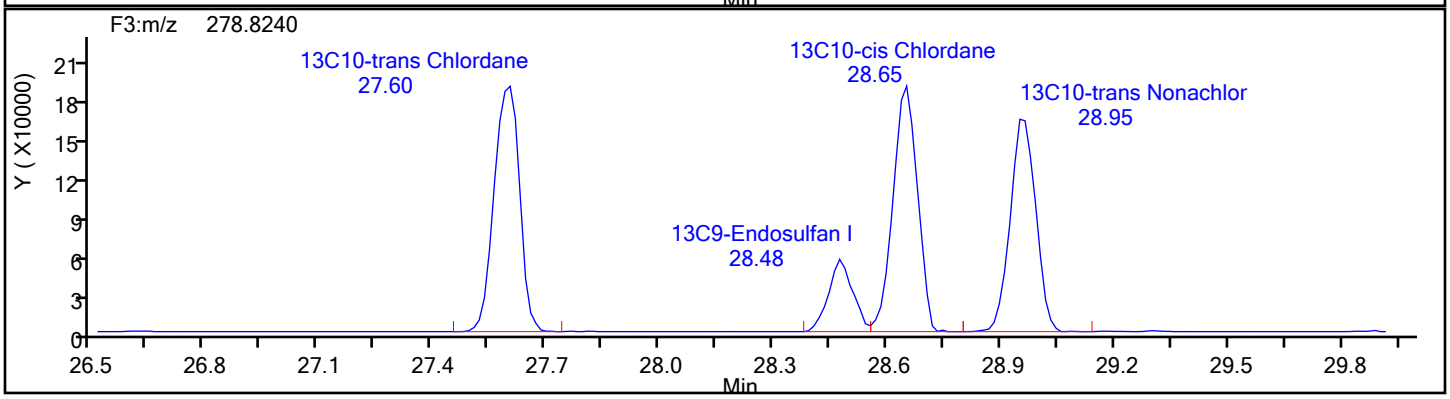
Chlordane





Chlordane Standards





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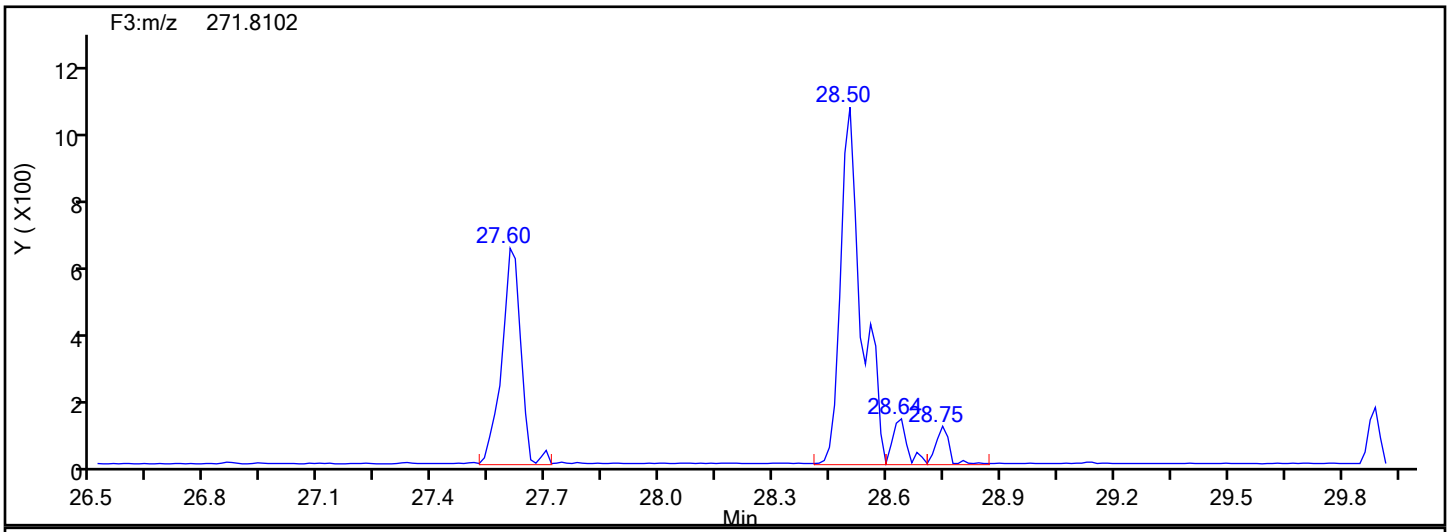
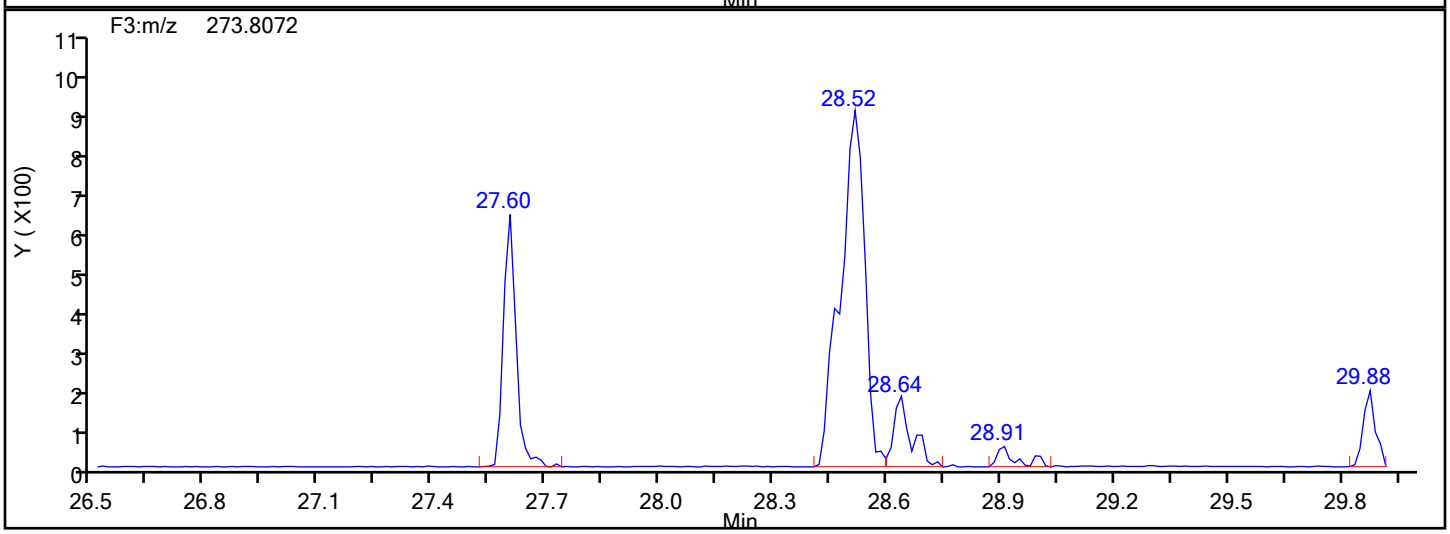
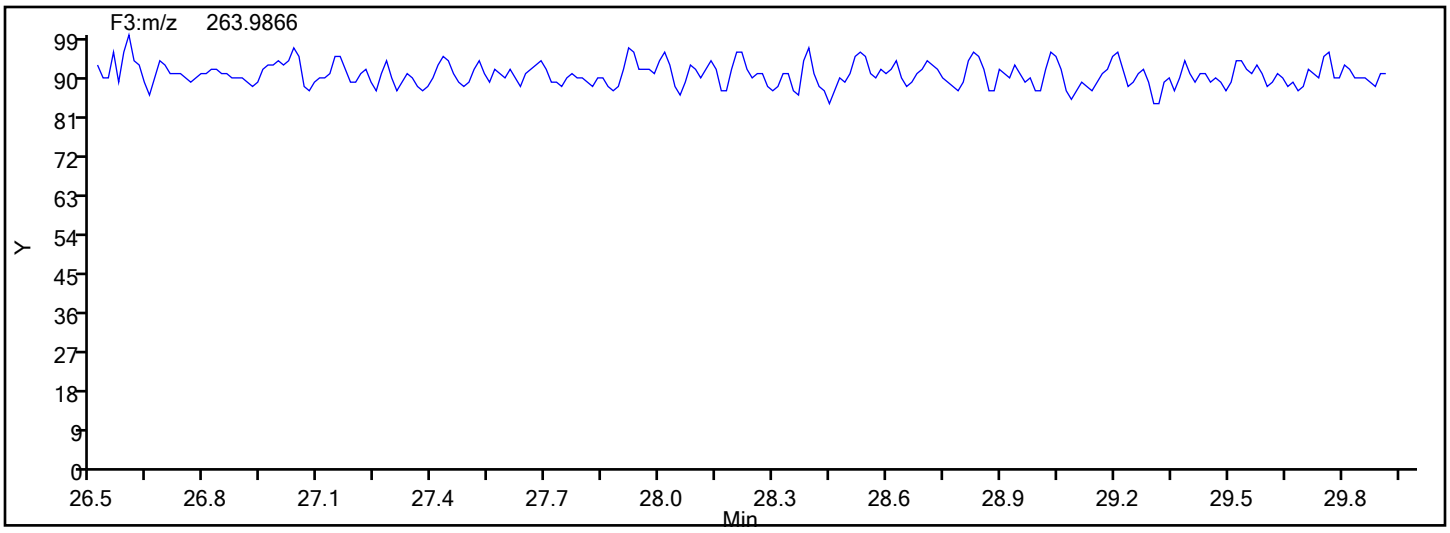
Chlordane





Chlordane Lock Mass



Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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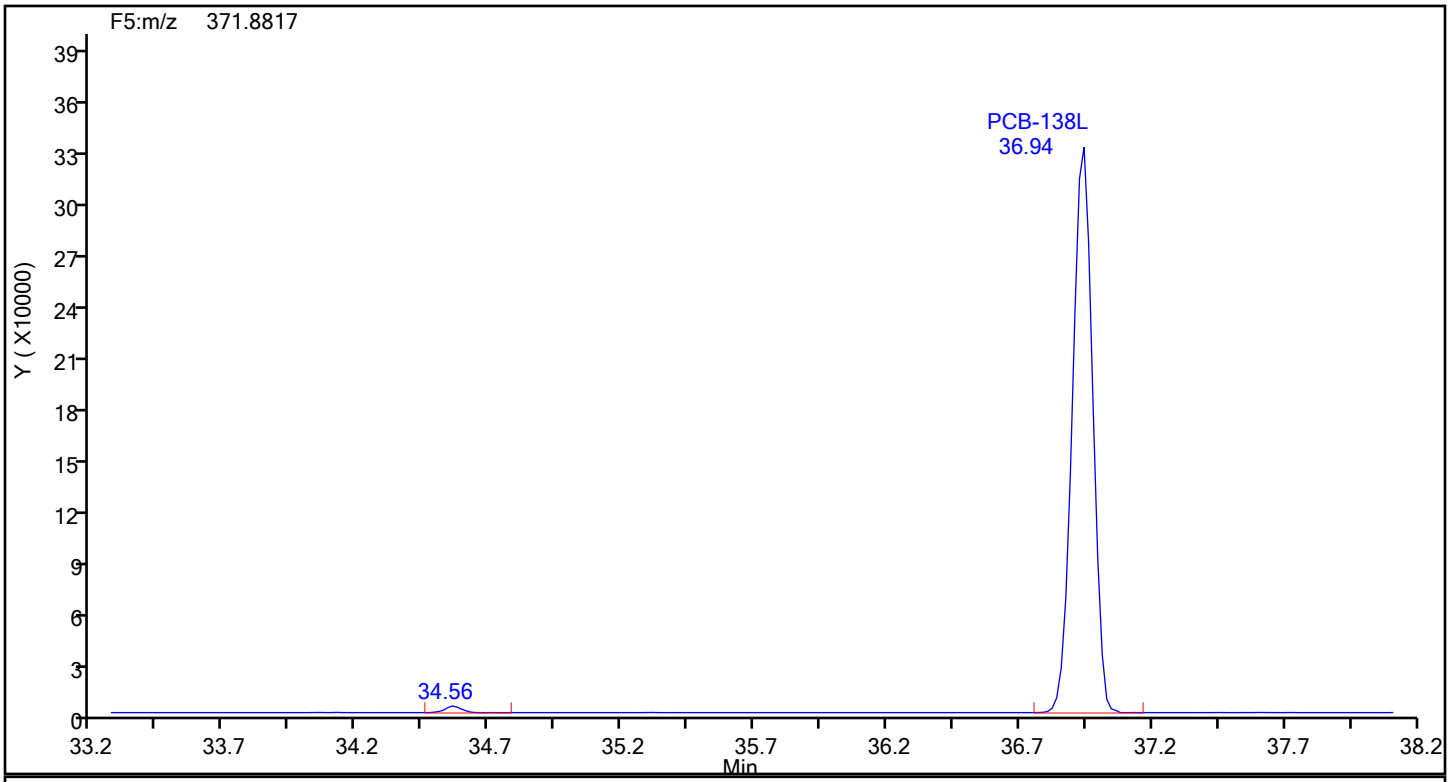
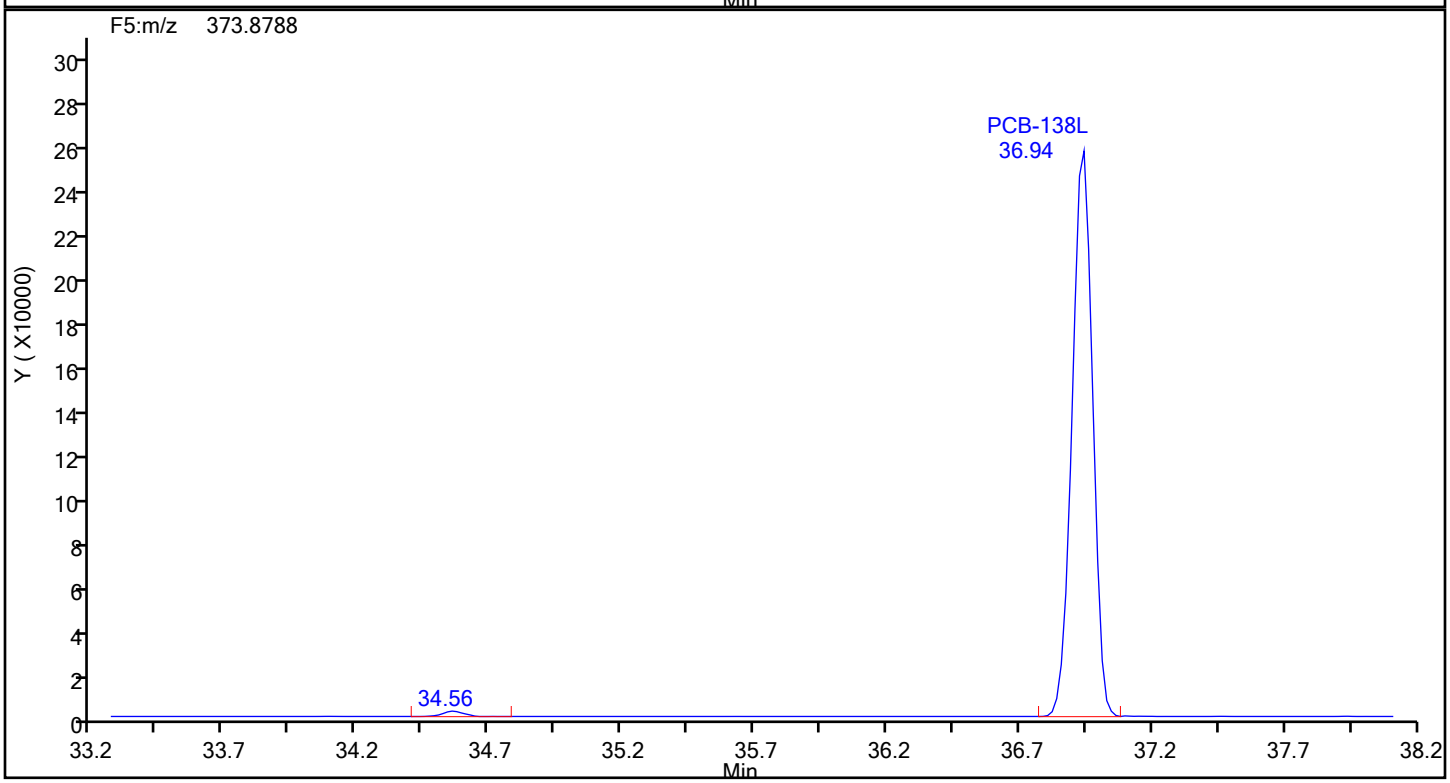
PCB-138L Standards





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Eurofins Knoxville

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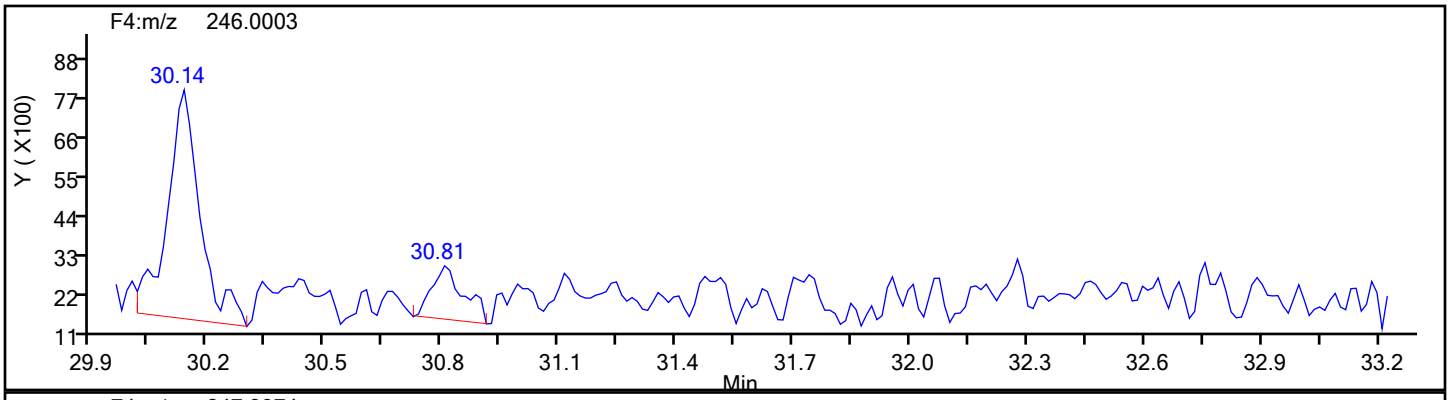
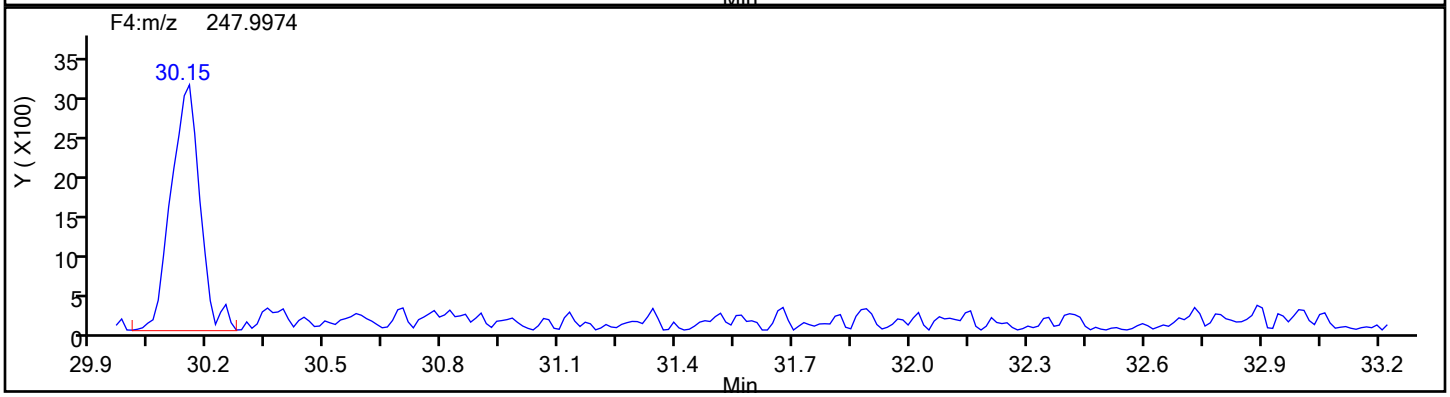
4,4'-DDE





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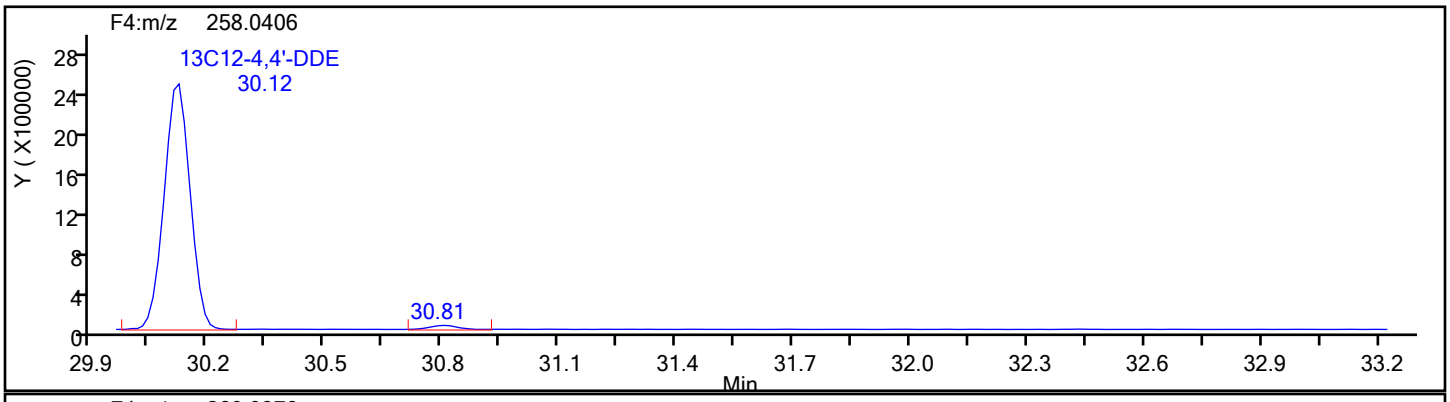

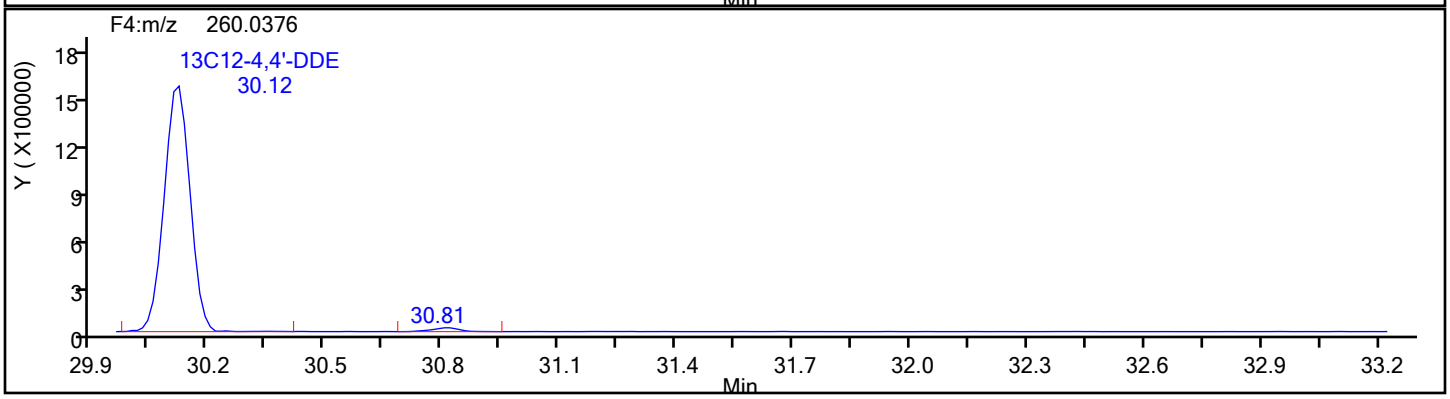

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Eurofins Knoxville

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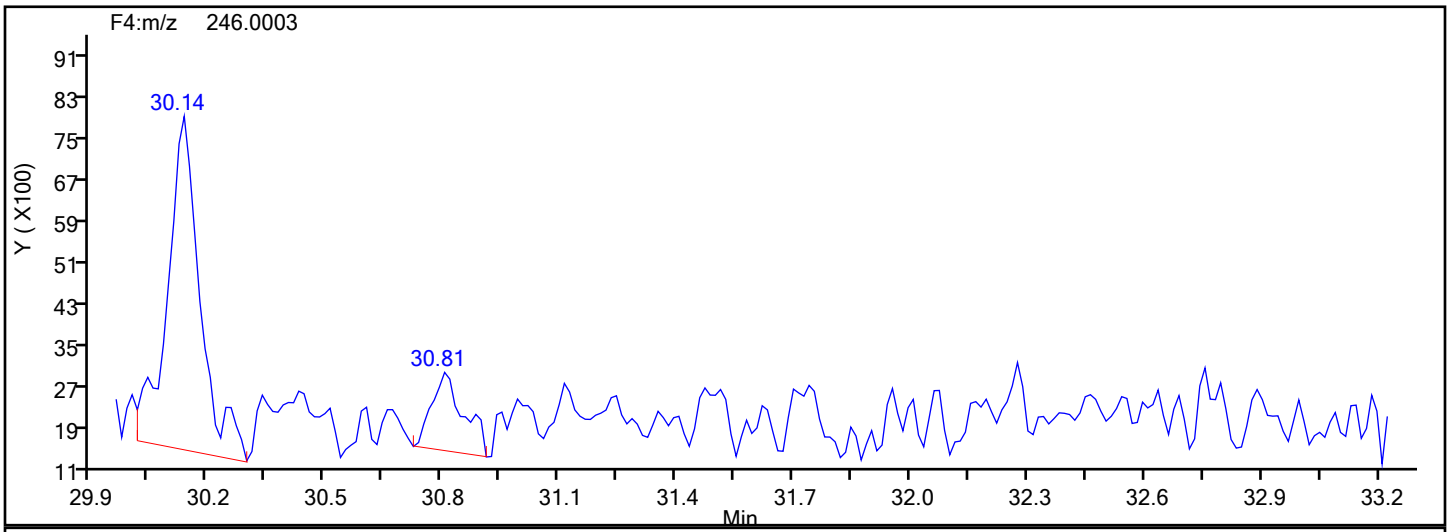
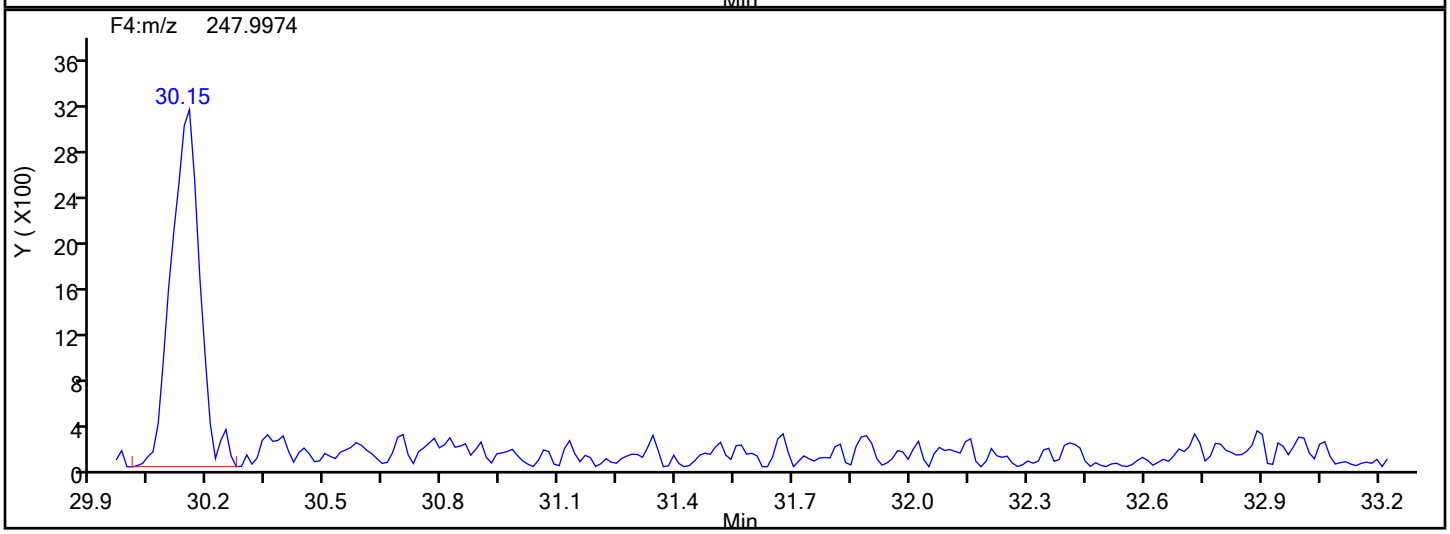
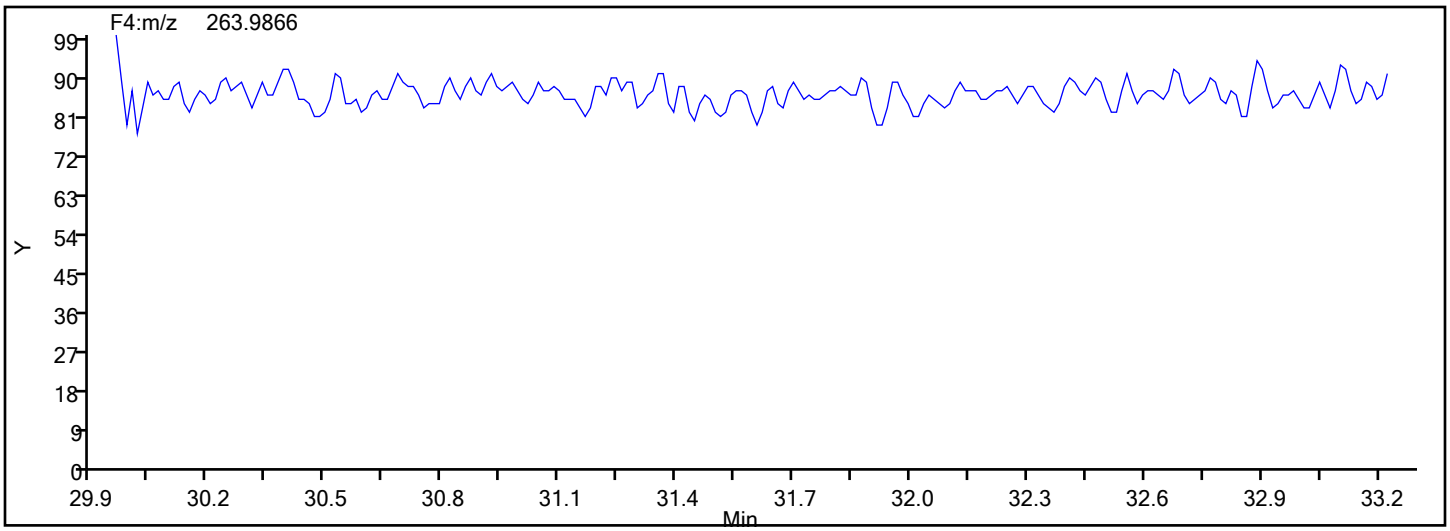
4,4'-DDE





4,4'-DDE Lock Mass



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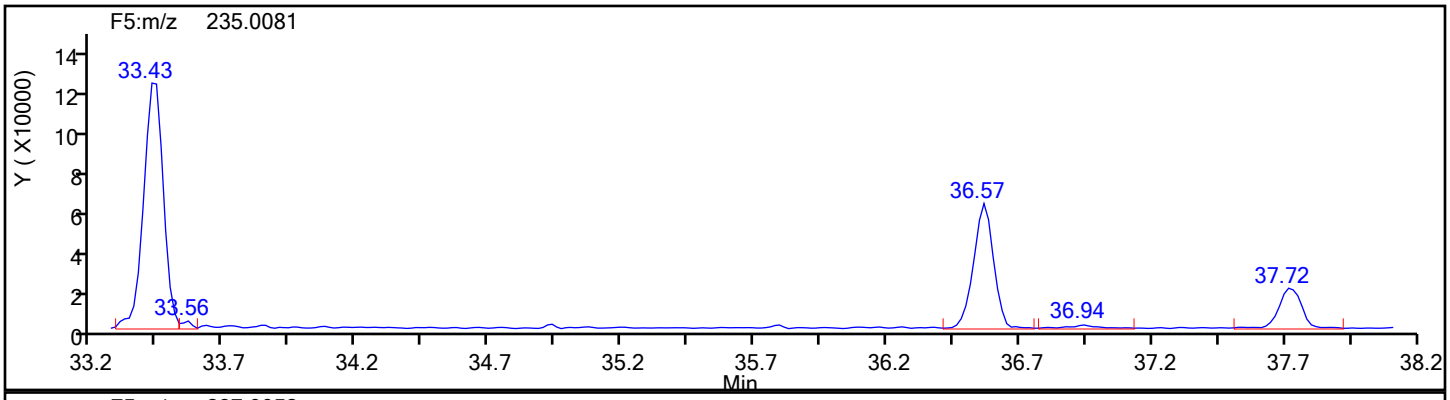
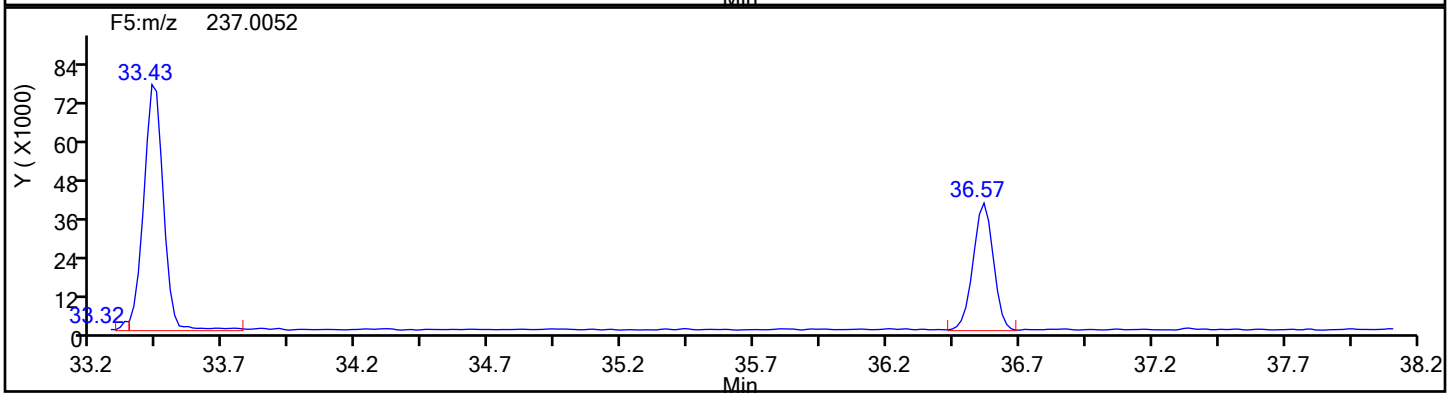
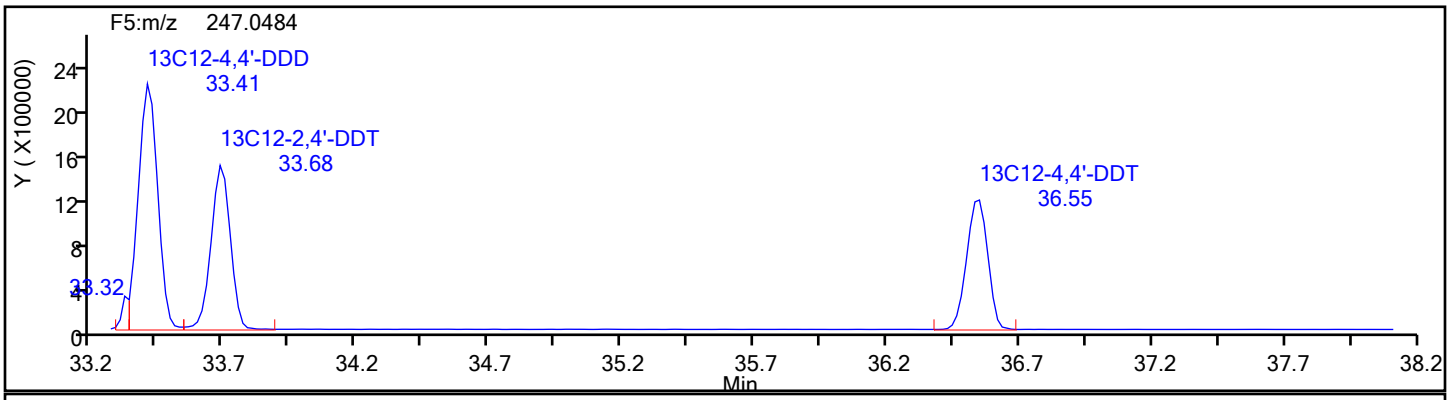
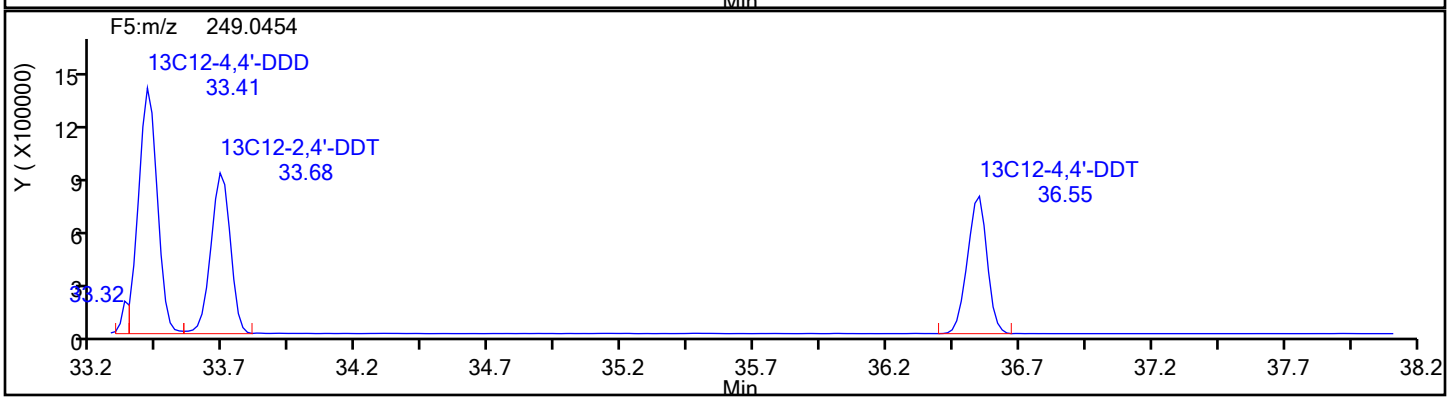




DDD Standards





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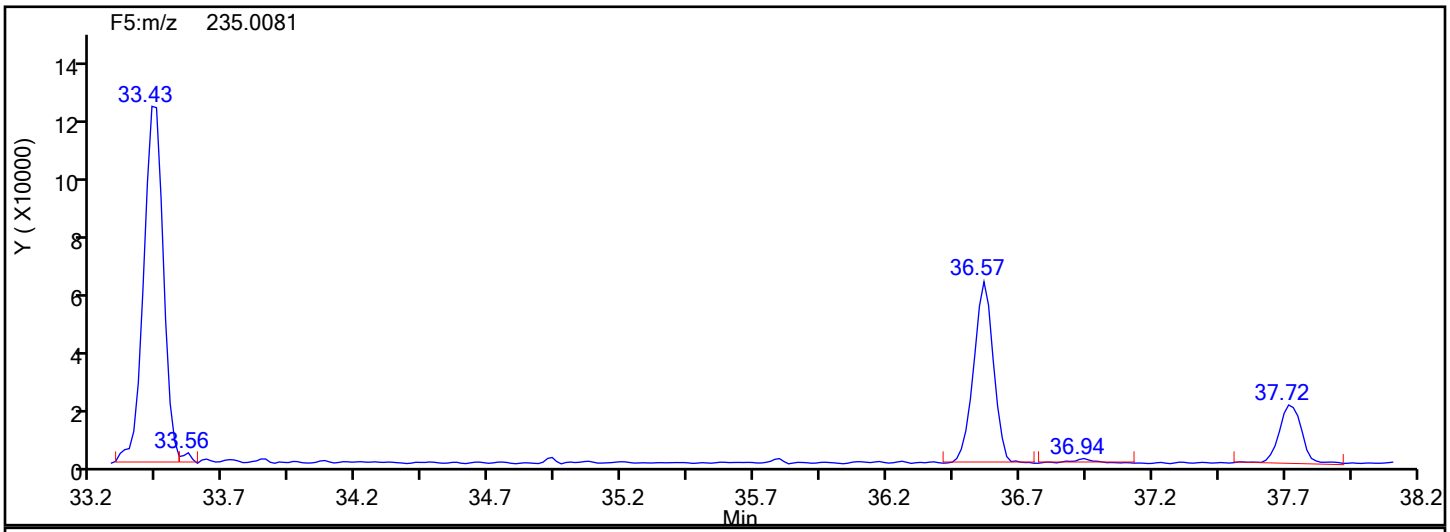
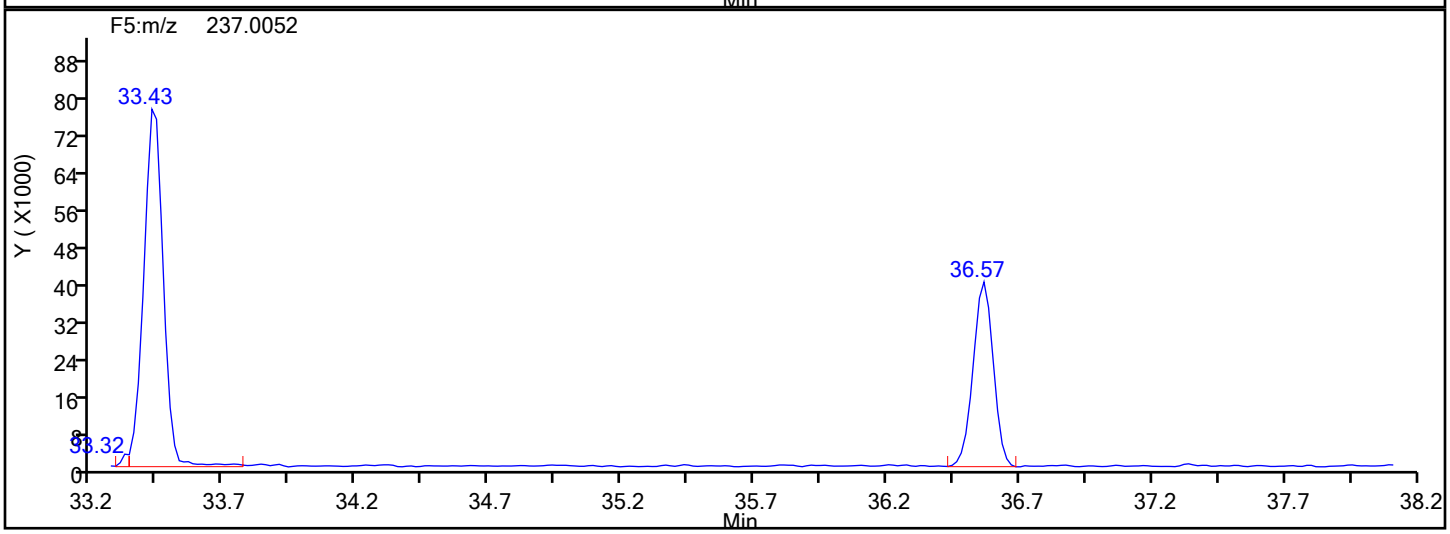
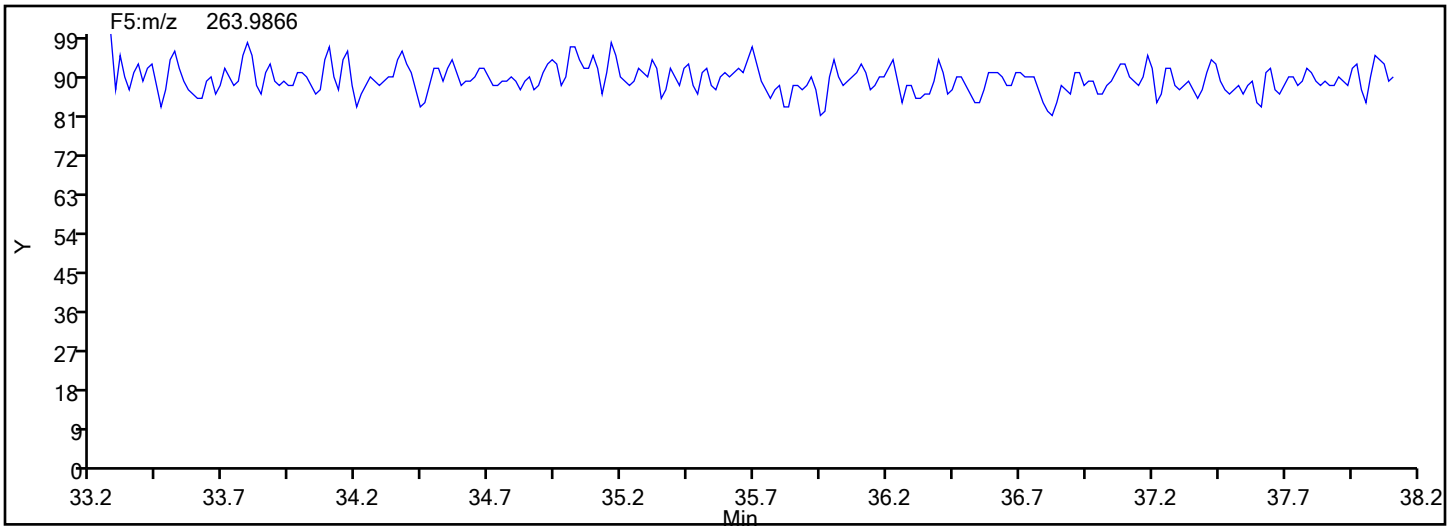




DDD Lock Mass



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Eurofins Knoxville

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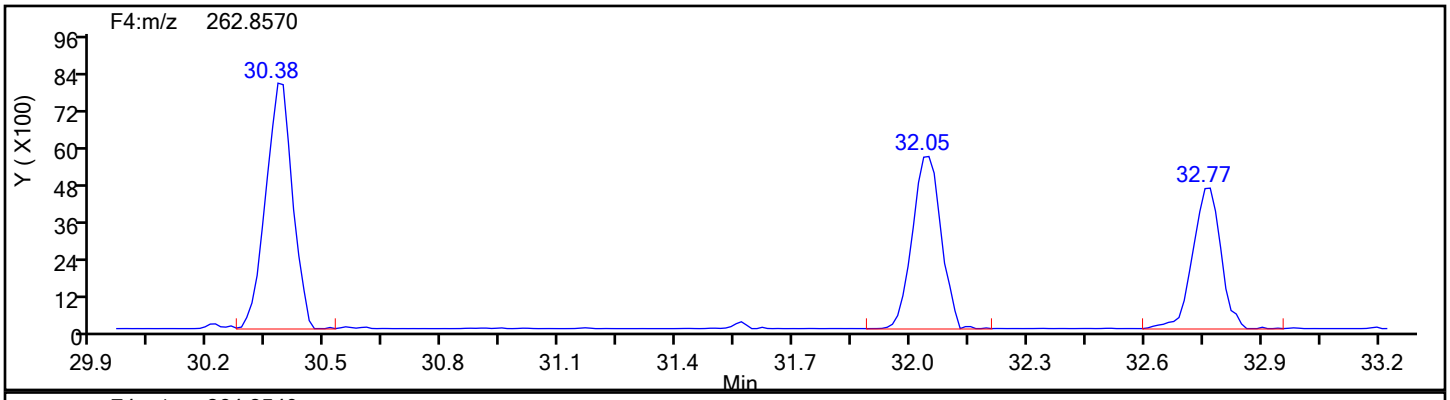

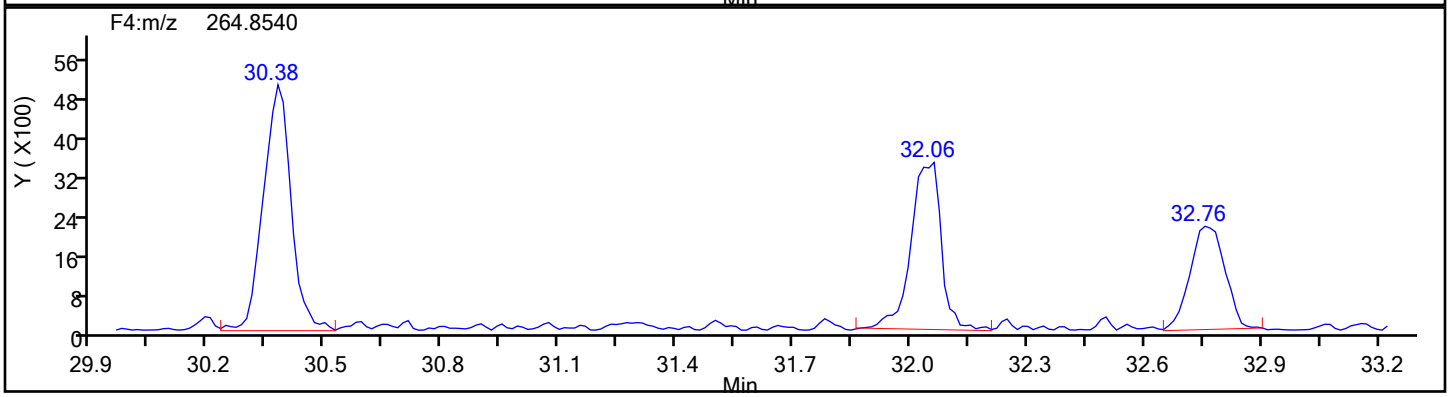

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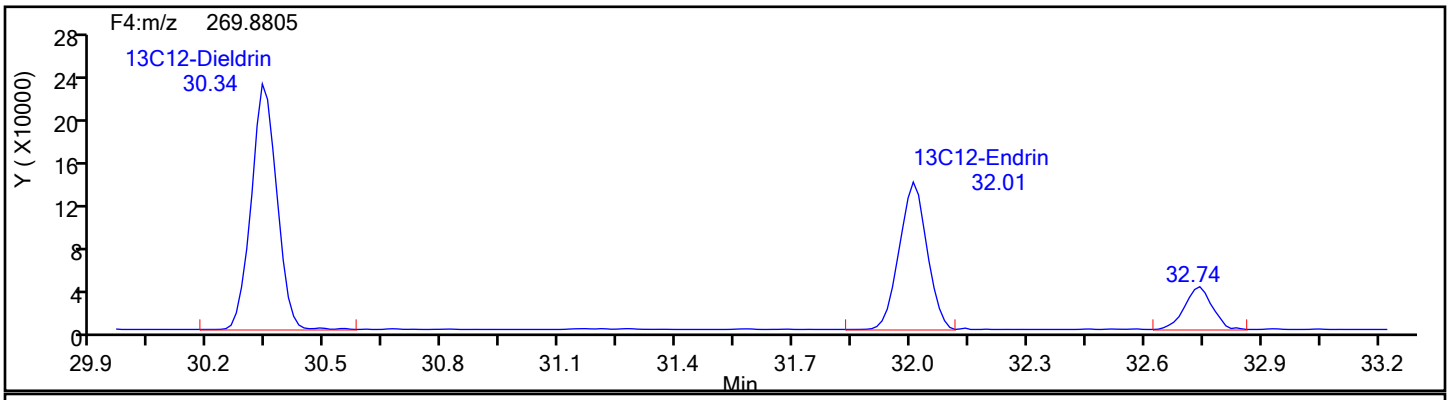

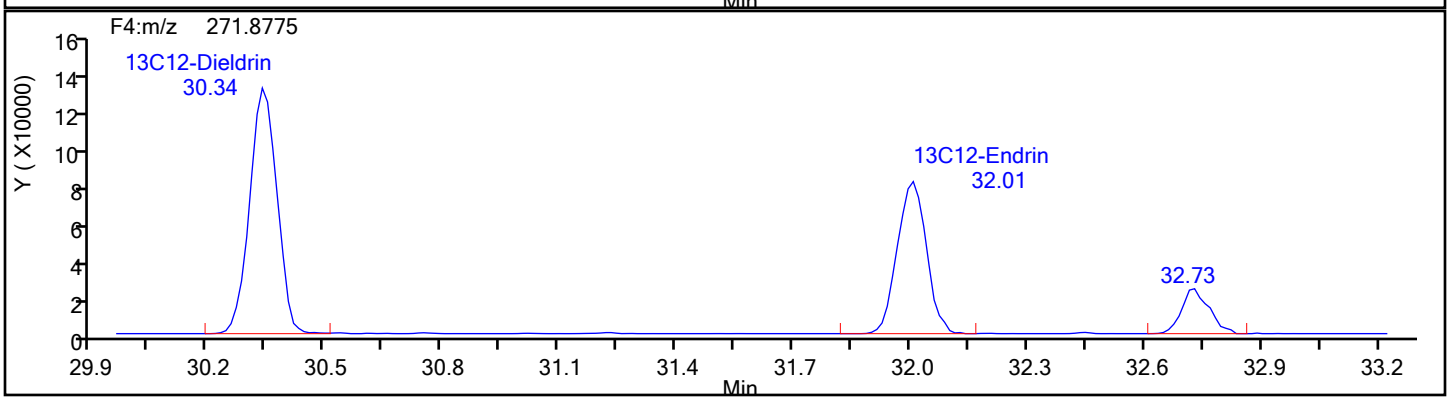

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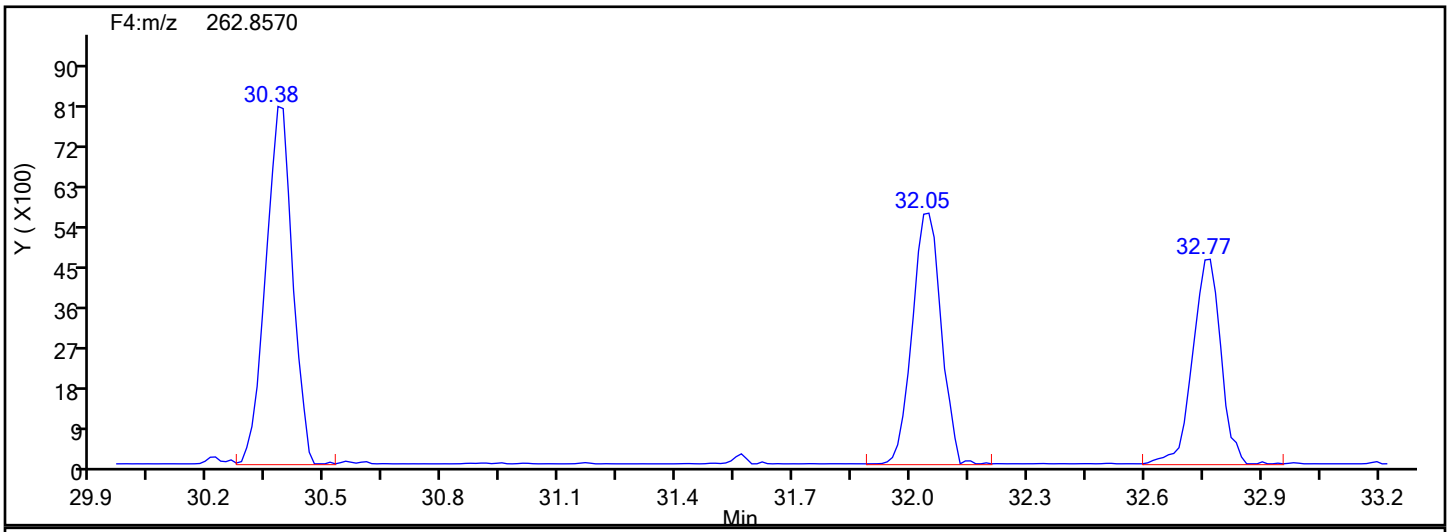
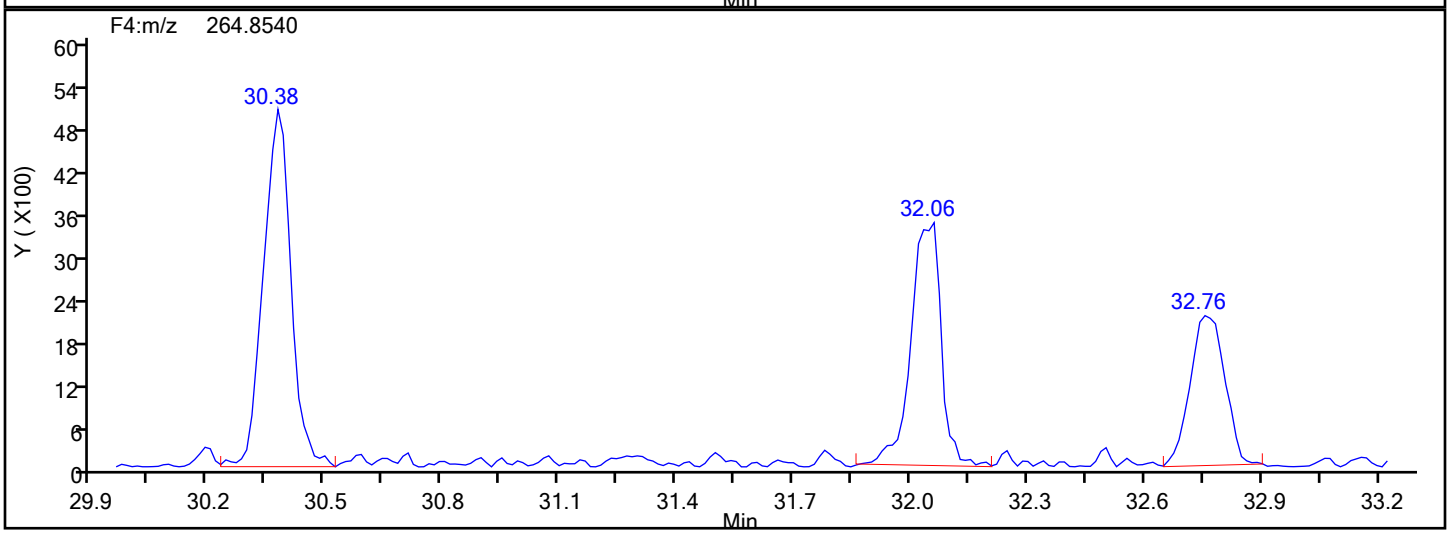
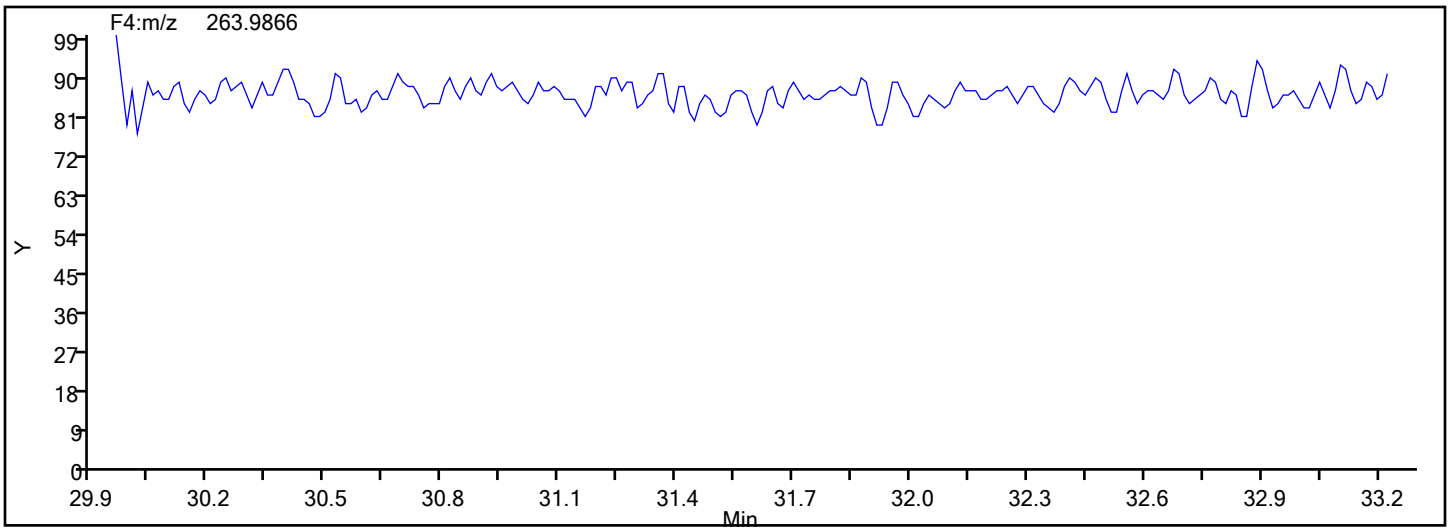




Dieldrin Lock Mass



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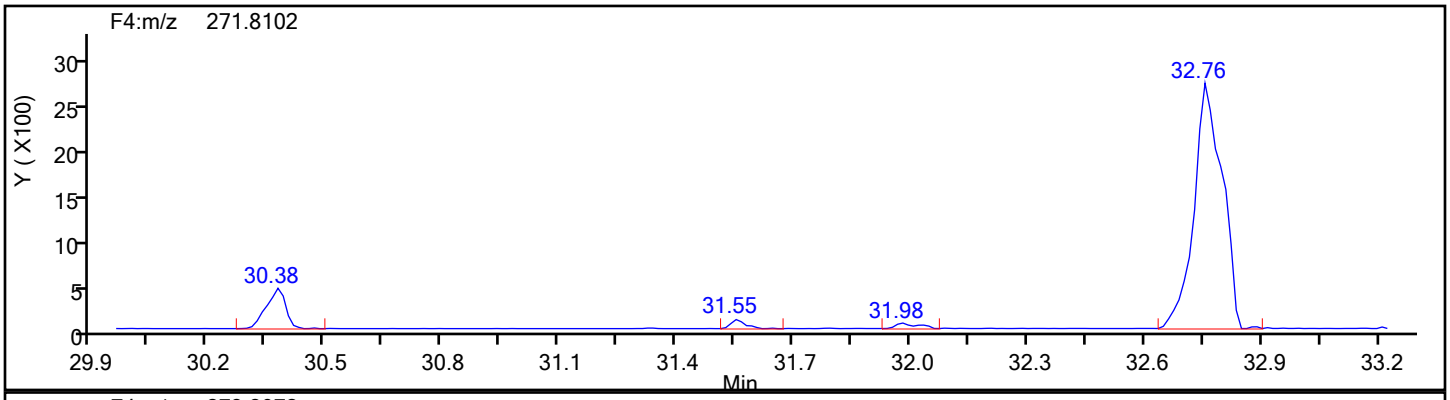
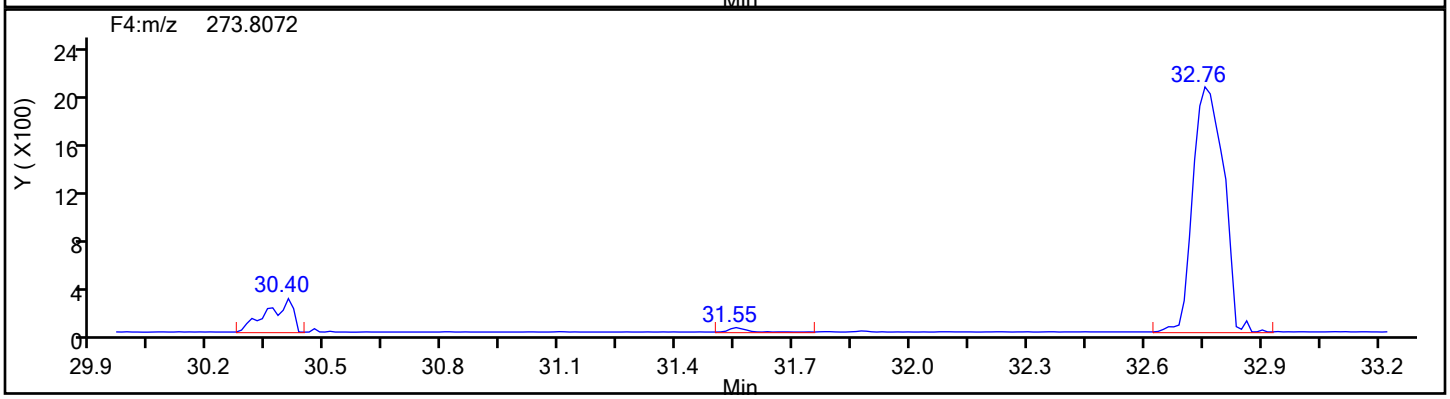
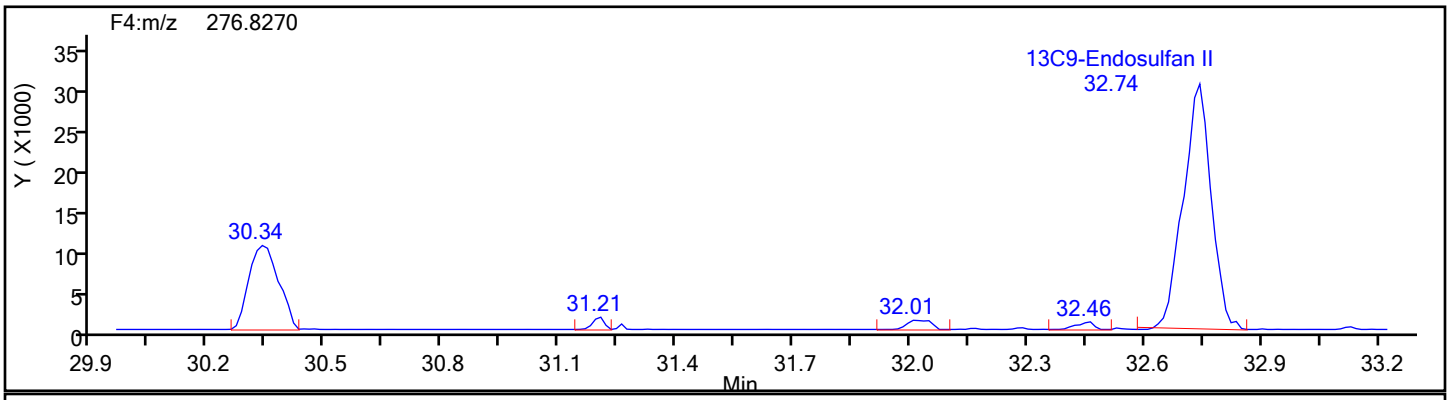
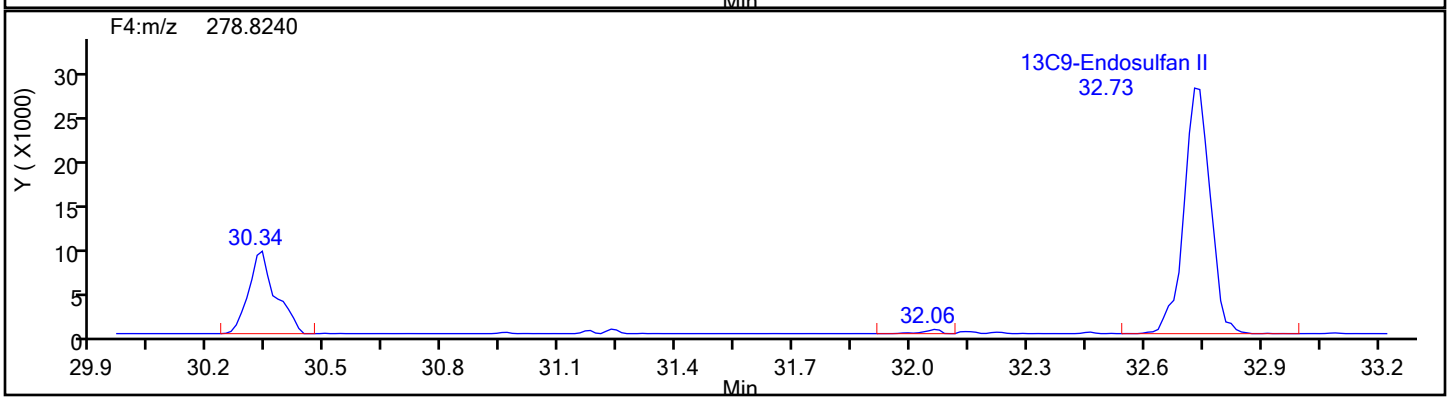
Endosulfan II





Endosulfan II Standards





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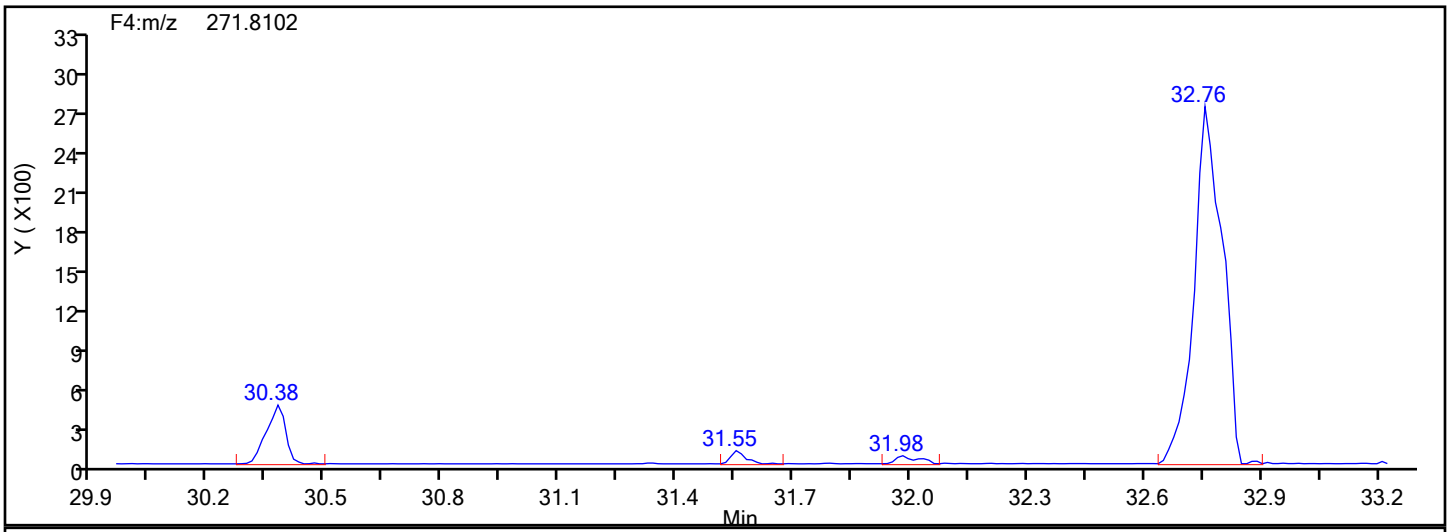
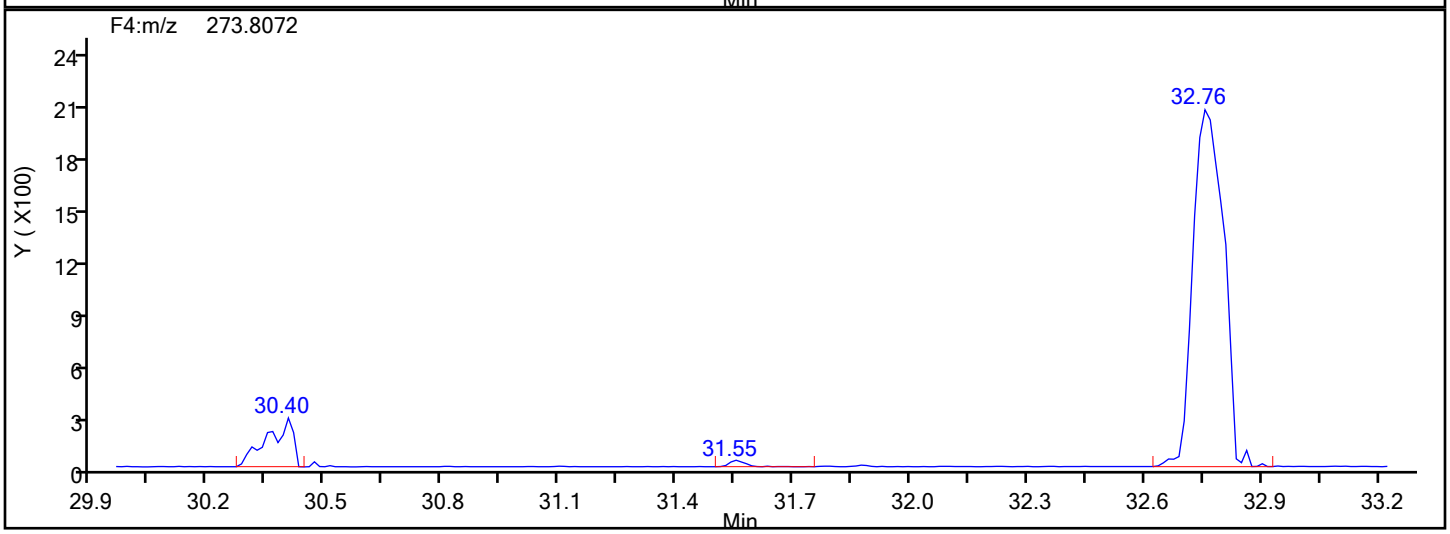
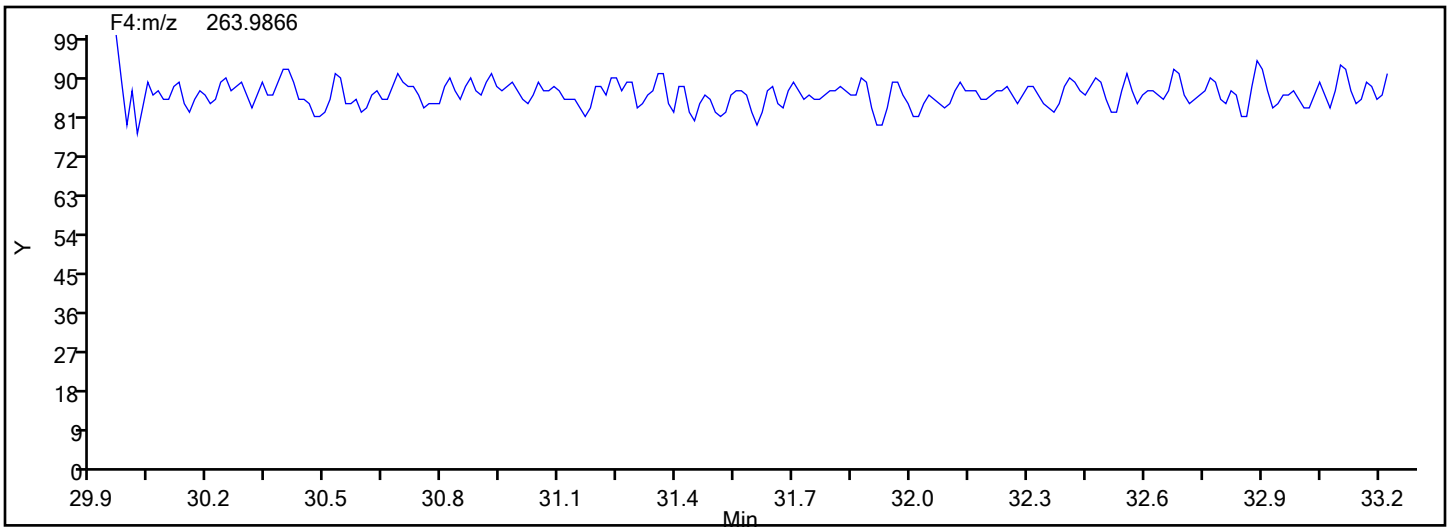




Endosulfan II Lock Mass



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Eurofins Knoxville

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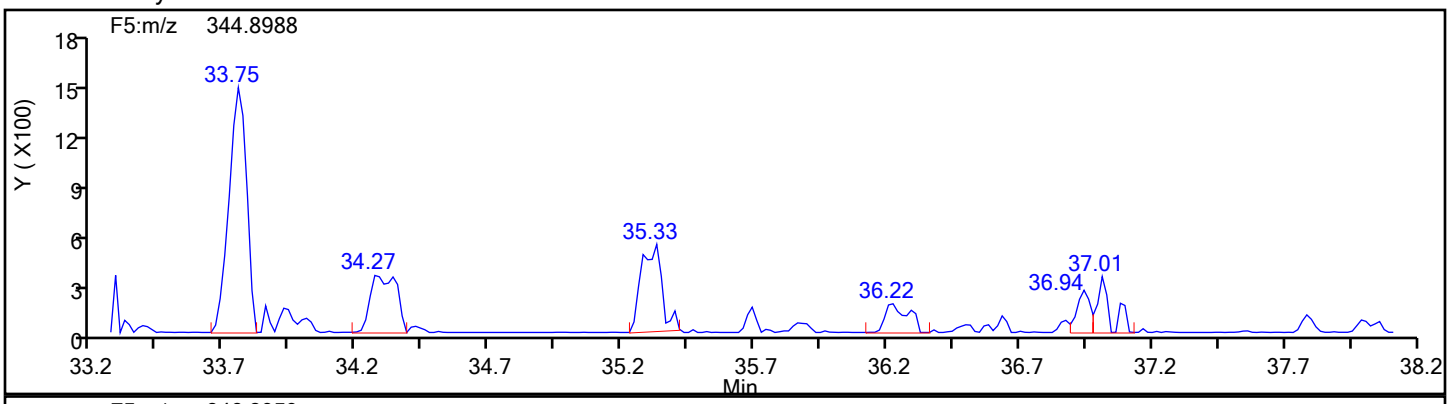
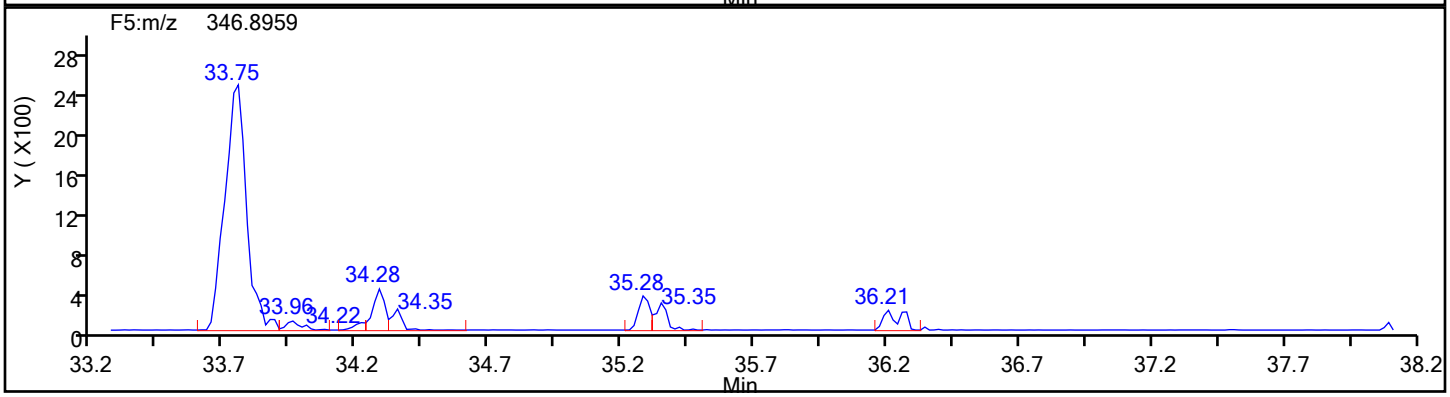
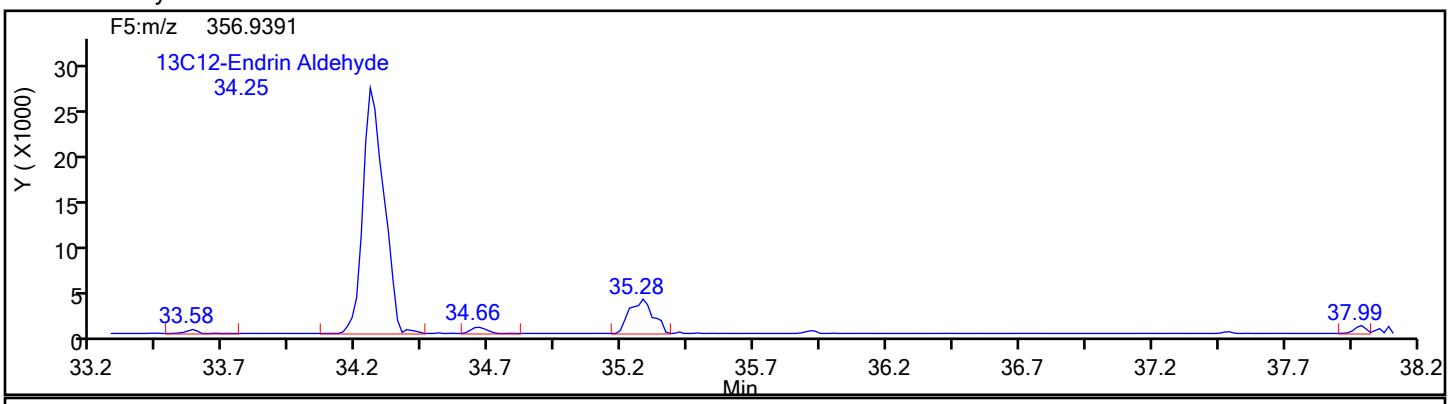
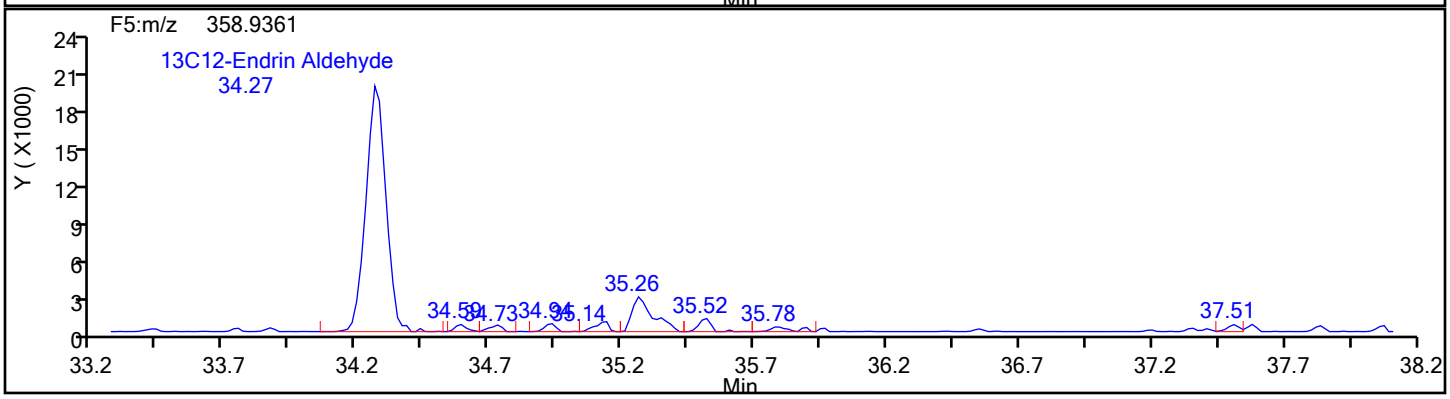
Endrin aldehyde





Endrin aldehyde Standards





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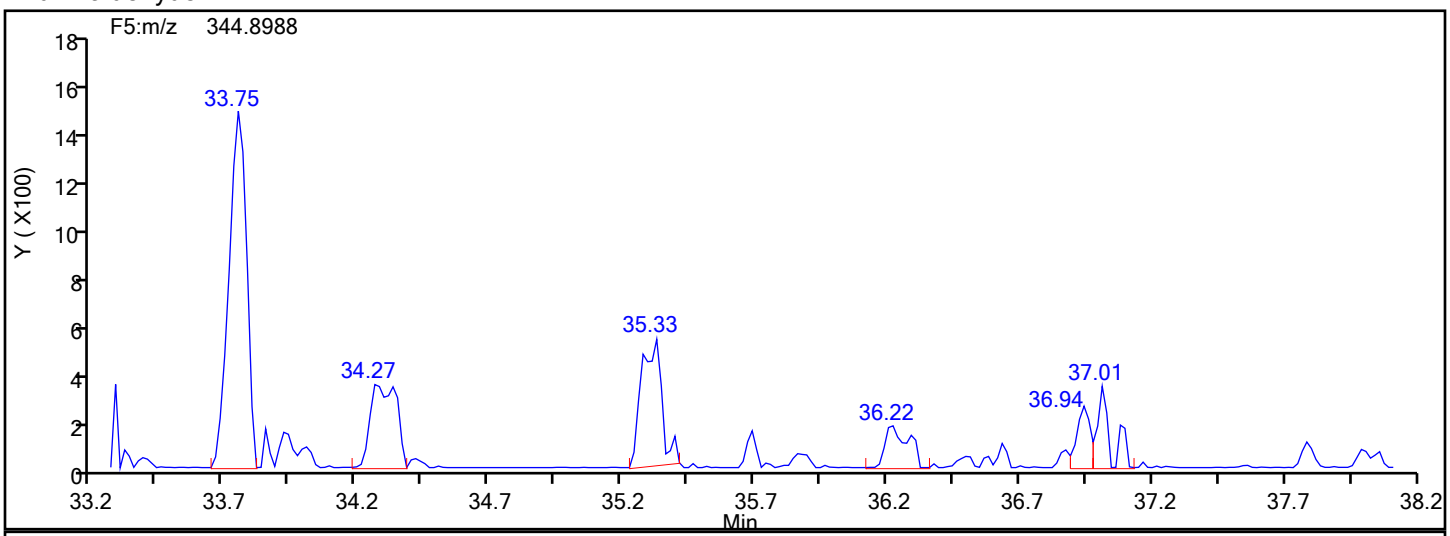
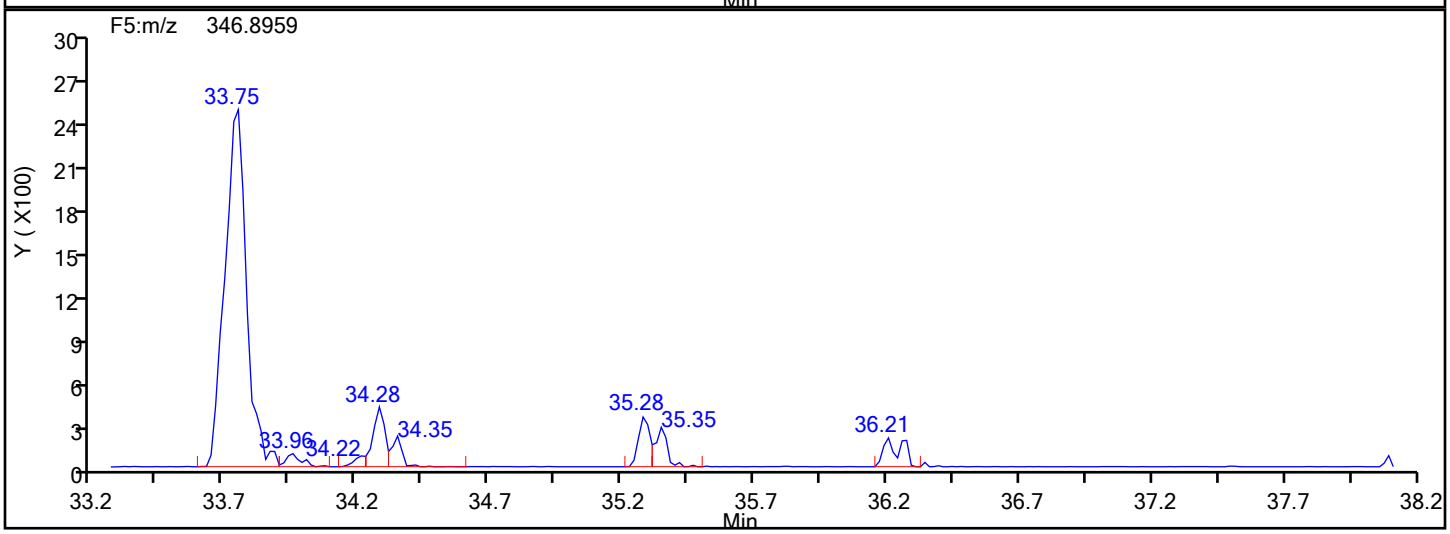
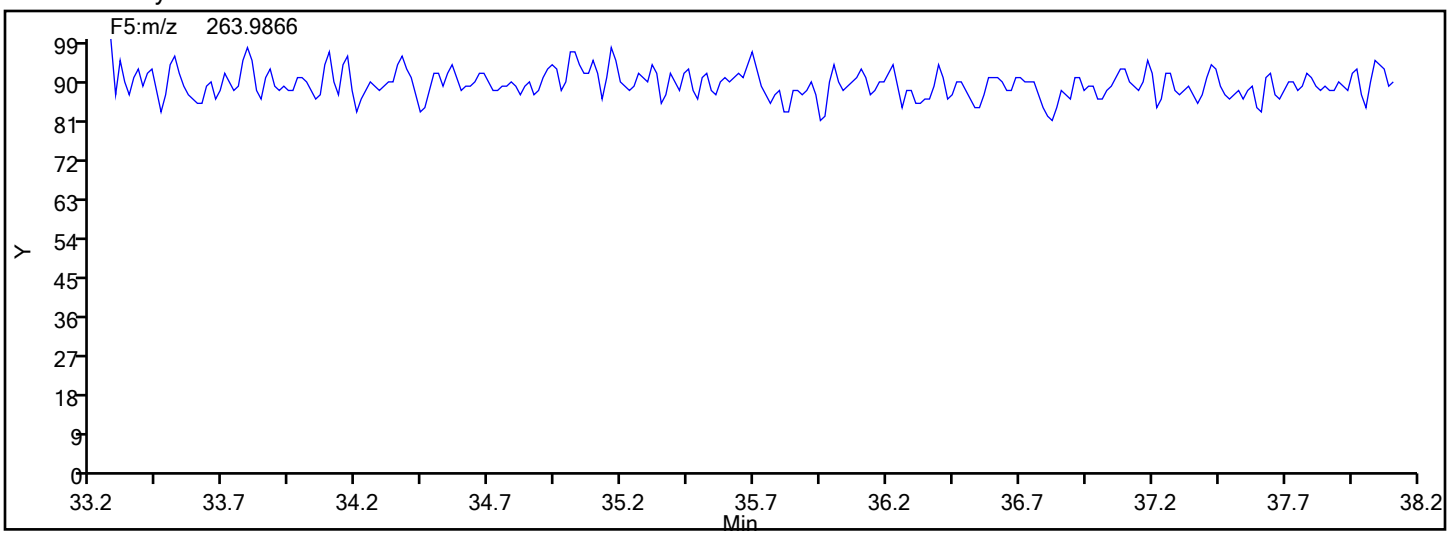




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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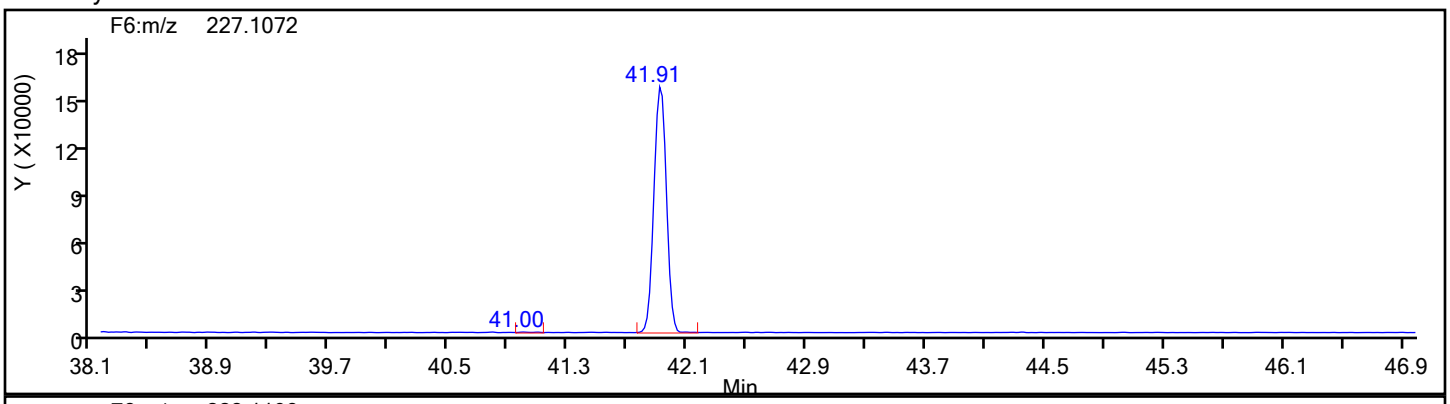
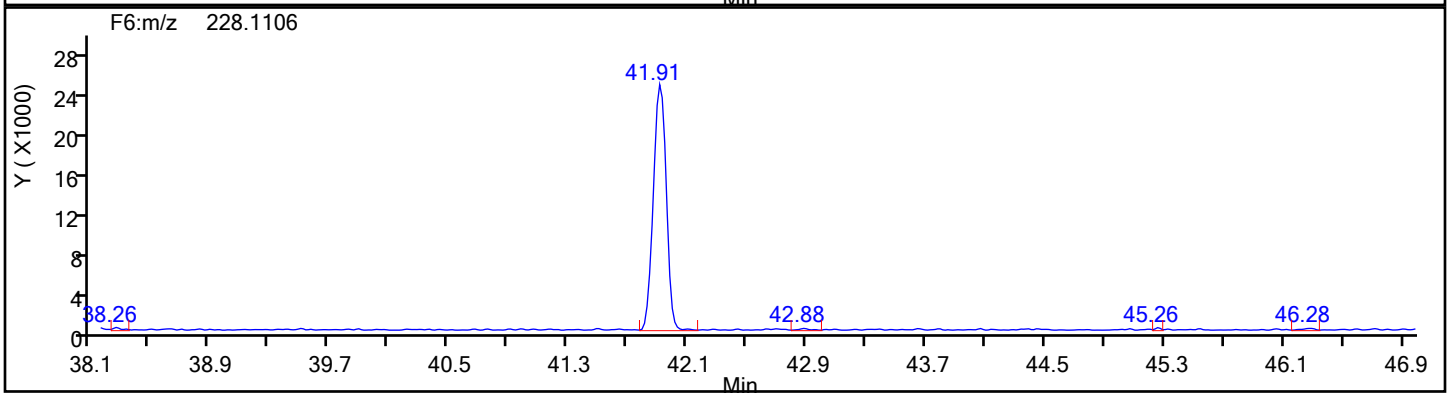
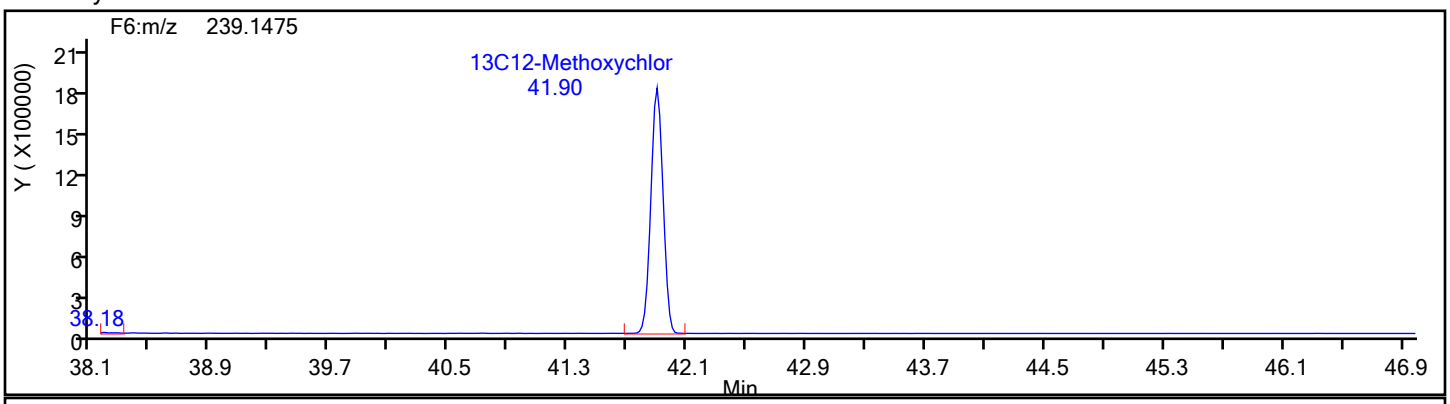
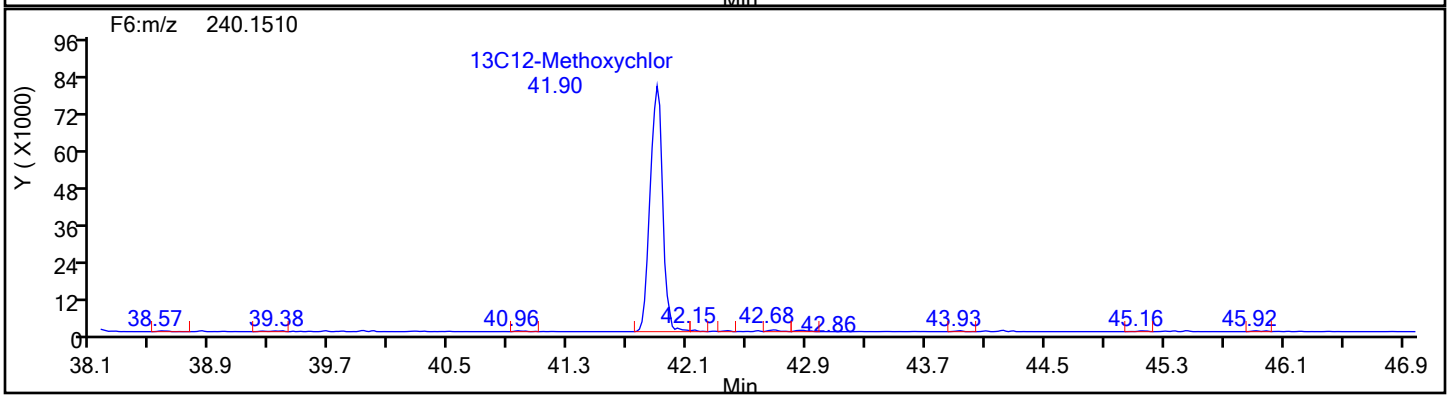
Methoxychlor





Methoxychlor Standards



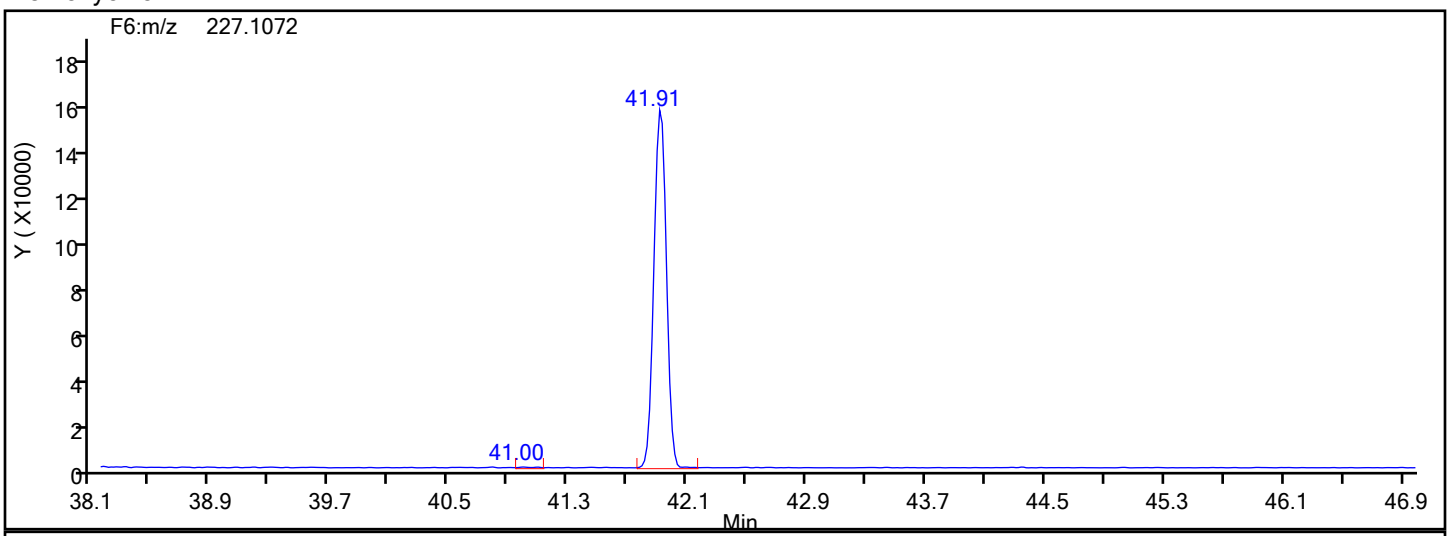


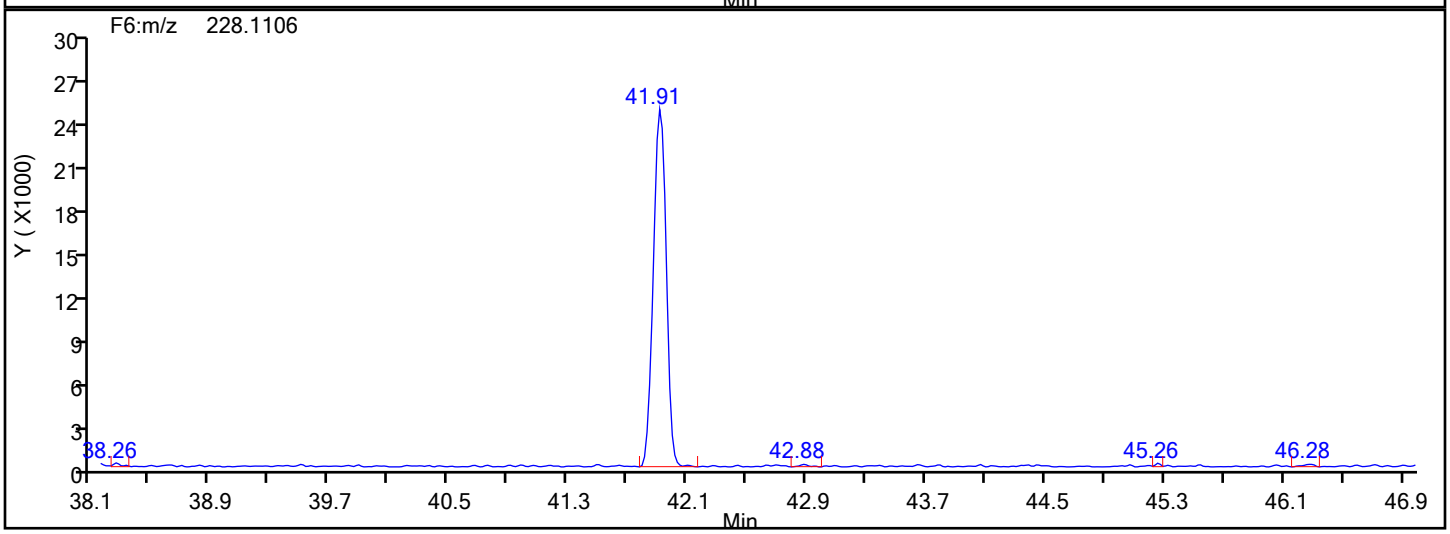
Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

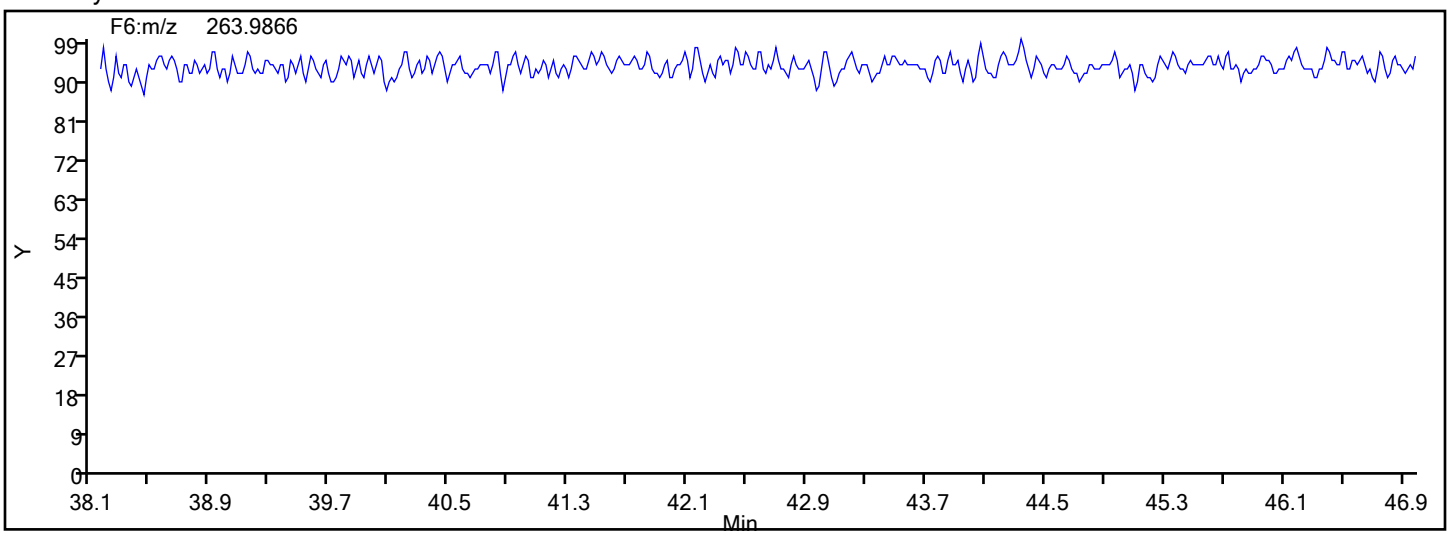
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

Methoxychlor





Methoxychlor Lock Mass



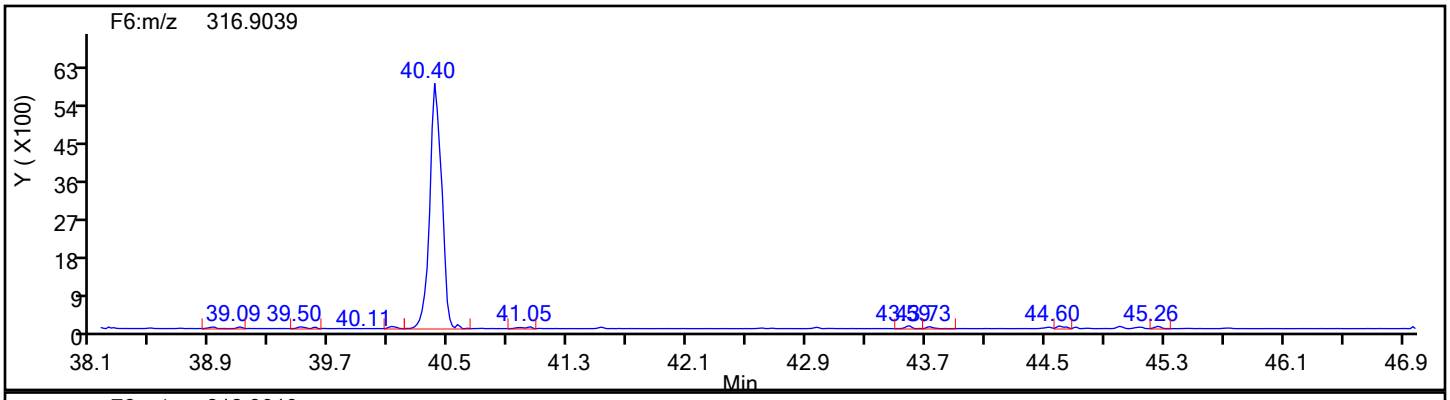
Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

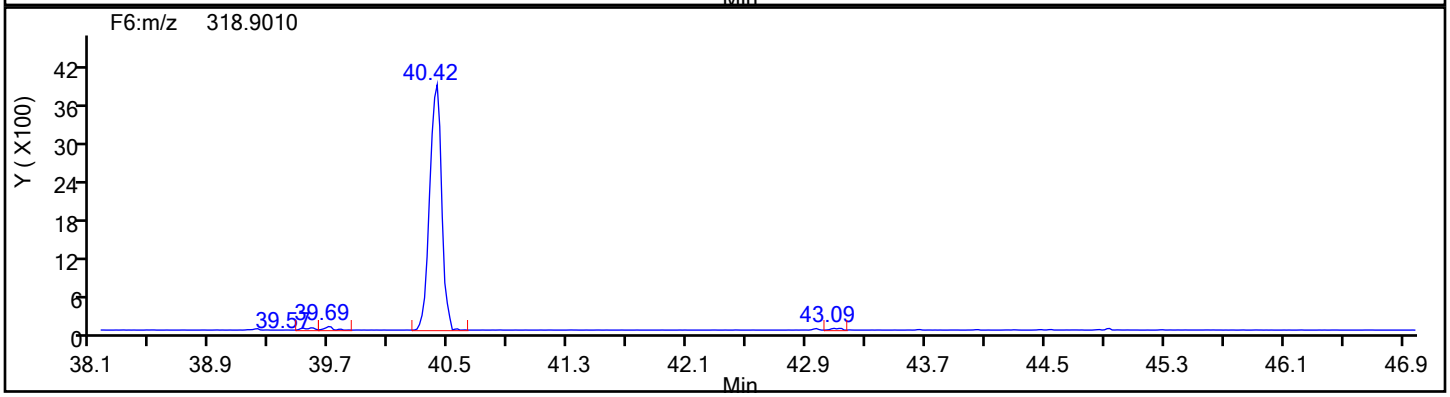
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

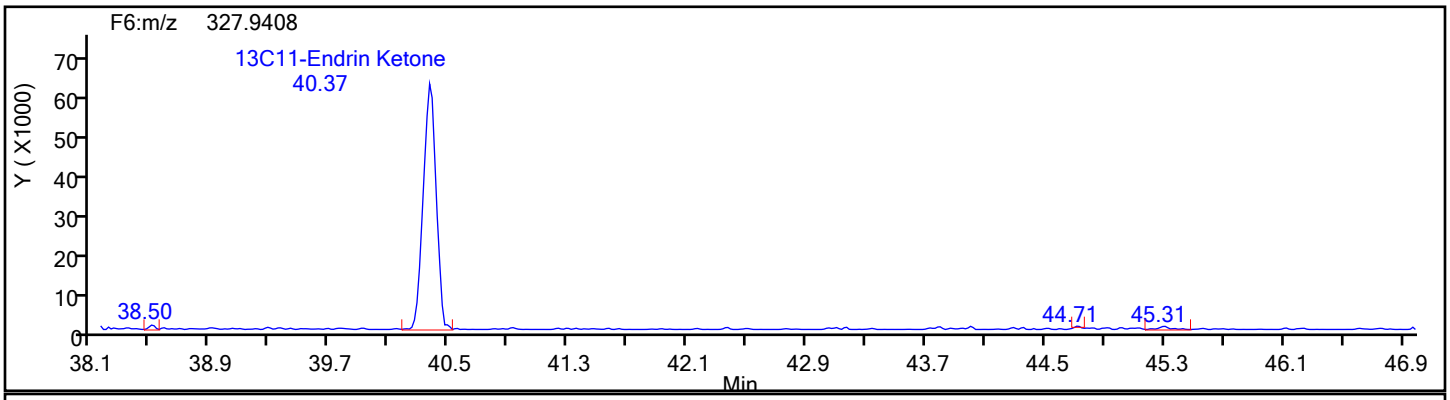
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

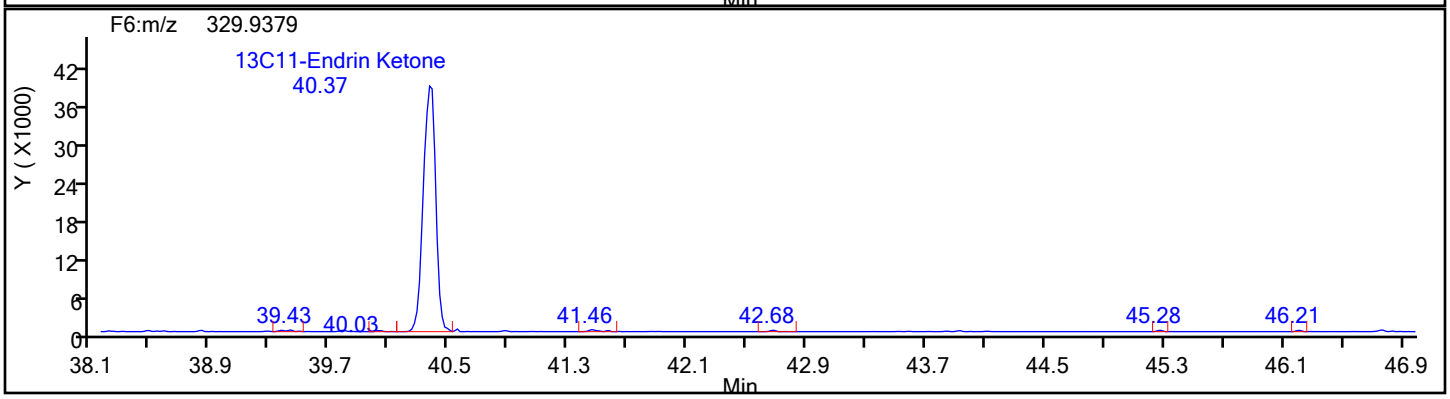
Endrin ketone





Endrin ketone Standards





Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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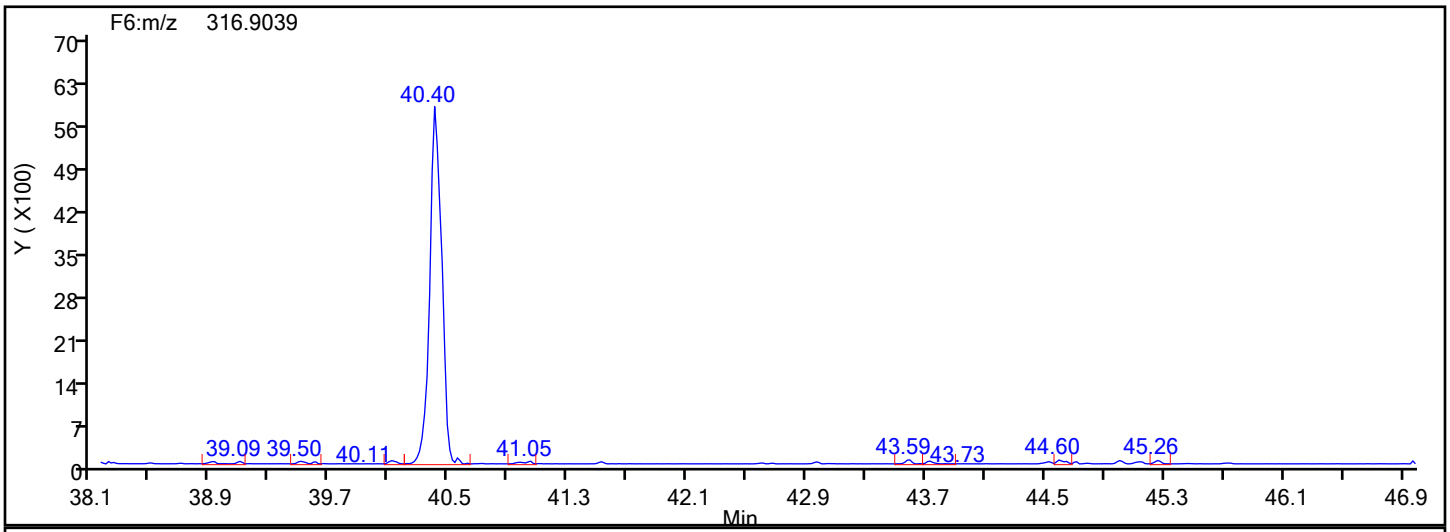
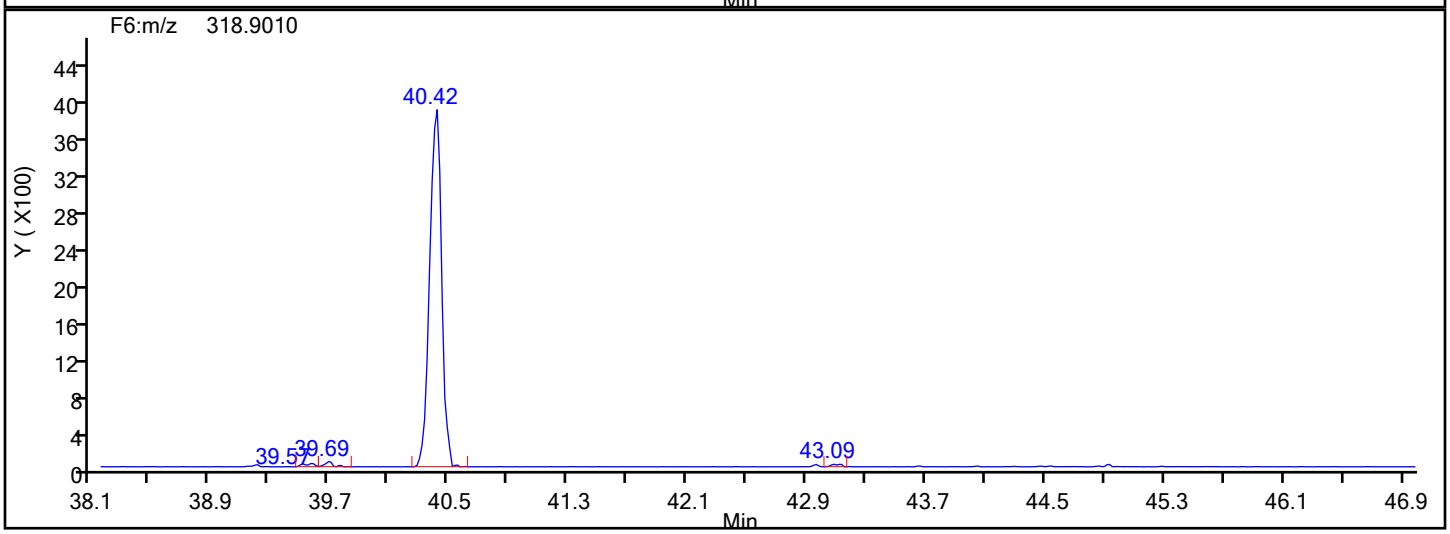
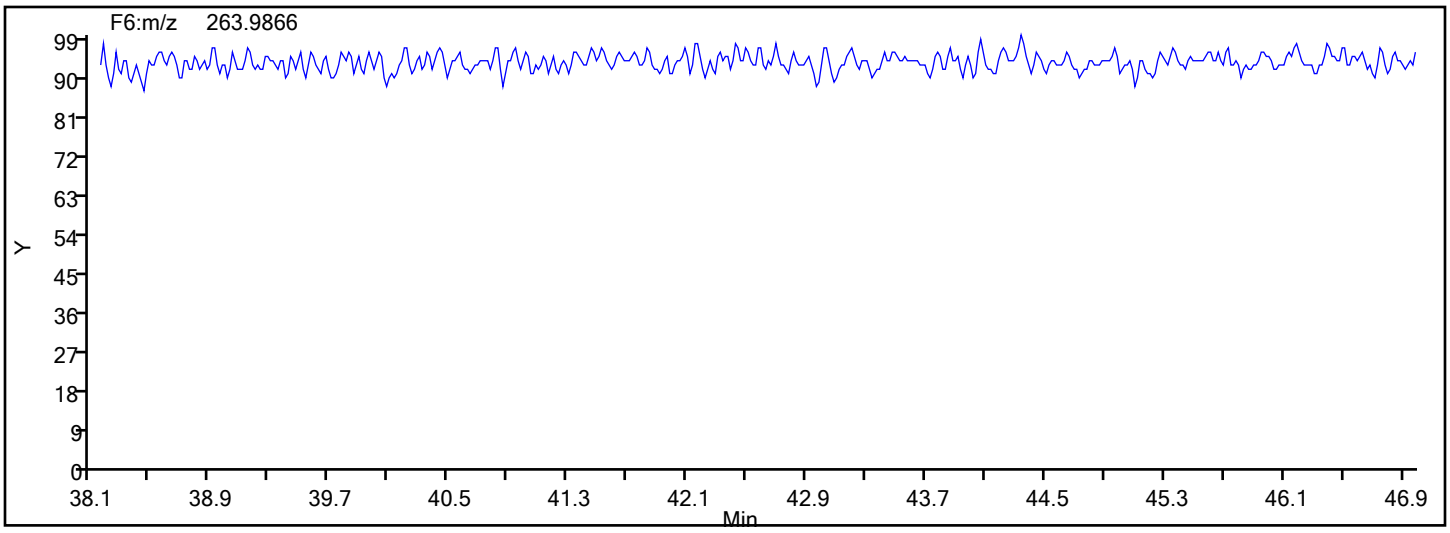
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





Endrin ketone Lock Mass



Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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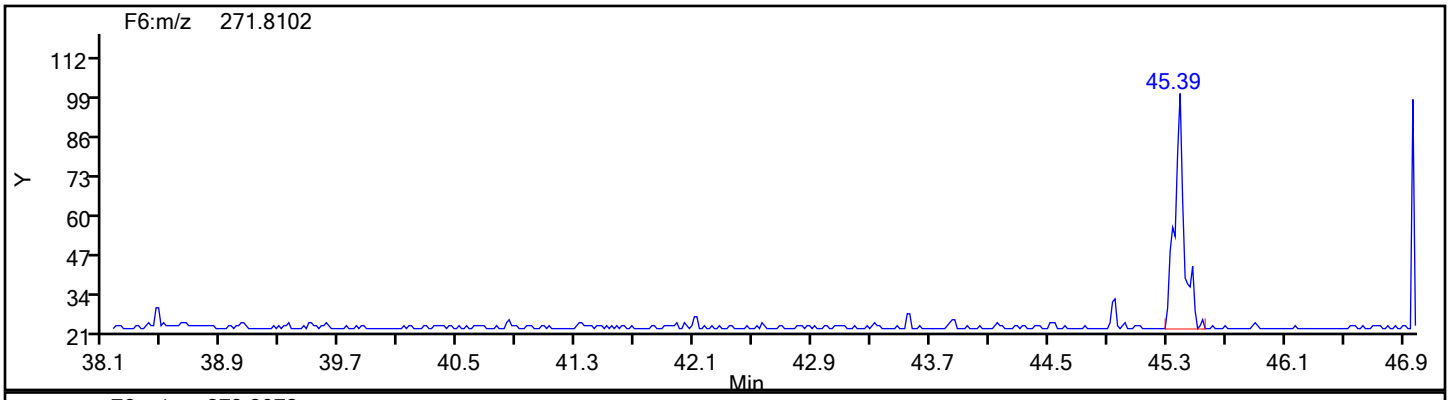
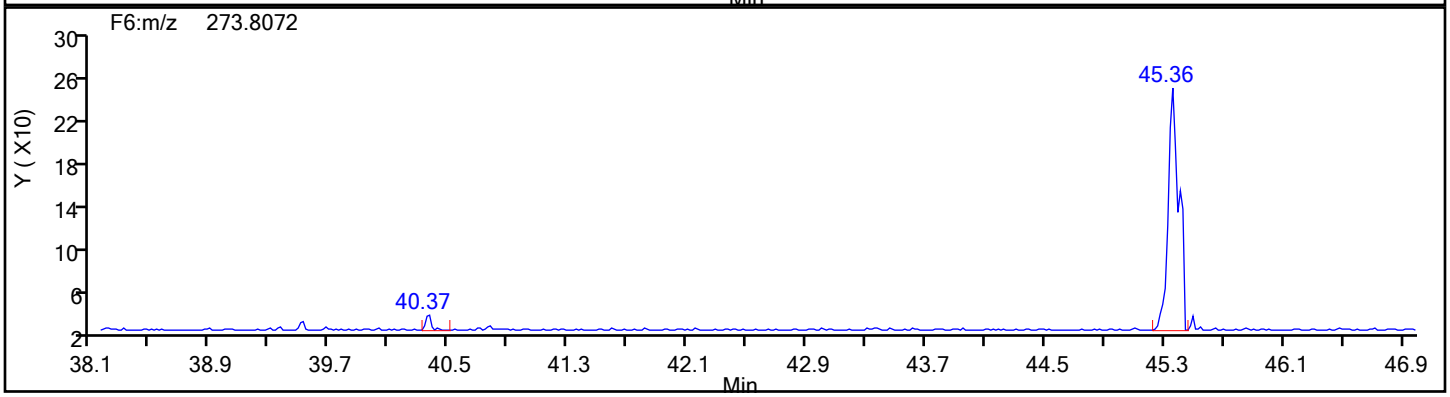
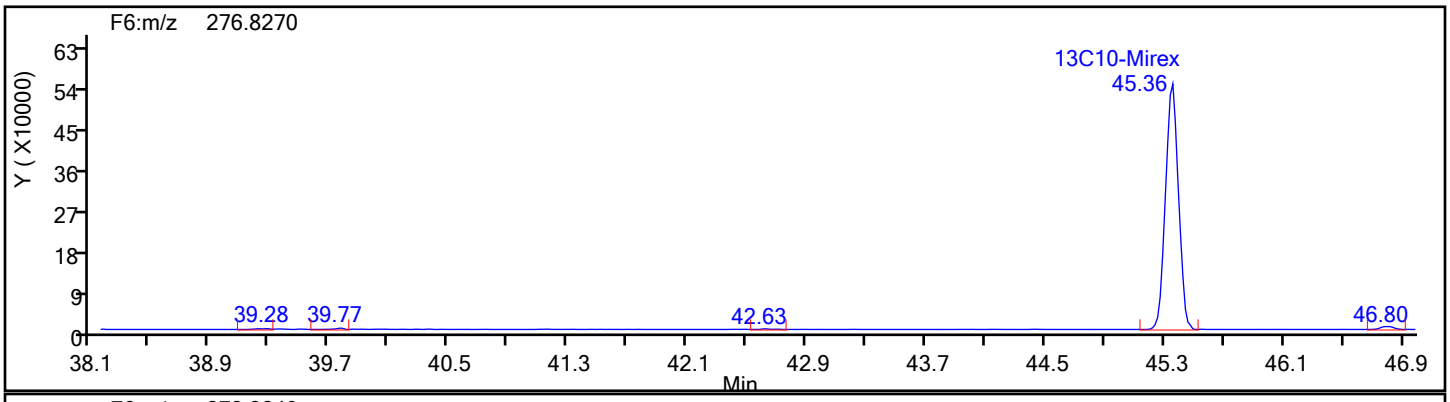
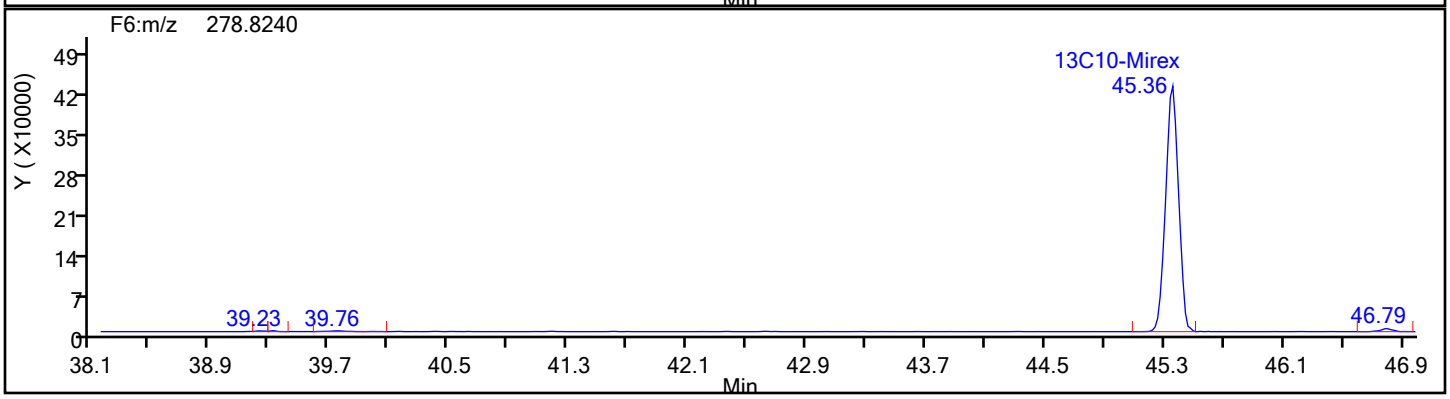
Mirex





Mirex Standards





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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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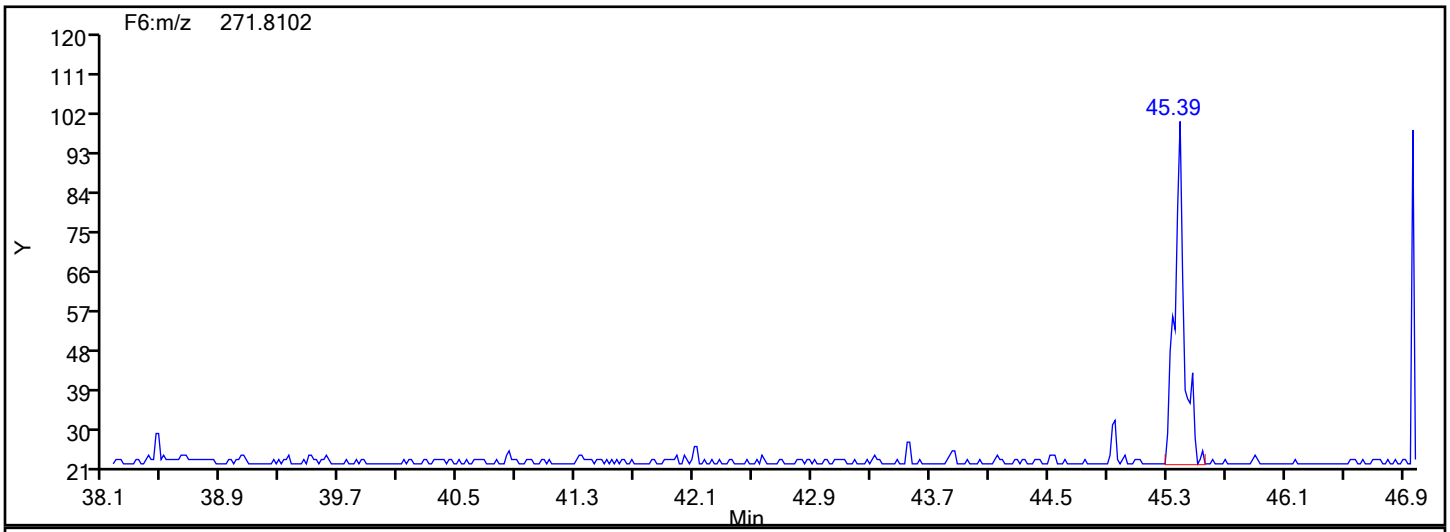
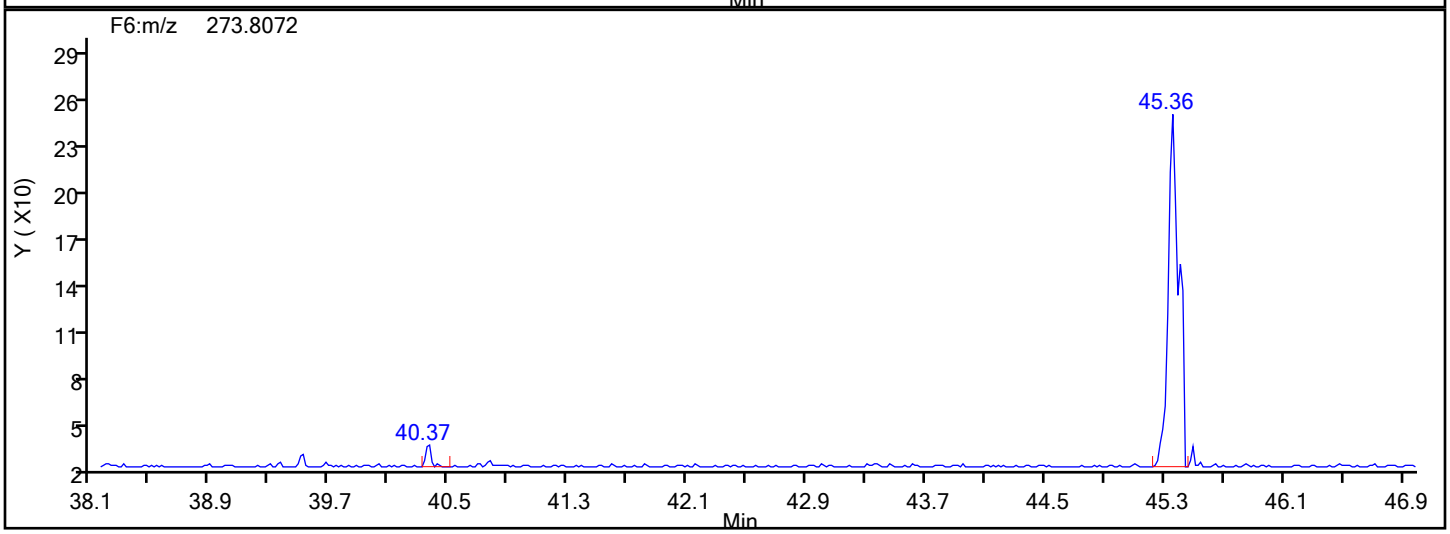
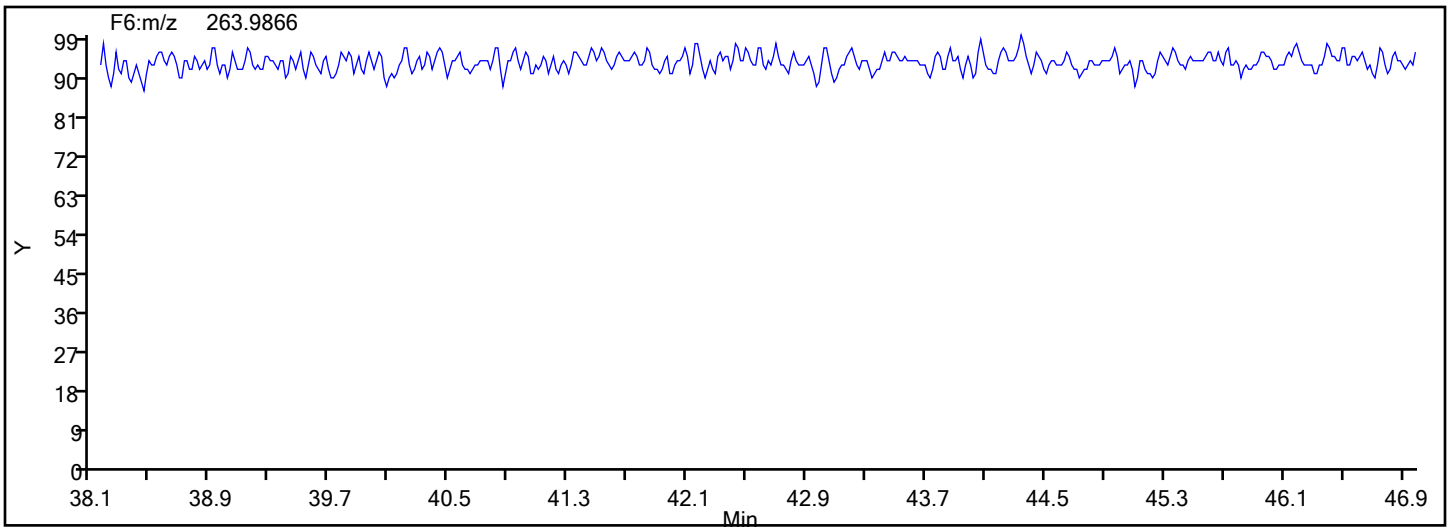
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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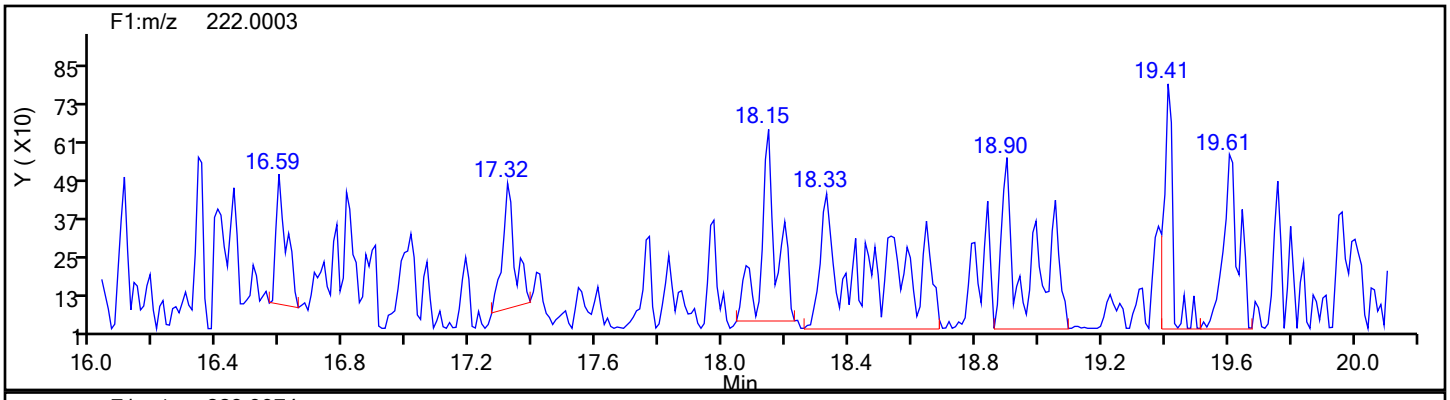
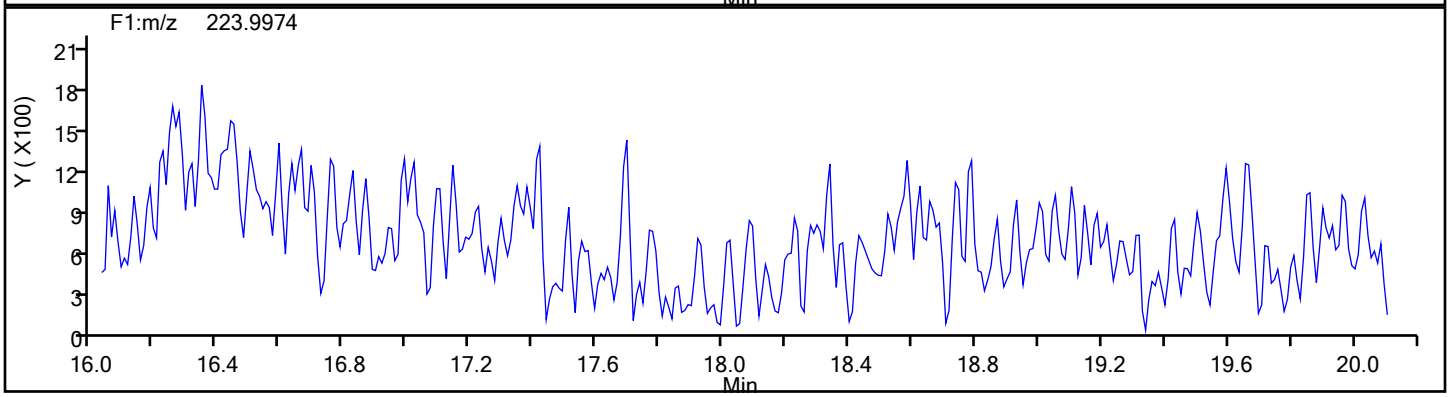
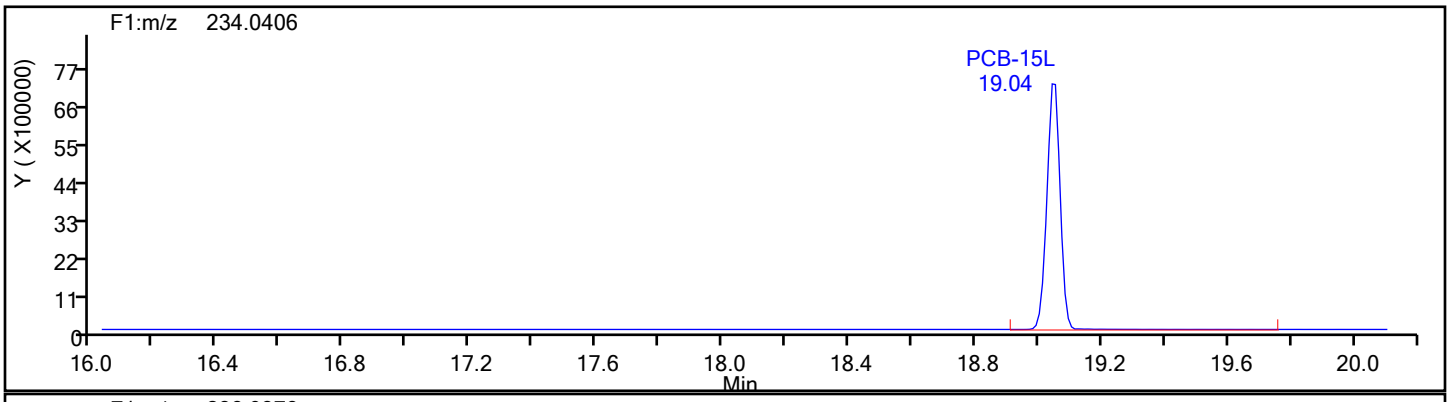
Column Type:	RTX-5	Column Dia:	0.32 mm

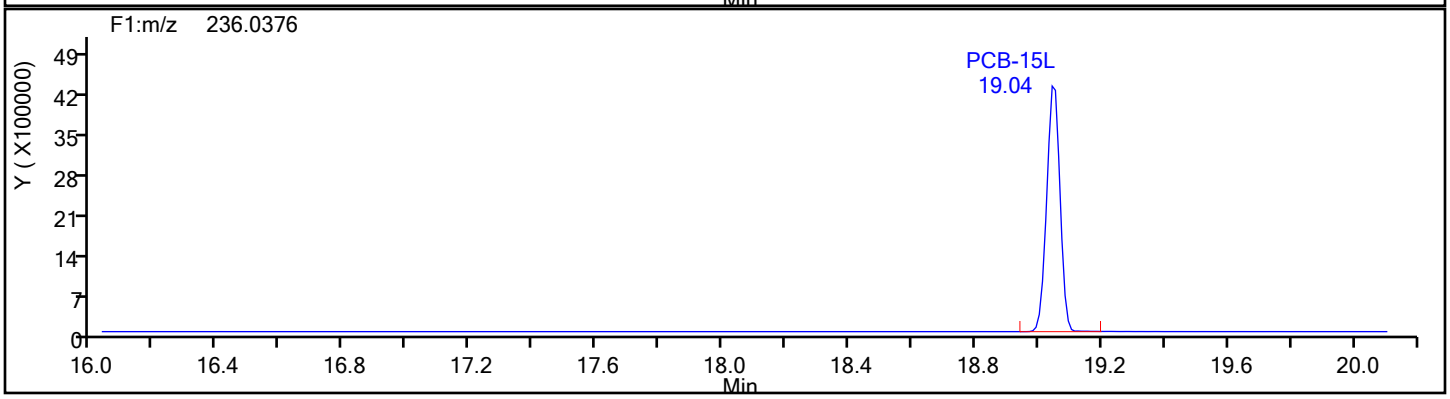
PCB-14





PCB-14 Standards





Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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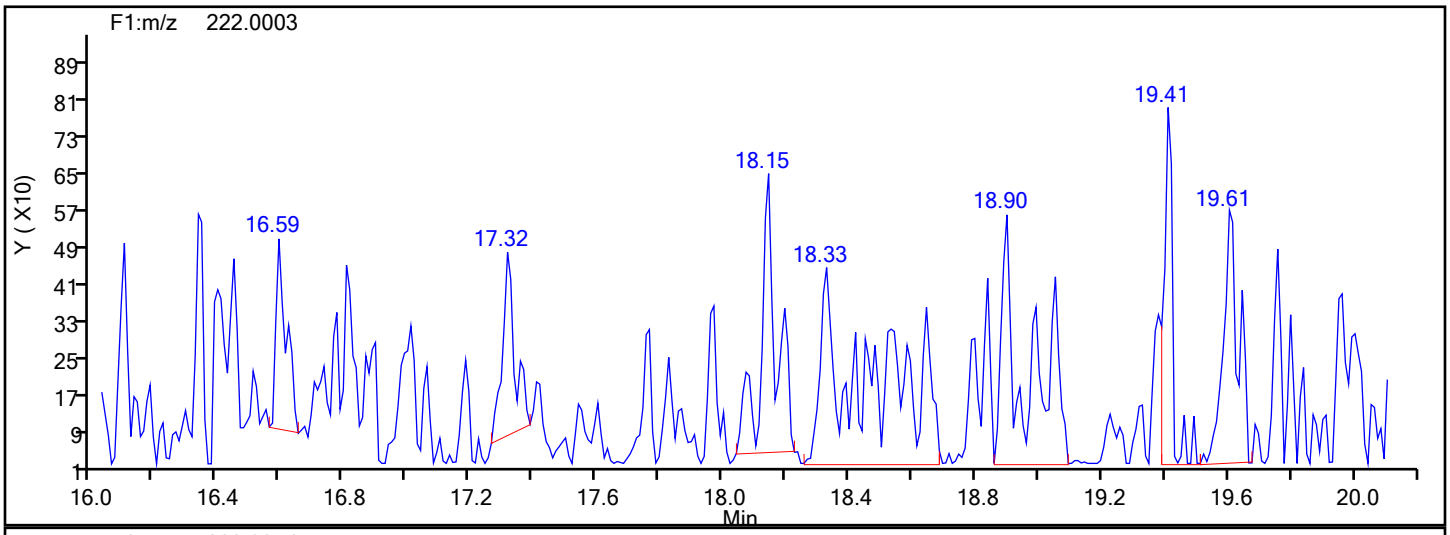
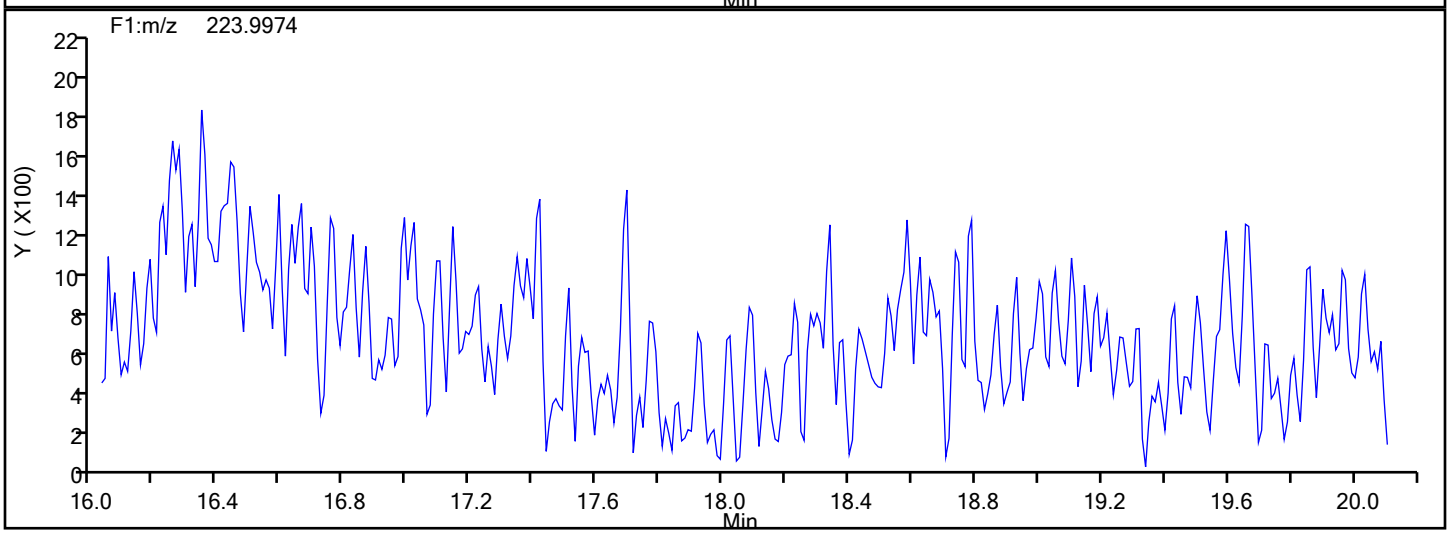
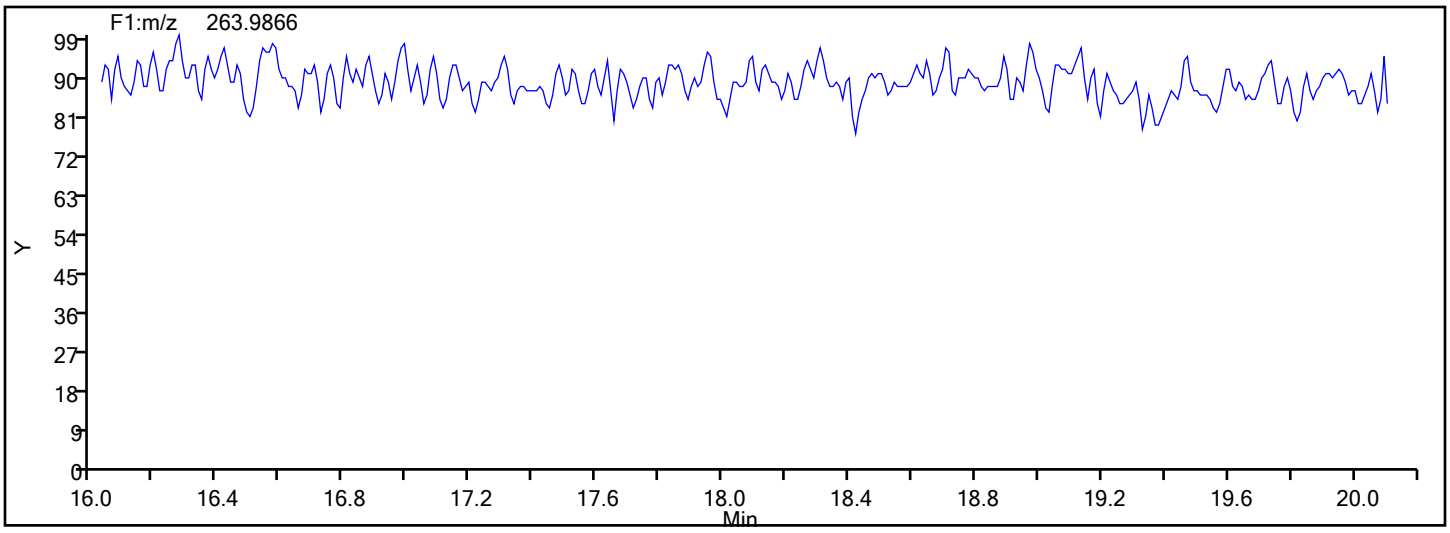
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



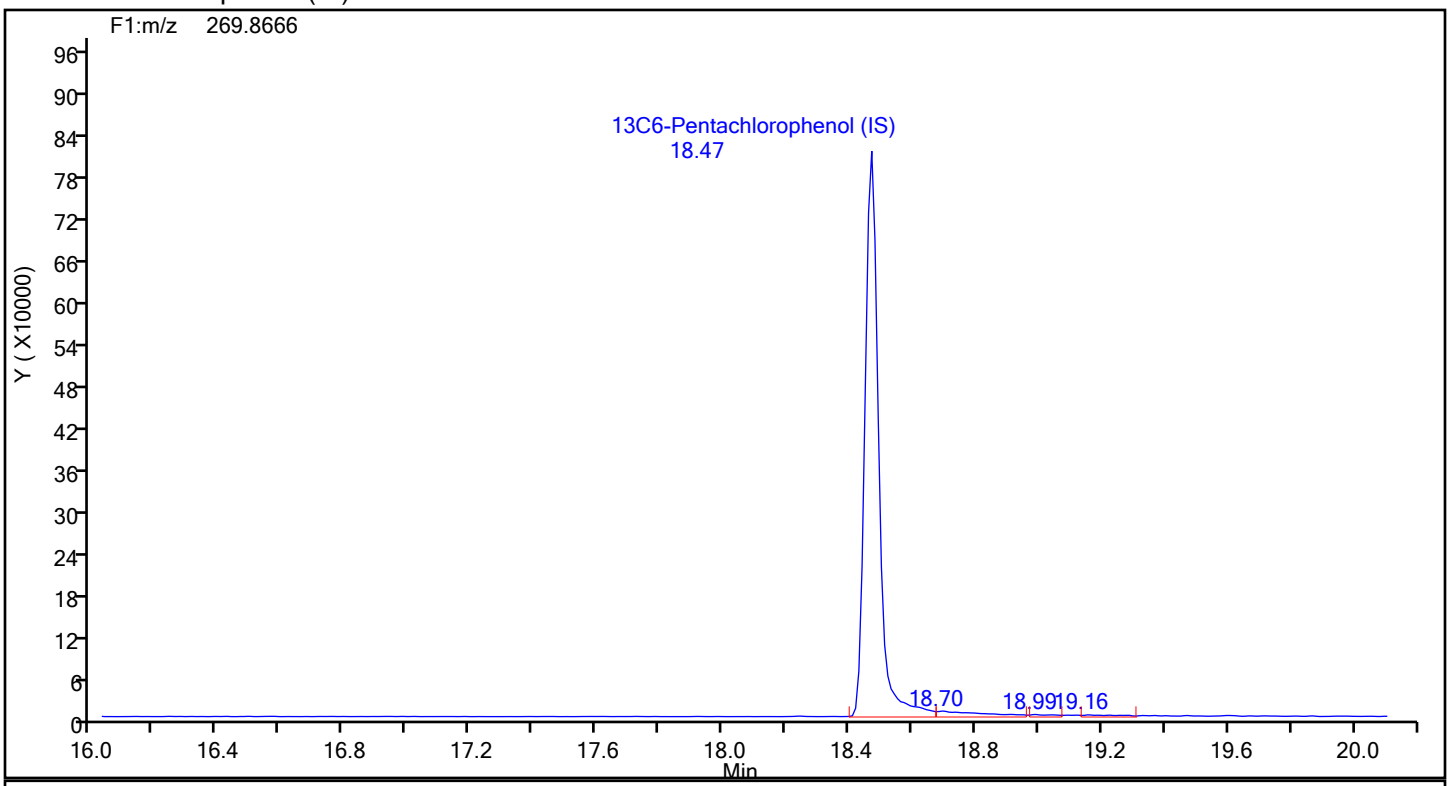
Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

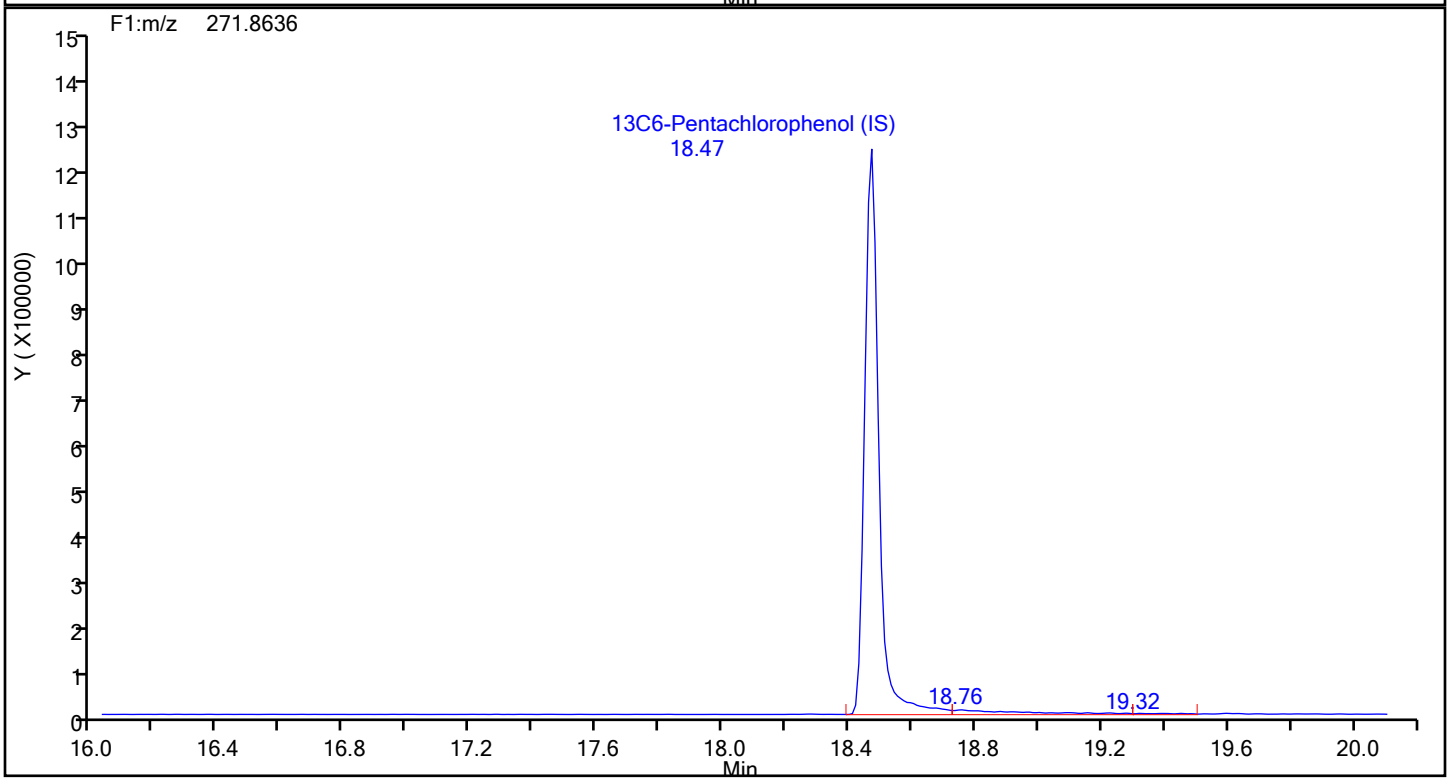
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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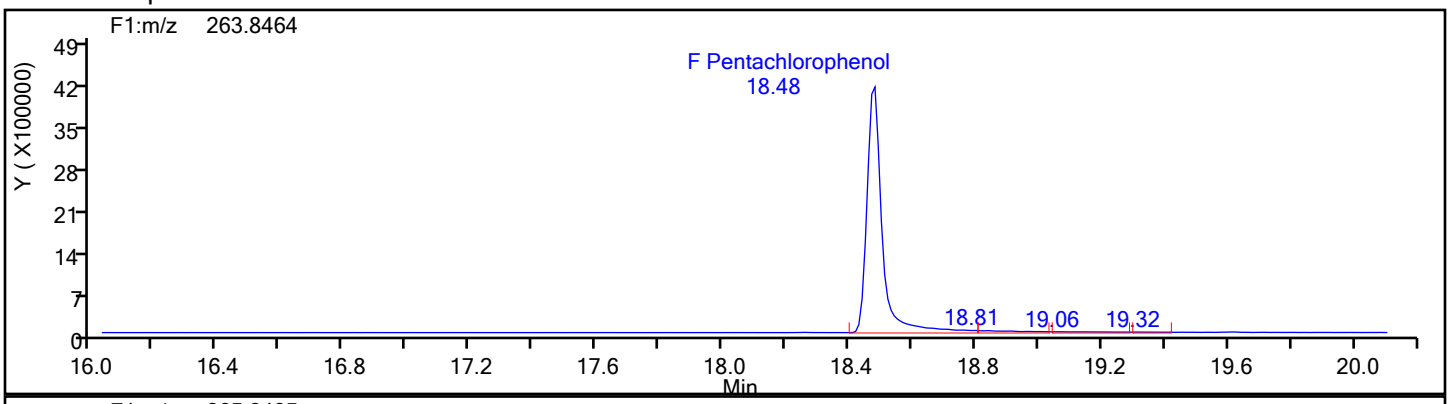
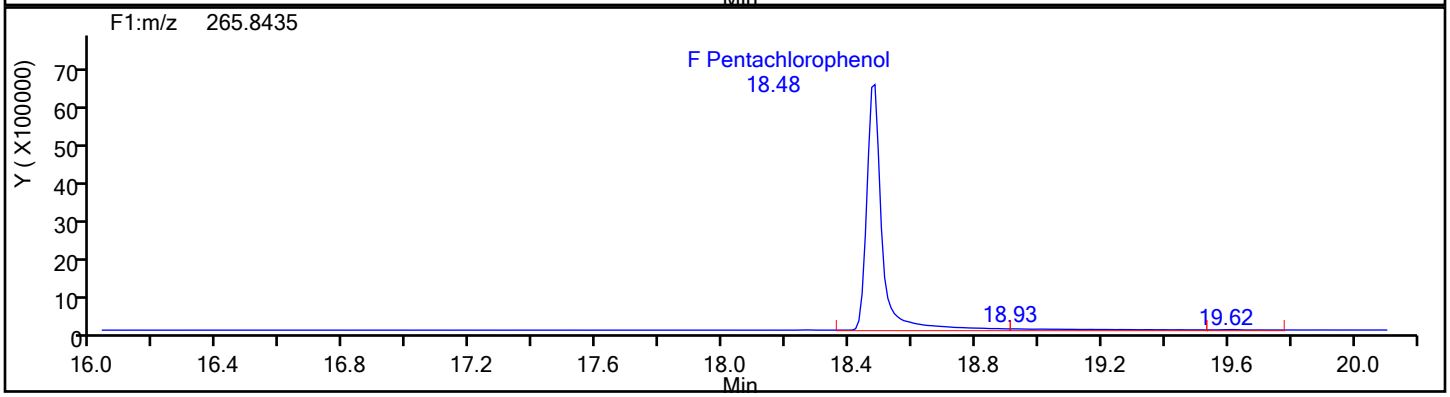
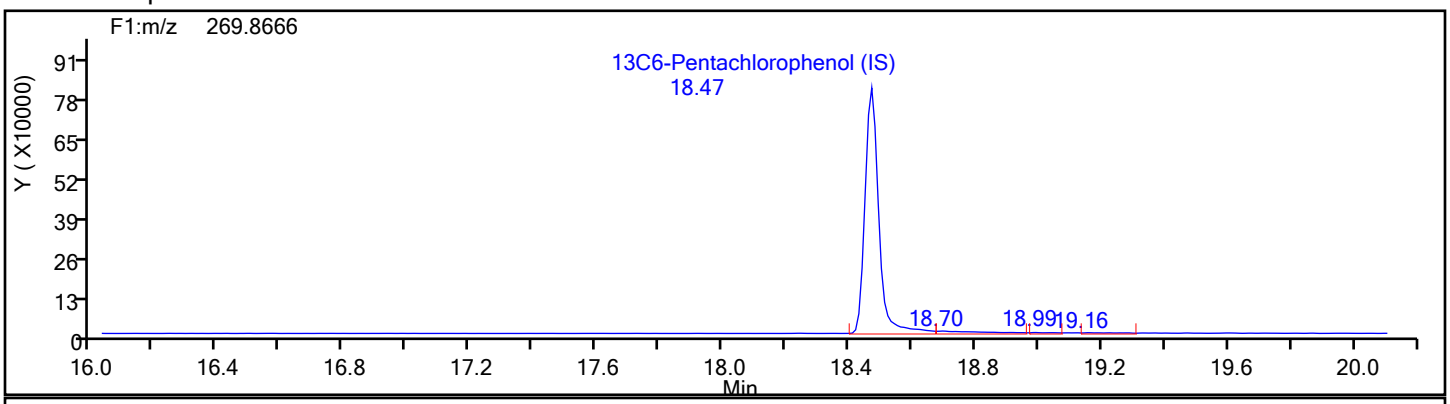
Column Type:	RTX-5	Column Dia:	0.32 mm

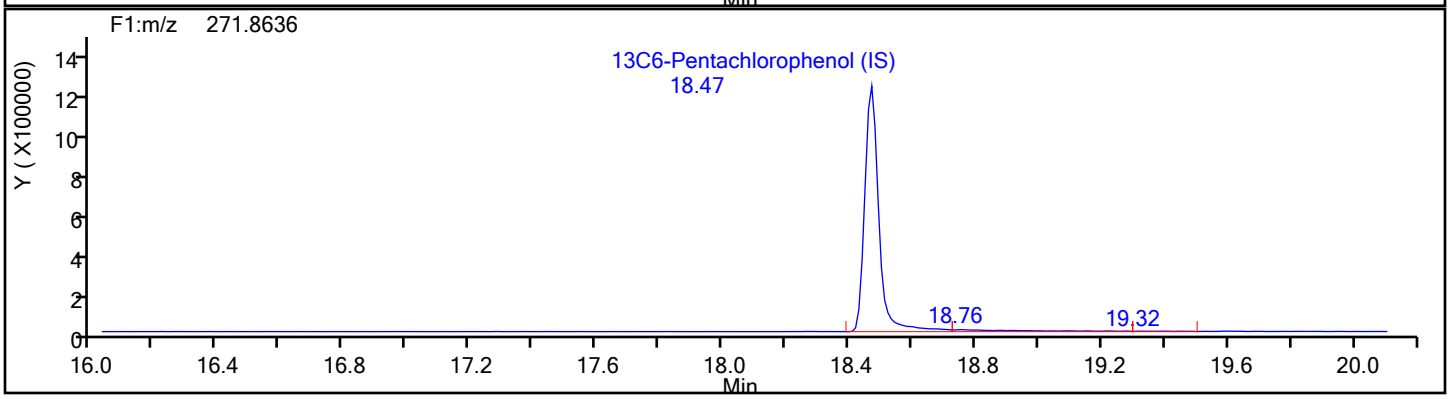
Pentachlorophenol





Pentachlorophenol Standards





Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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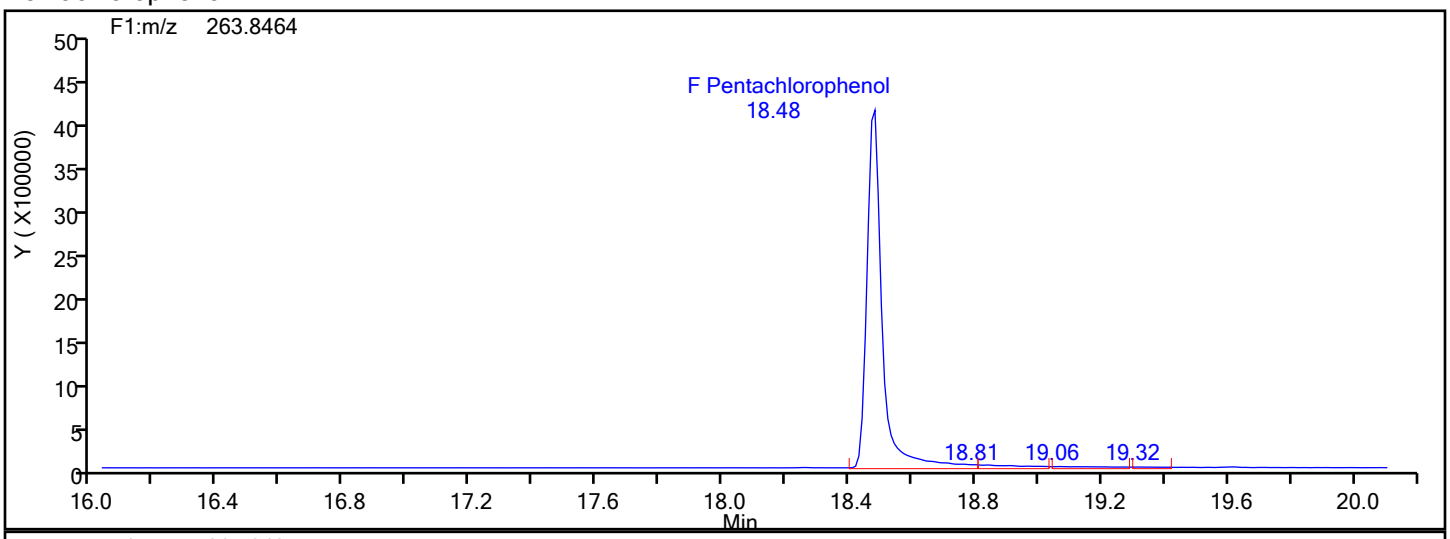
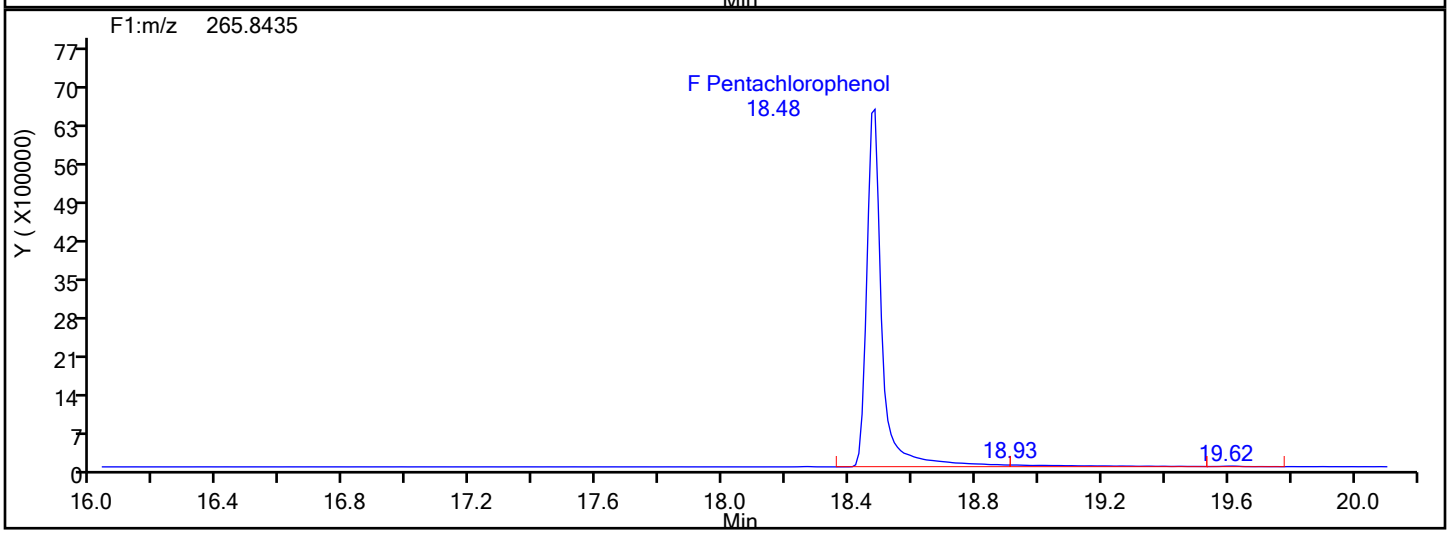
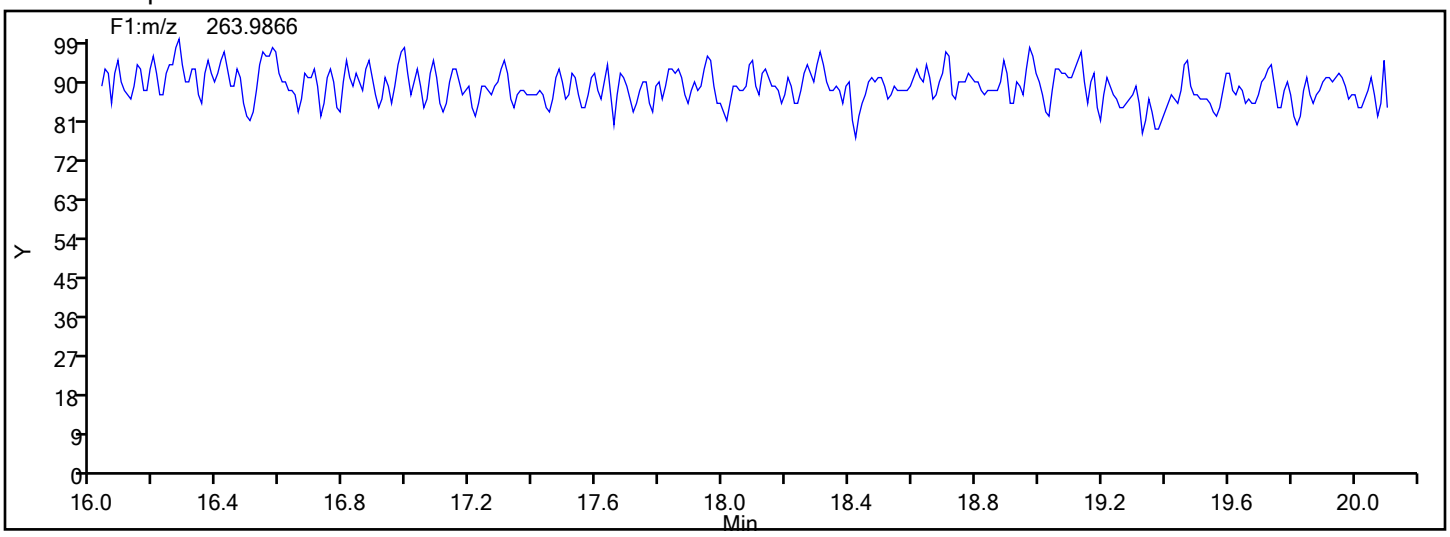
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

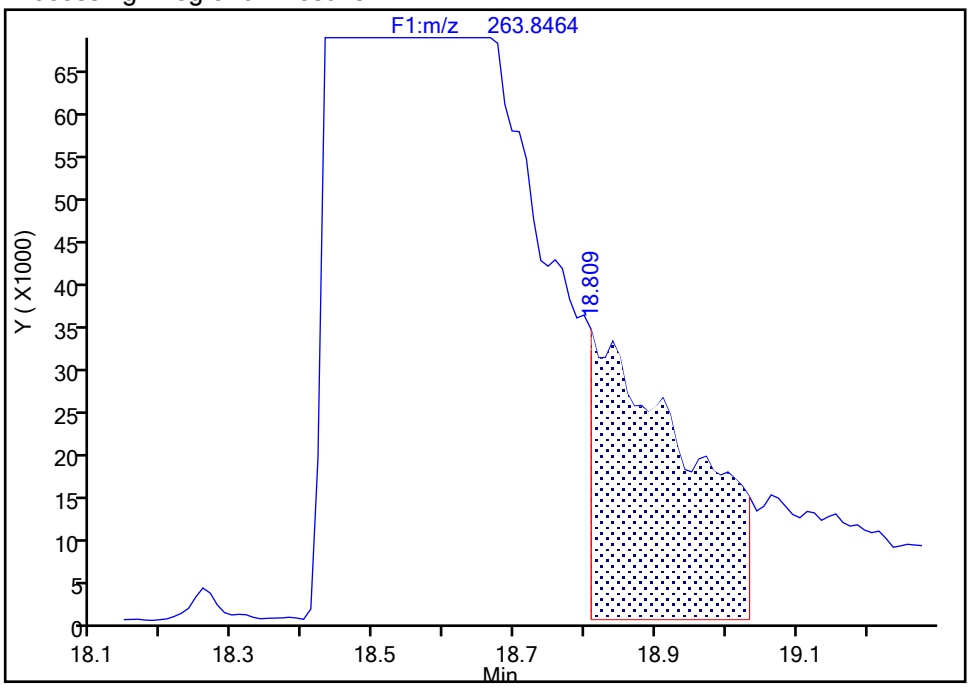
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Instrument ID: D3PST
Lims ID: IC L7
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 1

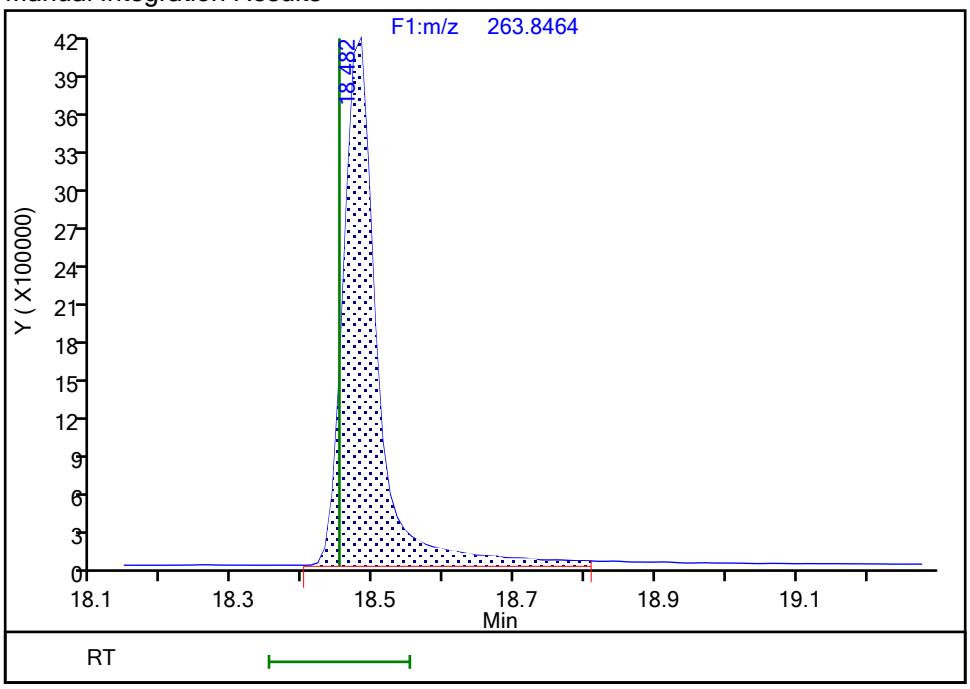
Processing Integration Results

RT: 18.81
Area: 309528
Amount: 112.1139
Amount Units: pg/ul



Manual Integration Results

RT: 18.48
Area: 13977177
Amount: 2814.2915
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:25:34 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Report Date: 05-May-2025 18:00:37 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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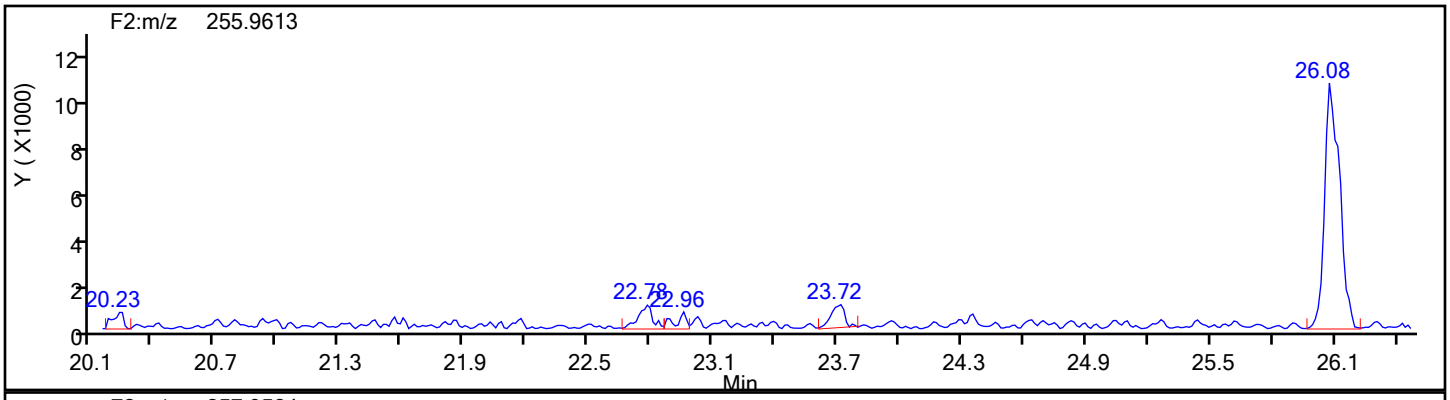
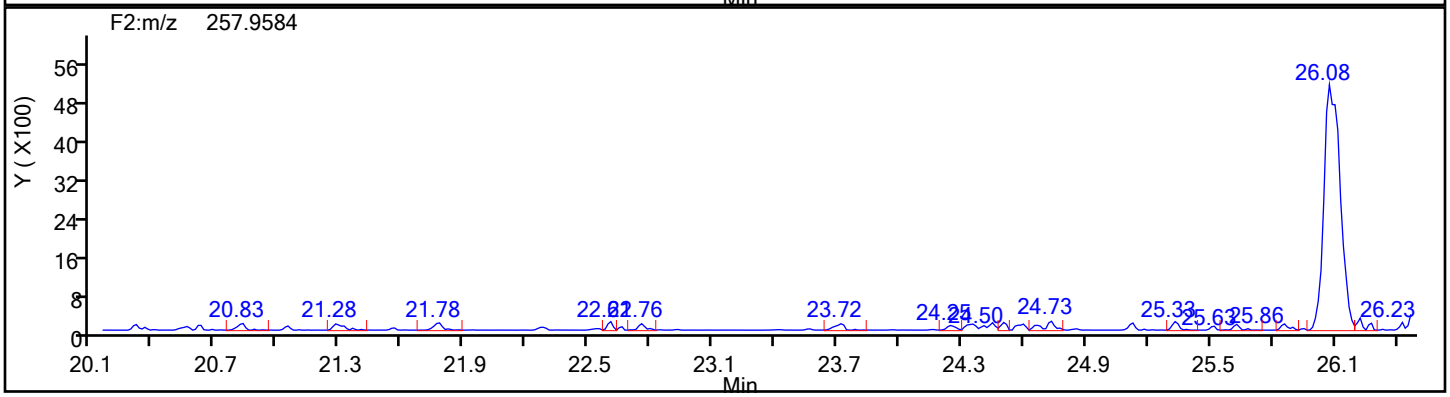
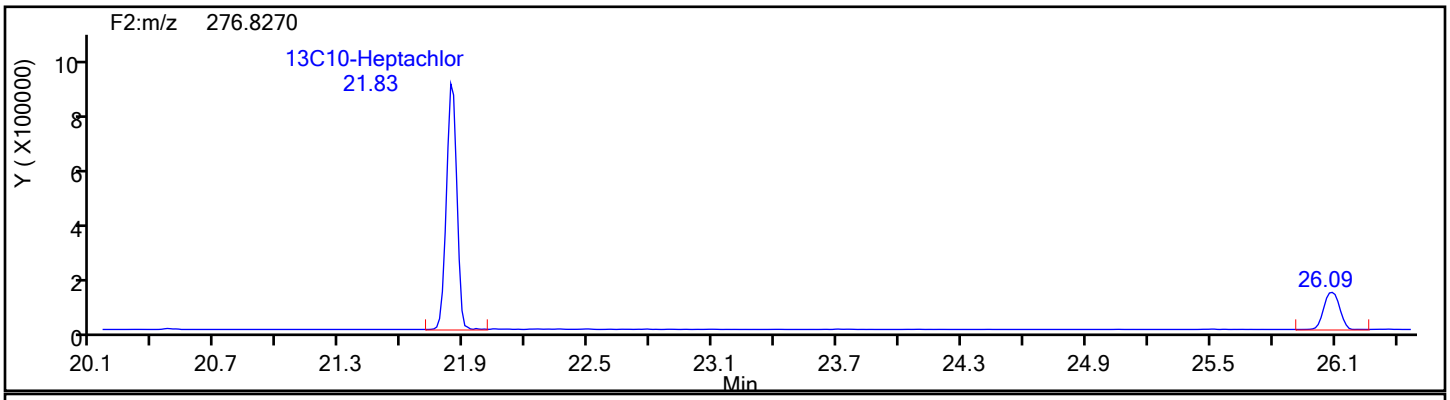
Column Type:	RTX-5	Column Dia:	0.32 mm

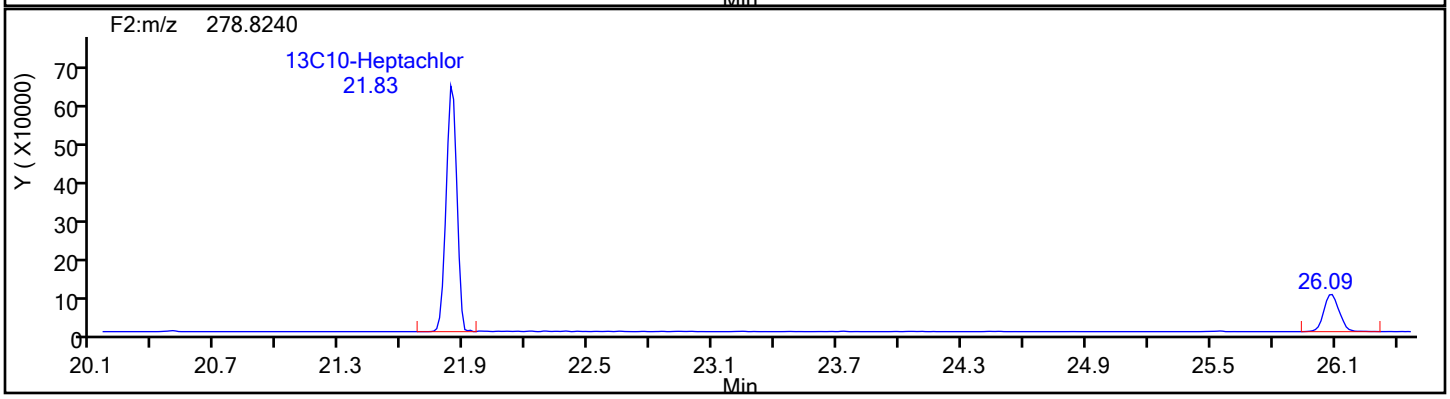
PCB-36





PCB-36 Standards



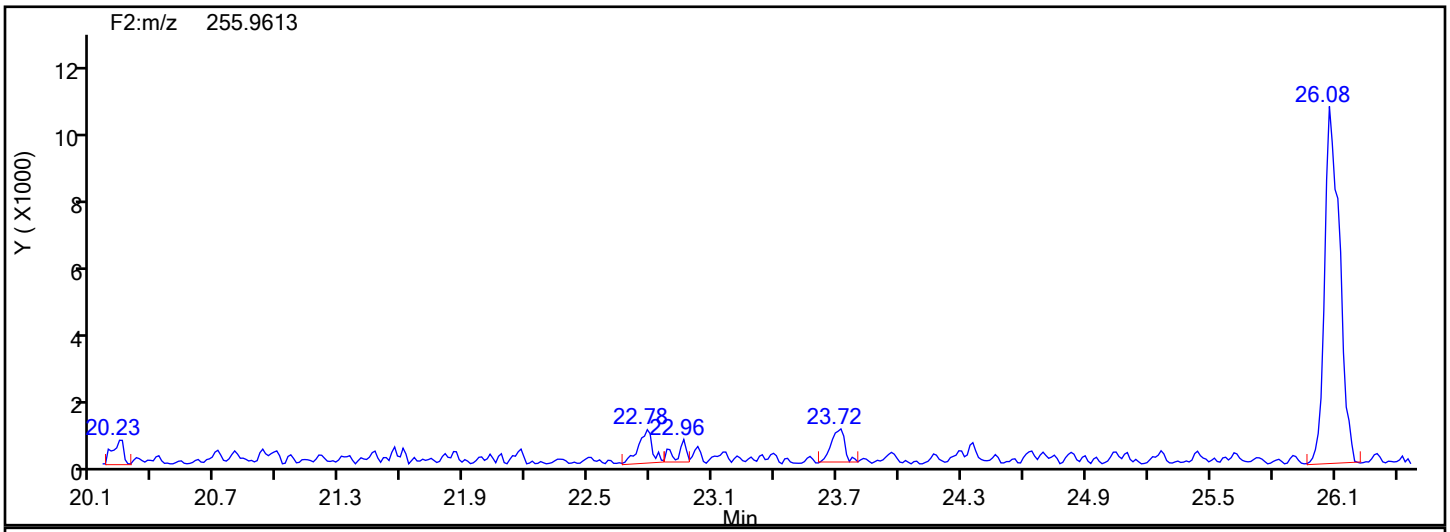


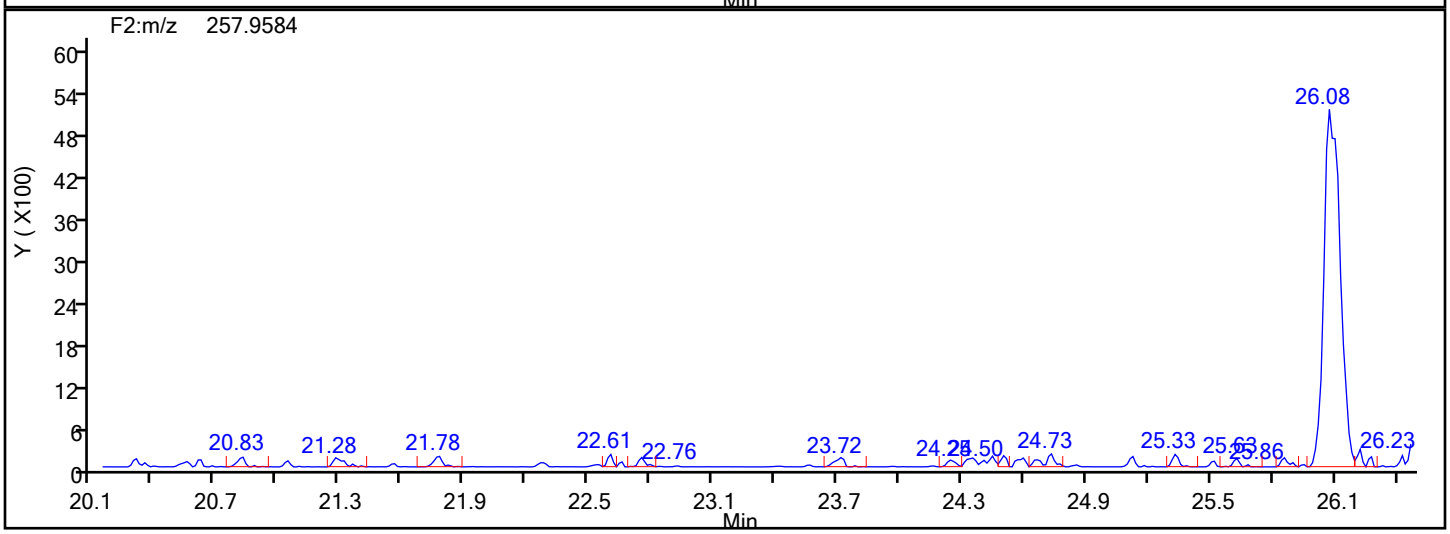
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

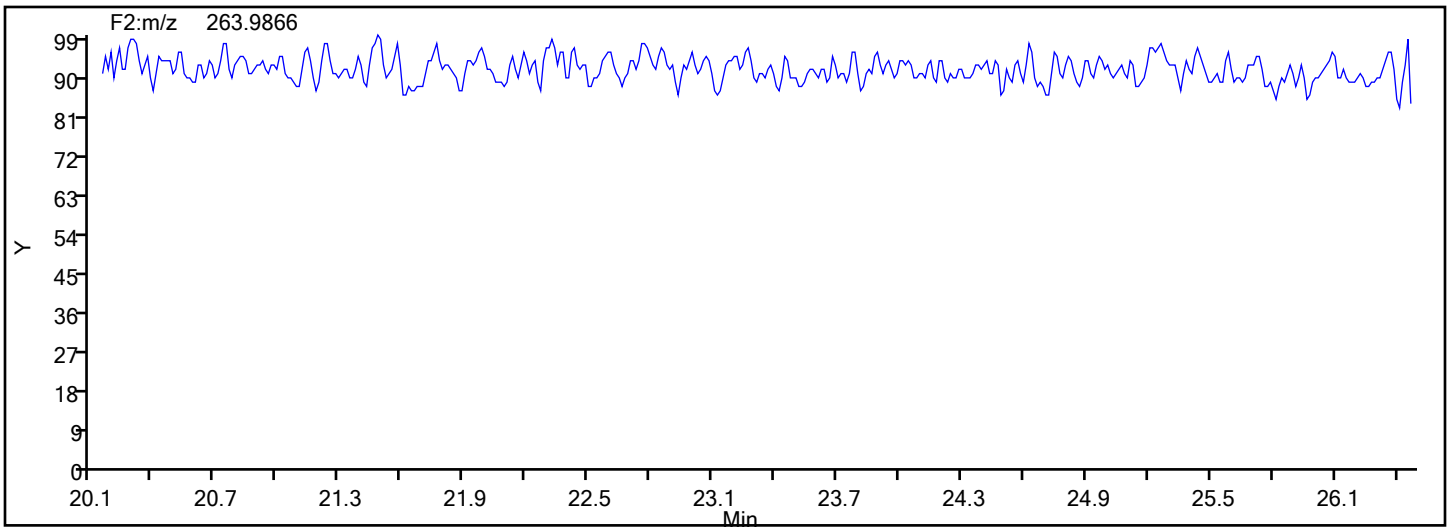
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



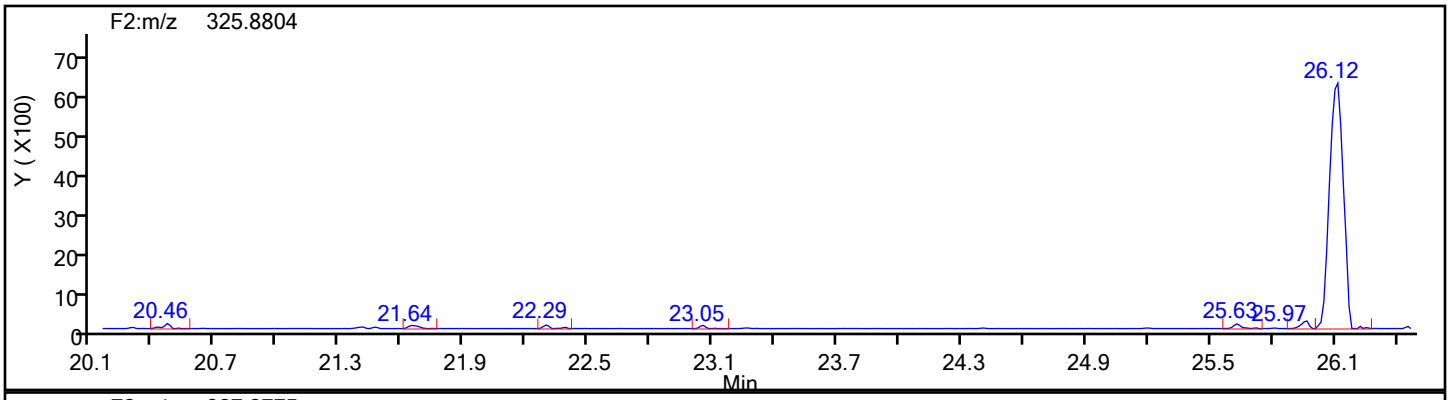
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

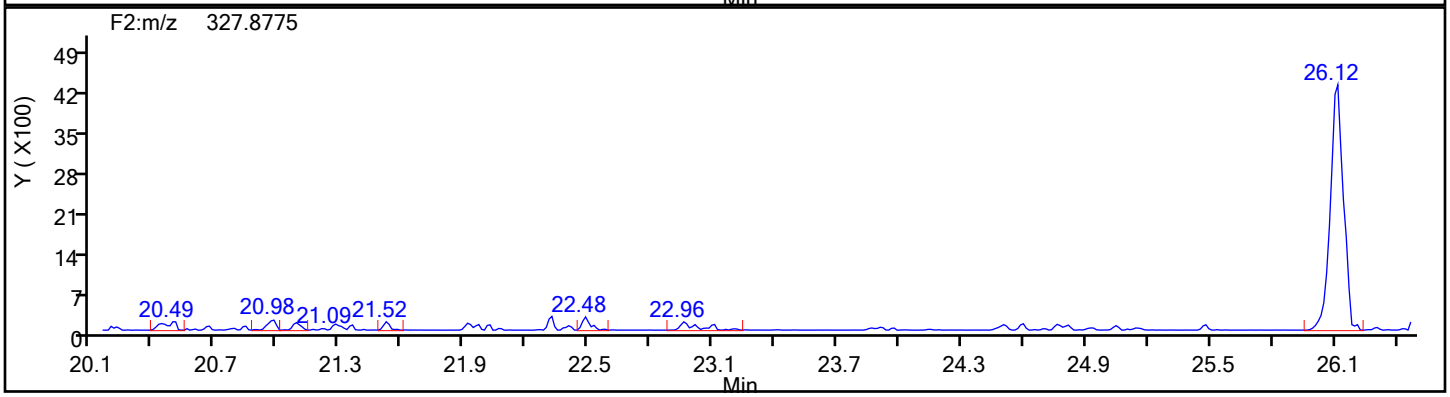
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

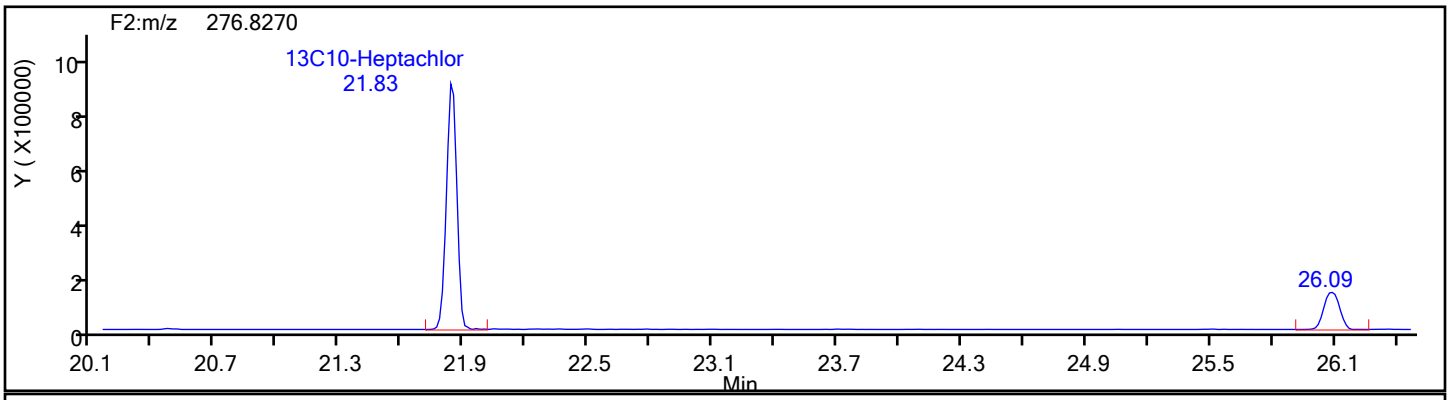
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

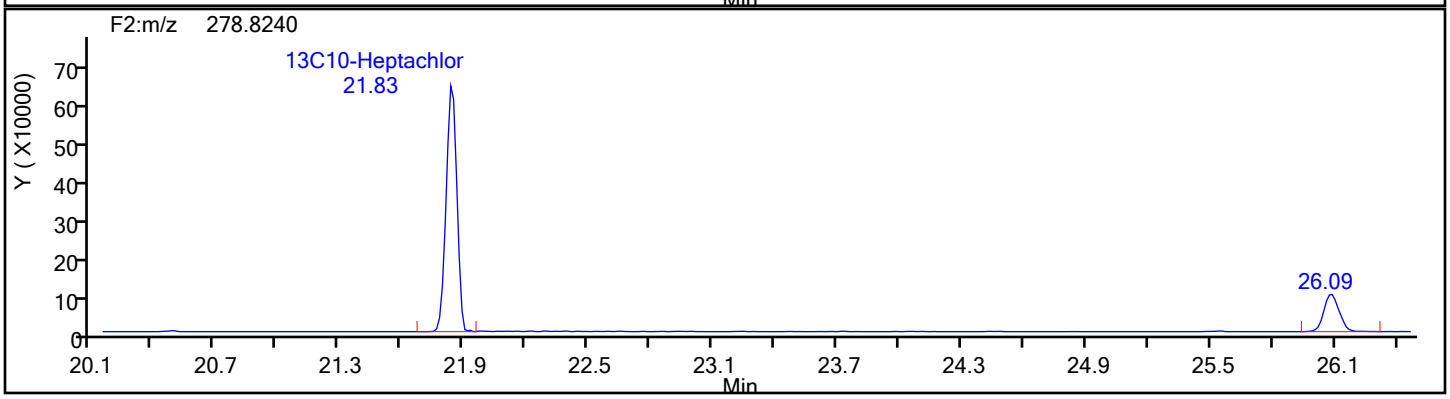
PCB-104





PCB-104 Standards



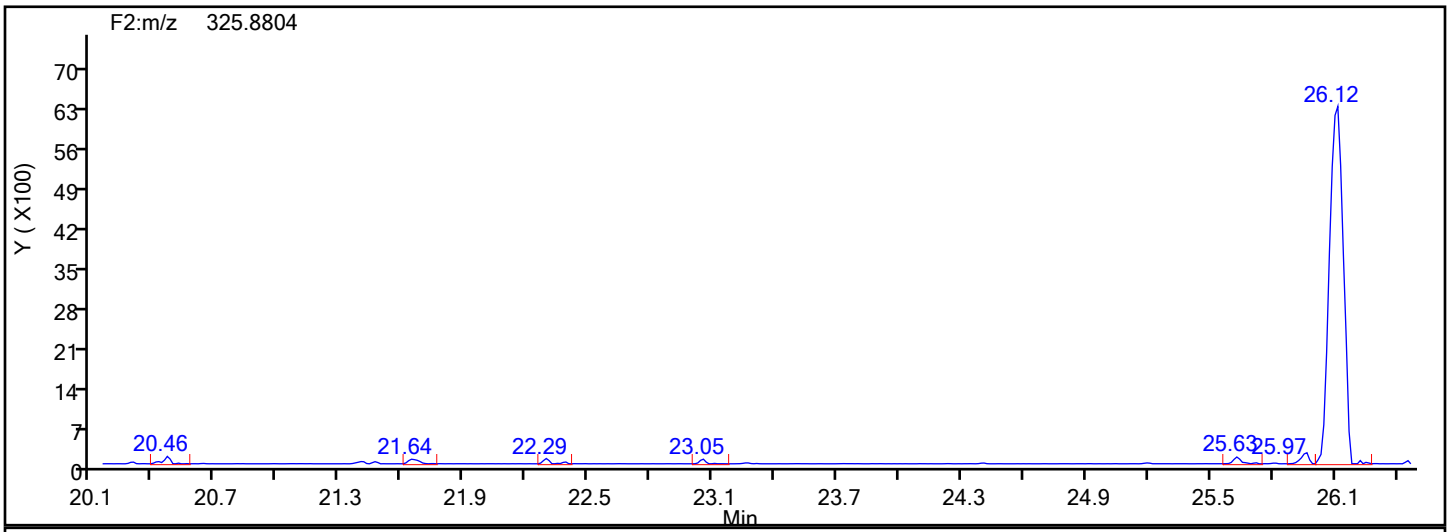


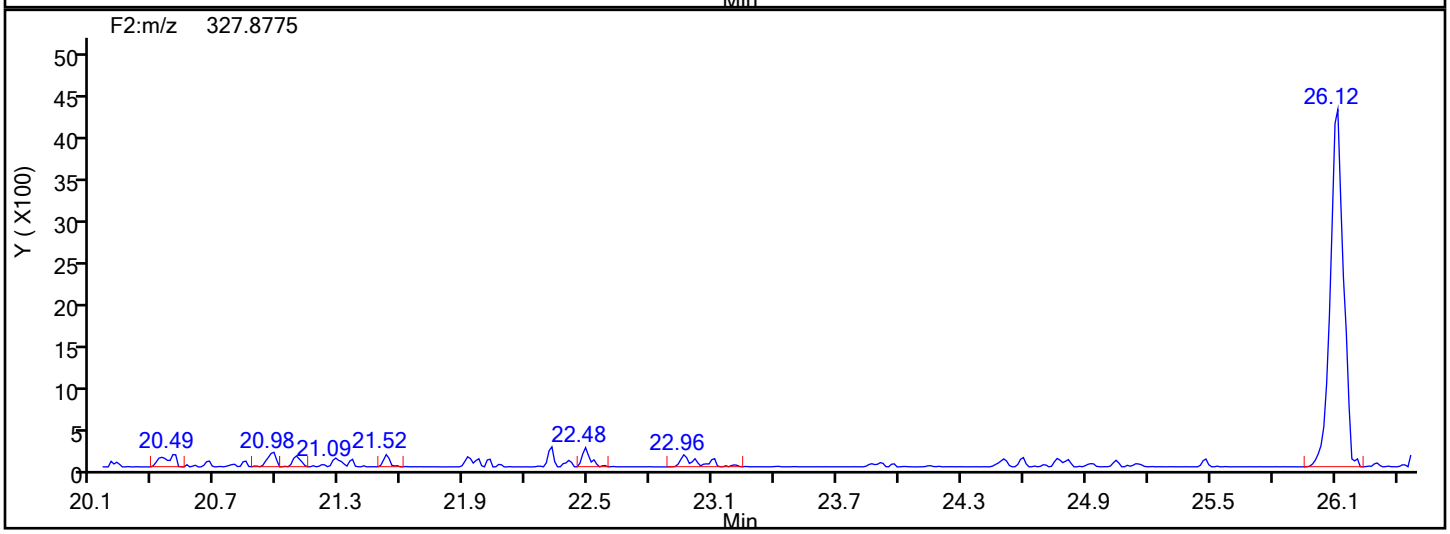
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

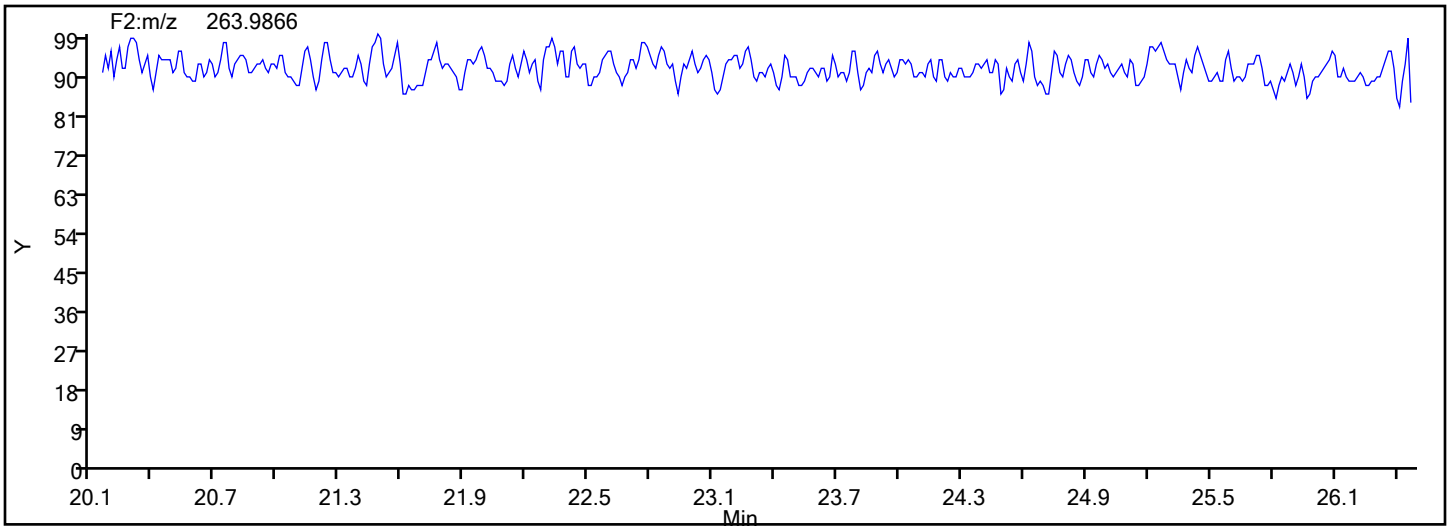
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



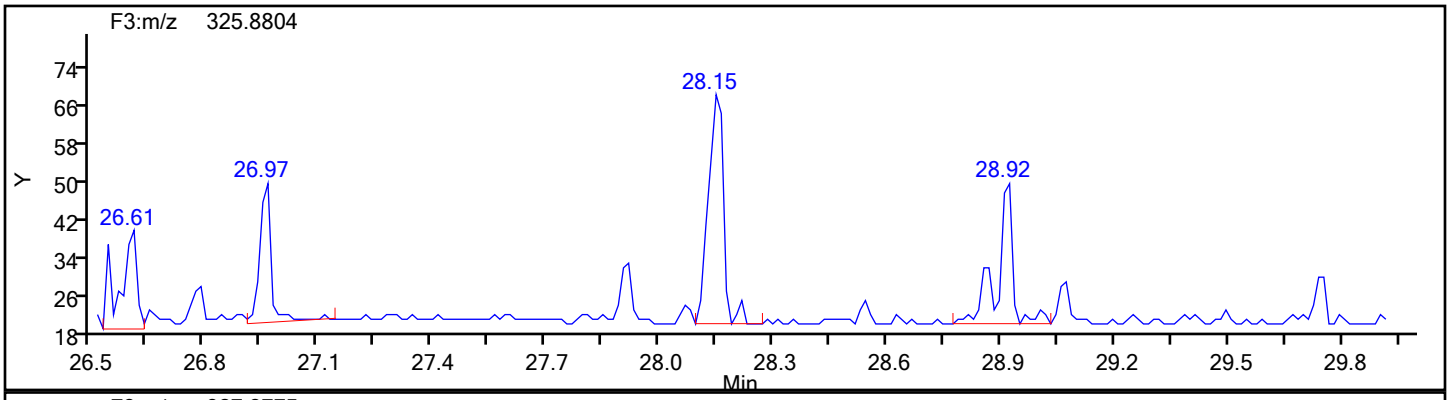
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

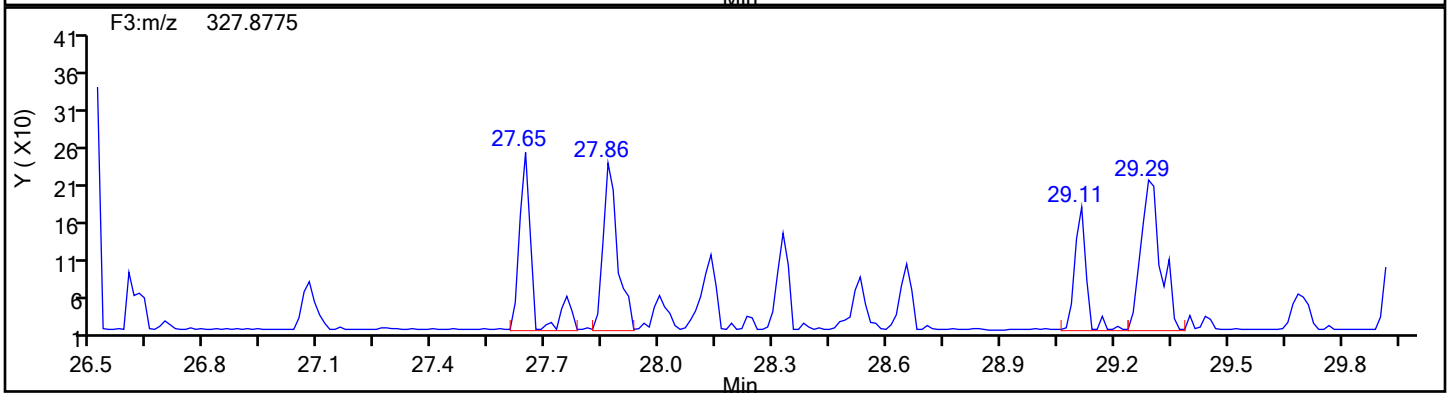
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

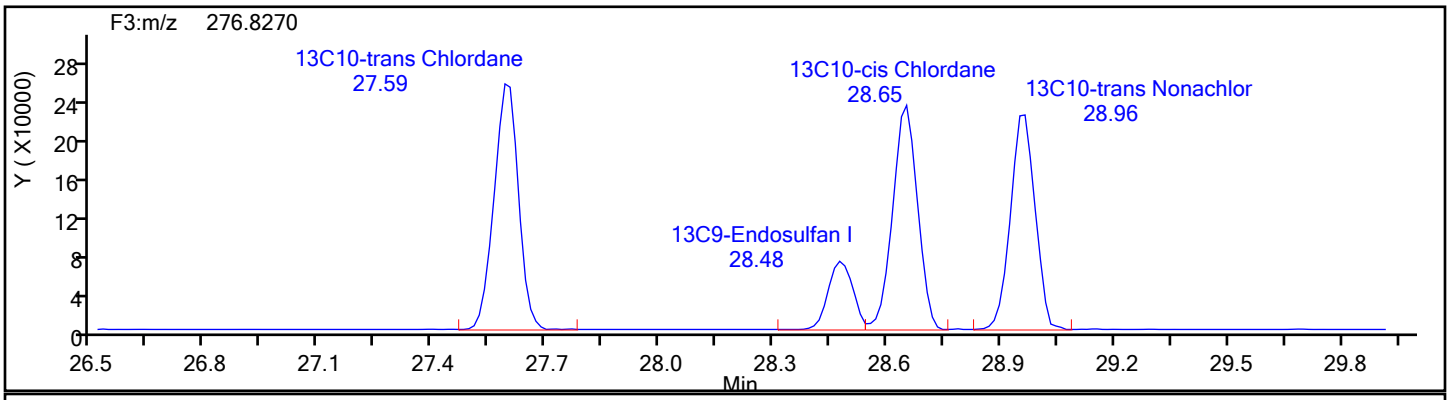
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

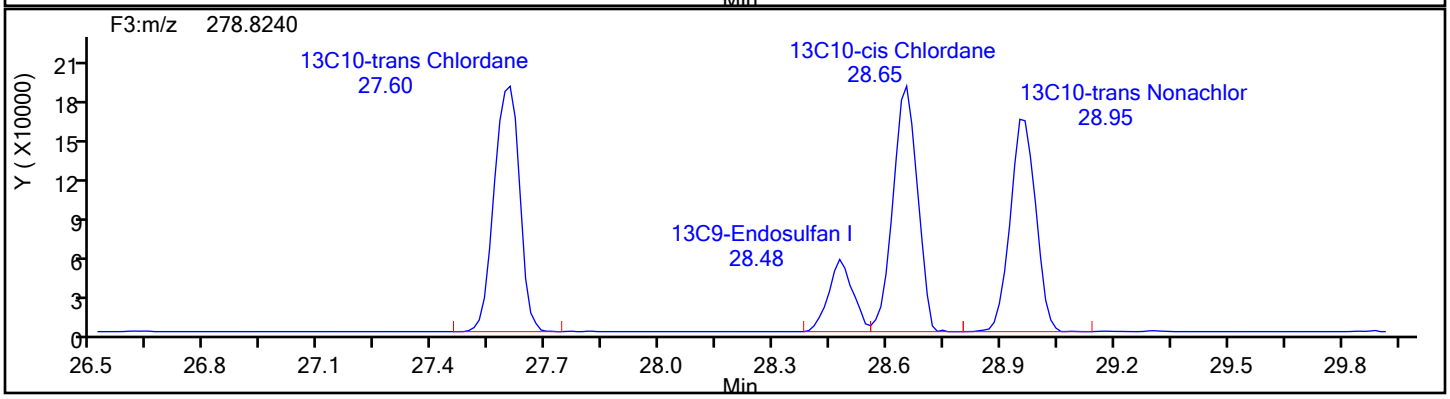
PCB-121





PCB-121 Standards





Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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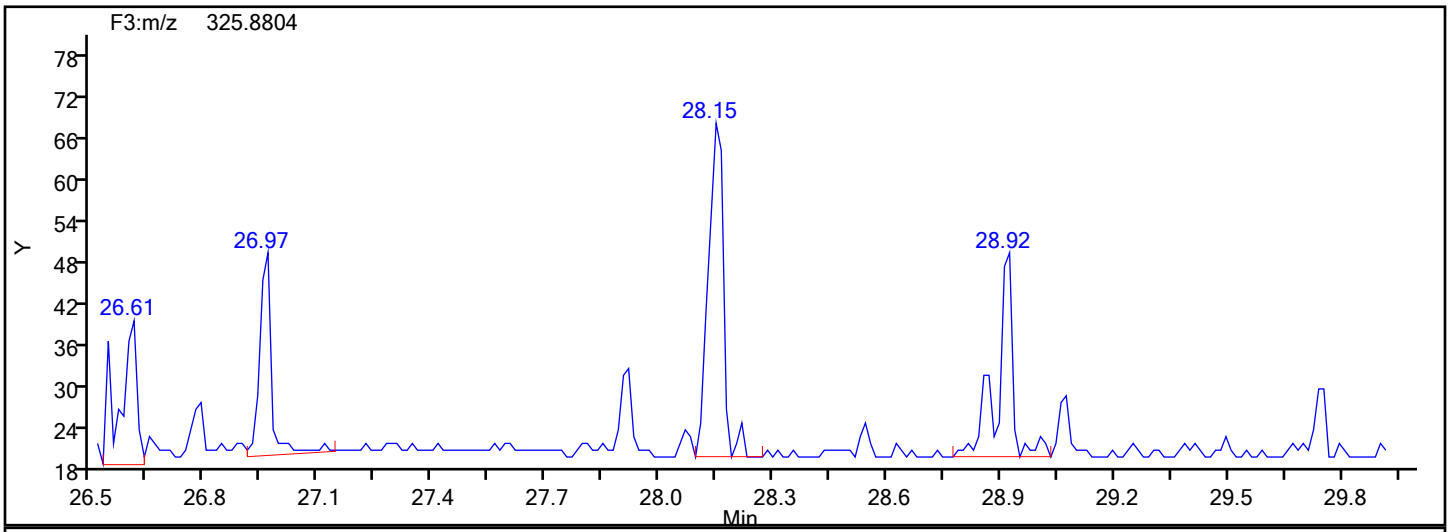
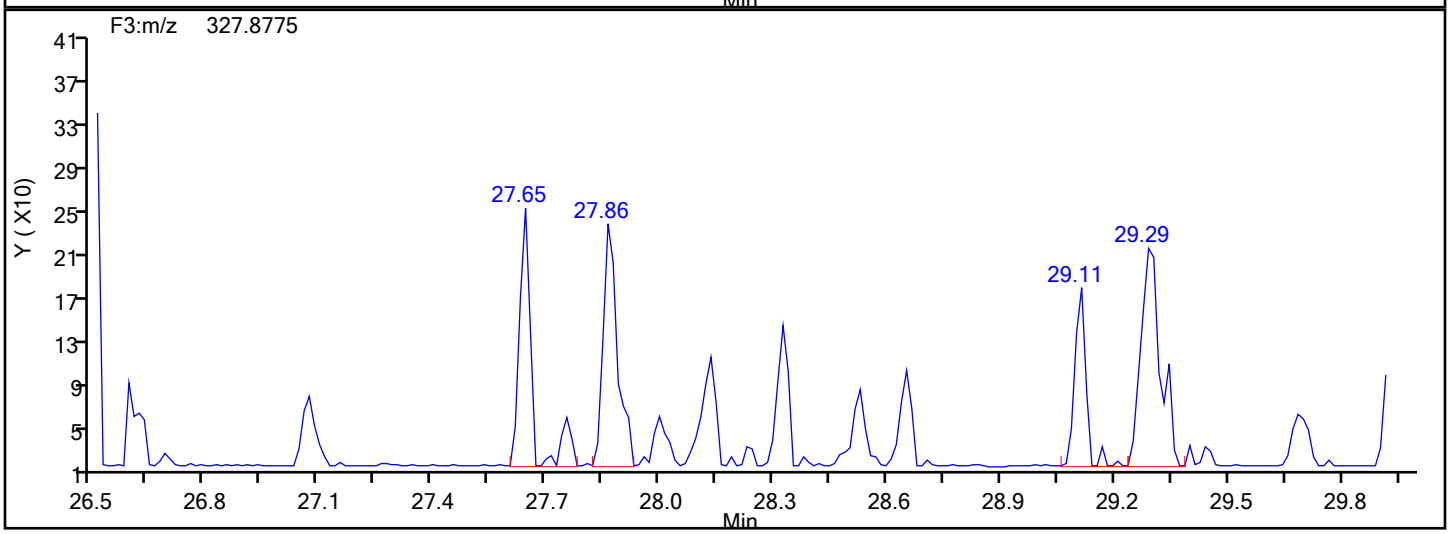
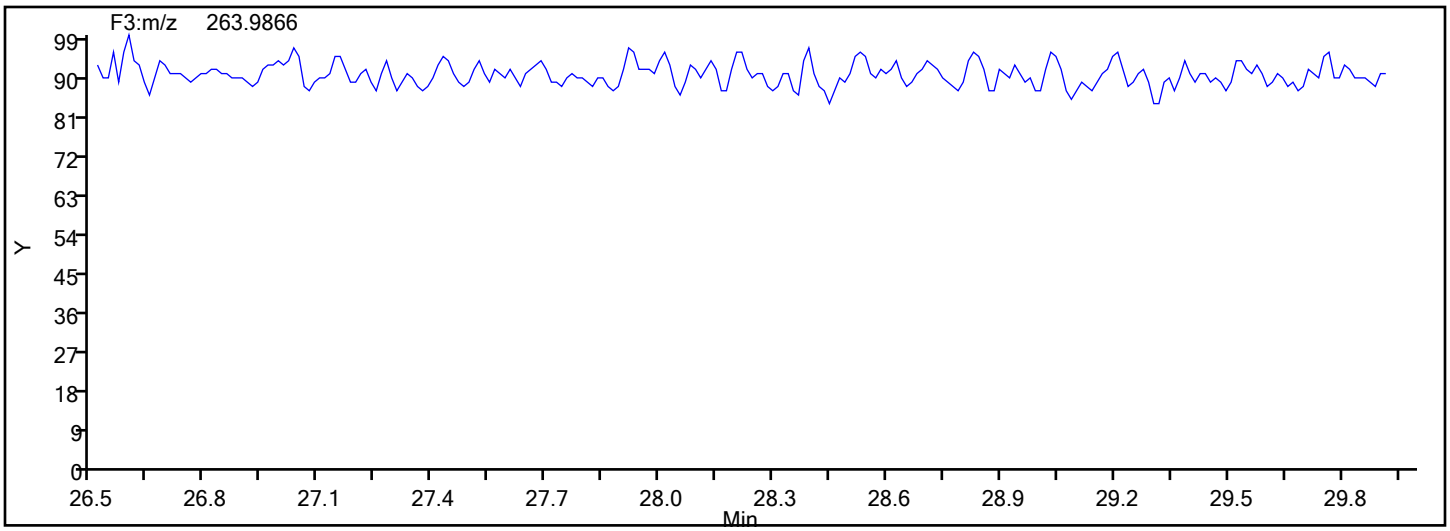
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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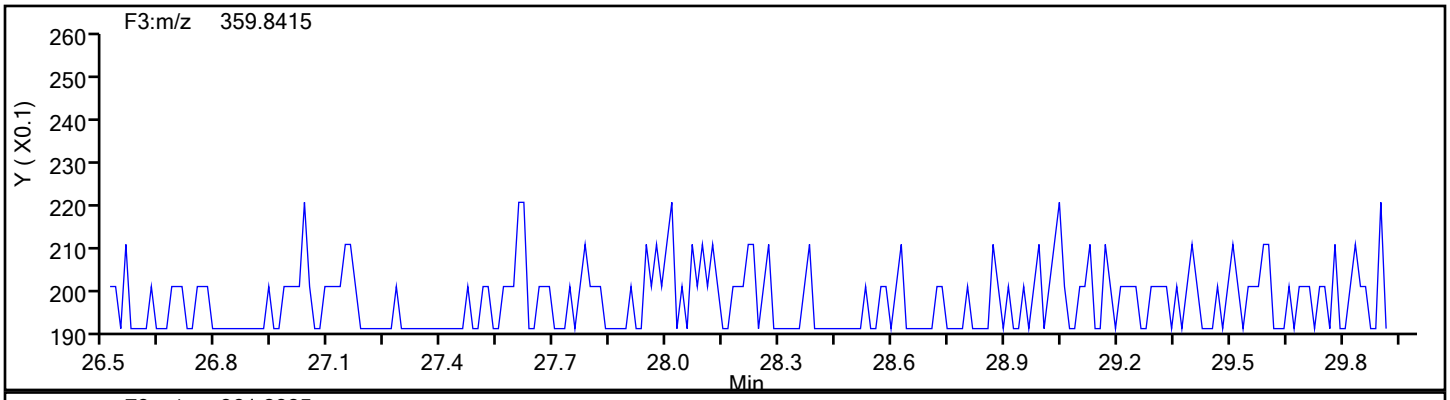
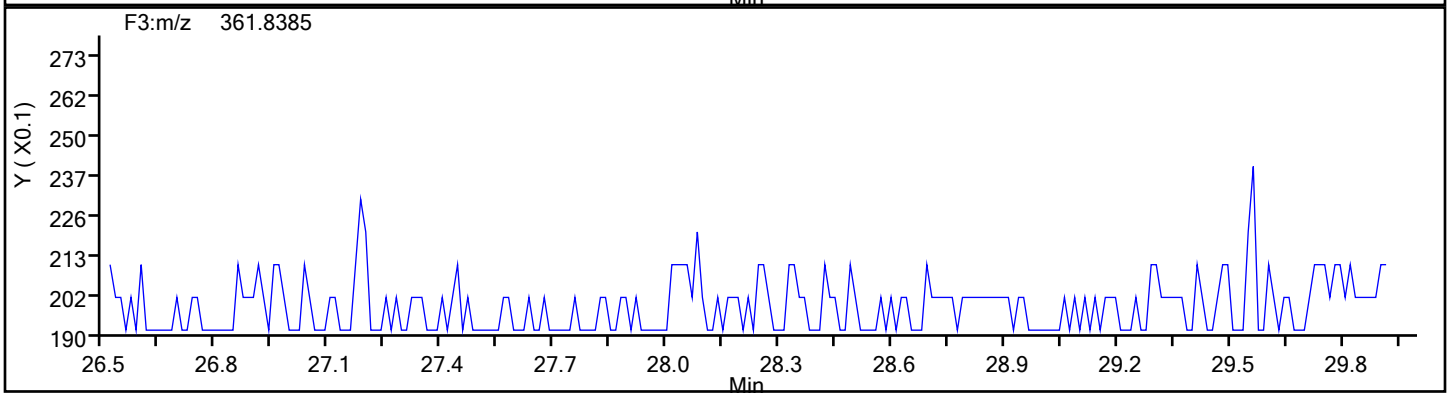
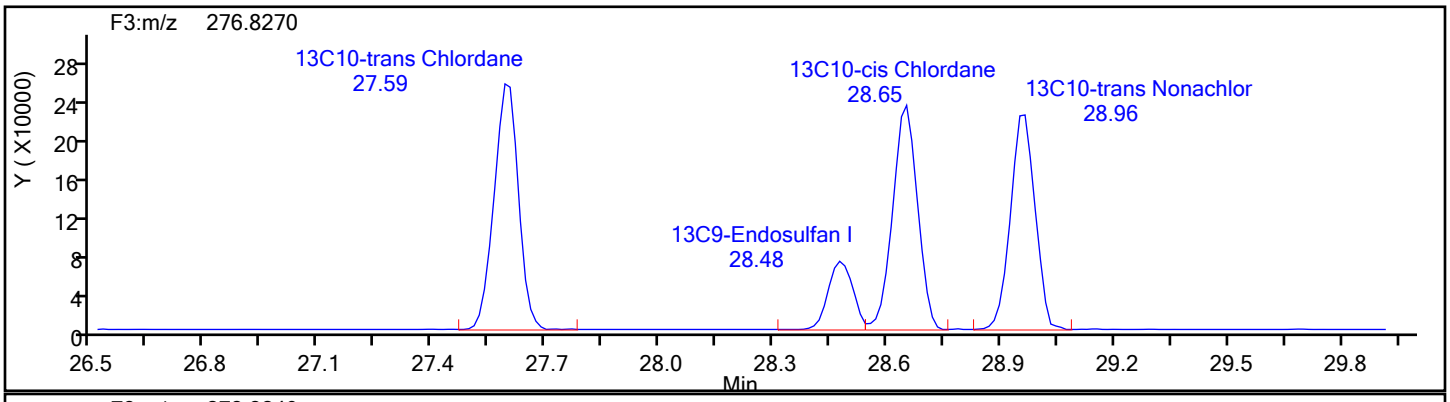
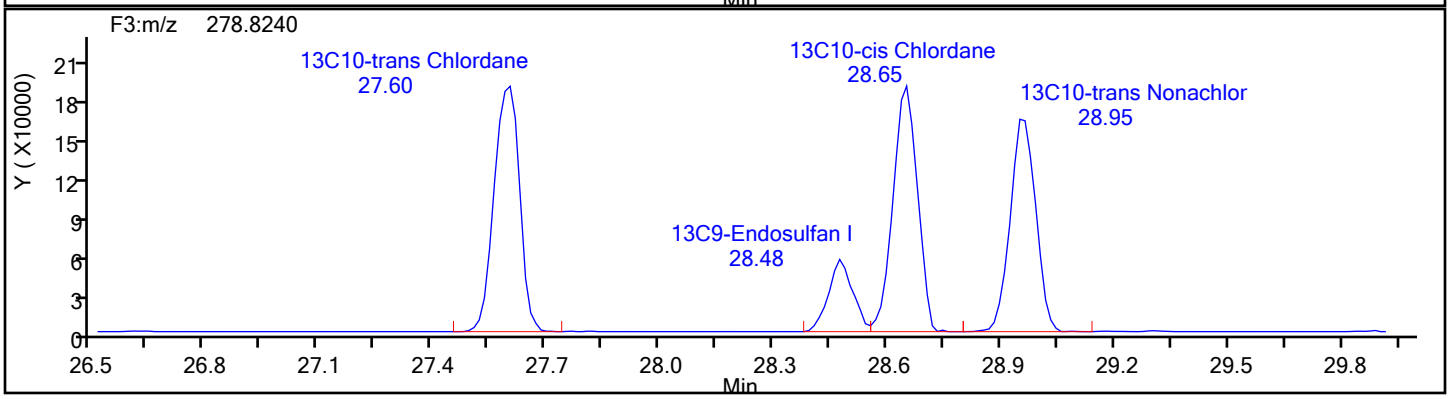
PCB-142





PCB-142 Standards





Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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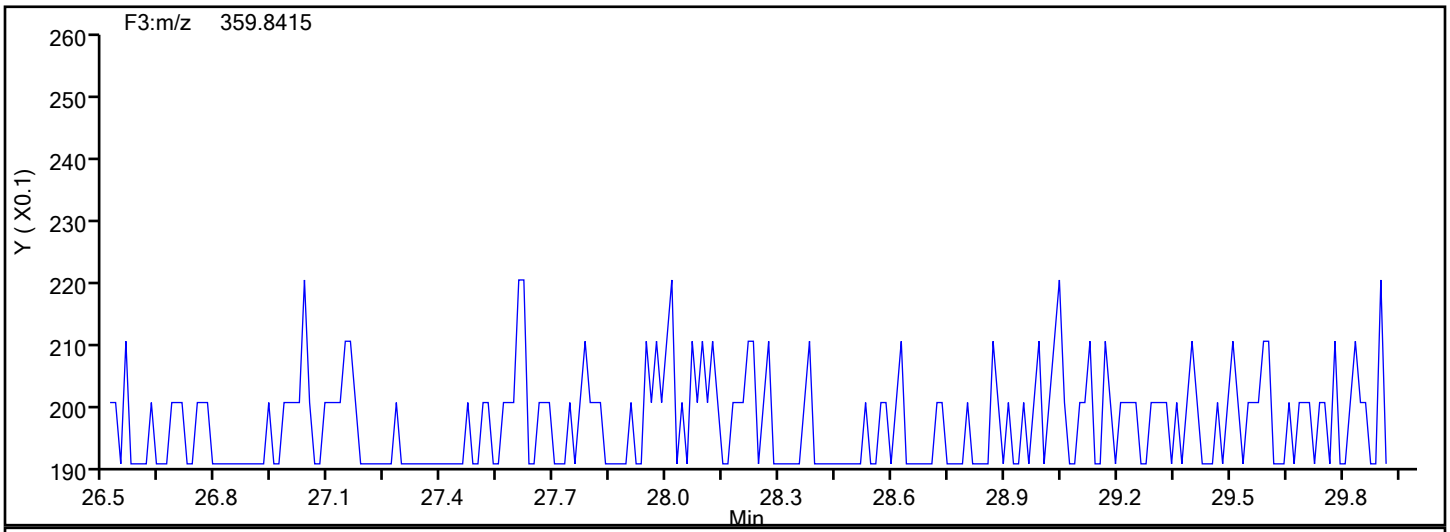
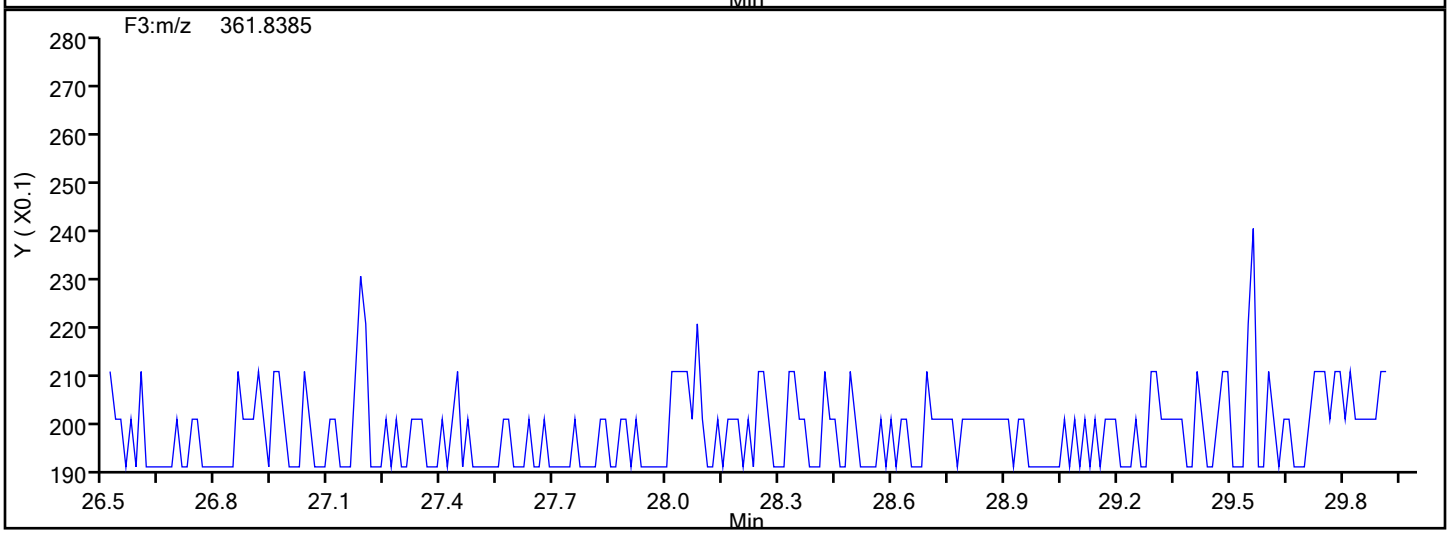
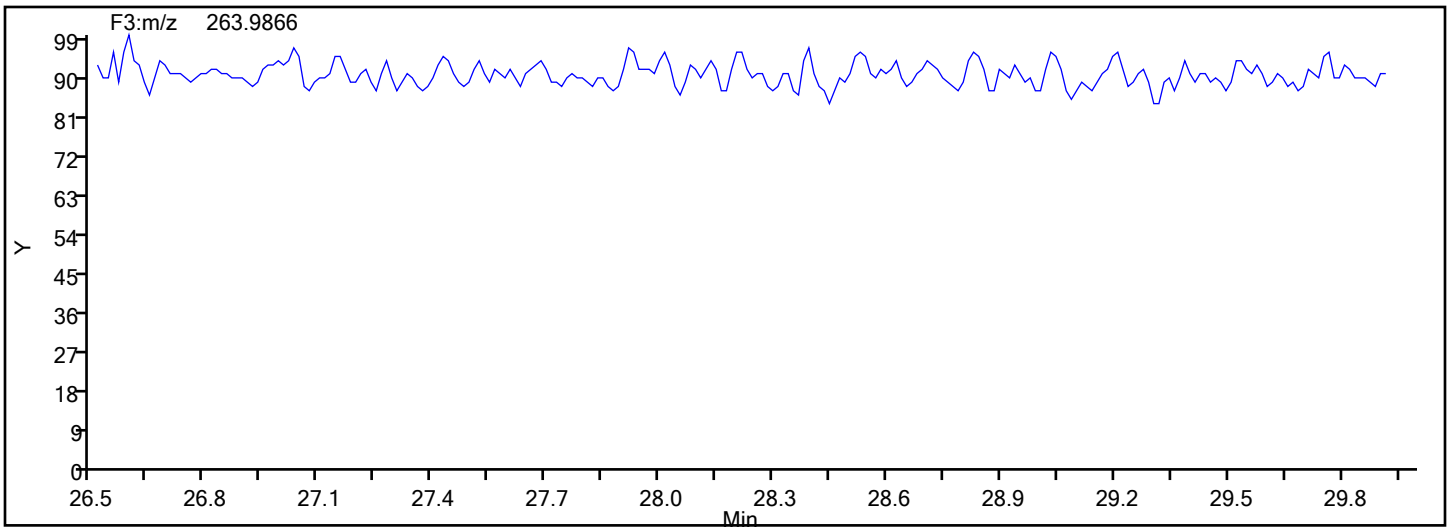
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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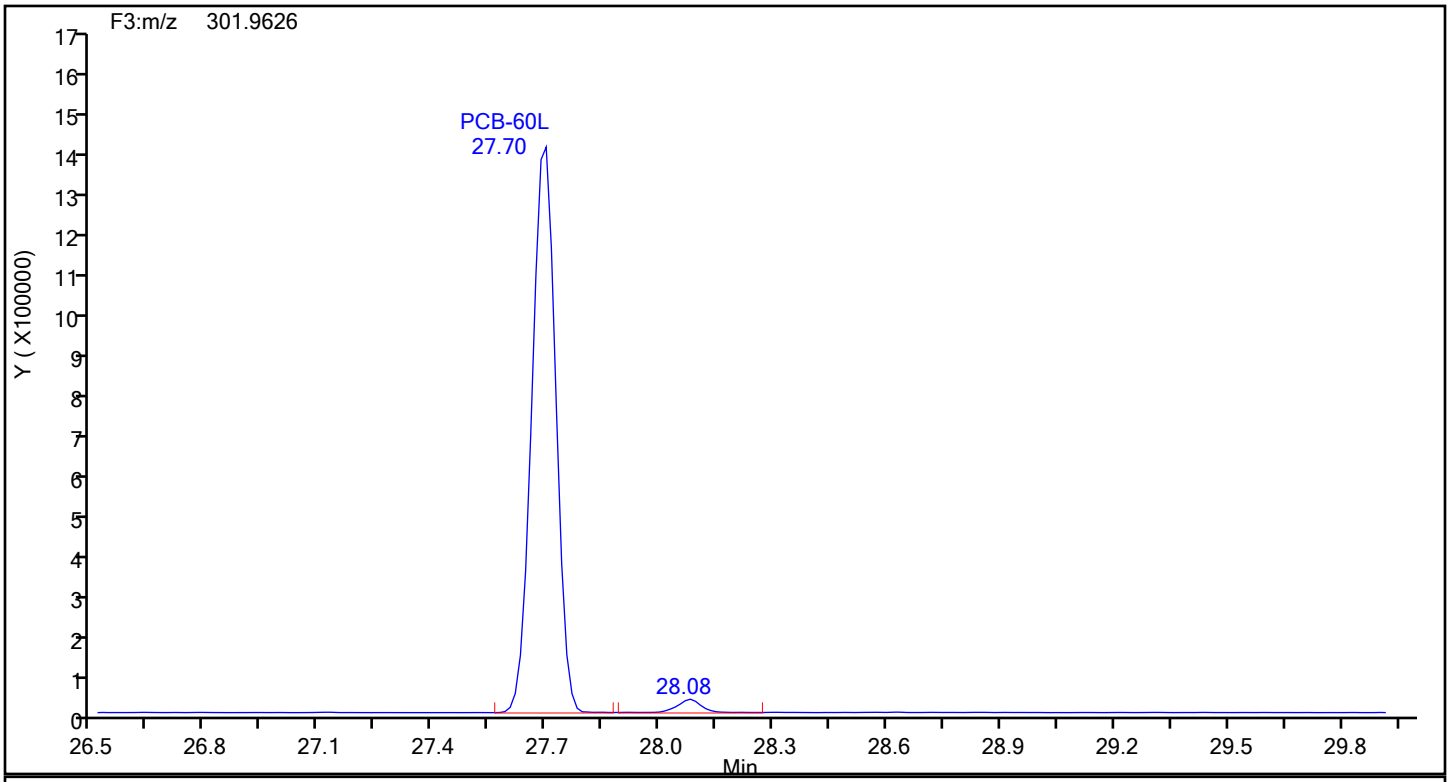
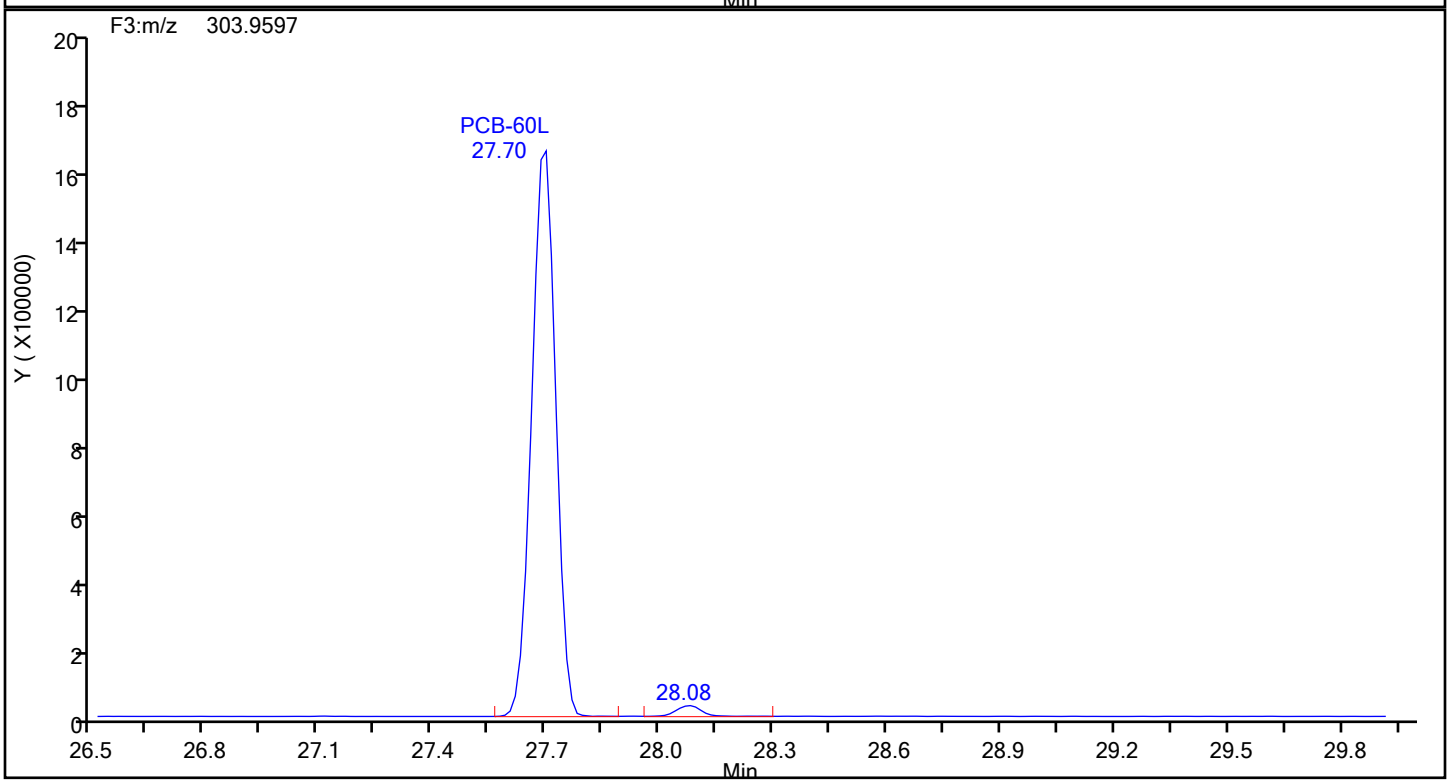
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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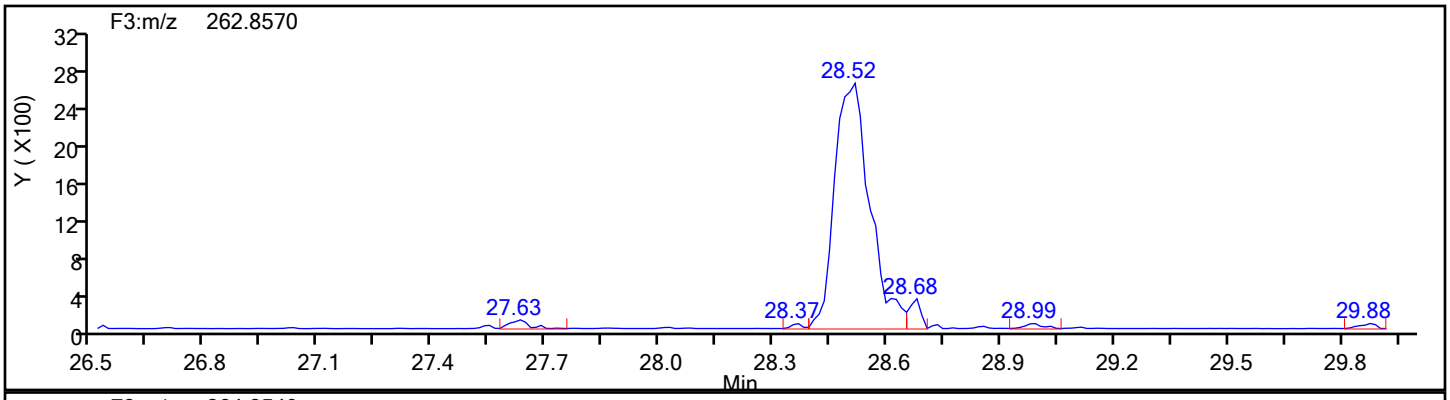
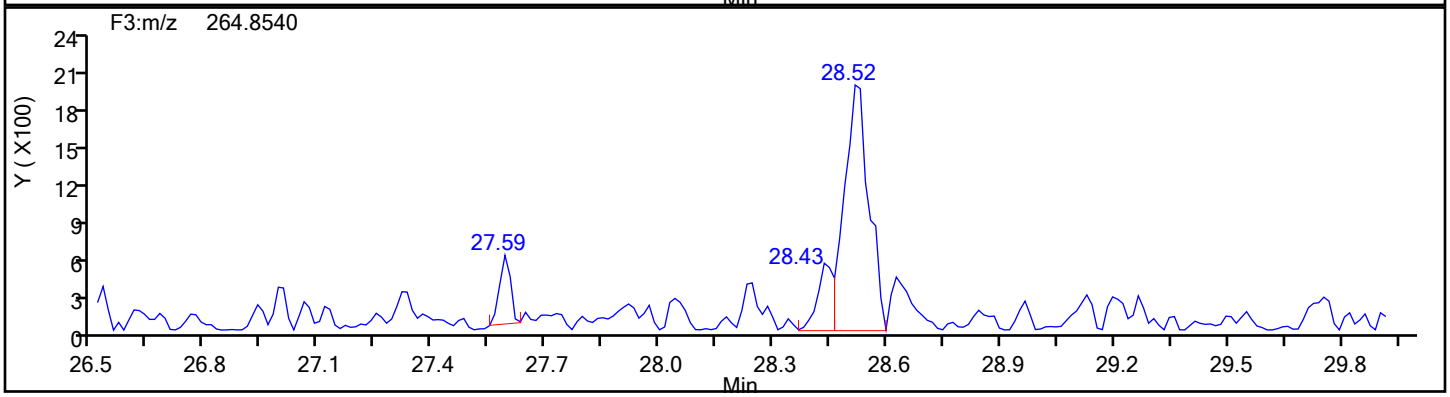
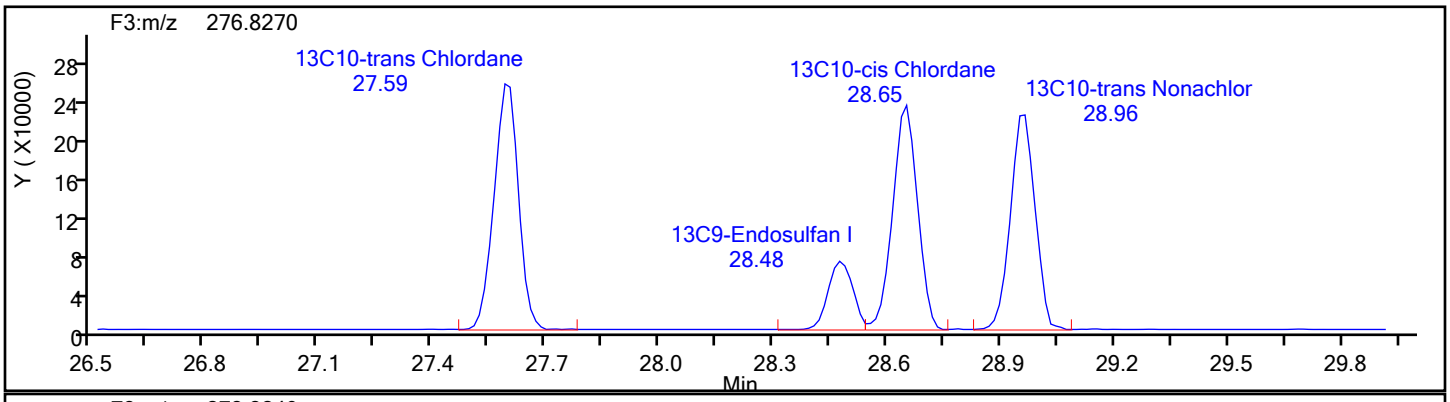
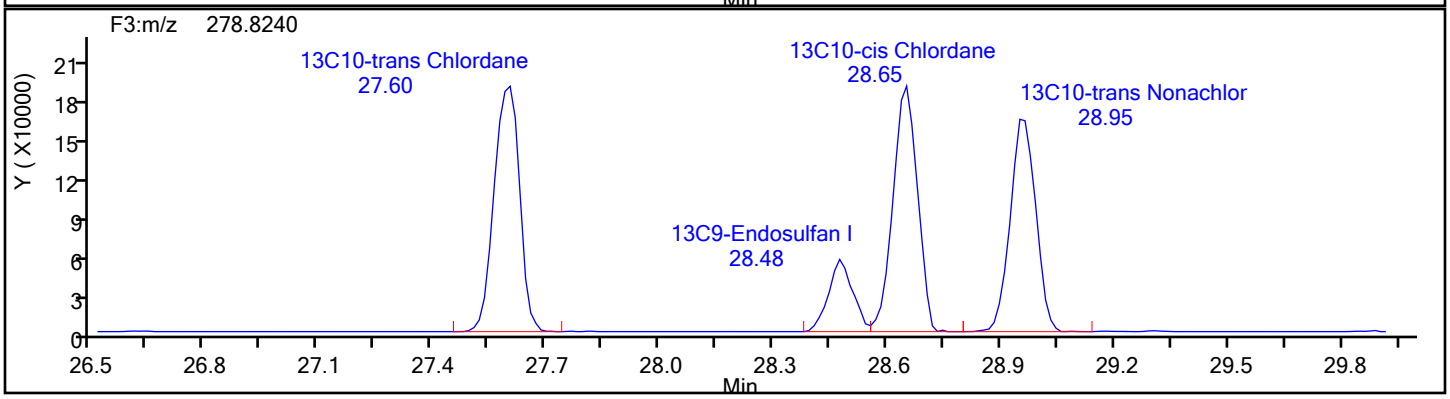
Endosulfan I





Endosulfan I Standards





Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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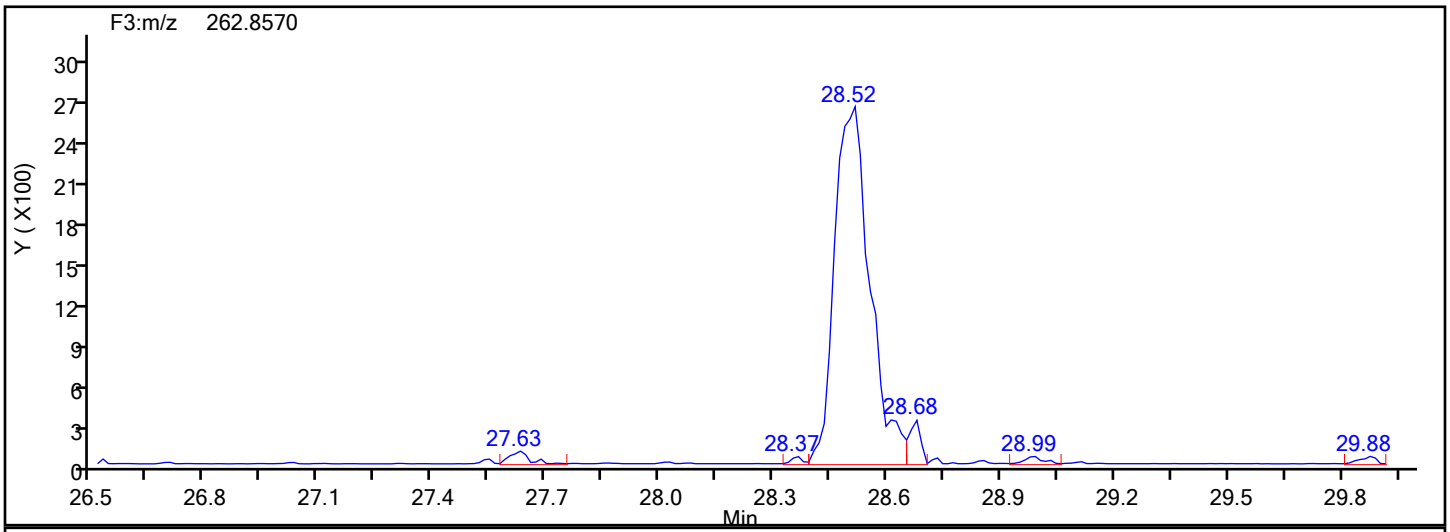
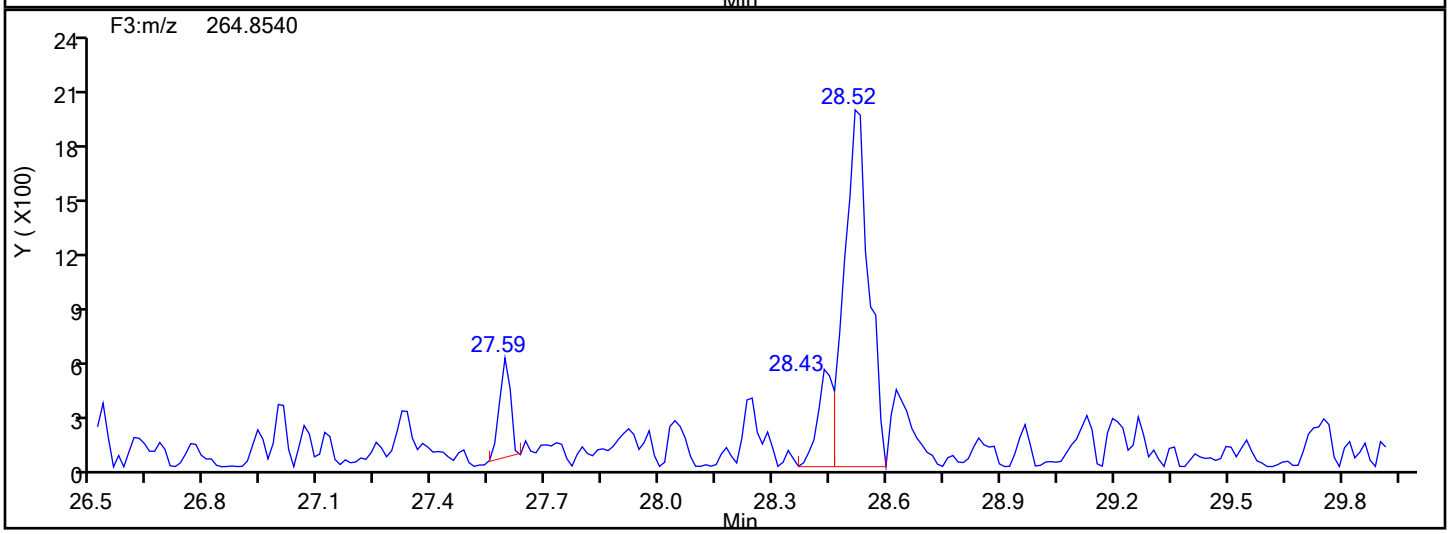
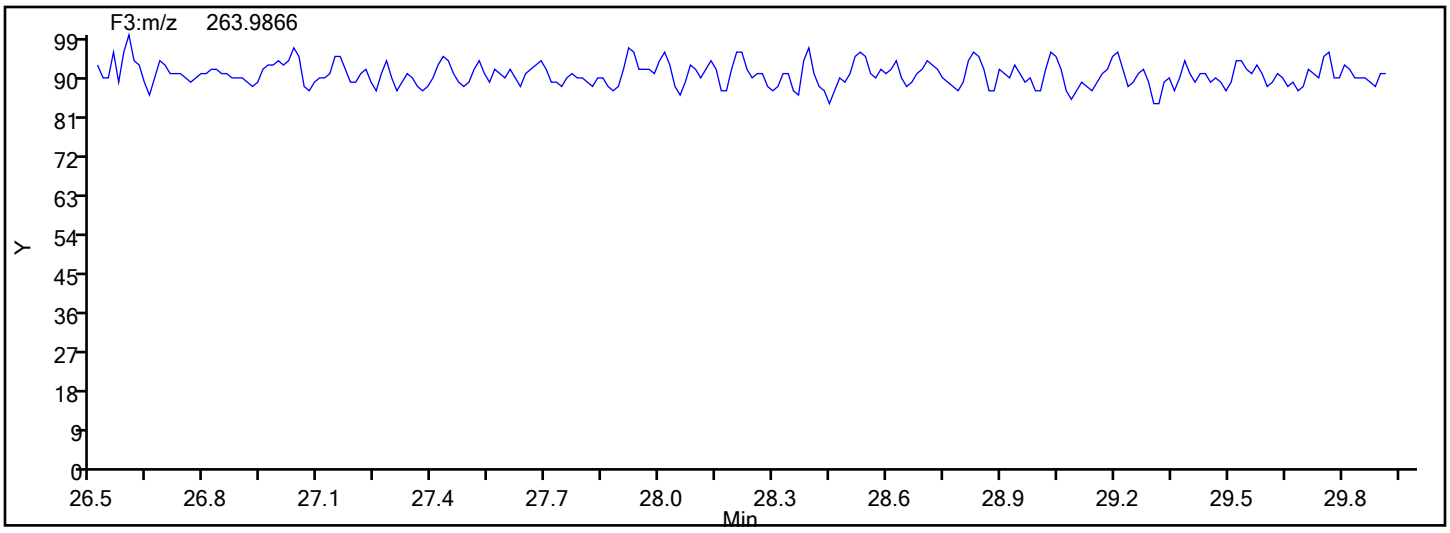
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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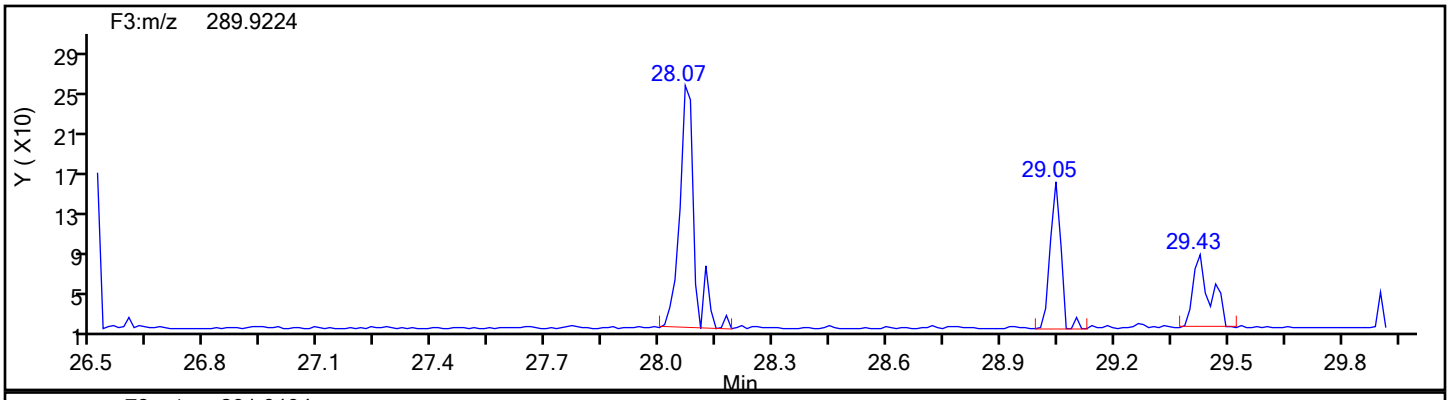
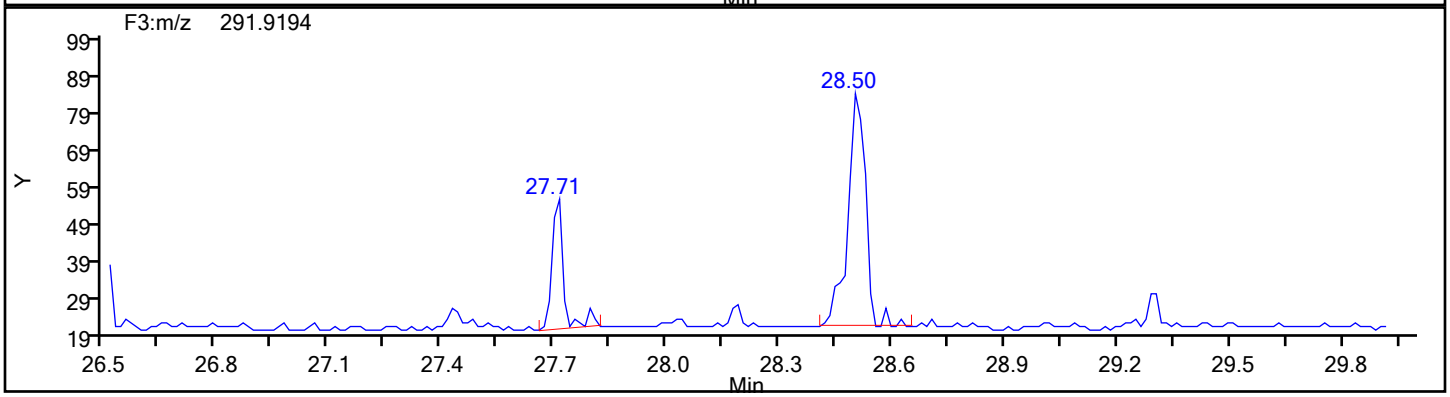
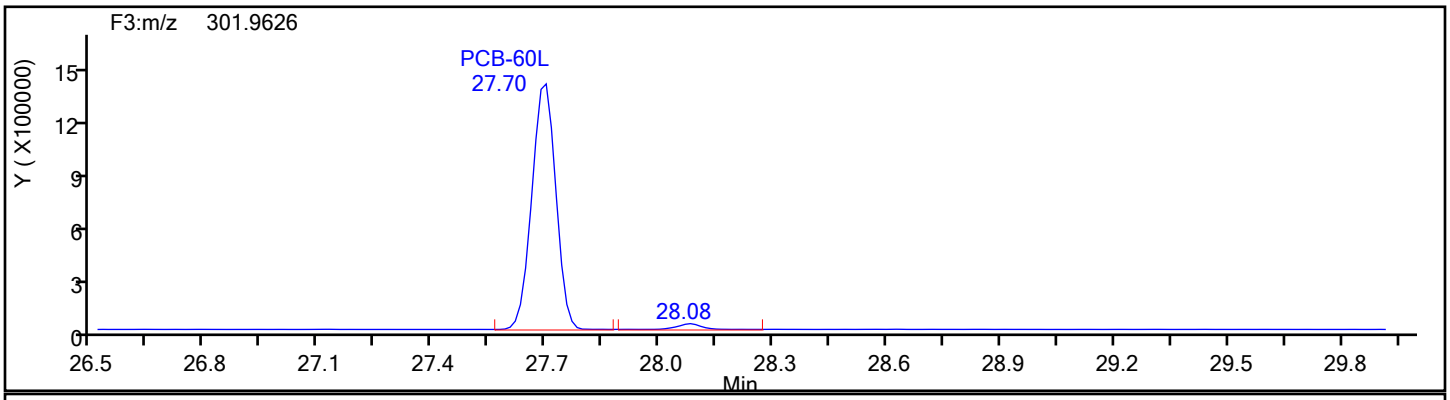
Column Type:	RTX-5	Column Dia:	0.32 mm

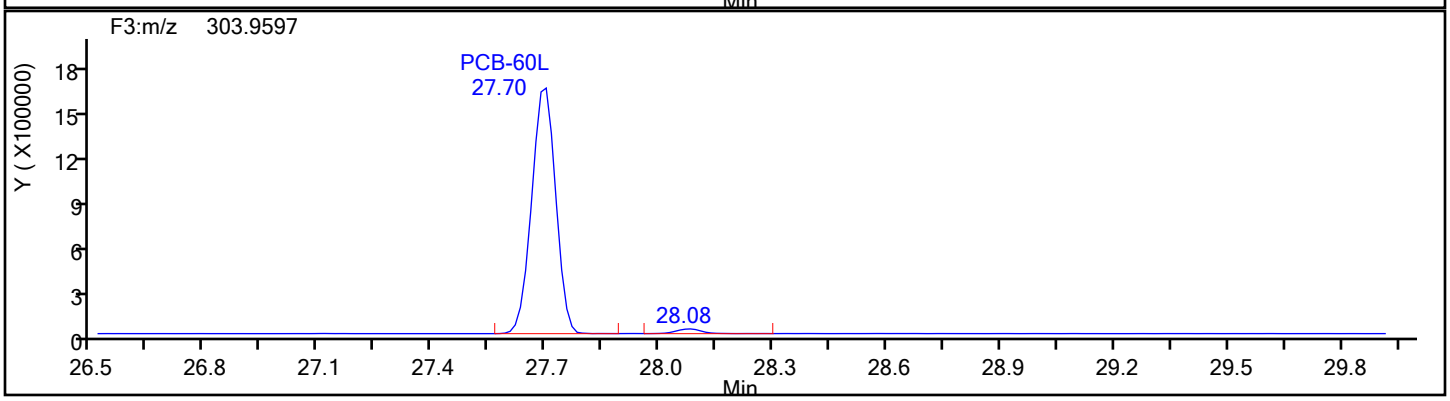
PCB-78





PCB-78 Standards





Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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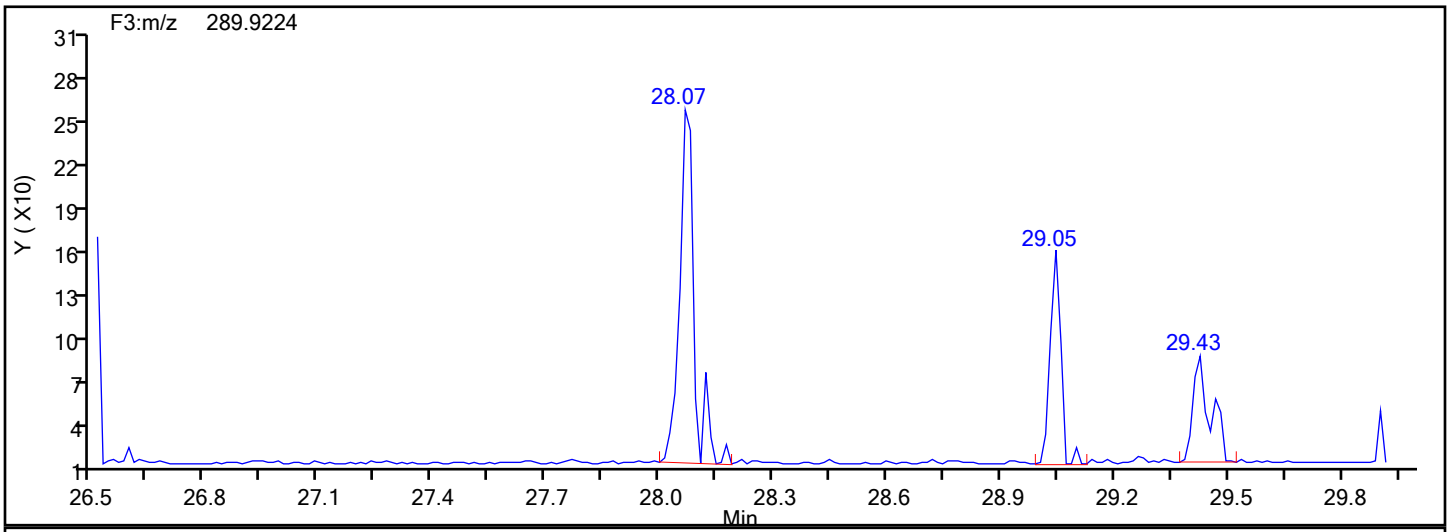
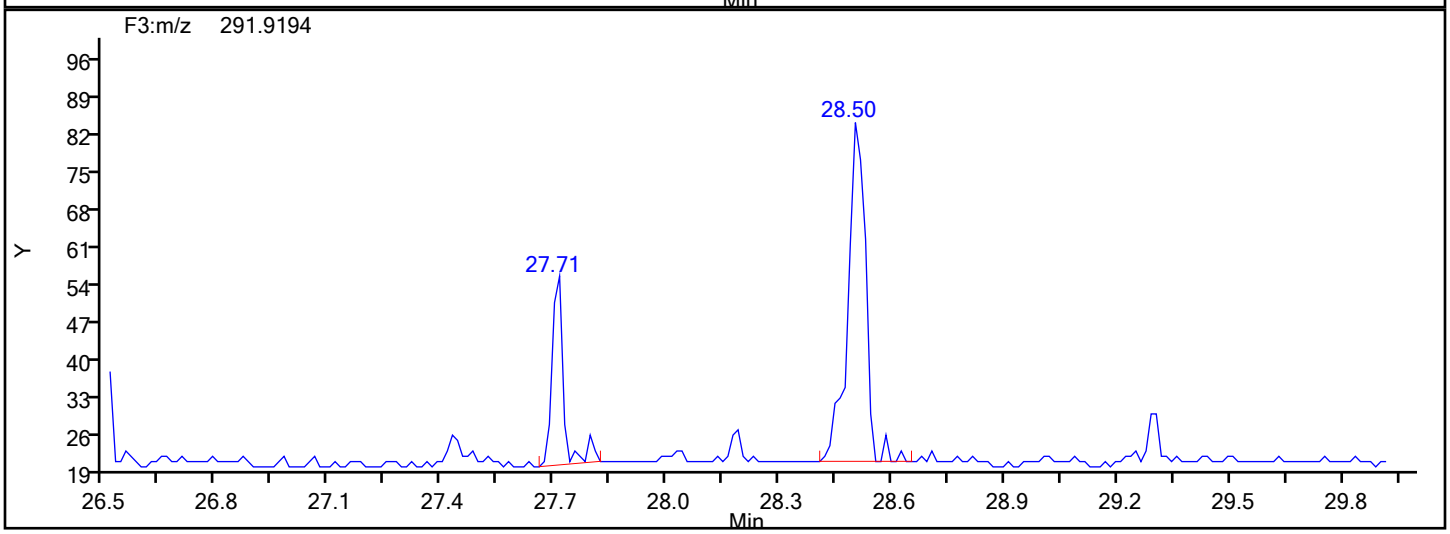
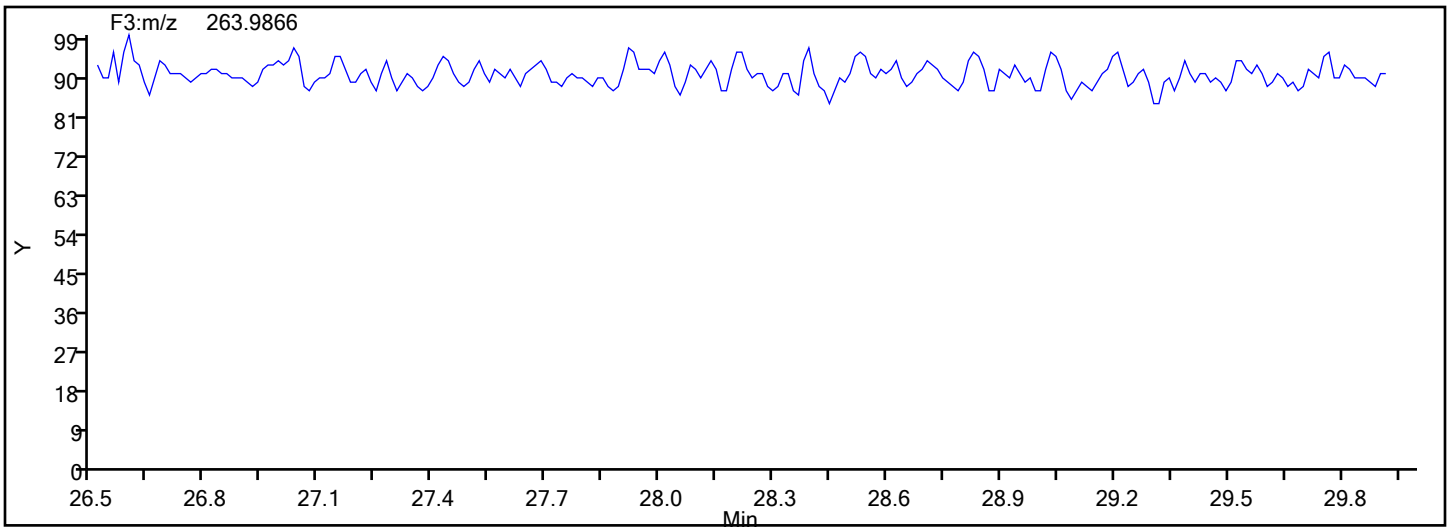
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



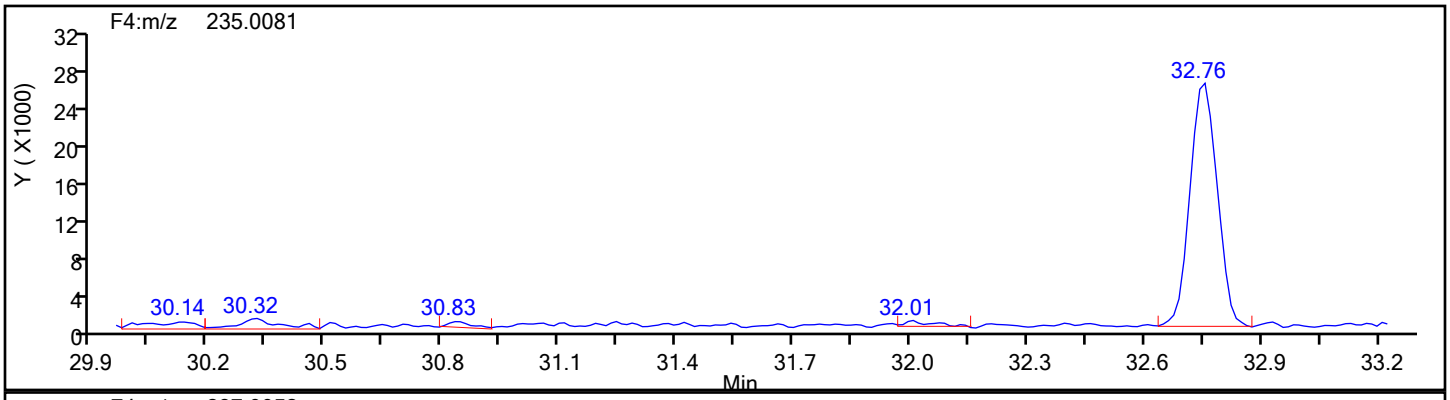
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

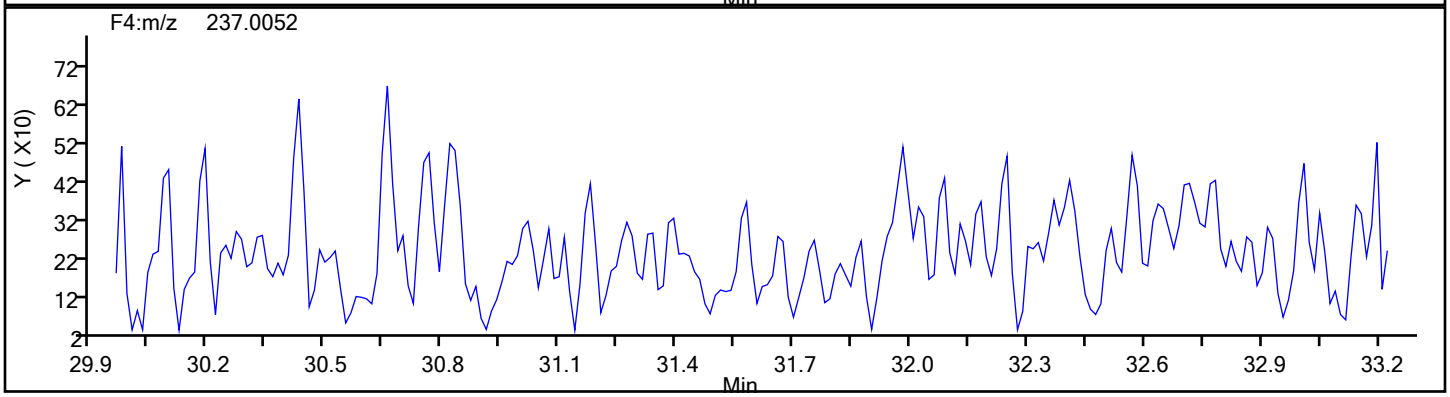
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

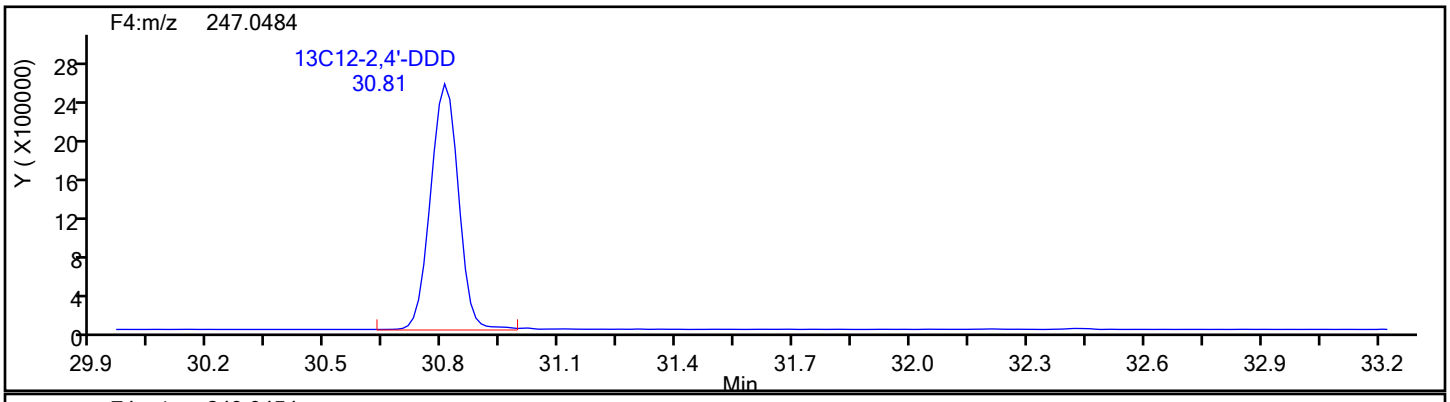
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

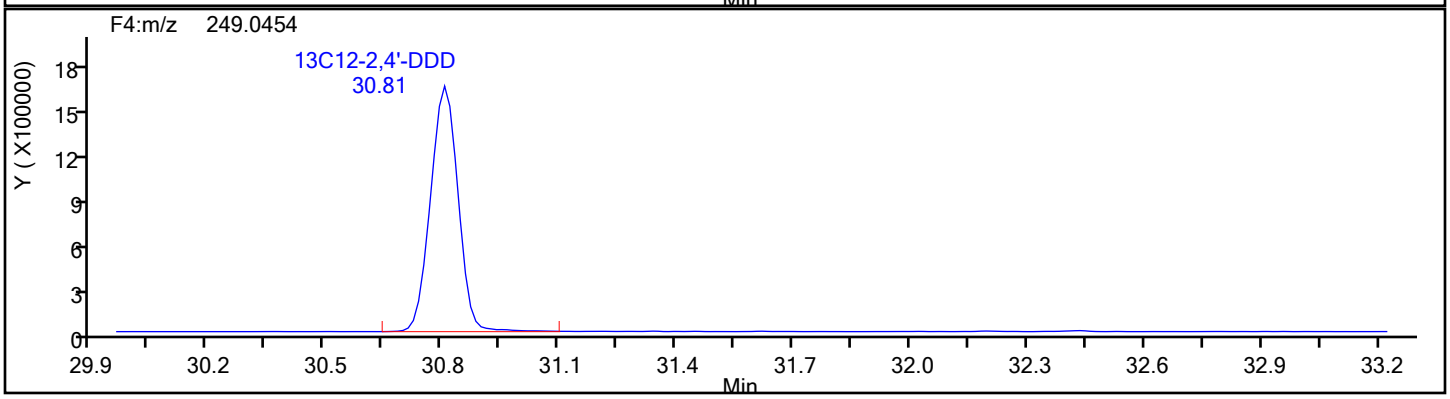
2,4'-DDD





2,4'-DDD Standards



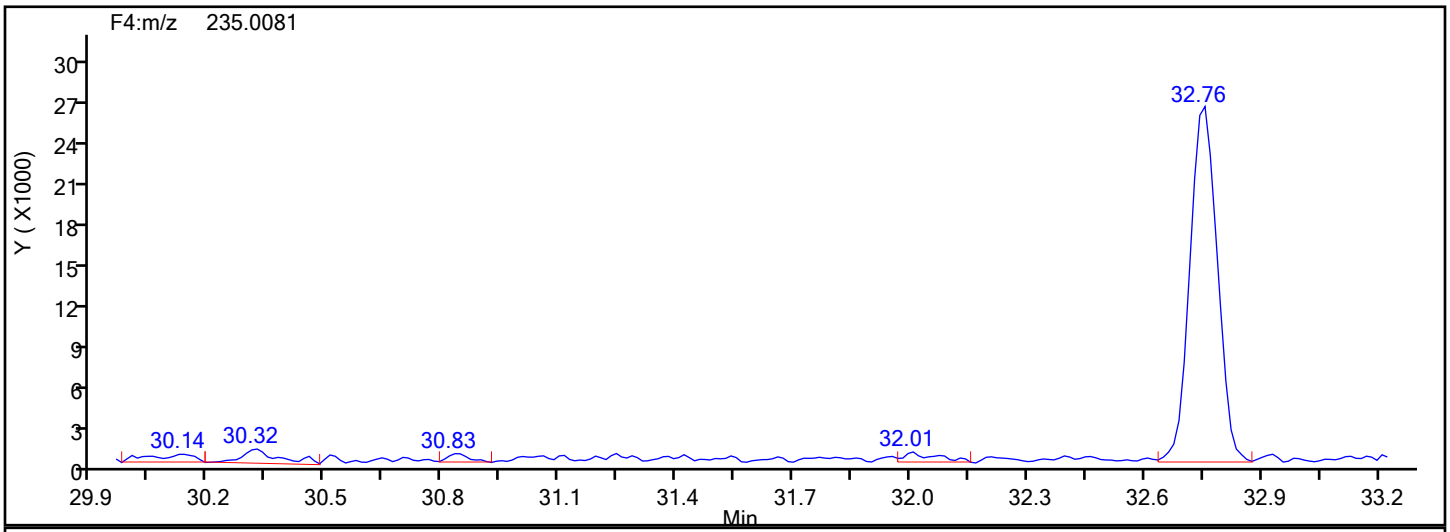


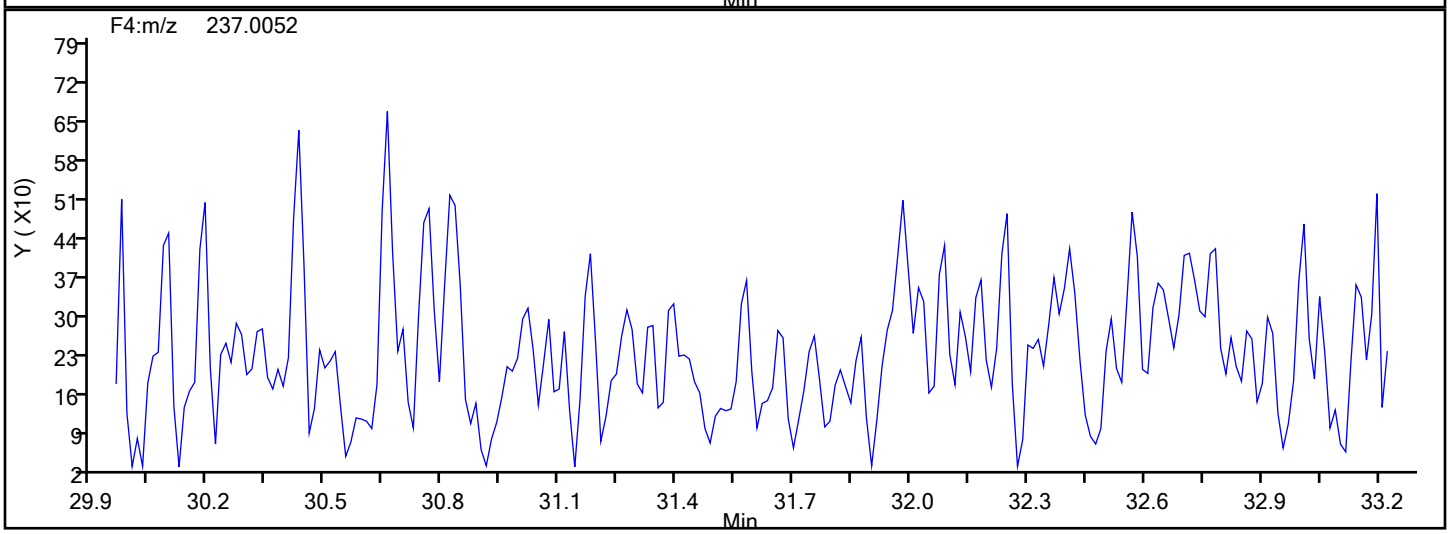
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

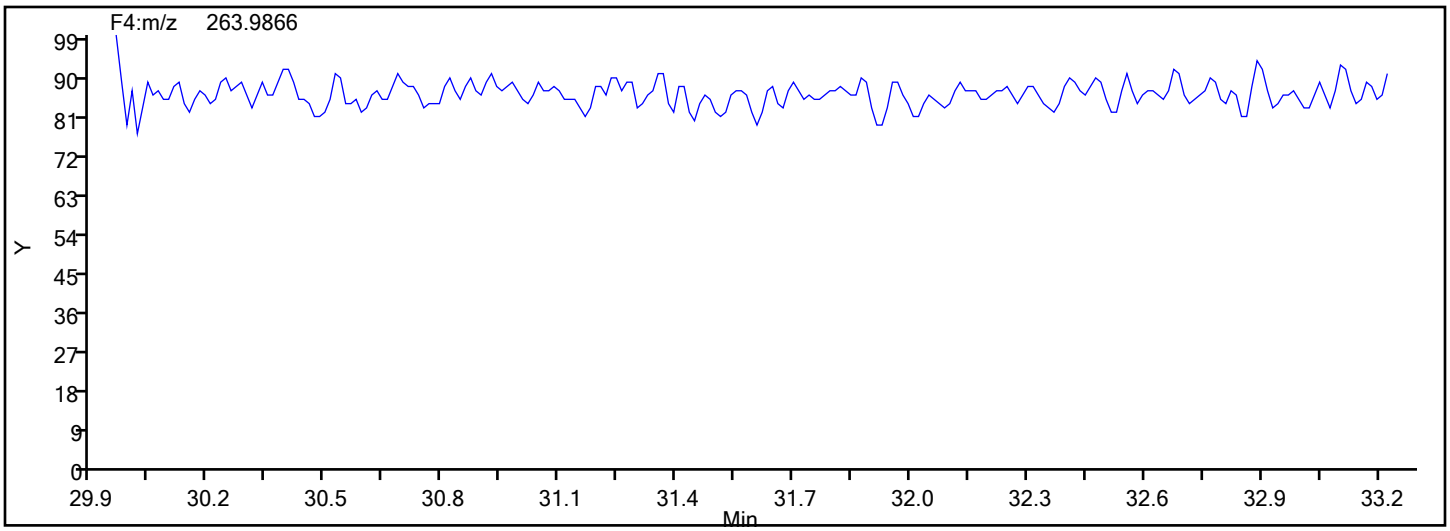
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



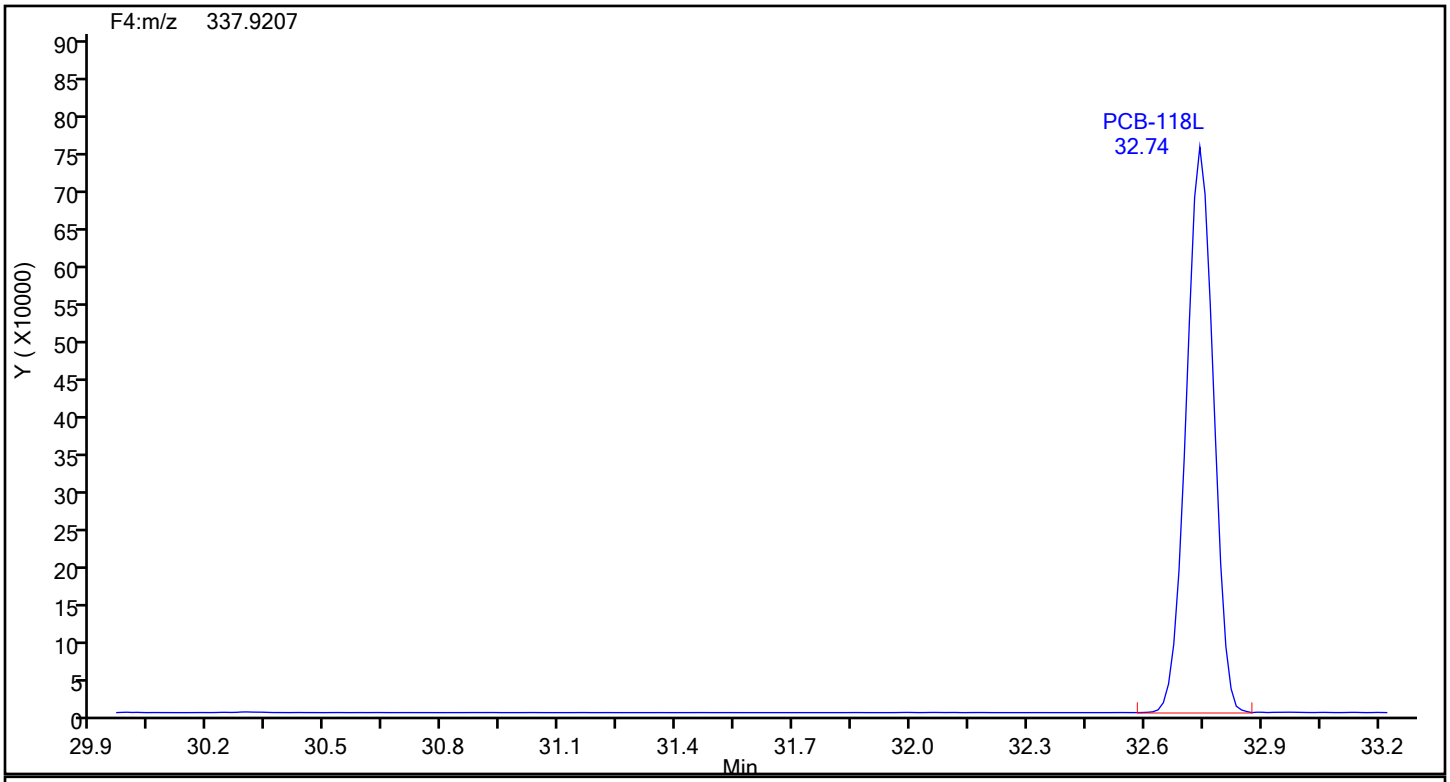
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

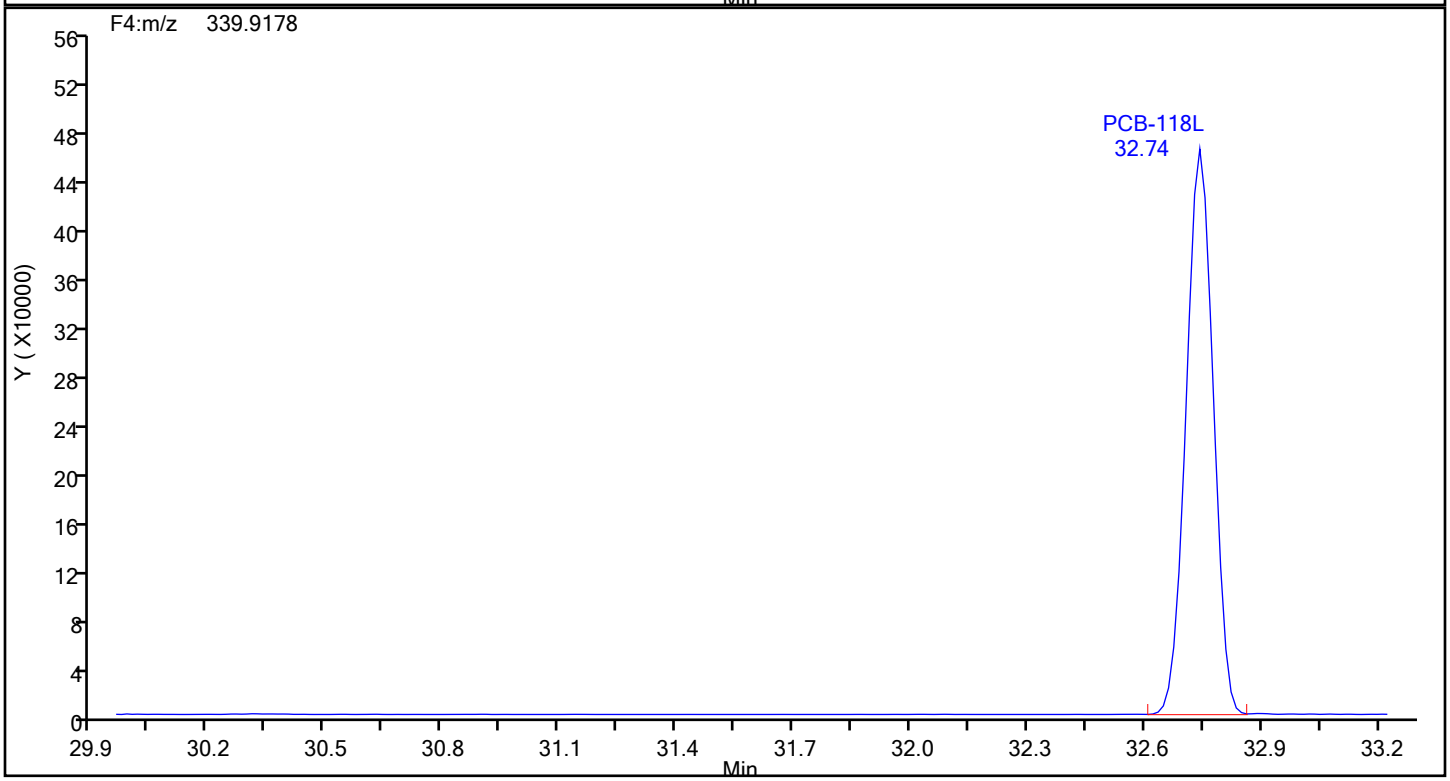
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





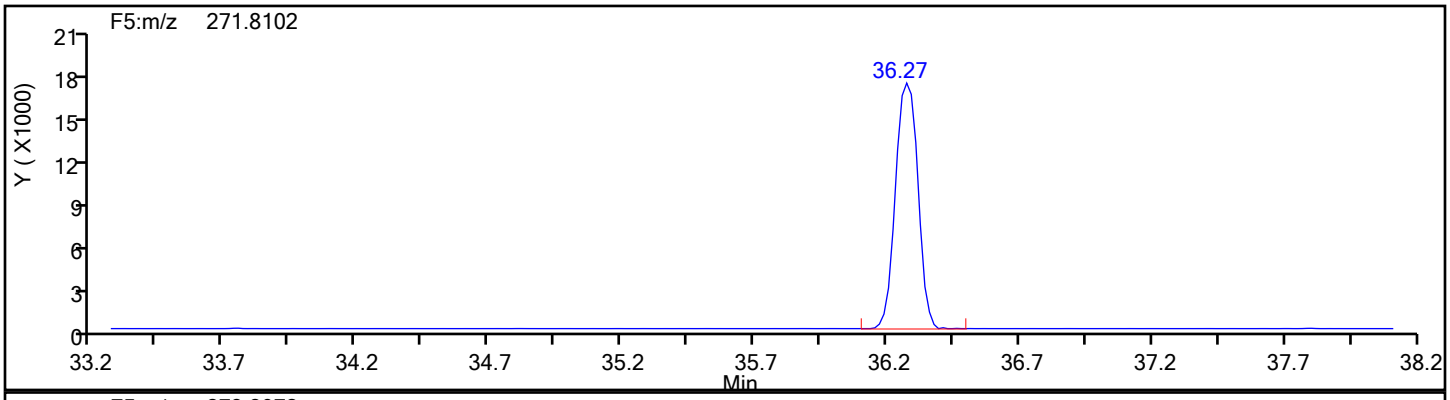
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

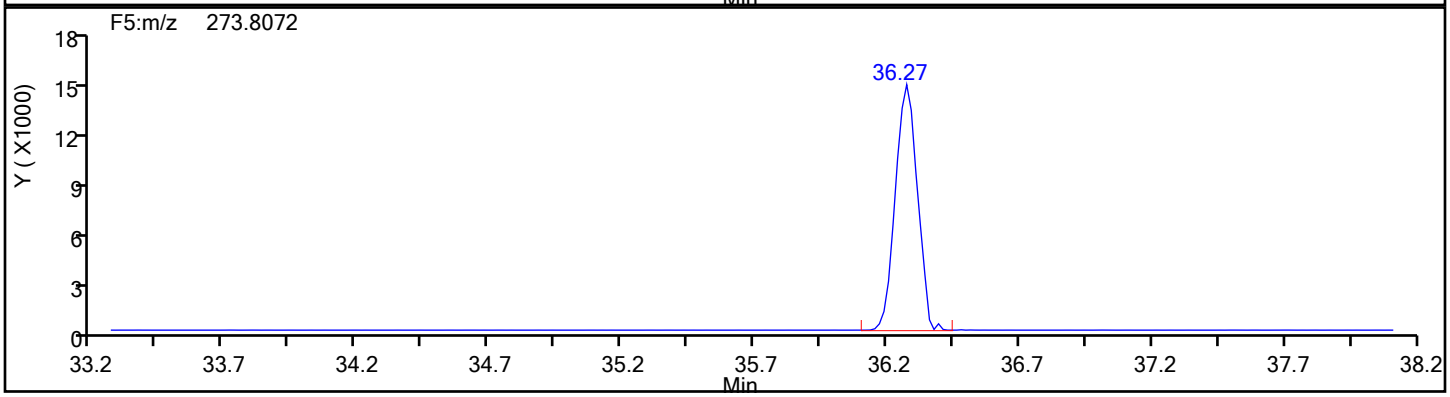
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

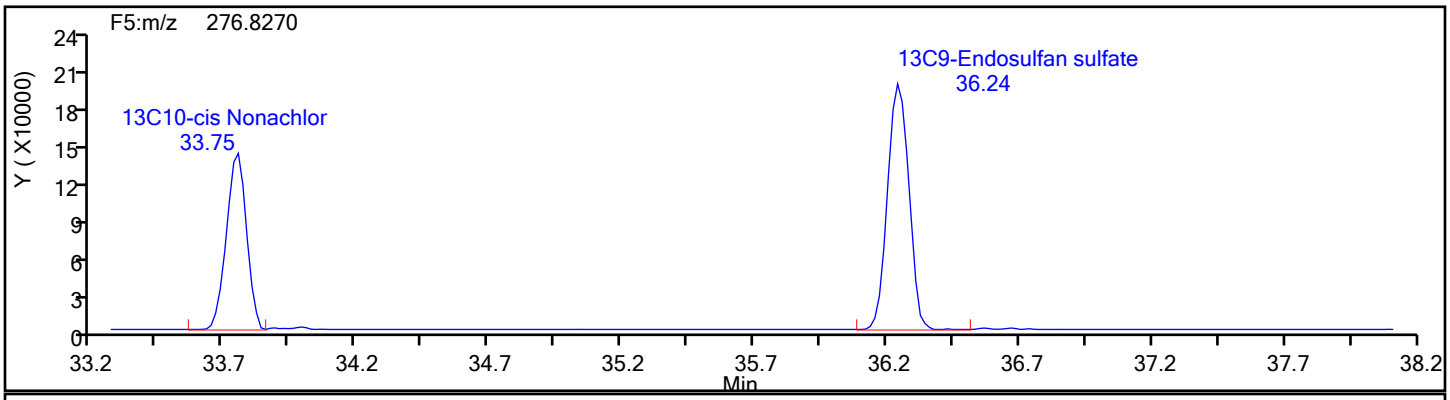
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

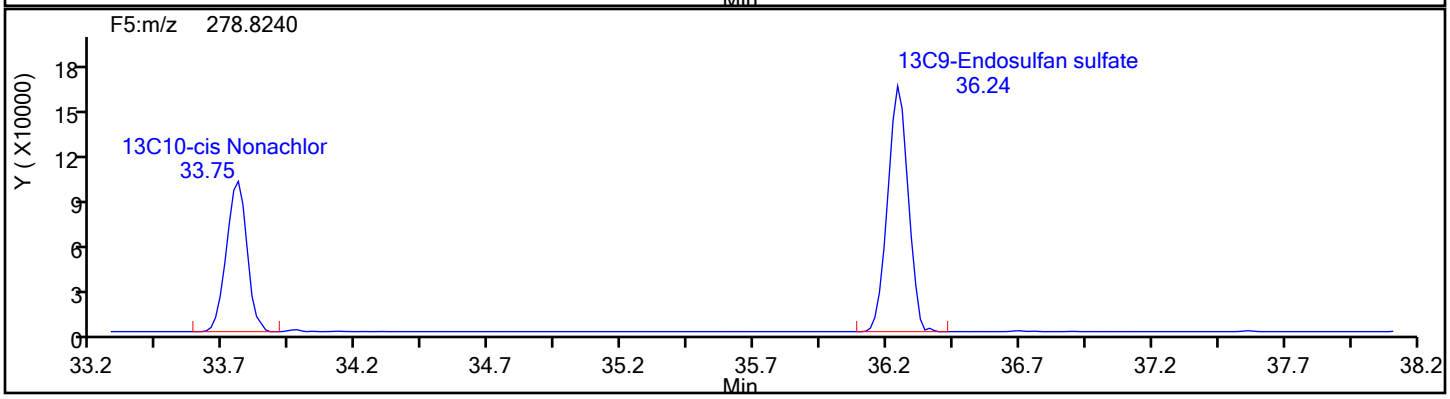
Nonachlor





Nonachlor Standards



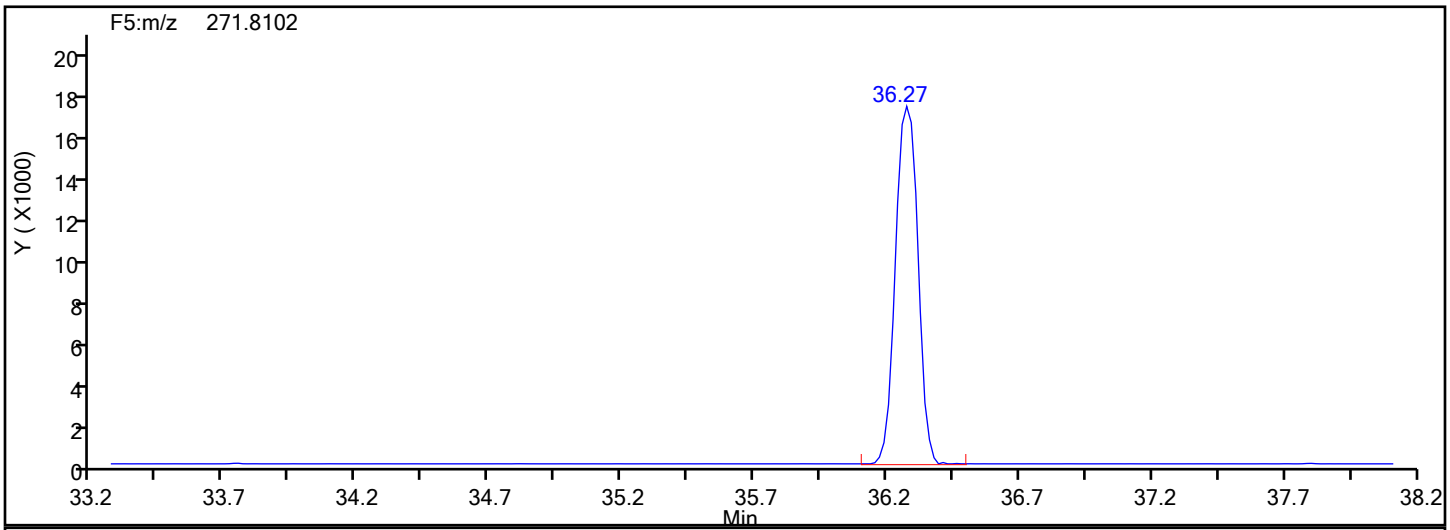


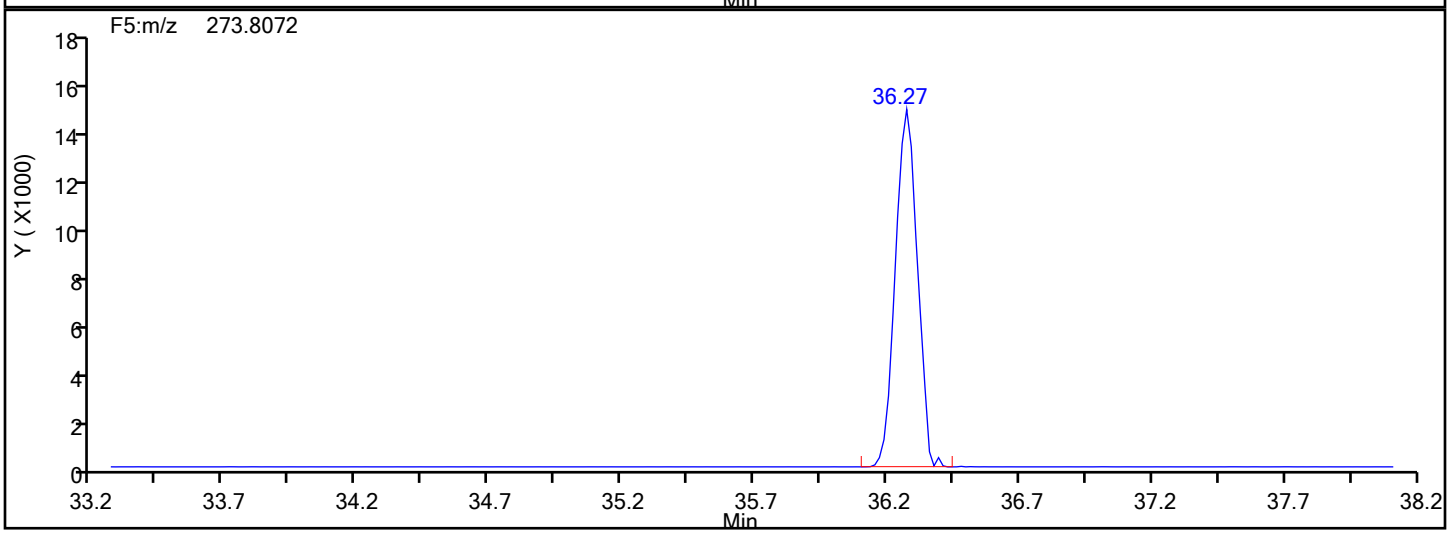
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

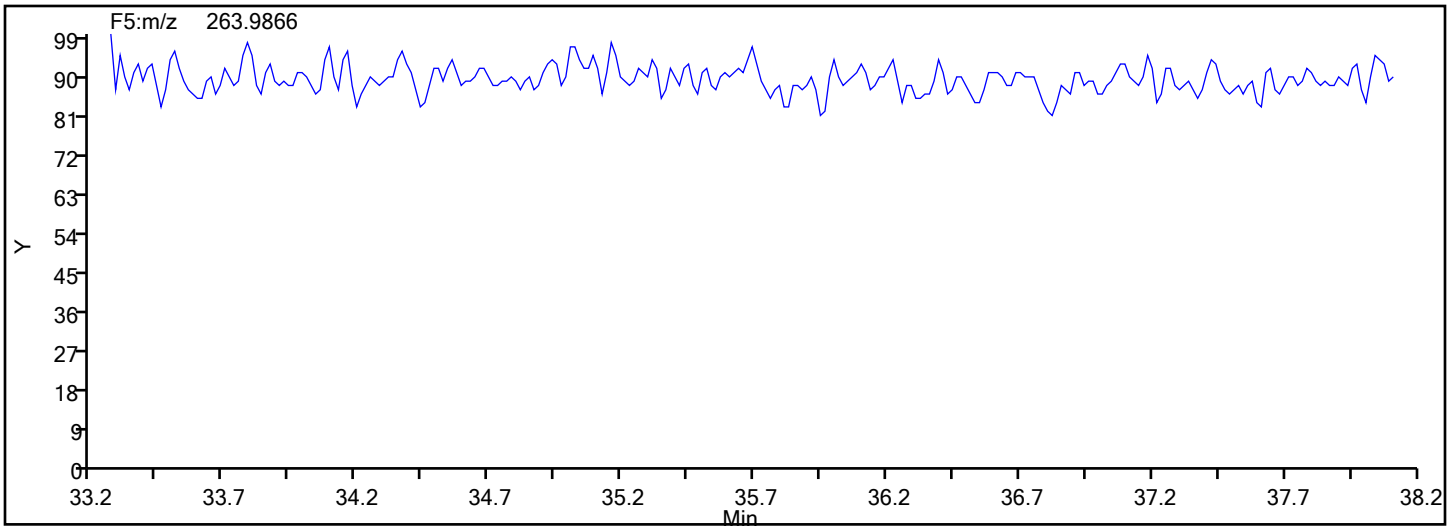
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



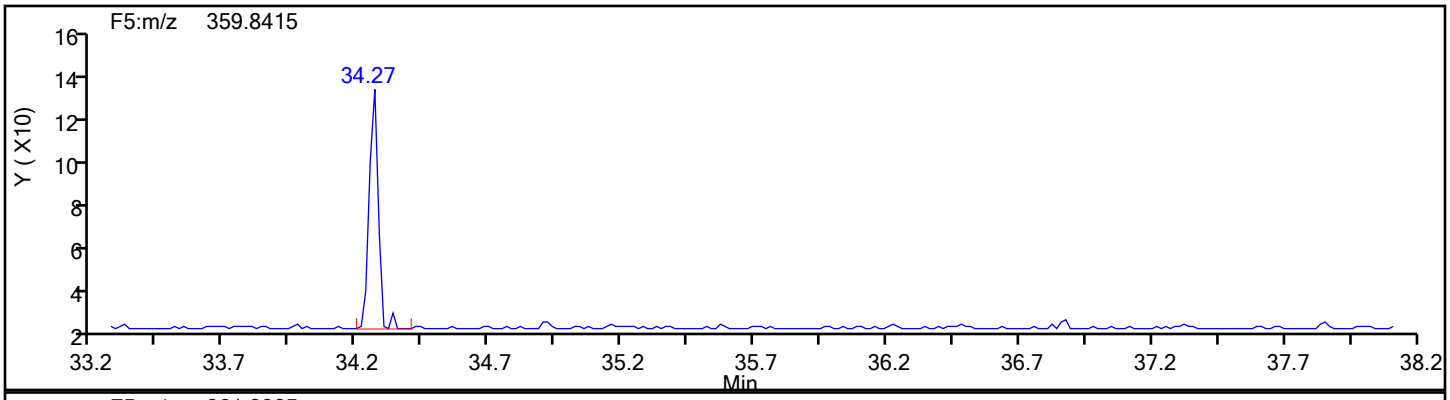
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

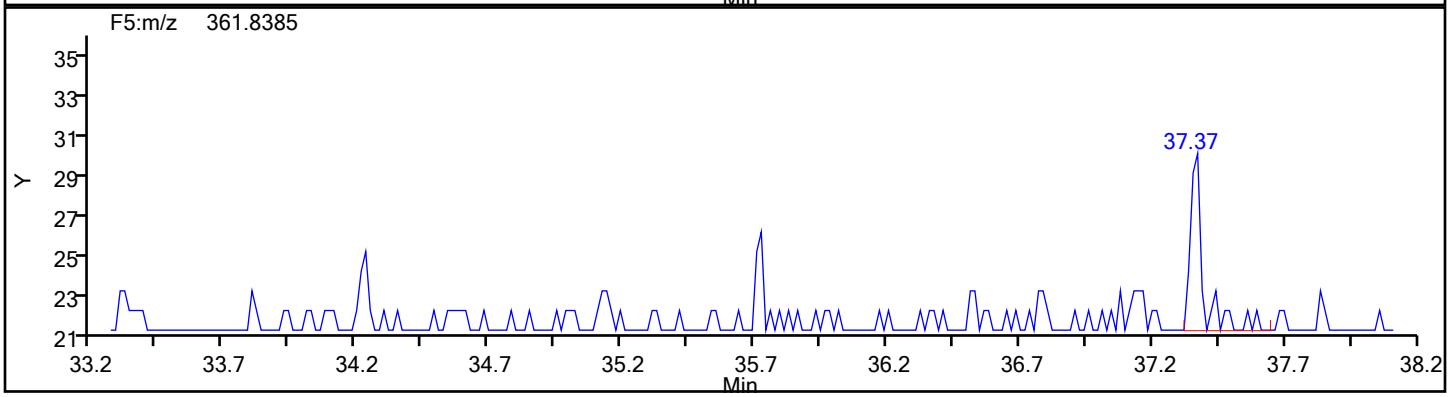
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

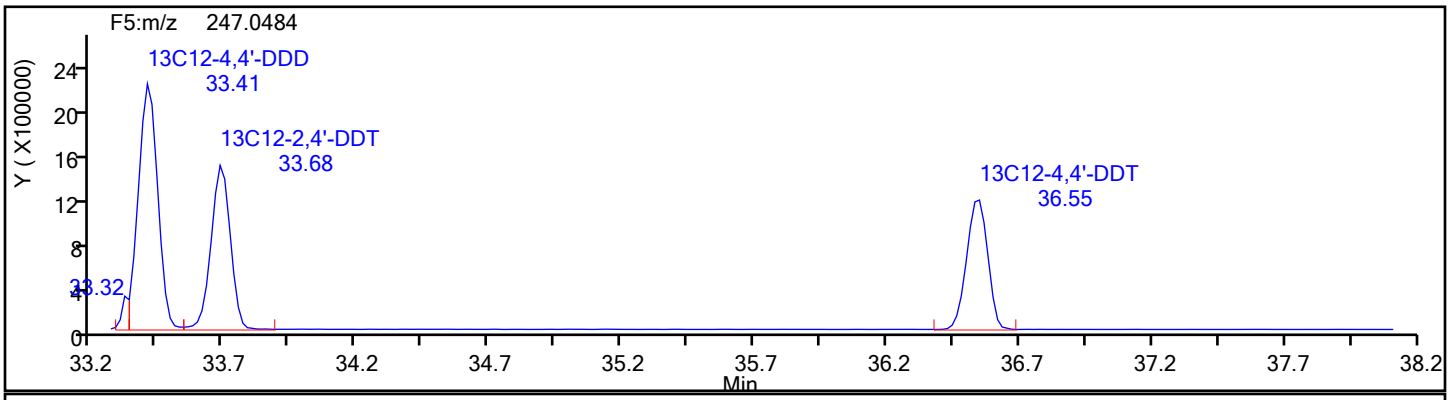
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

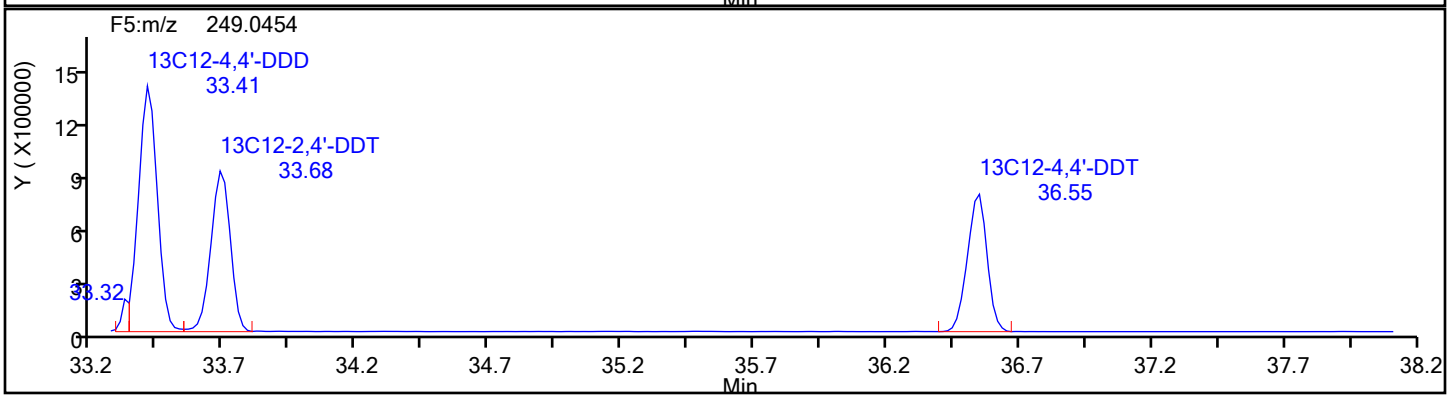
PCB-155





PCB-155 Standards



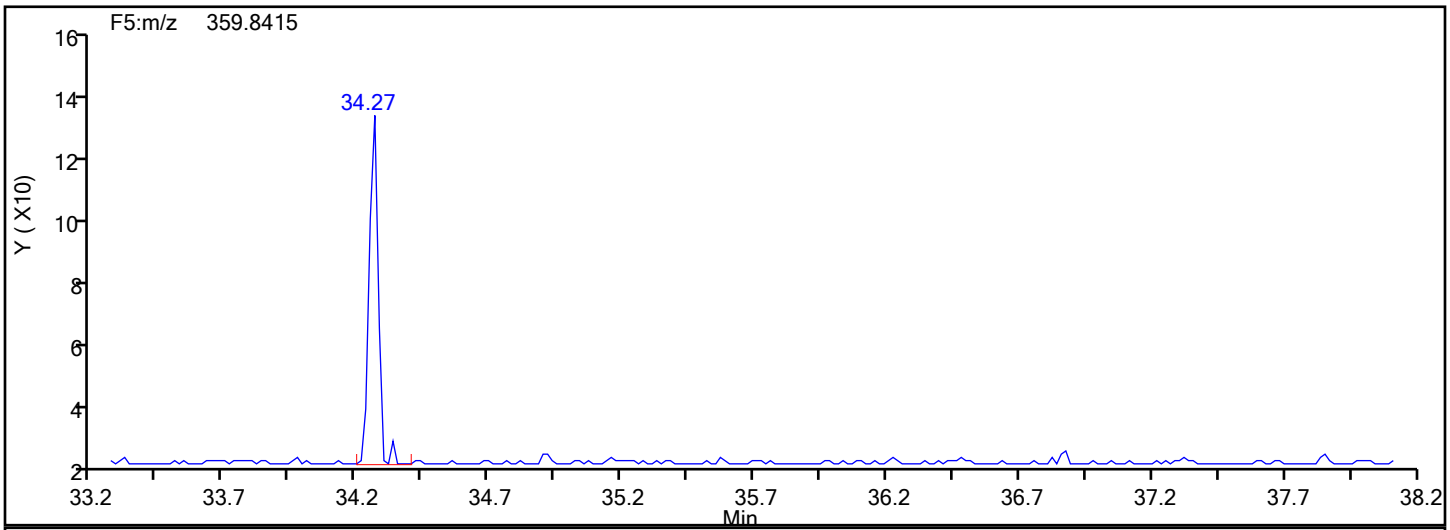


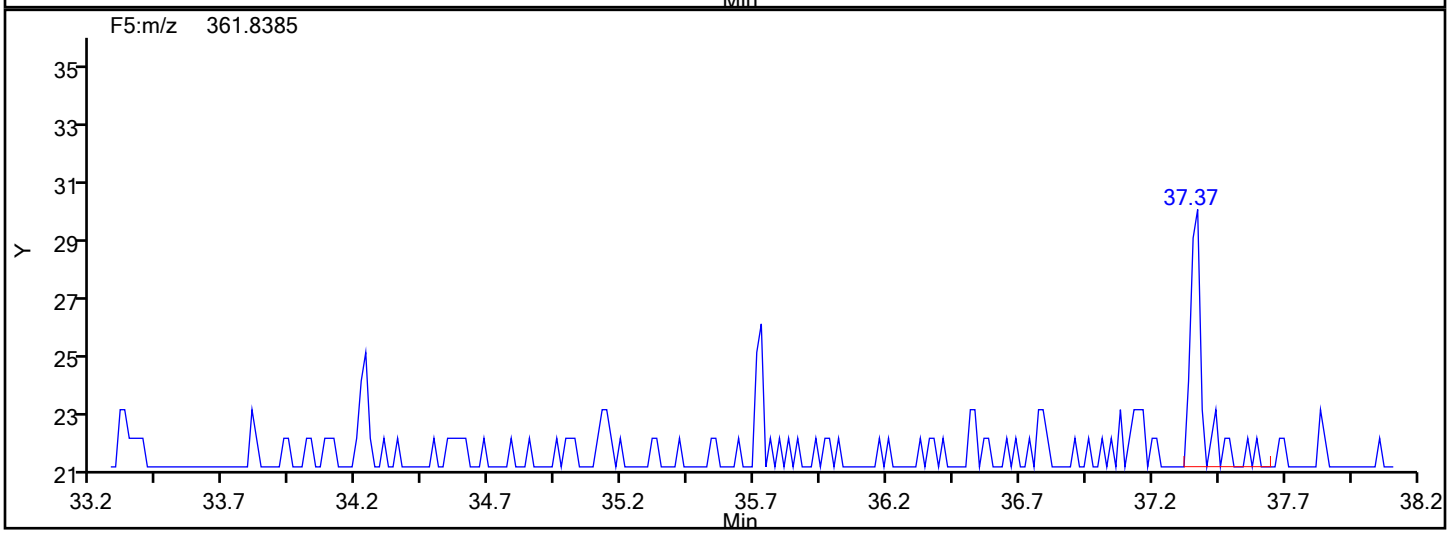
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

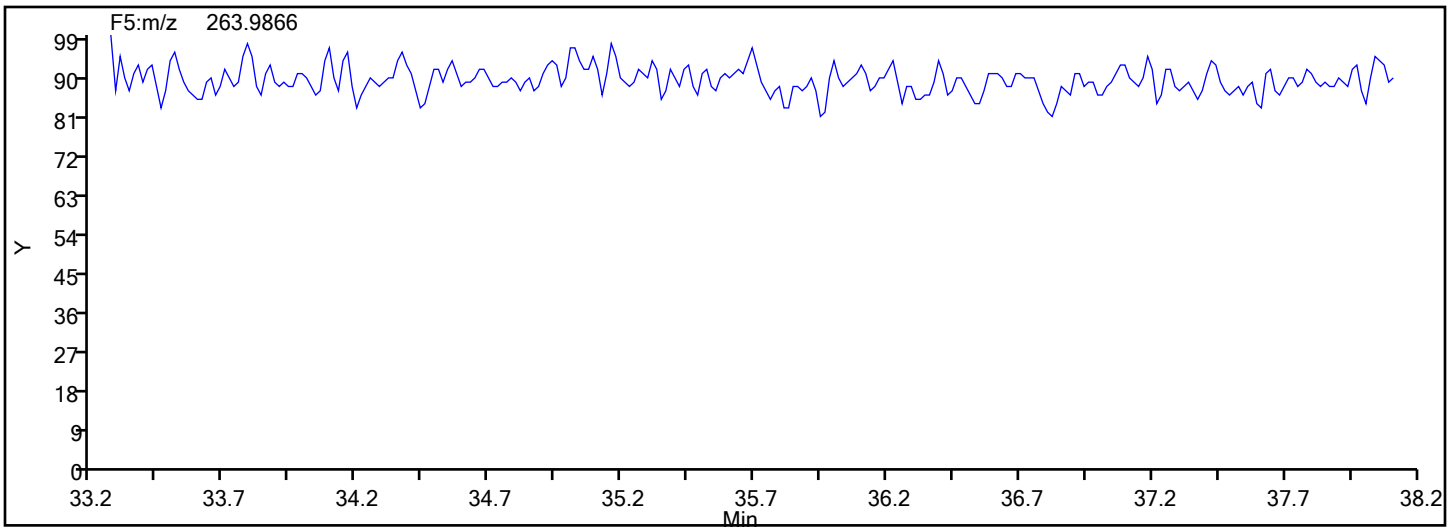
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



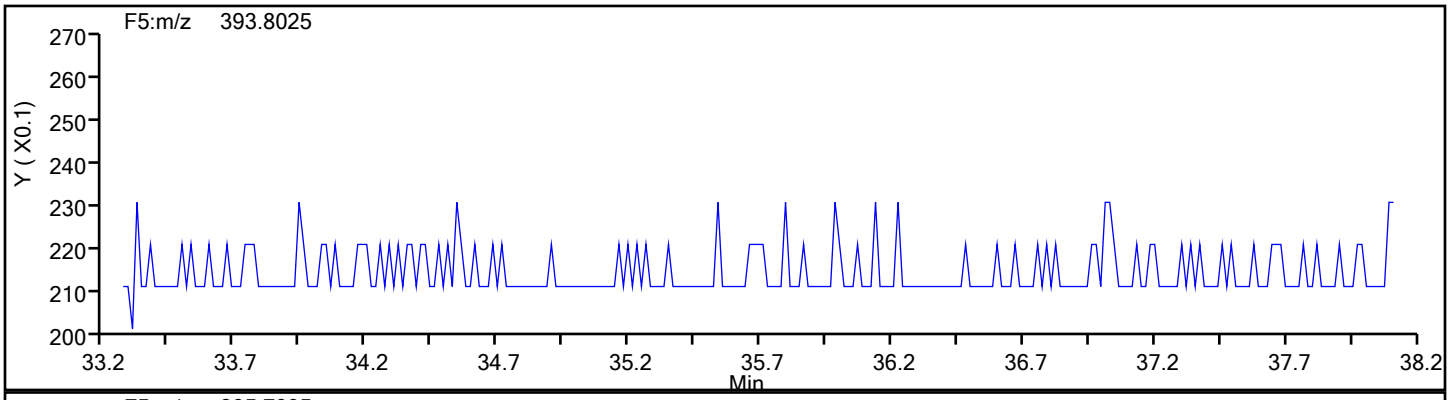
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

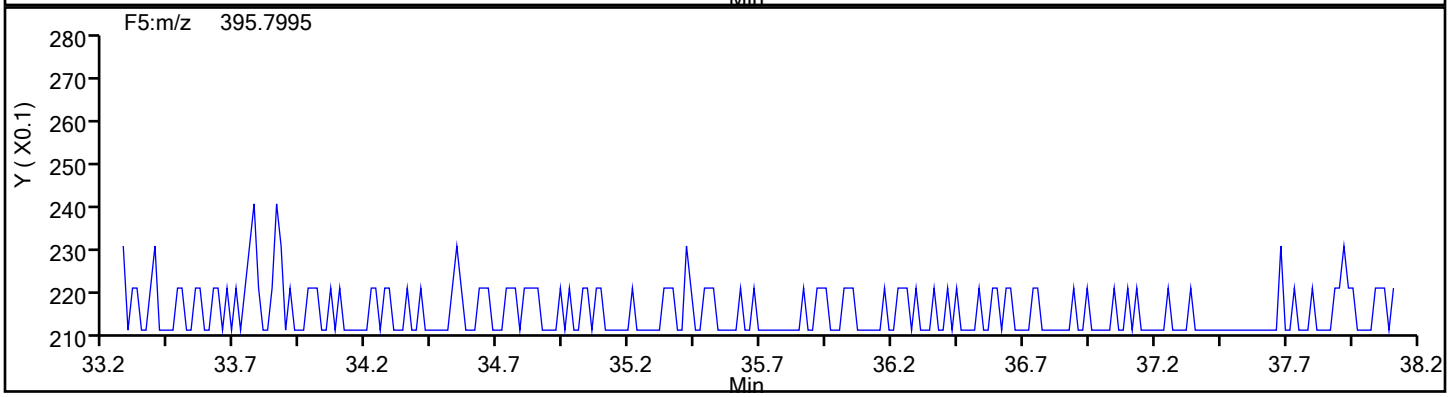
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

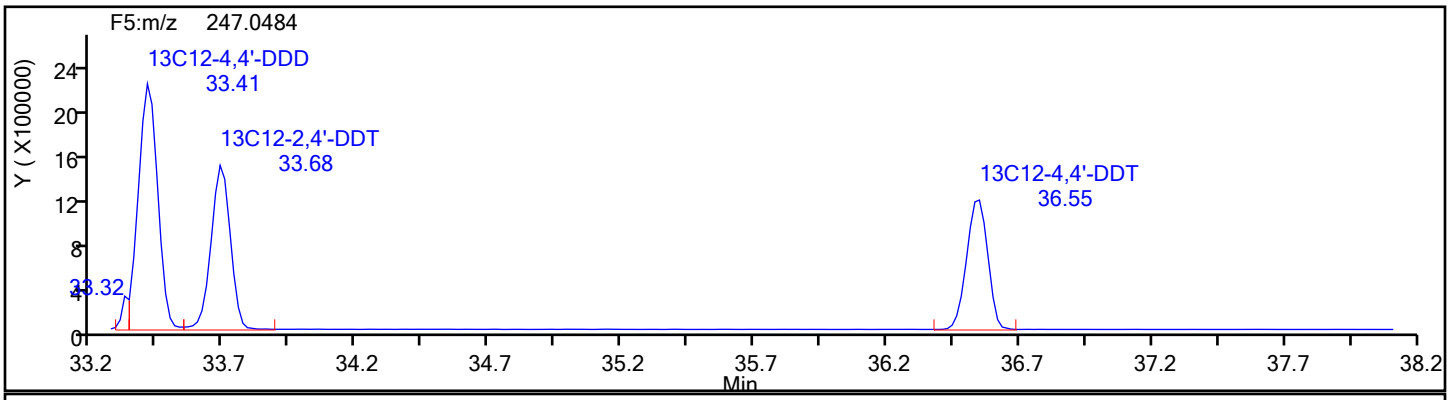
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

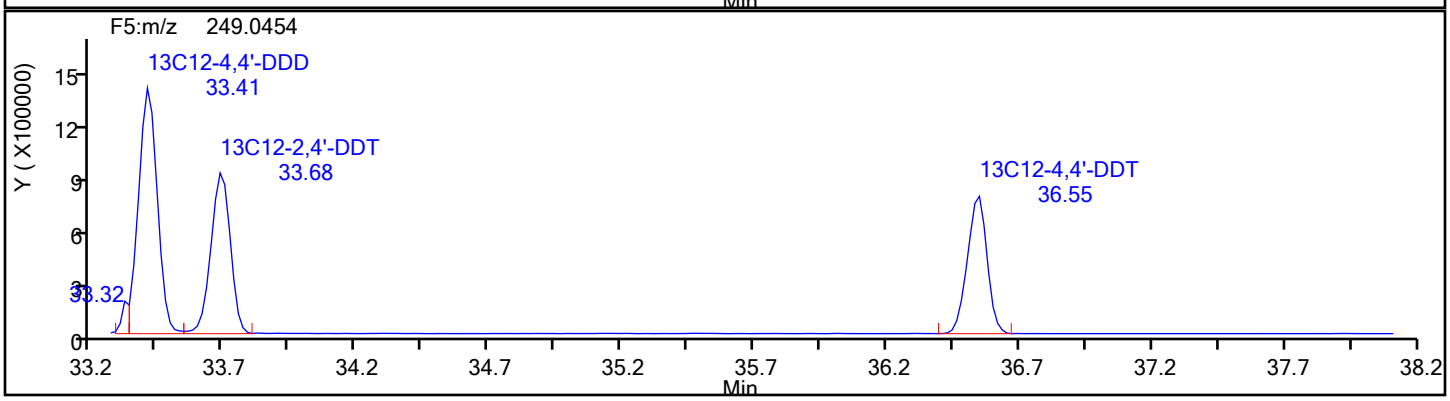
PCB-184





PCB-184 Standards



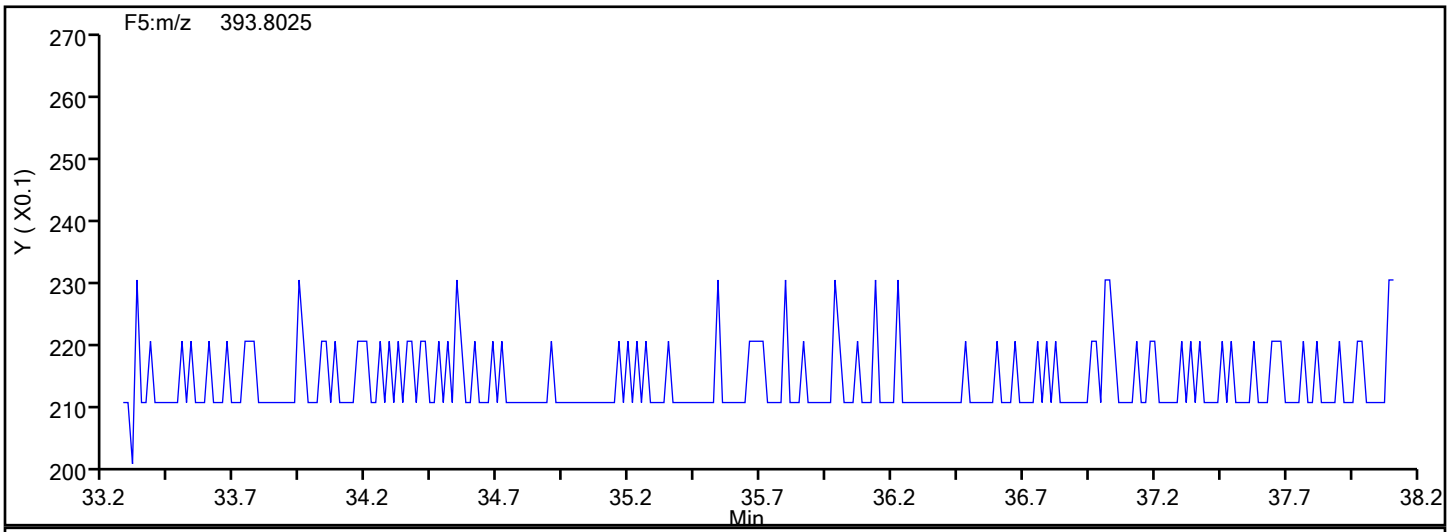


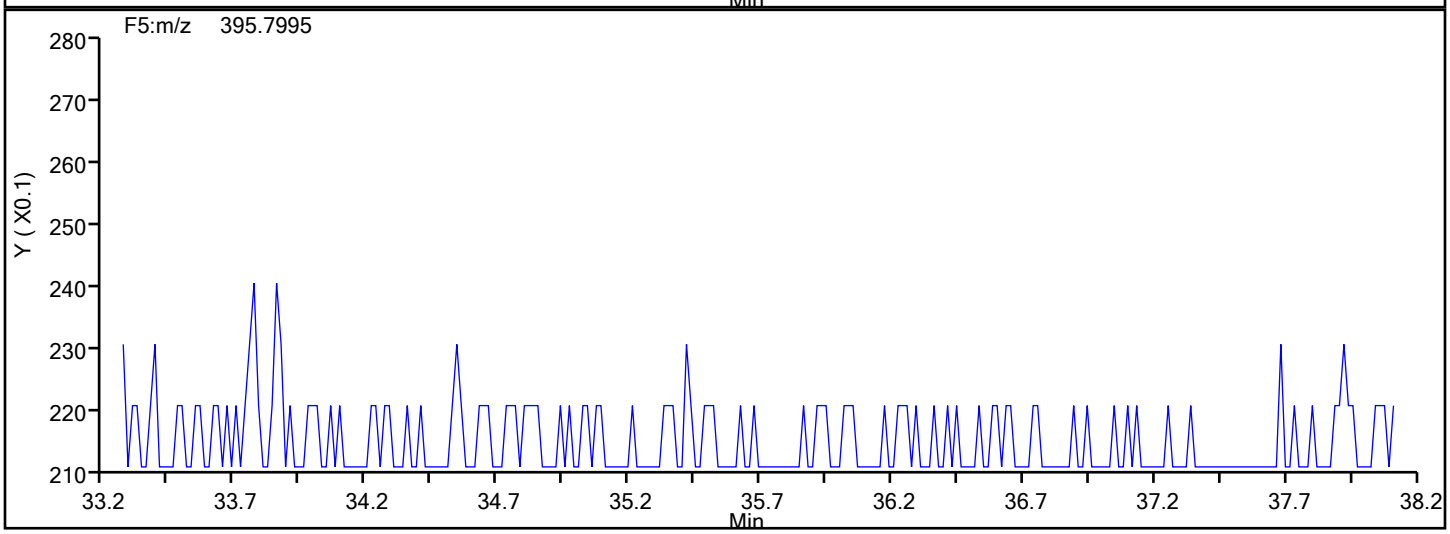
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

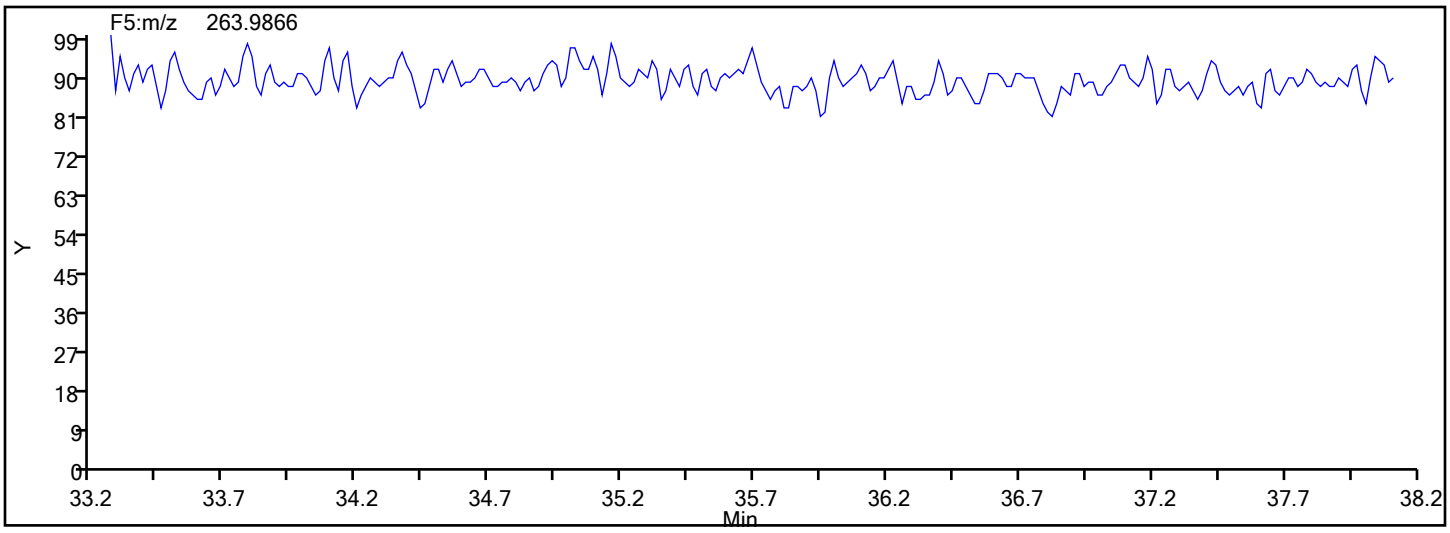
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

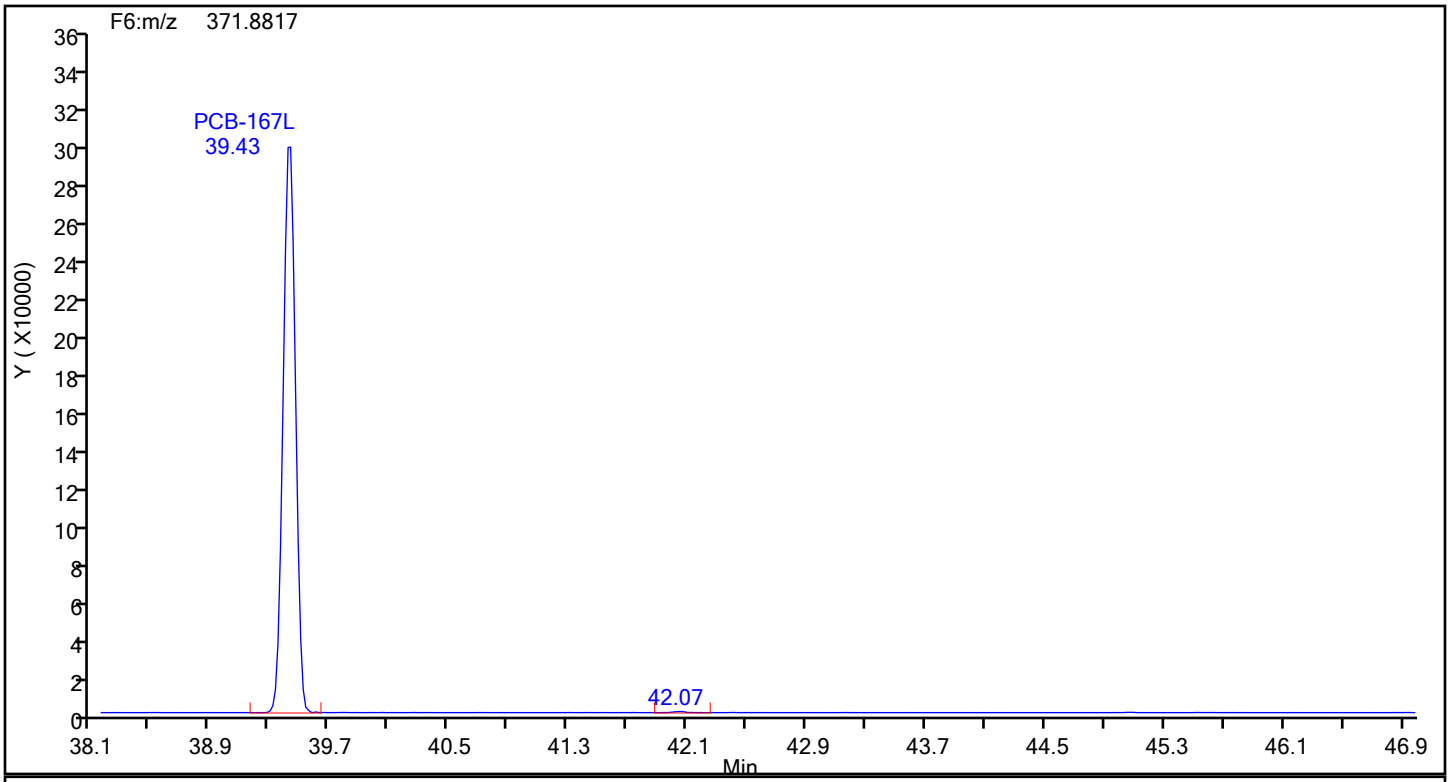


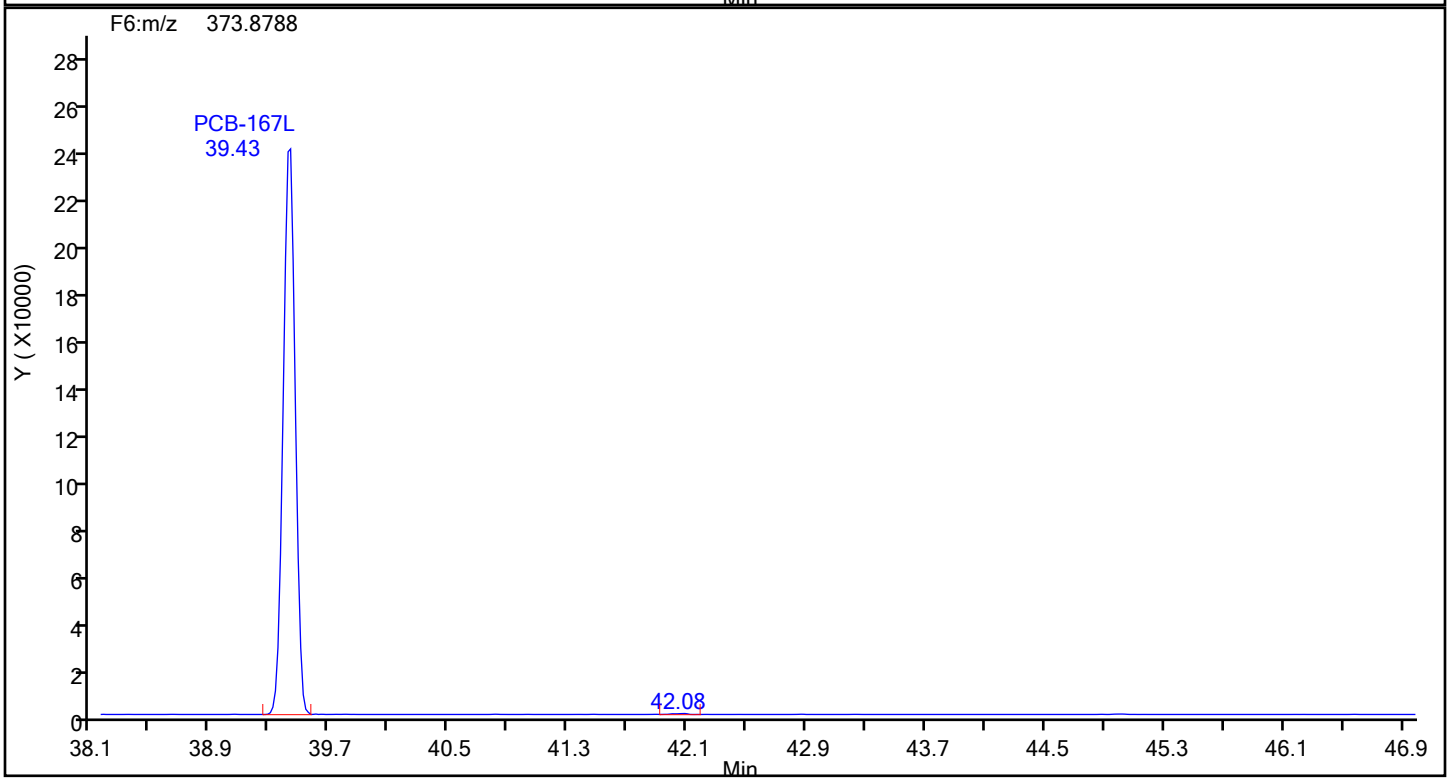
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





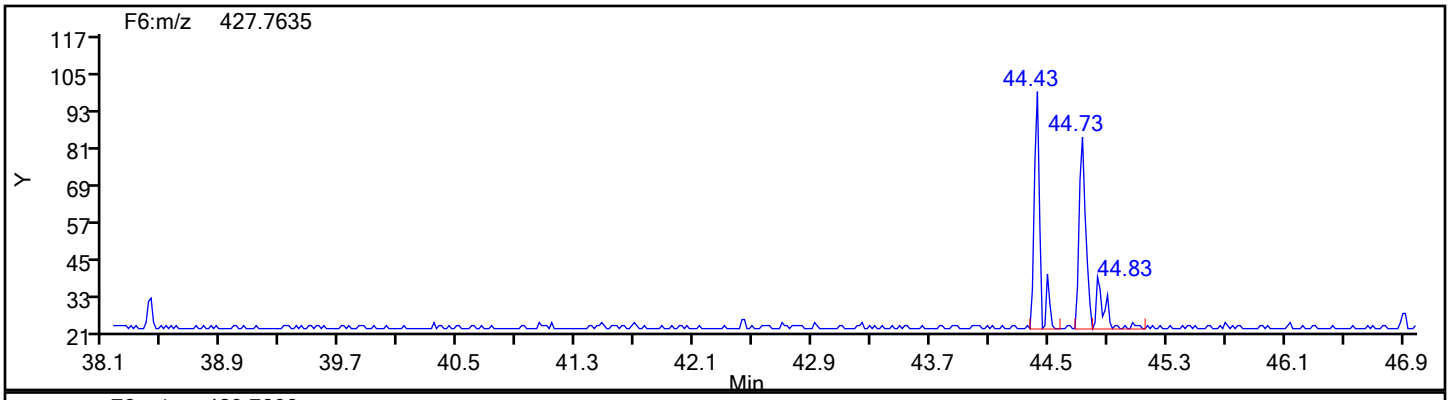
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

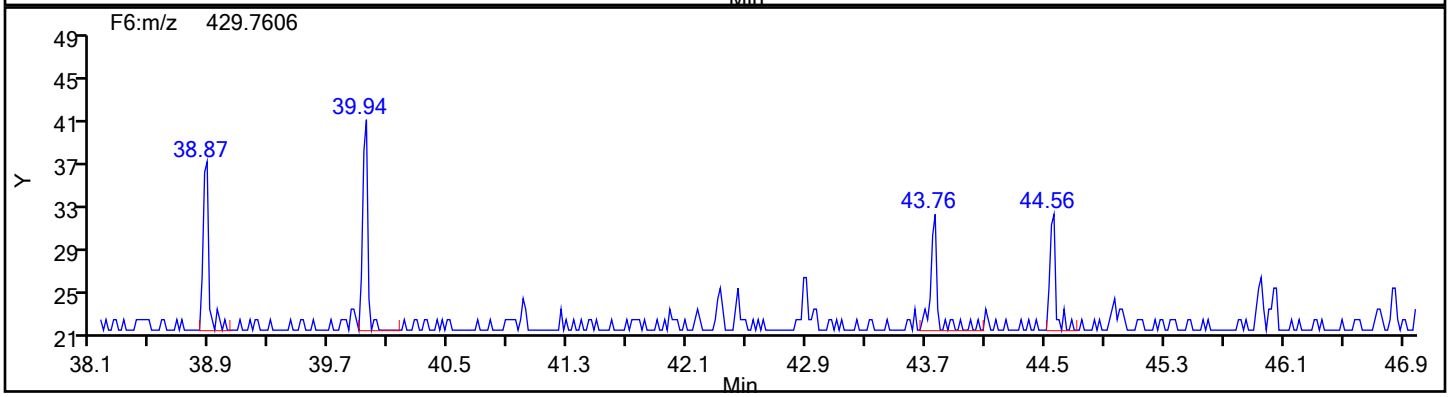
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d

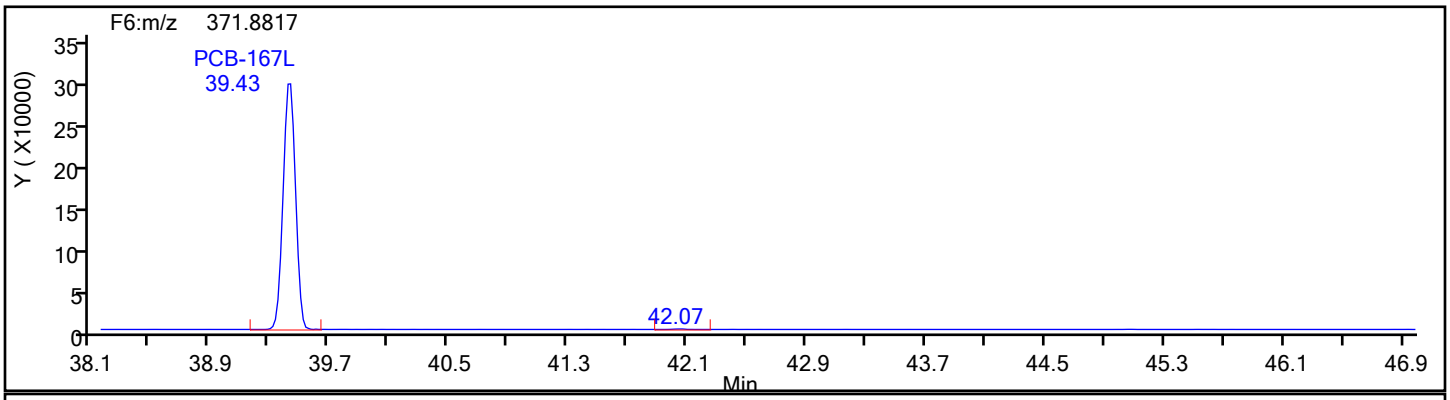
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

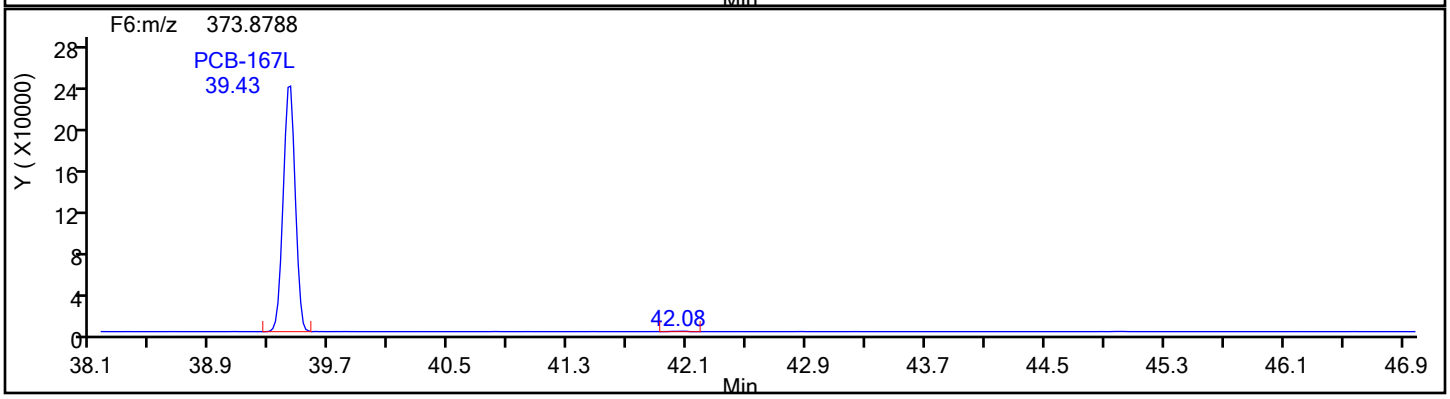
PCB-204





PCB-204 Standards



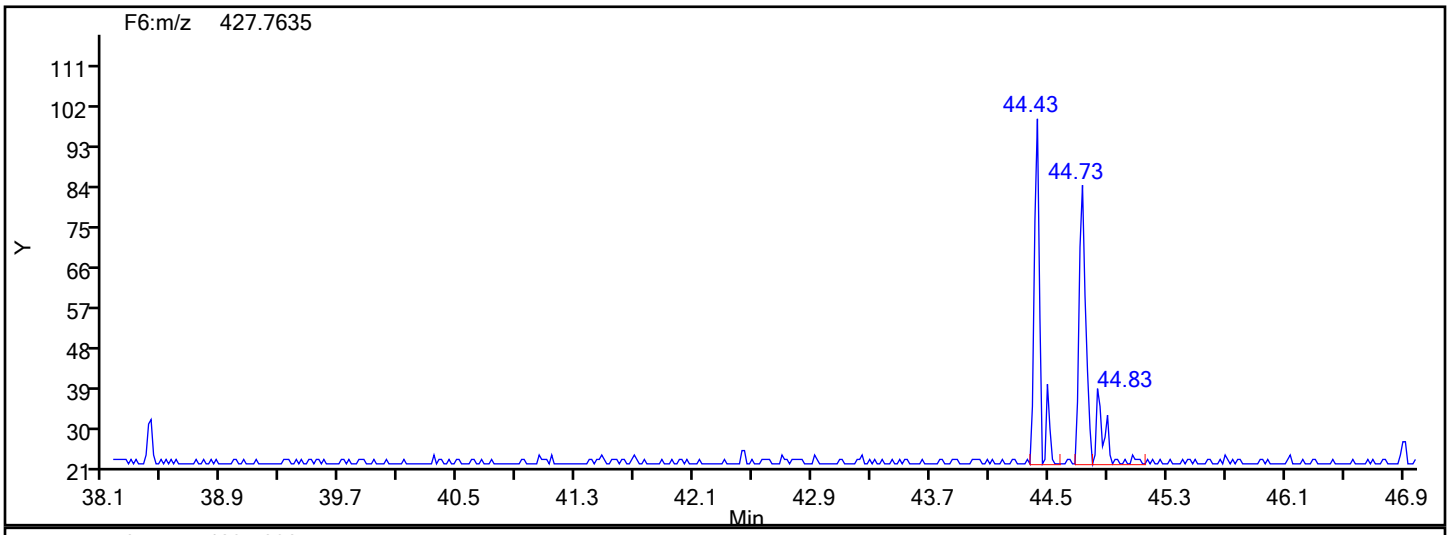


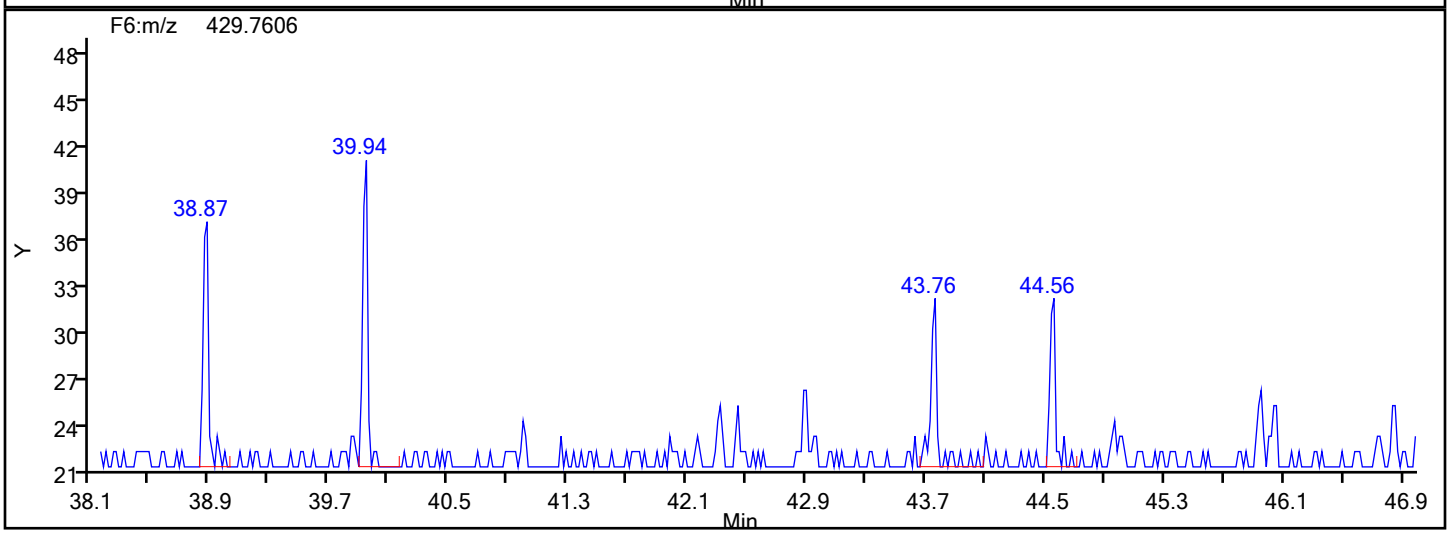
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

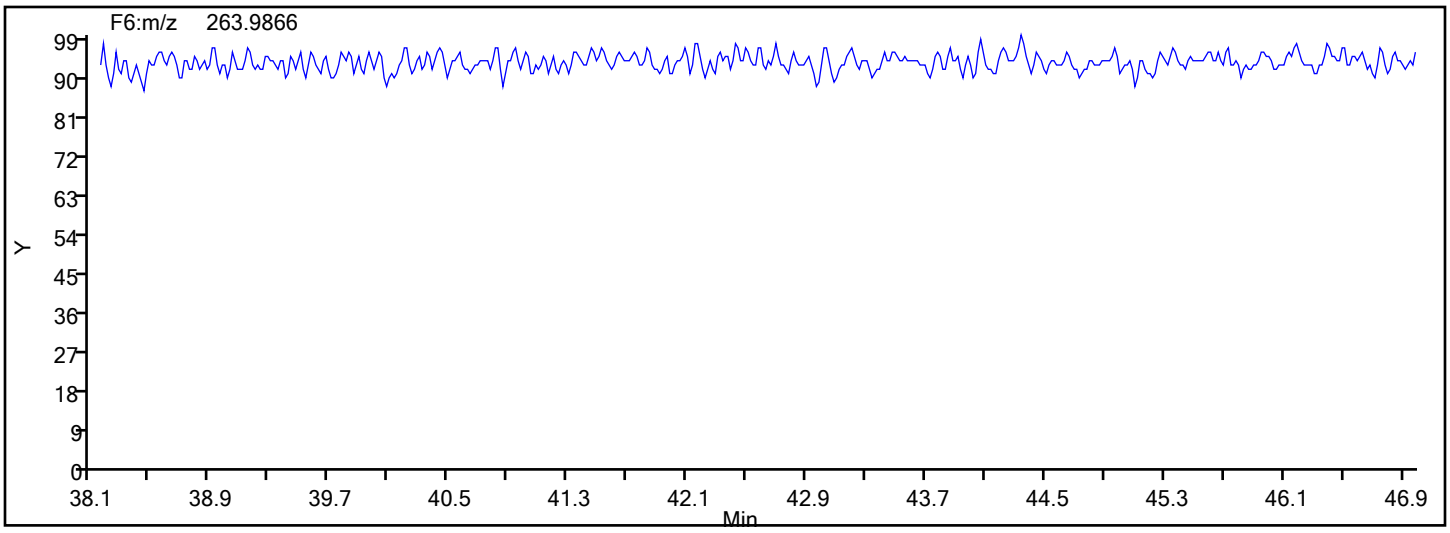
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass

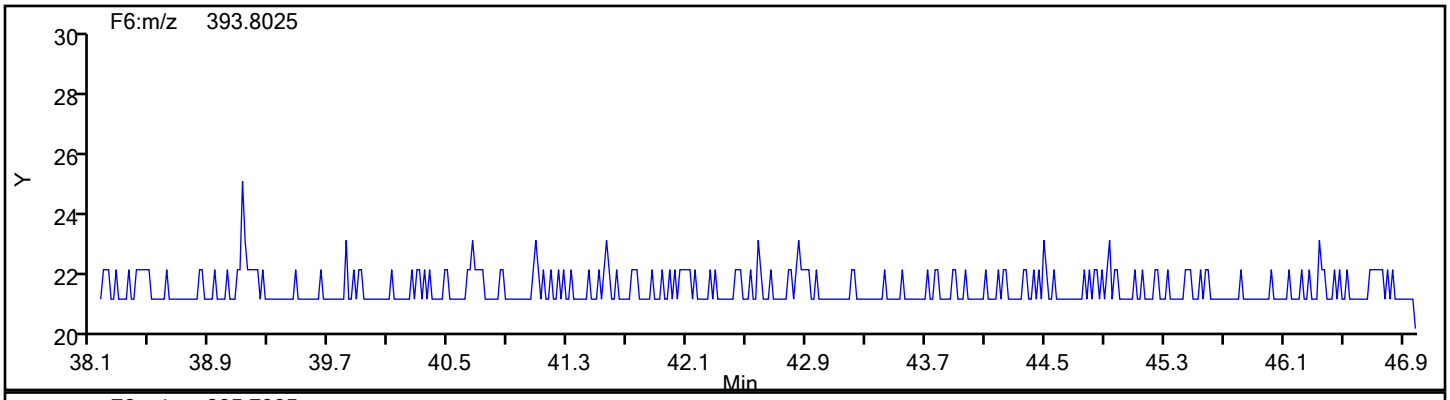


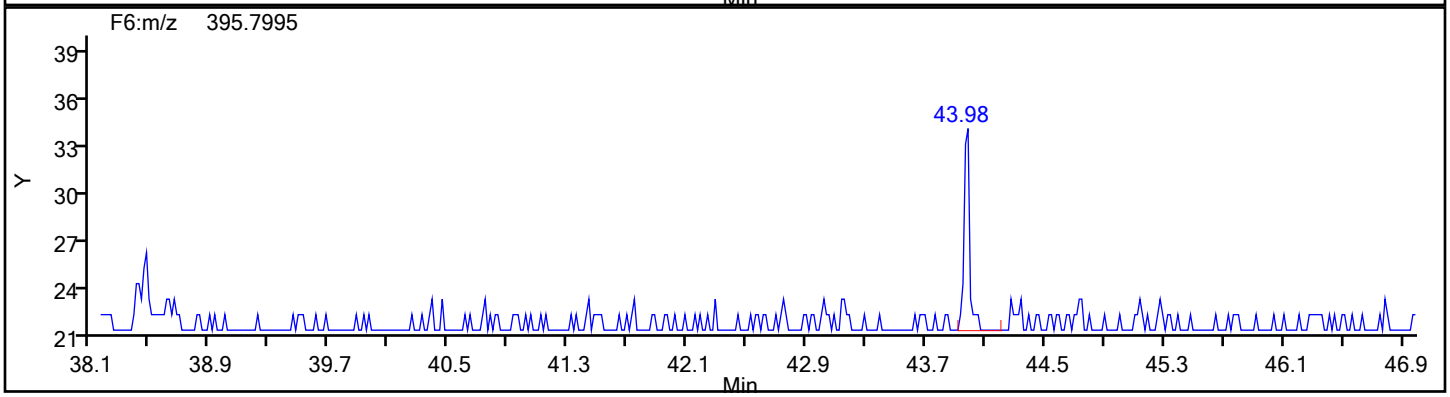
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

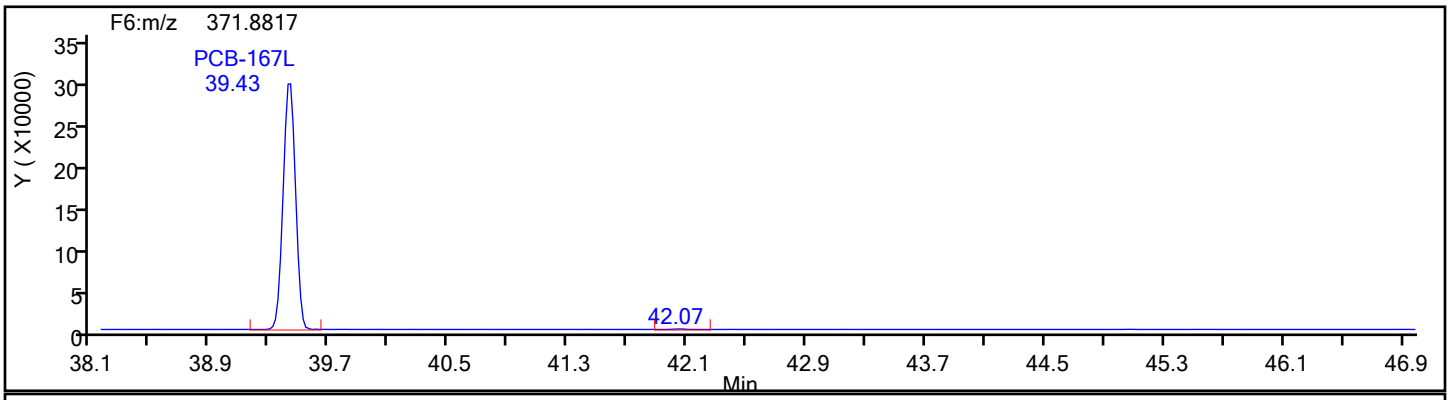
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d		
Injection Date:	02-May-2025 20:18:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	7
Column Type:	RTX-5	Column Dia:	0.32 mm

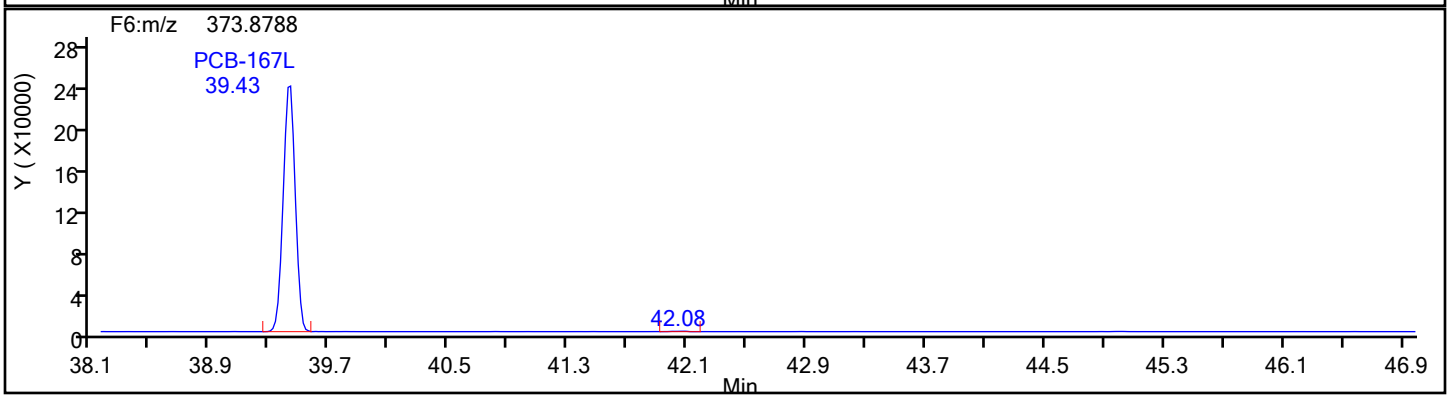
PCB-192





PCB-192 Standards



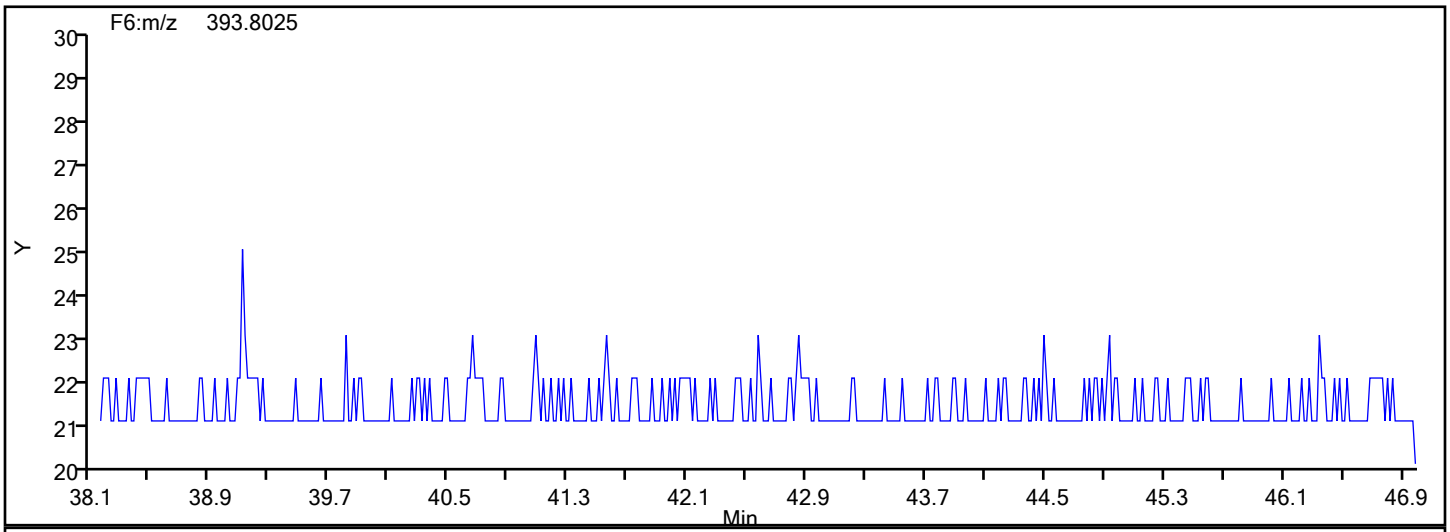


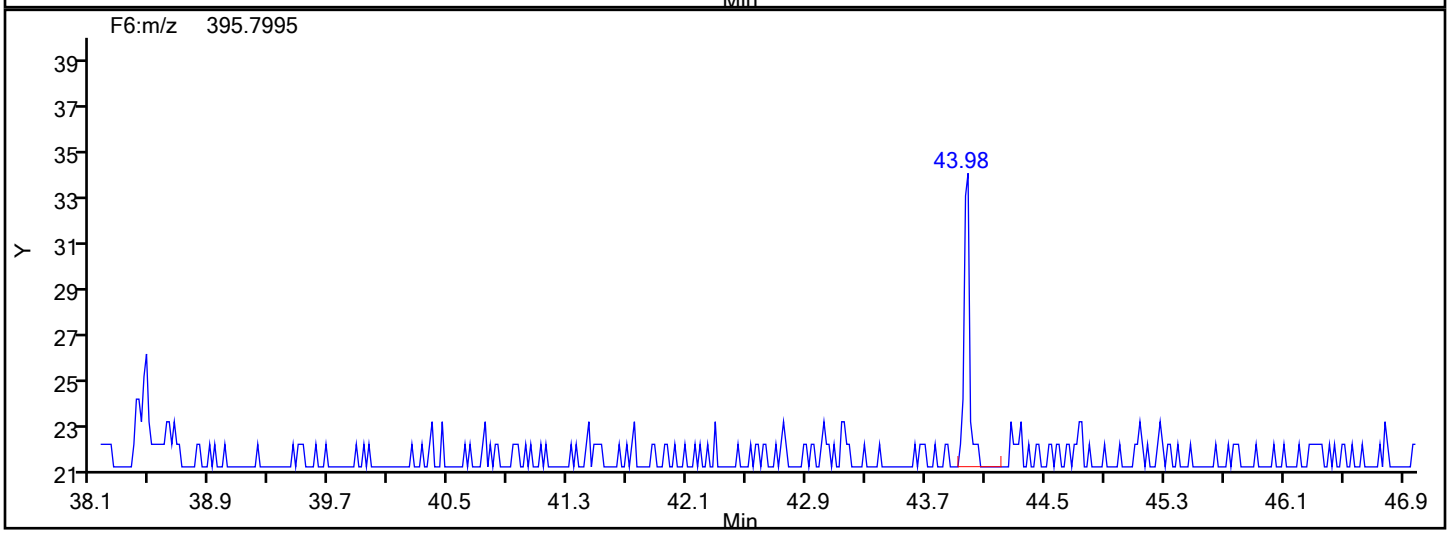
Report Date: 05-May-2025 18:00:38 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

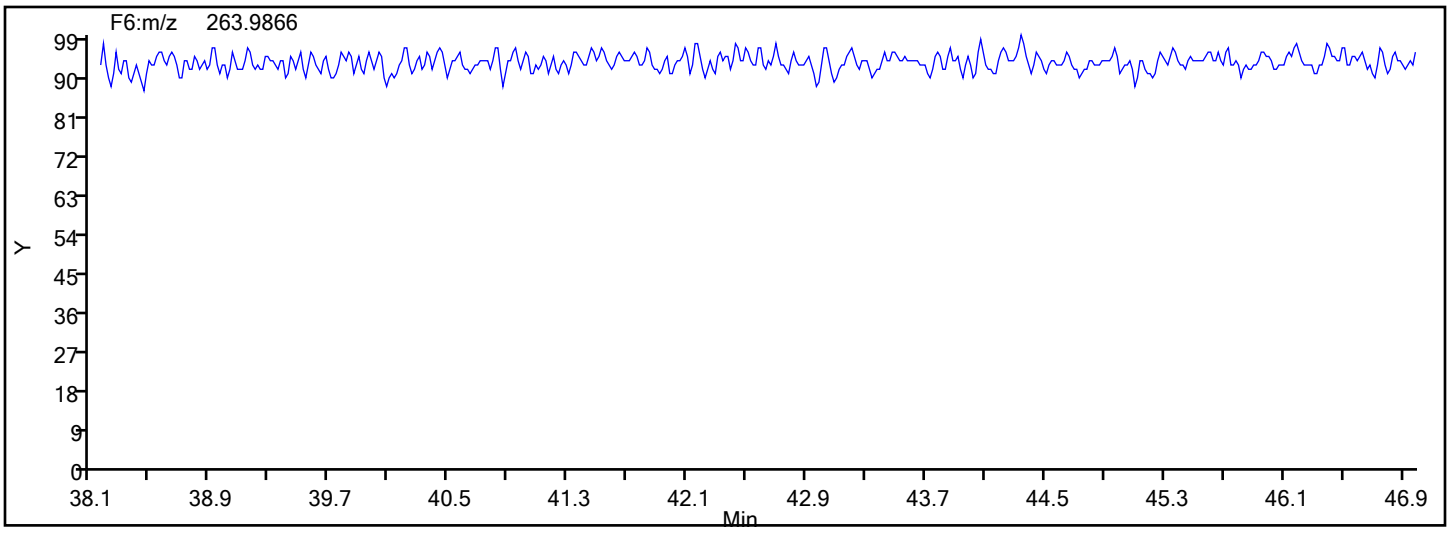
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip7.d
Injection Date: 02-May-2025 20:18:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 7
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 02-May-2025 21:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:41 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:57

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:22	8071978	0.80	0.2427	96.1	96.1	0.1692	0.1692	96.10	
D 13C6-beta BHC	18:21	6261708	0.80	0.1892	95.6	95.6	0.2171	0.2171	95.62	
D 13C6-gamma BHC	18:38	7103692	0.82	0.2029	101.1	101.1	0.2024	0.2024	101	
D 13C6-delta BHC	19:35	5982062	0.78	0.1718	100.6	100.6	0.2390	0.2390	101	
D 13C10-Heptachlor	21:49	5441351	1.27	0.1629	96.5	96.5	0.0145	0.0145	96.51	
D 13C6-Hexachlorobenzene	17:41	9190105	1.27	0.2759	96.2	96.2	0.000151	0.000151	96.24	
D 13C12-Aldrin	23:42	4981354	1.63	0.1517	94.9	94.9	0.0405	0.0405	94.89	
D 13C10-oxy Chlordane	26:05	455607	1.05	0.0708	102.5	102.5	0.004929	0.004929	102	
D 13C10-cis Heptachlor Epoxide	26:03	1663134	1.29	0.2676	98.9	98.9	0.0123	0.0123	98.92	
D 13C12-2,4'-DDE	27:53	28111457	1.58	4.5202	99.0	99.0	0.0828	0.0828	98.96	
D 13C10-trans Chlordane	27:35	1954913	1.21	0.3223	96.5	96.5	0.0357	0.0357	96.52	
D 13C10-cis Chlordane	28:39	1851784	1.31	0.2976	99.0	99.0	0.0387	0.0387	99.01	
D 13C10-trans Nonachlor	28:57	1701153	1.26	0.2841	95.3	95.3	0.0405	0.0405	95.27	
D 13C9-Endosulfan I	28:28	534718	1.19	0.0899	94.7	94.7	0.1281	0.1281	94.67	
D 13C12-4,4'-DDE	30:07	19009722	1.59	3.1557	97.2	97.2	0.0724	0.0724	97.22	
D 13C12-4,4'-DDD	33:24	17327403	1.58	2.9265	95.6	95.6	0.0145	0.0145	95.56	
D 13C12-2,4'-DDT	33:41	12382125	1.60	2.0372	98.1	98.1	0.0209	0.0209	98.09	
D 13C12-4,4'-DDT	36:32	10698872	1.55	1.8061	95.6	95.6	0.0236	0.0236	95.61	
D 13C12-Dieldrin	30:20	1683523	1.57	0.2777	97.8	97.8	0.0713	0.0713	97.84	
D 13C12-Endrin	32:00	1162458	1.50	0.1949	96.3	96.3	0.1016	0.1016	96.26	
D 13C9-Endosulfan II	32:44	284455	1.33	0.0474	96.9	96.9	0.3513	0.3513	96.91	
D 13C12-Endrin Aldehyde	34:16	259495	1.82	0.0424	98.7	98.7	0.3454	0.3454	98.68	
D 13C12-Methoxychlor	41:54	11318017	22.01	1.8751	97.4	97.4	0.0305	0.0305	97.42	
D 13C11-Endrin Ketone	40:22	633625	1.63	0.1045	97.9	97.9	0.2237	0.2237	97.87	
D 13C10-Mirex	45:21	6040041	1.29	1.9829	96.8	96.8	0.0240	0.0240	96.81	
* PCB-15L	19:02	34614572	1.65		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:27	8255128	0.67		500.0	500.0				
Pentachlorophenol	18:28	83115007	0.61	1.0218	4926.6	4926.6	0.1533	0.1533	98.53	a
* PCB-101L	28:04	6284271	1.60		100.0	100.0				
* PCB-118L	32:44	6195951	1.58		100.0	100.0				
* PCB-138L	36:56	3146268	1.29		100.0	100.0				
* PCB-60L	27:42	13557788	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:48	21005573	1.58	3.4396	98.6	98.6	0.0502	0.0502	98.56	
D 13C10-cis Nonachlor	33:45	1390196	1.25	0.2243	100.1	100.1	0.0237	0.0237	100	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:14	2104849	1.29	0.3464	98.1	98.1	0.0153	0.0153	98.06	
* PCB-167L	39:25	3177727	1.30		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

61L71699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Lims ID: IC L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 02-May-2025 21:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:41 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:25:57

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:22	17:21	1	0.912	3576076	1344200	1380	3450	974		
224.9317	17:22	17:21	1	0.912	4495902	1646613	586	1465	2810	0.80(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:20	1	0.964	2789542	1037244	1380	3450	752		
224.9317	18:21	18:20	1	0.964	3472166	1237514	586	1465	2112	0.80(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:37	1	0.979	3202325	1137973	1380	3450	825		
224.9317	18:38	18:37	1	0.979	3901367	1358910	586	1465	2319	0.82(0.58-0.96)	
13C6-delta BHC											
222.9342	19:35	19:34	1	1.028	2613092	874261	1380	3450	634		
224.9317	19:35	19:34	1	1.028	3368970	1135923	586	1465	1938	0.78(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:49	21:49	1	1.146	3045305	858465	75	187	11446		
278.8240	21:49	21:49	1	1.146	2396046	698290	38	95	18376	1.27(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:40	1	0.929	5139001	1879572	1	2	1879572		
291.8273	17:41	17:40	1	0.929	4051104	1450576	1	2	1450576	1.27(0.93-1.55)	
13C12-Aldrin											
269.8805	23:42	23:41	1	1.244	3089912	813038	156	390	5212		
271.8775	23:42	23:41	1	1.244	1891442	508585	138	345	3685	1.63(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:05	26:05	1	0.929	233804	53385	1	2	53385		
398.8358	26:05	26:05	1	0.929	221803	53316	1	2	53316	1.05(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:03	26:03	0	0.928	937808	231599	7	17	33086		
364.8748	26:04	26:03	1	0.928	725326	179833	12	30	14986	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:53	27:52	1	0.993	17199215	3858912	1538	3845	2509		
260.0376	27:53	27:52	1	0.993	10912242	2508069	608	1520	4125	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:35	27:34	1	0.983	1069305	246099	50	125	4922		
278.8240	27:35	27:34	1	0.983	885608	203982	16	40	12749	1.21(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:38	1	1.020	1050284	234132	50	125	4683		
278.8240	28:39	28:38	1	1.020	801500	179927	16	40	11245	1.31(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:57	28:57	0	1.031	947813	211638	50	125	4233		
278.8240	28:57	28:57	0	1.031	753340	162248	16	40	10141	1.26(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:28	28:28	0	1.014	290166	62030	50	125	1241		
278.8240	28:28	28:28	0	1.014	244552	55547	16	40	3472	1.19(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:07	30:06	1	0.920	11666102	2475509	752	1880	3292		
260.0376	30:07	30:06	1	0.920	7343620	1600326	401	1002	3991	1.59(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:24	33:24	0	1.020	10620121	2195718	109	272	20144		
249.0454	33:24	33:24	0	1.020	6707282	1387403	106	265	13089	1.58(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:41	33:41	0	1.029	7612374	1460196	109	272	13396		
249.0454	33:41	33:41	0	1.029	4769751	935451	106	265	8825	1.60(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:32	36:31	0	1.116	6505744	1201283	109	272	11021		
249.0454	36:32	36:31	0	1.116	4193128	764499	106	265	7212	1.55(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:20	30:20	0	0.926	1027206	214329	67	167	3199		
271.8775	30:20	30:20	0	0.926	656317	140132	33	82	4246	1.57(1.16-1.94)	
13C12-Endrin											
269.8805	32:00	31:59	1	0.978	696935	139566	67	167	2083		
271.8775	32:00	31:59	1	0.978	465523	89660	33	82	2717	1.50(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:44	32:44	0	1.000	162410	34750	44	110	790		
278.8240	32:44	32:44	0	1.000	122045	24381	40	100	610	1.33(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:16	34:16	0	1.047	167586	33802	19	47	1779		
358.9361	34:16	34:16	0	1.047	91909	18921	55	137	344	1.82(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	2	1.280	10826121	1864637	261	652	7144		
240.1510	41:53	41:52	1	1.279	491896	81396	28	70	2907	22.01(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	1	1.233	392472	68887	80	200	861		
329.9379	40:22	40:22	1	1.233	241153	42426	38	95	1116	1.63(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:20	1	1.228	3397447	539146	66	165	8169		
278.8240	45:21	45:20	1	1.228	2642594	426444	45	112	9477	1.29(0.93-1.55)	
PCB-15L											
234.0406	19:02	19:02	1		21574127	7508905	44	110	170657		
236.0376	19:02	19:02	1		13040445	4459493	13	32	343038	1.65(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:27	18:27	1		3309656	1095147	43	107	25469		
271.8636	18:27	18:27	1		4945472	1624875	50	125	32498	0.67(0.00-0.00)	
Pentachlorophenol											a
263.8464	18:28	18:28	1	1.001	31644097	10160517	155	387	65552		a
265.8435	18:28	18:28	1	1.001	51470910	16465280	186	465	88523	0.61(0.00-0.00)	
PCB-101L											
337.9207	28:04	28:04	1		3868287	878655	1	2	878655		
339.9178	28:04	28:04	0		2415984	554882	1	2	554882	1.60(1.16-1.94)	
PCB-118L											
337.9207	32:44	32:43	1		3798681	772575	37	92	20880		
339.9178	32:44	32:43	1		2397270	489377	29	72	16875	1.58(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:55	1		1770668	325109	34	85	9562		
373.8788	36:56	36:55	1		1375600	256093	21	52	12195	1.29(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:41	1		6119358	1351740	91	227	14854		
303.9597	27:42	27:41	1		7438430	1651715	100	250	16517	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:48	30:47	1	0.941	12863869	2631328	497	1242	5294		
249.0454	30:48	30:47	1	0.941	8141704	1682608	374	935	4499	1.58(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:44	1	1.031	773054	143924	9	22	15992		
278.8240	33:45	33:44	1	1.031	617142	123954	18	45	6886	1.25(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:14	36:14	0	1.107	1184588	212669	9	22	23630		
278.8240	36:14	36:14	0	1.107	920261	164159	18	45	9120	1.29(0.93-1.55)	
PCB-167L											
371.8817	39:25	39:25	1		1798428	319177	7	17	45597		
373.8788	39:25	39:25	1		1379299	248821	1	2	248821	1.30(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

61L71699PCP_00001 Amount Added: 20.00 Units: uL

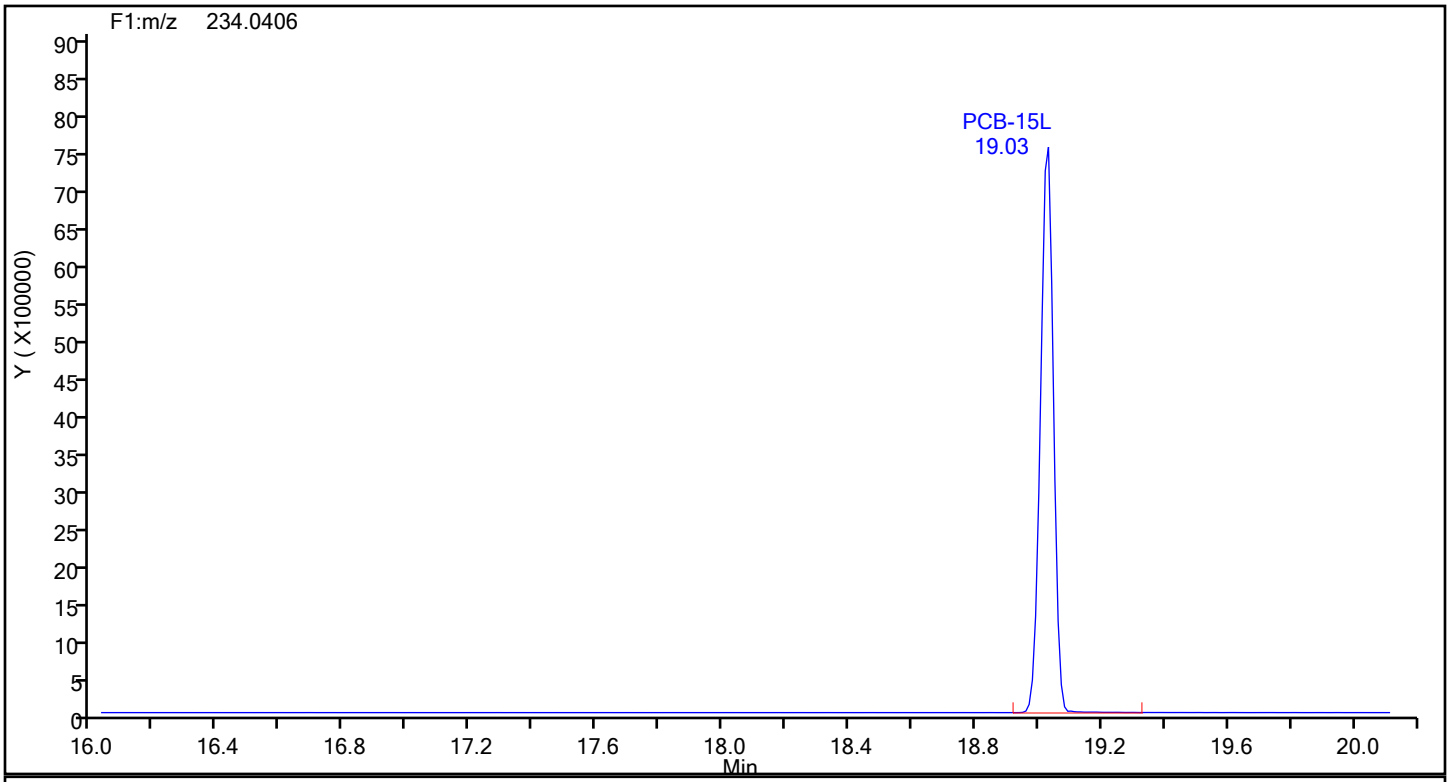
Report Date: 05-May-2025 18:00:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

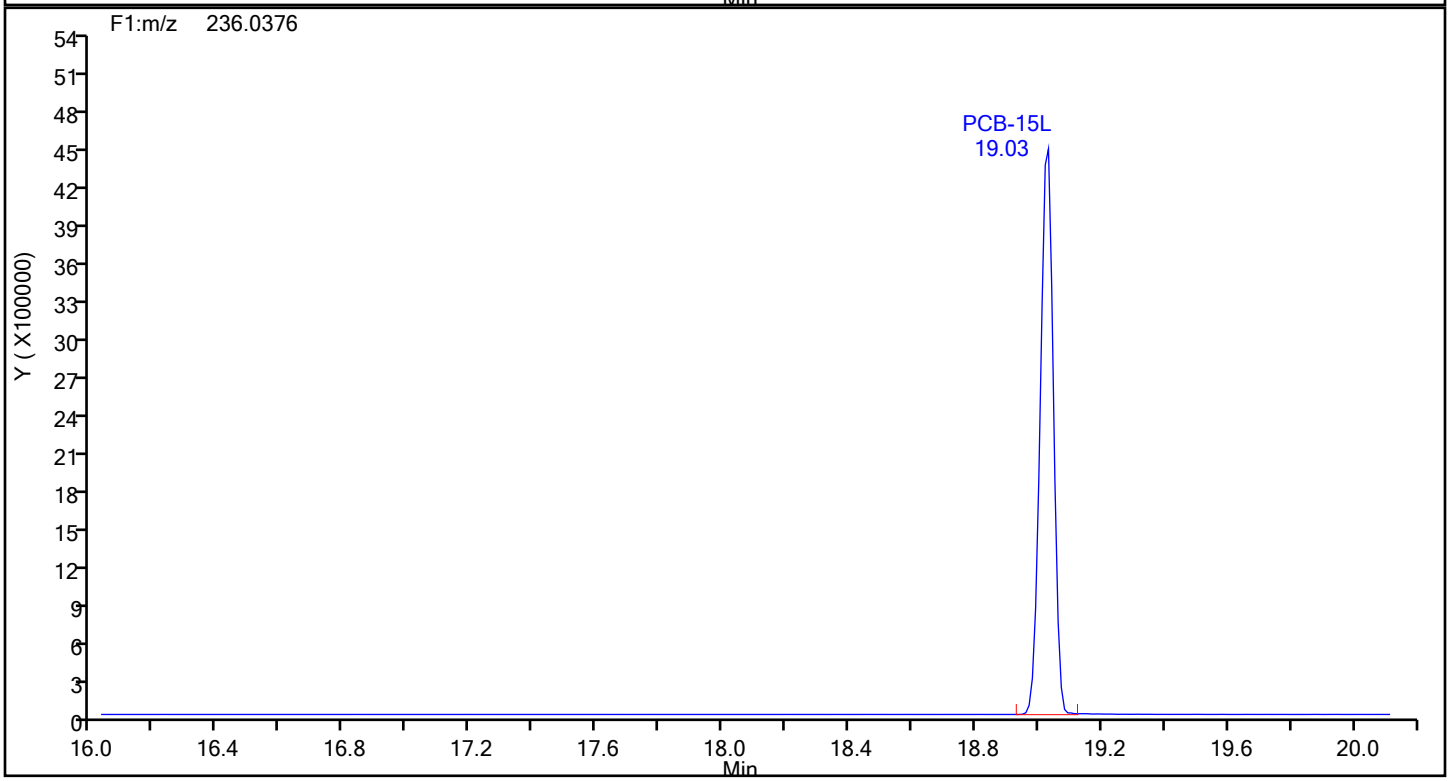
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 05-May-2025 18:00:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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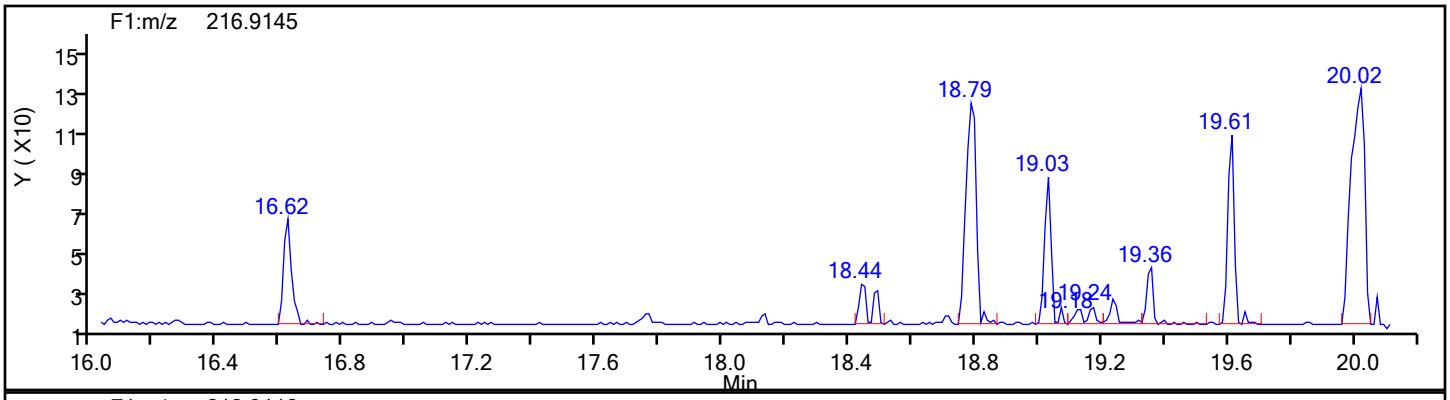
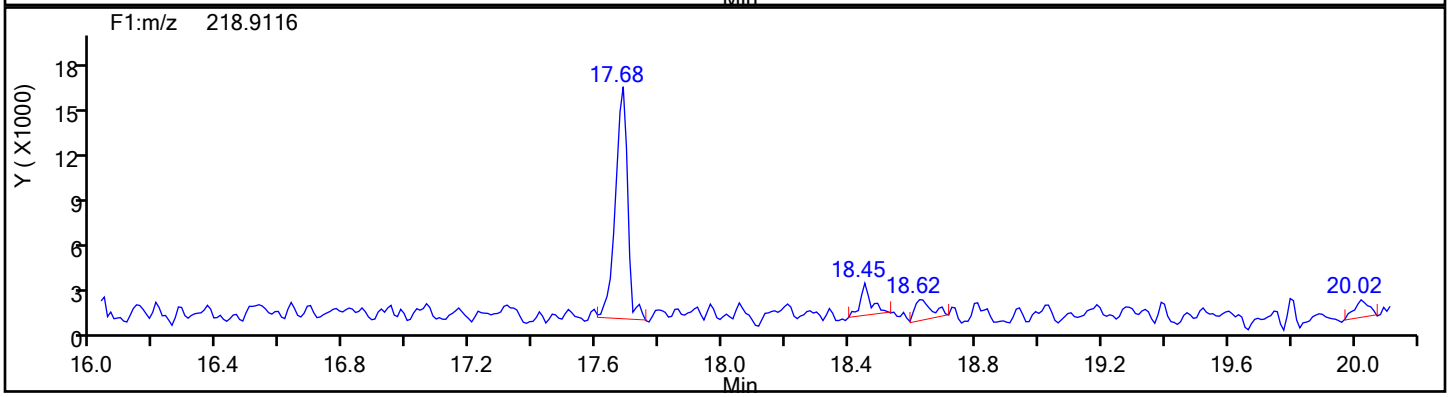
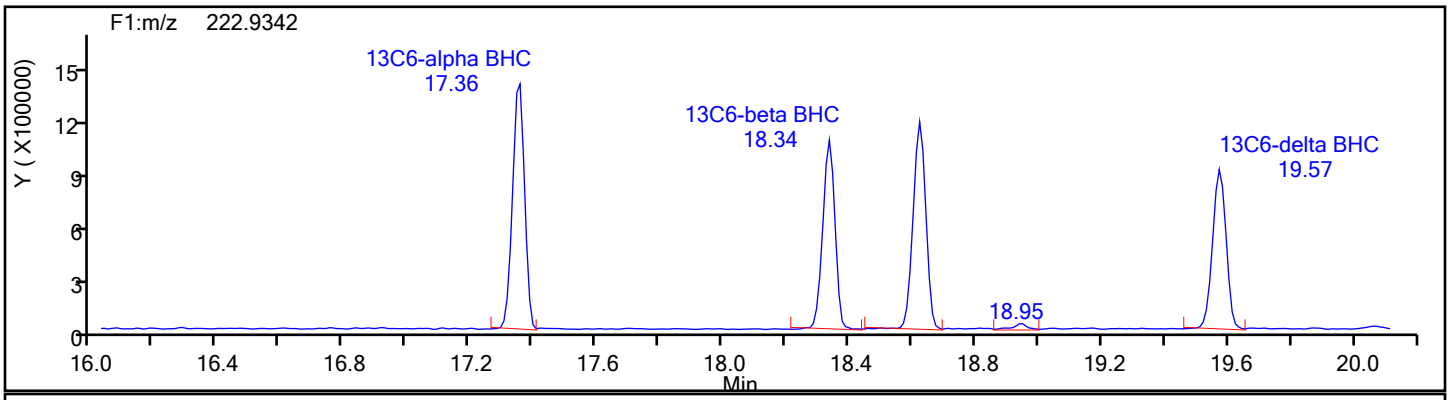
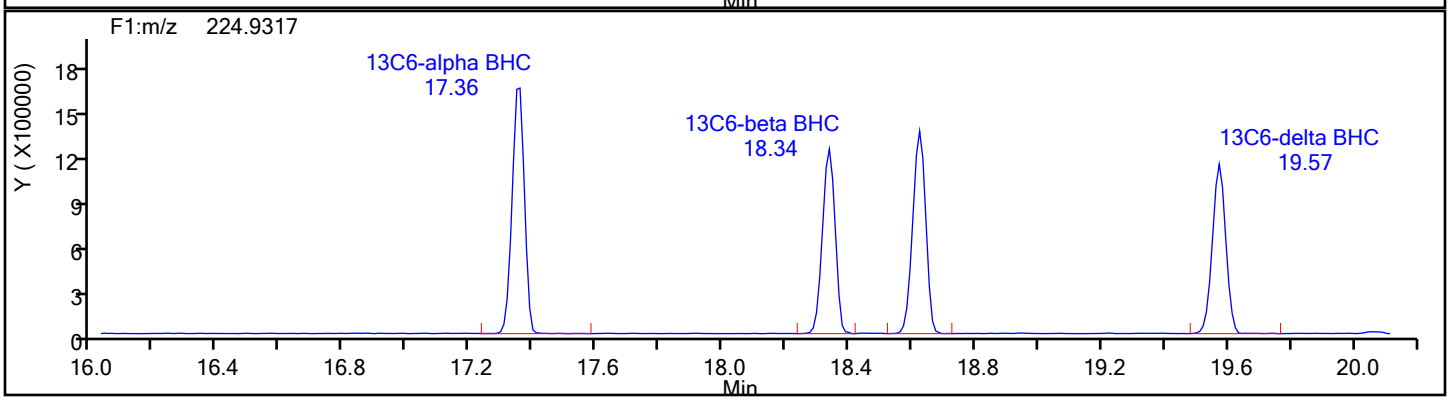
BHC





BHC Standards





Report Date: 05-May-2025 18:00:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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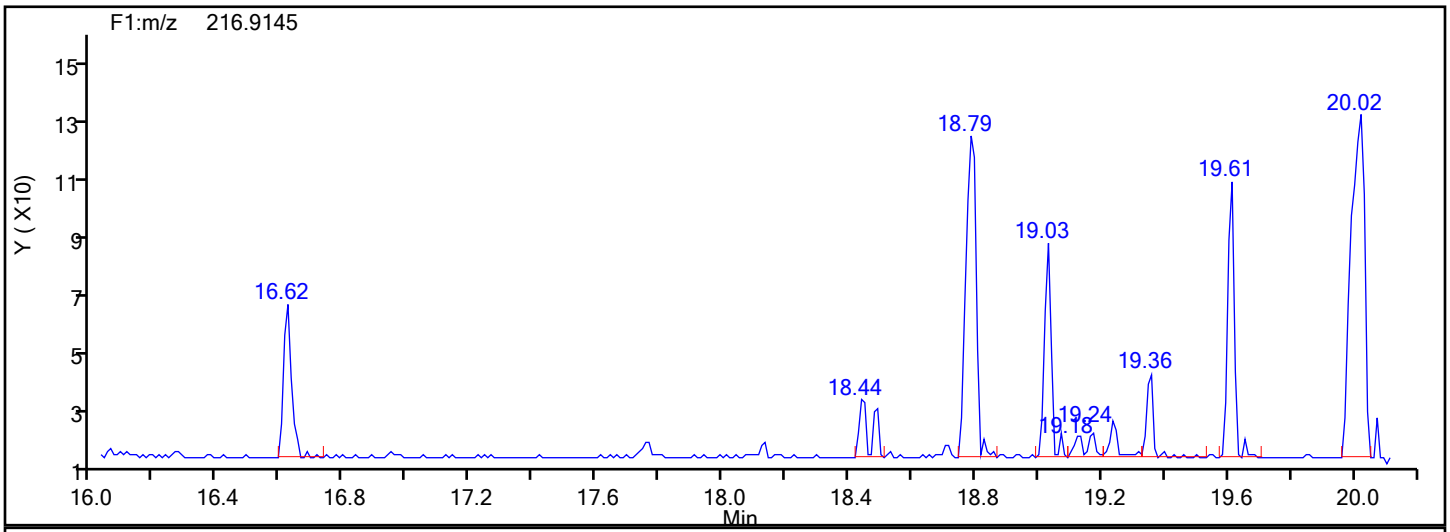
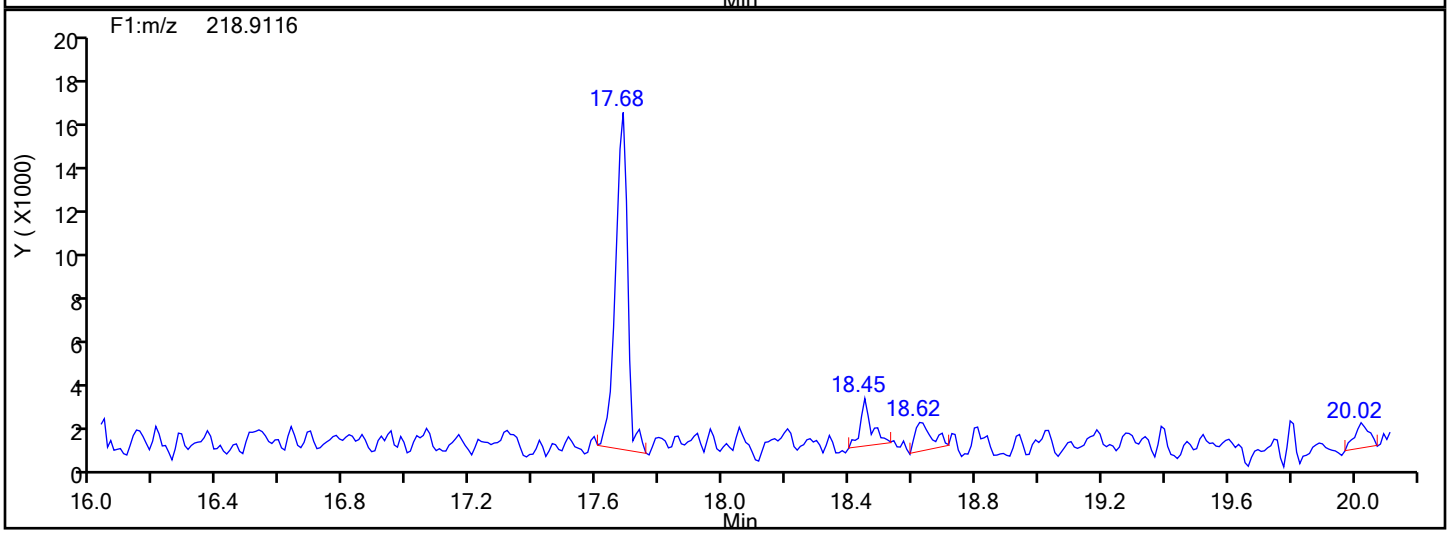
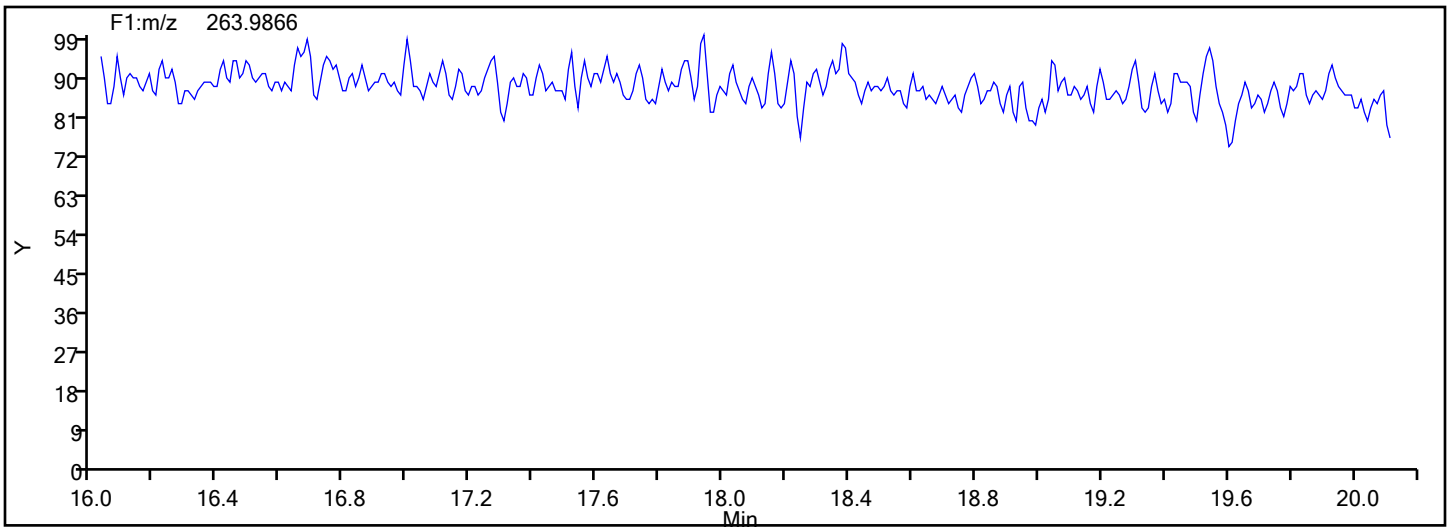
BHC





BHC Lock Mass



Report Date: 05-May-2025 18:00:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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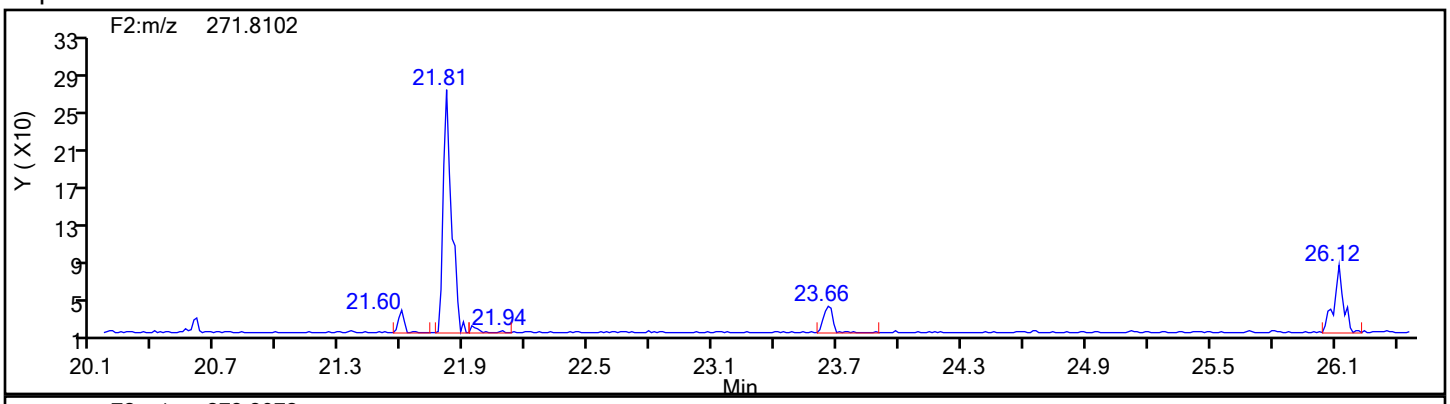
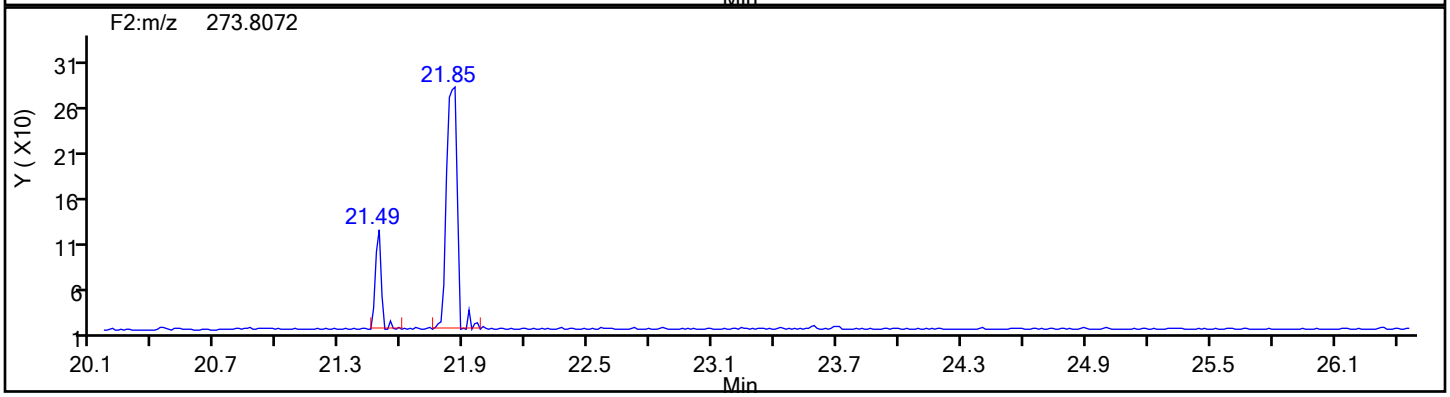
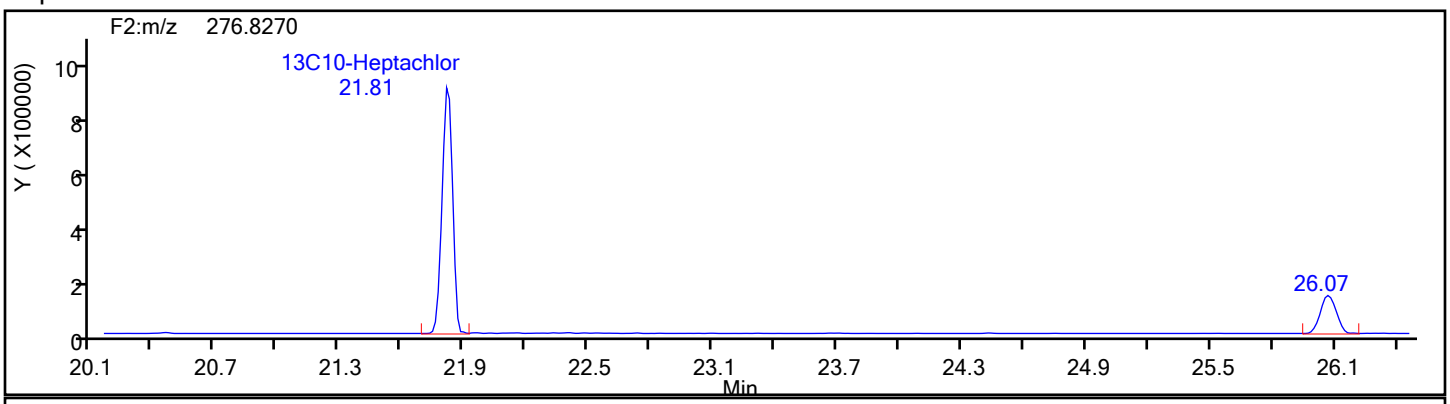
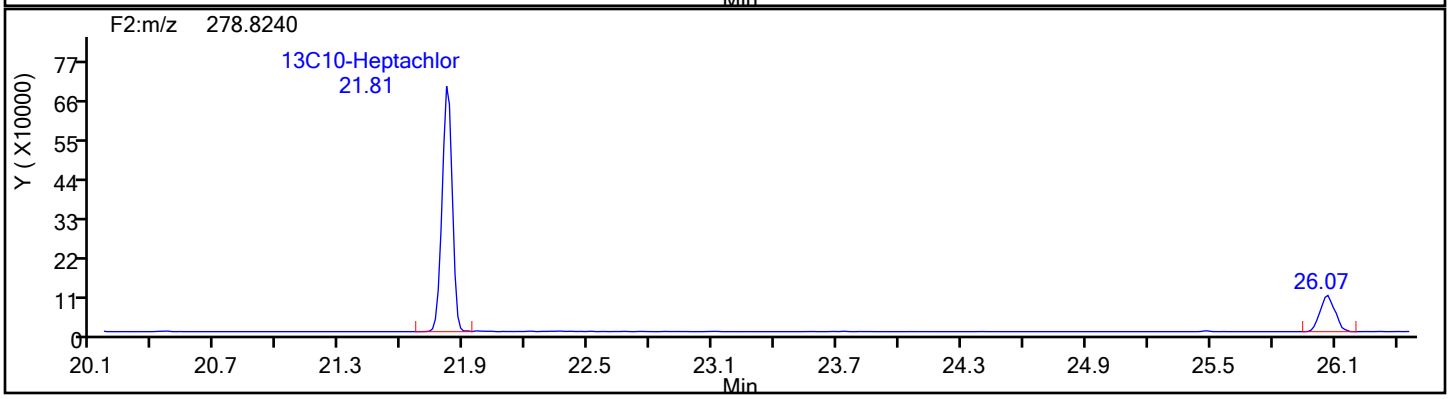
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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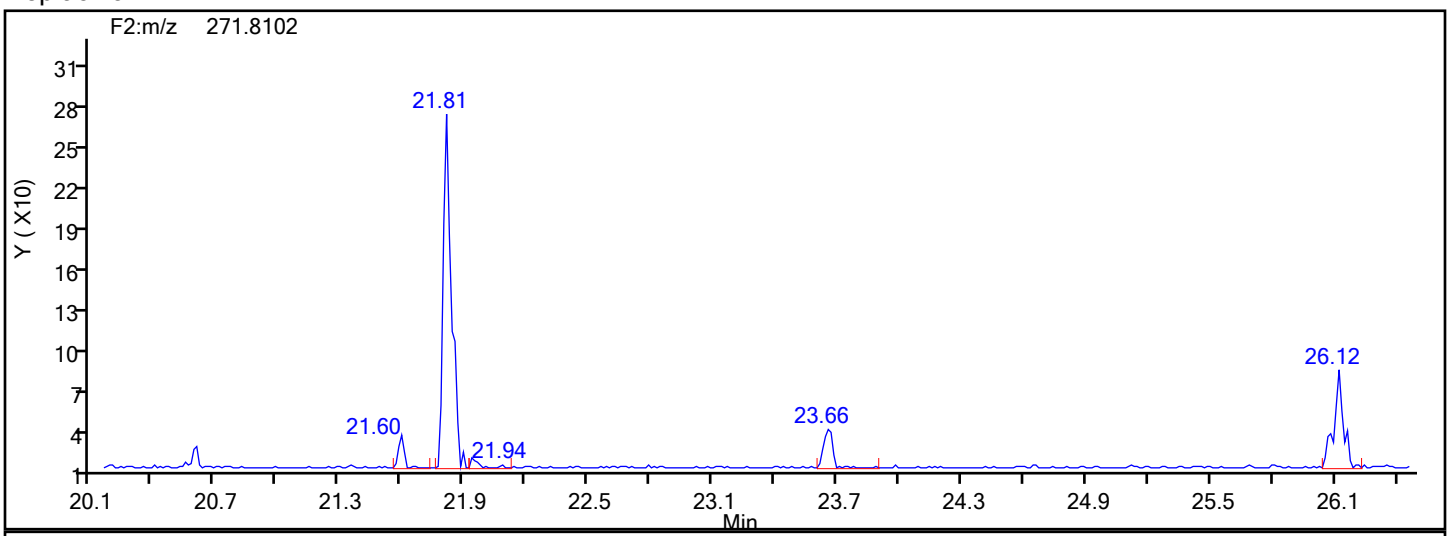
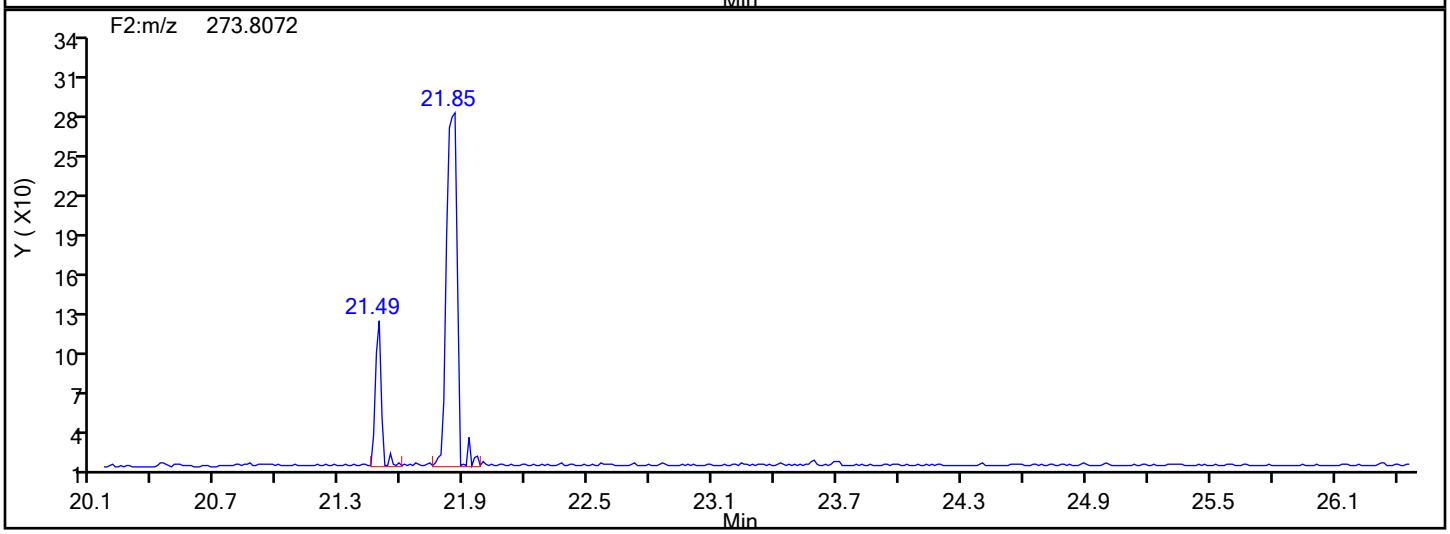
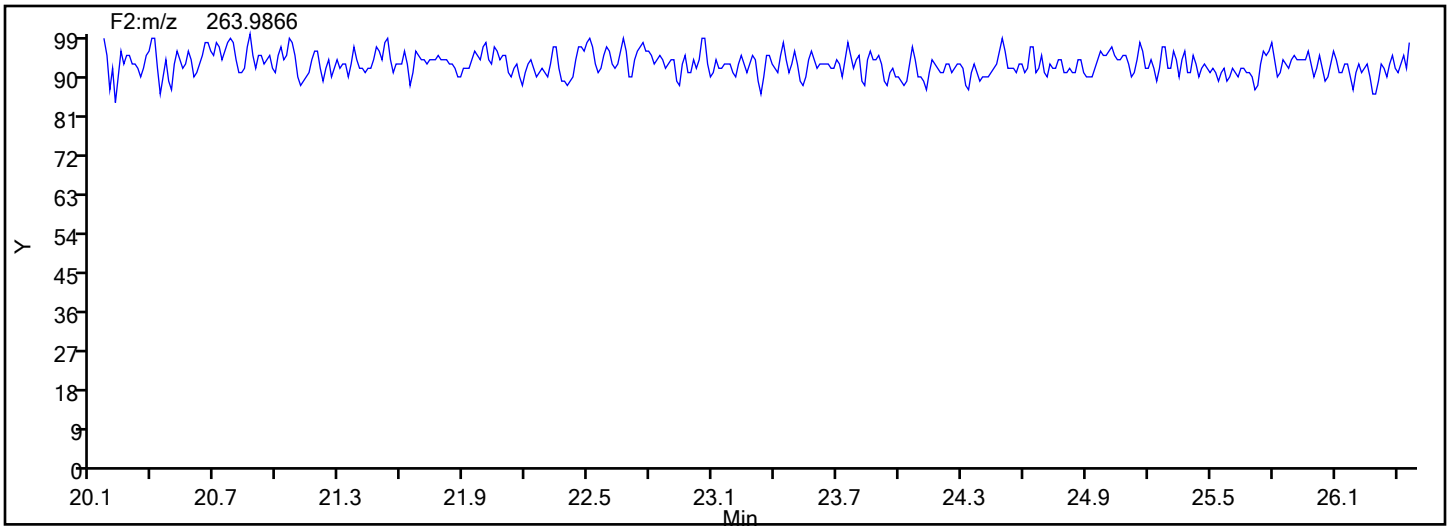
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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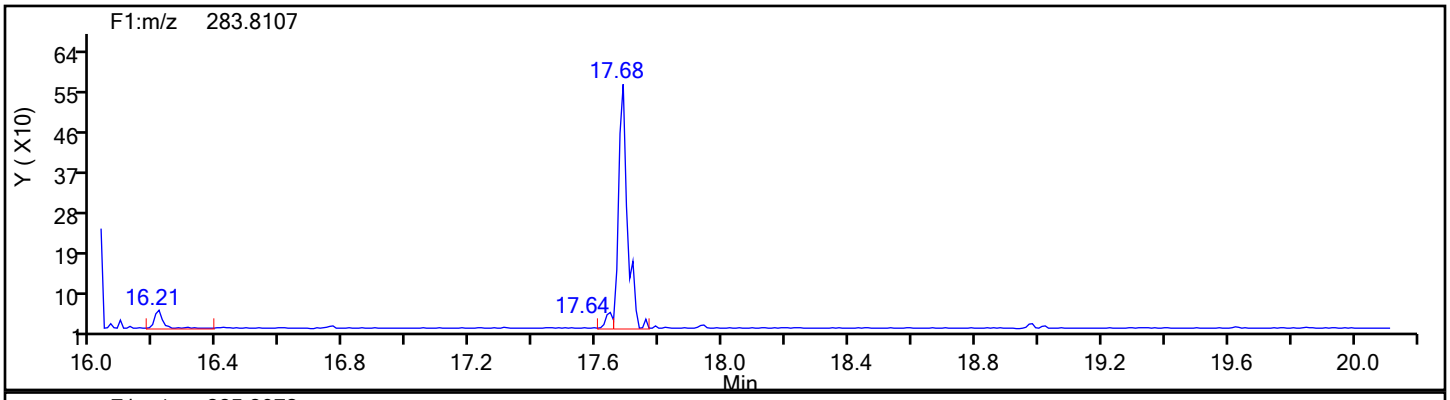
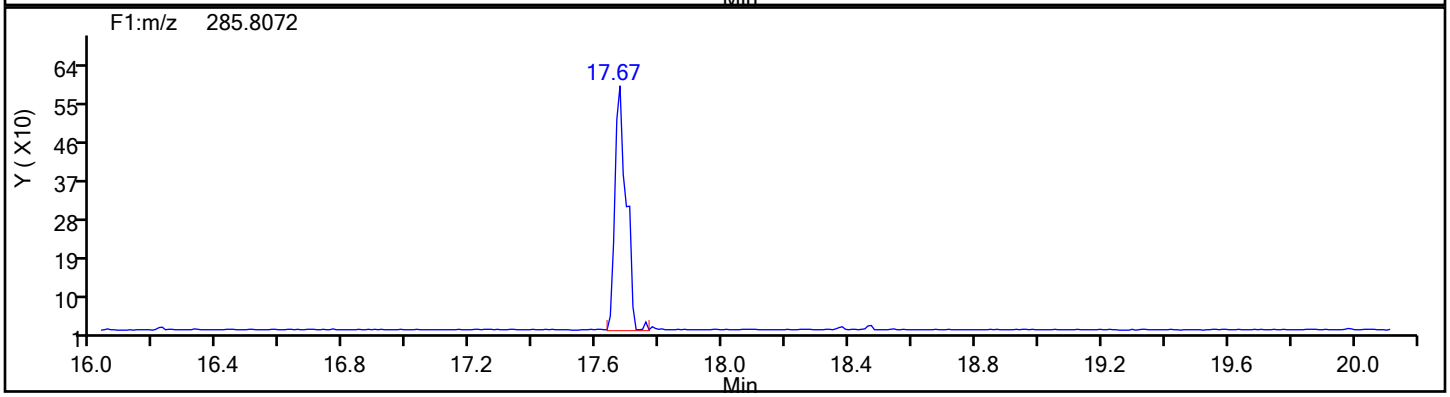
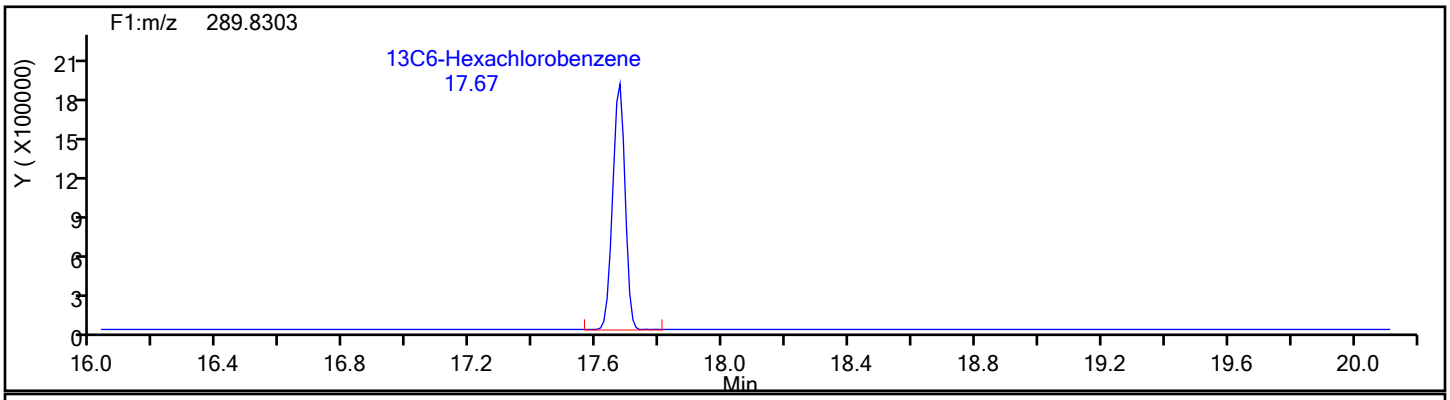
Column Type:	RTX-5	Column Dia:	0.32 mm

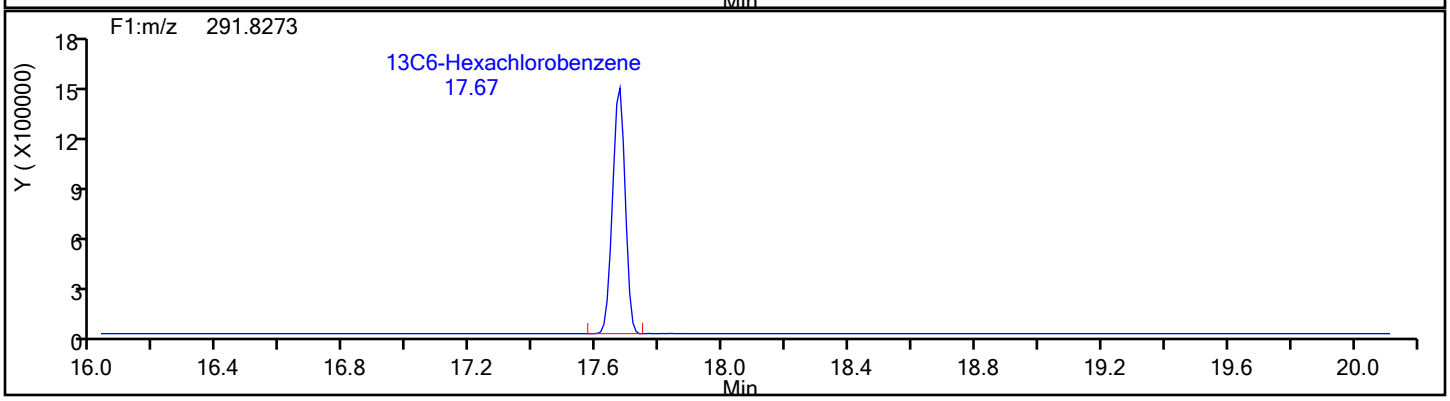
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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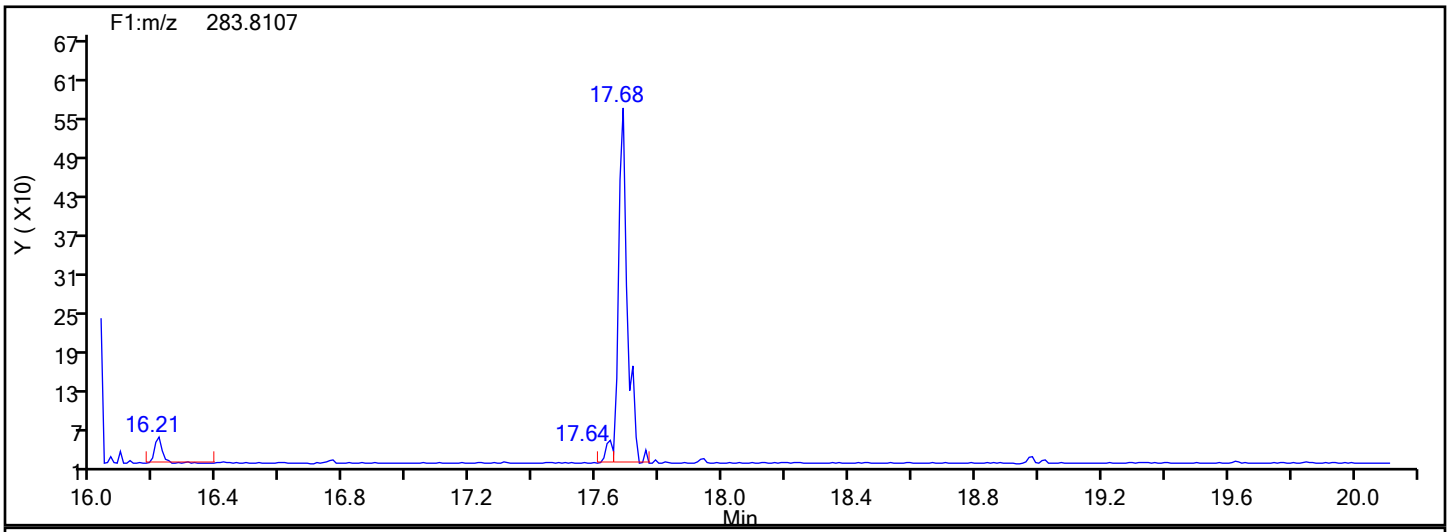
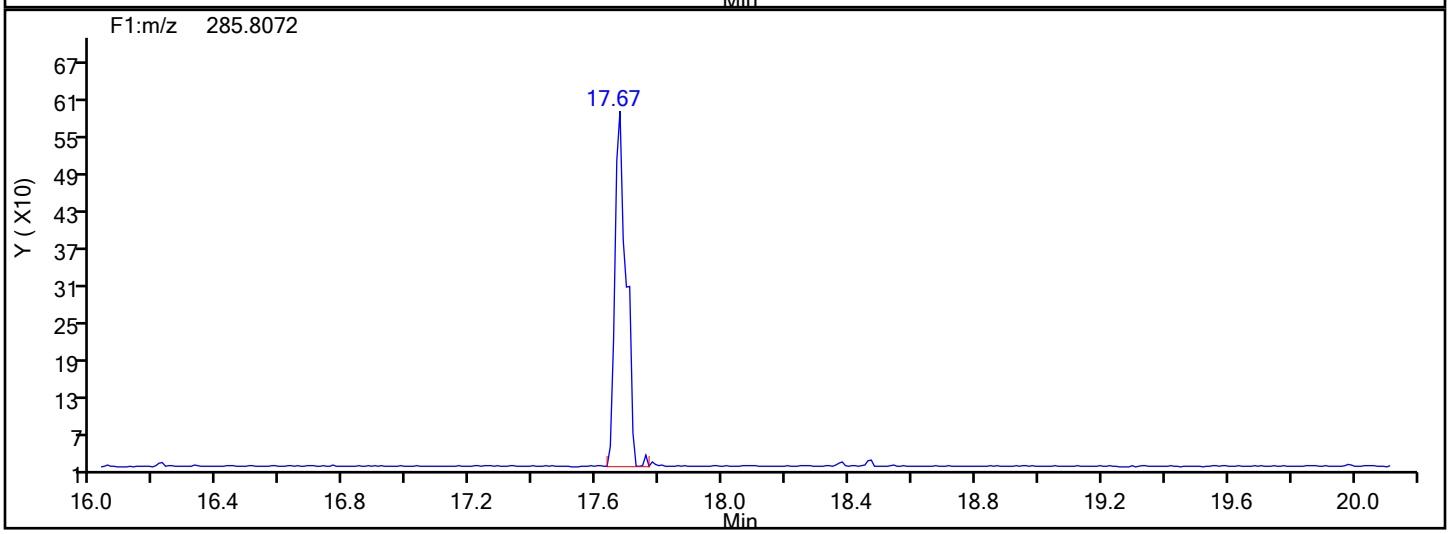
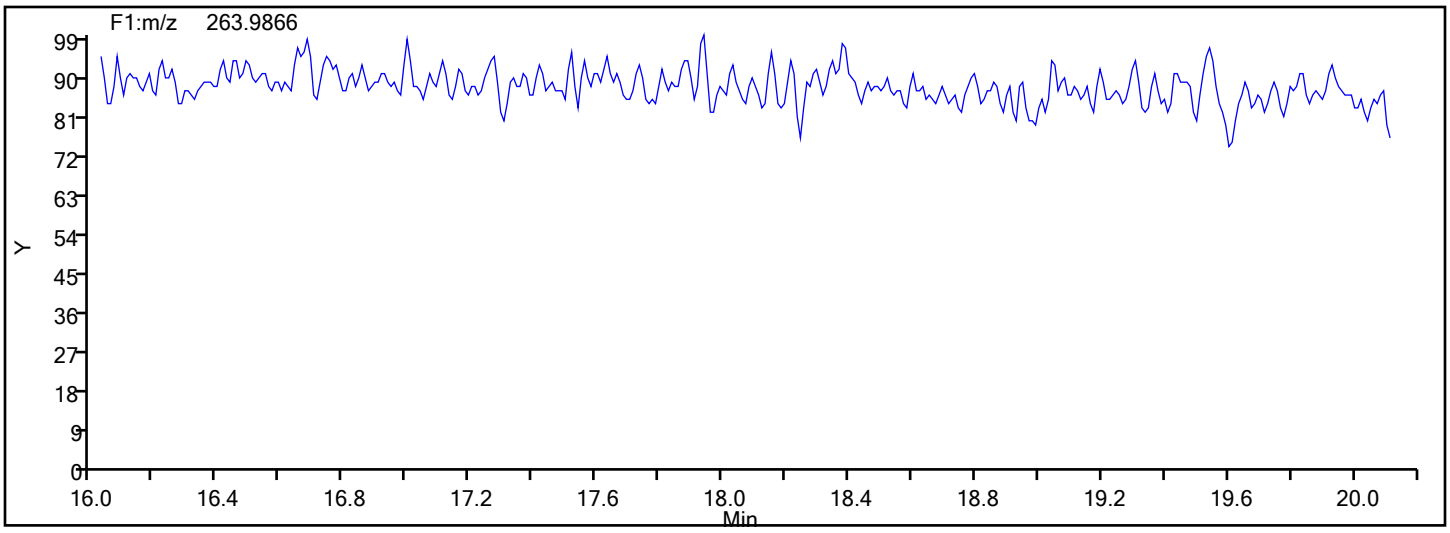
Column Type:	RTX-5	Column Dia:	0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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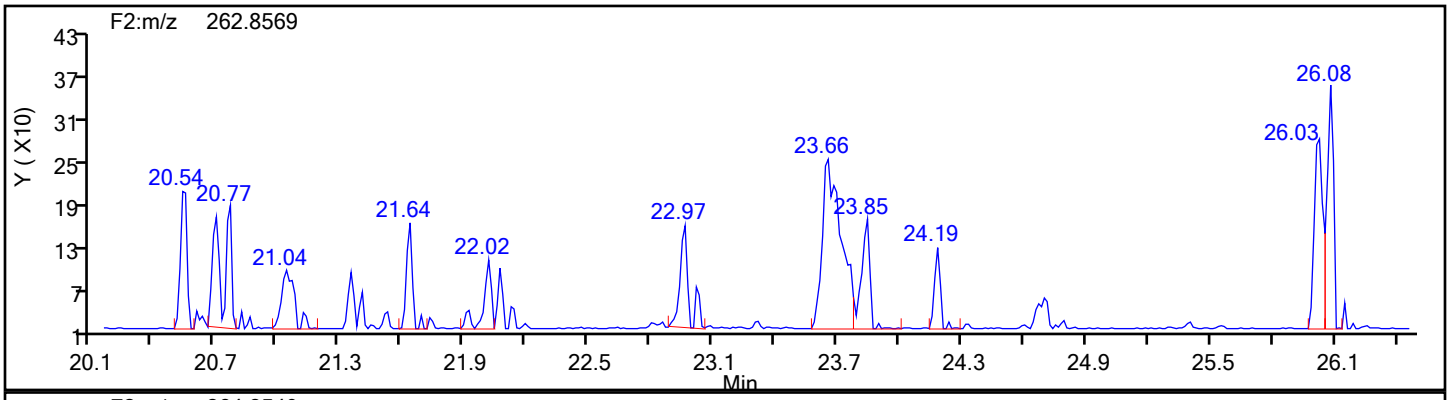
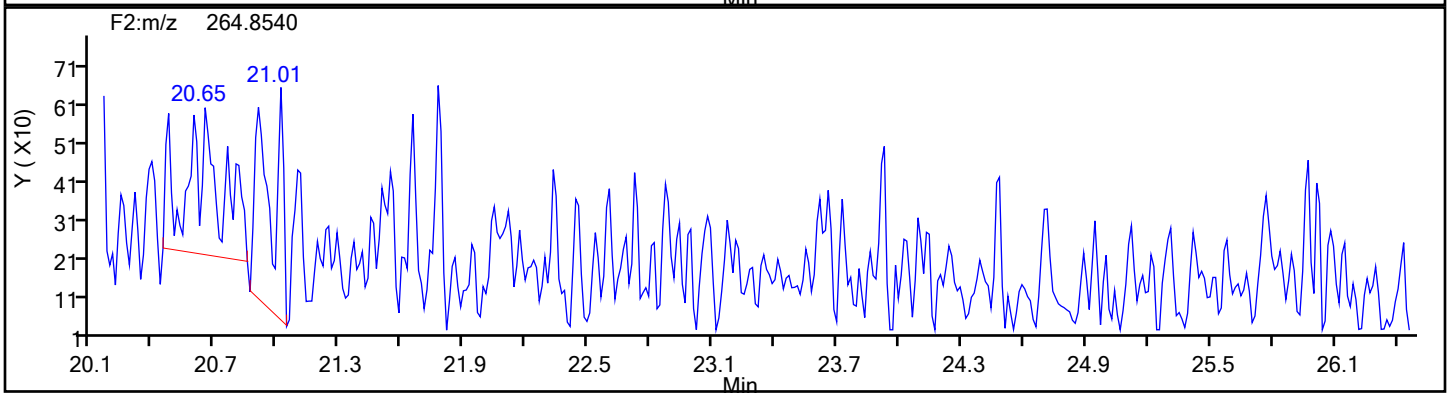
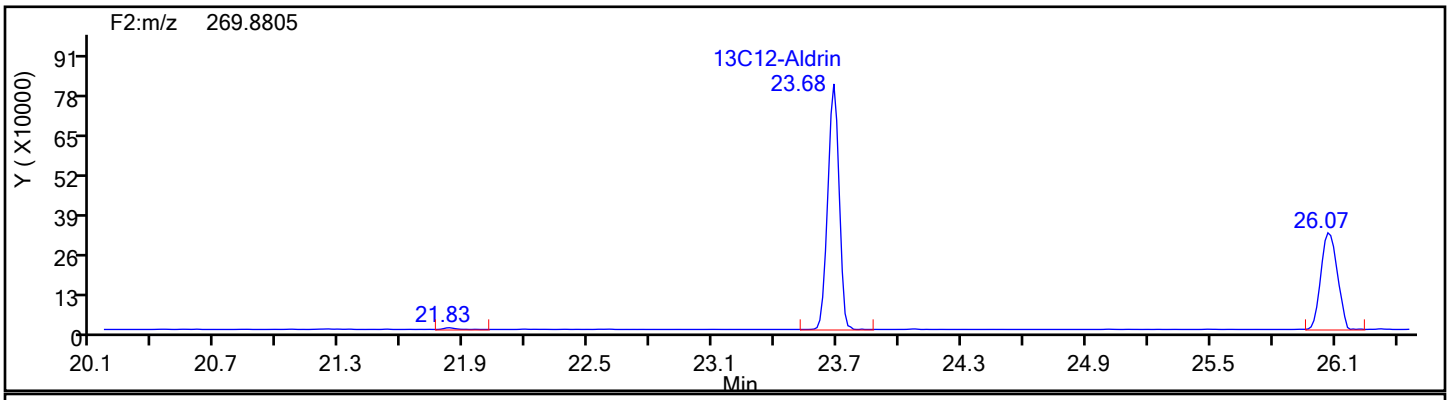
Column Type:	RTX-5	Column Dia:	0.32 mm

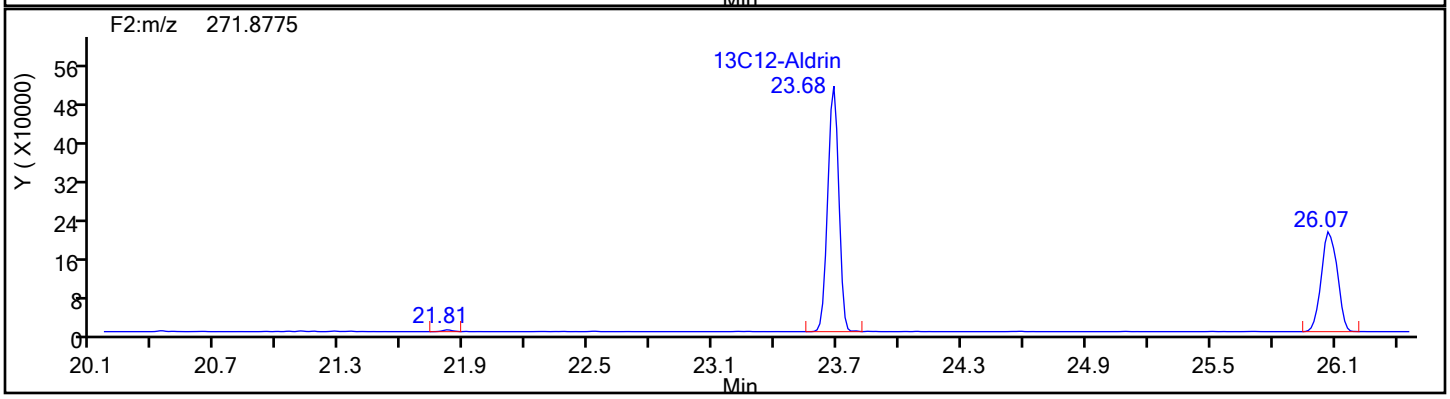
Aldrin





Aldrin Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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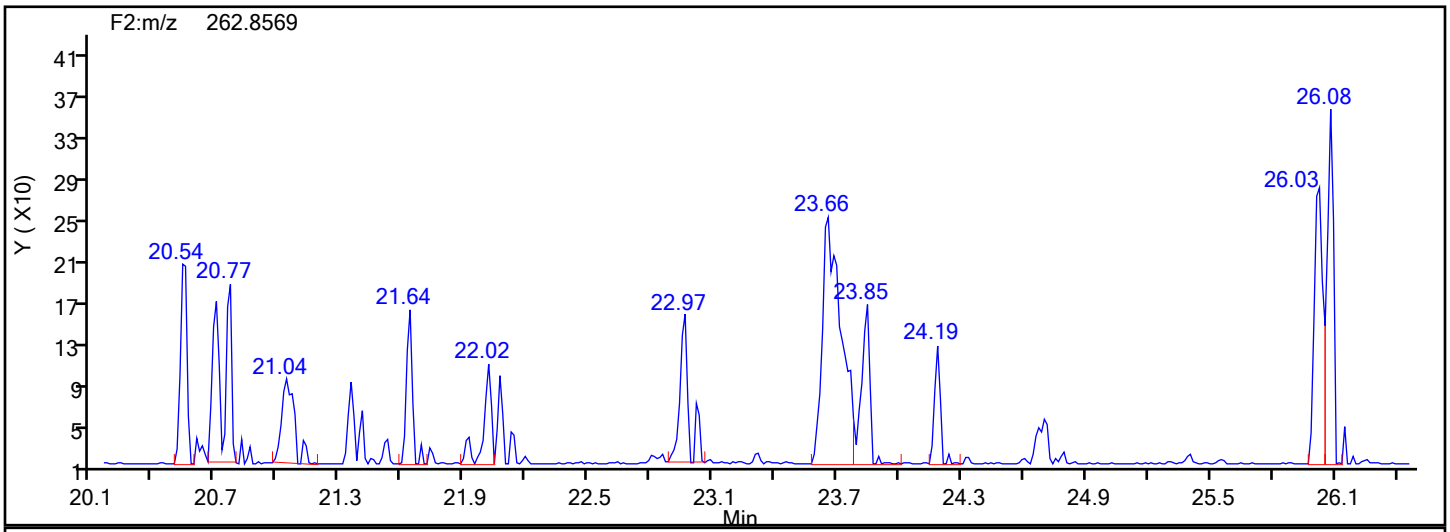
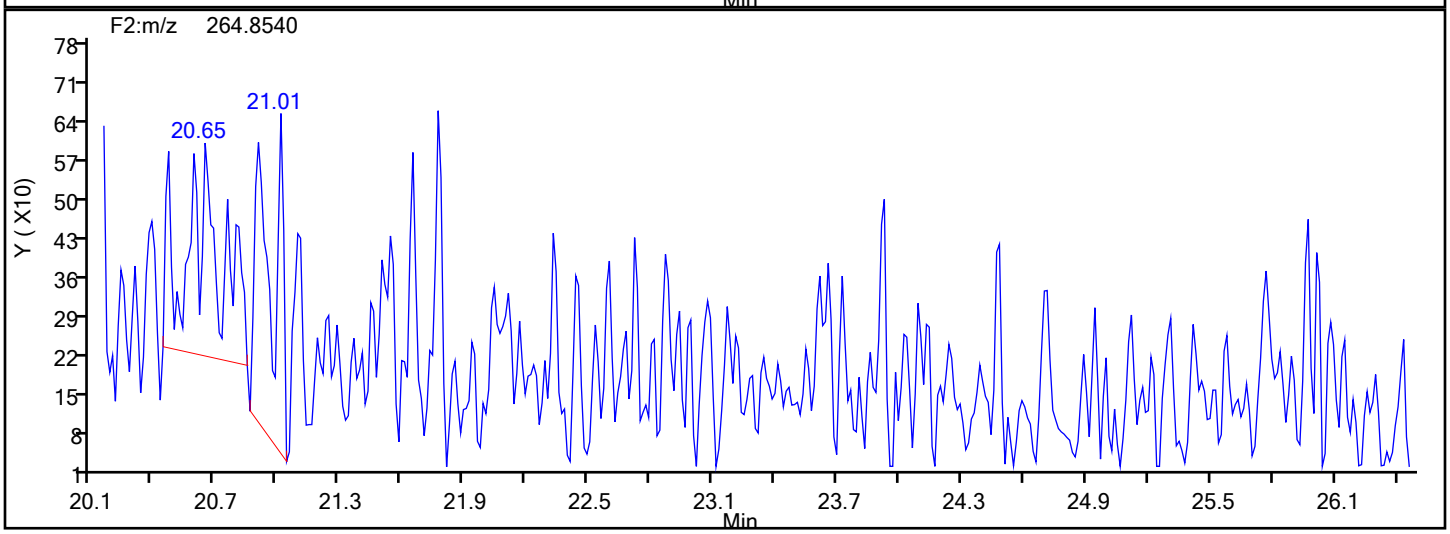
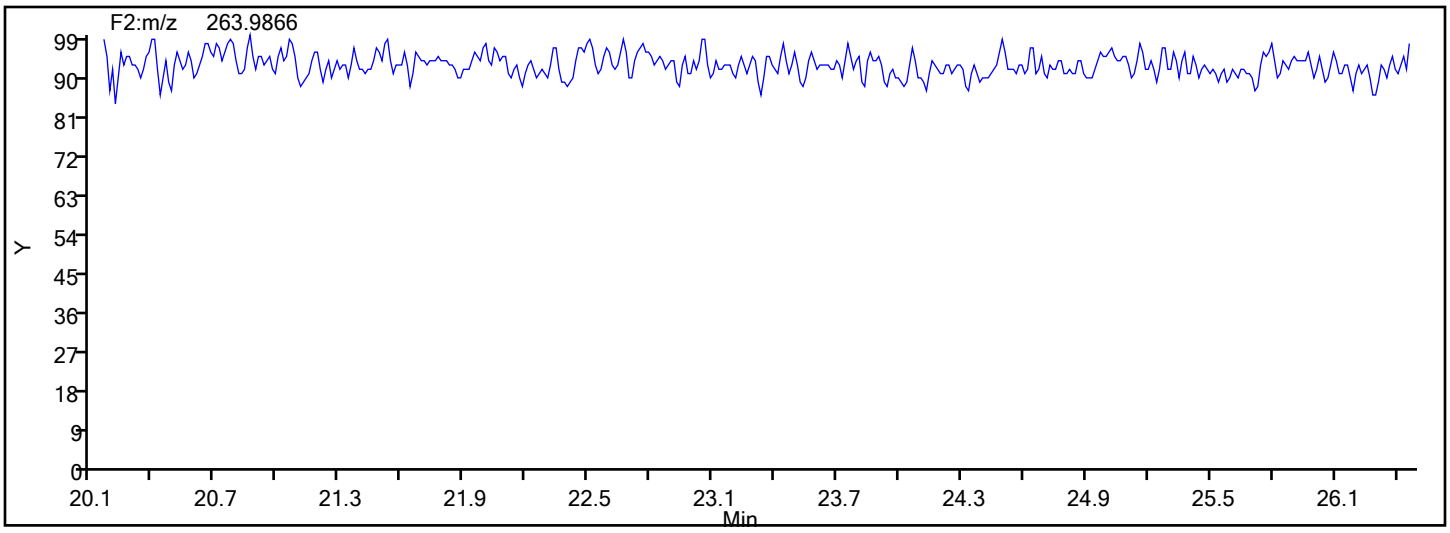
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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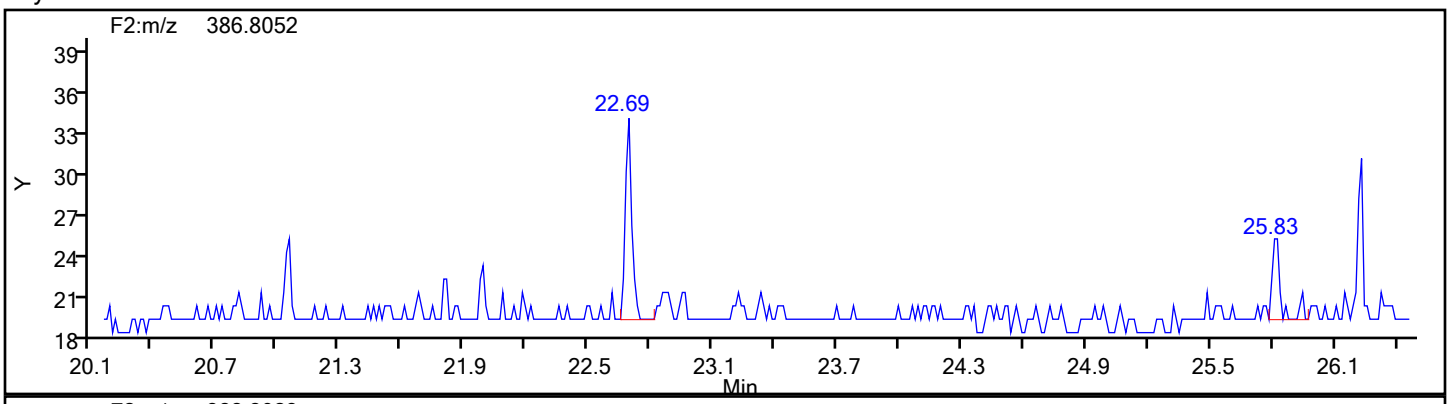
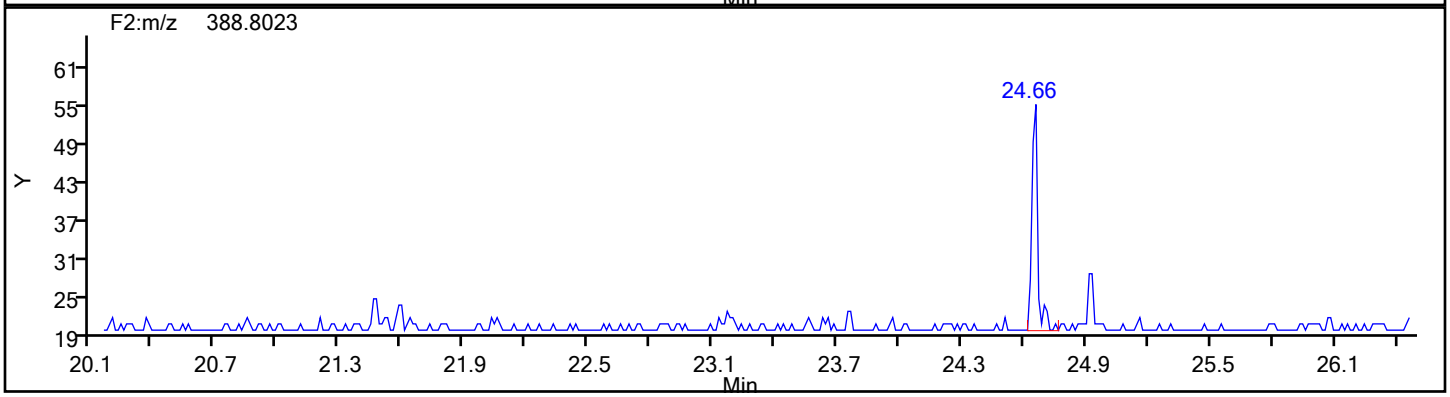
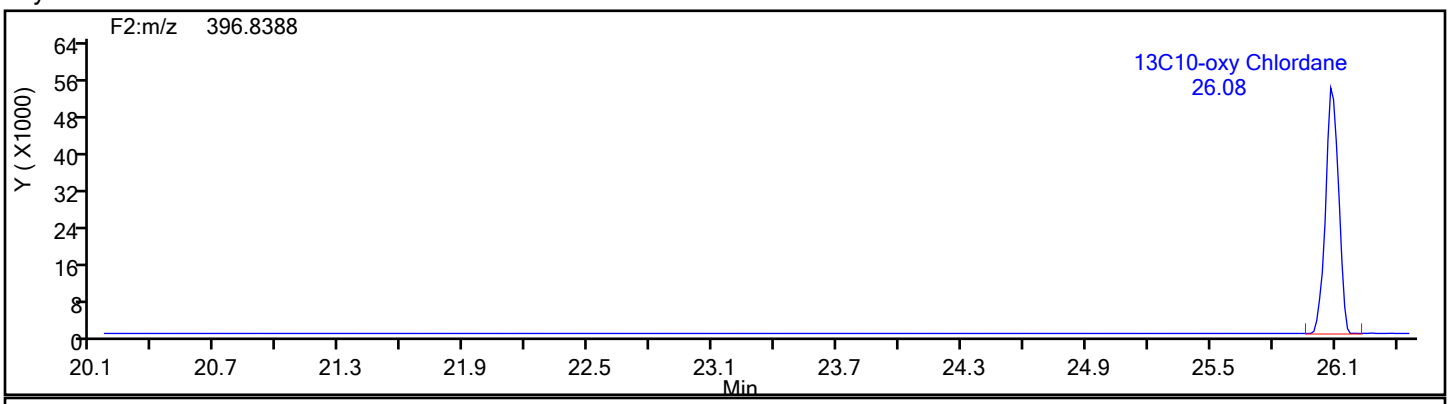
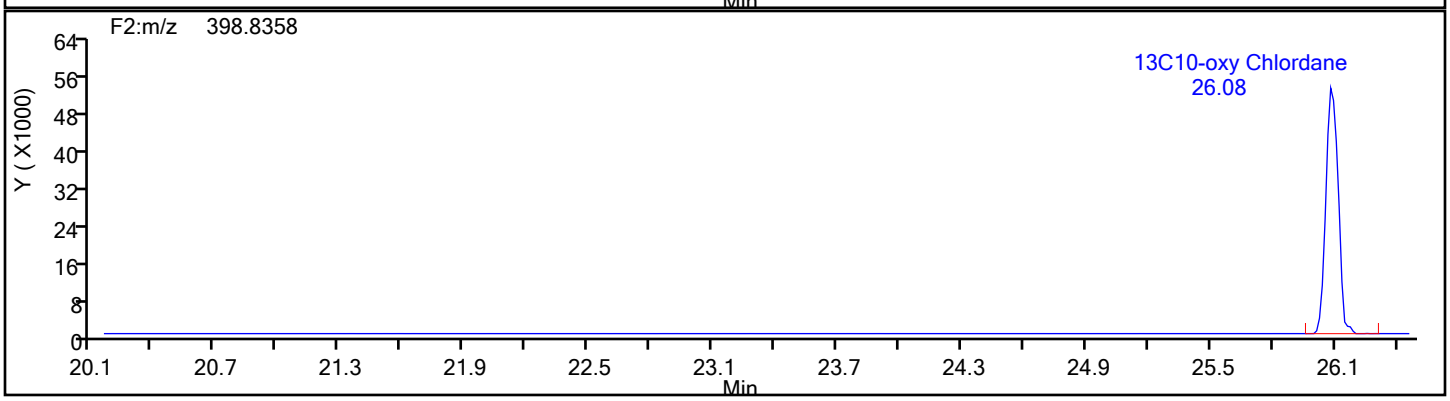
oxy-Chlordane





oxy-Chlordane Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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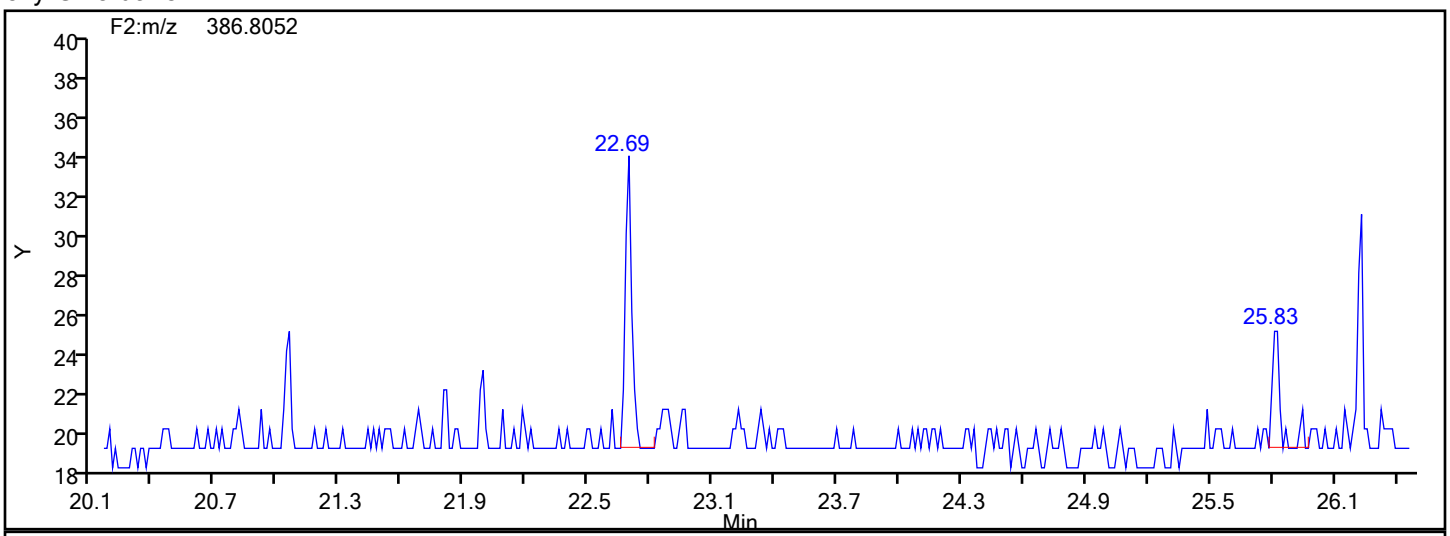
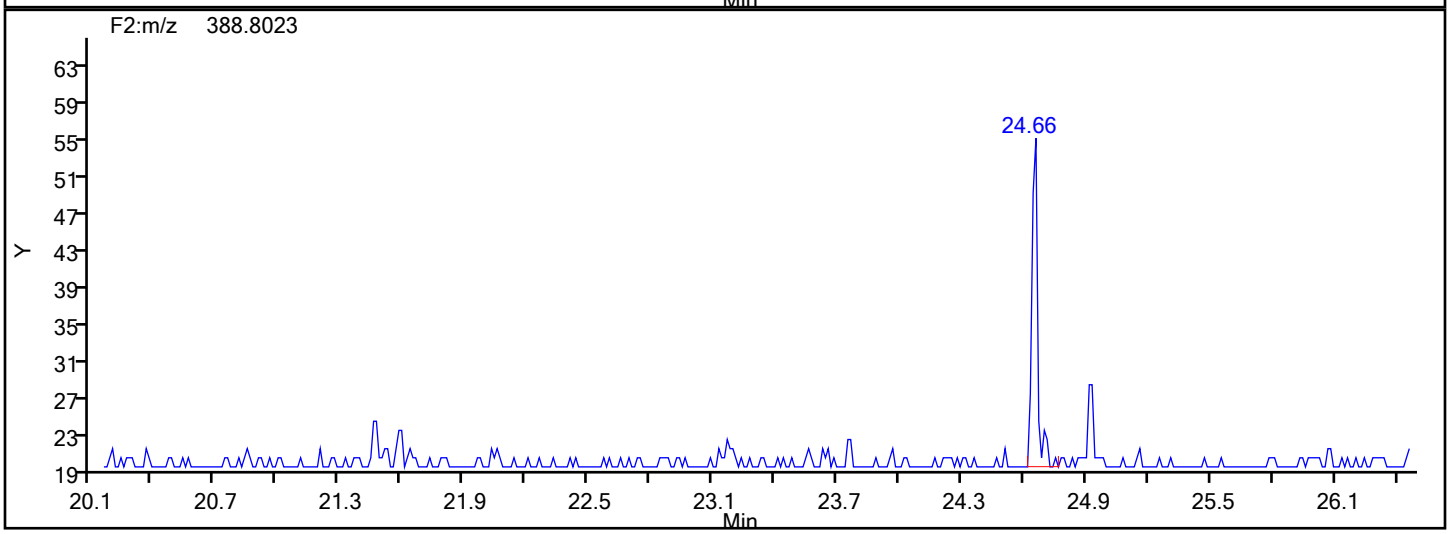
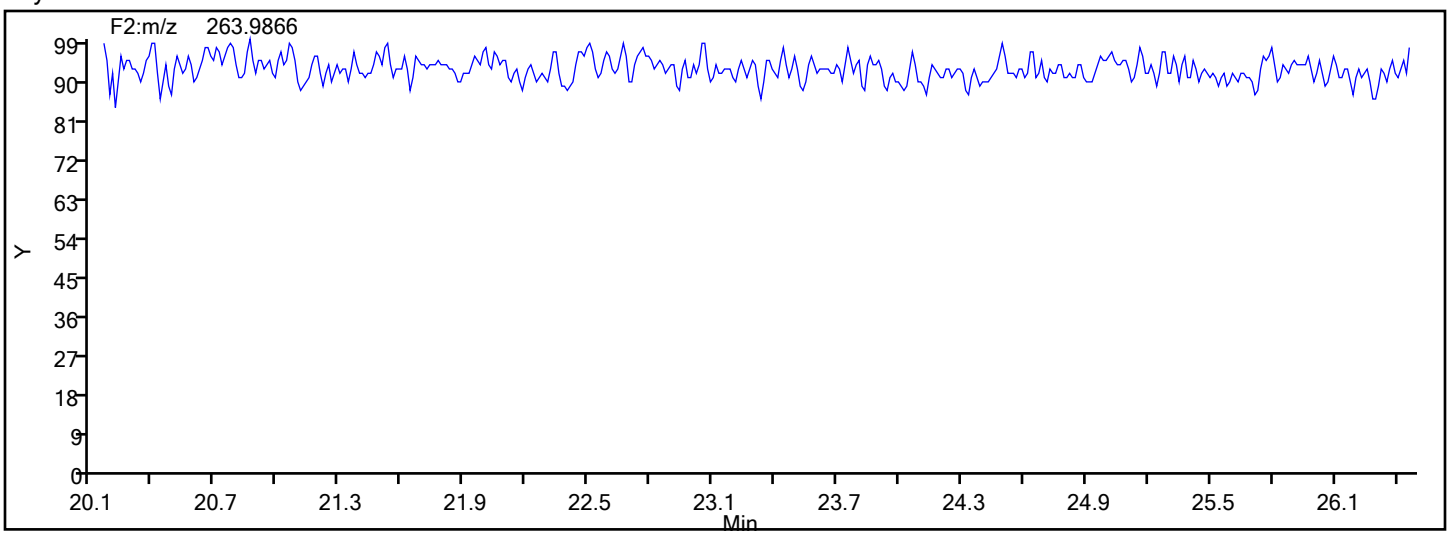
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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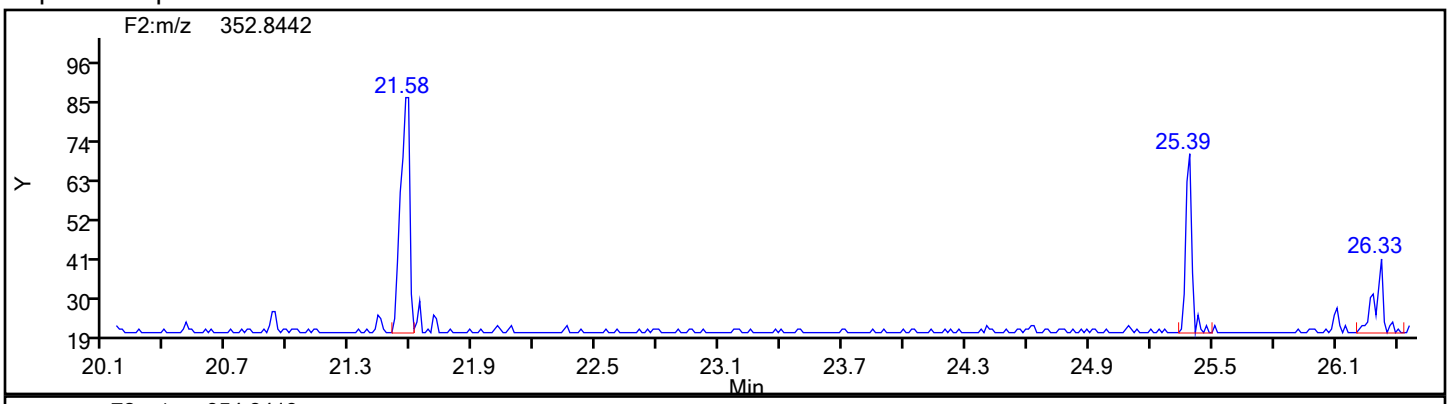
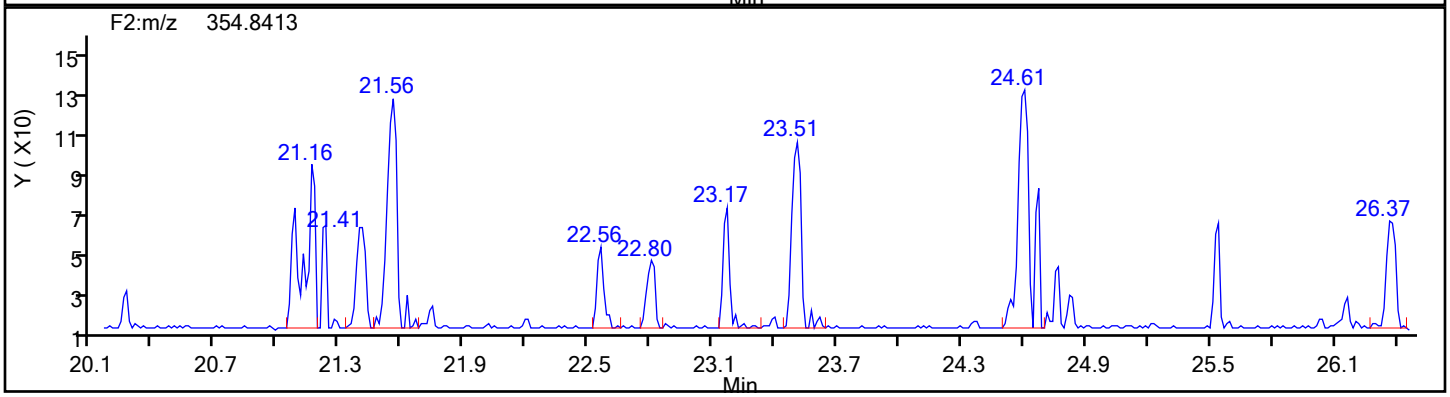
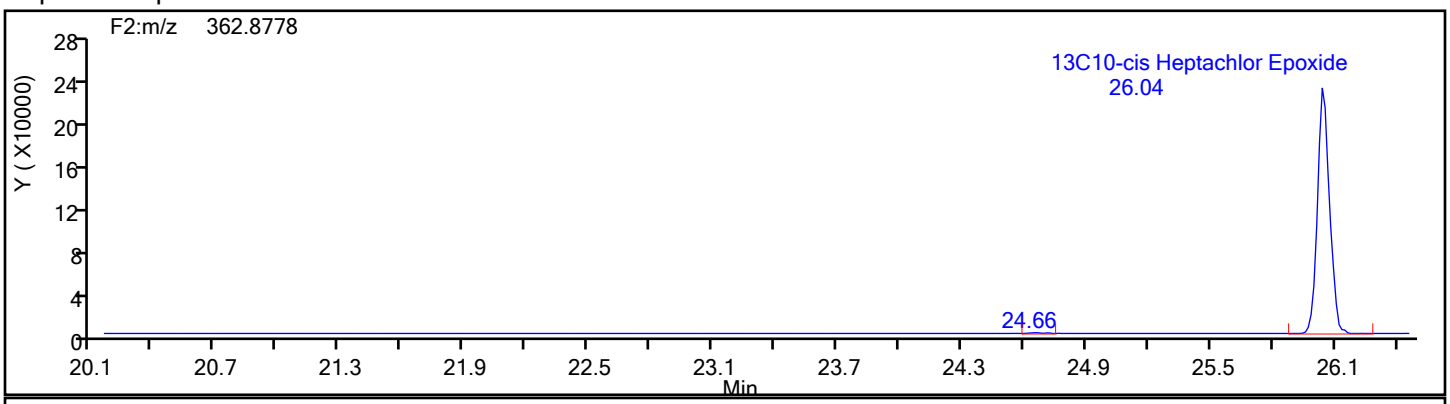
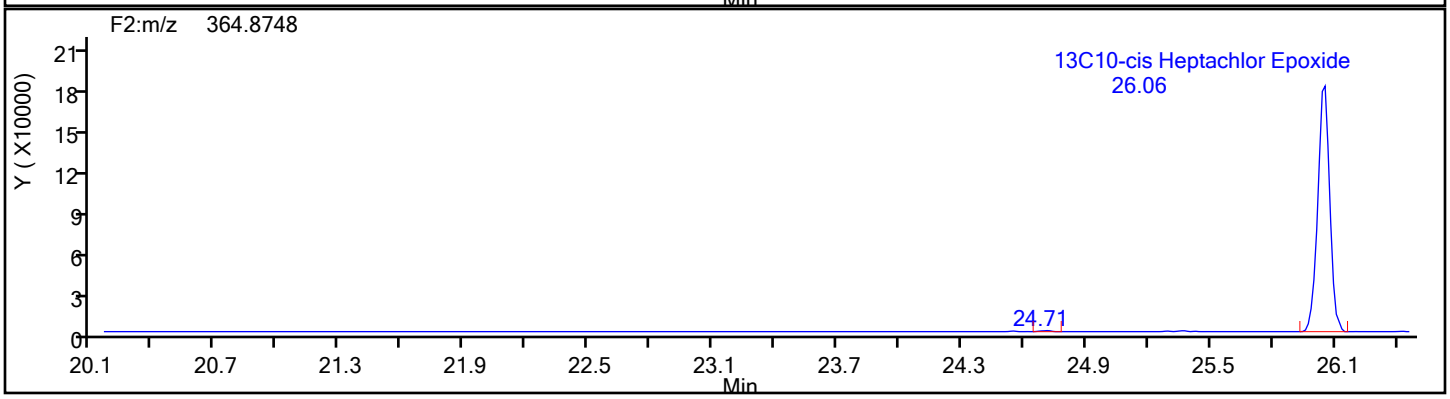
Heptachlor epoxide





Heptachlor epoxide Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
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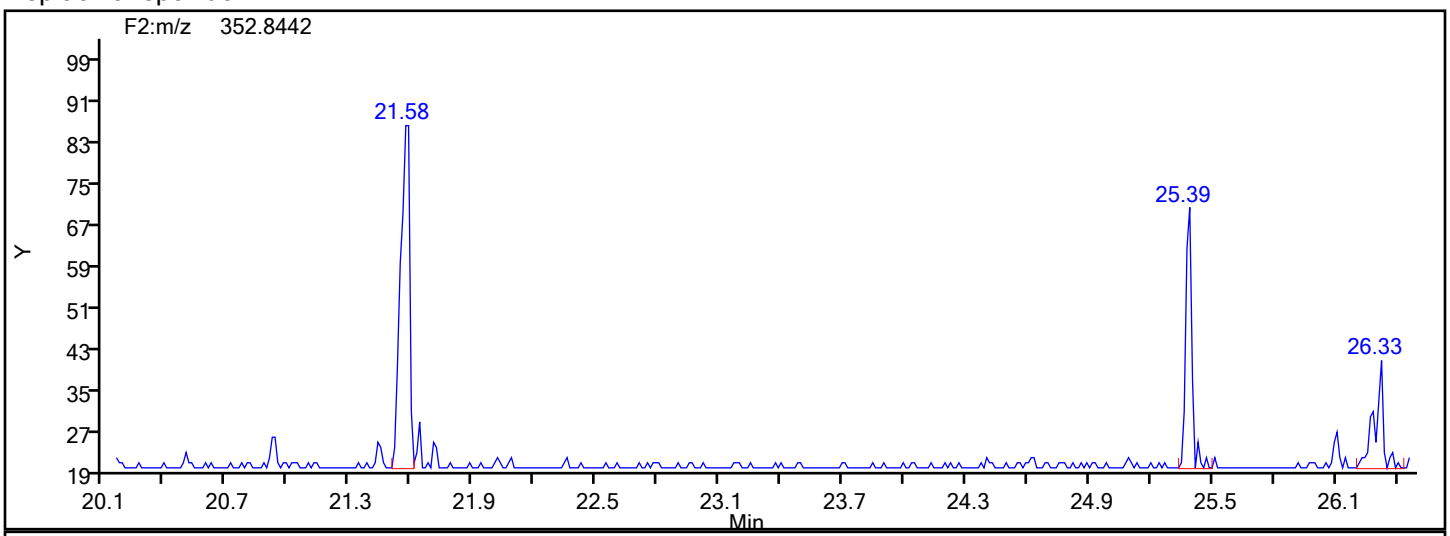
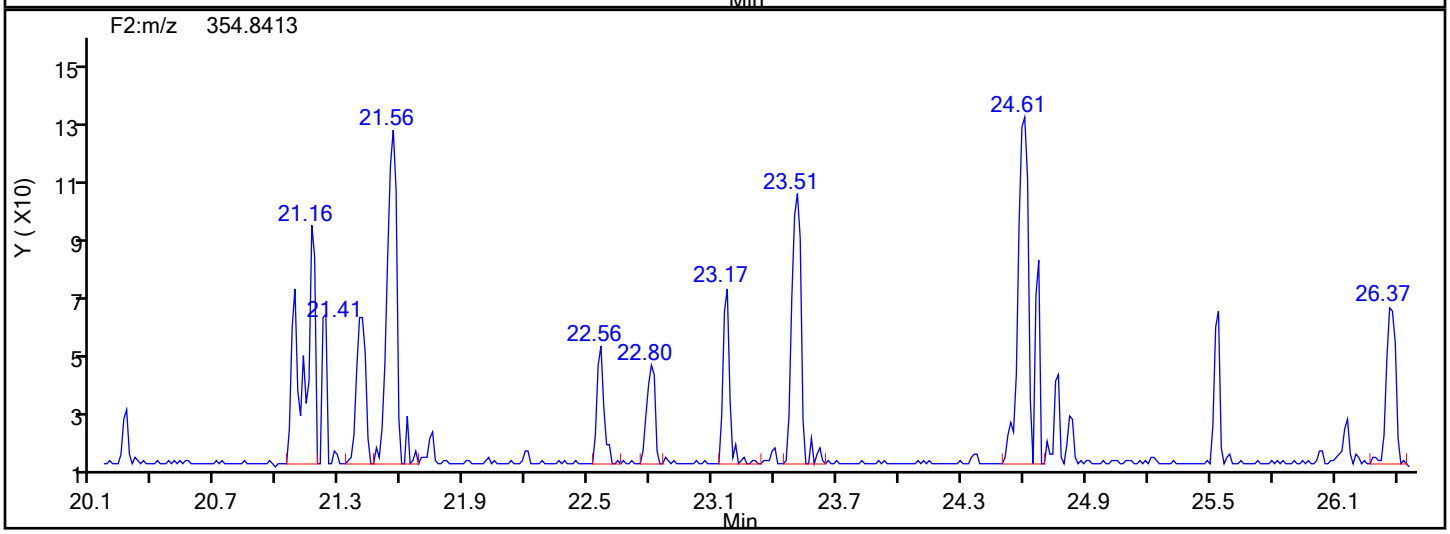
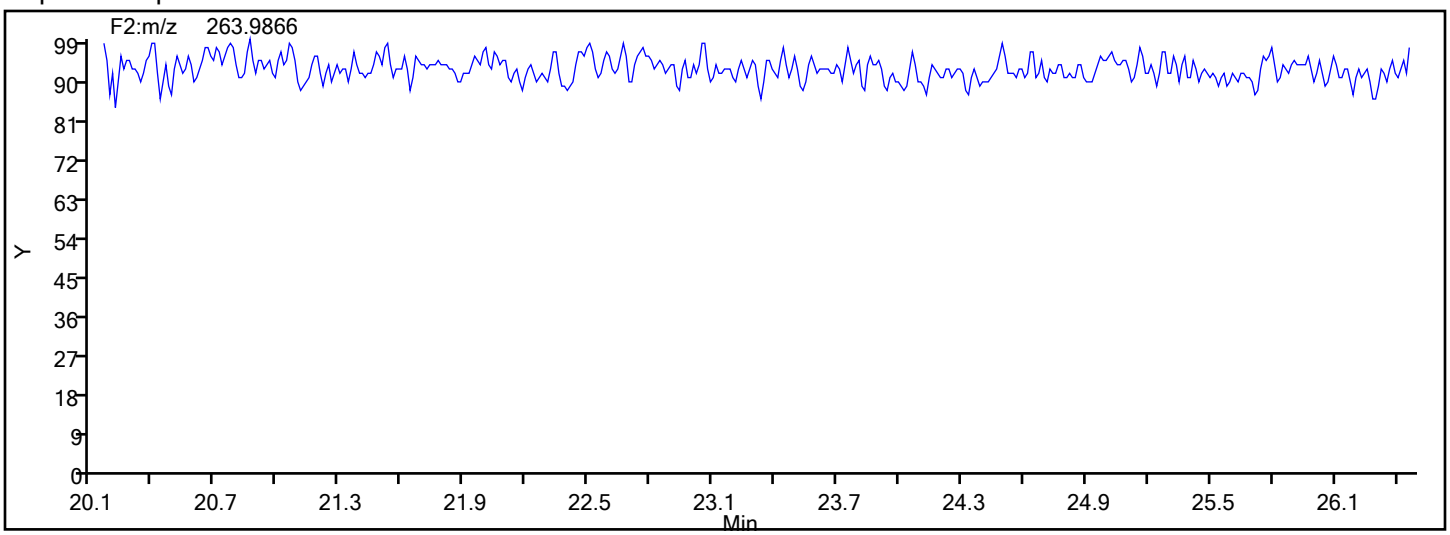
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor epoxide





Heptachlor epoxide Lock Mass



Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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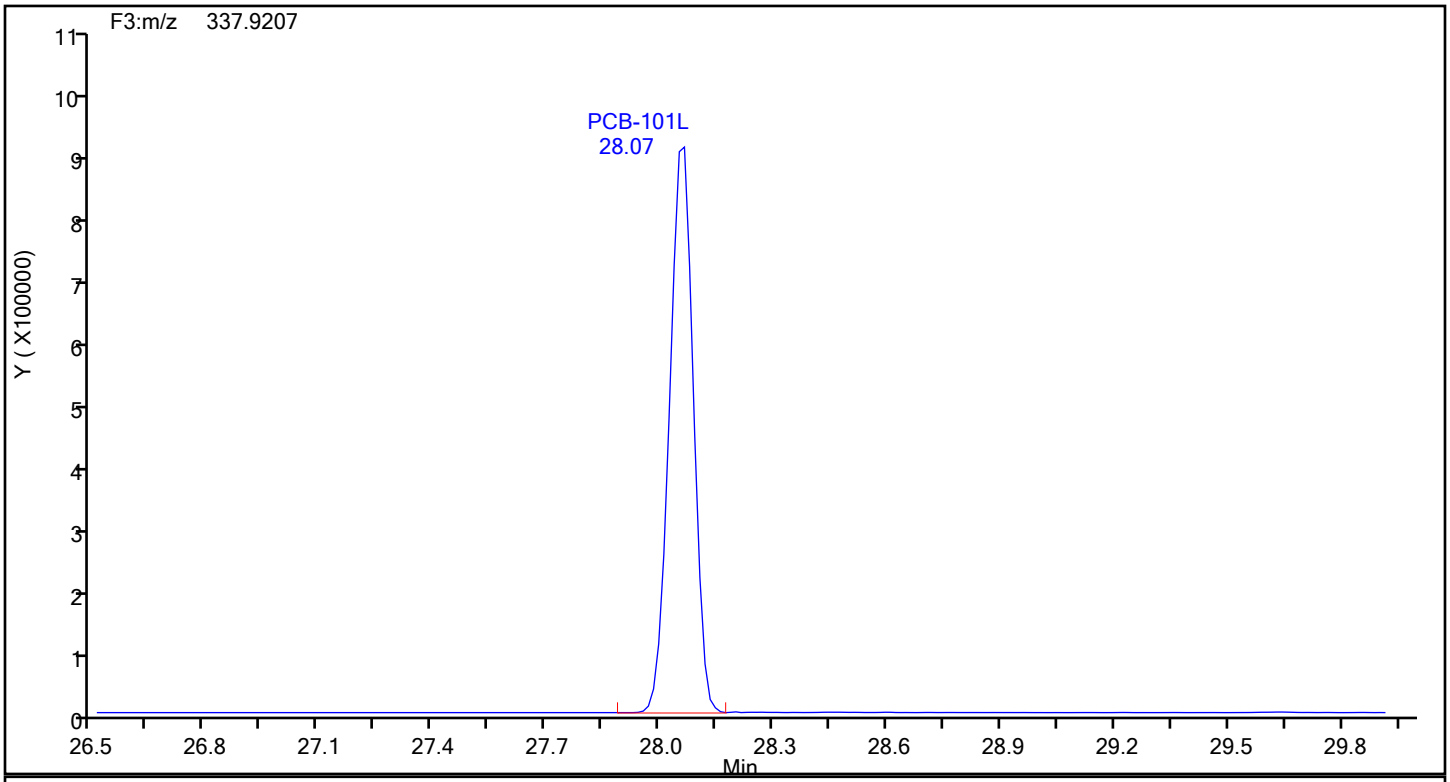
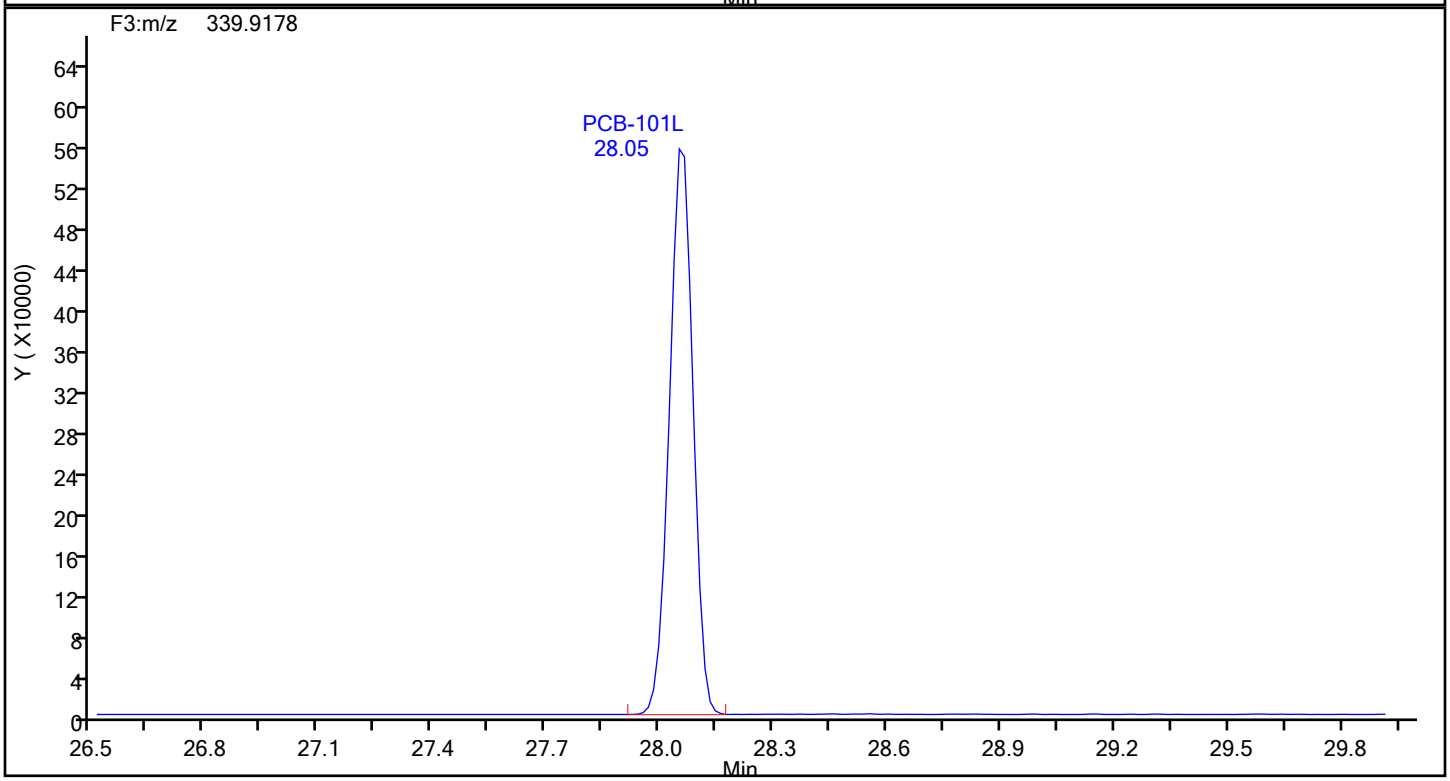
PCB-101L Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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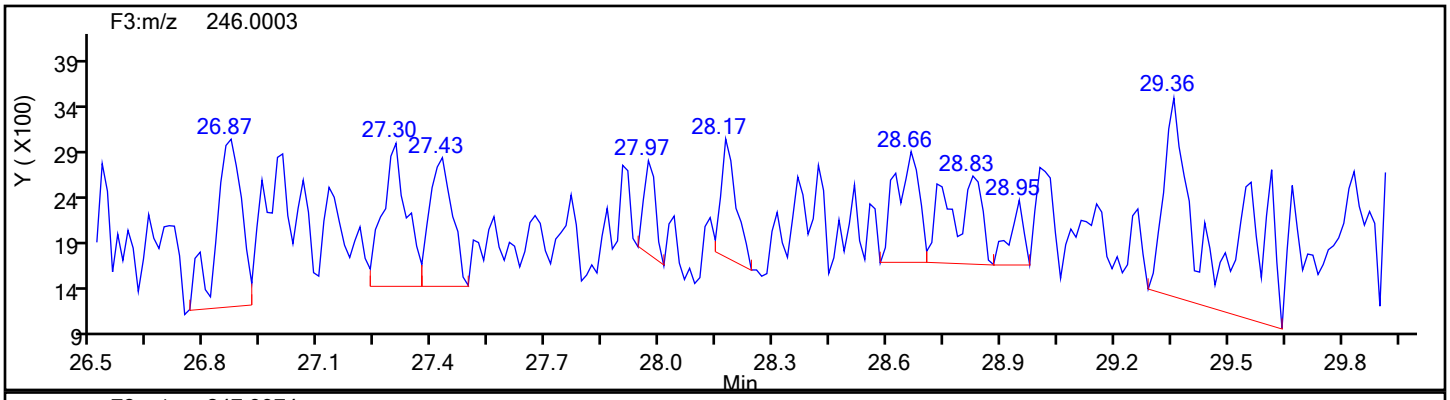
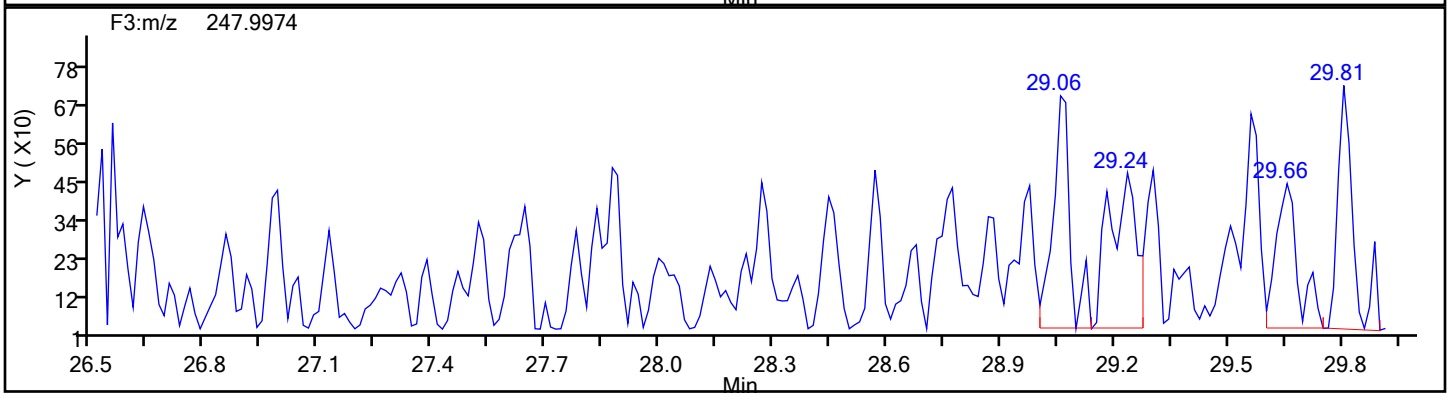
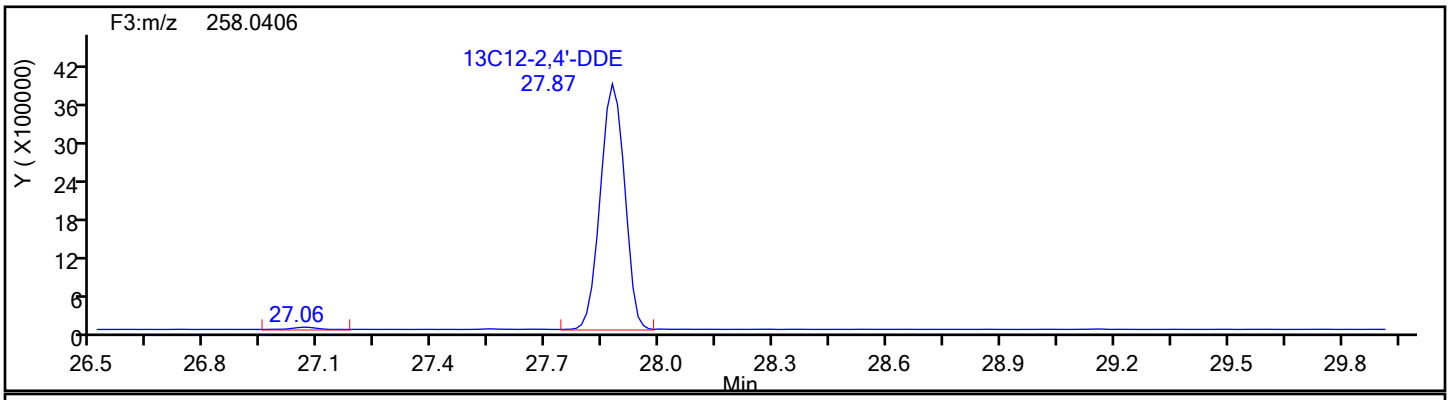
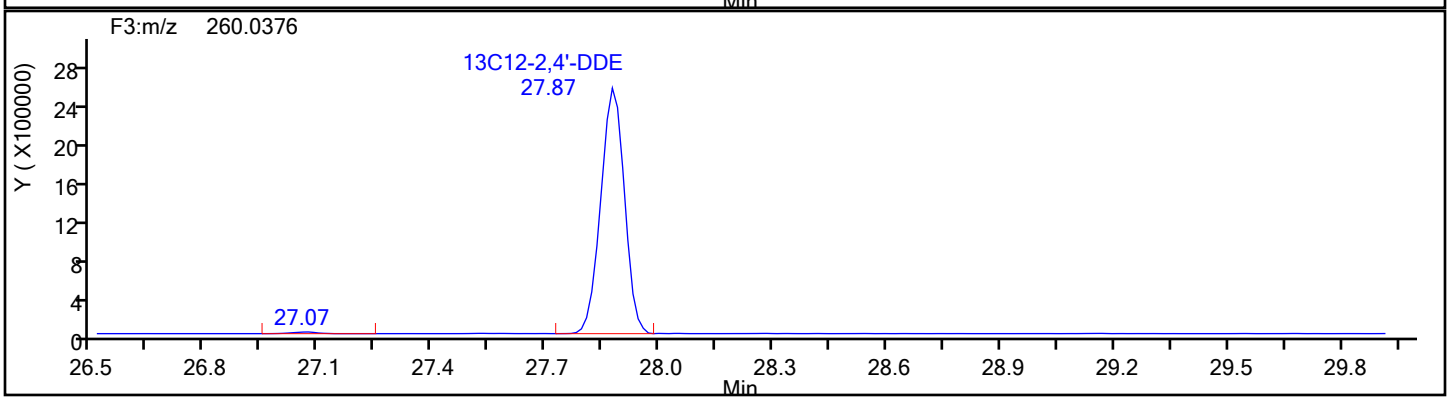
2,4'-DDE





2,4'-DDE Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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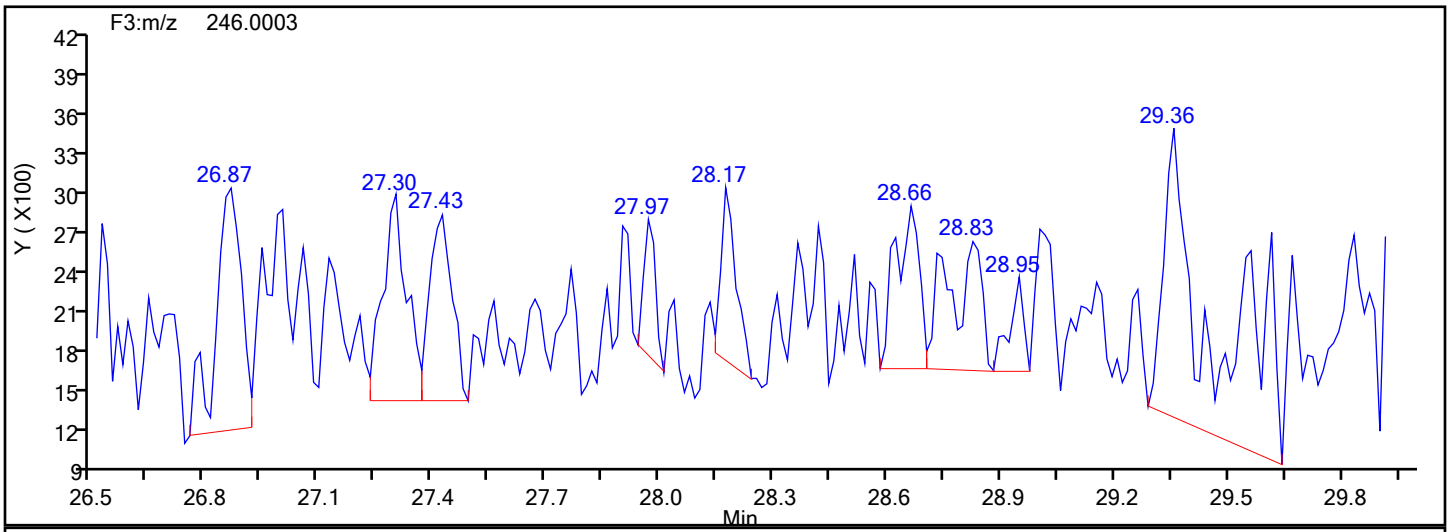
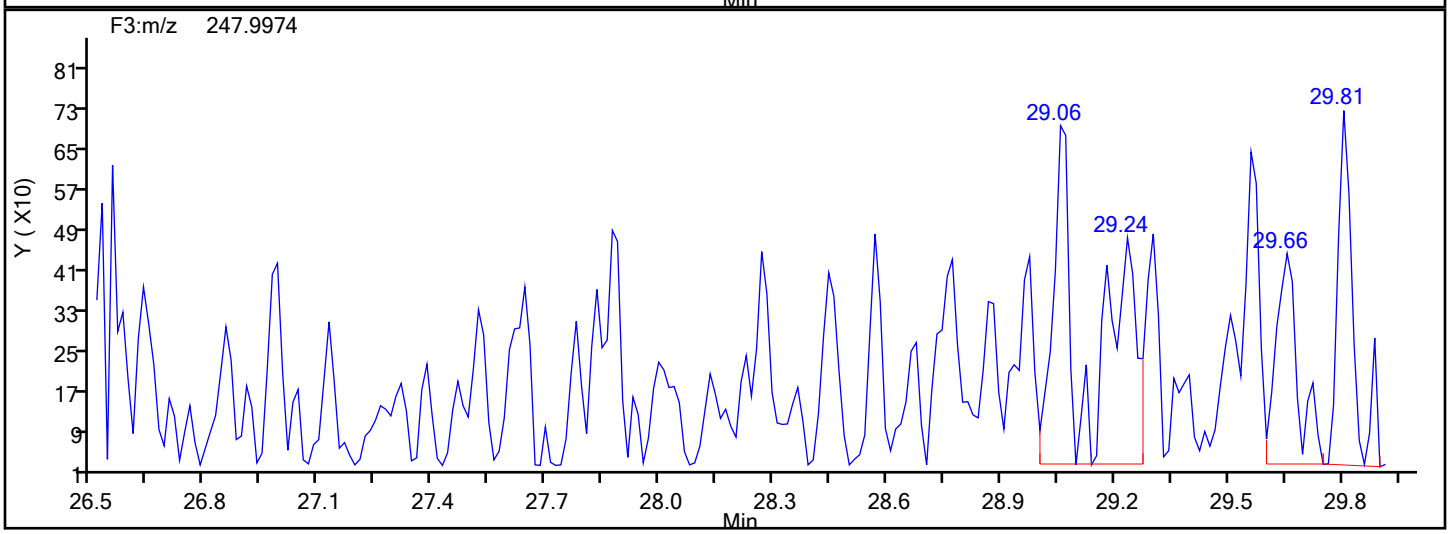
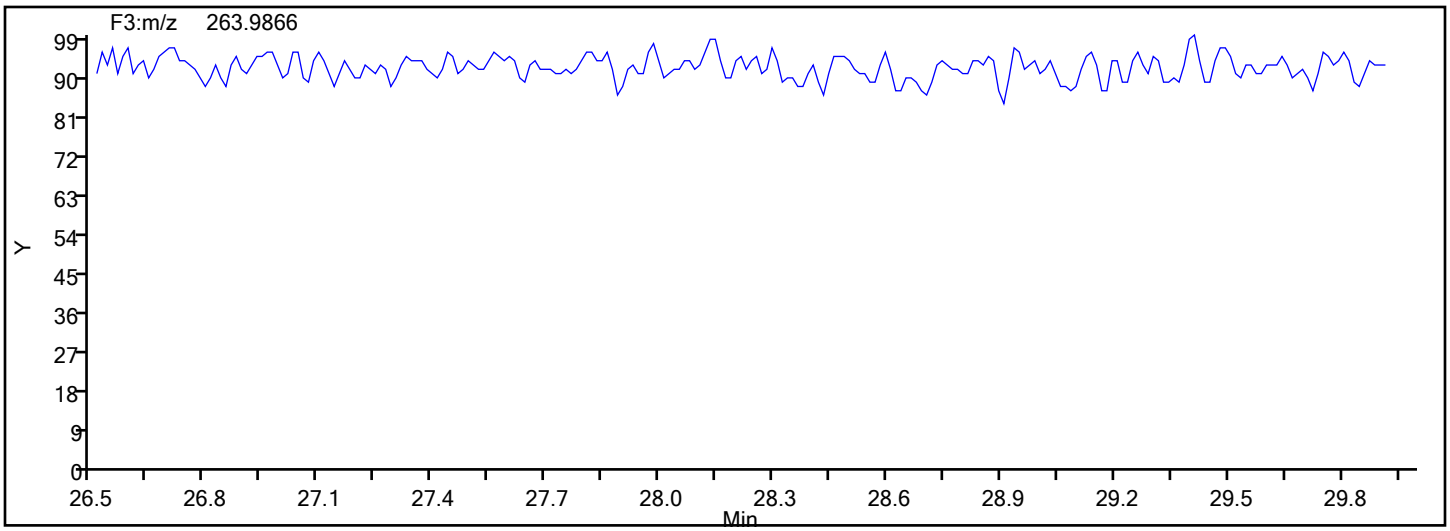
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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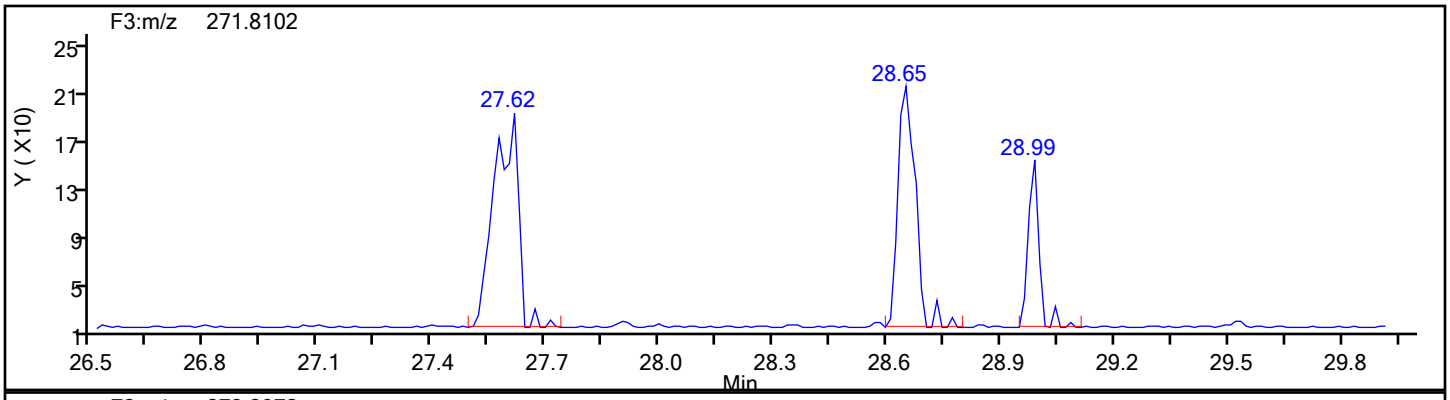
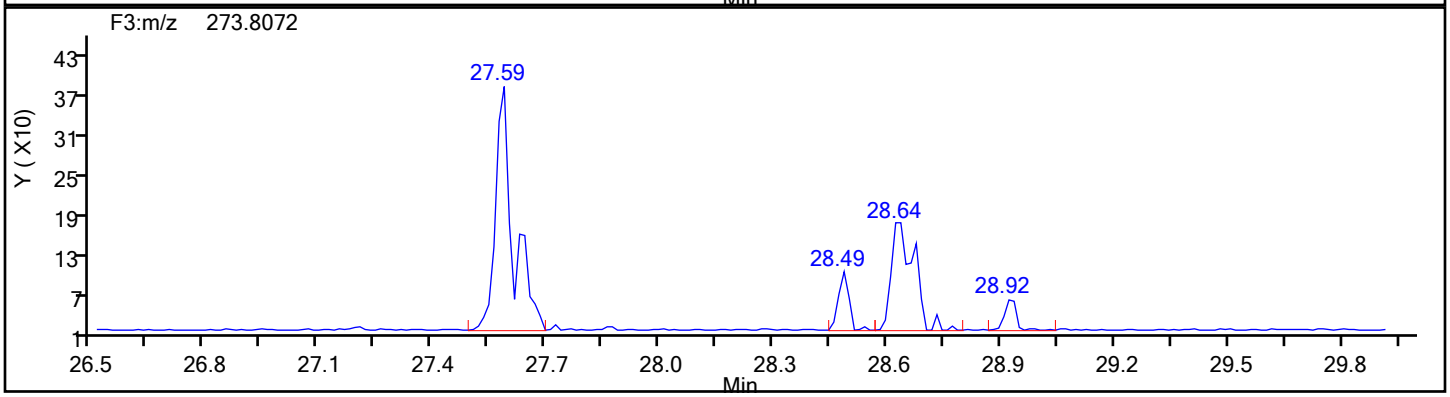
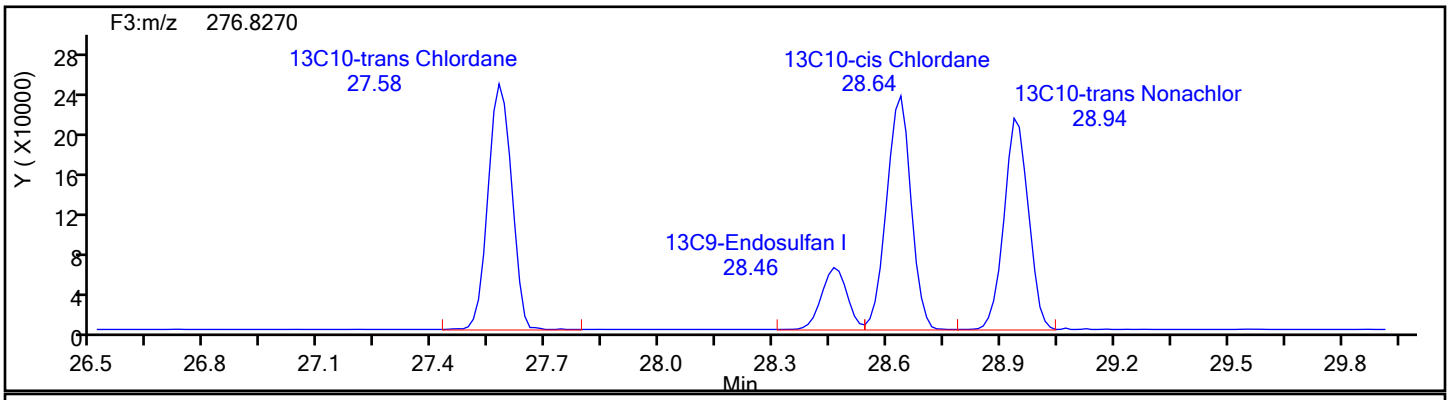
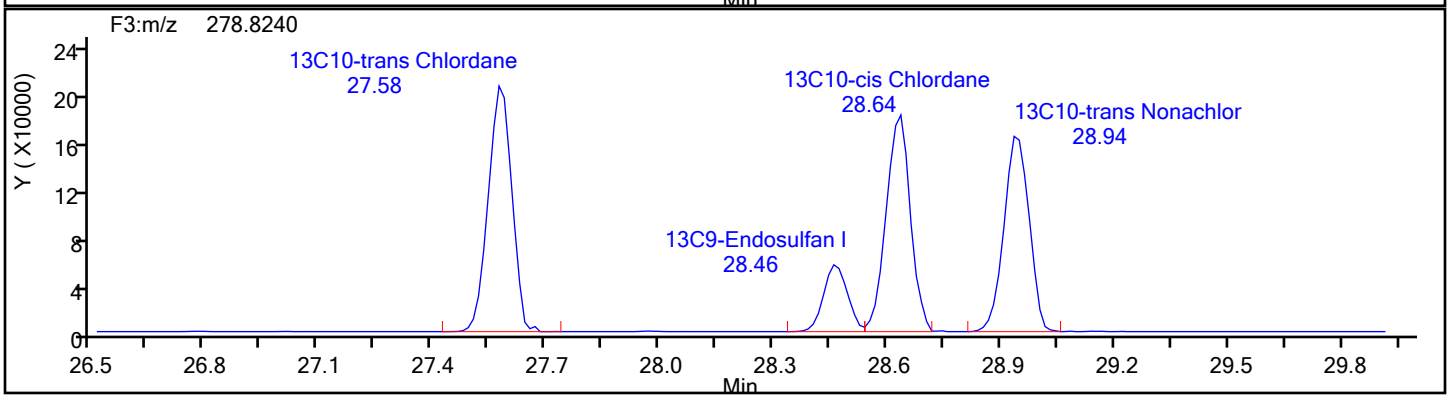
Chlordane





Chlordane Standards





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Eurofins Knoxville

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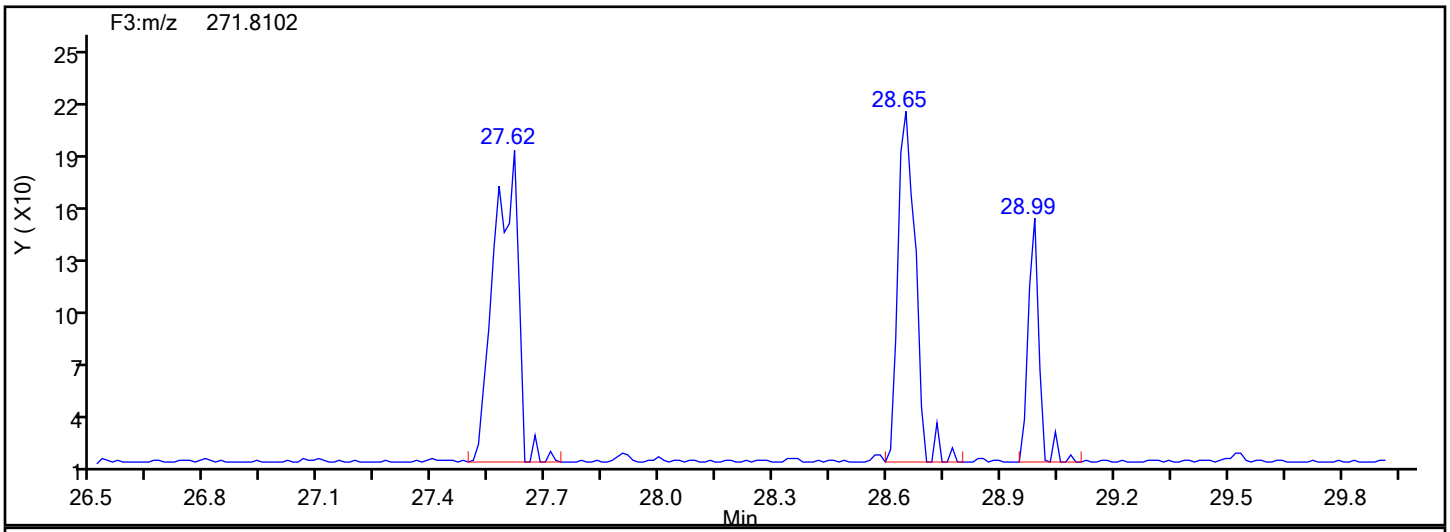
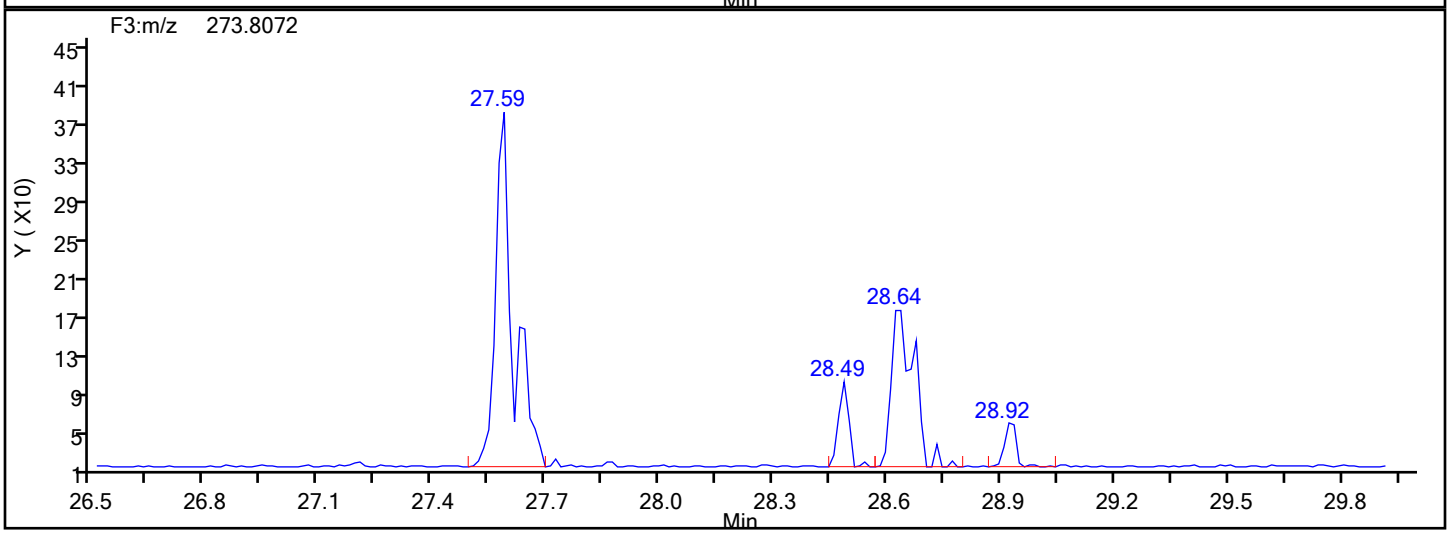
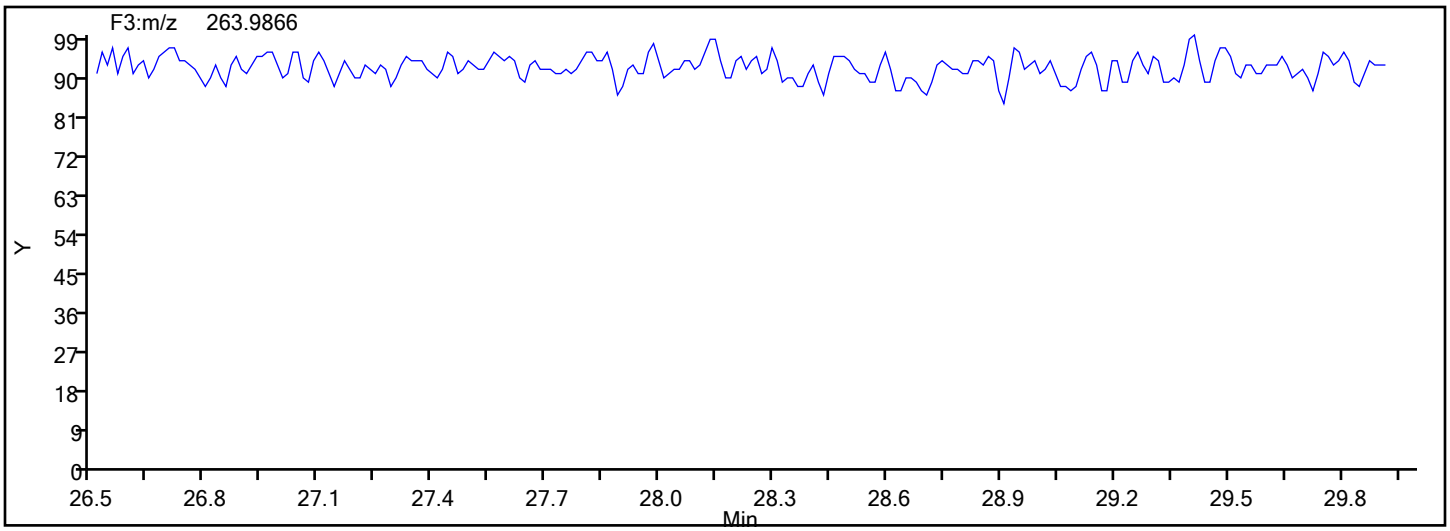
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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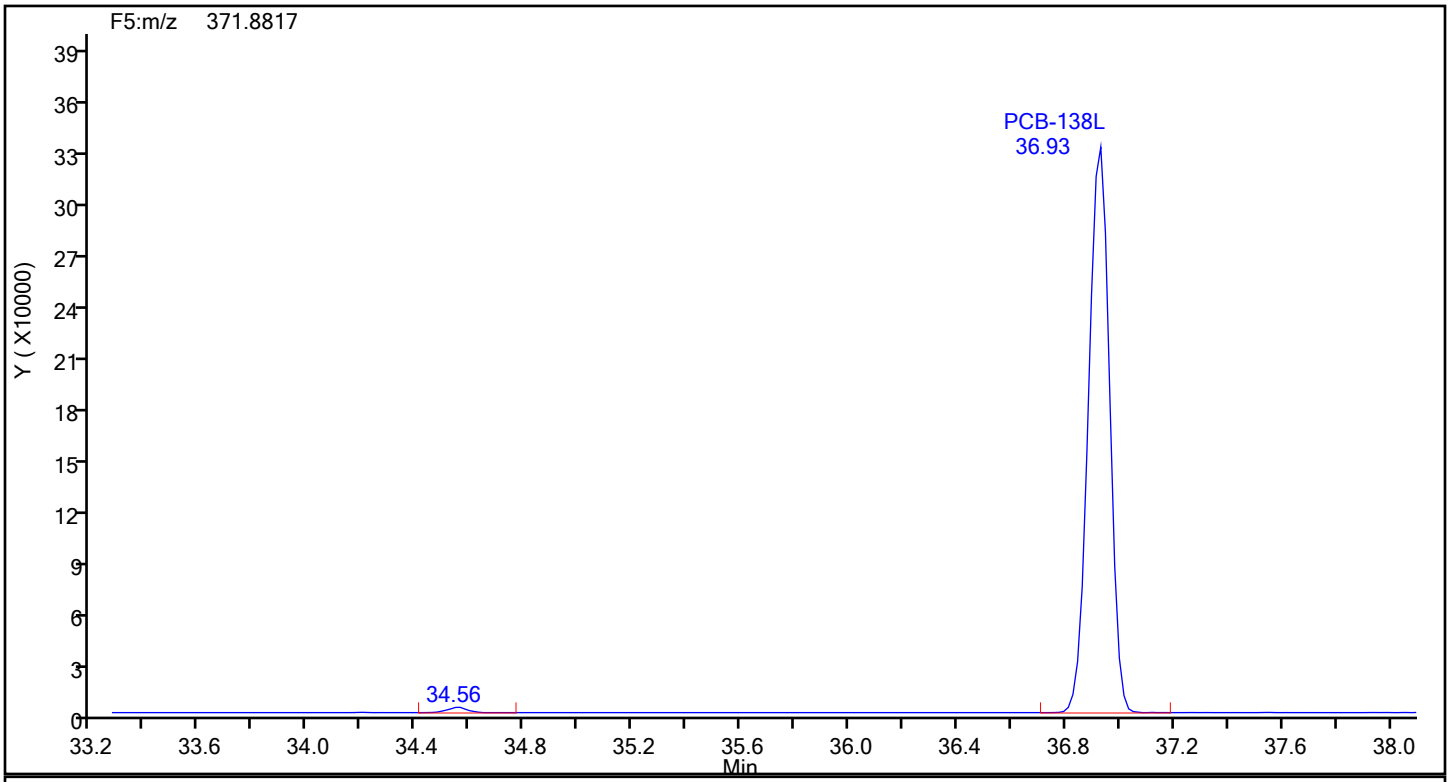
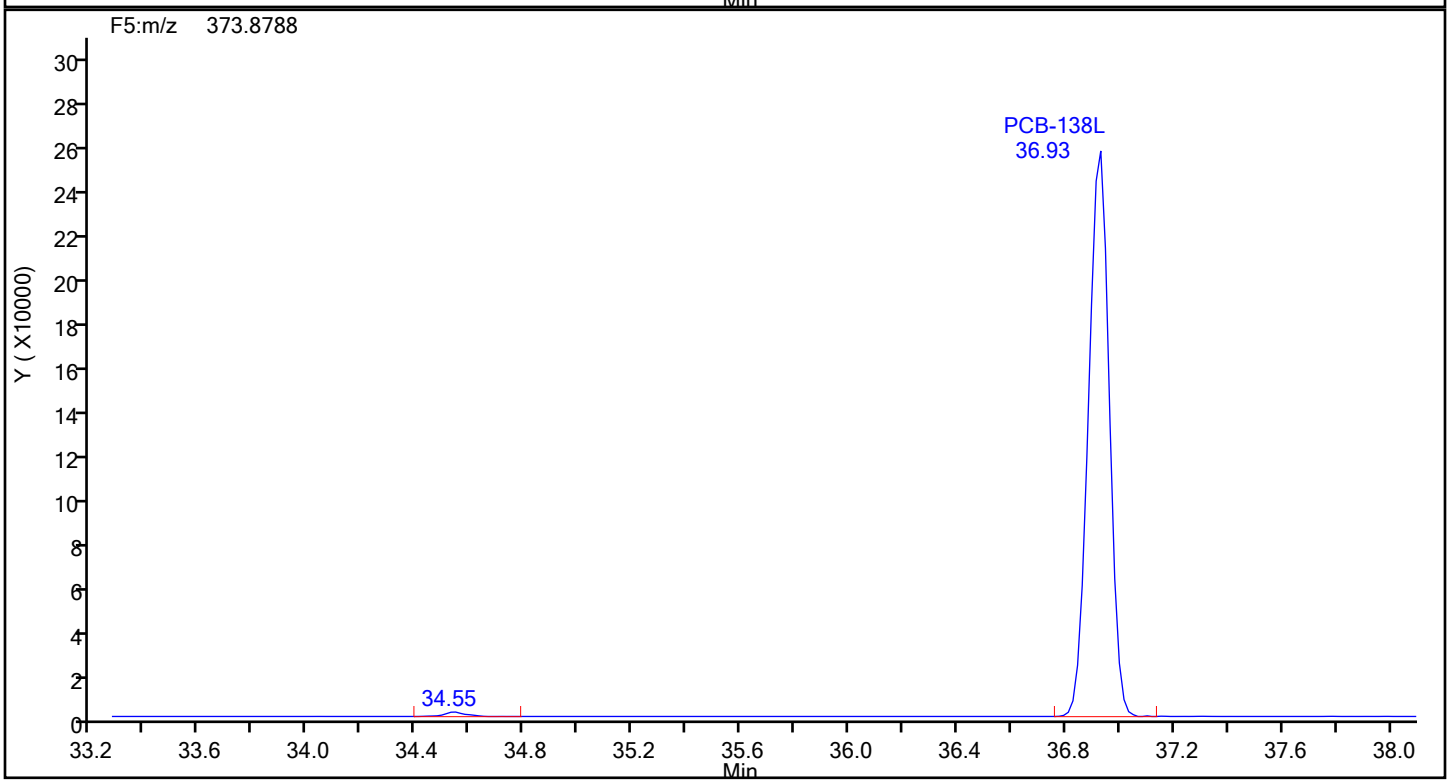
PCB-138L Standards





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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

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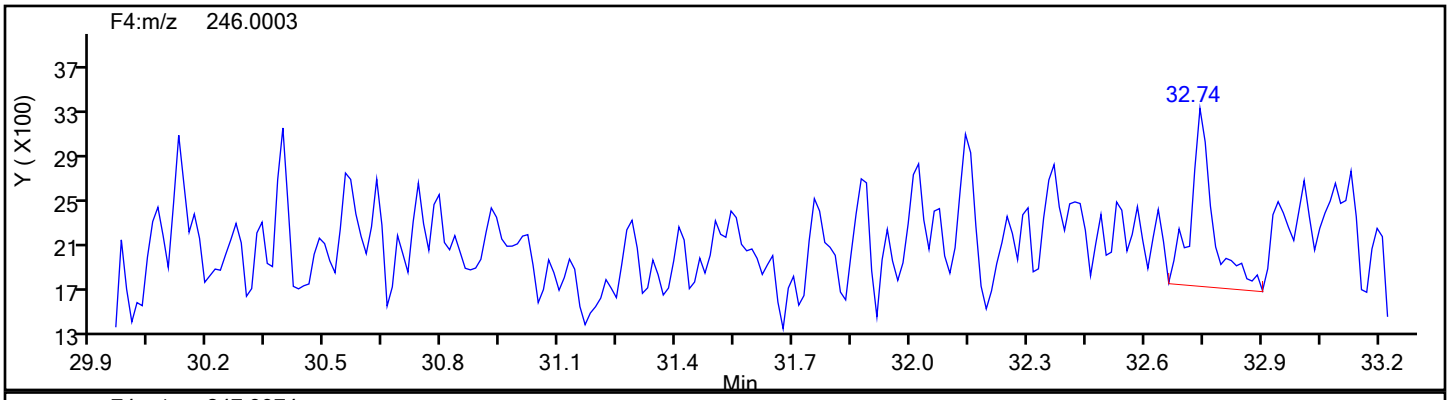
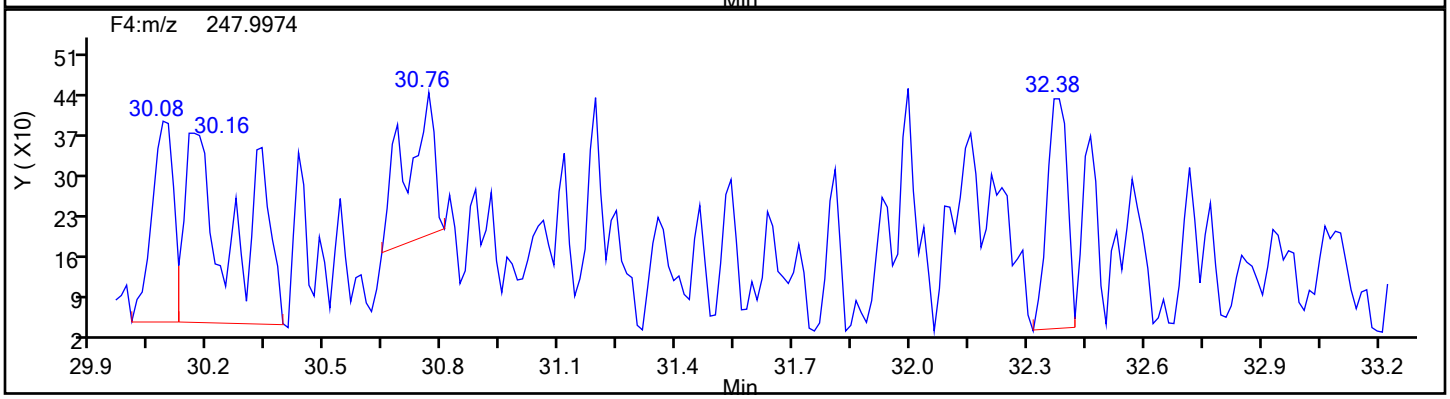
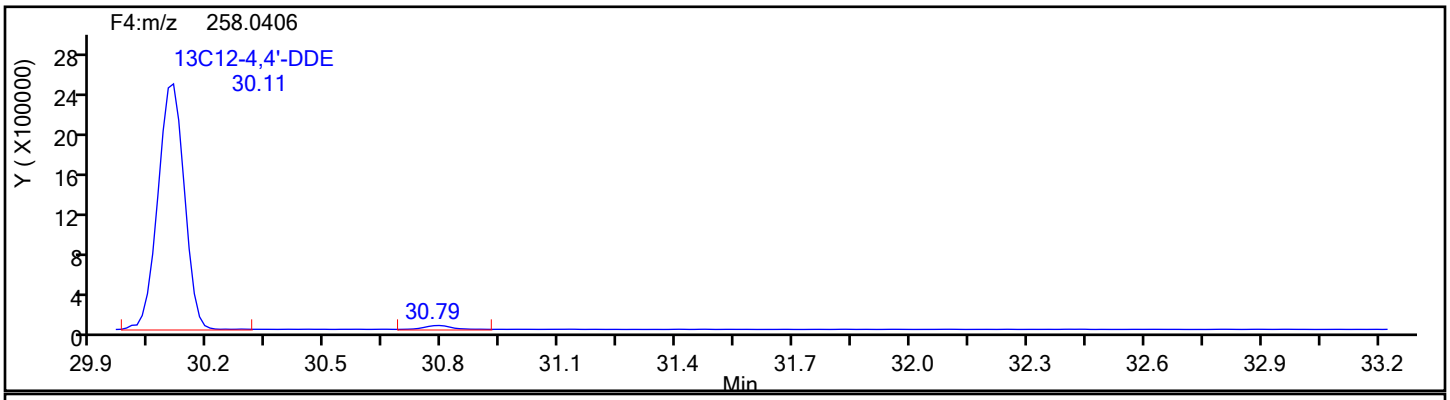
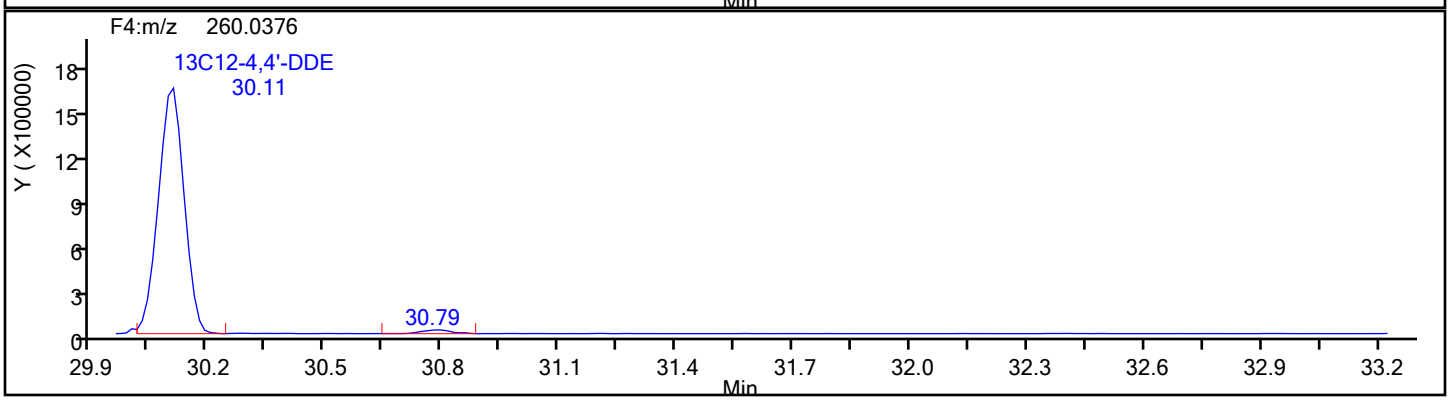
4,4'-DDE





4,4'-DDE Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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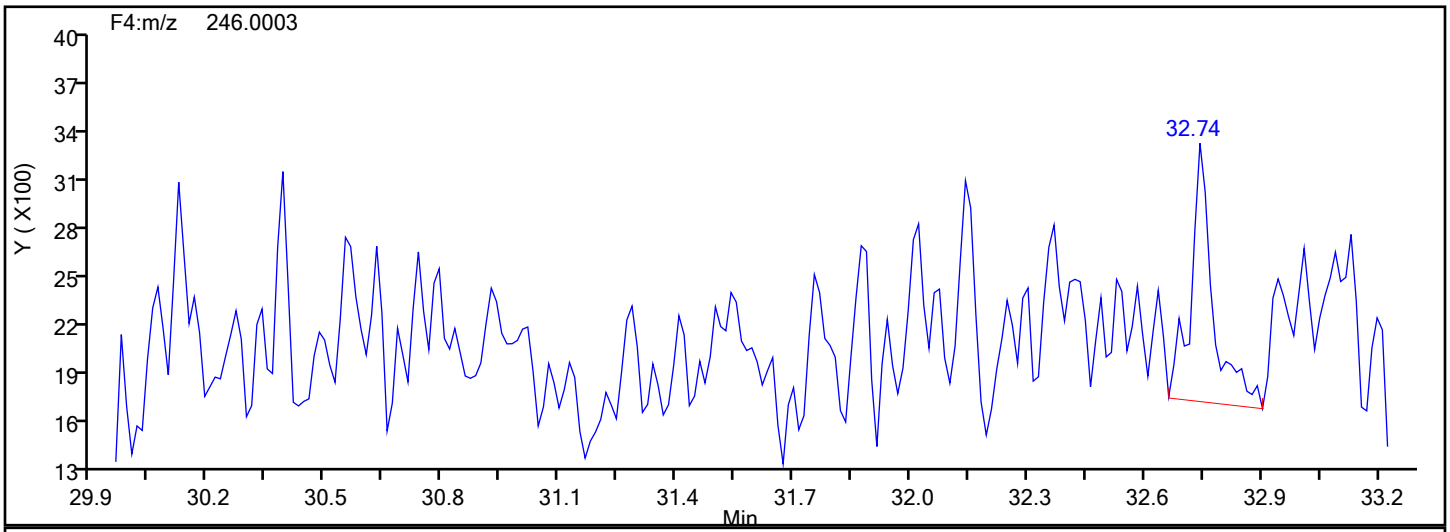
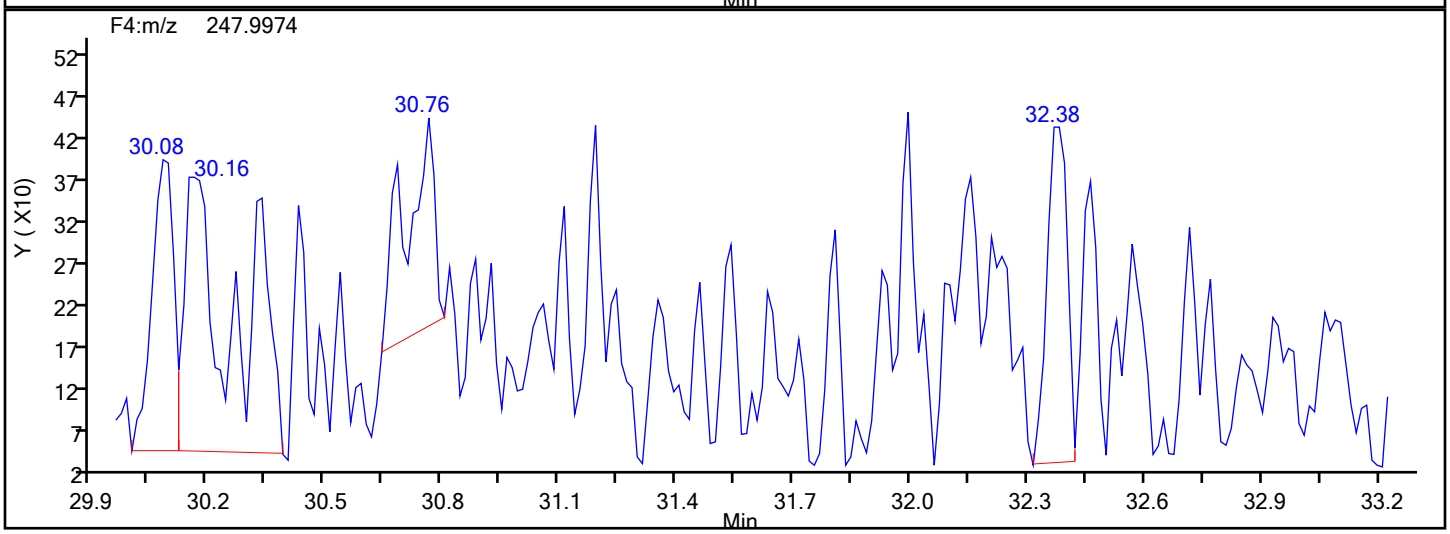
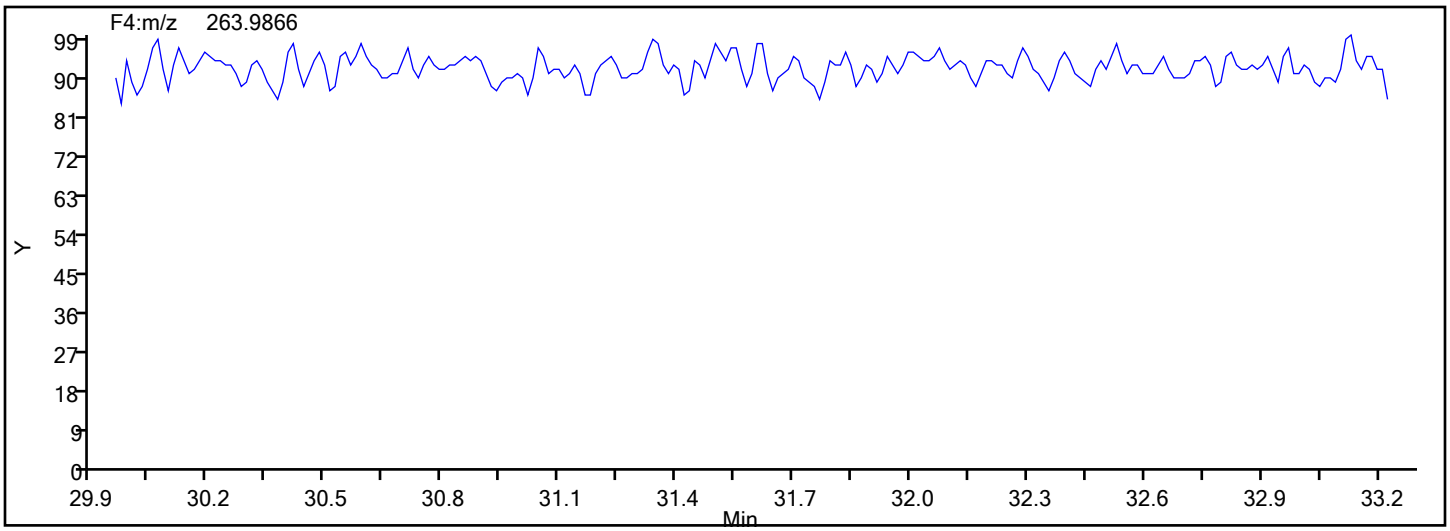
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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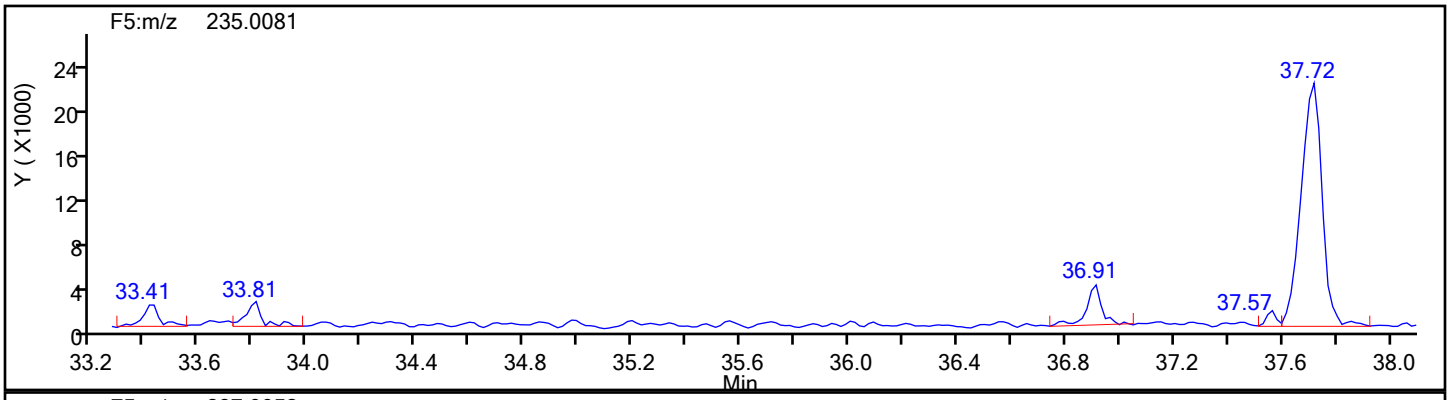
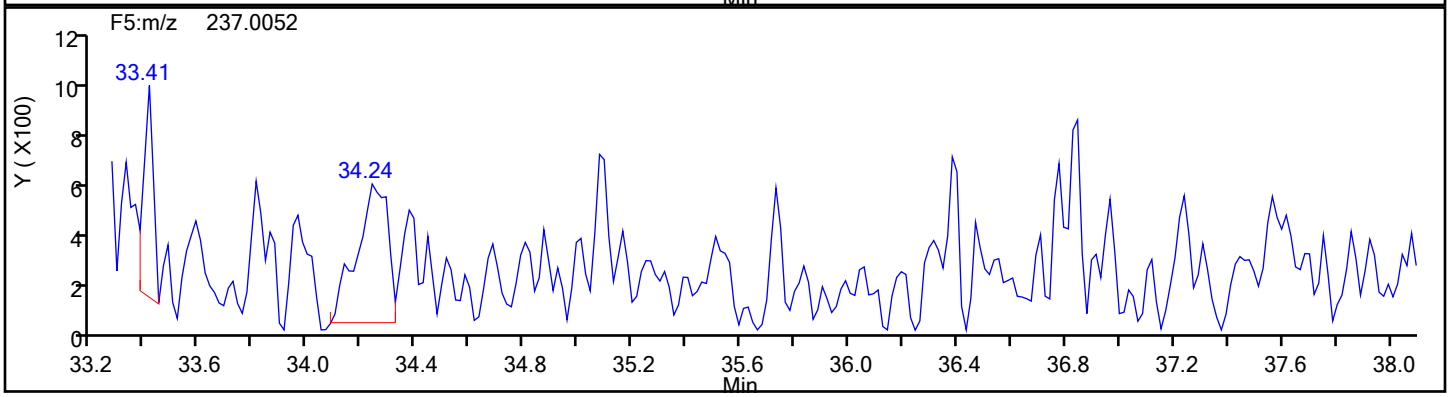
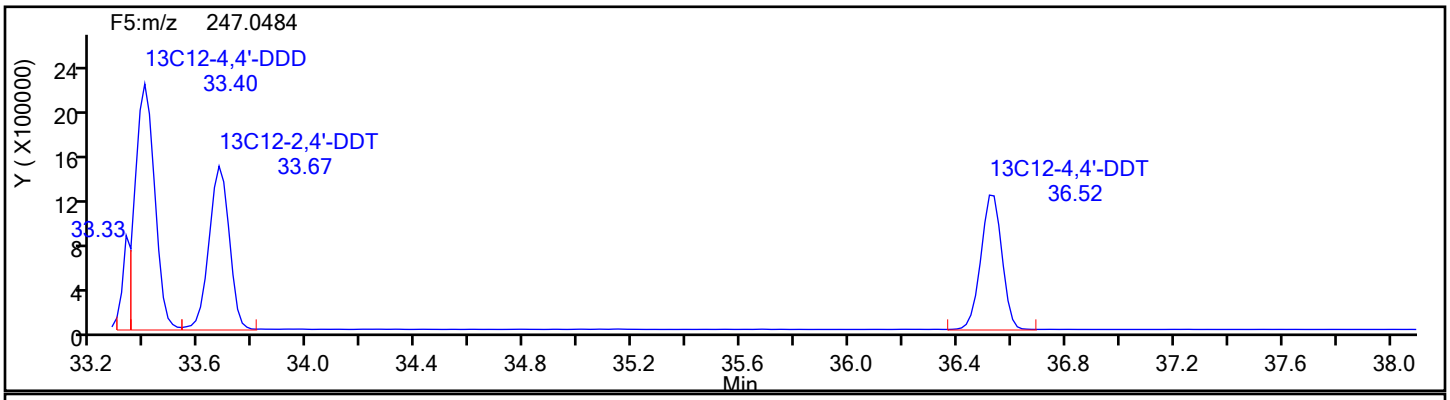
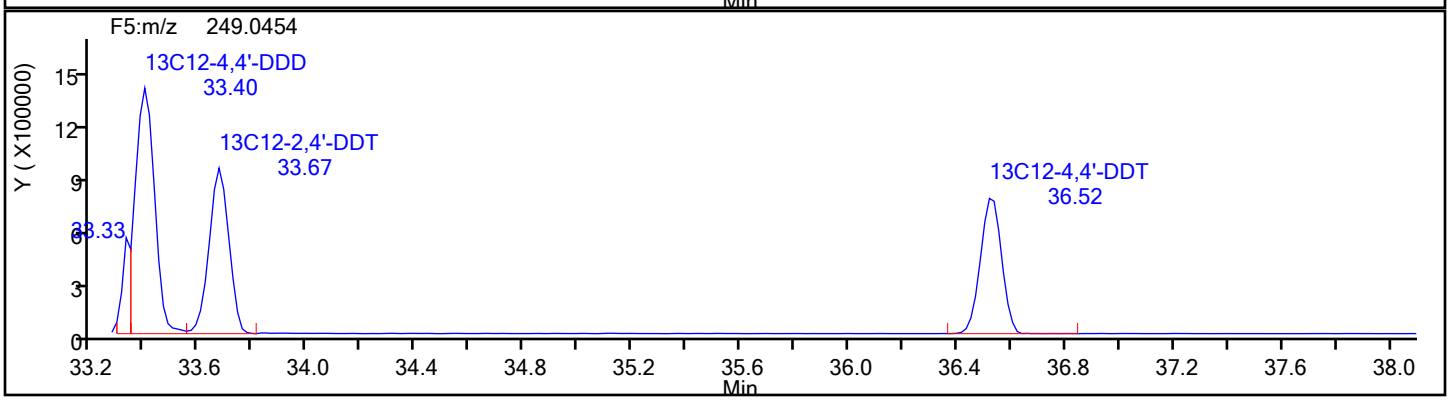
DDD





DDD Standards





Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
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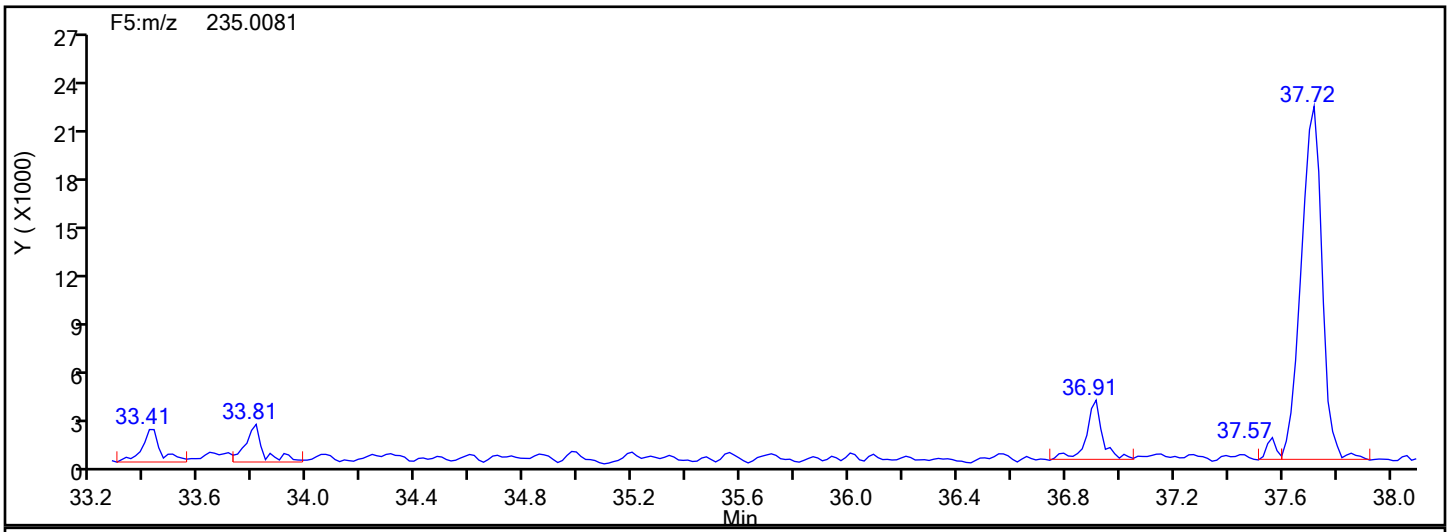
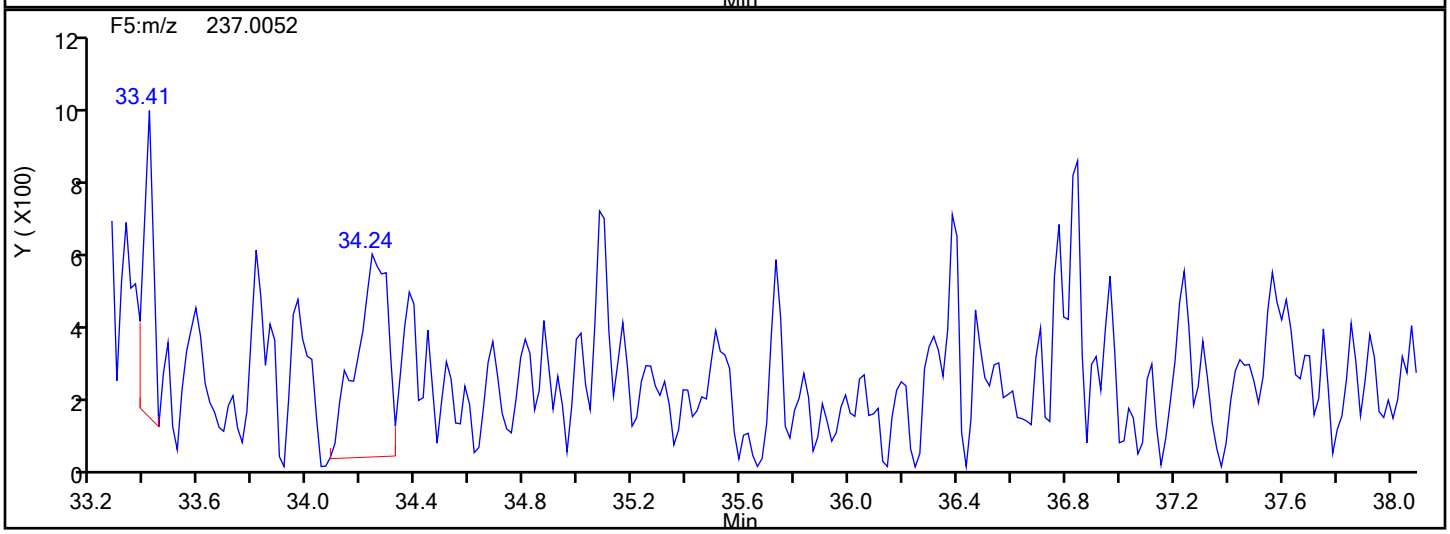
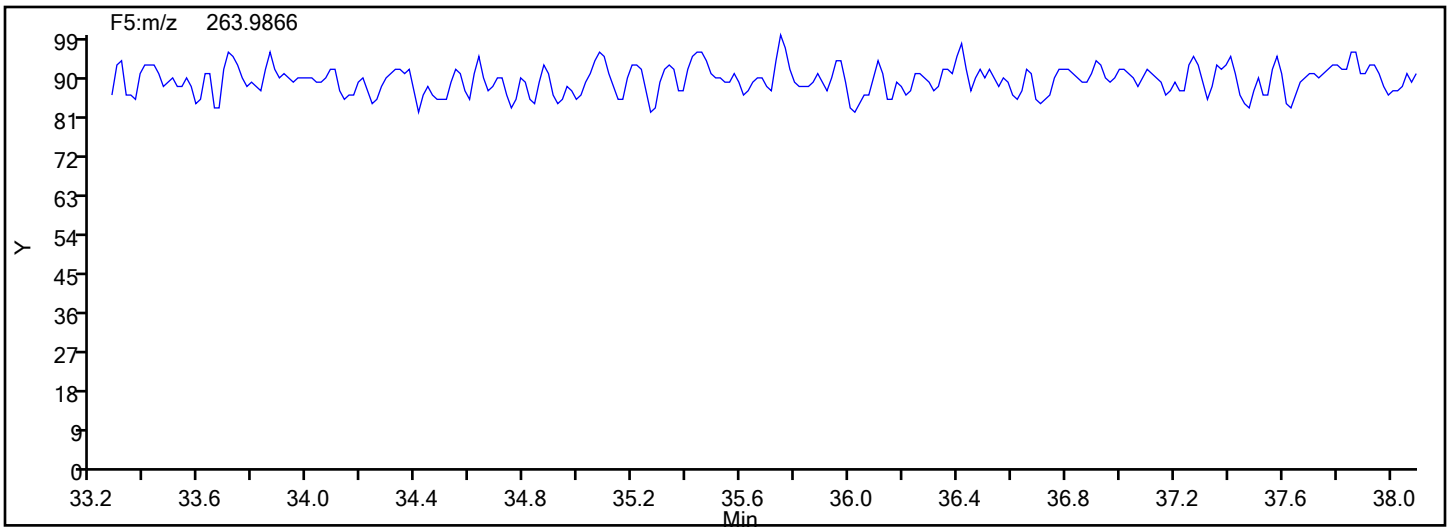
DDD





DDD Lock Mass



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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
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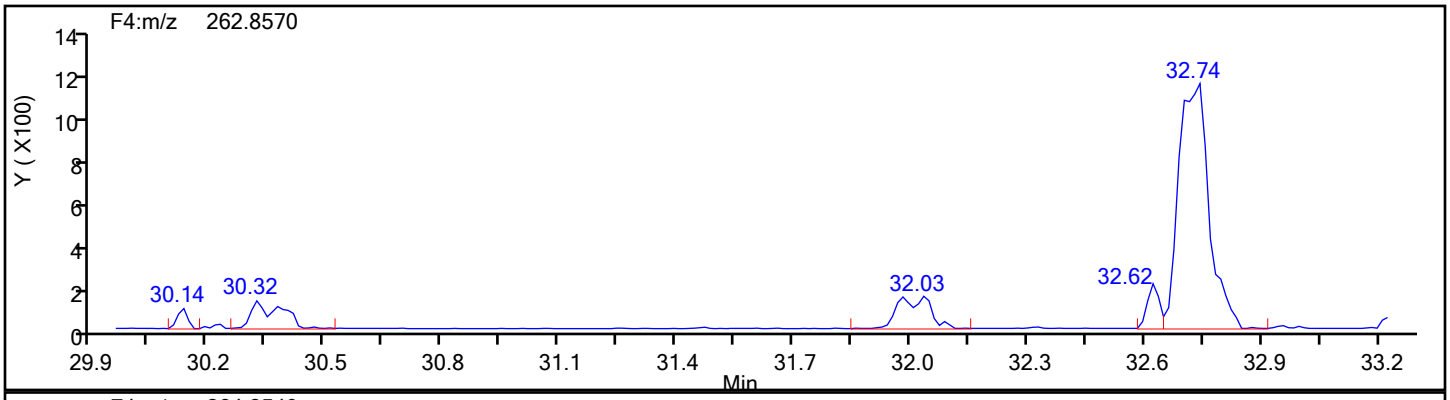
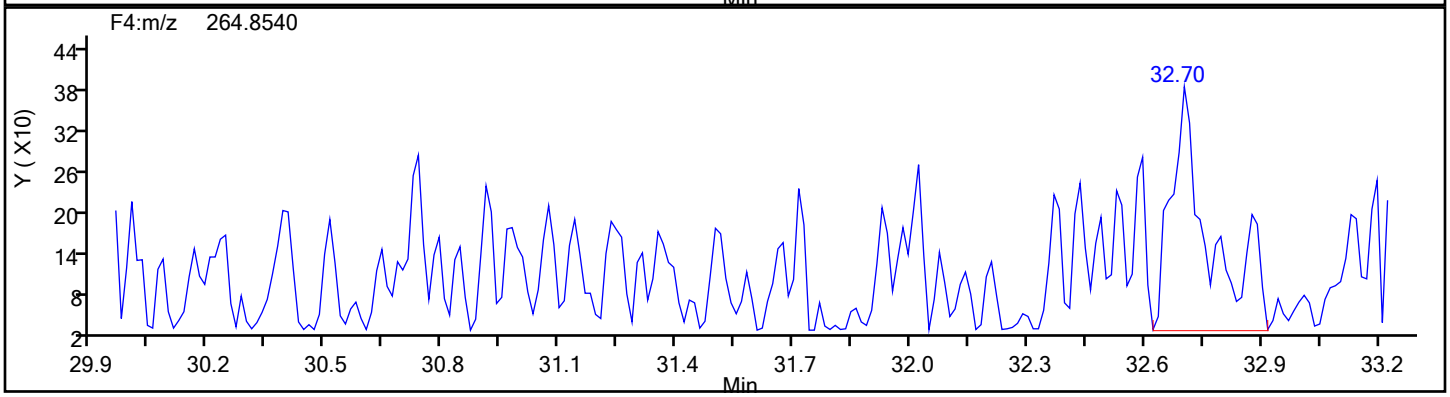
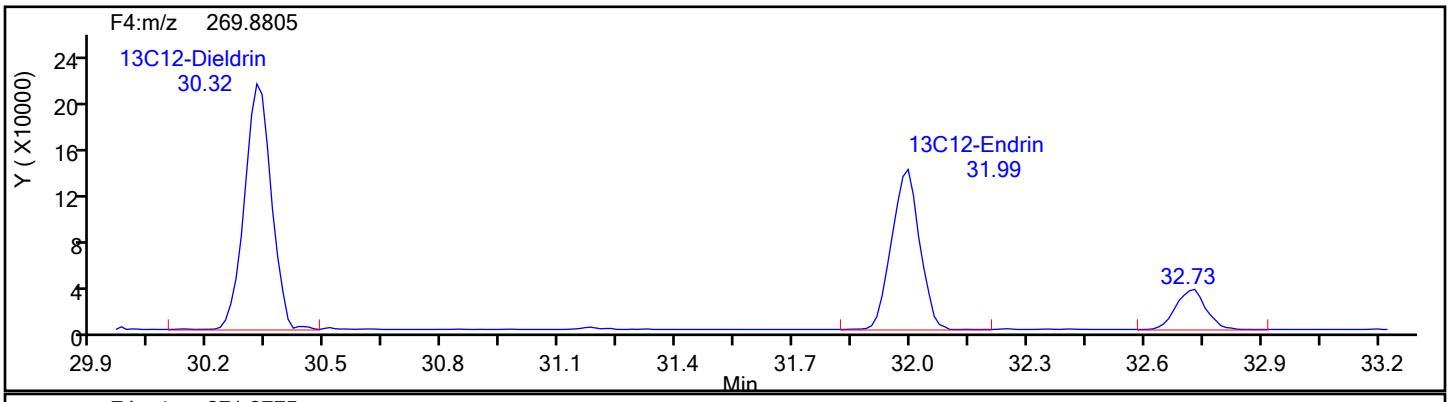
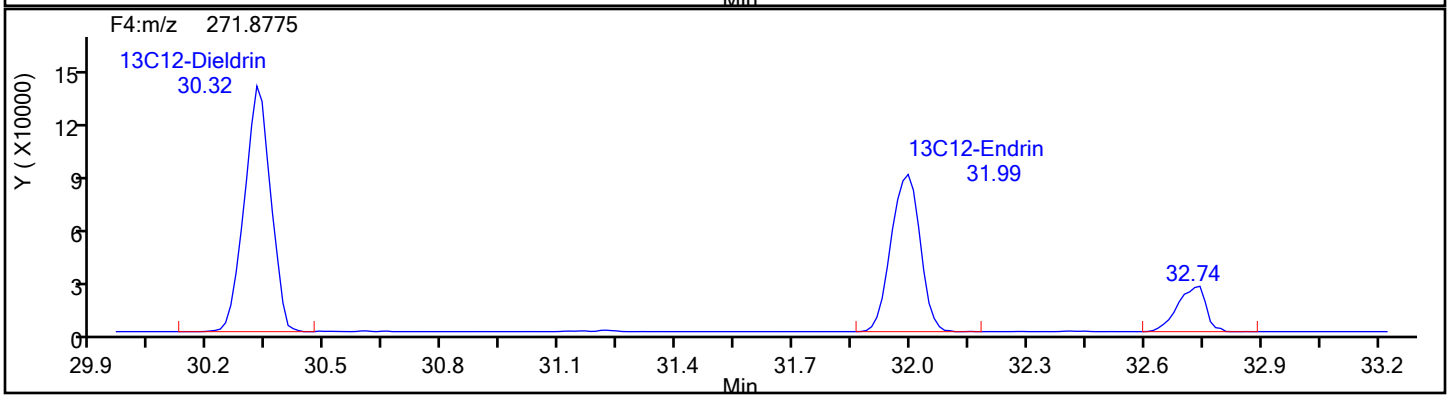
Dieldrin





Dieldrin Standards





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Eurofins Knoxville

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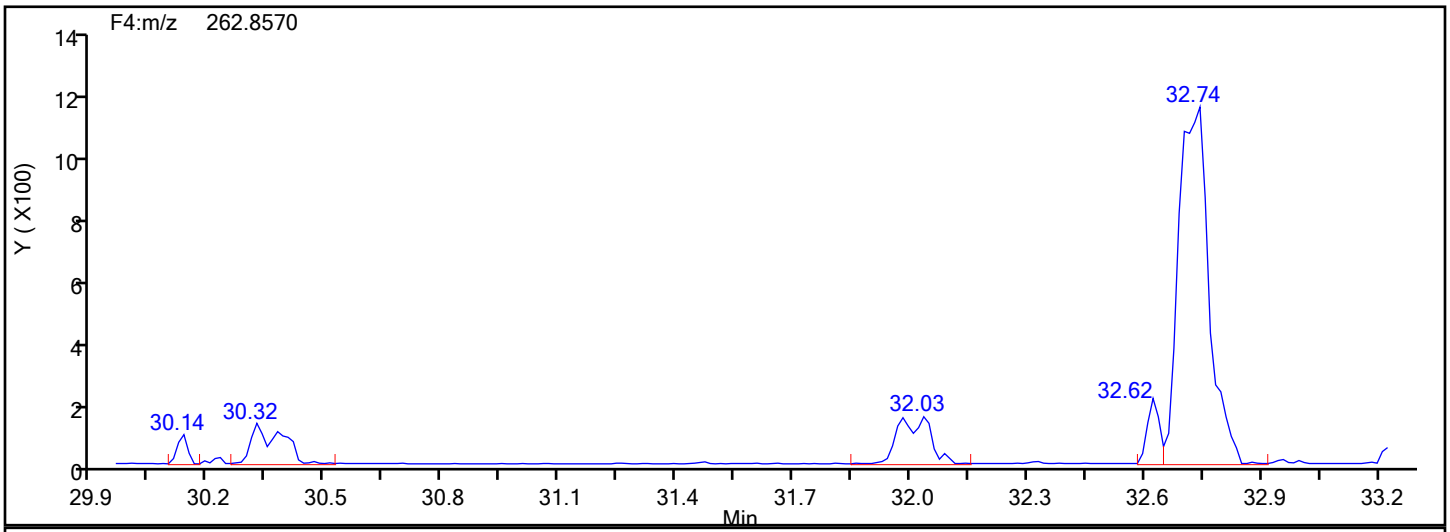
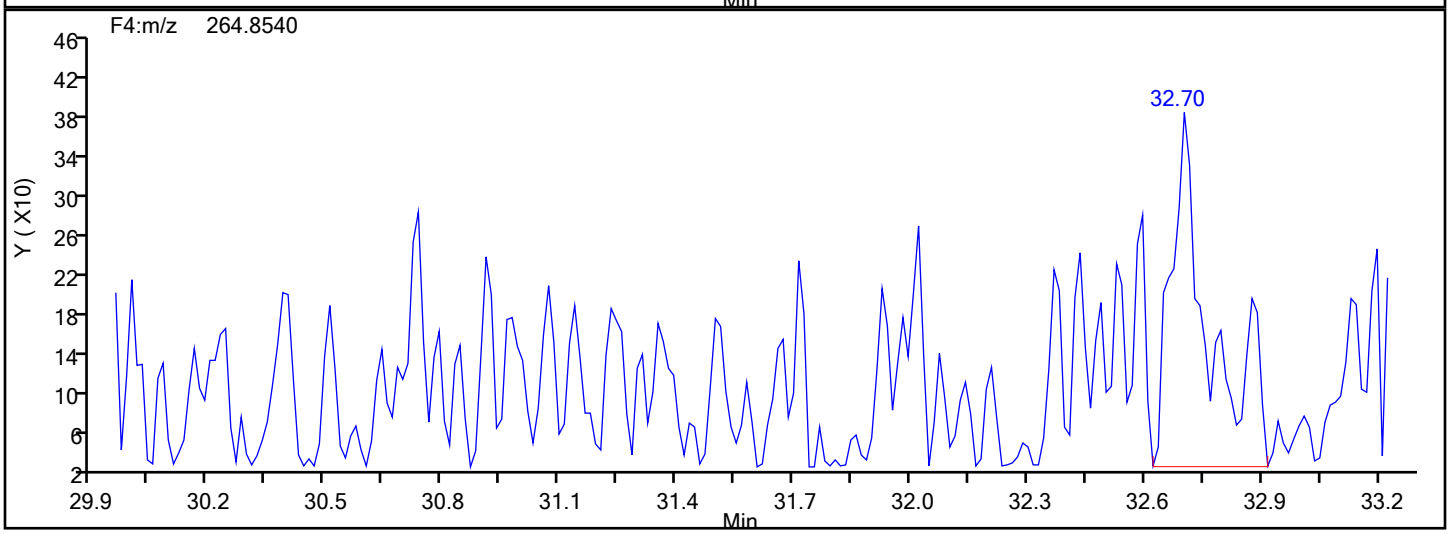
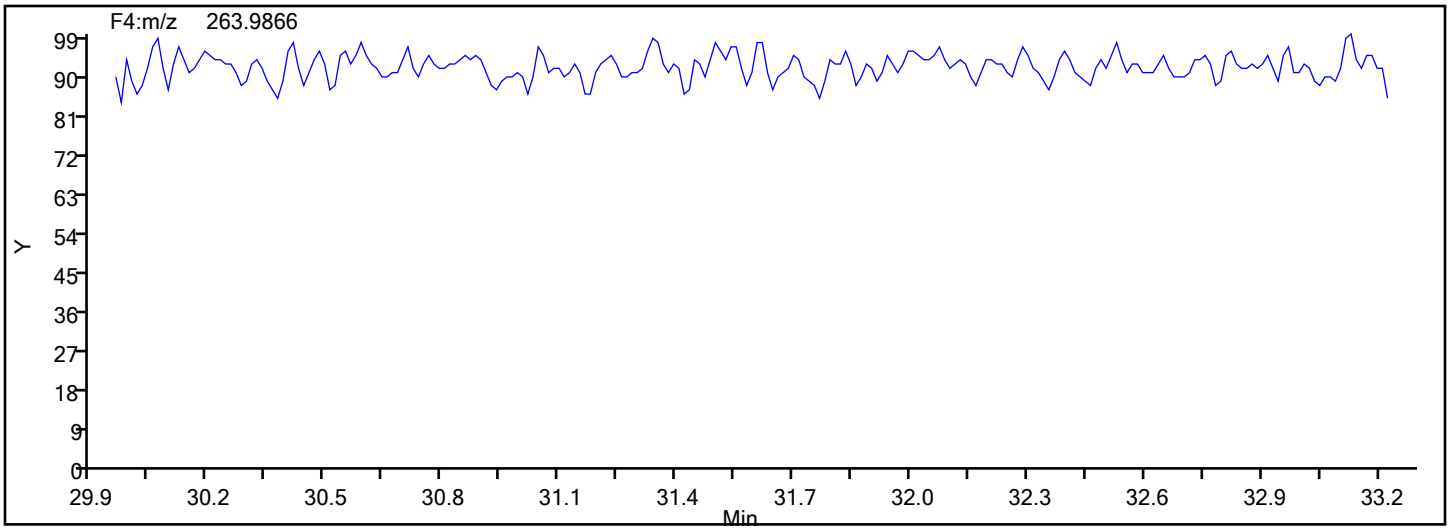
Dieldrin





Dieldrin Lock Mass



Report Date: 05-May-2025 18:00:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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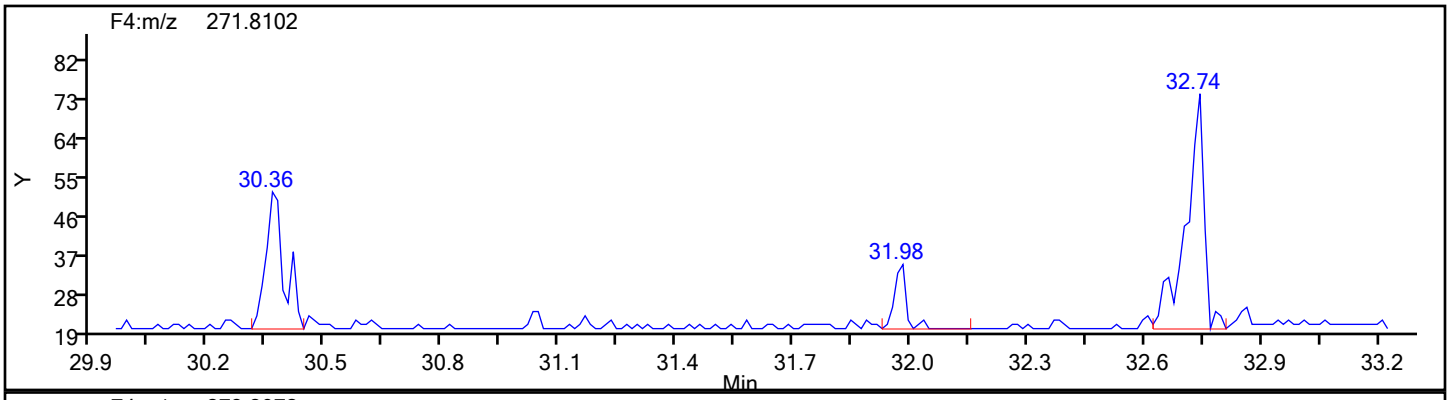
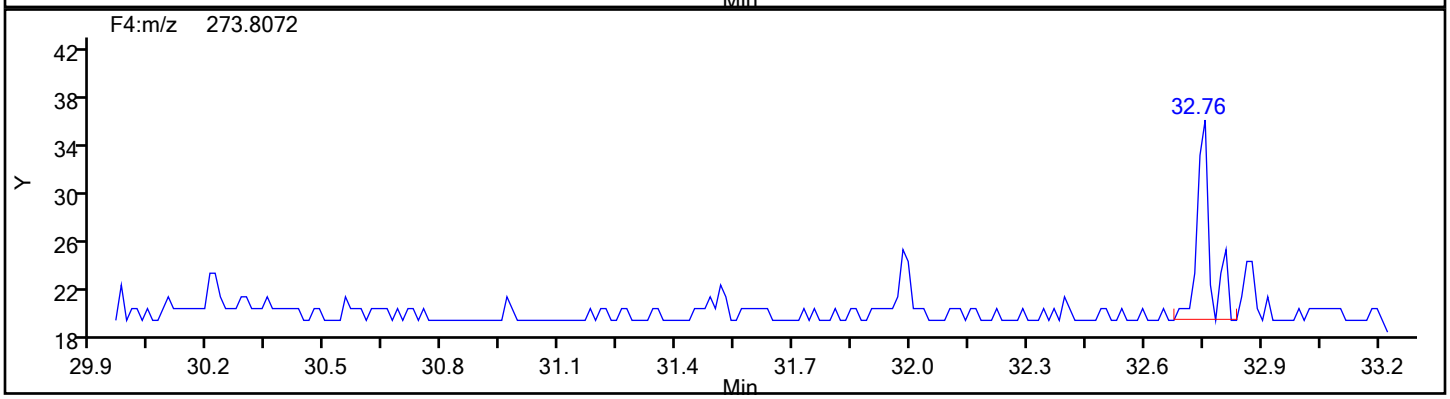
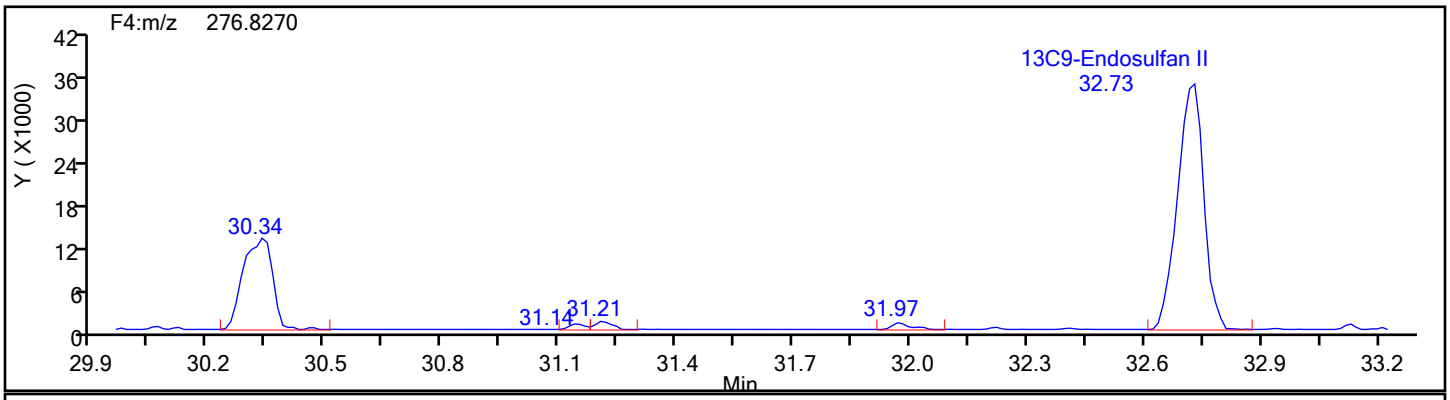
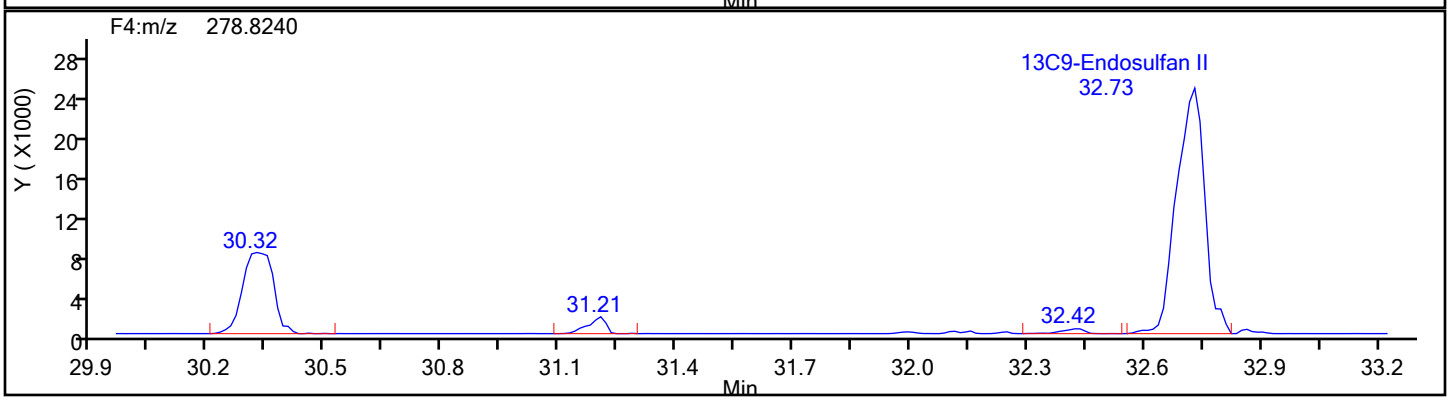
Endosulfan II





Endosulfan II Standards





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Eurofins Knoxville

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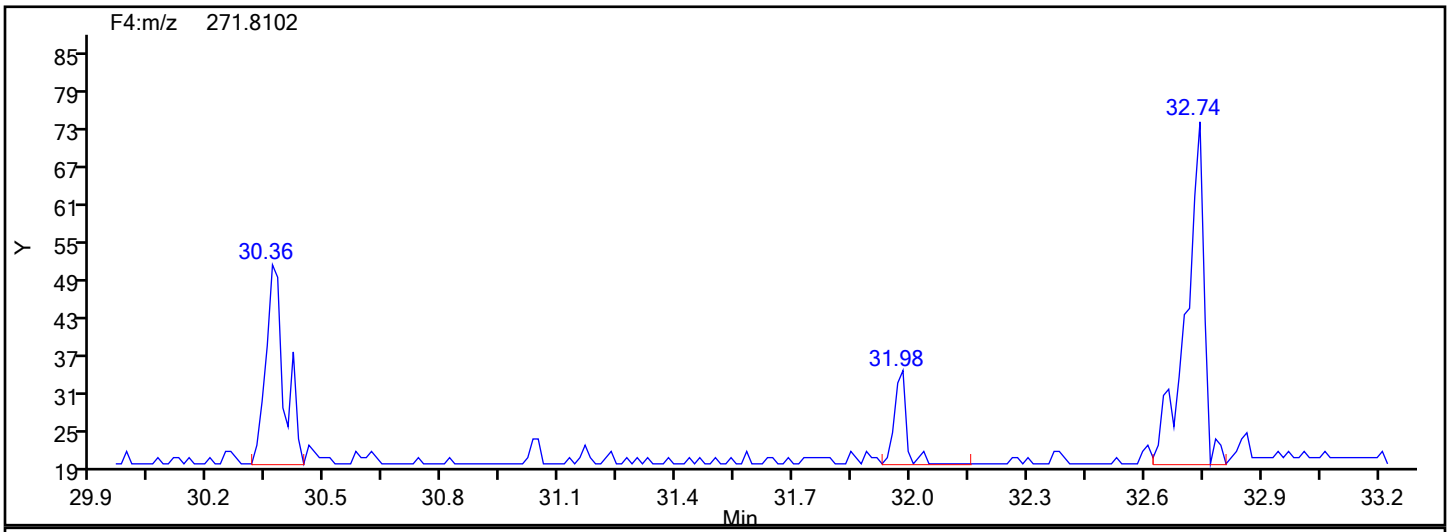
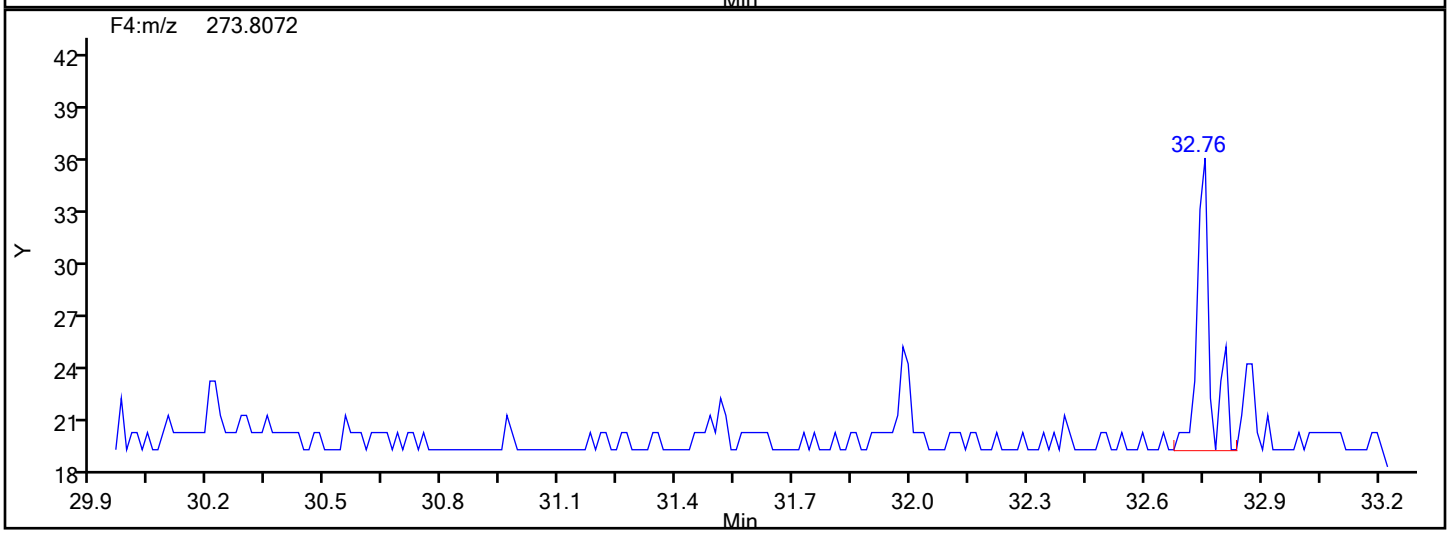
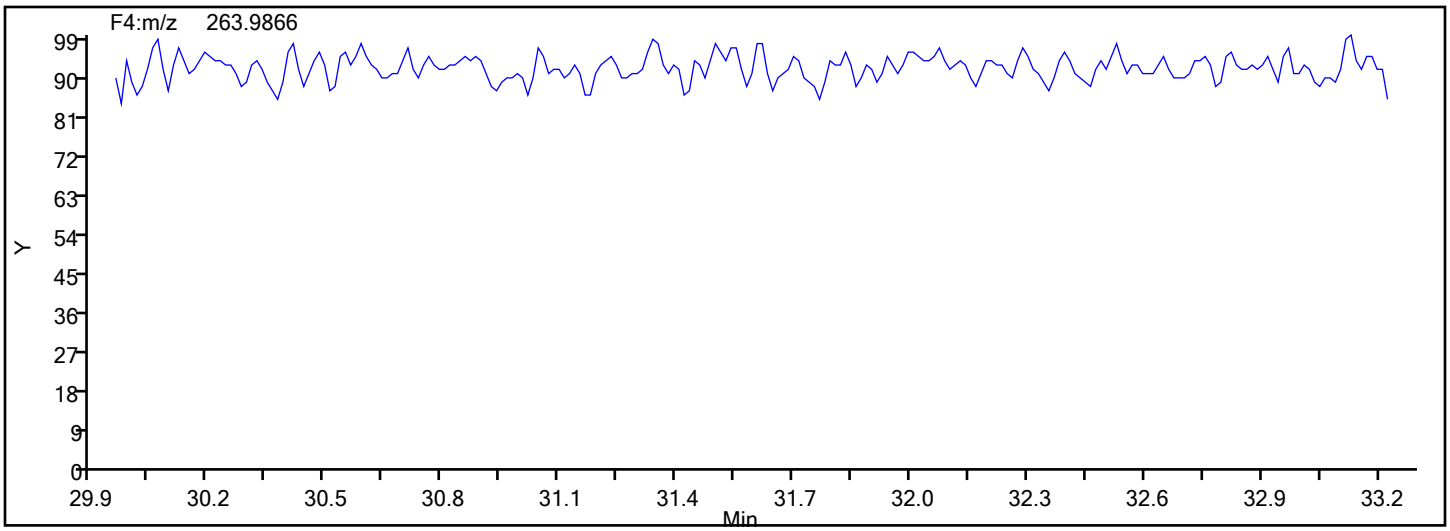
Endosulfan II





Endosulfan II Lock Mass



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Eurofins Knoxville

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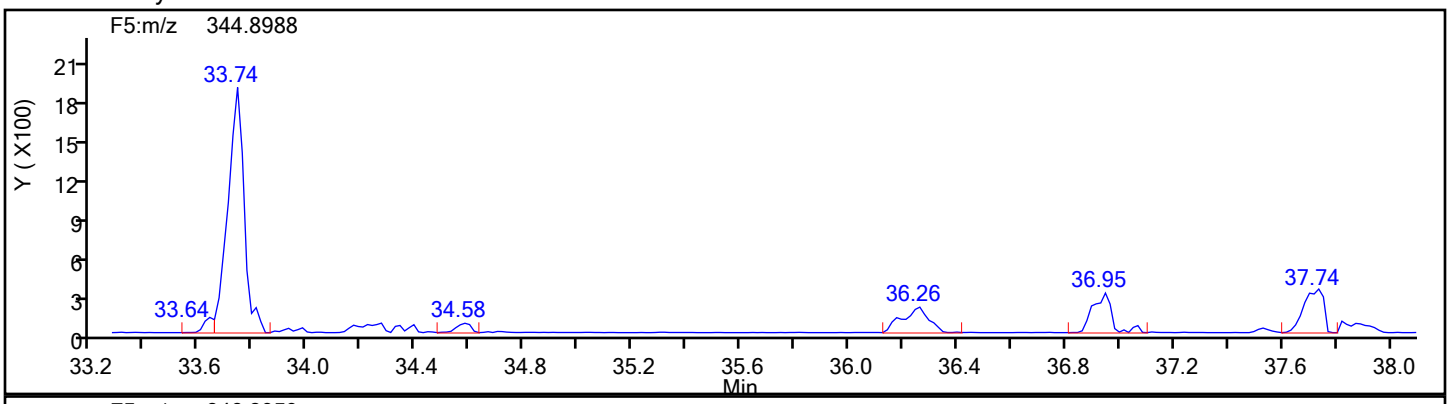

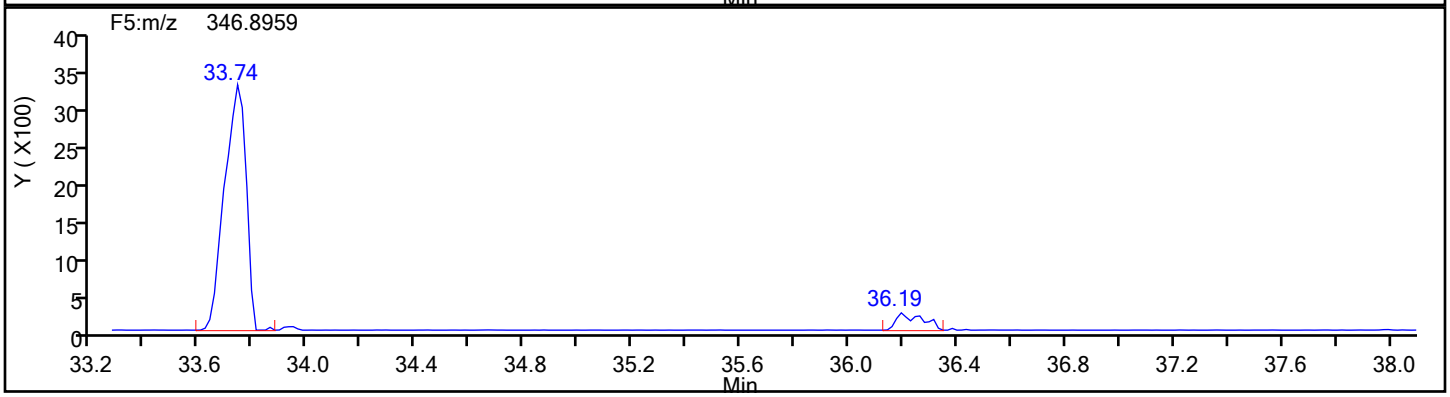

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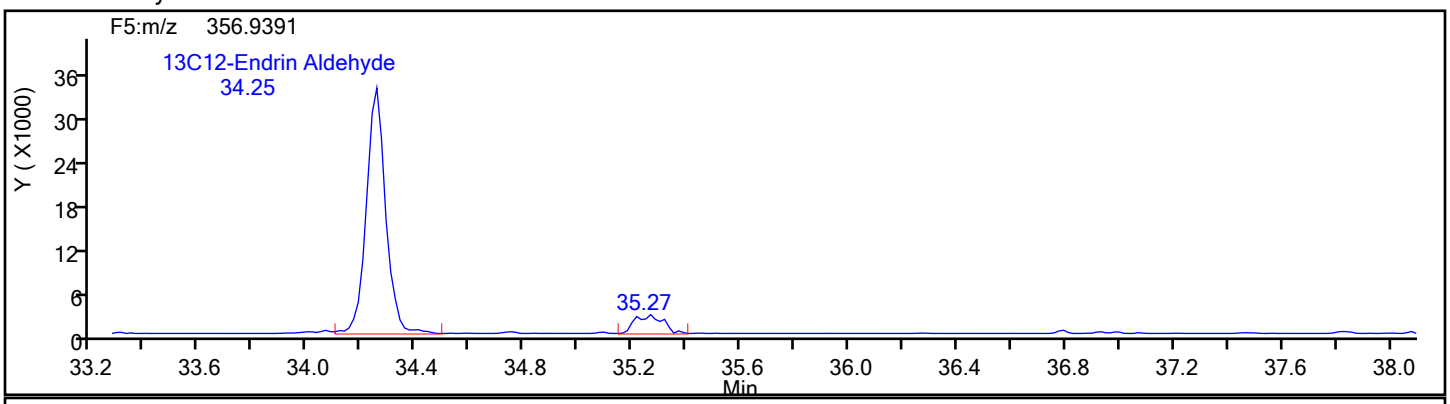

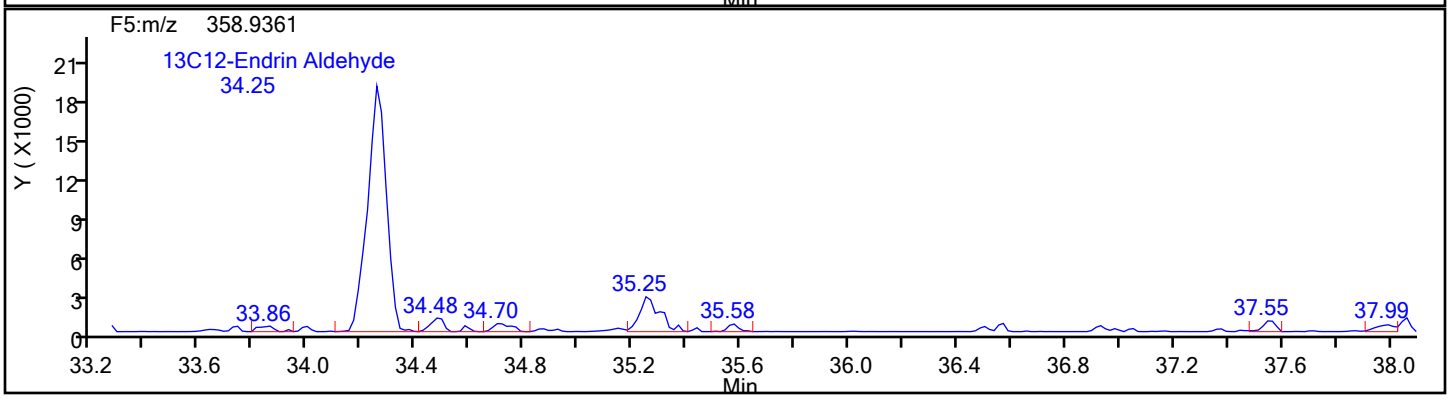

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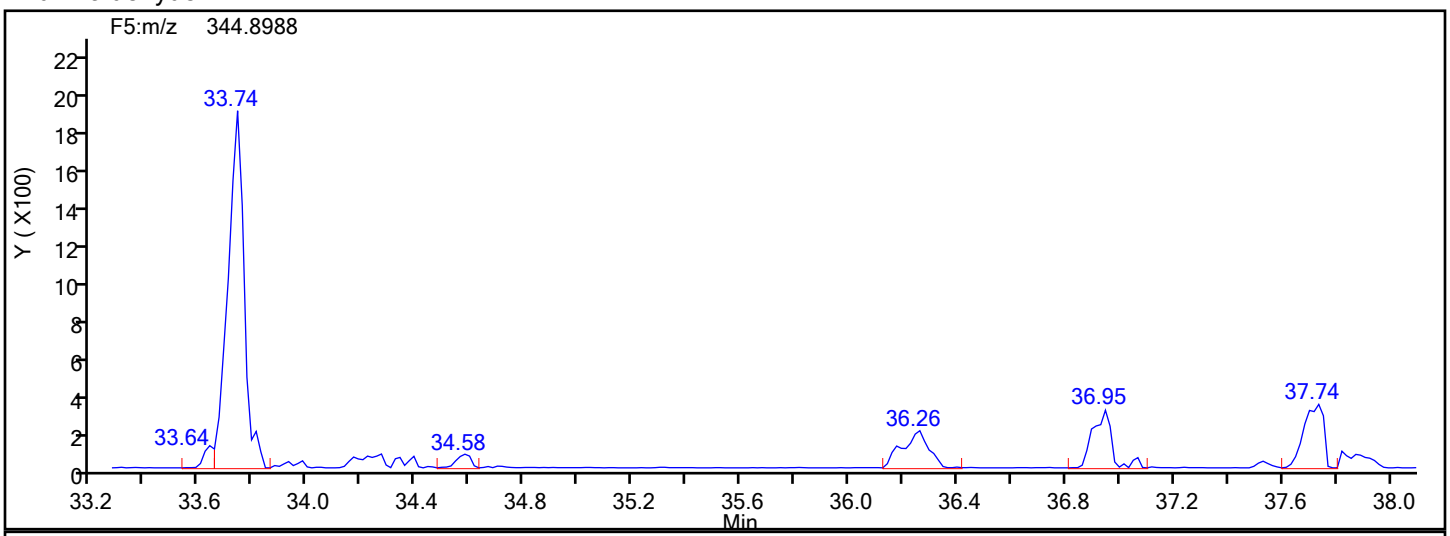
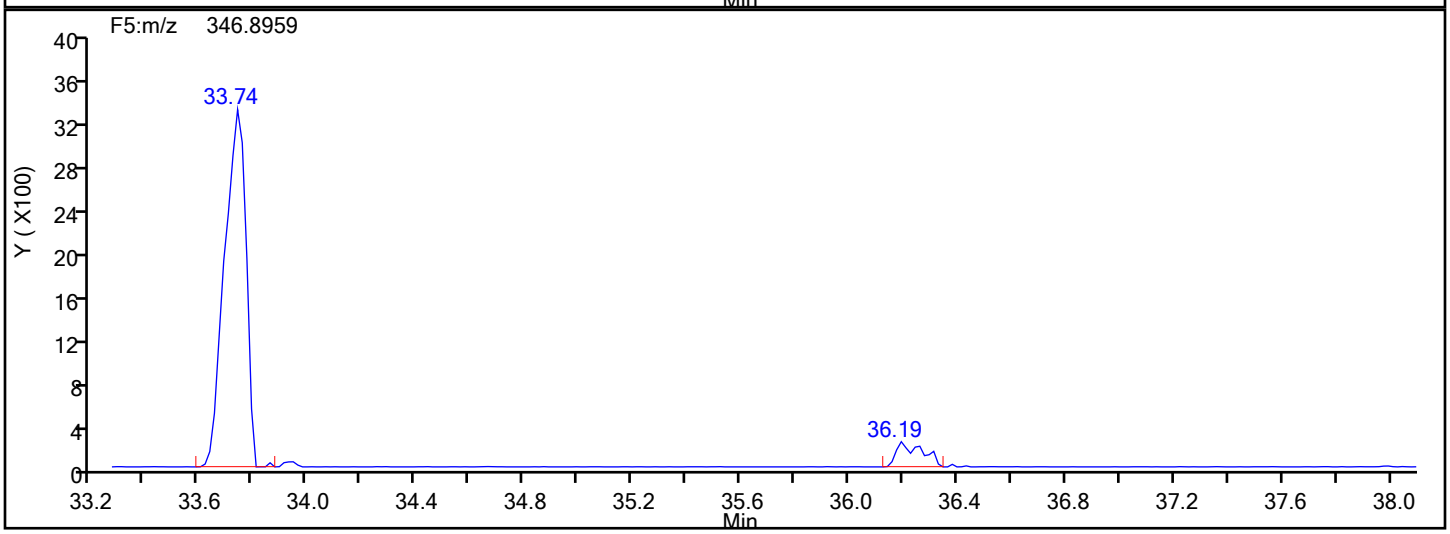
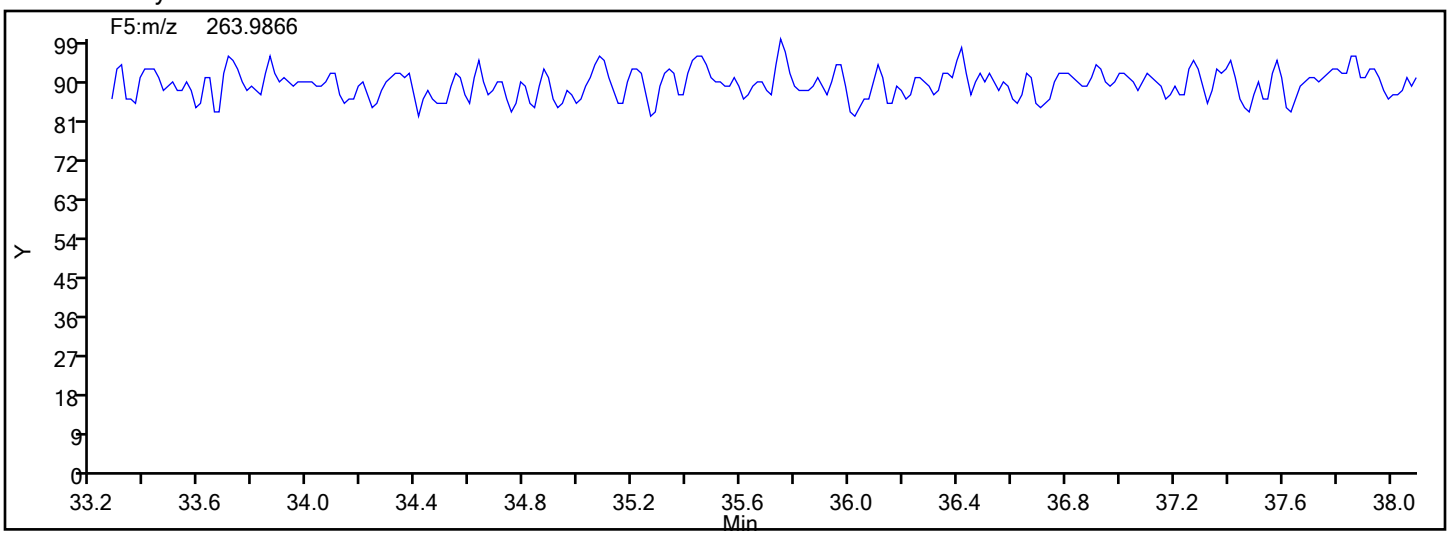




Endrin aldehyde Lock Mass



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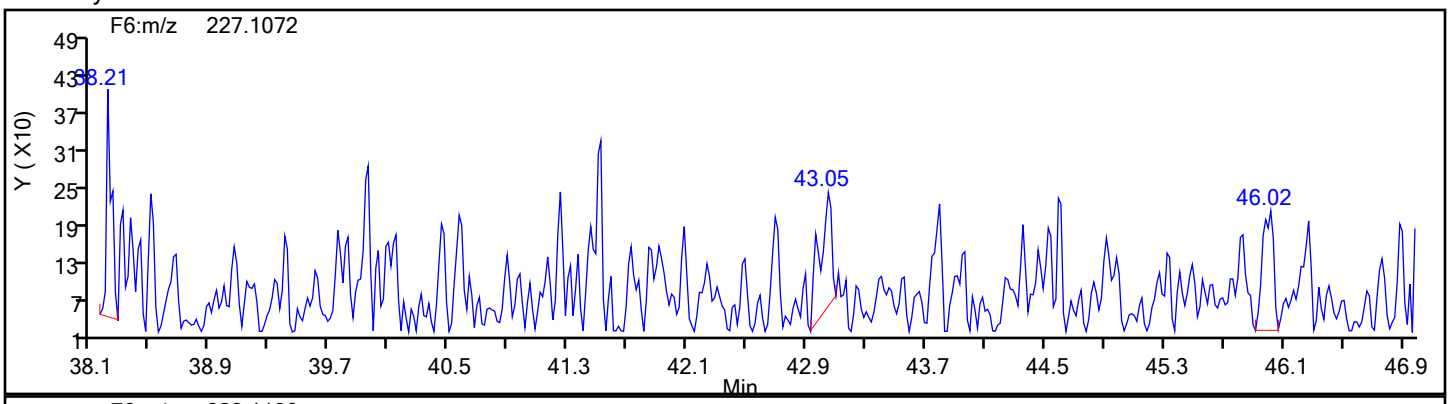
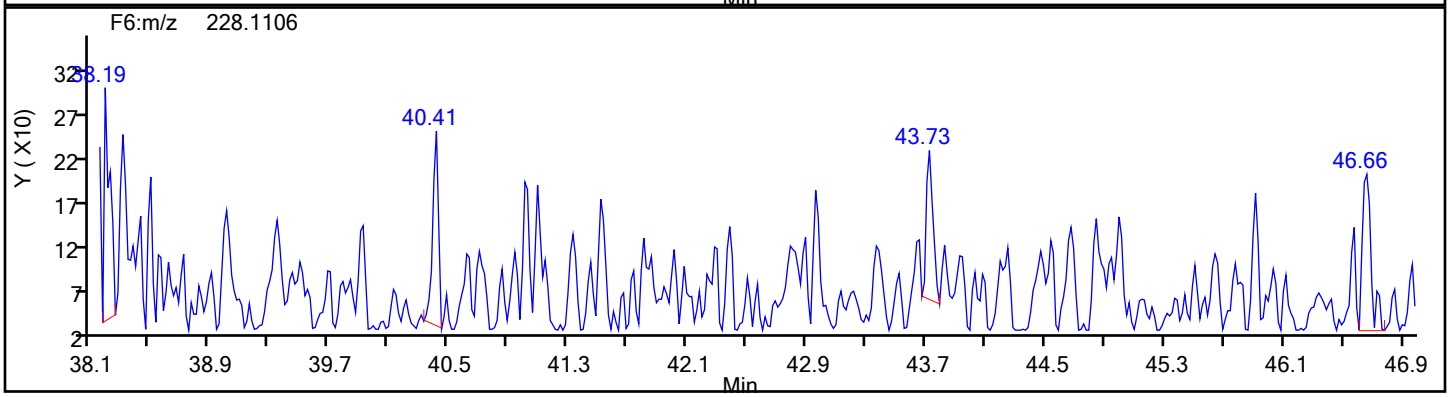
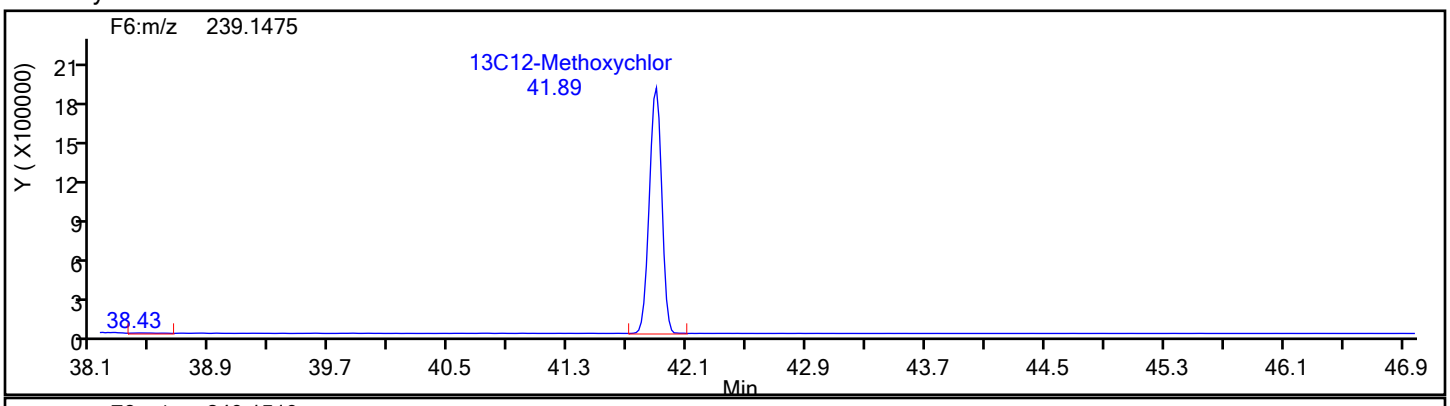
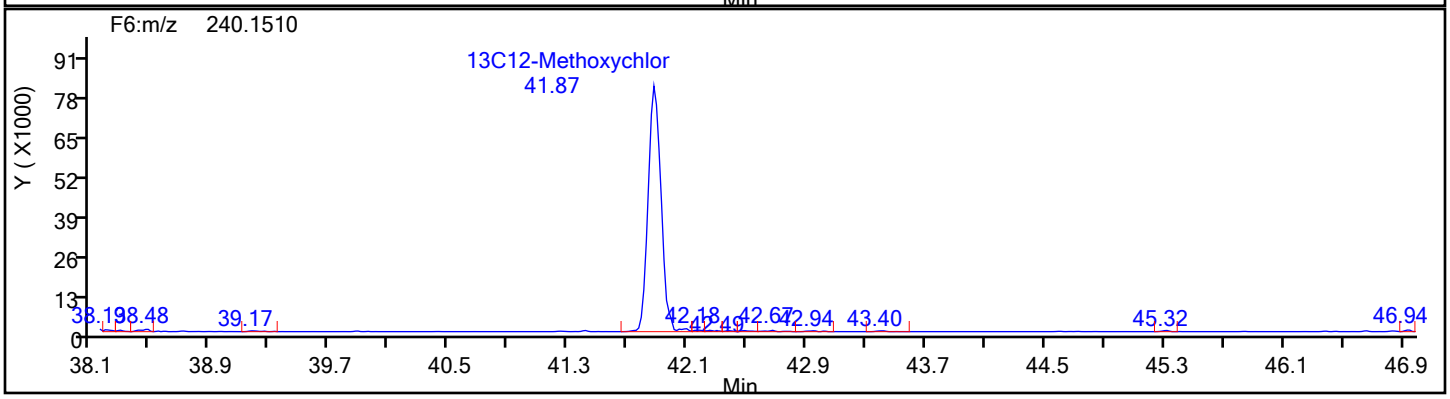
Methoxychlor





Methoxychlor Standards





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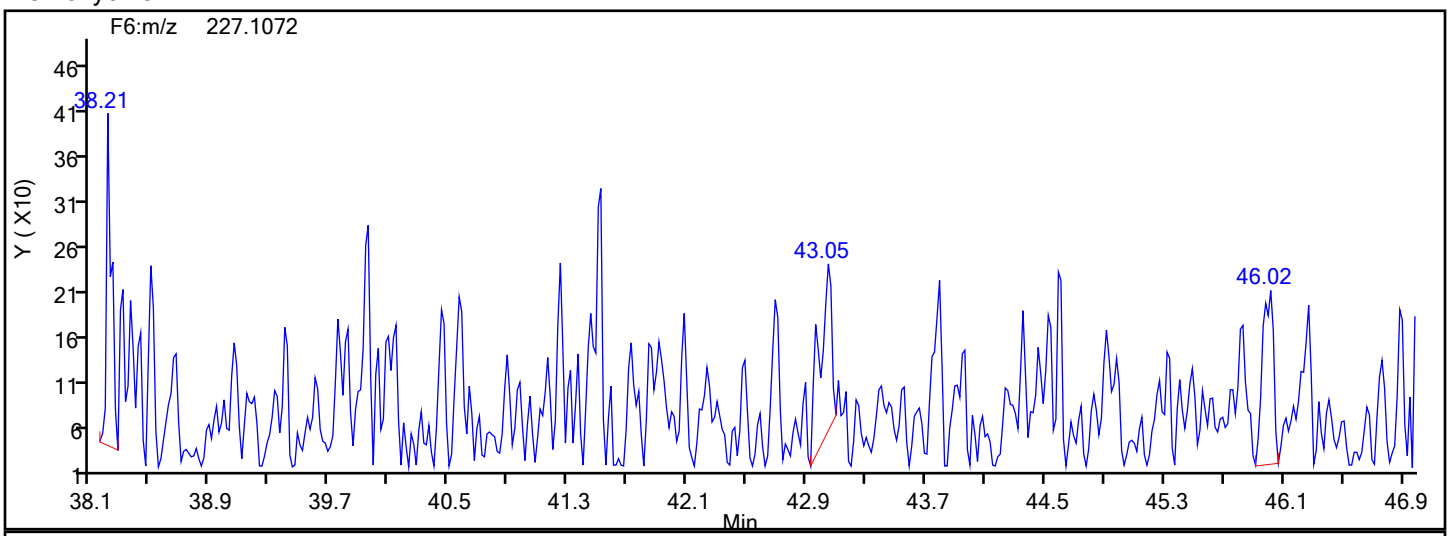
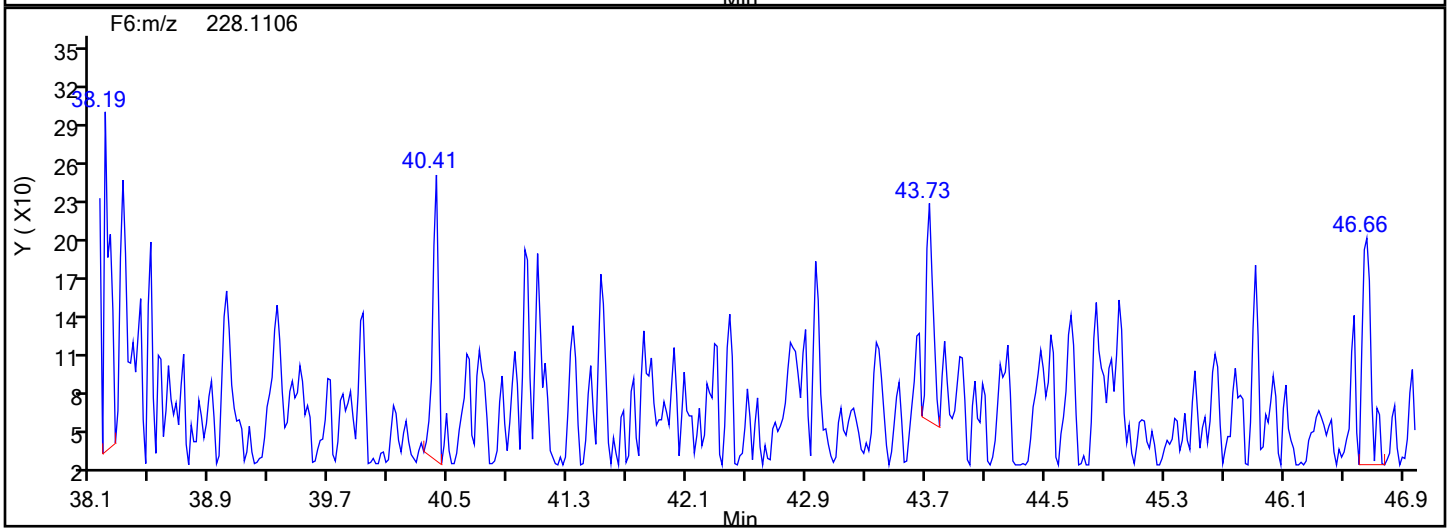
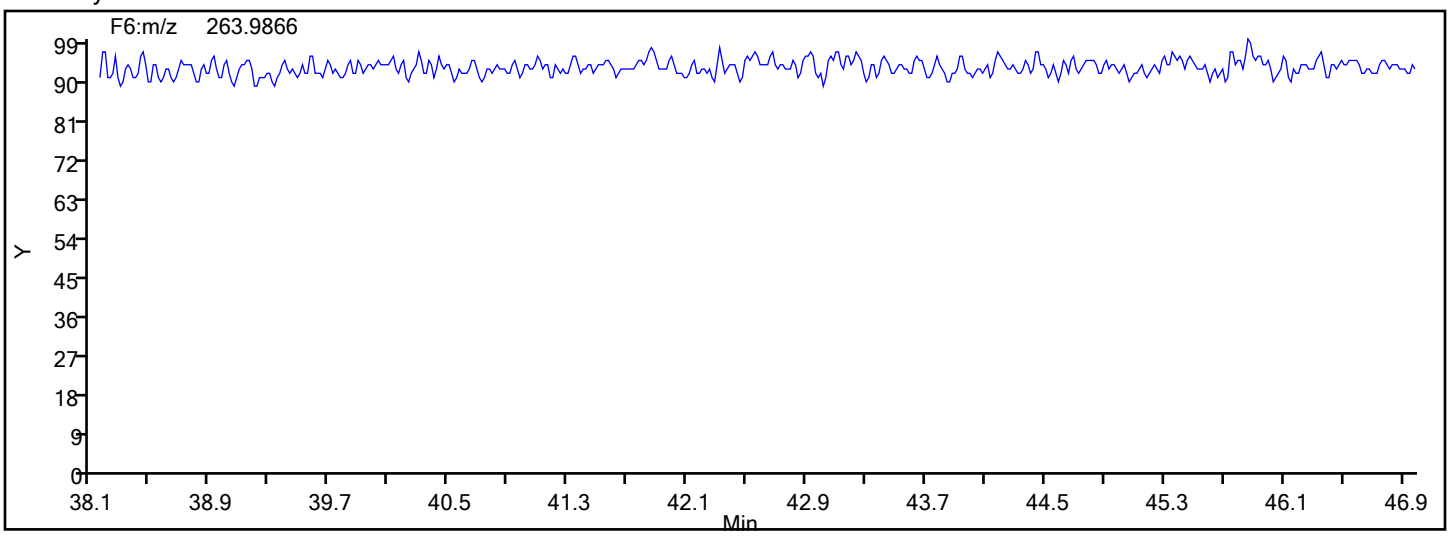




Methoxychlor Lock Mass



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Eurofins Knoxville

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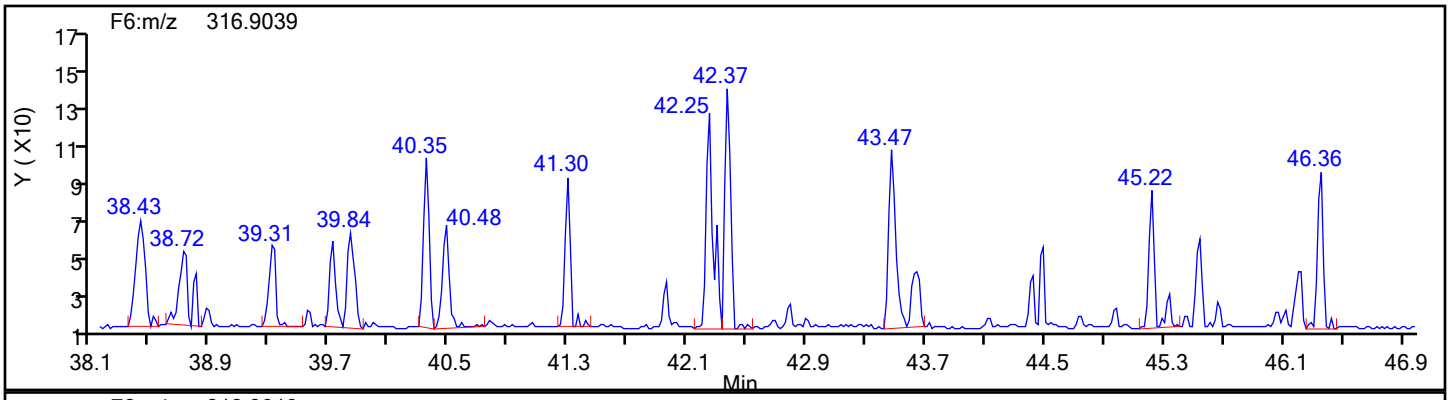

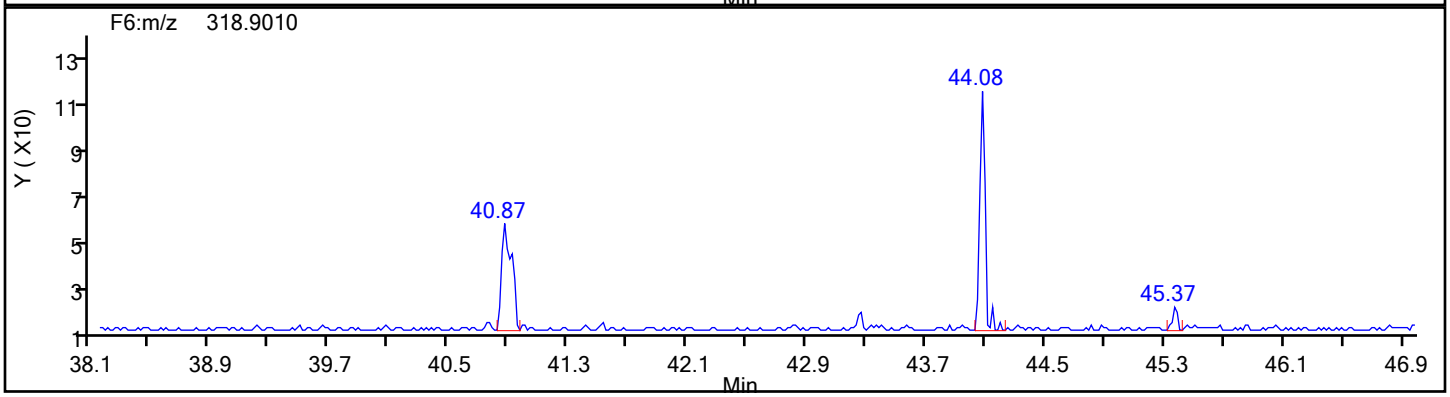

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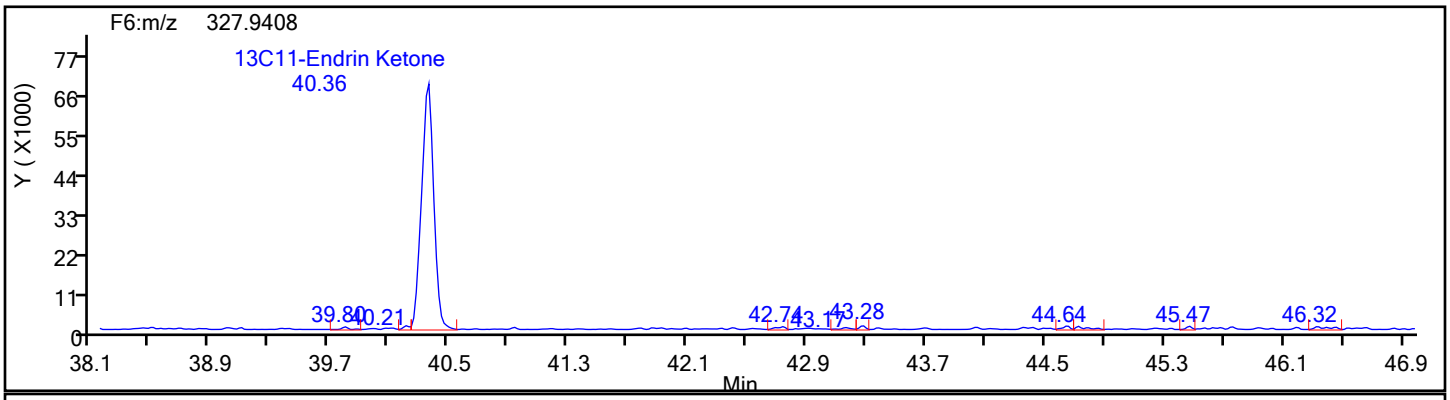

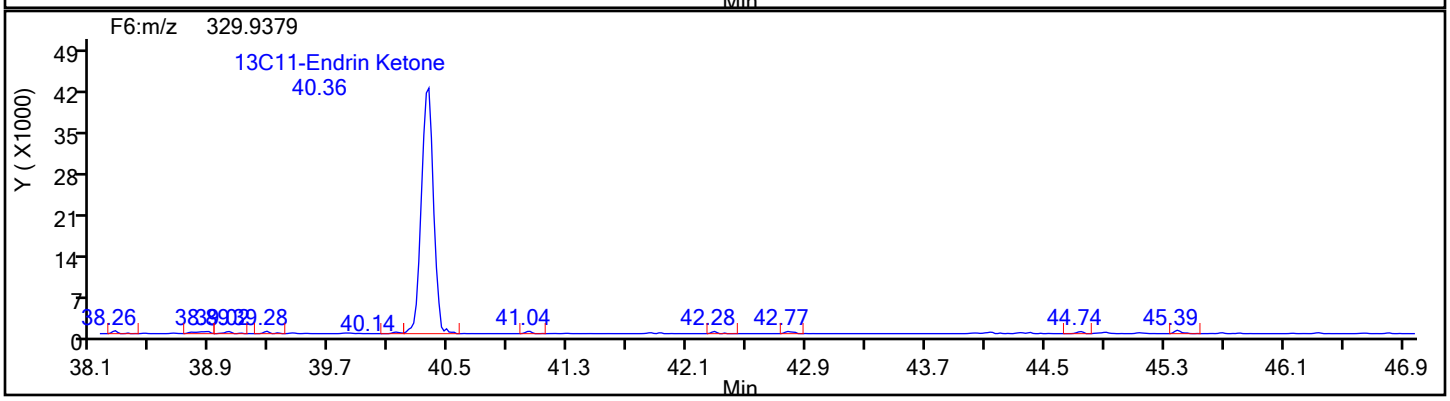

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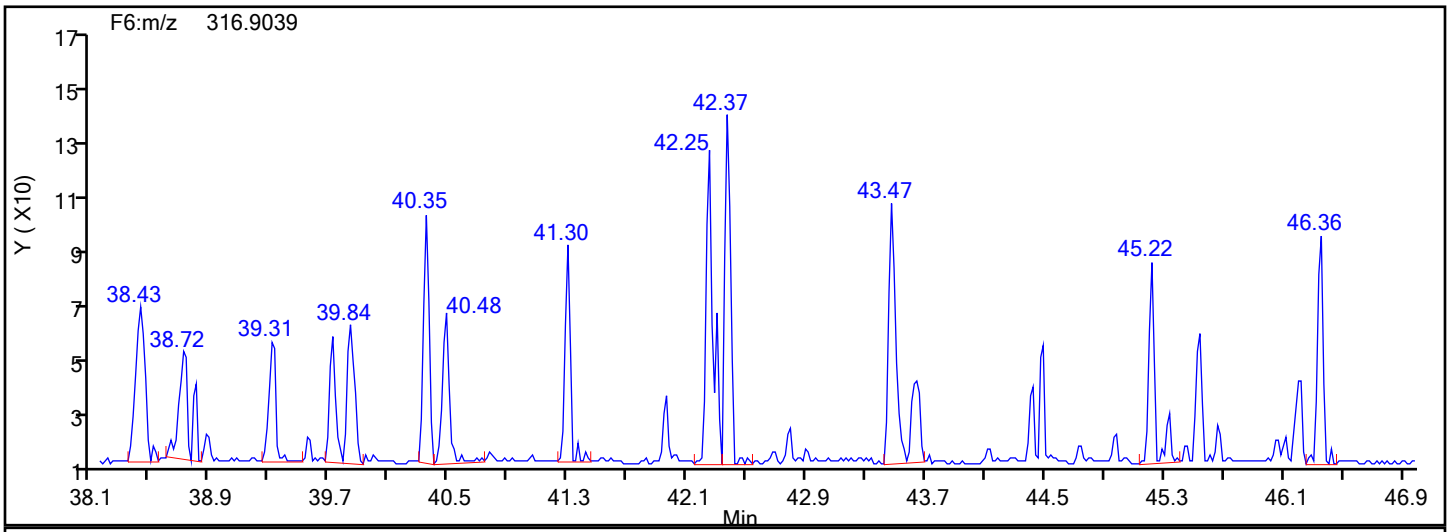
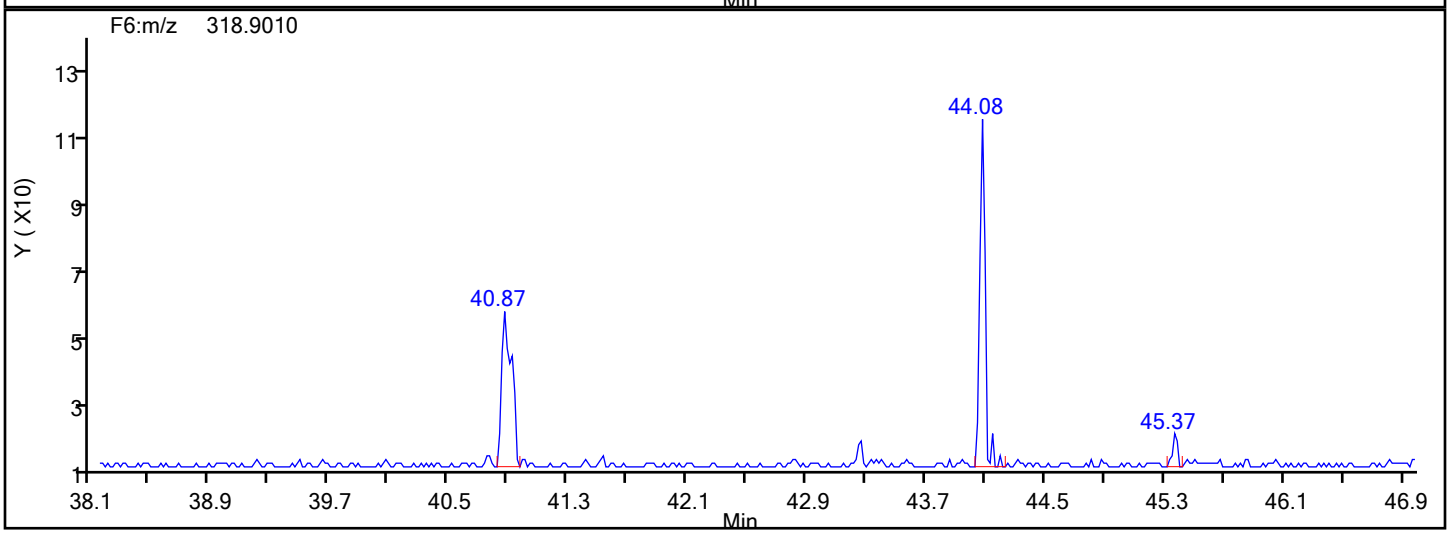
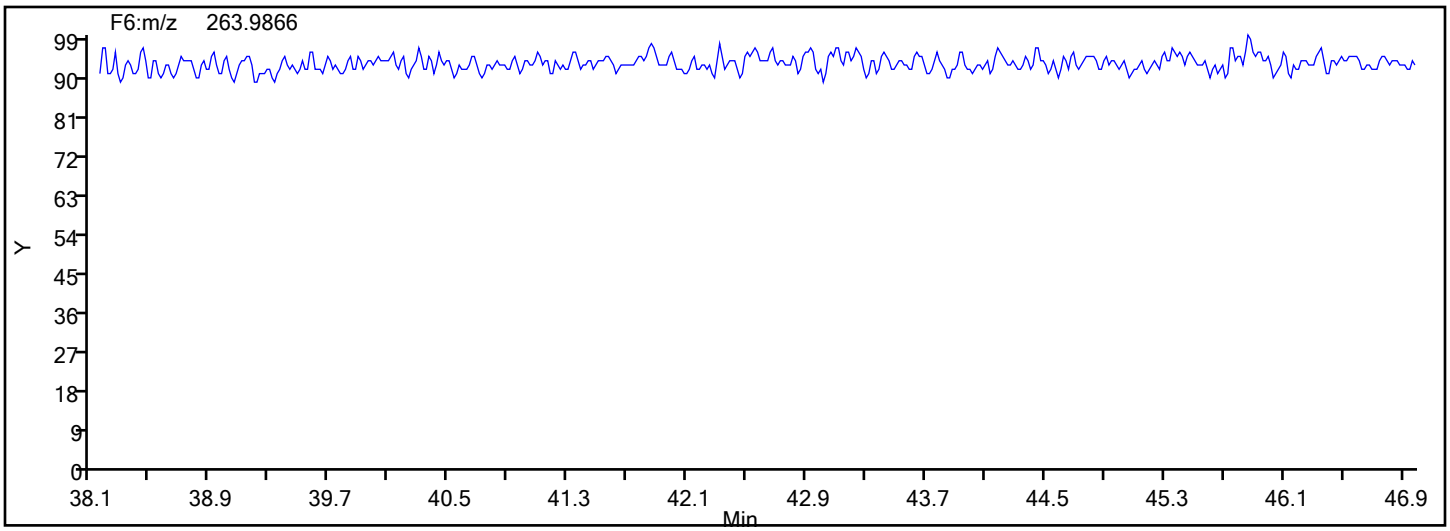




Endrin ketone Lock Mass



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Eurofins Knoxville

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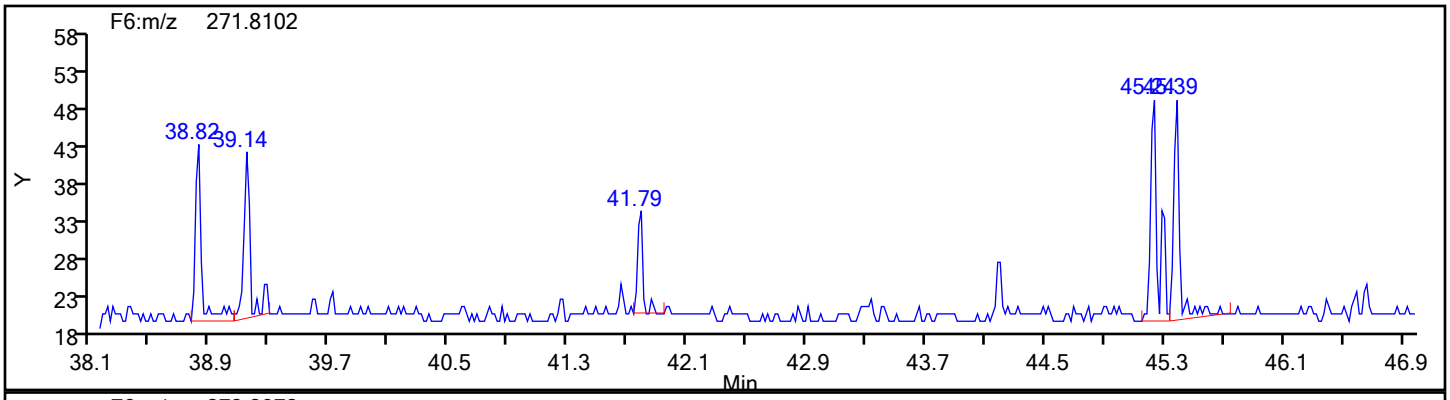
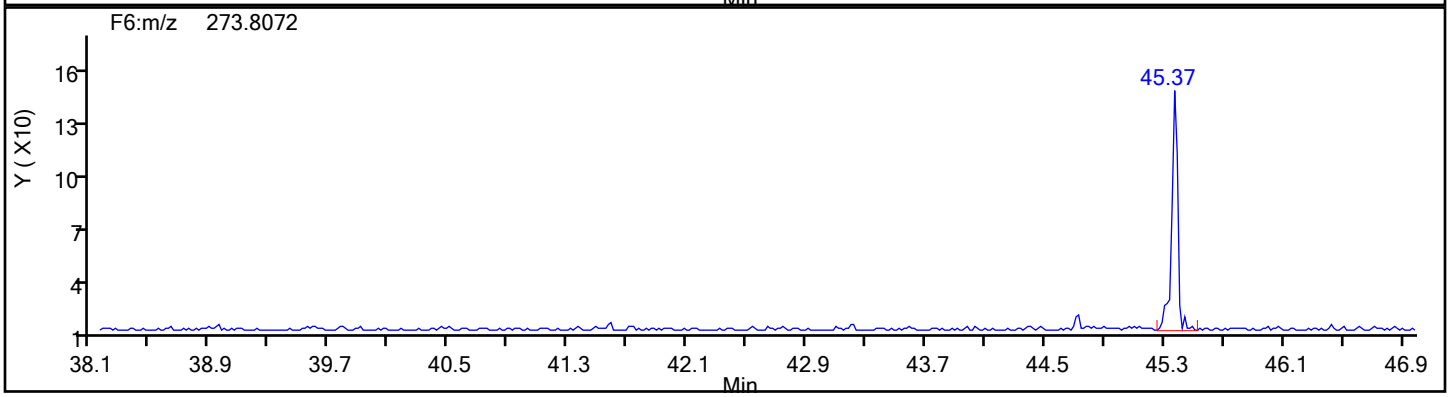
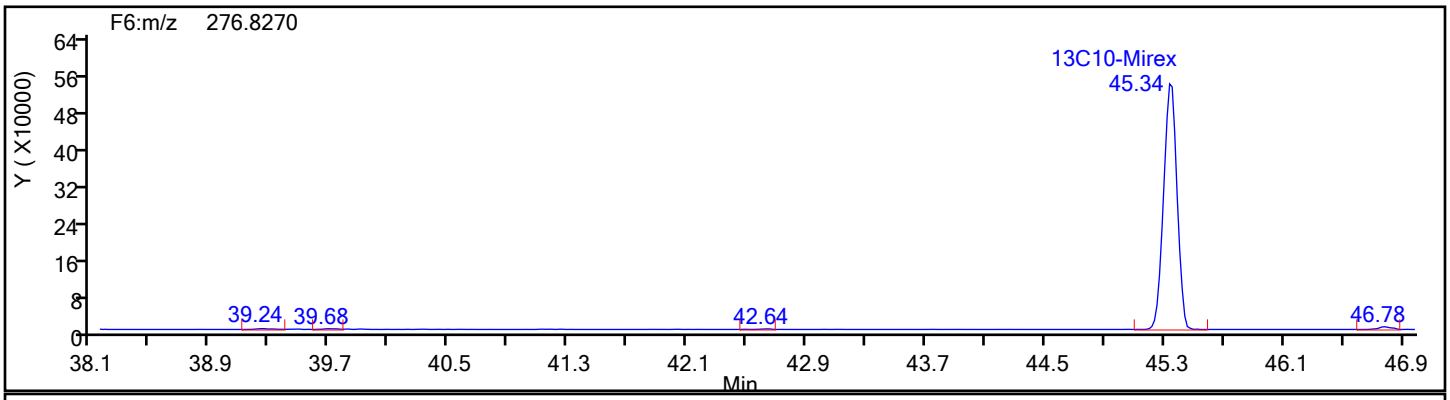
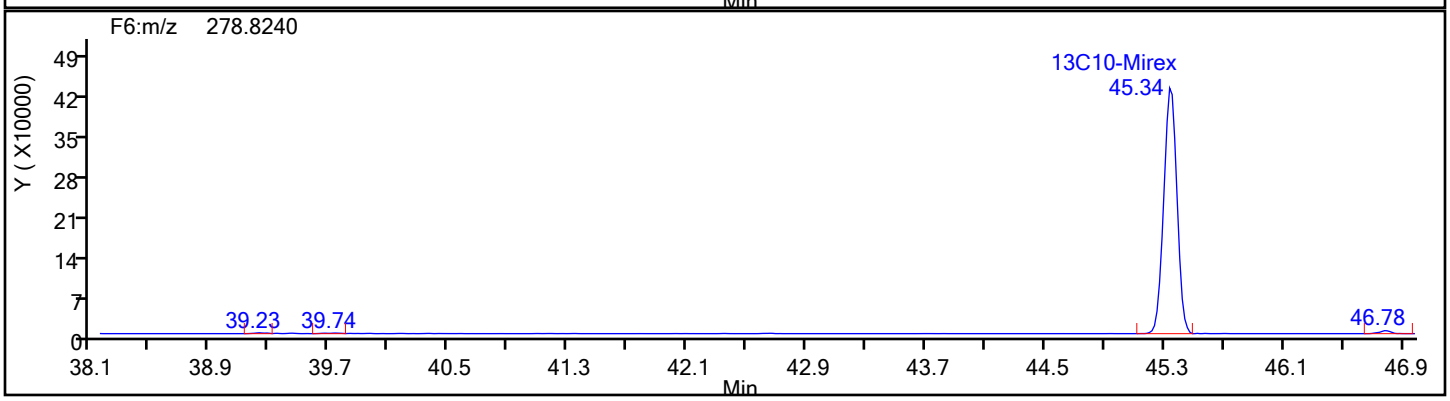
Mirex





Mirex Standards





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Eurofins Knoxville

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Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
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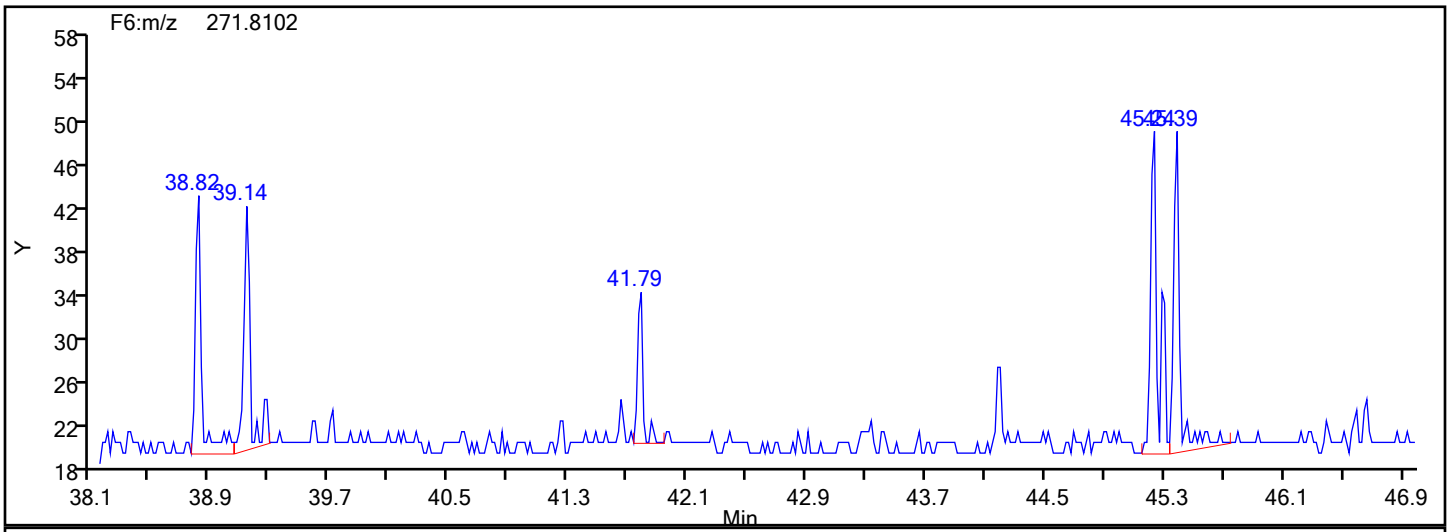

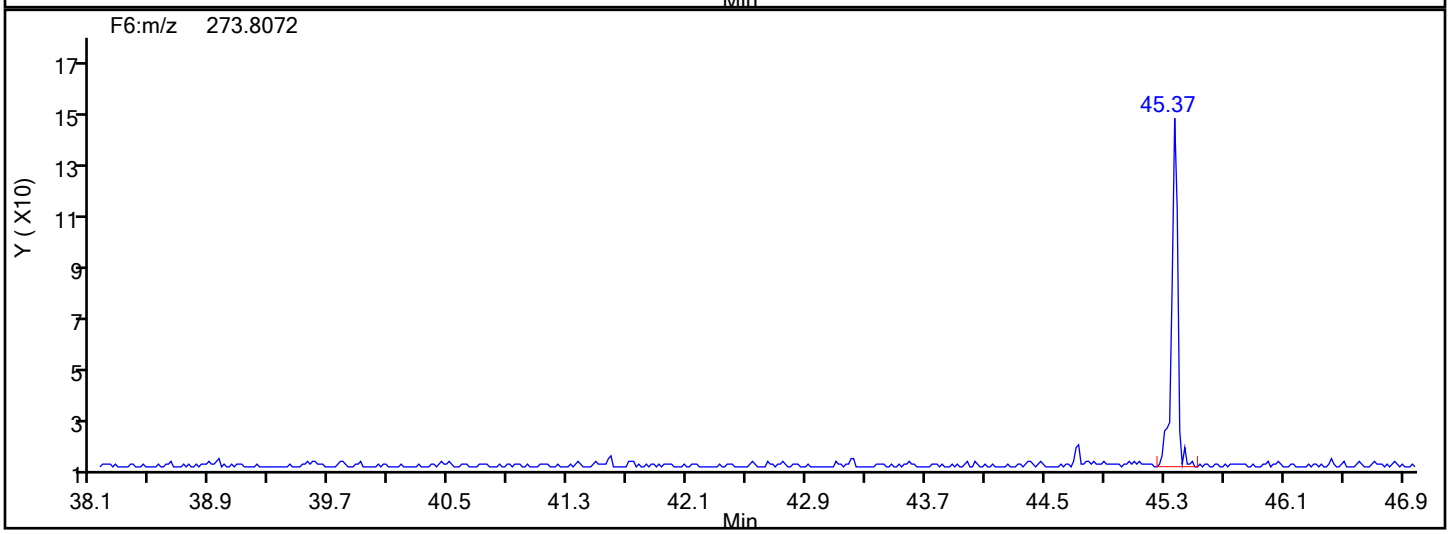

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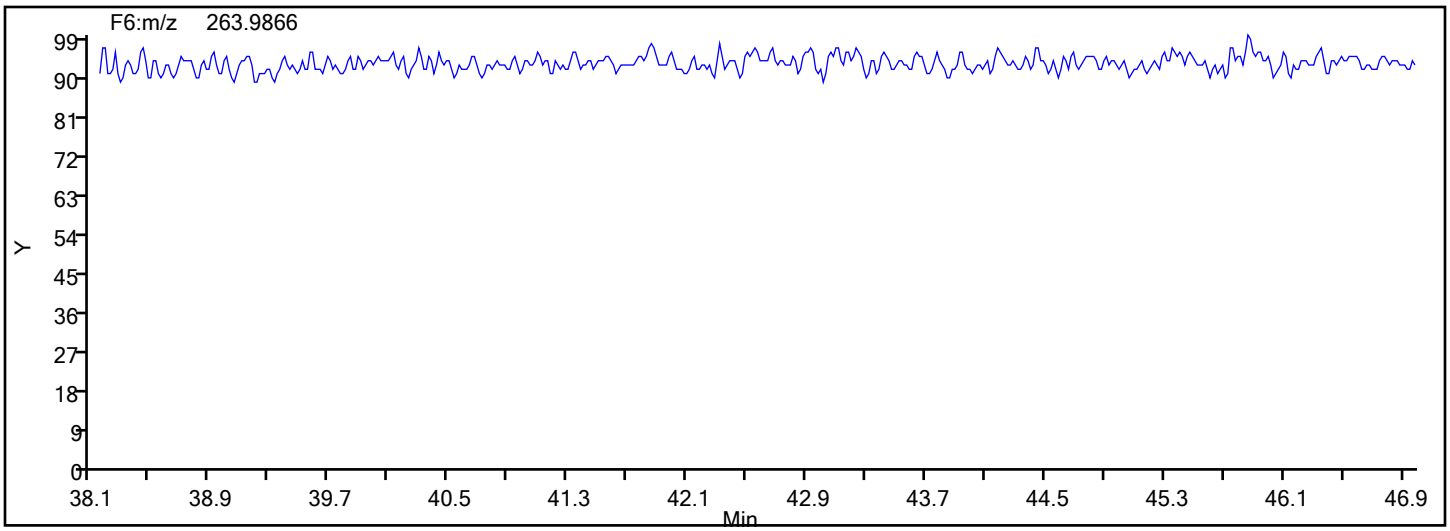

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Eurofins Knoxville

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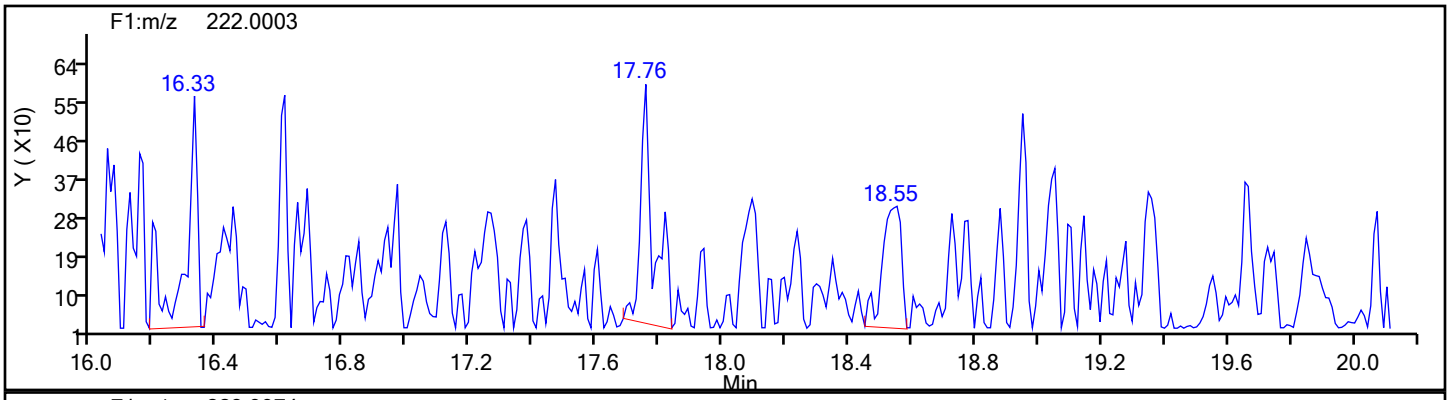
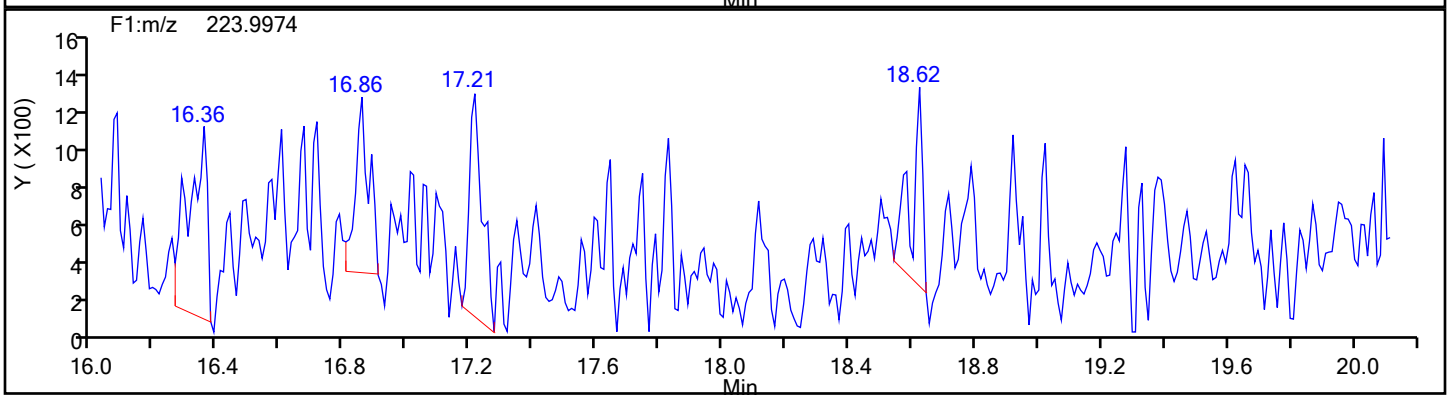
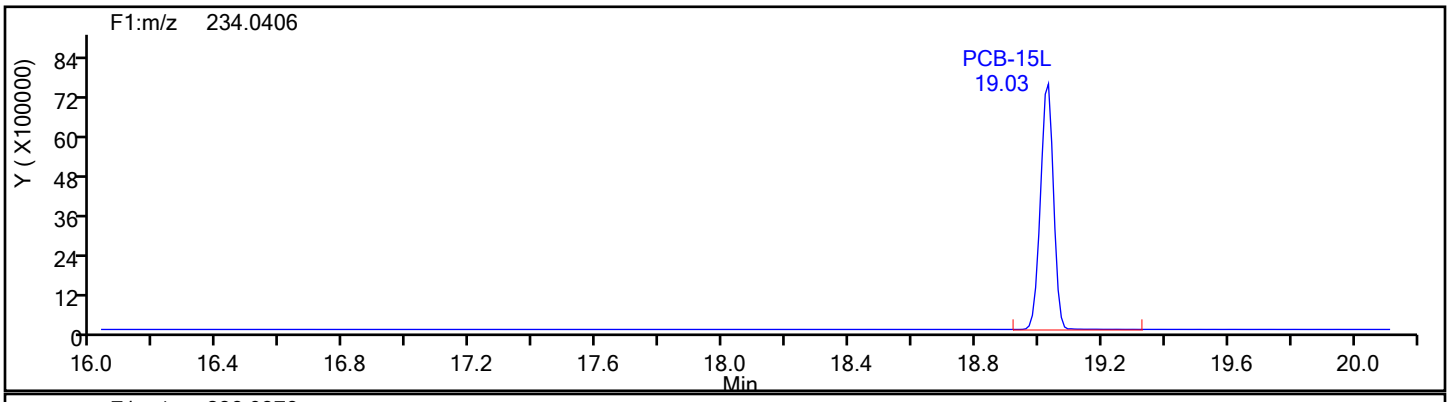
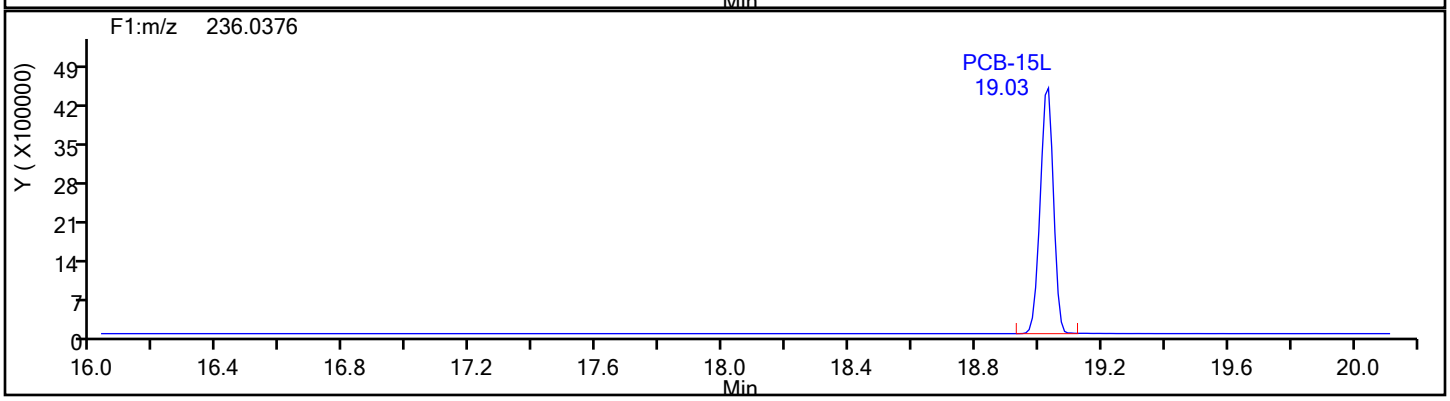
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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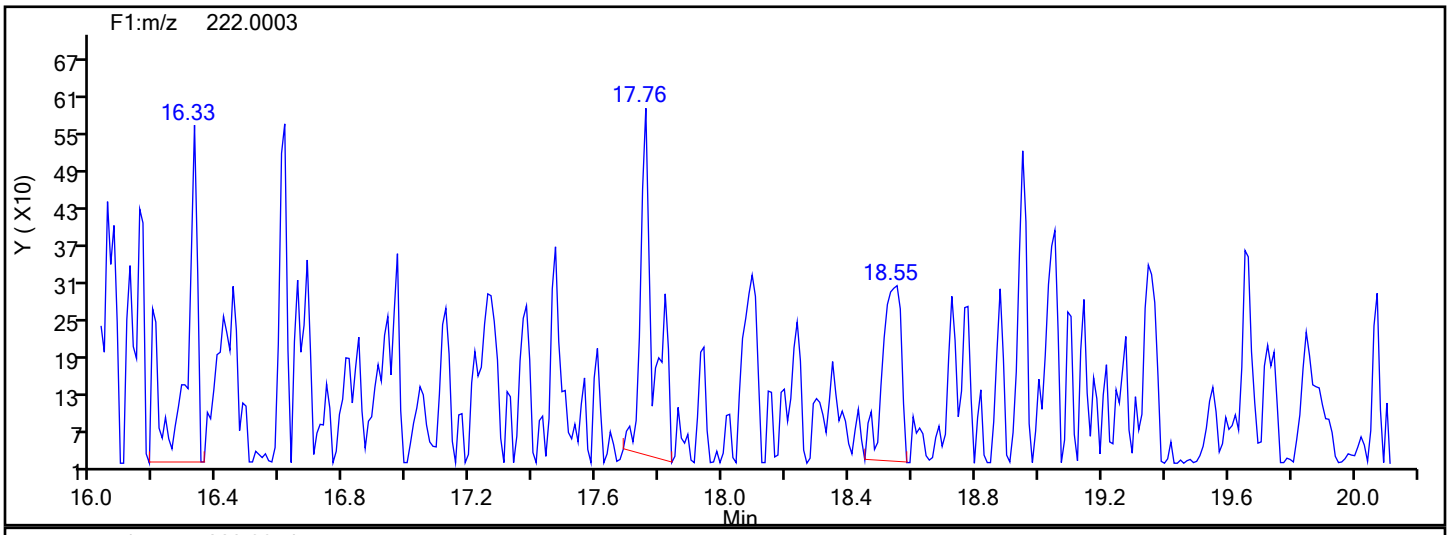
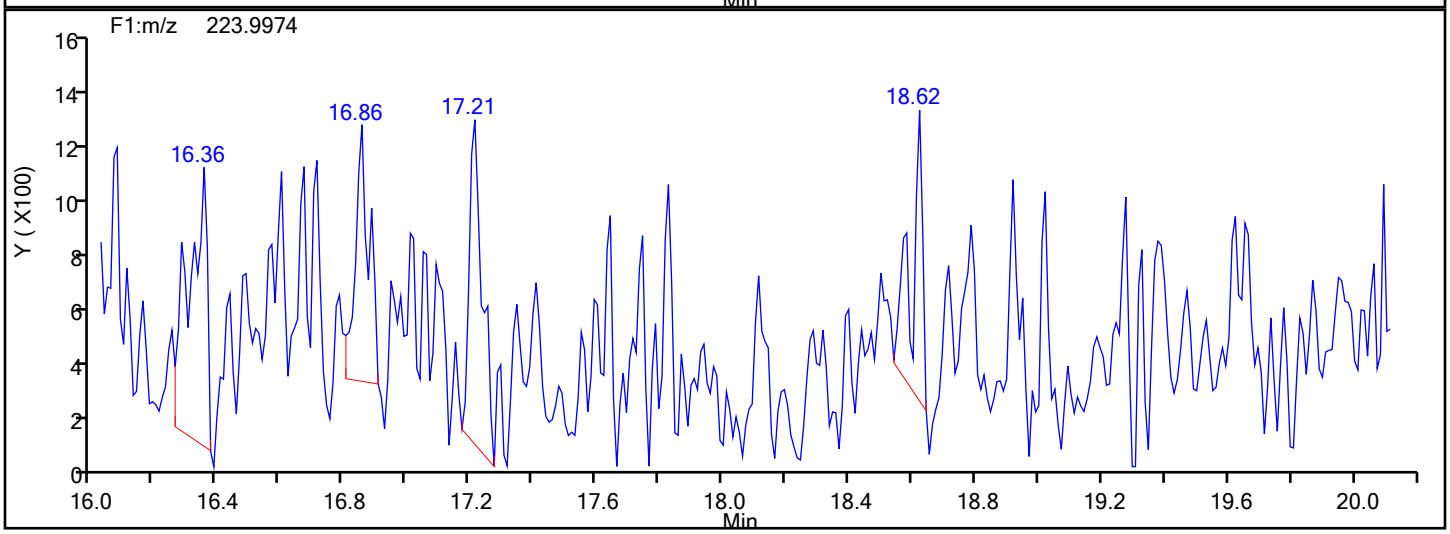
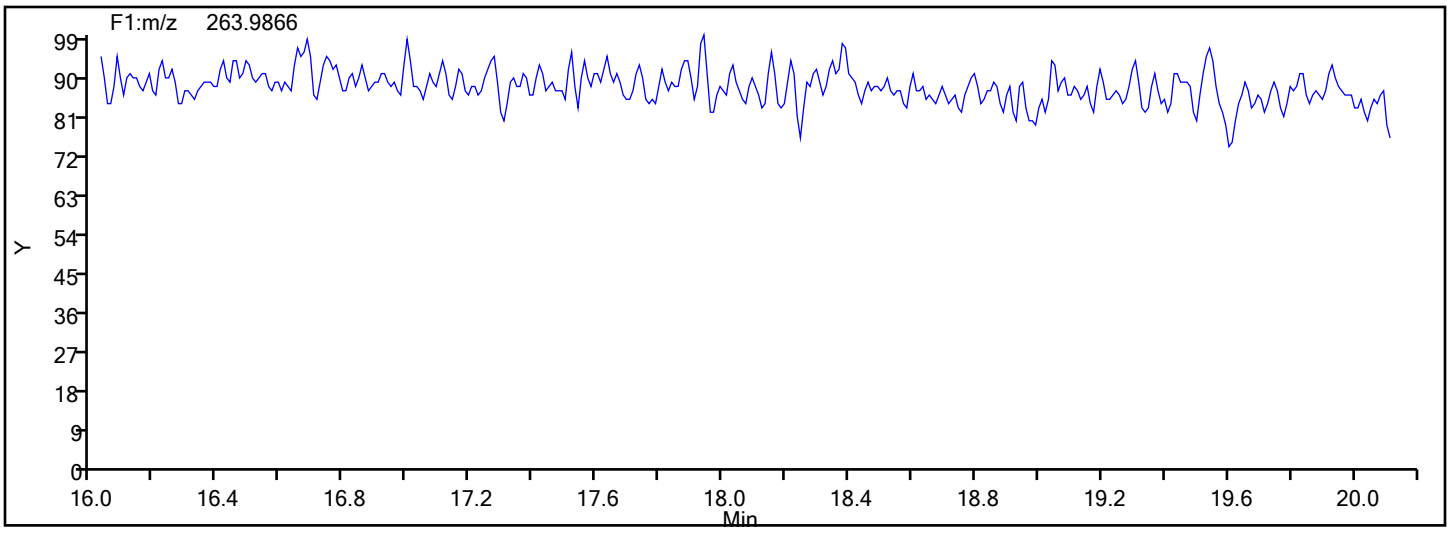
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass

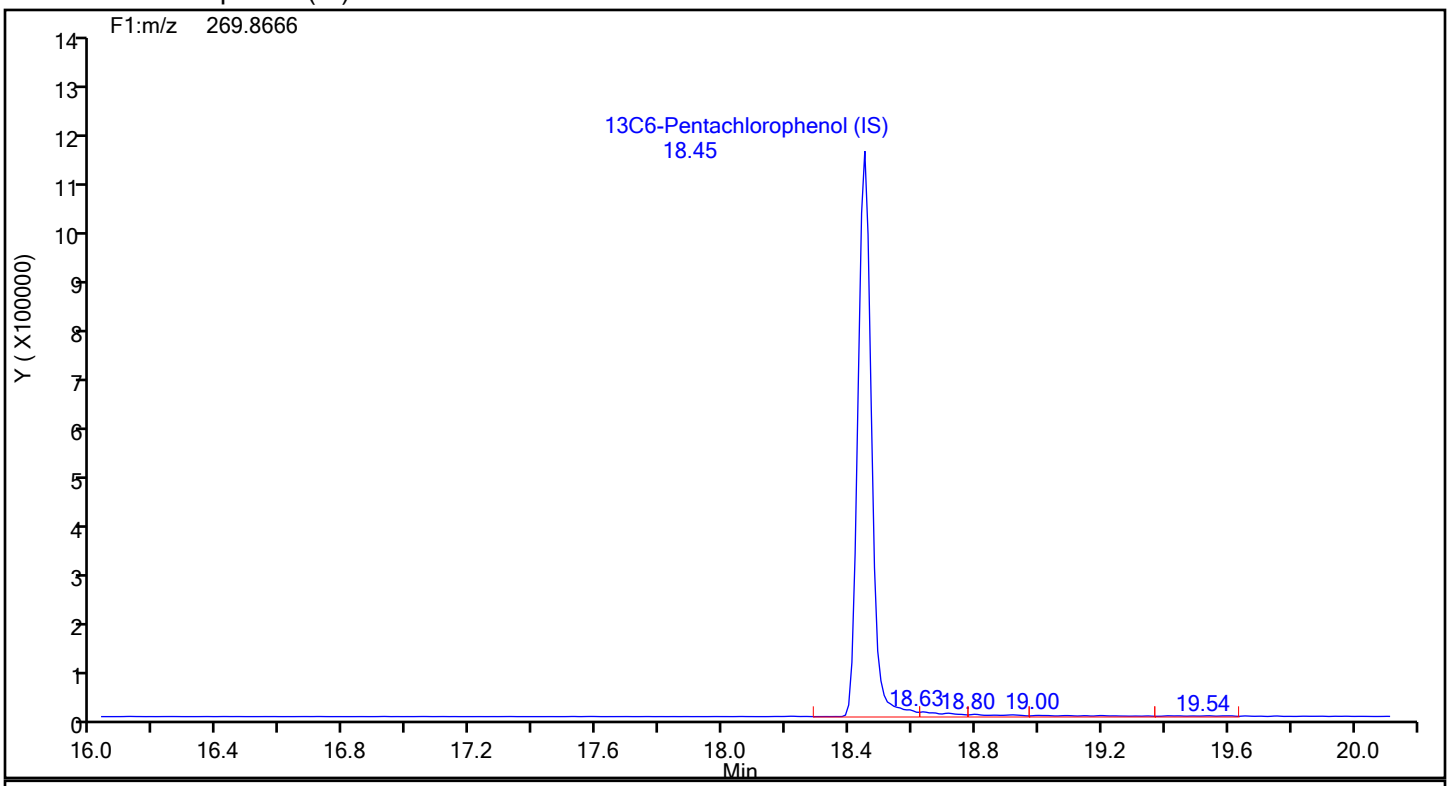


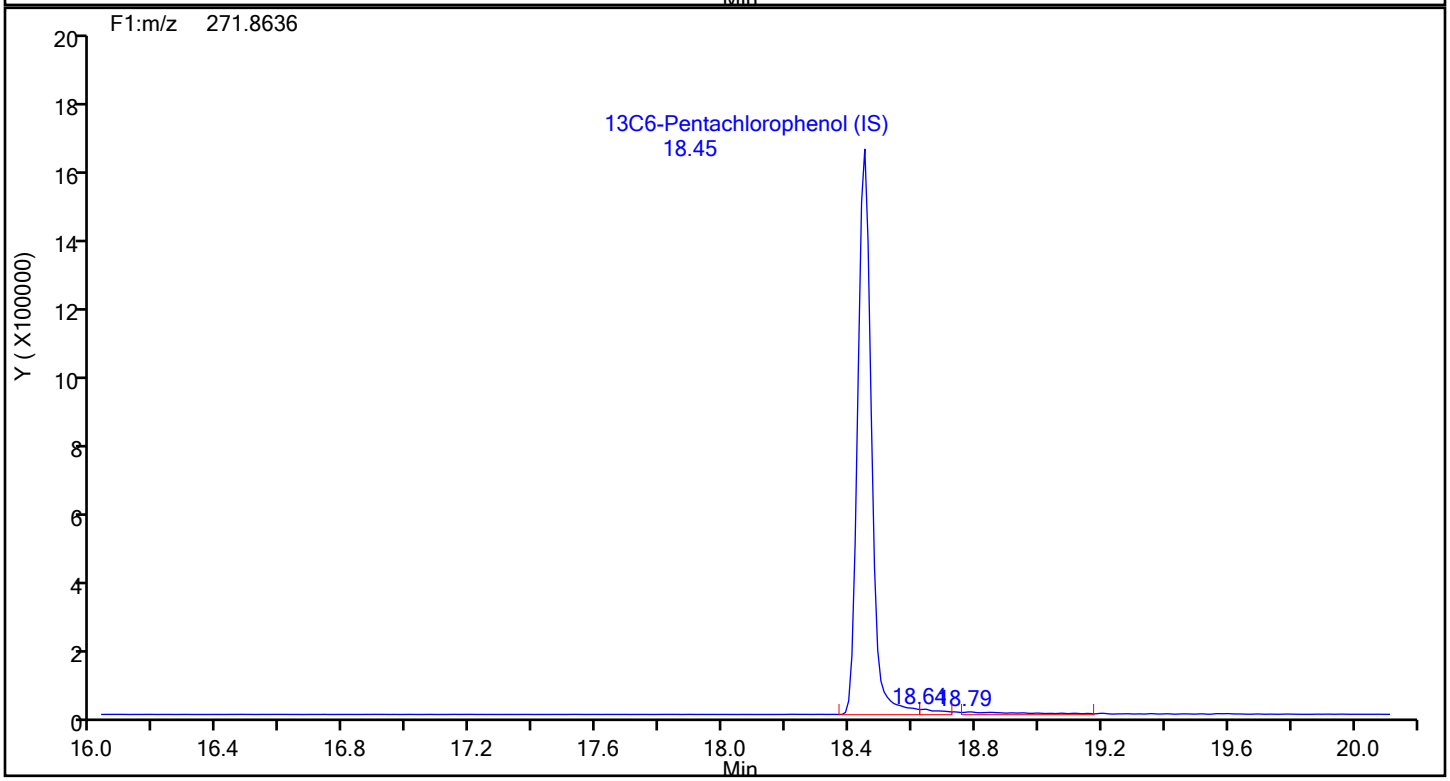
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





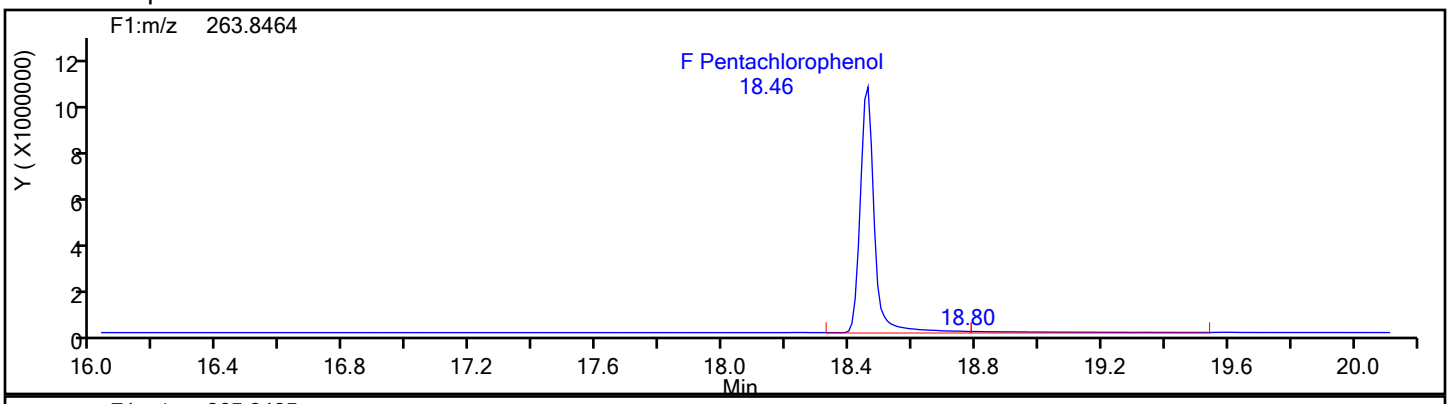
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

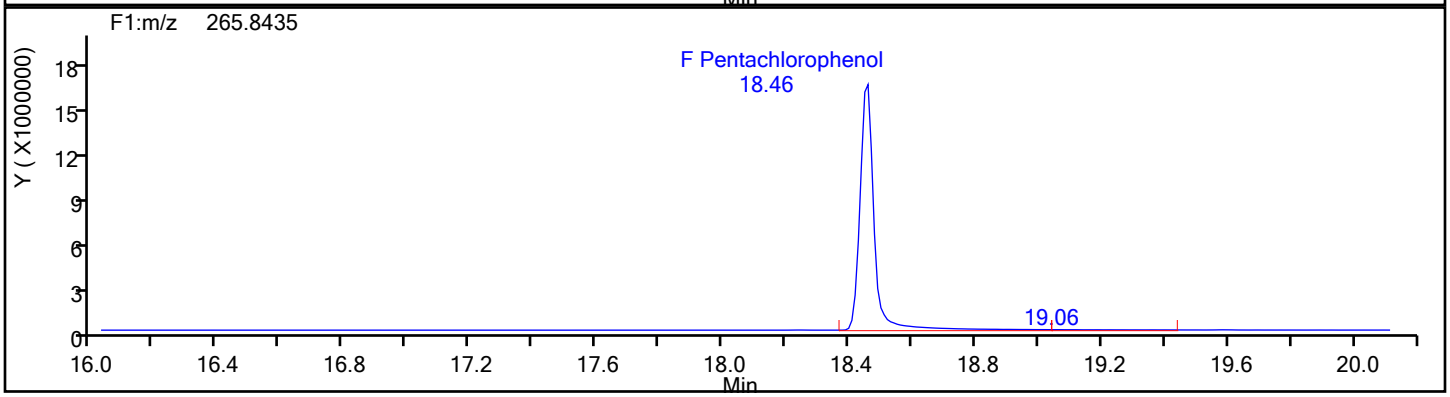
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

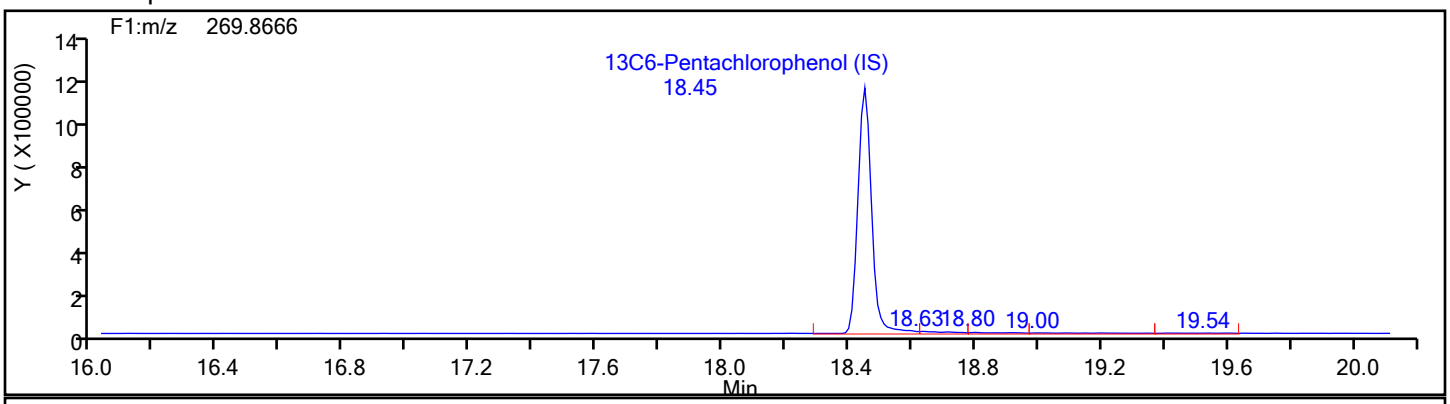
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

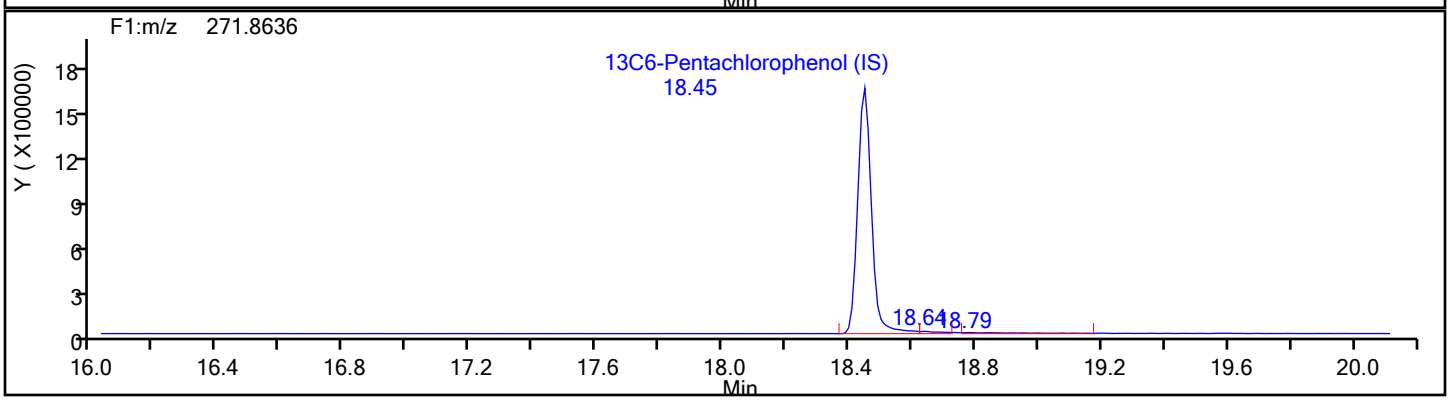
Pentachlorophenol





Pentachlorophenol Standards



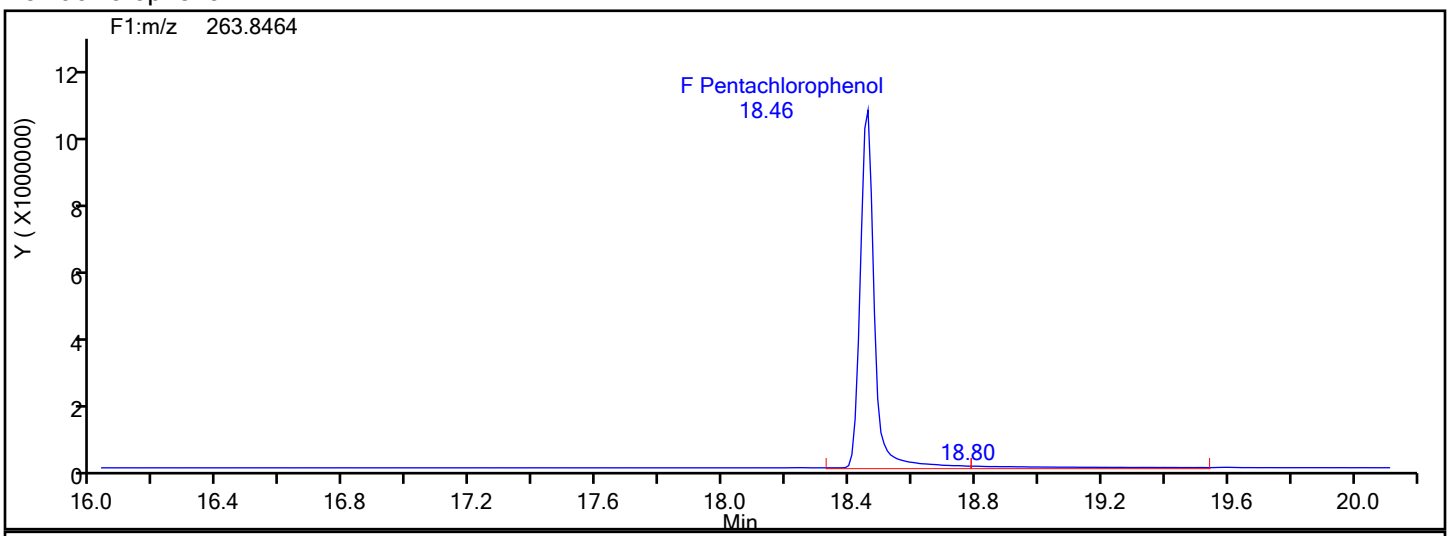


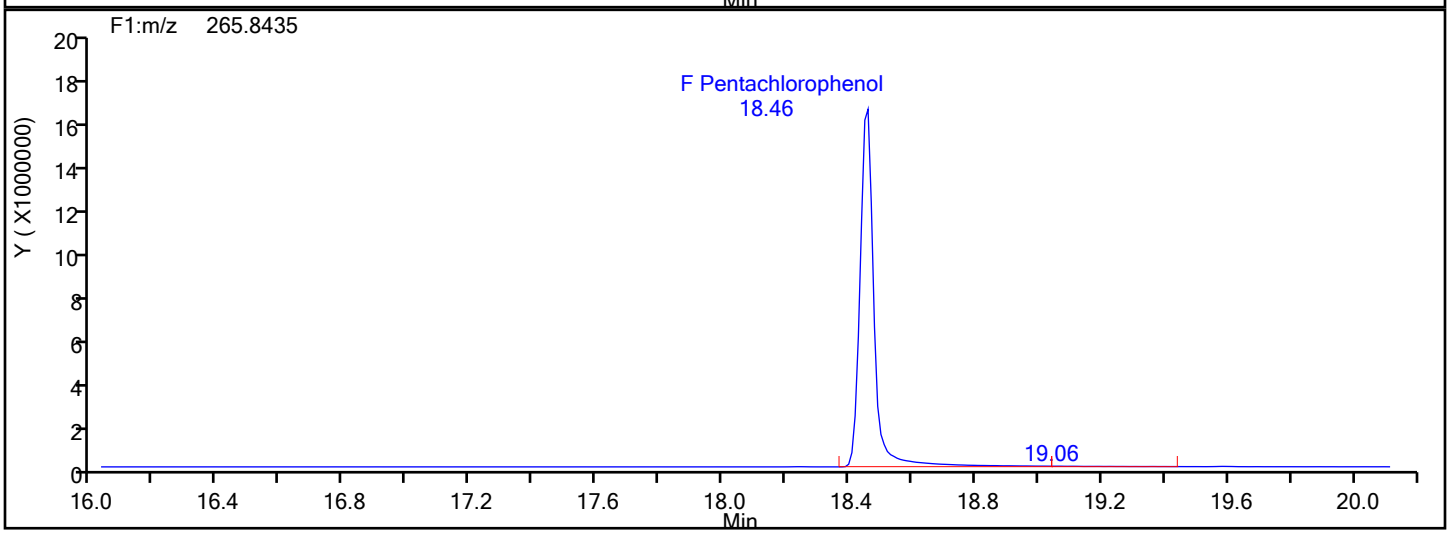
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

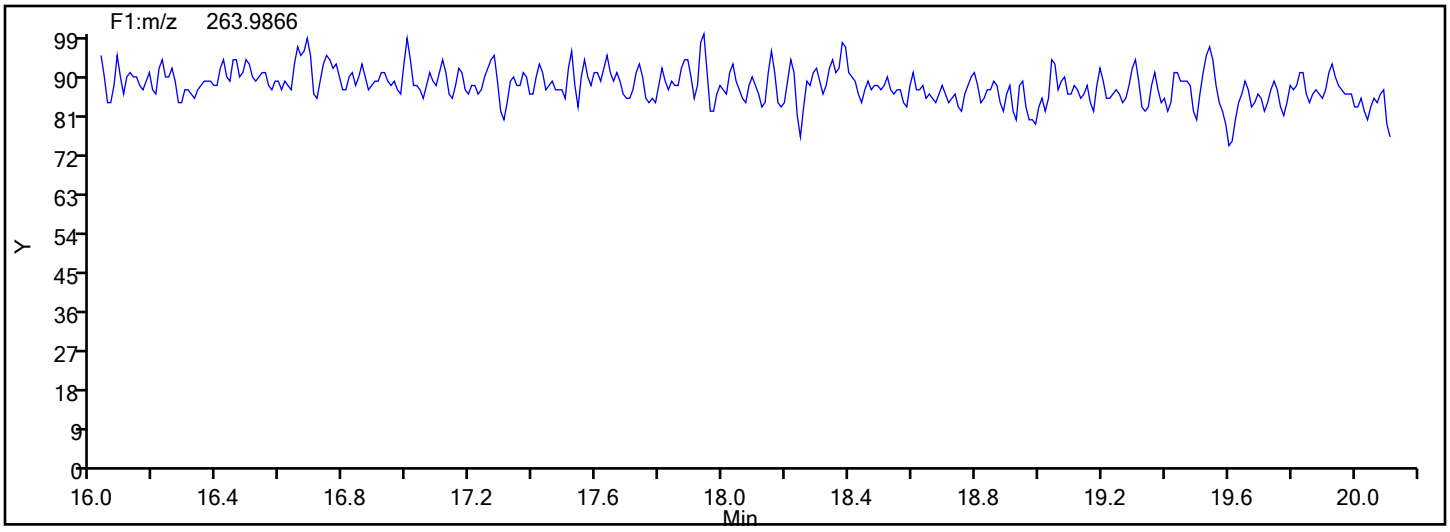
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

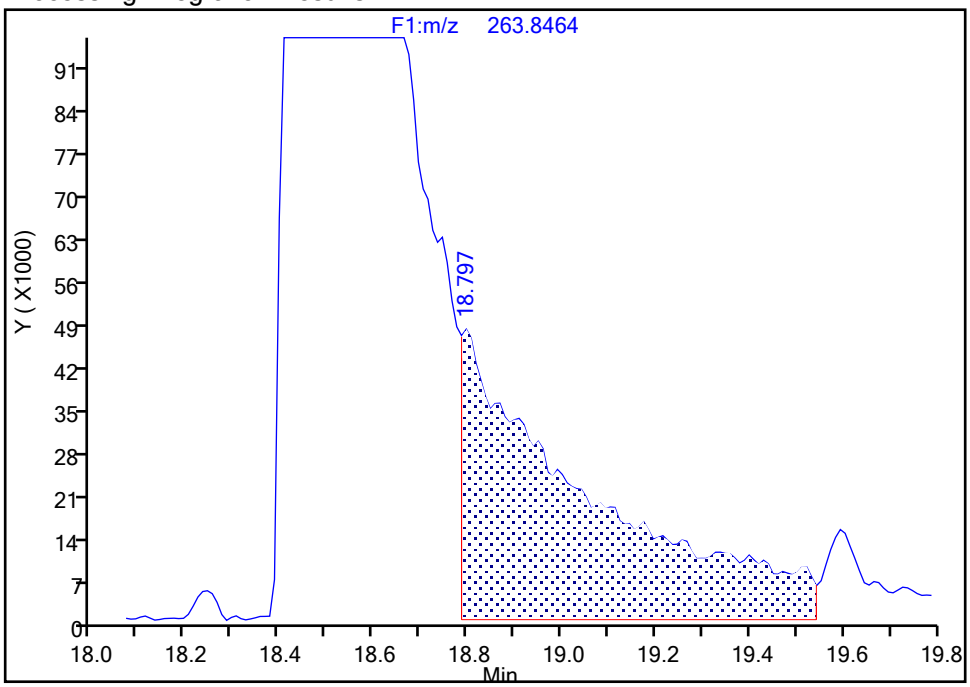
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d				
Injection Date:	02-May-2025 21:13:00	Instrument ID:	D3PST		
Lims ID:	IC L8				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

Pentachlorophenol, CAS: 87-86-5

Signal: 1

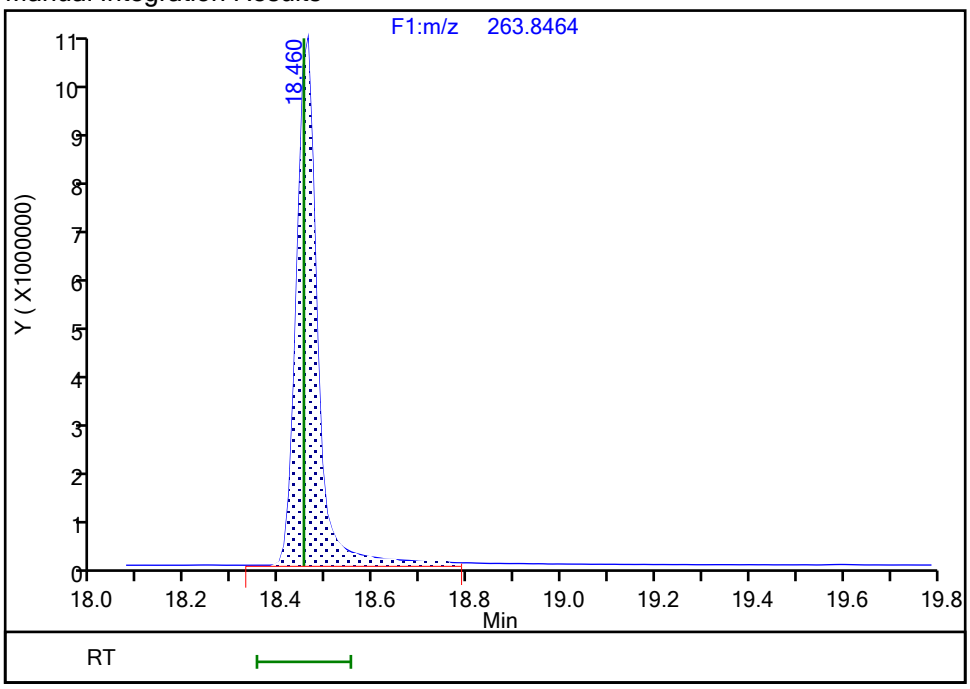
Processing Integration Results

RT: 18.80
Area: 849049
Amount: 104.1964
Amount Units: pg/ul



Manual Integration Results

RT: 18.46
Area: 31644097
Amount: 4926.6039
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:25:49 -04:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

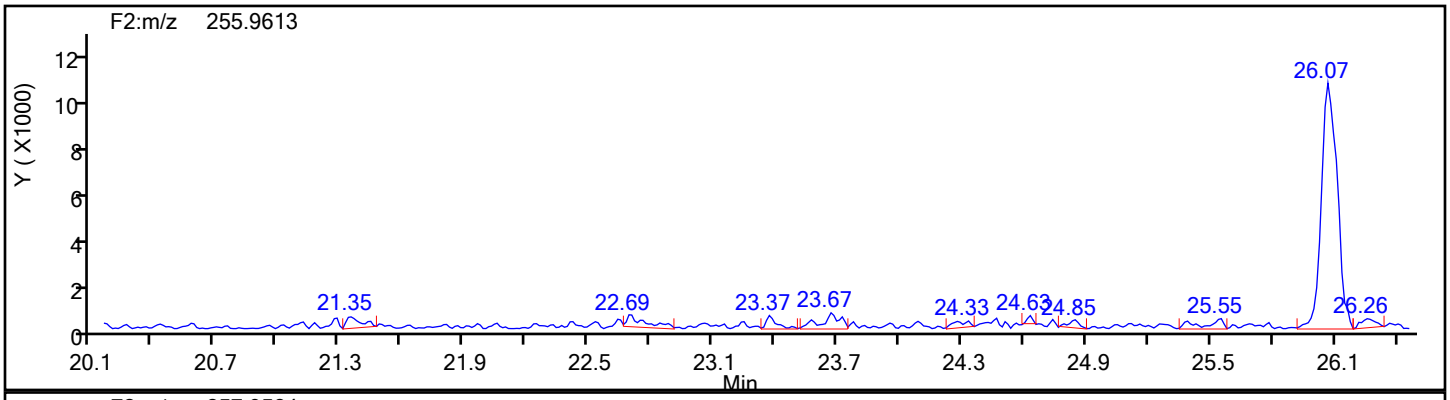
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

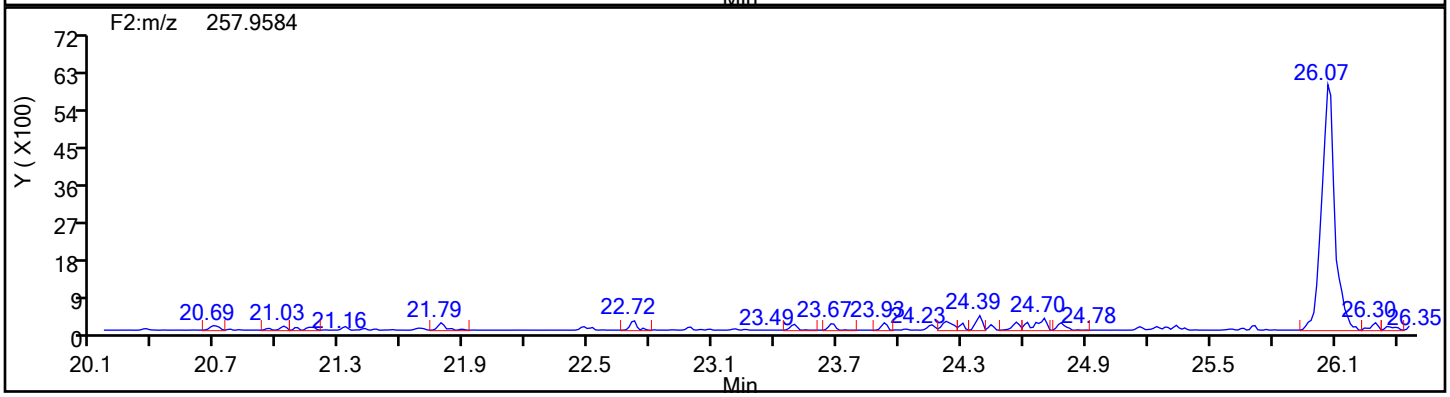
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

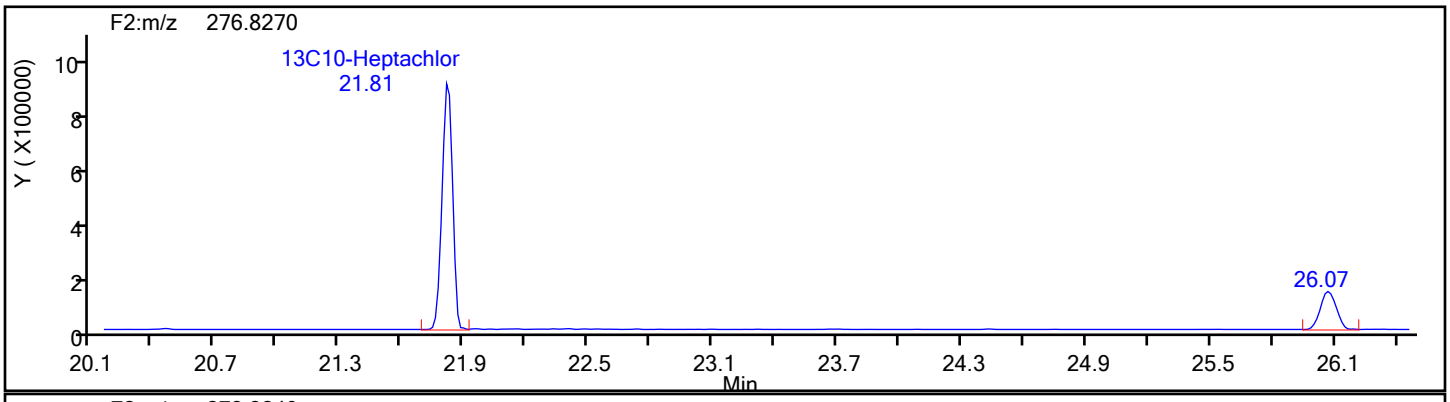
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

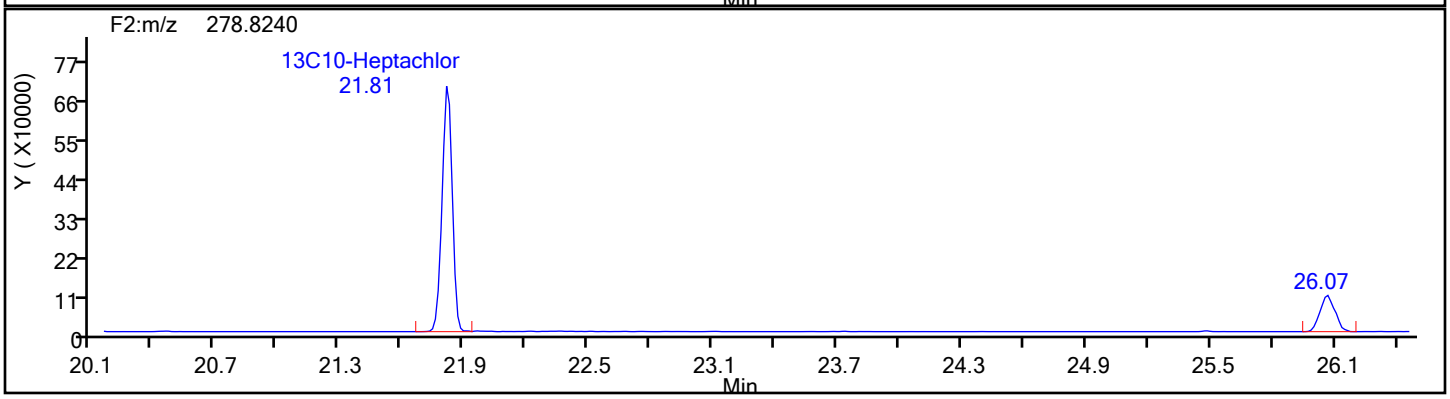
PCB-36





PCB-36 Standards



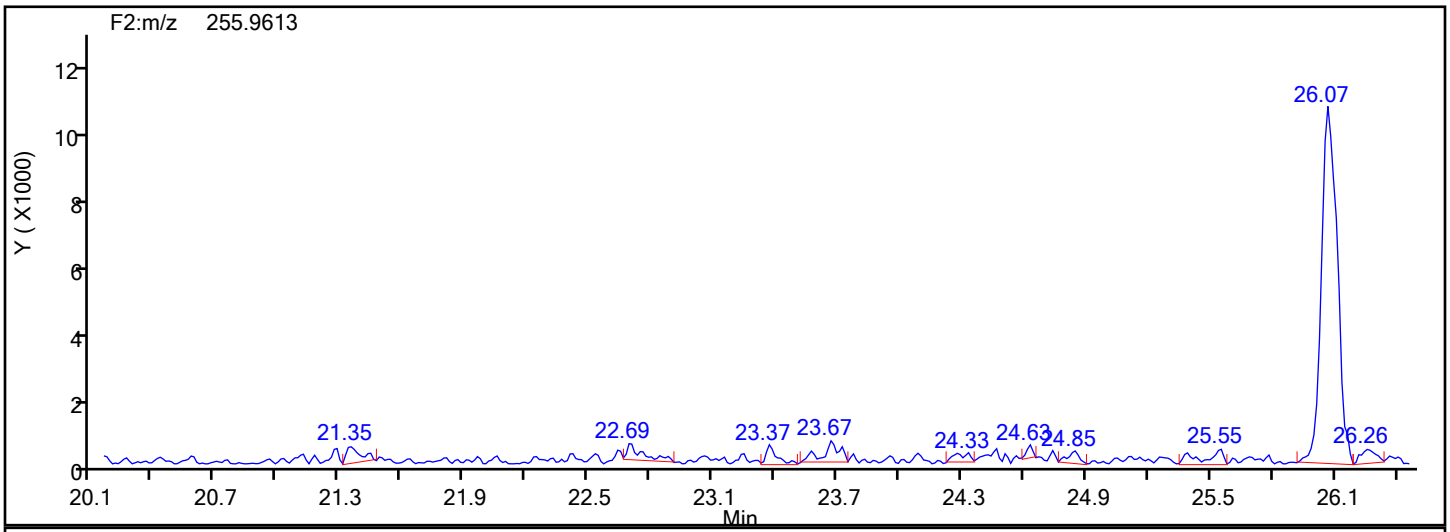


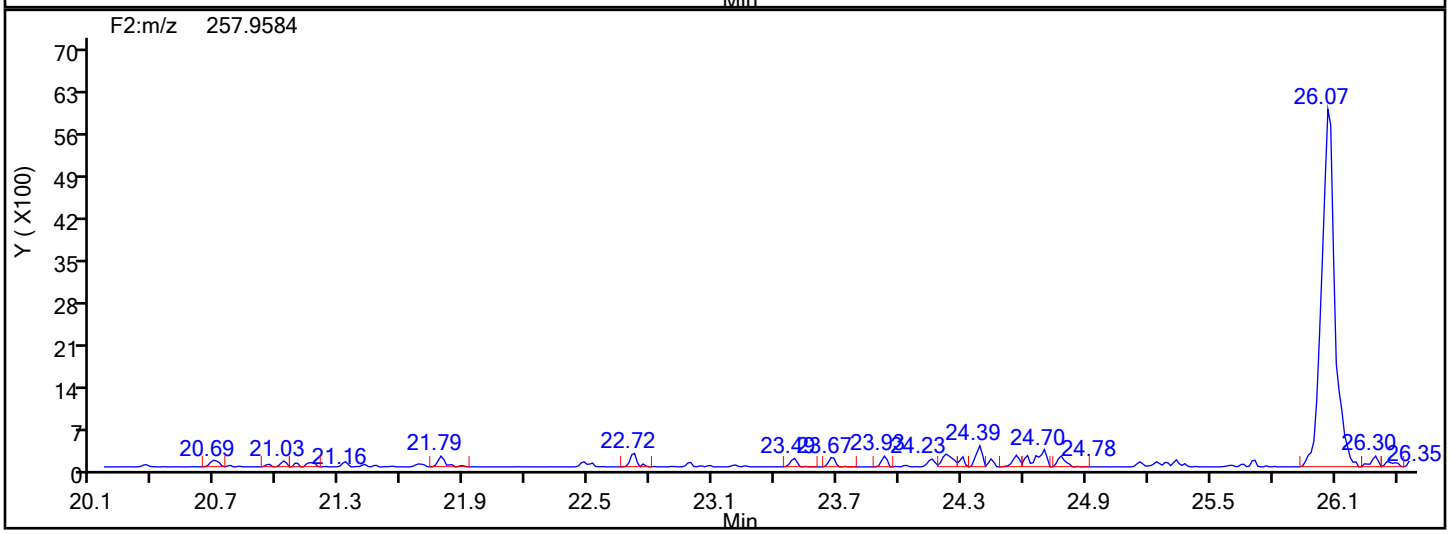
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

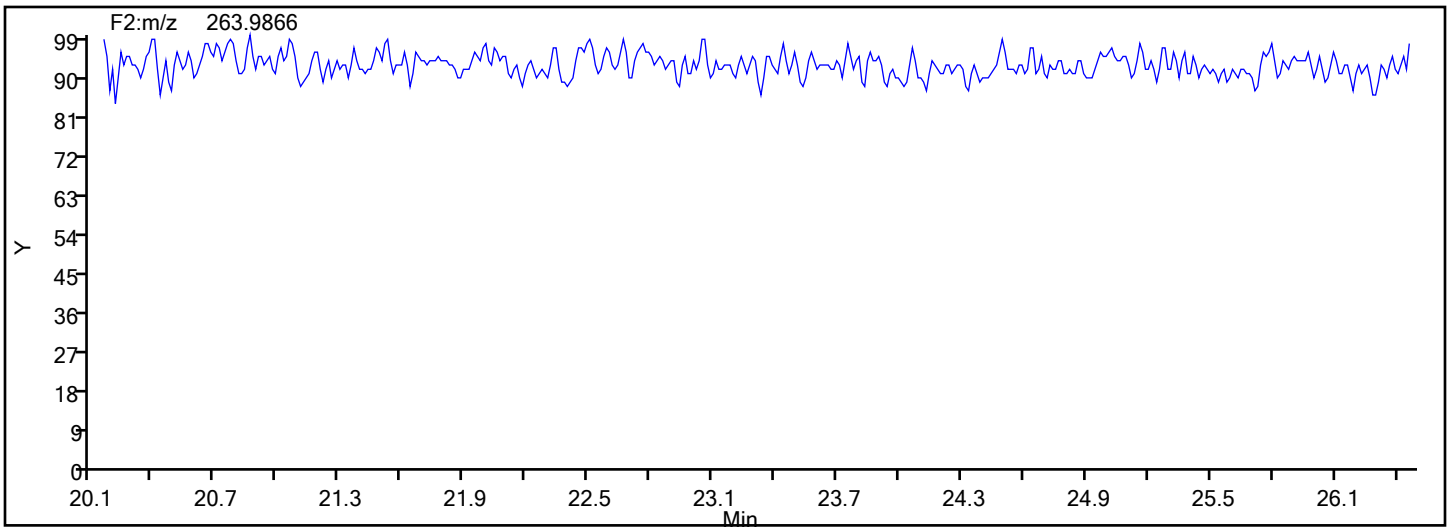
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



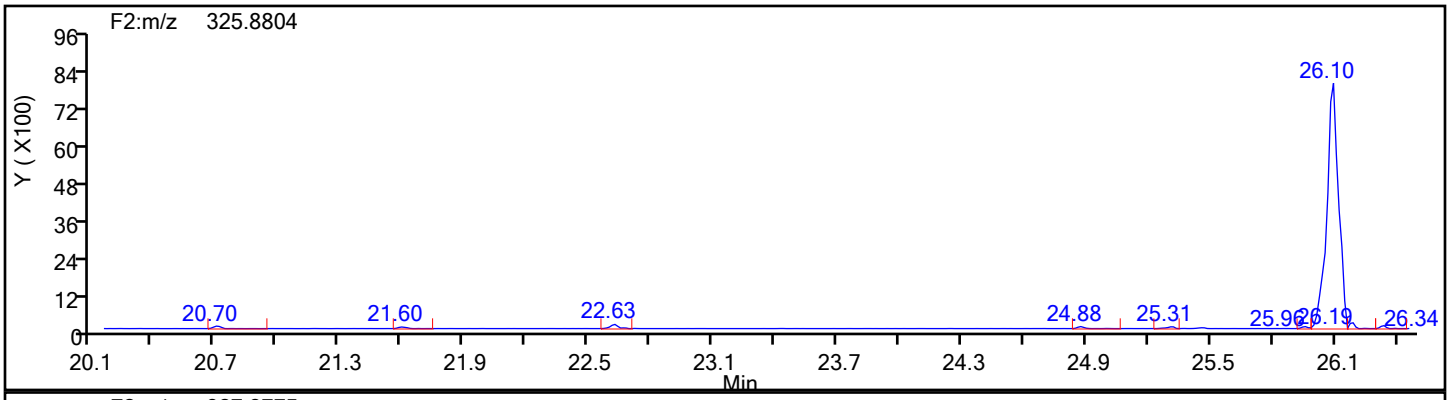
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

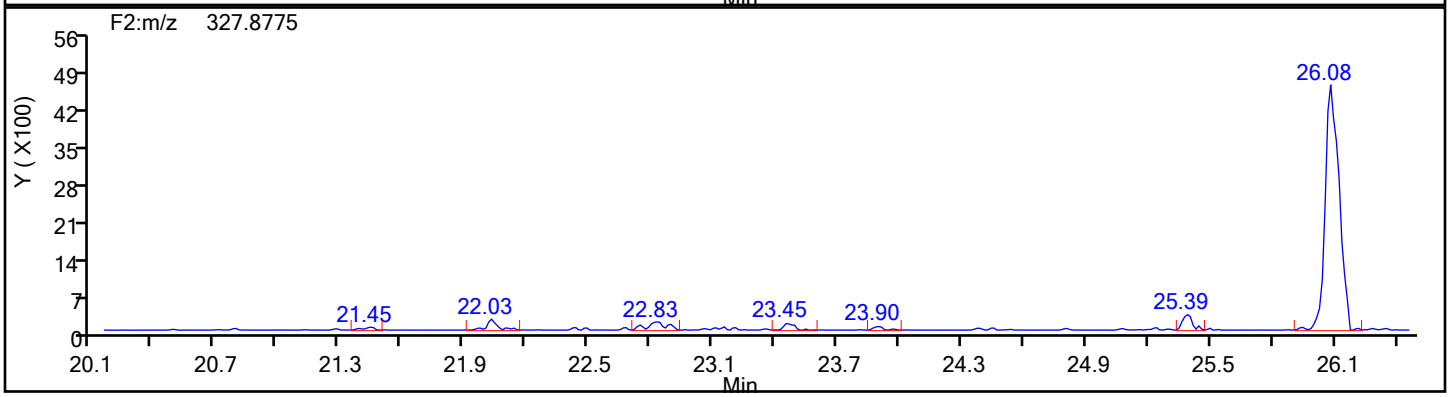
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

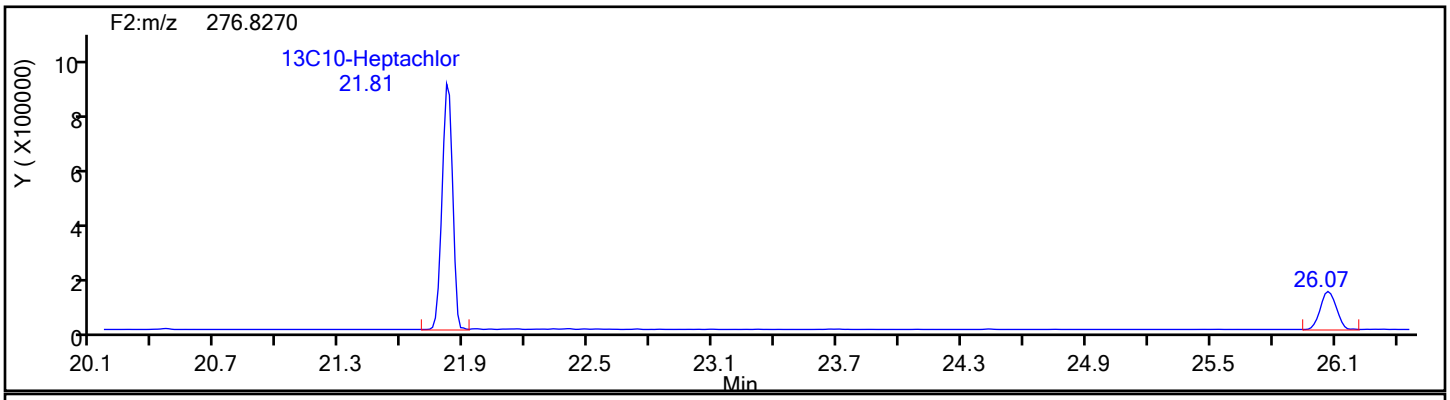
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

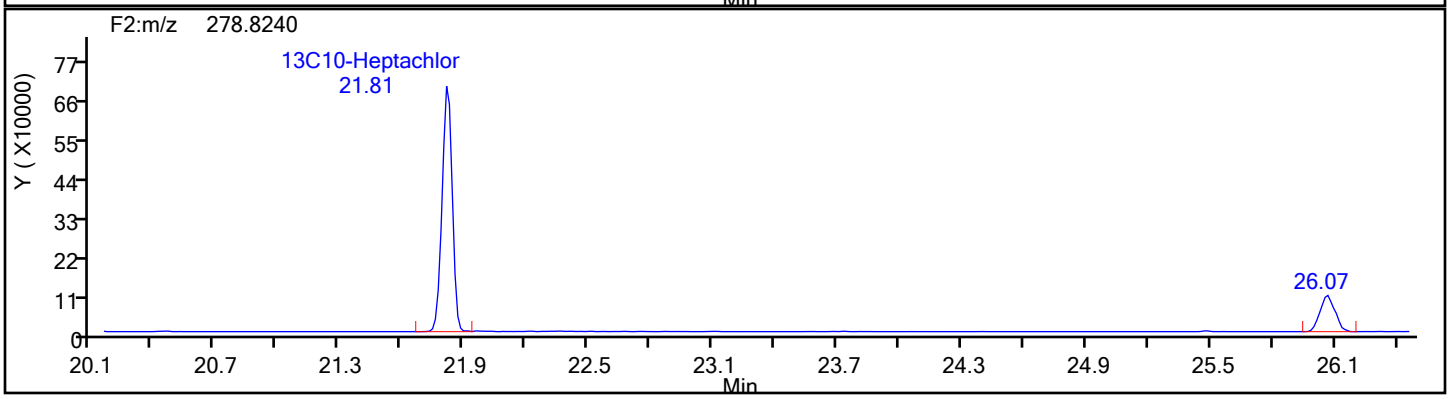
PCB-104





PCB-104 Standards



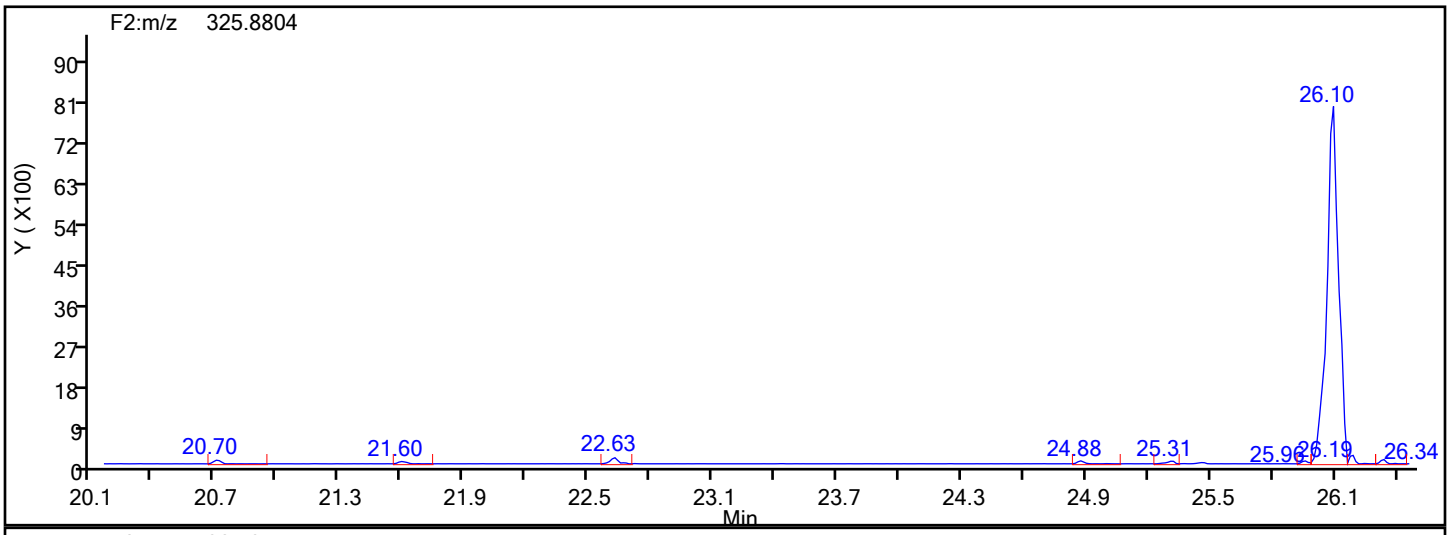


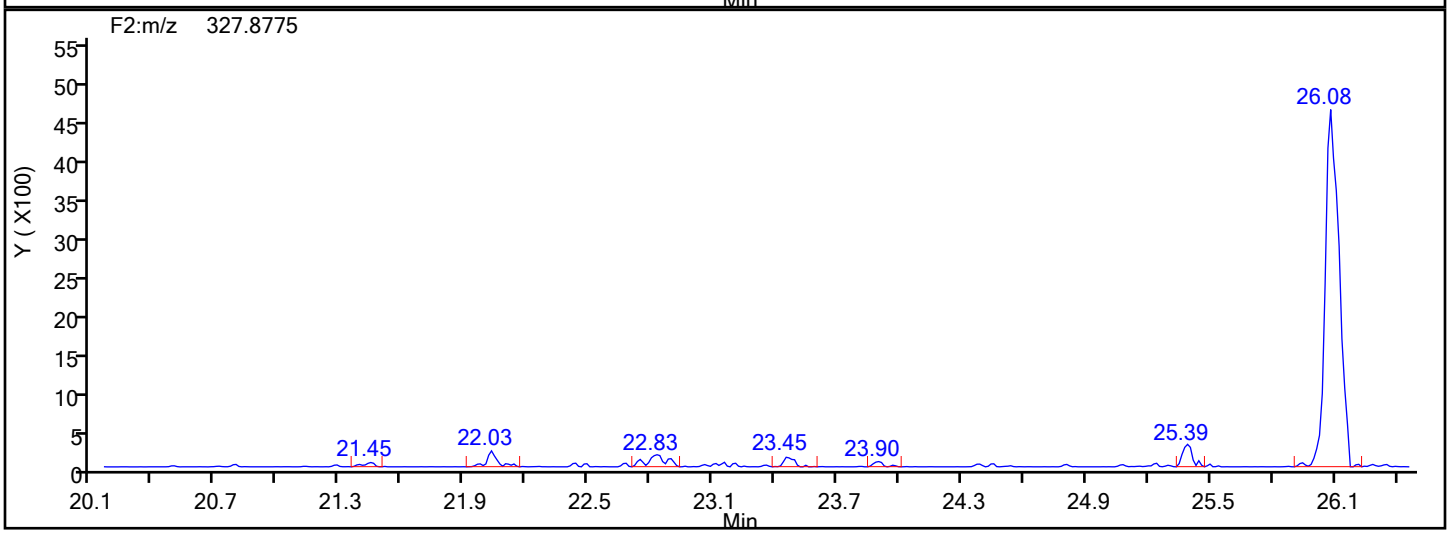
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

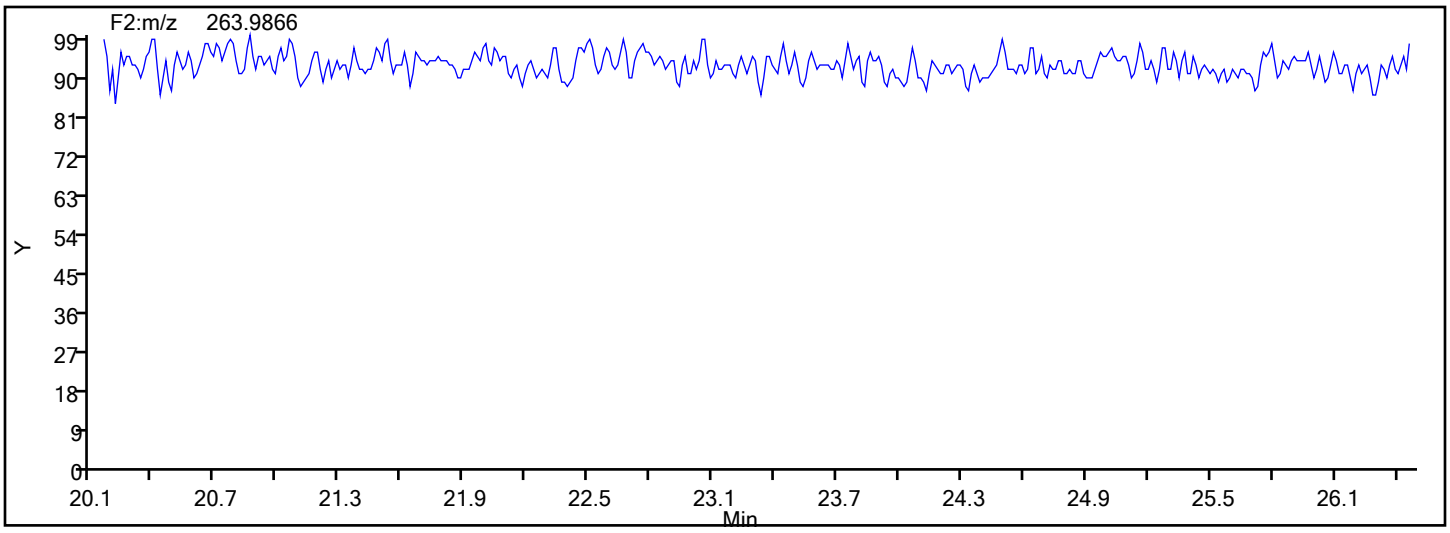
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



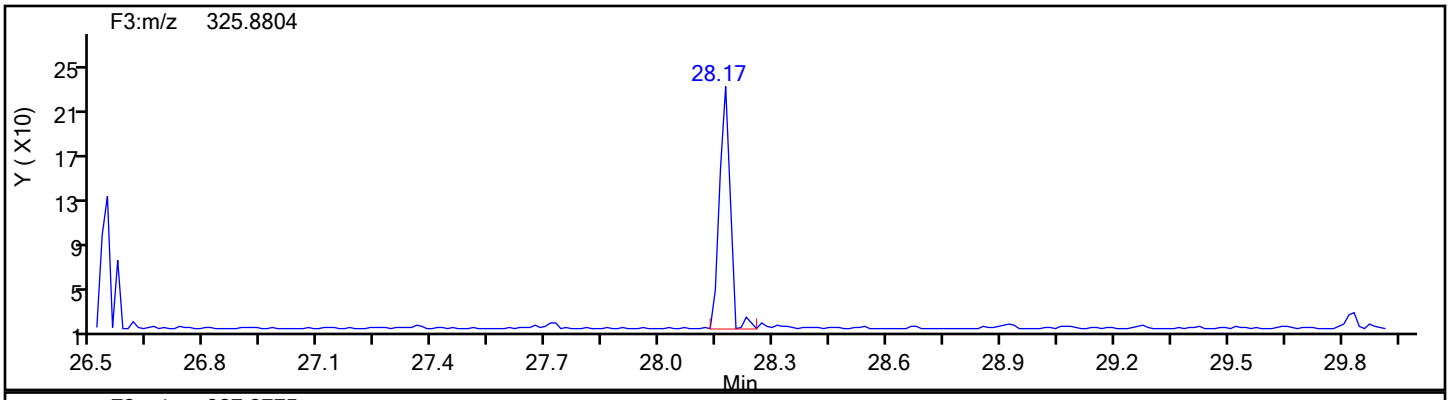
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

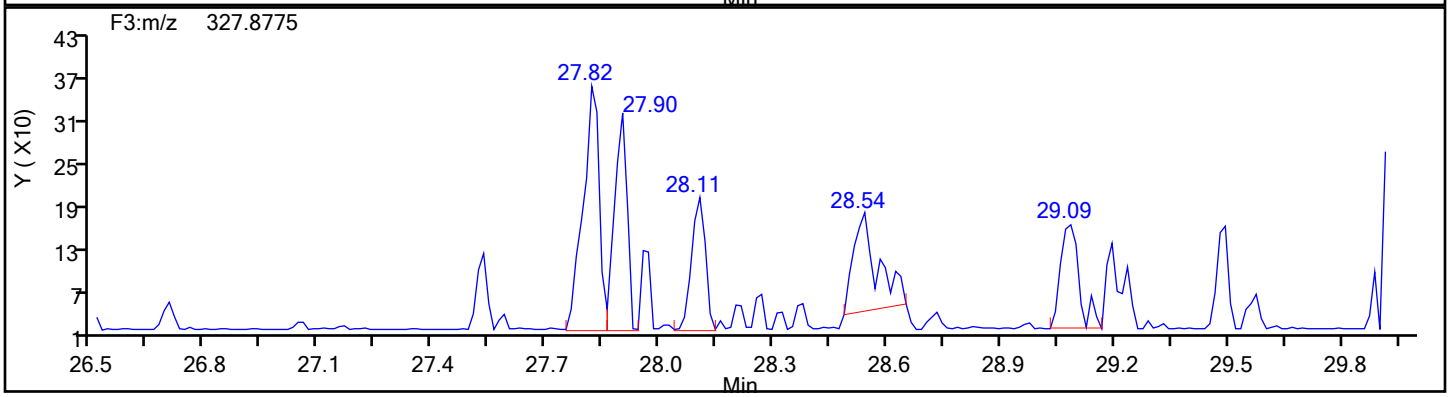
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

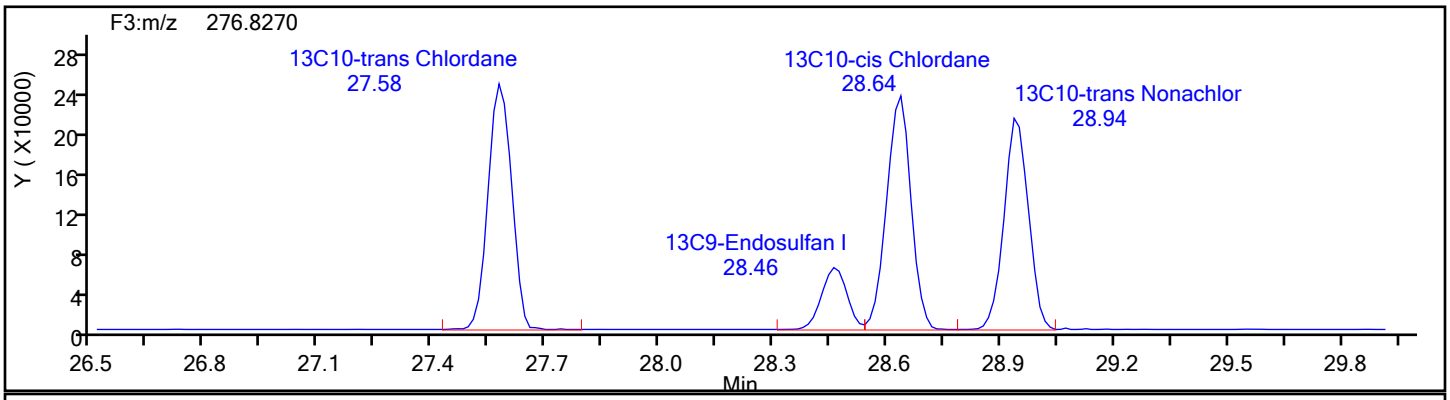
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

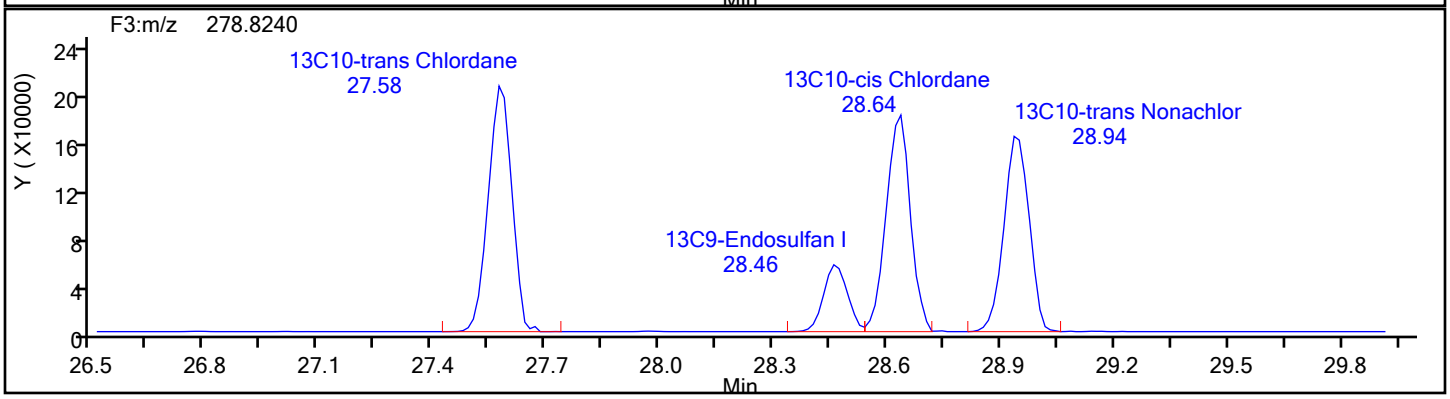
PCB-121





PCB-121 Standards



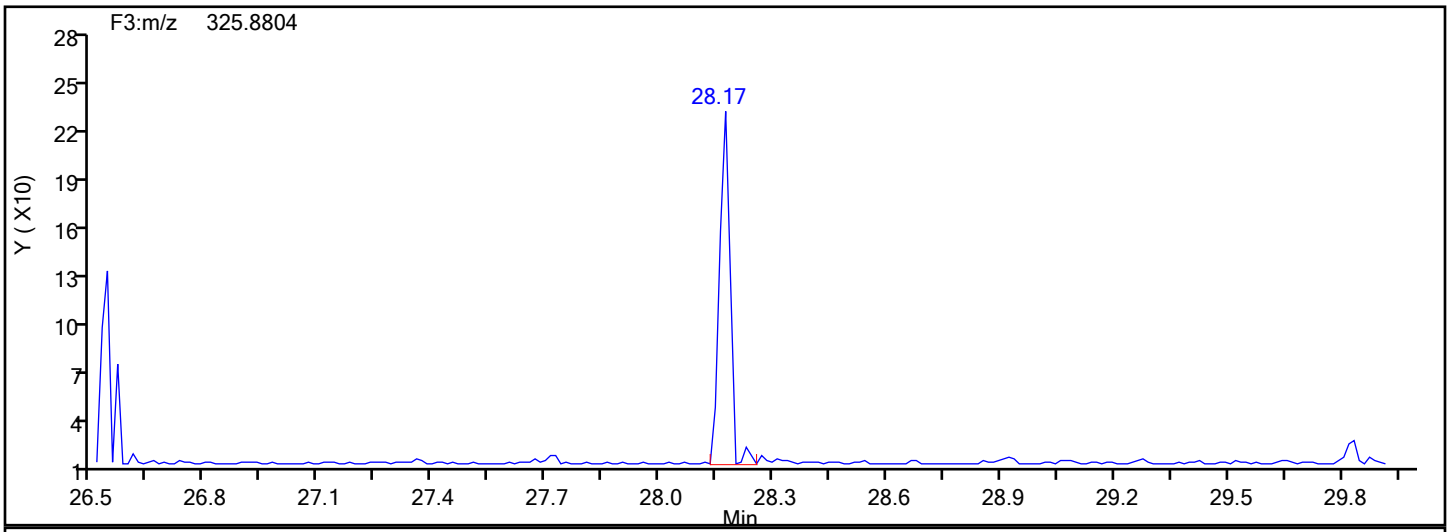


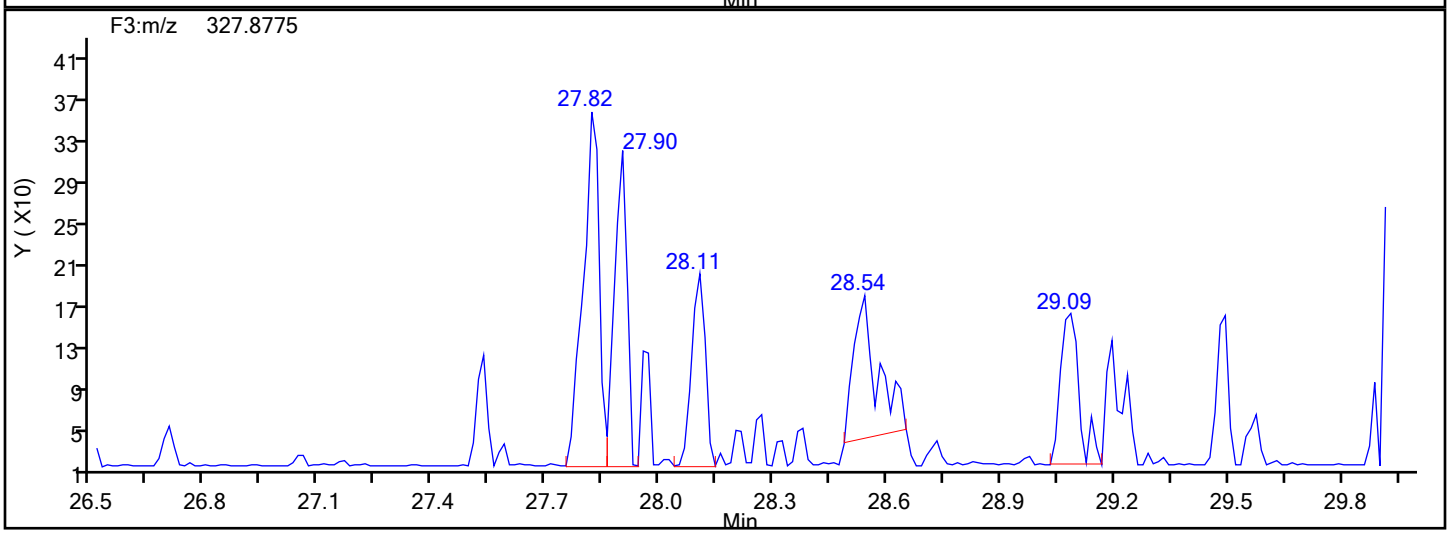
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

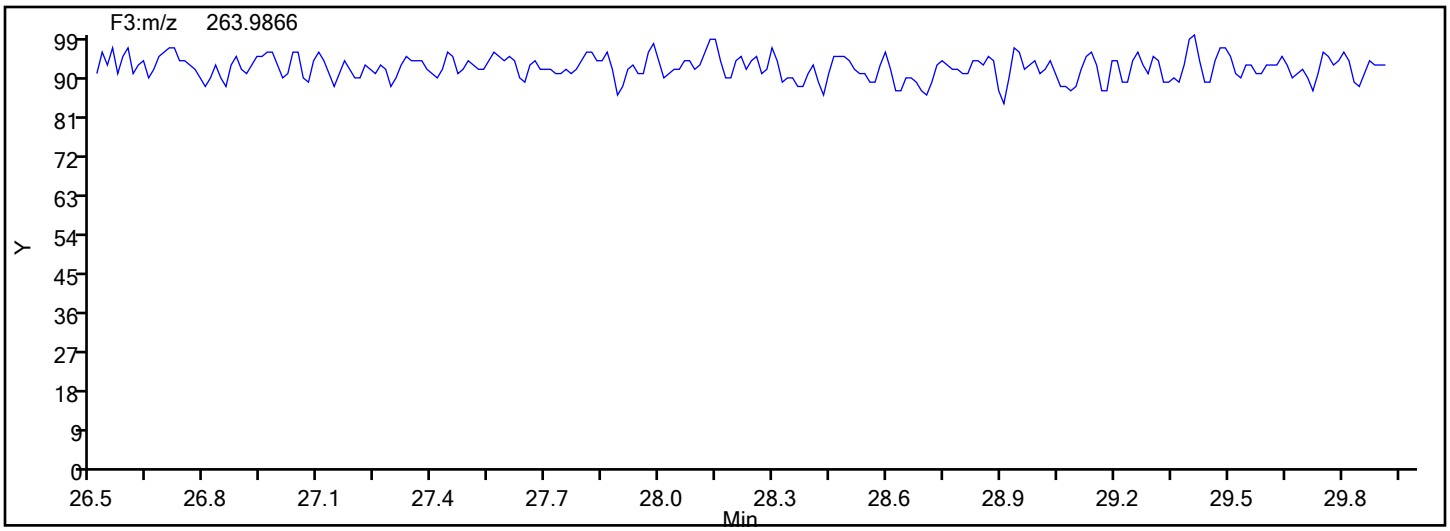
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass

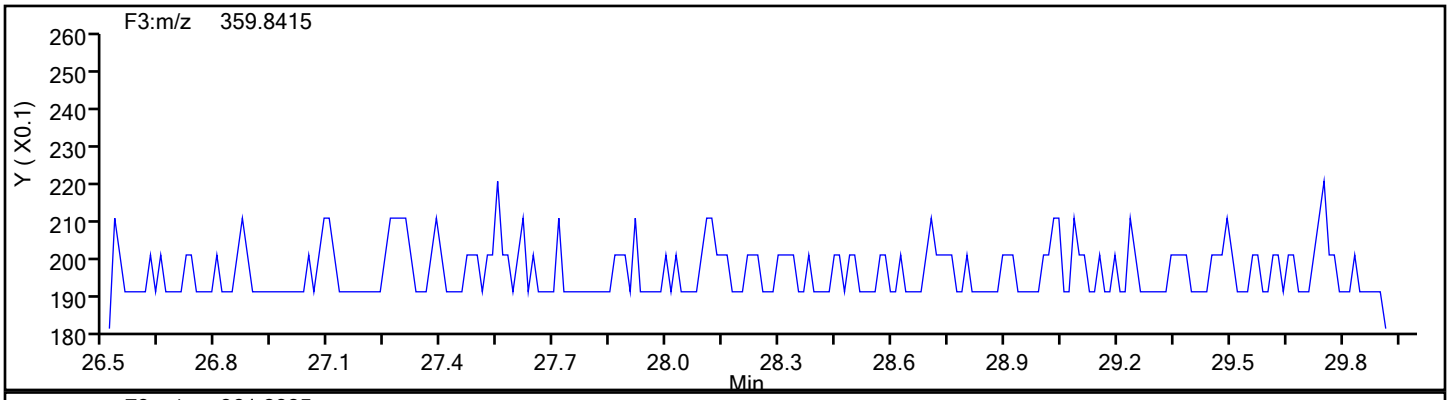


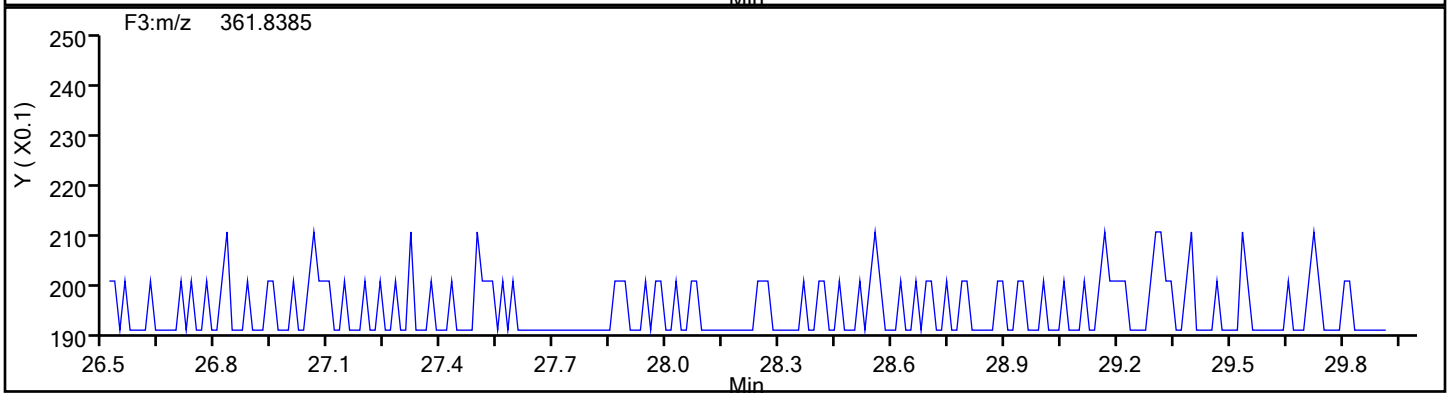
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

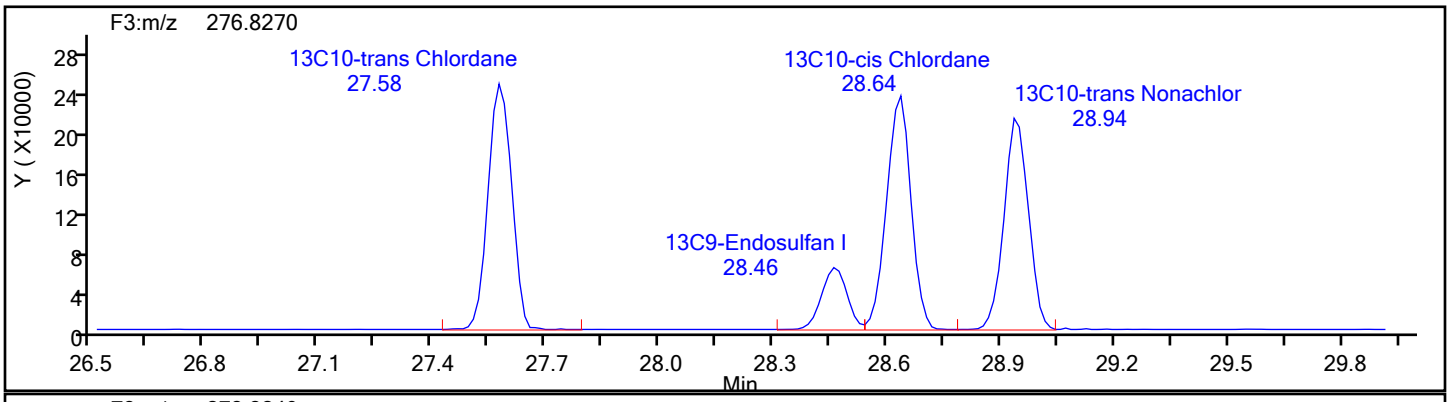
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

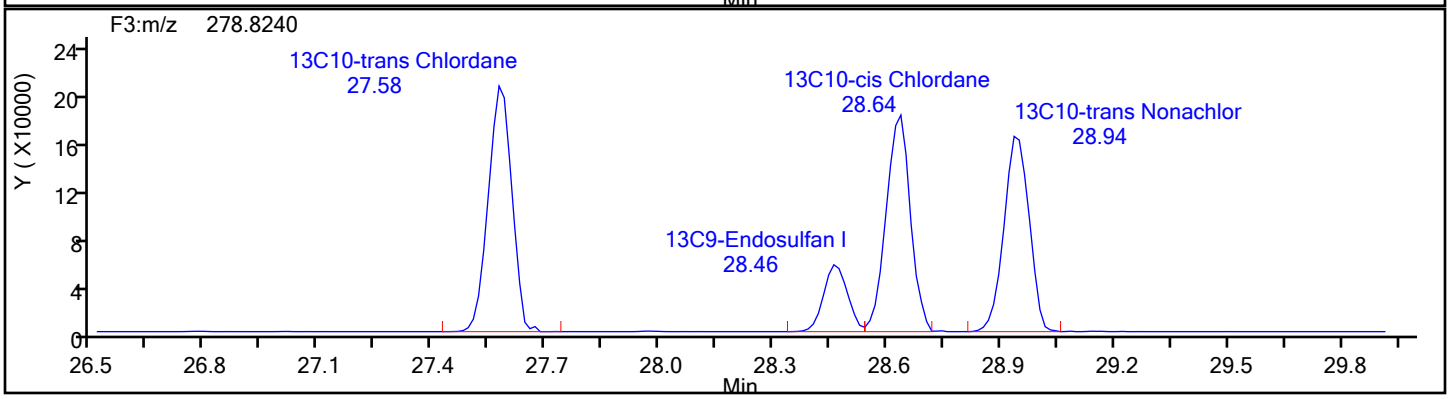
PCB-142





PCB-142 Standards



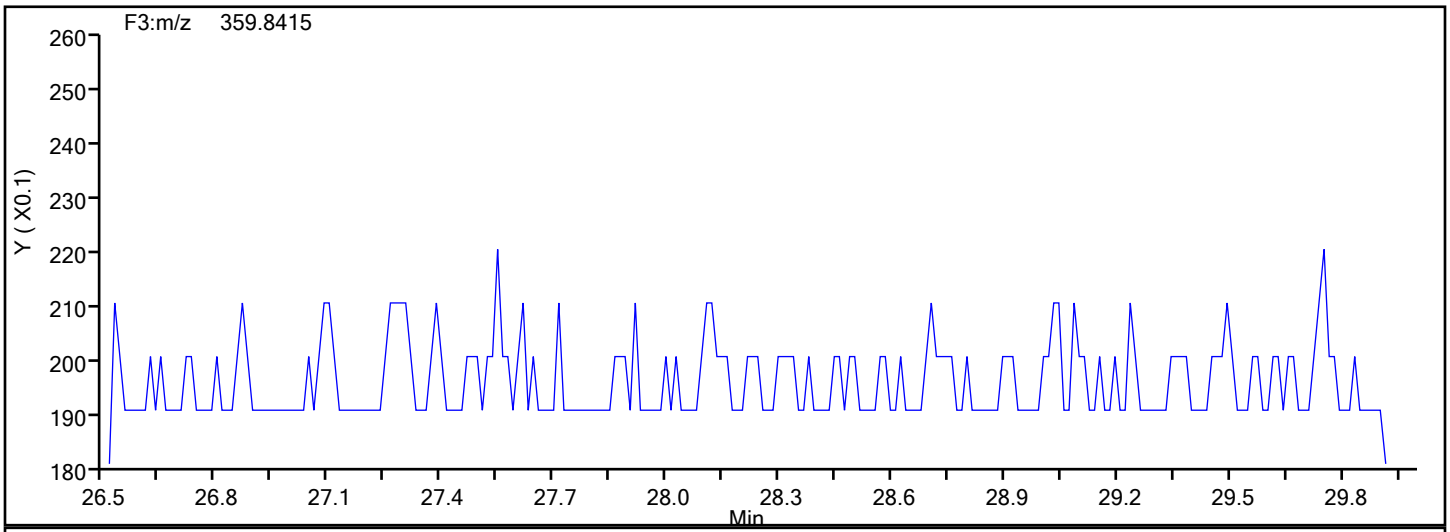


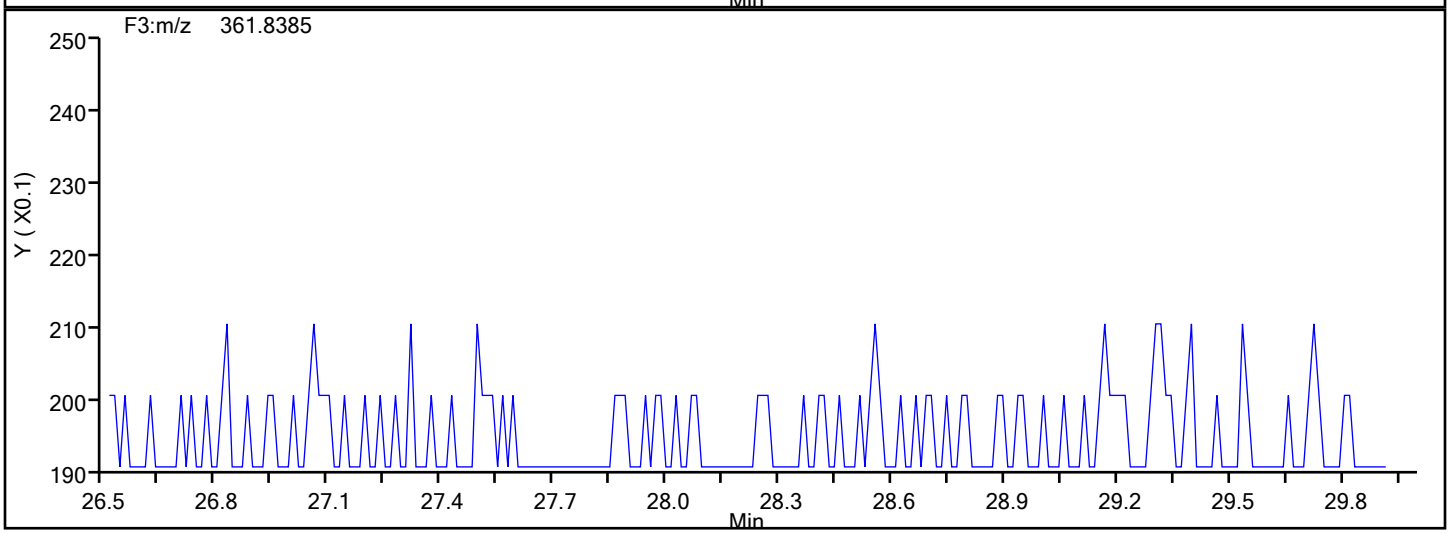
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

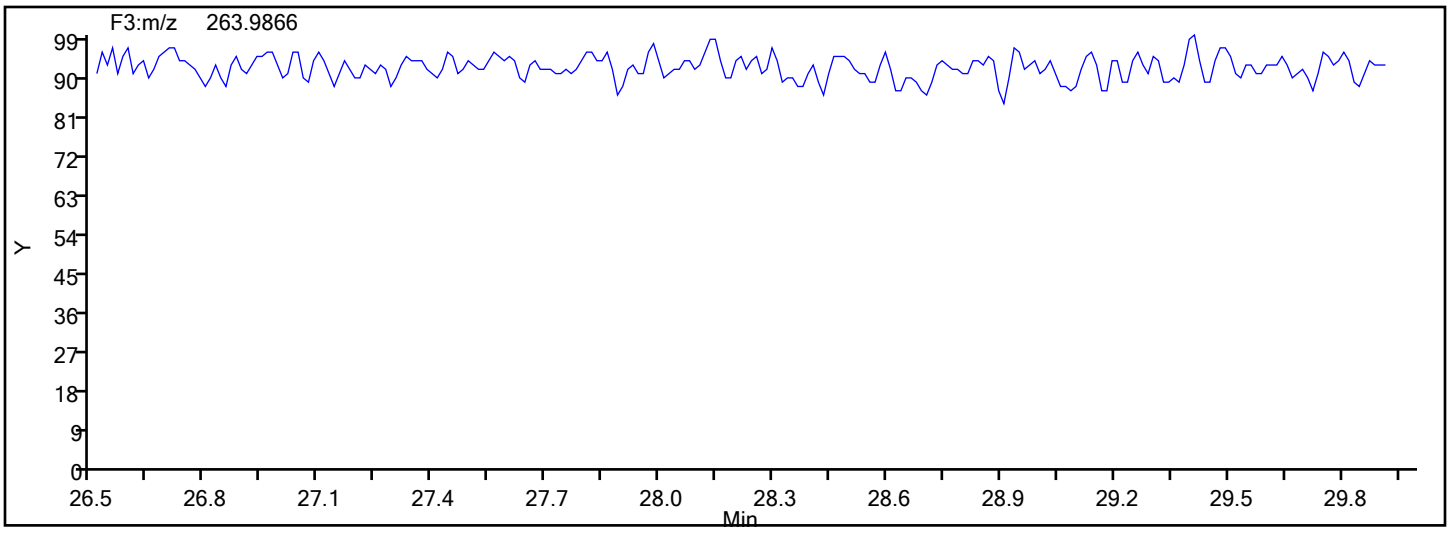
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



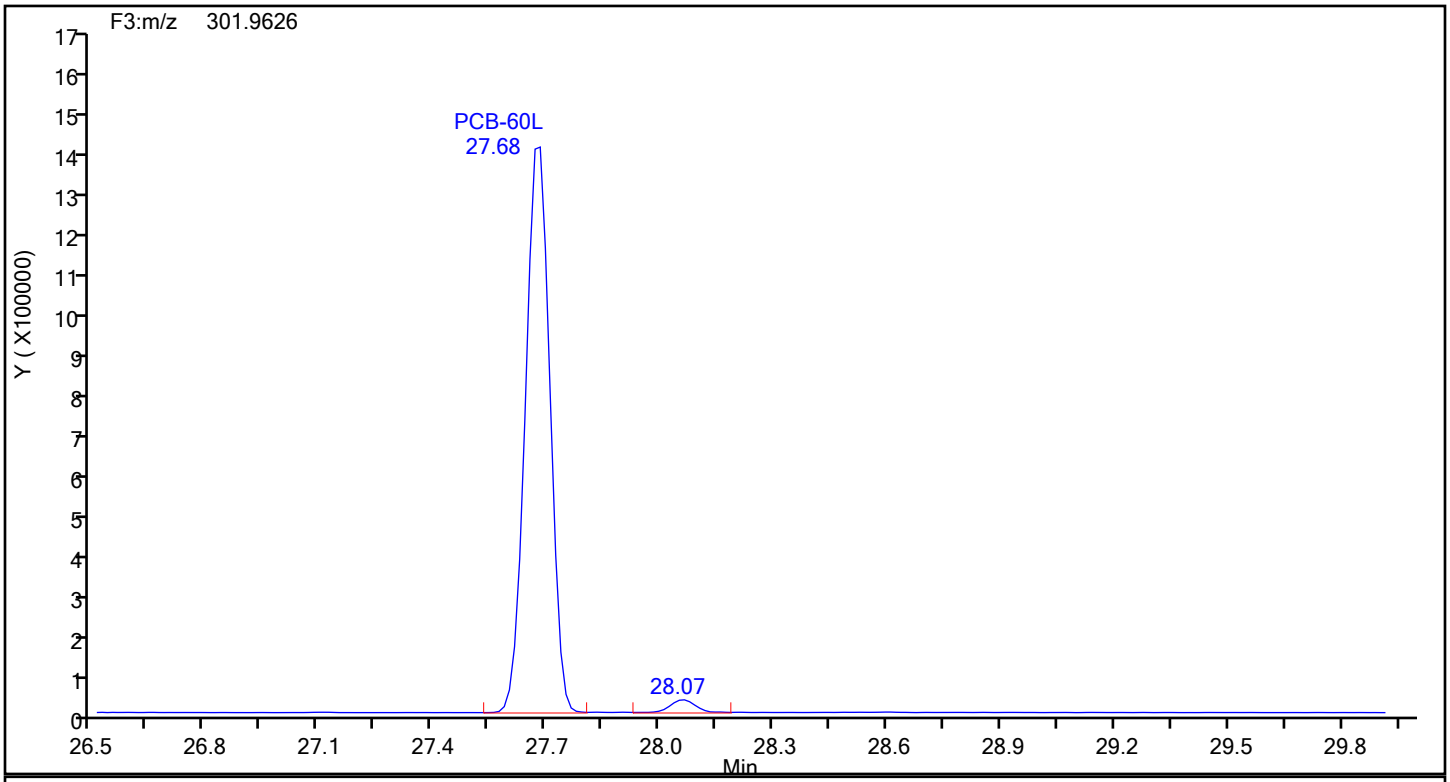
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

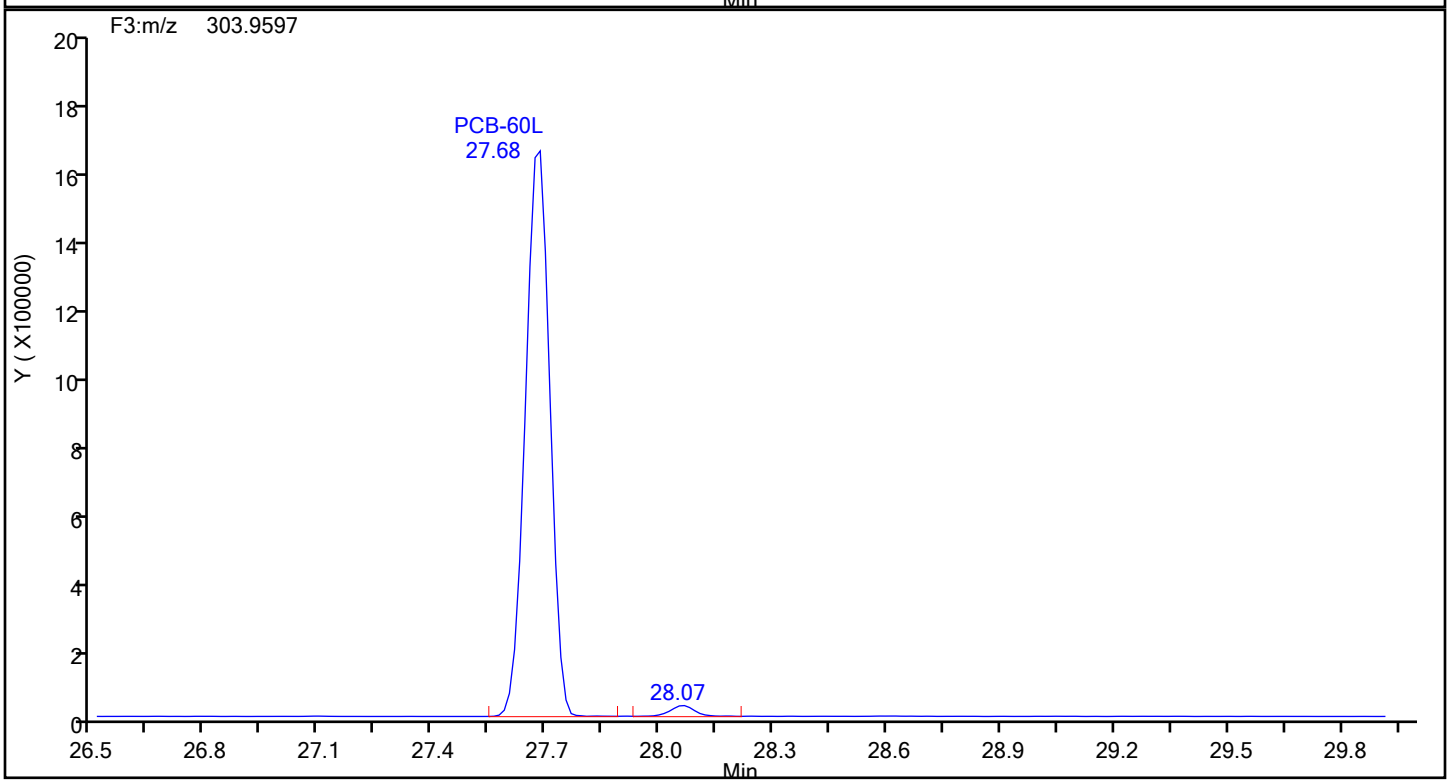
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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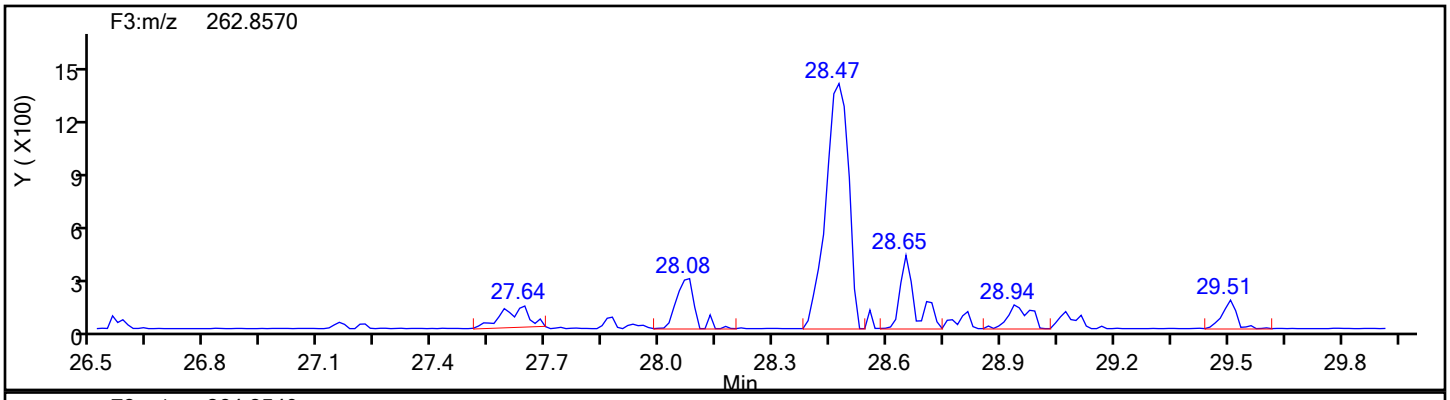
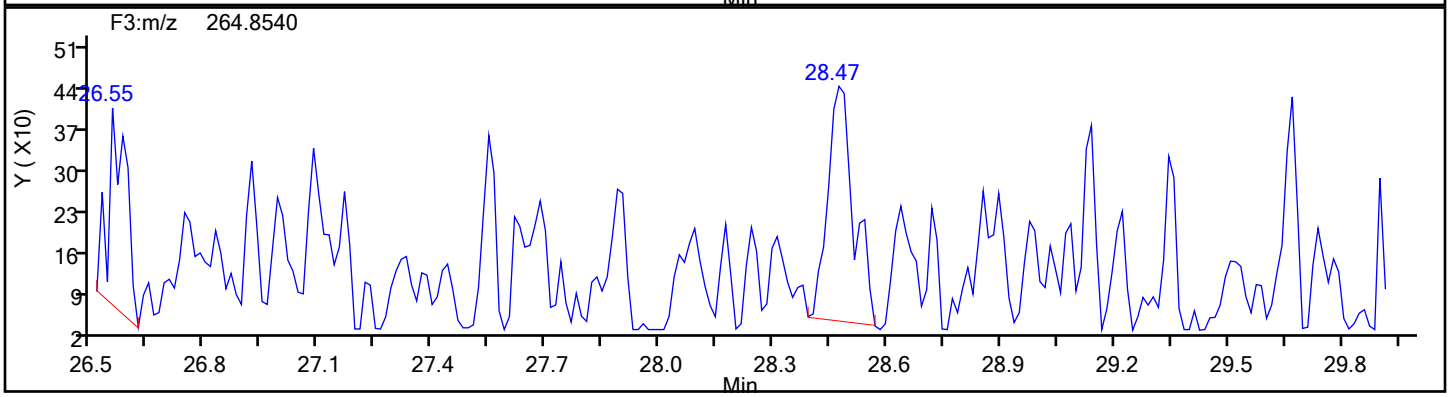
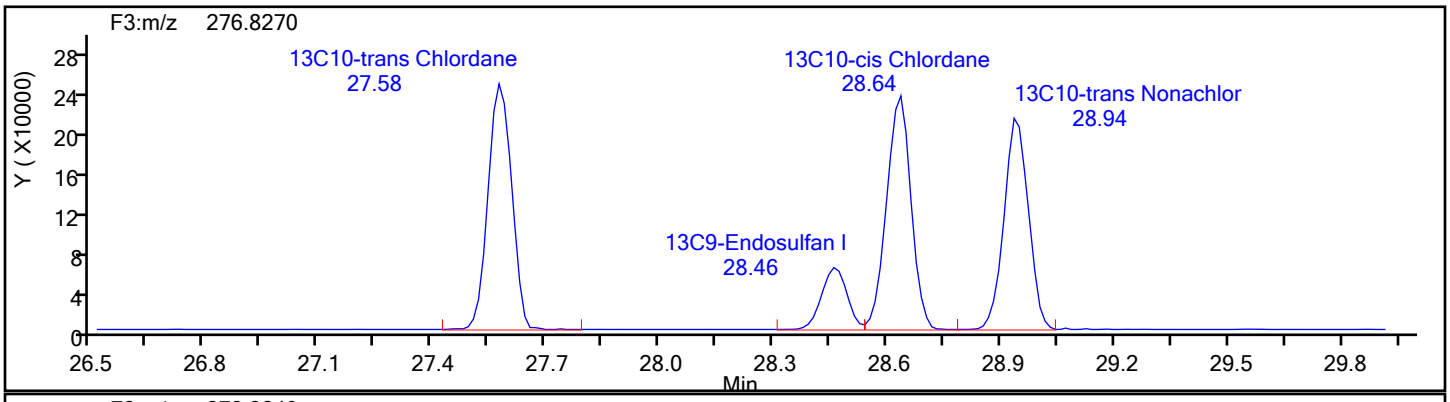
Column Type:	RTX-5	Column Dia:	0.32 mm

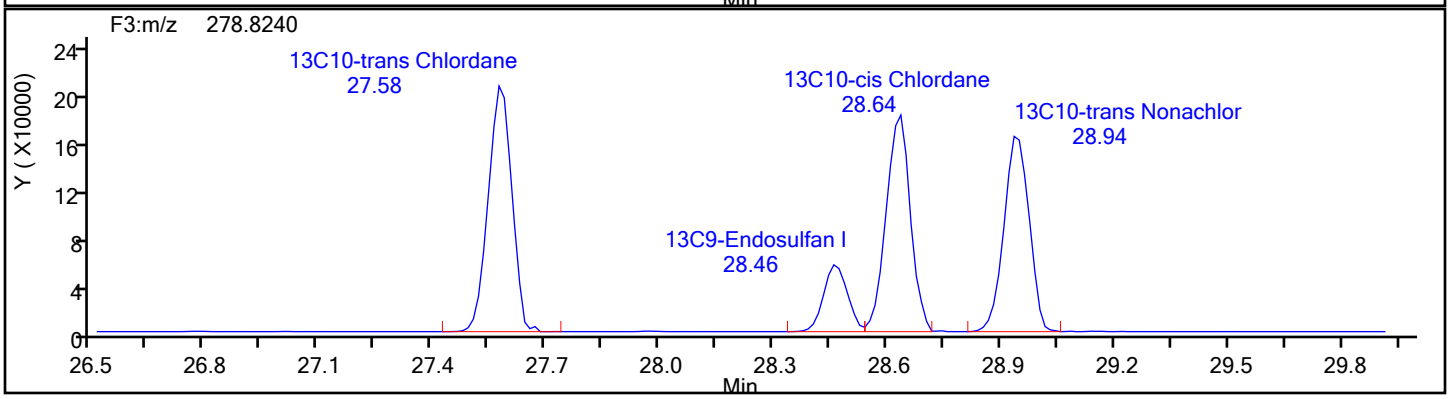
Endosulfan I





Endosulfan I Standards



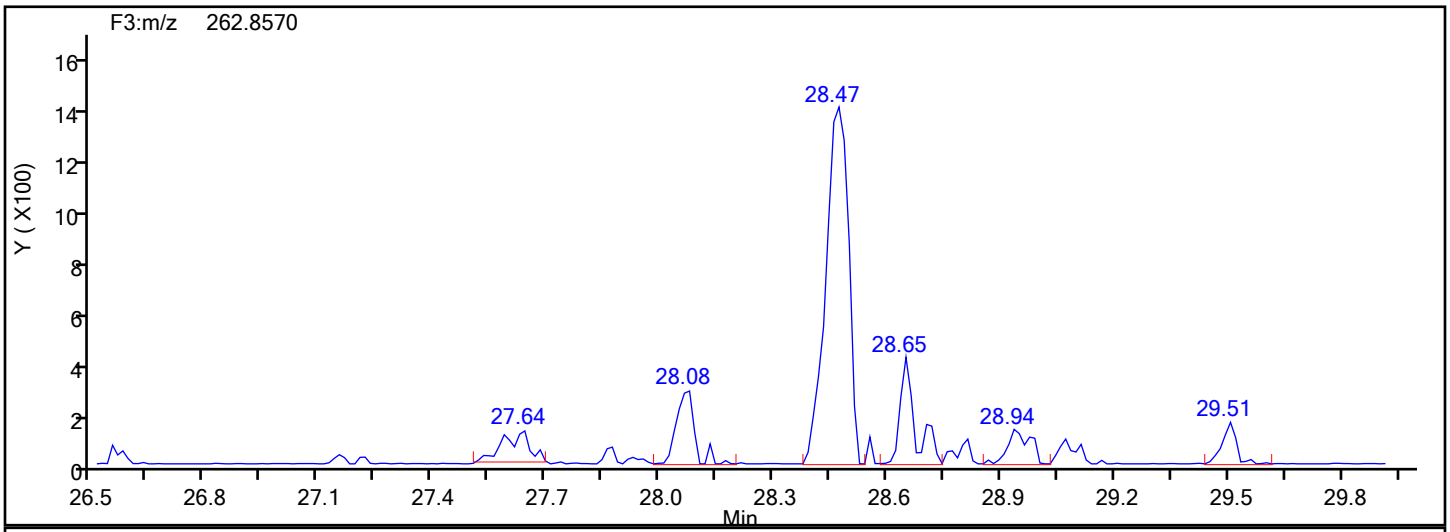


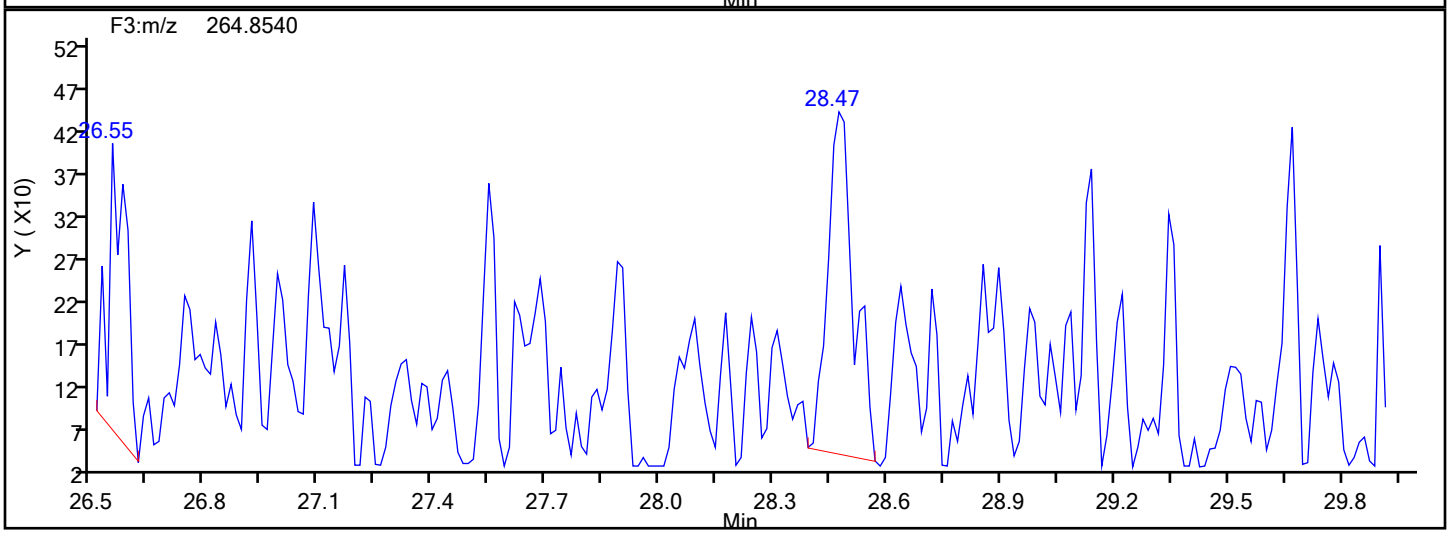
Report Date: 05-May-2025 18:00:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

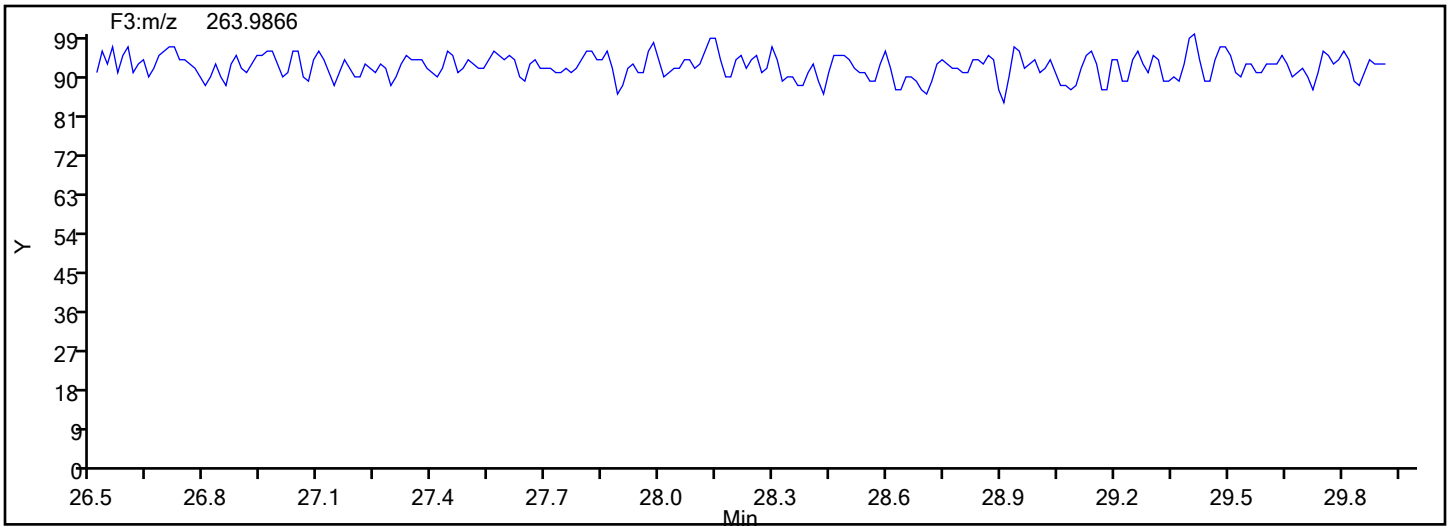
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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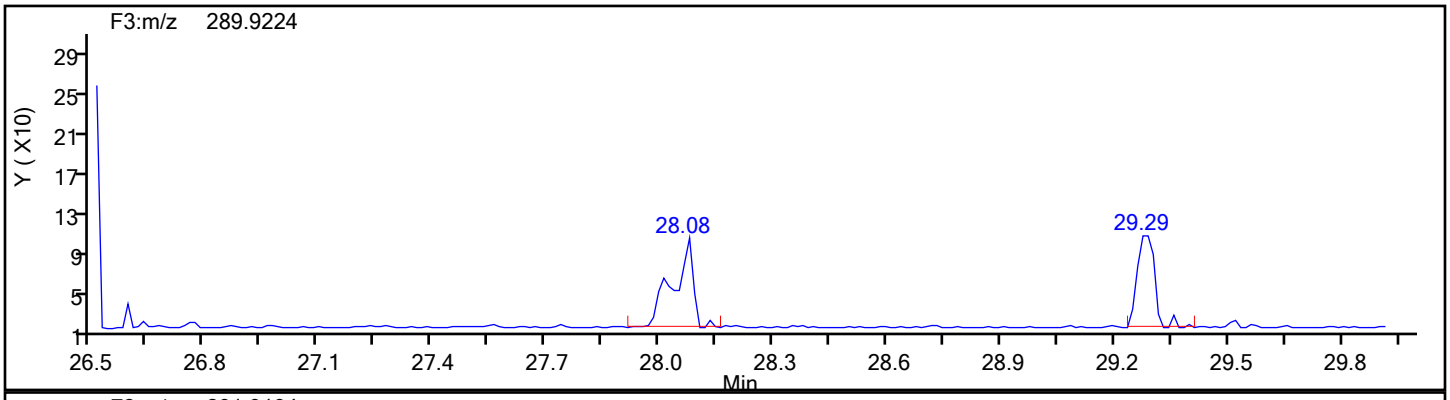
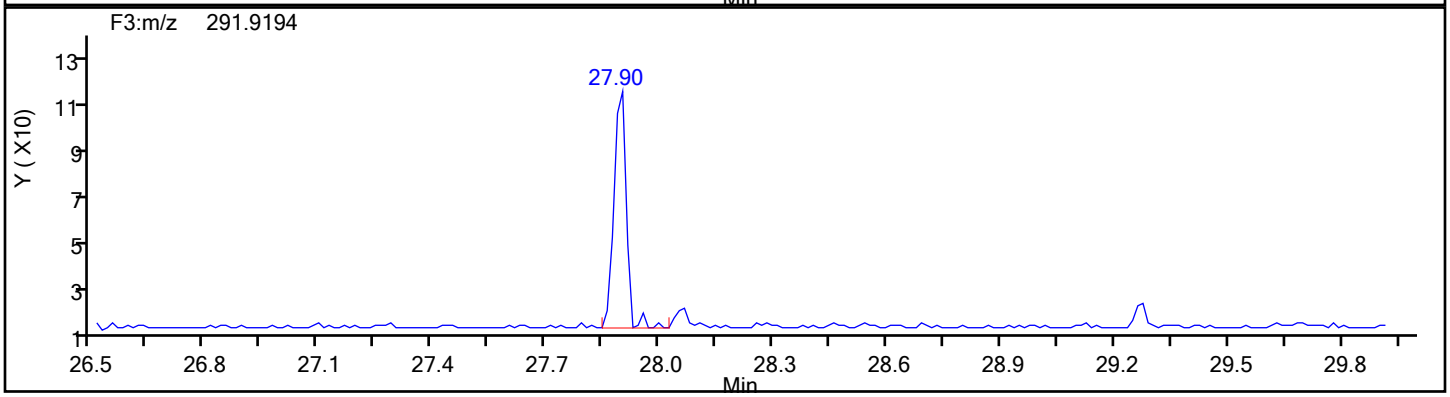
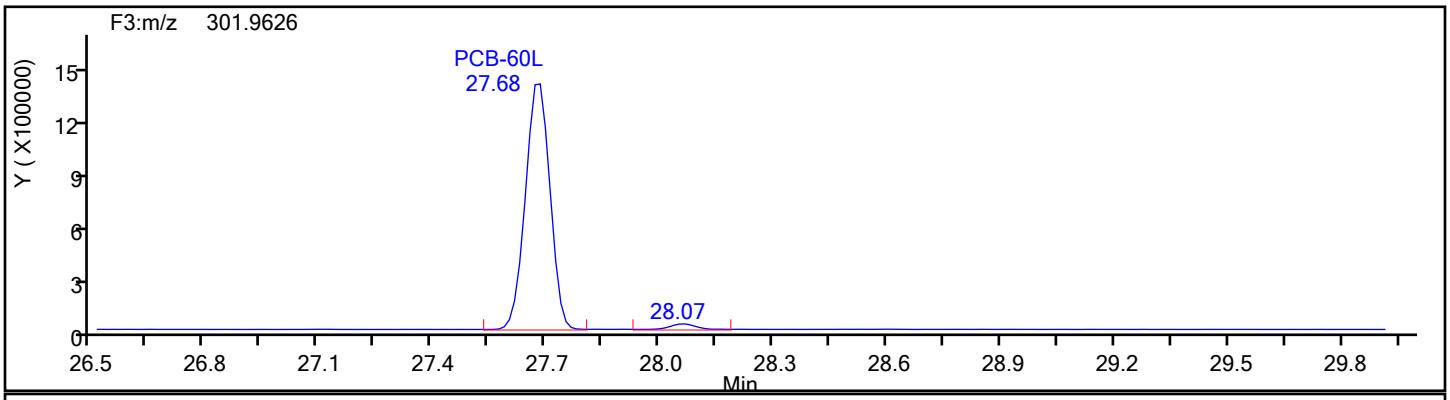
Column Type:	RTX-5	Column Dia:	0.32 mm

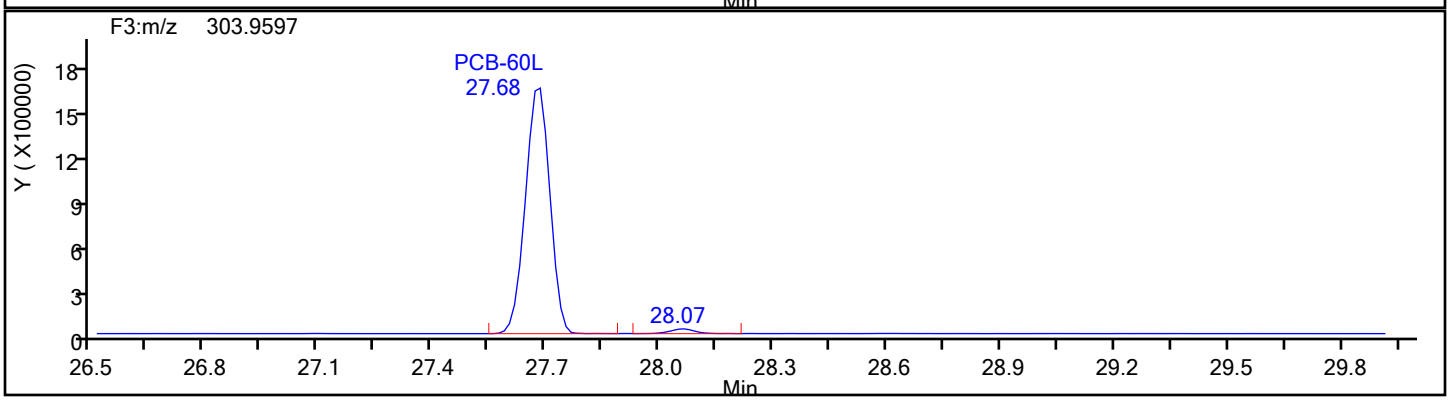
PCB-78





PCB-78 Standards





Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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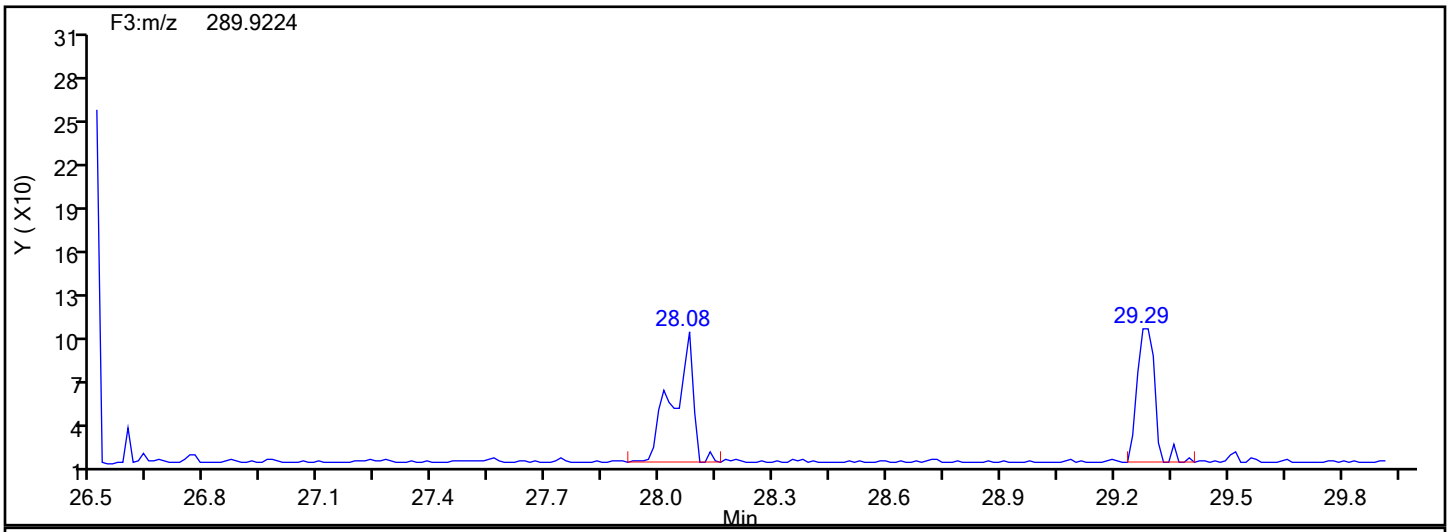
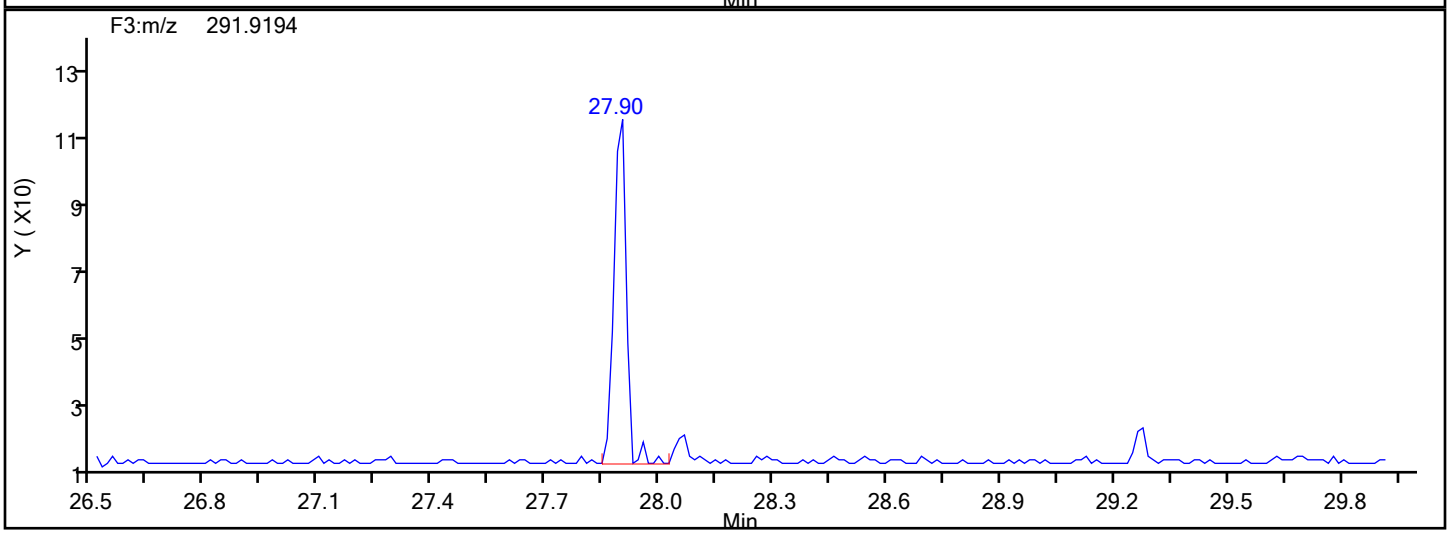
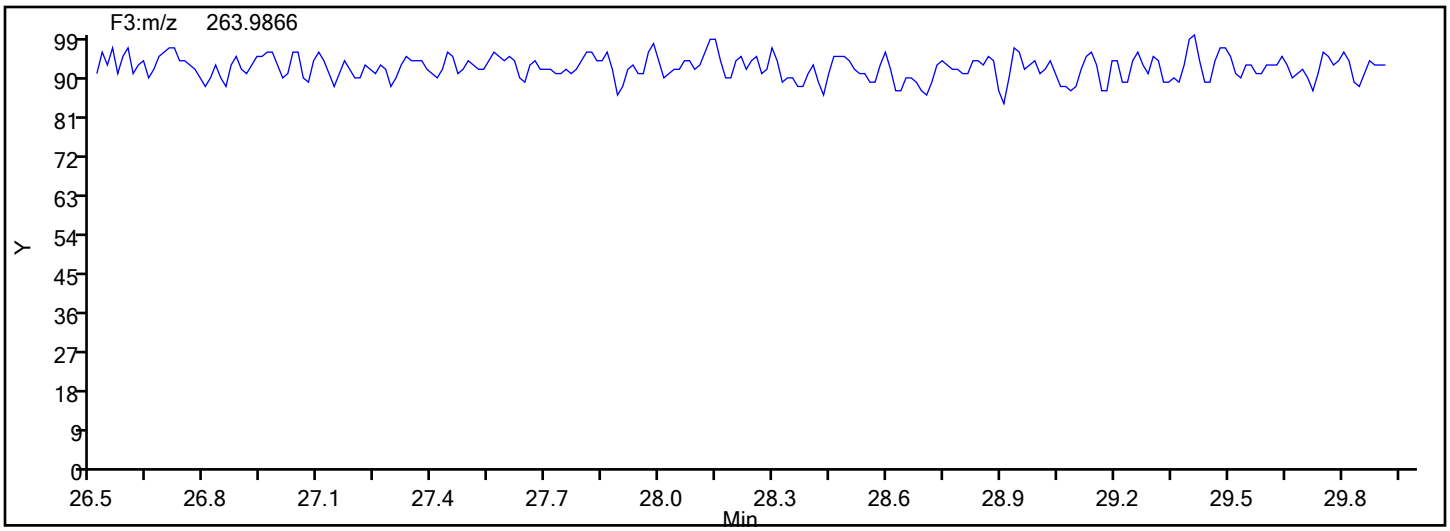
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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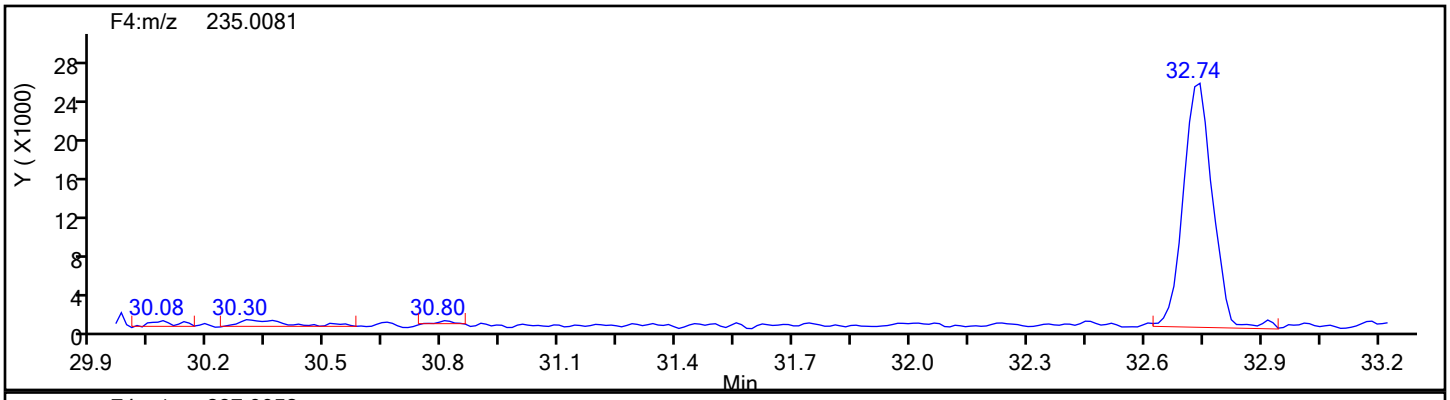
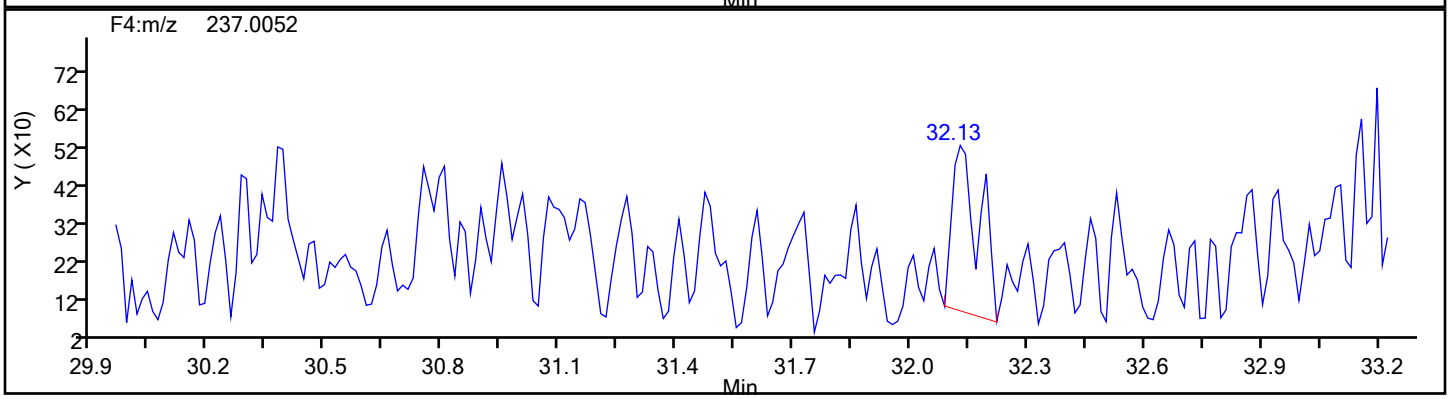
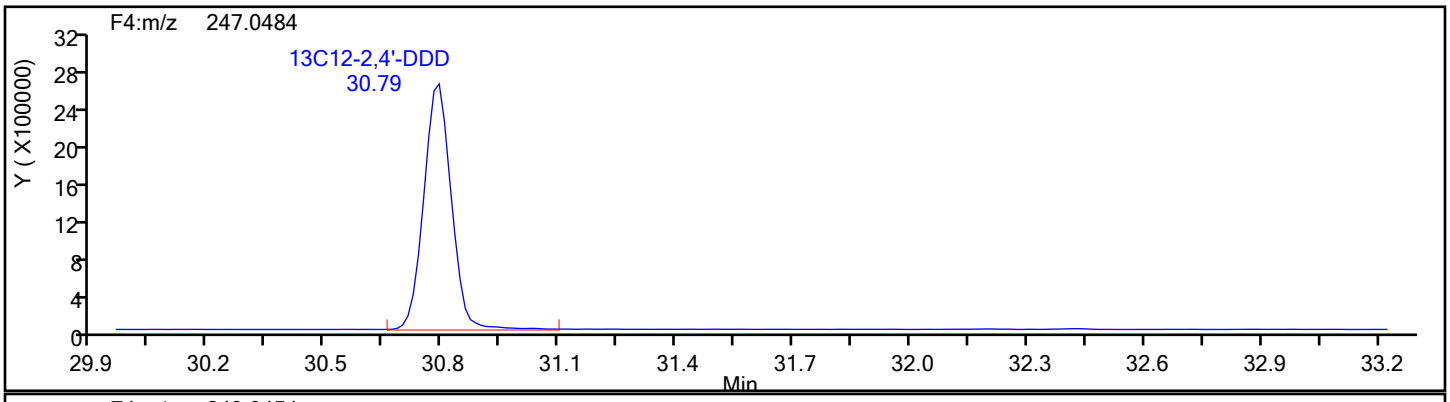
Column Type:	RTX-5	Column Dia:	0.32 mm

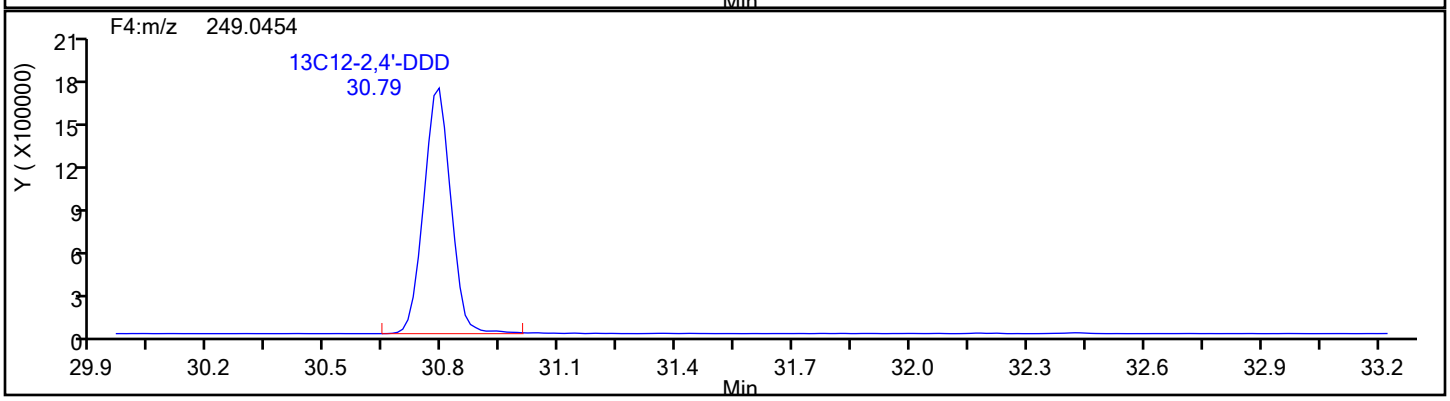
2,4'-DDD





2,4'-DDD Standards





Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
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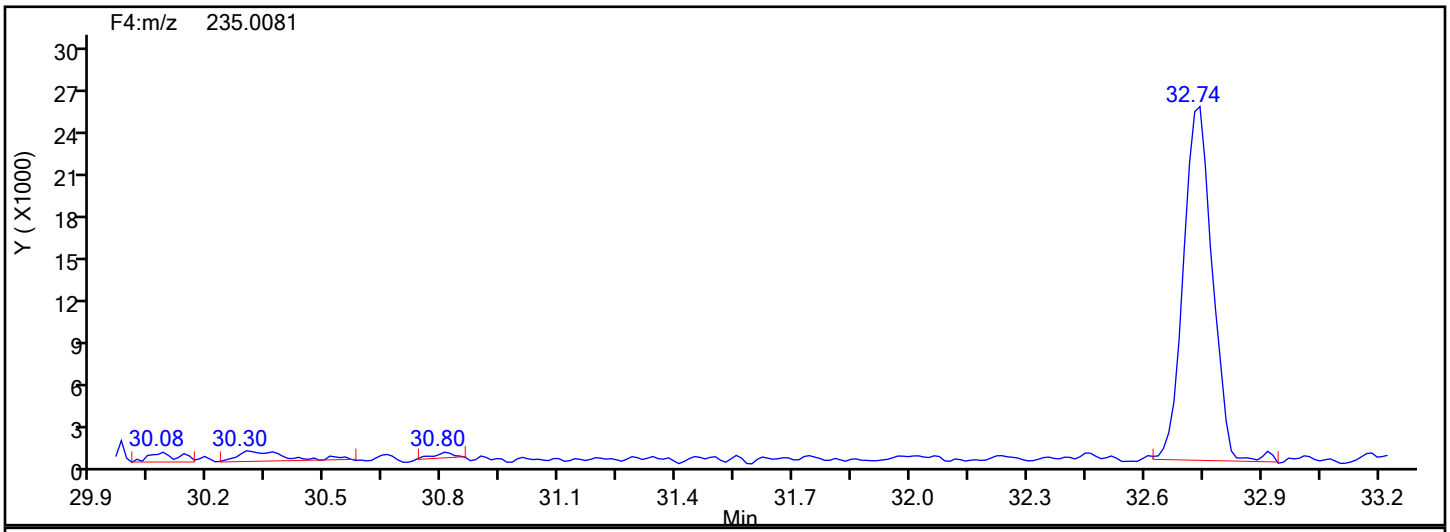
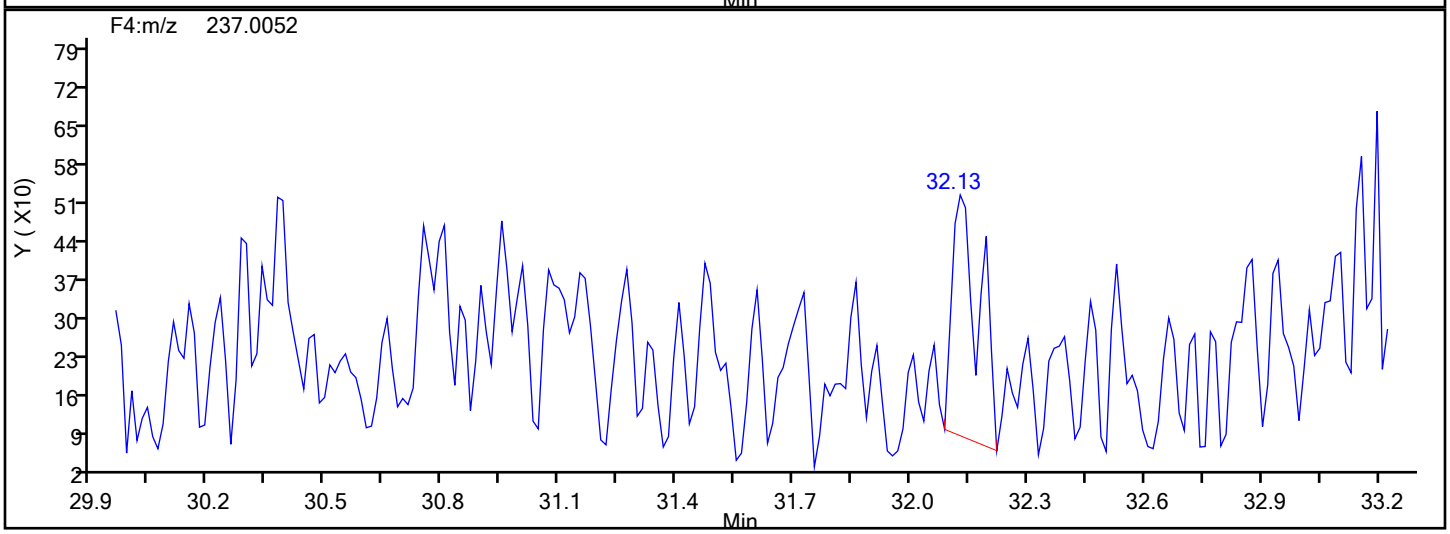
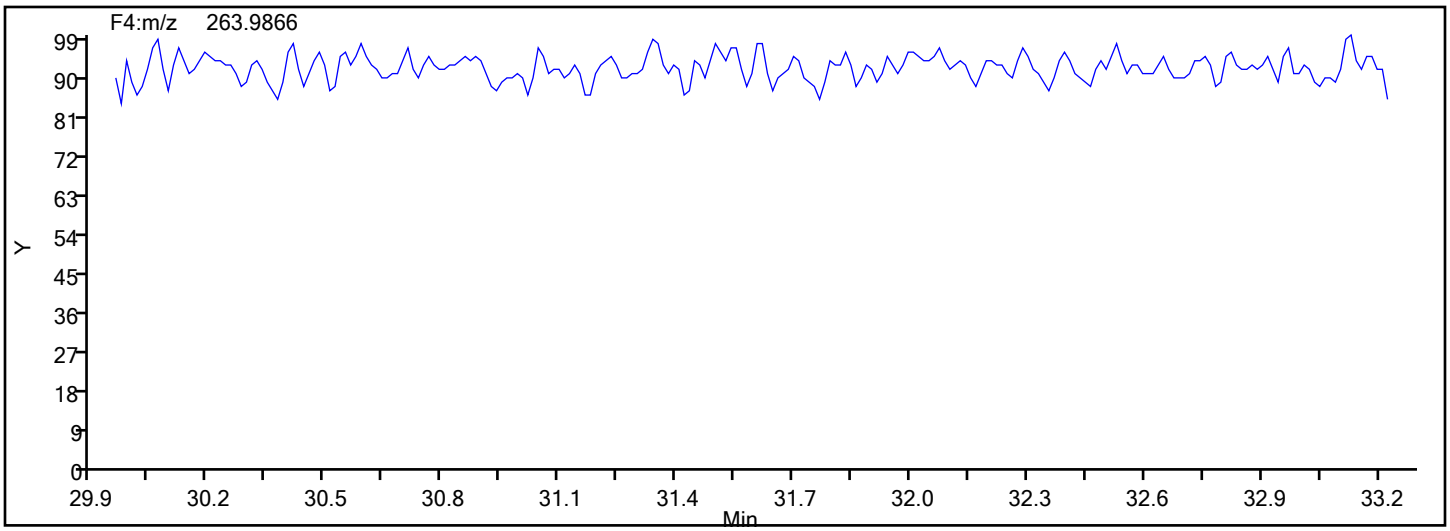
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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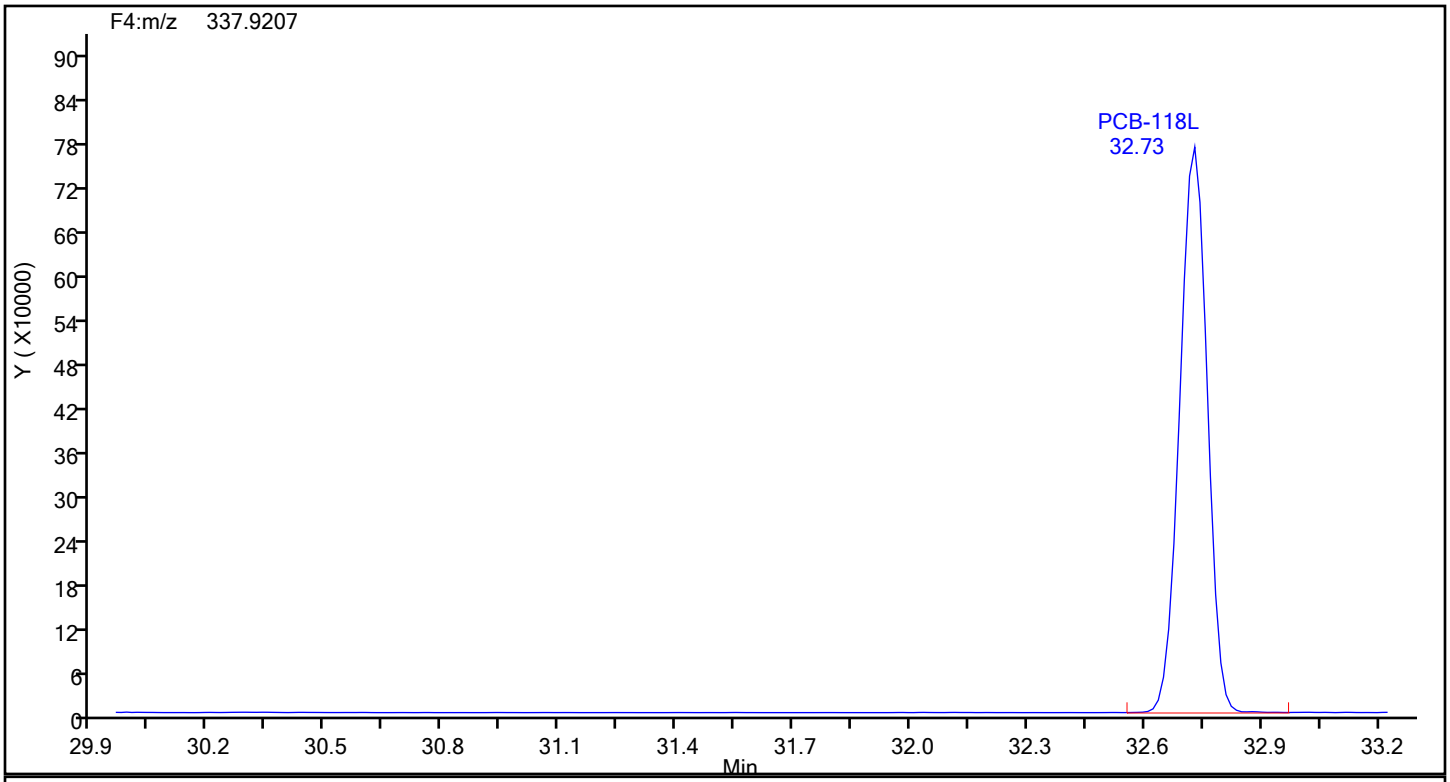
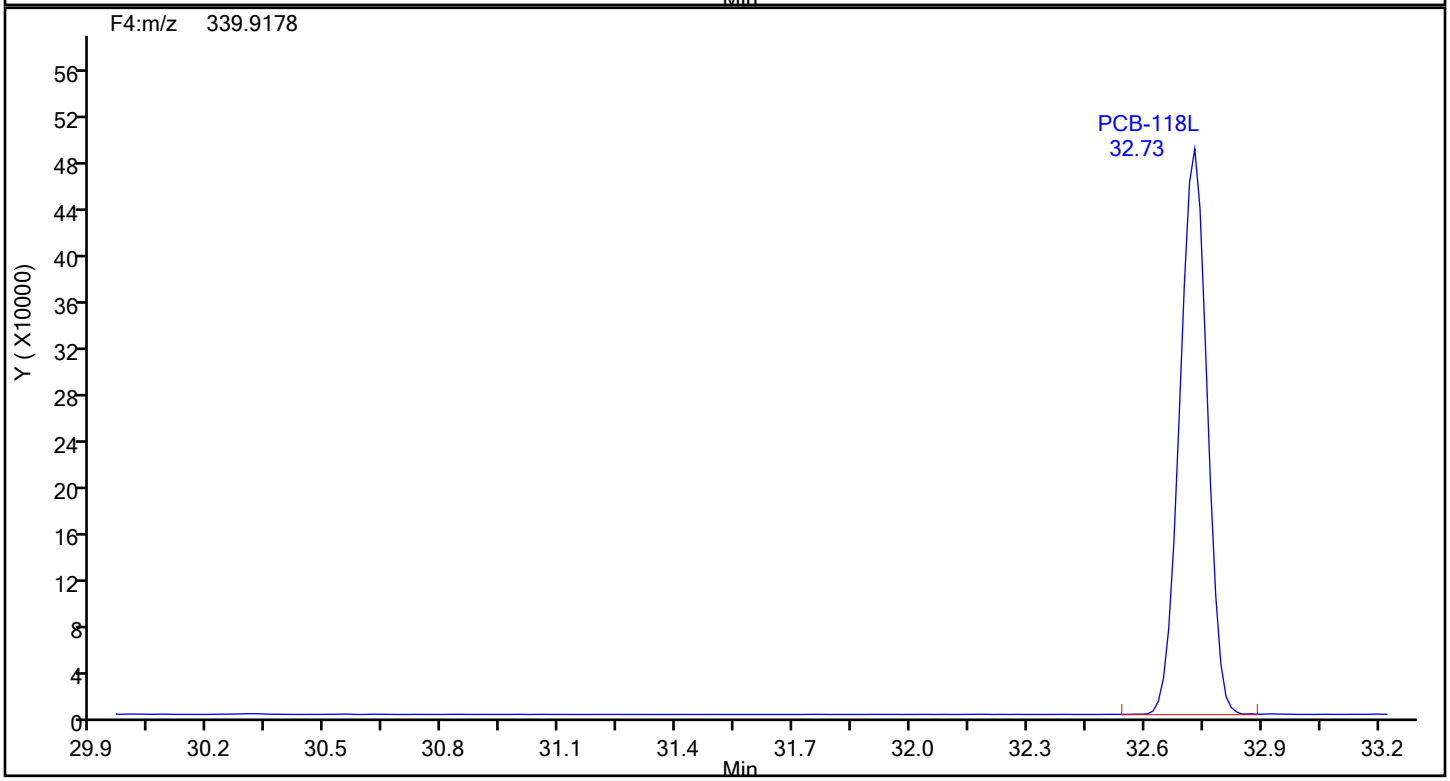
PCB-118L Standards





Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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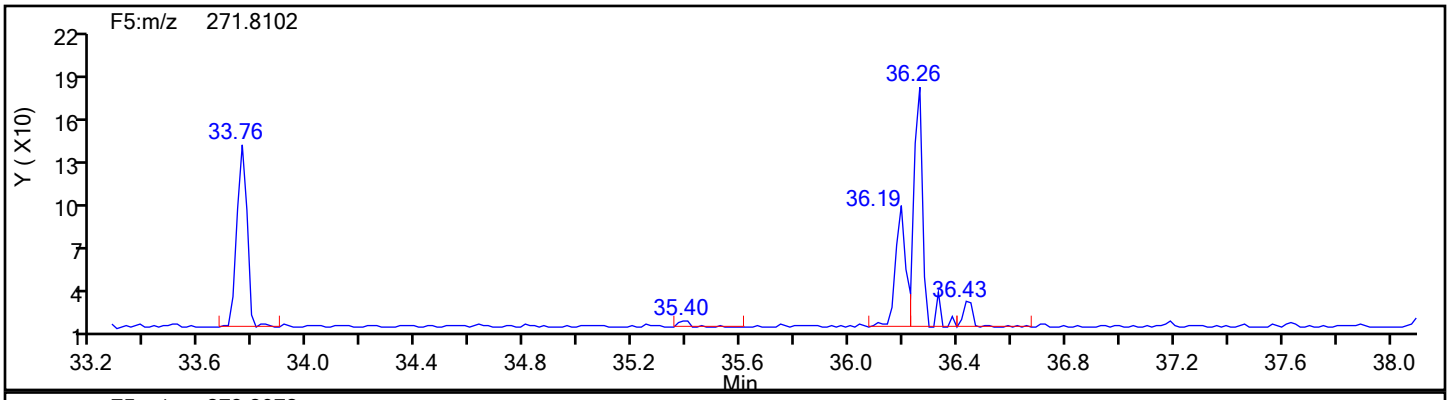
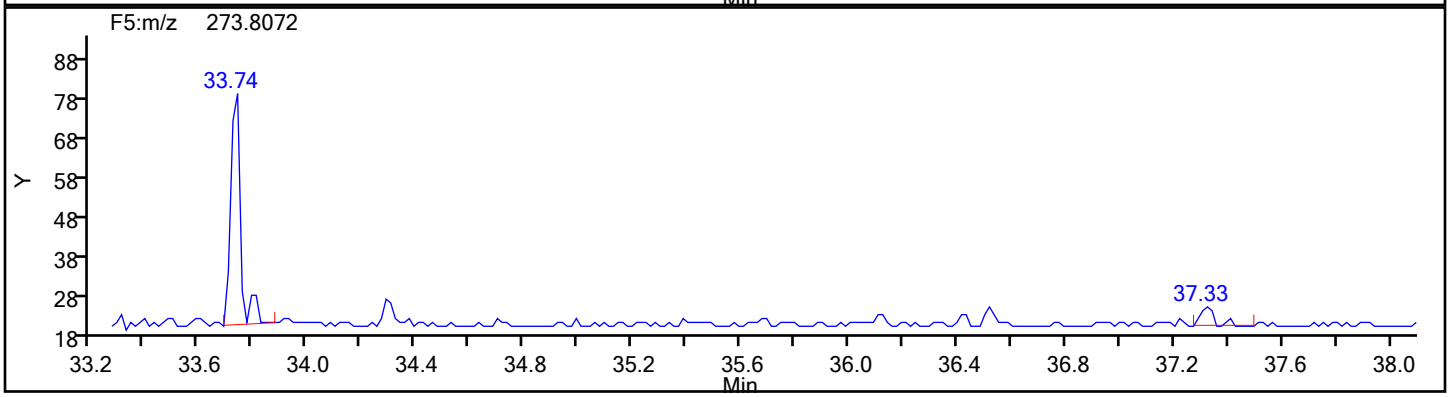
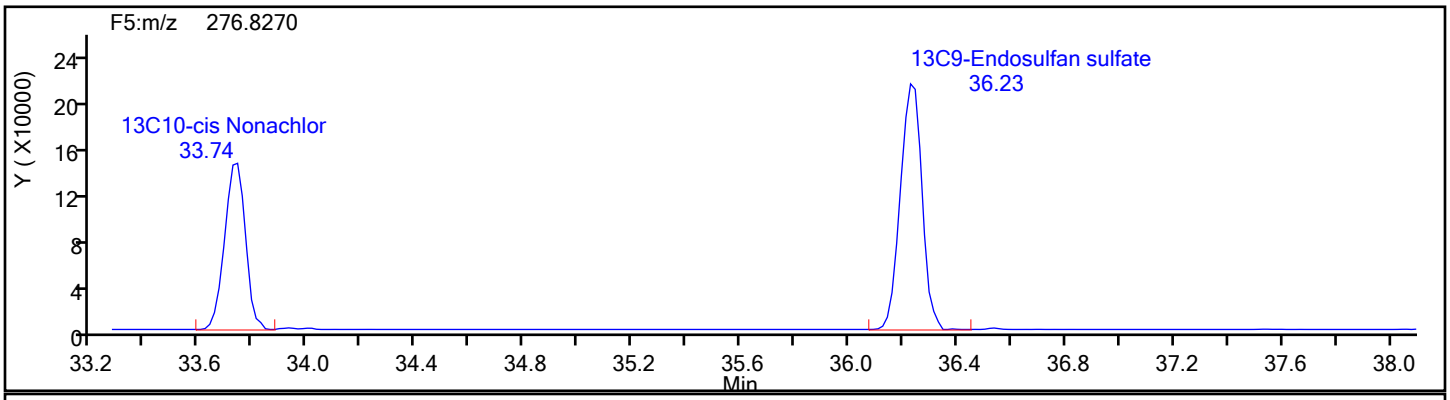
Column Type:	RTX-5	Column Dia:	0.32 mm

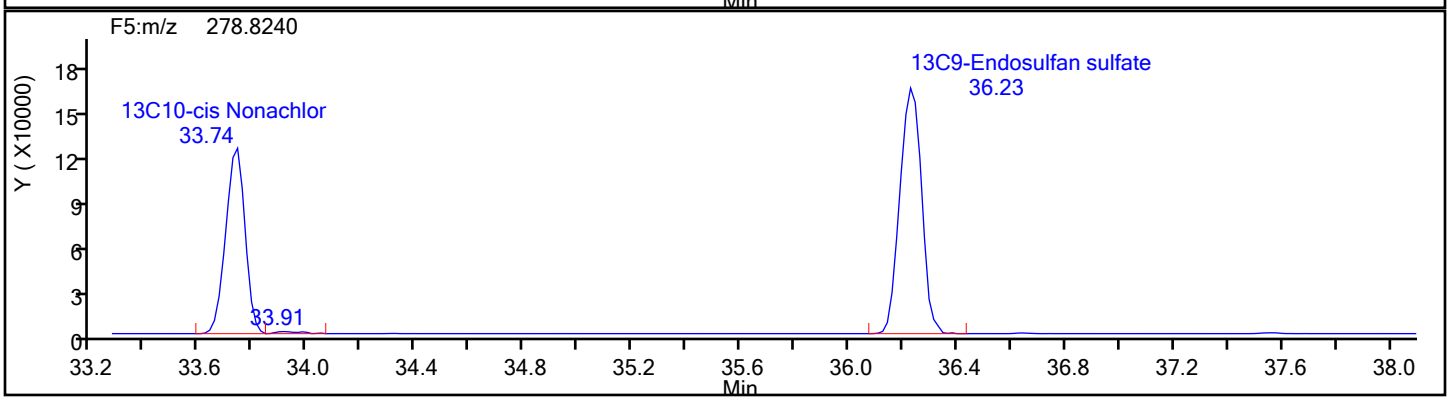
Nonachlor





Nonachlor Standards



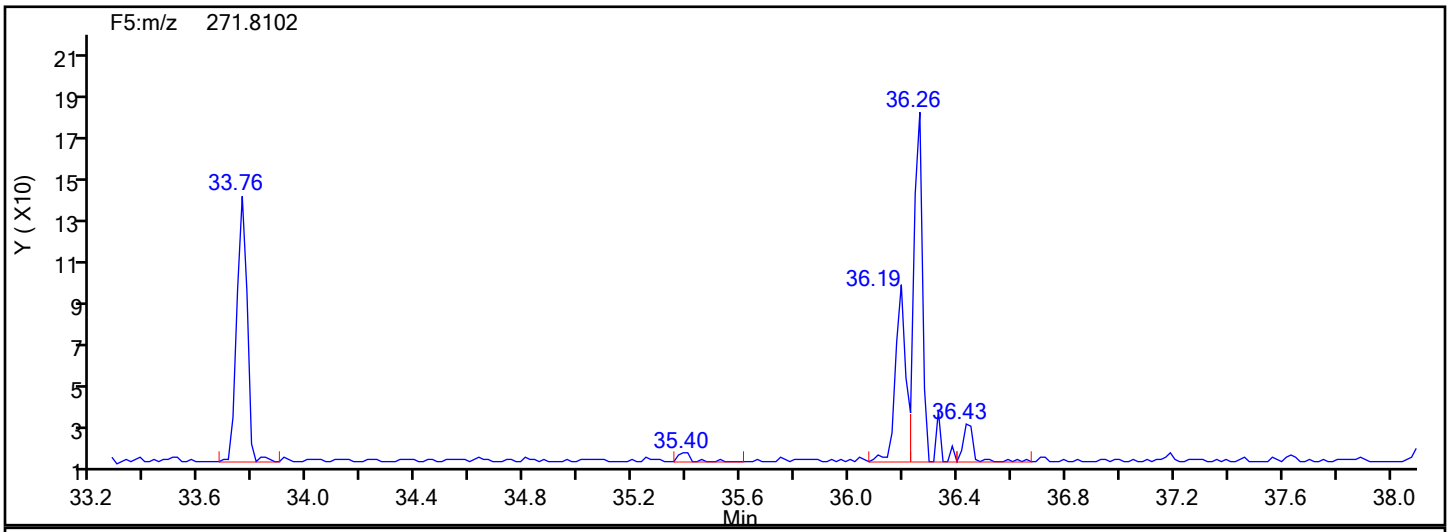


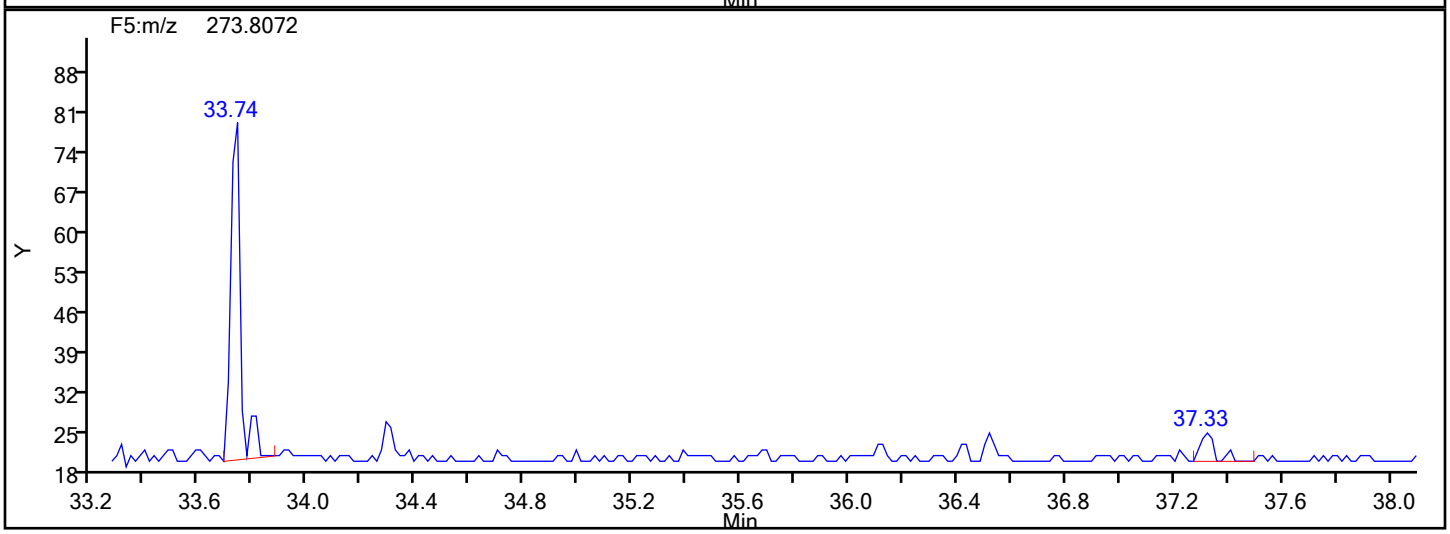
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

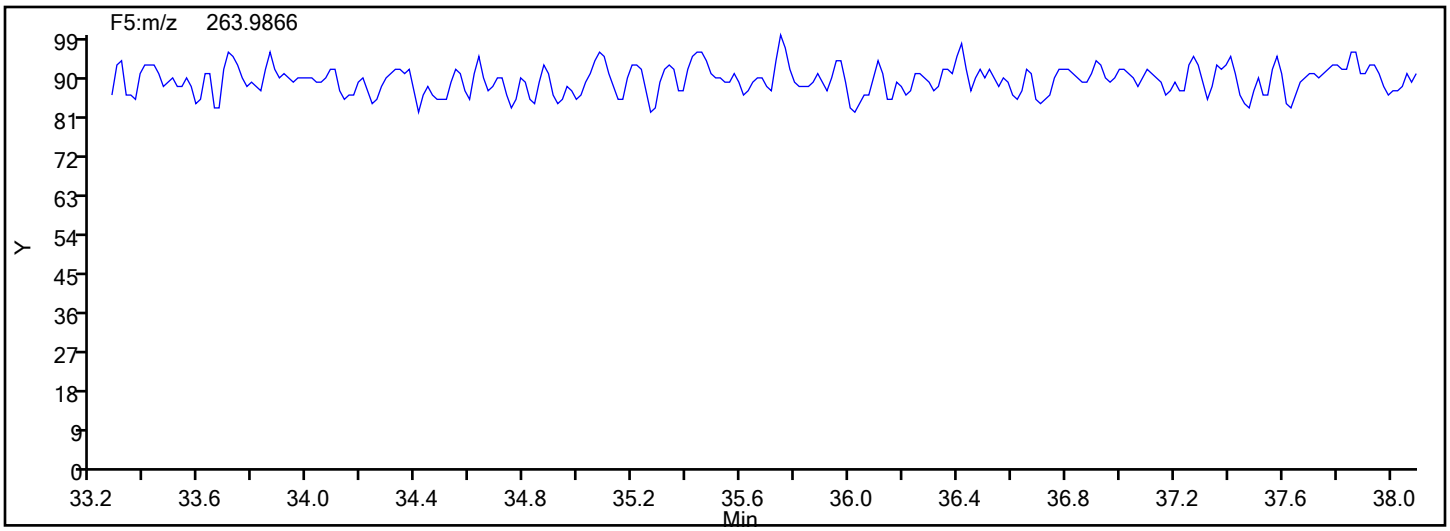
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



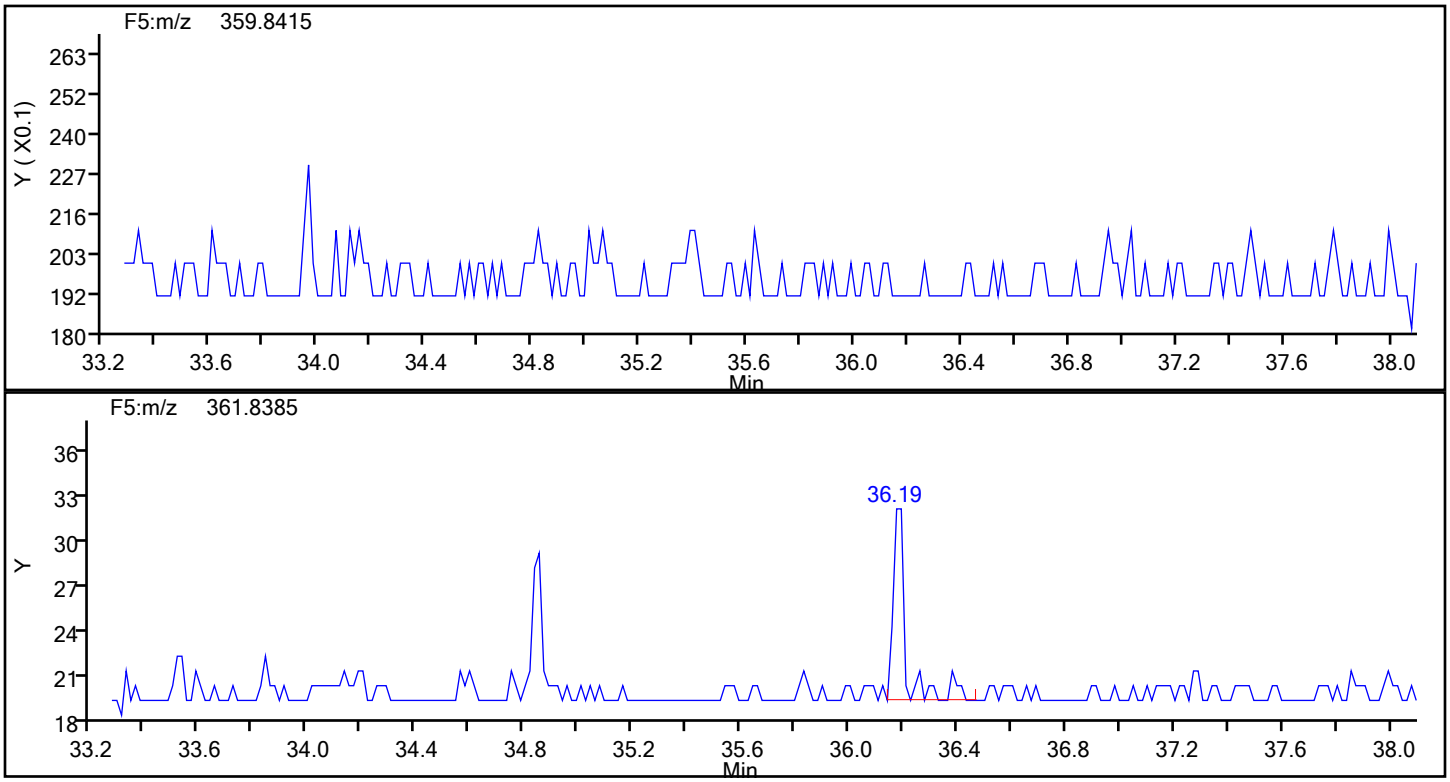
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

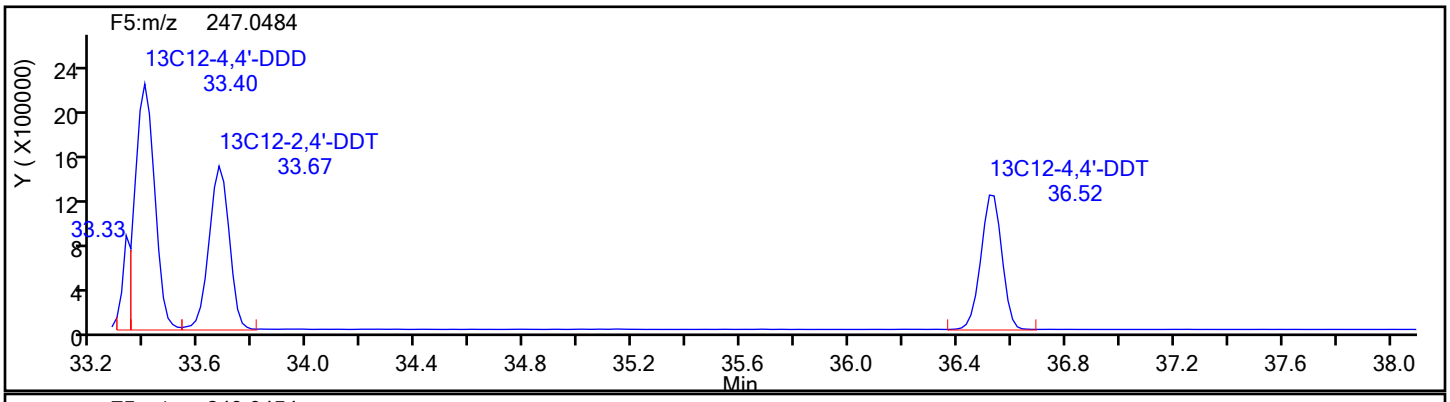
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

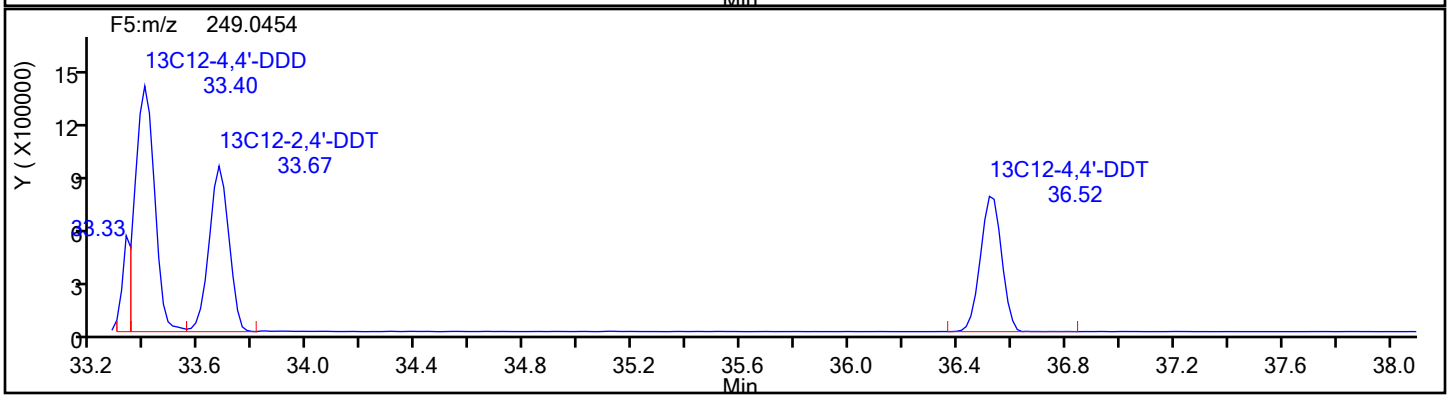
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards





Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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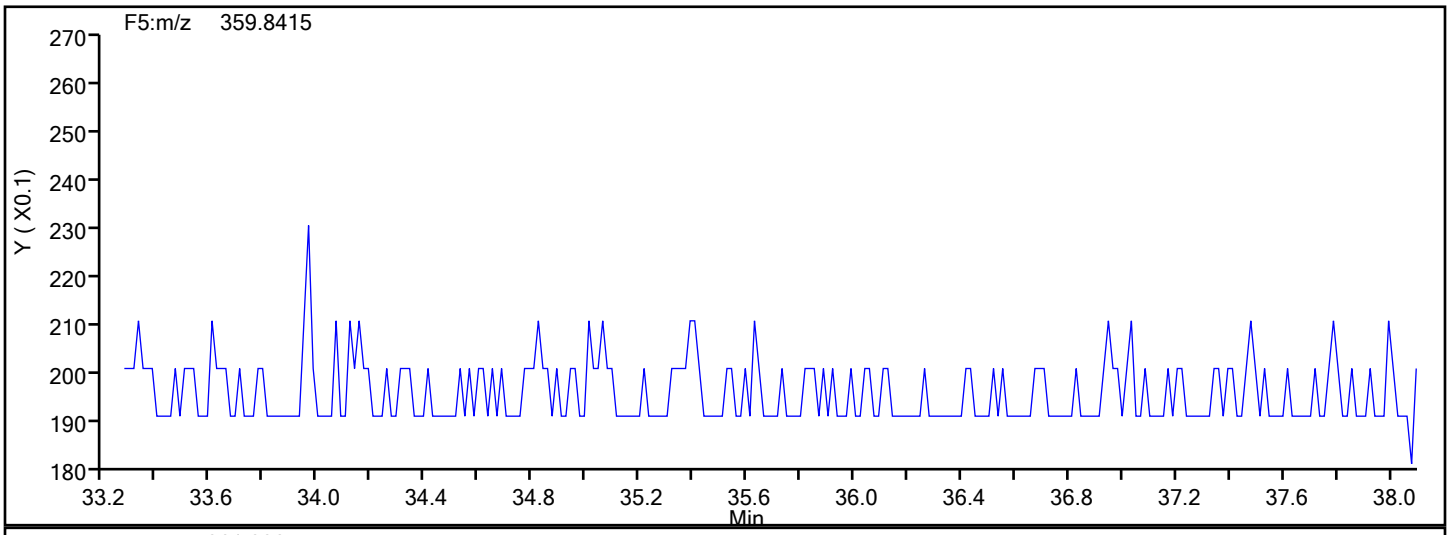
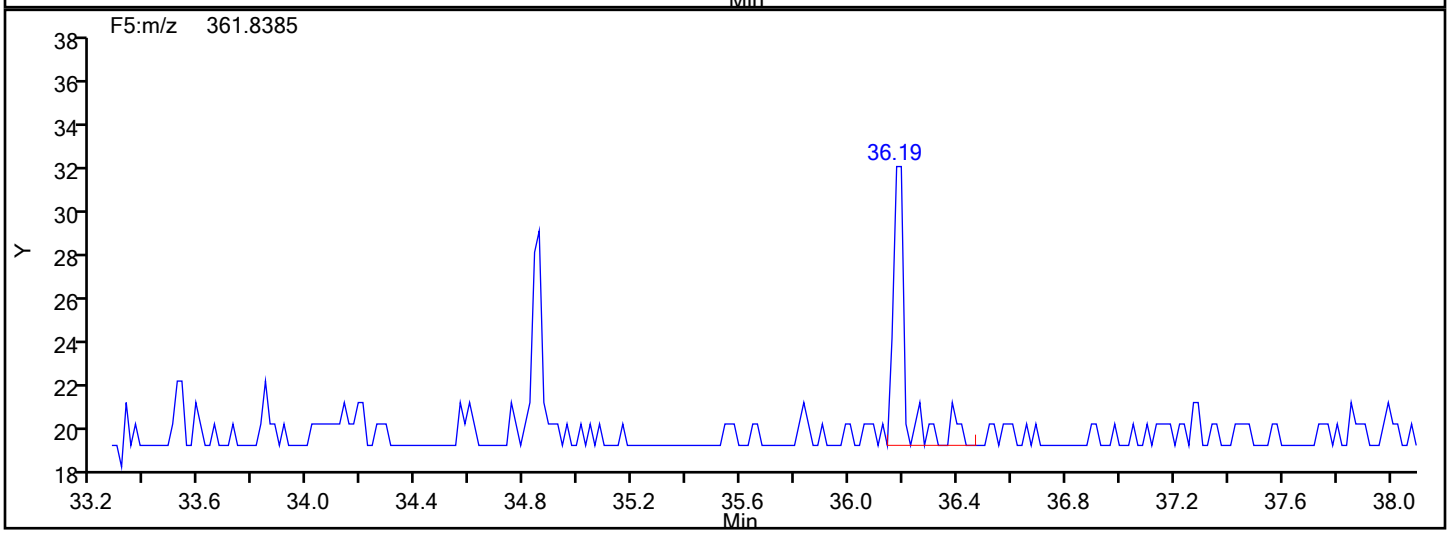
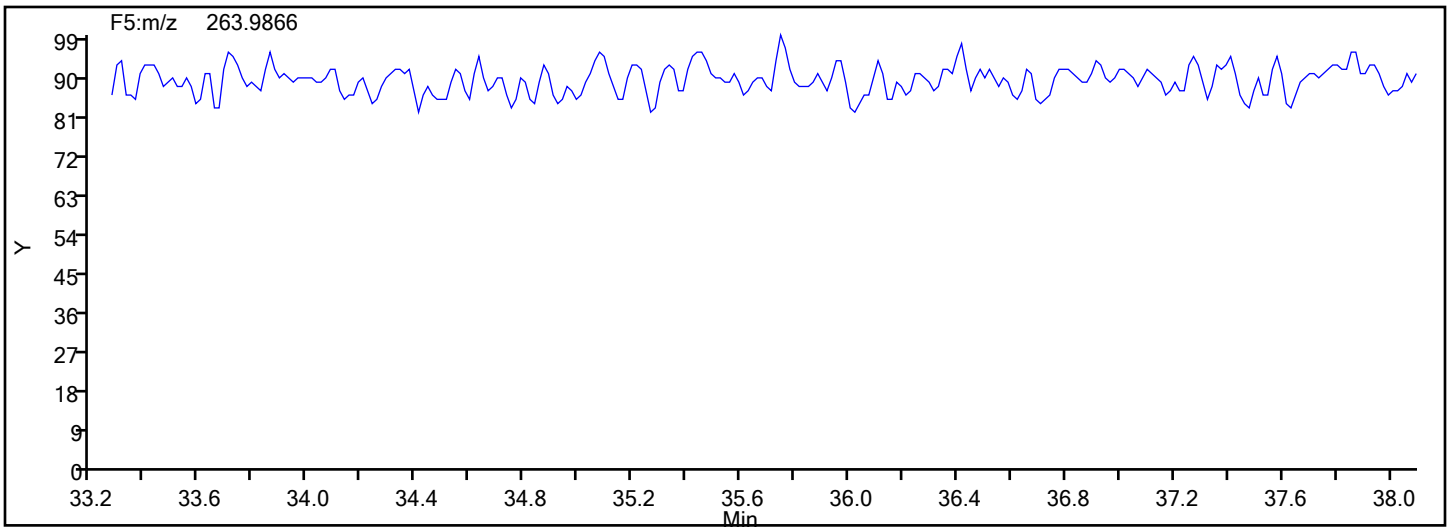
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



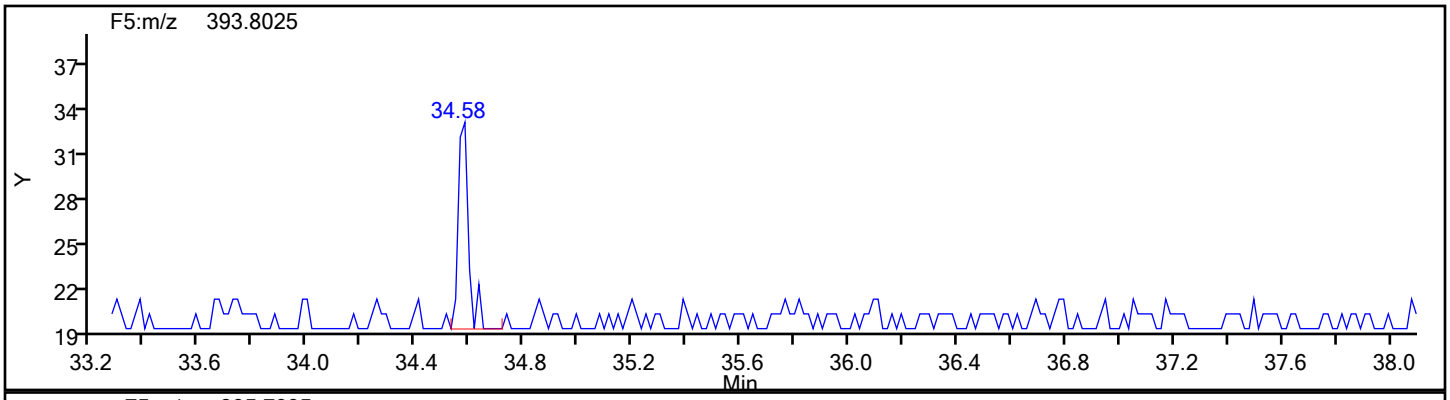
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

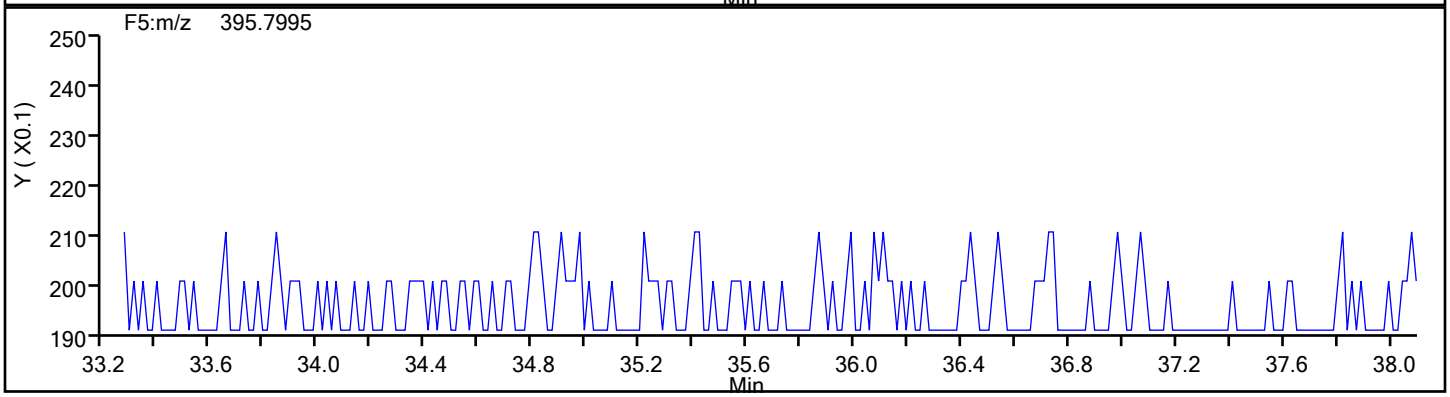
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

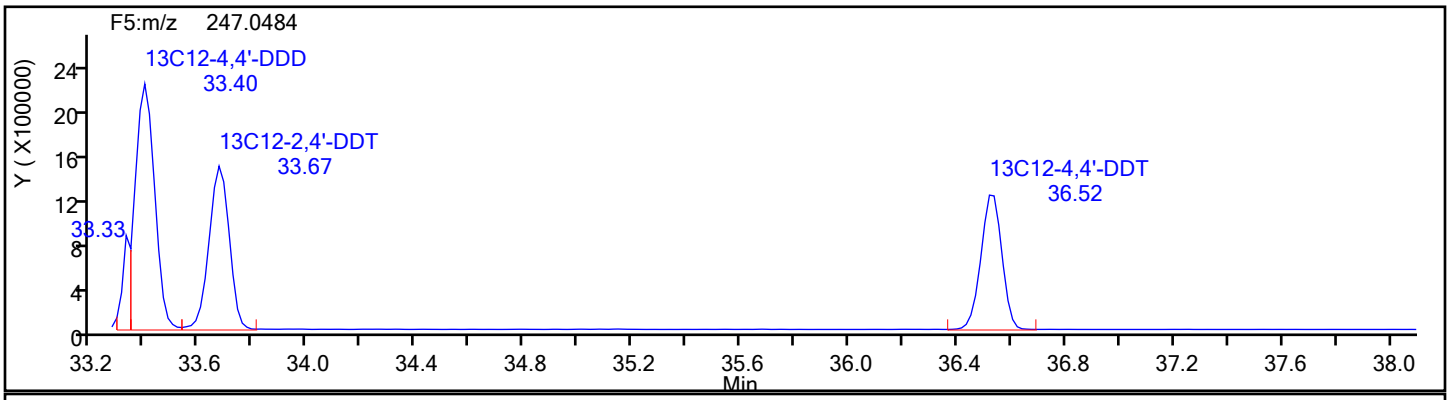
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

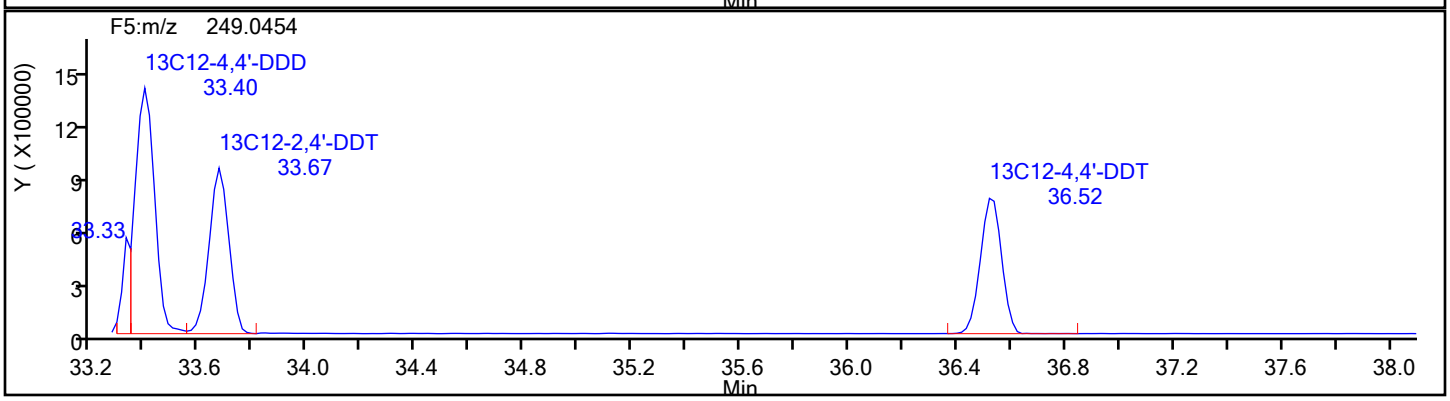
PCB-184





PCB-184 Standards



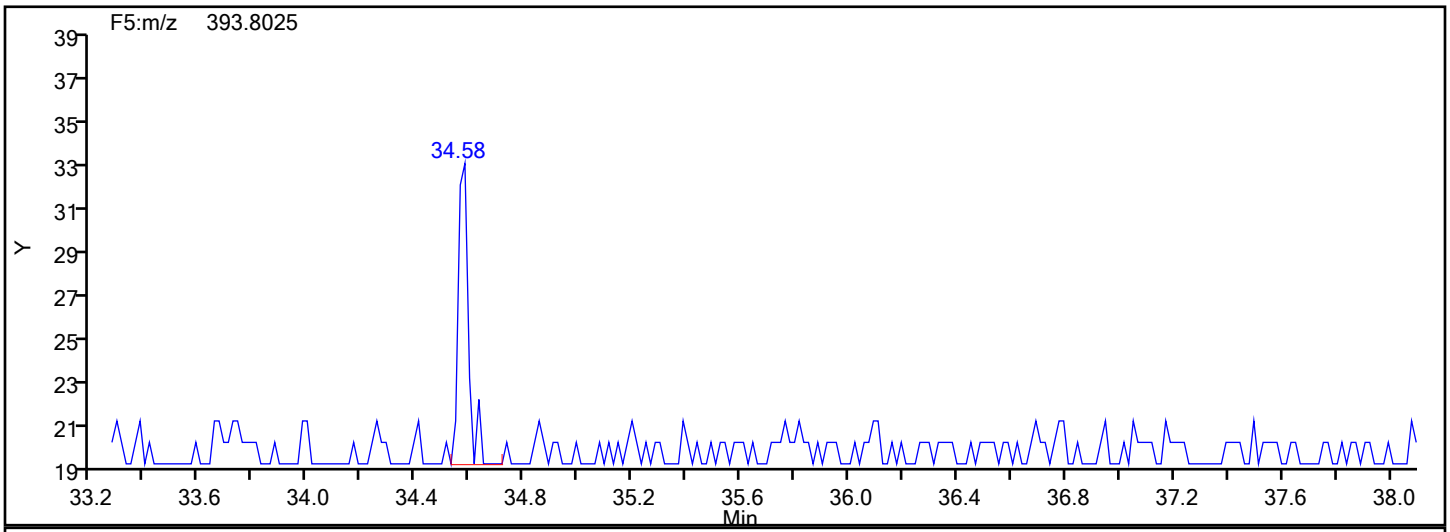


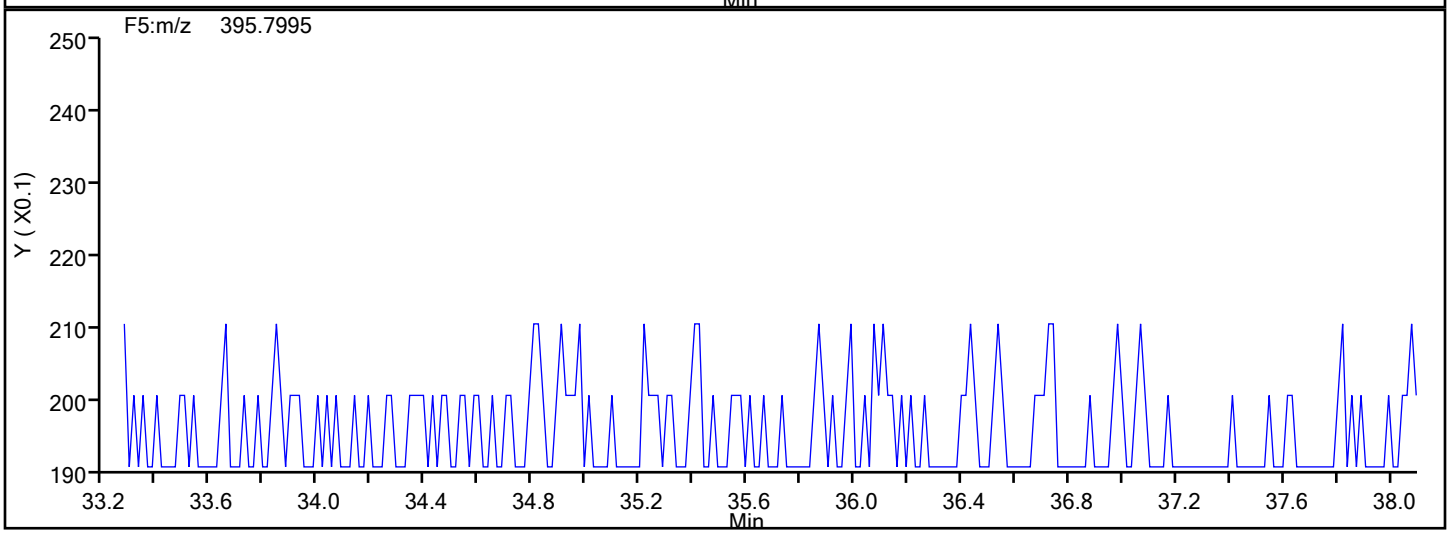
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

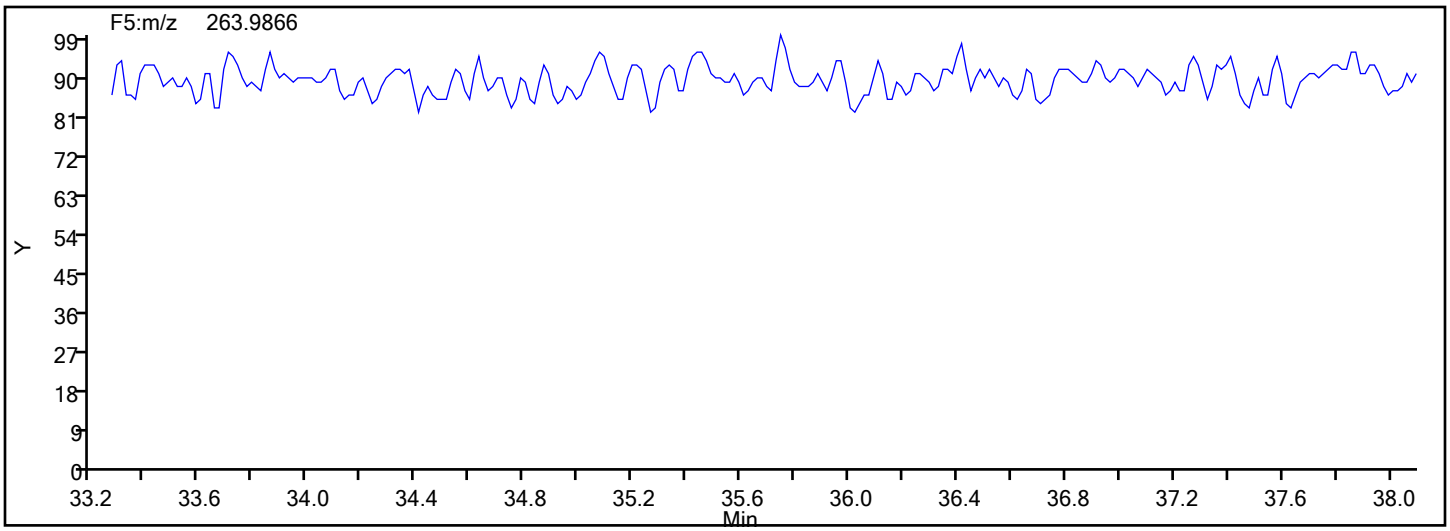
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d
Injection Date: 02-May-2025 21:13:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass

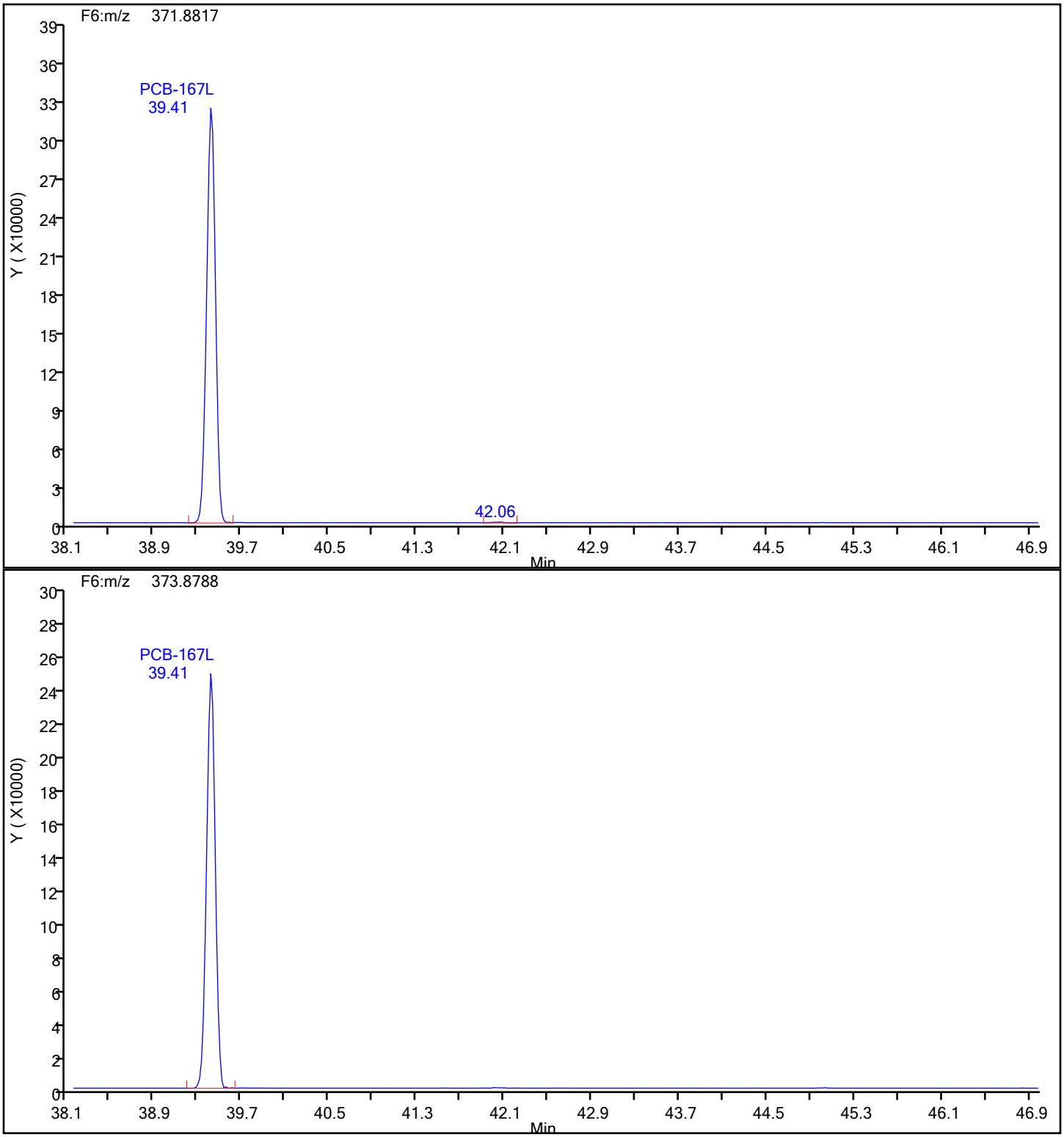


Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards



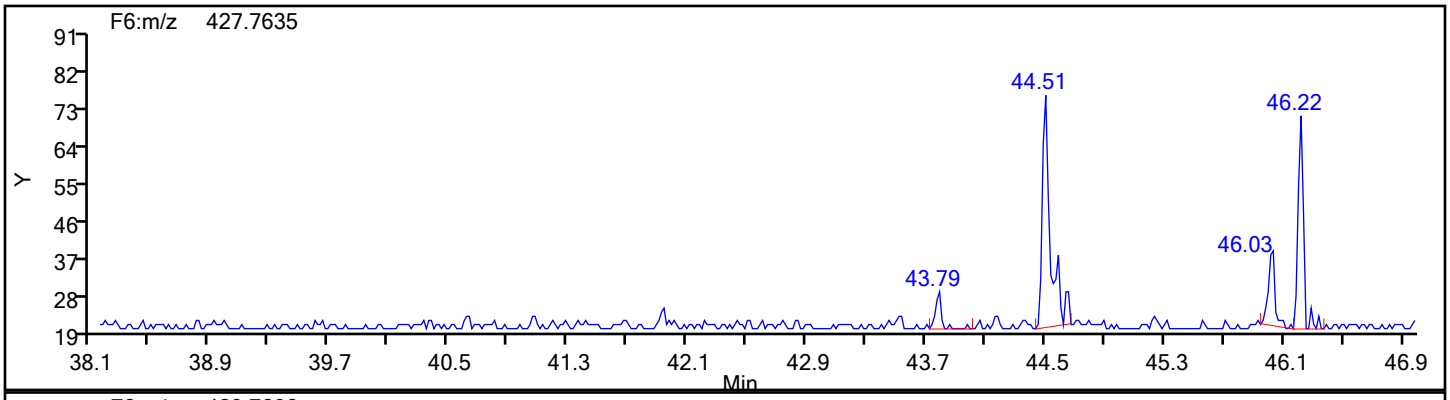
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

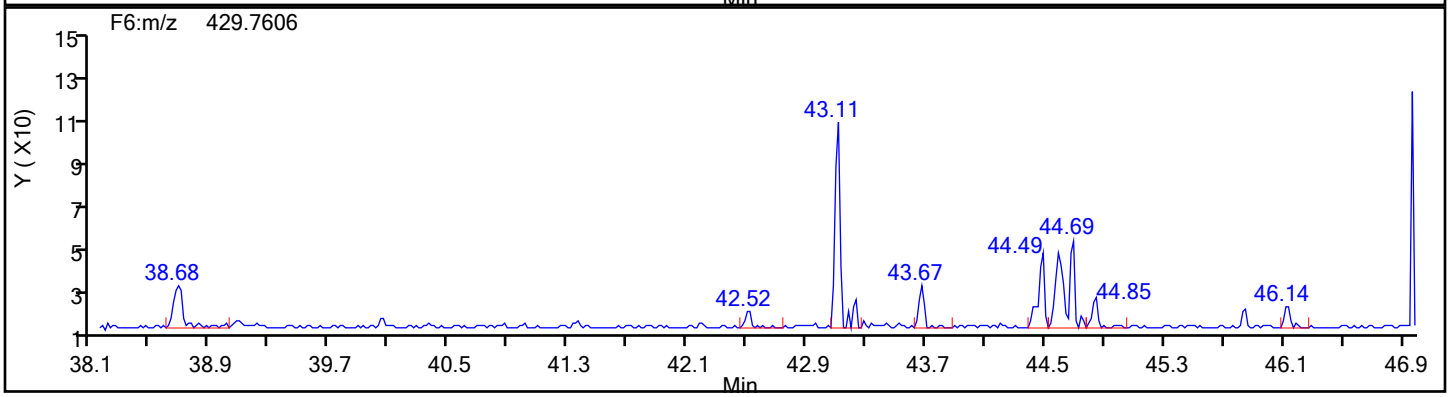
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

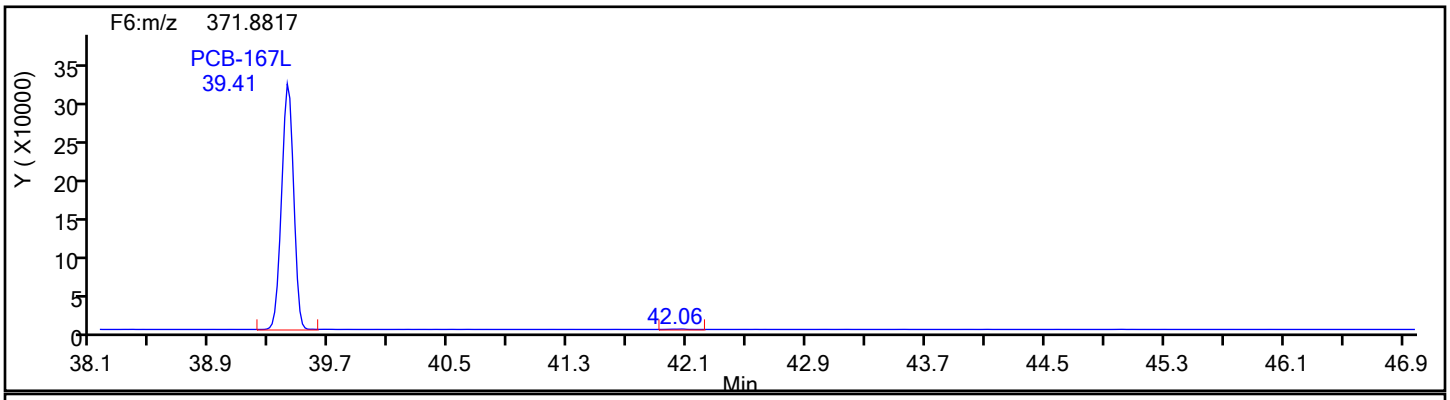
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

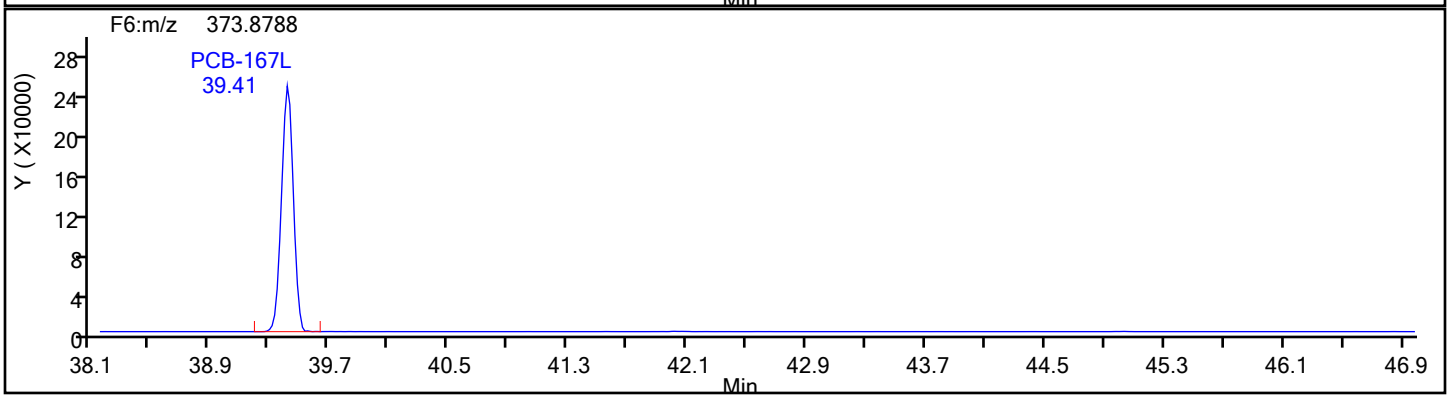
PCB-204





PCB-204 Standards



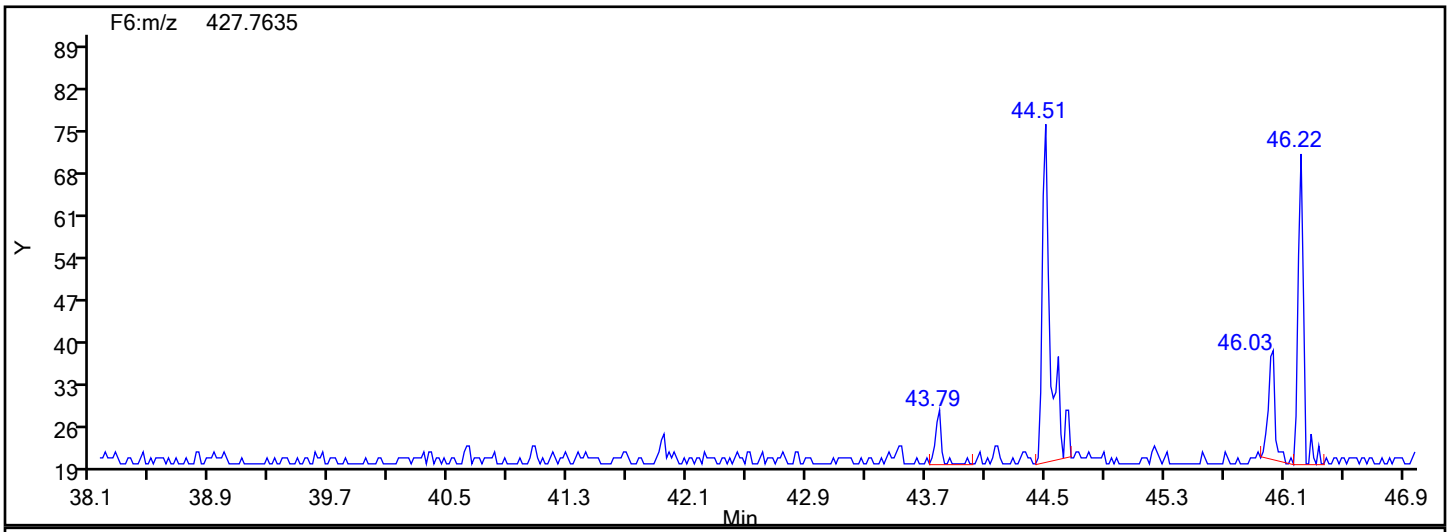


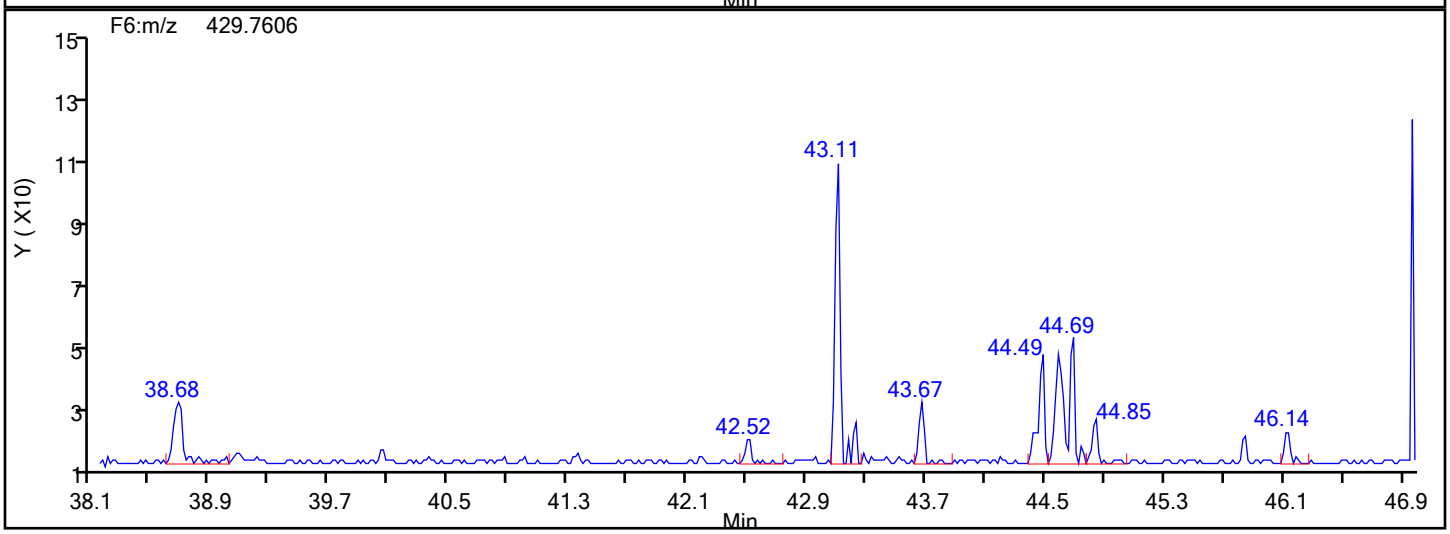
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

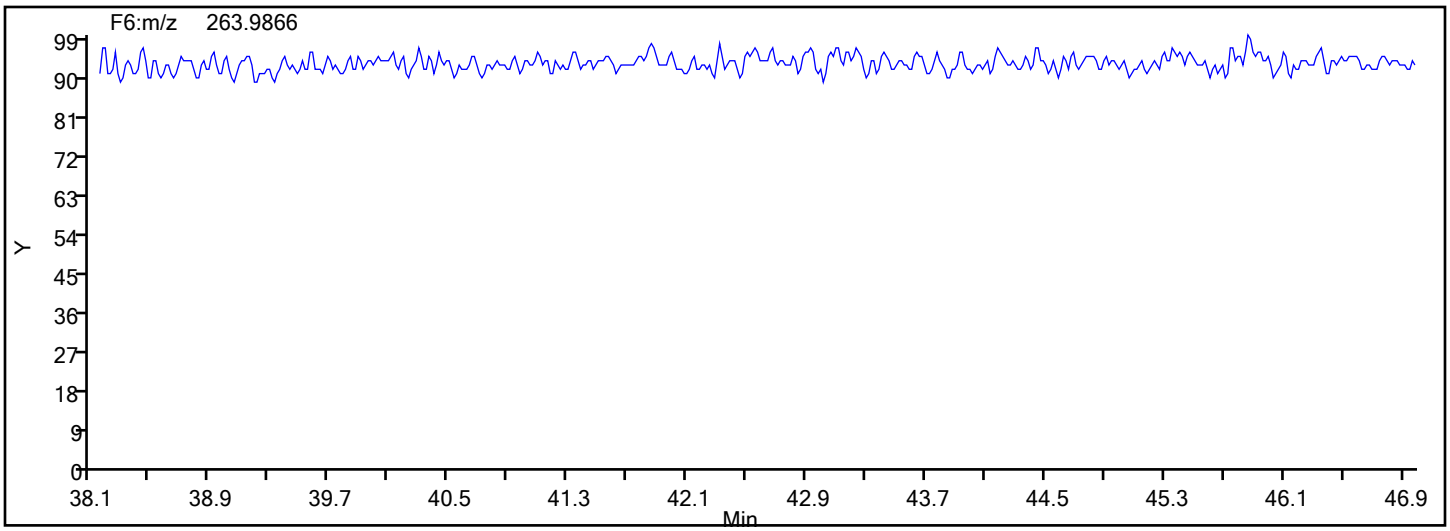
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



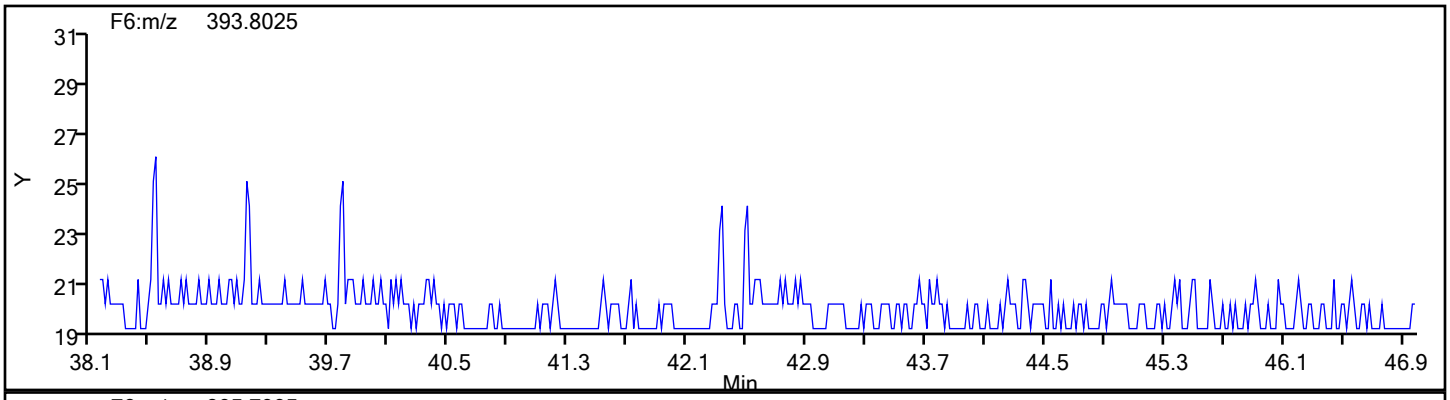
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

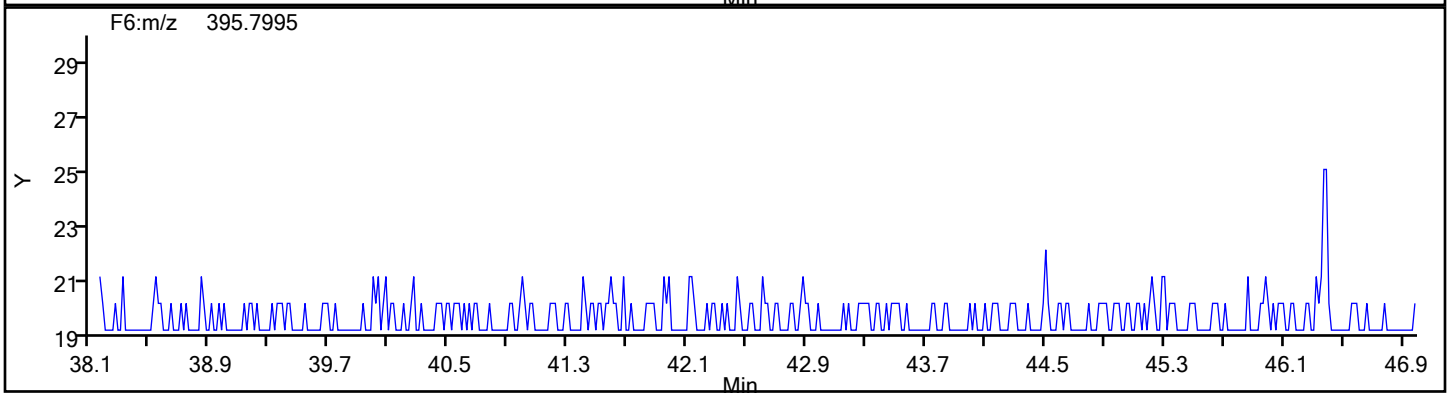
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d

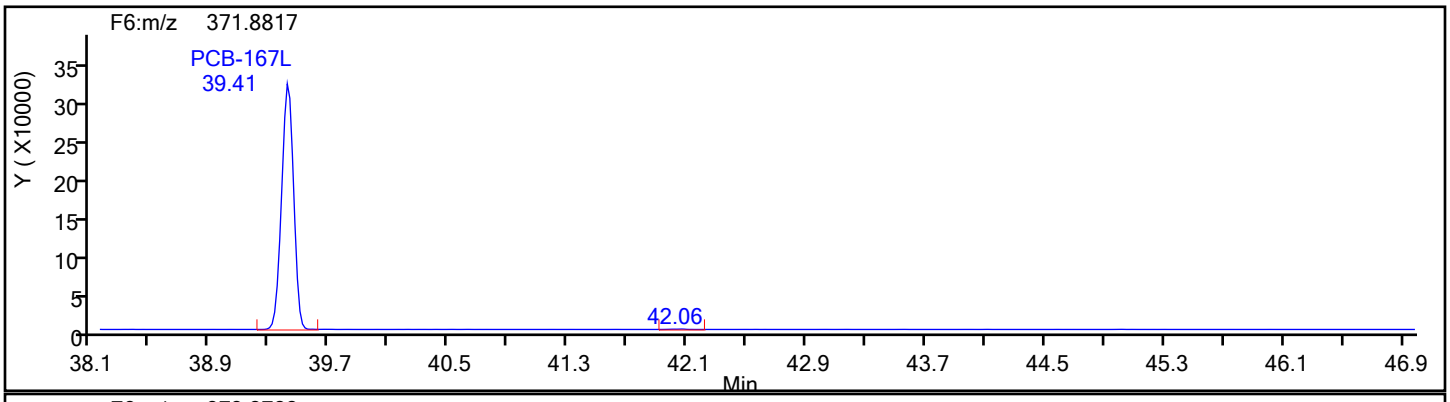
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

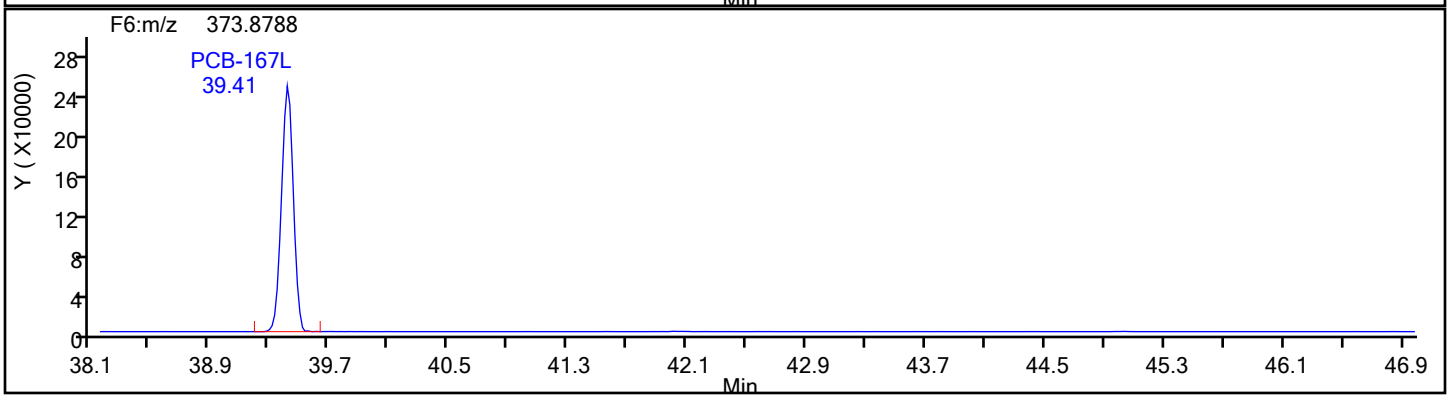
PCB-192





PCB-192 Standards



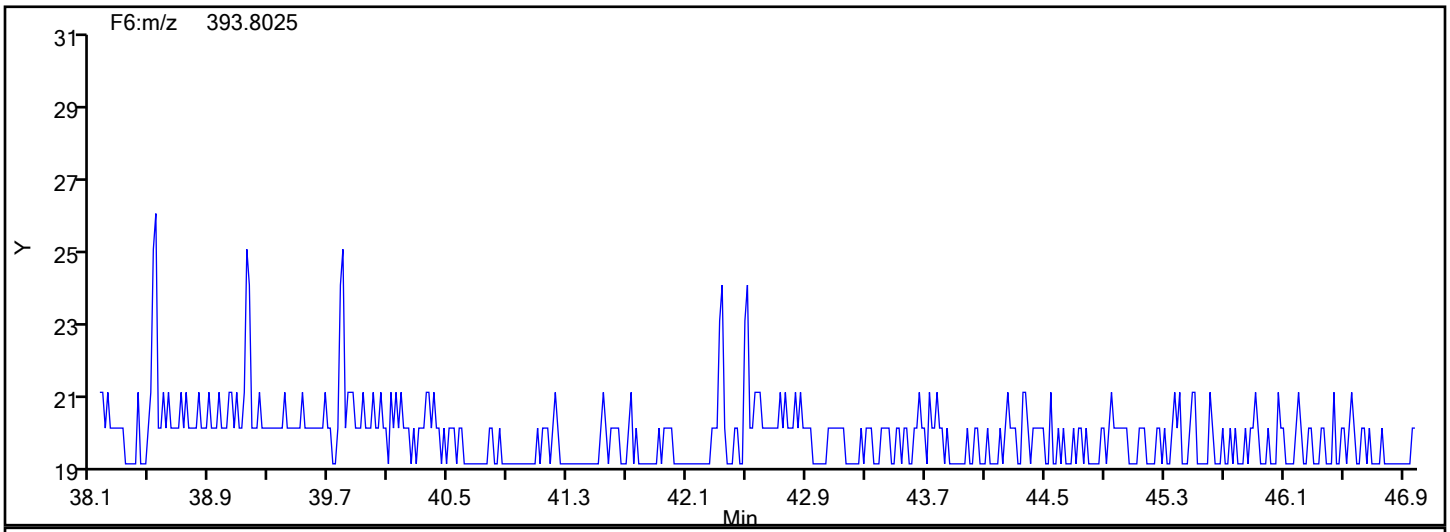


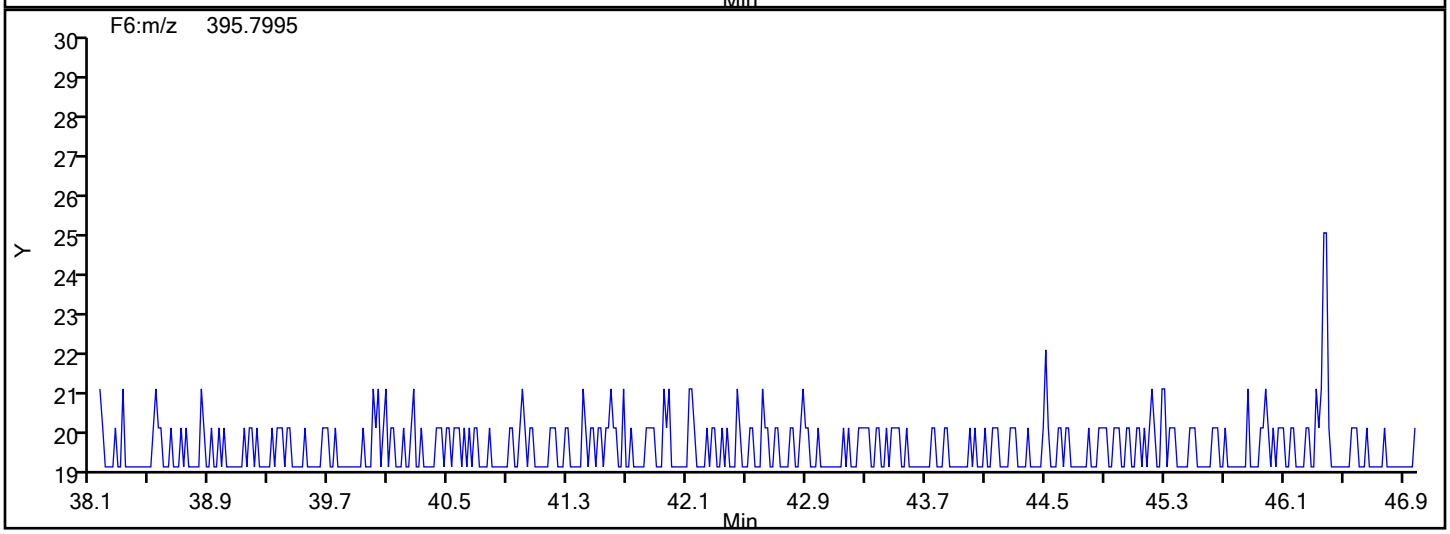
Report Date: 05-May-2025 18:00:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

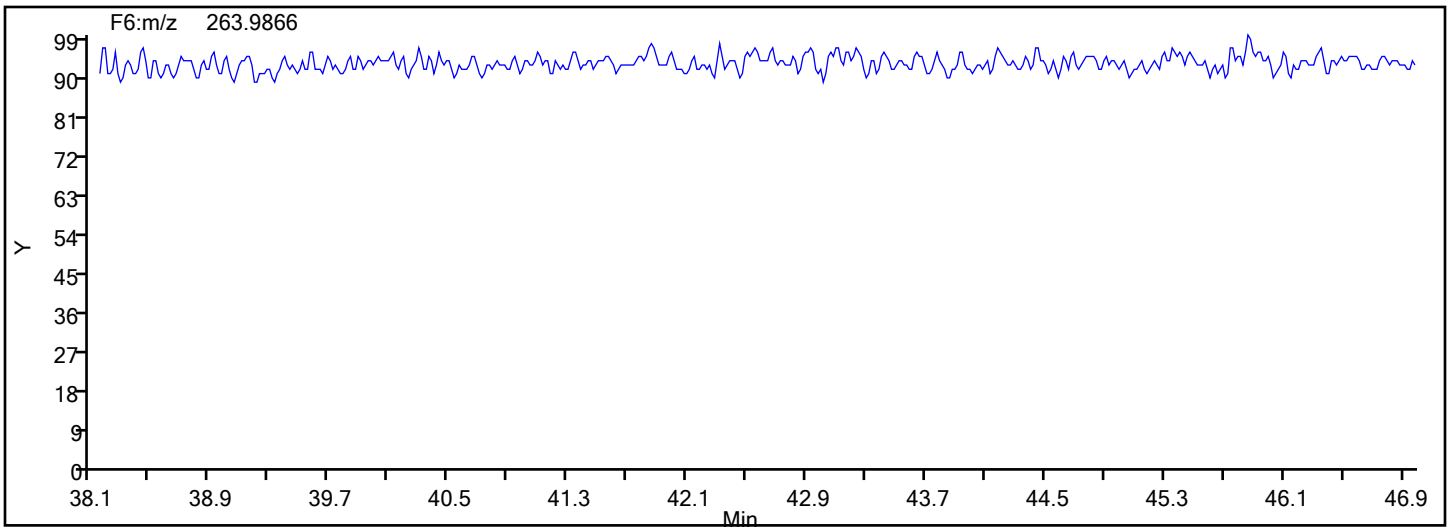
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip8.d		
Injection Date:	02-May-2025 21:13:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 02-May-2025 22:08:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:48 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:26:11

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	7760661	0.82	0.2427	98.5	98.5	0.2200	0.2200	98.46	
D 13C6-beta BHC	18:22	6071499	0.80	0.1892	98.8	98.8	0.2822	0.2822	98.80	
D 13C6-gamma BHC	18:39	6739972	0.82	0.2029	102.2	102.2	0.2631	0.2631	102	
D 13C6-delta BHC	19:36	5278753	0.80	0.1718	94.6	94.6	0.3107	0.3107	94.59	
D 13C10-Heptachlor	21:51	4797466	1.23	0.1629	90.7	90.7	0.0306	0.0306	90.67	
D 13C6-Hexachlorobenzene	17:42	8934062	1.28	0.2759	99.7	99.7	0.000160	0.000160	99.70	
D 13C12-Aldrin	23:43	4610649	1.62	0.1517	93.6	93.6	0.0416	0.0416	93.59	
D 13C10-oxy Chlordane	26:07	388757	1.07	0.0708	91.2	91.2	0.005187	0.005187	91.25	
D 13C10-cis Heptachlor Epoxide	26:05	1574006	1.31	0.2676	97.7	97.7	0.0143	0.0143	97.71	
D 13C12-2,4'-DDE	27:54	27176193	1.60	4.5202	99.9	99.9	0.0913	0.0913	99.85	
D 13C10-trans Chlordane	27:36	1818197	1.26	0.3223	93.7	93.7	0.0244	0.0244	93.69	
D 13C10-cis Chlordane	28:40	1652420	1.35	0.2976	92.2	92.2	0.0264	0.0264	92.21	
D 13C10-trans Nonachlor	28:59	1494647	1.33	0.2841	87.4	87.4	0.0276	0.0276	87.37	
D 13C9-Endosulfan I	28:29	491013	1.21	0.0899	90.7	90.7	0.0874	0.0874	90.74	
D 13C12-4,4'-DDE	30:08	18216369	1.60	3.1557	103.8	103.8	0.0766	0.0766	104	
D 13C12-4,4'-DDD	33:25	16893323	1.56	2.9265	103.8	103.8	0.0123	0.0123	104	
D 13C12-2,4'-DDT	33:42	10940290	1.62	2.0372	96.6	96.6	0.0177	0.0177	96.58	
D 13C12-4,4'-DDT	36:34	9424179	1.58	1.8061	93.8	93.8	0.0200	0.0200	93.85	
D 13C12-Dieldrin	30:21	1623215	1.58	0.2777	105.1	105.1	0.0912	0.0912	105	
D 13C12-Endrin	32:01	1121739	1.62	0.1949	103.5	103.5	0.1299	0.1299	104	
D 13C9-Endosulfan II	32:45	250438	1.42	0.0474	95.1	95.1	0.4493	0.4493	95.07	
D 13C12-Endrin Aldehyde	34:17	195668	1.58	0.0424	82.9	82.9	0.2264	0.2264	82.91	
D 13C12-Methoxychlor	41:54	9946218	22.90	1.8751	95.4	95.4	0.0370	0.0370	95.40	
D 13C11-Endrin Ketone	40:22	595032	1.57	0.1045	102.4	102.4	0.2940	0.2940	102	
D 13C10-Mirex	45:22	5670523	1.33	1.9829	96.6	96.6	0.0317	0.0317	96.62	
* PCB-15L	19:03	32484241	1.65		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	8395720	0.67		500.0	500.0				
Pentachlorophenol	18:29	197867858	0.59	1.0218	11532	11532	0.1530	0.1530	115	a
* PCB-101L	28:05	6020938	1.61		100.0	100.0				
* PCB-118L	32:45	5560107	1.61		100.0	100.0				
* PCB-138L	36:57	2959794	1.25		100.0	100.0				
* PCB-60L	27:43	12597676	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:49	19904132	1.58	3.4396	104.1	104.1	0.0436	0.0436	104	
D 13C10-cis Nonachlor	33:46	1272399	1.24	0.2243	102.0	102.0	0.0260	0.0260	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:15	1856997	1.18	0.3464	96.4	96.4	0.0169	0.0169	96.41	
* PCB-167L	39:26	2954156	1.29		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

61L81699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Lims ID: IC L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 02-May-2025 22:08:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 18:00:48 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1719

First Level Reviewer: F9EE Date: 04-May-2025 12:26:11

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:21	1	0.912	3491834	1334776	1901	4752	702		
224.9317	17:23	17:21	1	0.912	4268827	1657611	517	1292	3206	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:20	2	0.964	2705586	960104	1901	4752	505		
224.9317	18:22	18:20	2	0.964	3365913	1164626	517	1292	2253	0.80(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:37	2	0.979	3042852	1039609	1901	4752	547		
224.9317	18:39	18:37	2	0.979	3697120	1242580	517	1292	2403	0.82(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:34	2	1.029	2341054	751055	1901	4752	395		
224.9317	19:36	19:34	2	1.029	2937699	945445	517	1292	1829	0.80(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:51	21:49	2	1.146	2650902	749935	141	352	5319		
278.8240	21:51	21:49	2	1.146	2146564	618093	85	212	7272	1.23(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:40	1	0.929	5007777	1813519	1	2	1813519		
291.8273	17:42	17:40	1	0.929	3926285	1413967	1	2	1413967	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:41	2	1.245	2850840	732638	164	410	4467		
271.8775	23:43	23:41	2	1.245	1759809	457630	122	305	3751	1.62(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:07	26:05	2	0.930	201027	48615	1	2	48615		
398.8358	26:08	26:05	3	0.930	187730	49256	1	2	49256	1.07(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:05	26:03	2	0.929	891979	212671	10	25	21267		
364.8748	26:04	26:03	1	0.928	682027	155617	11	27	14147	1.31(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:52	2	0.993	16734662	3865987	1457	3642	2653		
260.0376	27:54	27:52	2	0.993	10441531	2400855	791	1977	3035	1.60(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:34	2	0.983	1015043	219557	29	72	7571		
278.8240	27:36	27:34	2	0.983	803154	185632	14	35	13259	1.26(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:40	28:38	2	1.020	949788	217951	29	72	7516		
278.8240	28:40	28:38	2	1.020	702632	163879	14	35	11706	1.35(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:59	28:57	2	1.031	851881	190534	29	72	6570		
278.8240	28:59	28:57	2	1.031	642766	145910	14	35	10422	1.33(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:28	1	1.014	268594	55732	29	72	1922		
278.8240	28:29	28:28	1	1.014	222419	47252	14	35	3375	1.21(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:08	30:06	2	0.920	11204982	2405149	707	1767	3402		
260.0376	30:08	30:06	2	0.920	7011387	1522548	369	922	4126	1.60(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:24	1	1.020	10289322	1982090	59	147	33595		
249.0454	33:25	33:24	1	1.020	6604001	1303084	102	255	12775	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:41	1	1.029	6763941	1304677	59	147	22113		
249.0454	33:42	33:41	1	1.029	4176349	815308	102	255	7993	1.62(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:34	36:31	2	1.116	5767202	1087948	59	147	18440		
249.0454	36:34	36:31	2	1.116	3656977	690240	102	255	6767	1.58(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:20	1	0.927	993085	209687	70	175	2996		
271.8775	30:21	30:20	1	0.927	630130	130291	43	107	3030	1.58(1.16-1.94)	
13C12-Endrin											
269.8805	32:01	31:59	2	0.978	694039	138616	70	175	1980		
271.8775	32:01	31:59	1	0.977	427700	76848	43	107	1787	1.62(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:45	32:44	1	1.000	147019	29114	49	122	594		
278.8240	32:45	32:44	1	1.000	103419	21877	46	115	476	1.42(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:16	1	1.046	119768	22969	22	55	1044		
358.9361	34:18	34:16	2	1.047	75900	13144	21	52	626	1.58(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:52	2	1.279	9530084	1662845	279	697	5960		
240.1510	41:54	41:52	2	1.279	416134	69437	30	75	2315	22.90(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	1	1.232	363513	58195	77	192	756		
329.9379	40:22	40:22	1	1.232	231519	38828	60	150	647	1.57(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:22	45:20	2	1.228	3237657	537095	76	190	7067		
278.8240	45:22	45:20	2	1.228	2432866	401667	62	155	6479	1.33(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:02	1		20238231	7088156	47	117	150812		
236.0376	19:03	19:02	1		12246010	4236679	11	27	385153	1.65(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:29	18:27	2		3375824	1126127	38	95	29635		
271.8636	18:29	18:27	2		5019896	1647036	44	110	37433	0.67(0.00-0.00)	
Pentachlorophenol											a
263.8464	18:29	18:28	1	1.000	73724443	24893889	169	422	147301		a
265.8435	18:29	18:28	1	1.000	124143415	43559674	178	445	244717	0.59(0.00-0.00)	
PCB-101L											
337.9207	28:05	28:04	2		3710255	836996	1	2	836996		
339.9178	28:05	28:04	2		2310683	525218	2	5	262609	1.61(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:43	2		3429815	683350	35	87	19524		
339.9178	32:45	32:43	2		2130292	430040	22	55	19547	1.61(1.16-1.94)	
PCB-138L											
371.8817	36:57	36:55	2		1642700	307190	32	80	9600		
373.8788	36:57	36:55	2		1317094	241055	30	75	8035	1.25(1.16-1.94)	
PCB-60L											
301.9626	27:43	27:41	2		5674522	1284377	97	242	13241		
303.9597	27:43	27:41	2		6923154	1581212	94	235	16821	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:47	2	0.941	12176974	2448778	384	960	6377		
249.0454	30:49	30:47	2	0.941	7727158	1541145	284	710	5427	1.58(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:46	33:44	2	1.031	704906	144030	14	35	10288		
278.8240	33:46	33:44	2	1.031	567493	104019	12	30	8668	1.24(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:14	1	1.107	1005065	180830	14	35	12916		
278.8240	36:15	36:14	1	1.107	851932	153422	12	30	12785	1.18(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:25	2		1662896	303562	3	7	101187		
373.8788	39:26	39:25	2		1291260	234433	1	2	234433	1.29(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

61L81699PCP_00001 Amount Added: 20.00 Units: uL

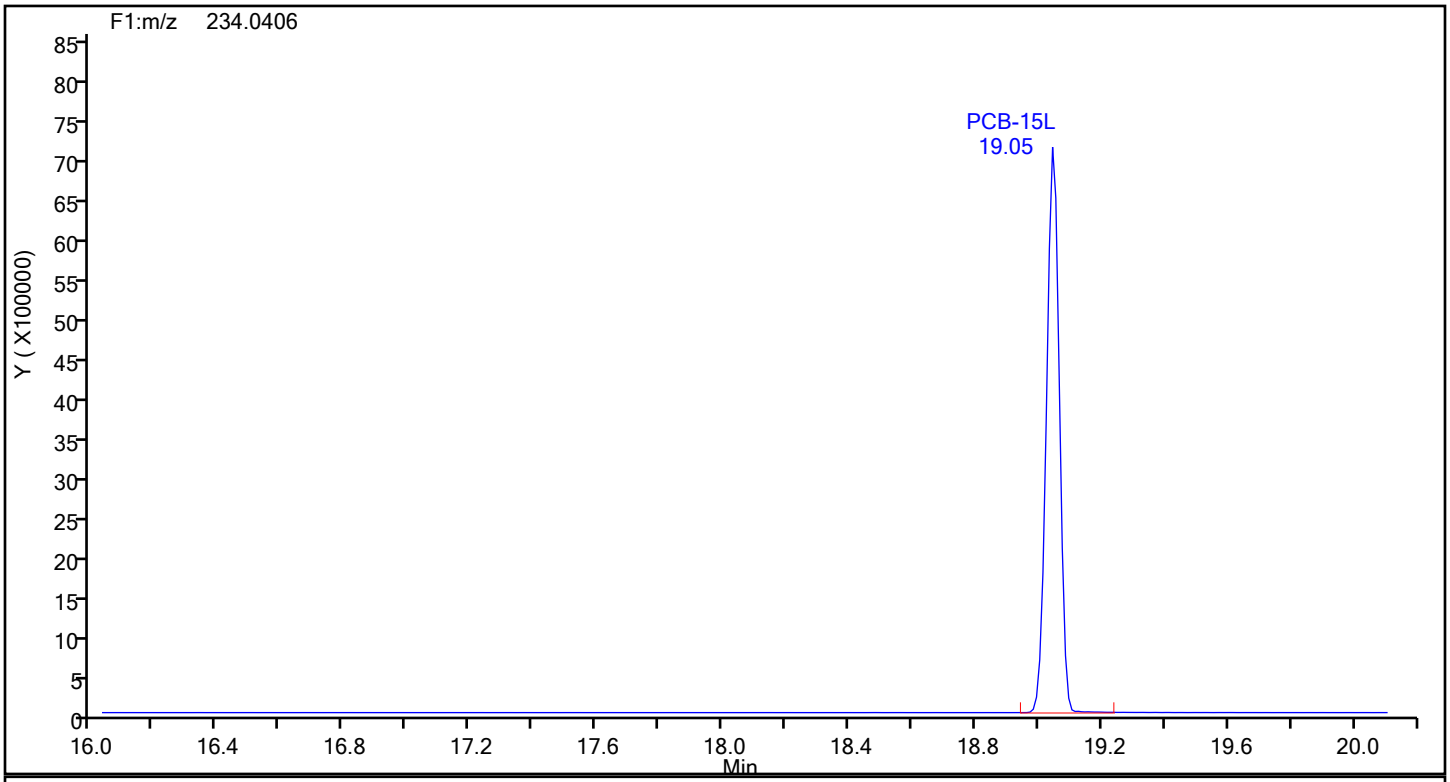
Report Date: 05-May-2025 18:00:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

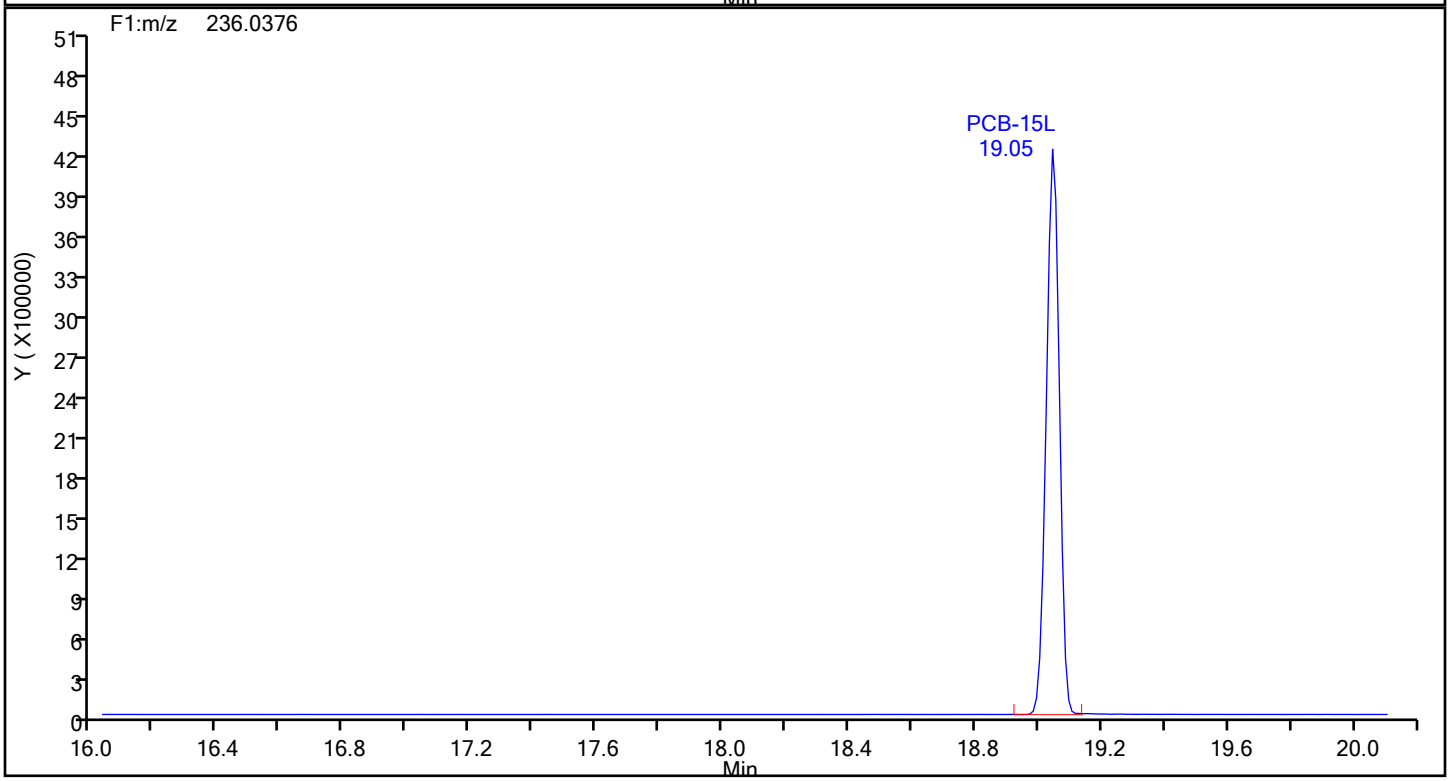
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 05-May-2025 18:00:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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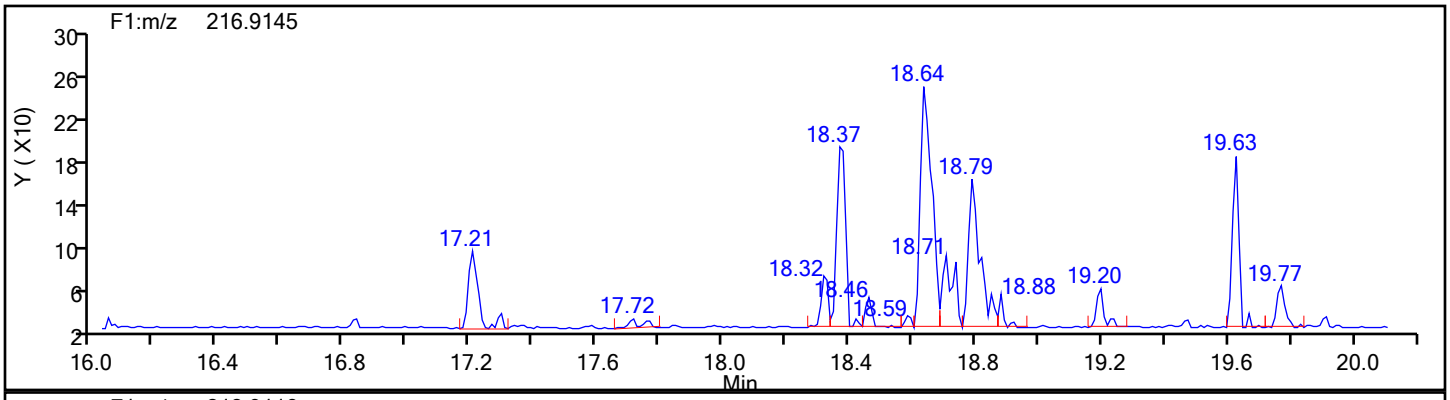
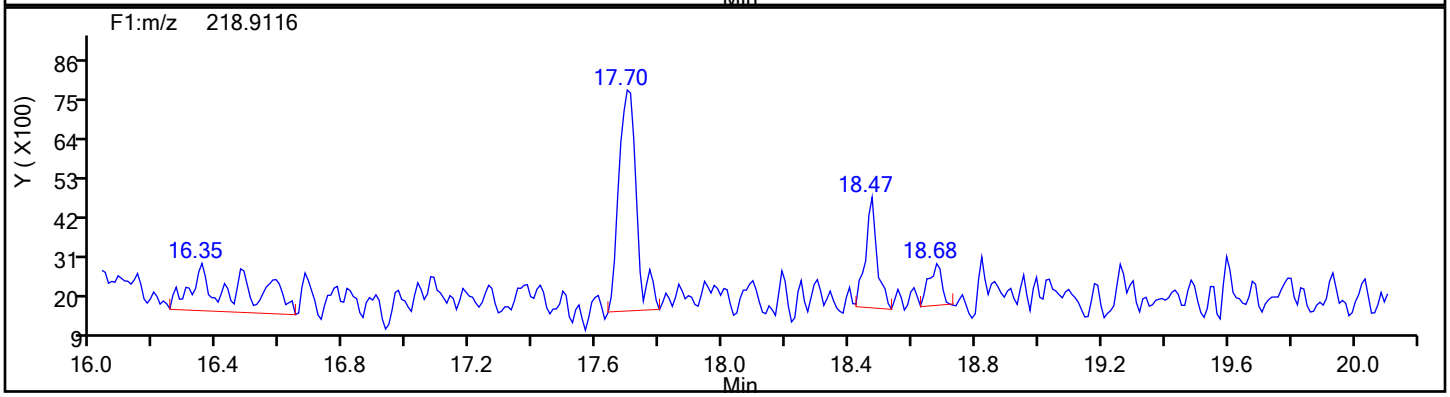
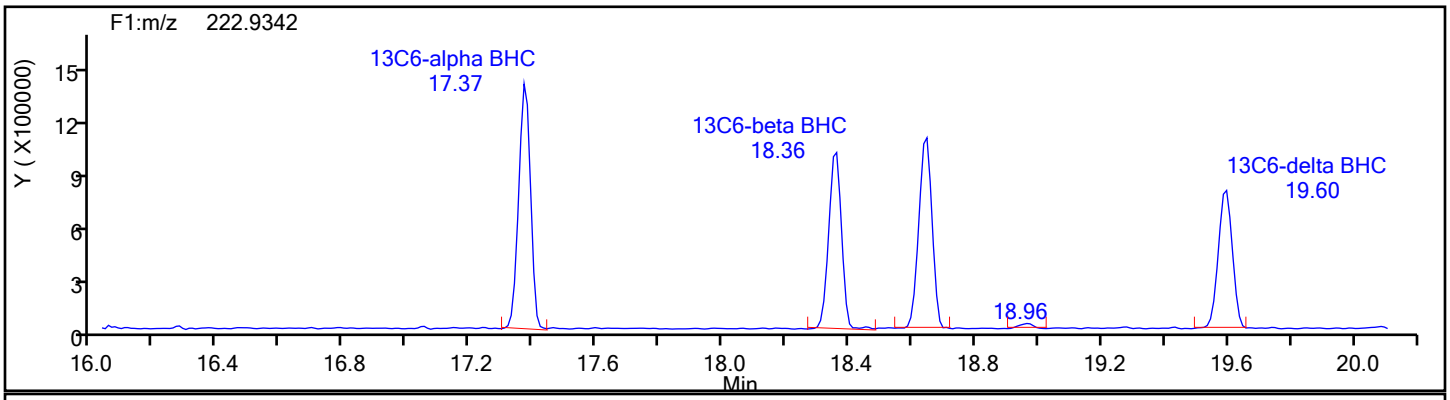
Column Type:	RTX-5	Column Dia:	0.32 mm

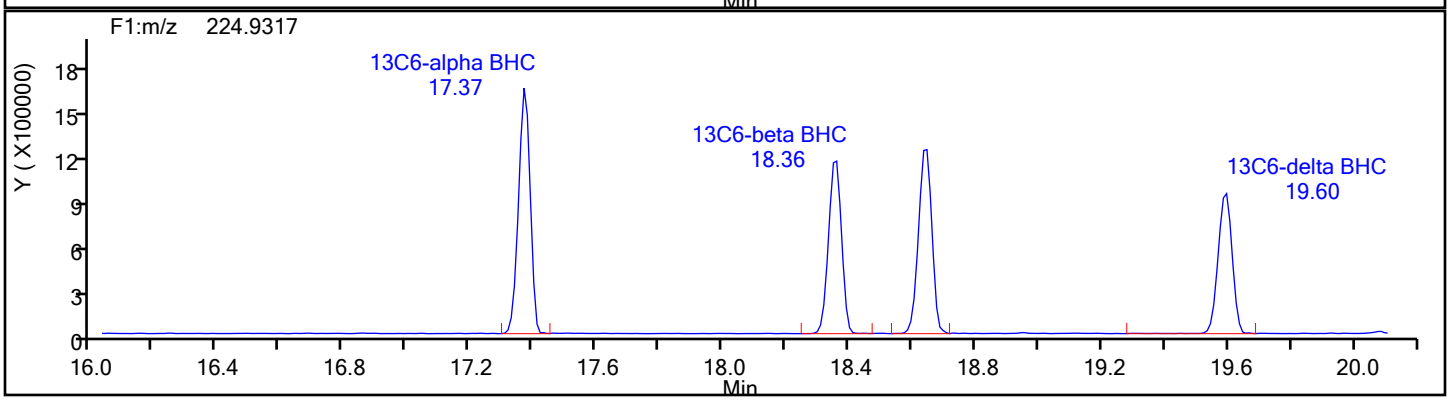
BHC





BHC Standards





Report Date: 05-May-2025 18:00:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
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Client ID:
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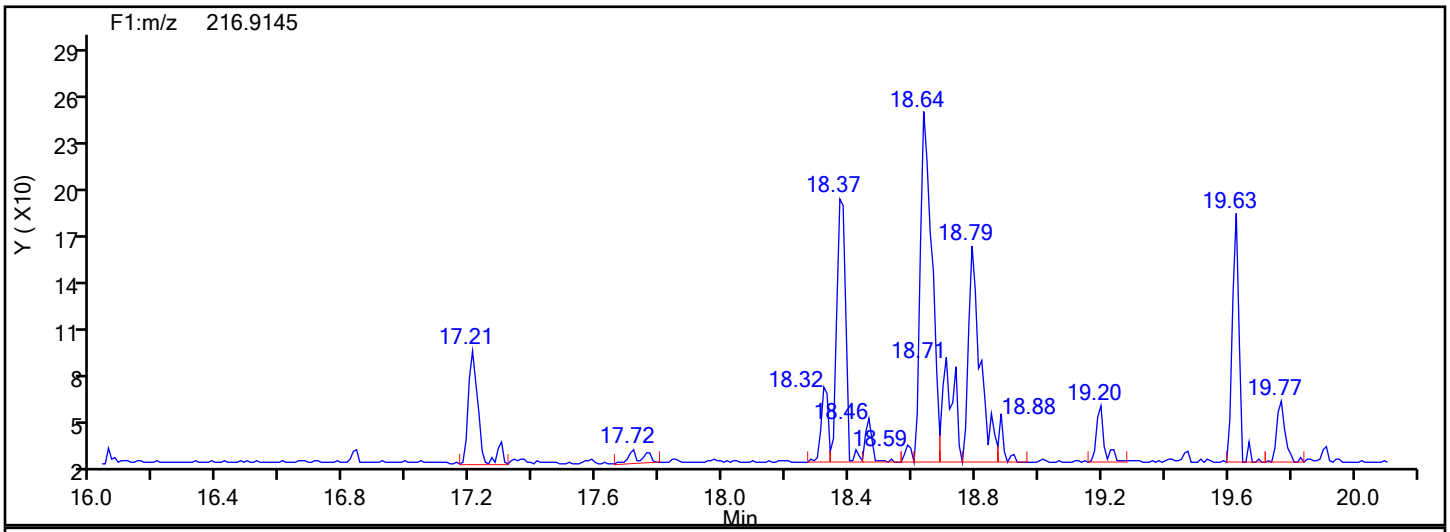
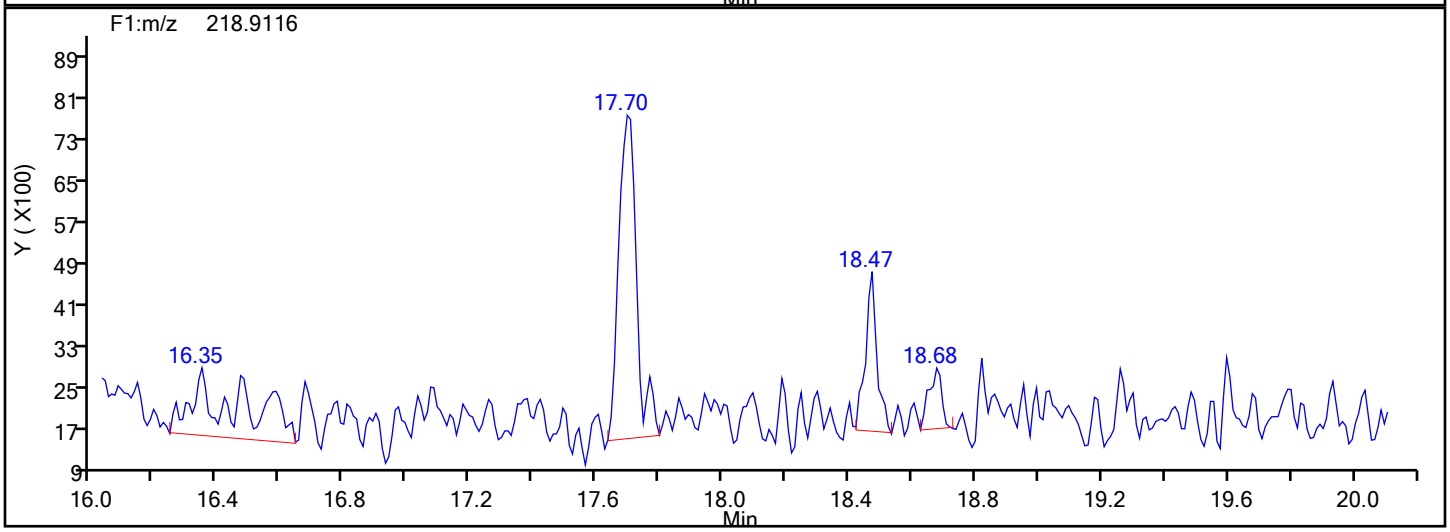
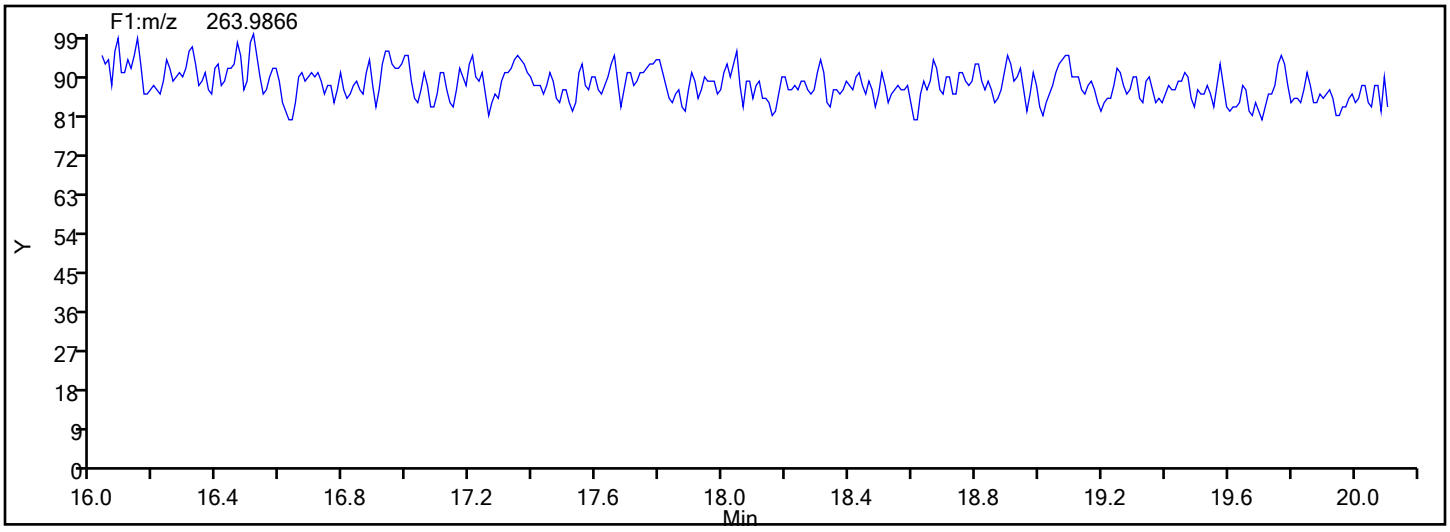
Column Type: RTX-5 Column Dia: 0.32 mm

BHC





BHC Lock Mass



Report Date: 05-May-2025 18:00:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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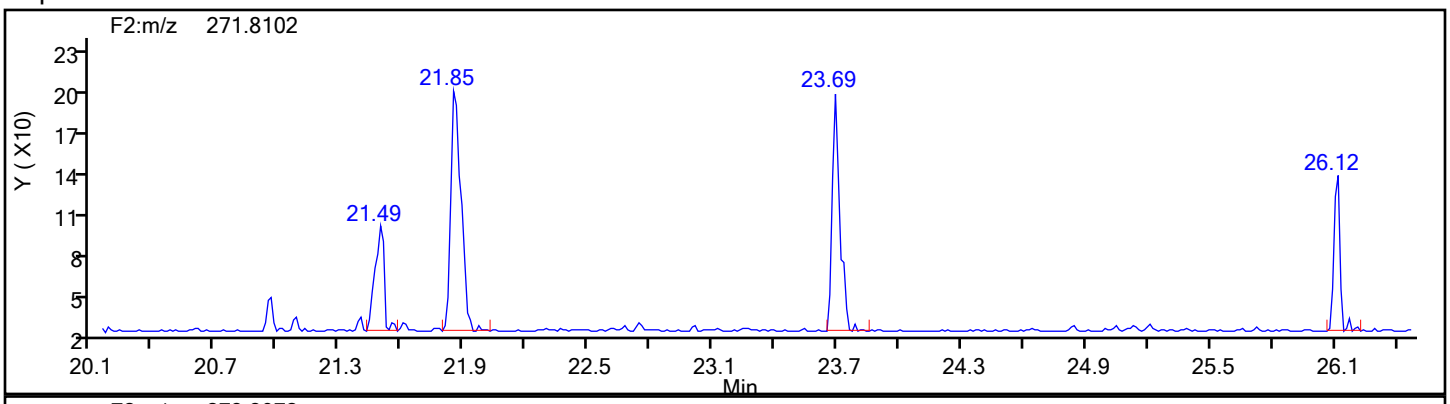
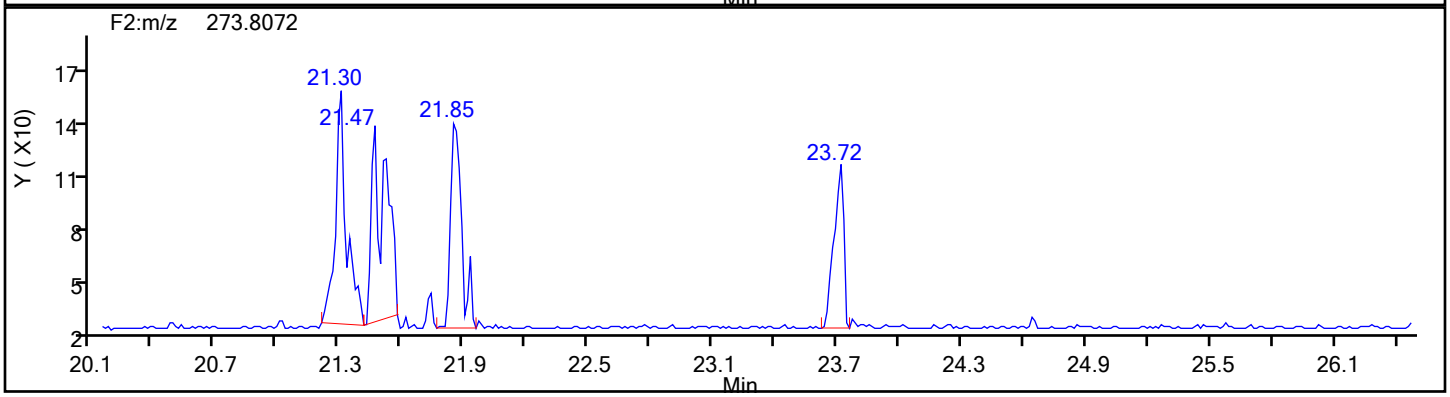
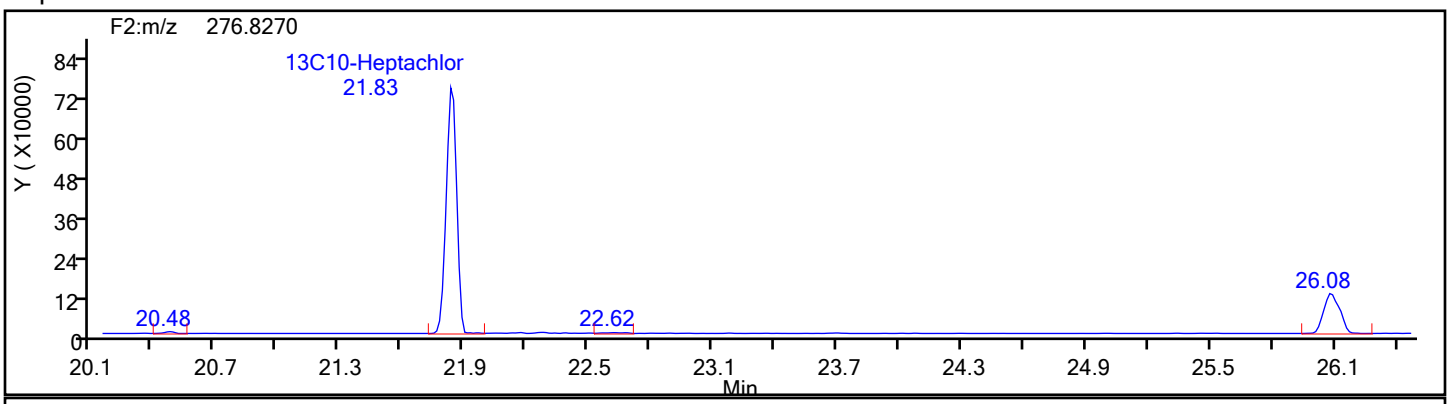
Column Type:	RTX-5	Column Dia:	0.32 mm

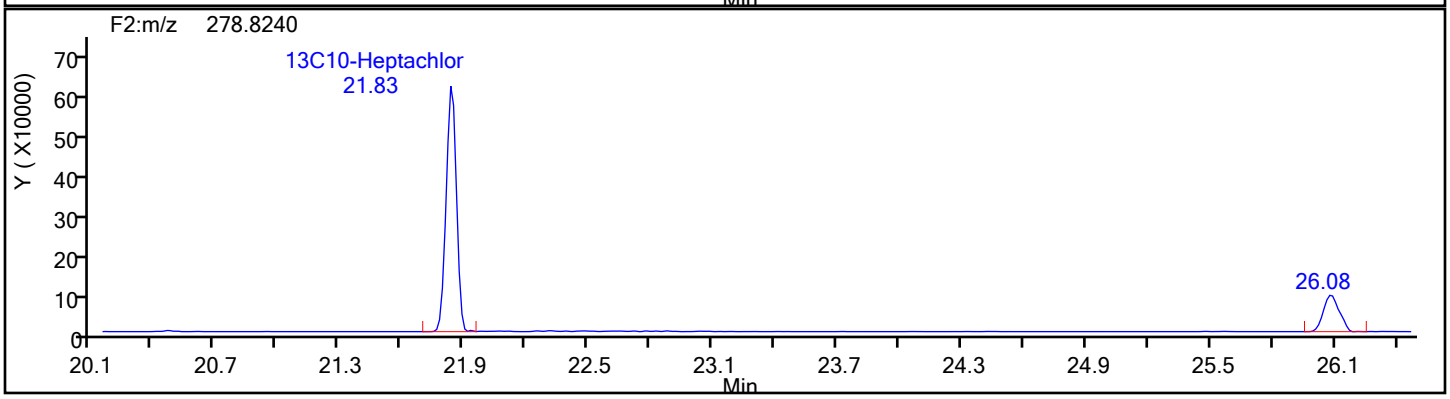
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 18:00:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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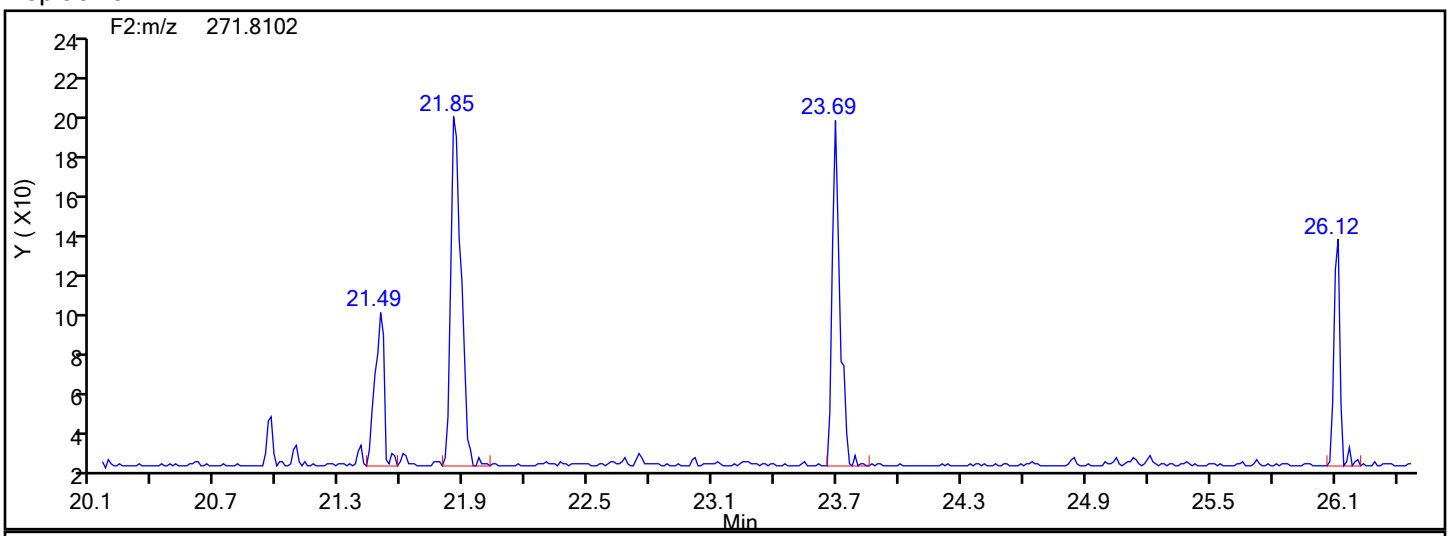
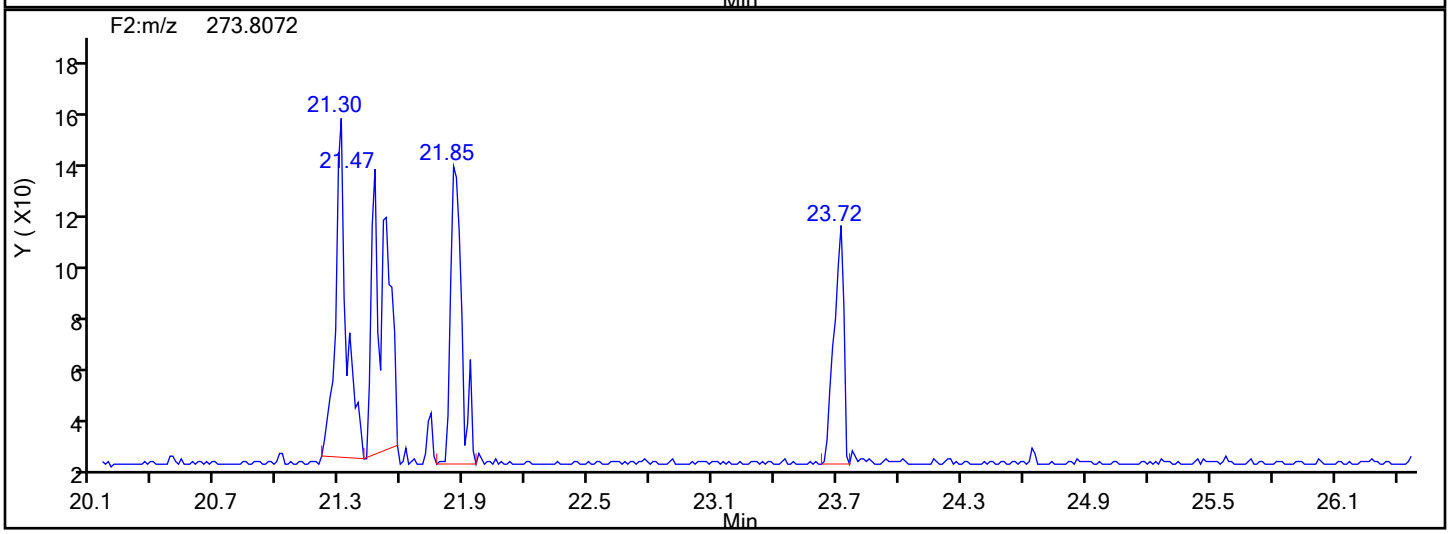
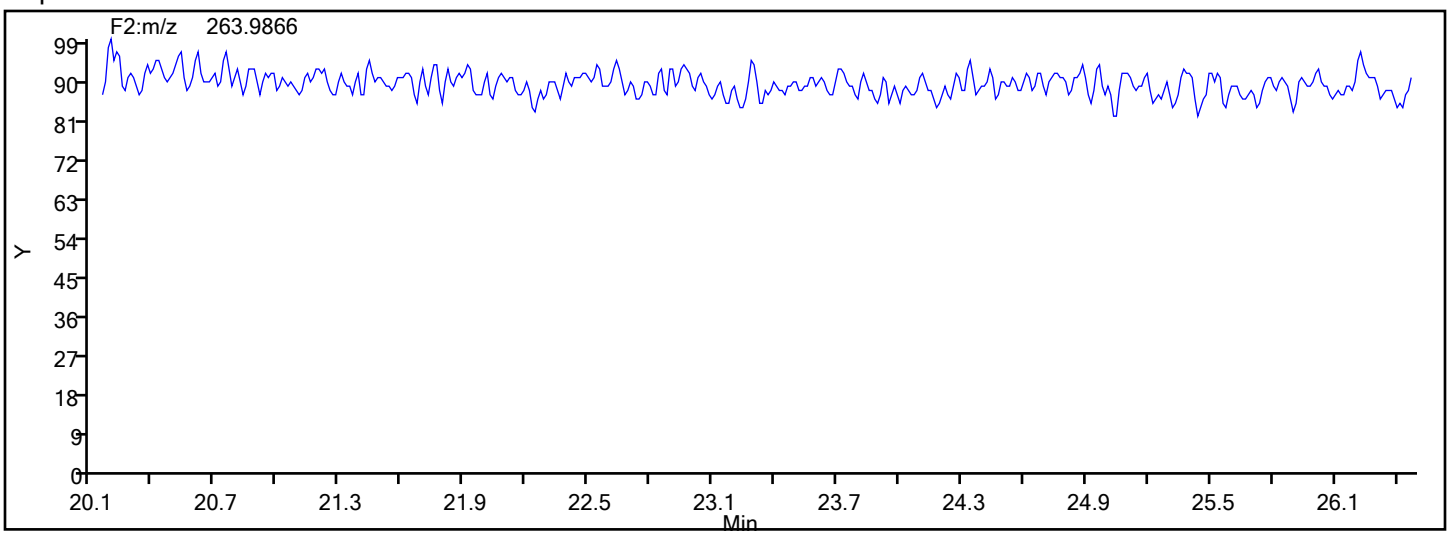
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



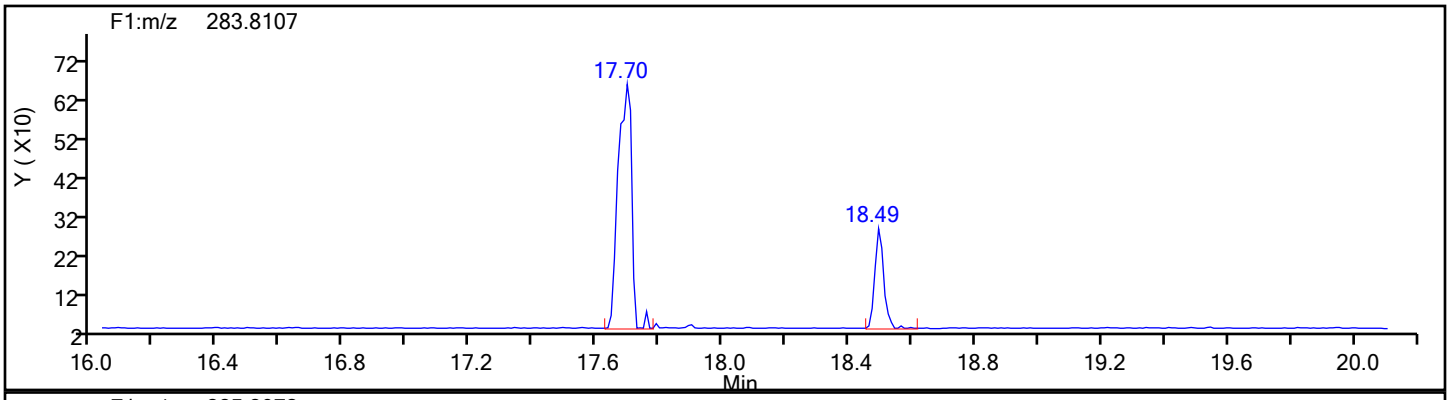
Report Date: 05-May-2025 18:00:50 Chrom Revision: 2.3 18-Apr-2025 15:35:42

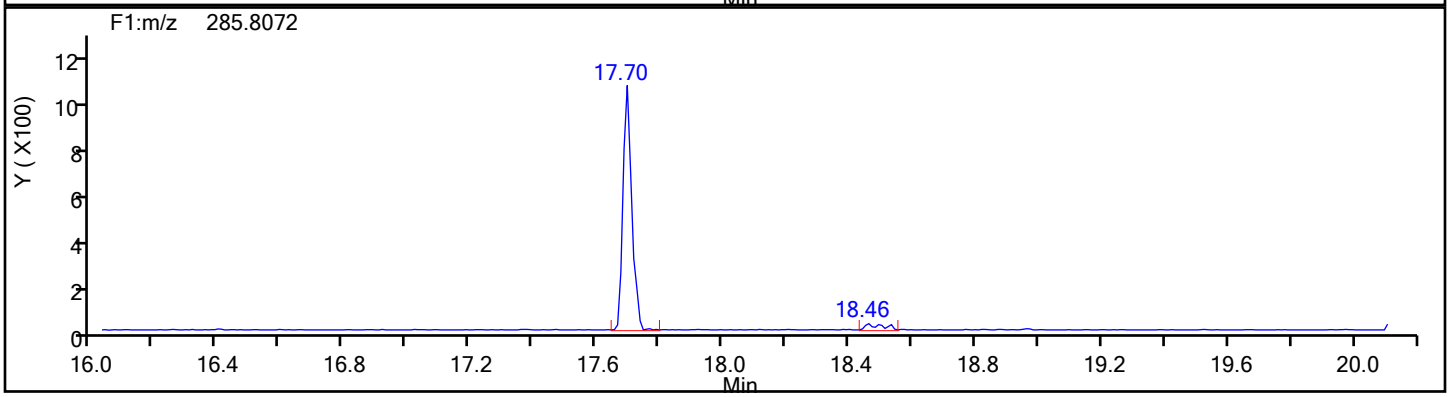
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

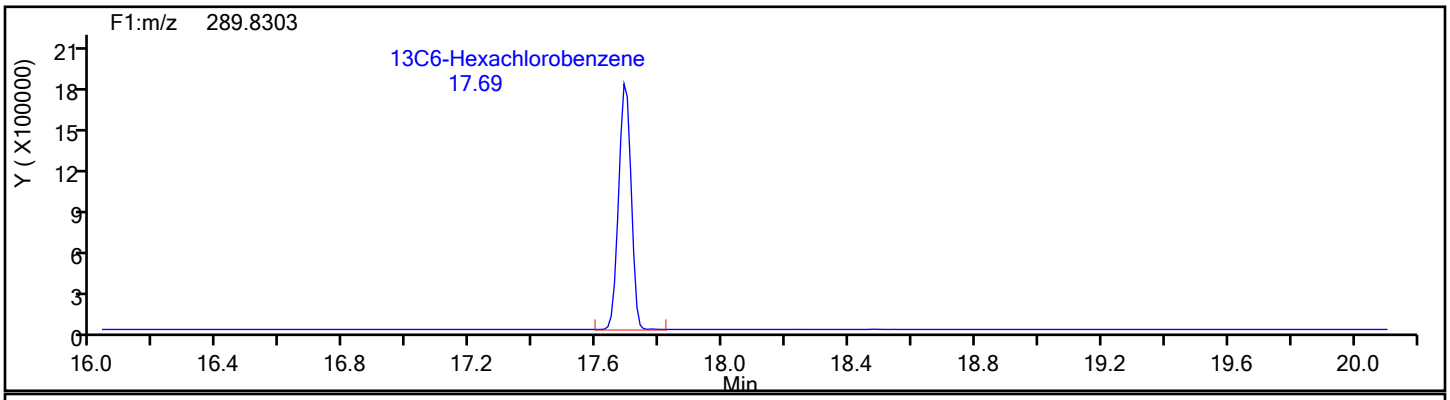
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

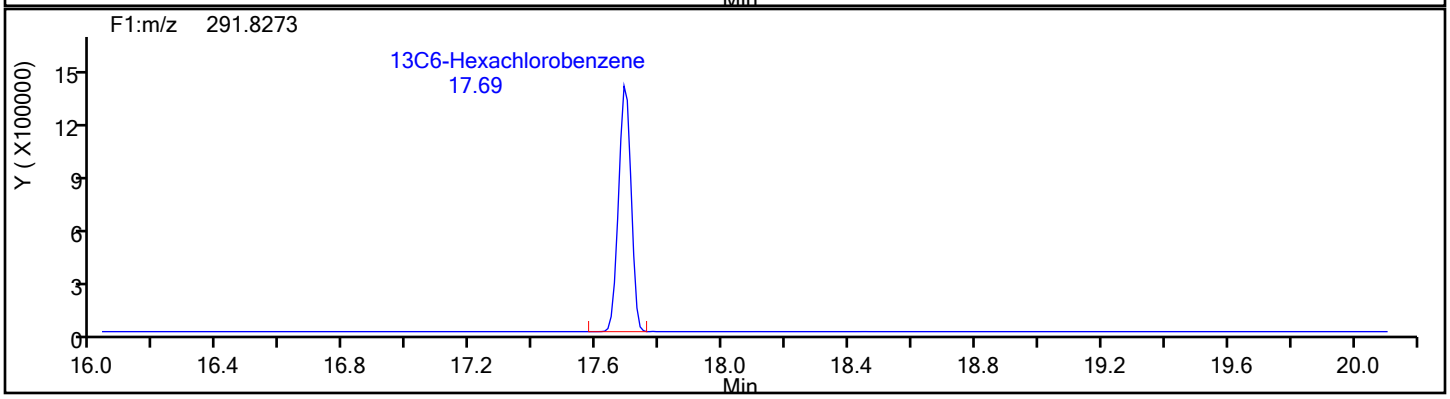
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 05-May-2025 18:00:50 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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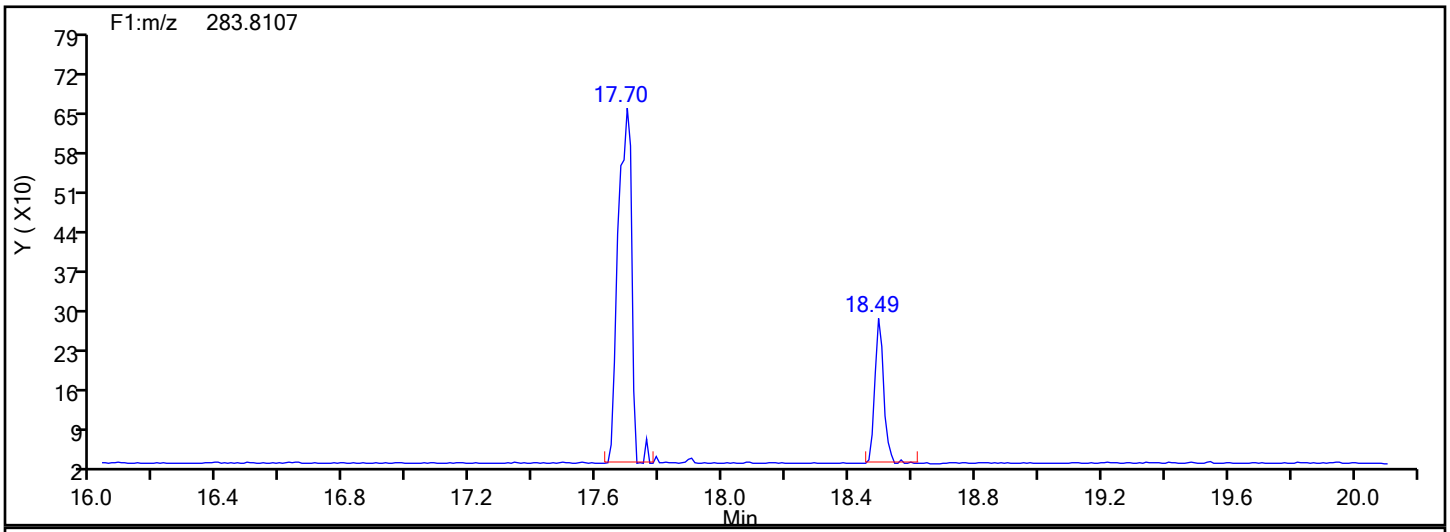
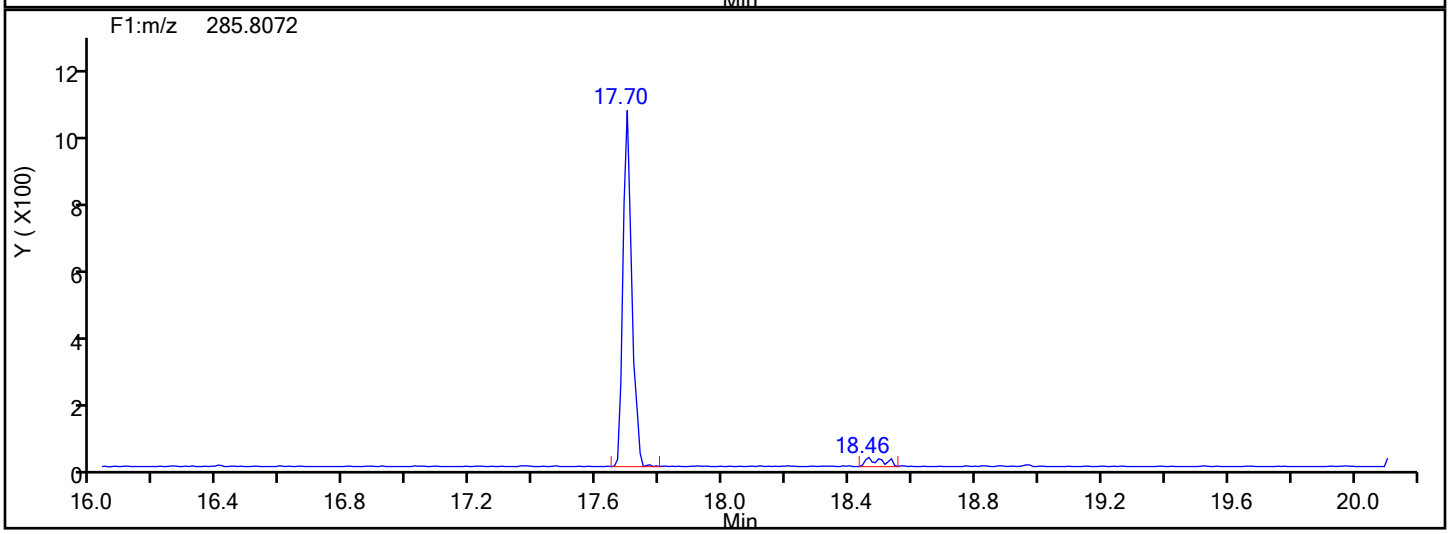
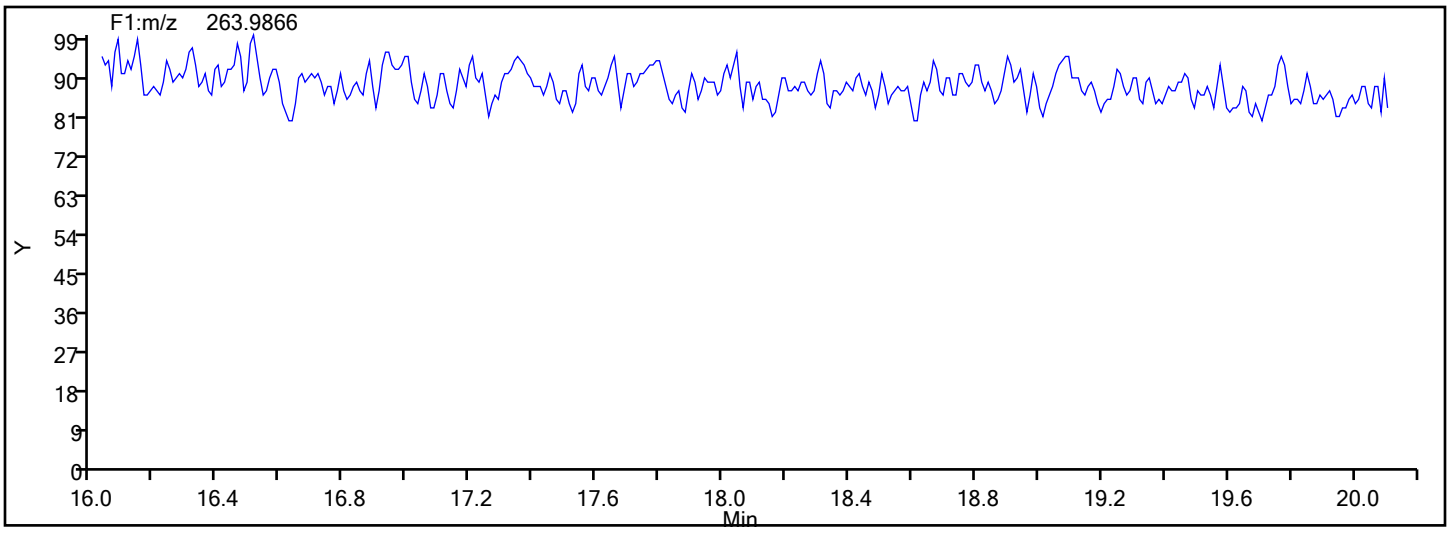
Column Type:	RTX-5	Column Dia:	0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 05-May-2025 18:00:50 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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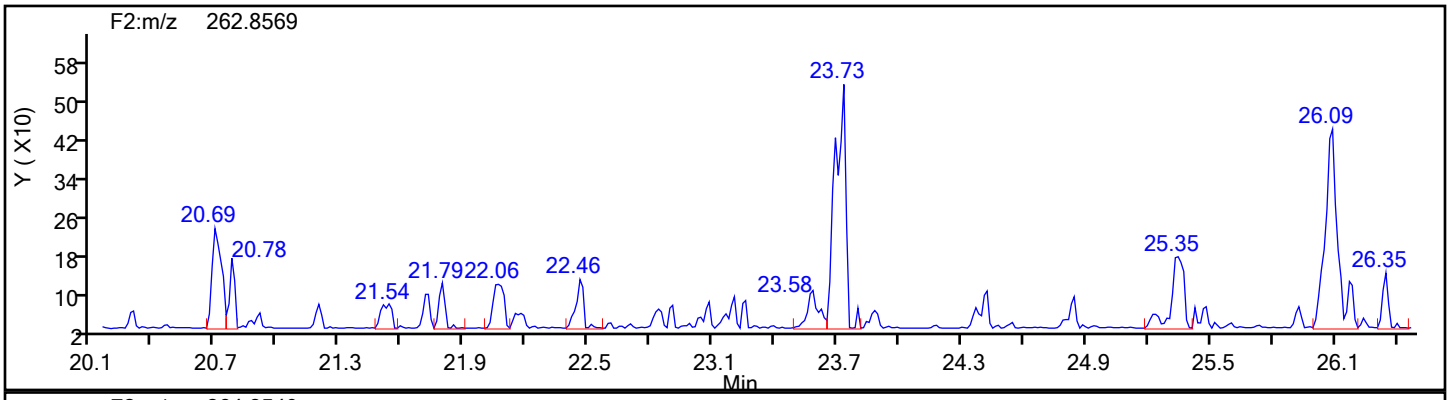
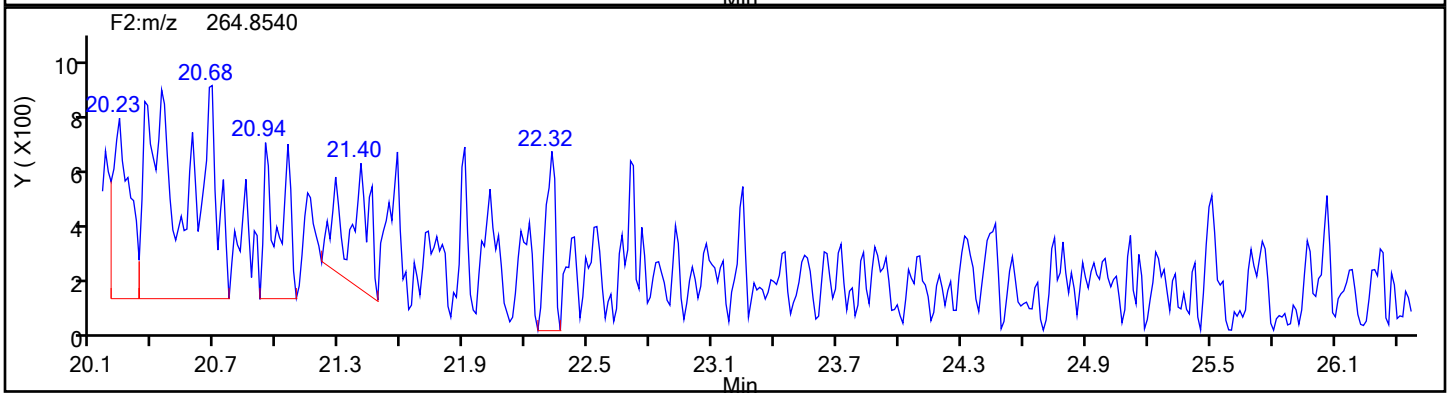
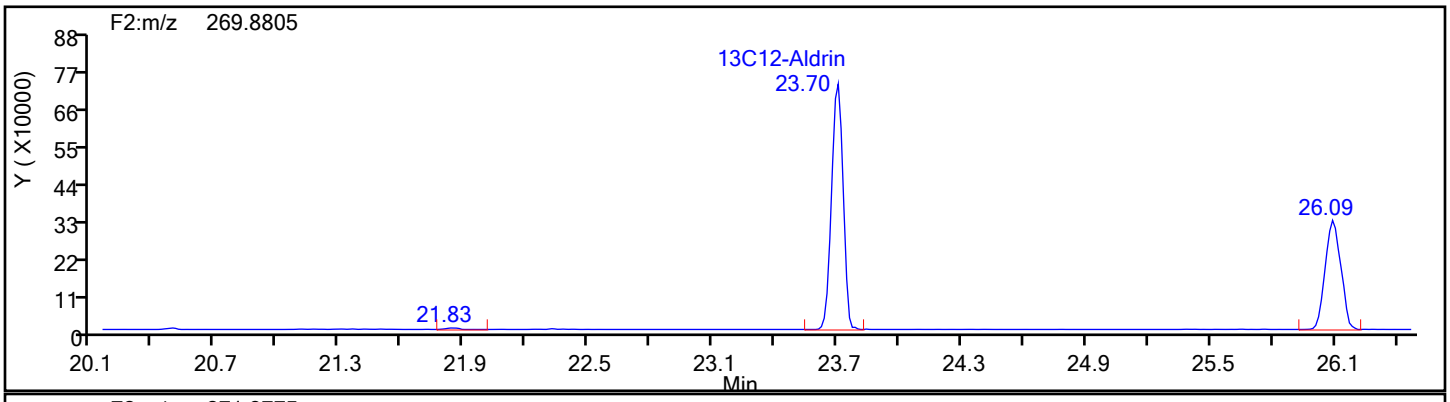
Column Type:	RTX-5	Column Dia:	0.32 mm

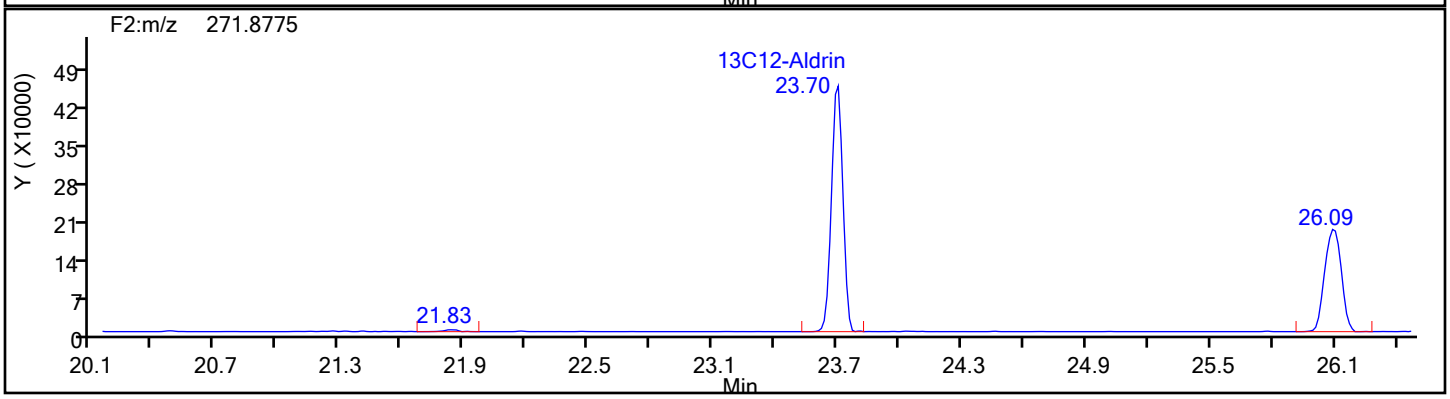
Aldrin





Aldrin Standards





Report Date: 05-May-2025 18:00:50 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Client ID:
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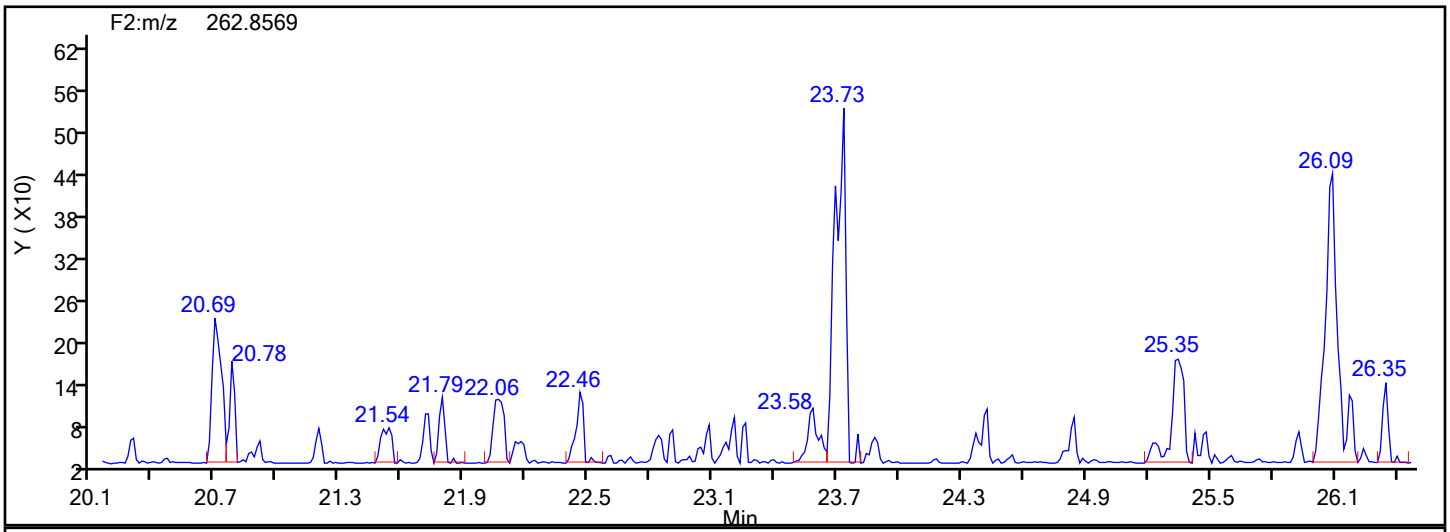
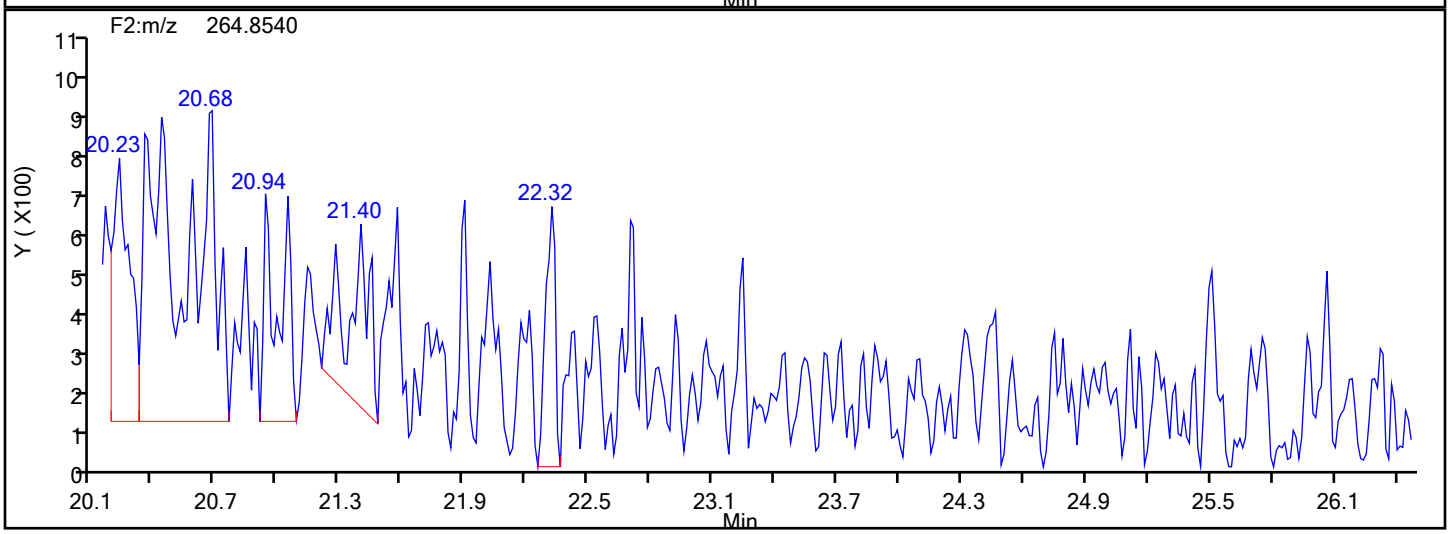
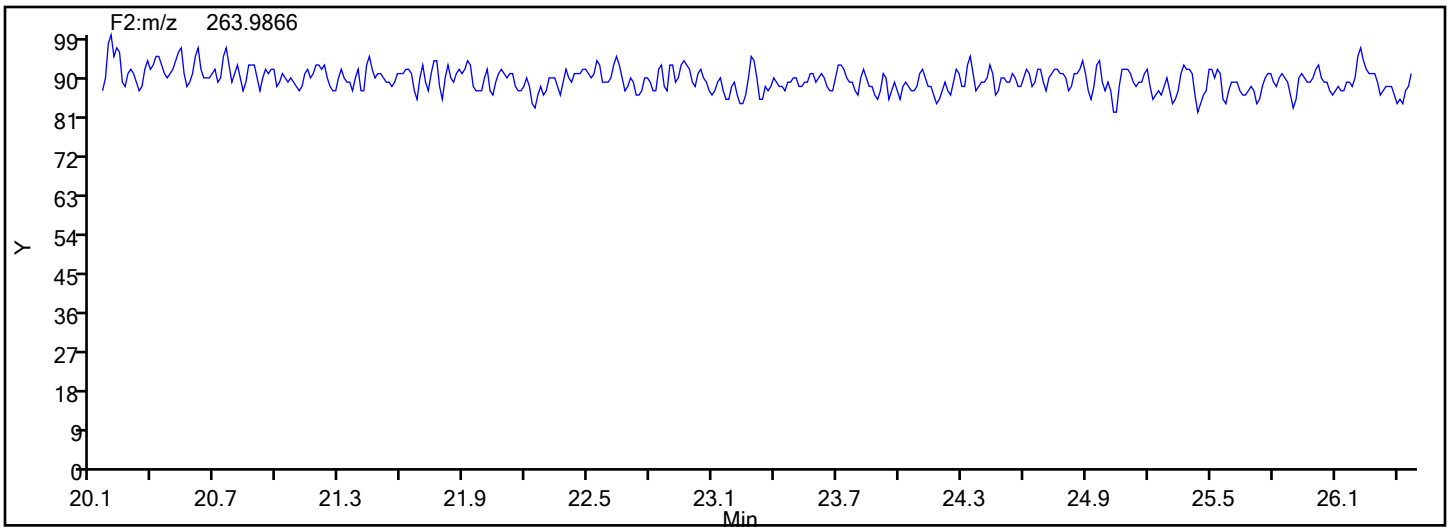
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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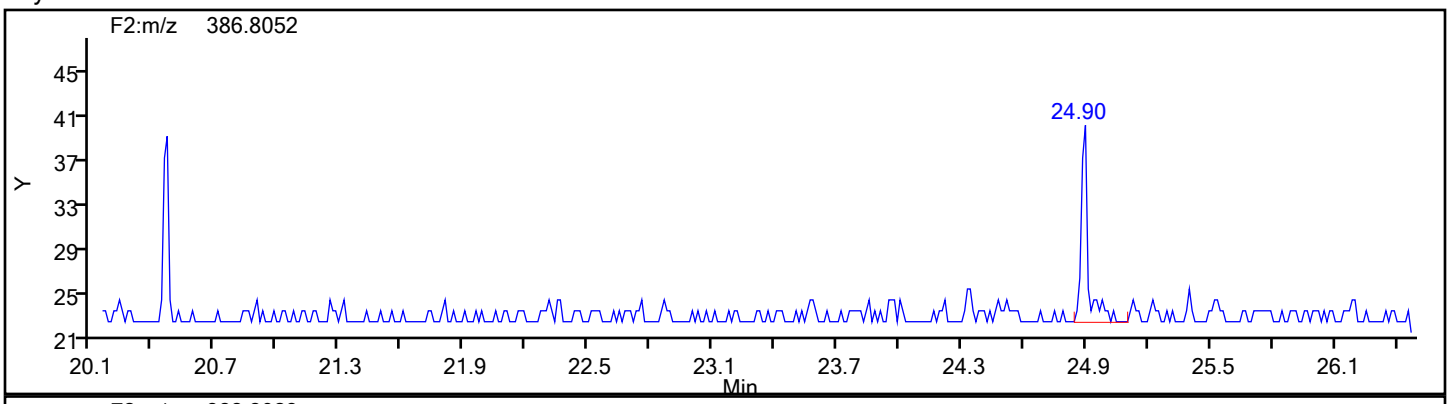
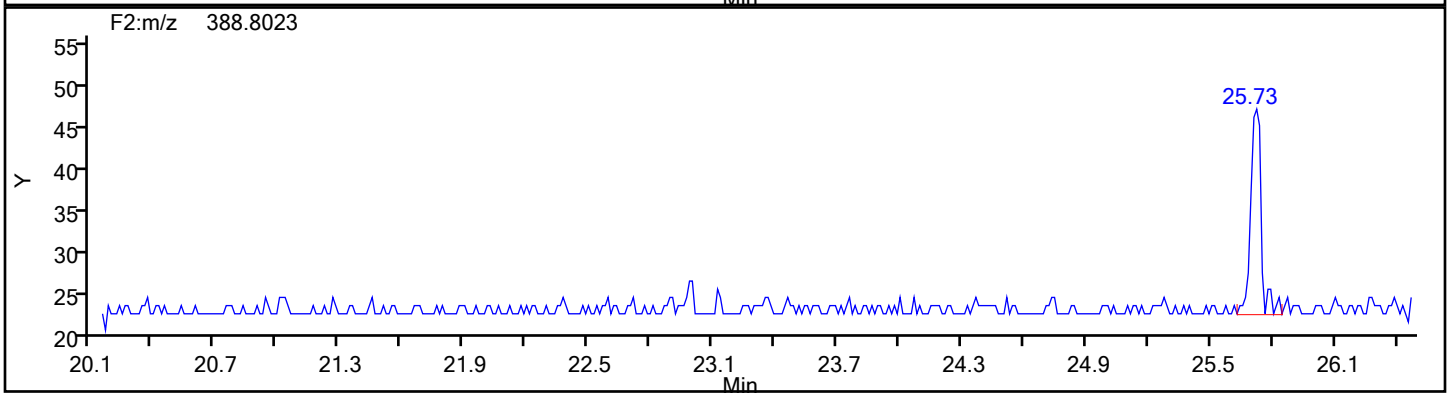
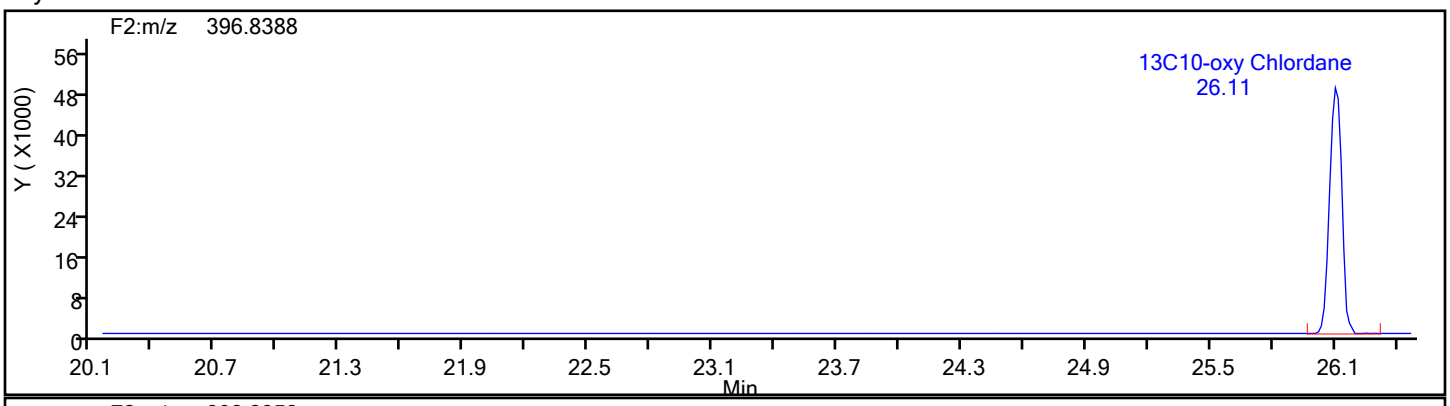
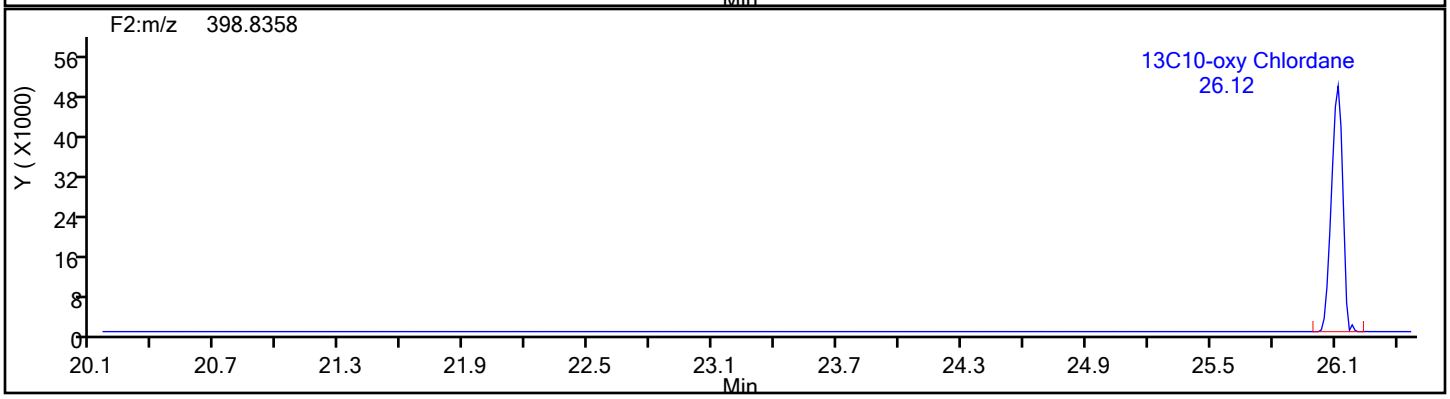
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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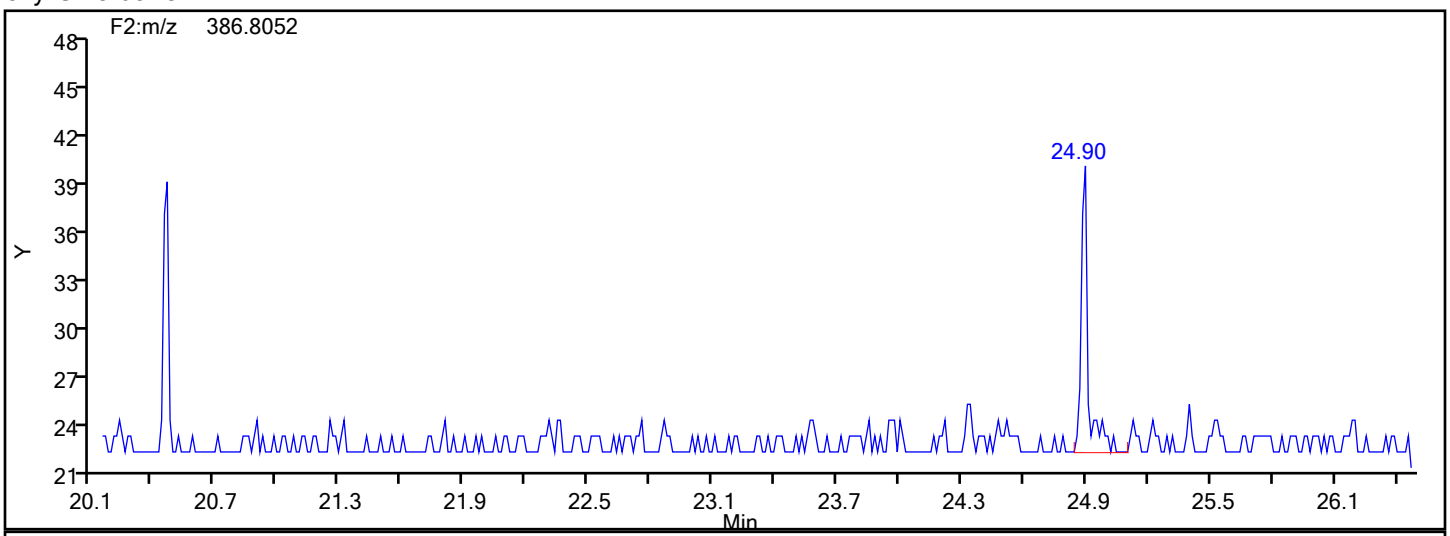
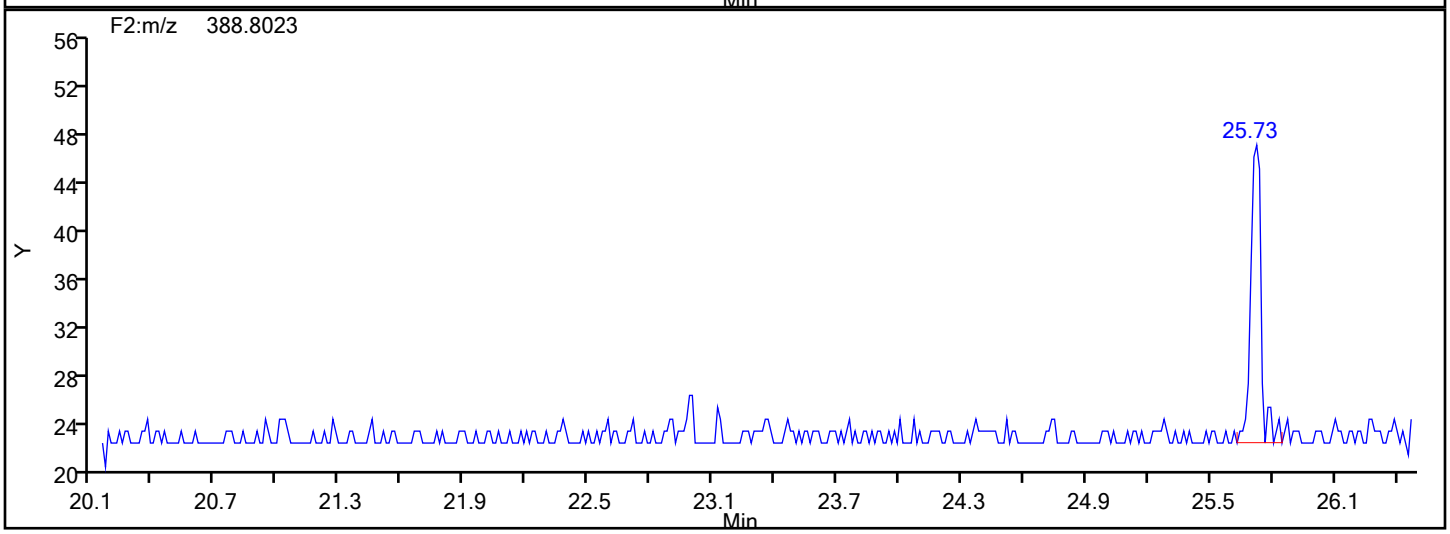
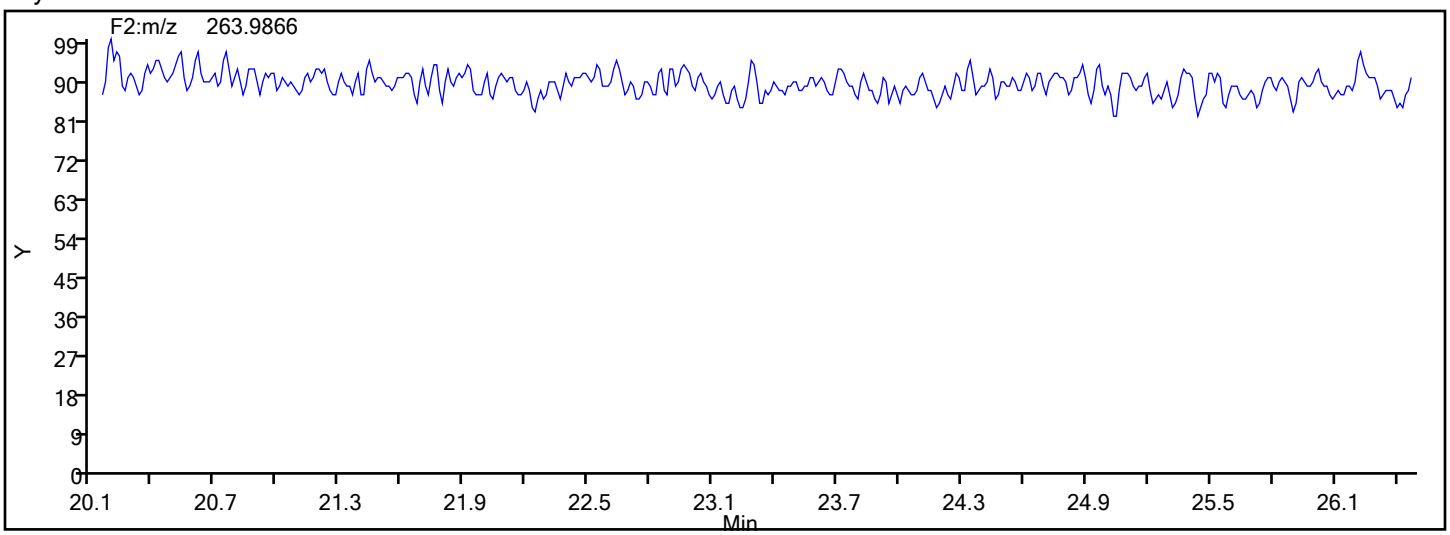
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
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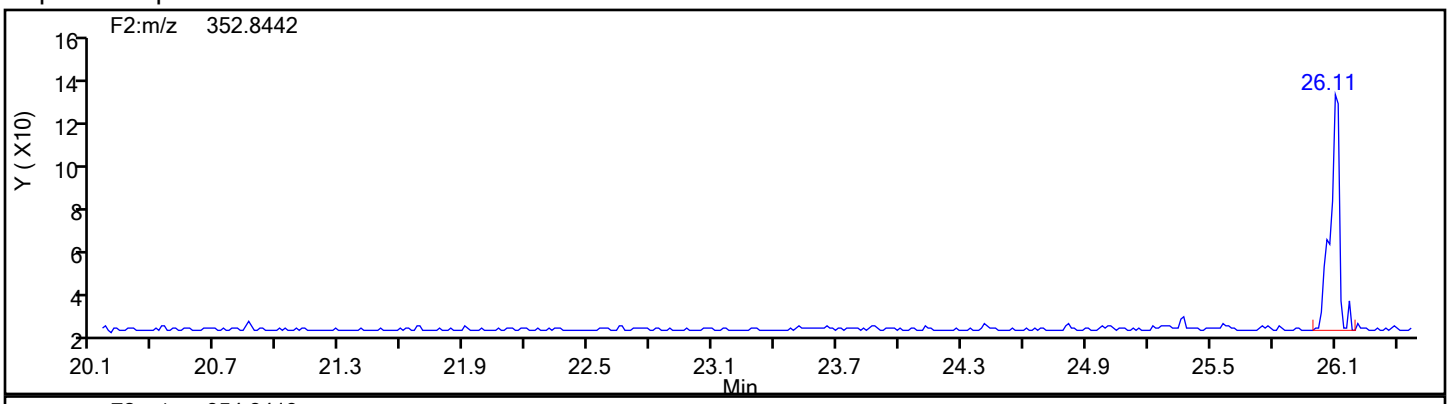
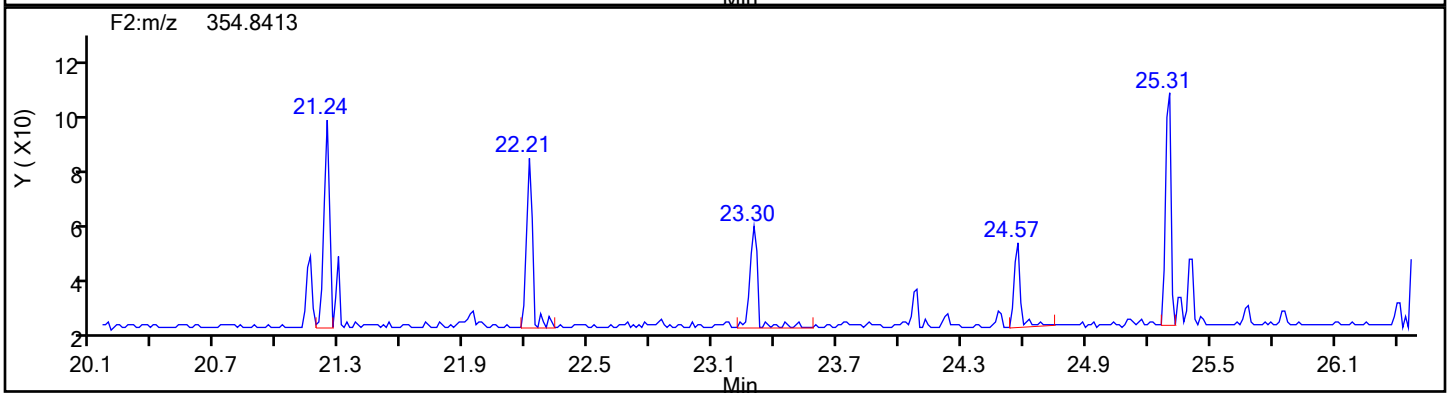
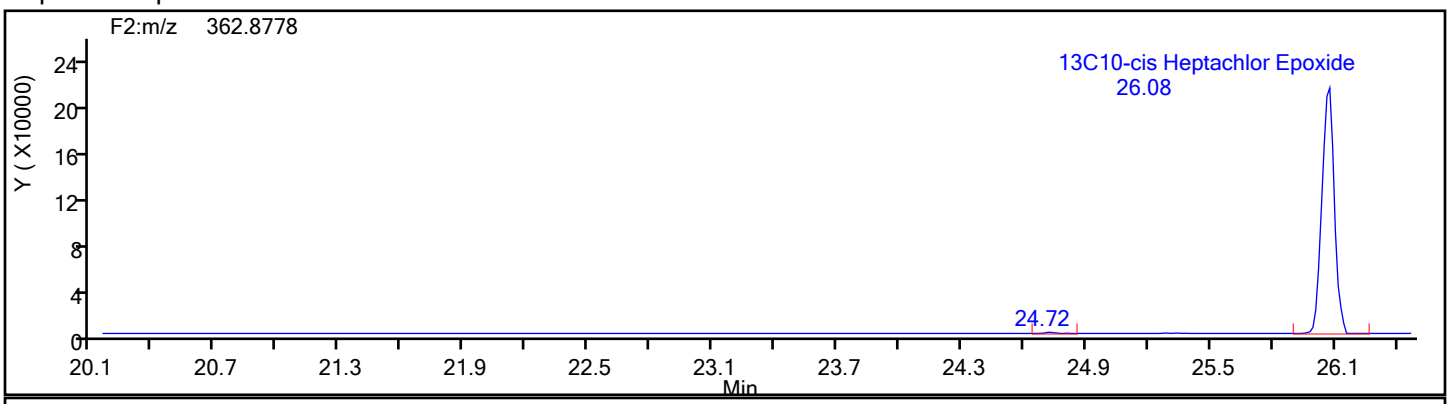
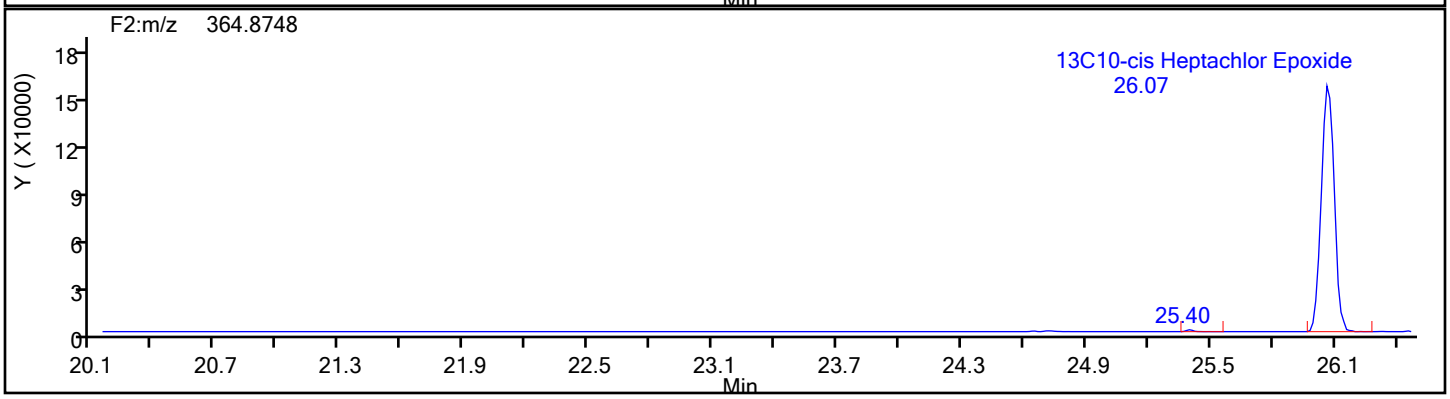
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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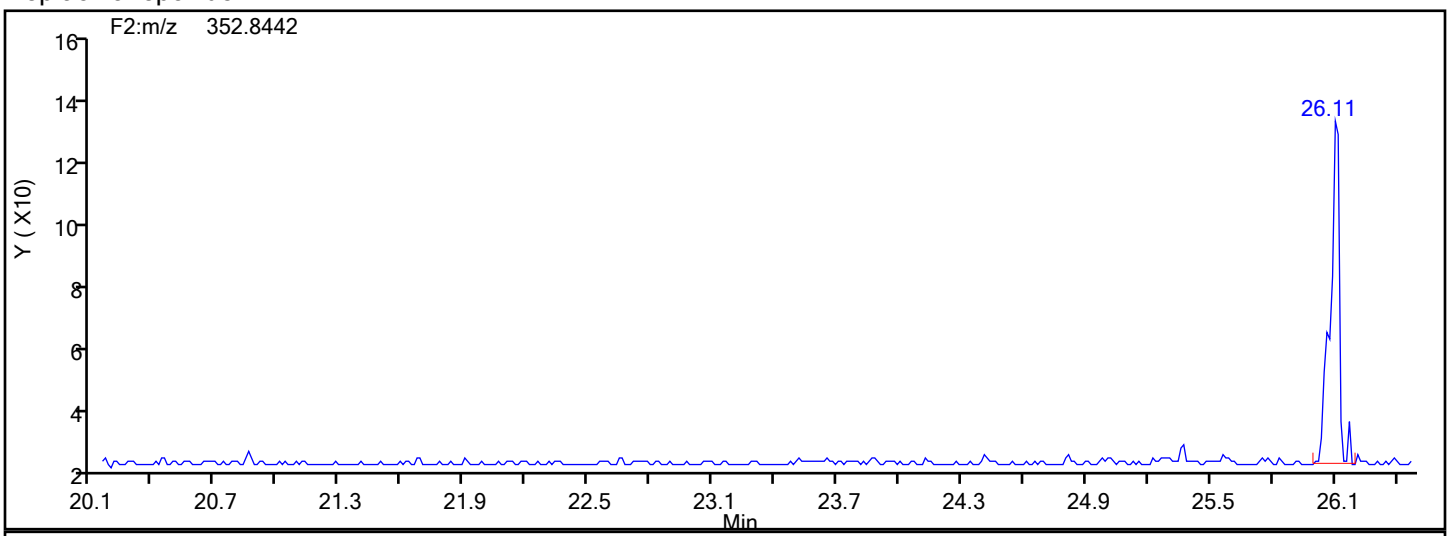
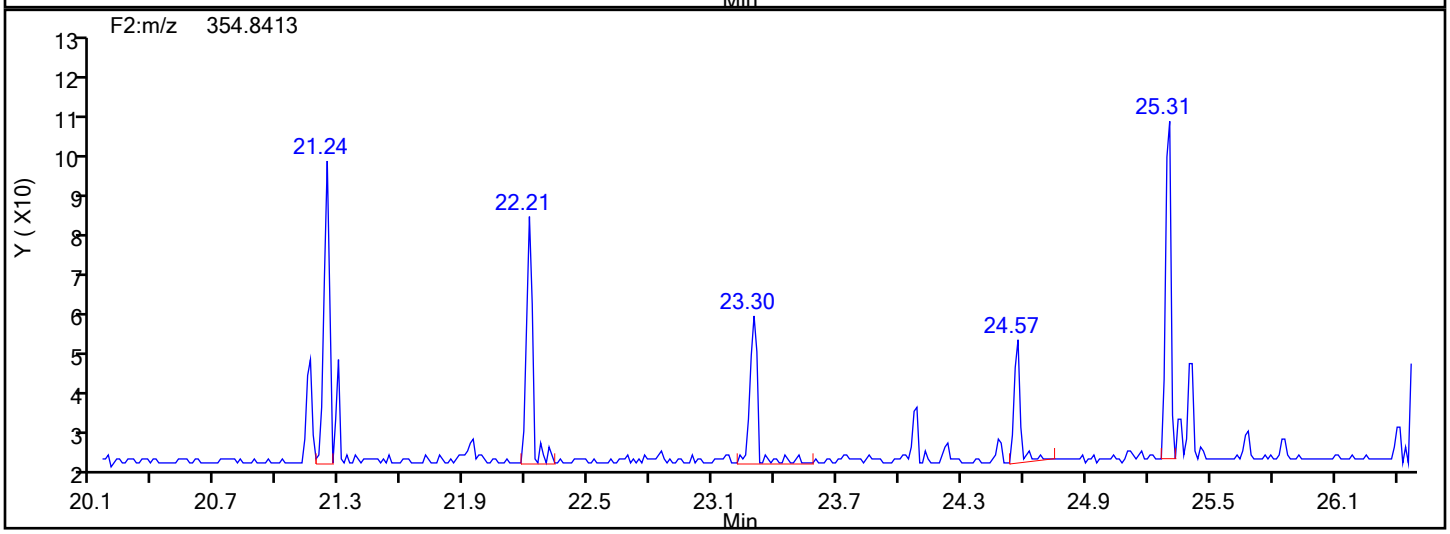
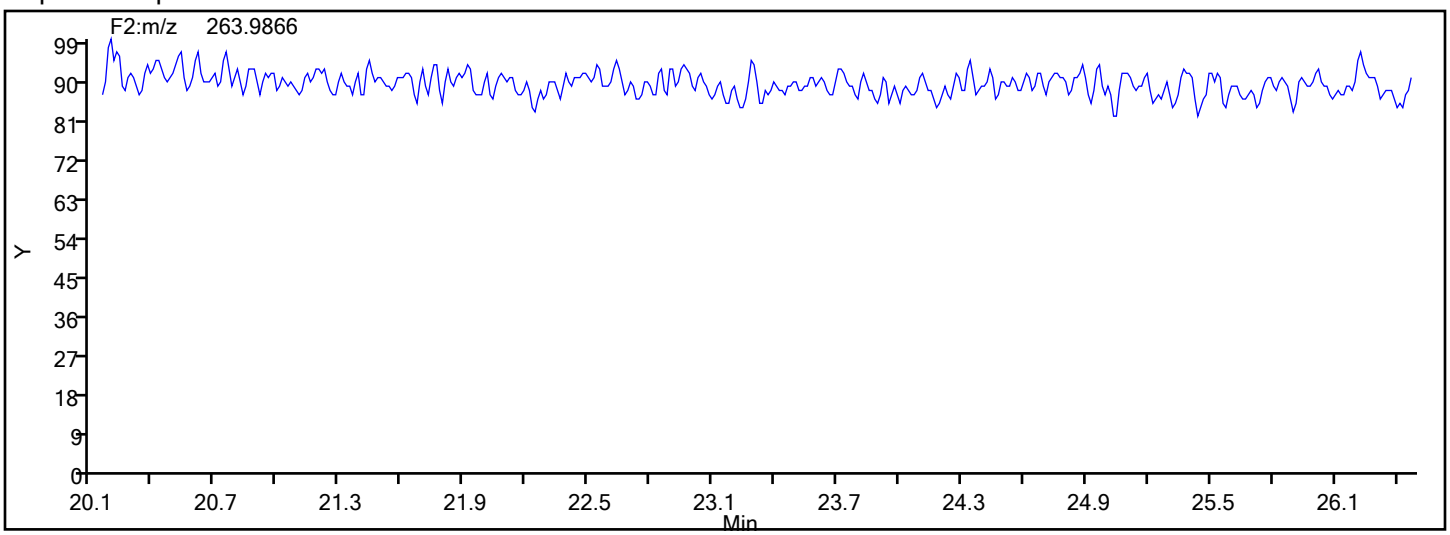
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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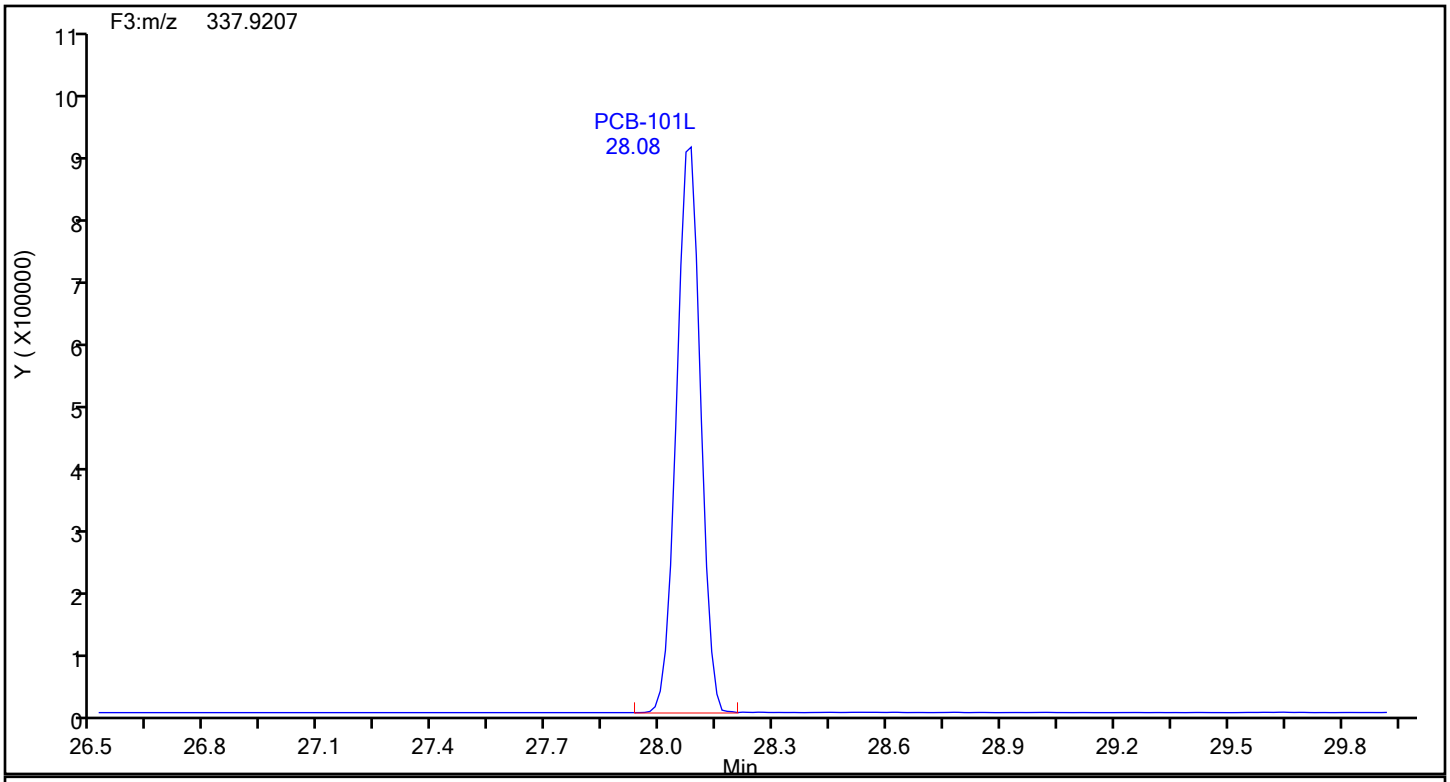
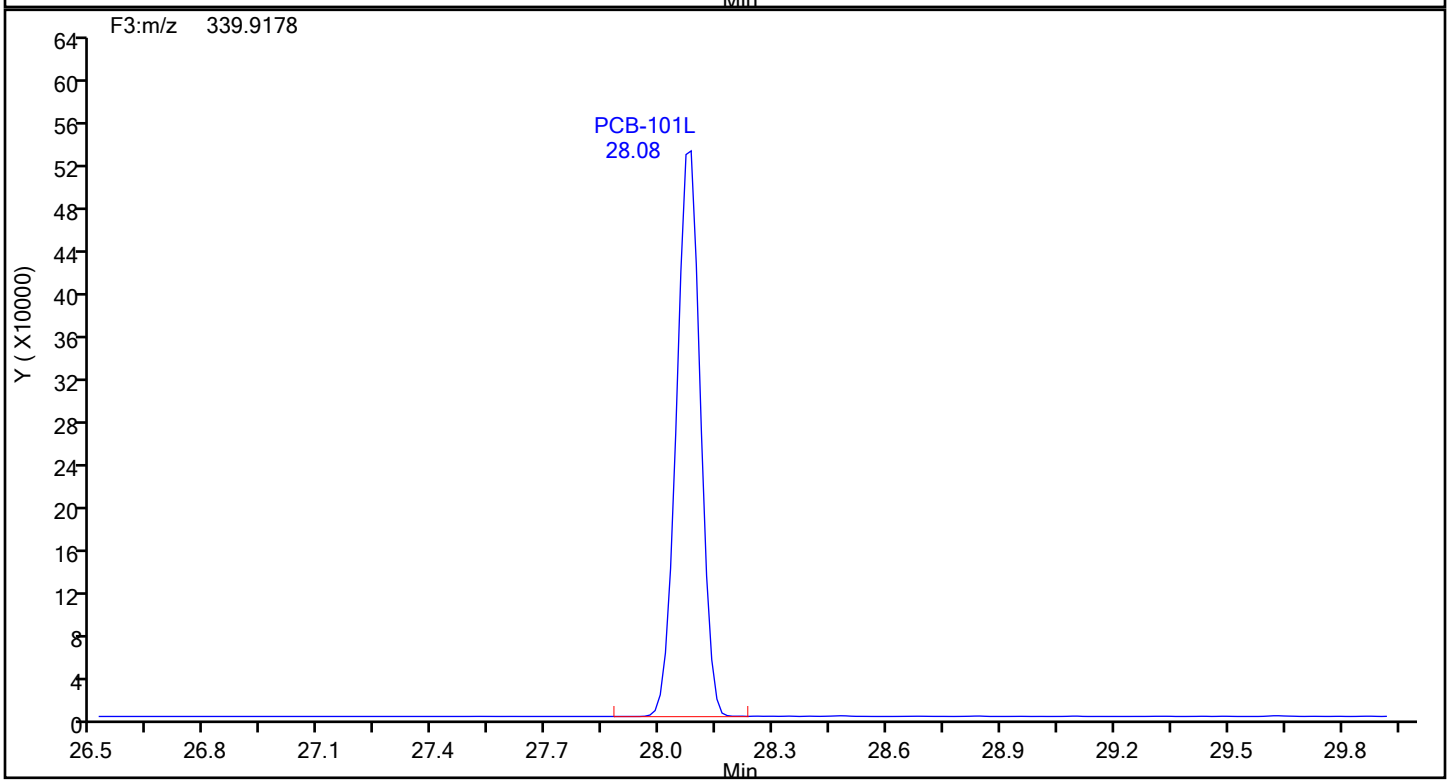
PCB-101L Standards





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Eurofins Knoxville

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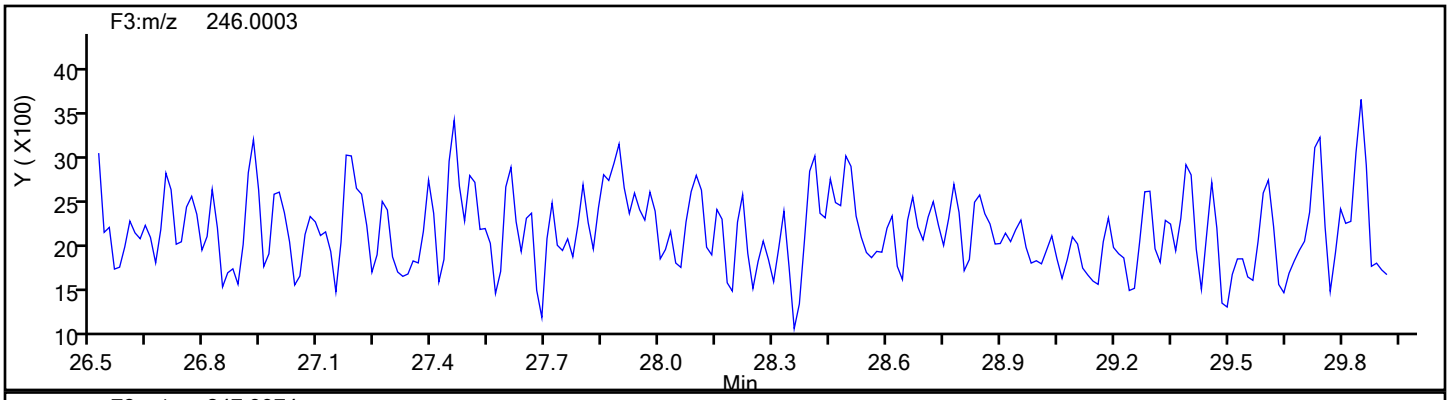
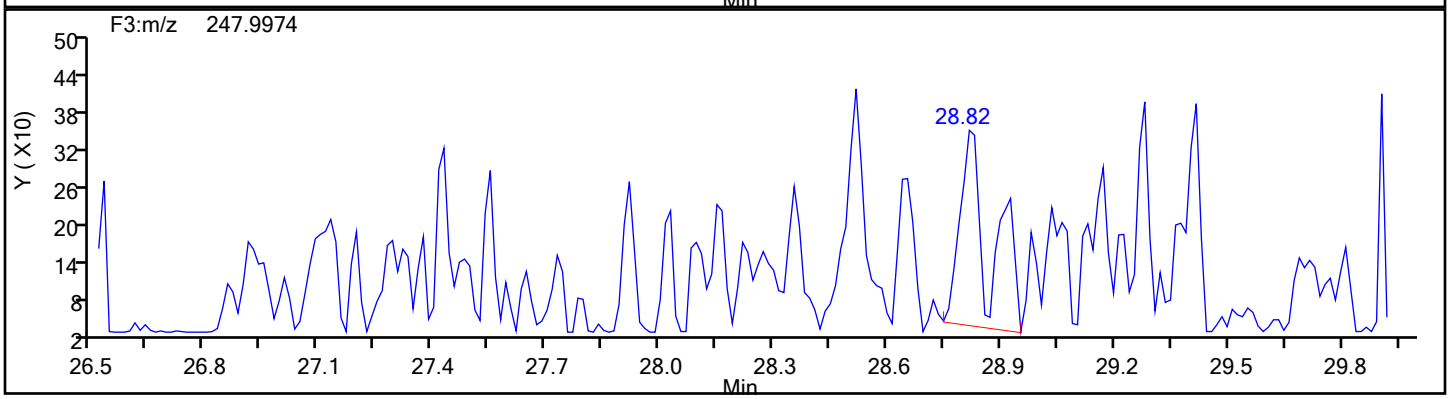
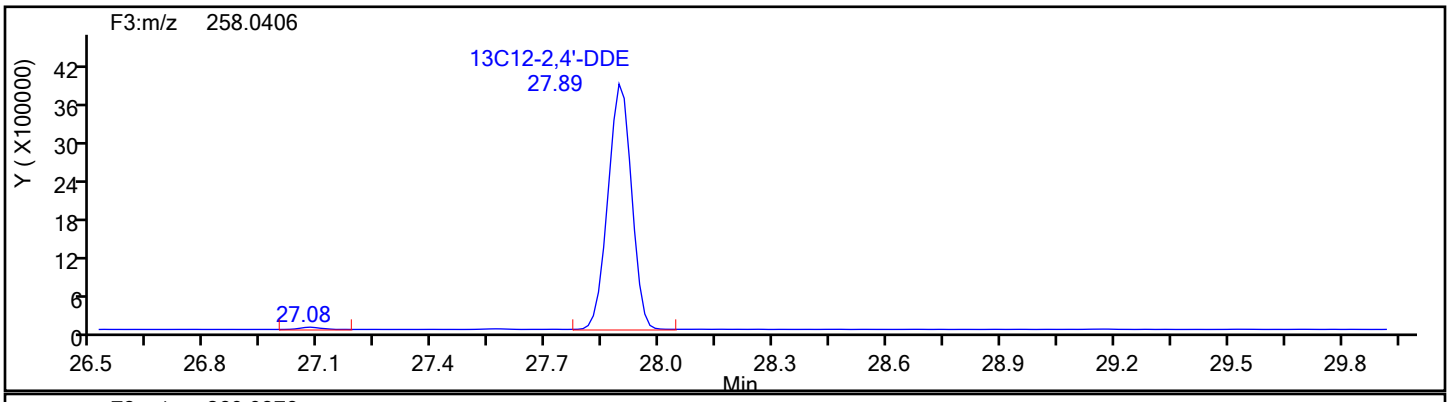
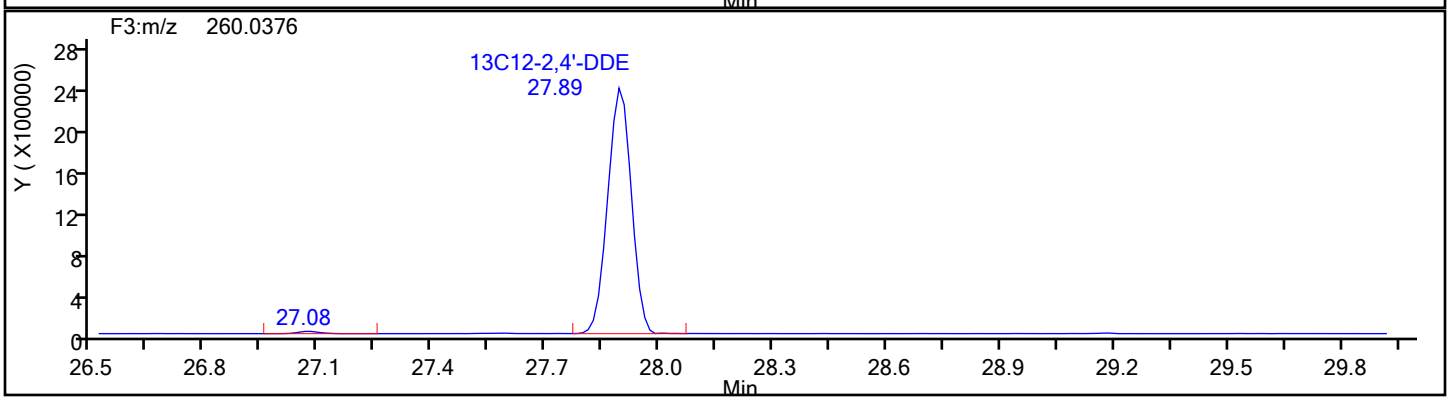
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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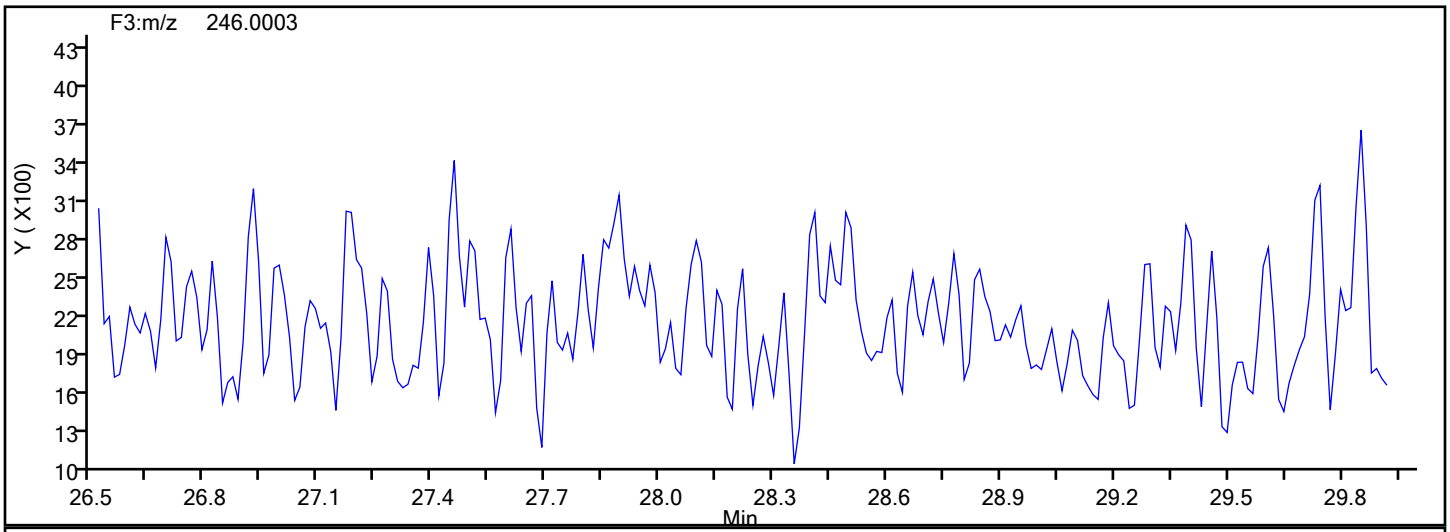
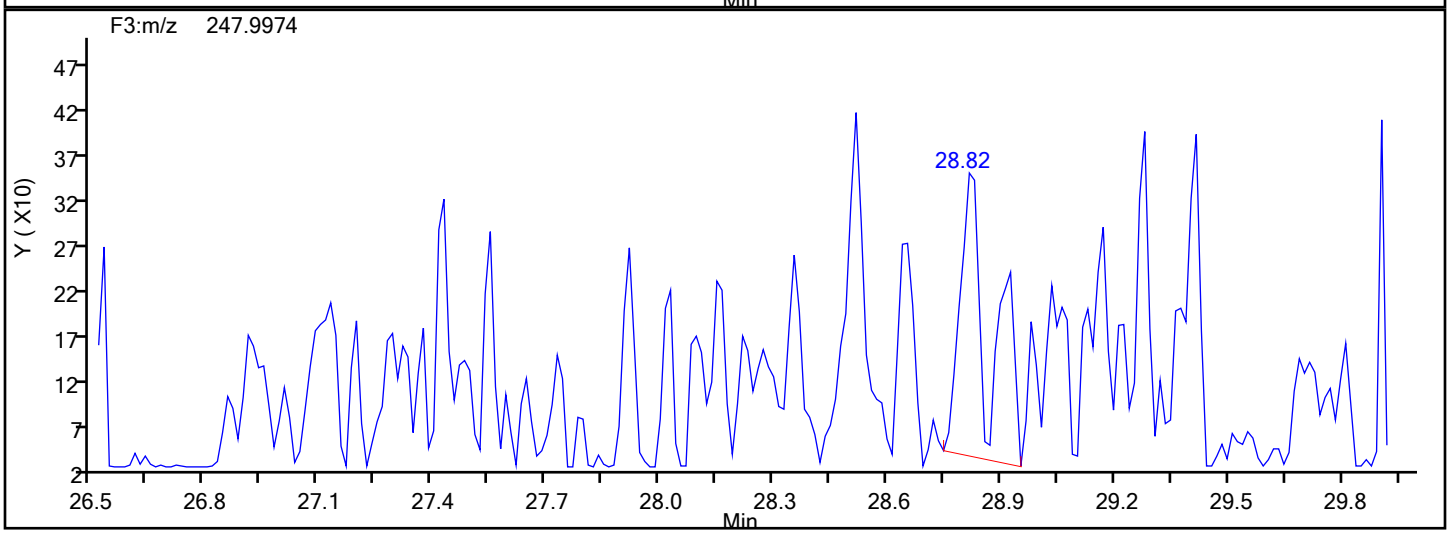
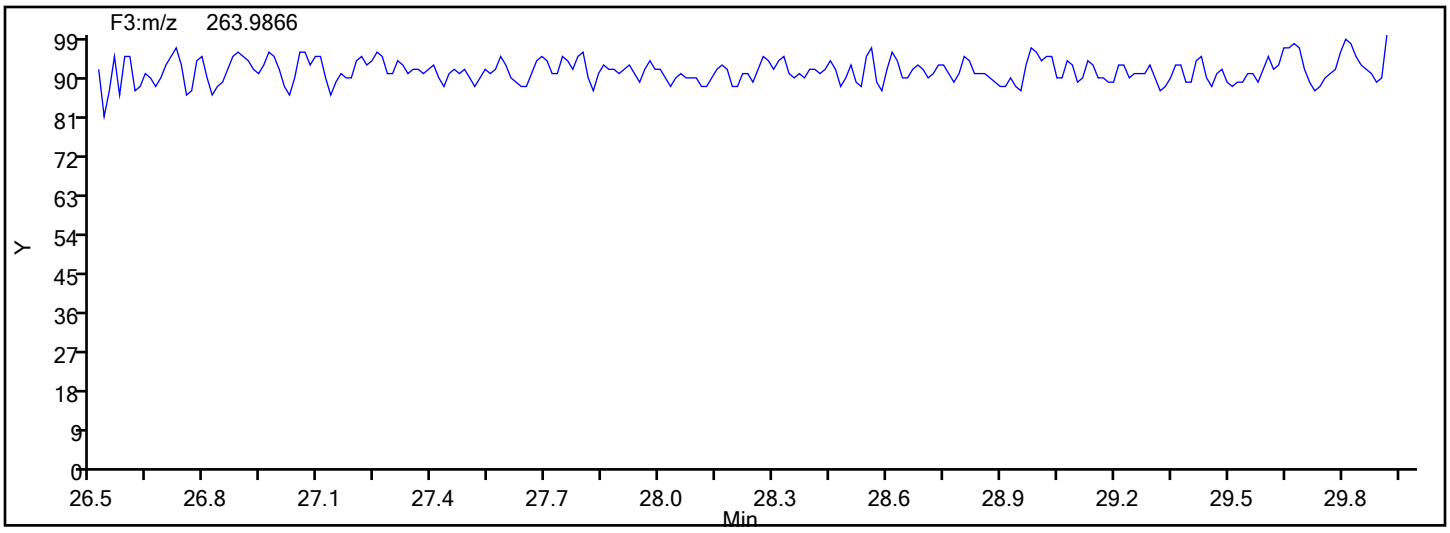
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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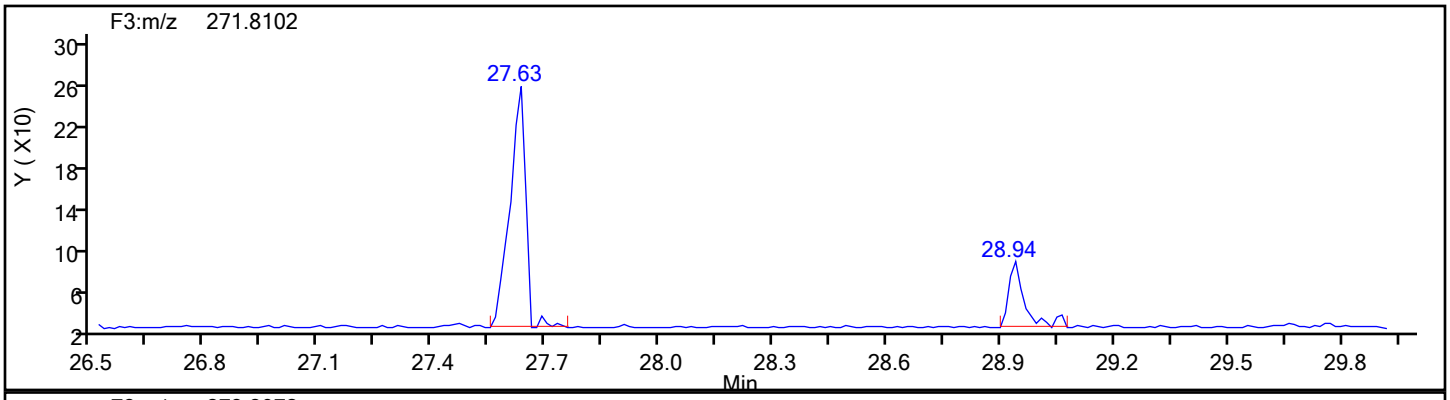
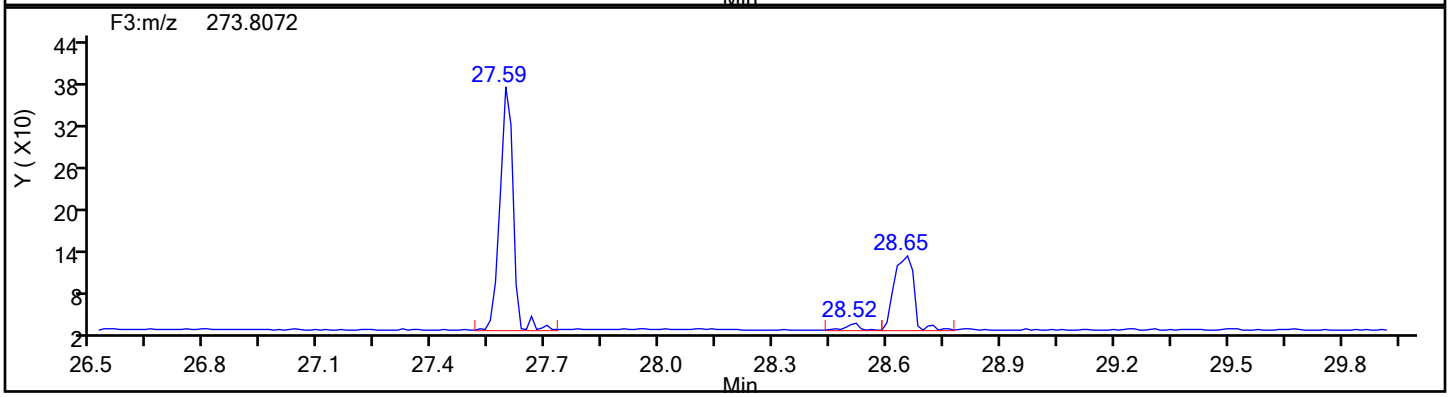
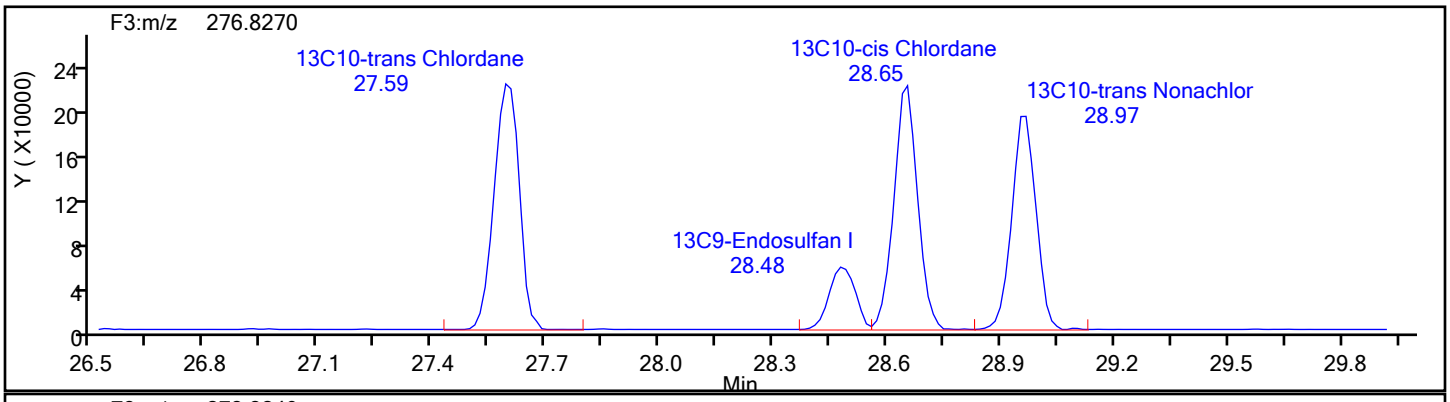
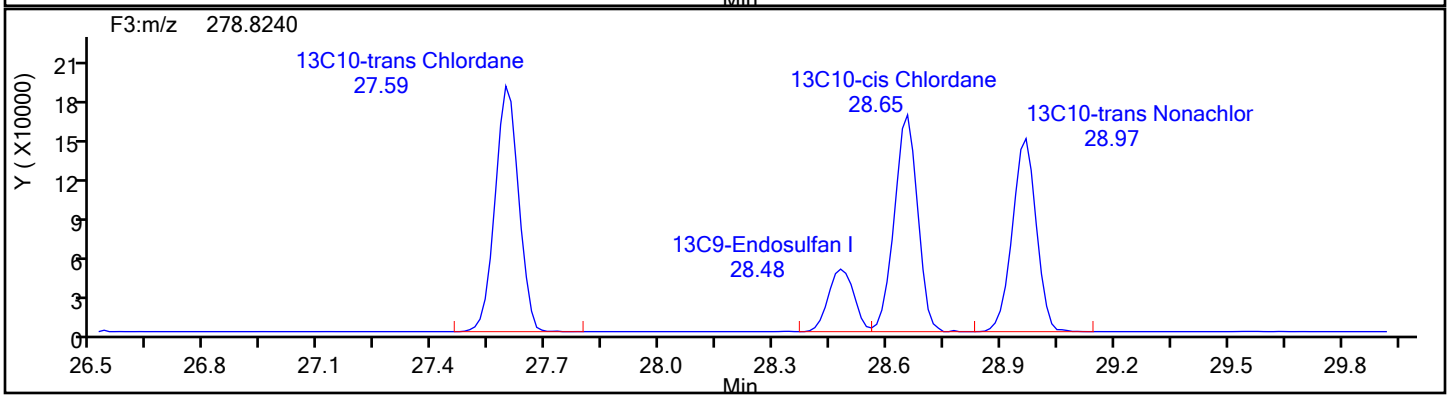
Chlordane





Chlordane Standards





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Eurofins Knoxville

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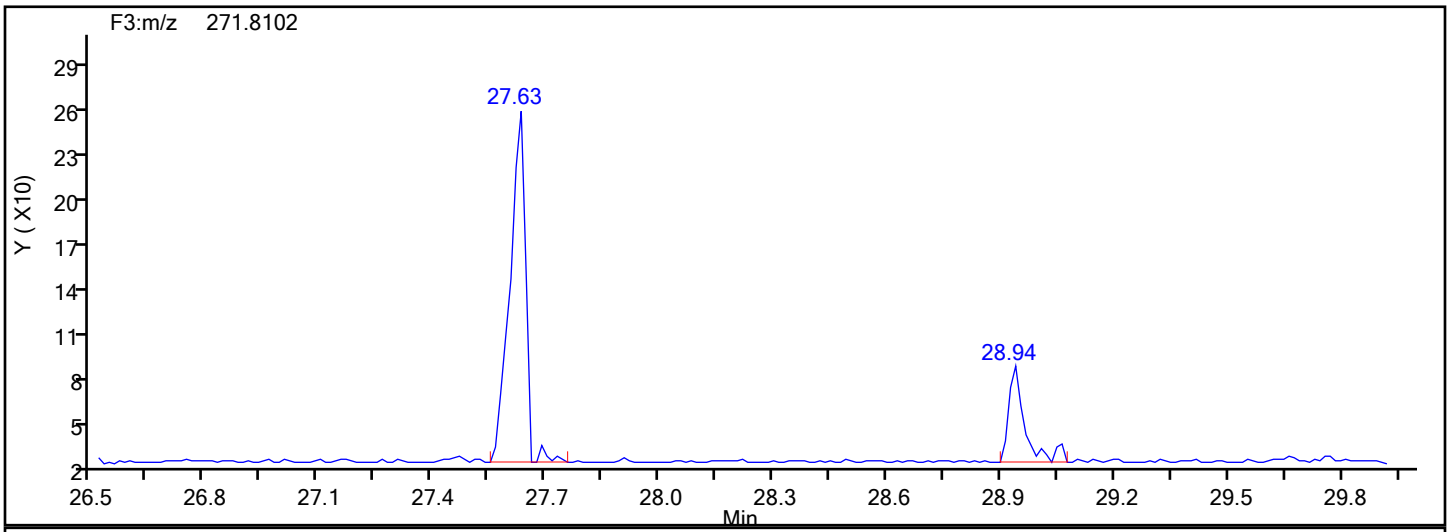
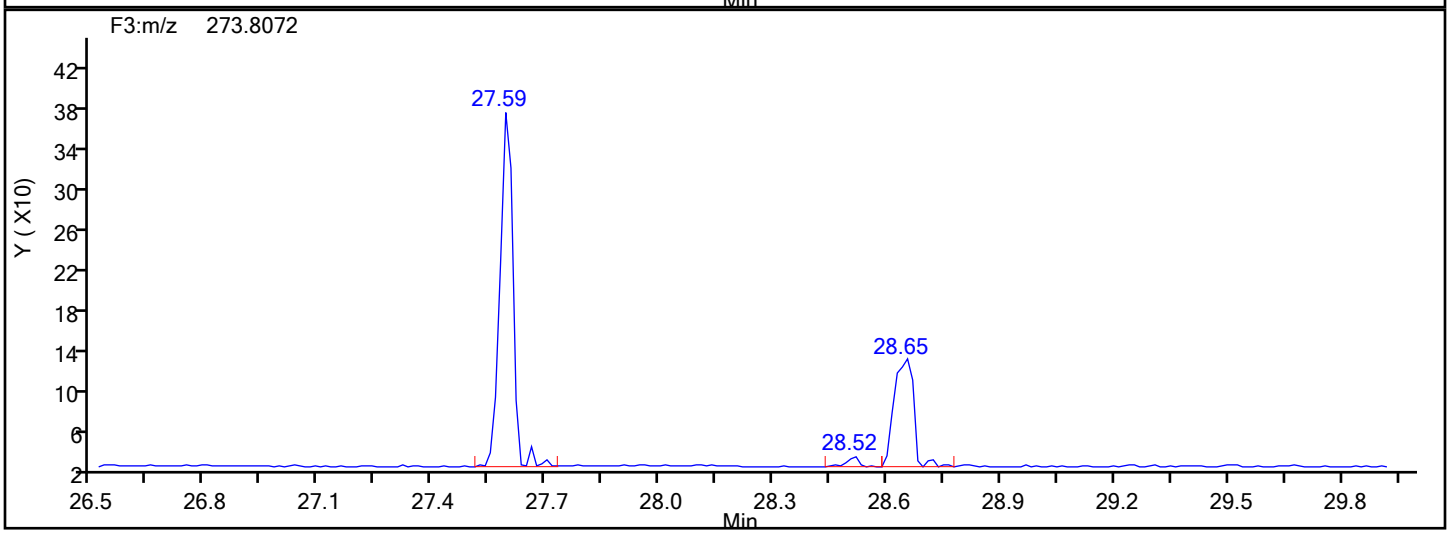
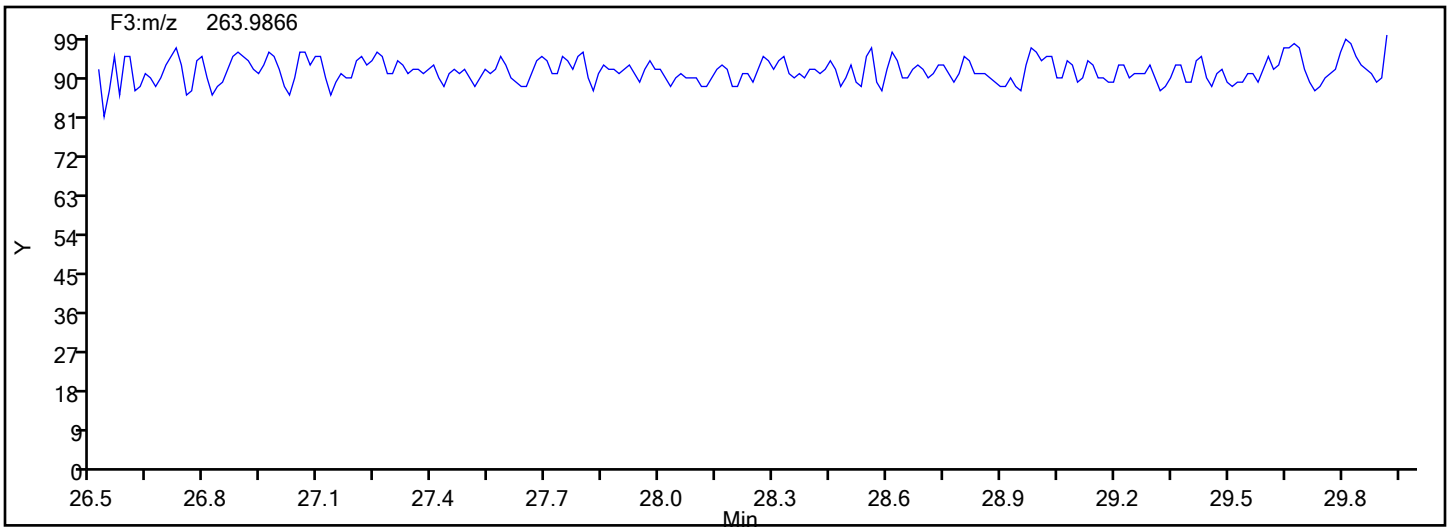
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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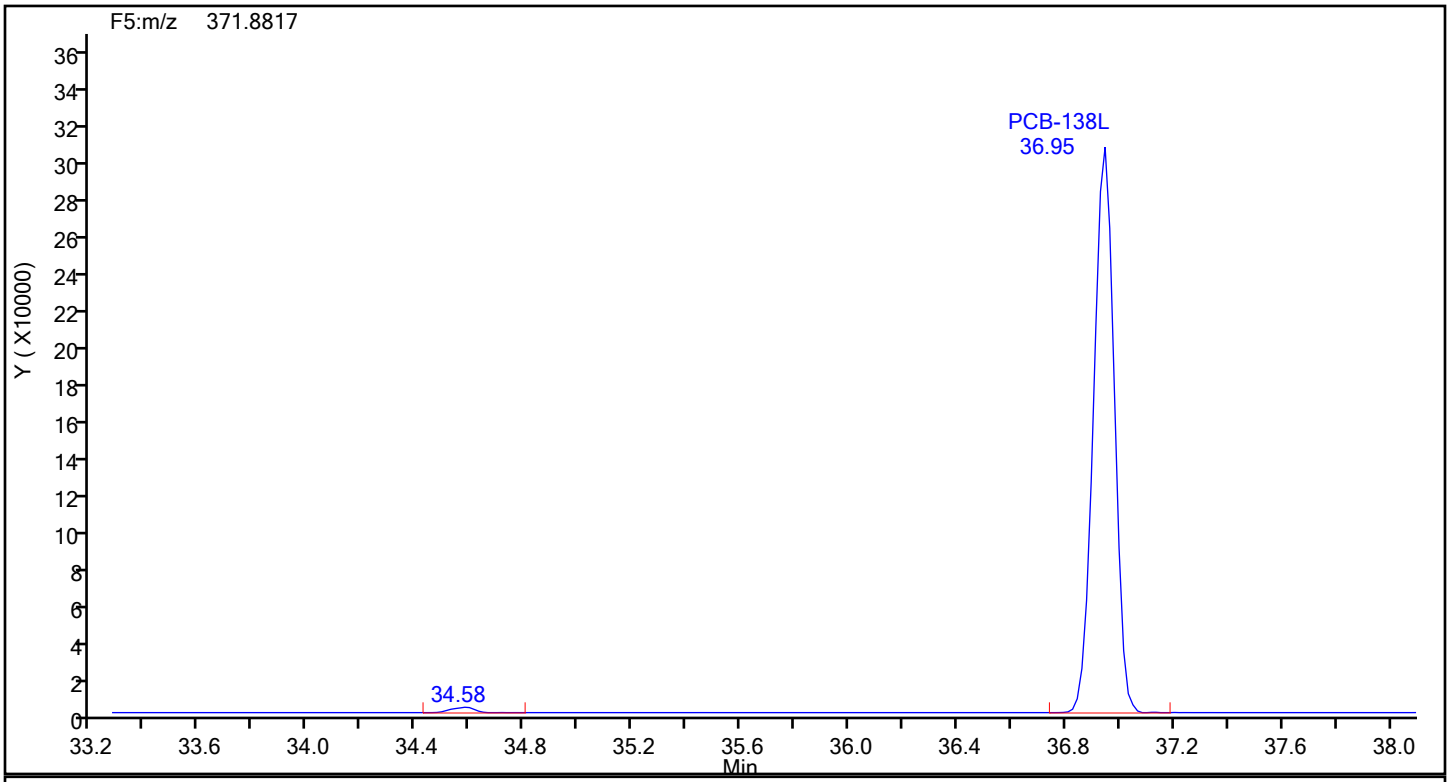
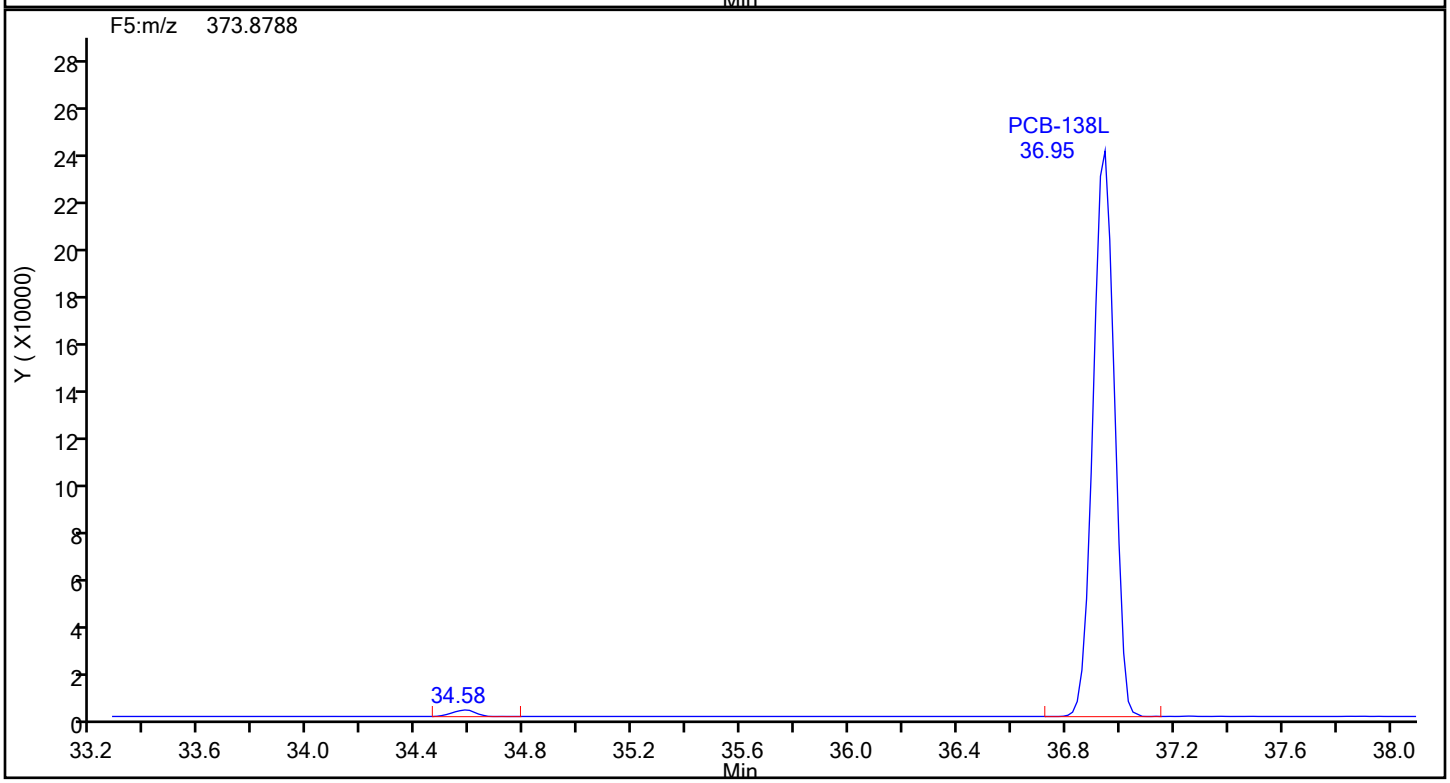
PCB-138L Standards





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Eurofins Knoxville

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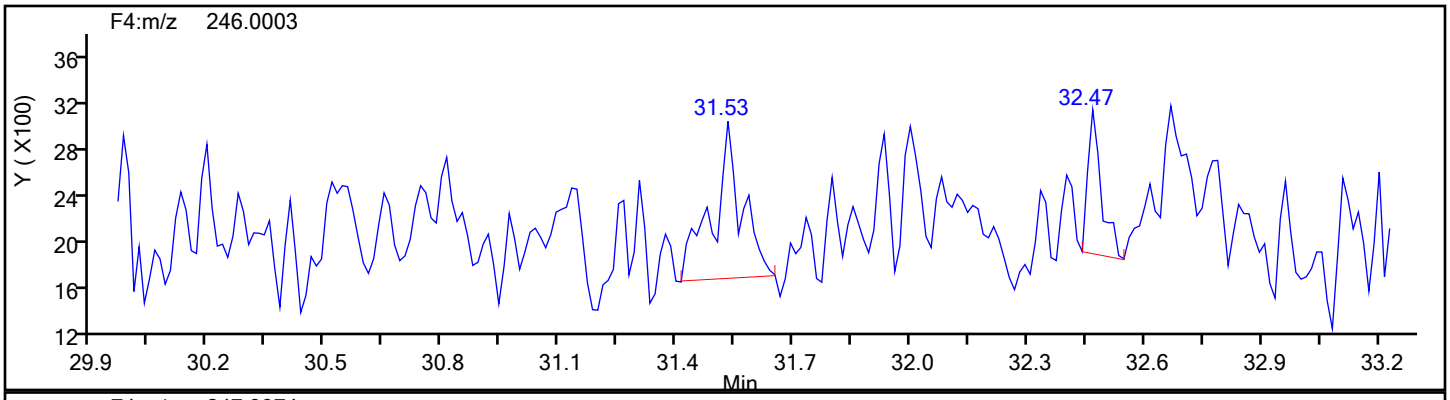
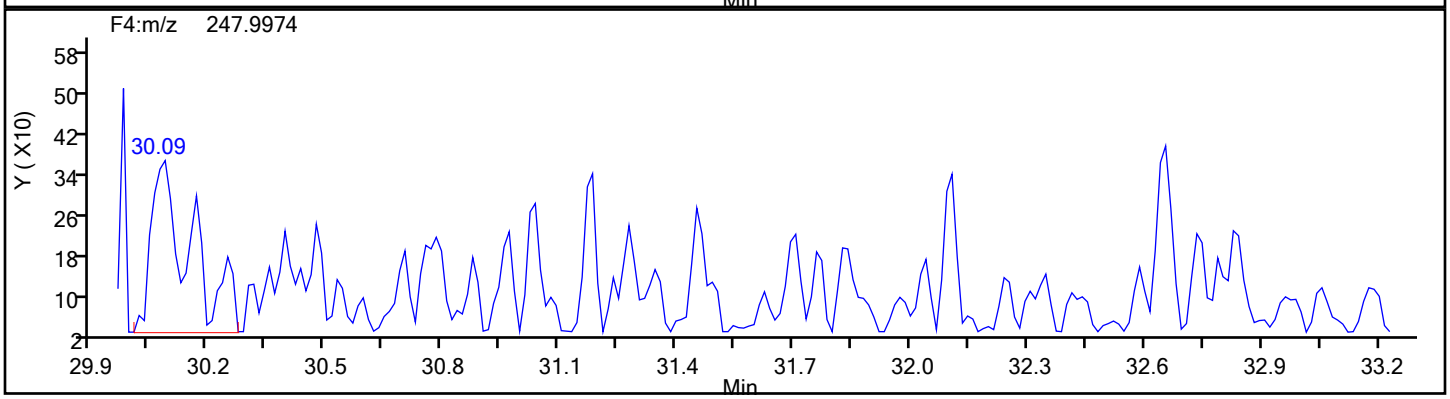
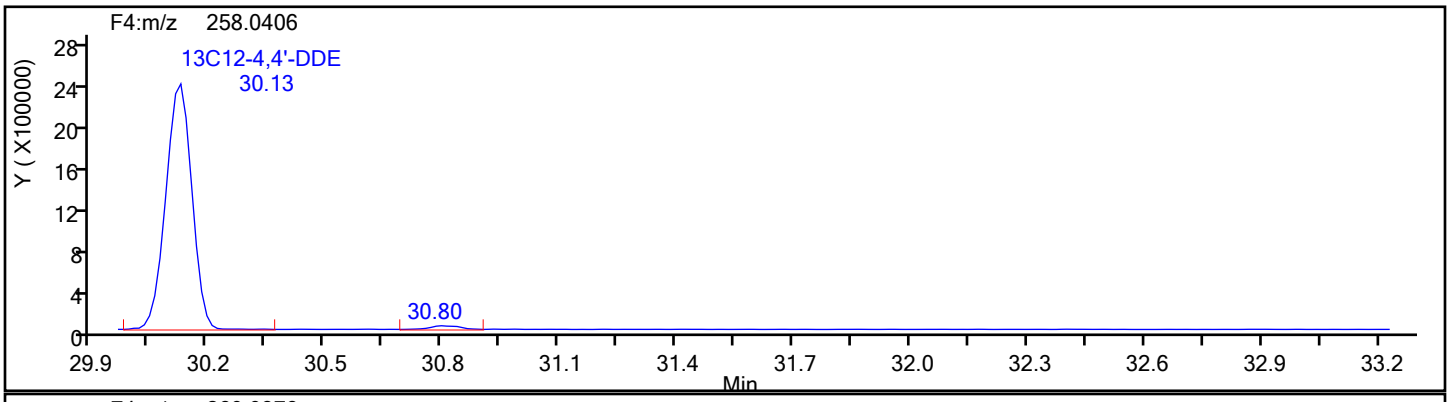
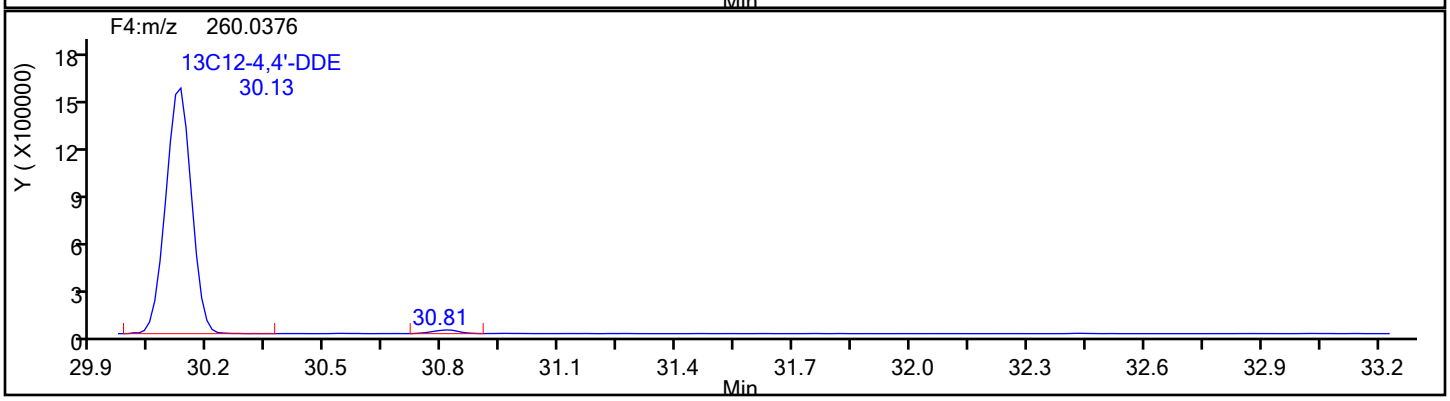
4,4'-DDE





4,4'-DDE Standards



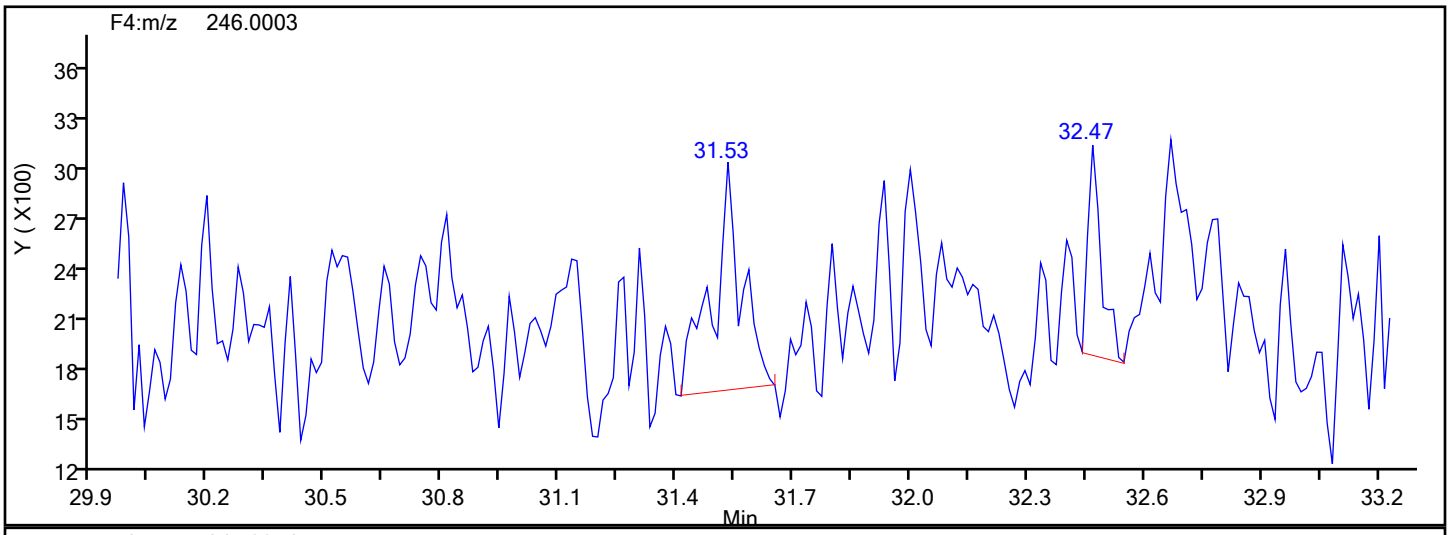


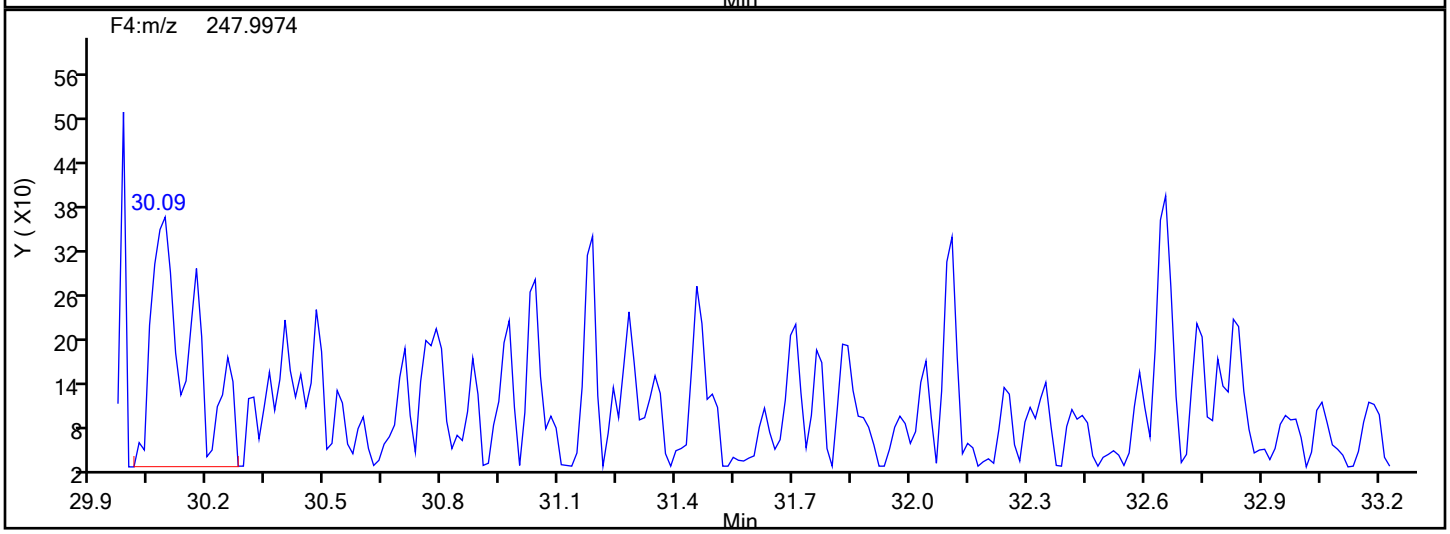
Report Date: 05-May-2025 18:00:50 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

4,4'-DDE





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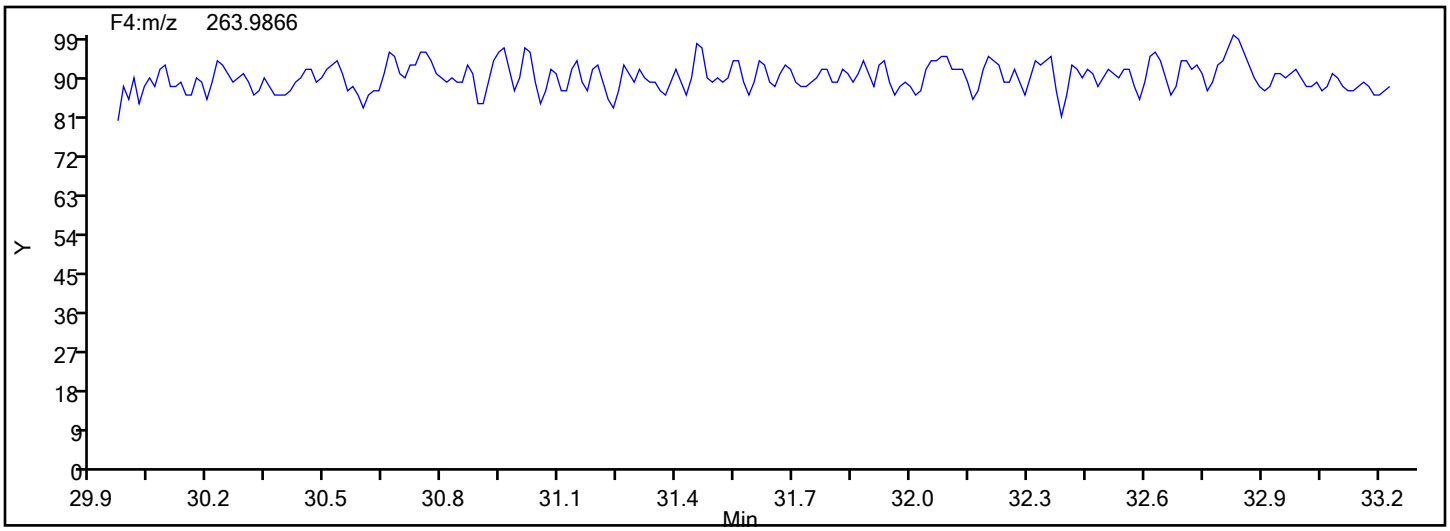

Report Date: 05-May-2025 18:00:51 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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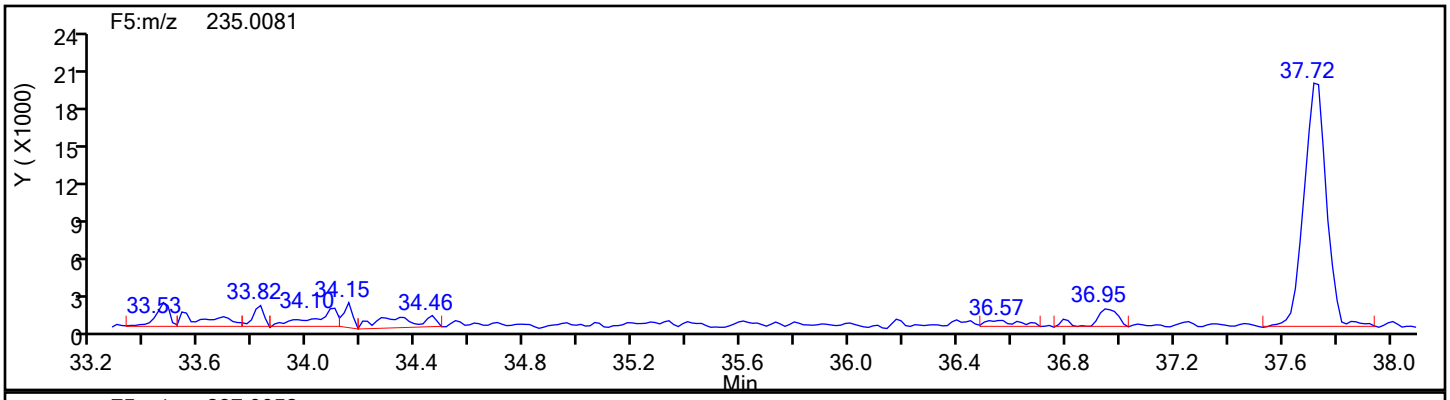
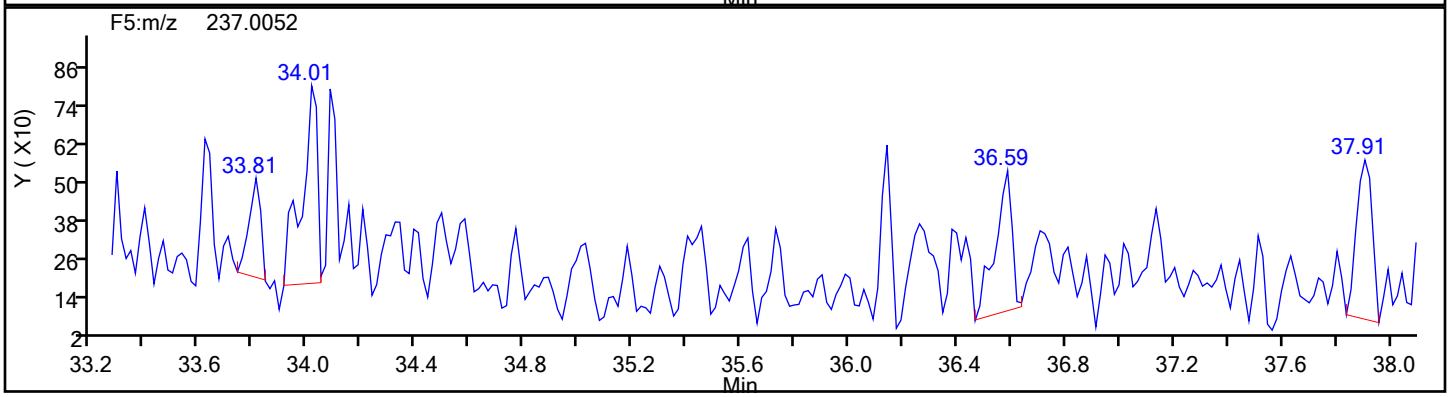
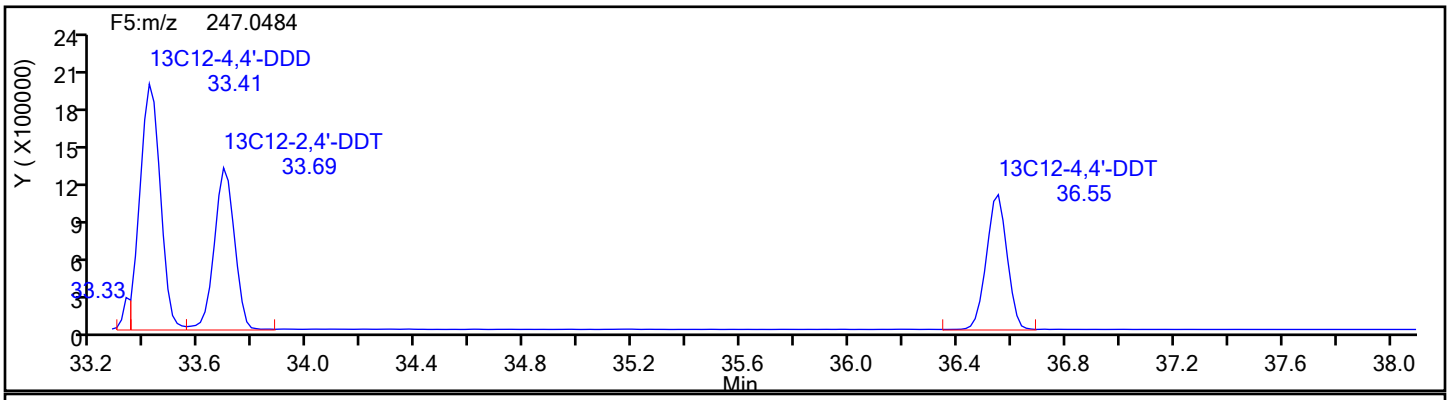
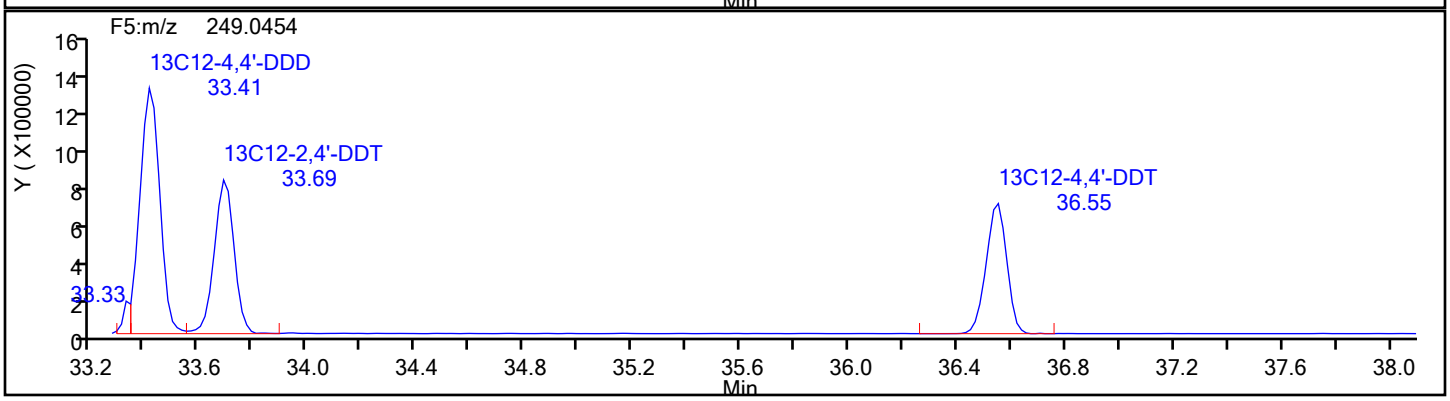




DDD Standards





Report Date: 05-May-2025 18:00:51 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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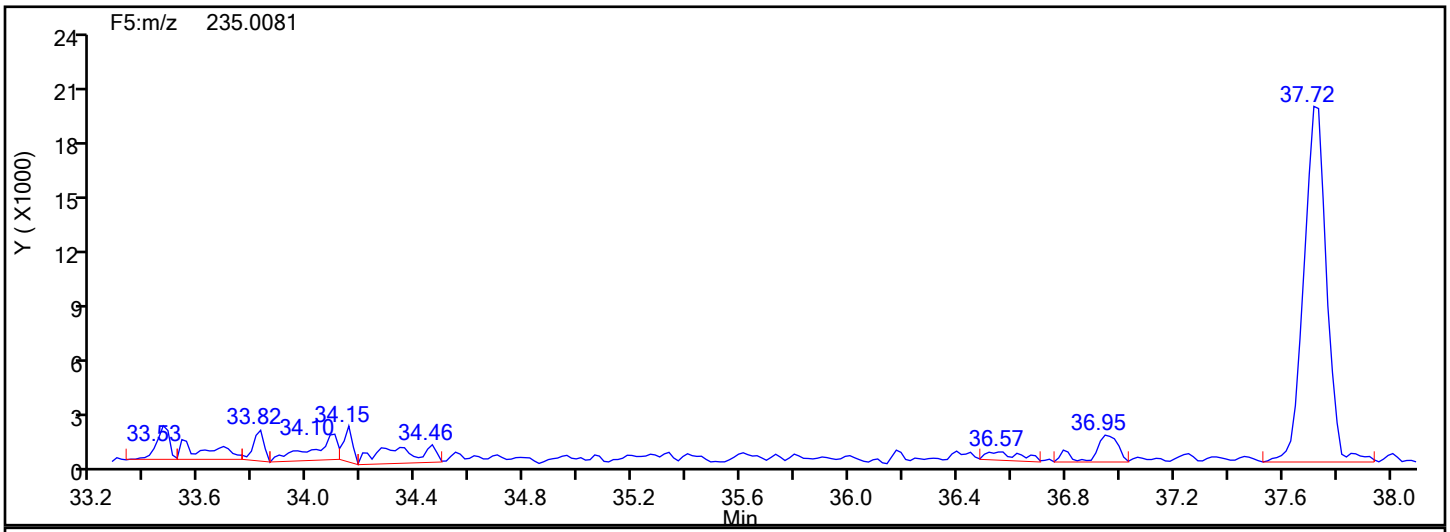
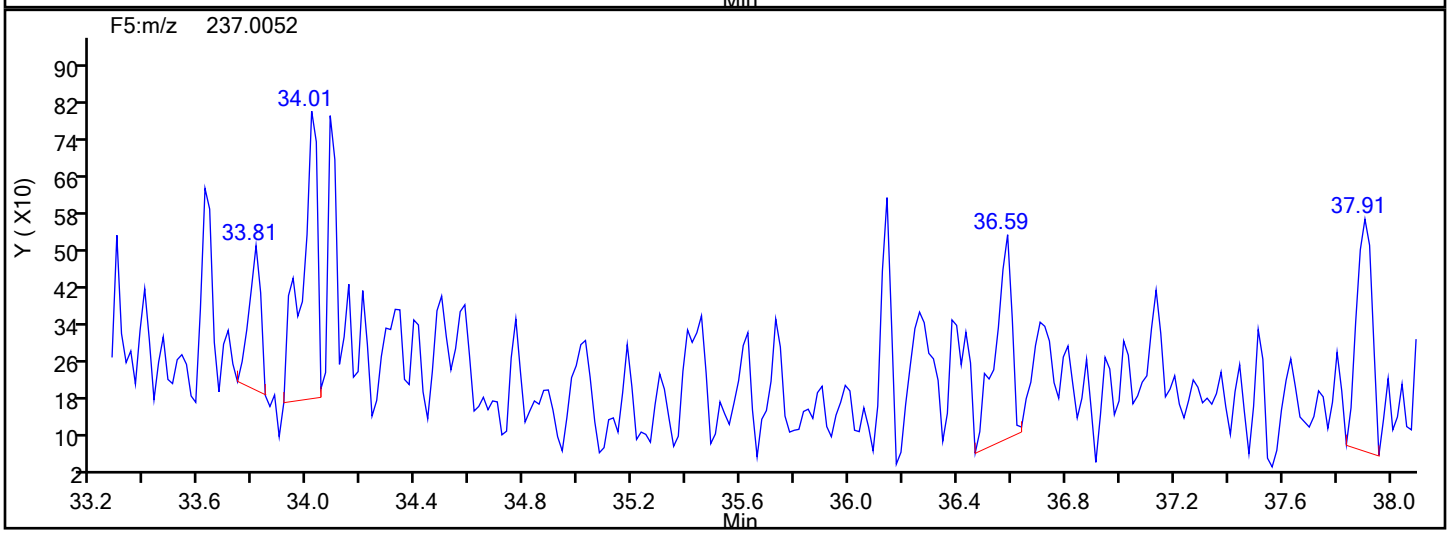
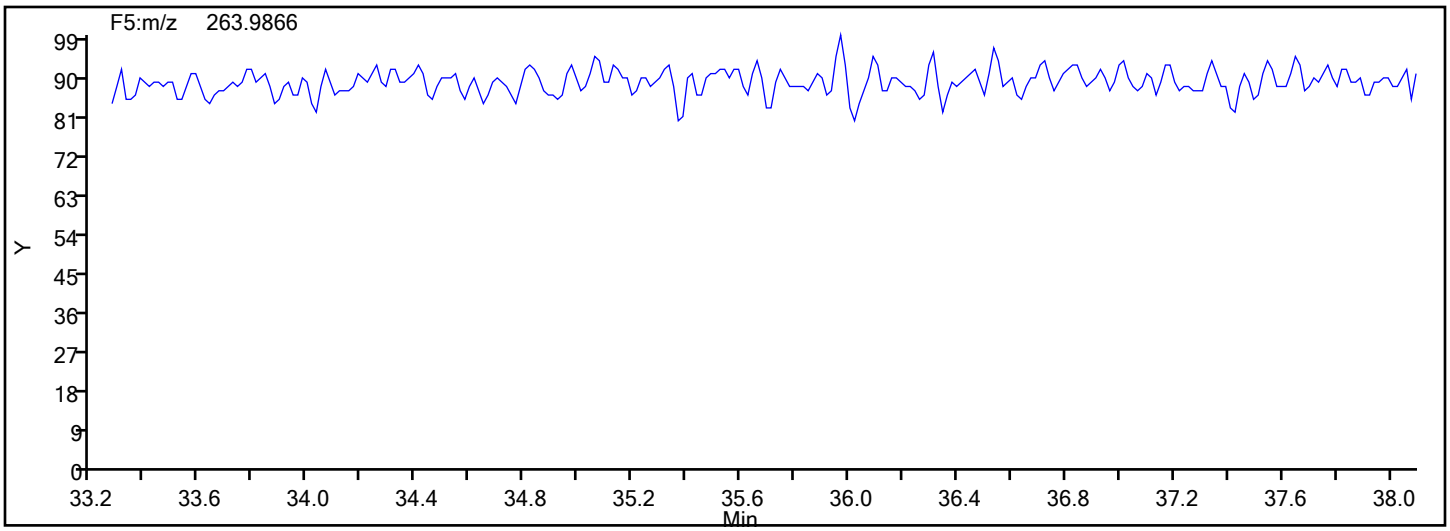
DDD





DDD Lock Mass



Report Date: 05-May-2025 18:00:51 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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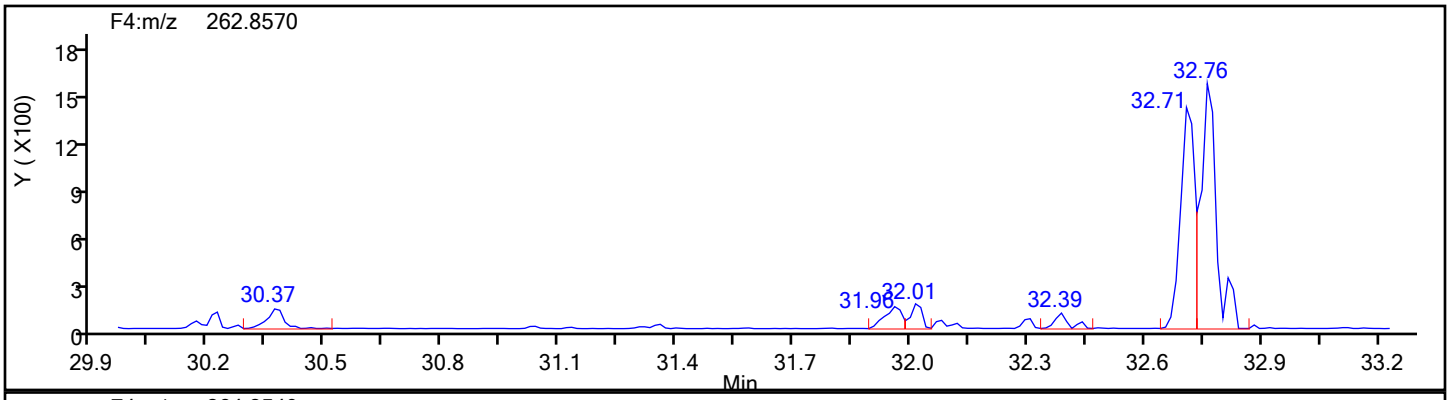
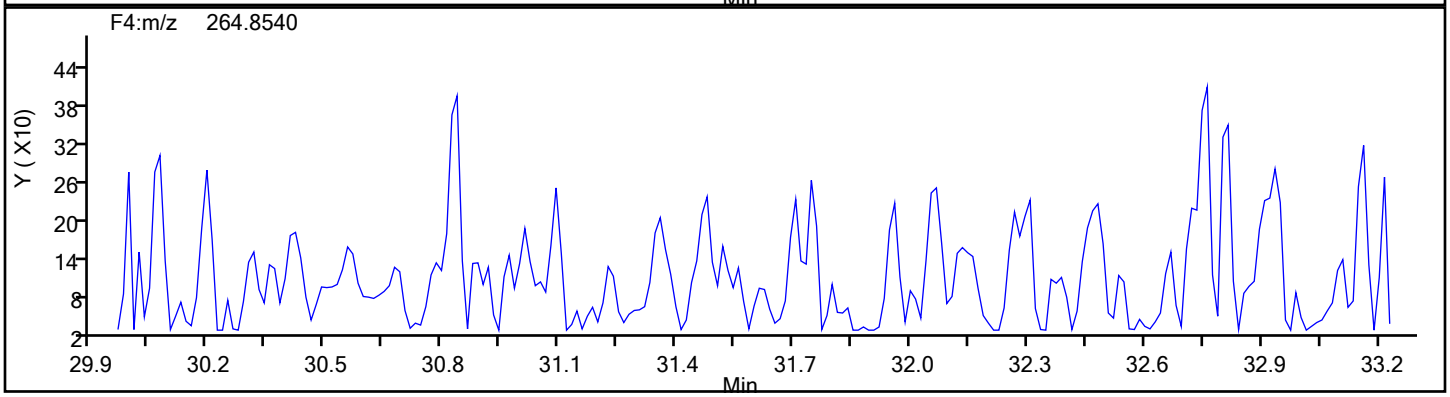
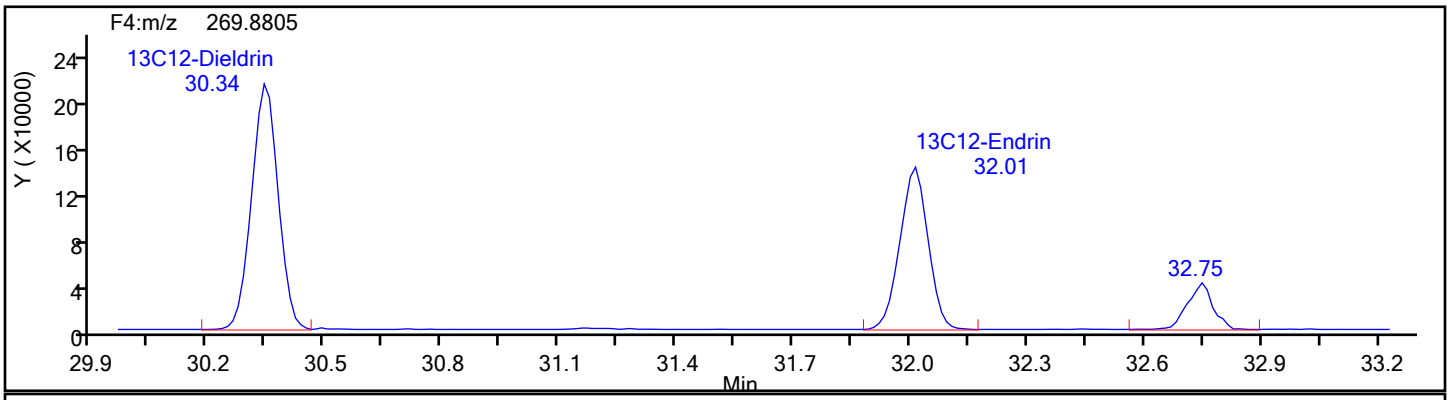
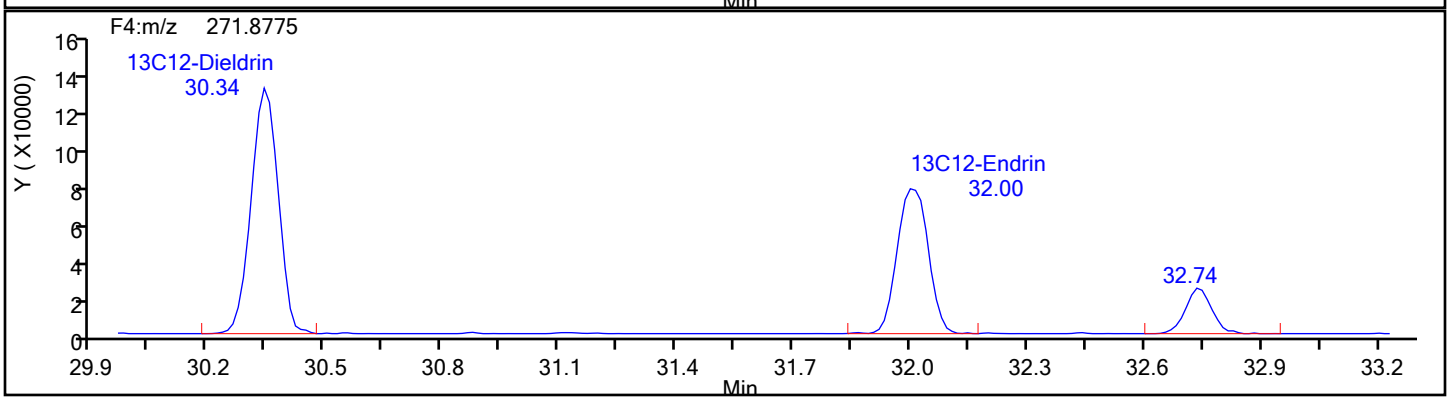
Dieldrin





Dieldrin Standards





Report Date: 05-May-2025 18:00:51 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
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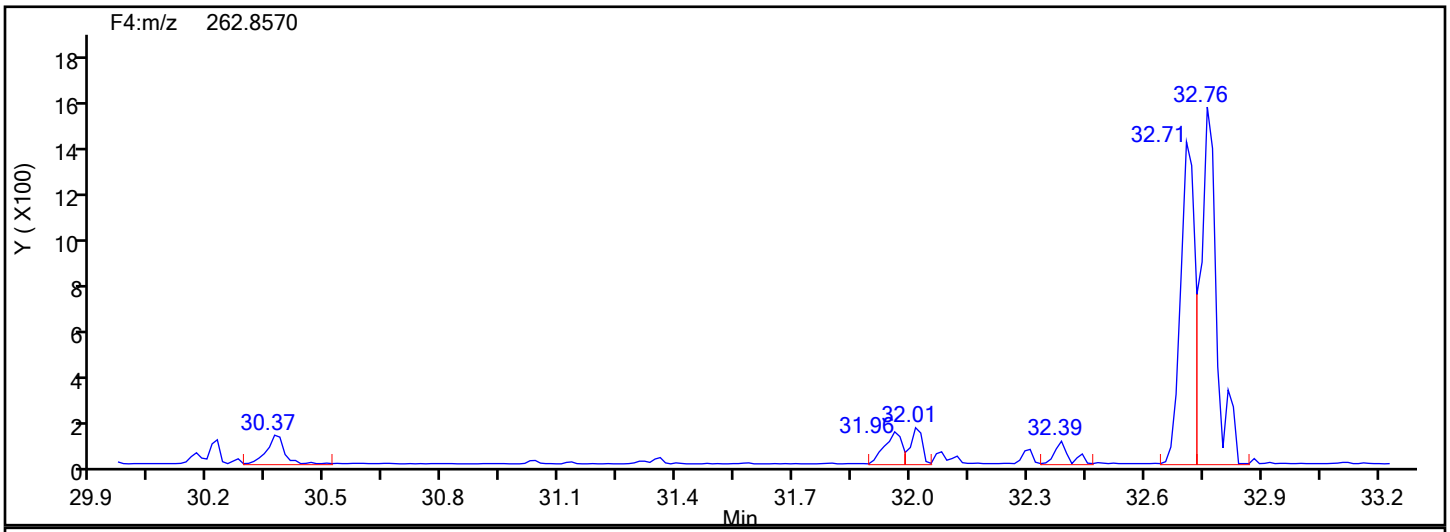
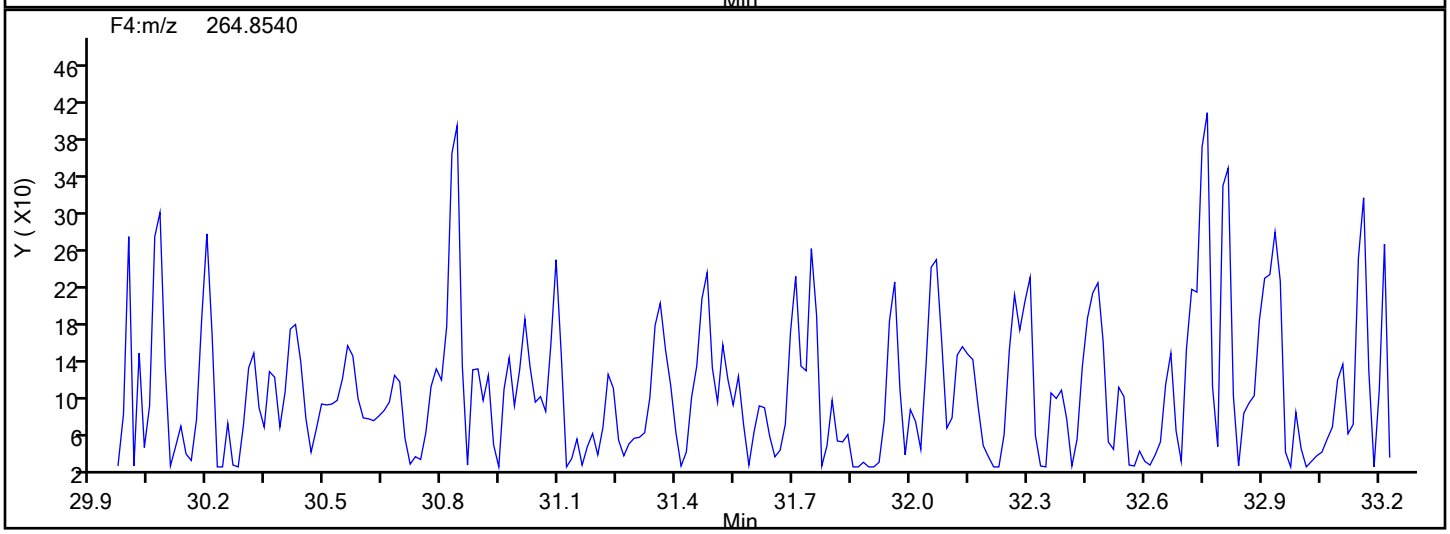
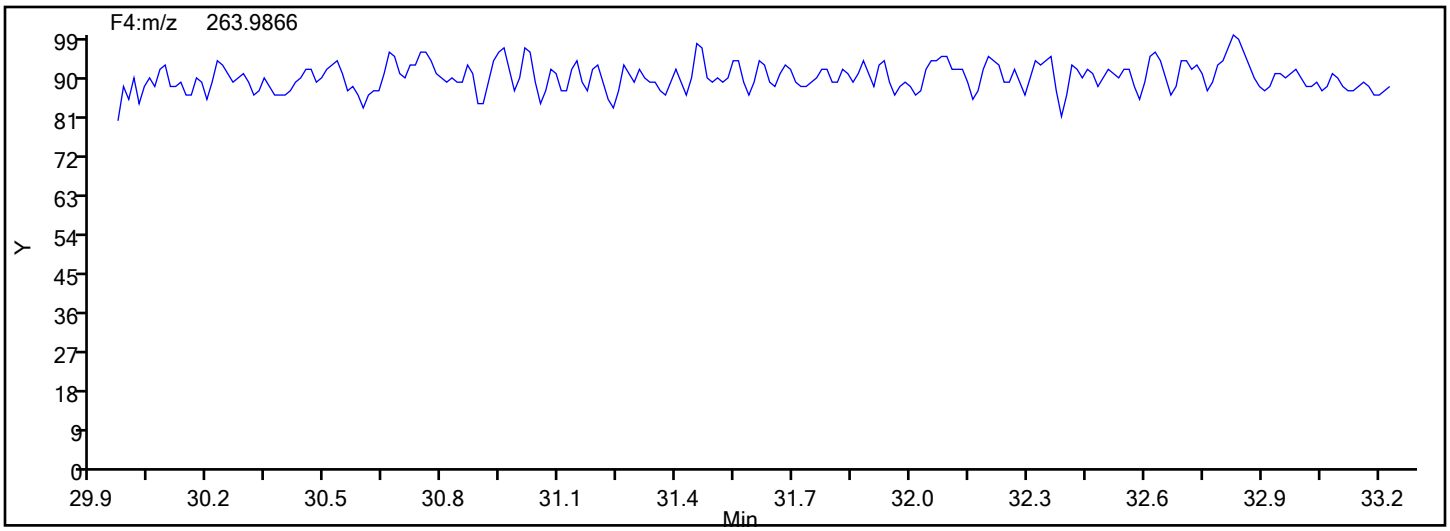




Dieldrin Lock Mass



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Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
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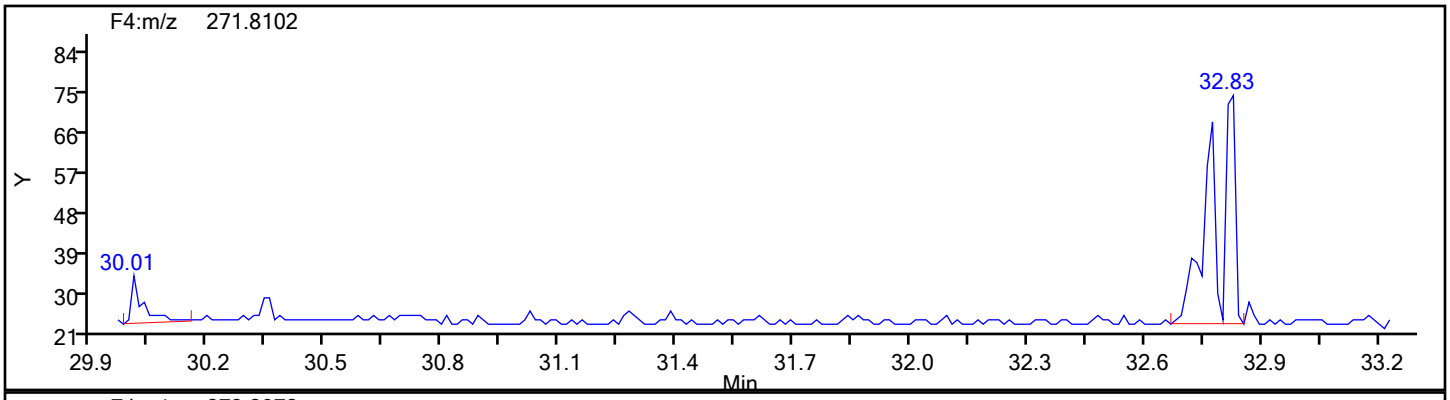
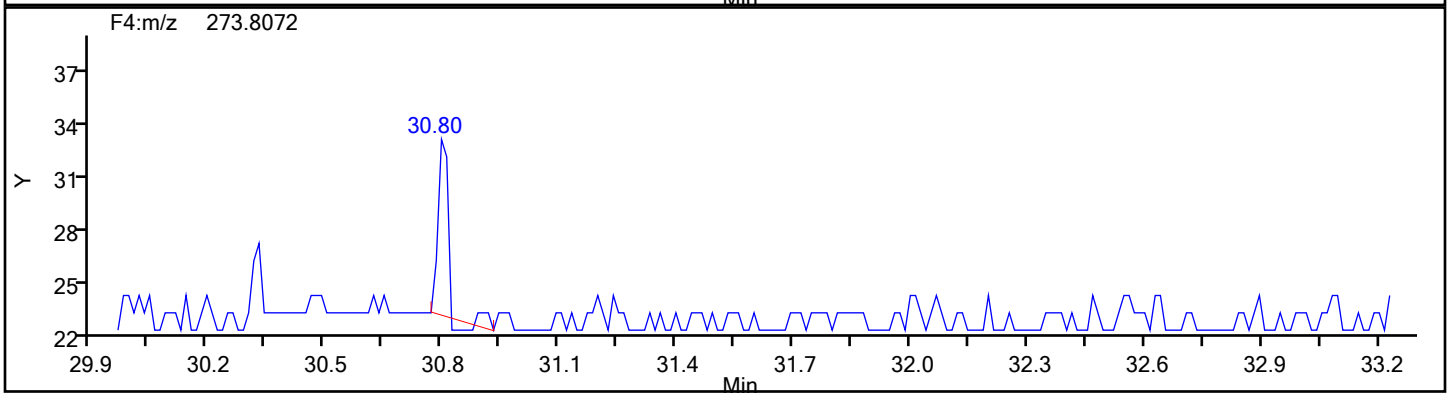
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan II





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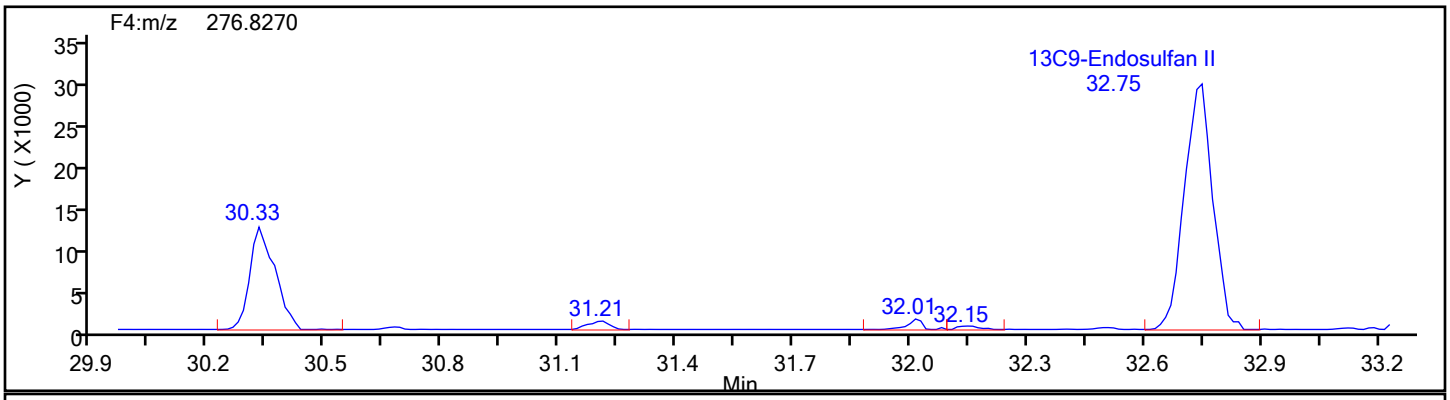

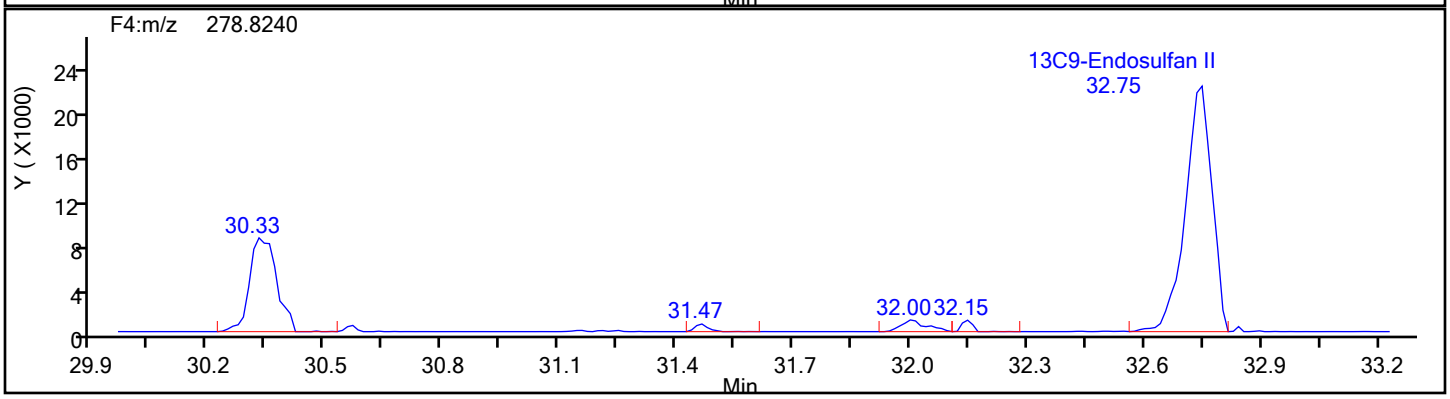

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Eurofins Knoxville

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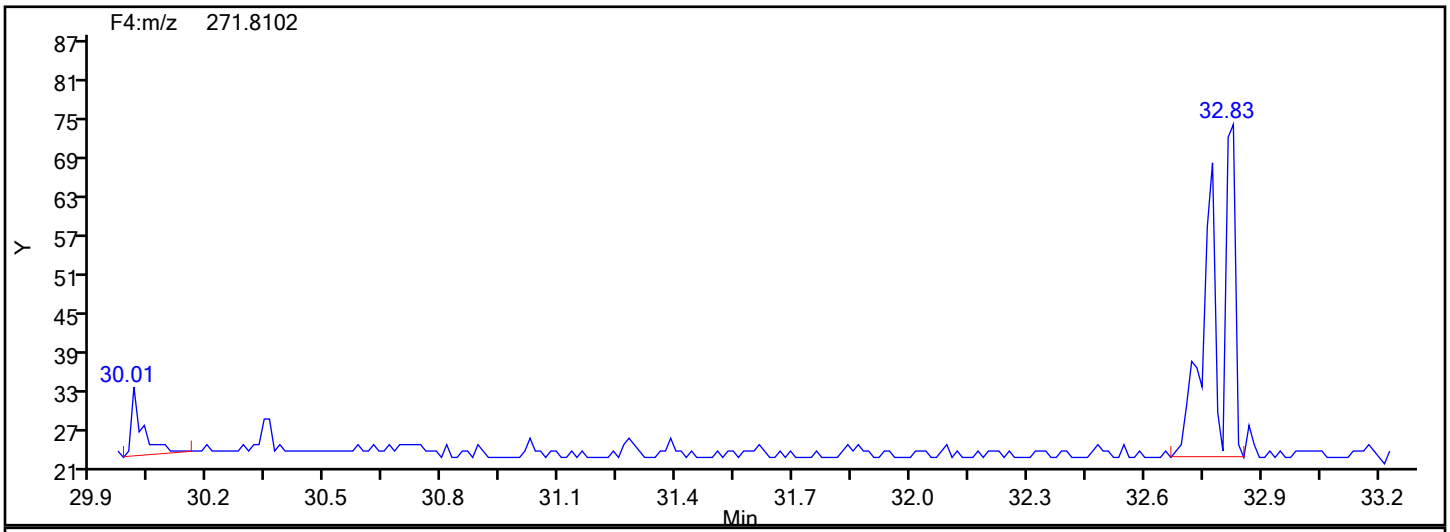

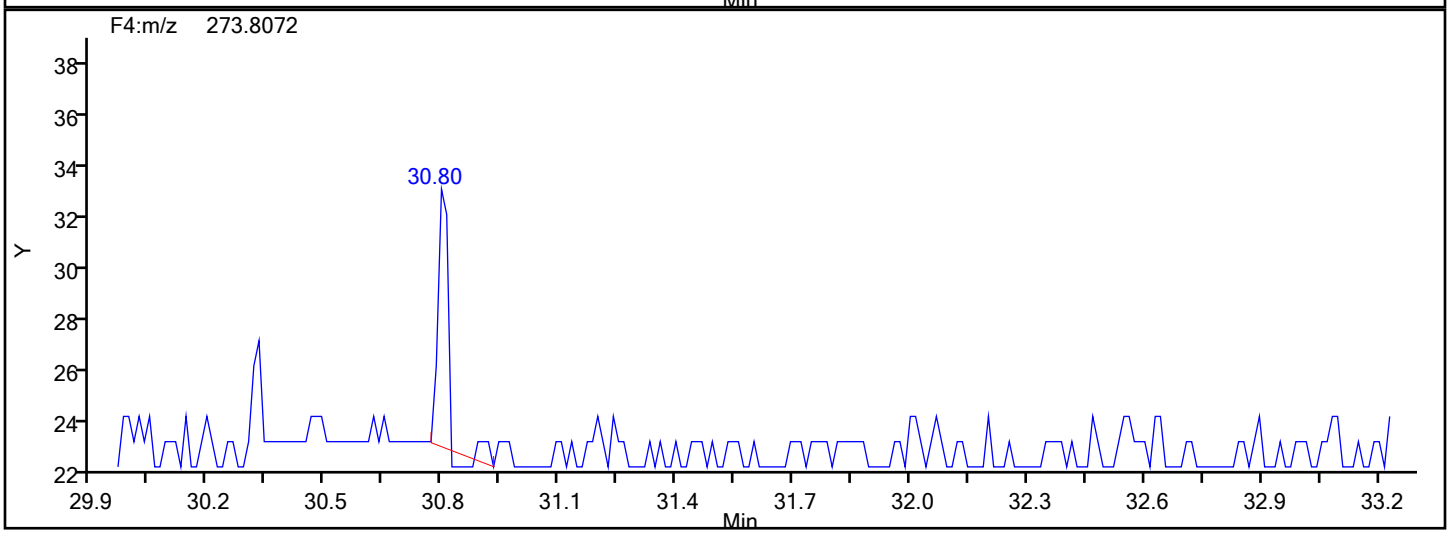

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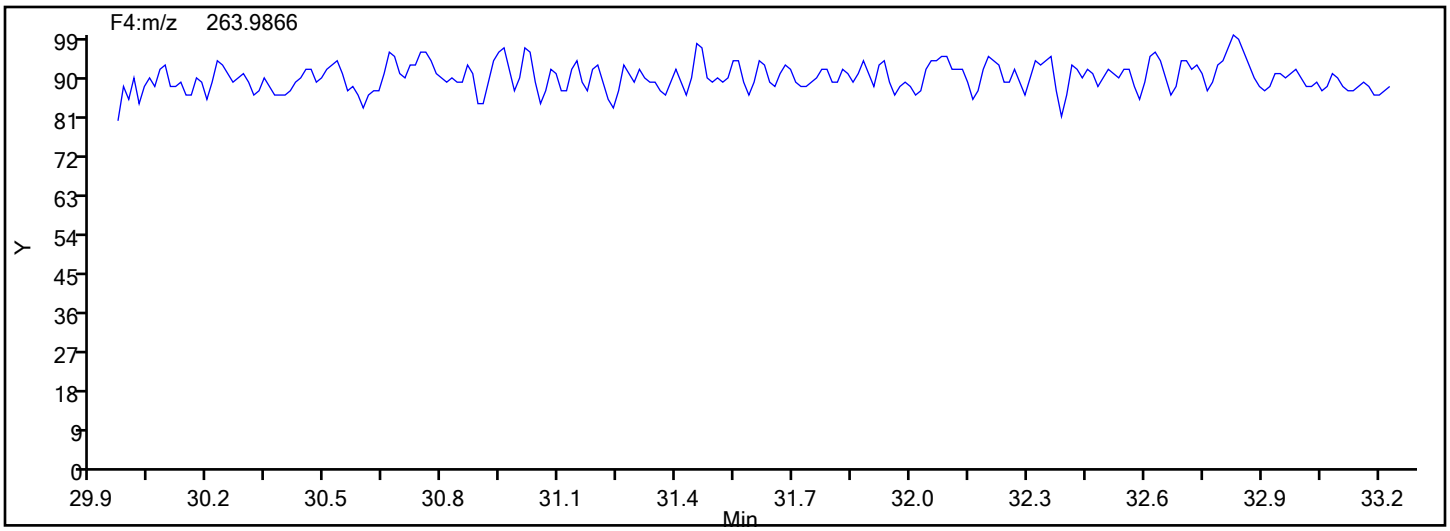

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Eurofins Knoxville

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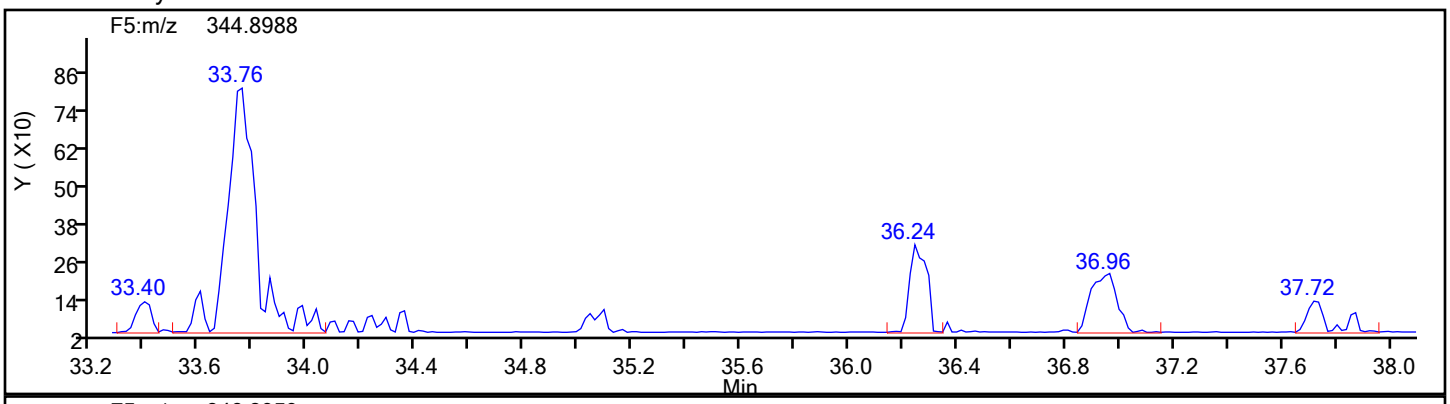
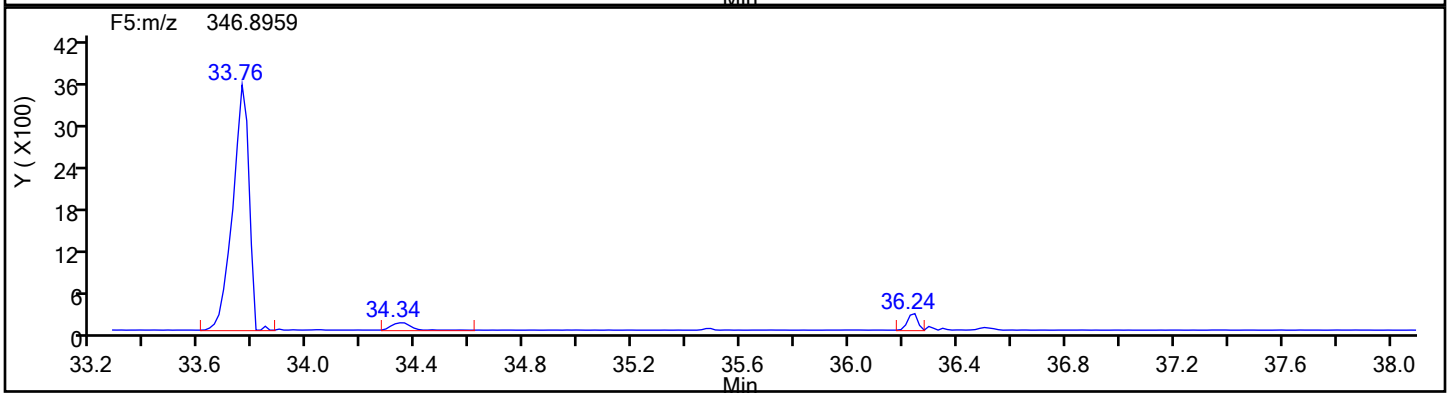
Endrin aldehyde





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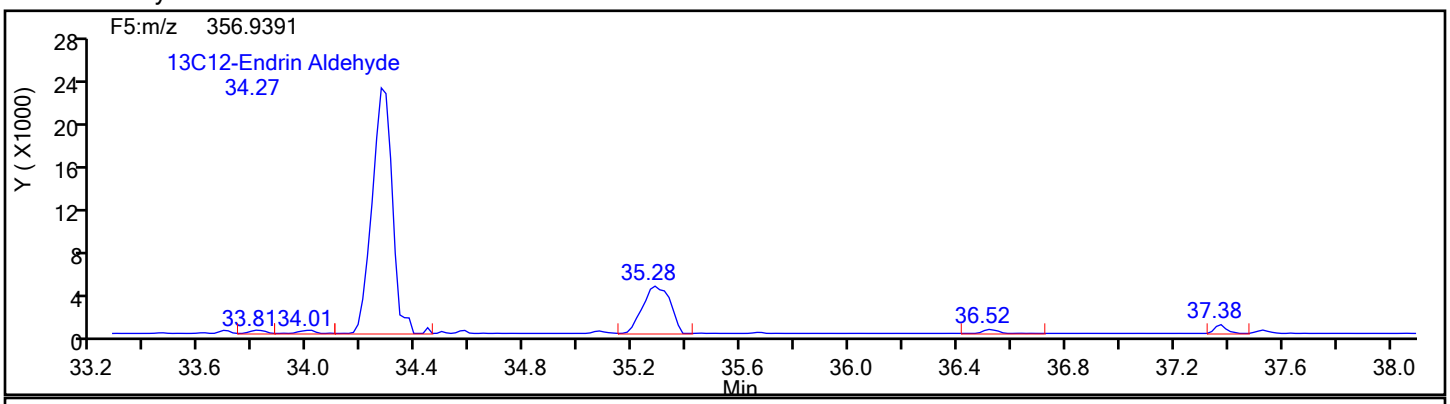

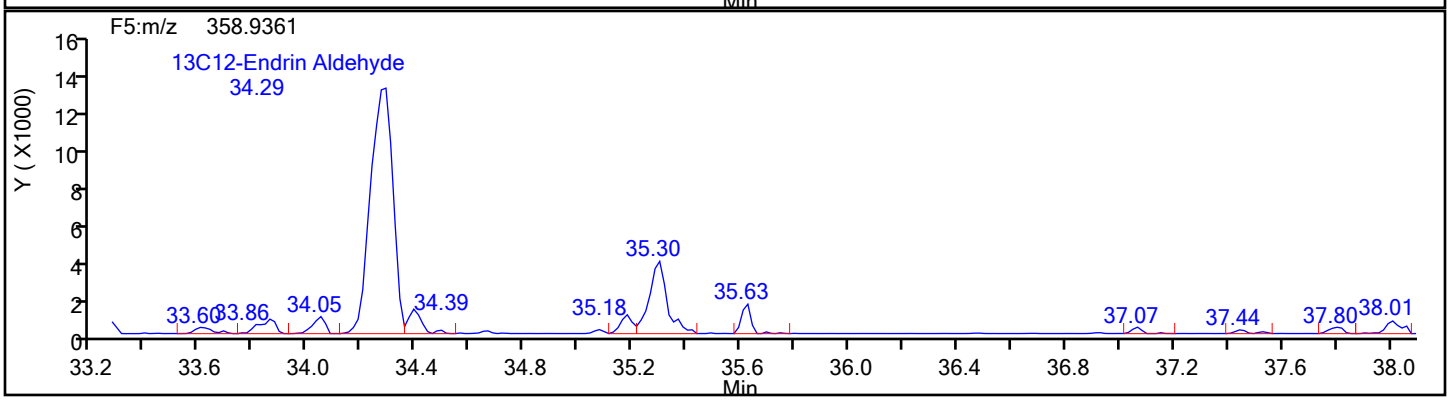

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Eurofins Knoxville

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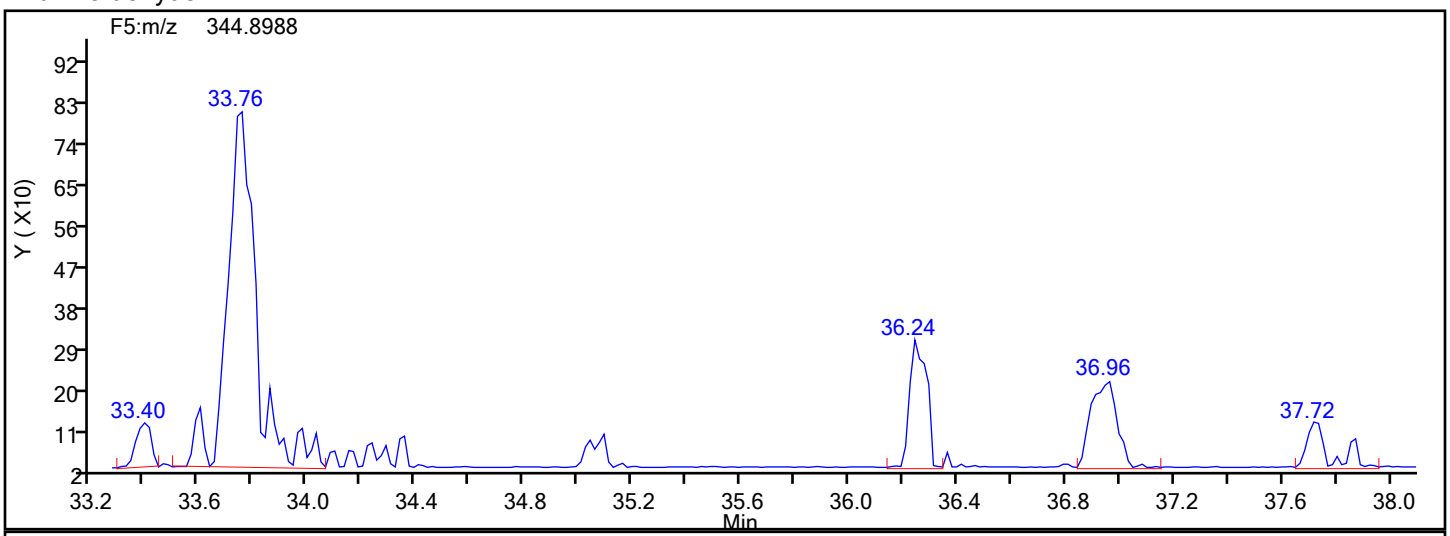
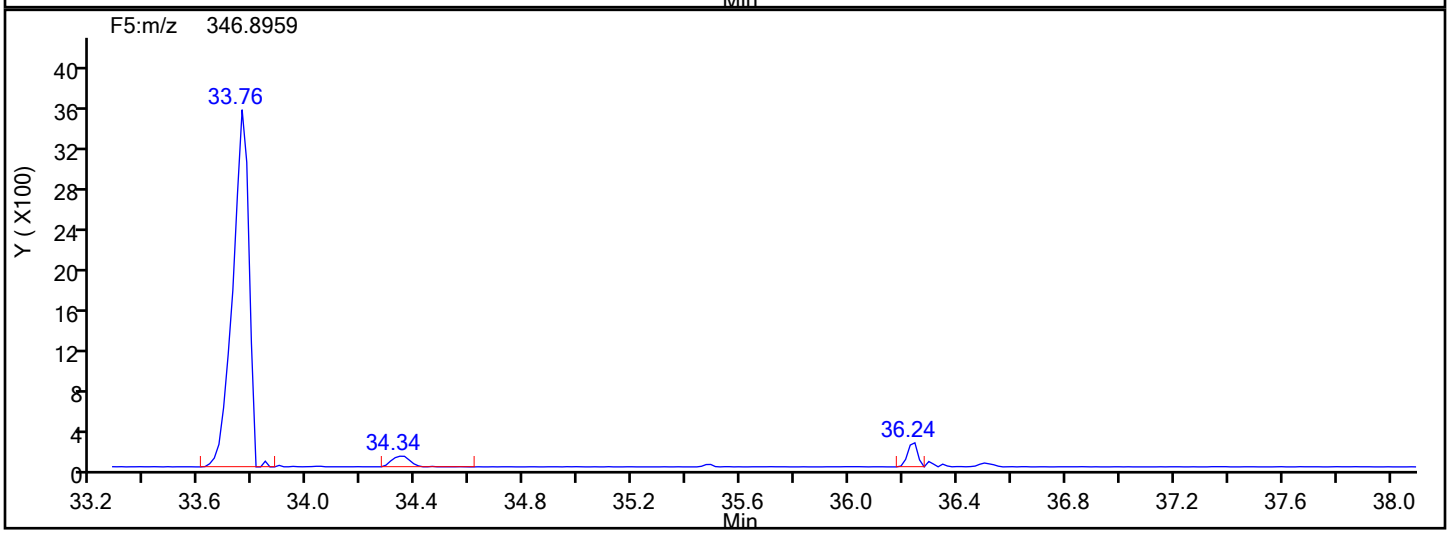
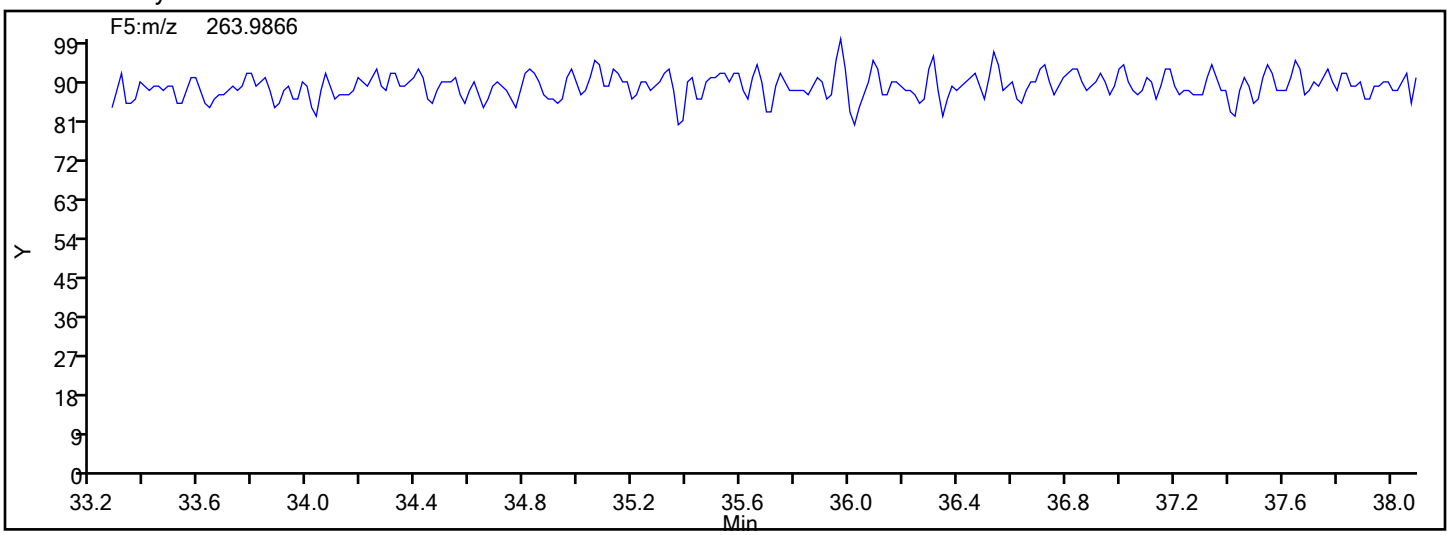




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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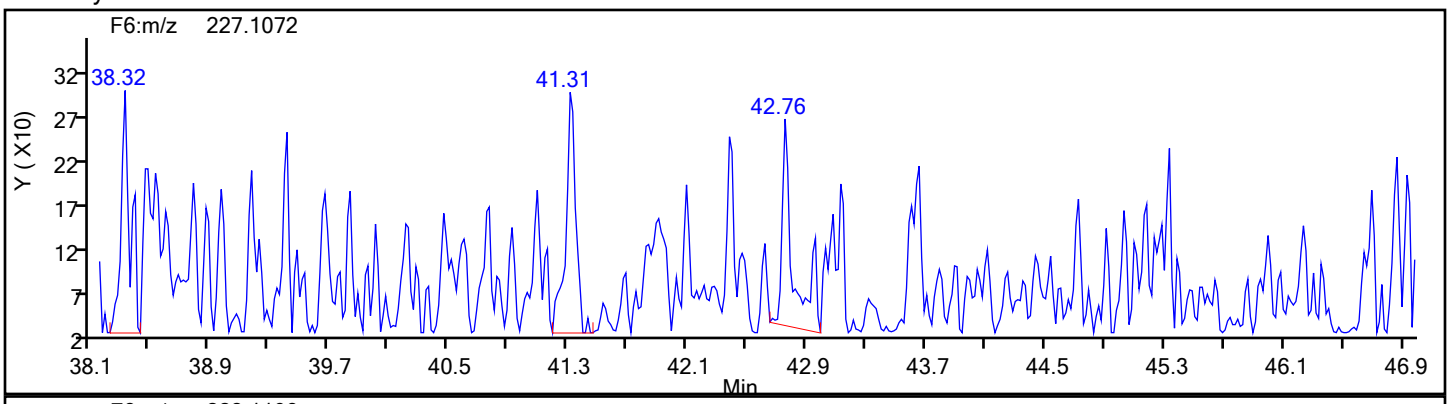
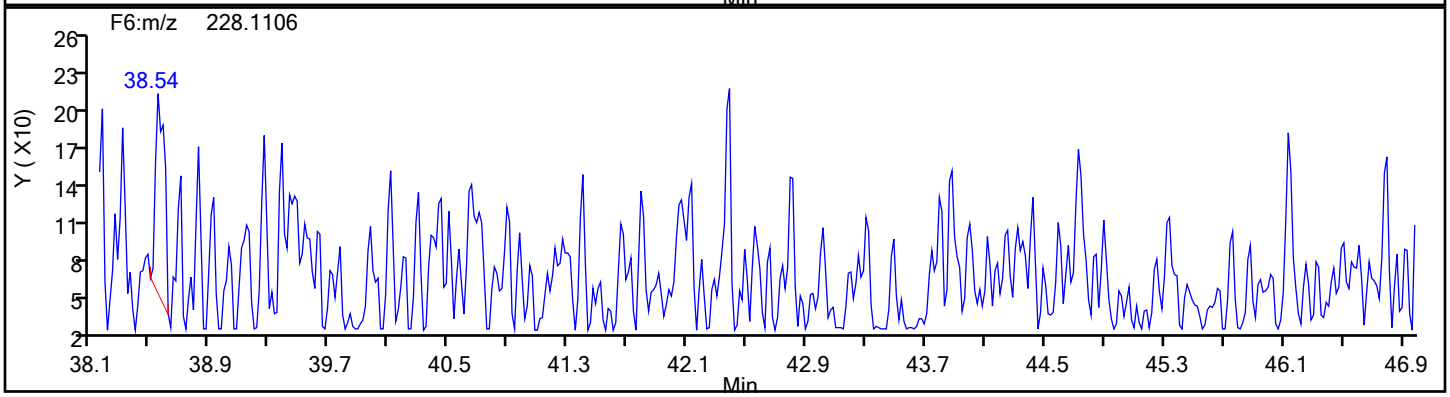
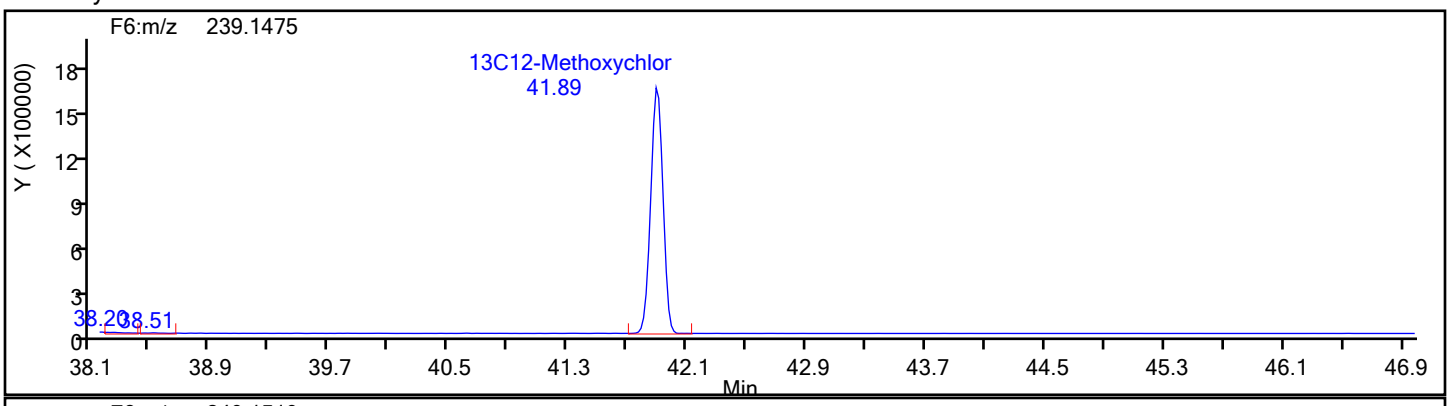
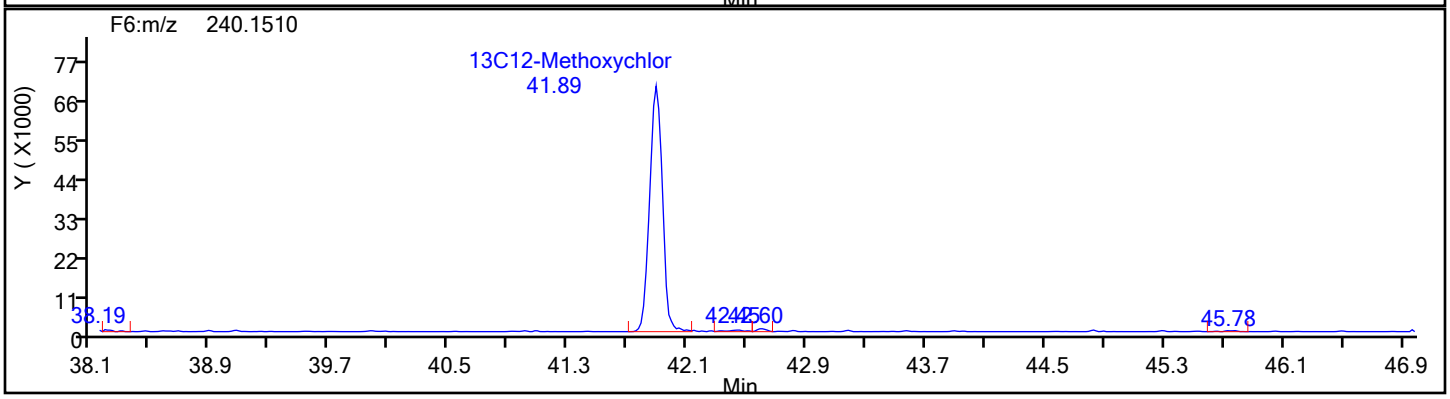
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
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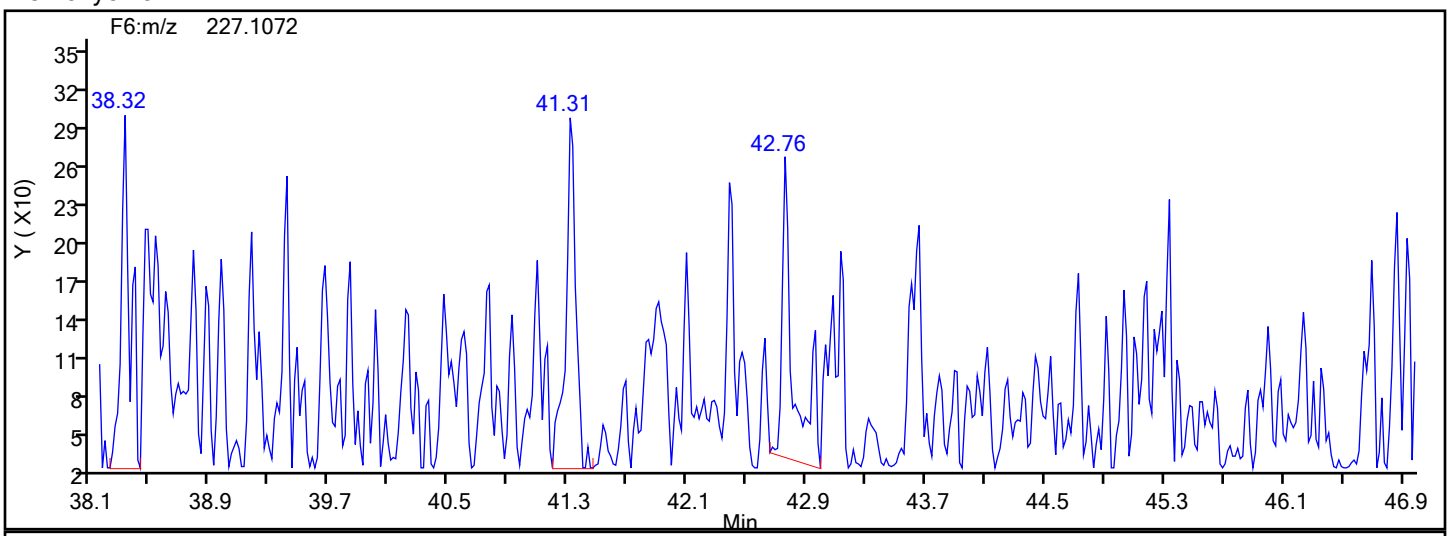
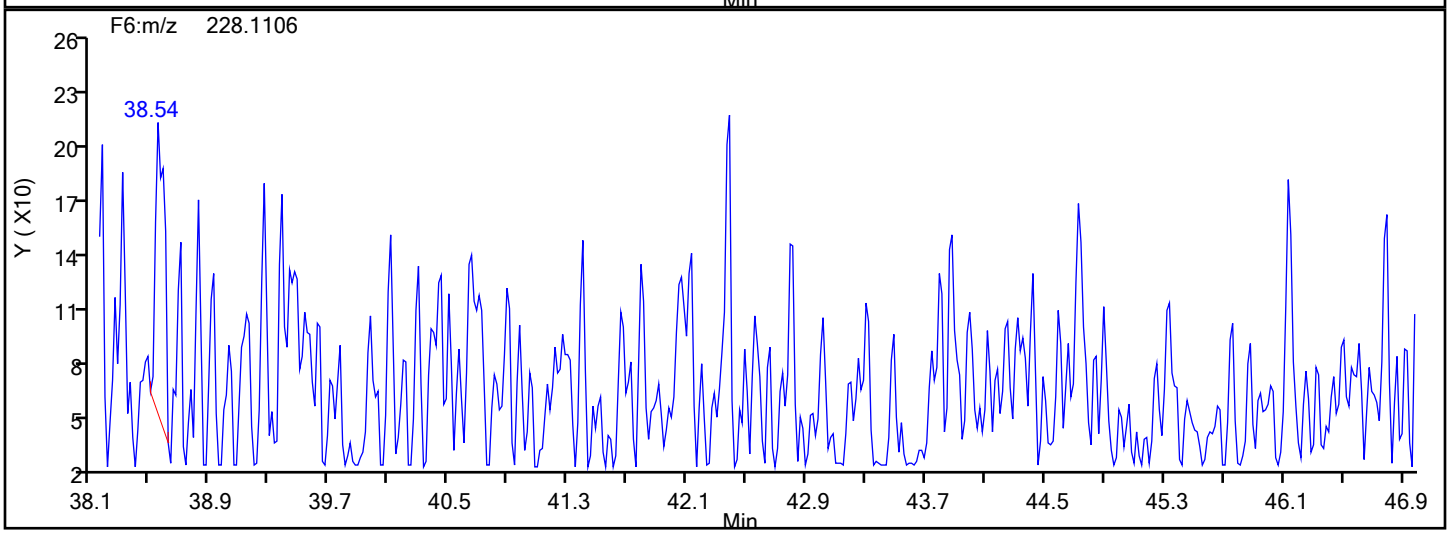
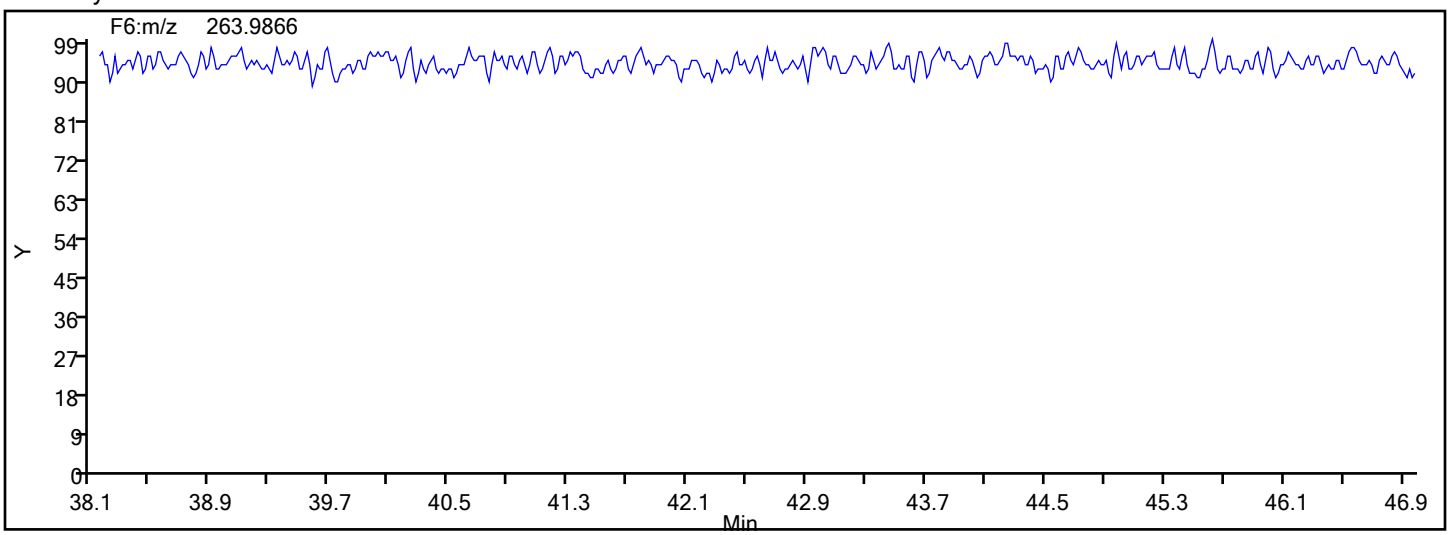
Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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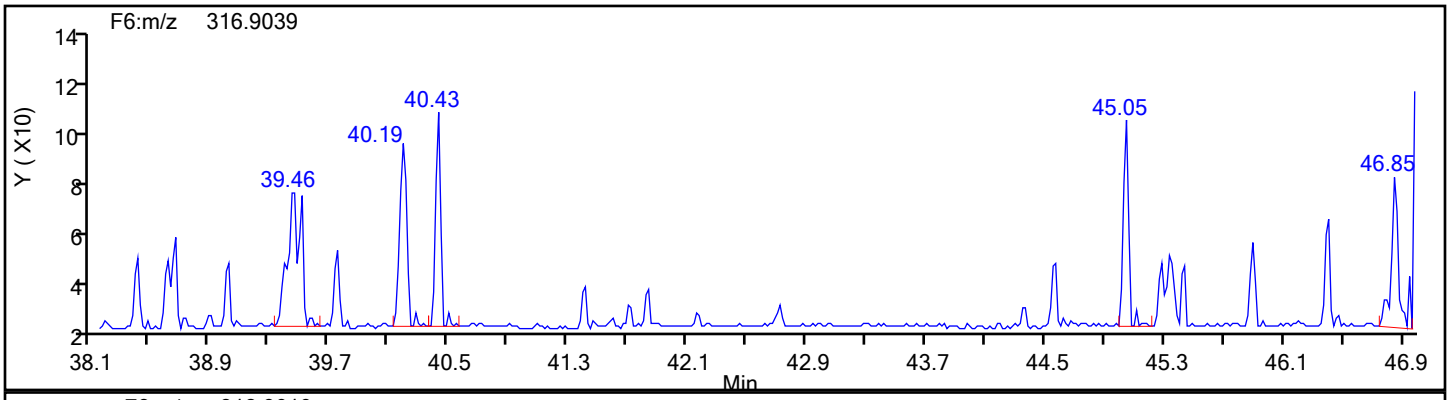
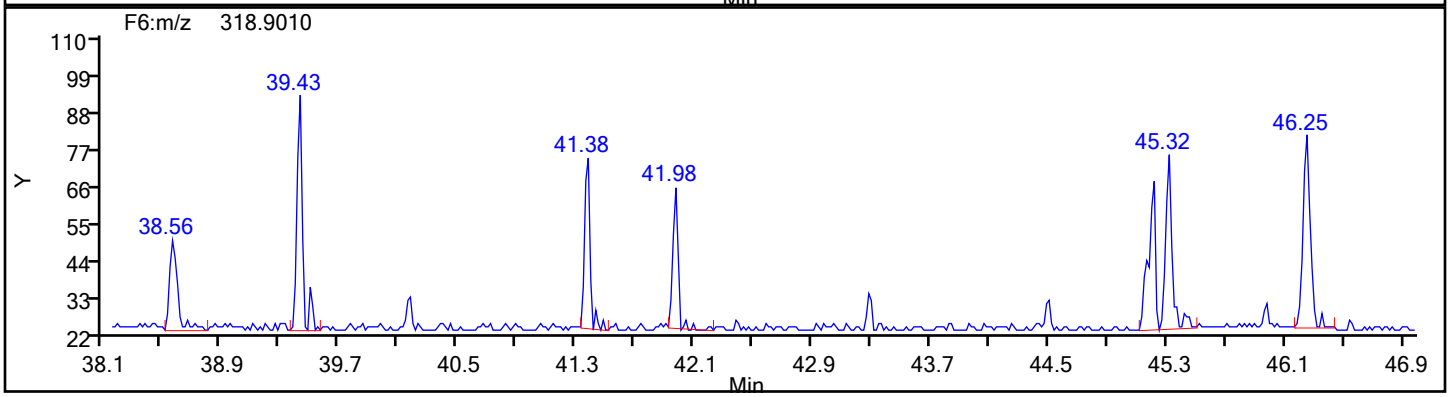
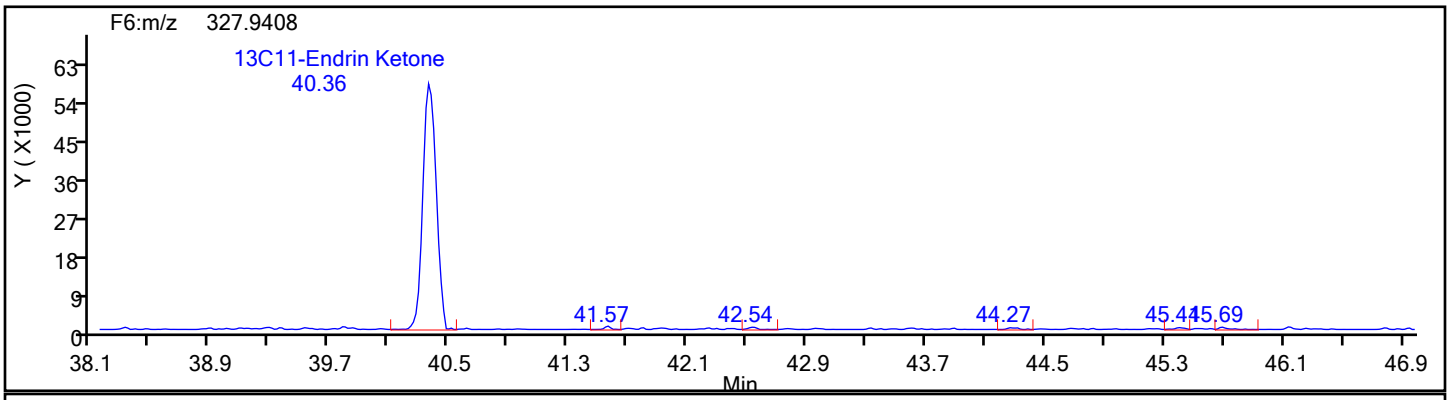
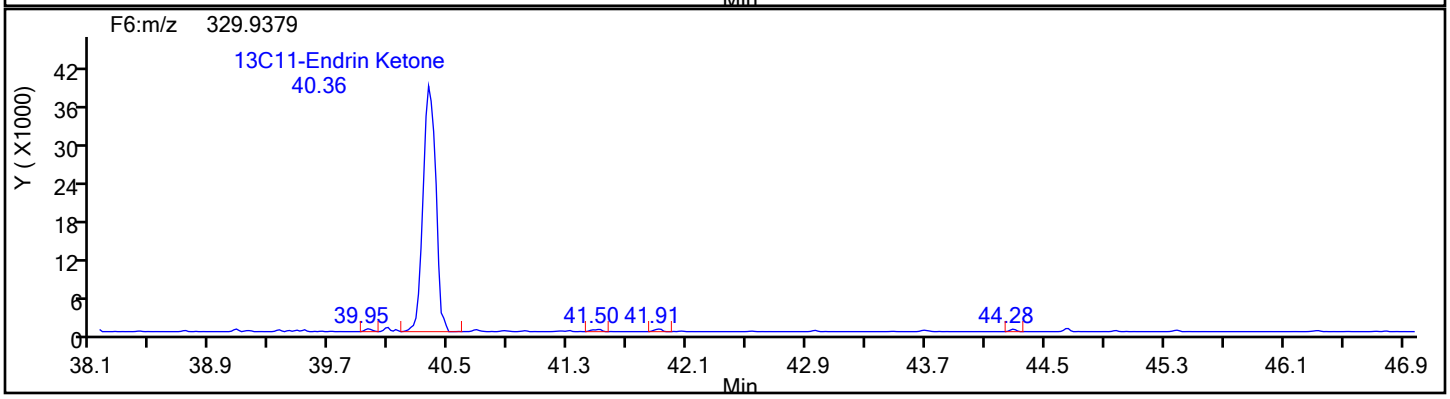
Endrin ketone





Endrin ketone Standards



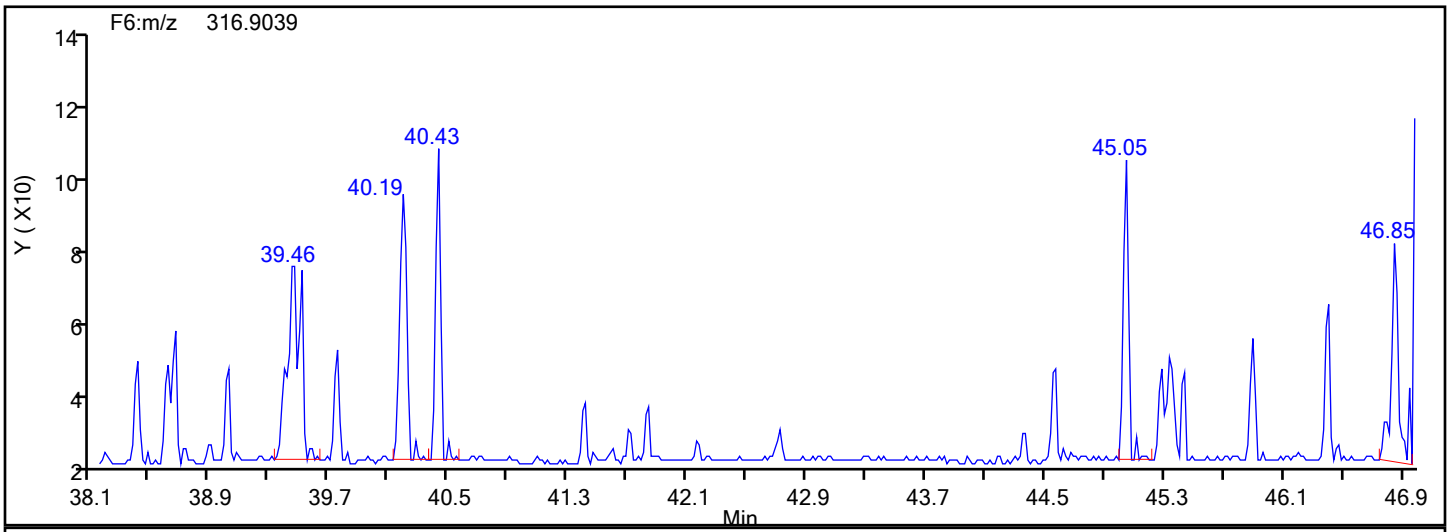


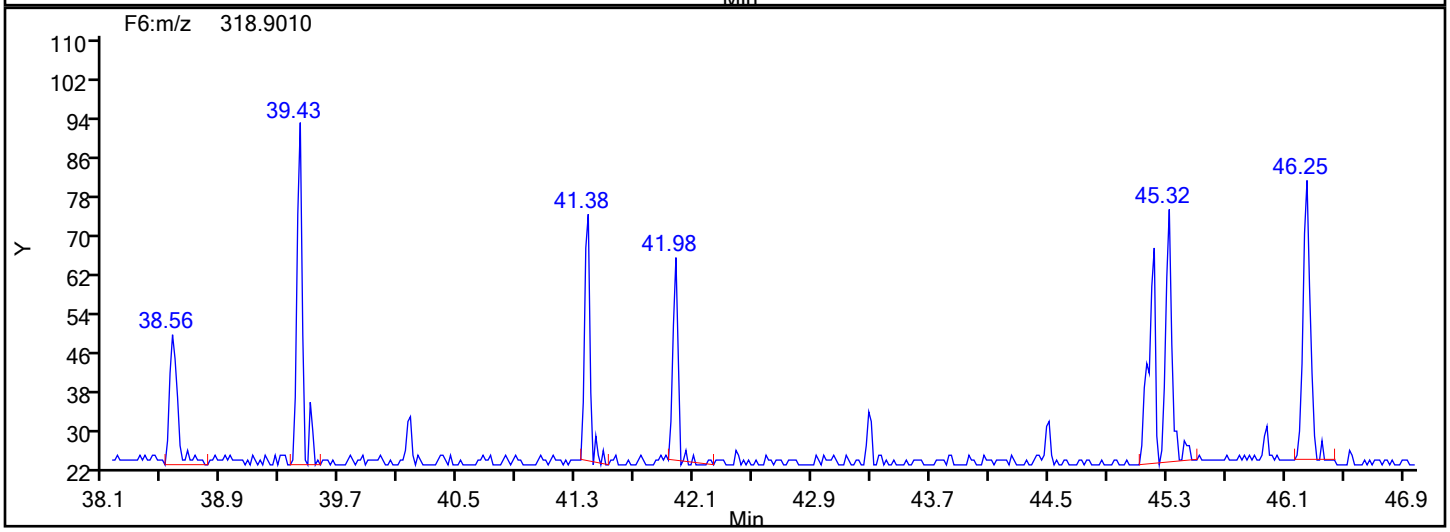
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

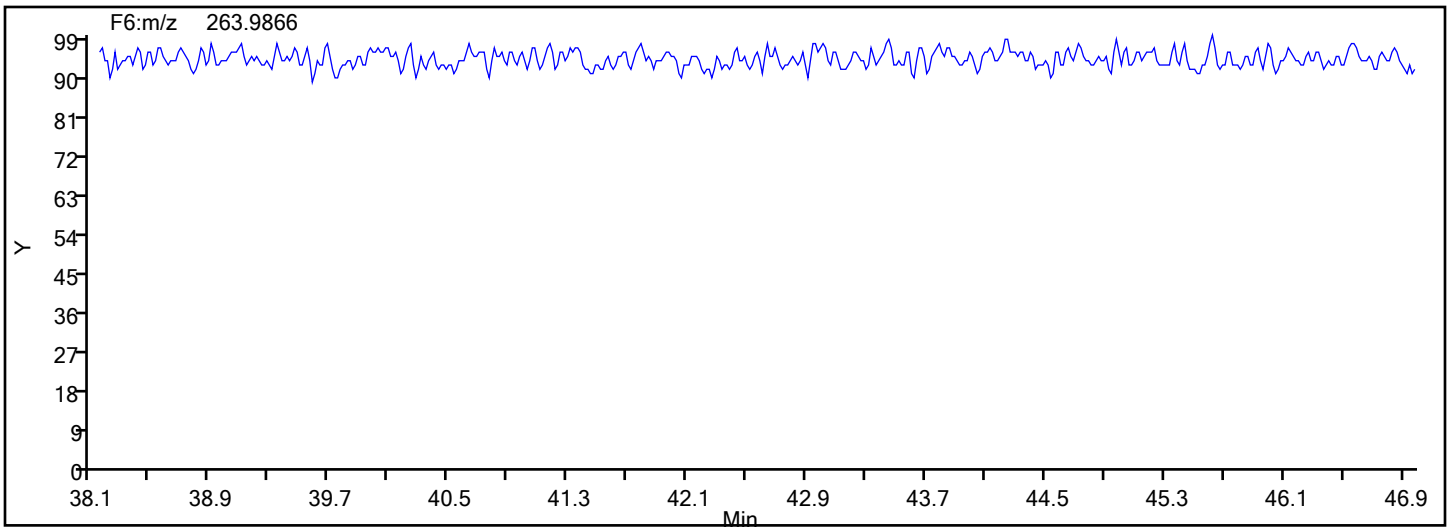
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





Endrin ketone Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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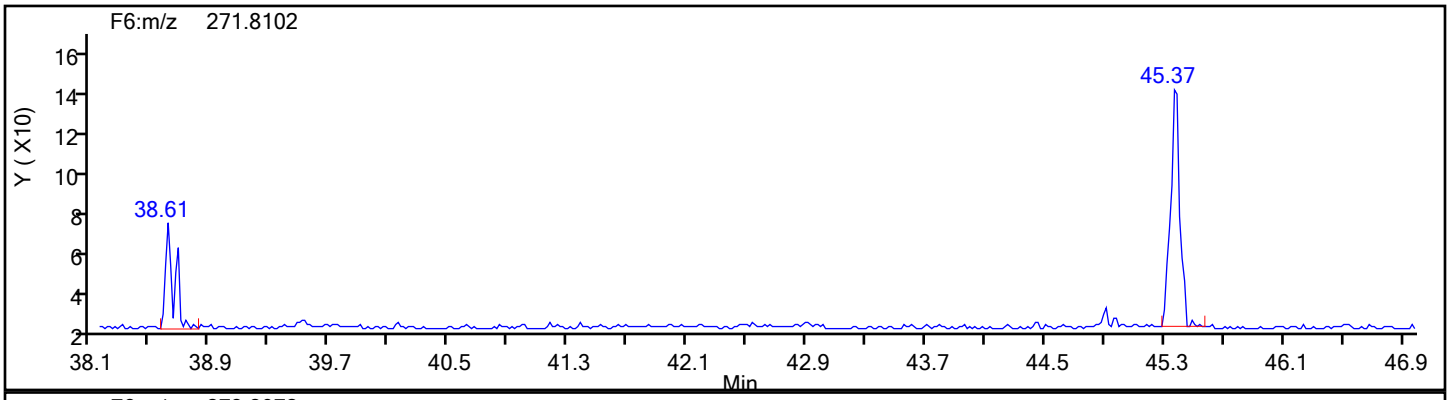
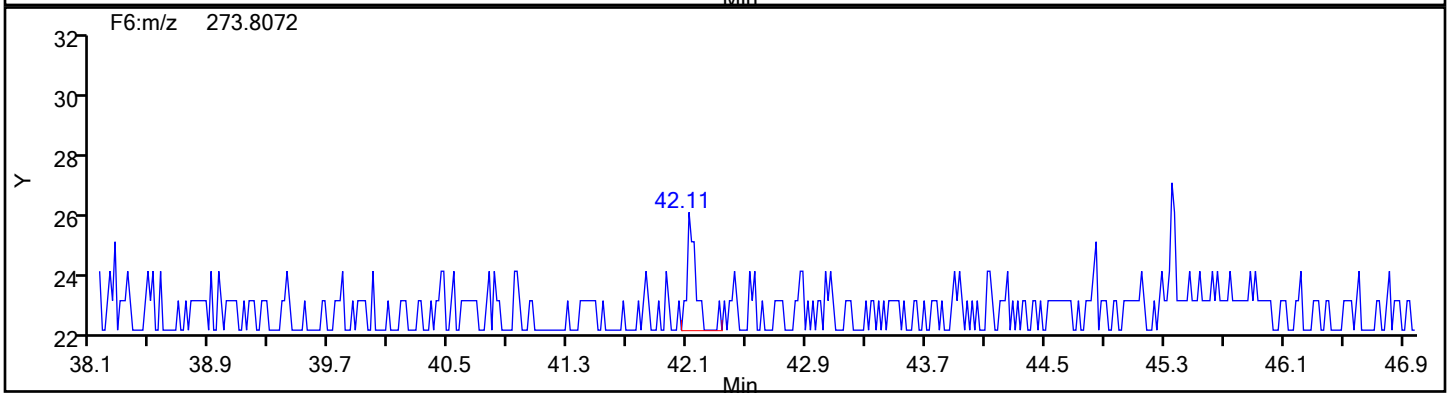
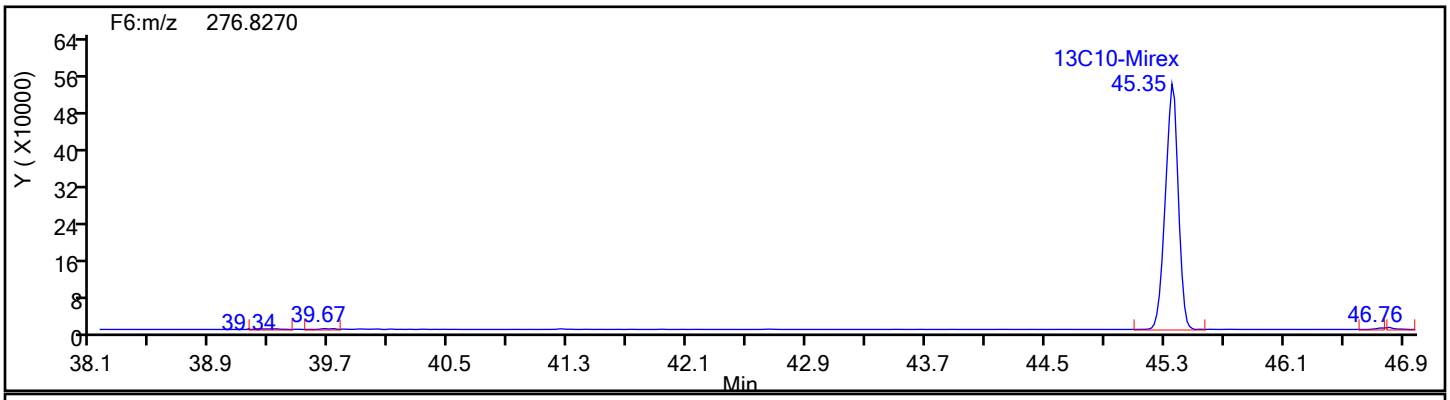
Column Type:	RTX-5	Column Dia:	0.32 mm

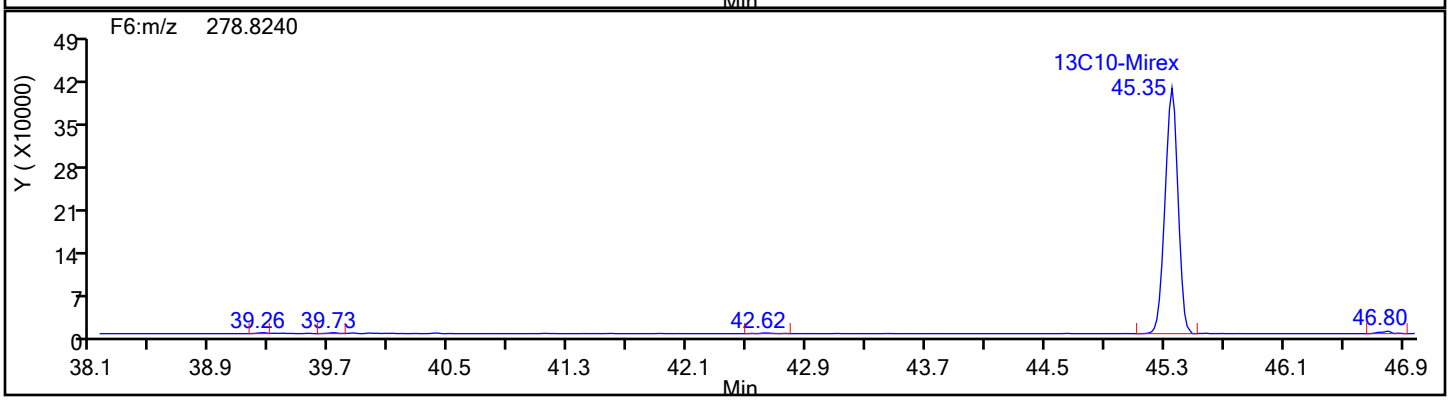
Mirex





Mirex Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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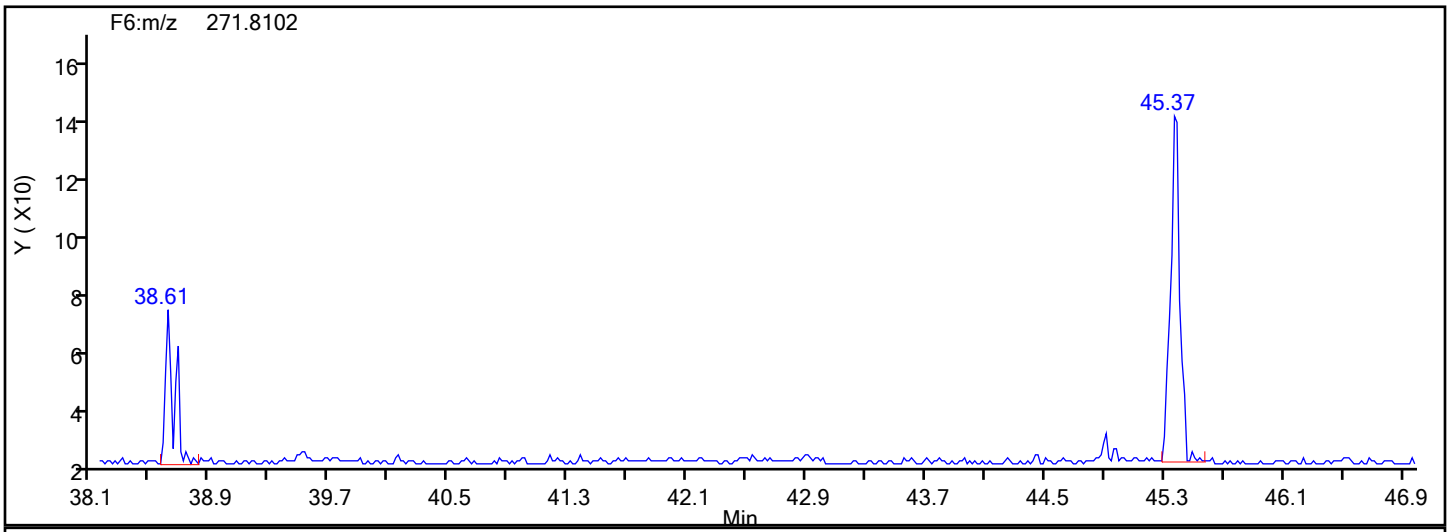
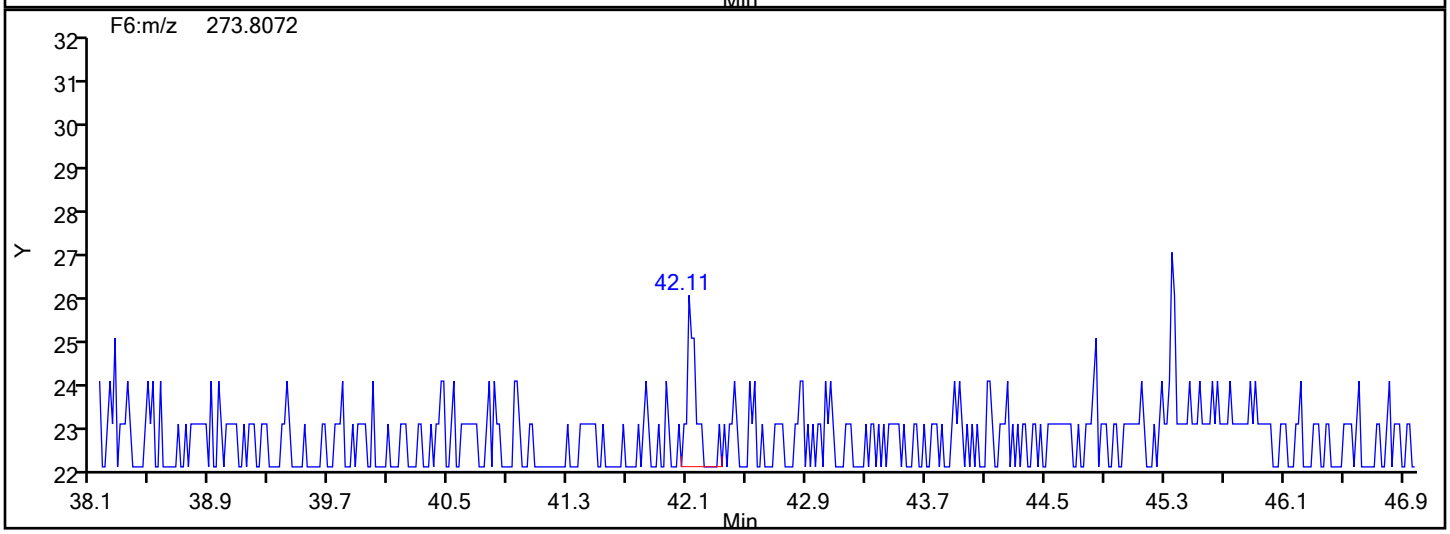
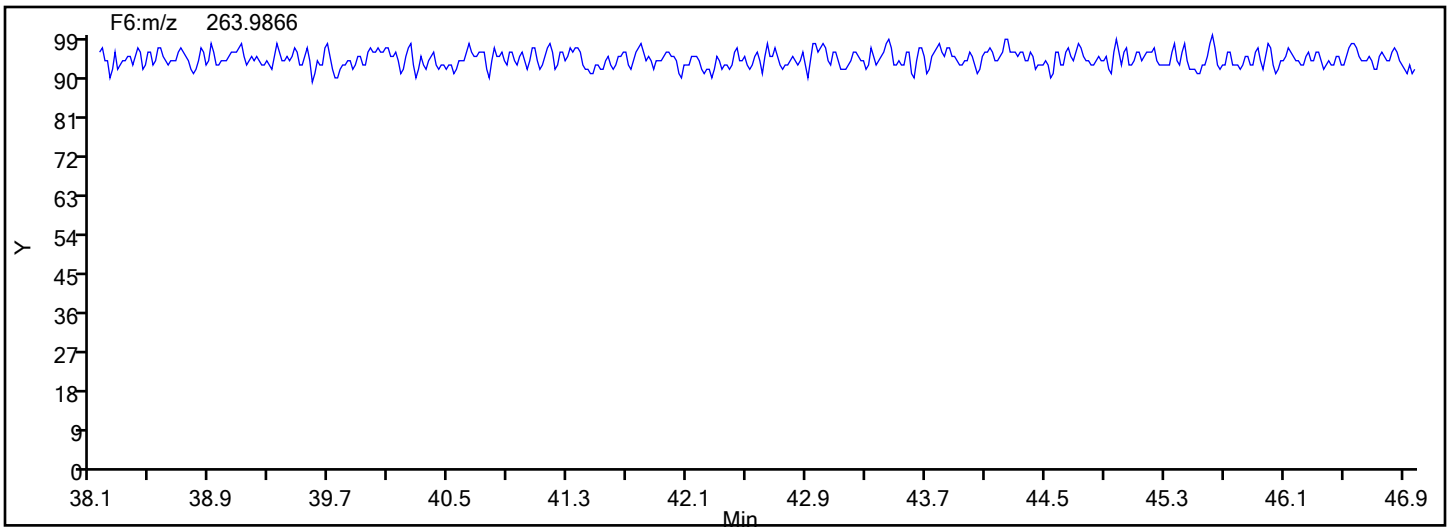
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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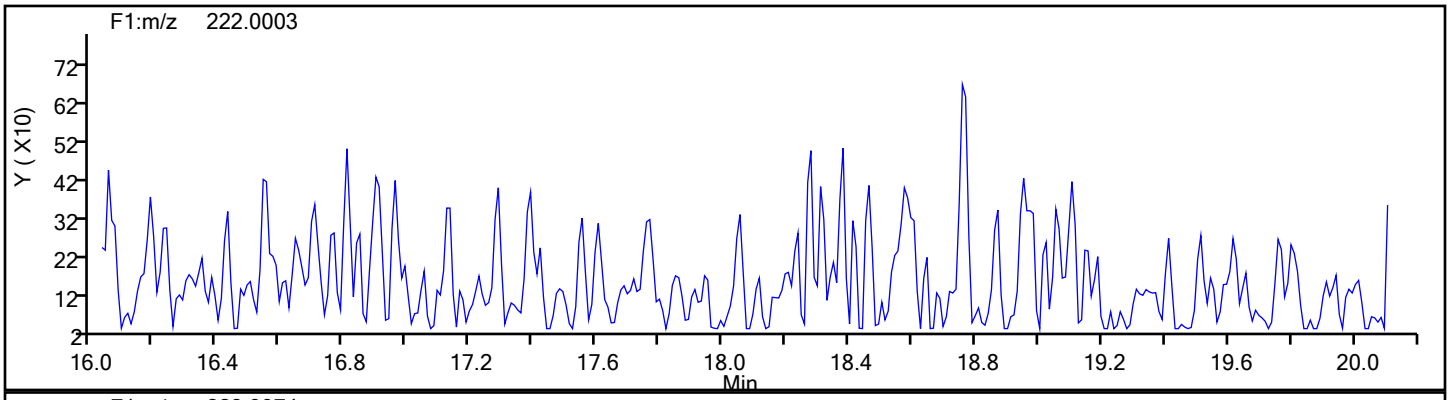
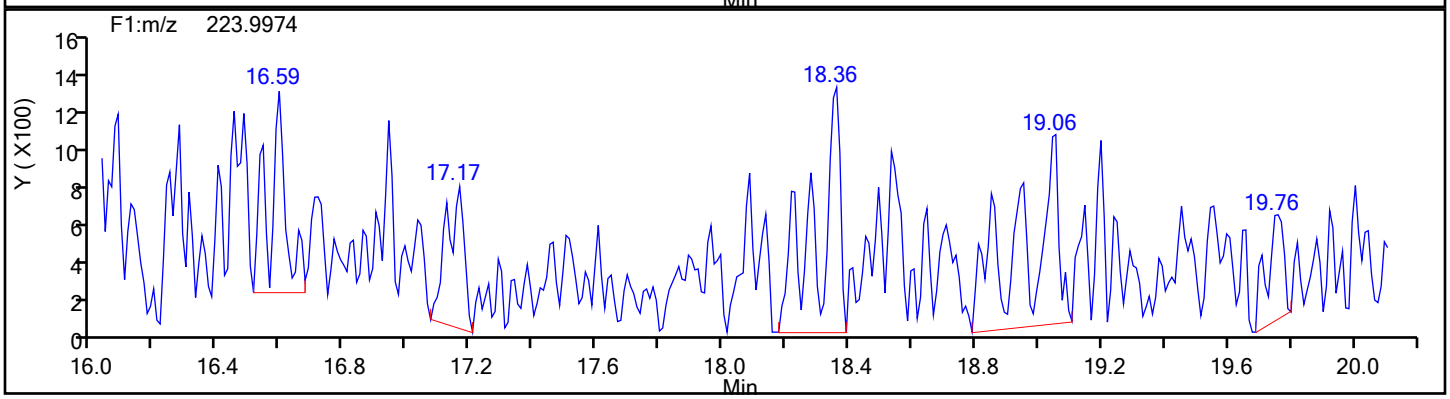
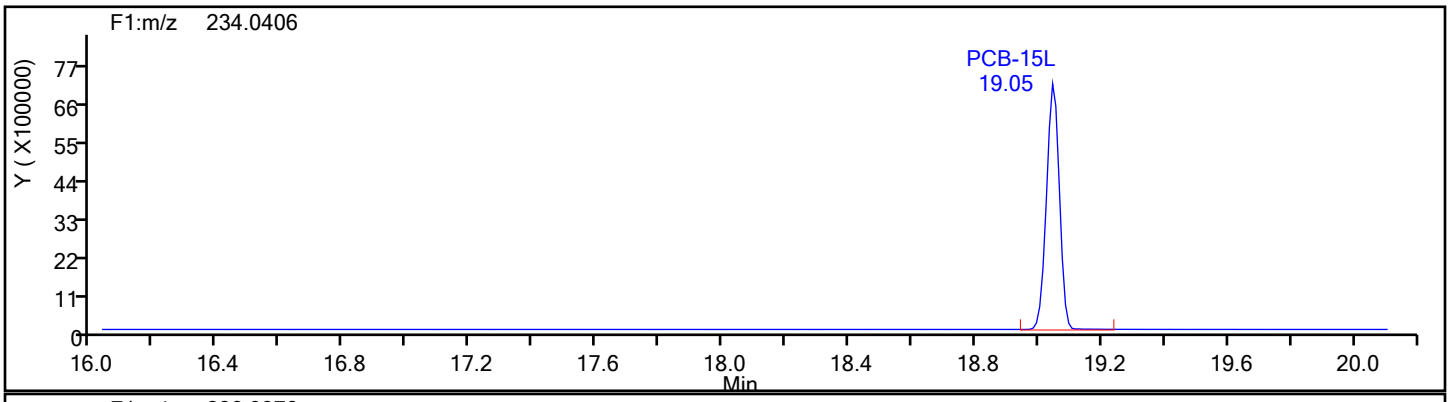
Column Type:	RTX-5	Column Dia:	0.32 mm

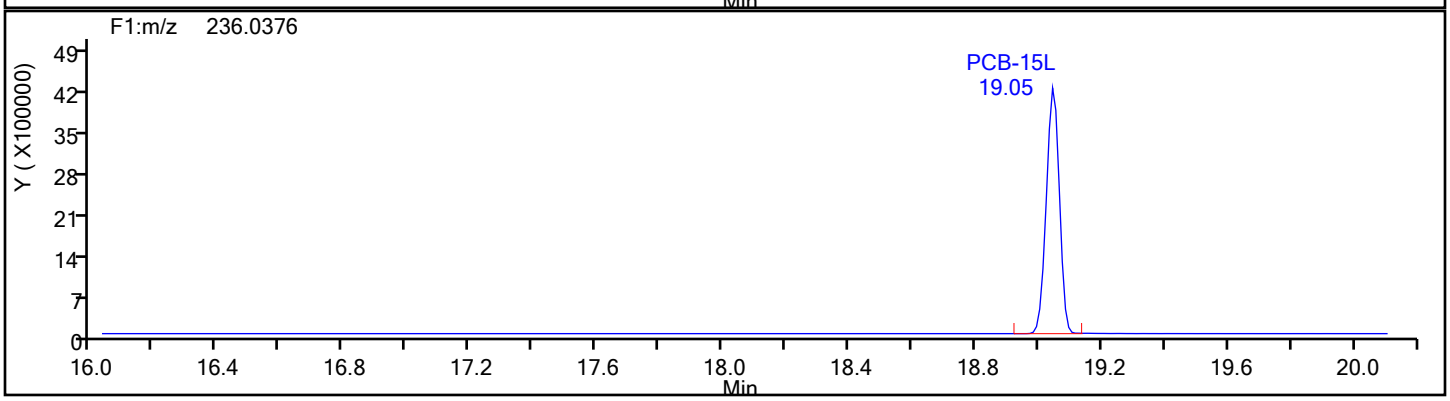
PCB-14





PCB-14 Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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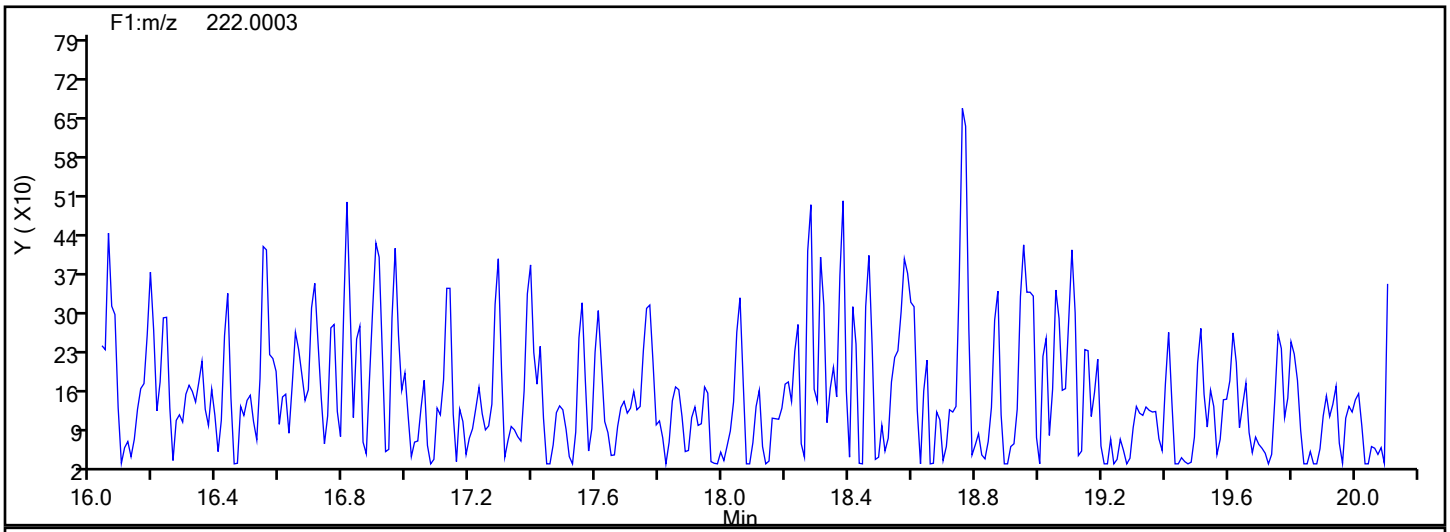
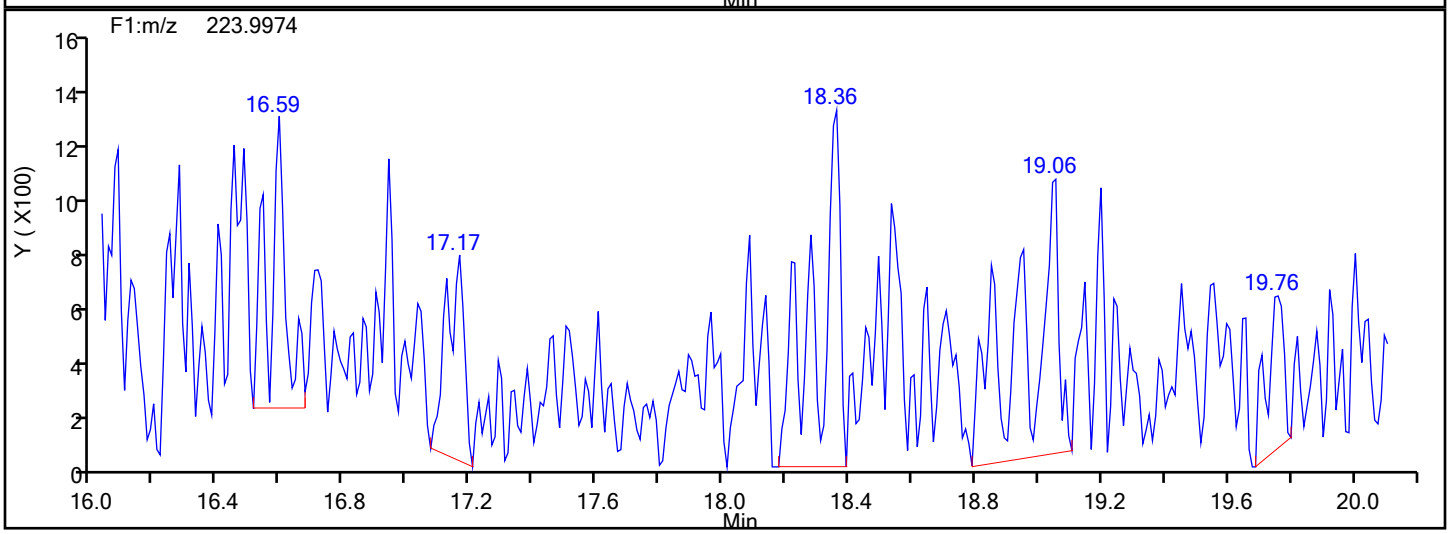
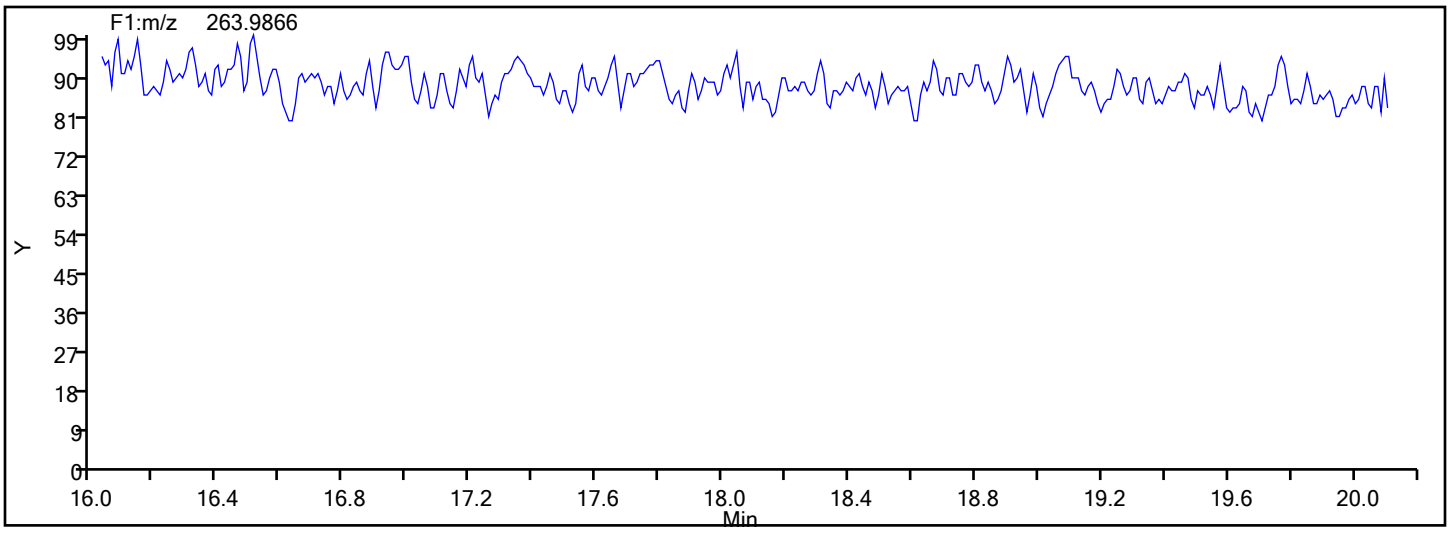
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



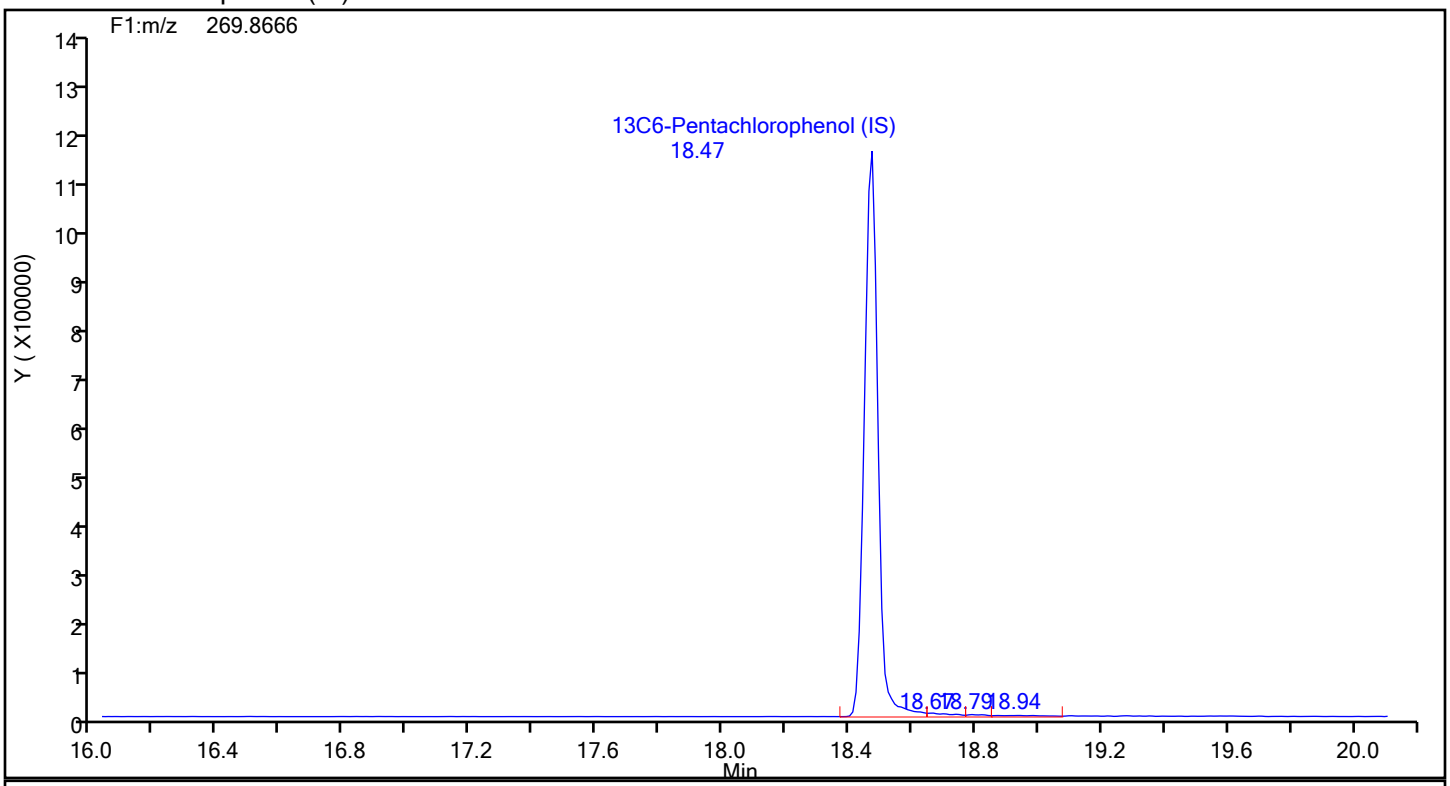
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

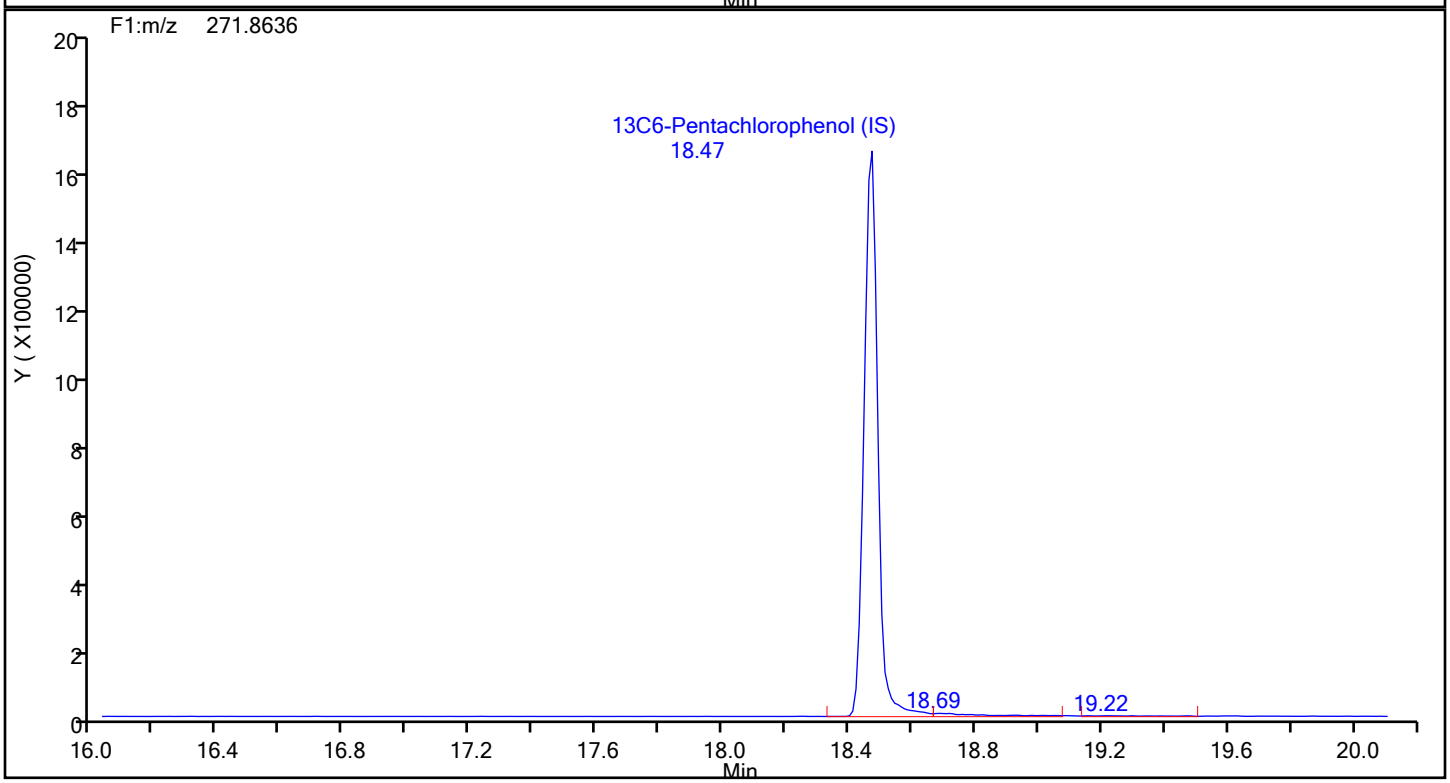
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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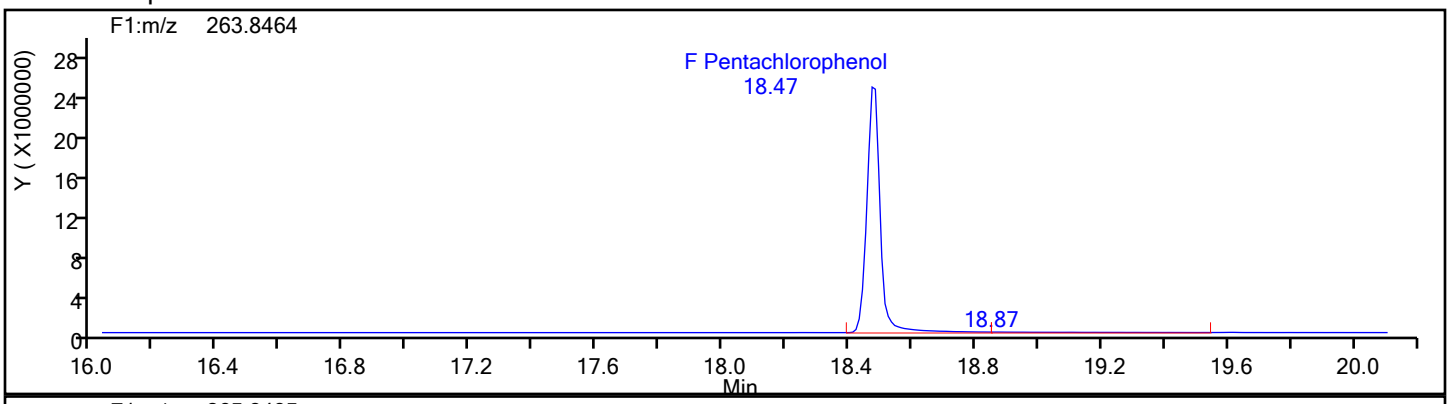
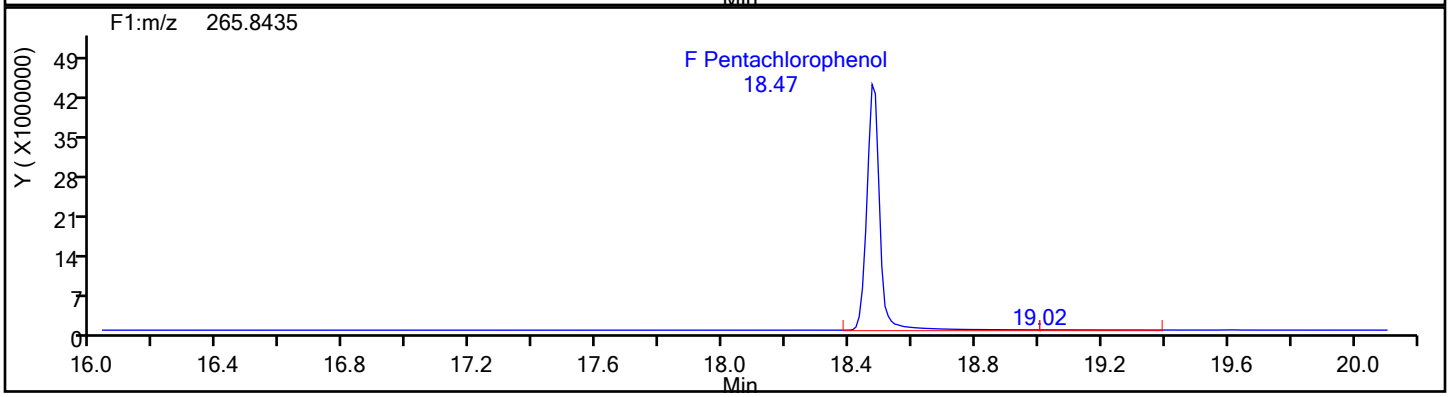
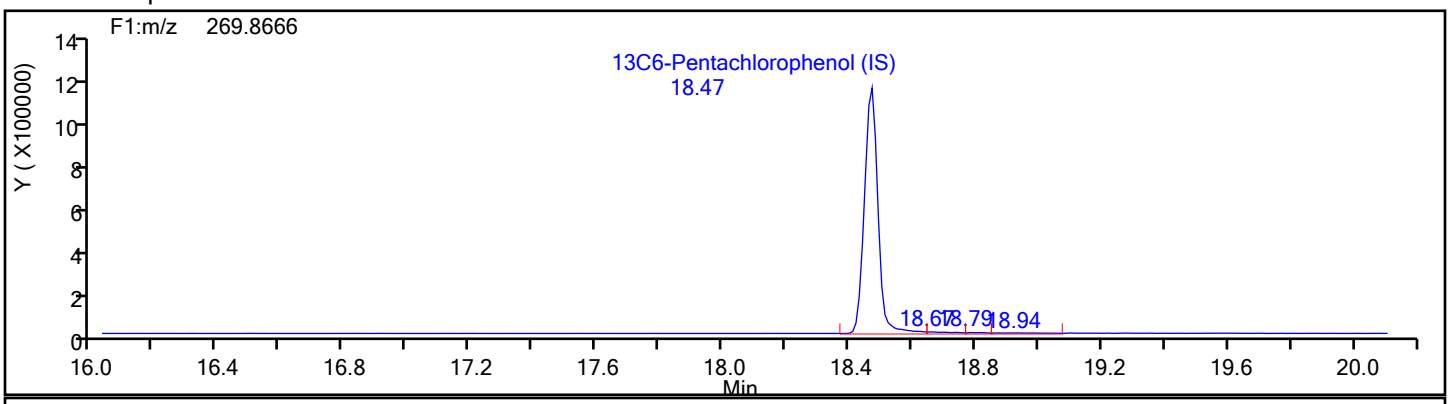
Column Type:	RTX-5	Column Dia:	0.32 mm

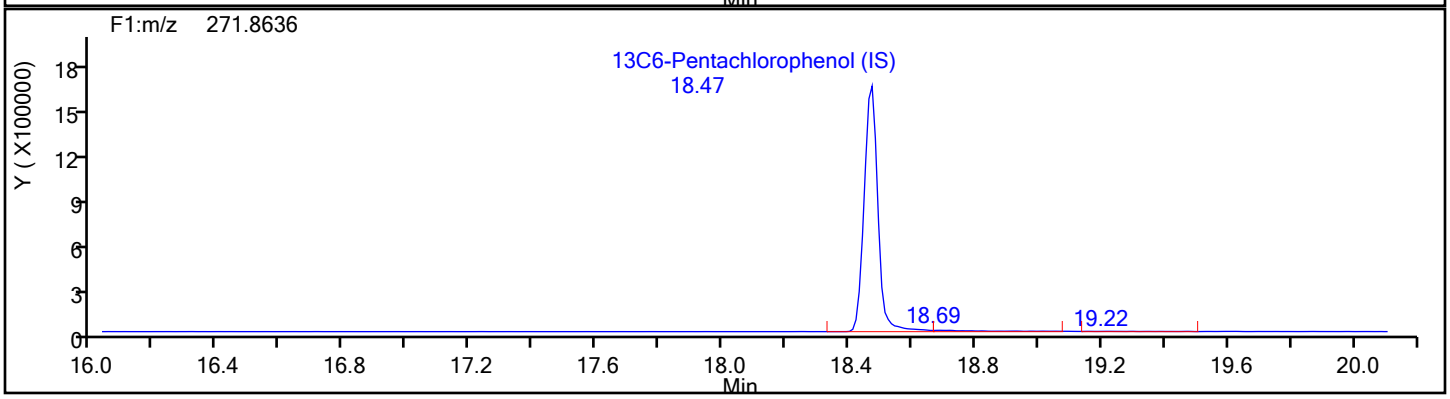
Pentachlorophenol





Pentachlorophenol Standards



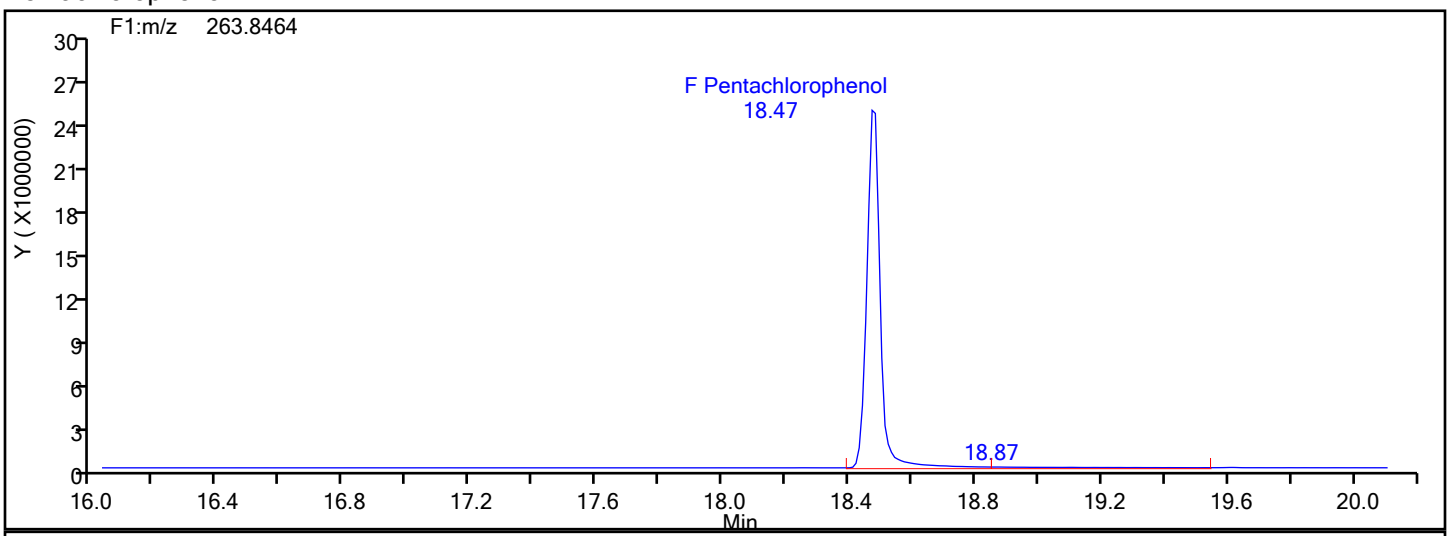


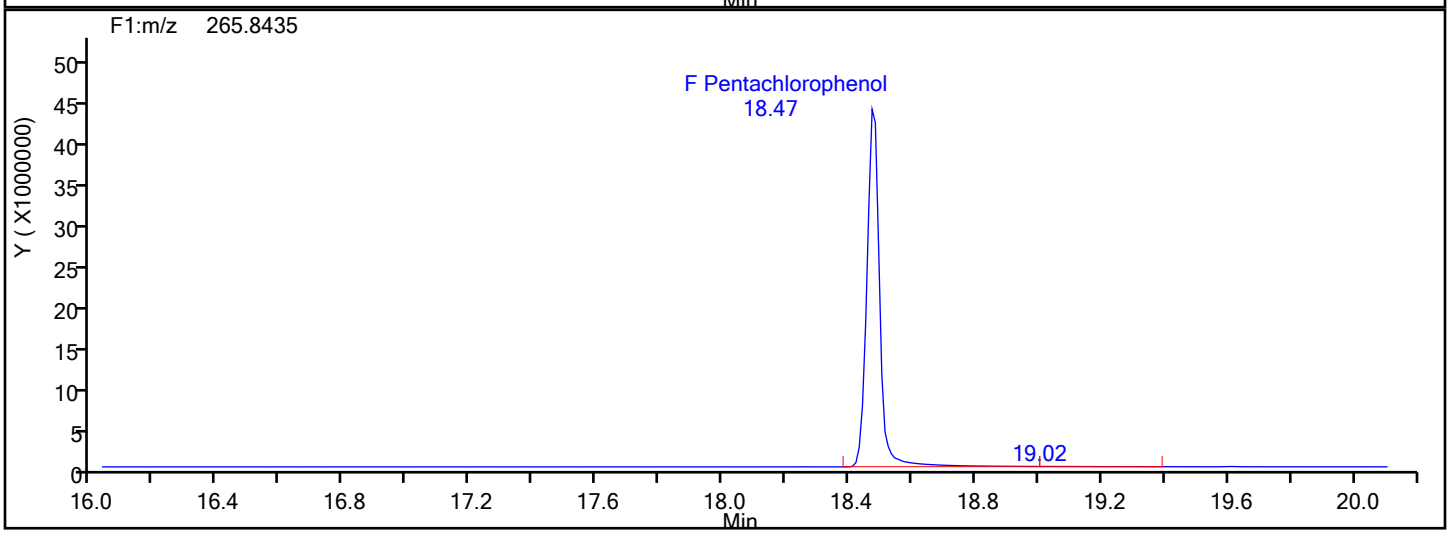
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

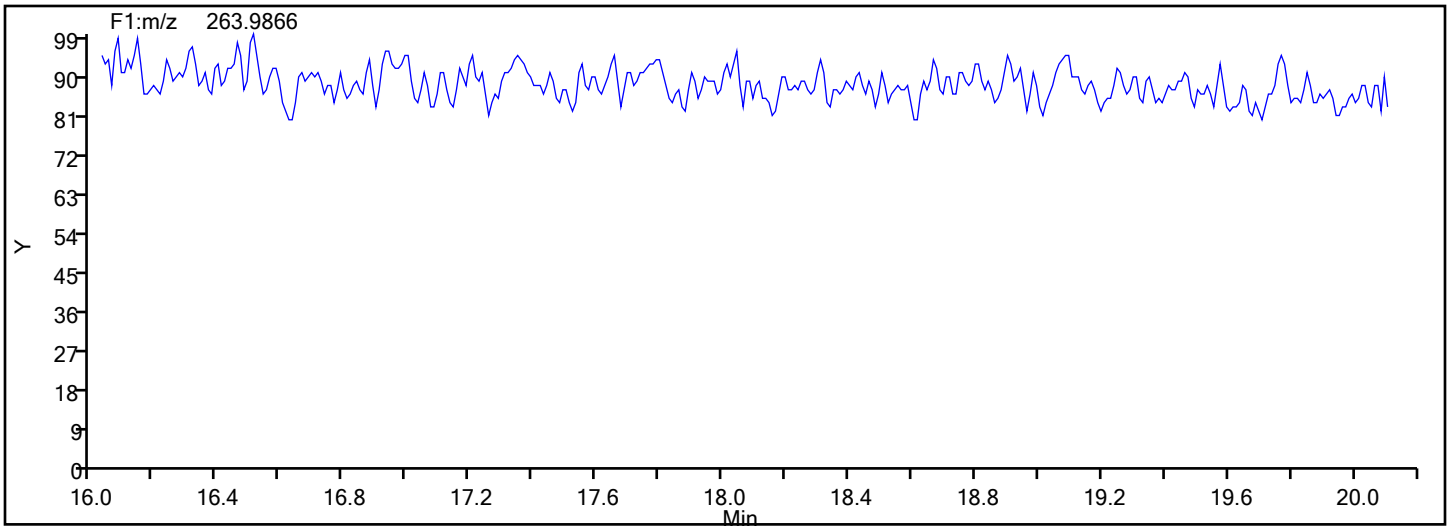
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

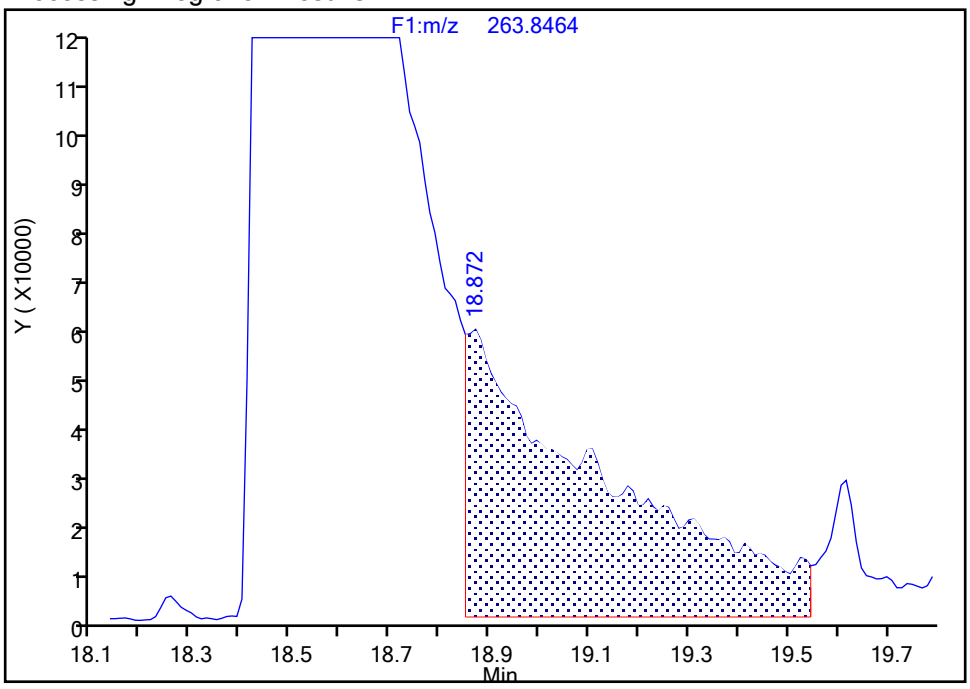
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Instrument ID: D3PST
Lims ID: IC L9
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F1(16.03 :20.12)

Pentachlorophenol, CAS: 87-86-5

Signal: 1

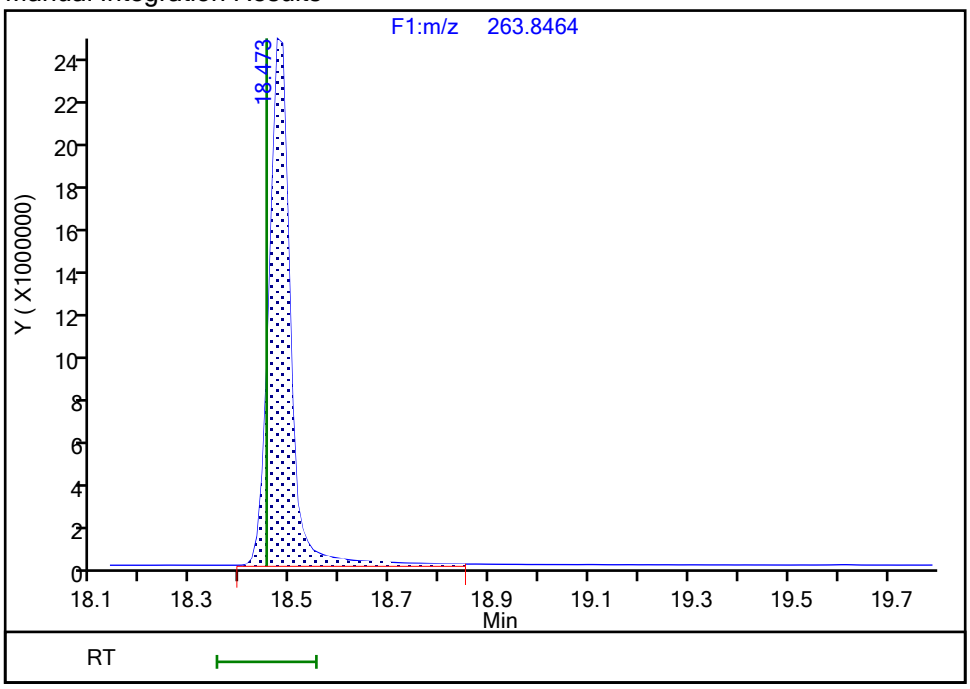
Processing Integration Results

RT: 18.87
Area: 1051585
Amount: 125.9931
Amount Units: pg/ul



Manual Integration Results

RT: 18.47
Area: 73724443
Amount: 11532
Amount Units: pg/ul



Reviewer: F9EE, 04-May-2025 12:26:08 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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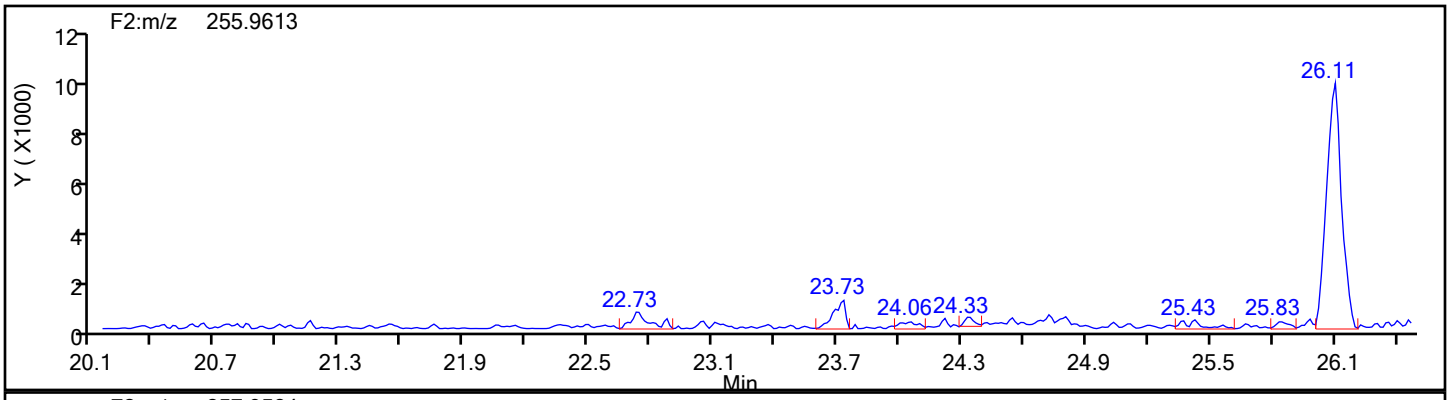
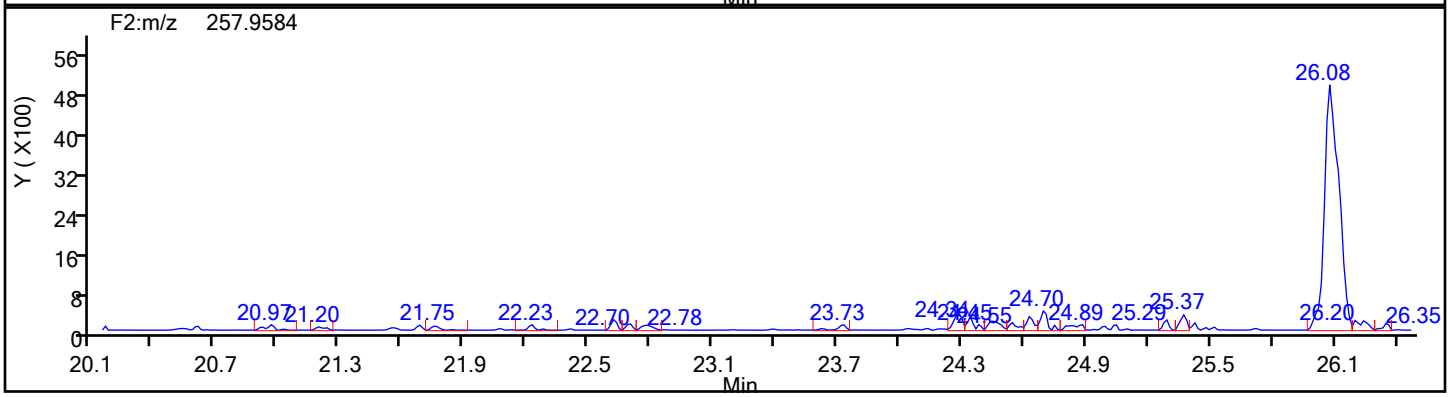
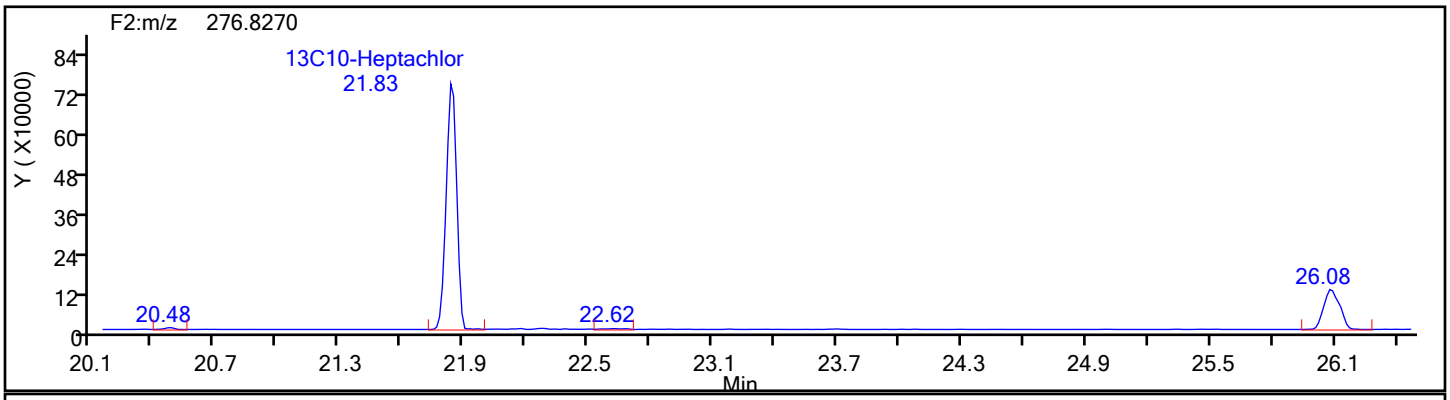
Column Type:	RTX-5	Column Dia:	0.32 mm

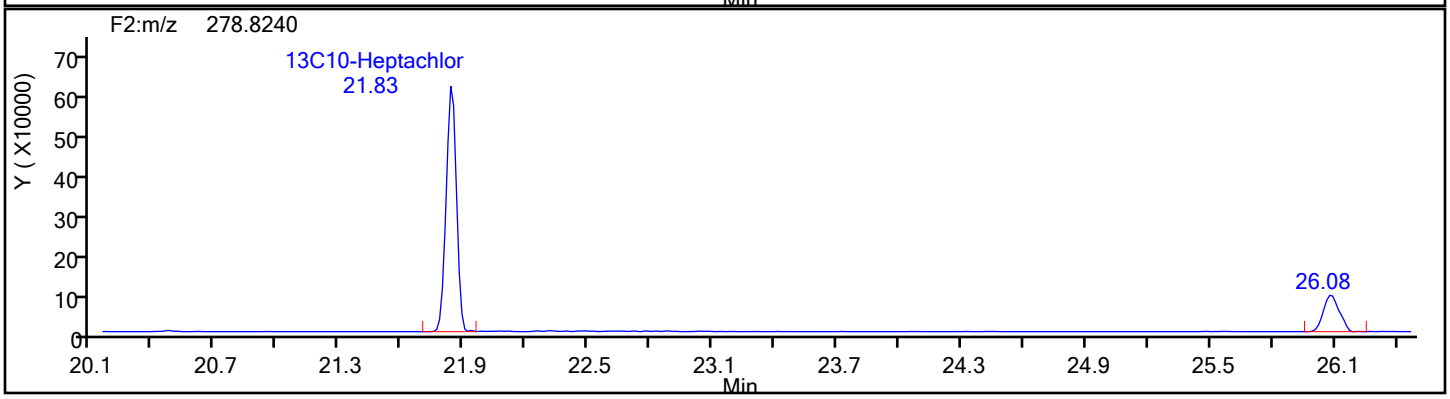
PCB-36





PCB-36 Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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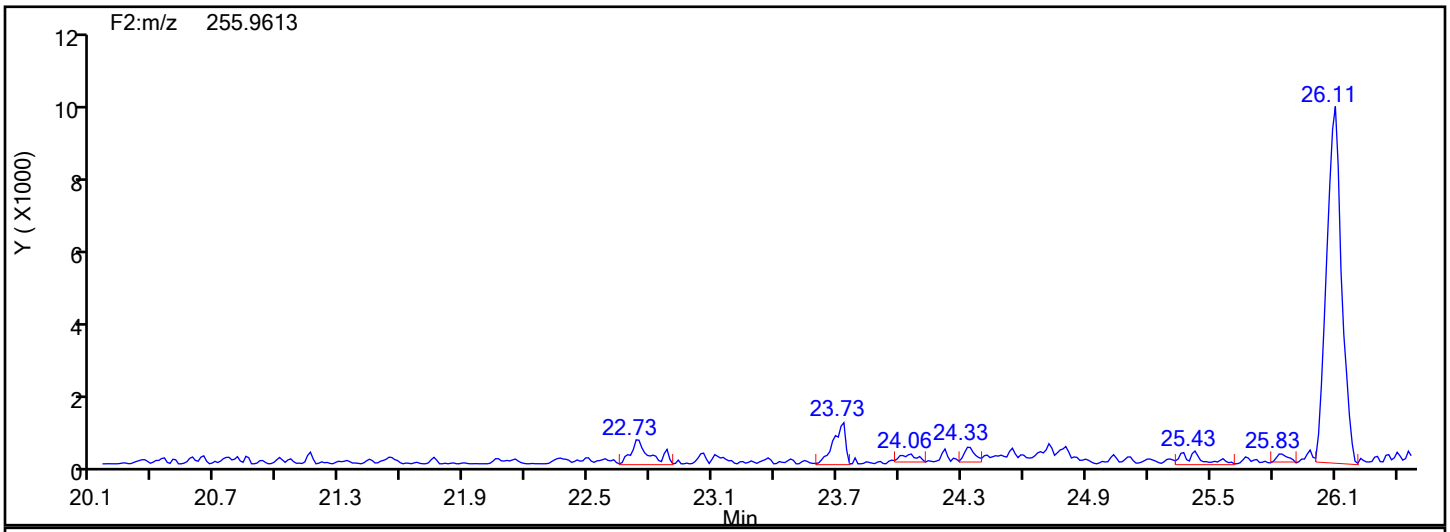
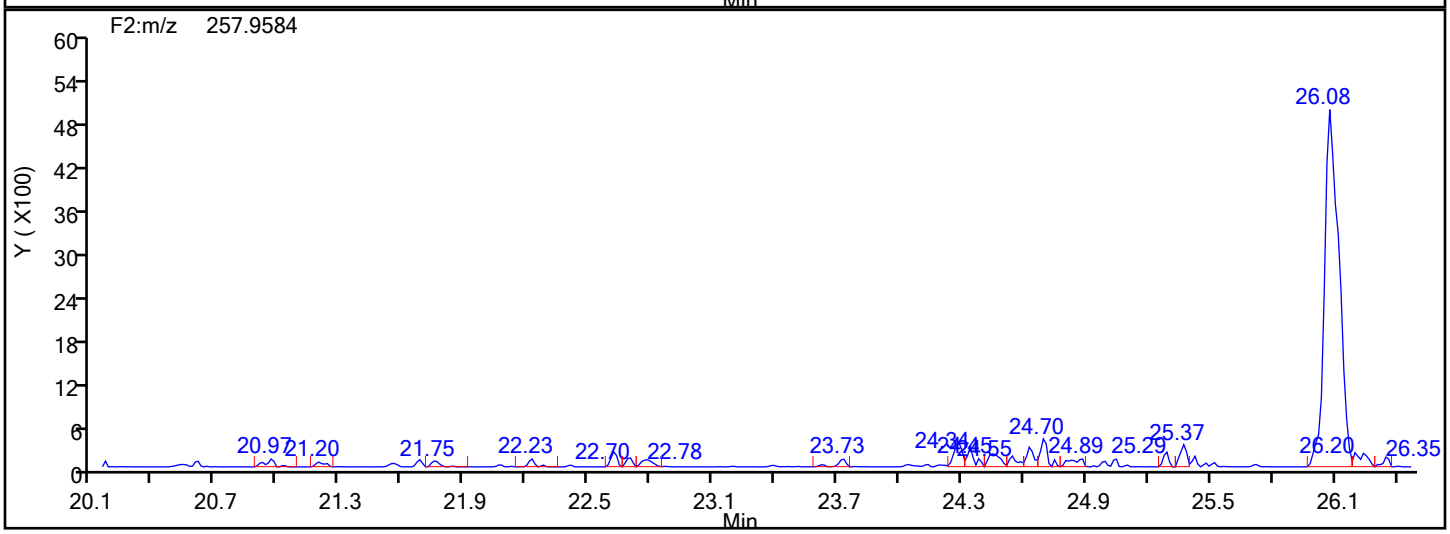
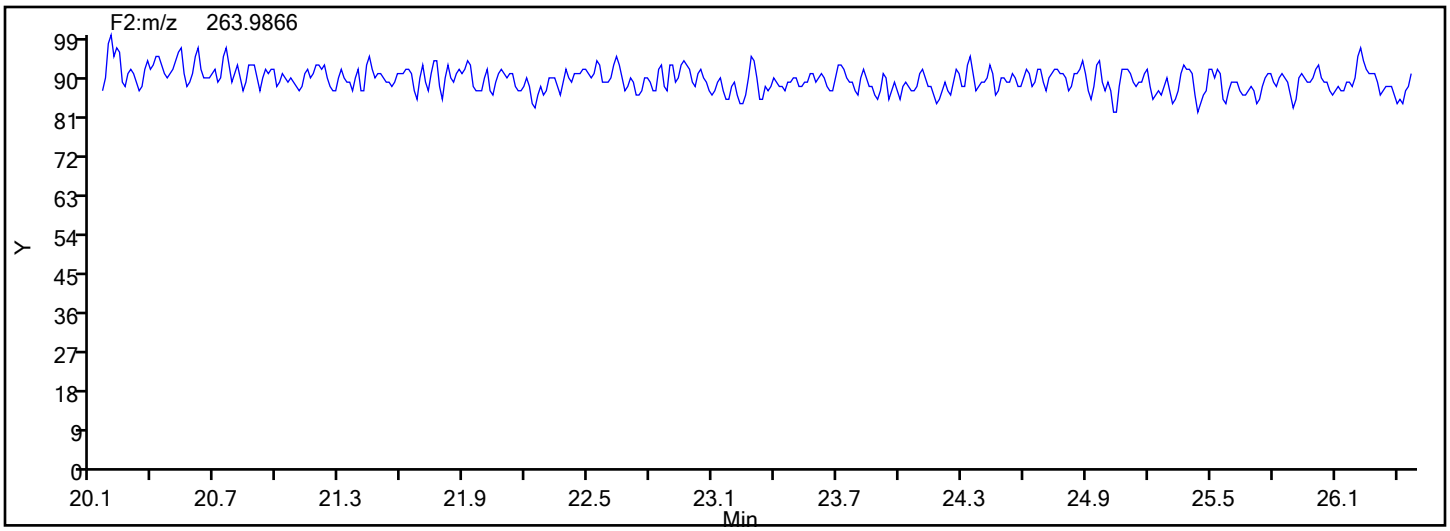
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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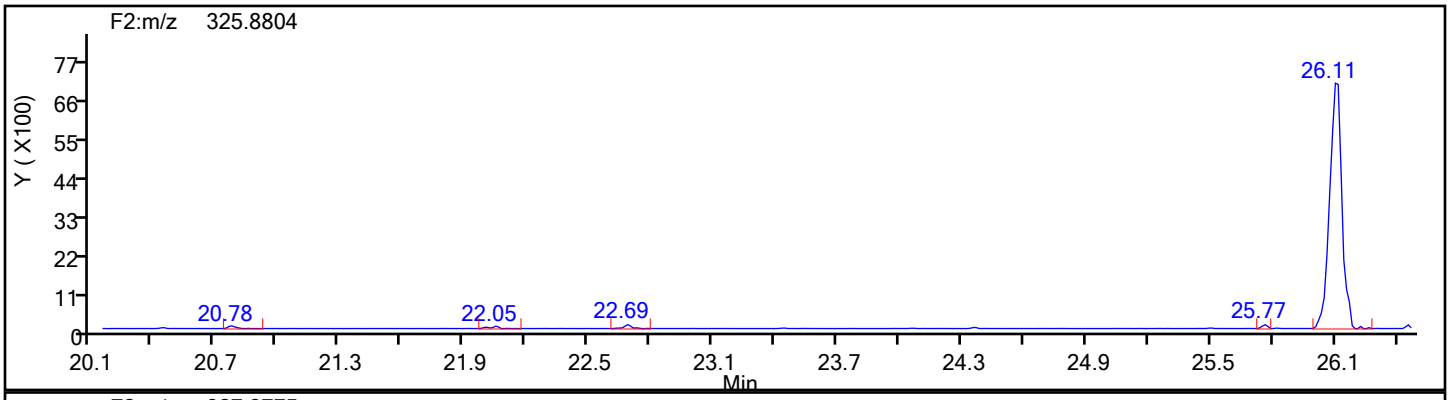
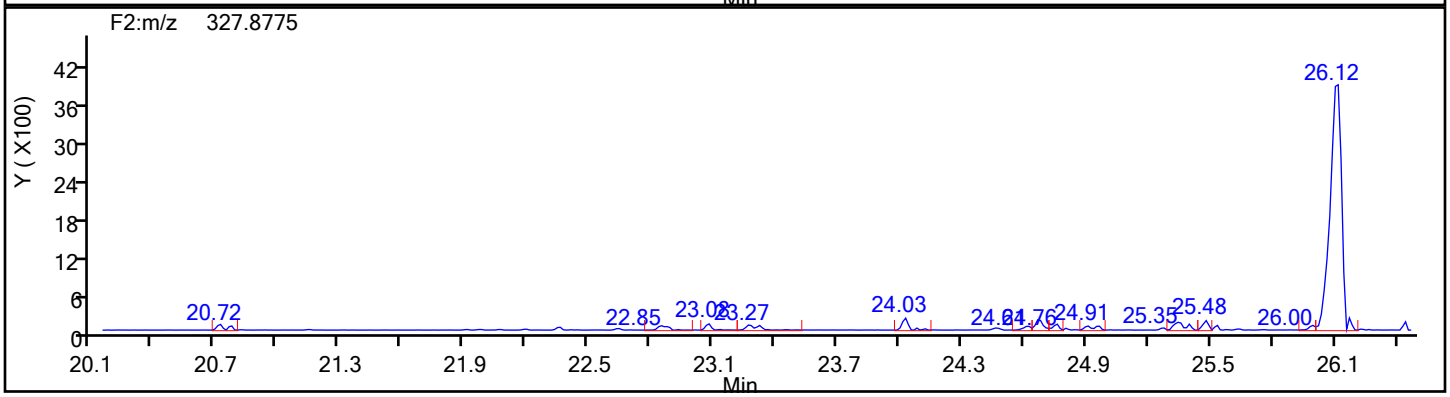
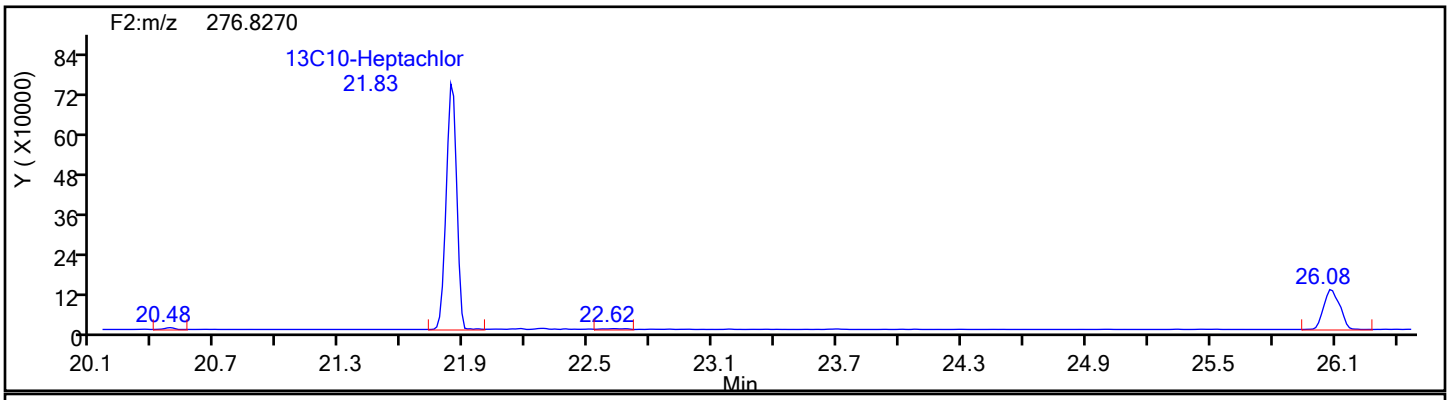
Column Type:	RTX-5	Column Dia:	0.32 mm

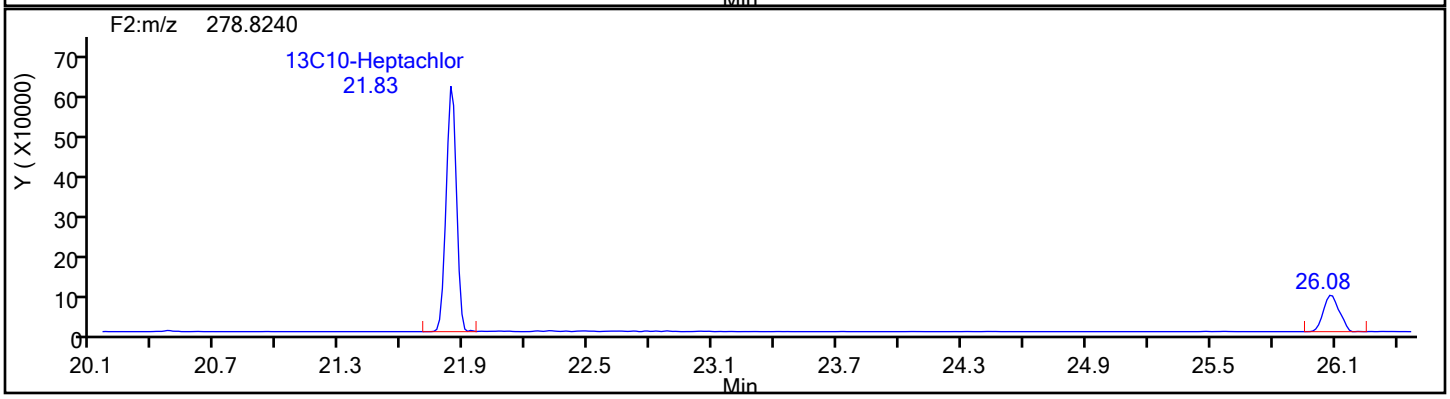
PCB-104





PCB-104 Standards



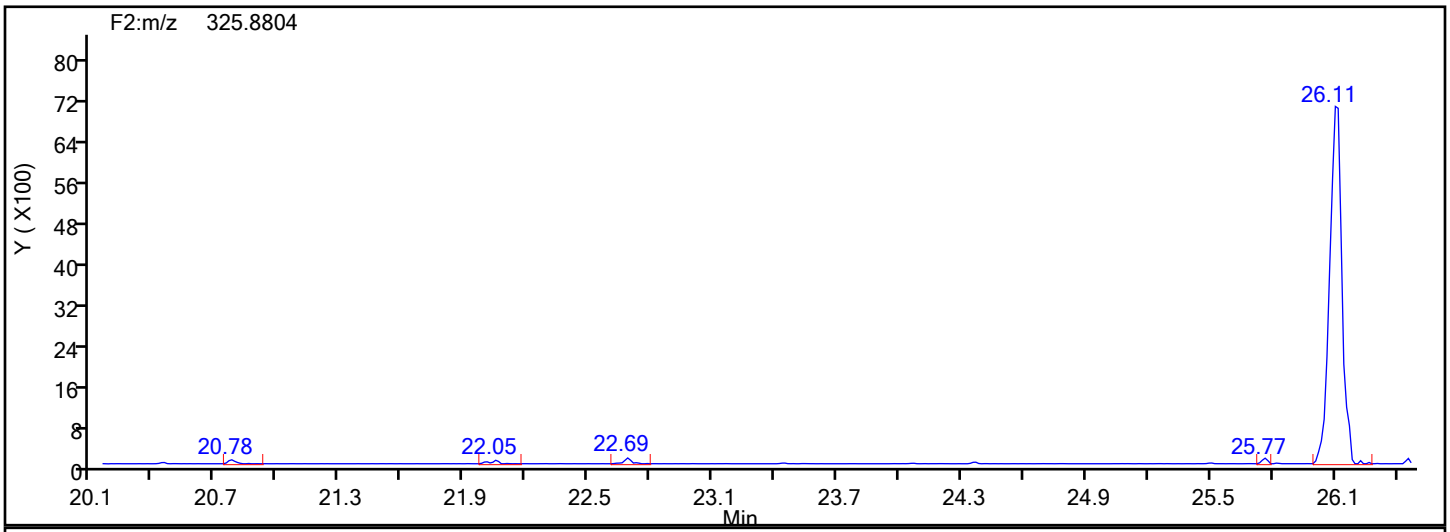


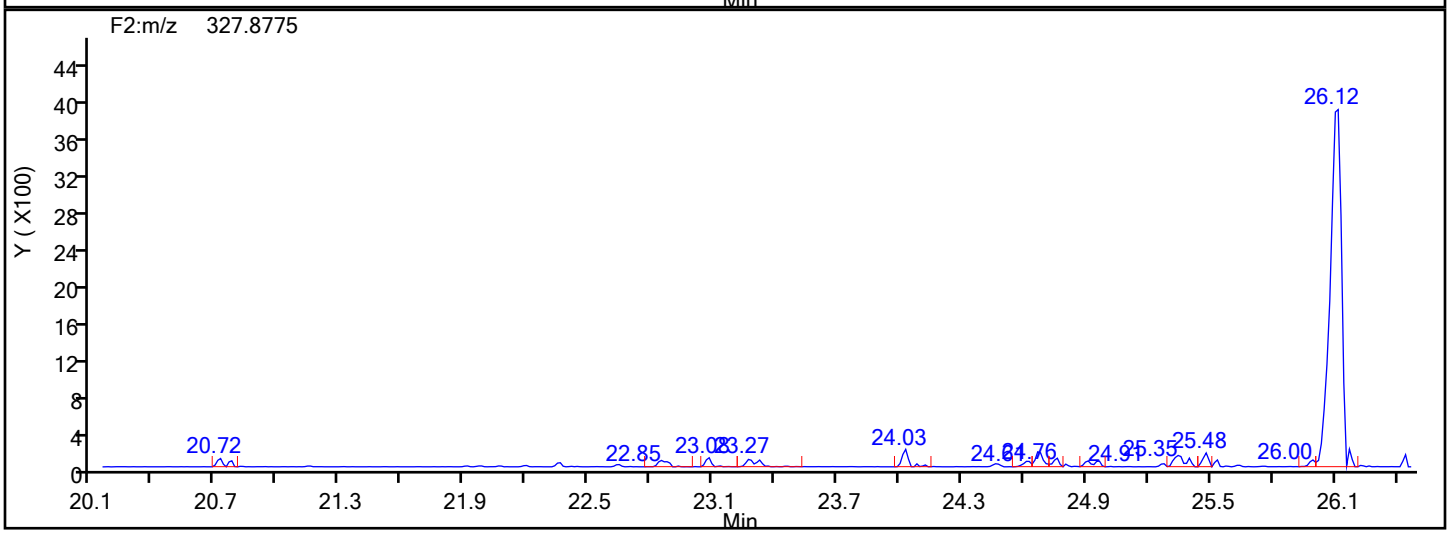
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

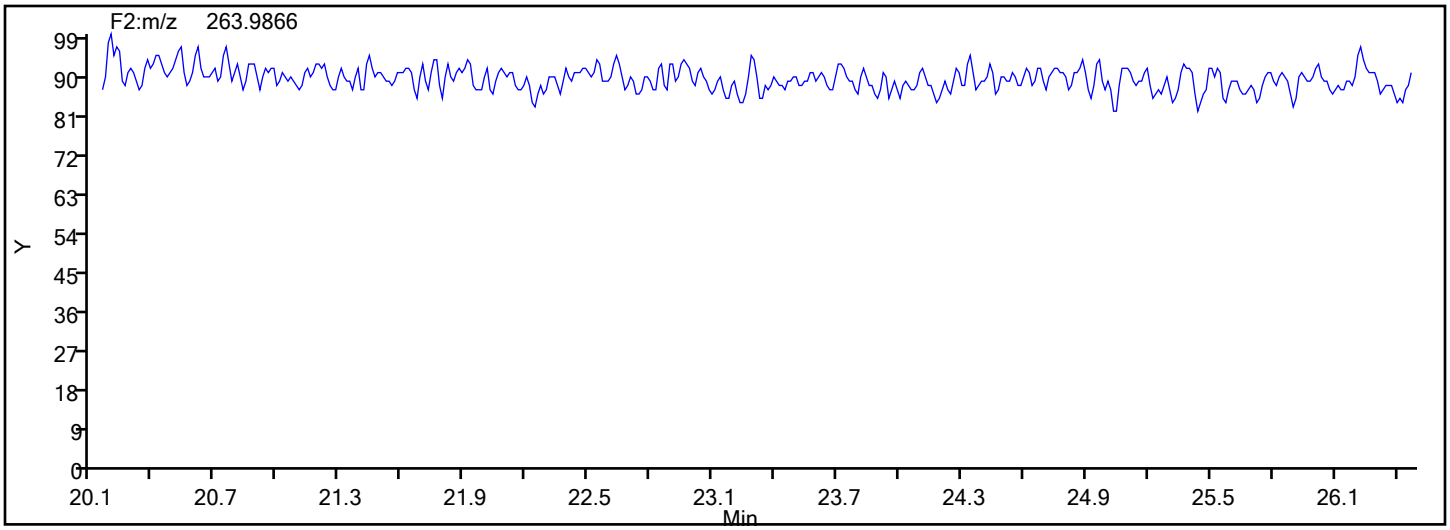
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



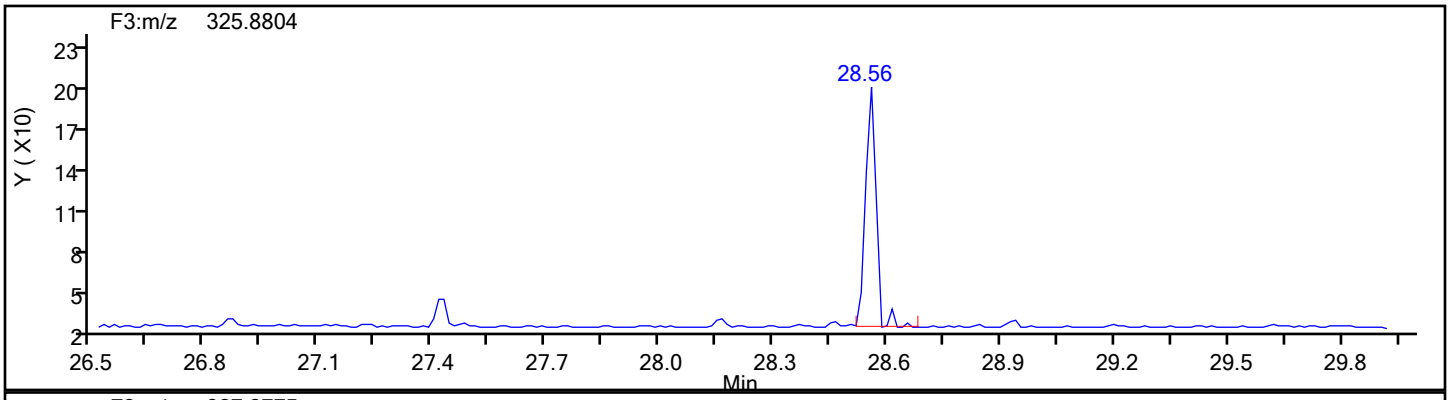
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

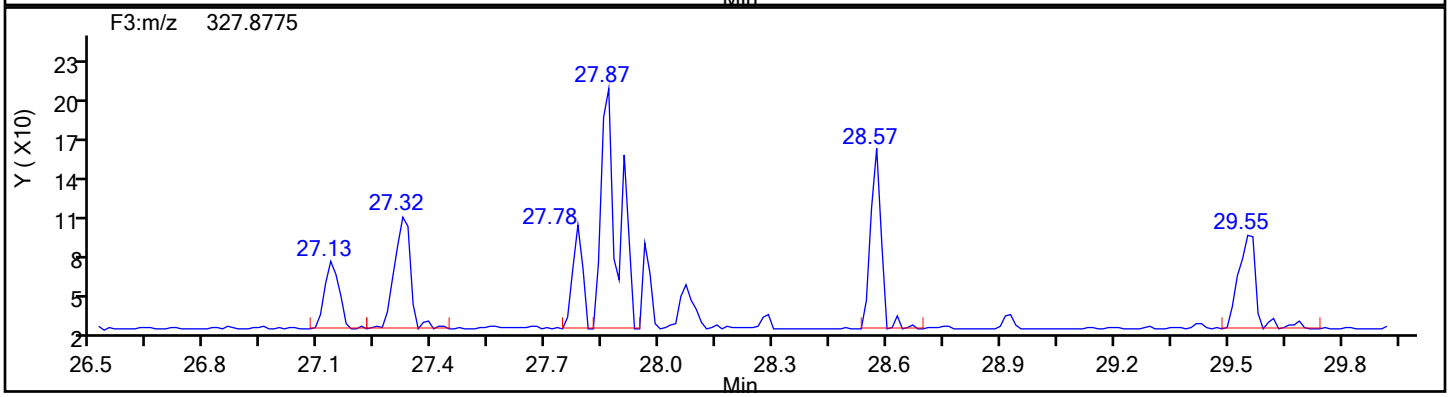
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

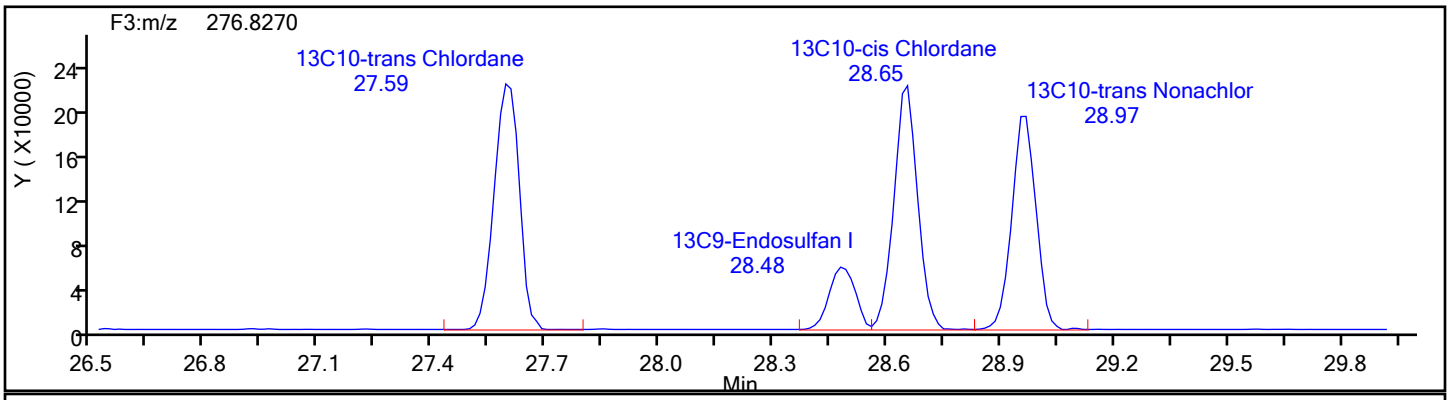
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

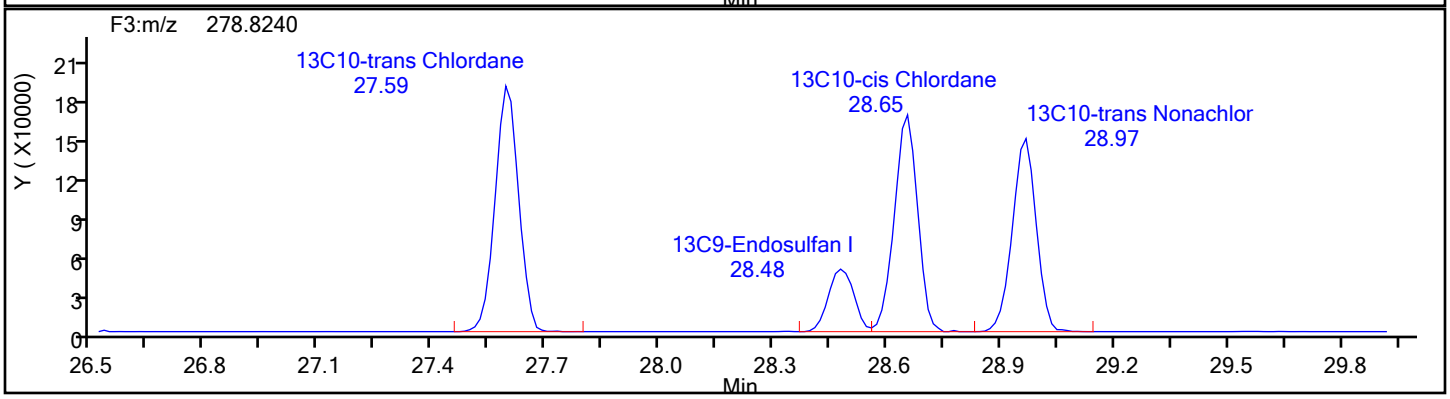
PCB-121





PCB-121 Standards



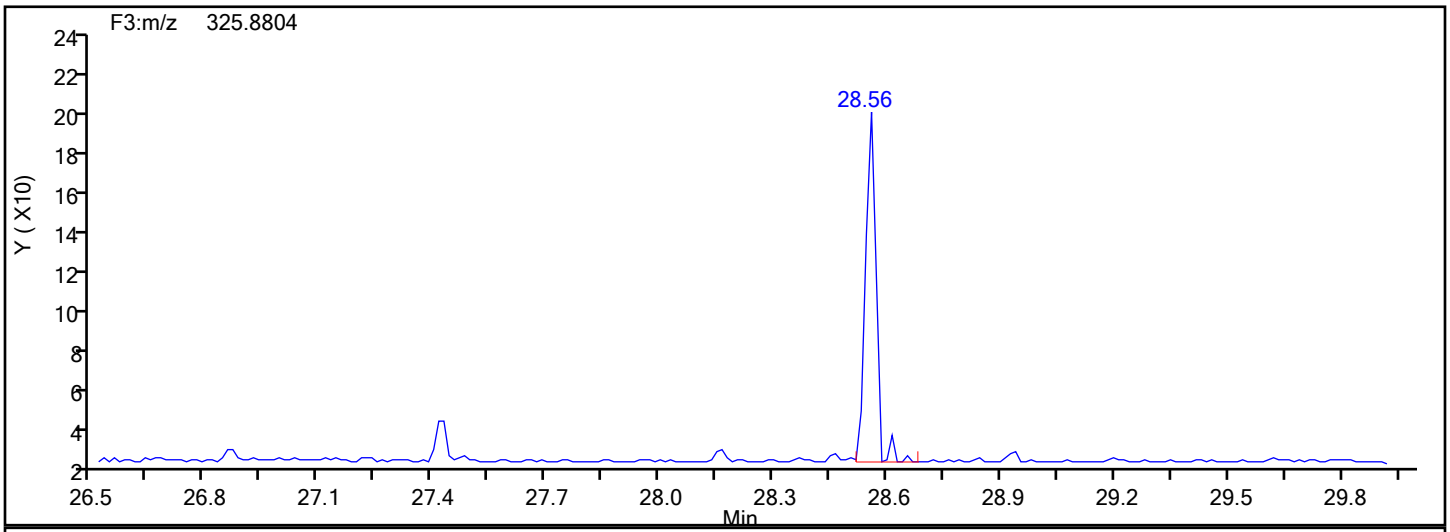


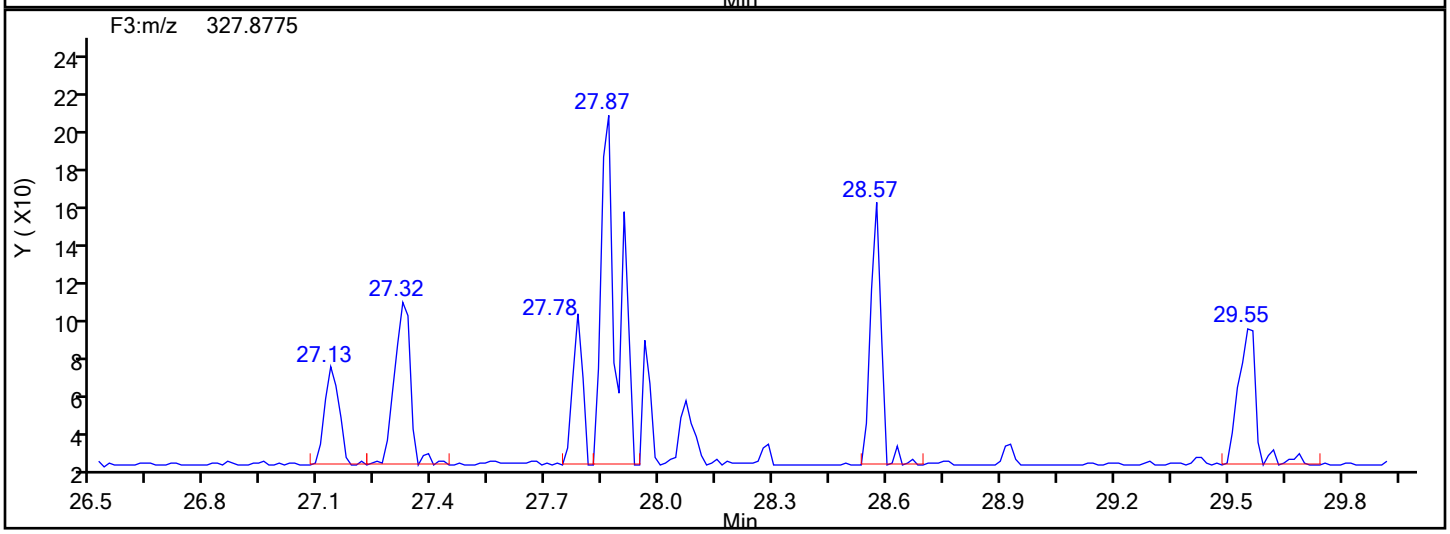
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

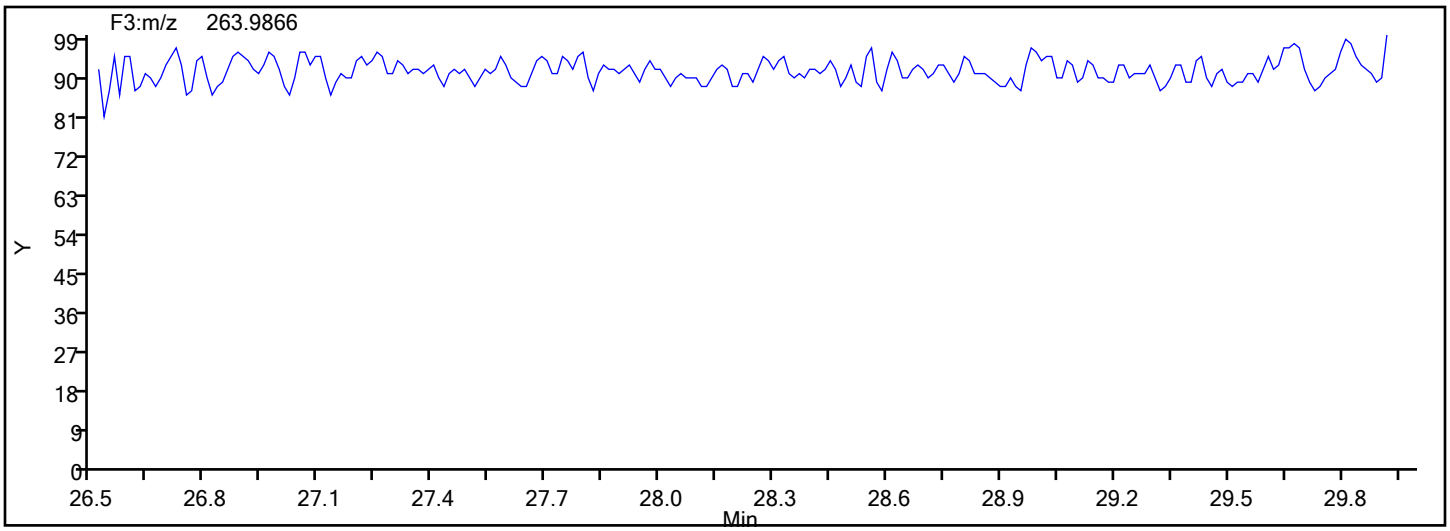
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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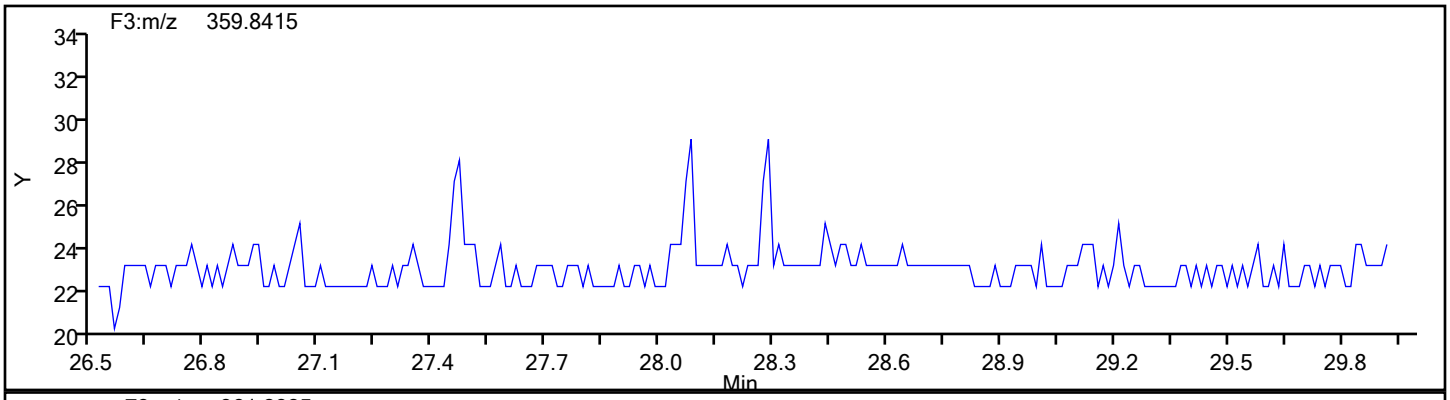
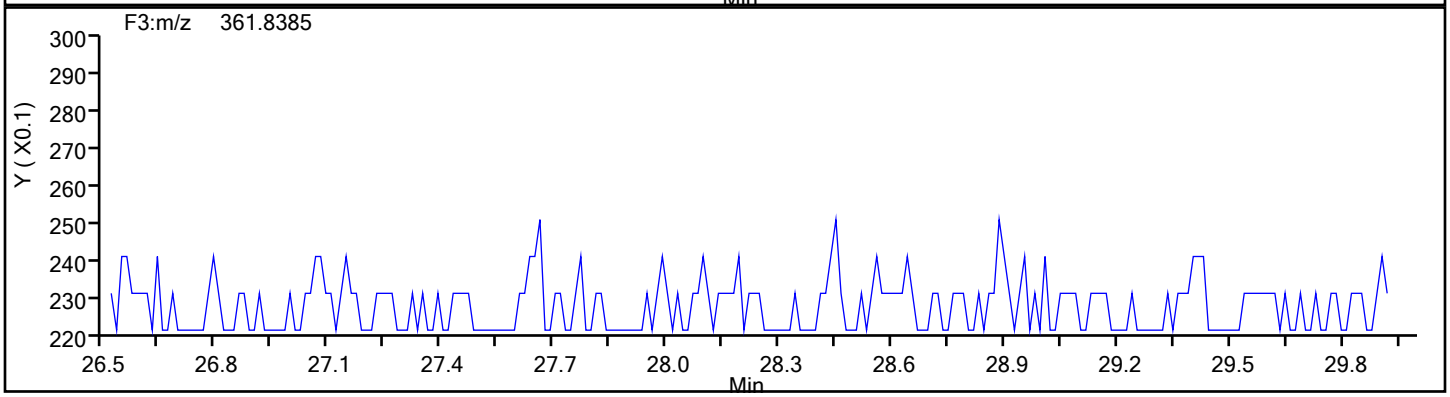
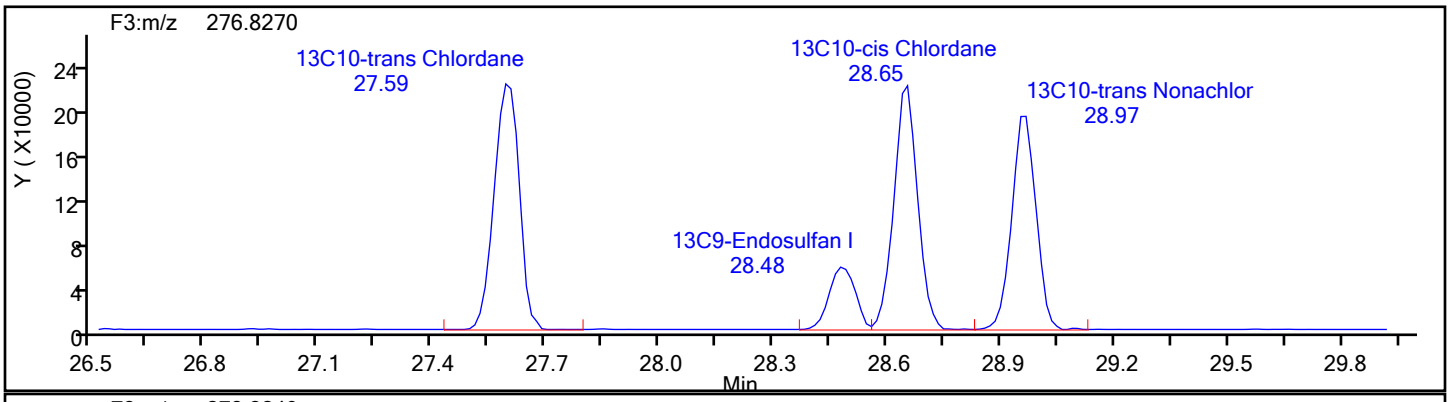
Column Type:	RTX-5	Column Dia:	0.32 mm

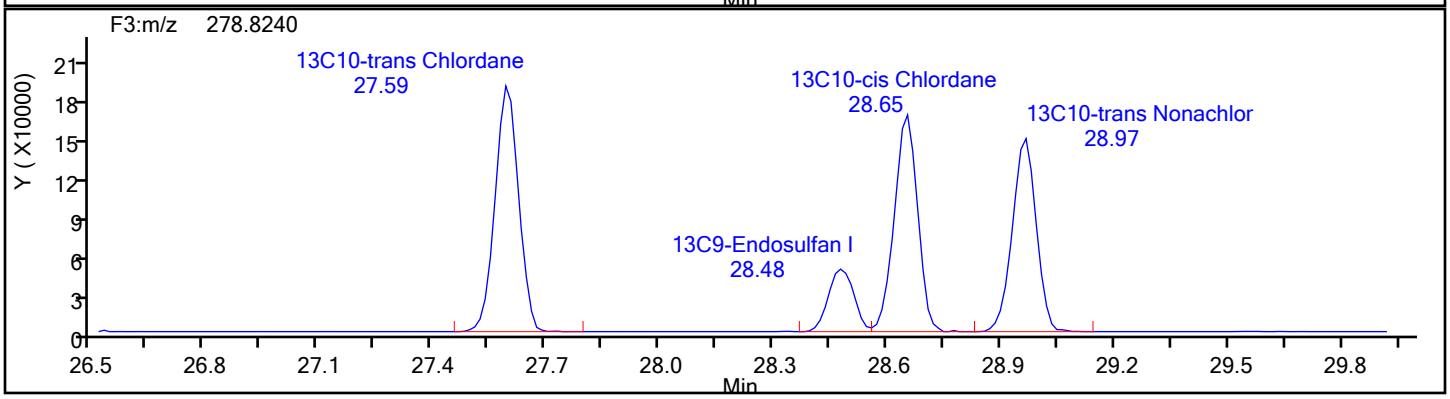
PCB-142





PCB-142 Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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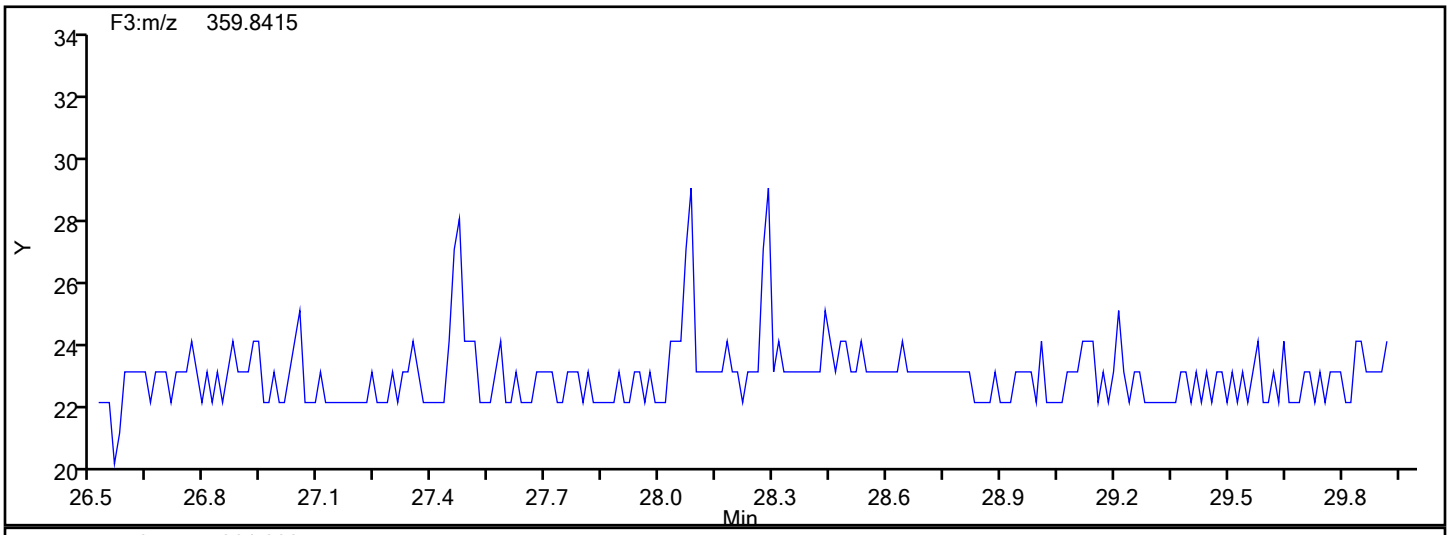
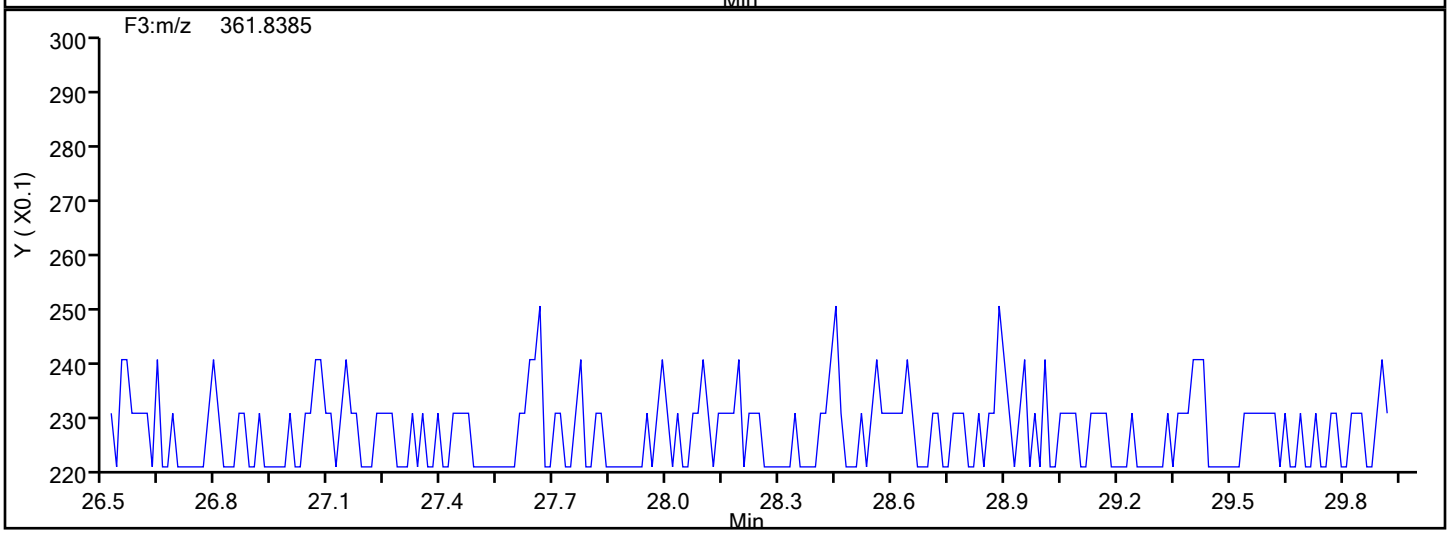
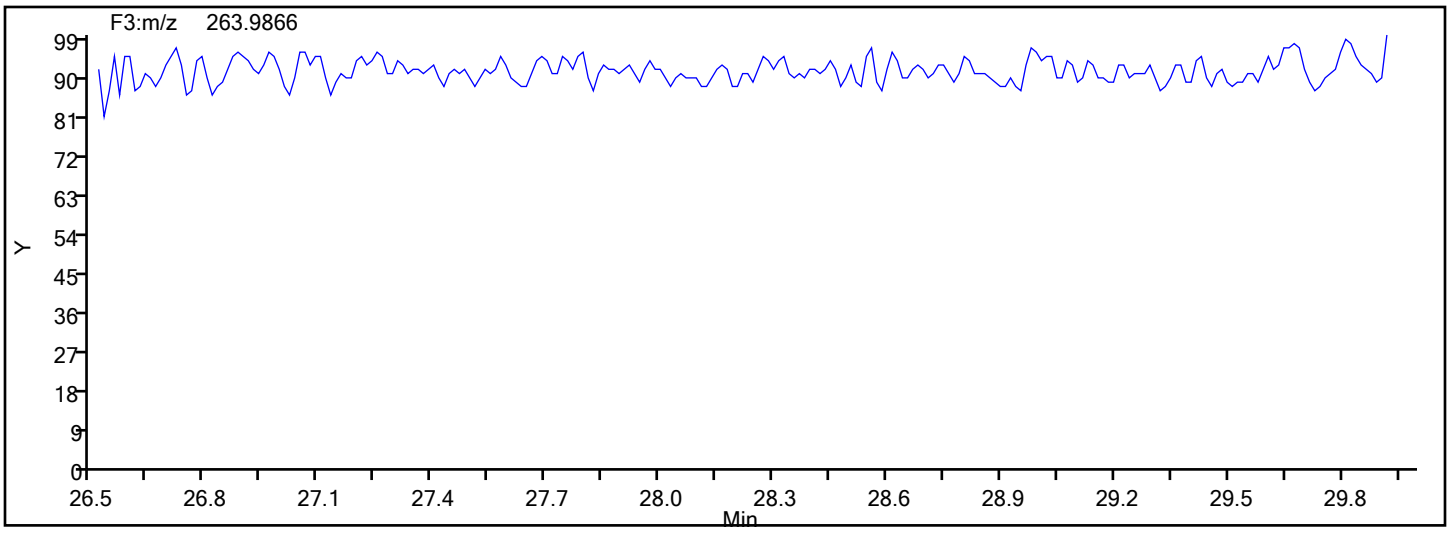
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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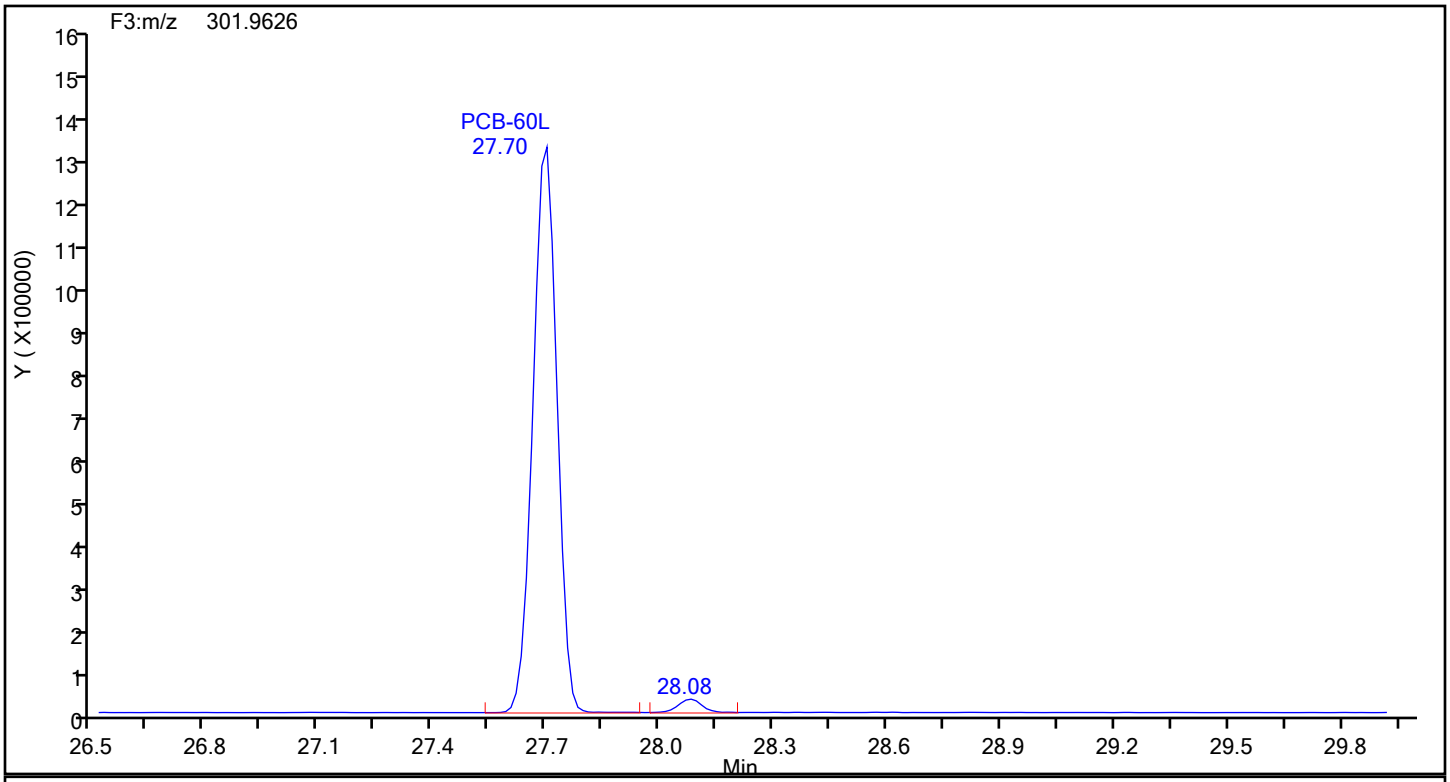
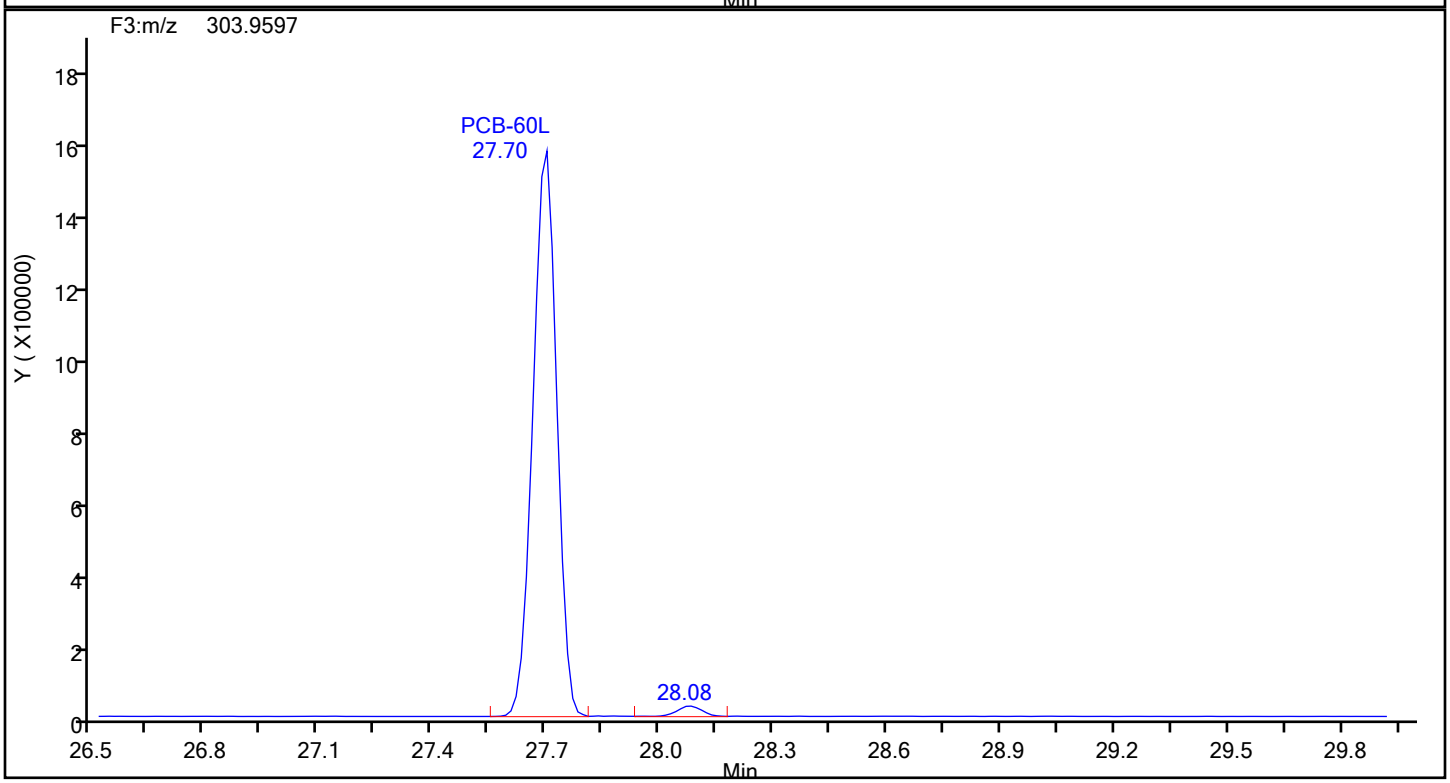
PCB-60L Standards





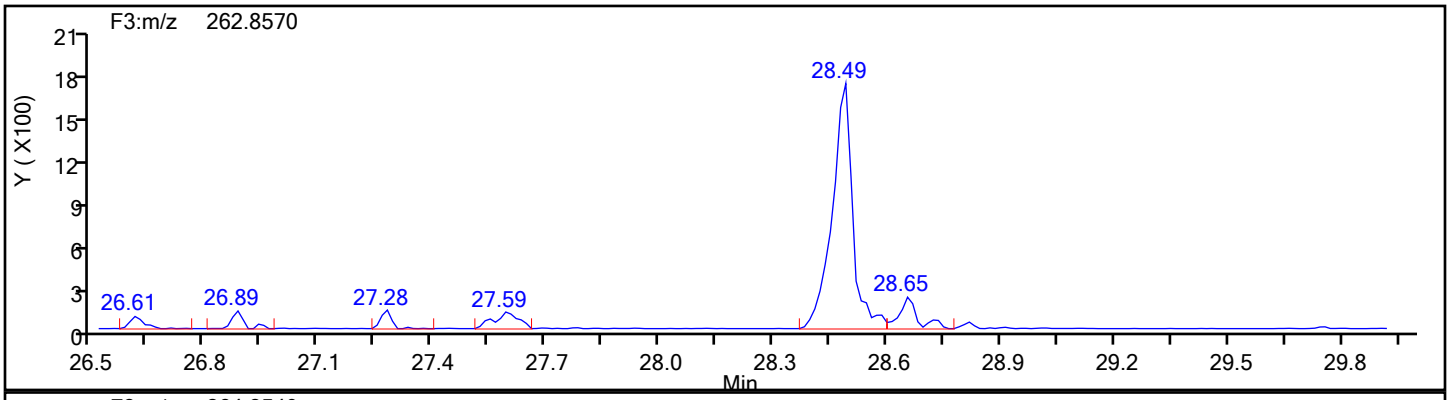
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

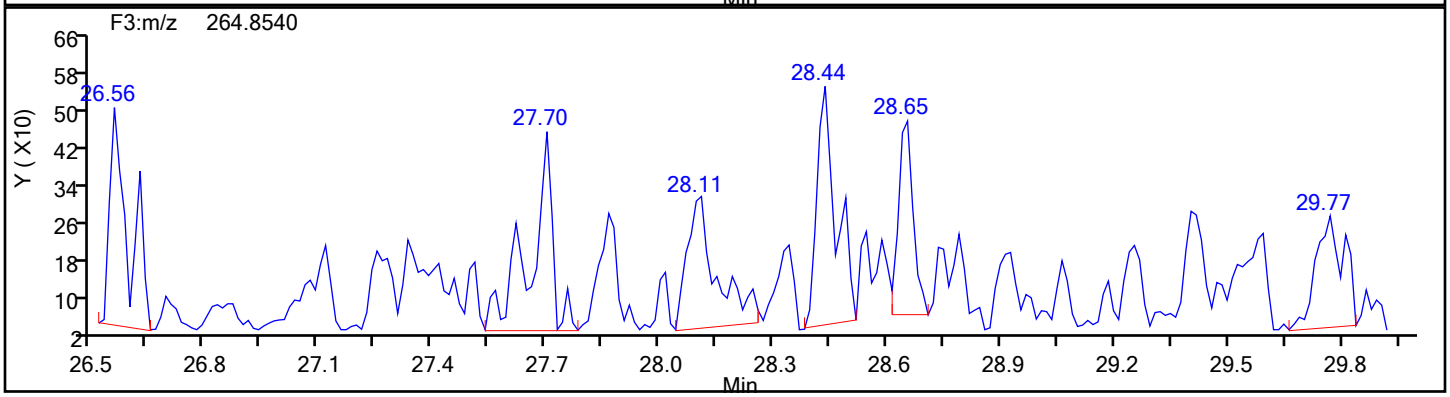
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

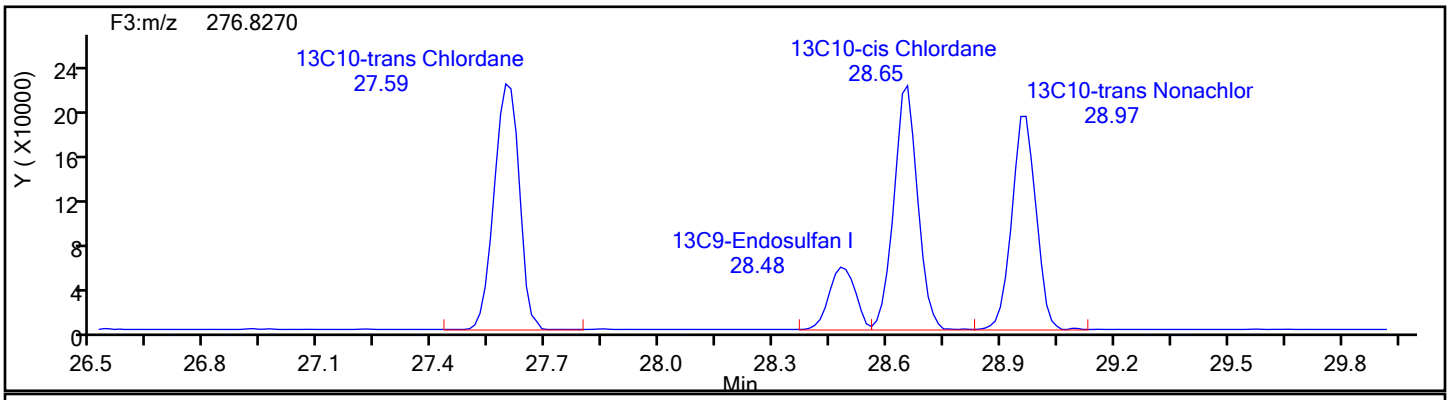
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

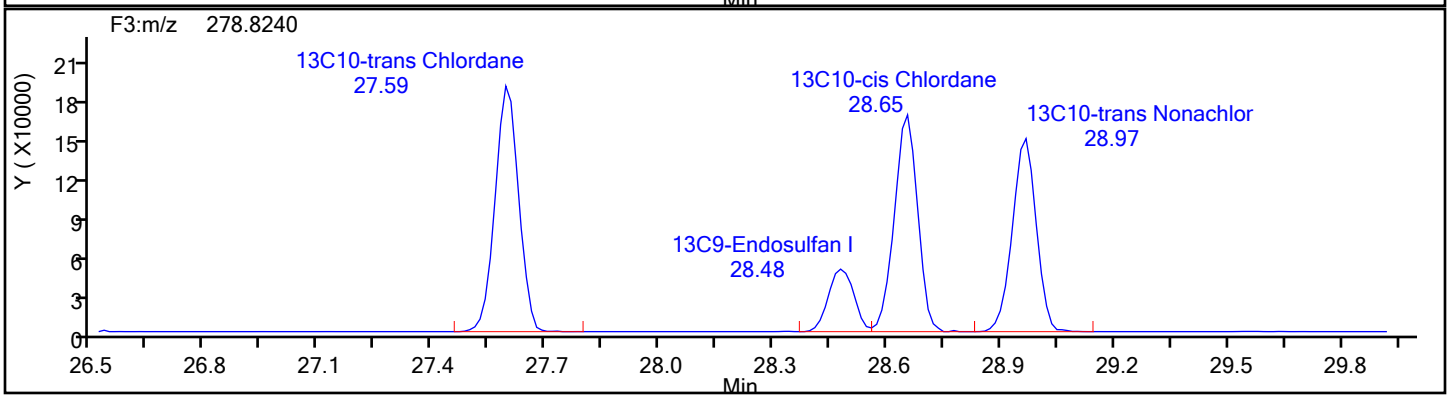
Endosulfan I





Endosulfan I Standards





Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
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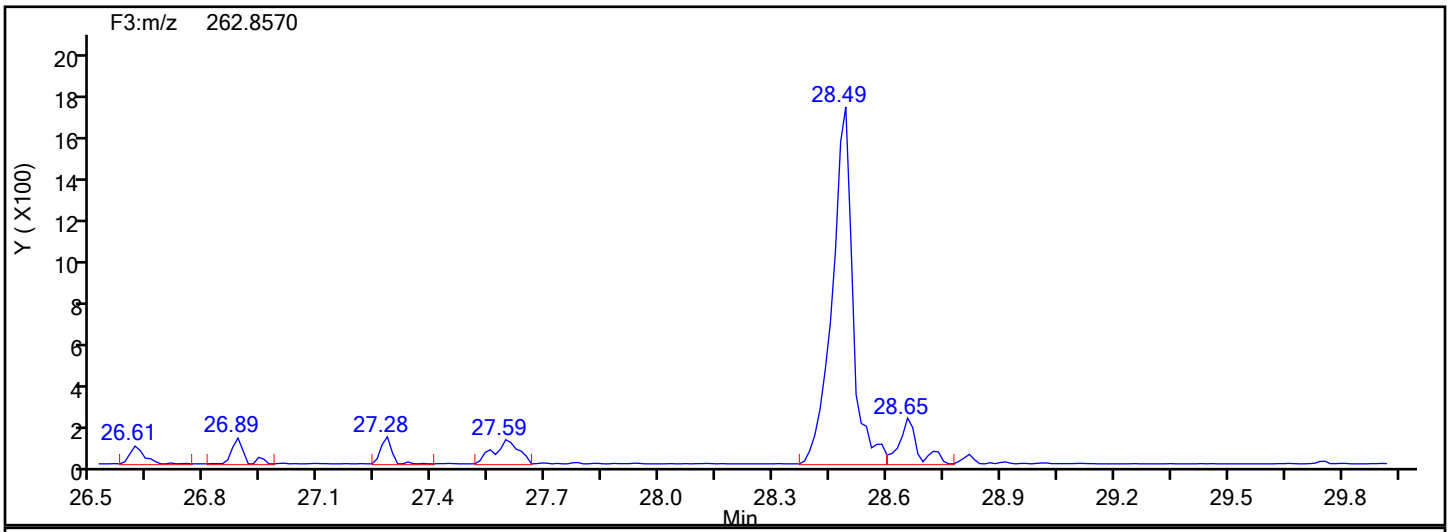
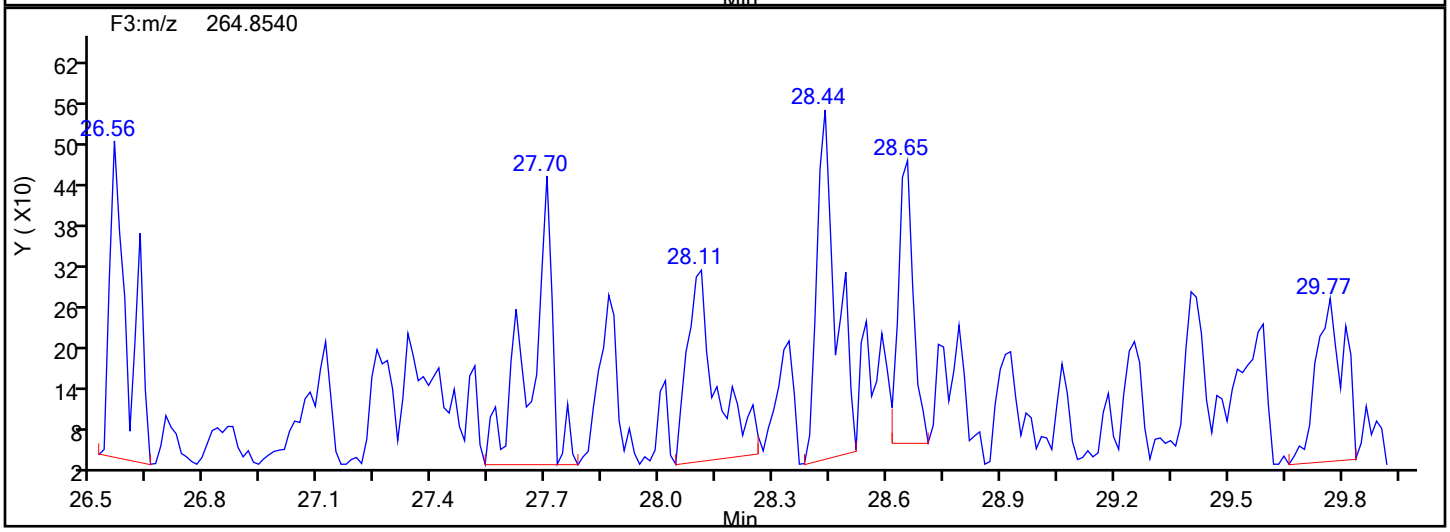
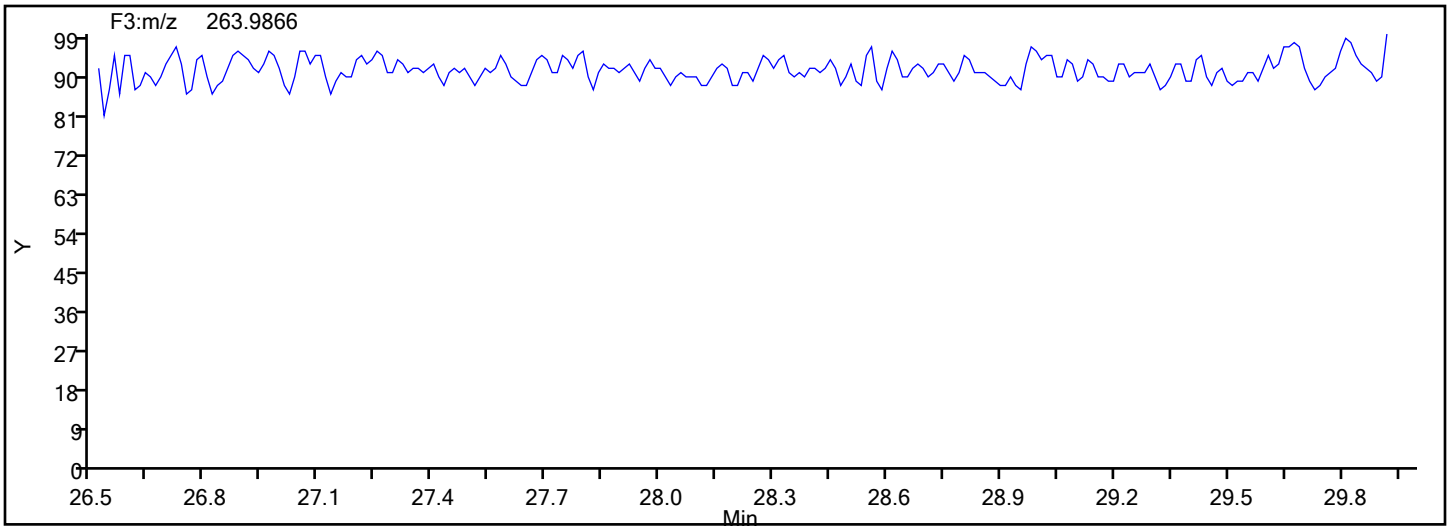
Endosulfan I





Endosulfan I Lock Mass



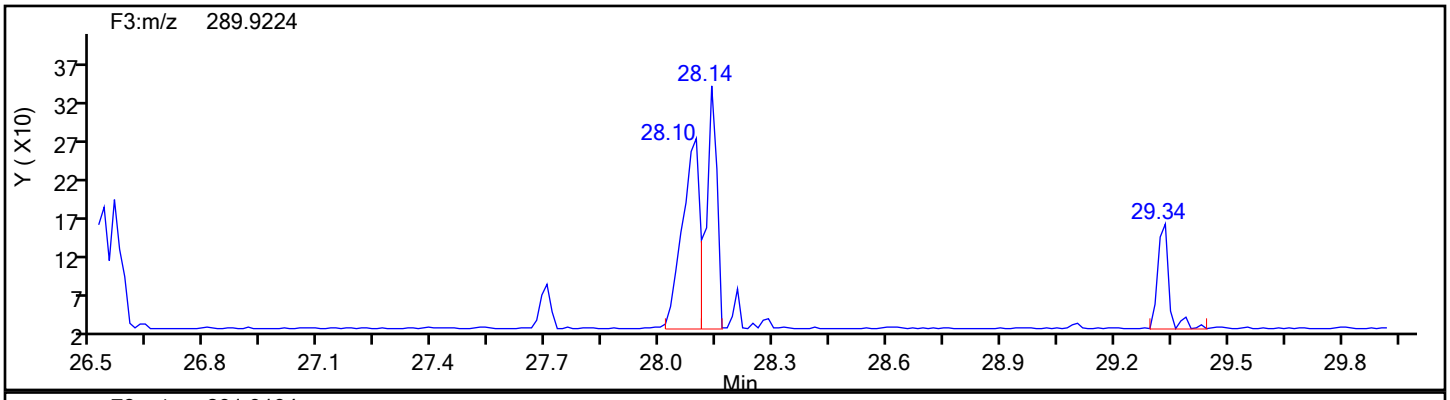
Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

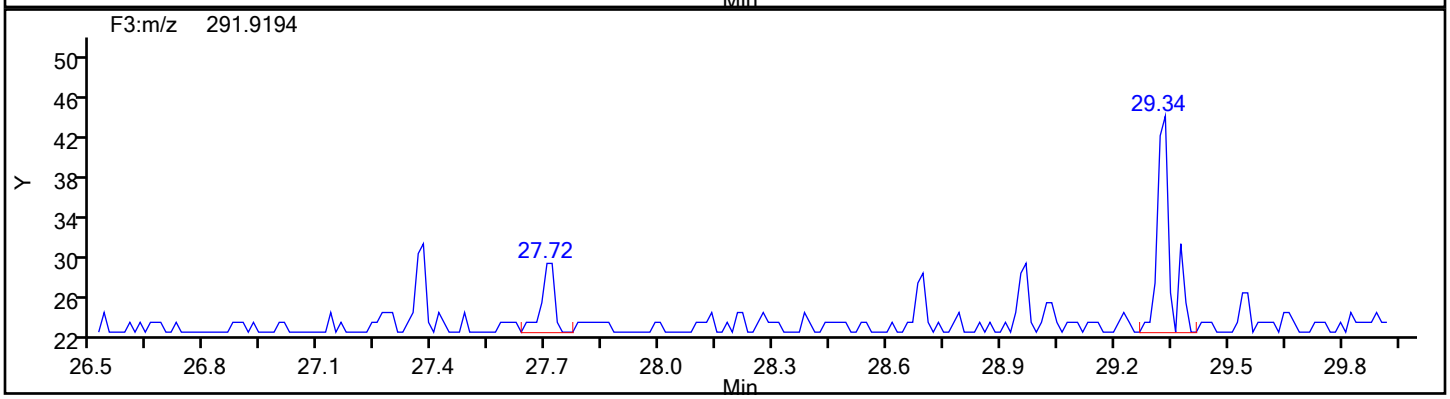
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

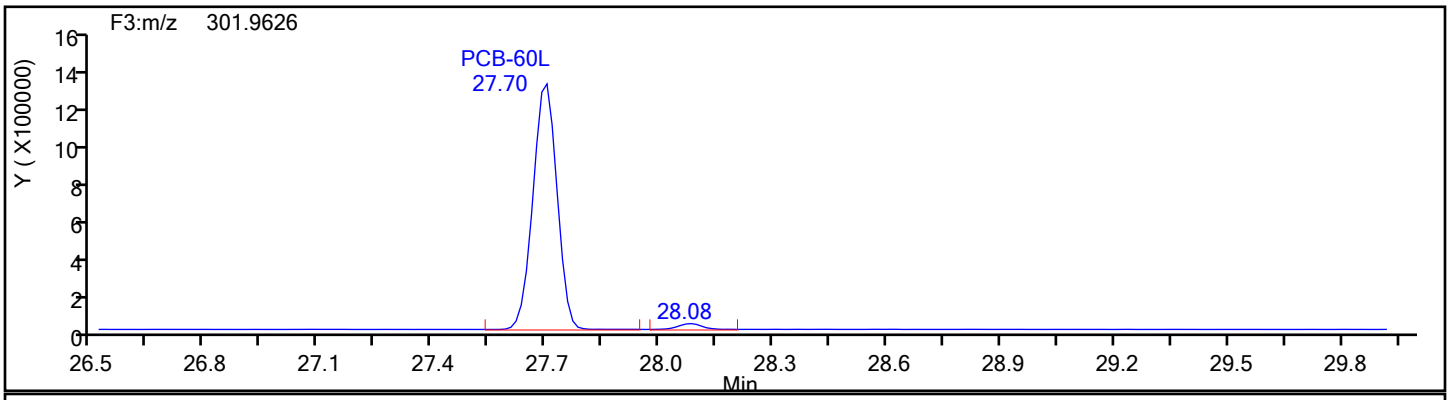
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

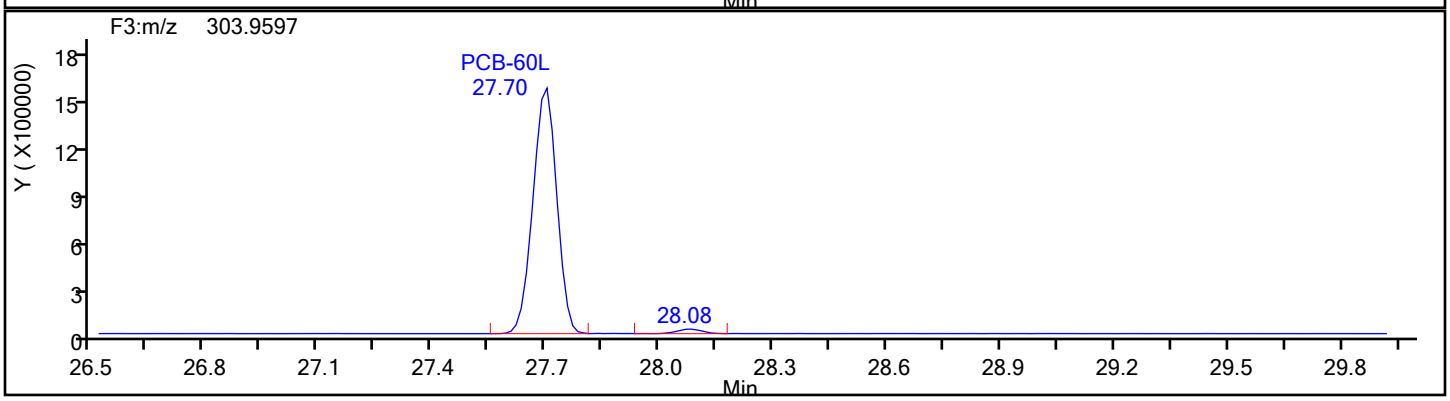
PCB-78





PCB-78 Standards





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Eurofins Knoxville

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Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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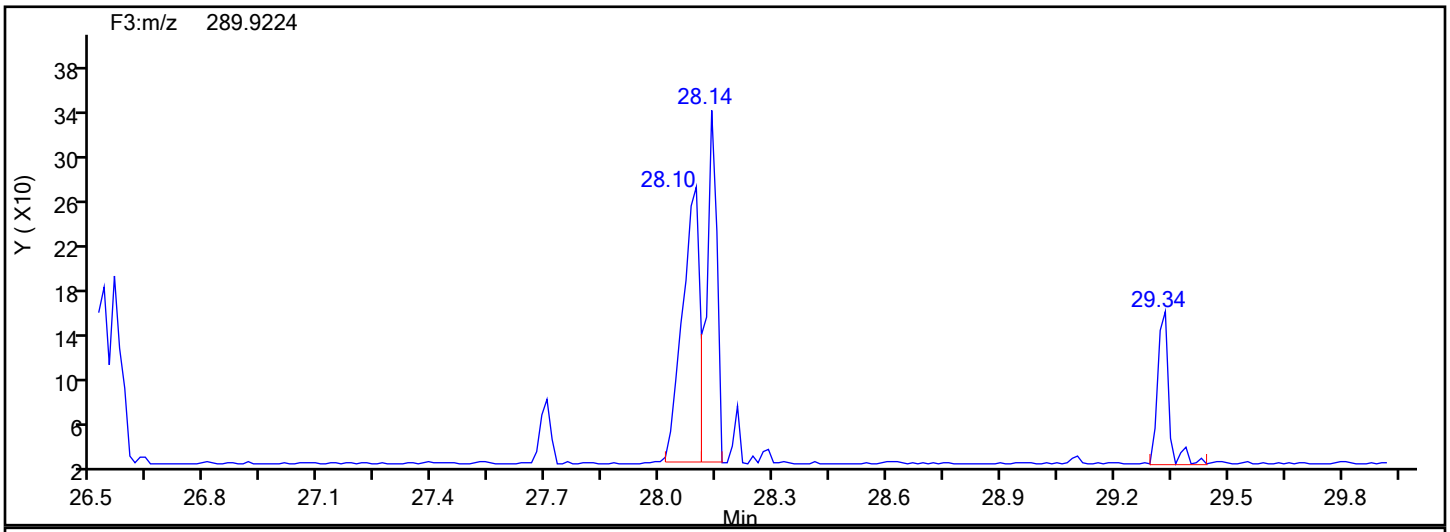
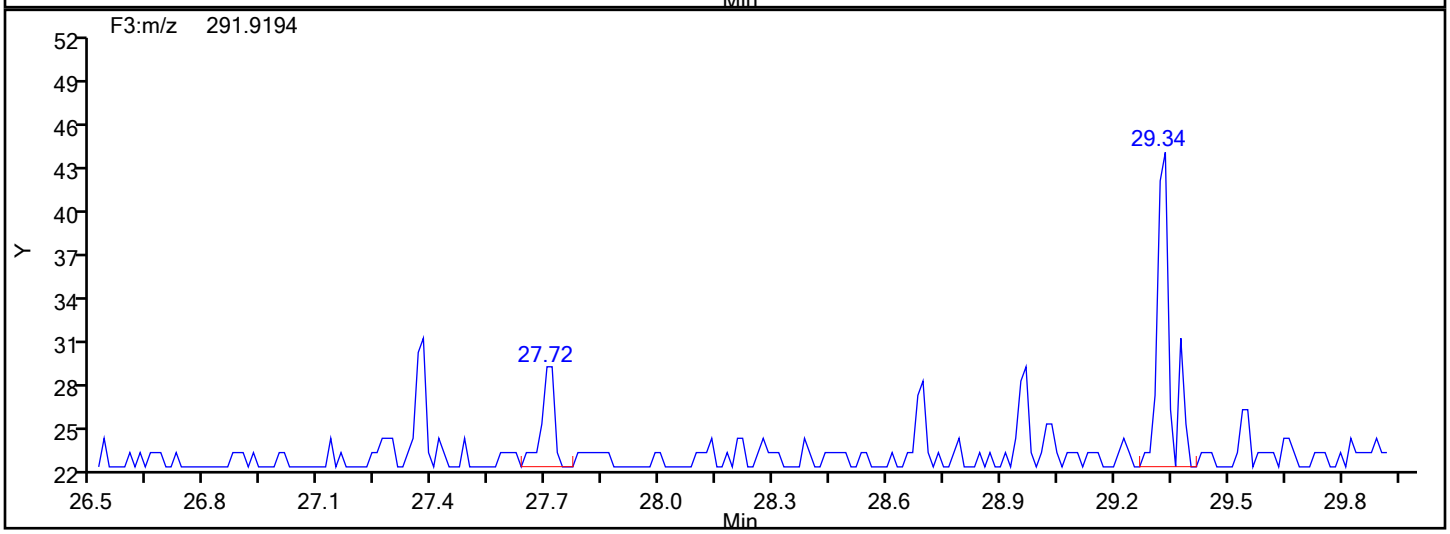
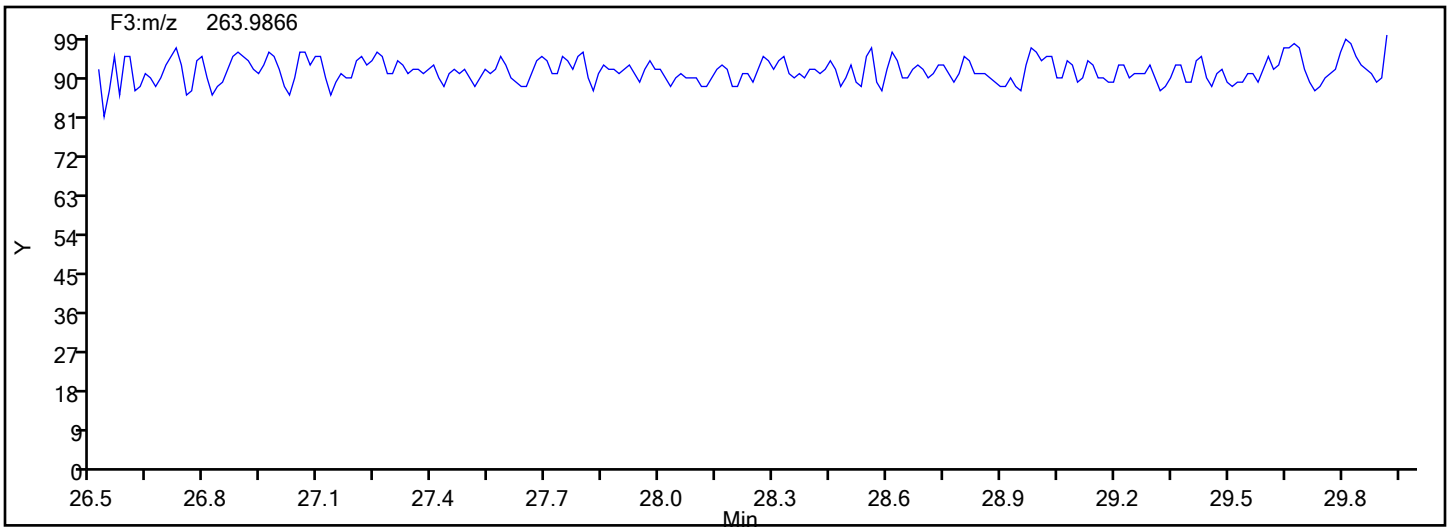
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



Report Date: 05-May-2025 18:00:52 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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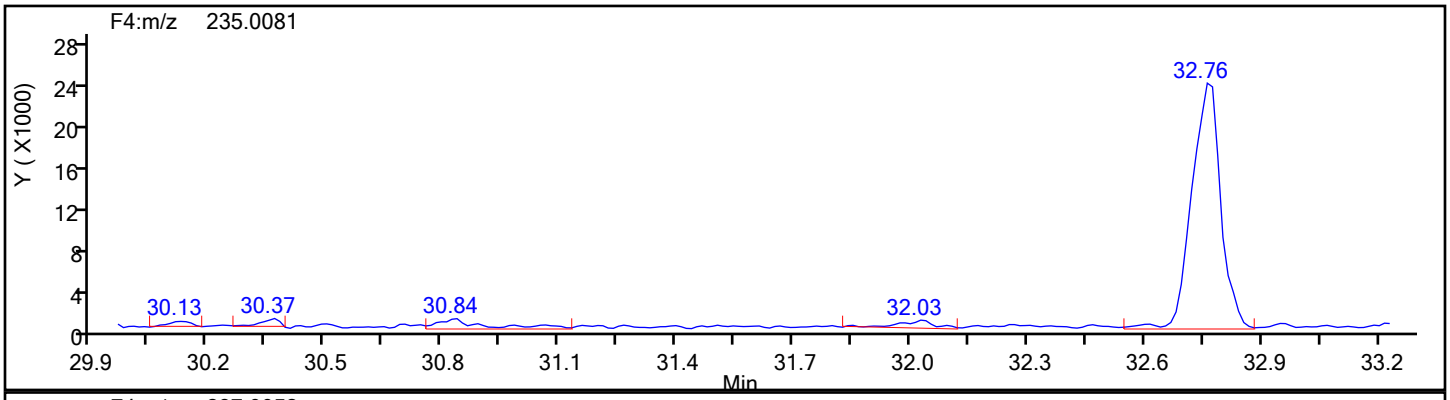
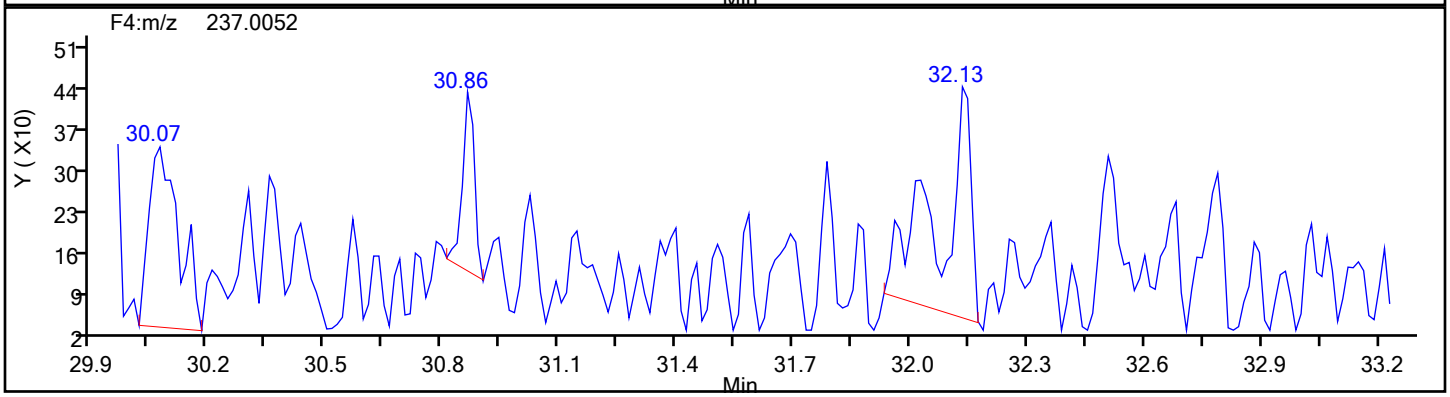
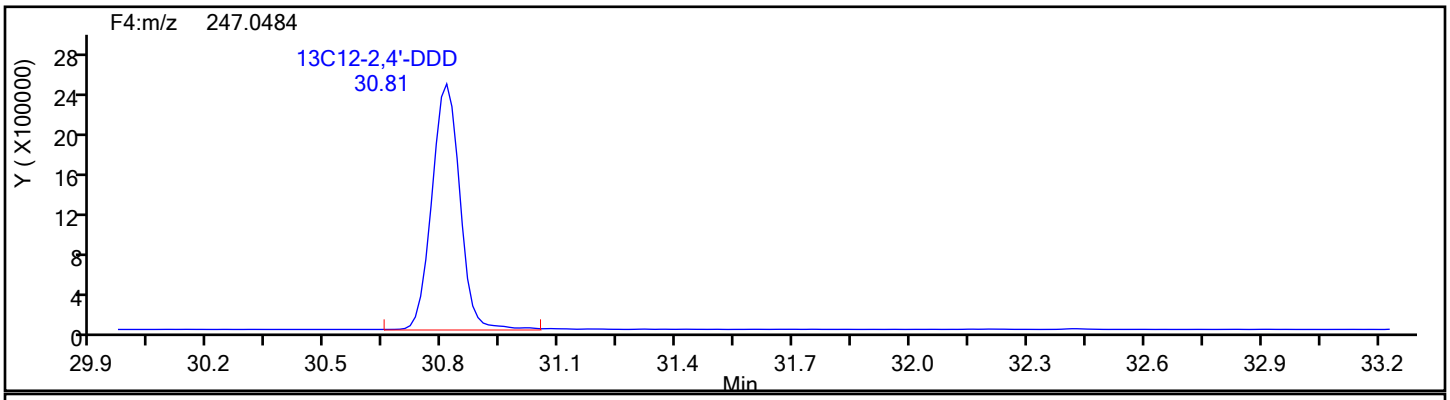
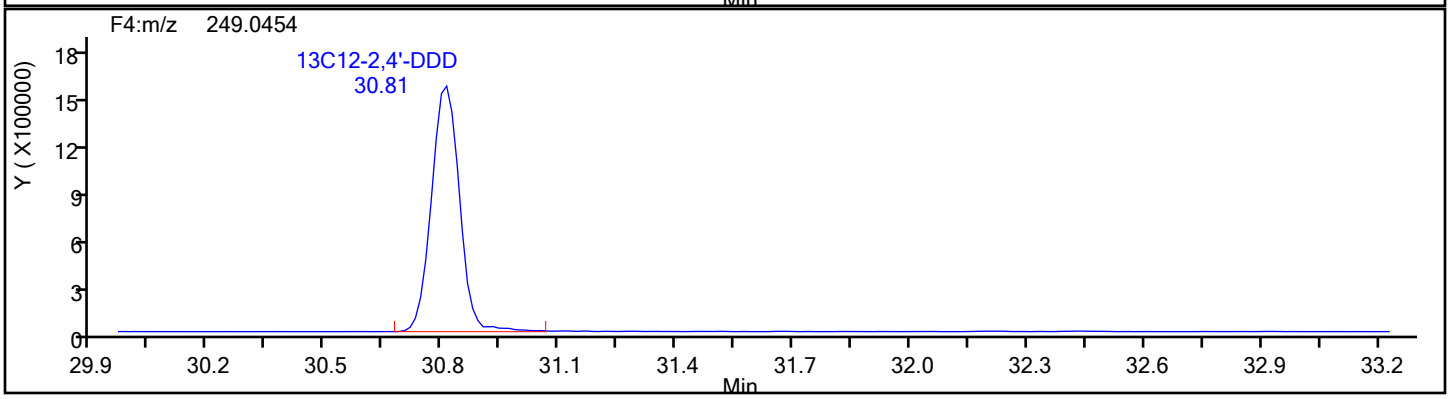
2,4'-DDD





2,4'-DDD Standards





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Eurofins Knoxville

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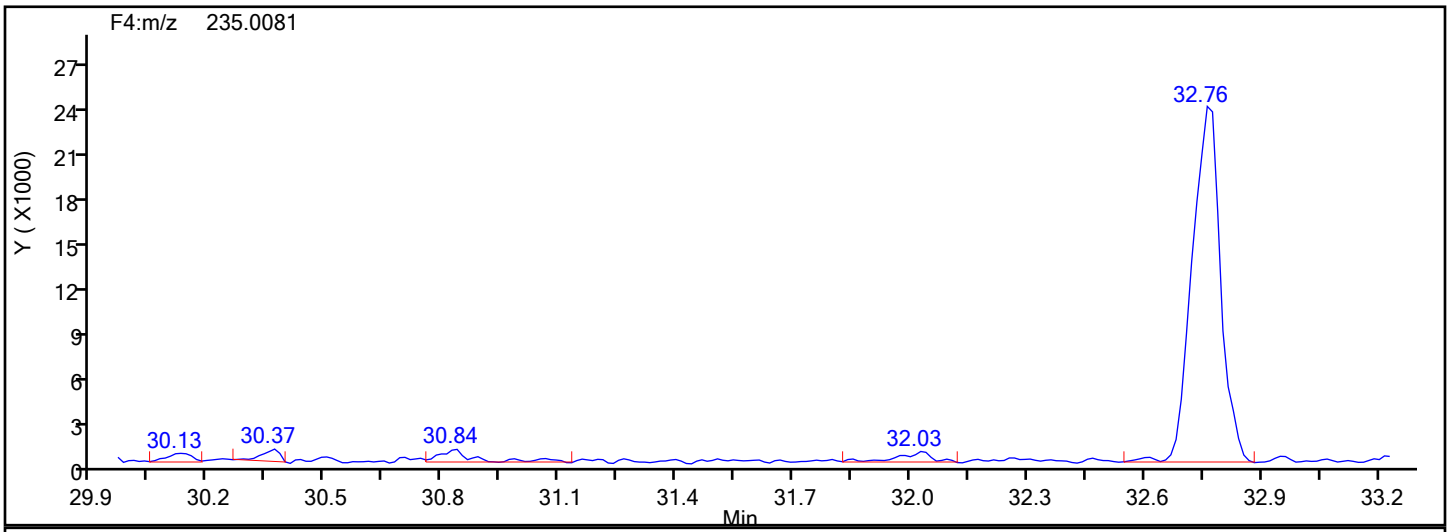
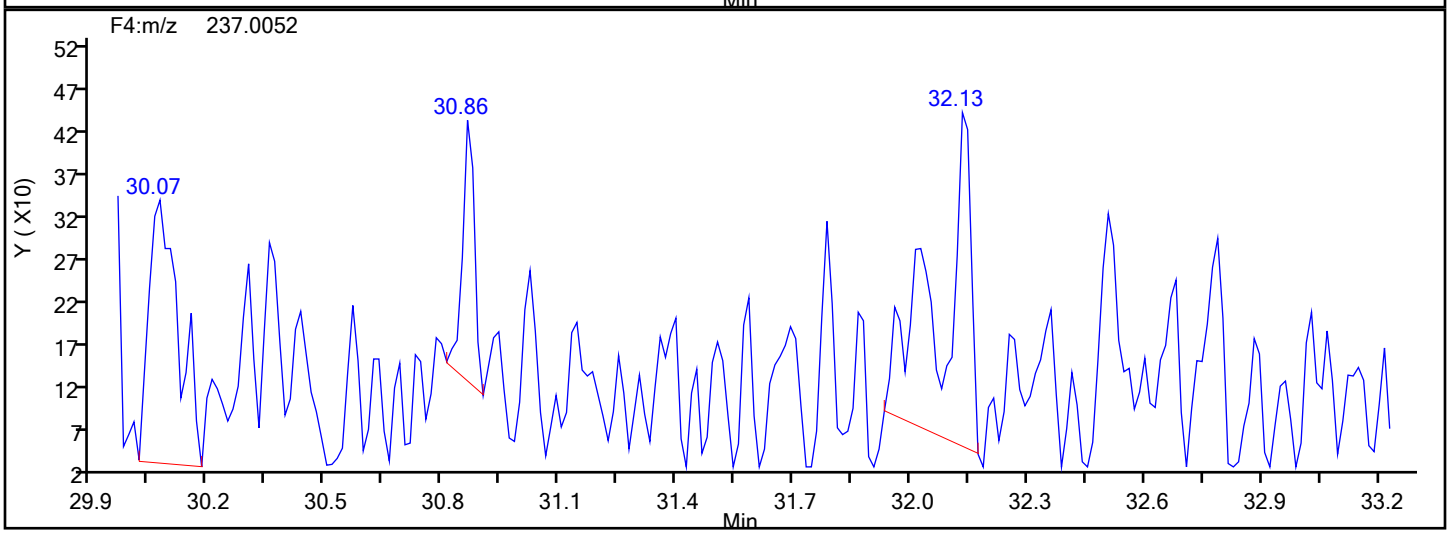
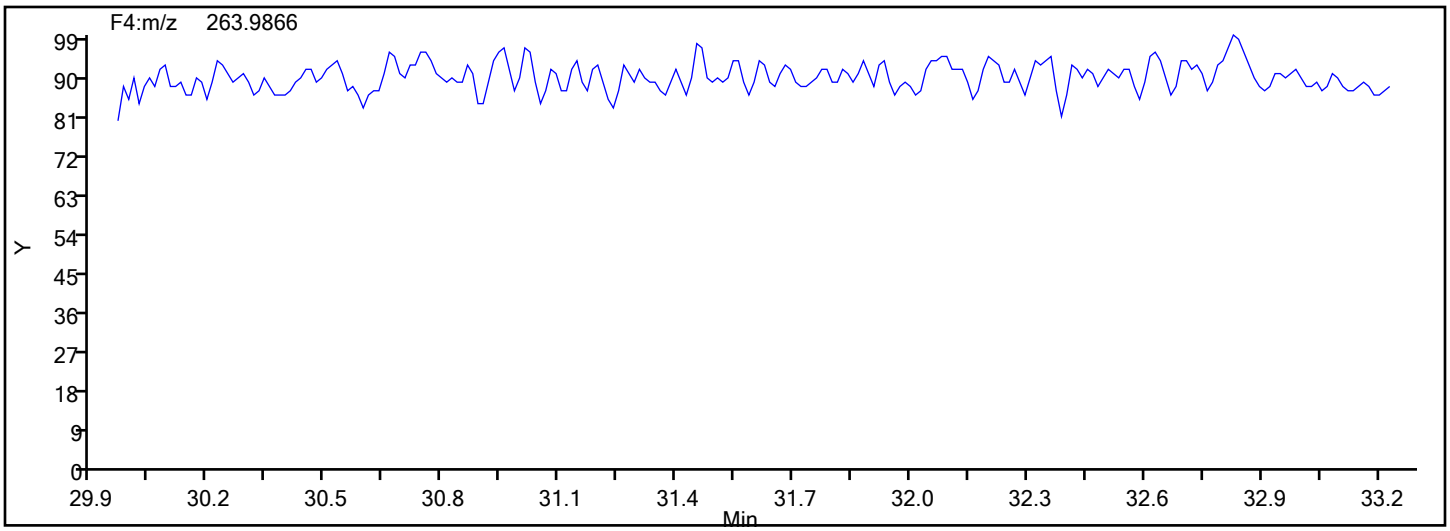
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



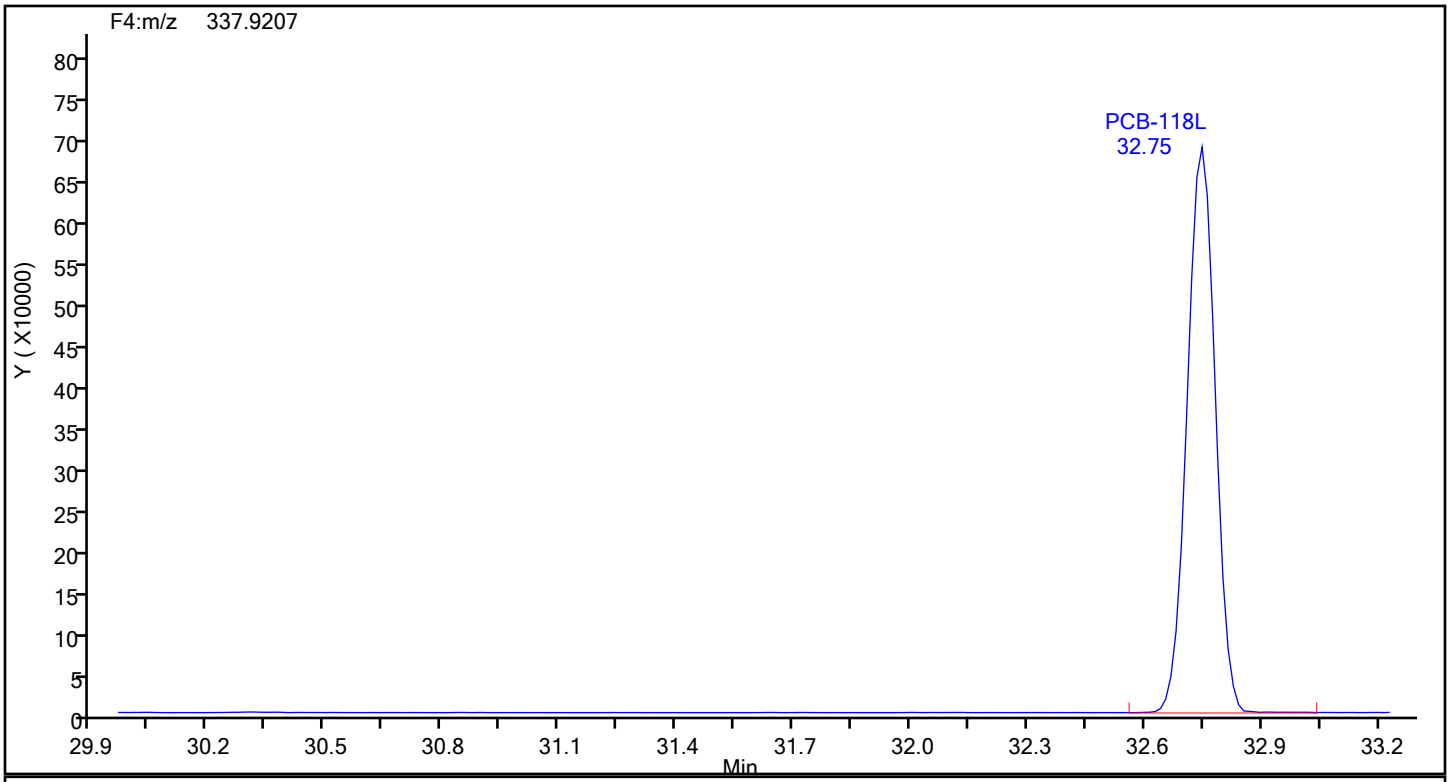
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

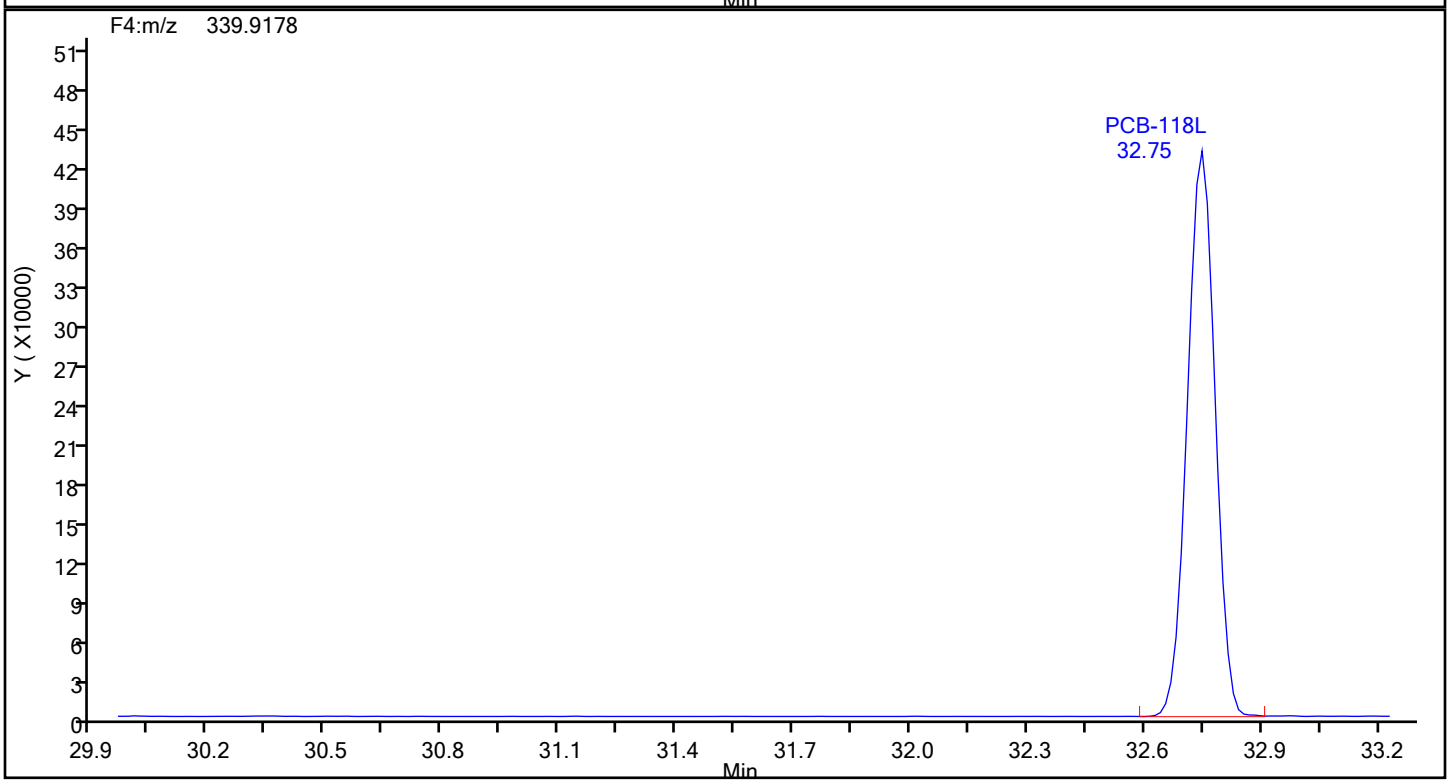
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





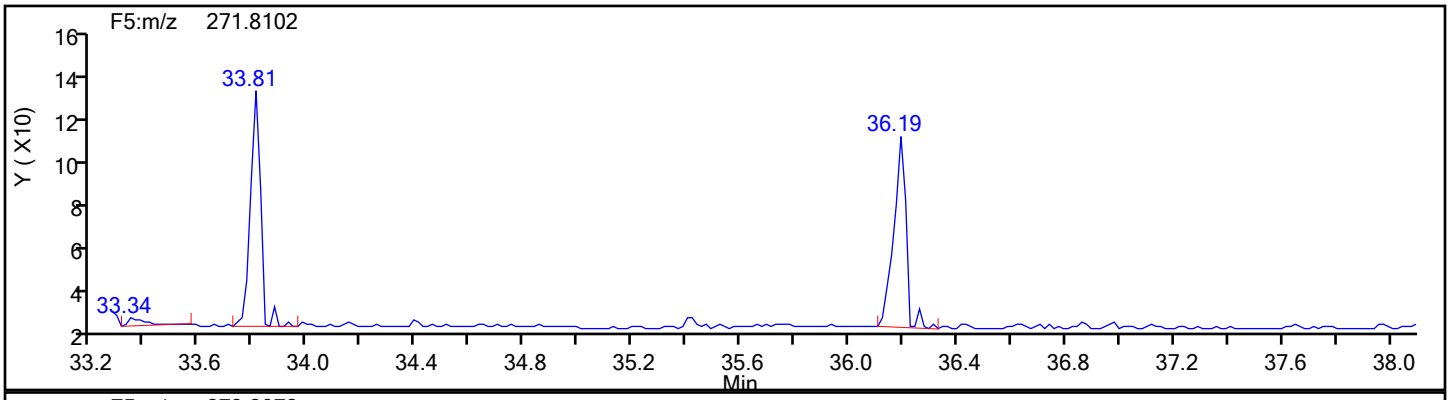
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

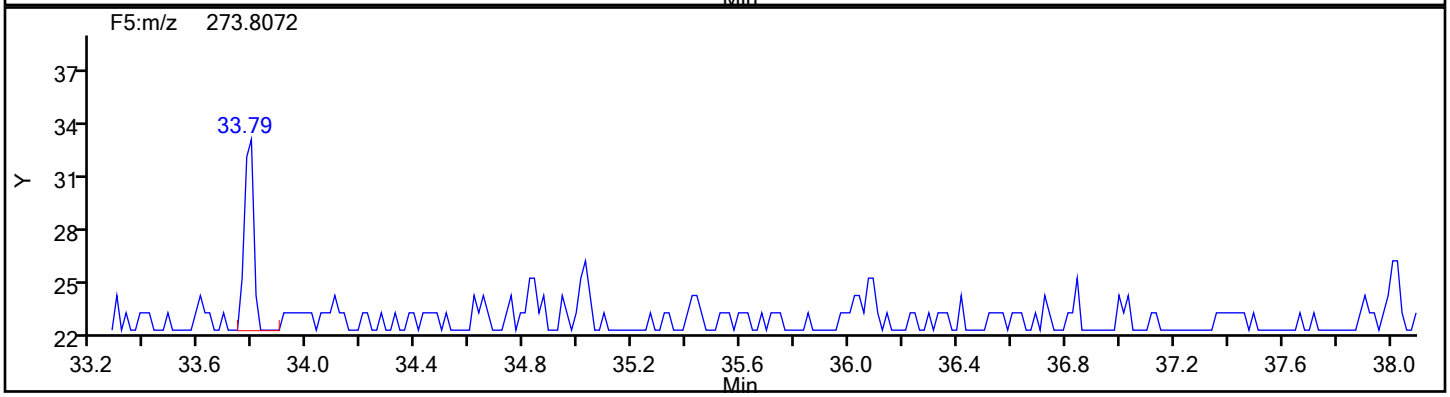
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

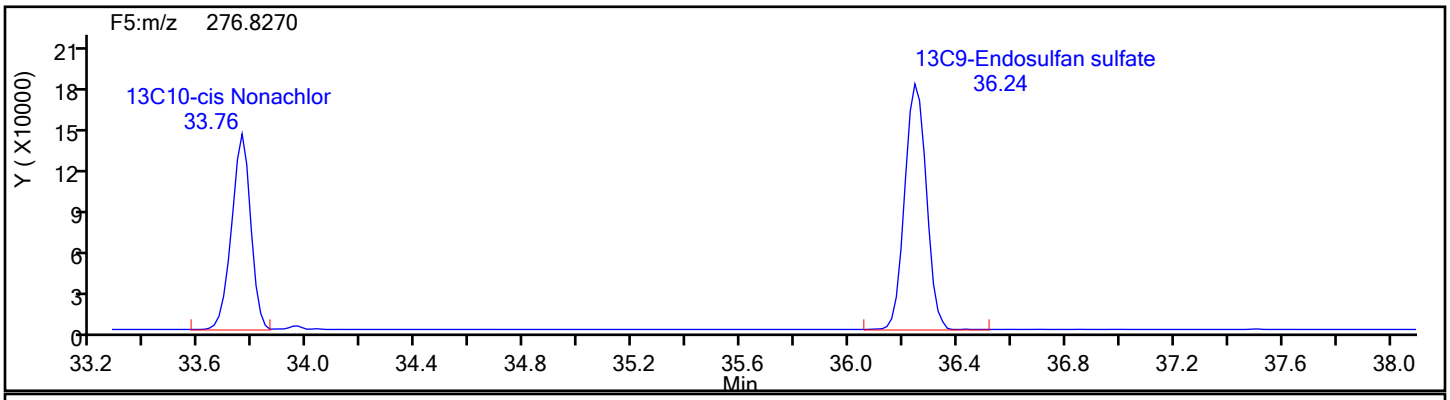
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

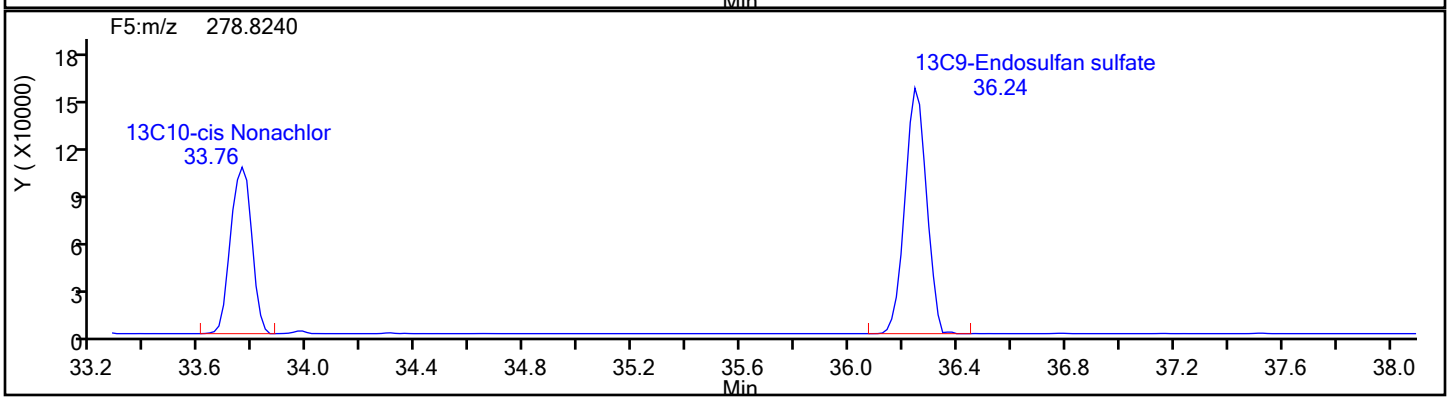
Nonachlor





Nonachlor Standards





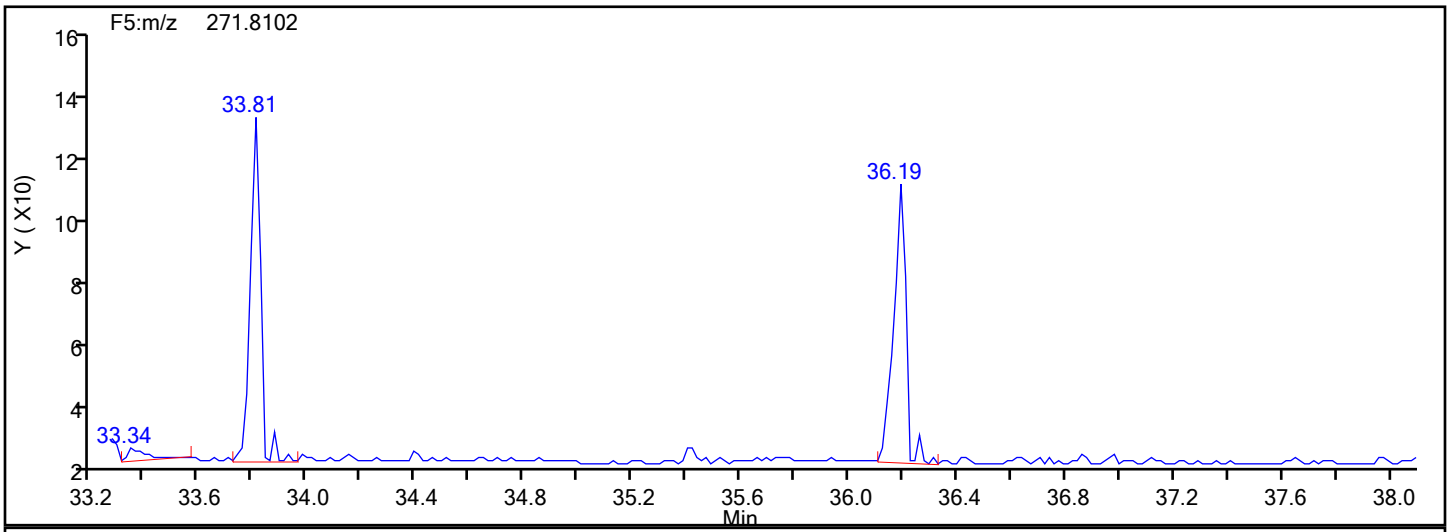
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

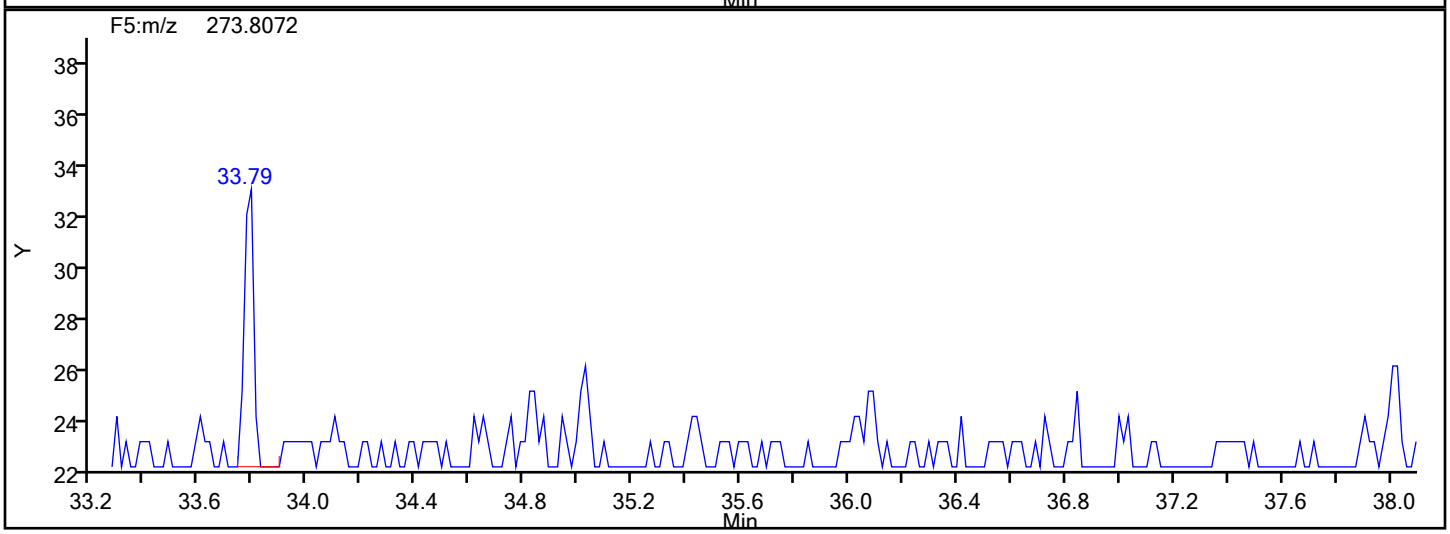
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

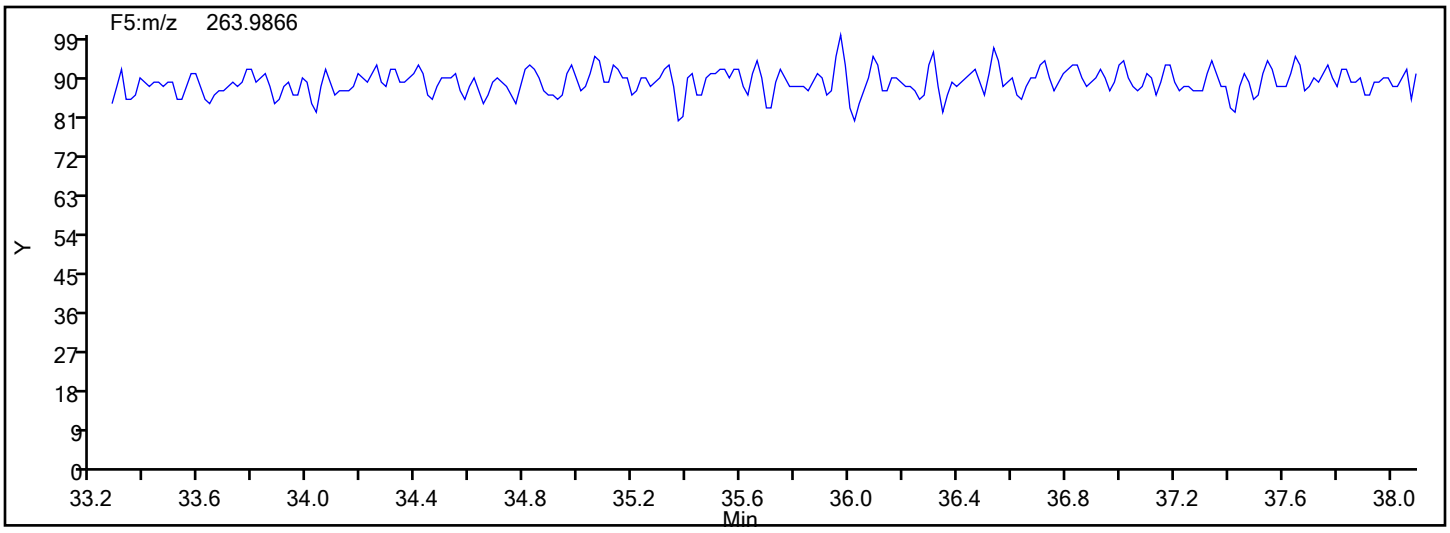
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



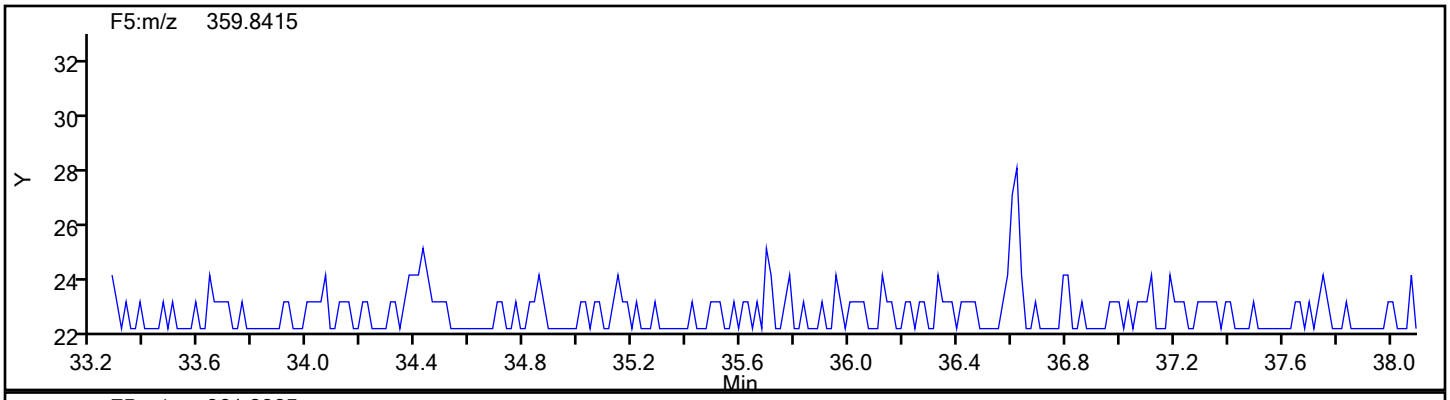
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

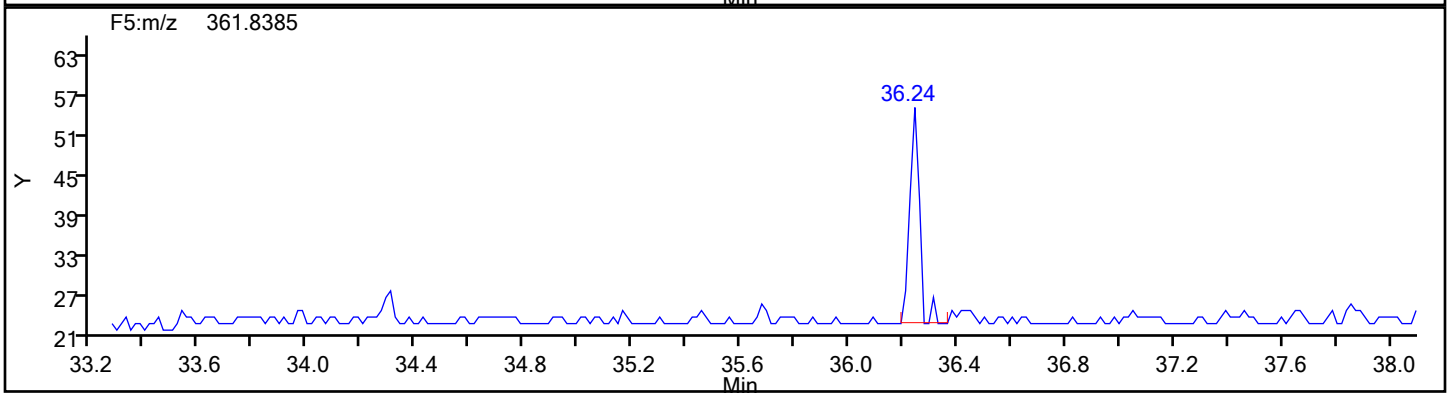
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

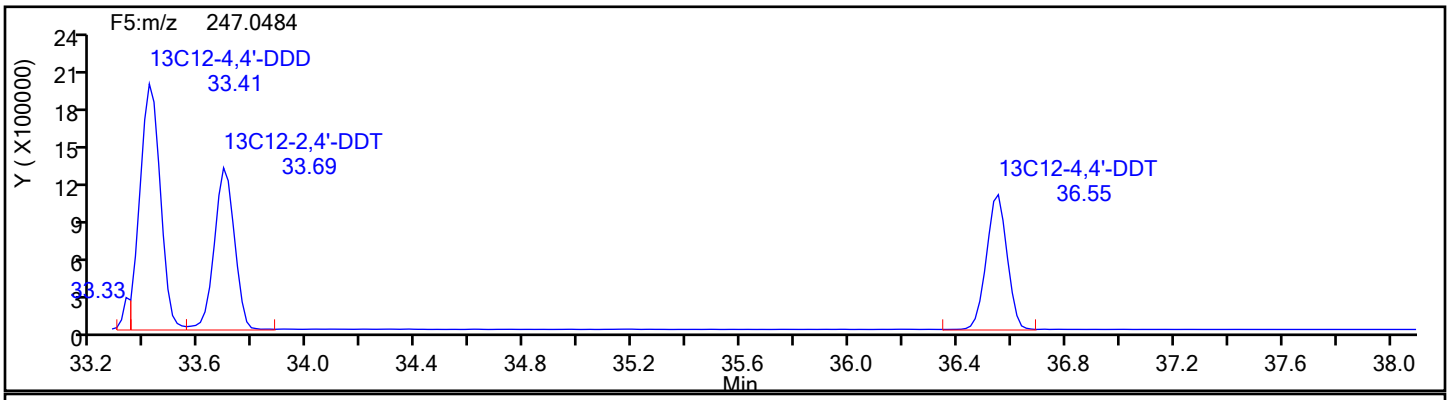
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

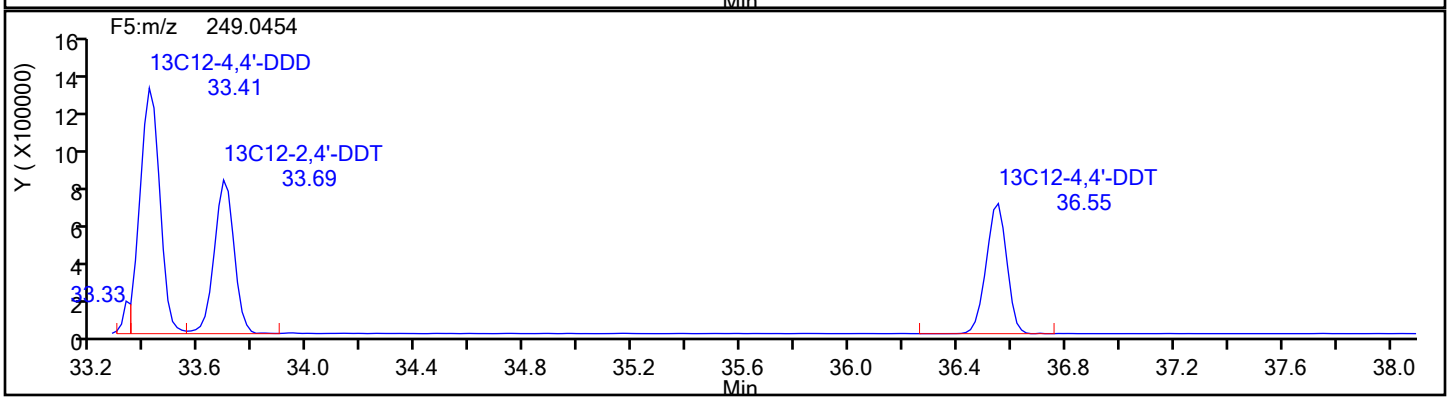
PCB-155





PCB-155 Standards



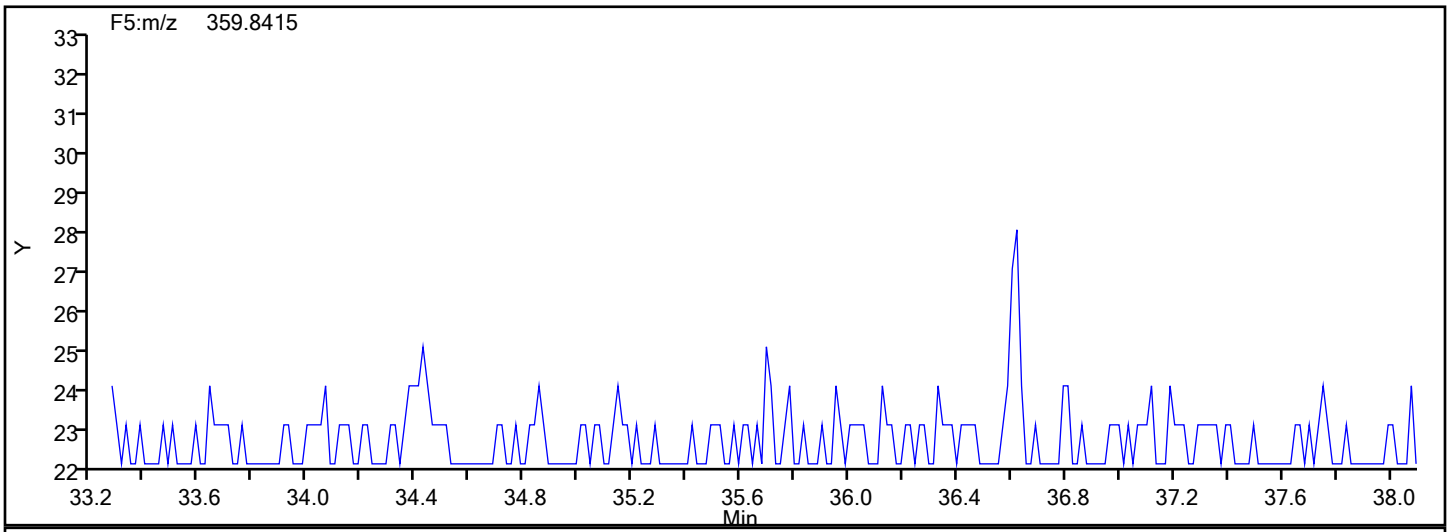


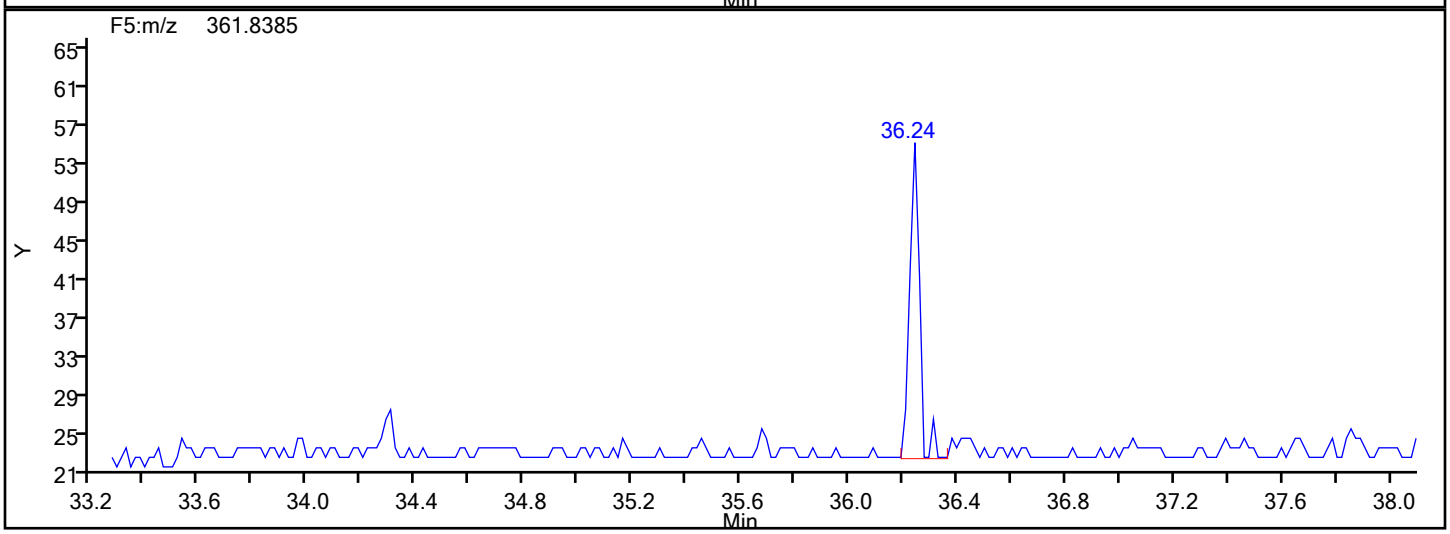
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

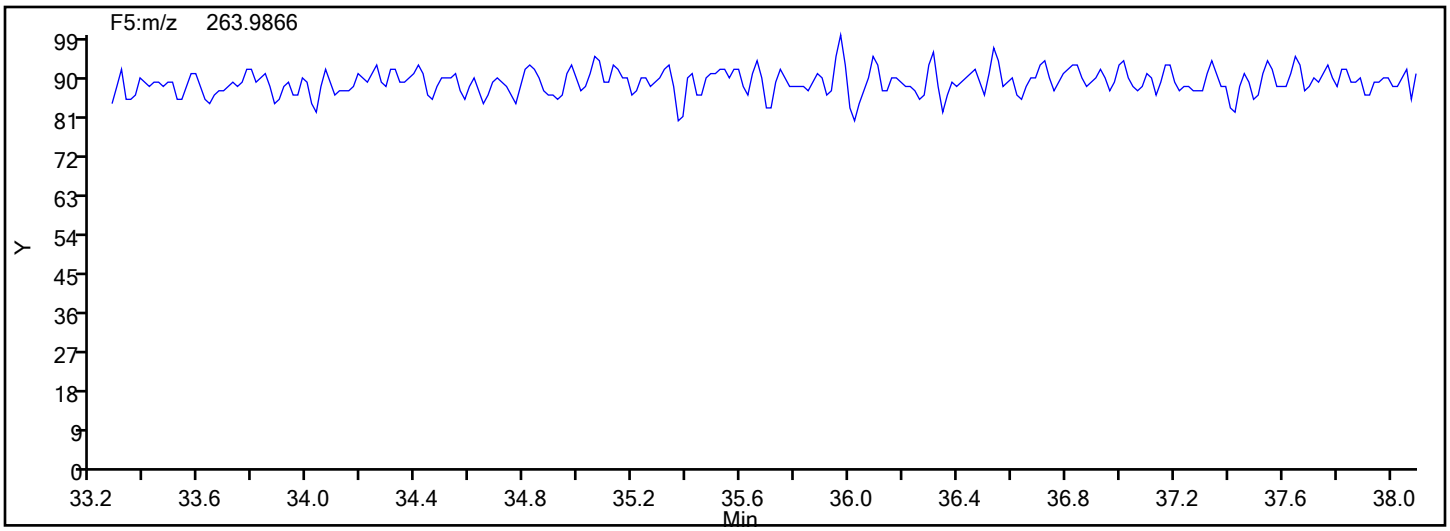
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99200 Sample Line#: 9
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



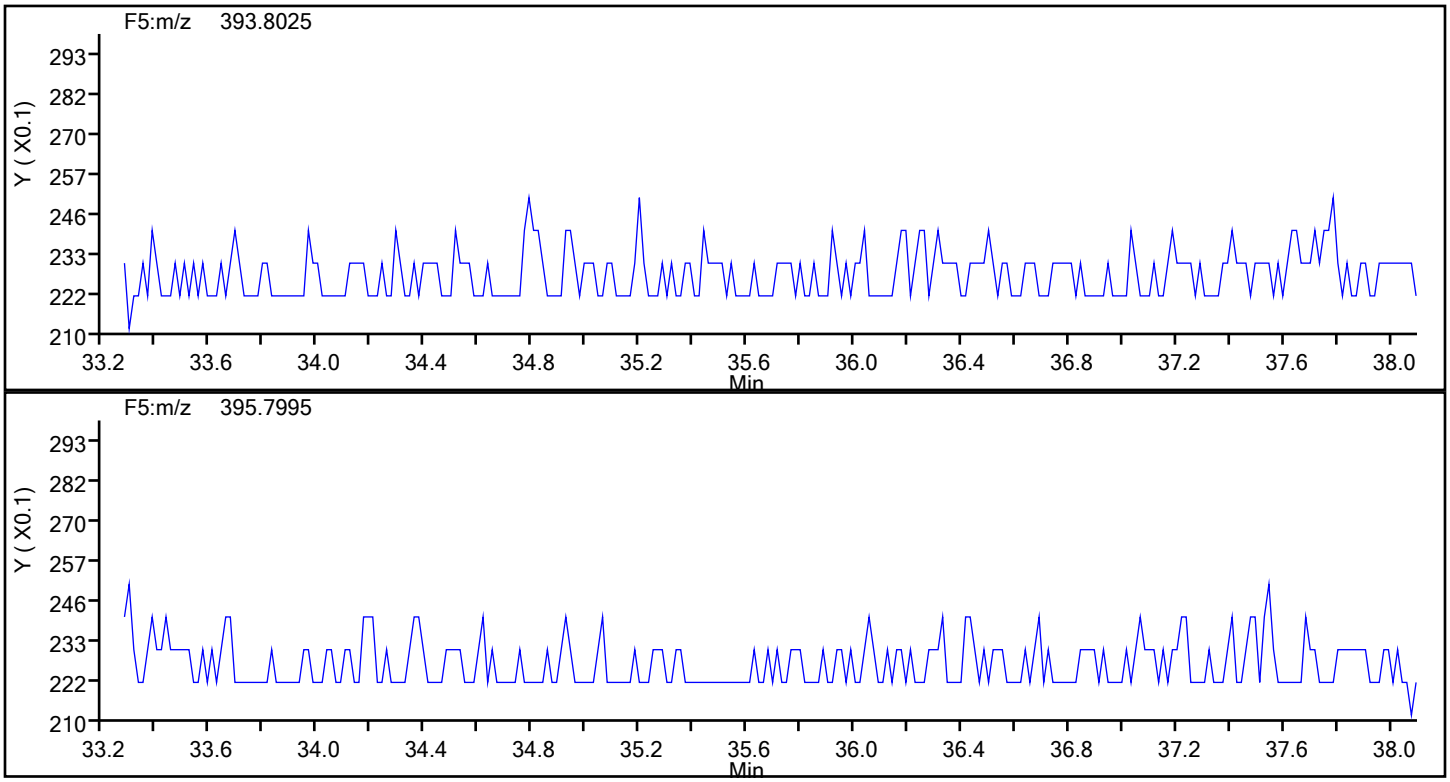
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

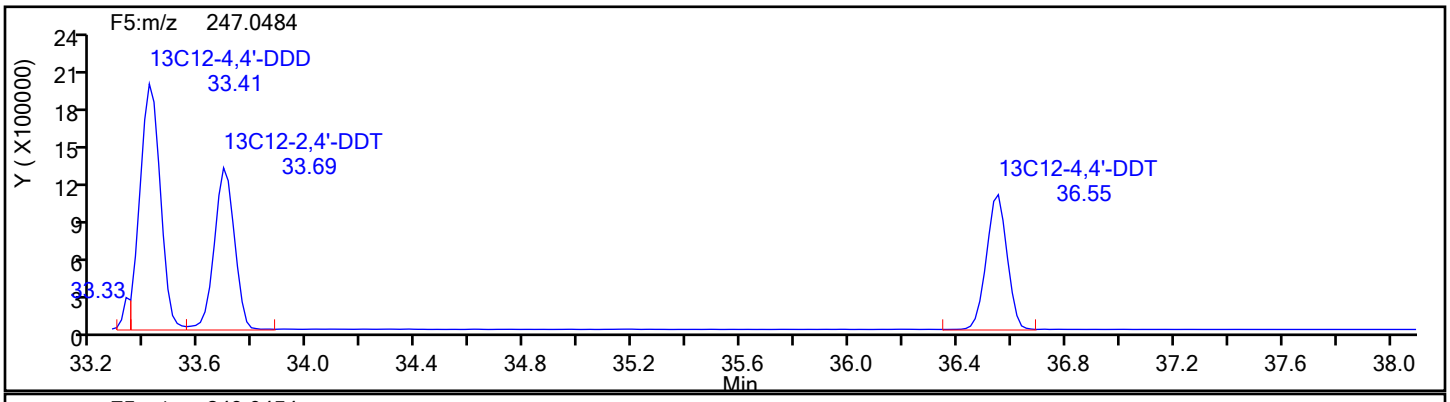
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

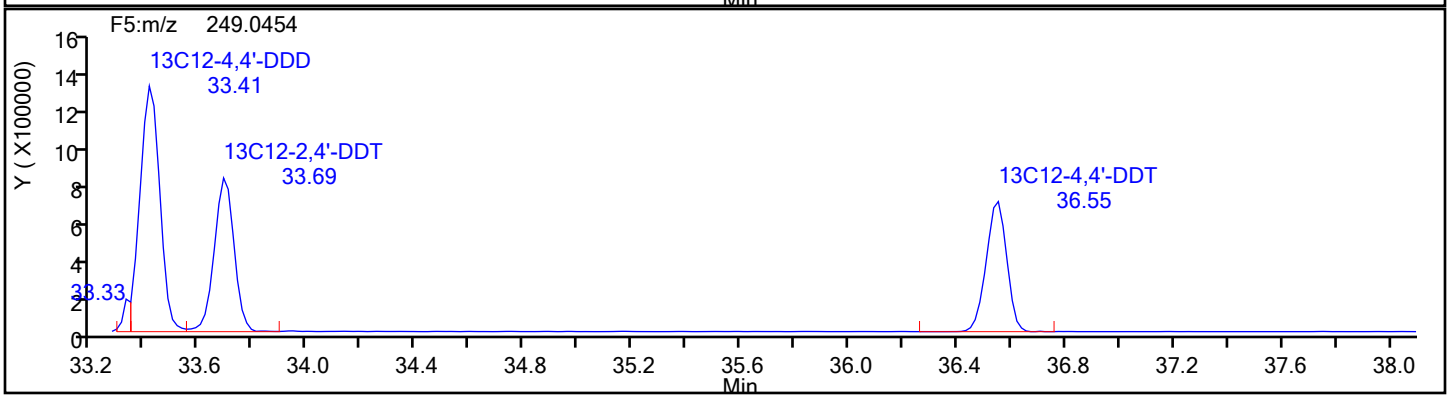
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards





Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d
Injection Date: 02-May-2025 22:08:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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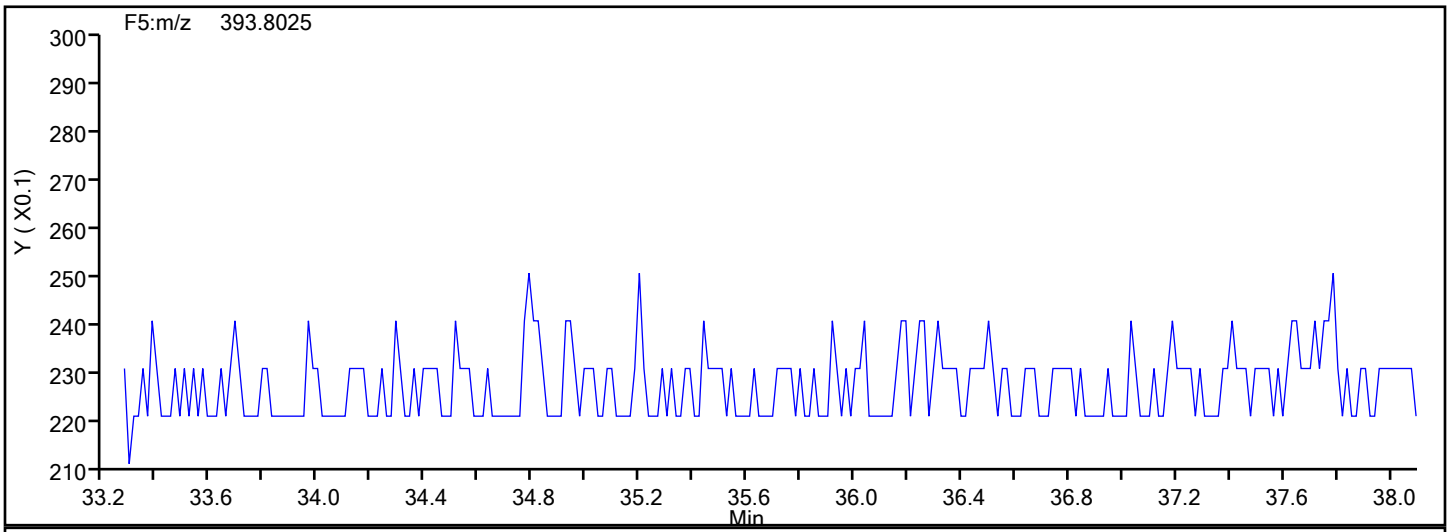
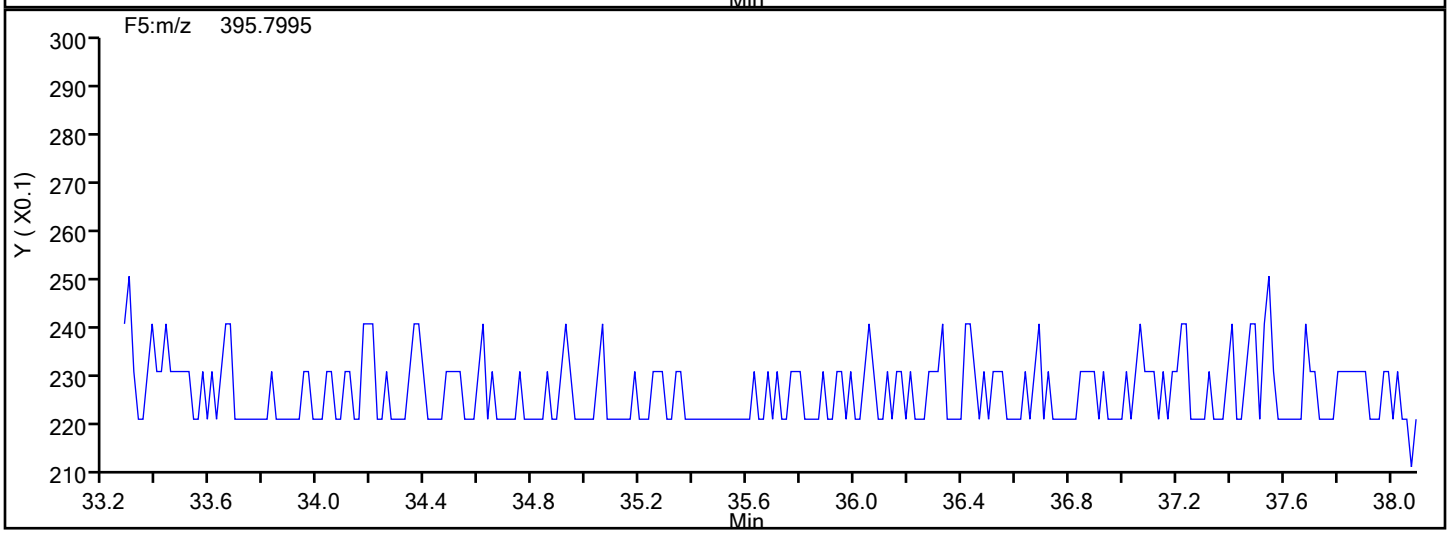
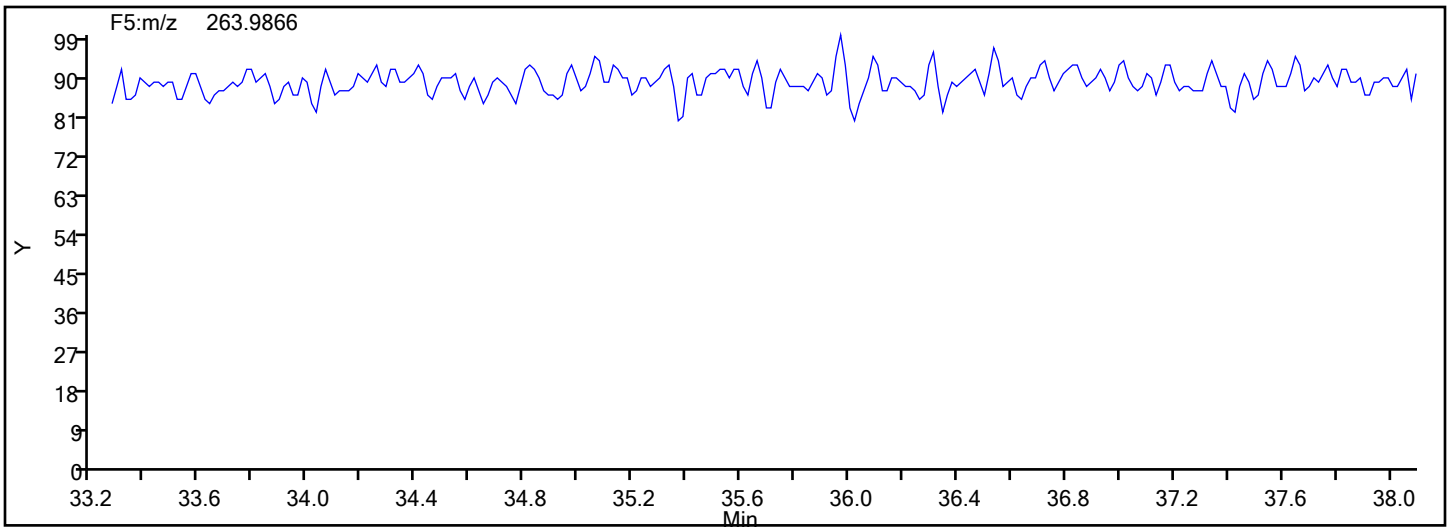
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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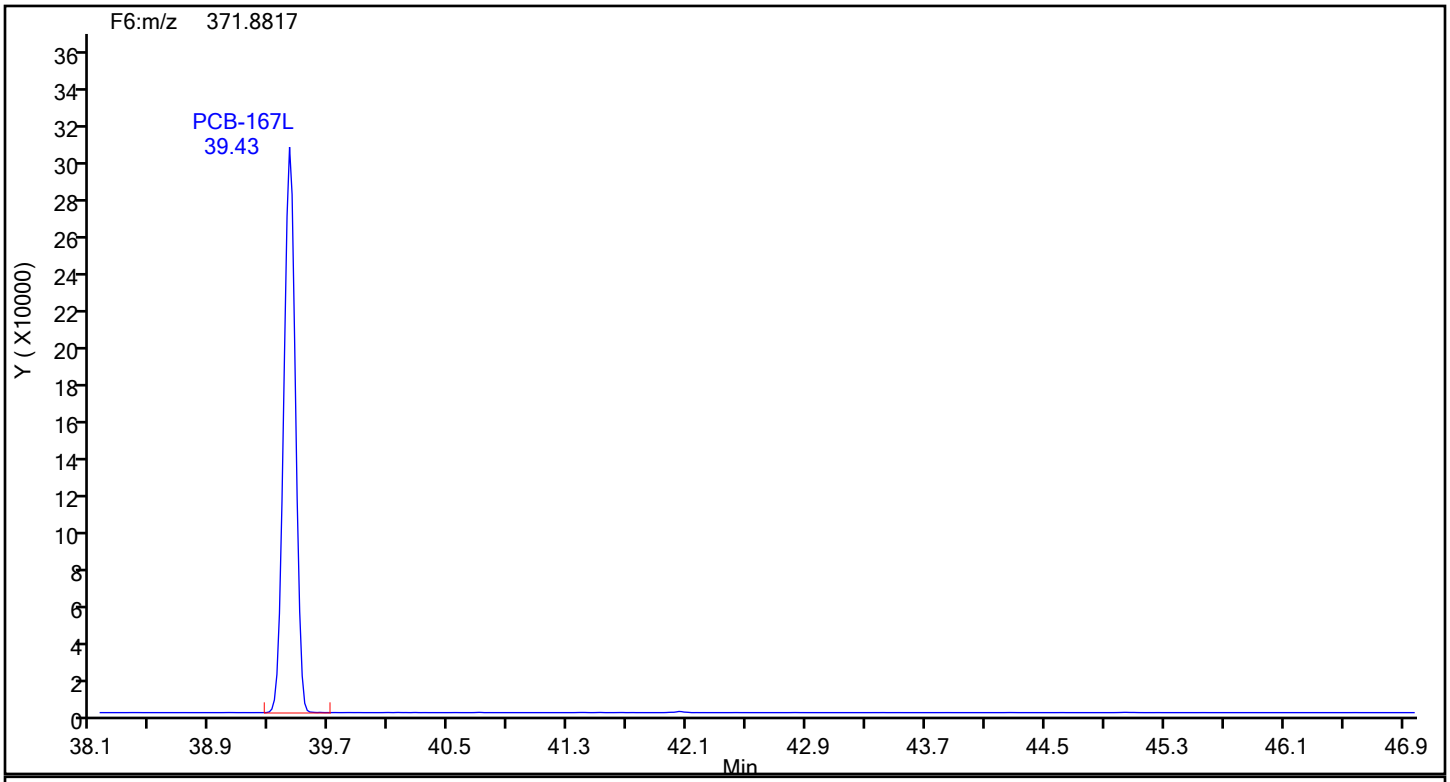
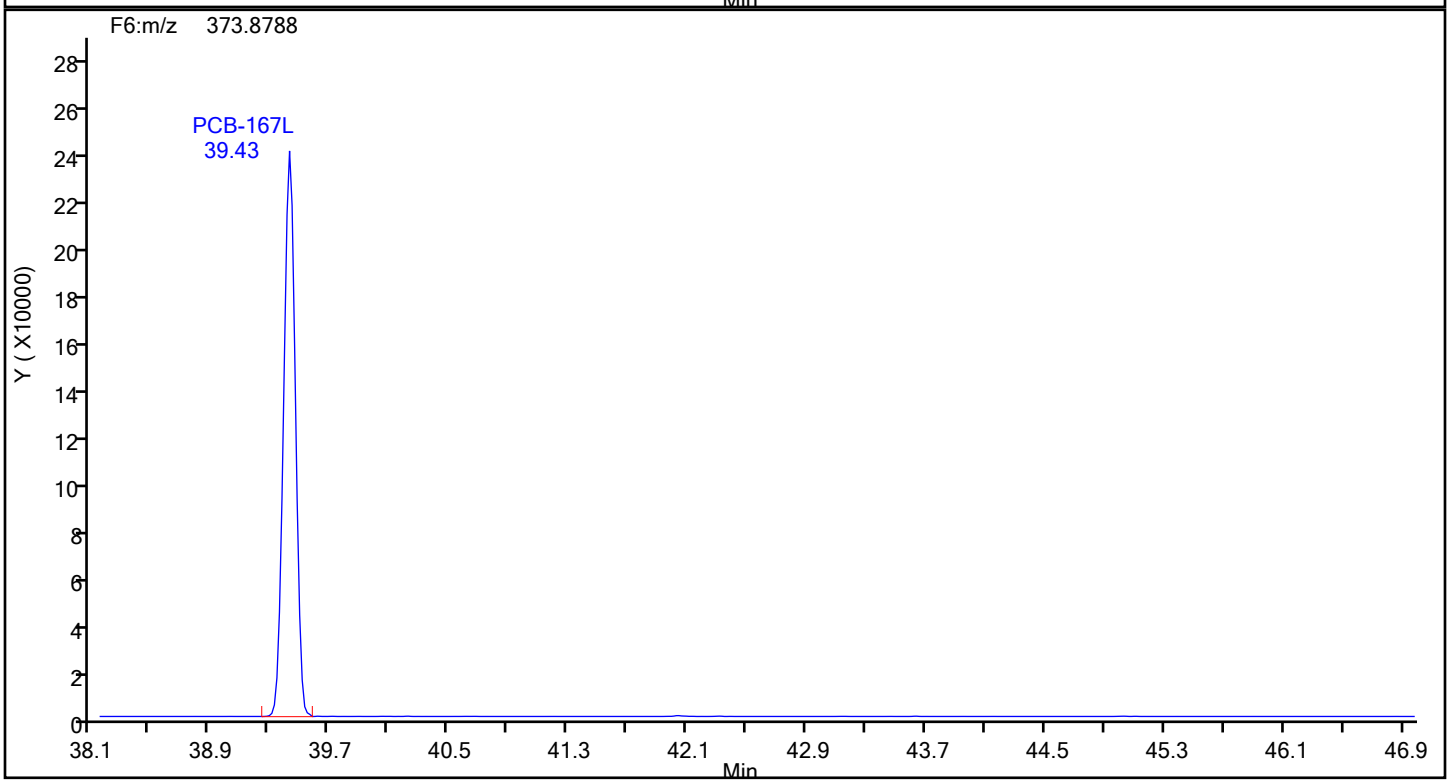
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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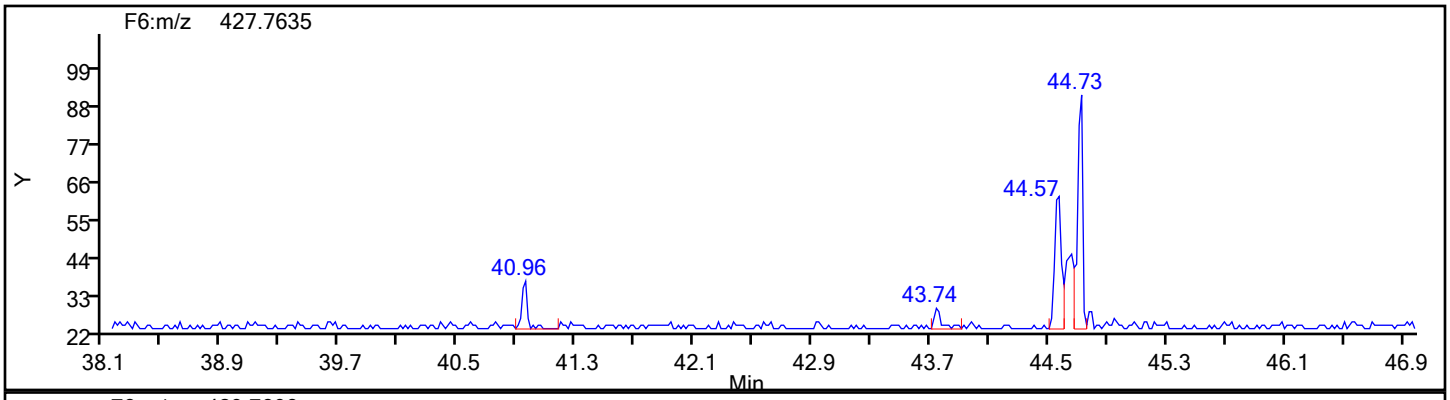
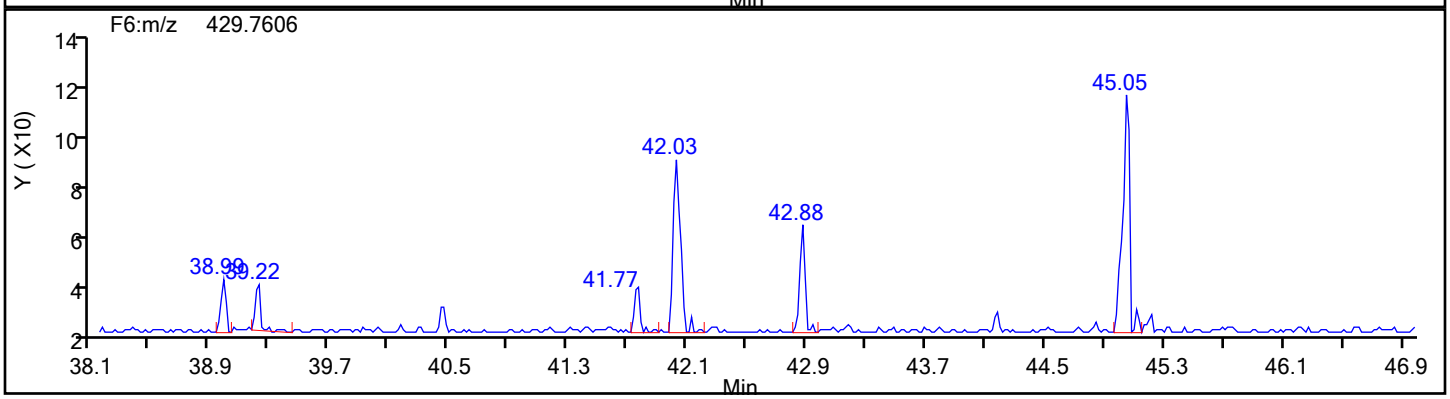
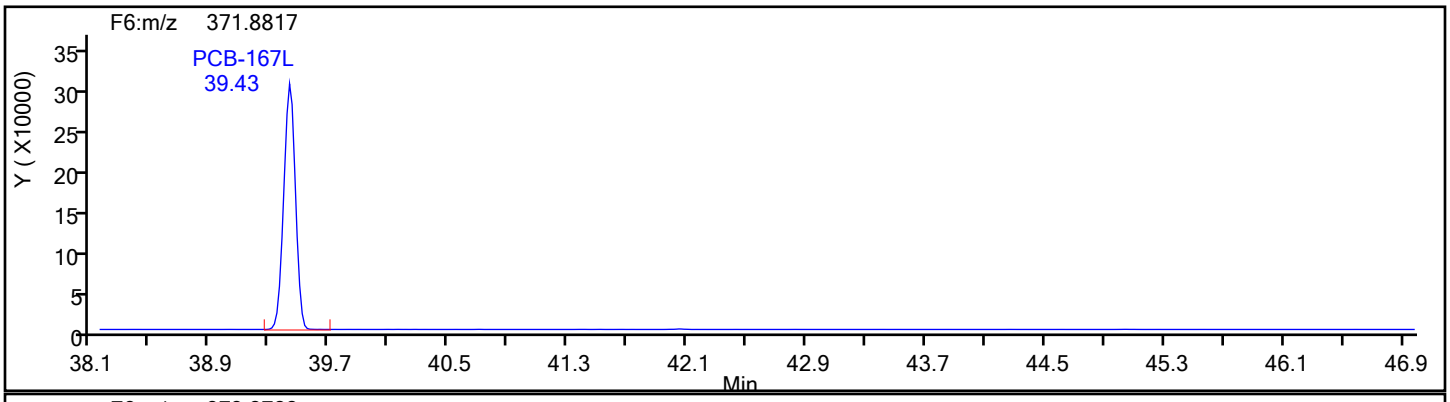
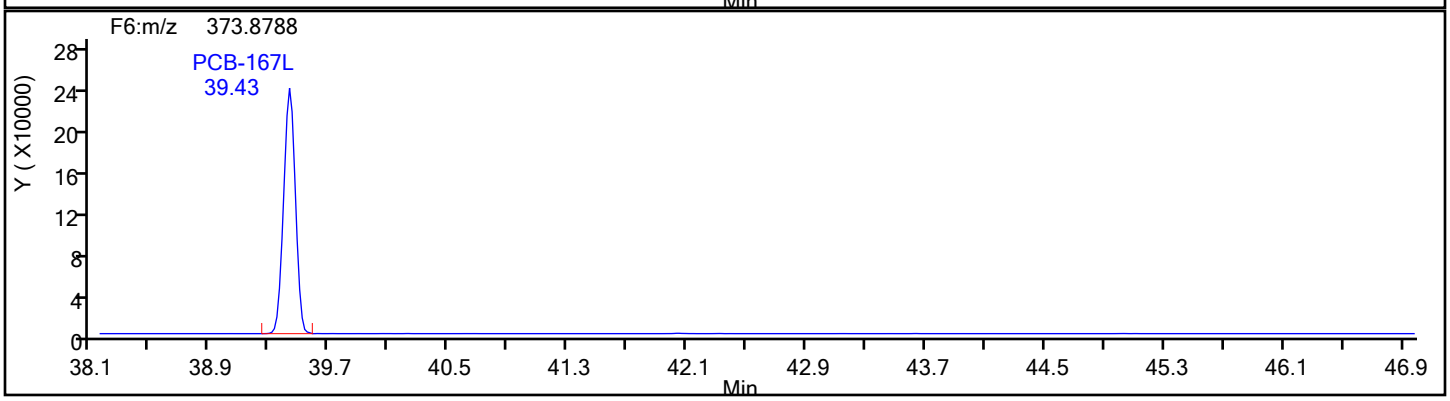
PCB-204





PCB-204 Standards



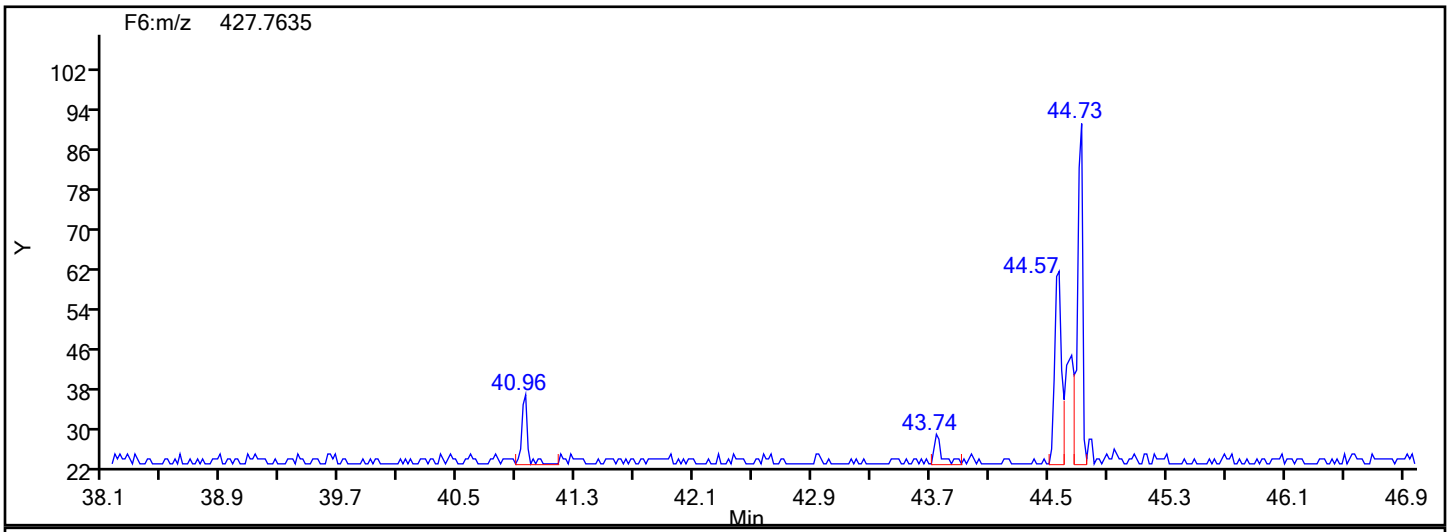


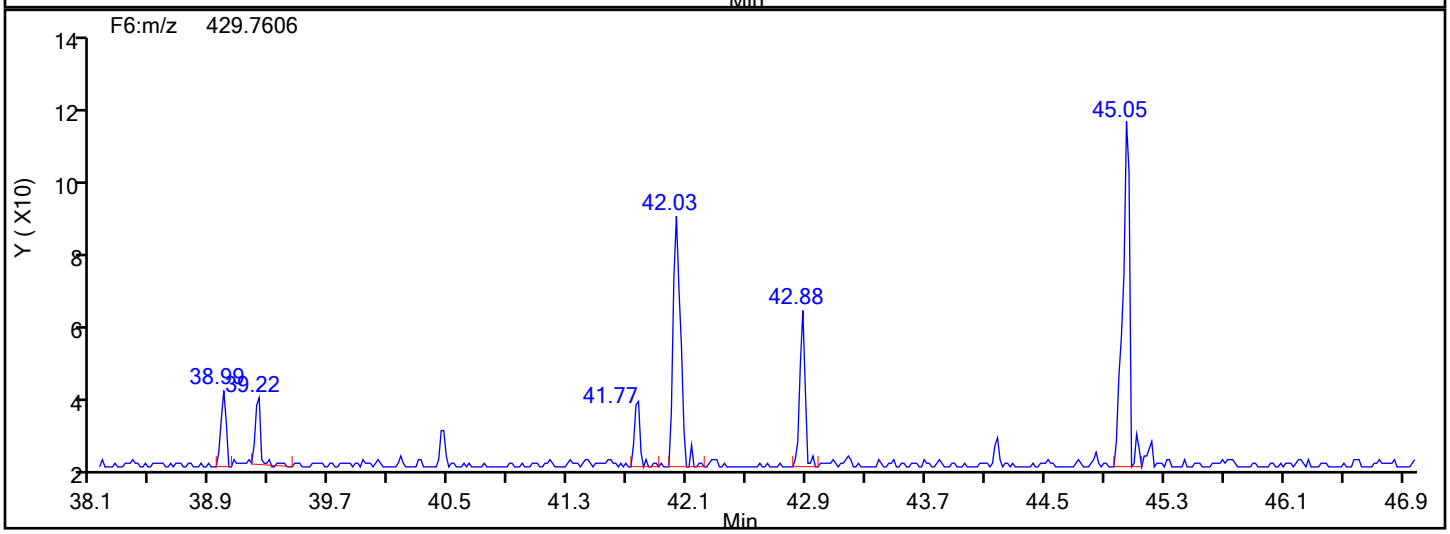
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

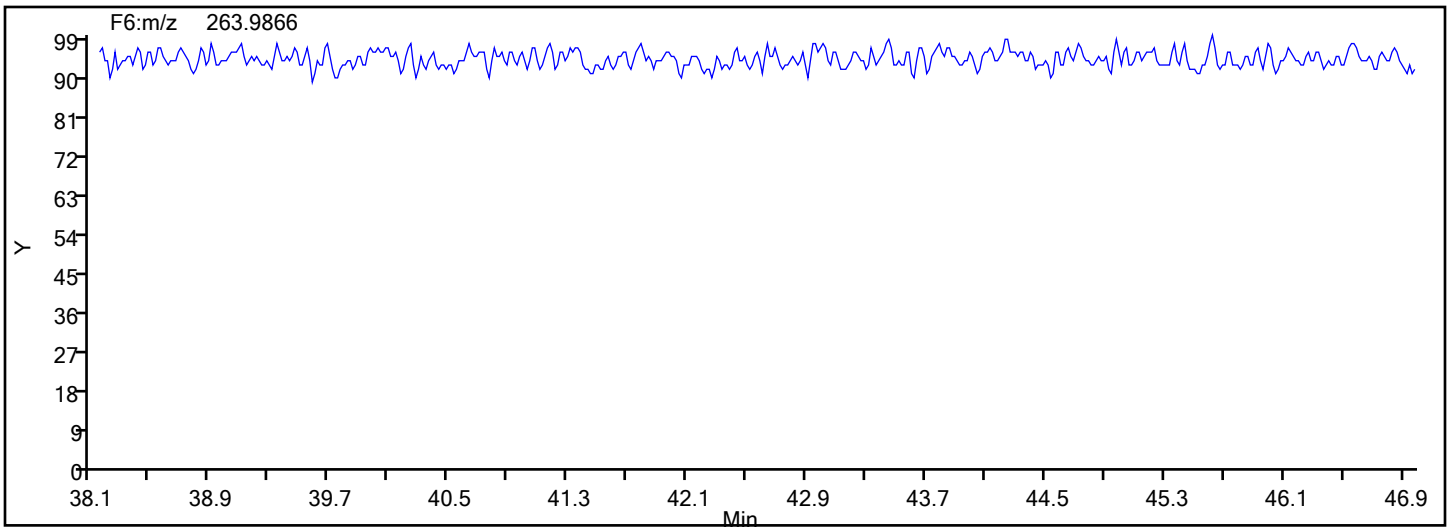
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



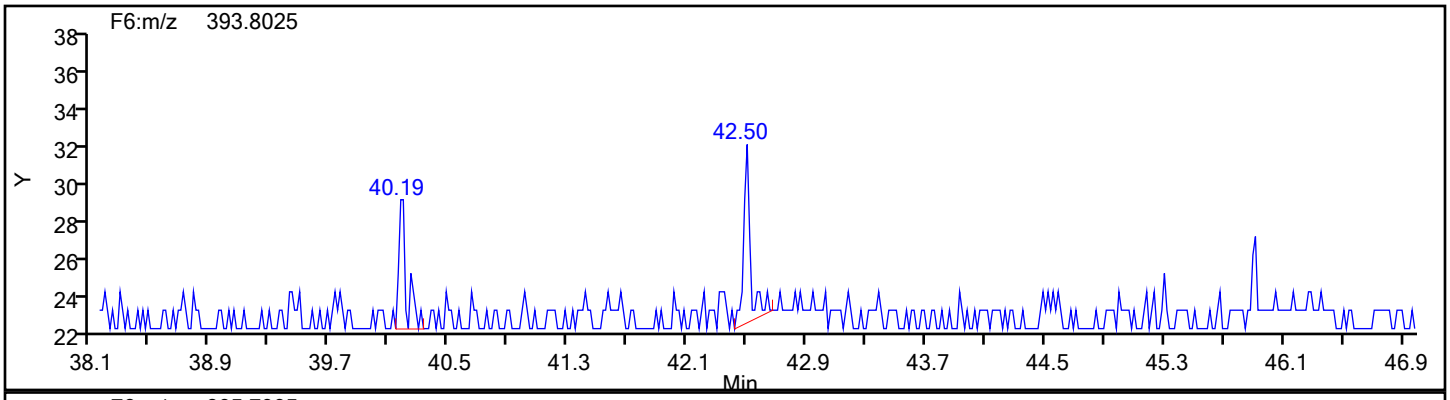
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

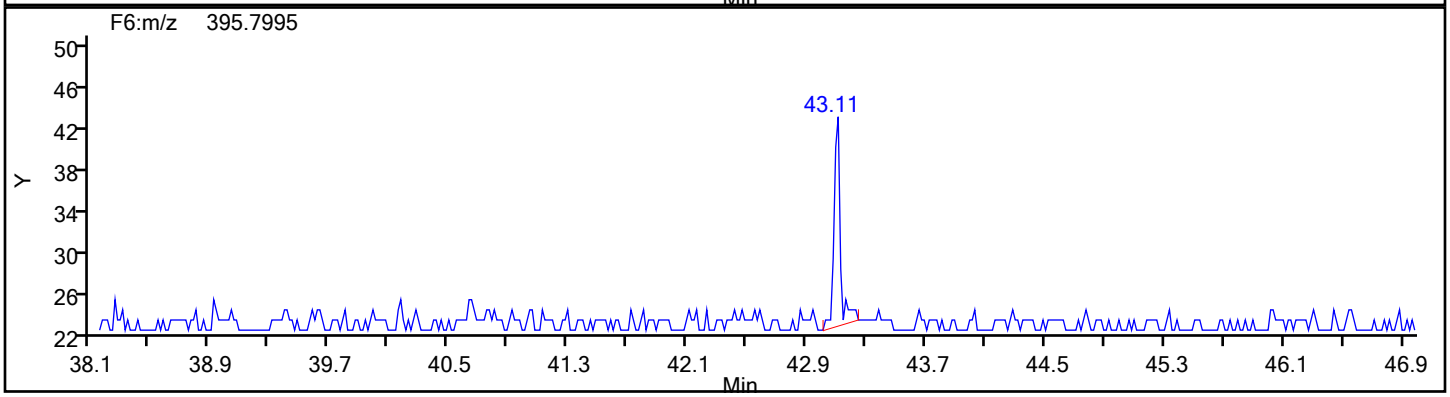
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

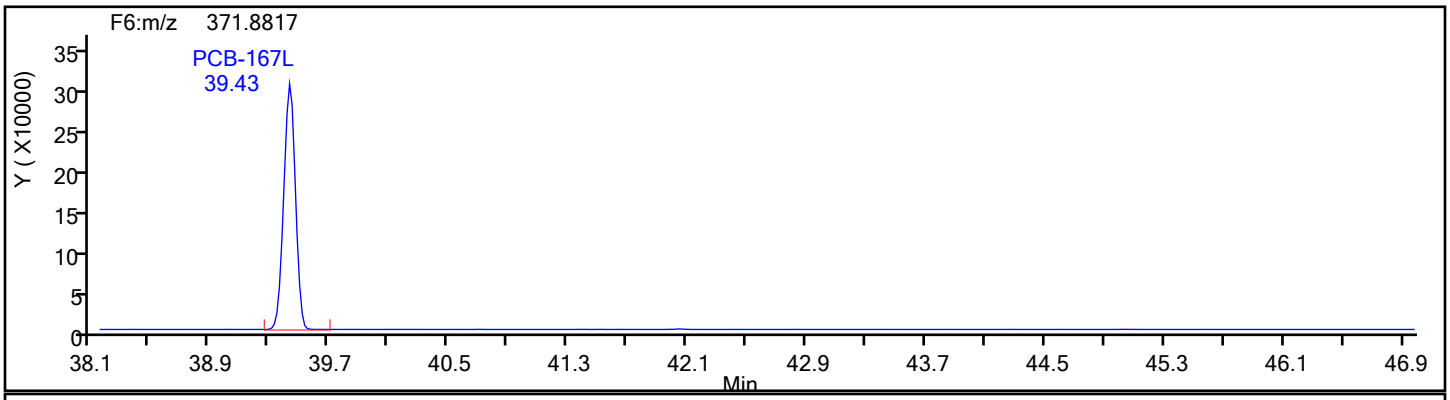
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

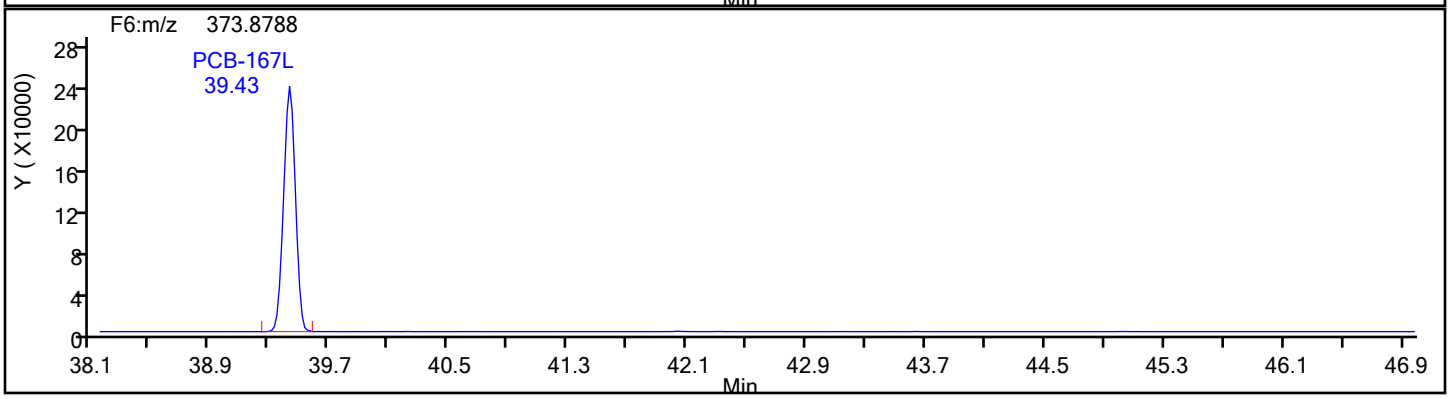
PCB-192





PCB-192 Standards



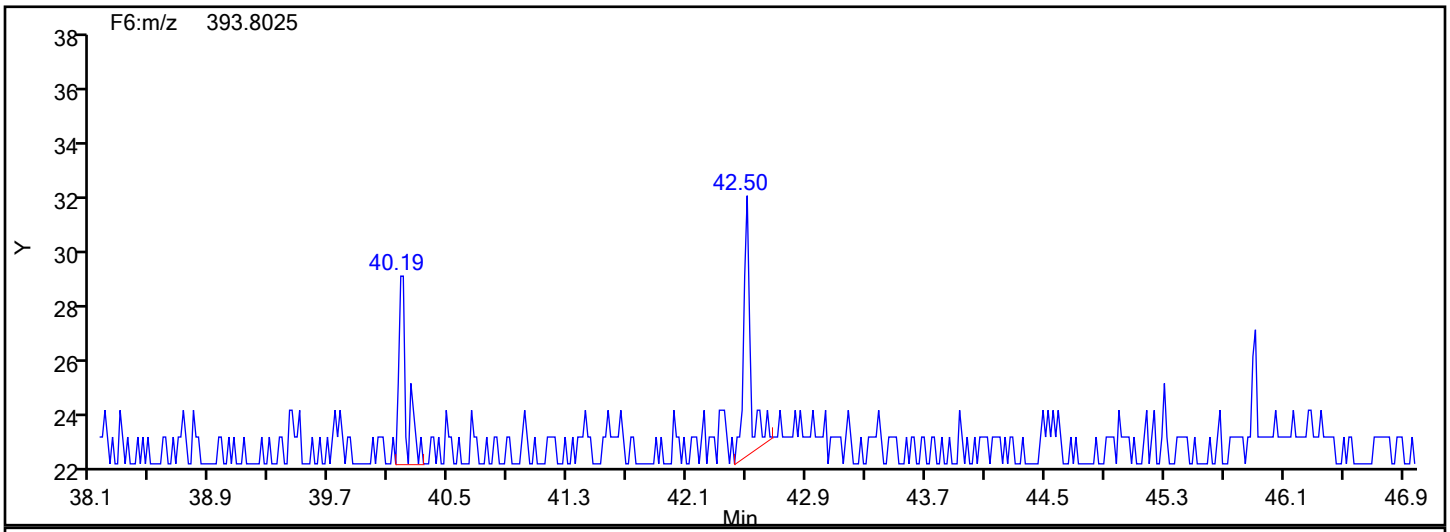


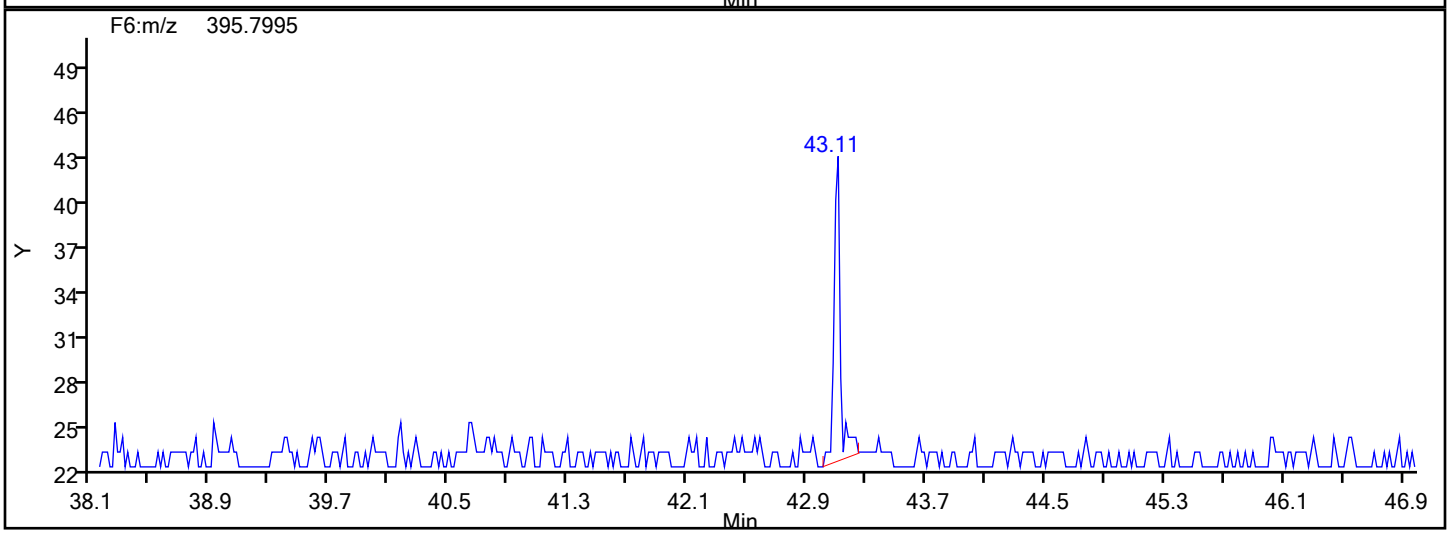
Report Date: 05-May-2025 18:00:53 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

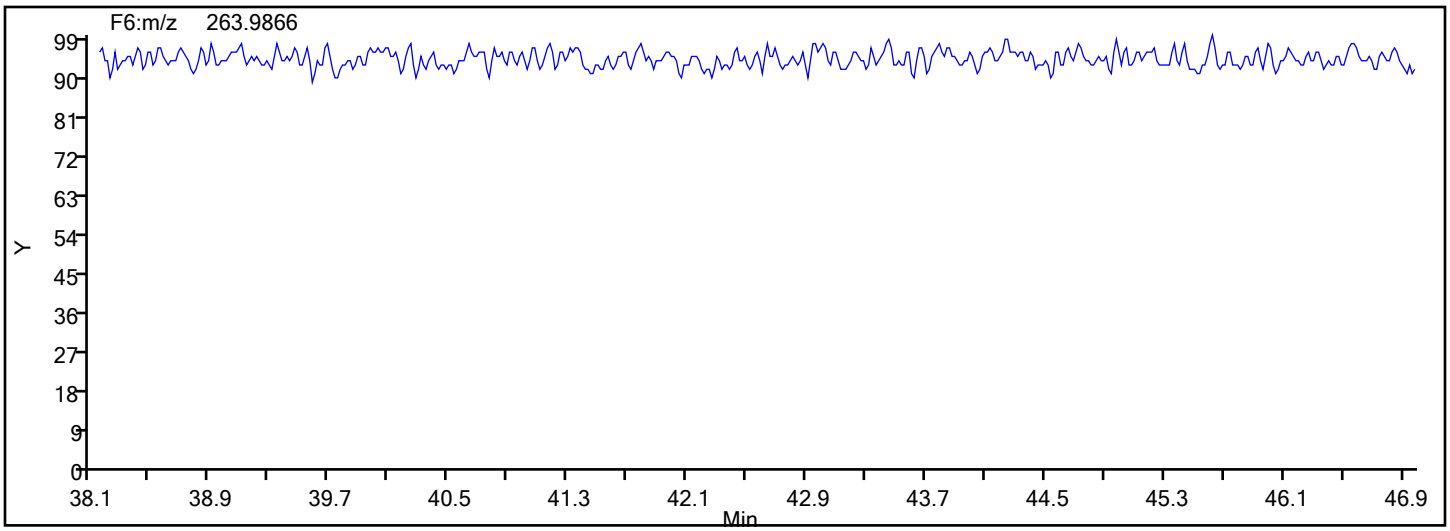
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d		
Injection Date:	02-May-2025 22:08:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99200	Sample Line#:	9
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



Calibration / Pentachlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

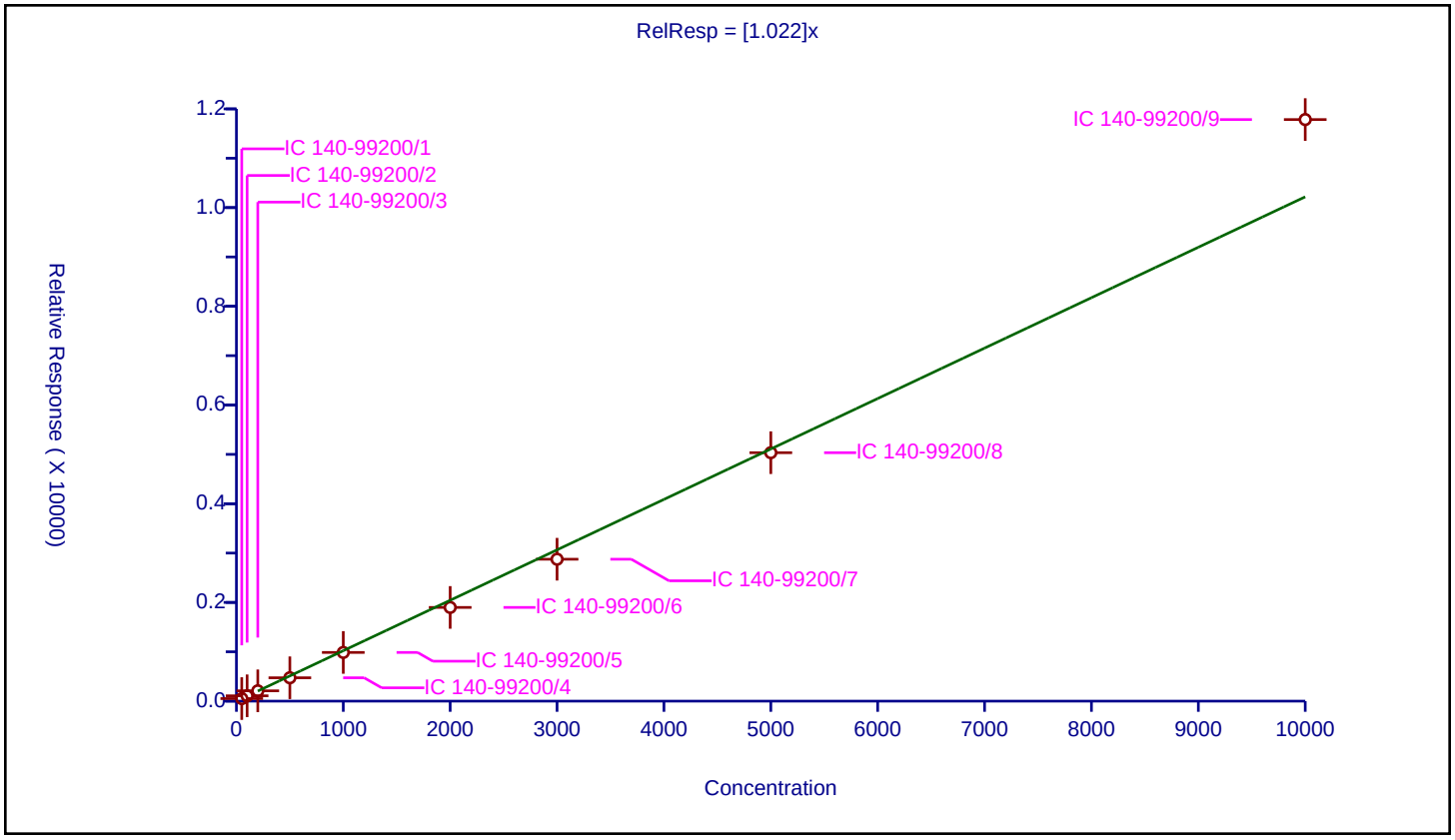
Curve Coefficients

Intercept:	0
Slope:	1.022

Error Coefficients

Relative Standard Deviation:	7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-99200/1	50.0	52.125355	500.0	3041303.0	1.042507	Y
2	IC 140-99200/2	100.0	108.036787	500.0	1873908.0	1.080368	Y
3	IC 140-99200/3	200.0	209.302816	500.0	2535501.0	1.046514	Y
4	IC 140-99200/4	500.0	473.569042	500.0	2130740.0	0.947138	Y
5	IC 140-99200/5	1000.0	986.770722	500.0	3528235.0	0.986771	Y
6	IC 140-99200/6	2000.0	1898.73945	500.0	5786444.0	0.94937	Y
7	IC 140-99200/7	3000.0	2875.723092	500.0	6292078.0	0.958574	Y
8	IC 140-99200/8	5000.0	5034.14405	500.0	8255128.0	1.006829	Y
9	IC 140-99200/9	10000.0	11783.852844	500.0	8395720.0	1.178385	Y



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: ICV 140-97380/11 Calibration Date: 03/20/2025 17:22

Instrument ID: D3PST Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 03/20/2025 01:05

Lab File ID: d3250320icav.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
alpha-BHC	AveID	1.094			182	200	91	75-125
Hexachlorobenzene	AveID	1.157			192	200	96	75-125
beta-BHC	AveID	1.005			197	200	99	75-125
gamma-BHC (Lindane)	AveID	0.9800			175	200	88	75-125
delta-BHC	AveID	1.124			184	200	92	75-125
Heptachlor	AveID	1.086			198	200	99	75-125
Aldrin	AveID	1.089			173	200	87	75-125
Heptachlor epoxide	AveID	1.146			178	200	89	75-125
oxy-Chlordane	AveID	1.104			183	200	91	75-125
gamma-Chlordane	AveID	1.143			172	200	86	75-125
2,4'-DDE	AveID	1.283			204	200	102	75-125
Endosulfan I	AveID	1.093			185	200	93	75-125
alpha-Chlordane	AveID	1.055			173	200	87	75-125
trans-Nonachlor	AveID	1.078			225	200	113	75-125
4,4'-DDE	AveID	1.253			177	200	88	75-125
Dieldrin	AveID	1.072			183	200	91	75-125
2,4'-DDD	AveID	1.176			206	200	103	75-125
Endrin	AveID	1.068			171	200	85	75-125
Endosulfan II	AveID	1.097			197	200	99	75-125
4,4'-DDD	AveID	1.235			177	200	88	75-125
2,4'-DDT	AveID	1.181			212	200	106	75-125
cis-Nonachlor	AveID	1.076			238	200	119	75-125
Endrin aldehyde	AveID	1.128			204	200	102	75-125
Endosulfan sulfate	AveID	1.083			184	200	92	75-125
4,4'-DDT	AveID	1.210			168	200	84	75-125
Endrin ketone	AveID	1.155			182	200	91	75-125
Methoxychlor	AveID	1.325			172	200	86	75-125
Mirex	AveID	1.023			201	200	100	75-125
13C6-alpha BHC	Ave	0.1704			105	100	105	50-150
13C6-Hexachlorobenzene	Ave	0.5041			108	100	108	50-150
13C6-beta BHC	Ave	0.1244			93.4	100	93	50-150
13C6-gamma BHC	Ave	0.1646			92.4	100	92	50-150
13C6-delta BHC	Ave	0.0992			105	100	105	50-150
13C10-Heptachlor	Ave	0.0715			91.8	100	92	50-150
13C12-Aldrin	Ave	0.1384			107	100	107	50-150
13C10-cis Heptachlor Epoxide	Ave	0.1493			94.8	100	95	50-150
13C10-oxy Chlordane	Ave	0.0481			100	100	100	50-150
13C10-trans Chlordane	Ave	0.1640			89.1	100	89	50-150
13C12-2,4'-DDE	Ave	2.734			94.5	100	94	50-150
13C9-Endosulfan I	Ave	0.0555			82.4	100	82	50-150
13C10-cis Chlordane	Ave	0.1741			90.4	100	90	50-150

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Lab Sample ID: ICV 140-97380/11 | Calibration Date: 03/20/2025 17:22

Instrument ID: D3PST | Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) | Calib End Date: 03/20/2025 01:05

Lab File ID: d3250320icav.d | Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
13C10-trans Nonachlor	Ave	0.1233			83.0	100	83	50-150
13C12-4,4'-DDE	Ave	1.864			91.9	100	92	50-150
13C12-Dieldrin	Ave	0.1991			88.3	100	88	50-150
13C12-2,4'-DDD	Ave	1.349			86.5	100	86	50-150
13C12-Endrin	Ave	0.1181			75.9	100	76	50-150
13C9-Endosulfan II	Ave	0.0248			86.0	100	86	50-150
13C12-4,4'-DDD	Ave	1.139			84.5	100	85	50-150
13C12-2,4'-DDT	Ave	0.6754			81.7	100	82	50-150
13C10-cis Nonachlor	Ave	0.0944			78.8	100	79	50-150
13C12-Endrin Aldehyde	Ave	0.0237			101	100	101	50-150
13C9-Endosulfan sulfate	Ave	0.1517			86.8	100	87	50-150
13C12-4,4'-DDT	Ave	0.5808			79.8	100	80	50-150
13C11-Endrin Ketone	Ave	0.0648			83.6	100	84	50-150
13C12-Methoxychlor	Ave	0.6709			75.7	100	76	50-150
13C10-Mirex	Ave	0.9459			81.2	100	81	50-150

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Mar-2025 17:22:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-011
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist:

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 16:35:13 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTXVDI31

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17.391	3044621	0.83	0.1704	105.3	105.3	0.1000	0.1000	105	
alpha-BHC	17.391	6058860	0.81	1.0937	182.0	182.0	0.1151	0.1151	90.98	
D 13C6-beta BHC	18.372	1971564	0.80	0.1244	93.4	93.4	0.1369	0.1369	93.36	
beta-BHC	18.392	3911092	0.79	1.0053	197.3	197.3	0.2092	0.2092	98.66	
D 13C6-gamma BHC	18.658	2582767	0.76	0.1646	92.4	92.4	0.1035	0.1035	92.44	
gamma-BHC (Lindane)	18.668	4434624	0.80	0.9800	175.2	175.2	0.1678	0.1678	87.61	
D 13C6-delta BHC	19.618	1760543	0.84	0.0992	104.5	104.5	0.1717	0.1717	105	
delta-BHC	19.628	3637759	0.78	1.1243	183.8	183.8	0.2197	0.2197	91.89	
D 13C10-Heptachlor	21.861	1114588	1.28	0.0715	91.8	91.8	0.0186	0.0186	91.82	
Heptachlor	21.875	2400367	1.28	1.0864	198.2	198.2	0.0891	0.0891	99.12	
D 13C6-Hexachlorobenzene	17.708	9238066	1.27	0.5041	108.0	108.0	0.003167	0.003167	108	
Hexachlorobenzene	17.708	20559850	1.25	1.1568	192.4	192.4	0.003565	0.003565	96.19	
D 13C12-Aldrin	23.719	2519972	1.61	0.1384	107.2	107.2	0.0135	0.0135	107	
Aldrin	23.746	4749657	1.58	1.0892	173.1	173.1	0.0373	0.0373	86.53	
D 13C10-oxy Chlordane	26.133	277407	1.03	0.0481	100.0	100.0	0.0399	0.0399	99.97	
oxy-Chlordane	26.160	559726	1.09	1.1040	182.8	182.8	0.0125	0.0125	91.38	
D 13C10-cis Heptachlor Epoxide	26.092	816679	1.34	0.1493	94.8	94.8	0.005143	0.005143	94.76	
Heptachlor epoxide	26.119	1663786	1.28	1.1461	177.8	177.8	0.006654	0.006654	88.88	
D 13C12-2,4'-DDE	27.920	14916203	1.56	2.7345	94.5	94.5	0.0211	0.0211	94.47	
2,4'-DDE	27.934	38972061	1.58	1.2831	203.6	203.6	0.0319	0.0319	102	
D 13C10-trans Chlordane	27.621	844131	1.32	0.1640	89.1	89.1	0.0187	0.0187	89.13	
trans-Chlordane	27.648	1658102	1.27	1.1433	171.8	171.8	0.0500	0.0500	85.91	
D 13C10-cis Chlordane	28.682	908822	1.32	0.1741	90.4	90.4	0.0176	0.0176	90.38	
cis-Chlordane	28.709	1660667	1.28	1.0551	173.2	173.2	0.0574	0.0574	86.59	
D 13C10-trans Nonachlor	28.995	590970	1.38	0.1233	83.0	83.0	0.0249	0.0249	83.01	
trans-Nonachlor	29.022	1434407	1.29	1.0780	225.1	225.1	0.0745	0.0745	113	
D 13C9-Endosulfan I	28.505	264262	1.28	0.0555	82.4	82.4	0.0553	0.0553	82.43	
D 13C12-4,4'-DDE	30.154	9548564	1.60	1.8637	91.9	91.9	0.0600	0.0600	91.92	
4,4'-DDE	30.181	21160997	1.56	1.2526	176.9	176.9	0.1012	0.1012	88.46	
D 13C12-4,4'-DDD	33.449	5368177	1.58	1.1392	84.5	84.5	0.0455	0.0455	84.54	
4,4'-DDD	33.484	11726124	1.55	1.2345	176.9	176.9	0.0745	0.0745	88.47	
D 13C12-2,4'-DDT	33.724	3075715	1.61	0.6754	81.7	81.7	0.0768	0.0768	81.70	
2,4'-DDT	33.758	7682269	1.71	1.1809	211.5	211.5	0.1458	0.1458	106	
D 13C12-4,4'-DDT	36.589	2584109	1.60	0.5808	79.8	79.8	0.0893	0.0893	79.82	
4,4'-DDT	36.623	5249125	1.52	1.2096	167.9	167.9	0.1736	0.1736	83.97	
D 13C12-Dieldrin	30.382	979390	1.51	0.1991	88.3	88.3	0.0112	0.0112	88.26	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Dieldrin	30.408	1919217	1.57	1.0718	182.8	182.8	0.0995	0.0995	91.41	
D 13C12-Endrin	32.040	499391	1.51	0.1181	75.9	75.9	0.0189	0.0189	75.87	
Endrin	32.080	910505	1.56	1.0678	170.7	170.7	0.1979	0.1979	85.37	
D 13C9-Endosulfan II	32.775	118833	1.12	0.0248	86.0	86.0	0.0611	0.0611	86.04	
Endosulfan II	32.802	257226	1.38	1.0972	197.3	197.3	0.3443	0.3443	98.64	
D 13C12-Endrin Aldehyde	34.324	133242	1.43	0.0237	100.8	100.8	0.0751	0.0751	101	
Endrin aldehyde	34.342	306837	1.62	1.1278	204.2	204.2	0.5540	0.5540	102	
D 13C12-Methoxychlor	41.929	2830164	20.94	0.6709	75.7	75.7	0.0328	0.0328	75.68	
Methoxychlor	41.963	6449213	5.63	1.3248	172.0	172.0	0.0477	0.0477	86.01	
D 13C11-Endrin Ketone	40.401	301908	1.60	0.0648	83.6	83.6	0.006876	0.006876	83.61	
Endrin ketone	40.452	633193	1.60	1.1546	181.6	181.6	0.0418	0.0418	90.82	
D 13C10-Mirex	45.393	2789876	1.23	0.9459	81.2	81.2	0.0127	0.0127	81.24	
Mirex	45.427	5732079	1.26	1.0234	200.8	200.8	0.0429	0.0429	100	
* PCB-15L	19.066	16976981	1.59		100.0	100.0				
* PCB-101L	28.110	5774274	1.61		100.0	100.0				
* PCB-118L	32.789	5573760	1.61		100.0	100.0				
* PCB-138L	36.984	3630548	1.29		100.0	100.0				
Endosulfan I	28.546	535627	1.69	1.0931	185.4	185.4	0.2563	0.2563	92.71	
* PCB-60L	27.729	10108755	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30.836	6501377	1.60	1.3487	86.5	86.5	0.0637	0.0637	86.49	
2,4'-DDD	30.863	15749398	1.55	1.1763	205.9	205.9	0.0744	0.0744	103	
D 13C10-cis Nonachlor	33.775	414816	1.24	0.0944	78.8	78.8	0.0236	0.0236	78.82	
cis-Nonachlor	33.827	1060950	1.27	1.0758	237.7	237.7	0.0905	0.0905	119	
D 13C9-Endosulfan sulfate	36.297	733992	1.39	0.1517	86.8	86.8	0.0147	0.0147	86.82	
Endosulfan sulfate	36.315	1464819	1.24	1.0831	184.3	184.3	0.0502	0.0502	92.13	
* PCB-167L	39.484	3713717	1.26		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Reagents:

611699ICV_00015 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Mar-2025 17:22:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0036907-011
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist:

Method: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 24-Mar-2025 16:35:13 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTXVDI31

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17.391	17.381	1	0.912	1378810	507263	320	800	1585		
224.9317	17.381	17.381	0	0.912	1665811	642339	64	160	10037	0.83(0.58-0.96)	
alpha-BHC											
216.9145	17.391	17.401	0	1.000	2715913	999408	107	267	9340		
218.9116	17.391	17.401	0	1.000	3342947	1223974	472	1180	2593	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18.372	18.372	1	0.964	878378	300370	320	800	939		
224.9317	18.372	18.372	1	0.964	1093186	387666	64	160	6057	0.80(0.58-0.96)	
beta-BHC											
216.9145	18.392	18.382	1	1.001	1720448	585547	107	267	5472		
218.9116	18.382	18.382	1	1.001	2190644	746980	472	1180	1583	0.79(0.58-0.96)	
13C6-gamma BHC											
222.9342	18.658	18.647	1	0.979	1118432	370719	320	800	1158		
224.9317	18.658	18.647	1	0.979	1464335	509207	64	160	7956	0.76(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18.668	18.679	1	1.001	1967054	696834	107	267	6512		
218.9116	18.668	18.679	1	1.001	2467570	851252	472	1180	1804	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19.618	19.608	1	1.029	802612	269060	320	800	841		
224.9317	19.618	19.608	1	1.029	957931	316810	64	160	4950	0.84(0.58-0.96)	
delta-BHC											
216.9145	19.628	19.638	1	1.001	1599731	524638	107	267	4903		
218.9116	19.628	19.638	1	1.001	2038028	656168	472	1180	1390	0.78(0.58-0.96)	
13C10-Heptachlor											
276.8270	21.861	21.857	1	1.147	626115	171018	17	42	10060		
278.8240	21.848	21.857	0	1.146	488473	135690	13	32	10438	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Heptachlor											
271.8102	21.875	21.875	1	1.001	1345662	392942	81	202	4851		
273.8072	21.875	21.875	1	1.001	1054705	301234	38	95	7927	1.28(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17.708	17.697	1	0.929	5169349	1890235	22	55	85920		
291.8273	17.708	17.697	1	0.929	4068717	1504646	14	35	107475	1.27(0.93-1.55)	
Hexachlorobenzene											
283.8107	17.708	17.718	1	1.000	11405118	4091112	34	85	120327		
285.8072	17.708	17.718	1	1.000	9154732	3275902	22	55	148905	1.25(0.93-1.55)	
13C12-Aldrin											
269.8805	23.719	23.729	0	1.244	1553125	400926	24	60	16705		
271.8775	23.719	23.729	0	1.244	966847	267958	18	45	14887	1.61(1.16-1.94)	
Aldrin											
262.8569	23.746	23.746	0	1.001	2907259	768935	49	122	15693		
264.8540	23.746	23.746	0	1.001	1842398	489090	60	150	8152	1.58(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26.133	26.134	0	0.930	140581	33724	6	15	5621		
398.8358	26.133	26.134	0	0.930	136826	38837	4	10	9709	1.03(0.78-1.30)	
oxy-Chlordane											
386.8052	26.160	26.160	0	1.001	291386	74866	3	7	24955		
388.8023	26.160	26.160	0	1.001	268340	64297	1	2	64297	1.09(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26.092	26.094	0	0.928	467403	111613	2	5	55807		
364.8748	26.092	26.094	0	0.928	349276	85066	2	5	42533	1.34(0.93-1.55)	
Heptachlor epoxide											
352.8442	26.119	26.119	0	1.001	933883	219002	4	10	54751		
354.8413	26.119	26.119	0	1.001	729903	174584	2	5	87292	1.28(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27.920	27.920	0	0.993	9092524	2067516	186	465	11116		
260.0376	27.920	27.920	0	0.993	5823679	1320211	115	287	11480	1.56(1.17-1.95)	
2,4'-DDE											
246.0003	27.934	27.947	-1	1.000	23865125	5398420	383	957	14095		
247.9974	27.934	27.947	-1	1.000	15106936	3361971	172	430	19546	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27.621	27.621	0	0.983	480234	111938	12	30	9328		
278.8240	27.621	27.621	0	0.983	363897	83925	4	10	20981	1.32(0.93-1.55)	
trans-Chlordane											
271.8102	27.648	27.648	0	1.001	926558	210793	29	72	7269		
273.8072	27.648	27.648	0	1.001	731544	171651	16	40	10728	1.27(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28.682	28.682	0	1.020	517885	106362	12	30	8864		
278.8240	28.682	28.682	0	1.020	390937	78514	4	10	19629	1.32(0.93-1.55)	
cis-Chlordane											
271.8102	28.709	28.709	0	1.001	931117	211189	29	72	7282		
273.8072	28.709	28.709	0	1.001	729550	161588	16	40	10099	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-trans Nonachlor											
276.8270	28.995	28.995	0	1.031	343052	81599	12	30	6800		
278.8240	28.981	28.995	-1	1.031	247918	57802	4	10	14451	1.38(0.93-1.55)	
trans-Nonachlor											
271.8102	29.022	29.022	0	1.001	806947	177380	29	72	6117		
273.8072	29.022	29.022	0	1.001	627460	136002	16	40	8500	1.29(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28.505	28.518	-1	1.014	148311	34371	12	30	2864		
278.8240	28.518	28.518	0	1.015	115951	25240	4	10	6310	1.28(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30.154	30.155	0	0.920	5871489	1220827	318	795	3839		
260.0376	30.154	30.155	0	0.920	3677075	793936	184	460	4315	1.60(1.17-1.95)	
4,4'-DDE											
246.0003	30.181	30.181	0	1.001	12899773	2843942	662	1655	4296		
247.9974	30.181	30.181	0	1.001	8261224	1825104	360	900	5070	1.56(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33.449	33.450	0	1.020	3288209	650396	142	355	4580		
249.0454	33.449	33.450	0	1.020	2079968	420337	91	227	4619	1.58(1.17-1.95)	
4,4'-DDD											
235.0081	33.484	33.484	0	1.001	7119580	1385199	261	652	5307		
237.0052	33.484	33.484	0	1.001	4606544	900196	133	332	6768	1.55(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33.724	33.724	0	1.029	1895064	351310	142	355	2474		
249.0454	33.724	33.724	0	1.029	1180651	220603	91	227	2424	1.61(1.17-1.95)	
2,4'-DDT											
235.0081	33.758	33.758	0	1.001	4850350	911167	261	652	3491		
237.0052	33.741	33.758	-1	1.001	2831919	534076	133	332	4016	1.71(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36.589	36.590	0	1.116	1588871	293433	142	355	2066		
249.0454	36.589	36.590	0	1.116	995238	175663	91	227	1930	1.60(1.16-1.94)	
4,4'-DDT											
235.0081	36.623	36.606	1	1.001	3170007	563081	261	652	2157		
237.0052	36.606	36.606	0	1.000	2079118	368171	133	332	2768	1.52(1.17-1.95)	
13C12-Dieldrin											
269.8805	30.382	30.382	0	0.927	589115	116478	9	22	12942		
271.8775	30.368	30.382	-1	0.926	390275	85044	1	2	85044	1.51(1.16-1.94)	
Dieldrin											
262.8570	30.408	30.408	0	1.001	1172091	240984	40	100	6025		
264.8540	30.408	30.408	0	1.001	747126	152772	46	115	3321	1.57(1.16-1.94)	
13C12-Endrin											
269.8805	32.040	32.053	-1	0.977	300639	60977	9	22	6775		
271.8775	32.040	32.053	-1	0.977	198752	40750	1	2	40750	1.51(1.16-1.94)	
Endrin											
262.8570	32.080	32.066	0	1.001	555171	109688	40	100	2742		
264.8540	32.080	32.066	0	1.001	355334	72418	46	115	1574	1.56(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C9-Endosulfan II											
276.8270	32.775	32.775	0	1.000	62789	12525	3	7	4175		
278.8240	32.789	32.775	1	1.000	56044	9977	4	10	2494	1.12(0.93-1.55)	
Endosulfan II											
271.8102	32.802	32.802	0	1.001	149053	30702	19	47	1616		
273.8072	32.802	32.802	0	1.001	108173	22406	15	37	1494	1.38(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34.324	34.308	1	1.047	78510	15834	2	5	7917		
358.9361	34.307	34.308	0	1.046	54732	9775	6	15	1629	1.43(1.17-1.95)	
Endrin aldehyde											
344.8988	34.342	34.359	0	1.000	189787	35950	40	100	899		
346.8959	34.342	34.359	0	1.000	117050	22959	24	60	957	1.62(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41.929	41.938	0	1.279	2701168	468822	97	242	4833		
240.1510	41.929	41.938	0	1.279	128996	21844	2	5	10922	20.94(0.00-0.00)	
Methoxychlor											
227.1072	41.963	41.963	0	1.001	5476002	934880	78	195	11986		
228.1106	41.946	41.963	-1	1.000	973211	167097	46	115	3633	5.63(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40.401	40.410	0	1.232	185865	32639	1	2	32639		
329.9379	40.418	40.410	1	1.233	116043	19133	1	2	19133	1.60(1.19-1.98)	
Endrin ketone											
316.9039	40.452	40.452	0	1.001	390003	64808	6	15	10801		
318.9010	40.452	40.452	0	1.001	243190	38892	4	10	9723	1.60(1.16-1.95)	
13C10-Mirex											
276.8270	45.393	45.417	-1	1.227	1540644	249235	19	47	13118		
278.8240	45.410	45.417	0	1.228	1249232	199881	14	35	14277	1.23(0.93-1.55)	
Mirex											
271.8102	45.427	45.427	-1	1.001	3200691	524386	41	102	12790		
273.8072	45.427	45.427	-1	1.001	2531388	409879	38	95	10786	1.26(0.93-1.55)	
PCB-15L											
234.0406	19.066	19.057	1		10425793	3471797	71	177	48899		
236.0376	19.066	19.057	1		6551188	2165743	48	120	45120	1.59(1.16-1.93)	
PCB-101L											
337.9207	28.110	28.108	0		3561699	802086	42	105	19097		
339.9178	28.110	28.108	0		2212575	500622	27	67	18542	1.61(1.16-1.94)	
PCB-118L											
337.9207	32.789	32.784	0		3436283	697736	38	95	18361		
339.9178	32.789	32.784	0		2137477	424730	23	57	18467	1.61(1.16-1.94)	
PCB-138L											
371.8817	36.984	36.979	0		2042219	388707	13	32	29901		
373.8788	36.984	36.979	0		1588329	296425	18	45	16468	1.29(1.16-1.94)	
Endosulfan I											
262.8570	28.546	28.518	1	1.001	336144	73428	21	52	3497		
264.8540	28.532	28.518	0	1.001	199483	44211	46	115	961	1.69(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-60L											
301.9626	27.729	27.727	0		4550449	1041510	172	430	6055		
303.9597	27.729	27.727	0		5558306	1246261	133	332	9370	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30.836	30.836	0	0.940	4002863	821741	250	625	3287		
249.0454	30.836	30.836	0	0.940	2498514	518072	136	340	3809	1.60(1.17-1.95)	
2,4'-DDD											
235.0081	30.863	30.863	0	1.001	9580727	2021332	336	840	6016		
237.0052	30.863	30.863	0	1.001	6168671	1297106	133	332	9753	1.55(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33.775	33.793	-1	1.030	229588	43298	9	22	4811		
278.8240	33.793	33.793	0	1.031	185228	33729	1	2	33729	1.24(0.93-1.55)	
cis-Nonachlor											
271.8102	33.827	33.810	0	1.002	594329	113298	17	42	6665		
273.8072	33.827	33.810	0	1.002	466621	88559	13	32	6812	1.27(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36.297	36.281	1	1.107	427091	83362	9	22	9262		
278.8240	36.297	36.281	1	1.107	306901	54561	1	2	54561	1.39(0.93-1.55)	
Endosulfan sulfate											
271.8102	36.315	36.349	-1	1.000	811058	149851	17	42	8815		
273.8072	36.315	36.349	-1	1.000	653761	119800	13	32	9215	1.24(0.93-1.55)	
PCB-167L											
371.8817	39.484	39.470	1		2072903	364429	10	25	36443		
373.8788	39.467	39.470	0		1640814	288093	8	20	36012	1.26(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

Reagents:

611699ICV_00015 Amount Added: 20.00 Units: uL

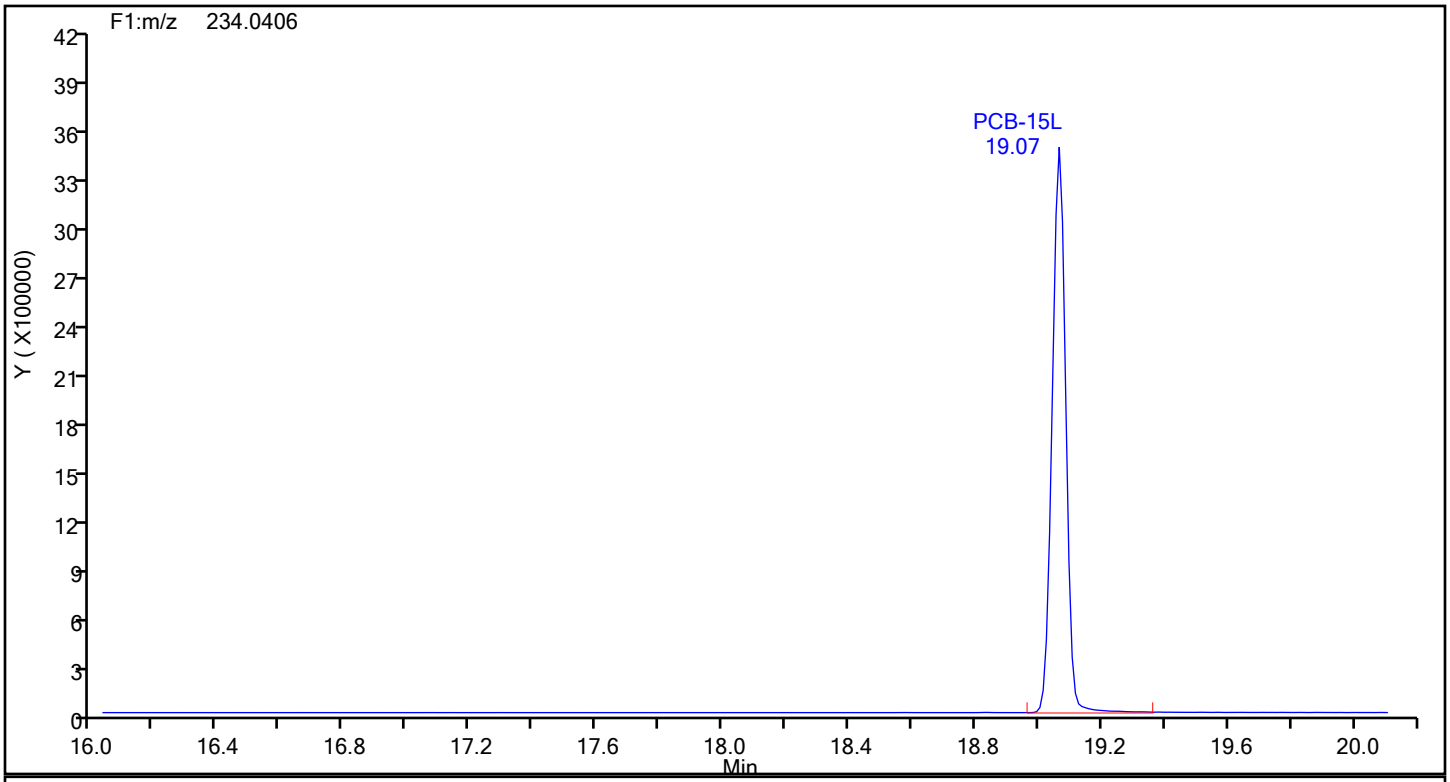
Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

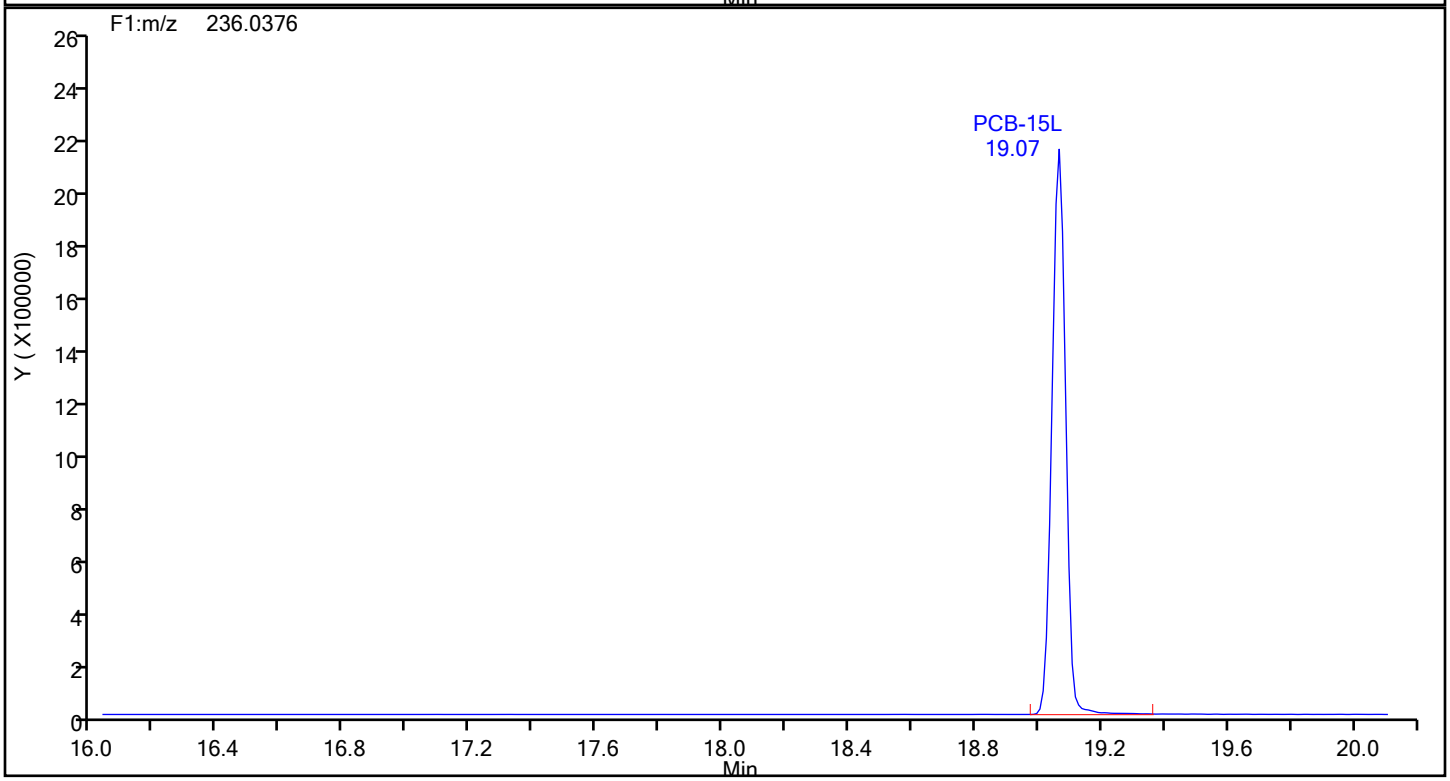
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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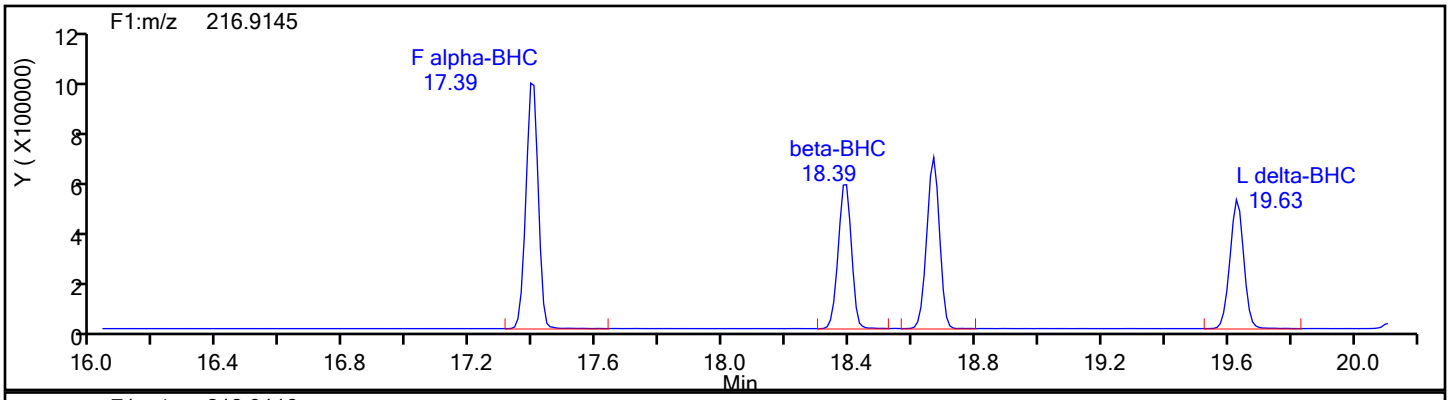
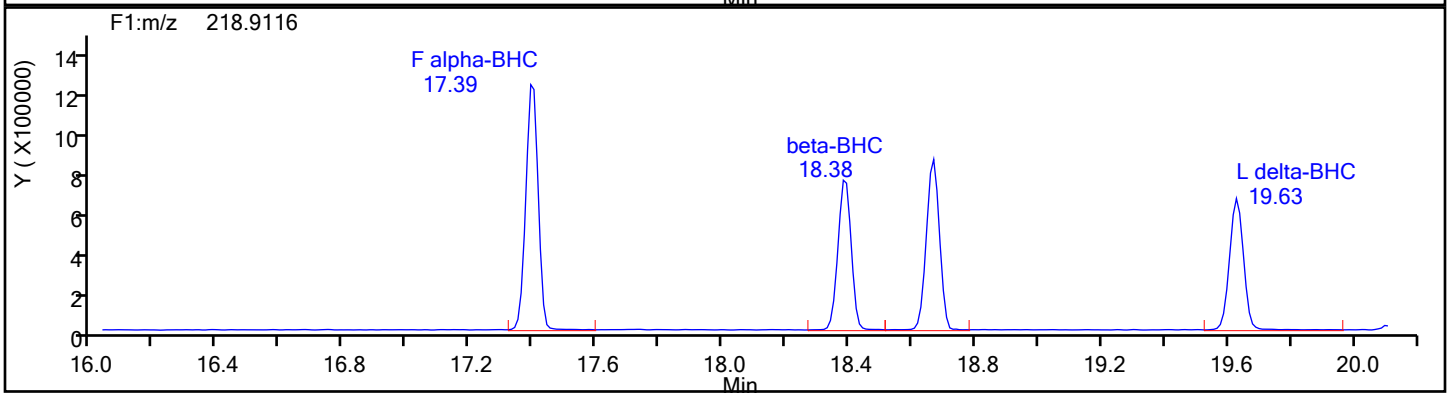
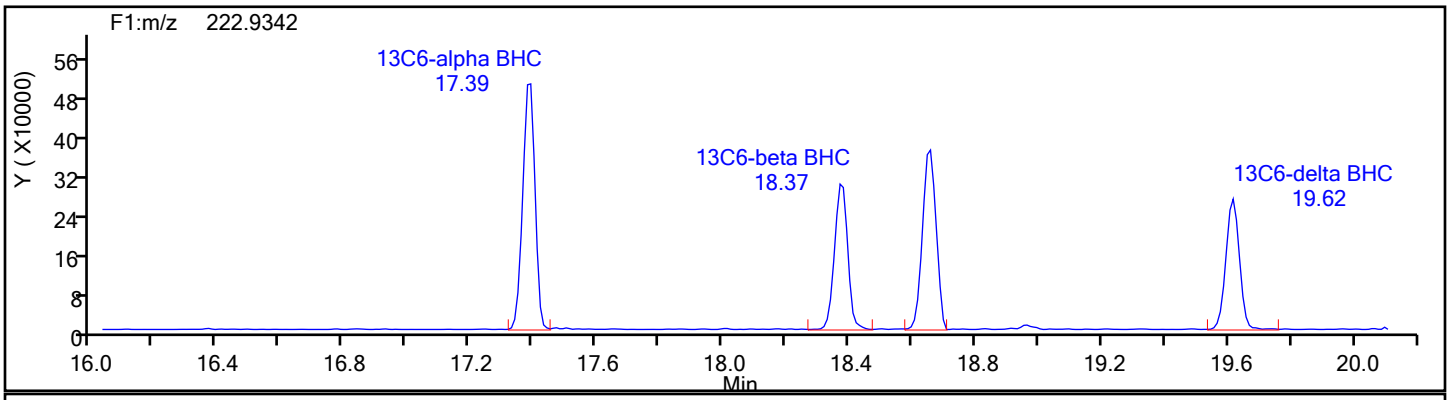
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

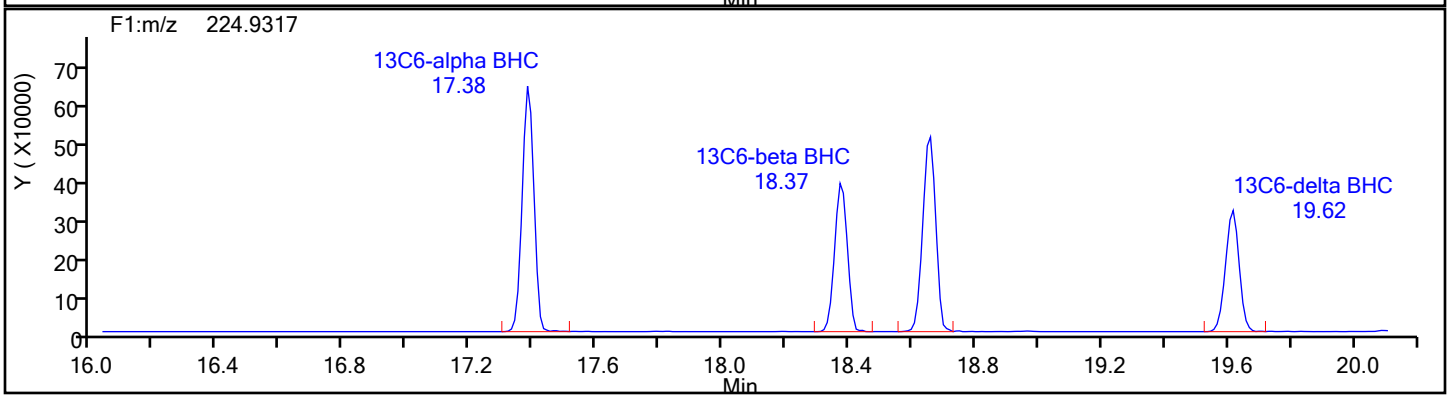
BHC





BHC Standards



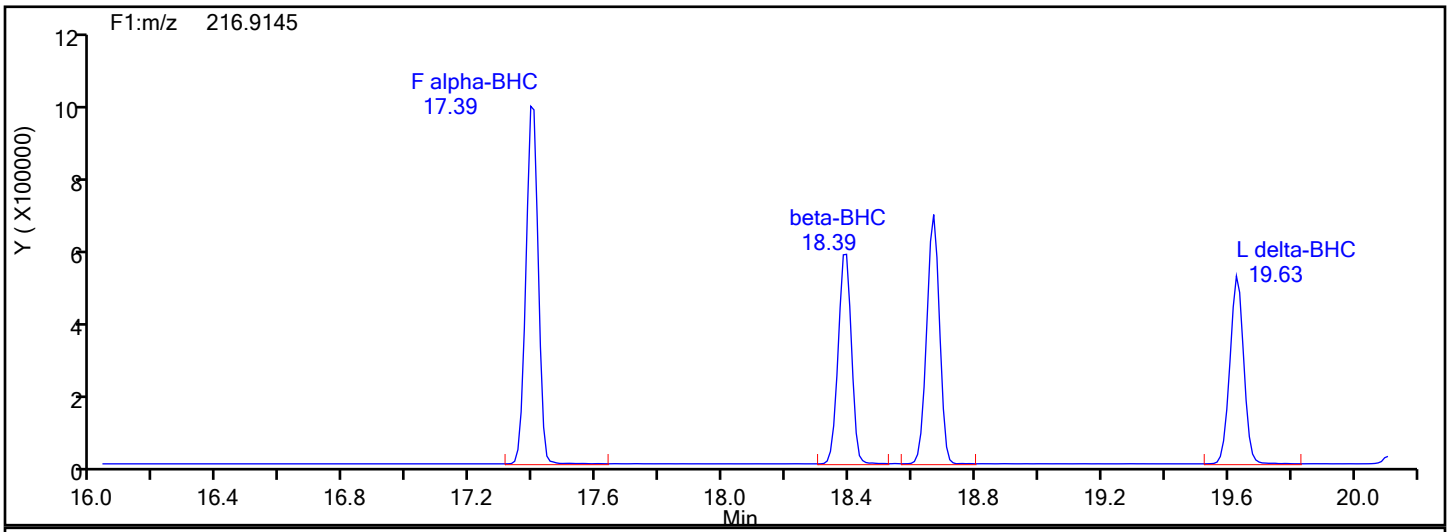


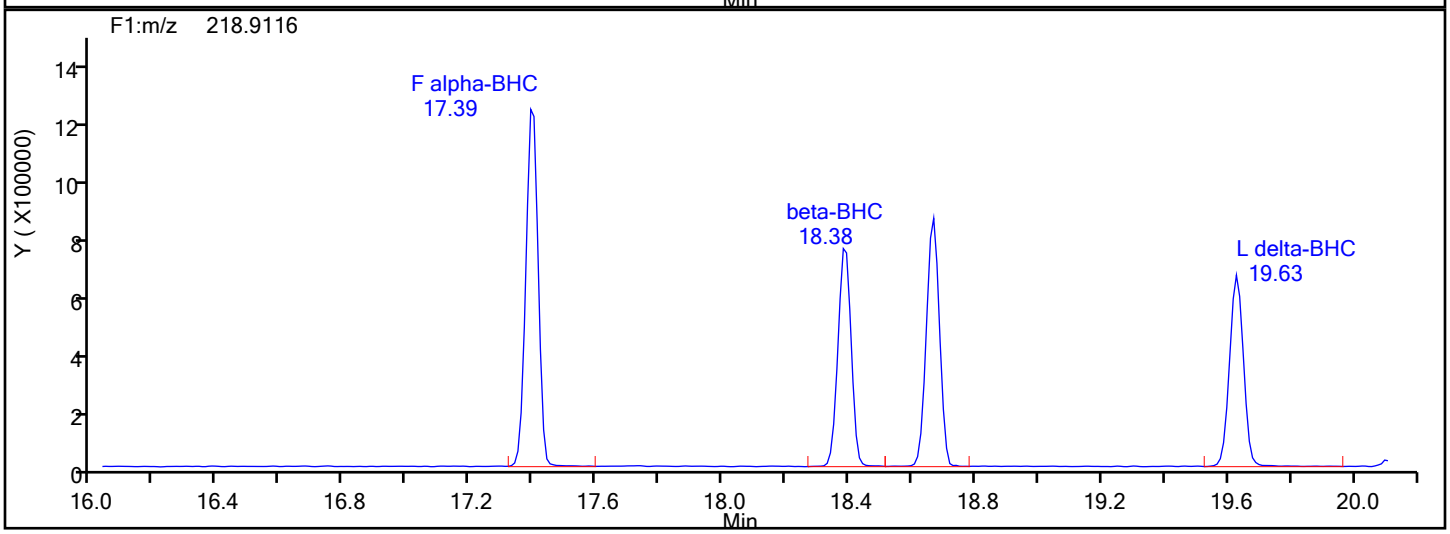
Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

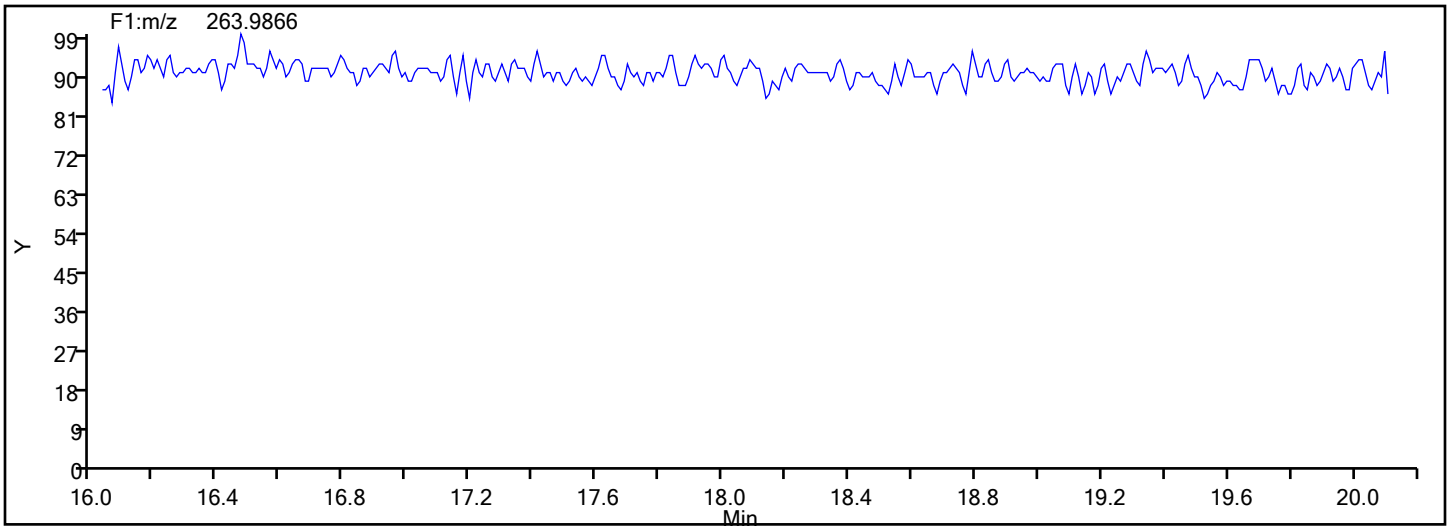
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

BHC





BHC Lock Mass



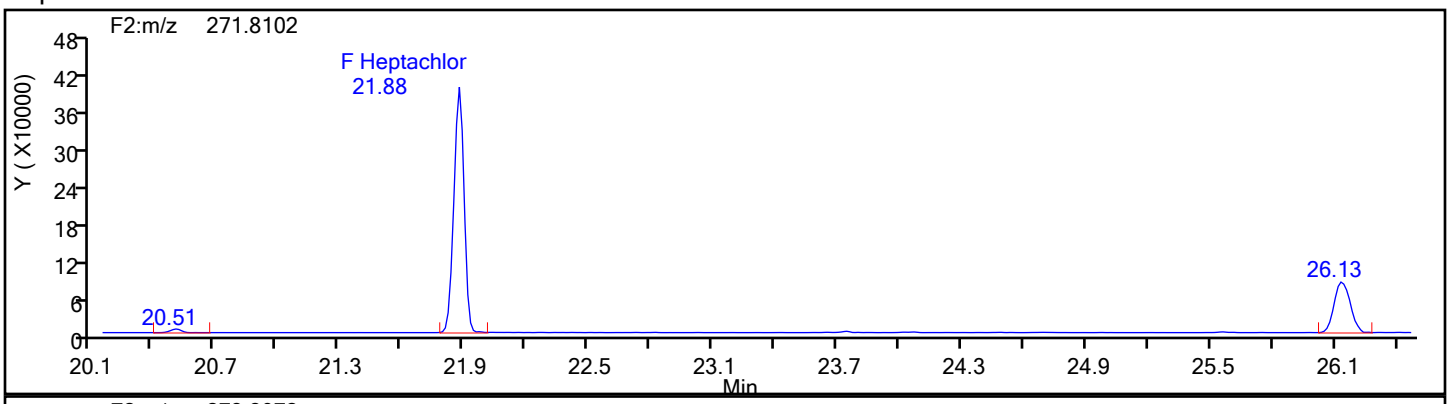
Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

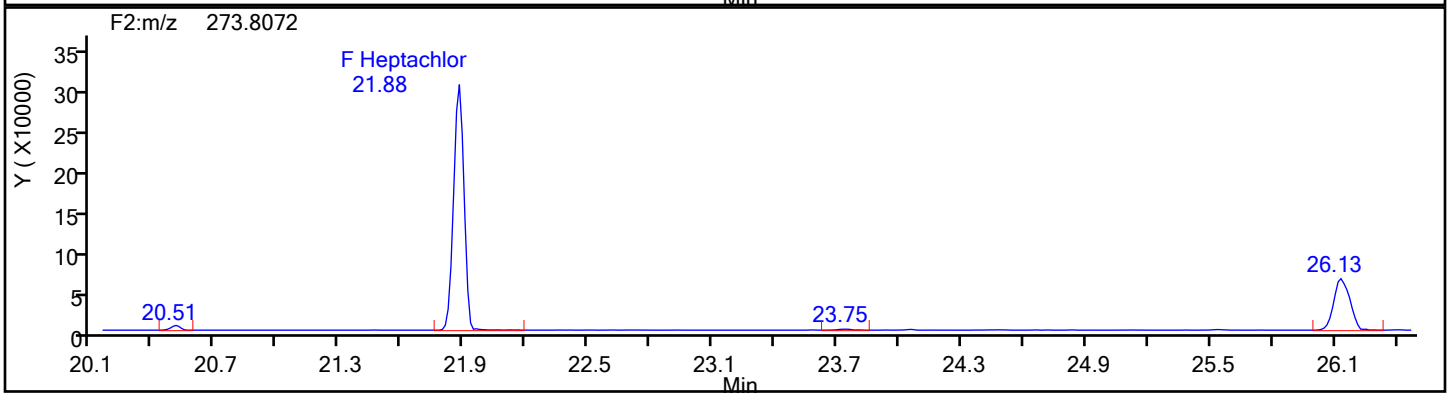
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

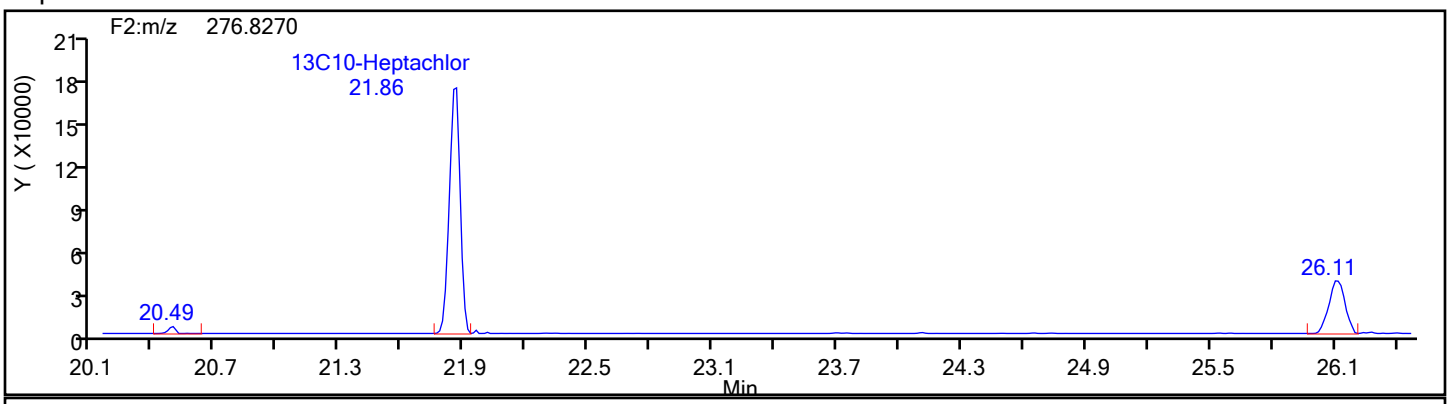
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

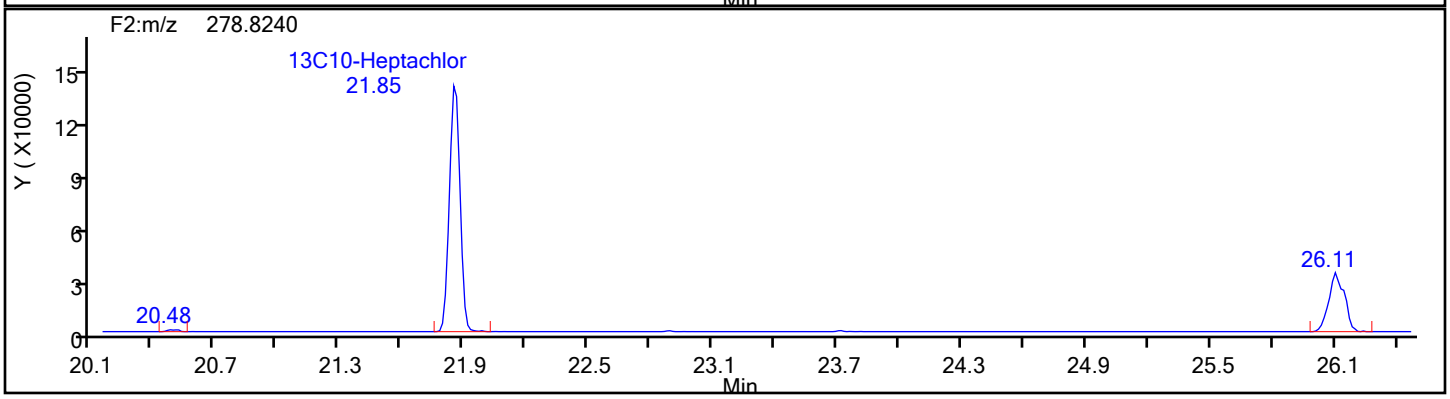
Heptachlor





Heptachlor Standards





Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d		
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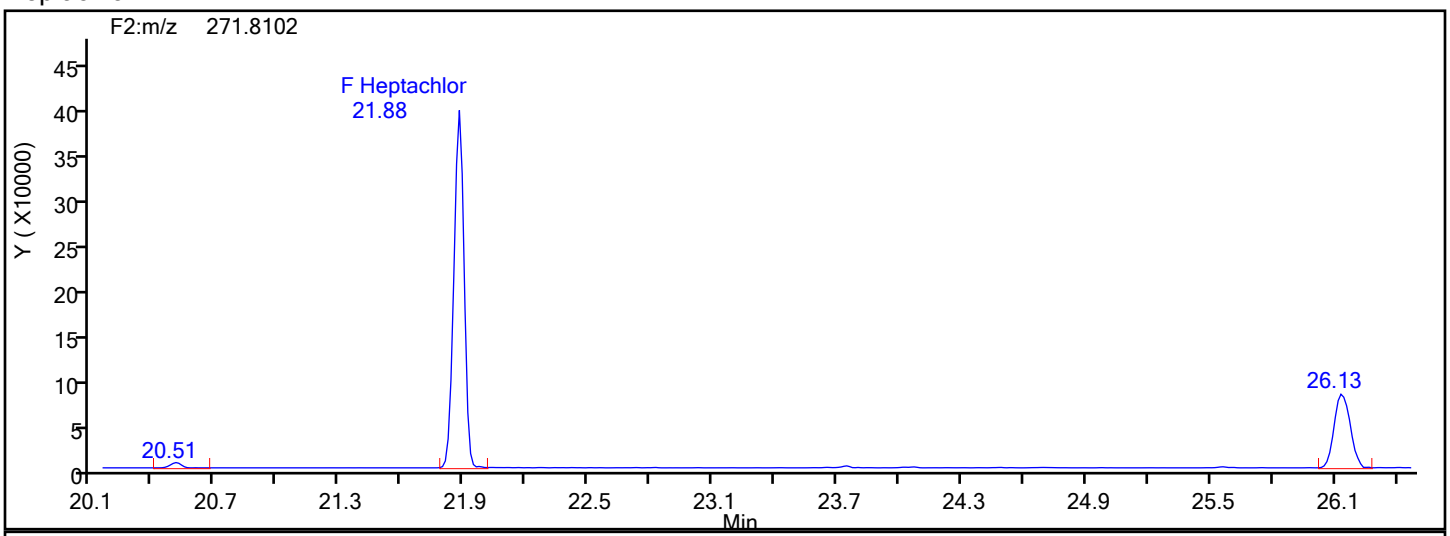
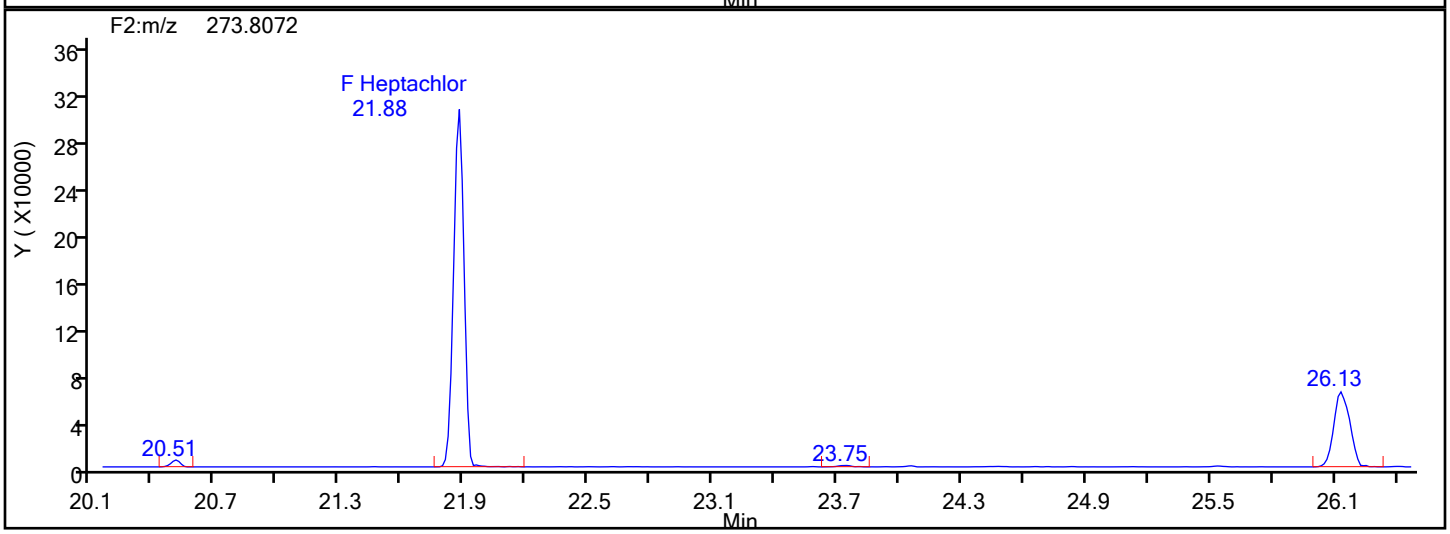
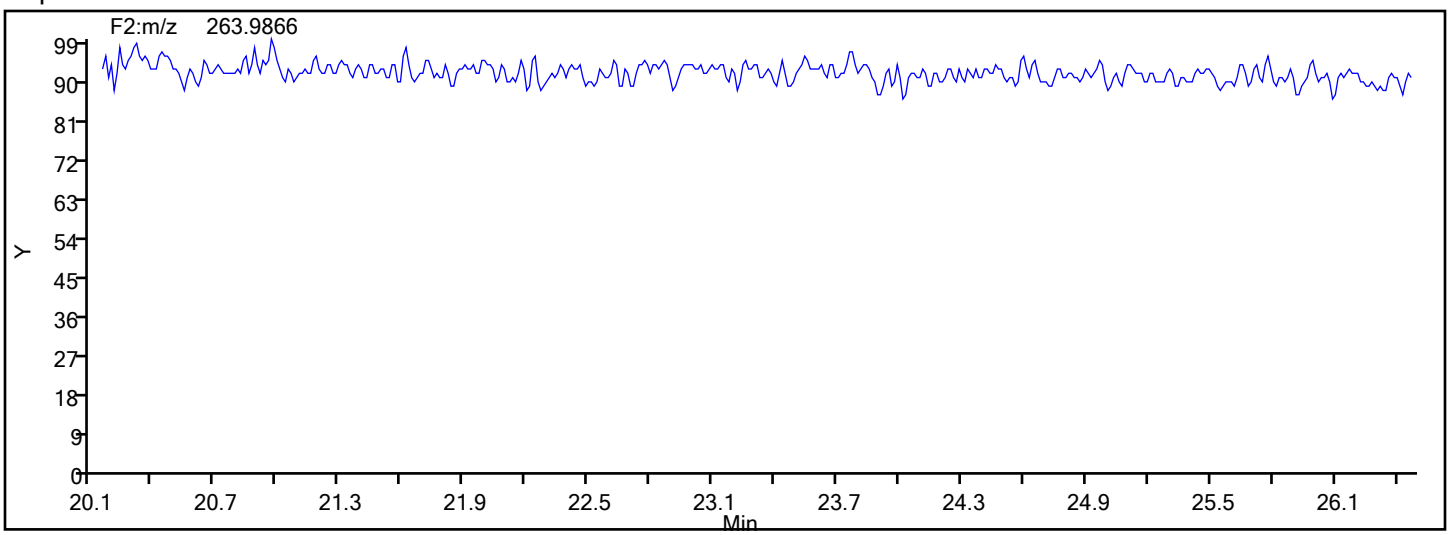
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



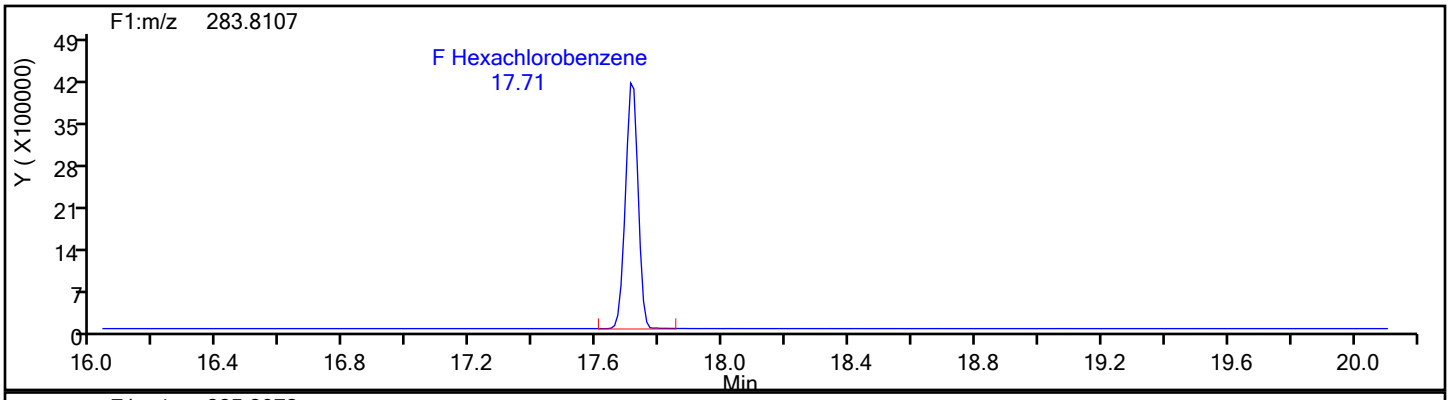
Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

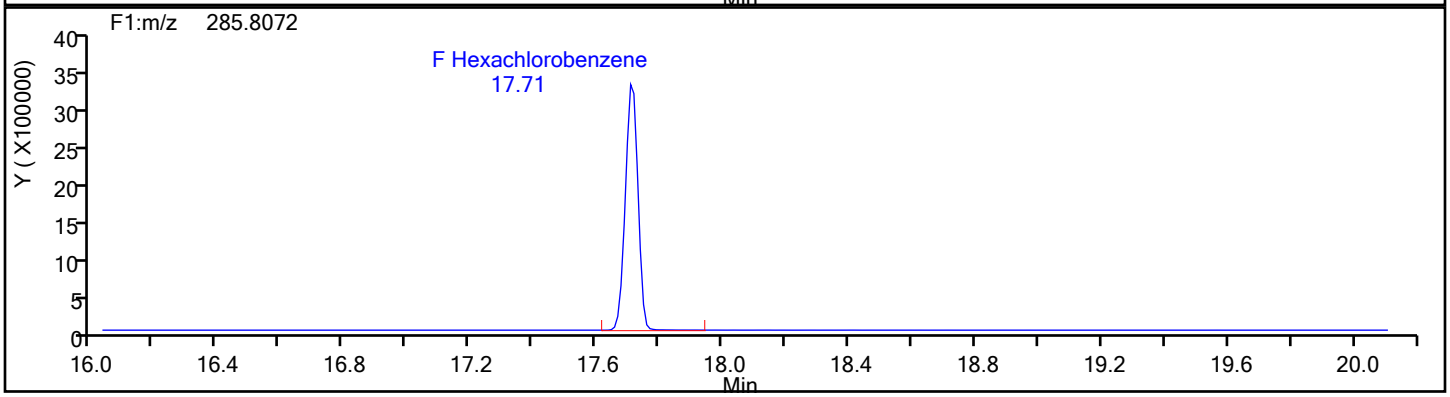
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

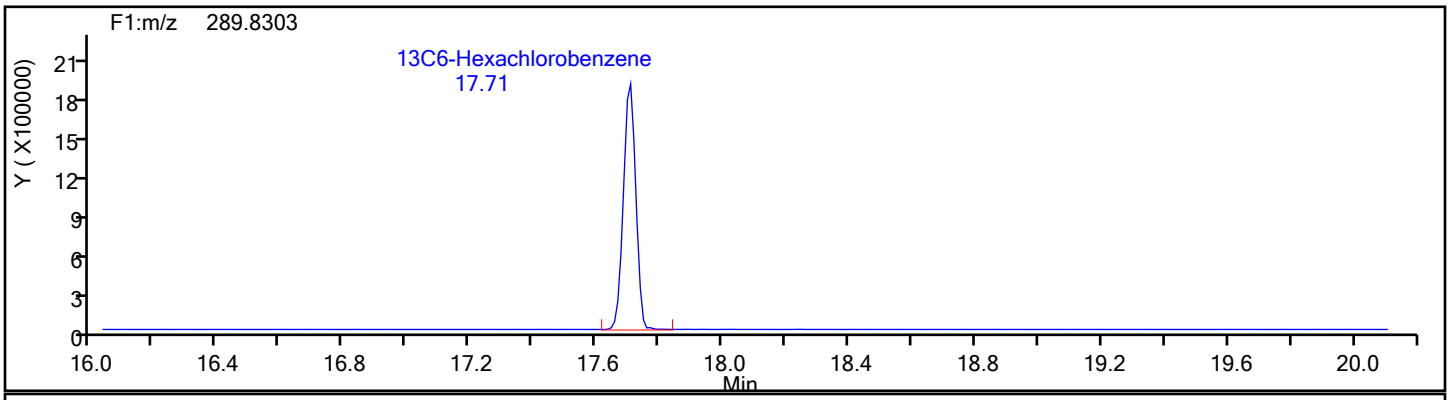
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

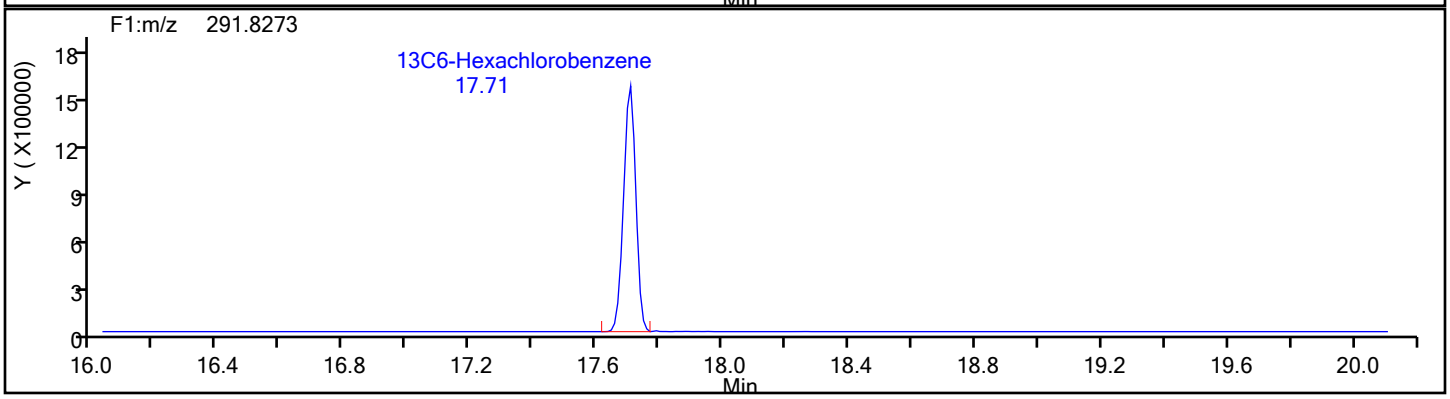
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 24-Mar-2025 16:35:15 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Client ID:
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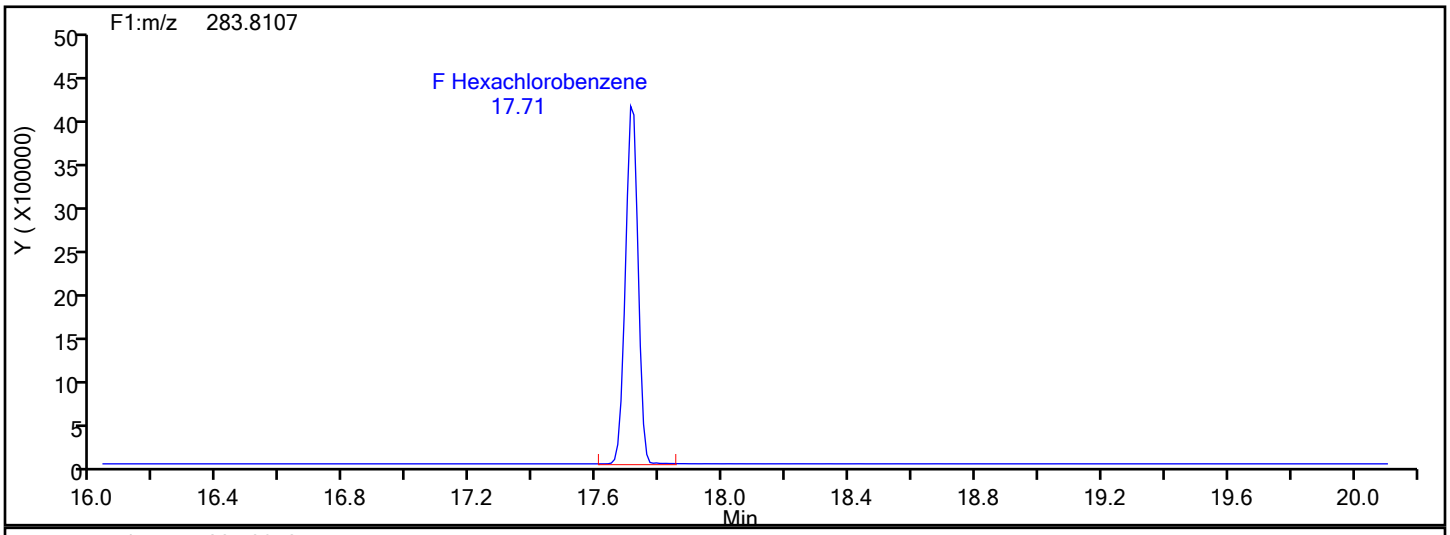
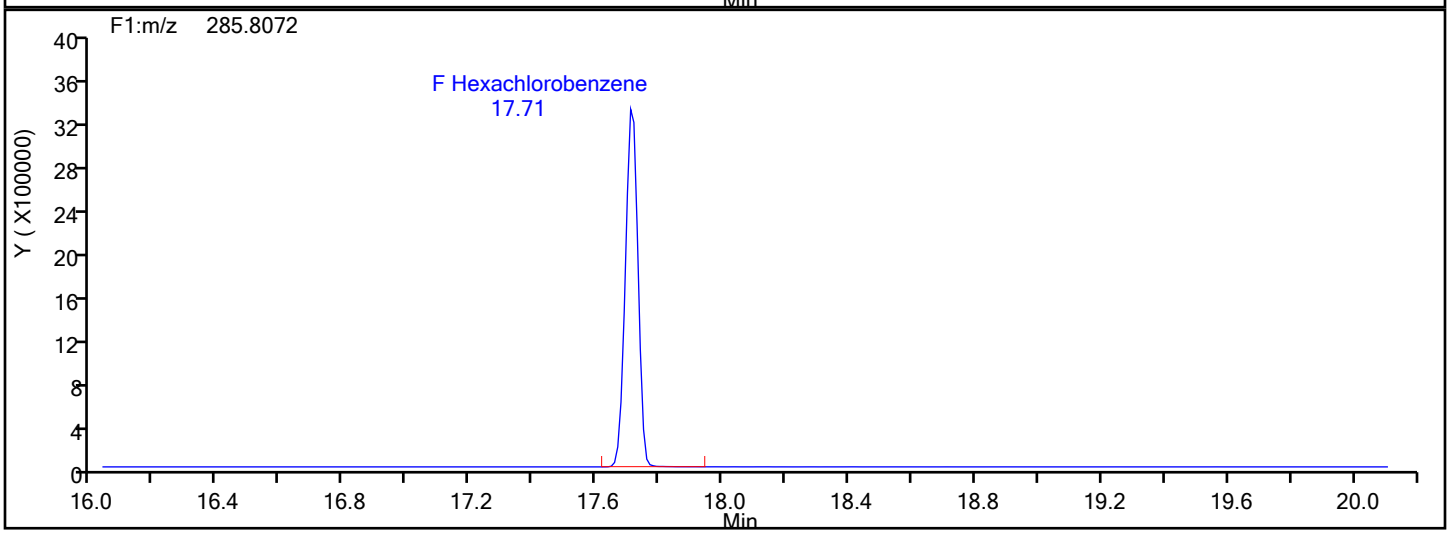
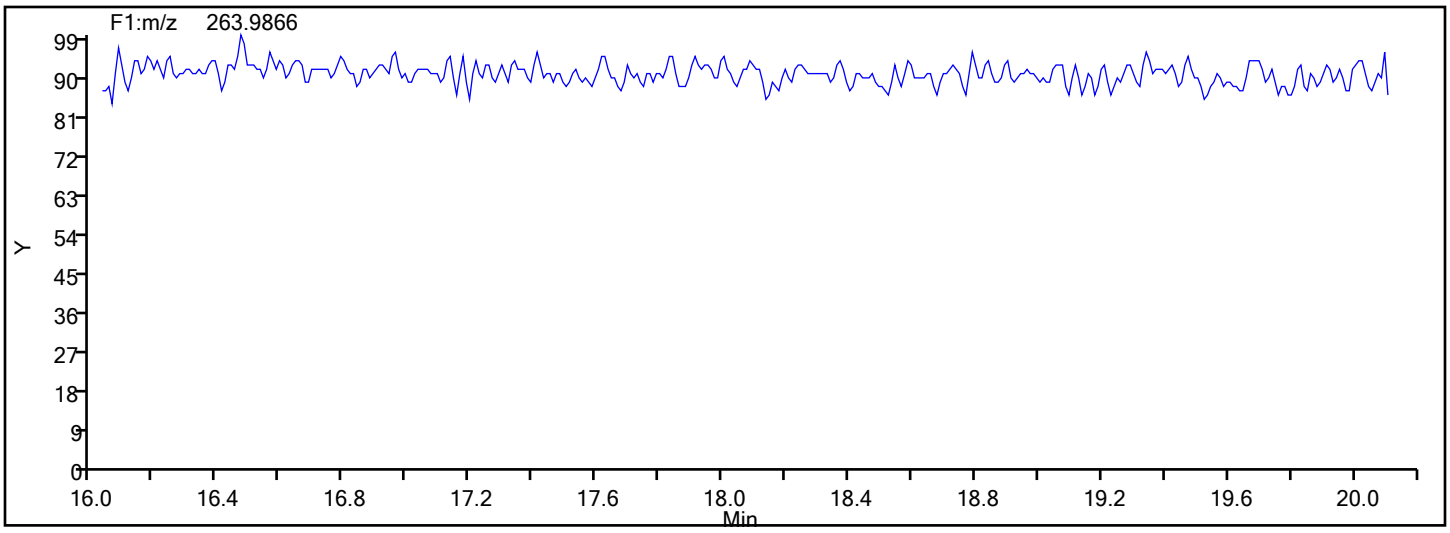
Column Type: RTX-5 Column Dia: 0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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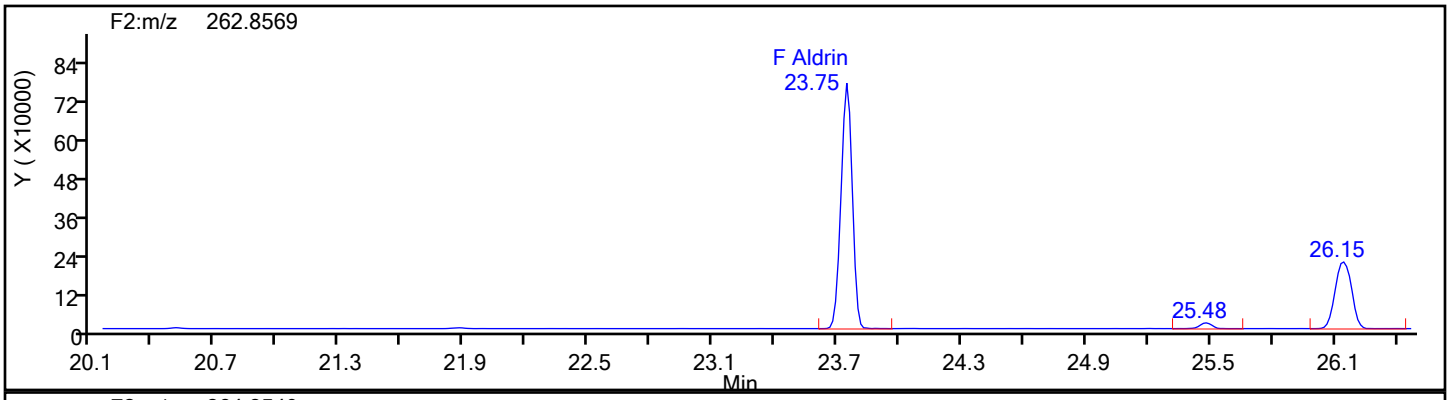
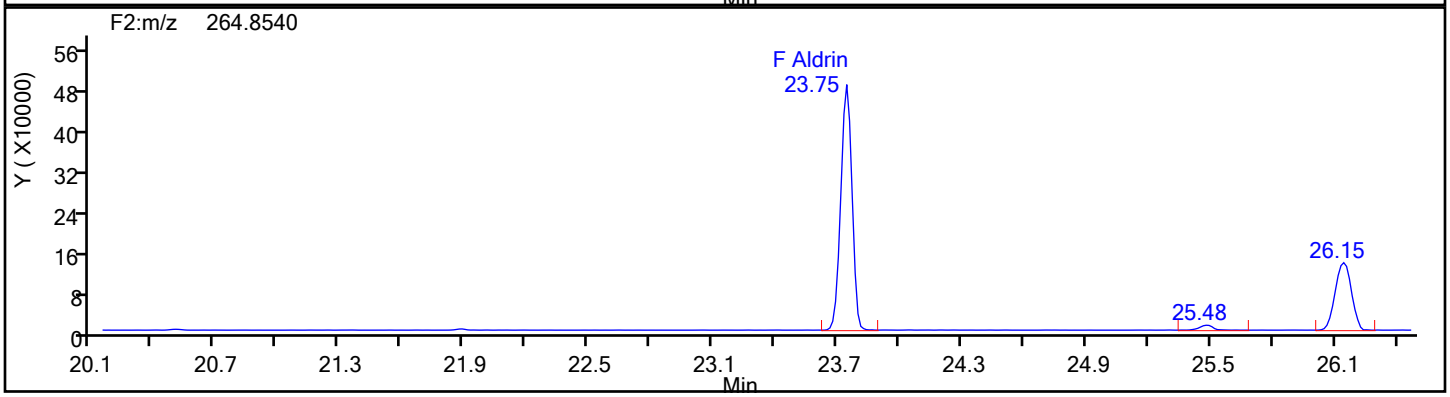
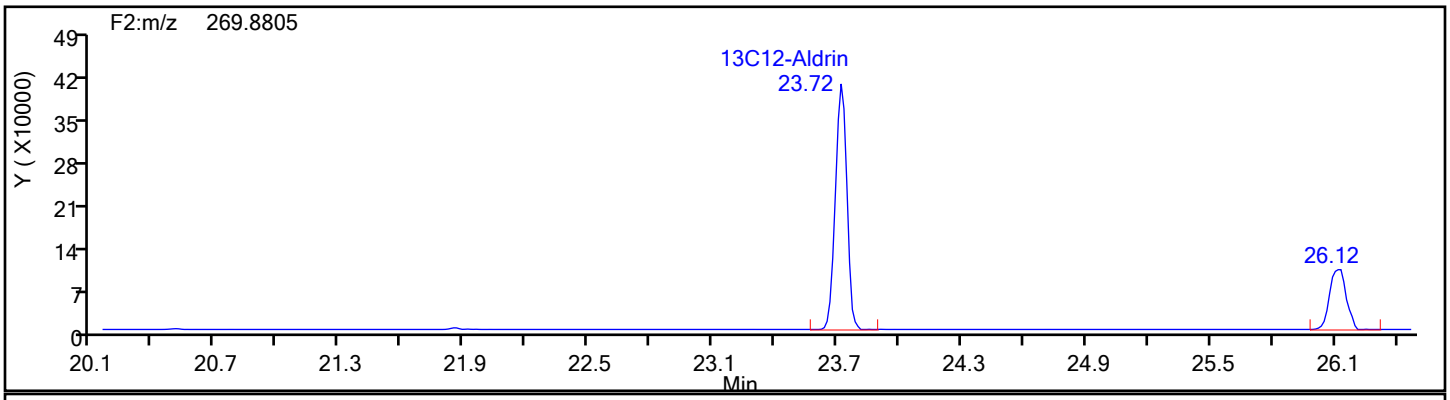
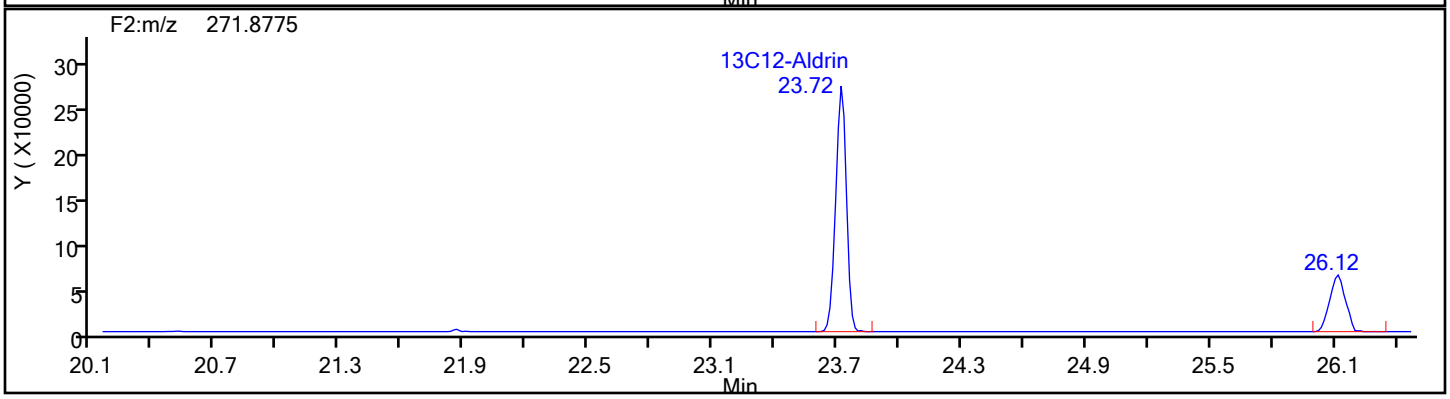
Aldrin





Aldrin Standards





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Eurofins Knoxville

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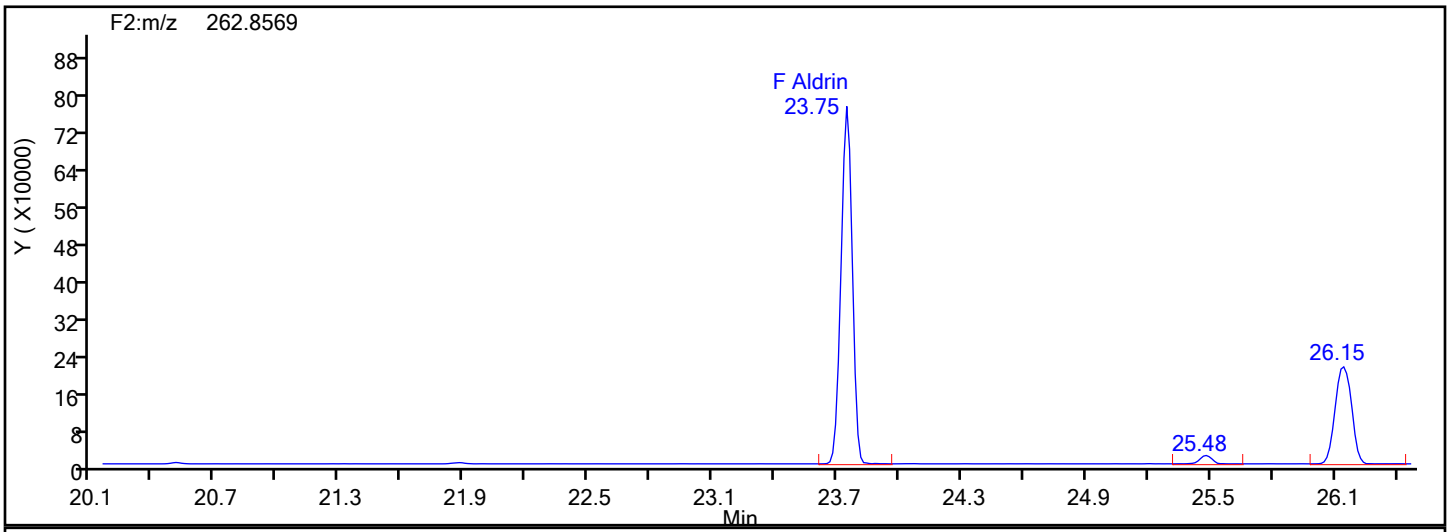
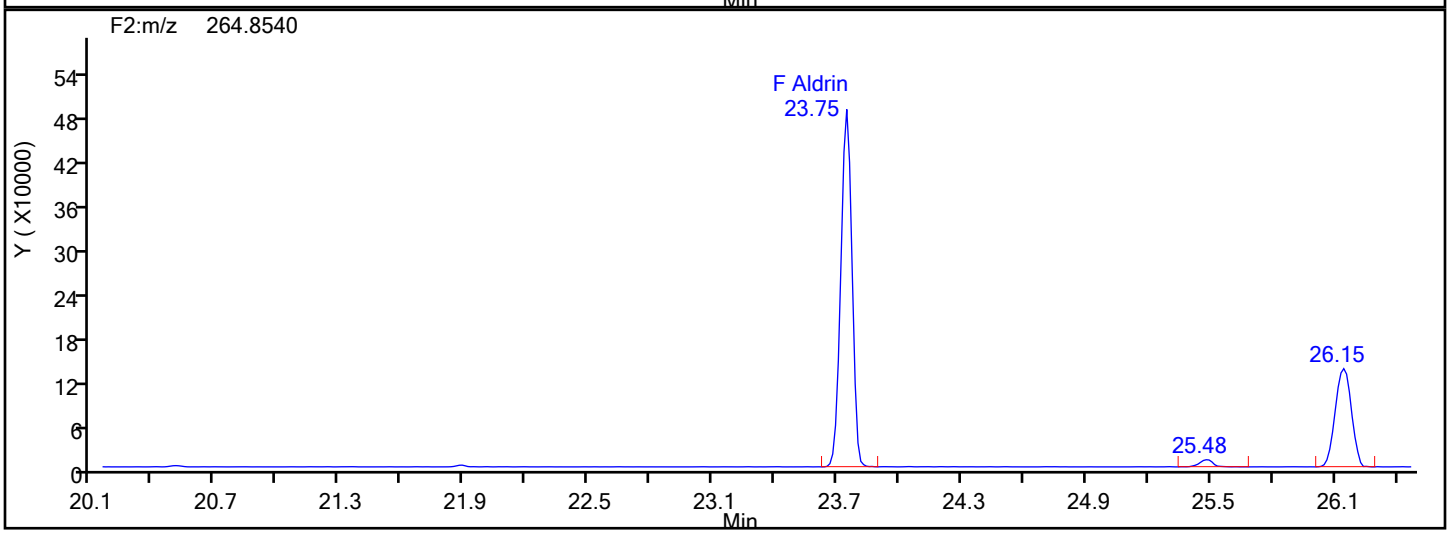
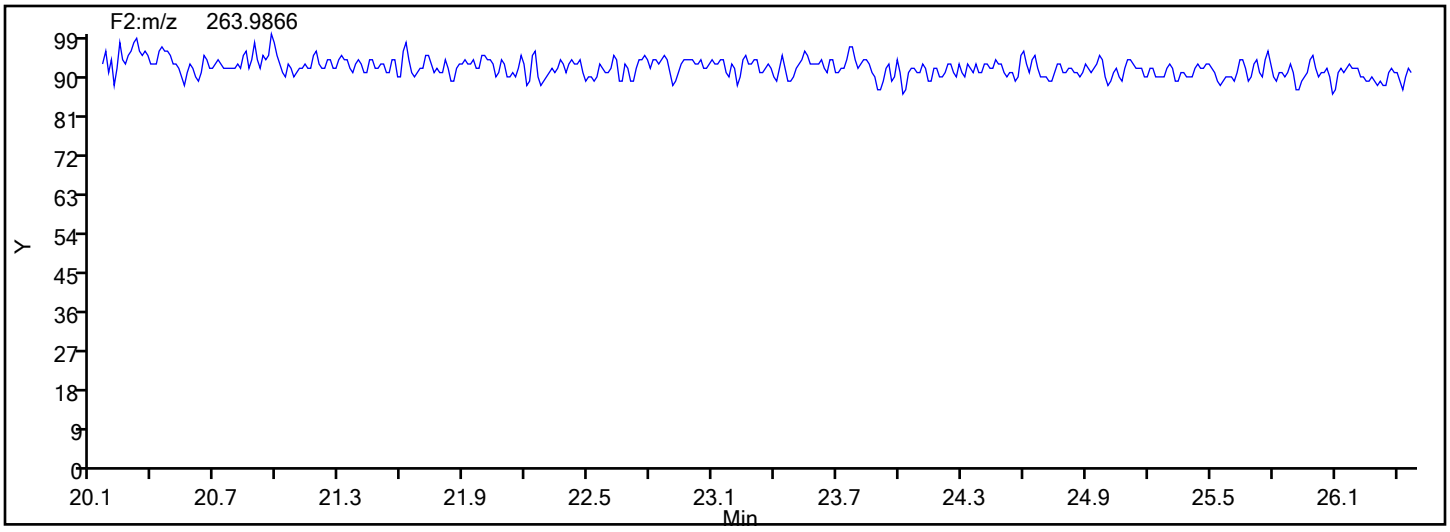




Aldrin Lock Mass



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Eurofins Knoxville

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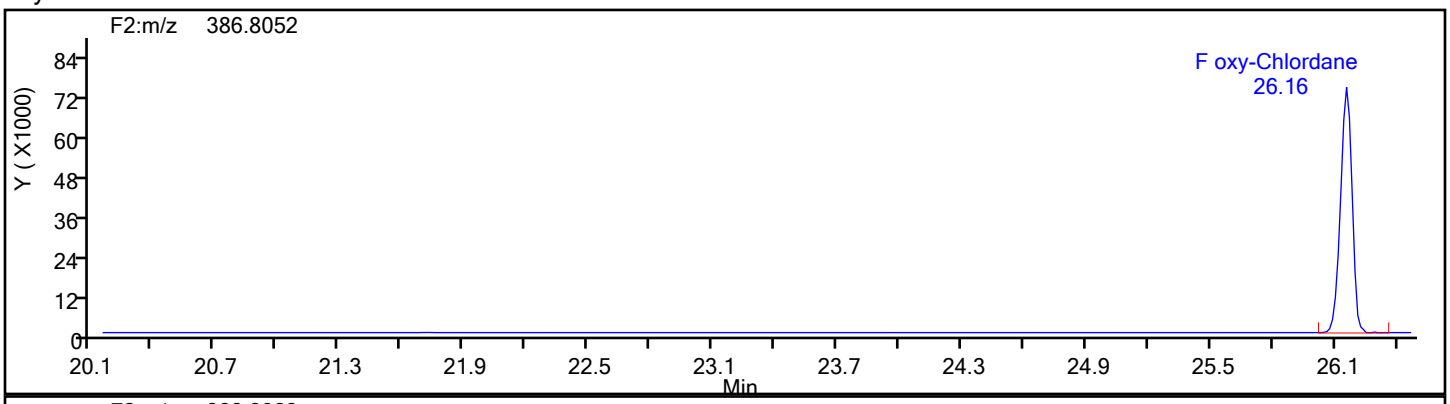
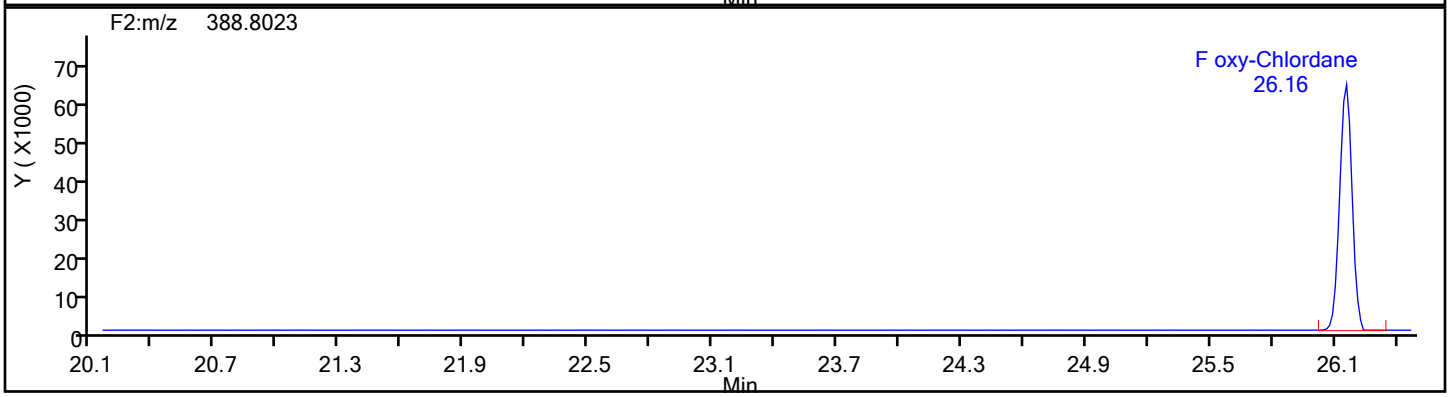
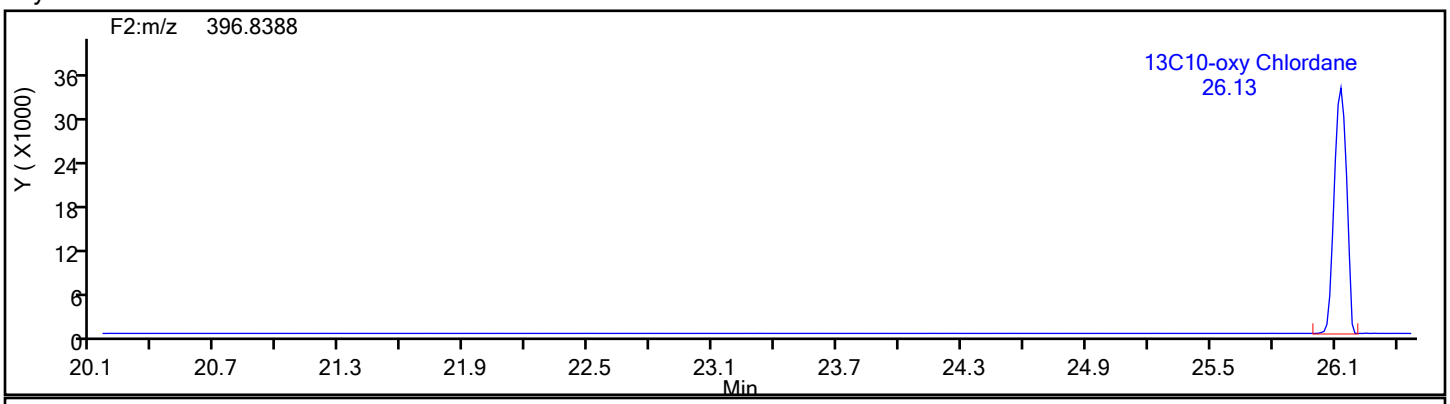
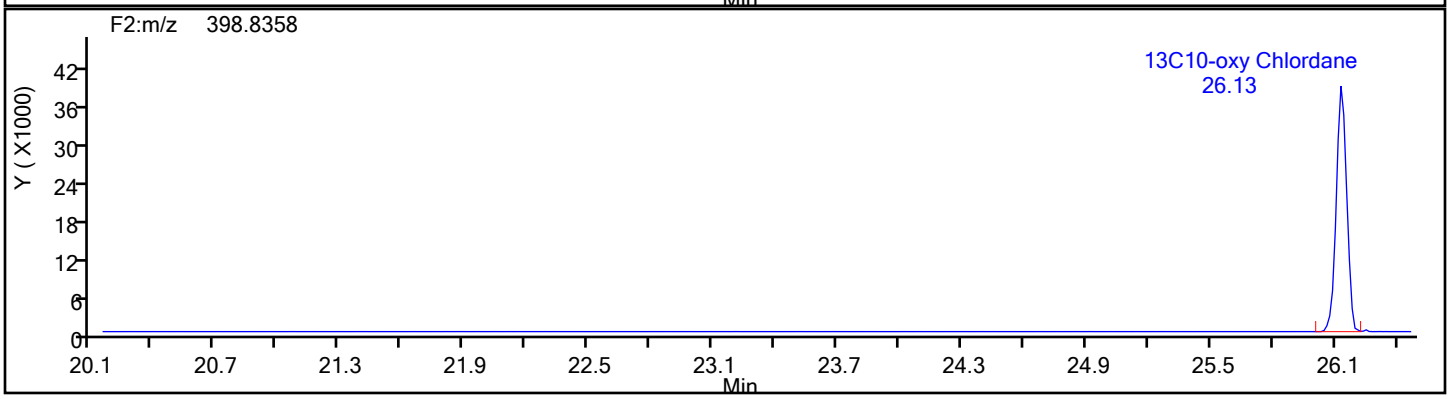
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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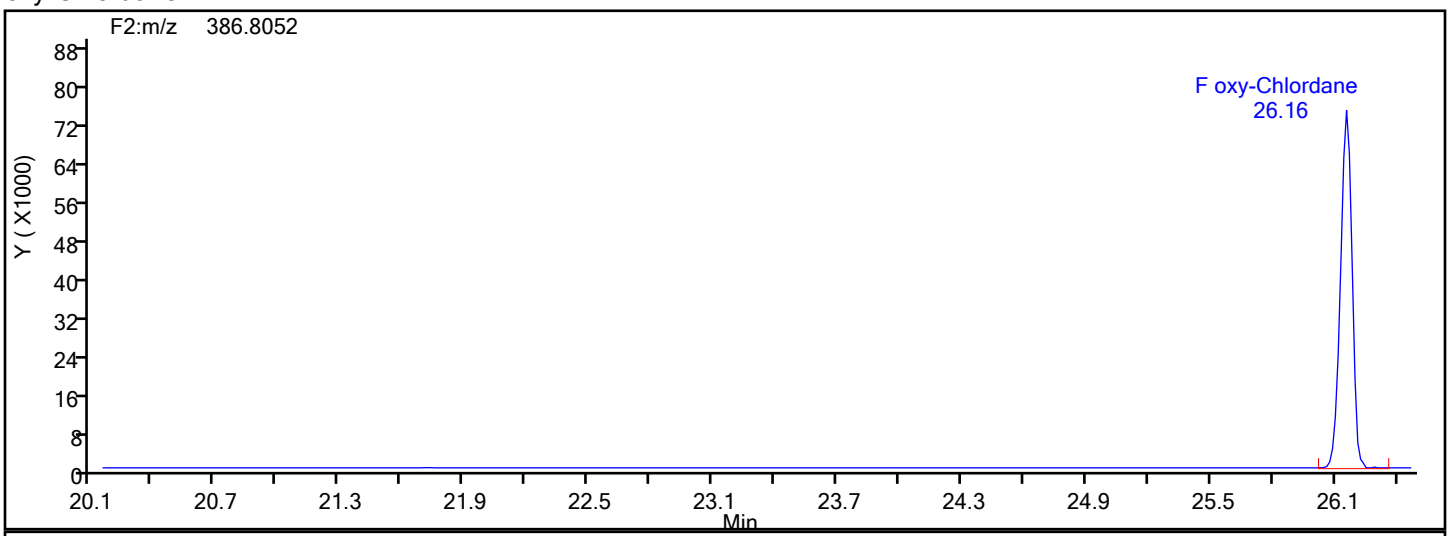
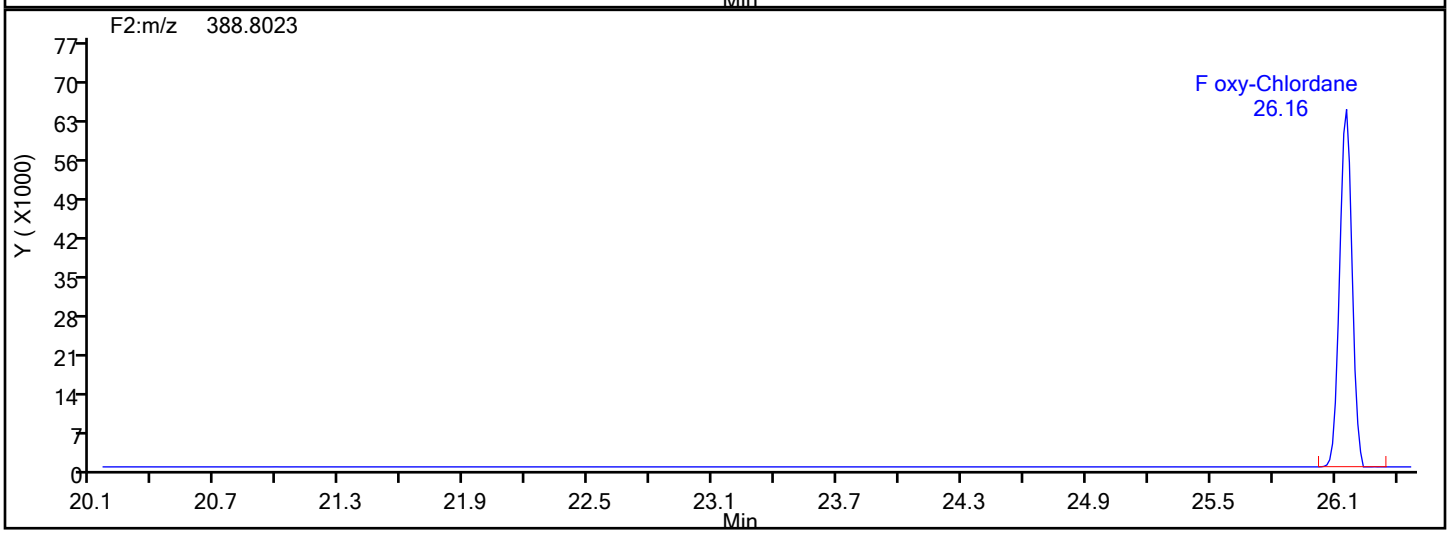
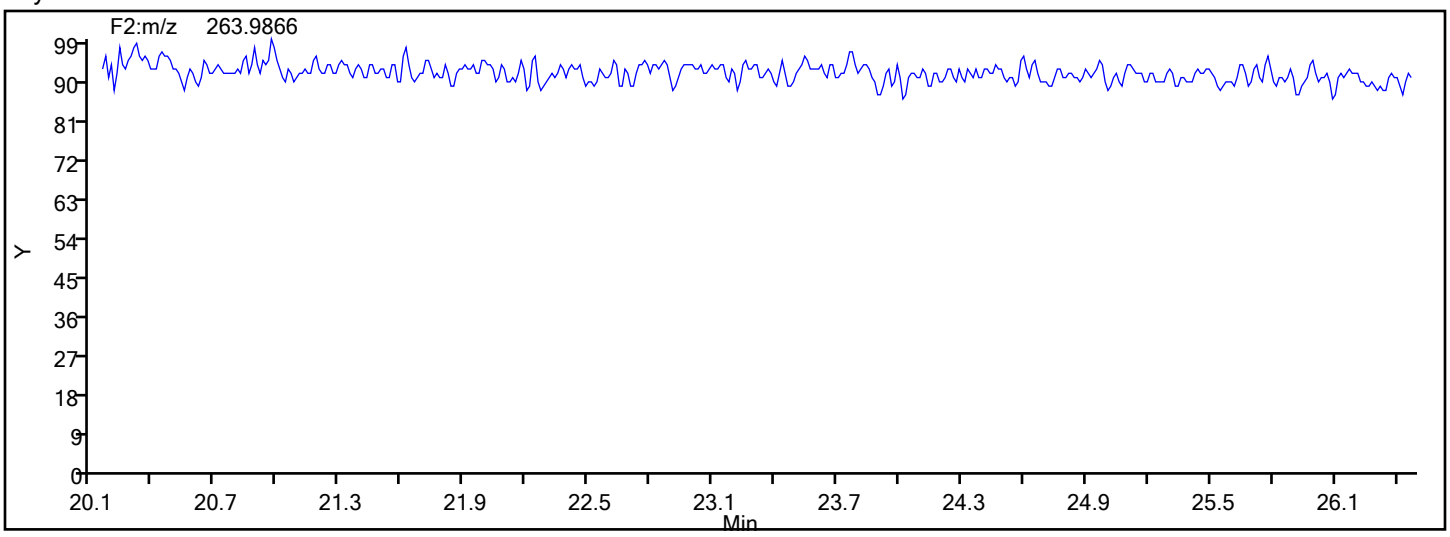
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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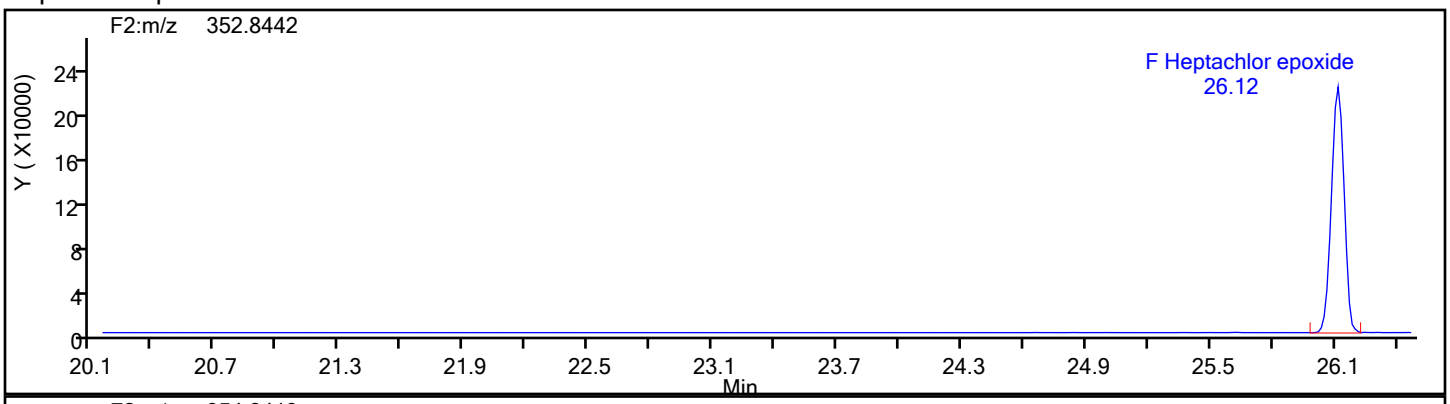
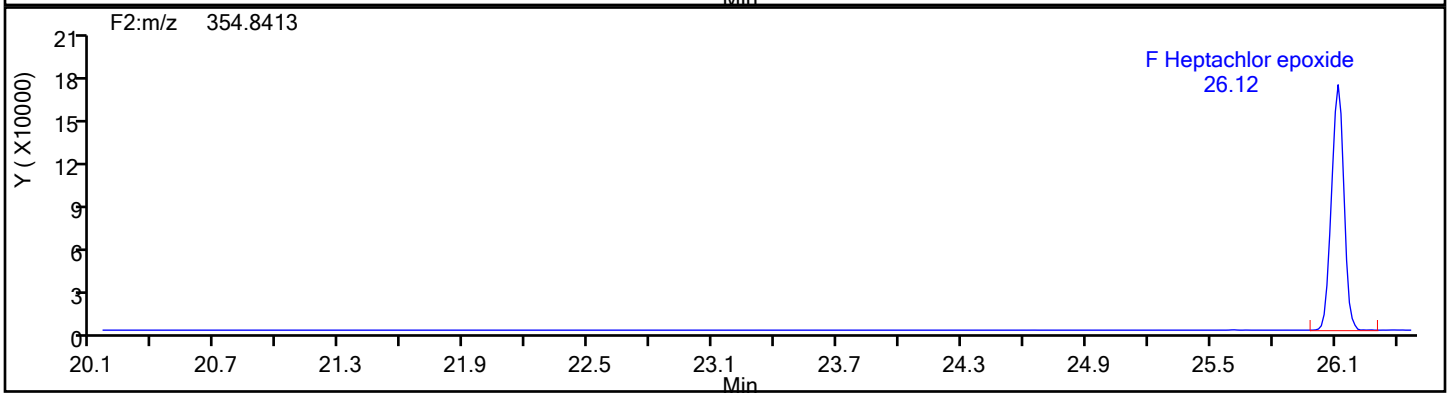
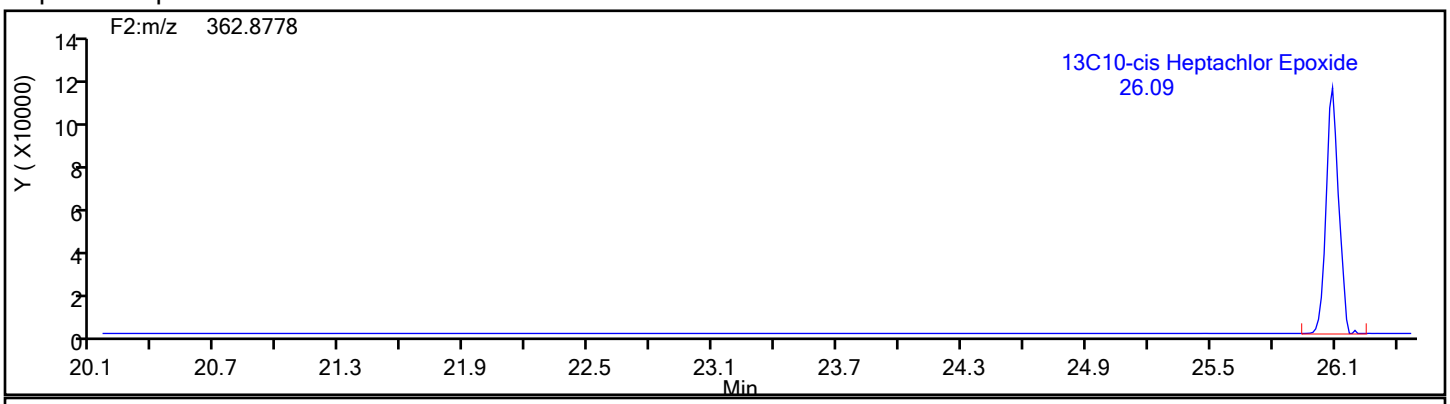
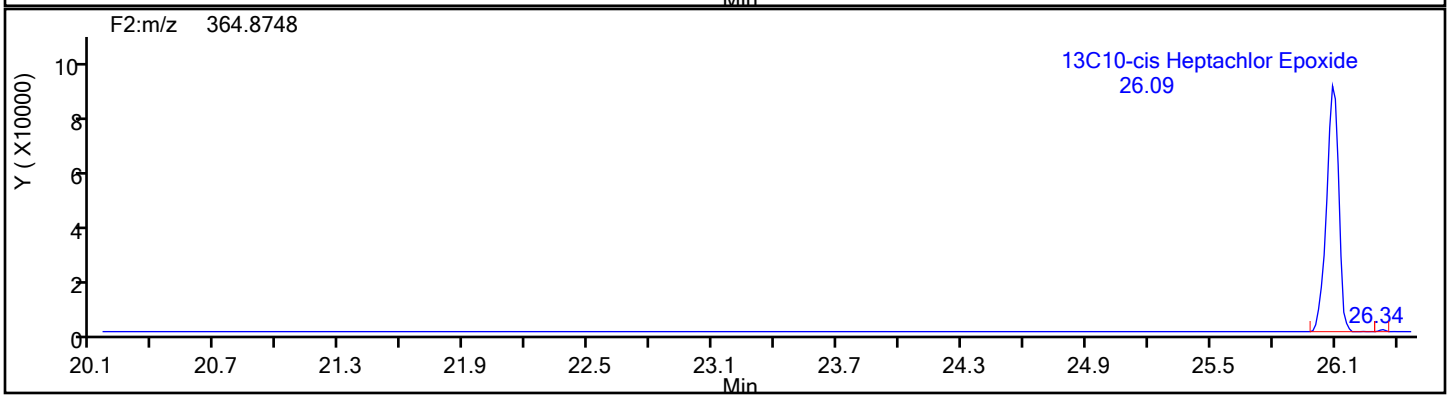
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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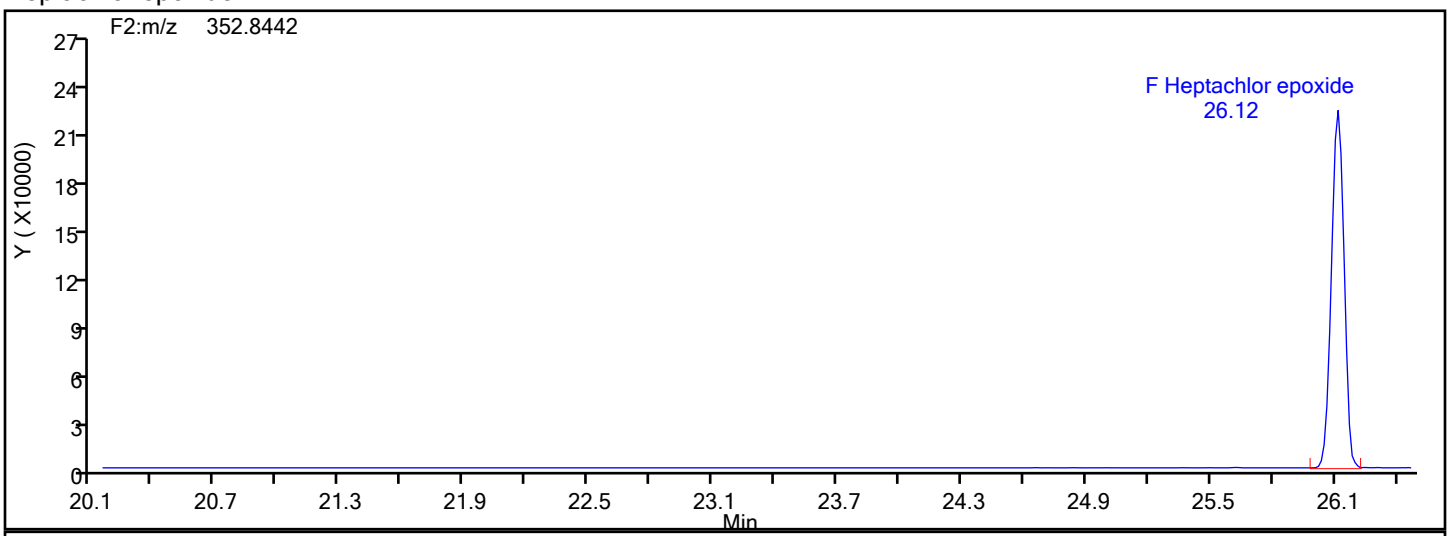
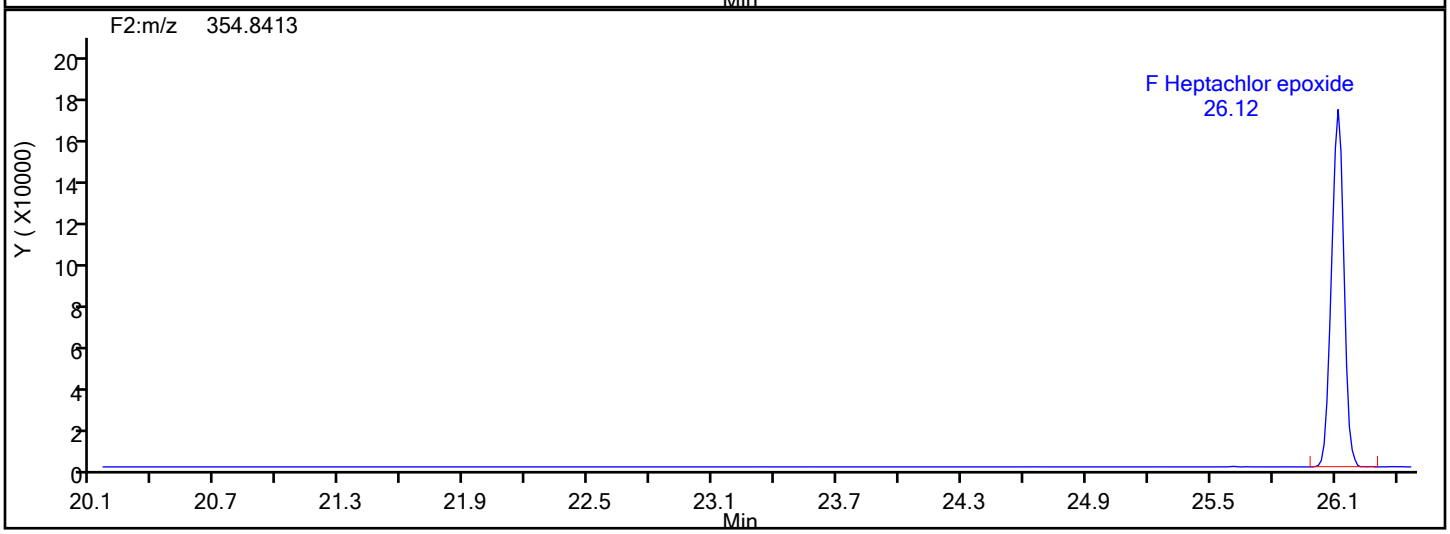
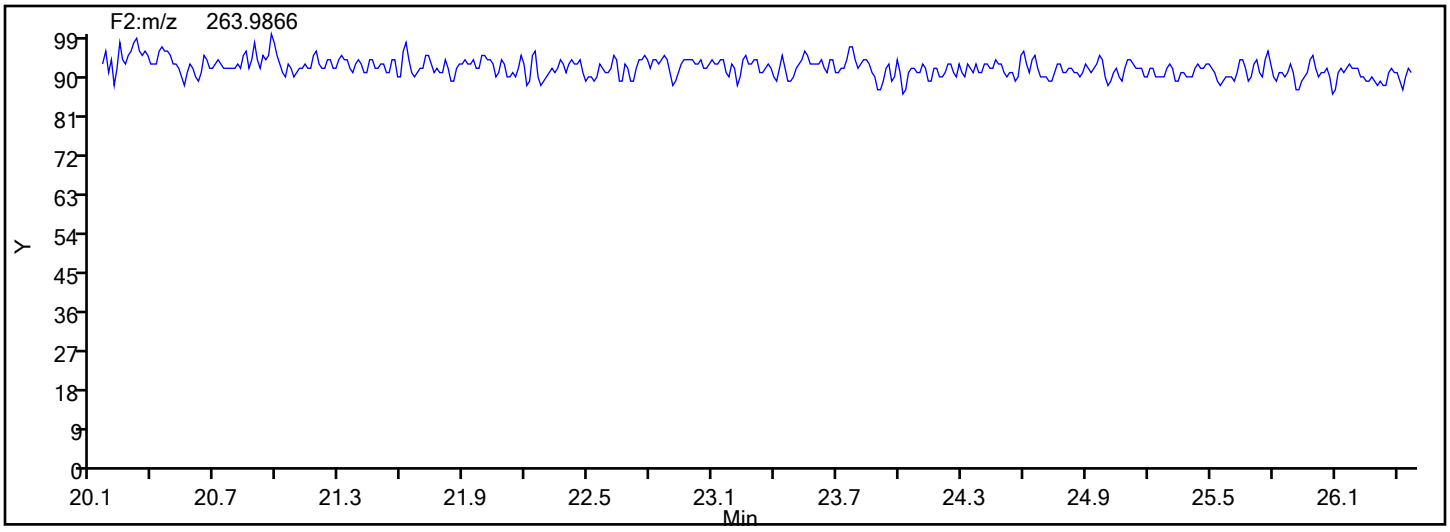
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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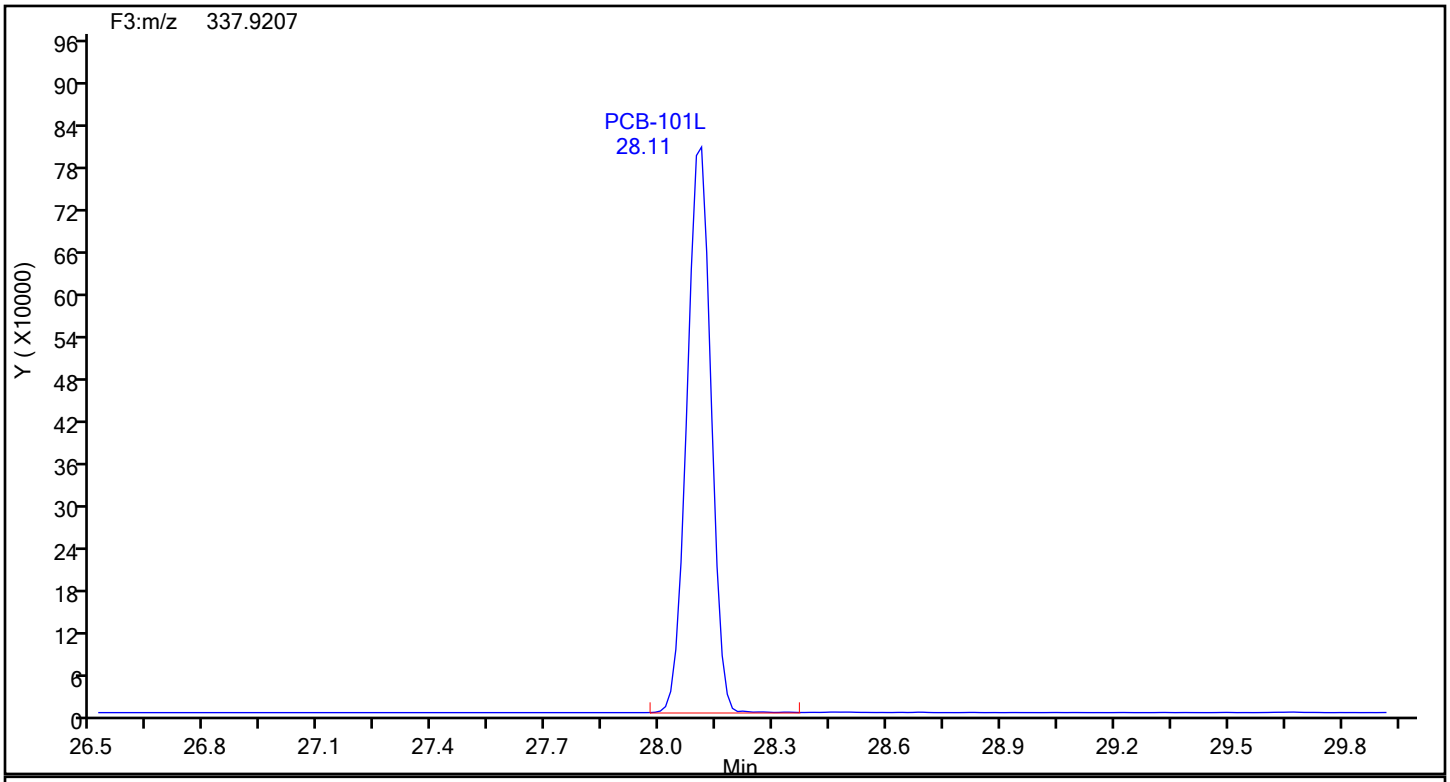
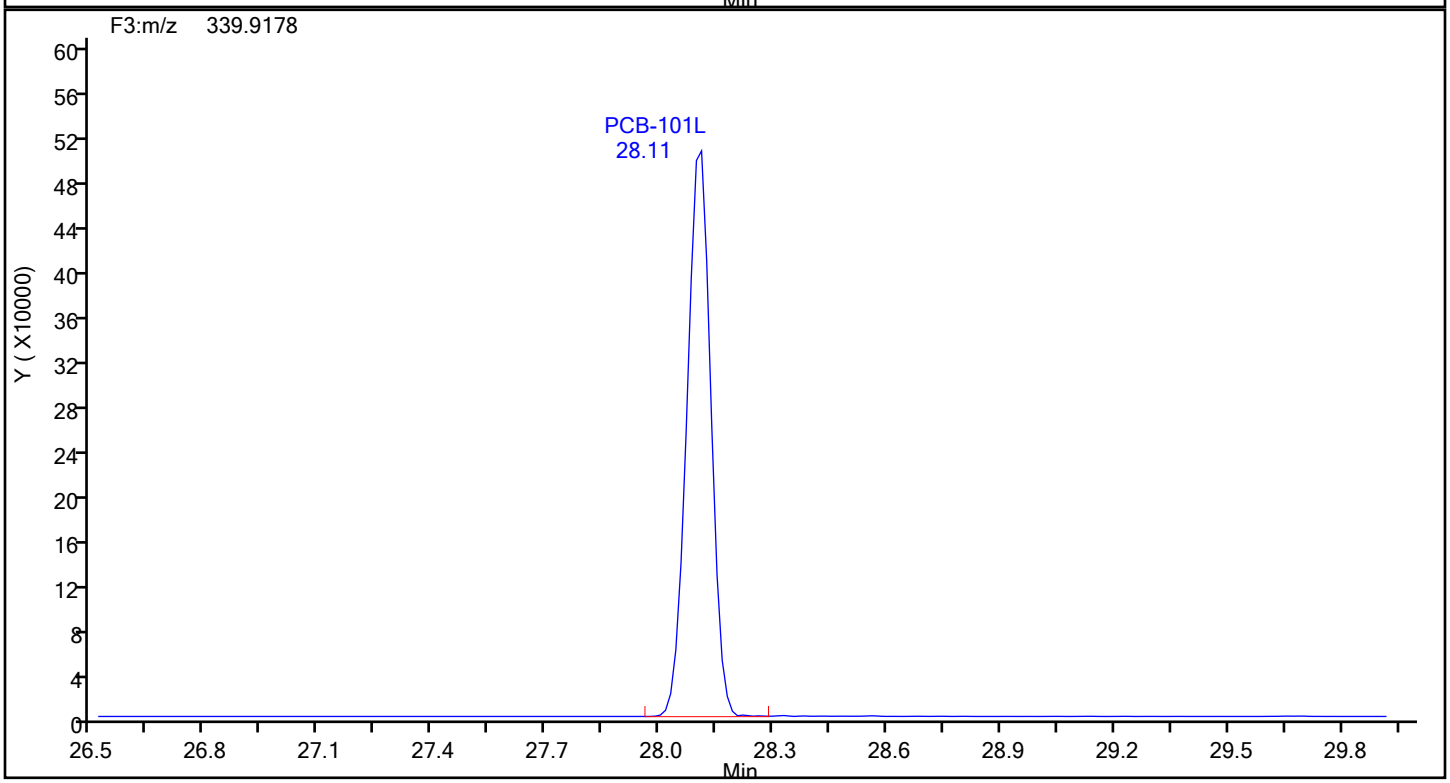
PCB-101L Standards





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Eurofins Knoxville

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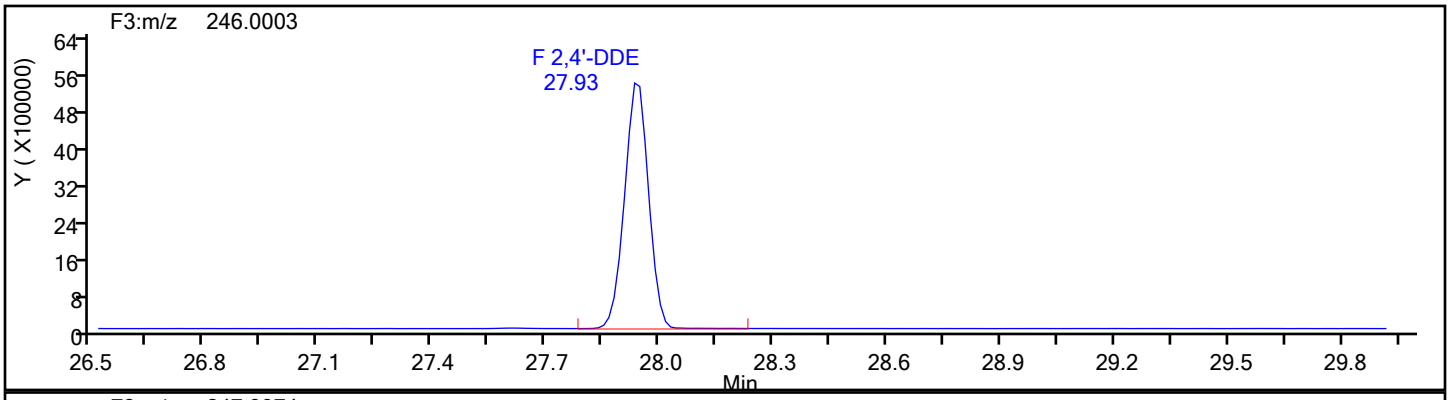
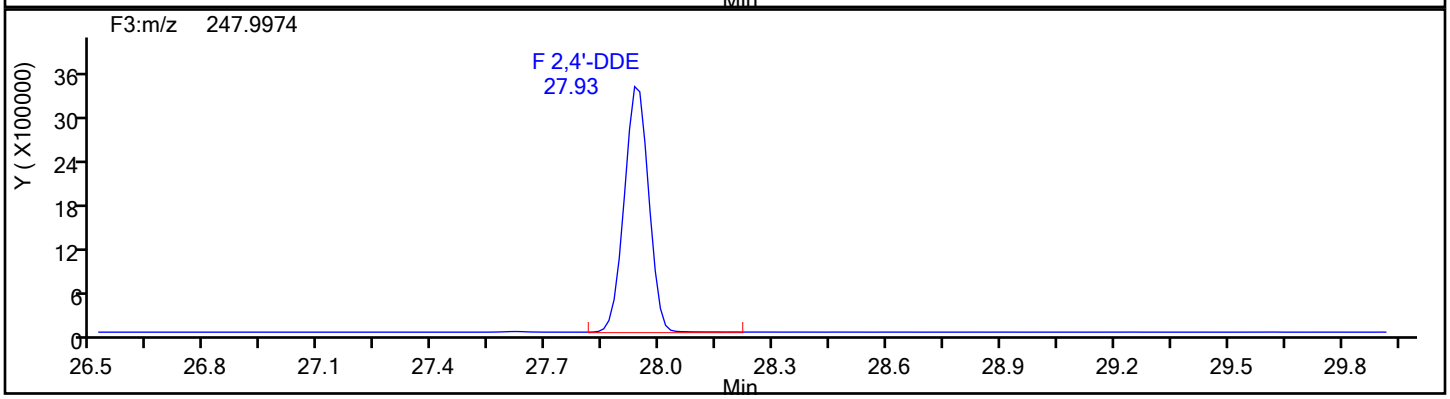
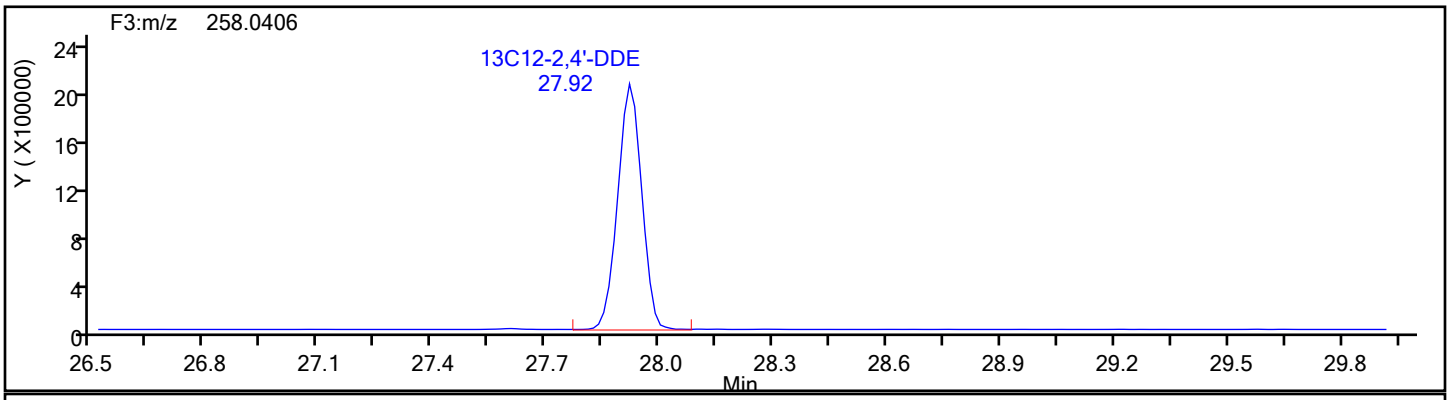
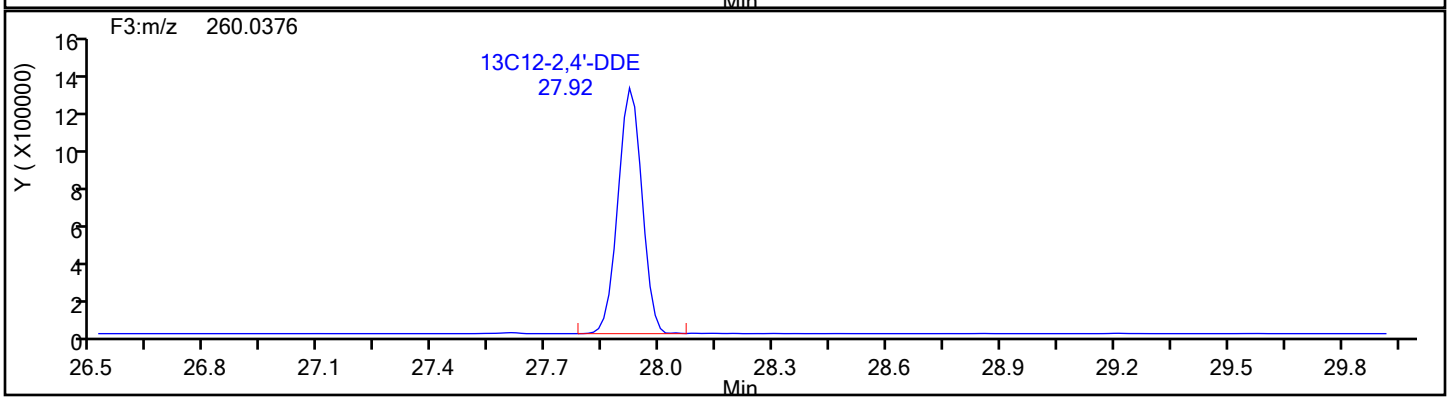
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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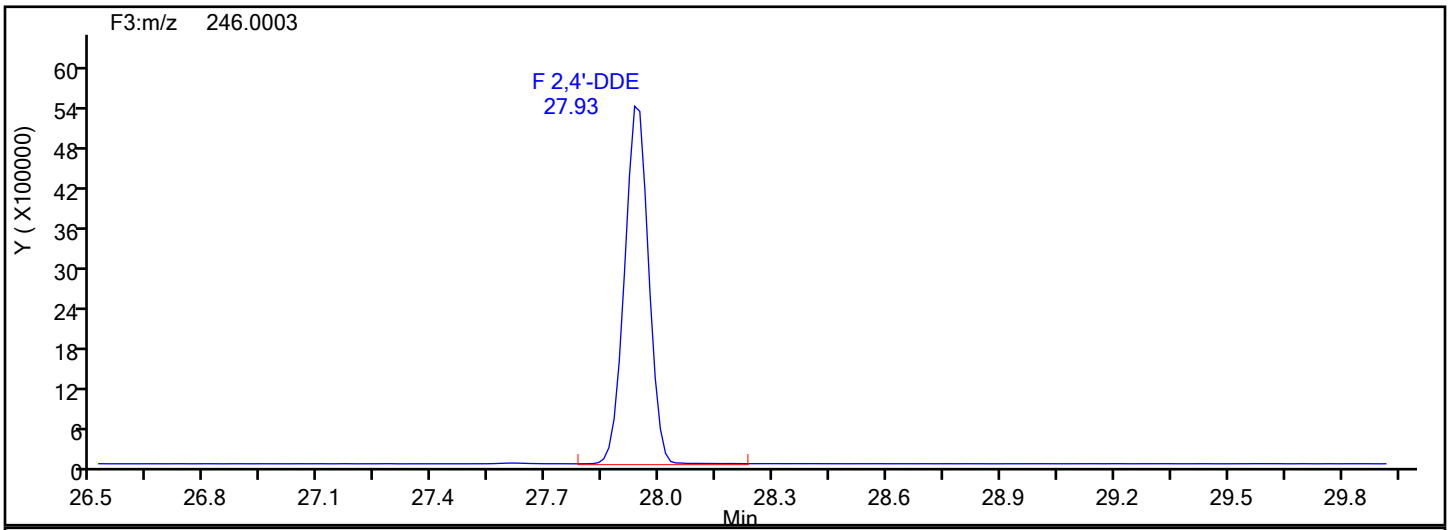
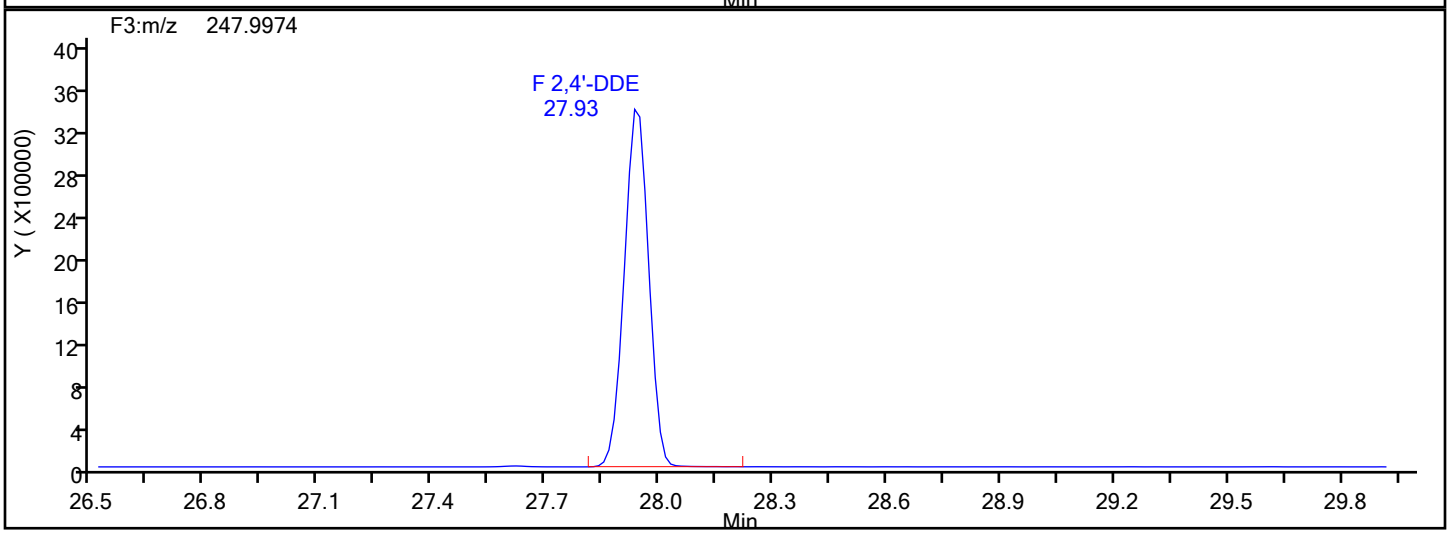
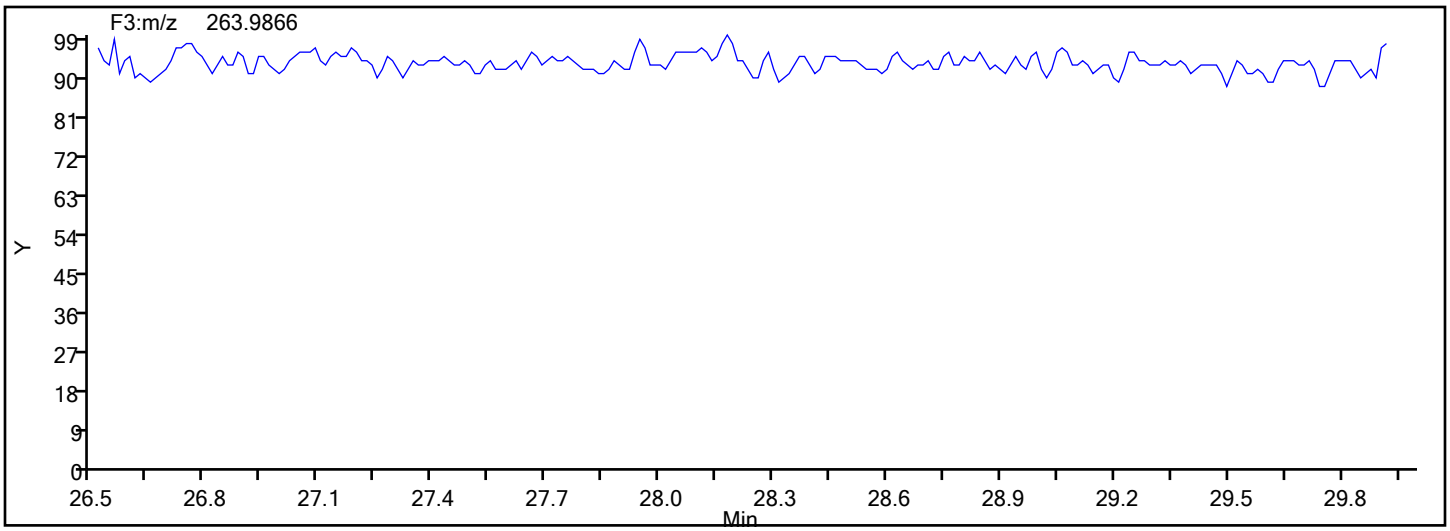
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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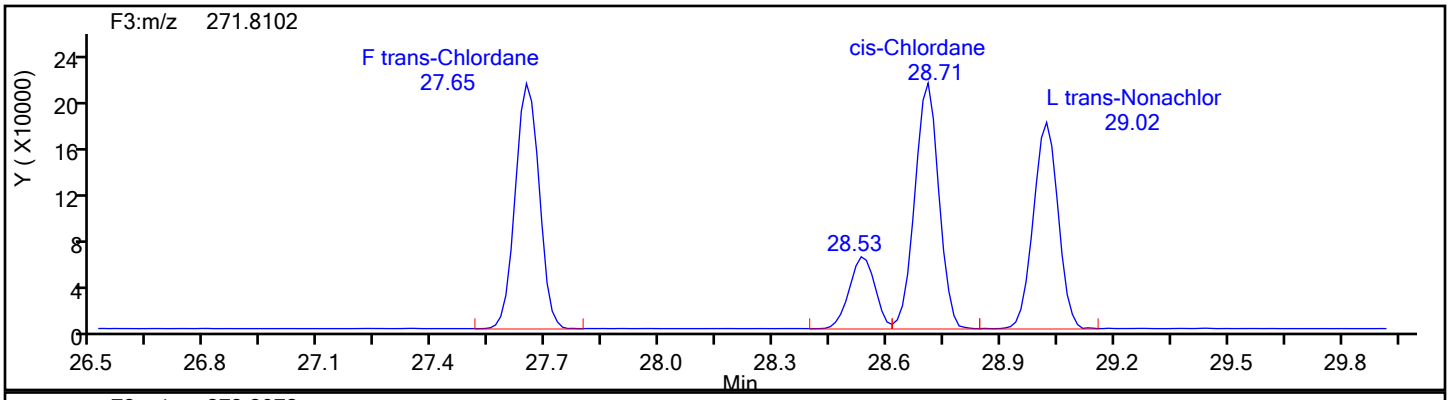
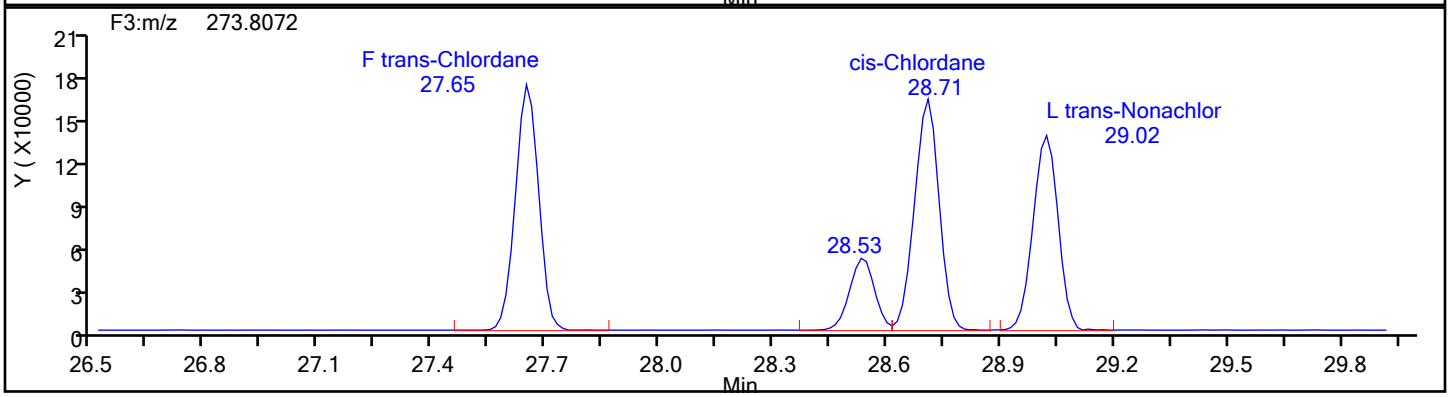
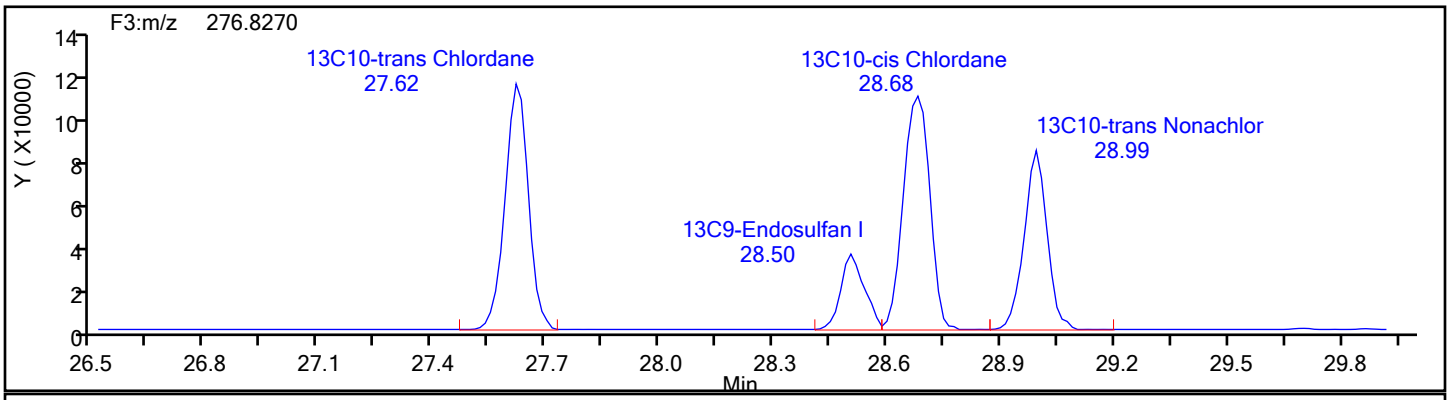
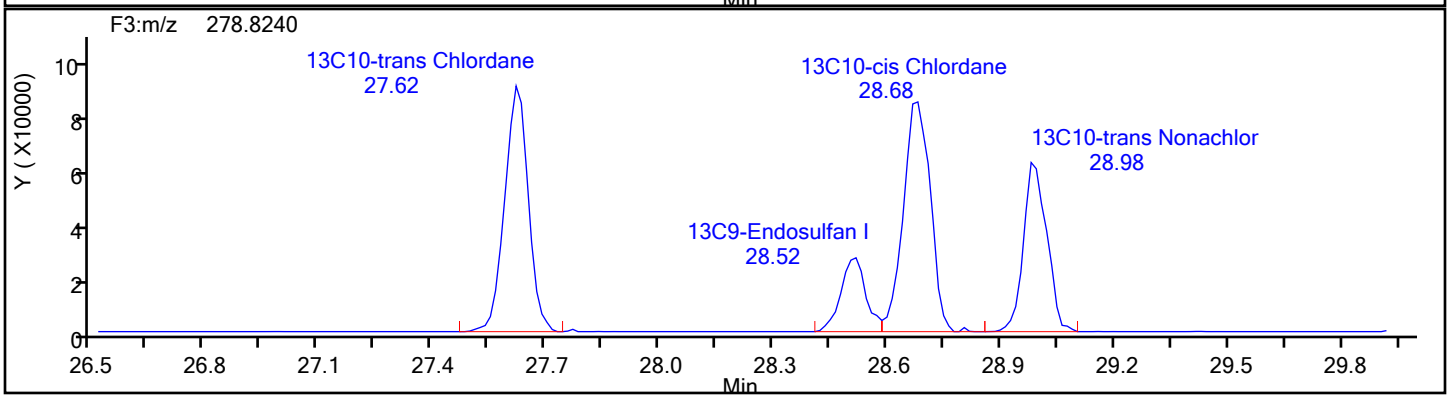
Chlordane





Chlordane Standards





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Eurofins Knoxville

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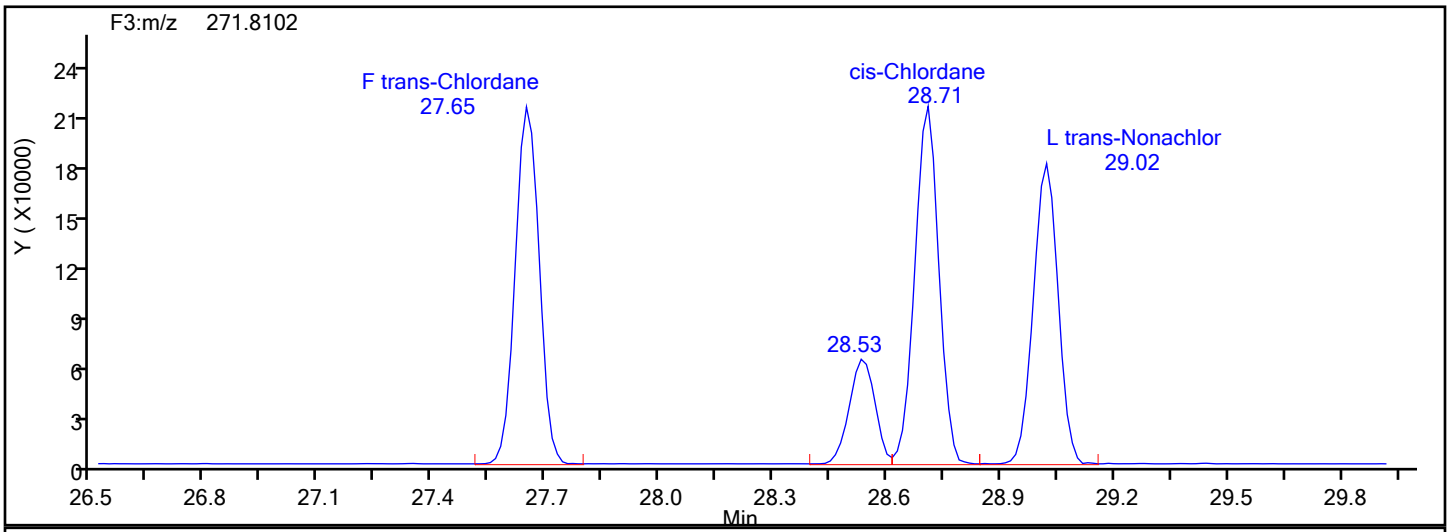
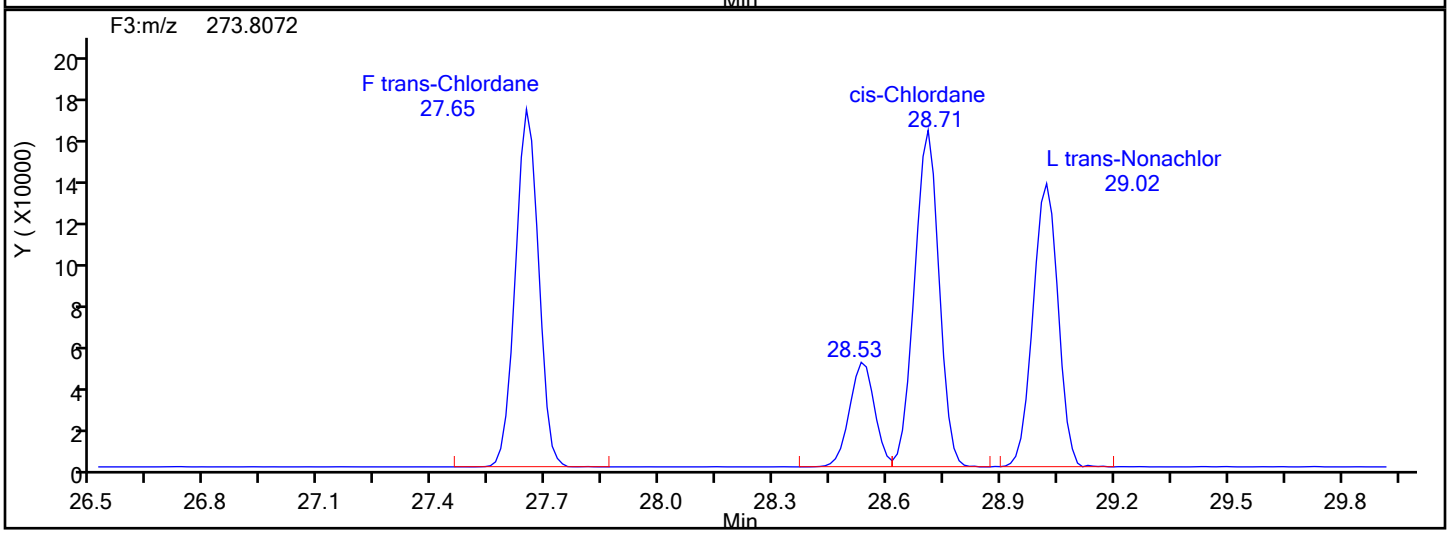
Chlordane





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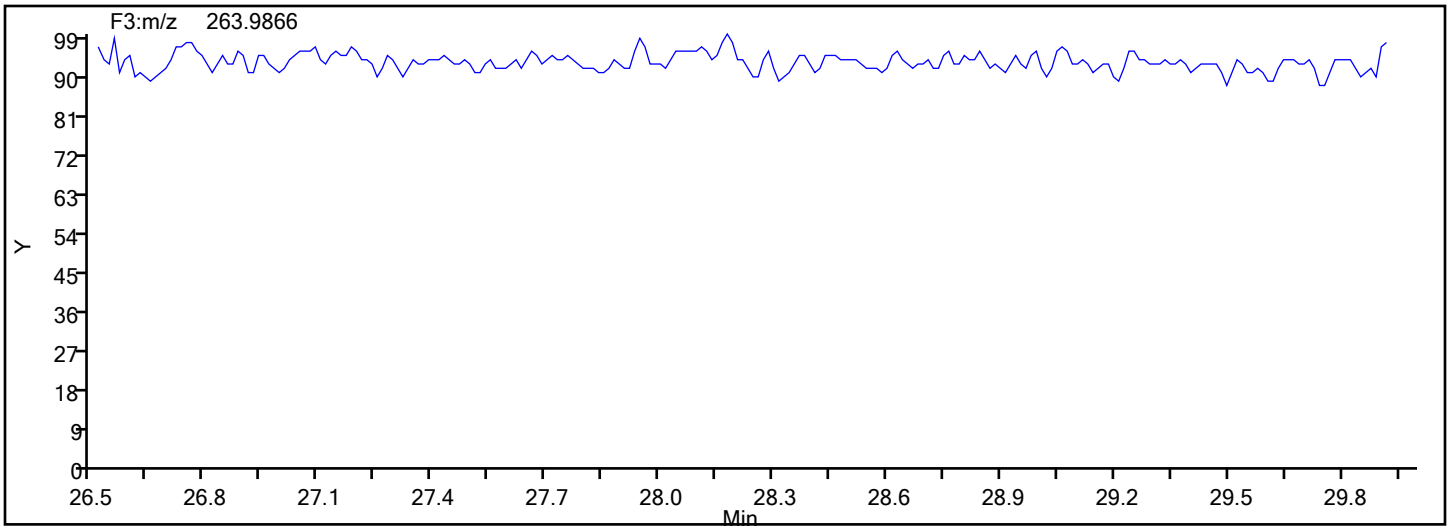

Report Date: 24-Mar-2025 16:35:16 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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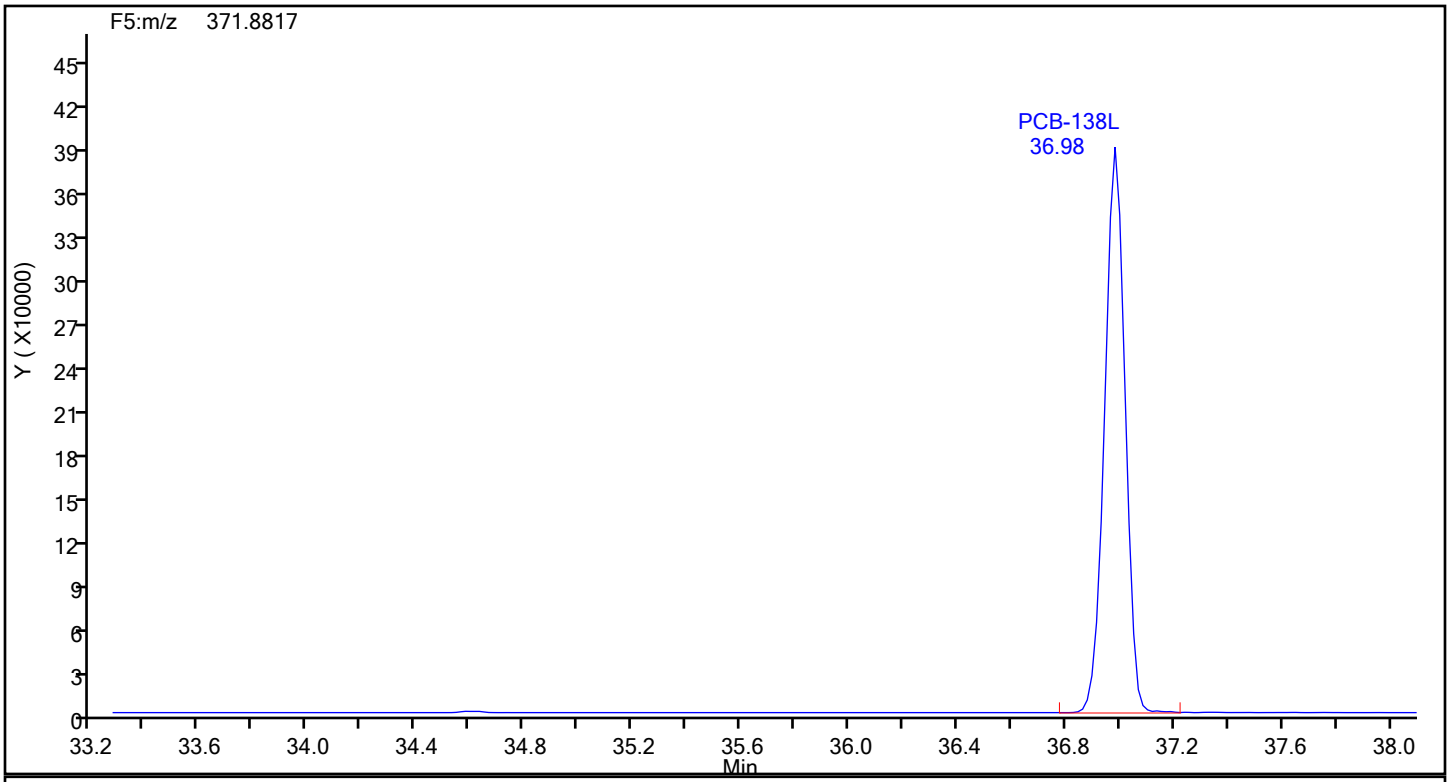
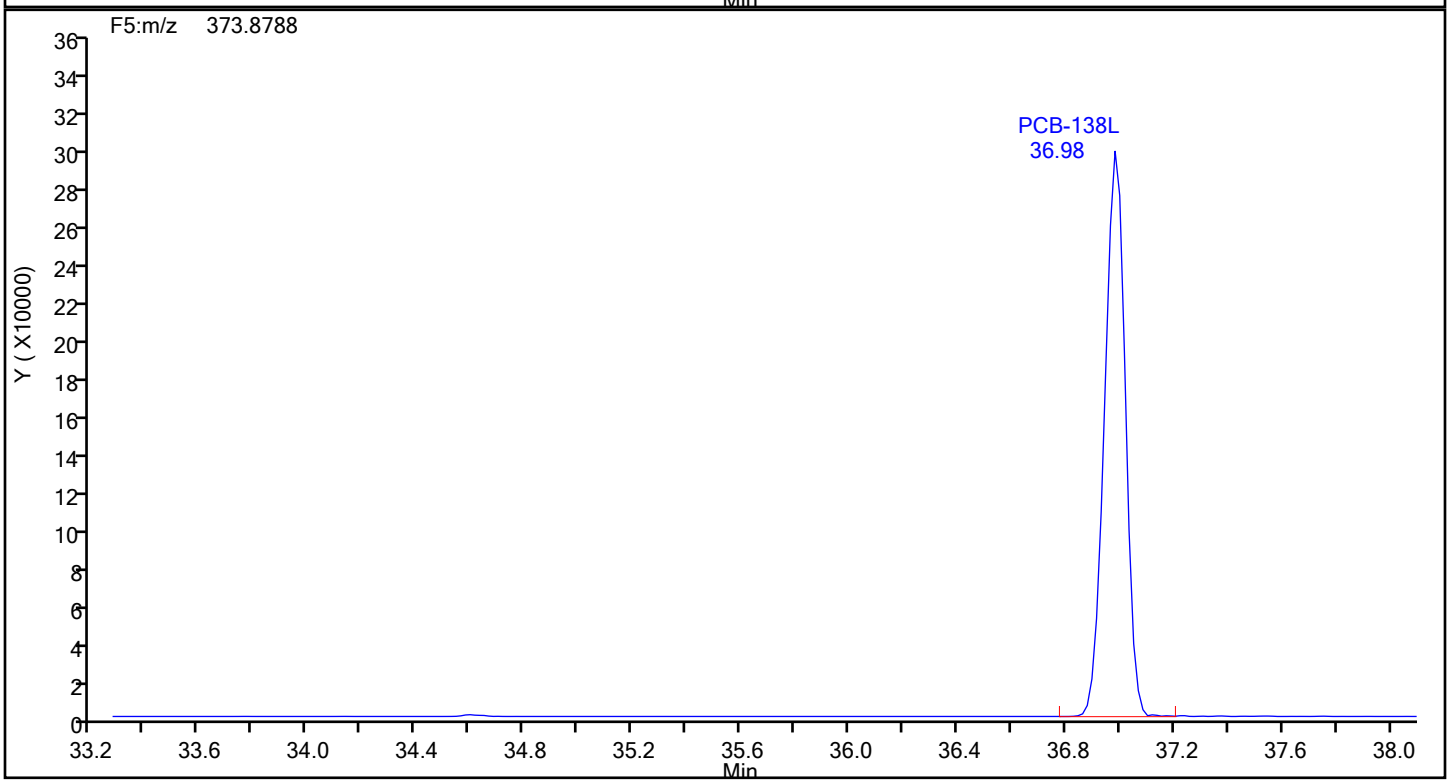
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-138L Standards





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Eurofins Knoxville

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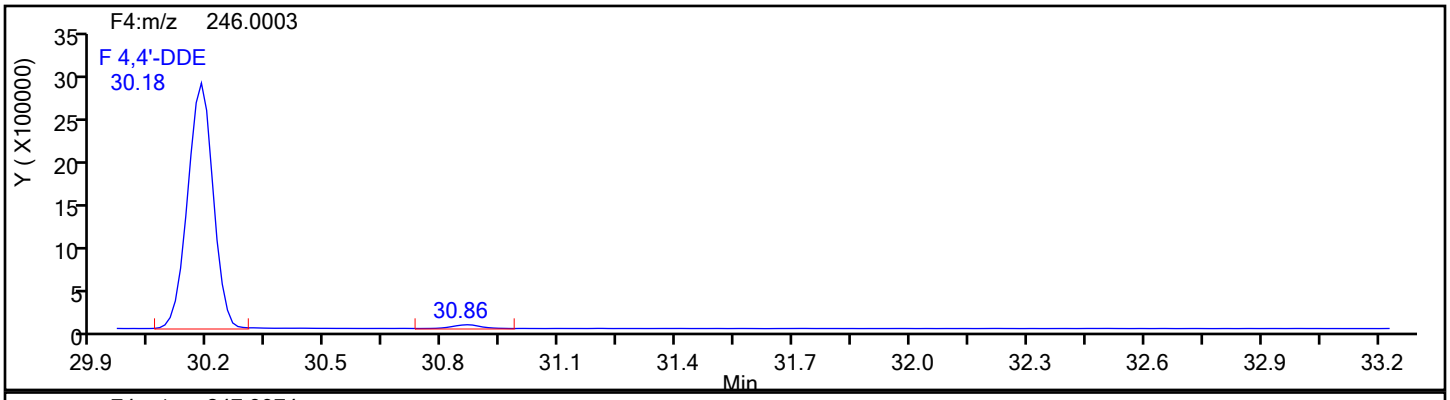
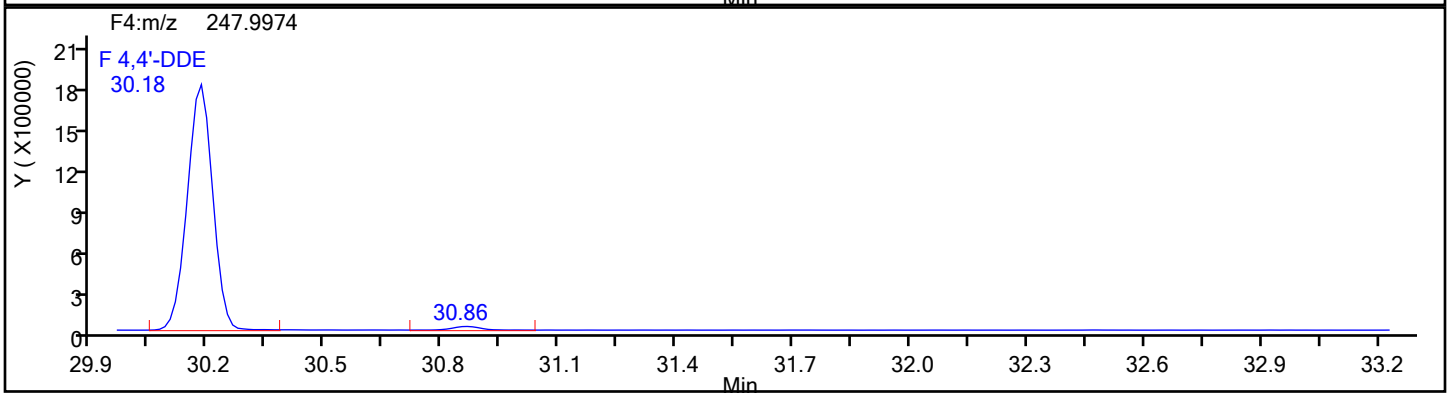
4,4'-DDE





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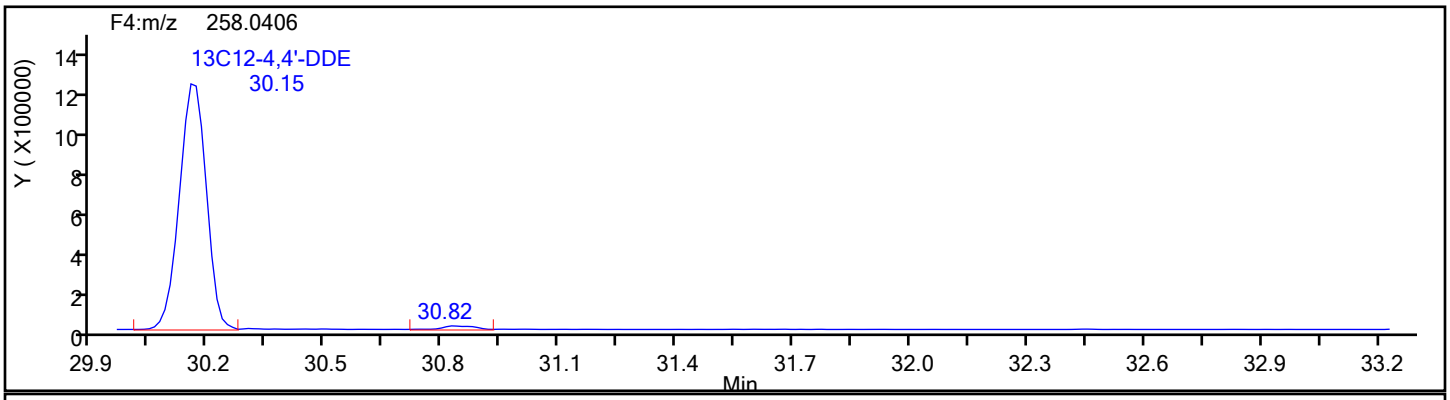

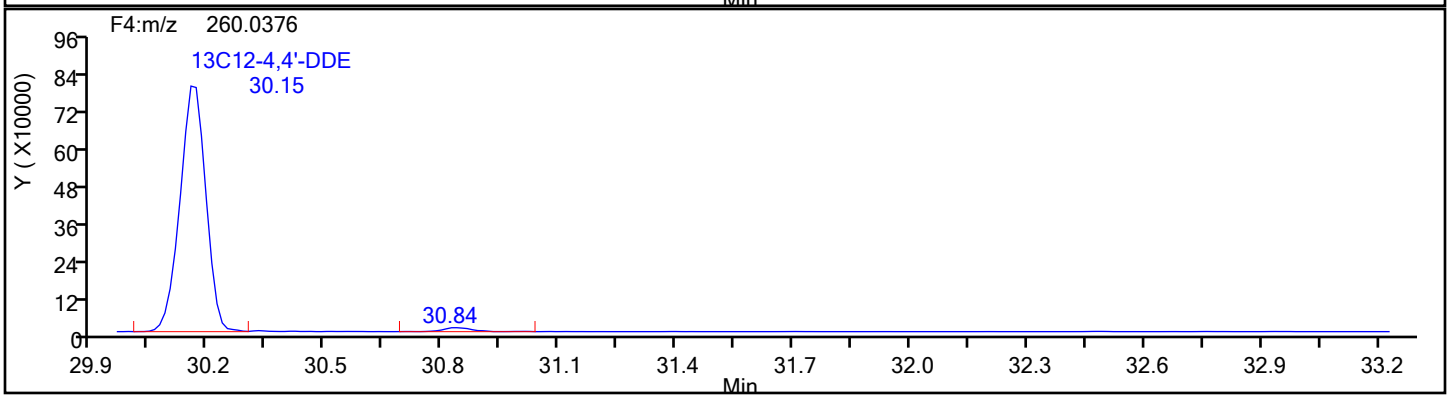

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Eurofins Knoxville

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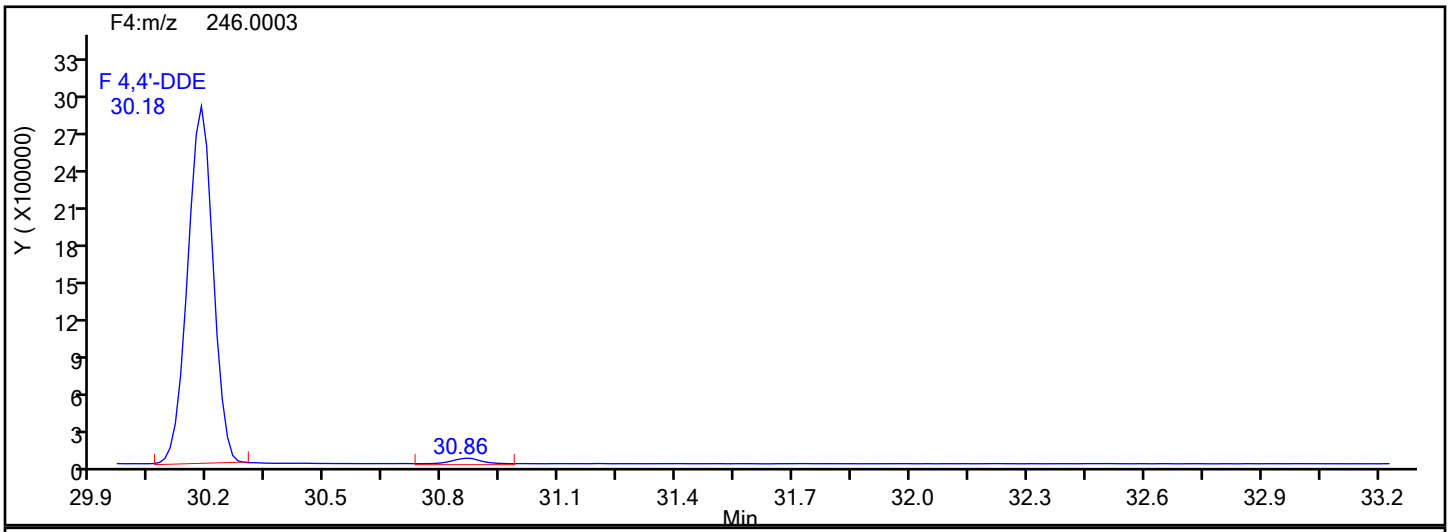

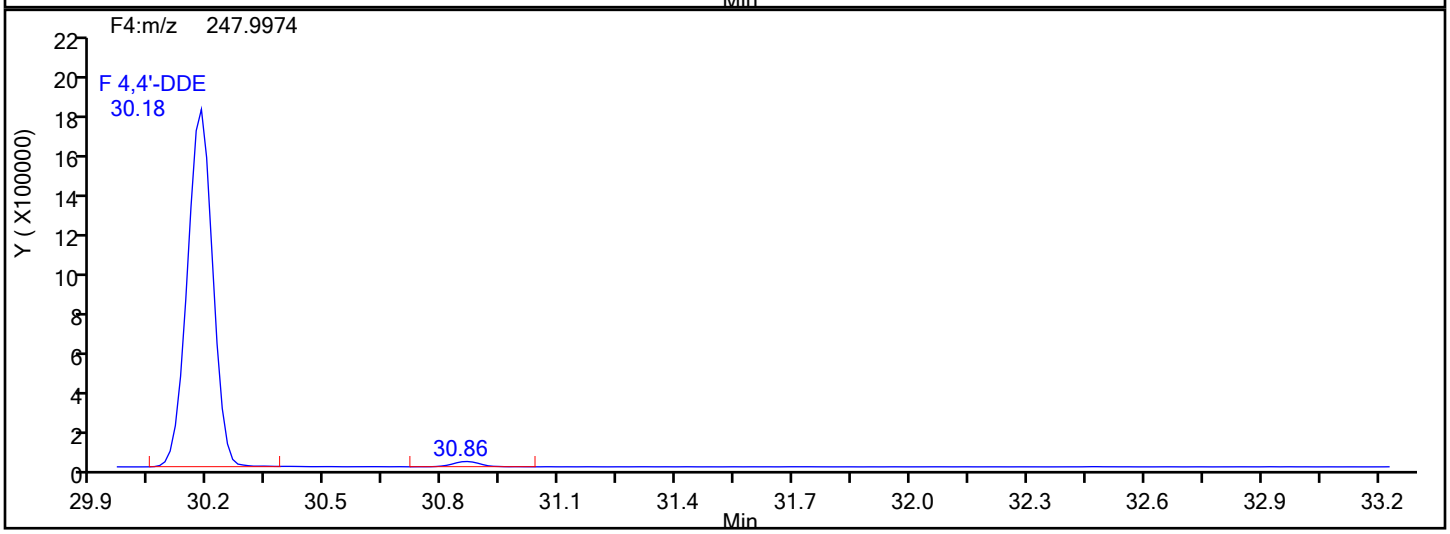

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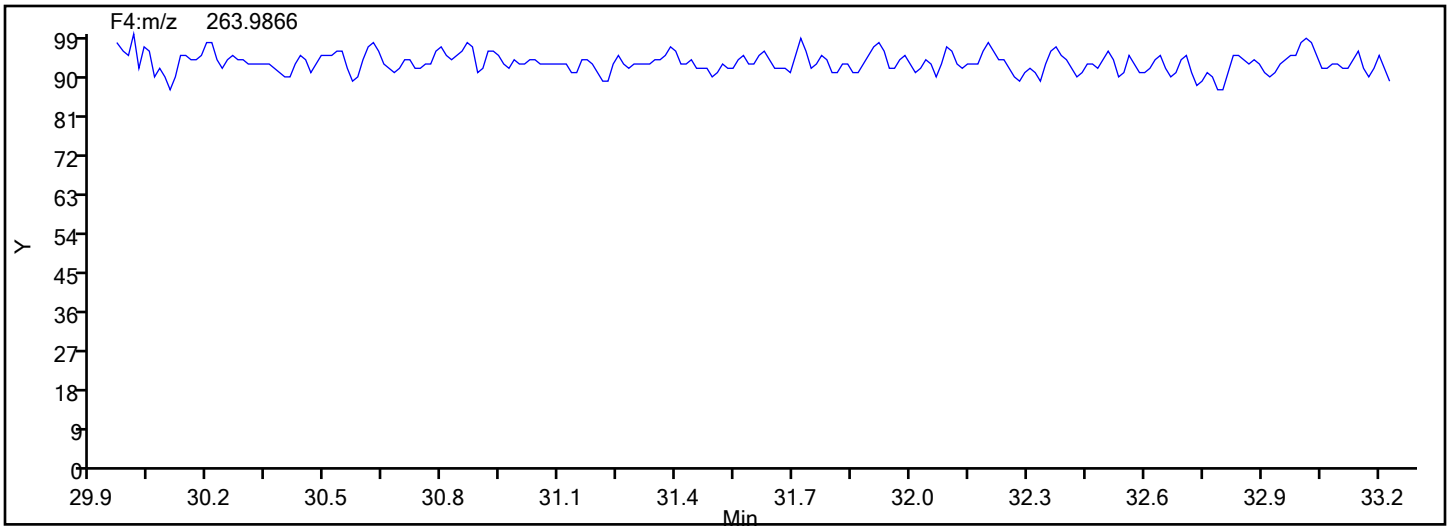

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Eurofins Knoxville

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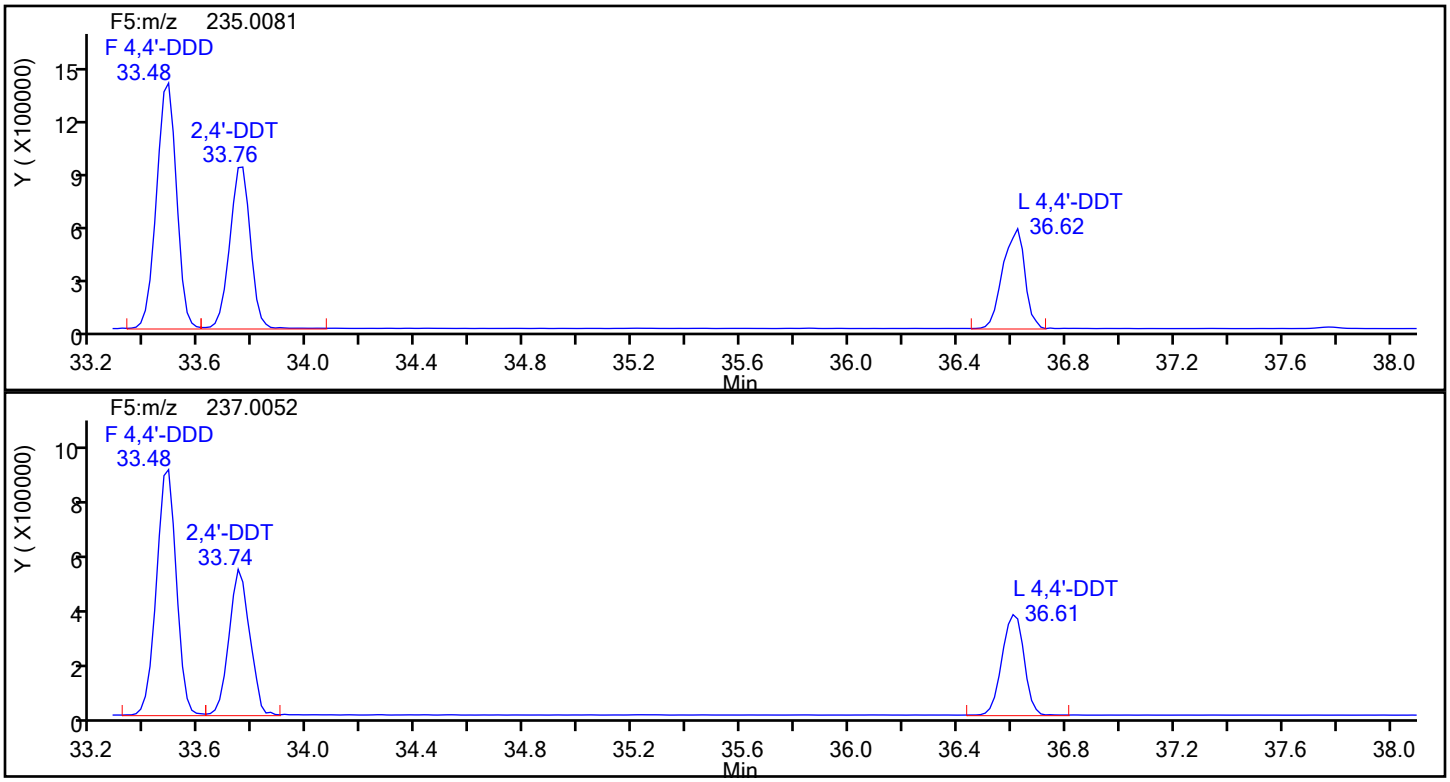

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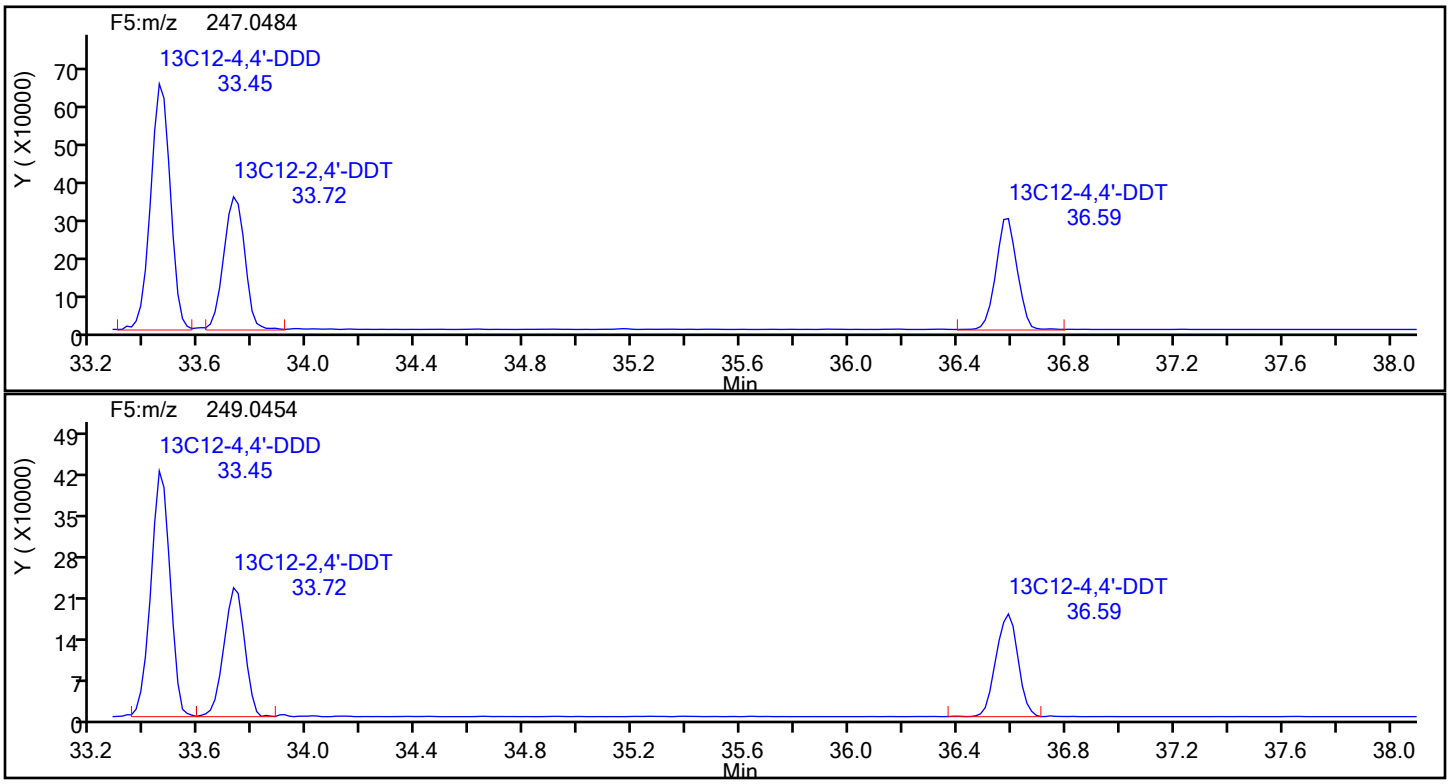

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Eurofins Knoxville

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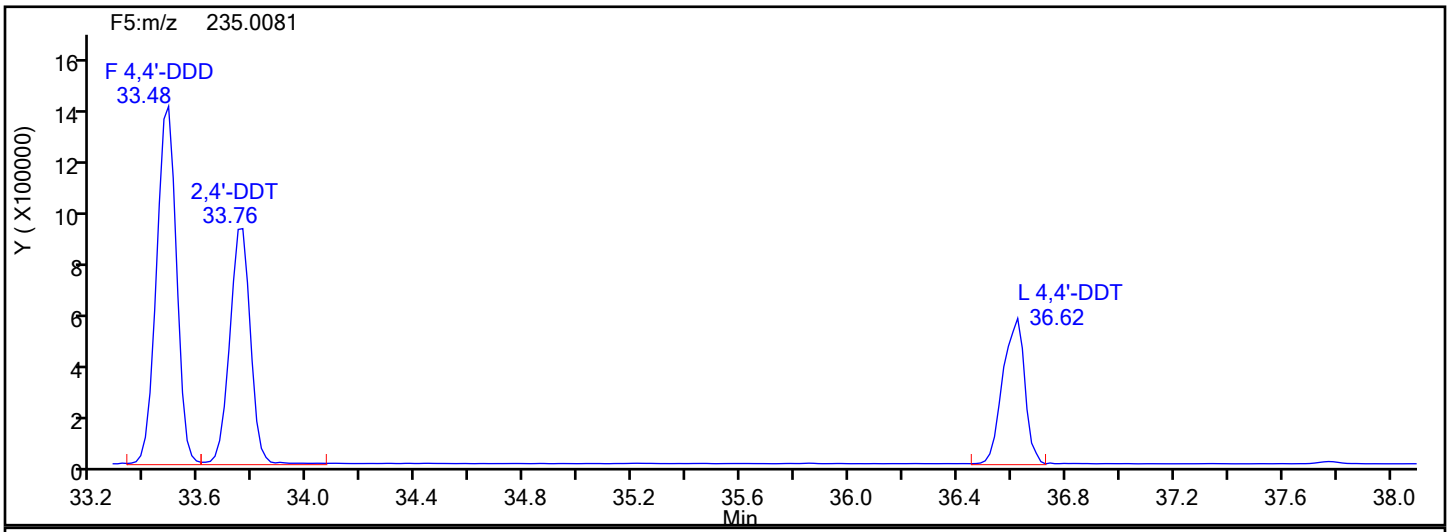

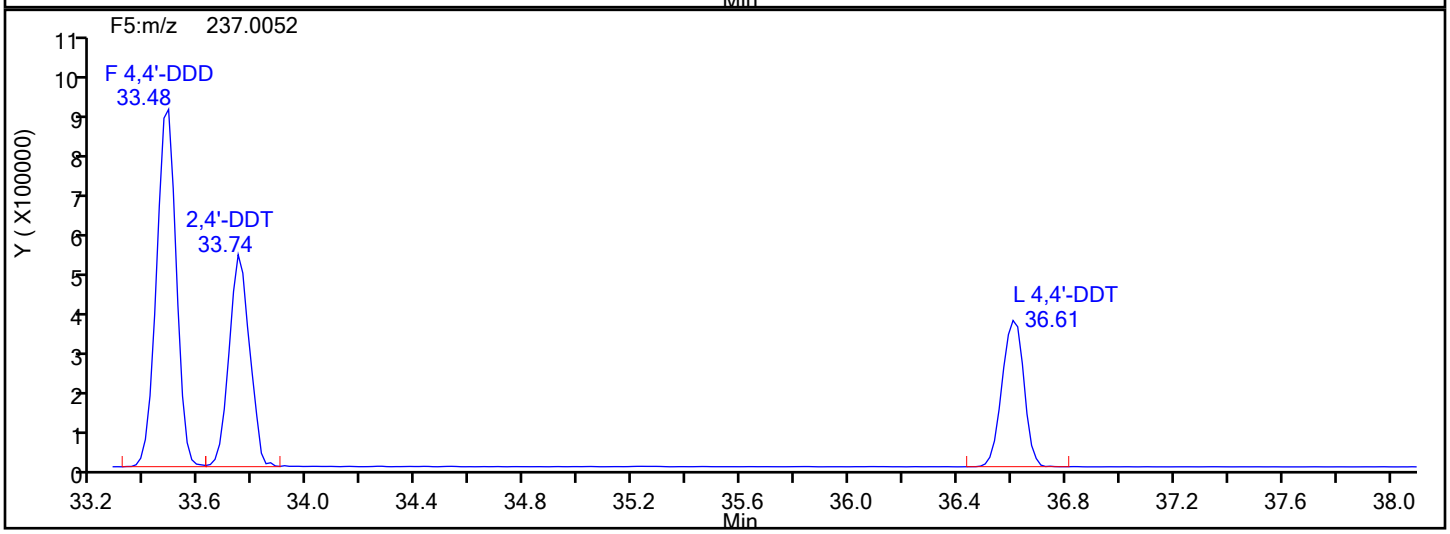

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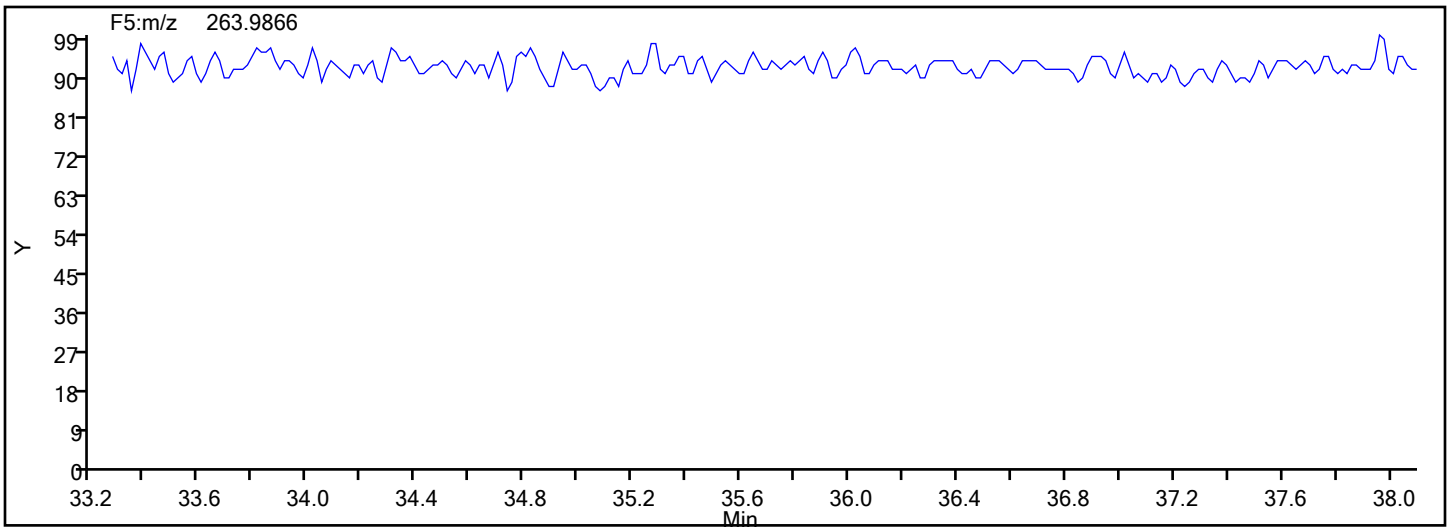

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Eurofins Knoxville

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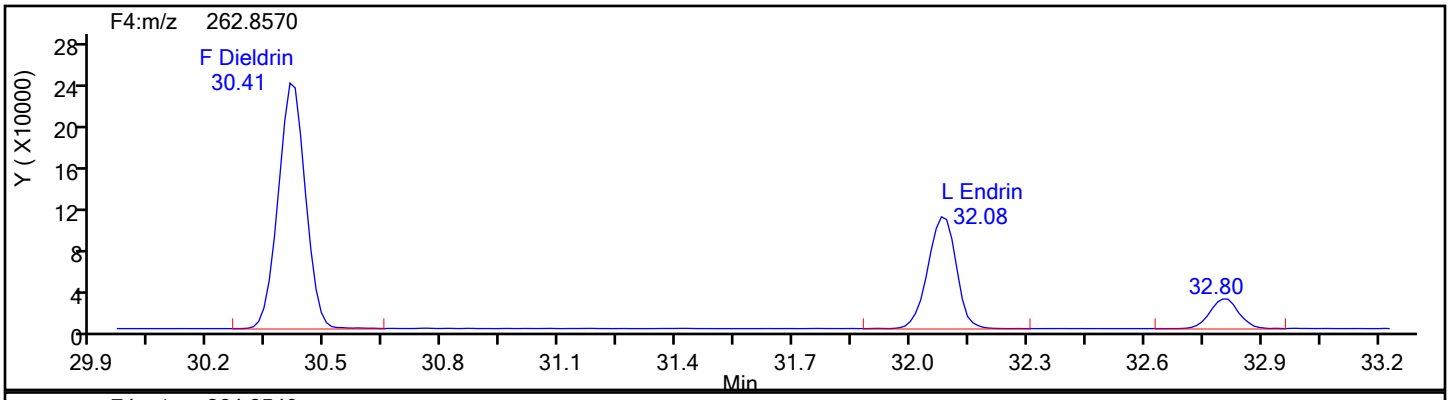

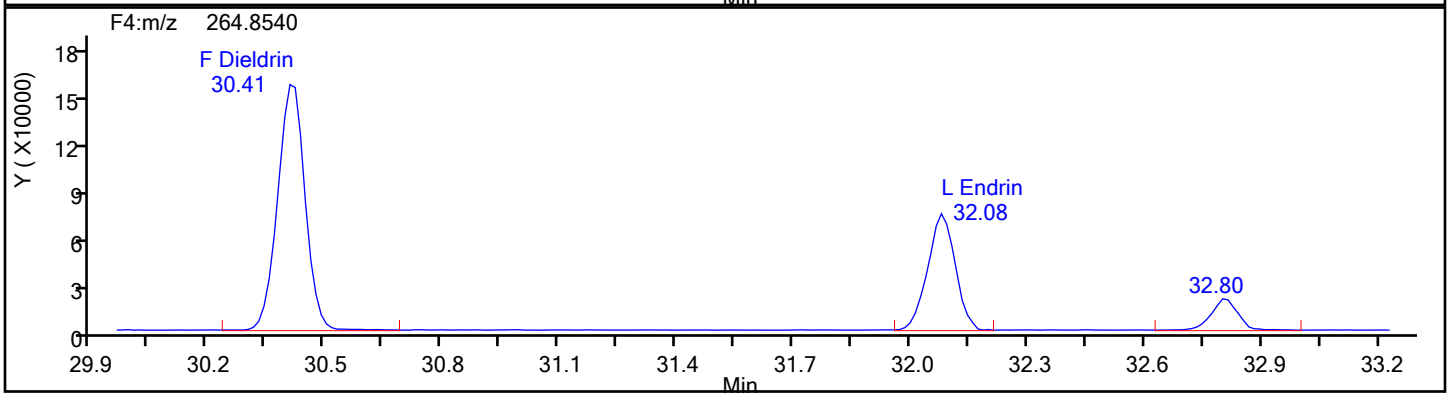

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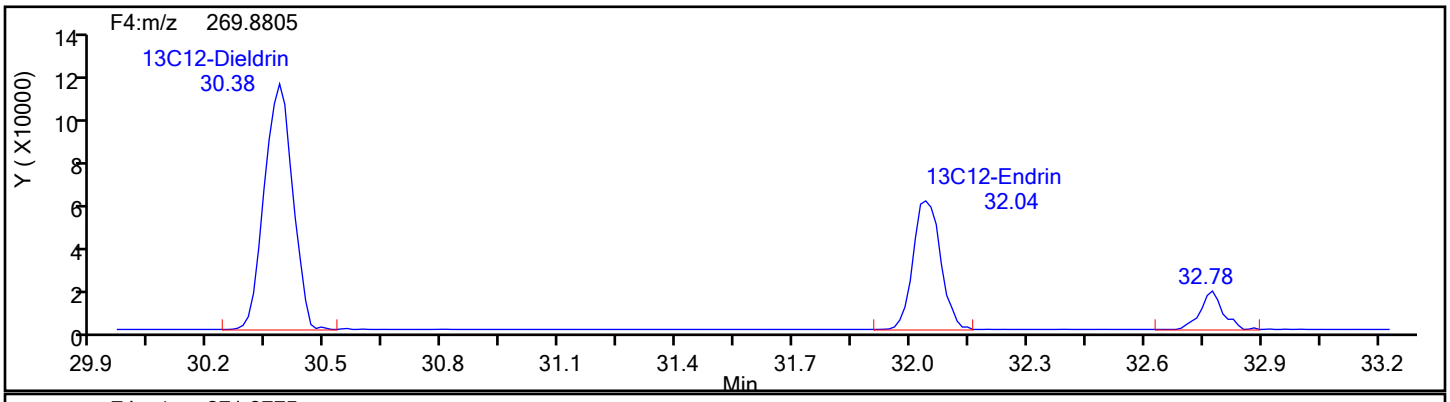

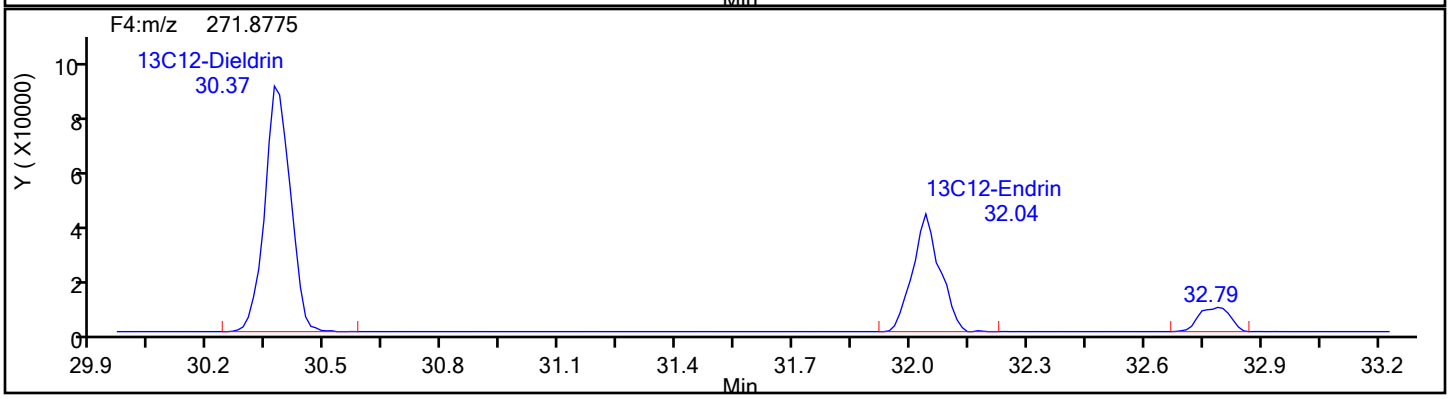

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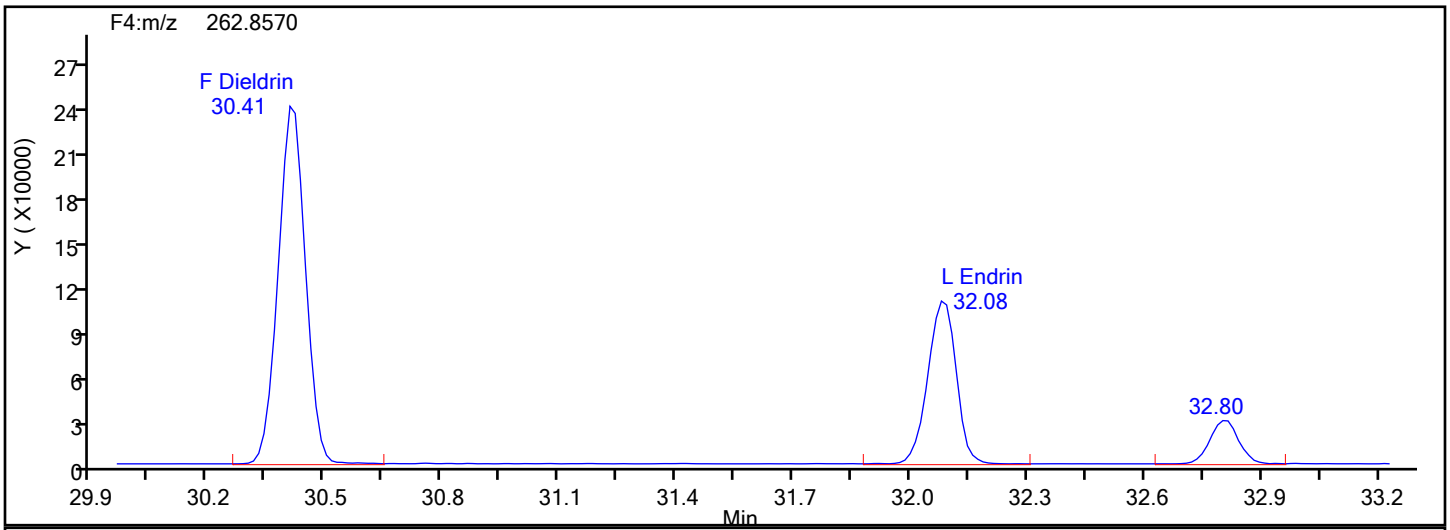

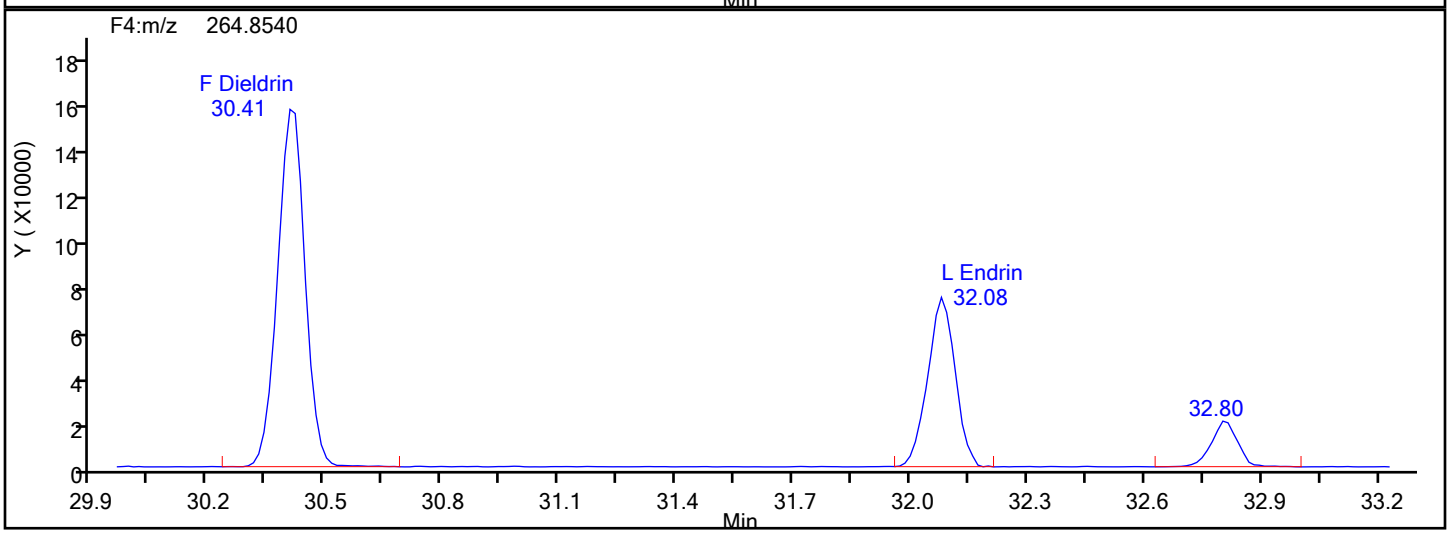

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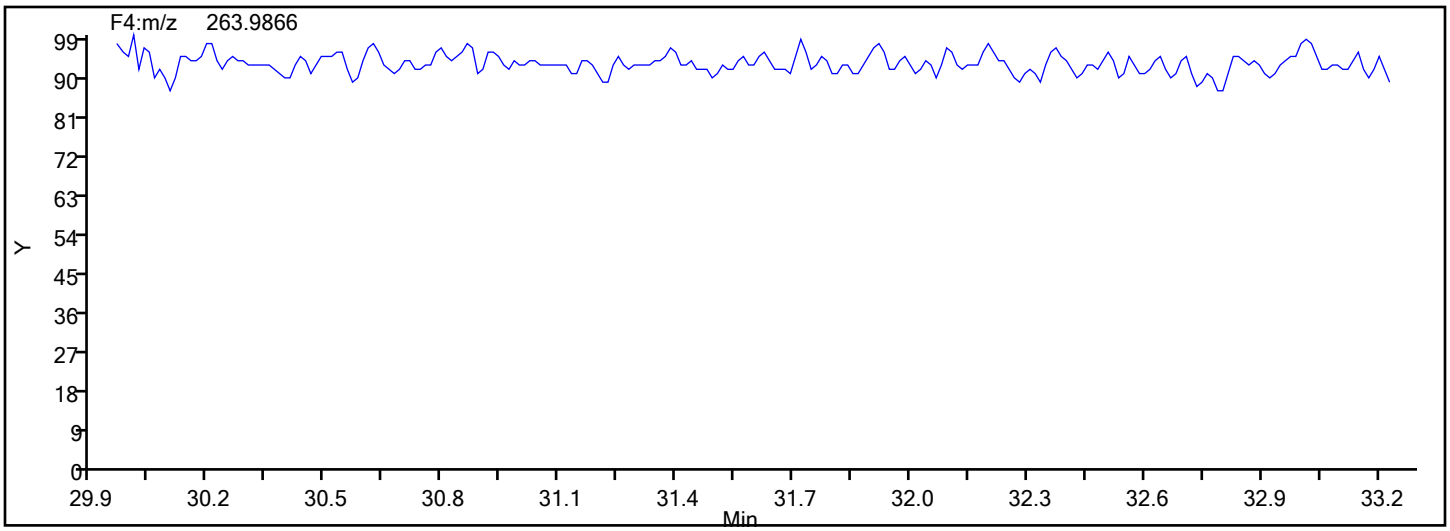

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Eurofins Knoxville

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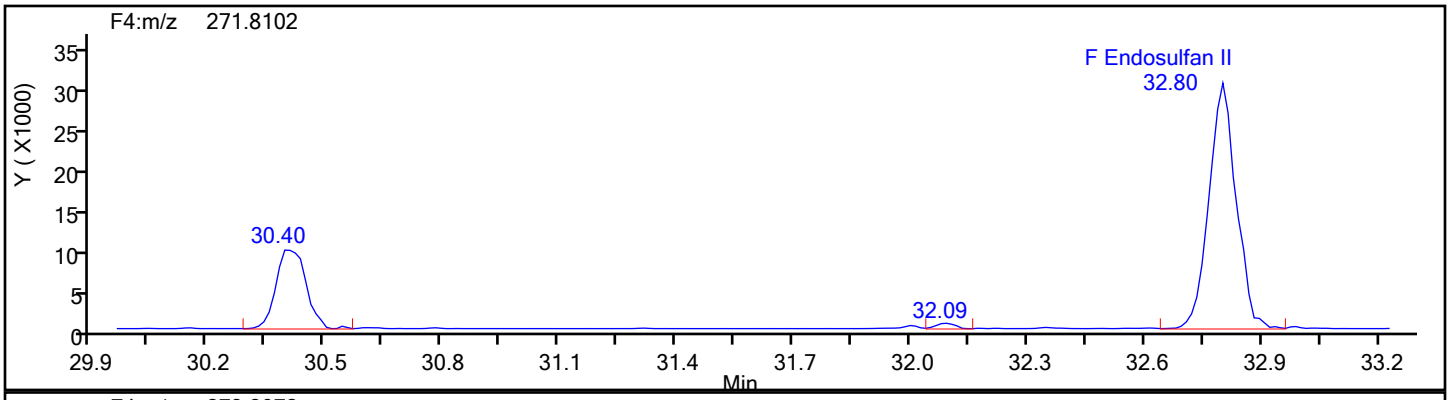
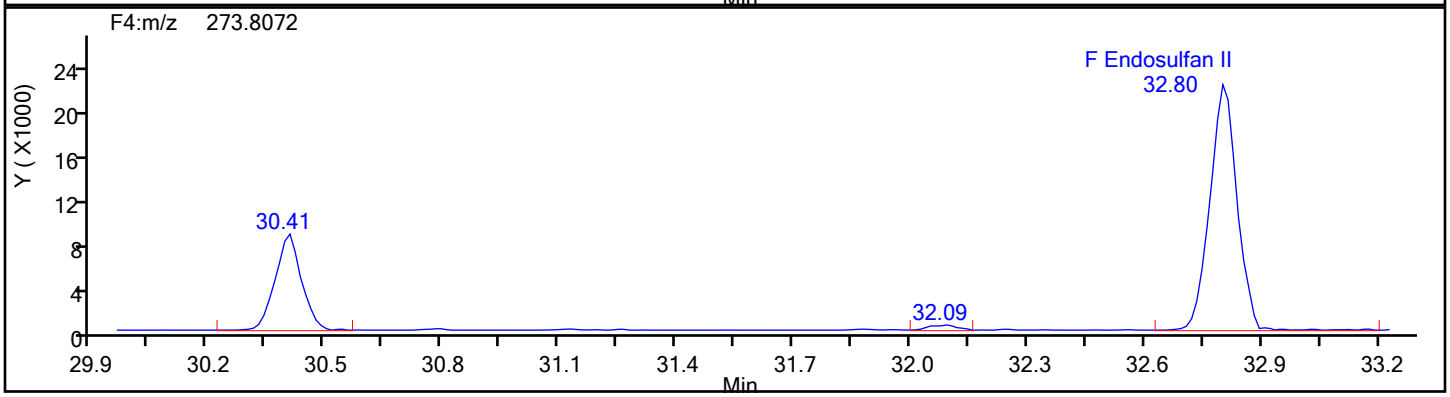
Endosulfan II





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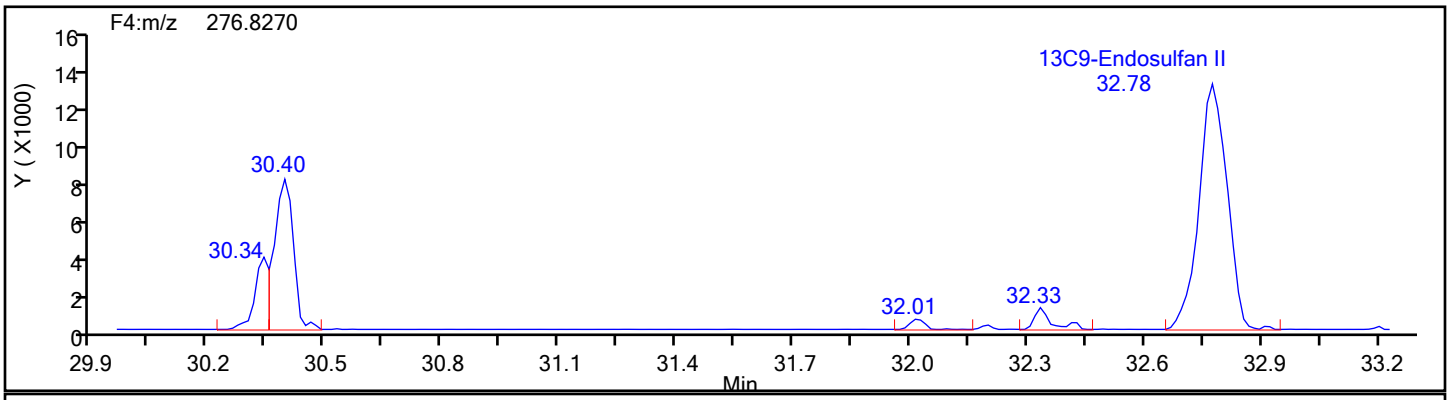

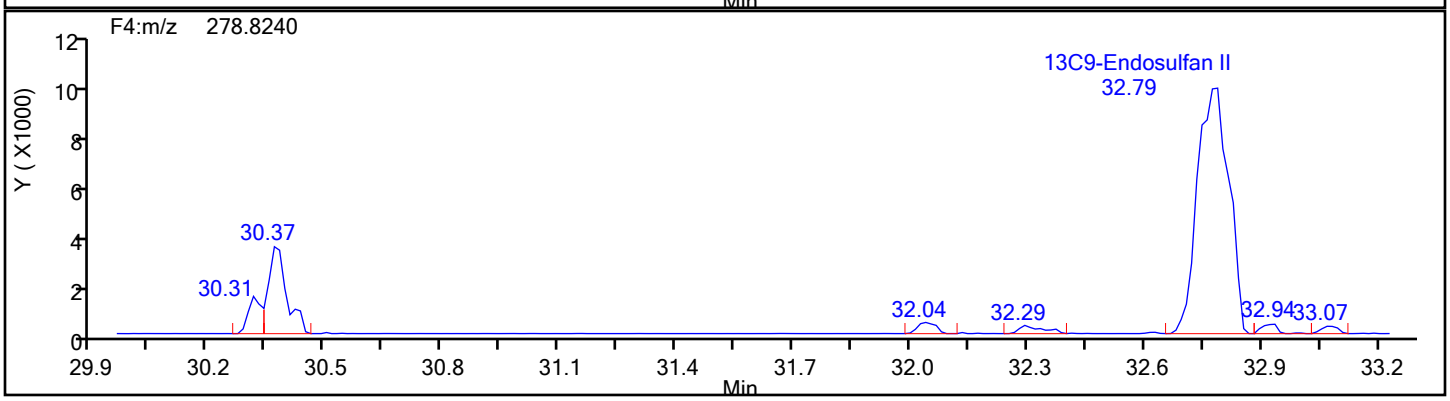

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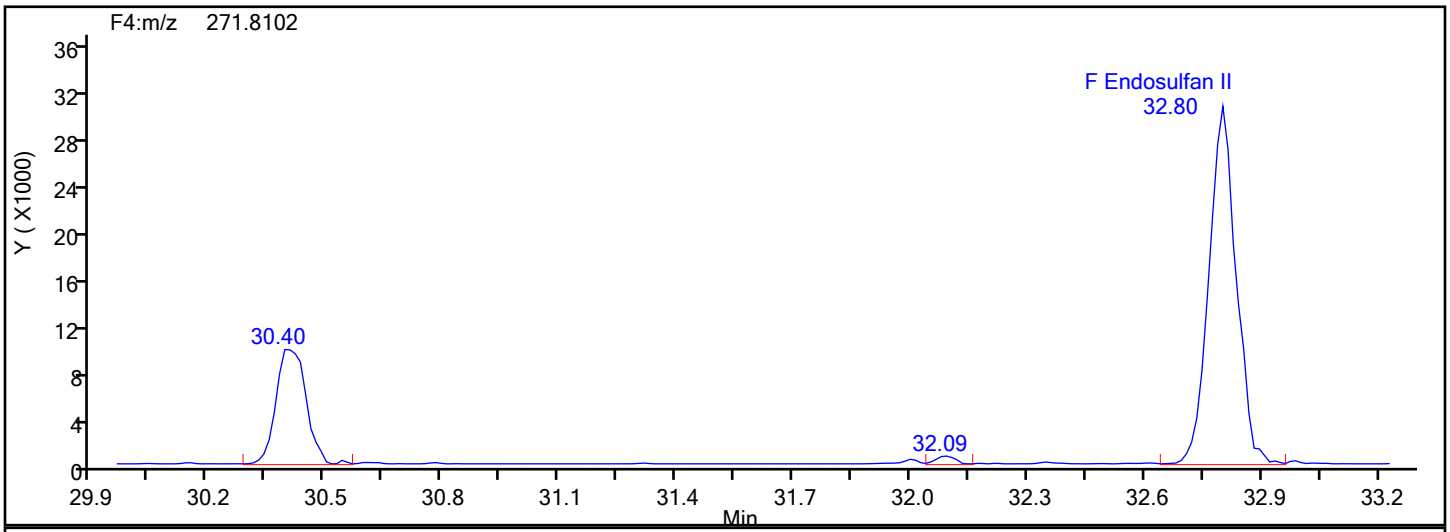

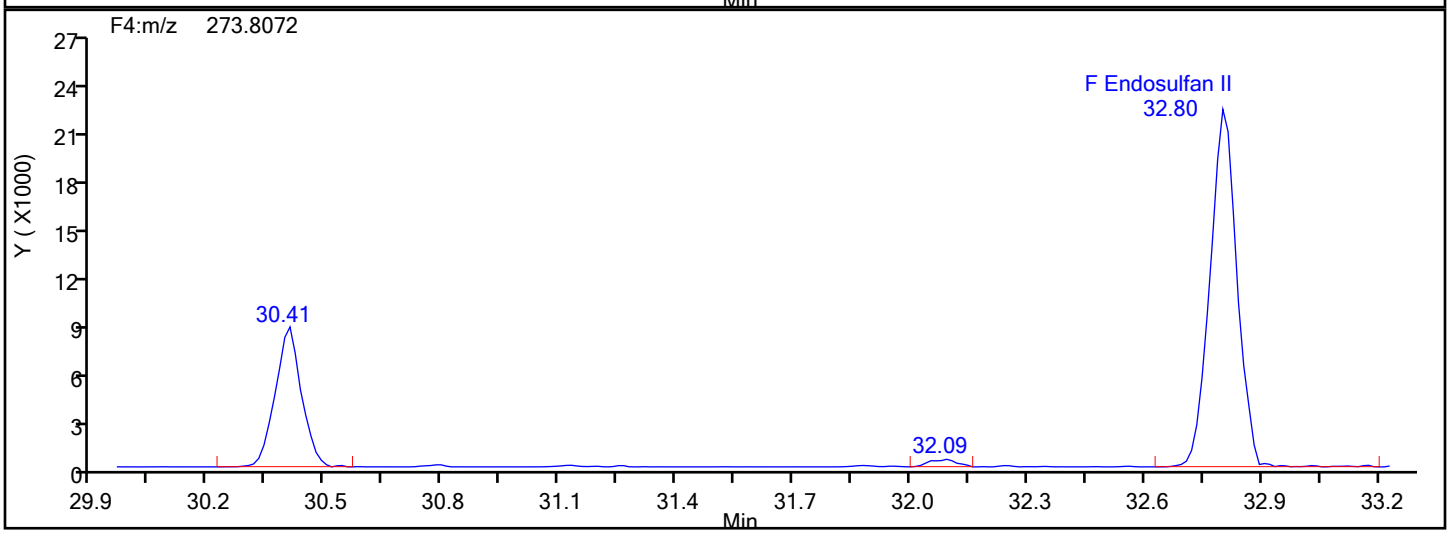

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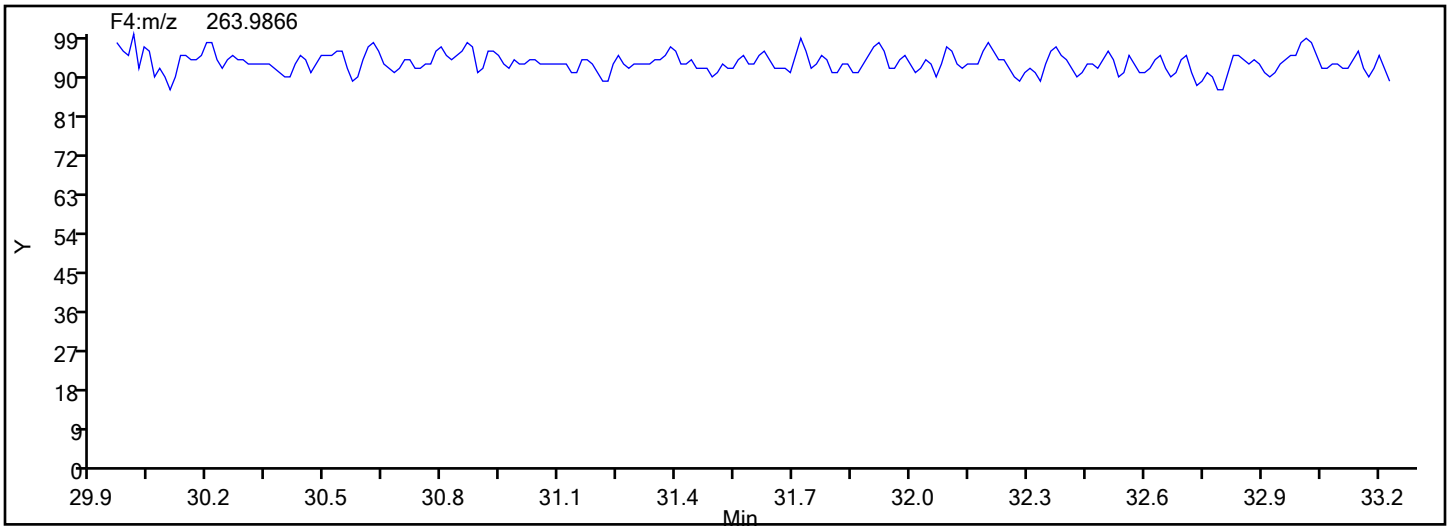

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Eurofins Knoxville

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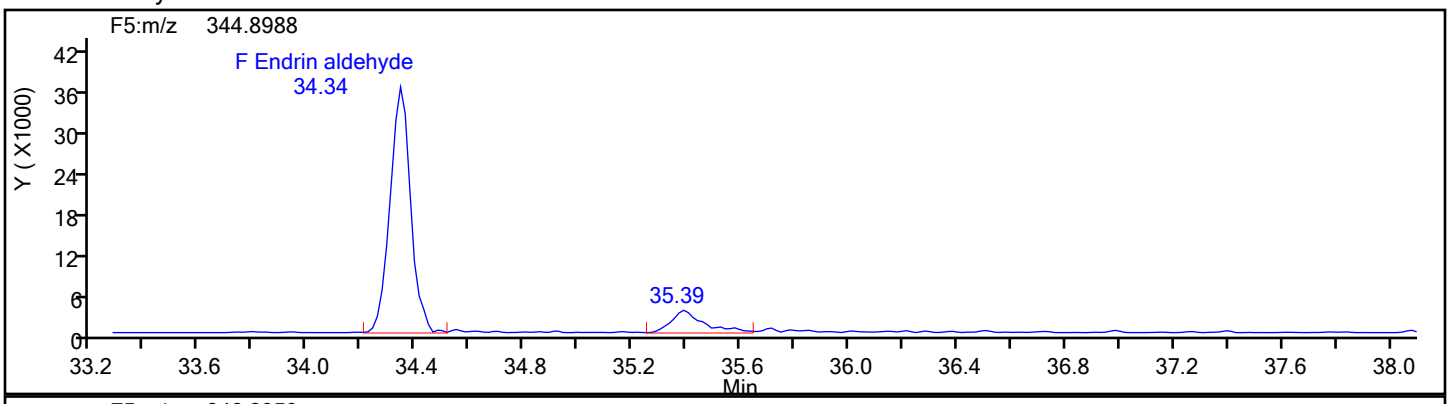

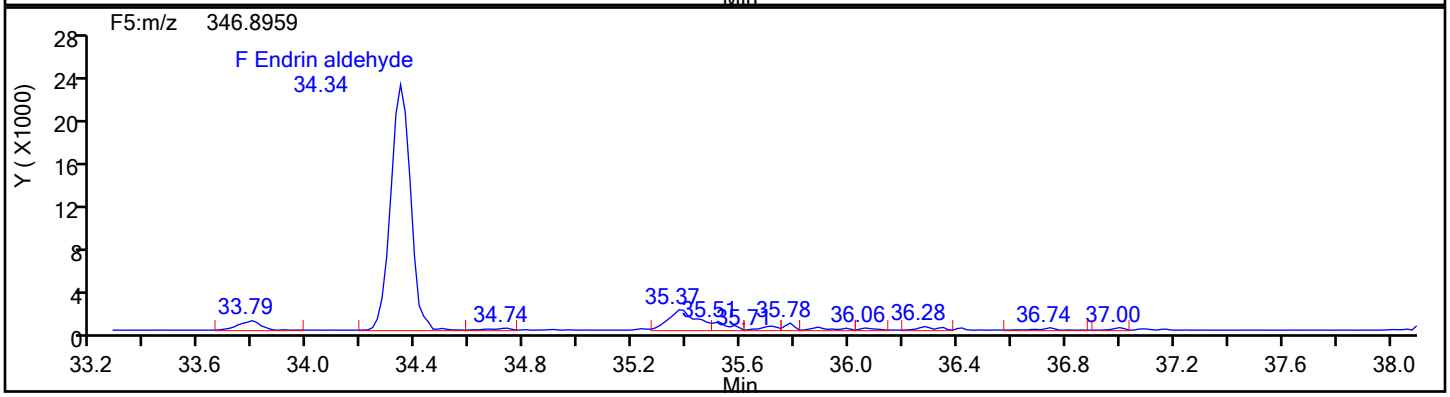

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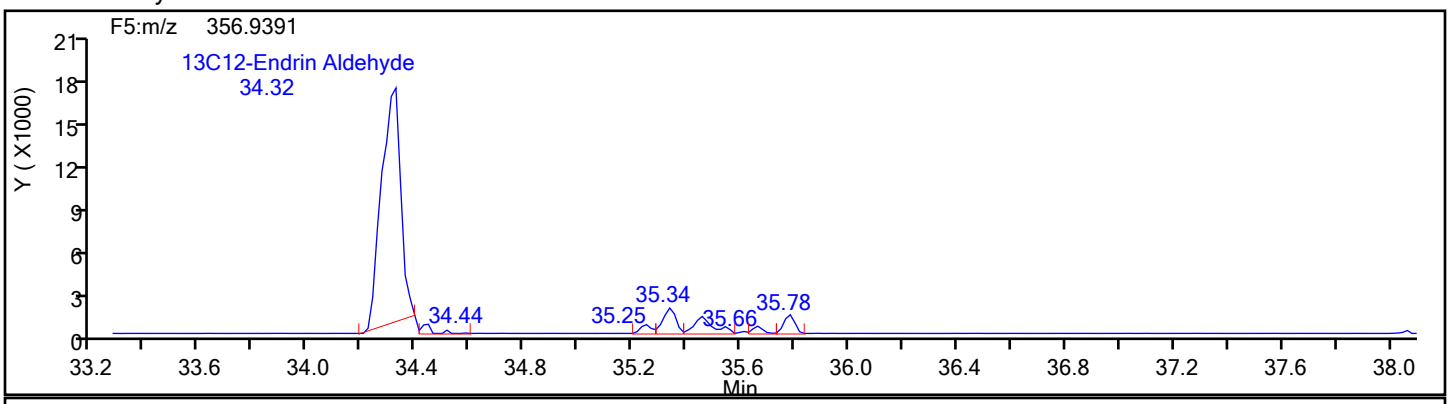

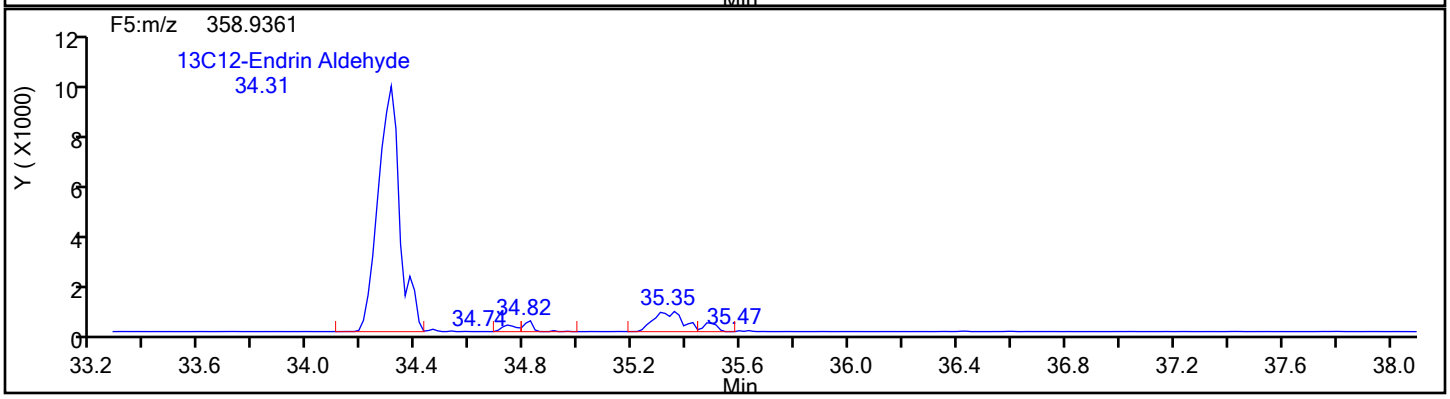

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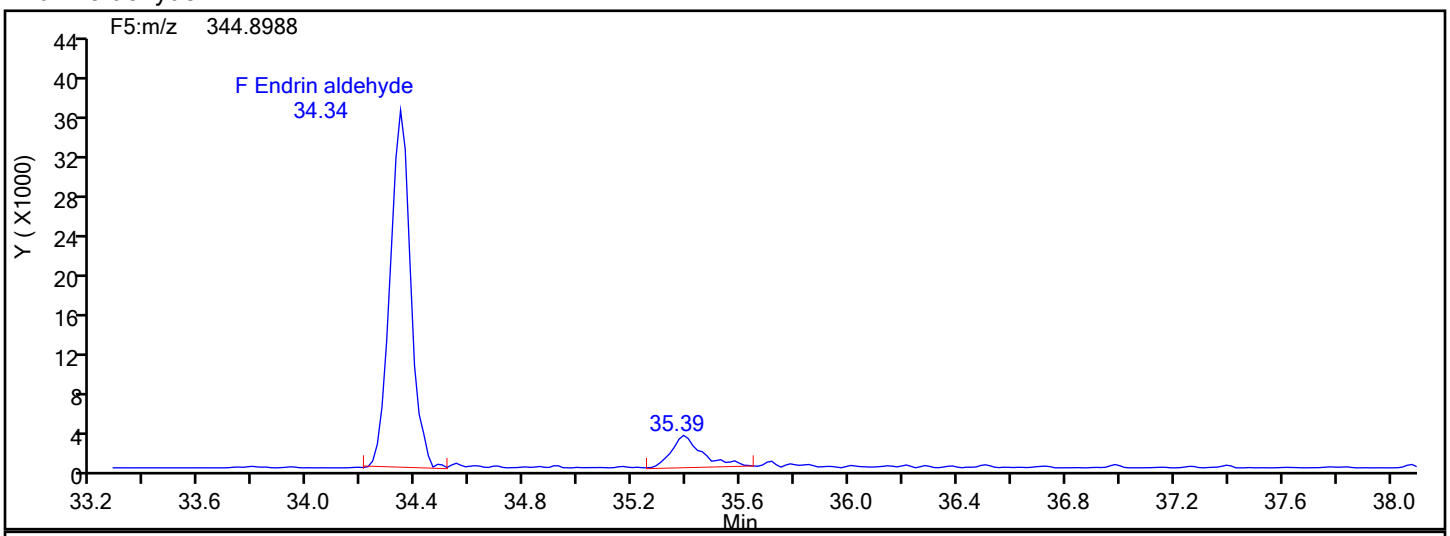
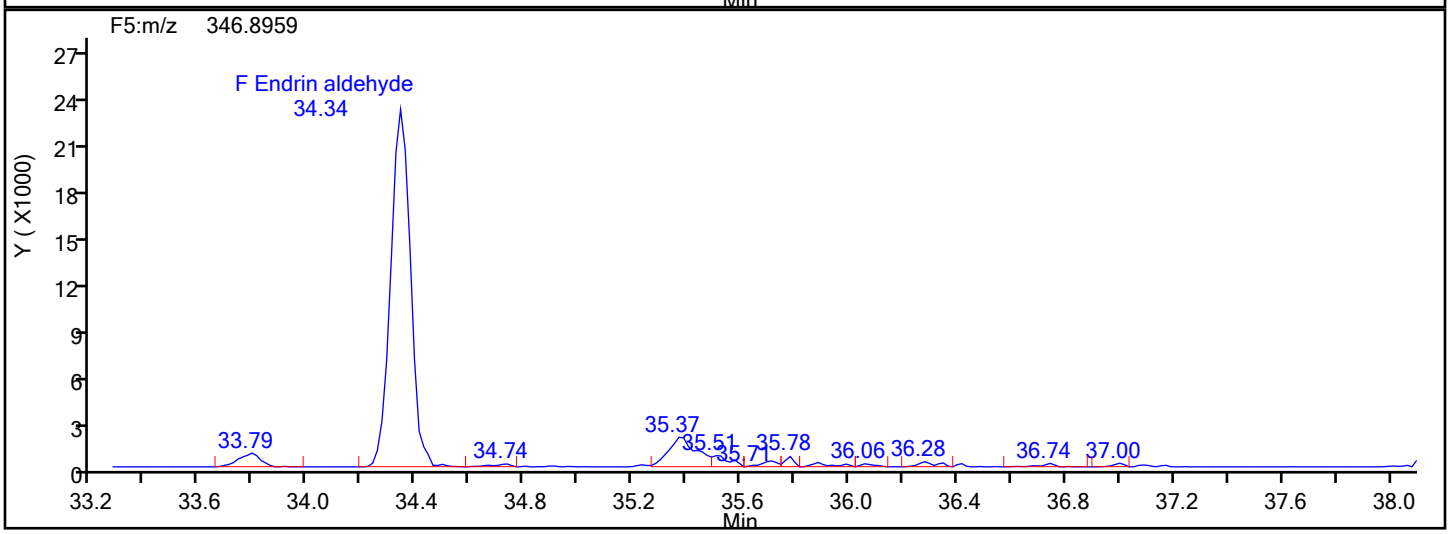
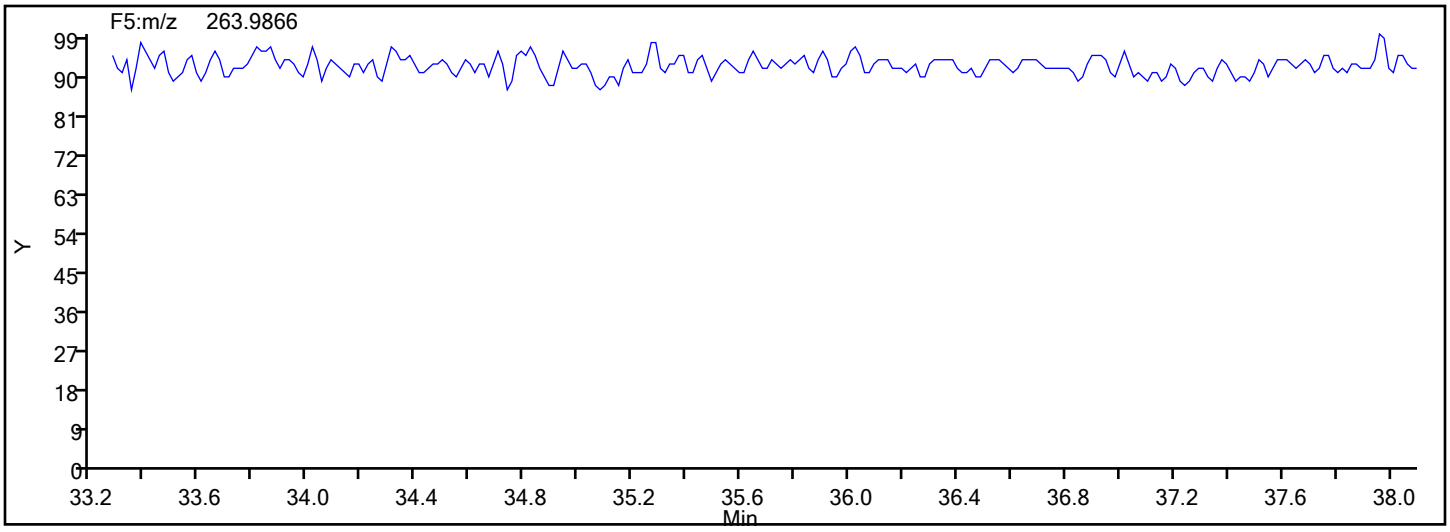




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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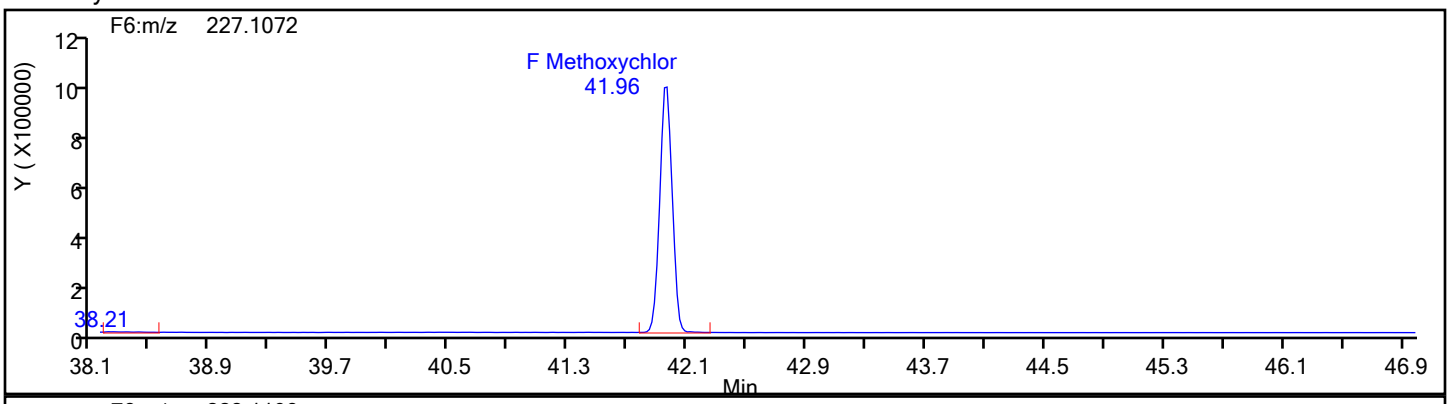
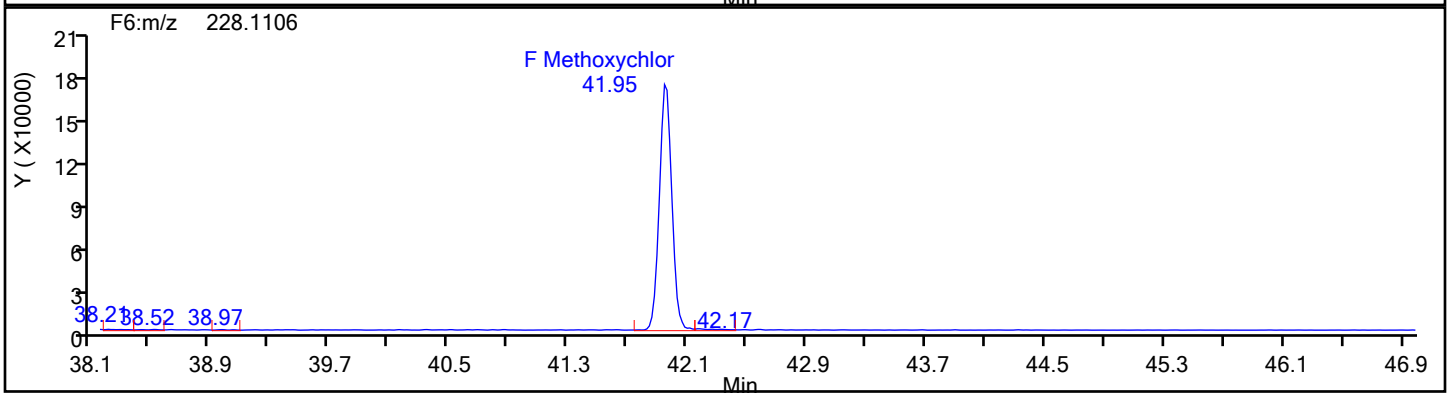
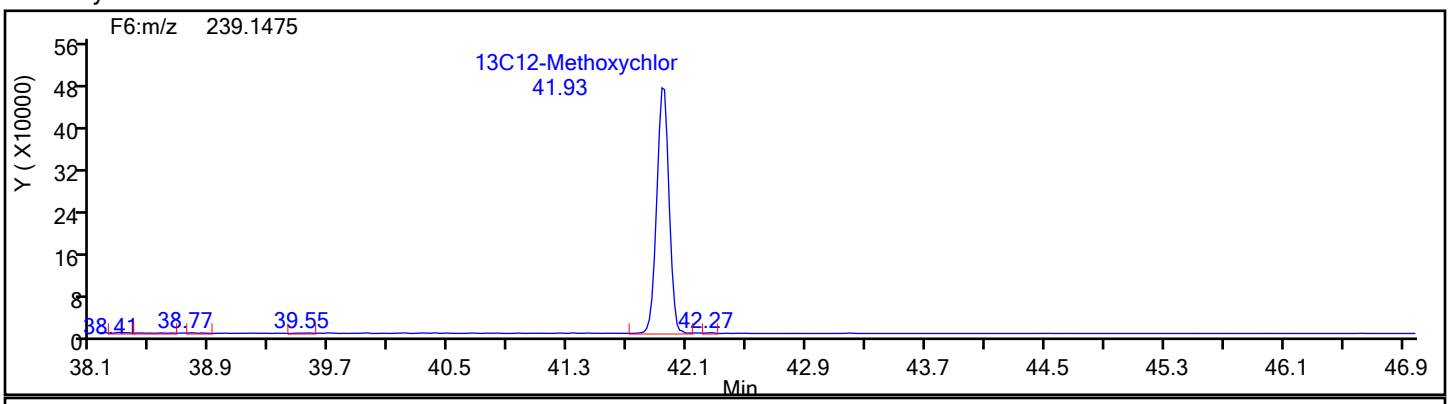
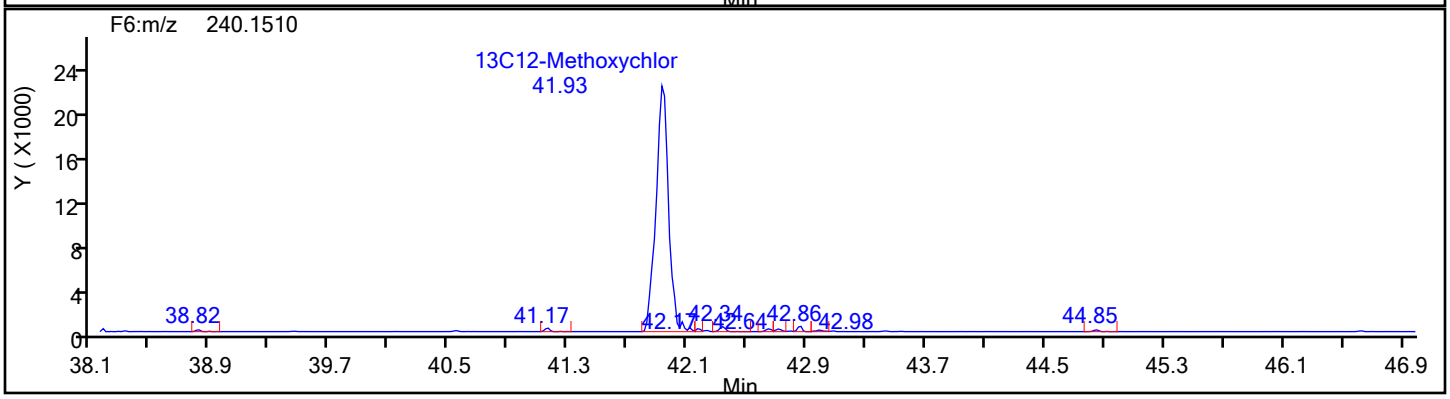
Methoxychlor





Methoxychlor Standards





Report Date: 24-Mar-2025 16:35:16 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
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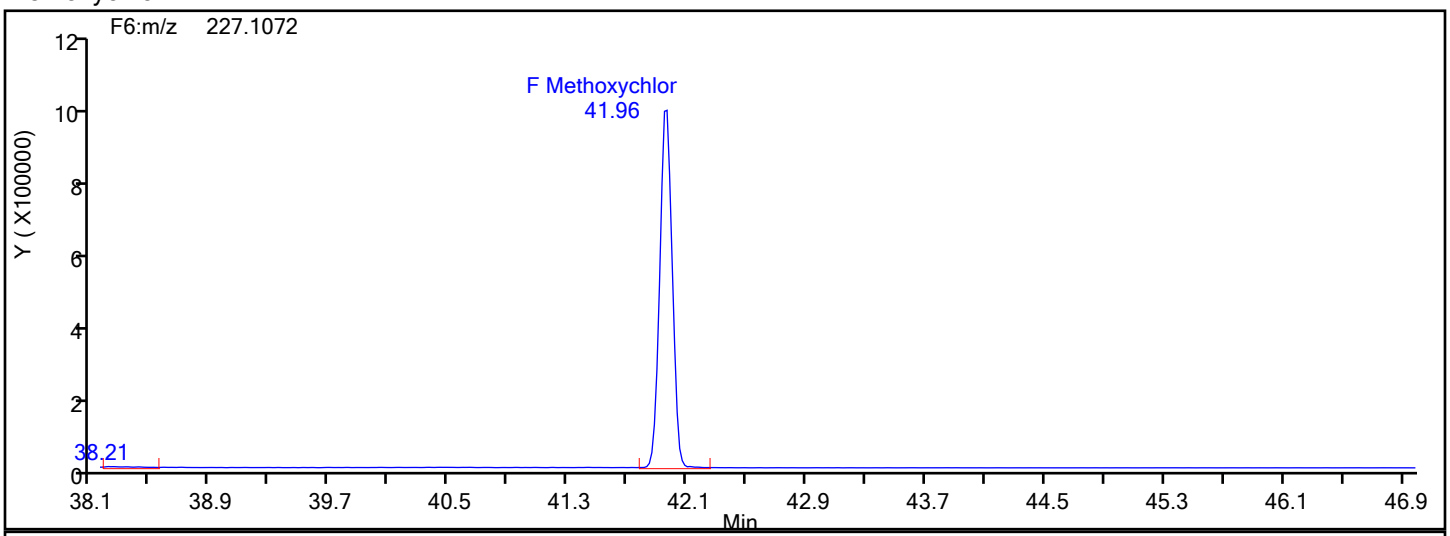
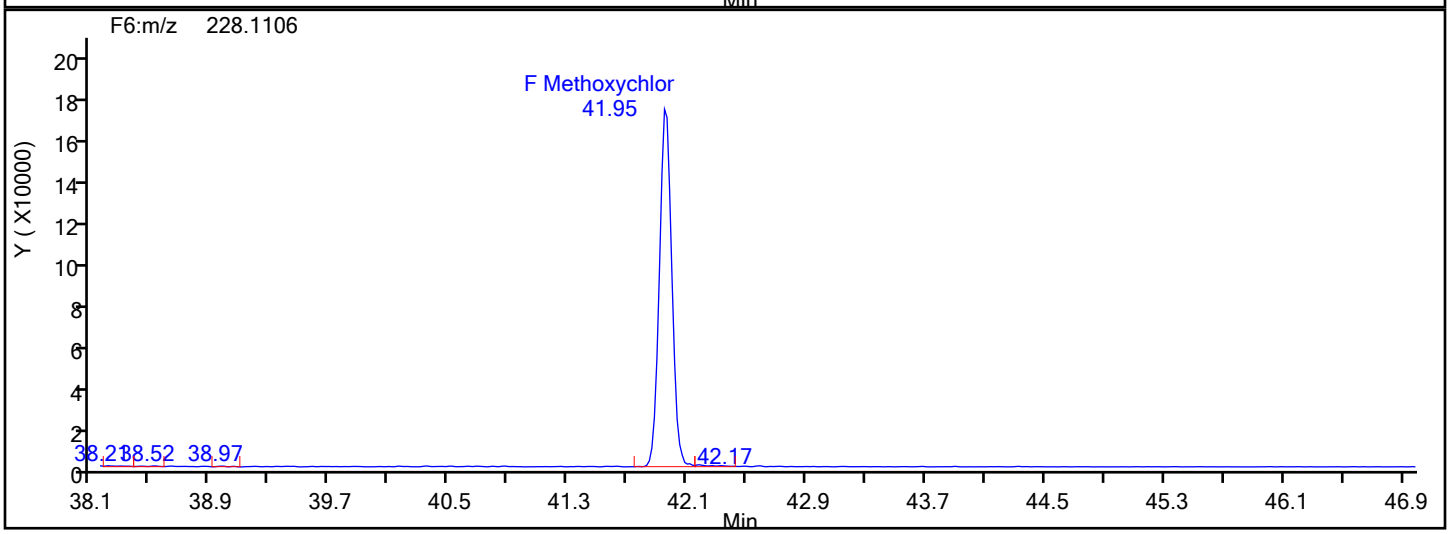
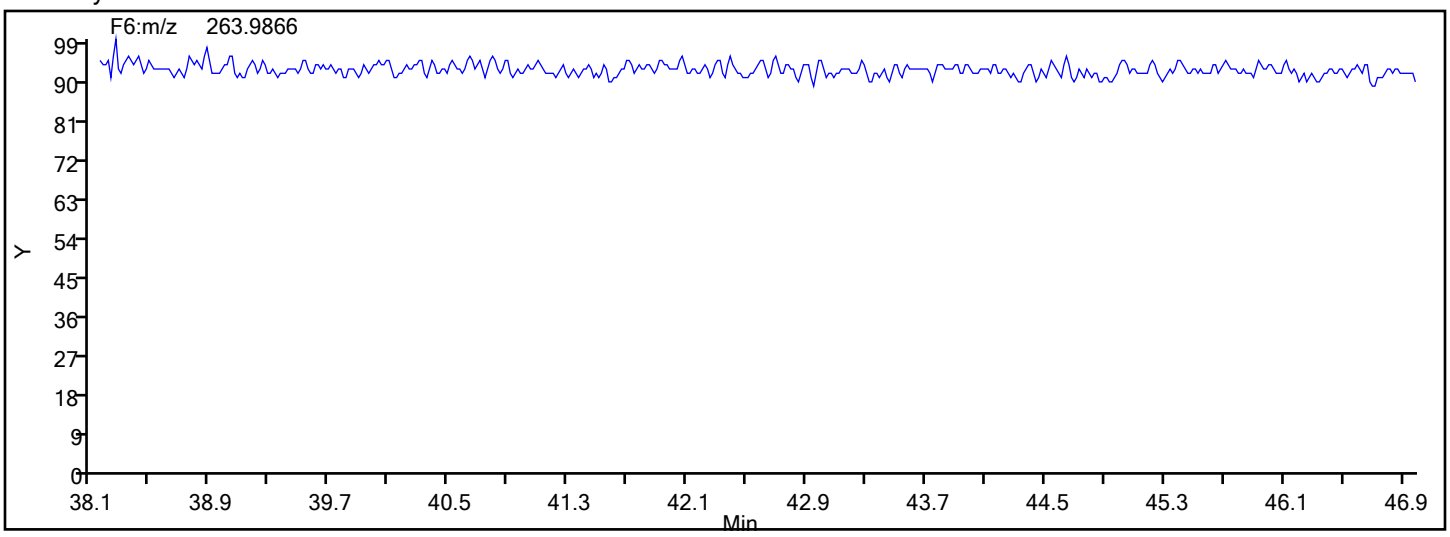
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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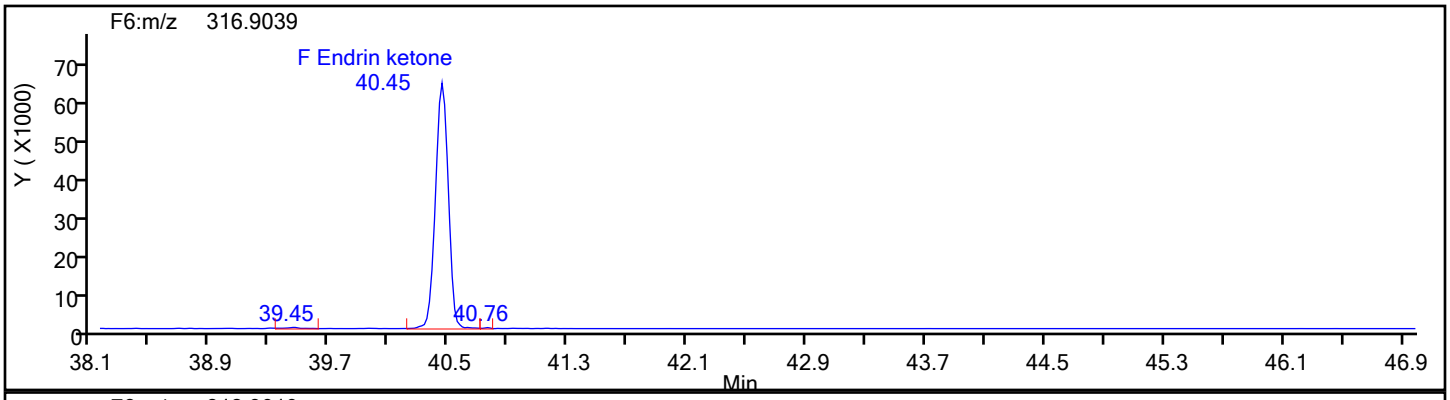
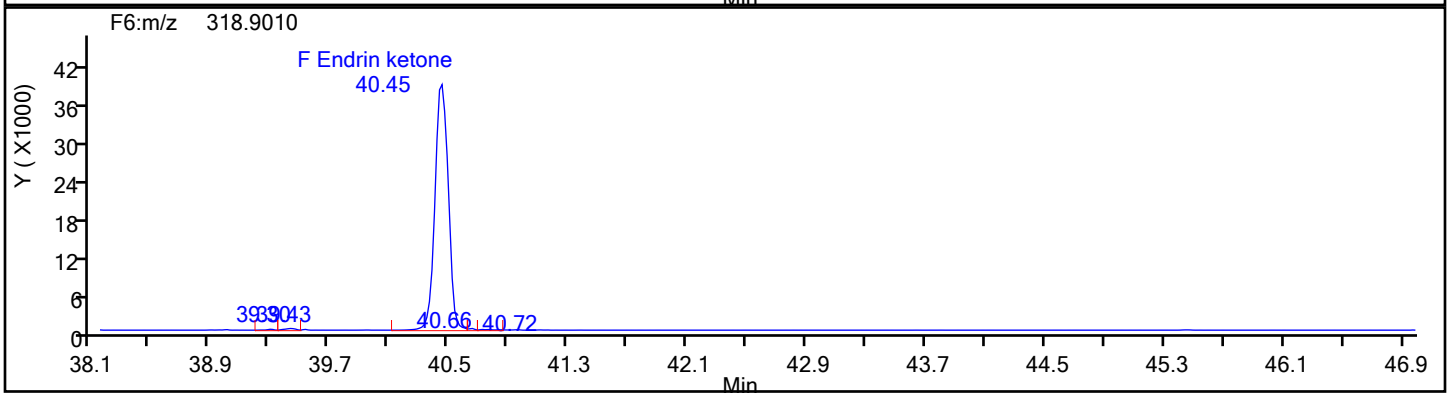
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





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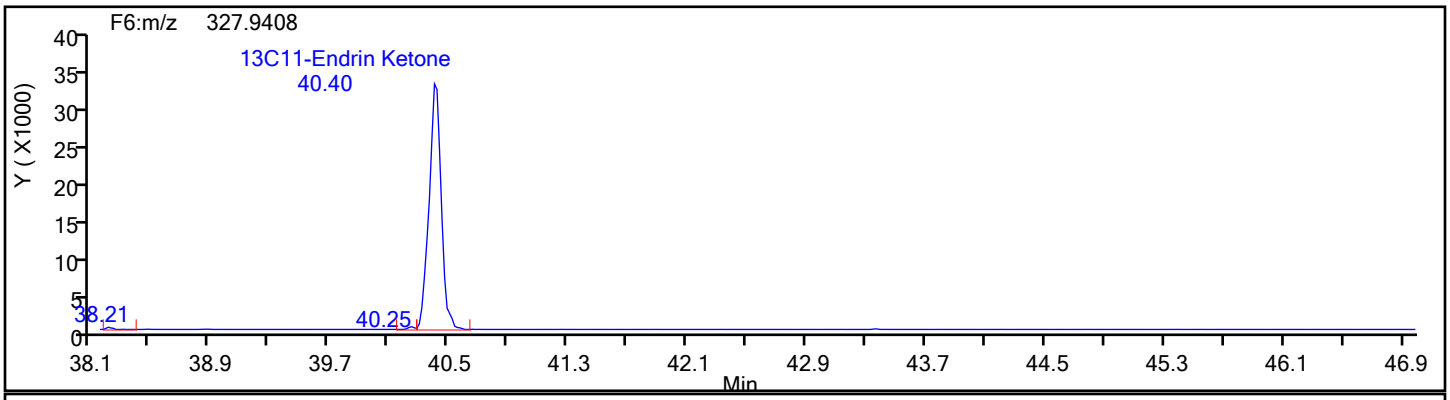

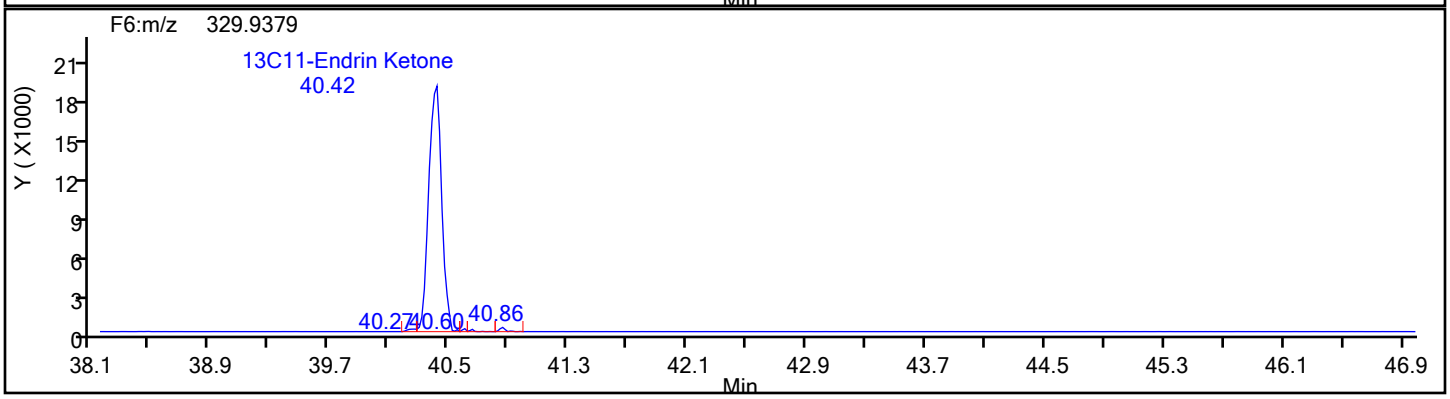

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Eurofins Knoxville

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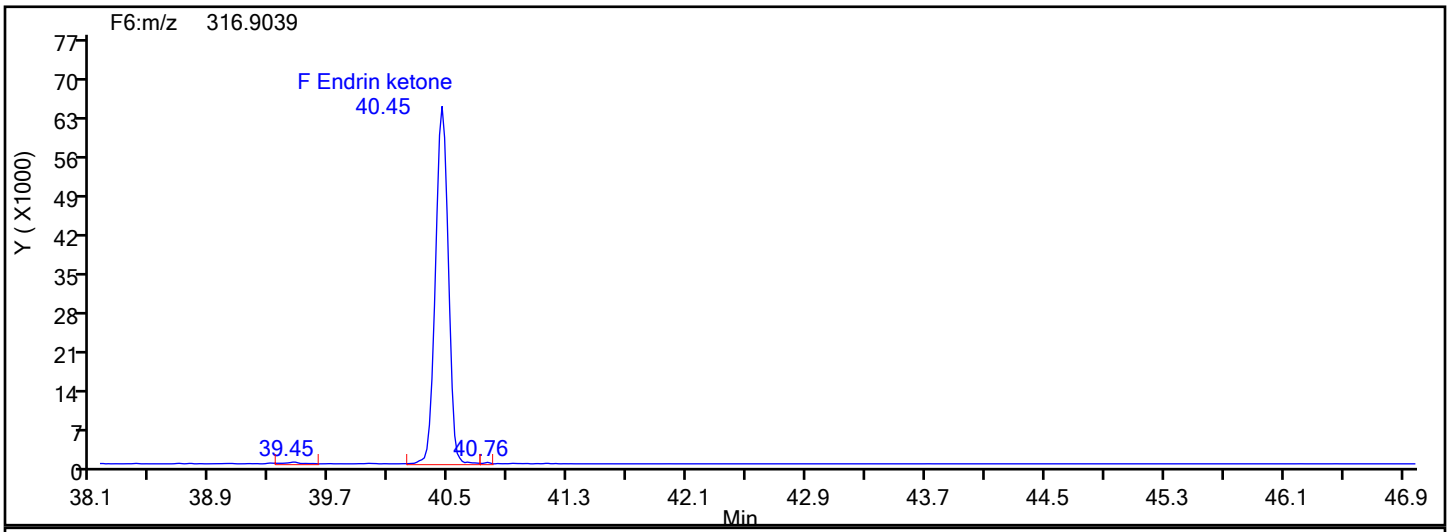
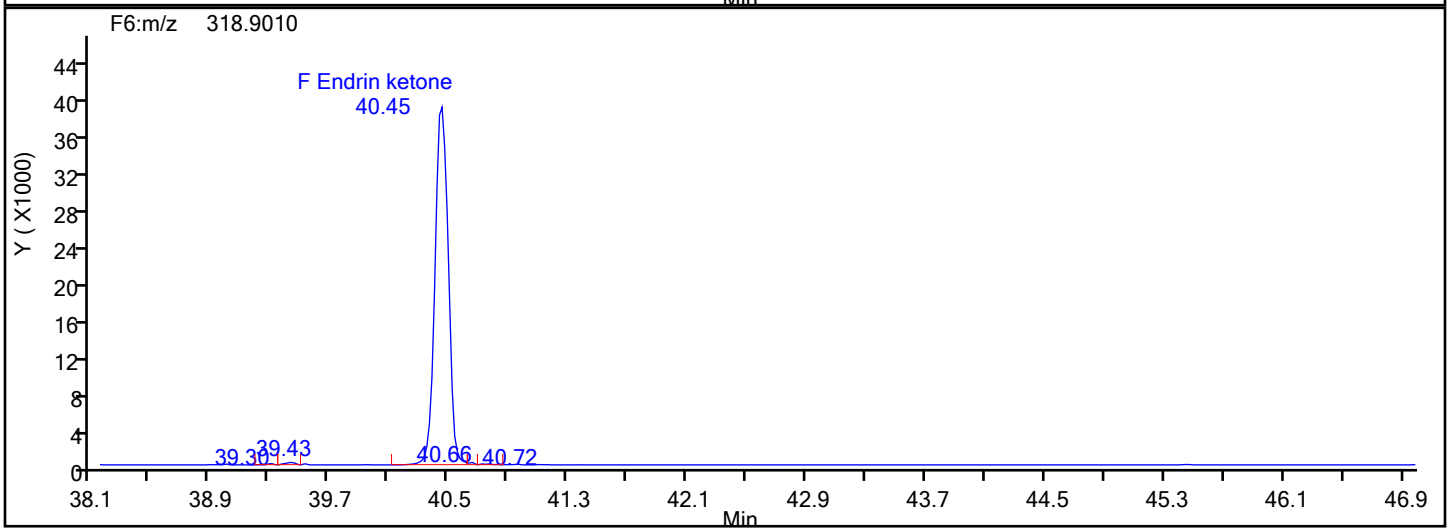
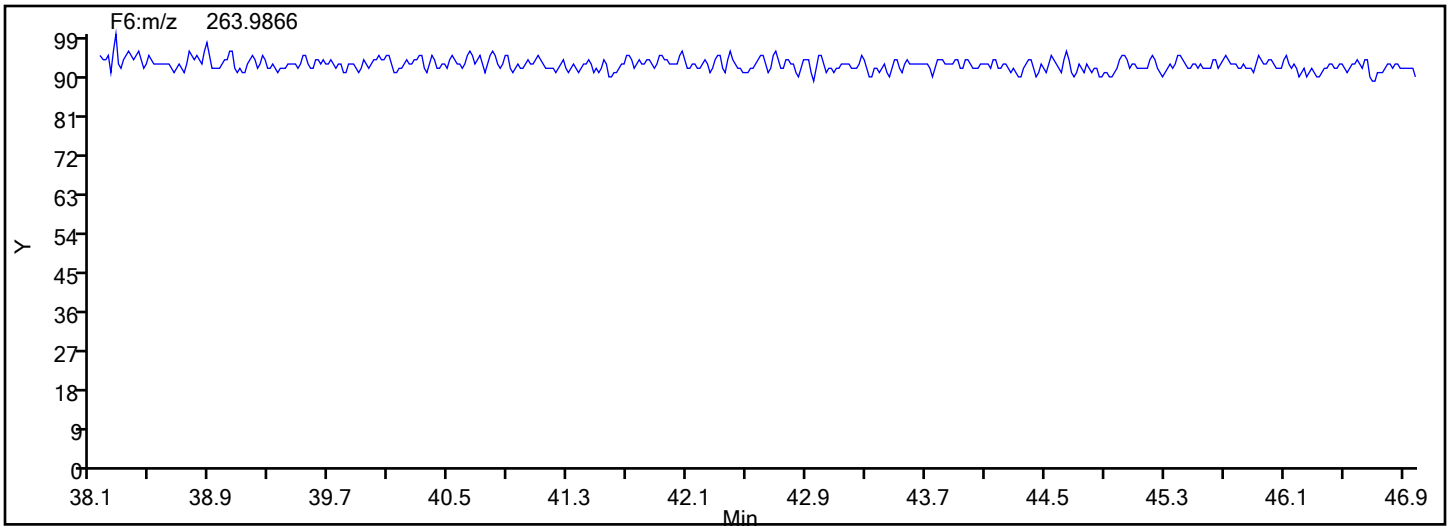




Endrin ketone Lock Mass



Report Date: 24-Mar-2025 16:35:16 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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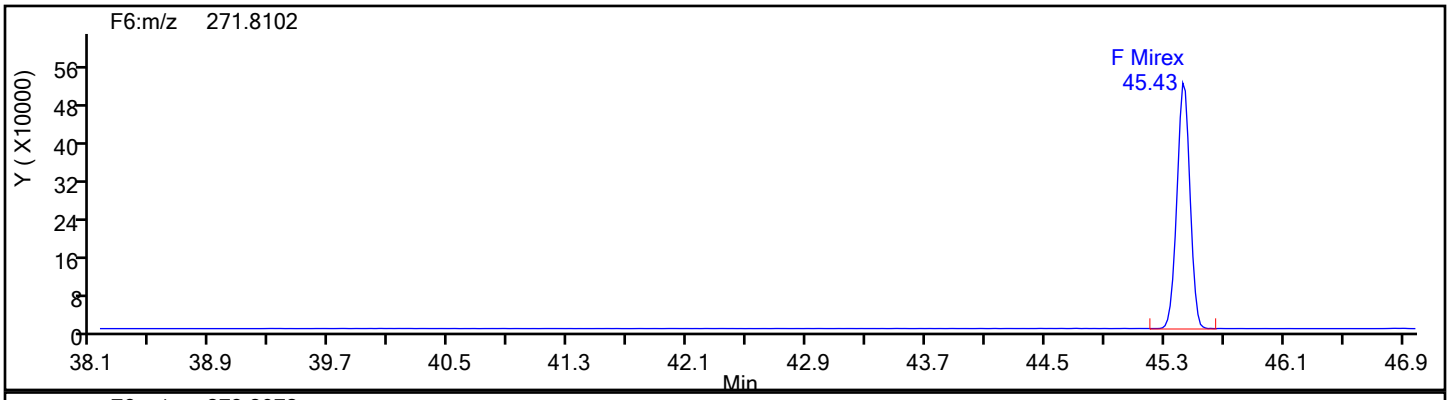
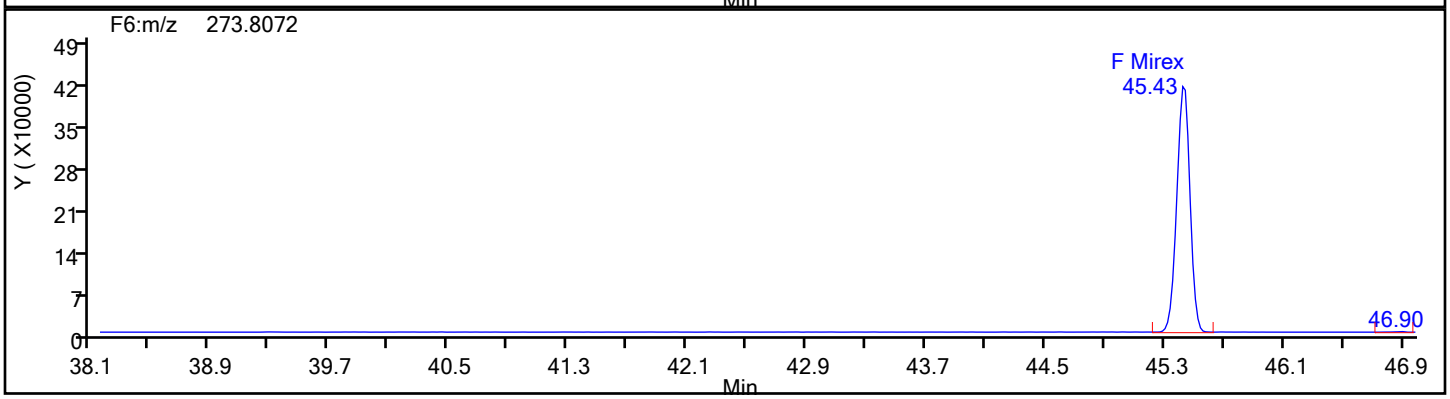
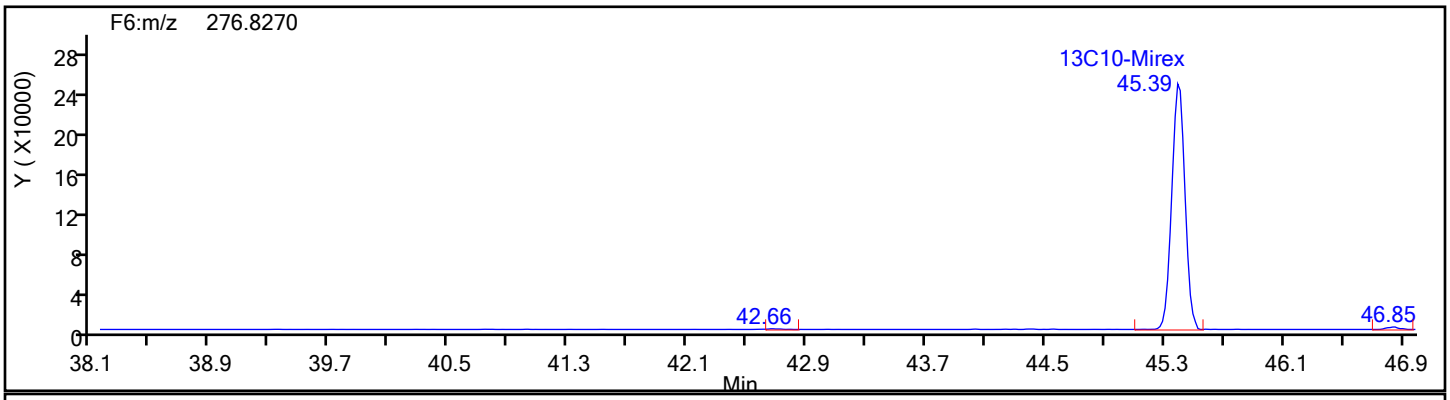
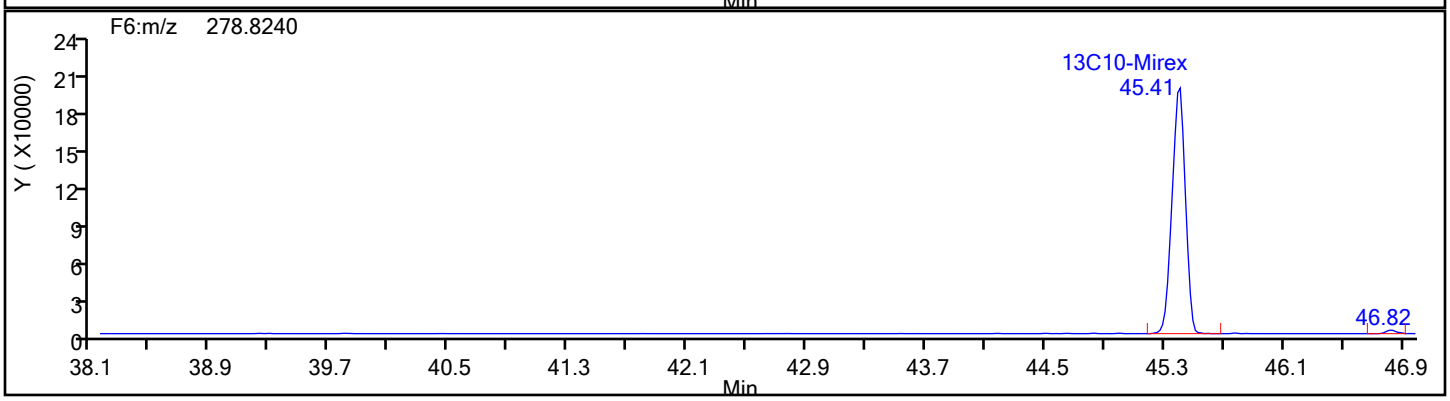
Mirex





Mirex Standards





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Eurofins Knoxville

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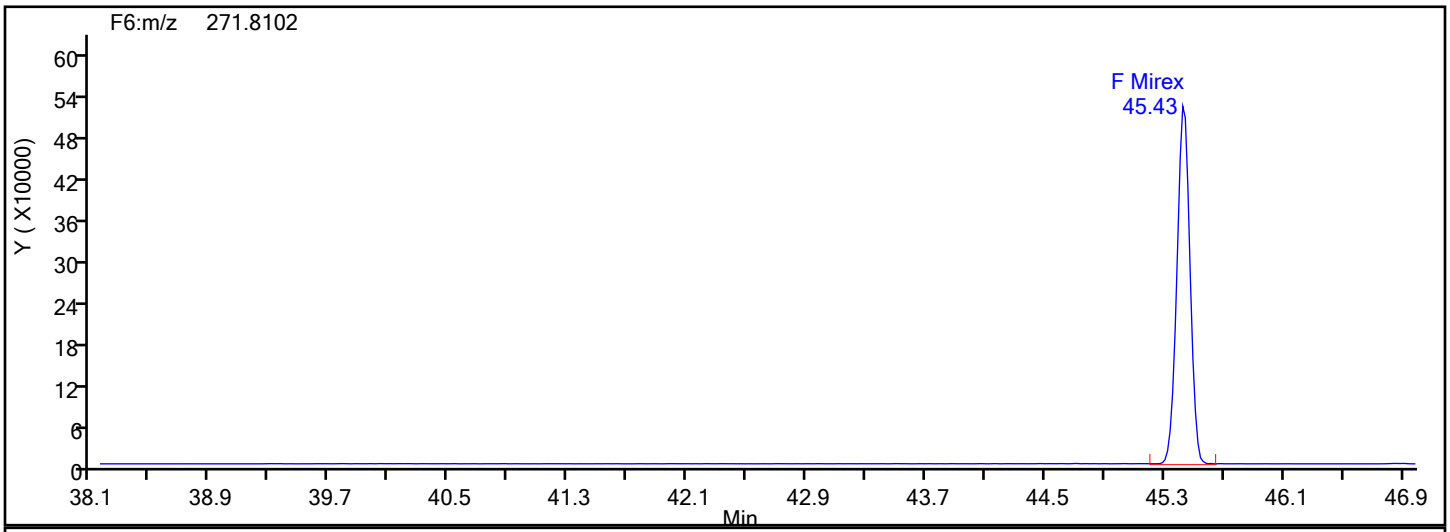
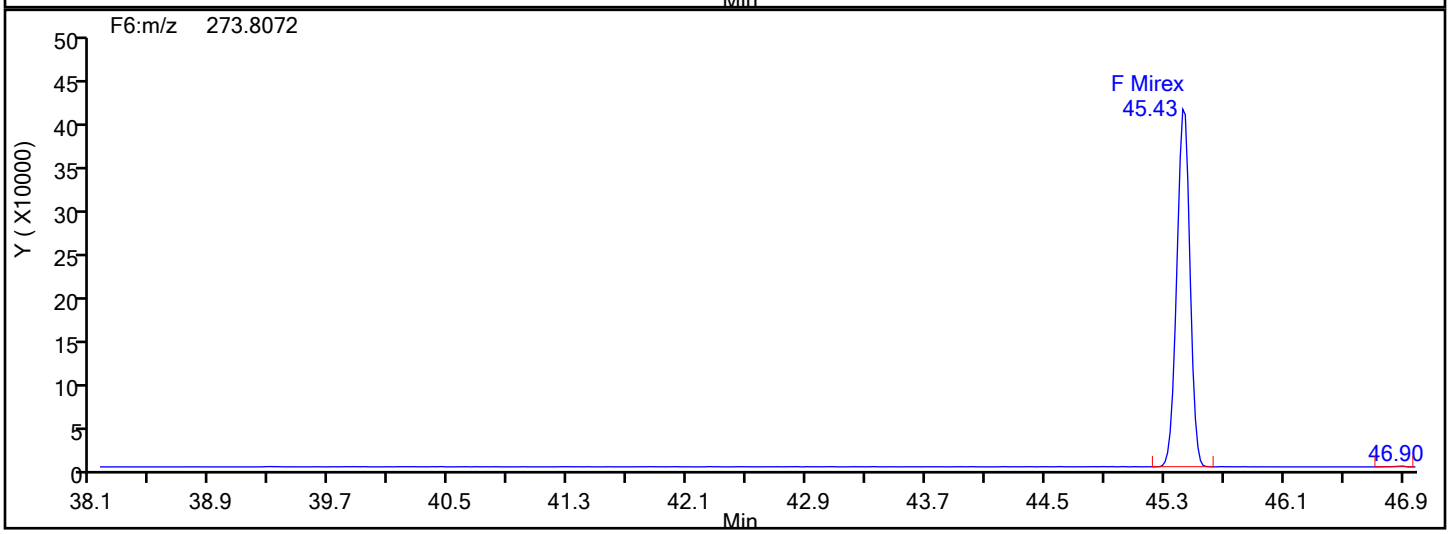
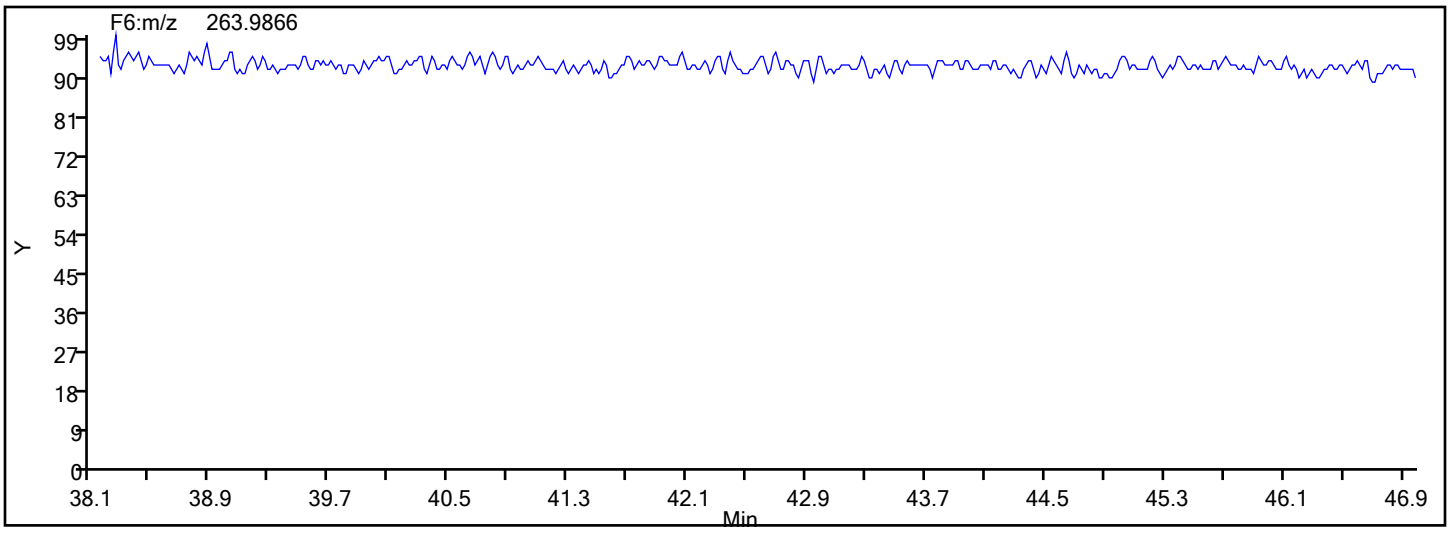
Mirex





Mirex Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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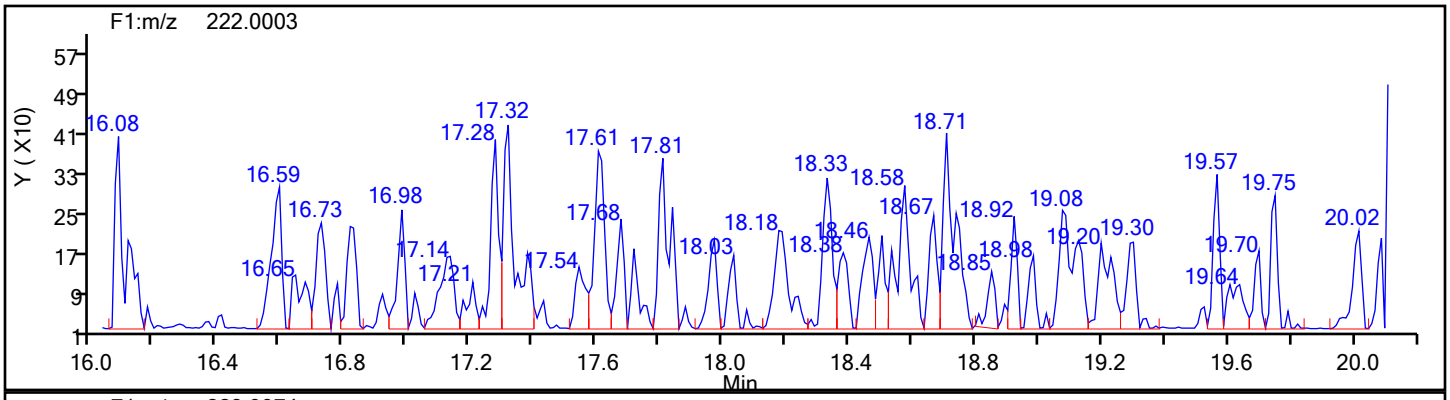
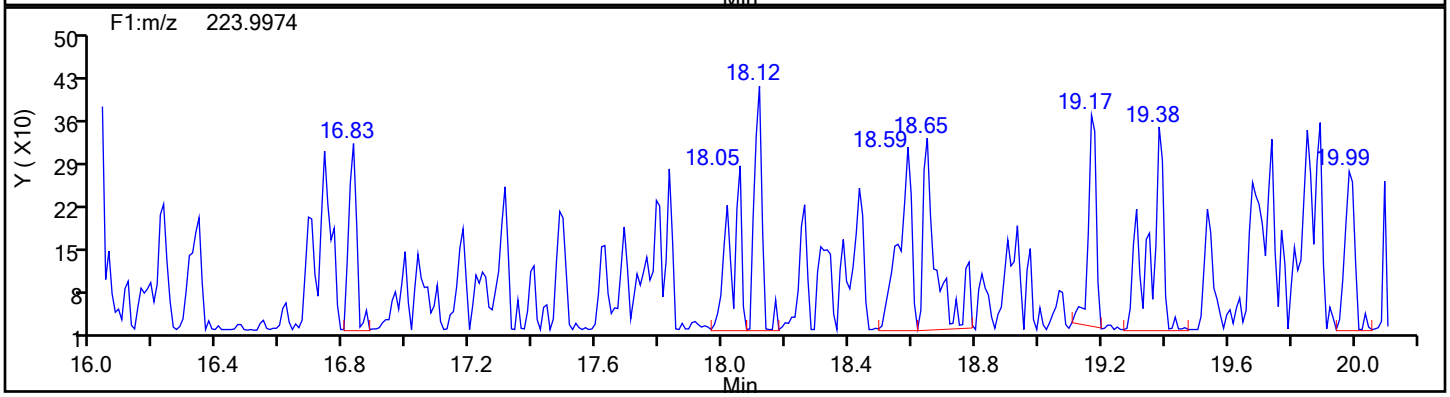
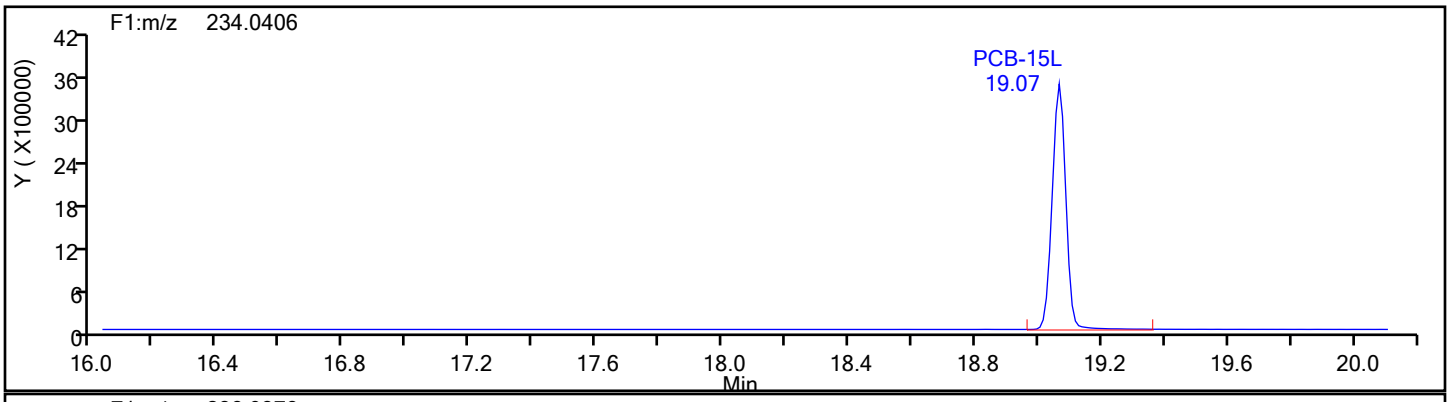
Column Type:	RTX-5	Column Dia:	0.32 mm

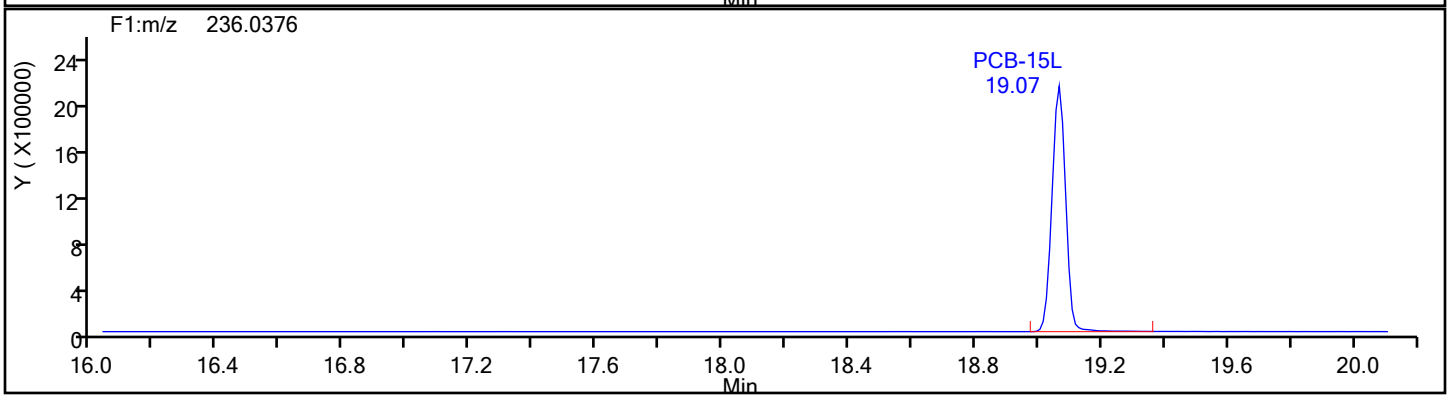
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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Client ID:
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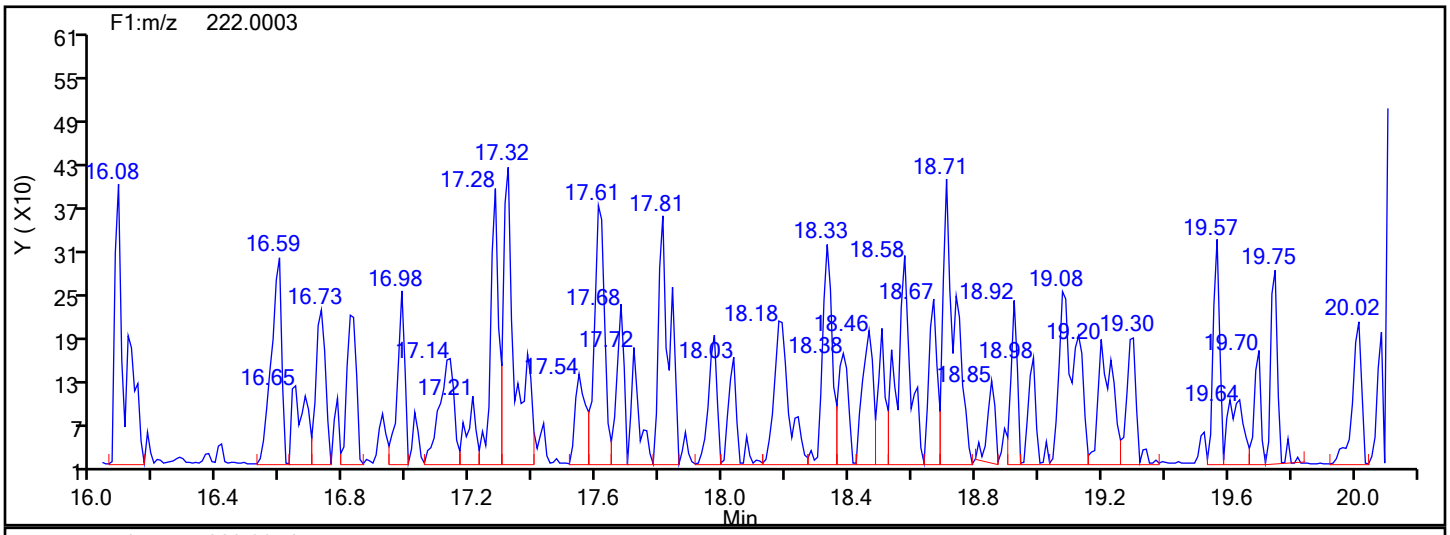
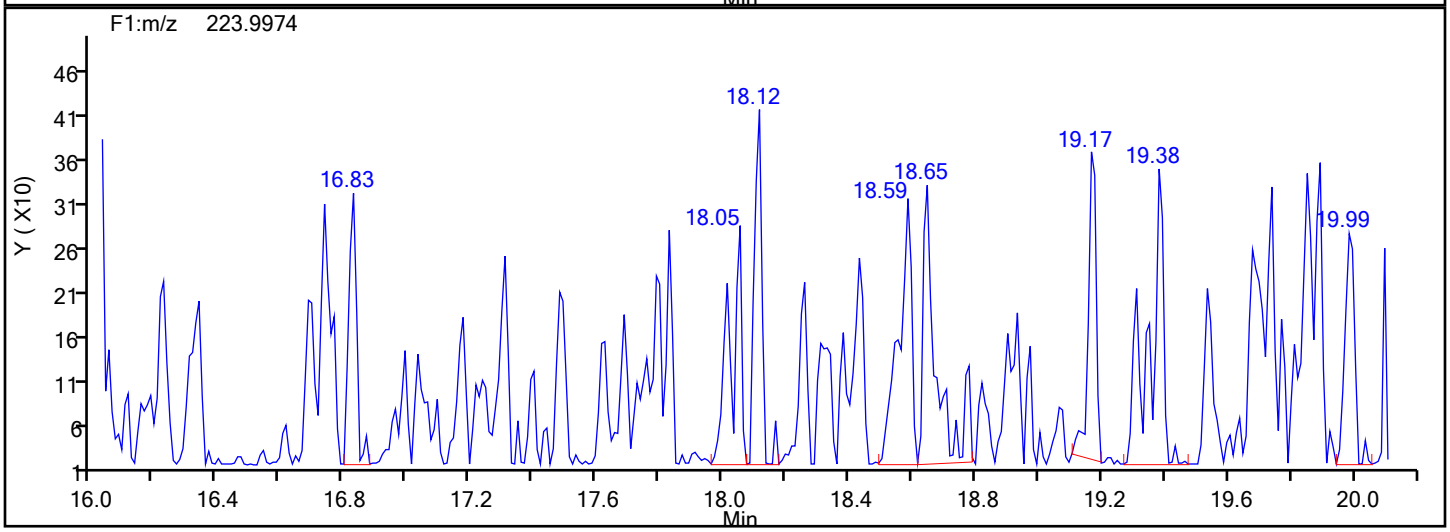
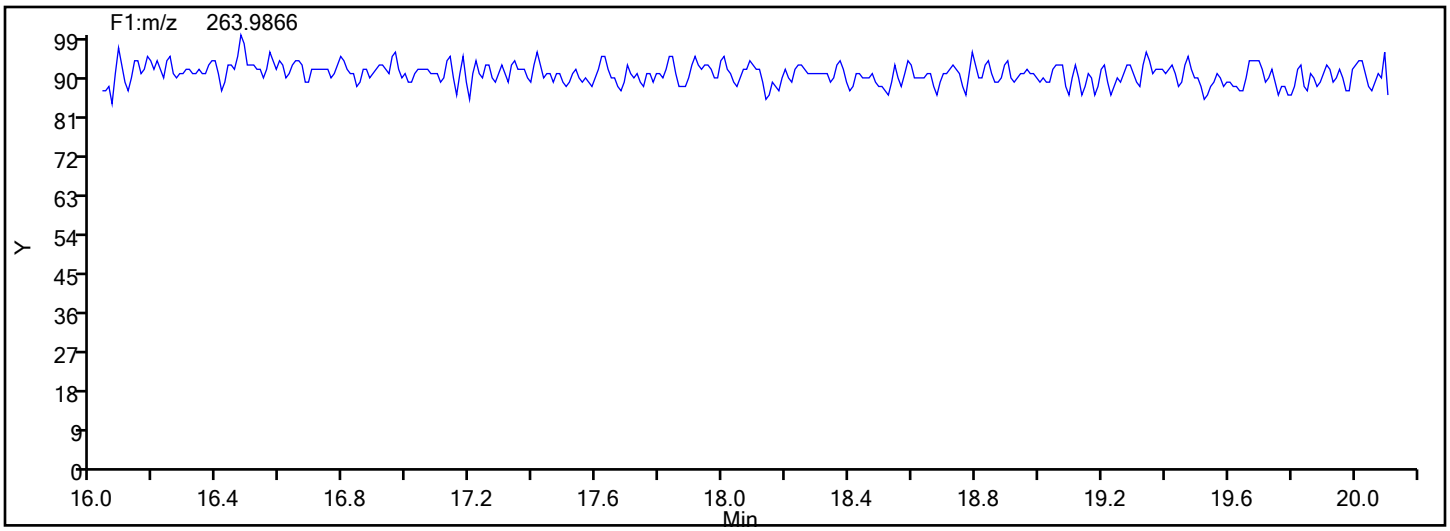
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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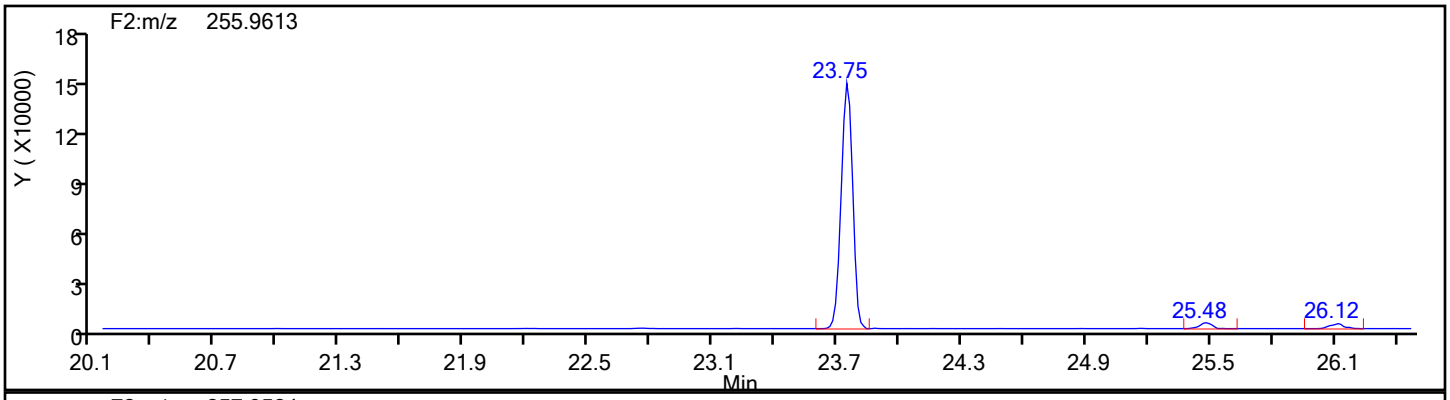
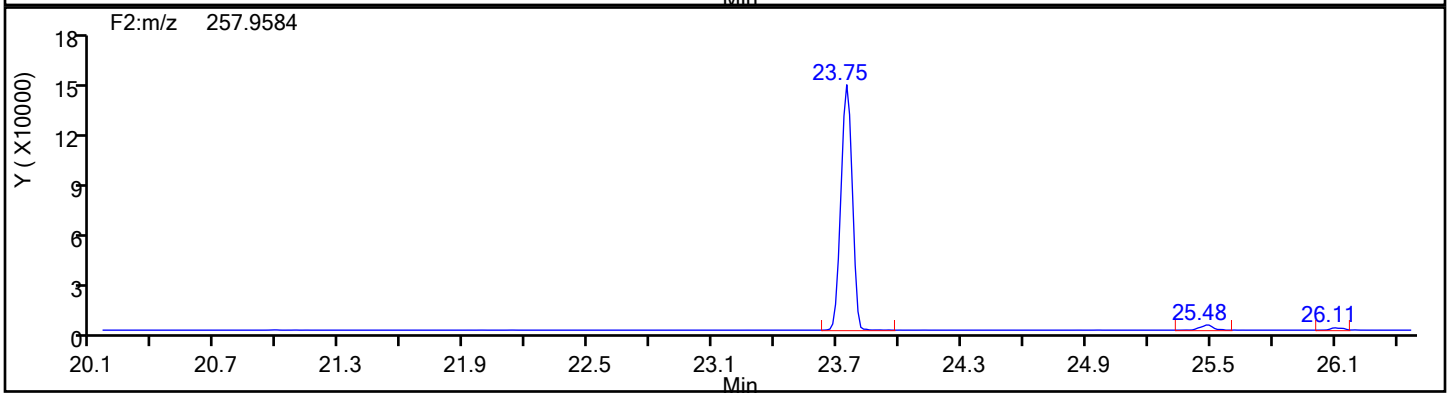
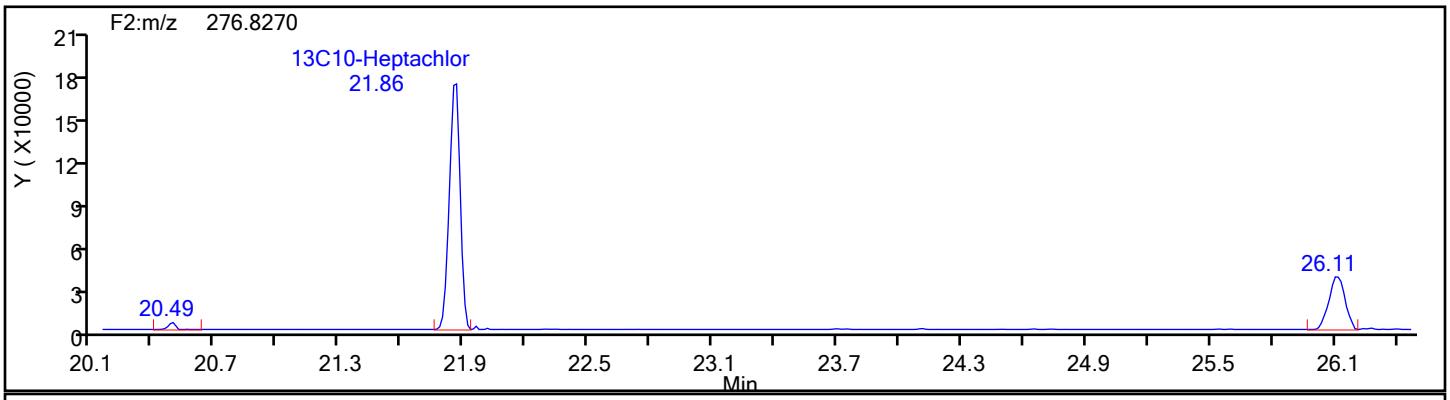
Column Type:	RTX-5	Column Dia:	0.32 mm

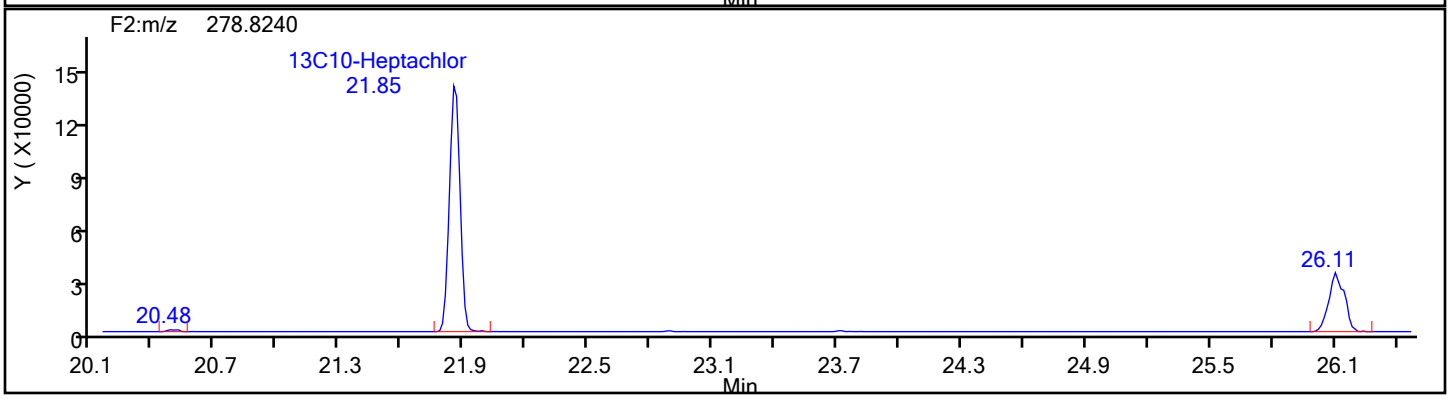
PCB-36





PCB-36 Standards





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Eurofins Knoxville

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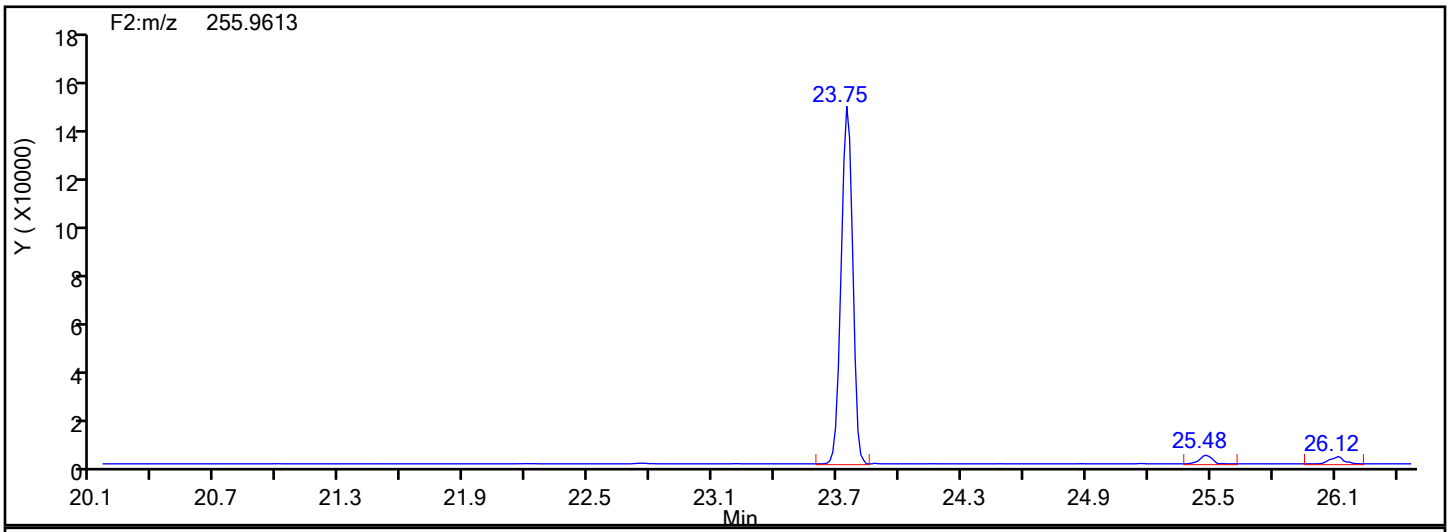
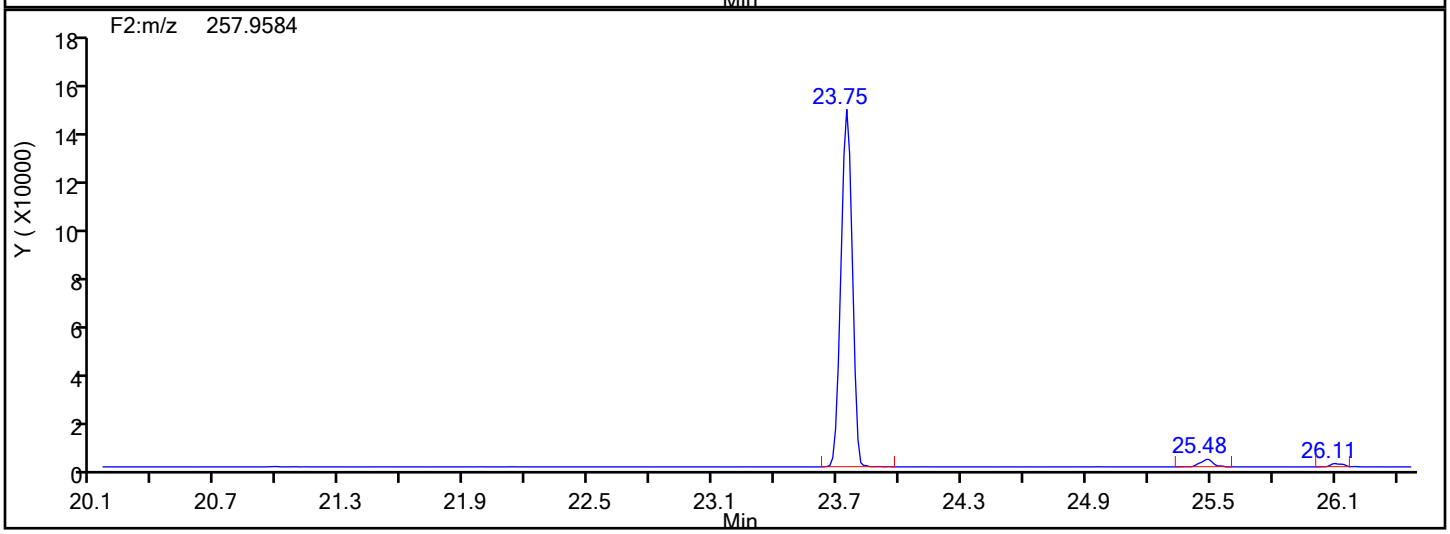
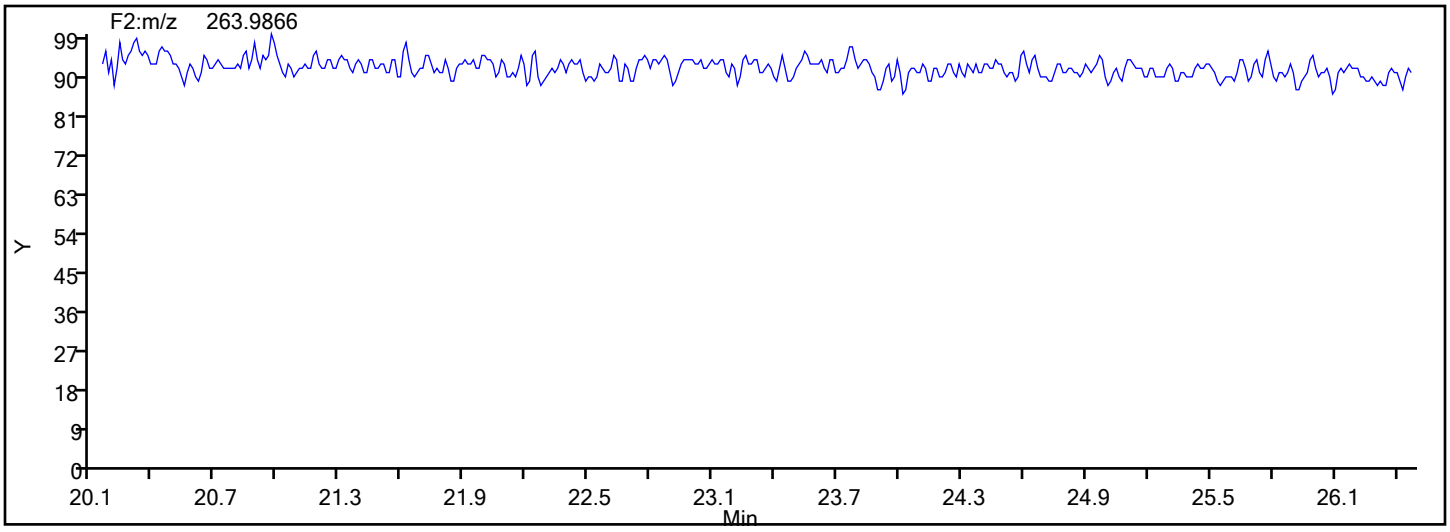
PCB-36





PCB-36 Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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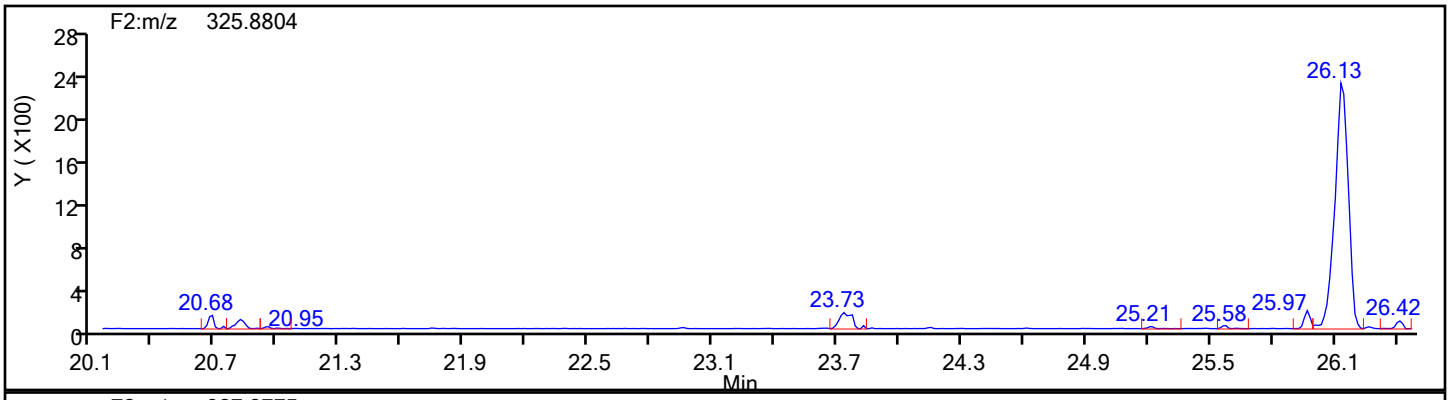
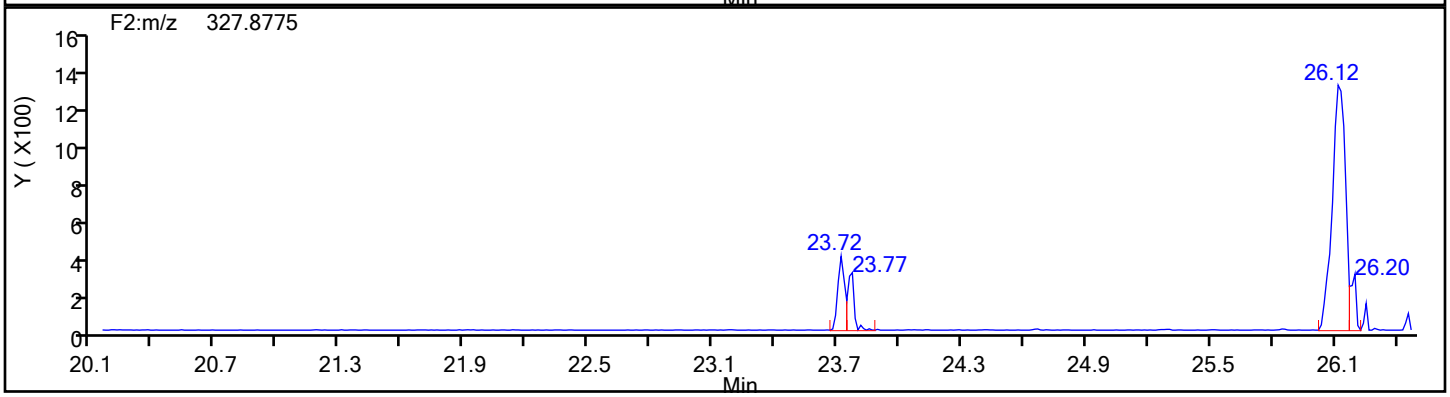
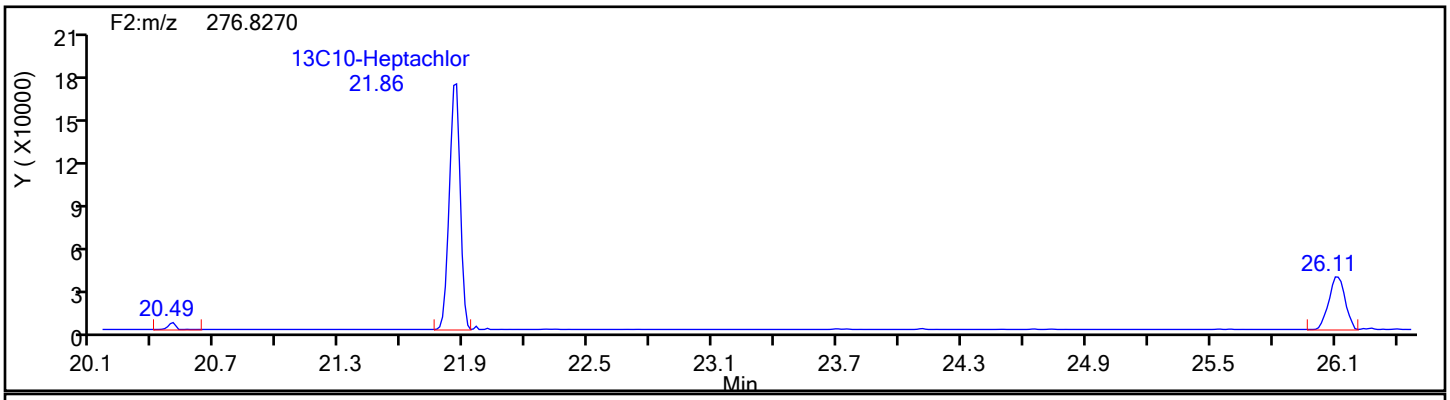
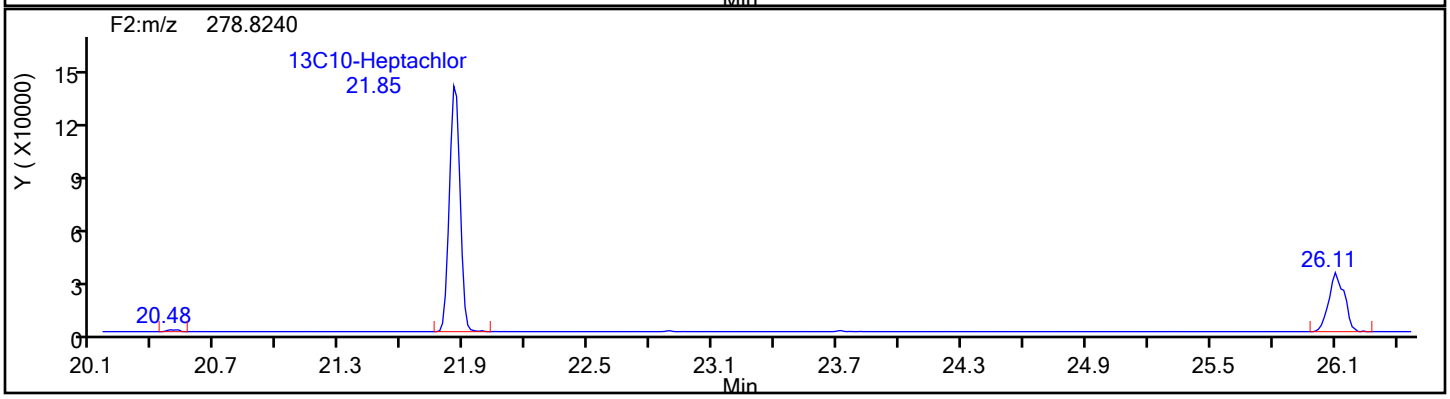
PCB-104





PCB-104 Standards





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Eurofins Knoxville

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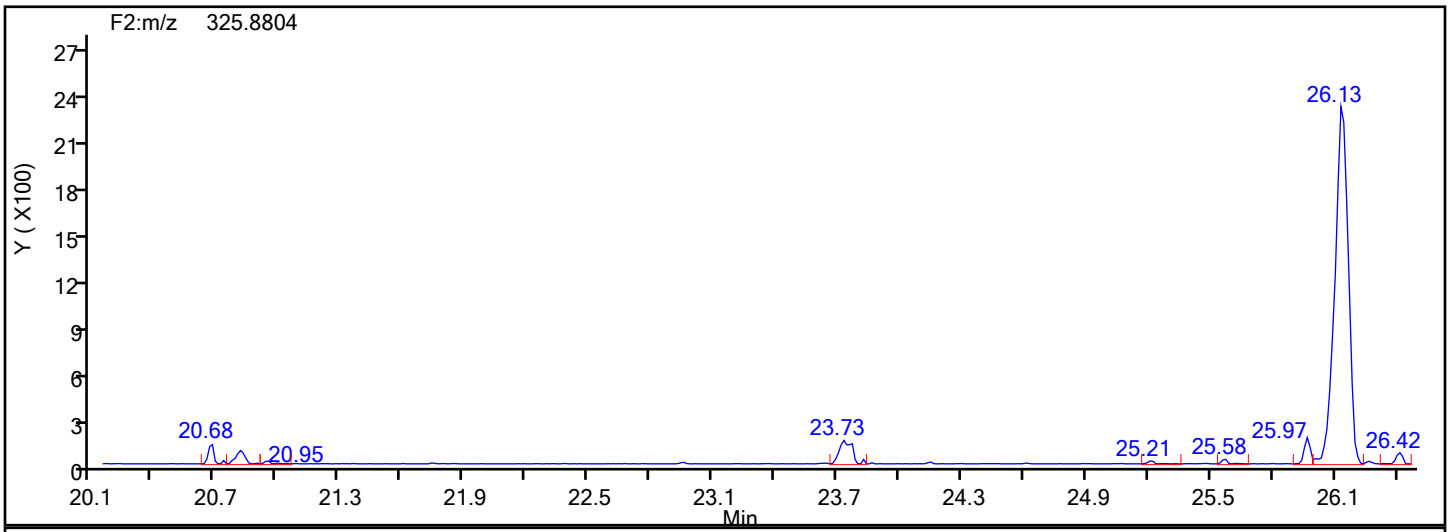
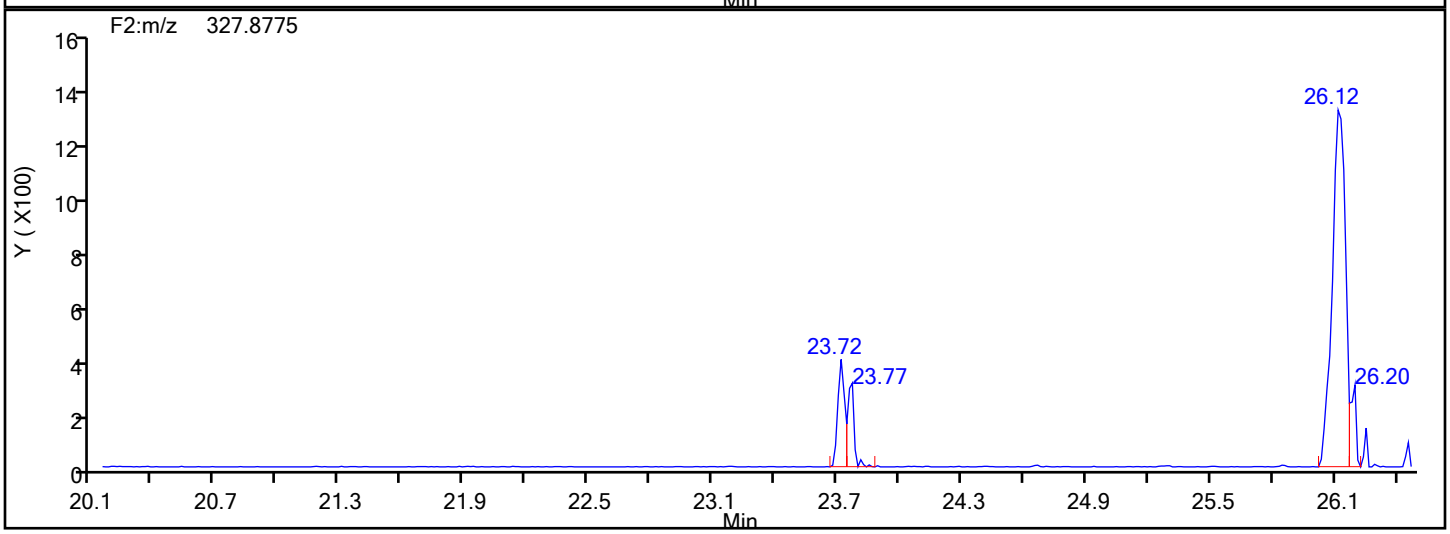
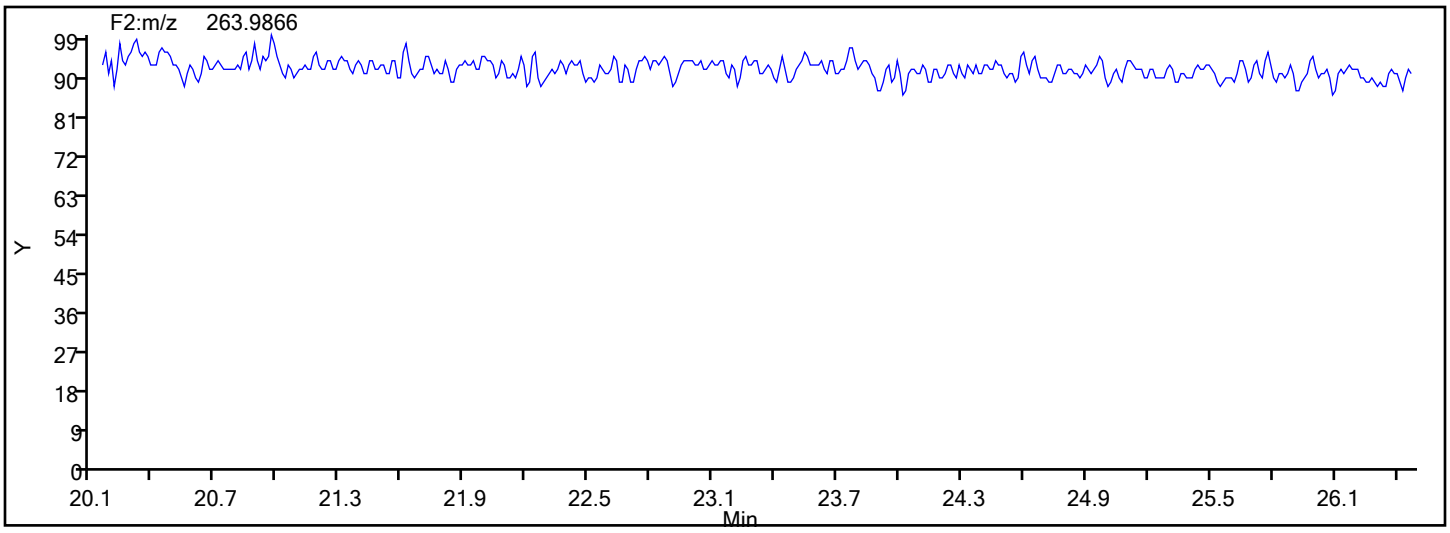
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



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Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
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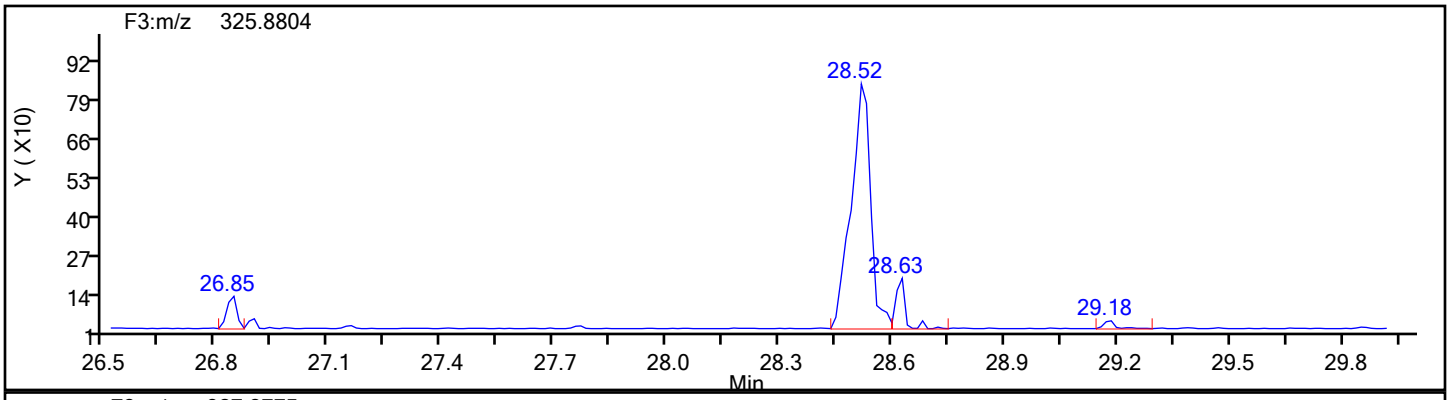
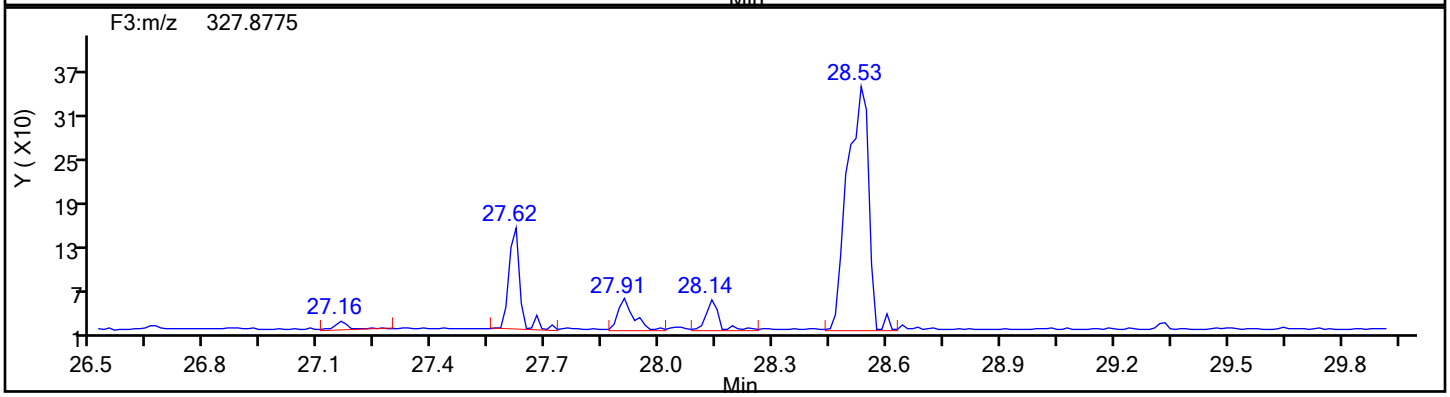
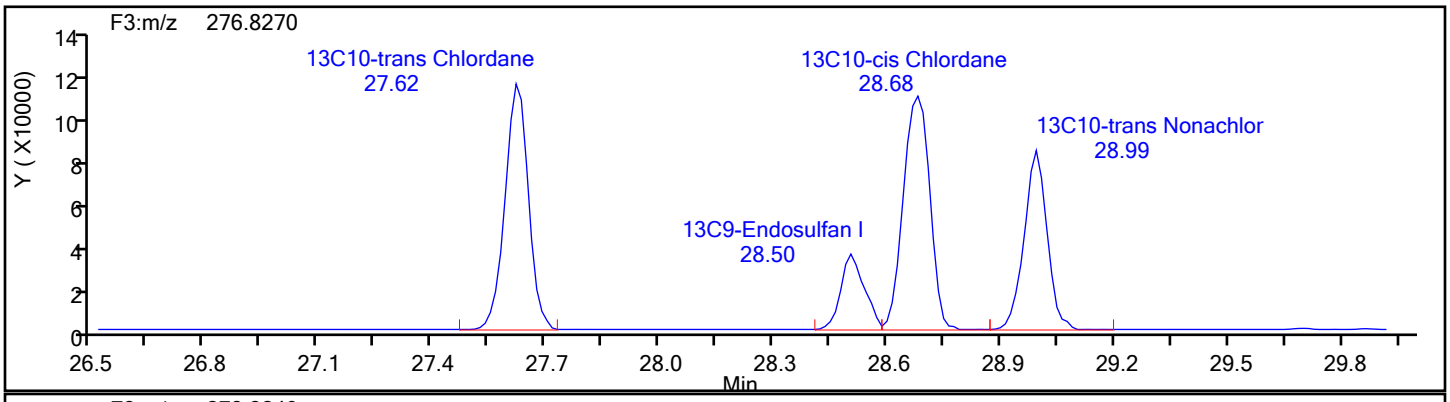
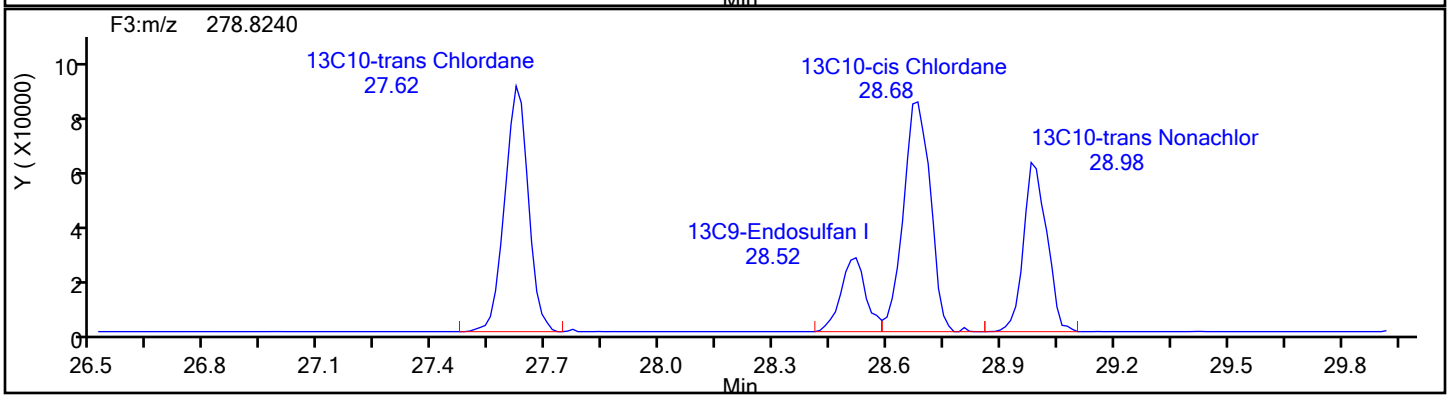
PCB-121





PCB-121 Standards



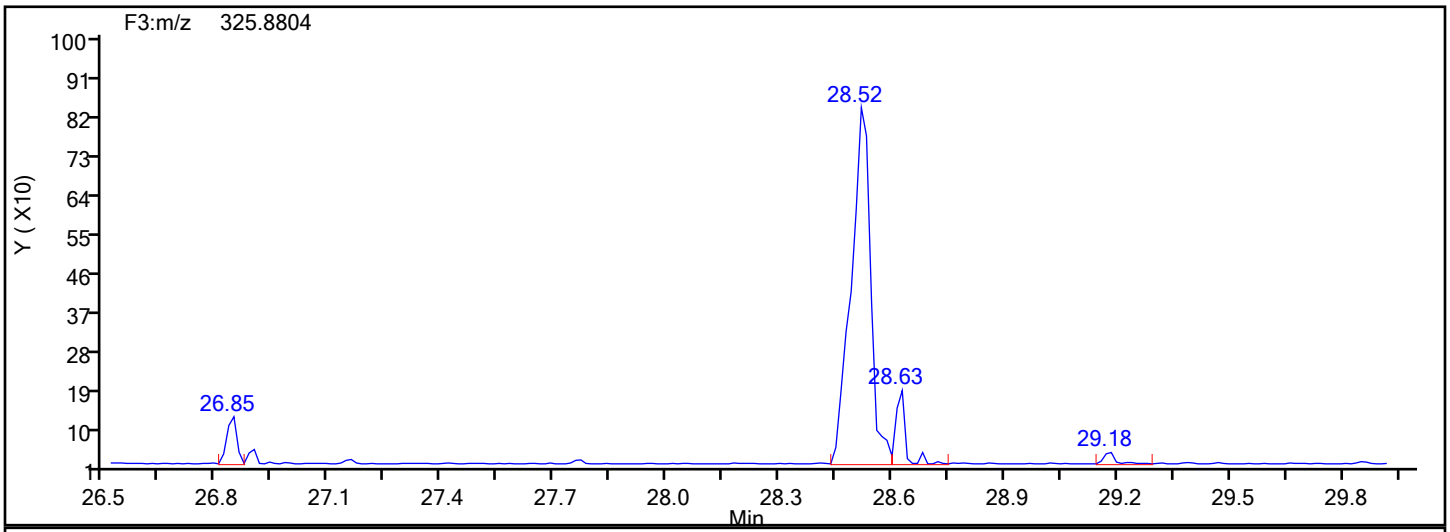


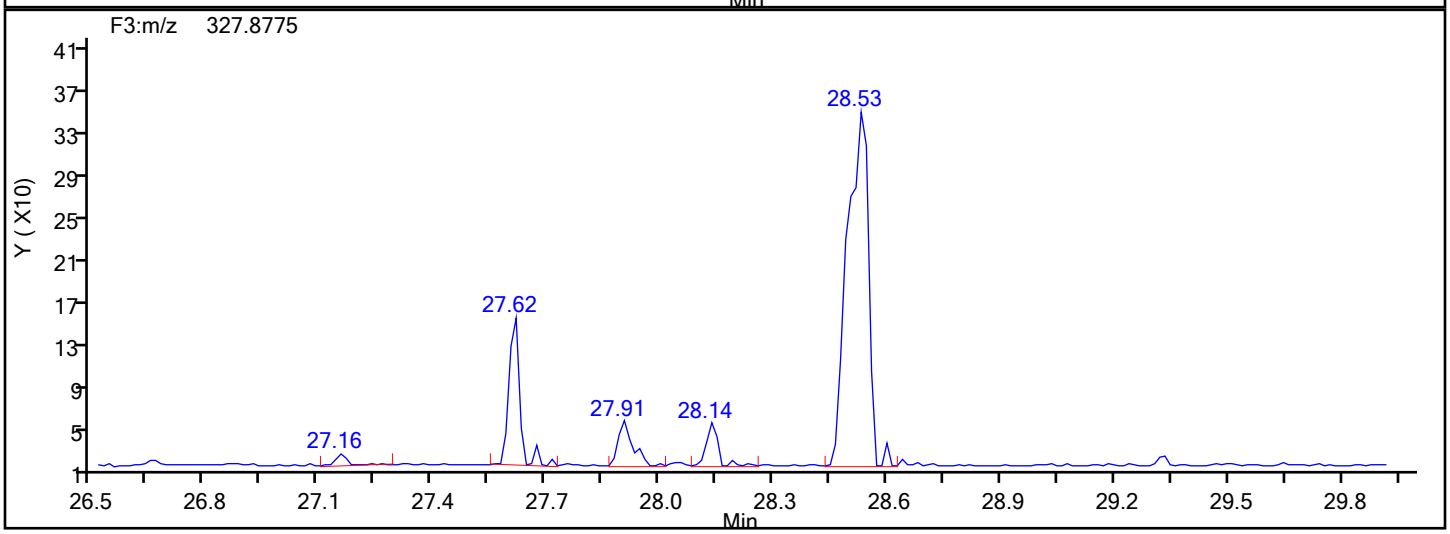
Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

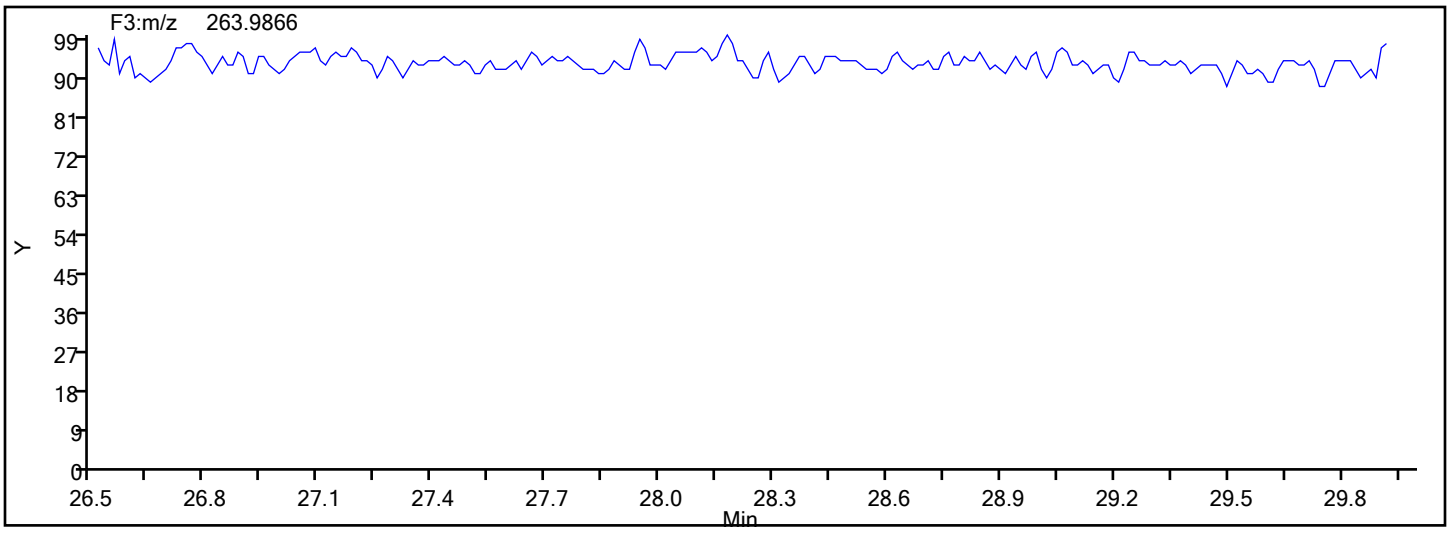
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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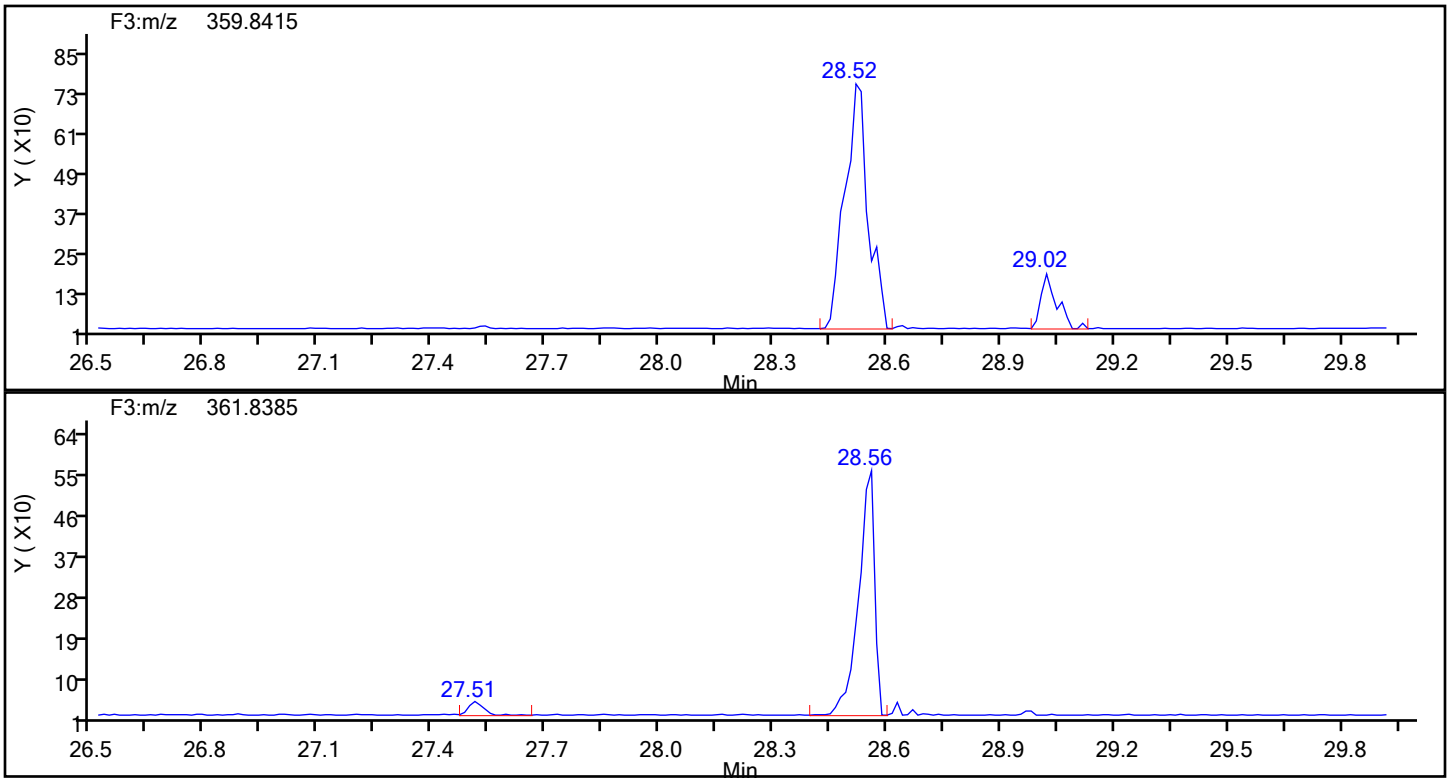
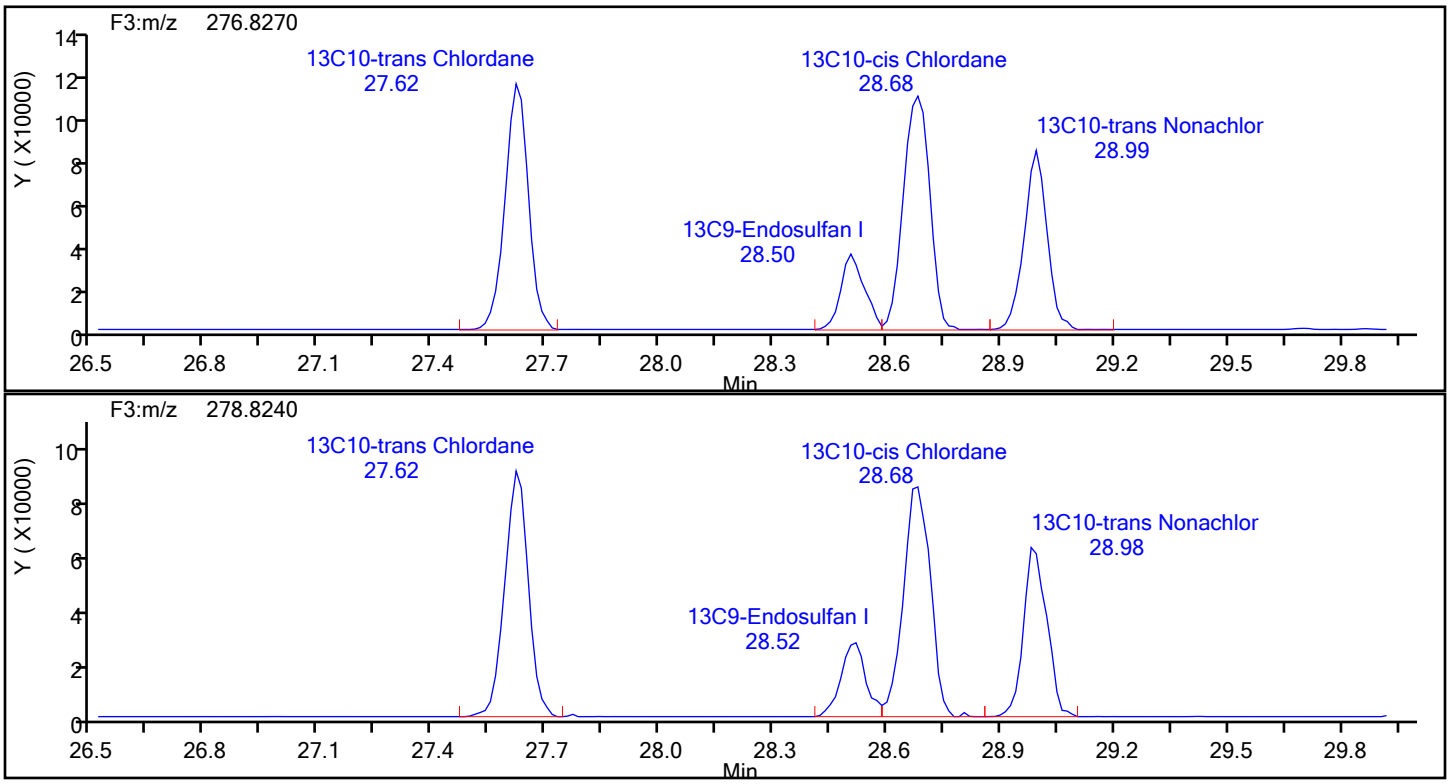
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
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Instrument ID: D3PST Operator ID: Xcalibur_System
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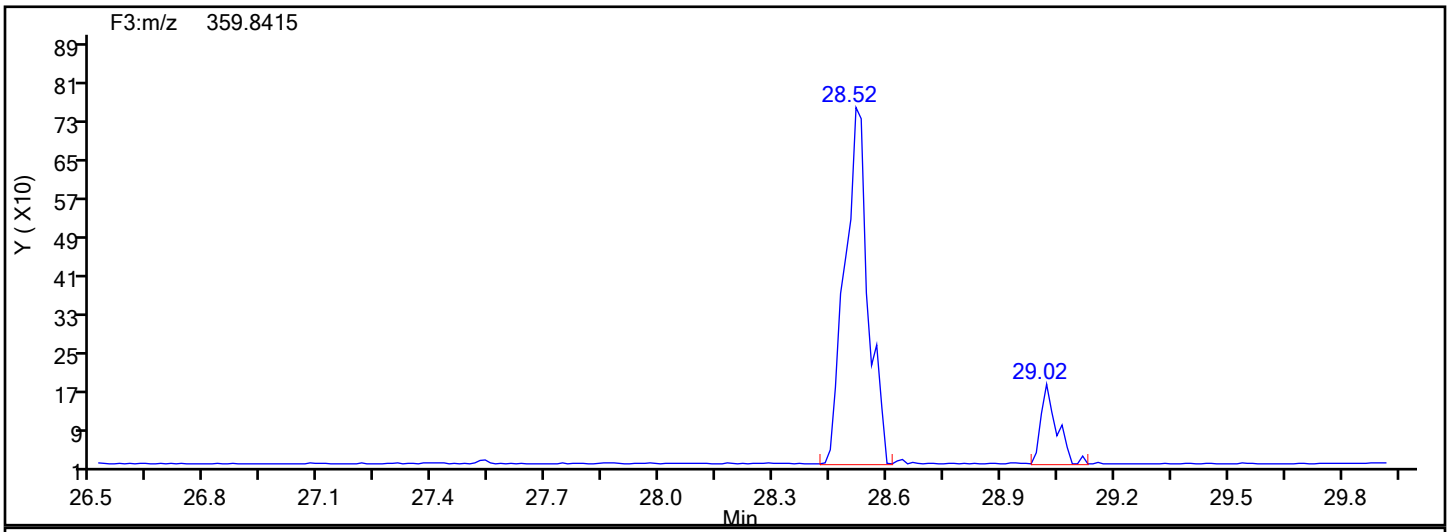
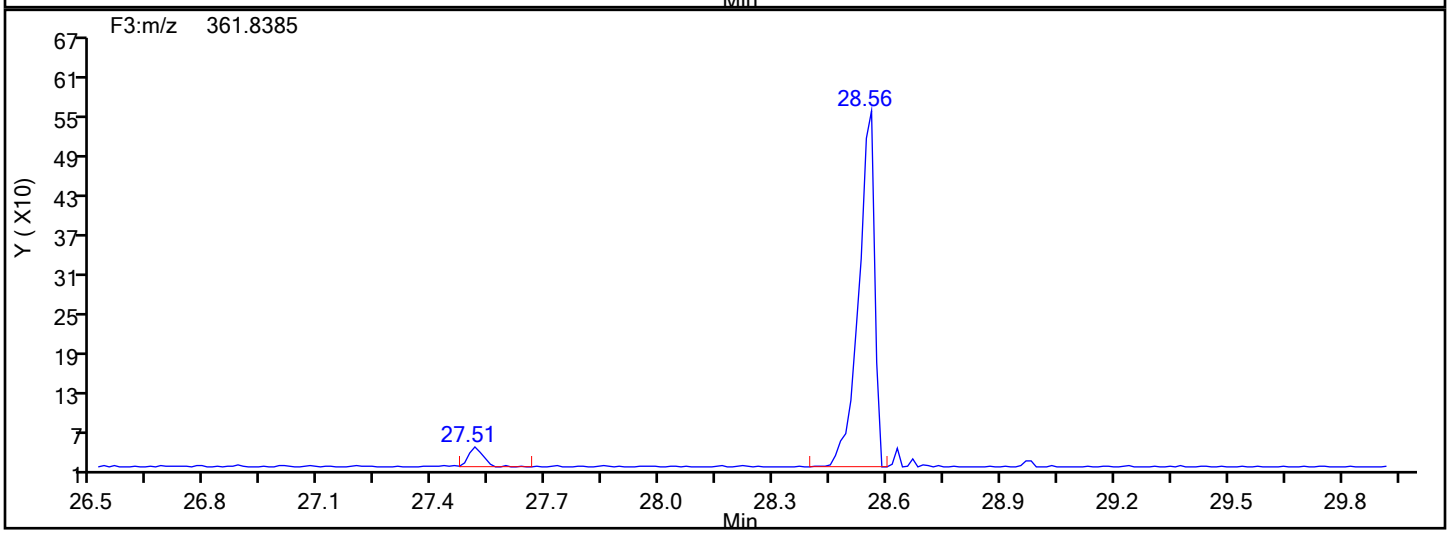
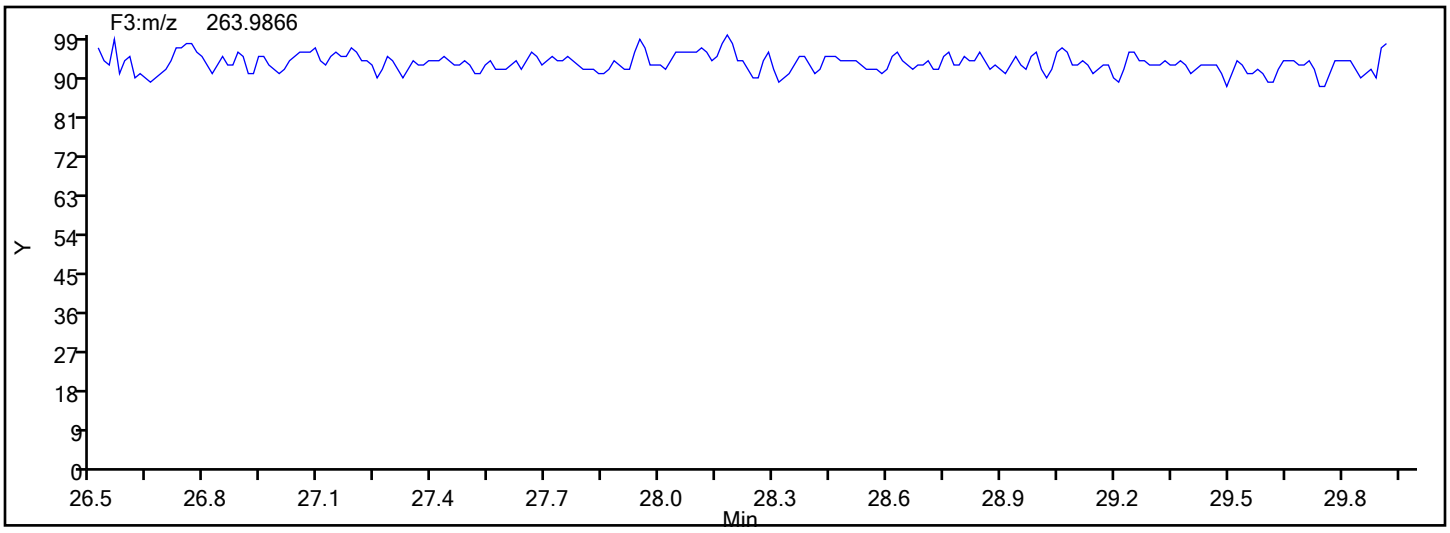
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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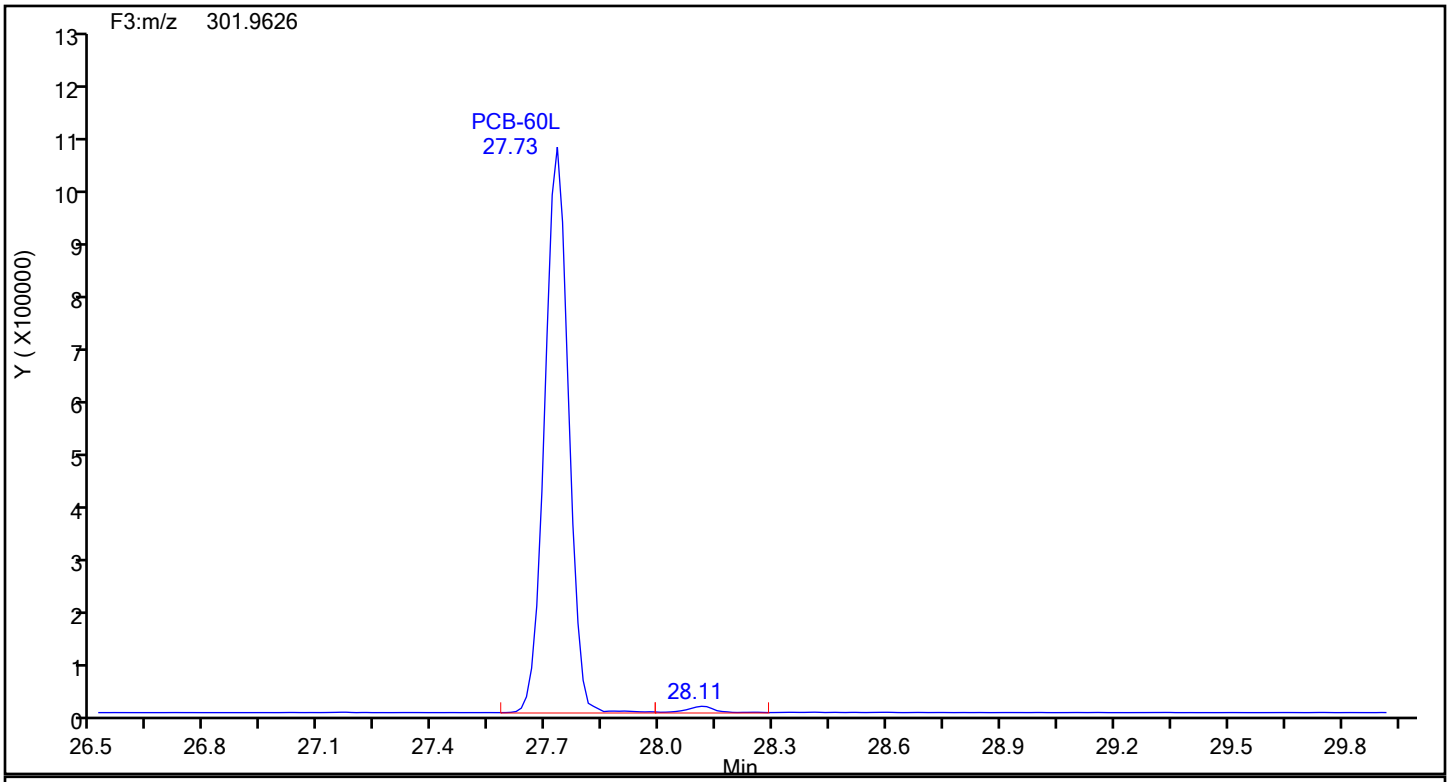
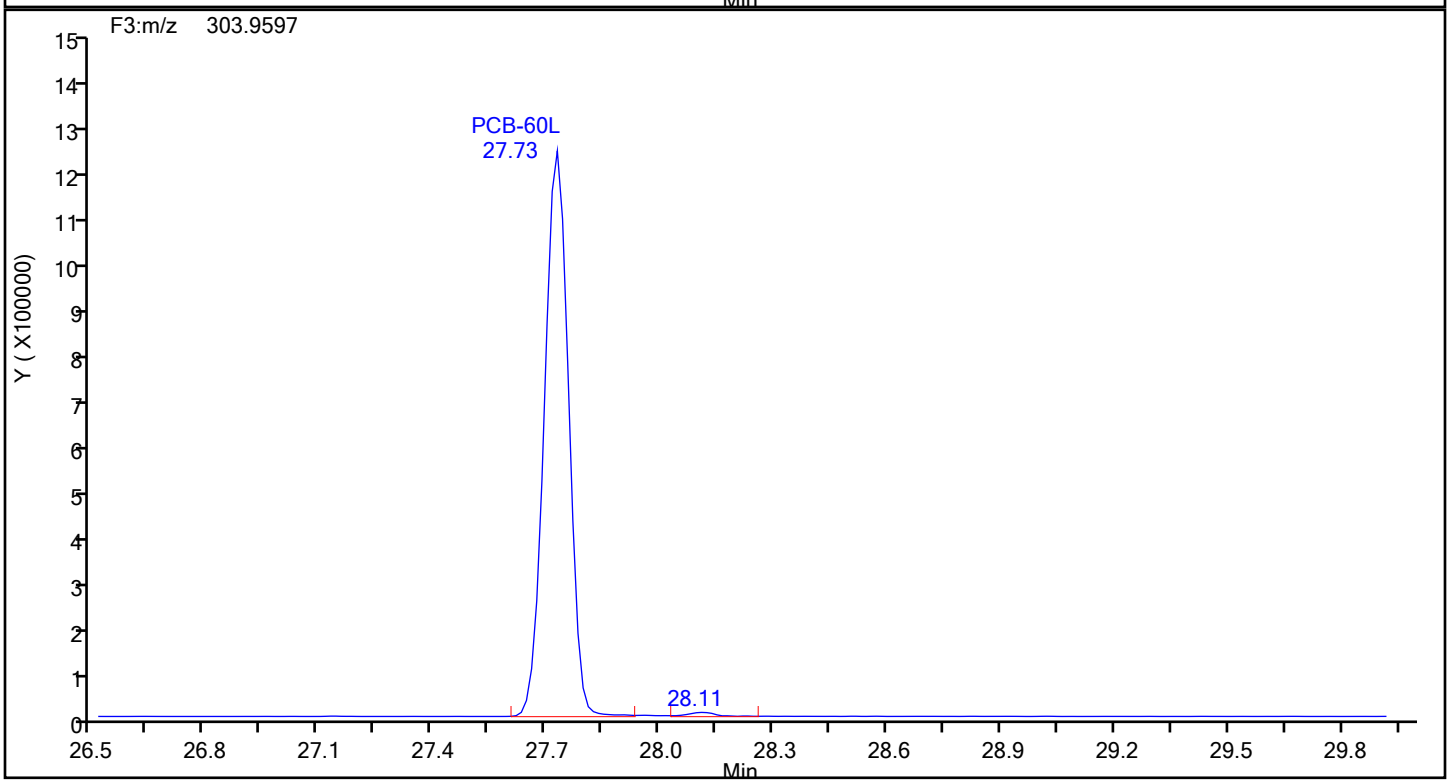
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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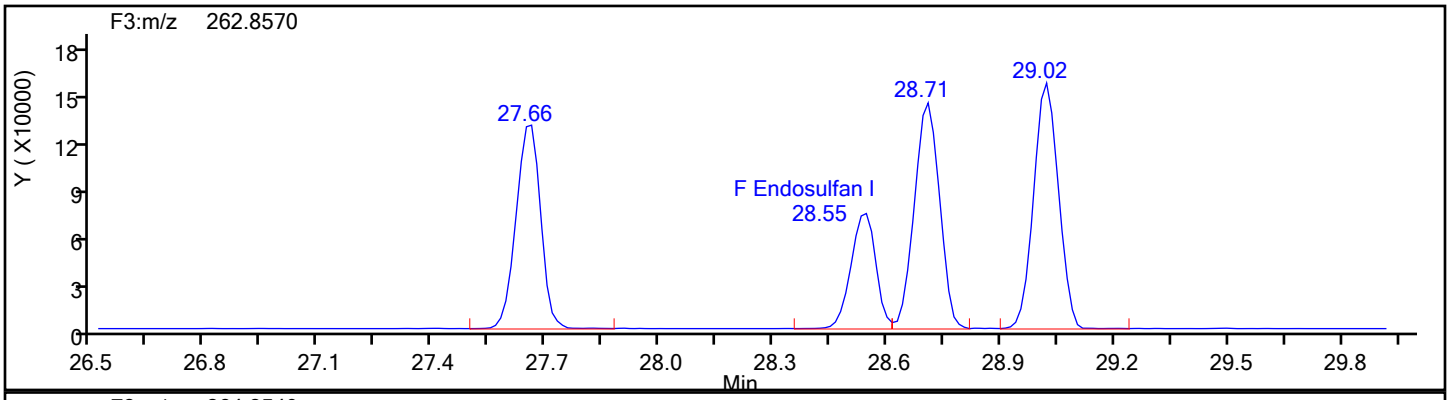
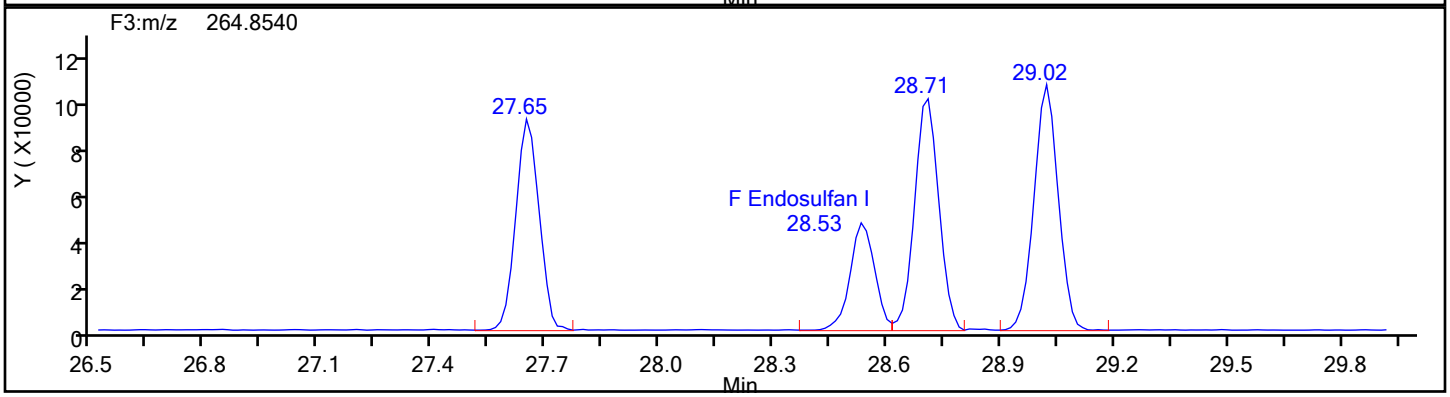
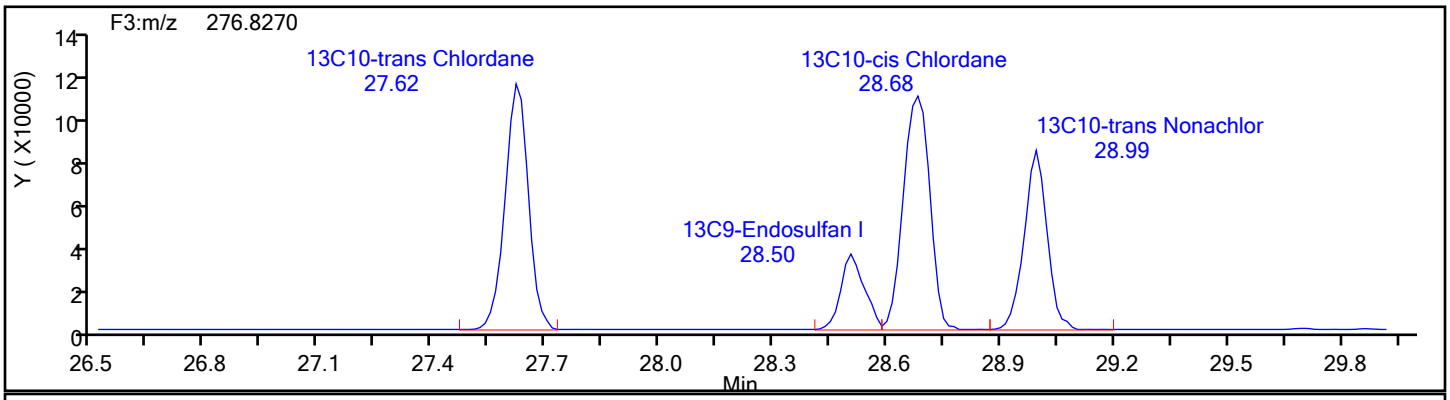
Column Type:	RTX-5	Column Dia:	0.32 mm

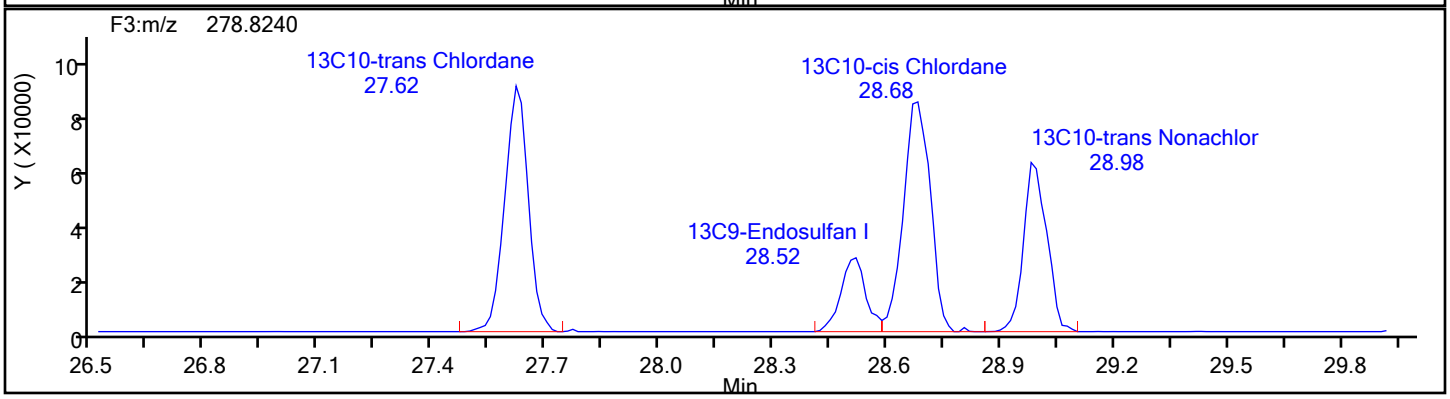
Endosulfan I





Endosulfan I Standards





Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
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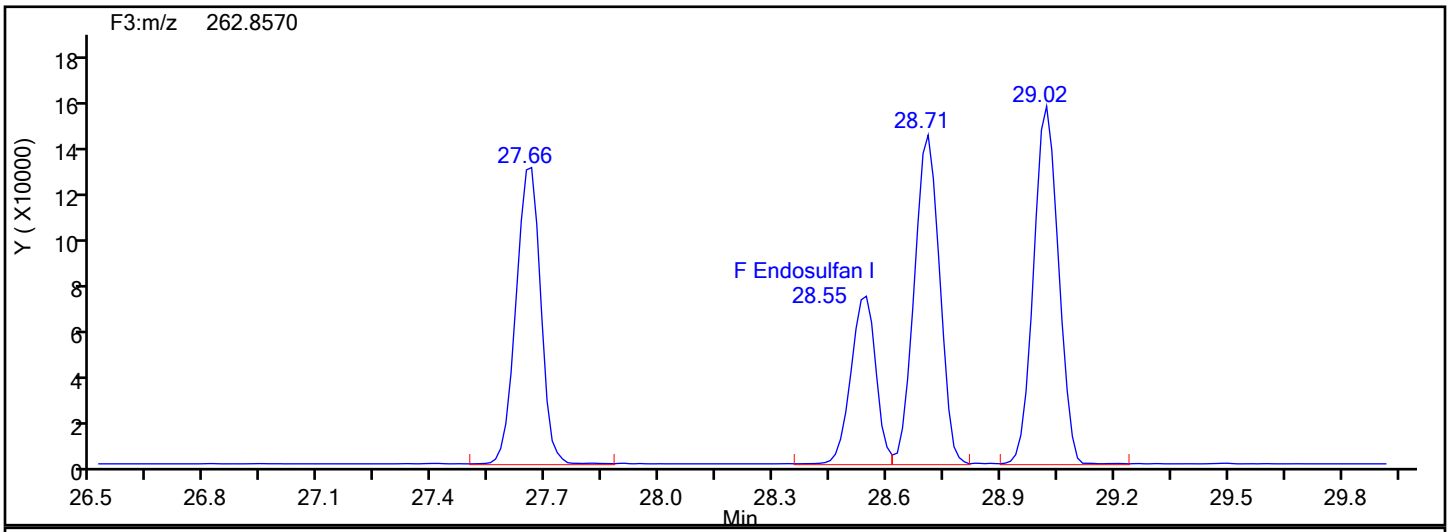
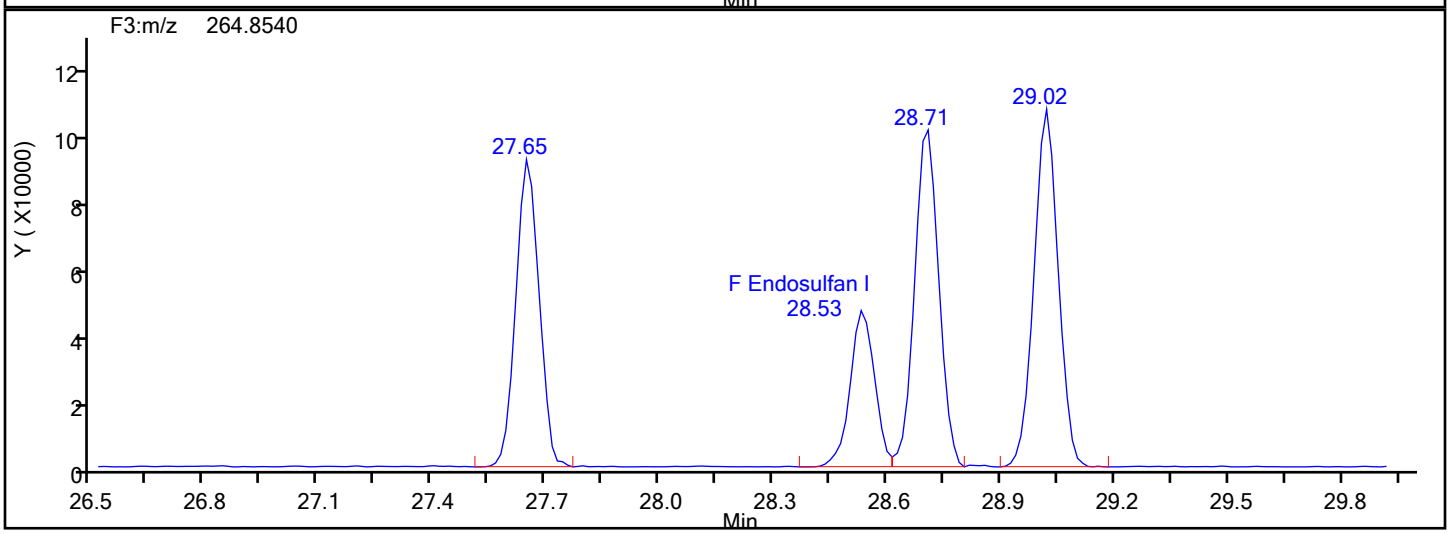
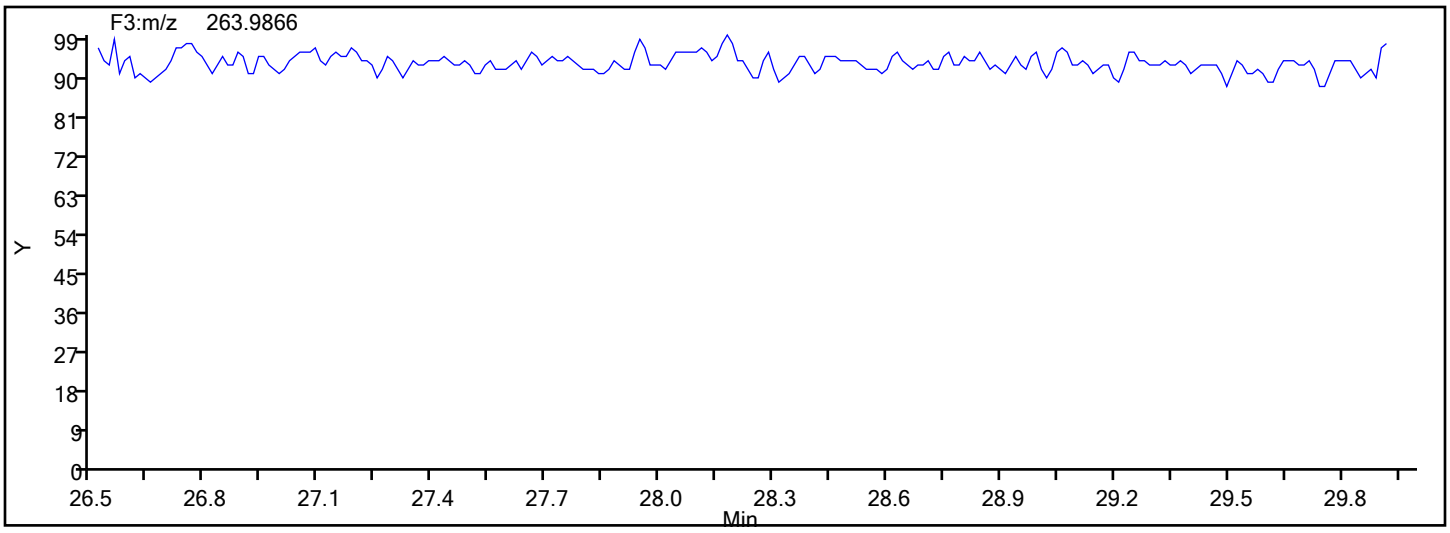
Column Type: RTX-5 Column Dia: 0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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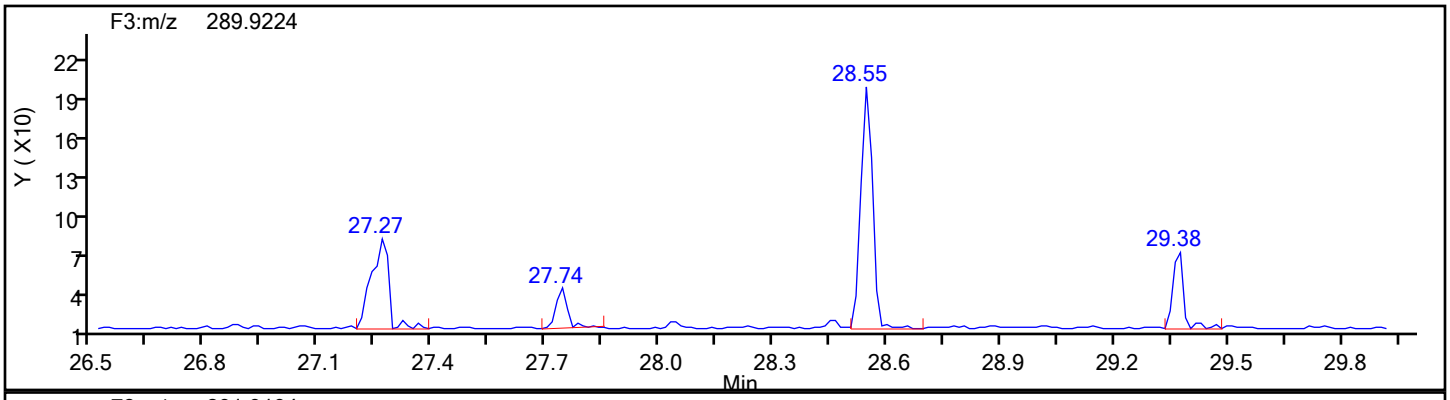
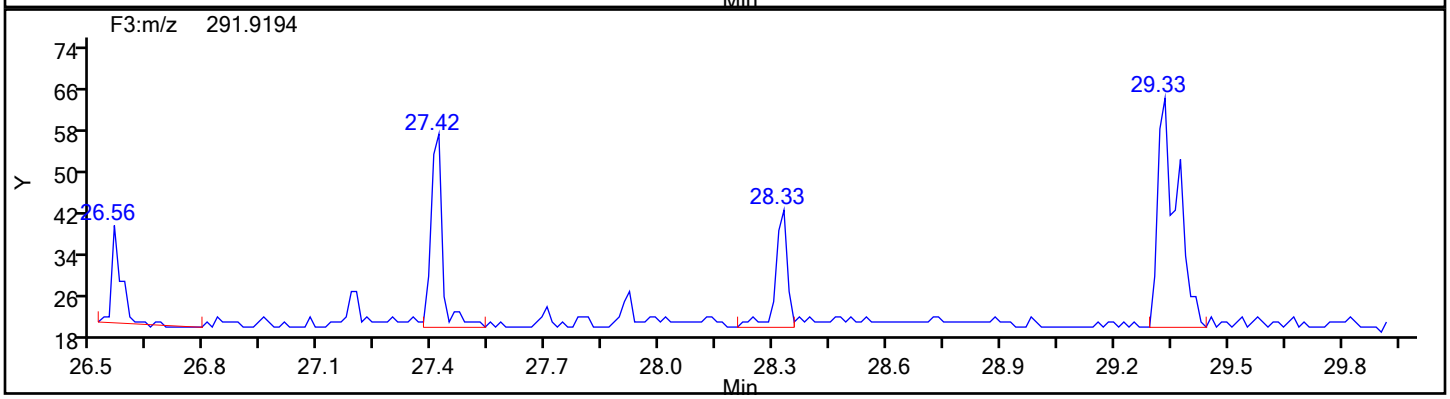
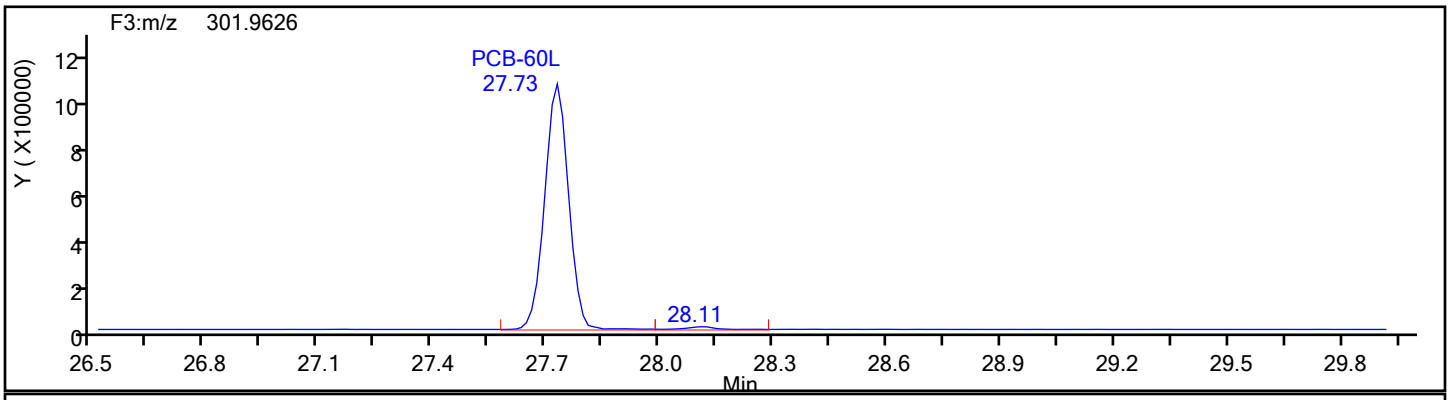
Column Type:	RTX-5	Column Dia:	0.32 mm

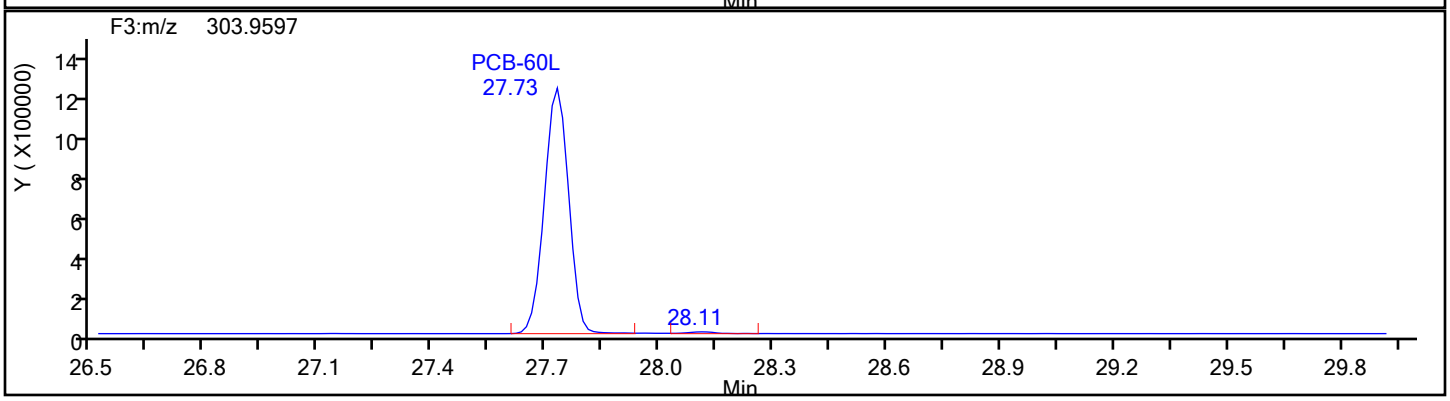
PCB-78





PCB-78 Standards





Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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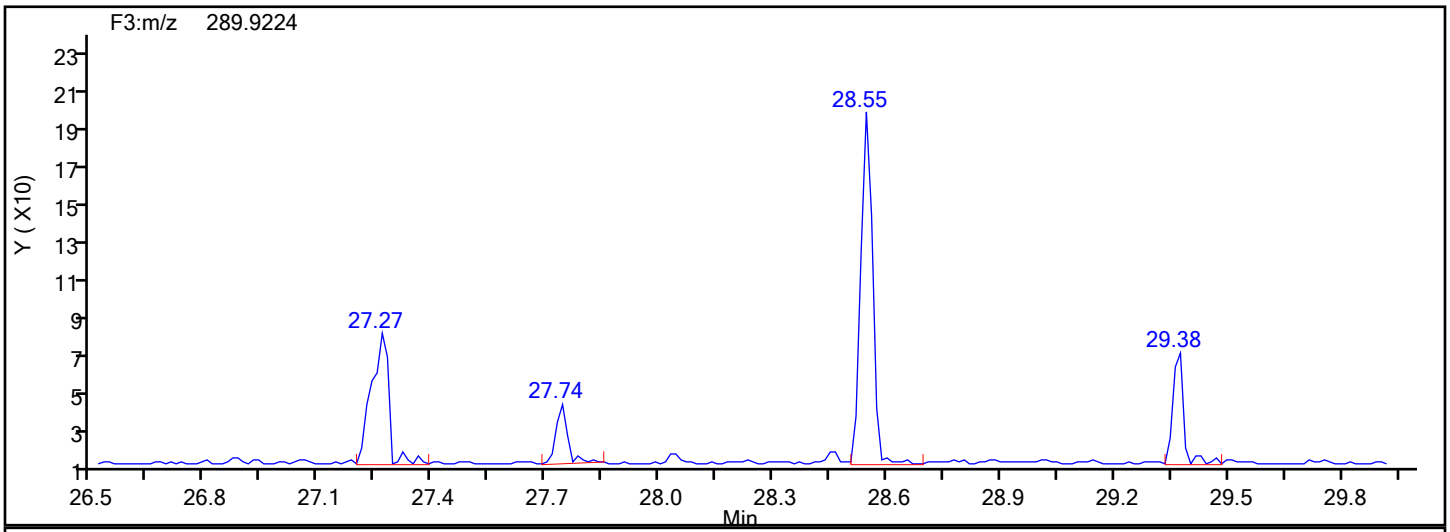
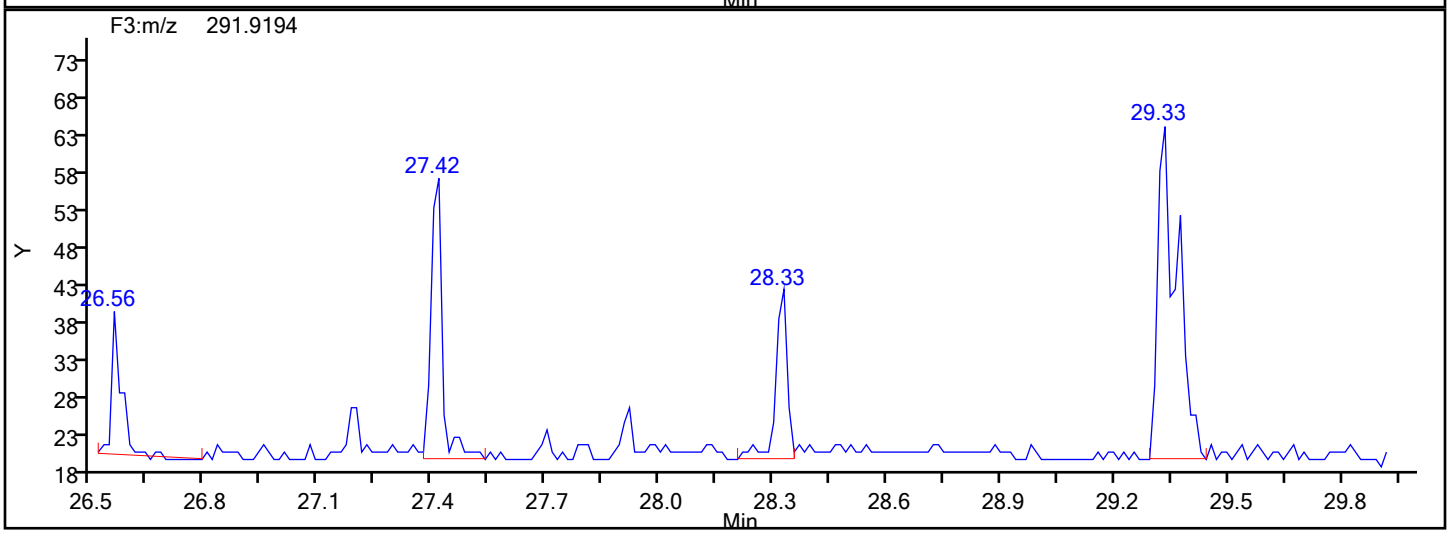
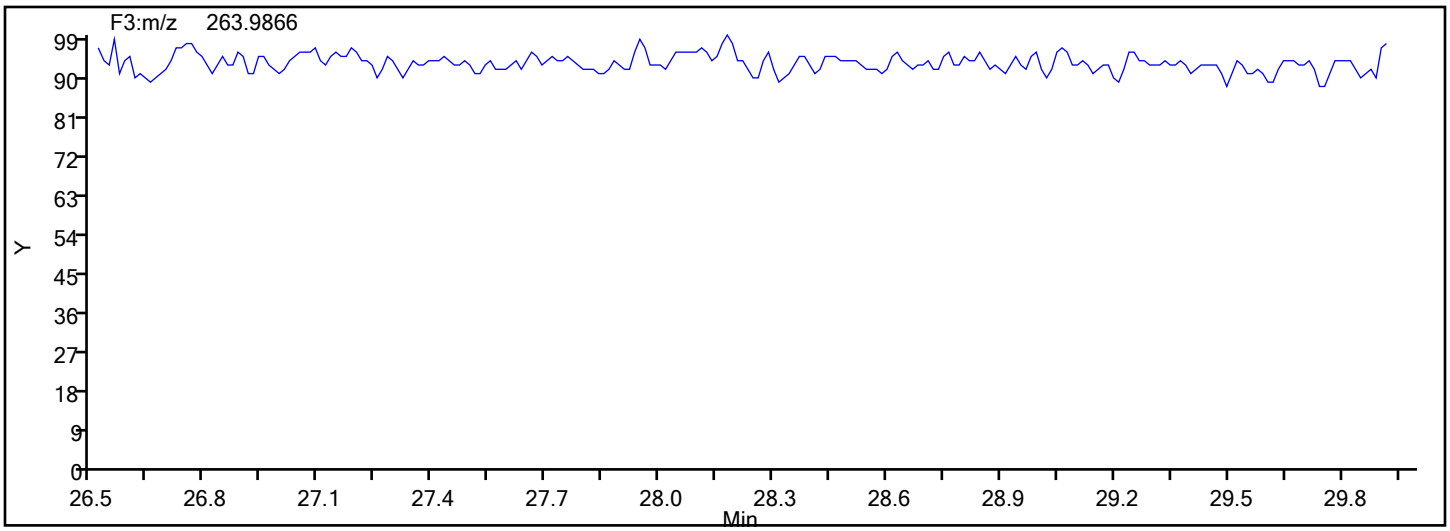
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



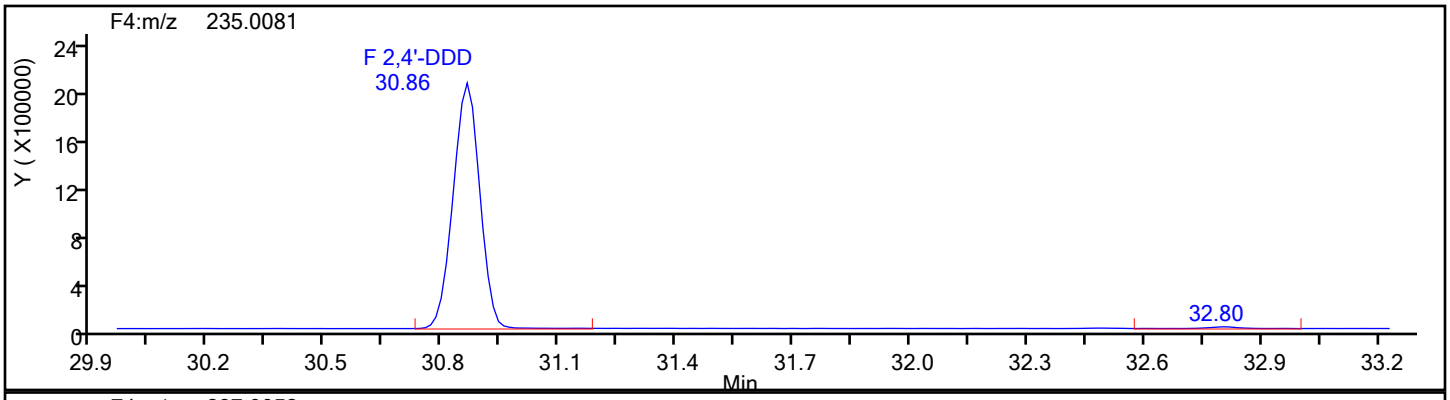
Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

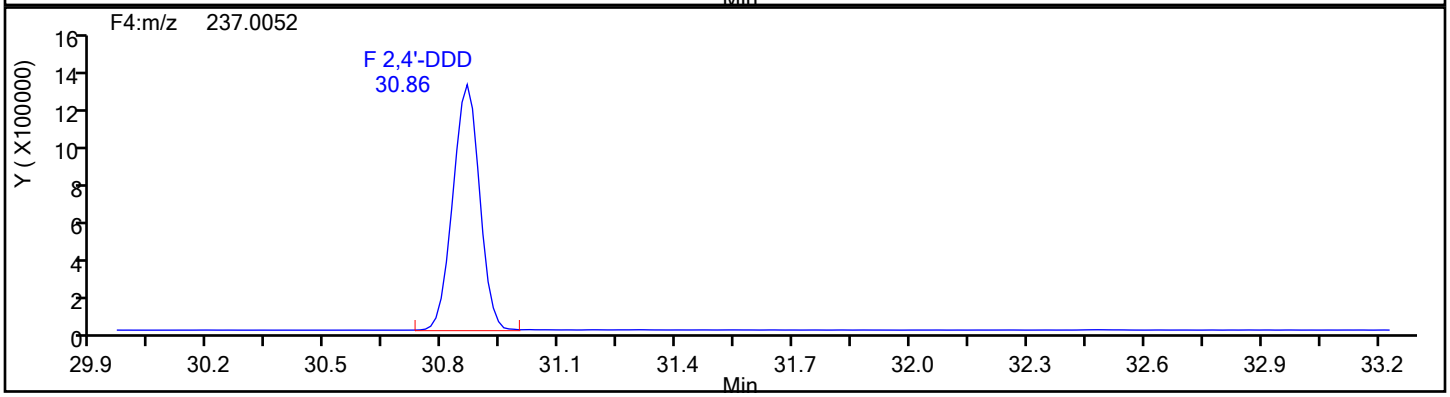
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

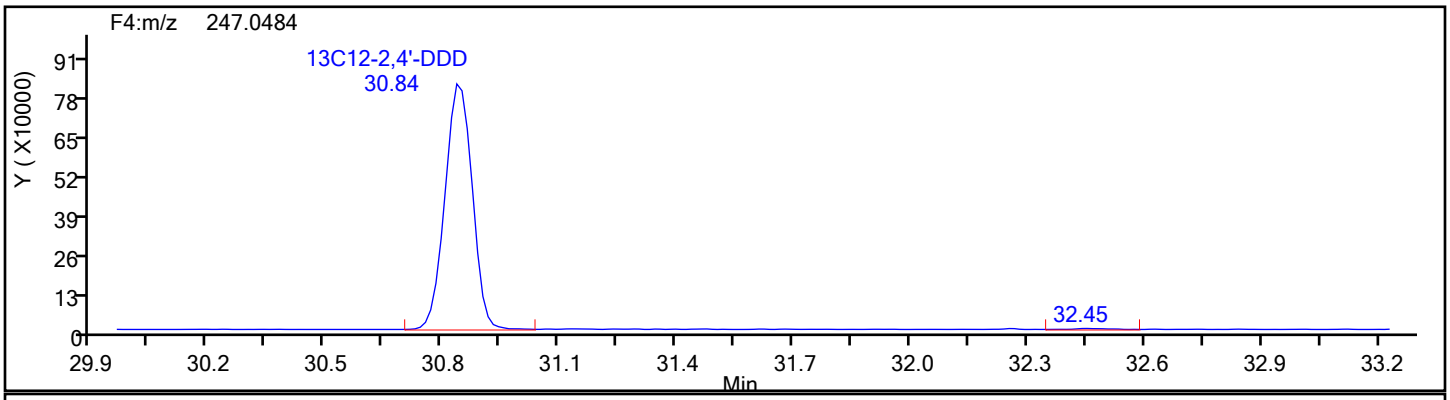
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

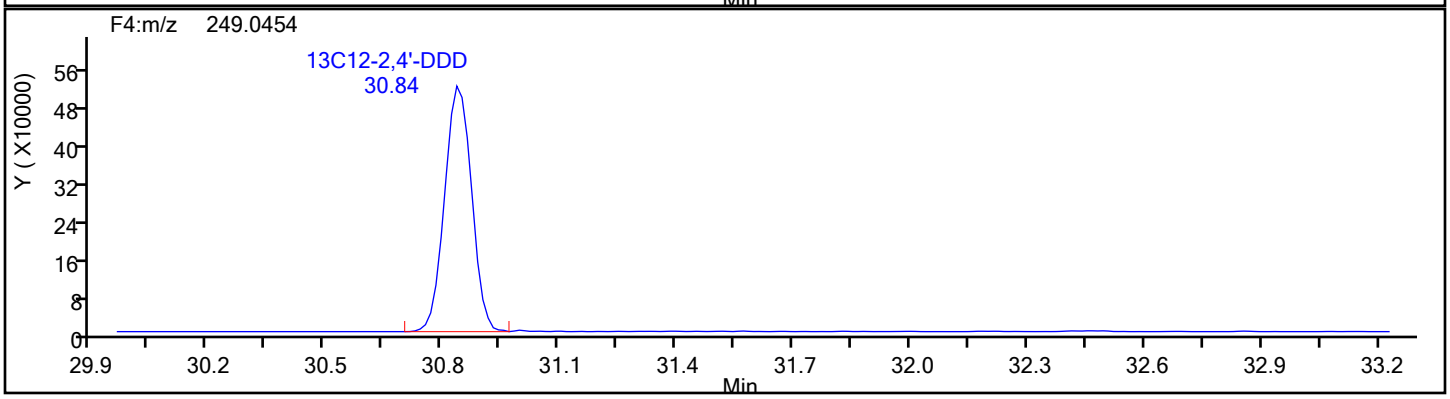
2,4'-DDD





2,4'-DDD Standards





Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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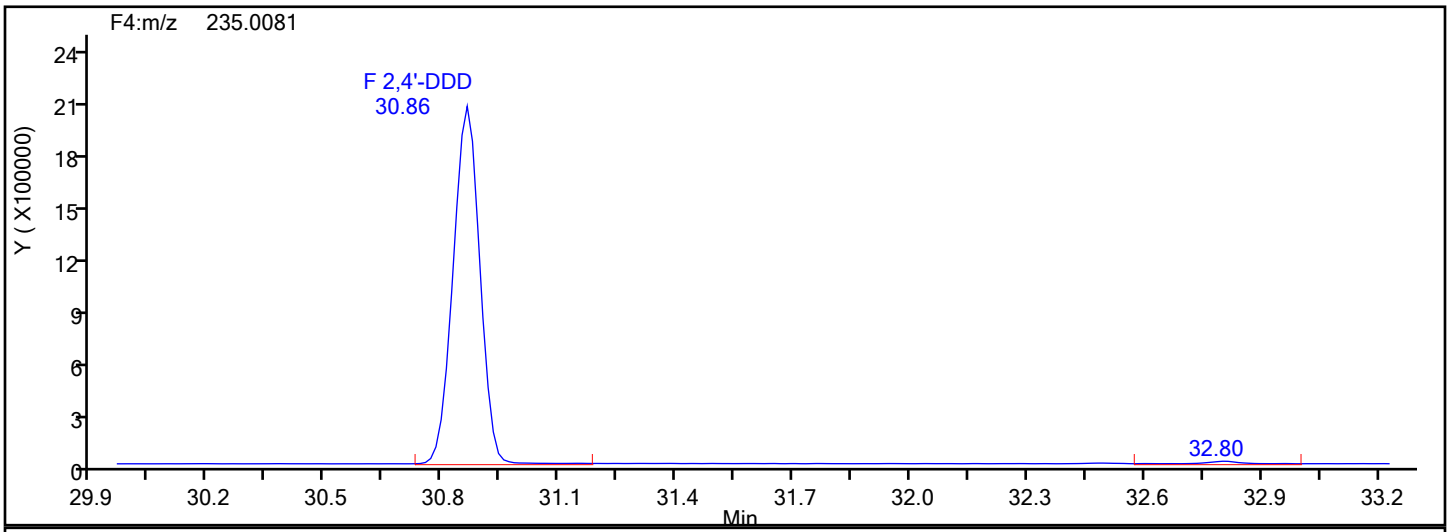
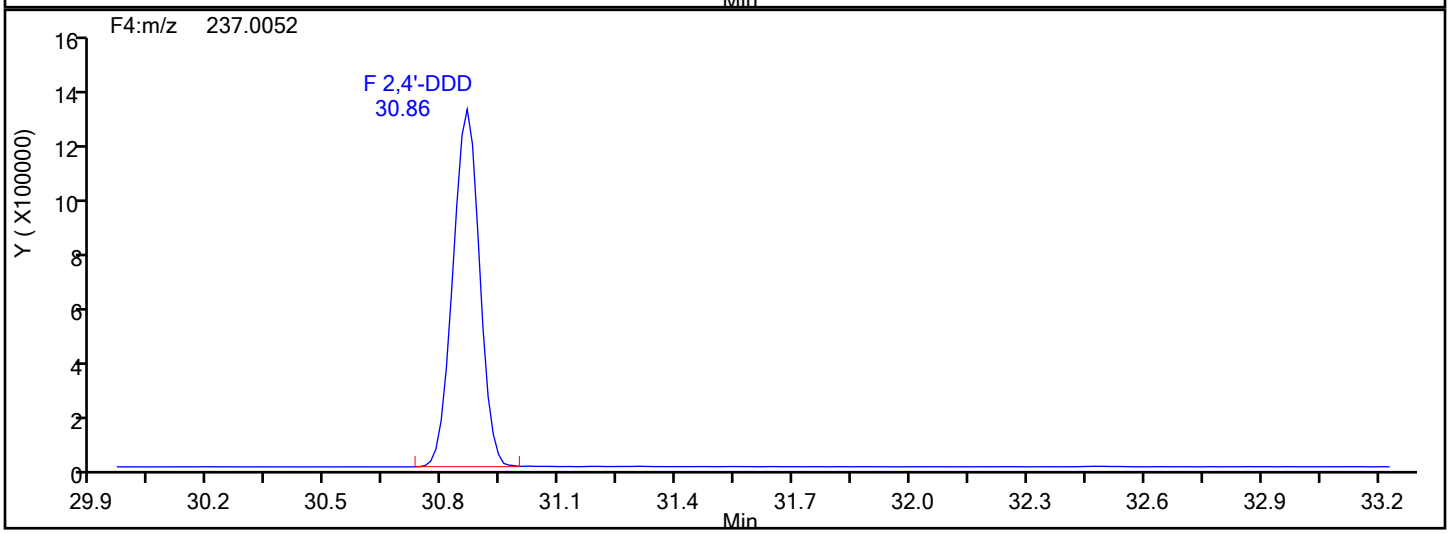
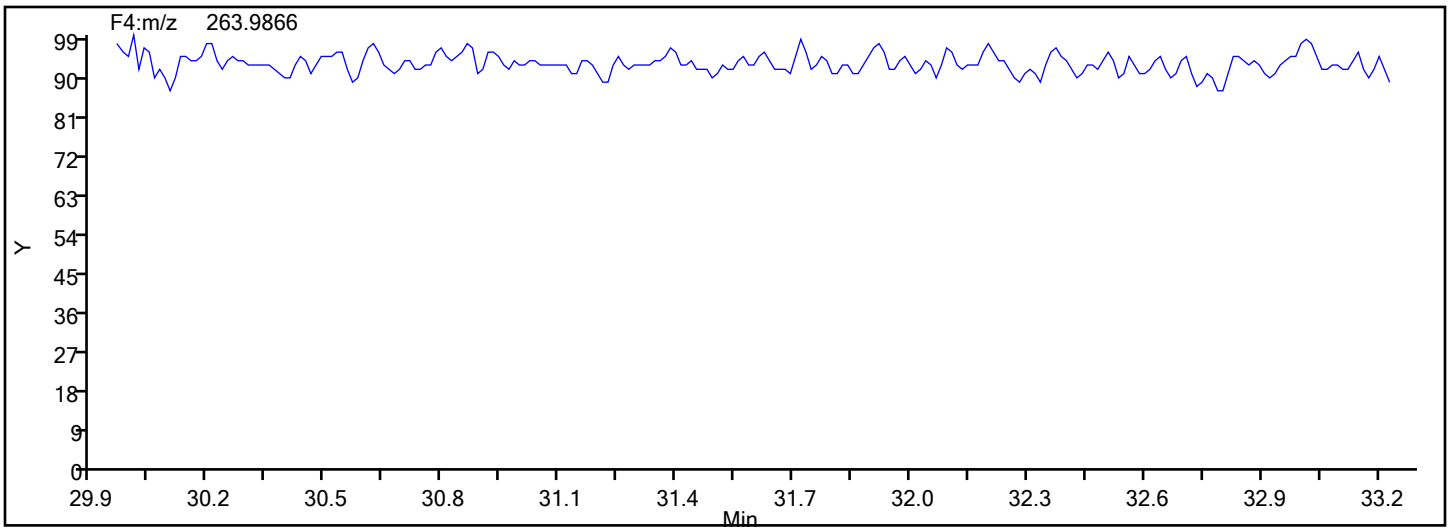
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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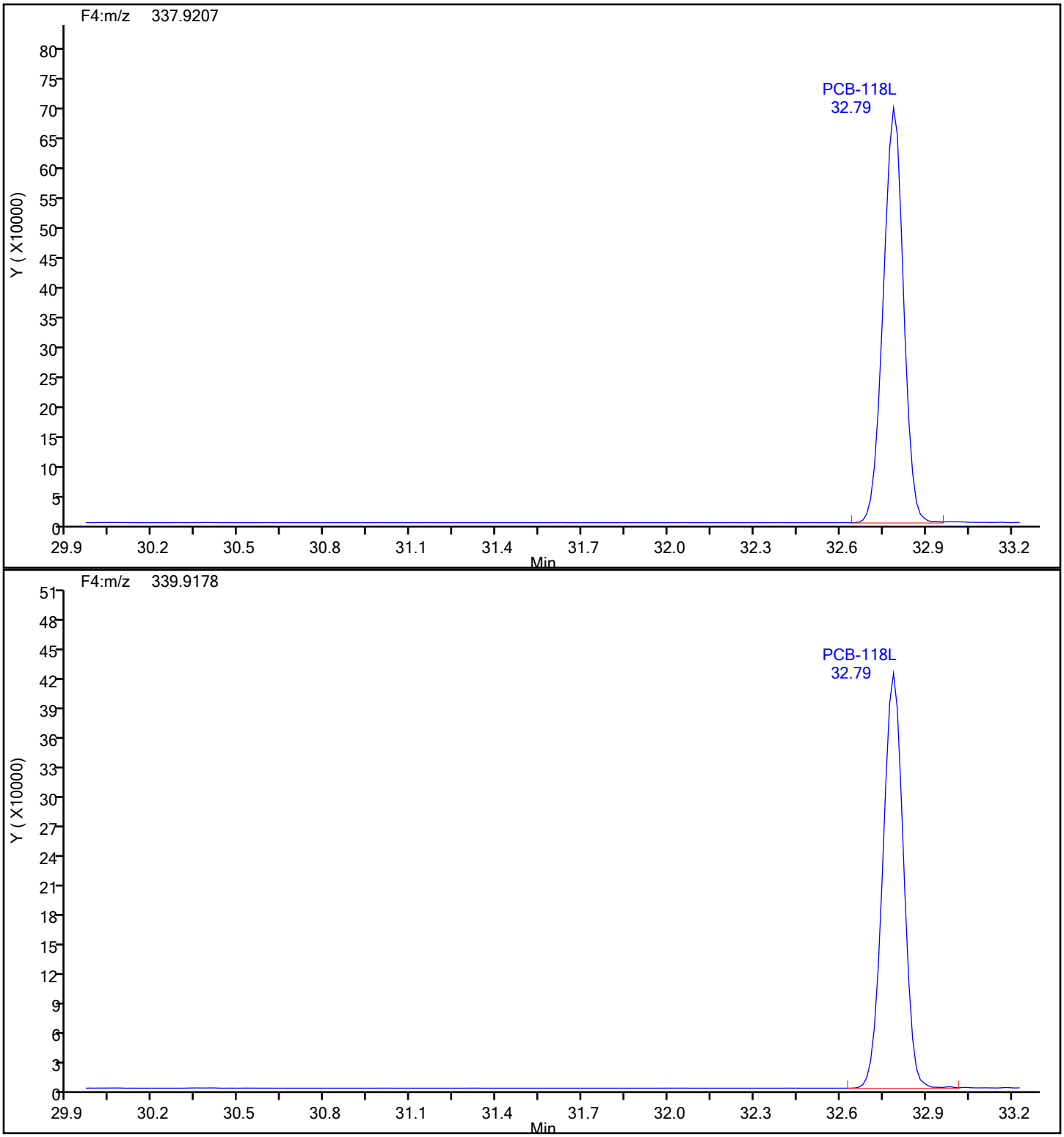
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



Report Date: 24-Mar-2025 16:35:17 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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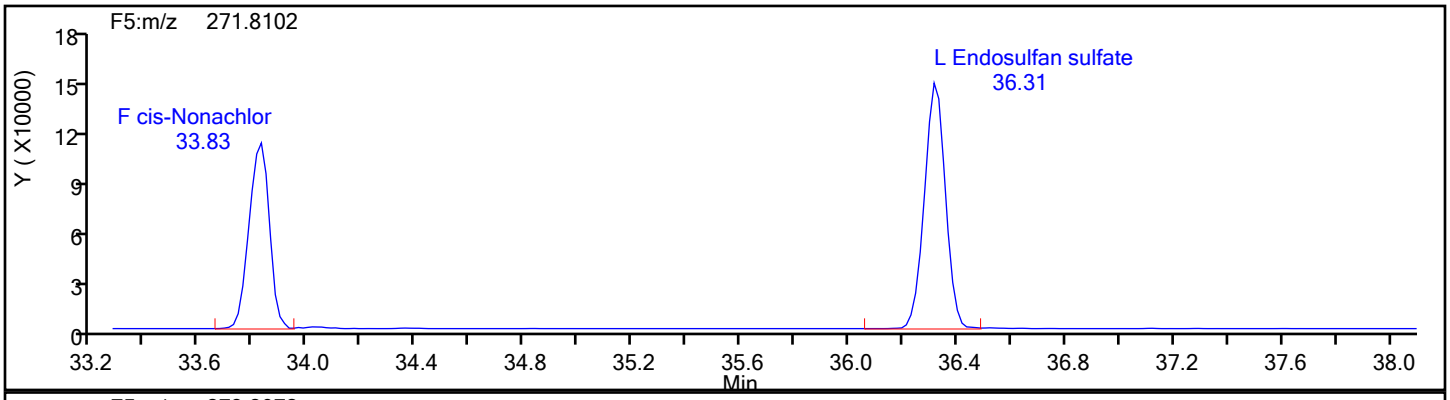
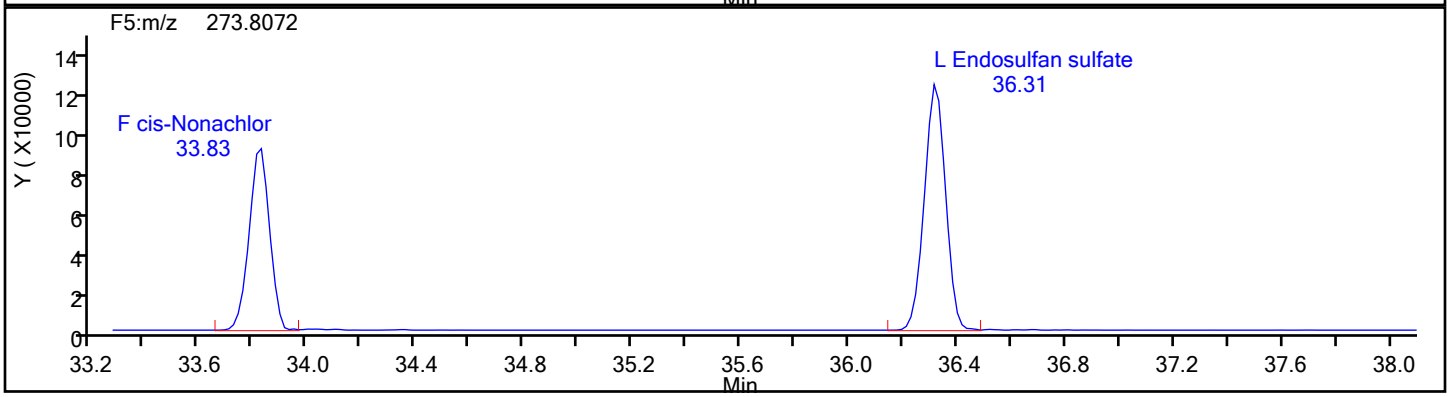
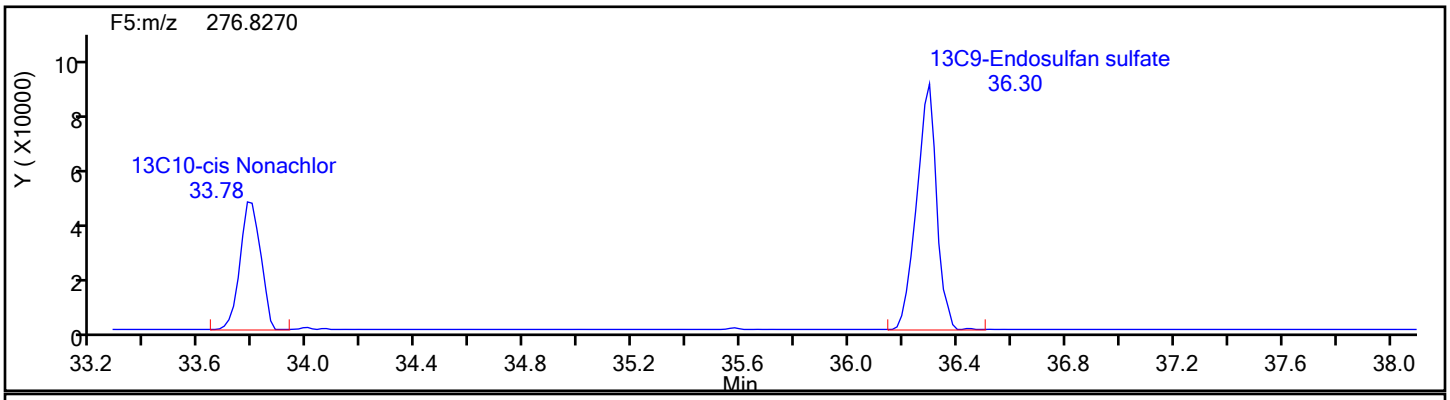
Column Type:	RTX-5	Column Dia:	0.32 mm

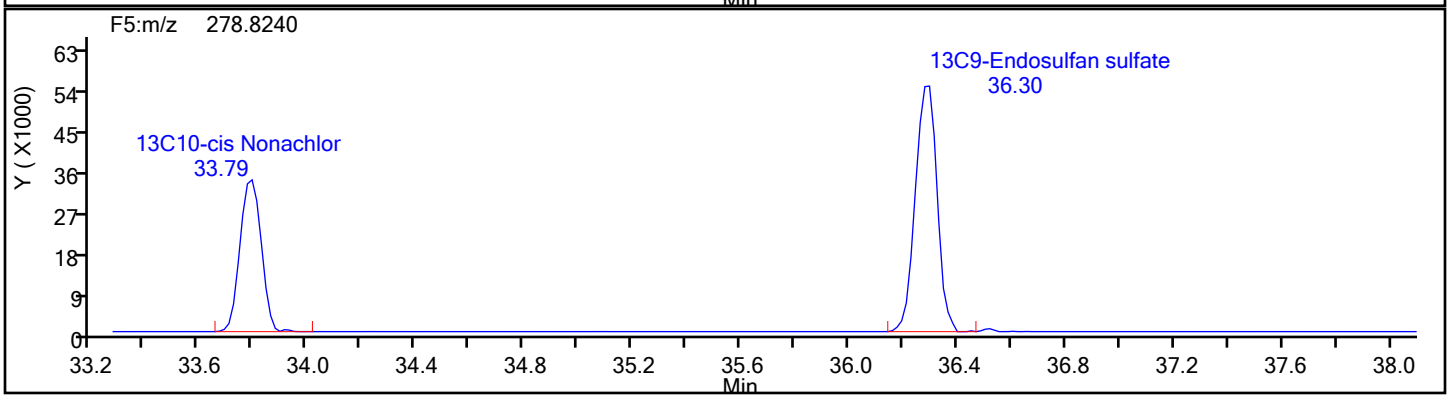
Nonachlor





Nonachlor Standards





Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

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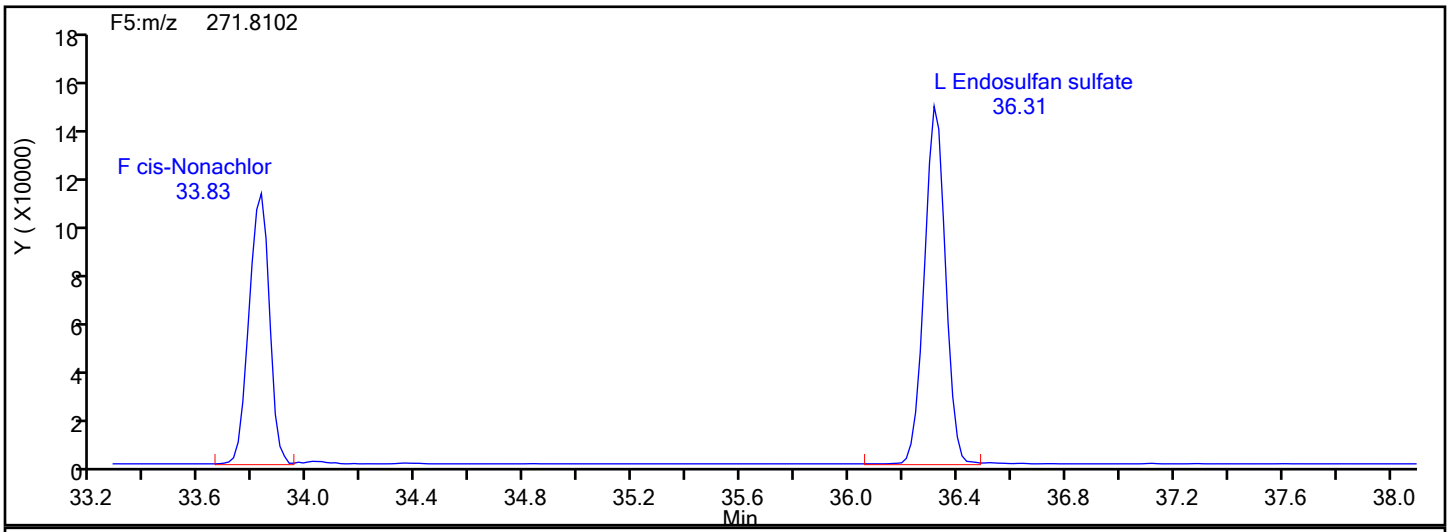
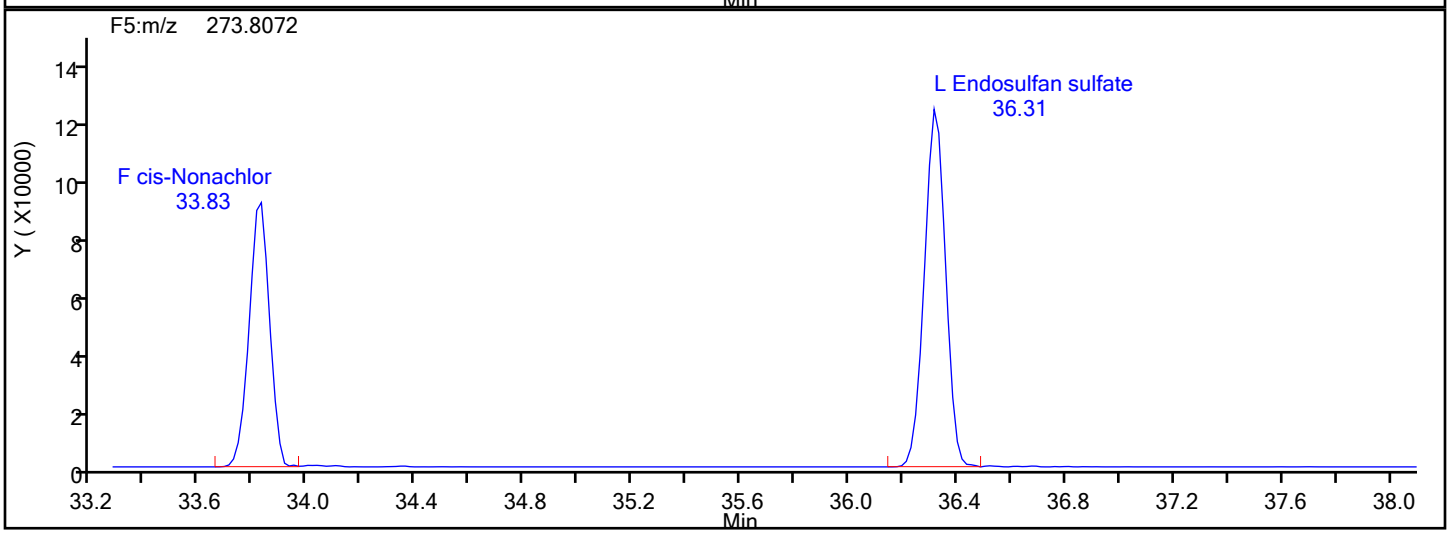
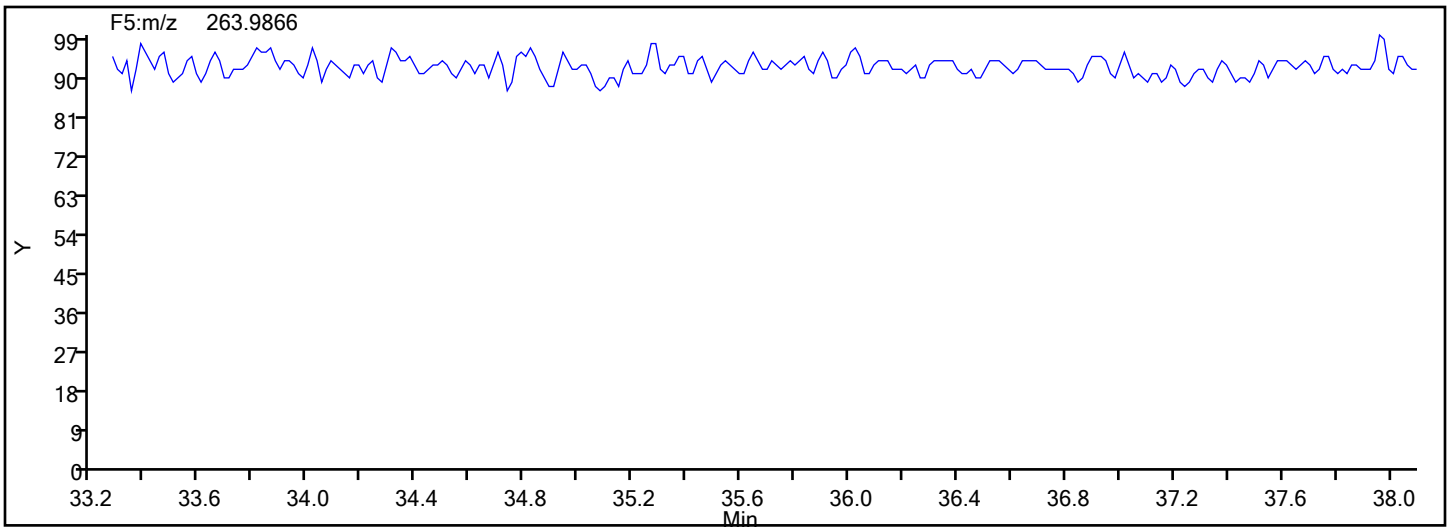
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

Nonachlor





Nonachlor Lock Mass



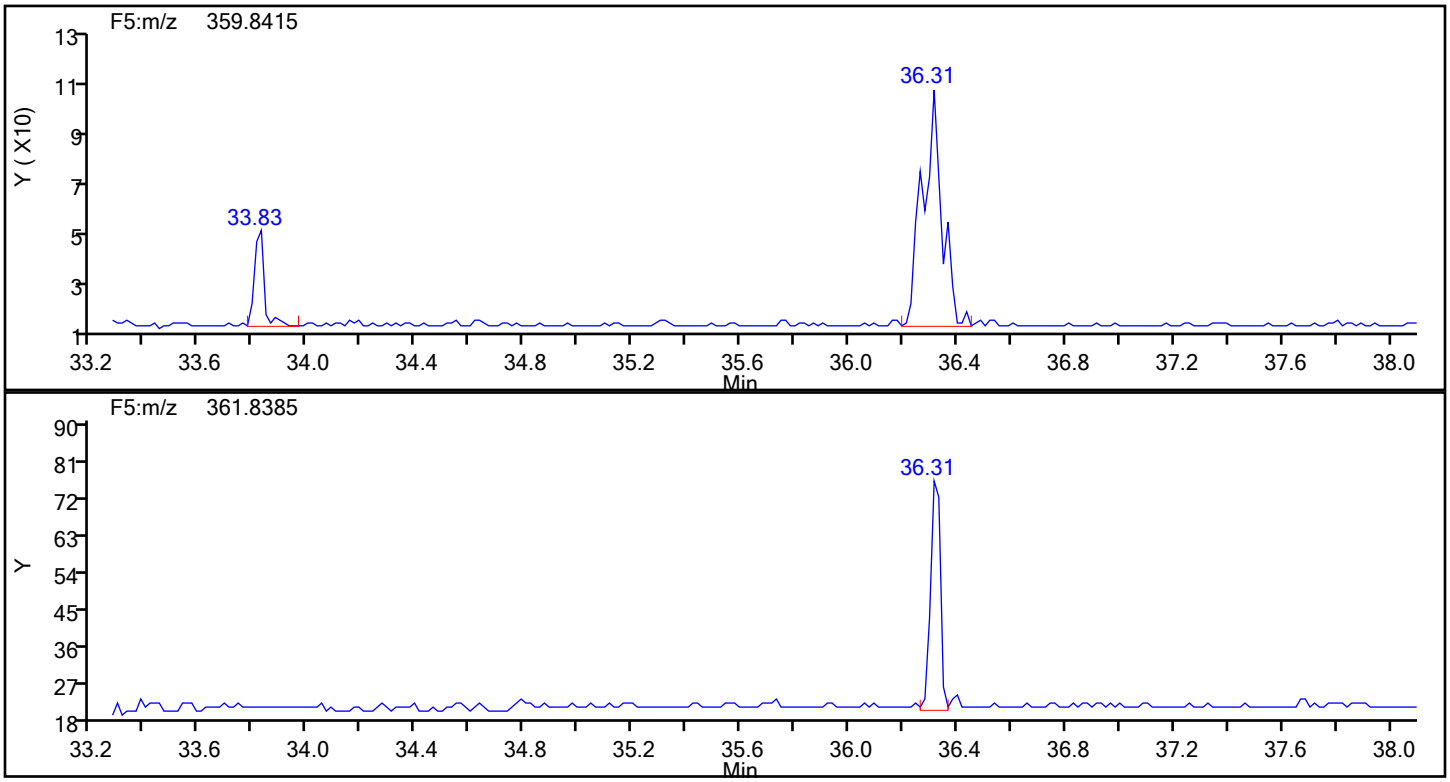
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

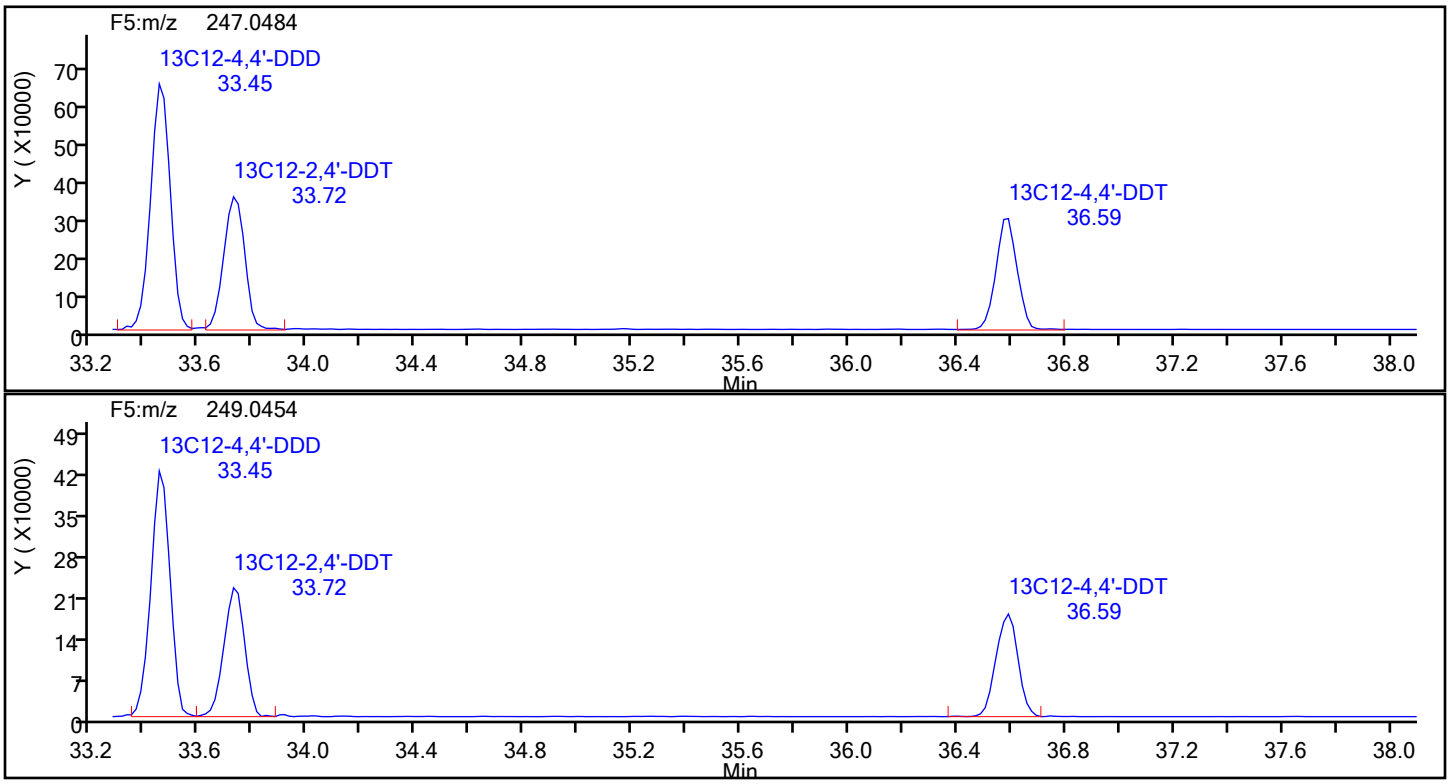
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

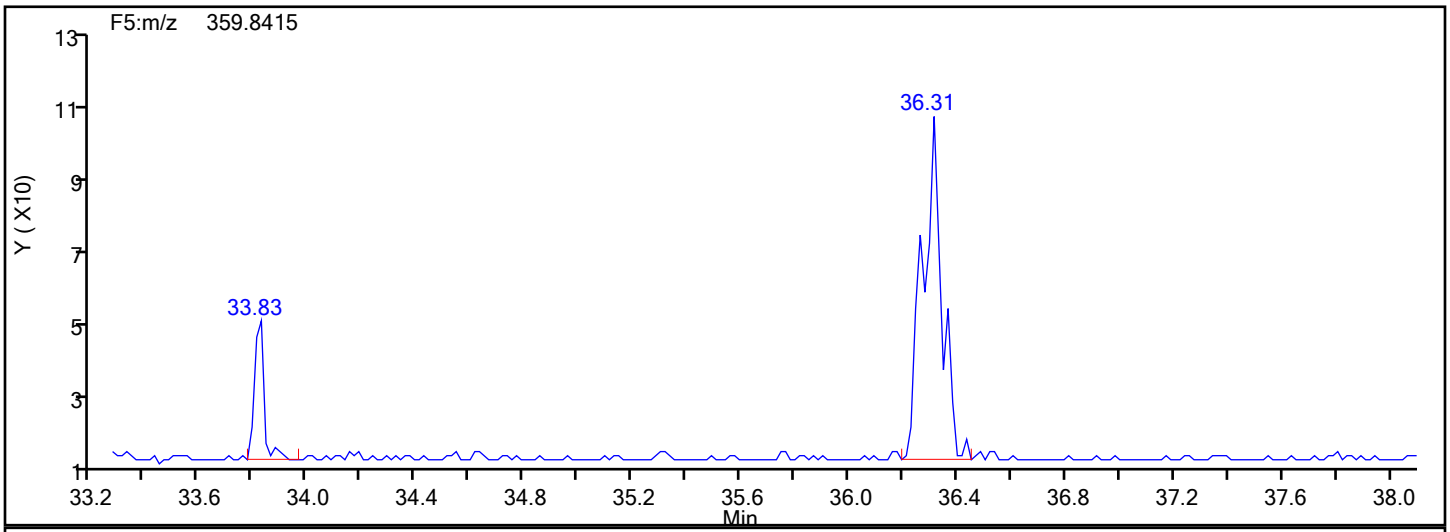


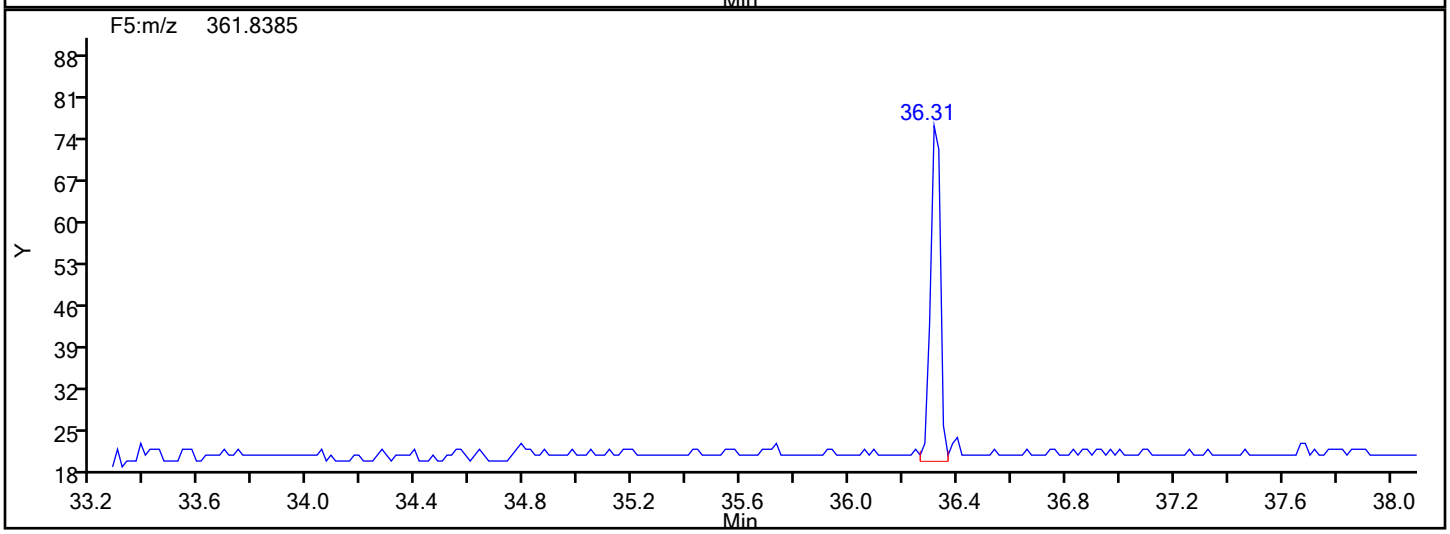
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

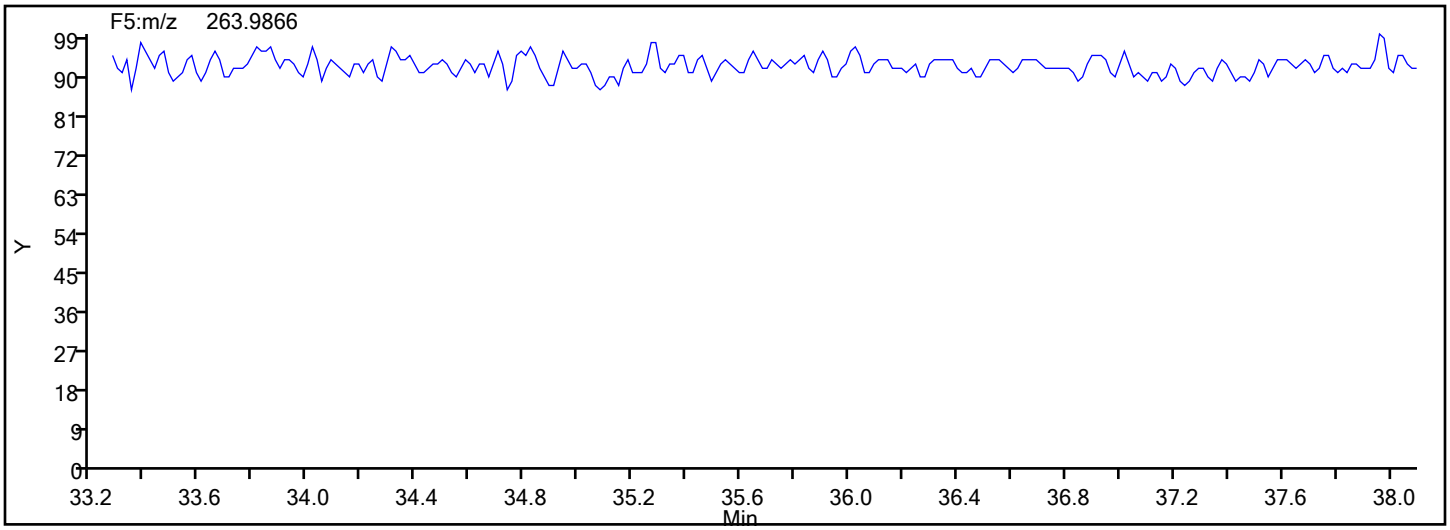
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



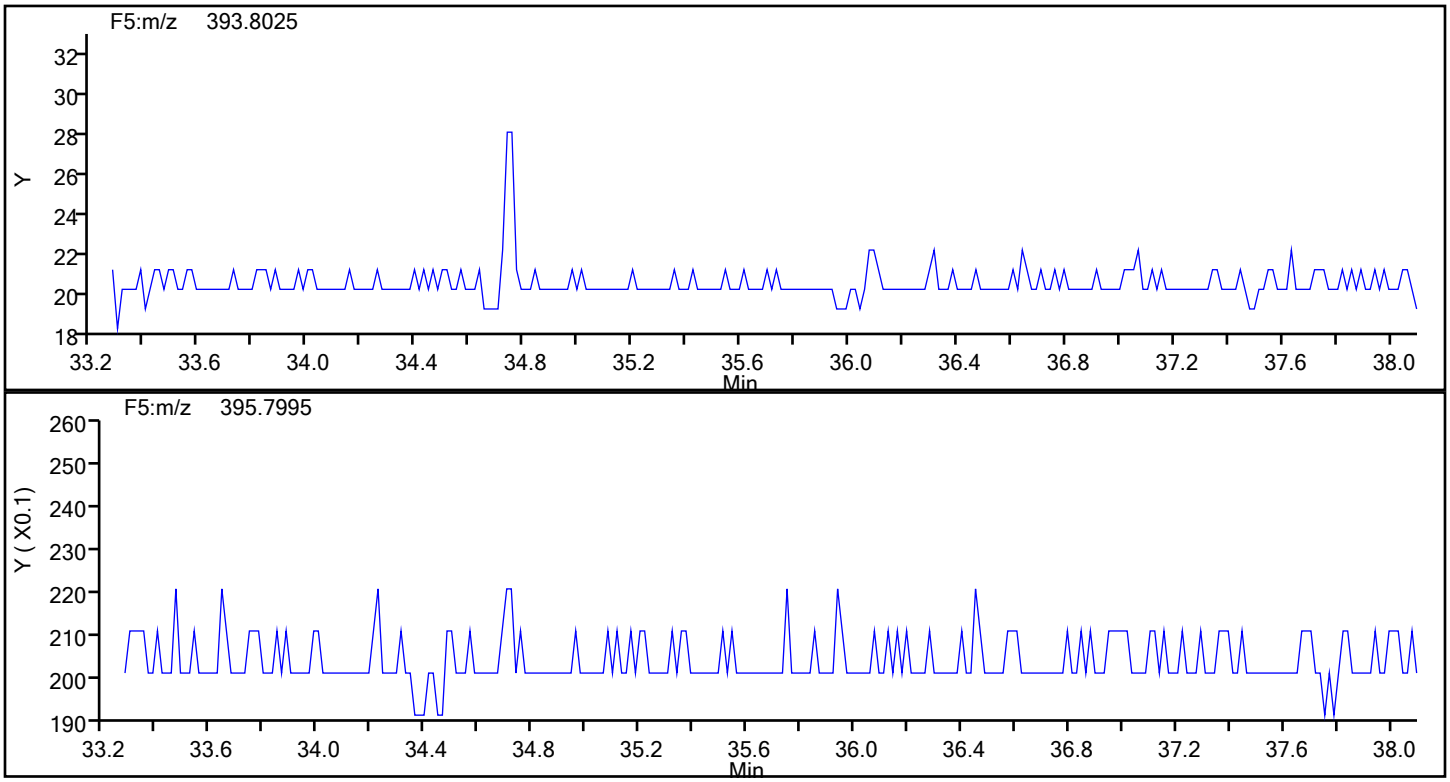
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

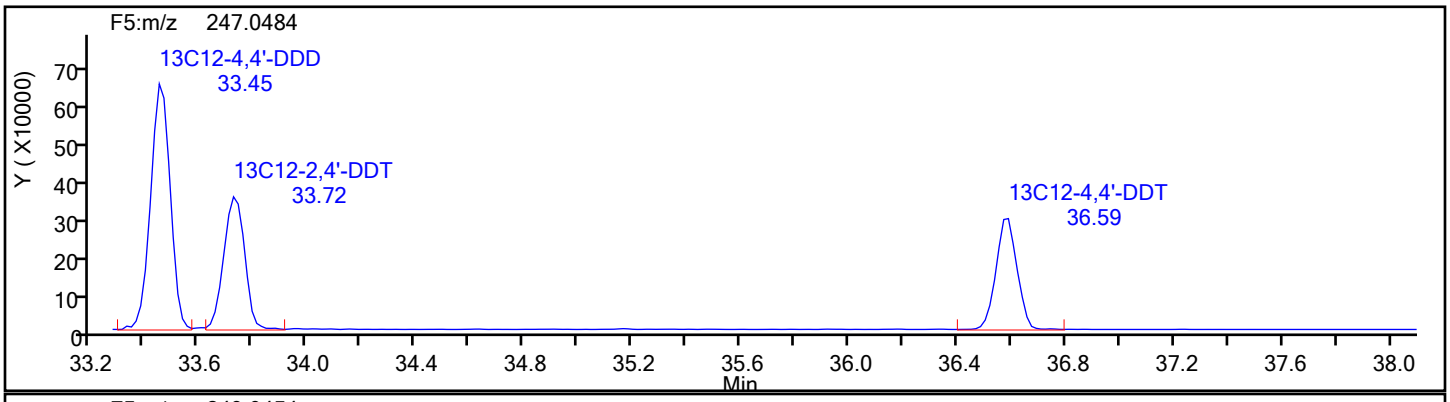
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

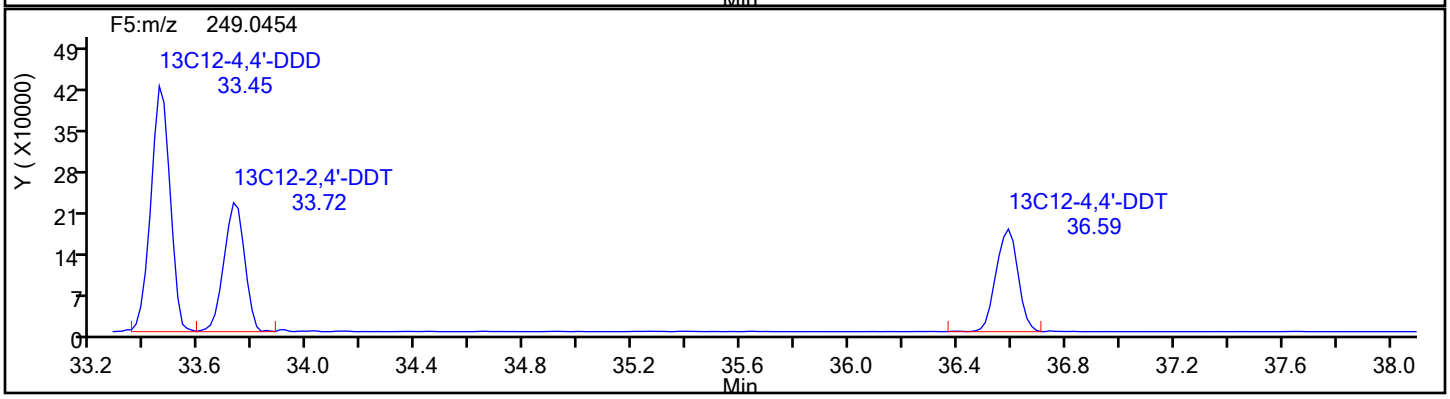
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



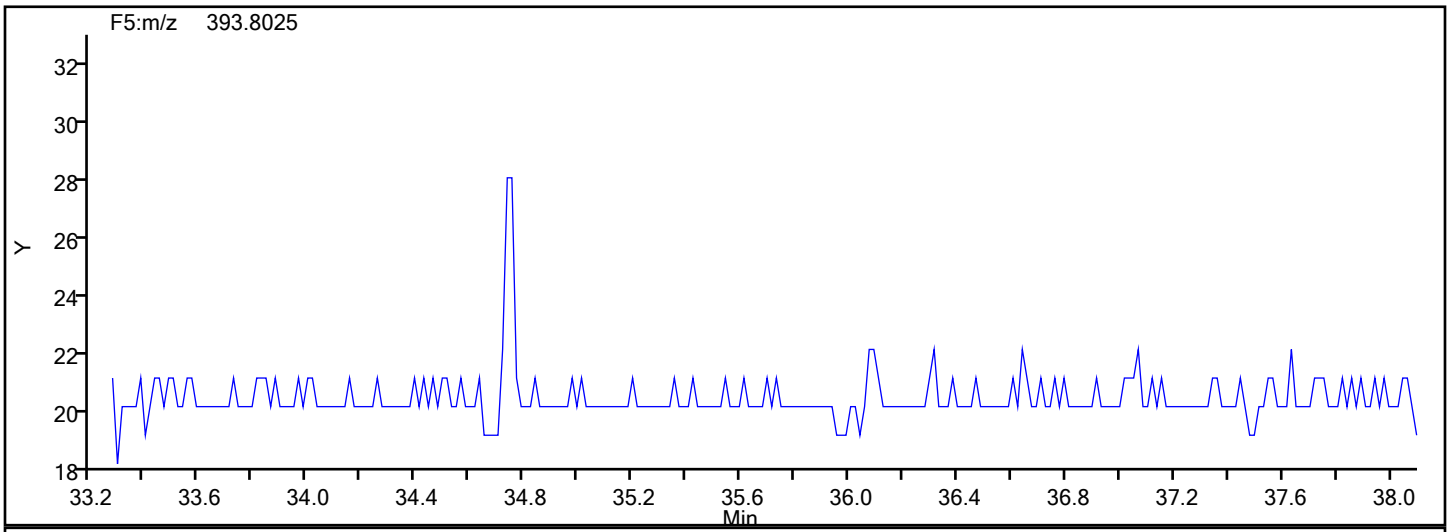


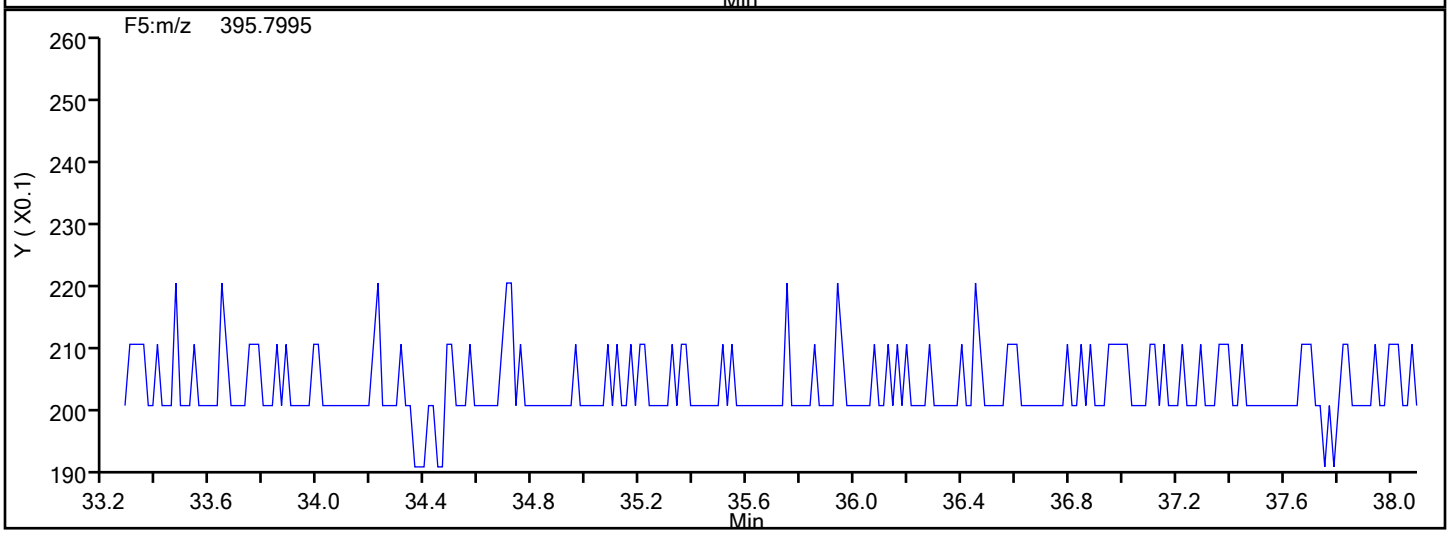
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

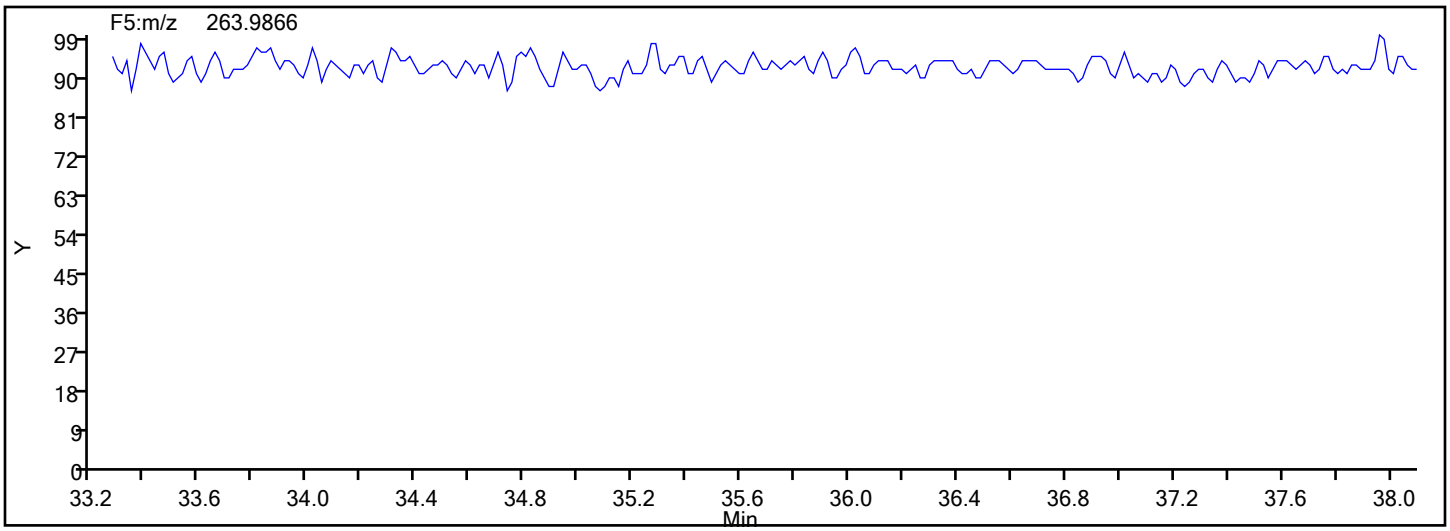
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



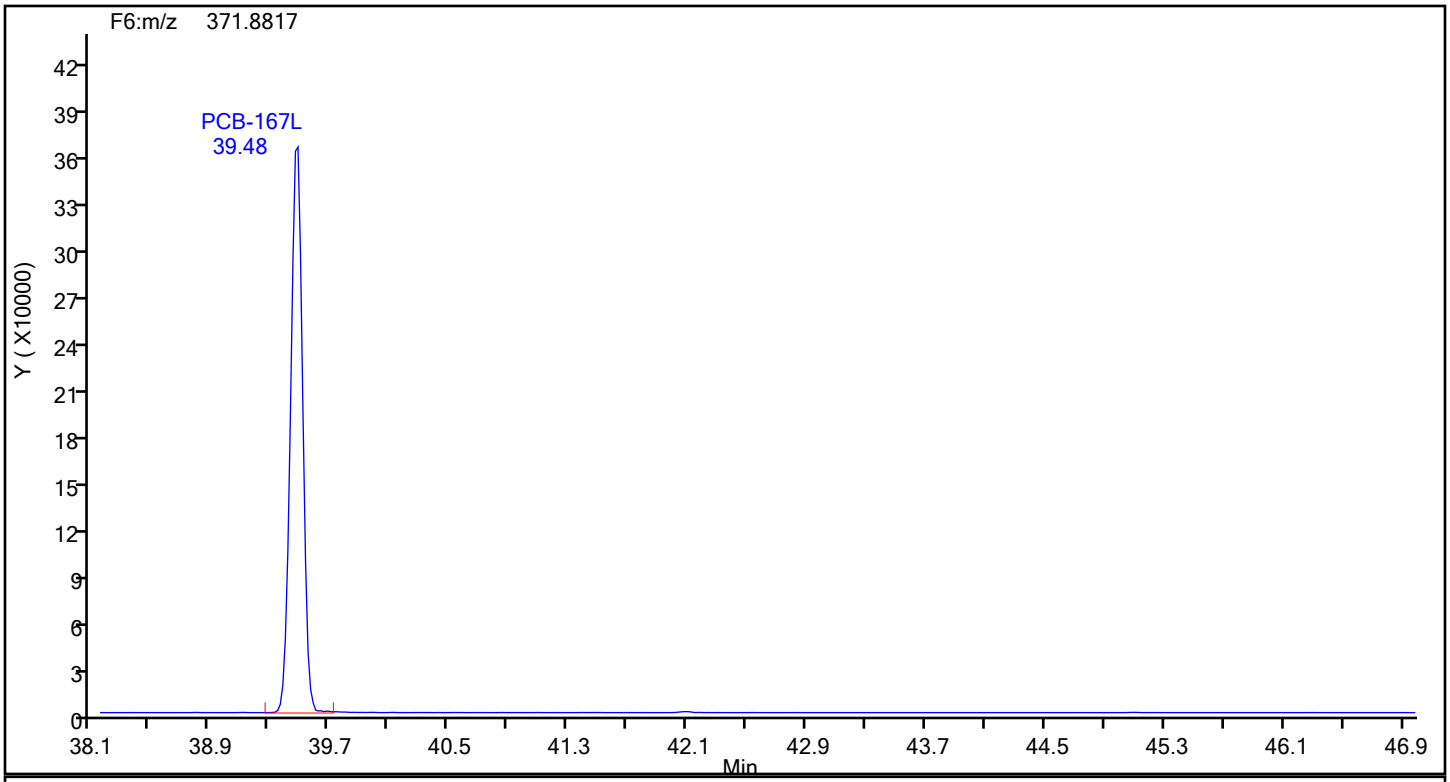
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

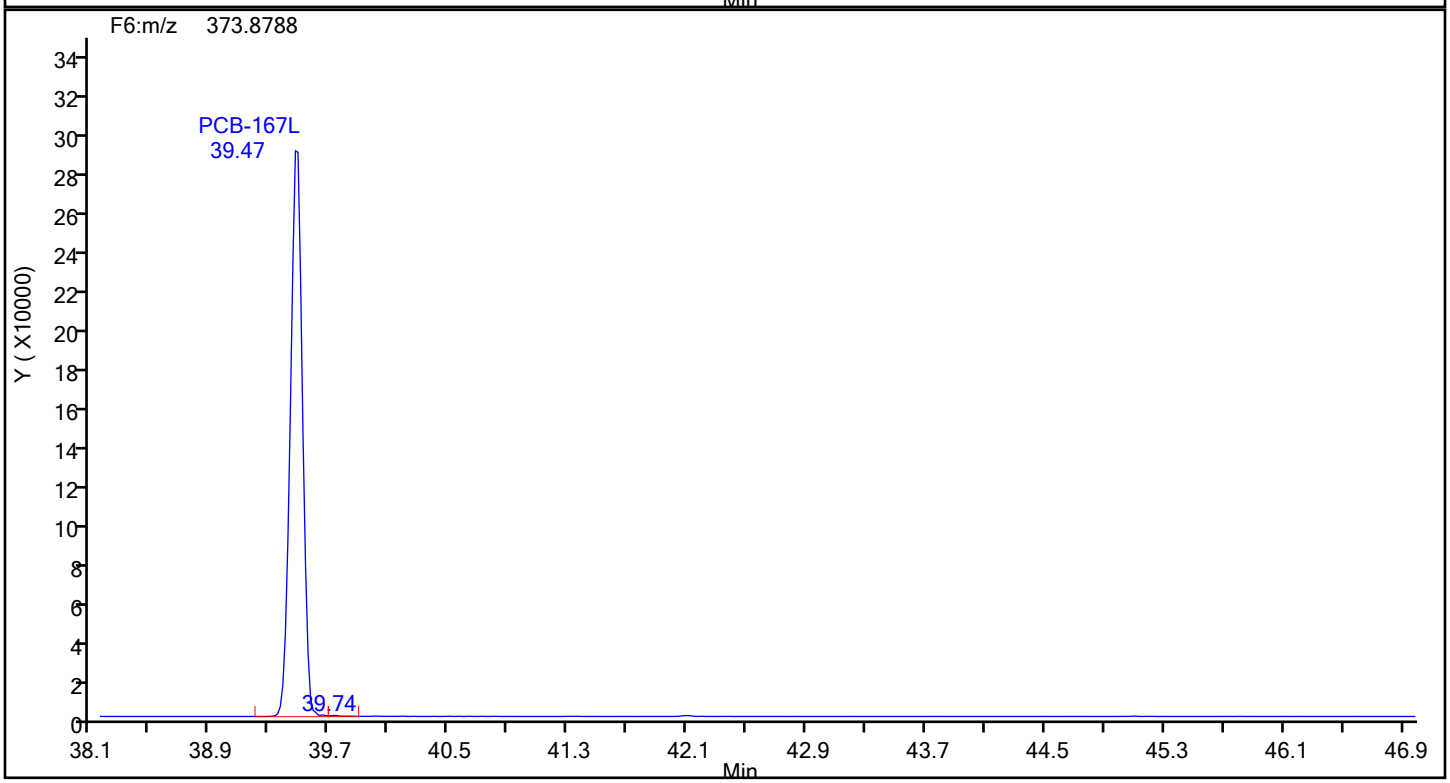
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





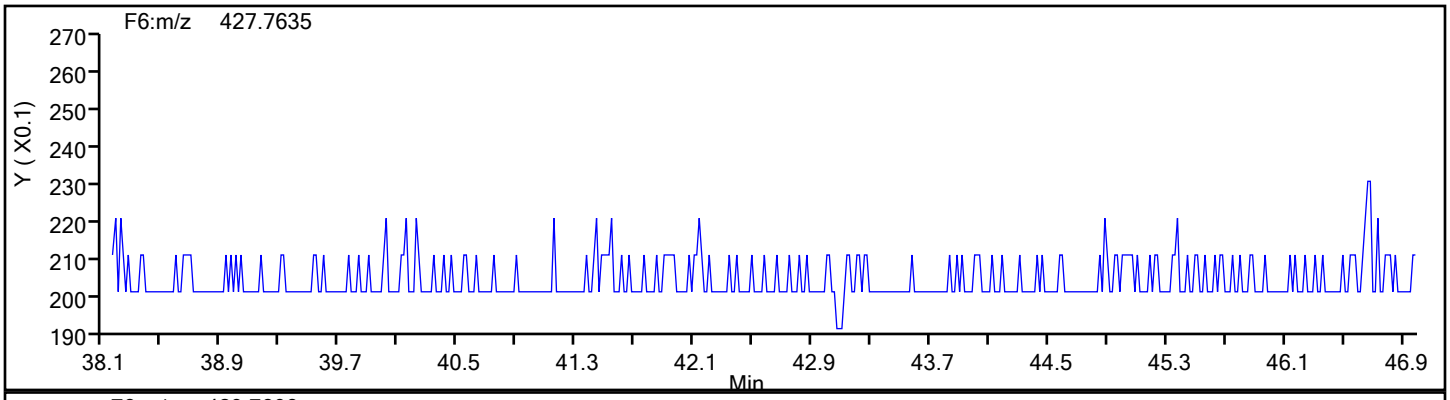
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

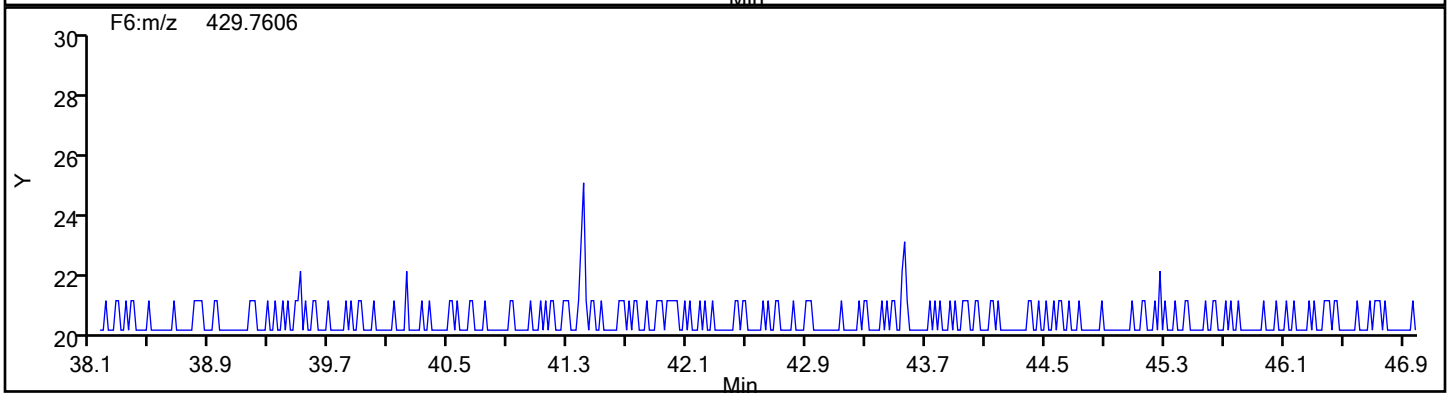
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

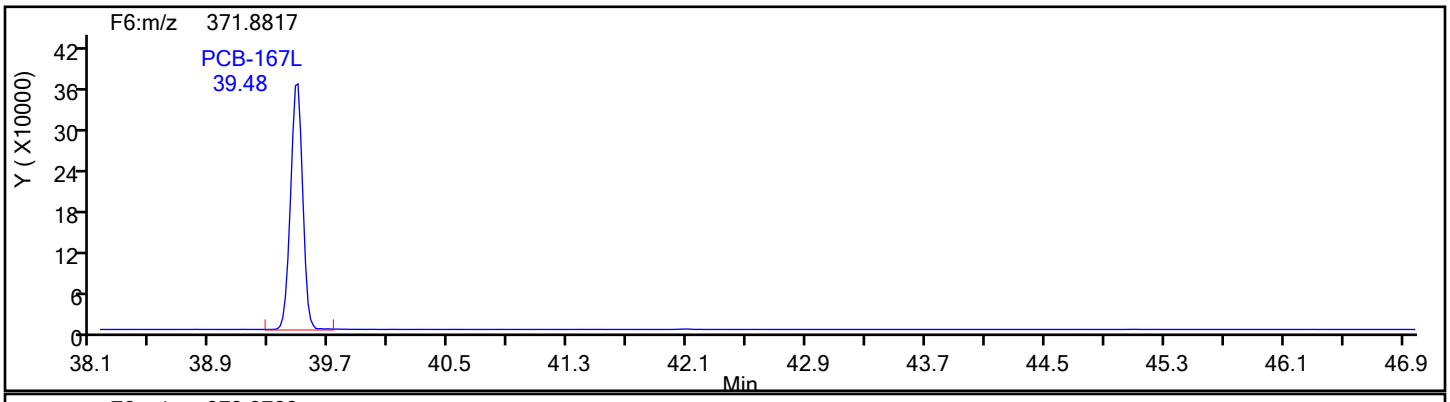
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

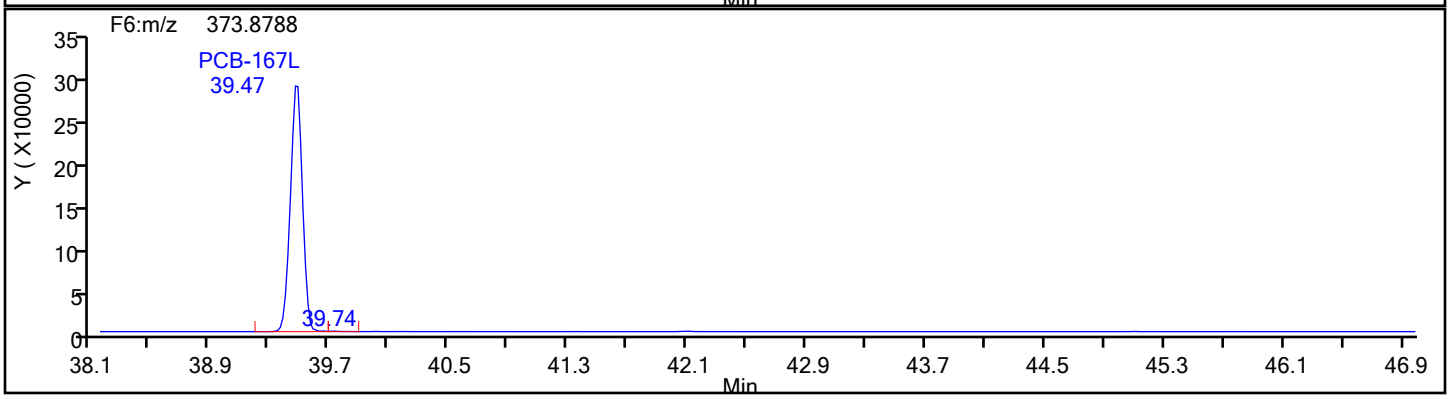
PCB-204





PCB-204 Standards



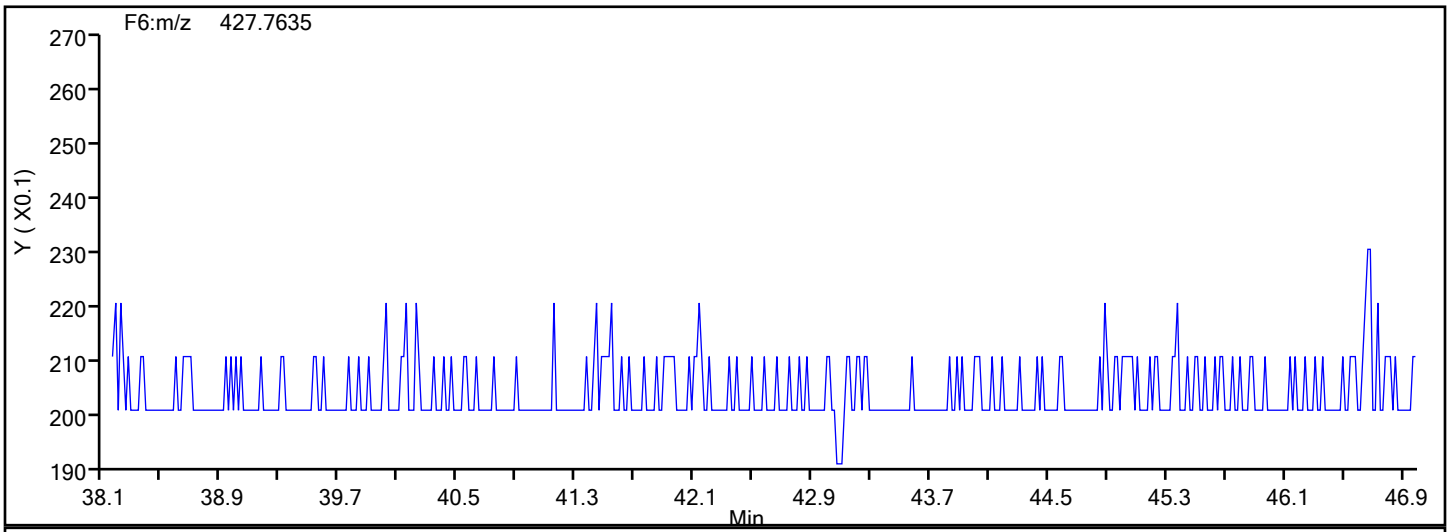


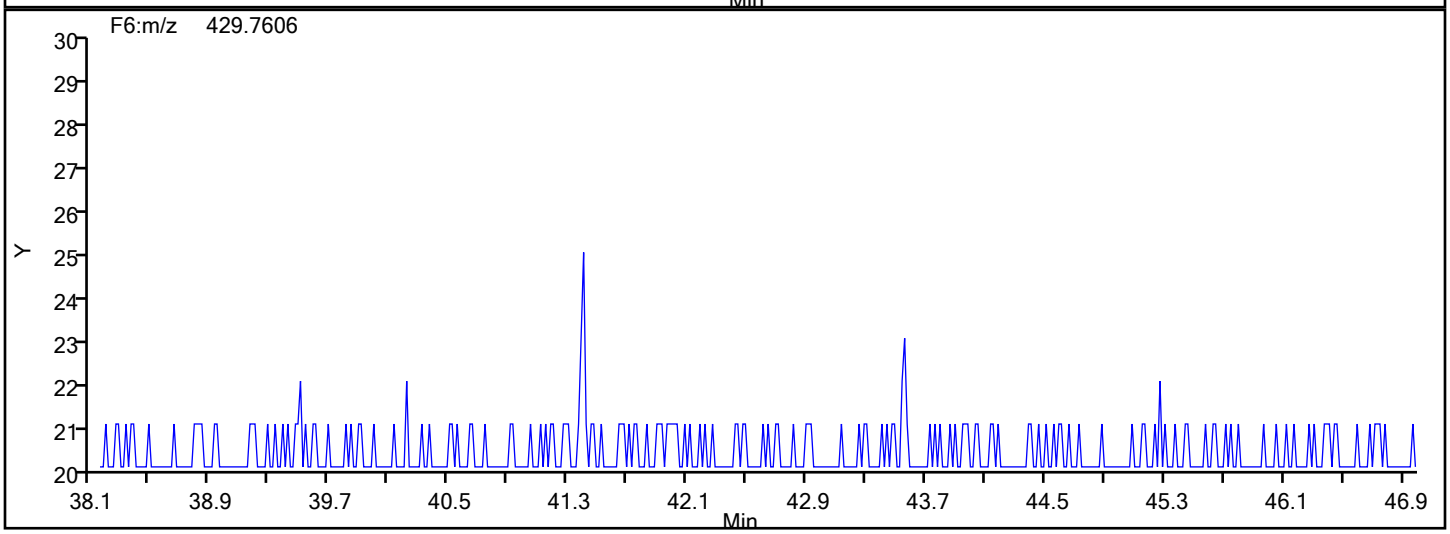
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

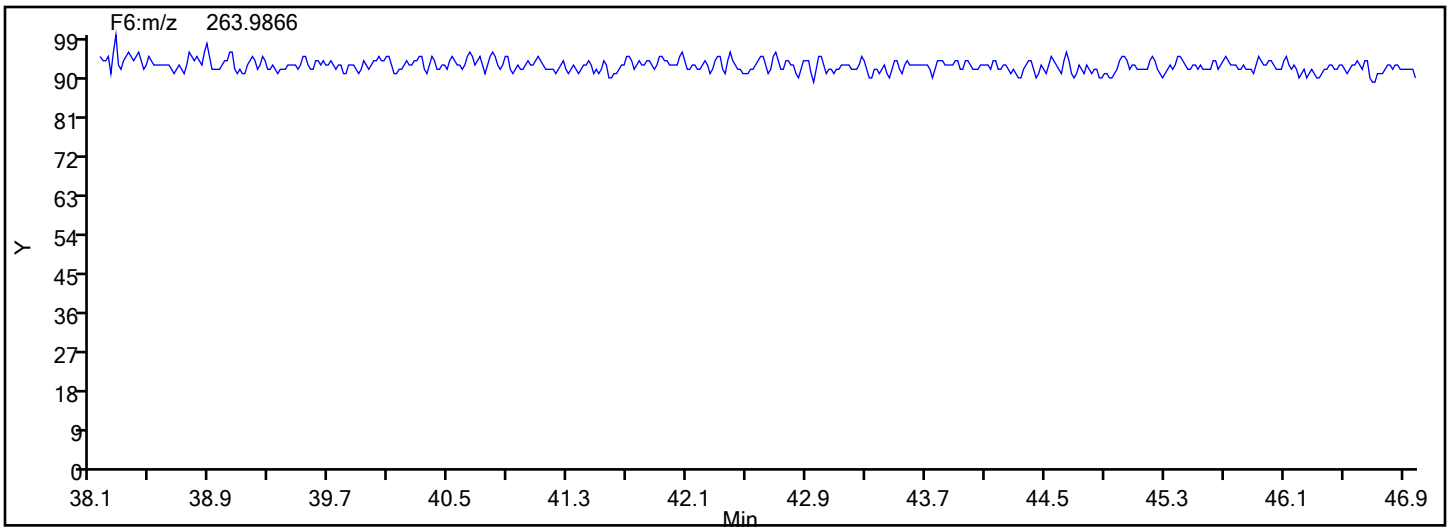
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d
Injection Date: 20-Mar-2025 17:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97380 Sample Line#: 11
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-204





PCB-204 Lock Mass



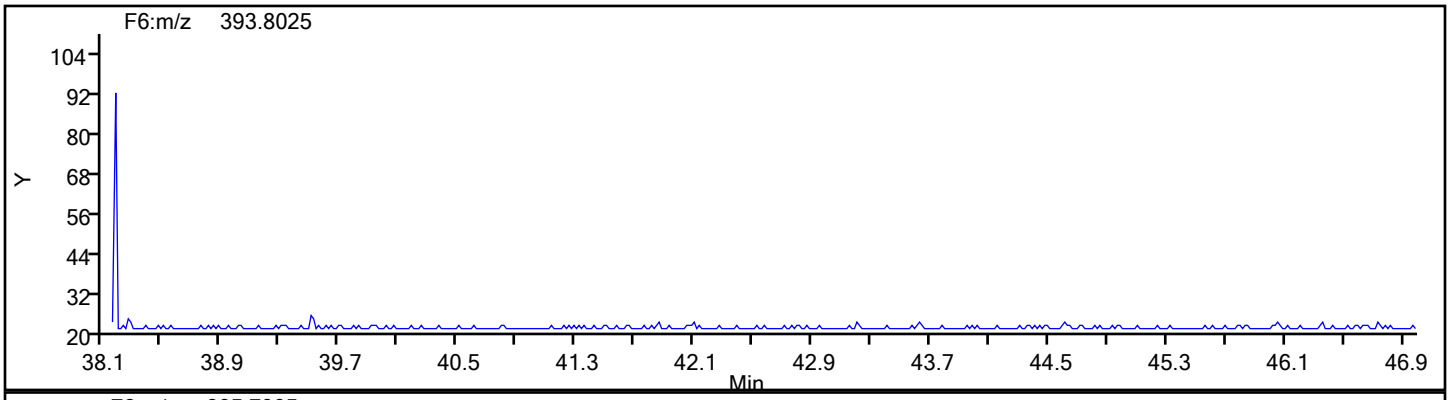
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

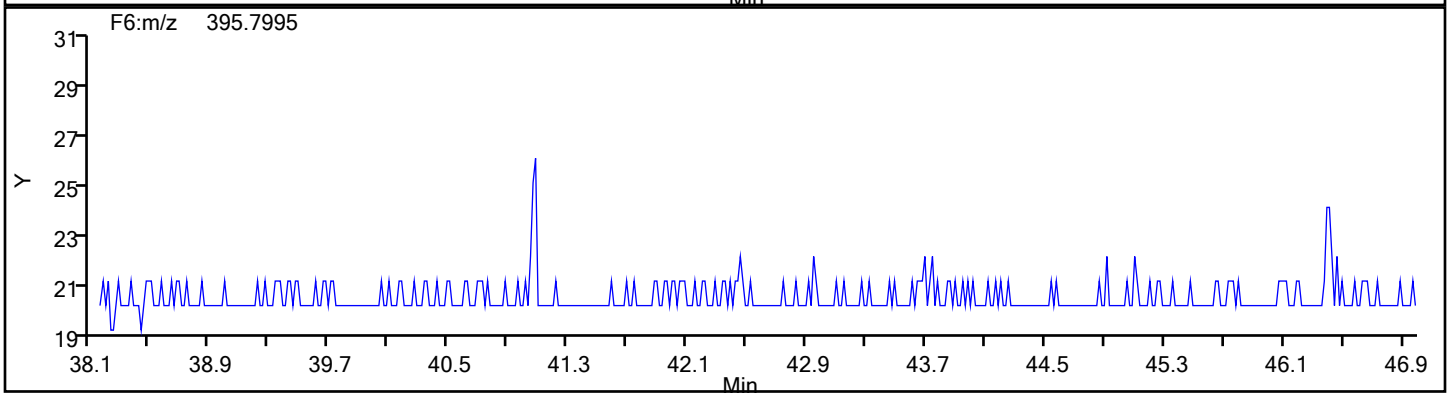
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d

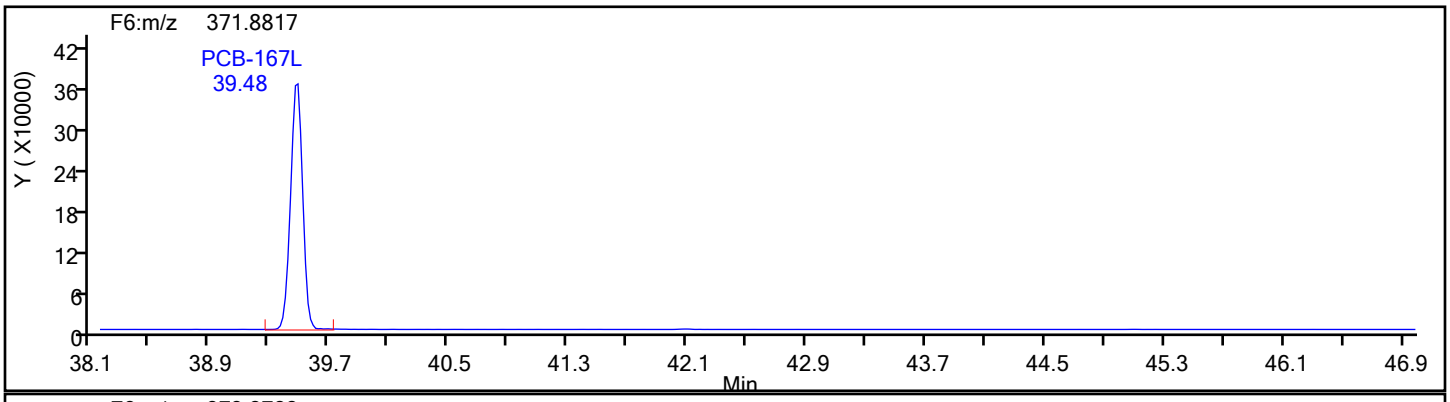
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

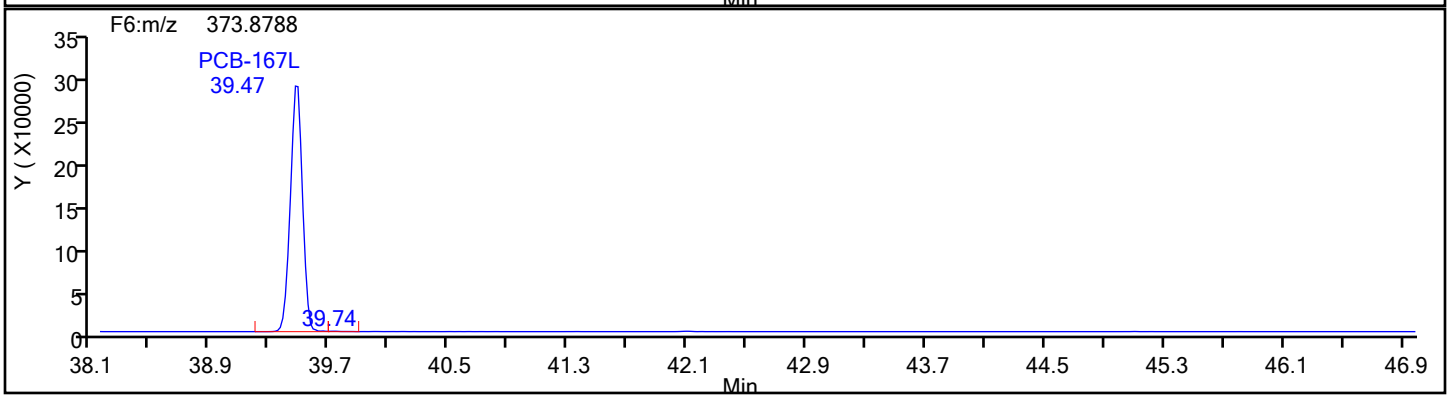
PCB-192





PCB-192 Standards



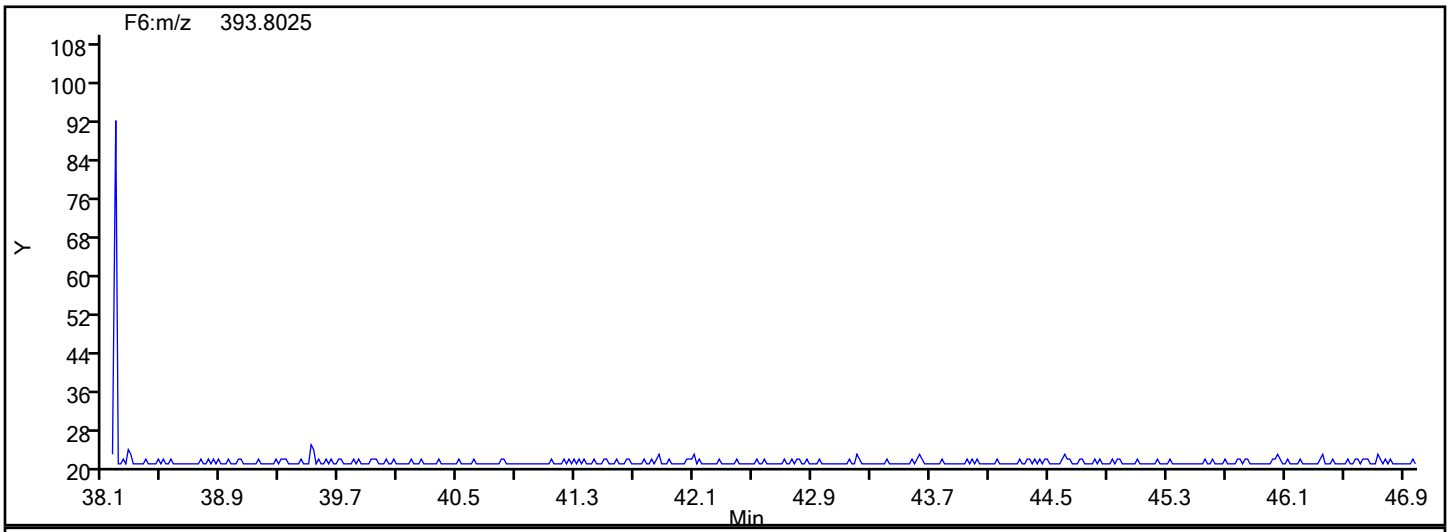


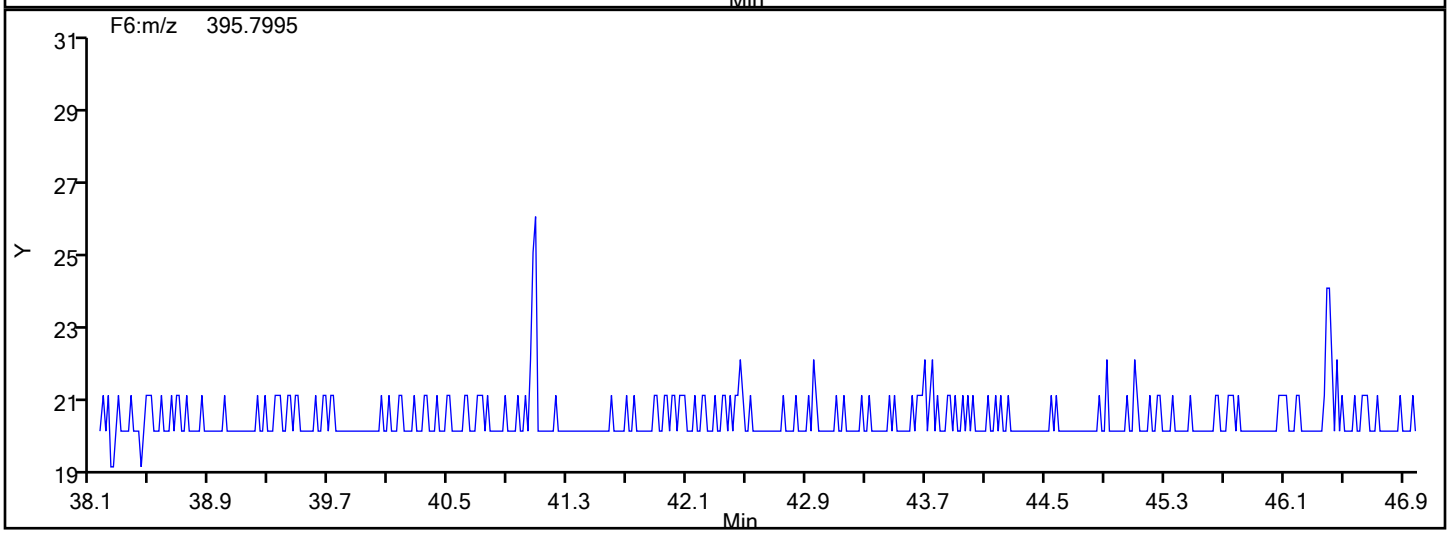
Report Date: 24-Mar-2025 16:35:18 Chrom Revision: 2.3 24-Mar-2025 16:29:40

Eurofins Knoxville

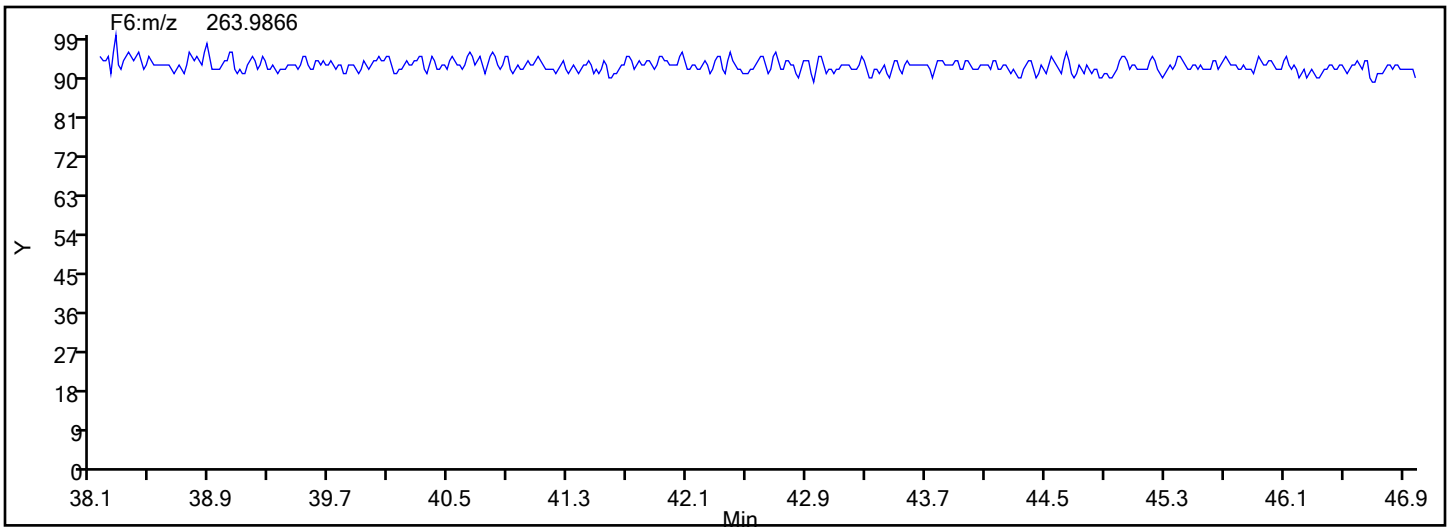
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250320icav.d		
Injection Date:	20-Mar-2025 17:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97380	Sample Line#:	11
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97714/1 Calibration Date: 03/28/2025 10:14

Instrument ID: D3PST Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 03/20/2025 01:05

Lab File ID: d3250328c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
alpha-BHC	AveID	1.094	0.9397		172	200	86	75-125
Hexachlorobenzene	AveID	1.157	0.9811		170	200	85	75-125
PCB-14	Ave	1.358	1.147		212	251	84	50-150
beta-BHC	AveID	1.005	0.9245		184	200	92	75-125
Pentachlorophenol	Ave	0.8359	1.109		2650	2000	133	50-150
gamma-BHC (Lindane)	AveID	0.9800	0.8692		177	200	89	75-125
delta-BHC	AveID	1.124	0.9935		177	200	88	75-125
Heptachlor	AveID	1.086	1.084		199	200	100	75-125
PCB-36	Ave	1.023	0.8745		214	251	85	50-150
PCB-104	Ave	1.837	1.448		198	251	79	50-150
Aldrin	AveID	1.089	1.000		184	200	92	75-125
Heptachlor epoxide	AveID	1.146	1.130		197	200	99	75-125
oxy-Chlordane	AveID	1.104	0.7711		140	200	70*	75-125
PCB-121	Ave	1.462	1.177		202	251	81	50-150
PCB-142	Ave	2.027	1.688		209	251	83	50-150
gamma-Chlordane	AveID	1.143	1.104		193	200	97	75-125
2,4'-DDE	AveID	1.283	1.050		164	200	82	75-125
Endosulfan I	AveID	1.093	1.116		204	200	102	75-125
alpha-Chlordane	AveID	1.055	0.9884		187	200	94	75-125
trans-Nonachlor	AveID	1.078	1.065		198	200	99	75-125
PCB-78	Ave	0.9153	0.8904		244	251	97	50-150
4,4'-DDE	AveID	1.253	1.080		172	200	86	75-125
Dieldrin	AveID	1.072	1.092		204	200	102	75-125
2,4'-DDD	AveID	1.176	0.998		170	200	85	75-125
Endrin	AveID	1.068	1.029		193	200	96	75-125
Endosulfan II	AveID	1.097	1.099		200	200	100	75-125
4,4'-DDD	AveID	1.235	1.074		174	200	87	75-125
2,4'-DDT	AveID	1.181	1.026		174	200	87	75-125
cis-Nonachlor	AveID	1.076	1.111		206	200	103	75-125
PCB-155	Ave	0.9191	0.8519		233	251	93	50-150
Endrin aldehyde	AveID	1.128	1.091		193	200	97	75-125
PCB-184	Ave	1.161	0.9788		212	251	84	50-150
Endosulfan sulfate	AveID	1.083	1.139		210	200	105	75-125
4,4'-DDT	AveID	1.210	1.051		174	200	87	75-125
Endrin ketone	AveID	1.155	1.152		200	200	100	75-125
Methoxychlor	AveID	1.325	1.138		172	200	86	75-125
PCB-204	Ave	0.7364	0.6444		220	251	88	50-150
PCB-192	Ave	0.7635	0.7397		243	251	97	50-150
Mirex	AveID	1.023	1.057		207	200	103	75-125
13C6-alpha BHC	Ave	0.1704	0.2653		156	100	156*	50-150
13C6-Hexachlorobenzene	Ave	0.5041	0.6177		123	100	123	50-150

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97714/1 | Calibration Date: 03/28/2025 10:14

Instrument ID: D3PST | Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) | Calib End Date: 03/20/2025 01:05

Lab File ID: d3250328c1a.d | Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
13C6-beta BHC	Ave	0.1244	0.2151		173	100	173*	50-150
13C6-gamma BHC	Ave	0.1646	0.2672		162	100	162*	50-150
13C6-delta BHC	Ave	0.0992	0.1931		195	100	195*	50-150
13C10-Heptachlor	Ave	0.0715	0.1327		186	100	186*	50-150
13C12-Aldrin	Ave	0.1384	0.1915		138	100	138	50-150
13C10-cis Heptachlor Epoxide	Ave	0.1493	0.2937		197	100	197*	50-150
13C10-oxy Chlordane	Ave	0.0481	0.0952		198	100	198*	50-150
13C10-trans Chlordane	Ave	0.1640	0.2349		143	100	143	50-150
13C12-2,4'-DDE	Ave	2.734	2.314		84.6	100	85	50-150
13C9-Endosulfan I	Ave	0.0555	0.0739		133	100	133	50-150
13C10-cis Chlordane	Ave	0.1741	0.2260		130	100	130	50-150
13C10-trans Nonachlor	Ave	0.1233	0.1827		148	100	148	50-150
13C12-4,4'-DDE	Ave	1.864	1.506		80.8	100	81	50-150
13C12-Dieldrin	Ave	0.1991	0.1921		96.5	100	96	50-150
13C12-2,4'-DDD	Ave	1.349	1.579		117	100	117	50-150
13C12-Endrin	Ave	0.1181	0.1240		105	100	105	50-150
13C9-Endosulfan II	Ave	0.0248	0.0327		132	100	132	50-150
13C12-4,4'-DDD	Ave	1.139	1.311		115	100	115	50-150
13C12-2,4'-DDT	Ave	0.6754	0.8503		126	100	126	50-150
13C10-cis Nonachlor	Ave	0.0944	0.1126		119	100	119	50-150
13C12-Endrin Aldehyde	Ave	0.0237	0.0345		145	100	145	50-150
13C9-Endosulfan sulfate	Ave	0.1517	0.2235		147	100	147	50-150
13C12-4,4'-DDT	Ave	0.5808	0.6676		115	100	115	50-150
13C11-Endrin Ketone	Ave	0.0648	0.1073		166	100	166*	50-150
13C12-Methoxychlor	Ave	0.6709	0.6879		103	100	103	50-150
13C10-Mirex	Ave	0.9459	1.092		115	100	115	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	28 Mar 2025 09:58
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

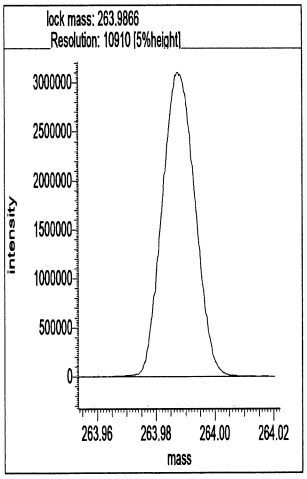
-d3250328r1

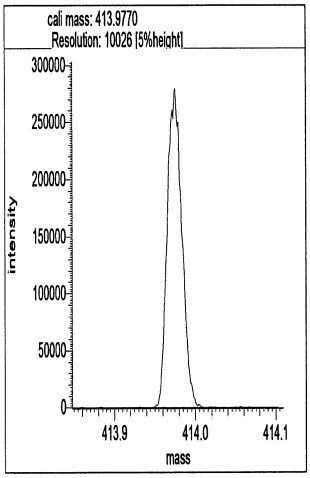
Segment 1

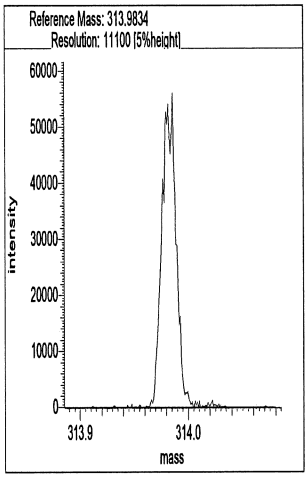
Lock mass 263.9866 [m/z] Resolution: 10910 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10026 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11100 [5%height]





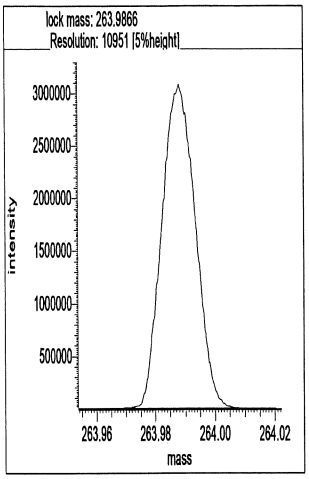


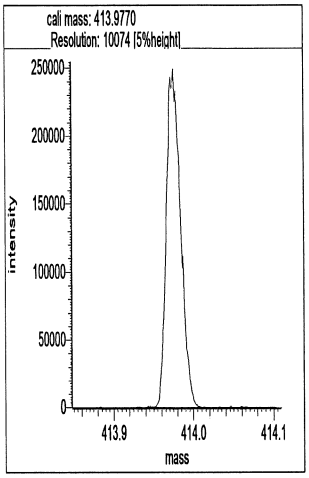
Segment 2

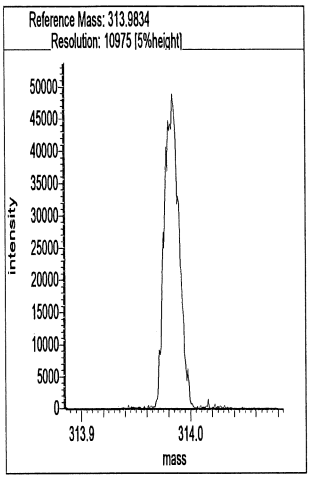
Lock mass 263.9866 [m/z] Resolution: 10951 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10074 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10975 [5%height]





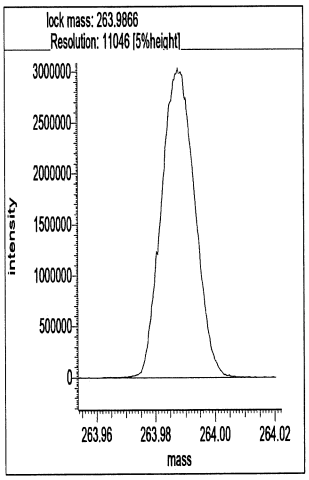


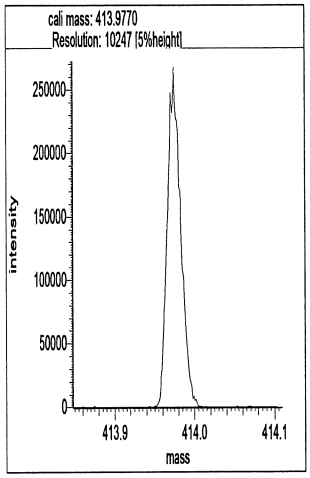
Segment 3

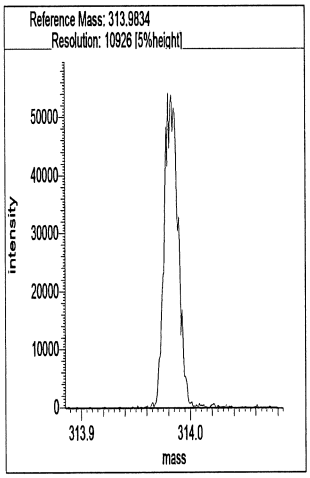
Lock mass 263.9866 [m/z] Resolution: 11046 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10247 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10926 [5%height]





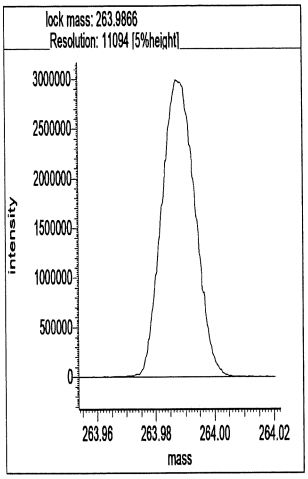


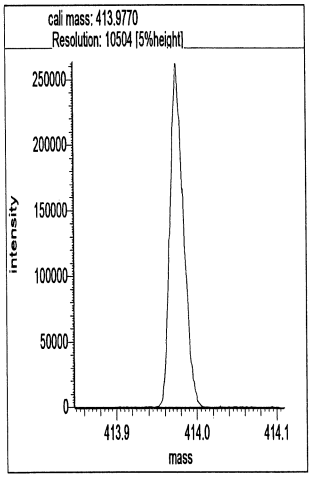
Segment 4

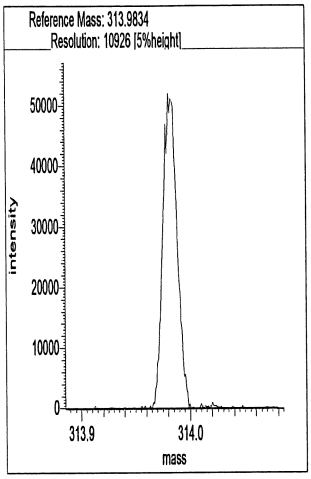
Lock mass 263.9866 [m/z] Resolution: 11094 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10504 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10926 [5%height]





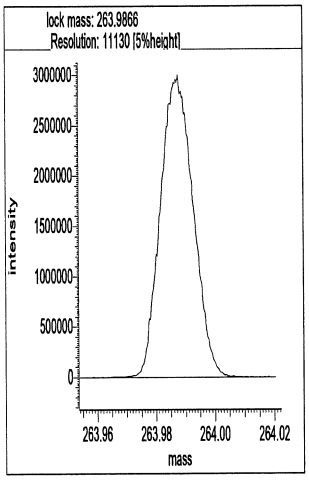


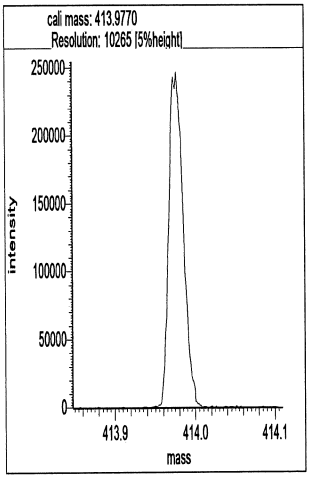
Segment 5

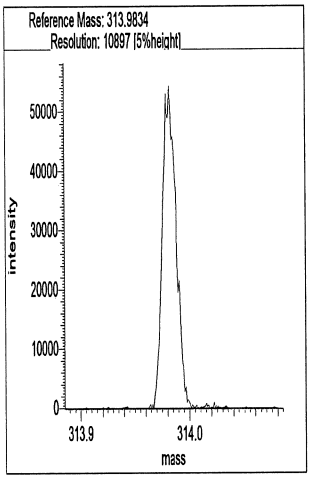
Lock mass 263.9866 [m/z] Resolution: 11130 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10265 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10897 [5%height]





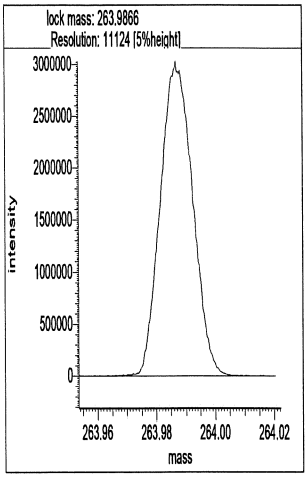


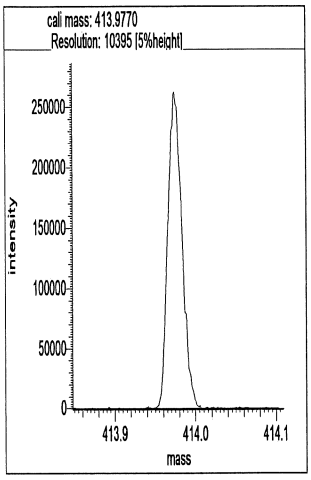
Segment 6

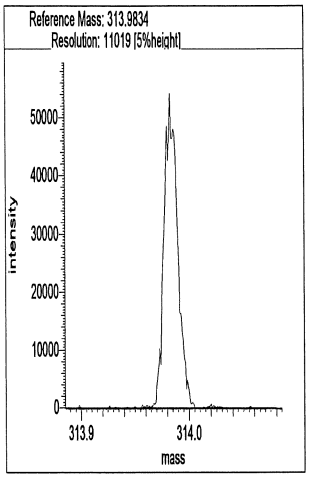
Lock mass 263.9866 [m/z] Resolution: 11124 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10395 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11019 [5%height]


lock mass: 263.9866
Resolution: 11124 [5%height]
intensity
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


call mass: 413.9770
Resolution: 10395 [5%height]
intensity
250000
200000
150000
100000
50000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 11019 [5%height]
intensity
50000
40000
30000
20000
10000
0
313.9
314.0
mass

```
Reports
10:11:24:  Peak matching procedure started
10:11:25:
10:11:25:  Reference mass: 263.98656
10:11:26:  Sample mass: 414.0
10:11:26:
10:11:27:  Finding reference mass
10:11:28:  Finding sample mass
10:11:28:
10:11:34:  [1]   413.9767 amu, mean: 413.9767
10:11:37:  [2]   413.9762 amu, mean: 413.9764     SD: 0.33 mmu or: 0.79 ppm
10:11:40:  [3]   413.9757 amu, mean: 413.9762     SD: 0.48 mmu or: 1.15 ppm
10:11:43:  [4]   413.9755 amu, mean: 413.9760     SD: 0.51 mmu or: 1.24 ppm
10:11:46:  [5]   413.9748 amu, mean: 413.9758     SD: 0.70 mmu or: 1.70 ppm
10:11:49:  [6]   413.9753 amu, mean: 413.9757     SD: 0.66 mmu or: 1.59 ppm
10:11:52:  [7]   413.9743 amu, mean: 413.9755     SD: 0.80 mmu or: 1.94 ppm
10:11:55:  [8]   413.9746 amu, mean: 413.9754     SD: 0.81 mmu or: 1.96 ppm
10:11:58:  [9]   413.9754 amu, mean: 413.9754     SD: 0.76 mmu or: 1.83 ppm
10:12:02:  [10]   413.9757 amu, mean: 413.9754     SD: 0.72 mmu or: 1.75 ppm
10:12:05:  [11]   413.9756 amu, mean: 413.9754     SD: 0.69 mmu or: 1.66 ppm
10:12:06:
10:12:06:  Stop requested. Please wait for procedure to finish.
10:12:06:
10:12:08:  [12]   413.9760 amu, mean: 413.9755     SD: 0.68 mmu or: 1.63 ppm
10:12:09:
10:12:10:  Peakmatching stopped
```

Signature 3/28/25

Preliminary Report

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328bd1a.d
Lims ID: BKDN
Client ID:
Sample Type: PEM
Inject. Date: 28-Mar-2025 11:42:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist:

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 03-Apr-2025 16:30:48 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1659

First Level Reviewer: F9EE Date: 03-Apr-2025 16:30:48

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C12-4,4'-DDE	30:12	27539172	1.56	1.8637					0.00	6q
4,4'-DDE	30:13	8818585	1.56	1.2526	127.8	127.8	0.0509	0.0509		
D 13C12-4,4'-DDD	33:29	30101547	1.55	1.1392					0.00	6q
4,4'-DDD	33:32	10617031	1.55	1.2345	142.9	142.9	0.0884	0.0884		
D 13C12-4,4'-DDT	36:38	14766675	1.57	0.5808					0.00	6q
4,4'-DDT	36:40	222343478	1.63	1.2096	6224.2	6224.2	0.1857	0.1857		E
D 13C12-Endrin	32:05	1965450	1.58	0.1181					0.00	6q
Endrin	32:07	1842140	1.56	1.0678	438.9	438.9	0.1356	0.1356		
D 13C12-Endrin Aldehyde	34:21	1234529	1.53	0.0237					0.00	6iq
Endrin aldehyde	34:23	55259	1.63	1.1278	19.8	19.8	0.1699	0.1699		
D 13C12-Methoxychlor	41:58	12109743	21.16	0.6709					0.00	6q
Methoxychlor	42:00	13840141	5.49	1.3248	431.4	431.4	0.0782	0.0782		
D 13C11-Endrin Ketone	40:27	1773379	1.54	0.0648					0.00	6q
Endrin ketone	40:29	111444	1.71	1.1546	27.2	27.2	0.0999	0.0999		M
S DDTR							0.000100	0.000100		
S Total Chlordane							0.000100	0.000100		

QC Flag Legend

Processing Flags
- E - Exceeded Maximum Amount
- 6 - Missing Quant Standard
- i - Failed Initial Calibration Limits
- q - Failed One or More Quality Tests

Review Flags
- M - Manually Integrated

4,4'-DDT breakdown $\left(\frac{9435616}{222343478}\right)100 = 8.7\%$

Endrin breakdown $\left(\frac{166703}{1842140}\right)100 = 9.0\%$

Reagents:

61CCVBD_00005 Amount Added: 20.00 Units: uL

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	28 Mar 2025 21:42
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

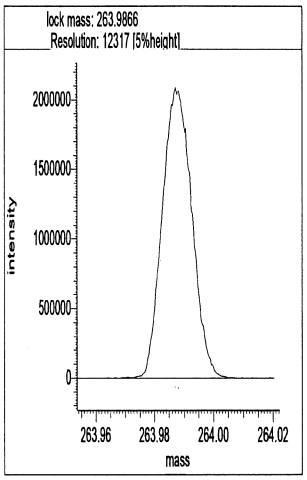
Segment 1

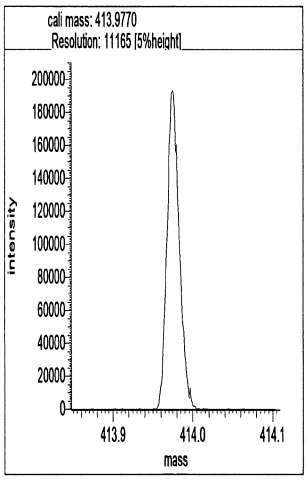
d3250328r4

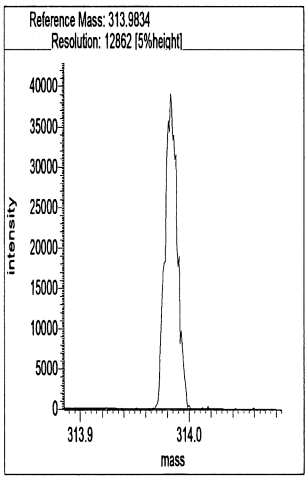
Lock mass 263.9866 [m/z] Resolution: 12317 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11165 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12862 [5%height]





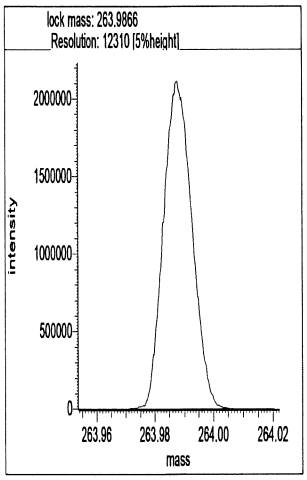


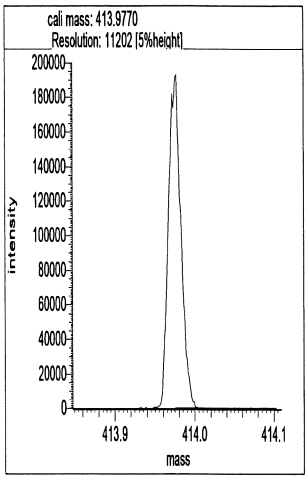
Segment 2

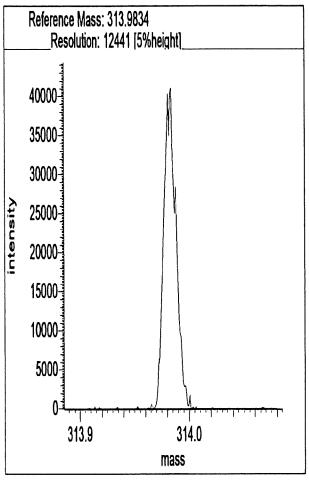
Lock mass 263.9866 [m/z] Resolution: 12310 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11202 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12441 [5%height]





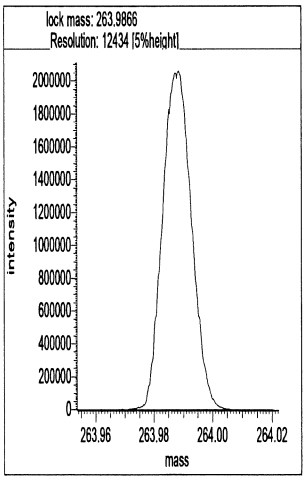


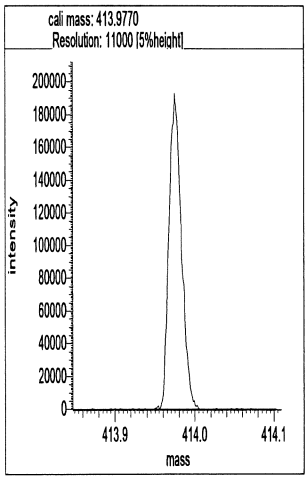
Segment 3

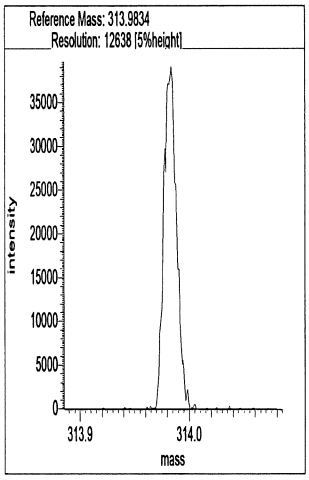
Lock mass 263.9866 [m/z] Resolution: 12434 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11000 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12638 [5%height]





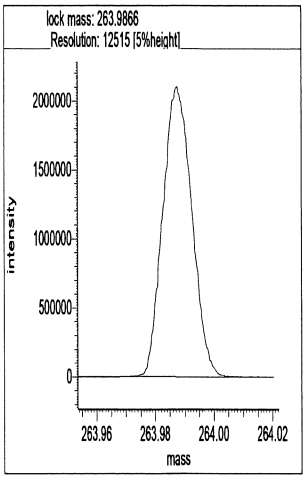


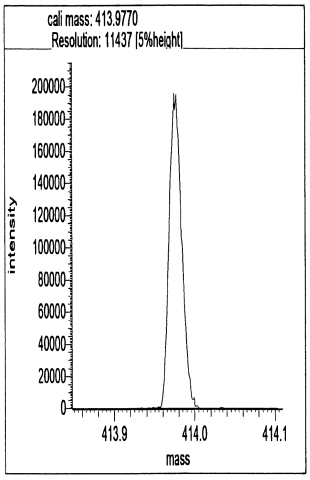
Segment 4

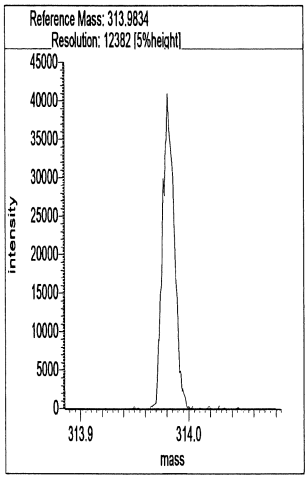
Lock mass 263.9866 [m/z] Resolution: 12515 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11437 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12382 [5%height]





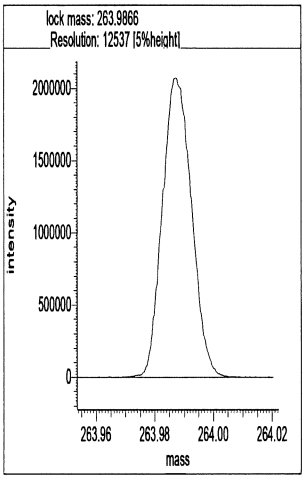


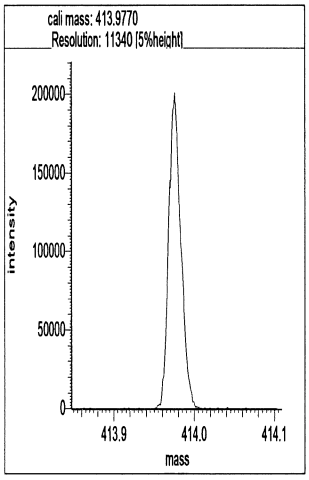
Segment 5

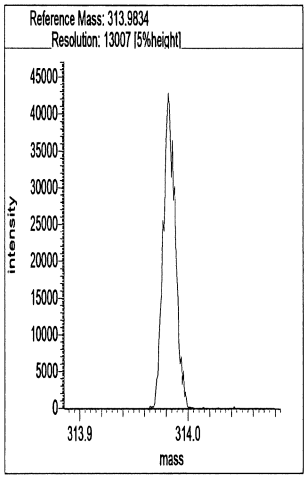
Lock mass 263.9866 [m/z] Resolution: 12537 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11340 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 13007 [5%height]





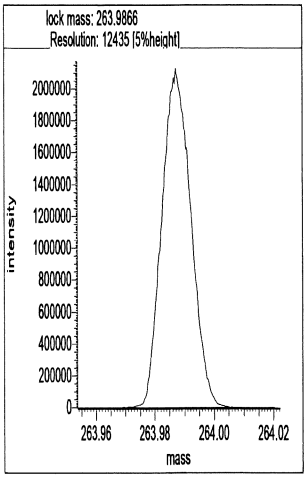


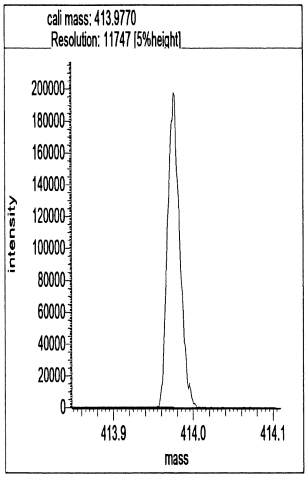
Segment 6

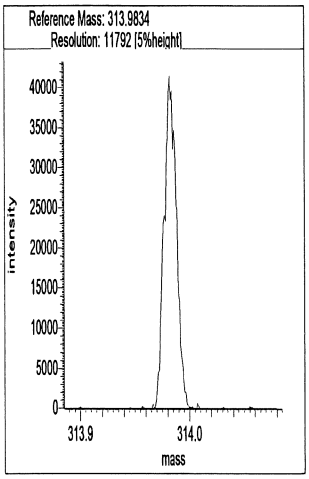
Lock mass 263.9866 [m/z] Resolution: 12435 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11747 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11792 [5%height]


lock mass: 263.9866
Resolution: 12435 [5%height]
intensity
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 11747 [5%height]
intensity
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 11792 [5%height]
intensity
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports

```
12:19:40:  Peak matching procedure started
12:19:40:
12:19:41:  Reference mass: 263.98656
12:19:41:  Sample mass: 414.0
12:19:42:
12:19:42:  Finding reference mass
12:19:43:  Finding sample mass
12:19:44:
12:19:49:  [1]   413.9850 amu, mean: 413.9850
12:19:52:  [2]   413.9843 amu, mean: 413.9847     SD: 0.46 mmu or: 1.11 ppm
12:19:56:  [3]   413.9840 amu, mean: 413.9845     SD: 0.48 mmu or: 1.17 ppm
12:19:59:  [4]   413.9839 amu, mean: 413.9843     SD: 0.47 mmu or: 1.14 ppm
12:20:02:  [5]   413.9832 amu, mean: 413.9841     SD: 0.64 mmu or: 1.53 ppm
12:20:05:  [6]   413.9831 amu, mean: 413.9839     SD: 0.69 mmu or: 1.67 ppm
12:20:08:  [7]   413.9830 amu, mean: 413.9838     SD: 0.72 mmu or: 1.75 ppm
12:20:11:  [8]   413.9824 amu, mean: 413.9836     SD: 0.84 mmu or: 2.04 ppm
12:20:15:  [9]   413.9830 amu, mean: 413.9836     SD: 0.82 mmu or: 1.98 ppm
12:20:18:  [10]   413.9826 amu, mean: 413.9835     SD: 0.83 mmu or: 2.00 ppm
12:20:21:  [11]   413.9835 amu, mean: 413.9835     SD: 0.79 mmu or: 1.90 ppm
12:20:21:
12:20:21:  Stop requested. Please wait for procedure to finish.
12:20:21:
12:20:24:
12:20:24:  Peakmatching stopped
```

Signature 3/30/25

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 10:14:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 13:49:10 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: F9EE Date: 28-Mar-2025 11:39:06

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:24	4433323	0.85	0.1704	155.7	155.7	0.0826	0.0826	156	
alpha-BHC	17:25	8332212	0.80	1.0937	171.8	171.8	0.0318	0.0318	85.92	
D 13C6-beta BHC	18:24	3593961	0.79	0.1244	172.9	172.9	0.1131	0.1131	173	
beta-BHC	18:24	6645466	0.82	1.0053	183.9	183.9	0.0458	0.0458	91.97	
D 13C6-gamma BHC	18:40	4464934	0.81	0.1646	162.4	162.4	0.0855	0.0855	162	
gamma-BHC (Lindane)	18:41	7761871	0.79	0.9800	177.4	177.4	0.0375	0.0375	88.70	
D 13C6-delta BHC	19:39	3227366	0.80	0.0992	194.7	194.7	0.1419	0.1419	195	
delta-BHC	19:39	6412669	0.79	1.1243	176.7	176.7	0.0502	0.0502	88.36	
D 13C10-Heptachlor	21:52	2216829	1.26	0.0715	185.5	185.5	0.0880	0.0880	186	
Heptachlor	21:53	4804306	1.26	1.0864	199.5	199.5	0.0297	0.0297	99.74	
D 13C6-Hexachlorobenzene	17:43	10321967	1.29	0.5041	122.5	122.5	0.000192	0.000192	123	
Hexachlorobenzene	17:44	20253031	1.25	1.1568	169.6	169.6	0.000118	0.000118	84.81	
D 13C12-Aldrin	23:45	3199606	1.60	0.1384	138.3	138.3	0.0273	0.0273	138	
Aldrin	23:46	6400584	1.56	1.0892	183.7	183.7	0.0594	0.0594	91.83	
D 13C10-oxy Chlordane	26:10	615756	1.10	0.0481	198.1	198.1	0.007246	0.007246	198	
oxy-Chlordane	26:10	949613	1.03	1.1040	139.7	139.7	0.002899	0.002899	69.85	
D 13C10-cis Heptachlor Epoxide	26:07	1899851	1.25	0.1493	196.8	196.8	0.0257	0.0257	197	
Heptachlor epoxide	26:09	4293622	1.25	1.1461	197.2	197.2	0.001392	0.001392	98.59	
D 13C12-2,4'-DDE	27:56	14969781	1.52	2.7345	84.6	84.6	0.0119	0.0119	84.64	
2,4'-DDE	27:58	31444632	1.57	1.2831	163.7	163.7	0.0179	0.0179	81.86	
D 13C10-trans Chlordane	27:39	1519278	1.26	0.1640	143.2	143.2	0.1316	0.1316	143	
trans-Chlordane	27:41	3354388	1.28	1.1433	193.1	193.1	0.1053	0.1053	96.56	
D 13C10-cis Chlordane	28:42	1461480	1.22	0.1741	129.8	129.8	0.1240	0.1240	130	
cis-Chlordane	28:44	2888941	1.28	1.0551	187.3	187.3	0.1241	0.1241	93.67	
D 13C10-trans Nonachlor	29:01	1181964	1.19	0.1233	148.2	148.2	0.1751	0.1751	148	
trans-Nonachlor	29:02	2517147	1.29	1.0780	197.5	197.5	0.1486	0.1486	98.77	
D 13C9-Endosulfan I	28:32	477976	1.35	0.0555	133.1	133.1	0.3889	0.3889	133	
D 13C12-4,4'-DDE	30:10	10636814	1.54	1.8637	80.8	80.8	0.0730	0.0730	80.80	
4,4'-DDE	30:12	22978371	1.53	1.2526	172.5	172.5	0.0810	0.0810	86.23	
D 13C12-4,4'-DDD	33:28	9257853	1.59	1.1392	115.0	115.0	0.0222	0.0222	115	
4,4'-DDD	33:29	19890267	1.55	1.2345	174.0	174.0	0.0536	0.0536	87.02	
D 13C12-2,4'-DDT	33:45	6006631	1.58	0.6754	125.9	125.9	0.0375	0.0375	126	
2,4'-DDT	33:46	12325636	1.55	1.1809	173.8	173.8	0.0878	0.0878	86.88	
D 13C12-4,4'-DDT	36:37	4715871	1.60	0.5808	114.9	114.9	0.0436	0.0436	115	
4,4'-DDT	36:38	9911845	1.57	1.2096	173.8	173.8	0.1132	0.1132	86.88	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C12-Dieldrin	30:24	1356713	1.63	0.1991	96.5	96.5	0.1006	0.1006	96.48	
Dieldrin	30:26	2963836	1.60	1.0718	203.8	203.8	0.1265	0.1265	102	
D 13C12-Endrin	32:04	875871	1.58	0.1181	105.0	105.0	0.1696	0.1696	105	
Endrin	32:06	1802705	1.59	1.0678	192.7	192.7	0.2022	0.2022	96.37	
D 13C9-Endosulfan II	32:48	231142	1.18	0.0248	132.1	132.1	0.1167	0.1167	132	
Endosulfan II	32:49	507829	1.38	1.0972	200.2	200.2	0.5756	0.5756	100	
D 13C12-Endrin Aldehyde	34:20	243443	1.59	0.0237	145.3	145.3	0.2439	0.2439	145	
Endrin aldehyde	34:22	531247	1.58	1.1278	193.5	193.5	0.5692	0.5692	96.75	
D 13C12-Methoxychlor	41:57	4859539	21.25	0.6709	102.5	102.5	0.0598	0.0598	103	
Methoxychlor	41:59	11061638	5.63	1.3248	171.8	171.8	0.0443	0.0443	85.91	
D 13C11-Endrin Ketone	40:25	758114	1.78	0.0648	165.7	165.7	0.1194	0.1194	166	
Endrin ketone	40:28	1746642	1.62	1.1546	199.5	199.5	0.1141	0.1141	99.77	
D 13C10-Mirex	45:26	4728052	1.28	0.9459	115.5	115.5	0.0123	0.0123	115	
Mirex	45:27	9996819	1.27	1.0234	206.6	206.6	0.0164	0.0164	103	
* PCB-15L	19:05	16710168	1.57		100.0	100.0				
PCB-14	17:49	48097794	1.58	1.3581	211.9	211.9	0.003492	0.003492	84.48	
* 13C6-Pentachlorophenol (IS)	18:30	1179834	0.61		500.0	500.0				a
Pentachlorophenol	18:31	5233582	0.61	0.8359	2653.3	2653.3	0.3946	0.3946	133	
PCB-36	22:10	36660771	1.05	1.0230	214.4	214.4	0.002270	0.002270	85.48	
* PCB-101L	28:08	6467876	1.62		100.0	100.0				
PCB-104	23:44	23504497	1.52	1.8372	197.8	197.8	0.000379	0.000379	78.84	
* PCB-118L	32:48	7063852	1.60		100.0	100.0				
PCB-121	26:44	20860170	1.56	1.4622	202.0	202.0	0.0790	0.0790	80.50	
* PCB-138L	37:00	4328537	1.29		100.0	100.0				
PCB-142	27:30	18328594	1.26	2.0271	208.9	208.9	0.0264	0.0264	83.26	
Endosulfan I	28:34	1066779	1.61	1.0931	204.2	204.2	0.1756	0.1756	102	
* PCB-60L	27:45	10156790	0.79		100.0	100.0				
PCB-78	29:23	22690114	0.81	0.9153	244.1	244.1	0.0783	0.0783	97.28	
D 13C12-2,4'-DDD	30:52	11152277	1.56	1.3487	117.1	117.1	0.0791	0.0791	117	
2,4'-DDD	30:53	22259877	1.53	1.1763	169.7	169.7	0.0408	0.0408	84.84	
D 13C10-cis Nonachlor	33:48	795500	1.32	0.0944	119.3	119.3	0.2160	0.2160	119	
cis-Nonachlor	33:50	1766952	1.31	1.0758	206.5	206.5	0.1712	0.1712	103	
D 13C9-Endosulfan sulfate	36:18	1578520	1.30	0.1517	147.3	147.3	0.1344	0.1344	147	
Endosulfan sulfate	36:20	3596937	1.29	1.0831	210.4	210.4	0.0915	0.0915	105	
* PCB-167L	39:29	4697917	1.27		100.0	100.0				
PCB-155	34:00	10041336	1.25	0.9191	232.6	232.6	0.0737	0.0737	92.69	
PCB-184	34:39	11536706	1.06	1.1610	211.5	211.5	0.004909	0.004909	84.31	
PCB-204	42:17	7595301	0.90	0.7364	219.5	219.5	0.000860	0.000860	87.51	
PCB-192	42:36	8718438	1.07	0.7635	243.1	243.1	0.0343	0.0343	96.89	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 10:14:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 13:49:10 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: F9EE Date: 28-Mar-2025 11:39:06

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:24	17:24	0	0.912	2031282	724594	225	562	3220		
224.9317	17:24	17:24	-1	0.912	2402041	886295	66	165	13429	0.85(0.58-0.96)	
alpha-BHC											
216.9145	17:25	17:25	0	1.001	3709701	1343575	6	15	223929		
218.9116	17:25	17:25	0	1.001	4622511	1660825	218	545	7618	0.80(0.58-0.96)	
13C6-beta BHC											
222.9342	18:24	18:24	0	0.964	1582101	532376	225	562	2366		
224.9317	18:24	18:24	0	0.964	2011860	684306	66	165	10368	0.79(0.58-0.96)	
beta-BHC											
216.9145	18:24	18:24	0	1.001	2989093	1000847	6	15	166808		
218.9116	18:24	18:24	0	1.001	3656373	1258221	218	545	5772	0.82(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:40	18:40	0	0.979	1992635	687134	225	562	3054		
224.9317	18:40	18:40	0	0.979	2472299	837435	66	165	12688	0.81(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:41	18:41	0	1.001	3419300	1153113	6	15	192186		
218.9116	18:41	18:41	0	1.001	4342571	1464426	218	545	6718	0.79(0.58-0.96)	
13C6-delta BHC											
222.9342	19:39	19:39	0	1.029	1437026	441345	225	562	1962		
224.9317	19:38	19:39	-1	1.029	1790340	551336	66	165	8354	0.80(0.58-0.96)	
delta-BHC											
216.9145	19:39	19:39	0	1.001	2830671	875298	6	15	145883		
218.9116	19:39	19:39	0	1.001	3581998	1112446	218	545	5103	0.79(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:52	21:52	0	1.147	1235052	347478	76	190	4572		
278.8240	21:52	21:52	0	1.147	981777	279445	54	135	5175	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Heptachlor											
271.8102	21:53	21:53	0	1.001	2681595	761809	47	117	16209		
273.8072	21:53	21:53	0	1.001	2122711	606554	34	85	17840	1.26(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:43	17:43	0	0.929	5812683	2048607	1	2	2048607		
291.8273	17:43	17:43	0	0.929	4509284	1624541	1	2	1624541	1.29(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:44	17:44	0	1.001	11255249	3952474	1	2	3952474		
285.8072	17:44	17:44	0	1.001	8997782	3126020	1	2	3126020	1.25(0.93-1.55)	
13C12-Aldrin											
269.8805	23:45	23:45	0	1.245	1970462	512905	44	110	11657		
271.8775	23:44	23:45	-1	1.244	1229144	316474	34	85	9308	1.60(1.16-1.94)	
Aldrin											
262.8569	23:46	23:46	0	1.001	3900029	1018845	96	240	10613		
264.8540	23:46	23:46	0	1.001	2500555	655020	119	297	5504	1.56(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:10	26:10	0	0.930	322645	84406	1	2	84406		
398.8358	26:10	26:10	0	0.930	293111	71811	1	2	71811	1.10(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10	26:10	0	1.001	481881	143771	1	2	143771		
388.8023	26:10	26:10	0	1.001	467732	134175	1	2	134175	1.03(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:07	26:07	0	0.929	1054667	244748	6	15	40791		
364.8748	26:06	26:07	-1	0.928	845184	193907	16	40	12119	1.25(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:09	26:09	0	1.001	2383911	546389	2	5	273195		
354.8413	26:09	26:09	0	1.001	1909711	430600	1	2	430600	1.25(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.993	9036229	1996213	122	305	16362		
260.0376	27:57	27:56	1	0.994	5933552	1305798	65	162	20089	1.52(1.17-1.95)	
2,4'-DDE											
246.0003	27:58	27:58	0	1.001	19200639	4336628	211	527	20553		
247.9974	27:58	27:58	0	1.001	12243993	2710674	93	232	29147	1.57(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:39	27:39	0	0.983	848496	195170	66	165	2957		
278.8240	27:39	27:39	0	0.983	670782	149454	58	145	2577	1.26(0.93-1.55)	
trans-Chlordane											
271.8102	27:41	27:41	0	1.001	1884612	424128	82	205	5172		
273.8072	27:41	27:41	0	1.001	1469776	325483	84	210	3875	1.28(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:42	28:42	0	1.020	801775	172033	66	165	2607		
278.8240	28:42	28:42	0	1.020	659705	144884	58	145	2498	1.22(0.93-1.55)	
cis-Chlordane											
271.8102	28:44	28:44	0	1.001	1623645	354653	82	205	4325		
273.8072	28:44	28:44	0	1.001	1265296	278365	84	210	3314	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-trans Nonachlor											
276.8270	29:01	29:01	0	1.031	641517	138109	66	165	2093		
278.8240	29:01	29:01	0	1.031	540447	121009	58	145	2086	1.19(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	1418536	312228	82	205	3808		
273.8072	29:02	29:02	0	1.001	1098611	240941	84	210	2868	1.29(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:32	28:32	0	1.015	274795	59460	66	165	901		
278.8240	28:31	28:32	-1	1.014	203181	45801	58	145	790	1.35(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	6443463	1365604	479	1197	2851		
260.0376	30:10	30:10	0	0.920	4193351	885726	274	685	3233	1.54(1.17-1.95)	
4,4'-DDE											
246.0003	30:12	30:12	0	1.001	13906966	2934662	562	1405	5222		
247.9974	30:12	30:12	0	1.001	9071405	1894186	352	880	5381	1.53(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:28	33:28	0	1.020	5679265	1074705	96	240	11195		
249.0454	33:28	33:28	0	1.020	3578588	673863	44	110	15315	1.59(1.17-1.95)	
4,4'-DDD											
235.0081	33:29	33:29	0	1.001	12094160	2235256	398	995	5616		
237.0052	33:29	33:29	0	1.001	7796107	1470005	65	162	22615	1.55(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:45	33:45	0	1.029	3682619	687146	96	240	7158		
249.0454	33:45	33:45	0	1.029	2324012	428713	44	110	9743	1.58(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	7491106	1406040	398	995	3533		
237.0052	33:46	33:46	0	1.001	4834530	915659	65	162	14087	1.55(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:37	36:37	0	1.116	2901340	517714	96	240	5393		
249.0454	36:37	36:37	0	1.116	1814531	327166	44	110	7436	1.60(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:38	0	1.000	6053184	1102809	398	995	2771		
237.0052	36:38	36:38	0	1.000	3858661	700861	65	162	10782	1.57(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:24	30:24	0	0.927	841809	168250	62	155	2714		
271.8775	30:24	30:24	0	0.927	514904	104570	49	122	2134	1.63(1.16-1.94)	
Dieldrin											
262.8570	30:26	30:26	0	1.001	1823065	368180	80	200	4602		
264.8540	30:26	30:26	-1	1.001	1140771	234006	68	170	3441	1.60(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:04	0	0.978	536946	106254	62	155	1714		
271.8775	32:04	32:04	0	0.978	338925	65102	49	122	1329	1.58(1.16-1.94)	
Endrin											
262.8570	32:06	32:06	0	1.001	1106849	220270	80	200	2753		
264.8540	32:06	32:06	0	1.001	695856	141472	68	170	2080	1.59(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C9-Endosulfan II											
276.8270	32:48	32:48	0	1.000	125231	21082	1	2	21082		
278.8240	32:48	32:48	1	1.000	105911	19297	15	37	1286	1.18(0.93-1.55)	
Endosulfan II											
271.8102	32:49	32:49	0	1.001	294630	54760	58	145	944		
273.8072	32:49	32:49	0	1.001	213199	41880	44	110	952	1.38(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:20	34:20	0	1.046	149562	26701	20	50	1335		
358.9361	34:20	34:20	0	1.046	93881	16450	12	30	1371	1.59(1.17-1.95)	
Endrin aldehyde											
344.8988	34:22	34:22	0	1.001	325110	55142	61	152	904		
346.8959	34:22	34:22	0	1.001	206137	35595	50	125	712	1.58(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:57	41:57	0	1.279	4641129	788818	195	487	4045		
240.1510	41:57	41:57	0	1.279	218410	37653	27	67	1395	21.25(0.00-0.00)	
Methoxychlor											
227.1072	41:59	41:59	0	1.001	9392669	1565784	134	335	11685		
228.1106	41:58	41:59	-1	1.000	1668969	279356	60	150	4656	5.63(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:25	40:25	0	1.232	485112	78100	23	57	3396		
329.9379	40:25	40:25	0	1.232	273002	43337	20	50	2167	1.78(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	0	1.001	1081105	177917	38	95	4682		
318.9010	40:28	40:28	0	1.001	665537	106467	26	65	4095	1.62(1.16-1.95)	
13C10-Mirex											
276.8270	45:26	45:26	0	1.228	2658716	419403	20	50	20970		
278.8240	45:26	45:26	0	1.228	2069336	324513	16	40	20282	1.28(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.000	5597988	889209	26	65	34200		
273.8072	45:27	45:27	0	1.000	4398831	708831	24	60	29535	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:05	19:05	0		10205625	3147881	28	70	112424		
236.0376	19:05	19:05	0		6504543	2018862	13	32	155297	1.57(1.16-1.93)	
PCB-14											
222.0003	17:49	17:49	0	0.934	29475586	10239199	59	147	173546		
223.9974	17:49	17:49	0	0.934	18622208	6500431	39	97	166678	1.58(1.33-1.79)	
13C6-Pentachlorophenol (IS)											a
269.8666	18:30	18:30	0		446498	118554	2	5	59277		a
271.8636	18:30	18:30	0		733336	184610	1	2	184610	0.61(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31	18:31	0	1.001	1979181	519259	67	167	7750		
265.8435	18:31	18:31	0	1.001	3254401	813562	13	32	62582	0.61(0.00-0.00)	
PCB-36											
255.9613	22:10	22:10	0	1.162	18762319	5122832	27	67	189735		
257.9584	22:10	22:10	0	1.162	17898452	4878484	21	52	232309	1.05(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-101L											
337.9207	28:08	28:08	0		4002074	890510	1	2	890510		
339.9178	28:08	28:08	0		2465802	545331	2	5	272666	1.62(1.16-1.94)	
PCB-104											
325.8804	23:44	23:44	0	0.844	14190521	3628955	3	7	1209652		
327.8775	23:44	23:44	0	0.844	9313976	2381705	1	2	2381705	1.52(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		4348101	852055	29	72	29381		
339.9178	32:48	32:48	0		2715751	530878	19	47	27941	1.60(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	0	0.815	12712381	2964067	404	1010	7337		
327.8775	26:44	26:44	0	0.815	8147789	1908456	235	587	8121	1.56(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	0		2437827	437661	13	32	33666		
373.8788	37:00	37:00	0		1890710	338325	12	30	28194	1.29(1.16-1.94)	
PCB-142											
359.8415	27:30	27:30	0	0.743	10230225	2299739	90	225	25553		
361.8385	27:30	27:30	0	0.743	8098369	1819734	76	190	23944	1.26(1.05-1.43)	
Endosulfan I											
262.8570	28:34	28:34	0	1.001	657993	143223	35	87	4092		
264.8540	28:33	28:34	-1	1.000	408786	91881	46	115	1997	1.61(1.16-1.94)	
PCB-60L											
301.9626	27:45	27:45	0		4481322	965116	25	62	38605		
303.9597	27:45	27:45	0		5675468	1225549	22	55	55707	0.79(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	10132552	2021892	309	772	6543		
291.9194	29:23	29:23	0	1.059	12557562	2509773	319	797	7868	0.81(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:52	30:52	0	0.941	6788190	1352916	330	825	4100		
249.0454	30:52	30:52	0	0.941	4364087	880875	260	650	3388	1.56(1.17-1.95)	
2,4'-DDD											
235.0081	30:53	30:53	0	1.000	13477033	2770927	308	770	8997		
237.0052	30:53	30:53	0	1.000	8782844	1809889	121	302	14958	1.53(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:48	33:48	0	1.030	453091	79863	63	157	1268		
278.8240	33:49	33:48	1	1.031	342409	66704	50	125	1334	1.32(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	1003281	184179	56	140	3289		
273.8072	33:50	33:50	0	1.001	763671	143902	52	130	2767	1.31(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:18	36:18	0	1.107	893064	153027	63	157	2429		
278.8240	36:18	36:18	0	1.107	685456	119427	50	125	2389	1.30(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.001	2023619	349679	56	140	6244		
273.8072	36:20	36:20	0	1.001	1573318	275220	52	130	5293	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-167L											
371.8817	39:29	39:29	0		2626761	436754	24	60	18198		
373.8788	39:29	39:29	0		2071156	352869	20	50	17643	1.27(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	5577224	1081597	65	162	16640		
361.8385	34:00	34:00	0	0.861	4464112	858553	149	372	5762	1.25(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.878	5933322	1109308	15	37	73954		
395.7995	34:39	34:39	0	0.878	5603384	1040055	3	7	346685	1.06(0.89-1.21)	
PCB-204											
427.7635	42:17	42:17	0	1.071	3596633	621218	1	2	621218		
429.7606	42:17	42:17	0	1.071	3998668	683330	1	2	683330	0.90(0.76-1.02)	
PCB-192											
393.8025	42:36	42:36	0	1.079	4498080	746394	44	110	16964		
395.7995	42:36	42:36	0	1.079	4220358	700083	39	97	17951	1.07(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 10:14:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 13:49:10 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: F9EE Date: 28-Mar-2025 11:39:06

Start Cal Date: 19-Mar-2025 17:47:00
End Cal Date: 20-Mar-2025 01:05:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:24	2	15	0.9117	0.9122	0.812 - 1.0115
alpha-BHC		17:24	17:25	2		1.0006	1.0006	0.995 - 1.0090
13C6-beta BHC		18:23	18:24	2	15	0.9636	0.9641	0.864 - 1.0640
beta-BHC		18:24	18:24	1		1.0011	1.0006	0.901 - 1.1010
13C6-gamma BHC		18:40	18:40	1	15	0.9786	0.9786	0.878 - 1.0780
gamma-BHC (Lindane)		18:40	18:41	1		1.0005	1.0005	0.901 - 1.1010
13C6-delta BHC		19:37	19:39	2	15	1.0289	1.0294	0.930 - 1.1300
delta-BHC		19:38	19:39	2		1.0005	1.0005	0.901 - 1.1010
13C10-Heptachlor		21:52	21:52	1	15	1.1464	1.1465	1.046 - 1.2460
Heptachlor		21:52	21:53	1		1.0006	1.0006	0.901 - 1.1010
13C6-Hexachlorobenzene		17:43	17:43	1	15	0.9288	0.9288	0.828 - 1.0280
Hexachlorobenzene		17:43	17:44	2		1.0000	1.0006	0.900 - 1.1000
13C12-Aldrin		23:44	23:45	1	15	1.2446	1.2446	0.000 - 0.0000
Aldrin		23:46	23:46	1		1.0011	1.0006	0.000 - 0.0000
13C10-oxy Chlordane		26:09	26:10	1	15	0.9302	0.9300	0.000 - 0.0000
oxy-Chlordane		26:10	26:10	0		1.0010	1.0005	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:06	26:07	1	15	0.9287	0.9285	0.000 - 0.0000
Heptachlor epoxide		26:08	26:09	1		1.0010	1.0010	0.000 - 0.0000
13C12-2,4'-DDE		27:56	27:56	1	15	0.9937	0.9932	0.000 - 0.0000
2,4'-DDE		27:56	27:58	2		1.0000	1.0010	0.000 - 0.0000
13C10-trans Chlordane		27:38	27:39	2	15	0.9830	0.9831	0.000 - 0.0000
trans-Chlordane		27:40	27:41	2		1.0010	1.0010	0.000 - 0.0000
13C10-cis Chlordane		28:41	28:42	2	15	1.0203	1.0203	0.000 - 0.0000
cis-Chlordane		28:42	28:44	2		1.0009	1.0009	0.000 - 0.0000
13C10-trans Nonachlor		29:00	29:01	2	15	1.0315	1.0315	0.000 - 0.0000

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
trans-Nonachlor		29:02	29:02	1		1.0014	1.0009	0.000 - 0.0000
13C9-Endosulfan I		28:31	28:32	2	15	1.0145	1.0145	0.000 - 0.0000
13C12-4,4'-DDE		30:10	30:10	1	15	0.9197	0.9197	0.000 - 0.0000
4,4'-DDE		30:11	30:12	2		1.0004	1.0009	0.000 - 0.0000
13C12-4,4'-DDD		33:27	33:28	1	15	1.0201	1.0203	0.000 - 0.0000
4,4'-DDD		33:30	33:29	0		1.0010	1.0005	0.000 - 0.0000
13C12-2,4'-DDT		33:44	33:45	1	15	1.0285	1.0287	0.000 - 0.0000
2,4'-DDT		33:45	33:46	1		1.0005	1.0005	0.000 - 0.0000
13C12-4,4'-DDT		36:36	36:37	1	15	1.1159	1.1160	0.000 - 0.0000
4,4'-DDT		36:37	36:38	1		1.0005	1.0005	0.000 - 0.0000
13C12-Dieldrin		30:23	30:24	2	15	0.9262	0.9267	0.000 - 0.0000
Dieldrin		30:25	30:26	2		1.0013	1.0013	0.000 - 0.0000
13C12-Endrin		32:03	32:04	2	15	0.9772	0.9776	0.000 - 0.0000
Endrin		32:05	32:06	1		1.0013	1.0008	0.000 - 0.0000
13C9-Endosulfan II		32:46	32:48	2	15	0.9992	0.9996	0.000 - 0.0000
Endosulfan II		32:49	32:49	1		1.0012	1.0008	0.000 - 0.0000
13C12-Endrin Aldehyde		34:19	34:20	1	15	1.0463	1.0464	0.000 - 0.0000
Endrin aldehyde		34:21	34:22	1		1.0010	1.0010	0.000 - 0.0000
13C12-Methoxychlor		41:57	41:57	0	15	1.2791	1.2786	0.000 - 0.0000
Methoxychlor		41:58	41:59	1		1.0004	1.0008	0.000 - 0.0000
13C11-Endrin Ketone		40:25	40:25	0	15	1.2325	1.2321	0.000 - 0.0000
Endrin ketone		40:27	40:28	1		1.0008	1.0013	0.000 - 0.0000
13C10-Mirex		45:26	45:26	0	15	1.2282	1.2276	0.000 - 0.0000
Mirex		45:27	45:27	0		1.0004	1.0004	0.000 - 0.0000
PCB-15L		19:04	19:05	1		1.0000	1.0000	0.000 - 0.0000
PCB-14		17:49	17:49	1		0.9342	0.9341	0.000 - 0.0000
13C6-Pentachlorophenol (IS)		18:30	18:30	1		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:30	18:31	2		1.0000	1.0006	0.000 - 0.0000
PCB-36		22:09	22:10	1		1.1619	1.1622	0.000 - 0.0000
PCB-101L		28:07	28:08	2		1.0000	1.0000	0.000 - 0.0000
PCB-104		23:44	23:44	1		0.8438	0.8437	0.000 - 0.0000
PCB-118L		32:48	32:48	1		1.0000	1.0000	0.000 - 0.0000
PCB-121		26:43	26:44	1		0.8147	0.8146	0.000 - 0.0000
PCB-138L		37:00	37:00	1		1.0000	1.0000	0.000 - 0.0000
PCB-142		27:31	27:30	0		0.7433	0.7431	0.000 - 0.0000
Endosulfan I		28:33	28:34	2		1.0010	1.0010	0.000 - 0.0000
PCB-60L		27:44	27:45	2		1.0000	1.0000	0.000 - 0.0000
PCB-78		29:22	29:23	1		1.0588	1.0589	0.000 - 0.0000
13C12-2,4'-DDD		30:51	30:52	2	15	0.9405	0.9409	0.000 - 0.0000
2,4'-DDD		30:52	30:53	1		1.0009	1.0004	0.000 - 0.0000
13C10-cis Nonachlor		33:48	33:48	0	15	1.0306	1.0302	0.000 - 0.0000
cis-Nonachlor		33:49	33:50	1		1.0005	1.0010	0.000 - 0.0000
13C9-Endosulfan sulfate		36:17	36:18	1	15	1.1064	1.1066	0.000 - 0.0000
Endosulfan sulfate		36:19	36:20	1		1.0009	1.0009	0.000 - 0.0000
PCB-167L		39:29	39:29	0		1.0000	1.0000	0.000 - 0.0000
PCB-155		34:00	34:00	0		0.8610	0.8612	0.000 - 0.0000

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-184		34:39	34:39	0		0.8776	0.8777	0.000 - 0.0000
PCB-204		42:18	42:17	0		1.0710	1.0710	0.000 - 0.0000
PCB-192		42:37	42:36	0		1.0791	1.0792	0.000 - 0.0000

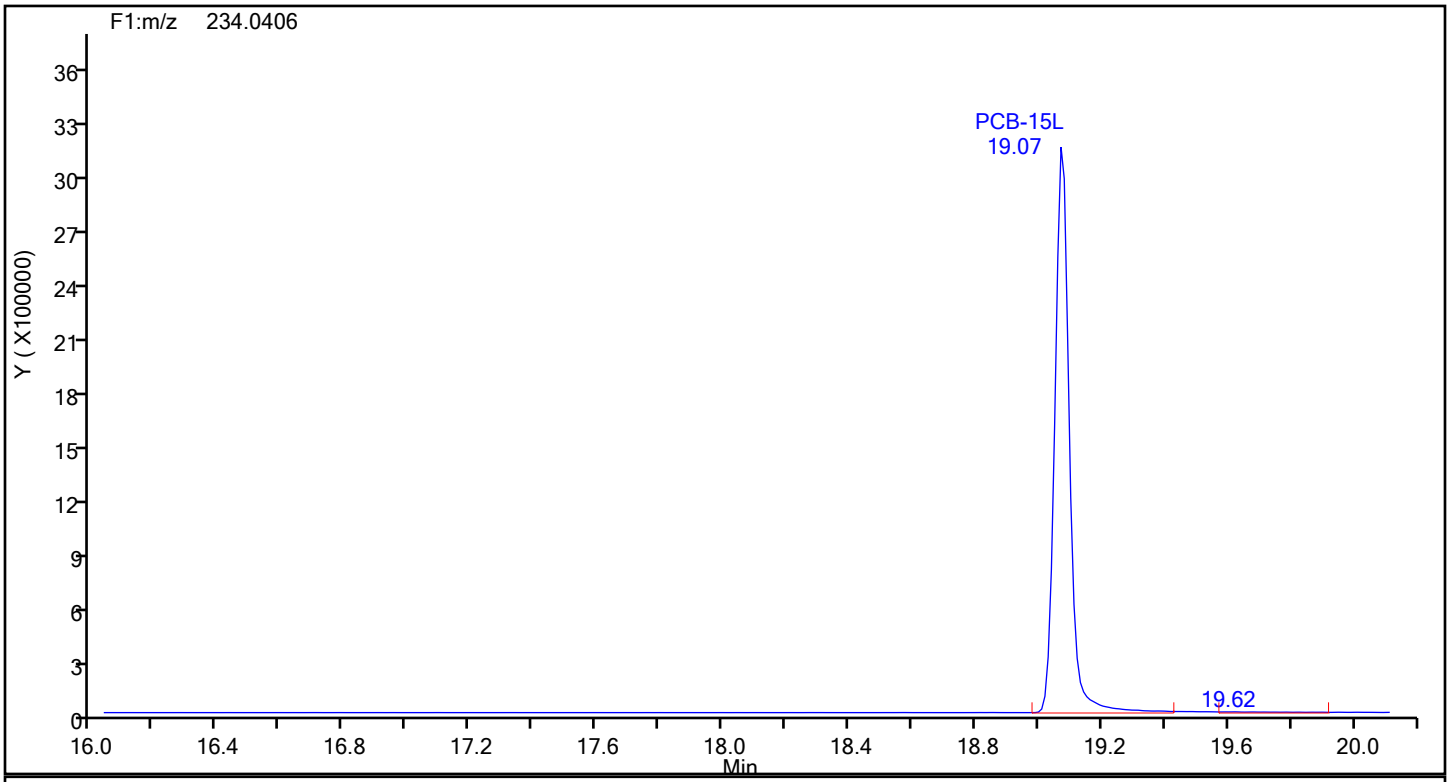
Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

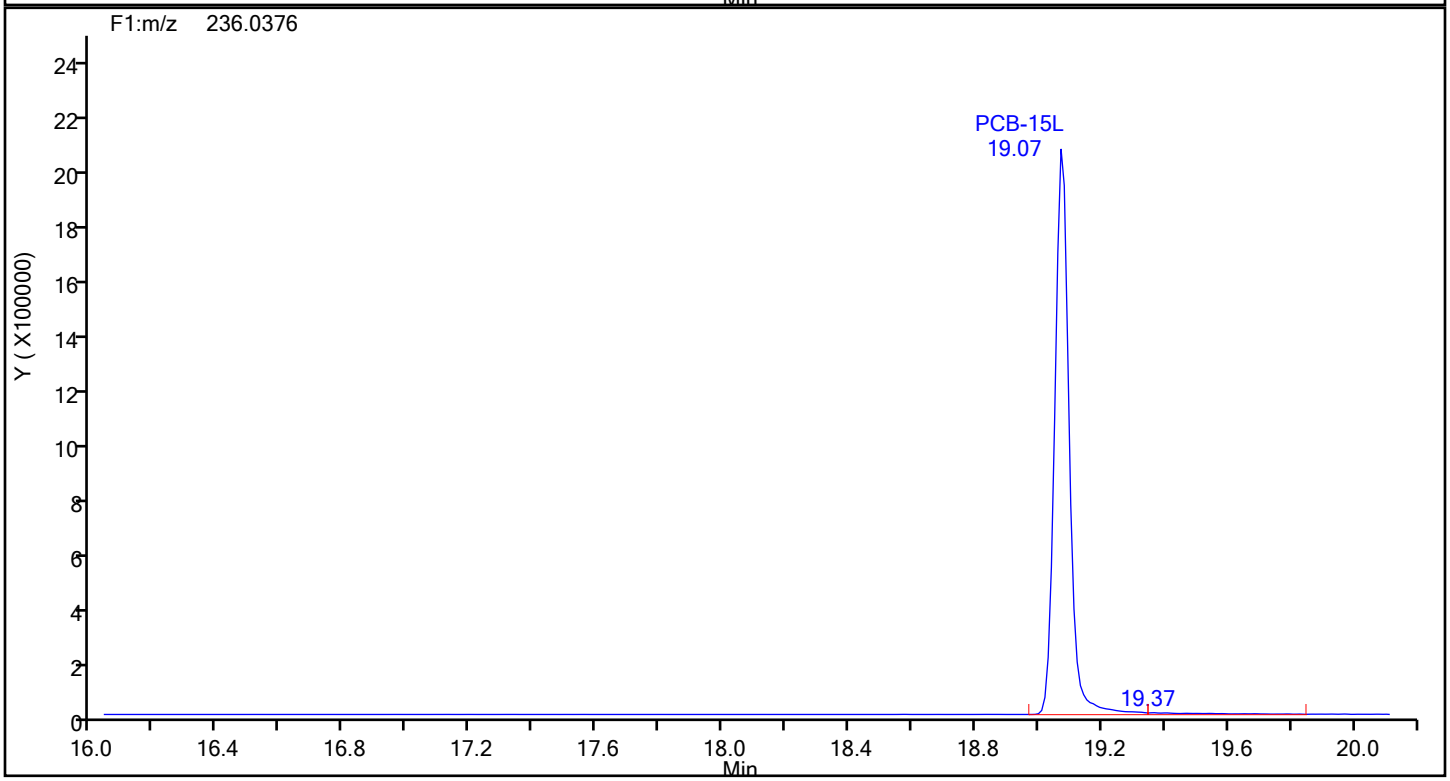
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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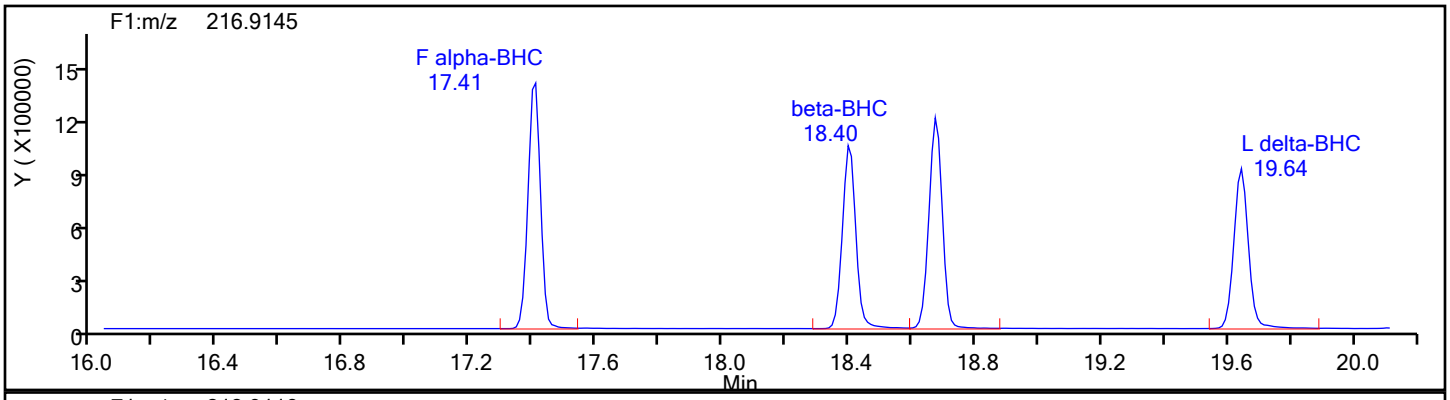
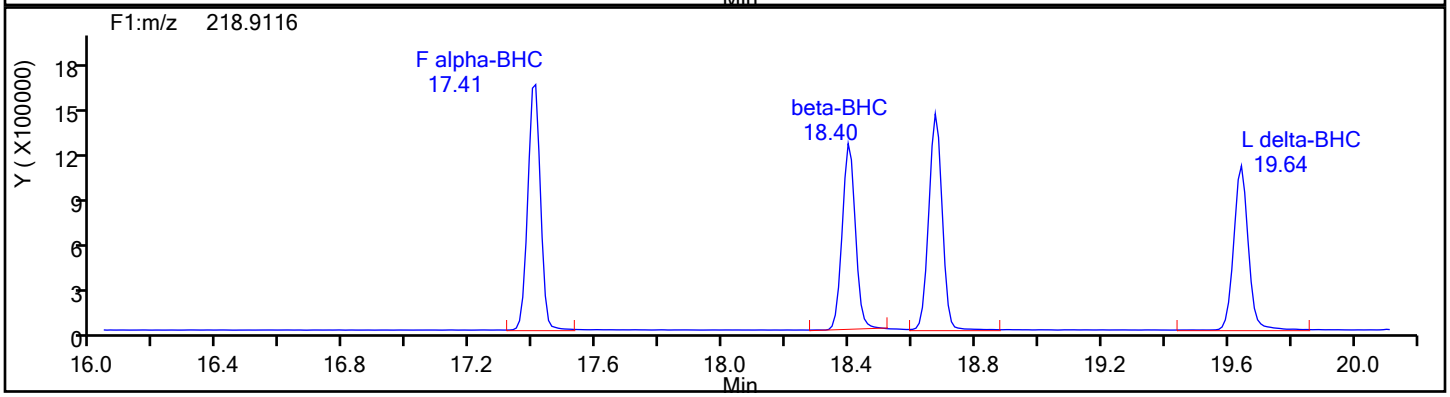
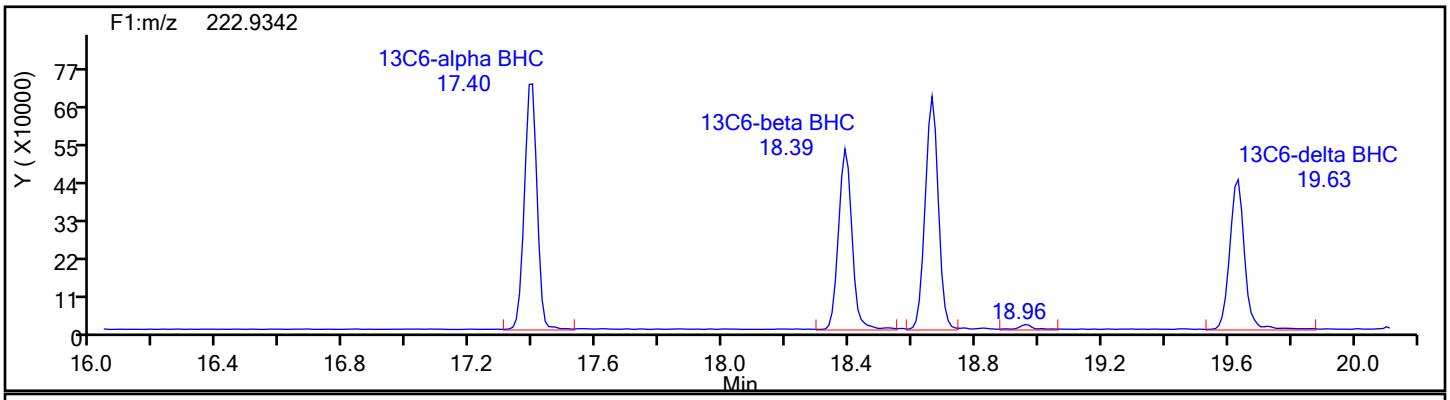
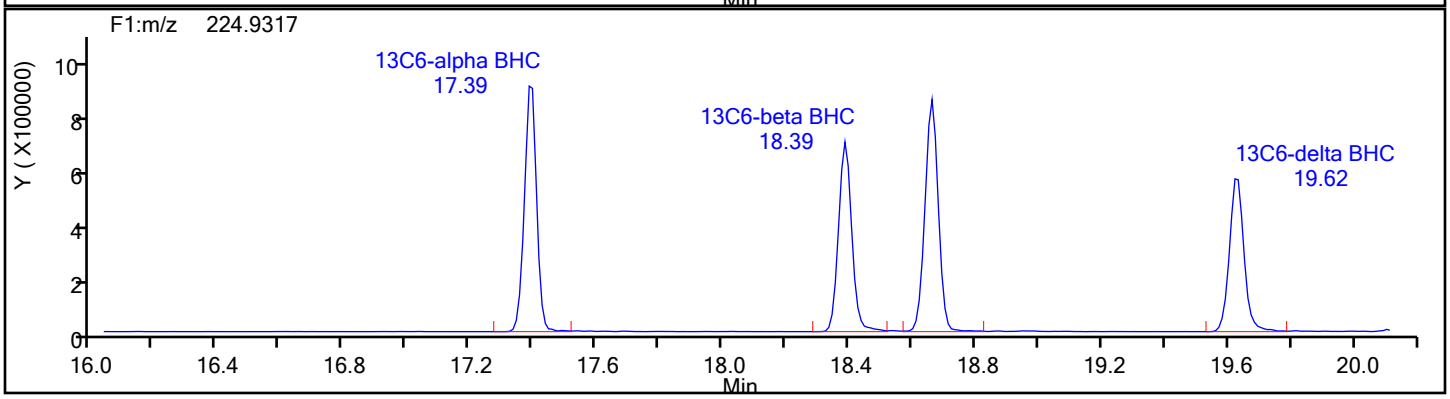
BHC





BHC Standards





Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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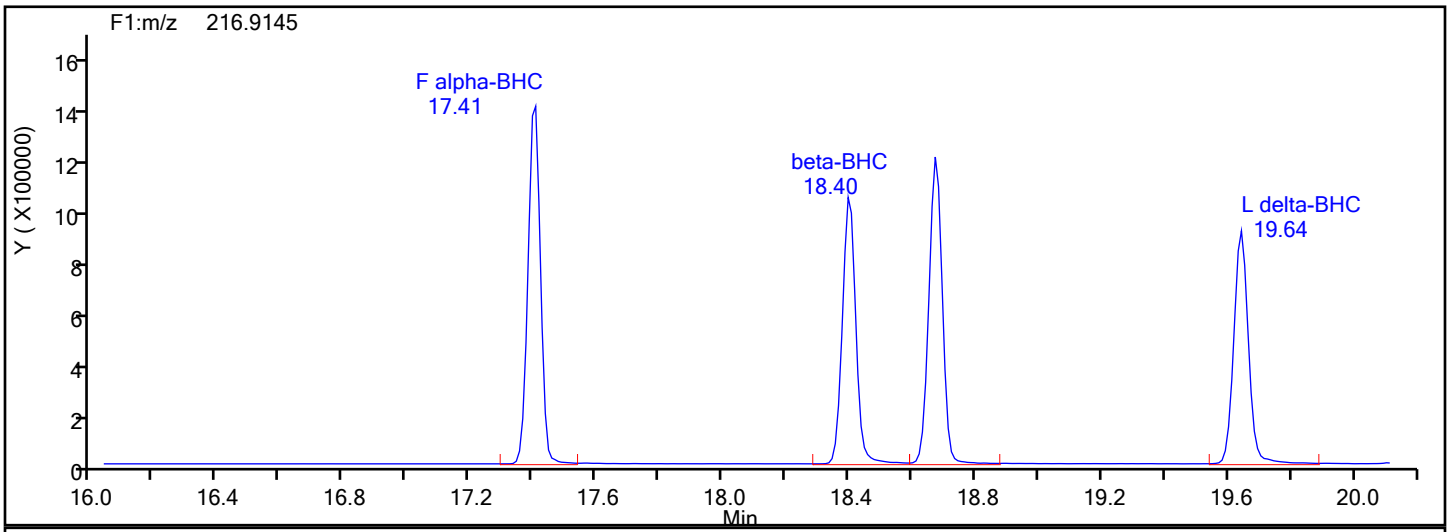
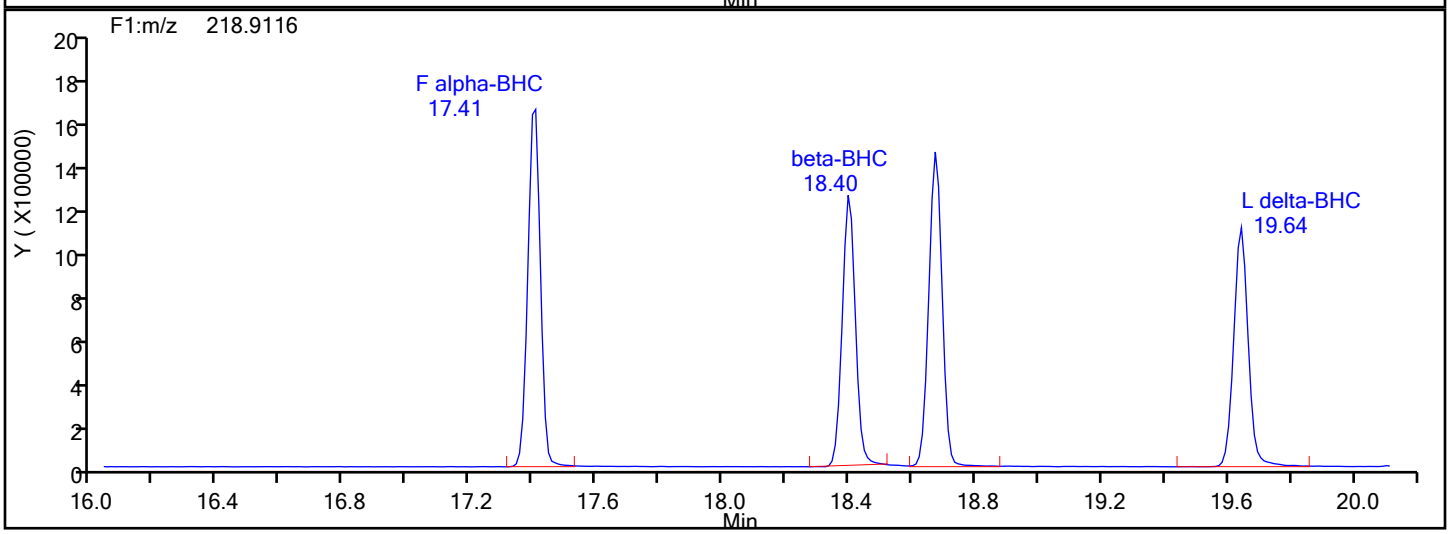
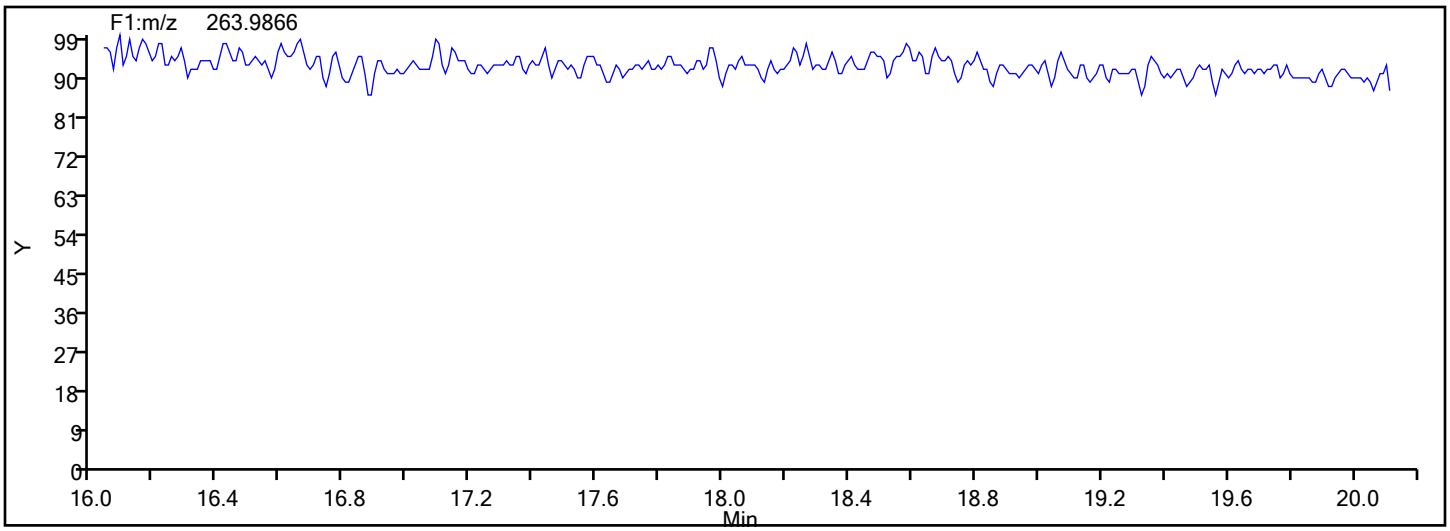
BHC





BHC Lock Mass



Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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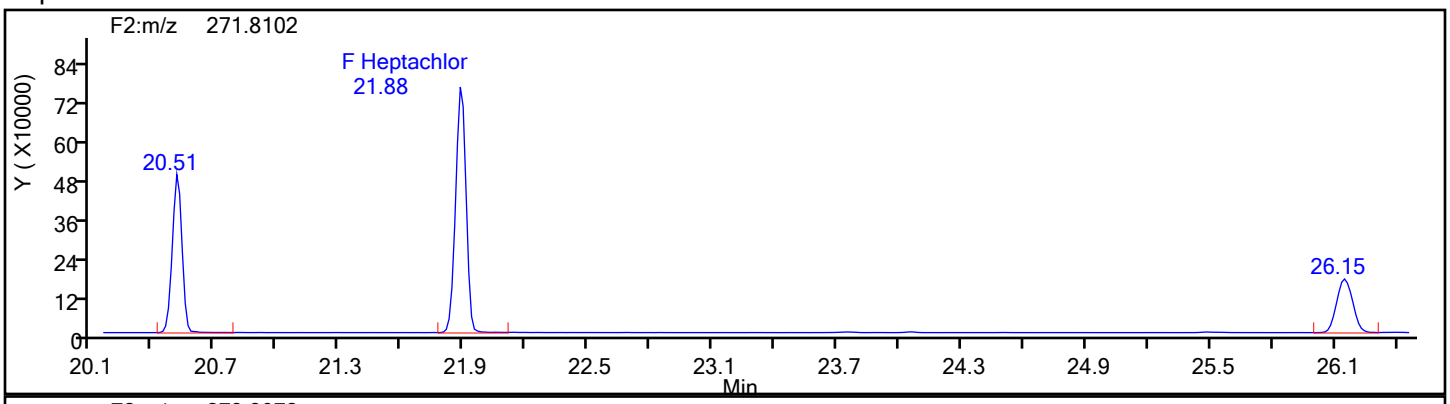
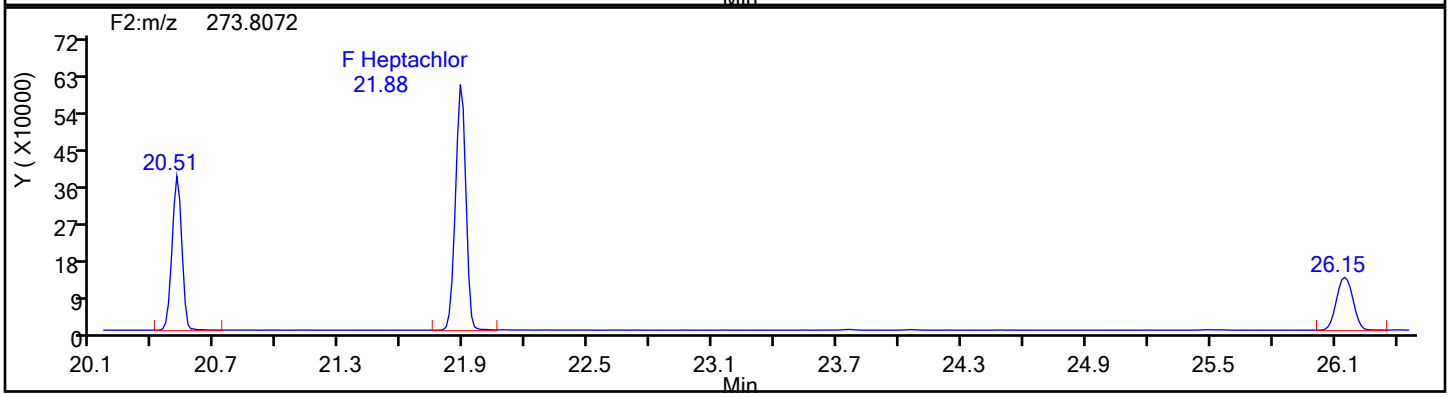
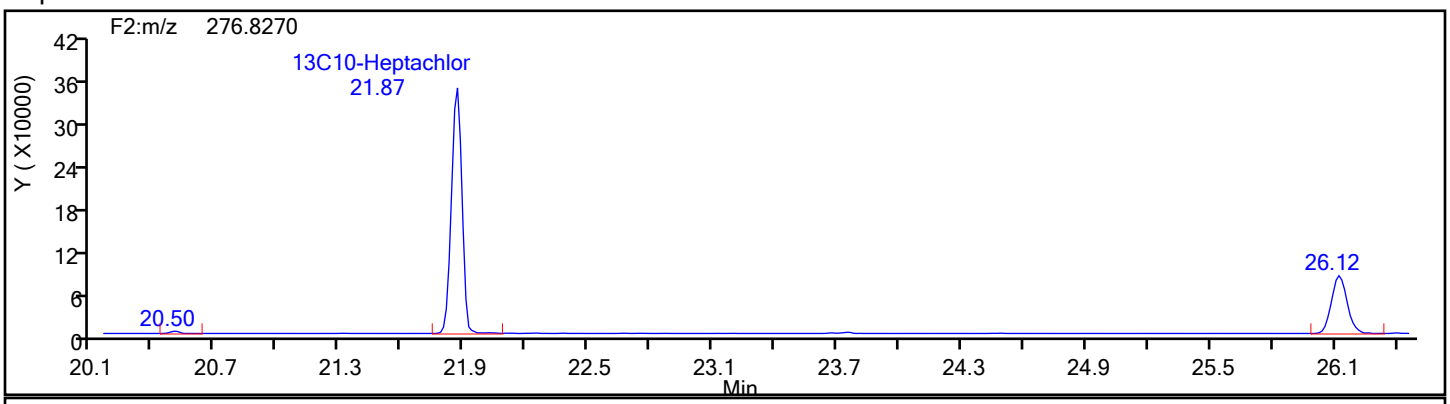
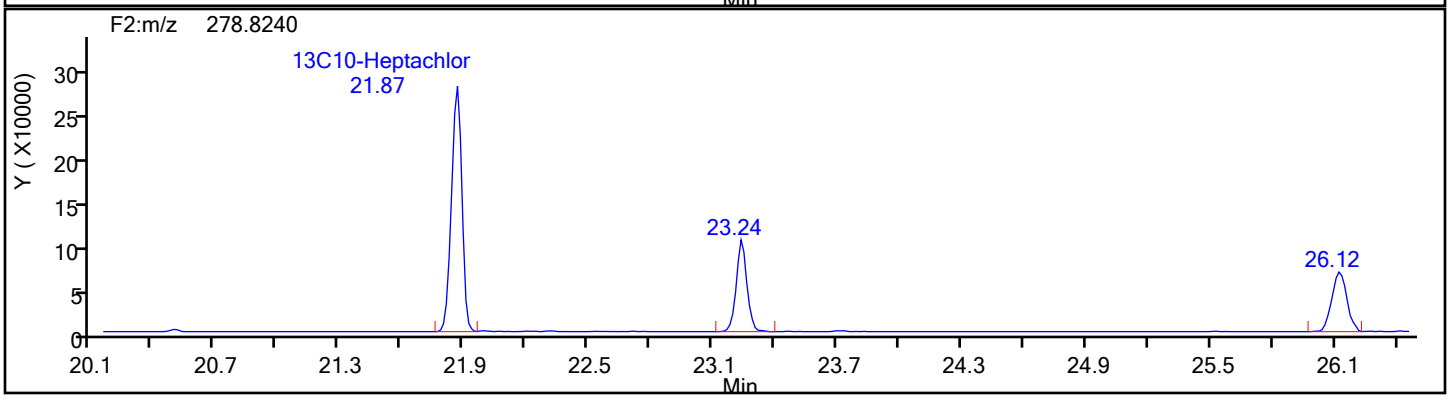
Heptachlor





Heptachlor Standards





Report Date: 31-Mar-2025 13:49:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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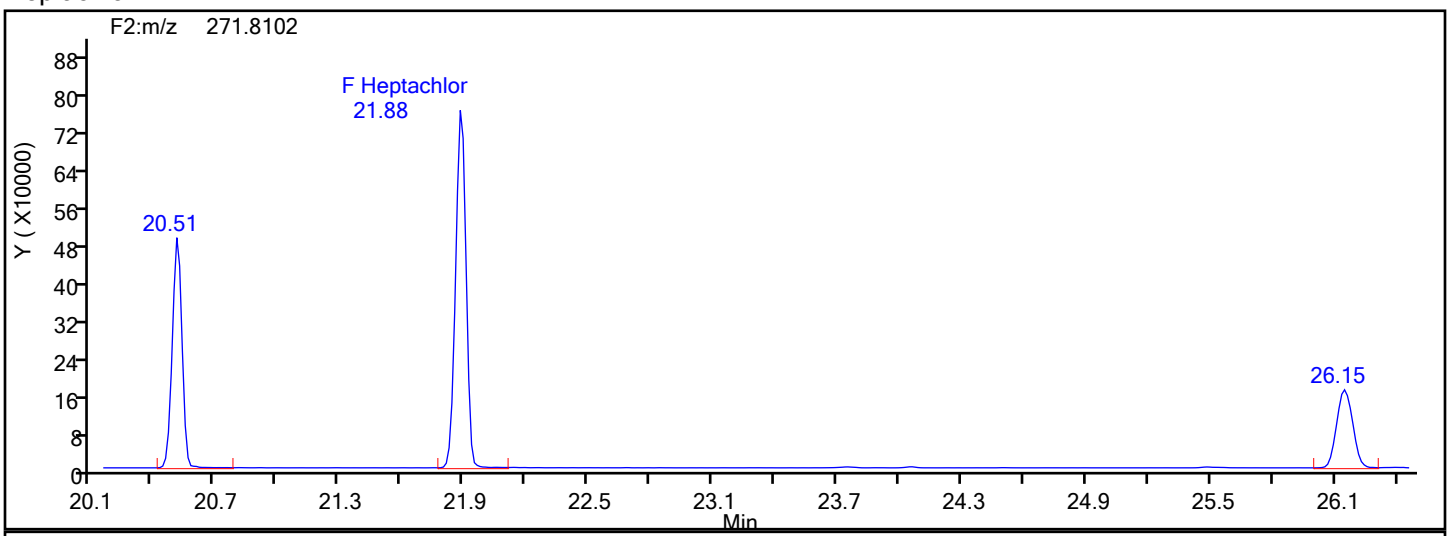
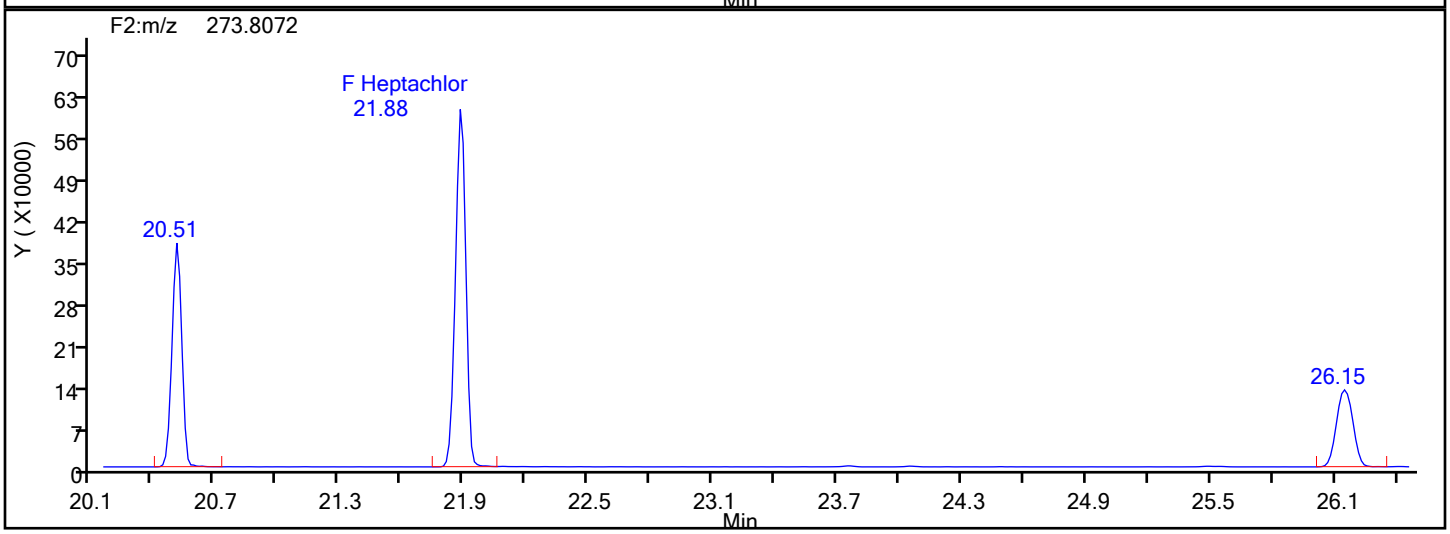
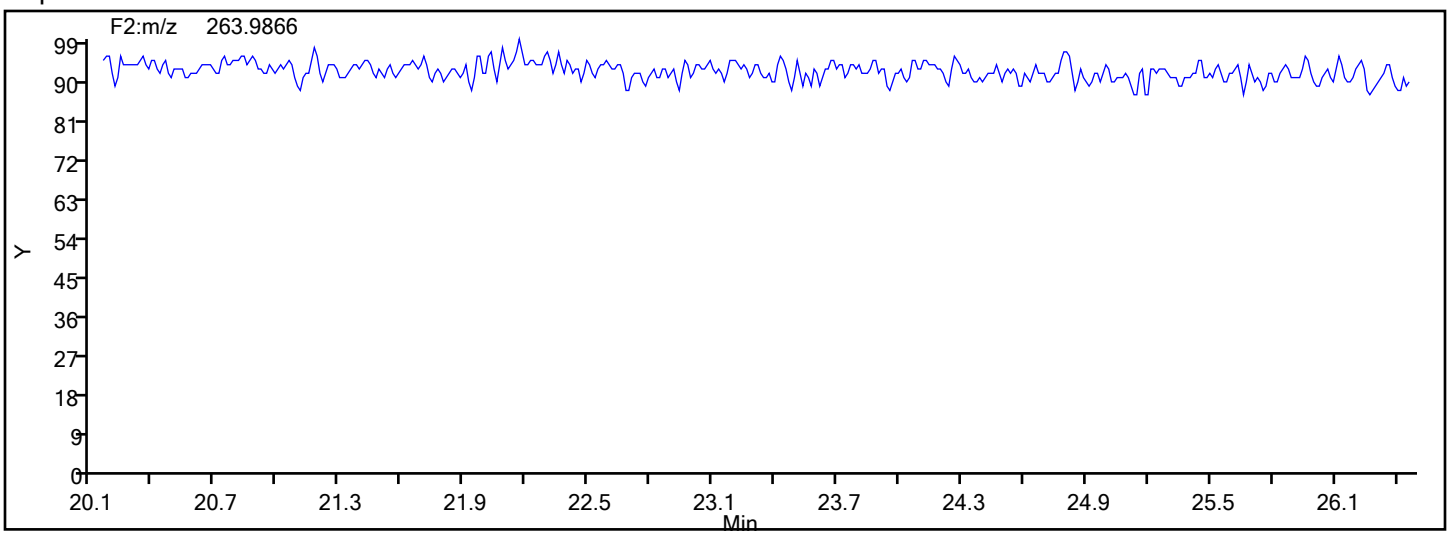
Heptachlor





Heptachlor Lock Mass



Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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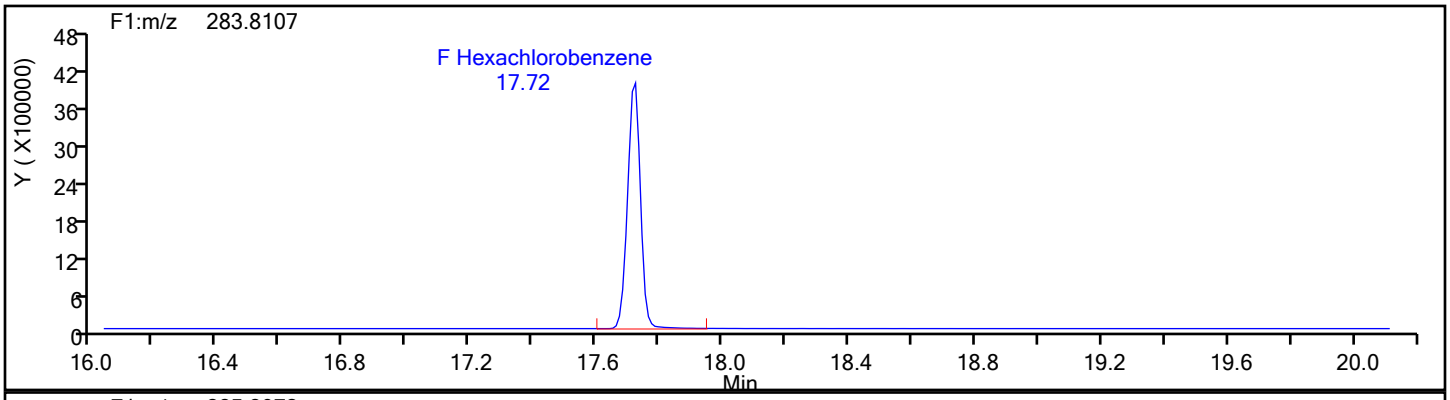
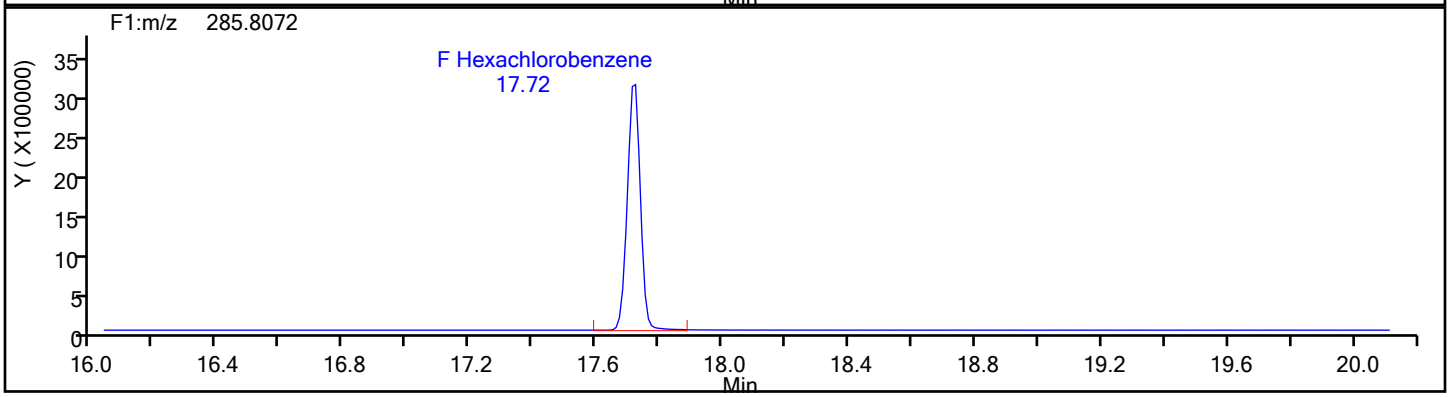
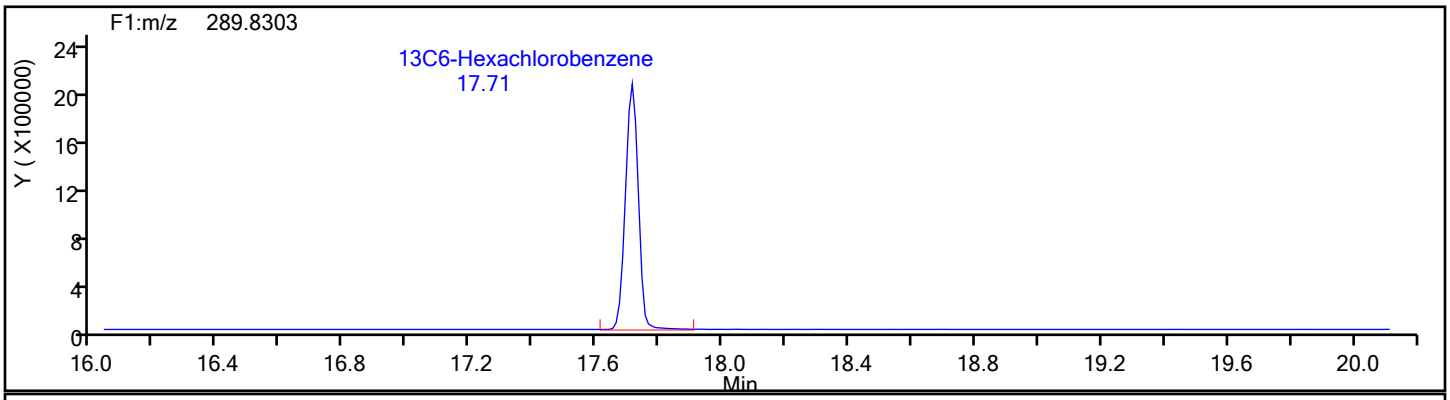
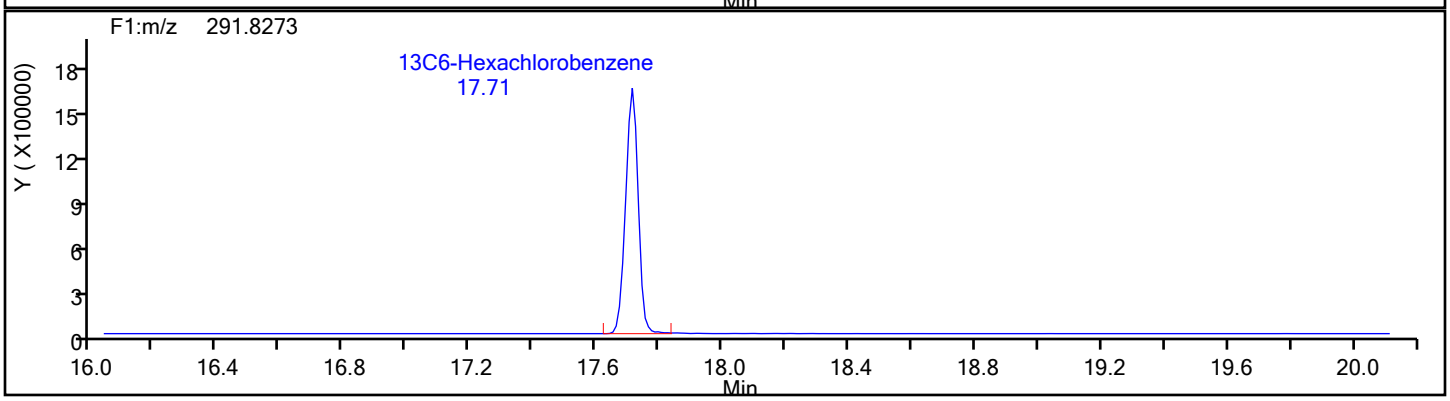
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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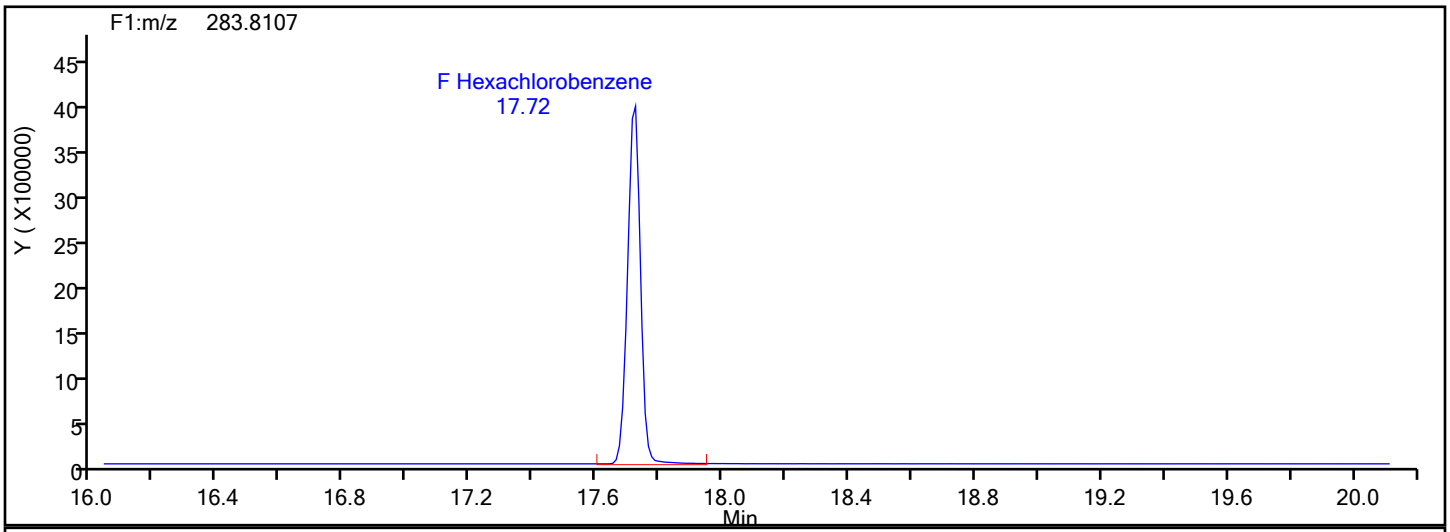
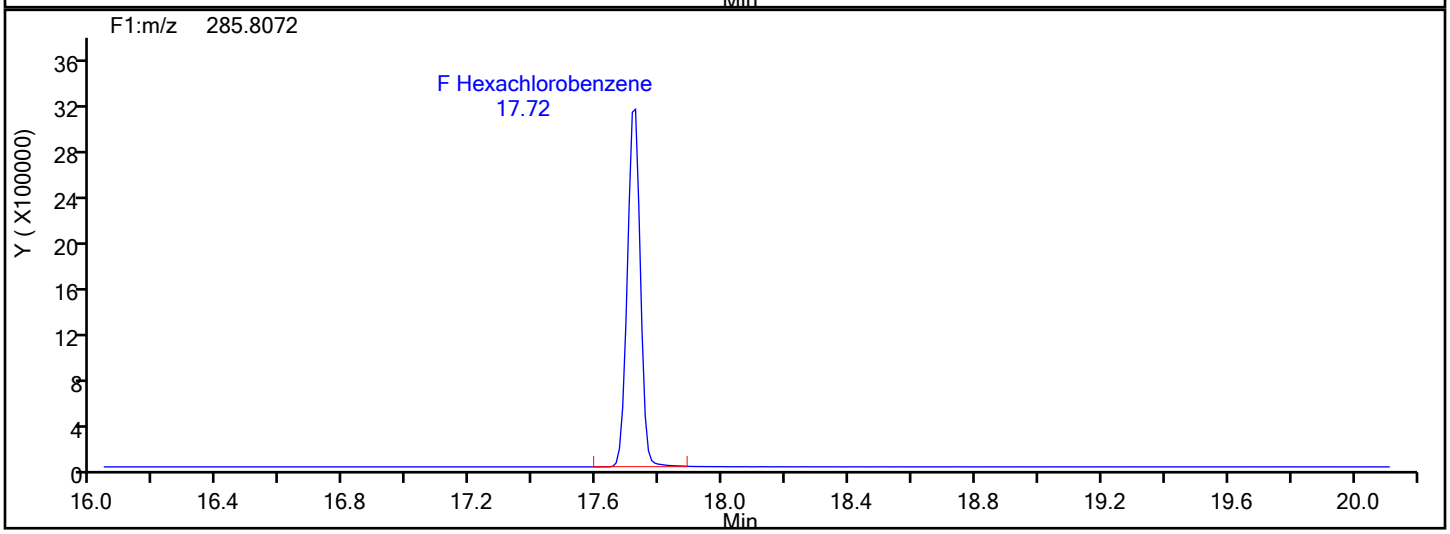
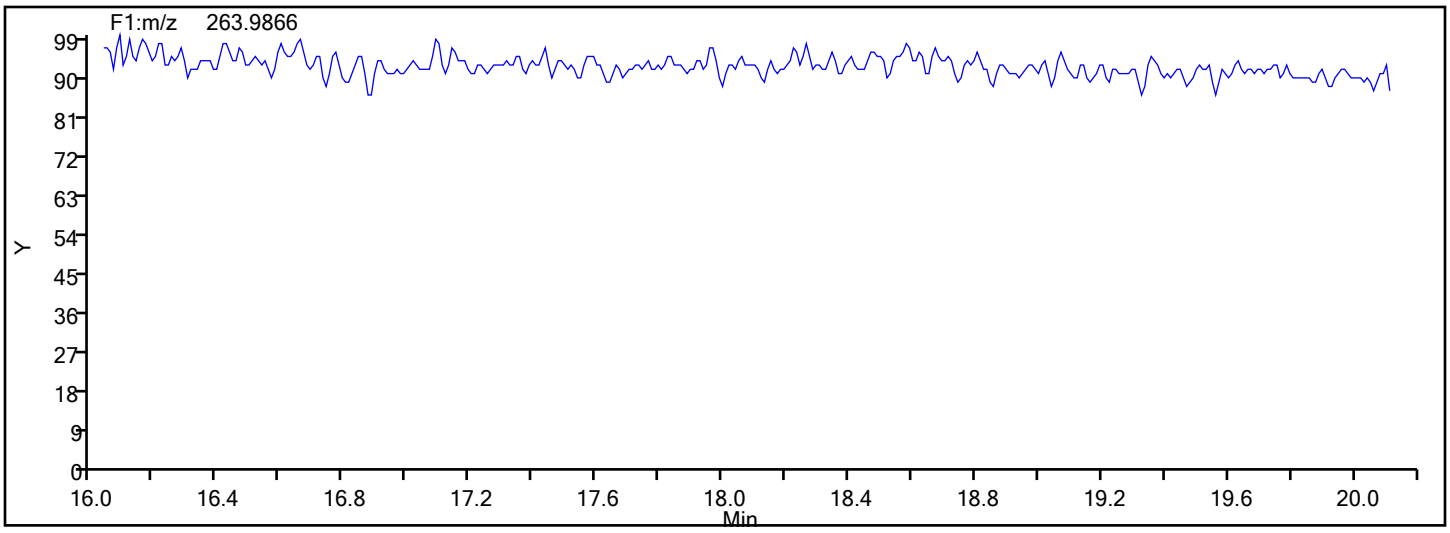
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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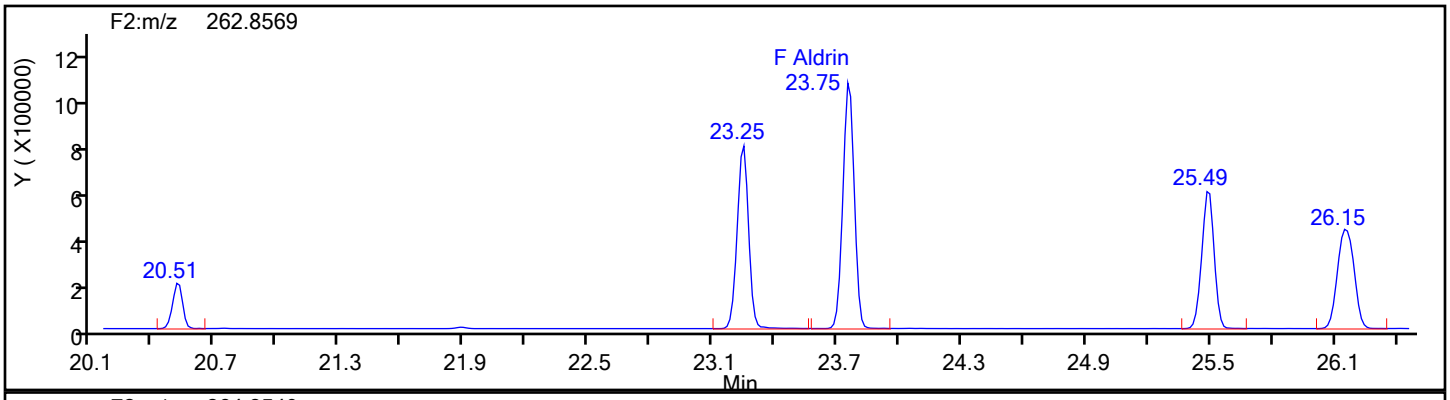
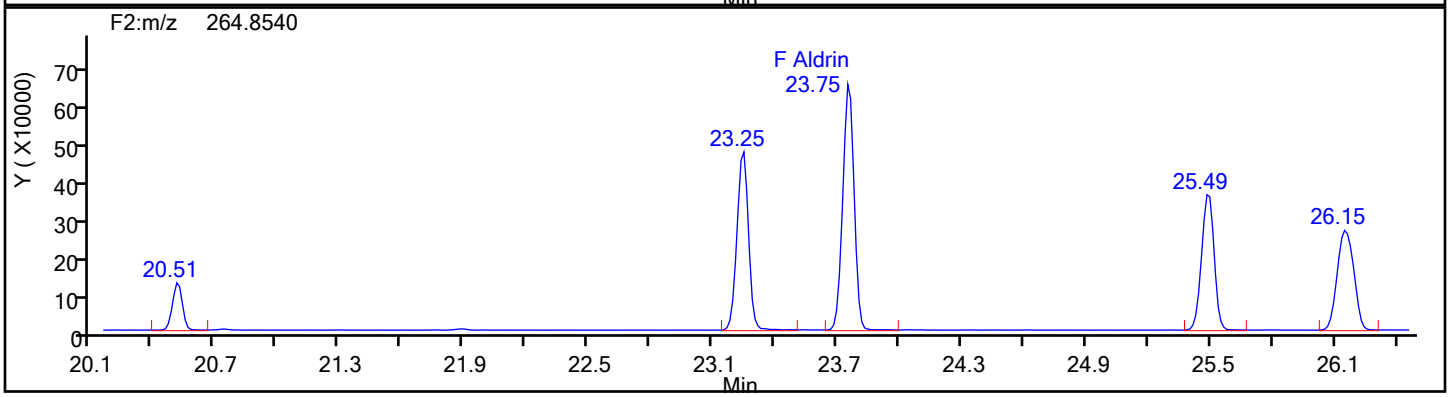
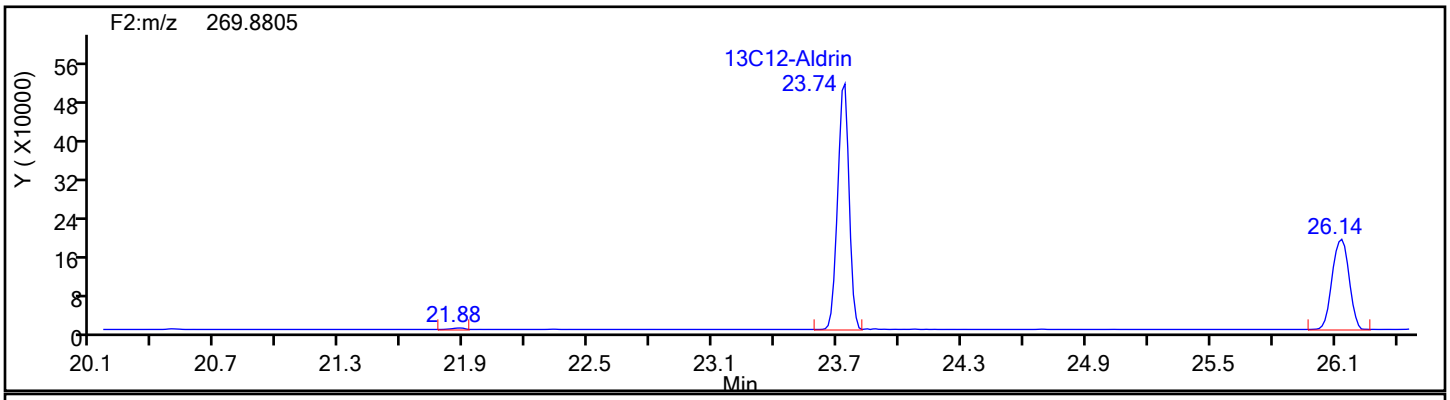
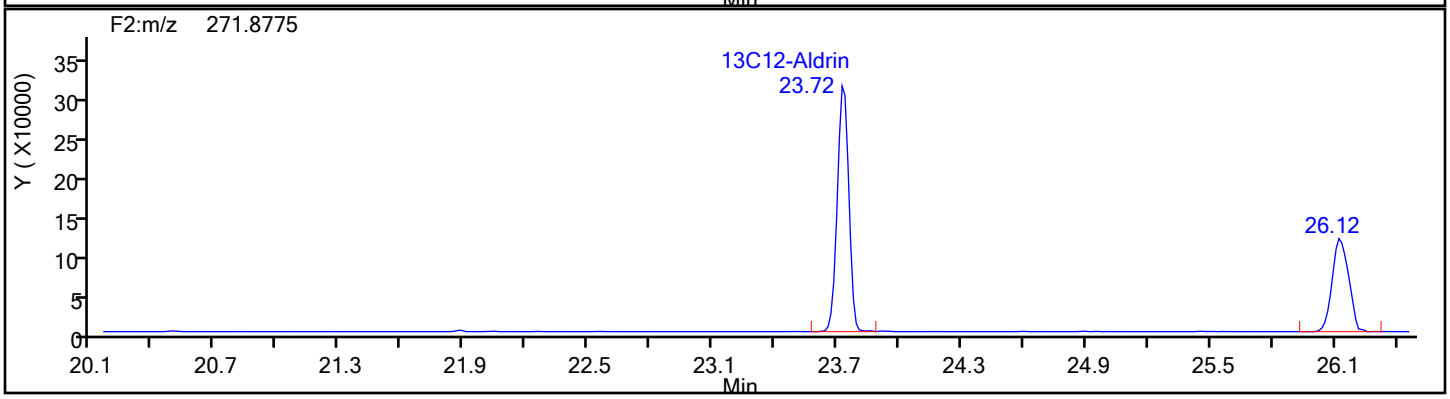
Aldrin





Aldrin Standards





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Eurofins Knoxville

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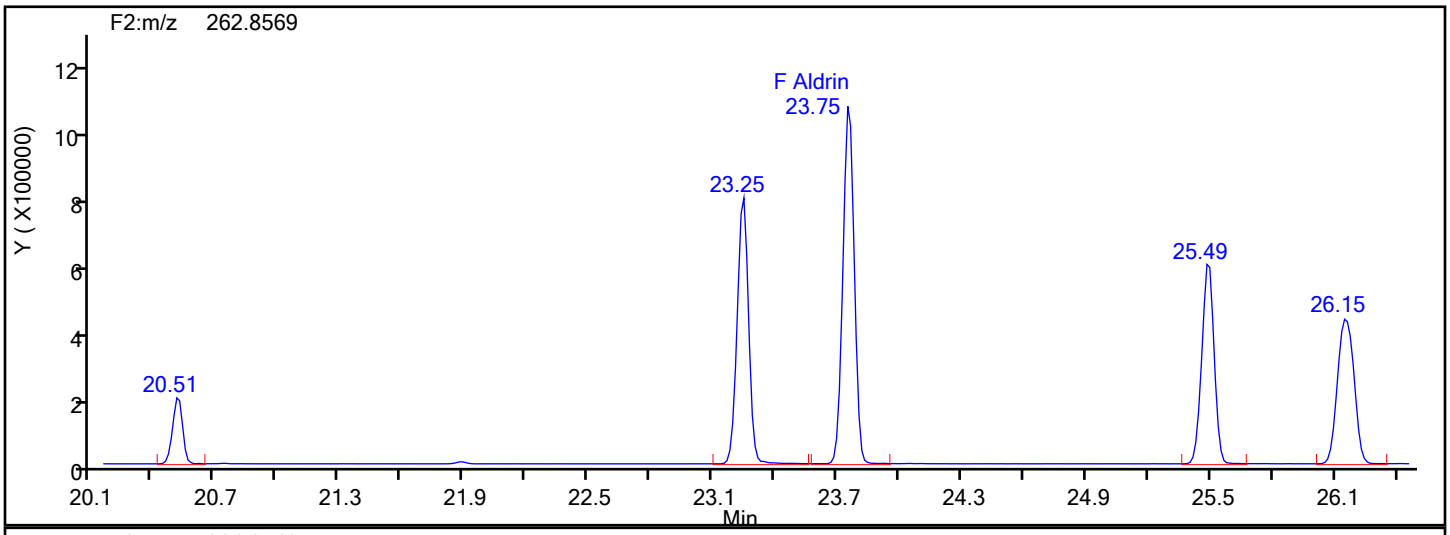
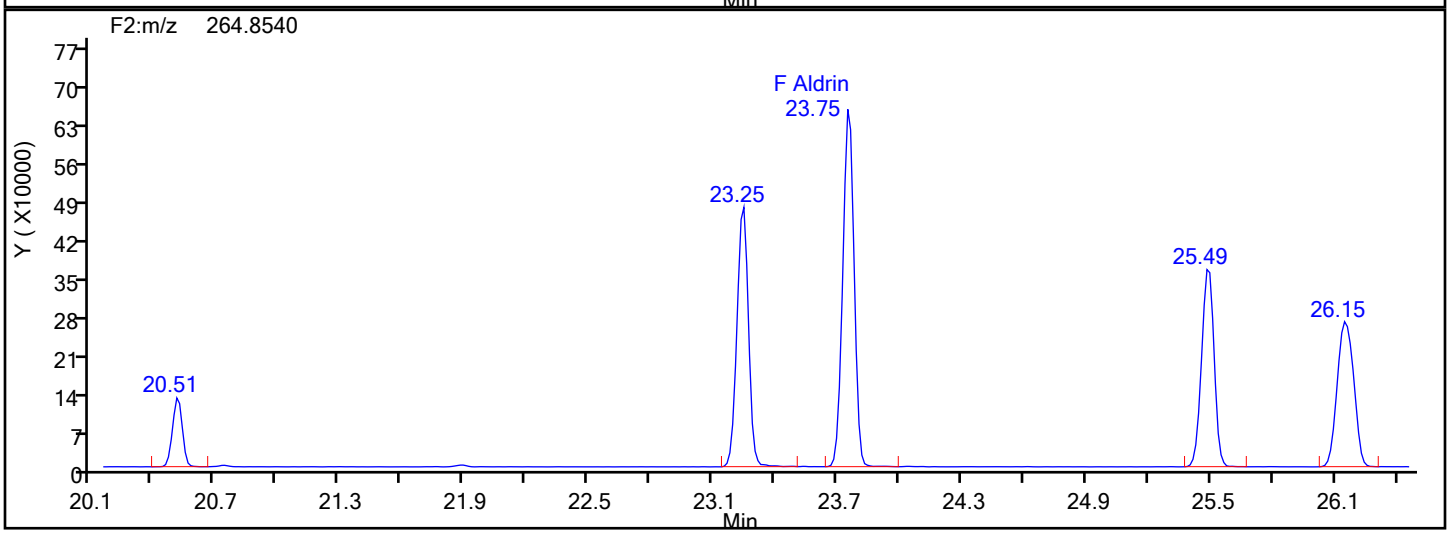
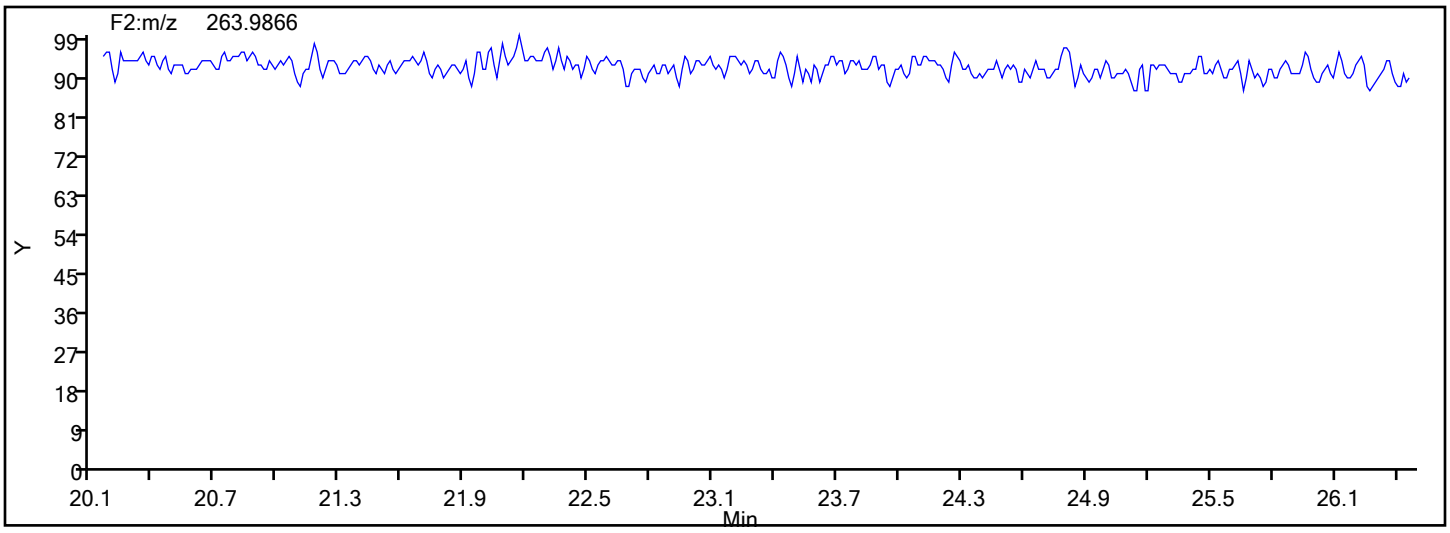




Aldrin Lock Mass



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Eurofins Knoxville

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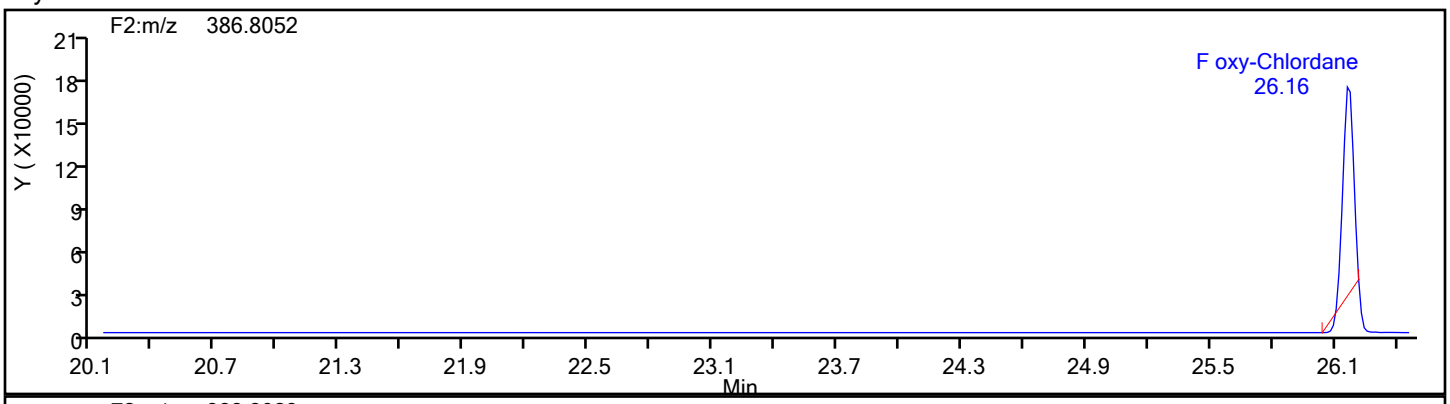
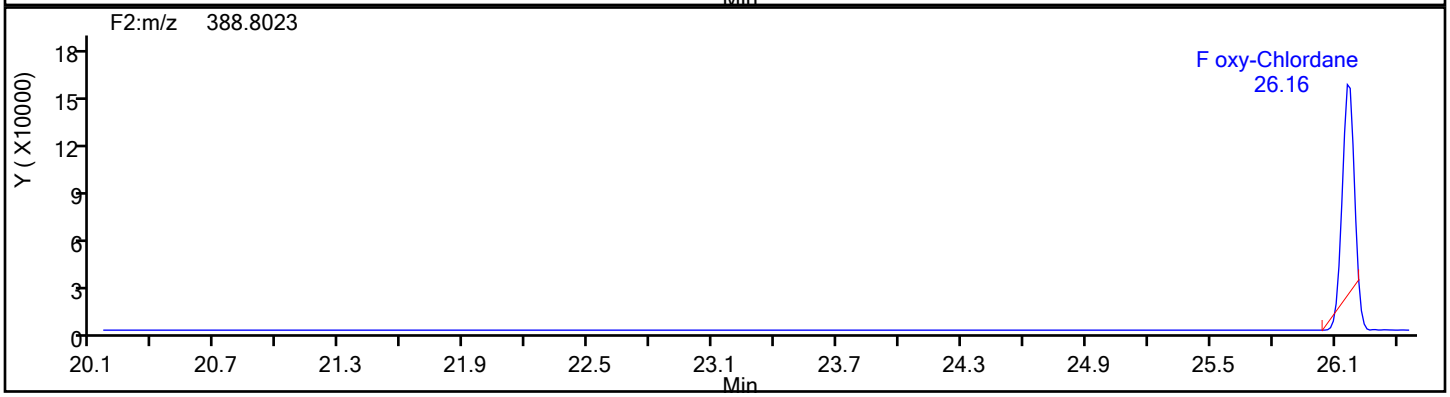
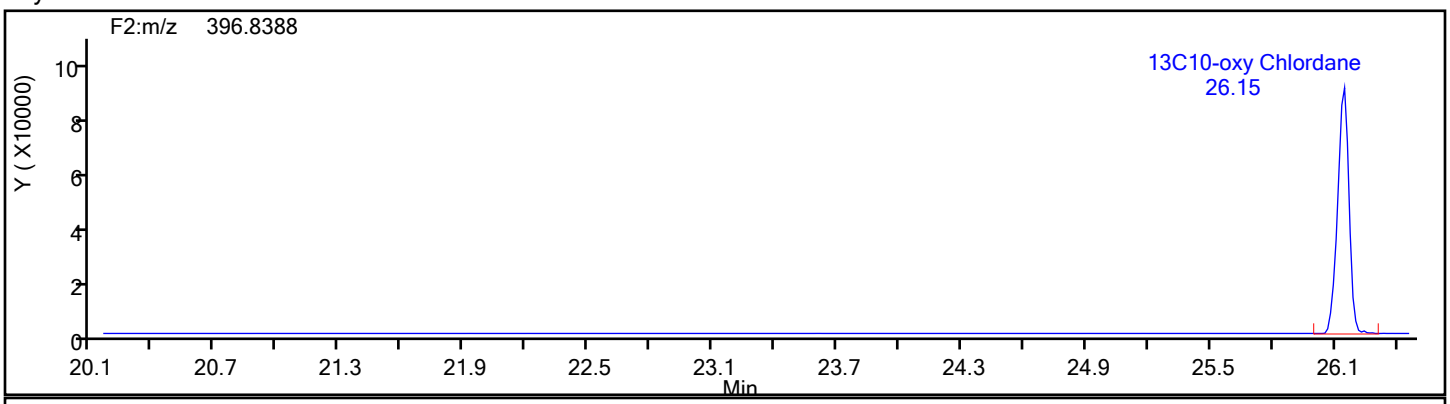
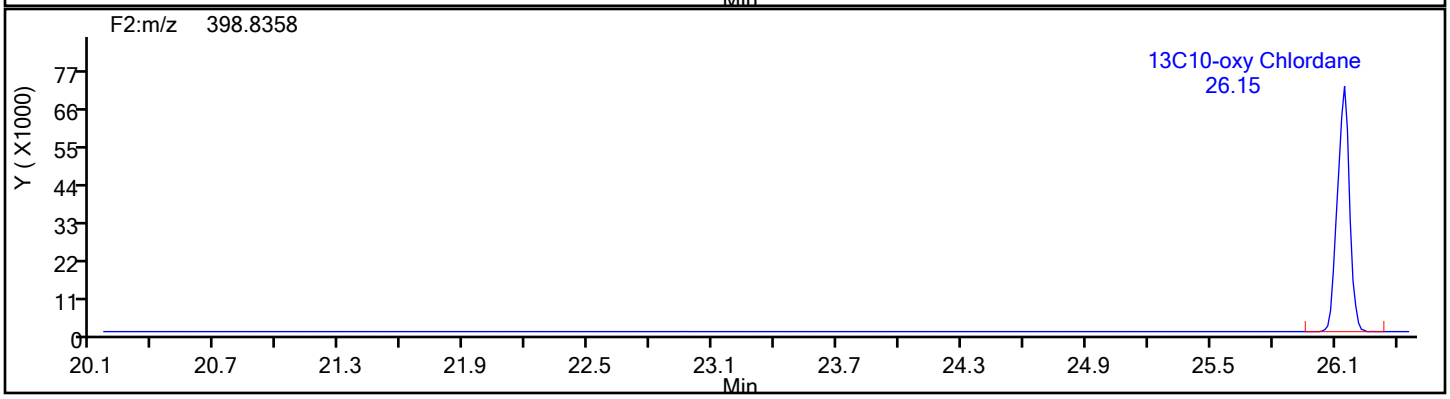
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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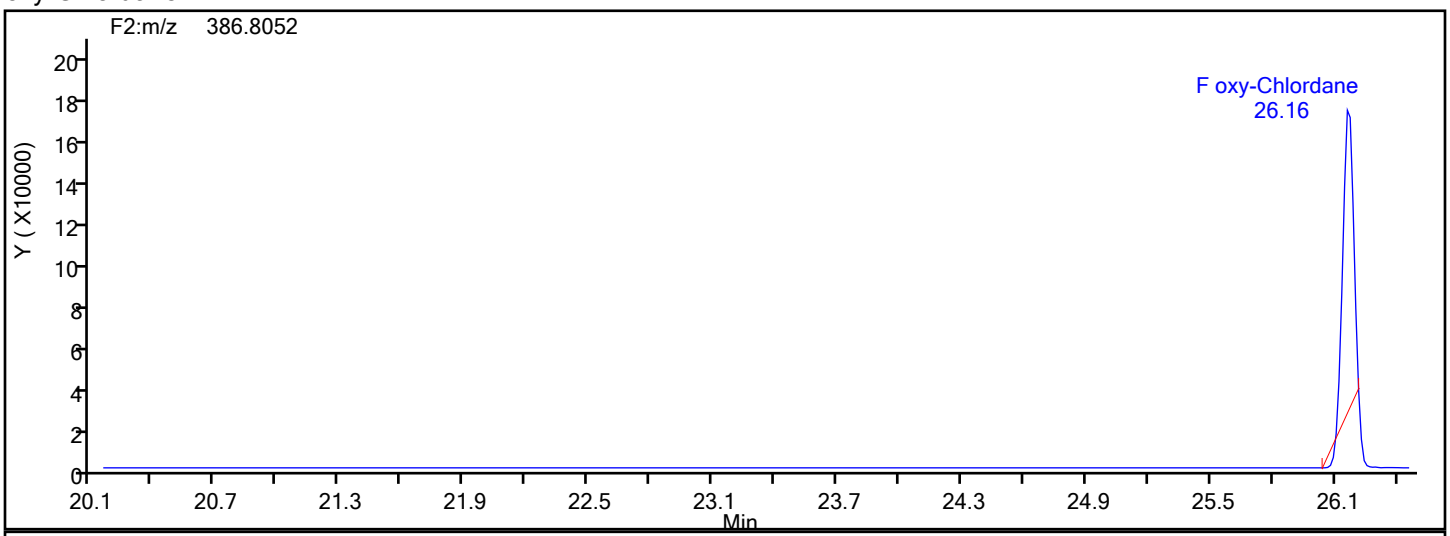
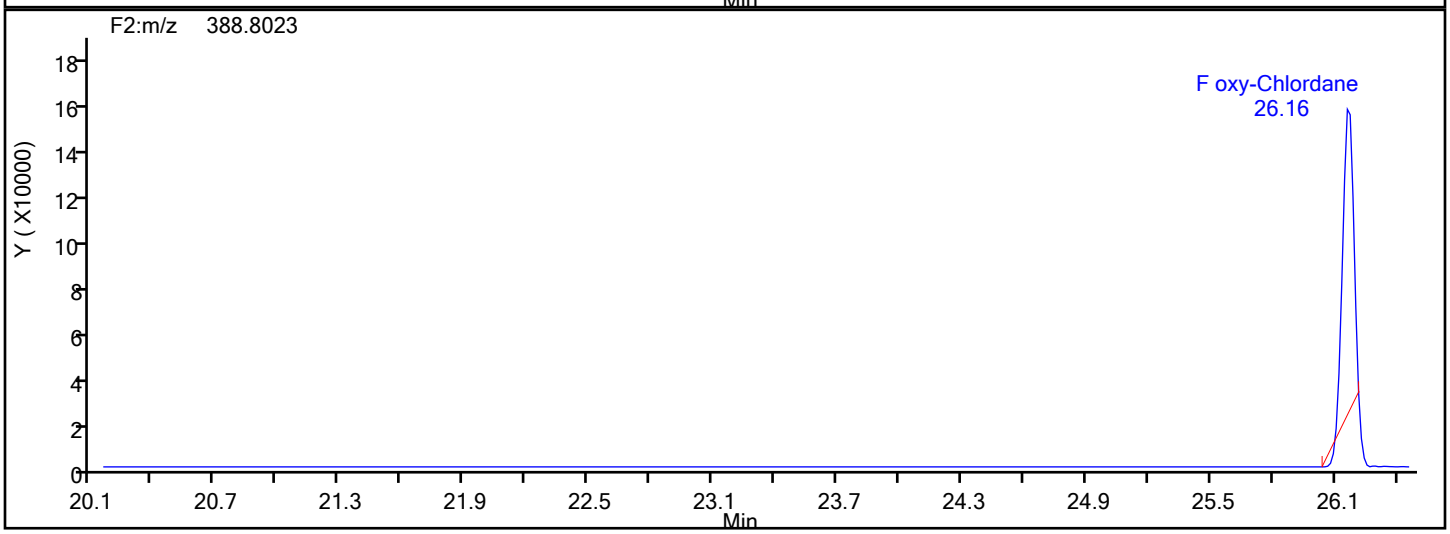
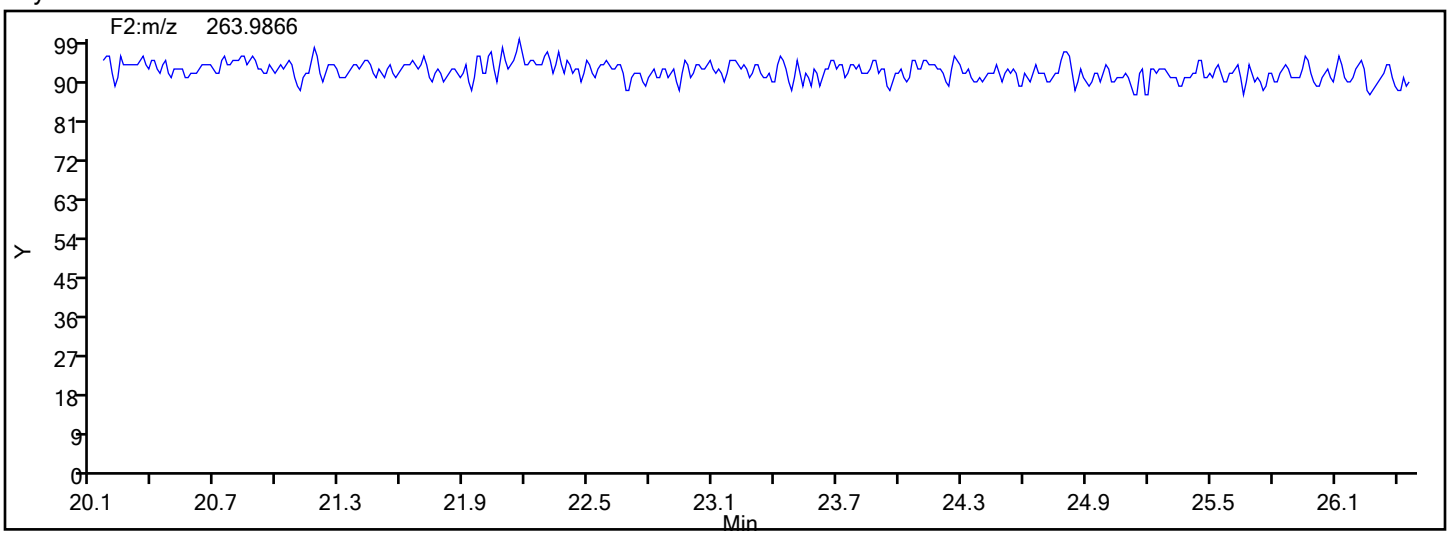
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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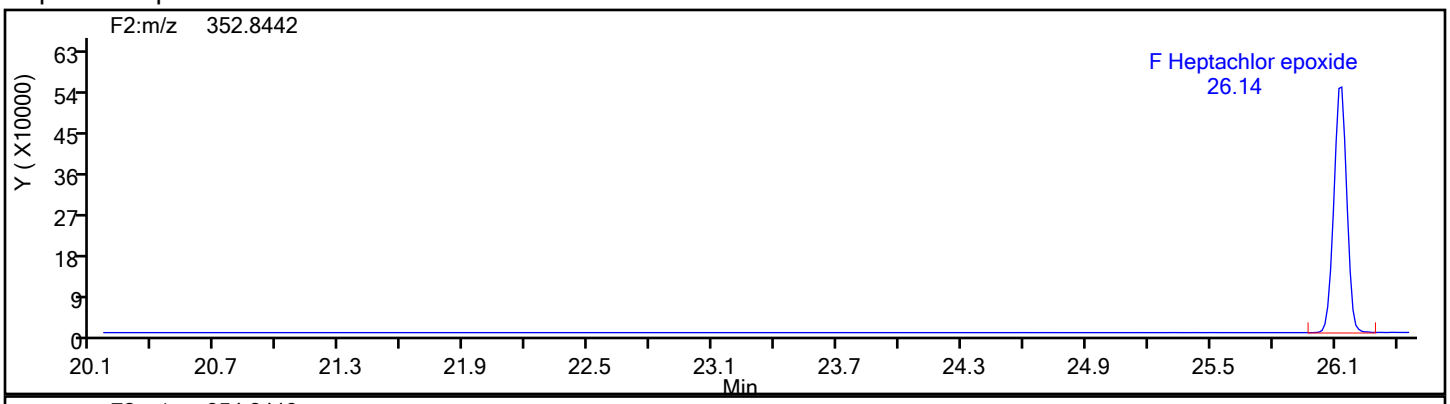
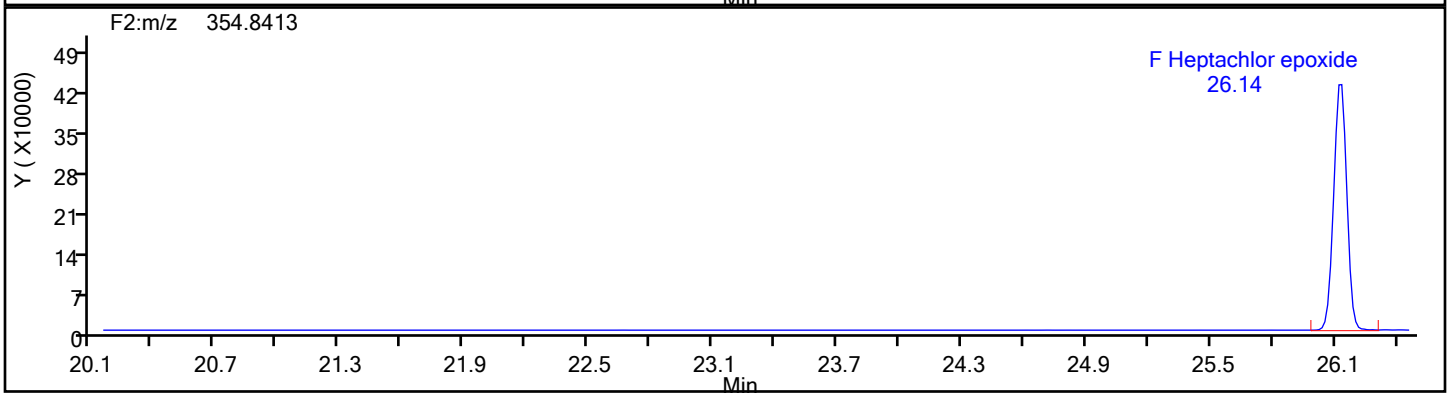
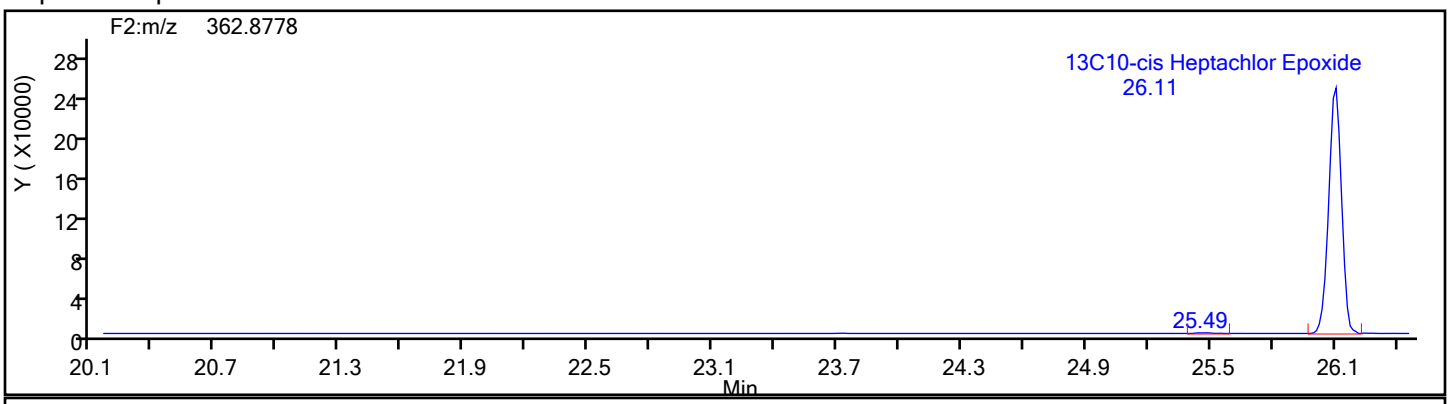
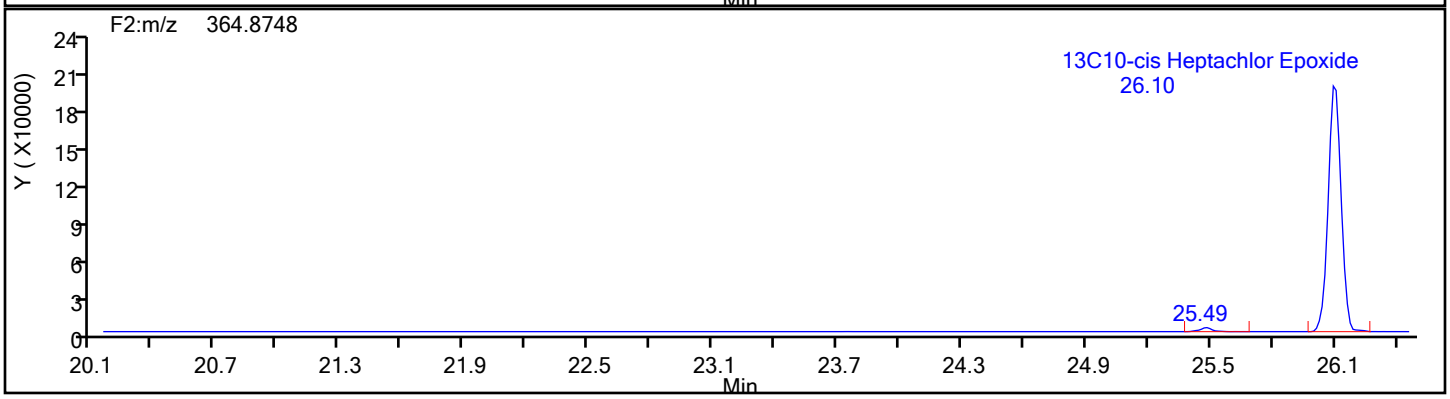
Heptachlor epoxide





Heptachlor epoxide Standards





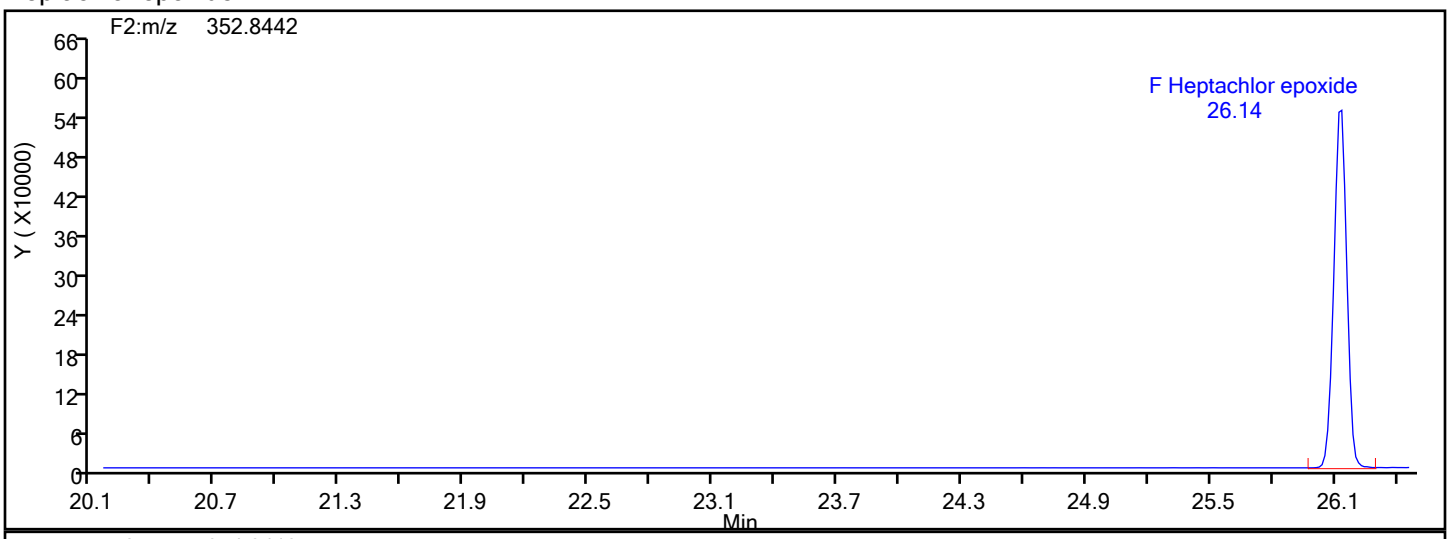
Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

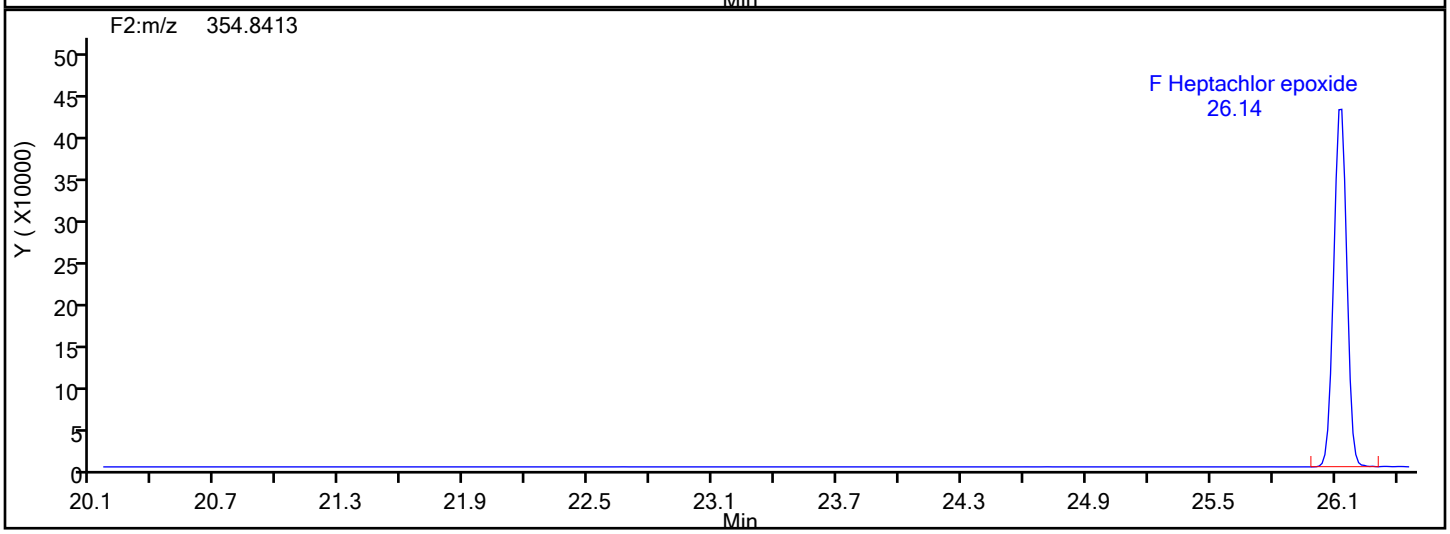
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

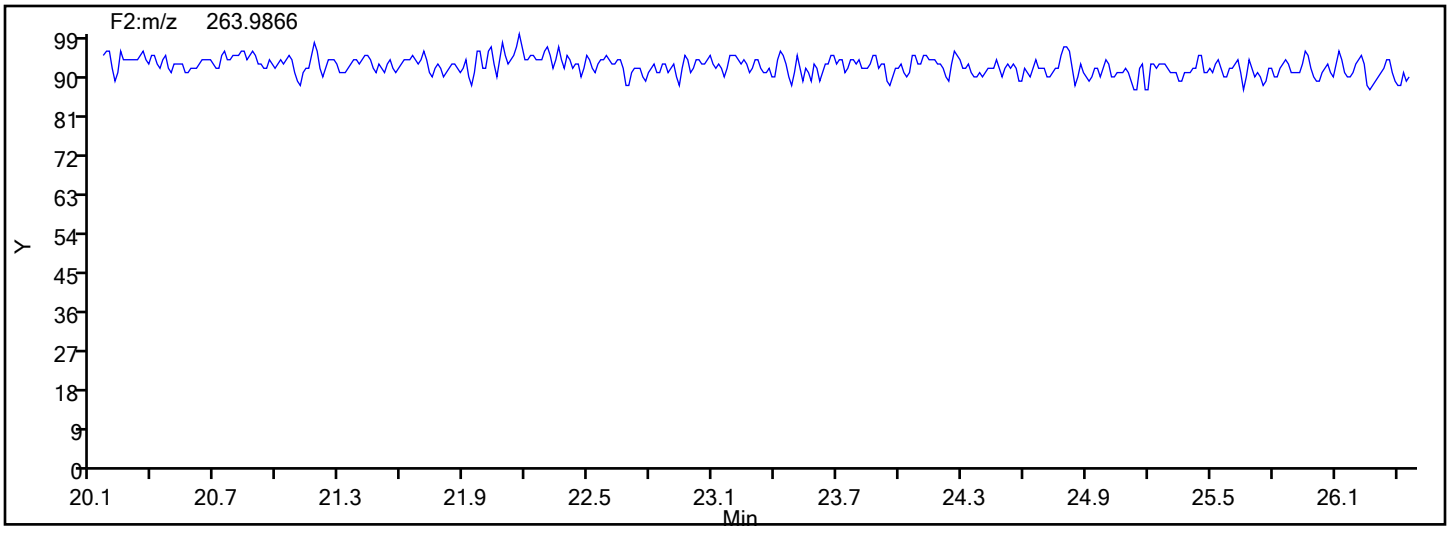
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor epoxide





Heptachlor epoxide Lock Mass



Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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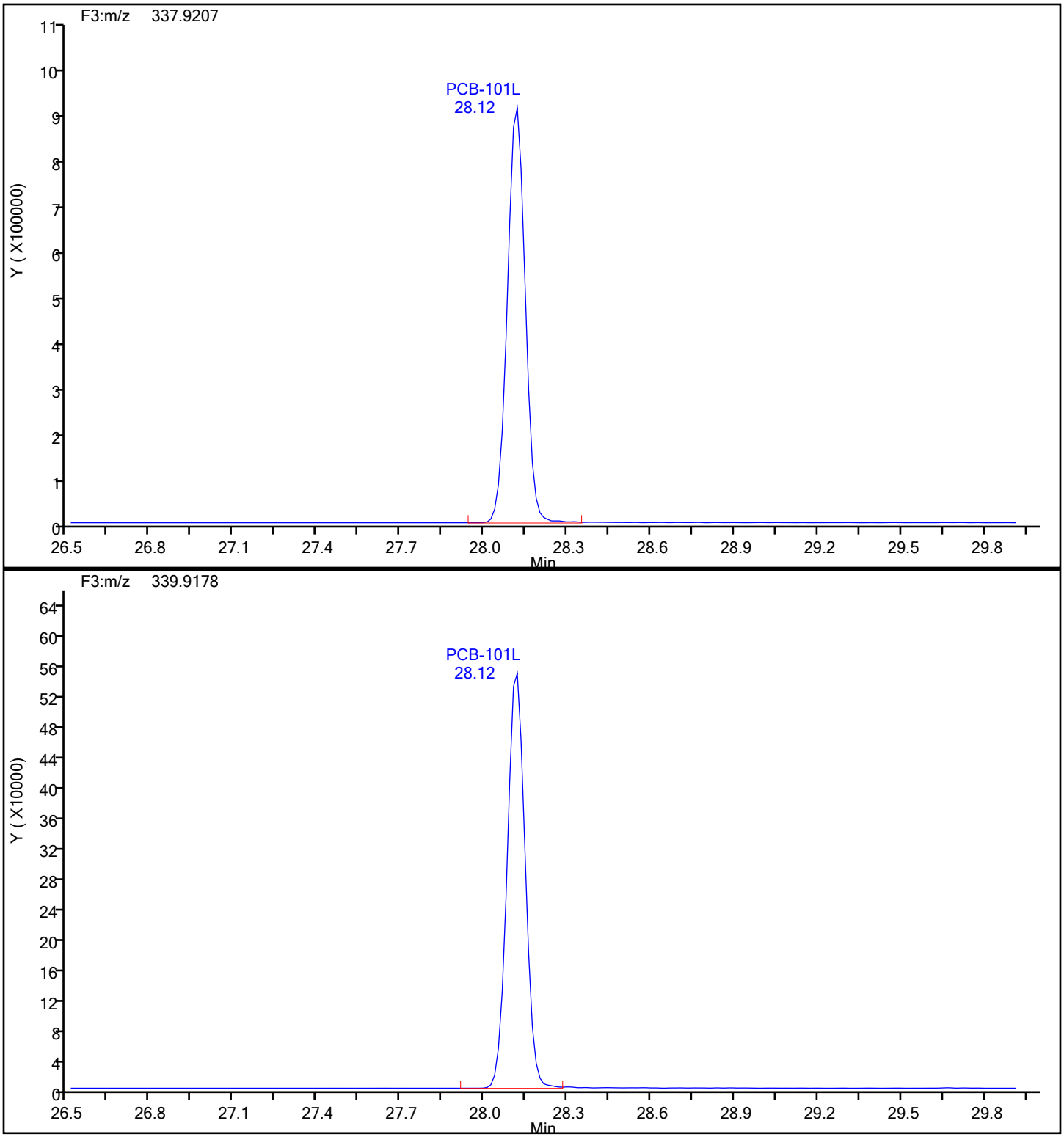
PCB-101L Standards



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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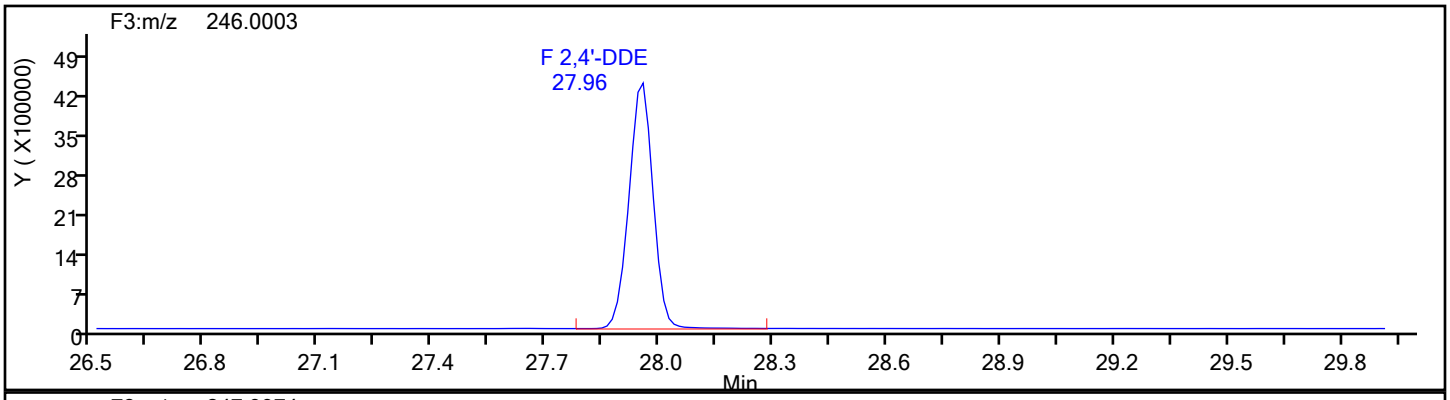
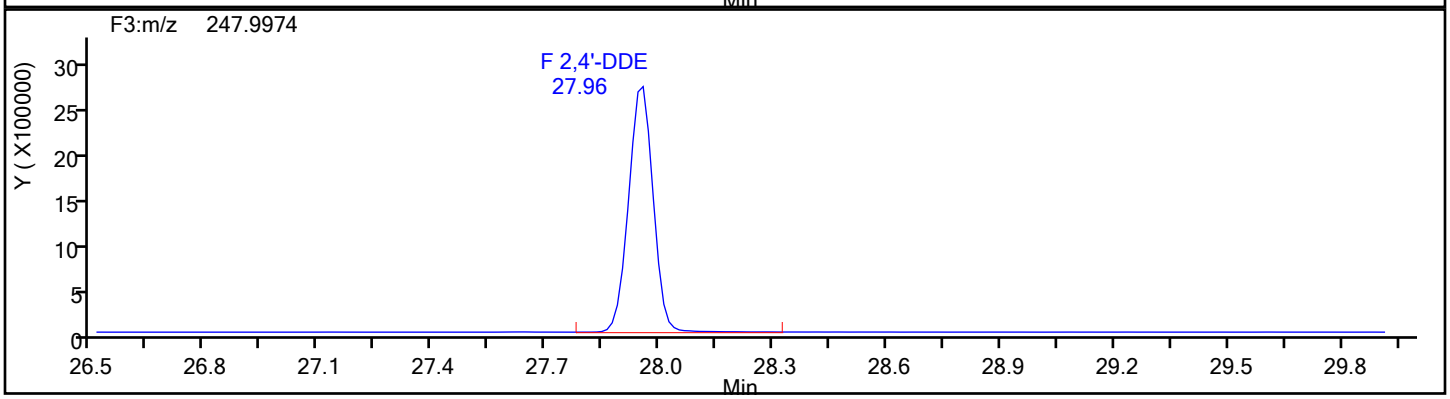
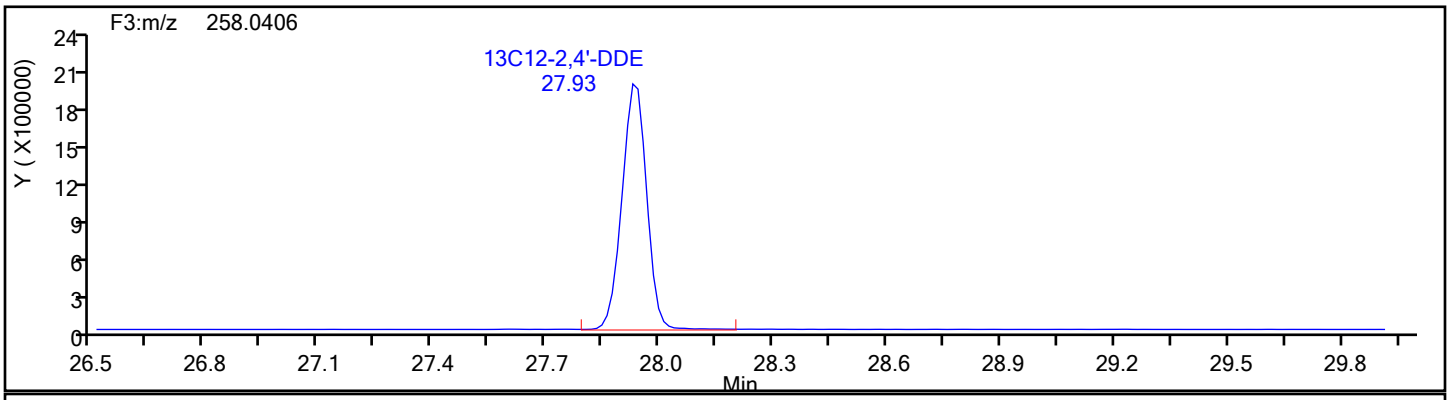
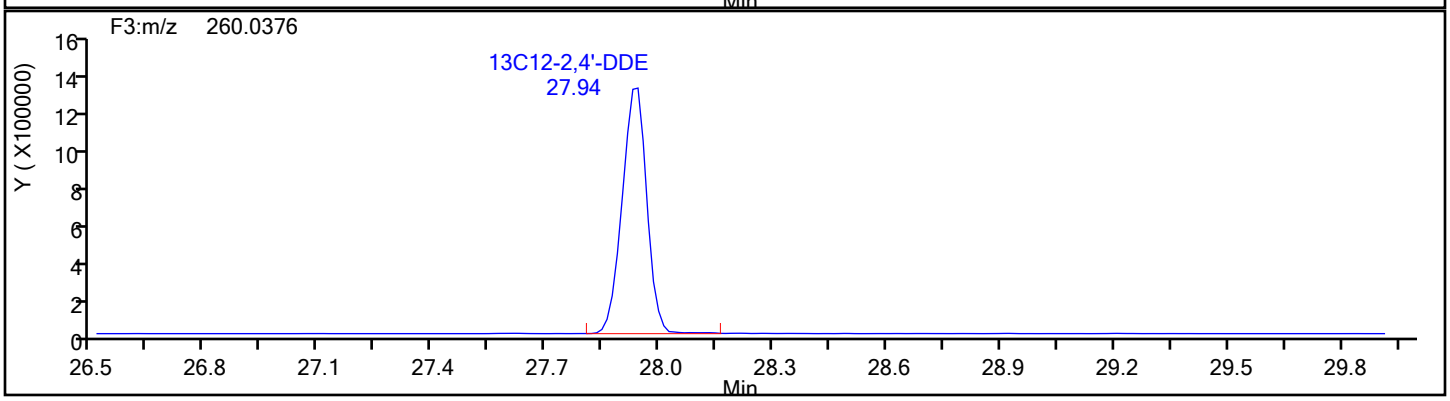
2,4'-DDE





2,4'-DDE Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
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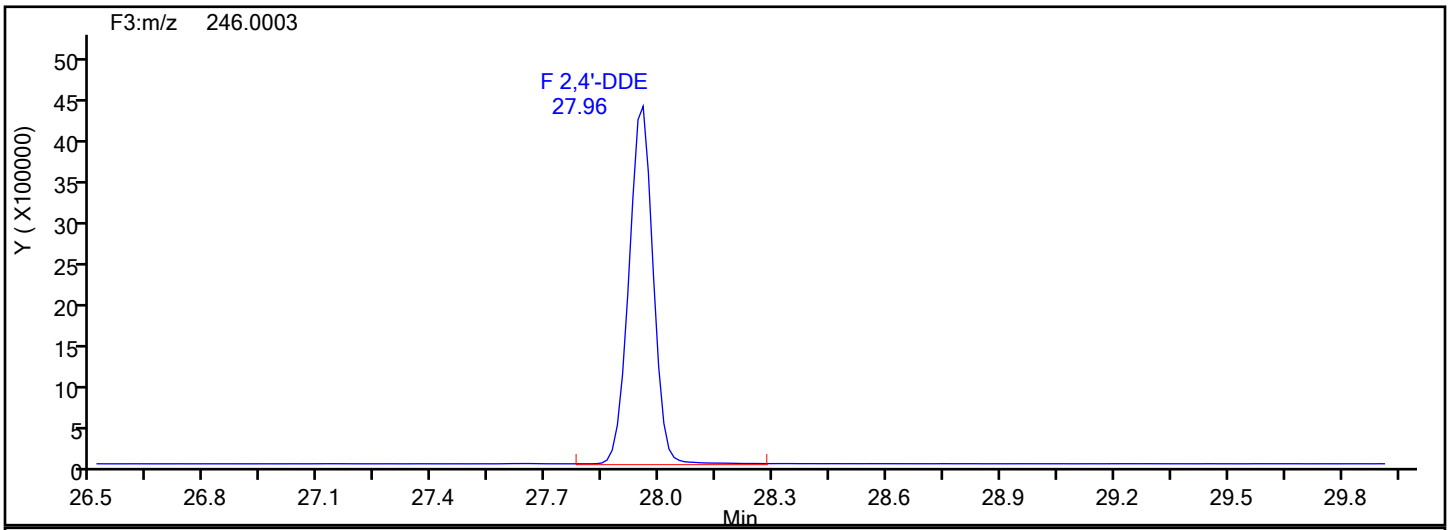
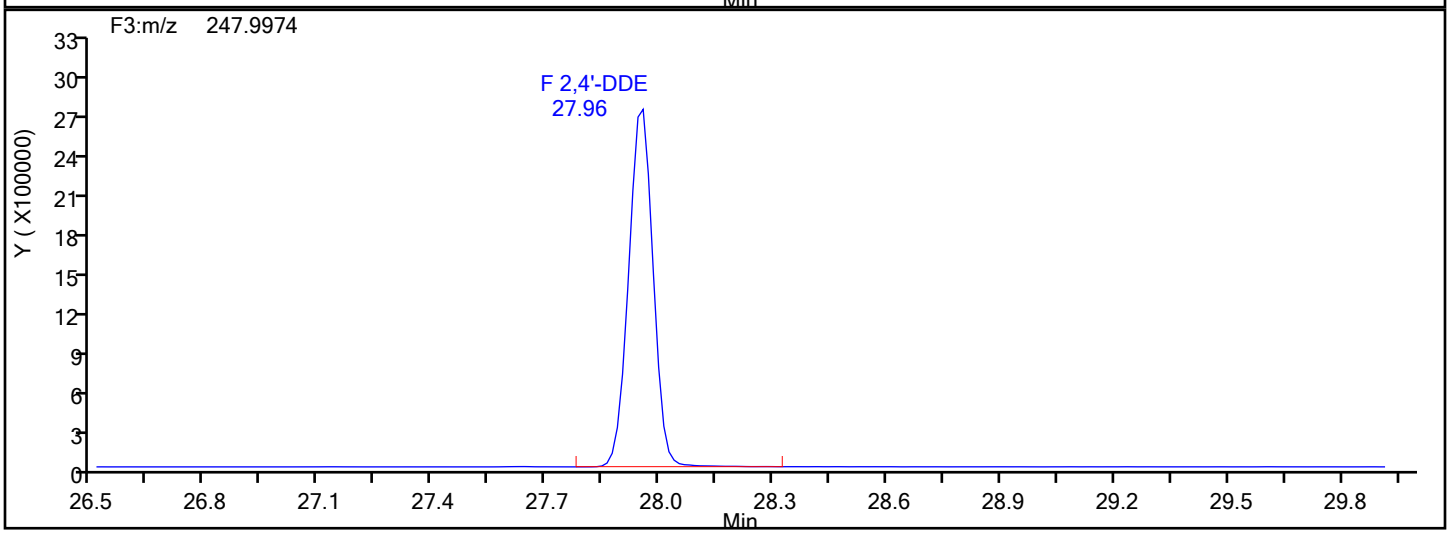
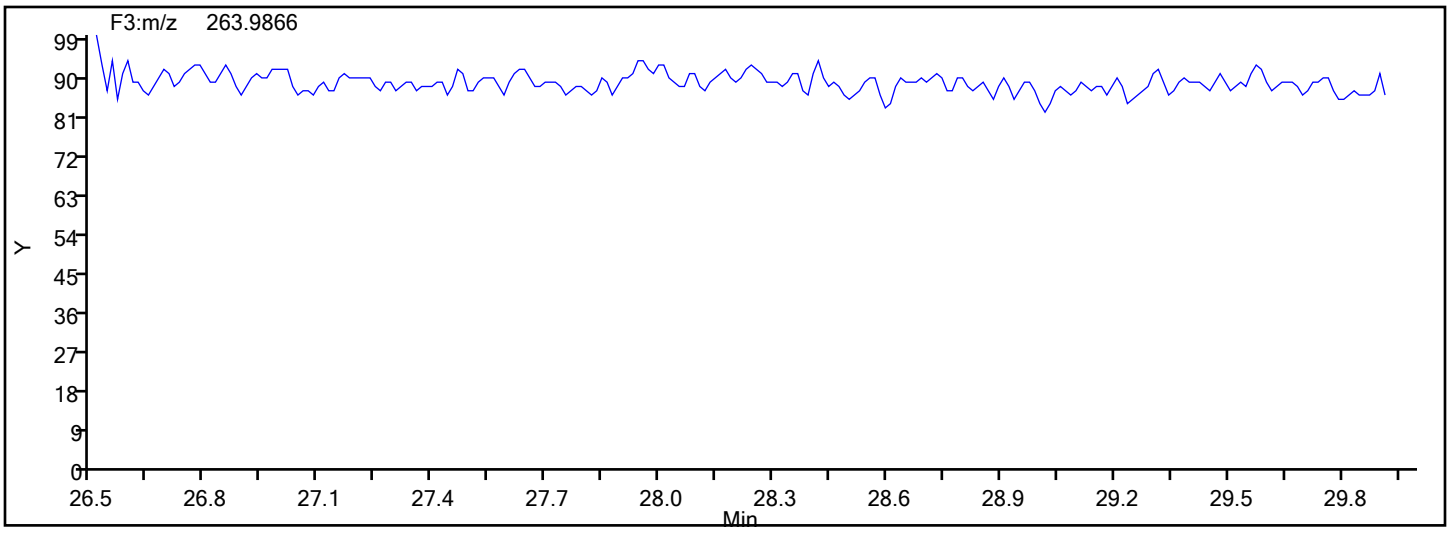
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
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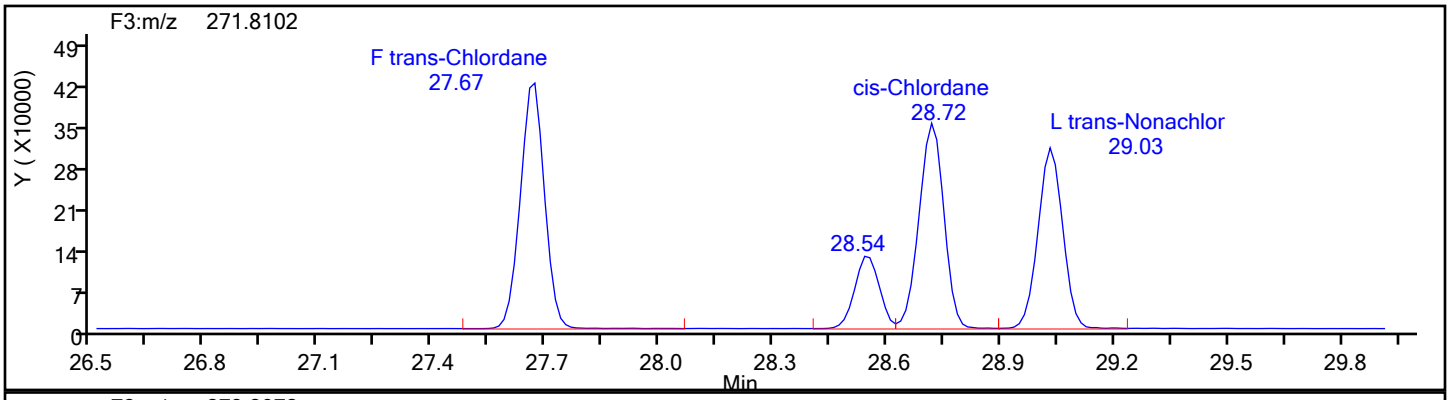
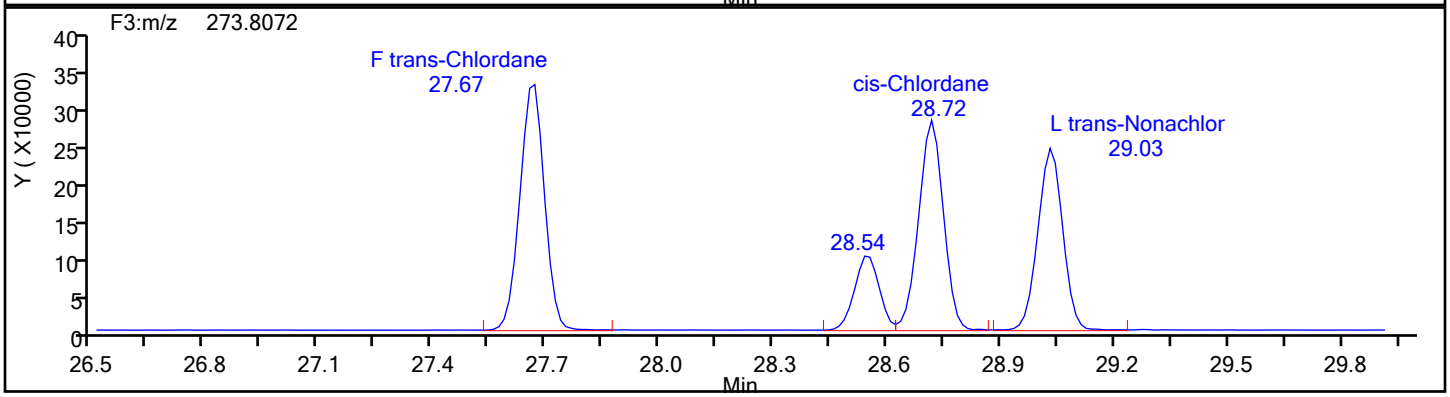
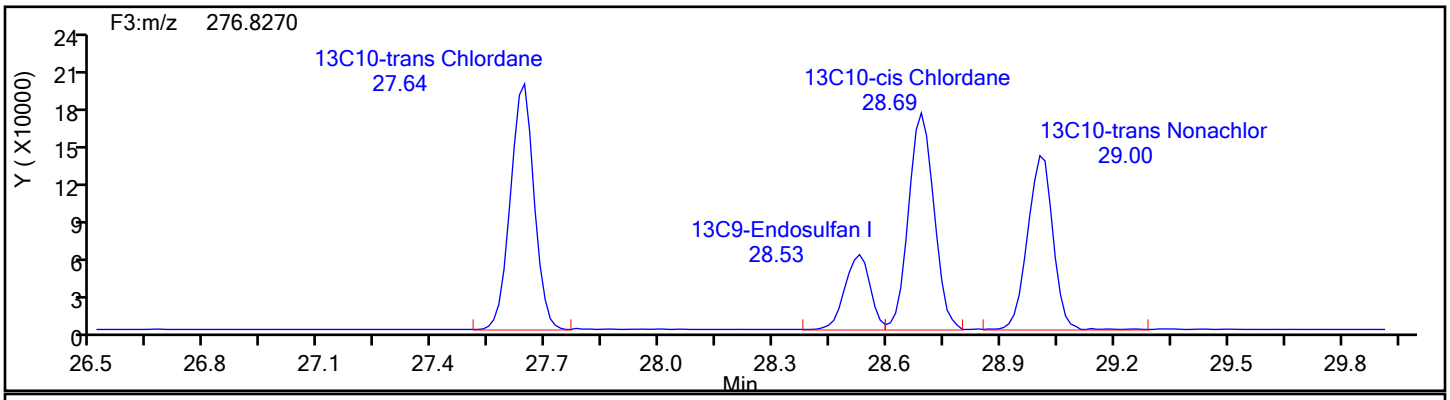
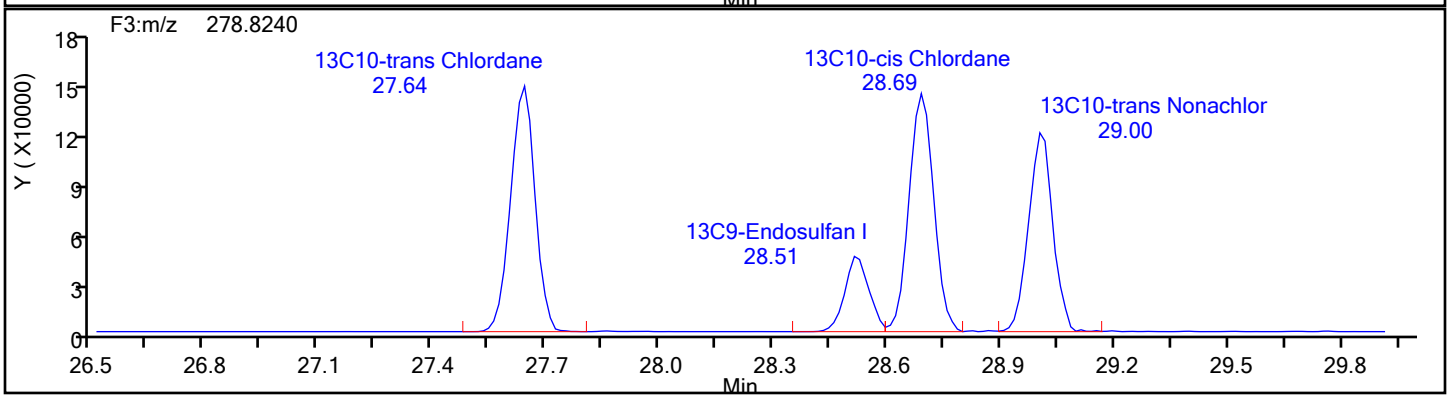
Chlordane





Chlordane Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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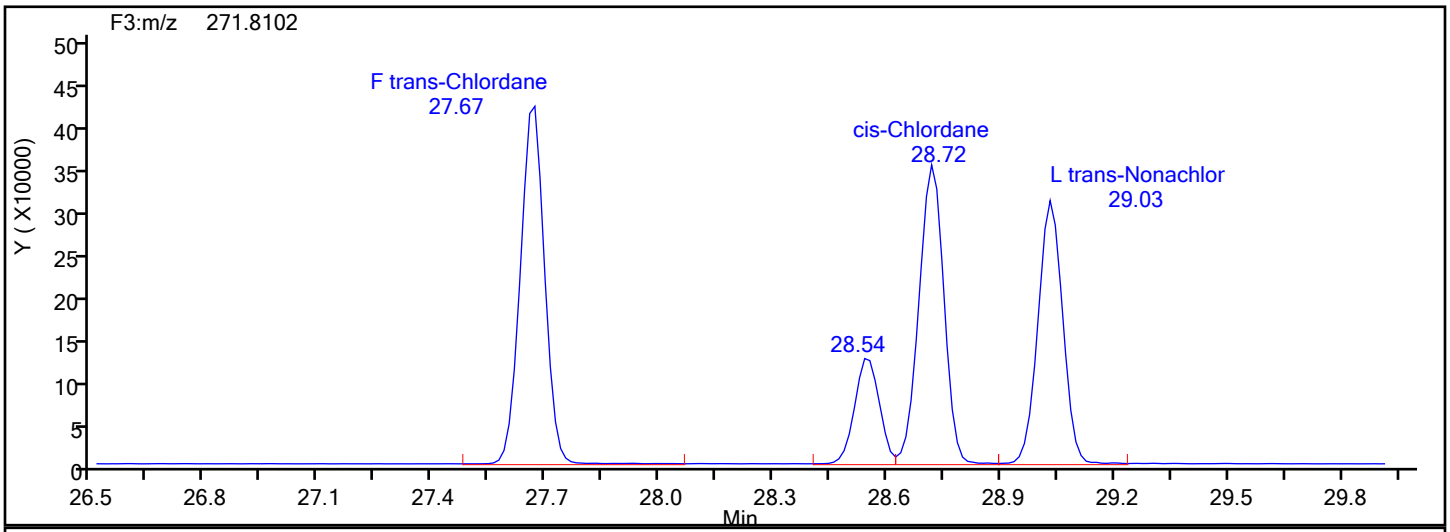
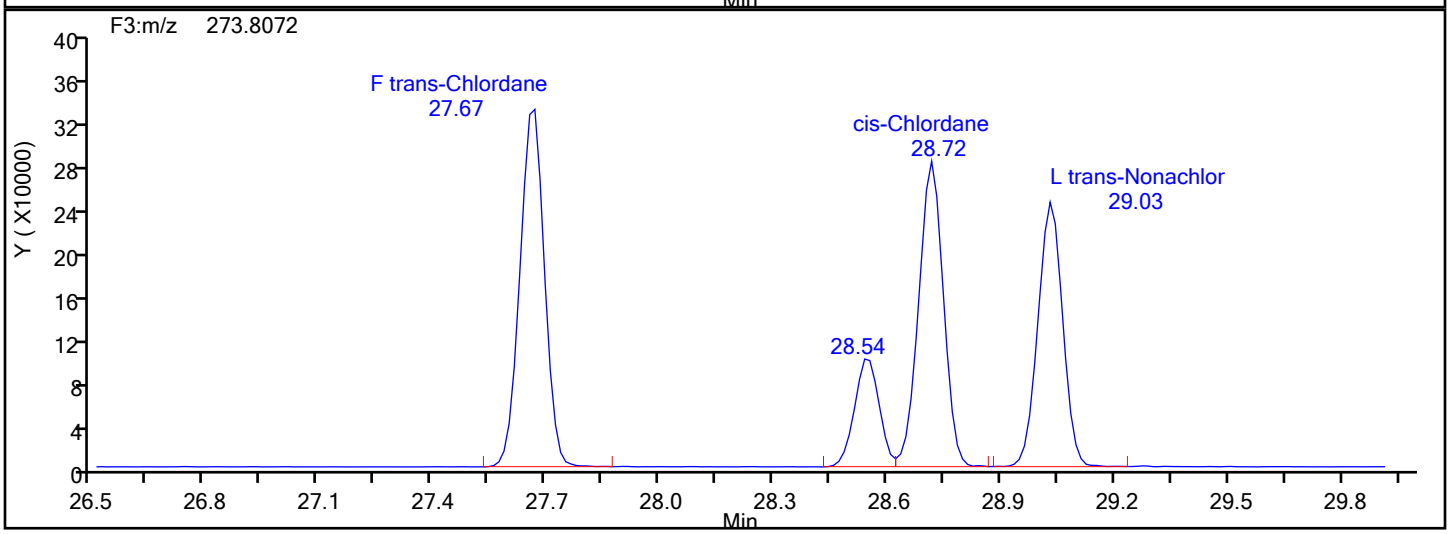
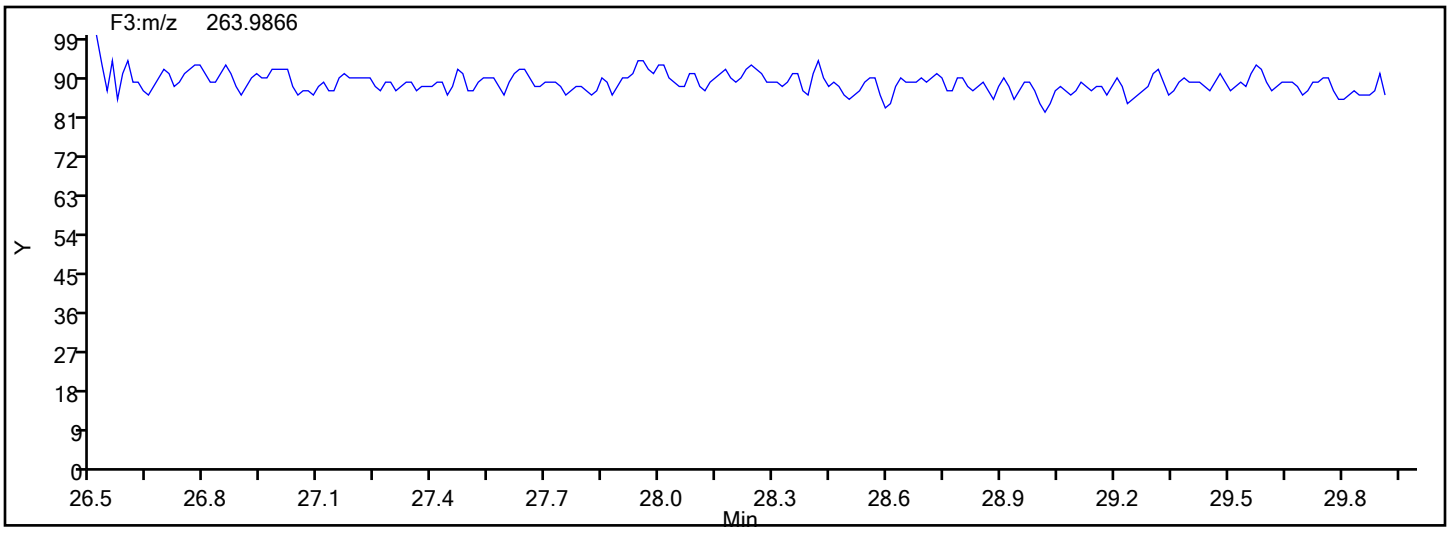
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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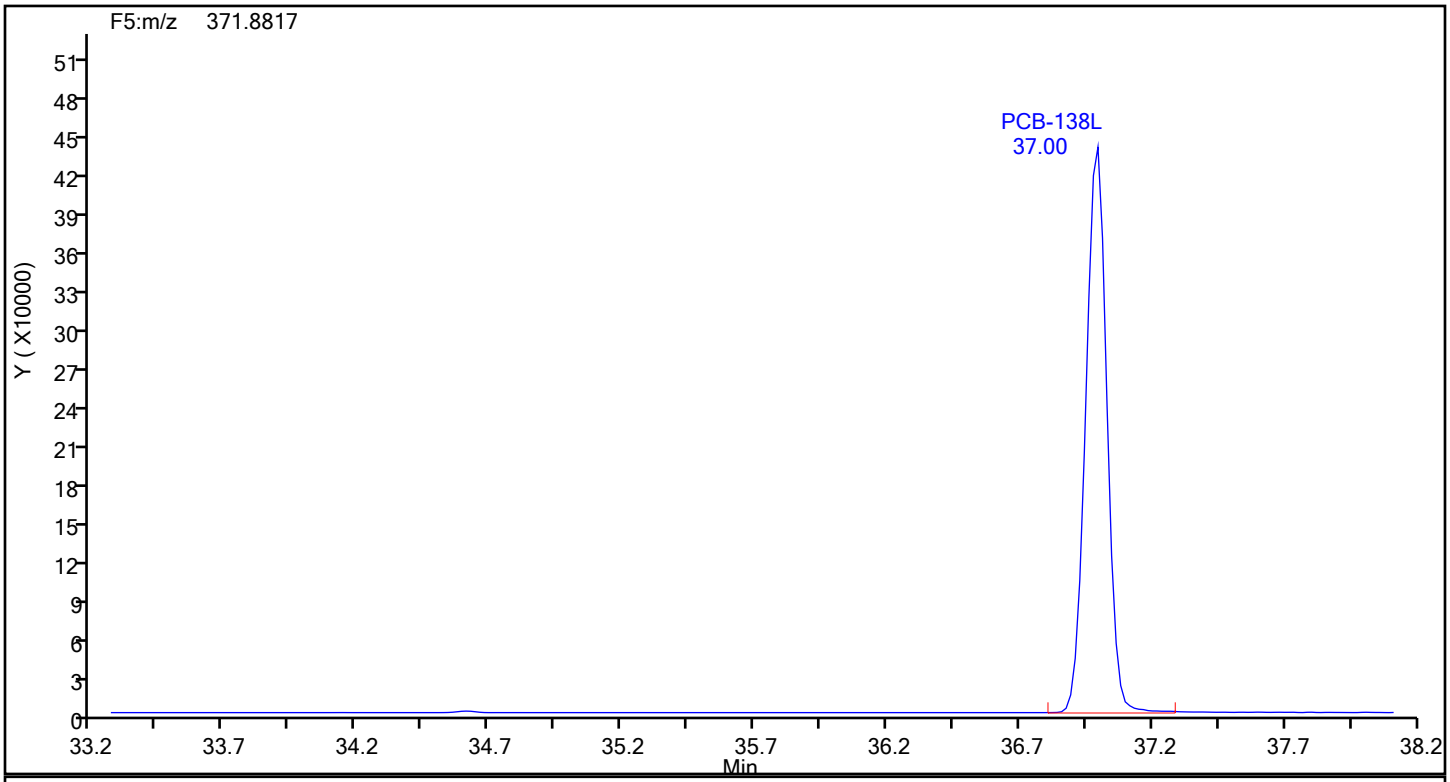
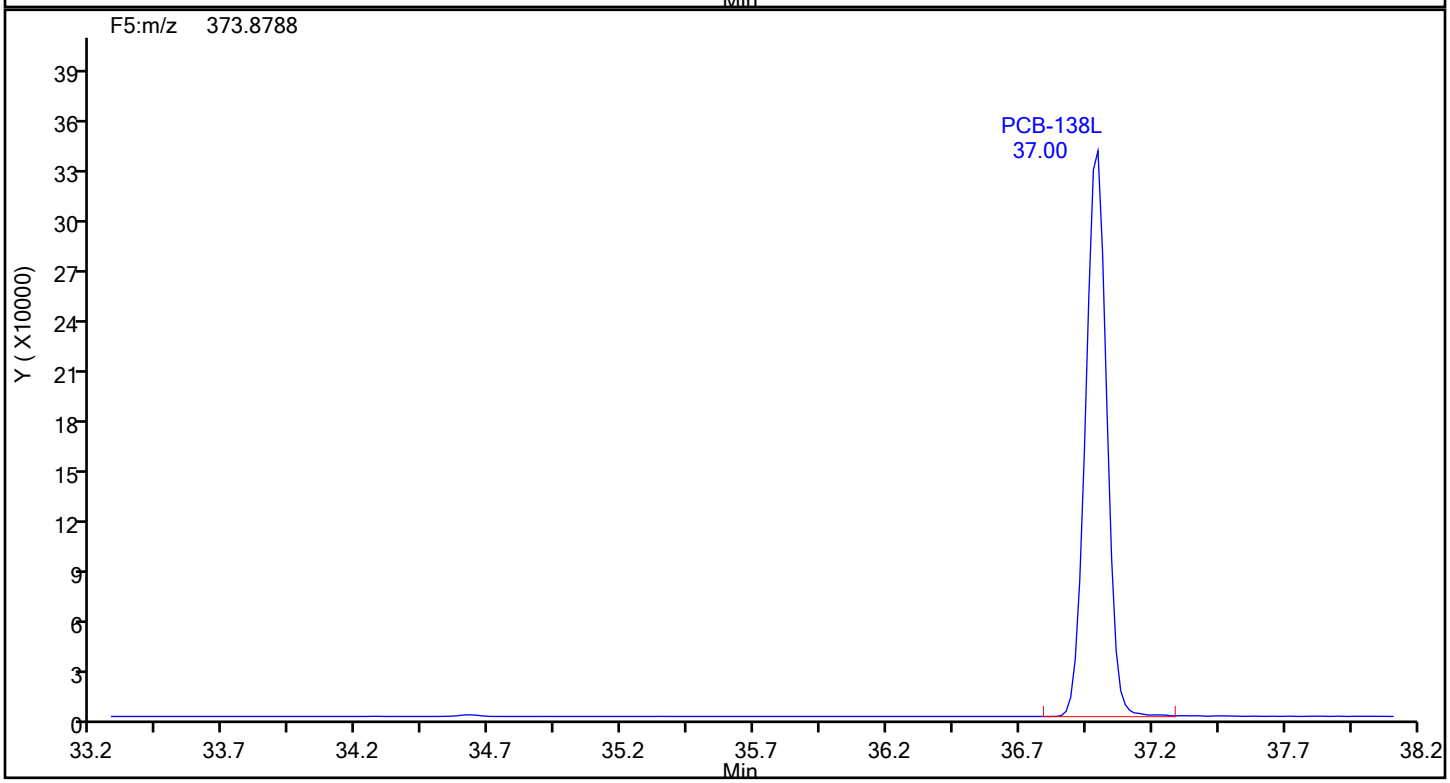
PCB-138L Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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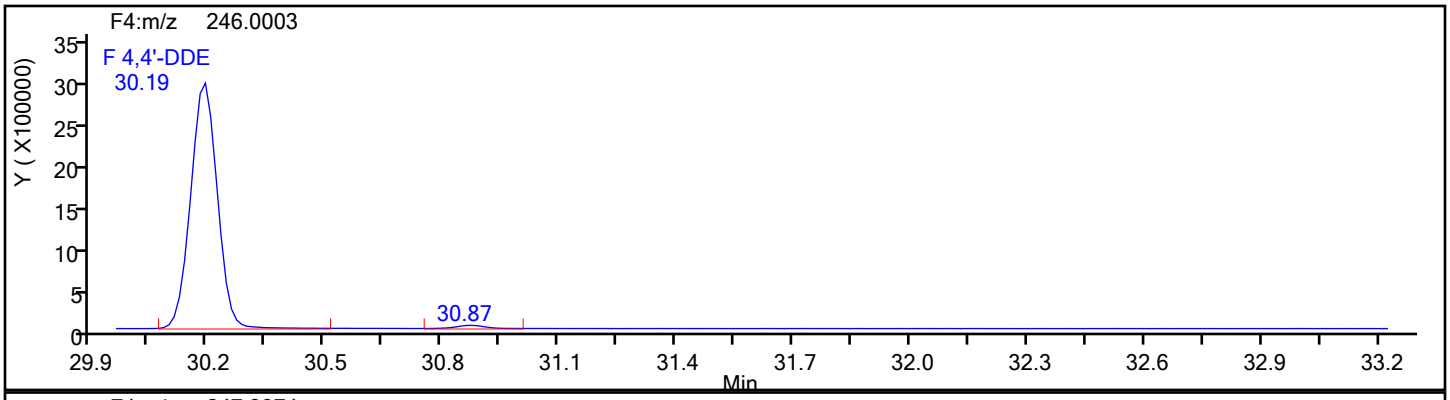
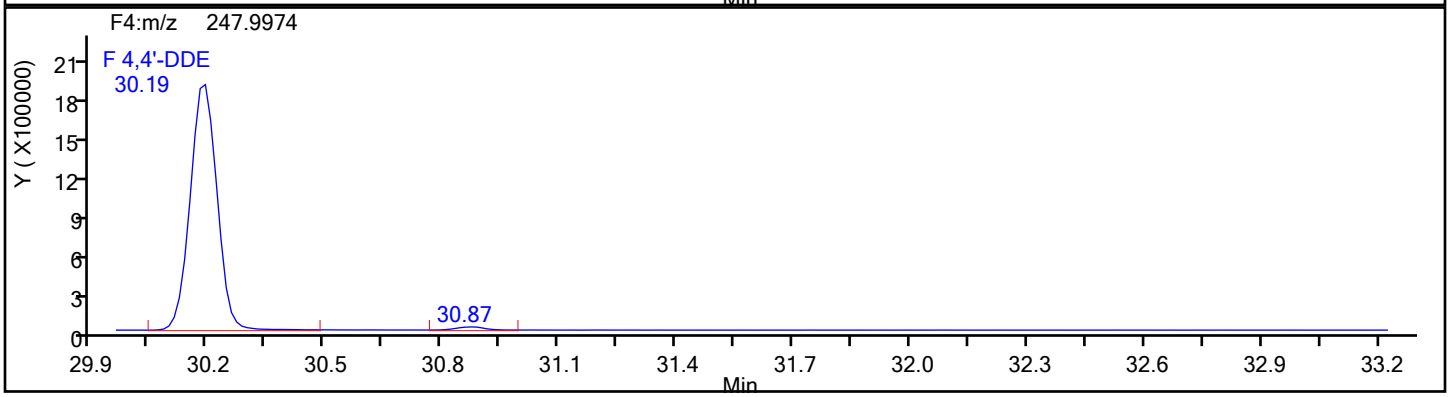
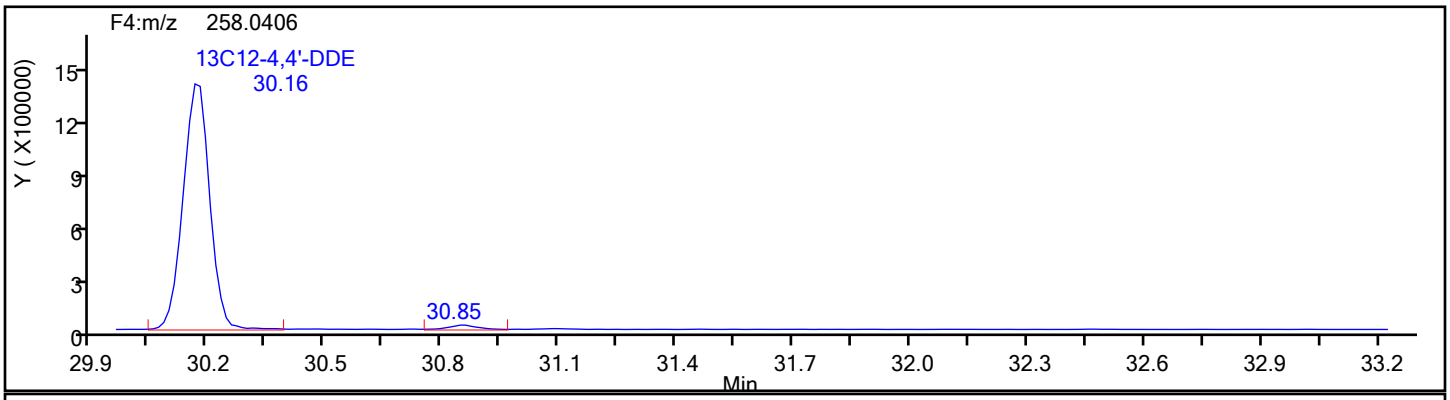
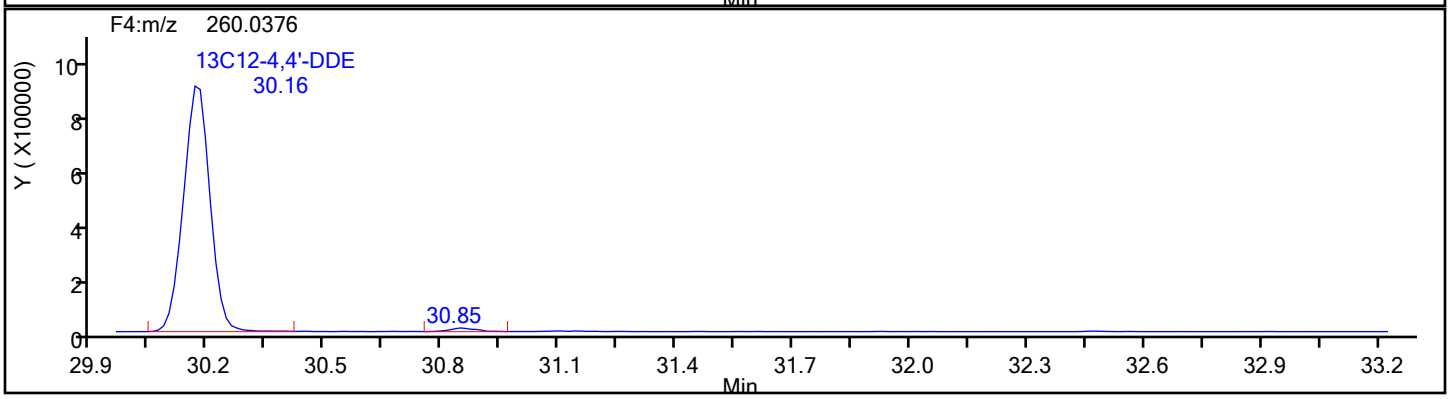
4,4'-DDE





4,4'-DDE Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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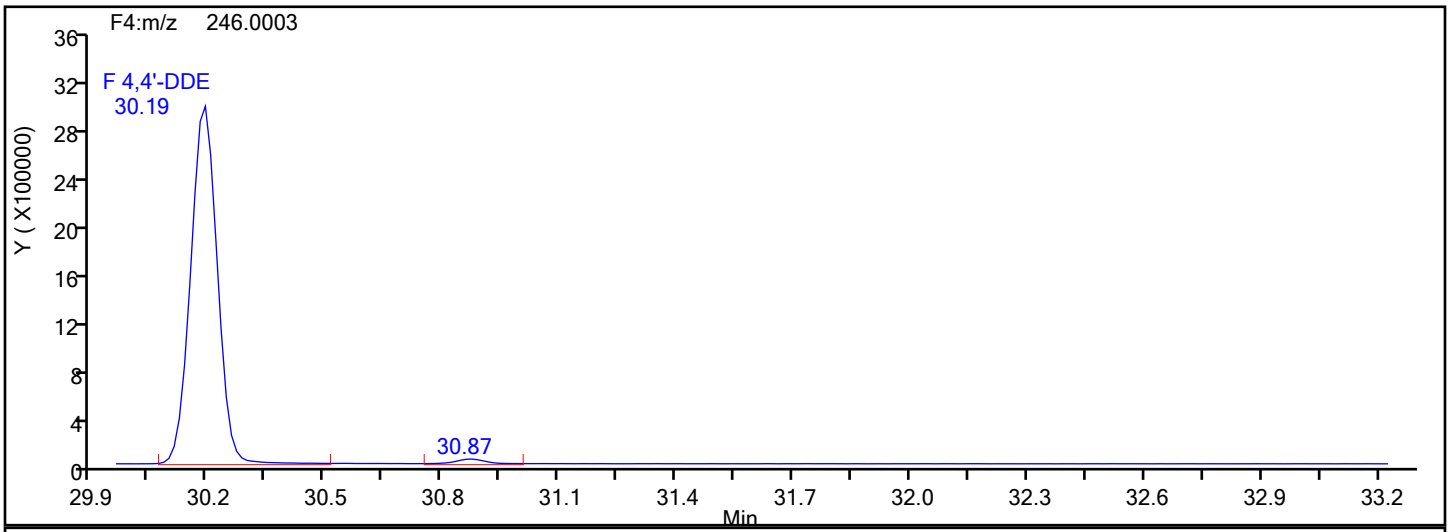
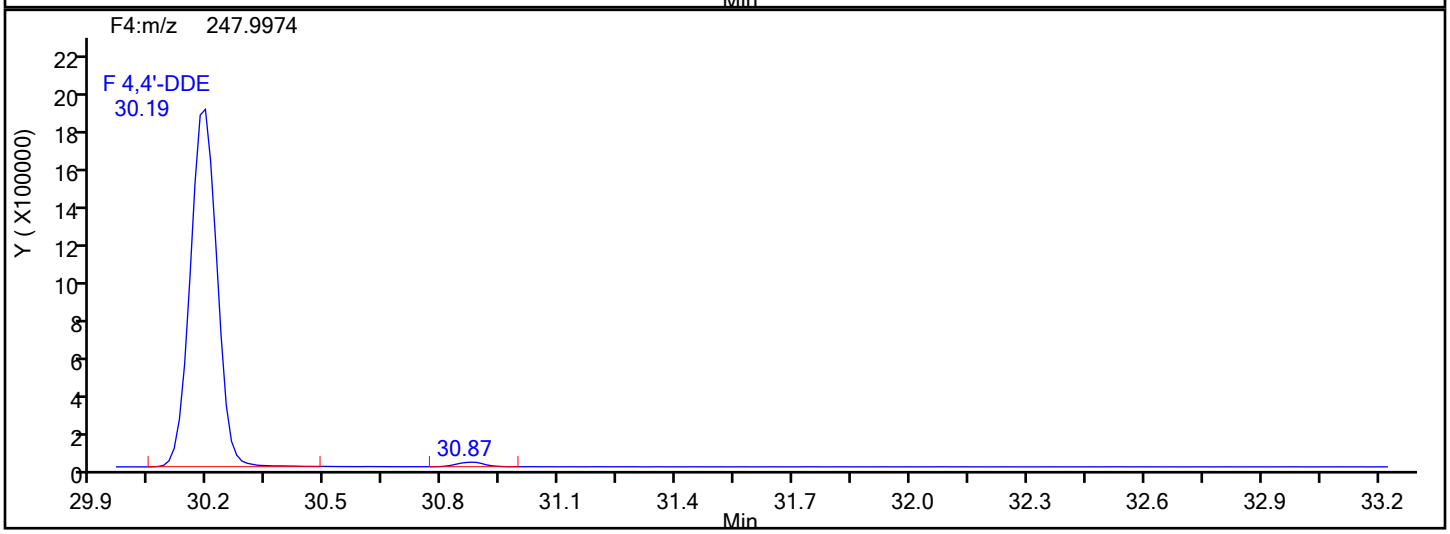
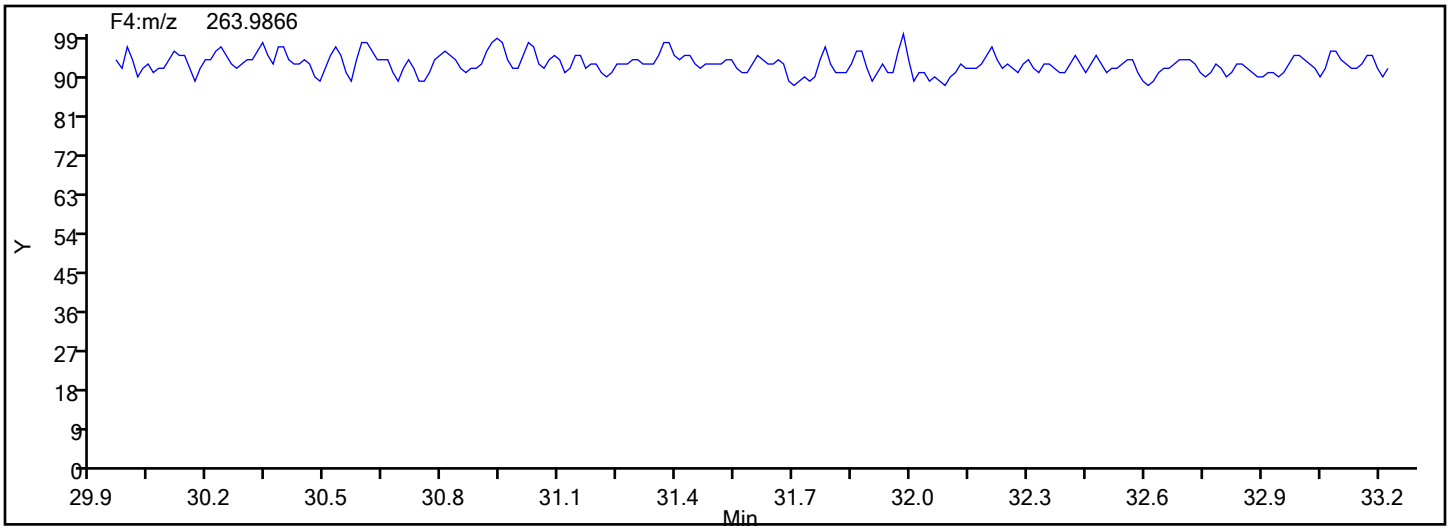
4,4'-DDE





4,4'-DDE Lock Mass



Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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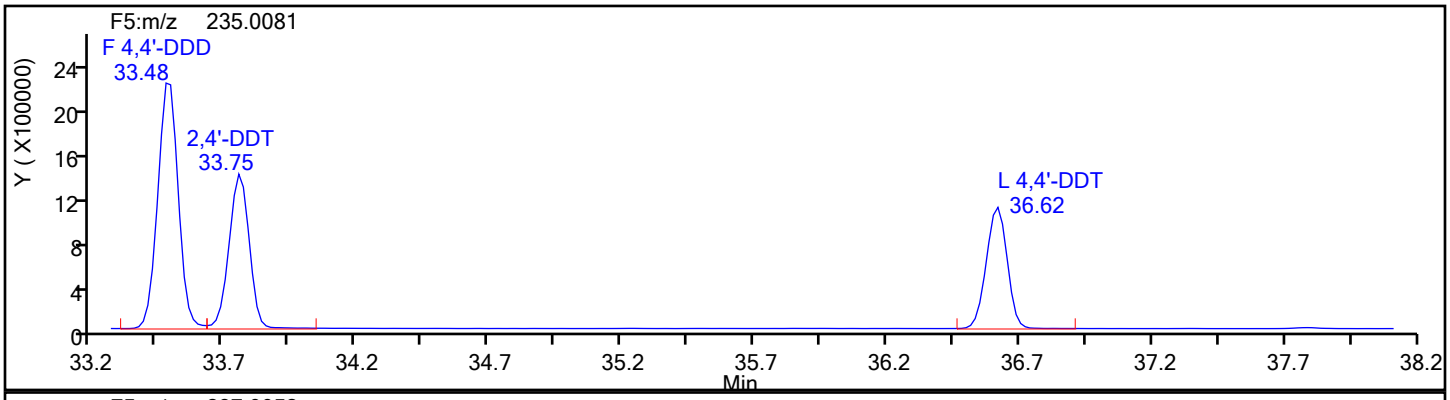
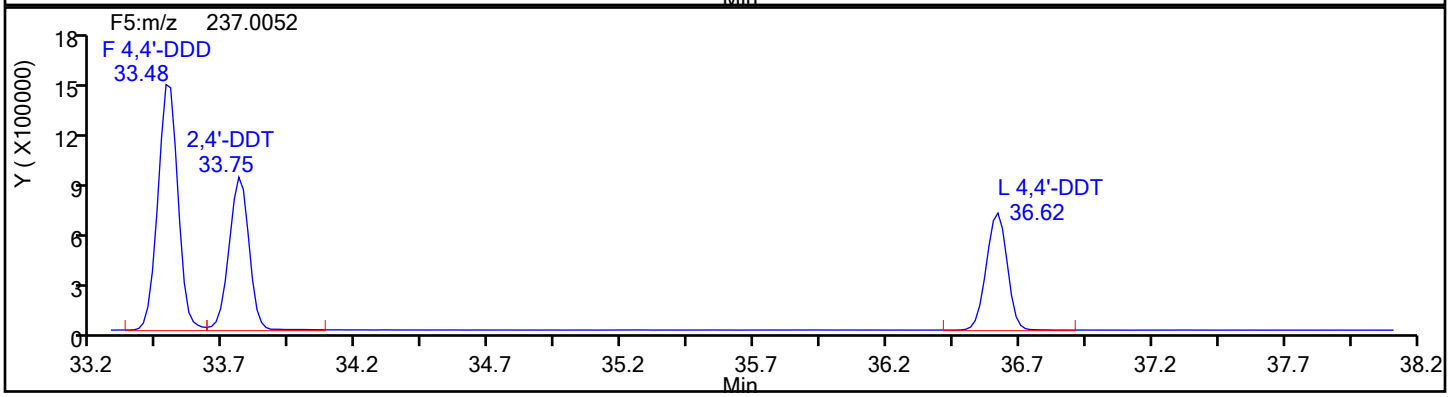
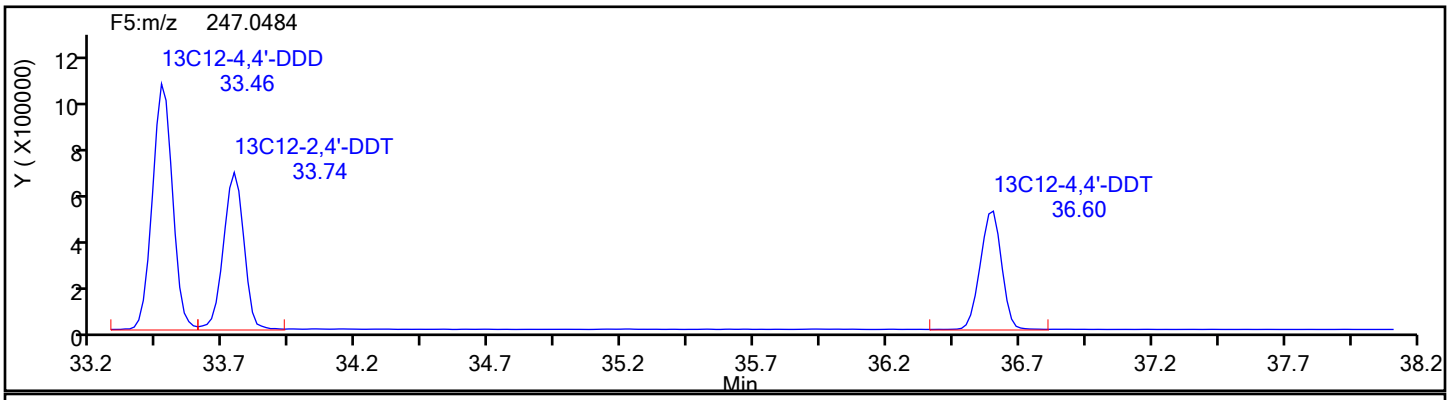
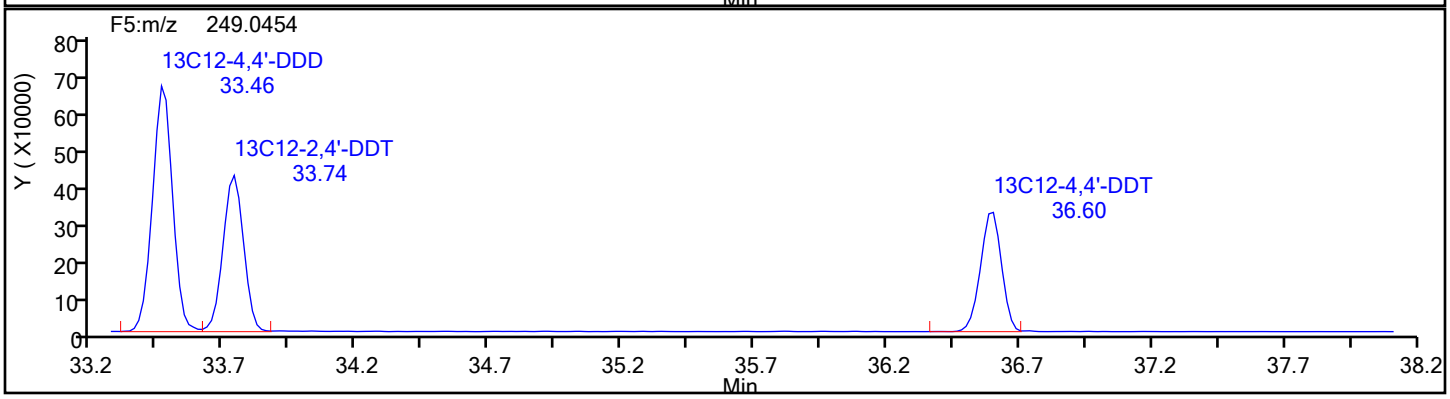
DDD





DDD Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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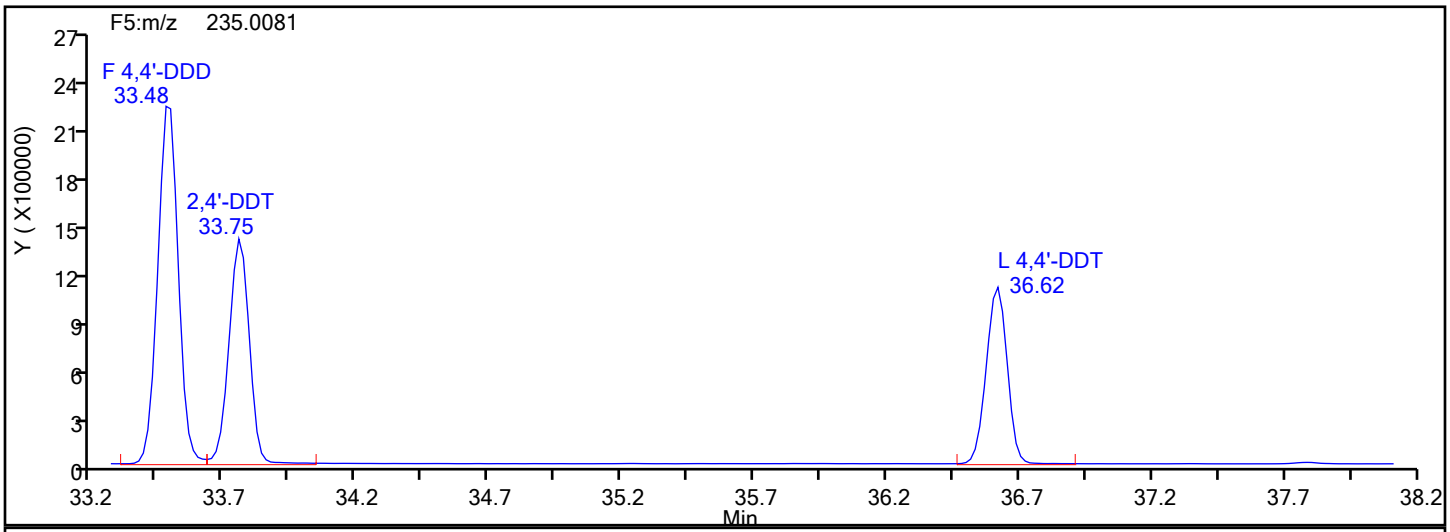
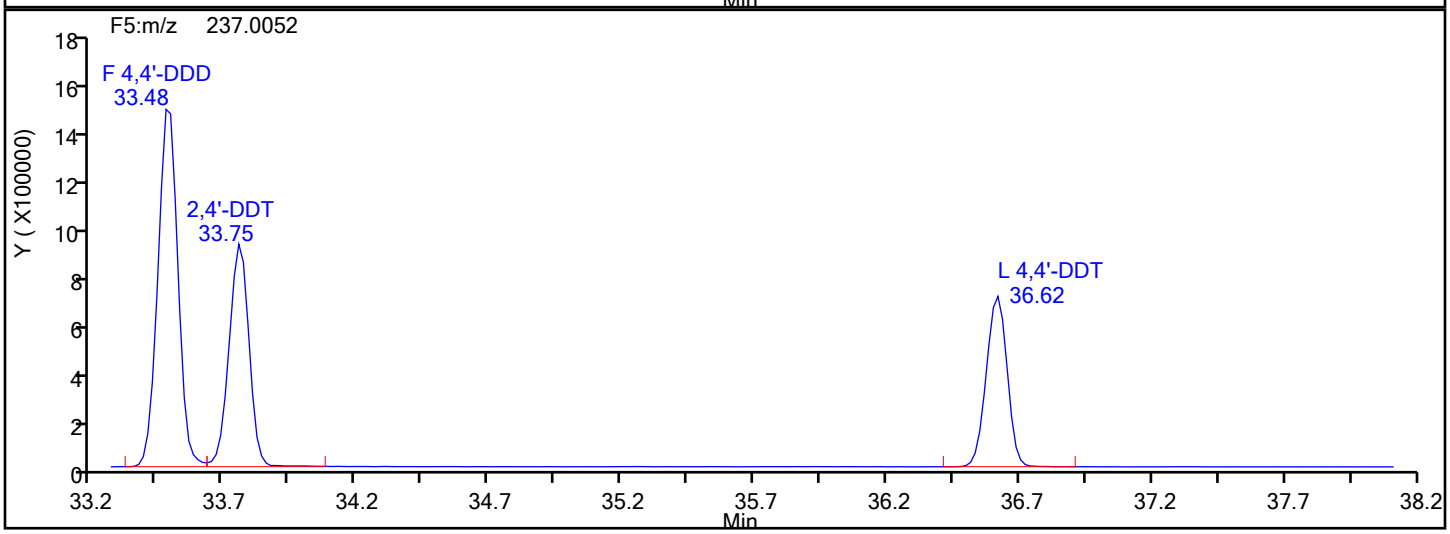
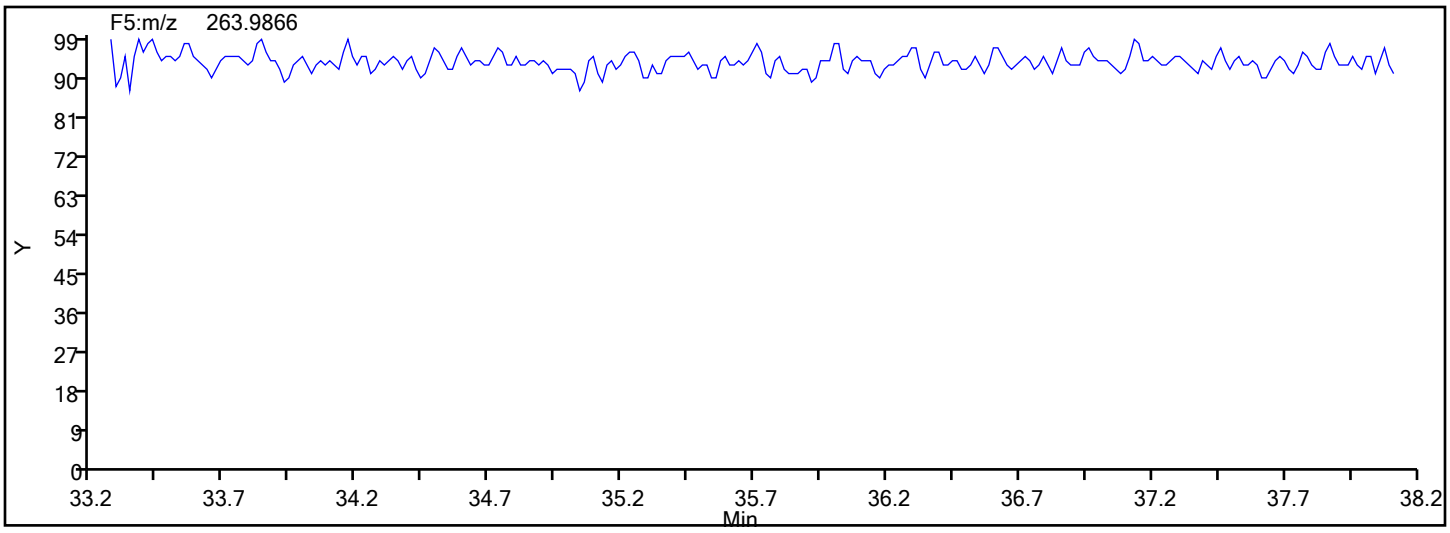
DDD





DDD Lock Mass



Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
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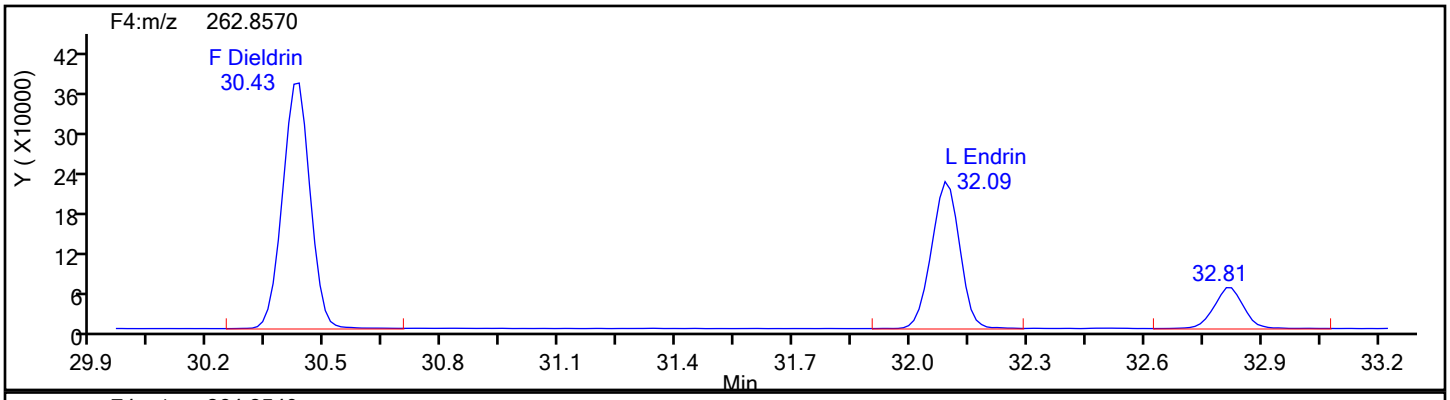
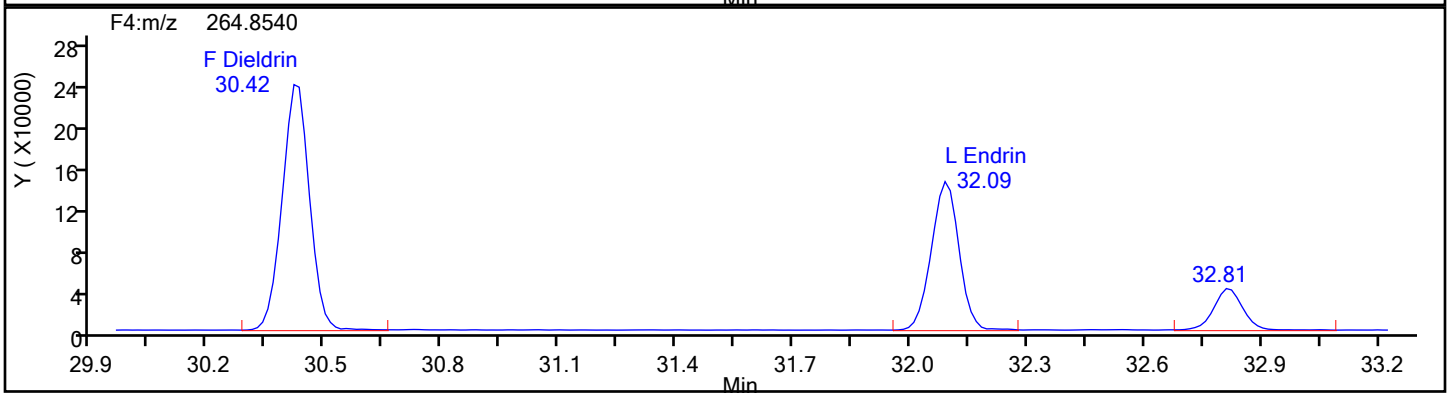
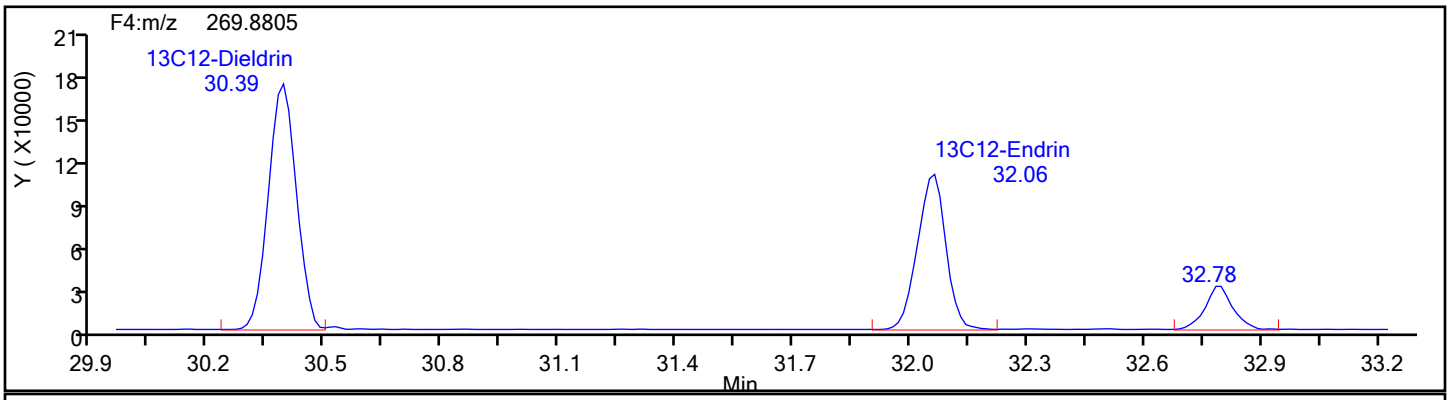
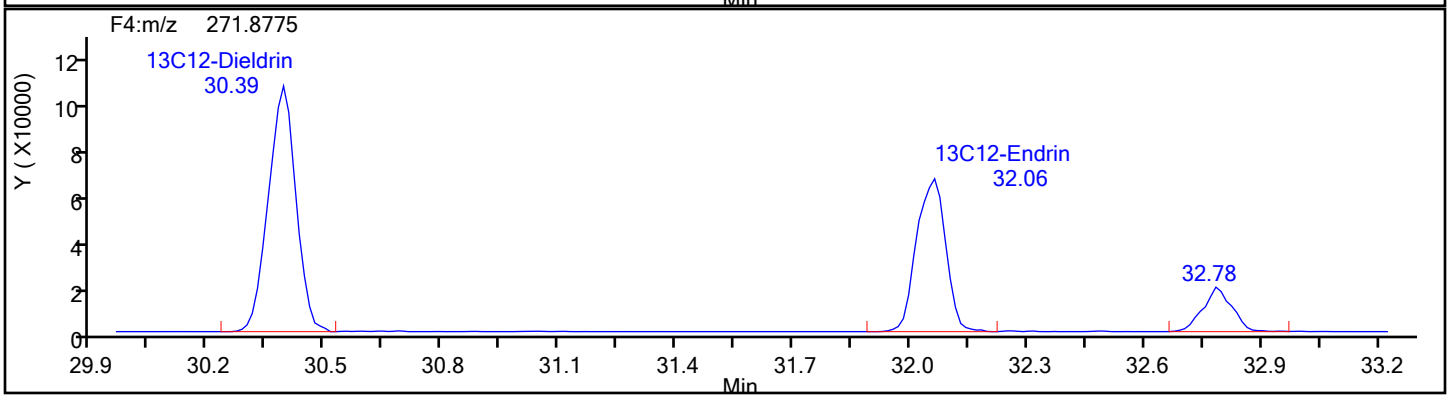
Dieldrin





Dieldrin Standards





Report Date: 31-Mar-2025 13:49:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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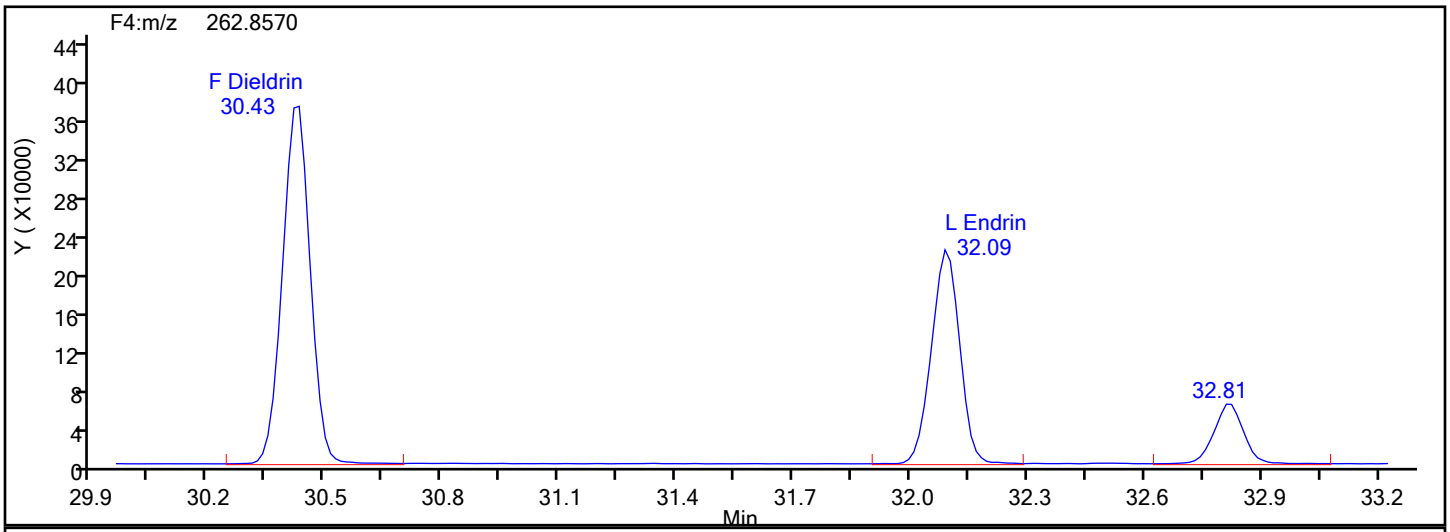
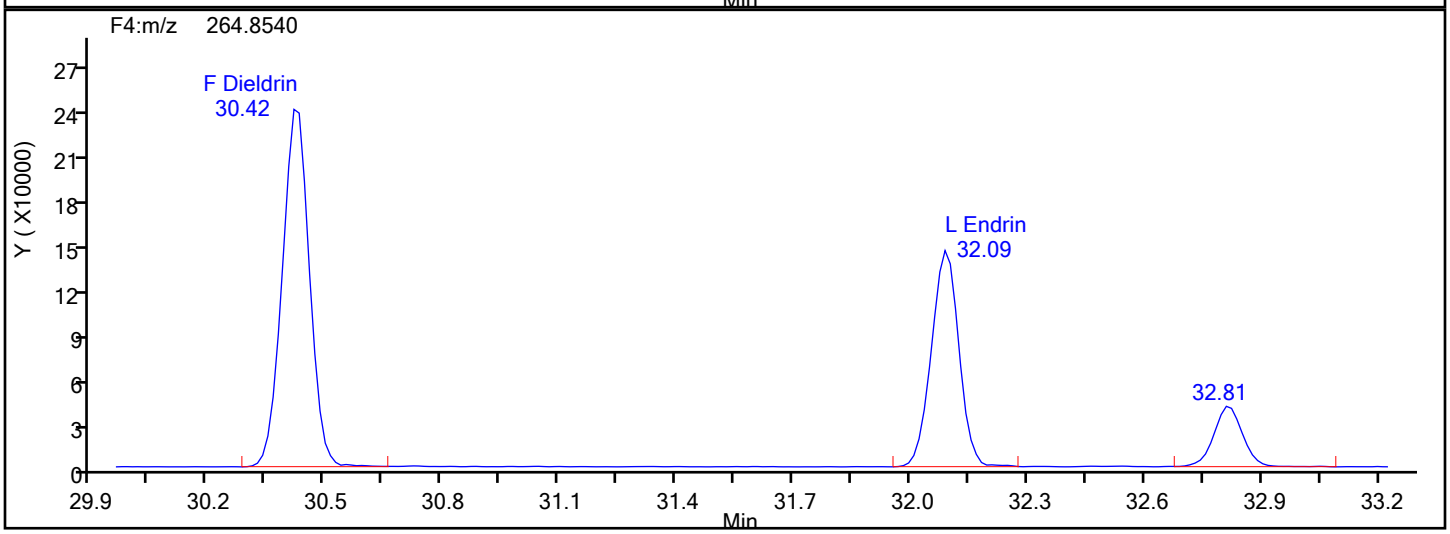
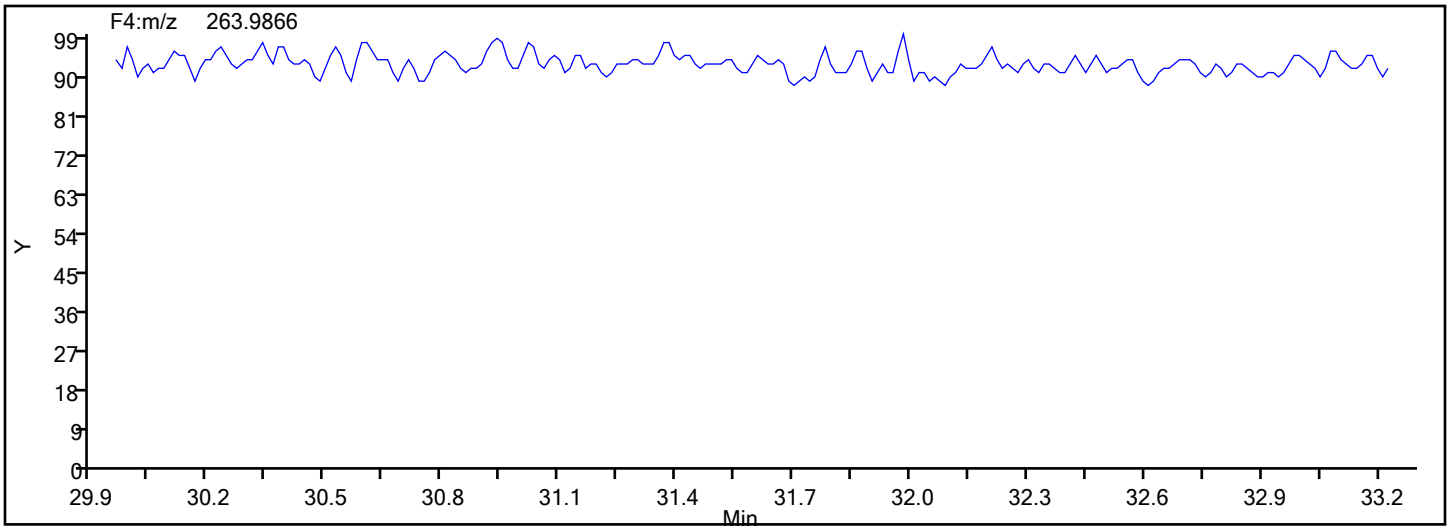




Dieldrin Lock Mass



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Eurofins Knoxville

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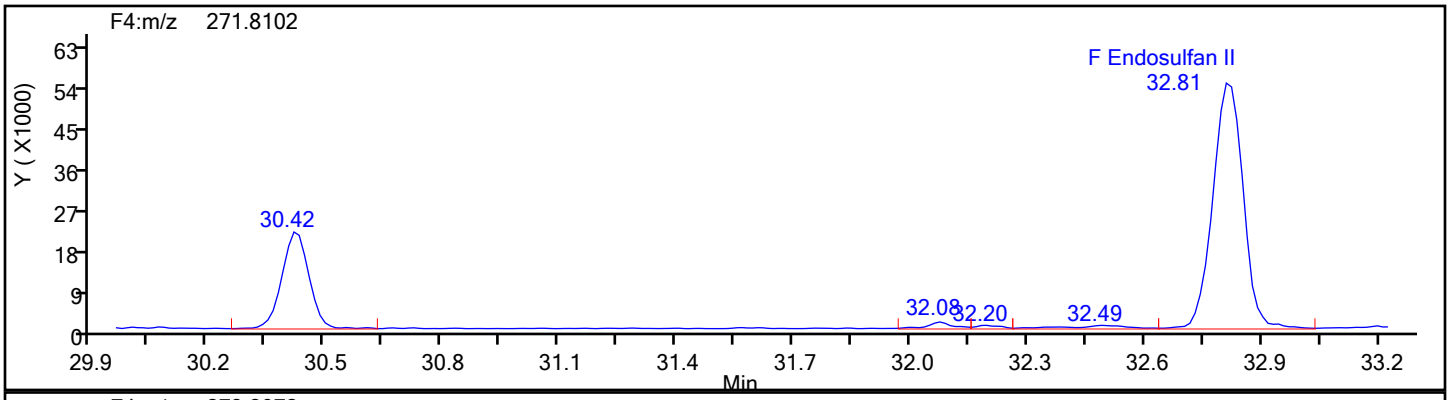

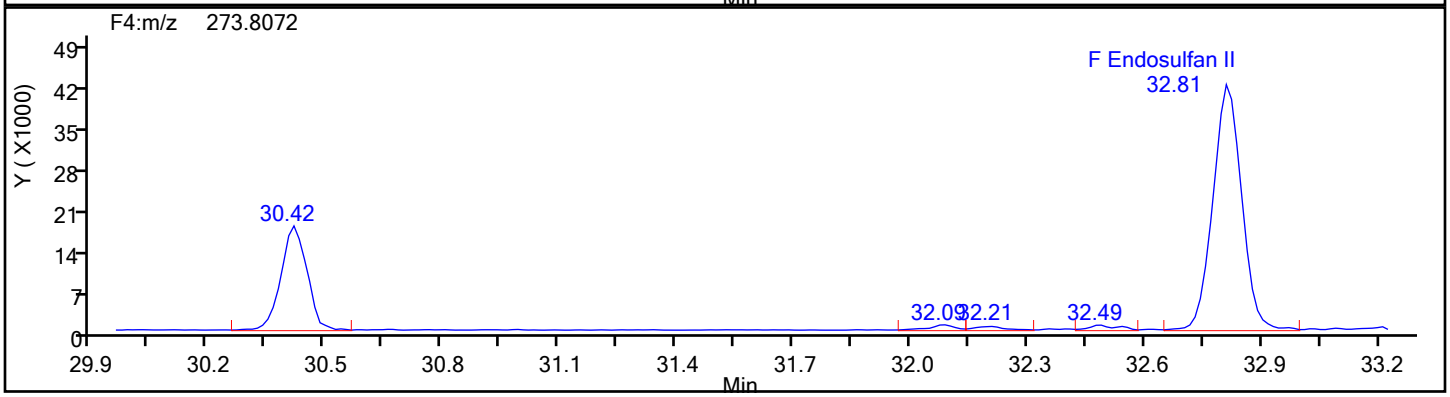

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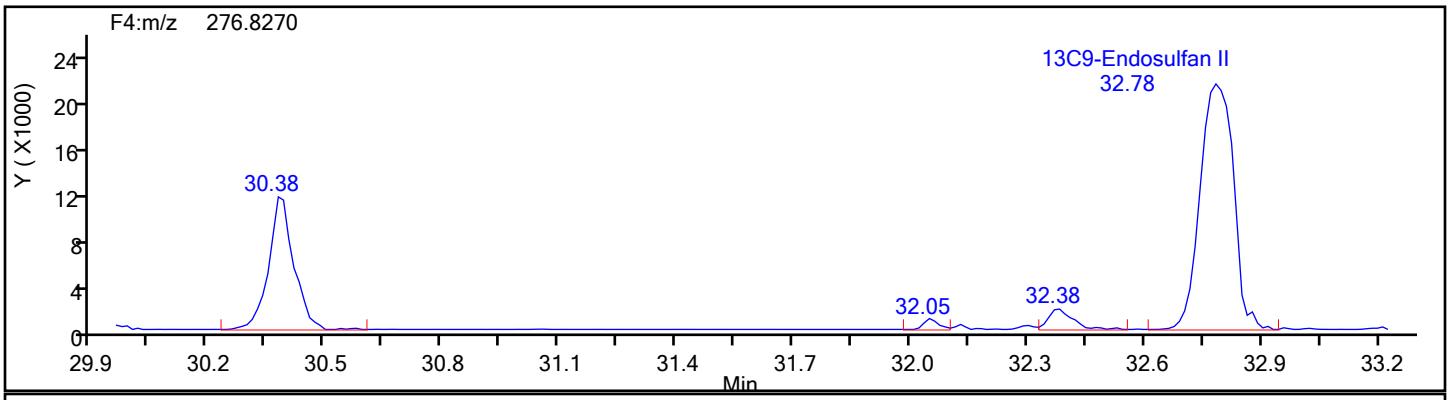

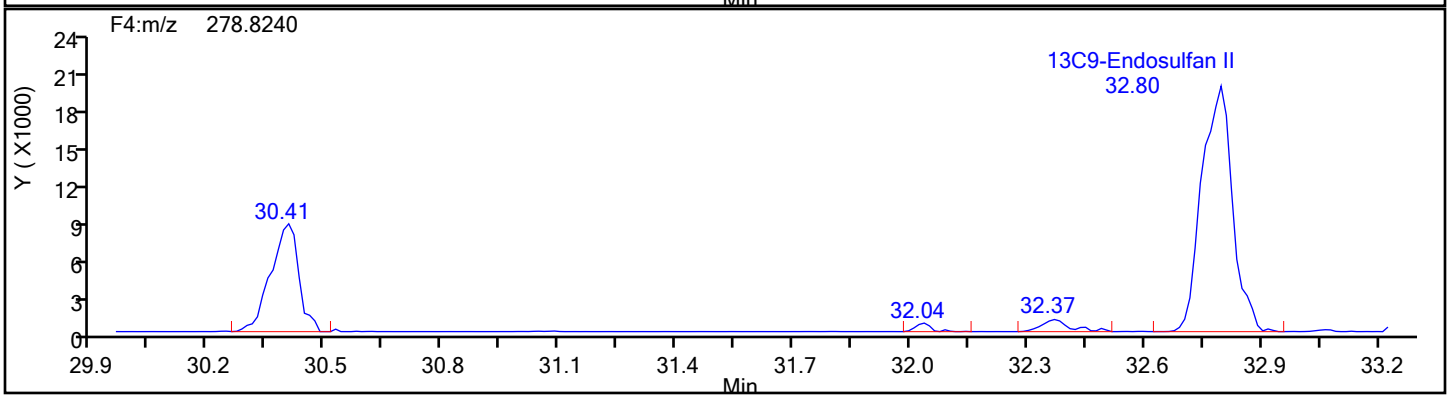

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Eurofins Knoxville

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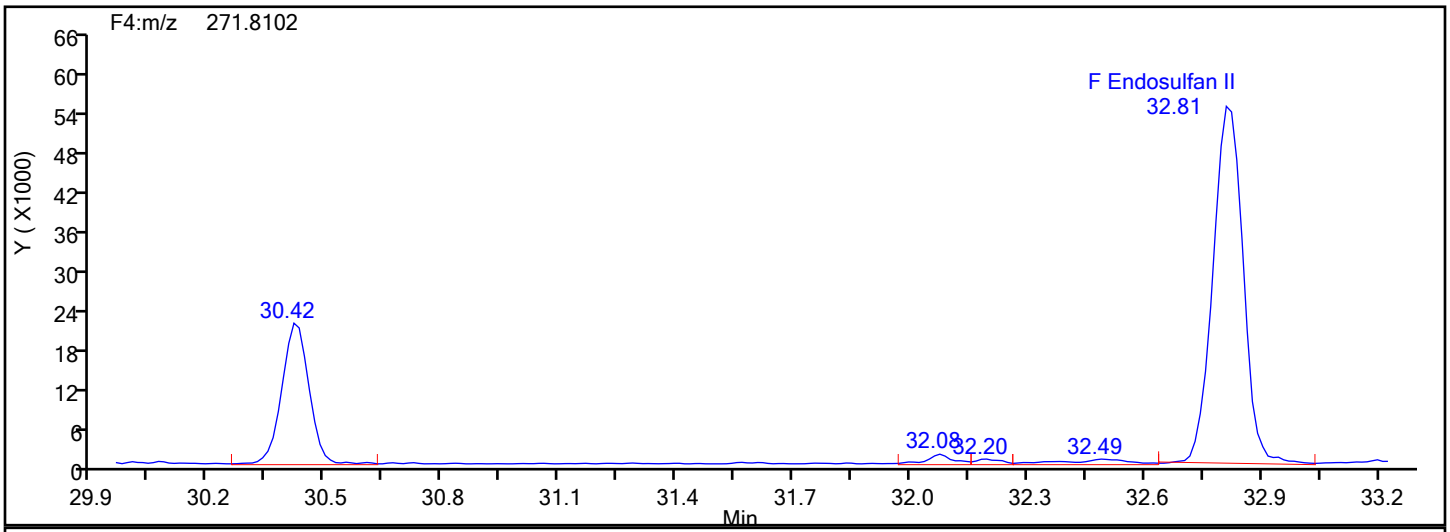

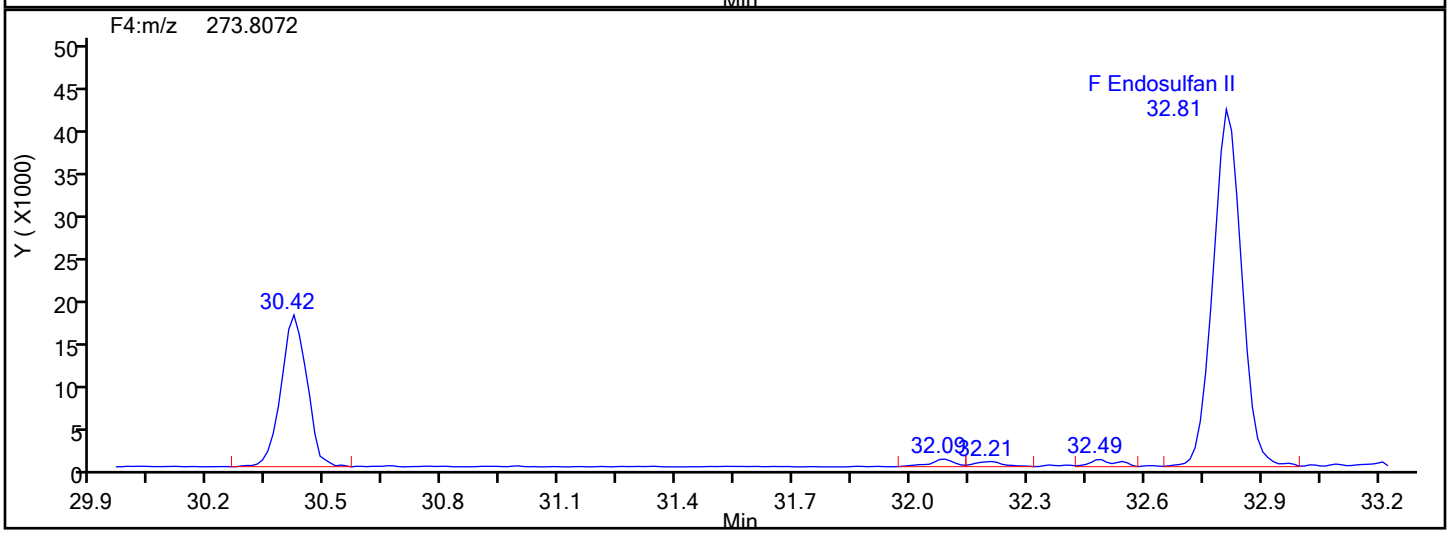

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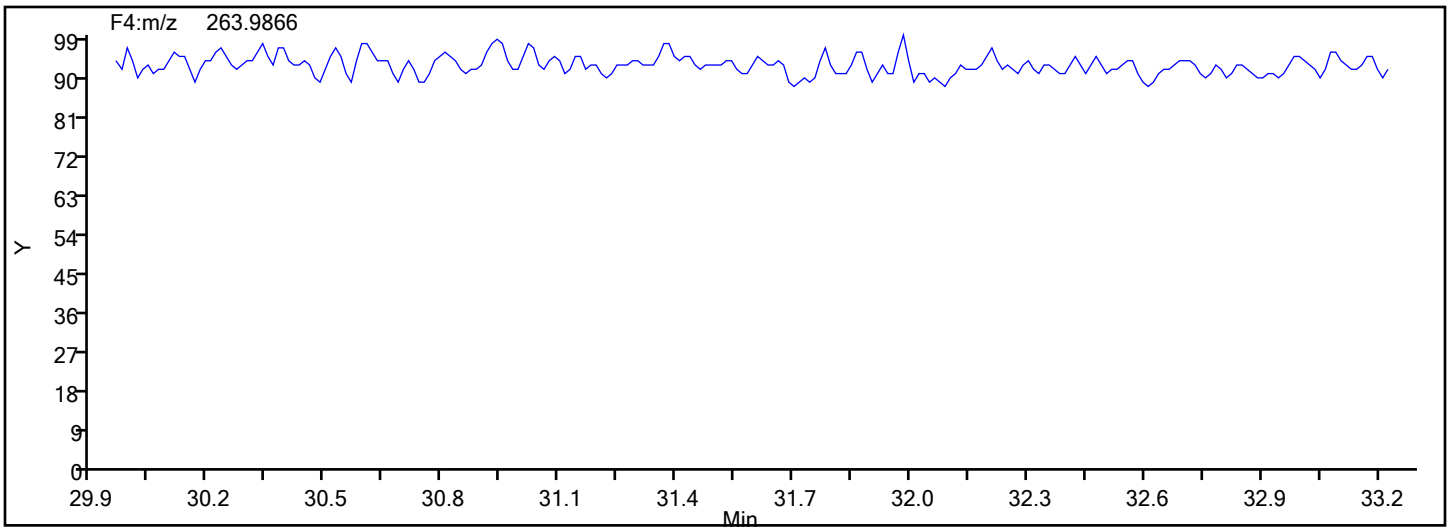

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Eurofins Knoxville

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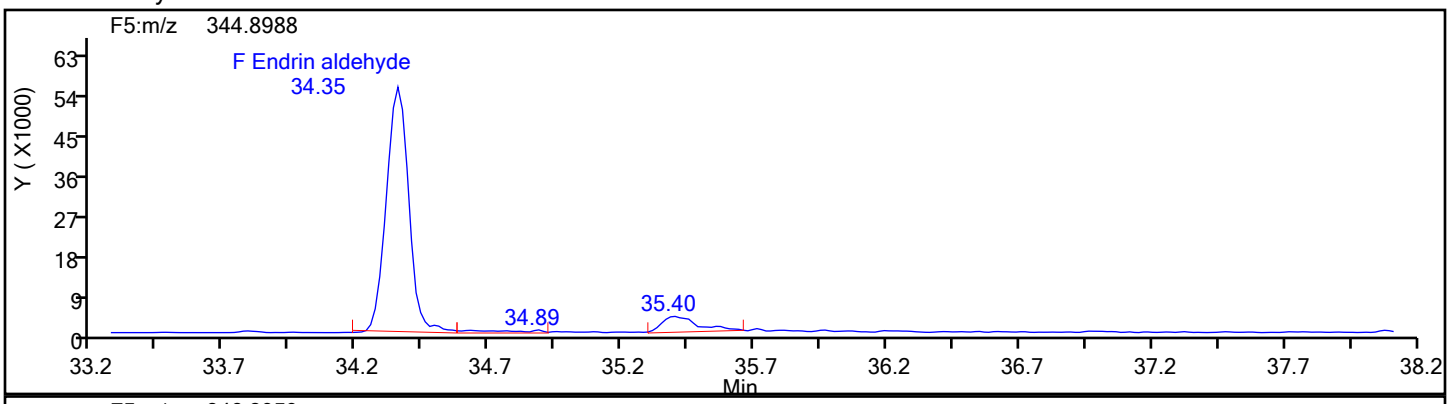

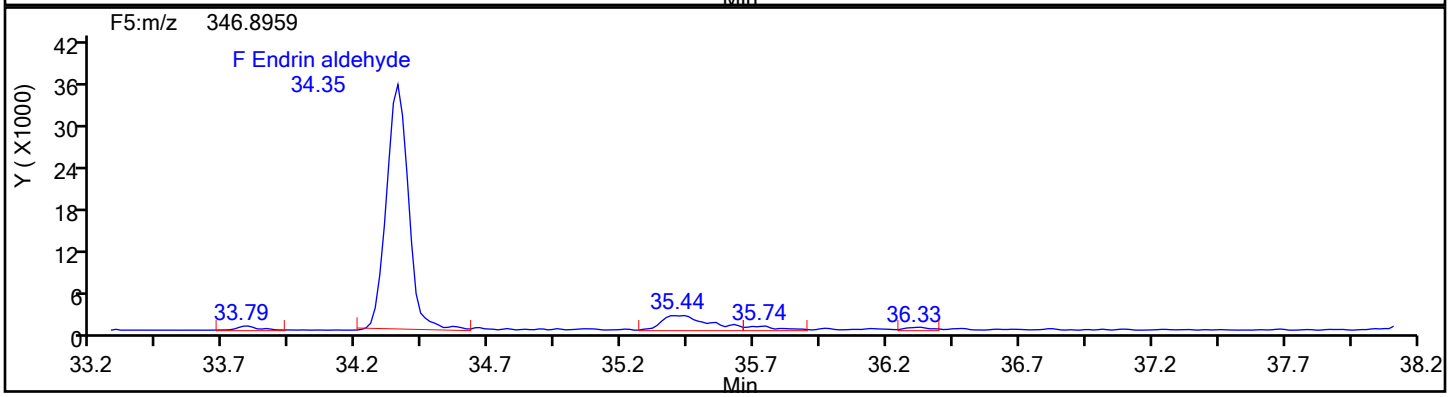

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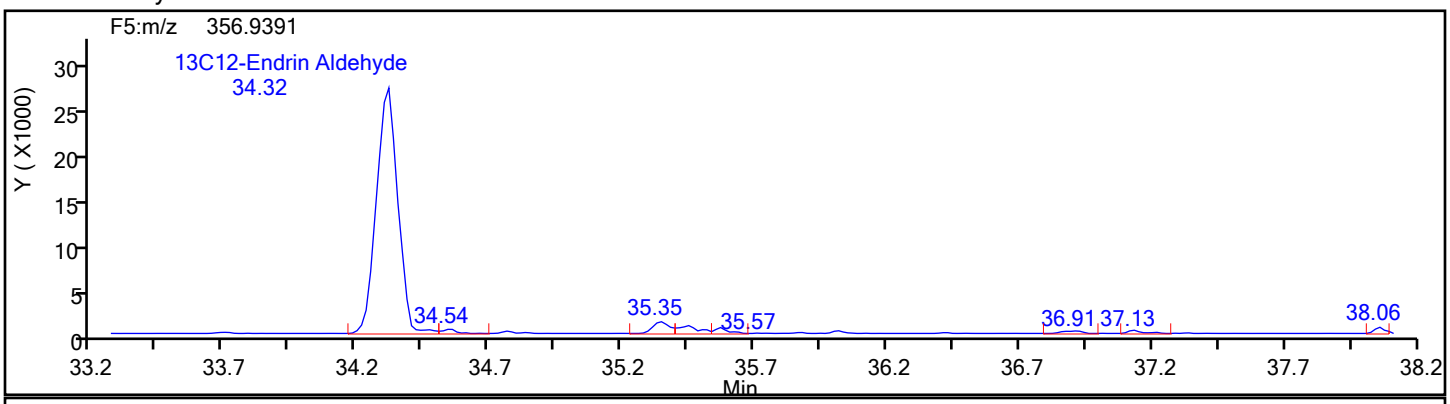

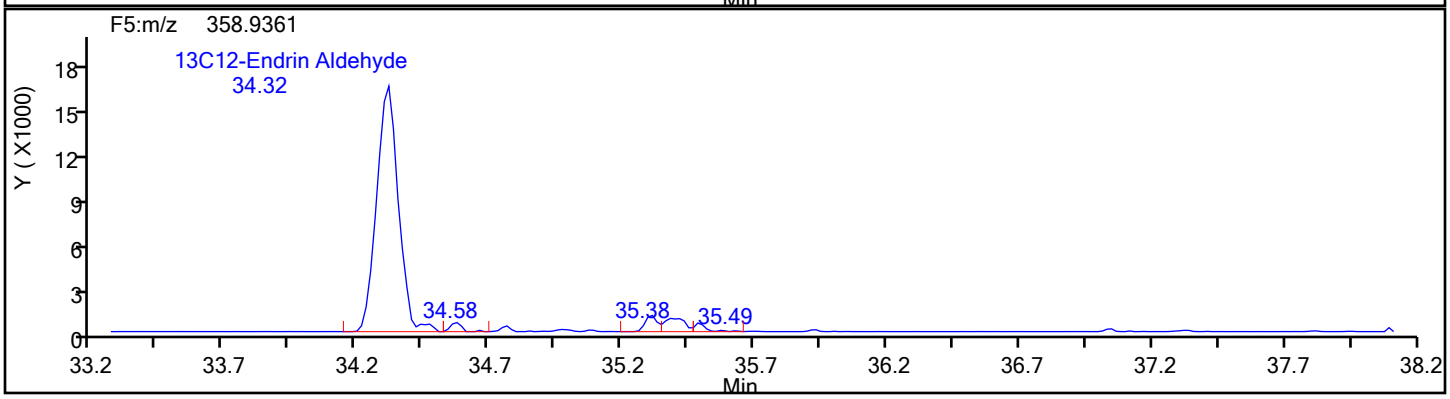

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Eurofins Knoxville

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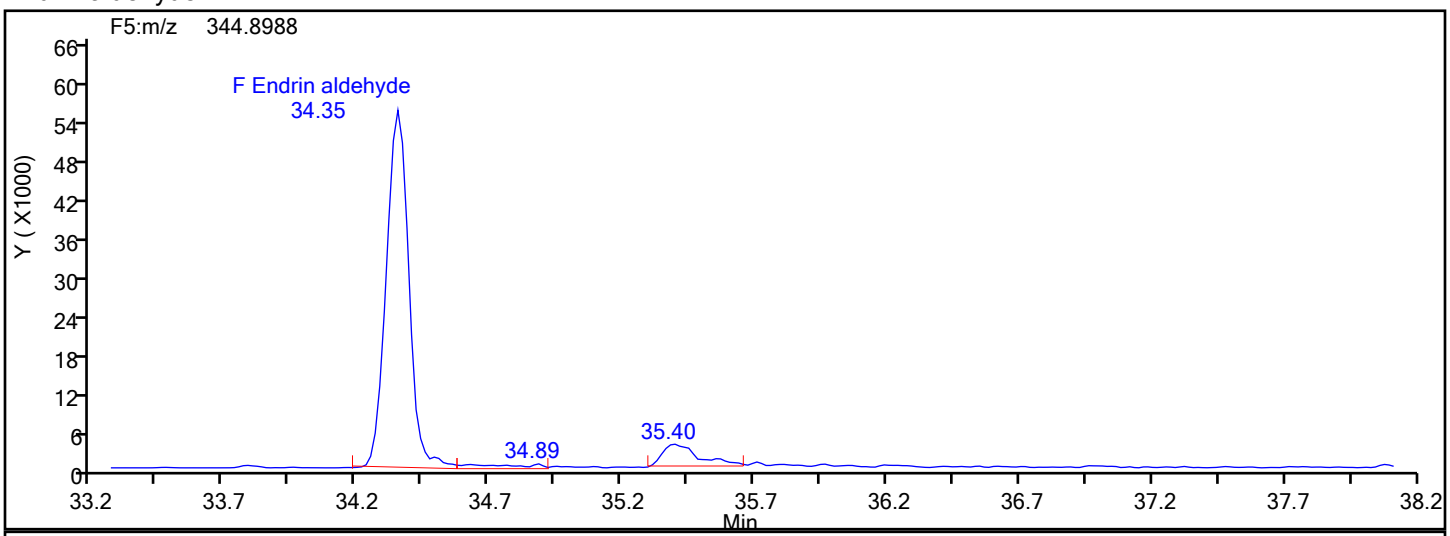
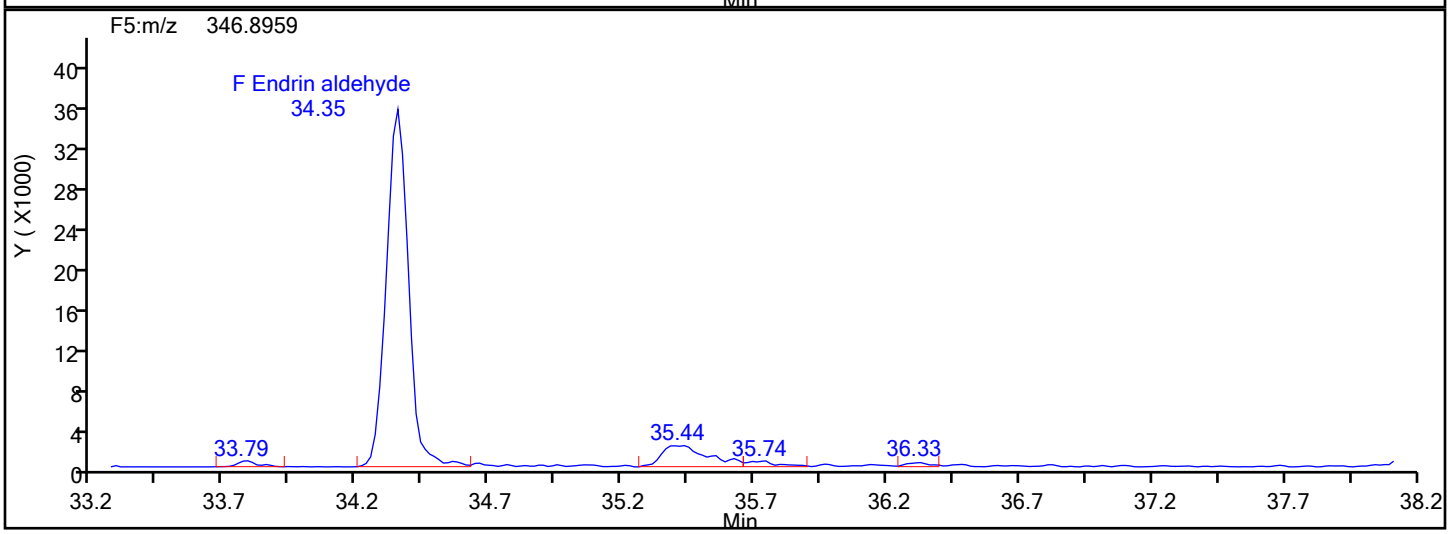
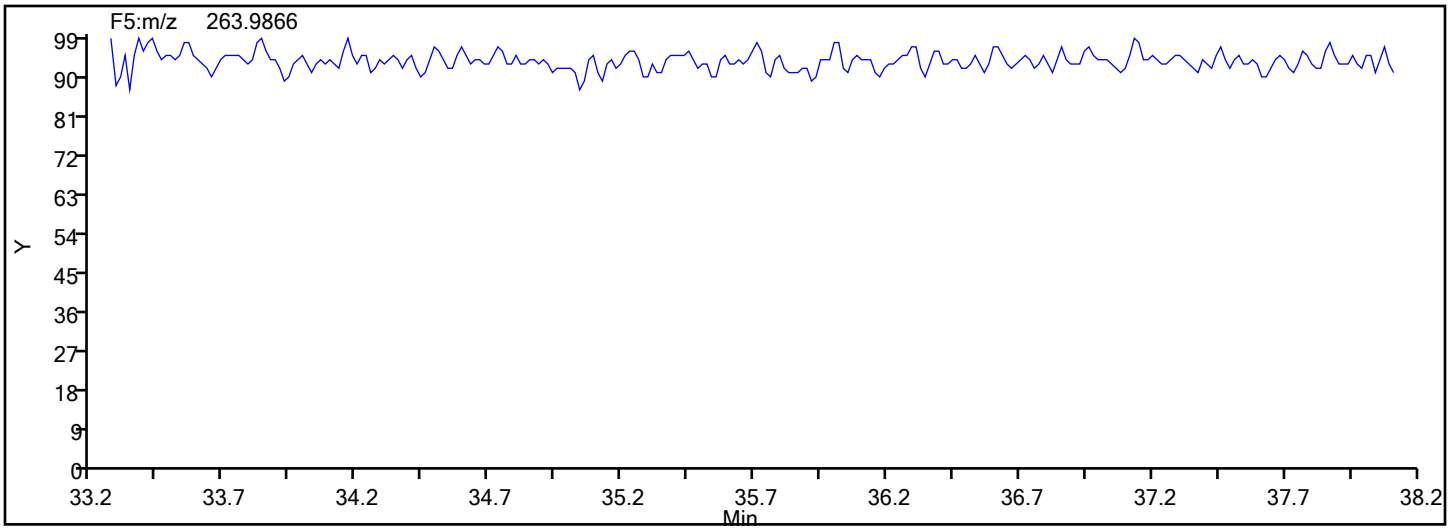




Endrin aldehyde Lock Mass



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Eurofins Knoxville

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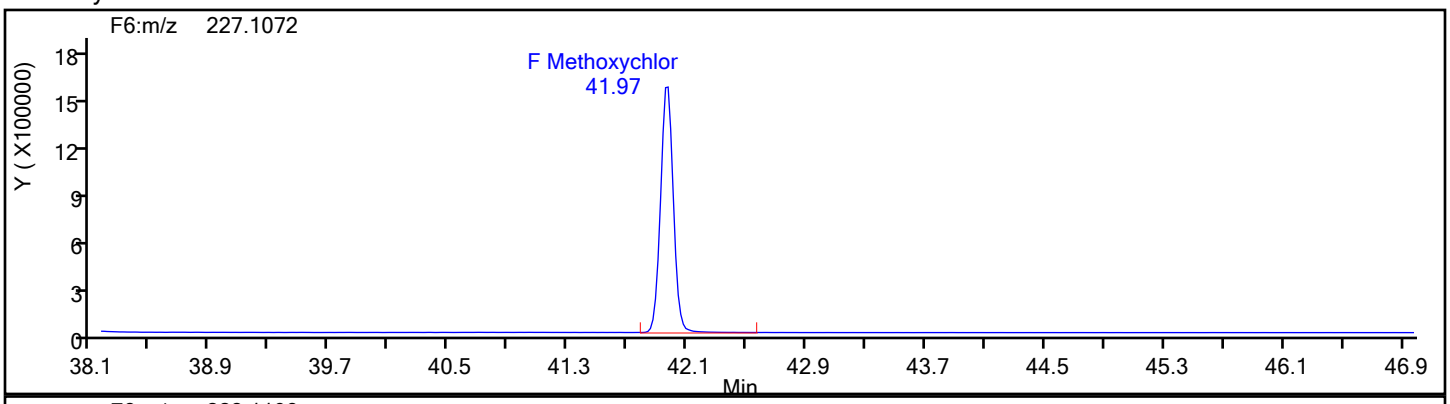

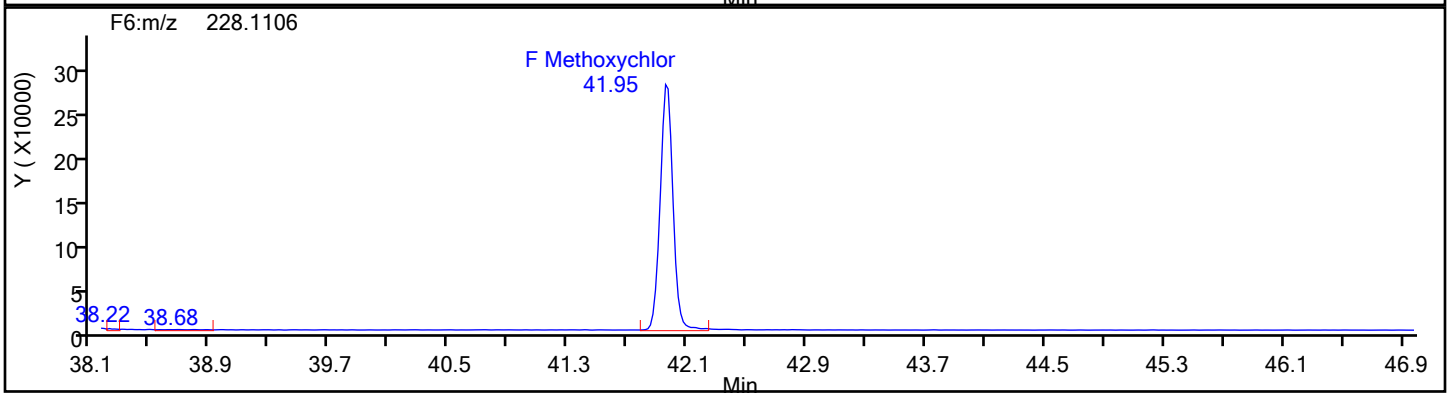

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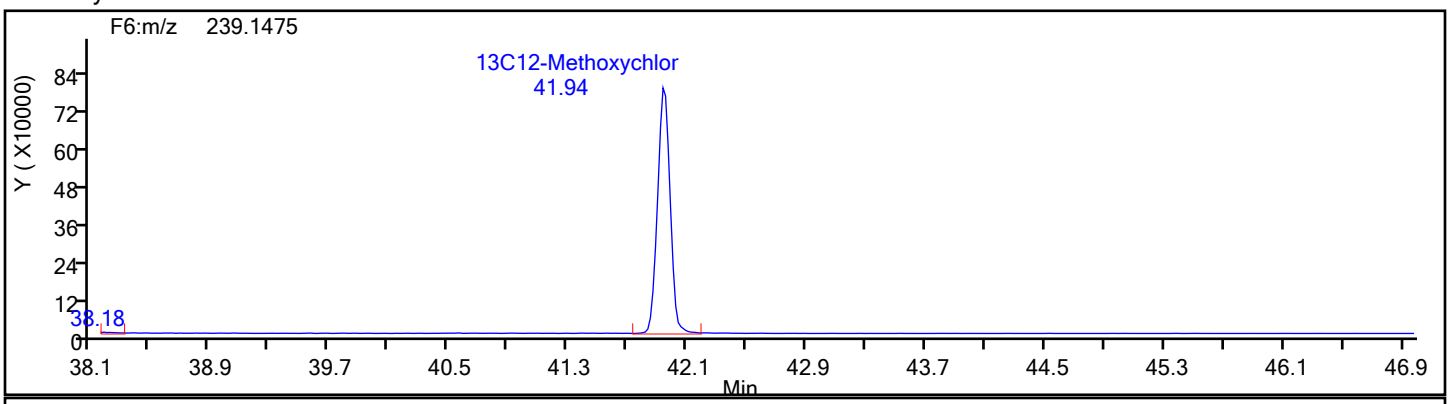

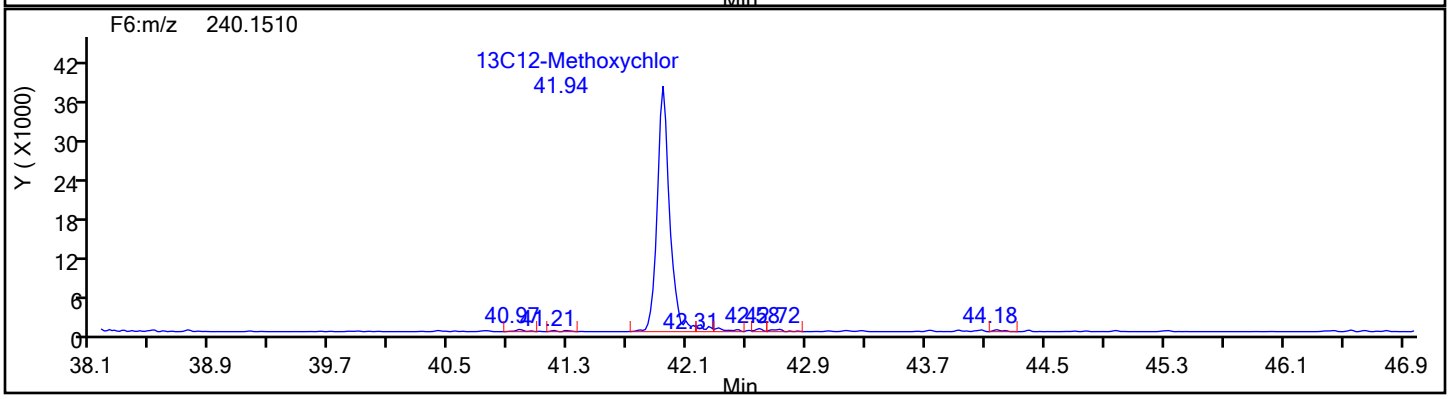

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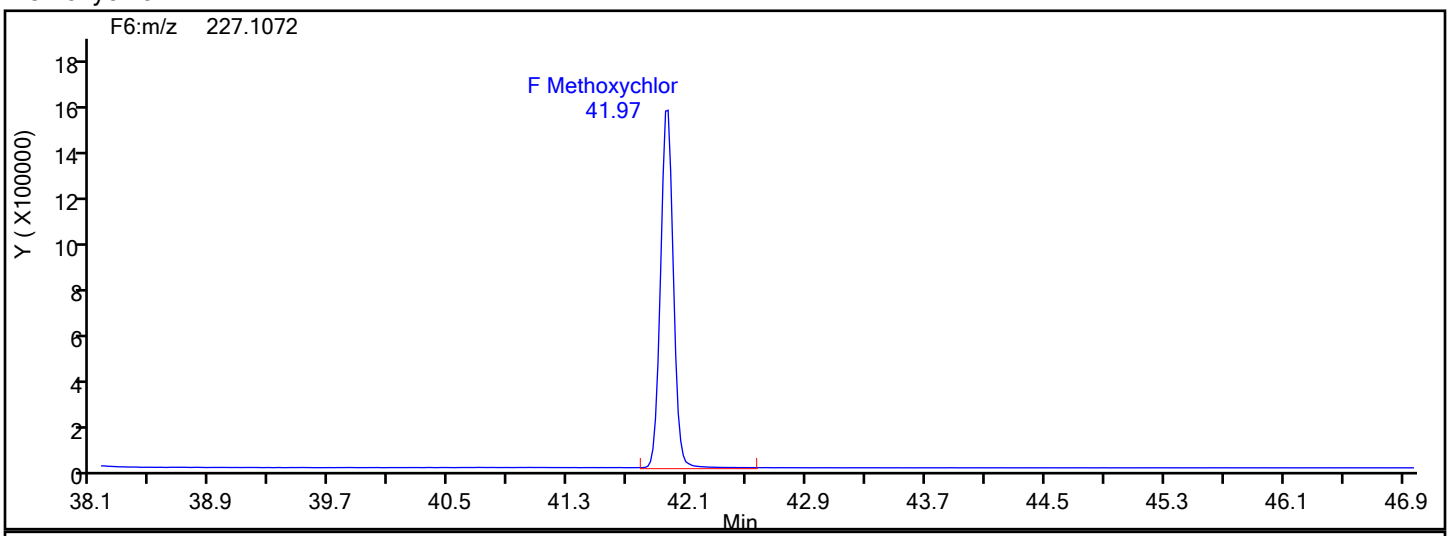
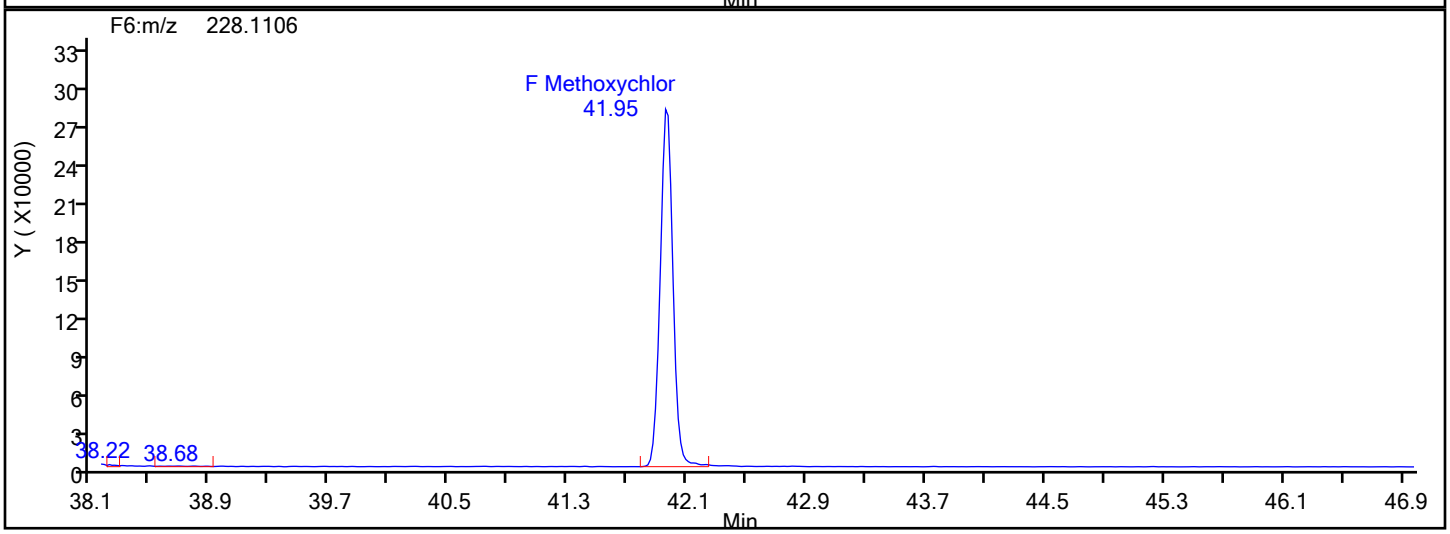
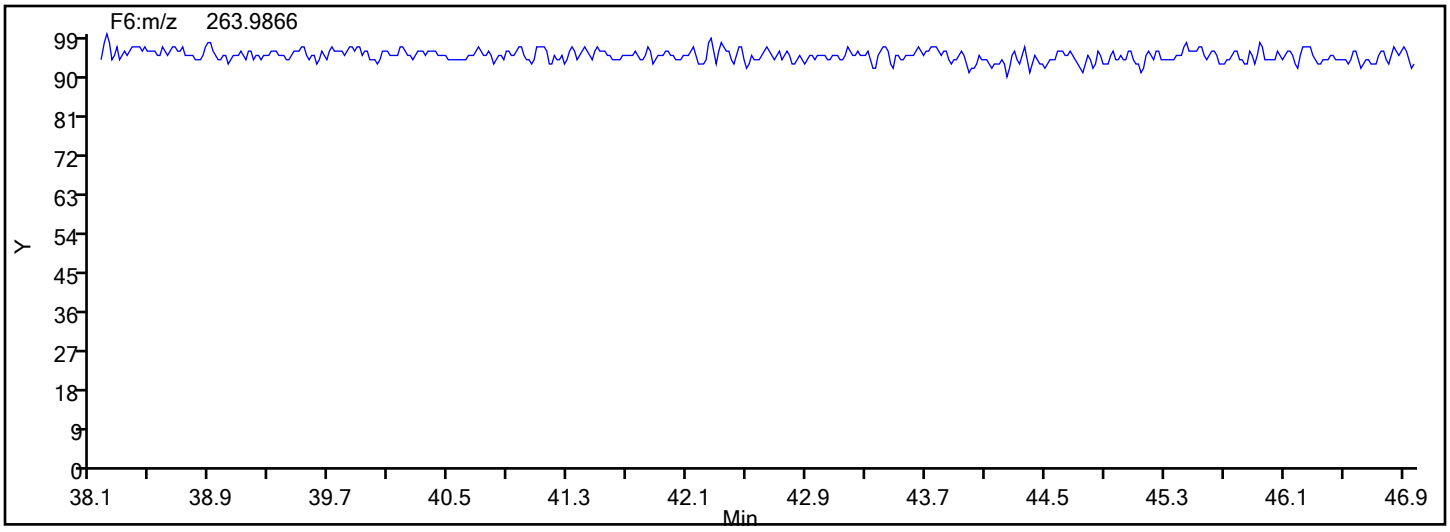




Methoxychlor Lock Mass



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Eurofins Knoxville

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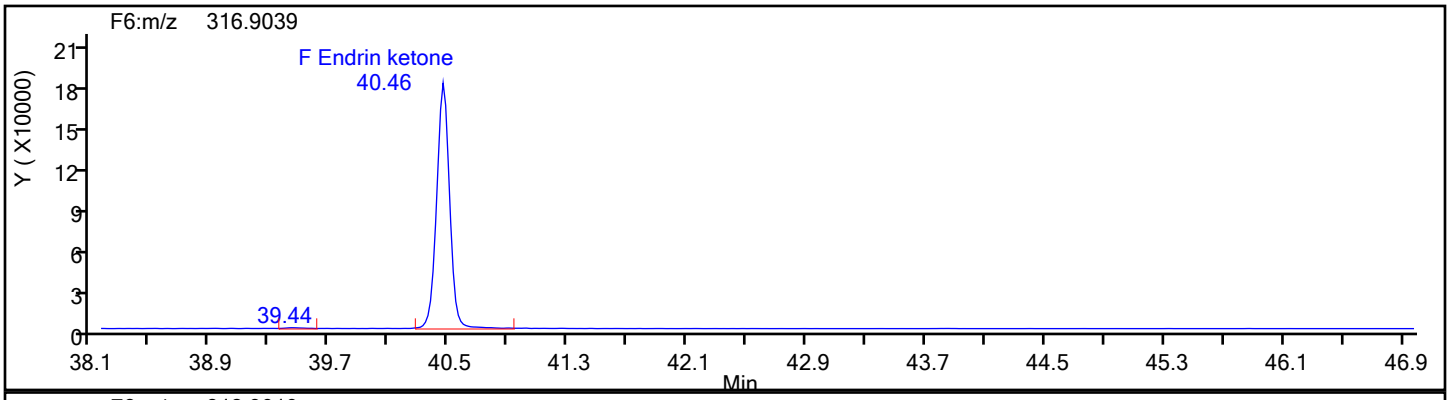

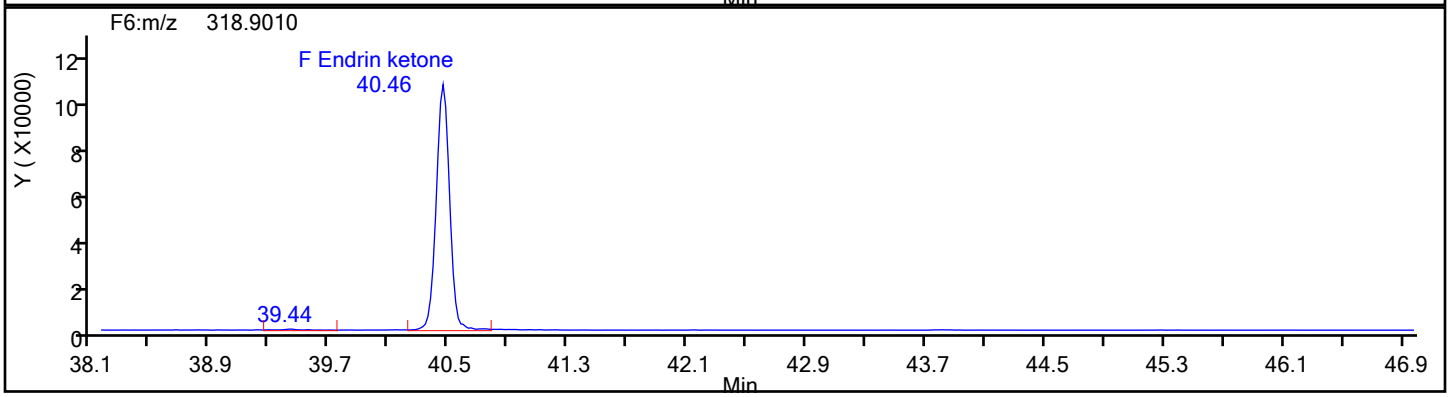

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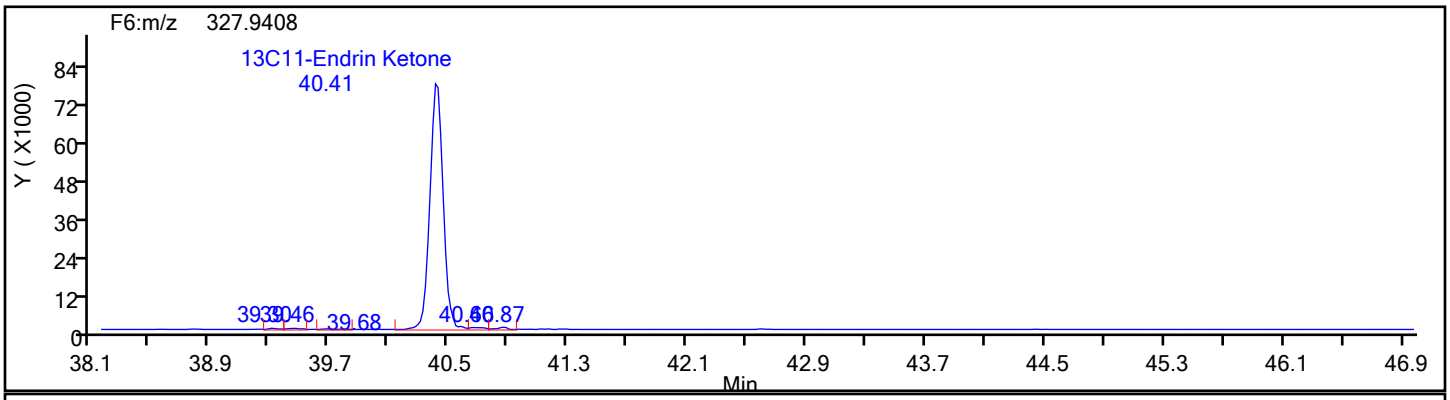

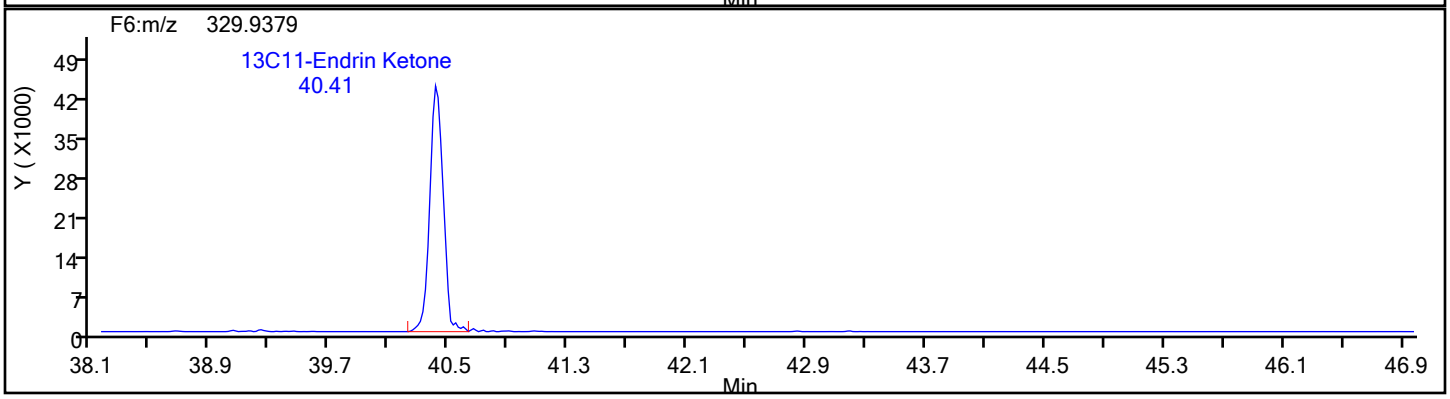

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Eurofins Knoxville

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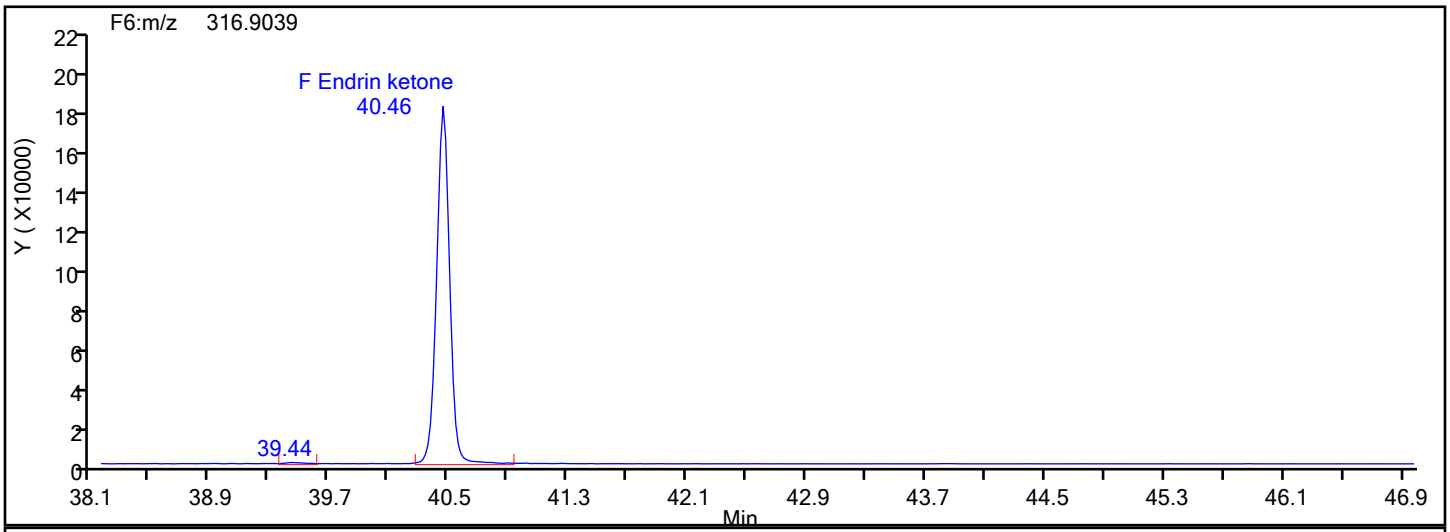
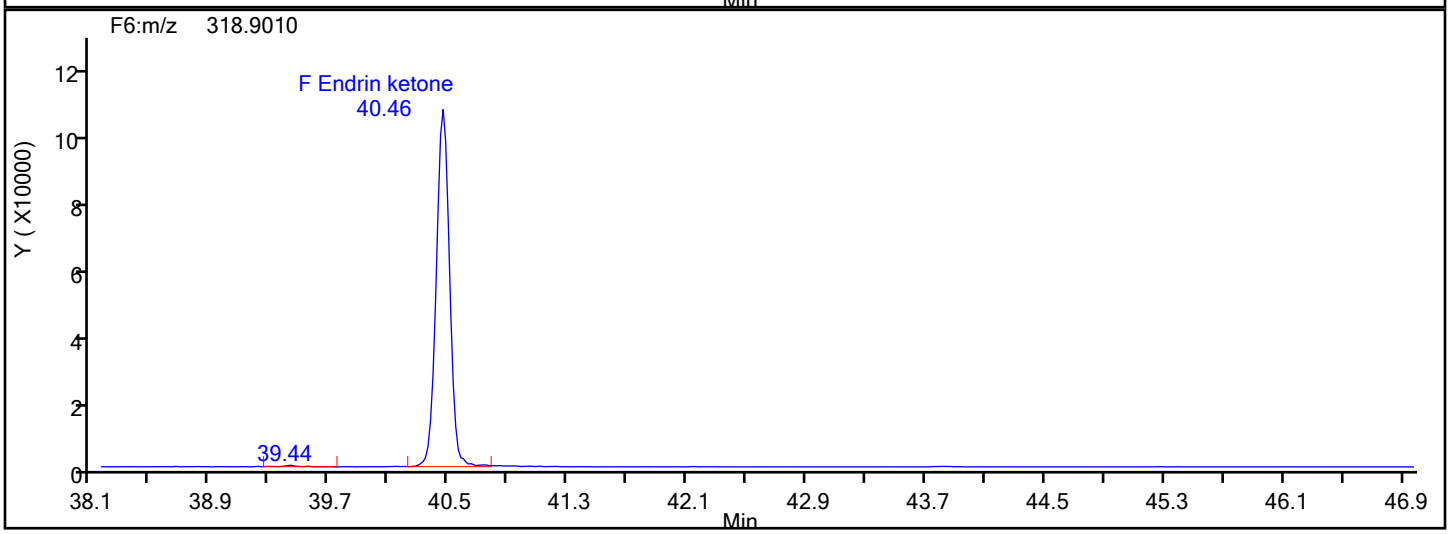
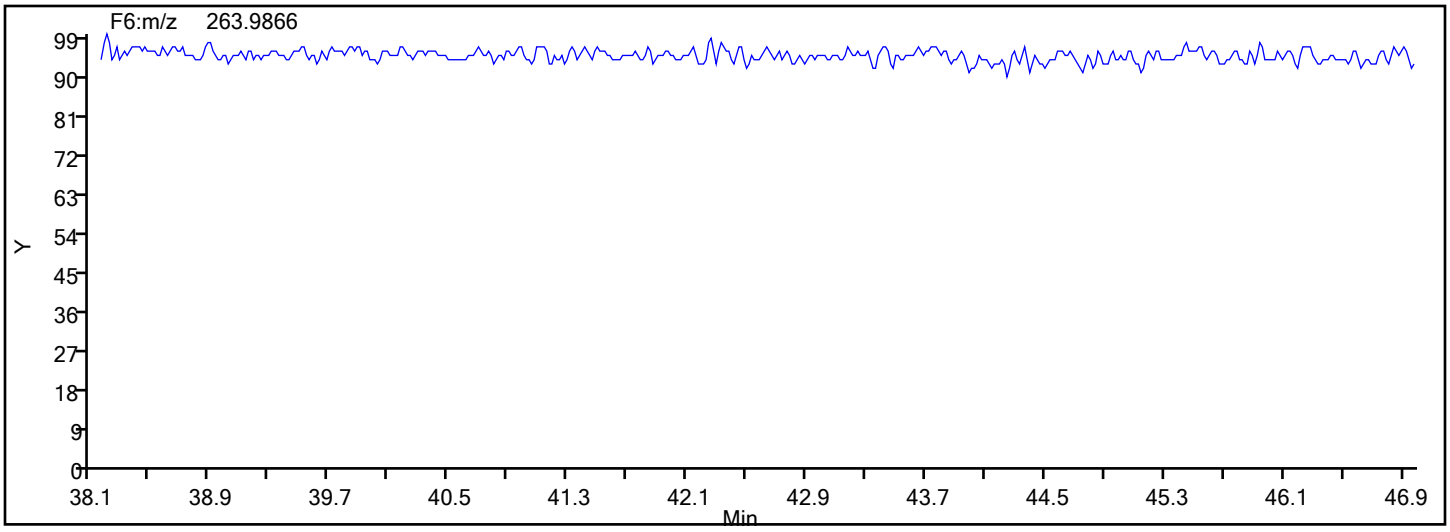




Endrin ketone Lock Mass



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Eurofins Knoxville

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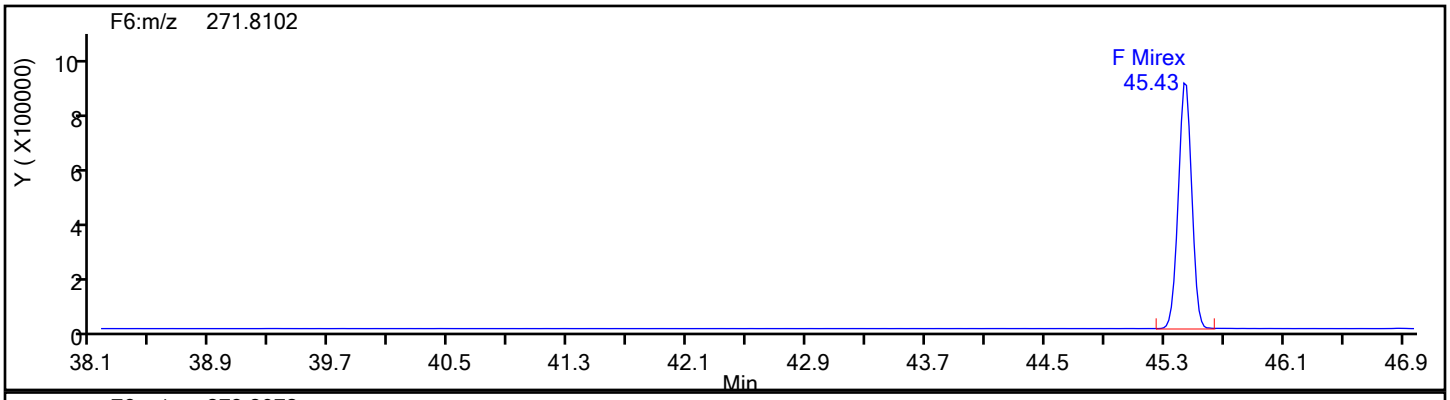

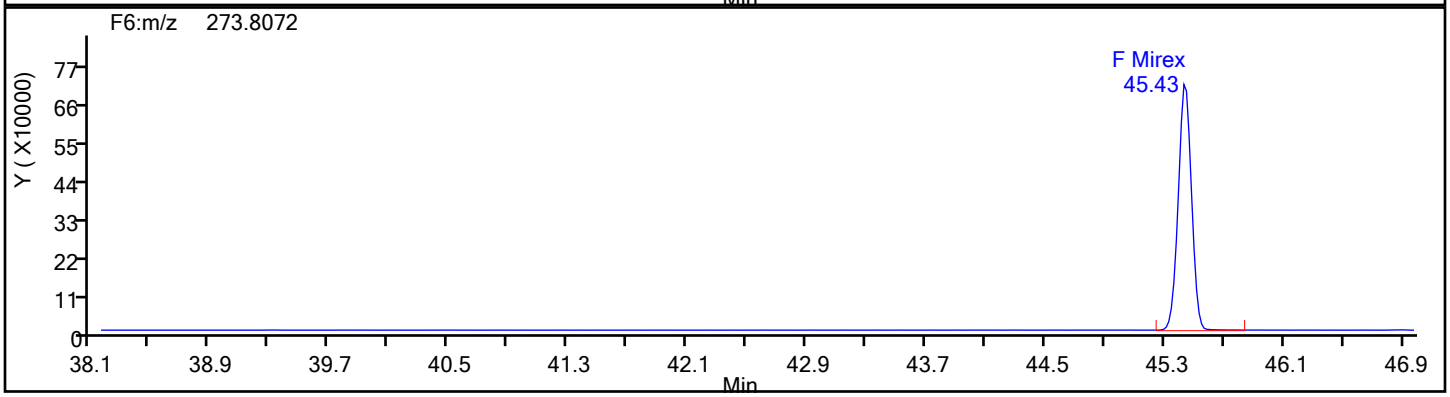

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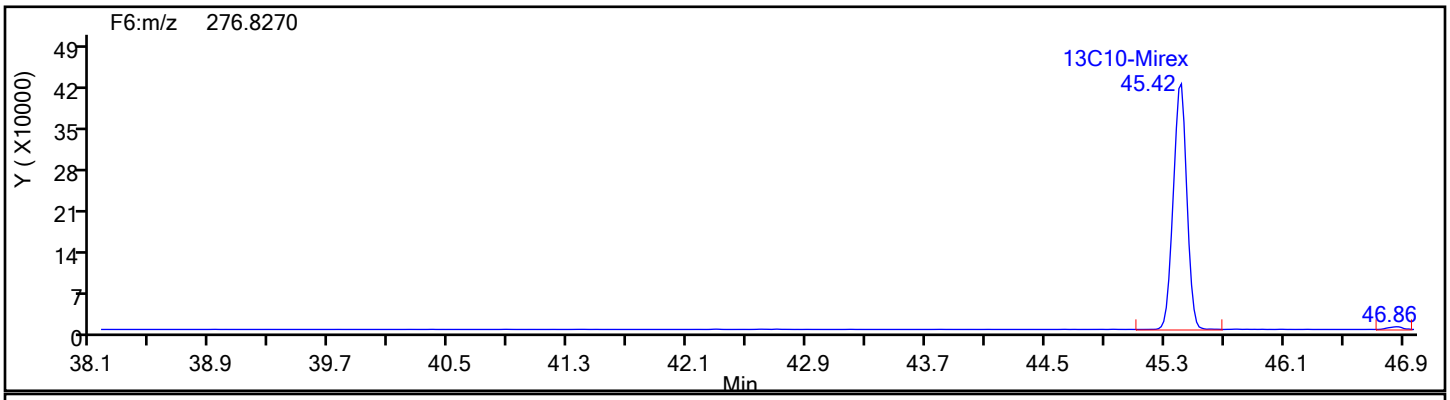

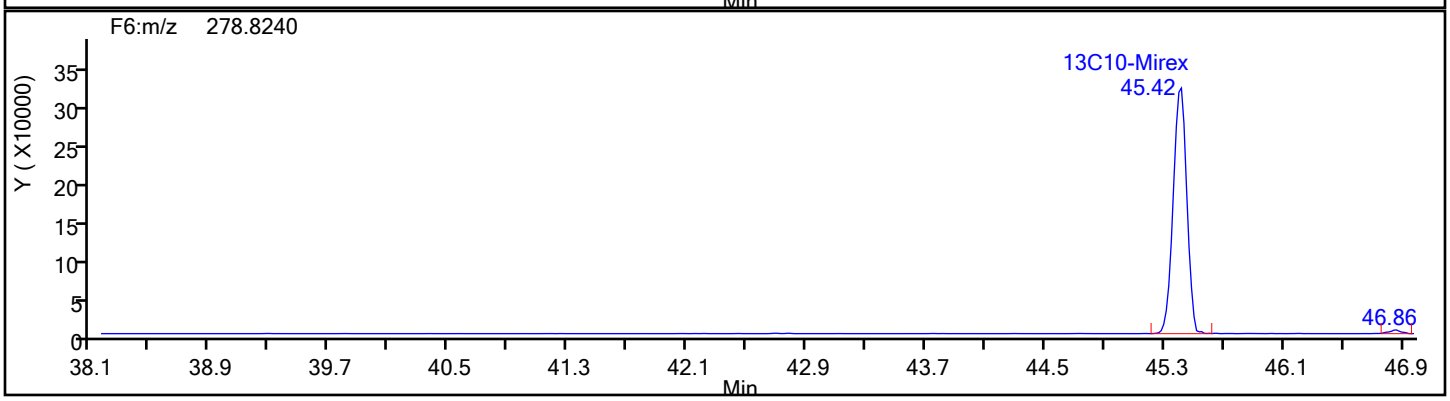

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Eurofins Knoxville

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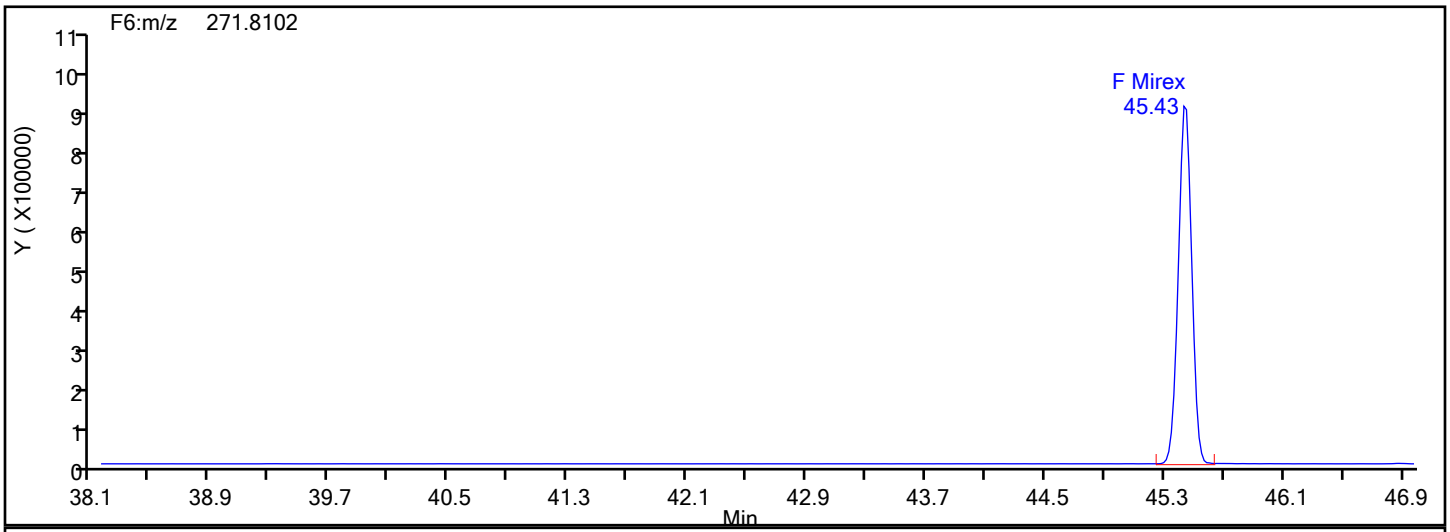

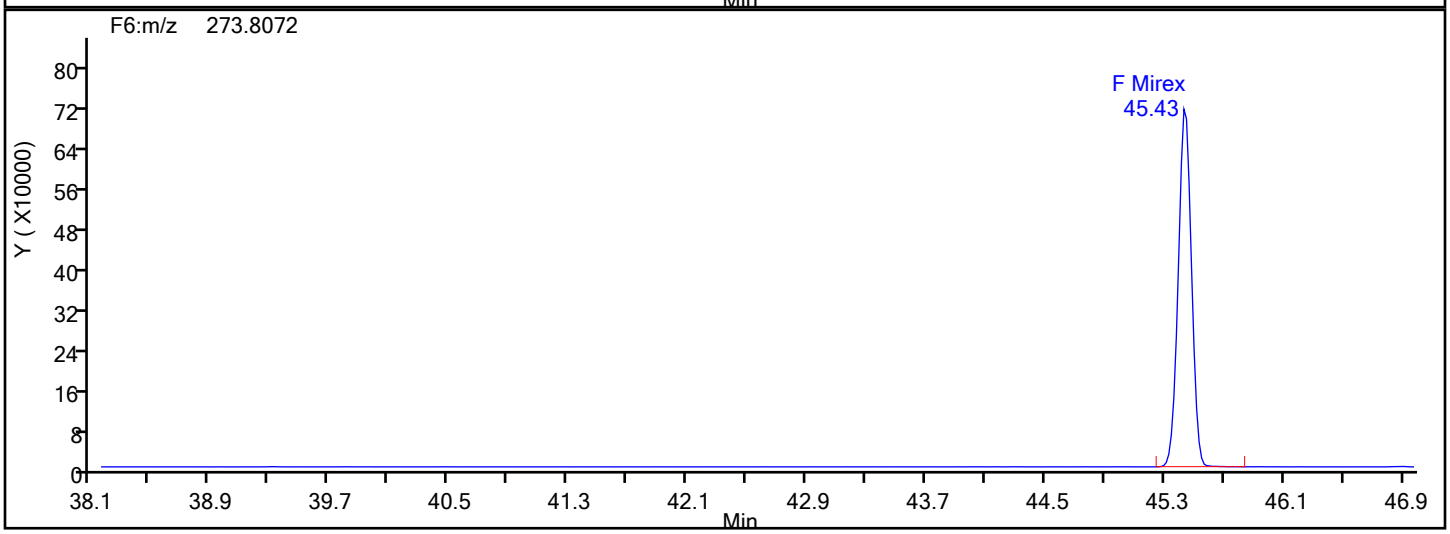

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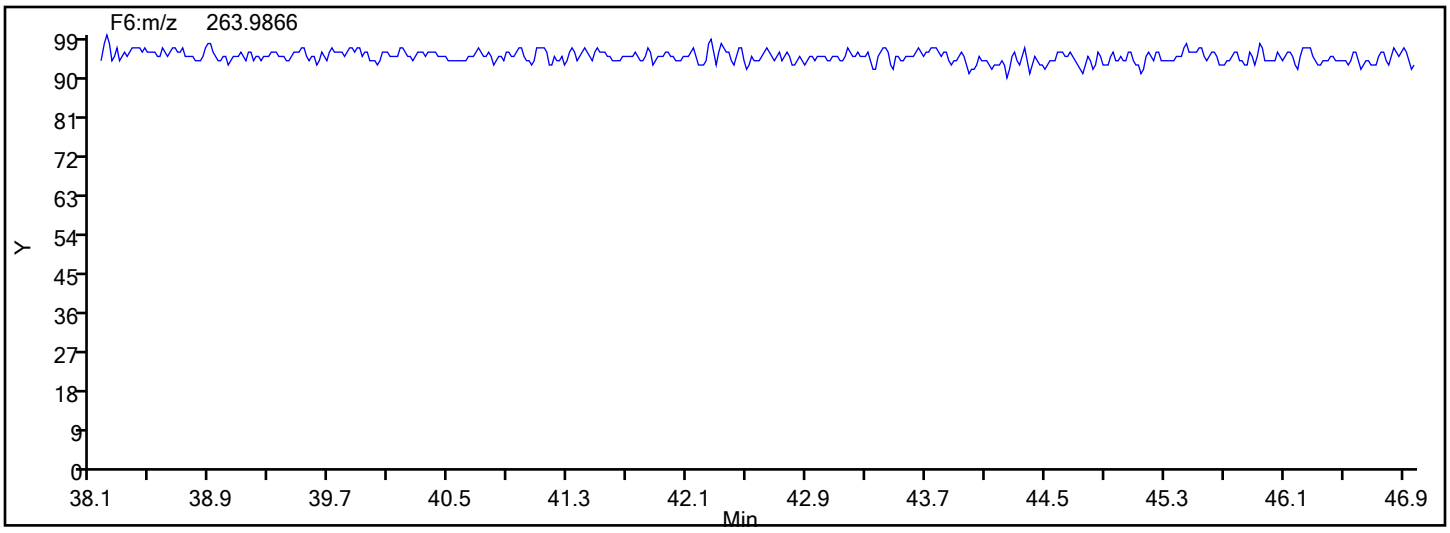

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Eurofins Knoxville

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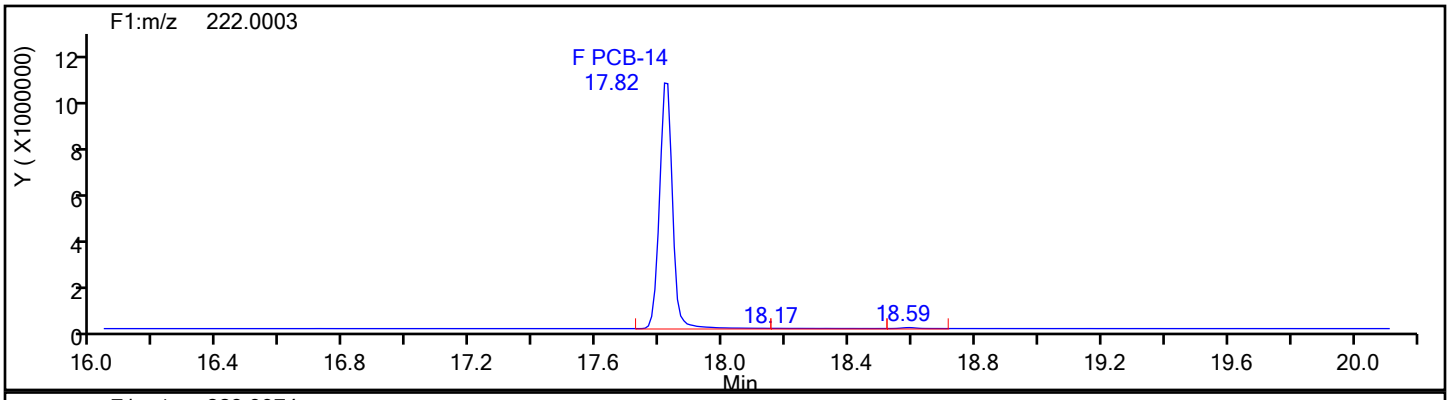
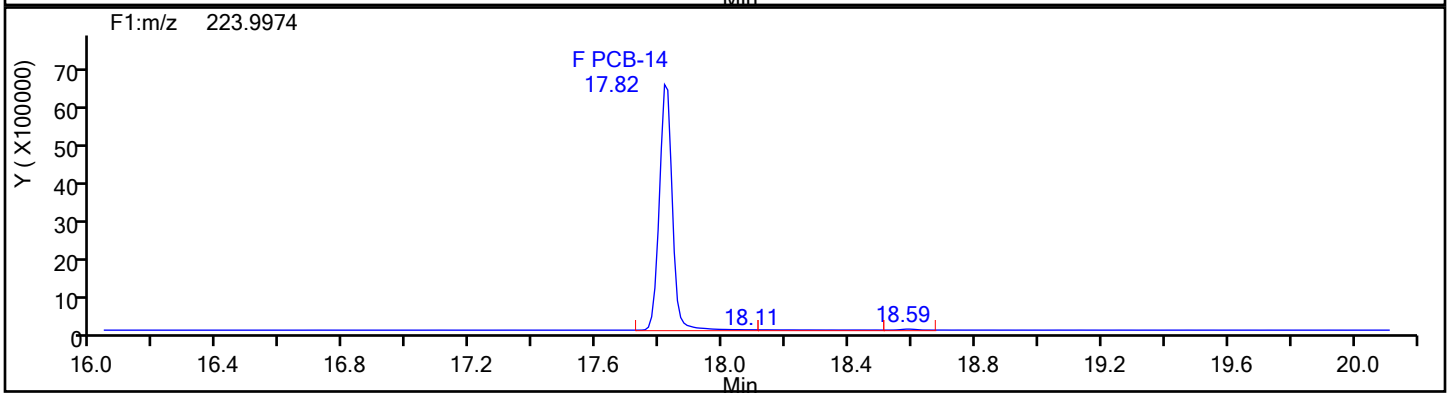
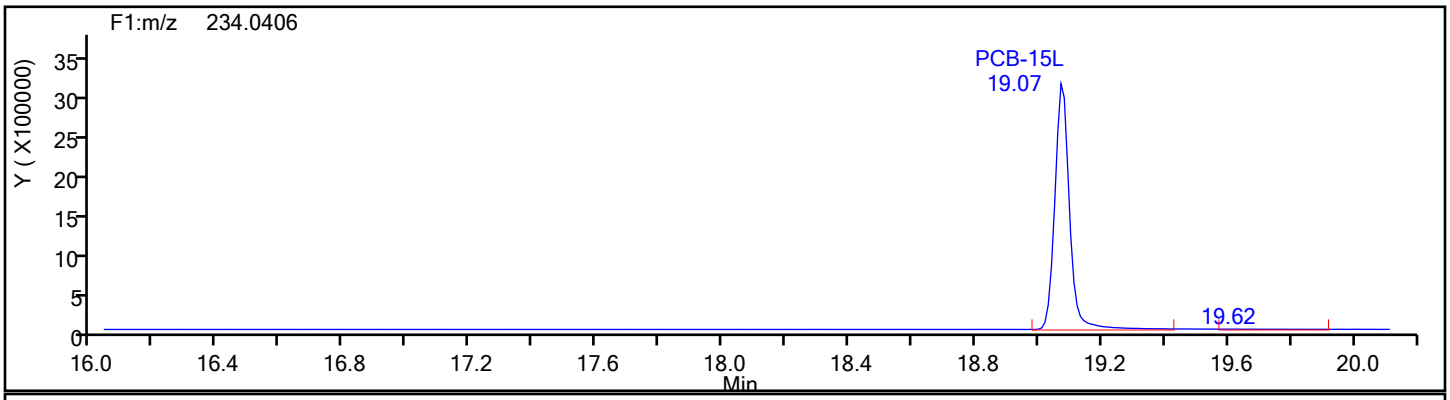
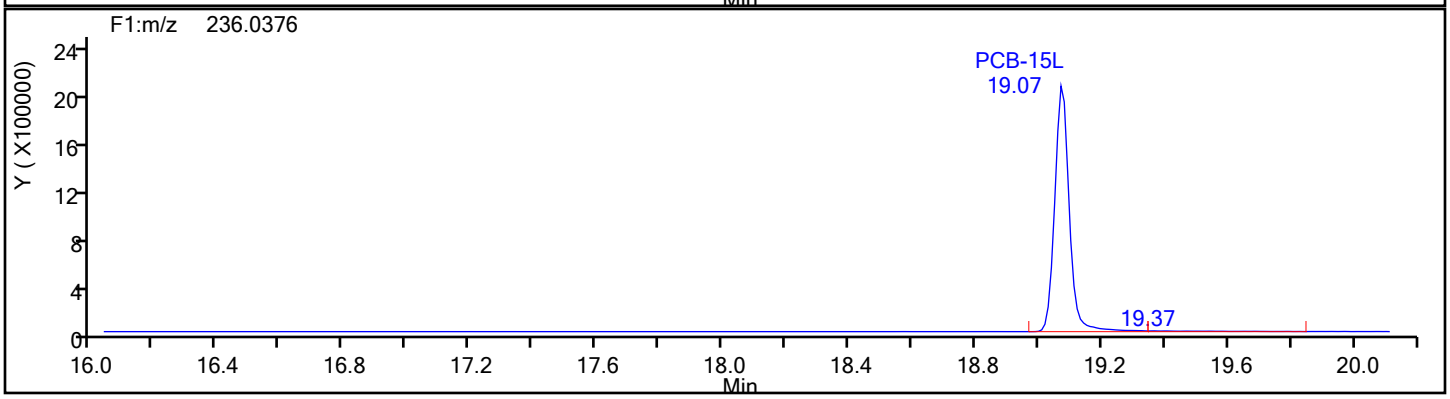
PCB-14





PCB-14 Standards



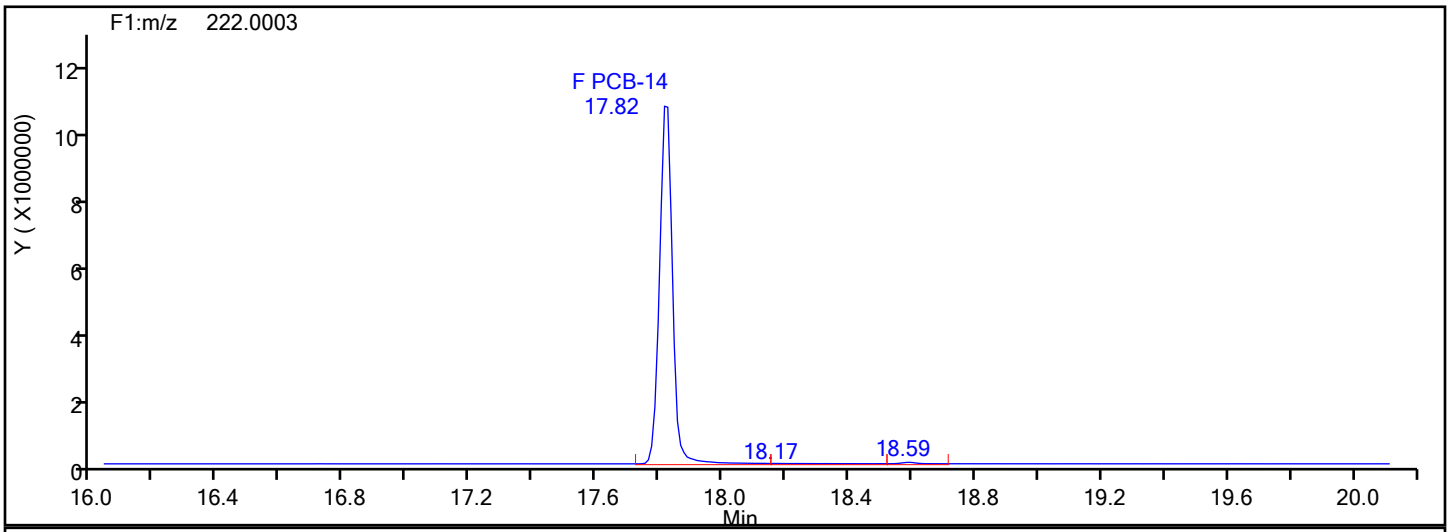


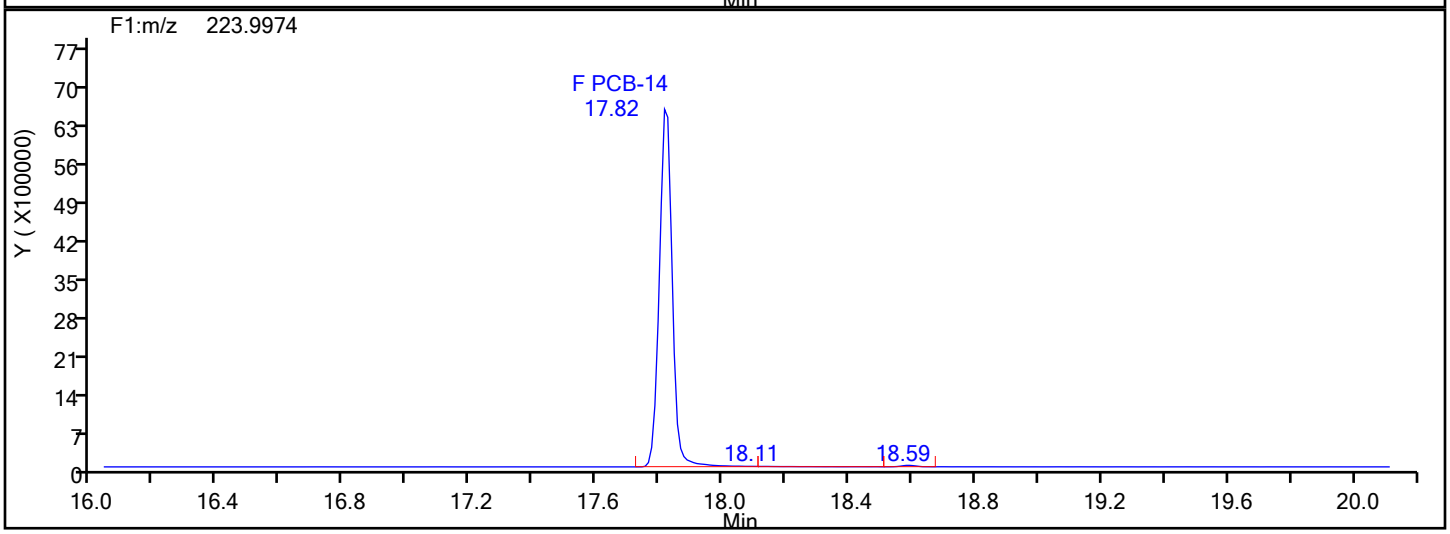
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

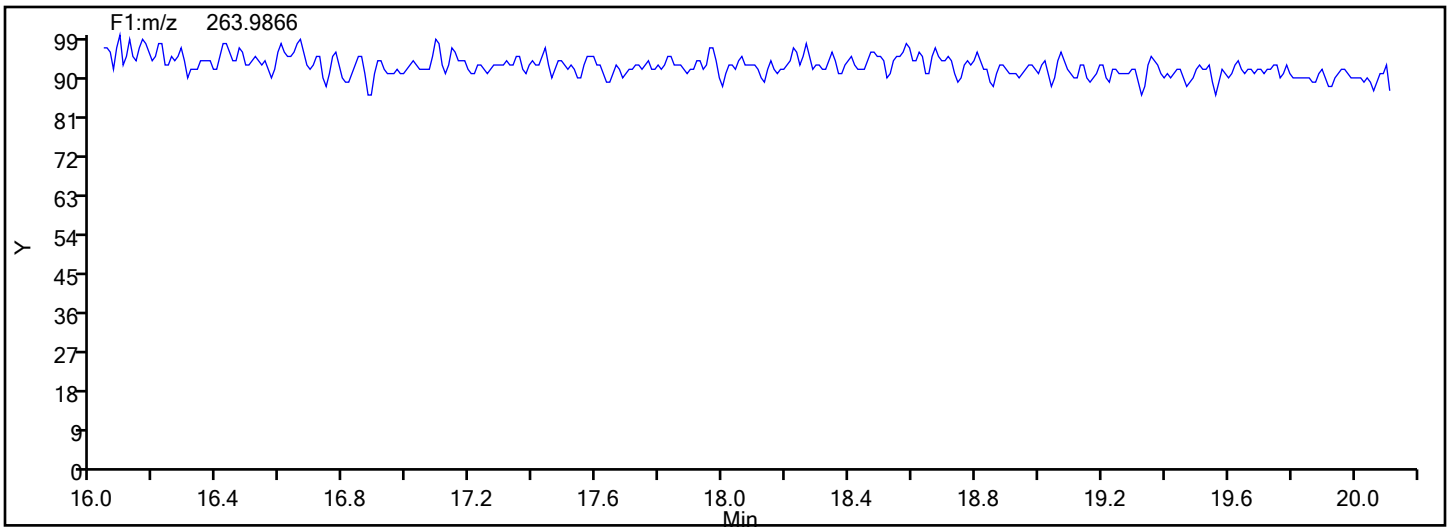
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass

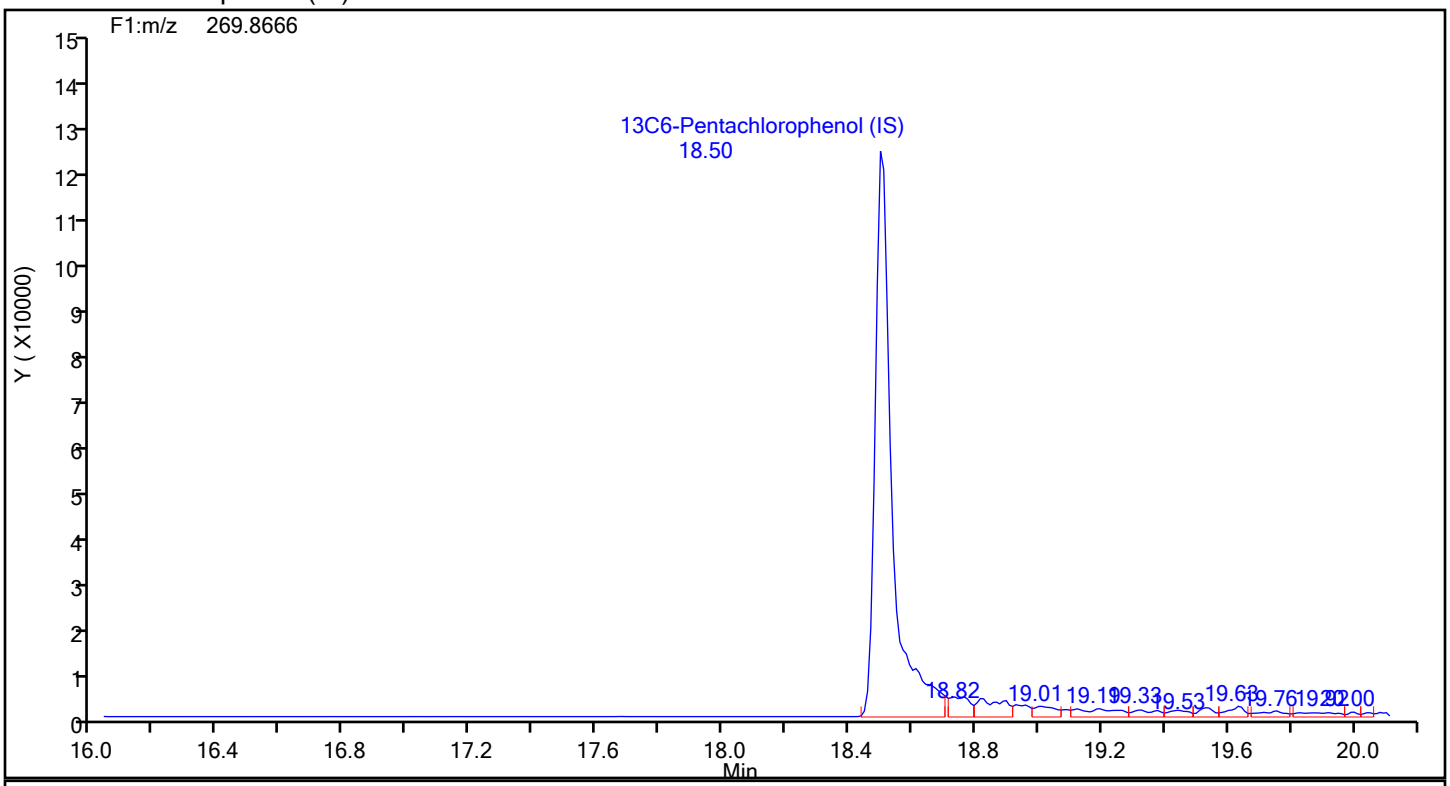


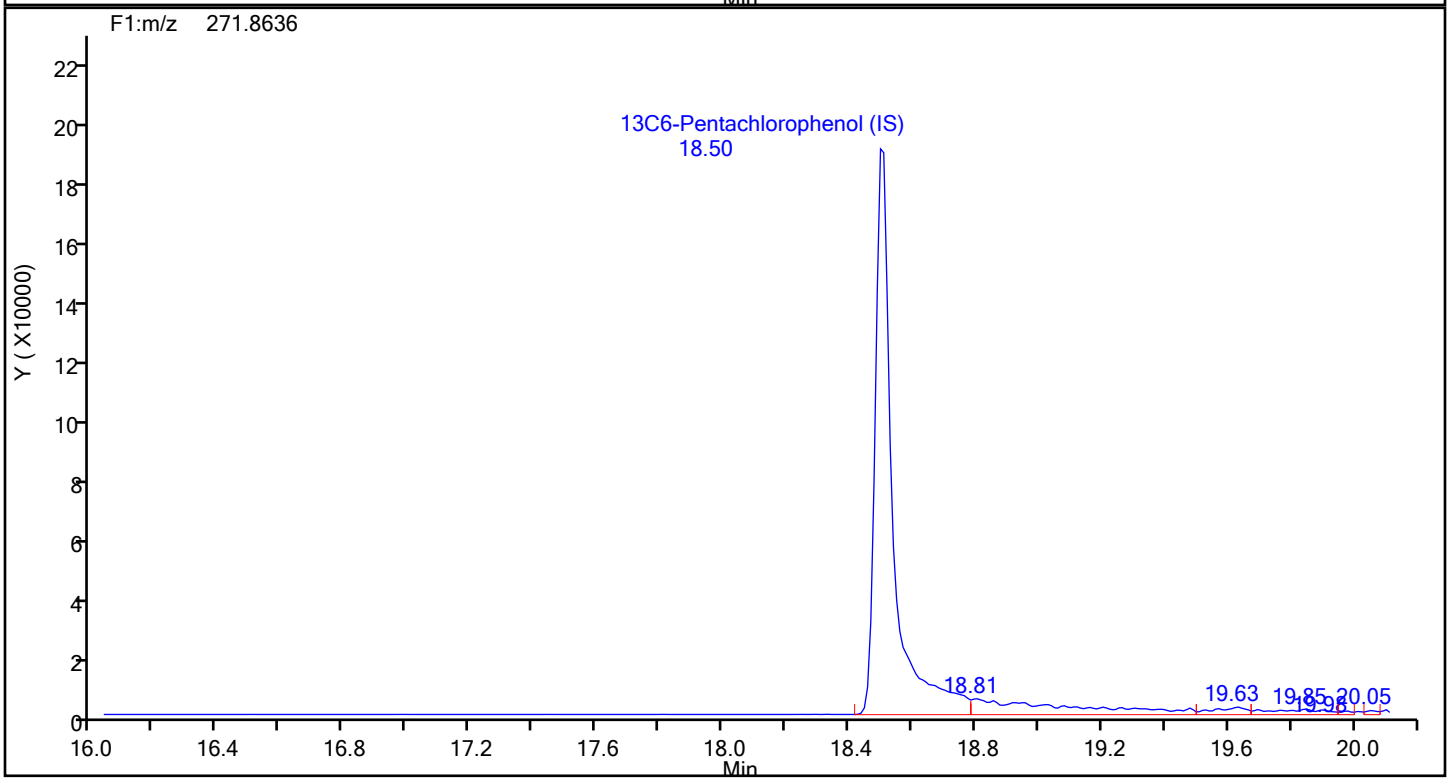
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Manual Integration/User Assign Peak Report

Eurofins Knoxville

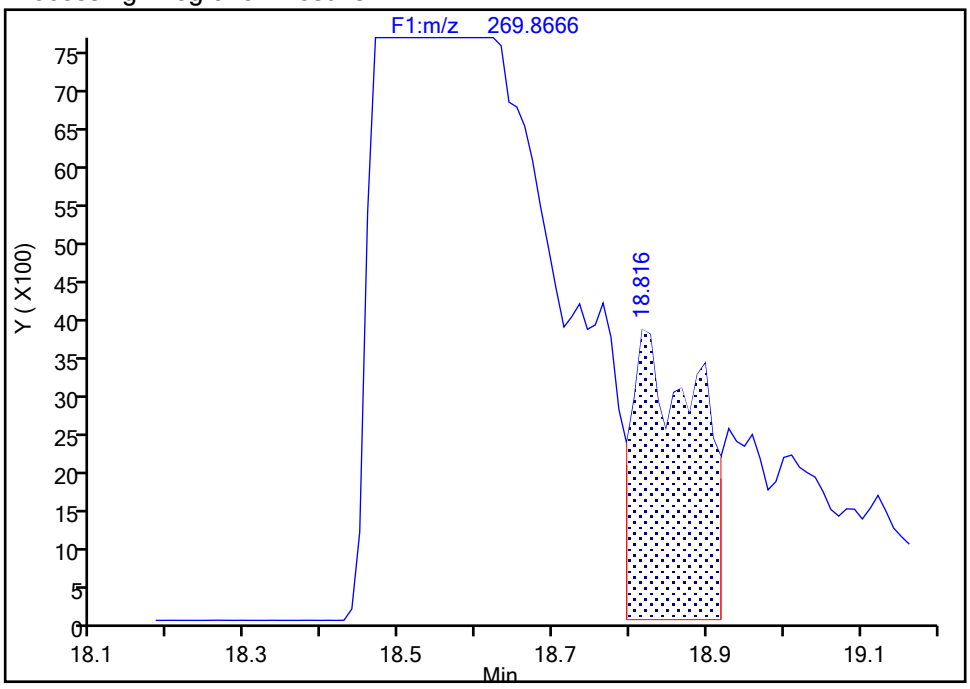
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d				
Injection Date:	28-Mar-2025 10:14:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

Processing Integration Results

RT: 18.82
Area: 21850
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
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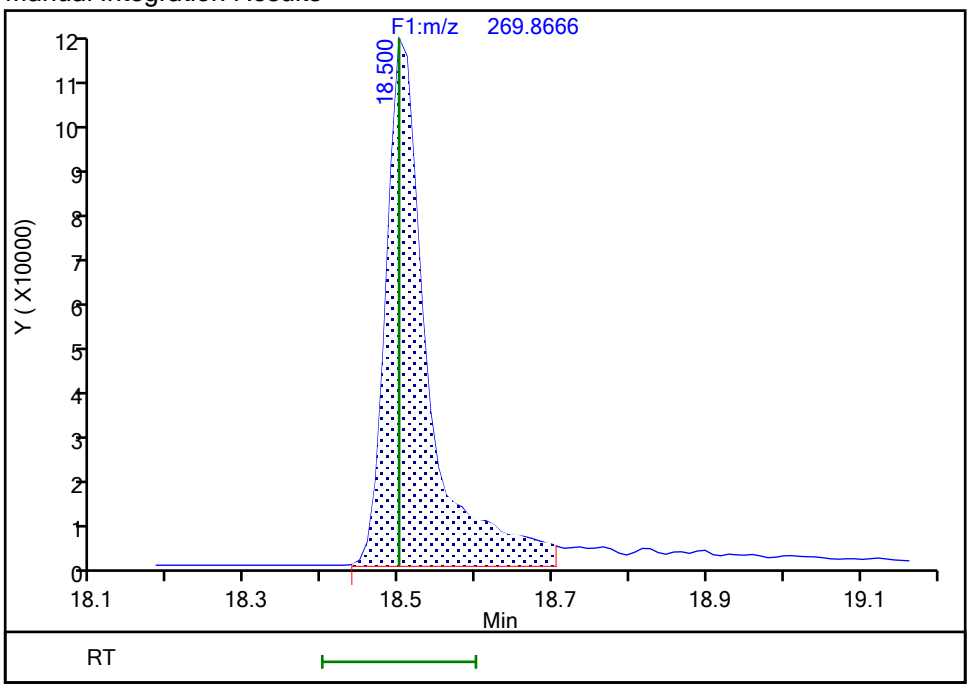
Amount: 500.0000
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 13:47:23 -04:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

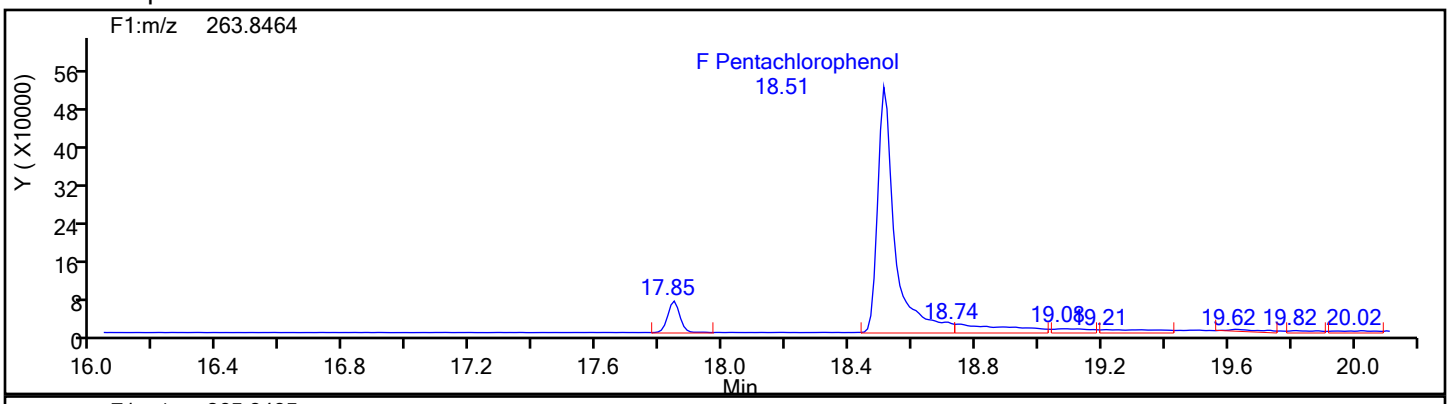
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

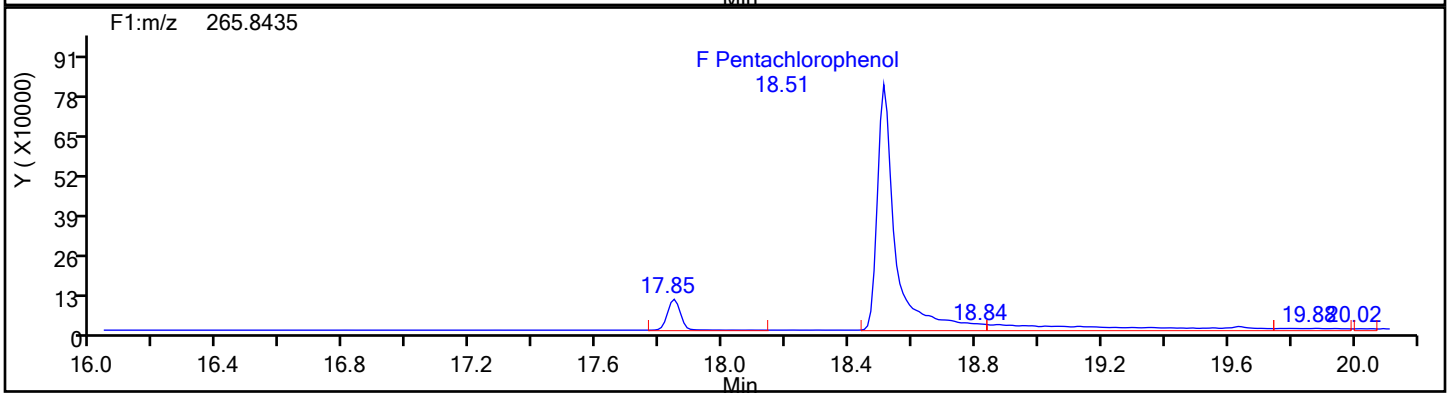
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

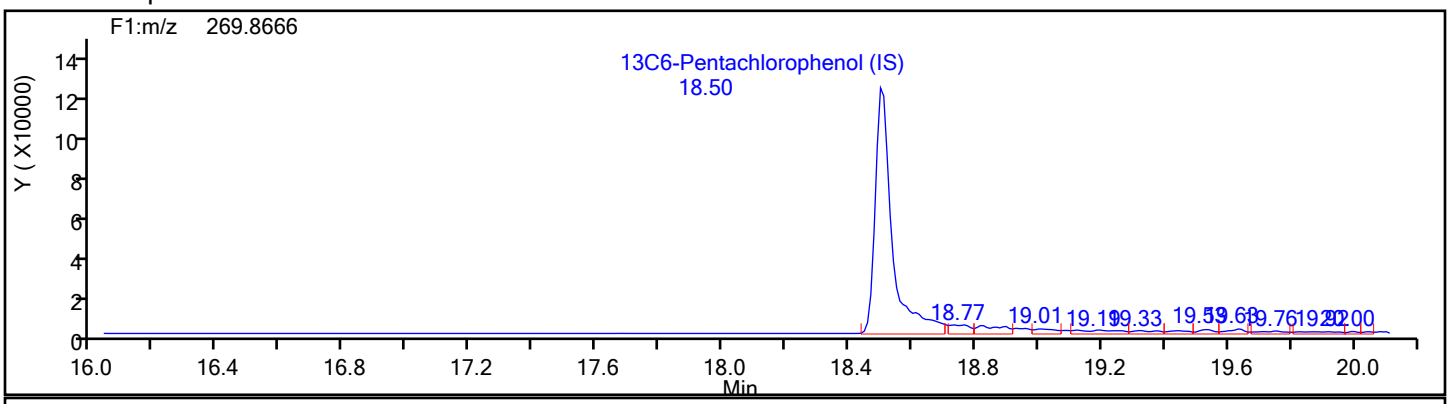
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

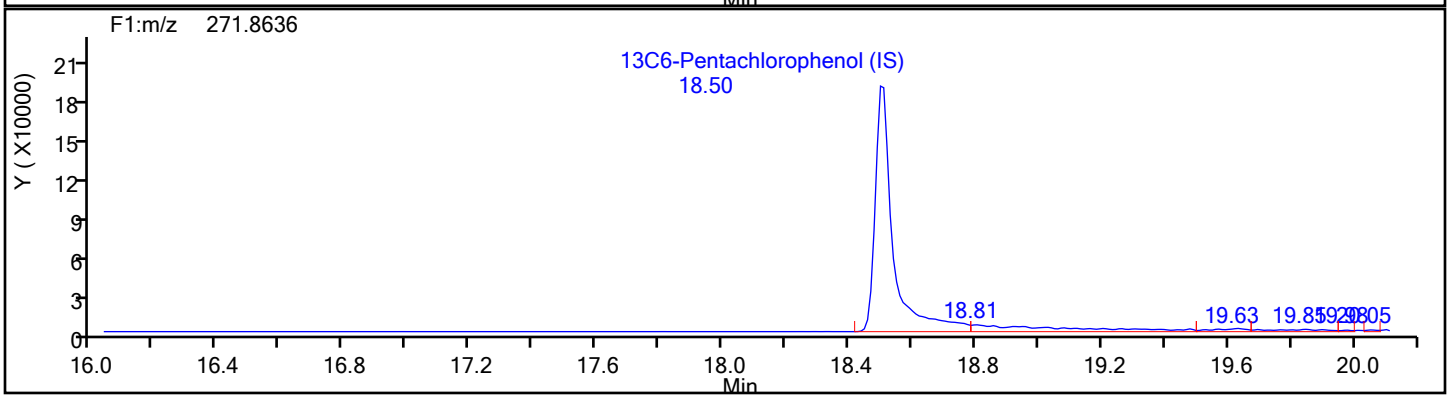
Pentachlorophenol





Pentachlorophenol Standards



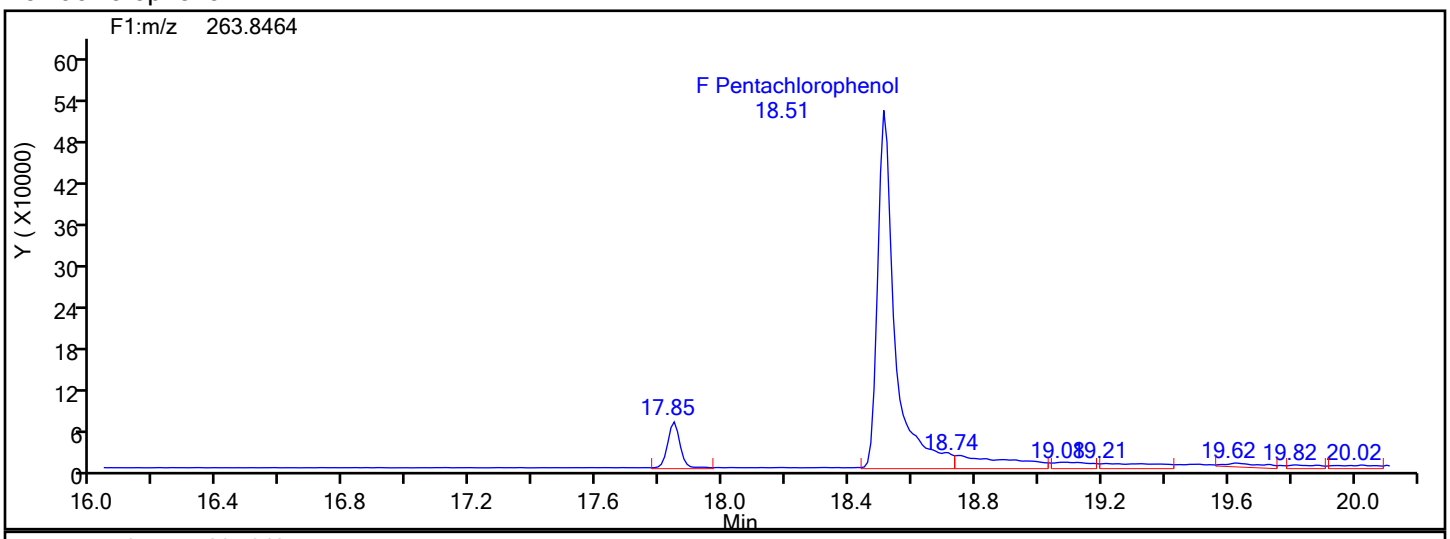


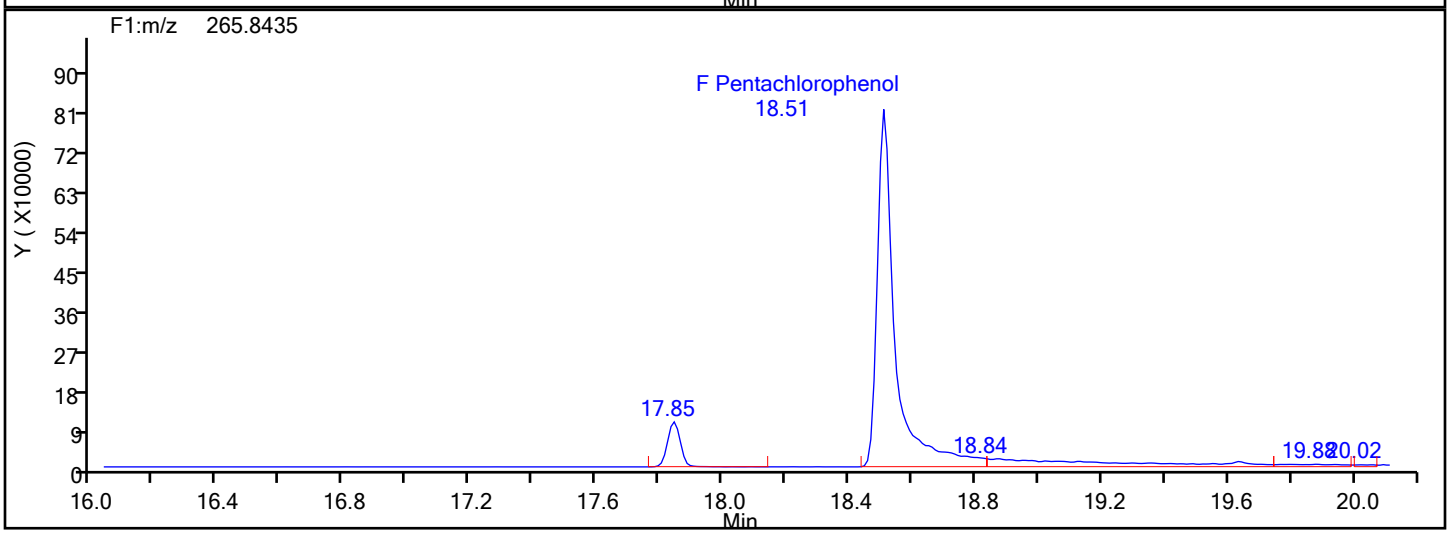
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

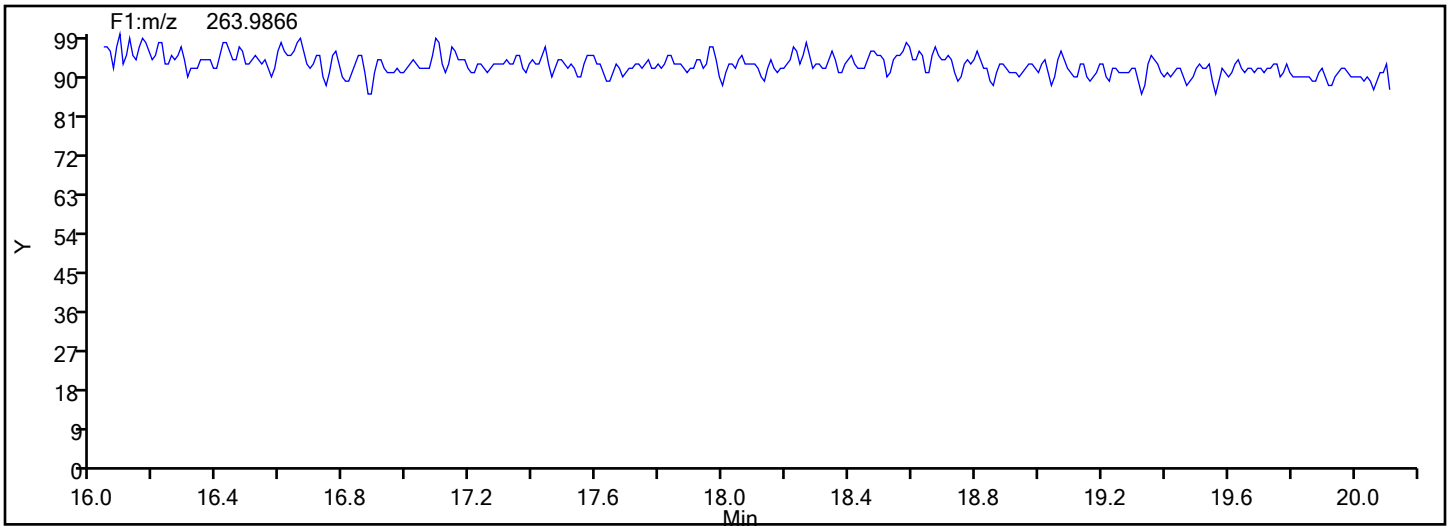
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d
Injection Date: 28-Mar-2025 10:14:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Eurofins Knoxville

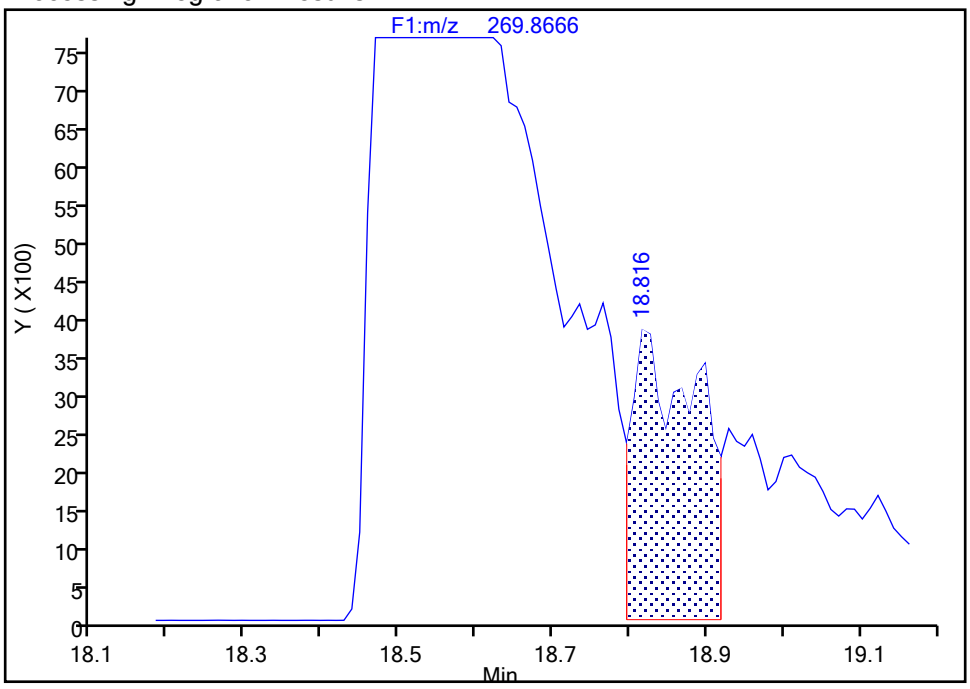
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d				
Injection Date:	28-Mar-2025 10:14:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F1(16.03 :20.12)		

13C6-Pentachlorophenol (IS), CAS: 85380-74-1

Signal: 1

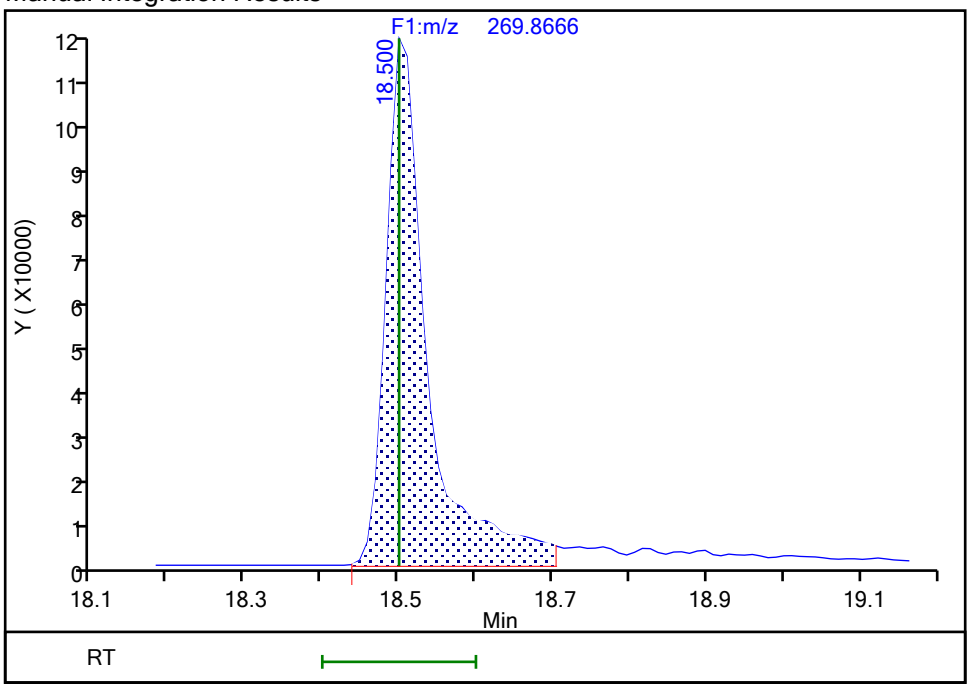
Processing Integration Results

RT: 18.82
Area: 21850
Amount: 500.0000
Amount Units: pg/ul



Manual Integration Results

RT: 18.50
Area: 446498
Amount: 500.0000
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 13:47:23 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

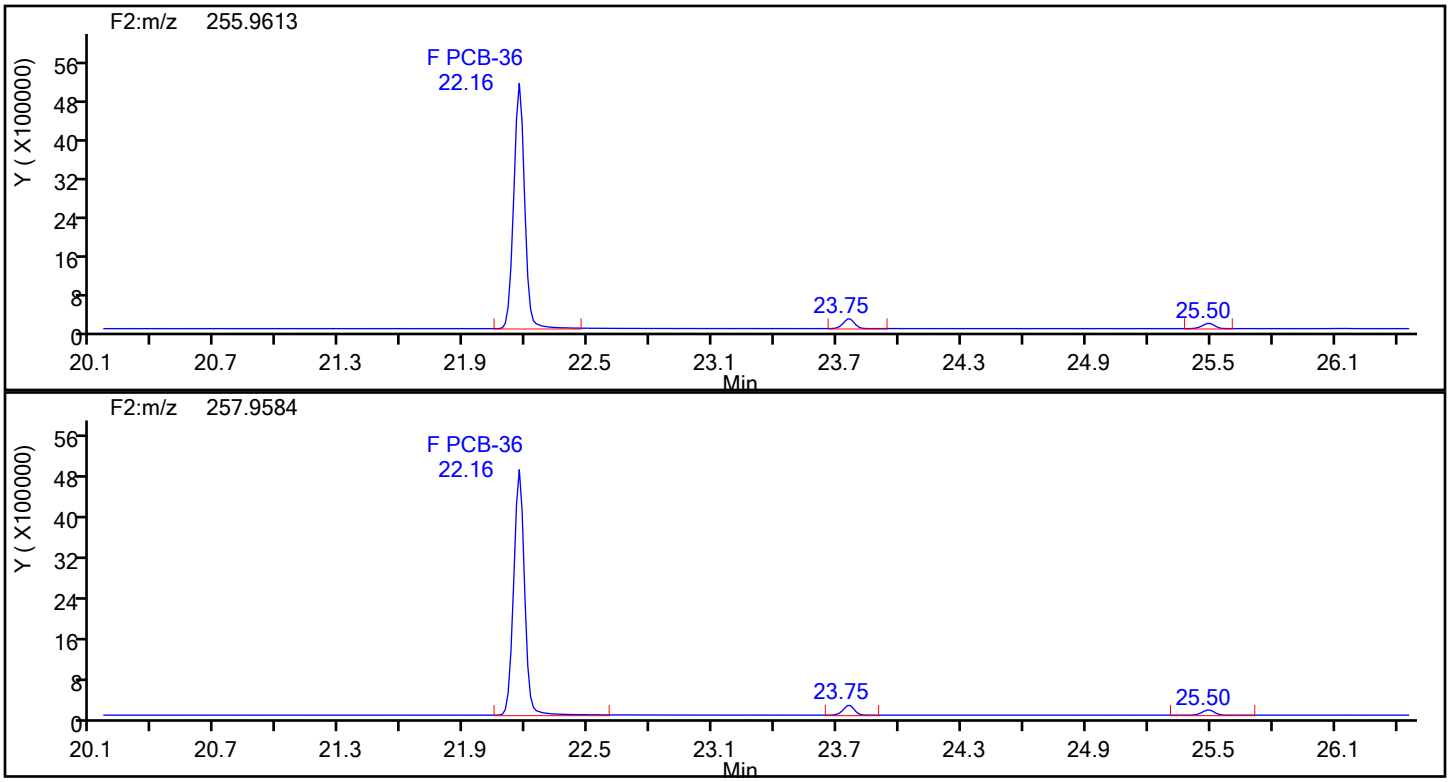
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

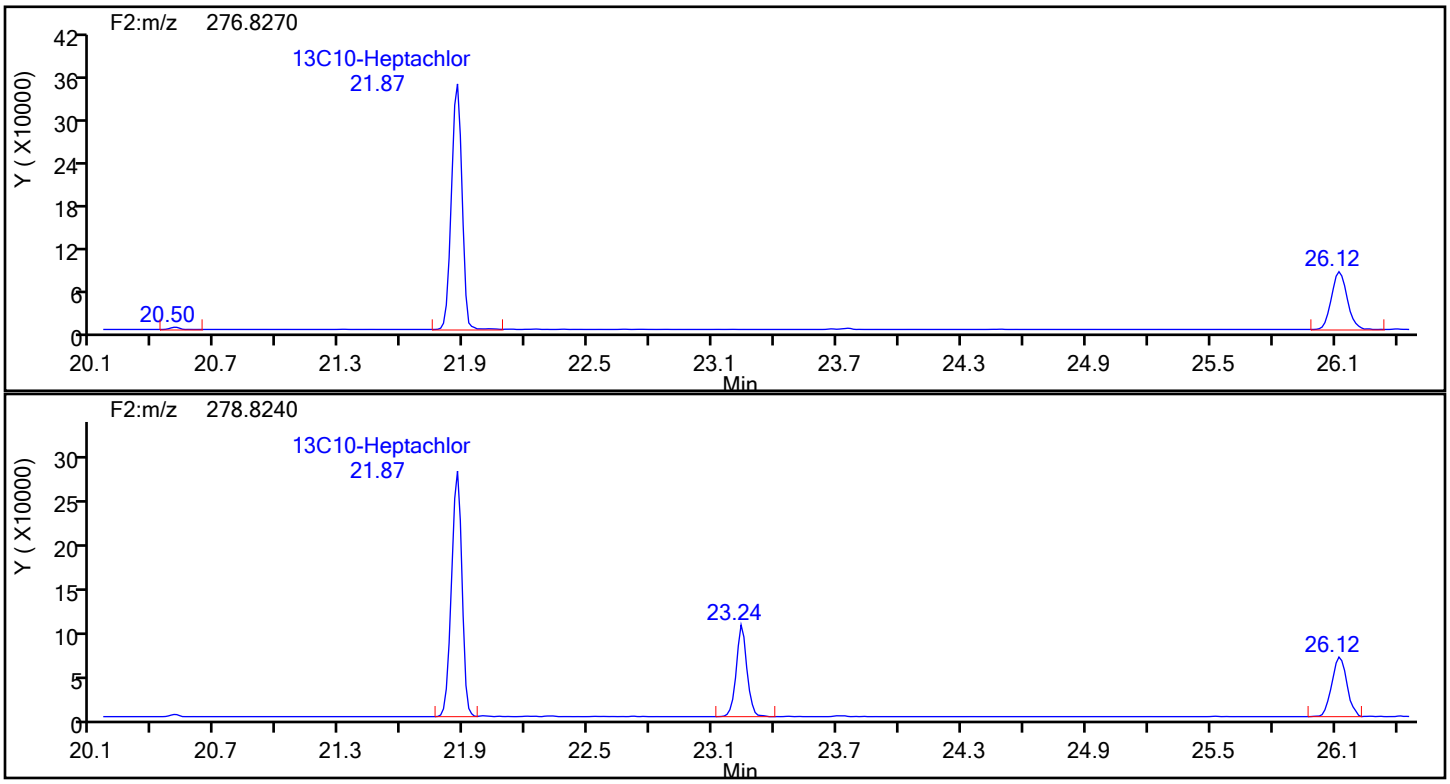
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36



PCB-36 Standards

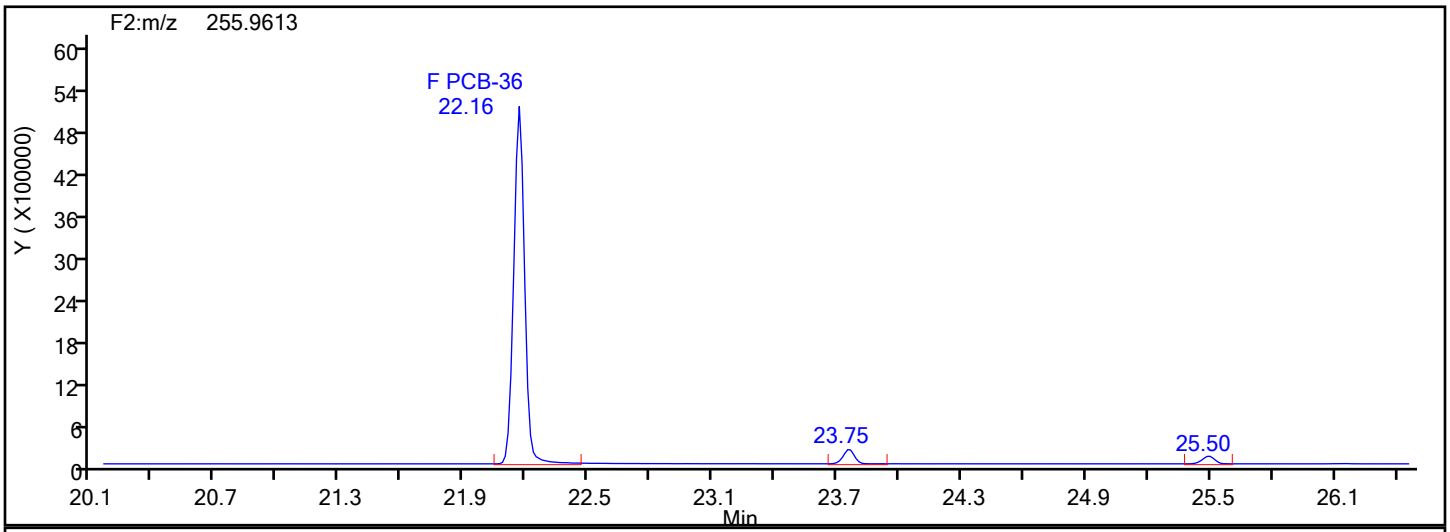


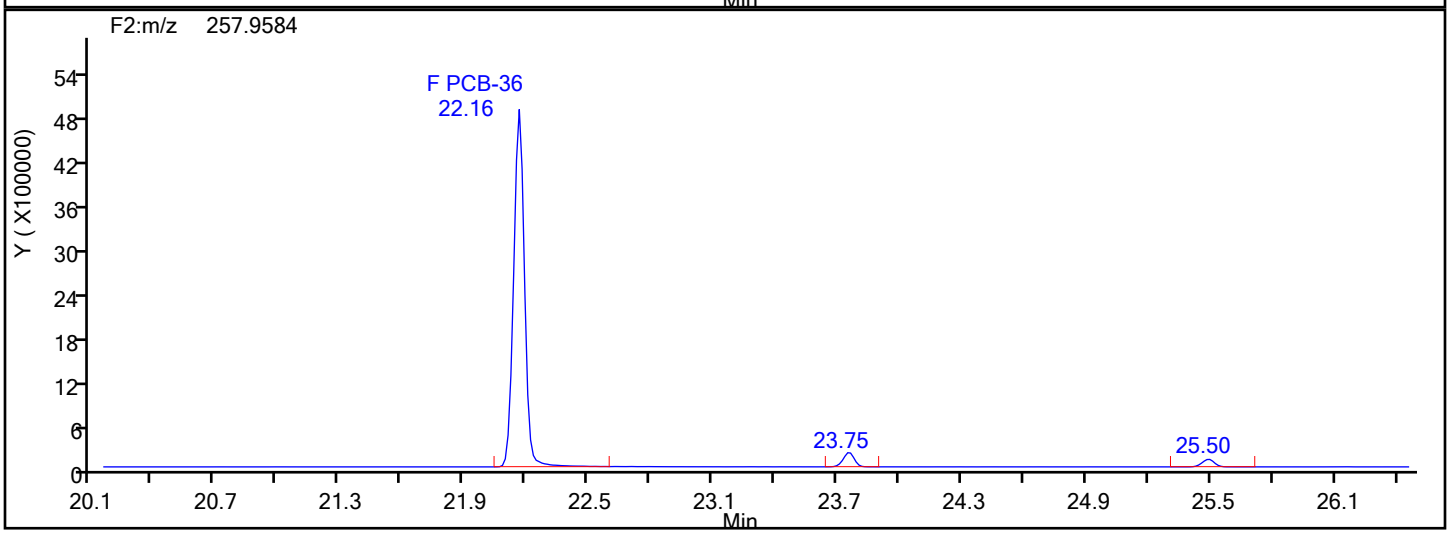
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

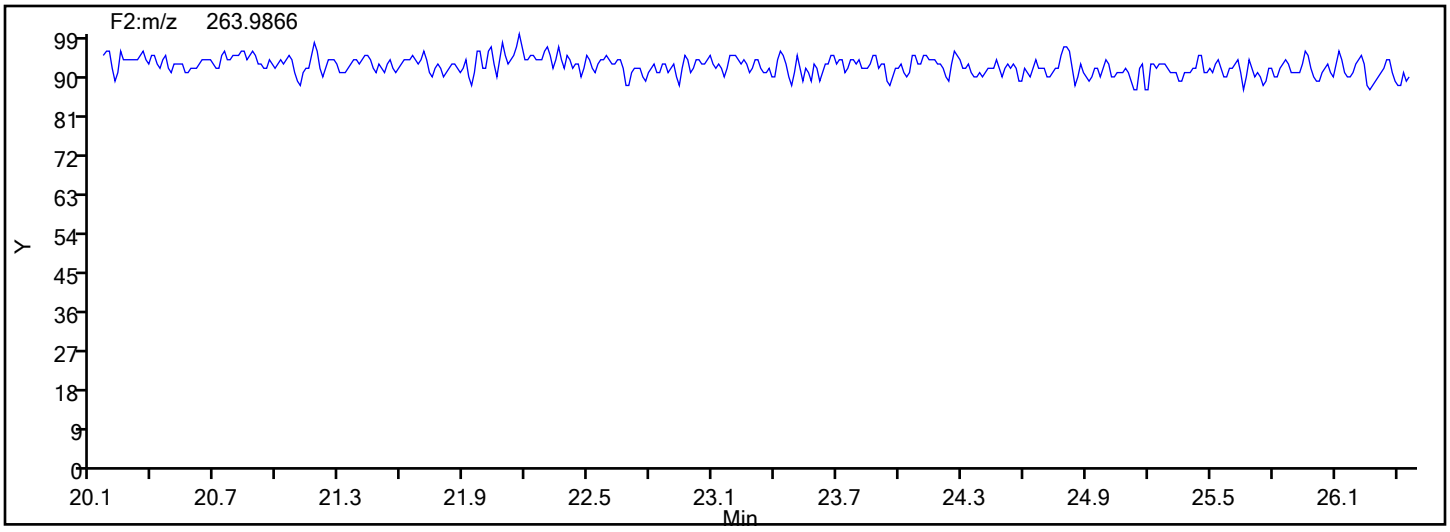
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d
Injection Date: 28-Mar-2025 10:14:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



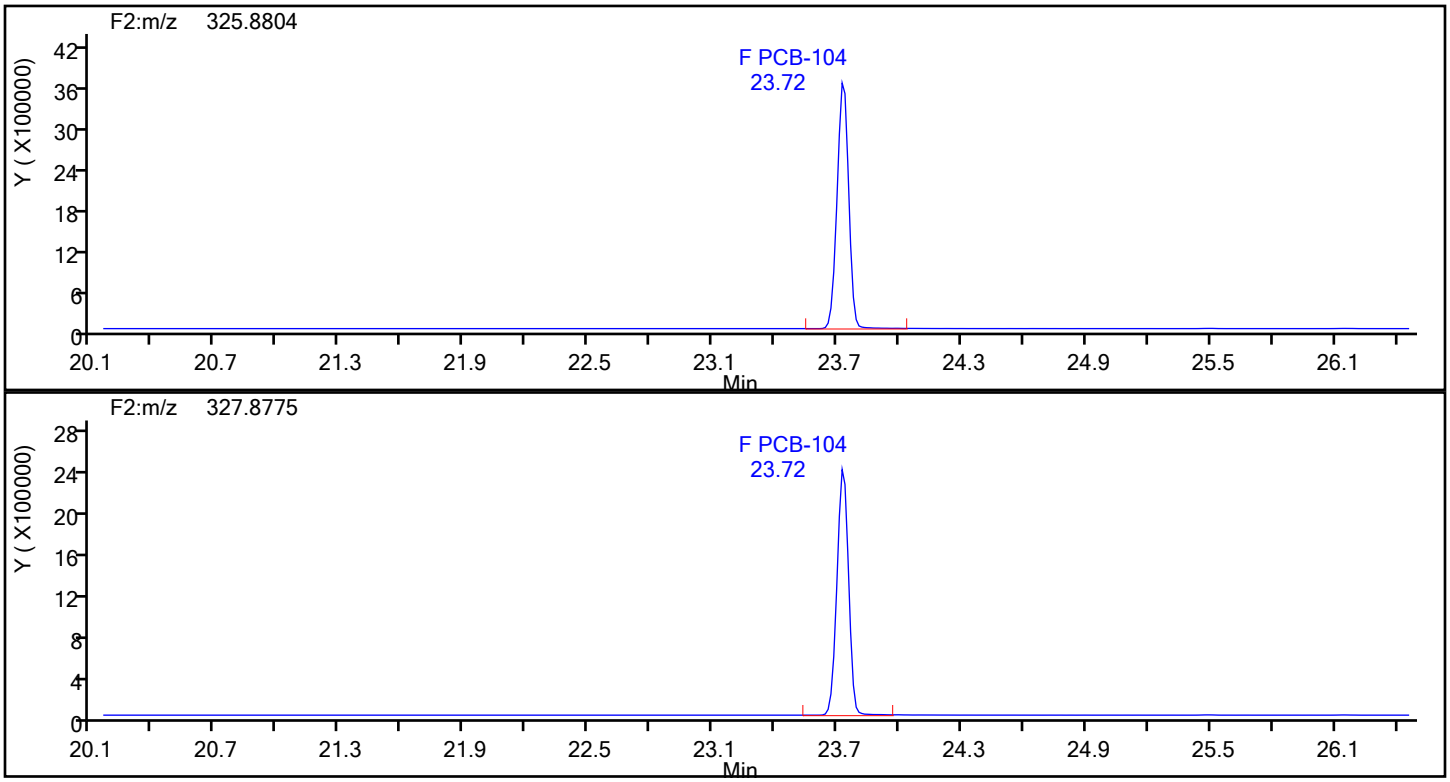
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

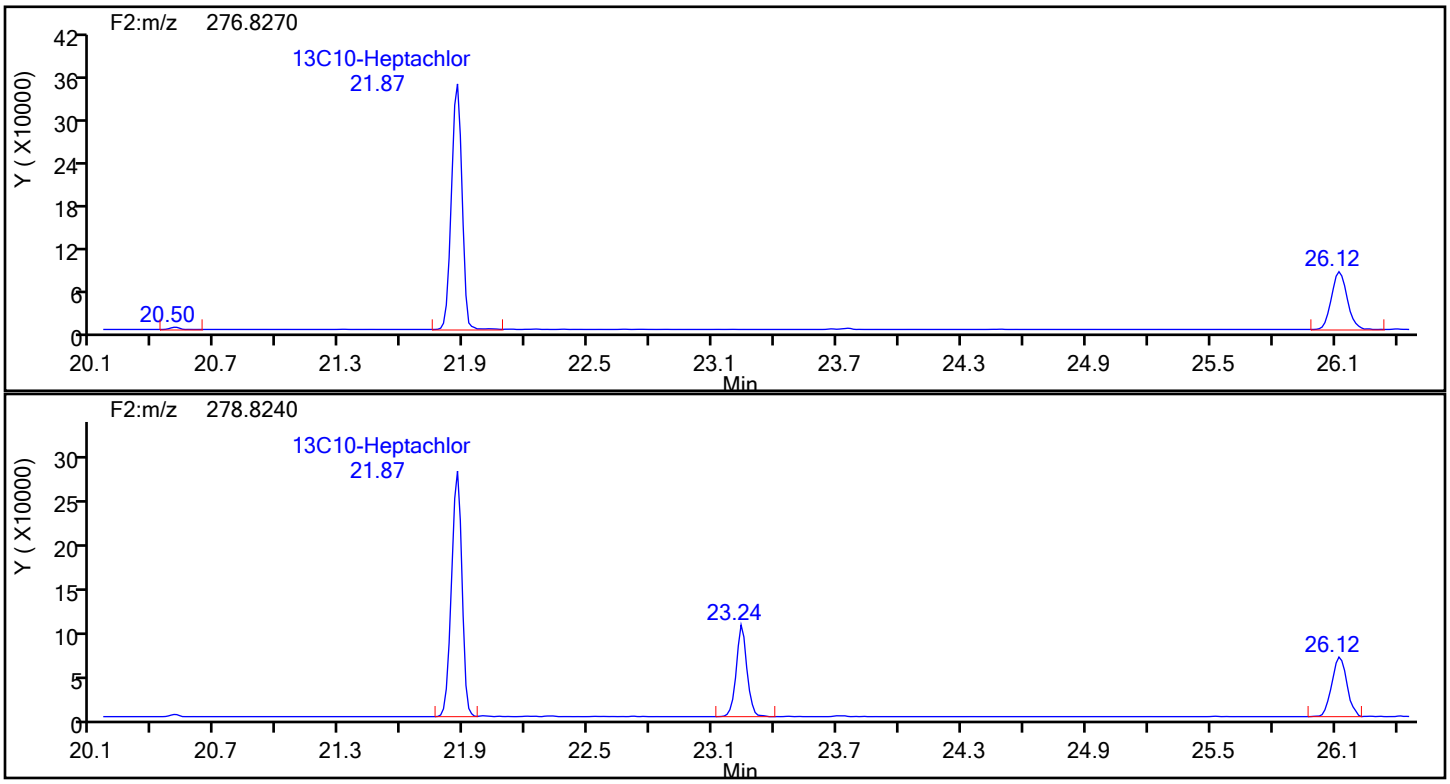
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104



PCB-104 Standards

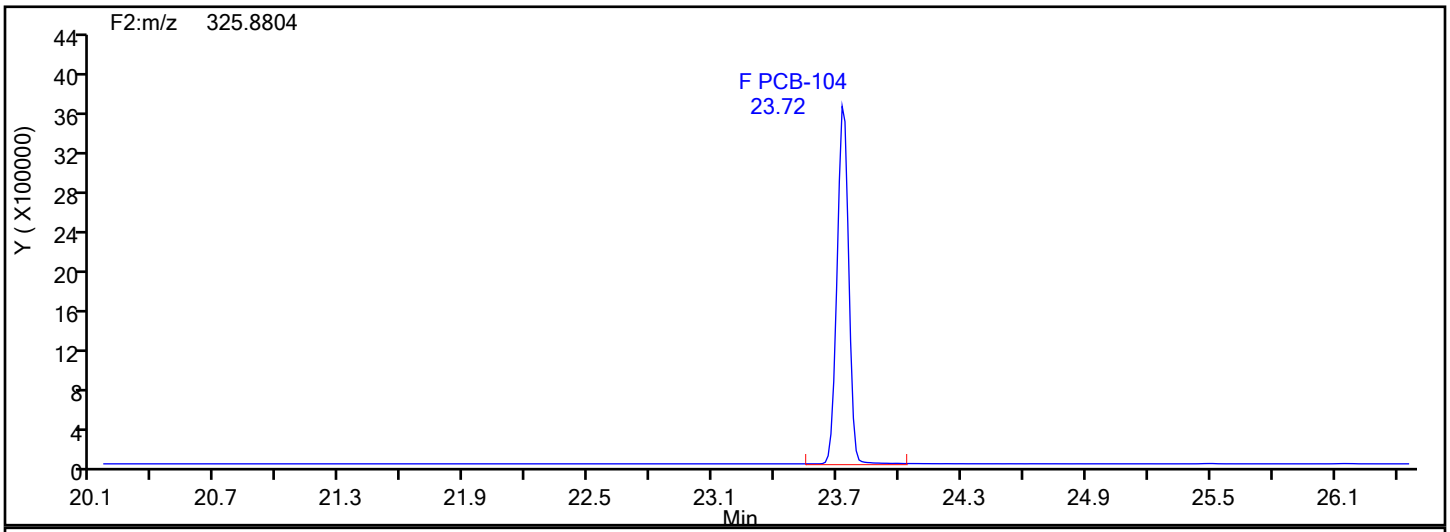


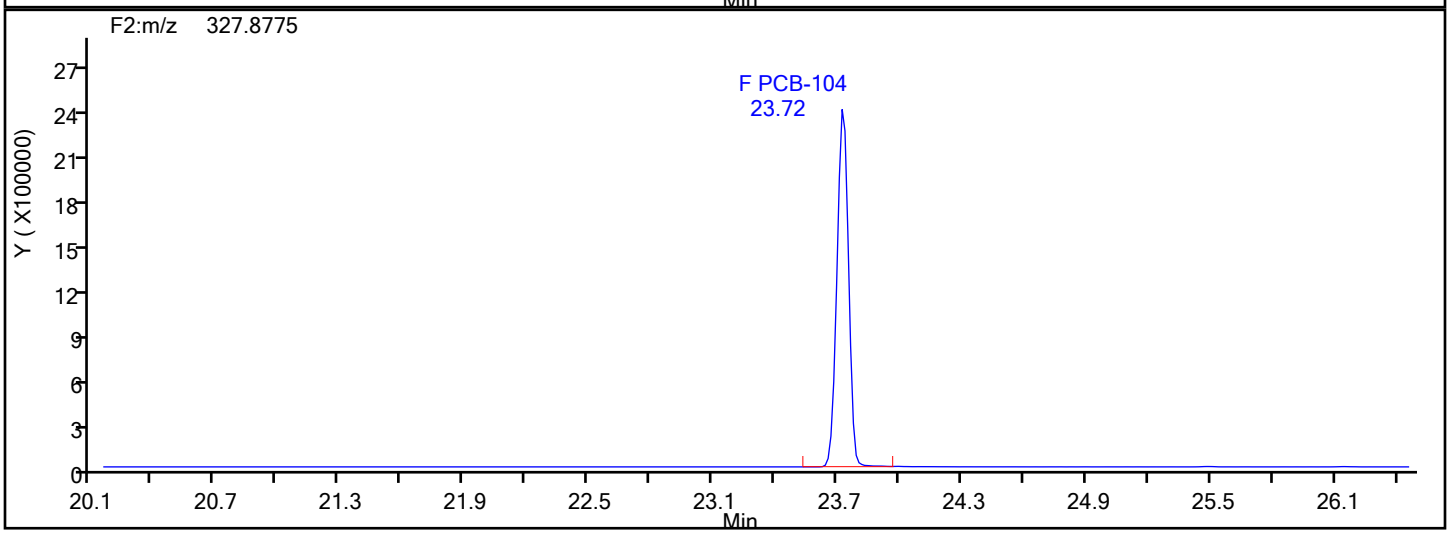
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

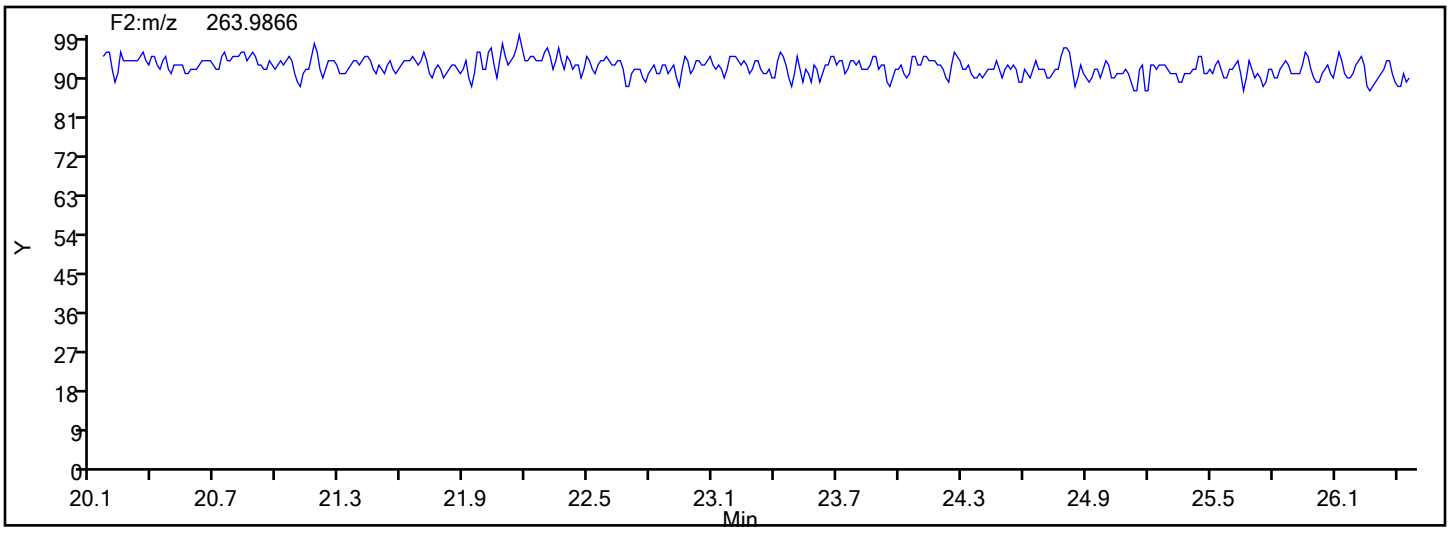
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



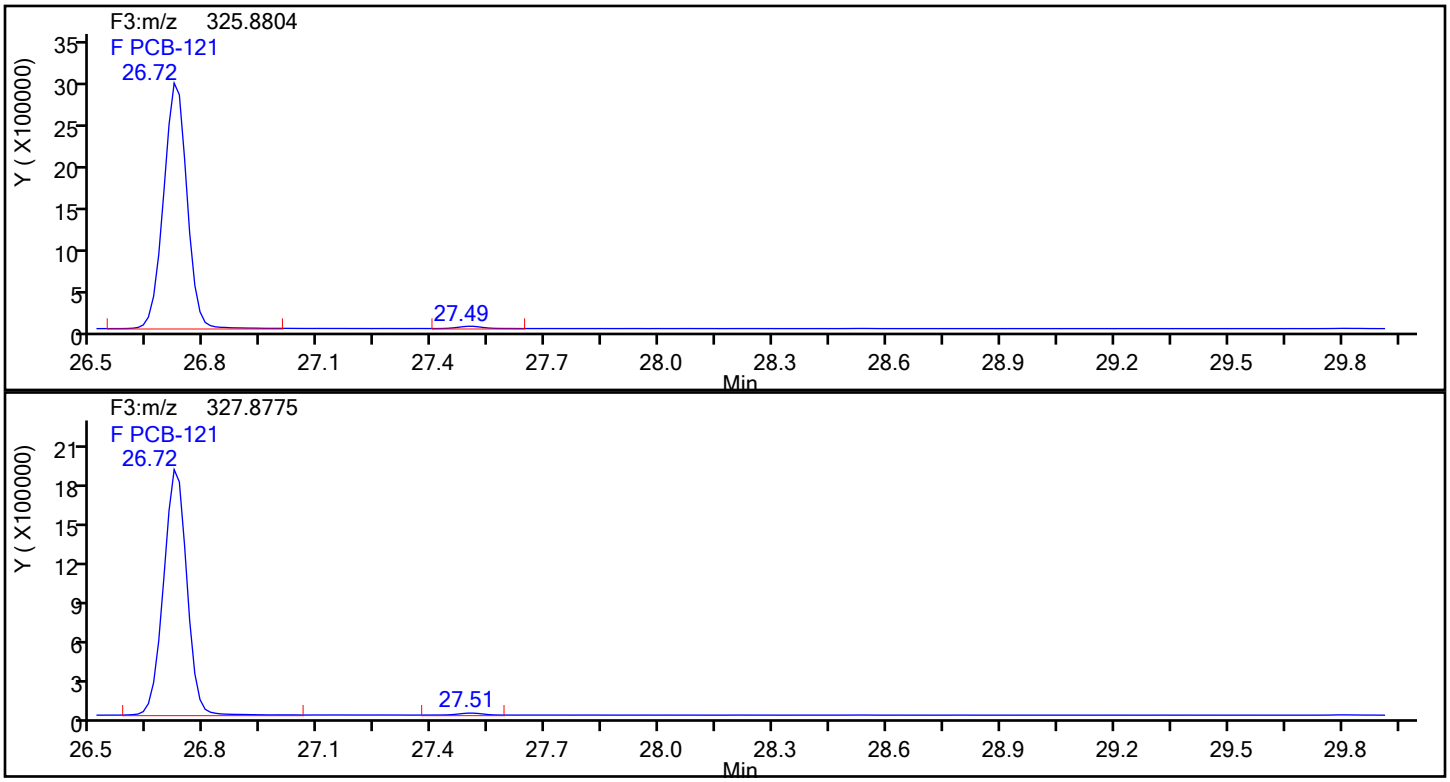
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

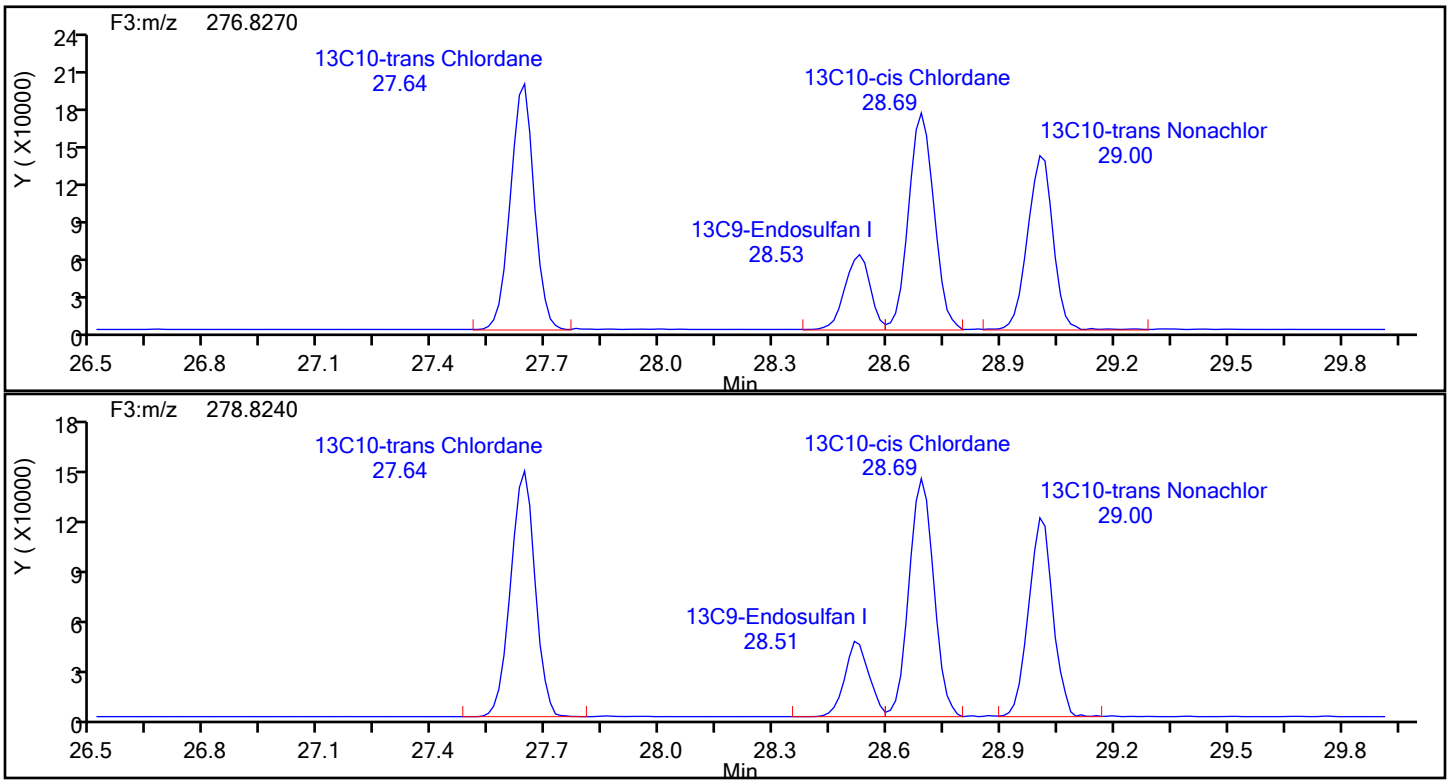
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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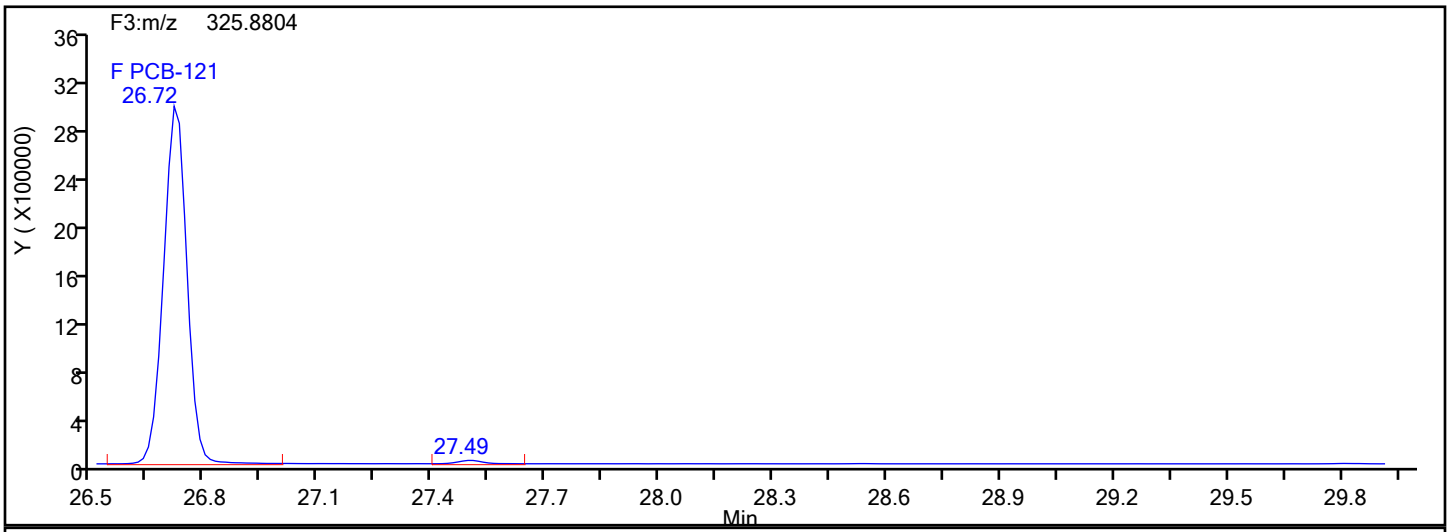
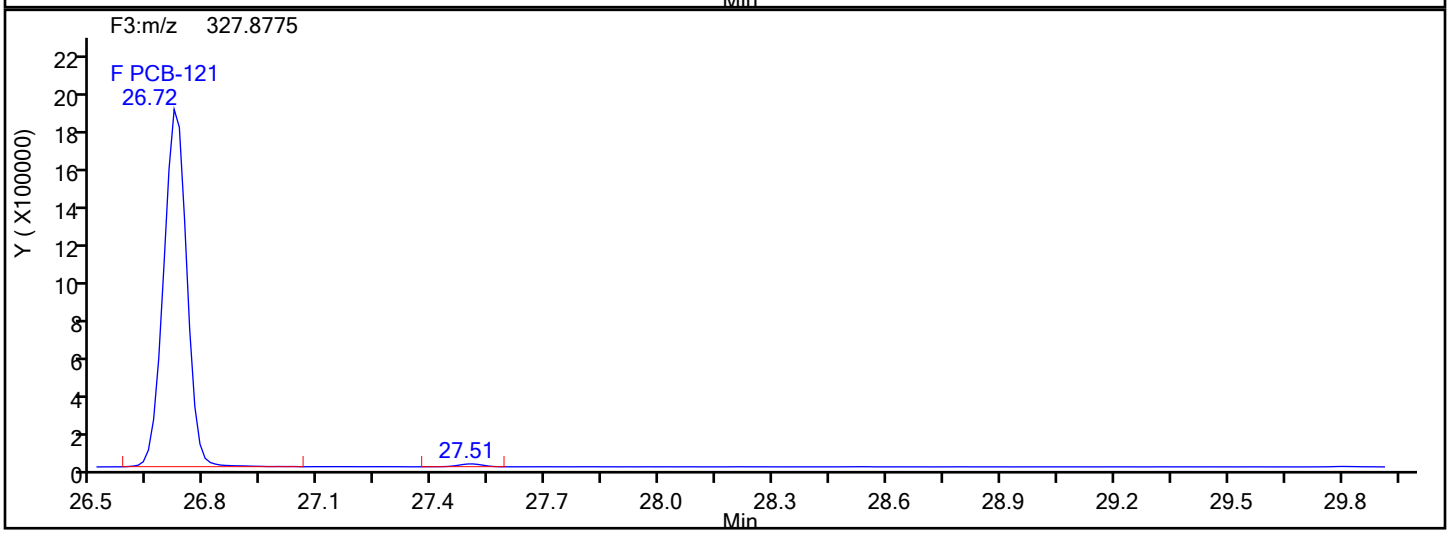
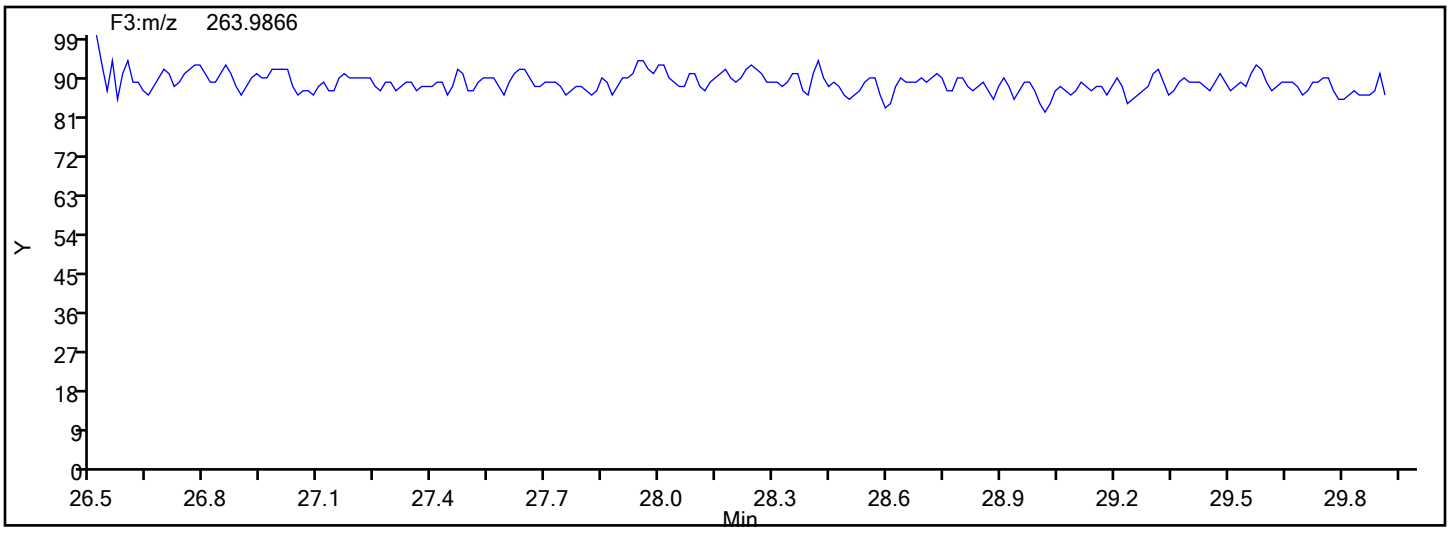
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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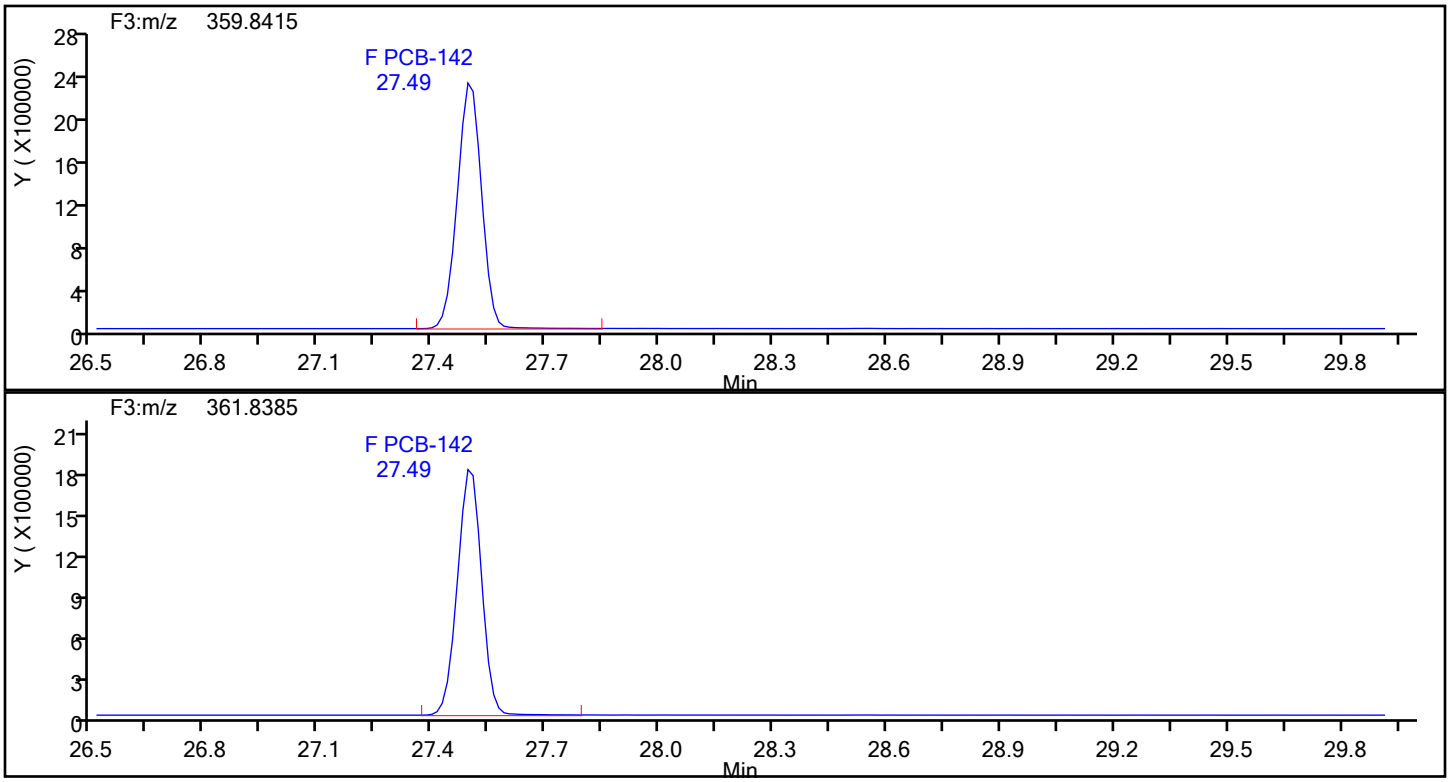
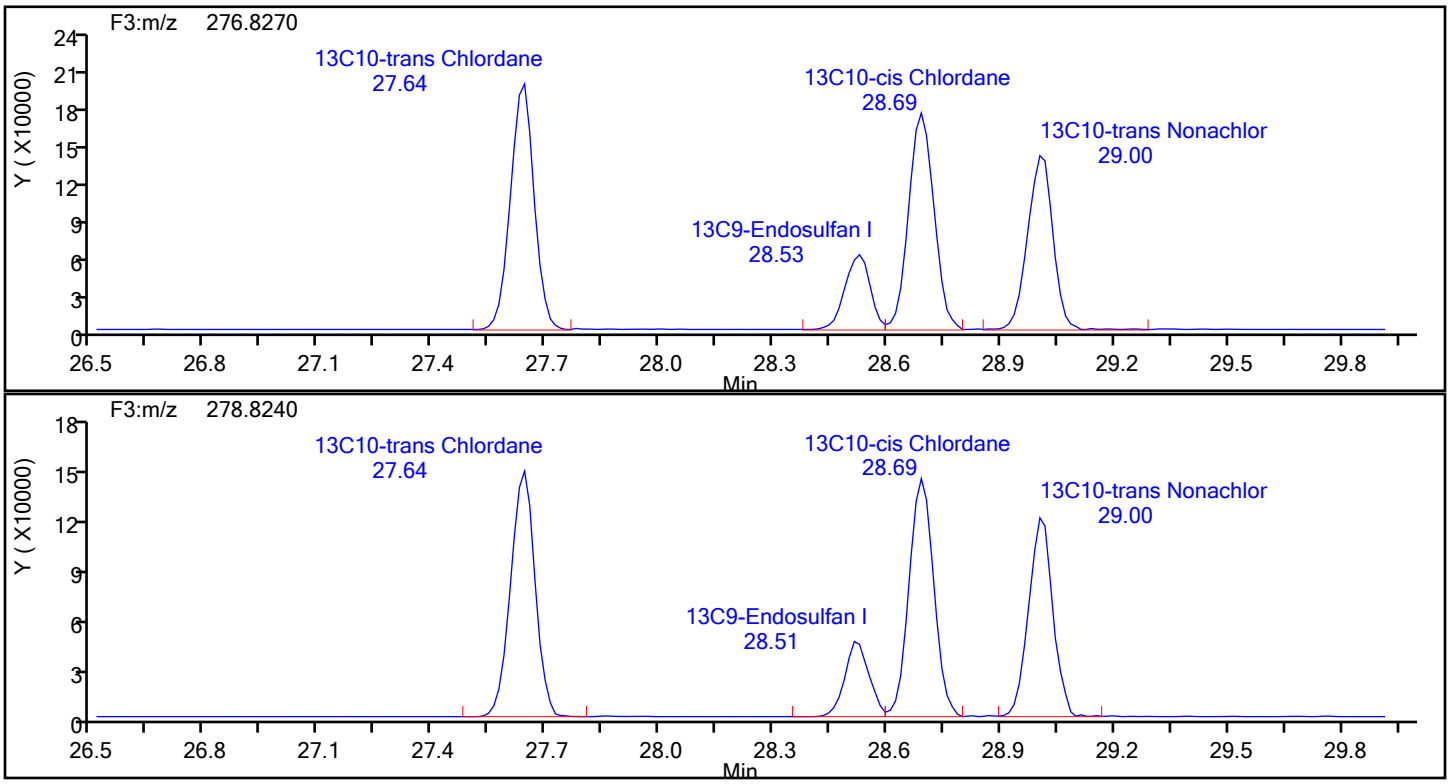
PCB-142



PCB-142 Standards

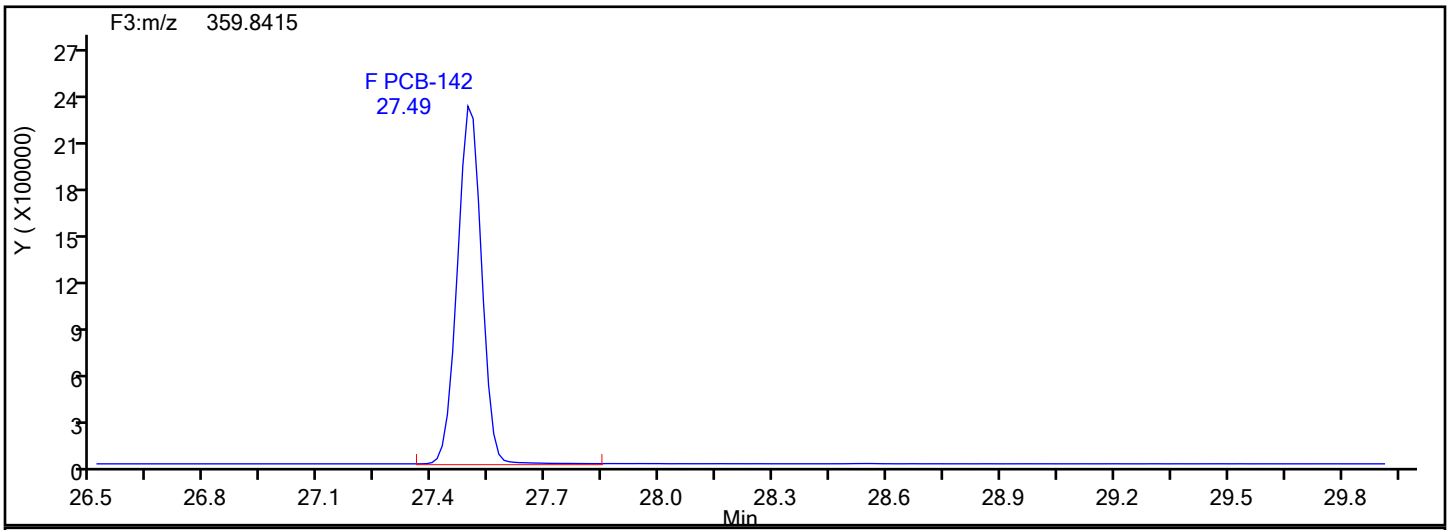


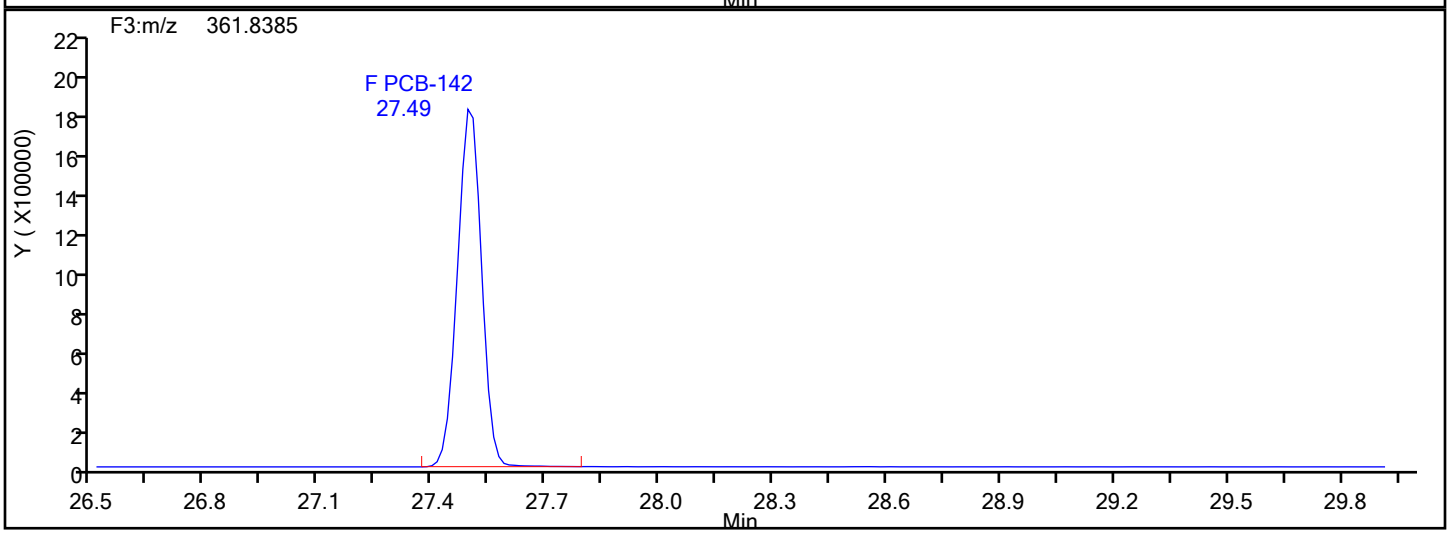
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

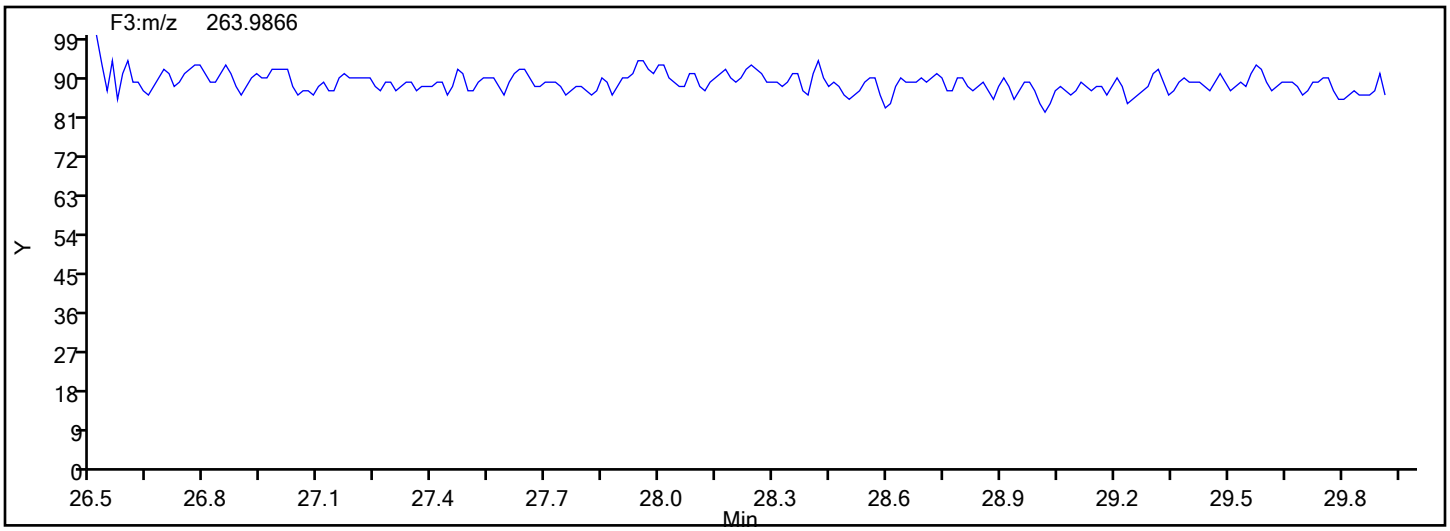
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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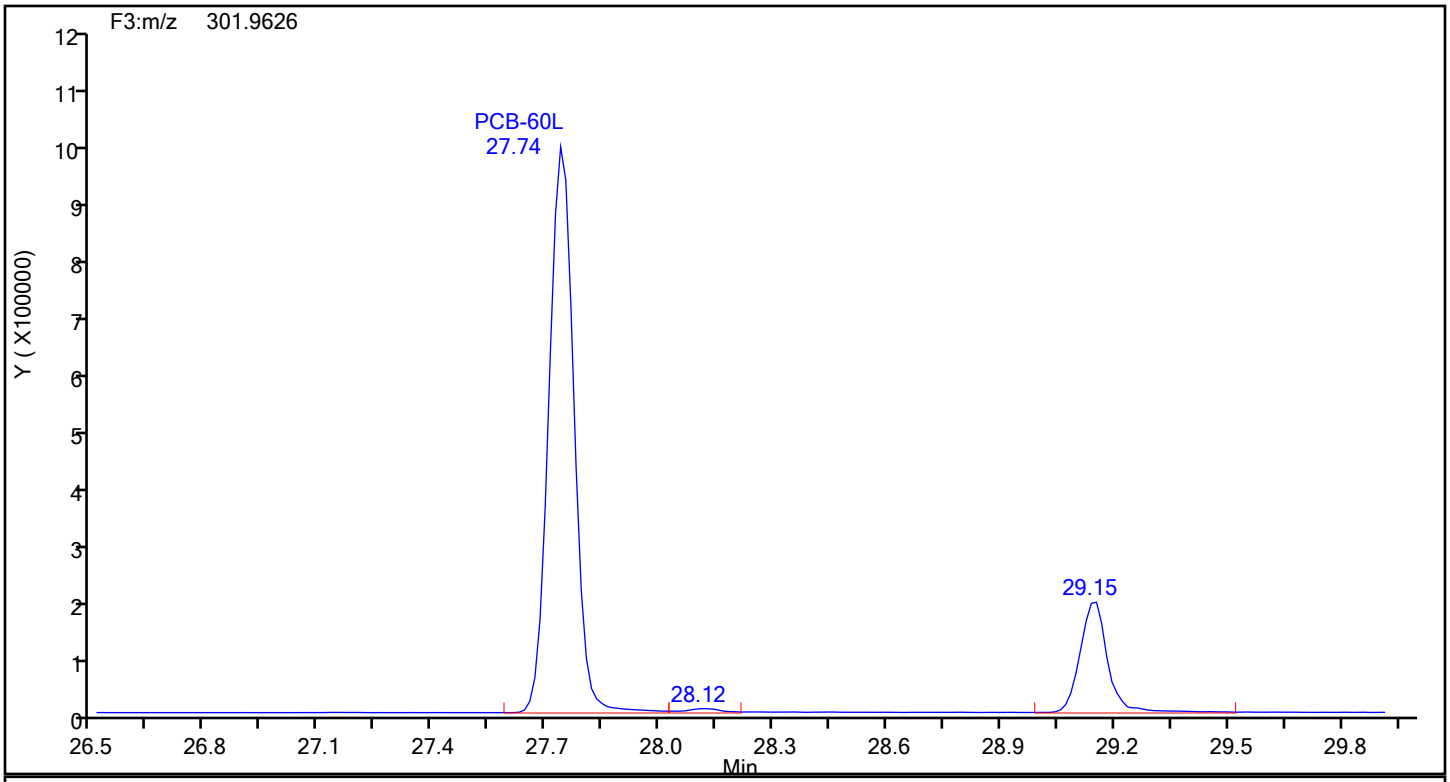
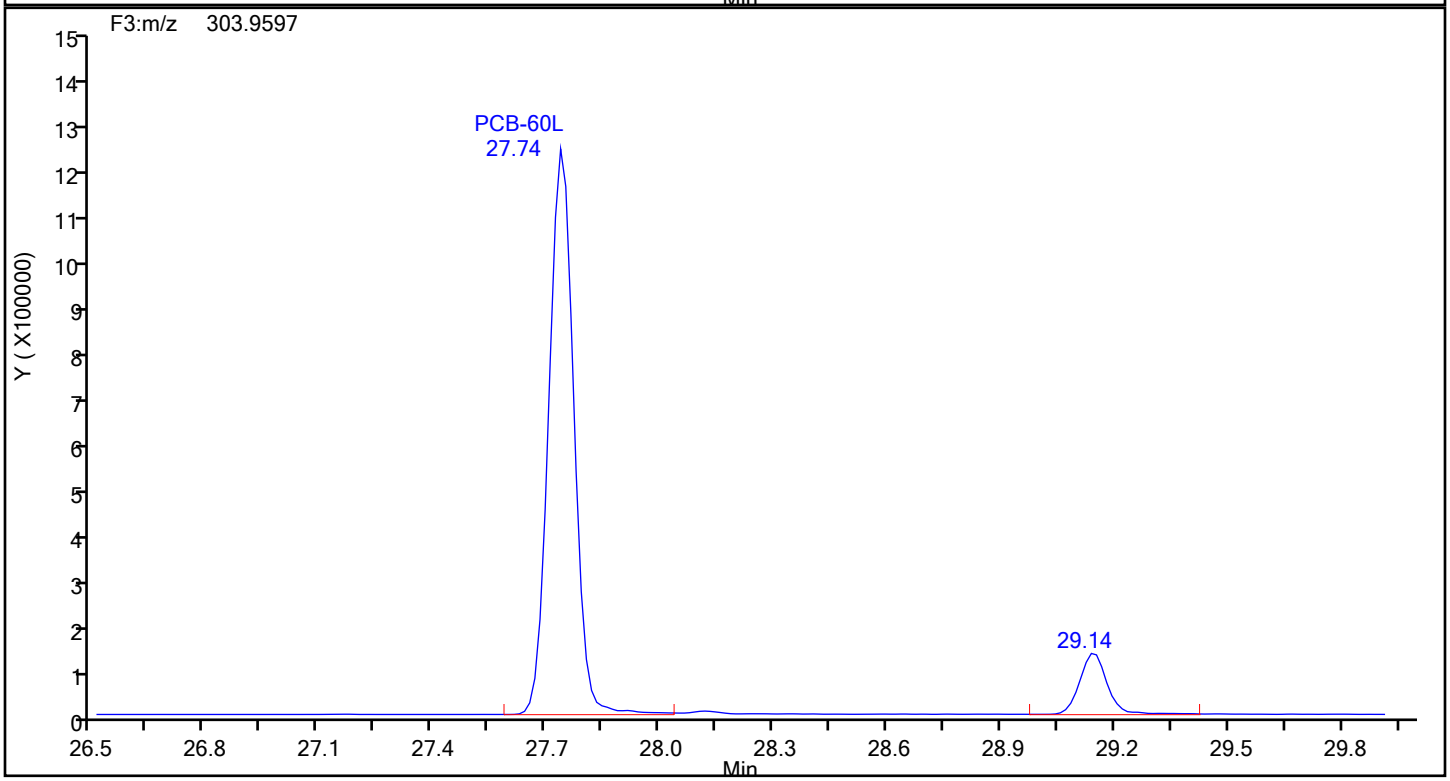
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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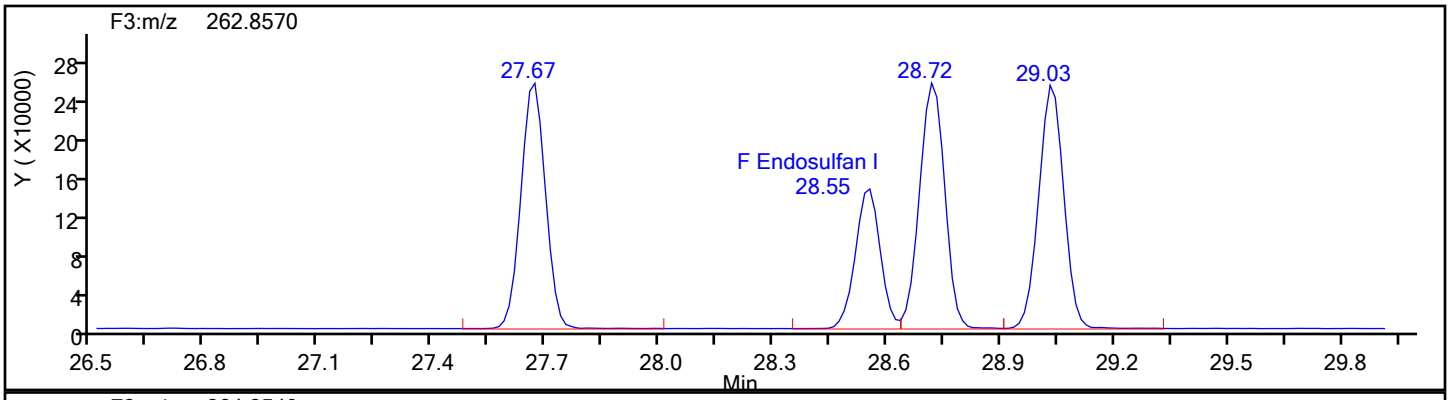
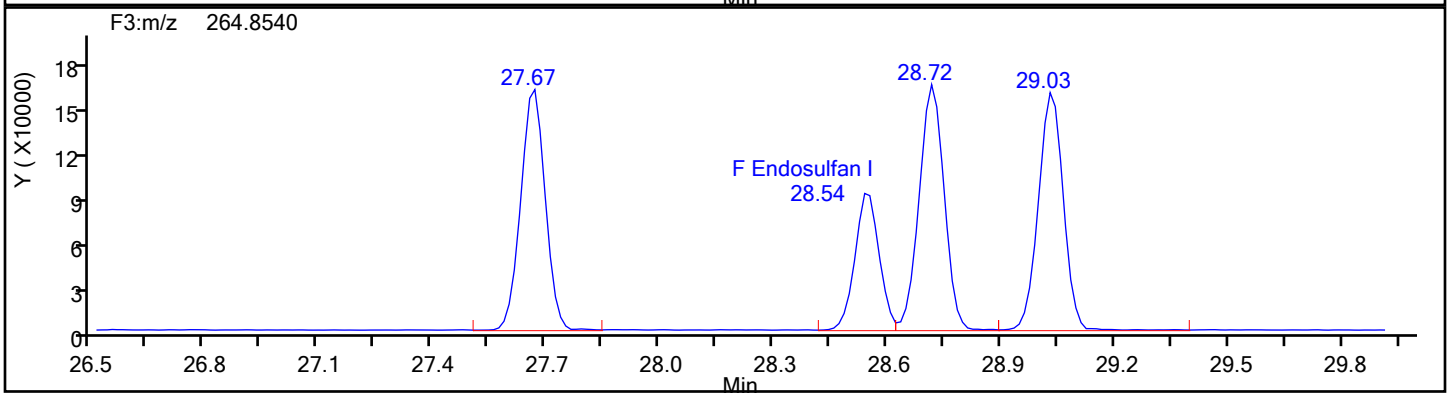
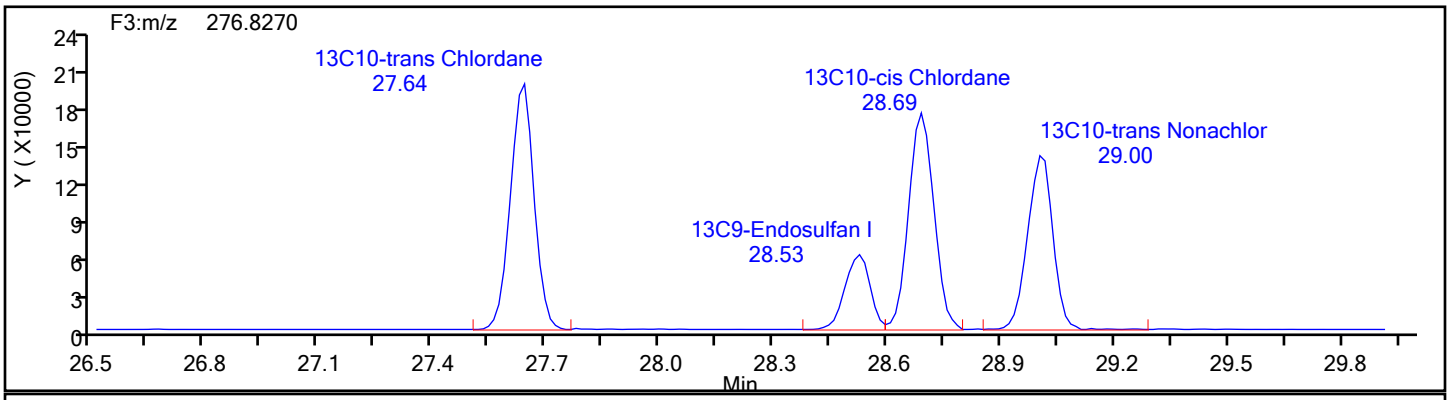
Column Type:	RTX-5	Column Dia:	0.32 mm

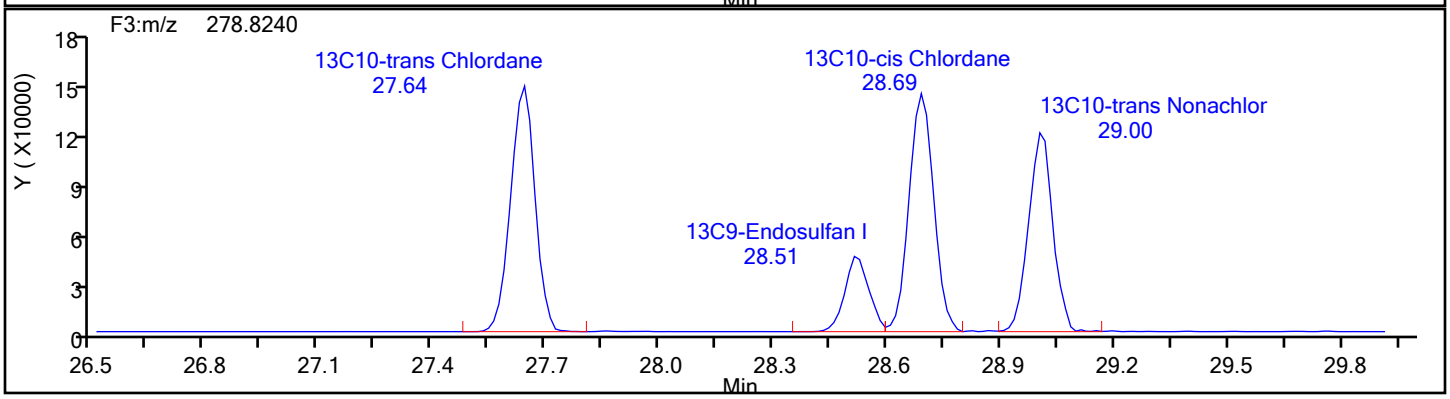
Endosulfan I





Endosulfan I Standards





Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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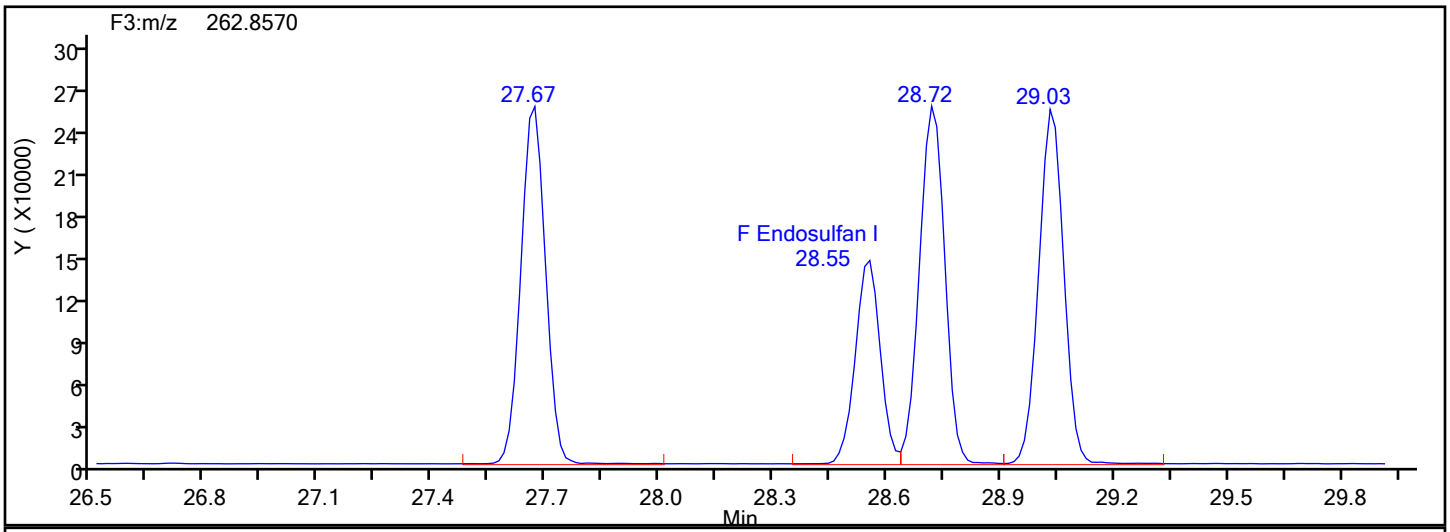
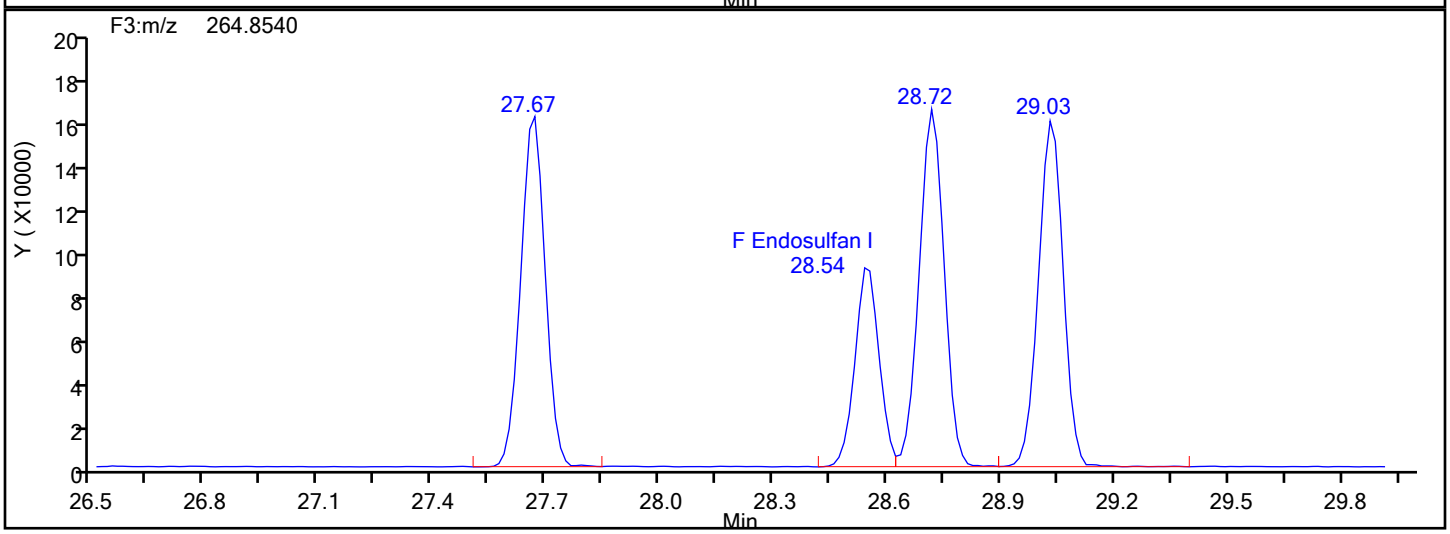
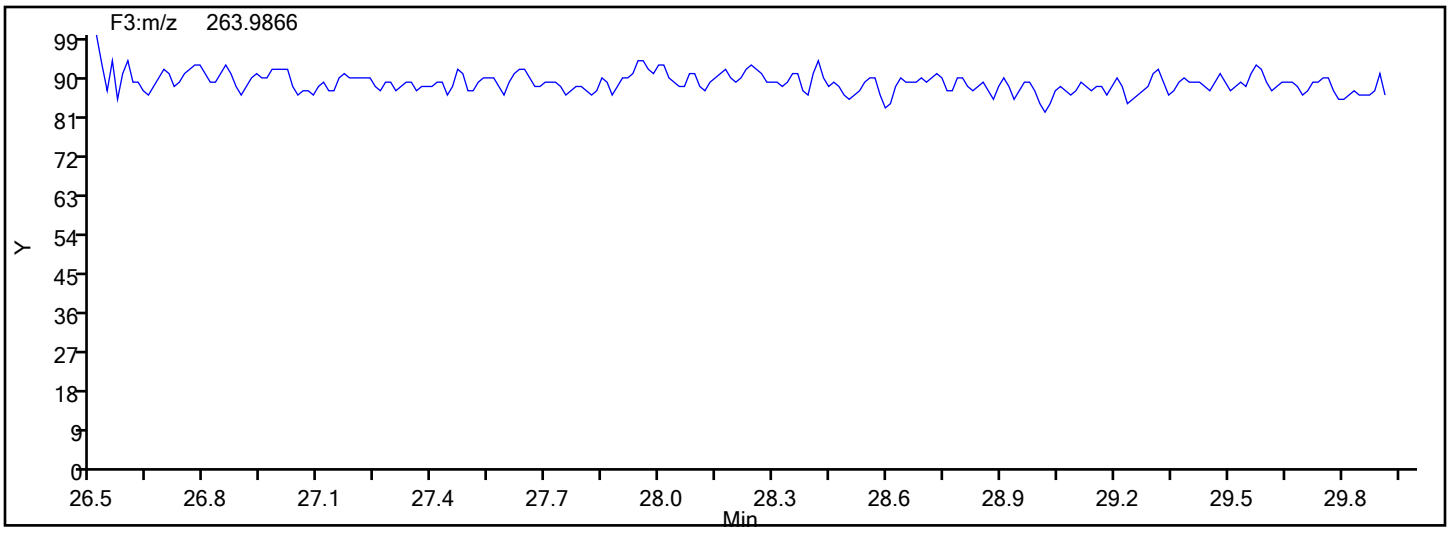
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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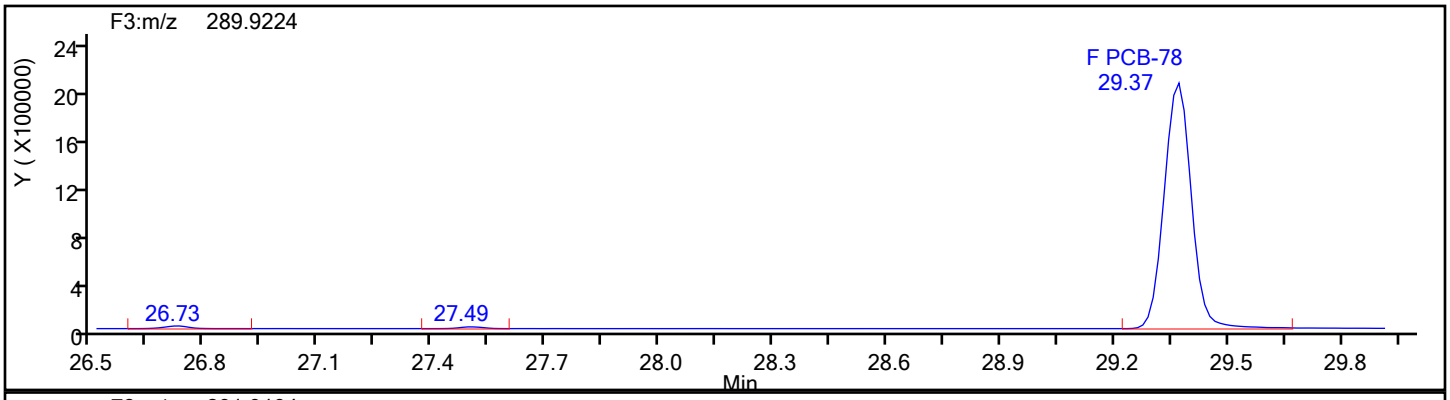
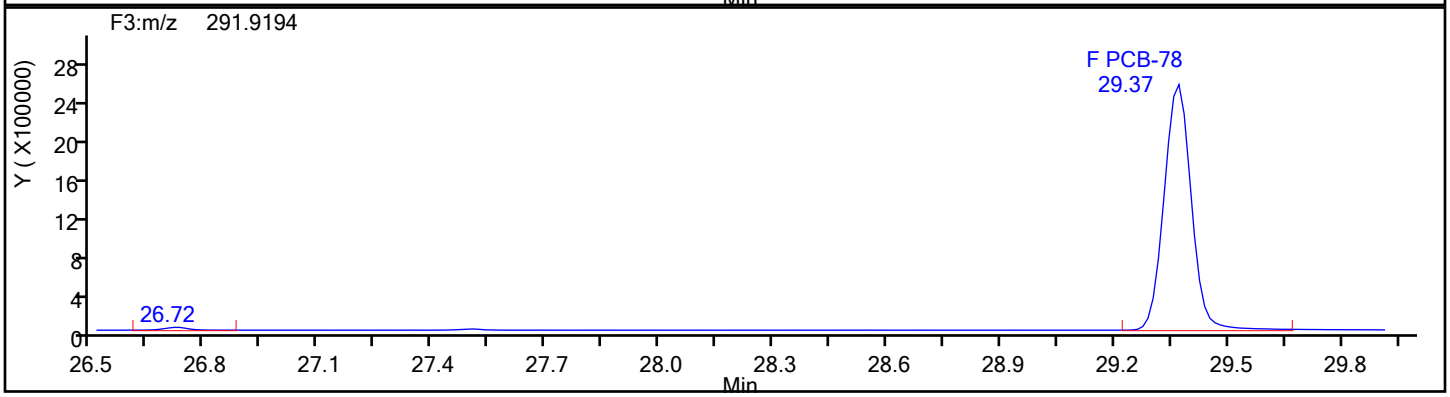
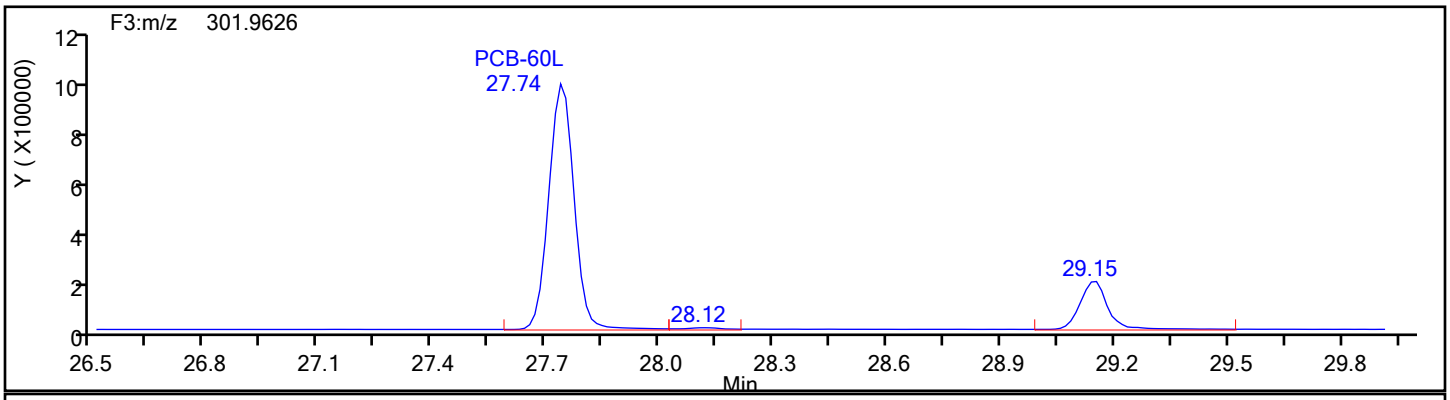
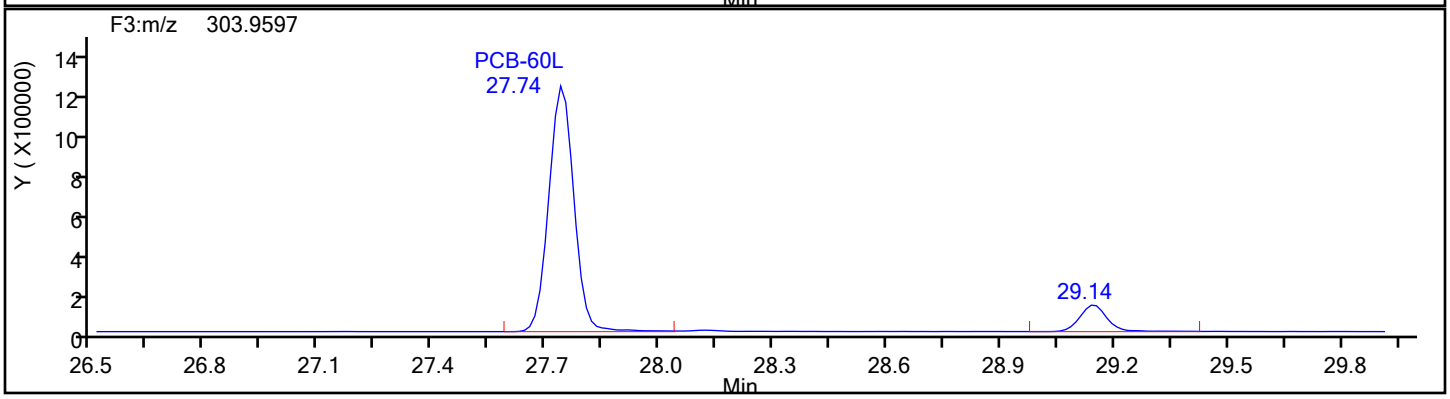
PCB-78





PCB-78 Standards





Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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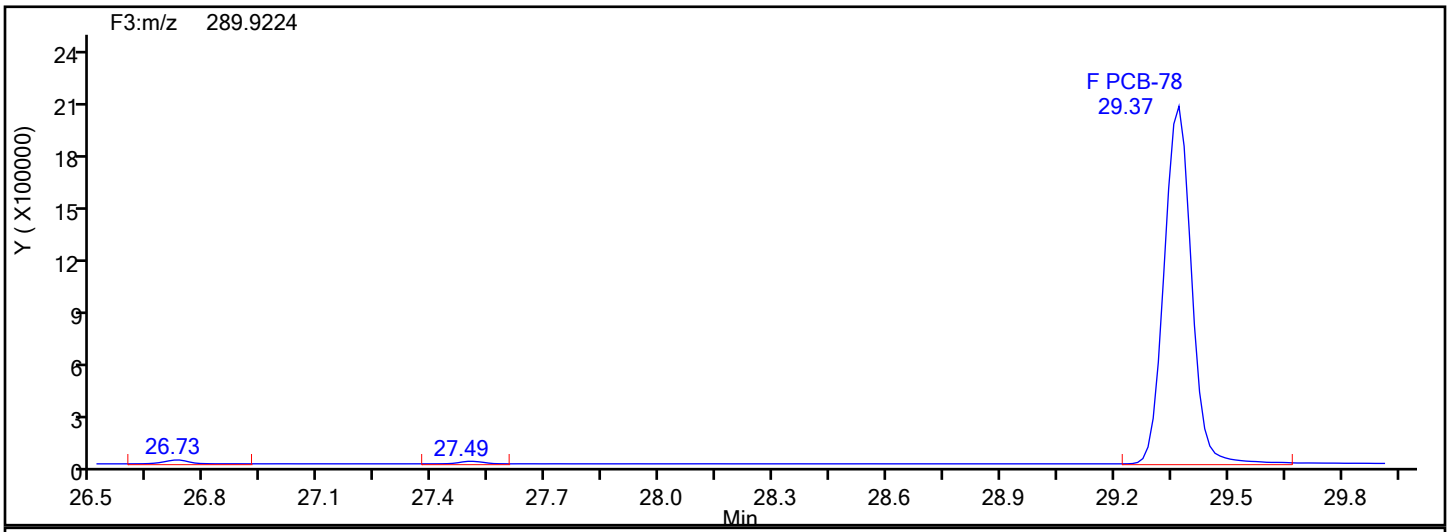
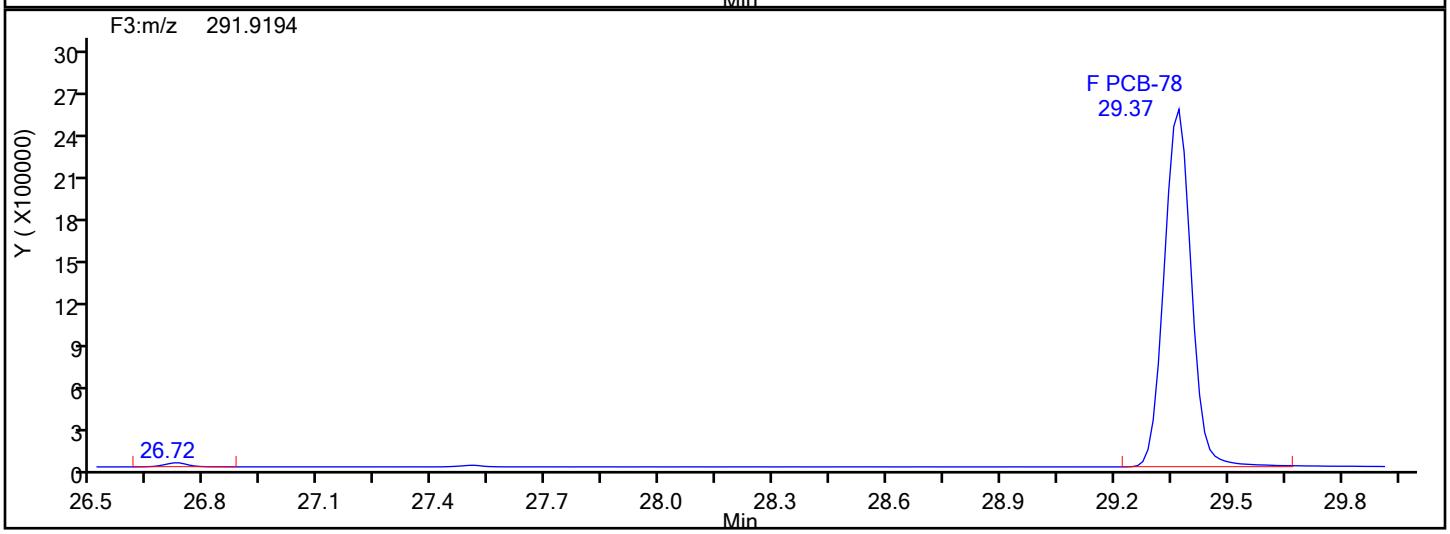
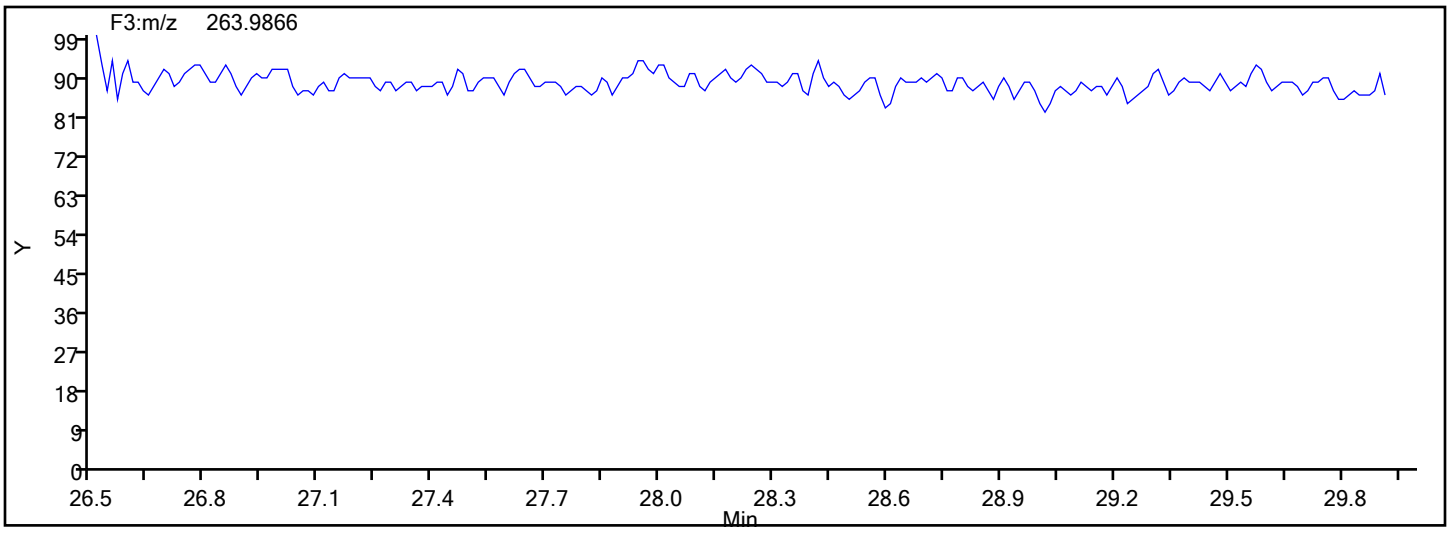
PCB-78





PCB-78 Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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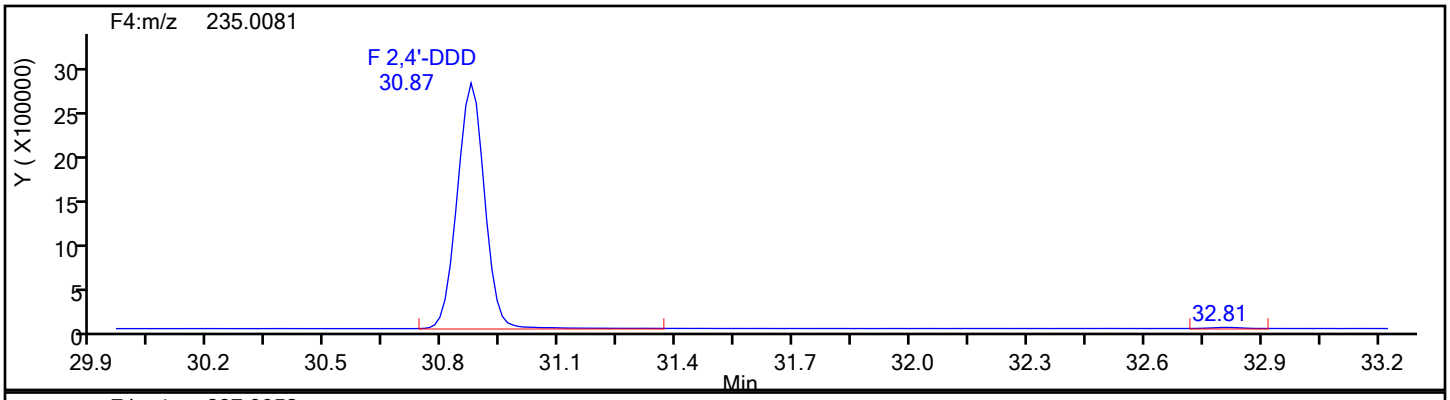
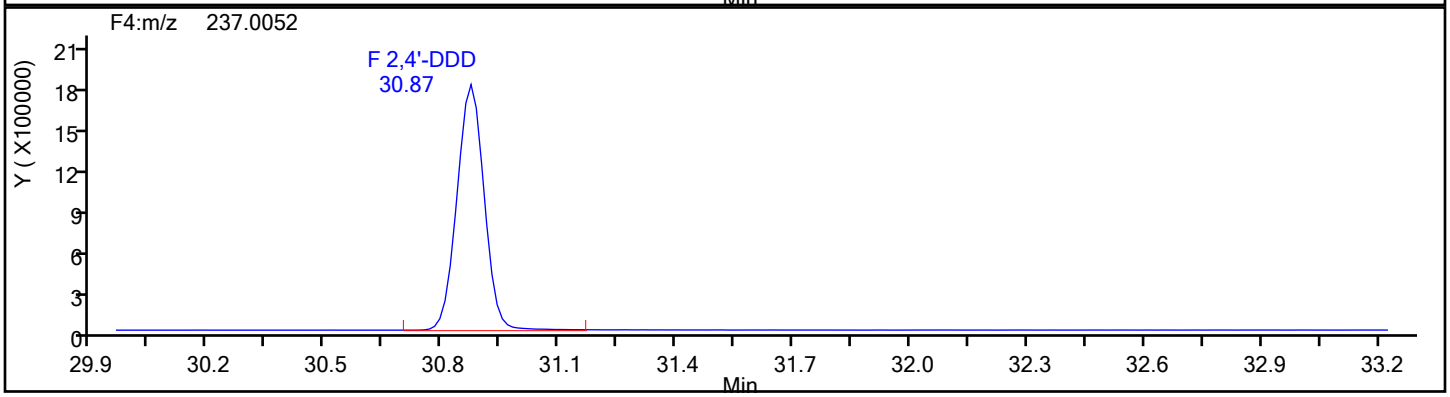
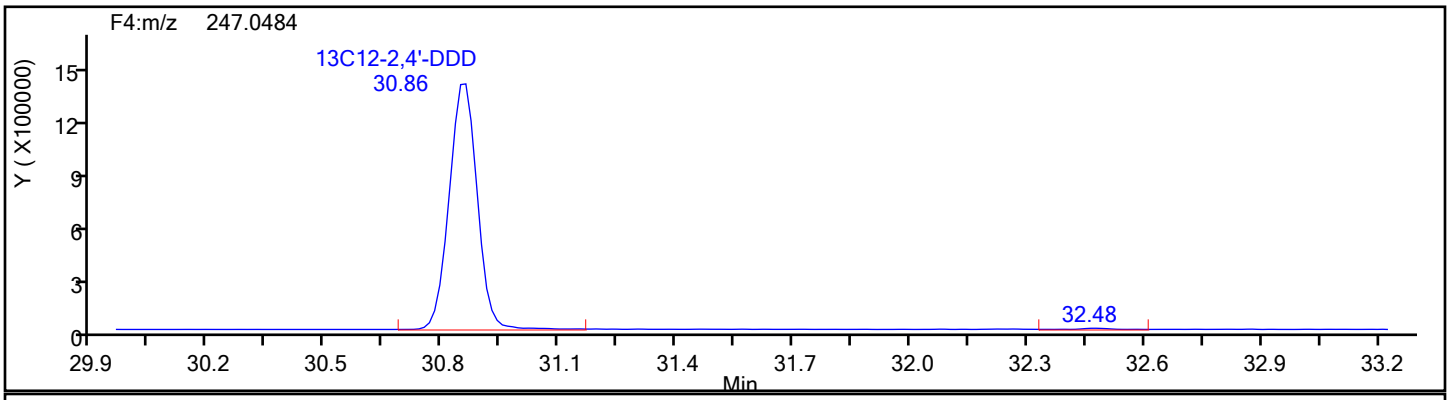
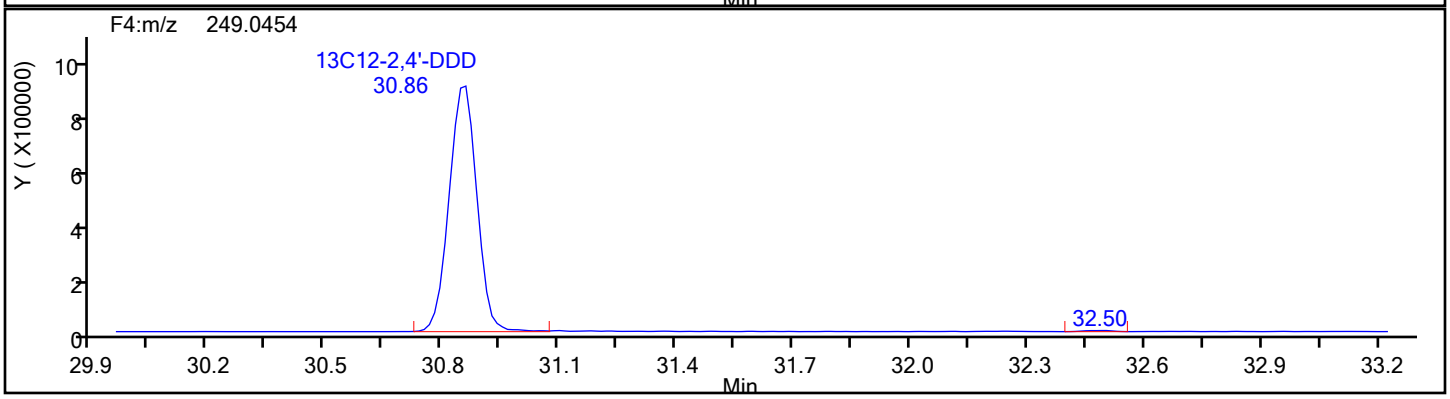
2,4'-DDD





2,4'-DDD Standards





Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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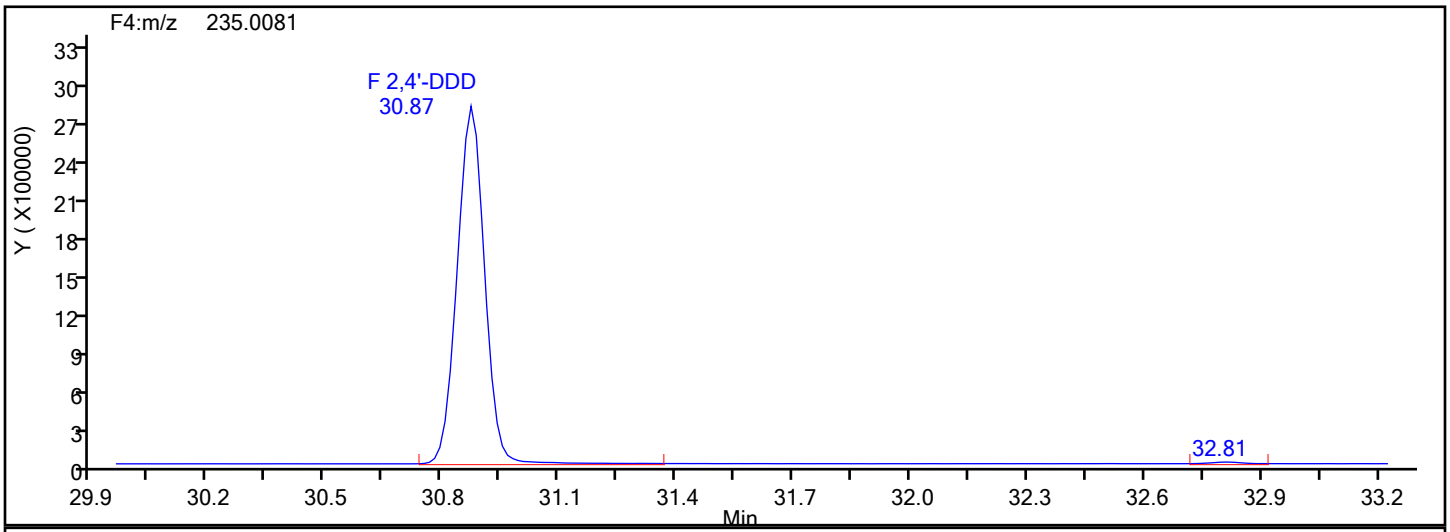
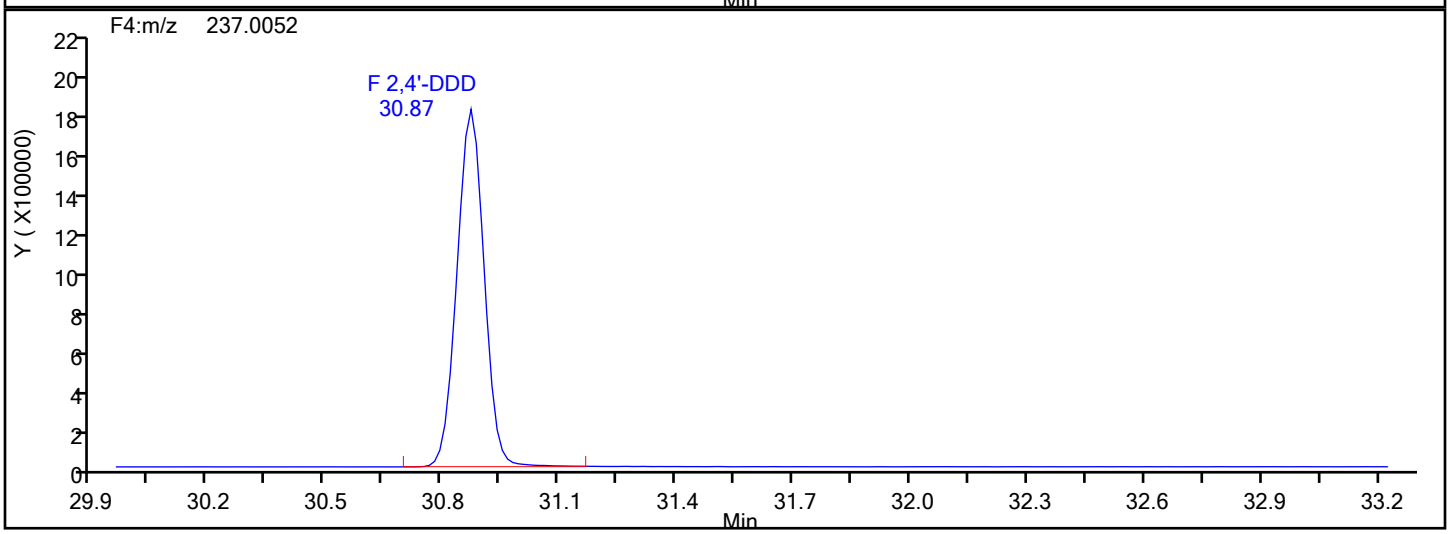
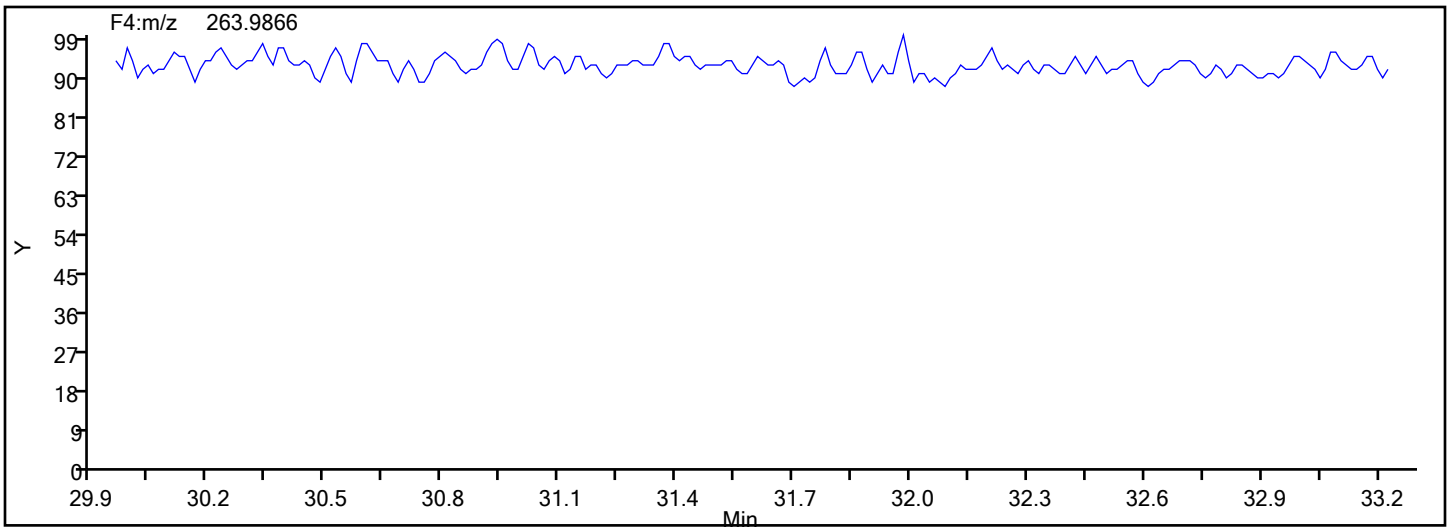
2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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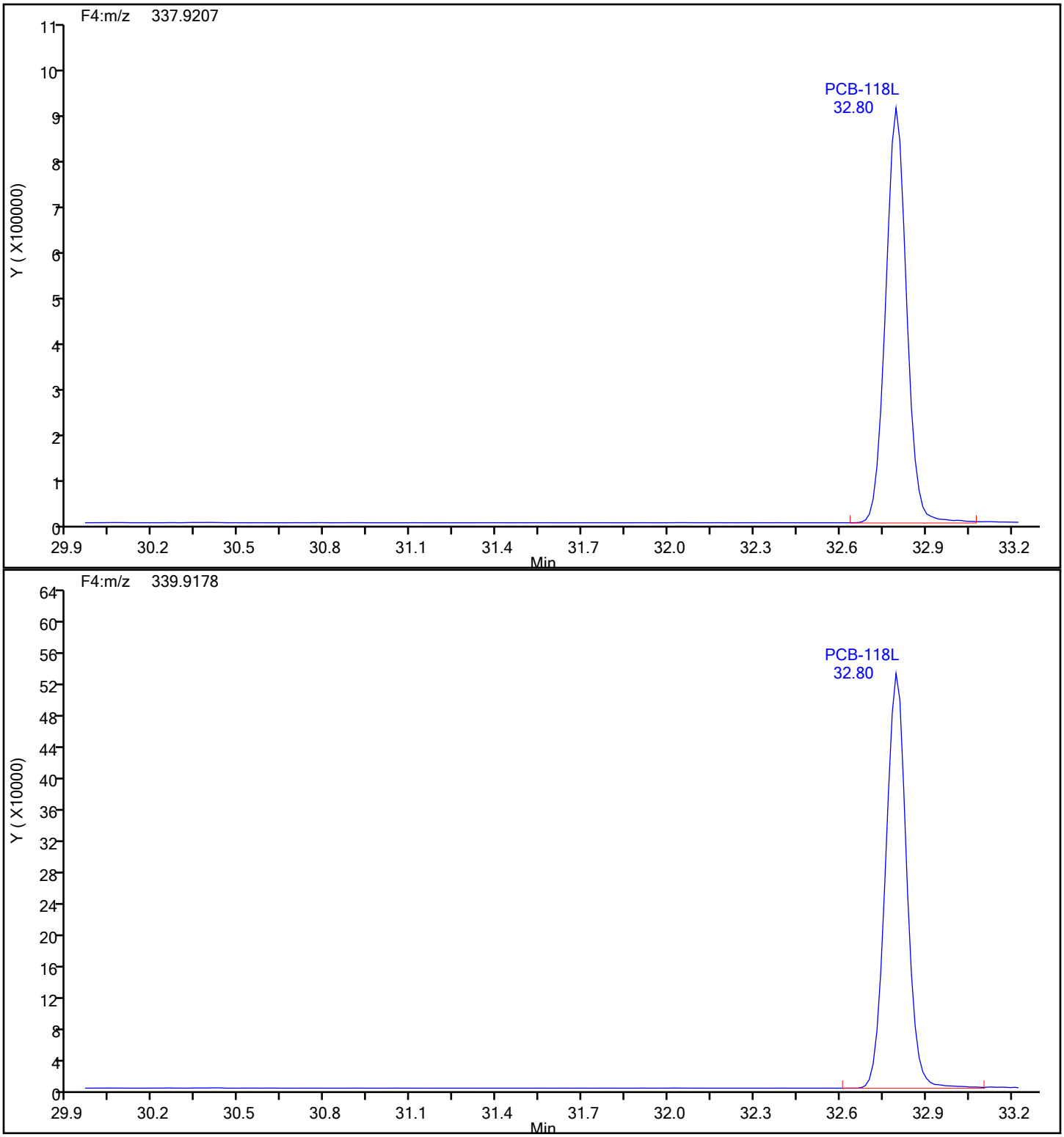
PCB-118L Standards



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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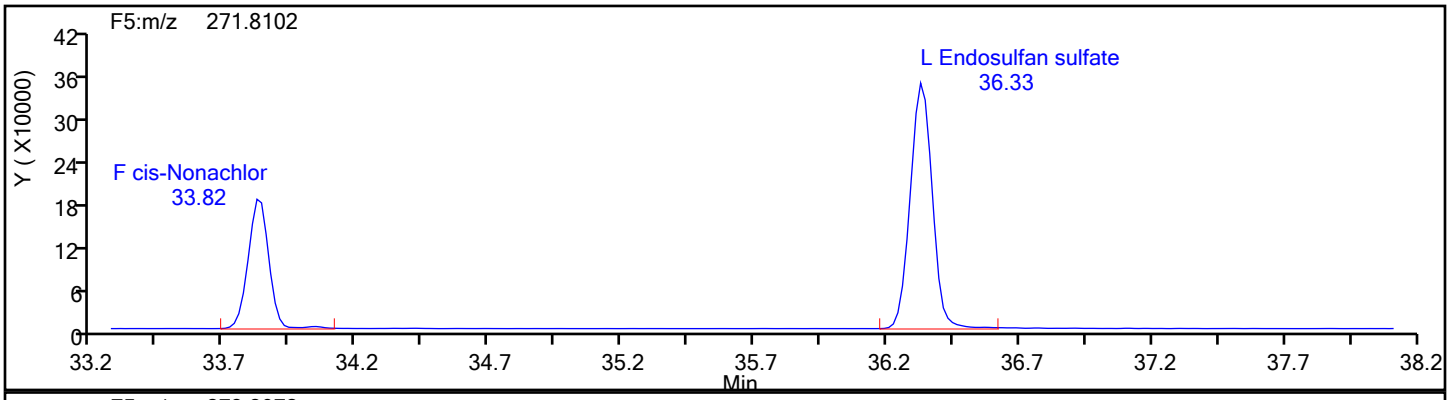
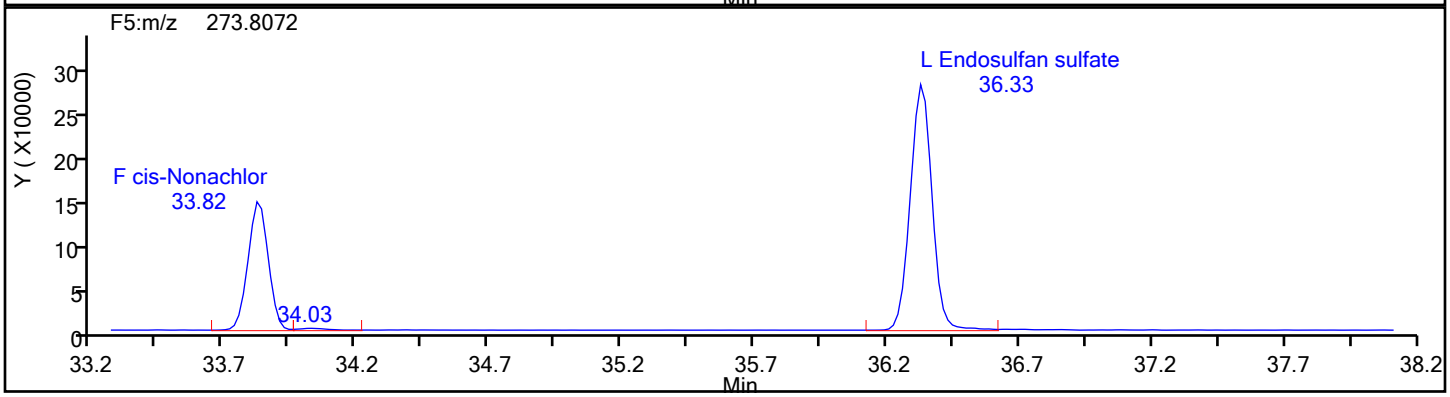
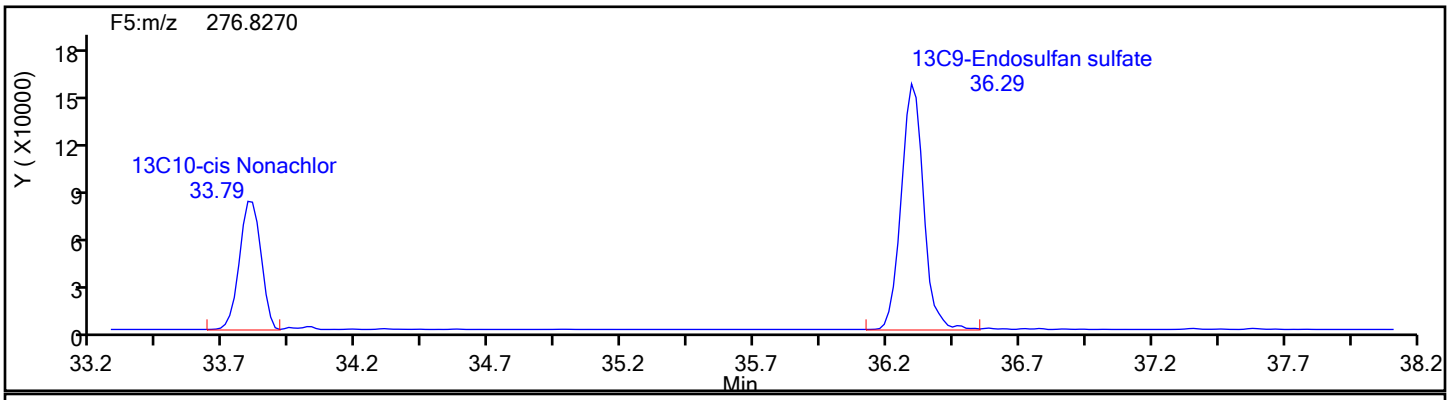
Column Type:	RTX-5	Column Dia:	0.32 mm

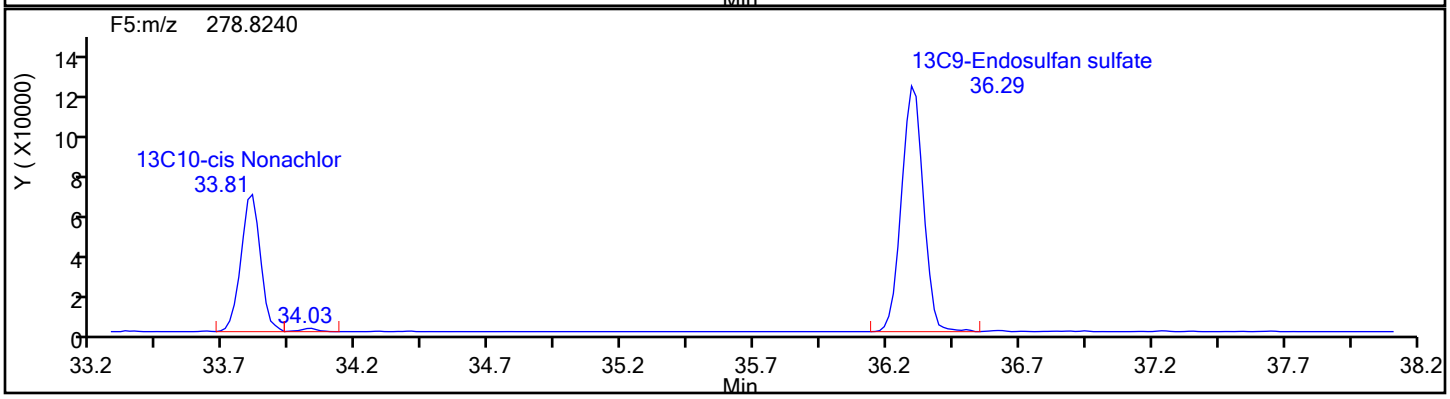
Nonachlor





Nonachlor Standards





Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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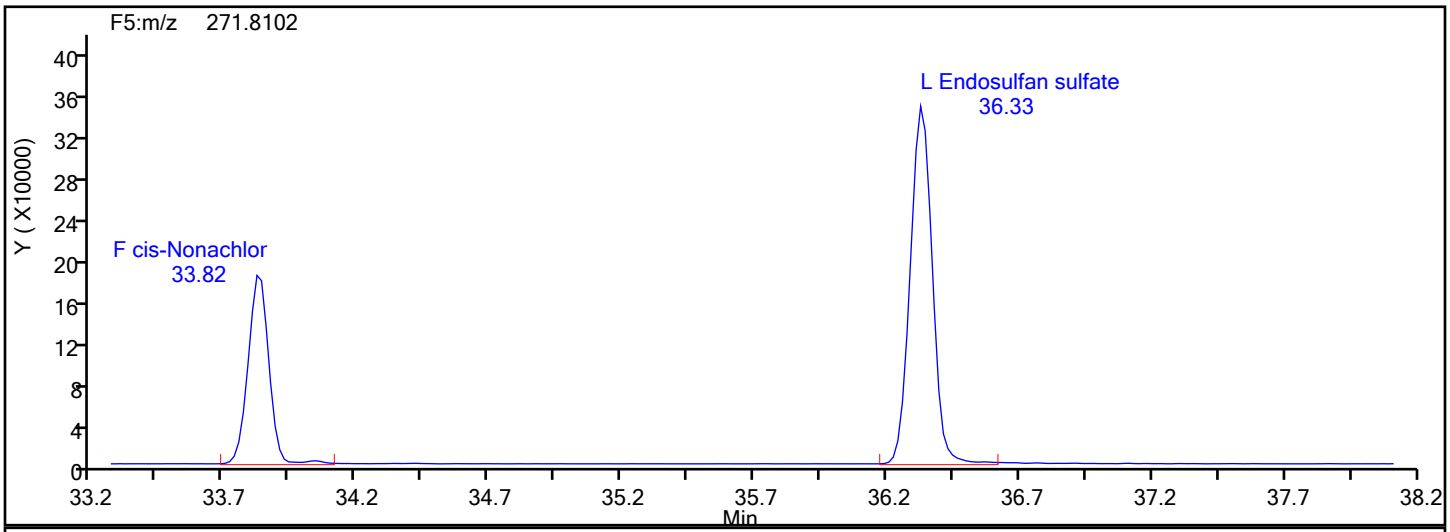
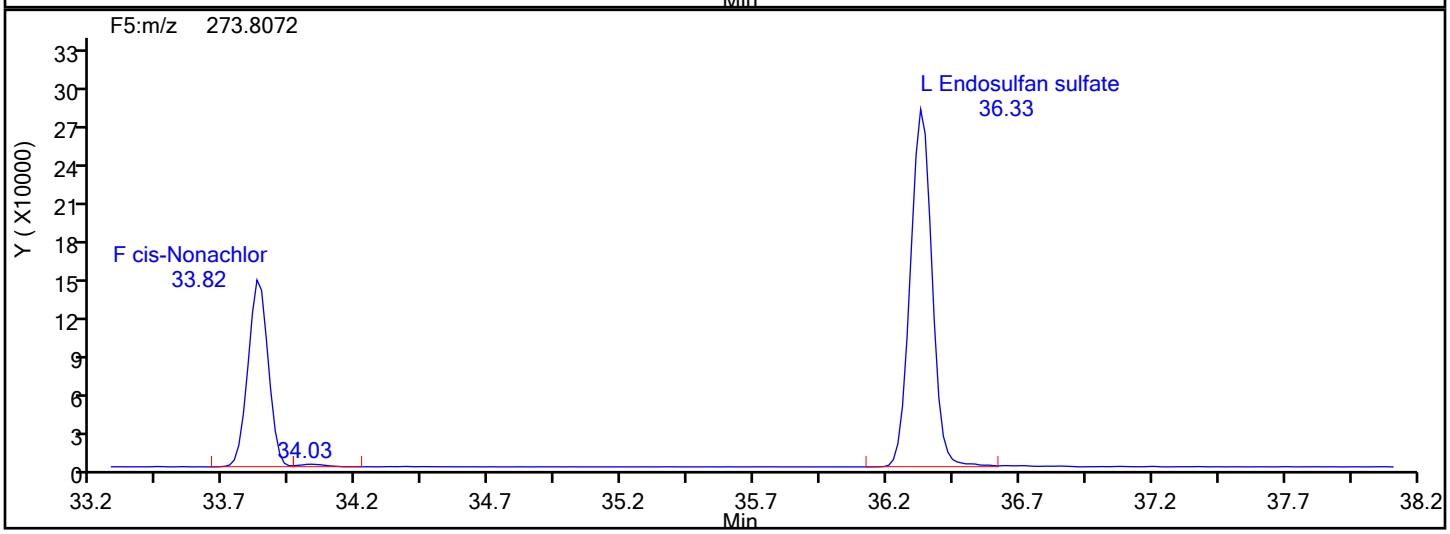
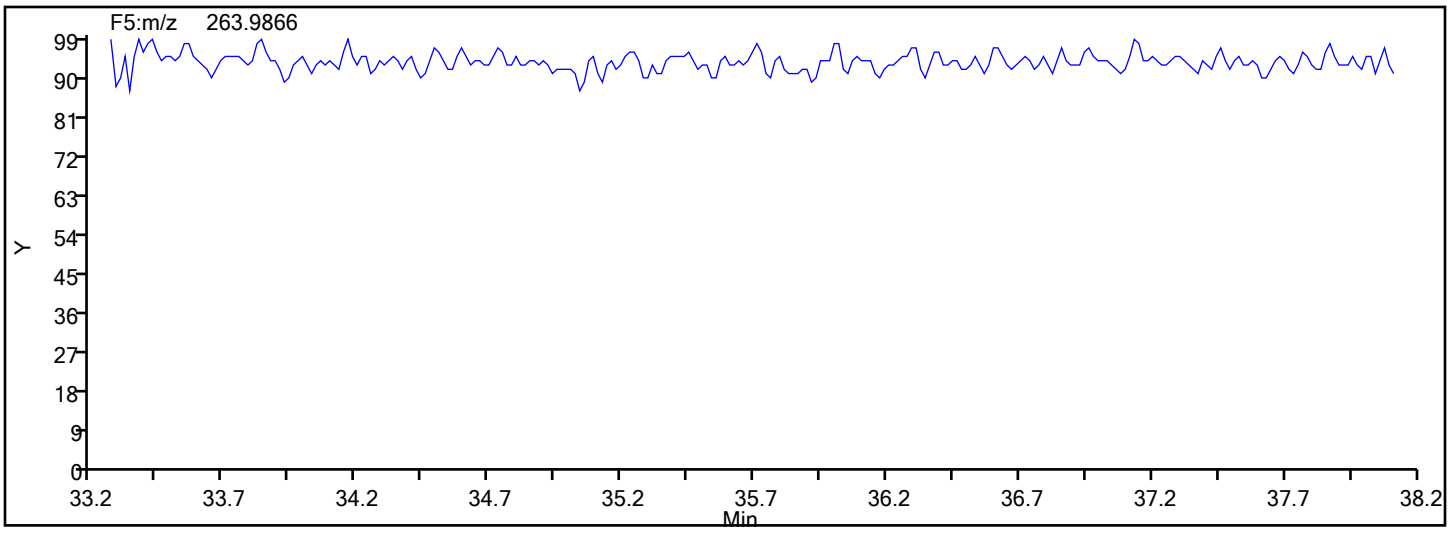
Nonachlor





Nonachlor Lock Mass



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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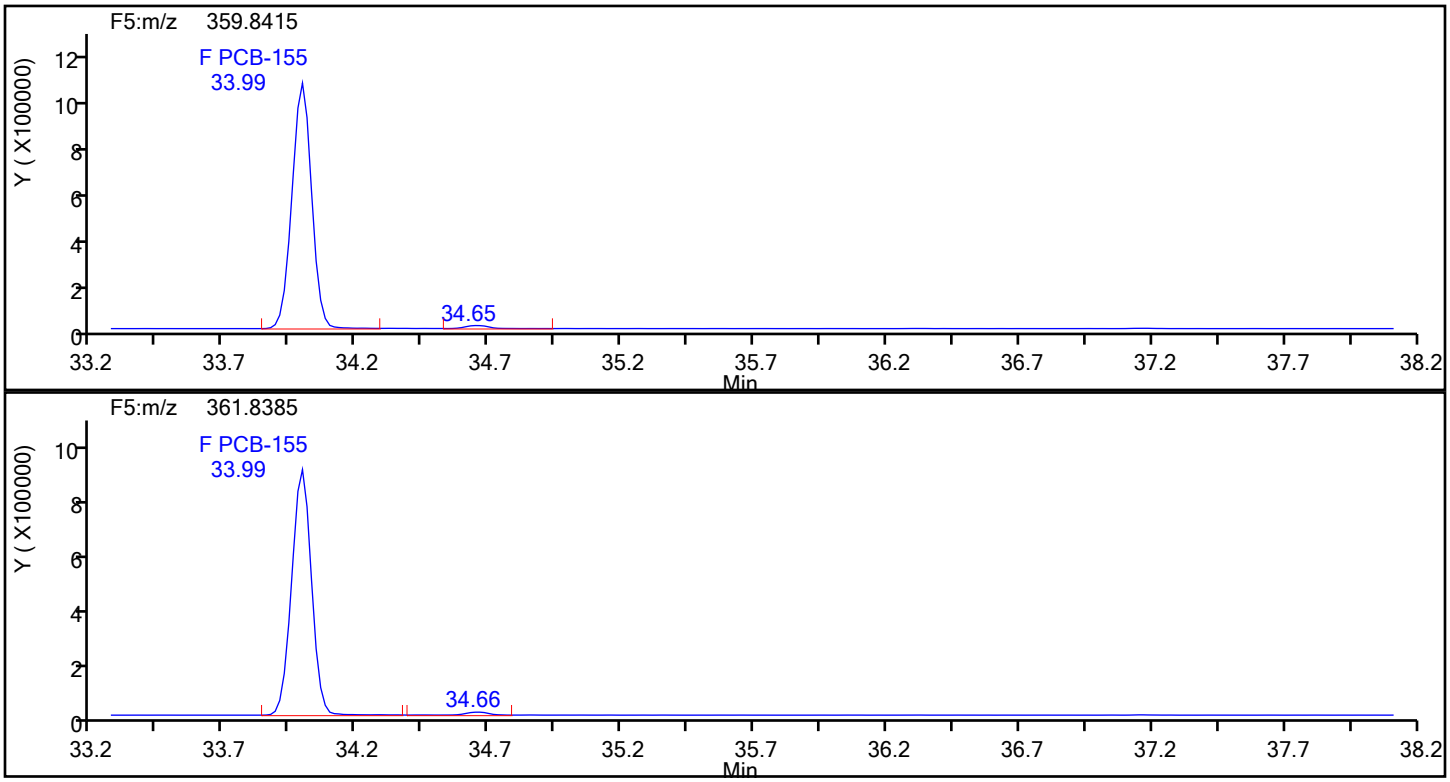
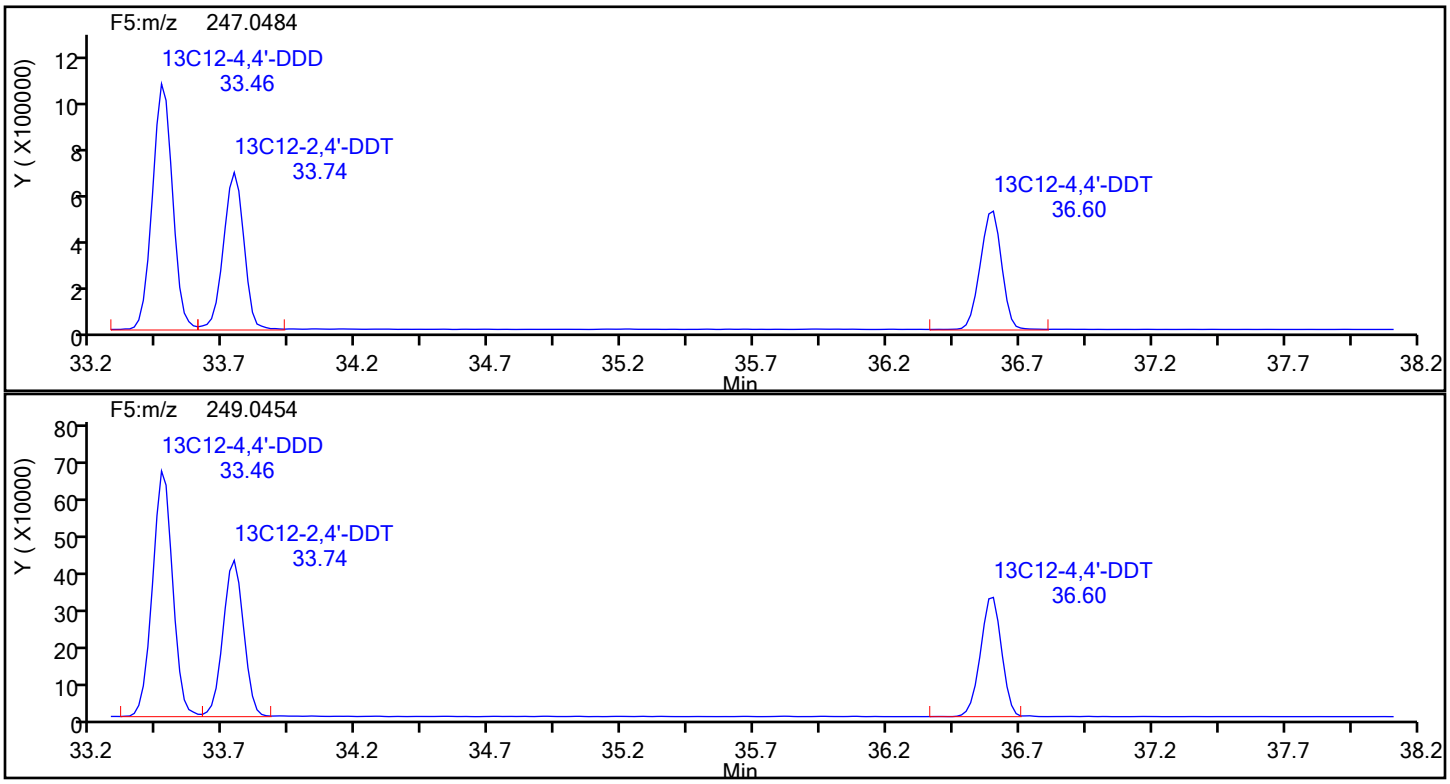
PCB-155



PCB-155 Standards



Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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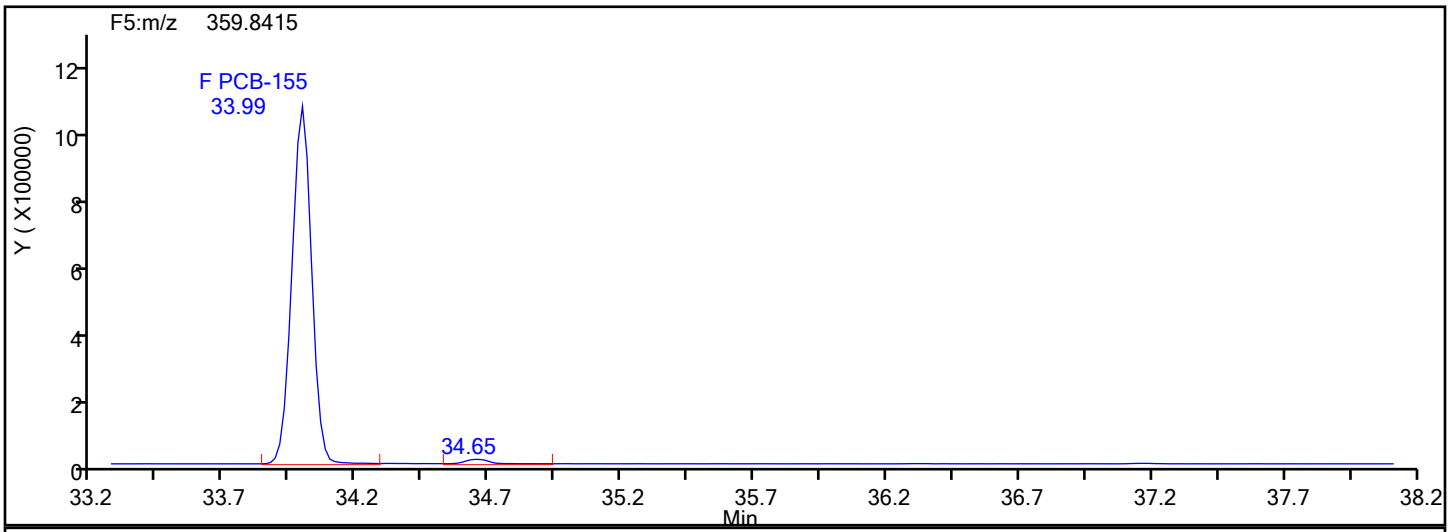
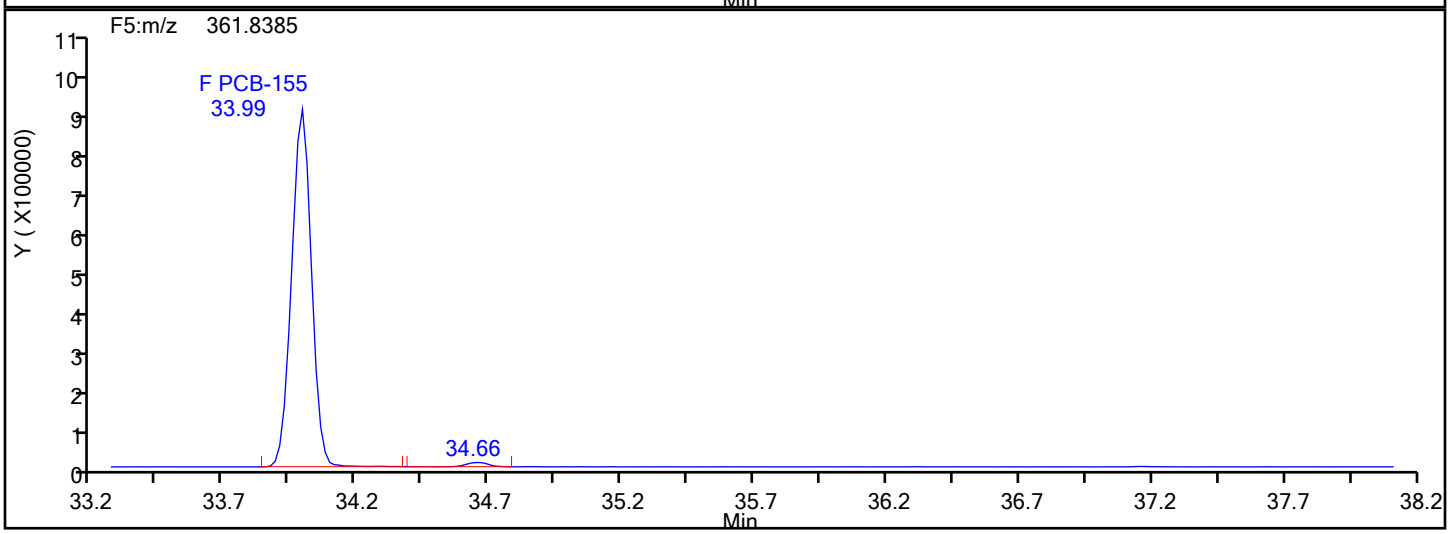
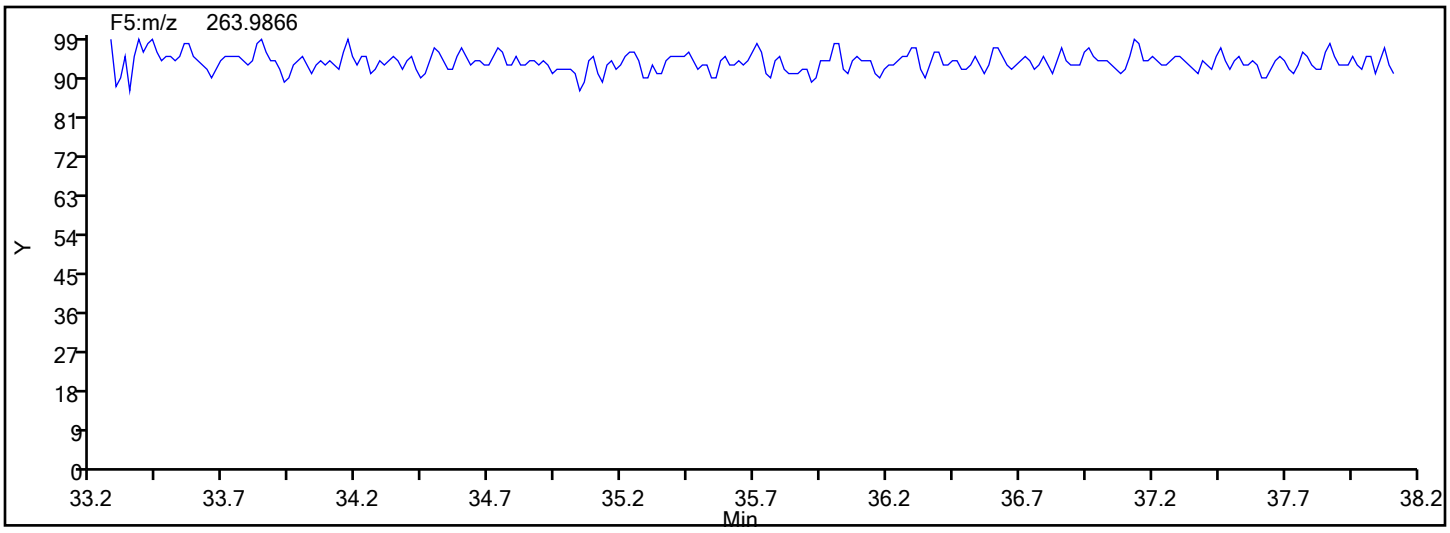
PCB-155





PCB-155 Lock Mass



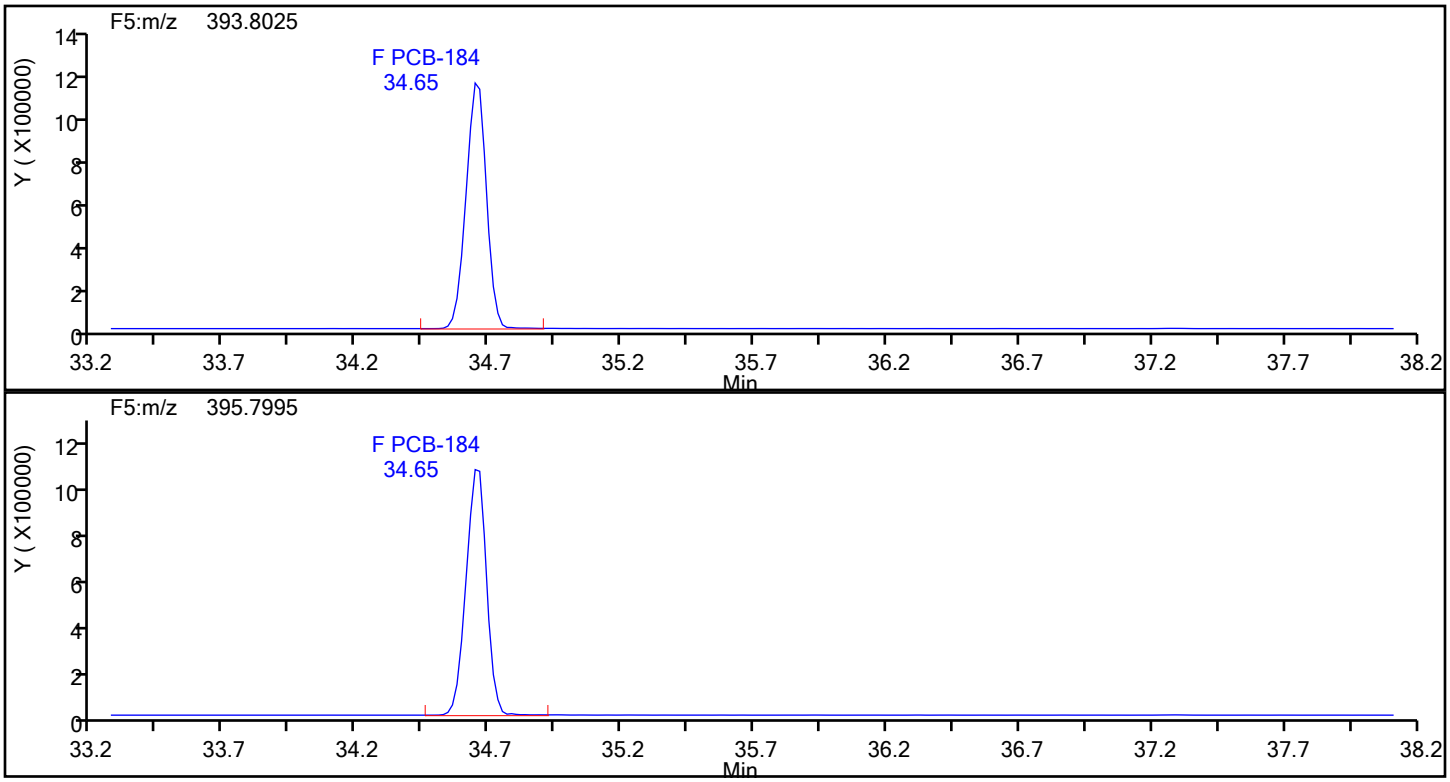
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

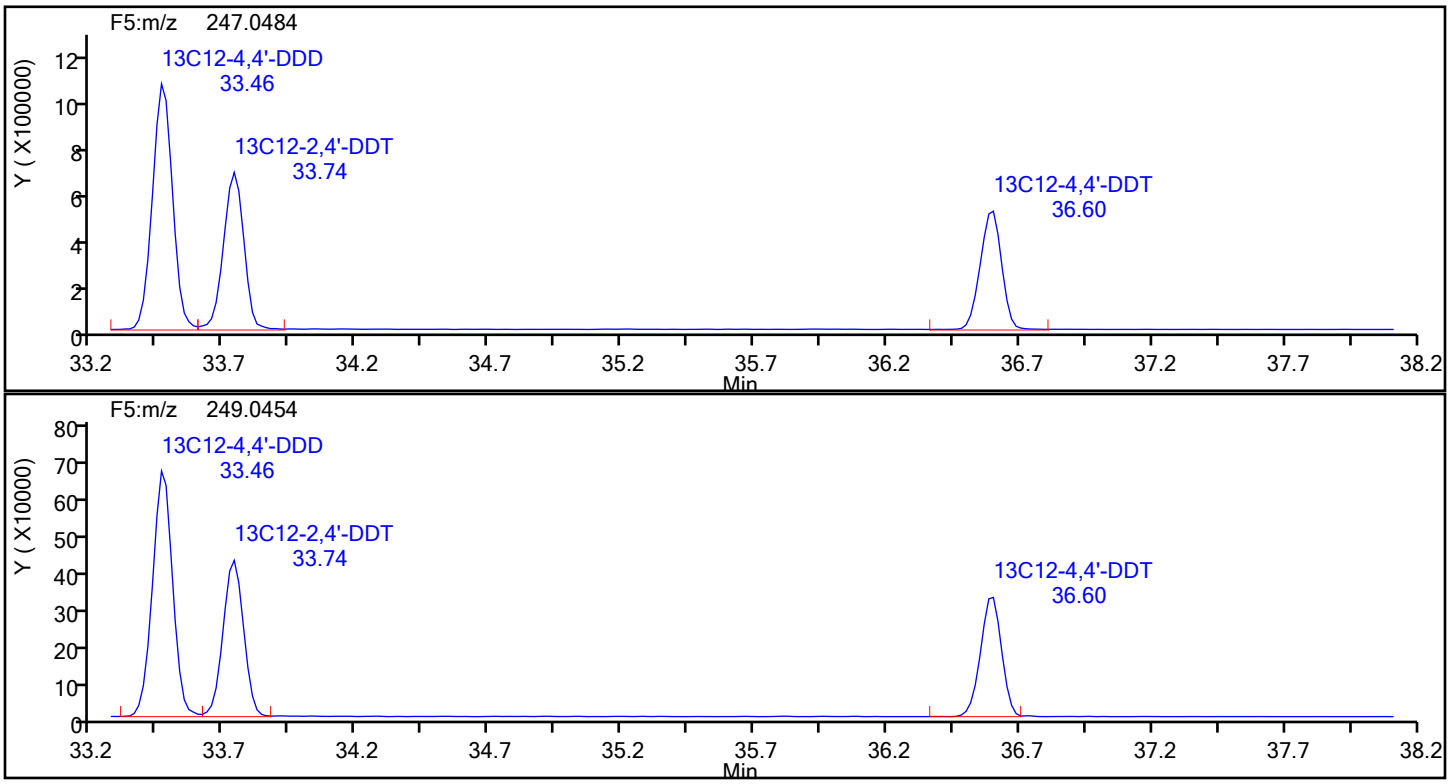
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

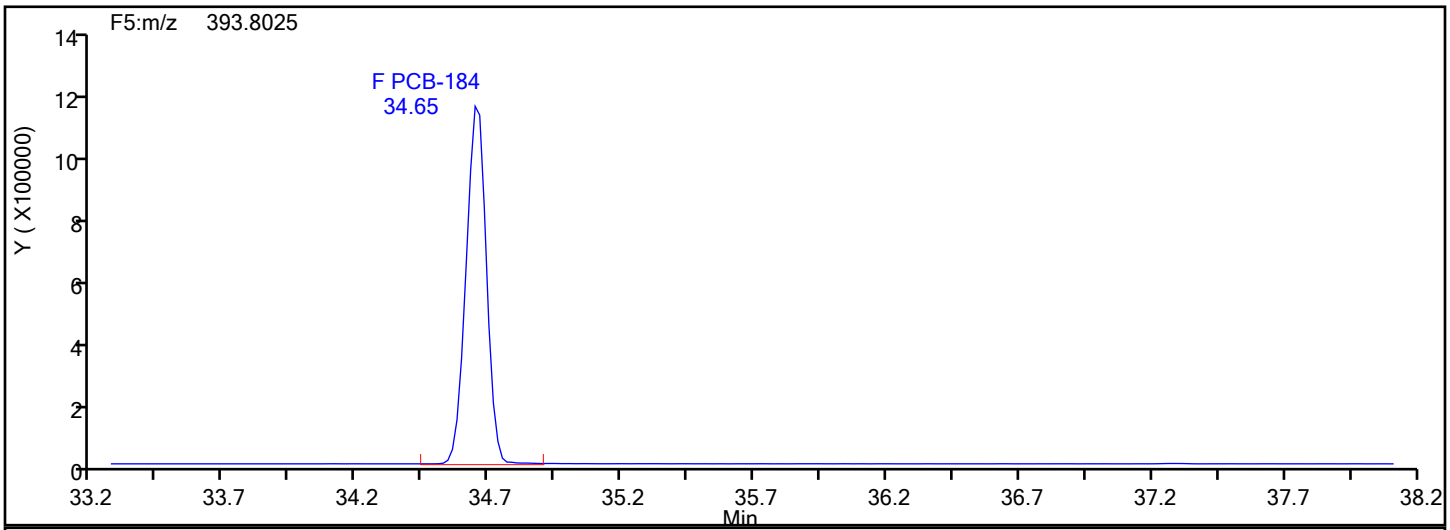


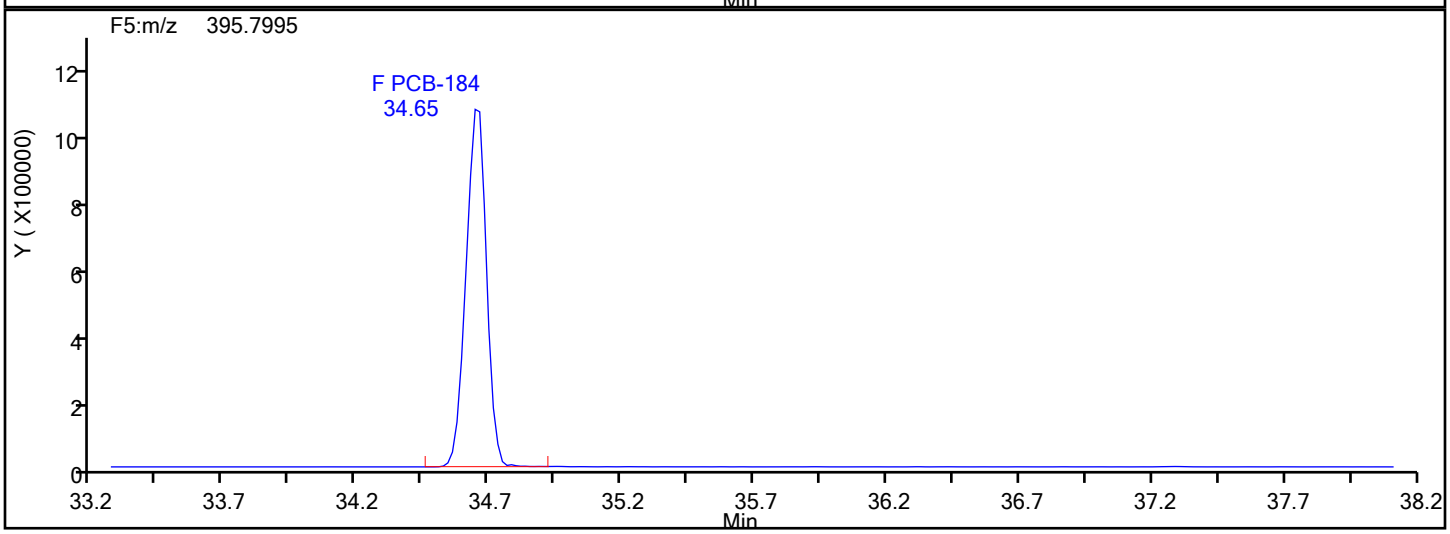
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

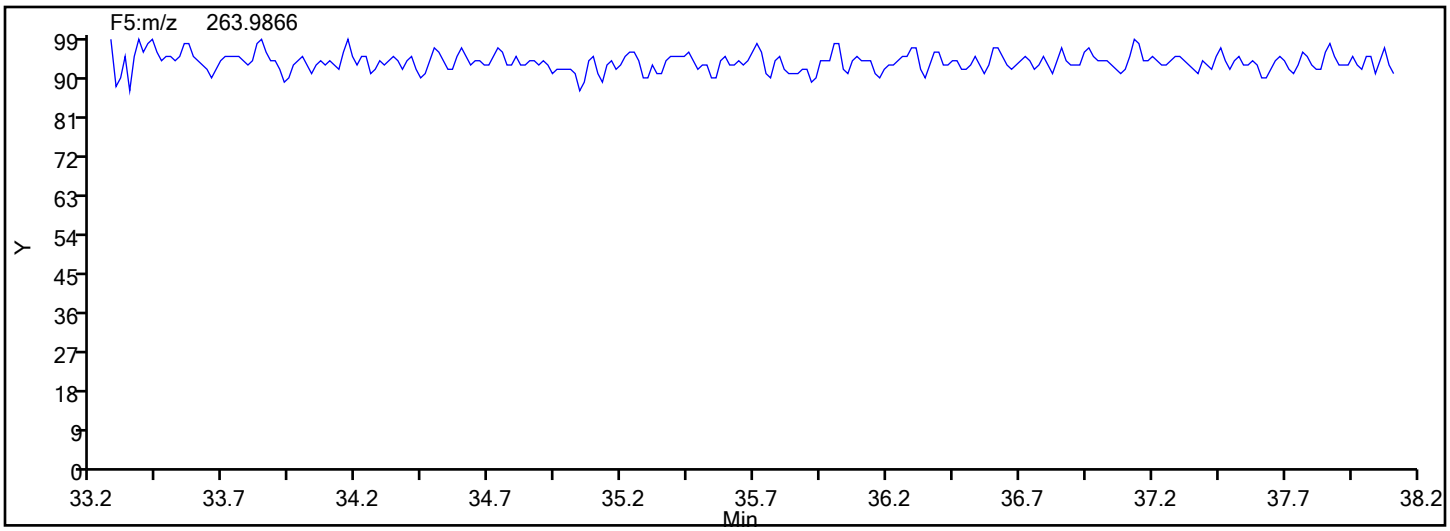
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



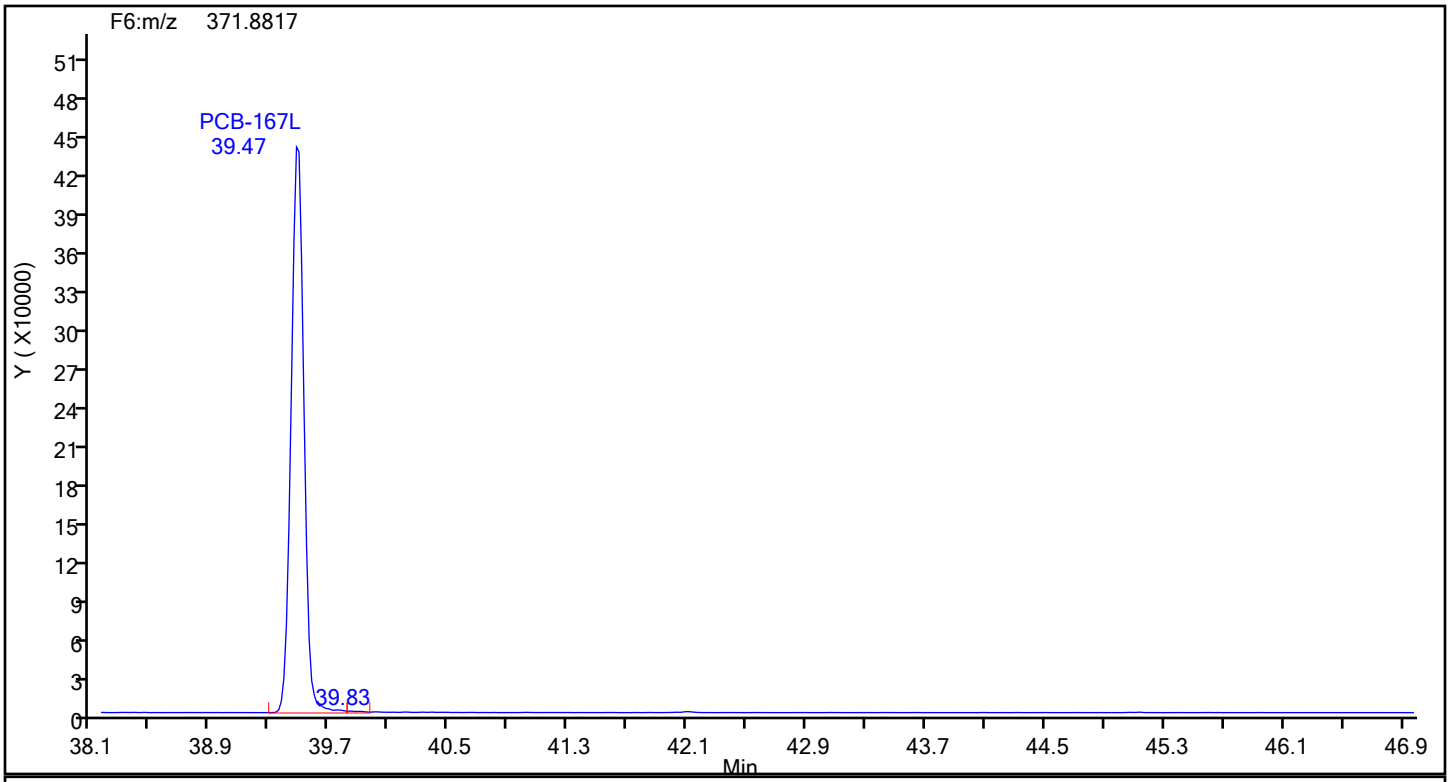
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

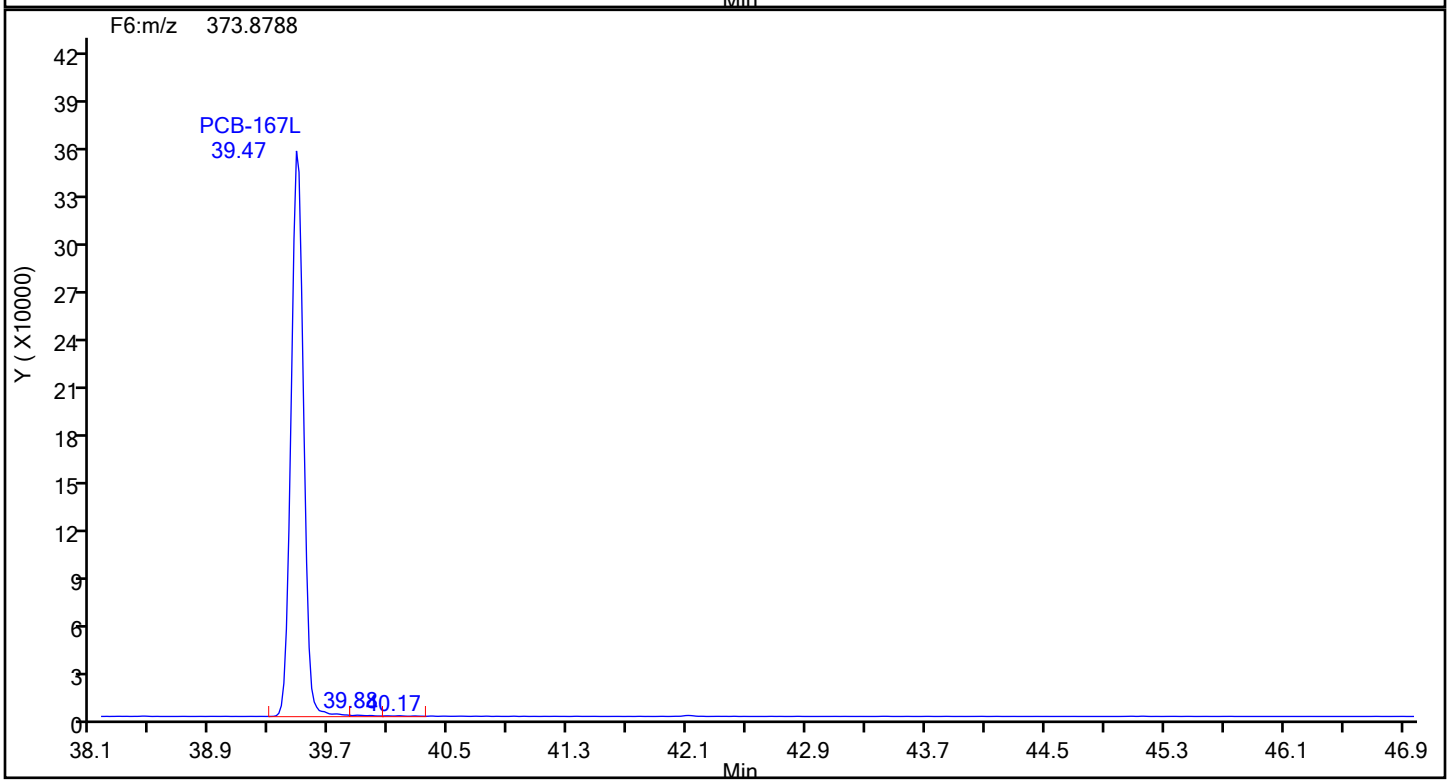
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





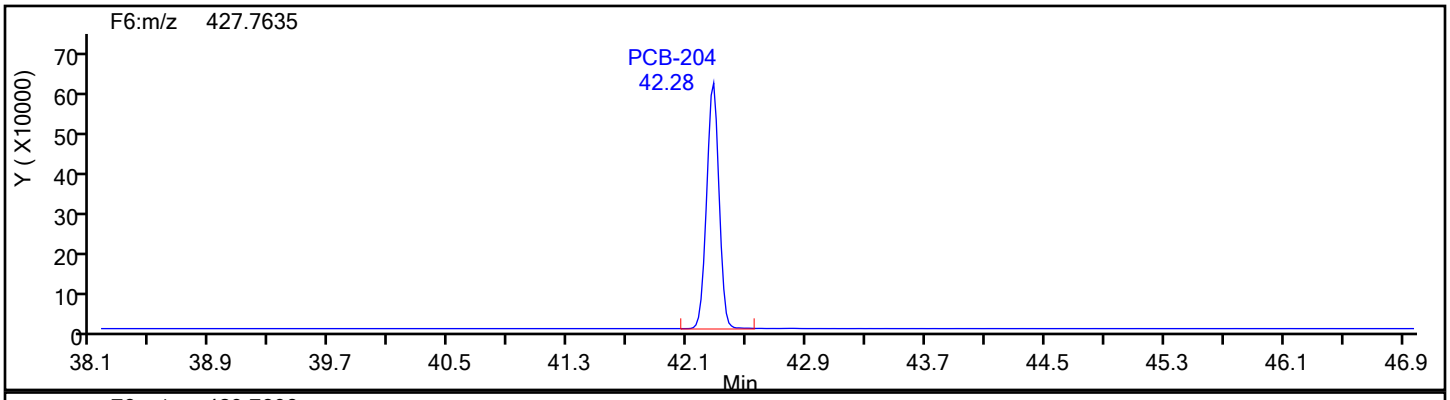
Report Date: 31-Mar-2025 13:49:13 Chrom Revision: 2.3 21-Mar-2025 14:03:38

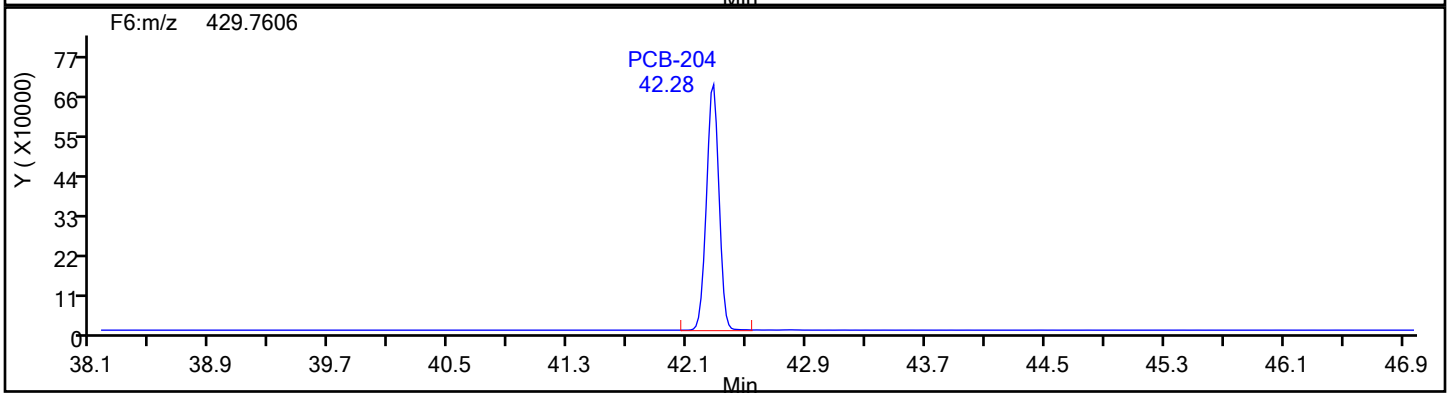
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

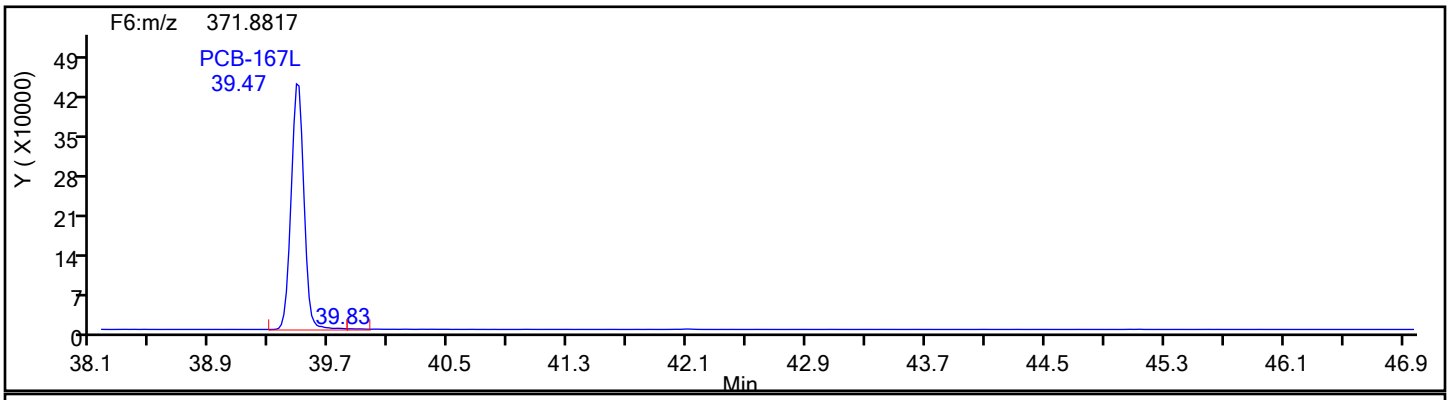
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

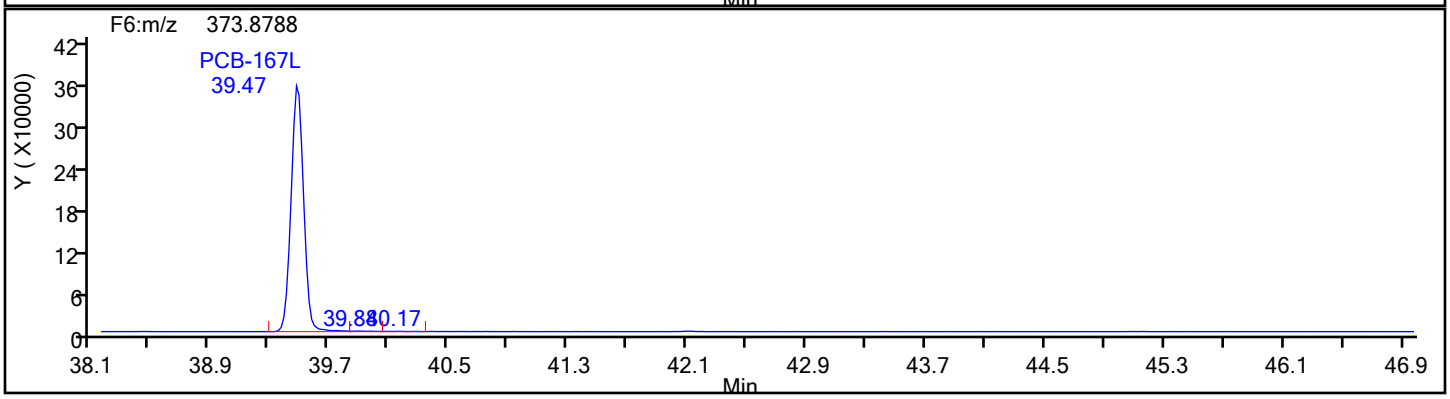
PCB-204





PCB-204 Standards



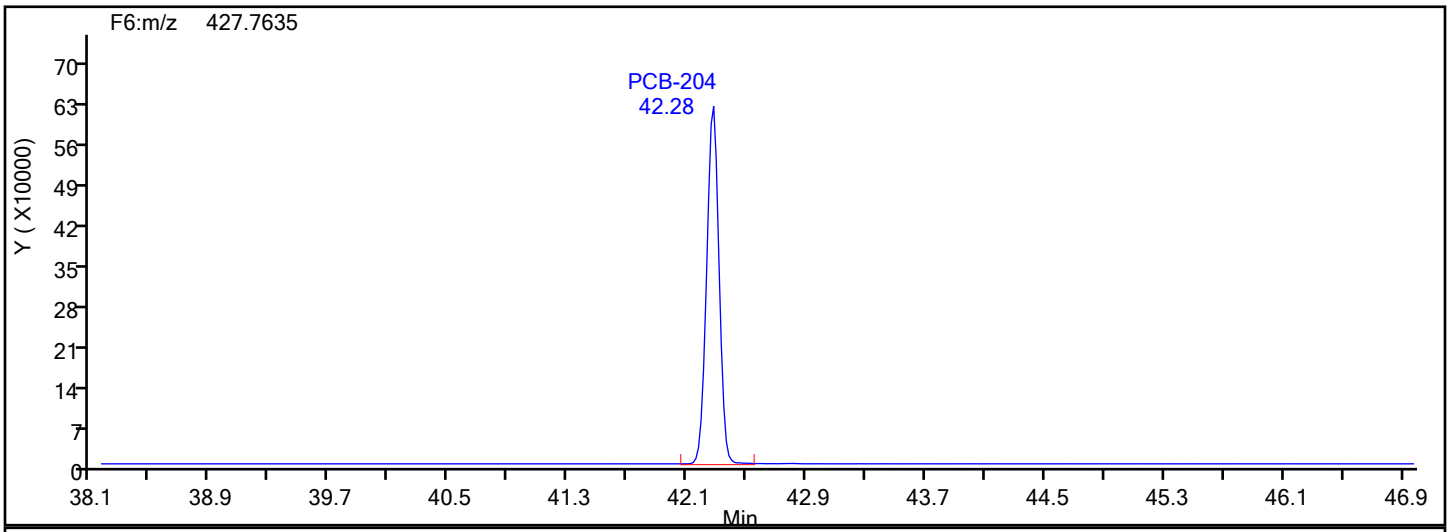


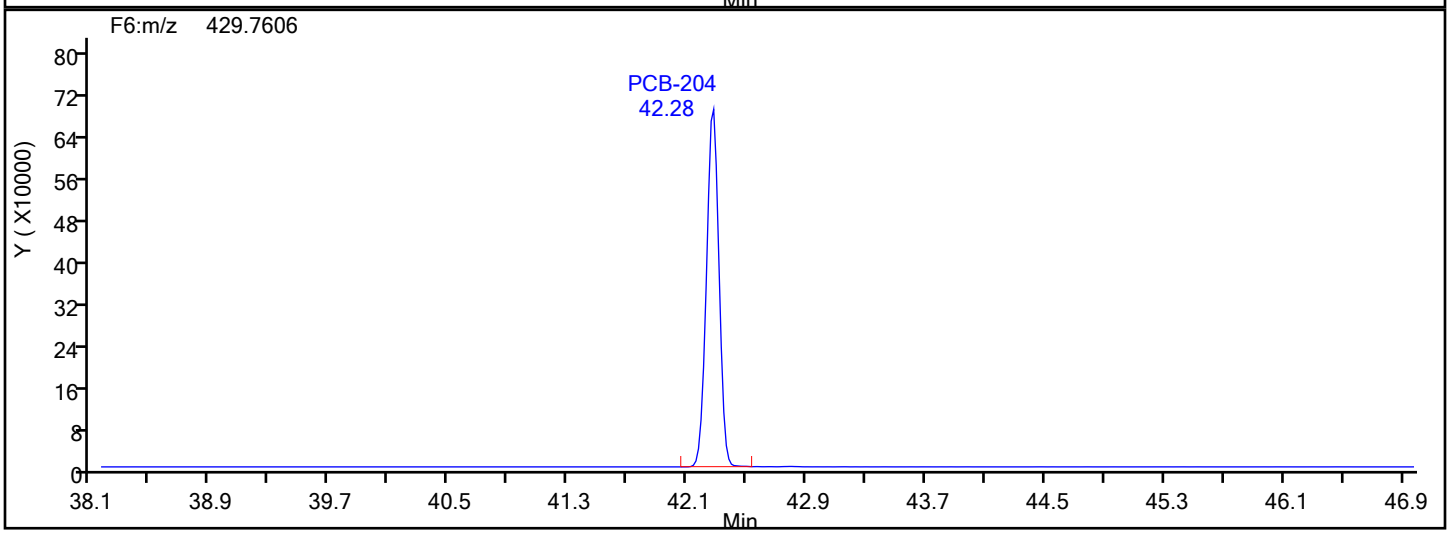
Report Date: 31-Mar-2025 13:49:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

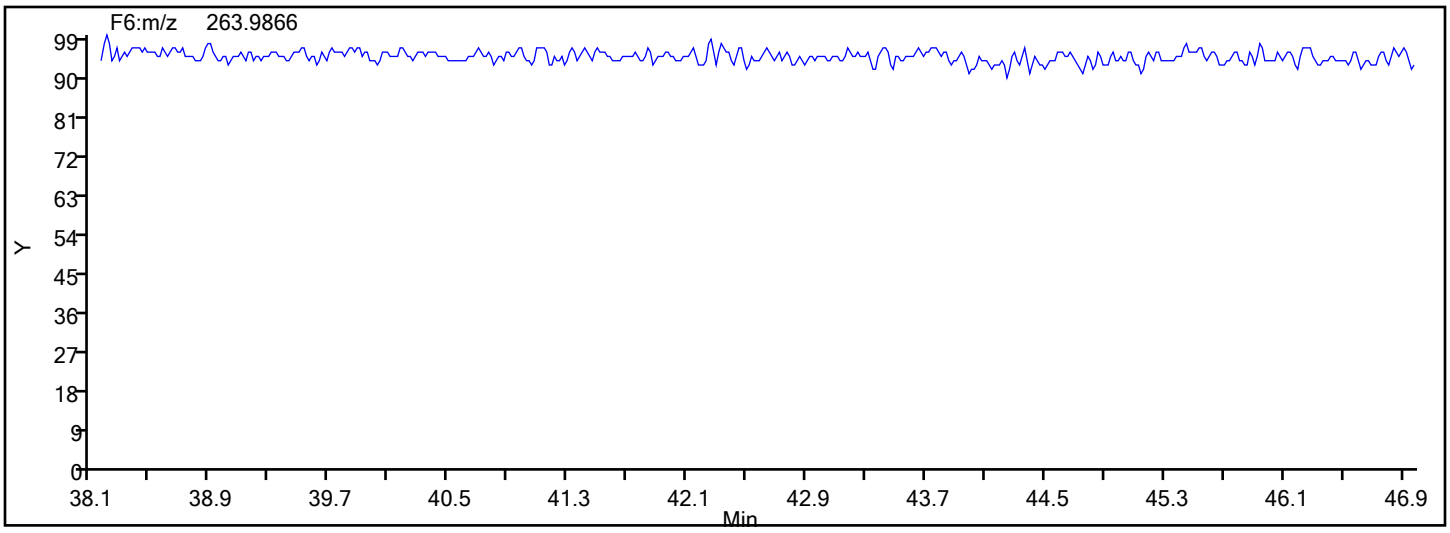
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



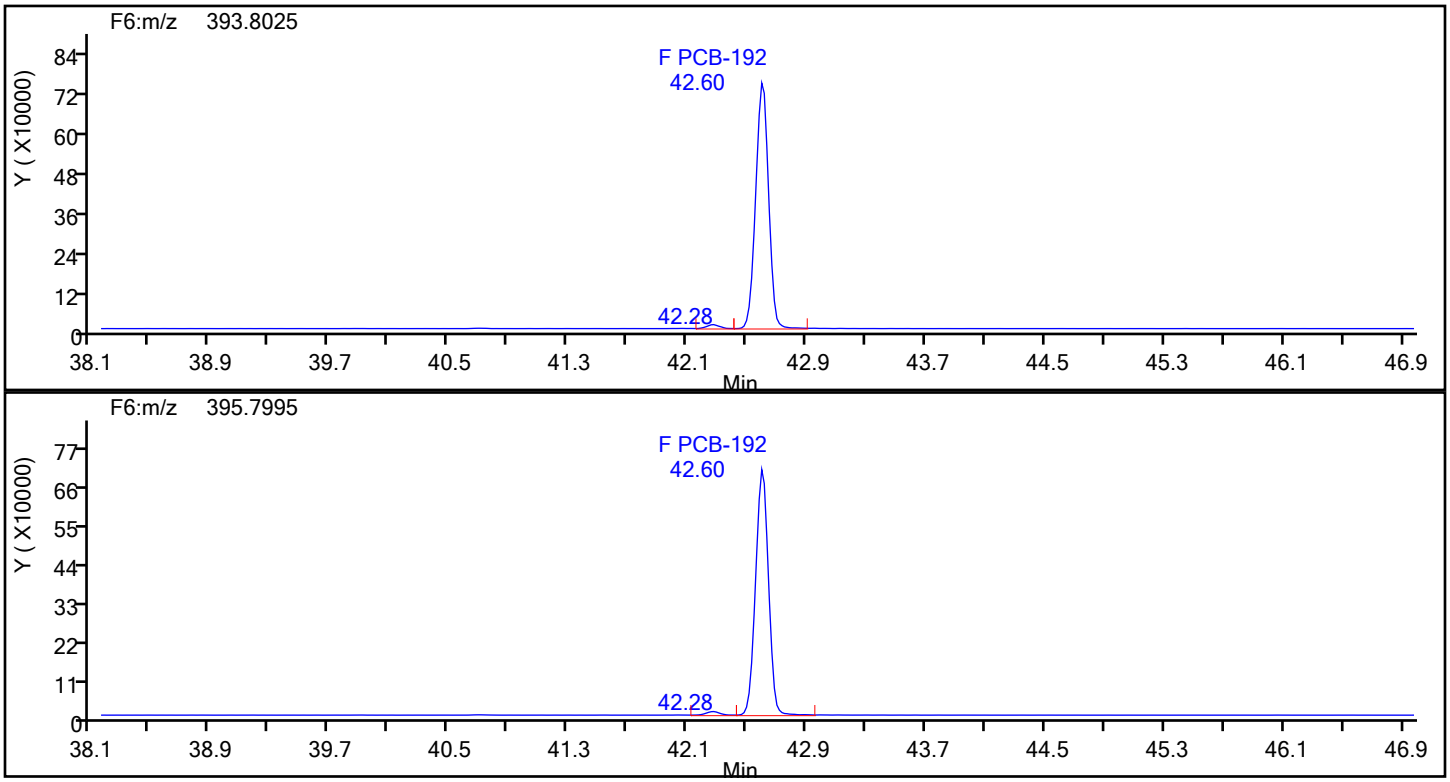
Report Date: 31-Mar-2025 13:49:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

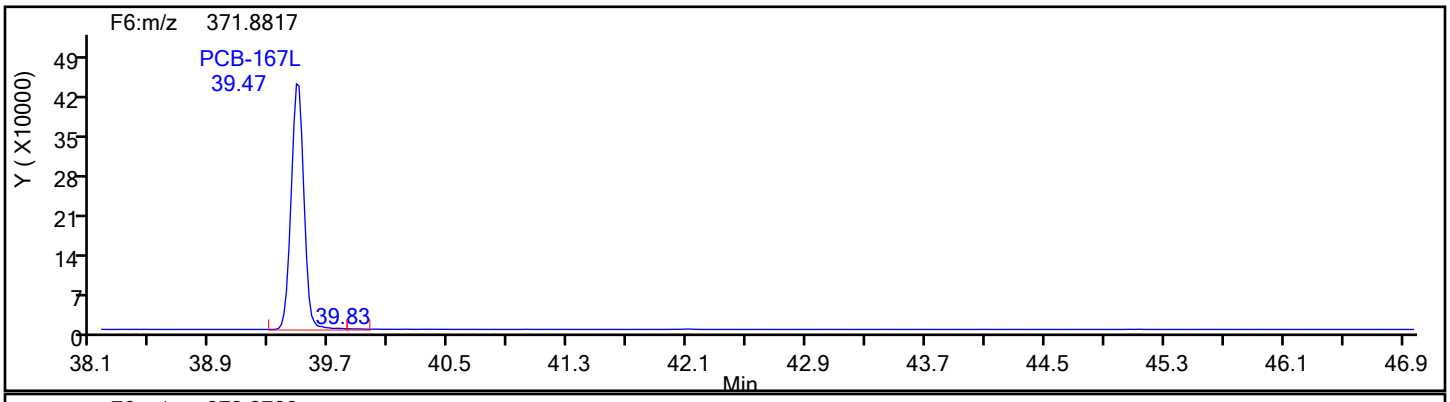
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d

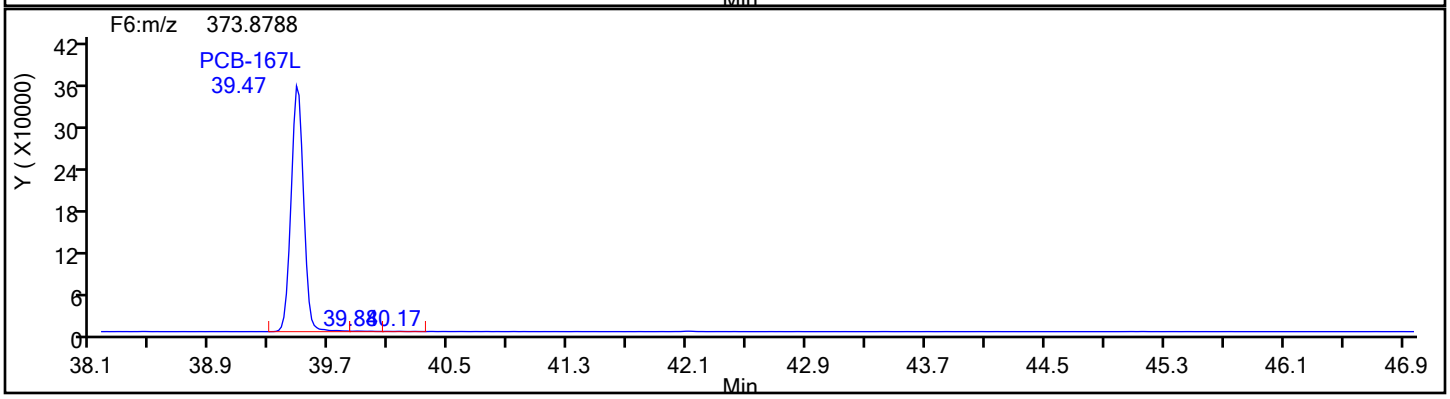
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192



PCB-192 Standards



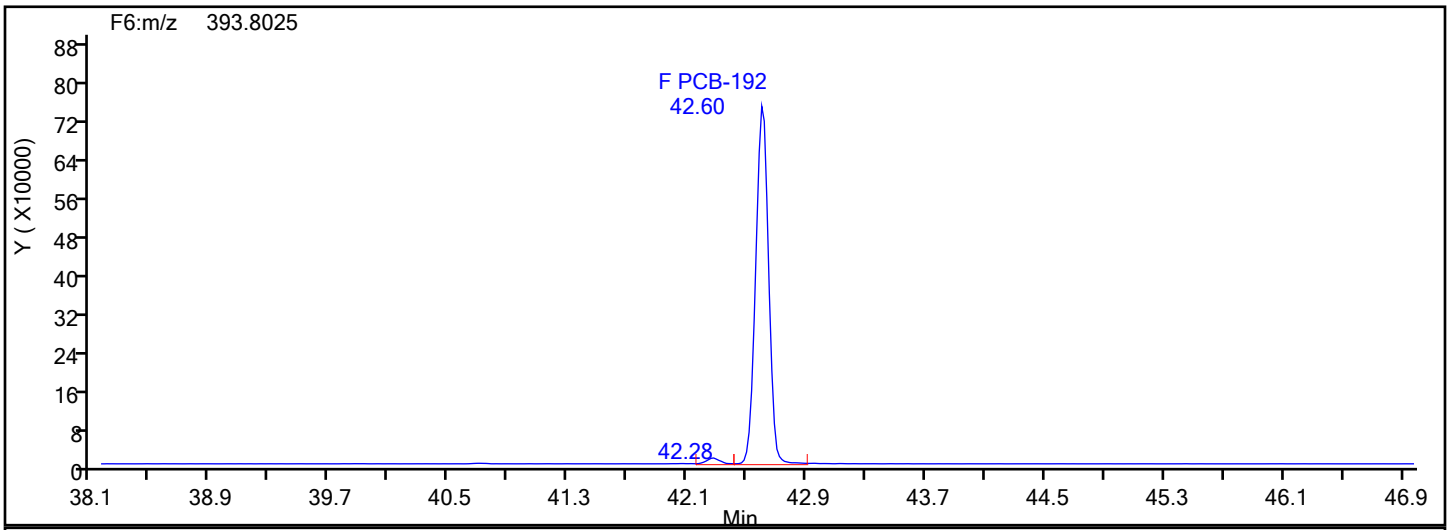


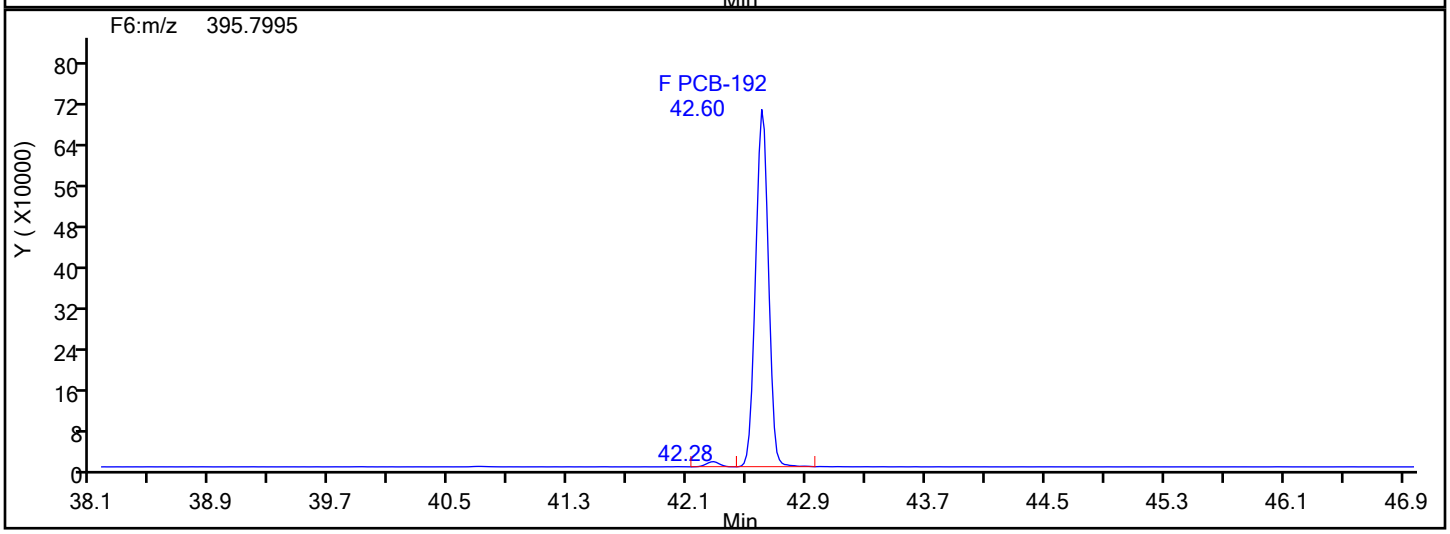
Report Date: 31-Mar-2025 13:49:14 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

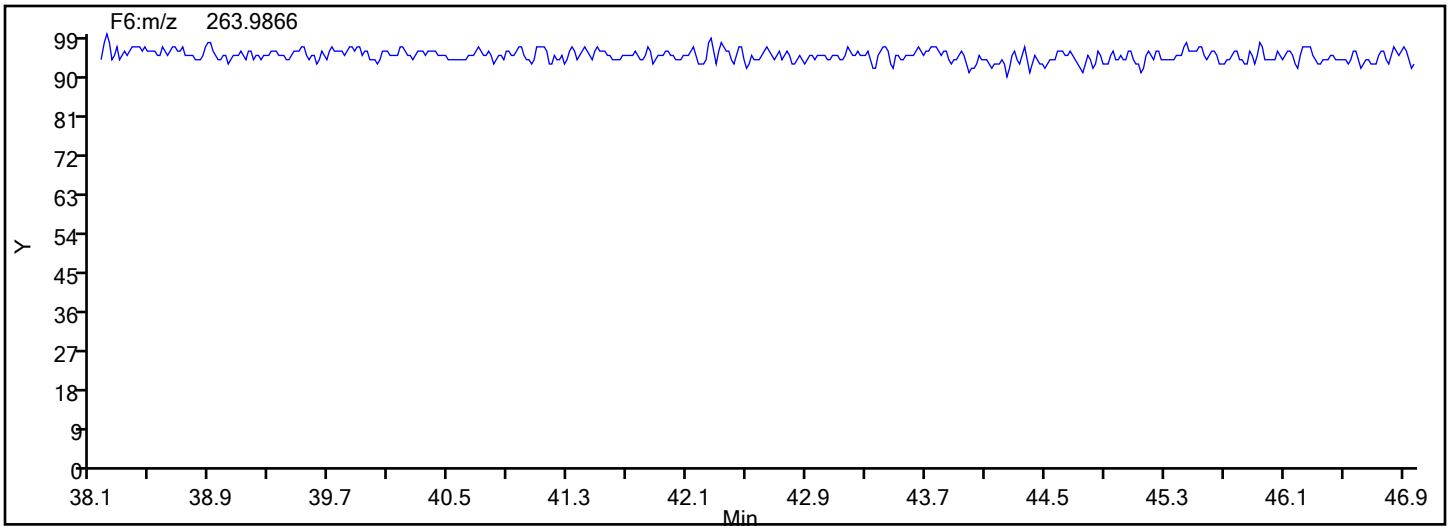
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\d3250328c1a.d		
Injection Date:	28-Mar-2025 10:14:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97726/1 | Calibration Date: 03/28/2025 22:12

Instrument ID: D3PST | Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) | Calib End Date: 03/20/2025 01:05

Lab File ID: d3250329c1a.d | Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
alpha-BHC	AveID	1.094	0.9412		172	200	86	75-125
Hexachlorobenzene	AveID	1.157	0.9673		167	200	84	75-125
PCB-14	Ave	1.358	1.136		210	251	84	50-150
beta-BHC	AveID	1.005	0.8810		175	200	88	75-125
Pentachlorophenol	Ave	0.8359	1.123		2690	2000	134	50-150
gamma-BHC (Lindane)	AveID	0.9800	0.8412		172	200	86	75-125
delta-BHC	AveID	1.124	0.9845		175	200	88	75-125
Heptachlor	AveID	1.086	1.082		199	200	100	75-125
PCB-36	Ave	1.023	0.8527		209	251	83	50-150
PCB-104	Ave	1.837	1.427		195	251	78	50-150
Aldrin	AveID	1.089	0.9872		181	200	91	75-125
Heptachlor epoxide	AveID	1.146	1.125		196	200	98	75-125
oxy-Chlordane	AveID	1.104	0.9697		176	200	88	75-125
PCB-121	Ave	1.462	1.105		190	251	76	50-150
PCB-142	Ave	2.027	1.511		187	251	75	50-150
gamma-Chlordane	AveID	1.143	1.120		196	200	98	75-125
2,4'-DDE	AveID	1.283	1.021		159	200	80	75-125
Endosulfan I	AveID	1.093	1.128		206	200	103	75-125
alpha-Chlordane	AveID	1.055	0.9811		186	200	93	75-125
trans-Nonachlor	AveID	1.078	1.115		207	200	103	75-125
PCB-78	Ave	0.9153	0.9260		254	251	101	50-150
4,4'-DDE	AveID	1.253	1.074		172	200	86	75-125
Dieldrin	AveID	1.072	1.083		202	200	101	75-125
2,4'-DDD	AveID	1.176	0.9654		164	200	82	75-125
Endrin	AveID	1.068	1.044		196	200	98	75-125
Endosulfan II	AveID	1.097	1.151		210	200	105	75-125
4,4'-DDD	AveID	1.235	1.039		168	200	84	75-125
2,4'-DDT	AveID	1.181	1.003		170	200	85	75-125
cis-Nonachlor	AveID	1.076	1.051		195	200	98	75-125
PCB-155	Ave	0.9191	0.7672		209	251	83	50-150
Endrin aldehyde	AveID	1.128	1.083		192	200	96	75-125
PCB-184	Ave	1.161	0.8812		190	251	76	50-150
Endosulfan sulfate	AveID	1.083	1.132		209	200	104	75-125
4,4'-DDT	AveID	1.210	1.039		172	200	86	75-125
Endrin ketone	AveID	1.155	1.163		201	200	101	75-125
Methoxychlor	AveID	1.325	1.114		168	200	84	75-125
PCB-204	Ave	0.7364	0.5877		200	251	80	50-150
PCB-192	Ave	0.7635	0.7169		236	251	94	50-150
Mirex	AveID	1.023	1.060		207	200	104	75-125
13C6-alpha BHC	Ave	0.1704	0.2778		163	100	163*	50-150
13C6-Hexachlorobenzene	Ave	0.5041	0.5932		118	100	118	50-150

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97726/1 Calibration Date: 03/28/2025 22:12

Instrument ID: D3PST Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 03/20/2025 01:05

Lab File ID: d3250329c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
13C6-beta BHC	Ave	0.1244	0.2203		177	100	177*	50-150
13C6-gamma BHC	Ave	0.1646	0.2793		170	100	170*	50-150
13C6-delta BHC	Ave	0.0992	0.2040		206	100	206*	50-150
13C10-Heptachlor	Ave	0.0715	0.1611		225	100	225*	50-150
13C12-Aldrin	Ave	0.1384	0.1867		135	100	135	50-150
13C10-cis Heptachlor Epoxide	Ave	0.1493	0.3323		223	100	223*	50-150
13C10-oxy Chlordane	Ave	0.0481	0.1110		231	100	231*	50-150
13C10-trans Chlordane	Ave	0.1640	0.2442		149	100	149	50-150
13C12-2,4'-DDE	Ave	2.734	2.383		87.1	100	87	50-150
13C9-Endosulfan I	Ave	0.0555	0.0797		144	100	144	50-150
13C10-cis Chlordane	Ave	0.1741	0.2394		137	100	137	50-150
13C10-trans Nonachlor	Ave	0.1233	0.1882		153	100	153*	50-150
13C12-4,4'-DDE	Ave	1.864	1.434		77.0	100	77	50-150
13C12-Dieldrin	Ave	0.1991	0.1900		95.5	100	95	50-150
13C12-2,4'-DDD	Ave	1.349	1.679		125	100	125	50-150
13C12-Endrin	Ave	0.1181	0.1361		115	100	115	50-150
13C9-Endosulfan II	Ave	0.0248	0.0327		132	100	132	50-150
13C12-4,4'-DDD	Ave	1.139	1.487		130	100	130	50-150
13C12-2,4'-DDT	Ave	0.6754	1.018		151	100	151*	50-150
13C10-cis Nonachlor	Ave	0.0944	0.1158		123	100	123	50-150
13C12-Endrin Aldehyde	Ave	0.0237	0.0390		164	100	164*	50-150
13C9-Endosulfan sulfate	Ave	0.1517	0.2575		170	100	170*	50-150
13C12-4,4'-DDT	Ave	0.5808	0.8577		148	100	148	50-150
13C11-Endrin Ketone	Ave	0.0648	0.1333		206	100	206*	50-150
13C12-Methoxychlor	Ave	0.6709	0.9321		139	100	139	50-150
13C10-Mirex	Ave	0.9459	1.212		128	100	128	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	28 Mar 2025 21:42
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

(5)

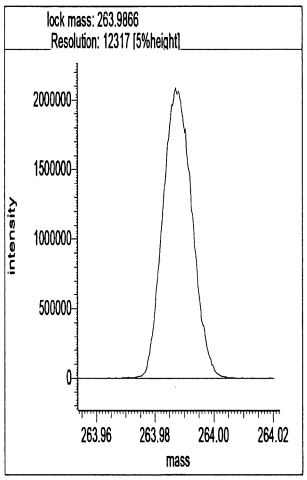
_d3250328 r4

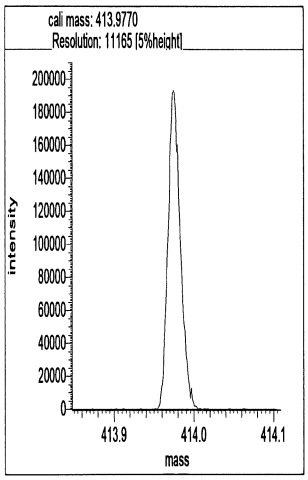
Segment 1

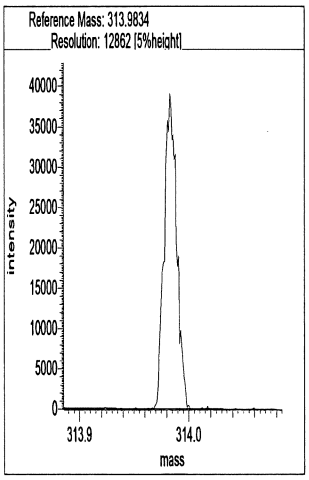
Lock mass 263.9866 [m/z] Resolution: 12317 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11165 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12862 [5%height]





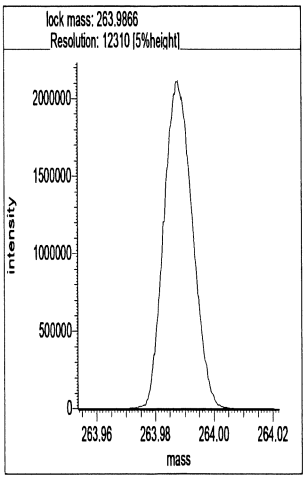


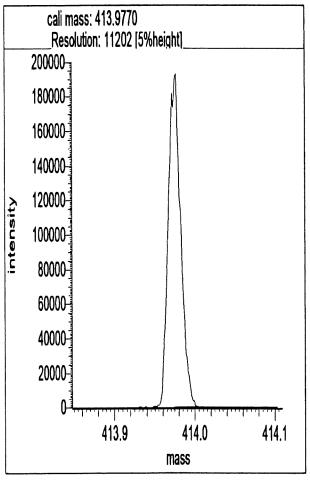
Segment 2

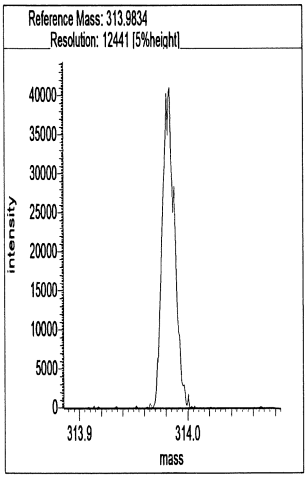
Lock mass 263.9866 [m/z] Resolution: 12310 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11202 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12441 [5%height]





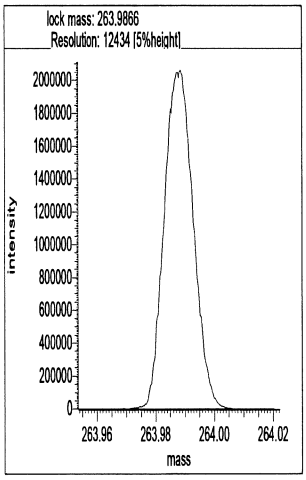


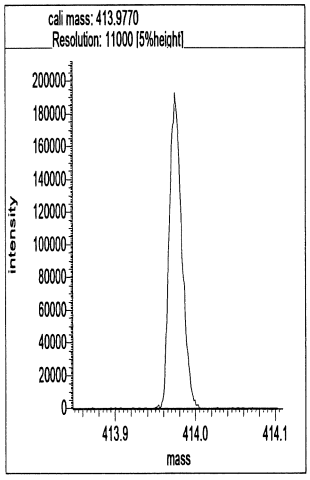
Segment 3

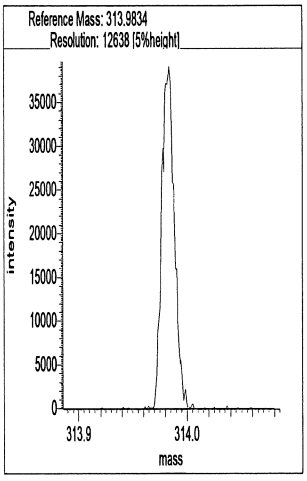
Lock mass 263.9866 [m/z] Resolution: 12434 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11000 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12638 [5%height]





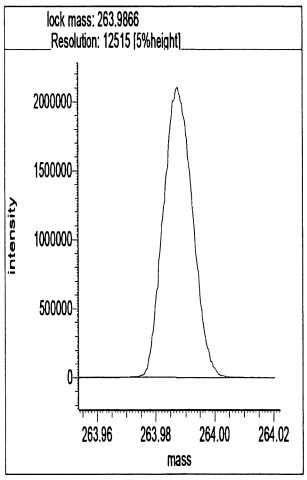


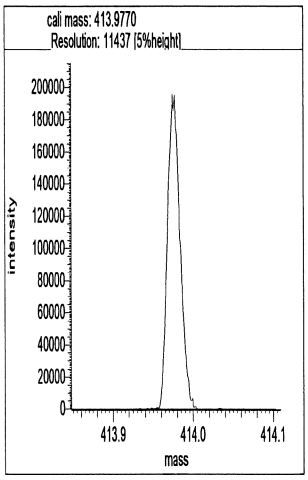
Segment 4

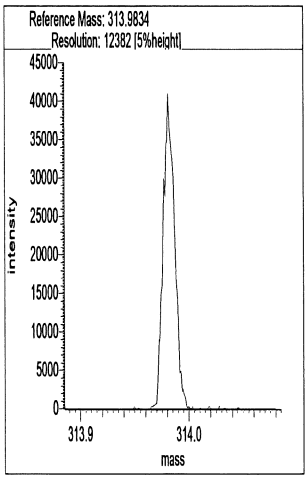
Lock mass 263.9866 [m/z] Resolution: 12515 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11437 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12382 [5%height]





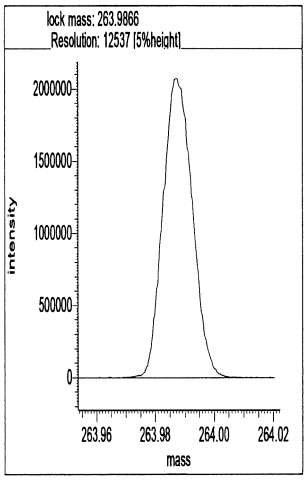


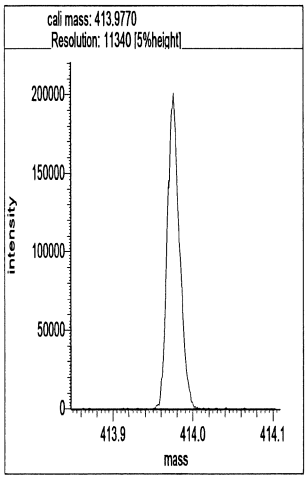
Segment 5

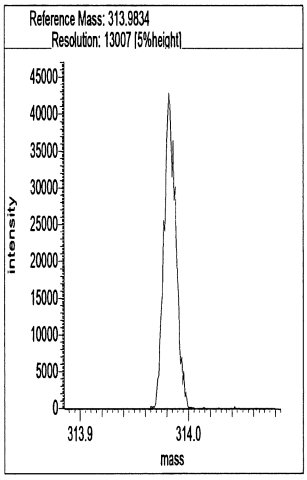
Lock mass 263.9866 [m/z] Resolution: 12537 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11340 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 13007 [5%height]





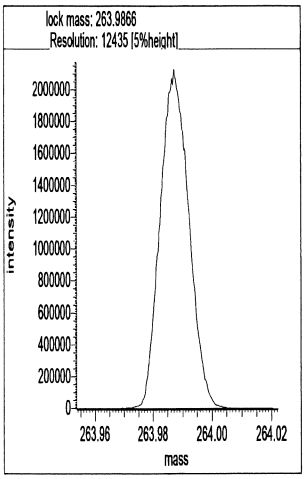


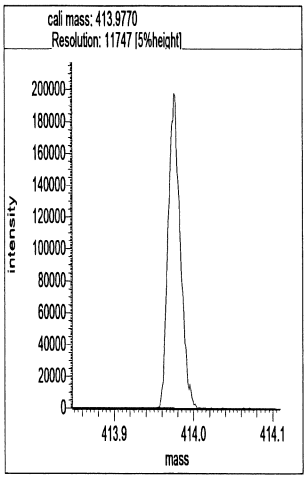
Segment 6

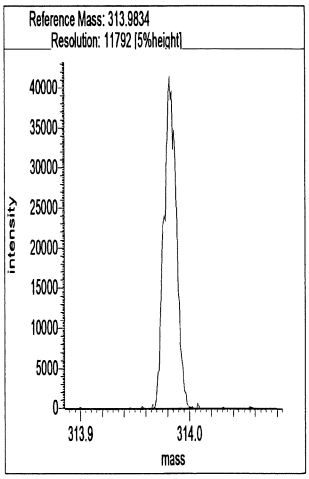
Lock mass 263.9866 [m/z] Resolution: 12435 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11747 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11792 [5%height]

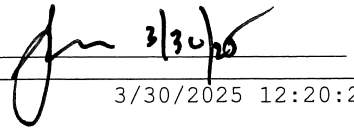

lock mass: 263.9866
Resolution: 12435 [5%height]
intensity
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 11747 [5%height]
intensity
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 11792 [5%height]
intensity
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports

```
12:19:40:  Peak matching procedure started
12:19:40:
12:19:41:  Reference mass: 263.98656
12:19:41:  Sample mass: 414.0
12:19:42:
12:19:42:  Finding reference mass
12:19:43:  Finding sample mass
12:19:44:
12:19:49:  [1]   413.9850 amu, mean: 413.9850
12:19:52:  [2]   413.9843 amu, mean: 413.9847     SD: 0.46 mmu or: 1.11 ppm
12:19:56:  [3]   413.9840 amu, mean: 413.9845     SD: 0.48 mmu or: 1.17 ppm
12:19:59:  [4]   413.9839 amu, mean: 413.9843     SD: 0.47 mmu or: 1.14 ppm
12:20:02:  [5]   413.9832 amu, mean: 413.9841     SD: 0.64 mmu or: 1.53 ppm
12:20:05:  [6]   413.9831 amu, mean: 413.9839     SD: 0.69 mmu or: 1.67 ppm
12:20:08:  [7]   413.9830 amu, mean: 413.9838     SD: 0.72 mmu or: 1.75 ppm
12:20:11:  [8]   413.9824 amu, mean: 413.9836     SD: 0.84 mmu or: 2.04 ppm
12:20:15:  [9]   413.9830 amu, mean: 413.9836     SD: 0.82 mmu or: 1.98 ppm
12:20:18:  [10]   413.9826 amu, mean: 413.9835     SD: 0.83 mmu or: 2.00 ppm
12:20:21:  [11]   413.9835 amu, mean: 413.9835     SD: 0.79 mmu or: 1.90 ppm
12:20:21:
12:20:21:  Stop requested. Please wait for procedure to finish.
12:20:21:
12:20:24:
12:20:24:  Peakmatching stopped
```

Signature 

Report Date: 06-May-2025 18:33:14 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Preliminary Report

Eurofins Knoxville

Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329bd1a.d
Lims ID: BKDN
Client ID:
Sample Type: PEM
Inject. Date: 28-Mar-2025 23:07:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-002
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist:

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:48:23 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 17:47:18

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C12-4,4'-DDE	30:10	26221873	1.56	1.8637					0.00	6q
4,4'-DDE	30:11	5498919	1.58	1.2526	83.7	83.7	0.0388	0.0388		
D 13C12-4,4'-DDD	33:28	35423345	1.53	1.1392					0.00	6q
4,4'-DDD	33:29	4261343	1.59	1.2345	48.7	48.7	0.0678	0.0678		
D 13C12-4,4'-DDT	36:37	21694795	1.54	0.5808					0.00	6q
4,4'-DDT	36:38	342558942	1.65	1.2096	6527.1	6527.1	0.1136	0.1136		E
D 13C12-Endrin	32:04	2375422	1.69	0.1181					0.00	6q
Endrin	32:06	2284543	1.58	1.0678	450.3	450.3	0.1175	0.1175		
D 13C12-Endrin Aldehyde	34:19	1533129	1.52	0.0237					0.00	6iq
Endrin aldehyde	34:21	41306	1.46	1.1278	11.9	11.9	0.1865	0.1865		
D 13C12-Methoxychlor	41:58	17799160	21.07	0.6709					0.00	6q
Methoxychlor	41:59	20476308	5.55	1.3248	434.2	434.2	0.0651	0.0651		
D 13C11-Endrin Ketone	40:26	2406507	1.55	0.0648					0.00	6q
Endrin ketone	40:28	96245	1.53	1.1546	17.3	17.3	0.1989	0.1989		
S DDTR							0.000100	0.000100		
S Total Chlordane							0.000100	0.000100		

QC Flag Legend

Processing Flags
- E - Exceeded Maximum Amount
- 6 - Missing Quant Standard
- i - Failed Initial Calibration Limits
- q - Failed One or More Quality Tests

4,4'-DDT breakdown $\left(\frac{9766262}{342558942}\right)100 = 2.85\%$

Endrin breakdown $\left(\frac{137551}{2284543}\right)100 = 6.02\%$

Reagents:

61CCVBD_00005 Amount Added: 20.00 Units: uL

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	29 Mar 2025 08:41
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

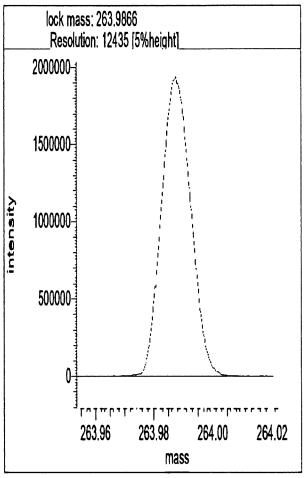
_d3250329r1

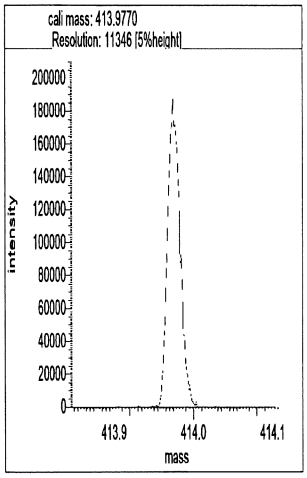
Segment 1

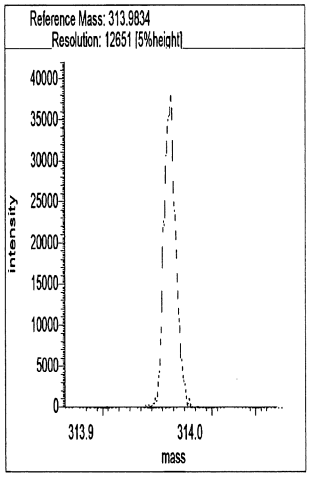
Lock mass 263.9866 [m/z] Resolution: 12435 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11346 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12651 [5%height]





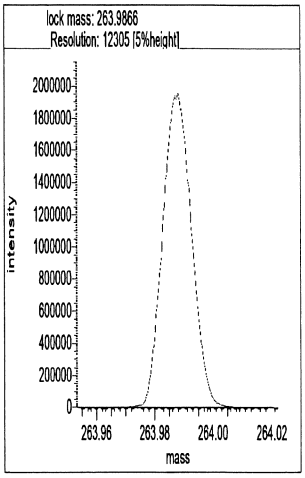


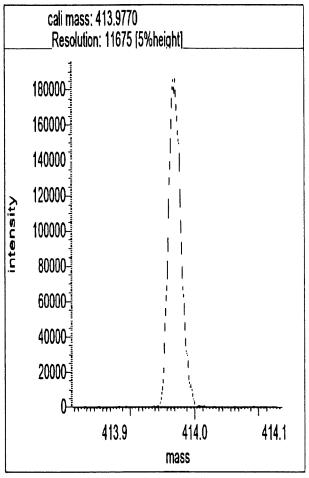
Segment 2

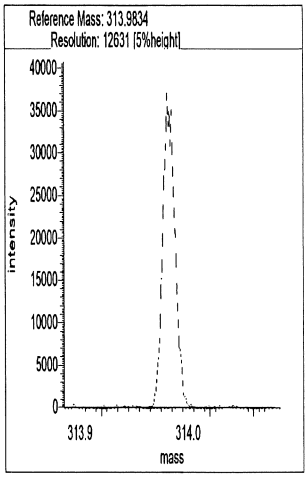
Lock mass 263.9866 [m/z] Resolution: 12305 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11675 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12631 [5%height]





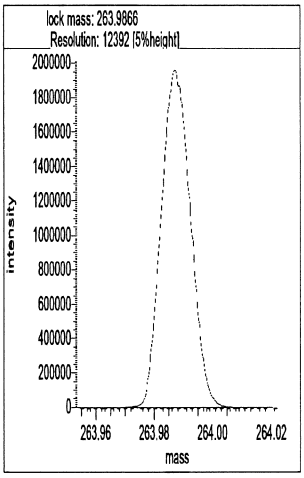


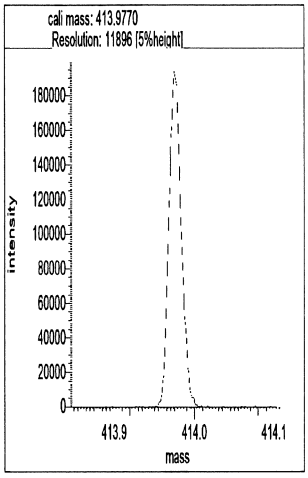
Segment 3

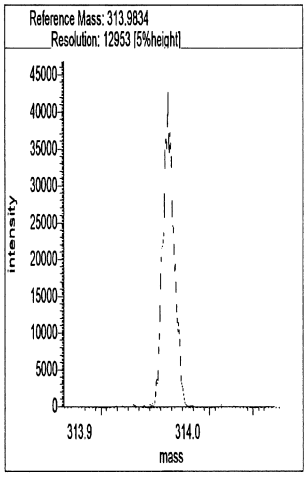
Lock mass 263.9866 [m/z] Resolution: 12392 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11896 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12953 [5%height]





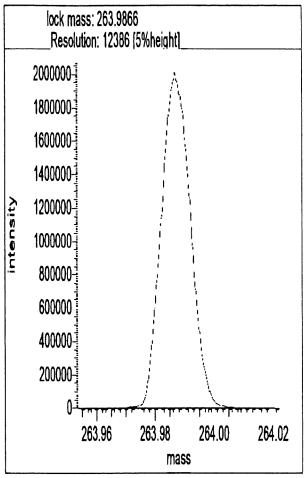


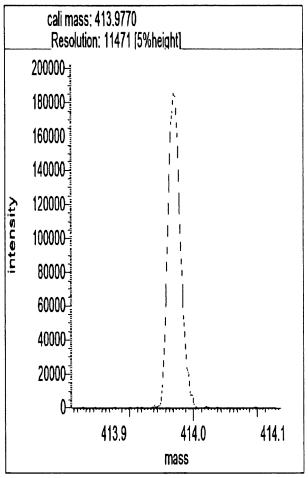
Segment 4

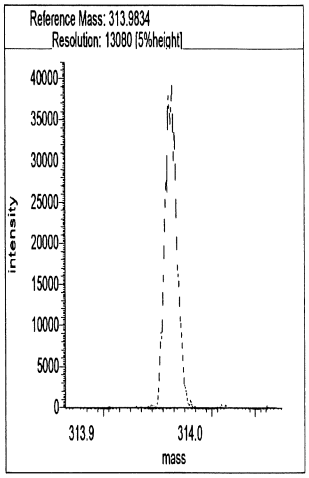
Lock mass 263.9866 [m/z] Resolution: 12386 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11471 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 13080 [5%height]





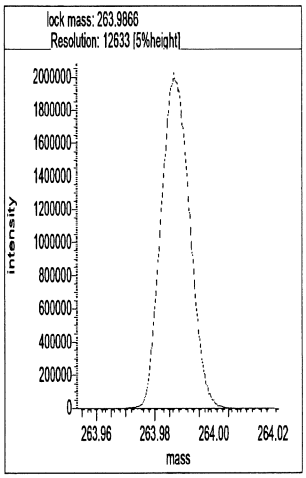


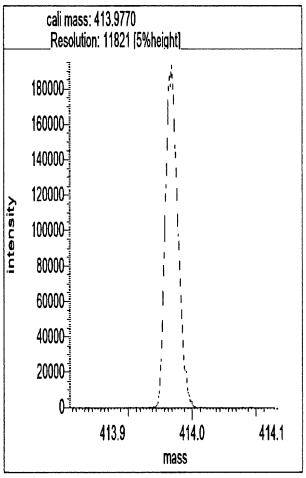
Segment 5

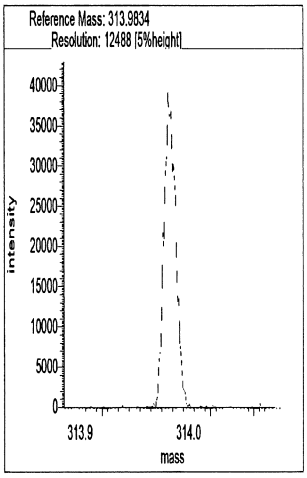
Lock mass 263.9866 [m/z] Resolution: 12633 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11821 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12488 [5%height]





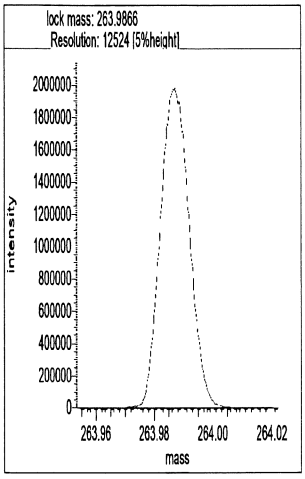


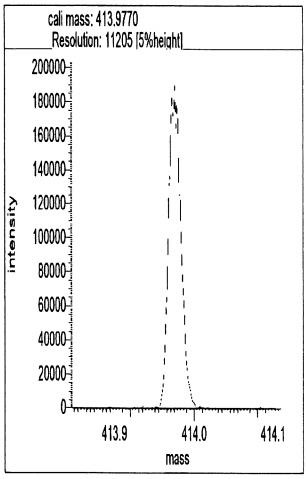
Segment 6

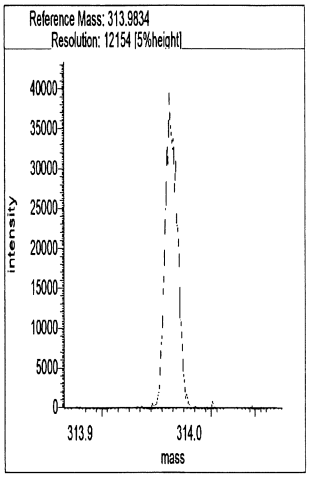
Lock mass 263.9866 [m/z] Resolution: 12524 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11205 [5%height]

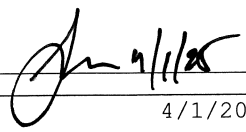
Ref. mass 313.9834 [m/z] Resolution: 12154 [5%height]


lock mass: 263.9866
Resolution: 12524 [5%height]
intensity
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 11205 [5%height]
intensity
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 12154 [5%height]
intensity
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports
12:28:33: Peak matching procedure started
12:28:33:
12:28:34: Reference mass: 263.98656
12:28:34: Sample mass: 414.0
12:28:35:
12:28:35: Finding reference mass
12:28:36: Finding sample mass
12:28:37:
12:28:42: [1] 413.9704 amu, mean: 413.9704
12:28:45: [2] 413.9712 amu, mean: 413.9708 SD: 0.55 mmu or: 1.33 ppm
12:28:49: [3] 413.9708 amu, mean: 413.9708 SD: 0.39 mmu or: 0.94 ppm
12:28:52: [4] 413.9709 amu, mean: 413.9708 SD: 0.32 mmu or: 0.77 ppm
12:28:55: [5] 413.9714 amu, mean: 413.9709 SD: 0.39 mmu or: 0.94 ppm
12:28:58: [6] 413.9713 amu, mean: 413.9710 SD: 0.38 mmu or: 0.93 ppm
12:29:01: [7] 413.9714 amu, mean: 413.9711 SD: 0.38 mmu or: 0.93 ppm
12:29:04: [8] 413.9710 amu, mean: 413.9711 SD: 0.36 mmu or: 0.86 ppm
12:29:07: [9] 413.9707 amu, mean: 413.9710 SD: 0.36 mmu or: 0.86 ppm
12:29:10: [10] 413.9705 amu, mean: 413.9710 SD: 0.37 mmu or: 0.89 ppm
12:29:14: [11] 413.9705 amu, mean: 413.9709 SD: 0.38 mmu or: 0.92 ppm
12:29:14:
12:29:14: Stop requested. Please wait for procedure to finish.
12:29:14:
12:29:17:
12:29:17: Peakmatching stopped

Signature 

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 22:12:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-001
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:46:41 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 30-Mar-2025 12:52:34

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:24	4370078	0.79	0.1704	163.1	163.1	0.1079	0.1079	163	
alpha-BHC	17:25	8226355	0.81	1.0937	172.1	172.1	0.0234	0.0234	86.06	
D 13C6-beta BHC	18:23	3466236	0.83	0.1244	177.1	177.1	0.1478	0.1478	177	
beta-BHC	18:24	6107457	0.78	1.0053	175.3	175.3	0.0344	0.0344	87.63	
D 13C6-gamma BHC	18:40	4394246	0.82	0.1646	169.7	169.7	0.1117	0.1117	170	
gamma-BHC (Lindane)	18:41	7393008	0.80	0.9800	171.7	171.7	0.0276	0.0276	85.84	
D 13C6-delta BHC	19:38	3209948	0.82	0.0992	205.7	205.7	0.1854	0.1854	206	
delta-BHC	19:39	6320655	0.78	1.1243	175.1	175.1	0.0357	0.0357	87.57	
D 13C10-Heptachlor	21:52	2534767	1.22	0.0715	225.4	225.4	0.0684	0.0684	225	
Heptachlor	21:53	5483273	1.27	1.0864	199.1	199.1	0.0158	0.0158	99.56	
D 13C6-Hexachlorobenzene	17:43	9332466	1.32	0.5041	117.7	117.7	0.000202	0.000202	118	
Hexachlorobenzene	17:44	18055491	1.21	1.1568	167.2	167.2	0.000131	0.000131	83.62	
D 13C12-Aldrin	23:45	2937825	1.55	0.1384	134.9	134.9	0.0209	0.0209	135	
Aldrin	23:46	5800193	1.55	1.0892	181.3	181.3	0.0659	0.0659	90.64	
D 13C10-oxy Chlordane	26:09	665267	1.05	0.0481	231.0	231.0	0.007763	0.007763	231	
oxy-Chlordane	26:11	1290179	0.83	1.1040	175.7	175.7	0.002774	0.002774	87.83	
D 13C10-cis Heptachlor Epoxide	26:07	1991594	1.29	0.1493	222.7	222.7	0.0285	0.0285	223	
Heptachlor epoxide	26:09	4482902	1.24	1.1461	196.4	196.4	0.000929	0.000929	98.20	
D 13C12-2,4'-DDE	27:57	14278733	1.56	2.7345	87.1	87.1	0.0109	0.0109	87.14	
2,4'-DDE	27:58	29156513	1.56	1.2831	159.1	159.1	0.0140	0.0140	79.57	
D 13C10-trans Chlordane	27:39	1463409	1.27	0.1640	148.9	148.9	0.0887	0.0887	149	
trans-Chlordane	27:41	3276711	1.25	1.1433	195.9	195.9	0.0786	0.0786	97.93	
D 13C10-cis Chlordane	28:42	1434460	1.29	0.1741	137.5	137.5	0.0835	0.0835	137	
cis-Chlordane	28:44	2814807	1.26	1.0551	186.0	186.0	0.0882	0.0882	92.99	
D 13C10-trans Nonachlor	29:01	1127981	1.28	0.1233	152.7	152.7	0.1180	0.1180	153	
trans-Nonachlor	29:02	2514353	1.27	1.0780	206.8	206.8	0.1075	0.1075	103	
D 13C9-Endosulfan I	28:32	477683	1.23	0.0555	143.6	143.6	0.2620	0.2620	144	
D 13C12-4,4'-DDE	30:11	10297574	1.57	1.8637	77.0	77.0	0.0645	0.0645	76.96	
4,4'-DDE	30:12	22121999	1.54	1.2526	171.5	171.5	0.0828	0.0828	85.75	
D 13C12-4,4'-DDD	33:28	10672555	1.57	1.1392	130.5	130.5	0.0321	0.0321	130	
4,4'-DDD	33:30	22186588	1.55	1.2345	168.4	168.4	0.0459	0.0459	84.20	
D 13C12-2,4'-DDT	33:45	7311532	1.59	0.6754	150.8	150.8	0.0541	0.0541	151	M
2,4'-DDT	33:46	14671152	1.54	1.1809	169.9	169.9	0.0673	0.0673	84.96	
D 13C12-4,4'-DDT	36:37	6158012	1.60	0.5808	147.7	147.7	0.0629	0.0629	148	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
4,4'-DDT	36:38	12792791	1.55	1.2096	171.8	171.8	0.0828	0.0828	85.88	
D 13C12-Dieldrin	30:24	1364400	1.61	0.1991	95.5	95.5	0.0625	0.0625	95.46	
Dieldrin	30:26	2954508	1.60	1.0718	202.0	202.0	0.1263	0.1263	101	
D 13C12-Endrin	32:04	976970	1.54	0.1181	115.2	115.2	0.1054	0.1054	115	
Endrin	32:07	2039542	1.58	1.0678	195.5	195.5	0.1805	0.1805	97.75	
D 13C9-Endosulfan II	32:48	234556	1.26	0.0248	131.8	131.8	0.3404	0.3404	132	
Endosulfan II	32:50	539924	1.26	1.0972	209.8	209.8	0.5190	0.5190	105	
D 13C12-Endrin Aldehyde	34:19	279920	1.48	0.0237	164.4	164.4	0.1985	0.1985	164	
Endrin aldehyde	34:22	606438	1.55	1.1278	192.1	192.1	0.4826	0.4826	96.05	
D 13C12-Methoxychlor	41:58	6691724	21.02	0.6709	138.9	138.9	0.0739	0.0739	139	
Methoxychlor	41:59	14904042	5.58	1.3248	168.1	168.1	0.0364	0.0364	84.06	
D 13C11-Endrin Ketone	40:26	957354	1.60	0.0648	205.8	205.8	0.1465	0.1465	206	
Endrin ketone	40:28	2226432	1.62	1.1546	201.4	201.4	0.0890	0.0890	101	
D 13C10-Mirex	45:25	5327202	1.26	0.9459	128.1	128.1	0.0169	0.0169	128	
Mirex	45:28	11298476	1.25	1.0234	207.2	207.2	0.0156	0.0156	104	
* PCB-15L	19:05	15731775	1.53		100.0	100.0				
PCB-14	17:50	44825214	1.61	1.3581	209.8	209.8	0.003407	0.003407	83.63	
* 13C6-Pentachlorophenol (IS)	18:31	2276920	0.65		500.0	500.0				
Pentachlorophenol	18:31	10231206	0.64	0.8359	2687.7	2687.7	0.1663	0.1663	134	
PCB-36	22:10	33653208	1.05	1.0230	209.1	209.1	0.002829	0.002829	83.35	
* PCB-101L	28:08	5992735	1.57		100.0	100.0				
PCB-104	23:45	21451894	1.54	1.8372	194.8	194.8	0.000203	0.000203	77.66	
* PCB-118L	32:48	7179423	1.61		100.0	100.0				
PCB-121	26:44	19903500	1.55	1.4622	189.6	189.6	0.0643	0.0643	75.57	
* PCB-138L	37:00	4395381	1.26		100.0	100.0				
PCB-142	27:31	16660506	1.25	2.0271	187.0	187.0	0.0248	0.0248	74.53	
Endosulfan I	28:34	1077626	1.56	1.0931	206.4	206.4	0.1542	0.1542	103	
* PCB-60L	27:45	9765330	0.80		100.0	100.0				
PCB-78	29:23	22685878	0.81	0.9153	253.8	253.8	0.0613	0.0613	101	
D 13C12-2,4'-DDD	30:52	12055403	1.57	1.3487	124.5	124.5	0.0712	0.0712	125	
2,4'-DDD	30:53	23276577	1.53	1.1763	164.1	164.1	0.0362	0.0362	82.07	
D 13C10-cis Nonachlor	33:49	831318	1.27	0.0944	122.6	122.6	0.1392	0.1392	123	
cis-Nonachlor	33:50	1746760	1.28	1.0758	195.3	195.3	0.1197	0.1197	97.66	
D 13C9-Endosulfan sulfate	36:19	1849001	1.37	0.1517	169.8	169.8	0.0867	0.0867	170	
Endosulfan sulfate	36:20	4185164	1.28	1.0831	209.0	209.0	0.0565	0.0565	104	
* PCB-167L	39:30	5206947	1.29		100.0	100.0				
PCB-155	34:00	10022359	1.27	0.9191	209.4	209.4	0.0959	0.0959	83.47	
PCB-184	34:39	11511006	1.05	1.1610	190.4	190.4	0.003342	0.003342	75.90	
PCB-204	42:17	7677581	0.88	0.7364	200.2	200.2	0.000753	0.000753	79.81	
PCB-192	42:36	9365541	1.05	0.7635	235.6	235.6	0.0305	0.0305	93.91	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 22:12:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-001
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:46:41 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 30-Mar-2025 12:52:34

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:24	17:24	0	0.912	1929541	702848	321	802	2190		
224.9317	17:24	17:24	0	0.912	2440537	886019	40	100	22150	0.79(0.58-0.96)	
alpha-BHC											
216.9145	17:25	17:25	0	1.001	3671126	1357260	5	12	271452		
218.9116	17:25	17:25	0	1.001	4555229	1665407	158	395	10541	0.81(0.58-0.96)	
13C6-beta BHC											
222.9342	18:23	18:23	0	0.964	1572476	533096	321	802	1661		
224.9317	18:23	18:23	0	0.964	1893760	642507	40	100	16063	0.83(0.58-0.96)	
beta-BHC											
216.9145	18:24	18:24	0	1.001	2669695	921295	5	12	184259		
218.9116	18:24	18:24	0	1.001	3437762	1184013	158	395	7494	0.78(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:40	18:40	0	0.978	1974323	678137	321	802	2113		
224.9317	18:40	18:40	0	0.978	2419923	827713	40	100	20693	0.82(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:41	18:41	0	1.001	3290340	1114788	5	12	222958		
218.9116	18:41	18:41	0	1.001	4102668	1364073	158	395	8633	0.80(0.58-0.96)	
13C6-delta BHC											
222.9342	19:38	19:38	0	1.029	1444949	457522	321	802	1425		
224.9317	19:38	19:38	0	1.029	1764999	555677	40	100	13892	0.82(0.58-0.96)	
delta-BHC											
216.9145	19:39	19:39	0	1.001	2765029	860749	5	12	172150		
218.9116	19:39	19:39	0	1.001	3555626	1104129	158	395	6988	0.78(0.58-0.96)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Heptachlor											
276.8270	21:52	21:52	0	1.146	1395073	393927	57	142	6911		
278.8240	21:52	21:52	0	1.146	1139694	317084	39	97	8130	1.22(0.93-1.55)	
Heptachlor											
271.8102	21:53	21:53	0	1.001	3063530	851080	30	75	28369		
273.8072	21:53	21:53	0	1.001	2419743	682408	19	47	35916	1.27(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:43	17:43	0	0.928	5311594	1875406	1	2	1875406		
291.8273	17:43	17:43	0	0.928	4020872	1430980	1	2	1430980	1.32(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:44	17:44	0	1.001	9892812	3550046	1	2	3550046		
285.8072	17:44	17:44	0	1.001	8162679	2887966	1	2	2887966	1.21(0.93-1.55)	
13C12-Aldrin											
269.8805	23:45	23:45	0	1.244	1787841	460150	32	80	14380		
271.8775	23:45	23:45	0	1.244	1149984	292518	25	62	11701	1.55(1.16-1.94)	
Aldrin											
262.8569	23:46	23:46	0	1.001	3524821	920363	102	255	9023		
264.8540	23:46	23:46	0	1.001	2275372	586520	114	285	5145	1.55(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:09	0	0.930	340159	82928	1	2	82928		
398.8358	26:09	26:09	0	0.930	325108	80321	1	2	80321	1.05(0.78-1.30)	
oxy-Chlordane											
386.8052	26:11	26:11	0	1.001	583322	157001	1	2	157001		
388.8023	26:11	26:11	0	1.001	706857	168004	1	2	168004	0.83(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:07	26:07	0	0.928	1120312	267418	9	22	29713		
364.8748	26:07	26:07	0	0.928	871282	202354	14	35	14454	1.29(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:09	26:09	0	1.001	2478871	594112	1	2	594112		
354.8413	26:09	26:09	0	1.001	2004031	482814	1	2	482814	1.24(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:57	27:57	0	0.994	8707627	1944980	125	312	15560		
260.0376	27:57	27:57	0	0.994	5571106	1234779	35	87	35279	1.56(1.17-1.95)	
2,4'-DDE											
246.0003	27:58	27:58	0	1.000	17779722	4034731	150	375	26898		
247.9974	27:58	27:58	0	1.000	11376791	2561961	79	197	32430	1.56(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:39	27:39	0	0.983	818725	177826	57	142	3120		
278.8240	27:39	27:39	0	0.983	644684	147182	21	52	7009	1.27(0.93-1.55)	
trans-Chlordane											
271.8102	27:41	27:41	0	1.001	1820163	416982	66	165	6318		
273.8072	27:41	27:41	0	1.001	1456548	334400	51	127	6557	1.25(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:42	28:42	0	1.020	807787	177755	57	142	3119		
278.8240	28:42	28:42	0	1.020	626673	136181	21	52	6485	1.29(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:44	28:44	0	1.001	1570728	343725	66	165	5208		
273.8072	28:44	28:44	0	1.001	1244079	273587	51	127	5364	1.26(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:01	29:01	0	1.031	632666	142426	57	142	2499		
278.8240	29:01	29:01	0	1.031	495315	109616	21	52	5220	1.28(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	1406421	307196	66	165	4654		
273.8072	29:02	29:02	0	1.001	1107932	243325	51	127	4771	1.27(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:32	28:32	0	1.015	263327	59804	57	142	1049		
278.8240	28:32	28:32	0	1.015	214356	51164	21	52	2436	1.23(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:11	30:11	0	0.920	6289203	1302854	413	1032	3155		
260.0376	30:11	30:11	0	0.920	4008371	829051	271	677	3059	1.57(1.17-1.95)	
4,4'-DDE											
246.0003	30:12	30:12	0	1.000	13408146	2853521	545	1362	5236		
247.9974	30:12	30:12	0	1.000	8713853	1844888	340	850	5426	1.54(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:28	33:28	0	1.020	6519883	1223741	156	390	7844		
249.0454	33:28	33:28	0	1.020	4152672	796322	52	130	15314	1.57(1.17-1.95)	
4,4'-DDD											
235.0081	33:30	33:30	0	1.001	13492330	2529927	396	990	6389		
237.0052	33:30	33:30	0	1.001	8694258	1647459	62	155	26572	1.55(1.17-1.95)	
13C12-2,4'-DDT											M
247.0484	33:45	33:45	0	1.029	4488166	883489	156	390	5663		M
249.0454	33:45	33:45	0	1.029	2823366	557386	52	130	10719	1.59(1.17-1.95)	M
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	8898913	1708886	396	990	4315		
237.0052	33:46	33:46	0	1.001	5772239	1119202	62	155	18052	1.54(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:37	36:37	0	1.116	3790758	706408	156	390	4528		
249.0454	36:37	36:37	0	1.116	2367254	437421	52	130	8412	1.60(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:38	0	1.000	7770848	1468957	396	990	3709		
237.0052	36:38	36:38	0	1.000	5021943	957121	62	155	15437	1.55(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:24	30:24	0	0.927	840990	170931	44	110	3885		
271.8775	30:24	30:24	0	0.927	523410	111303	27	67	4122	1.61(1.16-1.94)	
Dieldrin											
262.8570	30:26	30:26	0	1.001	1820285	374620	78	195	4803		
264.8540	30:26	30:26	0	1.001	1134223	235367	75	187	3138	1.60(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:04	0	0.978	591709	120261	44	110	2733		
271.8775	32:03	32:04	-1	0.977	385261	77894	27	67	2885	1.54(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											
262.8570	32:07	32:07	0	1.001	1250433	251898	78	195	3229		
264.8540	32:07	32:07	0	1.001	789109	159843	75	187	2131	1.58(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:48	32:48	0	1.000	130868	23098	13	32	1777		
278.8240	32:48	32:48	0	1.000	103688	20802	35	87	594	1.26(0.93-1.55)	
Endosulfan II											
271.8102	32:50	32:50	0	1.001	300855	56708	52	130	1091		
273.8072	32:49	32:50	-1	1.000	239069	47173	48	120	983	1.26(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:19	34:19	0	1.046	167121	32911	10	25	3291		
358.9361	34:19	34:19	0	1.046	112799	20369	17	42	1198	1.48(1.17-1.95)	
Endrin aldehyde											
344.8988	34:22	34:22	0	1.001	368674	64017	60	150	1067		
346.8959	34:22	34:22	0	1.001	237764	42374	56	140	757	1.55(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:58	41:58	0	1.279	6387893	1106244	214	535	5169		
240.1510	41:58	41:58	0	1.279	303831	49276	68	170	725	21.02(0.00-0.00)	
Methoxychlor											
227.1072	41:59	41:59	0	1.000	12638286	2214180	155	387	14285		
228.1106	41:59	41:59	0	1.000	2265756	401646	68	170	5907	5.58(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:26	40:26	0	1.233	588836	97079	25	62	3883		
329.9379	40:26	40:26	0	1.233	368518	58541	29	72	2019	1.60(1.19-1.98)	
Endrin ketone											
316.9039	40:28	40:28	0	1.001	1376860	221994	39	97	5692		
318.9010	40:28	40:28	0	1.001	849572	140246	25	62	5610	1.62(1.16-1.95)	
13C10-Mirex											
276.8270	45:25	45:25	0	1.228	2969175	467018	31	77	15065		
278.8240	45:25	45:25	0	1.228	2358027	376266	20	50	18813	1.26(0.93-1.55)	
Mirex											
271.8102	45:28	45:28	0	1.001	6281631	999833	29	72	34477		
273.8072	45:28	45:28	0	1.001	5016845	798143	25	62	31926	1.25(0.93-1.55)	
PCB-15L											
234.0406	19:05	19:05	0		9522524	2968895	36	90	82469		
236.0376	19:04	19:05	-1		6209251	1936796	13	32	148984	1.53(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	0	0.934	27618764	9815782	44	110	223086		
223.9974	17:50	17:50	0	0.934	17206450	5998741	47	117	127633	1.61(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31	18:31	0		900568	240349	3	7	80116		
271.8636	18:30	18:31	-1		1376352	378389	2	5	189195	0.65(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31	18:31	0	1.000	3974448	1079125	54	135	19984		
265.8435	18:31	18:31	0	1.000	6256758	1670102	15	37	111340	0.64(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-36											
255.9613	22:10	22:10	0	1.162	17252766	4740244	29	72	163457		
257.9584	22:10	22:10	0	1.162	16400442	4491615	28	70	160415	1.05(0.88-1.20)	
PCB-101L											
337.9207	28:08	28:08	0		3660271	818857	1	2	818857		
339.9178	28:08	28:08	0		2332464	521467	1	2	521467	1.57(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	0	0.844	12995517	3369746	1	2	3369746		
327.8775	23:45	23:45	0	0.844	8456377	2190802	1	2	2190802	1.54(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		4433564	871723	28	70	31133		
339.9178	32:48	32:48	0		2745859	551030	17	42	32414	1.61(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	0	0.815	12109317	2768019	323	807	8570		
327.8775	26:44	26:44	0	0.815	7794183	1778110	212	530	8387	1.55(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	0		2453547	442325	9	22	49147		
373.8788	37:00	37:00	0		1941834	352186	12	30	29349	1.26(1.16-1.94)	
PCB-142											
359.8415	27:31	27:31	0	0.744	9263930	2141801	90	225	23798		
361.8385	27:31	27:31	0	0.744	7396576	1712046	70	175	24458	1.25(1.05-1.43)	
Endosulfan I											
262.8570	28:34	28:34	0	1.001	656524	146832	29	72	5063		
264.8540	28:34	28:34	0	1.001	421102	93311	46	115	2029	1.56(1.16-1.94)	
PCB-60L											
301.9626	27:45	27:45	0		4328004	936629	18	45	52035		
303.9597	27:45	27:45	0		5437326	1165802	32	80	36431	0.80(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	10146664	2072336	230	575	9010		
291.9194	29:23	29:23	0	1.059	12539214	2559043	242	605	10575	0.81(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:52	30:52	0	0.941	7360322	1535674	315	787	4875		
249.0454	30:52	30:52	0	0.941	4695081	990531	232	580	4270	1.57(1.17-1.95)	
2,4'-DDD											
235.0081	30:53	30:53	0	1.000	14080483	2923591	328	820	8913		
237.0052	30:53	30:53	0	1.000	9196094	1916526	102	255	18789	1.53(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:49	33:49	0	1.031	464895	85783	53	132	1619		
278.8240	33:49	33:49	0	1.031	366423	65609	22	55	2982	1.27(0.93-1.55)	
cis-Nonachlor											
271.8102	33:50	33:50	0	1.001	980409	186665	44	110	4242		
273.8072	33:50	33:50	0	1.001	766351	141931	34	85	4174	1.28(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:19	36:19	0	1.107	1067443	182877	53	132	3451		
278.8240	36:18	36:19	-1	1.107	781558	135762	22	55	6171	1.37(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endosulfan sulfate											
271.8102	36:20	36:20	0	1.000	2351202	425981	44	110	9681		
273.8072	36:20	36:20	0	1.000	1833962	332039	34	85	9766	1.28(0.93-1.55)	
PCB-167L											
371.8817	39:30	39:30	0		2930291	507004	18	45	28167		
373.8788	39:30	39:30	0		2276656	395004	17	42	23236	1.29(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	5603900	1079837	173	432	6242		
361.8385	34:00	34:00	0	0.861	4418459	854037	145	362	5890	1.27(1.05-1.43)	
PCB-184											
393.8025	34:39	34:39	0	0.877	5890350	1112827	8	20	139103		
395.7995	34:39	34:39	0	0.877	5620656	1071794	6	15	178632	1.05(0.89-1.21)	
PCB-204											
427.7635	42:17	42:17	0	1.071	3602700	612883	1	2	612883		
429.7606	42:17	42:17	0	1.071	4074881	699687	1	2	699687	0.88(0.76-1.02)	
PCB-192											
393.8025	42:36	42:36	0	1.079	4804481	815663	43	107	18969		
395.7995	42:36	42:36	0	1.079	4561060	769015	41	102	18756	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Mar-2025 22:12:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037035-001
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 17:46:41 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 30-Mar-2025 12:52:34

Start Cal Date: 19-Mar-2025 17:47:00
End Cal Date: 20-Mar-2025 01:05:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:24	1	15	0.9117	0.9116	0.812 - 1.0115
alpha-BHC		17:24	17:25	1		1.0006	1.0006	0.995 - 1.0090
13C6-beta BHC		18:23	18:23	1	15	0.9636	0.9636	0.864 - 1.0640
beta-BHC		18:24	18:24	1		1.0011	1.0006	0.901 - 1.1010
13C6-gamma BHC		18:40	18:40	1	15	0.9786	0.9781	0.878 - 1.0780
gamma-BHC (Lindane)		18:40	18:41	1		1.0005	1.0005	0.901 - 1.1010
13C6-delta BHC		19:37	19:38	1	15	1.0289	1.0289	0.930 - 1.1300
delta-BHC		19:38	19:39	1		1.0005	1.0005	0.901 - 1.1010
13C10-Heptachlor		21:52	21:52	1	15	1.1464	1.1462	1.046 - 1.2460
Heptachlor		21:52	21:53	1		1.0006	1.0006	0.901 - 1.1010
13C6-Hexachlorobenzene		17:43	17:43	1	15	0.9288	0.9282	0.828 - 1.0280
Hexachlorobenzene		17:43	17:44	1		1.0000	1.0006	0.900 - 1.1000
13C12-Aldrin		23:44	23:45	1	15	1.2446	1.2443	0.000 - 0.0000
Aldrin		23:46	23:46	1		1.0011	1.0011	0.000 - 0.0000
13C10-oxy Chlordane		26:09	26:09	1	15	0.9302	0.9299	0.000 - 0.0000
oxy-Chlordane		26:10	26:11	1		1.0010	1.0010	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:06	26:07	1	15	0.9287	0.9285	0.000 - 0.0000
Heptachlor epoxide		26:08	26:09	1		1.0010	1.0010	0.000 - 0.0000
13C12-2,4'-DDE		27:56	27:57	2	15	0.9937	0.9937	0.000 - 0.0000
2,4'-DDE		27:56	27:58	2		1.0000	1.0005	0.000 - 0.0000
13C10-trans Chlordane		27:38	27:39	2	15	0.9830	0.9831	0.000 - 0.0000
trans-Chlordane		27:40	27:41	2		1.0010	1.0010	0.000 - 0.0000
13C10-cis Chlordane		28:41	28:42	2	15	1.0203	1.0203	0.000 - 0.0000
cis-Chlordane		28:42	28:44	2		1.0009	1.0009	0.000 - 0.0000

Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C10-trans Nonachlor		29:00	29:01	2	15	1.0315	1.0314	0.000 - 0.0000
trans-Nonachlor		29:02	29:02	1		1.0014	1.0009	0.000 - 0.0000
13C9-Endosulfan I		28:31	28:32	2	15	1.0145	1.0145	0.000 - 0.0000
13C12-4,4'-DDE		30:10	30:11	2	15	0.9197	0.9201	0.000 - 0.0000
4,4'-DDE		30:11	30:12	2		1.0004	1.0004	0.000 - 0.0000
13C12-4,4'-DDD		33:27	33:28	1	15	1.0201	1.0203	0.000 - 0.0000
4,4'-DDD		33:30	33:30	1		1.0010	1.0010	0.000 - 0.0000
13C12-2,4'-DDT		33:44	33:45	1	15	1.0285	1.0287	0.000 - 0.0000
2,4'-DDT		33:45	33:46	1		1.0005	1.0005	0.000 - 0.0000
13C12-4,4'-DDT		36:36	36:37	1	15	1.1159	1.1160	0.000 - 0.0000
4,4'-DDT		36:37	36:38	1		1.0005	1.0005	0.000 - 0.0000
13C12-Dieldrin		30:23	30:24	2	15	0.9262	0.9266	0.000 - 0.0000
Dieldrin		30:25	30:26	2		1.0013	1.0013	0.000 - 0.0000
13C12-Endrin		32:03	32:04	2	15	0.9772	0.9776	0.000 - 0.0000
Endrin		32:05	32:07	2		1.0013	1.0013	0.000 - 0.0000
13C9-Endosulfan II		32:46	32:48	3	15	0.9992	1.0000	0.000 - 0.0000
Endosulfan II		32:49	32:50	2		1.0012	1.0008	0.000 - 0.0000
13C12-Endrin Aldehyde		34:19	34:19	0	15	1.0463	1.0459	0.000 - 0.0000
Endrin aldehyde		34:21	34:22	1		1.0010	1.0015	0.000 - 0.0000
13C12-Methoxychlor		41:57	41:58	1	15	1.2791	1.2791	0.000 - 0.0000
Methoxychlor		41:58	41:59	1		1.0004	1.0004	0.000 - 0.0000
13C11-Endrin Ketone		40:25	40:26	1	15	1.2325	1.2325	0.000 - 0.0000
Endrin ketone		40:27	40:28	1		1.0008	1.0008	0.000 - 0.0000
13C10-Mirex		45:26	45:25	0	15	1.2282	1.2276	0.000 - 0.0000
Mirex		45:27	45:28	1		1.0004	1.0007	0.000 - 0.0000
PCB-15L		19:04	19:05	1		1.0000	1.0000	0.000 - 0.0000
PCB-14		17:49	17:50	1		0.9342	0.9341	0.000 - 0.0000
13C6-Pentachlorophenol (IS)		18:30	18:31	1		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:30	18:31	1		1.0000	1.0000	0.000 - 0.0000
PCB-36		22:09	22:10	1		1.1619	1.1618	0.000 - 0.0000
PCB-101L		28:07	28:08	2		1.0000	1.0000	0.000 - 0.0000
PCB-104		23:44	23:45	1		0.8438	0.8441	0.000 - 0.0000
PCB-118L		32:48	32:48	1		1.0000	1.0000	0.000 - 0.0000
PCB-121		26:43	26:44	2		0.8147	0.8151	0.000 - 0.0000
PCB-138L		37:00	37:00	1		1.0000	1.0000	0.000 - 0.0000
PCB-142		27:31	27:31	1		0.7433	0.7435	0.000 - 0.0000
Endosulfan I		28:33	28:34	2		1.0010	1.0010	0.000 - 0.0000
PCB-60L		27:44	27:45	2		1.0000	1.0000	0.000 - 0.0000
PCB-78		29:22	29:23	1		1.0588	1.0588	0.000 - 0.0000
13C12-2,4'-DDD		30:51	30:52	2	15	0.9405	0.9409	0.000 - 0.0000
2,4'-DDD		30:52	30:53	1		1.0009	1.0004	0.000 - 0.0000
13C10-cis Nonachlor		33:48	33:49	1	15	1.0306	1.0308	0.000 - 0.0000
cis-Nonachlor		33:49	33:50	1		1.0005	1.0005	0.000 - 0.0000
13C9-Endosulfan sulfate		36:17	36:19	2	15	1.1064	1.1071	0.000 - 0.0000
Endosulfan sulfate		36:19	36:20	1		1.0009	1.0005	0.000 - 0.0000
PCB-167L		39:29	39:30	1		1.0000	1.0000	0.000 - 0.0000

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-155		34:00	34:00	0		0.8610	0.8608	0.000 - 0.0000
PCB-184		34:39	34:39	0		0.8776	0.8774	0.000 - 0.0000
PCB-204		42:18	42:17	0		1.0710	1.0705	0.000 - 0.0000
PCB-192		42:37	42:36	0		1.0791	1.0787	0.000 - 0.0000

Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

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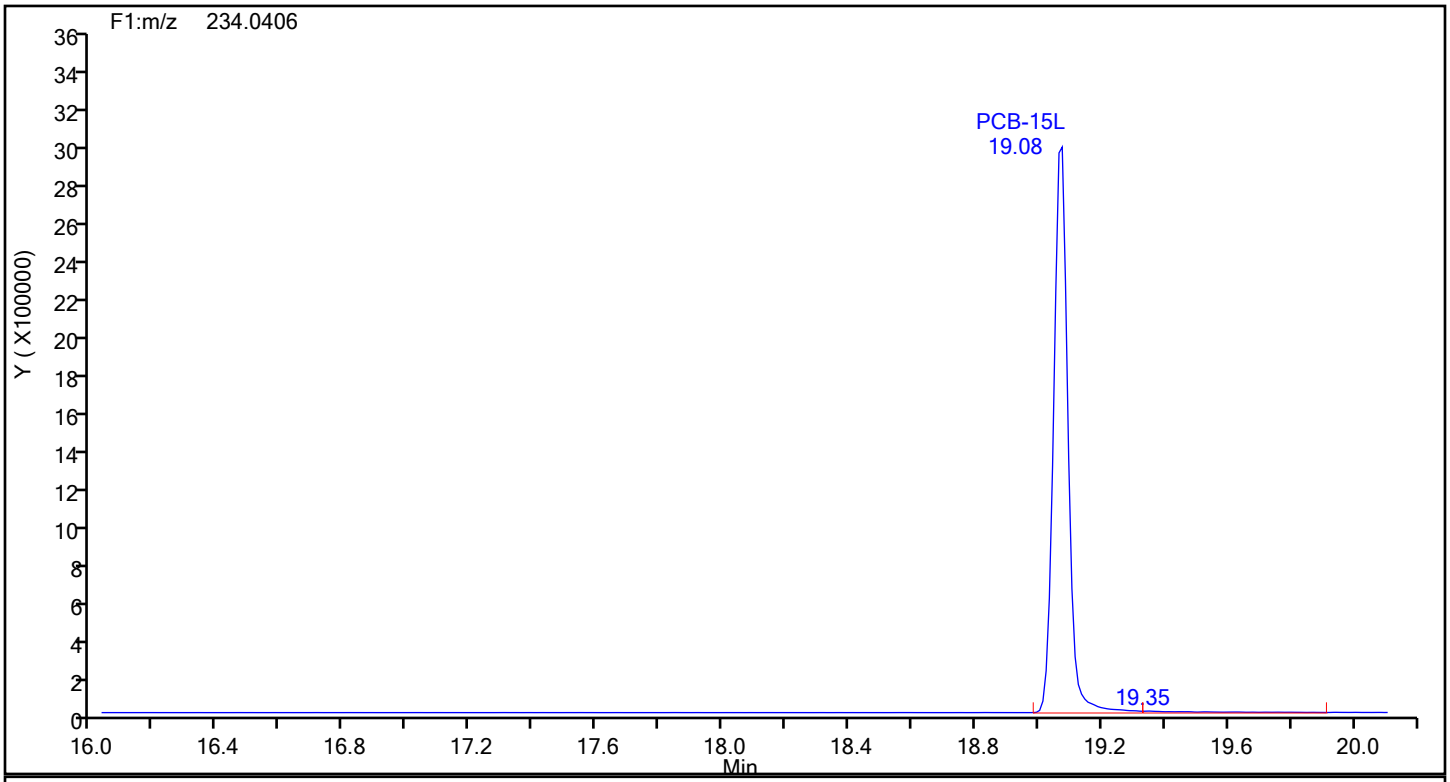
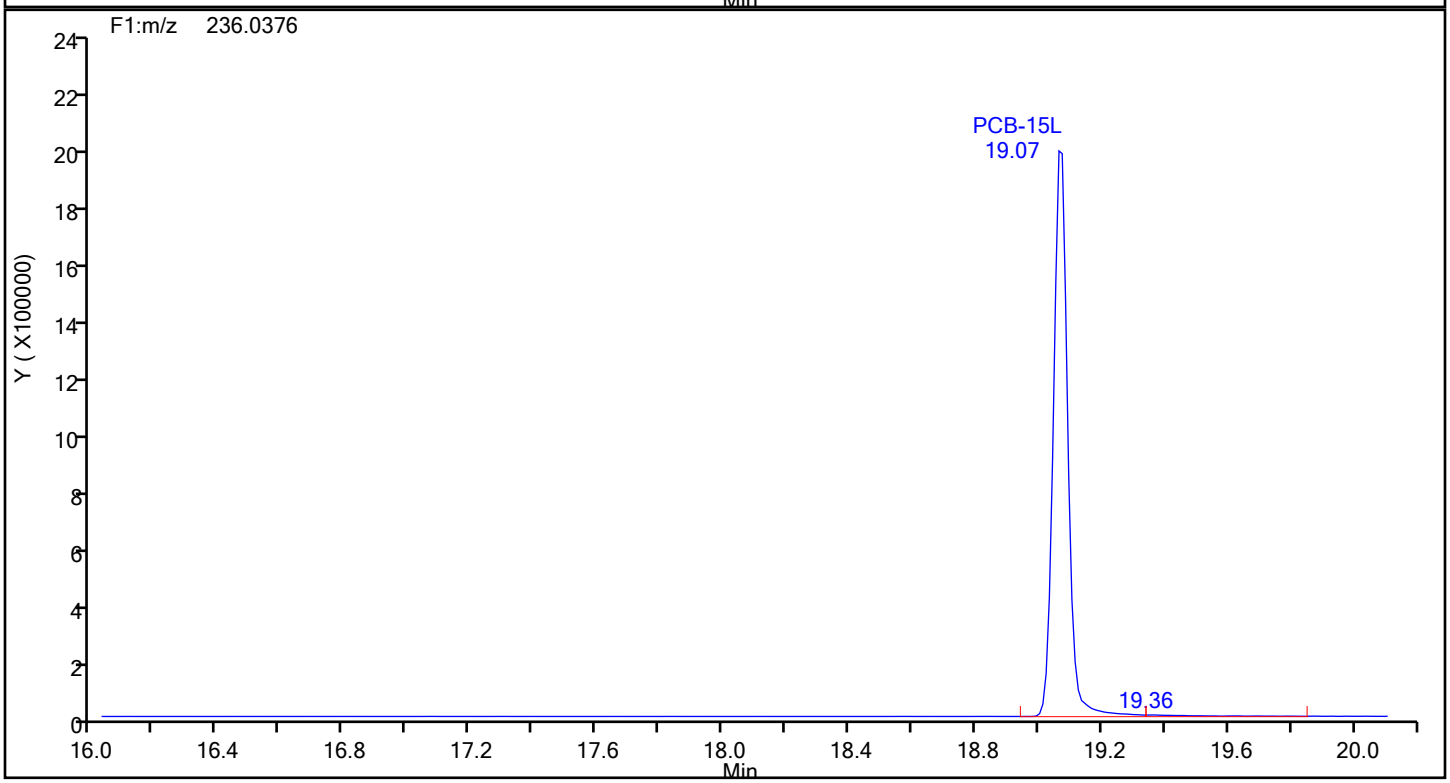
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards



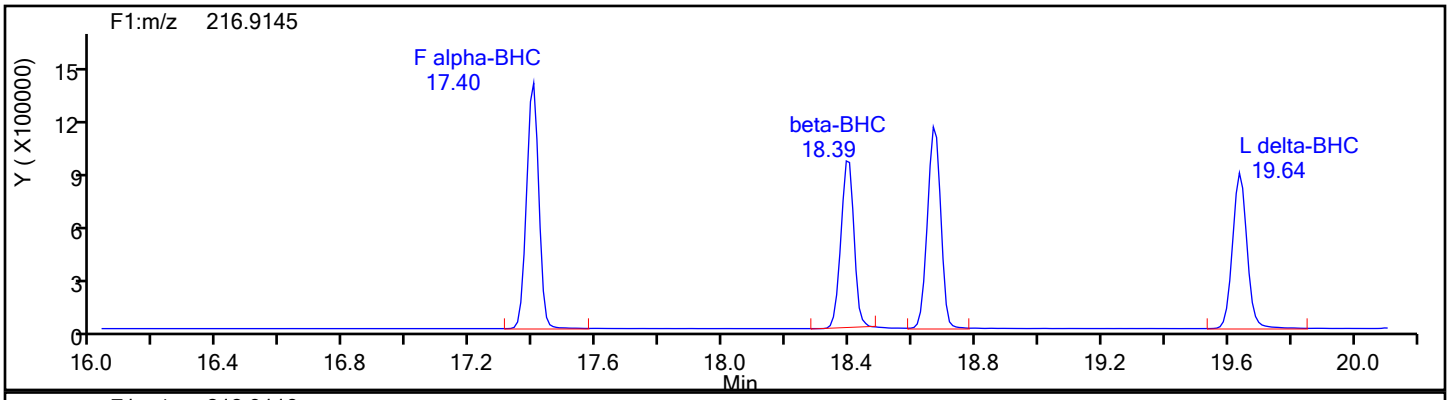


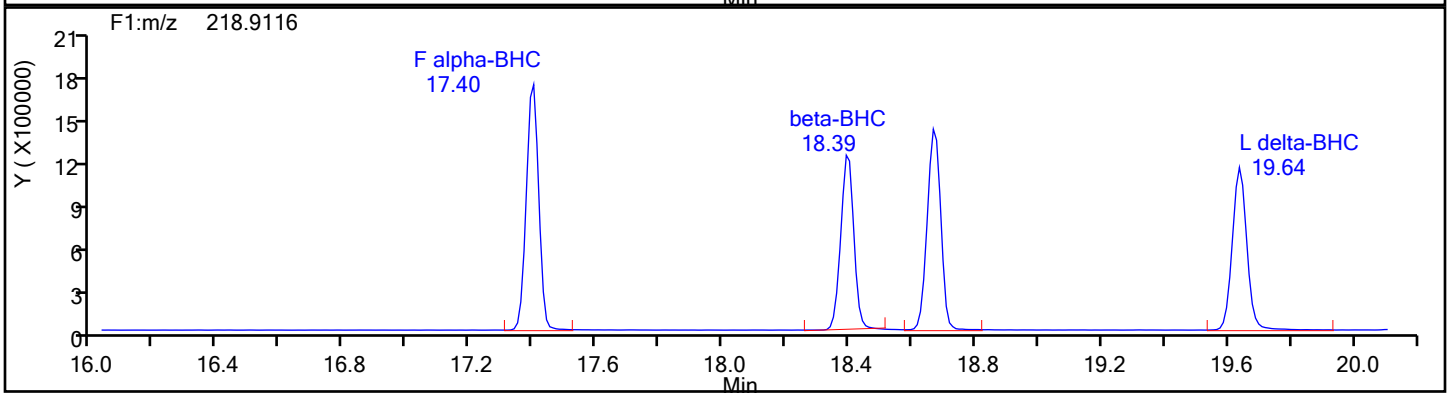
Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

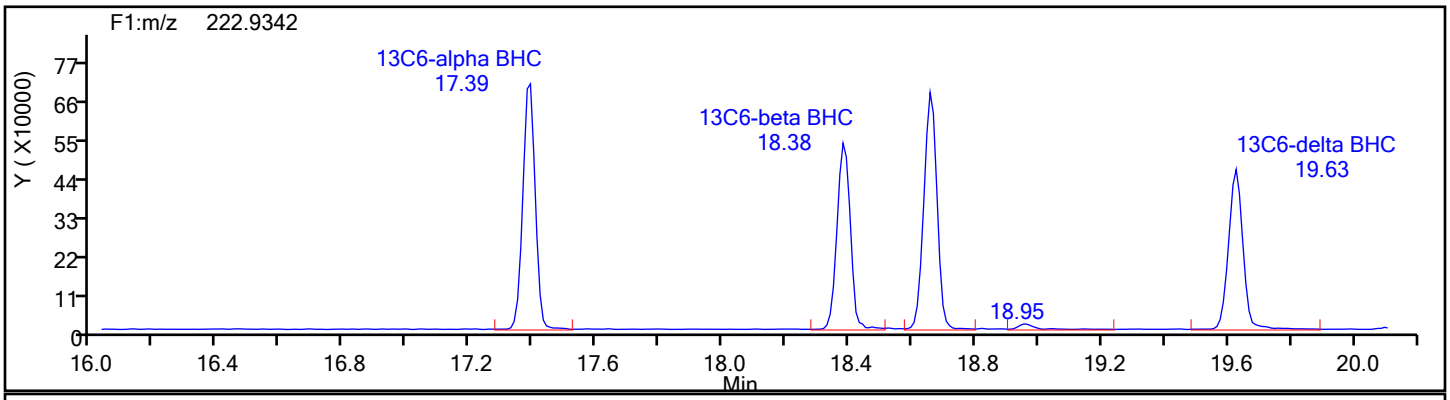
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

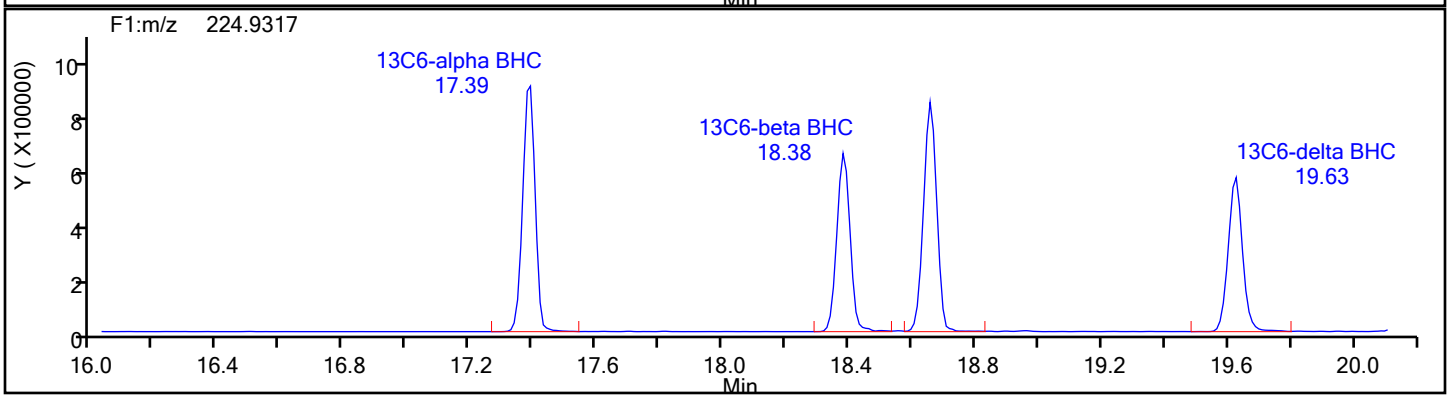
BHC





BHC Standards





Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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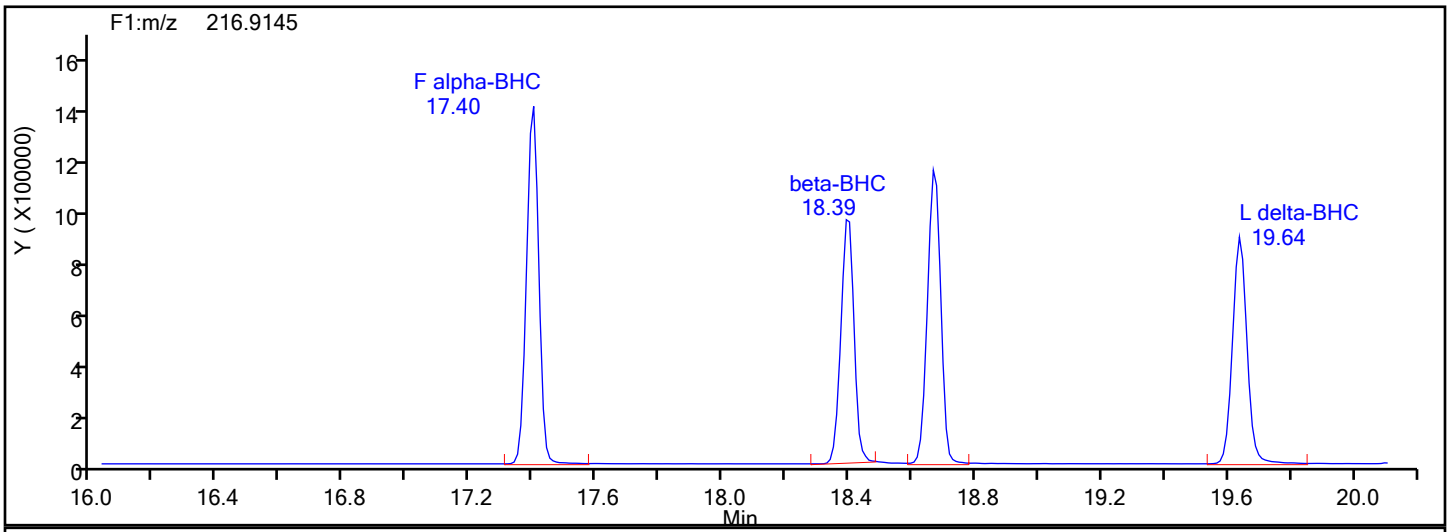
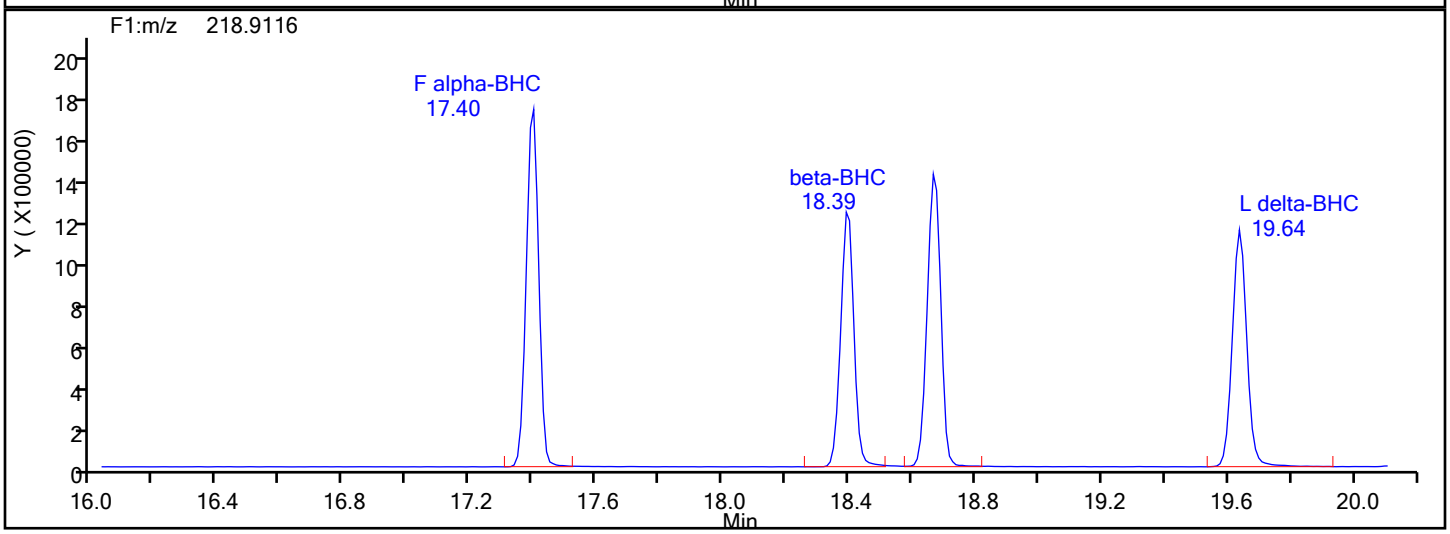
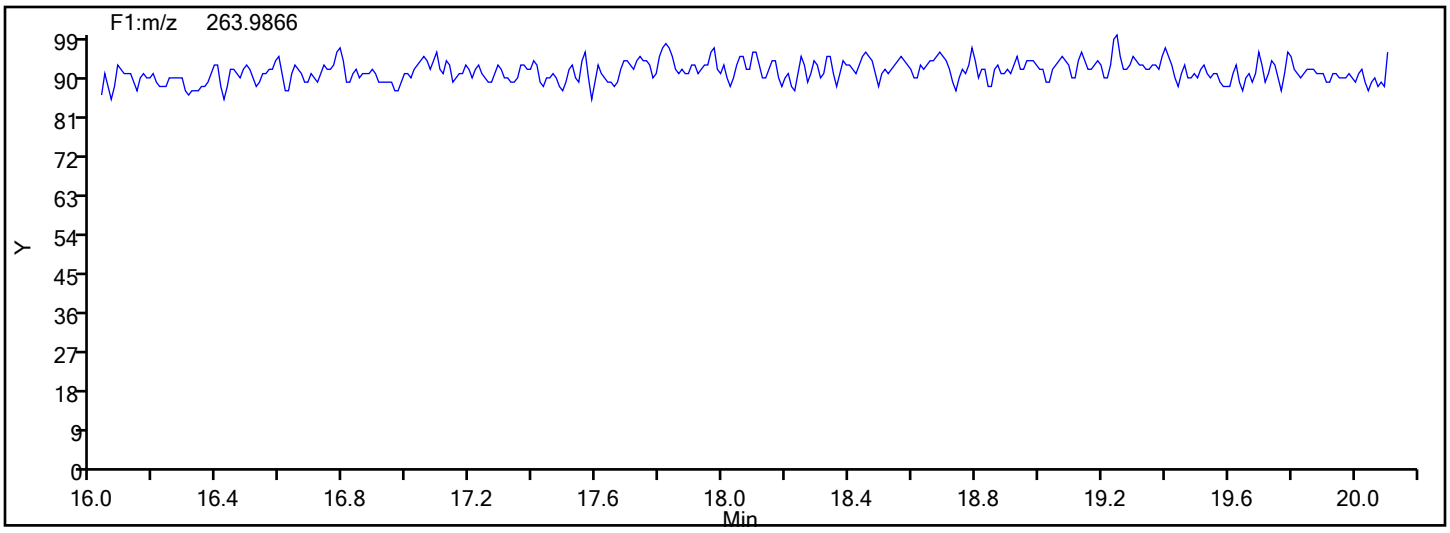
BHC





BHC Lock Mass



Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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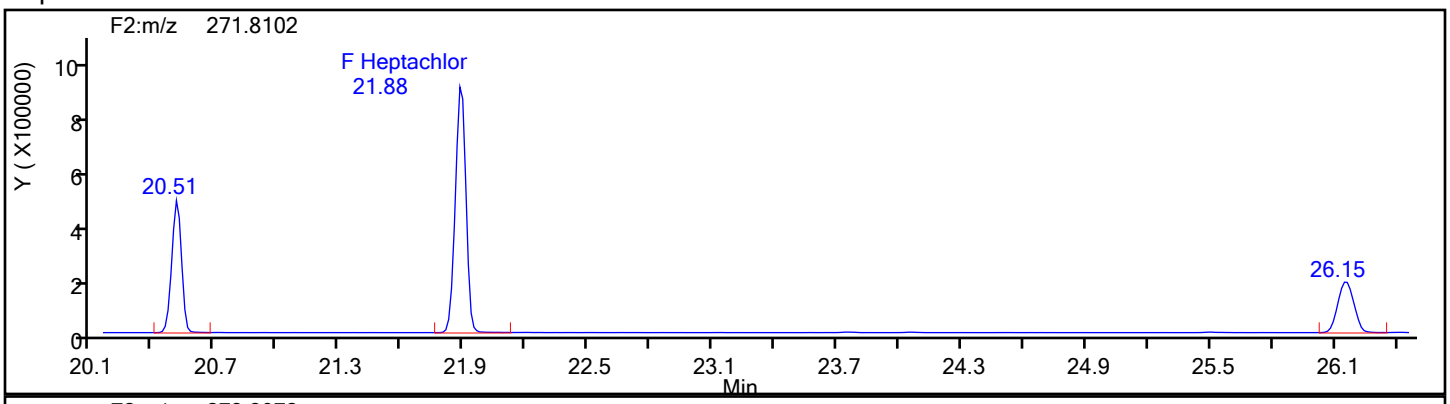
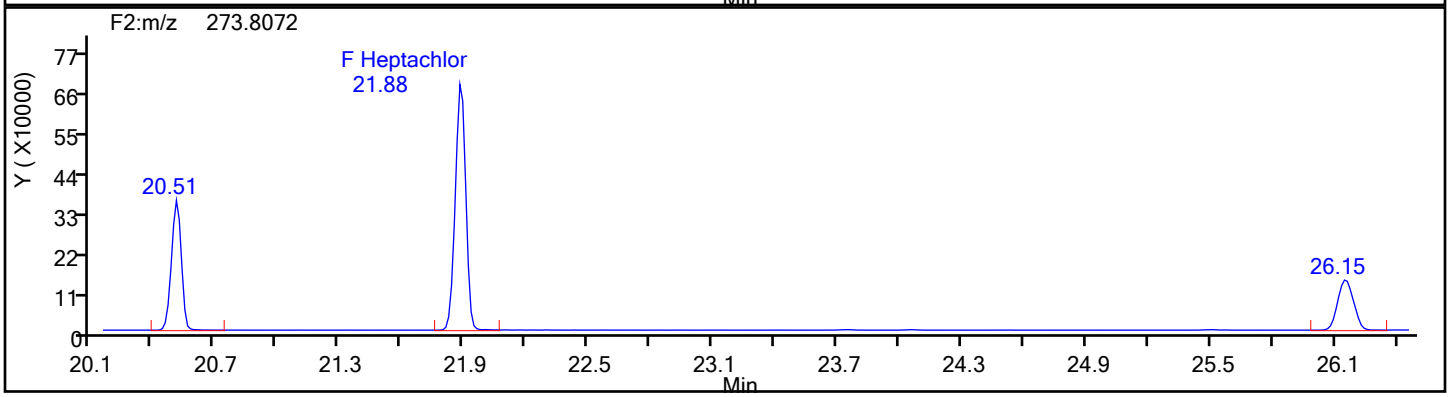
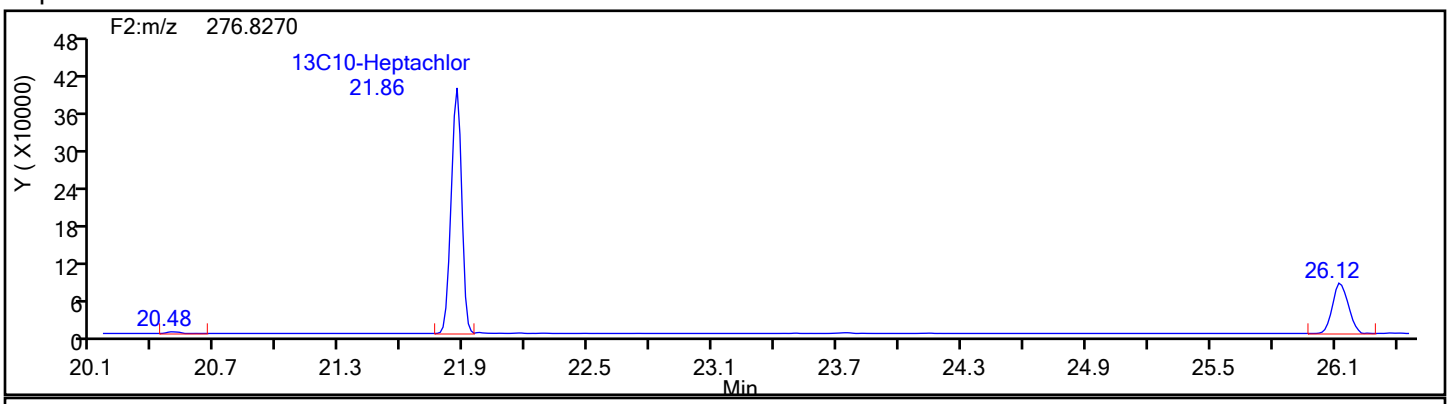
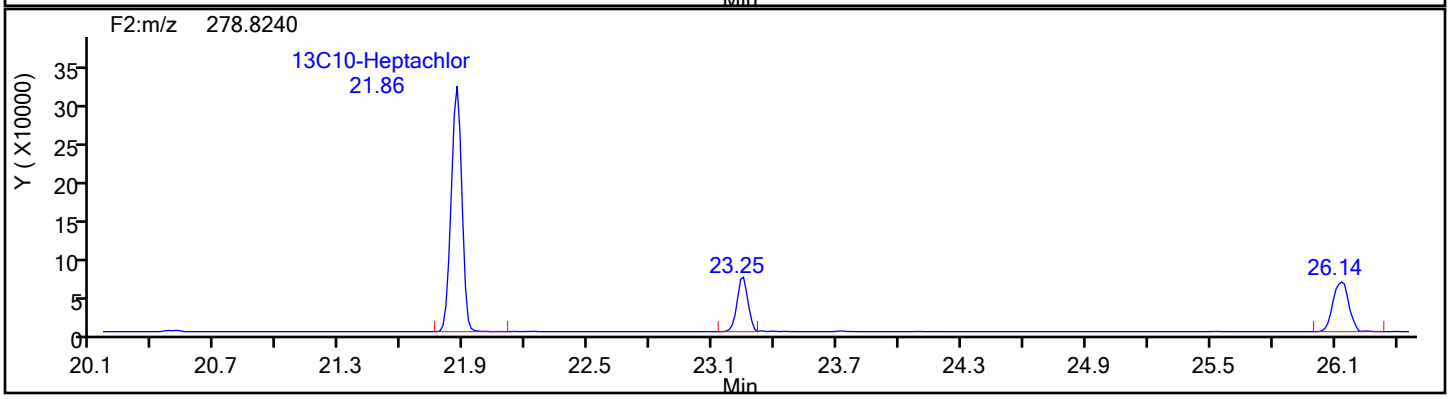
Heptachlor





Heptachlor Standards





Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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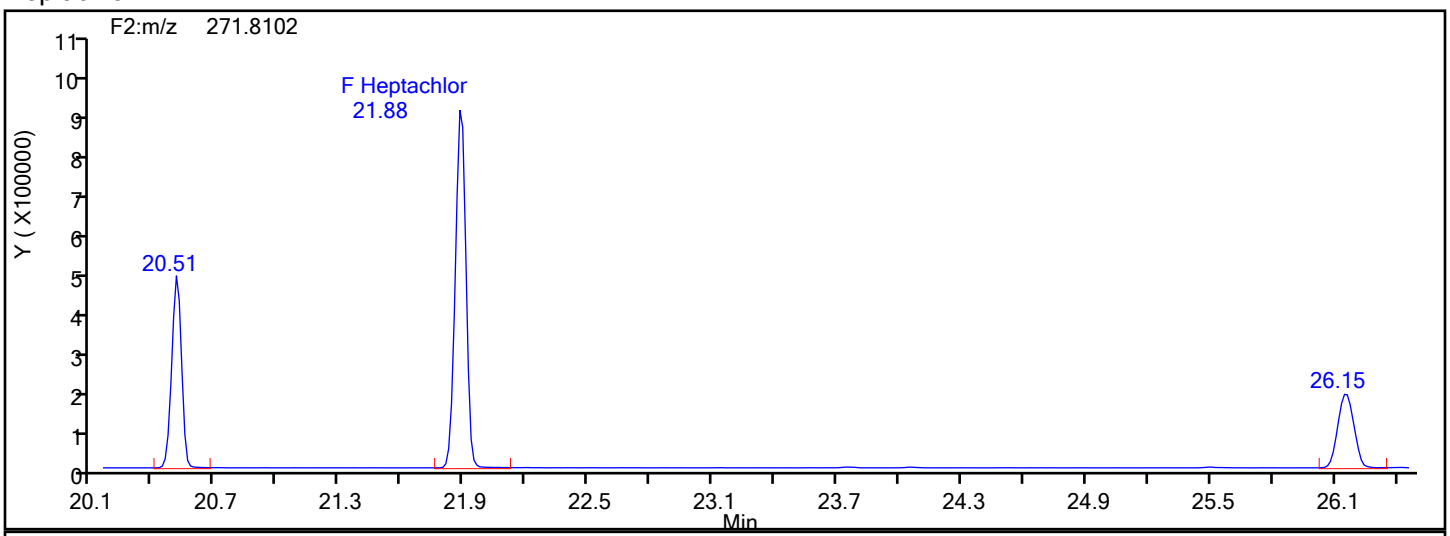
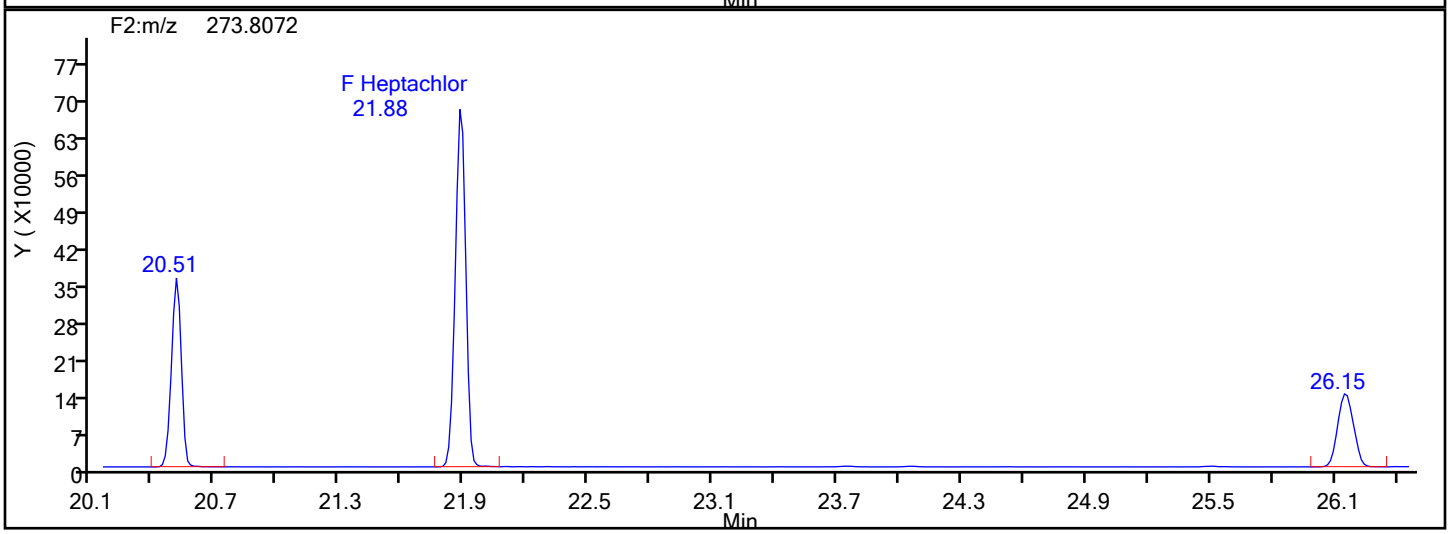
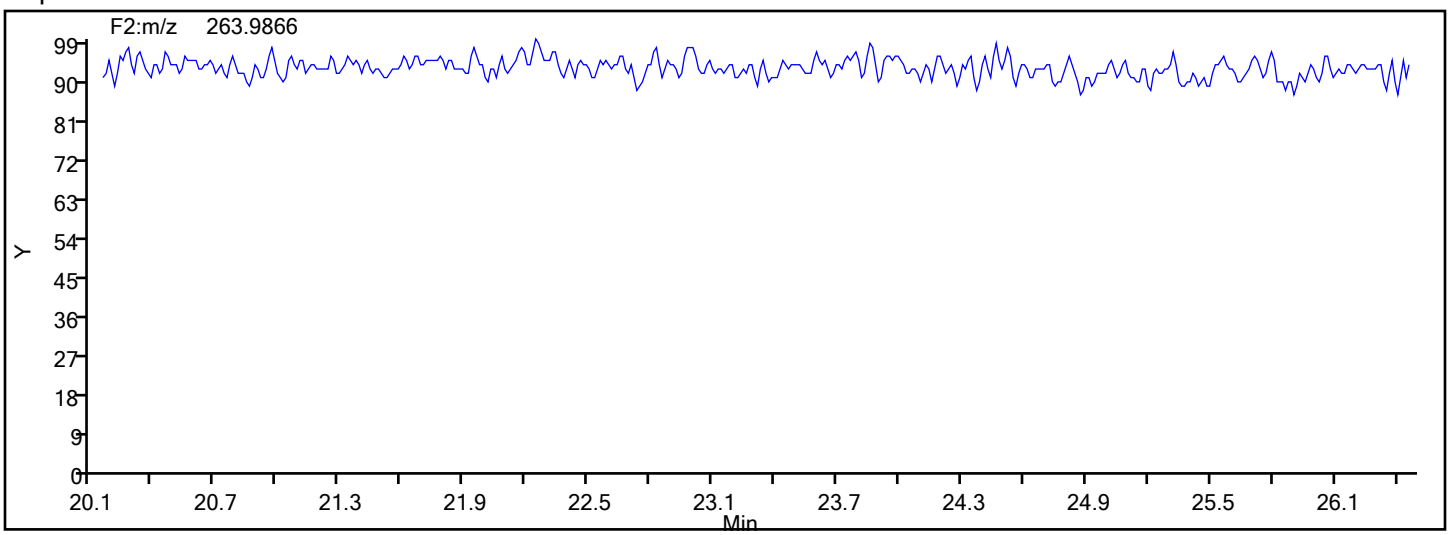
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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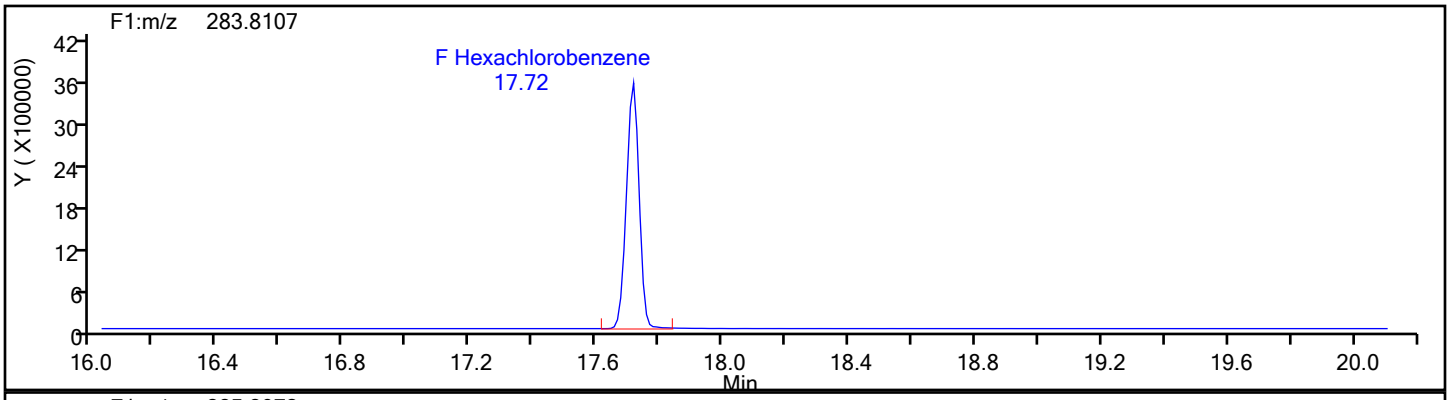
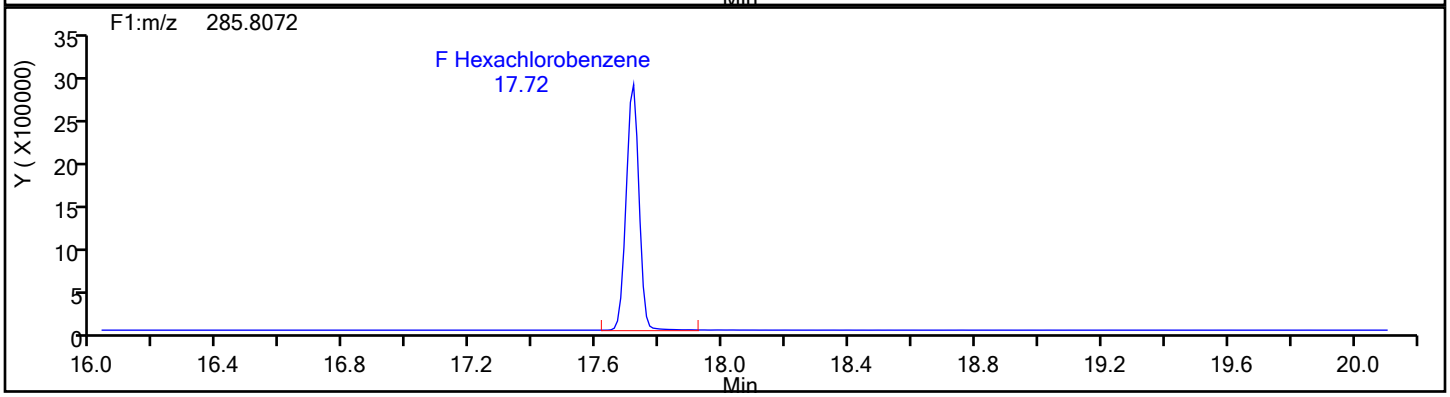
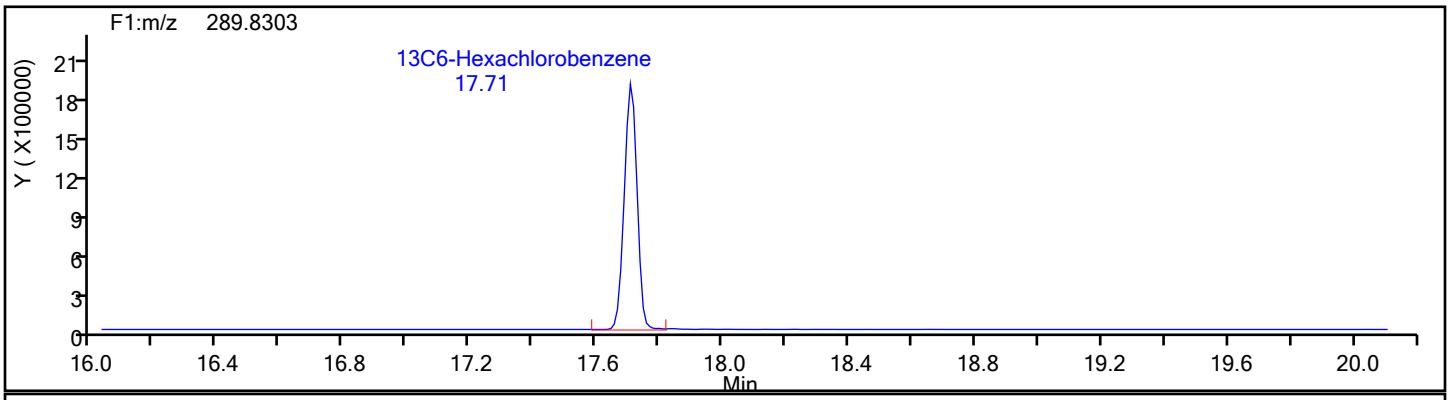
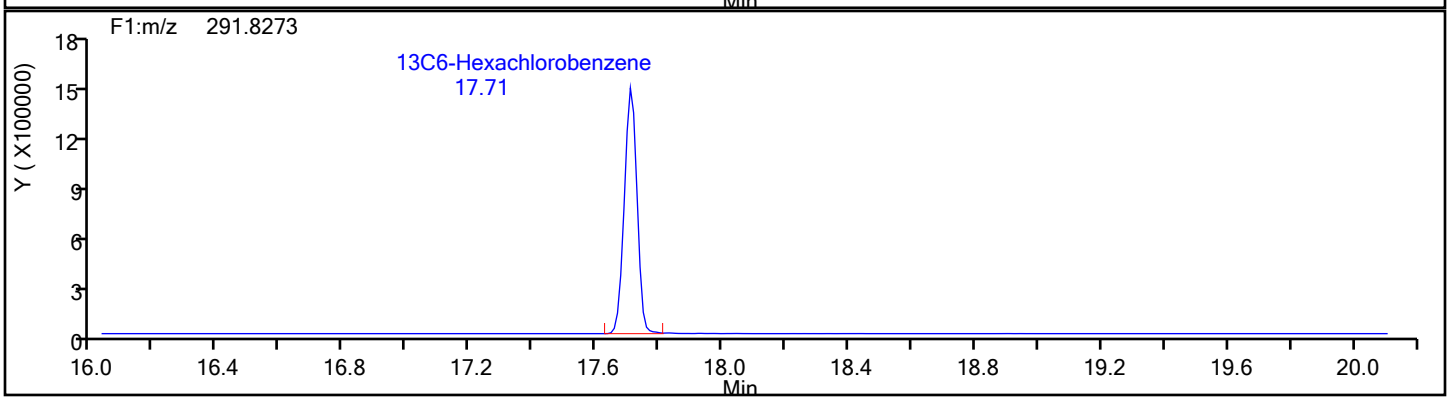
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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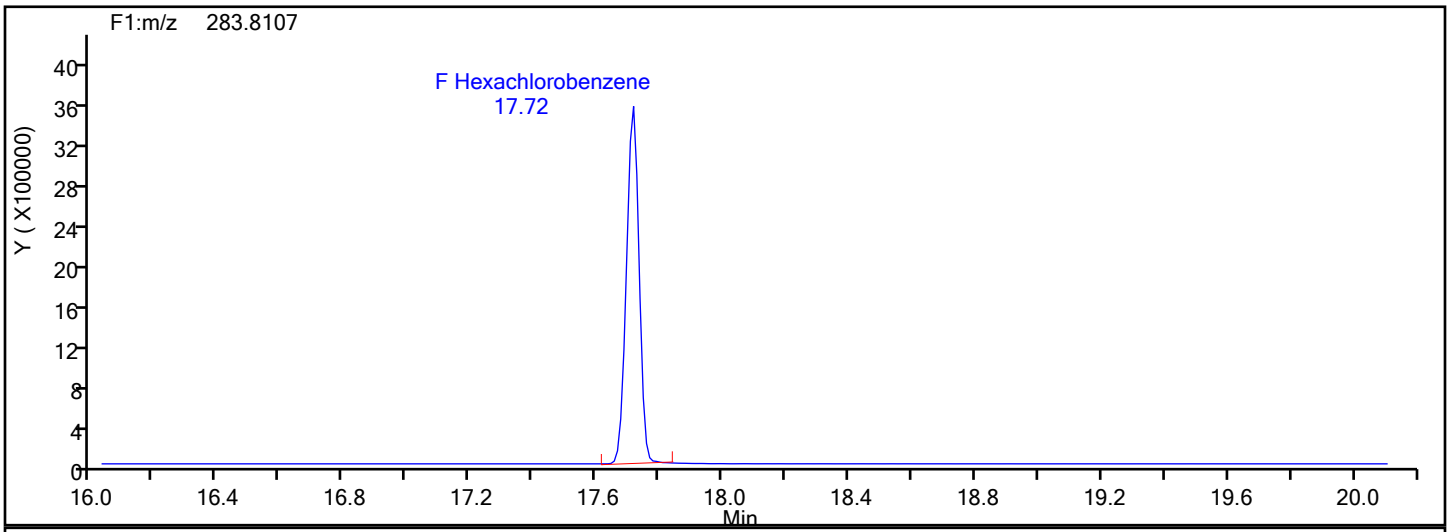
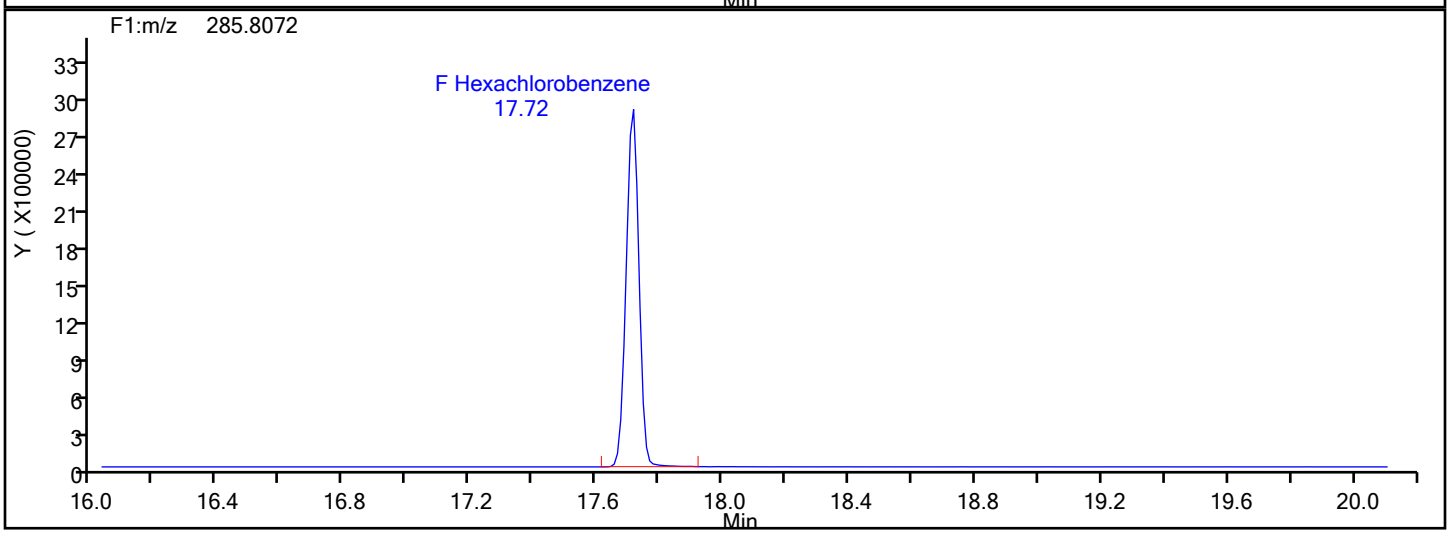
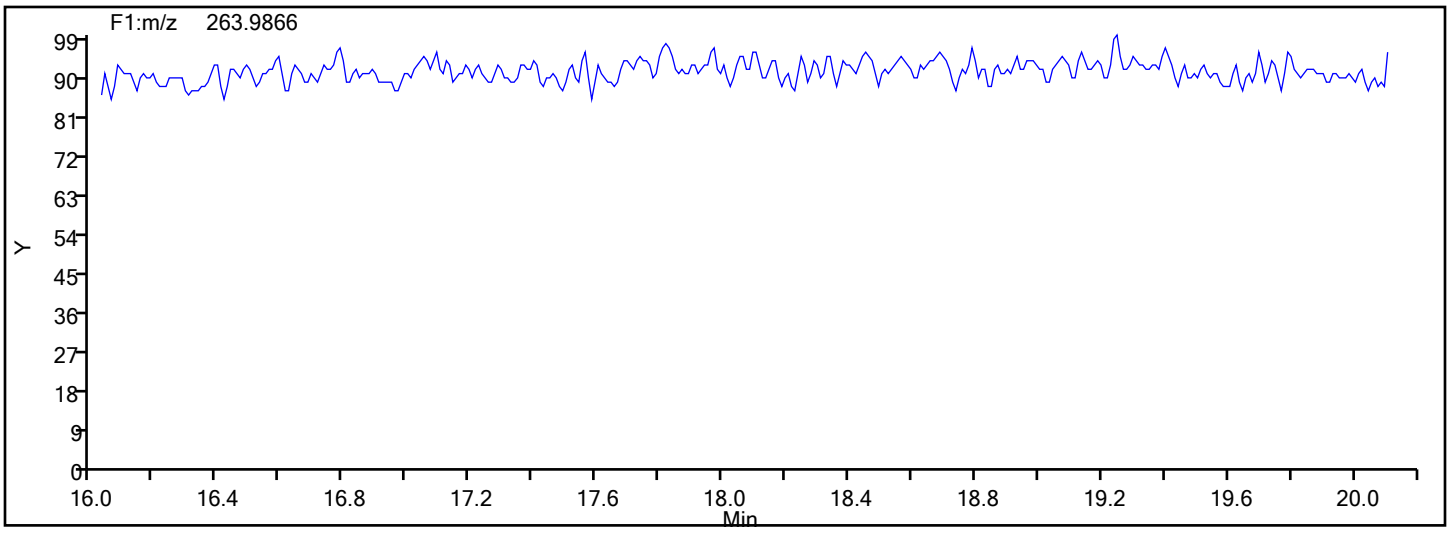
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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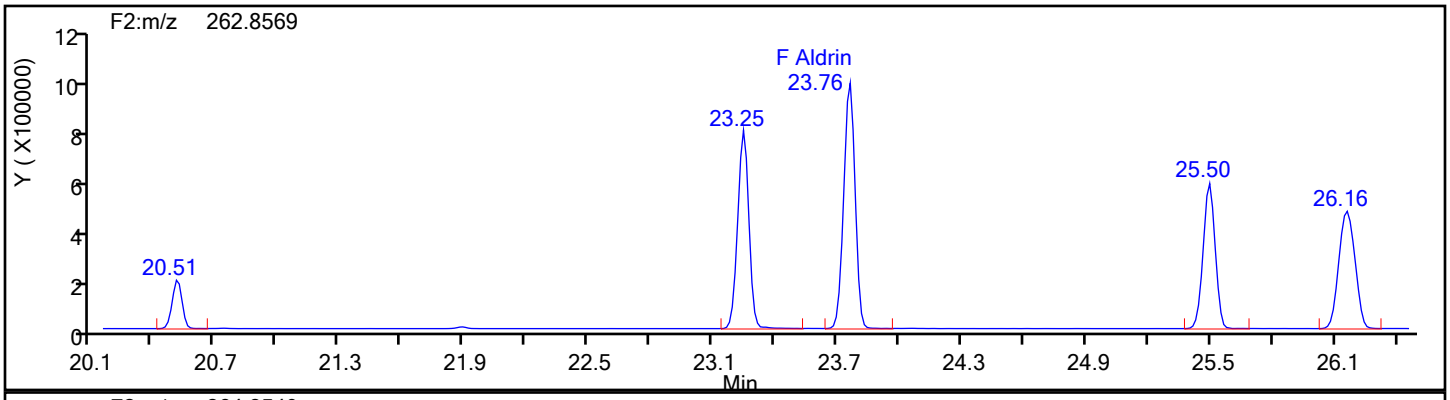
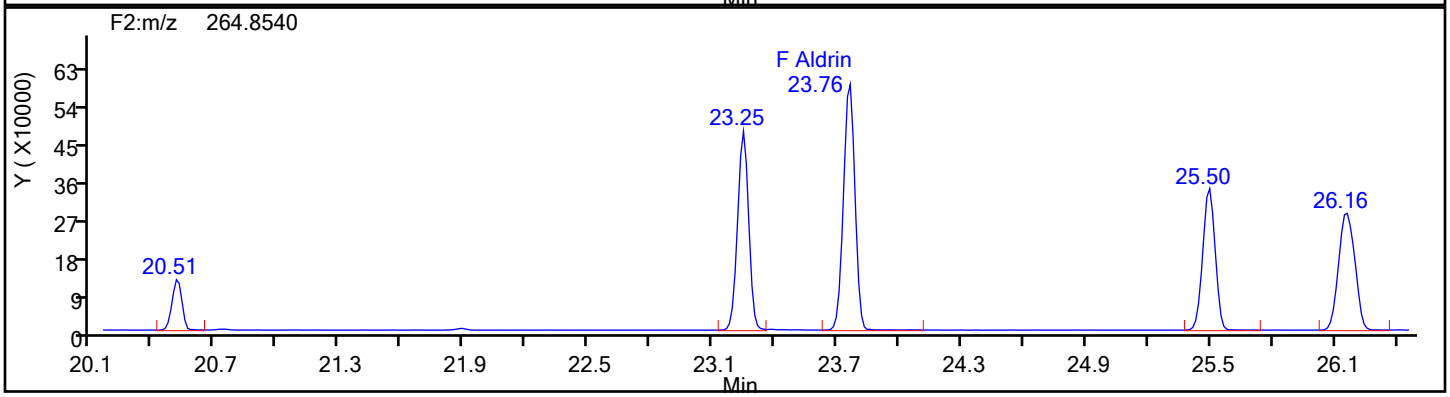
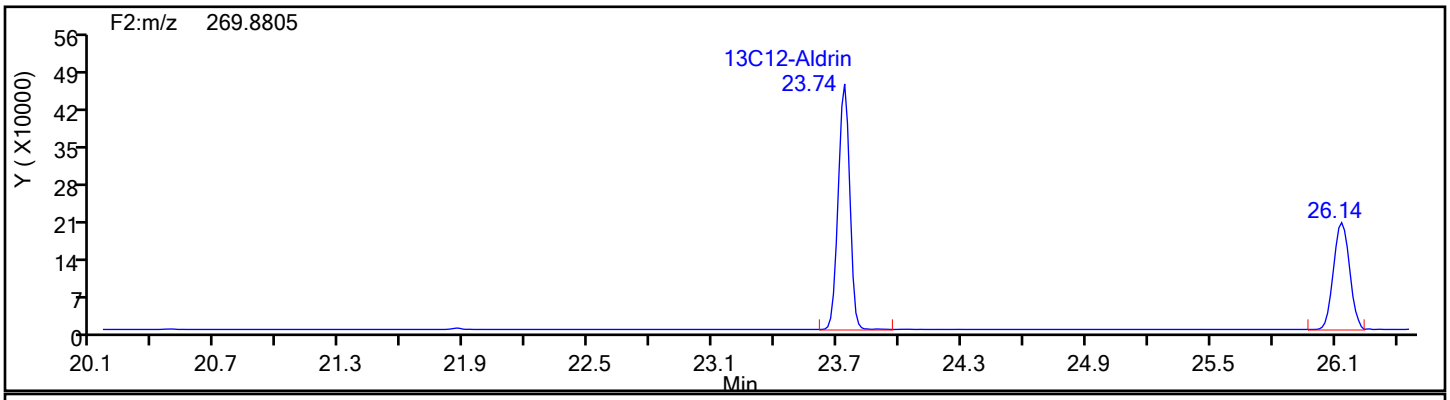
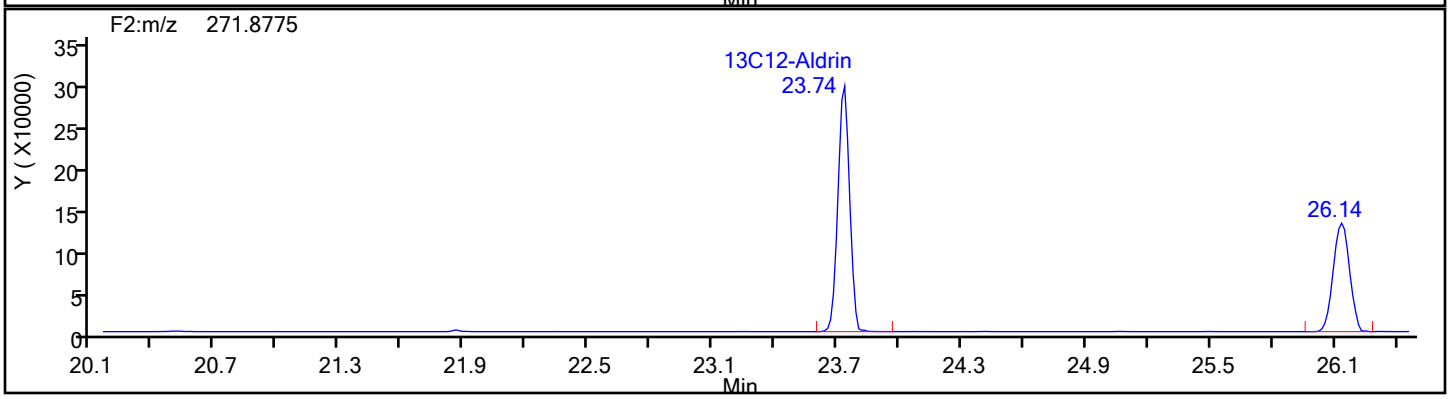
Aldrin





Aldrin Standards





Report Date: 06-May-2025 17:46:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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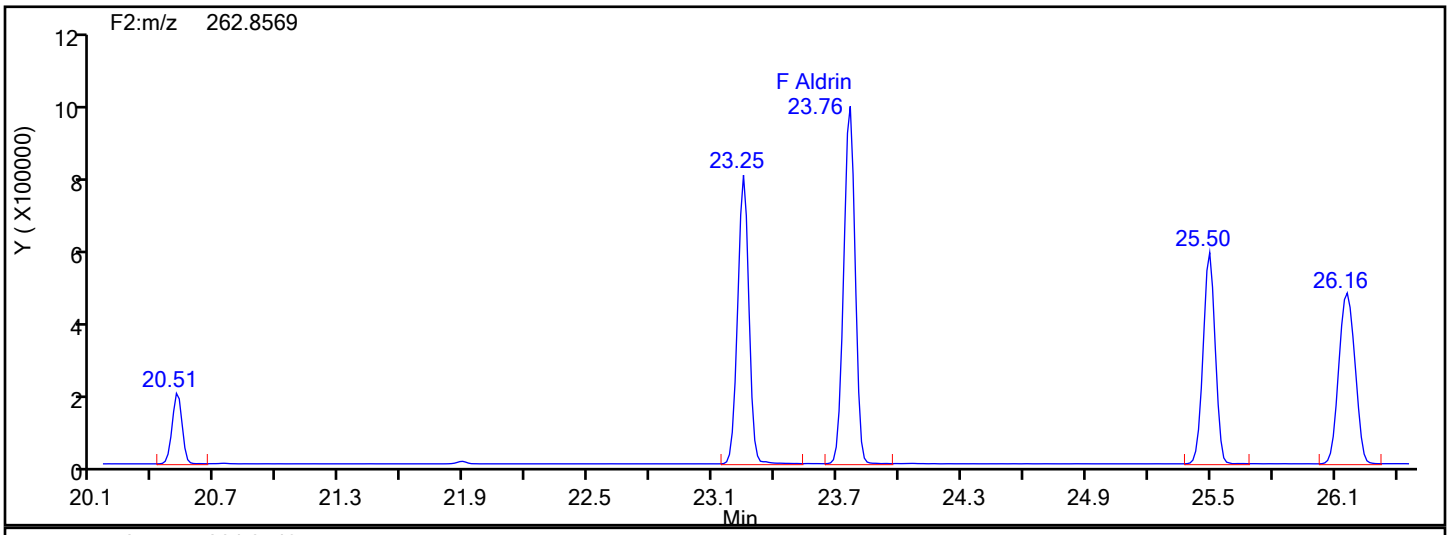
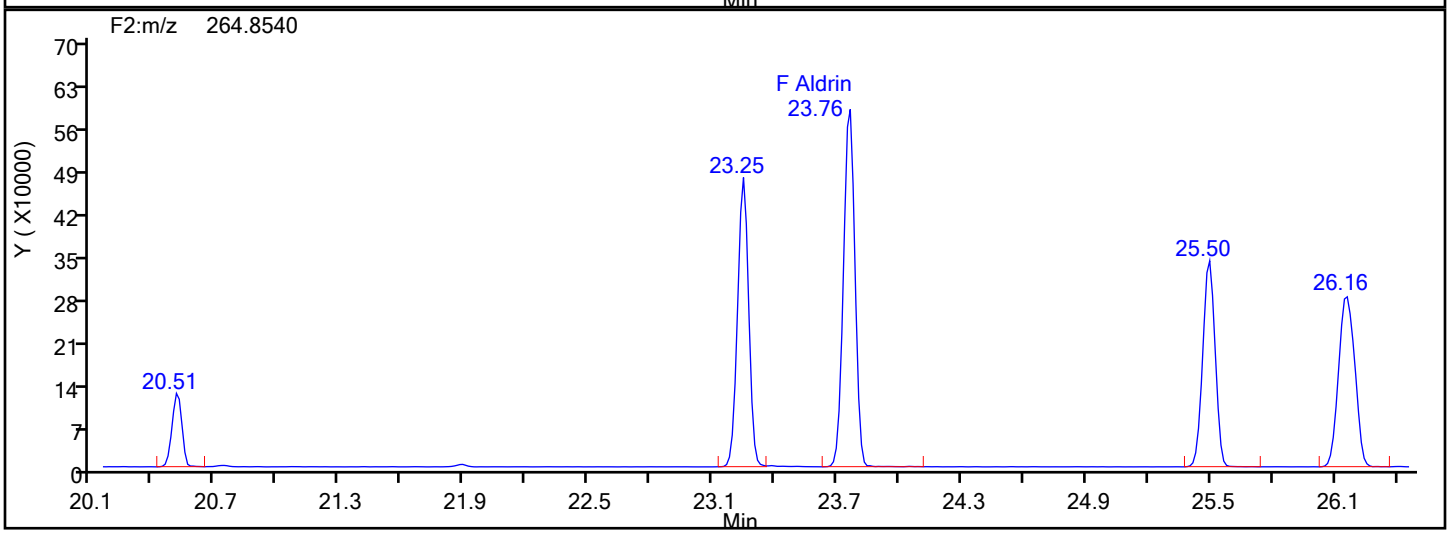
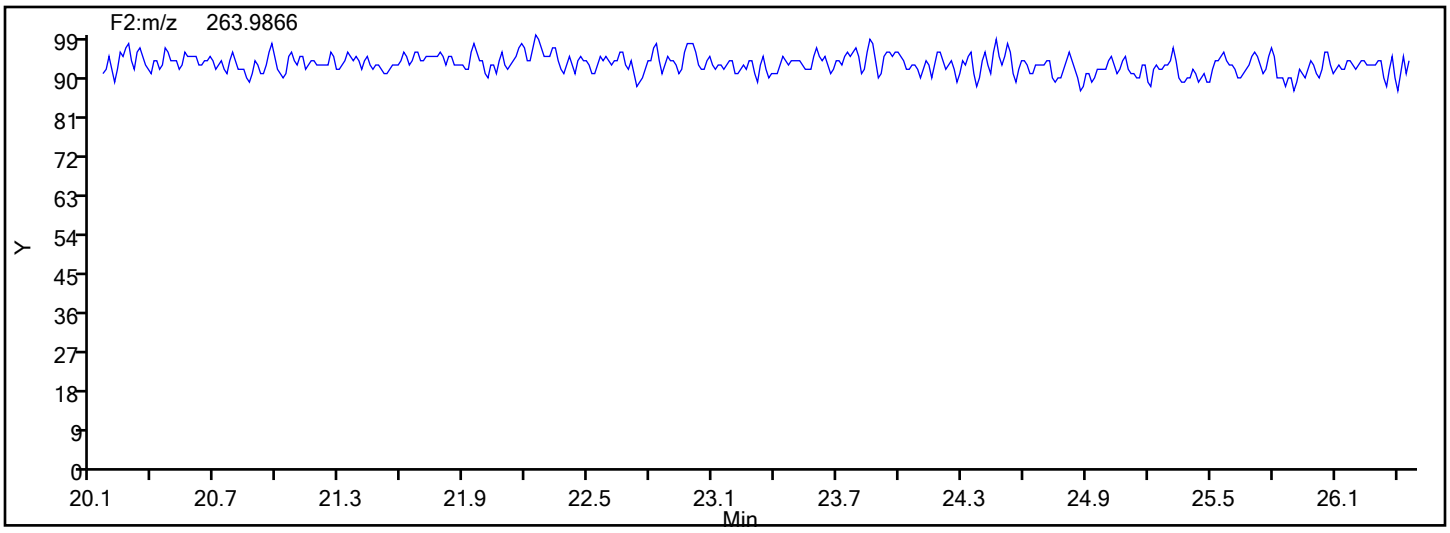




Aldrin Lock Mass



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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
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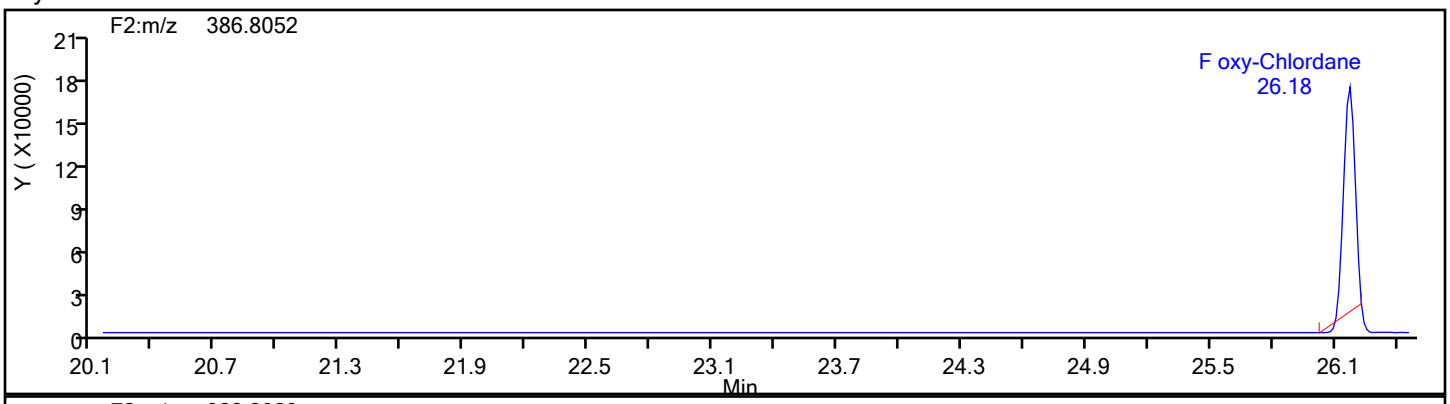
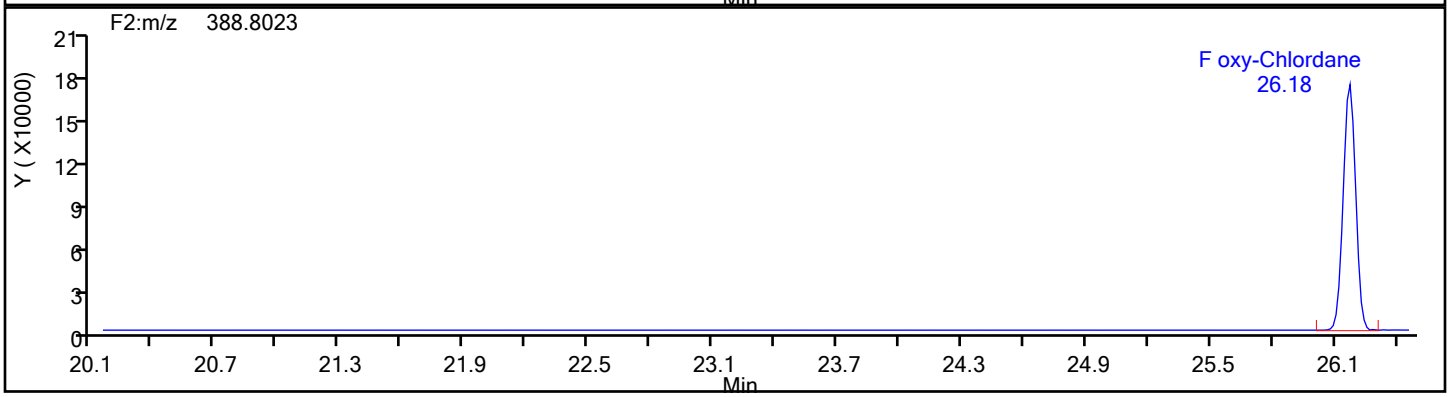
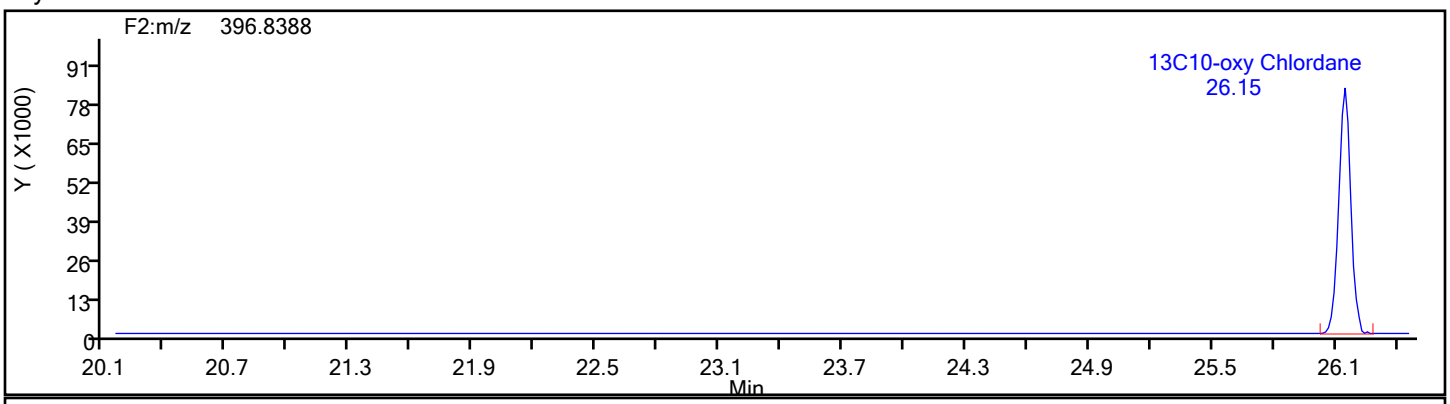
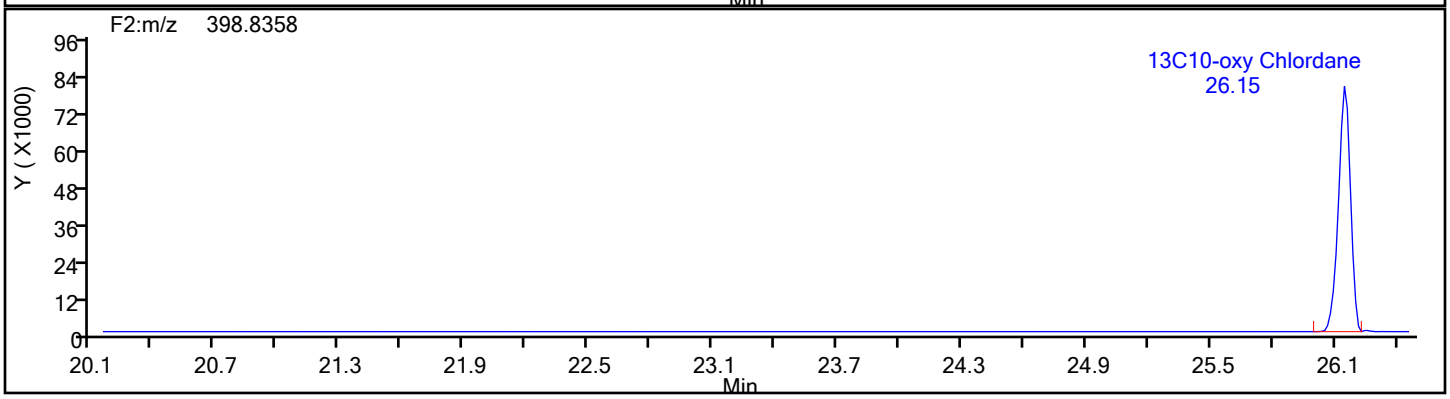
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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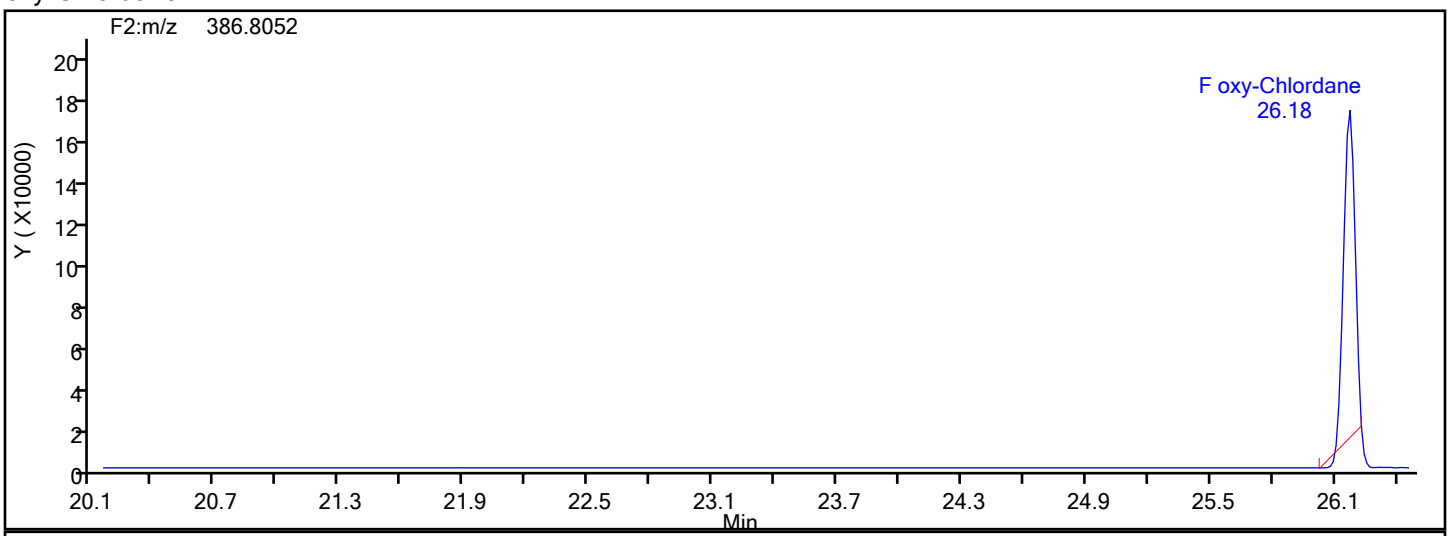
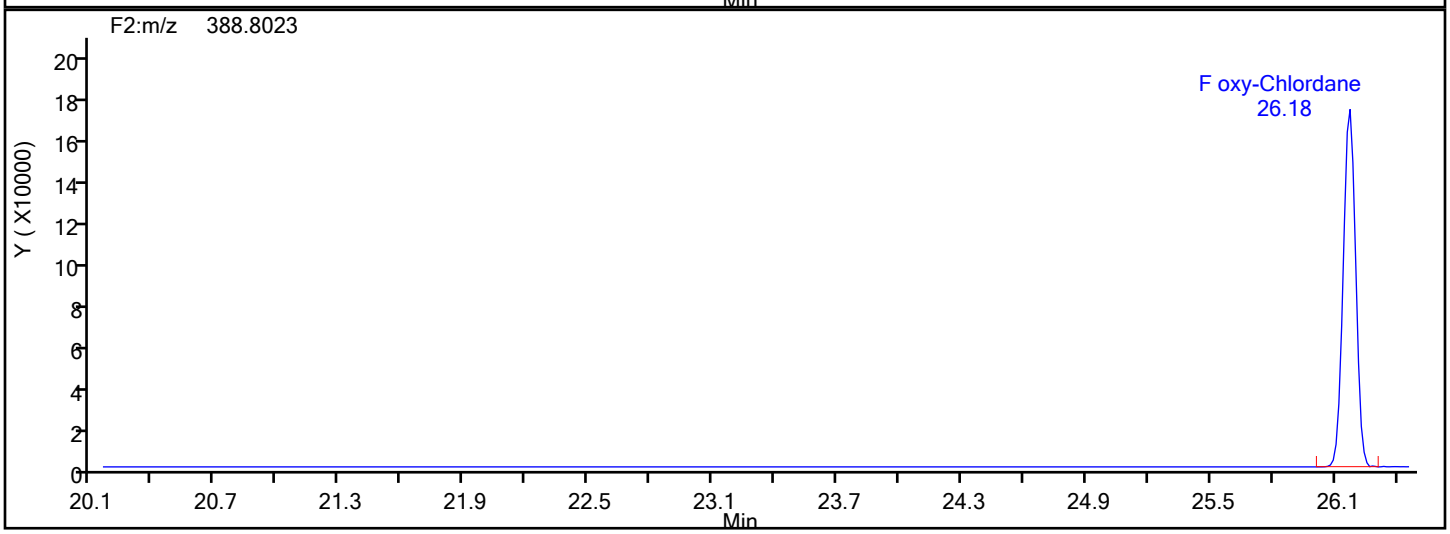
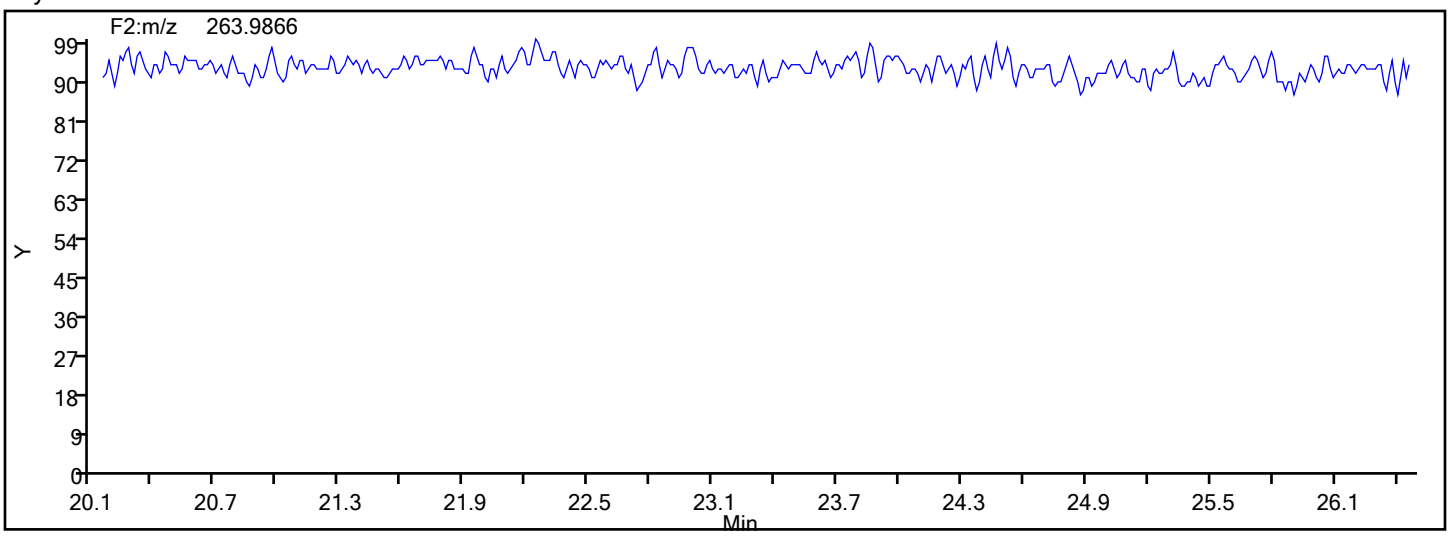
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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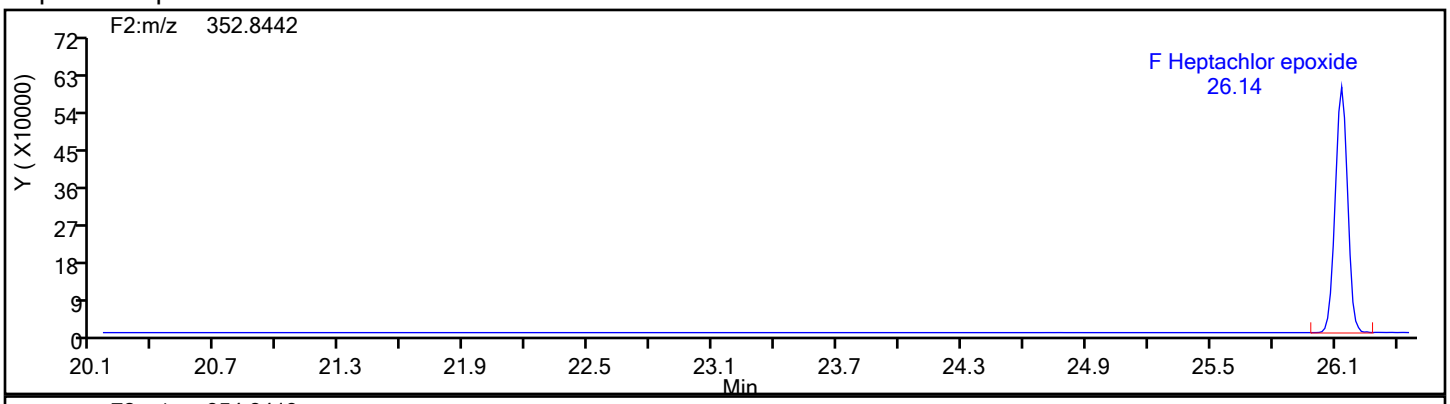
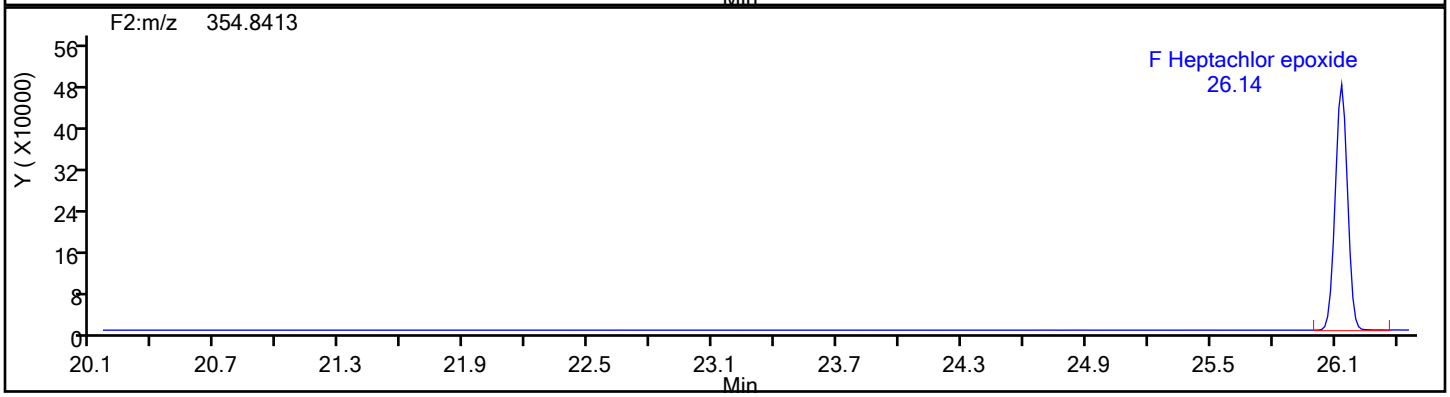
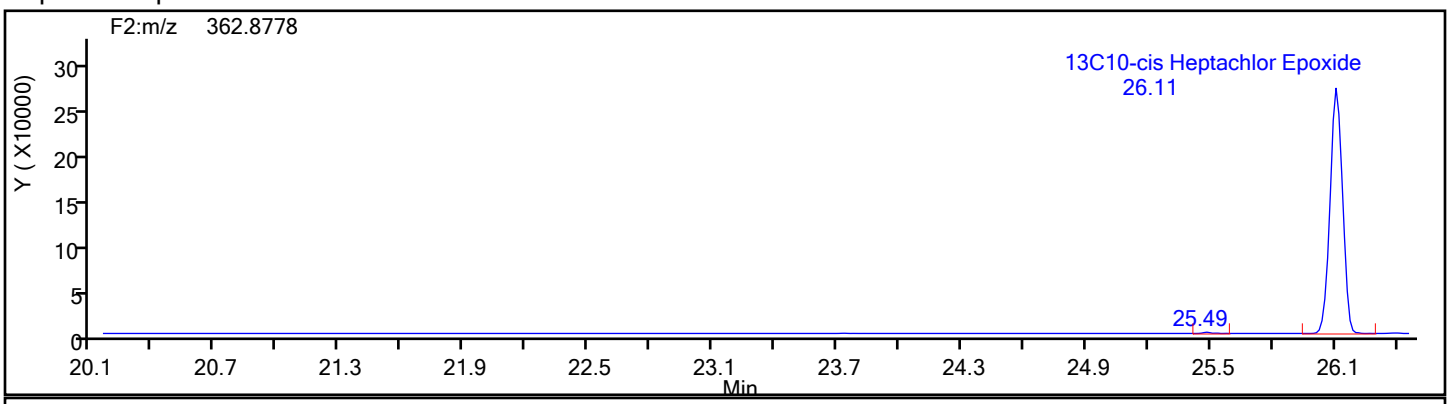
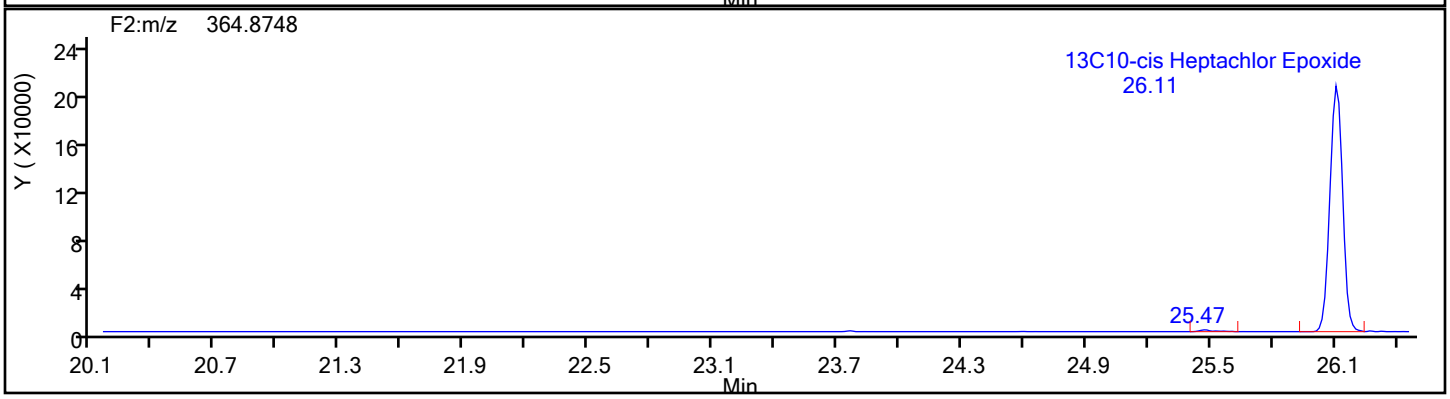
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
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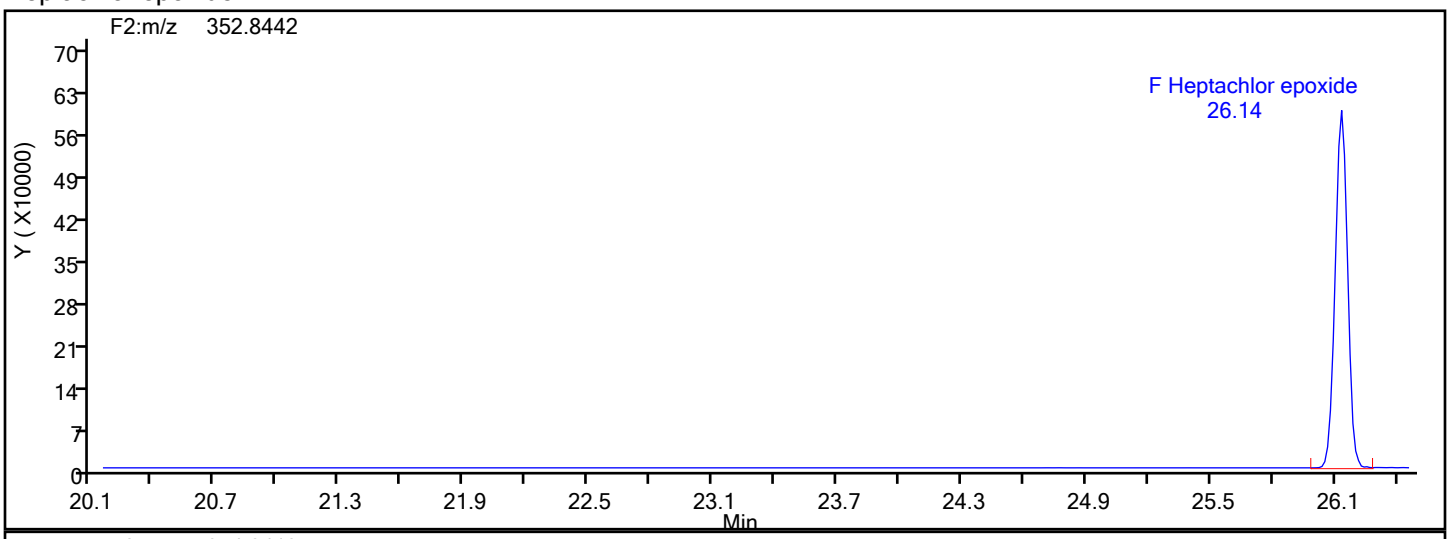
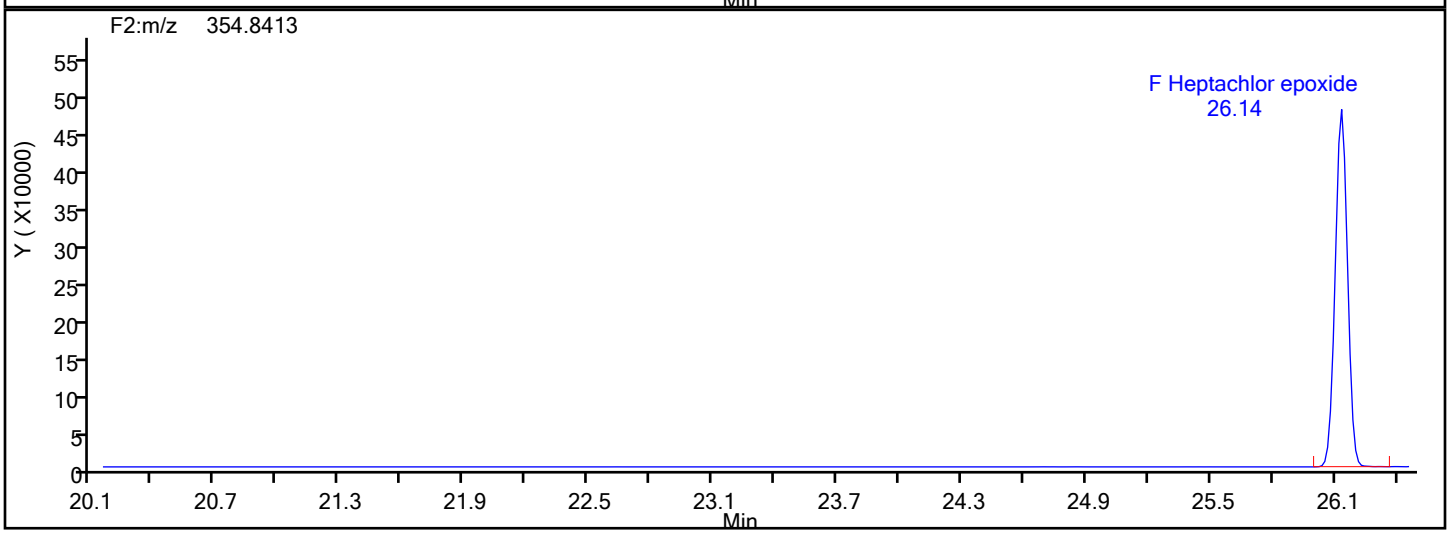
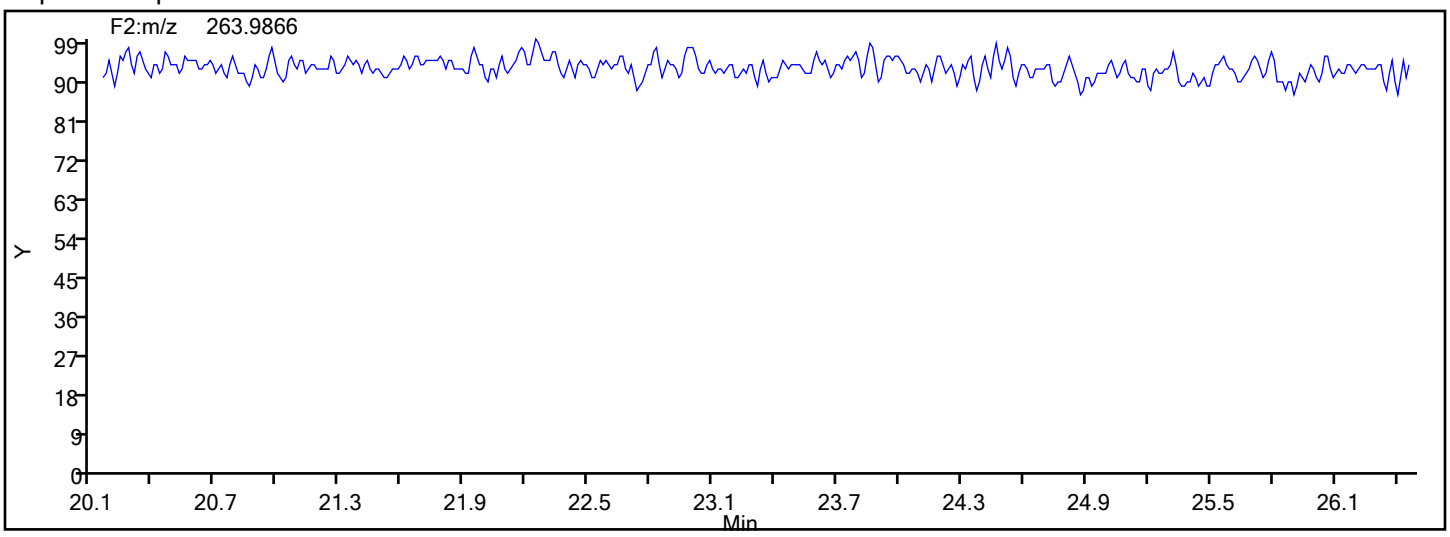
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
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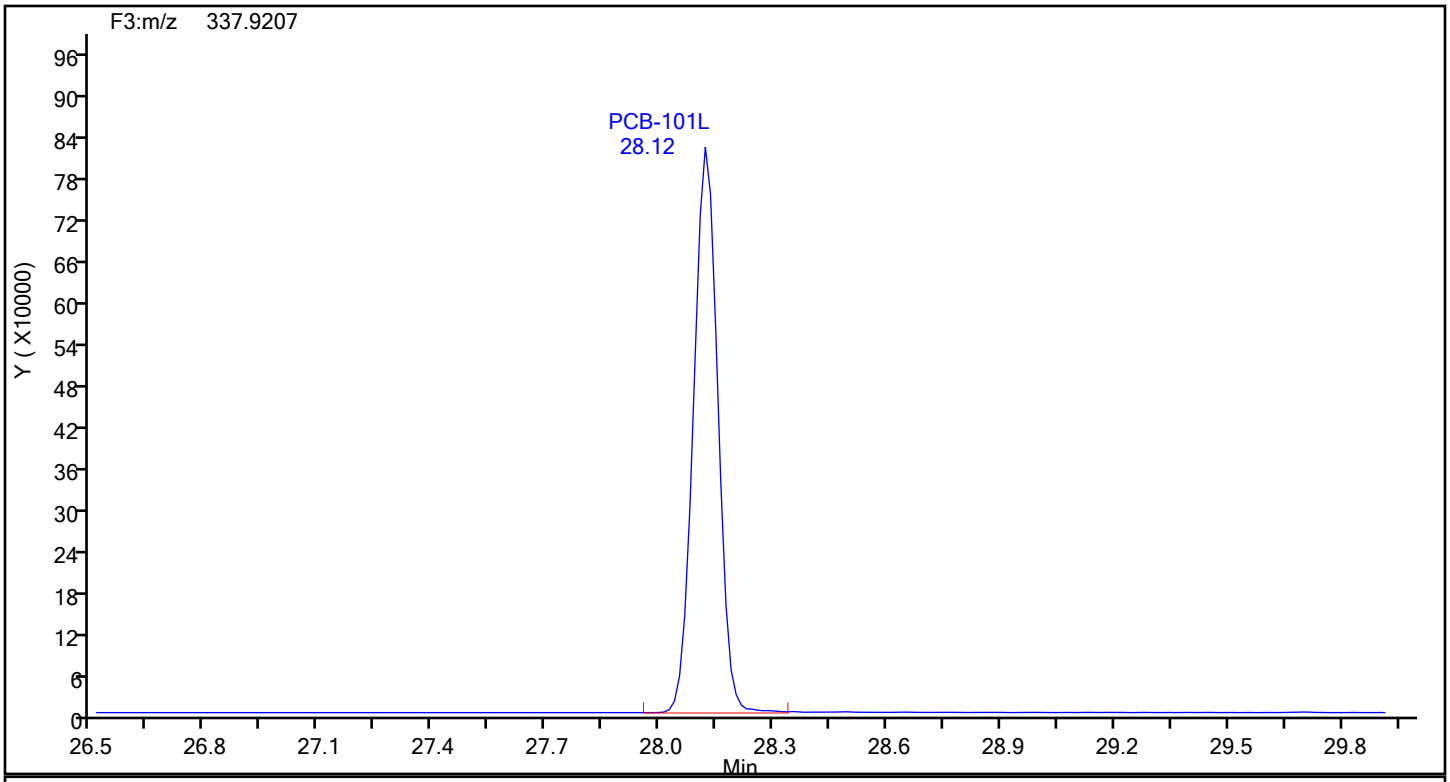
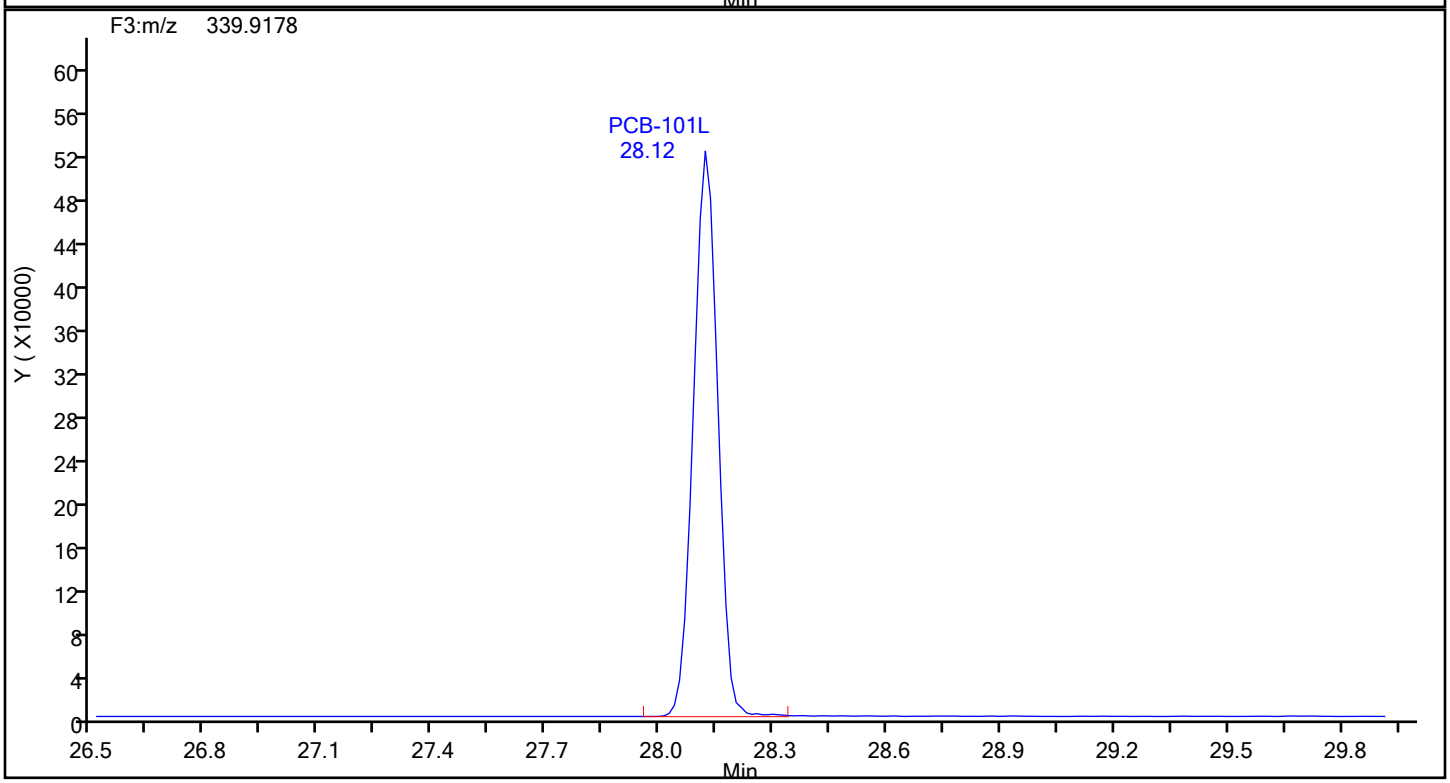
PCB-101L Standards





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Eurofins Knoxville

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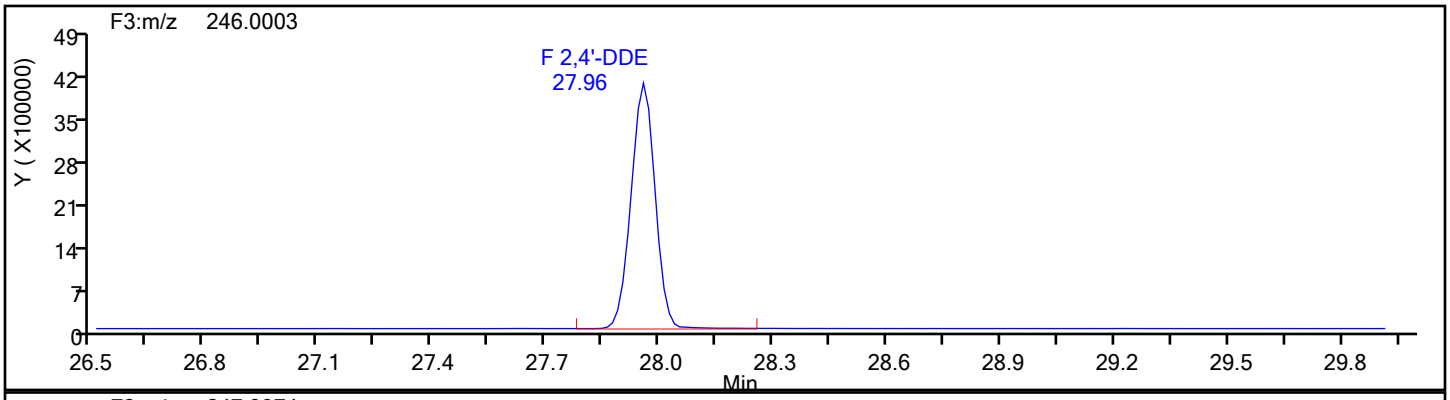
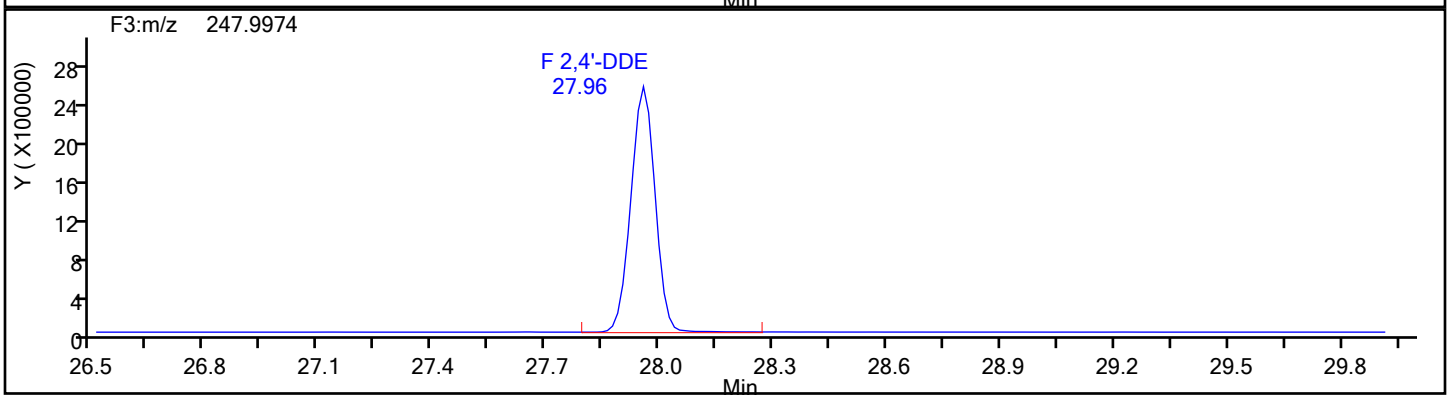
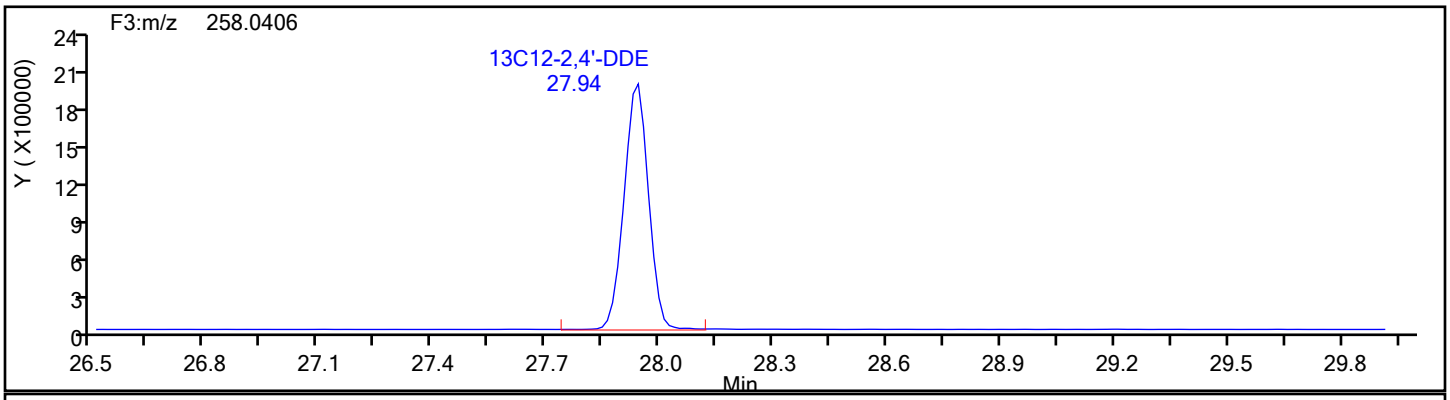
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

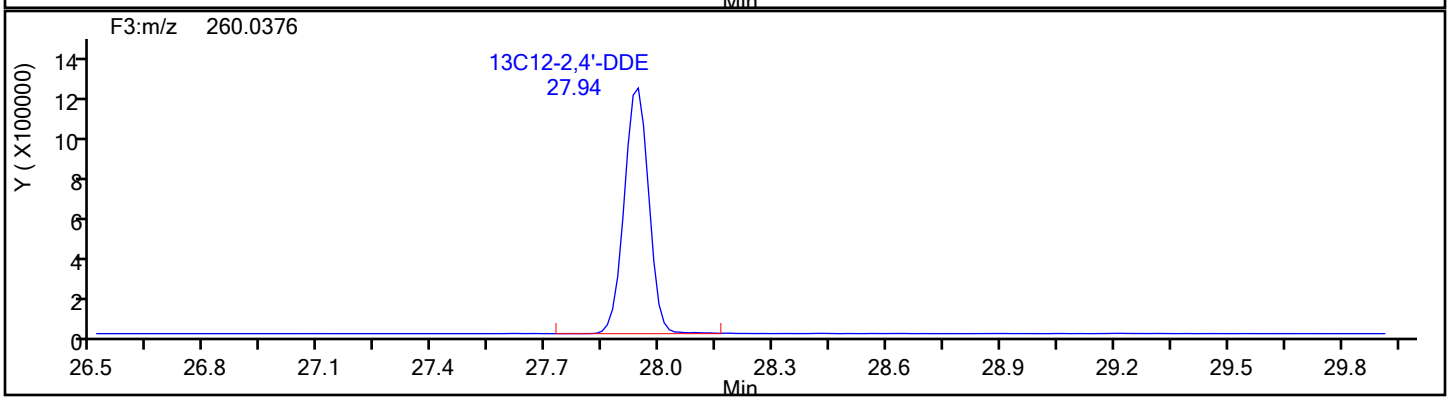
2,4'-DDE





2,4'-DDE Standards



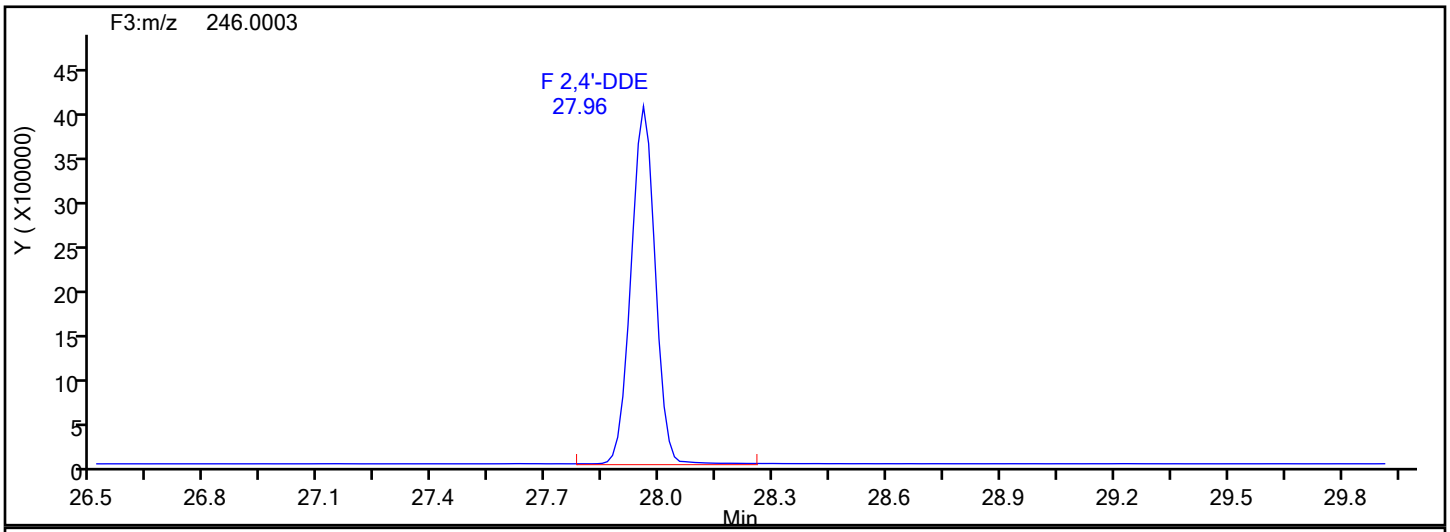


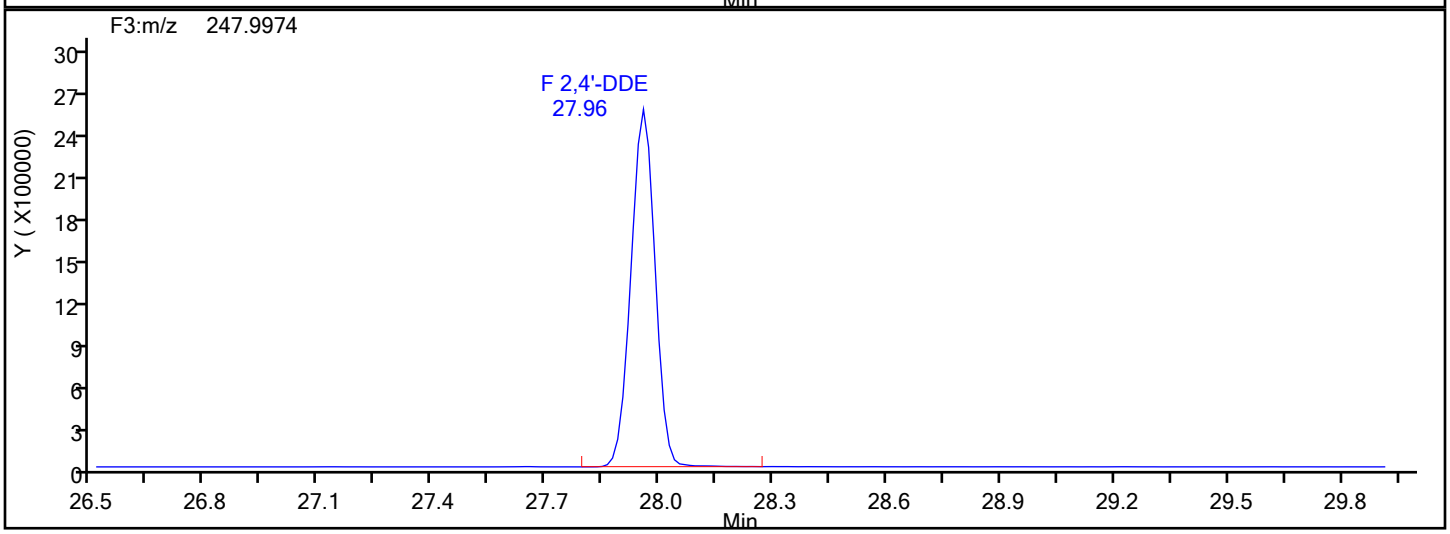
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

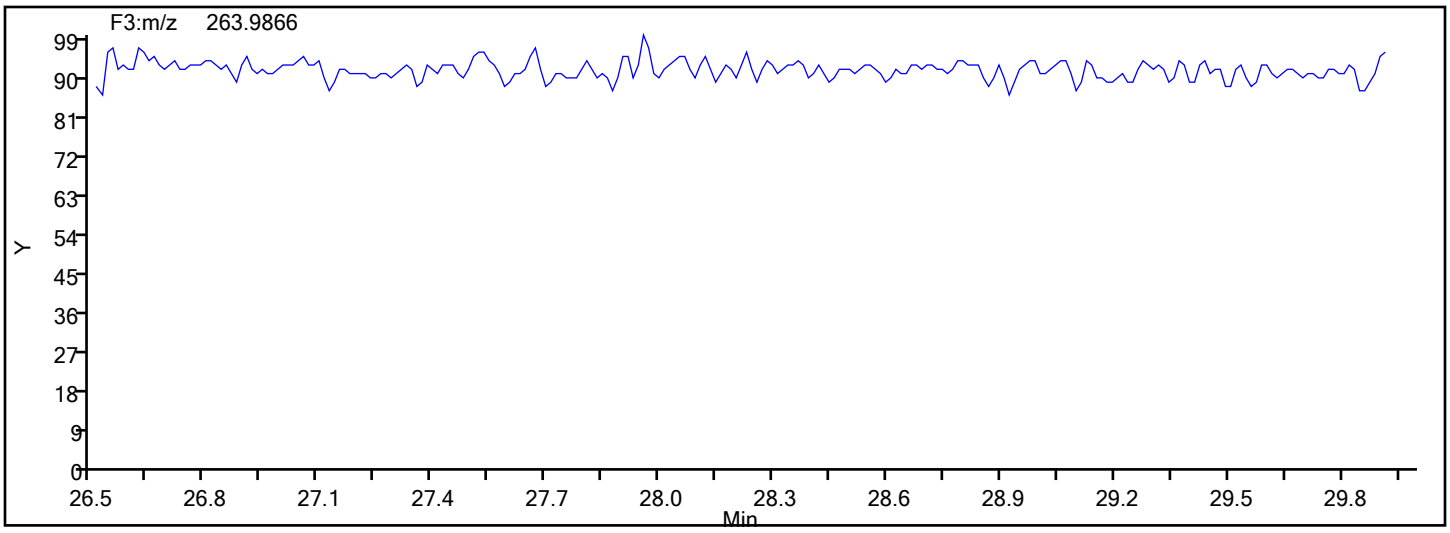
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDE





2,4'-DDE Lock Mass



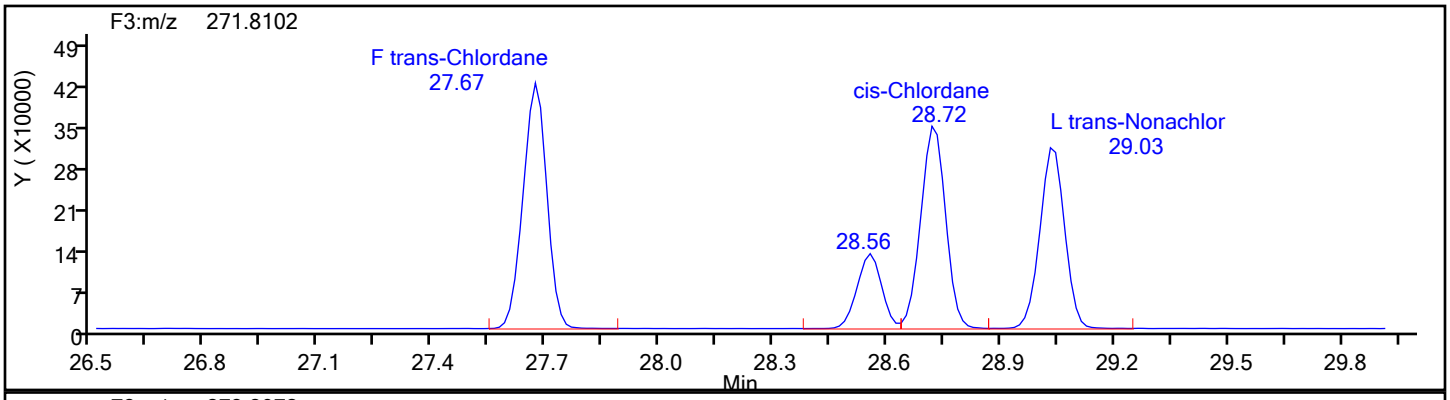
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

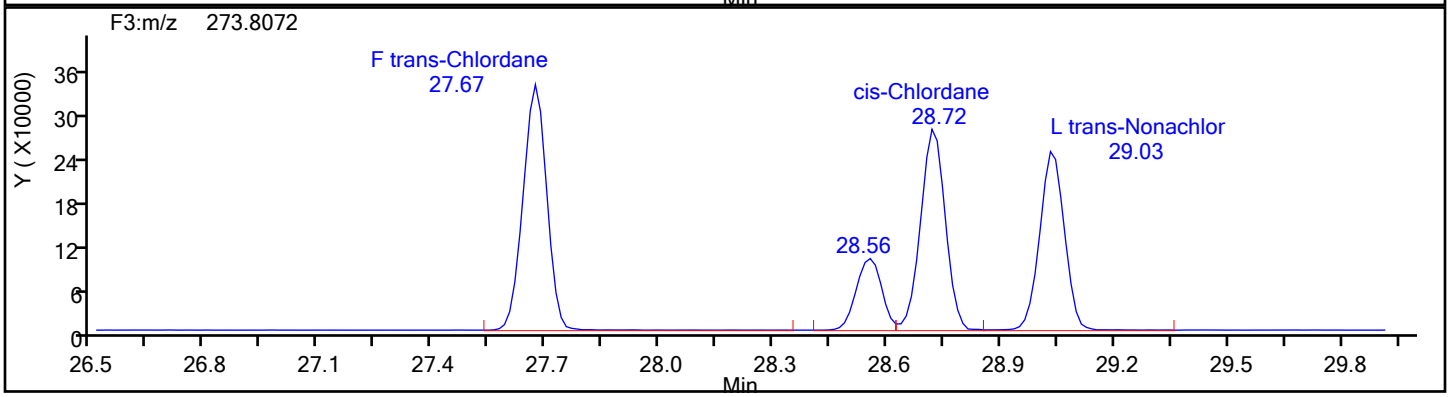
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

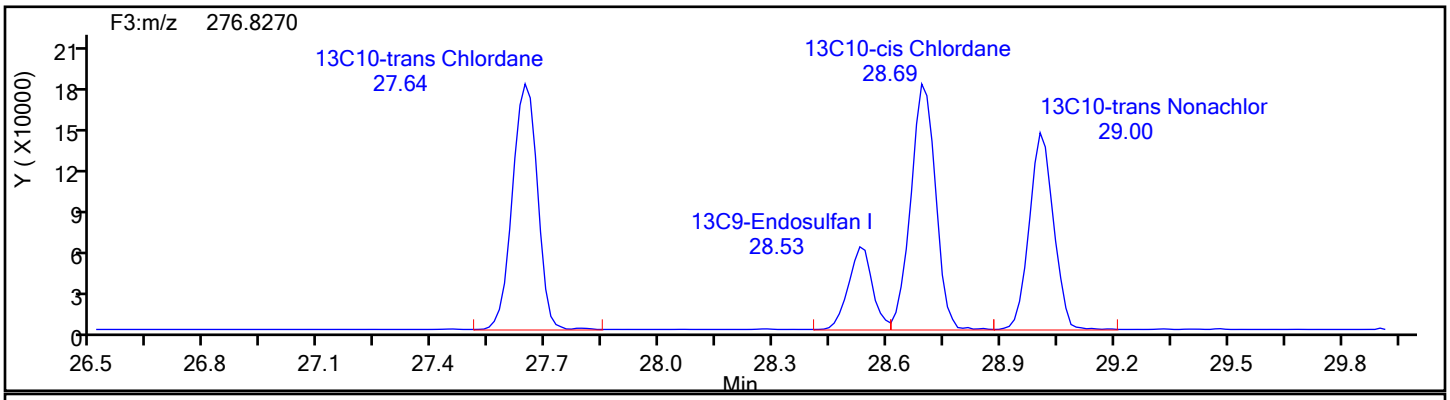
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

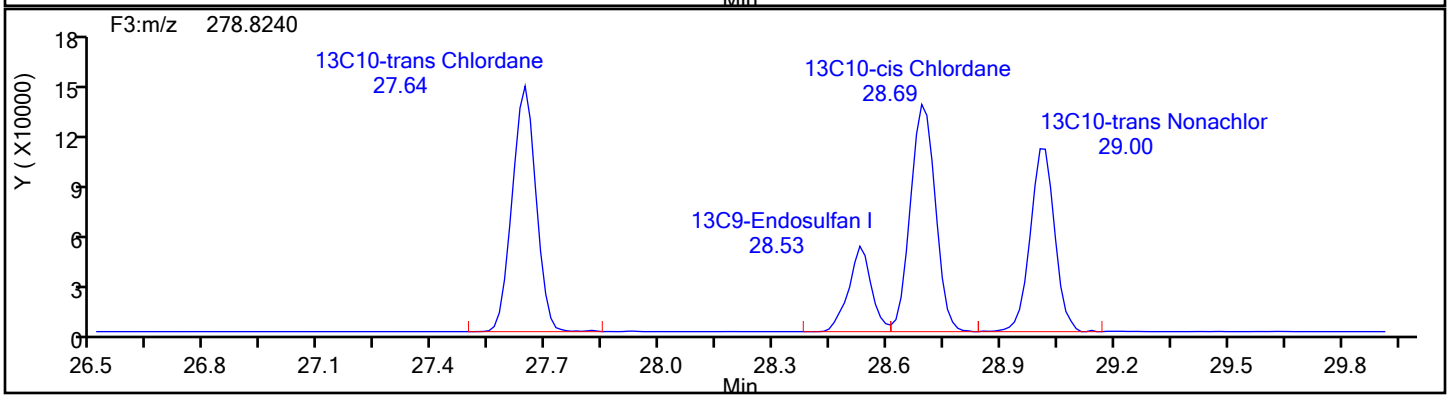
Chlordane





Chlordane Standards





Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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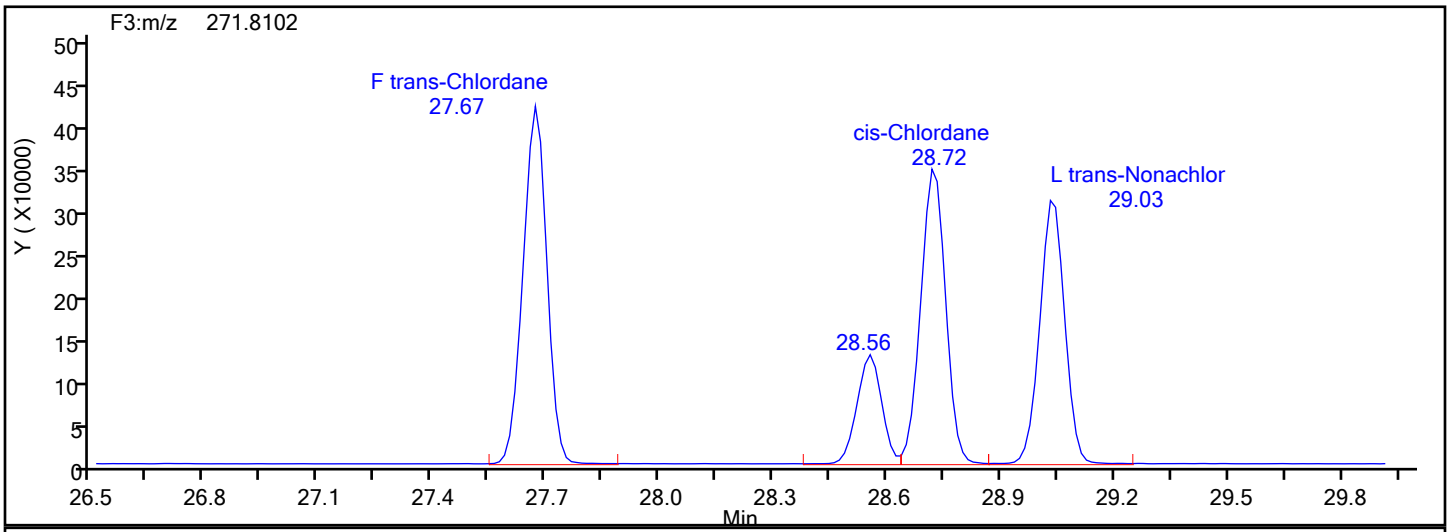
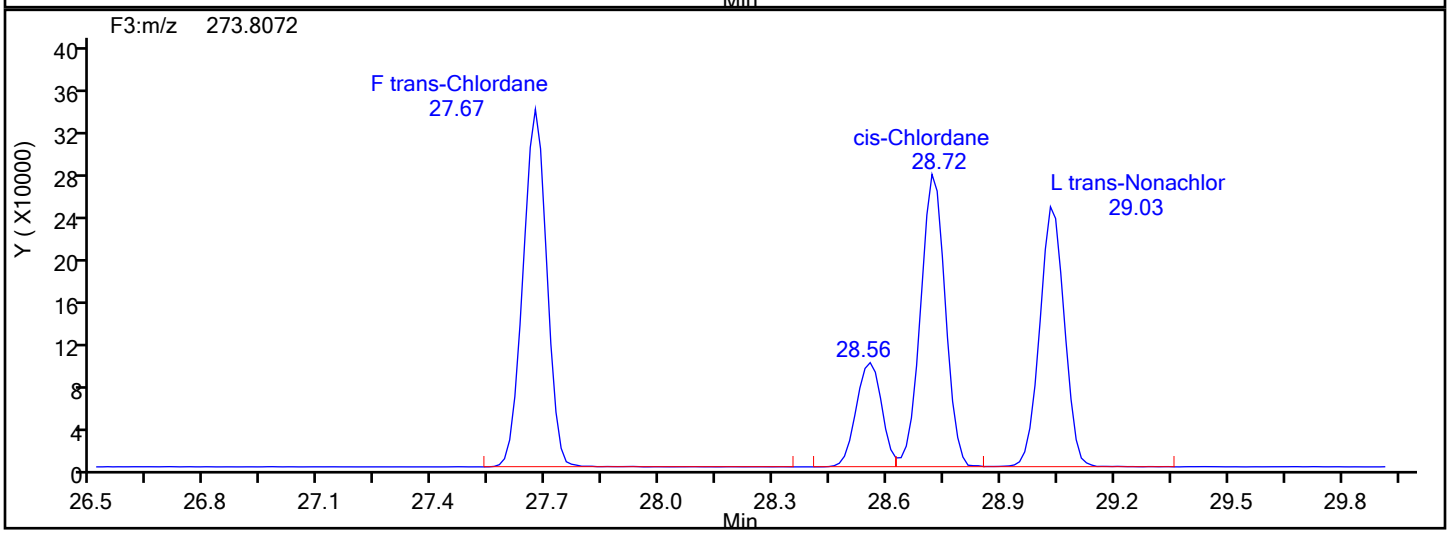
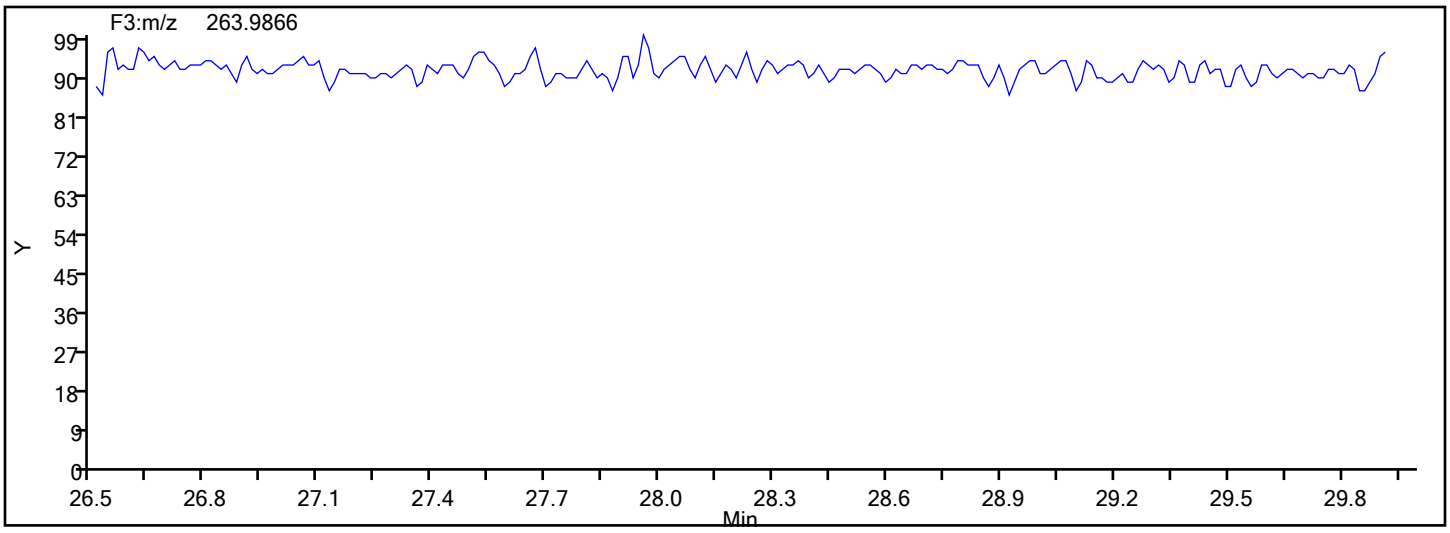
Column Type:	RTX-5	Column Dia:	0.32 mm

Chlordane





Chlordane Lock Mass



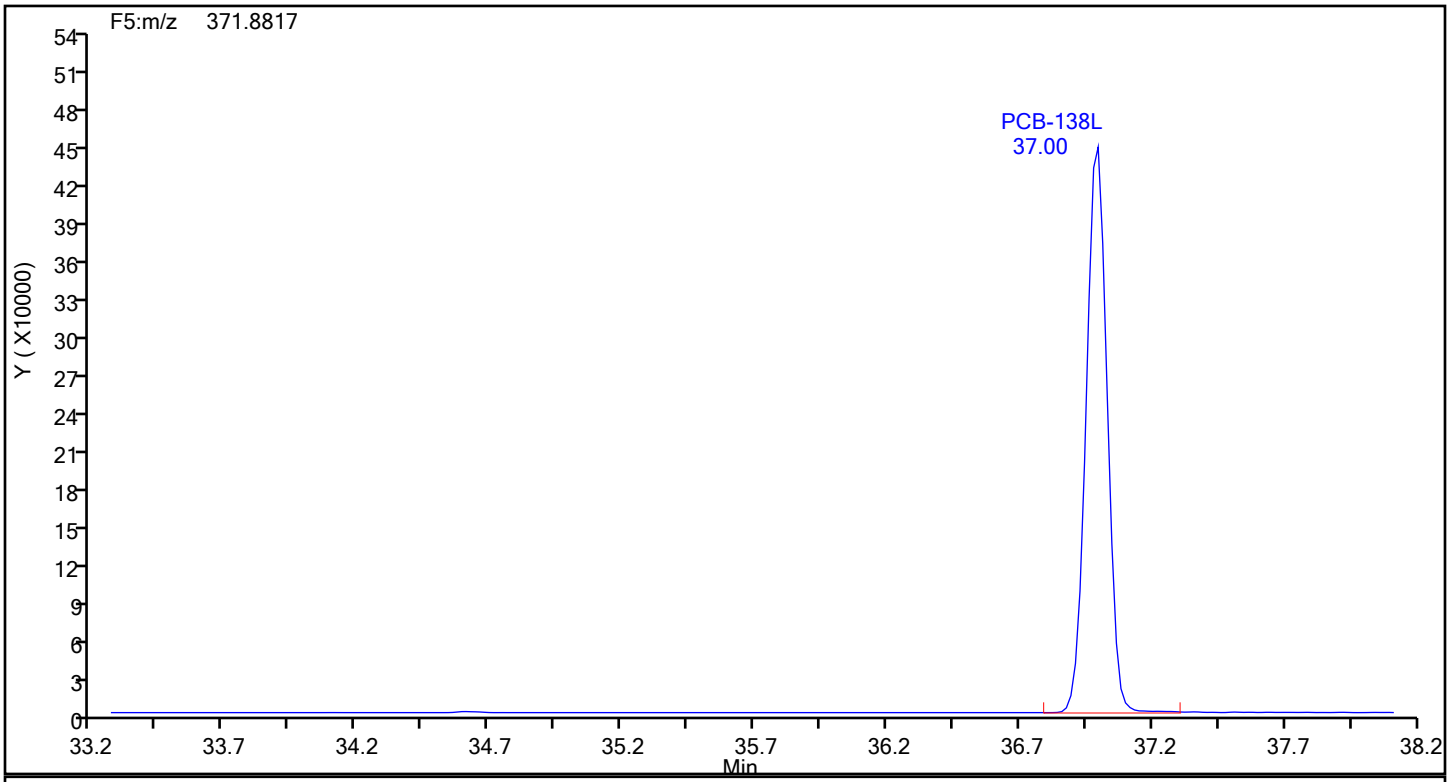
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

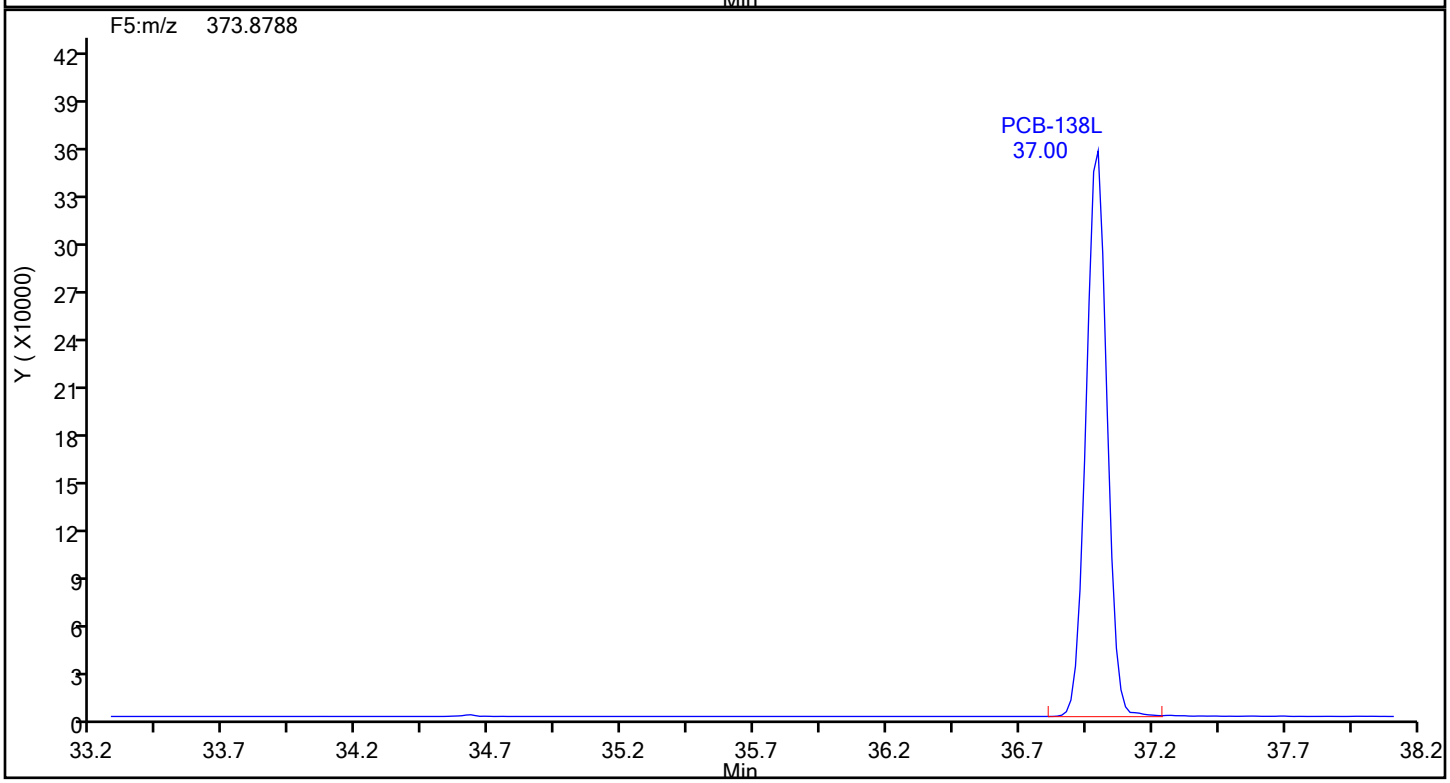
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-138L Standards





Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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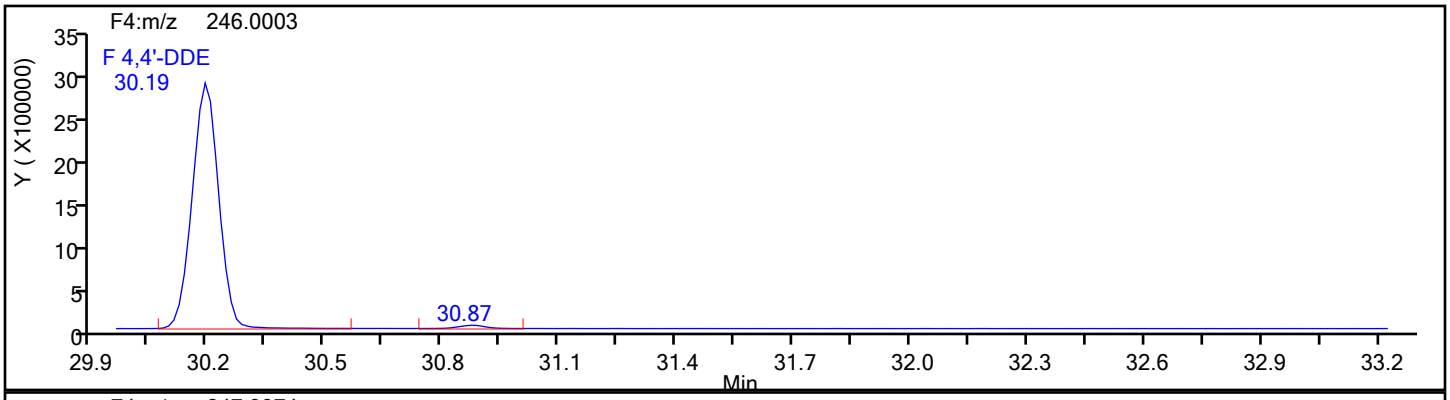
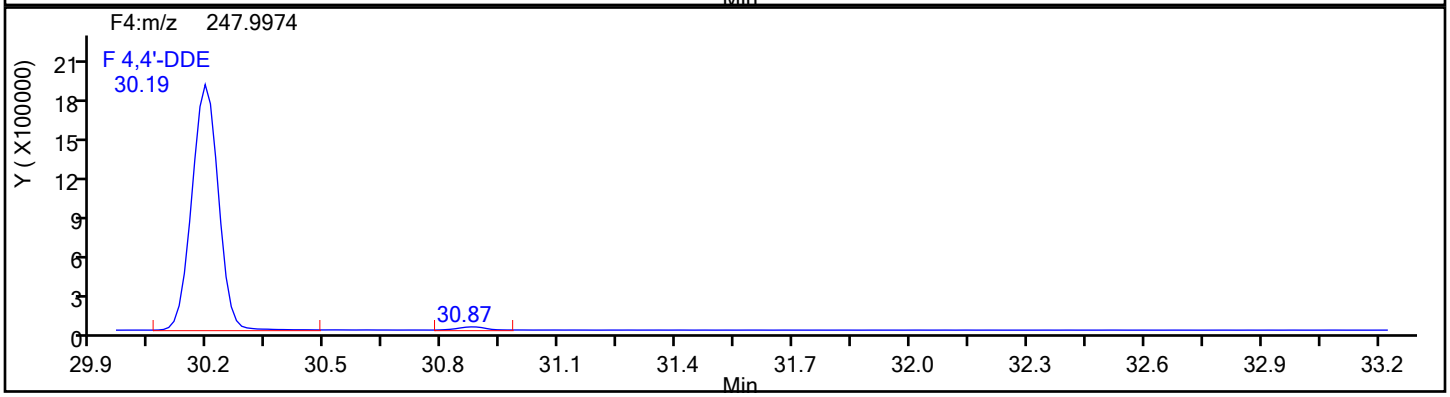
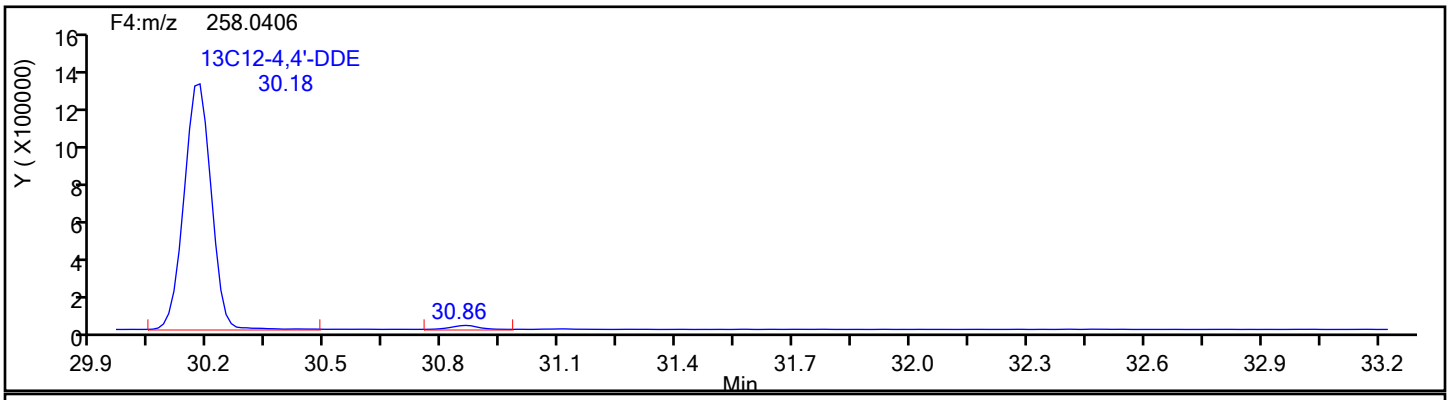
Column Type:	RTX-5	Column Dia:	0.32 mm

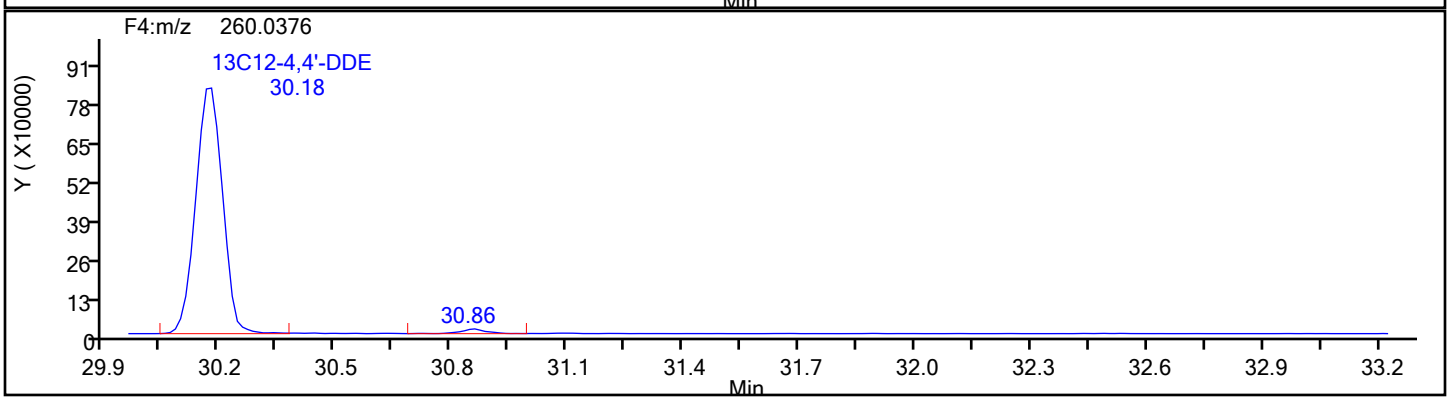
4,4'-DDE





4,4'-DDE Standards



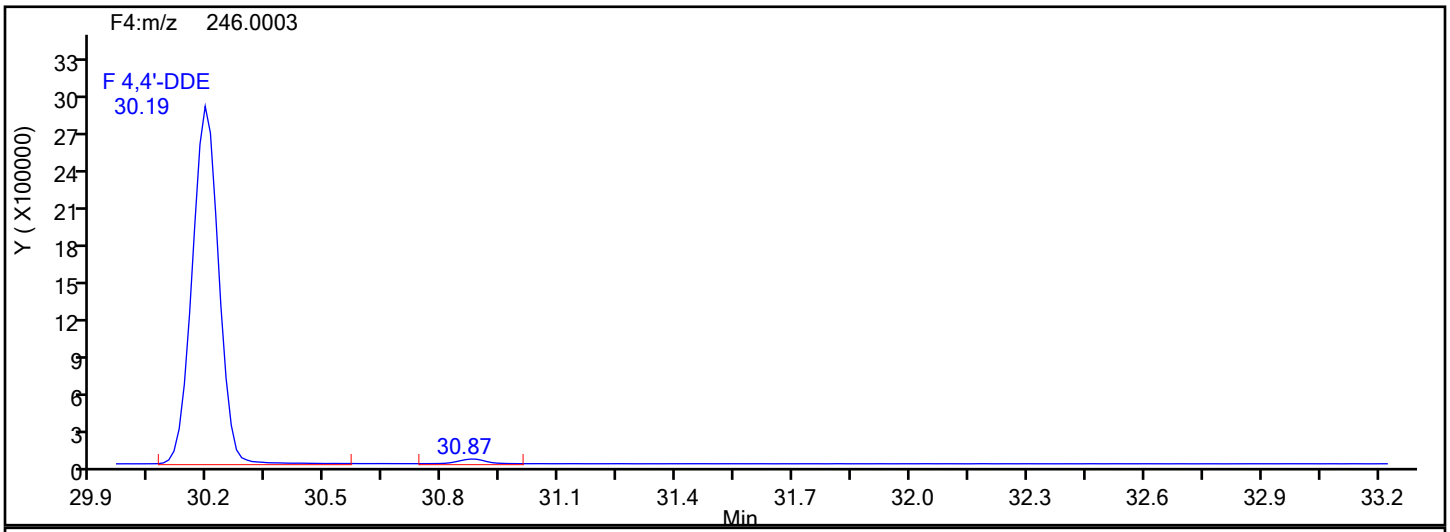


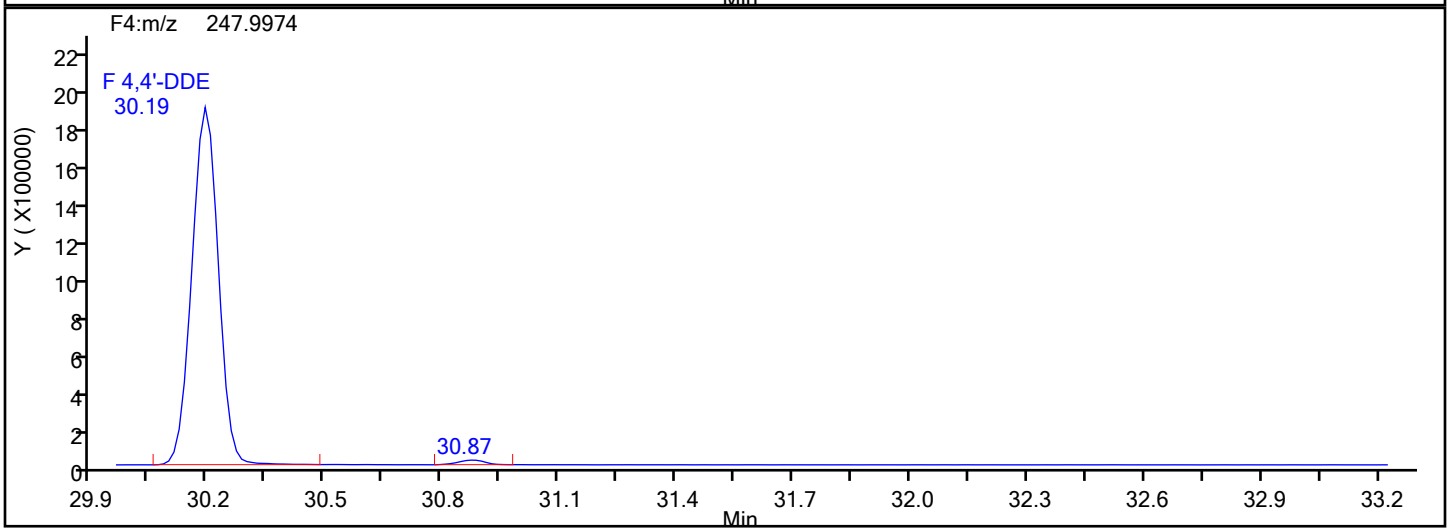
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

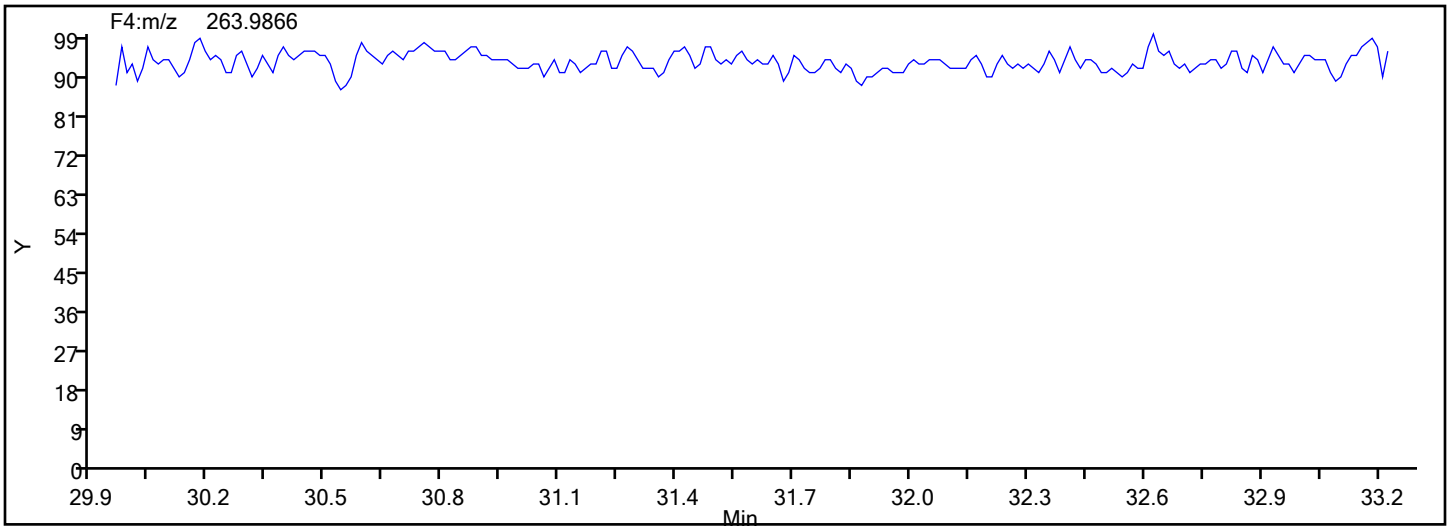
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

4,4'-DDE





4,4'-DDE Lock Mass



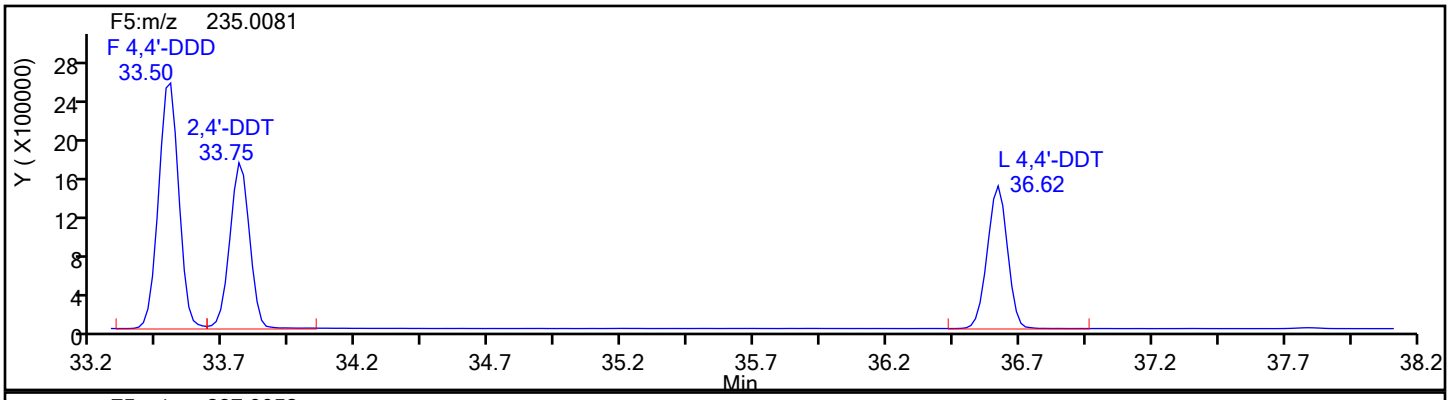
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

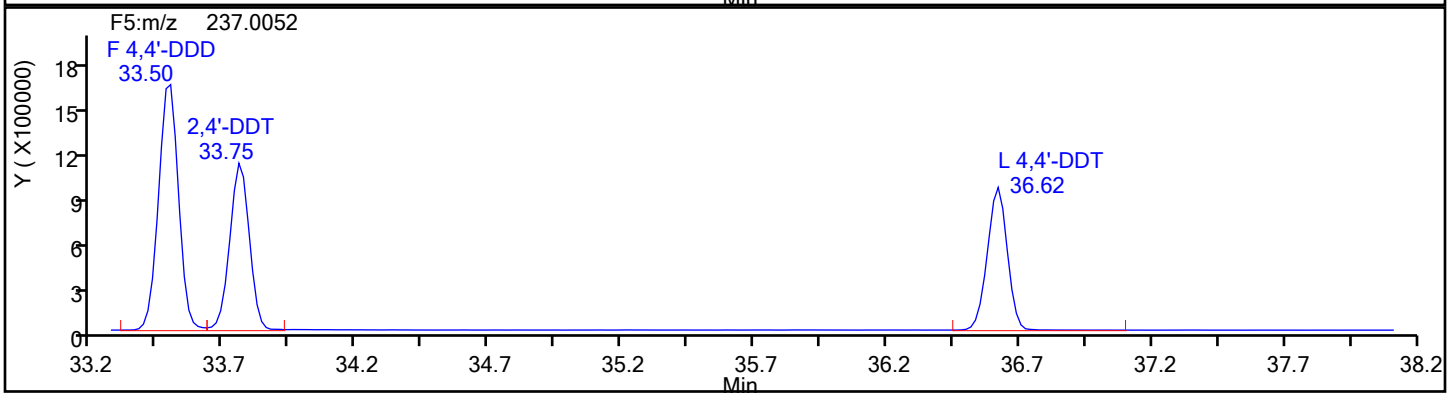
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

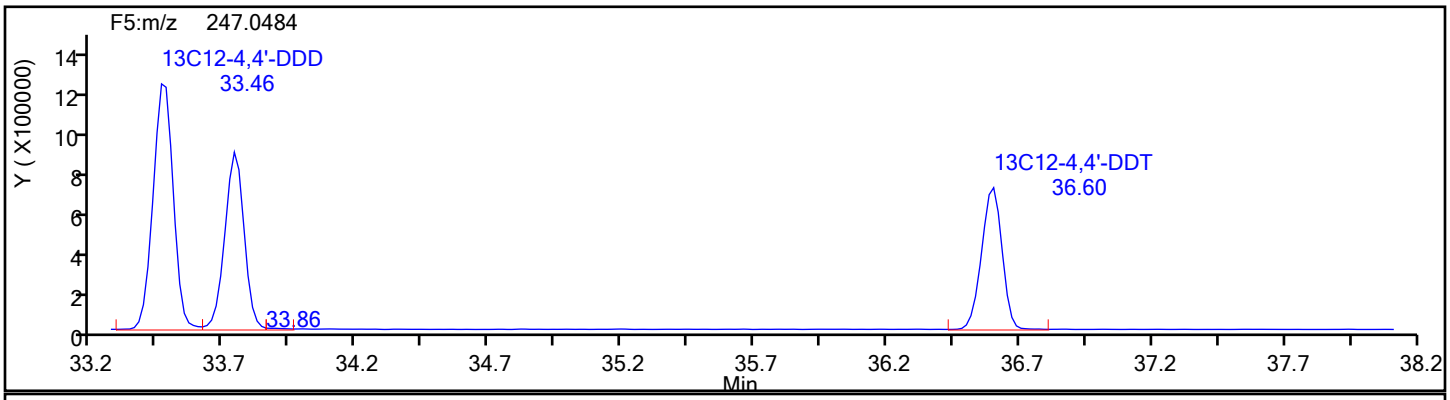
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

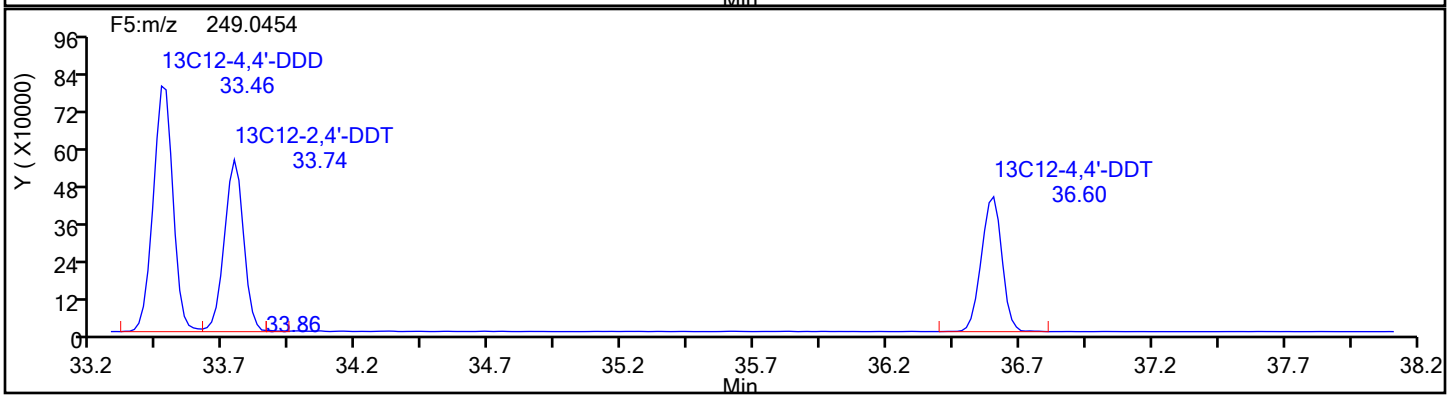
DDD





DDD Standards





Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Injection Date: 28-Mar-2025 22:12:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
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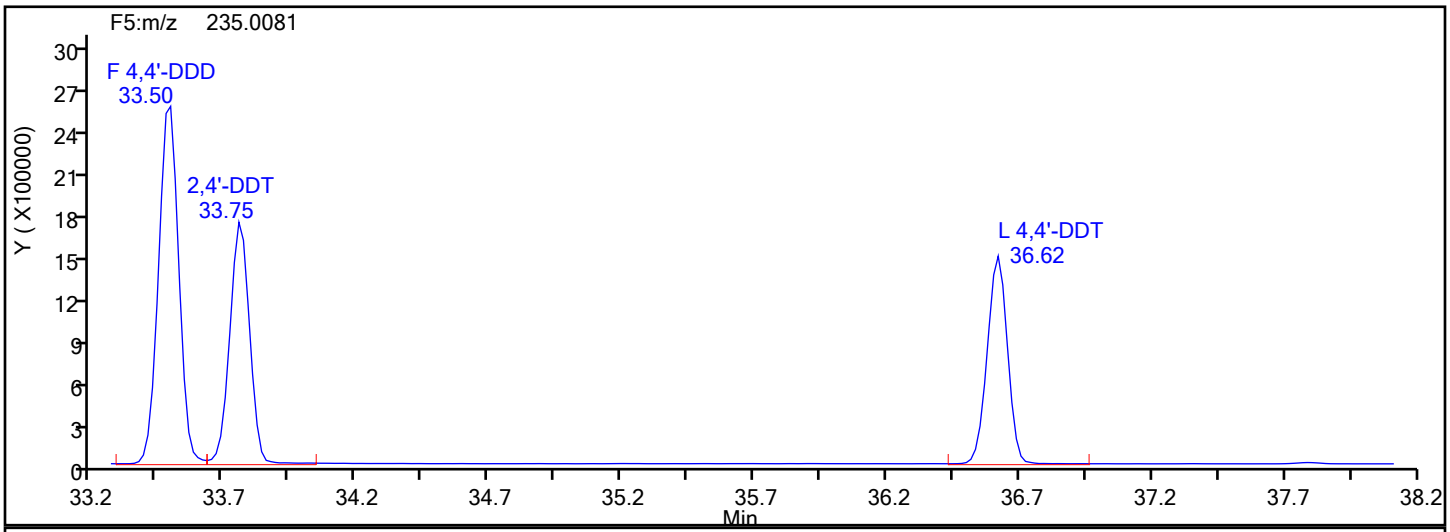
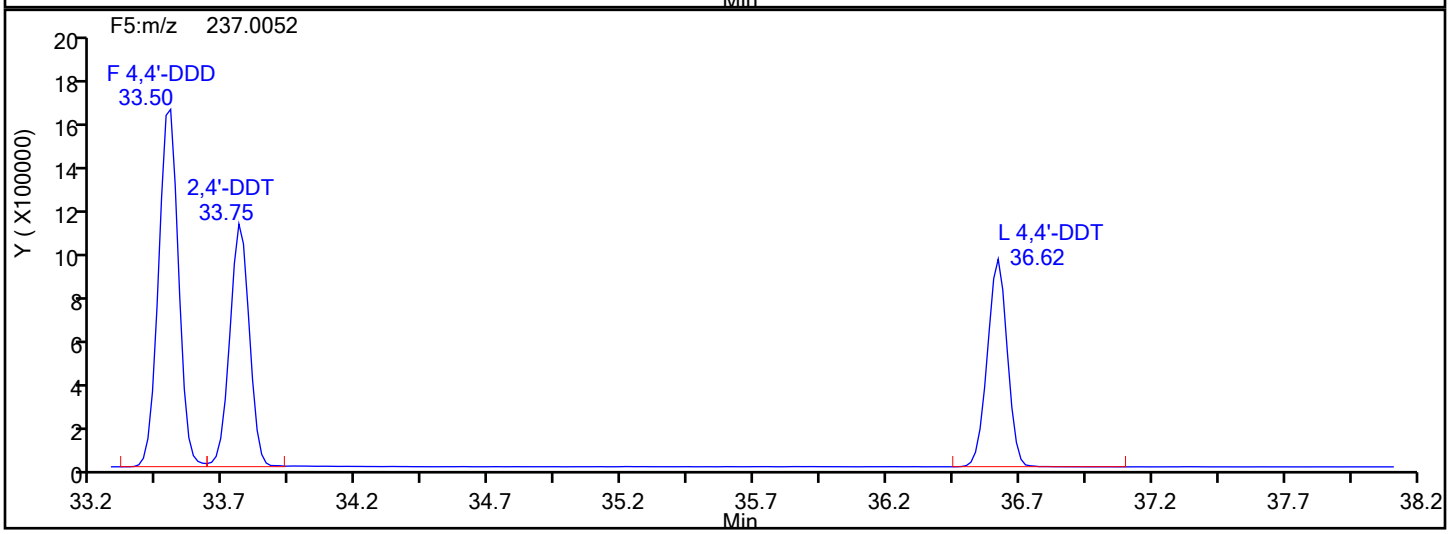
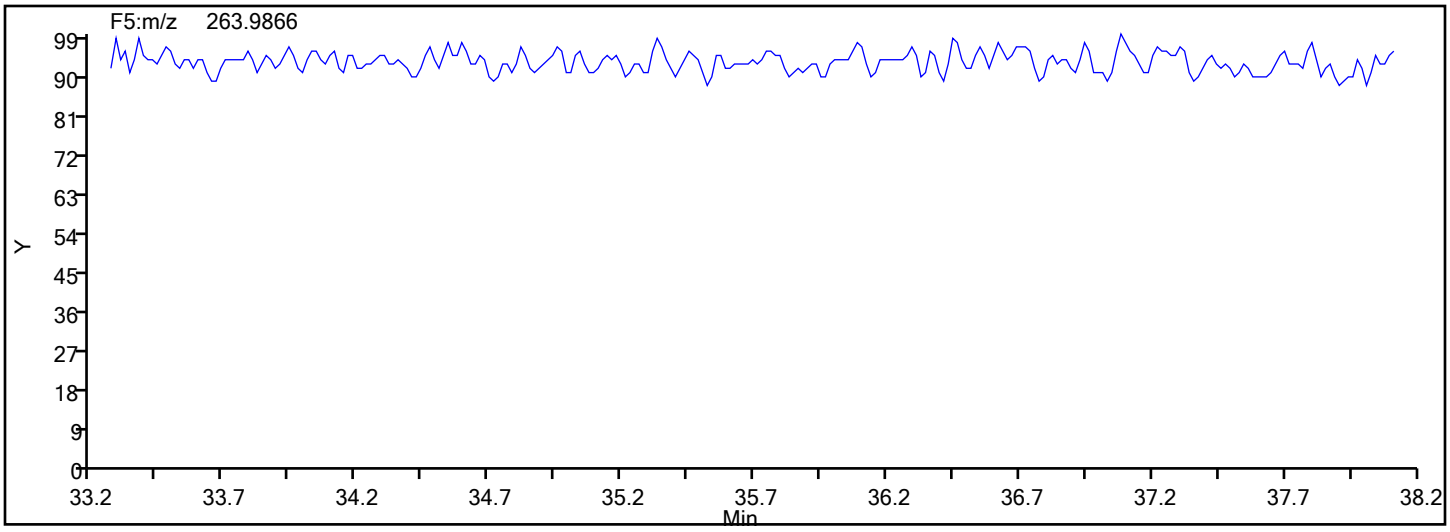
DDD





DDD Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

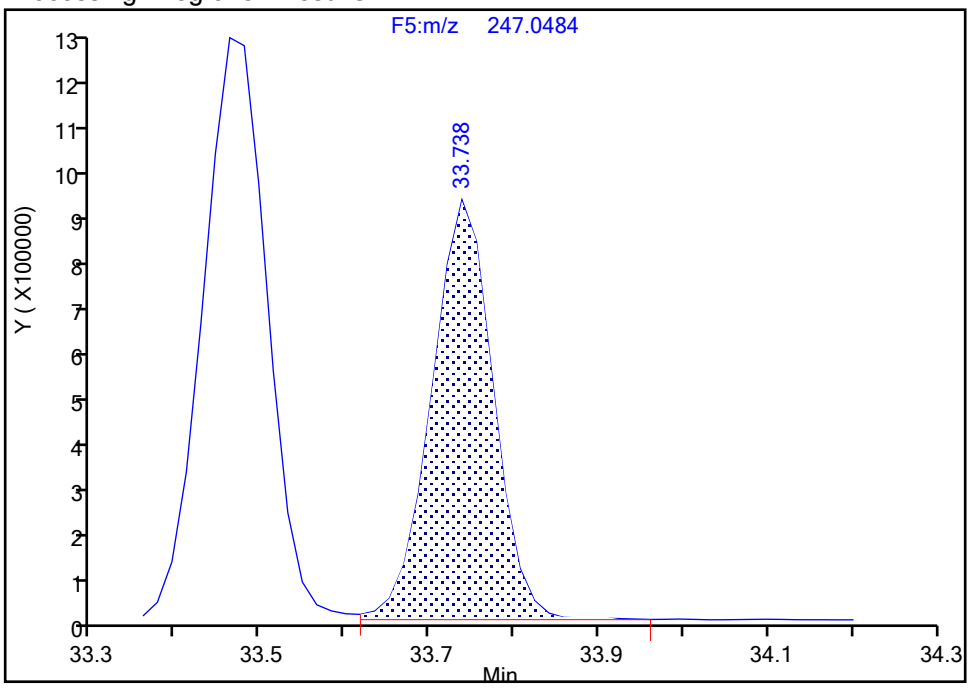
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Injection Date: 28-Mar-2025 22:12:00 Instrument ID: D3PST
Lims ID: CCV
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

13C12-2,4'-DDT, CAS: STL01864

Signal: 1

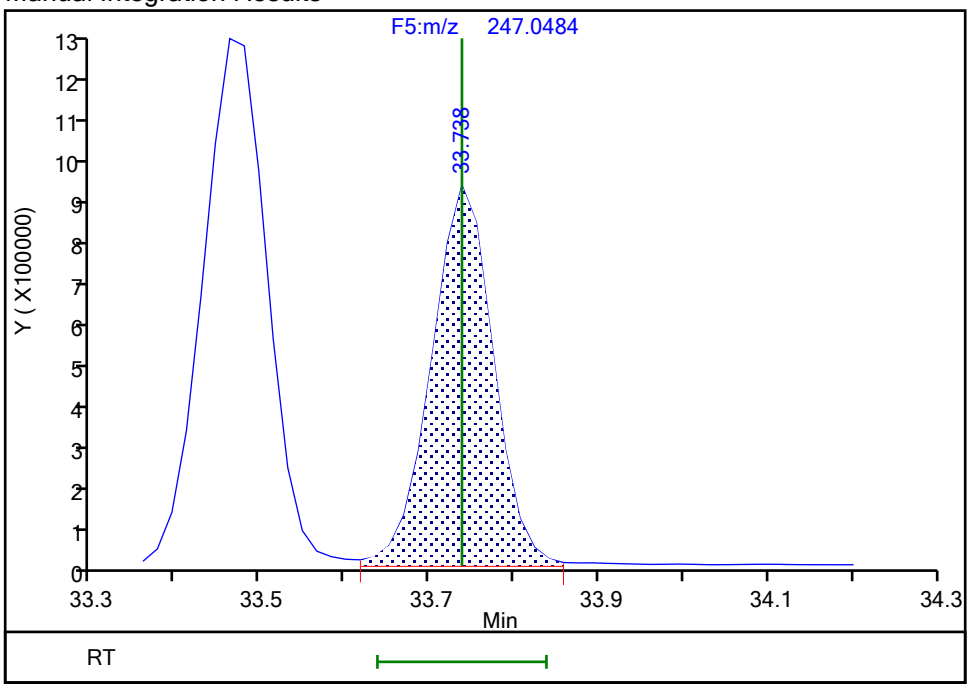
Processing Integration Results

RT: 33.74
Area: 4514766
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 4488166
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:51:57 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Knoxville

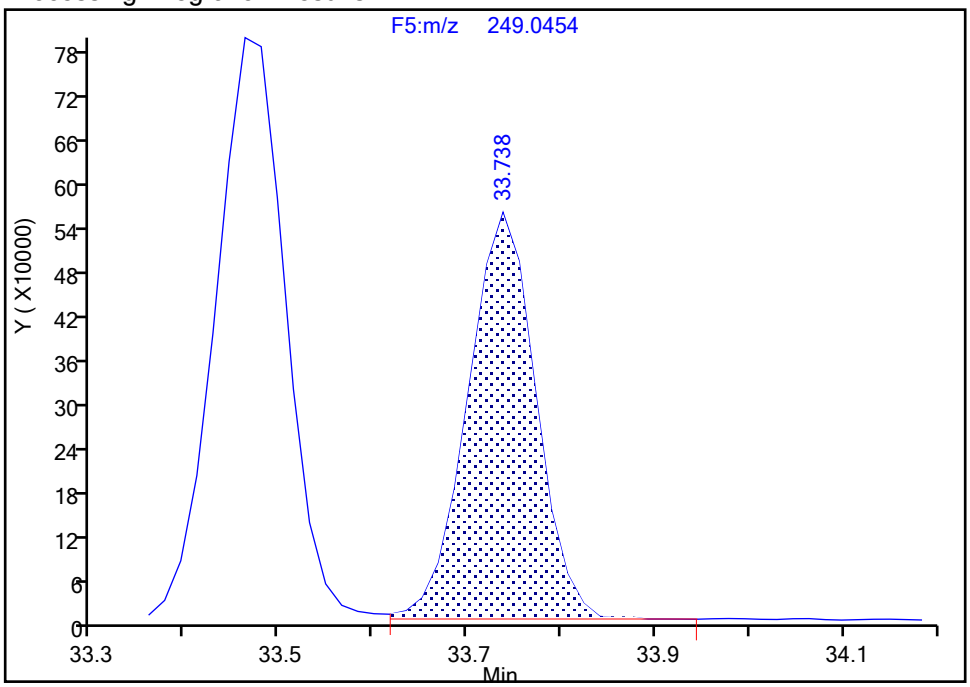
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Injection Date: 28-Mar-2025 22:12:00 Instrument ID: D3PST
Lims ID: CCV
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F5(33.27 :38.10)

13C12-2,4'-DDT, CAS: STL01864

Signal: 2

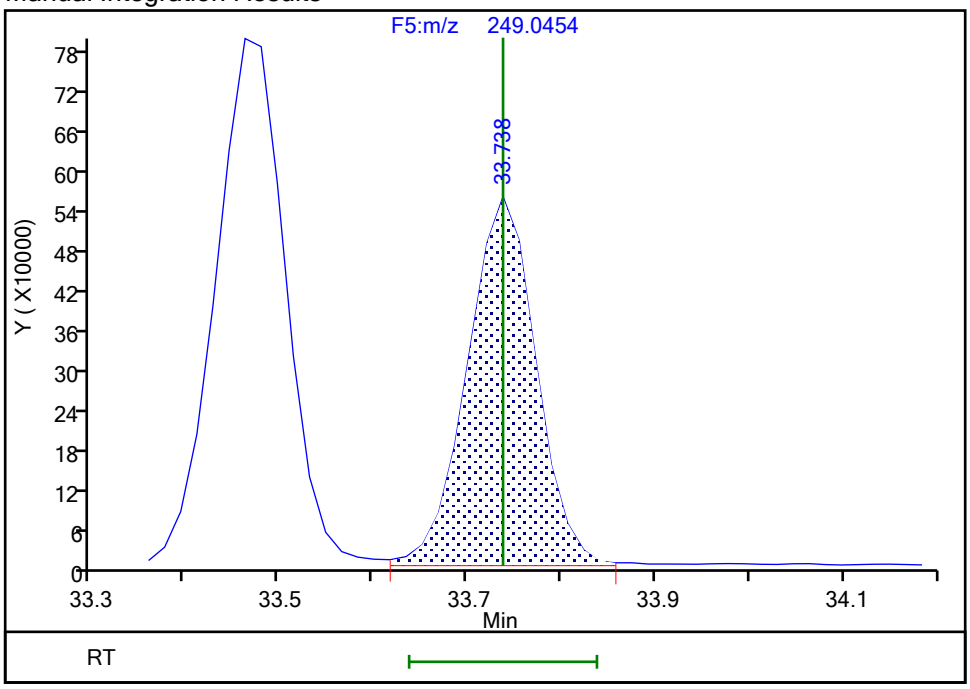
Processing Integration Results

RT: 33.74
Area: 2834957
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 2823366
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:52:01 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

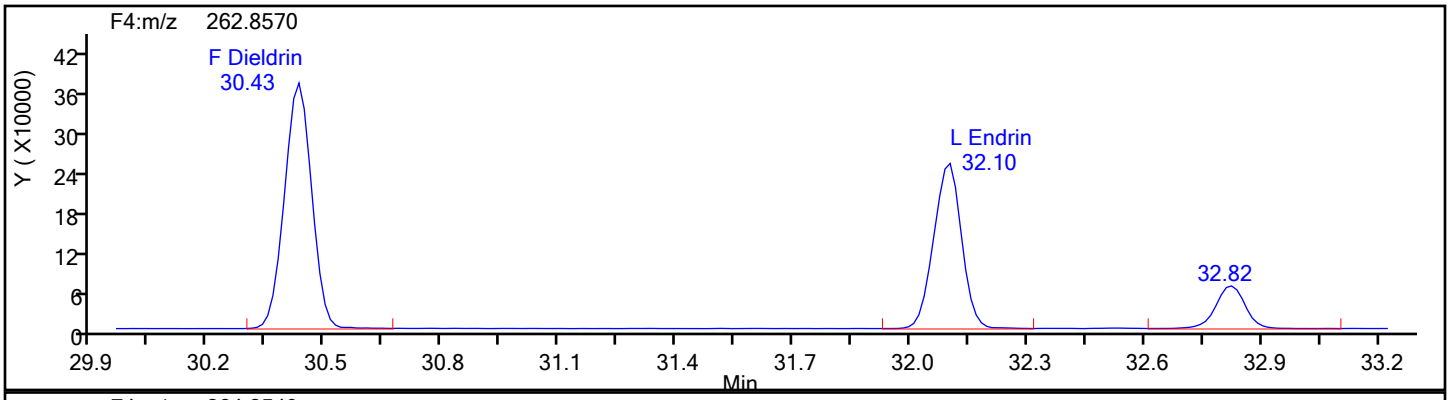
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

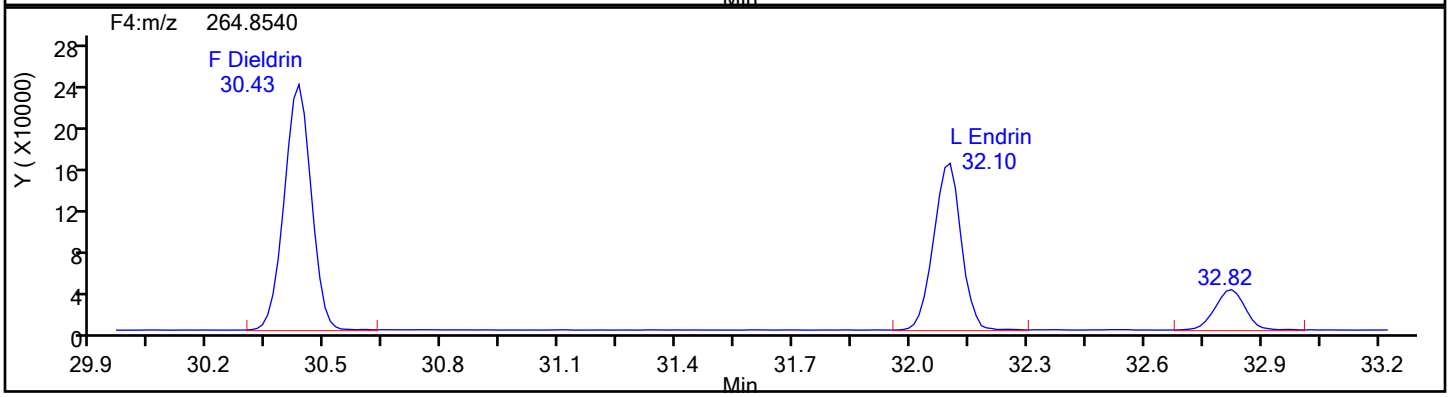
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

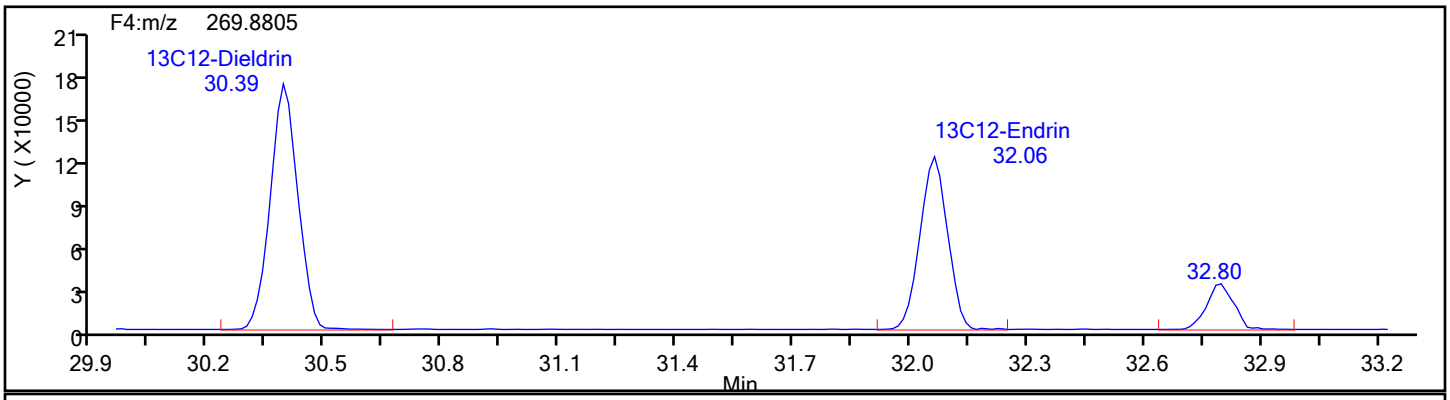
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

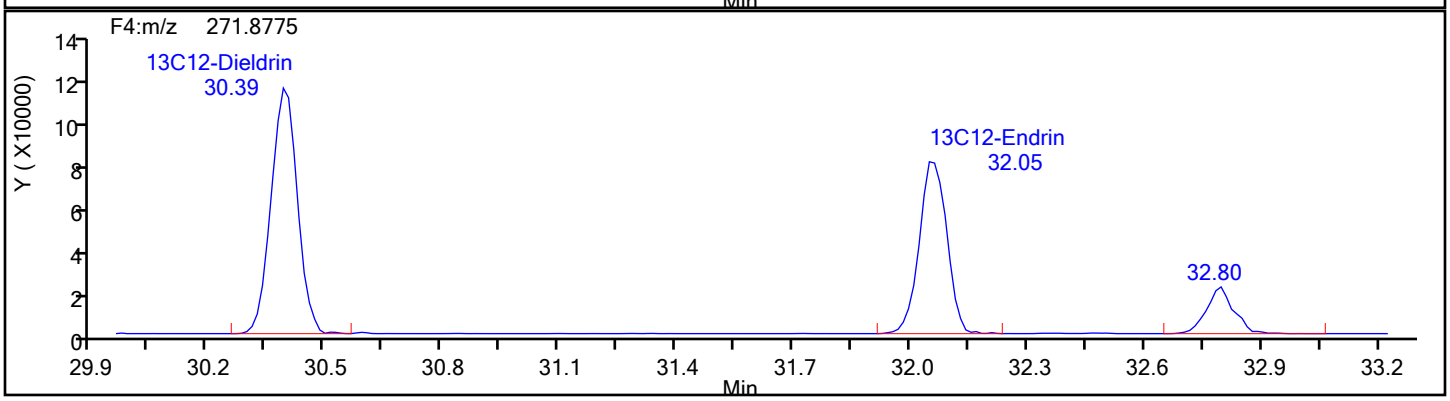
Dieldrin





Dieldrin Standards



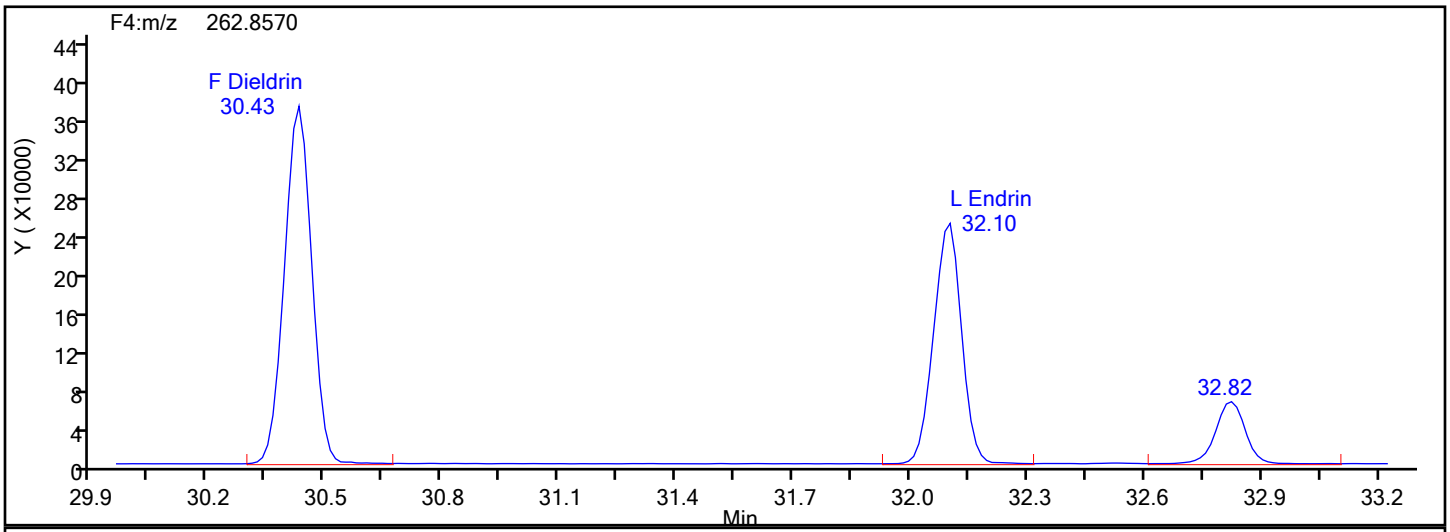


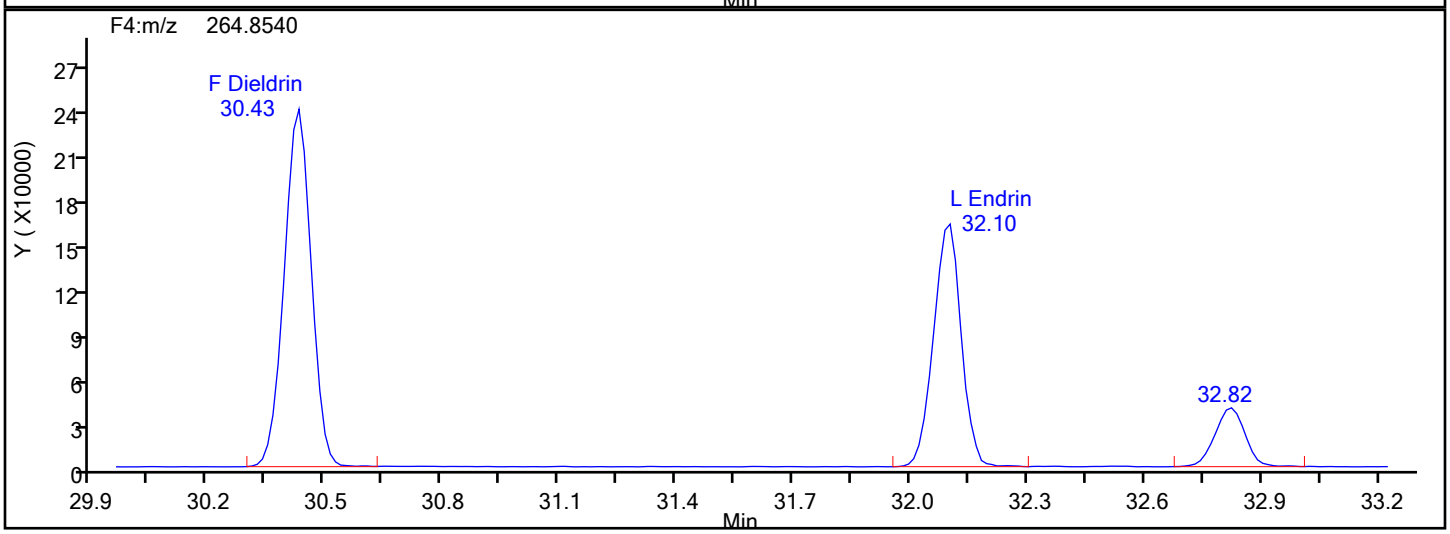
Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

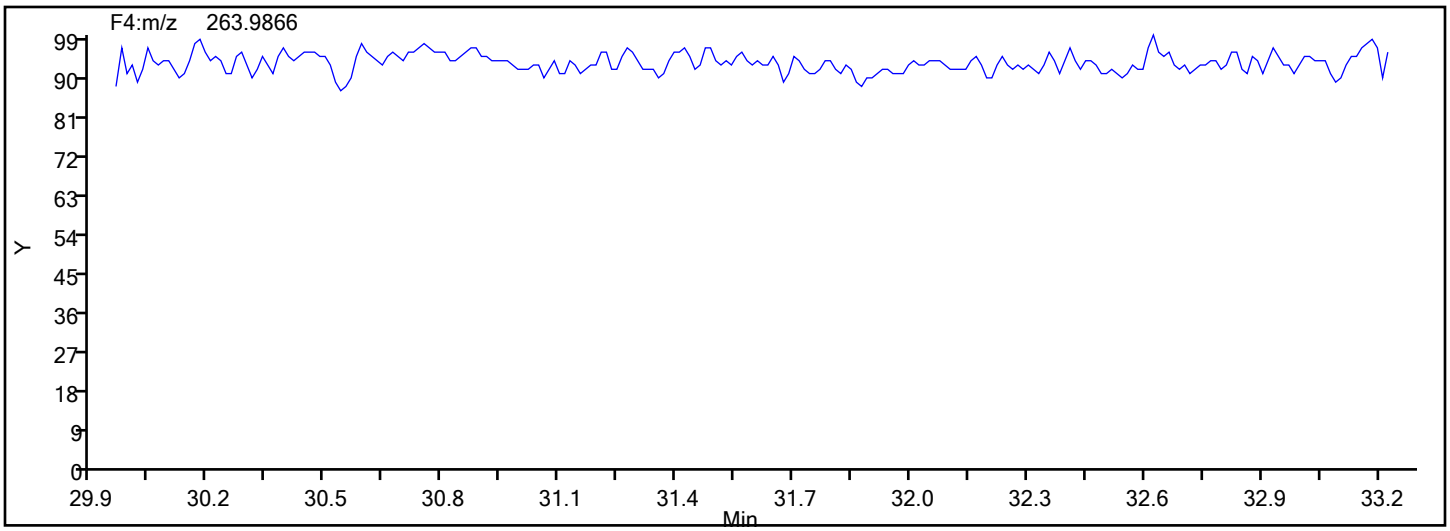
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Dieldrin





Dieldrin Lock Mass



Report Date: 06-May-2025 17:46:43 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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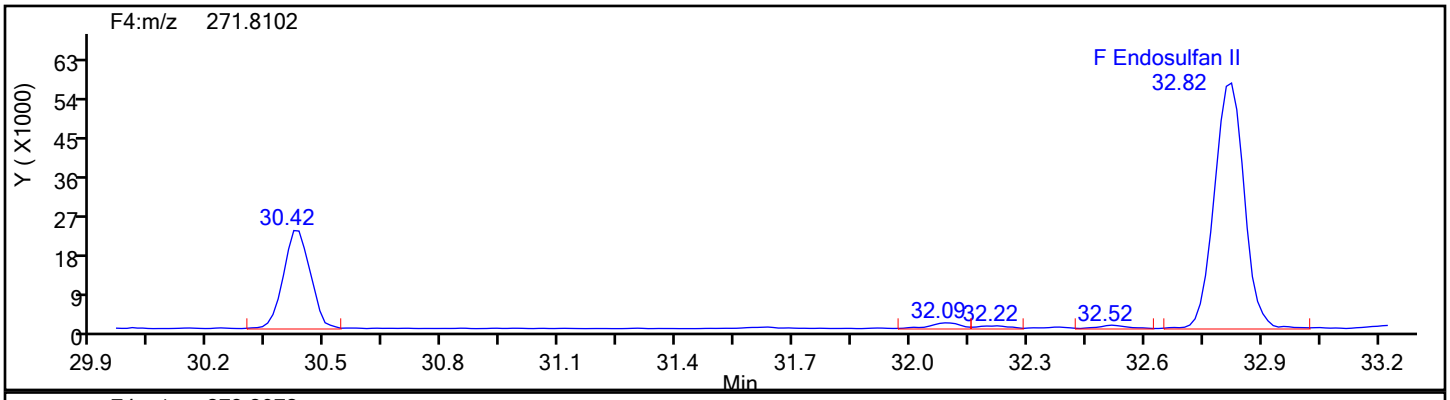

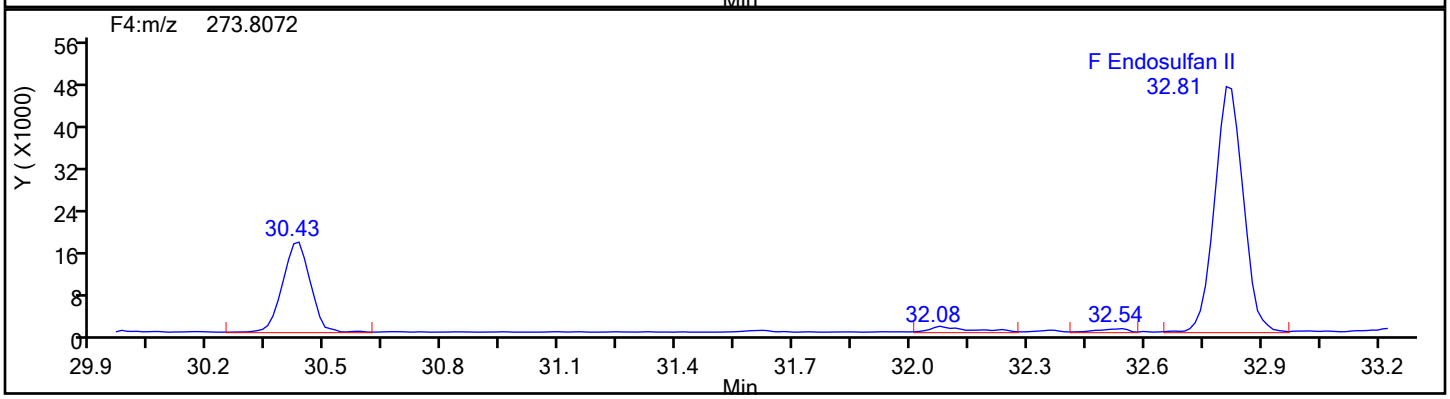

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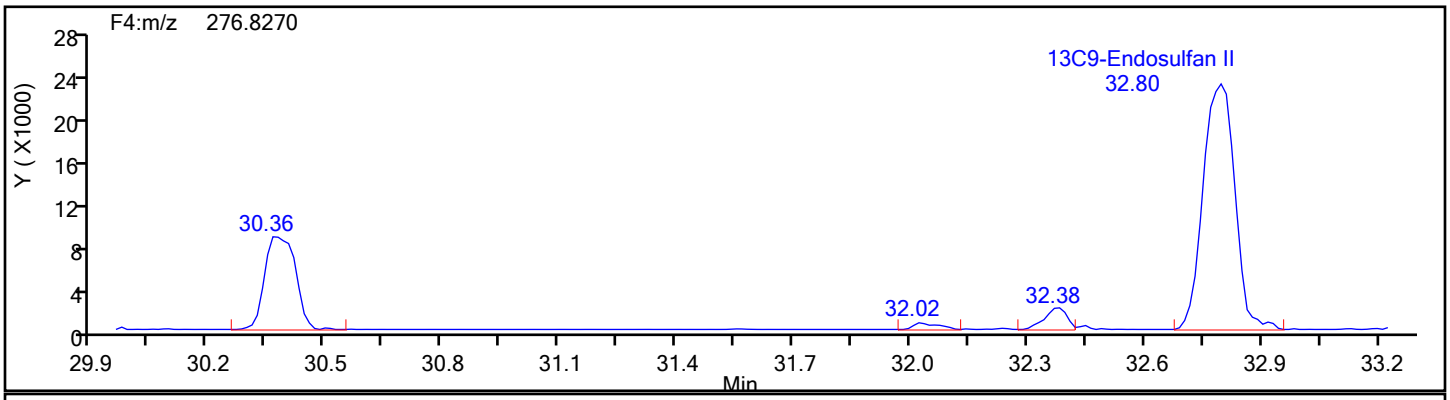

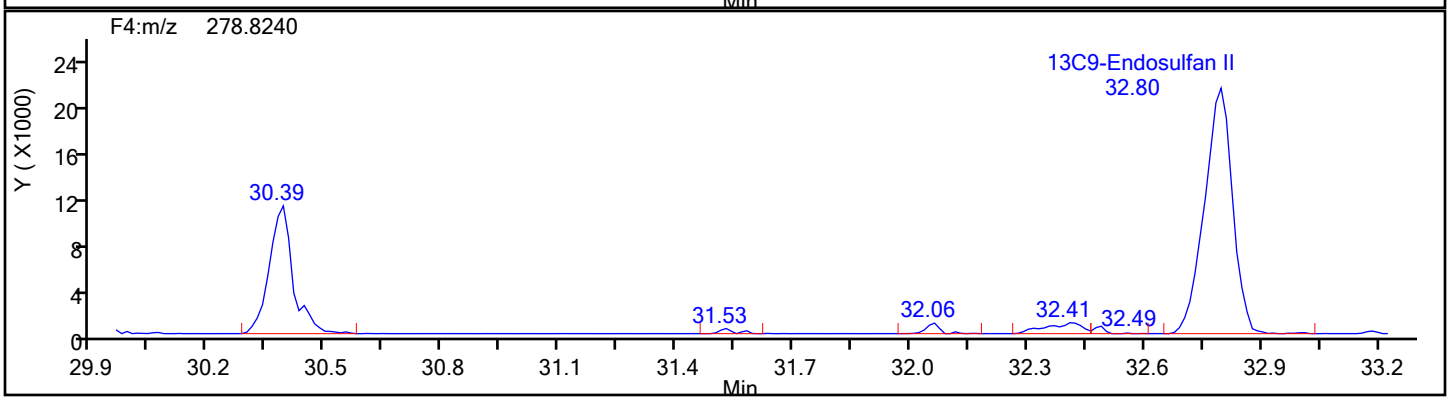

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Eurofins Knoxville

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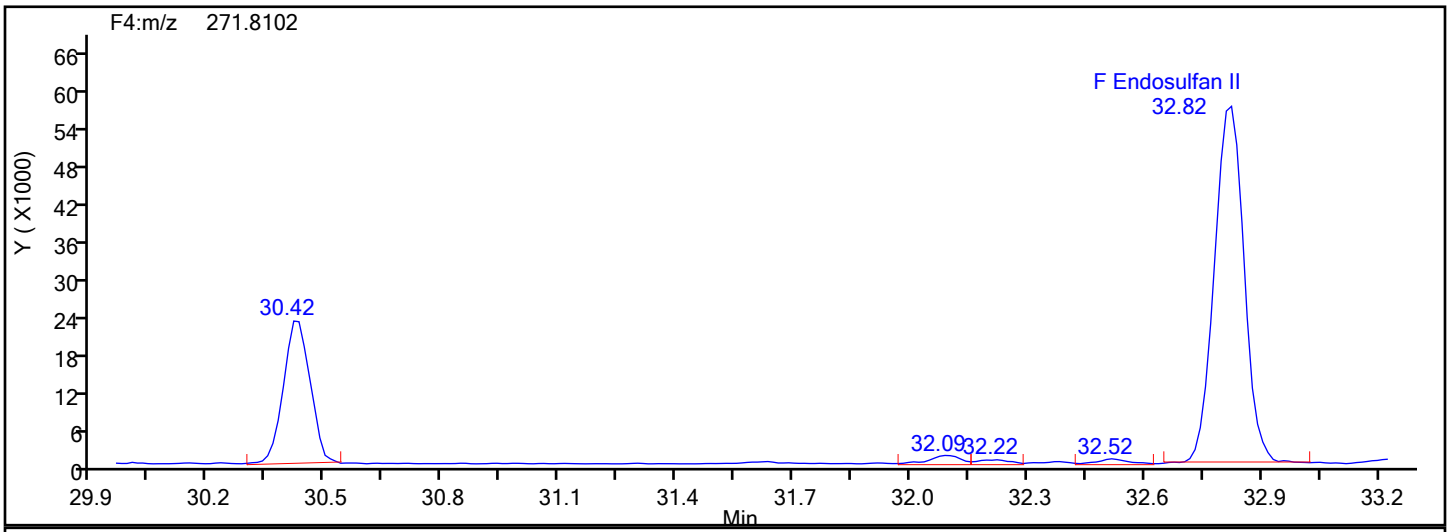

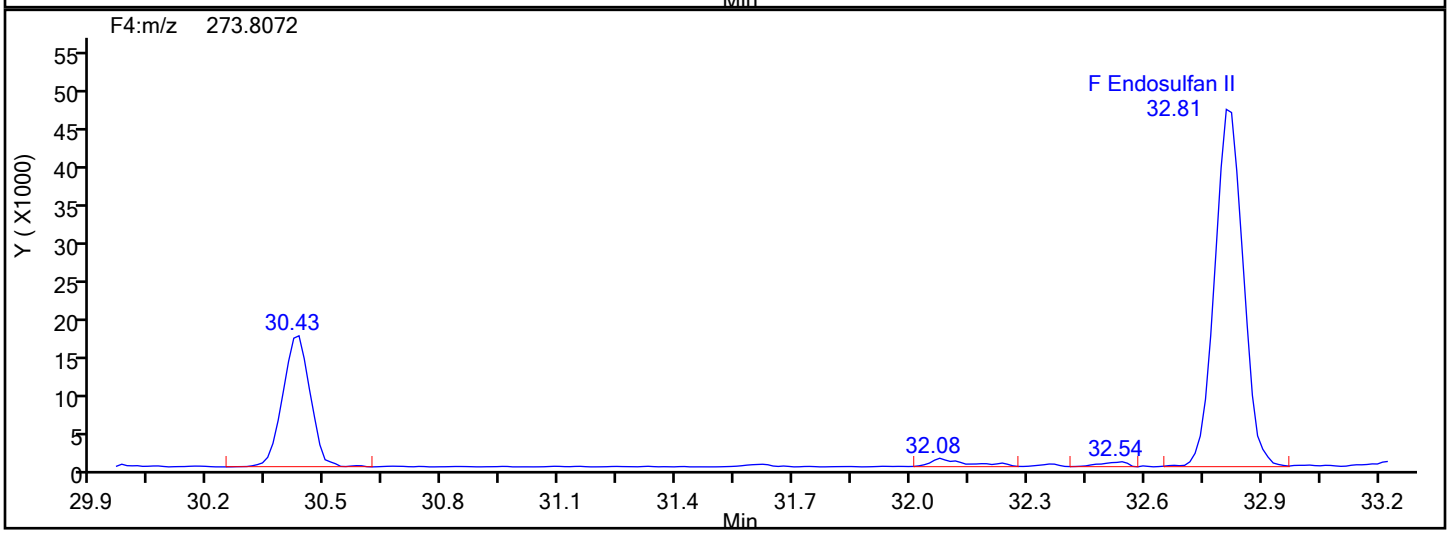

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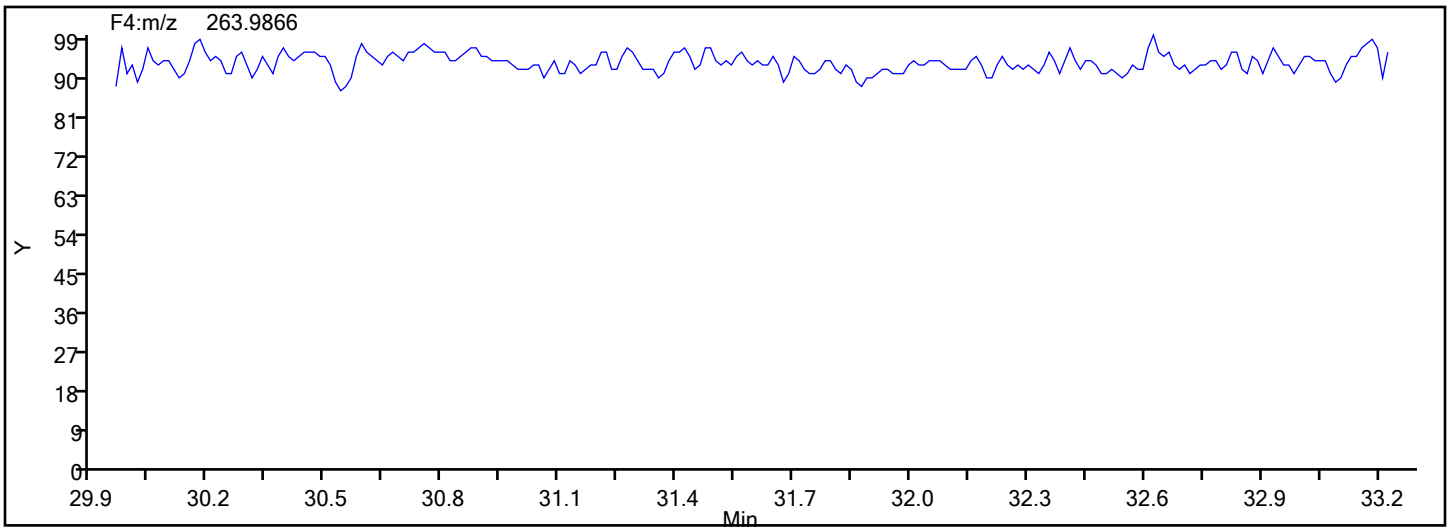

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Eurofins Knoxville

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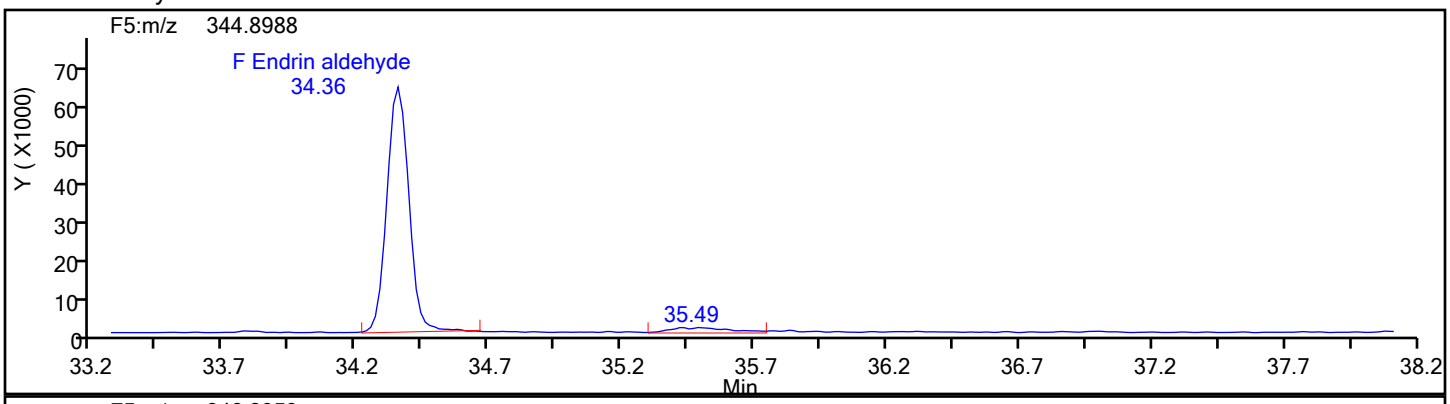

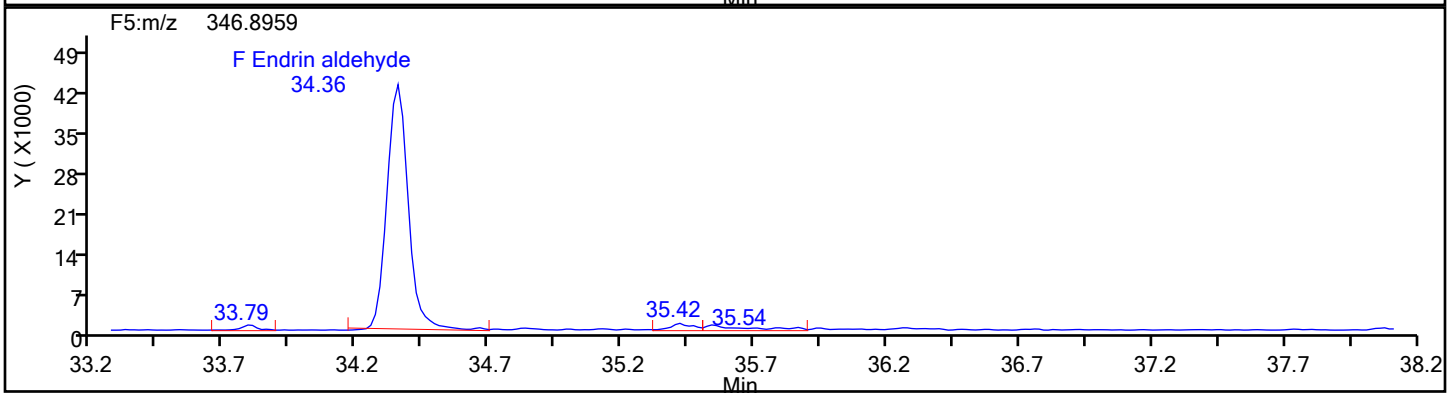

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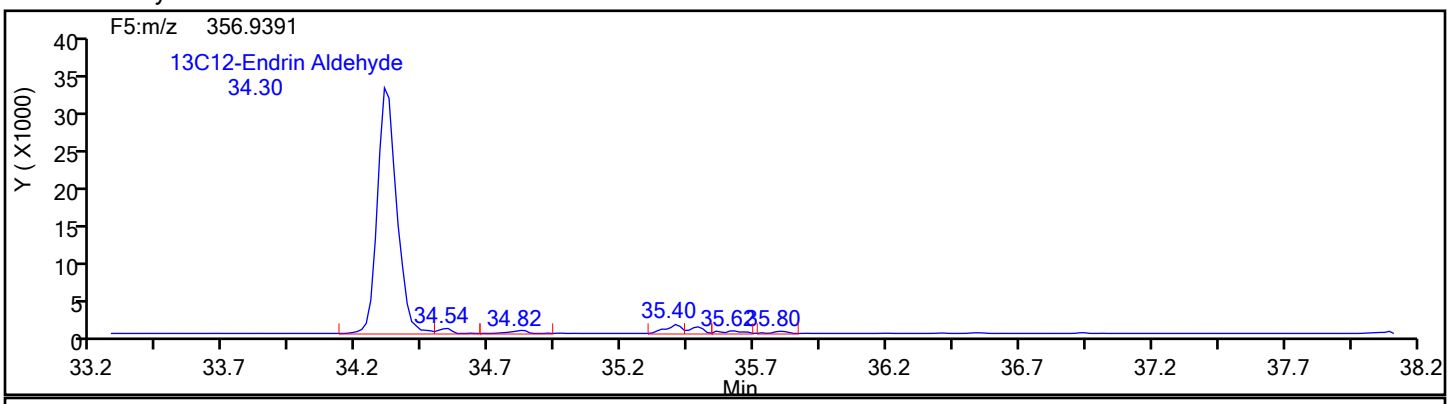

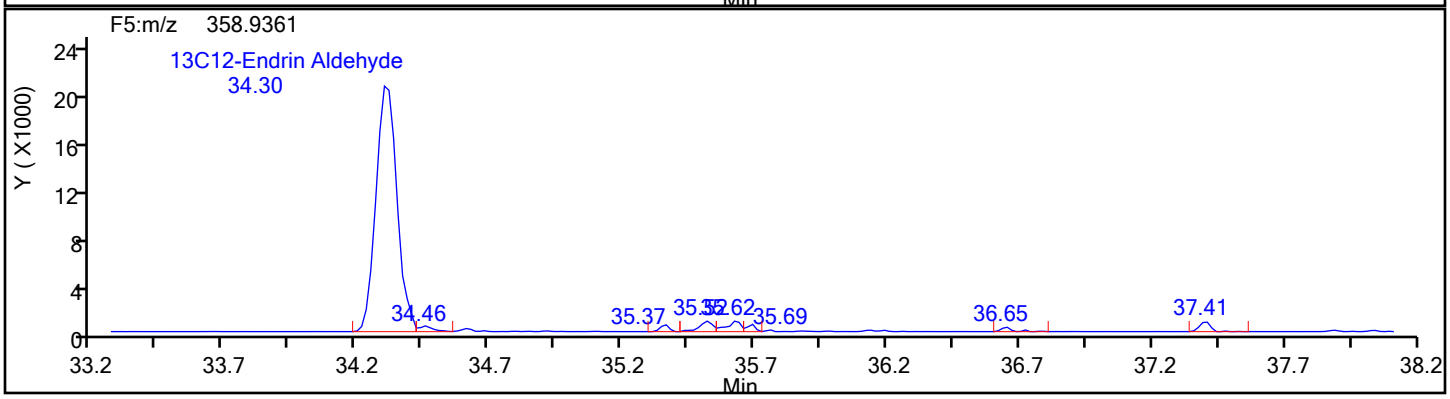

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Eurofins Knoxville

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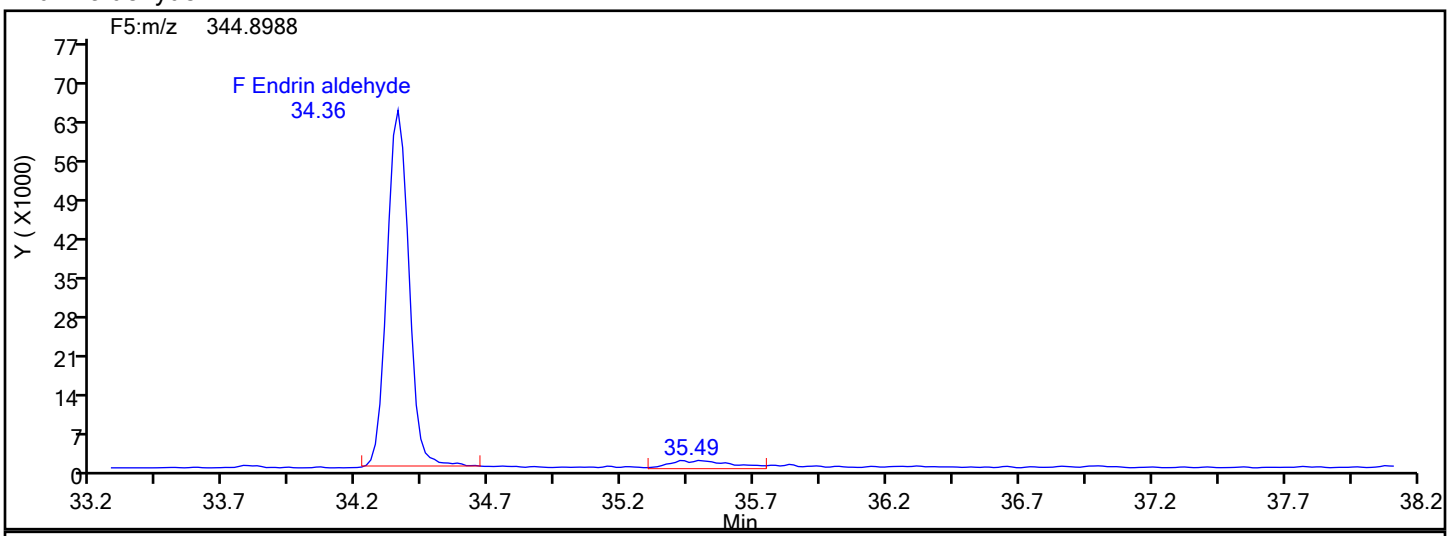
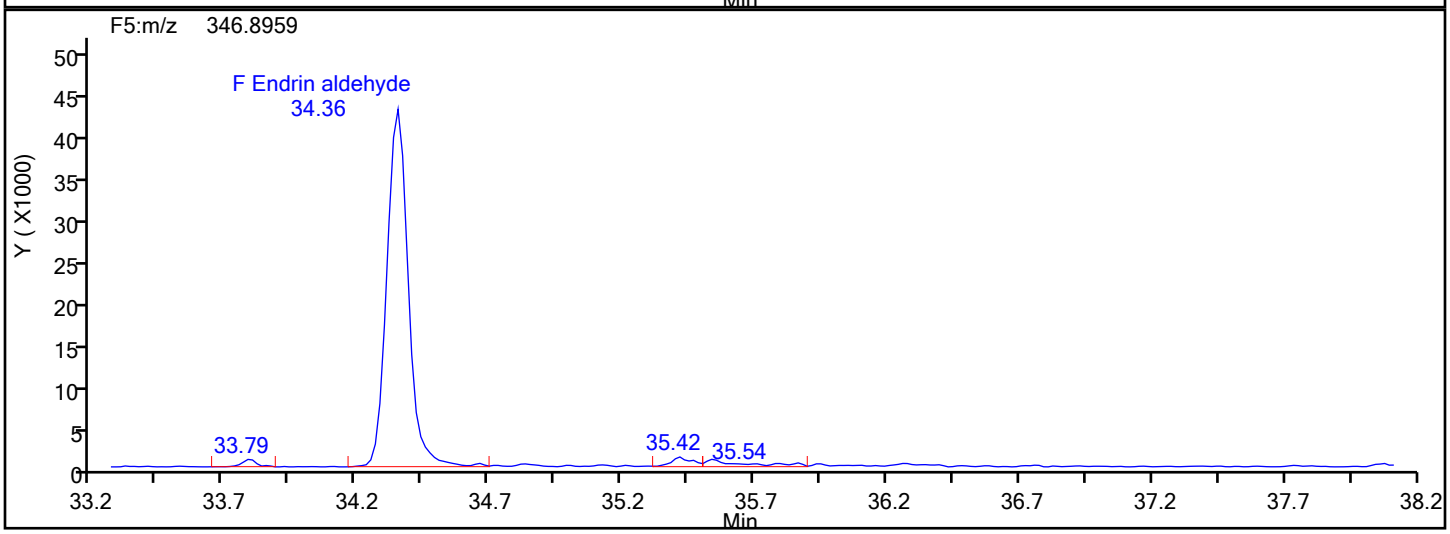
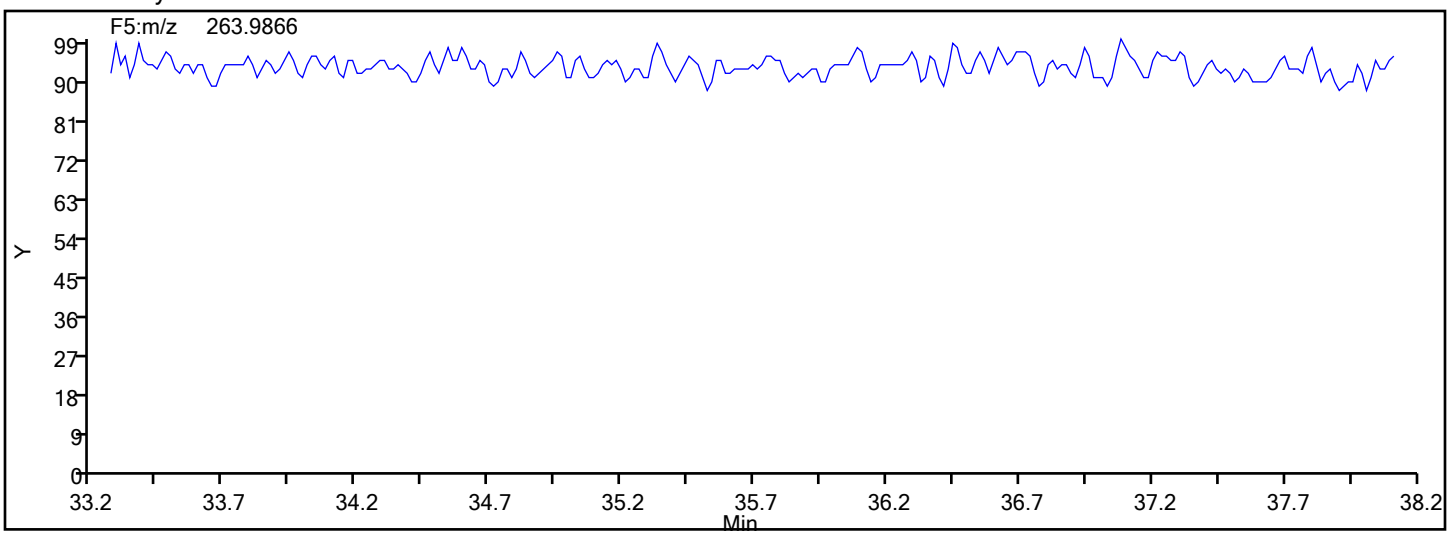




Endrin aldehyde Lock Mass



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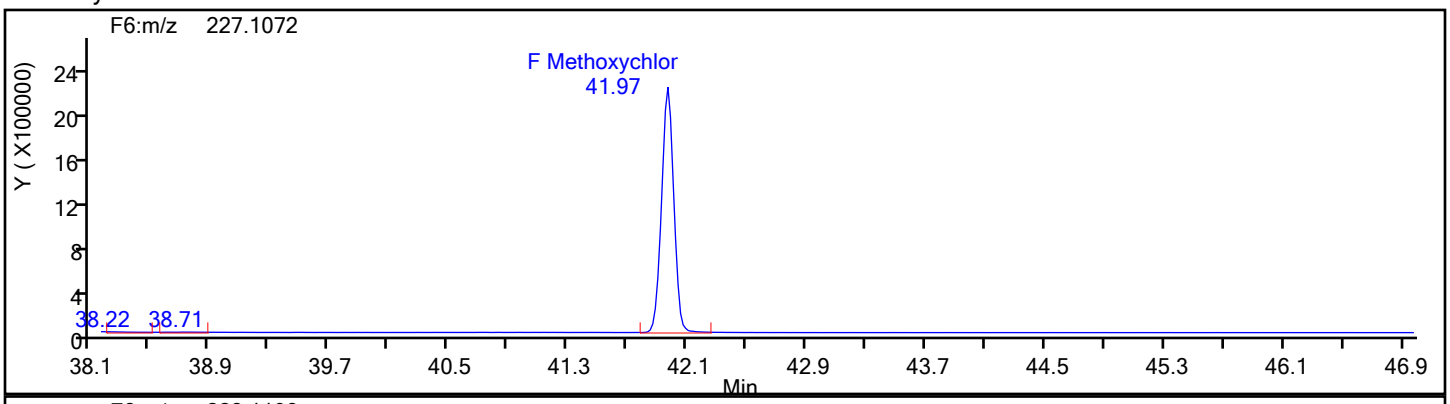

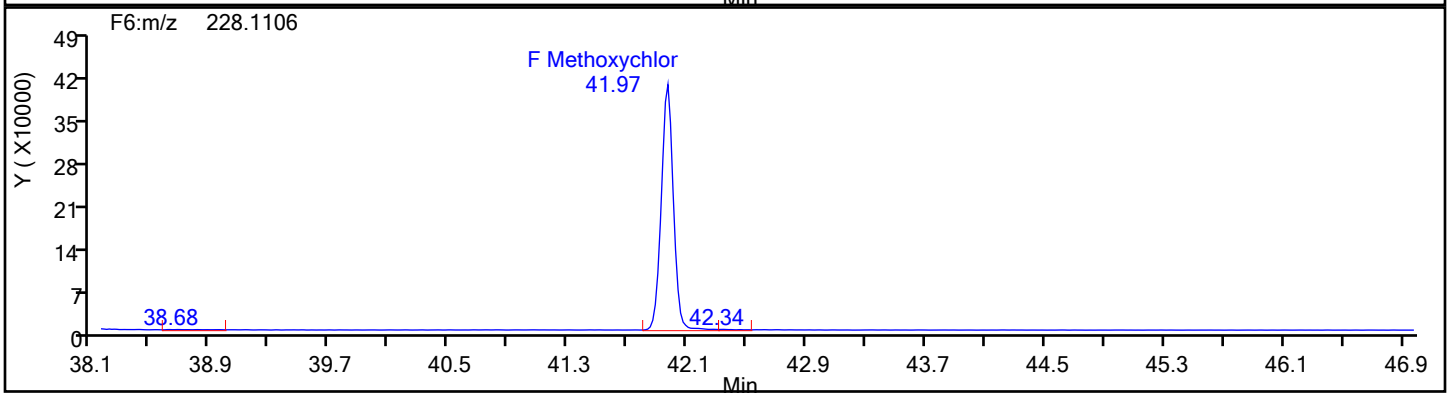

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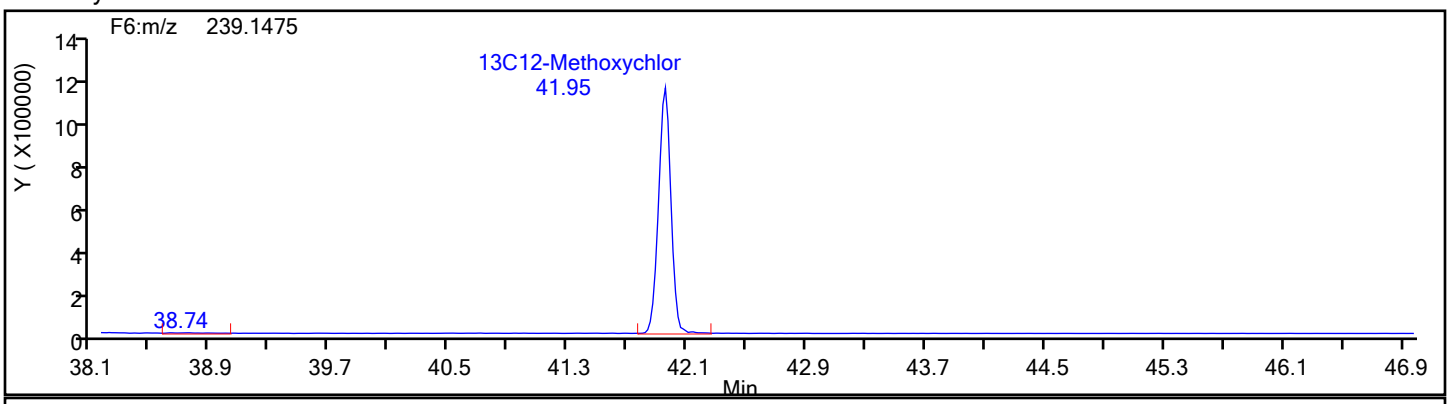

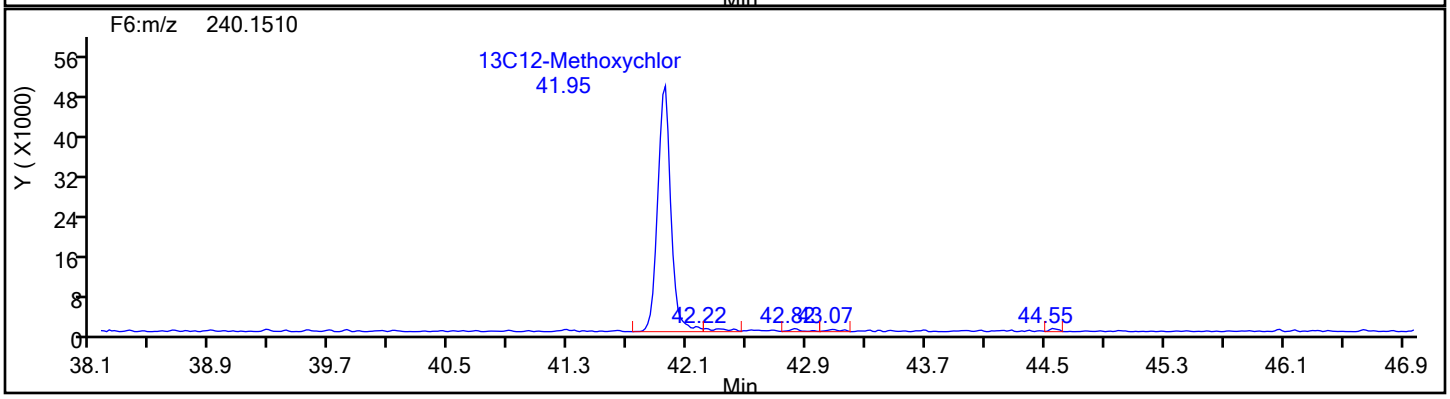

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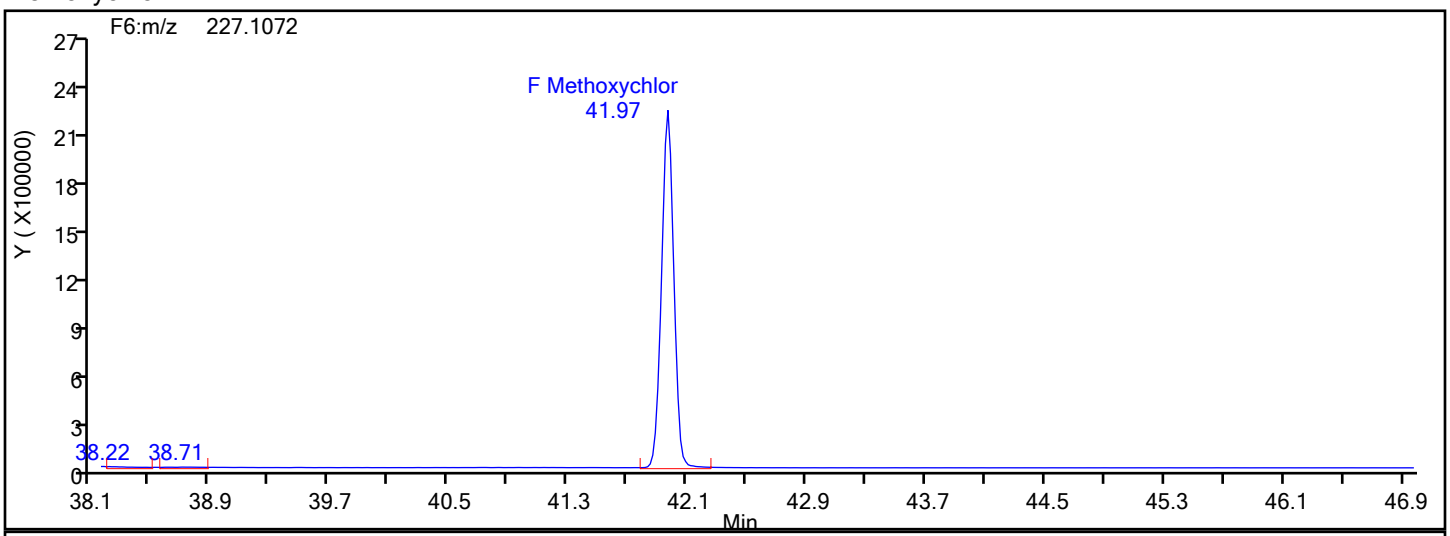
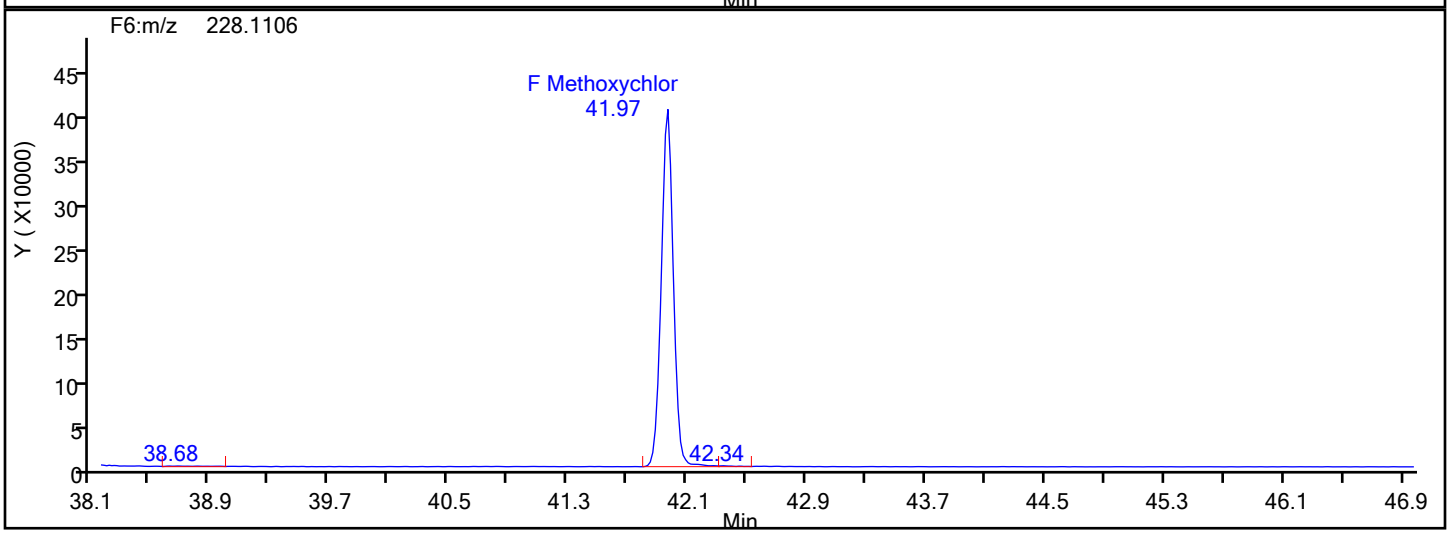
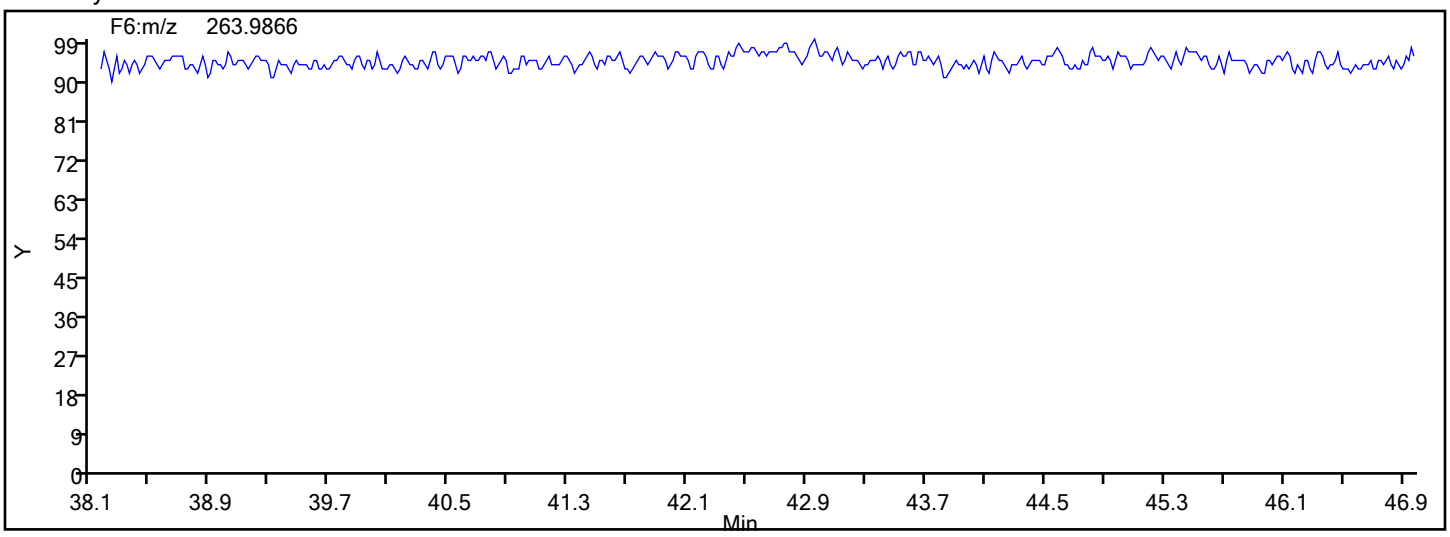




Methoxychlor Lock Mass



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Eurofins Knoxville

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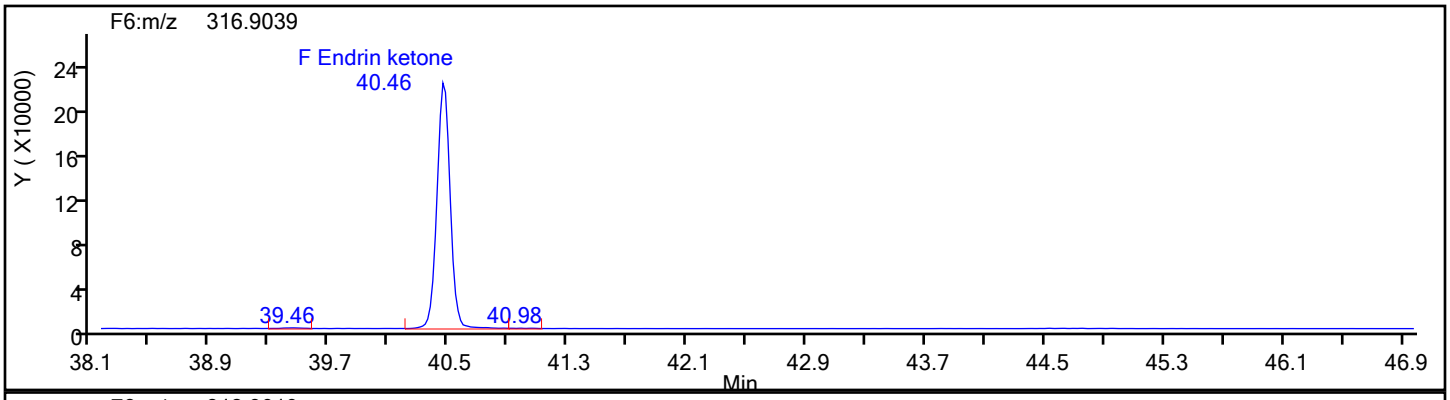

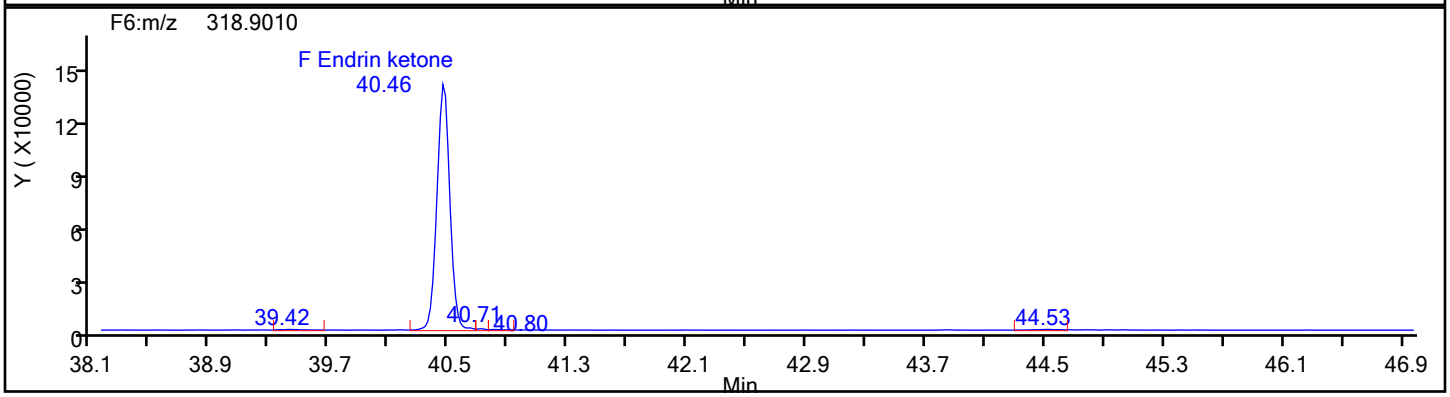

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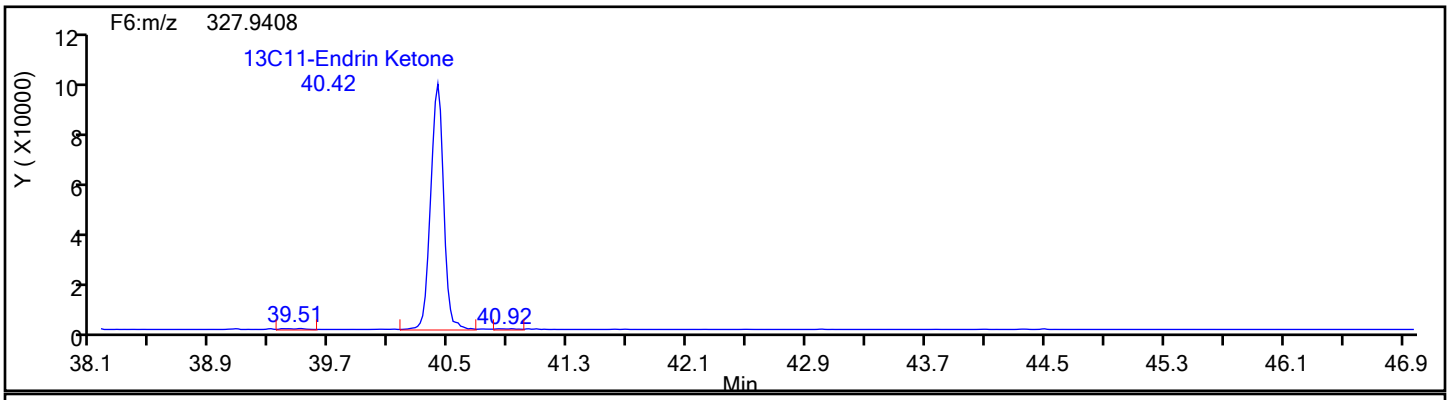

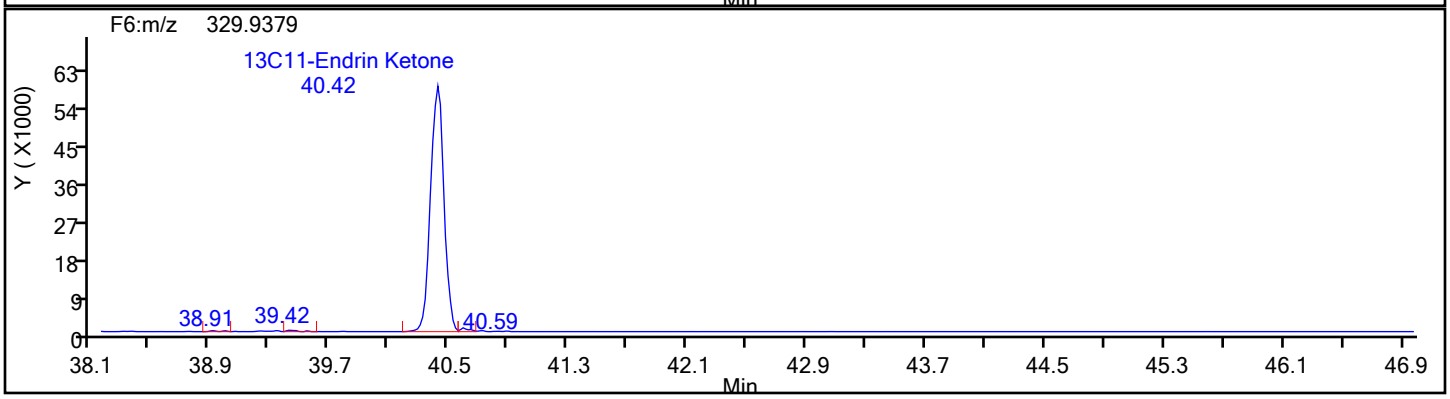

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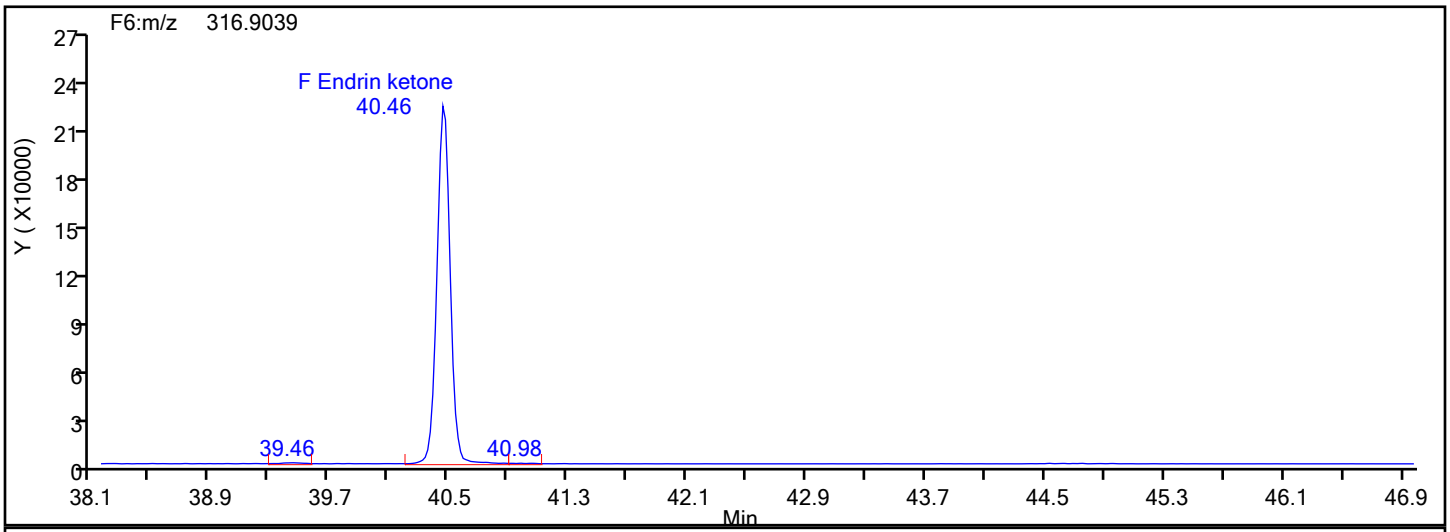
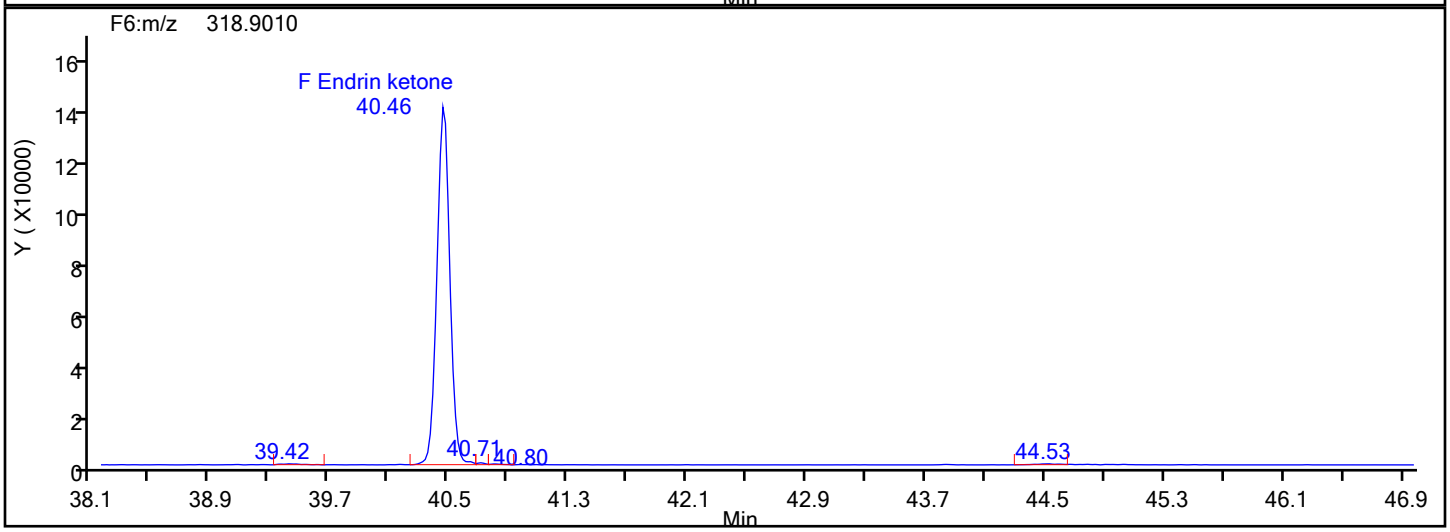
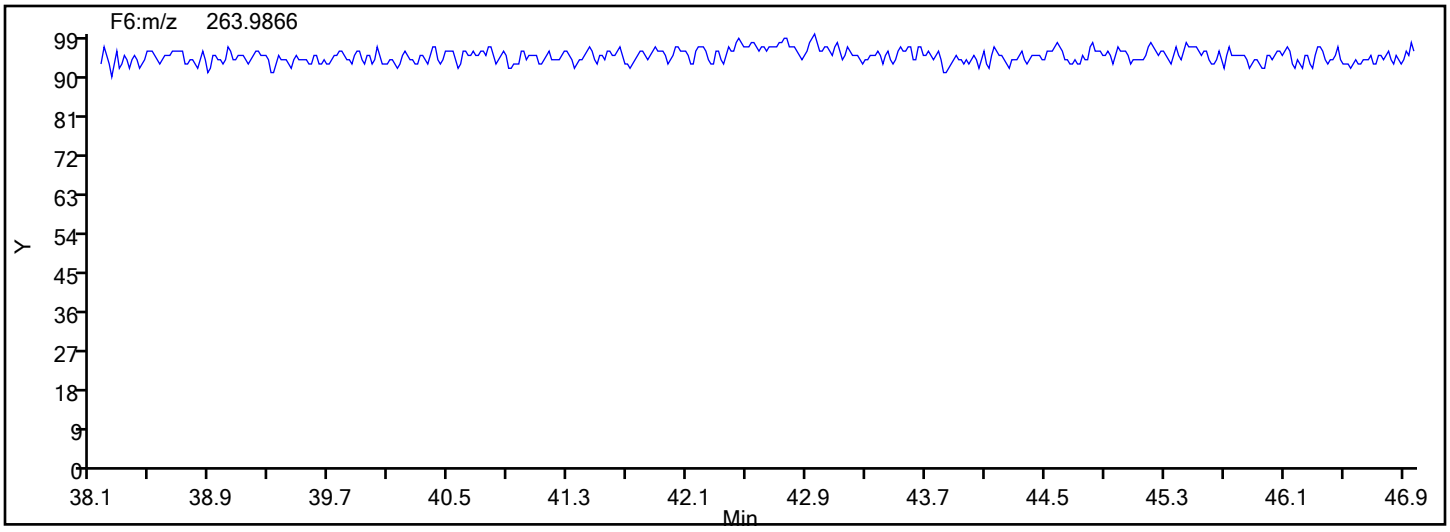




Endrin ketone Lock Mass



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Eurofins Knoxville

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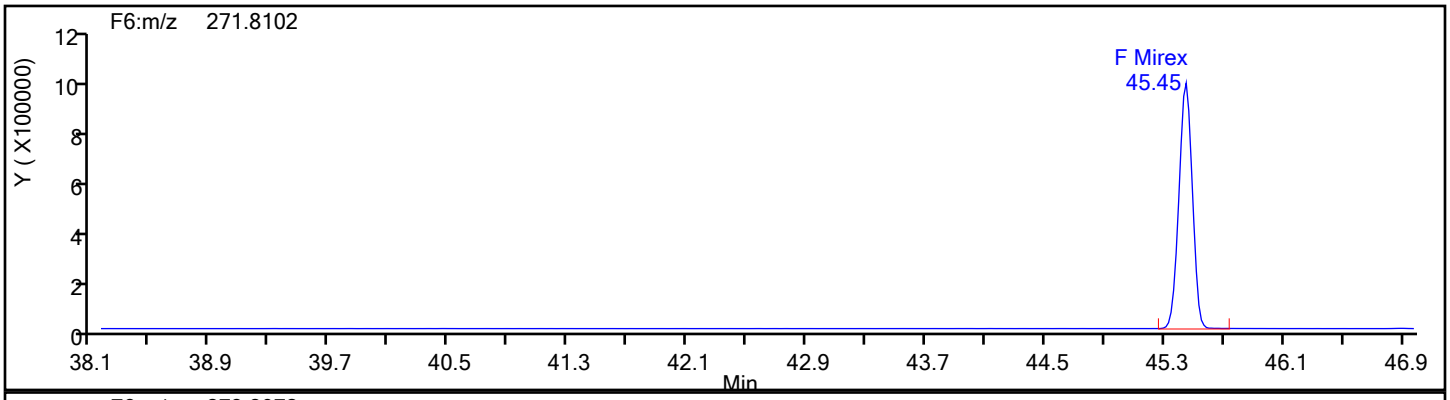

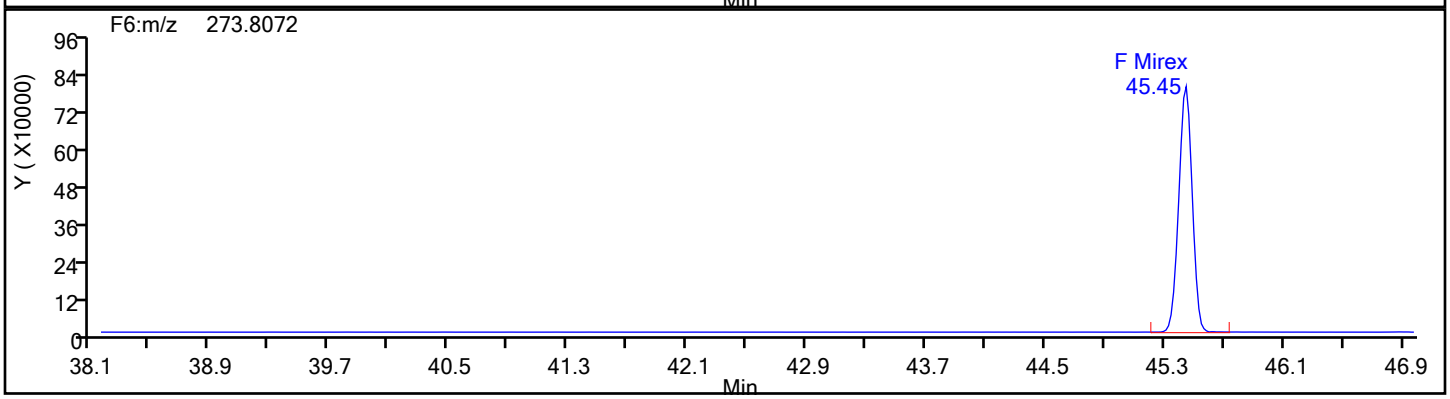

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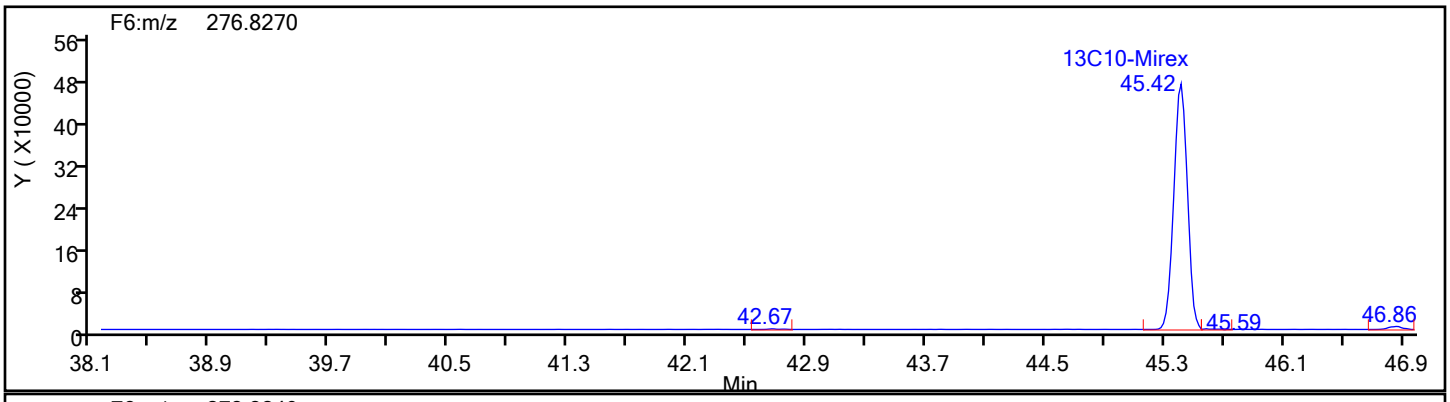

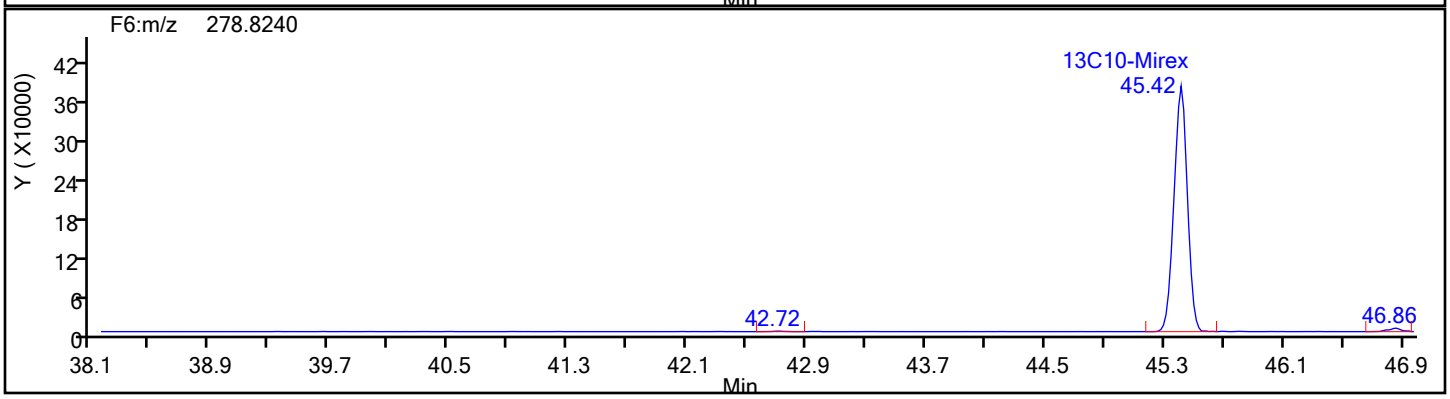

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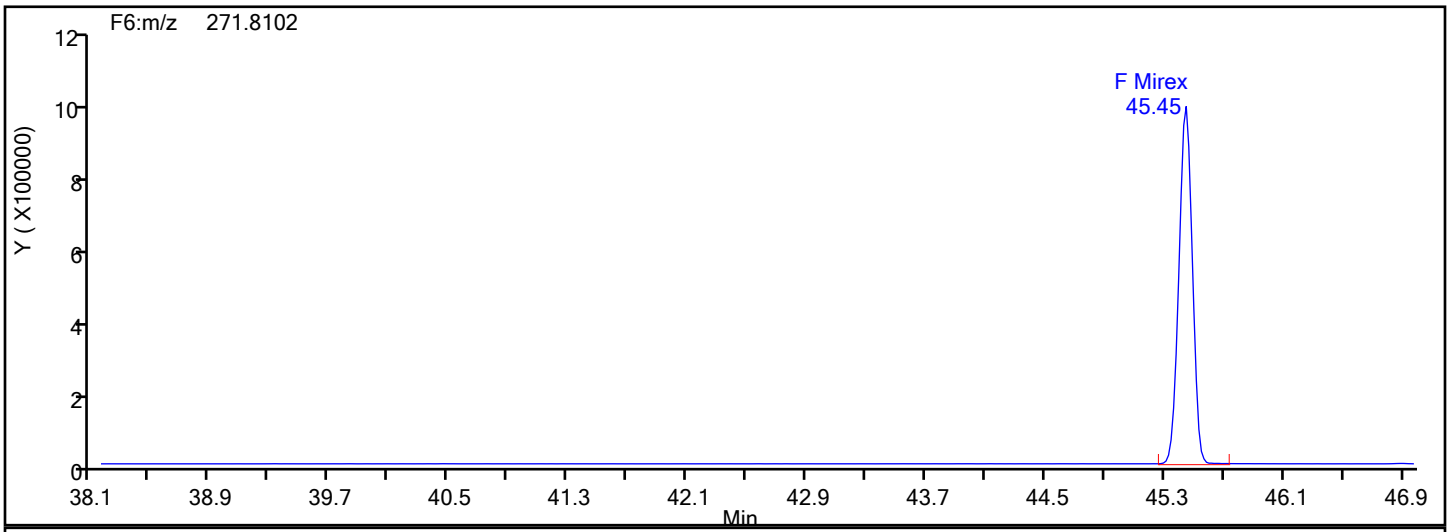

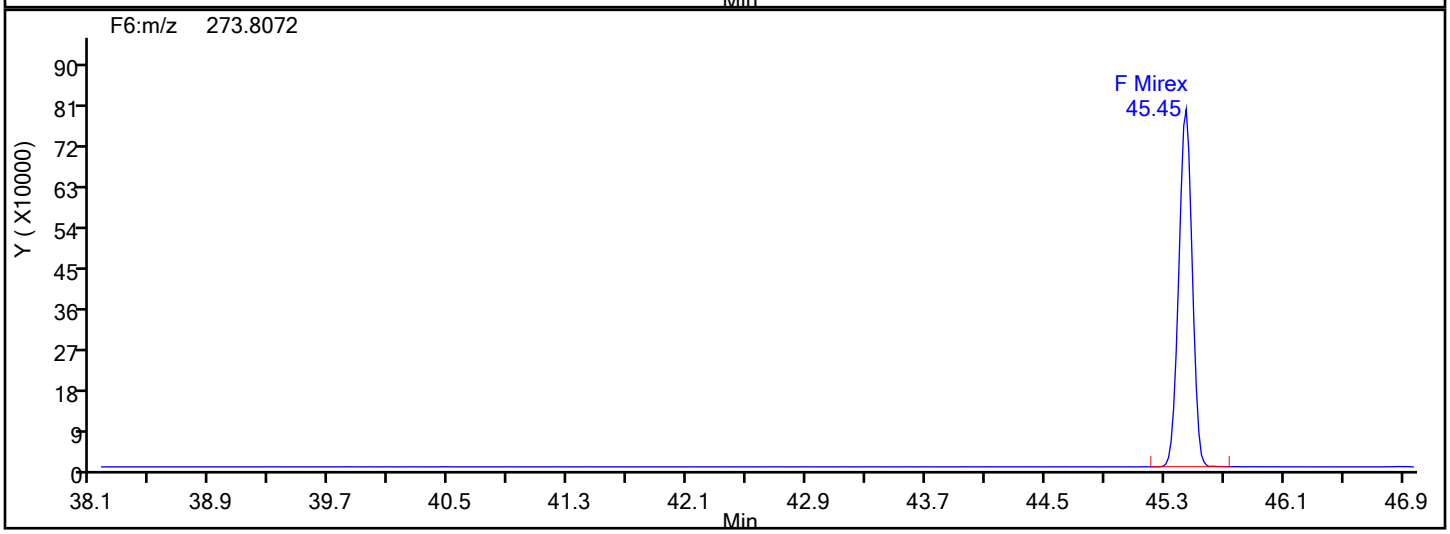

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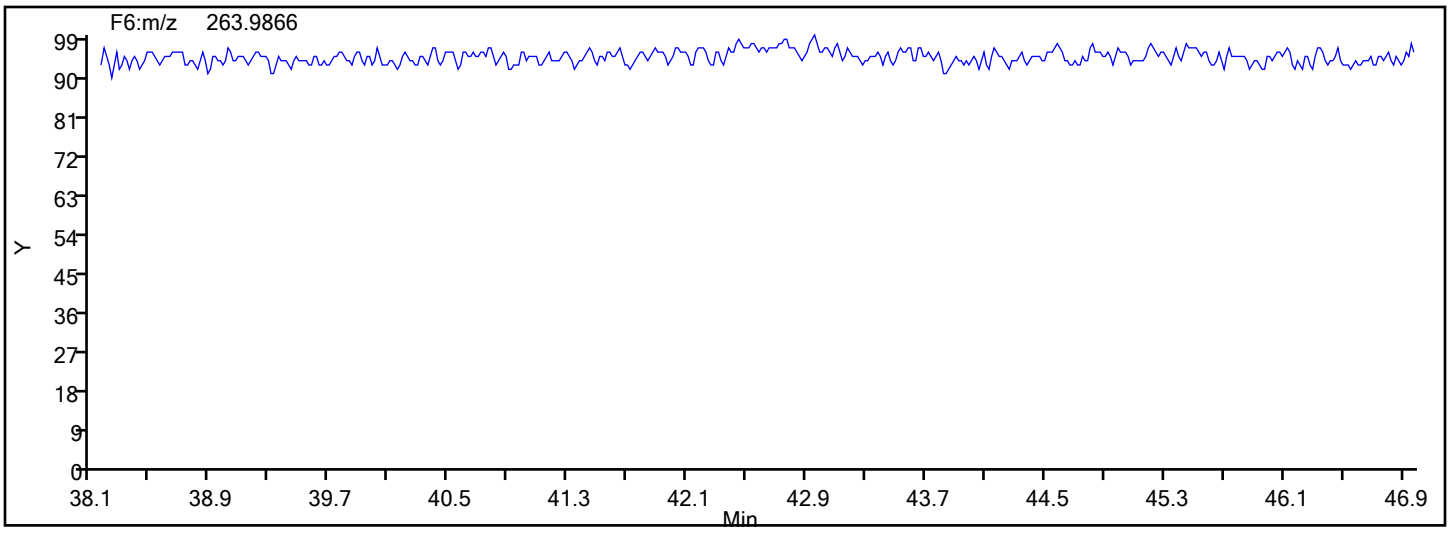

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Eurofins Knoxville

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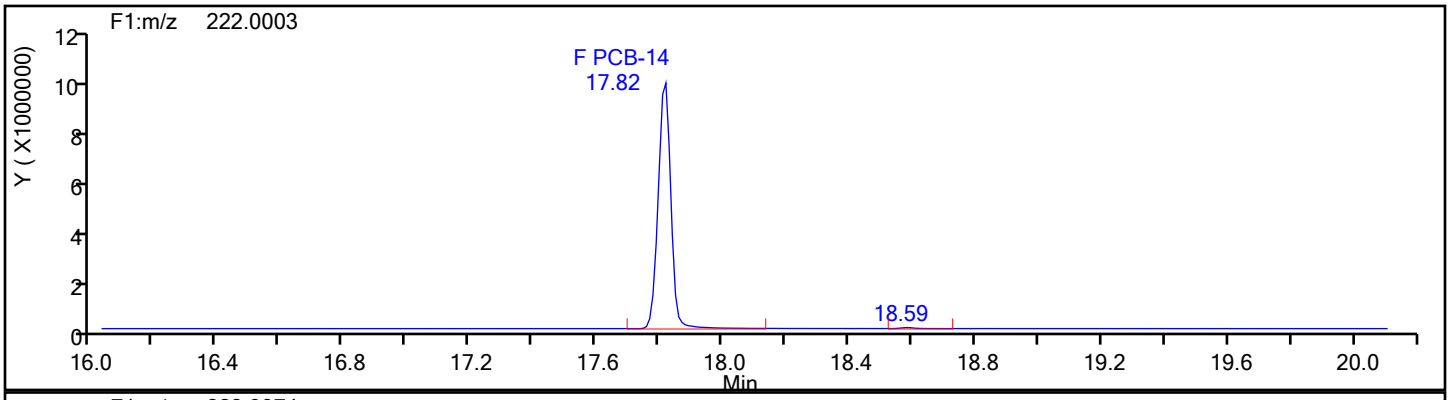
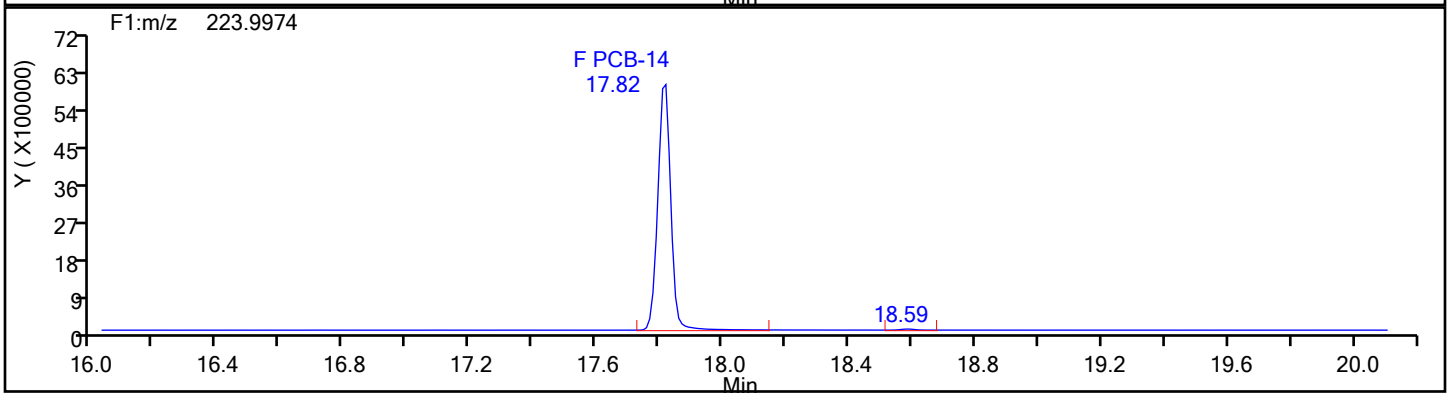
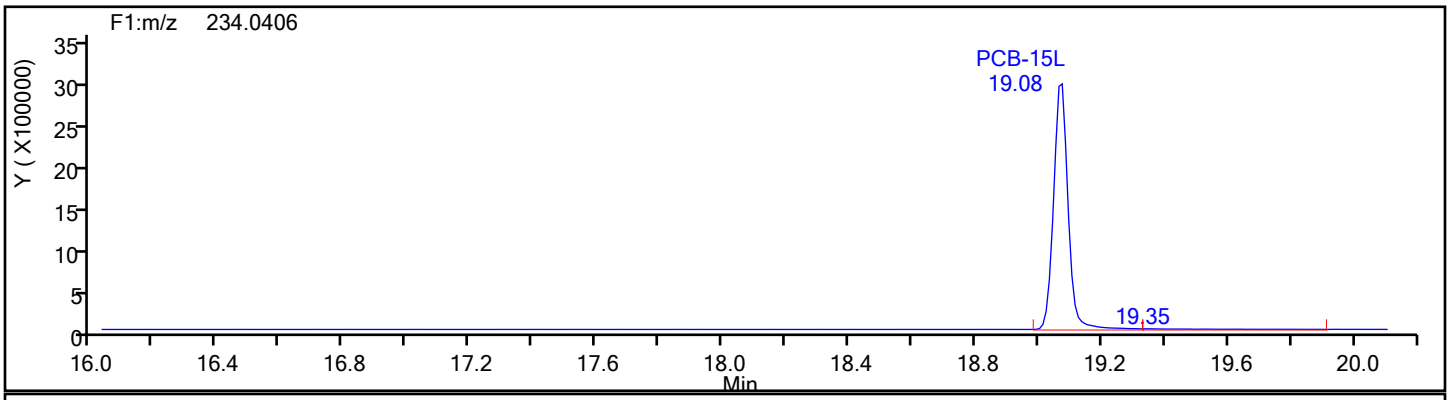
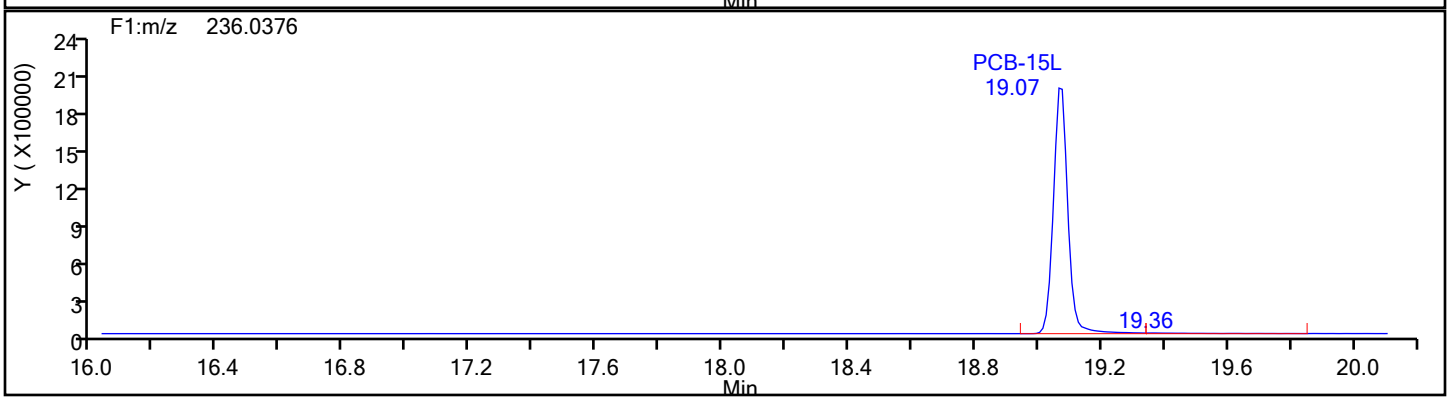
PCB-14





PCB-14 Standards





Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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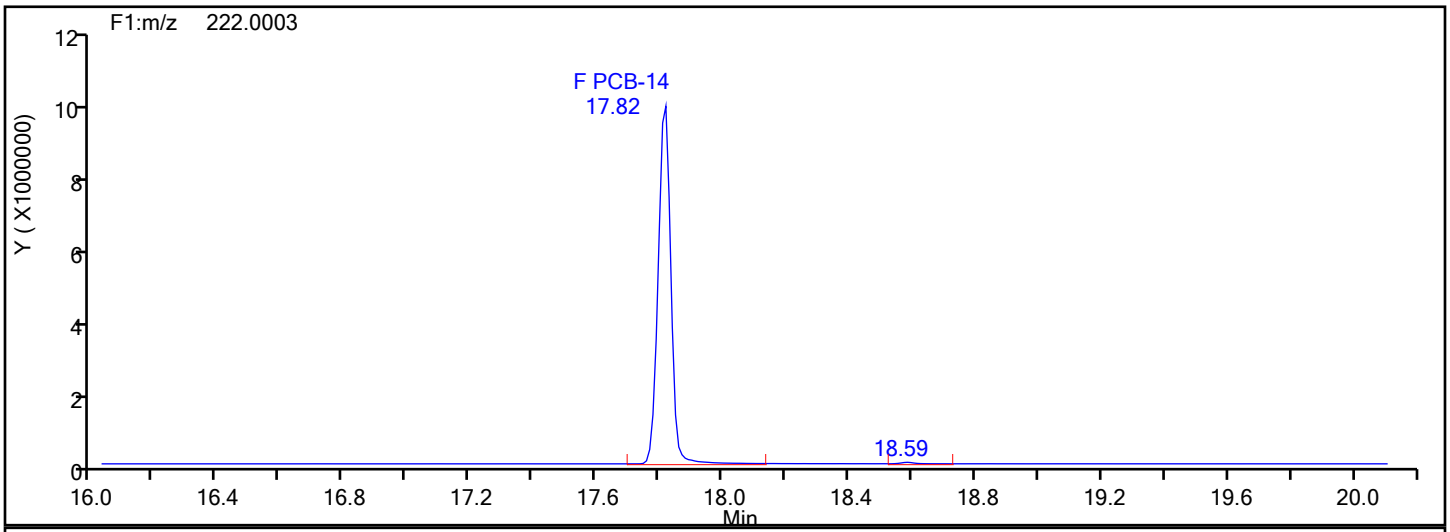
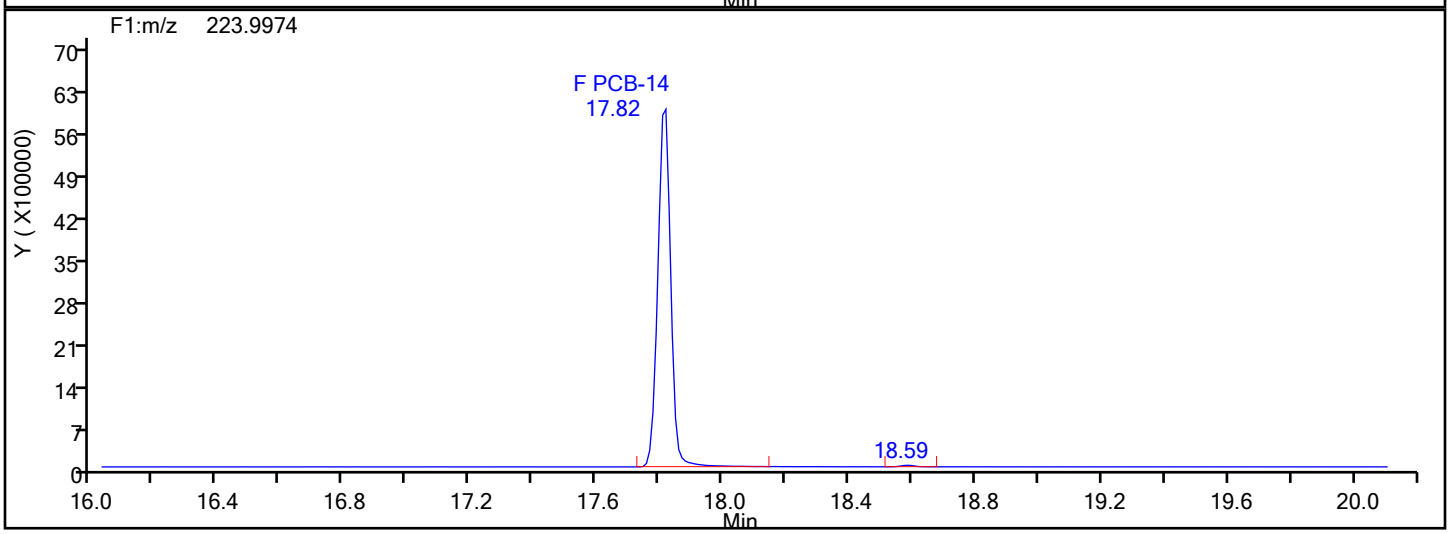
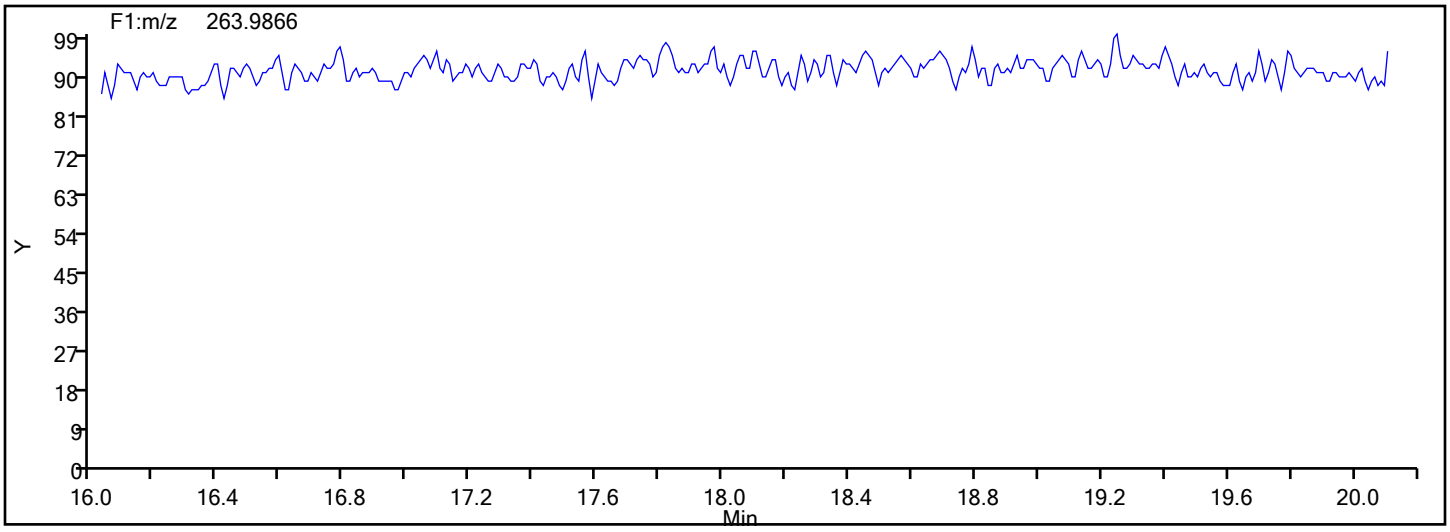
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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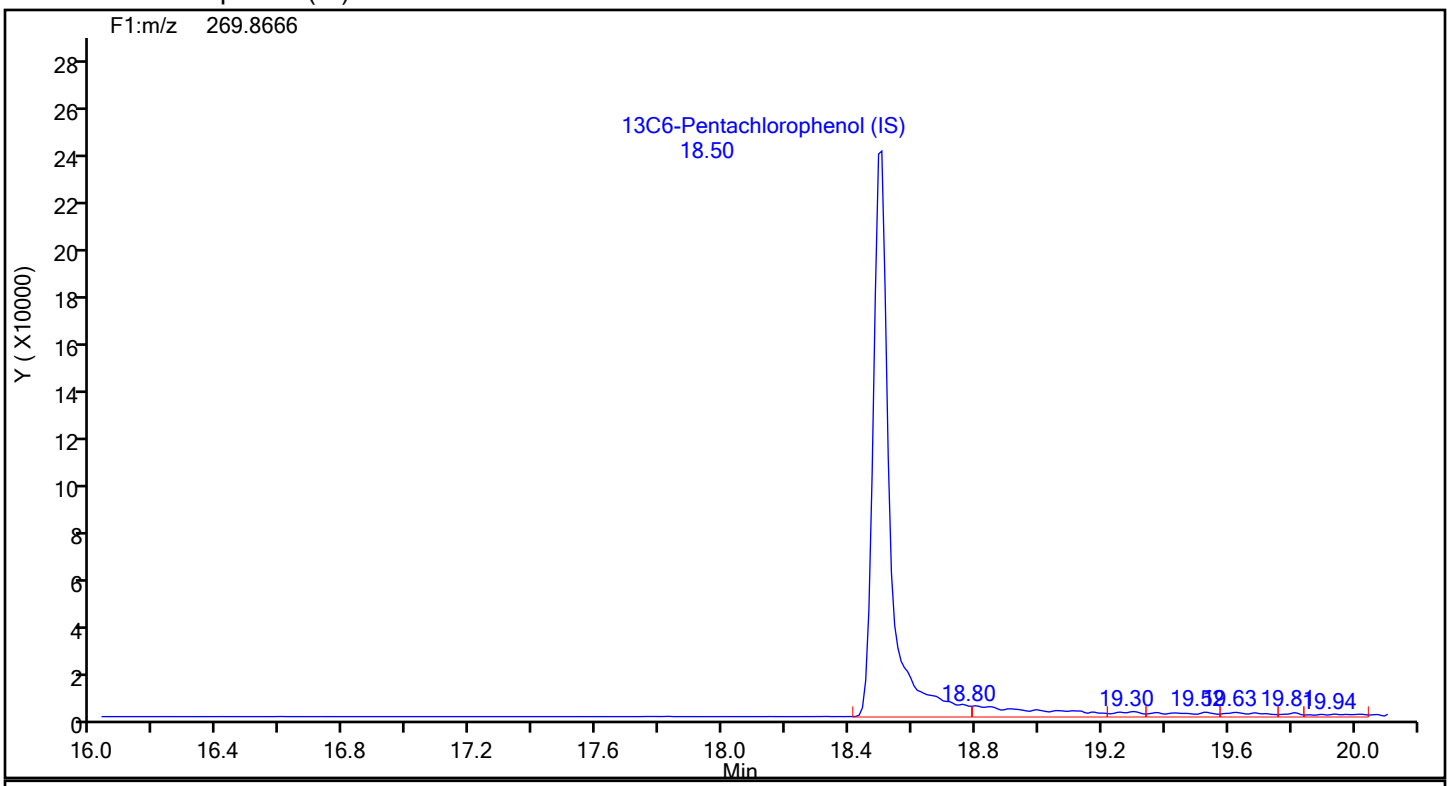
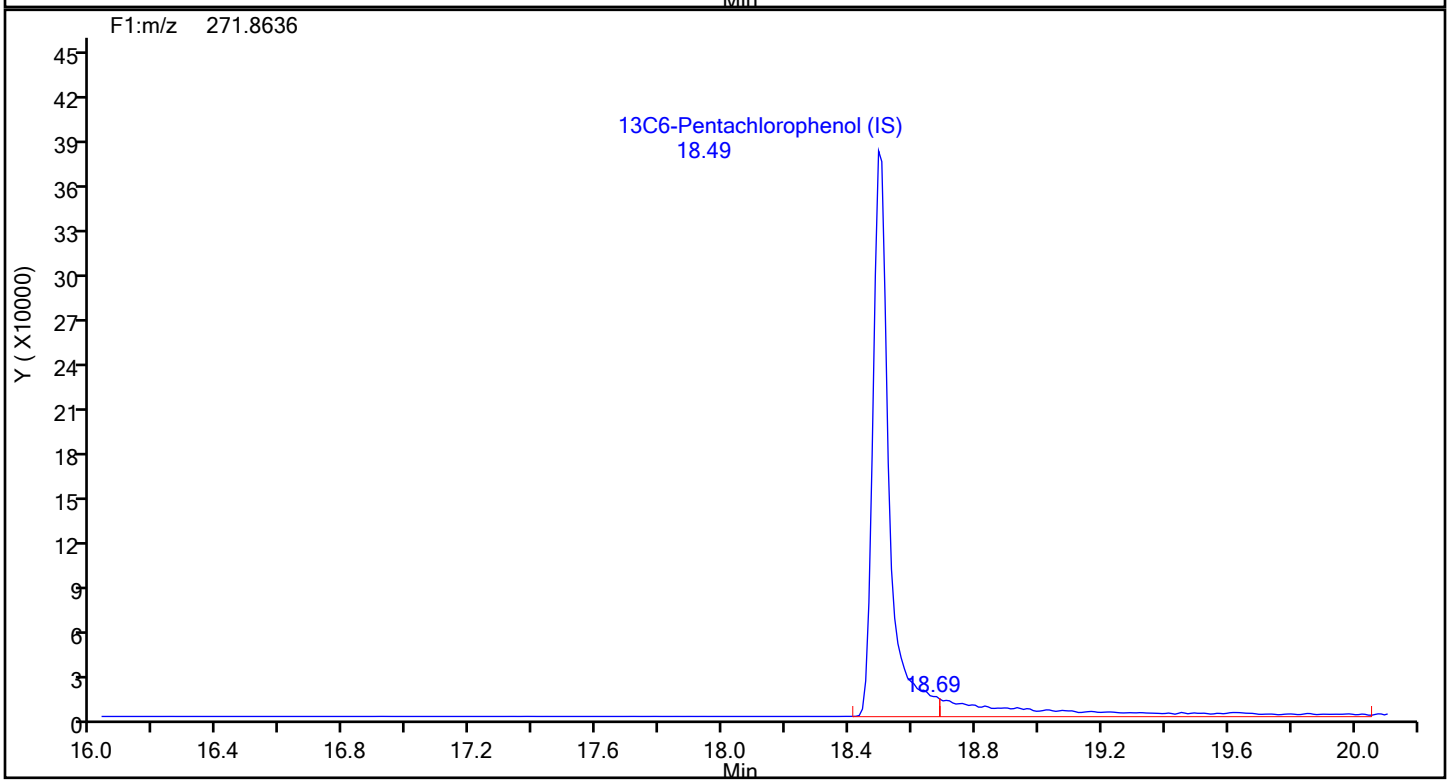
13C6-Pentachlorophenol (IS) Standards





Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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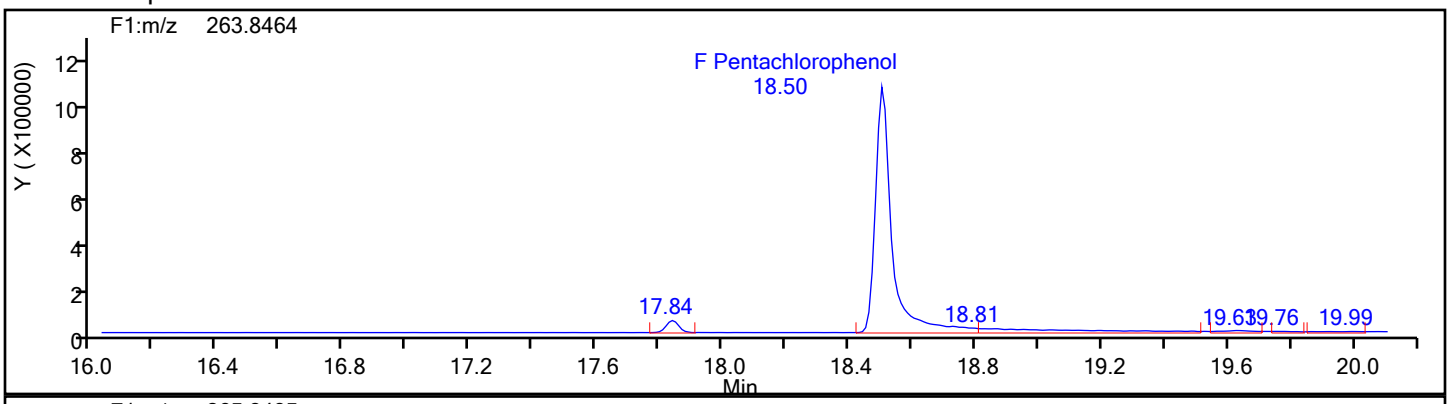
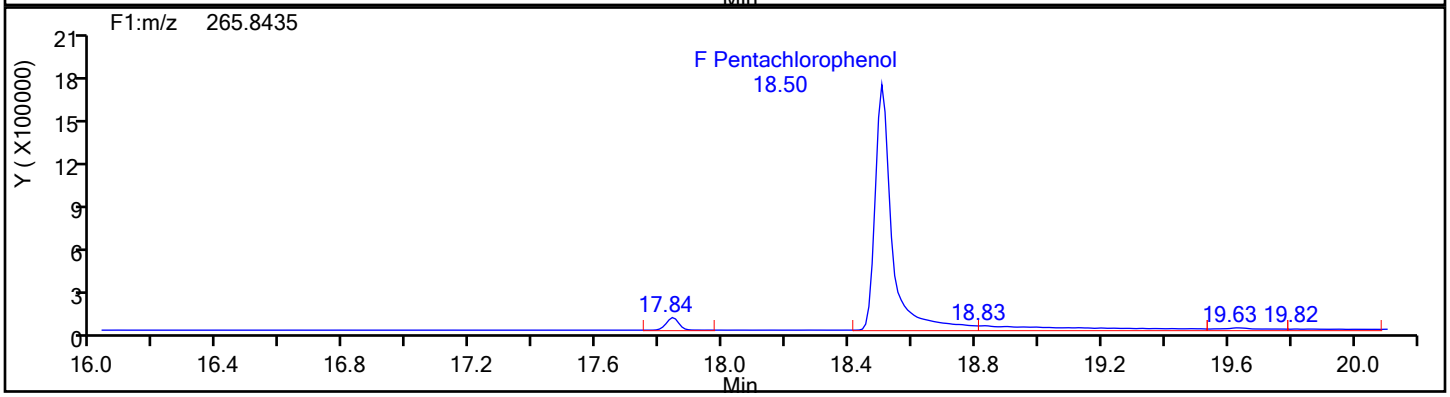
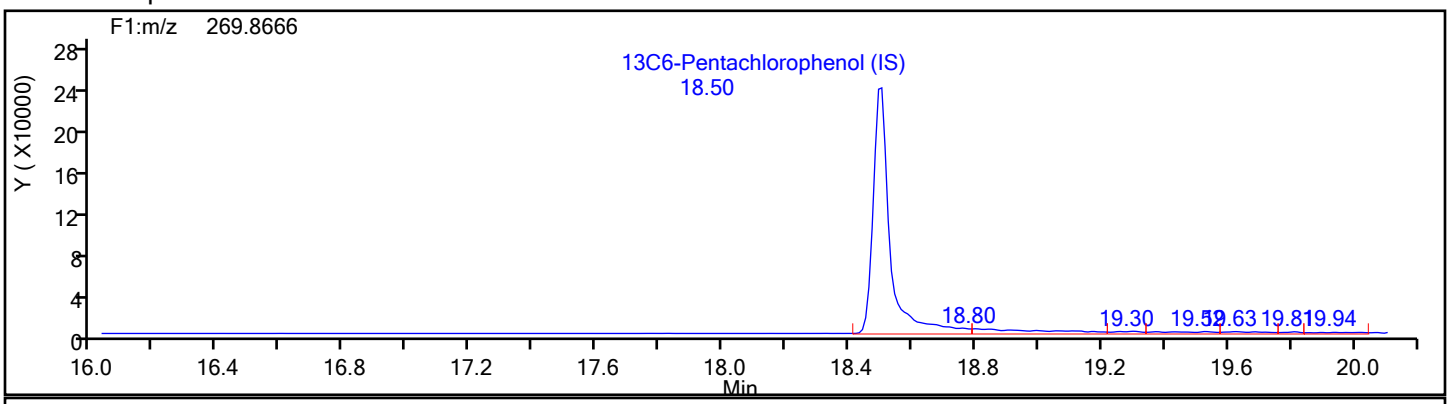
Column Type:	RTX-5	Column Dia:	0.32 mm

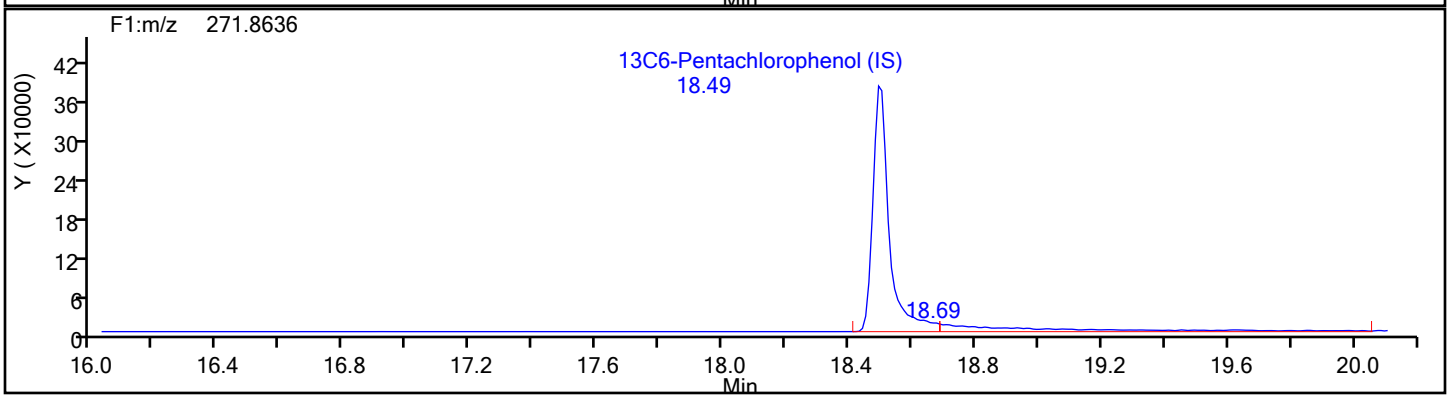
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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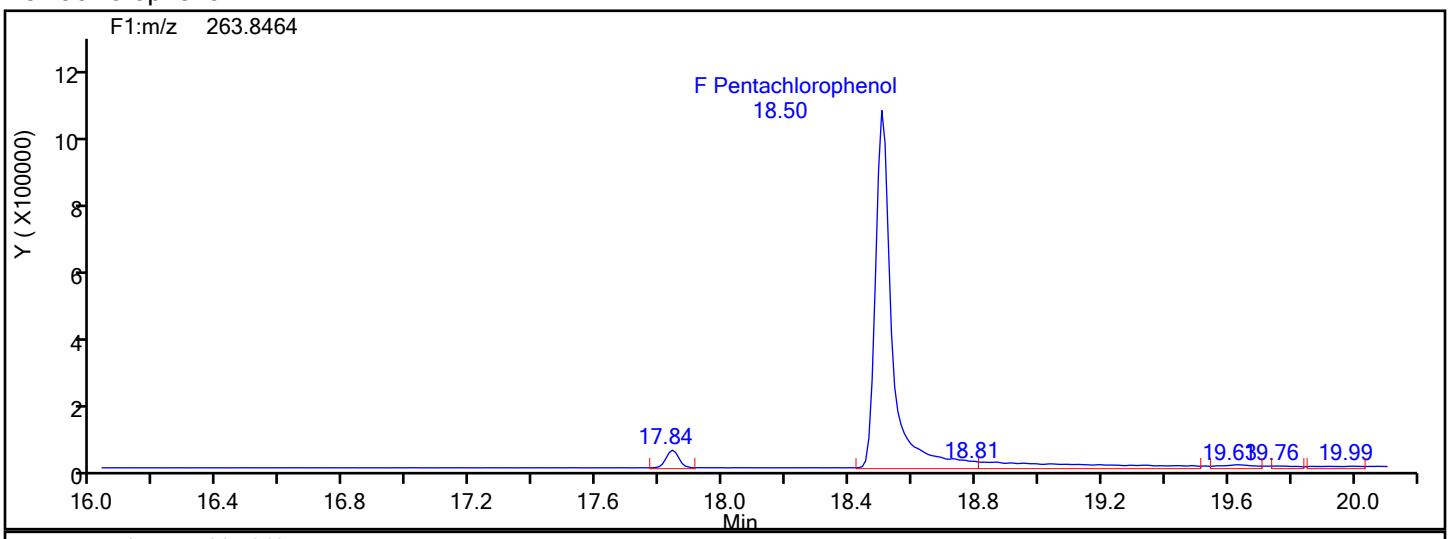
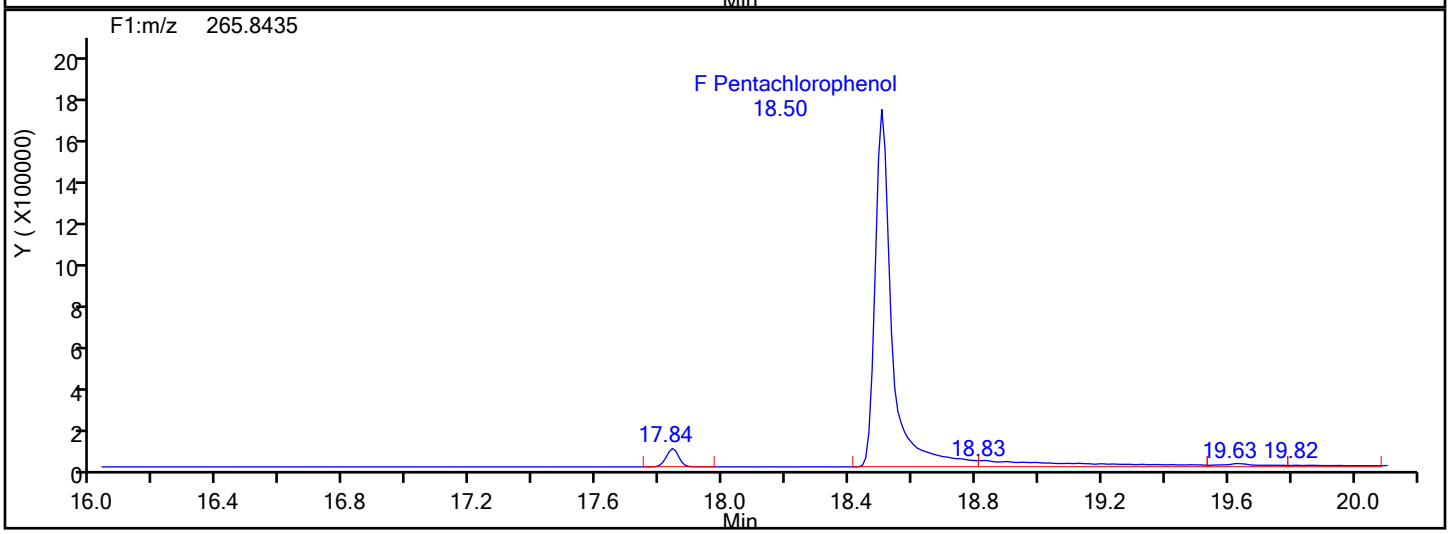
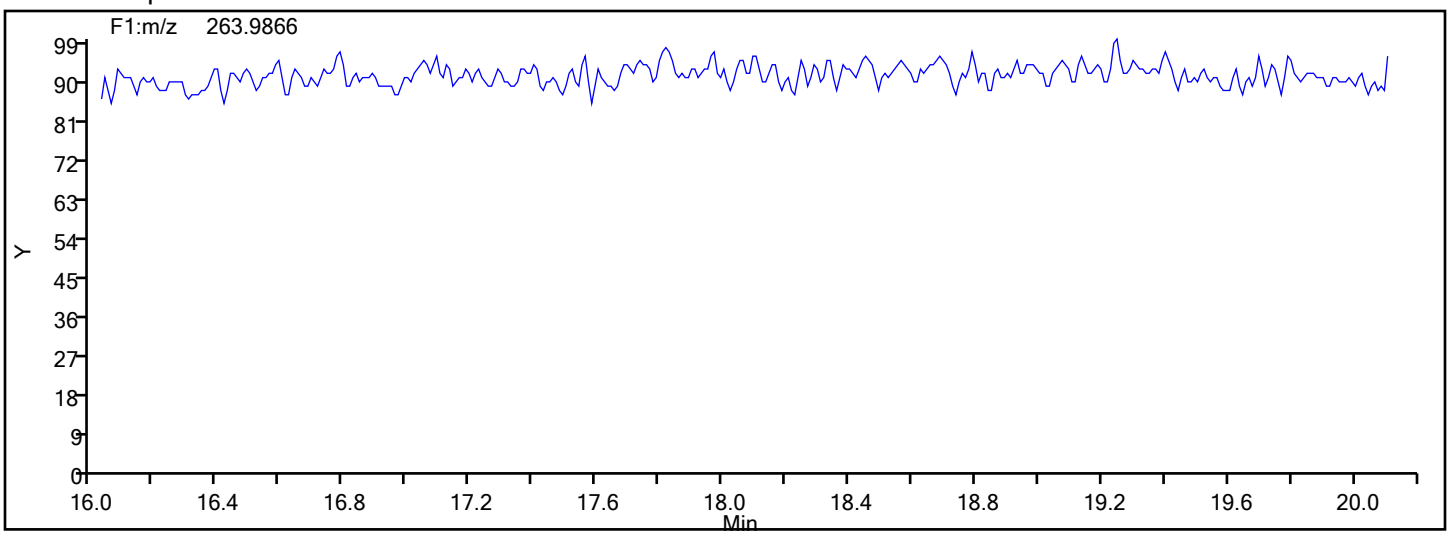
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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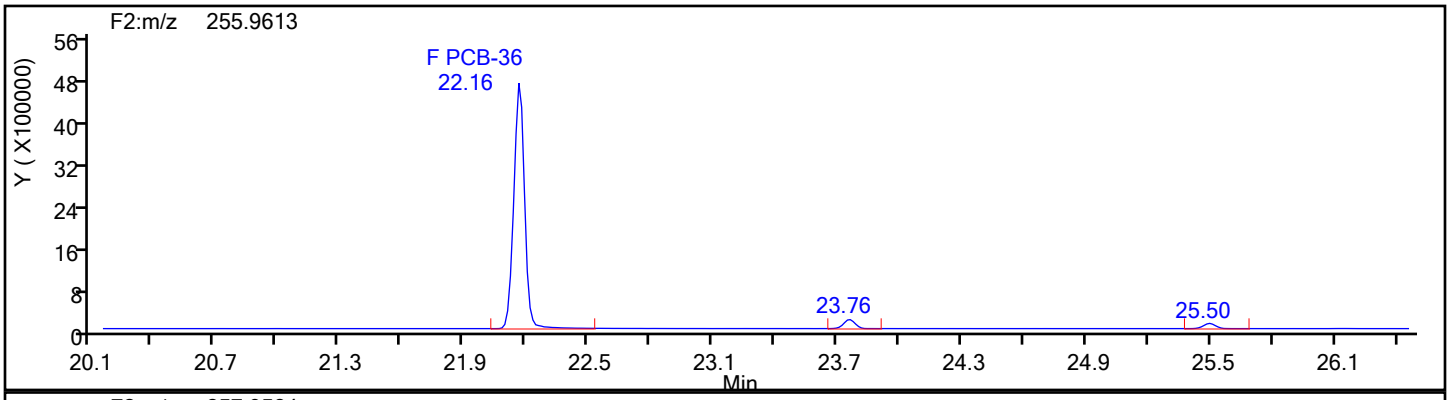
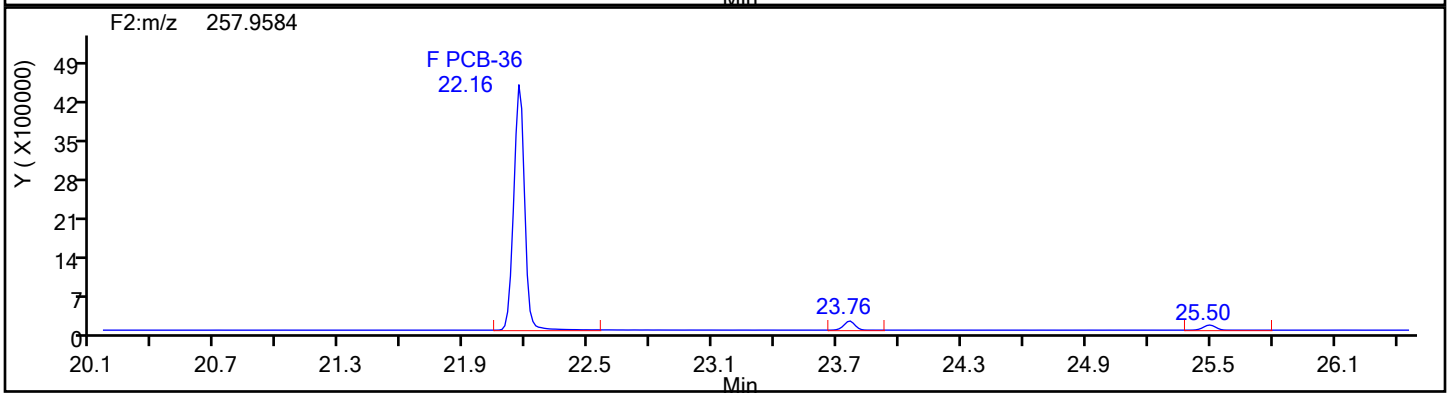
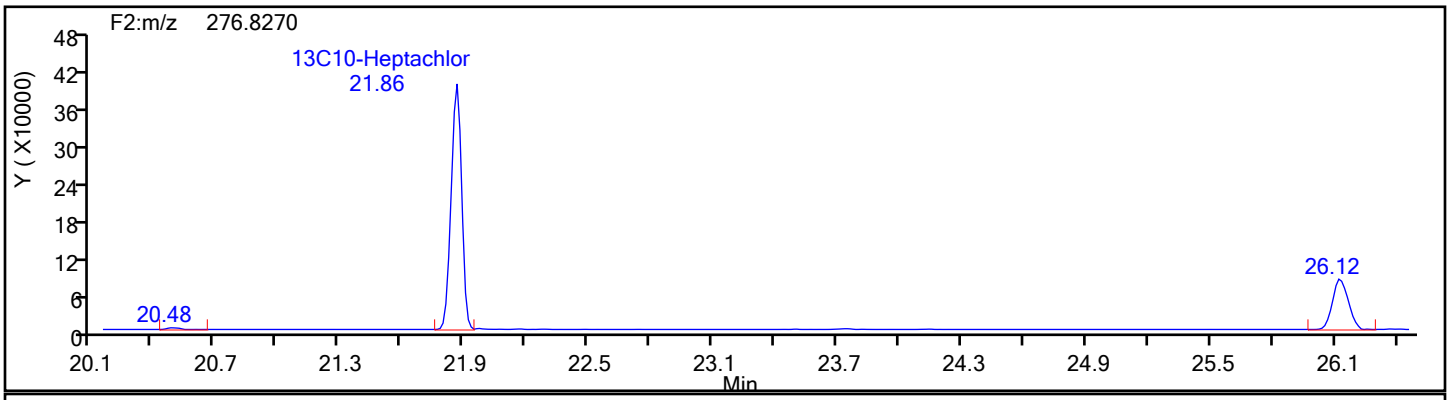
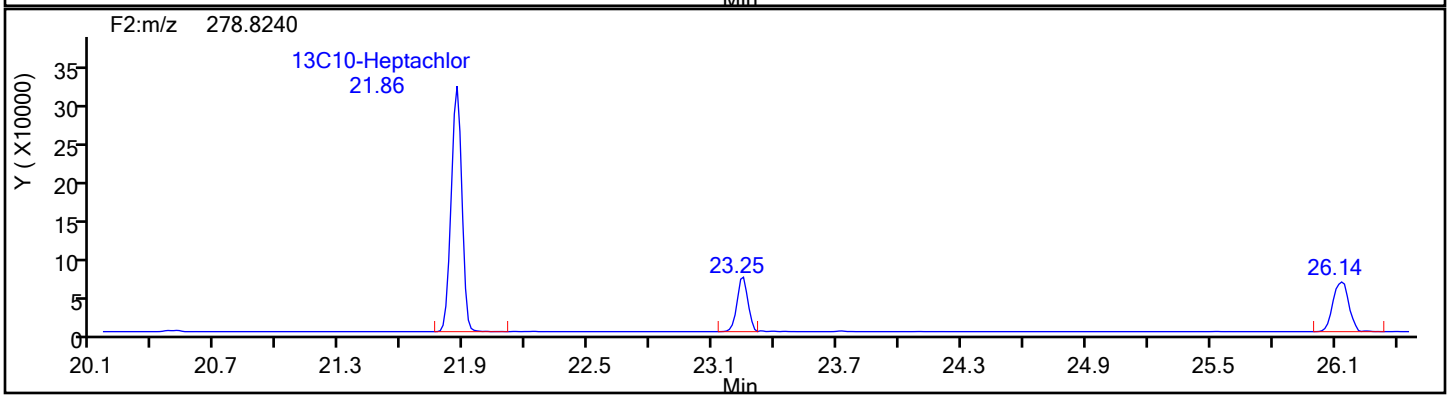
PCB-36





PCB-36 Standards





Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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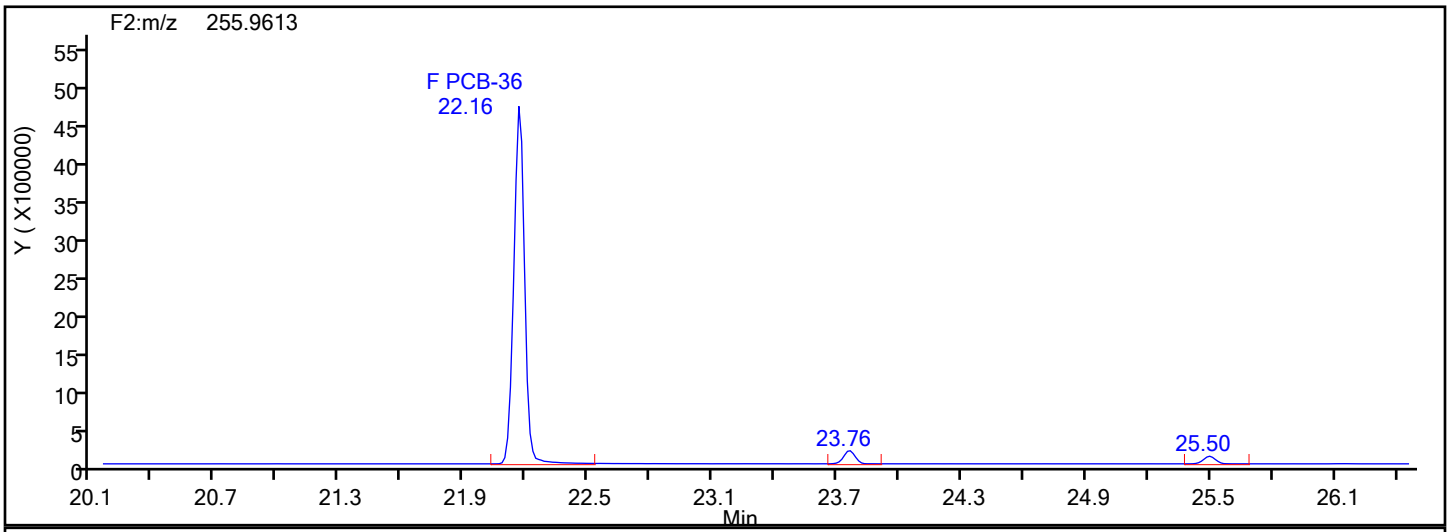
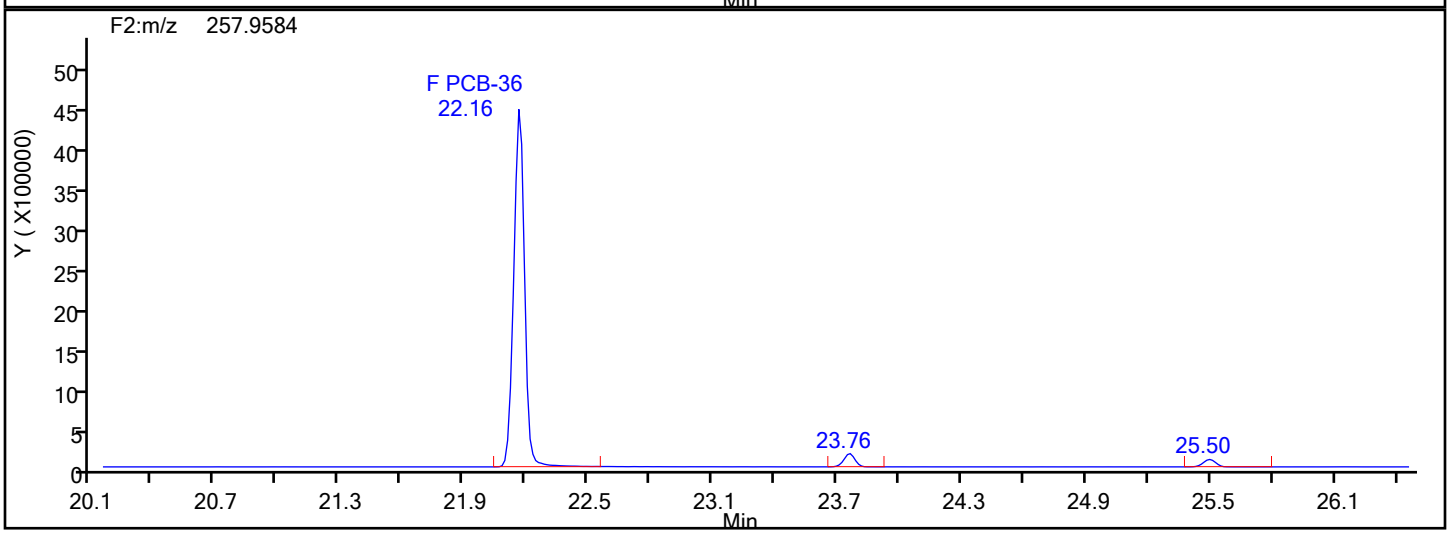
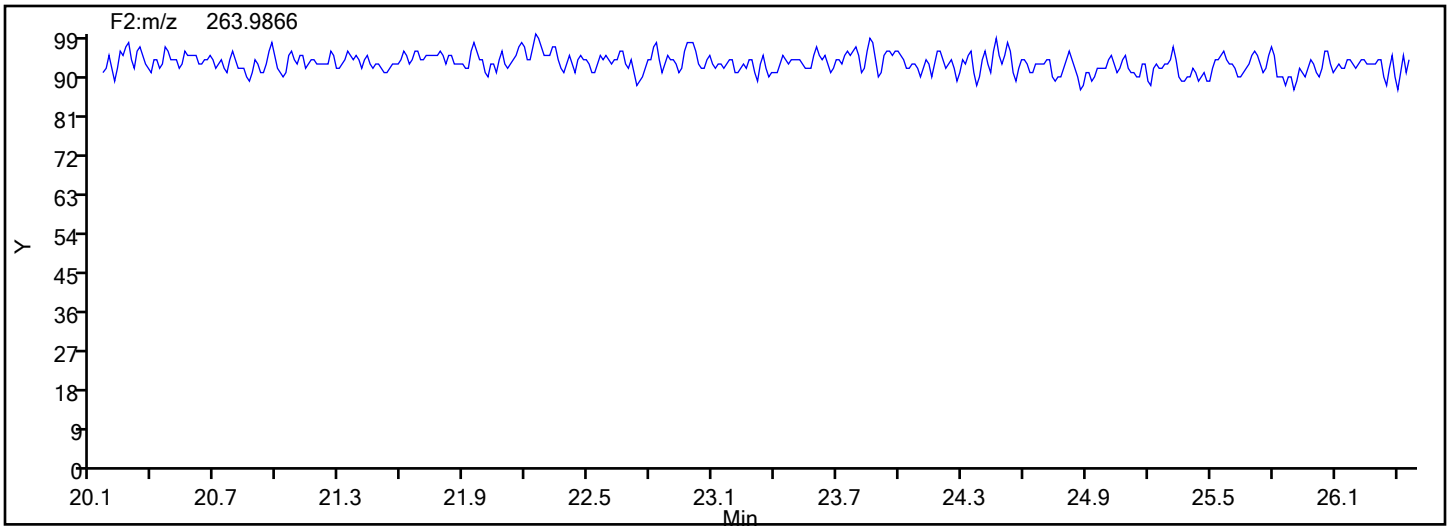
PCB-36





PCB-36 Lock Mass



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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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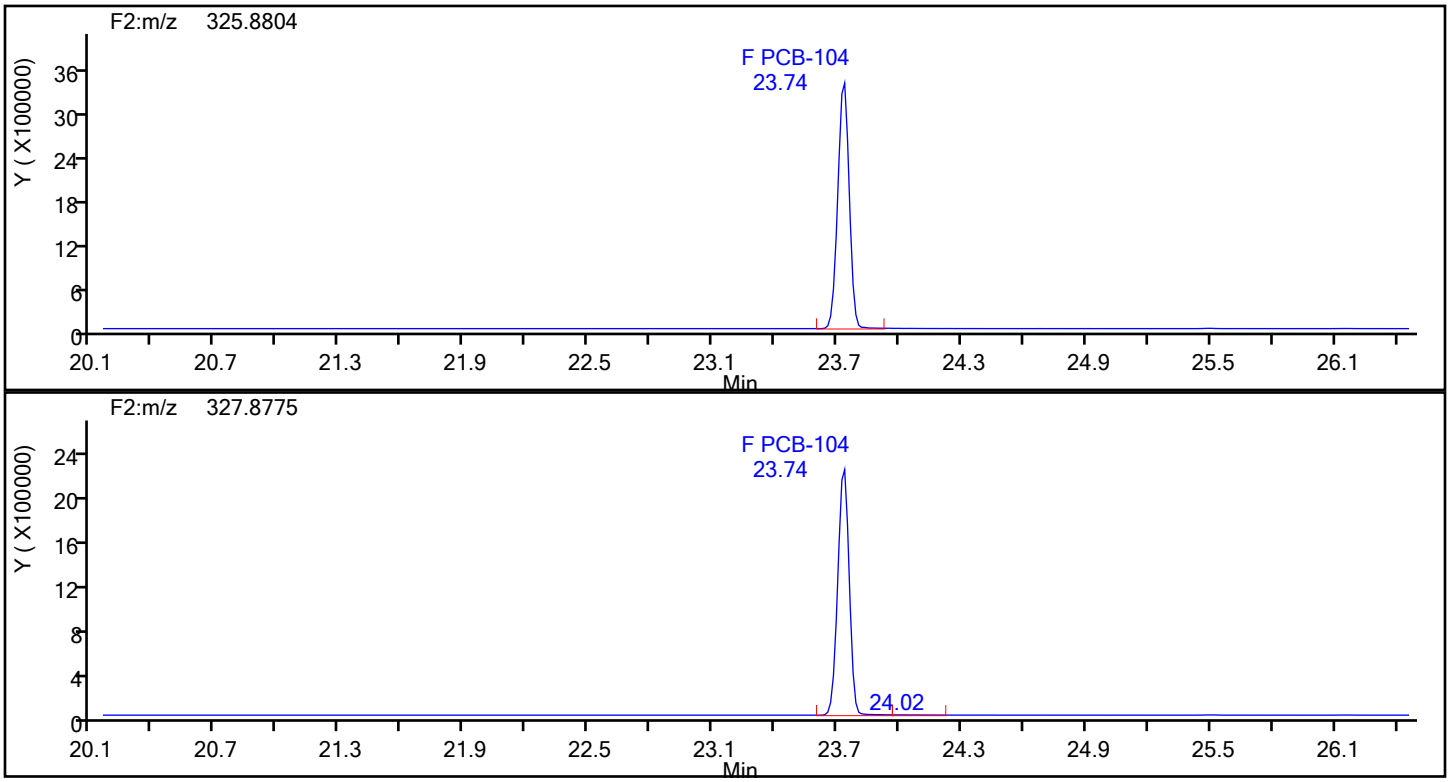
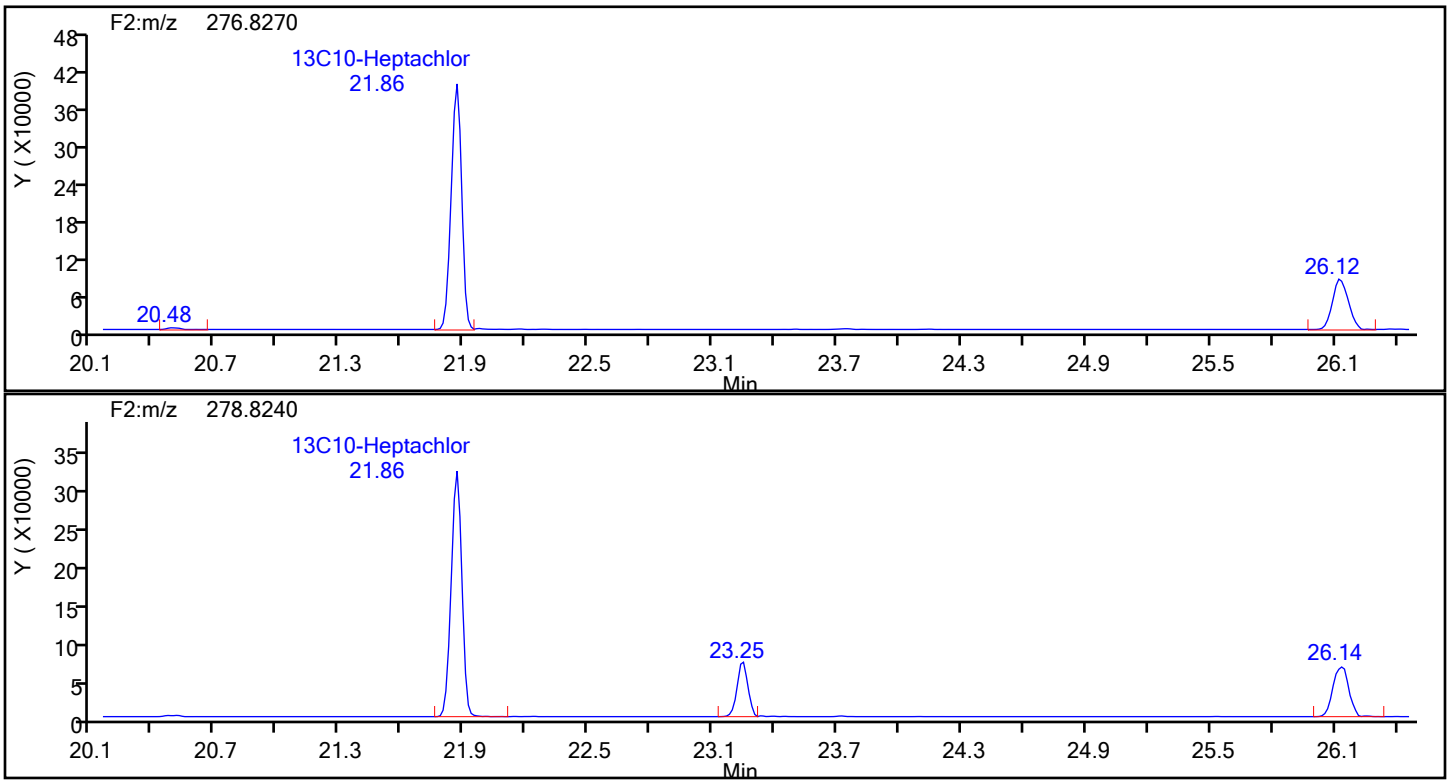
PCB-104



PCB-104 Standards



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
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Instrument ID: D3PST Operator ID: Xcalibur_System
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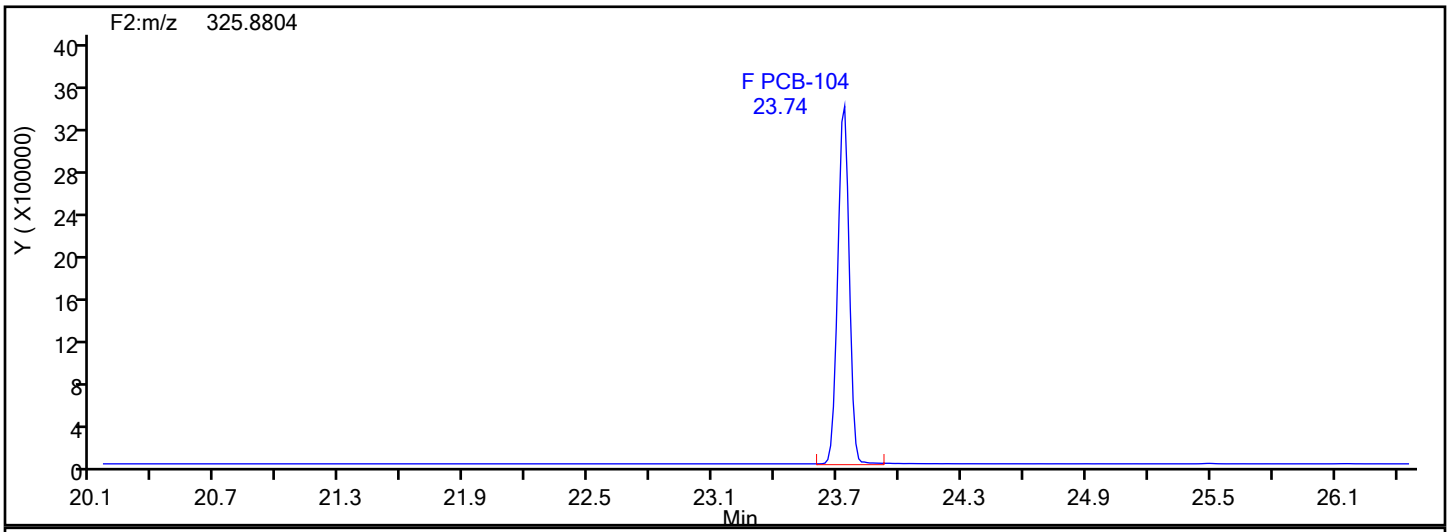
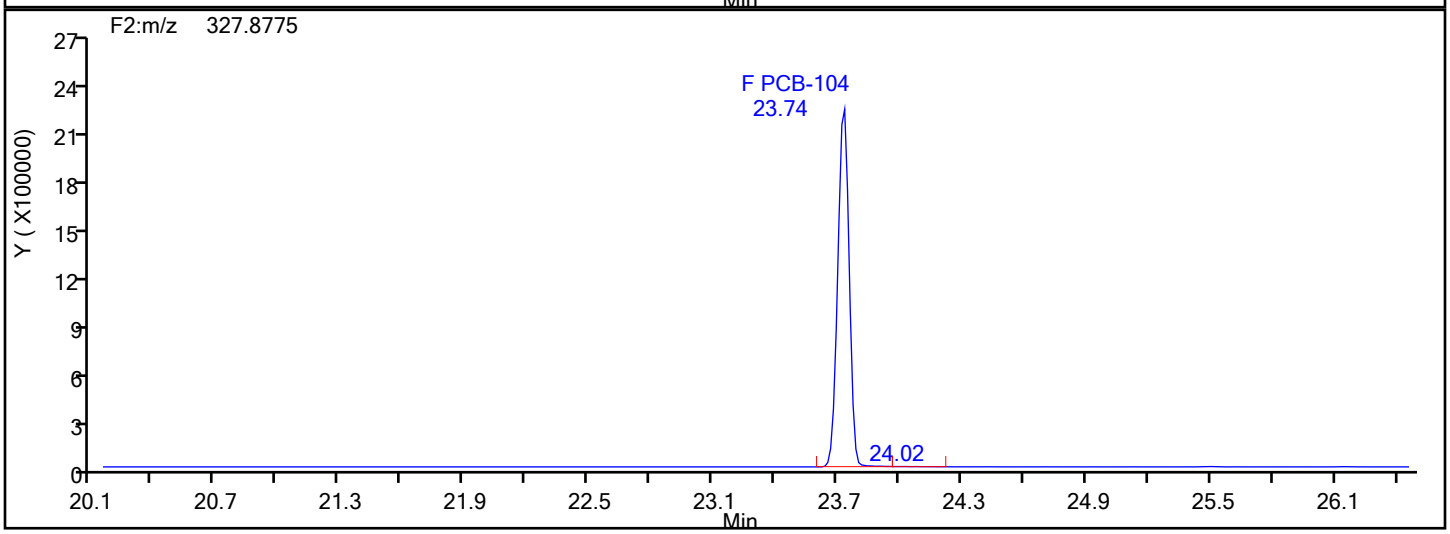
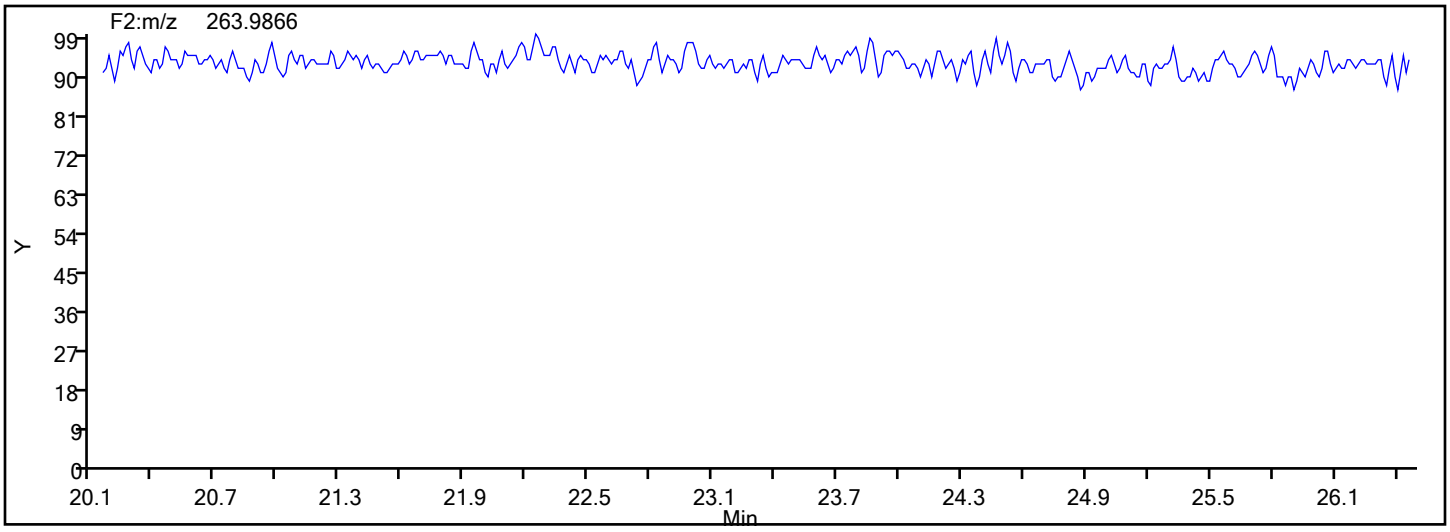
PCB-104





PCB-104 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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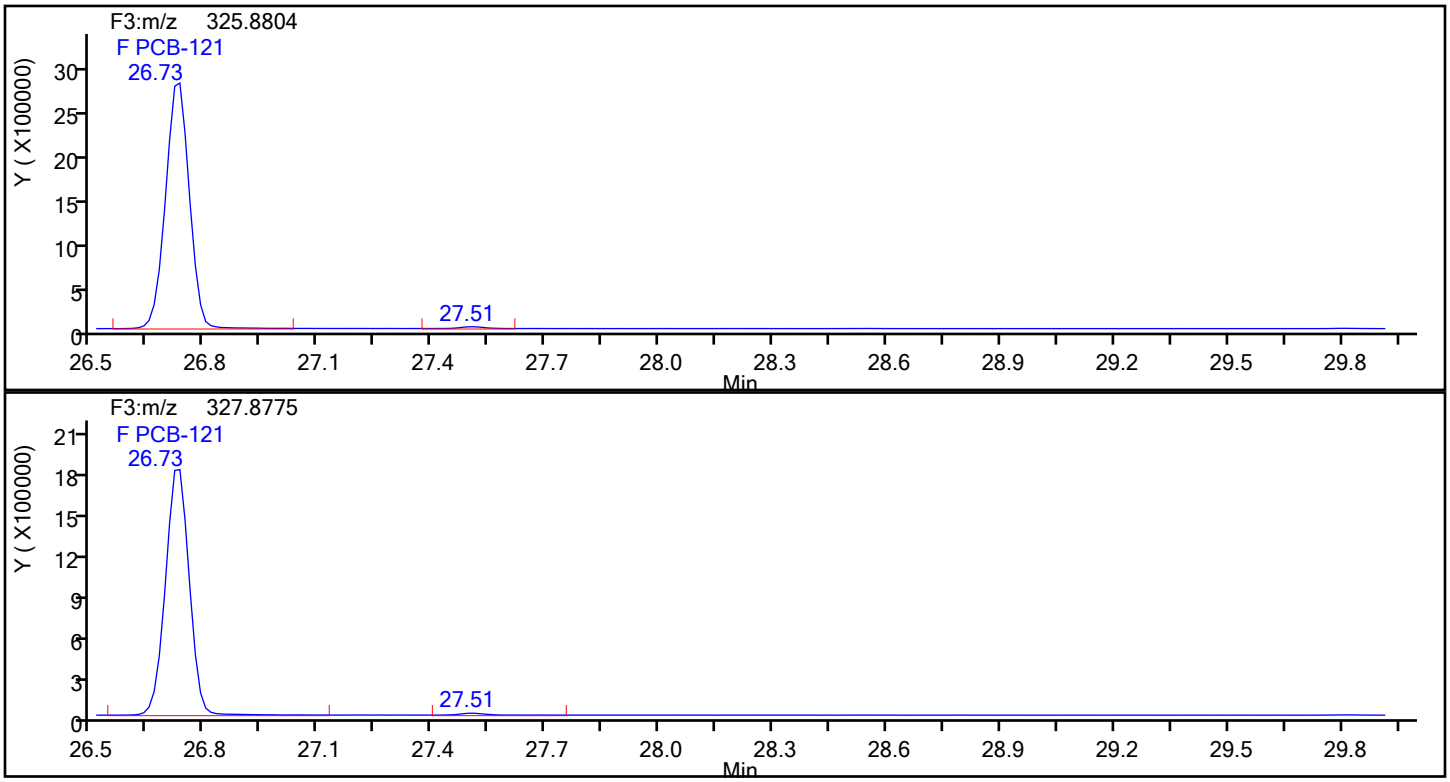
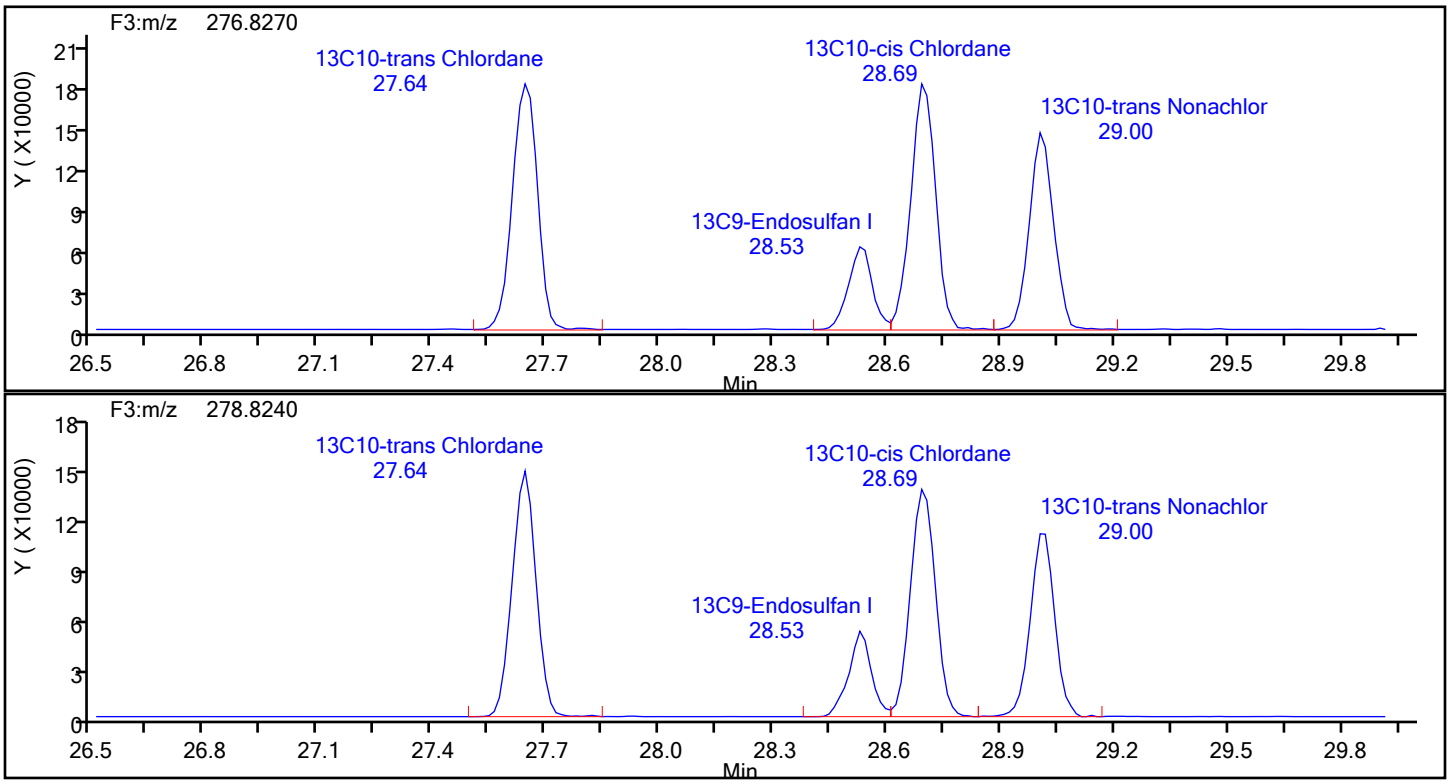
PCB-121



PCB-121 Standards



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Eurofins Knoxville

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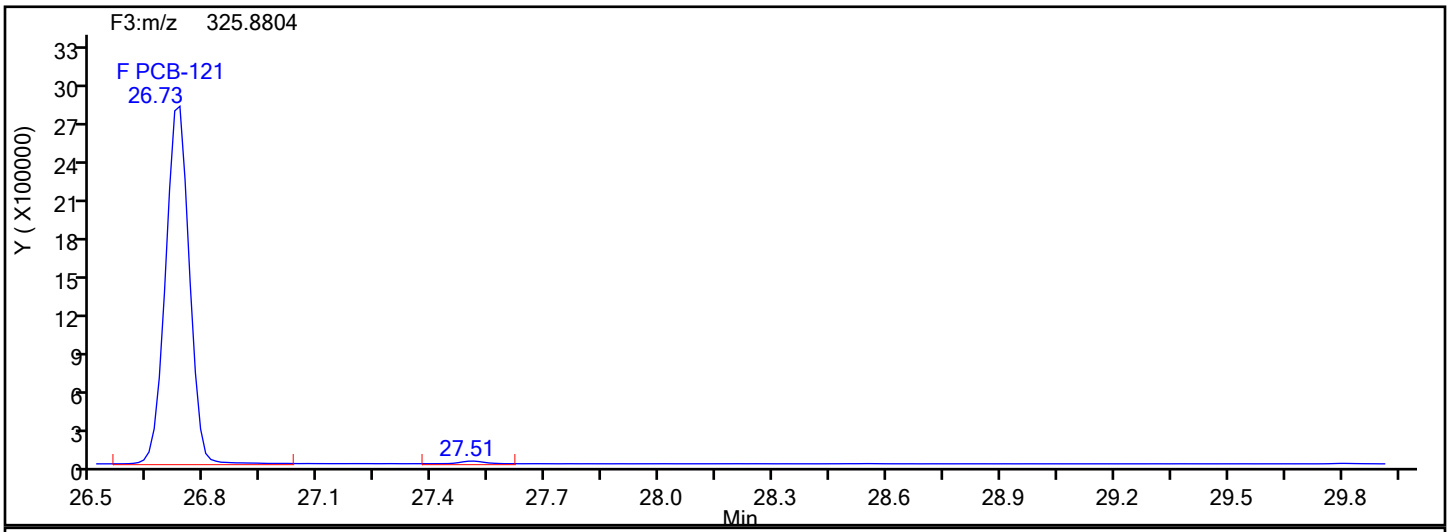
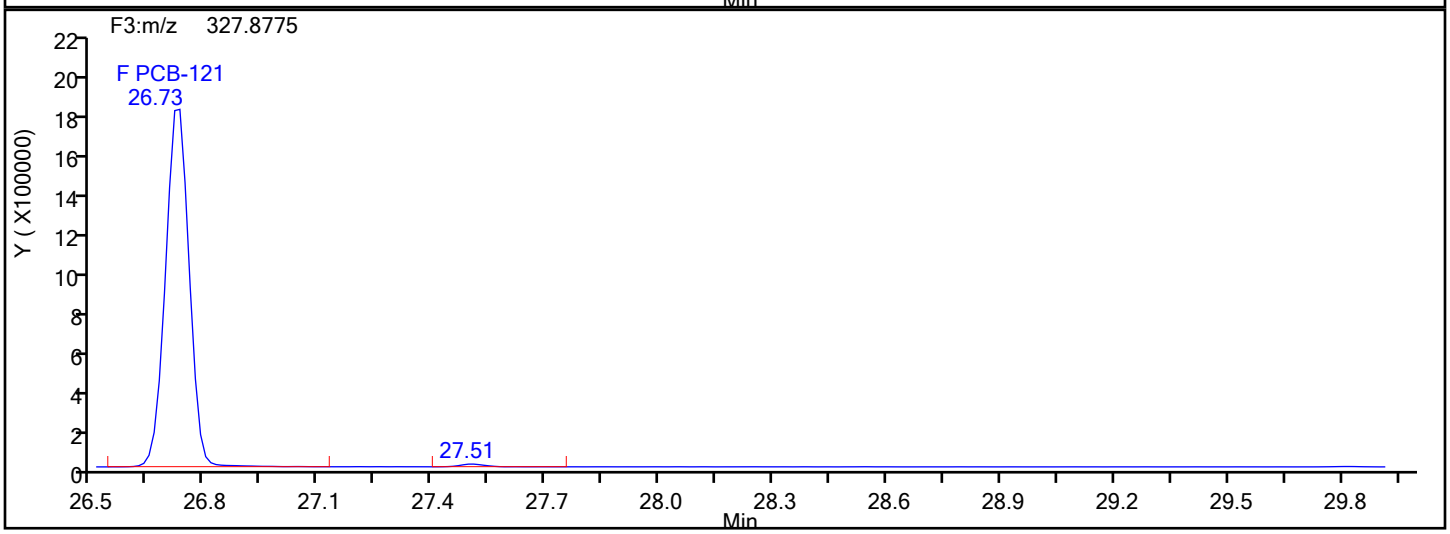
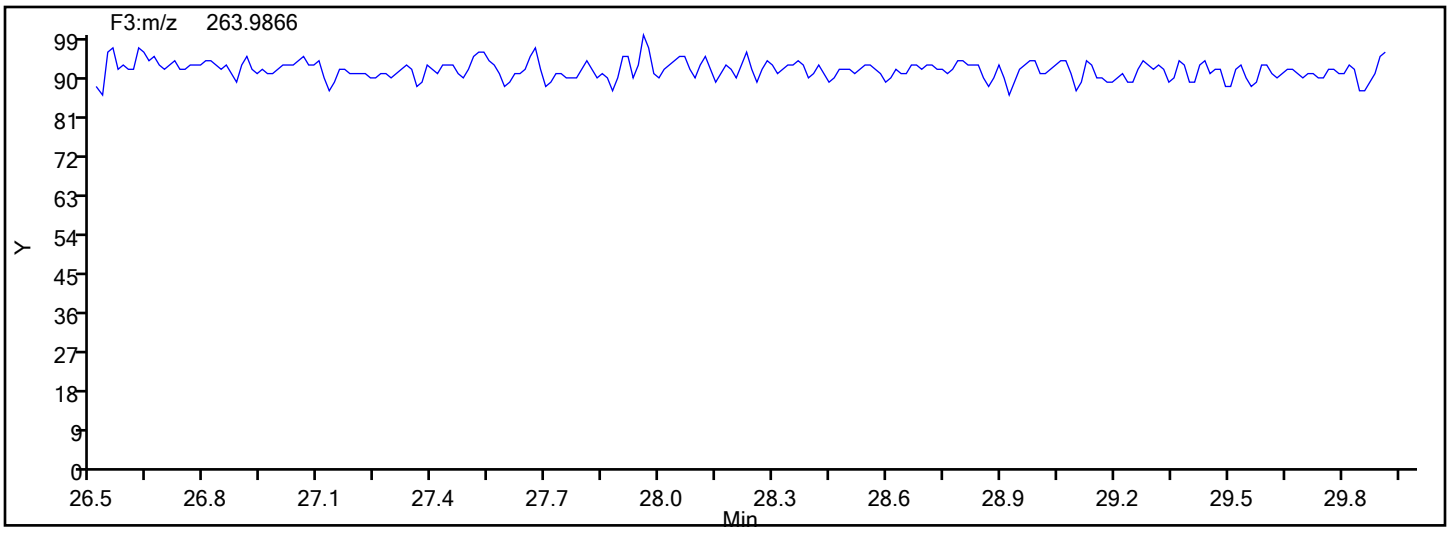
PCB-121





PCB-121 Lock Mass



Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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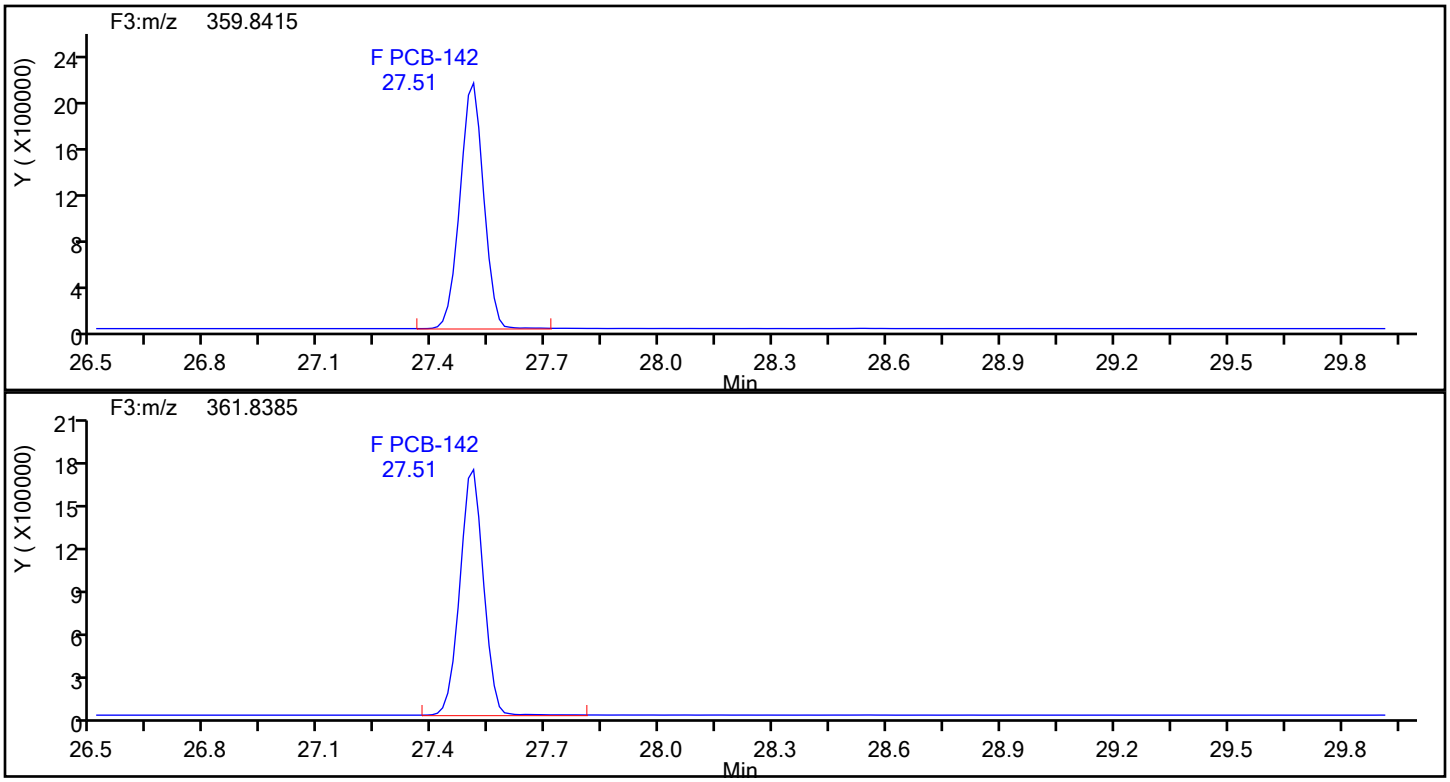
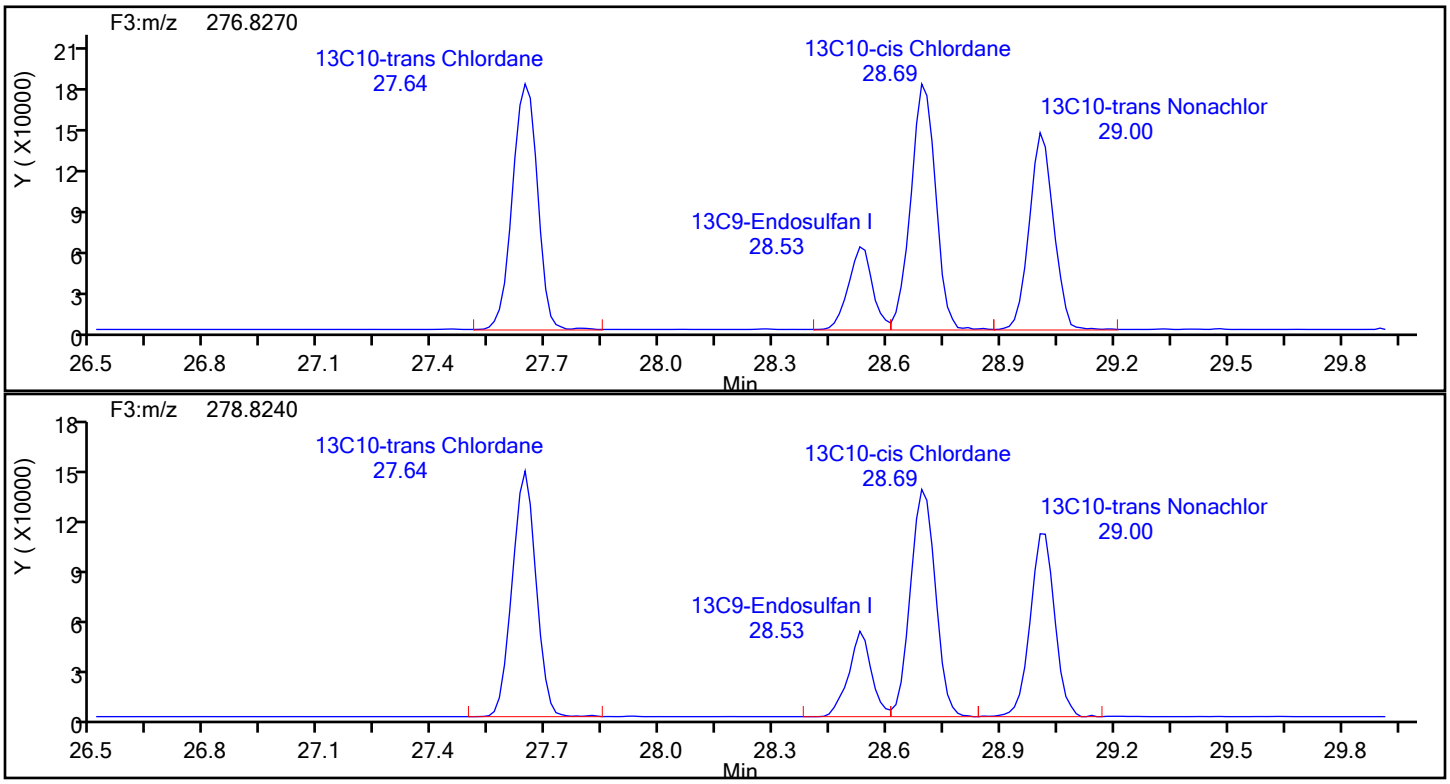
PCB-142



PCB-142 Standards



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Eurofins Knoxville

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Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
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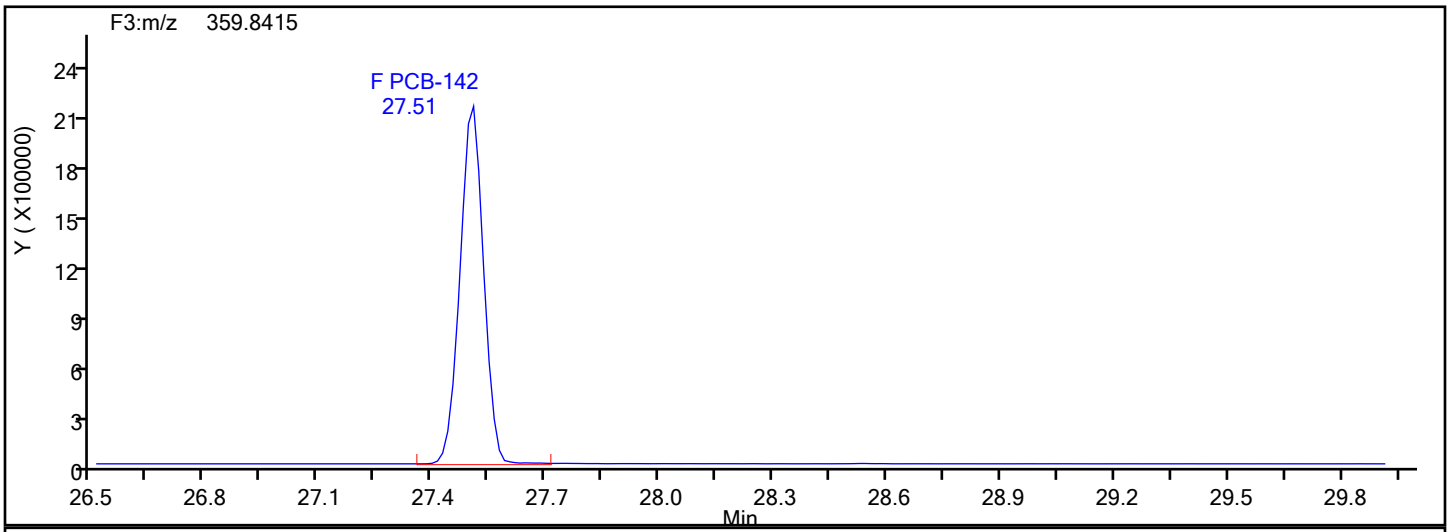
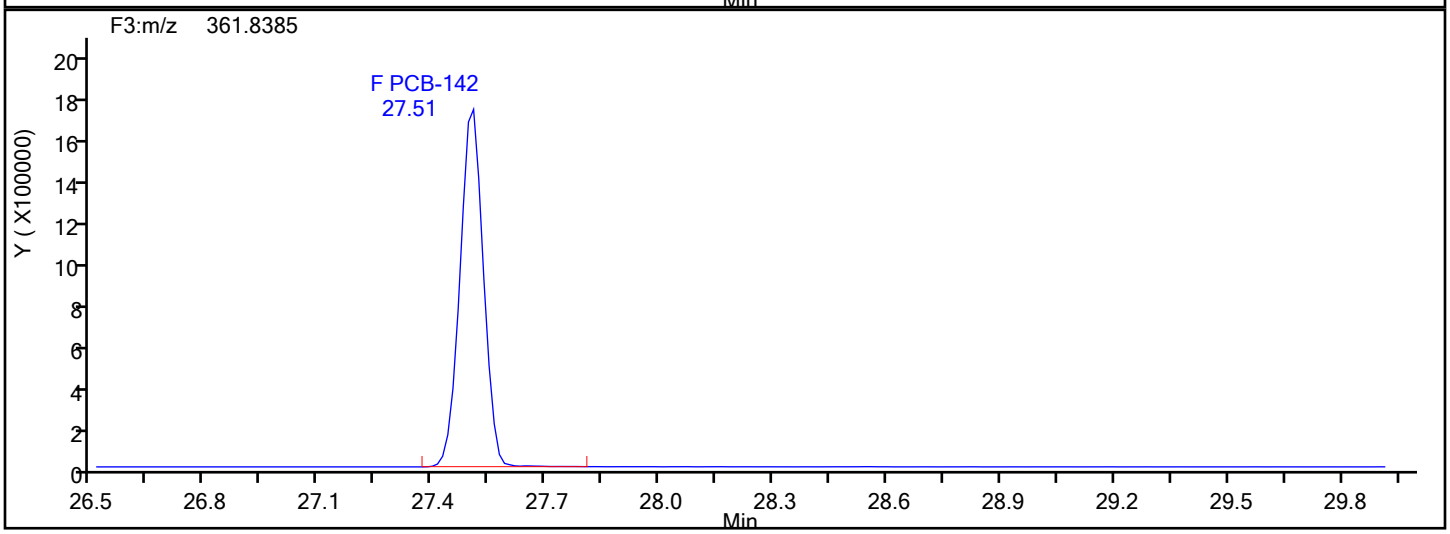
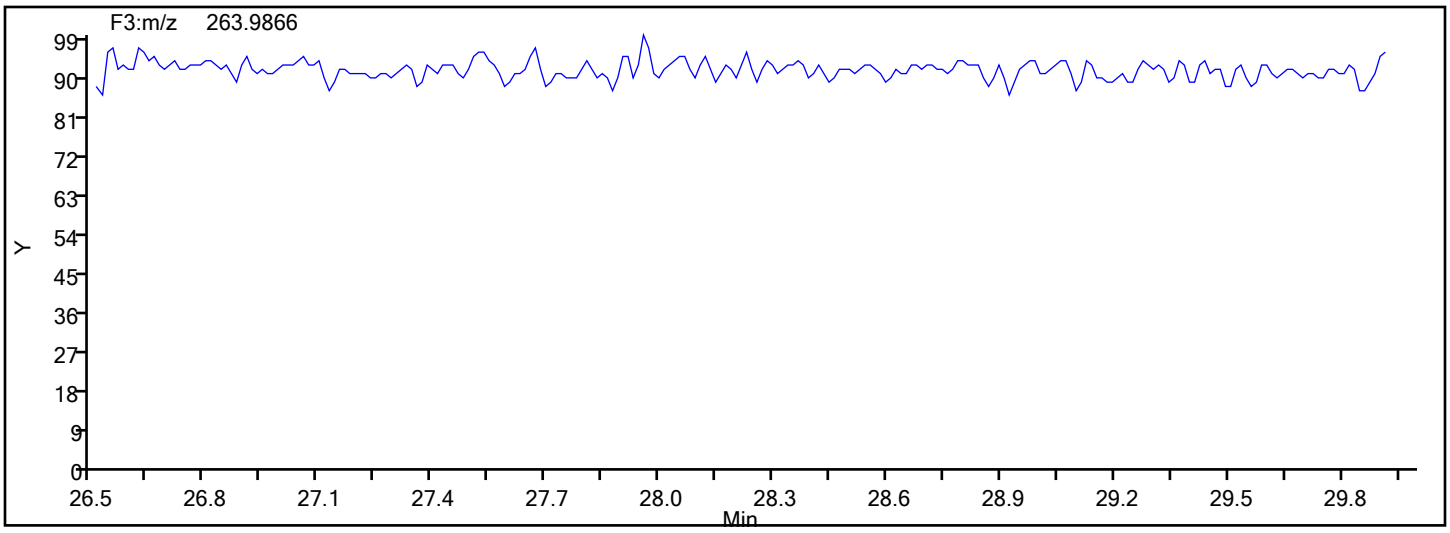
PCB-142





PCB-142 Lock Mass



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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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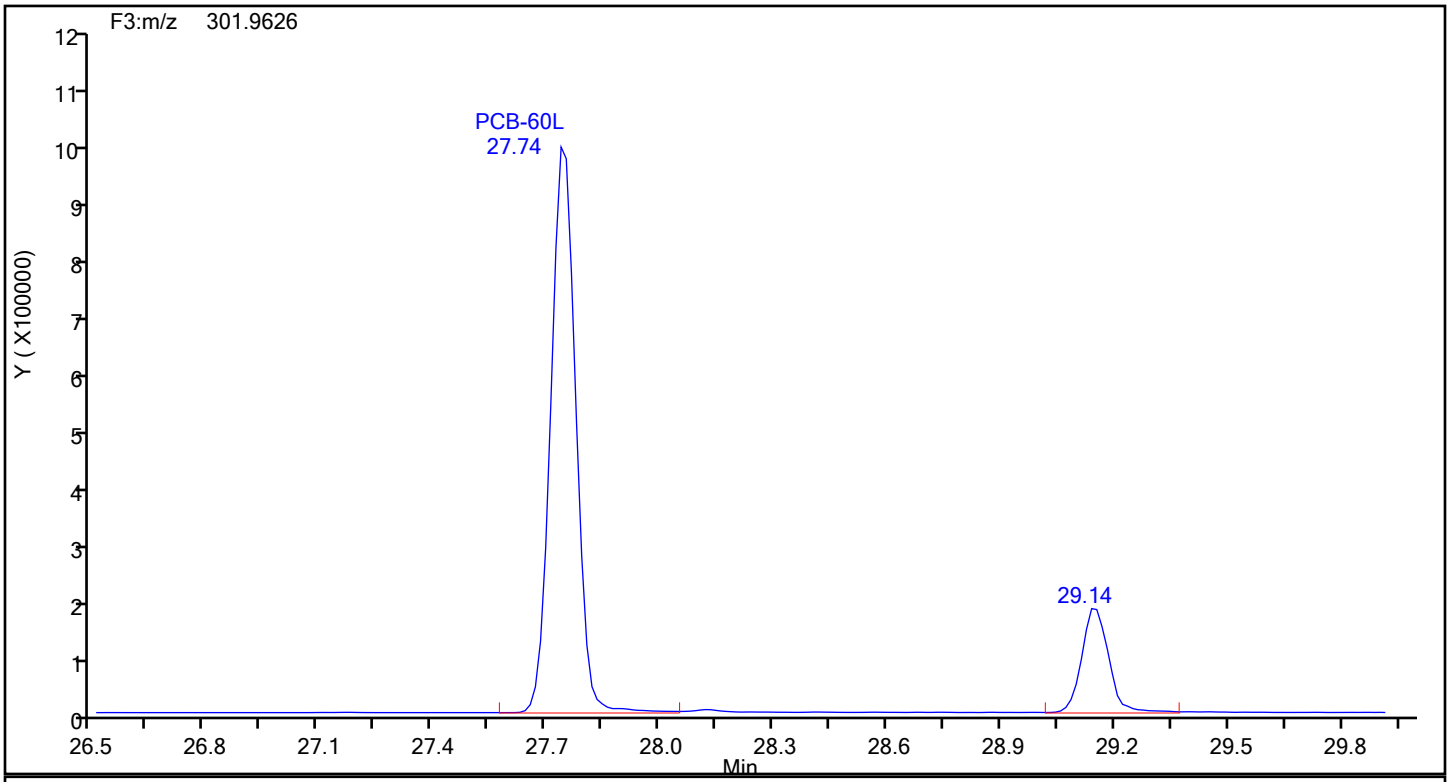
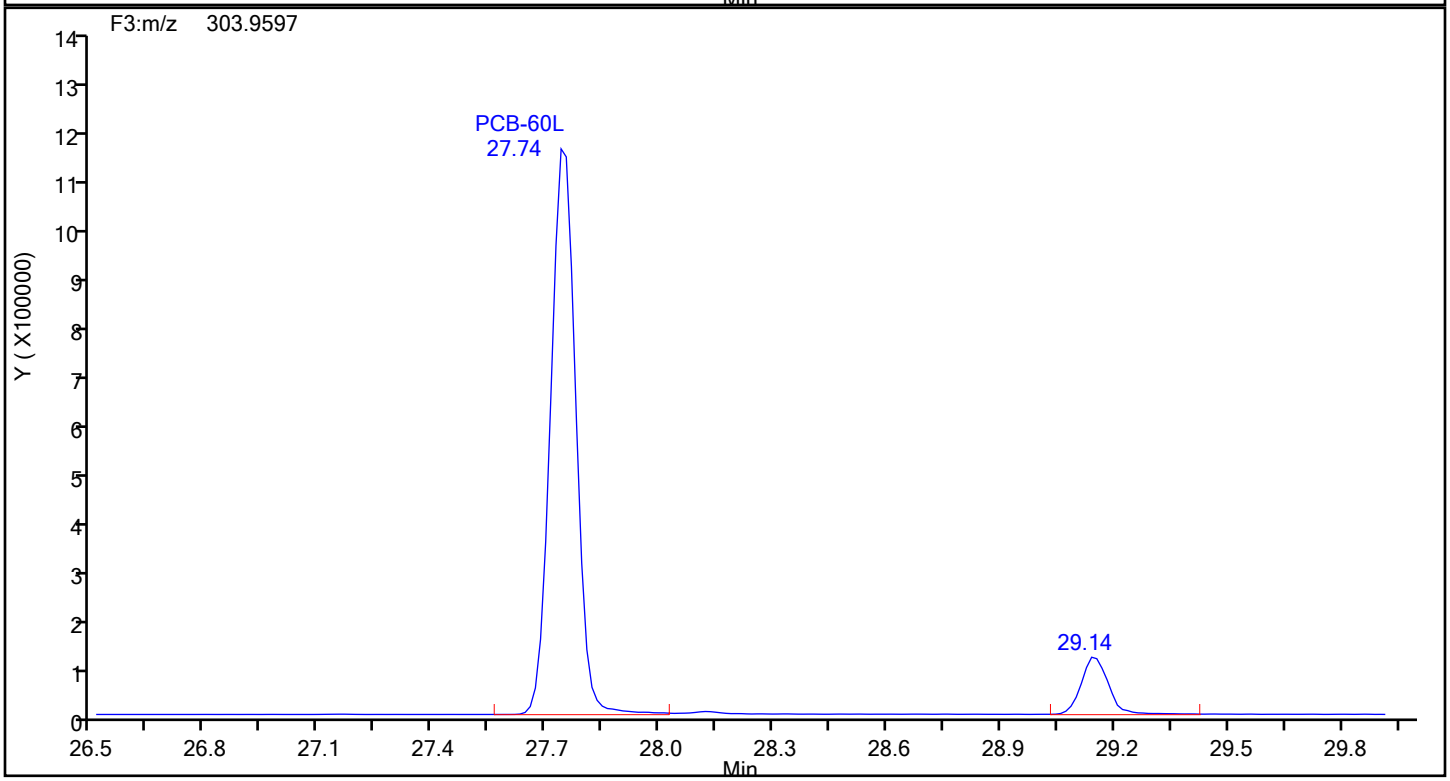
PCB-60L Standards





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Eurofins Knoxville

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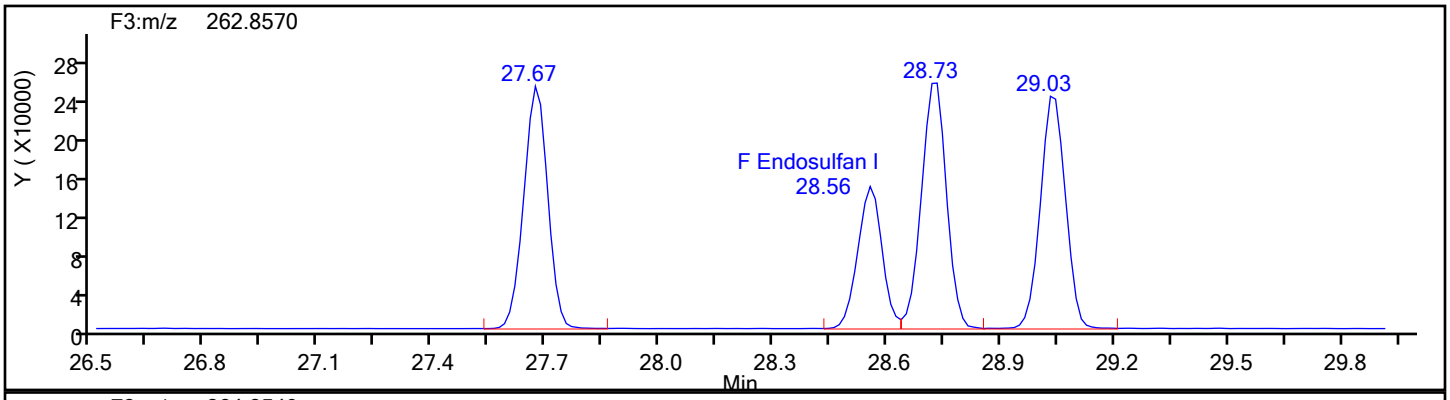
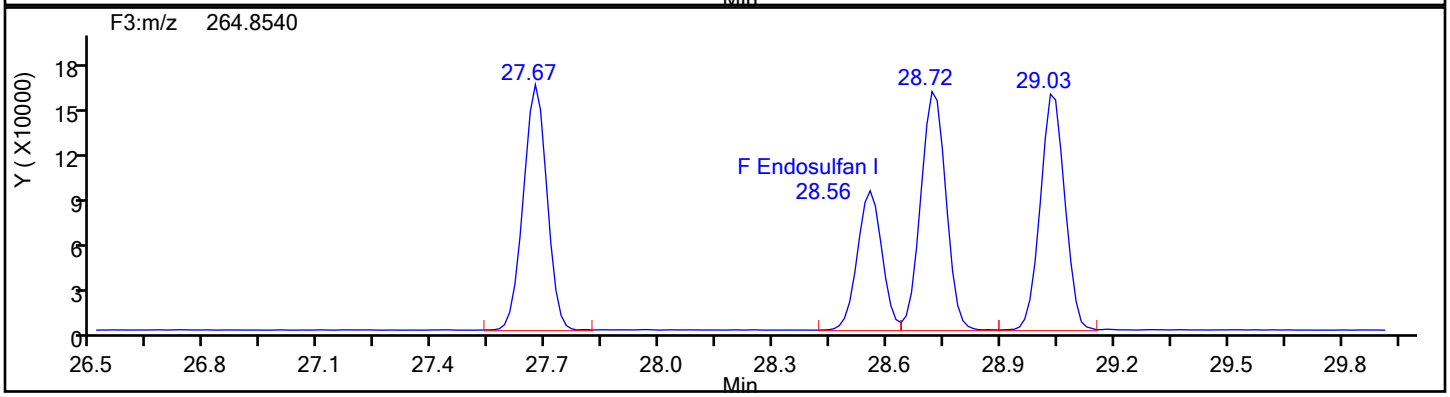
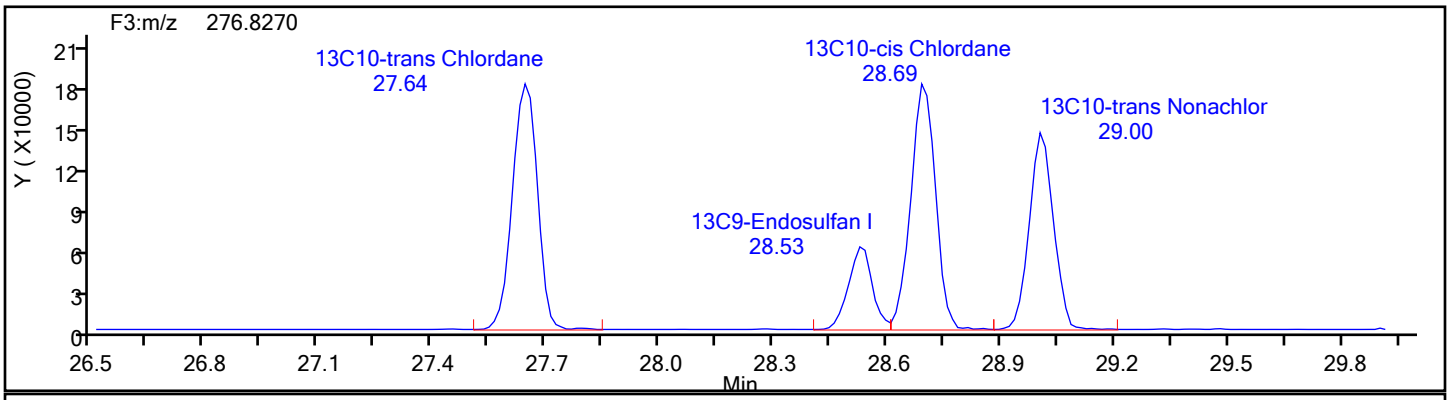
Column Type:	RTX-5	Column Dia:	0.32 mm

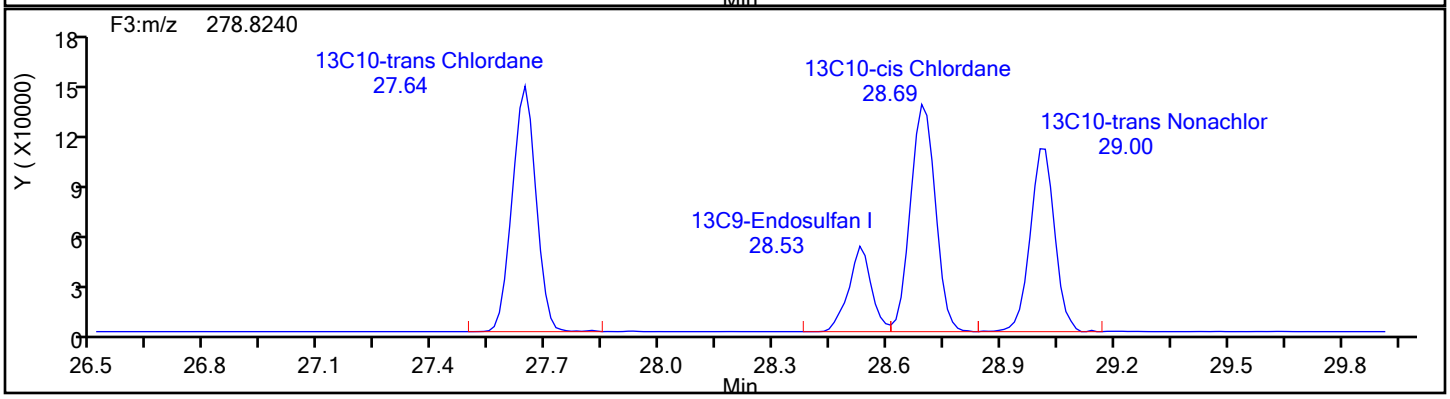
Endosulfan I





Endosulfan I Standards





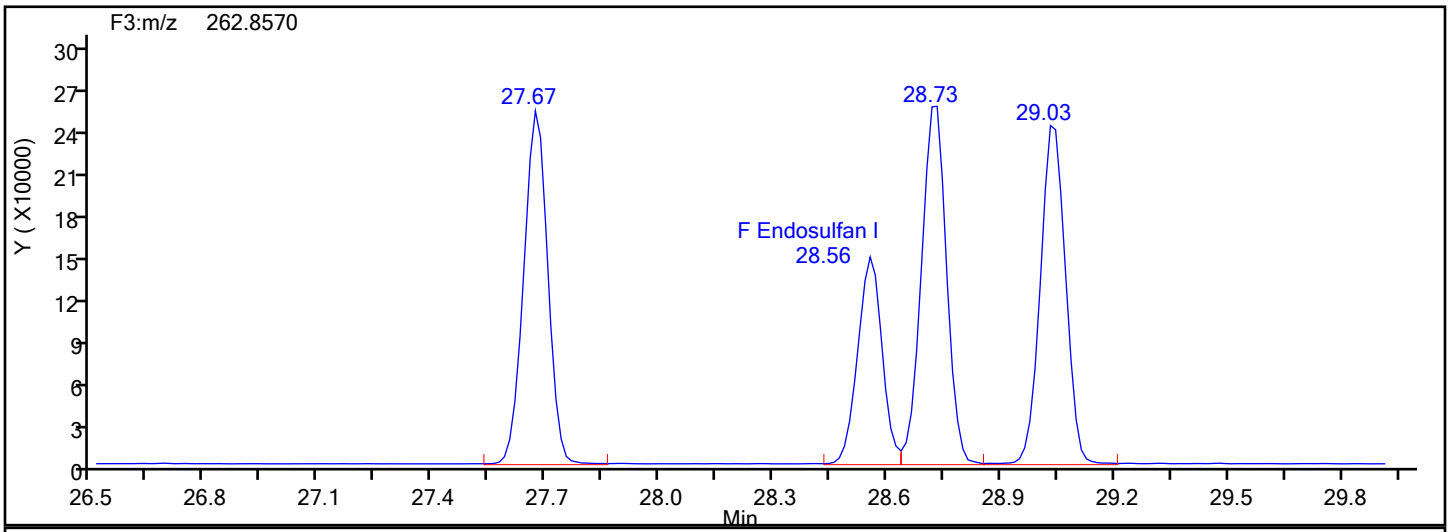
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

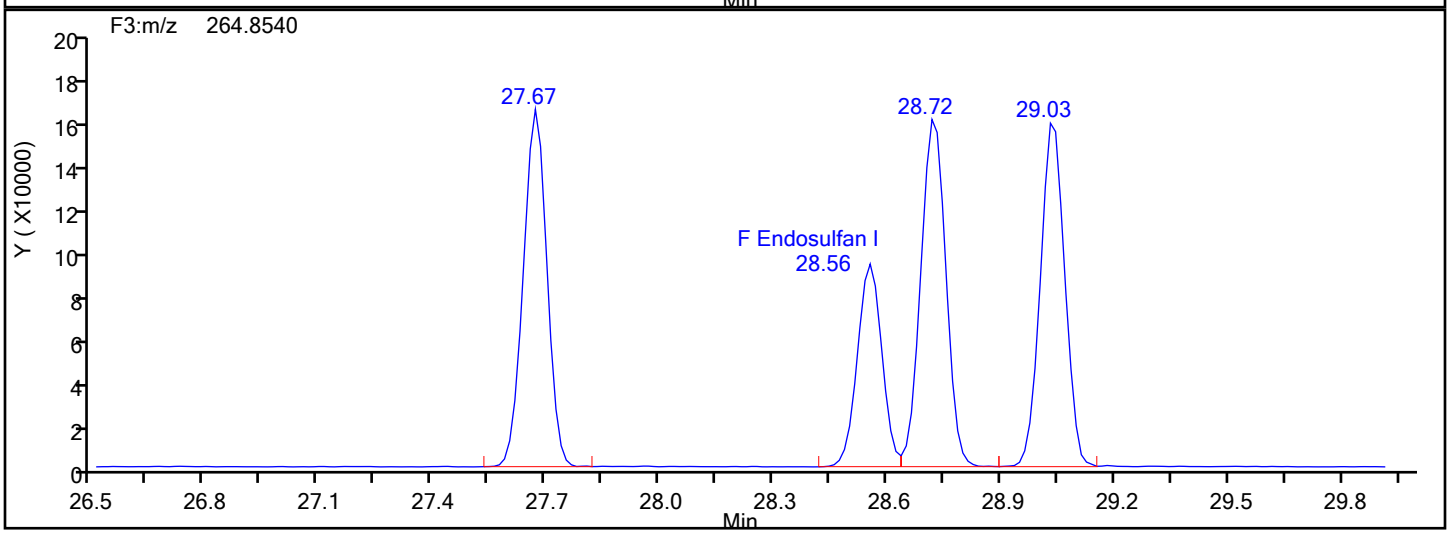
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

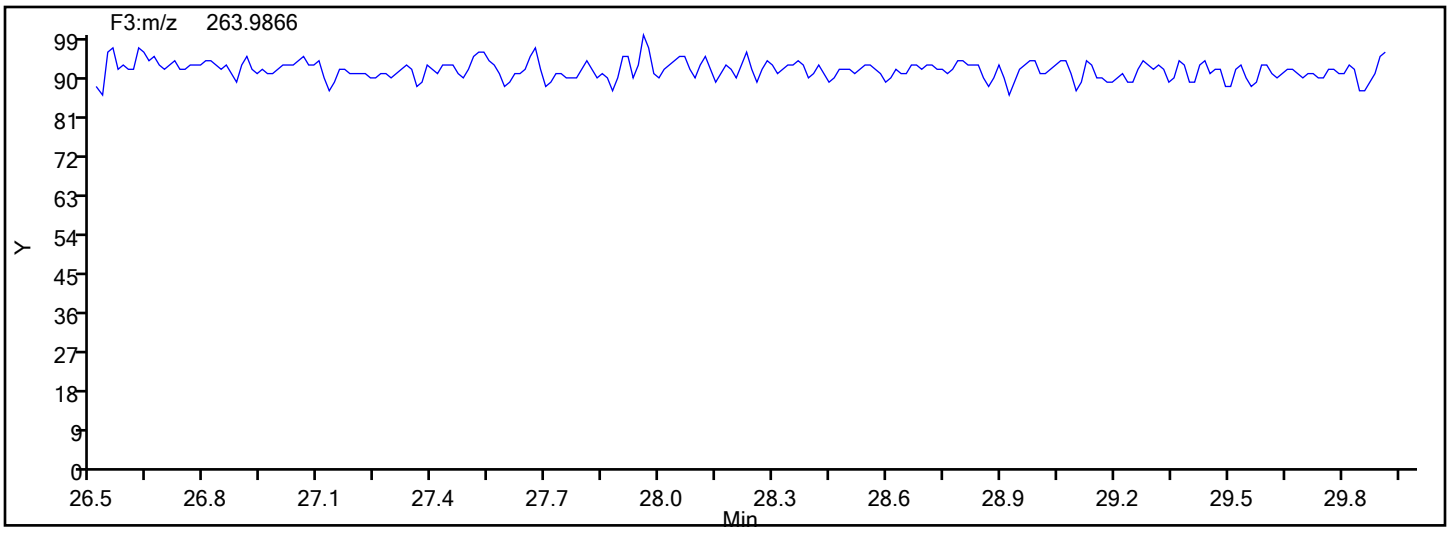
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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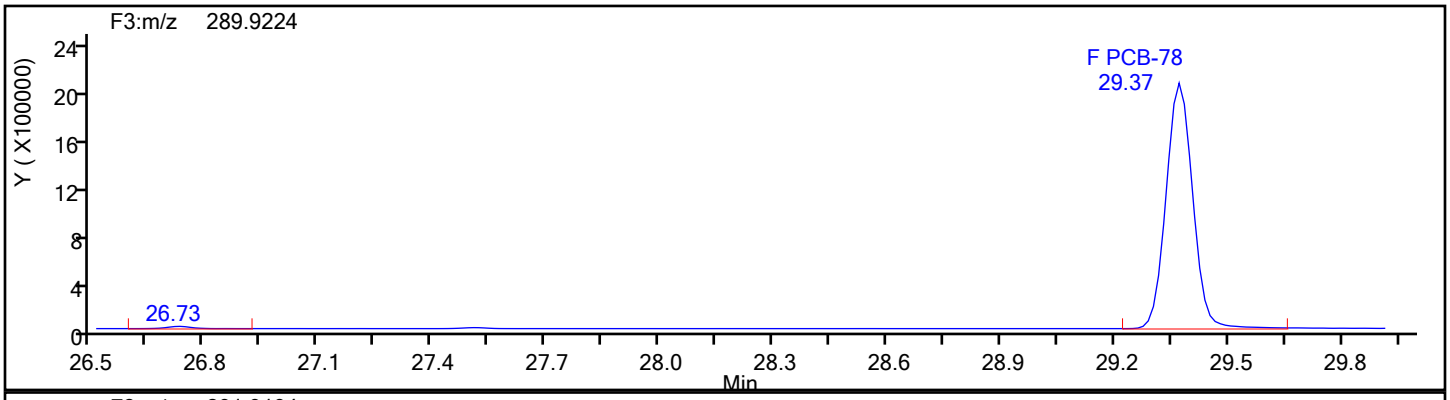
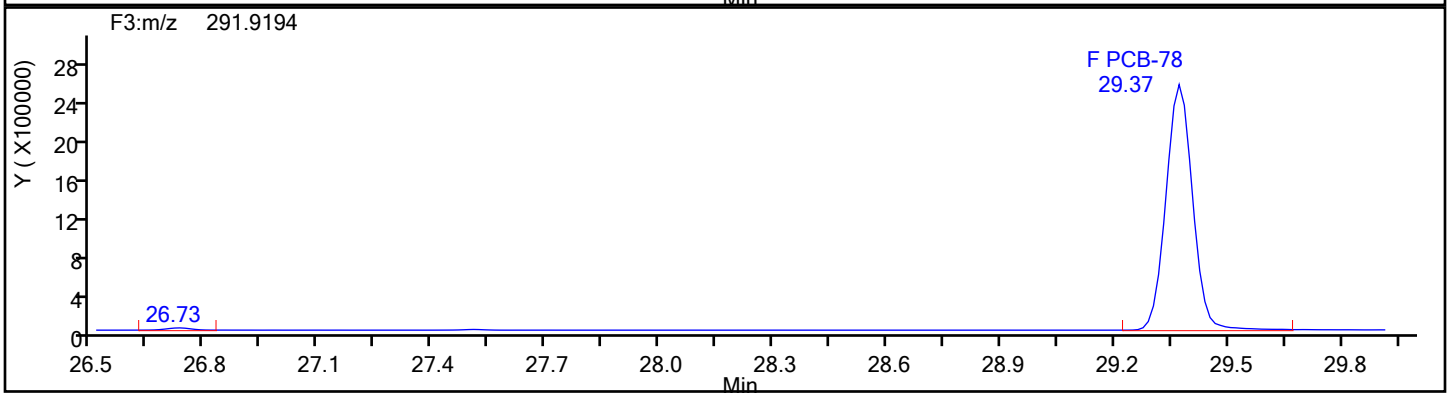
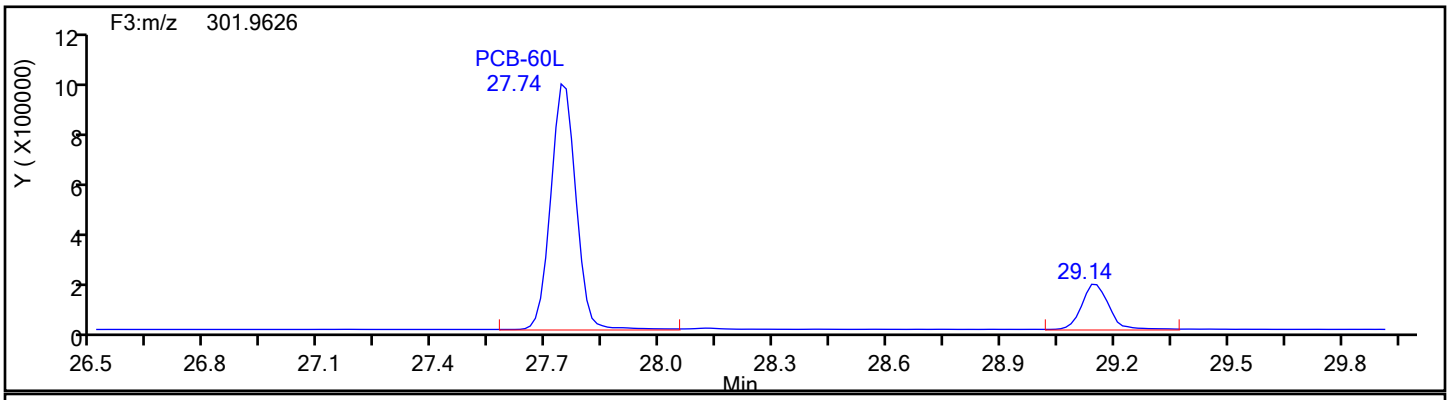
Column Type:	RTX-5	Column Dia:	0.32 mm

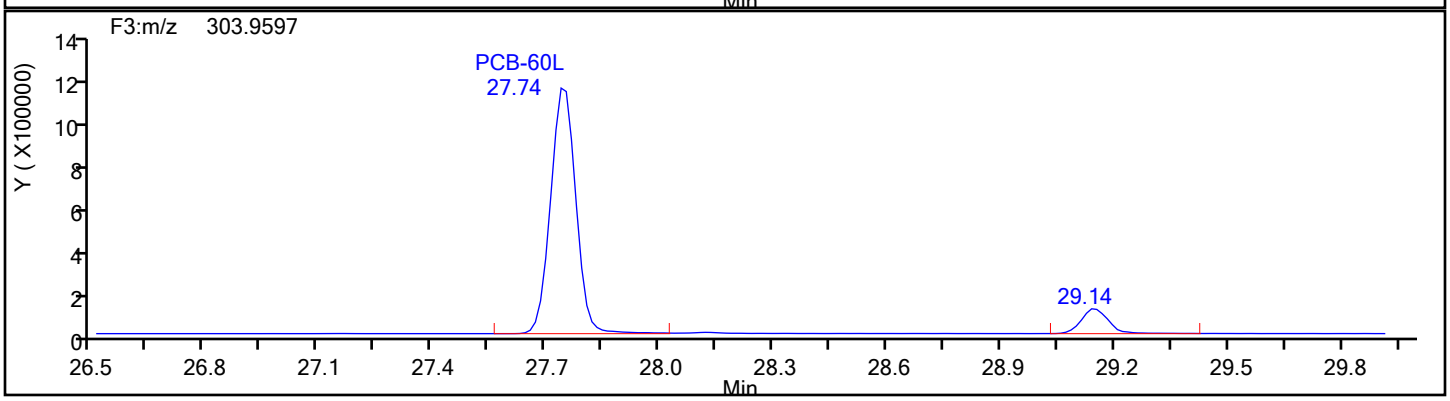
PCB-78





PCB-78 Standards



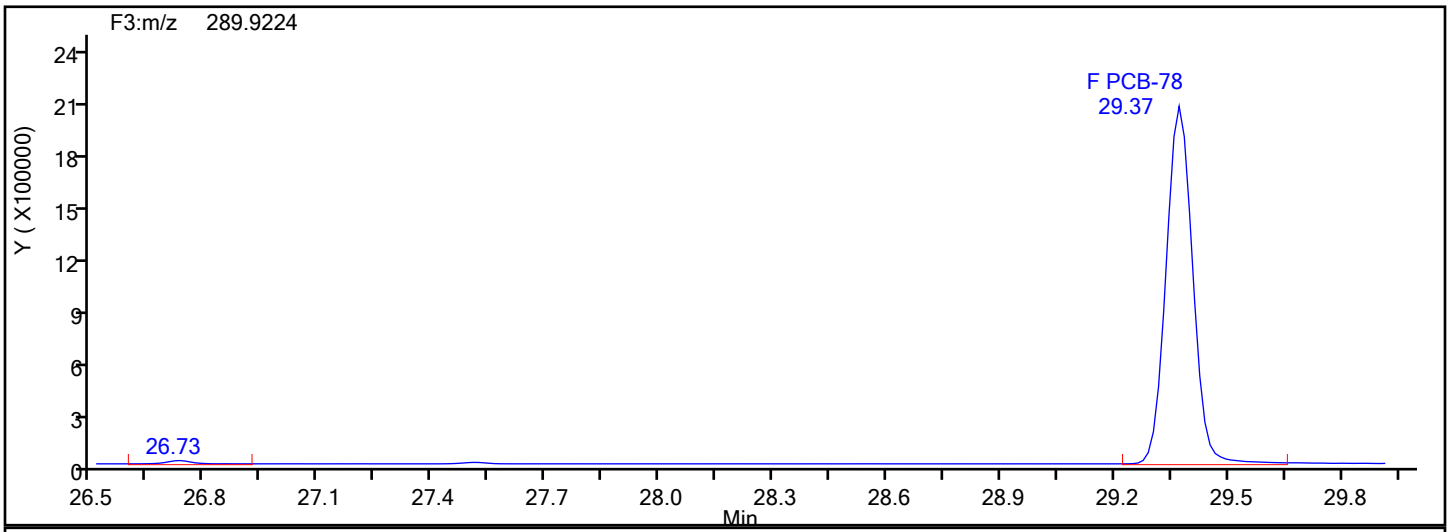


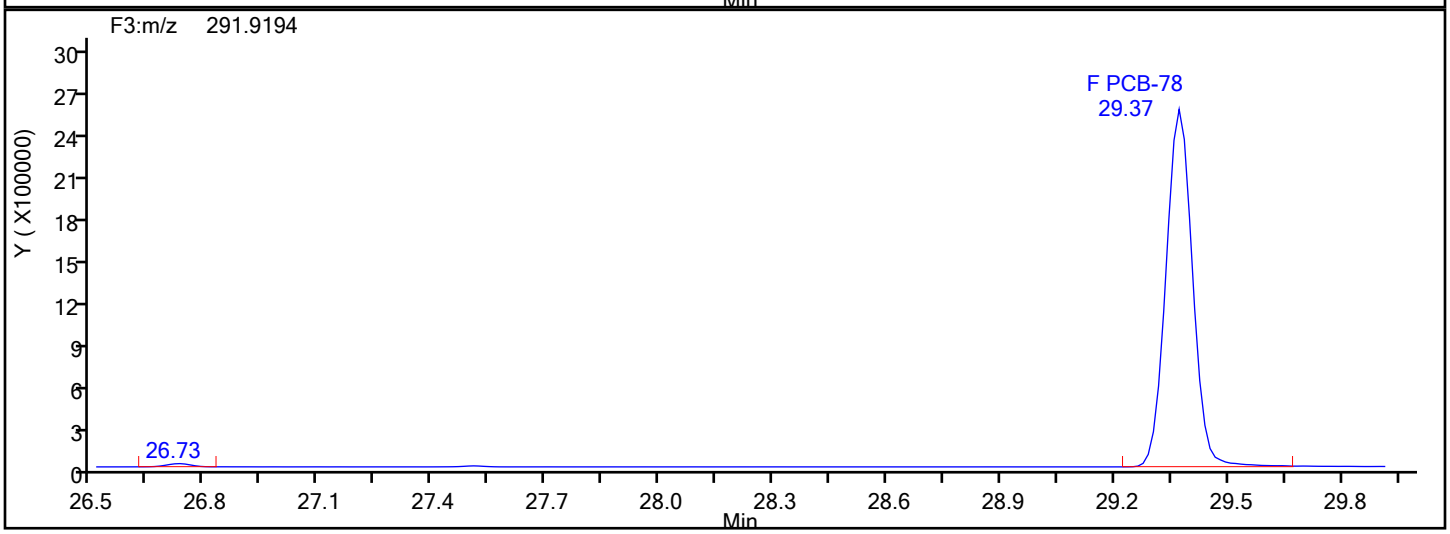
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

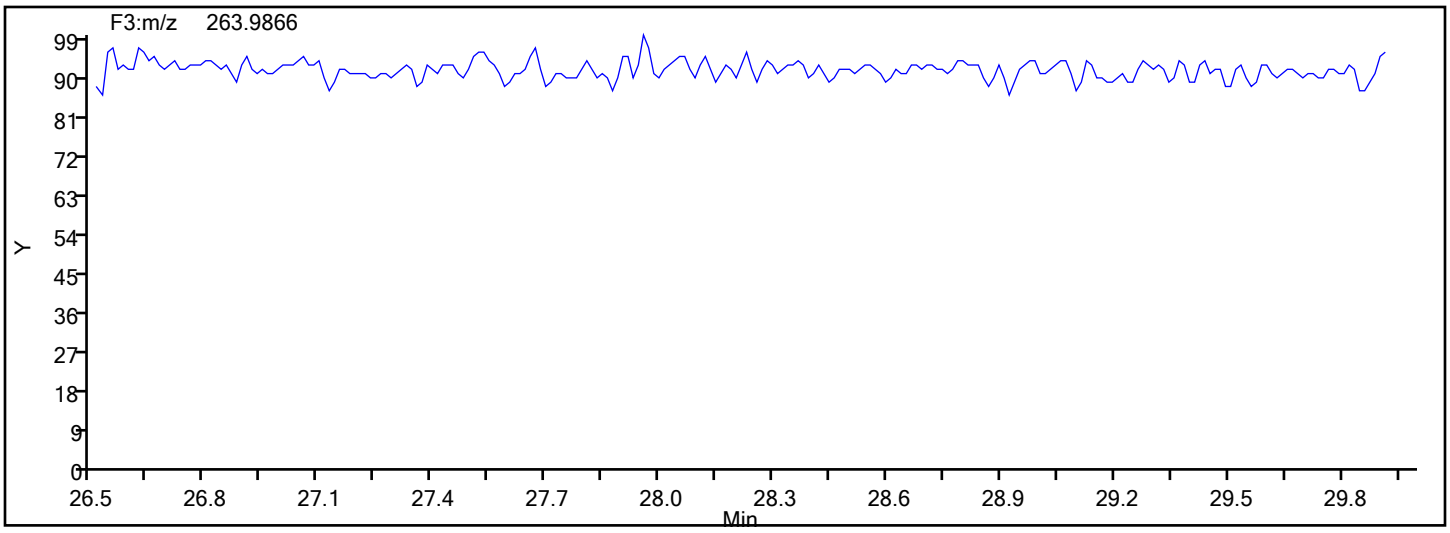
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78





PCB-78 Lock Mass



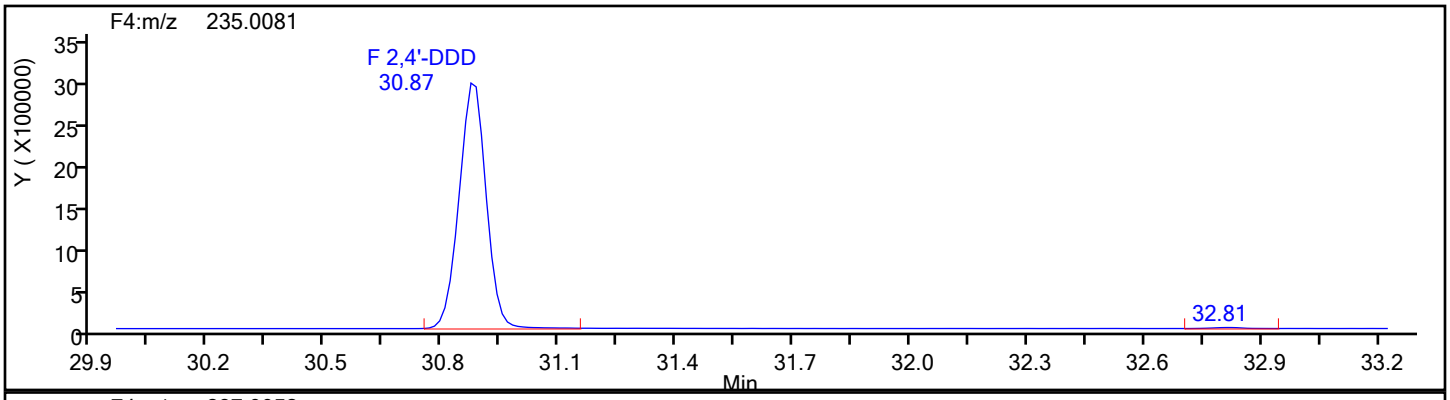
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

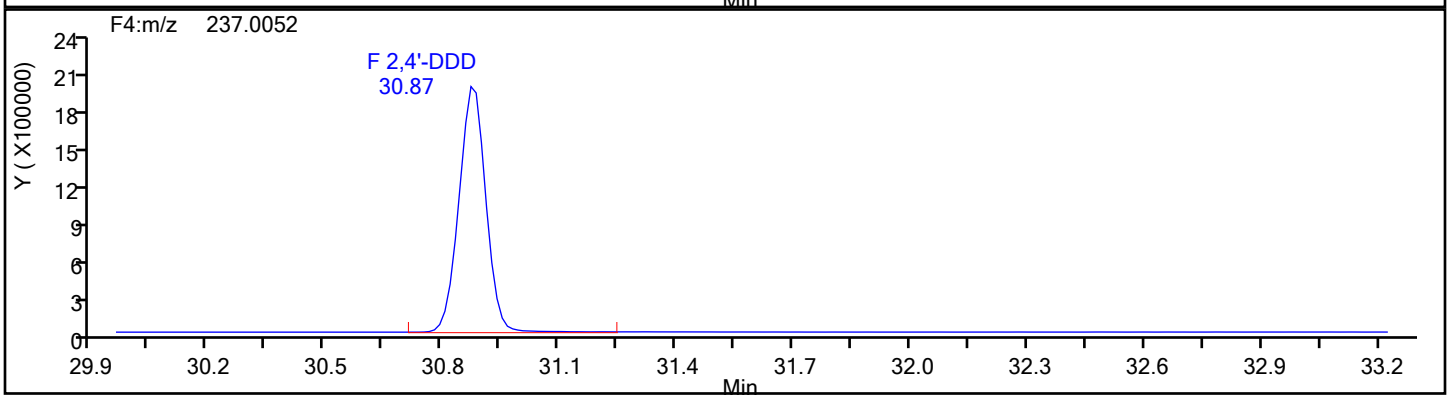
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

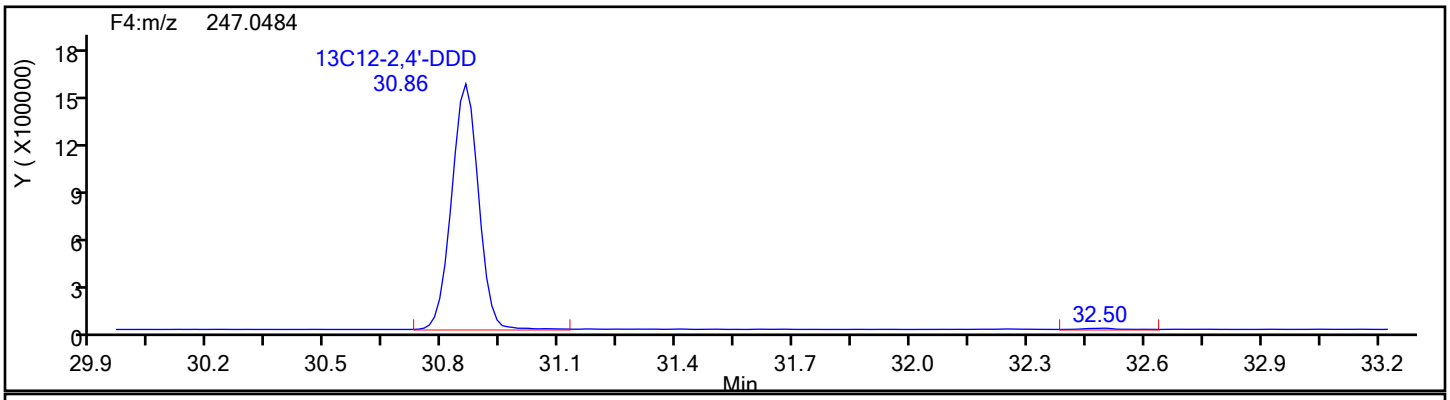
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

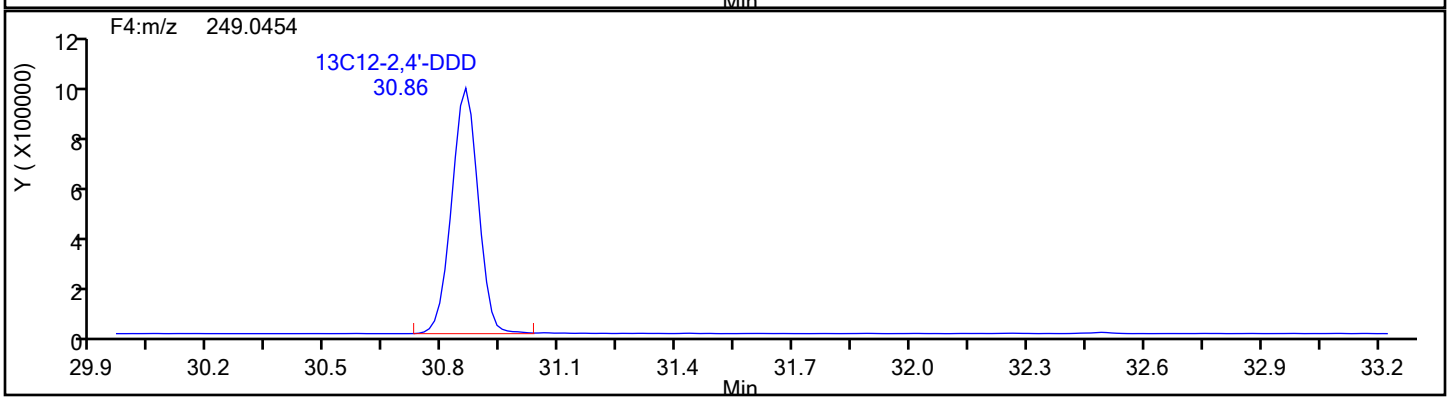
2,4'-DDD





2,4'-DDD Standards





Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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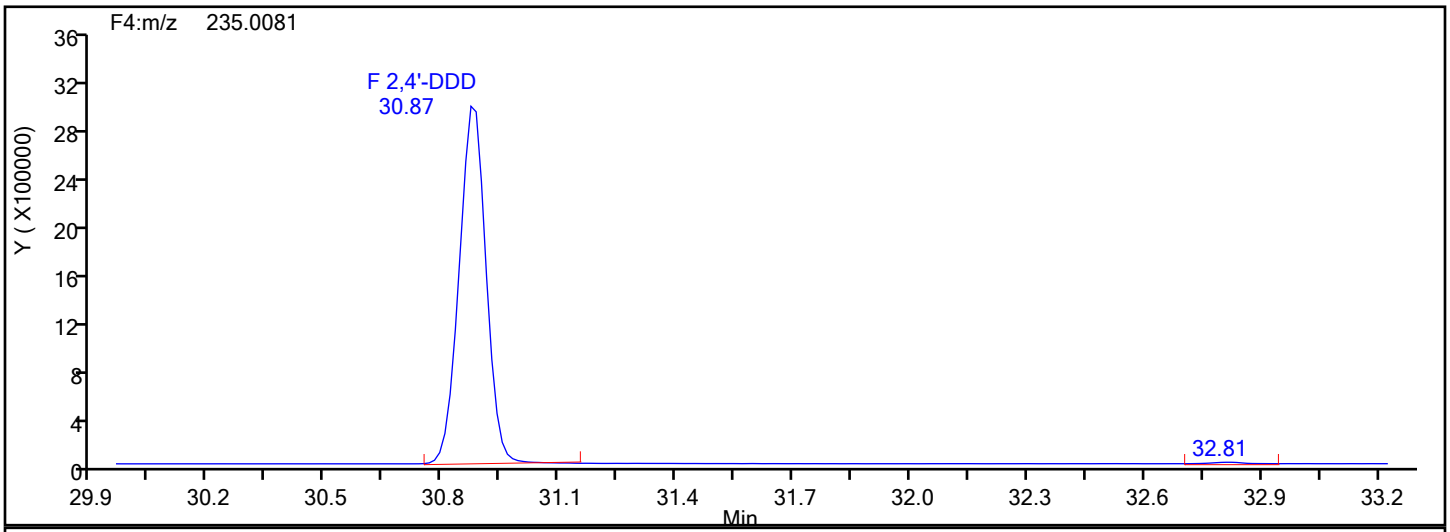
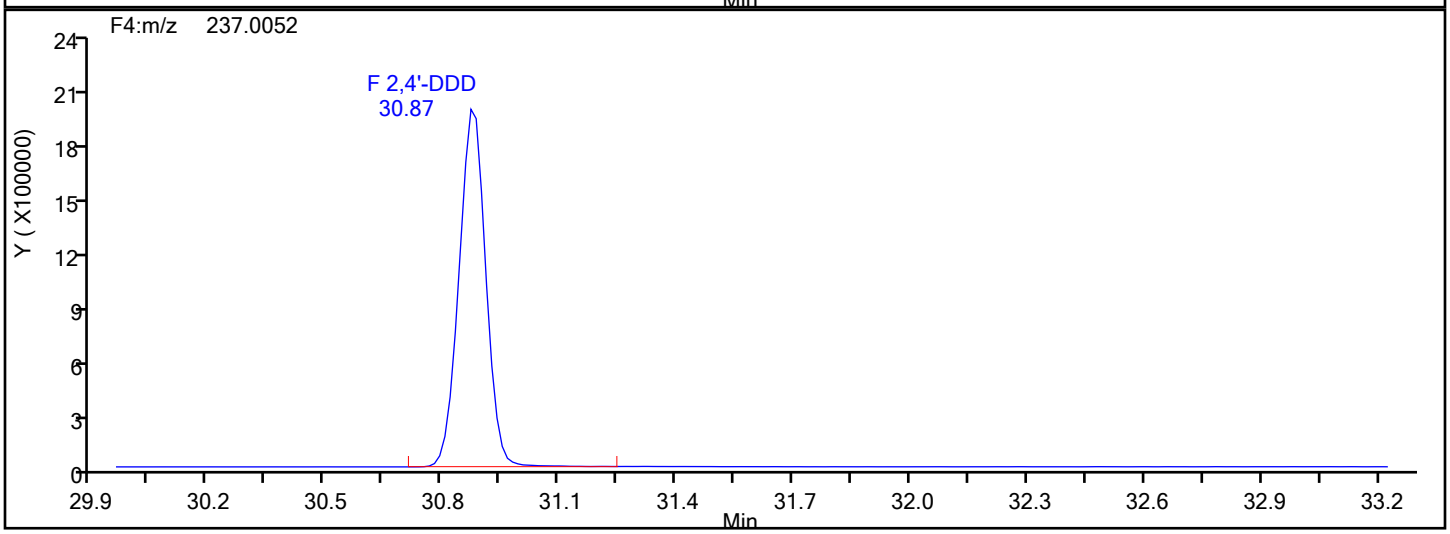
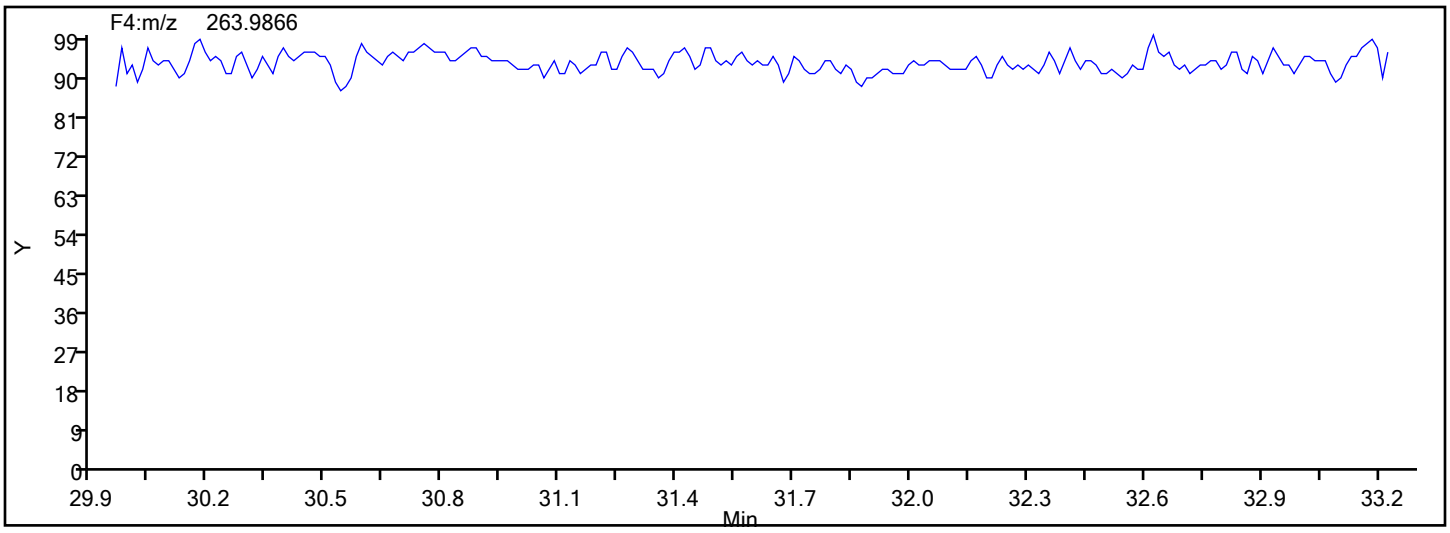
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



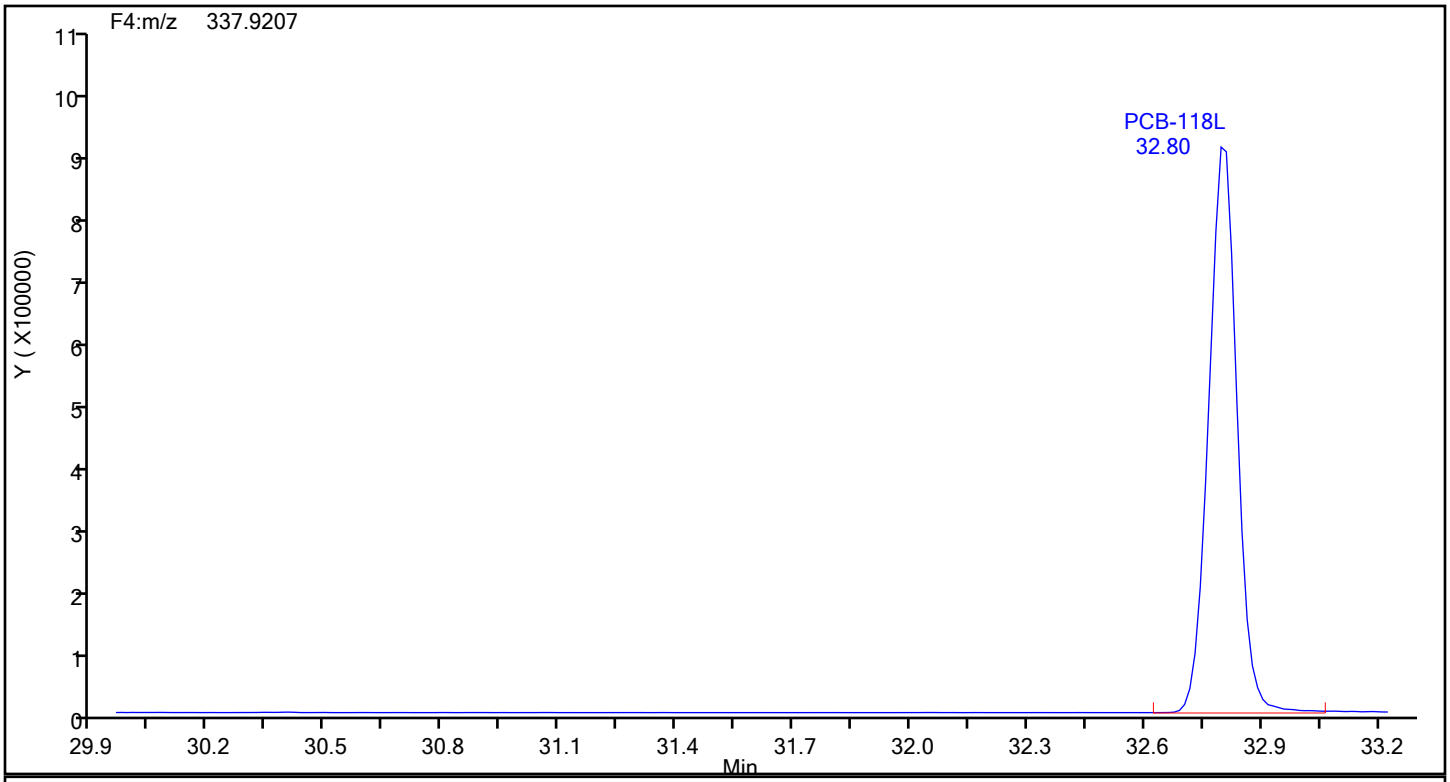
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

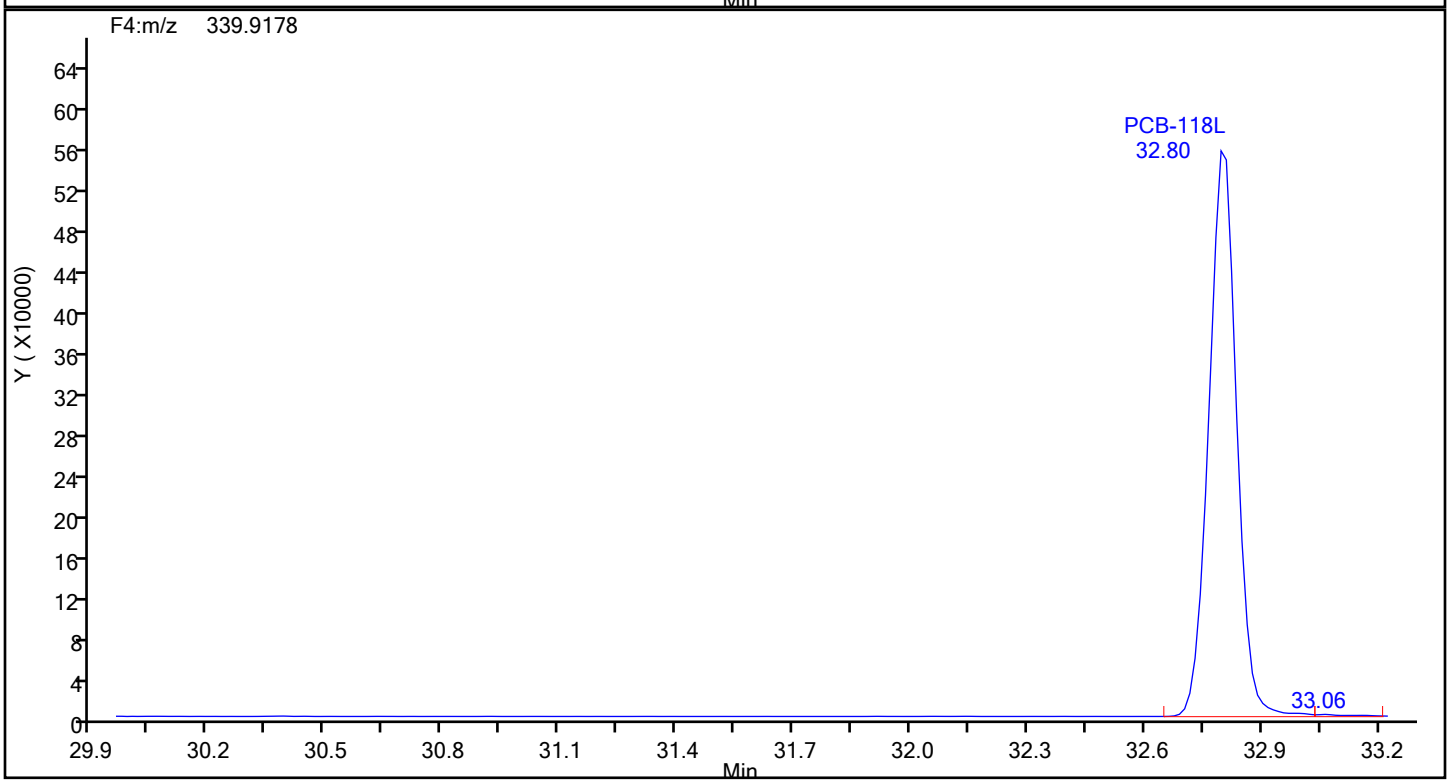
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





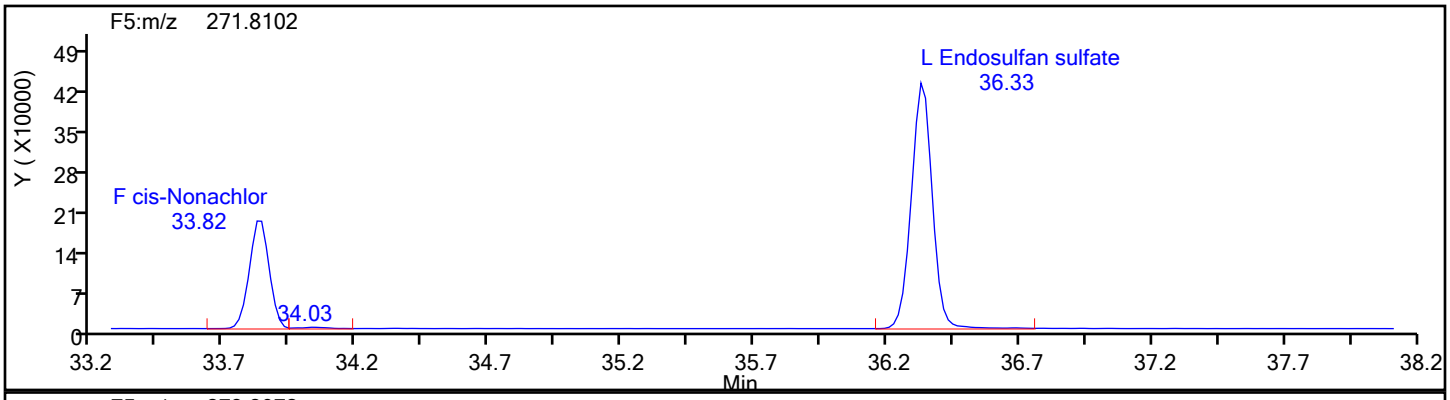
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

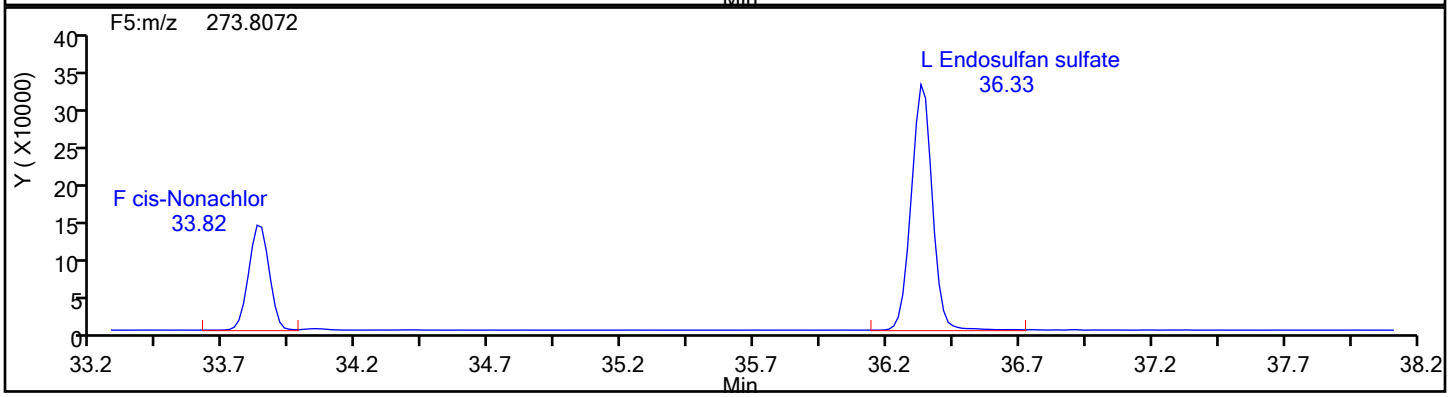
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

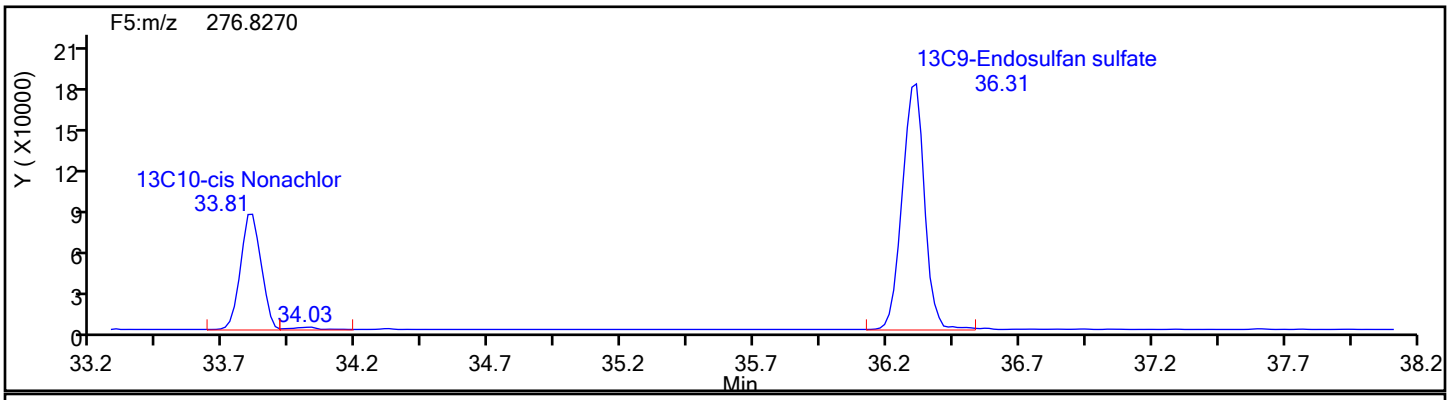
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

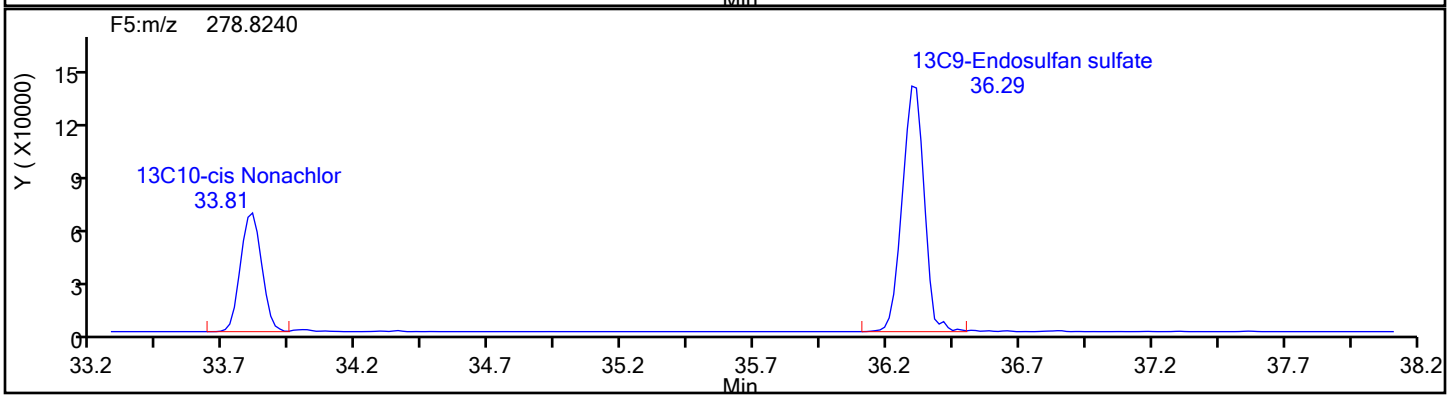
Nonachlor





Nonachlor Standards





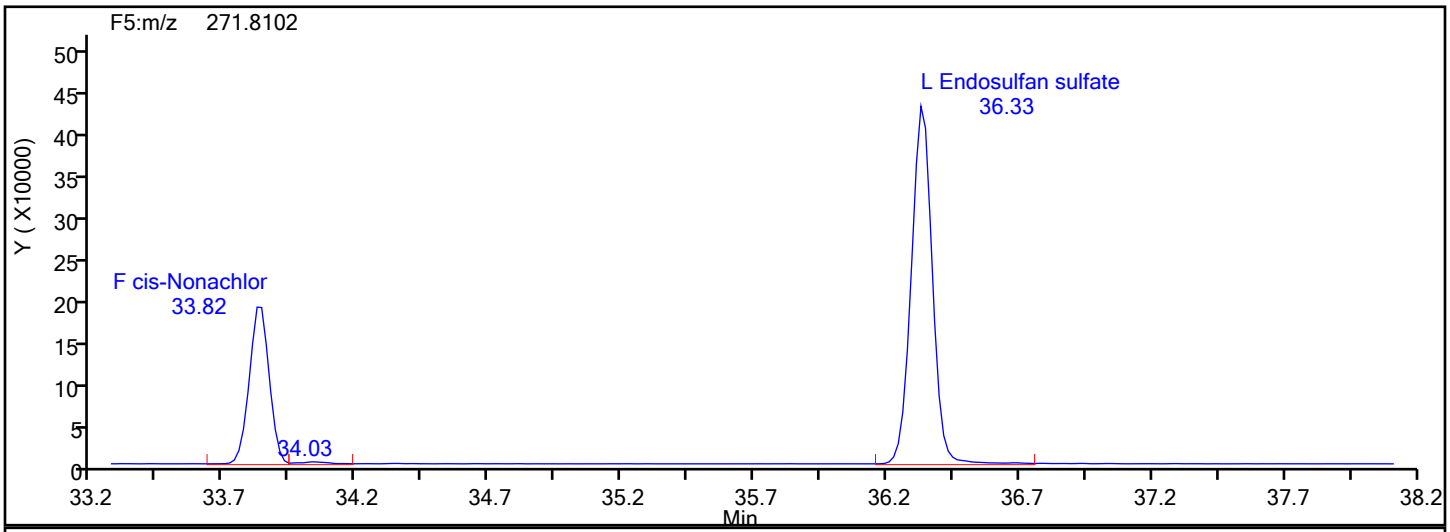
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

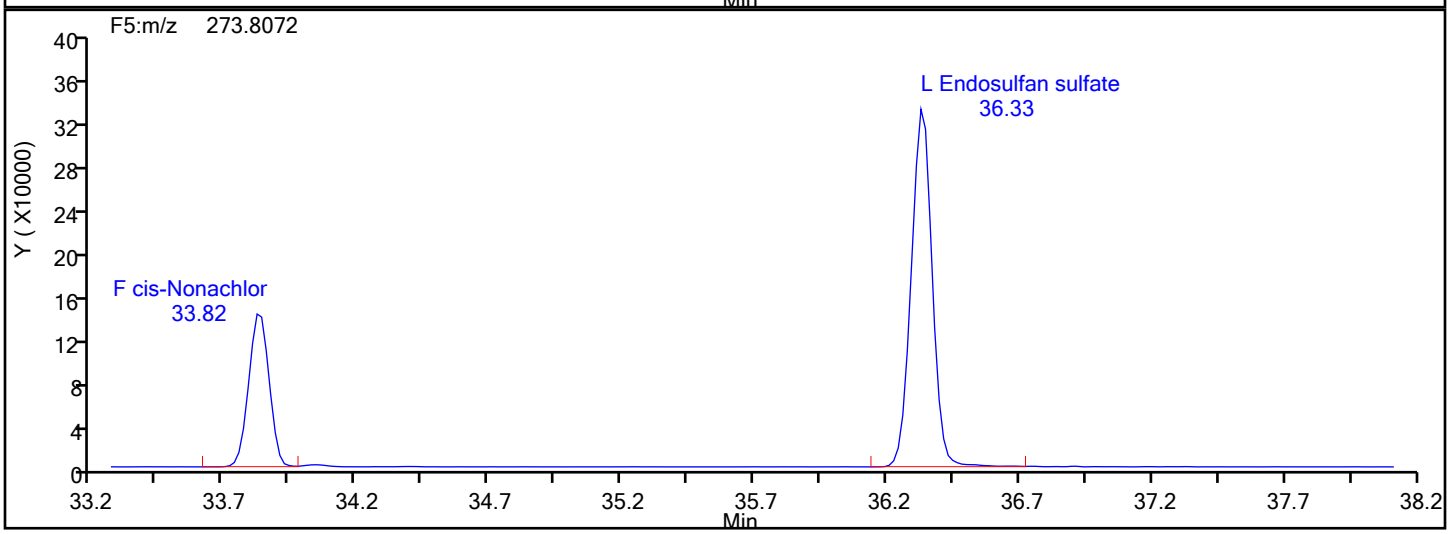
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

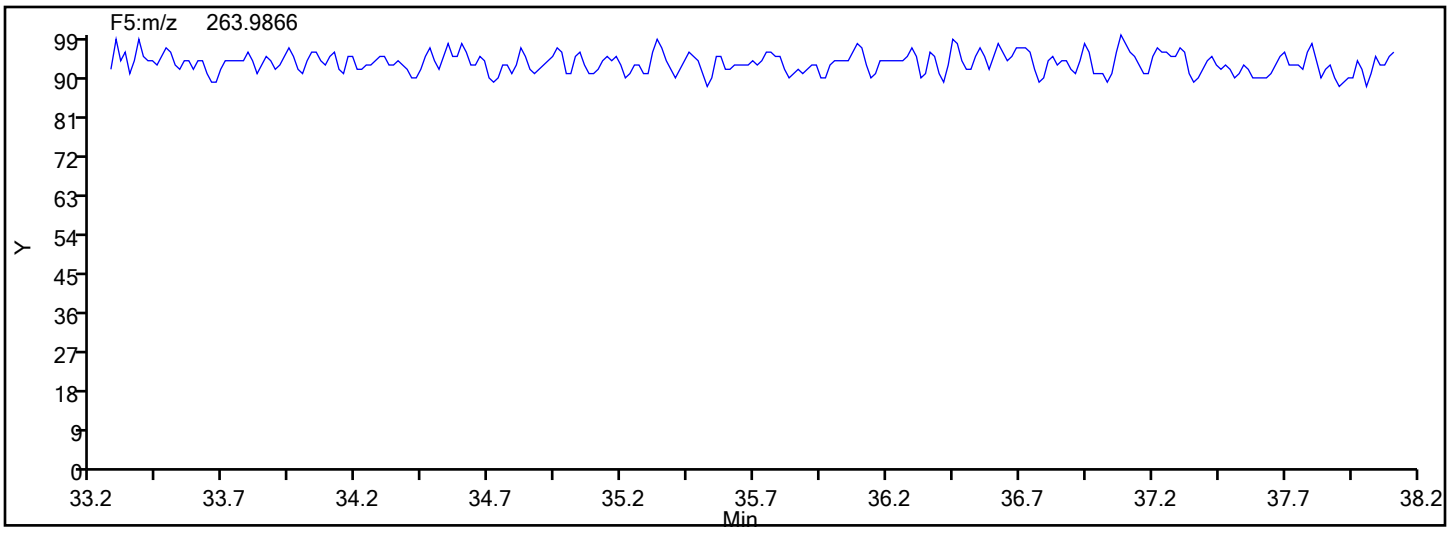
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass

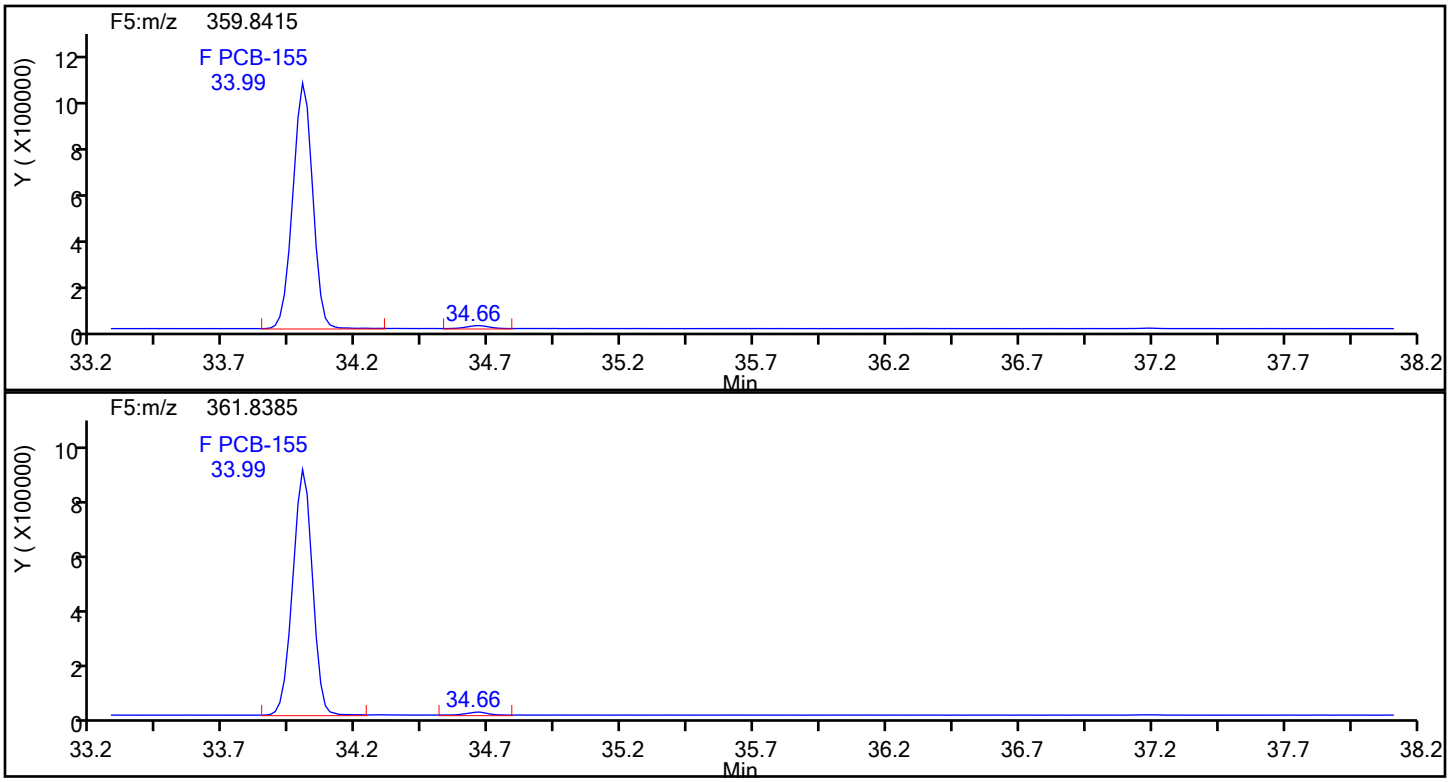


Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

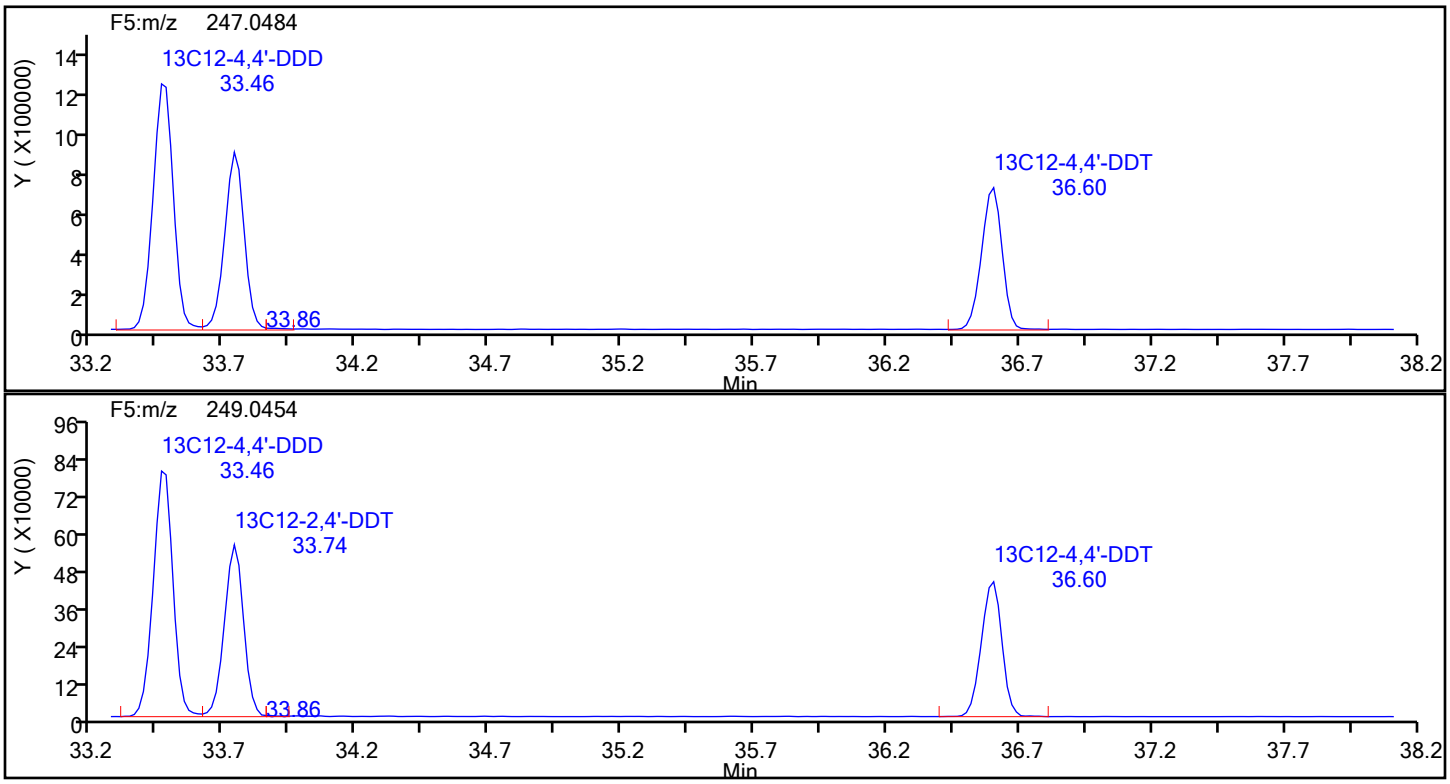
Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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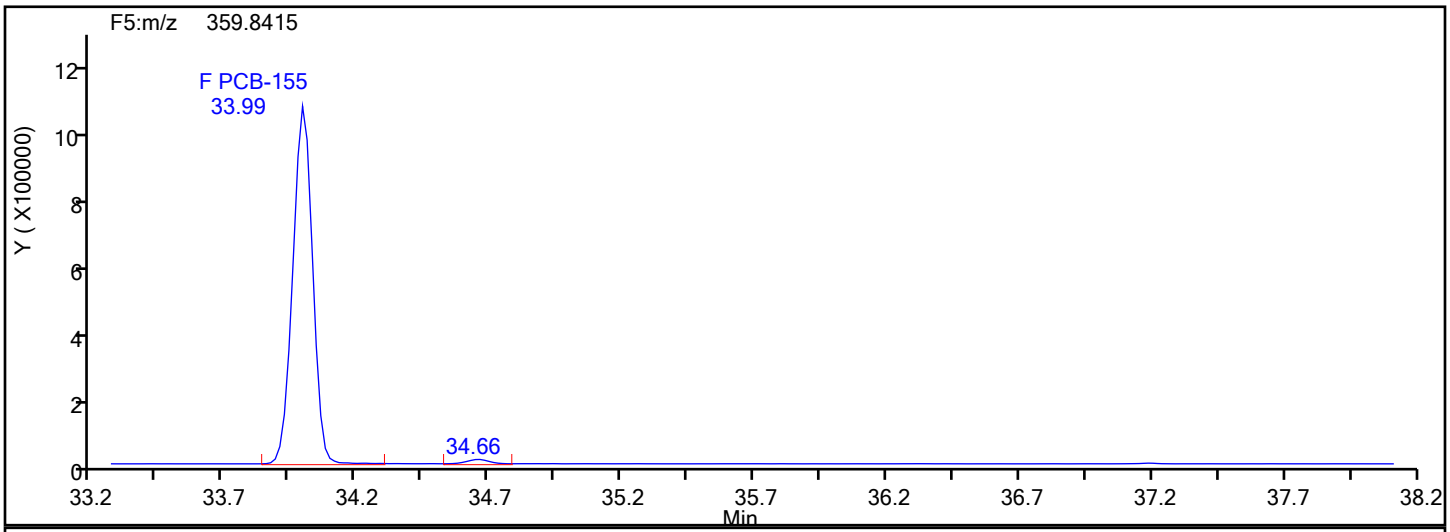
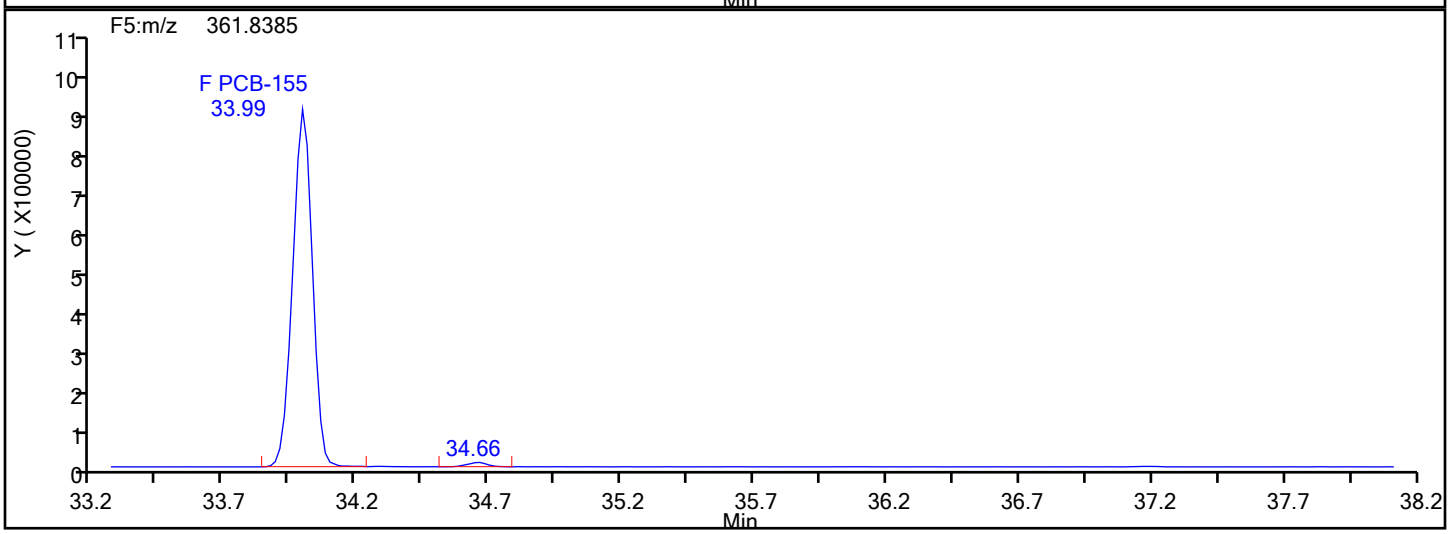
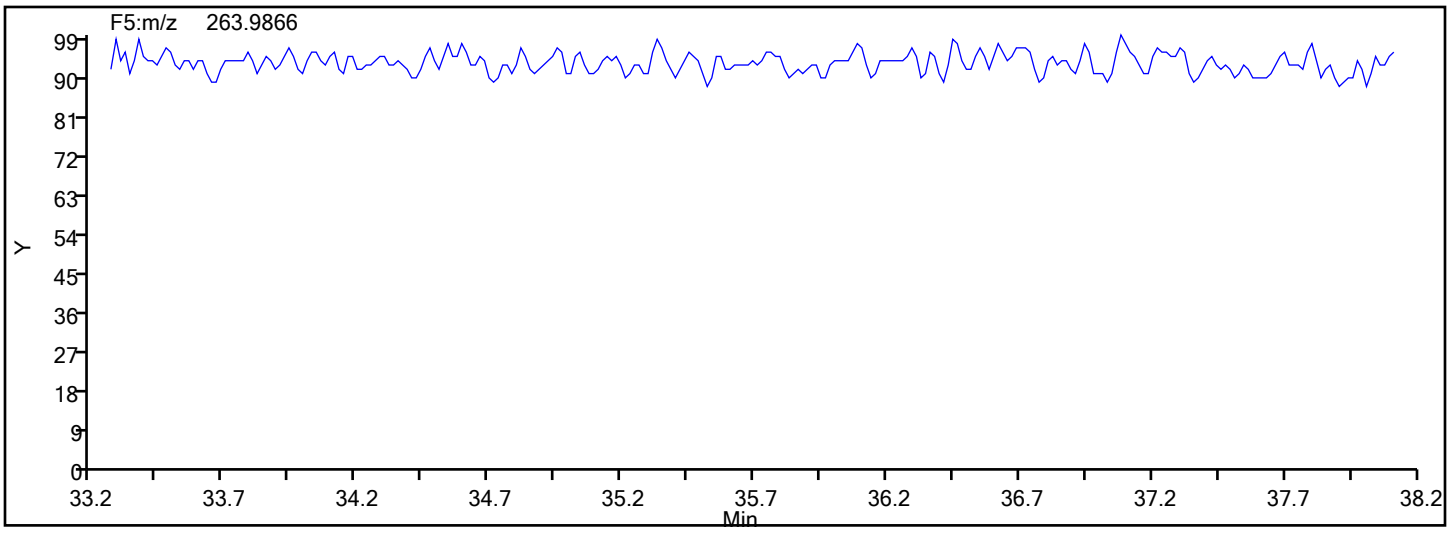
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

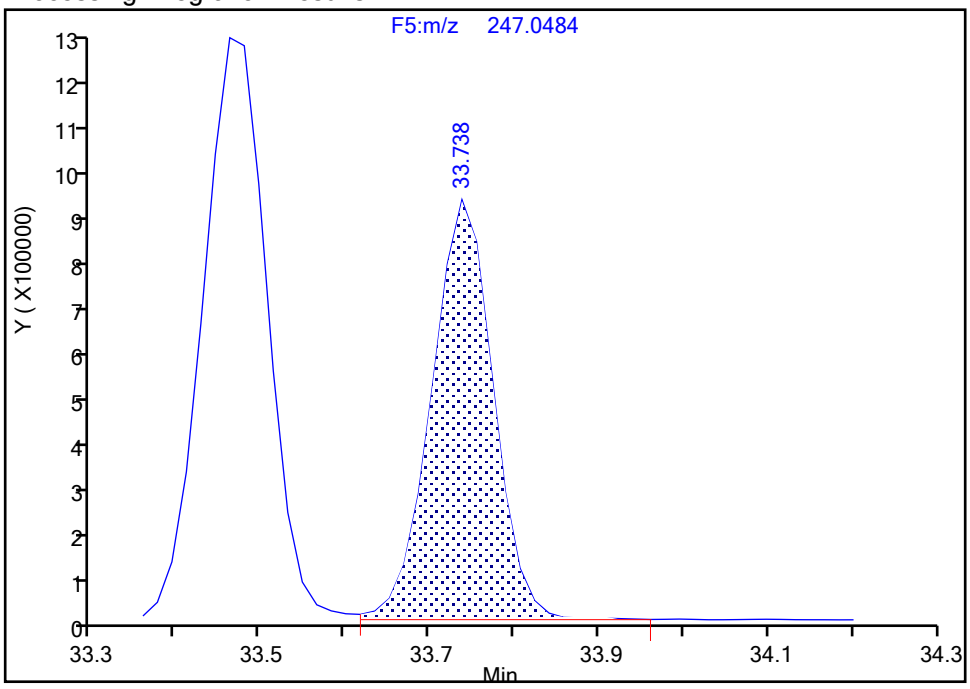
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d				
Injection Date:	28-Mar-2025 22:12:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

13C12-2,4'-DDT, CAS: STL01864

Signal: 1

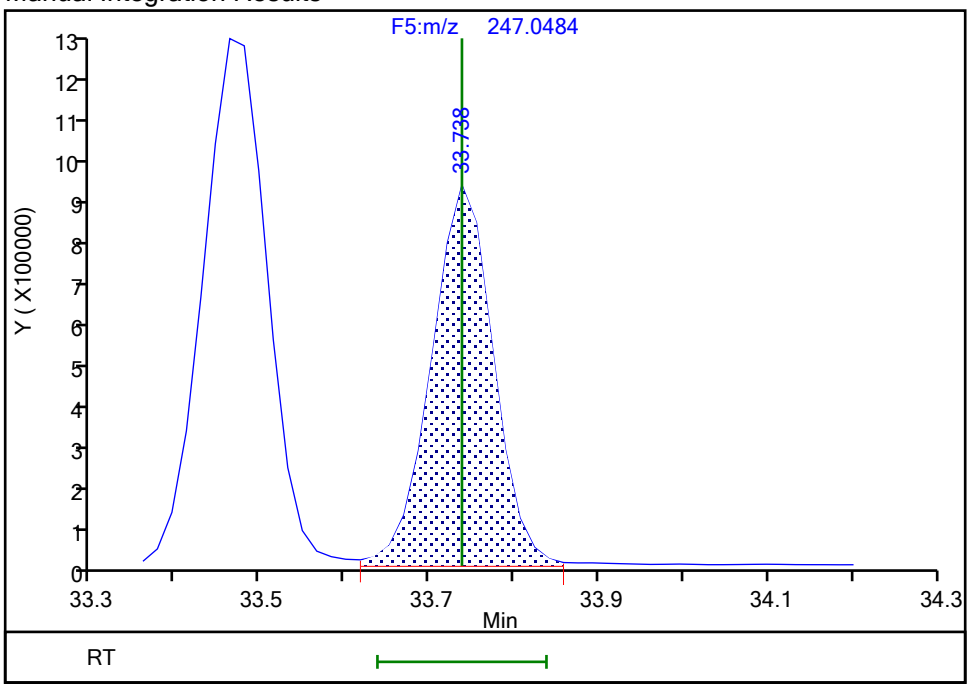
Processing Integration Results

RT: 33.74
Area: 4514766
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 4488166
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:51:57 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Knoxville

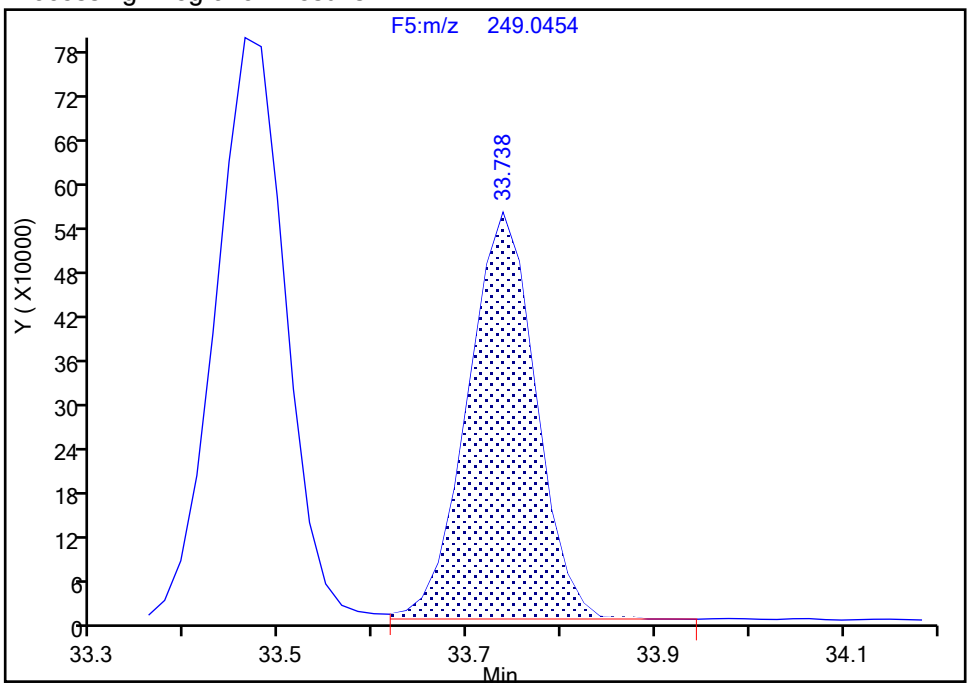
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d				
Injection Date:	28-Mar-2025 22:12:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

13C12-2,4'-DDT, CAS: STL01864

Signal: 2

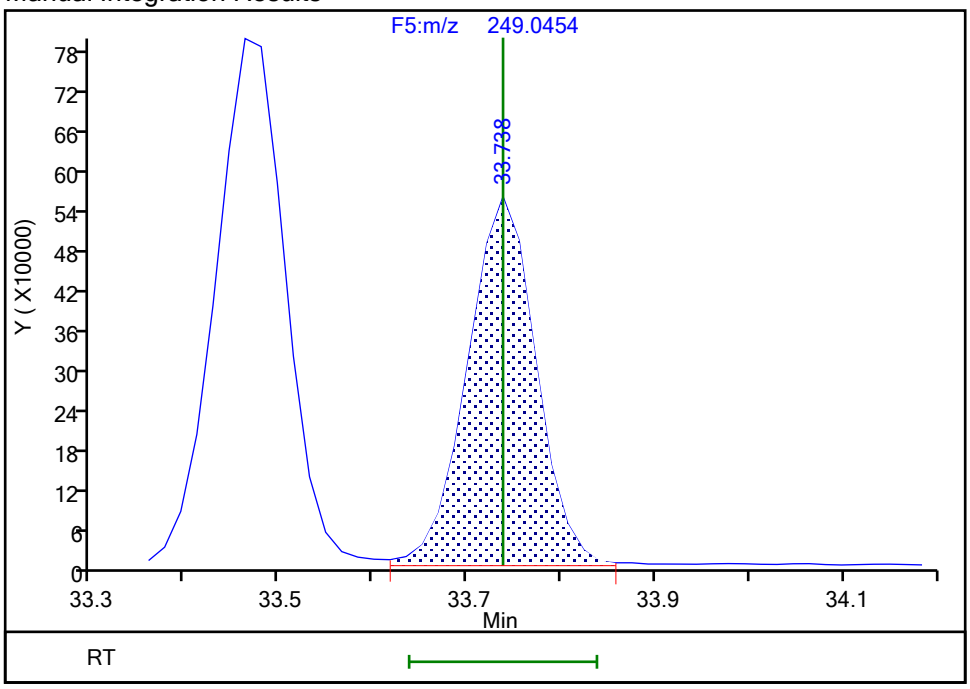
Processing Integration Results

RT: 33.74
Area: 2834957
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 2823366
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:52:01 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

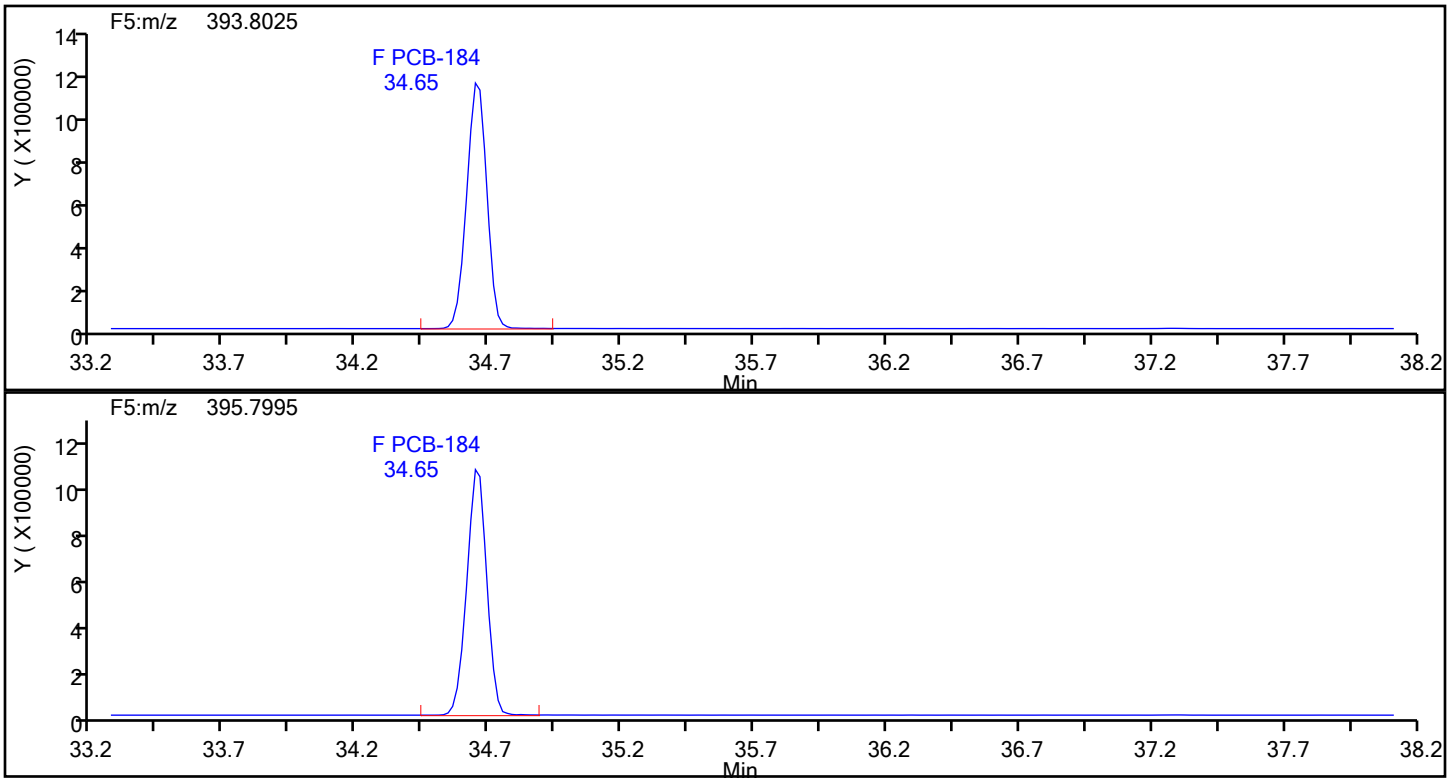
Report Date: 06-May-2025 17:46:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

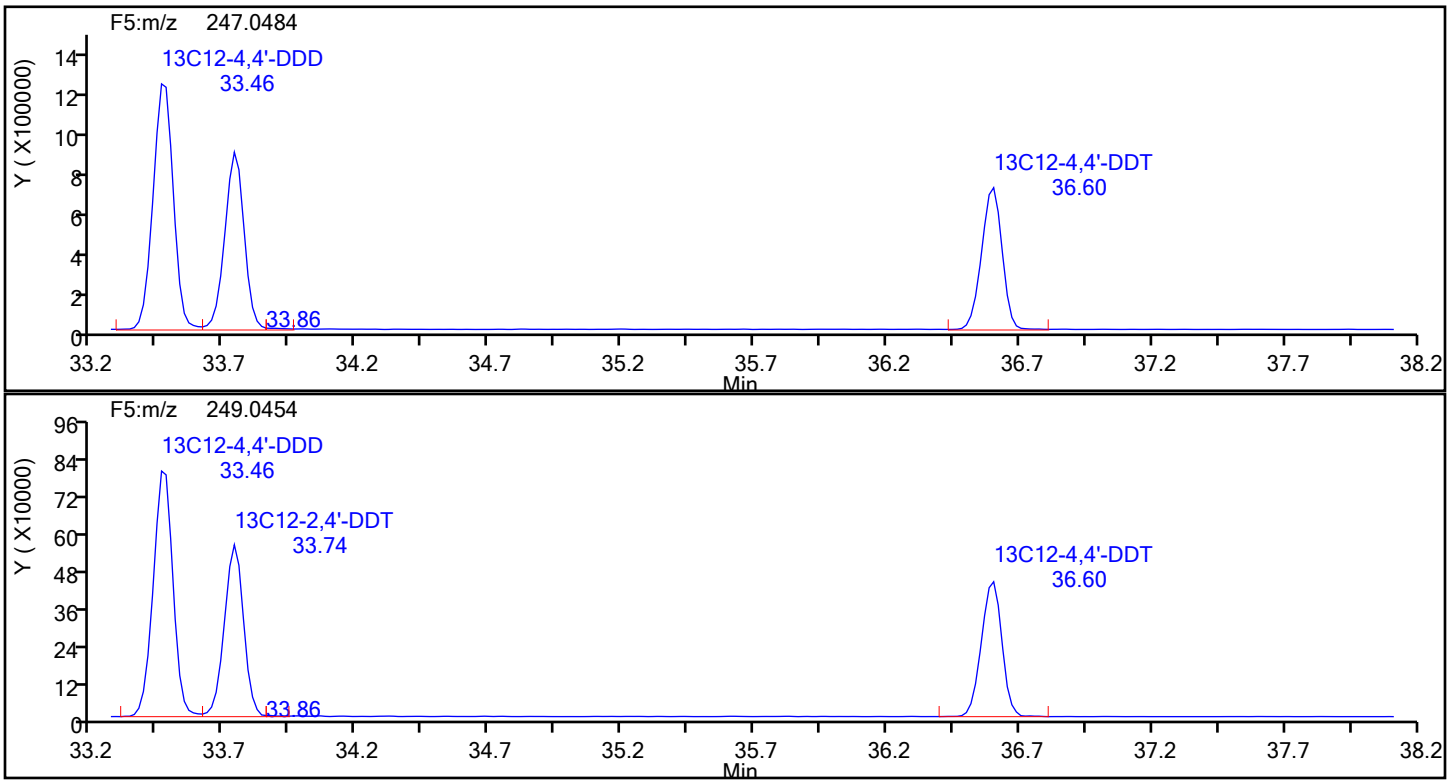
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

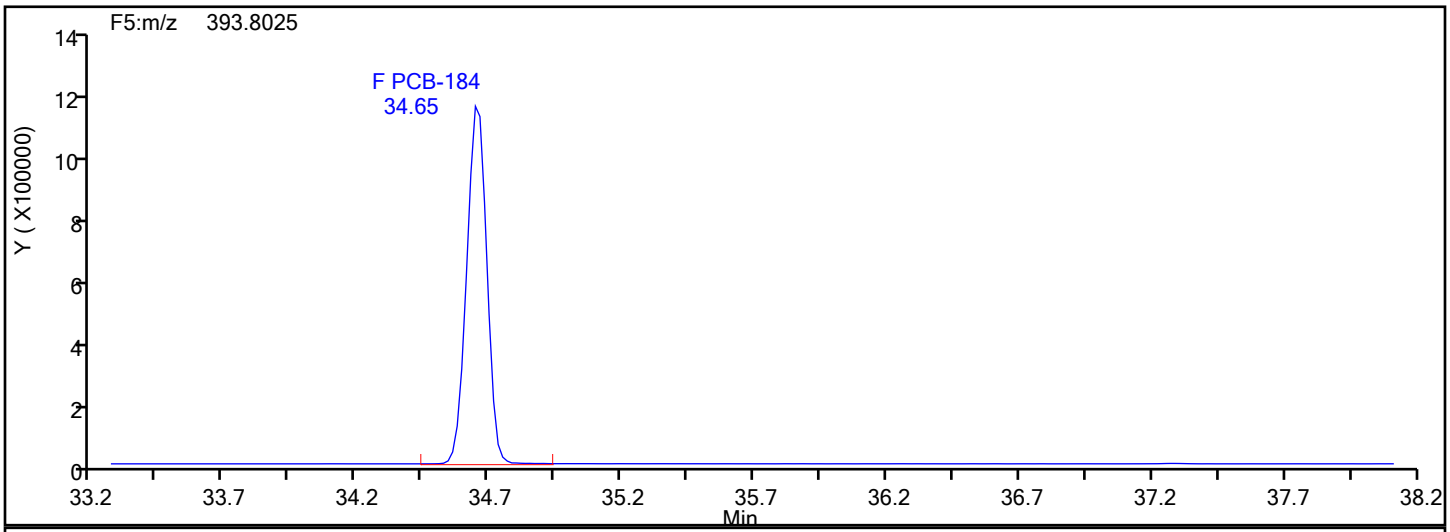


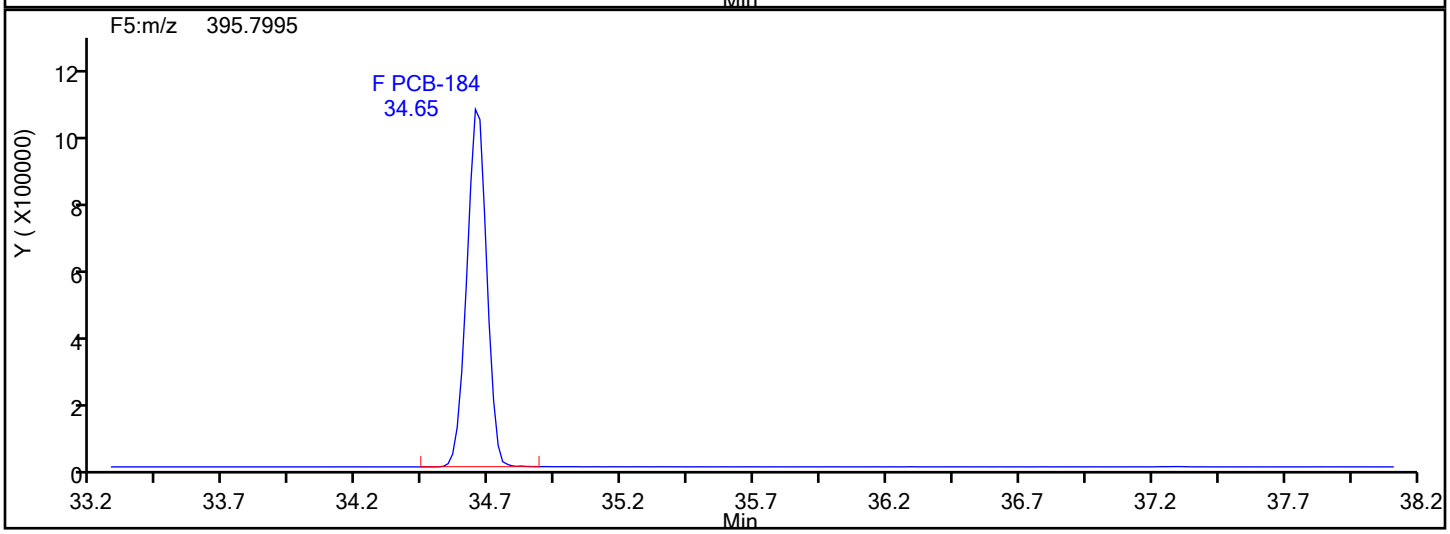
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

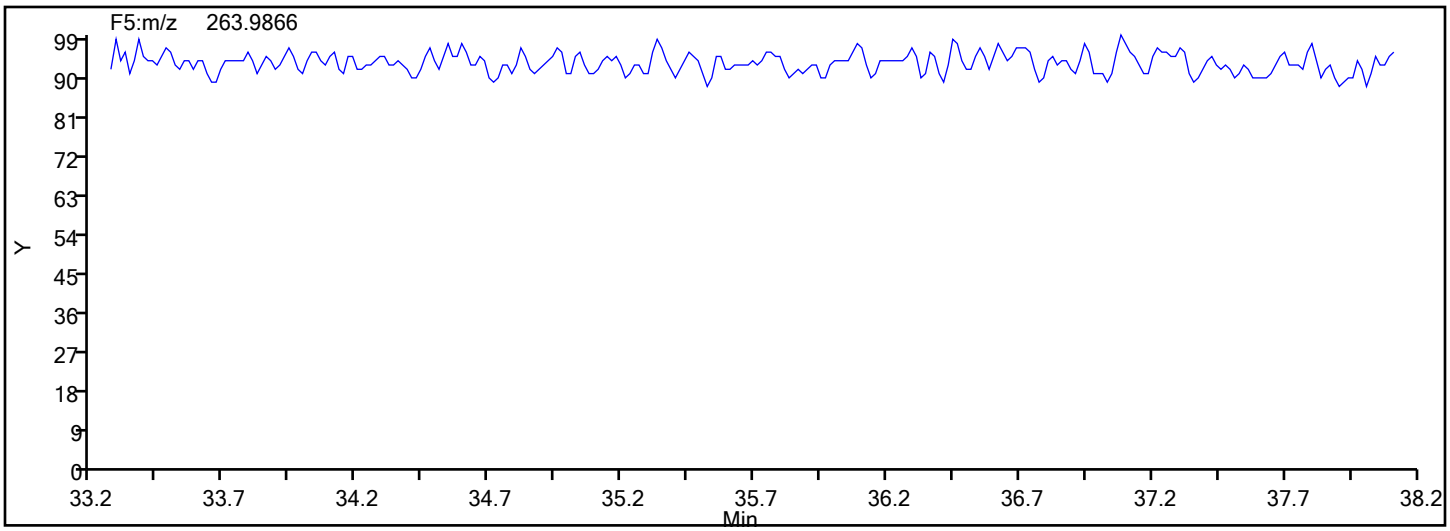
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

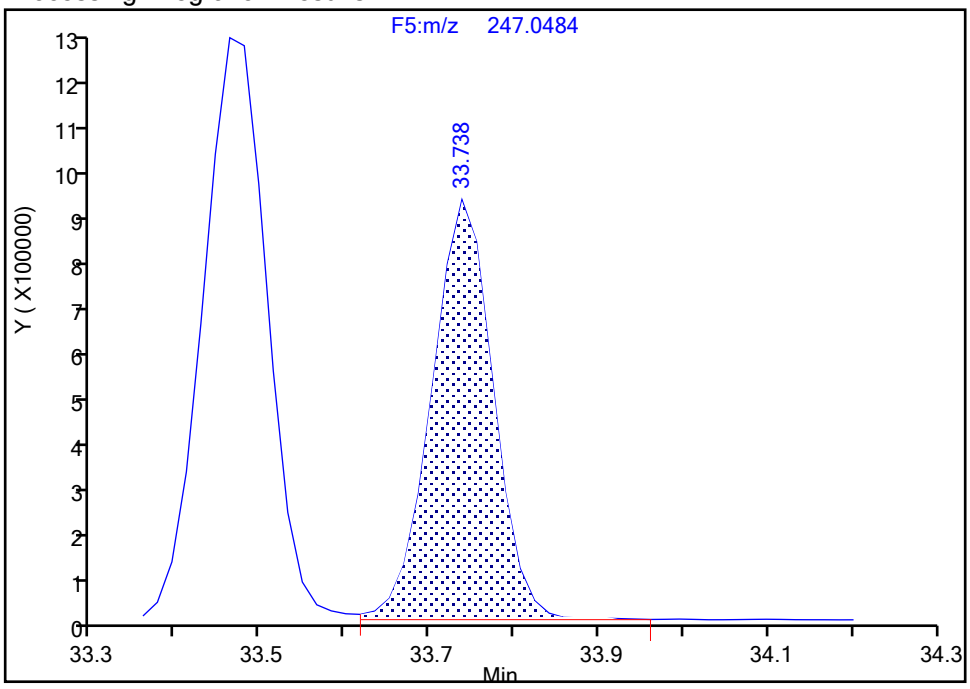
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d				
Injection Date:	28-Mar-2025 22:12:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

13C12-2,4'-DDT, CAS: STL01864

Signal: 1

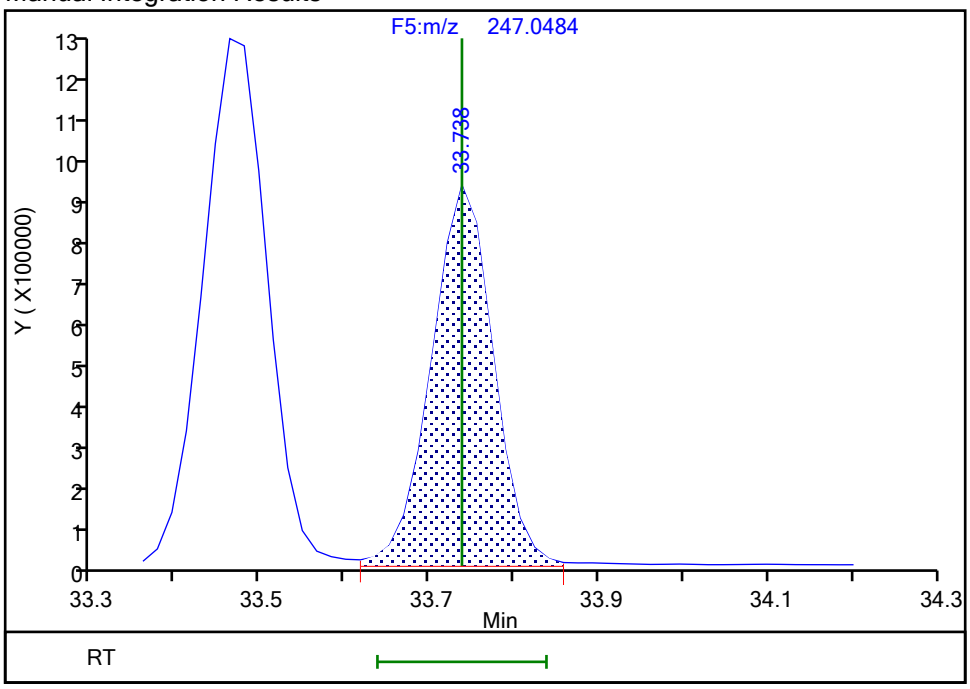
Processing Integration Results

RT: 33.74
Area: 4514766
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 4488166
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:51:57 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Knoxville

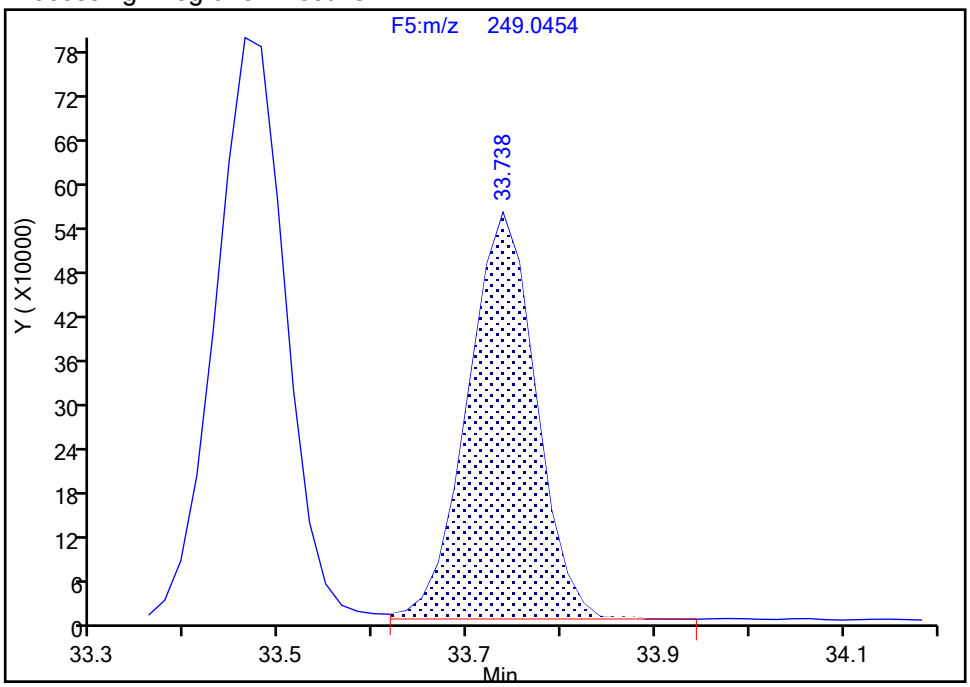
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d				
Injection Date:	28-Mar-2025 22:12:00	Instrument ID:	D3PST		
Lims ID:	CCV				
Client ID:					
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL		
Column:	RTX-5 (0.32 mm)	Detector	F5(33.27 :38.10)		

13C12-2,4'-DDT, CAS: STL01864

Signal: 2

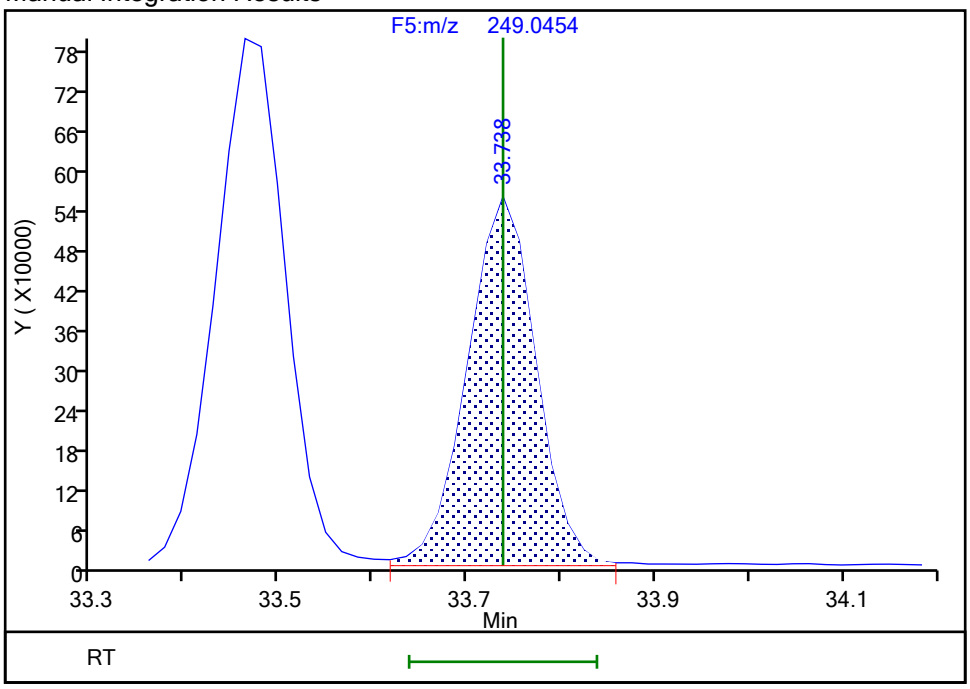
Processing Integration Results

RT: 33.74
Area: 2834957
Amount: 151.5757
Amount Units: pg/ul



Manual Integration Results

RT: 33.74
Area: 2823366
Amount: 150.7881
Amount Units: pg/ul



Reviewer: F9EE, 30-Mar-2025 12:52:01 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

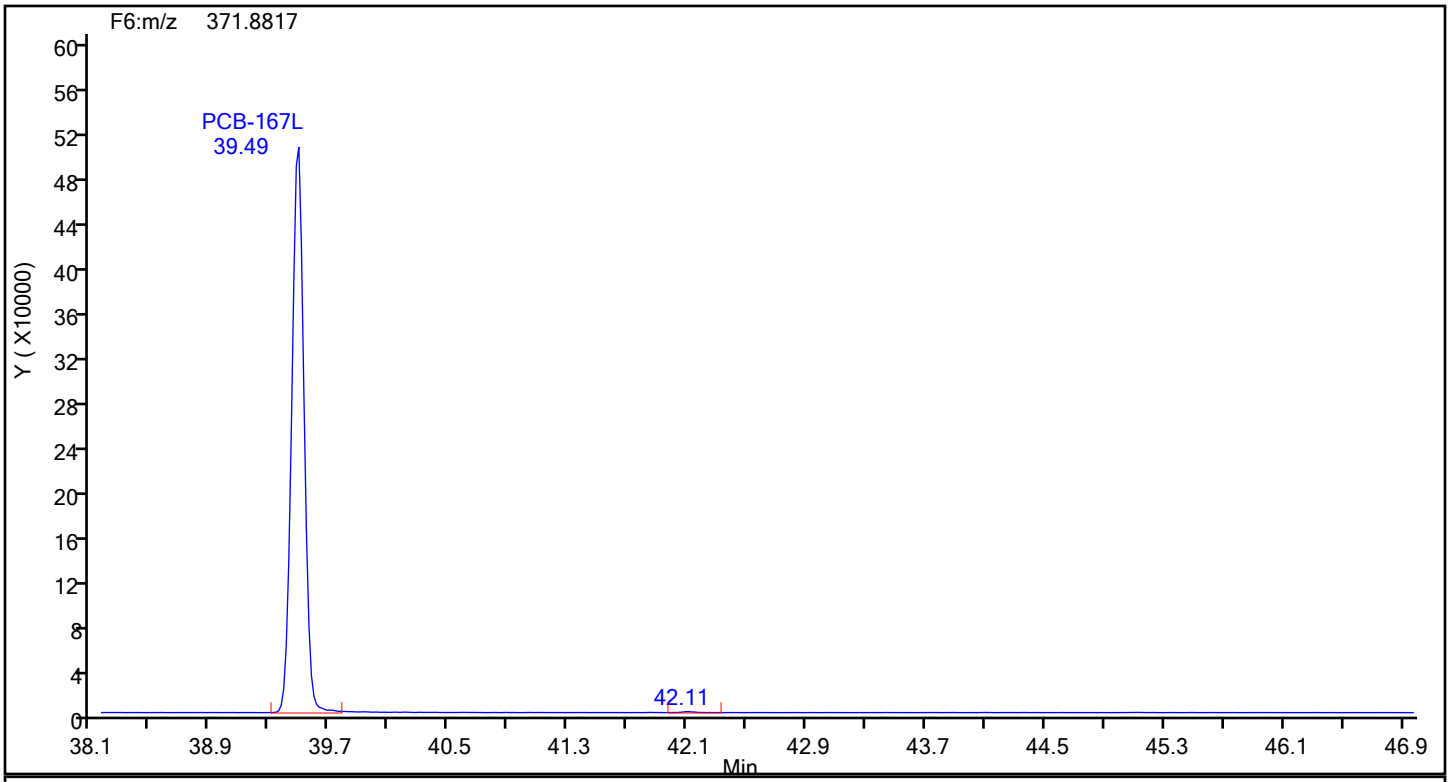
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

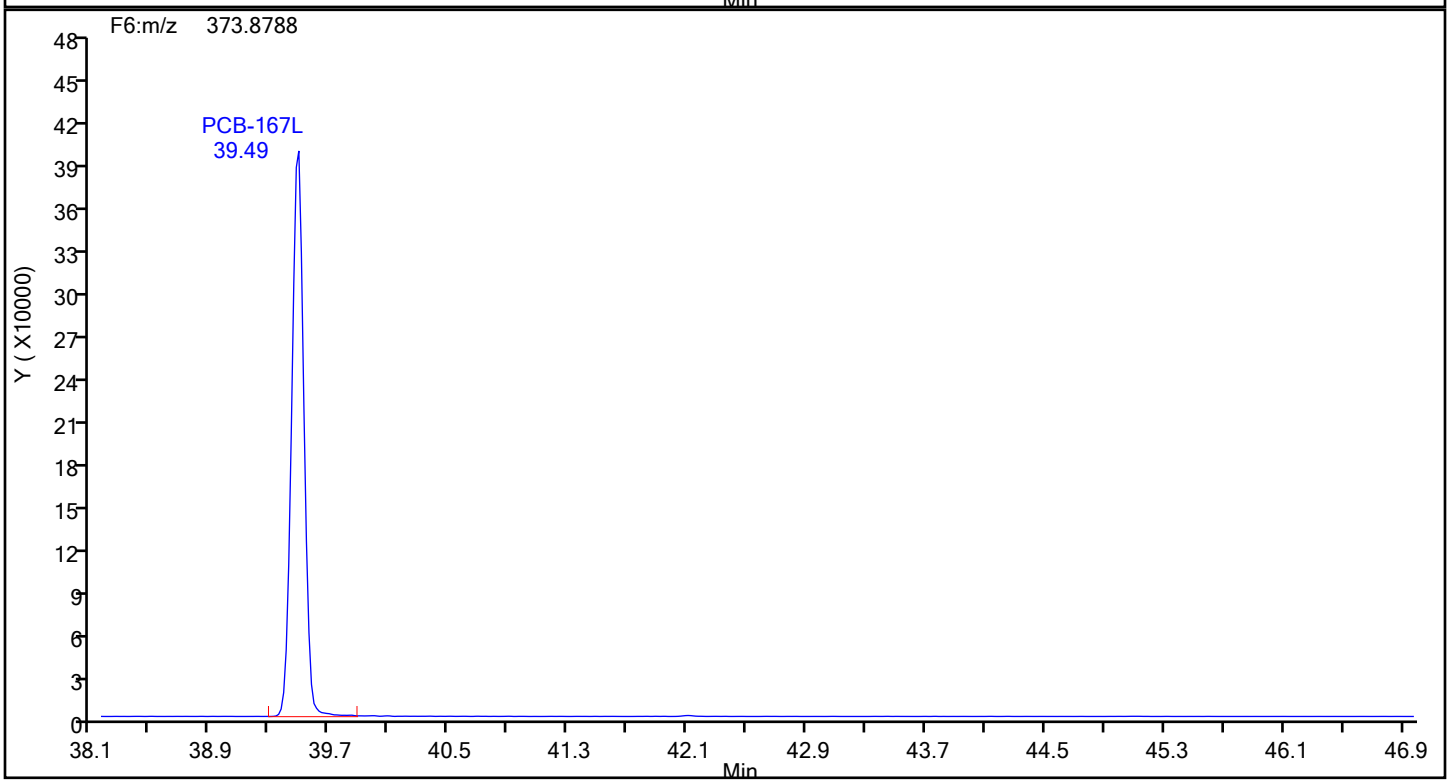
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





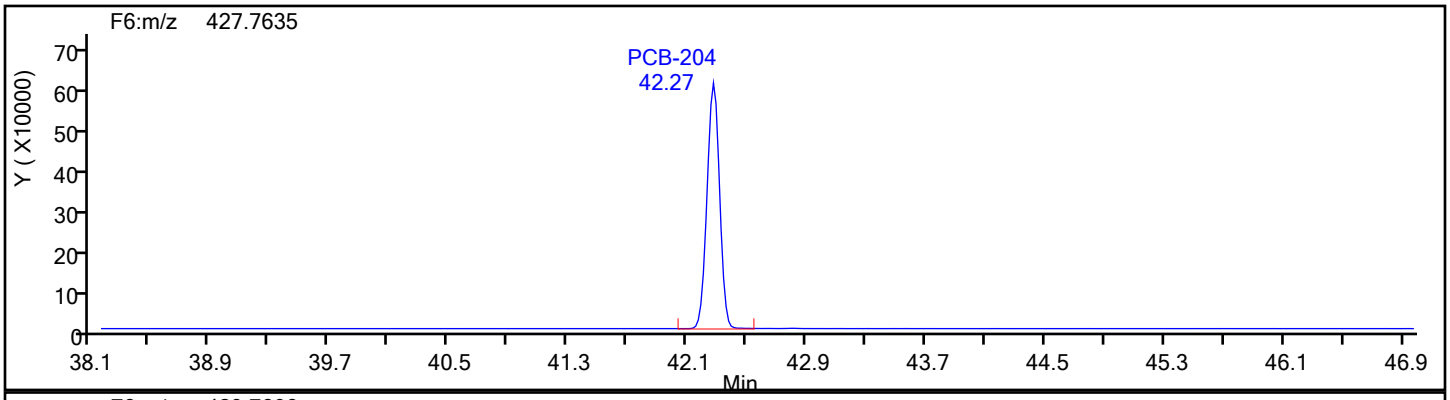
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

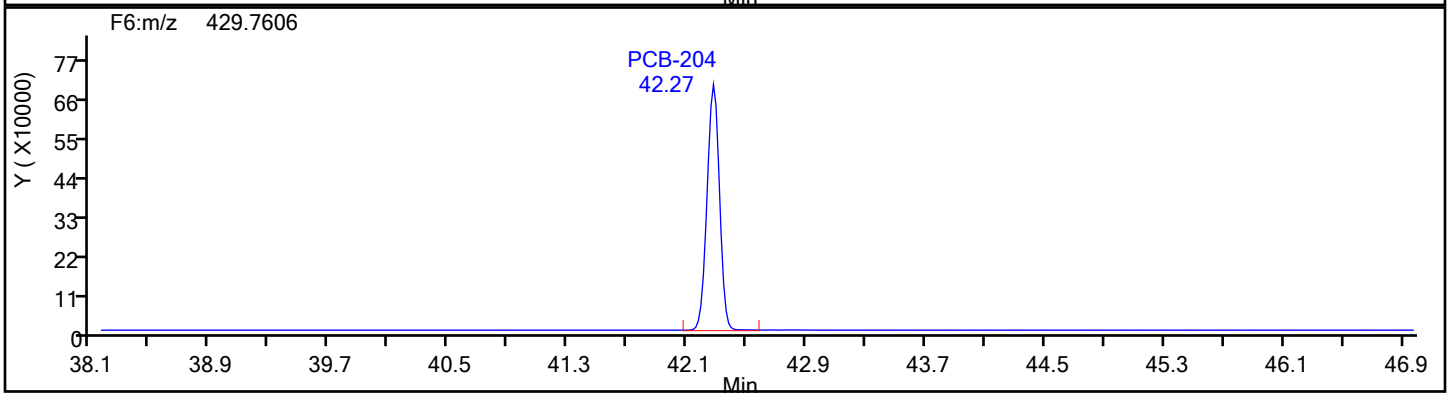
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

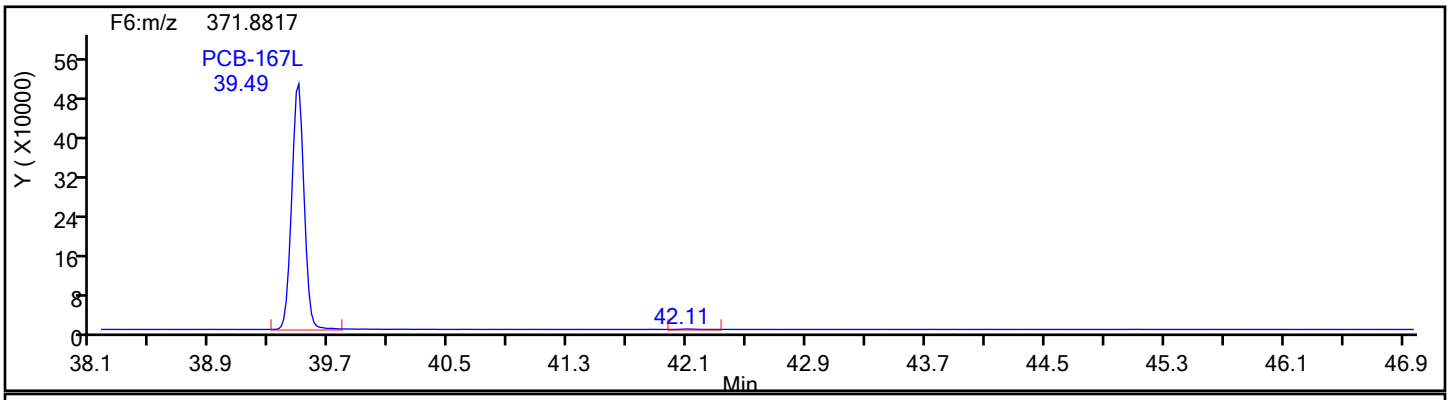
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

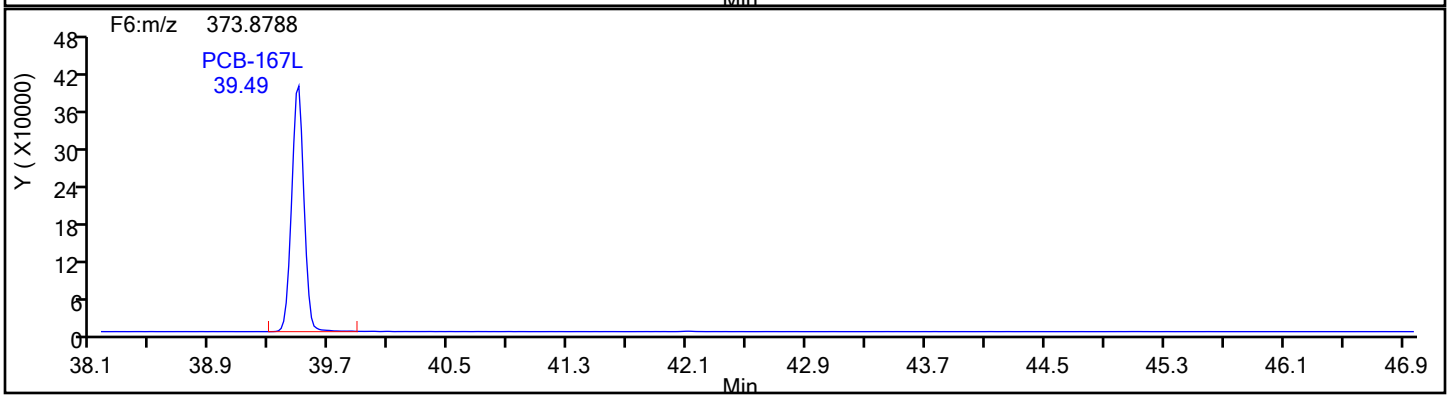
PCB-204





PCB-204 Standards



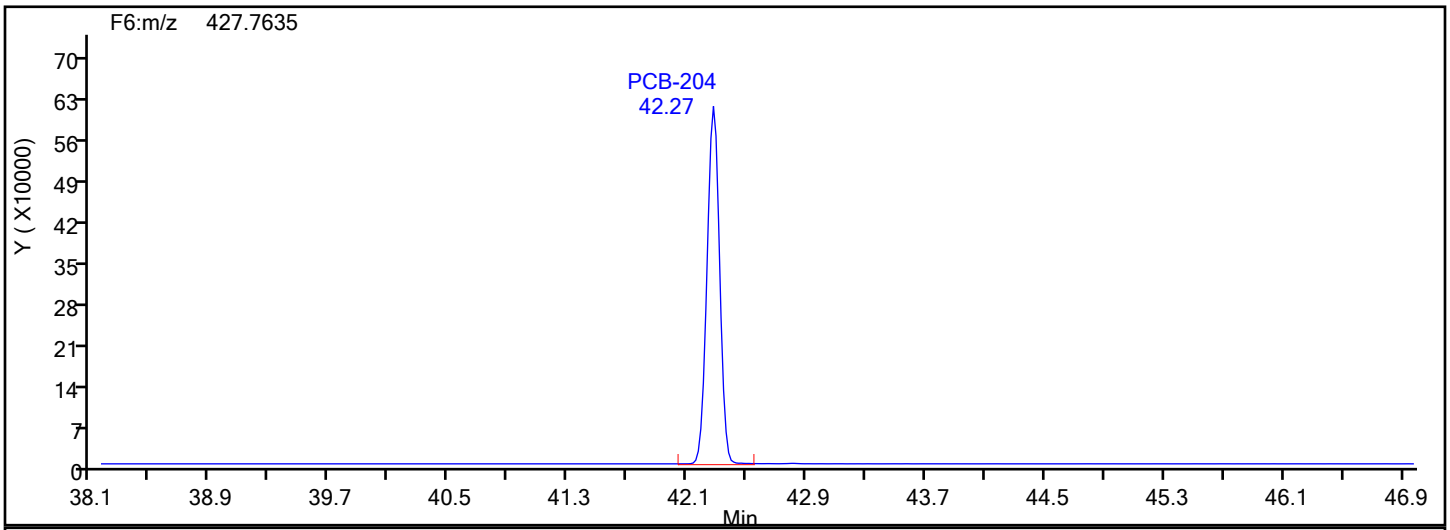


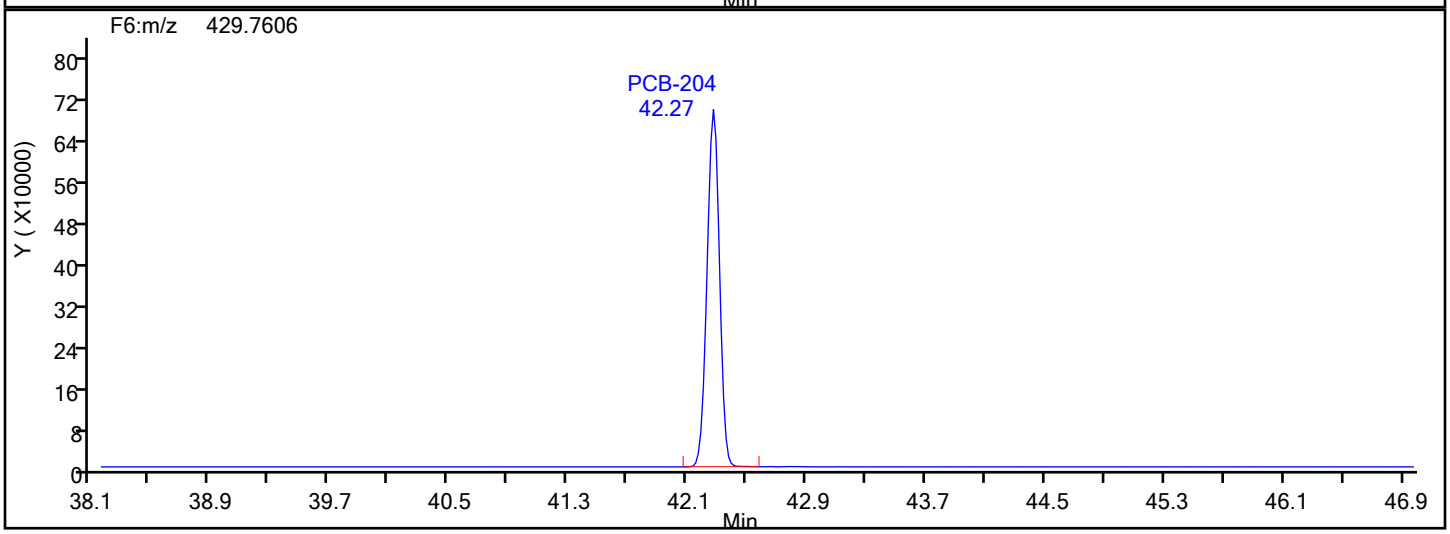
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

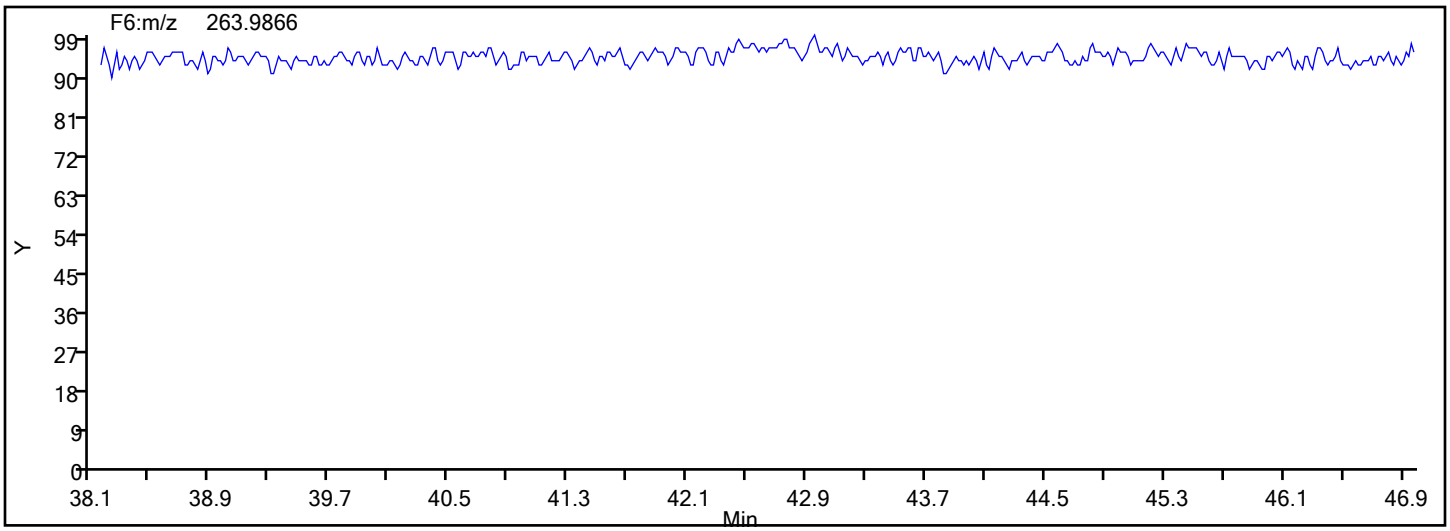
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d
Injection Date: 28-Mar-2025 22:12:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97726 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-204





PCB-204 Lock Mass



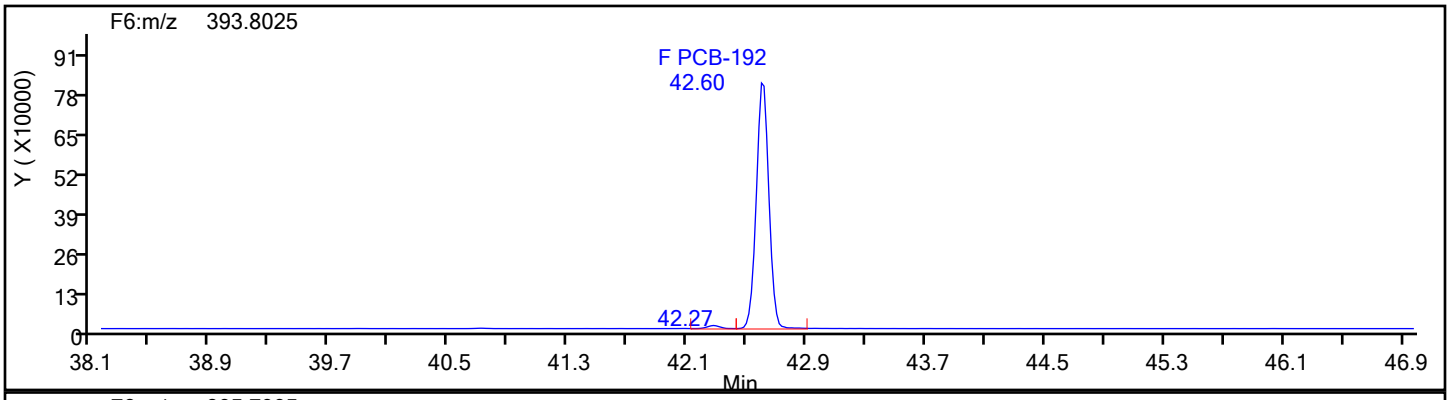
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

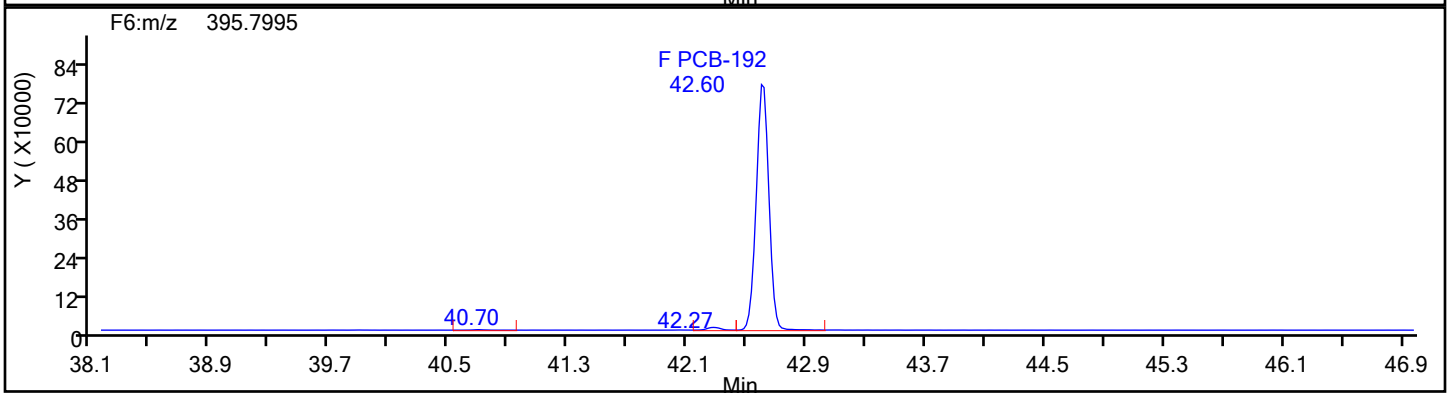
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d

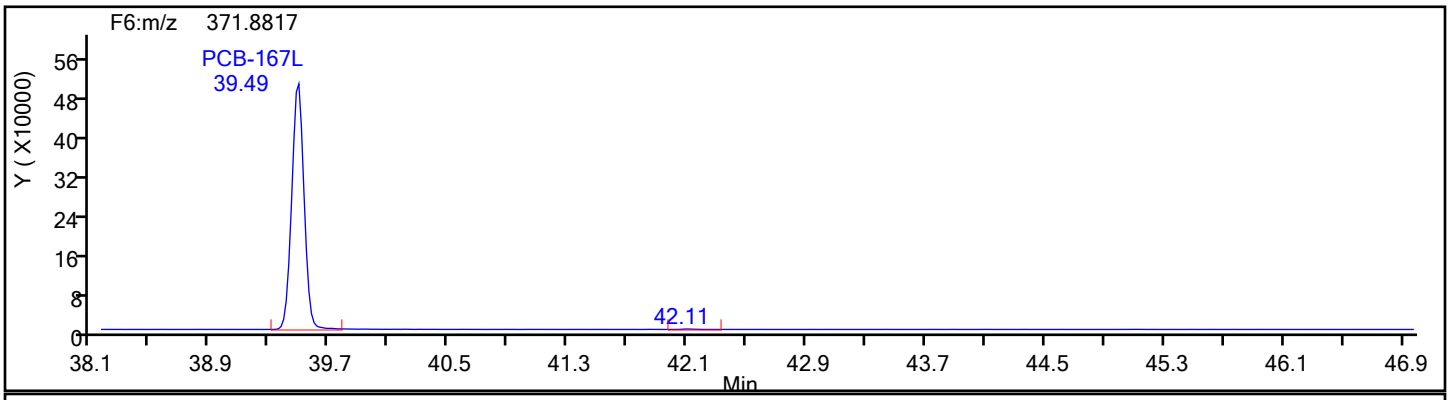
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

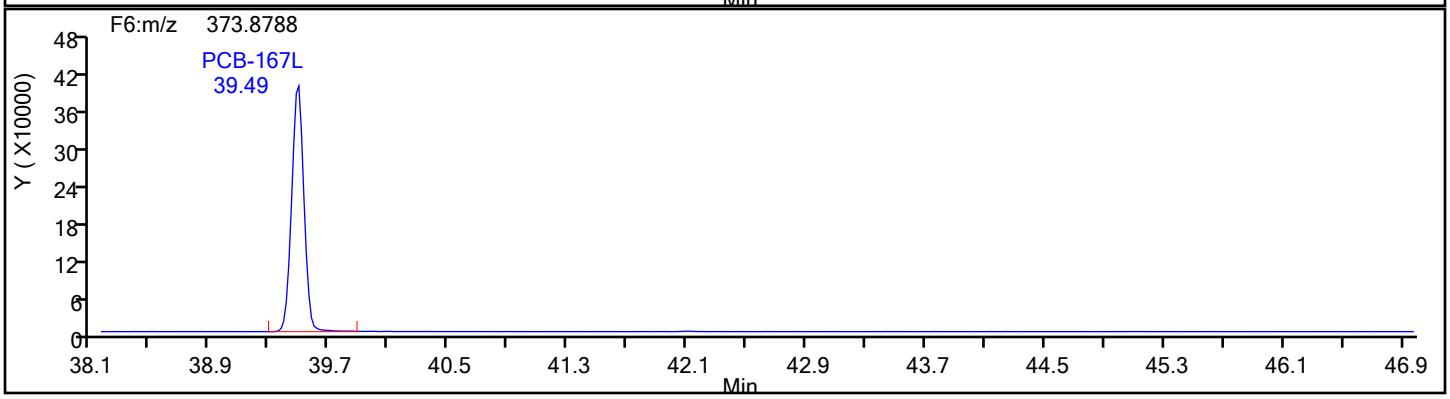
PCB-192





PCB-192 Standards



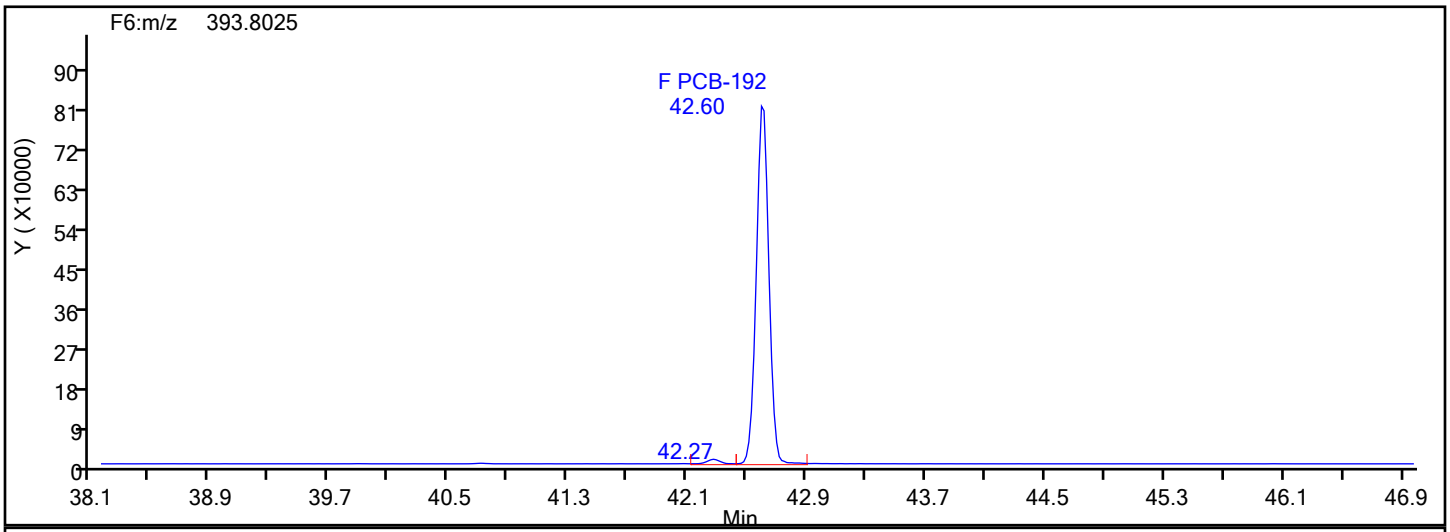


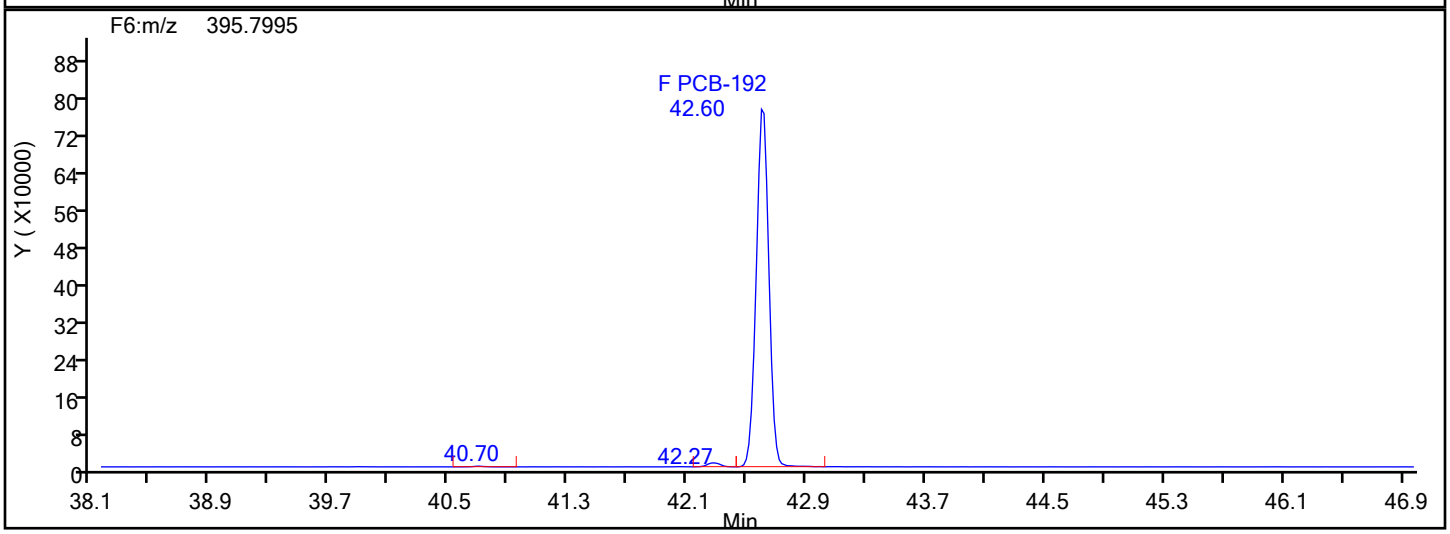
Report Date: 06-May-2025 17:46:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

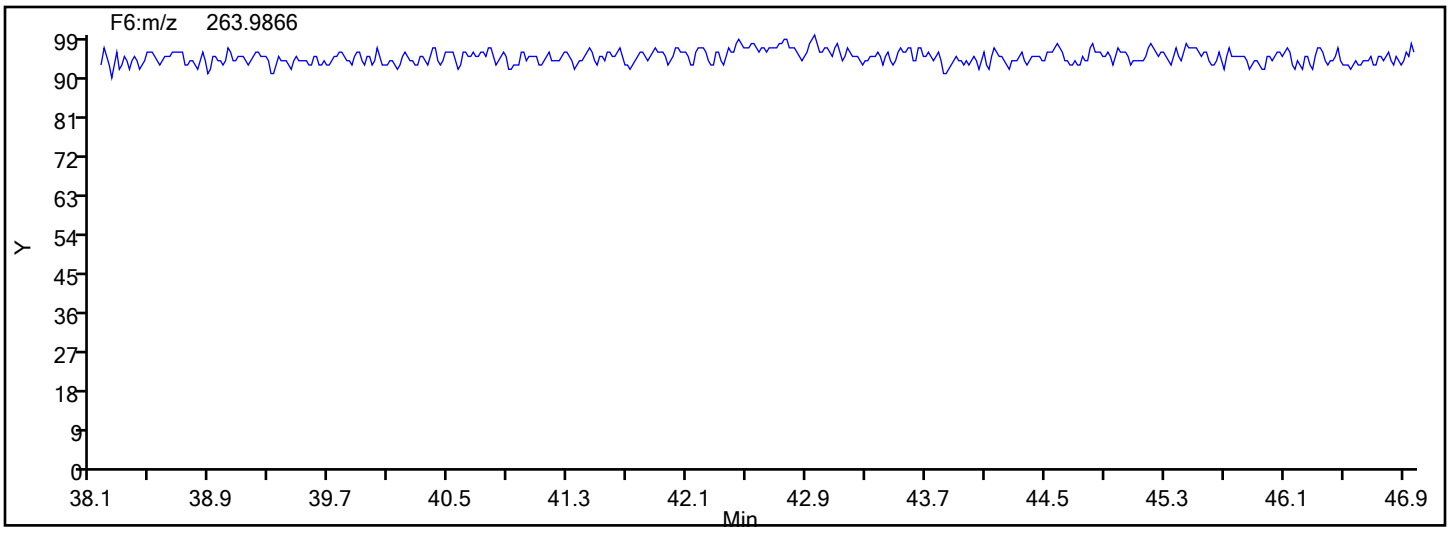
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37035.b\d3250329c1a.d		
Injection Date:	28-Mar-2025 22:12:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97726	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97758/1 Calibration Date: 03/30/2025 12:22

Instrument ID: D3PST Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 03/20/2025 01:05

Lab File ID: d3250330c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
alpha-BHC	AveID	1.094	0.9726		178	200	89	75-125
Hexachlorobenzene	AveID	1.157	1.003		173	200	87	75-125
PCB-14	Ave	1.358	1.210		224	251	89	50-150
beta-BHC	AveID	1.005	0.9206		183	200	92	75-125
Pentachlorophenol	Ave	0.8359	1.169			2000	0*	50-150
gamma-BHC (Lindane)	AveID	0.9800	0.8494		173	200	87	75-125
delta-BHC	AveID	1.124	1.009		179	200	90	75-125
Heptachlor	AveID	1.086	1.075		198	200	99	75-125
PCB-36	Ave	1.023	0.8976		220	251	88	50-150
PCB-104	Ave	1.837	1.514		207	251	82	50-150
Aldrin	AveID	1.089	1.010		186	200	93	75-125
Heptachlor epoxide	AveID	1.146	1.168		204	200	102	75-125
oxy-Chlordane	AveID	1.104	0.8930		162	200	81	75-125
PCB-121	Ave	1.462	1.150		197	251	79	50-150
PCB-142	Ave	2.027	1.626		201	251	80	50-150
gamma-Chlordane	AveID	1.143	1.125		197	200	98	75-125
2,4'-DDE	AveID	1.283	1.090		170	200	85	75-125
Endosulfan I	AveID	1.093	1.098		201	200	100	75-125
alpha-Chlordane	AveID	1.055	0.9829		186	200	93	75-125
trans-Nonachlor	AveID	1.078	1.075		199	200	100	75-125
PCB-78	Ave	0.9153	0.9150		251	251	100	50-150
4,4'-DDE	AveID	1.253	1.105		176	200	88	75-125
Dieldrin	AveID	1.072	1.055		197	200	98	75-125
2,4'-DDD	AveID	1.176	0.9935		169	200	84	75-125
Endrin	AveID	1.068	1.024		192	200	96	75-125
Endosulfan II	AveID	1.097	1.118		204	200	102	75-125
4,4'-DDD	AveID	1.235	1.066		173	200	86	75-125
2,4'-DDT	AveID	1.181	1.018		172	200	86	75-125
cis-Nonachlor	AveID	1.076	1.055		196	200	98	75-125
PCB-155	Ave	0.9191	0.8391		229	251	91	50-150
Endrin aldehyde	AveID	1.128	1.106		196	200	98	75-125
PCB-184	Ave	1.161	0.9547		206	251	82	50-150
Endosulfan sulfate	AveID	1.083	1.100		203	200	102	75-125
4,4'-DDT	AveID	1.210	1.030		170	200	85	75-125
Endrin ketone	AveID	1.155	1.139		197	200	99	75-125
Methoxychlor	AveID	1.325	1.118		169	200	84	75-125
PCB-204	Ave	0.7364	0.5909		201	251	80	50-150
PCB-192	Ave	0.7635	0.7281		239	251	95	50-150
Mirex	AveID	1.023	1.071		209	200	105	75-125
13C6-alpha BHC	Ave	0.1704	0.2539		149	100	149	50-150
13C6-Hexachlorobenzene	Ave	0.5041	0.5895		117	100	117	50-150

FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-97758/1 Calibration Date: 03/30/2025 12:22

Instrument ID: D3PST Calib Start Date: 03/19/2025 17:47

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 03/20/2025 01:05

Lab File ID: d3250330c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
13C6-beta BHC	Ave	0.1244	0.1885		152	100	152*	50-150
13C6-gamma BHC	Ave	0.1646	0.2517		153	100	153*	50-150
13C6-delta BHC	Ave	0.0992	0.1845		186	100	186*	50-150
13C10-Heptachlor	Ave	0.0715	0.1186		166	100	166*	50-150
13C12-Aldrin	Ave	0.1384	0.1665		120	100	120	50-150
13C10-cis Heptachlor Epoxide	Ave	0.1493	0.2424		162	100	162*	50-150
13C10-oxy Chlordane	Ave	0.0481	0.0884		184	100	184*	50-150
13C10-trans Chlordane	Ave	0.1640	0.2281		139	100	139	50-150
13C12-2,4'-DDE	Ave	2.734	2.396		87.6	100	88	50-150
13C9-Endosulfan I	Ave	0.0555	0.0688		124	100	124	50-150
13C10-cis Chlordane	Ave	0.1741	0.2320		133	100	133	50-150
13C10-trans Nonachlor	Ave	0.1233	0.1757		143	100	143	50-150
13C12-4,4'-DDE	Ave	1.864	1.477		79.2	100	79	50-150
13C12-Dieldrin	Ave	0.1991	0.1945		97.7	100	98	50-150
13C12-2,4'-DDD	Ave	1.349	1.433		106	100	106	50-150
13C12-Endrin	Ave	0.1181	0.1098		93.0	100	93	50-150
13C9-Endosulfan II	Ave	0.0248	0.0263		106	100	106	50-150
13C12-4,4'-DDD	Ave	1.139	1.200		105	100	105	50-150
13C12-2,4'-DDT	Ave	0.6754	0.7682		114	100	114	50-150
13C10-cis Nonachlor	Ave	0.0944	0.1130		120	100	120	50-150
13C12-Endrin Aldehyde	Ave	0.0237	0.0307		129	100	129	50-150
13C9-Endosulfan sulfate	Ave	0.1517	0.2138		141	100	141	50-150
13C12-4,4'-DDT	Ave	0.5808	0.6613		114	100	114	50-150
13C11-Endrin Ketone	Ave	0.0648	0.0890		137	100	137	50-150
13C12-Methoxychlor	Ave	0.6709	0.6673		99.5	100	99	50-150
13C10-Mirex	Ave	0.9459	1.082		114	100	114	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	30 Mar 2025 12:06
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

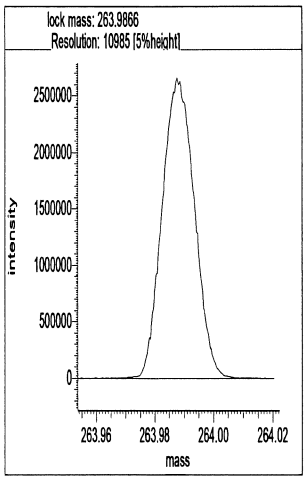
Segment 1

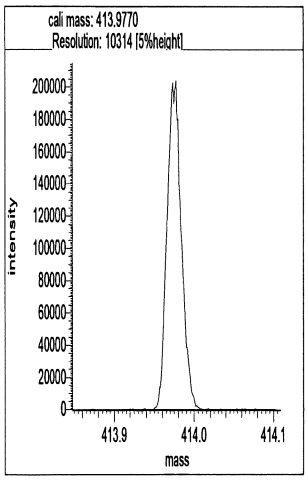
_d3250330r1

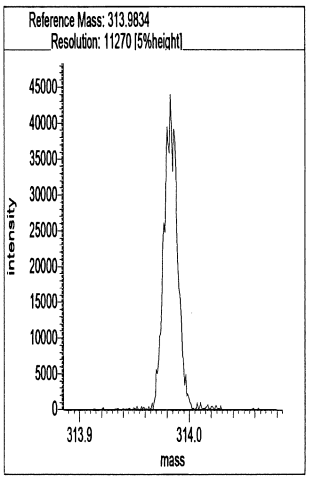
Lock mass 263.9866 [m/z] Resolution: 10985 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10314 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11270 [5%height]





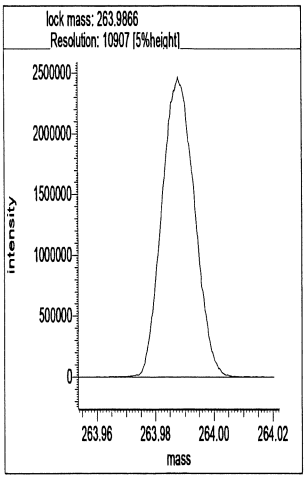


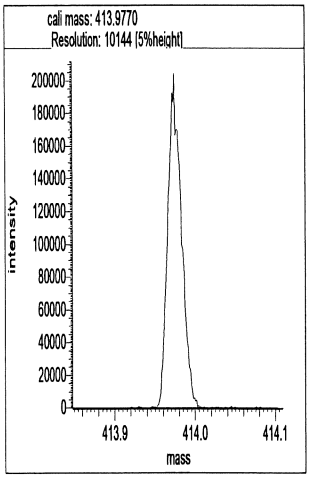
Segment 2

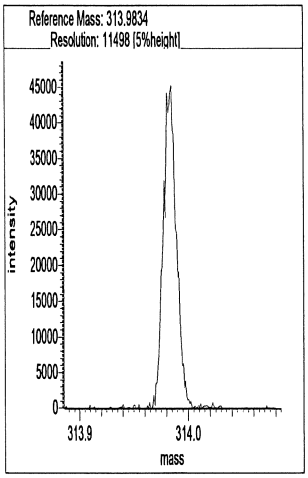
Lock mass 263.9866 [m/z] Resolution: 10907 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10144 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11498 [5%height]





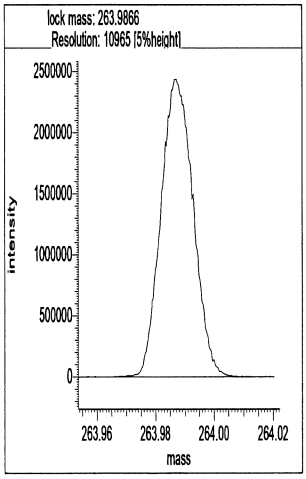


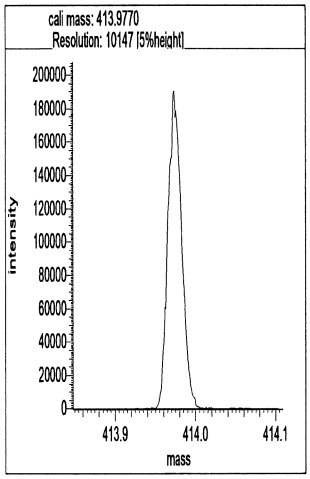
Segment 3

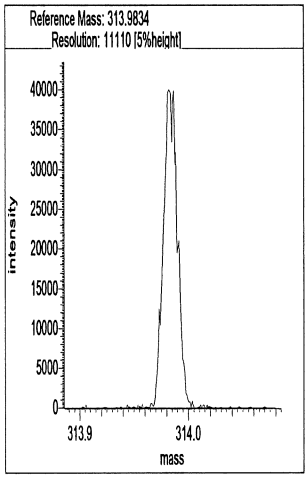
Lock mass 263.9866 [m/z] Resolution: 10965 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10147 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11110 [5%height]





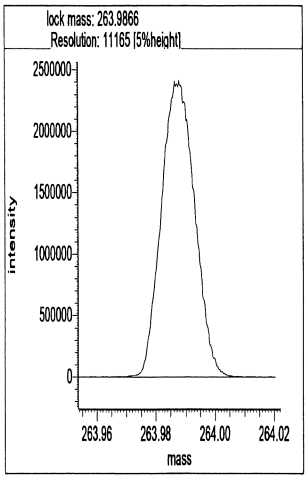


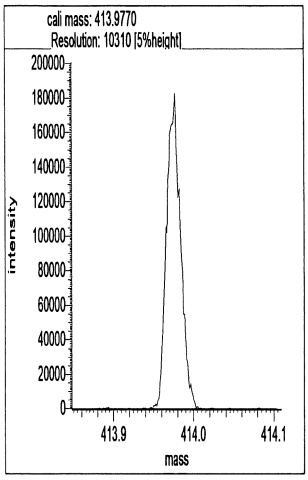
Segment 4

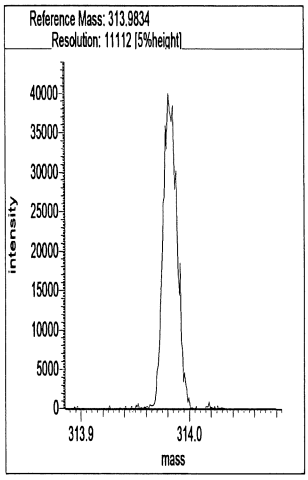
Lock mass 263.9866 [m/z] Resolution: 11165 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10310 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11112 [5%height]





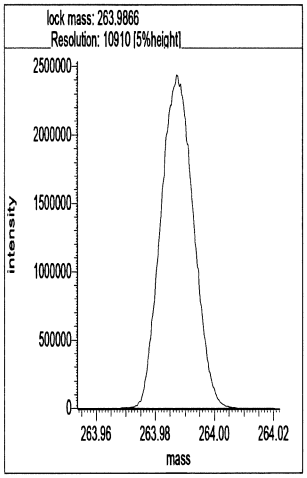


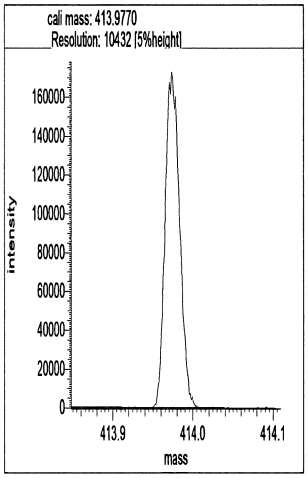
Segment 5

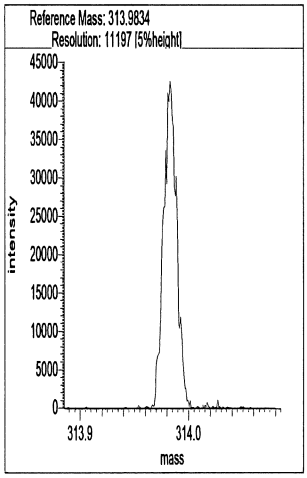
Lock mass 263.9866 [m/z] Resolution: 10910 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10432 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11197 [5%height]





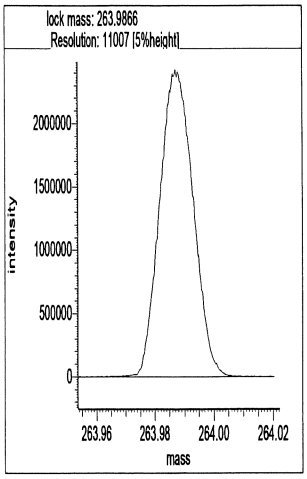


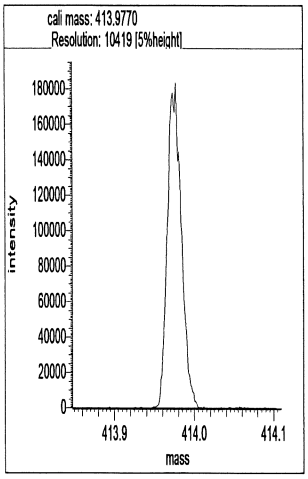
Segment 6

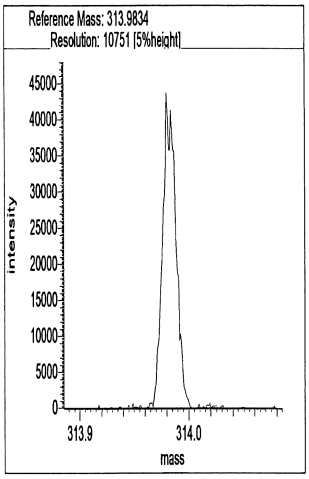
Lock mass 263.9866 [m/z] Resolution: 11007 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10419 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10751 [5%height]

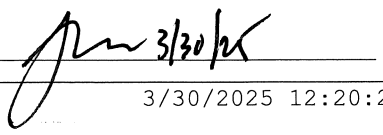

lock mass: 263.9866
Resolution: 11007 [5%height]
intensity
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 10419 [5%height]
intensity
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 10751 [5%height]
intensity
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports

```
12:19:40:  Peak matching procedure started
12:19:40:
12:19:41:  Reference mass: 263.98656
12:19:41:  Sample mass: 414.0
12:19:42:
12:19:42:  Finding reference mass
12:19:43:  Finding sample mass
12:19:44:
12:19:49:  [1]   413.9850 amu, mean: 413.9850
12:19:52:  [2]   413.9843 amu, mean: 413.9847     SD: 0.46 mmu or: 1.11 ppm
12:19:56:  [3]   413.9840 amu, mean: 413.9845     SD: 0.48 mmu or: 1.17 ppm
12:19:59:  [4]   413.9839 amu, mean: 413.9843     SD: 0.47 mmu or: 1.14 ppm
12:20:02:  [5]   413.9832 amu, mean: 413.9841     SD: 0.64 mmu or: 1.53 ppm
12:20:05:  [6]   413.9831 amu, mean: 413.9839     SD: 0.69 mmu or: 1.67 ppm
12:20:08:  [7]   413.9830 amu, mean: 413.9838     SD: 0.72 mmu or: 1.75 ppm
12:20:11:  [8]   413.9824 amu, mean: 413.9836     SD: 0.84 mmu or: 2.04 ppm
12:20:15:  [9]   413.9830 amu, mean: 413.9836     SD: 0.82 mmu or: 1.98 ppm
12:20:18:  [10]   413.9826 amu, mean: 413.9835     SD: 0.83 mmu or: 2.00 ppm
12:20:21:  [11]   413.9835 amu, mean: 413.9835     SD: 0.79 mmu or: 1.90 ppm
12:20:21:
12:20:21:  Stop requested. Please wait for procedure to finish.
12:20:21:
12:20:24:
12:20:24:  Peakmatching stopped
```

Signature 

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	30 Mar 2025 23:16
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

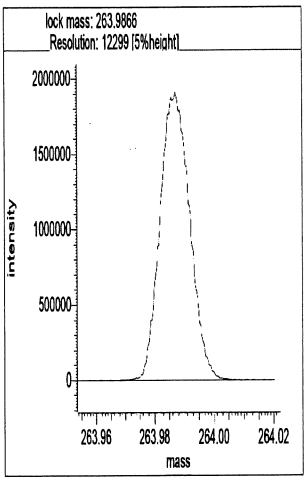
-d3250331r1

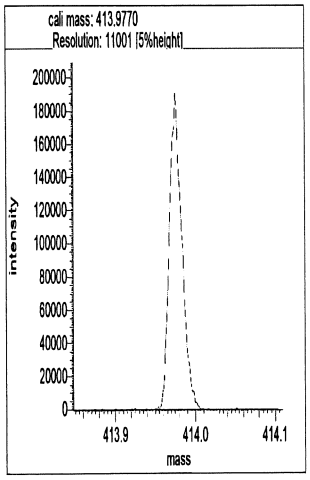
Segment 1

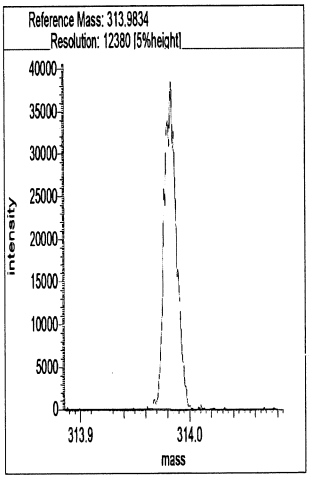
Lock mass 263.9866 [m/z] Resolution: 12299 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11001 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12380 [5%height]





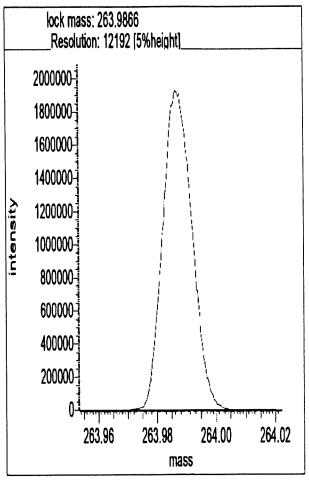


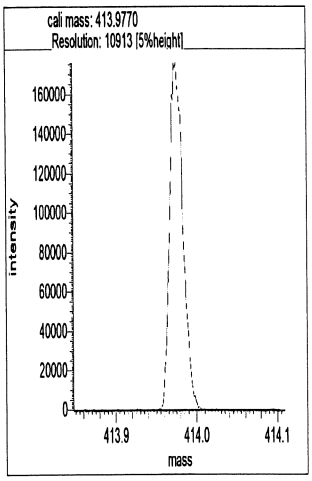
Segment 2

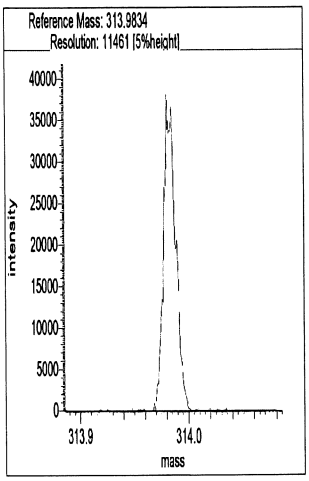
Lock mass 263.9866 [m/z] Resolution: 12192 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10913 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11461 [5%height]





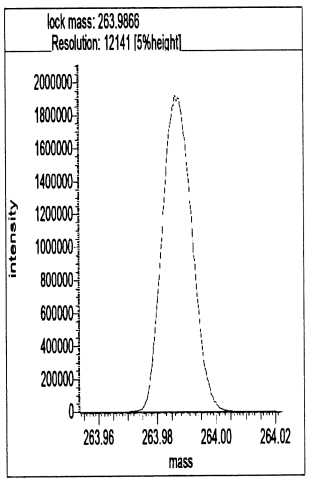


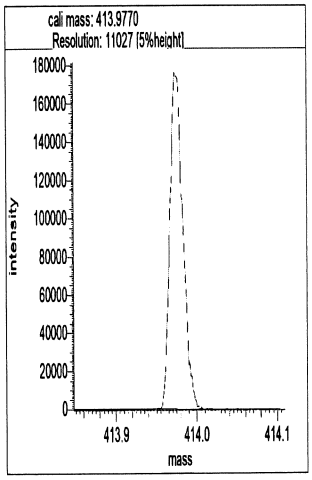
Segment 3

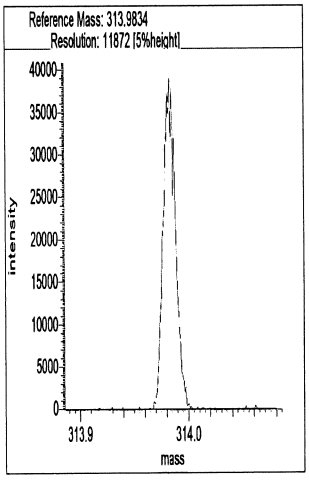
Lock mass 263.9866 [m/z] Resolution: 12141 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11027 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11872 [5%height]





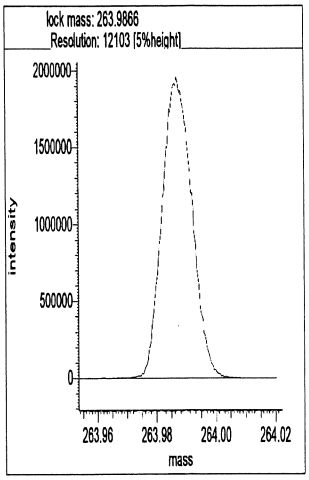


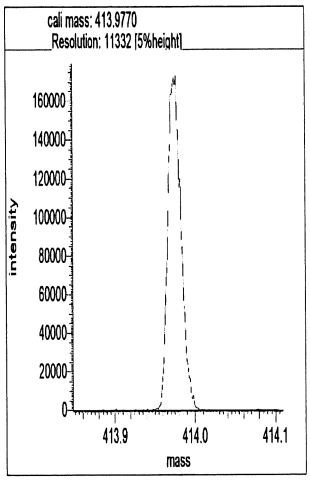
Segment 4

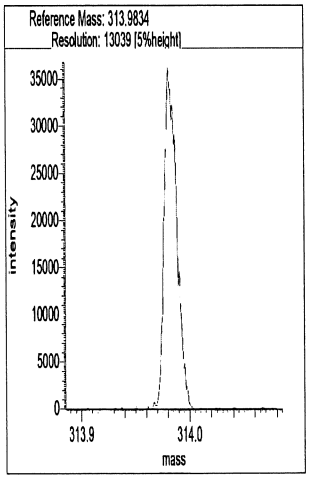
Lock mass 263.9866 [m/z] Resolution: 12103 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11332 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 13039 [5%height]





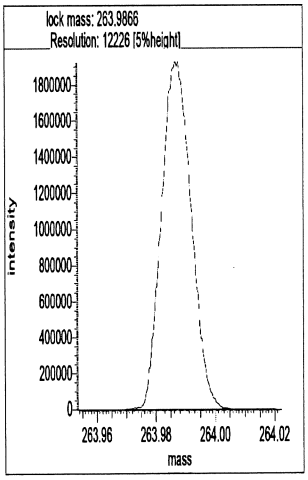


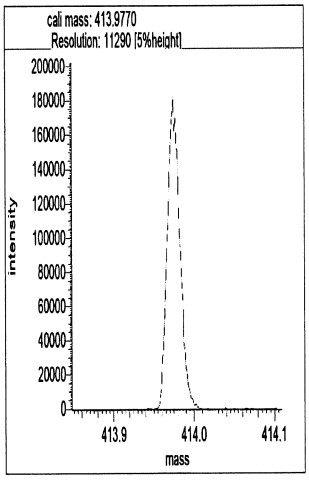
Segment 5

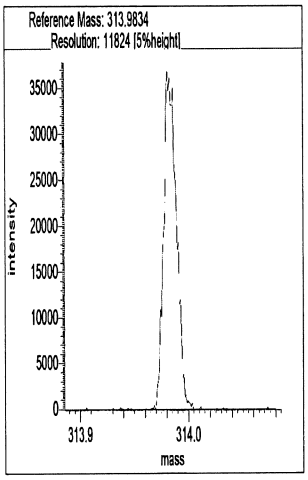
Lock mass 263.9866 [m/z] Resolution: 12226 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11290 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11824 [5%height]





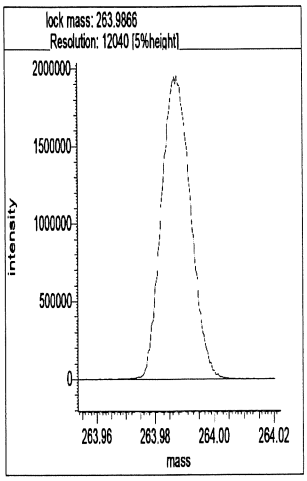


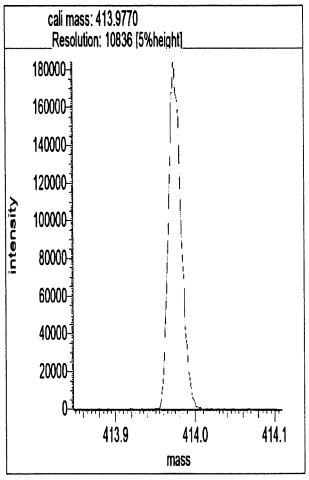
Segment 6

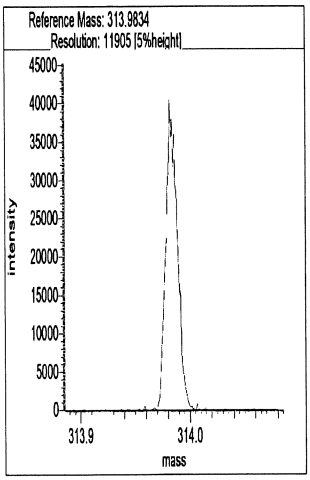
Lock mass 263.9866 [m/z] Resolution: 12040 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10836 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11905 [5%height]


lock mass: 263.9866
Resolution: 12040 [5%height]
intensity
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 10836 [5%height]
intensity
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 11905 [5%height]
intensity
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports

```
10:43:23:  Peak matching procedure started
10:43:23:
10:43:24:  Reference mass: 263.98656
10:43:24:  Sample mass: 414.0
10:43:25:
10:43:25:  Finding reference mass
10:43:26:  Finding sample mass
10:43:27:
10:43:32:  [1]   413.9754 amu, mean: 413.9754
10:43:36:  [2]   413.9752 amu, mean: 413.9753     SD: 0.17 mmu or: 0.40 ppm
10:43:39:  [3]   413.9756 amu, mean: 413.9754     SD: 0.20 mmu or: 0.47 ppm
10:43:42:  [4]   413.9748 amu, mean: 413.9752     SD: 0.33 mmu or: 0.80 ppm
10:43:45:  [5]   413.9752 amu, mean: 413.9752     SD: 0.29 mmu or: 0.70 ppm
10:43:48:  [6]   413.9749 amu, mean: 413.9752     SD: 0.29 mmu or: 0.70 ppm
10:43:51:  [7]   413.9748 amu, mean: 413.9751     SD: 0.31 mmu or: 0.75 ppm
10:43:55:  [8]   413.9751 amu, mean: 413.9751     SD: 0.29 mmu or: 0.69 ppm
10:43:58:  [9]   413.9754 amu, mean: 413.9751     SD: 0.28 mmu or: 0.68 ppm
10:44:01:  [10]   413.9754 amu, mean: 413.9752     SD: 0.28 mmu or: 0.68 ppm
10:44:04:  [11]   413.9762 amu, mean: 413.9753     SD: 0.40 mmu or: 0.97 ppm
10:44:04:
10:44:04:  Stop requested. Please wait for procedure to finish.
10:44:04:
10:44:07:
10:44:08:  Peakmatching stopped
```

Signature 3/31/25

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 30-Mar-2025 12:22:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:06:09 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:24	6931098	0.82	0.1704	149.1	149.1	0.0558	0.0558	149	
alpha-BHC	17:25	13482767	0.80	1.0937	177.9	177.9	0.0167	0.0167	88.93	
D 13C6-beta BHC	18:24	5145351	0.80	0.1244	151.5	151.5	0.0764	0.0764	152	
beta-BHC	18:25	9473204	0.80	1.0053	183.1	183.1	0.0267	0.0267	91.57	
D 13C6-gamma BHC	18:41	6870518	0.82	0.1646	152.9	152.9	0.0578	0.0578	153	
gamma-BHC (Lindane)	18:41	11672186	0.81	0.9800	173.4	173.4	0.0203	0.0203	86.68	
D 13C6-delta BHC	19:38	5037108	0.81	0.0992	186.0	186.0	0.0959	0.0959	186	
delta-BHC	19:39	10160626	0.80	1.1243	179.4	179.4	0.0268	0.0268	89.71	
D 13C10-Heptachlor	21:52	3237724	1.25	0.0715	165.9	165.9	0.0684	0.0684	166	
Heptachlor	21:54	6959397	1.25	1.0864	197.9	197.9	0.0206	0.0206	98.93	
D 13C6-Hexachlorobenzene	17:44	16091979	1.31	0.5041	117.0	117.0	0.000115	0.000115	117	
Hexachlorobenzene	17:44	32276095	1.24	1.1568	173.4	173.4	0.000076	0.000076	86.69	
D 13C12-Aldrin	23:45	4545148	1.56	0.1384	120.3	120.3	0.0220	0.0220	120	
Aldrin	23:46	9182955	1.53	1.0892	185.5	185.5	0.0525	0.0525	92.75	
D 13C10-oxy Chlordane	26:09	898392	1.07	0.0481	183.9	183.9	0.004595	0.004595	184	
oxy-Chlordane	26:11	1604503	1.00	1.1040	161.8	161.8	0.002141	0.002141	80.89	
D 13C10-cis Heptachlor Epoxide	26:07	2464574	1.32	0.1493	162.4	162.4	0.0228	0.0228	162	
Heptachlor epoxide	26:09	5756470	1.24	1.1461	203.8	203.8	0.002263	0.002263	102	
D 13C12-2,4'-DDE	27:56	24360356	1.55	2.7345	87.6	87.6	0.0107	0.0107	87.62	
2,4'-DDE	27:58	53126600	1.58	1.2831	170.0	170.0	0.0134	0.0134	84.99	
D 13C10-trans Chlordane	27:39	2319438	1.26	0.1640	139.1	139.1	0.0727	0.0727	139	
trans-Chlordane	27:41	5219379	1.26	1.1433	196.8	196.8	0.0378	0.0378	98.42	
D 13C10-cis Chlordane	28:42	2358553	1.28	0.1741	133.2	133.2	0.0685	0.0685	133	
cis-Chlordane	28:44	4636248	1.25	1.0551	186.3	186.3	0.0408	0.0408	93.15	
D 13C10-trans Nonachlor	29:01	1786620	1.26	0.1233	142.5	142.5	0.0967	0.0967	143	
trans-Nonachlor	29:02	3839539	1.26	1.0780	199.3	199.3	0.0546	0.0546	99.67	
D 13C9-Endosulfan I	28:32	699534	1.25	0.0555	123.9	123.9	0.2148	0.2148	124	
D 13C12-4,4'-DDE	30:10	17324835	1.54	1.8637	79.2	79.2	0.0608	0.0608	79.25	
4,4'-DDE	30:12	38293054	1.58	1.2526	176.5	176.5	0.0741	0.0741	88.23	
D 13C12-4,4'-DDD	33:29	14073255	1.54	1.1392	105.3	105.3	0.0193	0.0193	105	
4,4'-DDD	33:30	30012576	1.56	1.2345	172.7	172.7	0.0593	0.0593	86.37	
D 13C12-2,4'-DDT	33:45	9011361	1.60	0.6754	113.7	113.7	0.0326	0.0326	114	
2,4'-DDT	33:46	18345645	1.53	1.1809	172.4	172.4	0.0945	0.0945	86.20	
D 13C12-4,4'-DDT	36:37	7756750	1.56	0.5808	113.9	113.9	0.0379	0.0379	114	
4,4'-DDT	36:38	15983365	1.53	1.2096	170.4	170.4	0.1093	0.1093	85.18	
D 13C12-Dieldrin	30:24	2281915	1.62	0.1991	97.7	97.7	0.0502	0.0502	97.72	
Dieldrin	30:27	4814294	1.56	1.0718	196.8	196.8	0.1039	0.1039	98.42	

Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C12-Endrin	32:04	1287528	1.58	0.1181	93.0	93.0	0.0846	0.0846	92.95	
Endrin	32:06	2636337	1.58	1.0678	191.8	191.8	0.1850	0.1850	95.88	
D 13C9-Endosulfan II	32:48	308468	1.36	0.0248	106.1	106.1	0.2132	0.2132	106	
Endosulfan II	32:49	689491	1.32	1.0972	203.7	203.7	0.5198	0.5198	102	
D 13C12-Endrin Aldehyde	34:20	360151	1.73	0.0237	129.4	129.4	0.2264	0.2264	129	
Endrin aldehyde	34:22	796705	1.58	1.1278	196.1	196.1	0.5086	0.5086	98.07	
D 13C12-Methoxychlor	41:58	7827405	20.37	0.6709	99.5	99.5	0.0377	0.0377	99.46	
Methoxychlor	41:59	17504167	5.51	1.3248	168.8	168.8	0.0286	0.0286	84.40	
D 13C11-Endrin Ketone	40:26	1043419	1.55	0.0648	137.3	137.3	0.0897	0.0897	137	
Endrin ketone	40:29	2376076	1.60	1.1546	197.2	197.2	0.0914	0.0914	98.62	
D 13C10-Mirex	45:26	7689829	1.27	0.9459	114.4	114.4	0.0103	0.0103	114	
Mirex	45:27	16467252	1.27	1.0234	209.3	209.3	0.0114	0.0114	105	
* PCB-15L	19:05	27295366	1.59		100.0	100.0				
PCB-14	17:50	82884257	1.62	1.3581	223.6	223.6	0.003159	0.003159	89.12	
* 13C6-Pentachlorophenol (IS)	18:31	2000556	0.56		500.0	500.0				
Pentachlorophenol	18:31	9355061	0.64	0.8359	2797.1	2797.1	0.2446	0.2446	140	
PCB-36	22:10	61467772	1.04	1.0230	220.1	220.1	0.002460	0.002460	87.74	
* PCB-101L	28:08	10167455	1.57		100.0	100.0				
PCB-104	23:45	38618859	1.56	1.8372	206.7	206.7	0.000120	0.000120	82.41	
* PCB-118L	32:48	11729939	1.59		100.0	100.0				
PCB-121	26:44	33855663	1.59	1.4622	197.4	197.4	0.0766	0.0766	78.68	
* PCB-138L	37:00	7108963	1.27		100.0	100.0				
PCB-142	27:31	29008089	1.27	2.0271	201.3	201.3	0.0207	0.0207	80.23	
Endosulfan I	28:34	1536328	1.62	1.0931	200.9	200.9	0.1453	0.1453	100	
* PCB-60L	27:45	17586417	0.81		100.0	100.0				
PCB-78	29:23	40371544	0.80	0.9153	250.8	250.8	0.0717	0.0717	99.97	
D 13C12-2,4'-DDD	30:52	16804946	1.55	1.3487	106.2	106.2	0.0557	0.0557	106	
2,4'-DDD	30:53	33392430	1.55	1.1763	168.9	168.9	0.0402	0.0402	84.46	
D 13C10-cis Nonachlor	33:49	1325909	1.33	0.0944	119.7	119.7	0.1119	0.1119	120	
cis-Nonachlor	33:51	2798048	1.26	1.0758	196.2	196.2	0.0909	0.0909	98.08	
D 13C9-Endosulfan sulfate	36:19	2507387	1.20	0.1517	140.9	140.9	0.0696	0.0696	141	
Endosulfan sulfate	36:21	5515006	1.28	1.0831	203.1	203.1	0.0524	0.0524	102	
* PCB-167L	39:30	7903243	1.28		100.0	100.0				
PCB-155	34:00	16636937	1.24	0.9191	229.0	229.0	0.0323	0.0323	91.29	
PCB-184	34:40	18929643	1.05	1.1610	206.3	206.3	0.003602	0.003602	82.23	
PCB-204	42:18	11717108	0.89	0.7364	201.3	201.3	0.000498	0.000498	80.25	
PCB-192	42:37	14435752	1.05	0.7635	239.2	239.2	0.0261	0.0261	95.36	
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 30-Mar-2025 12:22:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:06:09 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:24	17:24	0	0.912	3119257	1148653	267	667	4302		
224.9317	17:24	17:24	0	0.912	3811841	1376732	61	152	22569	0.82(0.58-0.96)	
alpha-BHC											
216.9145	17:25	17:25	0	1.001	5976406	2215783	6	15	369297		
218.9116	17:25	17:25	0	1.001	7506361	2771788	179	447	15485	0.80(0.58-0.96)	
13C6-beta BHC											
222.9342	18:24	18:24	0	0.964	2287602	767822	267	667	2876		
224.9317	18:24	18:24	0	0.964	2857749	951955	61	152	15606	0.80(0.58-0.96)	
beta-BHC											
216.9145	18:25	18:25	0	1.001	4219562	1434534	6	15	239089		
218.9116	18:25	18:25	0	1.001	5253642	1765730	179	447	9864	0.80(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:41	18:41	0	0.979	3086924	1057590	267	667	3961		
224.9317	18:40	18:41	-1	0.978	3783594	1267159	61	152	20773	0.82(0.58-0.96)	
gamma-BHC (Lindane)											
216.9145	18:41	18:41	0	1.001	5206346	1768433	6	15	294739		
218.9116	18:41	18:41	0	1.001	6465840	2154912	179	447	12039	0.81(0.58-0.96)	
13C6-delta BHC											
222.9342	19:38	19:38	0	1.029	2252447	673134	267	667	2521		
224.9317	19:38	19:38	0	1.029	2784661	858122	61	152	14068	0.81(0.58-0.96)	
delta-BHC											
216.9145	19:39	19:39	0	1.001	4511664	1376111	6	15	229352		
218.9116	19:39	19:39	0	1.001	5648962	1700106	179	447	9498	0.80(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:52	21:52	0	1.146	1798739	499969	87	217	5747		
278.8240	21:52	21:52	0	1.146	1438985	414744	82	205	5058	1.25(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Heptachlor											
271.8102	21:54	21:54	0	1.001	3863771	1053748	47	117	22420		
273.8072	21:53	21:54	-1	1.001	3095626	843619	35	87	24103	1.25(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:44	17:44	0	0.929	9130352	3225043	1	2	3225043		
291.8273	17:44	17:44	0	0.929	6961627	2426042	1	2	2426042	1.31(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:44	17:44	0	1.000	17883733	6540590	1	2	6540590		
285.8072	17:44	17:44	0	1.000	14392362	5192582	1	2	5192582	1.24(0.93-1.55)	
13C12-Aldrin											
269.8805	23:45	23:45	0	1.244	2772892	736260	65	162	11327		
271.8775	23:45	23:45	0	1.244	1772256	464922	40	100	11623	1.56(1.16-1.94)	
Aldrin											
262.8569	23:46	23:46	0	1.001	5548572	1466236	139	347	10548		
264.8540	23:46	23:46	0	1.001	3634383	963632	136	340	7086	1.53(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:09	26:09	0	0.930	464105	110842	1	2	110842		
398.8358	26:09	26:09	0	0.930	434287	100683	1	2	100683	1.07(0.78-1.30)	
oxy-Chlordane											
386.8052	26:11	26:11	0	1.001	801247	221010	1	2	221010		
388.8023	26:11	26:11	0	1.001	803256	215537	1	2	215537	1.00(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:07	26:07	0	0.928	1400211	339234	12	30	28270		
364.8748	26:07	26:07	0	0.928	1064363	238991	19	47	12578	1.32(0.93-1.55)	
Heptachlor epoxide											
352.8442	26:09	26:09	0	1.001	3187996	738758	3	7	246253		
354.8413	26:09	26:09	0	1.001	2568474	592826	3	7	197609	1.24(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:56	27:56	0	0.993	14811609	3249408	163	407	19935		
260.0376	27:57	27:56	1	0.994	9548747	2085264	101	252	20646	1.55(1.17-1.95)	
2,4'-DDE											
246.0003	27:58	27:58	0	1.001	32567596	7664973	233	582	32897		
247.9974	27:58	27:58	0	1.001	20559004	4756190	135	337	35231	1.58(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:39	27:39	0	0.983	1291629	282891	72	180	3929		
278.8240	27:39	27:39	0	0.983	1027809	226227	36	90	6284	1.26(0.93-1.55)	
trans-Chlordane											
271.8102	27:41	27:41	0	1.001	2913936	650724	49	122	13280		
273.8072	27:41	27:41	0	1.001	2305443	519122	39	97	13311	1.26(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:42	28:42	0	1.020	1324057	291563	72	180	4049		
278.8240	28:42	28:42	0	1.020	1034496	219410	36	90	6095	1.28(0.93-1.55)	
cis-Chlordane											
271.8102	28:44	28:44	0	1.001	2573026	577277	49	122	11781		
273.8072	28:44	28:44	0	1.001	2063222	468252	39	97	12006	1.25(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-trans Nonachlor											
276.8270	29:01	29:01	0	1.031	996885	210787	72	180	2928		
278.8240	29:01	29:01	0	1.031	789735	162885	36	90	4525	1.26(0.93-1.55)	
trans-Nonachlor											
271.8102	29:02	29:02	0	1.001	2139104	465743	49	122	9505		
273.8072	29:02	29:02	0	1.001	1700435	369623	39	97	9478	1.26(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:32	28:32	0	1.015	389303	89560	72	180	1244		
278.8240	28:32	28:32	0	1.015	310231	67870	36	90	1885	1.25(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:10	30:10	0	0.920	10500049	2232815	623	1557	3584		
260.0376	30:10	30:10	0	0.920	6824786	1439256	407	1017	3536	1.54(1.17-1.95)	
4,4'-DDE											
246.0003	30:12	30:12	0	1.001	23423551	5154849	845	2112	6100		
247.9974	30:12	30:12	0	1.001	14869503	3230769	519	1297	6225	1.58(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:29	33:29	0	1.021	8529574	1600501	87	217	18397		
249.0454	33:29	33:29	0	1.021	5543681	1030717	113	282	9121	1.54(1.17-1.95)	
4,4'-DDD											
235.0081	33:30	33:30	0	1.001	18280364	3570053	696	1740	5129		
237.0052	33:30	33:30	0	1.001	11732212	2252271	74	185	30436	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:45	33:45	0	1.029	5544714	1072090	87	217	12323		
249.0454	33:45	33:45	0	1.029	3466647	653737	113	282	5785	1.60(1.17-1.95)	
2,4'-DDT											
235.0081	33:46	33:46	0	1.001	11087688	2061620	696	1740	2962		
237.0052	33:46	33:46	0	1.001	7257957	1363590	74	185	18427	1.53(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:37	36:37	0	1.116	4725766	883230	87	217	10152		
249.0454	36:37	36:37	0	1.116	3030984	572776	113	282	5069	1.56(1.16-1.94)	
4,4'-DDT											
235.0081	36:38	36:38	0	1.000	9673822	1789910	696	1740	2572		
237.0052	36:38	36:38	0	1.000	6309543	1175880	74	185	15890	1.53(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:24	30:24	0	0.927	1410188	285740	54	135	5291		
271.8775	30:24	30:24	0	0.927	871727	181198	37	92	4897	1.62(1.16-1.94)	
Dieldrin											
262.8570	30:27	30:27	0	1.001	2930195	609411	114	285	5346		
264.8540	30:27	30:27	0	1.001	1884099	389394	94	235	4142	1.56(1.16-1.94)	
13C12-Endrin											
269.8805	32:04	32:04	0	0.978	789134	160115	54	135	2965		
271.8775	32:04	32:04	-1	0.977	498394	103072	37	92	2786	1.58(1.16-1.94)	
Endrin											
262.8570	32:06	32:06	0	1.001	1614706	317031	114	285	2781		
264.8540	32:06	32:06	0	1.001	1021631	201573	94	235	2144	1.58(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C9-Endosulfan II											
276.8270	32:48	32:48	0	1.000	177727	36440	36	90	1012		
278.8240	32:48	32:48	0	1.000	130741	26677	12	30	2223	1.36(0.93-1.55)	
Endosulfan II											
271.8102	32:49	32:49	0	1.000	392014	73683	82	205	899		
273.8072	32:49	32:49	0	1.000	297477	56326	62	155	908	1.32(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:20	34:20	0	1.046	228107	39649	37	92	1072		
358.9361	34:19	34:20	-1	1.046	132044	23983	12	30	1999	1.73(1.17-1.95)	
Endrin aldehyde											
344.8988	34:22	34:22	0	1.001	488156	88782	96	240	925		
346.8959	34:22	34:22	0	1.001	308549	53399	50	125	1068	1.58(1.16-1.94)	
13C12-Methoxychlor											
239.1475	41:58	41:58	0	1.279	7461102	1252936	210	525	5966		
240.1510	41:58	41:58	0	1.279	366303	57245	20	50	2862	20.37(0.00-0.00)	
Methoxychlor											
227.1072	41:59	41:59	0	1.000	14813769	2449093	145	362	16890		
228.1106	41:59	41:59	0	1.000	2690398	450341	54	135	8340	5.51(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:26	40:26	0	1.232	633558	99437	37	92	2687		
329.9379	40:27	40:26	1	1.233	409861	66347	16	40	4147	1.55(1.19-1.98)	
Endrin ketone											
316.9039	40:29	40:29	0	1.001	1463545	242813	39	97	6226		
318.9010	40:29	40:29	0	1.001	912531	149933	31	77	4837	1.60(1.16-1.95)	
13C10-Mirex											
276.8270	45:26	45:26	0	1.228	4296787	660542	29	72	22777		
278.8240	45:25	45:26	-1	1.228	3393042	536349	21	52	25540	1.27(0.93-1.55)	
Mirex											
271.8102	45:27	45:27	0	1.000	9212194	1447167	27	67	53599		
273.8072	45:27	45:27	0	1.000	7255058	1152975	29	72	39758	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:05	19:05	0		16739712	5284751	23	57	229772		
236.0376	19:05	19:05	0		10555654	3339069	12	30	278256	1.59(1.16-1.93)	
PCB-14											
222.0003	17:50	17:50	0	0.934	51247863	18905825	87	217	217308		
223.9974	17:50	17:50	0	0.934	31636394	11634657	61	152	190732	1.62(1.33-1.79)	
13C6-Pentachlorophenol (IS)											
269.8666	18:31	18:31	0		722237	225121	1	2	225121		
271.8636	18:31	18:31	0		1278319	349460	1	2	349460	0.56(0.00-0.00)	
Pentachlorophenol											
263.8464	18:31	18:31	0	1.001	3663963	978285	81	202	12078		
265.8435	18:31	18:31	0	1.001	5691098	1503514	13	32	115655	0.64(0.00-0.00)	
PCB-36											
255.9613	22:10	22:10	0	1.162	31400418	8548332	44	110	194280		
257.9584	22:10	22:10	0	1.162	30067354	8195672	43	107	190597	1.04(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-101L											
337.9207	28:08	28:08	0		6213572	1378553	1	2	1378553		
339.9178	28:08	28:08	0		3953883	885794	1	2	885794	1.57(1.16-1.94)	
PCB-104											
325.8804	23:45	23:45	0	0.844	23547737	6182190	1	2	6182190		
327.8775	23:45	23:45	0	0.844	15071122	3893470	1	2	3893470	1.56(1.32-1.78)	
PCB-118L											
337.9207	32:48	32:48	0		7209618	1387508	45	112	30834		
339.9178	32:48	32:48	0		4520321	884543	25	62	35382	1.59(1.16-1.94)	
PCB-121											
325.8804	26:44	26:44	0	0.815	20767101	4882990	632	1580	7726		
327.8775	26:44	26:44	0	0.815	13088562	3043589	386	965	7885	1.59(1.32-1.78)	
PCB-138L											
371.8817	37:00	37:00	0		3982161	720264	17	42	42368		
373.8788	37:00	37:00	0		3126802	566604	13	32	43585	1.27(1.16-1.94)	
PCB-142											
359.8415	27:31	27:31	0	0.744	16234586	3667793	119	297	30822		
361.8385	27:31	27:31	0	0.744	12773503	2872657	97	242	29615	1.27(1.05-1.43)	
Endosulfan I											
262.8570	28:34	28:34	0	1.001	950410	210543	37	92	5690		
264.8540	28:34	28:34	0	1.001	585918	130974	63	157	2079	1.62(1.16-1.94)	
PCB-60L											
301.9626	27:45	27:45	0		7860420	1698994	23	57	73869		
303.9597	27:45	27:45	0		9725997	2107186	37	92	56951	0.81(0.58-0.96)	
PCB-78											
289.9224	29:23	29:23	0	1.059	17888954	3714651	527	1317	7049		
291.9194	29:23	29:23	0	1.059	22482590	4735108	472	1180	10032	0.80(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:52	30:52	0	0.941	10210781	2074685	413	1032	5023		
249.0454	30:51	30:52	-1	0.940	6594165	1330486	270	675	4928	1.55(1.17-1.95)	
2,4'-DDD											
235.0081	30:53	30:53	0	1.000	20289534	4293508	486	1215	8834		
237.0052	30:53	30:53	0	1.000	13102896	2743777	159	397	17256	1.55(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:49	33:49	0	1.031	757245	140433	59	147	2380		
278.8240	33:49	33:49	0	1.031	568664	110081	37	92	2975	1.33(0.93-1.55)	
cis-Nonachlor											
271.8102	33:51	33:51	0	1.001	1557989	296095	50	125	5922		
273.8072	33:51	33:51	0	1.001	1240059	233664	48	120	4868	1.26(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:19	36:19	0	1.107	1367137	234612	59	147	3976		
278.8240	36:19	36:19	0	1.107	1140250	197019	37	92	5325	1.20(0.93-1.55)	
Endosulfan sulfate											
271.8102	36:21	36:21	0	1.001	3095768	555204	50	125	11104		
273.8072	36:21	36:21	0	1.001	2419238	427995	48	120	8917	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-167L											
371.8817	39:30	39:30	0		4437213	764149	31	77	24650		
373.8788	39:30	39:30	0		3466030	598924	25	62	23957	1.28(1.16-1.94)	
PCB-155											
359.8415	34:00	34:00	0	0.861	9219505	1701352	84	210	20254		
361.8385	34:00	34:00	0	0.861	7417432	1394383	78	195	17877	1.24(1.05-1.43)	
PCB-184											
393.8025	34:40	34:40	0	0.878	9710053	1762322	13	32	135563		
395.7995	34:40	34:40	0	0.878	9219590	1678932	10	25	167893	1.05(0.89-1.21)	
PCB-204											
427.7635	42:18	42:18	0	1.071	5527933	952666	1	2	952666		
429.7606	42:18	42:18	0	1.071	6189175	1064212	1	2	1064212	0.89(0.76-1.02)	
PCB-192											
393.8025	42:37	42:37	0	1.079	7385458	1255786	55	137	22832		
395.7995	42:37	42:37	0	1.079	7050294	1195779	54	135	22144	1.05(0.89-1.21)	
PCB-52L											
0.0											
PCB-126L											
0.0											

Reagents:

61L51699PST_00018 Amount Added: 20.00 Units: uL

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 30-Mar-2025 12:22:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub14

Method: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 14:06:09 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1715

Start Cal Date: 19-Mar-2025 17:47:00
End Cal Date: 20-Mar-2025 01:05:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:24	1	15	0.9117	0.9117	0.812 - 1.0115
alpha-BHC		17:24	17:25	1		1.0006	1.0006	0.995 - 1.0090
13C6-beta BHC		18:23	18:24	2	15	0.9636	0.9641	0.864 - 1.0640
beta-BHC		18:24	18:25	1		1.0011	1.0006	0.901 - 1.1010
13C6-gamma BHC		18:40	18:41	1	15	0.9786	0.9786	0.878 - 1.0780
gamma-BHC (Lindane)		18:40	18:41	1		1.0005	1.0005	0.901 - 1.1010
13C6-delta BHC		19:37	19:38	1	15	1.0289	1.0289	0.930 - 1.1300
delta-BHC		19:38	19:39	1		1.0005	1.0005	0.901 - 1.1010
13C10-Heptachlor		21:52	21:52	1	15	1.1464	1.1462	1.046 - 1.2460
Heptachlor		21:52	21:54	2		1.0006	1.0012	0.901 - 1.1010
13C6-Hexachlorobenzene		17:43	17:44	1	15	0.9288	0.9288	0.828 - 1.0280
Hexachlorobenzene		17:43	17:44	1		1.0000	1.0000	0.900 - 1.1000
13C12-Aldrin		23:44	23:45	1	15	1.2446	1.2443	0.000 - 0.0000
Aldrin		23:46	23:46	1		1.0011	1.0011	0.000 - 0.0000
13C10-oxy Chlordane		26:09	26:09	1	15	0.9302	0.9299	0.000 - 0.0000
oxy-Chlordane		26:10	26:11	1		1.0010	1.0010	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:06	26:07	1	15	0.9287	0.9284	0.000 - 0.0000
Heptachlor epoxide		26:08	26:09	1		1.0010	1.0010	0.000 - 0.0000
13C12-2,4'-DDE		27:56	27:56	1	15	0.9937	0.9932	0.000 - 0.0000
2,4'-DDE		27:56	27:58	3		1.0000	1.0010	0.000 - 0.0000
13C10-trans Chlordane		27:38	27:39	2	15	0.9830	0.9831	0.000 - 0.0000
trans-Chlordane		27:40	27:41	2		1.0010	1.0010	0.000 - 0.0000
13C10-cis Chlordane		28:41	28:42	2	15	1.0203	1.0203	0.000 - 0.0000
cis-Chlordane		28:42	28:44	2		1.0009	1.0009	0.000 - 0.0000
13C10-trans Nonachlor		29:00	29:01	2	15	1.0315	1.0314	0.000 - 0.0000
trans-Nonachlor		29:02	29:02	1		1.0014	1.0009	0.000 - 0.0000

Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C9-Endosulfan I		28:31	28:32	2	15	1.0145	1.0145	0.000 - 0.0000
13C12-4,4'-DDE		30:10	30:10	1	15	0.9197	0.9197	0.000 - 0.0000
4,4'-DDE		30:11	30:12	2		1.0004	1.0009	0.000 - 0.0000
13C12-4,4'-DDD		33:27	33:29	2	15	1.0201	1.0207	0.000 - 0.0000
4,4'-DDD		33:30	33:30	1		1.0010	1.0005	0.000 - 0.0000
13C12-2,4'-DDT		33:44	33:45	1	15	1.0285	1.0286	0.000 - 0.0000
2,4'-DDT		33:45	33:46	1		1.0005	1.0005	0.000 - 0.0000
13C12-4,4'-DDT		36:36	36:37	1	15	1.1159	1.1159	0.000 - 0.0000
4,4'-DDT		36:37	36:38	1		1.0005	1.0005	0.000 - 0.0000
13C12-Dieldrin		30:23	30:24	2	15	0.9262	0.9266	0.000 - 0.0000
Dieldrin		30:25	30:27	2		1.0013	1.0013	0.000 - 0.0000
13C12-Endrin		32:03	32:04	2	15	0.9772	0.9776	0.000 - 0.0000
Endrin		32:05	32:06	1		1.0013	1.0008	0.000 - 0.0000
13C9-Endosulfan II		32:46	32:48	3	15	0.9992	1.0000	0.000 - 0.0000
Endosulfan II		32:49	32:49	1		1.0012	1.0004	0.000 - 0.0000
13C12-Endrin Aldehyde		34:19	34:20	1	15	1.0463	1.0464	0.000 - 0.0000
Endrin aldehyde		34:21	34:22	1		1.0010	1.0010	0.000 - 0.0000
13C12-Methoxychlor		41:57	41:58	1	15	1.2791	1.2790	0.000 - 0.0000
Methoxychlor		41:58	41:59	1		1.0004	1.0004	0.000 - 0.0000
13C11-Endrin Ketone		40:25	40:26	1	15	1.2325	1.2324	0.000 - 0.0000
Endrin ketone		40:27	40:29	2		1.0008	1.0013	0.000 - 0.0000
13C10-Mirex		45:26	45:26	1	15	1.2282	1.2280	0.000 - 0.0000
Mirex		45:27	45:27	1		1.0004	1.0004	0.000 - 0.0000
PCB-15L		19:04	19:05	1		1.0000	1.0000	0.000 - 0.0000
PCB-14		17:49	17:50	1		0.9342	0.9341	0.000 - 0.0000
13C6-Pentachlorophenol (IS)		18:30	18:31	1		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:30	18:31	2		1.0000	1.0006	0.000 - 0.0000
PCB-36		22:09	22:10	1		1.1619	1.1618	0.000 - 0.0000
PCB-101L		28:07	28:08	2		1.0000	1.0000	0.000 - 0.0000
PCB-104		23:44	23:45	1		0.8438	0.8441	0.000 - 0.0000
PCB-118L		32:48	32:48	1		1.0000	1.0000	0.000 - 0.0000
PCB-121		26:43	26:44	1		0.8147	0.8146	0.000 - 0.0000
PCB-138L		37:00	37:00	1		1.0000	1.0000	0.000 - 0.0000
PCB-142		27:31	27:31	1		0.7433	0.7435	0.000 - 0.0000
Endosulfan I		28:33	28:34	2		1.0010	1.0010	0.000 - 0.0000
PCB-60L		27:44	27:45	2		1.0000	1.0000	0.000 - 0.0000
PCB-78		29:22	29:23	1		1.0588	1.0588	0.000 - 0.0000
13C12-2,4'-DDD		30:51	30:52	2	15	0.9405	0.9409	0.000 - 0.0000
2,4'-DDD		30:52	30:53	1		1.0009	1.0004	0.000 - 0.0000
13C10-cis Nonachlor		33:48	33:49	1	15	1.0306	1.0307	0.000 - 0.0000
cis-Nonachlor		33:49	33:51	2		1.0005	1.0010	0.000 - 0.0000
13C9-Endosulfan sulfate		36:17	36:19	2	15	1.1064	1.1070	0.000 - 0.0000
Endosulfan sulfate		36:19	36:21	2		1.0009	1.0009	0.000 - 0.0000
PCB-167L		39:29	39:30	1		1.0000	1.0000	0.000 - 0.0000
PCB-155		34:00	34:00	0		0.8610	0.8609	0.000 - 0.0000
PCB-184		34:39	34:40	1		0.8776	0.8778	0.000 - 0.0000

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-204		42:18	42:18	1		1.0710	1.0709	0.000 - 0.0000
PCB-192		42:37	42:37	1		1.0791	1.0791	0.000 - 0.0000

Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38

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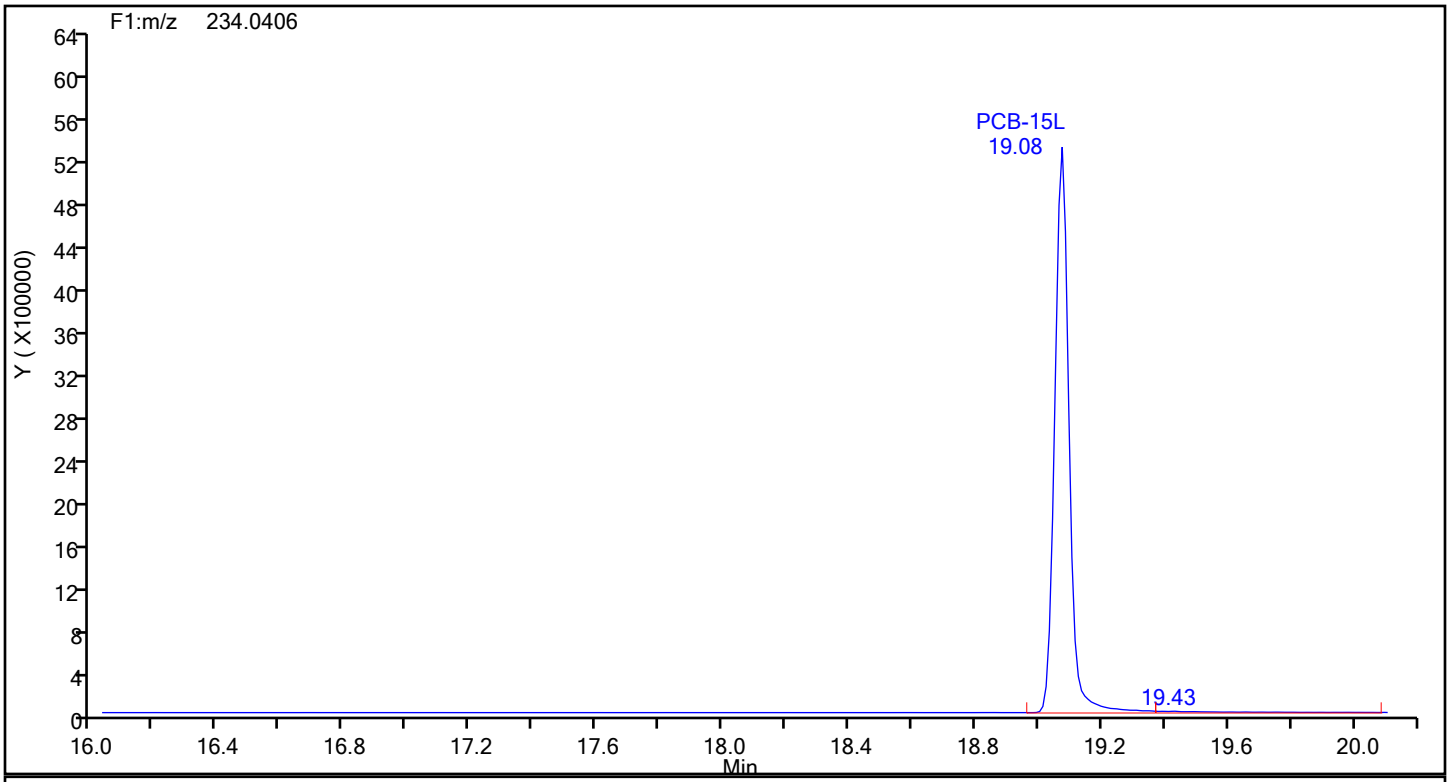
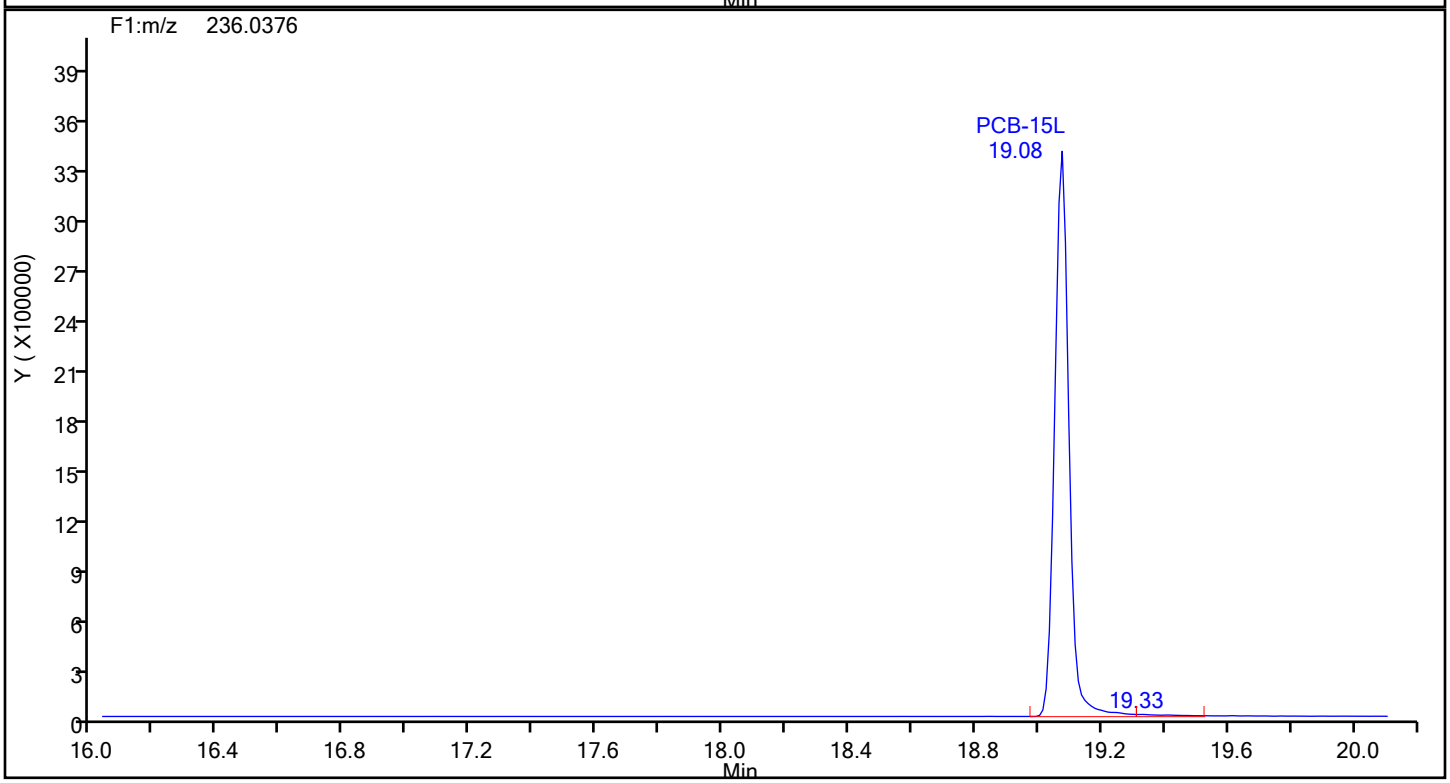
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards



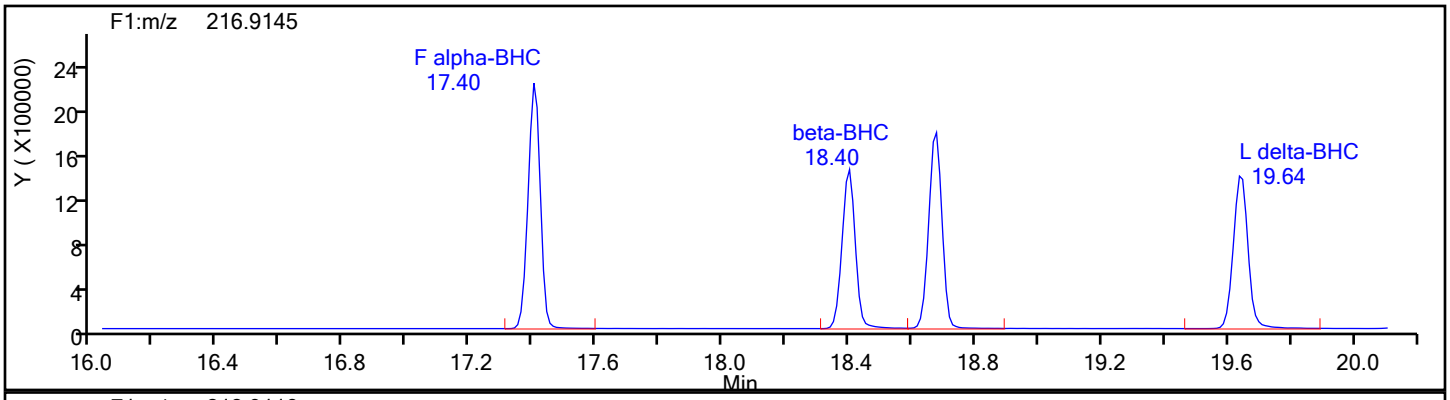


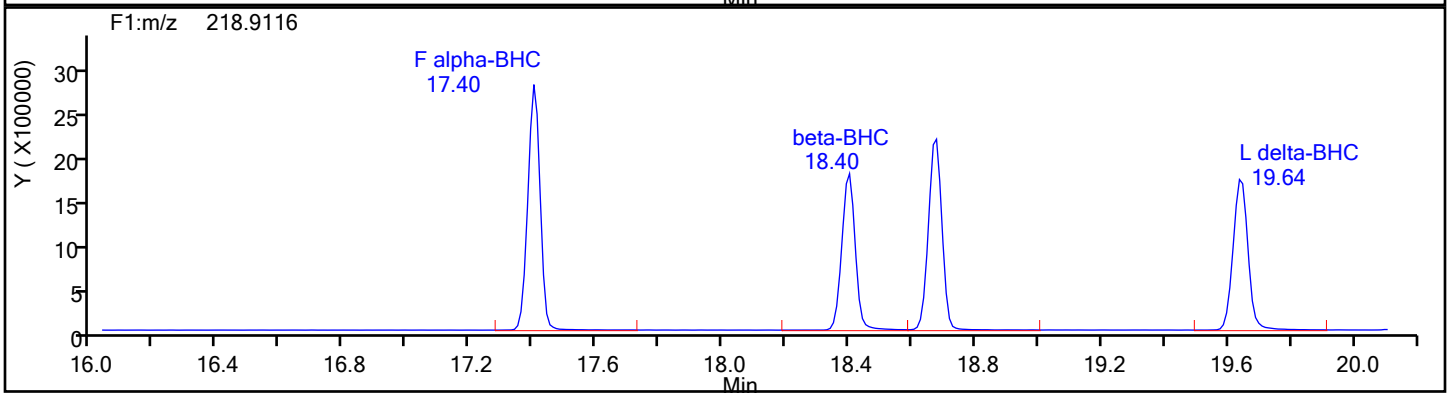
Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

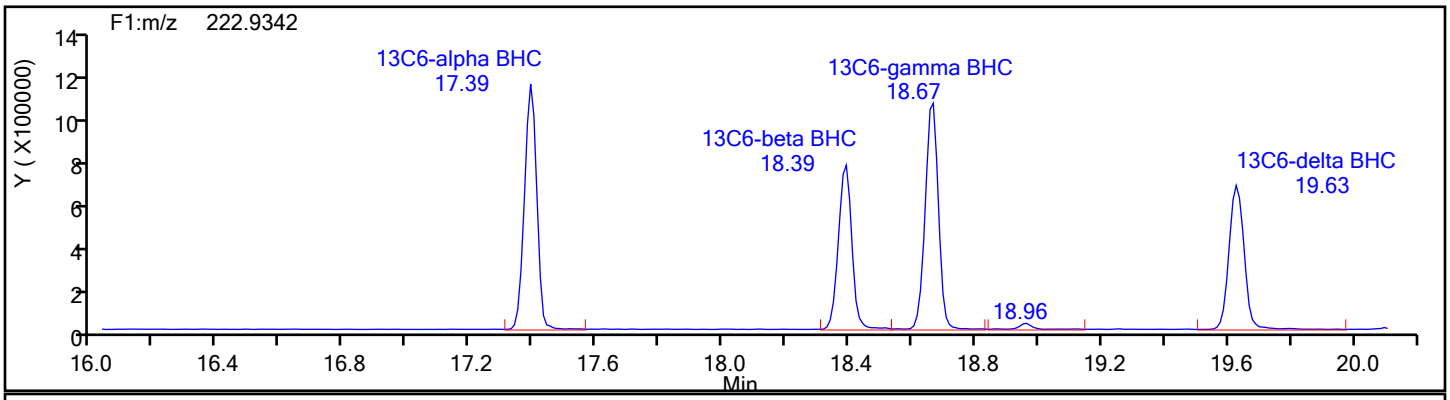
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

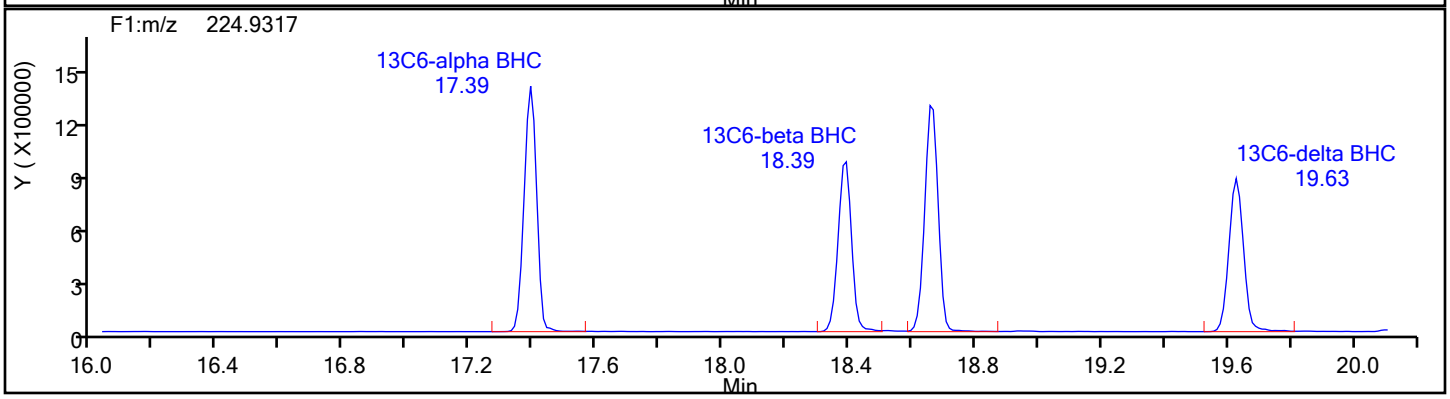
BHC





BHC Standards





Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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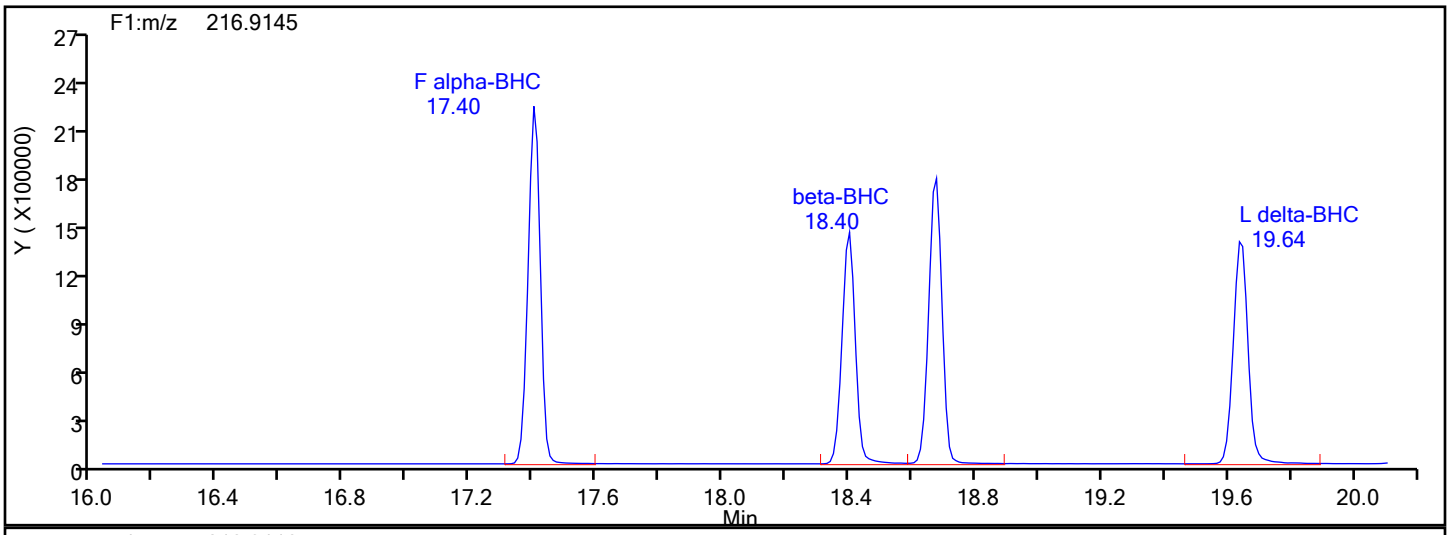
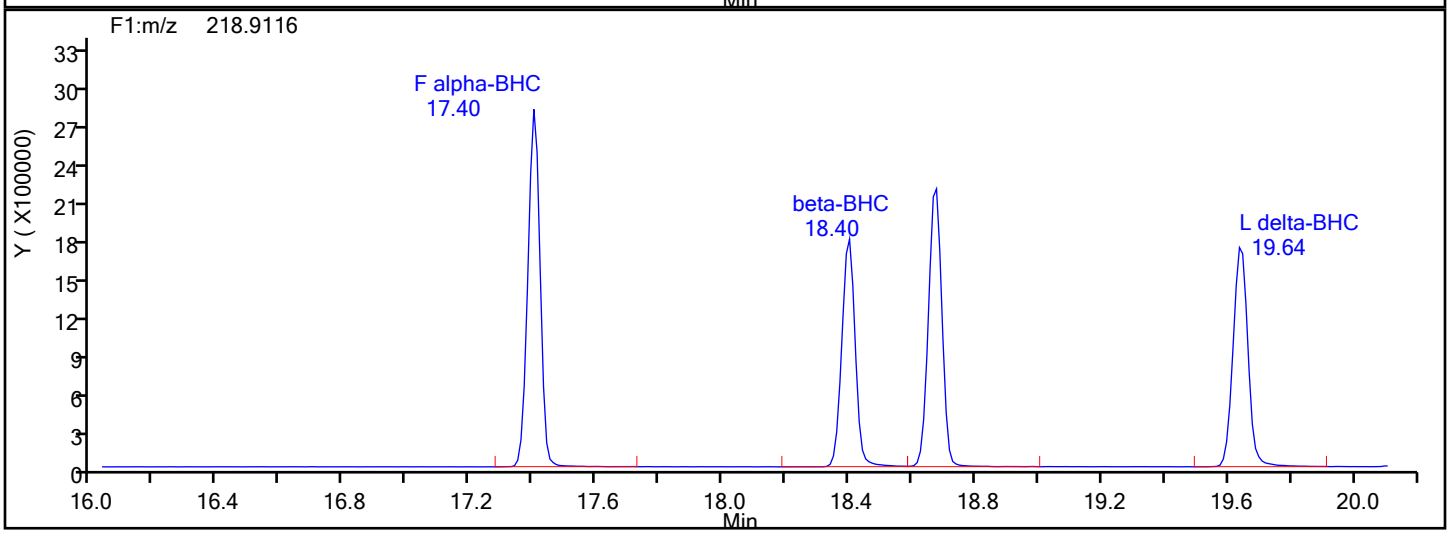
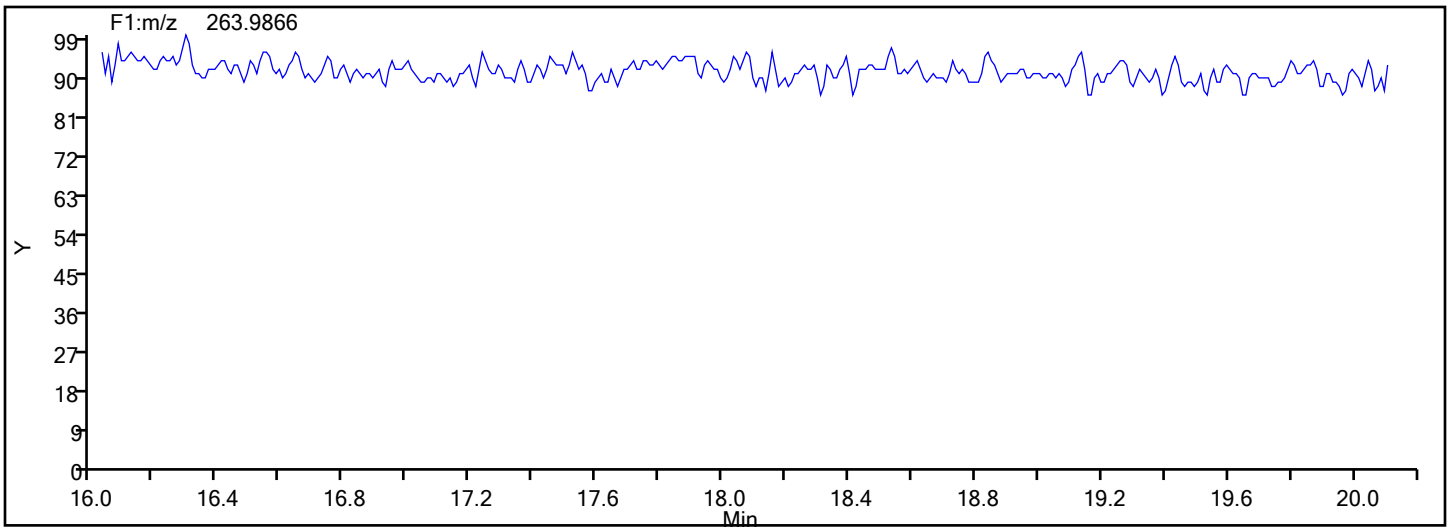
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



Report Date: 31-Mar-2025 14:06:09 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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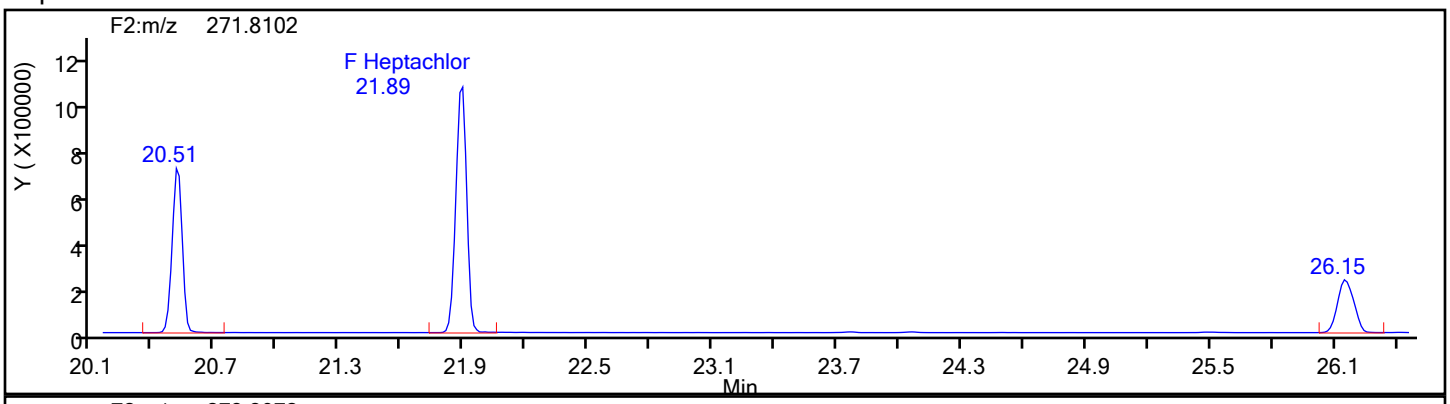
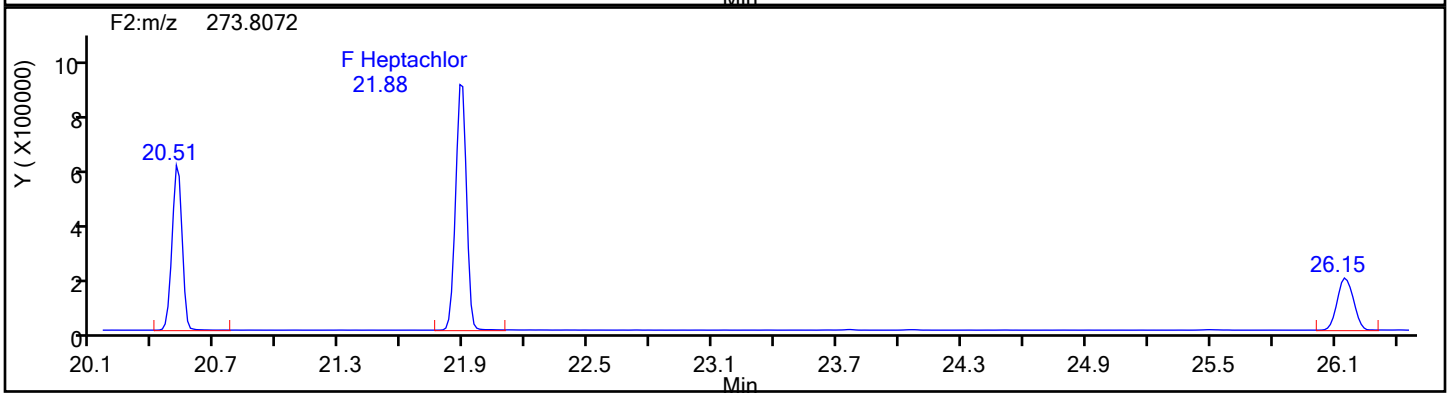
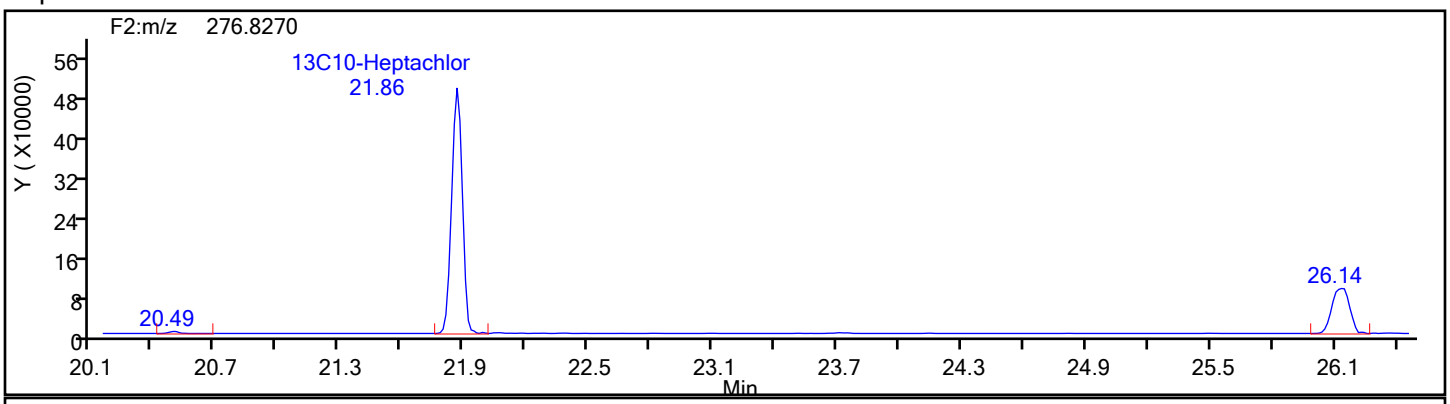
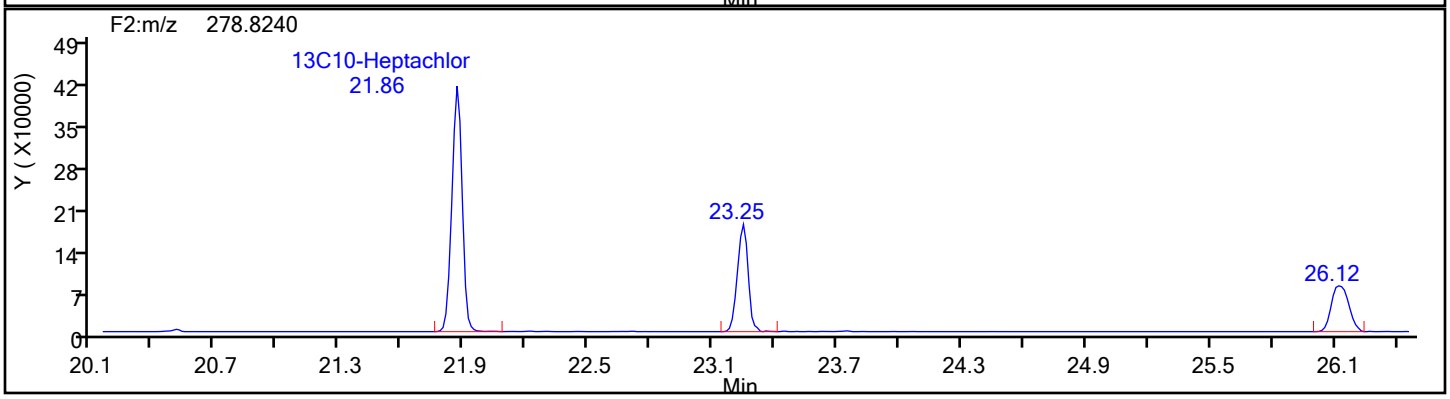
Heptachlor





Heptachlor Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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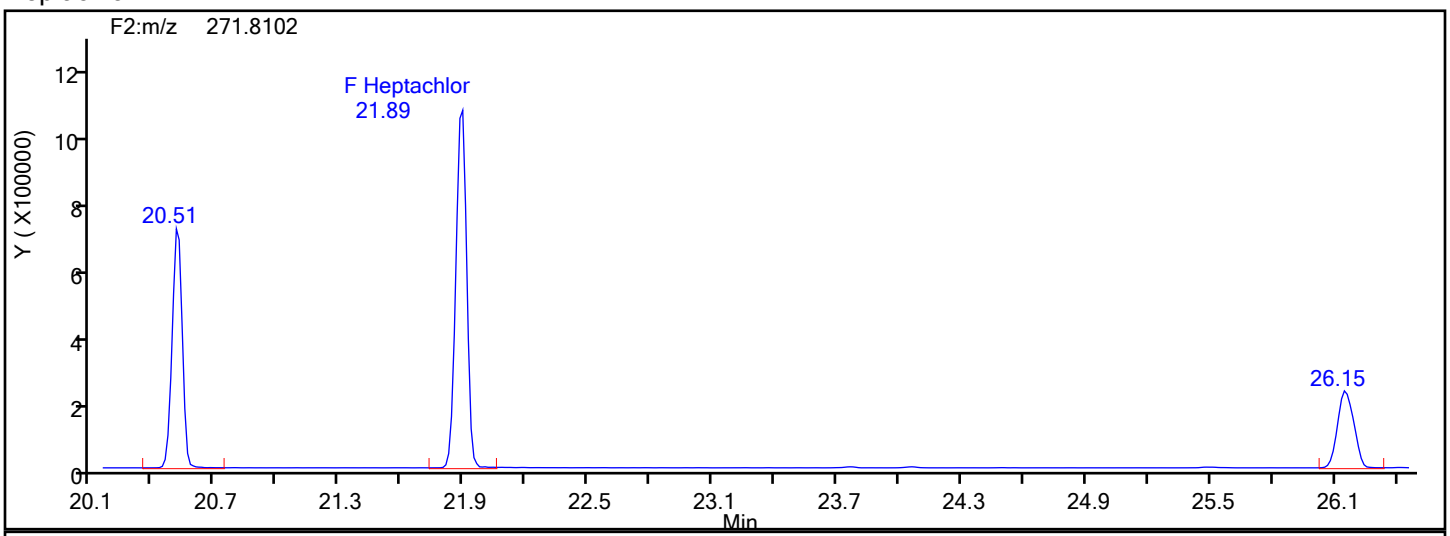
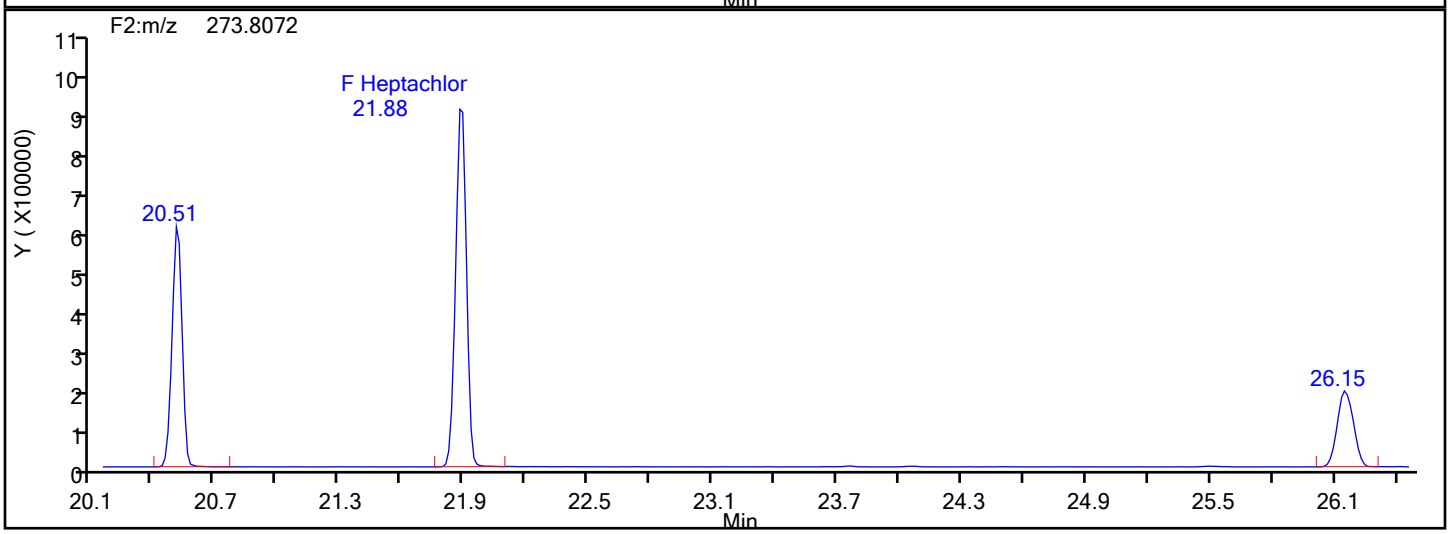
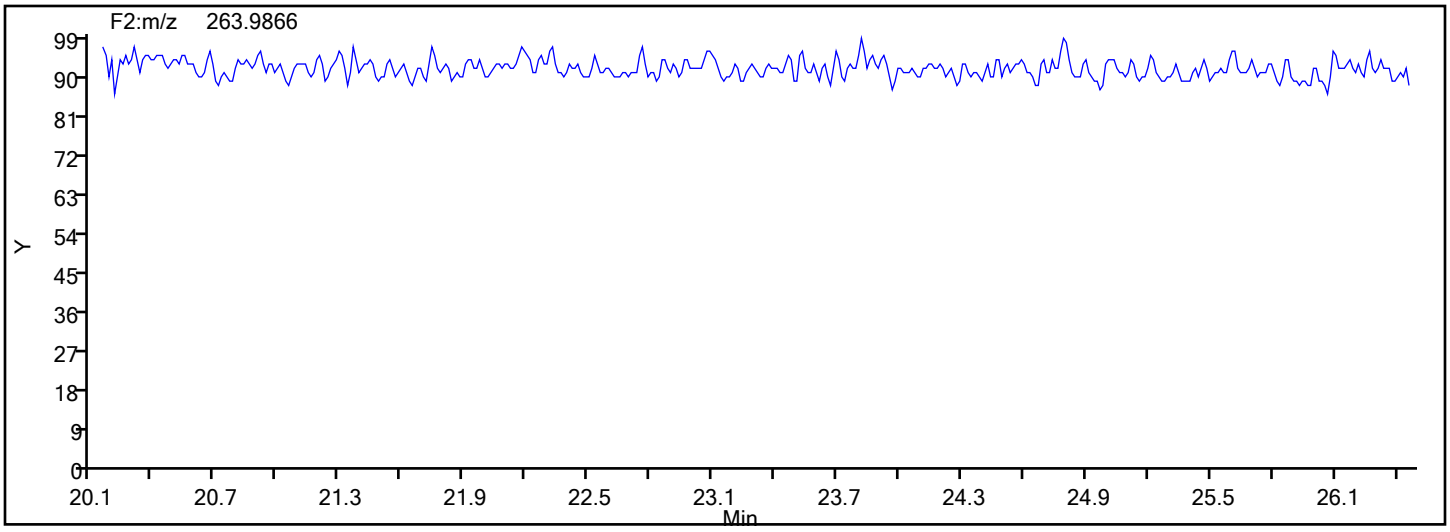
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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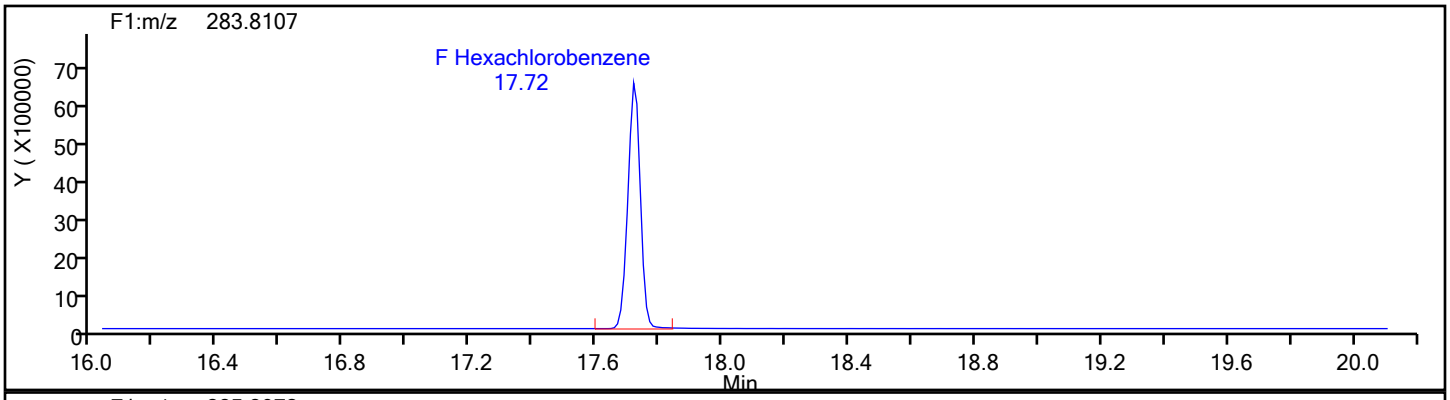
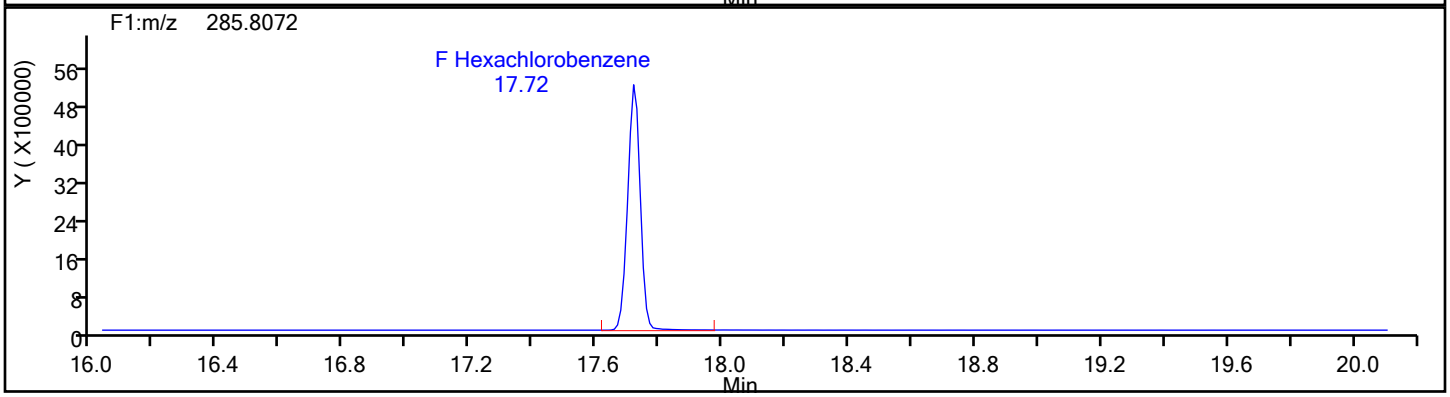
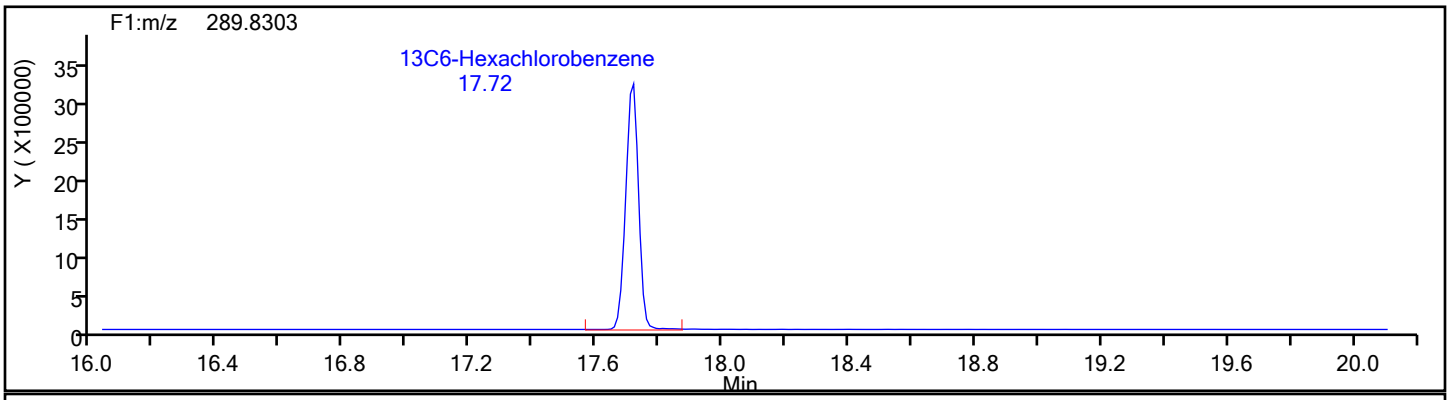
Column Type:	RTX-5	Column Dia:	0.32 mm

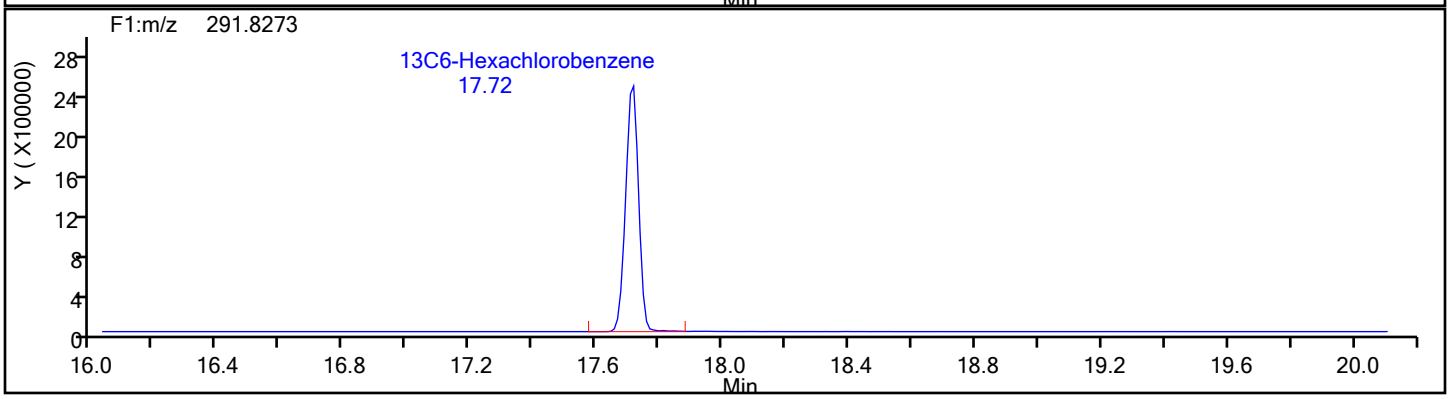
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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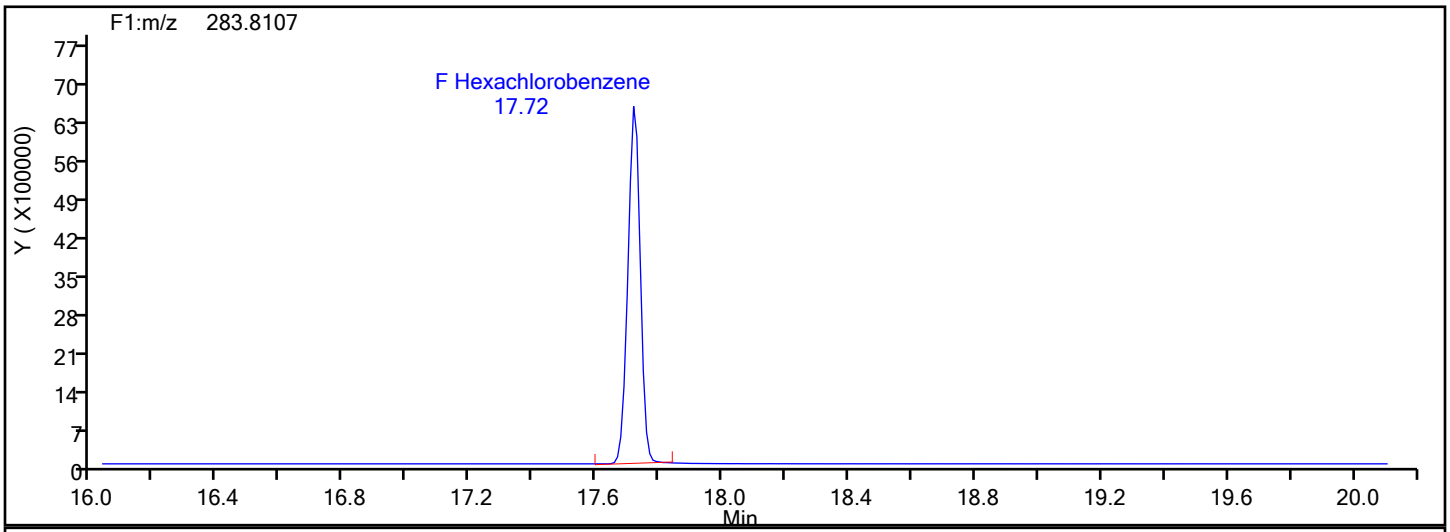
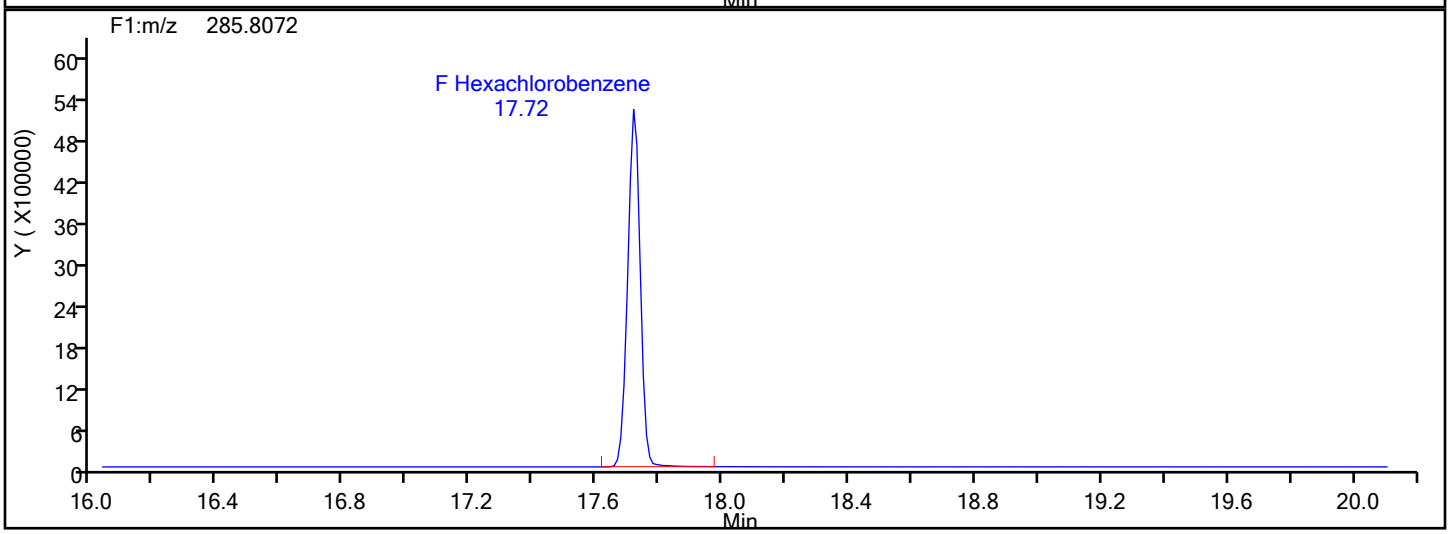
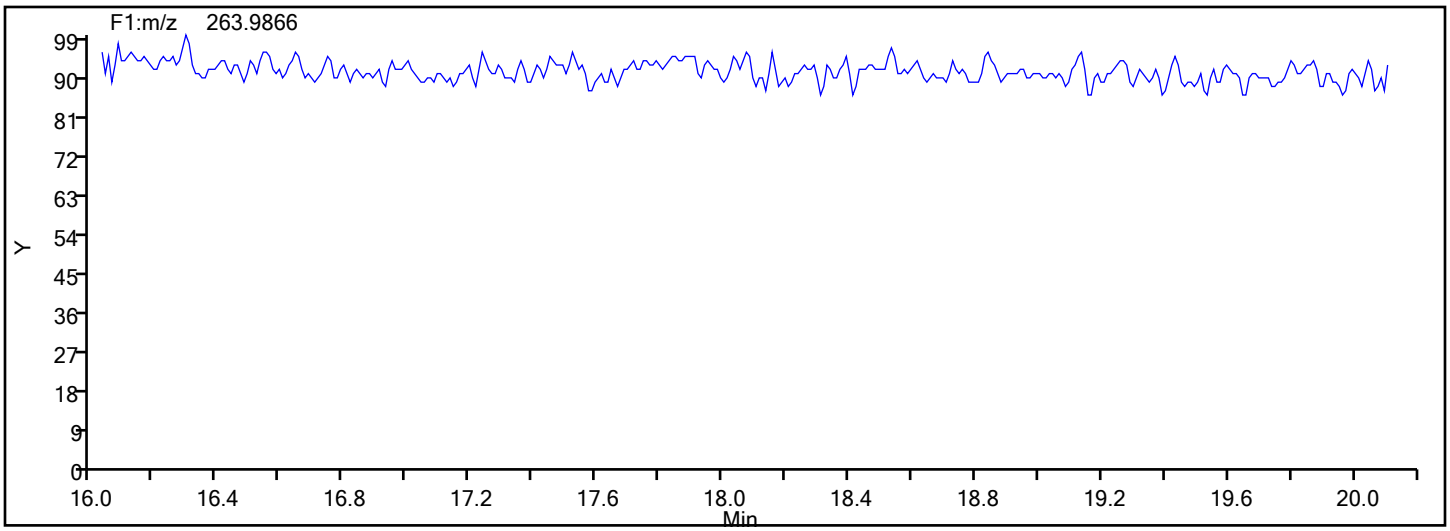
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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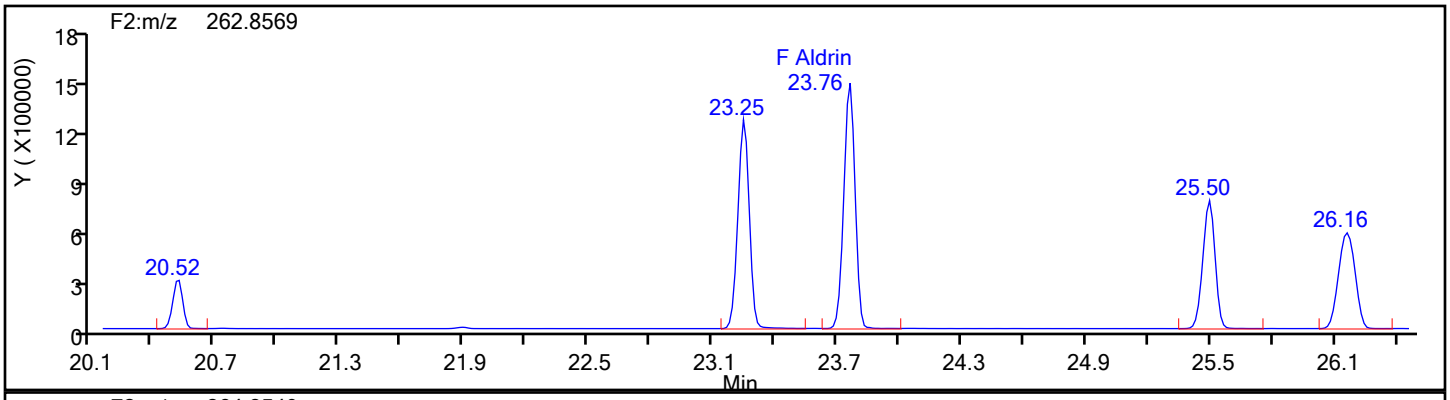
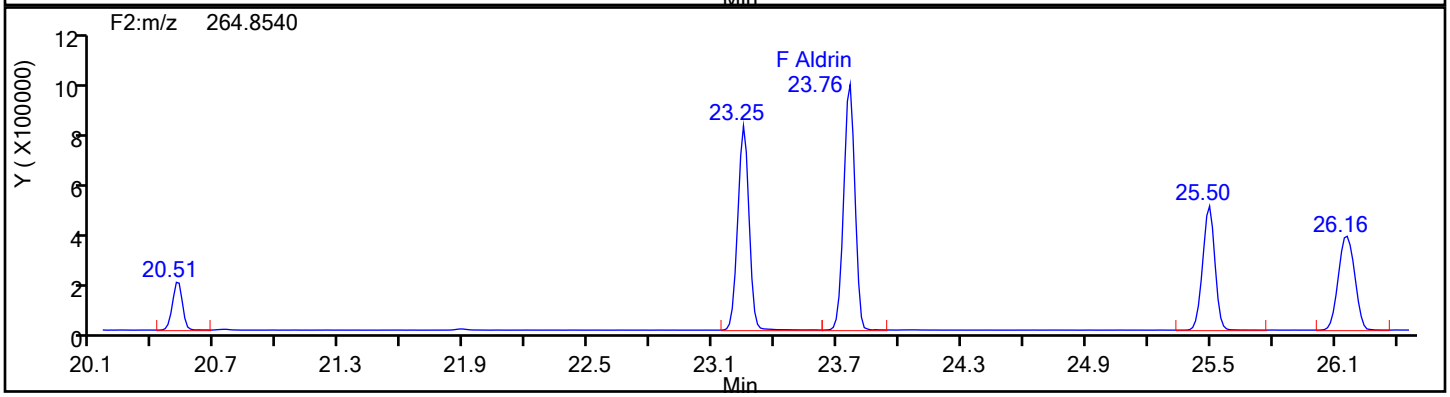
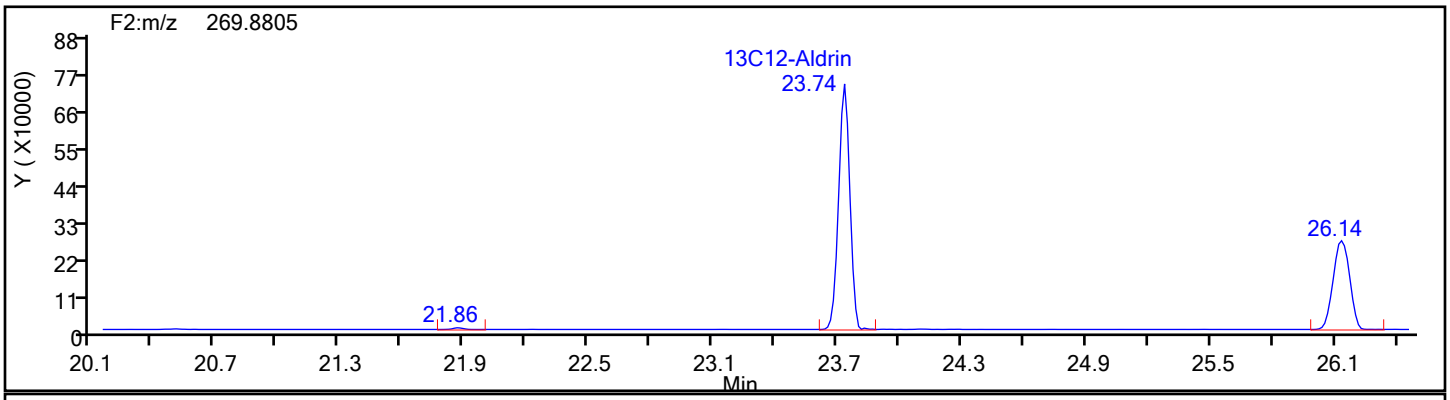
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

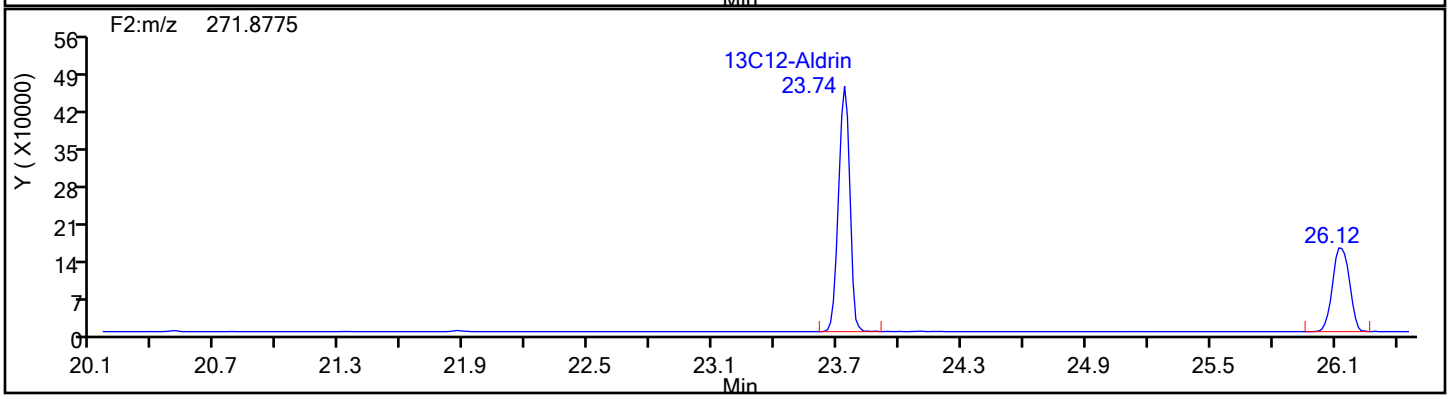
Aldrin





Aldrin Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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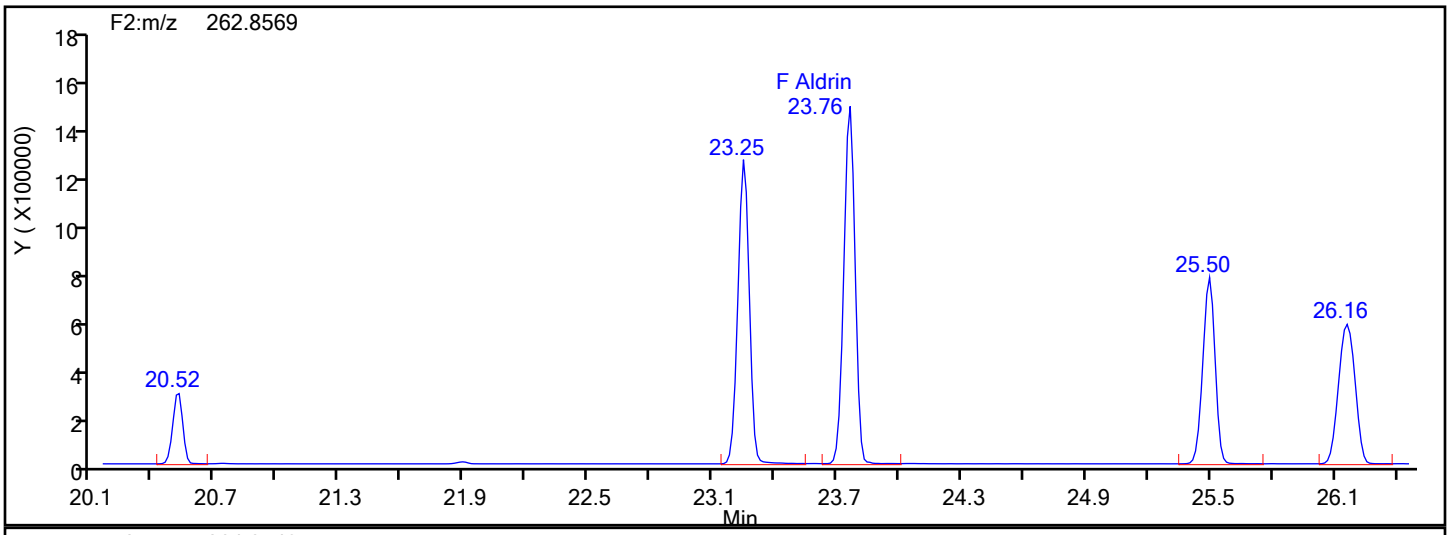
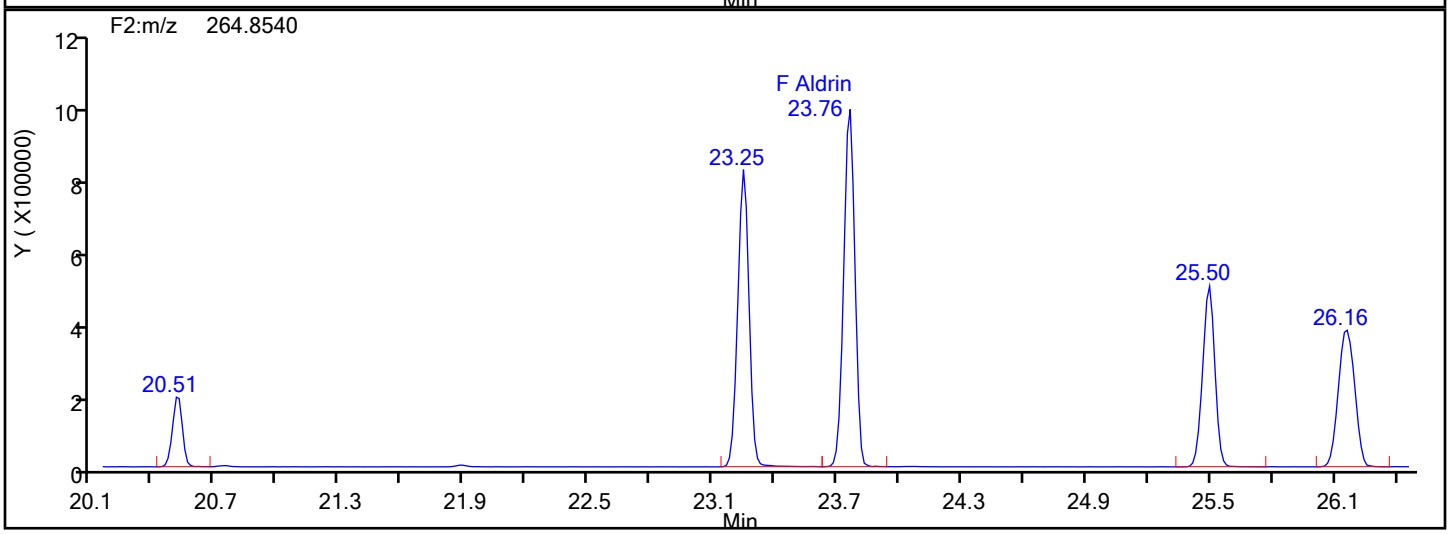
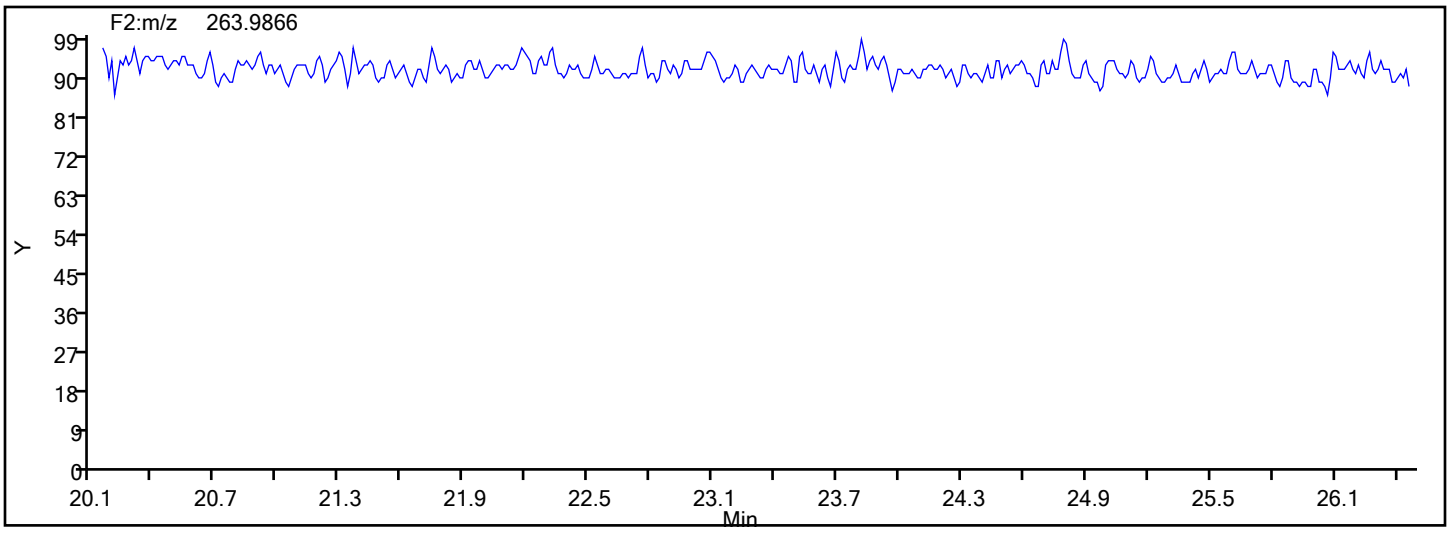
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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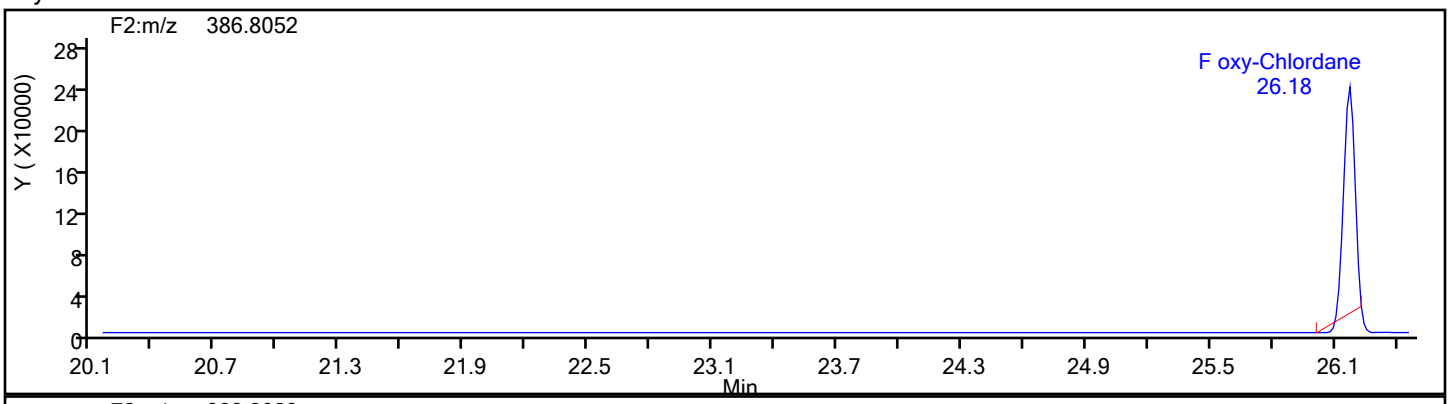
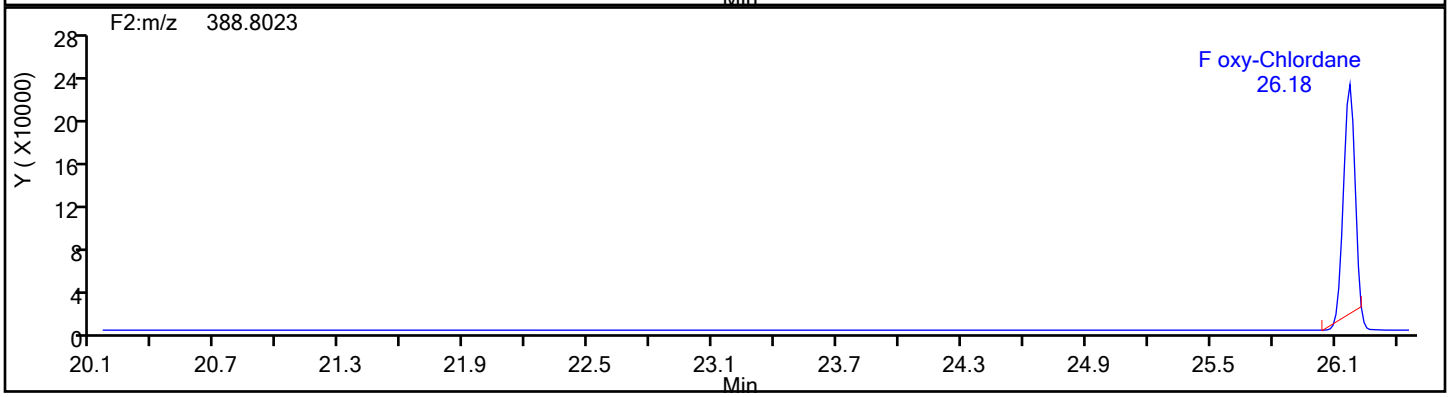
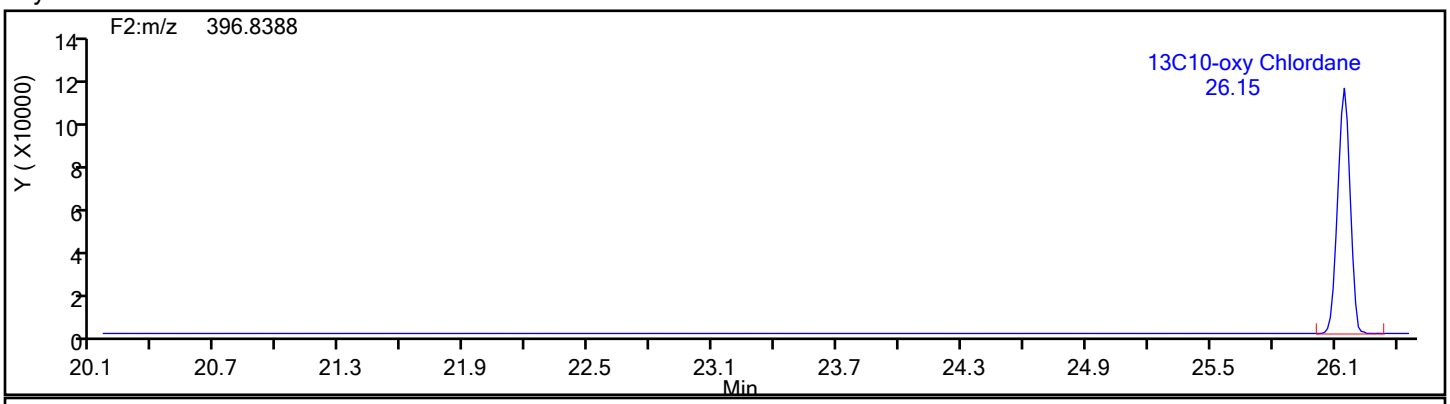
Column Type:	RTX-5	Column Dia:	0.32 mm

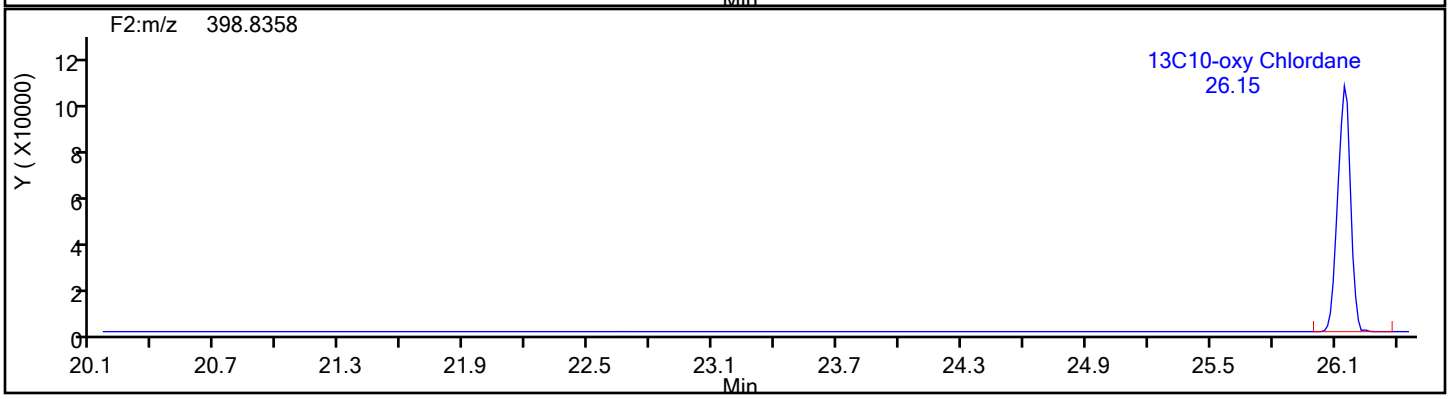
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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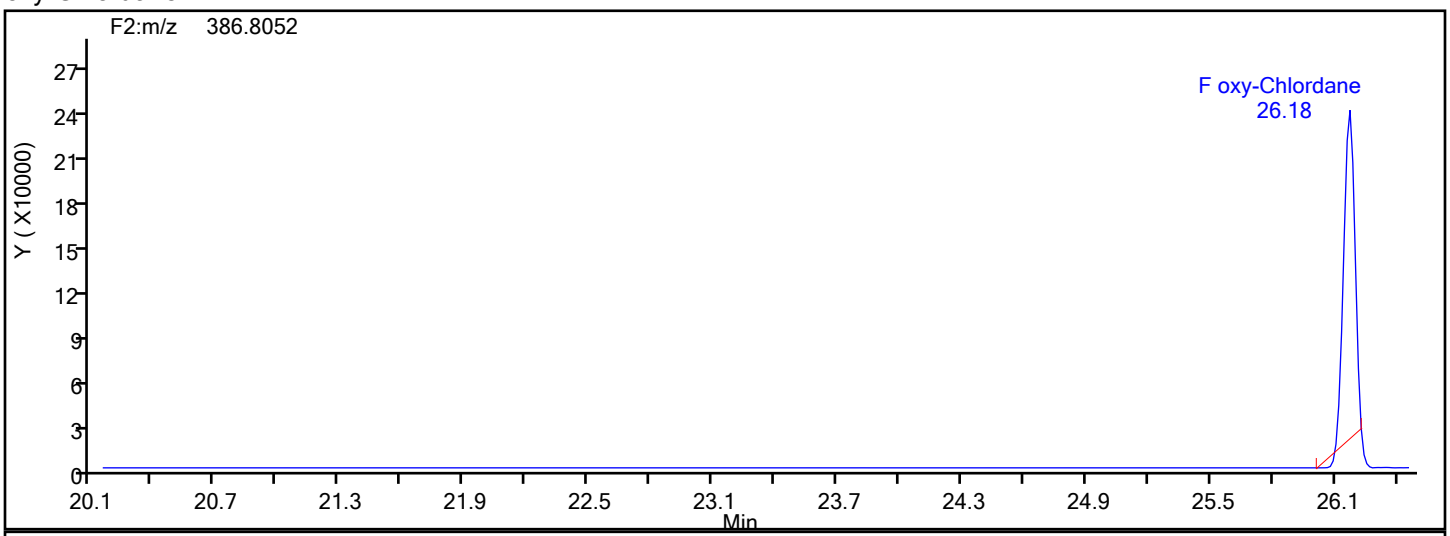
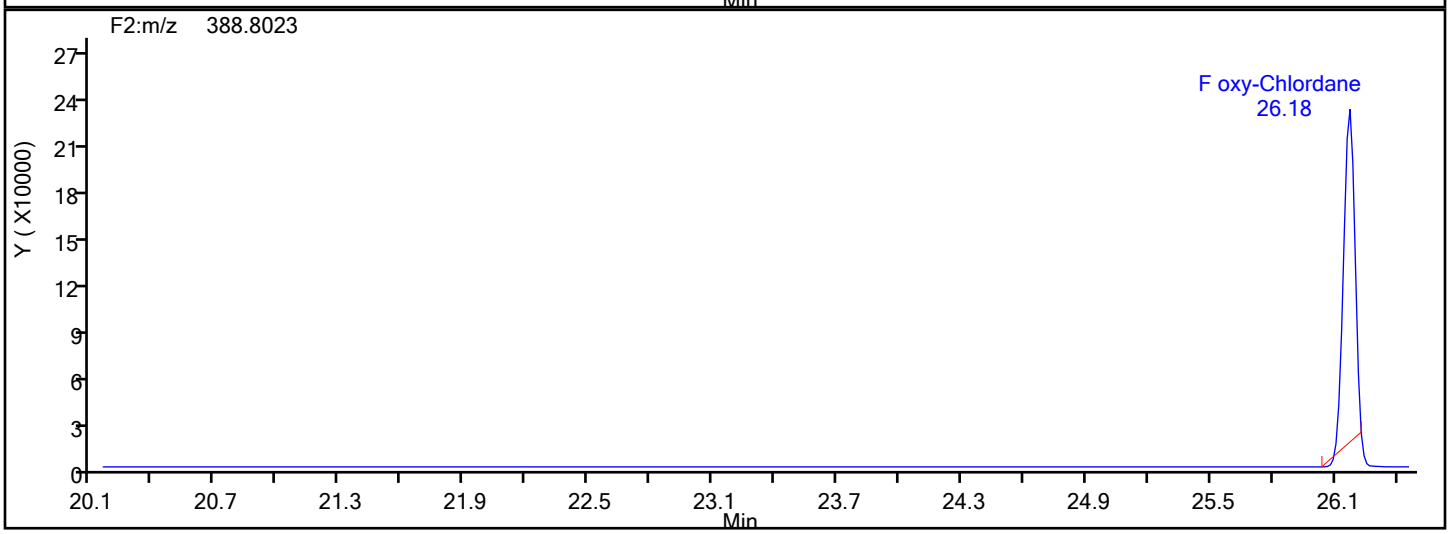
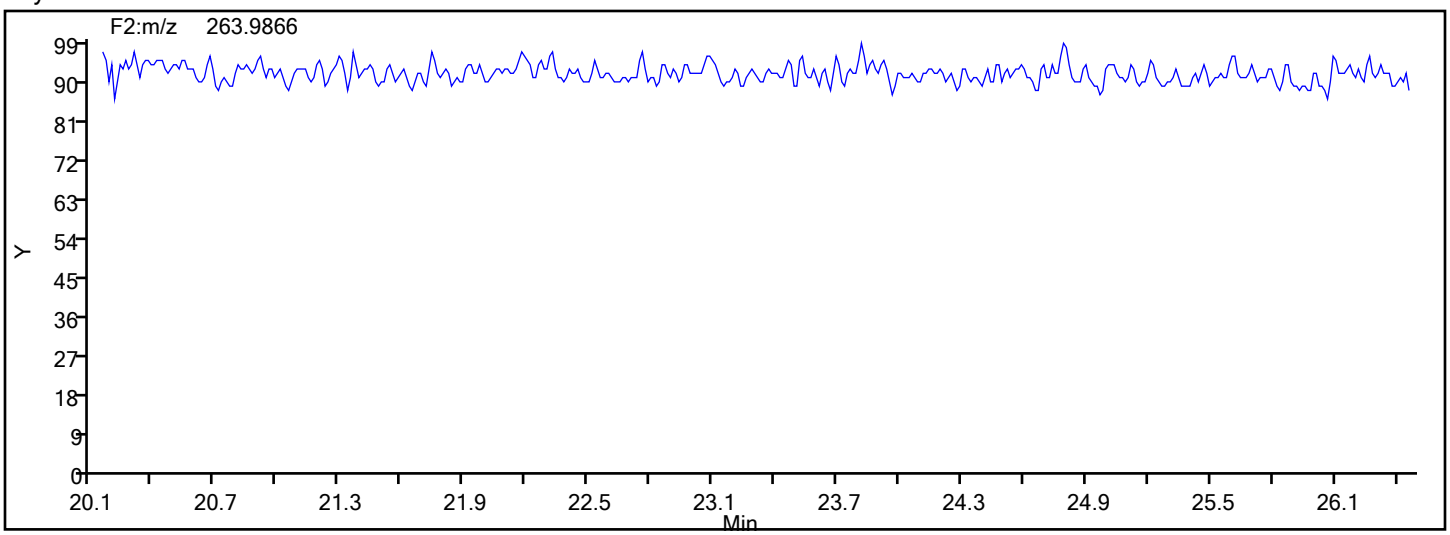
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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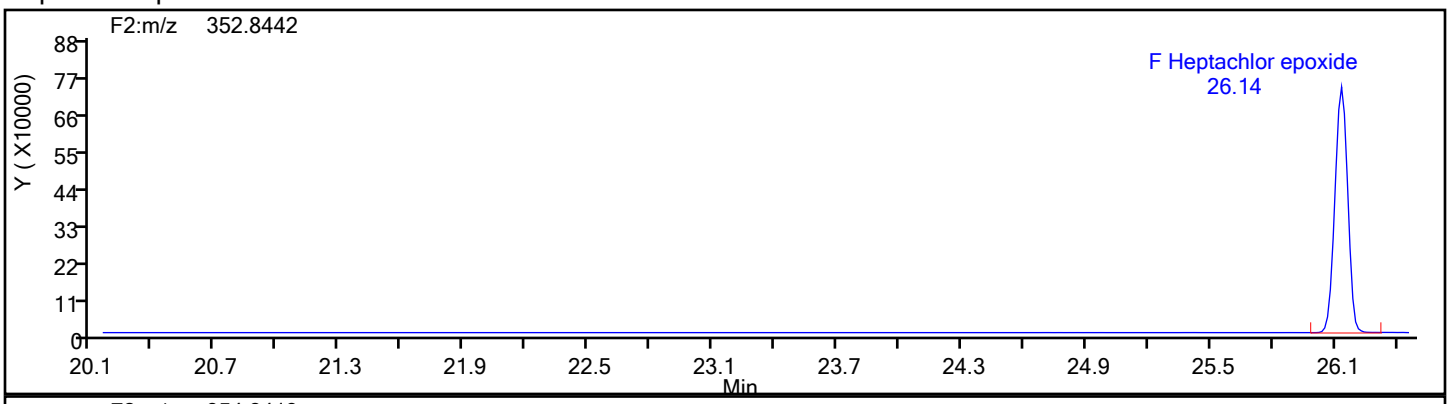
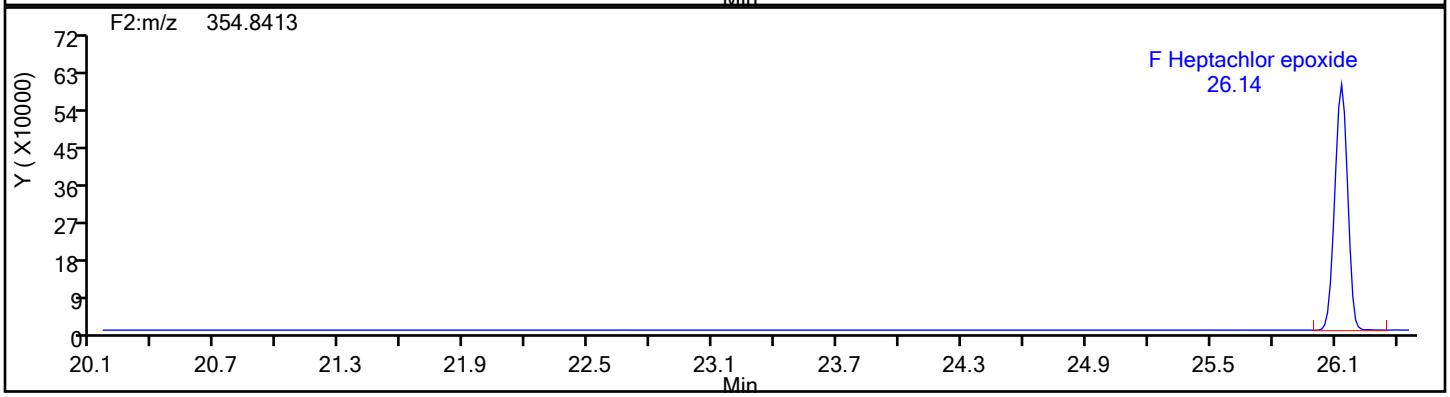
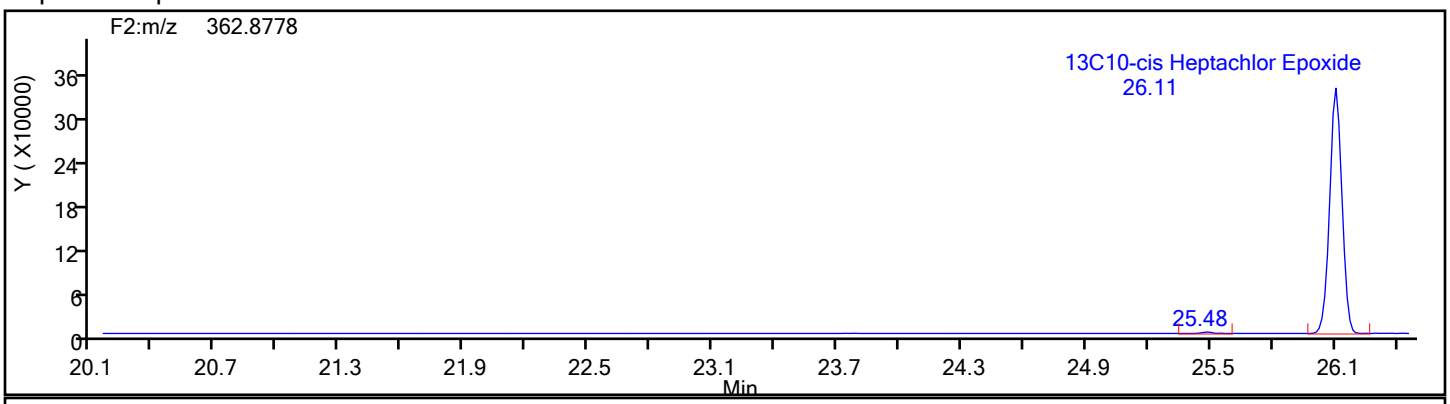
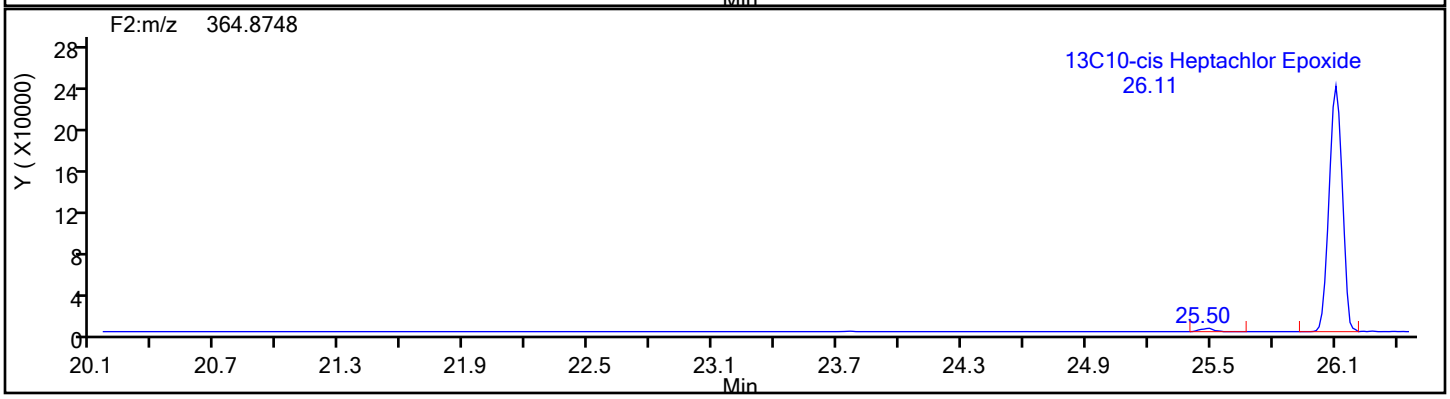
Heptachlor epoxide





Heptachlor epoxide Standards





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Eurofins Knoxville

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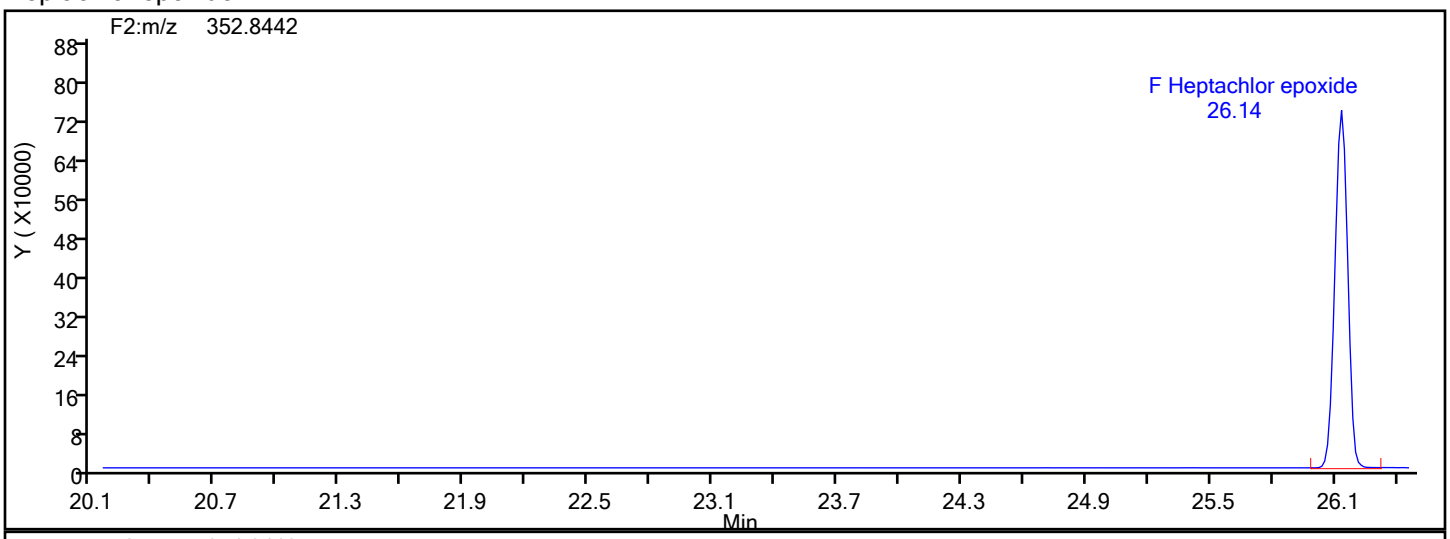
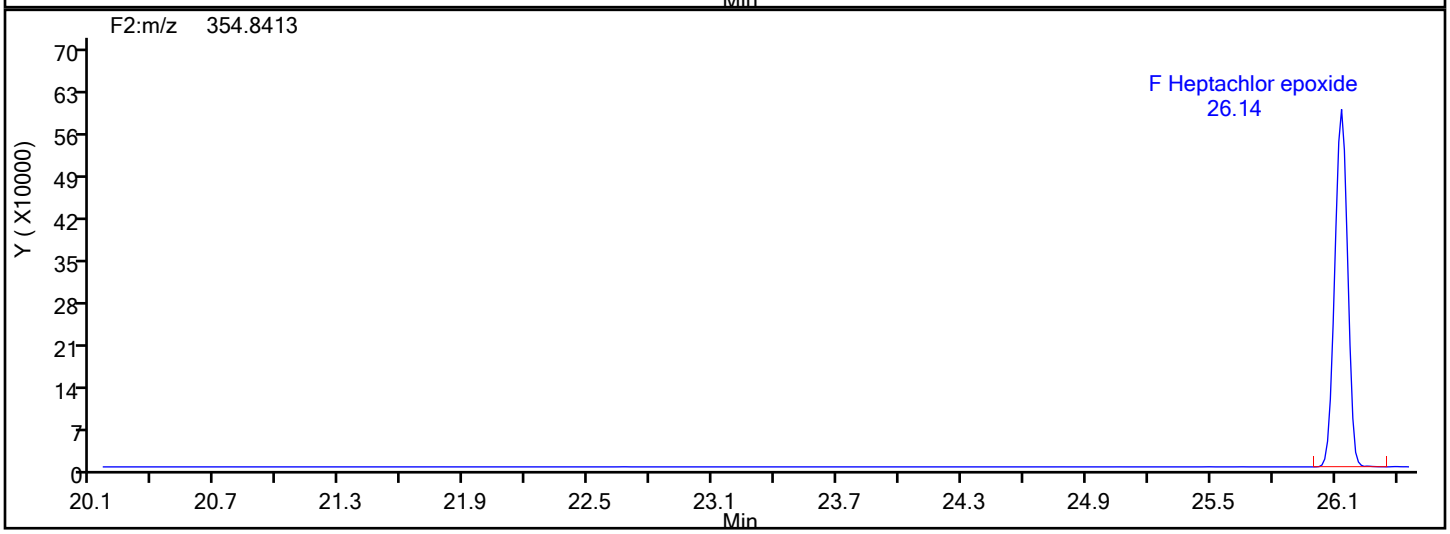
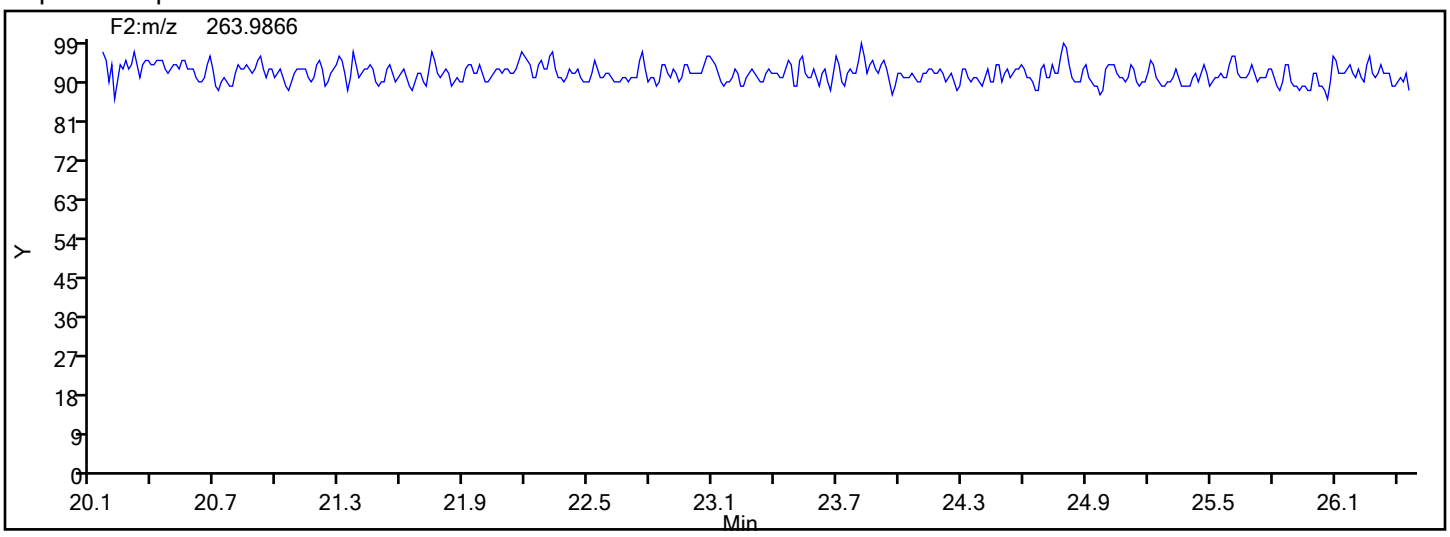
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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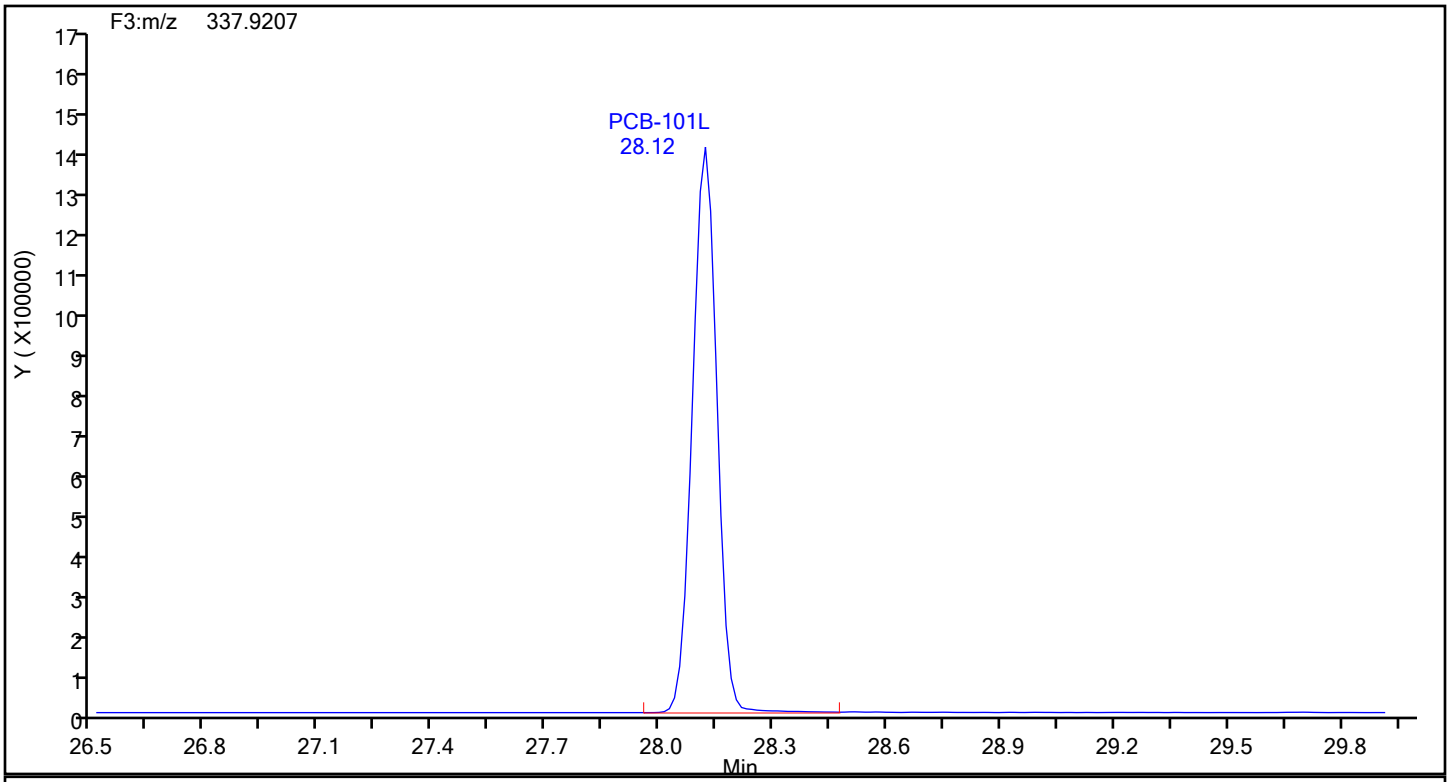
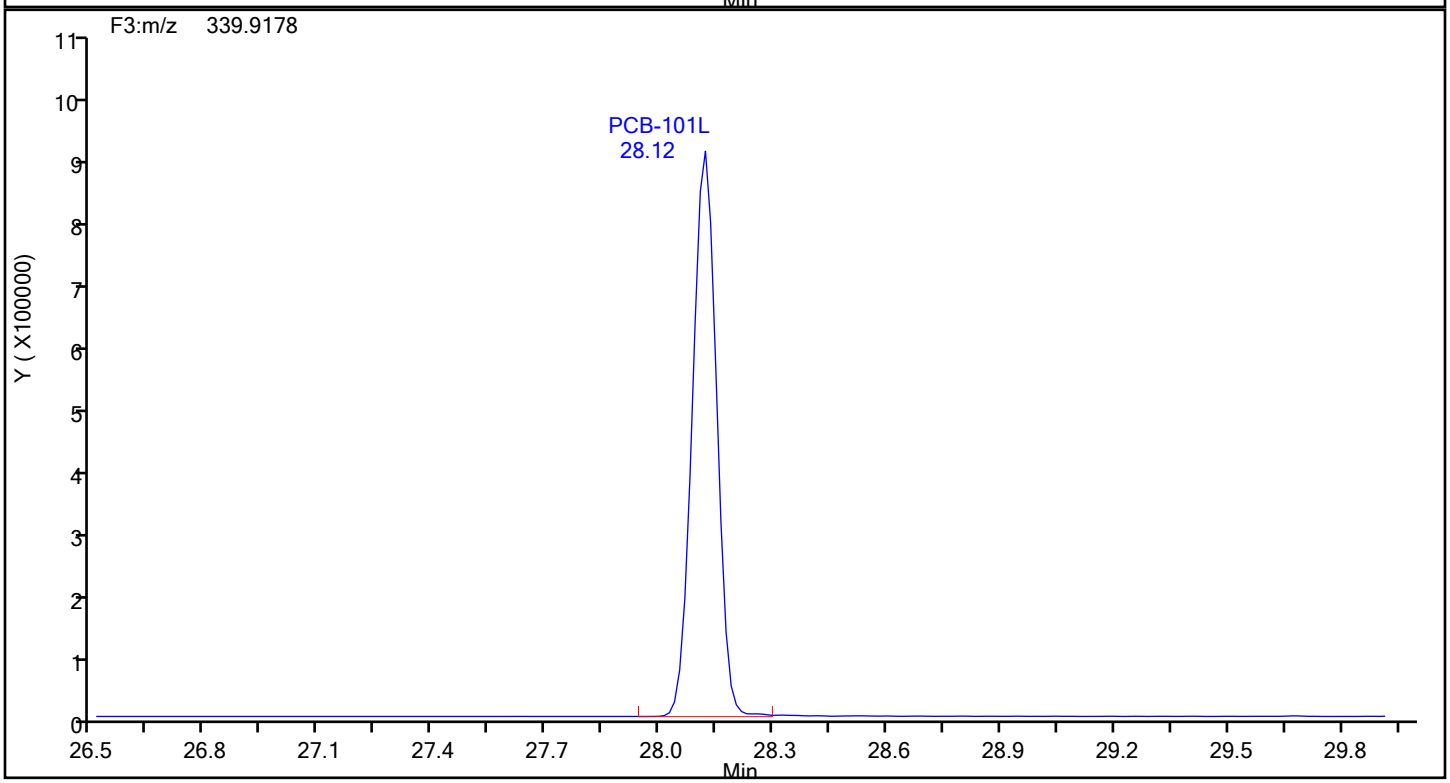
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-101L Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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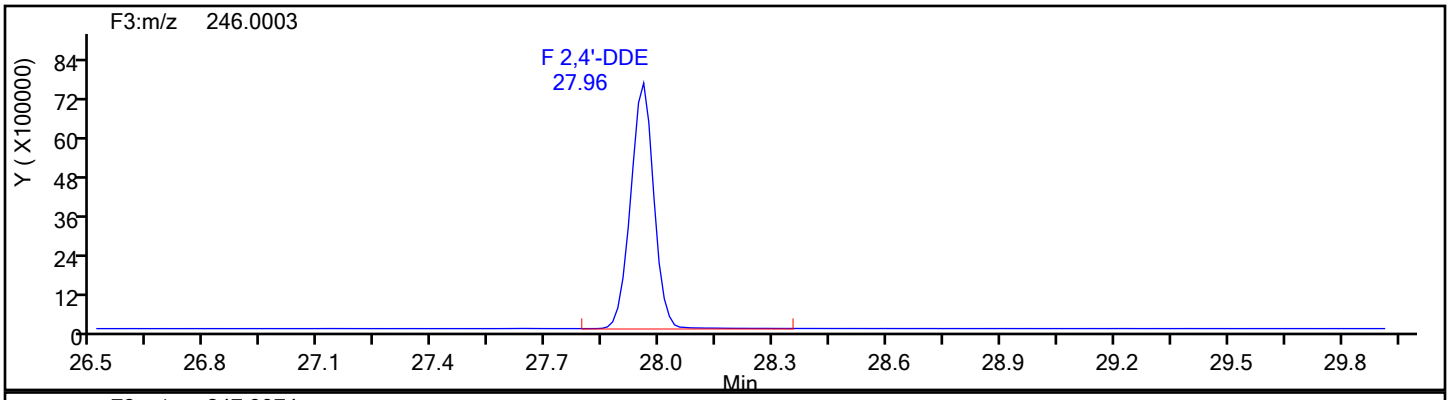
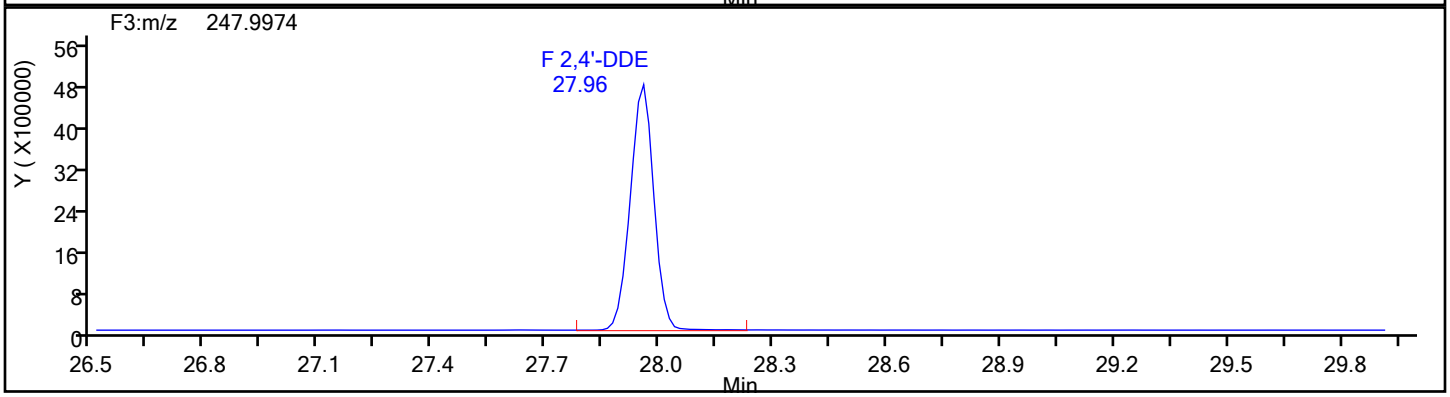
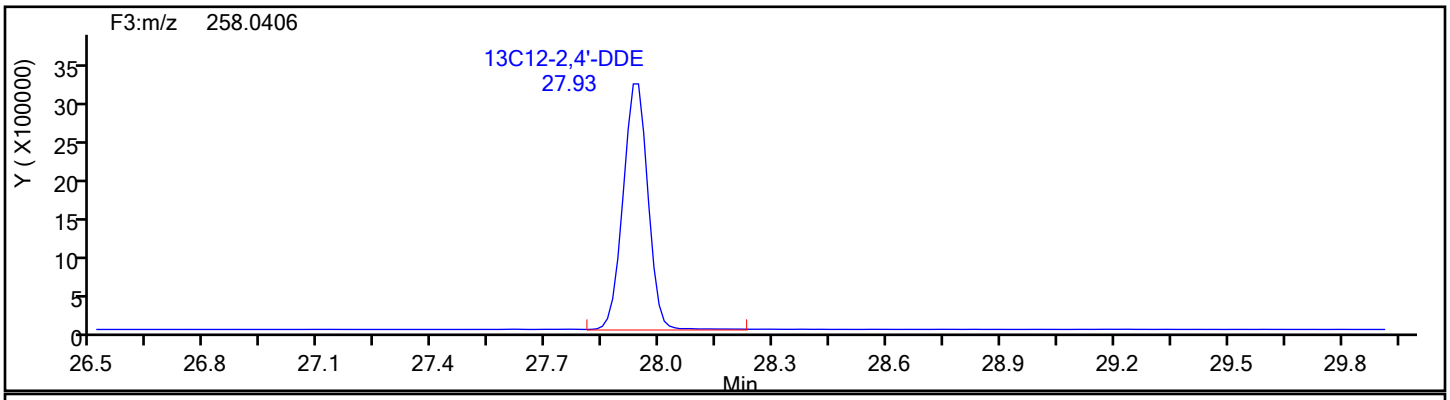
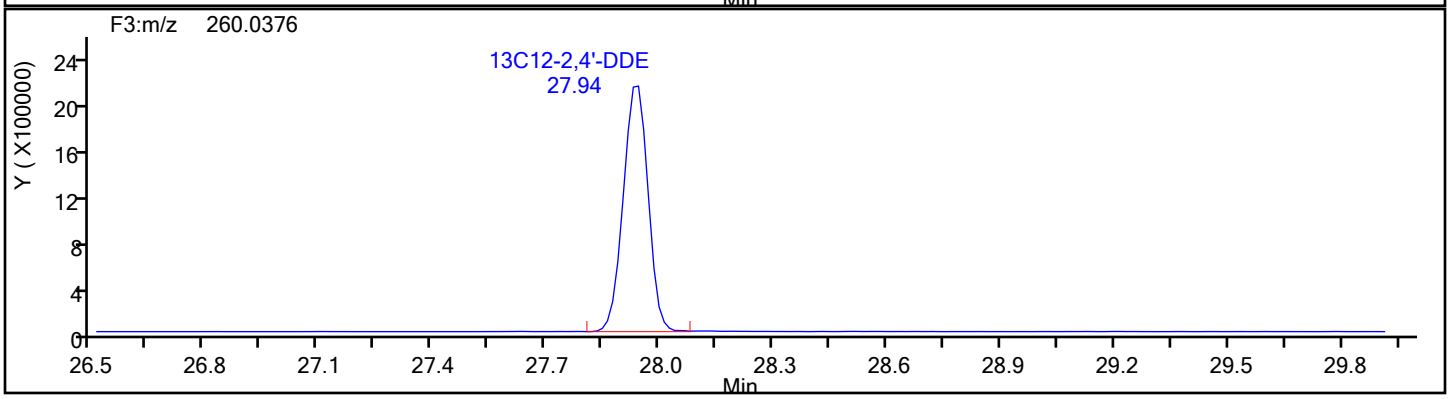
2,4'-DDE





2,4'-DDE Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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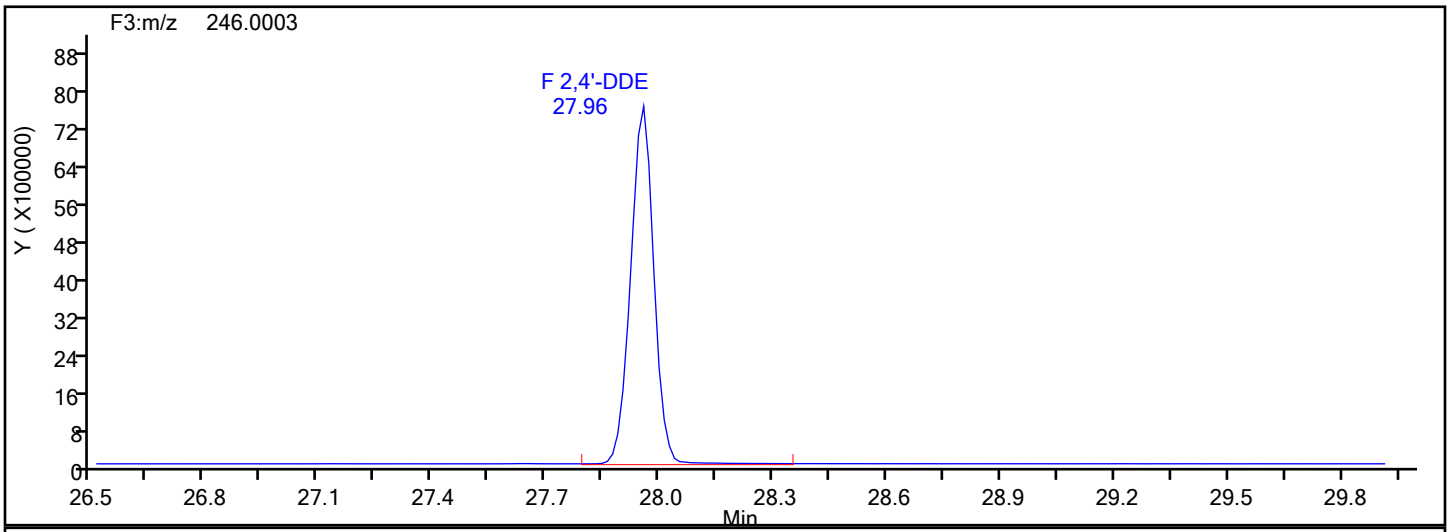
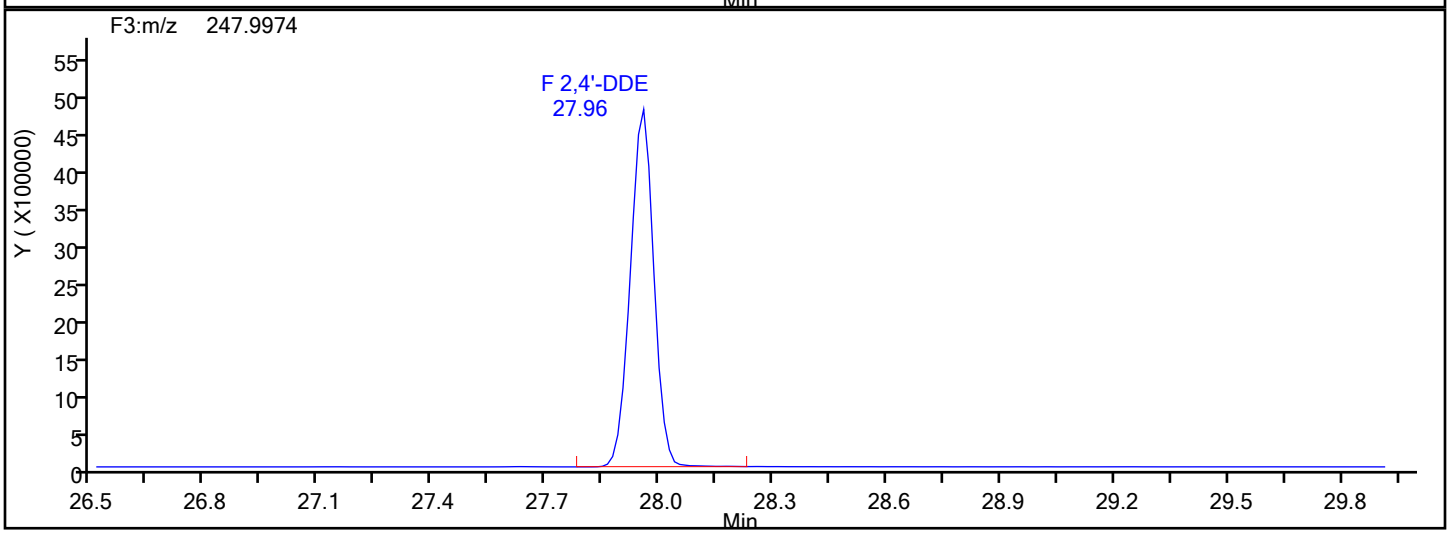
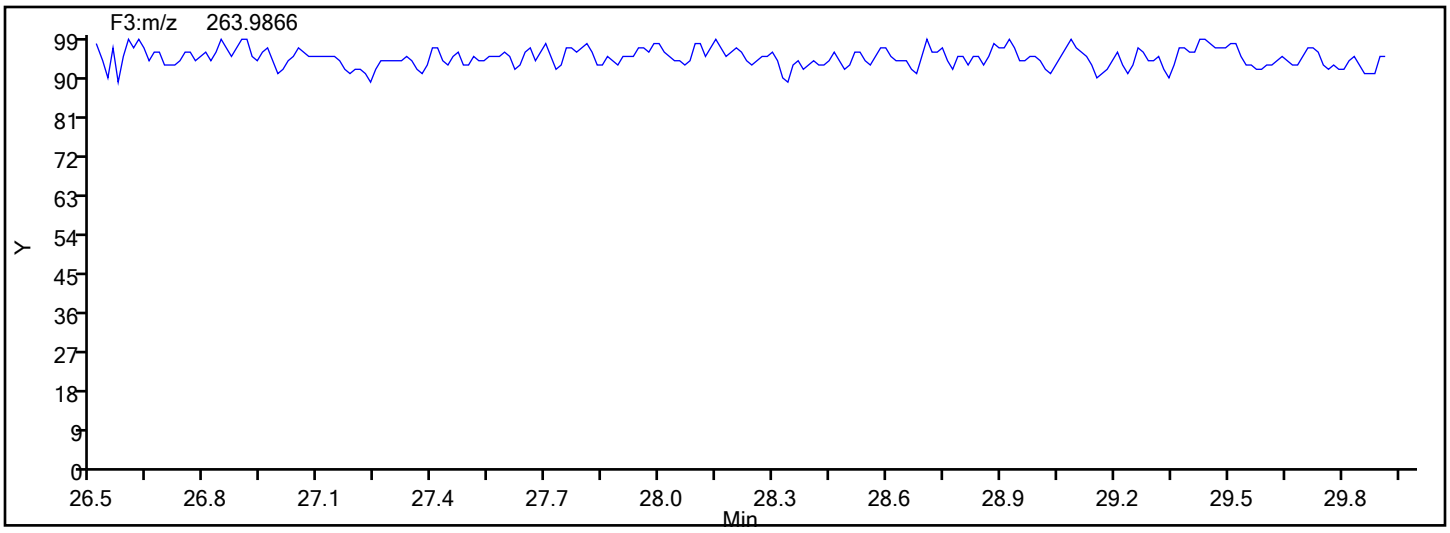
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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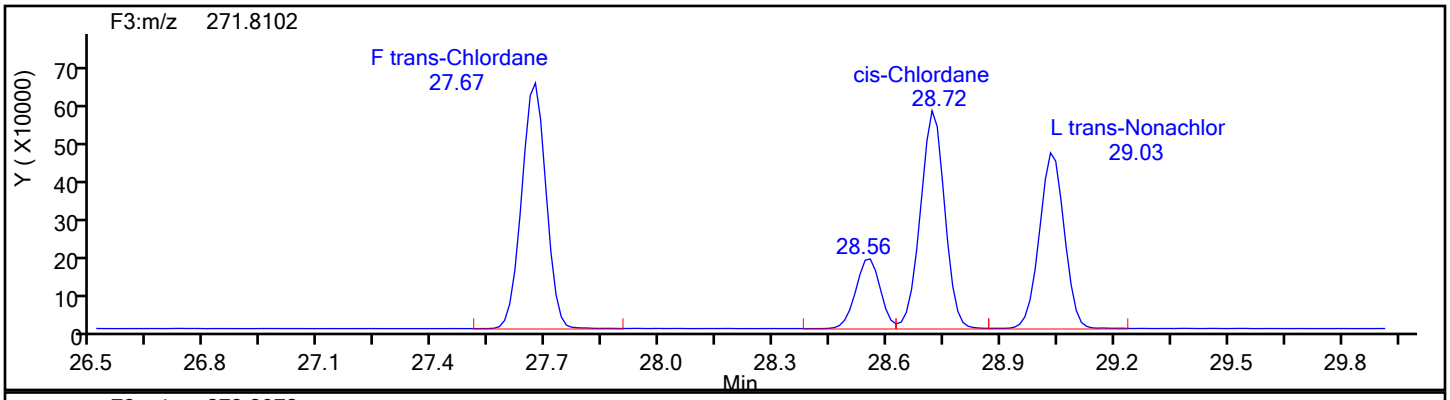
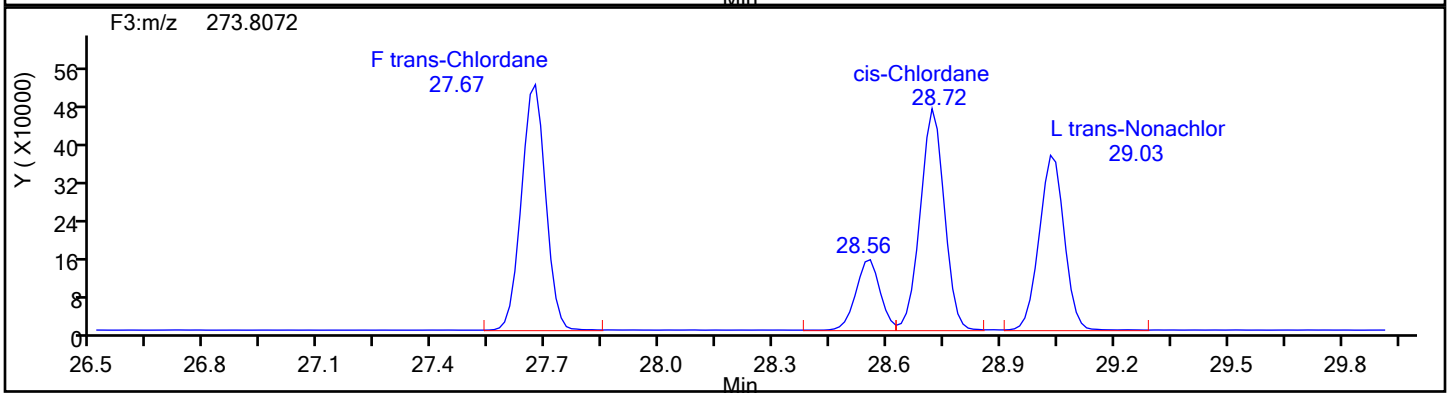
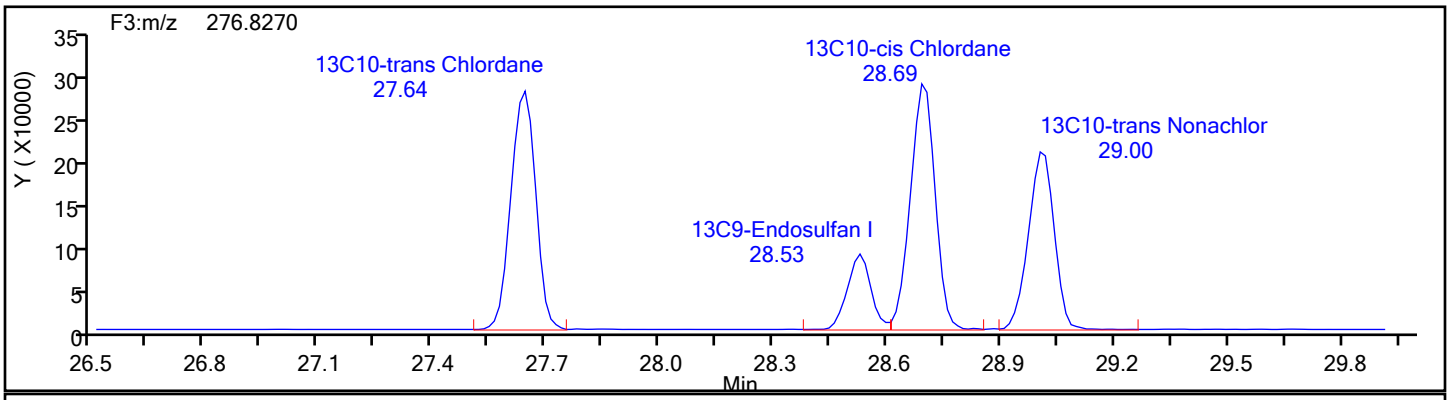
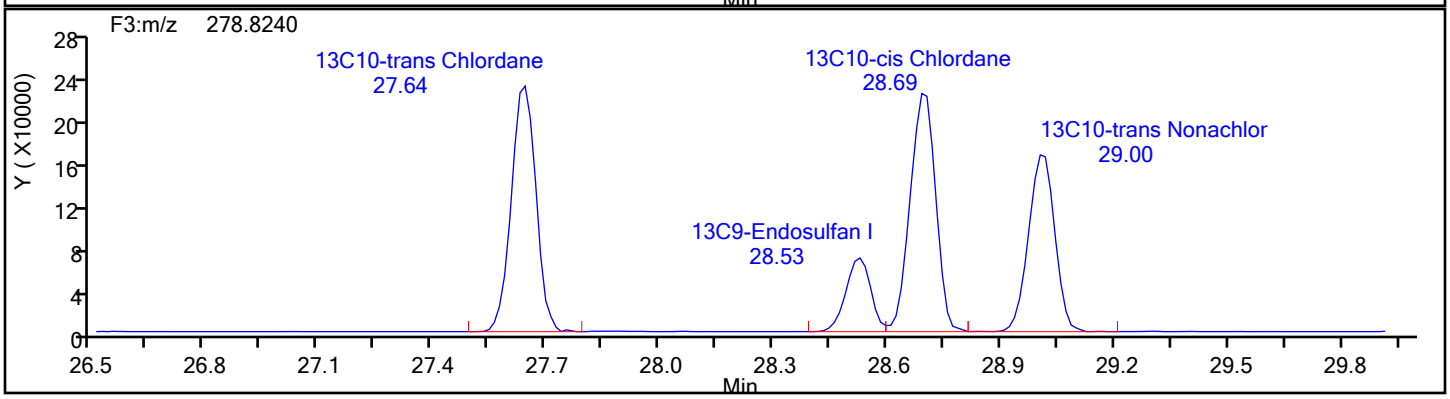
Chlordane





Chlordane Standards





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Eurofins Knoxville

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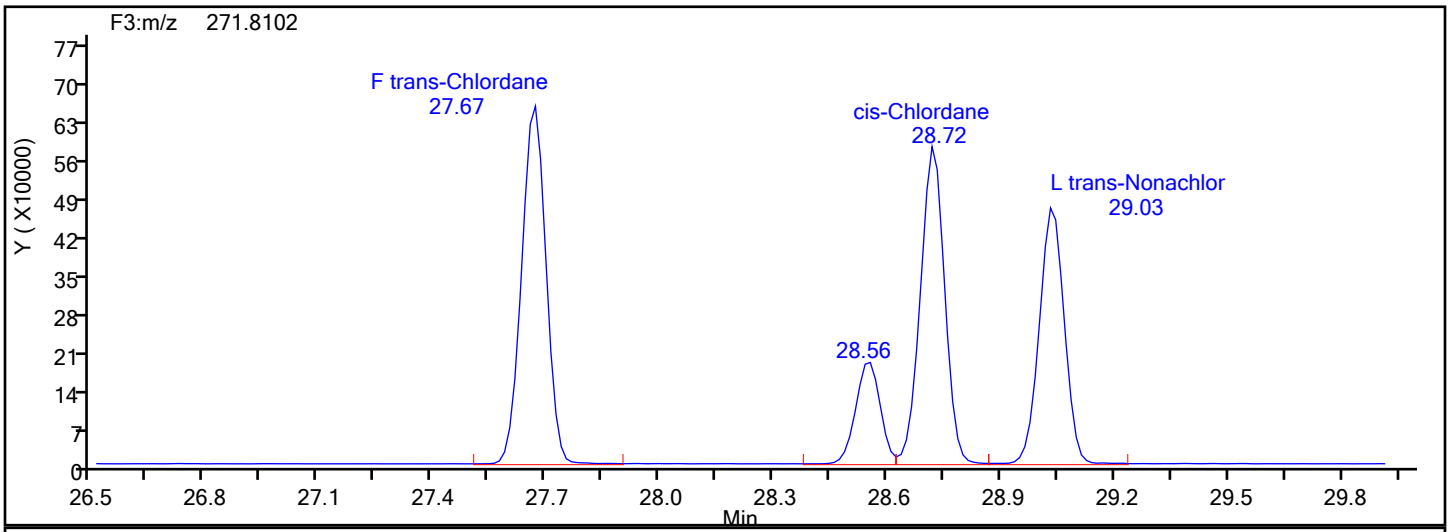
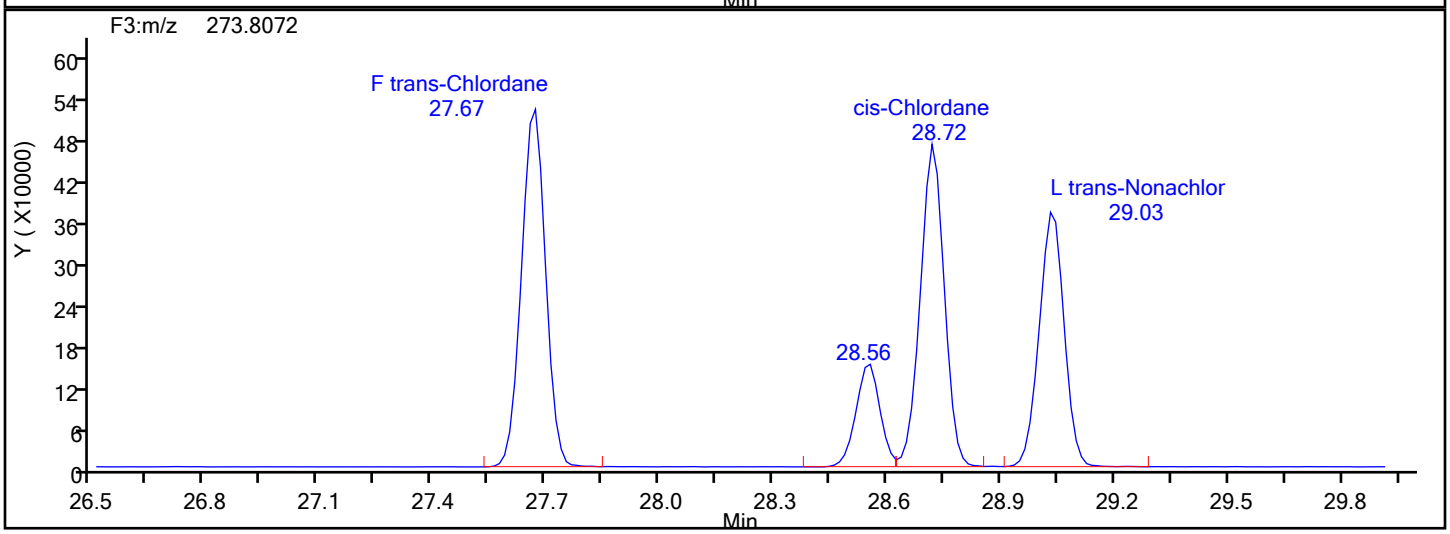
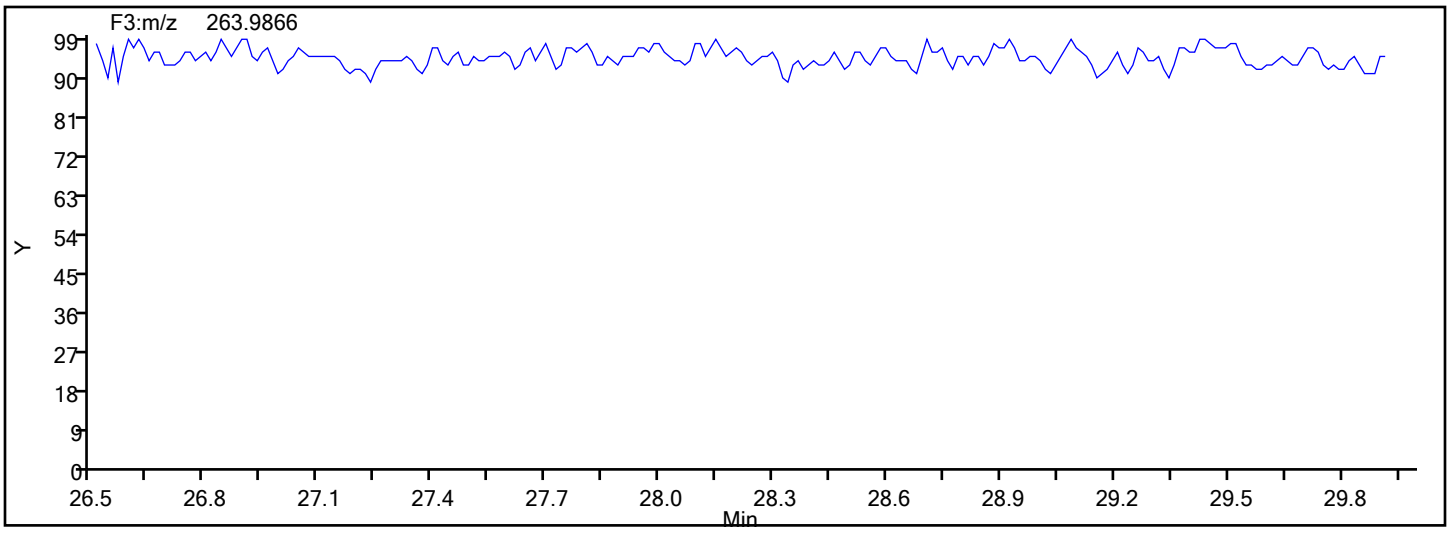
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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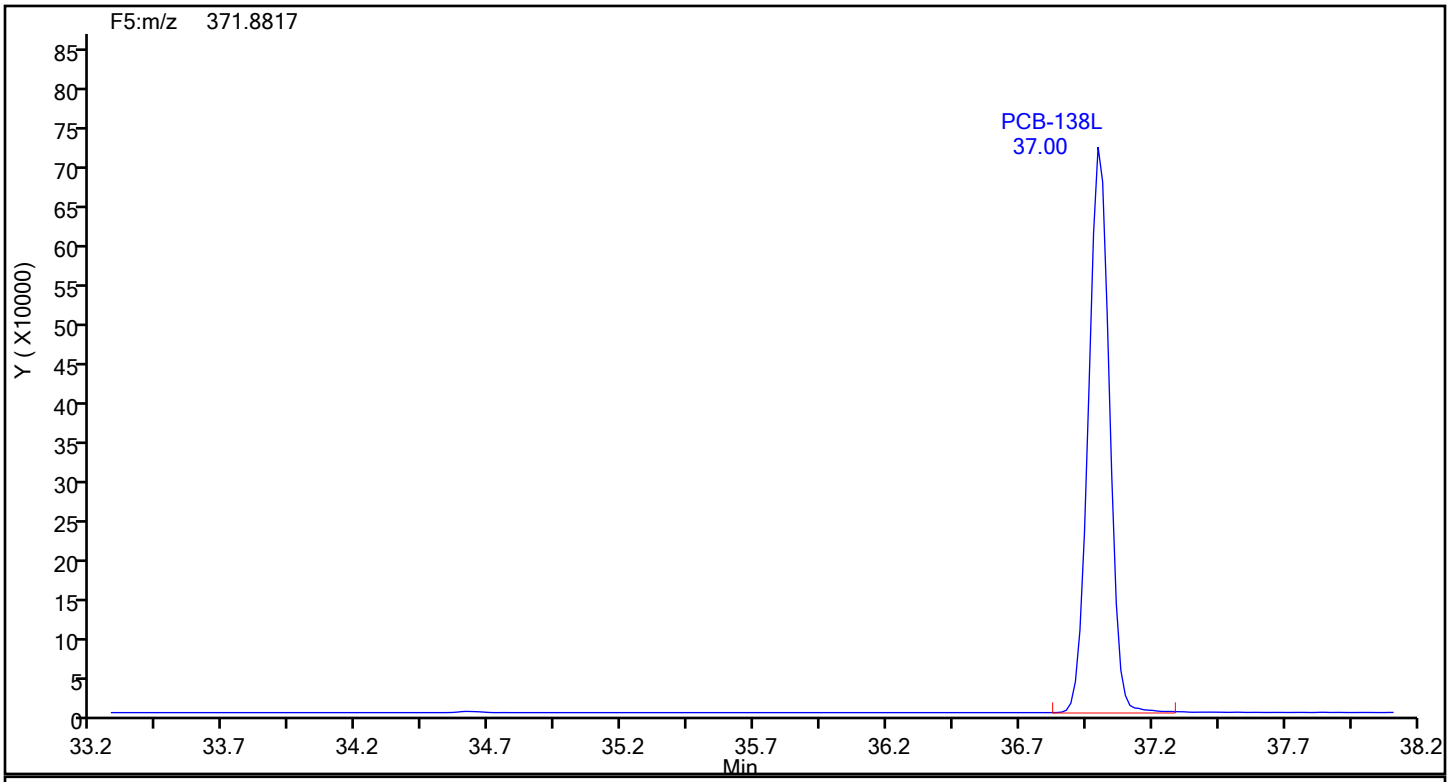
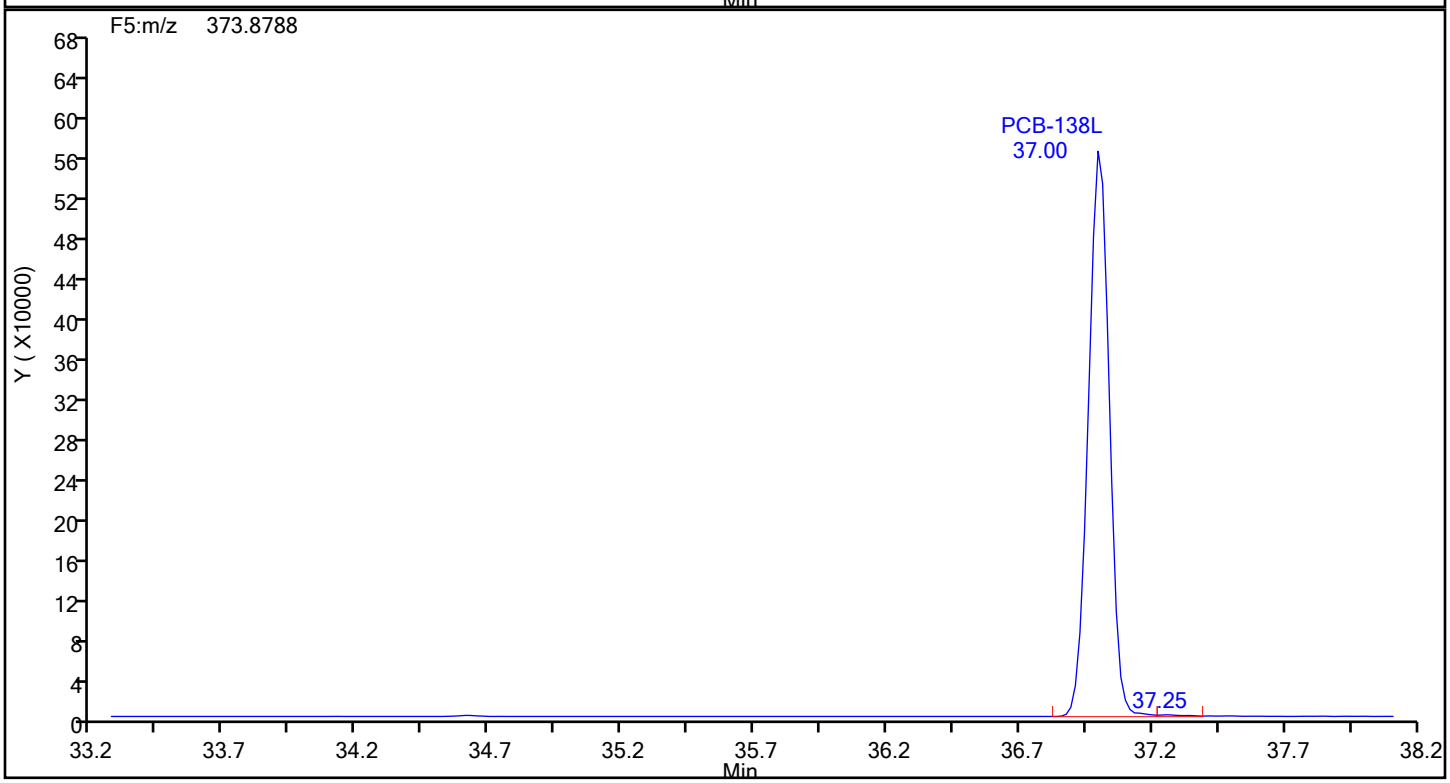
PCB-138L Standards





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Eurofins Knoxville

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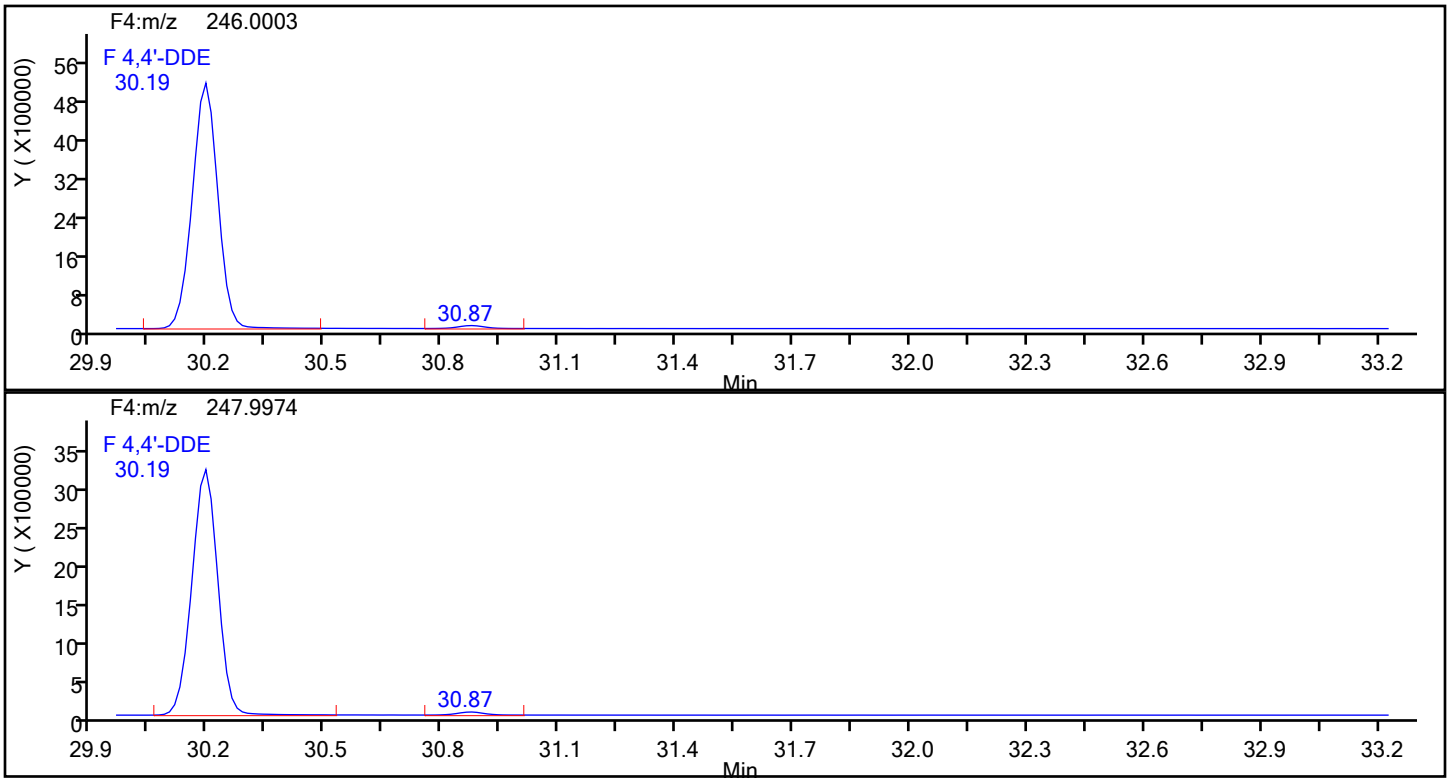
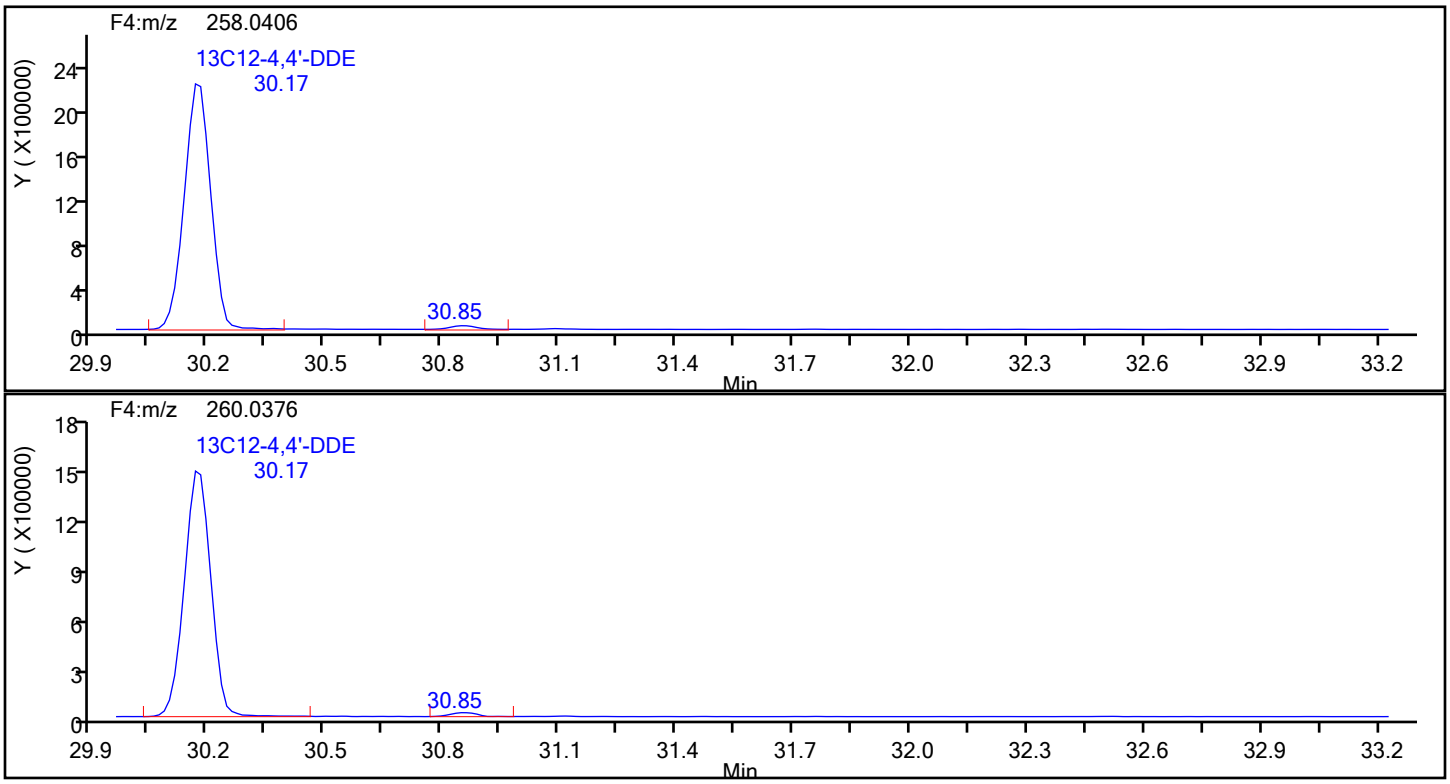
4,4'-DDE



4,4'-DDE Standards



Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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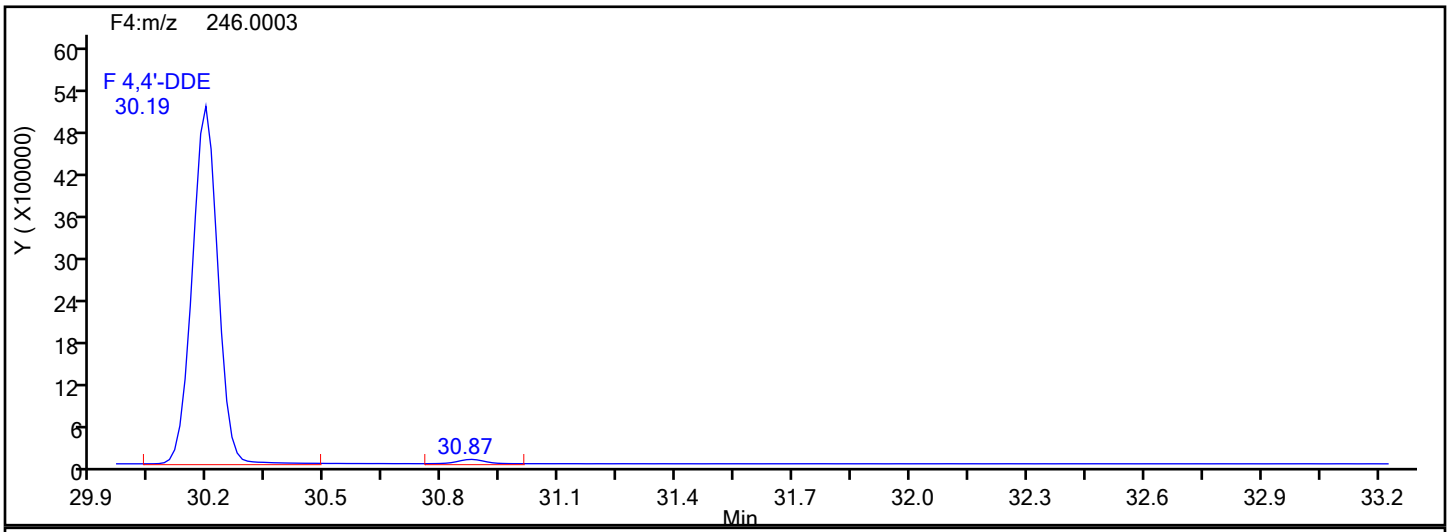
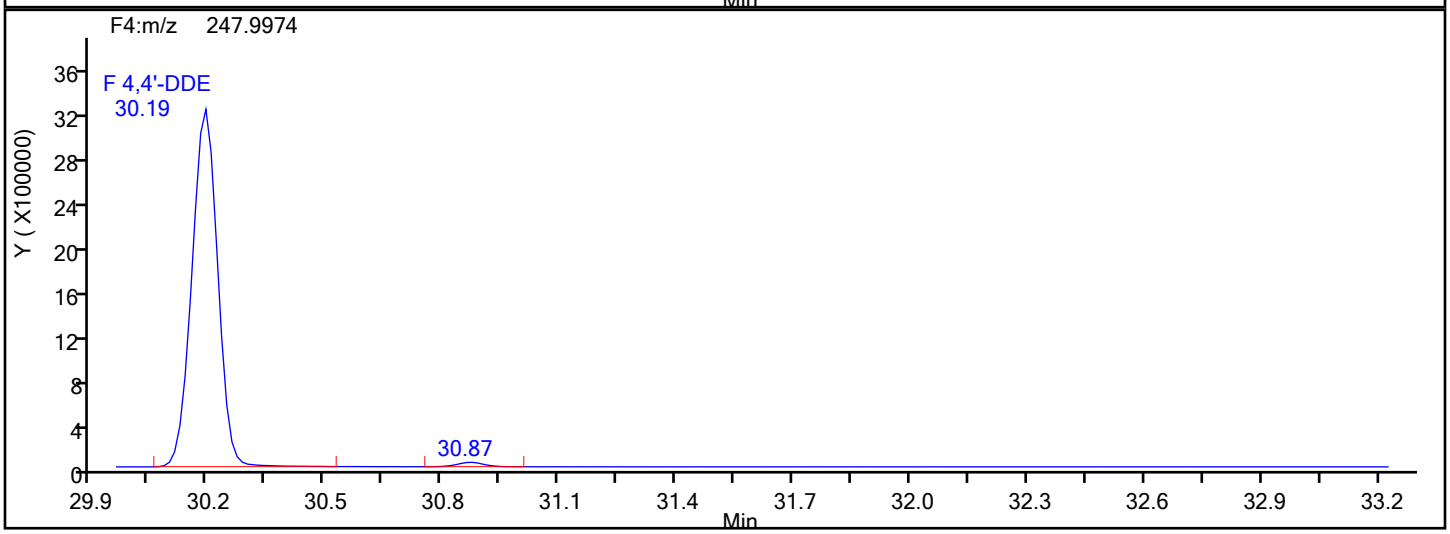
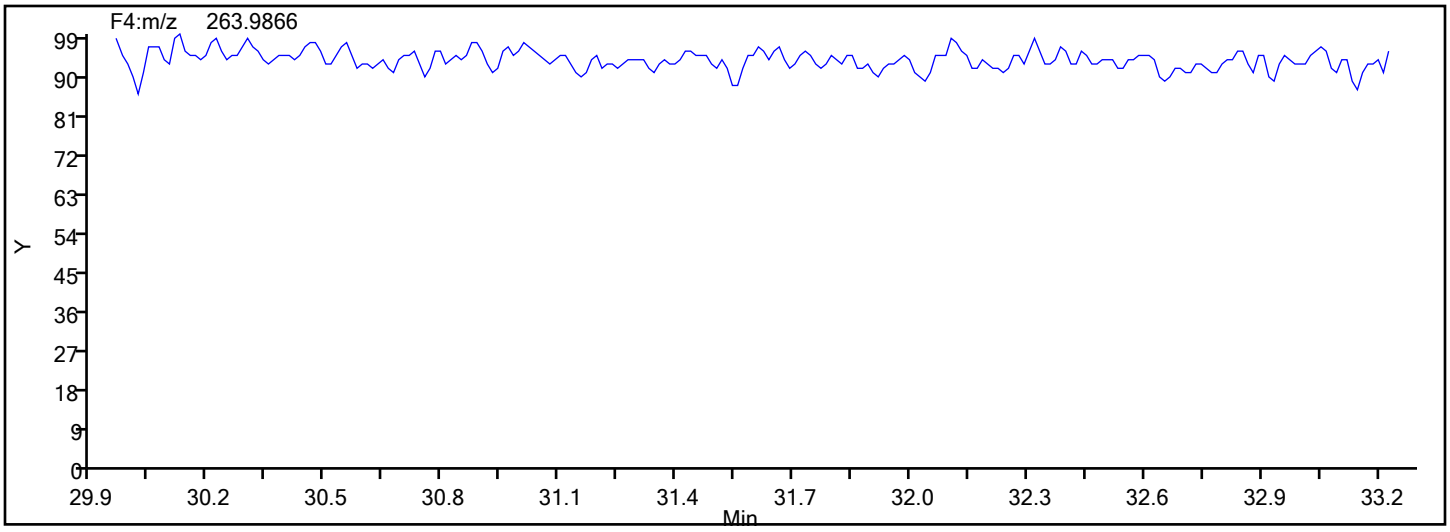
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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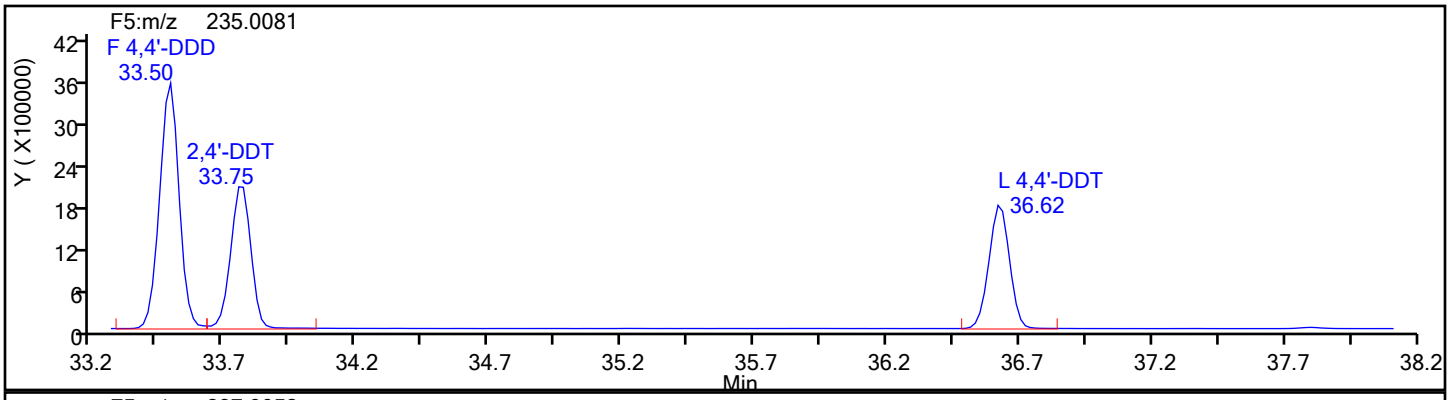
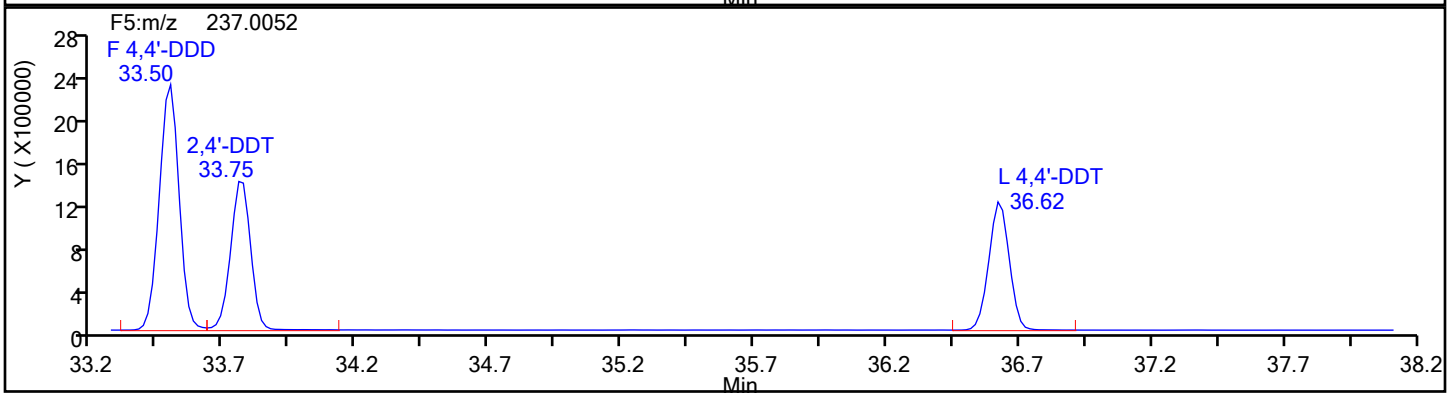
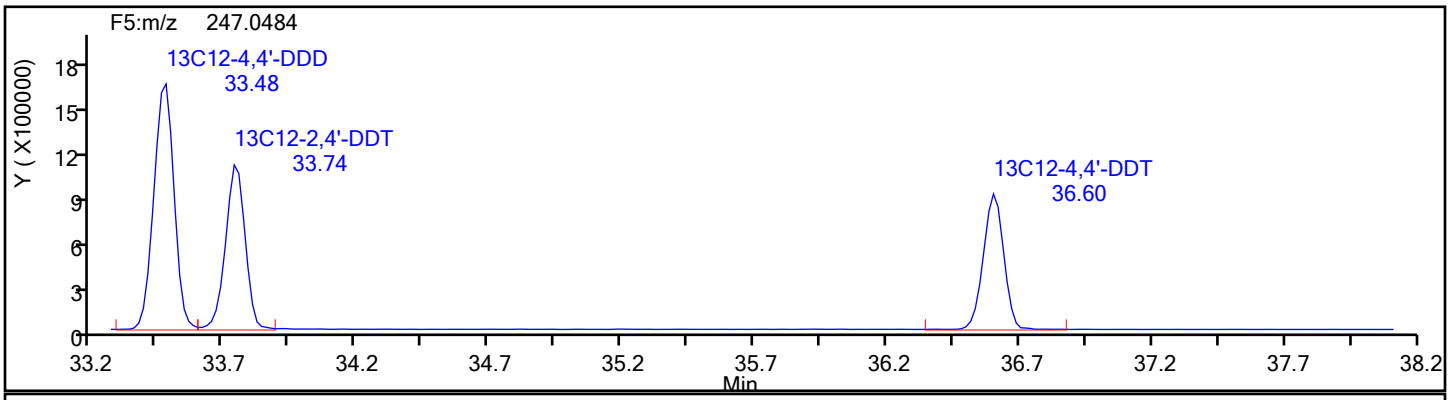
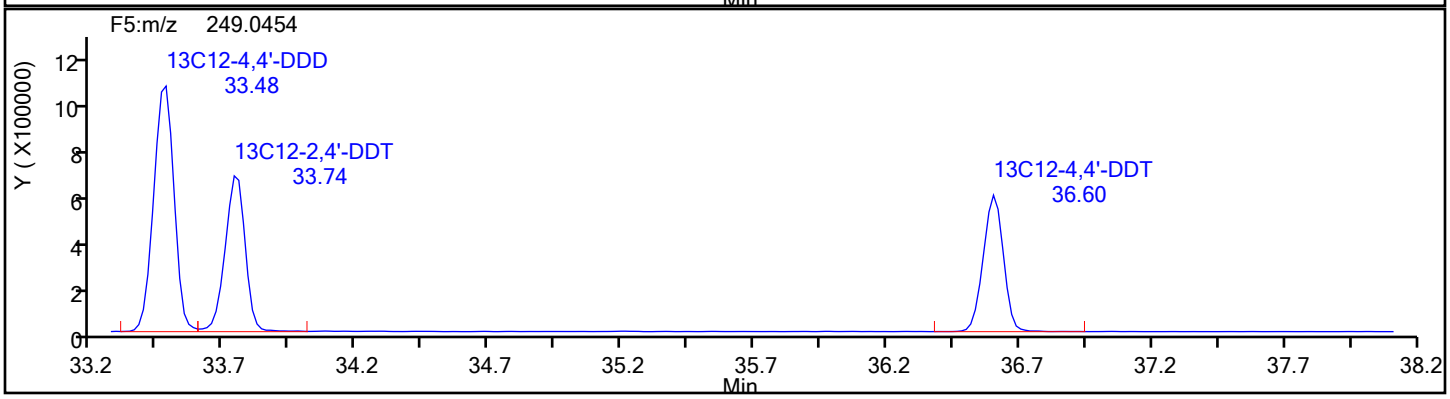
DDD





DDD Standards





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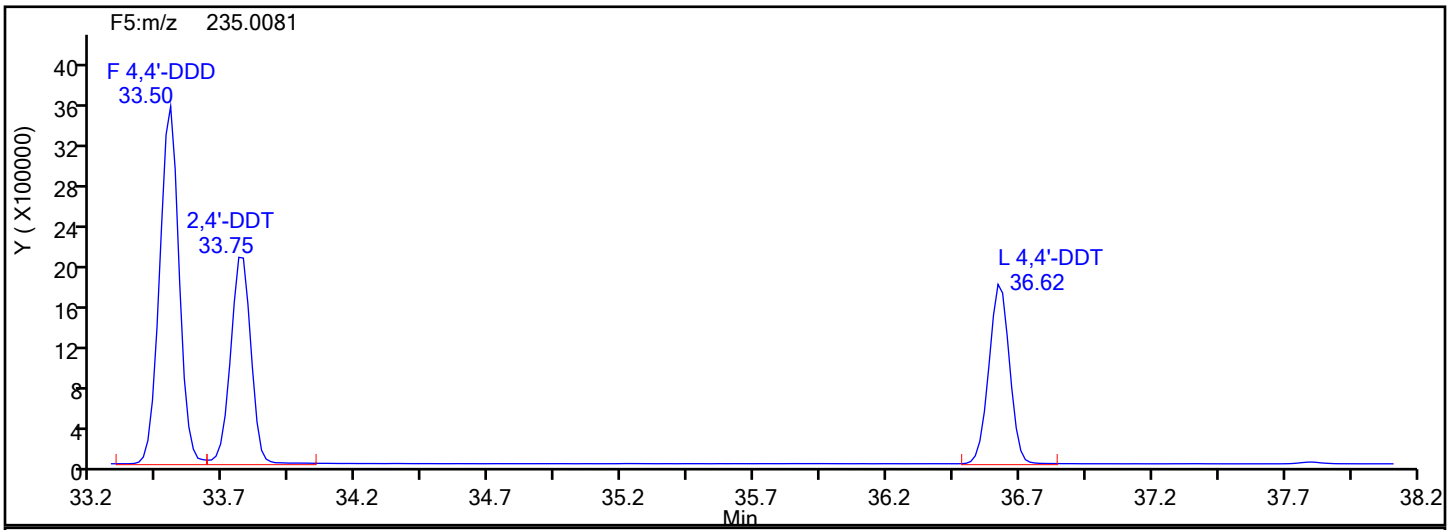
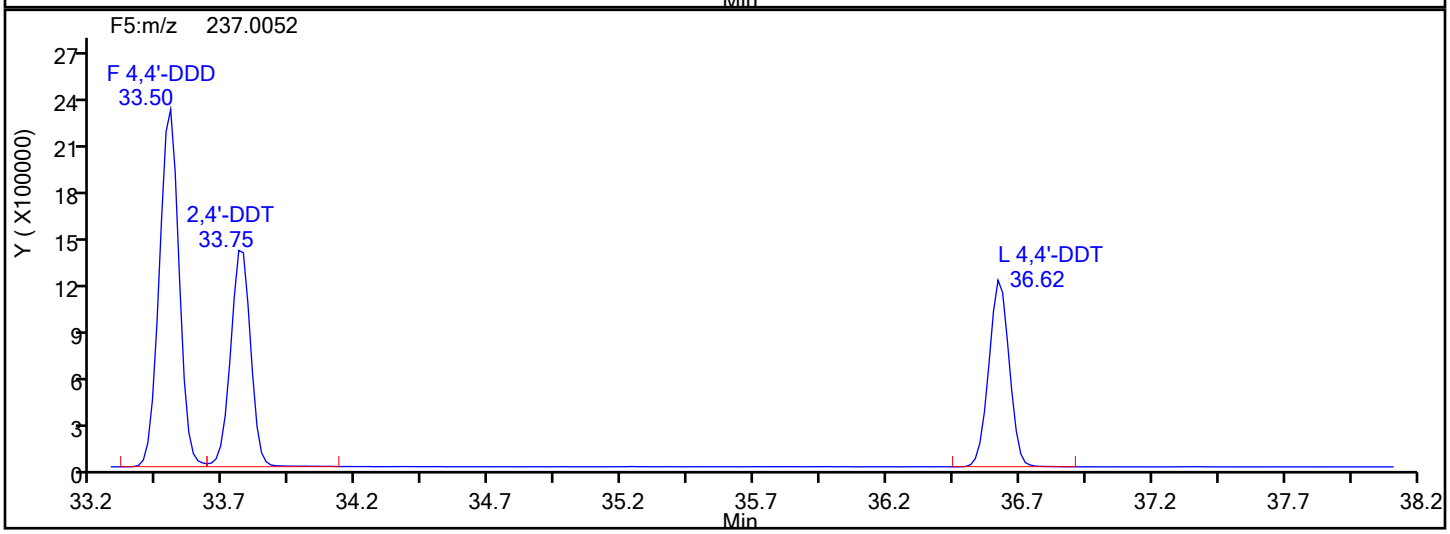
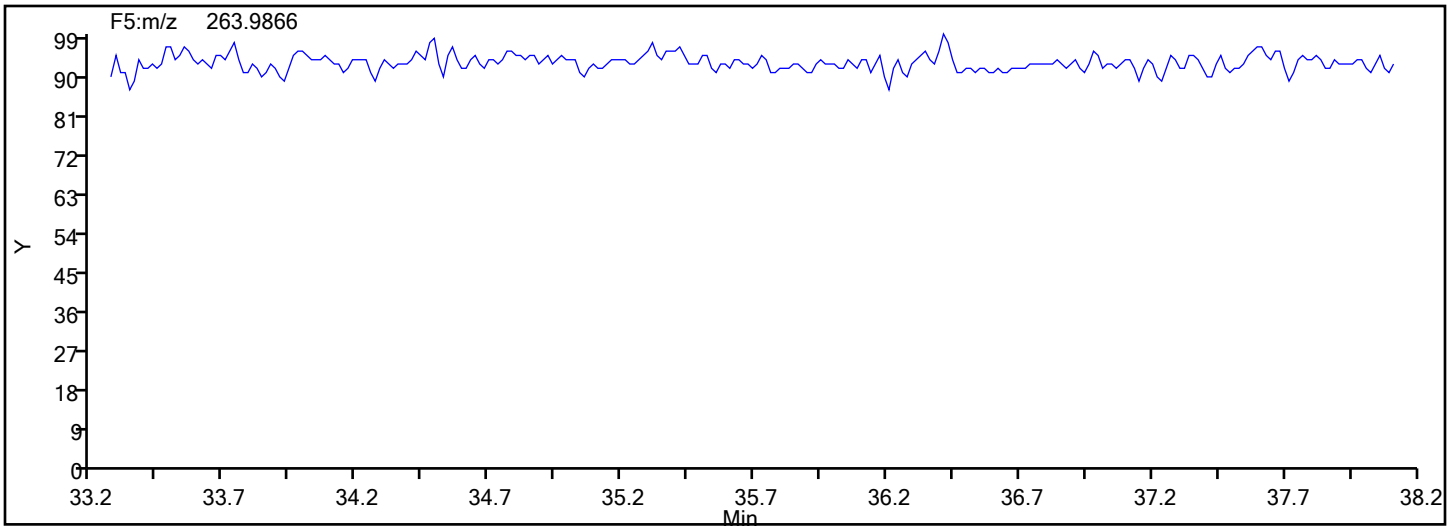
DDD





DDD Lock Mass



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Eurofins Knoxville

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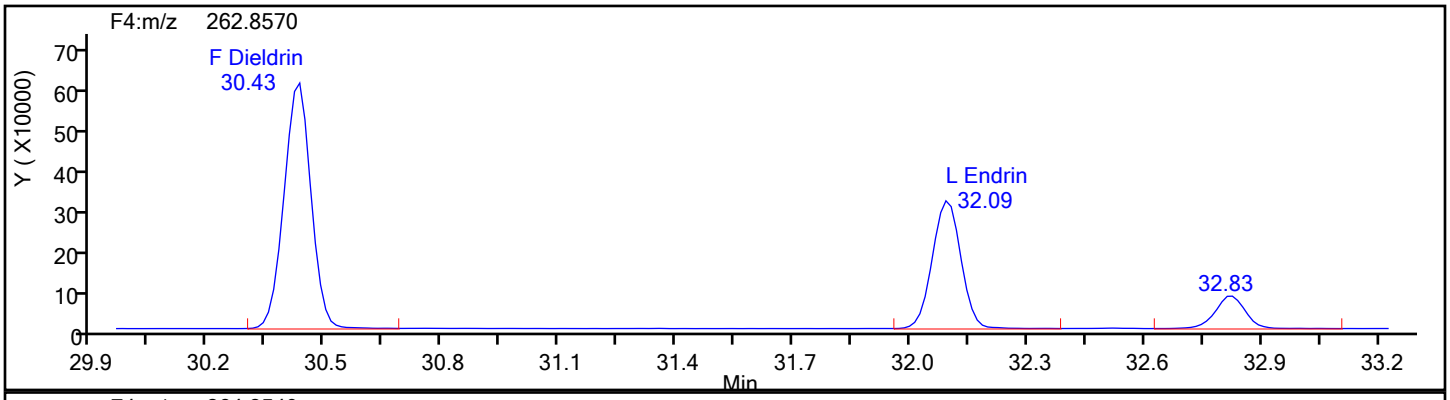
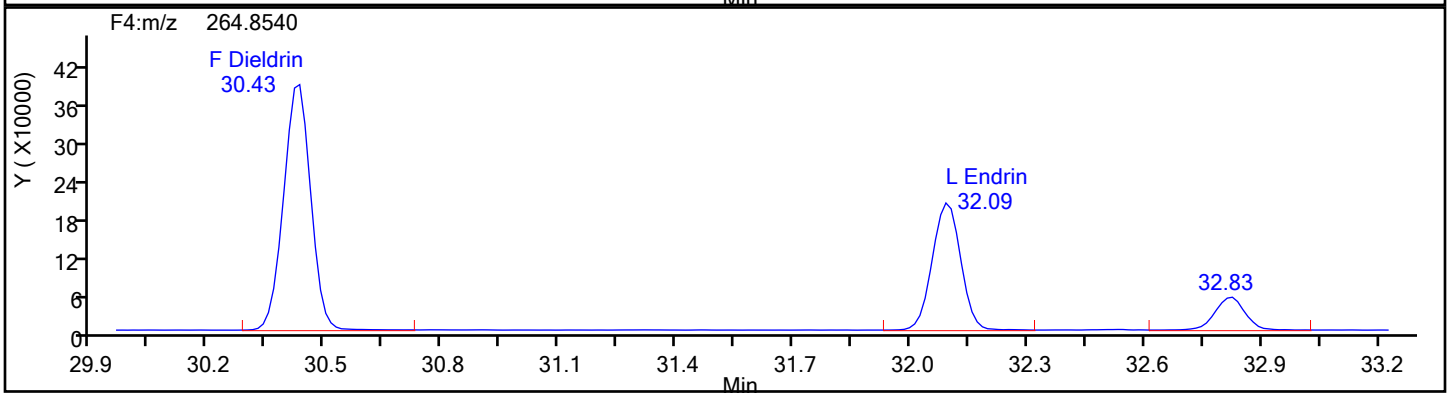
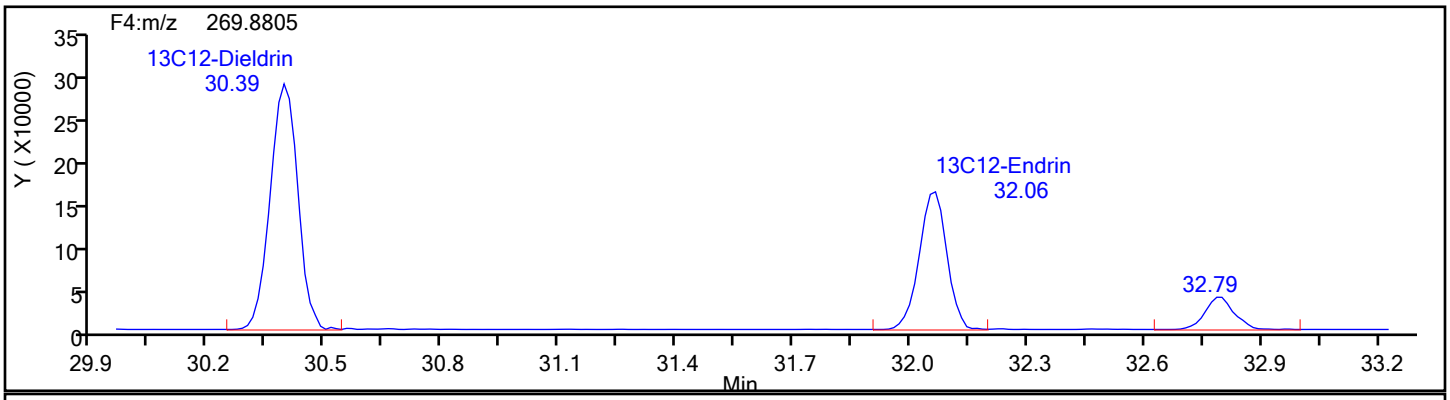
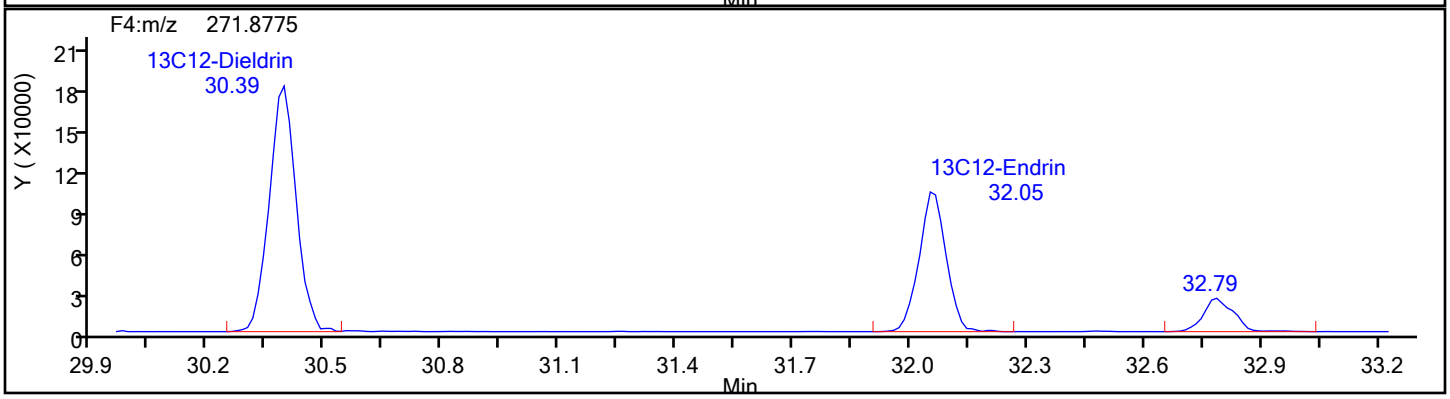
Dieldrin





Dieldrin Standards





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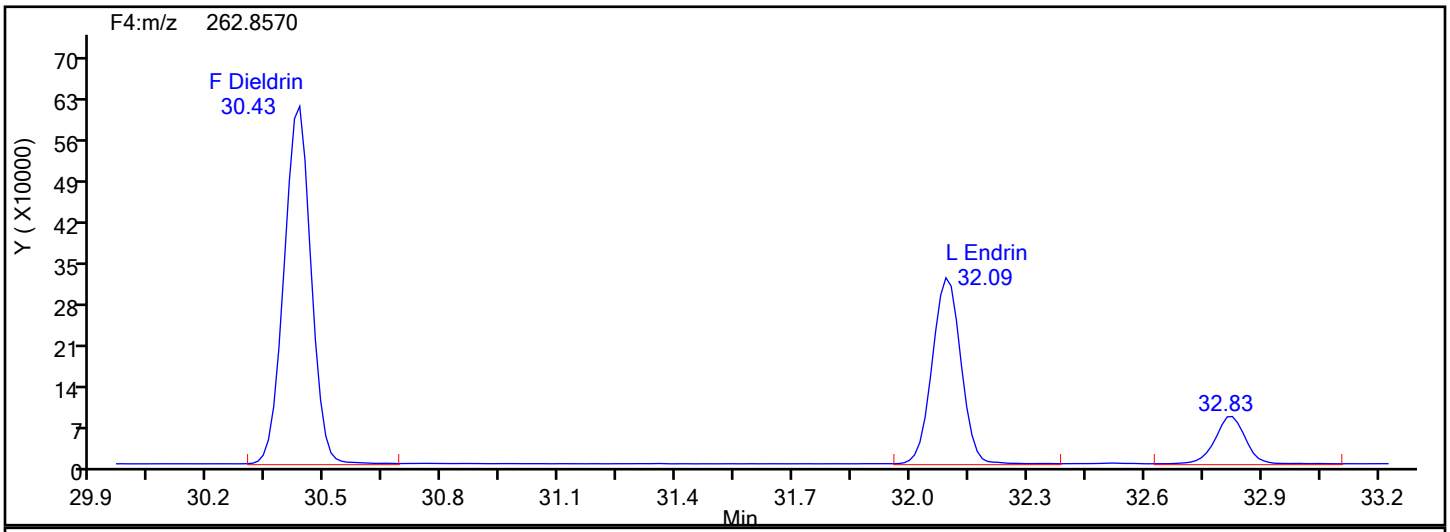
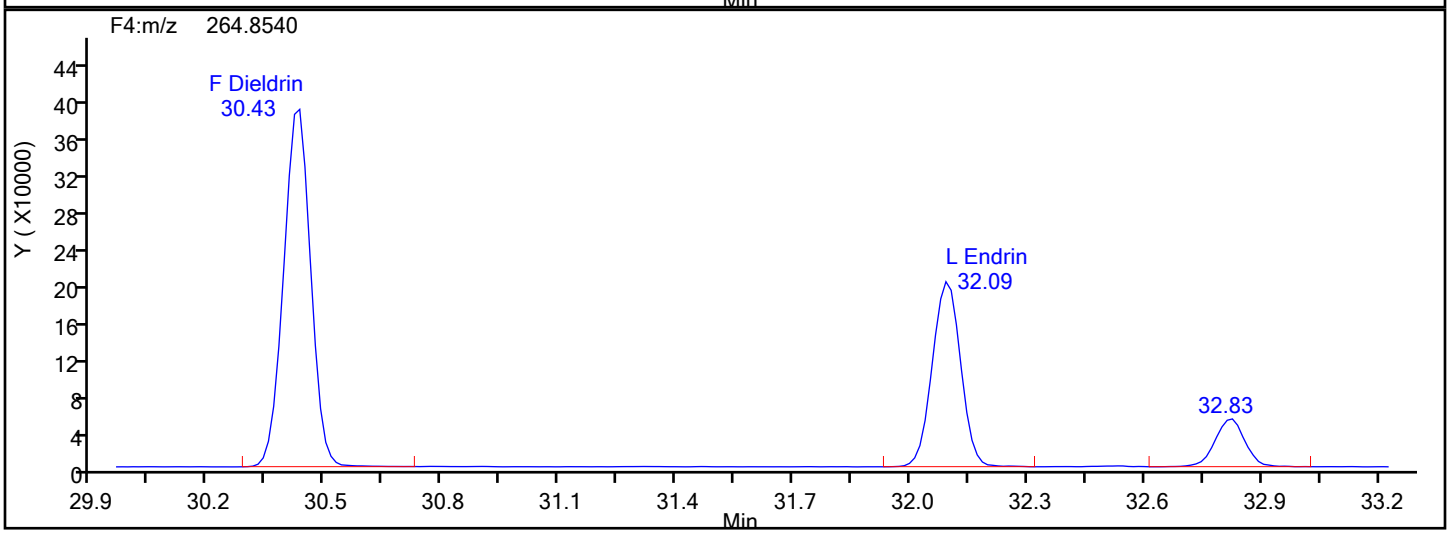
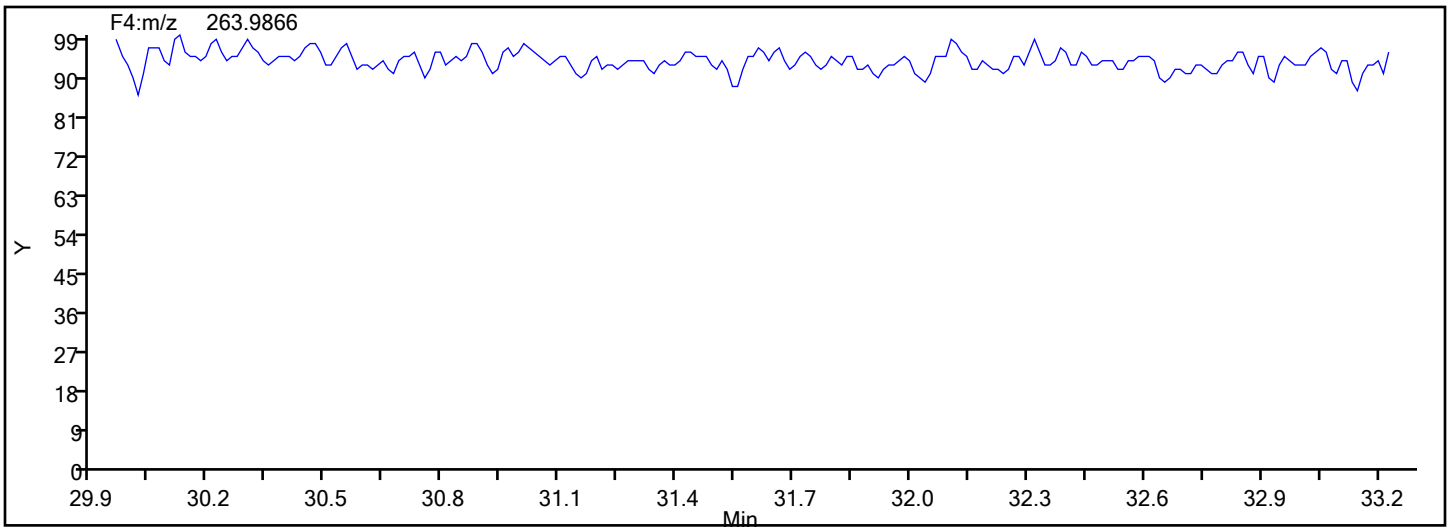
Dieldrin





Dieldrin Lock Mass



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Eurofins Knoxville

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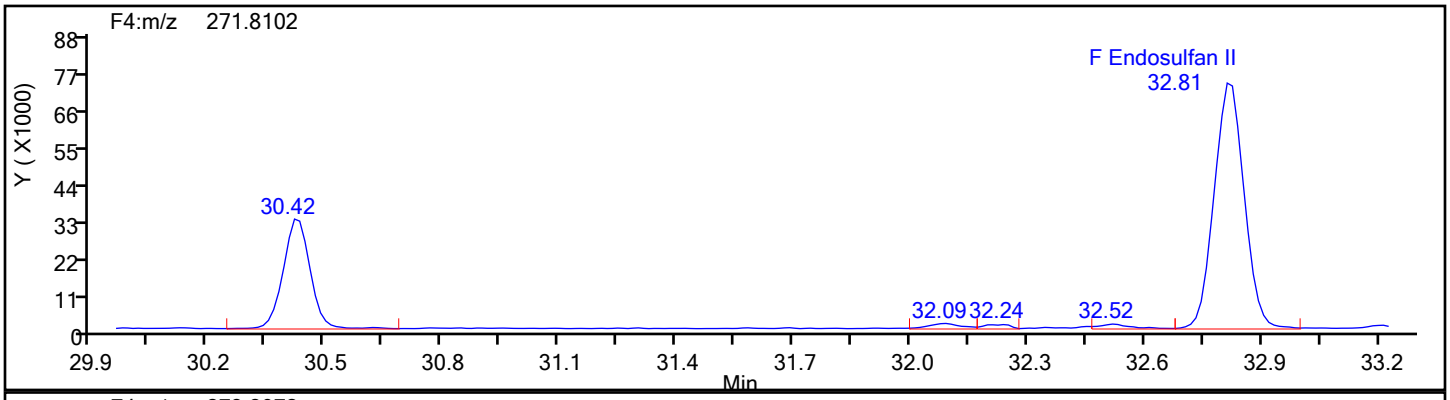
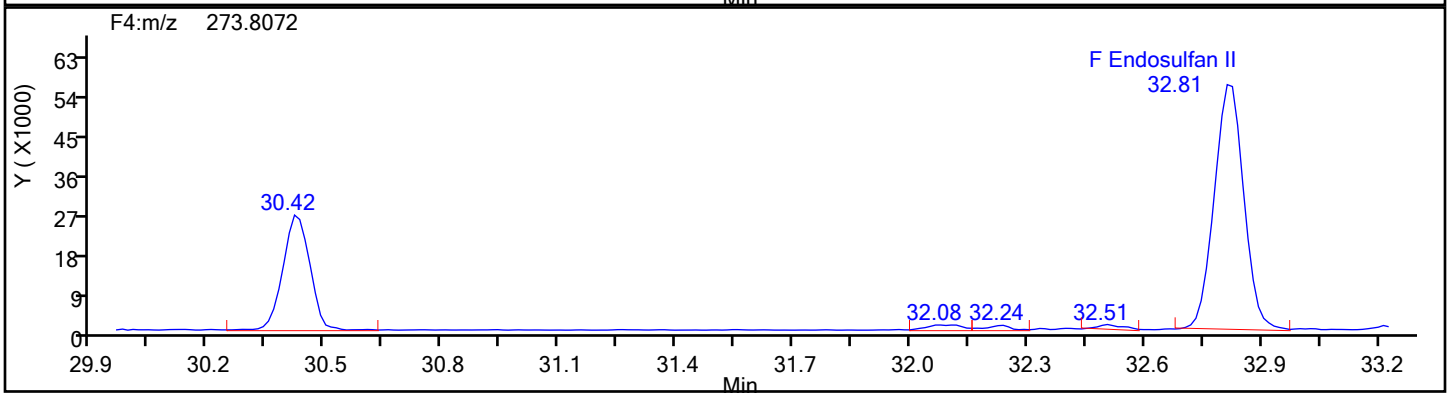
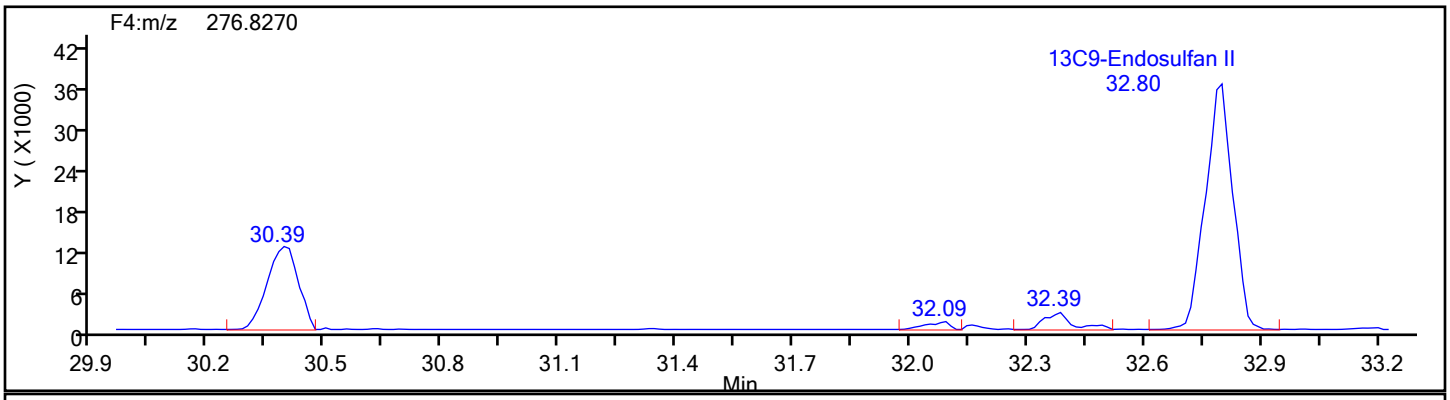
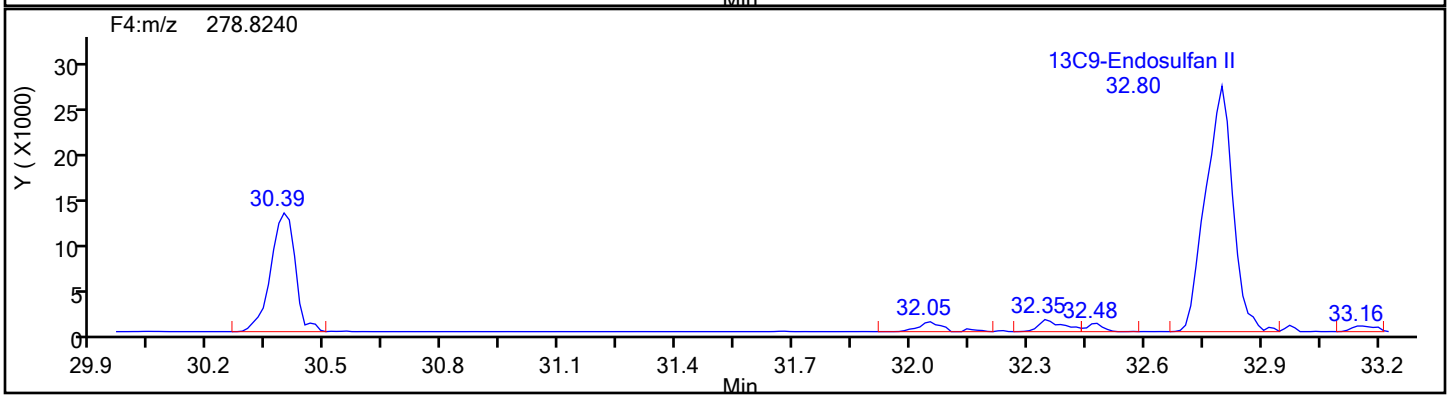
Endosulfan II





Endosulfan II Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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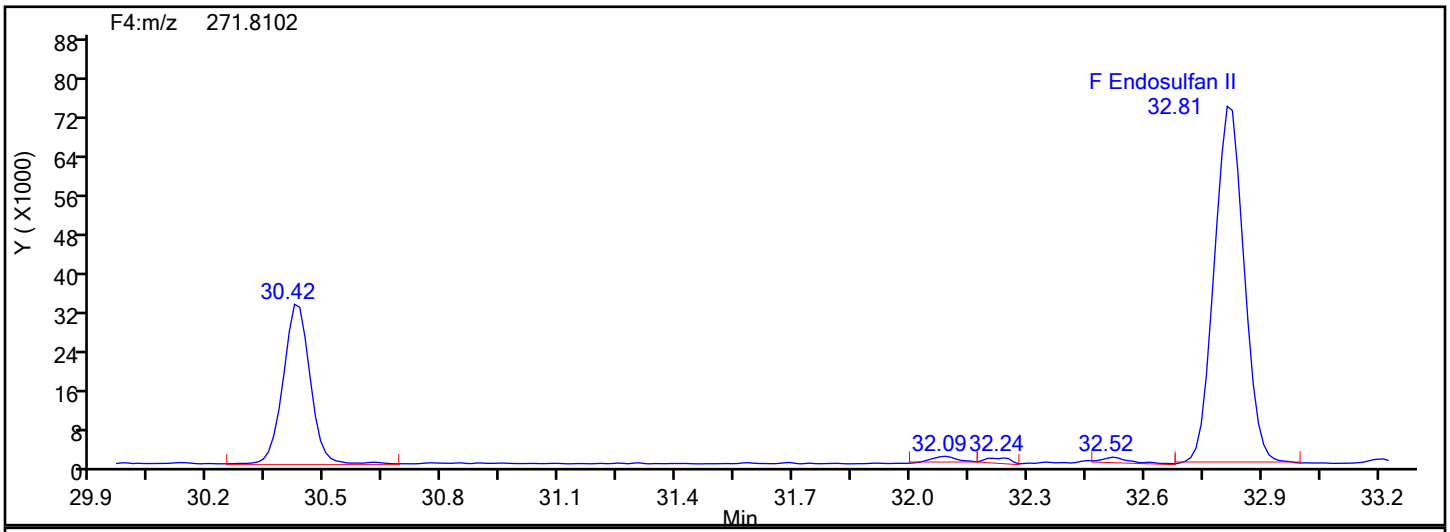
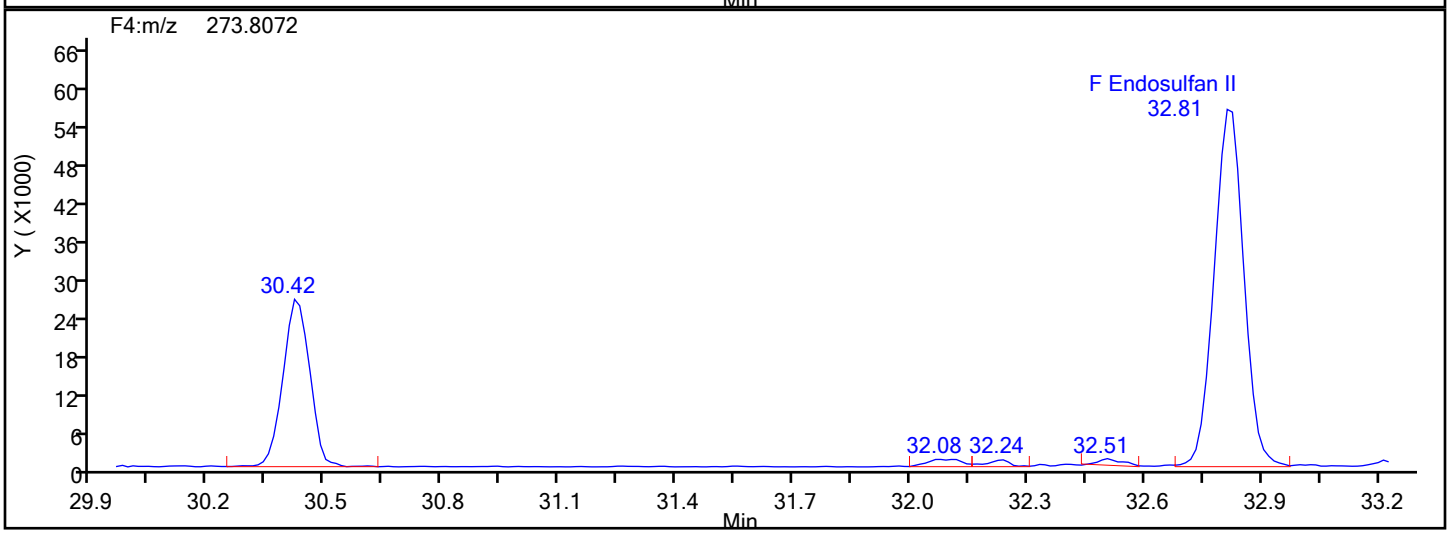
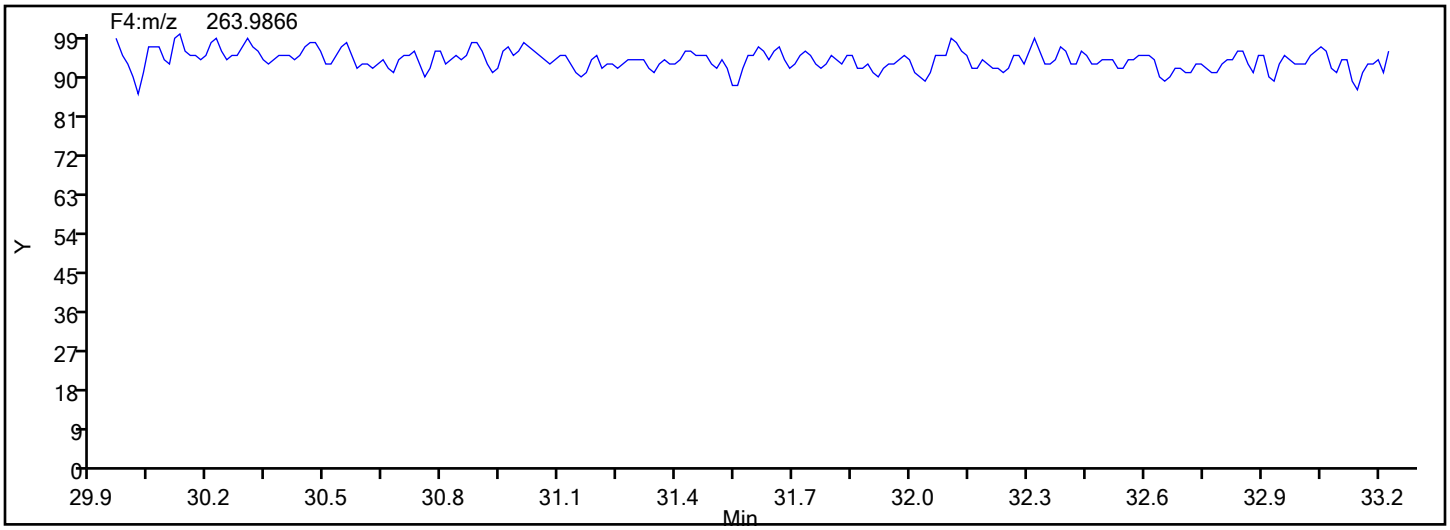
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan II





Endosulfan II Lock Mass



Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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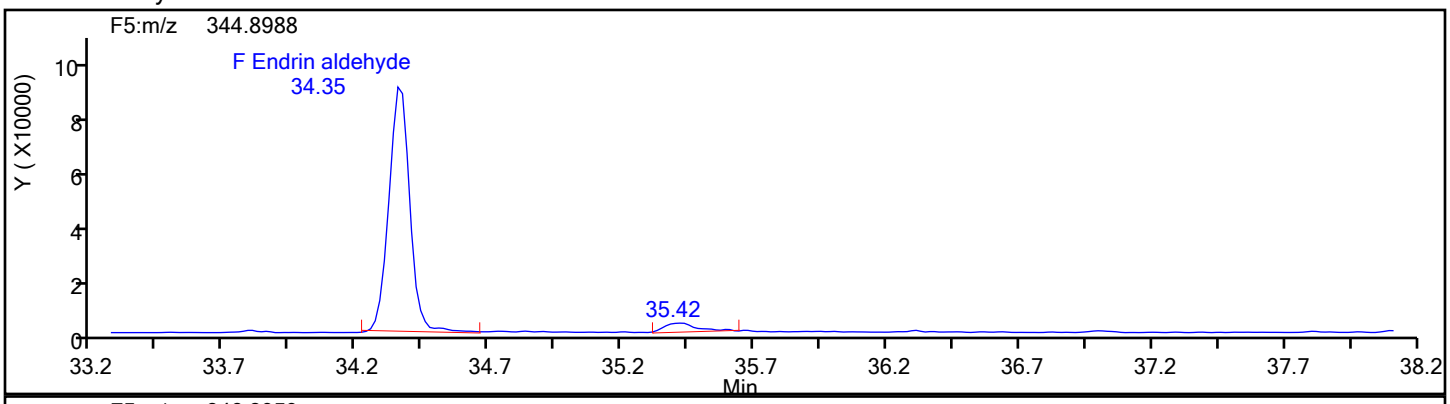

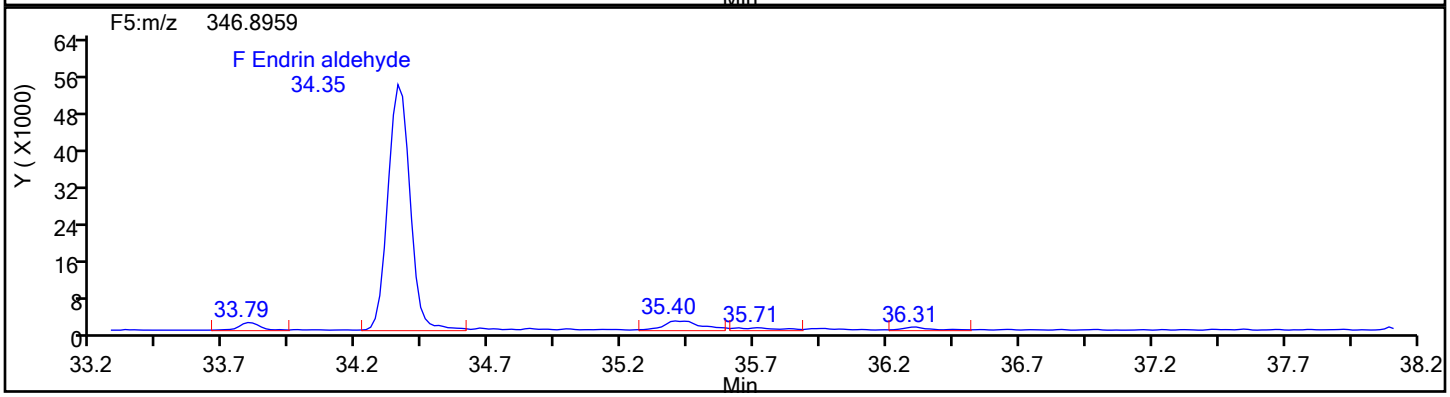

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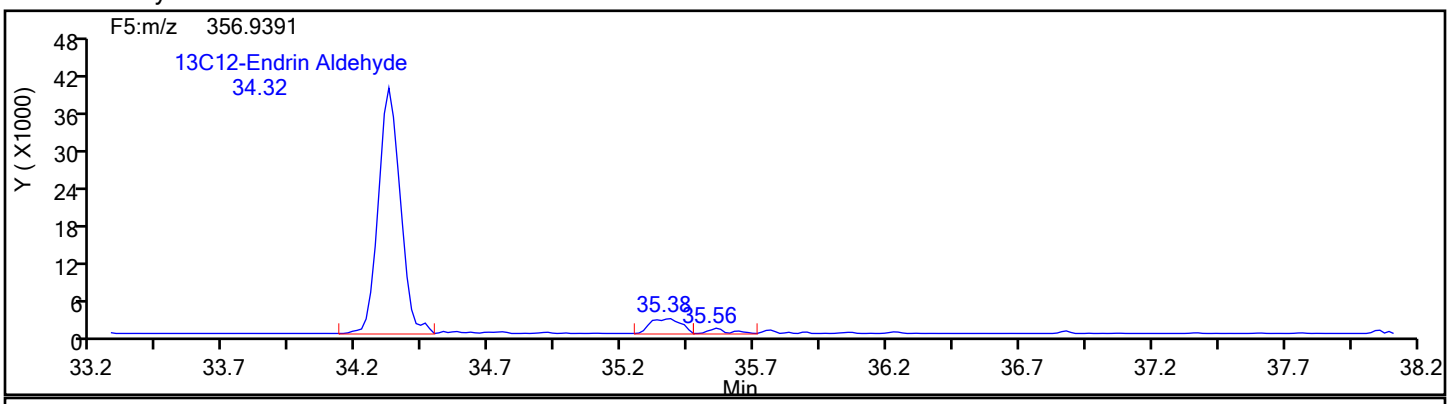

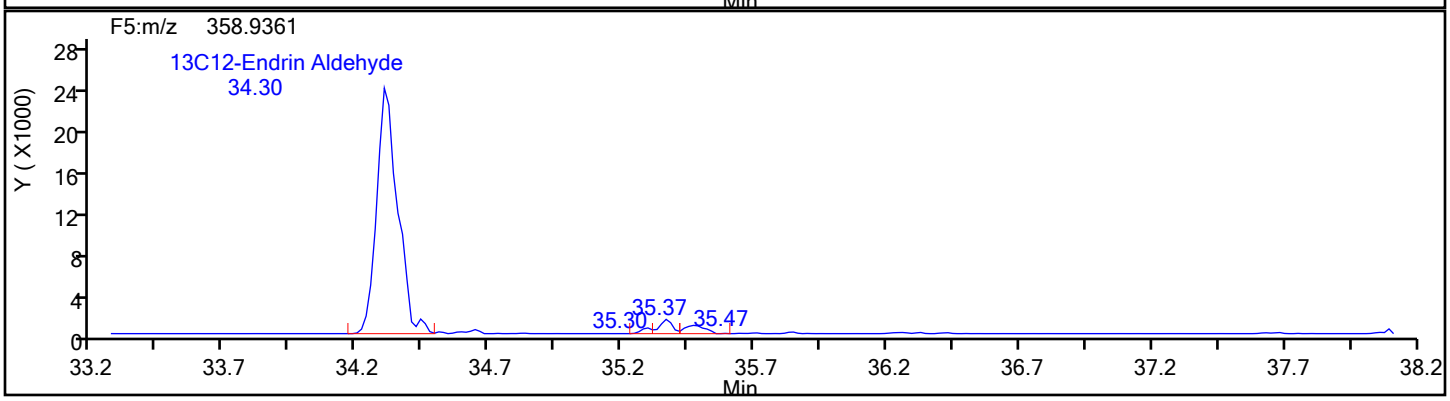

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Eurofins Knoxville

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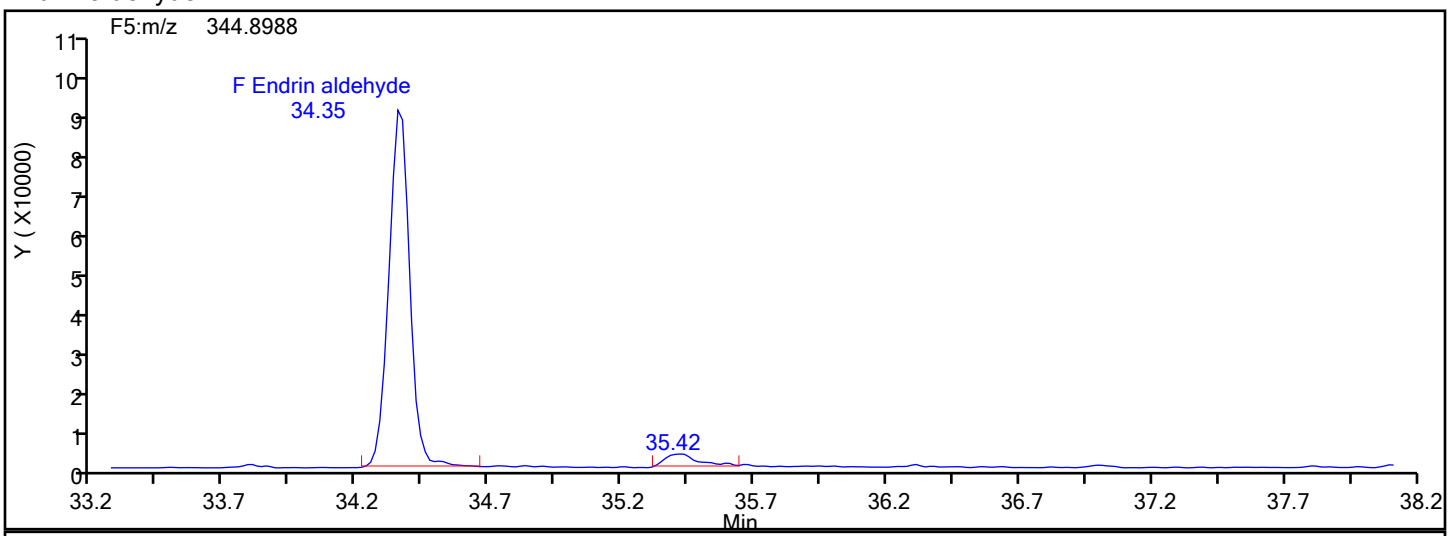
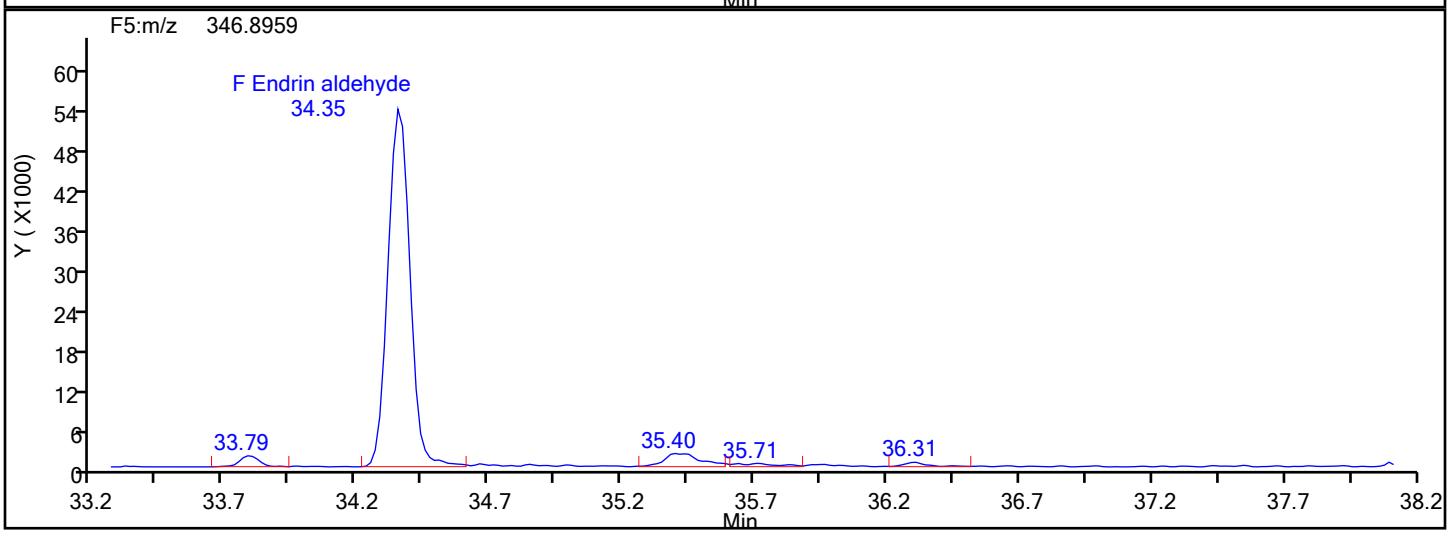
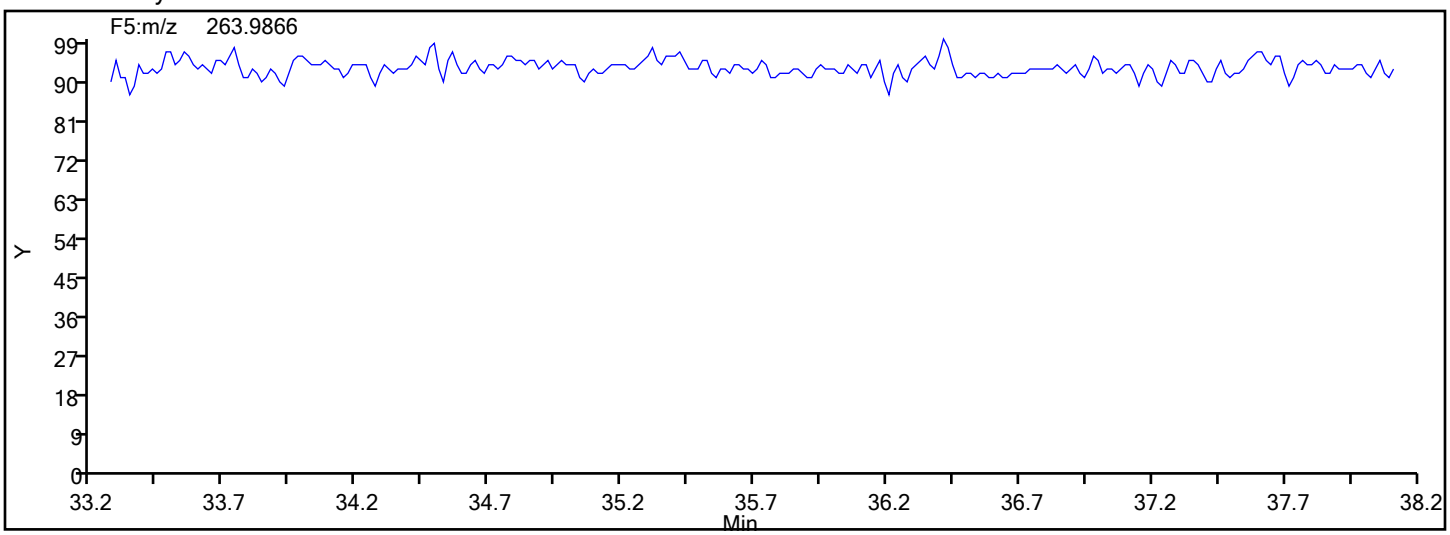




Endrin aldehyde Lock Mass



Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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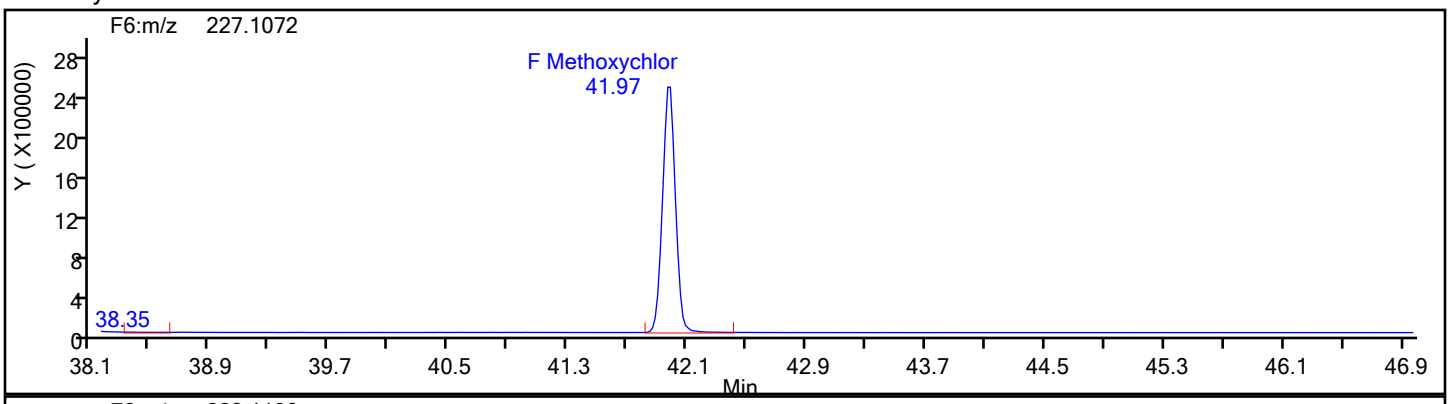
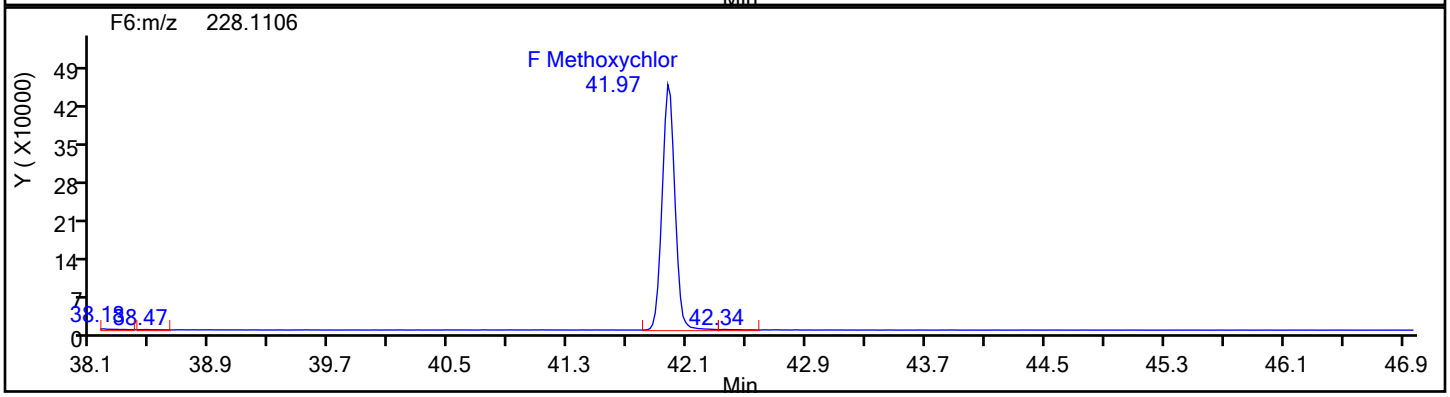
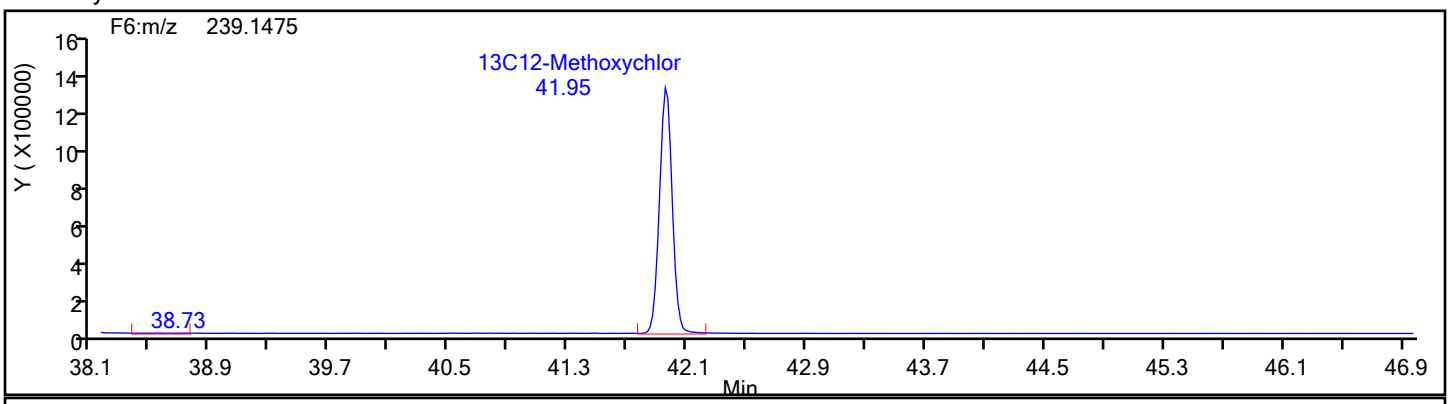
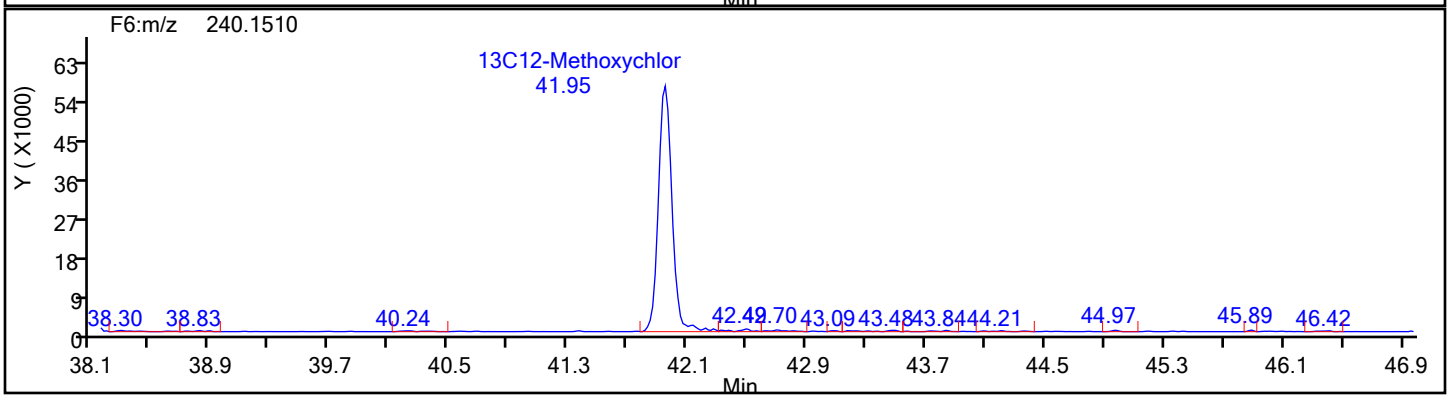




Methoxychlor Standards





Report Date: 31-Mar-2025 14:06:10 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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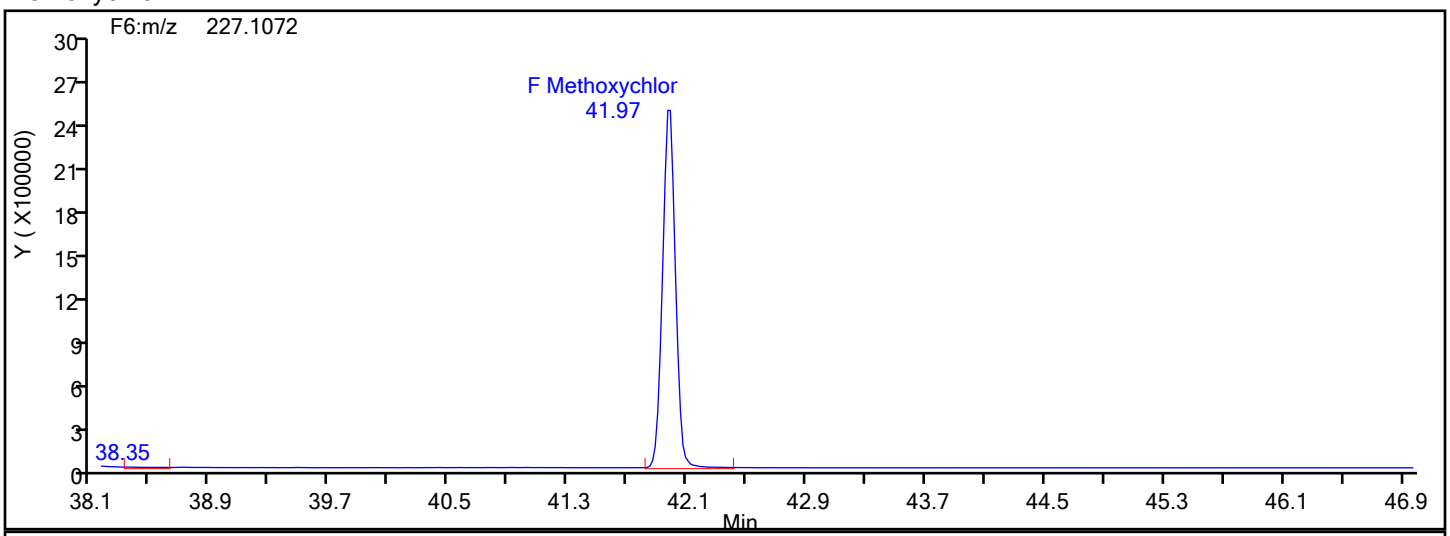
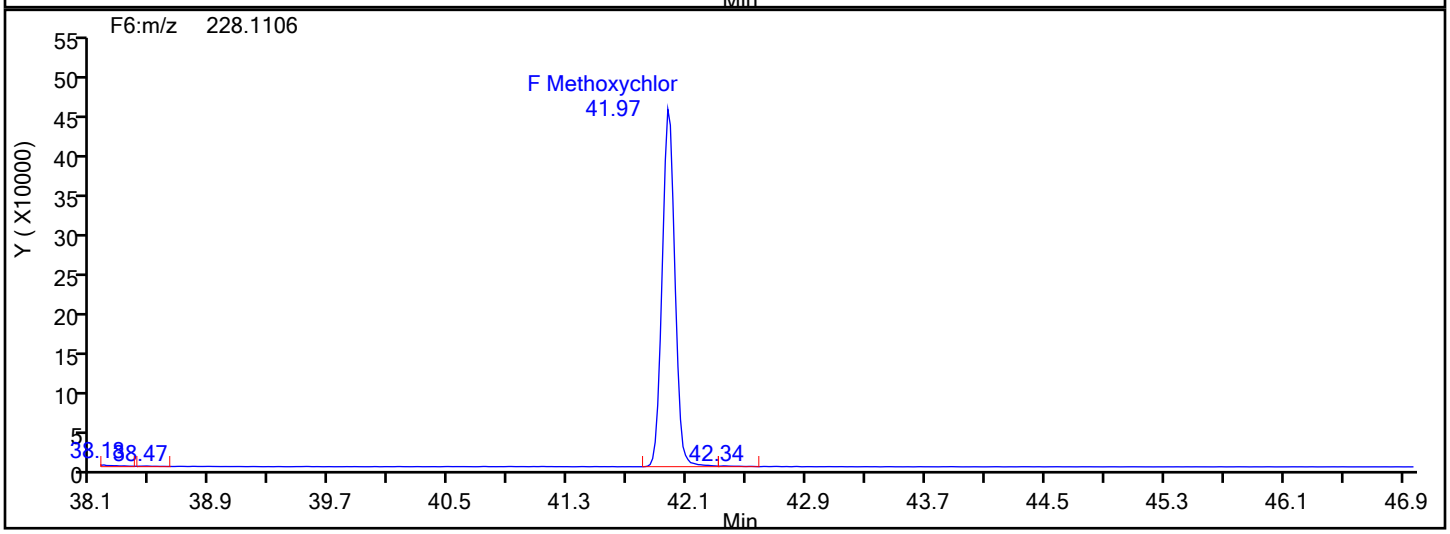
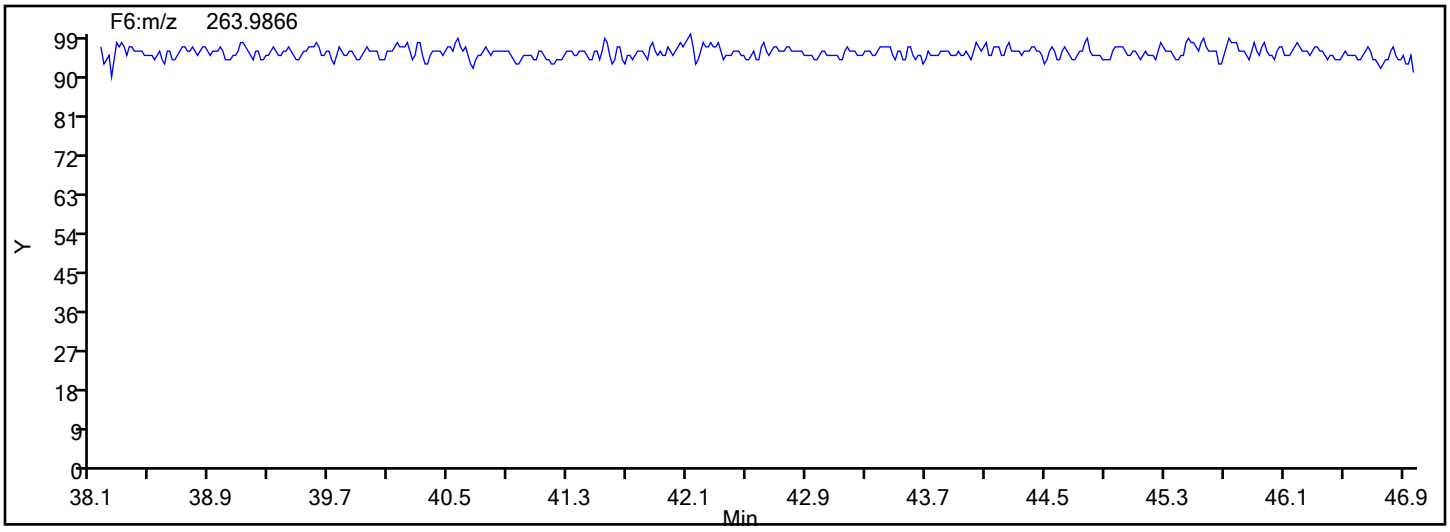
Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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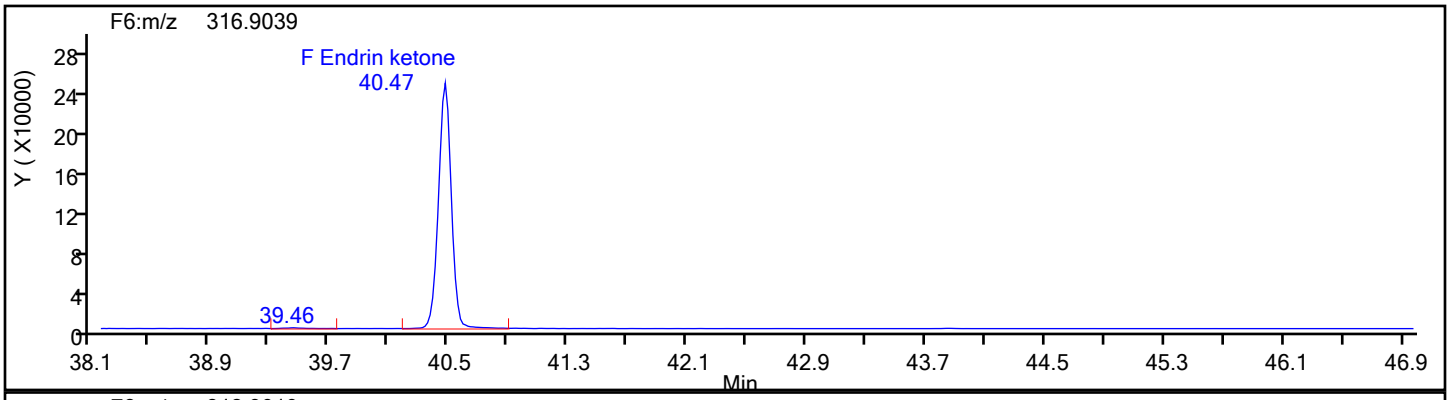
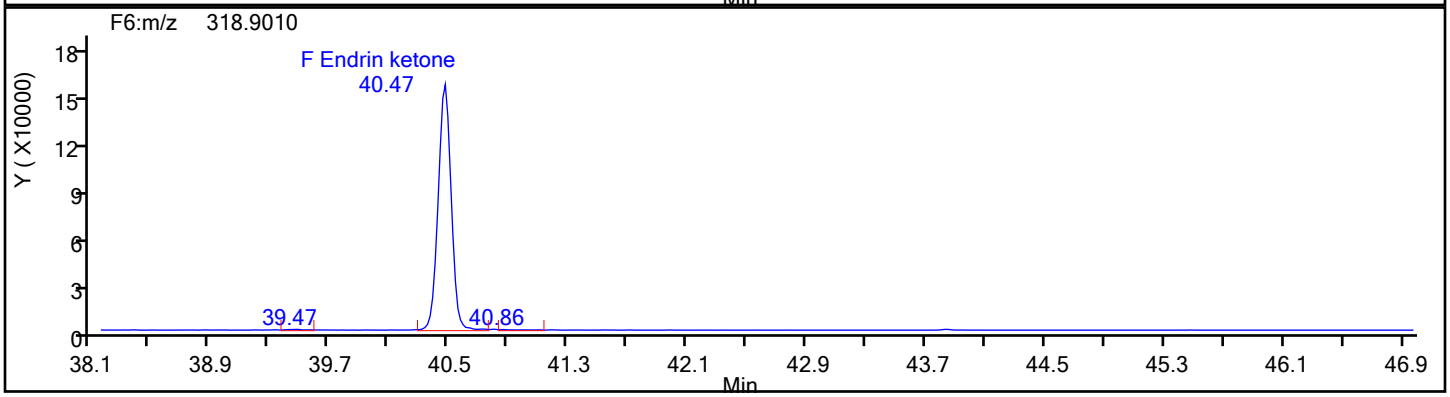
Endrin ketone





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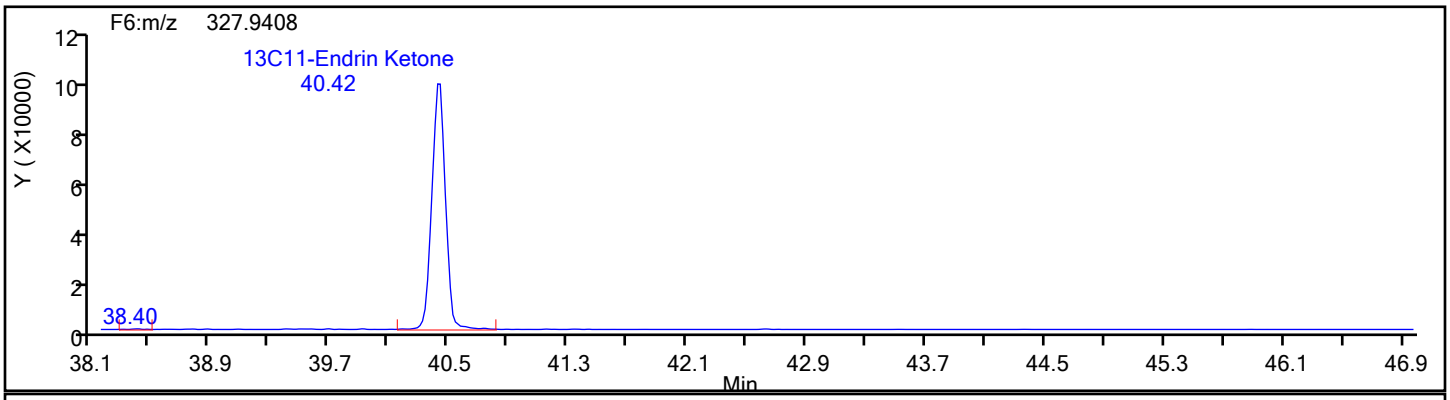

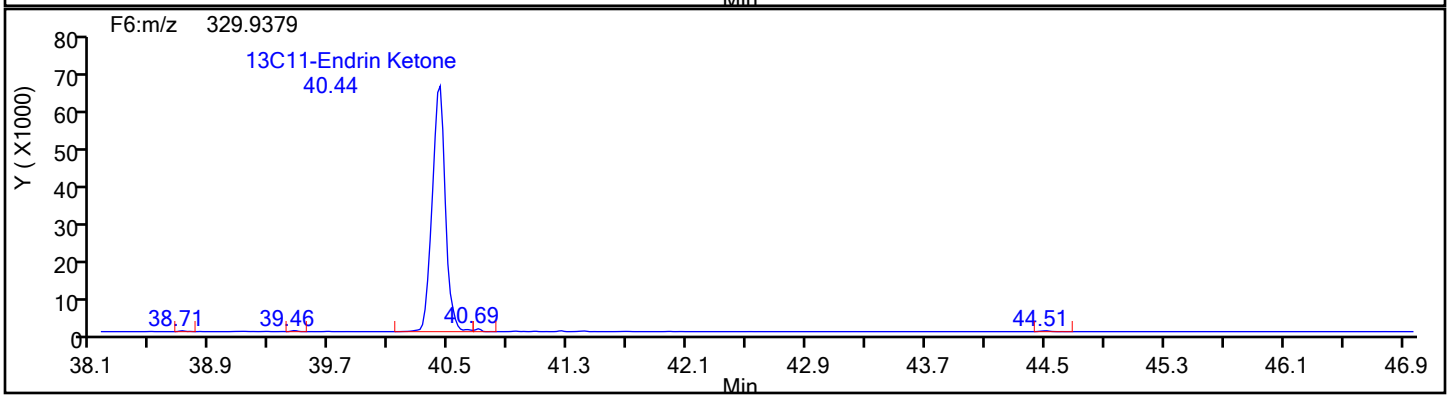

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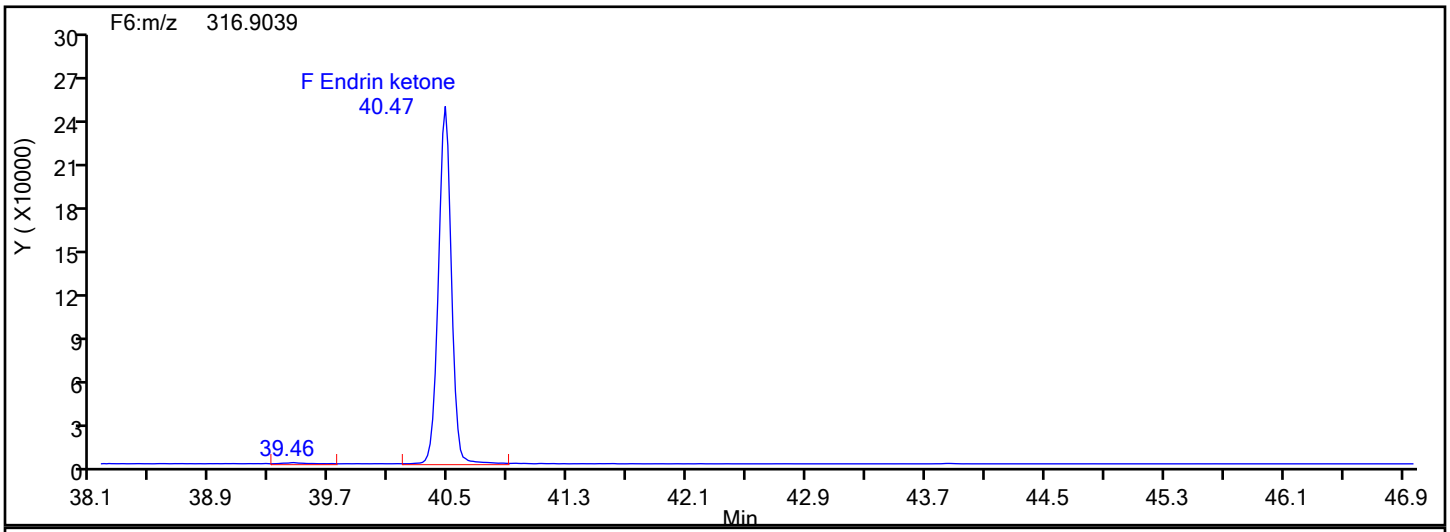
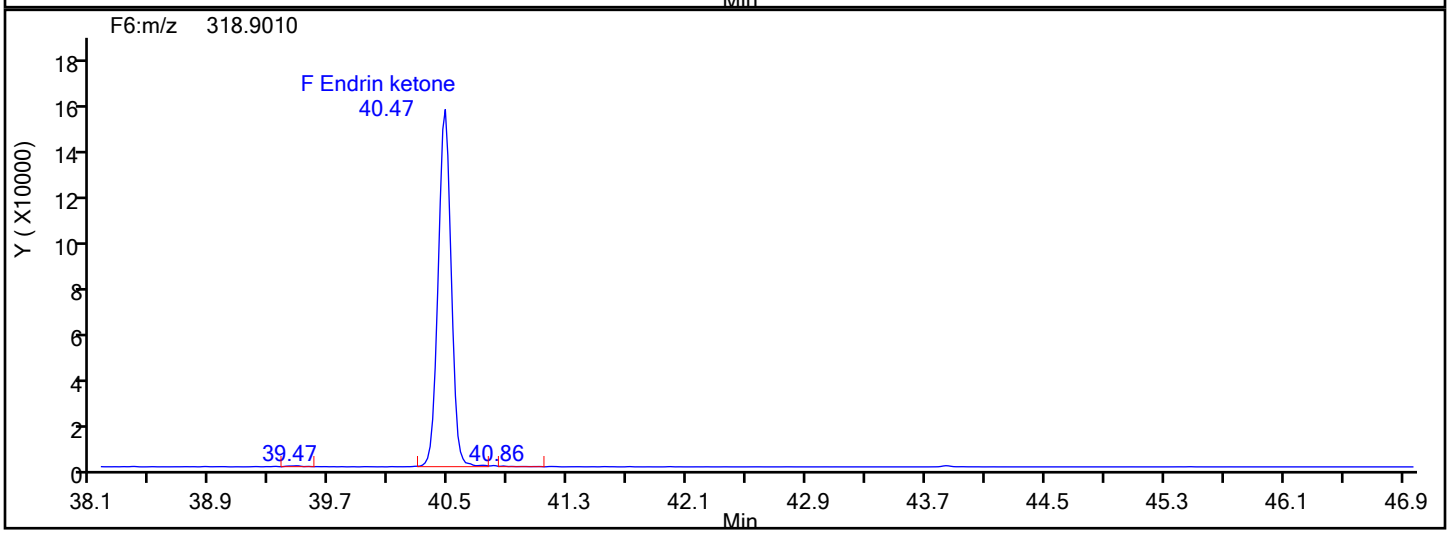
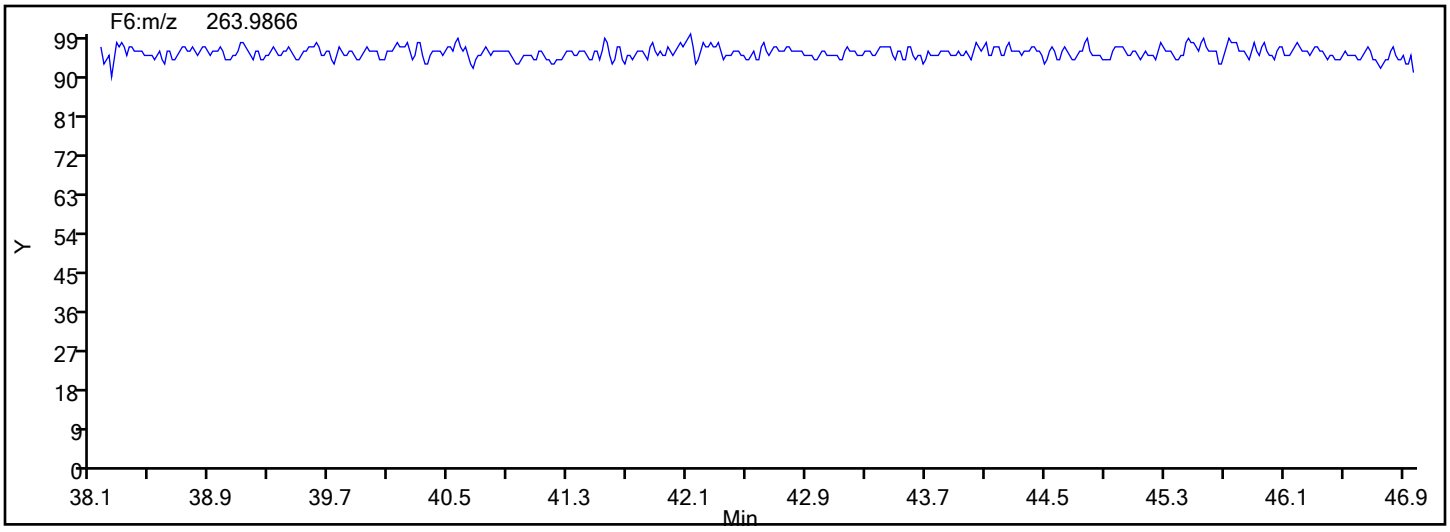




Endrin ketone Lock Mass



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

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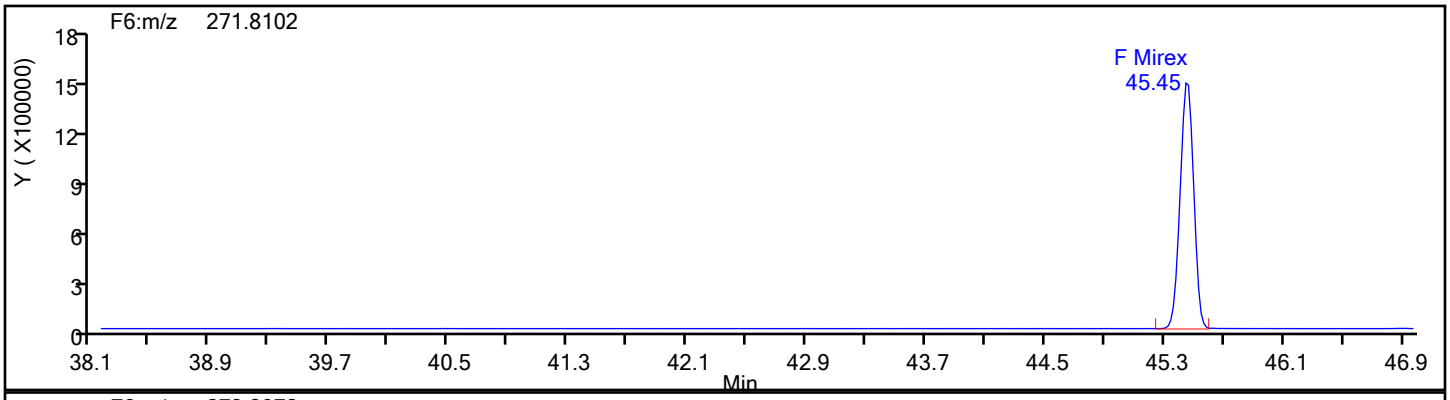
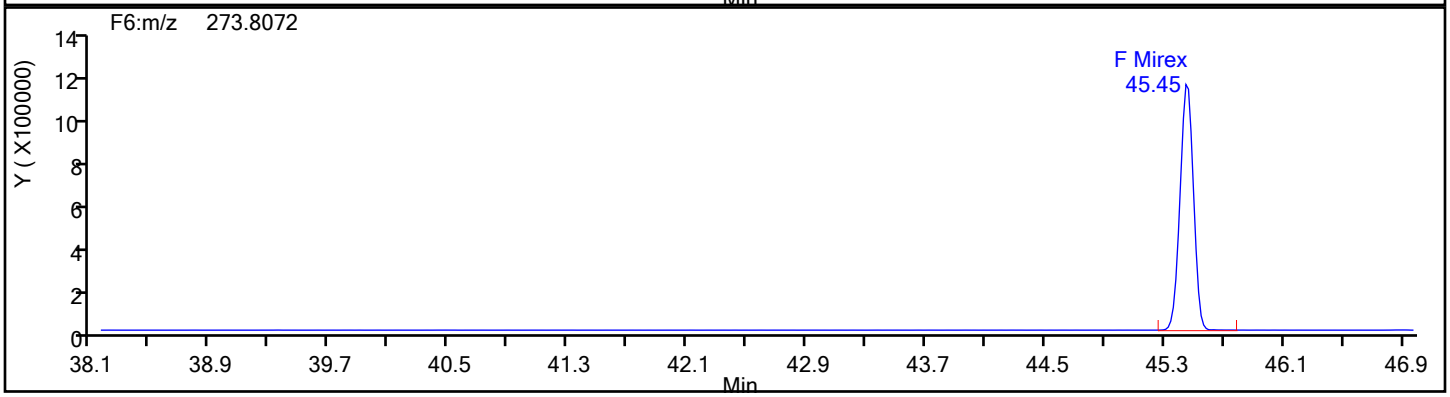
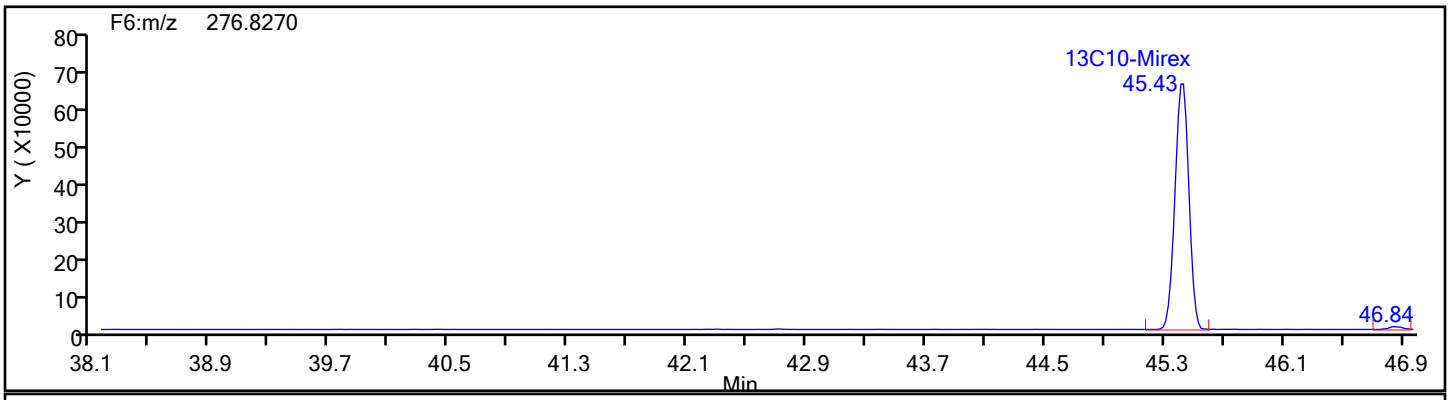
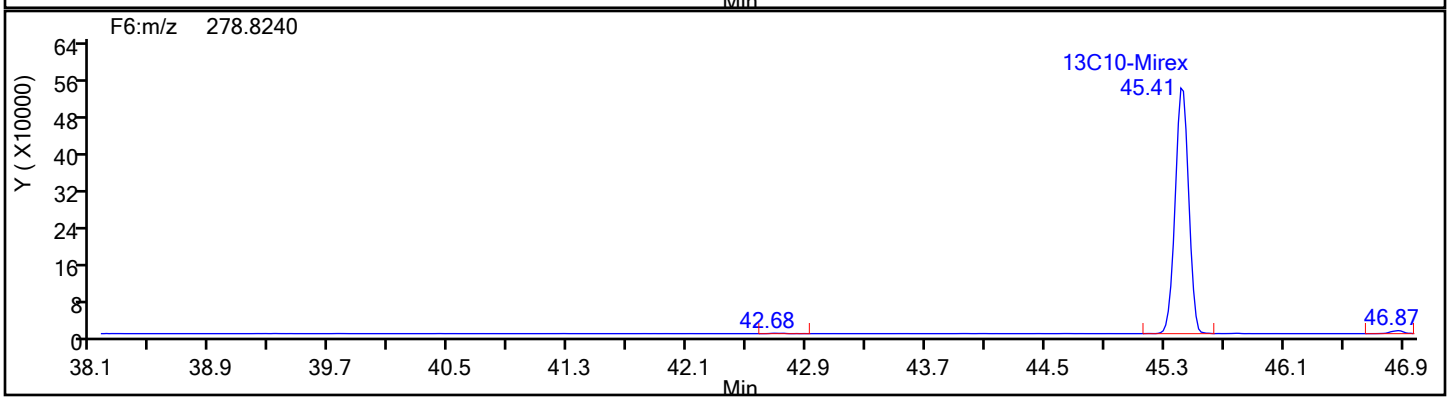




Mirex Standards





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Eurofins Knoxville

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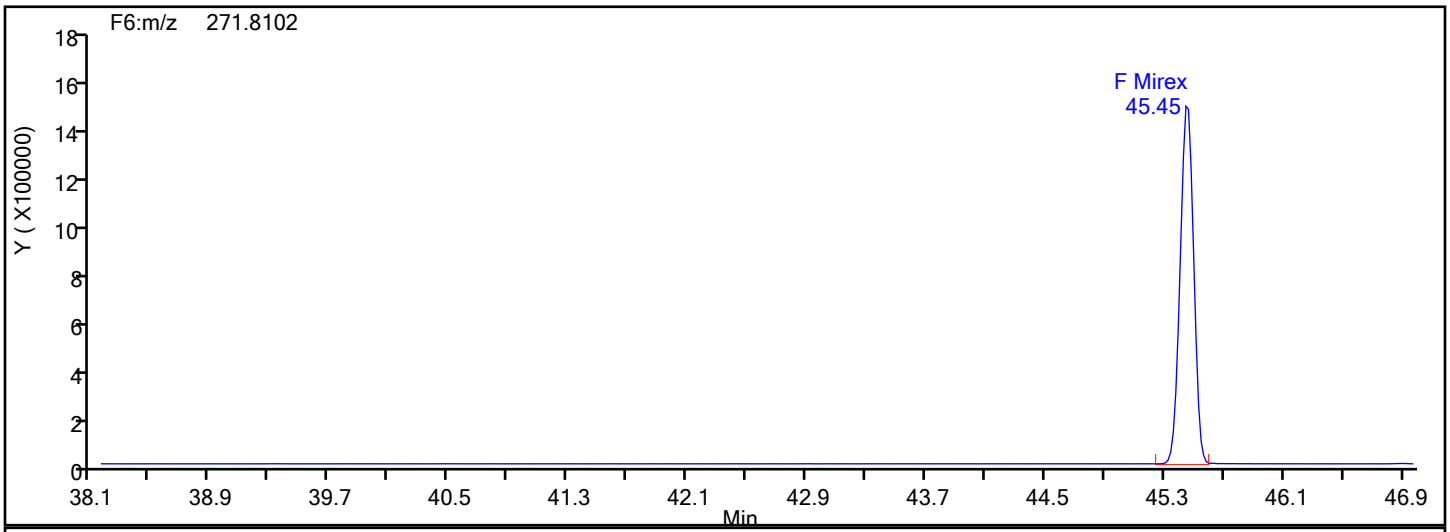

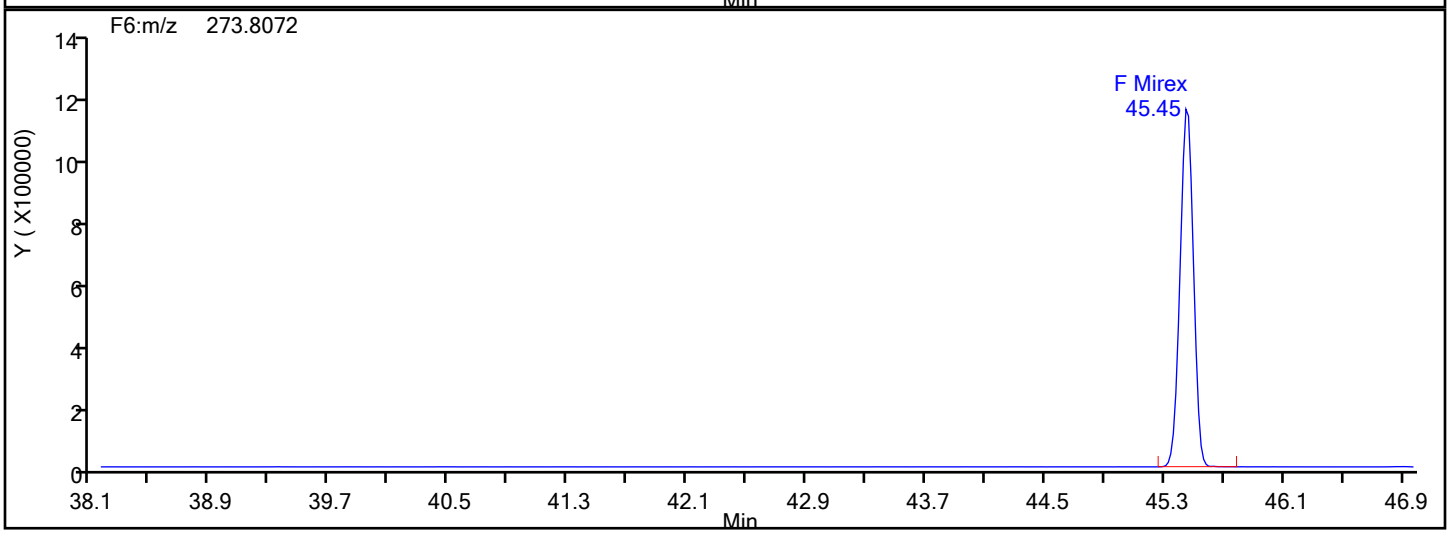

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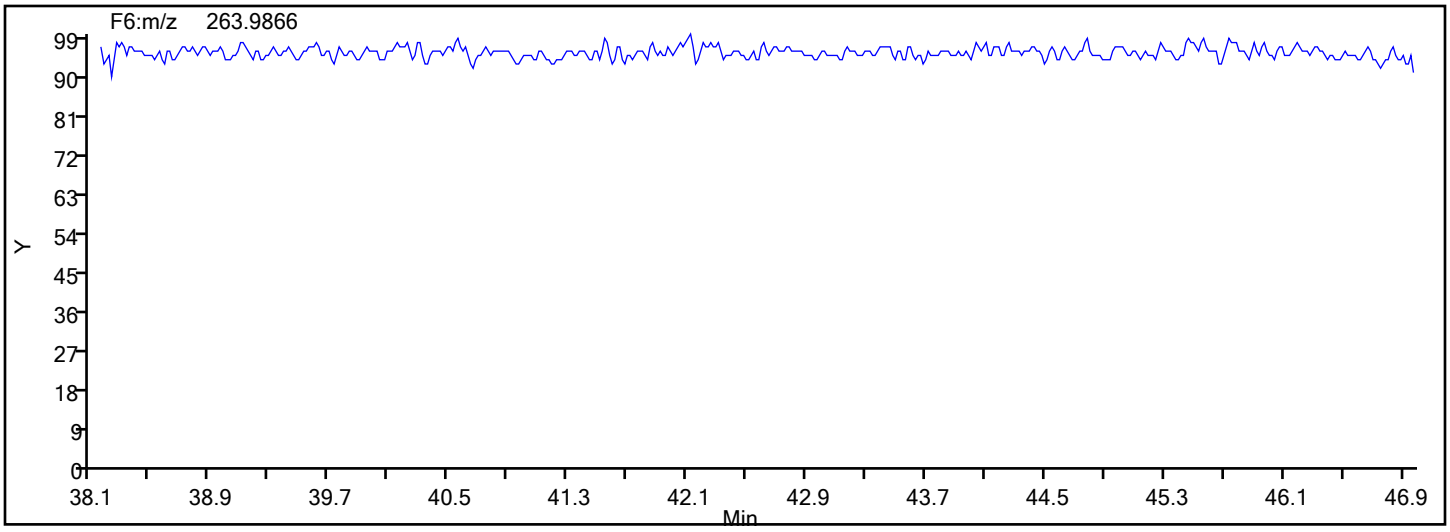

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Eurofins Knoxville

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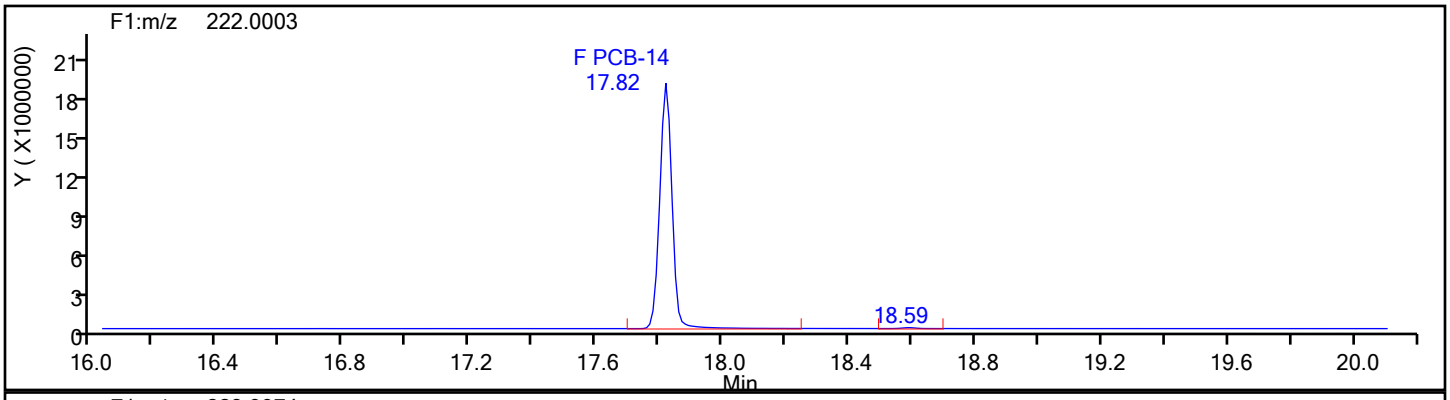
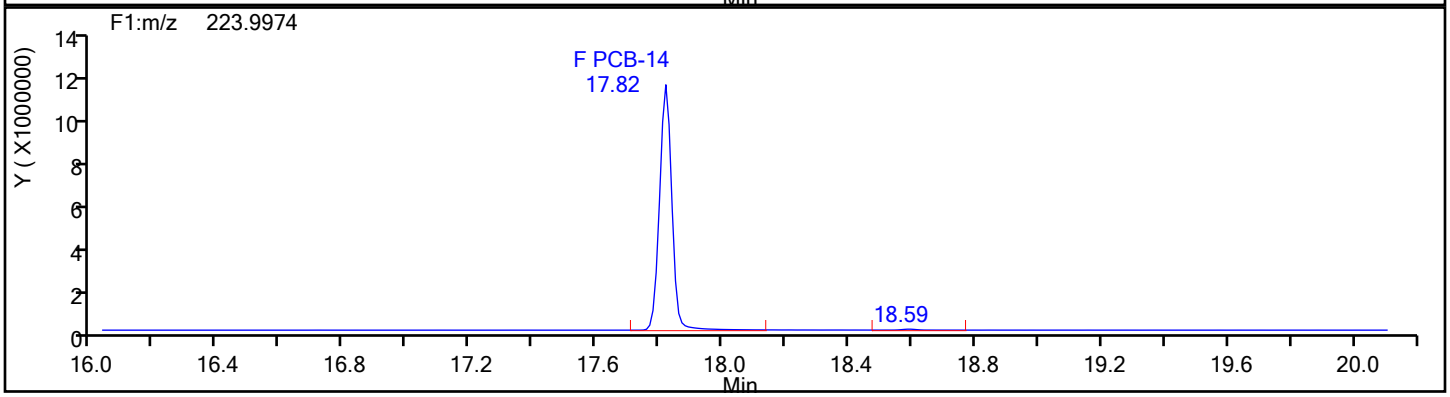
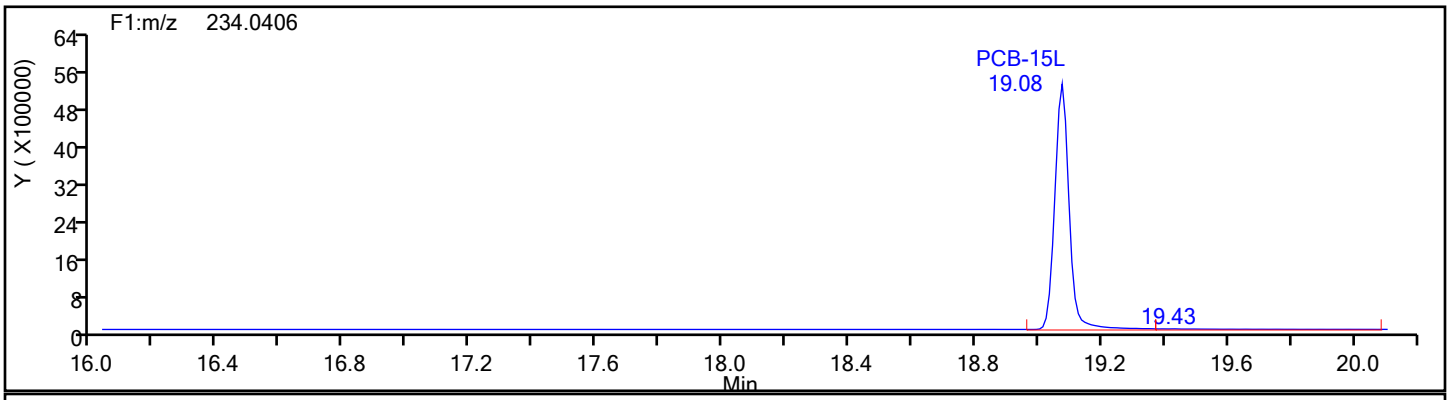
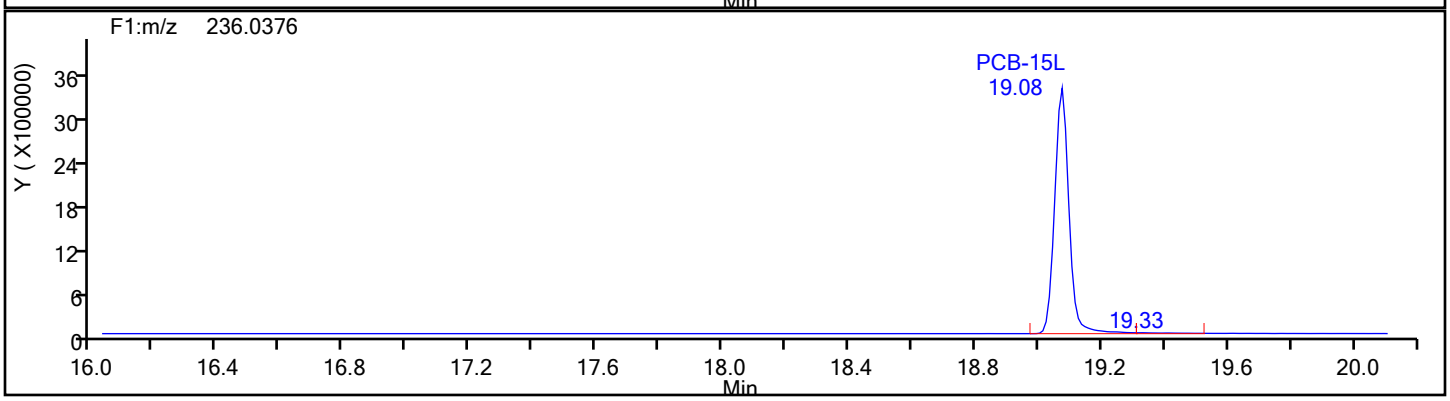
PCB-14





PCB-14 Standards





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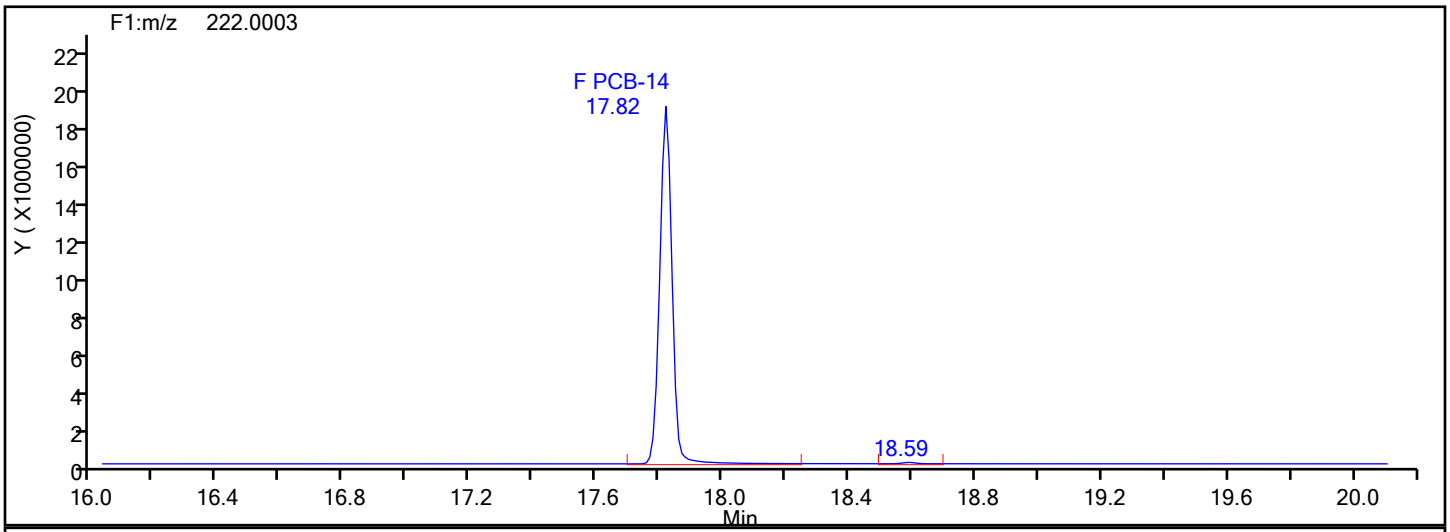
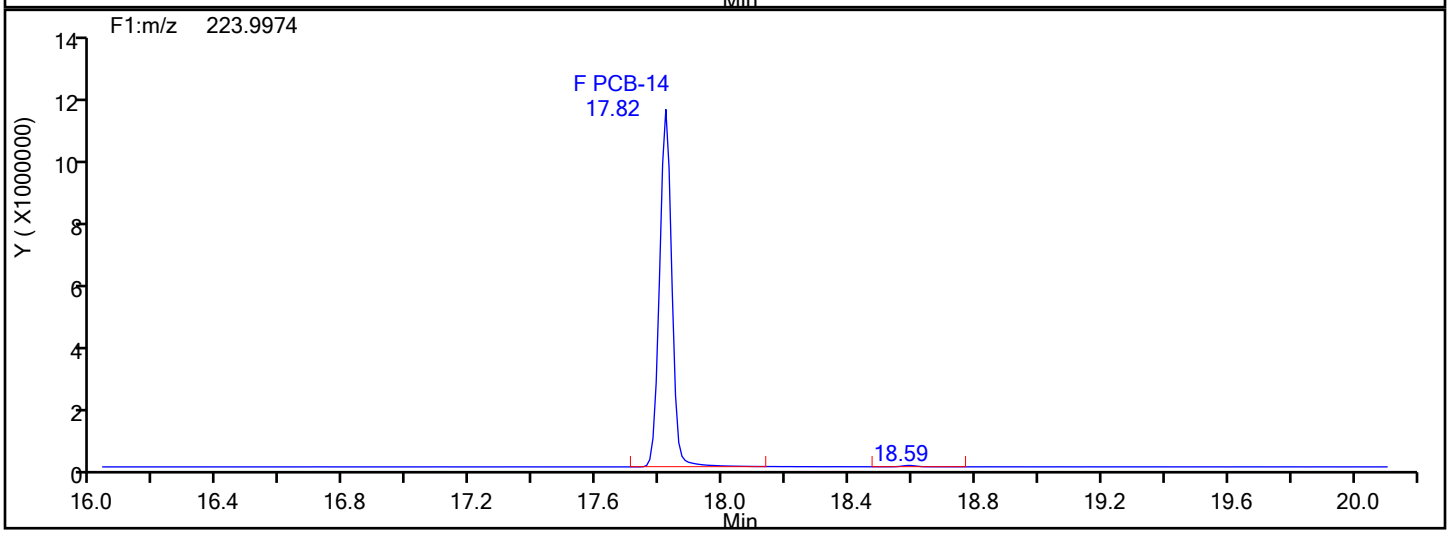
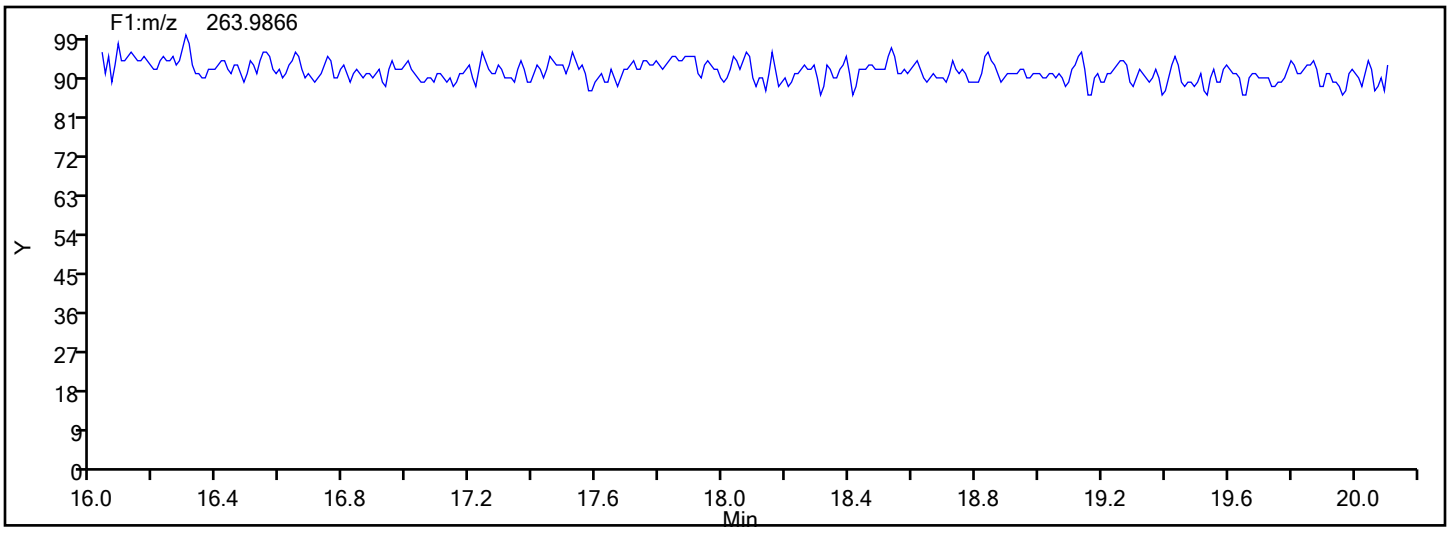
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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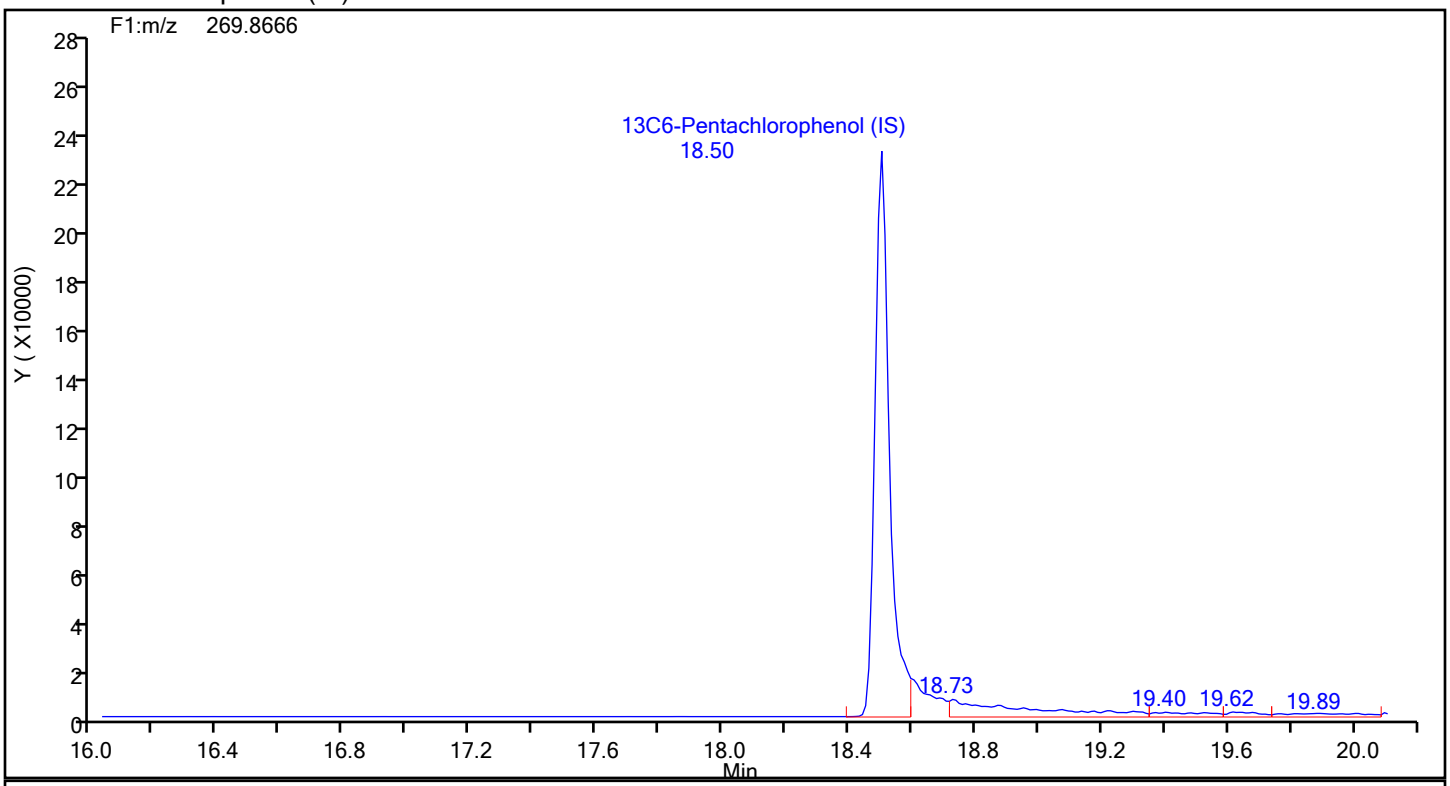
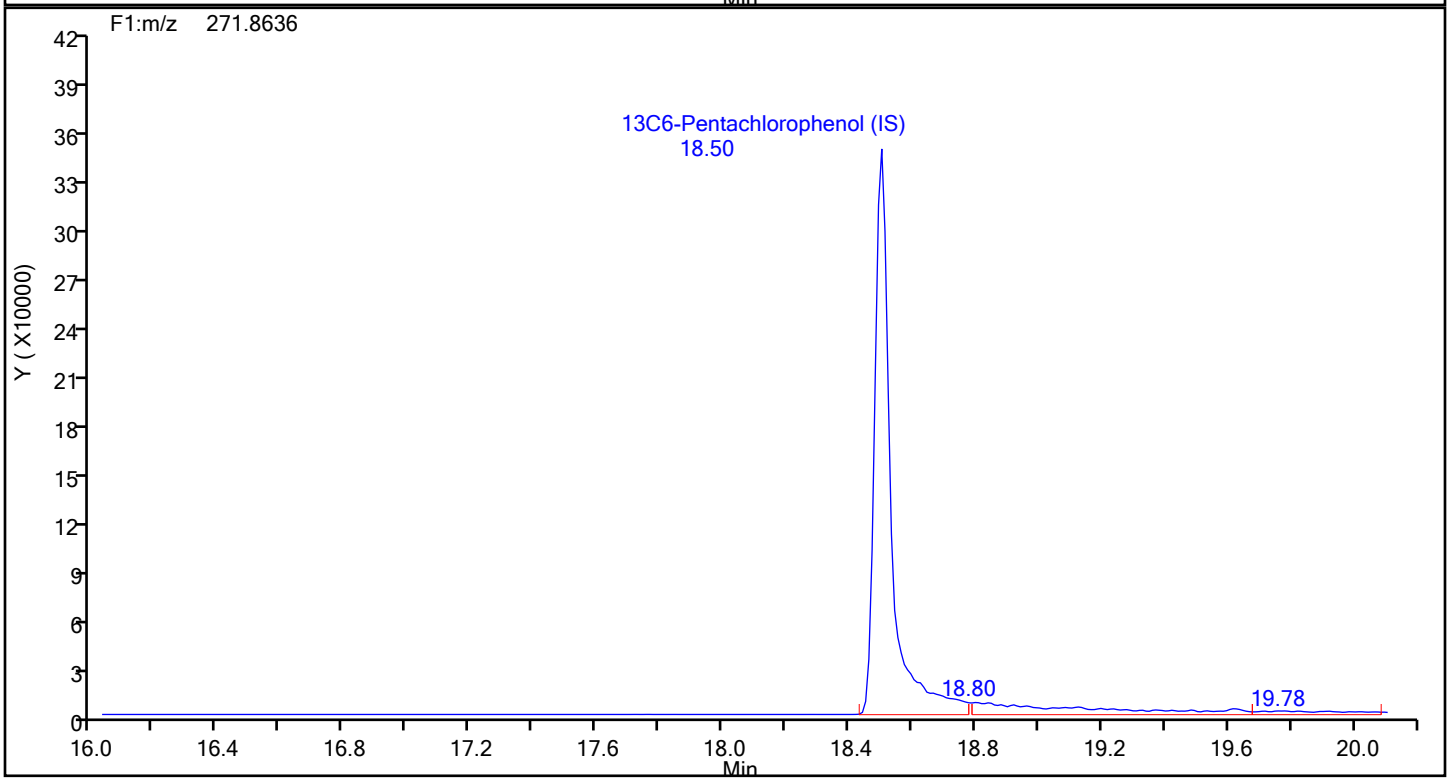
13C6-Pentachlorophenol (IS) Standards





Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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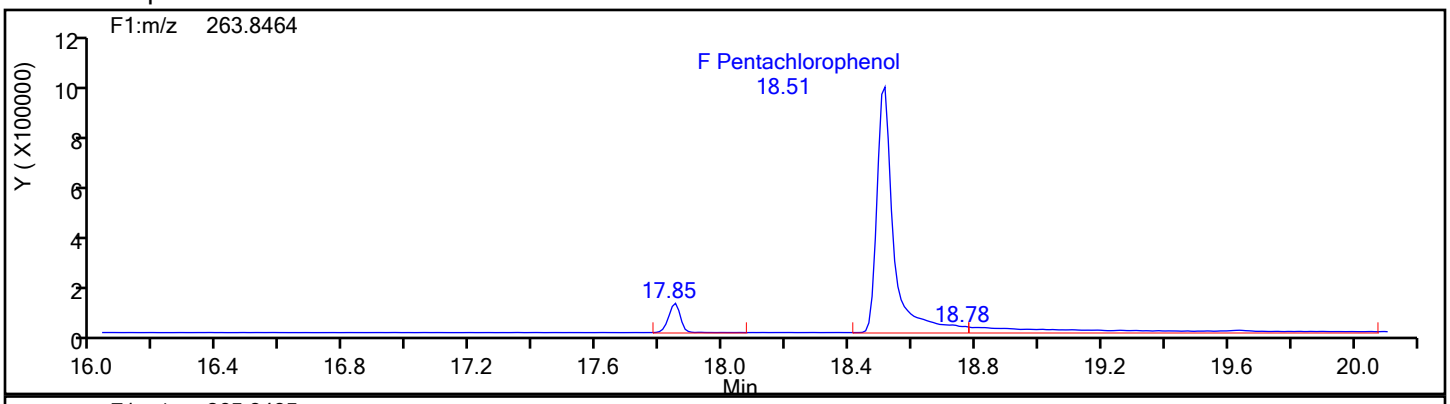
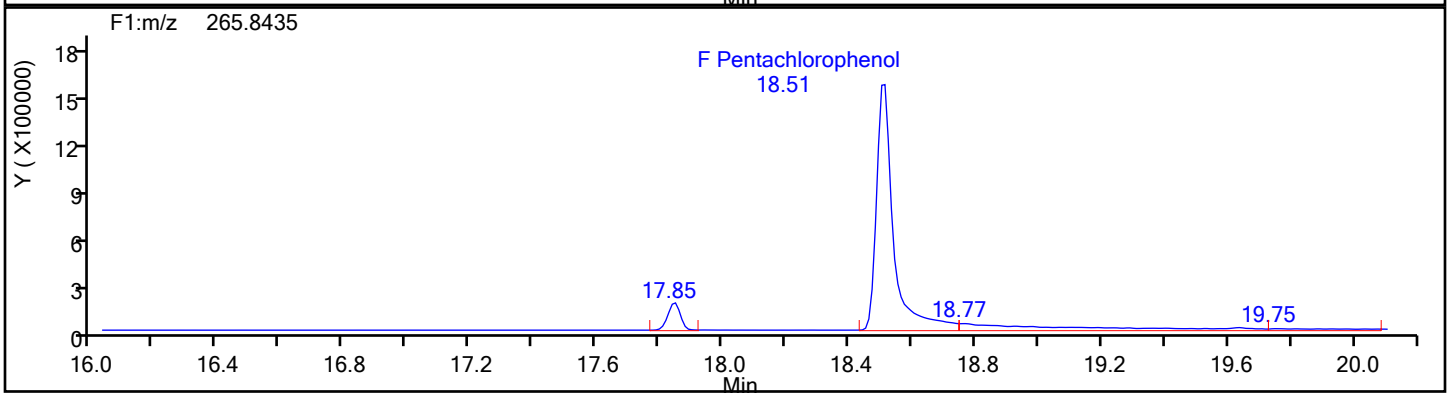
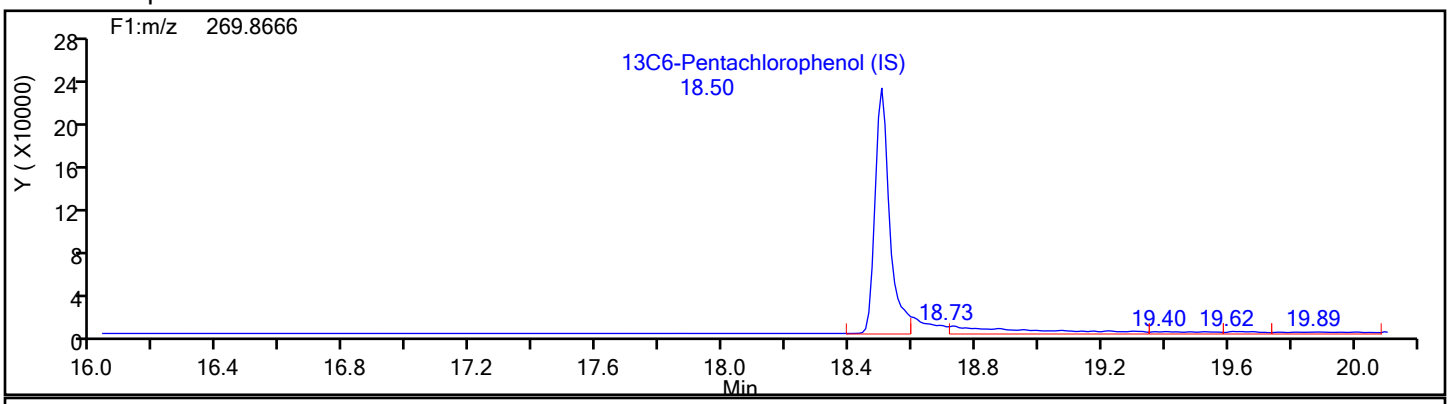
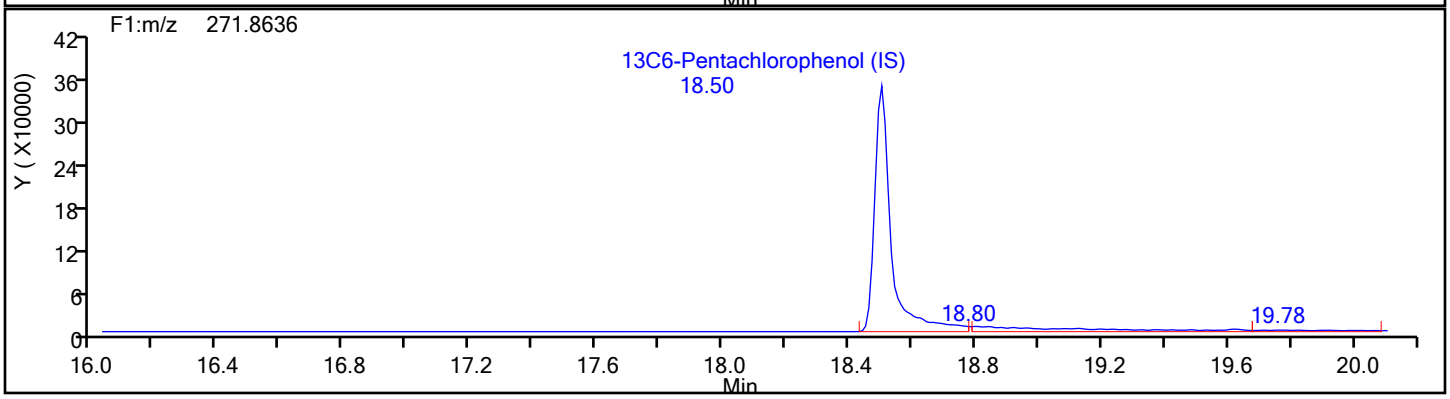
Pentachlorophenol





Pentachlorophenol Standards





Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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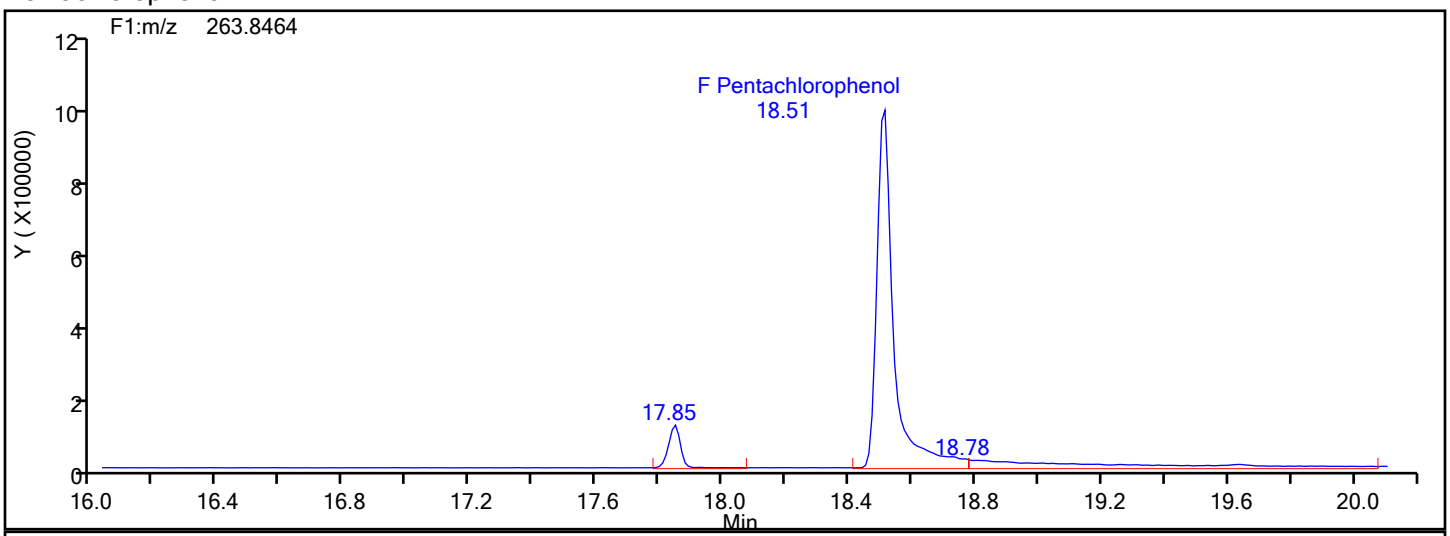
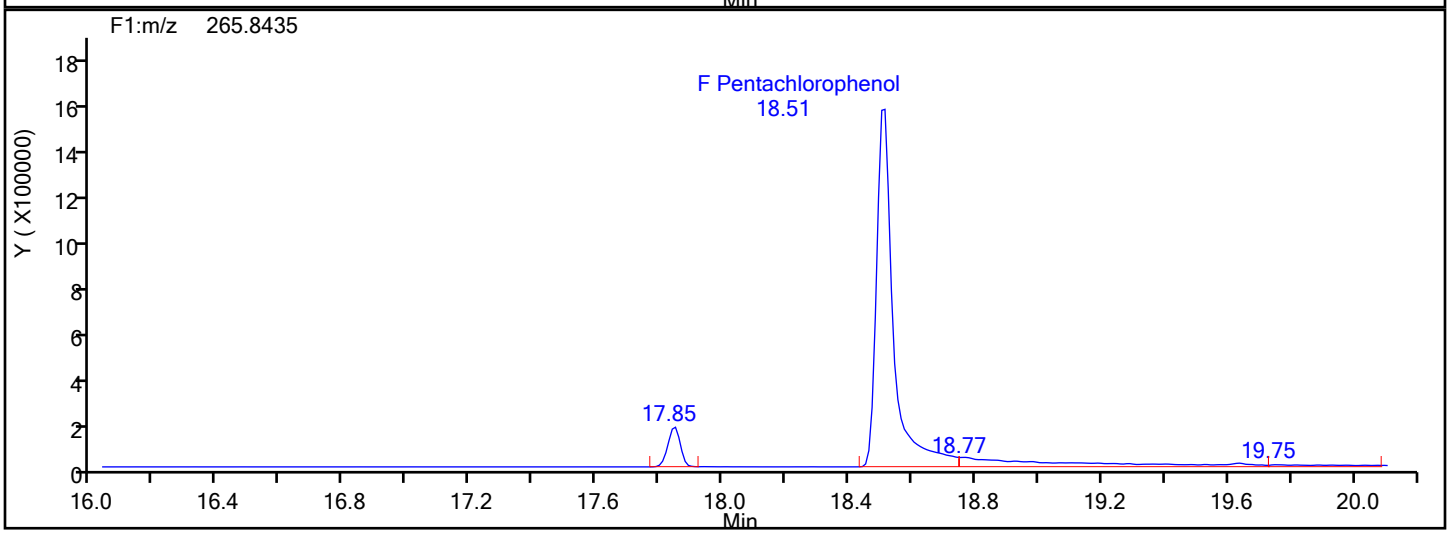
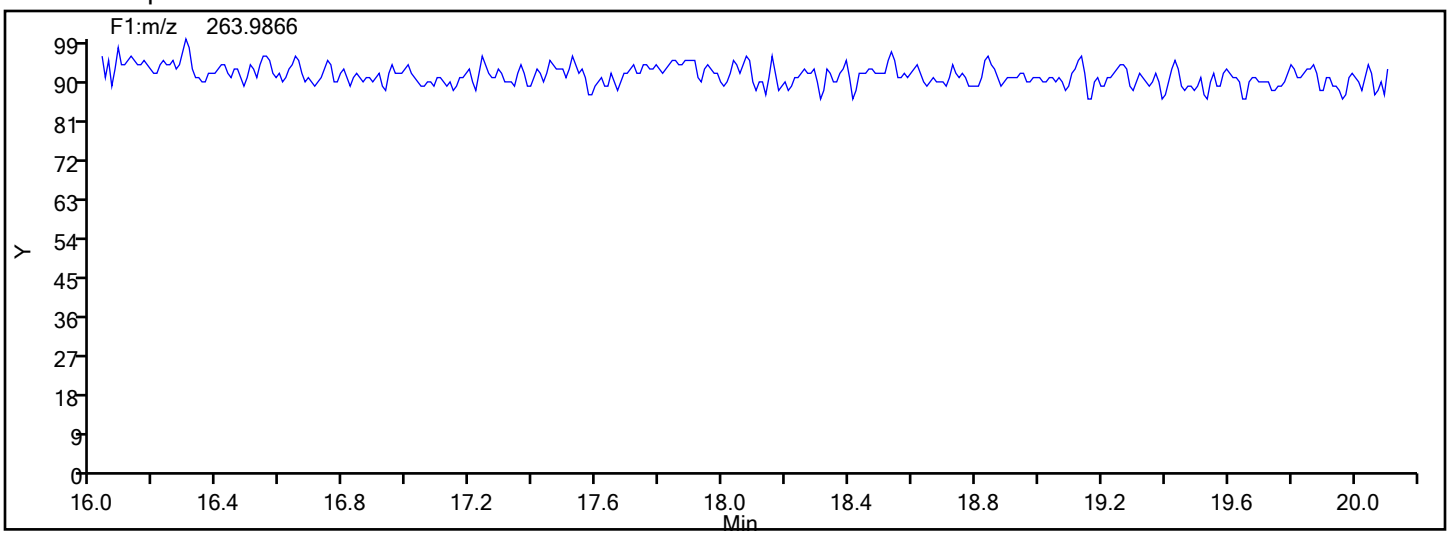
Pentachlorophenol





Pentachlorophenol Lock Mass



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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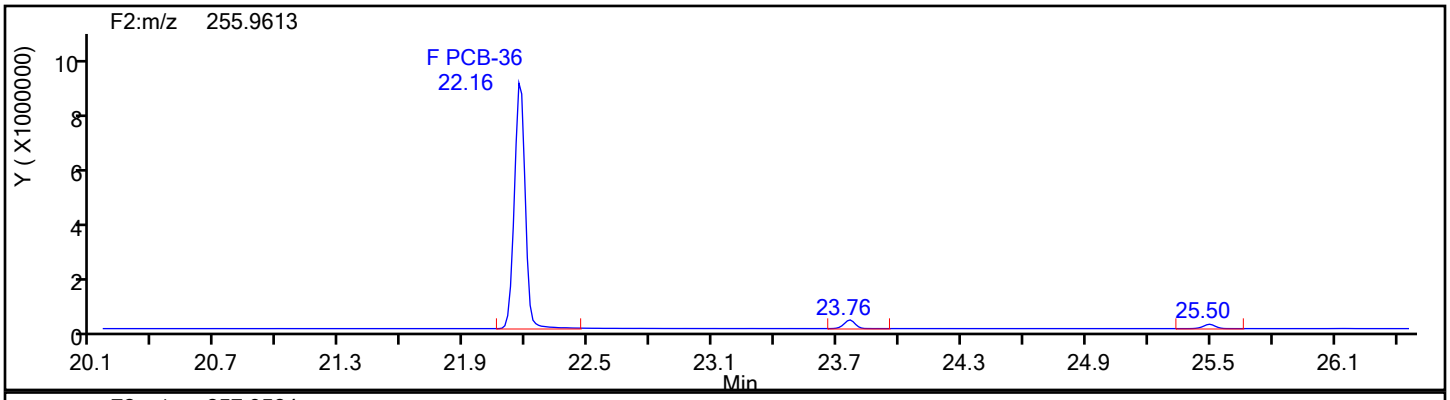
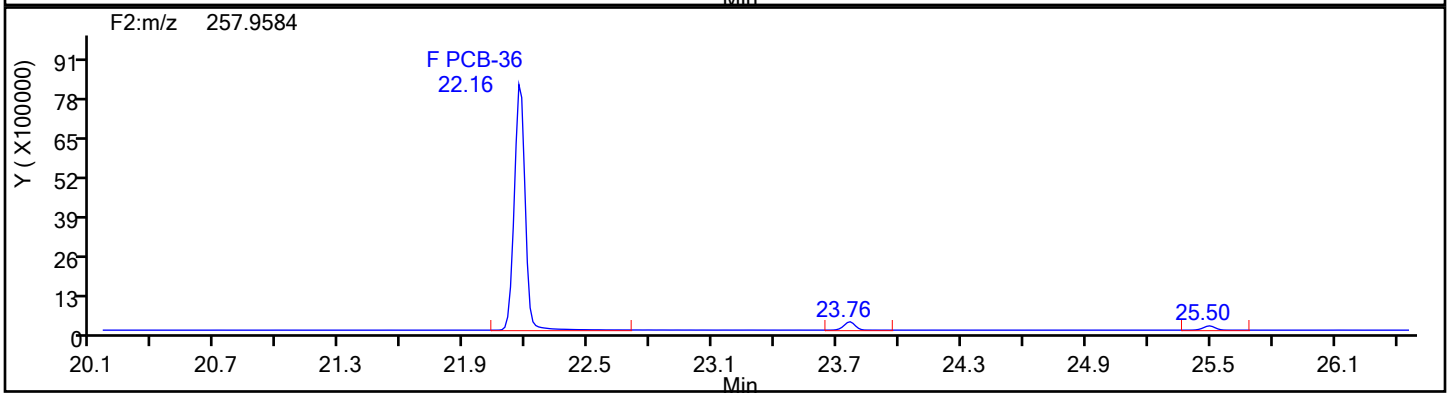
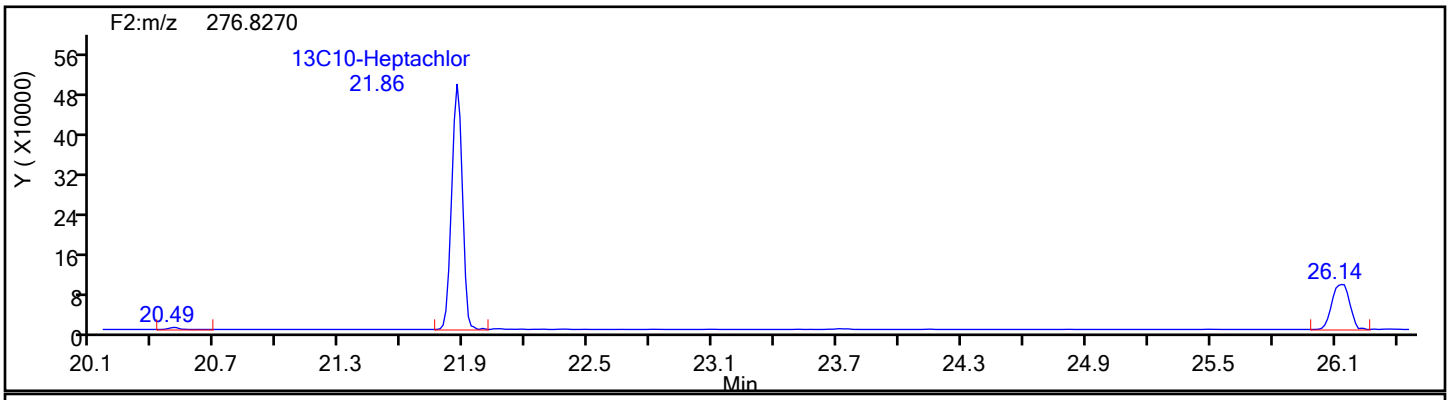
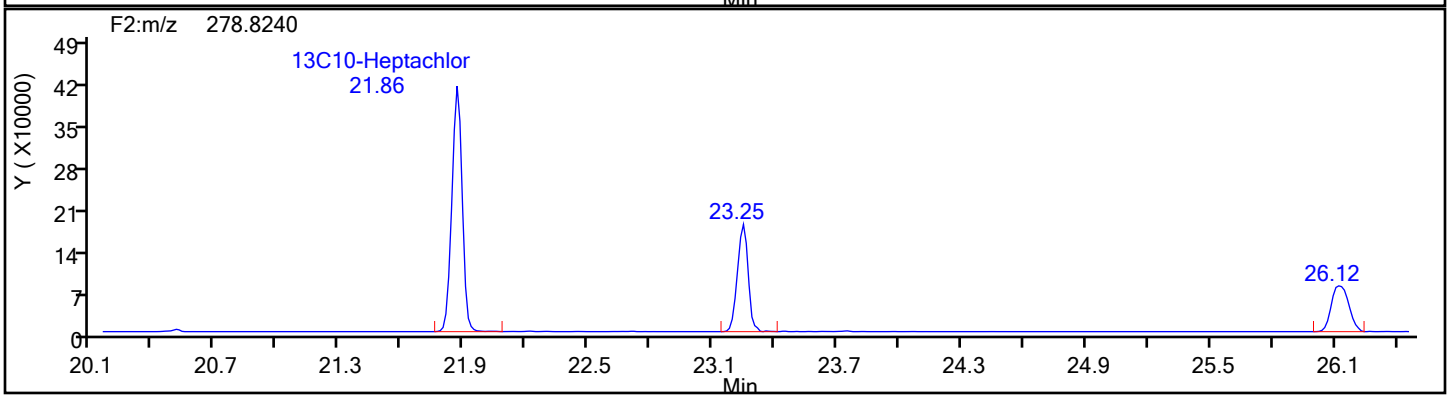
PCB-36





PCB-36 Standards





Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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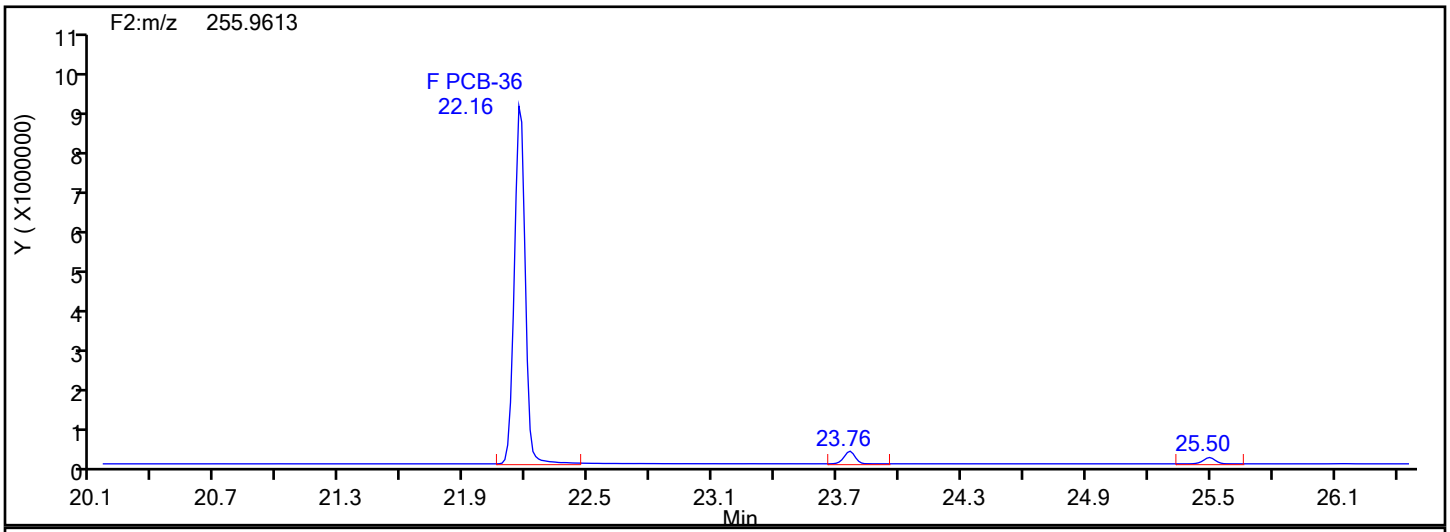
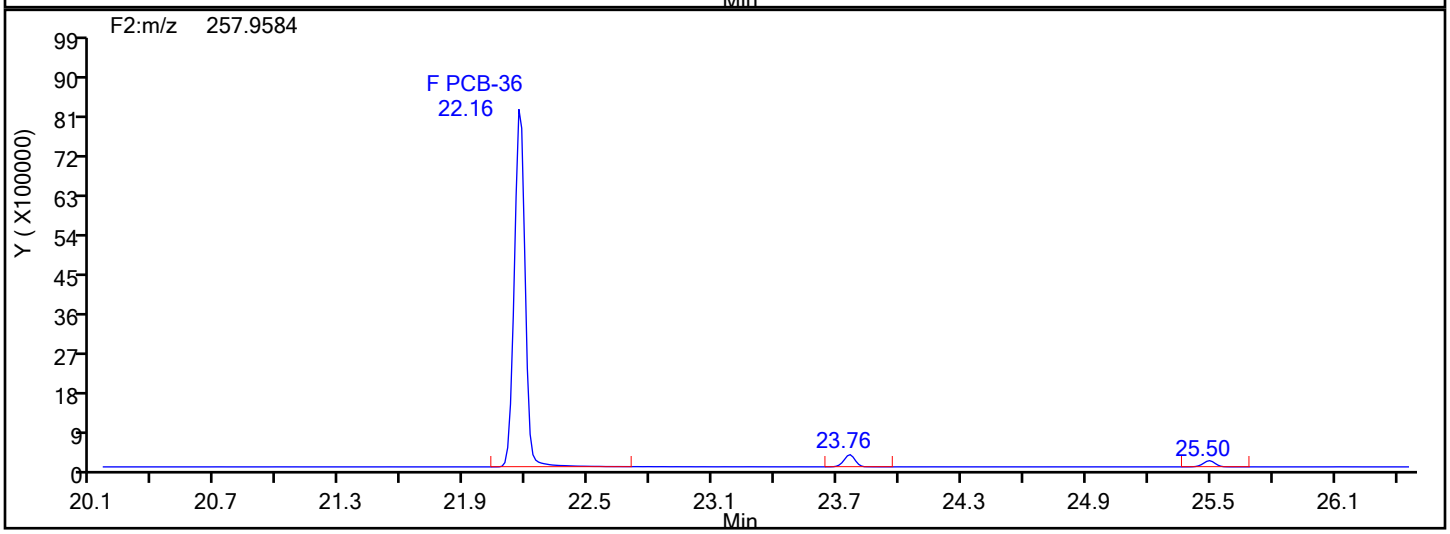
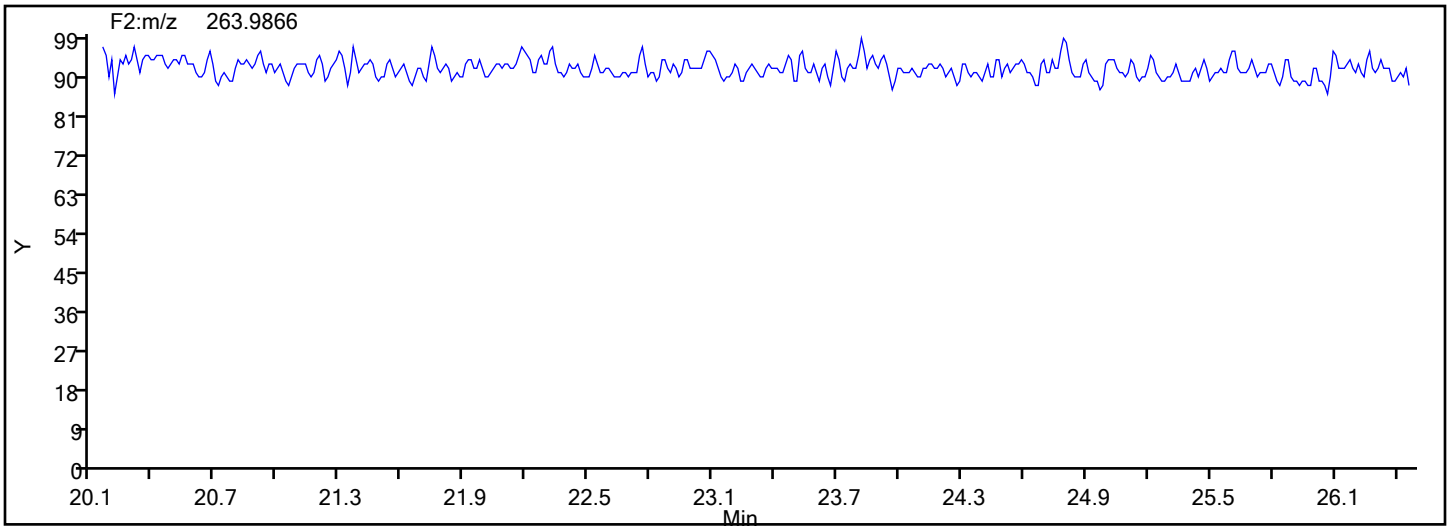
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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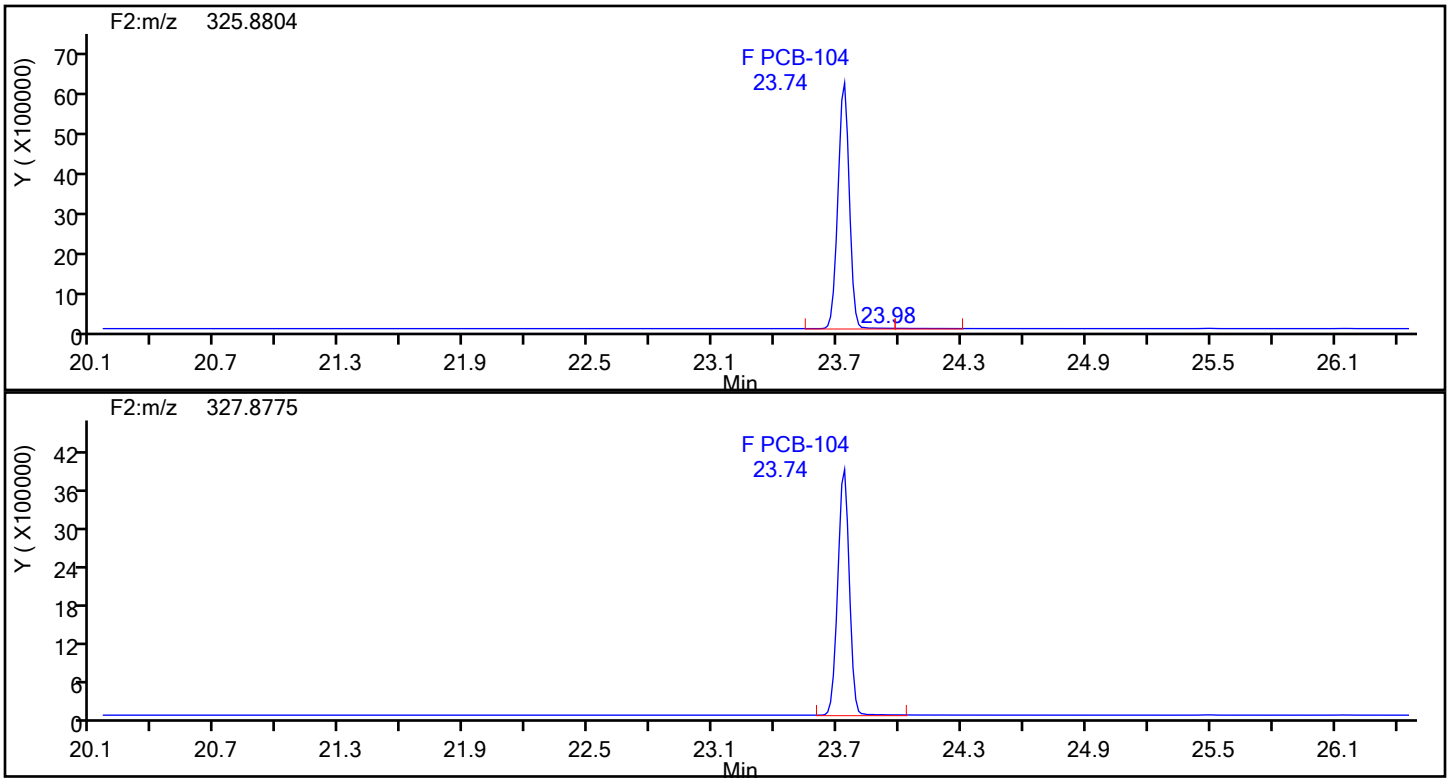
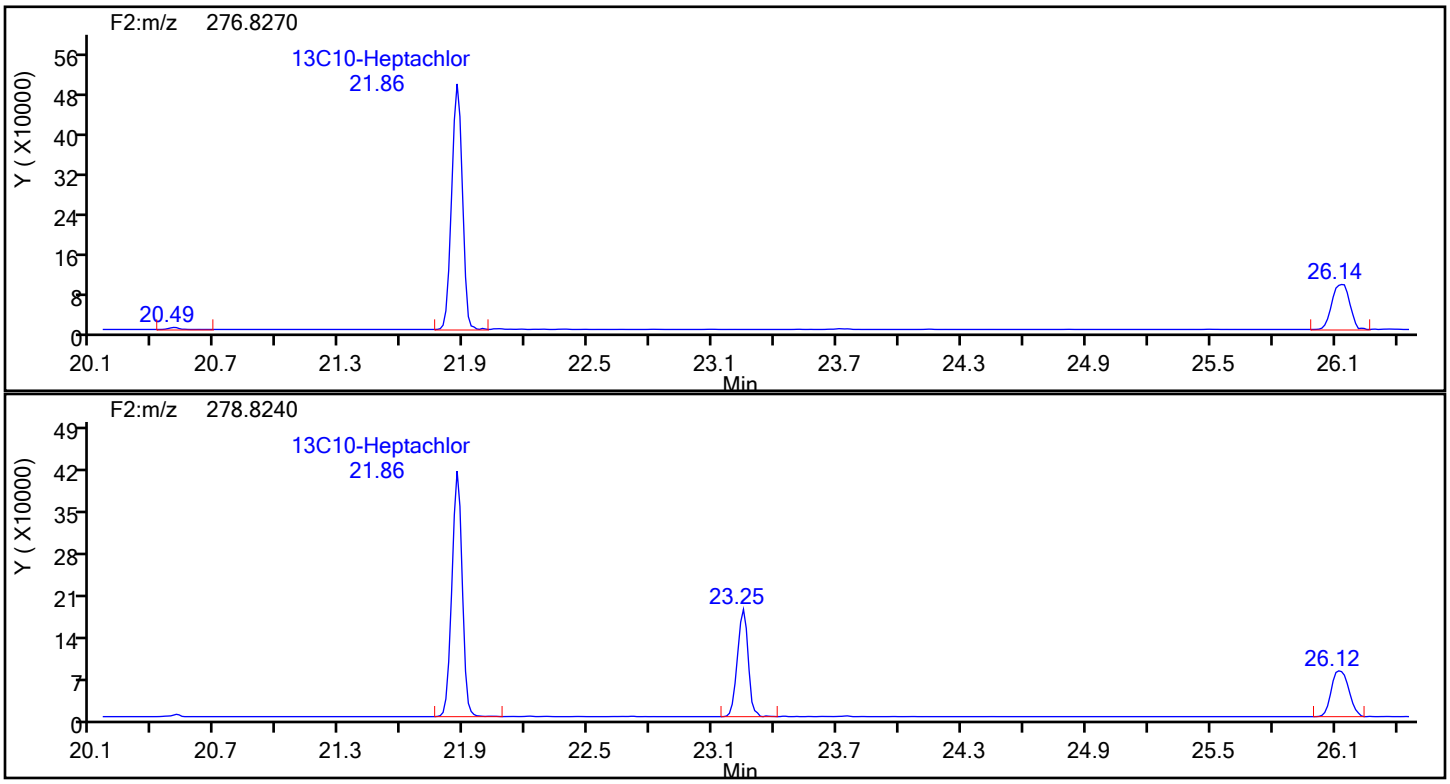
PCB-104



PCB-104 Standards



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
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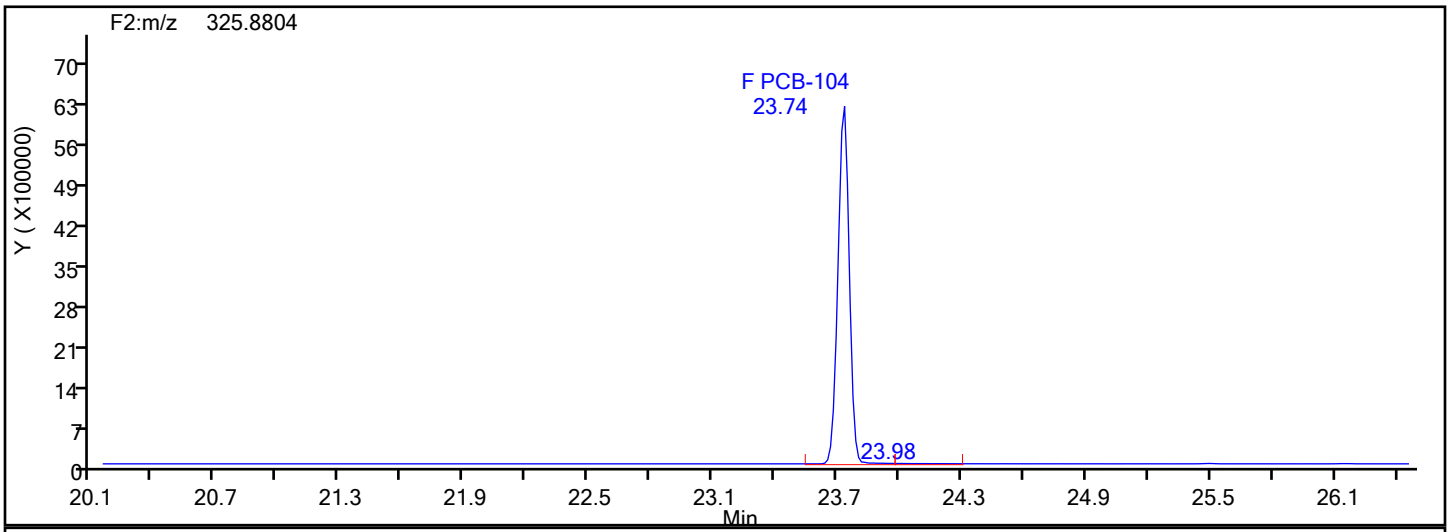
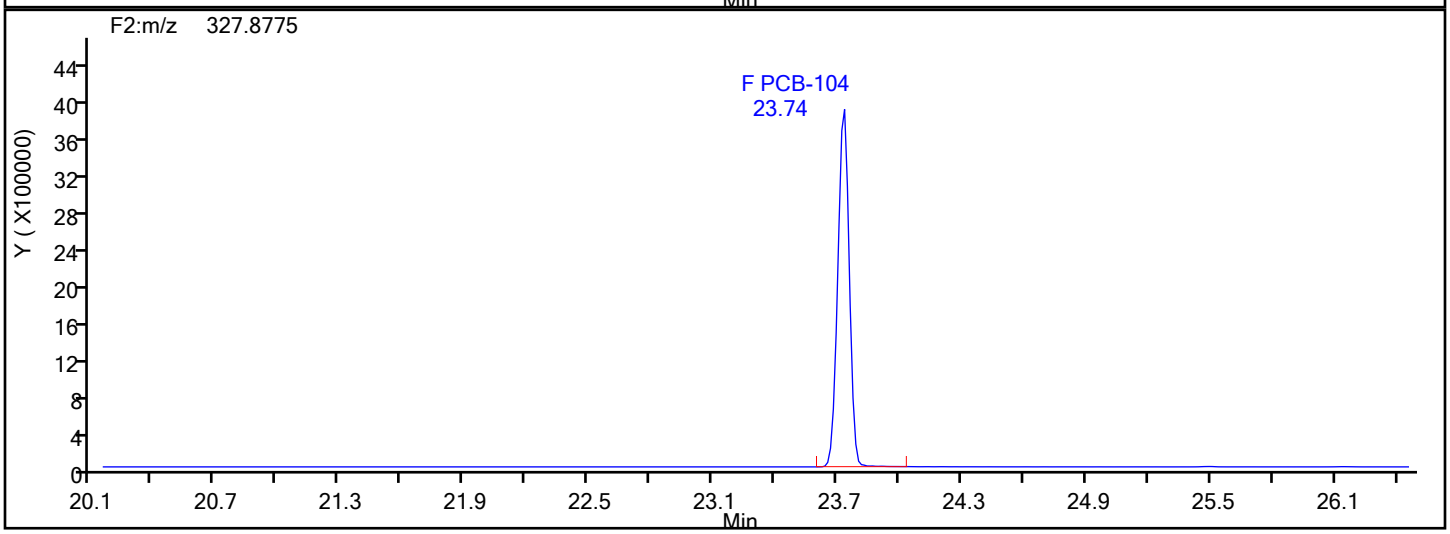
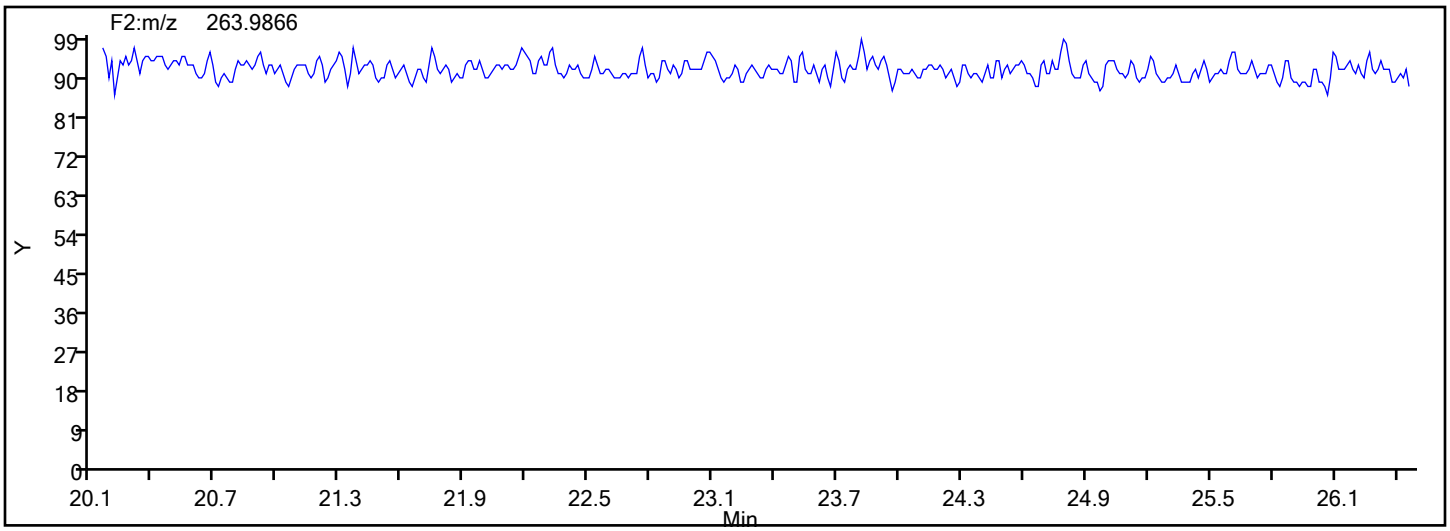
PCB-104





PCB-104 Lock Mass



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
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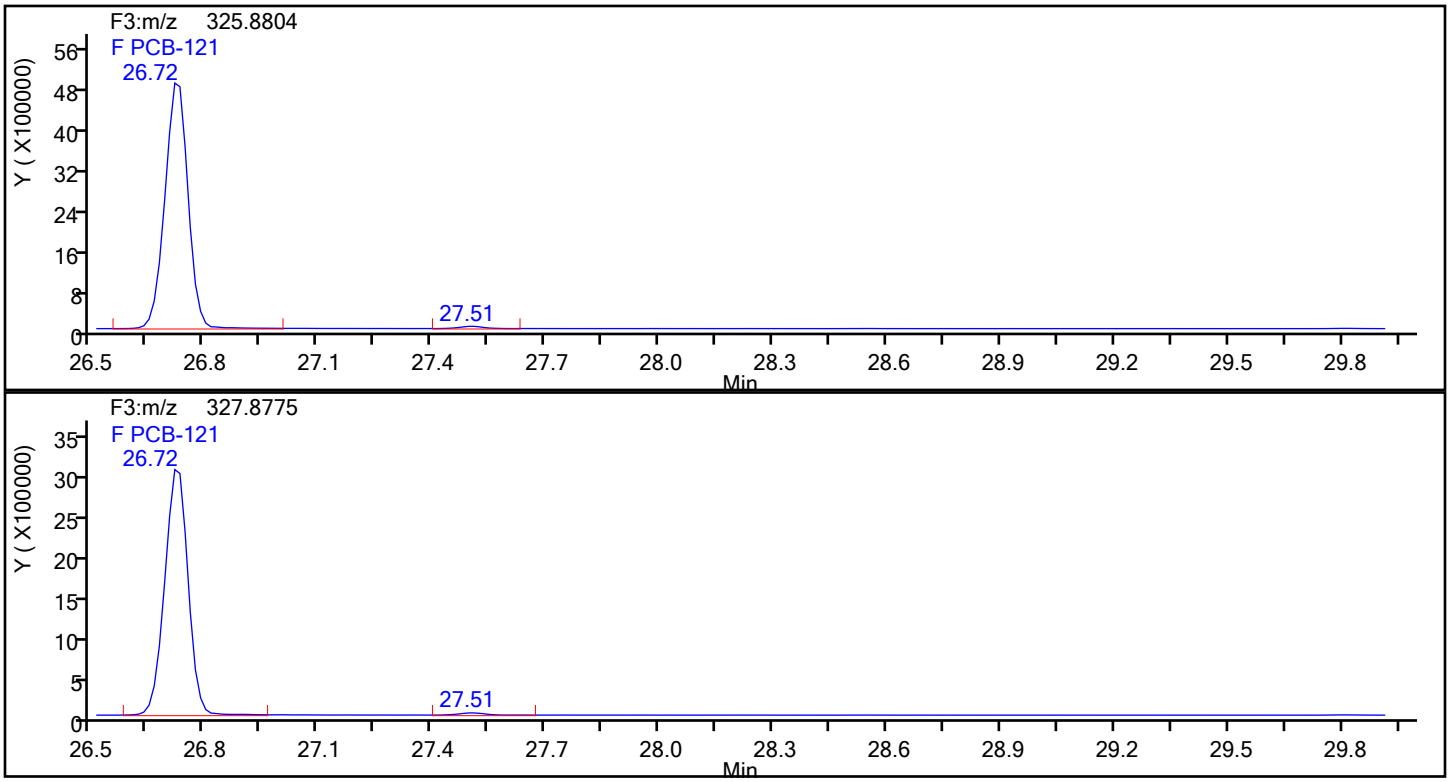
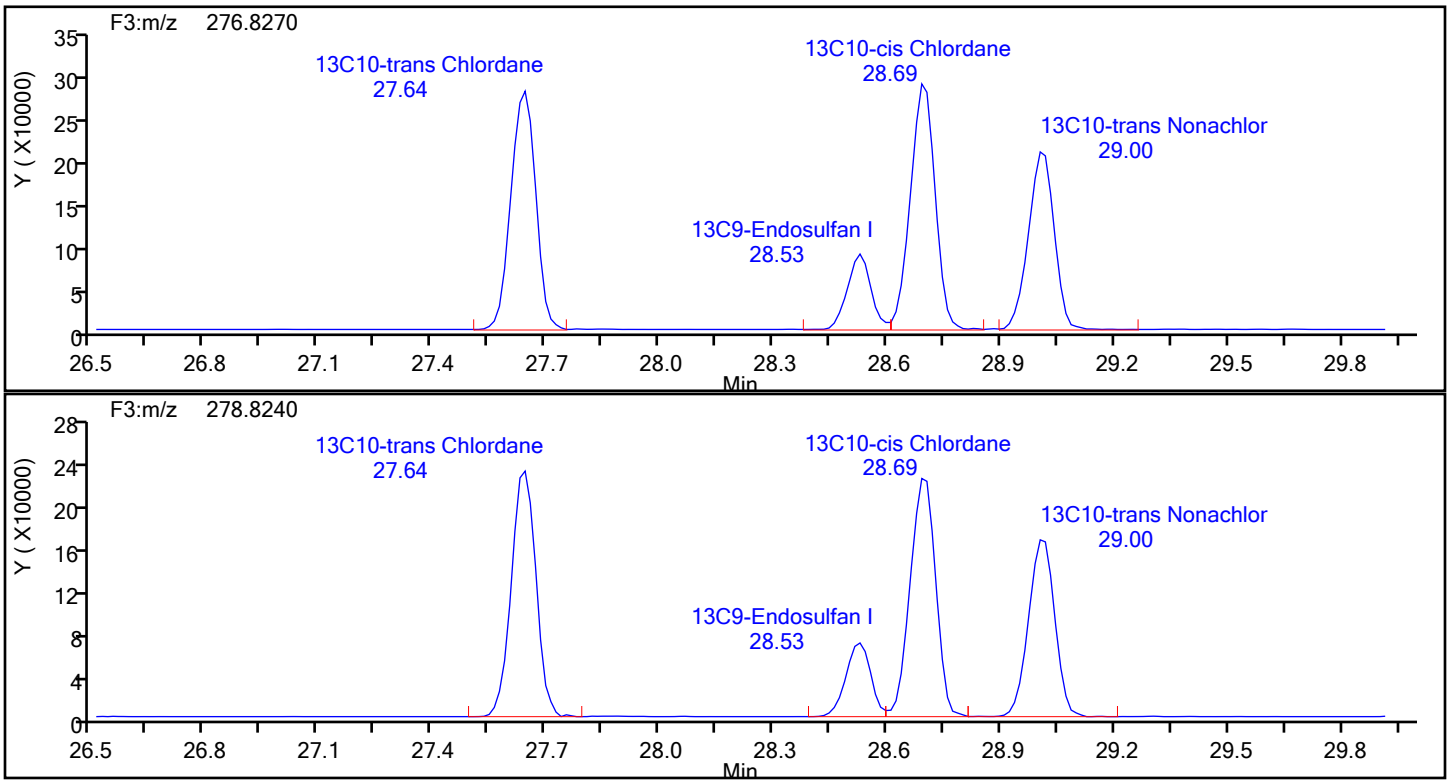
PCB-121



PCB-121 Standards



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Injection Date: 30-Mar-2025 12:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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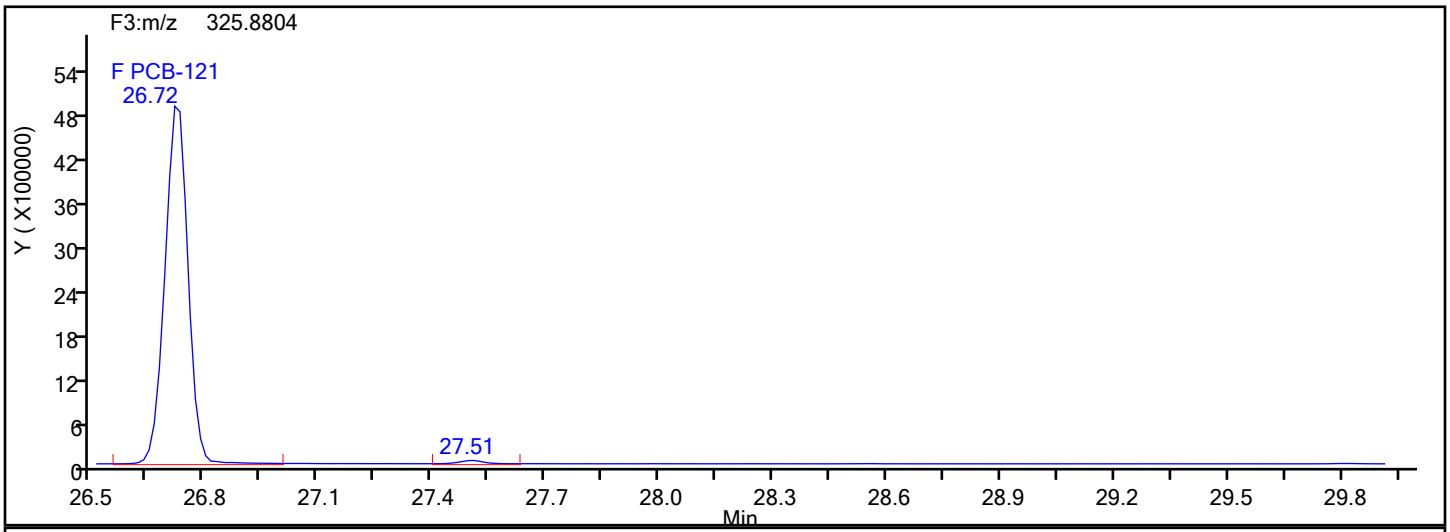
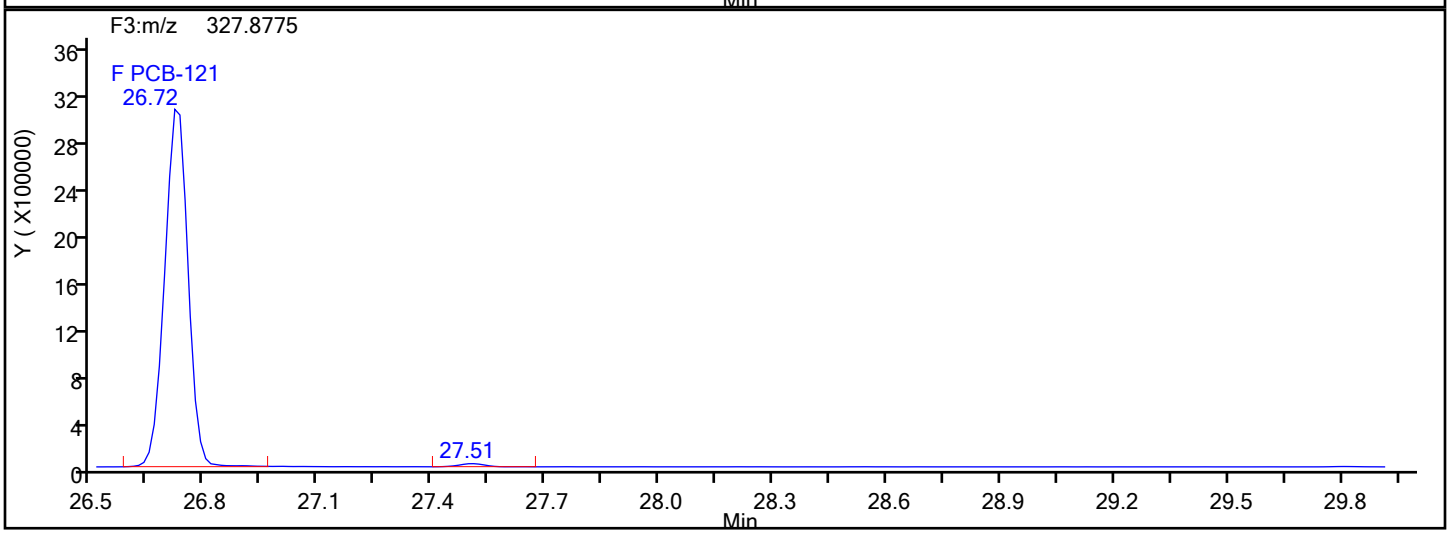
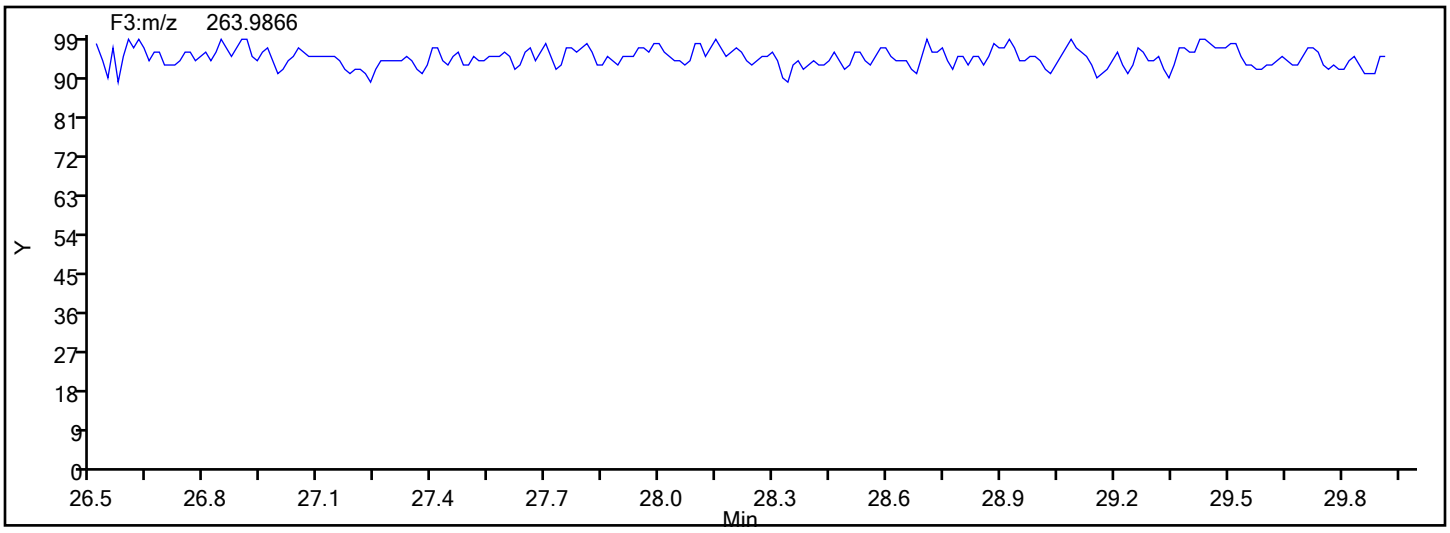
PCB-121





PCB-121 Lock Mass



Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

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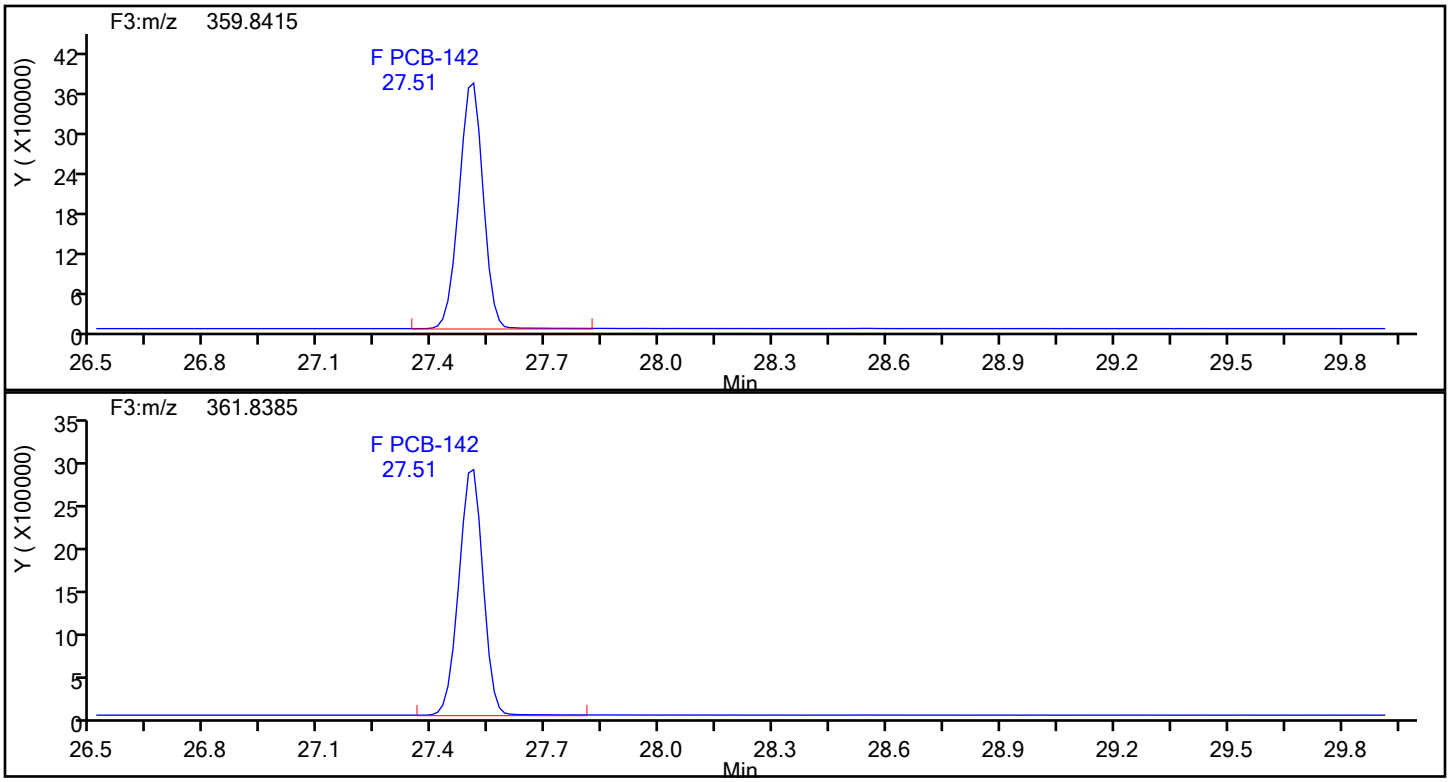
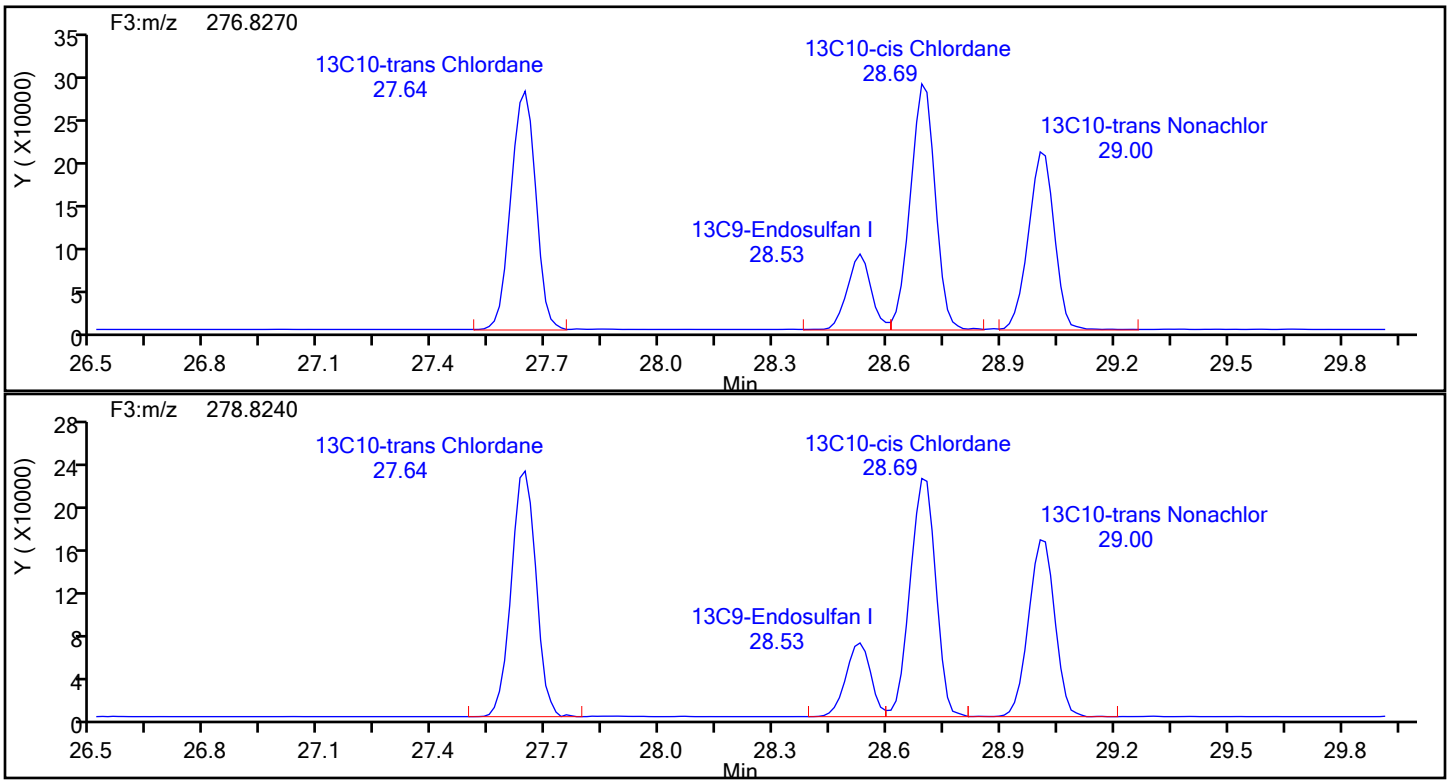
PCB-142



PCB-142 Standards



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Eurofins Knoxville

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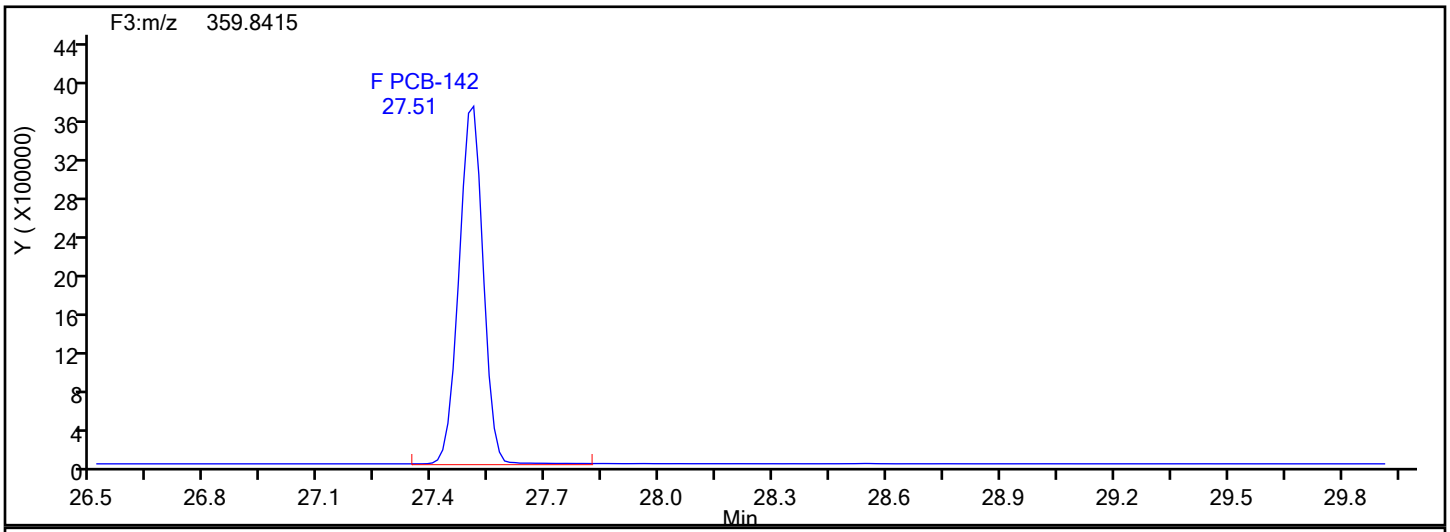
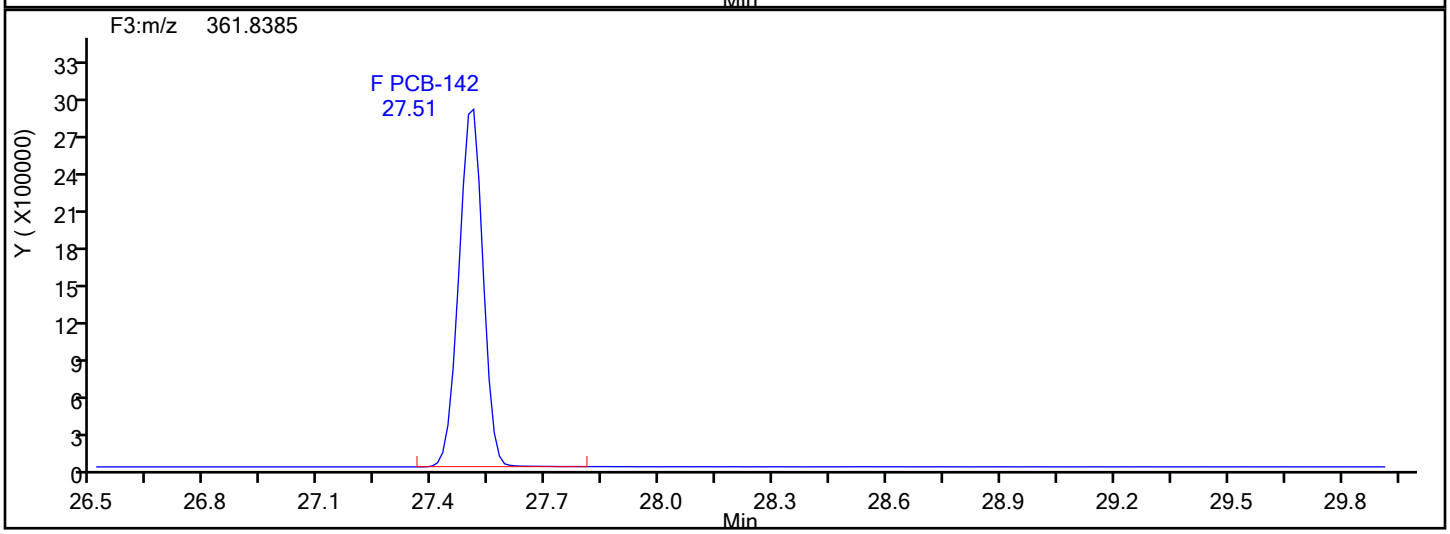
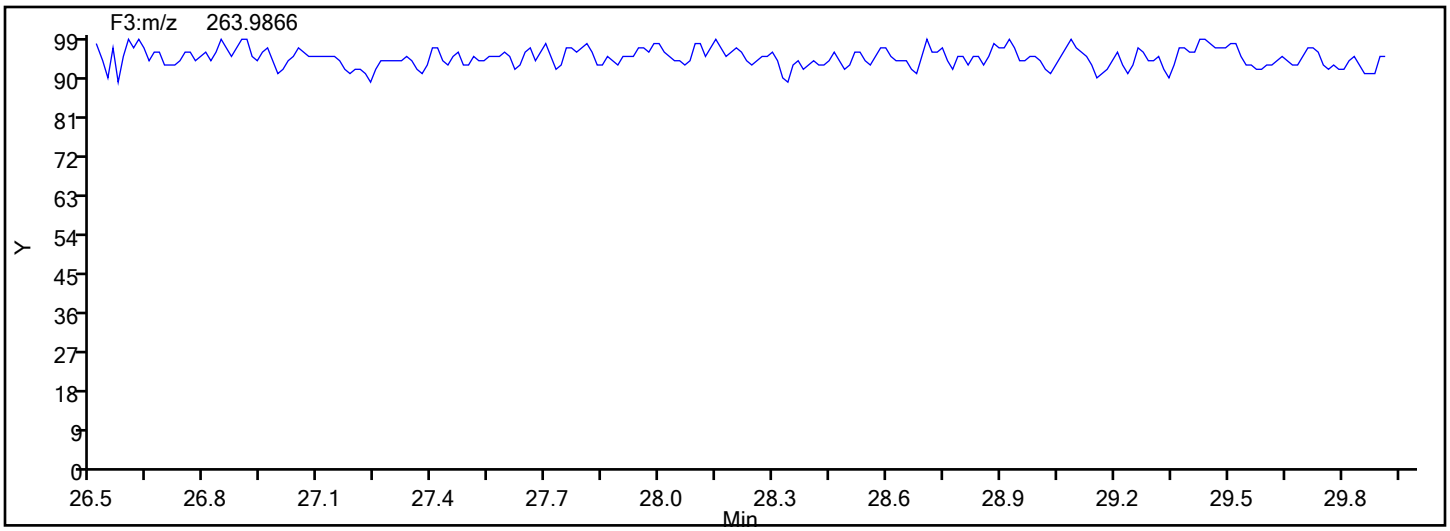
PCB-142





PCB-142 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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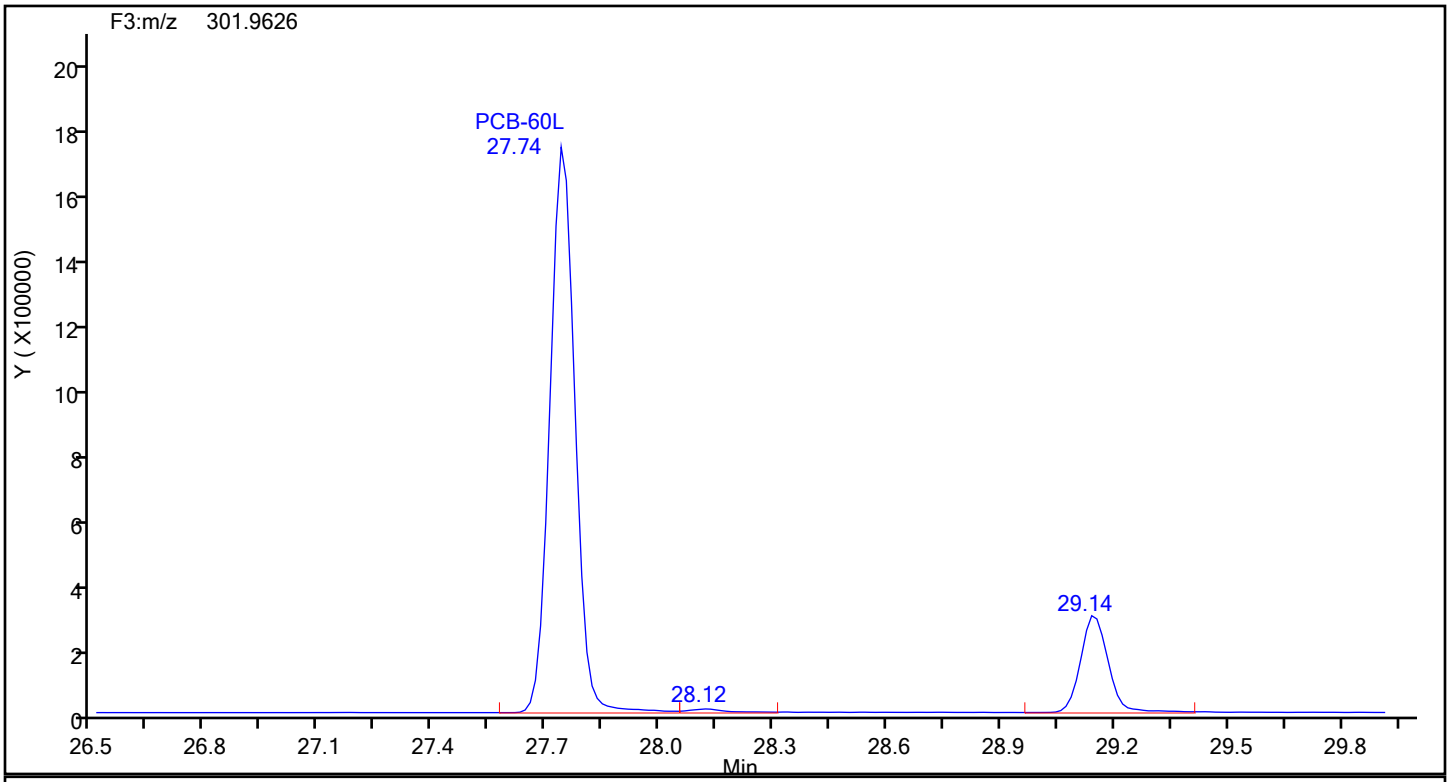
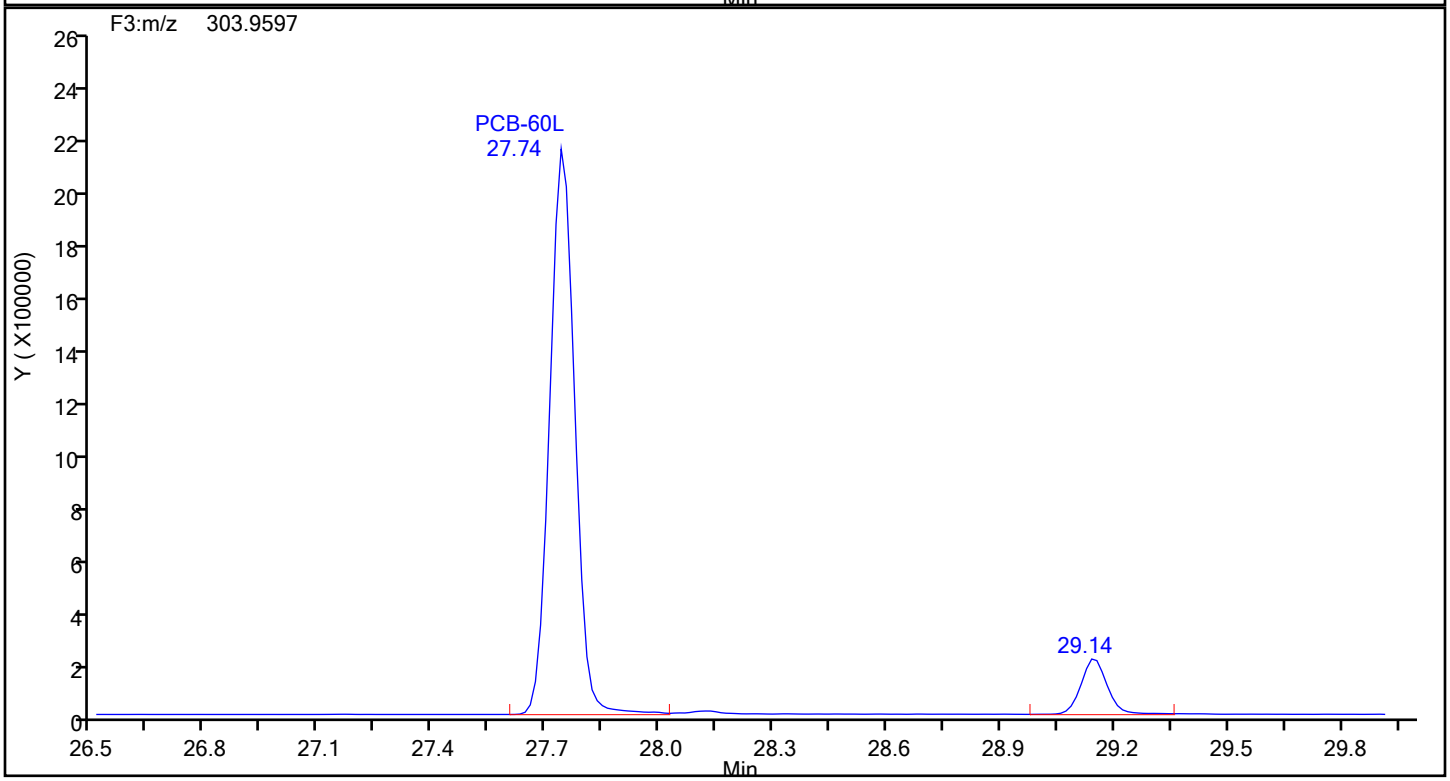
PCB-60L Standards





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Eurofins Knoxville

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Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
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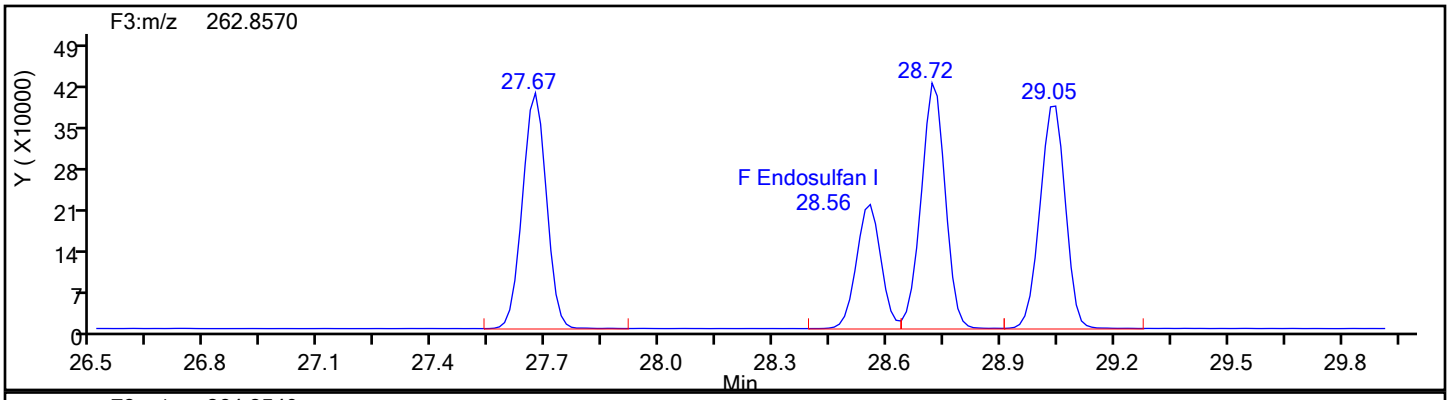
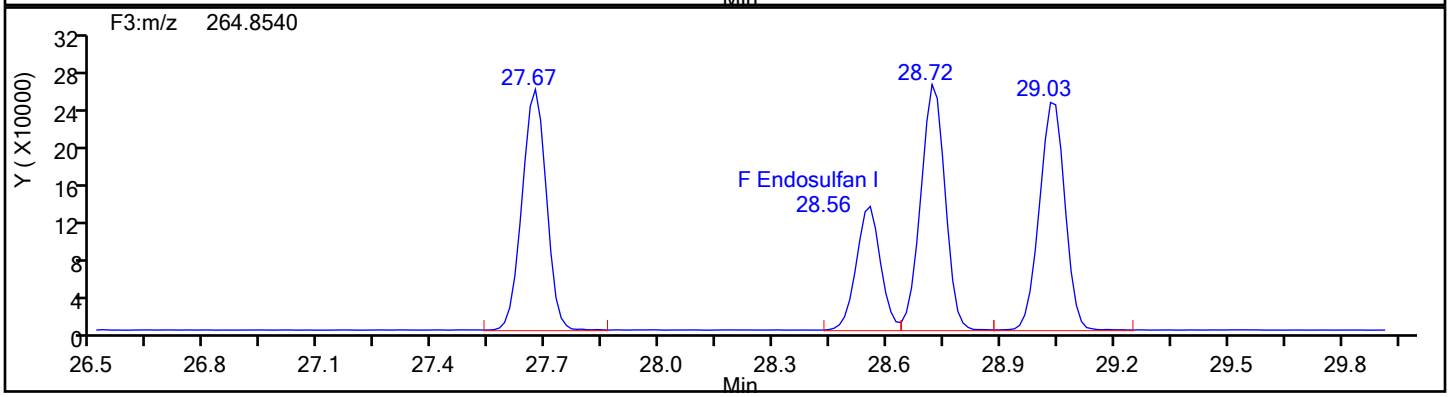
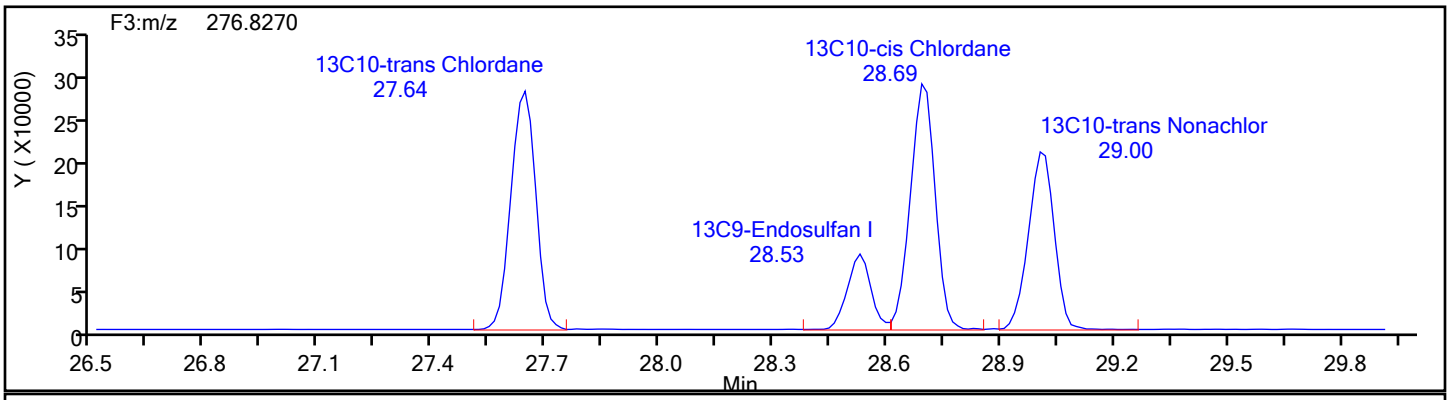
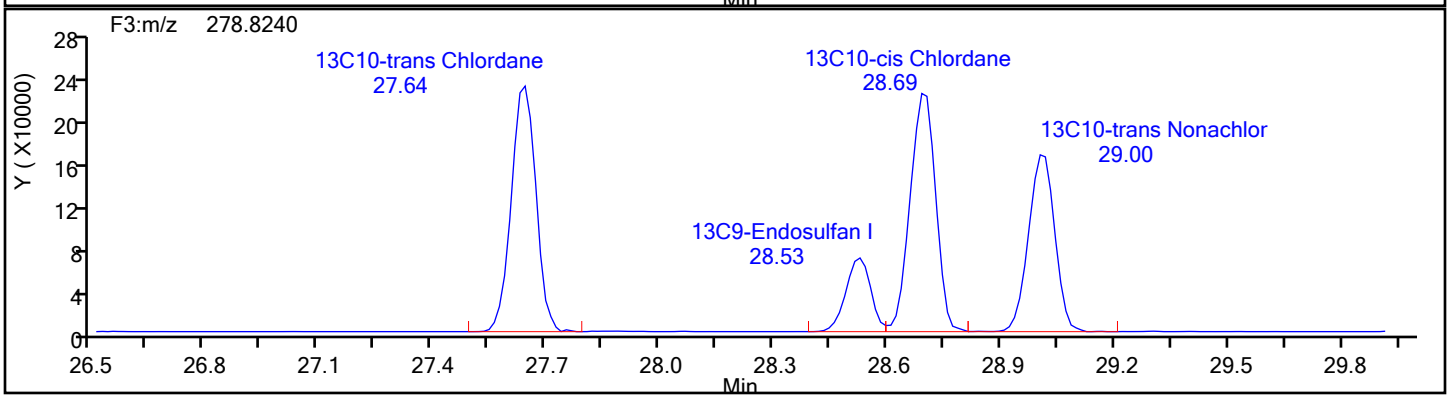
Endosulfan I





Endosulfan I Standards





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Eurofins Knoxville

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Instrument ID: D3PST Operator ID: Xcalibur_System
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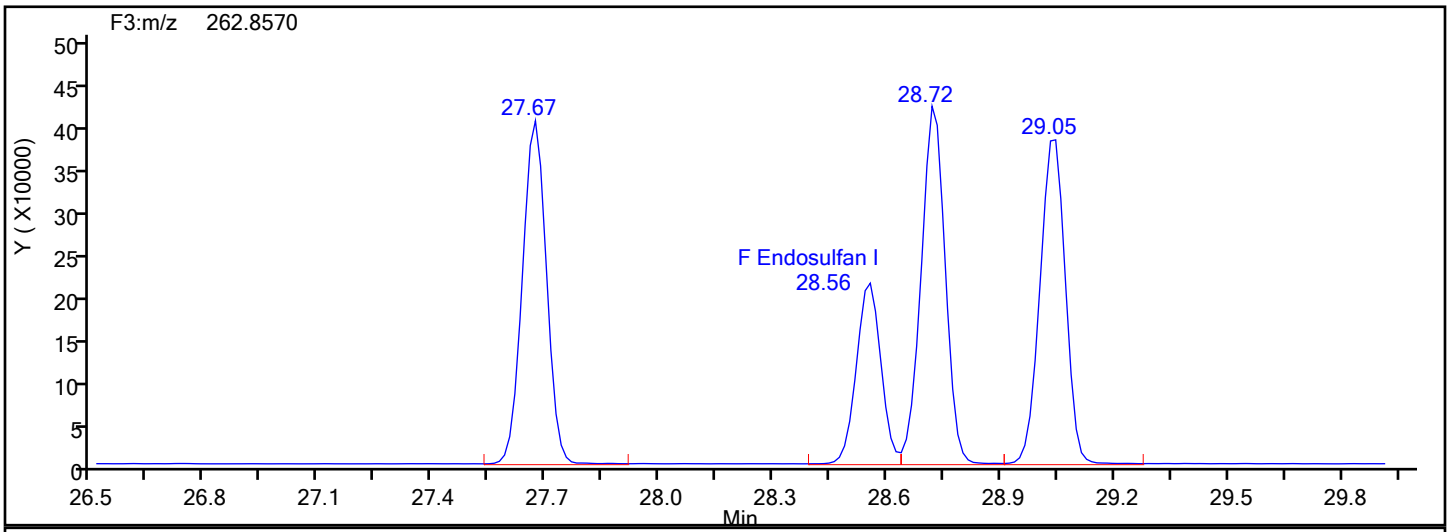
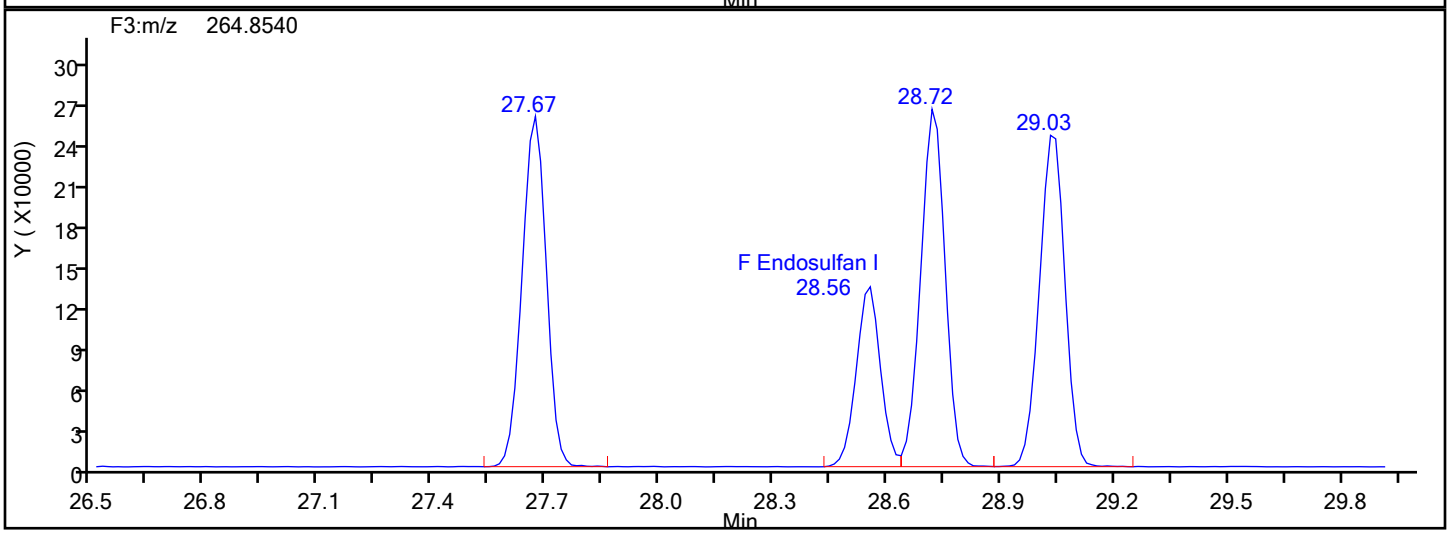
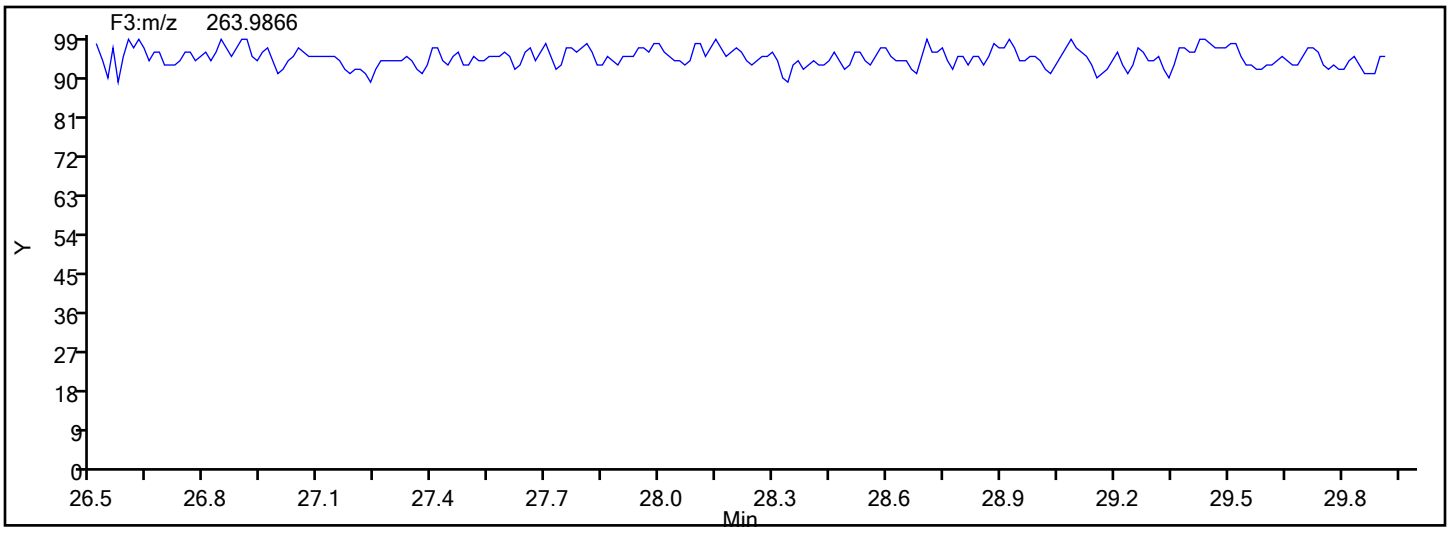
Endosulfan I





Endosulfan I Lock Mass



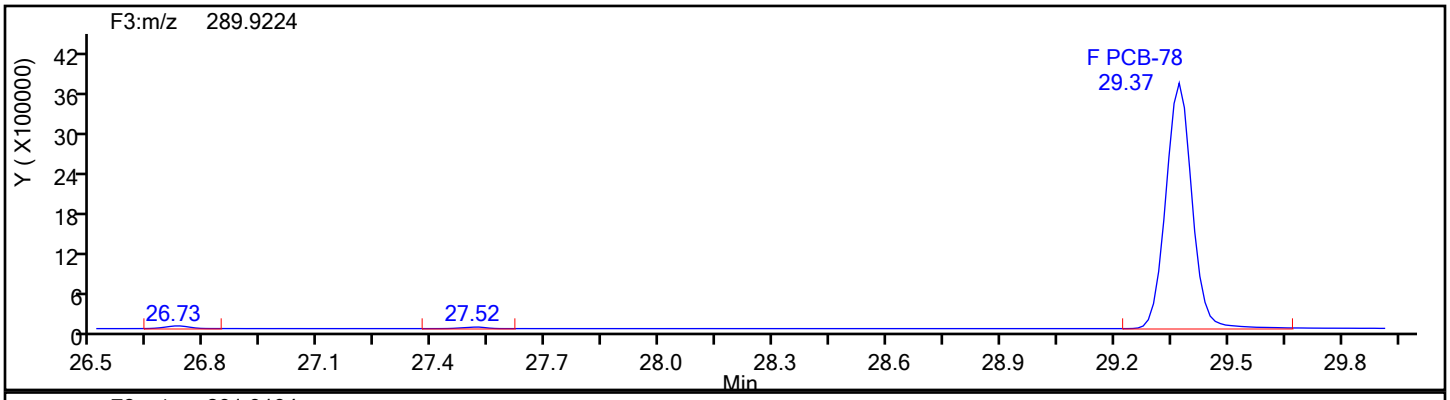
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

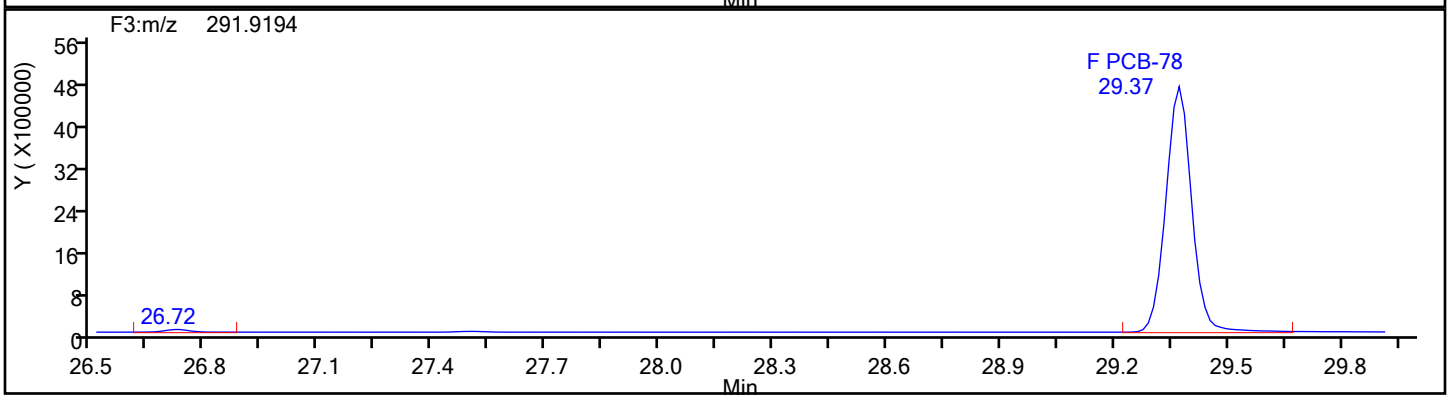
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

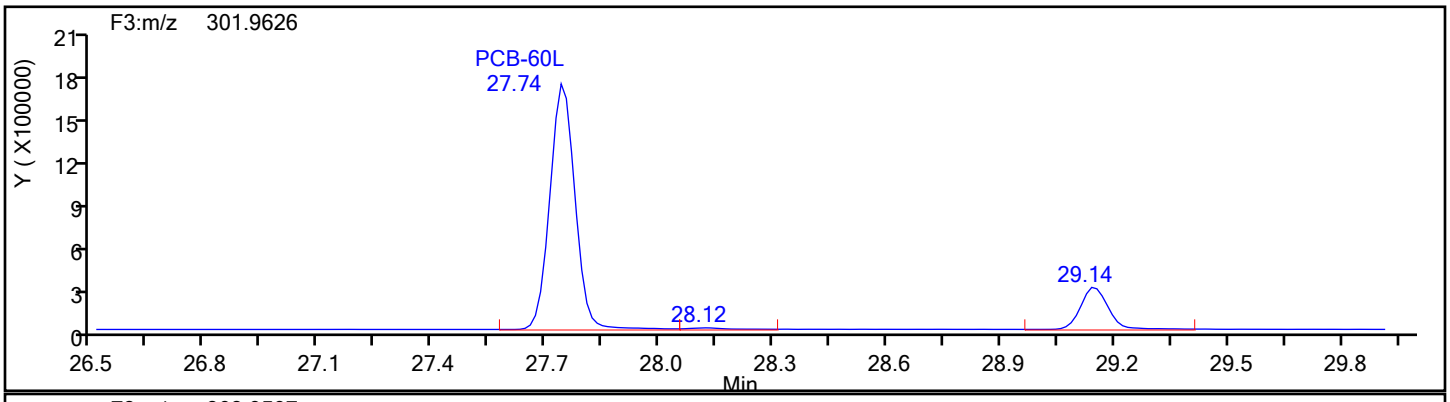
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

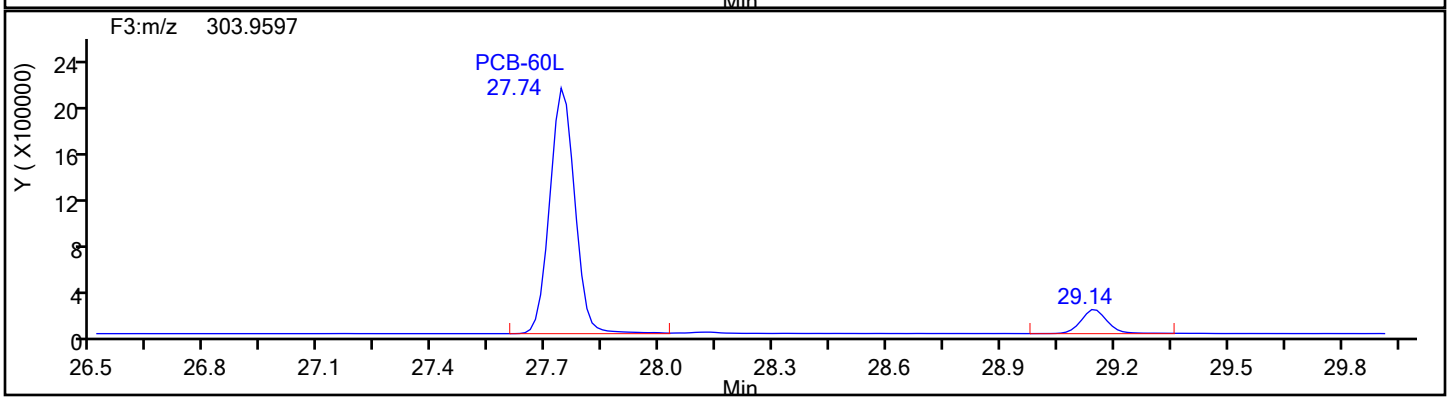
PCB-78





PCB-78 Standards



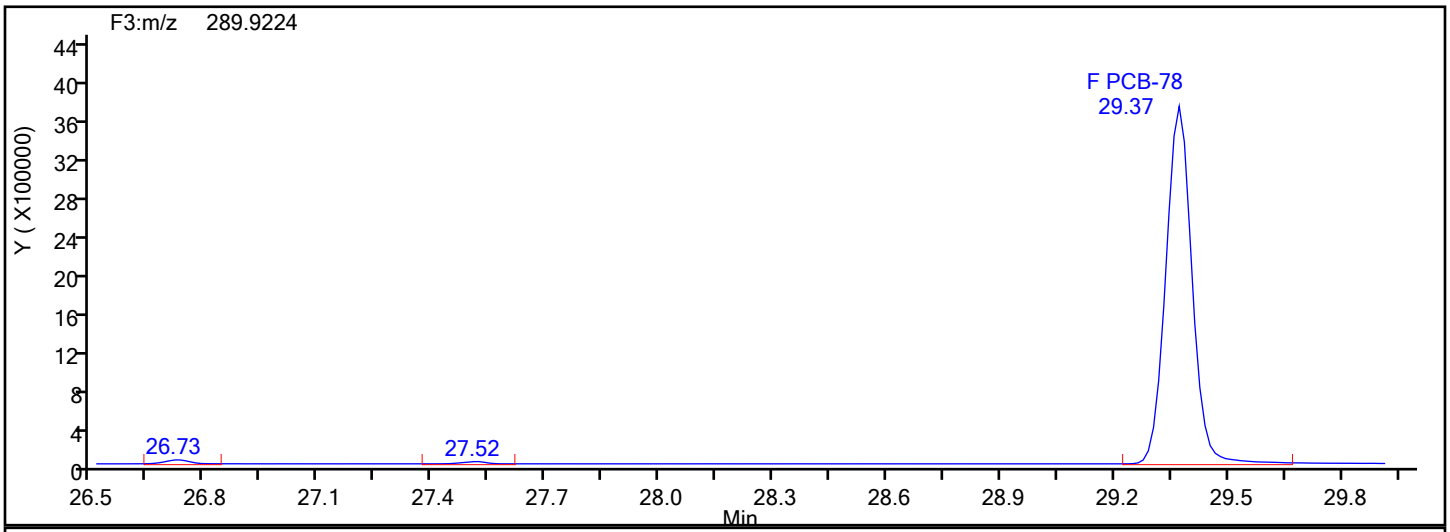


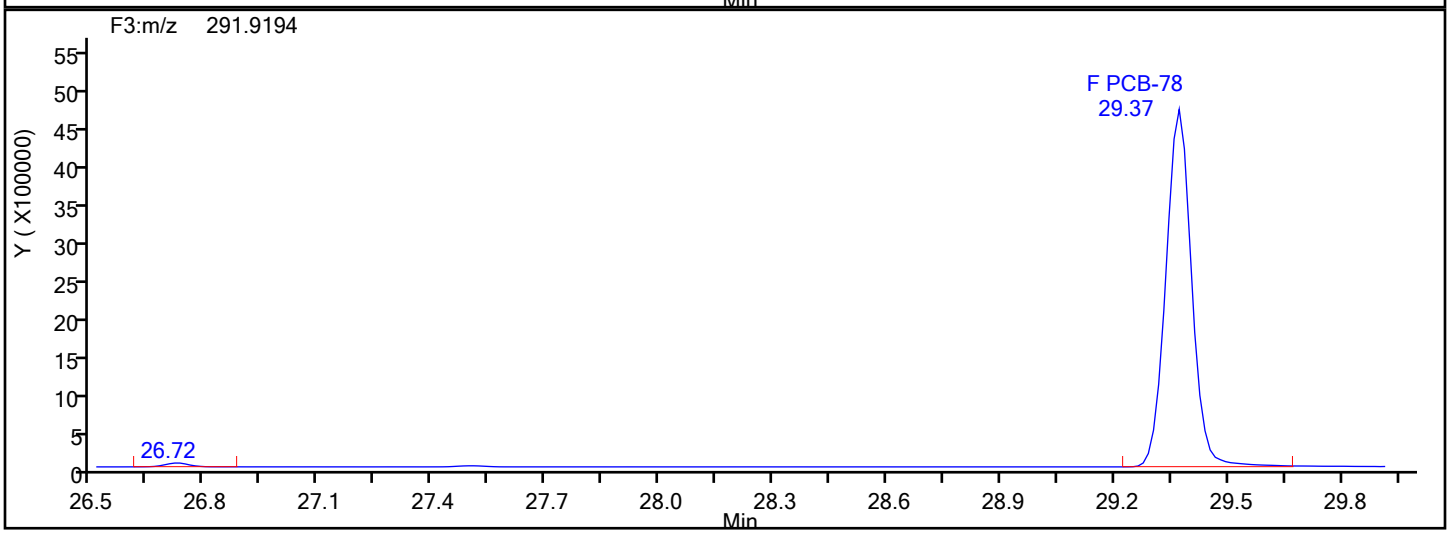
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

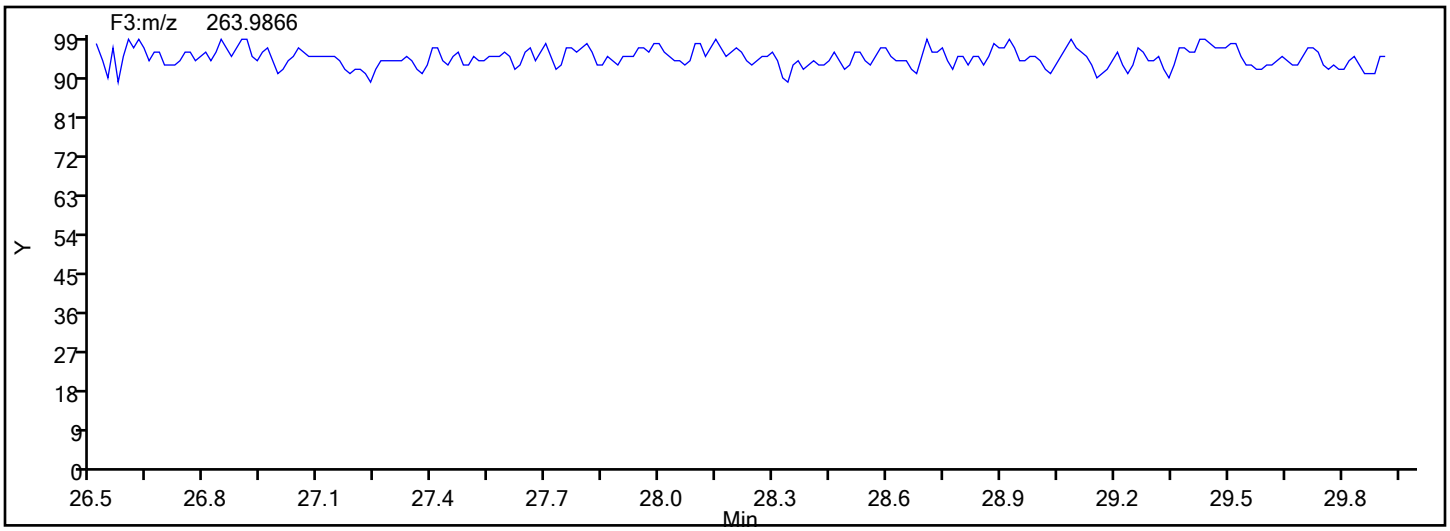
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Injection Date: 30-Mar-2025 12:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97758 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



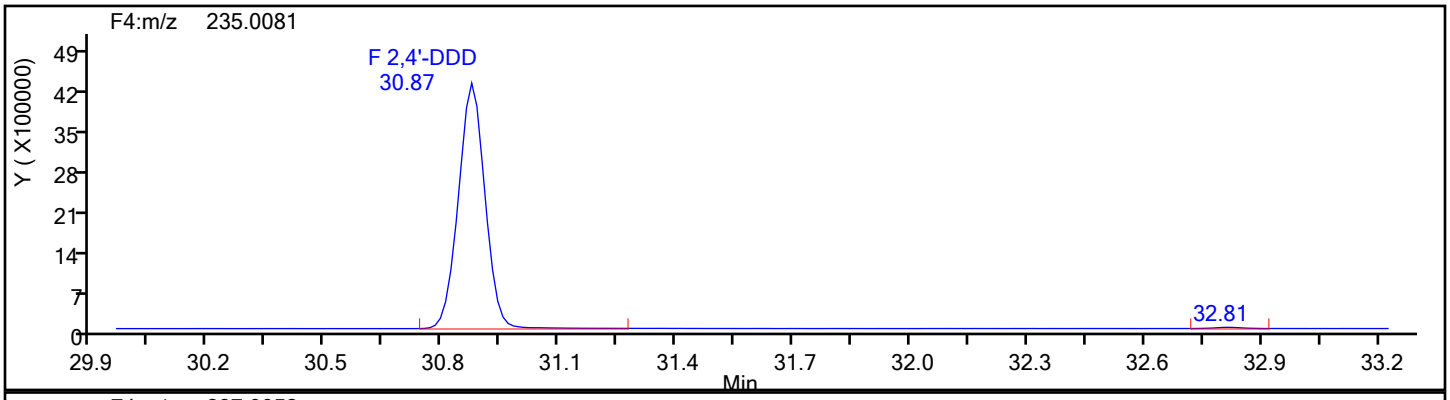
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

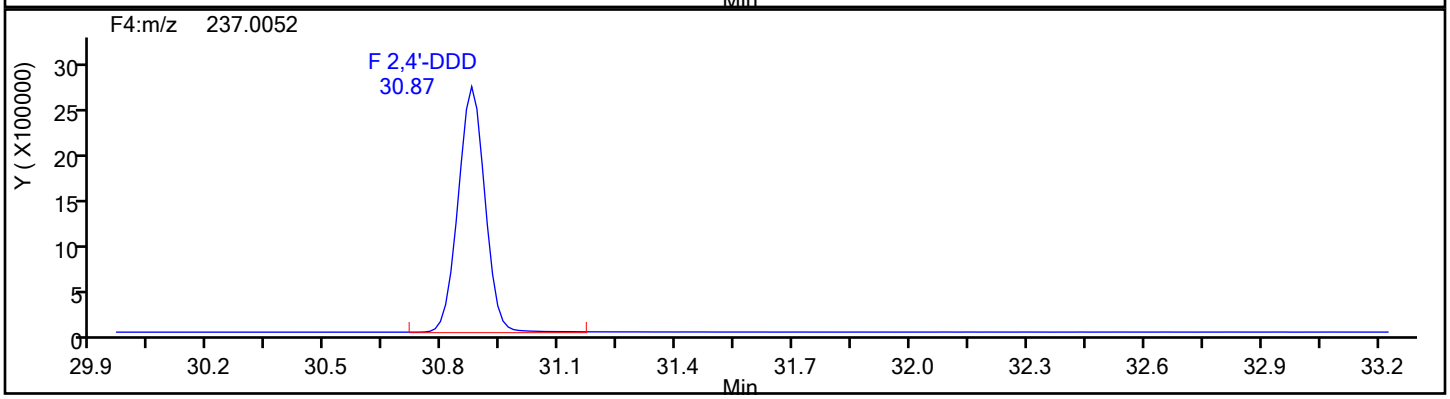
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

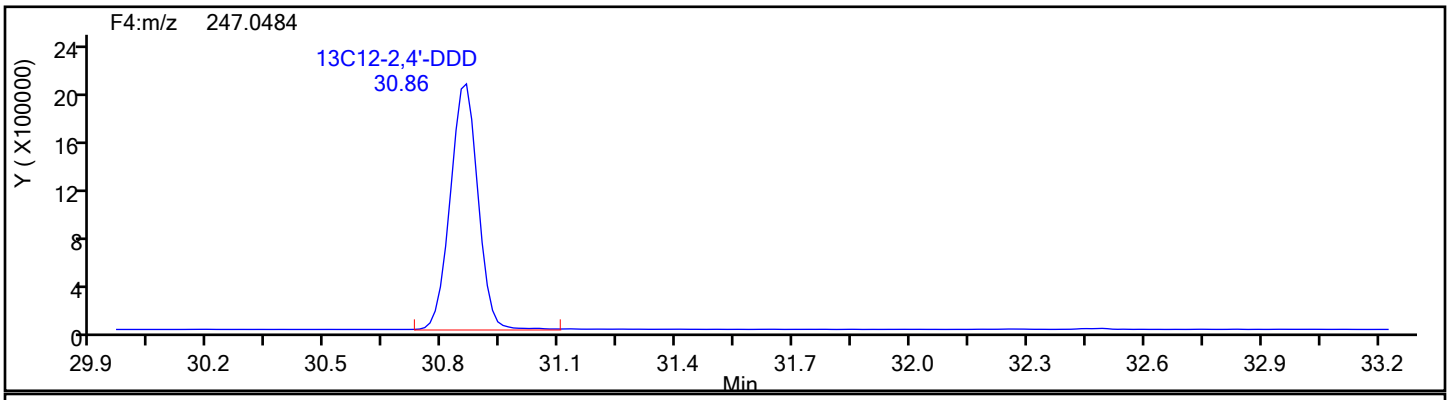
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

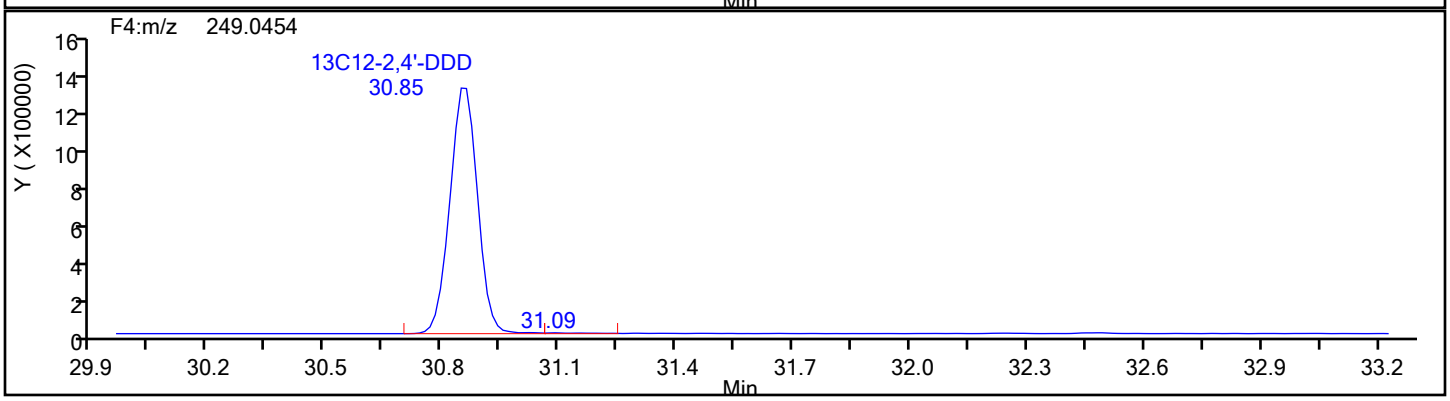
2,4'-DDD





2,4'-DDD Standards



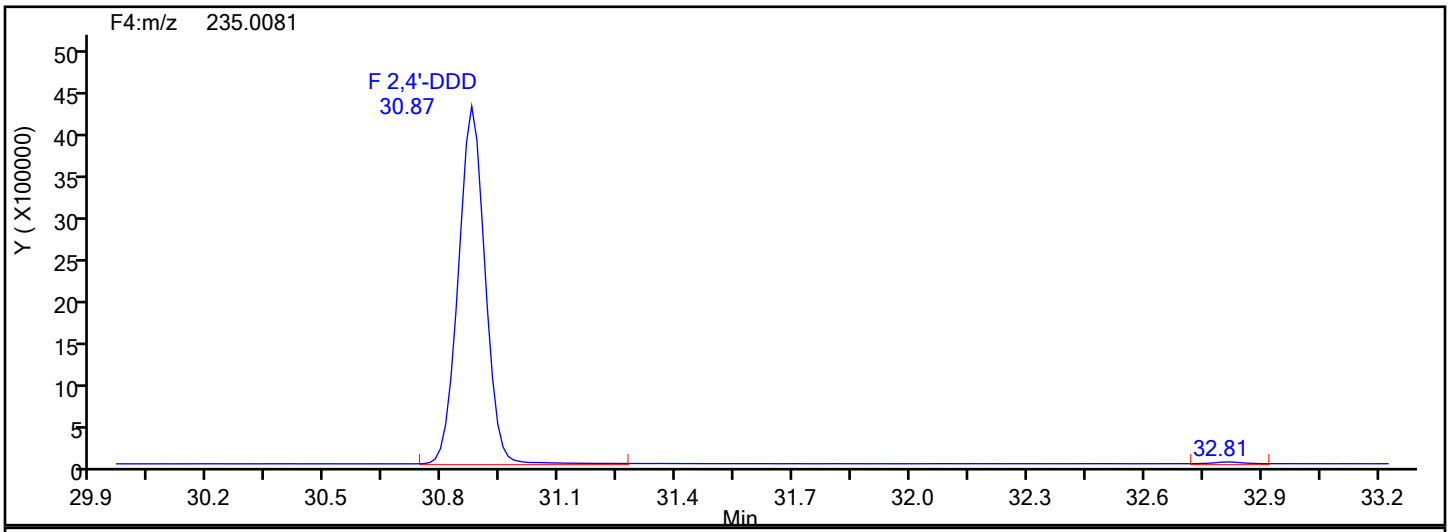


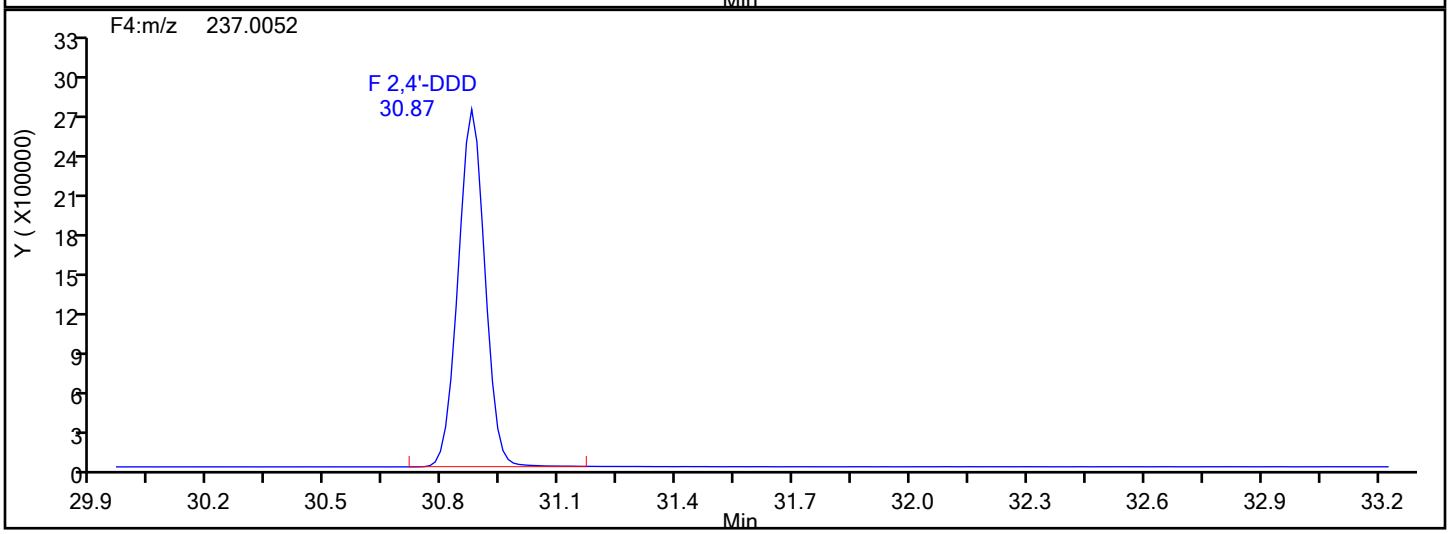
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

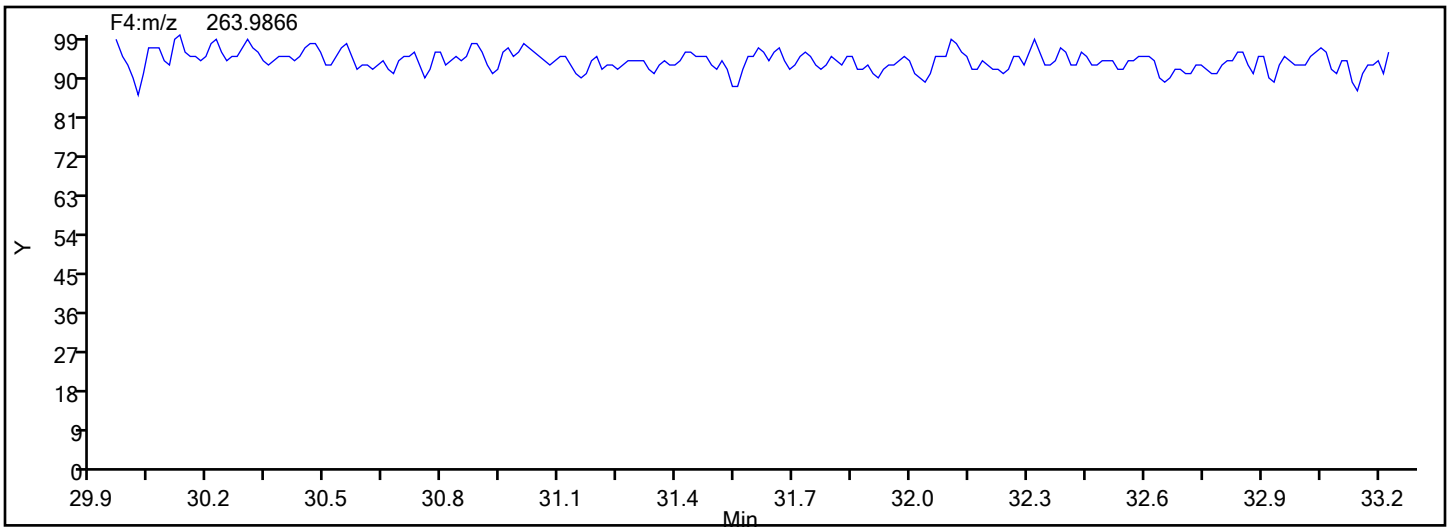
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Injection Date: 30-Mar-2025 12:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97758 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass

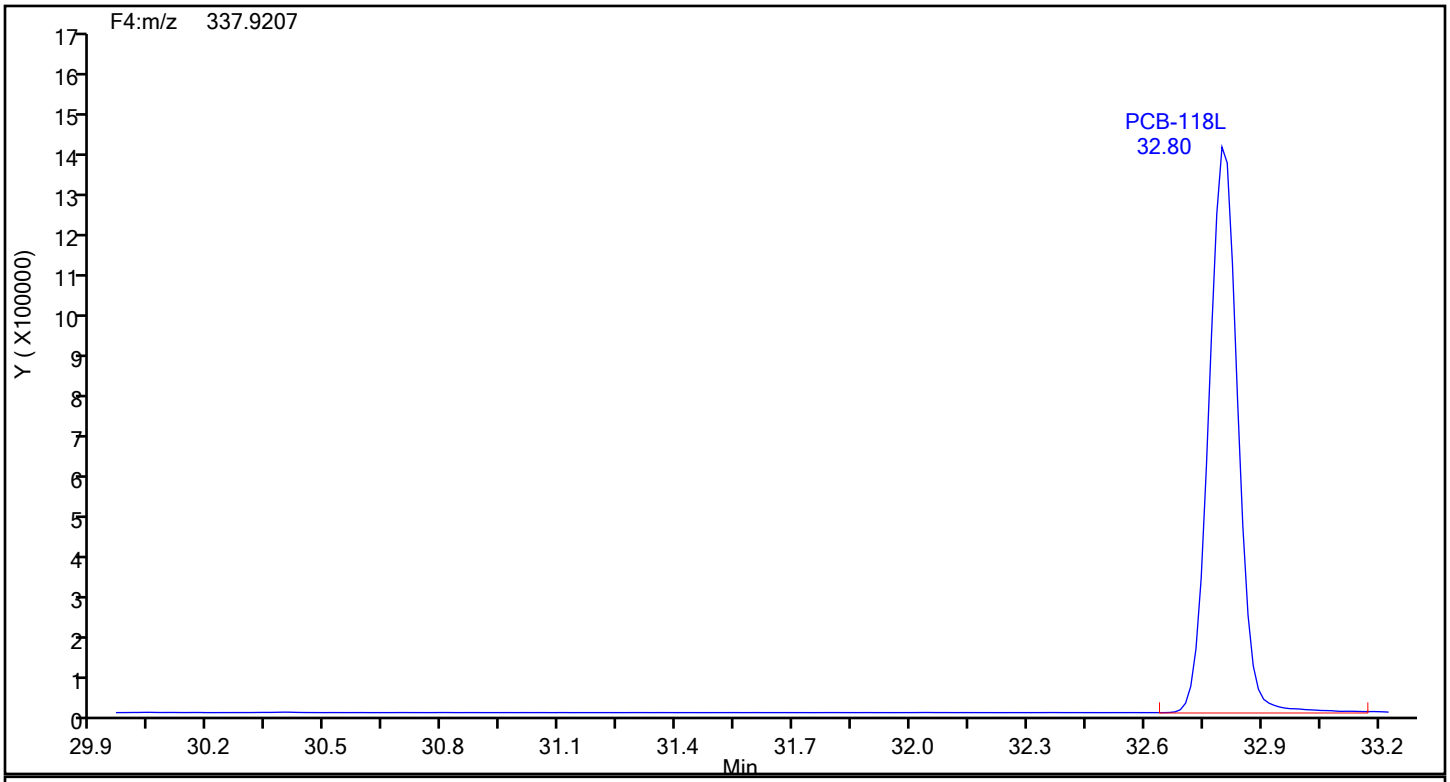


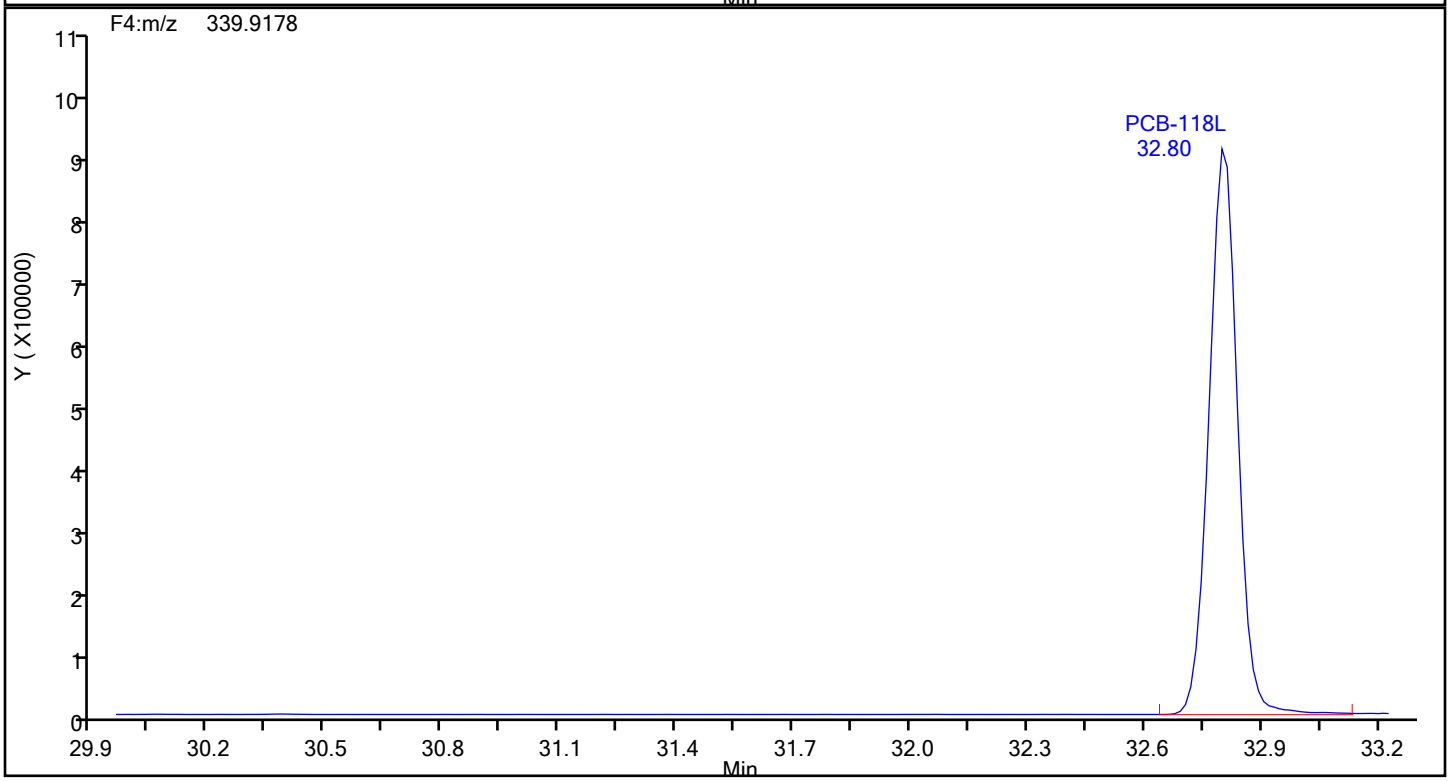
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards





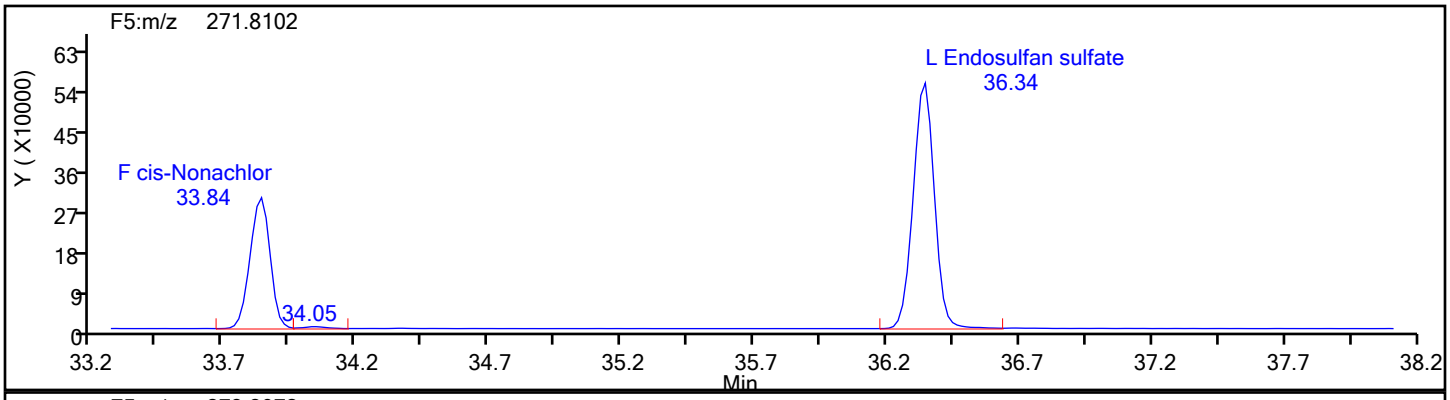
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

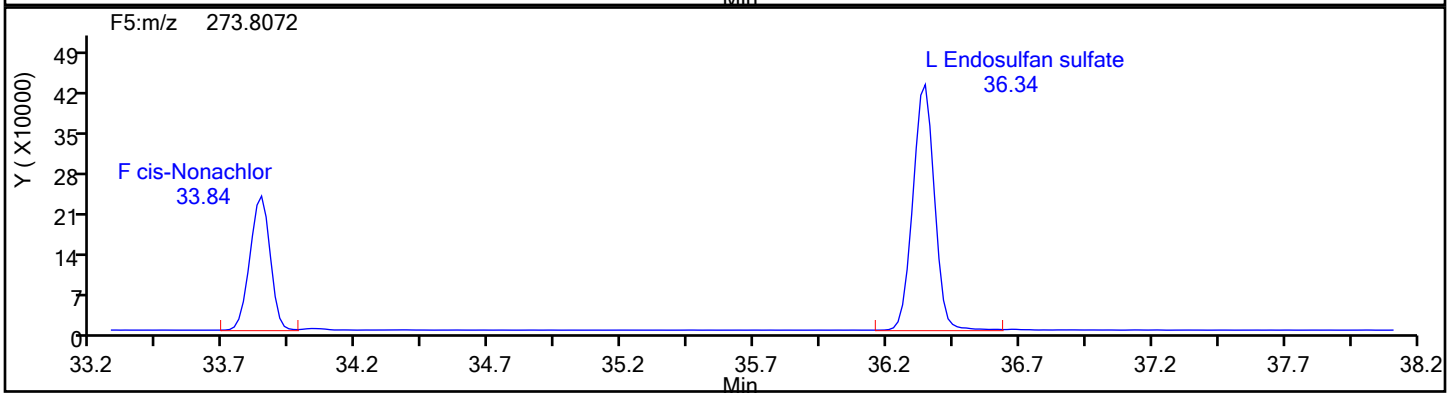
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

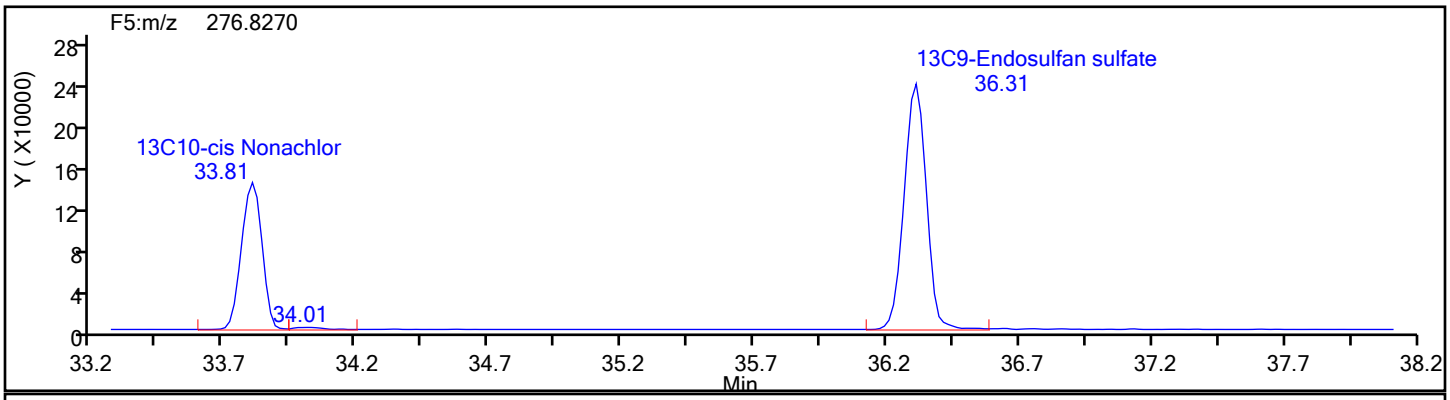
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

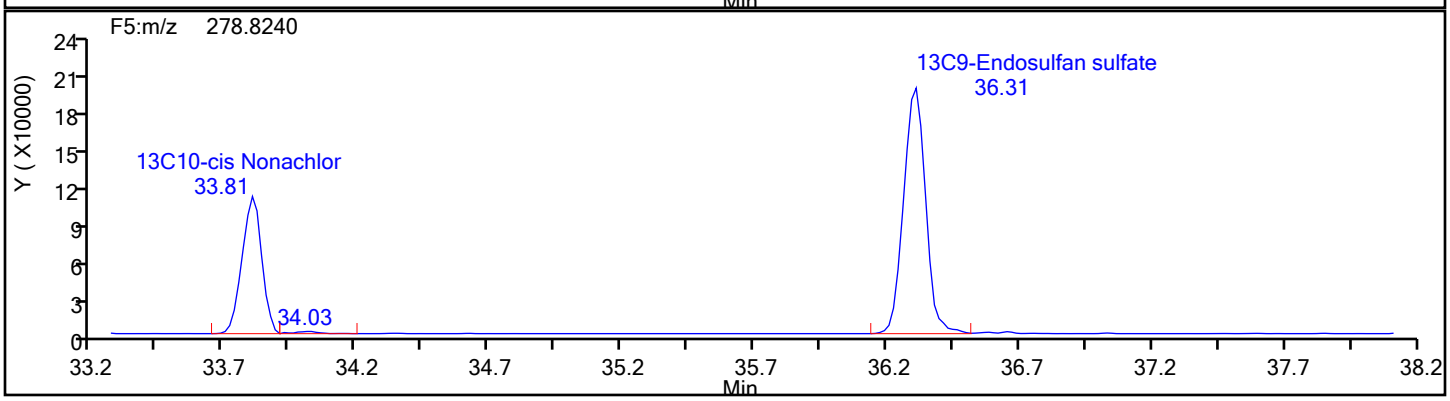
Nonachlor





Nonachlor Standards



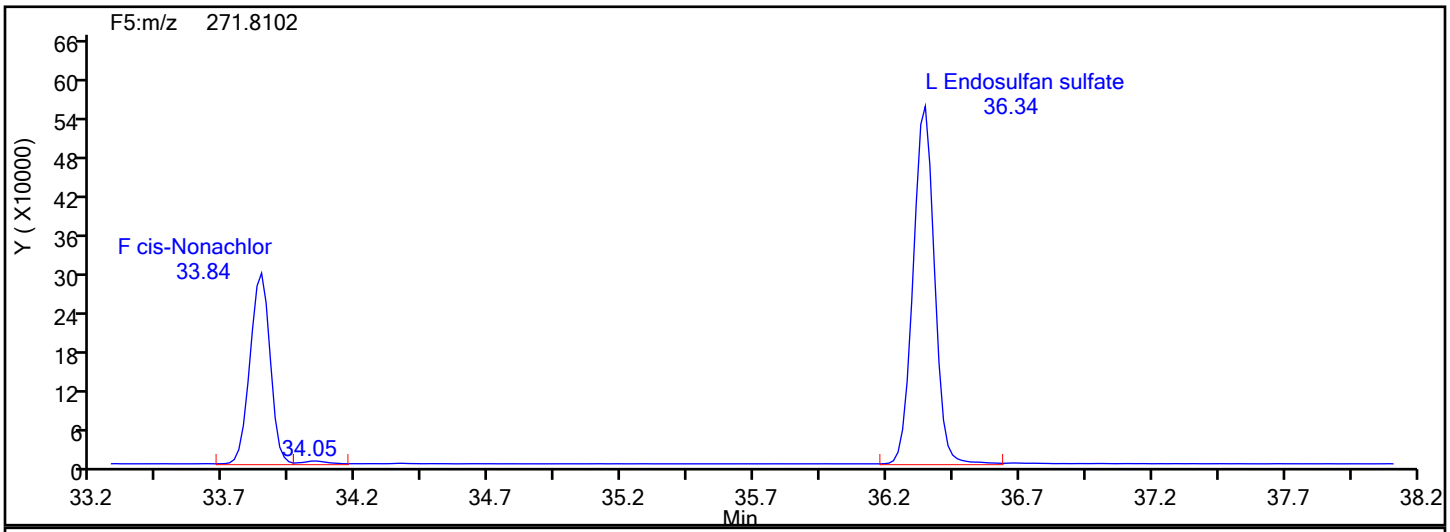


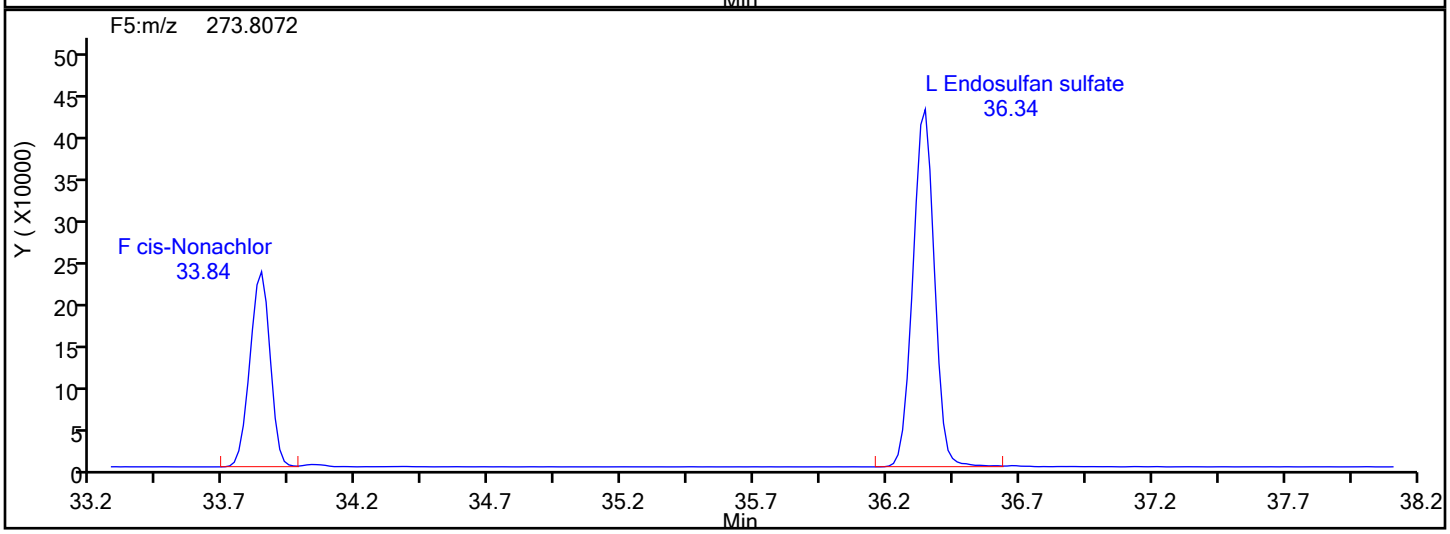
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

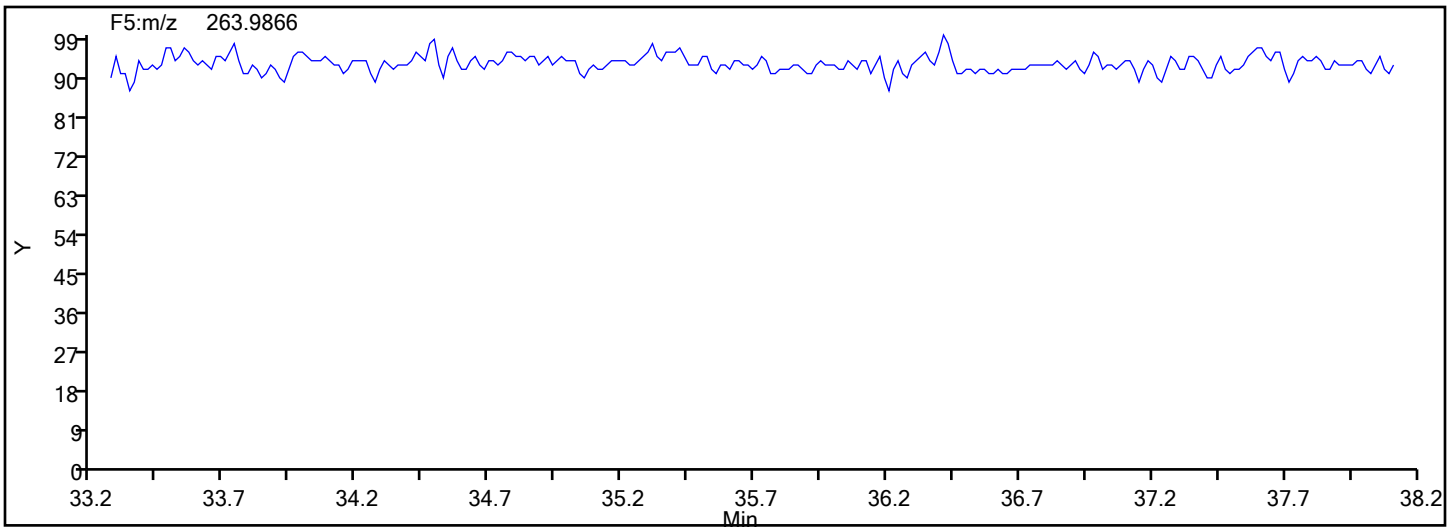
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



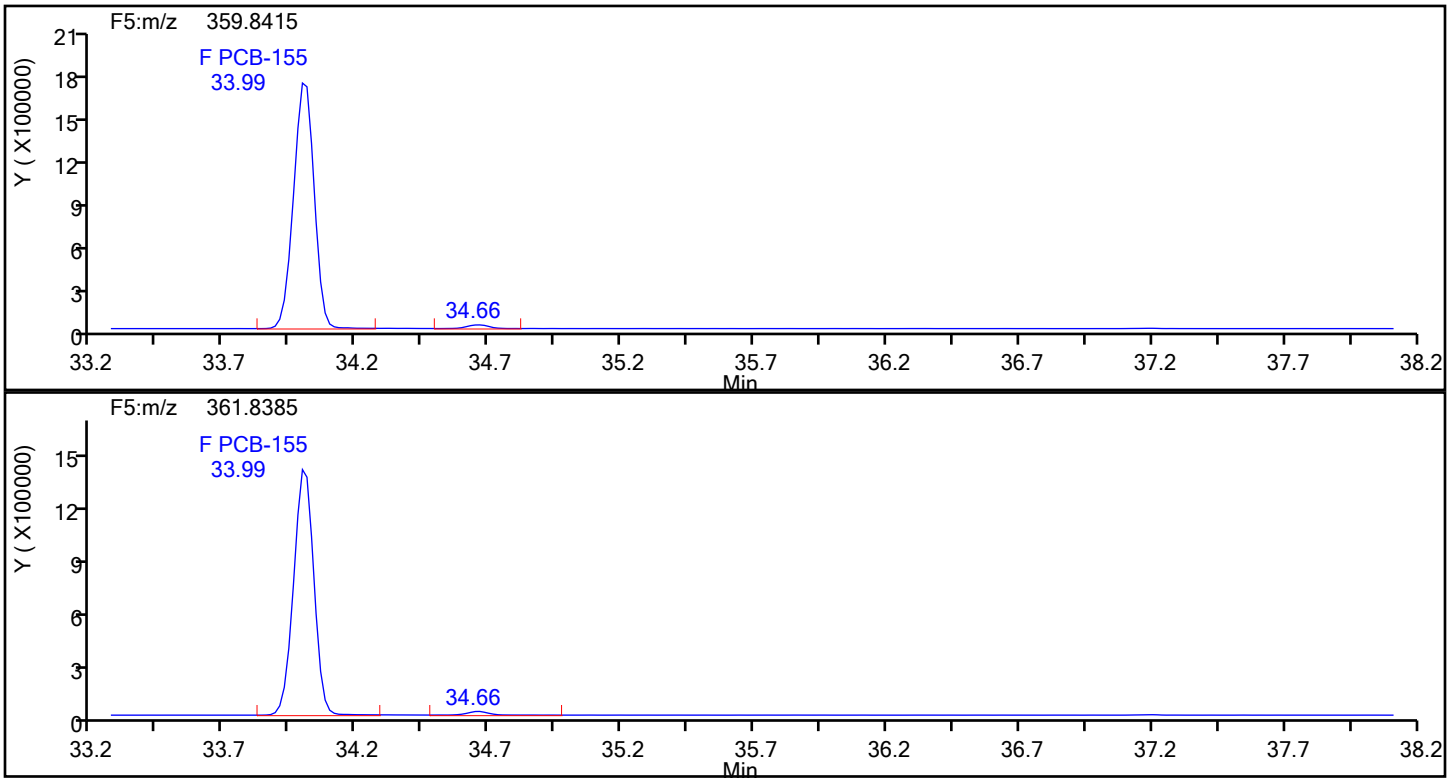
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

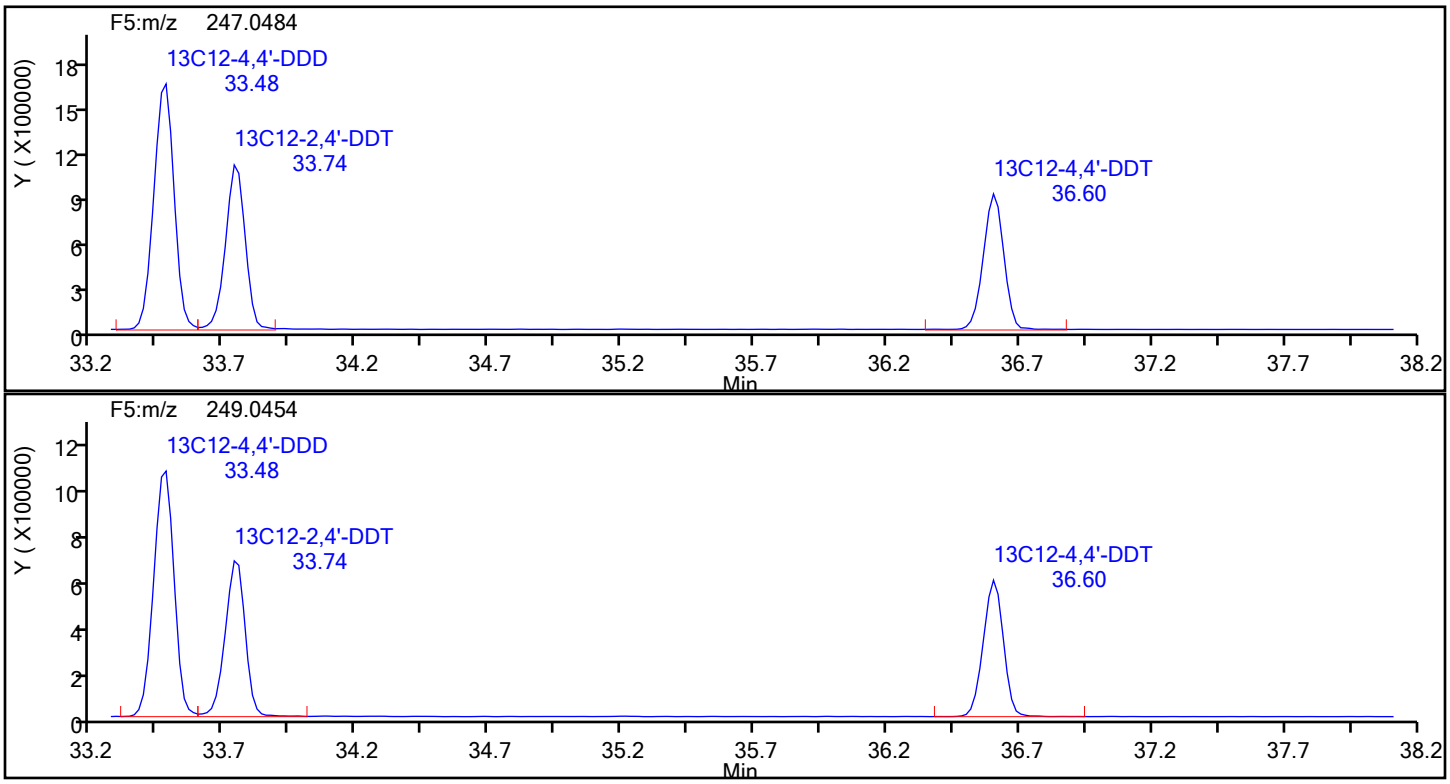
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards

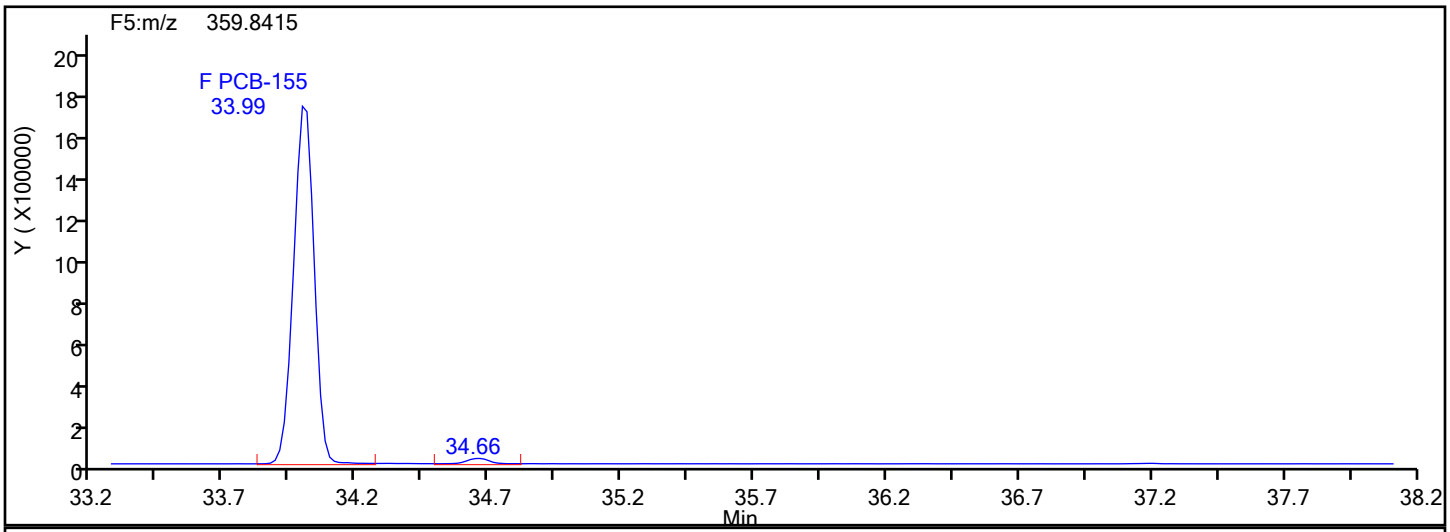


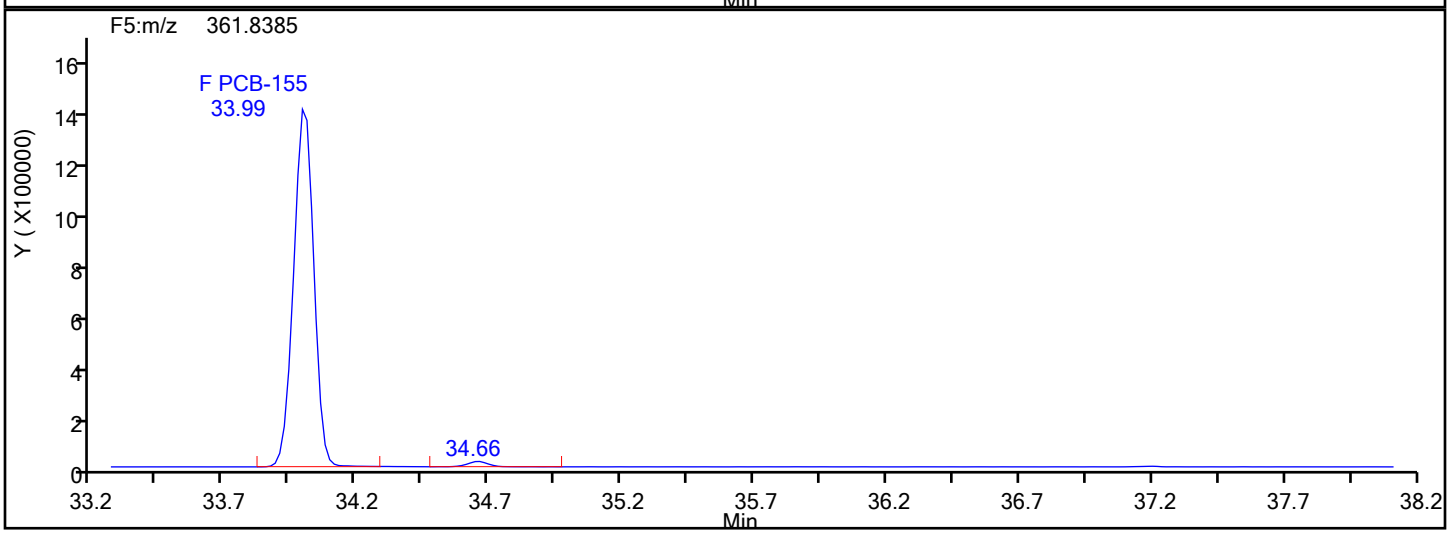
Report Date: 31-Mar-2025 14:06:11 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

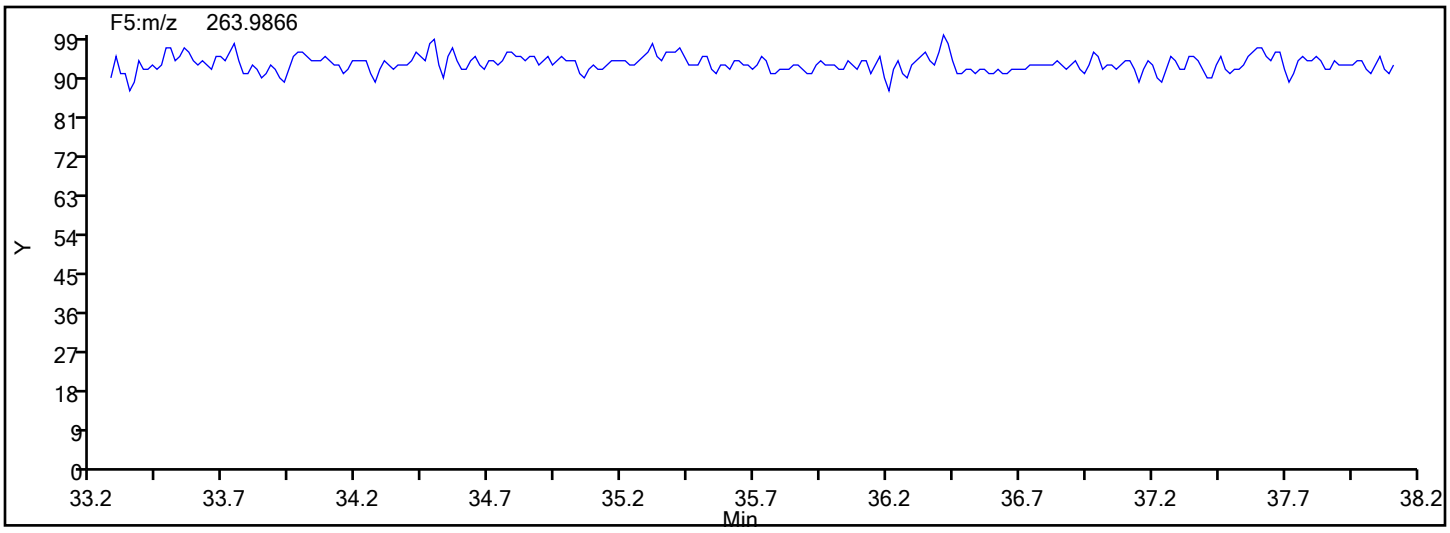
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d
Injection Date: 30-Mar-2025 12:22:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97758 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



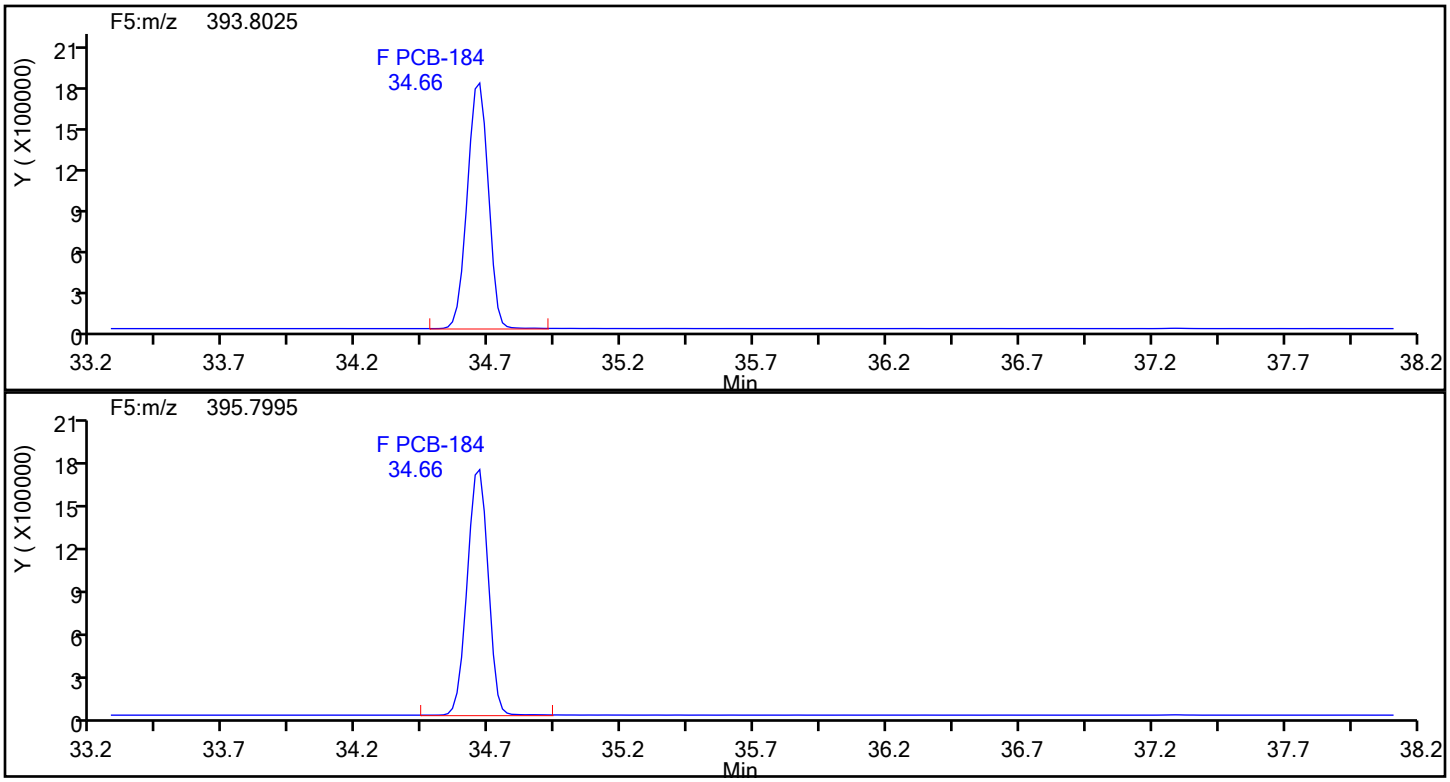
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

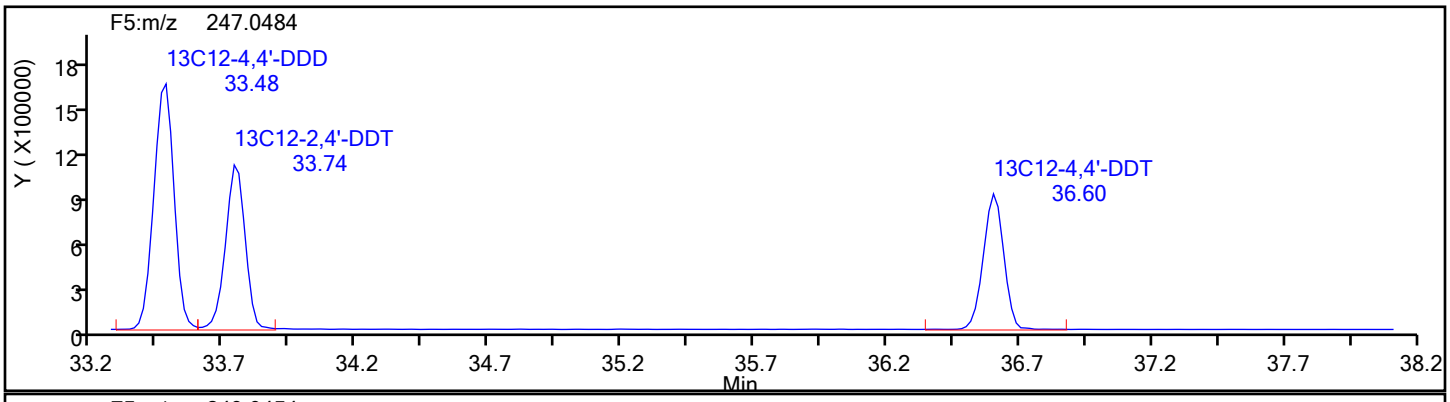
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

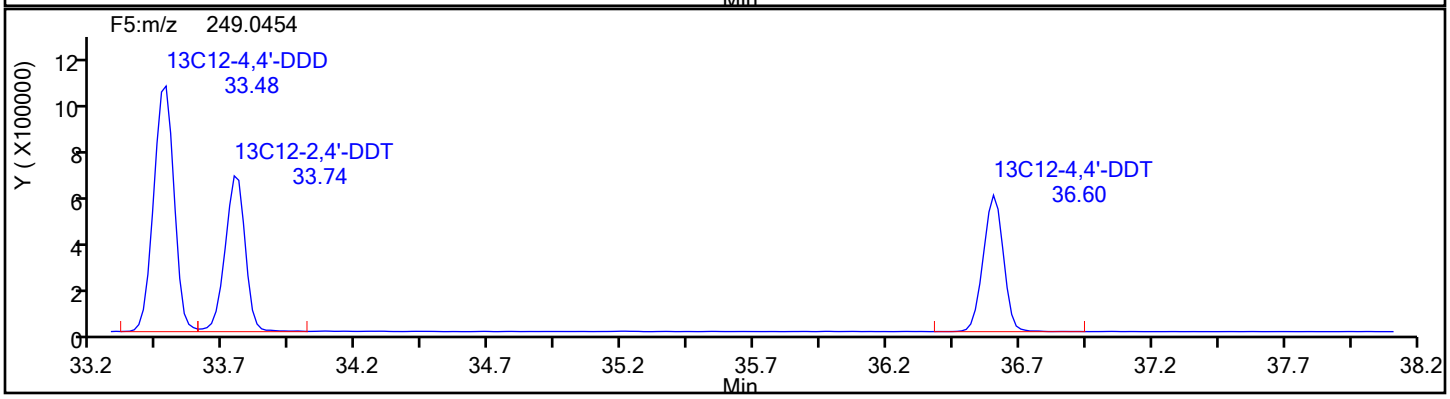
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



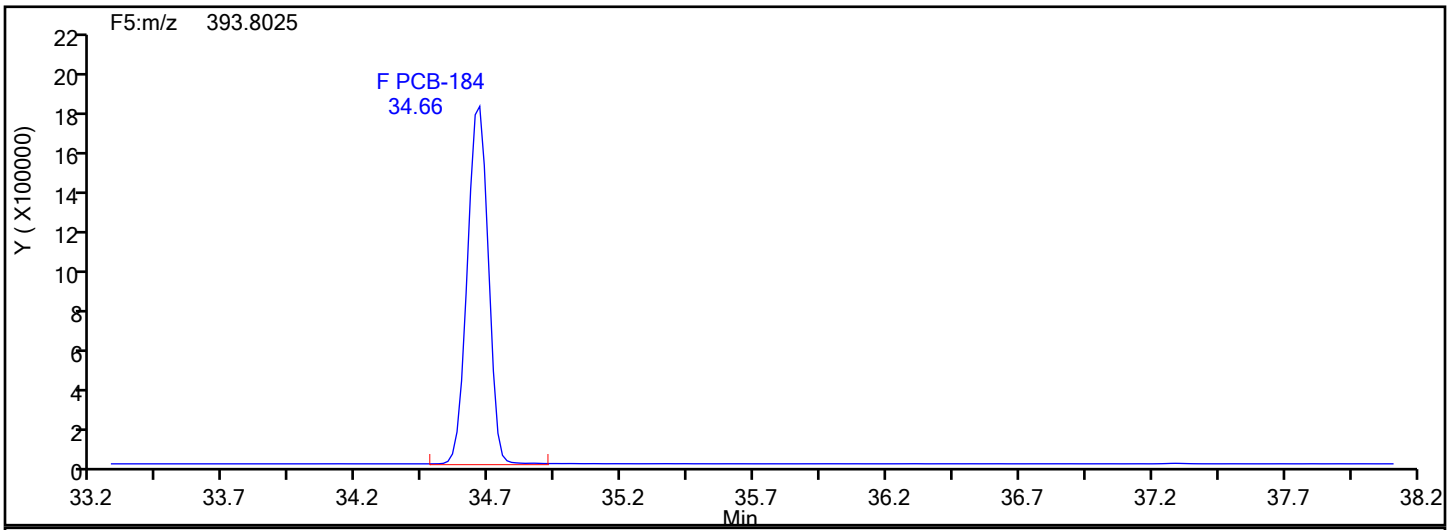


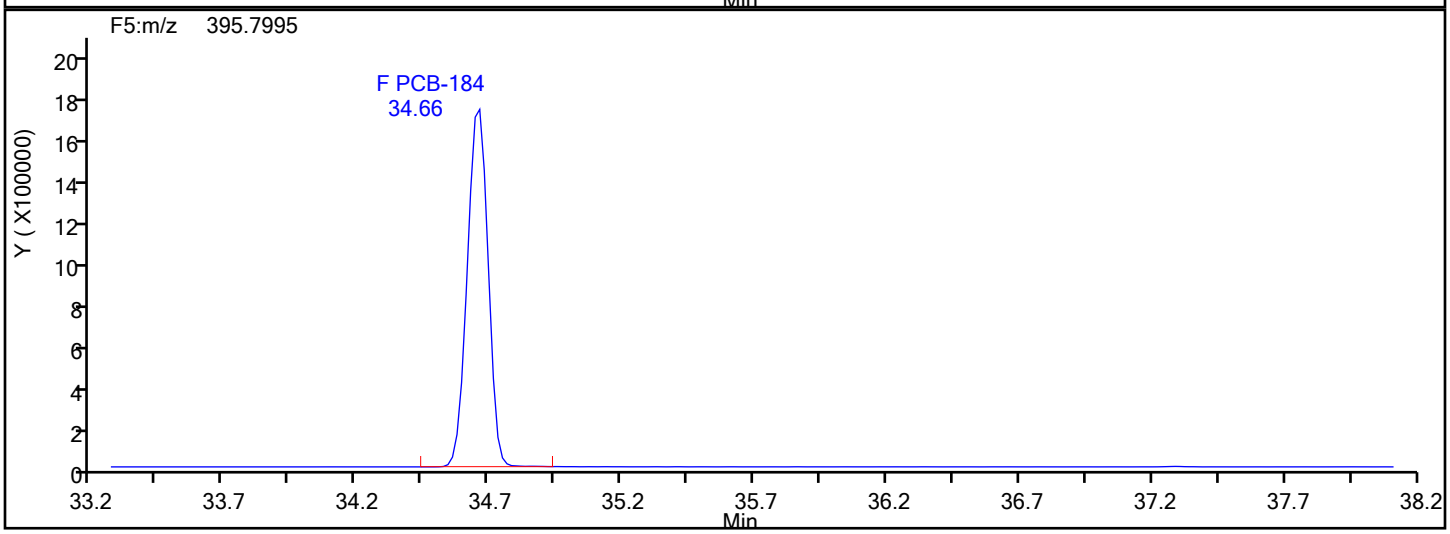
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

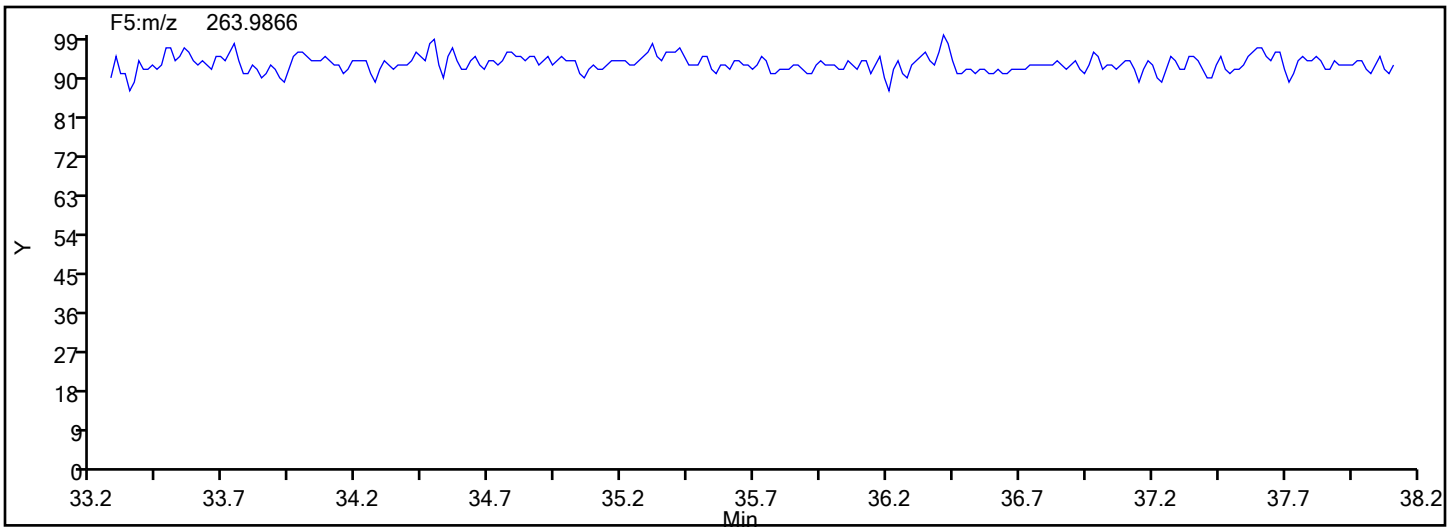
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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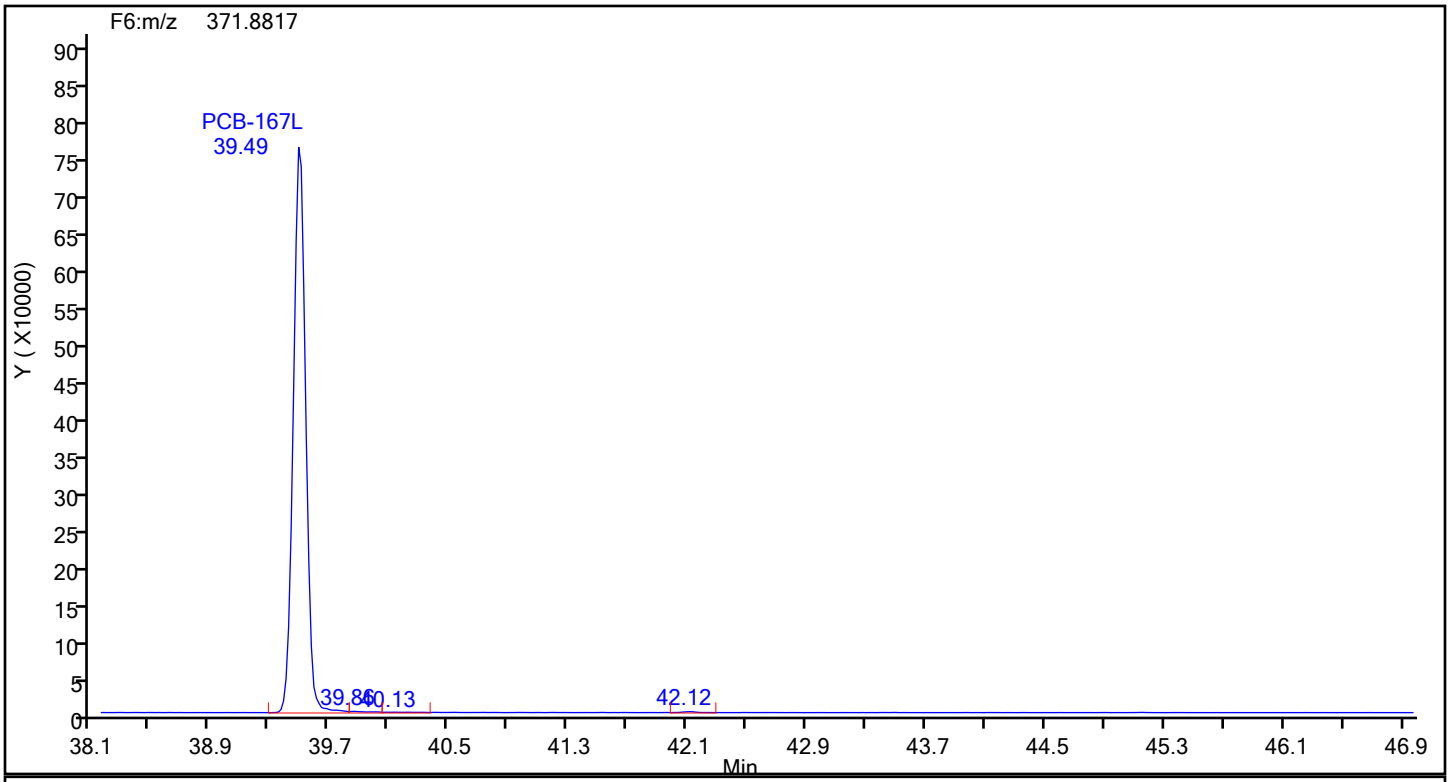
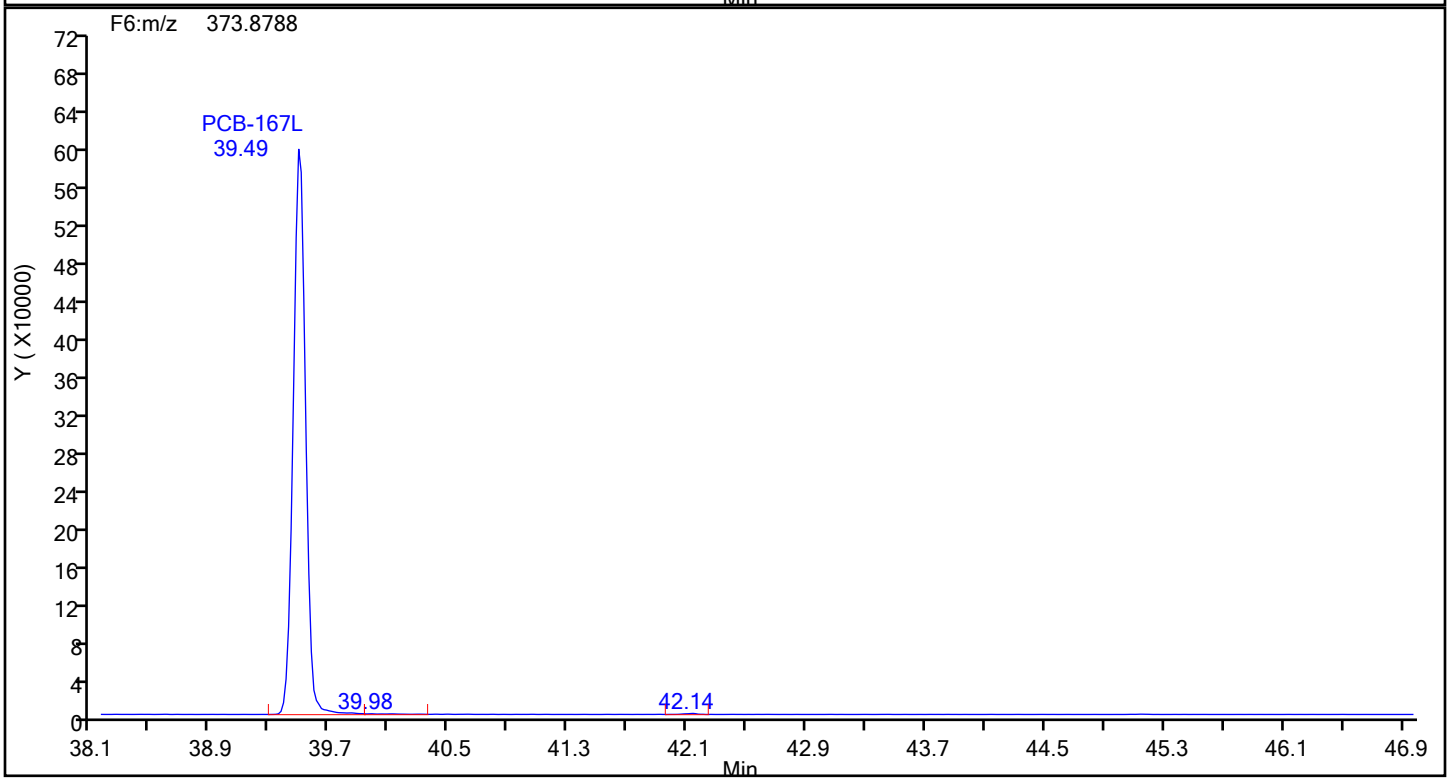
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





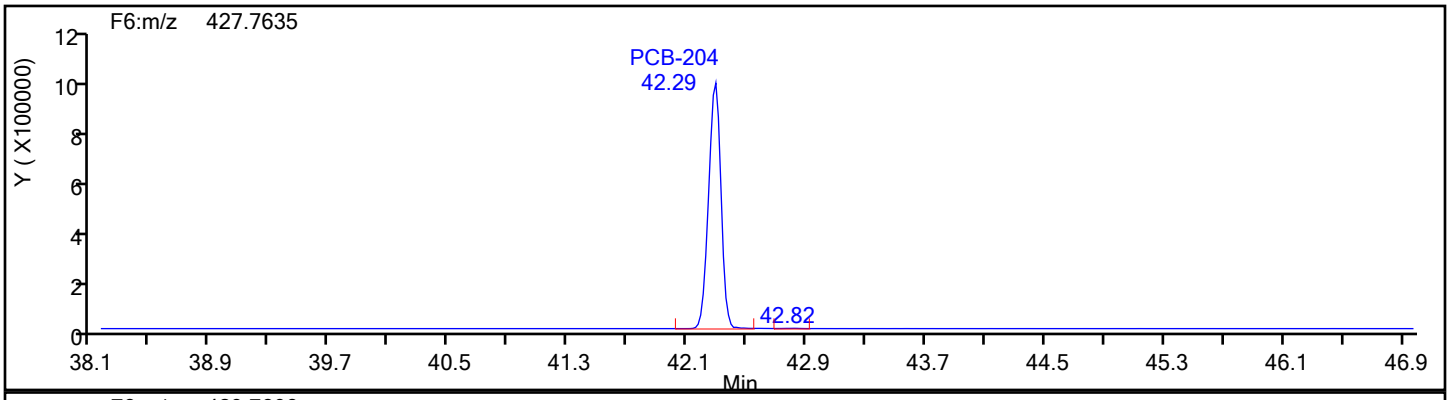
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

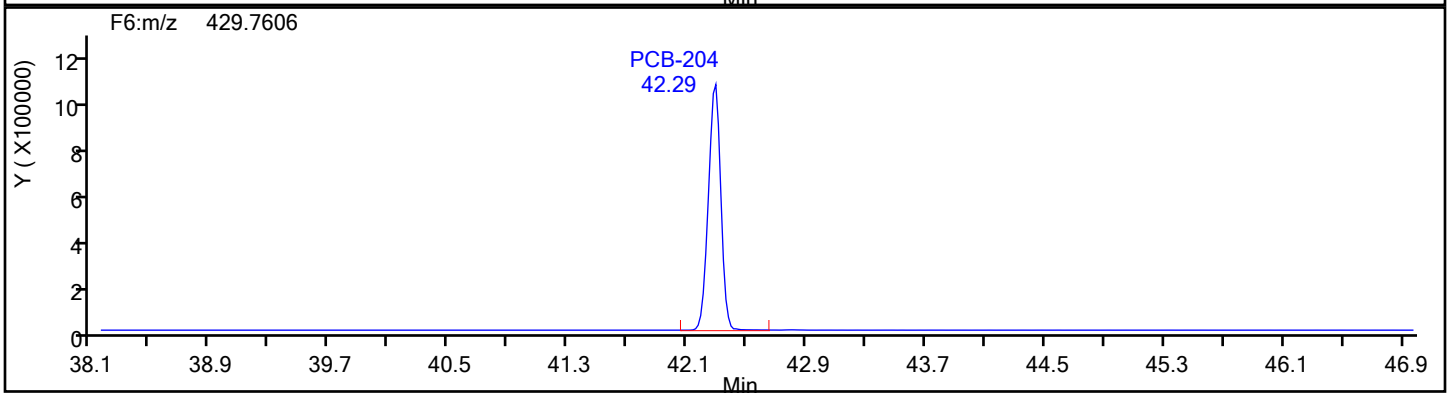
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

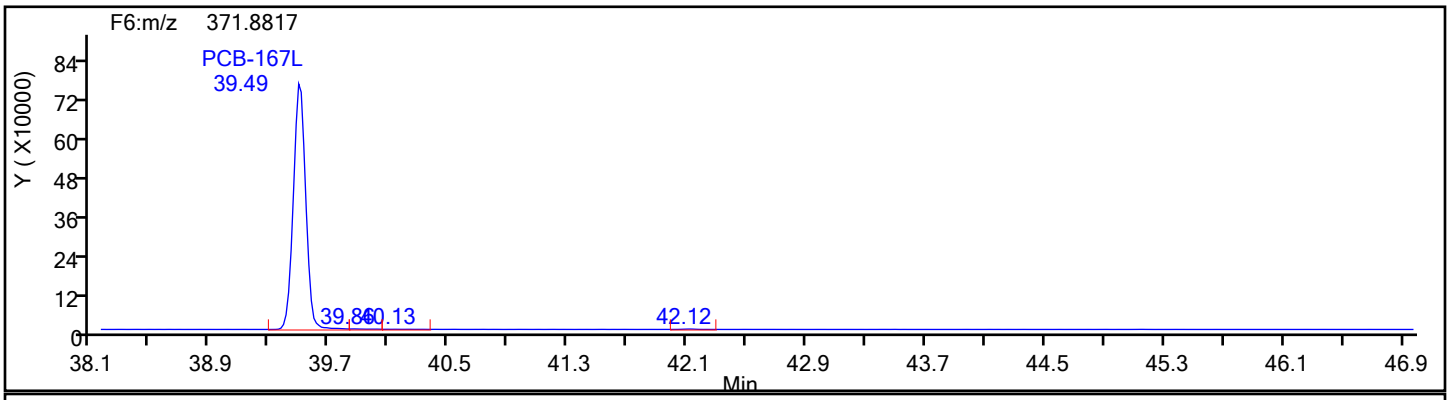
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

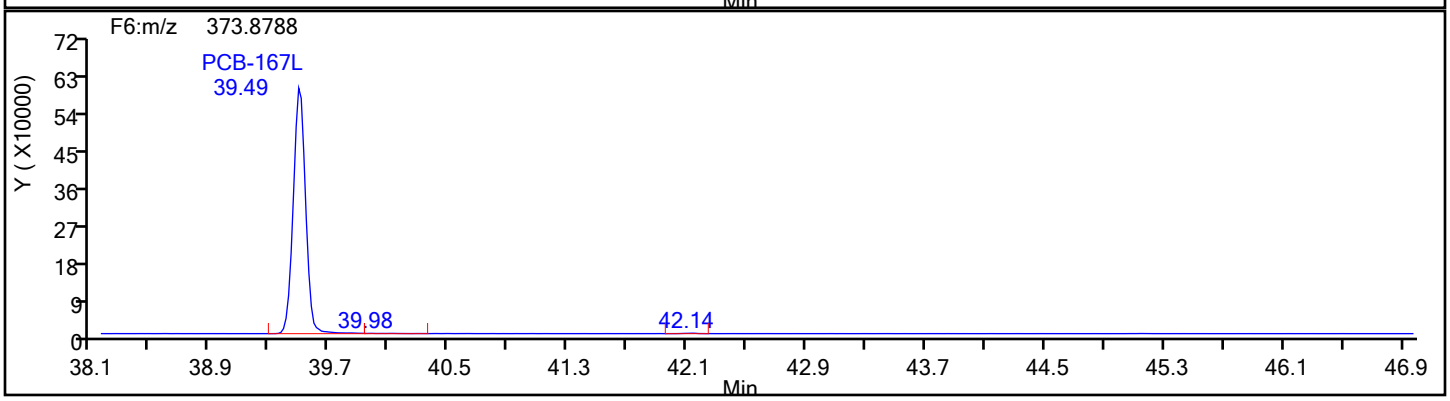
PCB-204





PCB-204 Standards



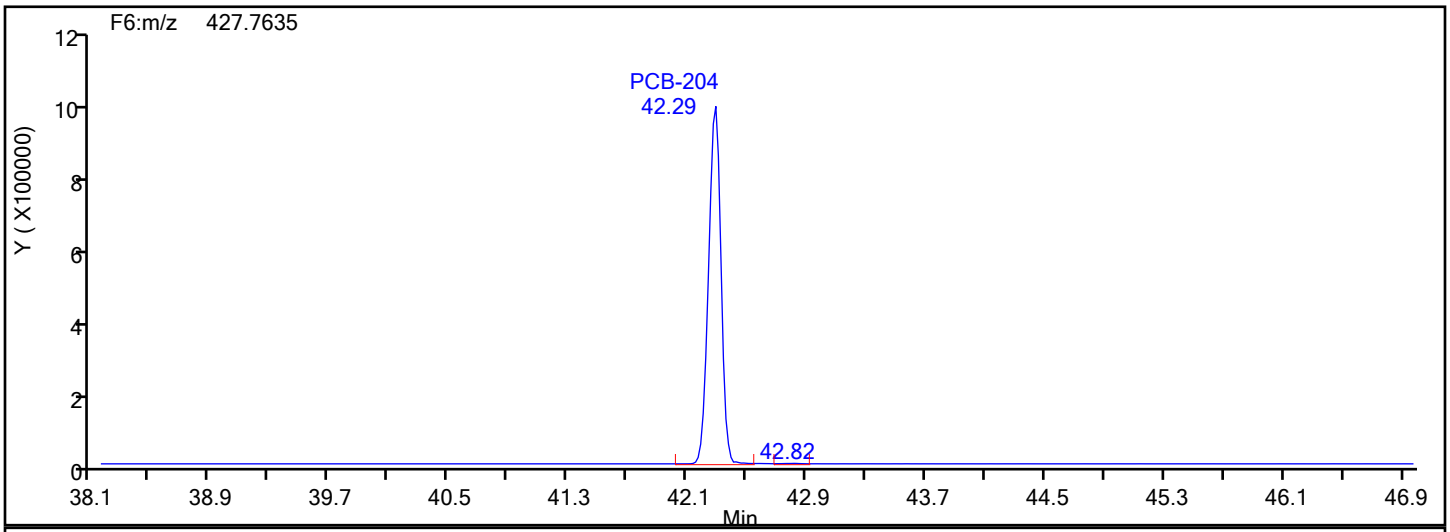


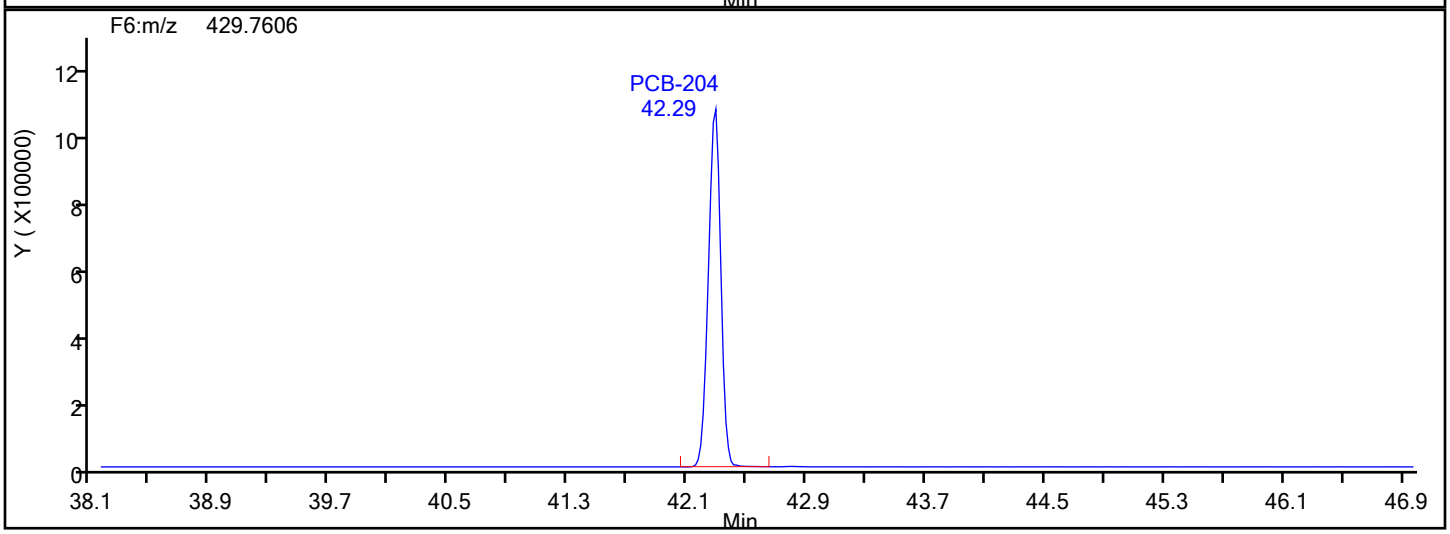
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

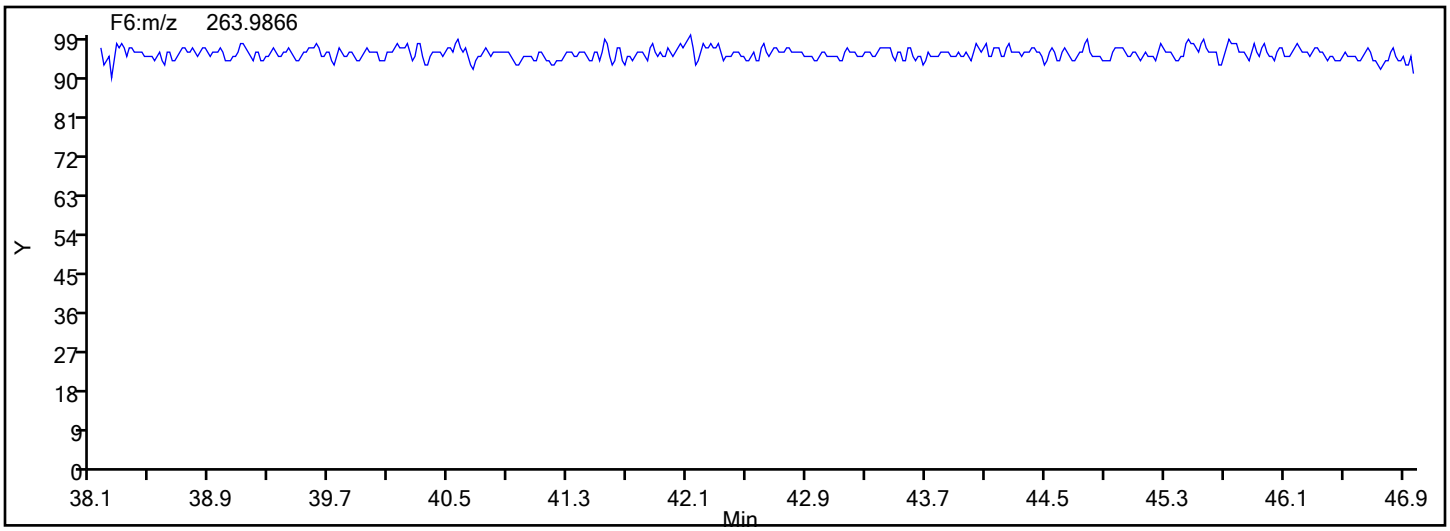
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



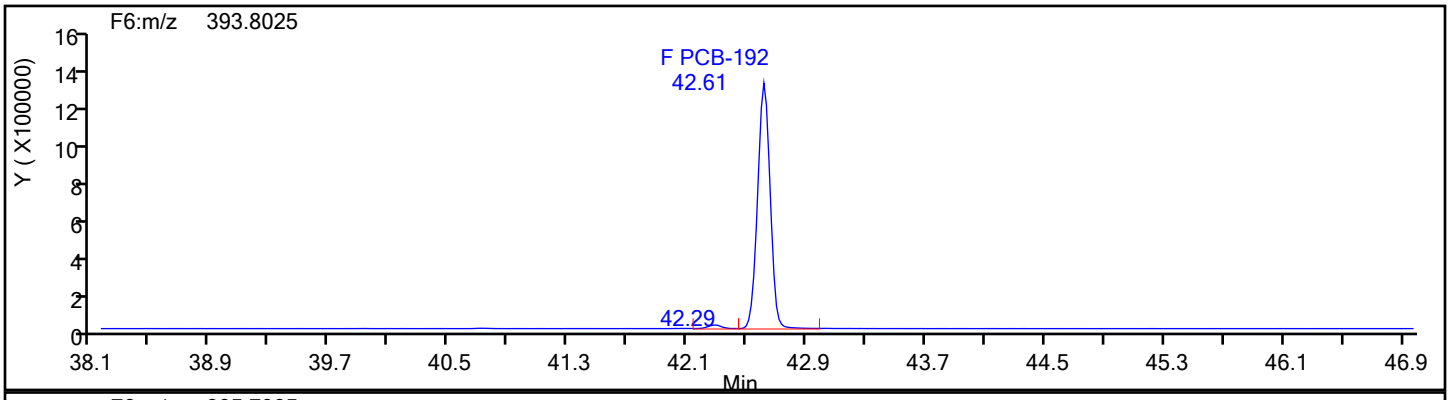
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

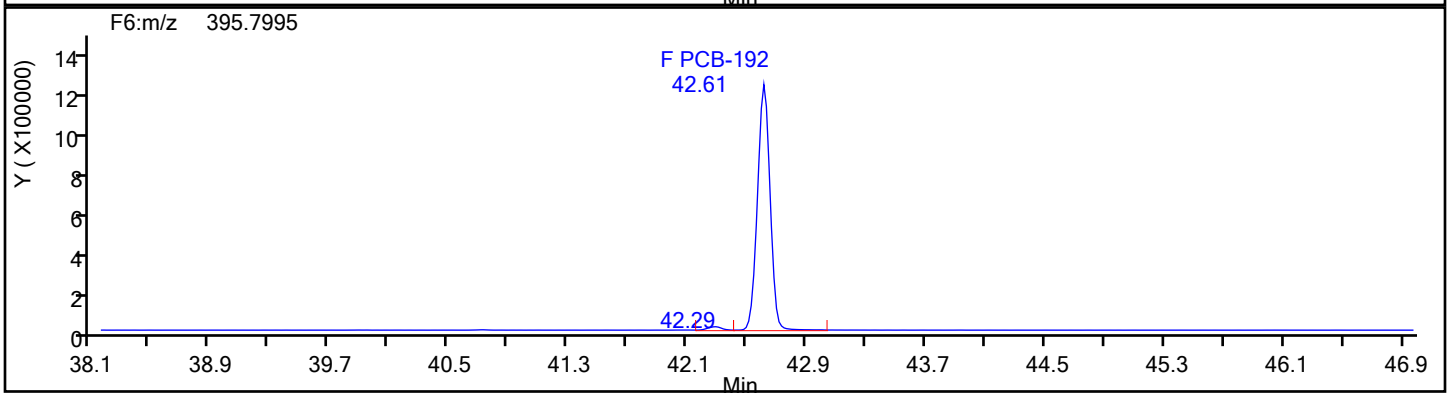
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d

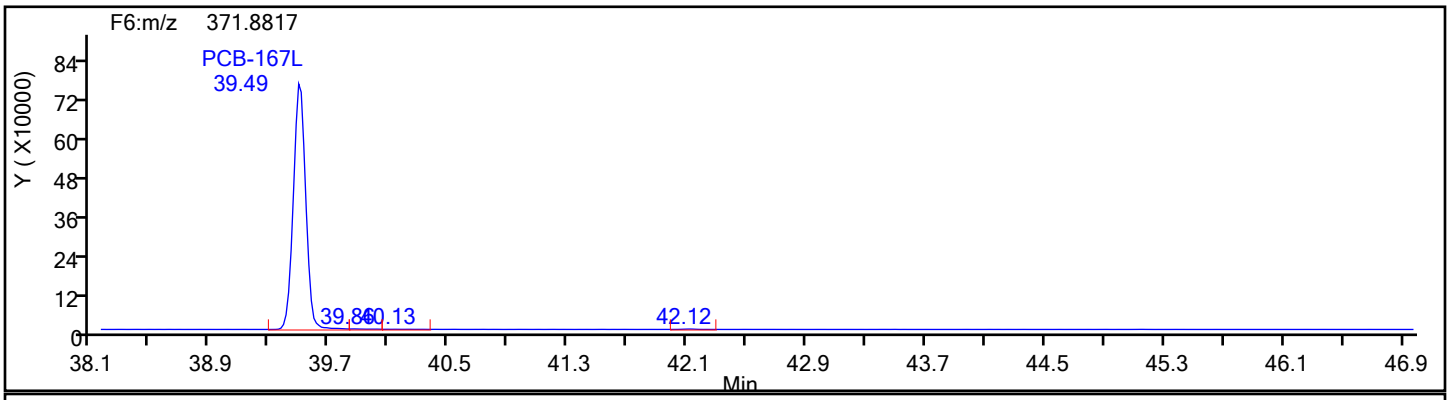
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

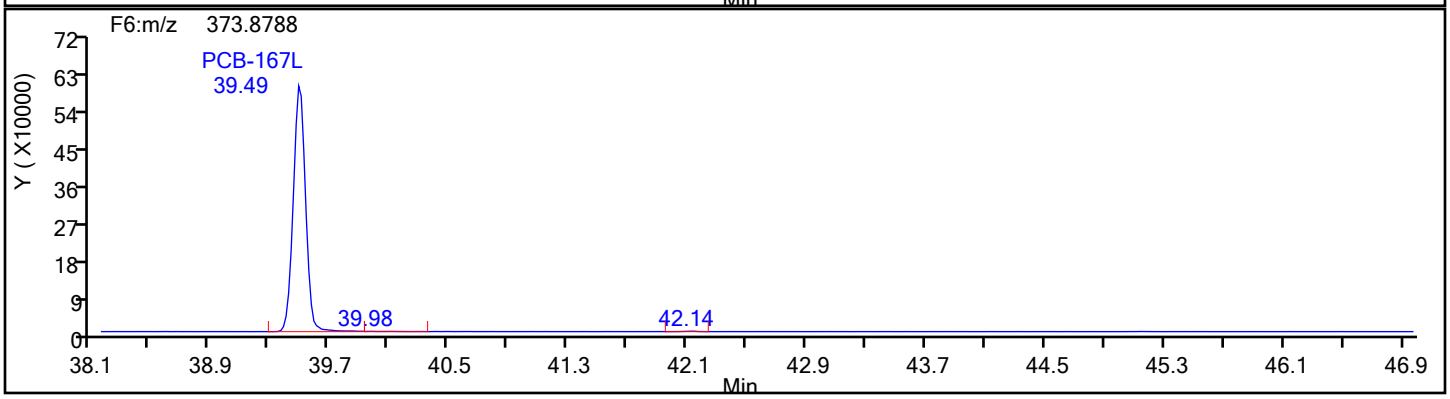
PCB-192





PCB-192 Standards



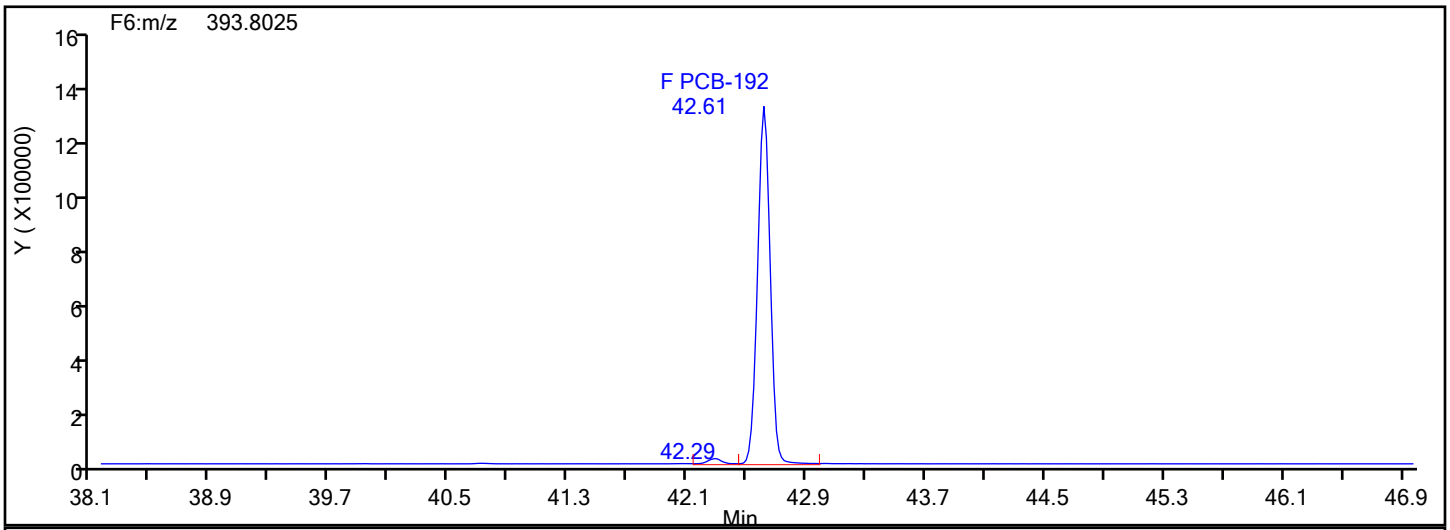


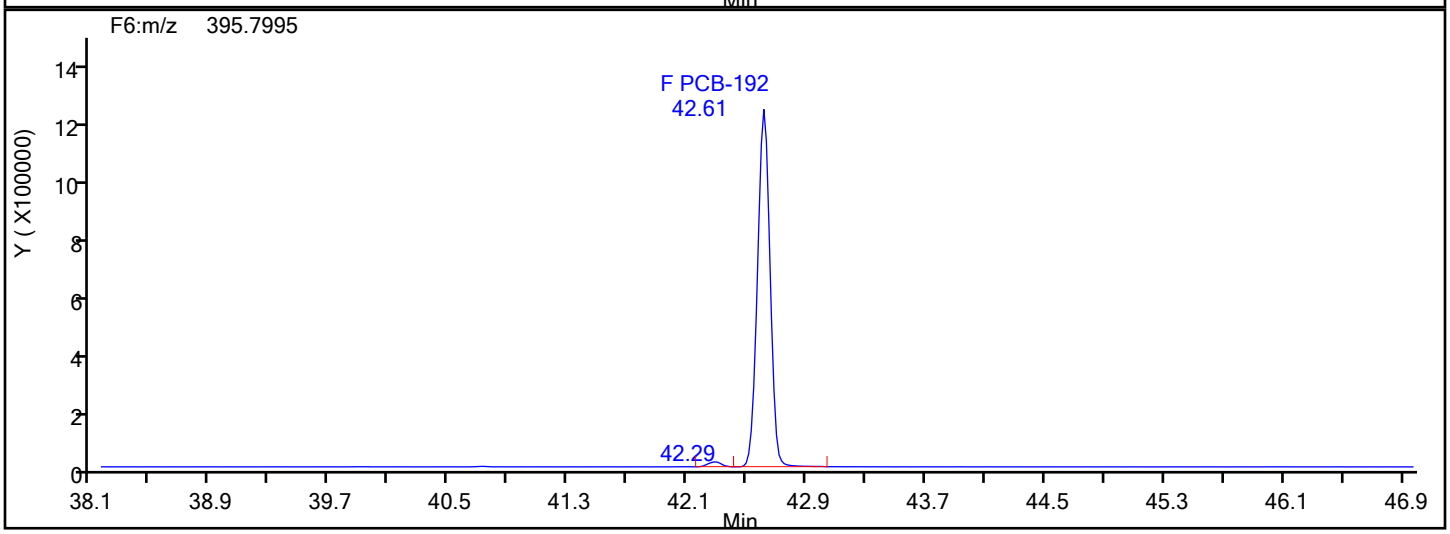
Report Date: 31-Mar-2025 14:06:12 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

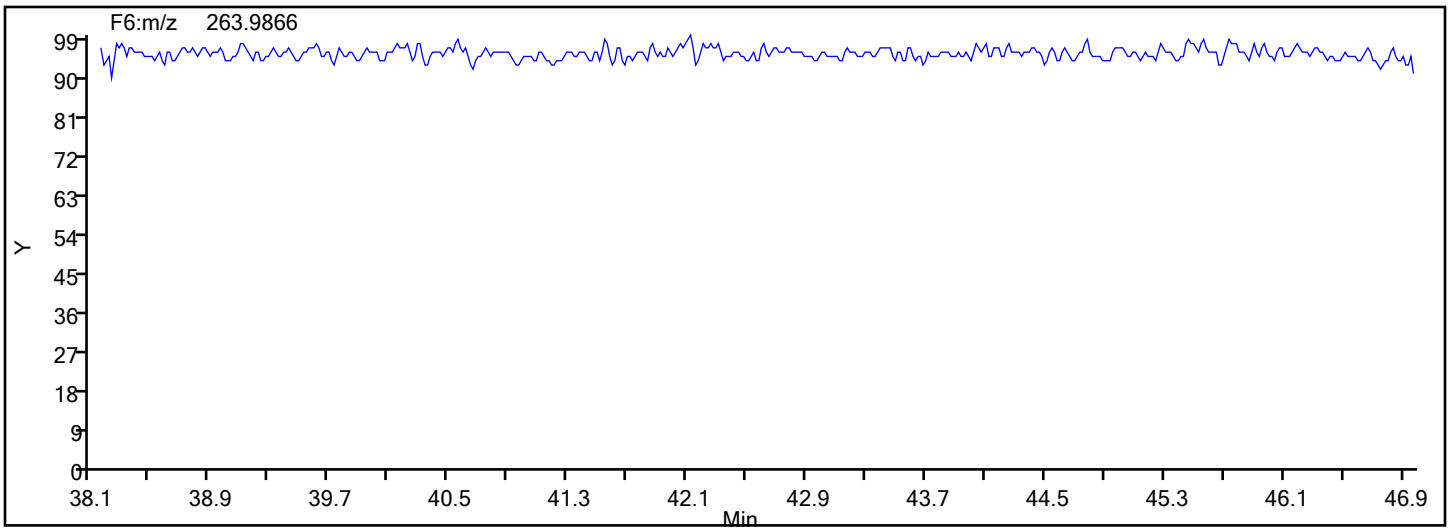
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250330-37053.b\d3250330c1a.d		
Injection Date:	30-Mar-2025 12:22:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97758	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-99272/1 Calibration Date: 05/04/2025 15:39

Instrument ID: D3PST Calib Start Date: 05/02/2025 14:50

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 05/02/2025 22:08

Lab File ID: d3250504p1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Pentachlorophenol	Ave	1.022	0.9637		943	1000	94	50-150
13C6-alpha BHC	Ave	0.2427	0.2641		109	100	109	50-150
13C6-Hexachlorobenzene	Ave	0.2759	0.2745		99.5	100	100	50-150
13C6-beta BHC	Ave	0.1892	0.2157		114	100	114	50-150
13C6-gamma BHC	Ave	0.2029	0.2218		109	100	109	50-150
13C6-delta BHC	Ave	0.1718	0.1936		113	100	113	50-150
13C10-Heptachlor	Ave	0.1629	0.1704		105	100	105	50-150
13C12-Aldrin	Ave	0.1517	0.1636		108	100	108	50-150
13C10-cis Heptachlor Epoxide	Ave	0.2676	0.2756		103	100	103	50-150
13C10-oxy Chlordane	Ave	0.0708	0.0723		102	100	102	50-150
13C10-trans Chlordane	Ave	0.3223	0.3622		112	100	112	50-150
13C12-2,4'-DDE	Ave	4.520	4.795		106	100	106	50-150
13C9-Endosulfan I	Ave	0.0899	0.0955		106	100	106	50-150
13C10-cis Chlordane	Ave	0.2976	0.3349		113	100	113	50-150
13C10-trans Nonachlor	Ave	0.2841	0.3340		118	100	118	50-150
13C12-4,4'-DDE	Ave	3.156	3.388		107	100	107	50-150
13C12-Dieldrin	Ave	0.2777	0.2945		106	100	106	50-150
13C12-2,4'-DDD	Ave	3.440	3.531		103	100	103	50-150
13C12-Endrin	Ave	0.1949	0.1899		97.4	100	97	50-150
13C9-Endosulfan II	Ave	0.0474	0.0473		99.9	100	100	50-150
13C12-4,4'-DDD	Ave	2.927	2.860		97.7	100	98	50-150
13C12-2,4'-DDT	Ave	2.037	2.122		104	100	104	50-150
13C10-cis Nonachlor	Ave	0.2243	0.2674		119	100	119	50-150
13C12-Endrin Aldehyde	Ave	0.0424	0.0401		94.5	100	94	50-150
13C9-Endosulfan sulfate	Ave	0.3464	0.3733		108	100	108	50-150
13C12-4,4'-DDT	Ave	1.806	1.884		104	100	104	50-150
13C11-Endrin Ketone	Ave	0.1045	0.1093		105	100	105	50-150
13C12-Methoxychlor	Ave	1.875	1.876		100	100	100	50-150
13C10-Mirex	Ave	1.983	2.531		128	100	128	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	04 May 2025 15:22
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

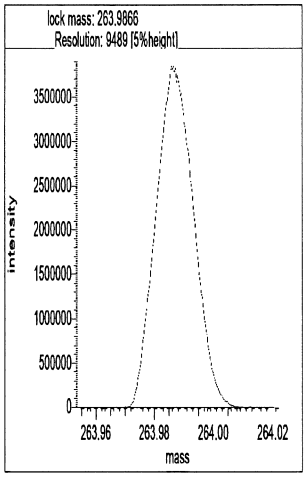
d3250504r2

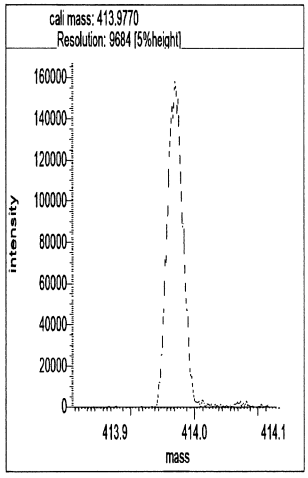
Segment 1

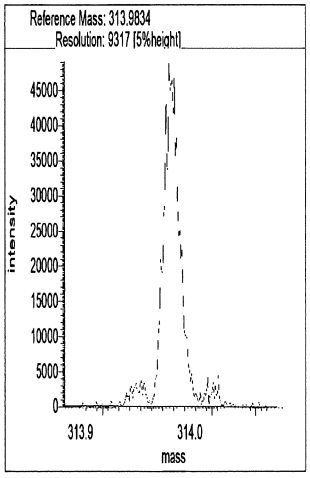
Lock mass 263.9866 [m/z] Resolution: 9489 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9684 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9317 [5%height]





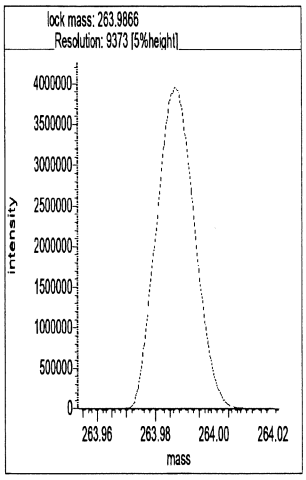


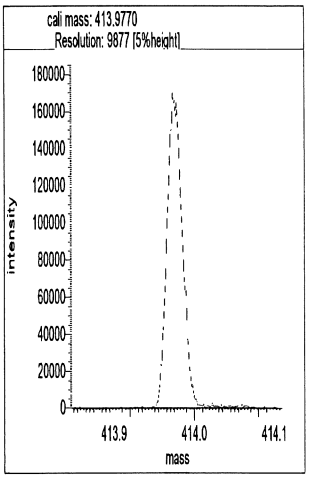
Segment 2

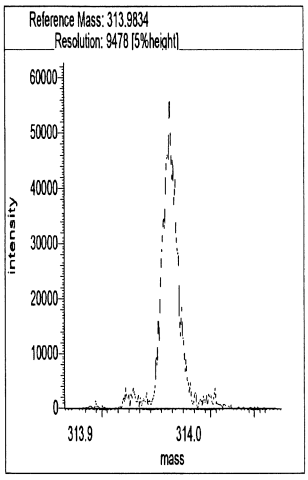
Lock mass 263.9866 [m/z] Resolution: 9373 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9877 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9478 [5%height]





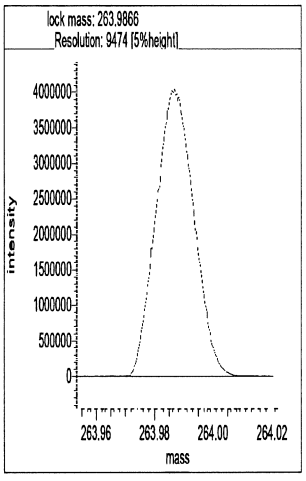


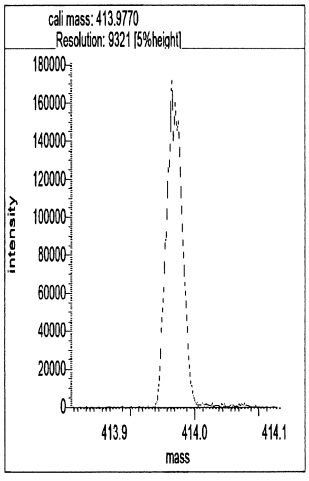
Segment 3

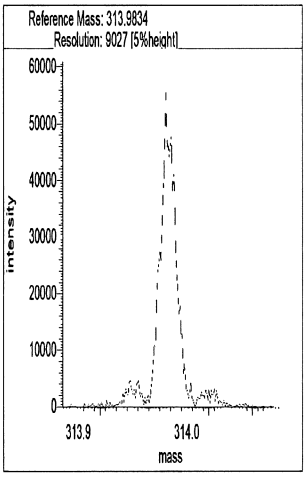
Lock mass 263.9866 [m/z] Resolution: 9474 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9321 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9027 [5%height]





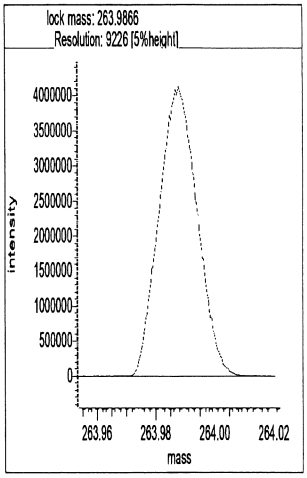


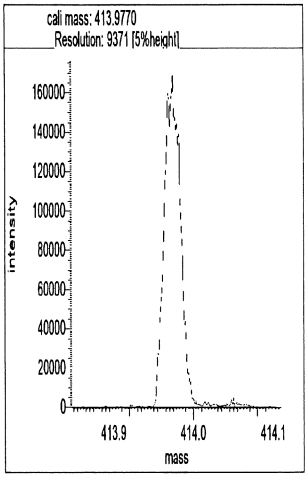
Segment 4

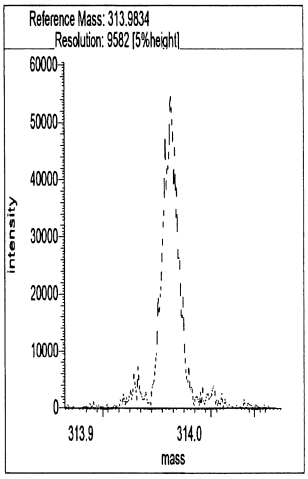
Lock mass 263.9866 [m/z] Resolution: 9226 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9371 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9582 [5%height]





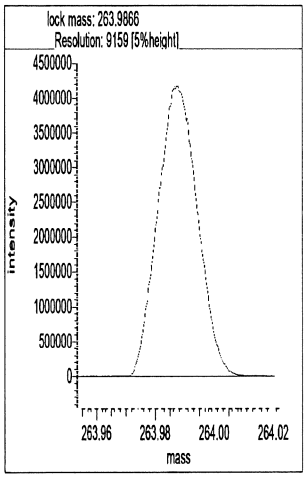


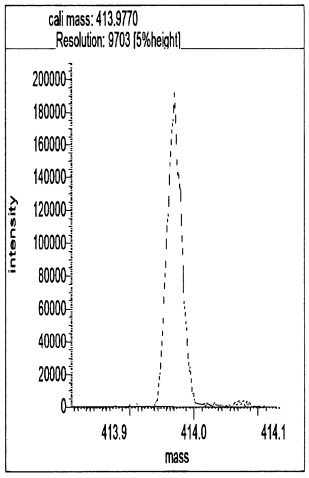
Segment 5

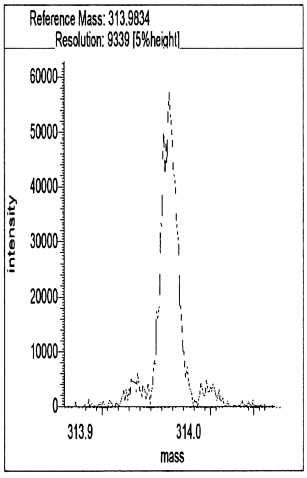
Lock mass 263.9866 [m/z] Resolution: 9159 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9703 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9339 [5%height]





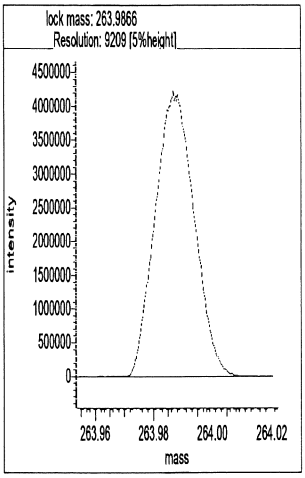


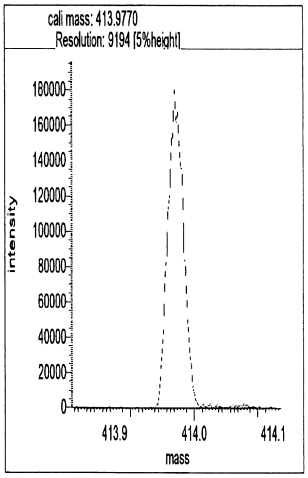
Segment 6

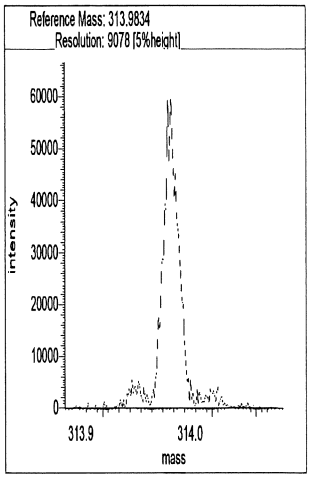
Lock mass 263.9866 [m/z] Resolution: 9209 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9194 [5%height]

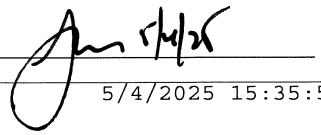
Ref. mass 313.9834 [m/z] Resolution: 9078 [5%height]


lock mass: 263.9866
Resolution: 9209 [5%height]
intensity
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 9194 [5%height]
intensity
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9078 [5%height]
intensity
60000
50000
40000
30000
20000
10000
0
313.9
314.0
mass

```
Reports
15:35:06:  Peak matching procedure started
15:35:06:
15:35:07:  Reference mass: 263.98656
15:35:07:  Sample mass: 414.0
15:35:08:
15:35:08:  Finding reference mass
15:35:09:  Finding sample mass
15:35:10:
15:35:15:  [1]   413.9732 amu, mean: 413.9732
15:35:18:  [2]   413.9734 amu, mean: 413.9733     SD: 0.10 mmu or: 0.24 ppm
15:35:22:  [3]   413.9740 amu, mean: 413.9735     SD: 0.39 mmu or: 0.94 ppm
15:35:25:  [4]   413.9737 amu, mean: 413.9736     SD: 0.33 mmu or: 0.79 ppm
15:35:28:  [5]   413.9739 amu, mean: 413.9736     SD: 0.33 mmu or: 0.80 ppm
15:35:31:  [6]   413.9730 amu, mean: 413.9735     SD: 0.38 mmu or: 0.92 ppm
15:35:34:  [7]   413.9746 amu, mean: 413.9737     SD: 0.52 mmu or: 1.26 ppm
15:35:37:  [8]   413.9738 amu, mean: 413.9737     SD: 0.48 mmu or: 1.17 ppm
15:35:40:  [9]   413.9731 amu, mean: 413.9736     SD: 0.49 mmu or: 1.18 ppm
15:35:44:  [10]   413.9729 amu, mean: 413.9736     SD: 0.51 mmu or: 1.23 ppm
15:35:47:  [11]   413.9726 amu, mean: 413.9735     SD: 0.56 mmu or: 1.35 ppm
15:35:47:
15:35:47:  Stop requested. Please wait for procedure to finish.
15:35:47:
15:35:50:
15:35:50:  Peakmatching stopped
```

Signature 

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	05 May 2025 01:03
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

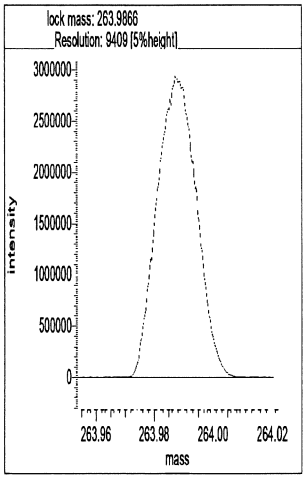
Segment 1

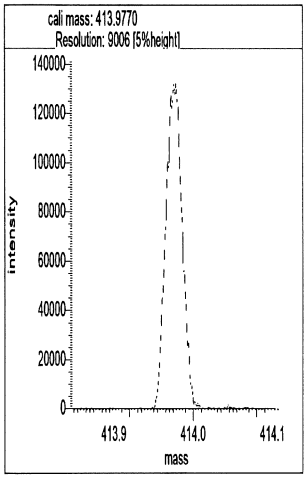
d3250505r1

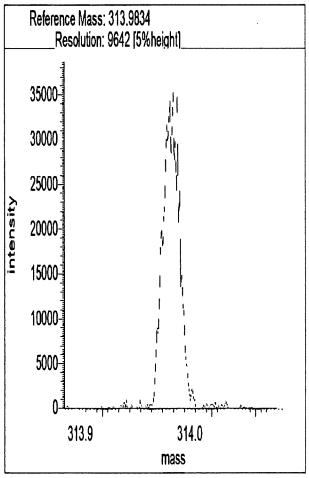
Lock mass 263.9866 [m/z] Resolution: 9409 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9006 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9642 [5%height]





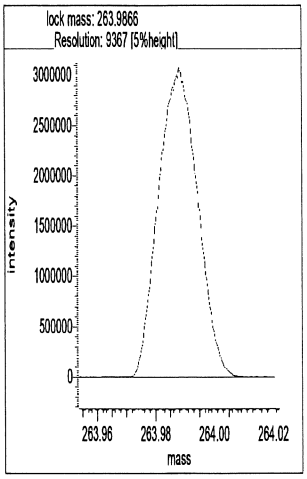


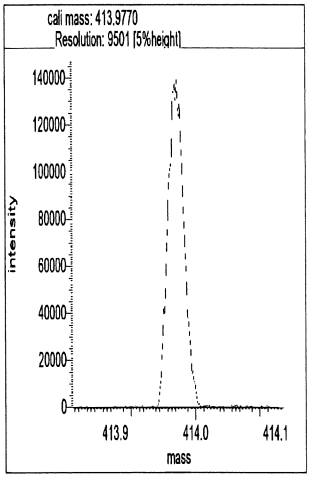
Segment 2

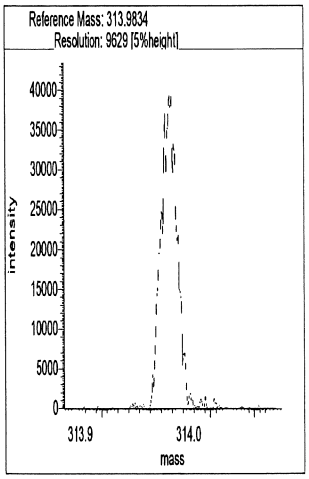
Lock mass 263.9866 [m/z] Resolution: 9367 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9501 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9629 [5%height]





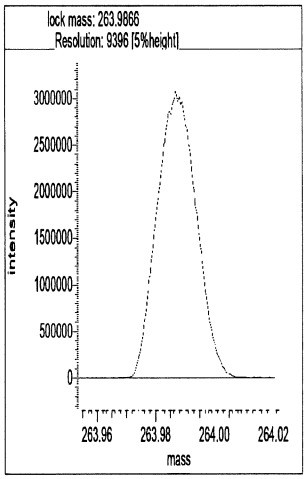


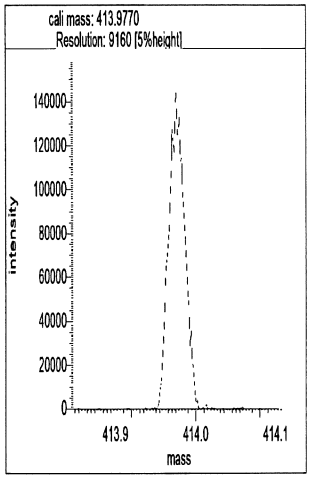
Segment 3

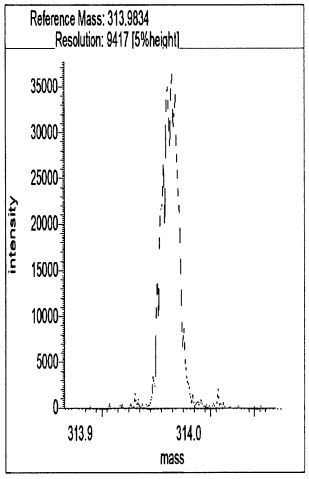
Lock mass 263.9866 [m/z] Resolution: 9396 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9160 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9417 [5%height]





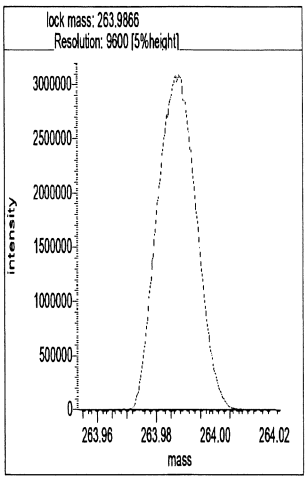


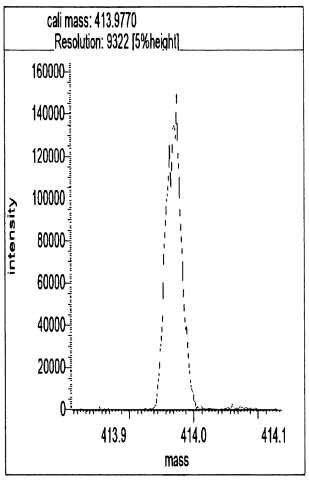
Segment 4

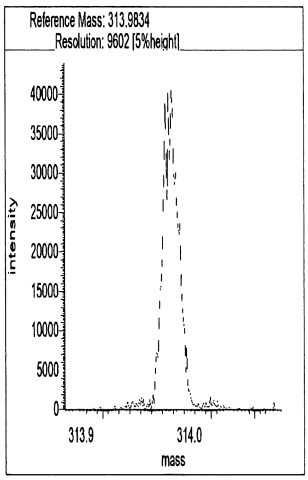
Lock mass 263.9866 [m/z] Resolution: 9600 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9322 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9602 [5%height]





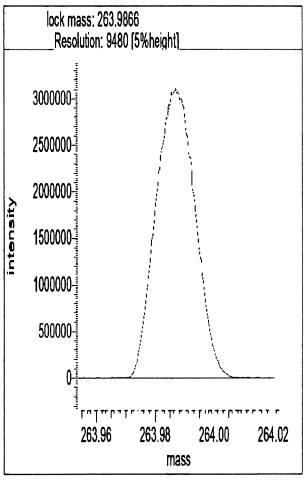


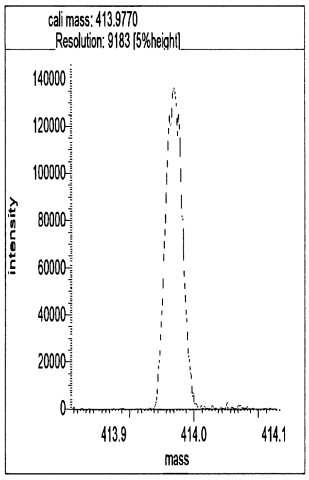
Segment 5

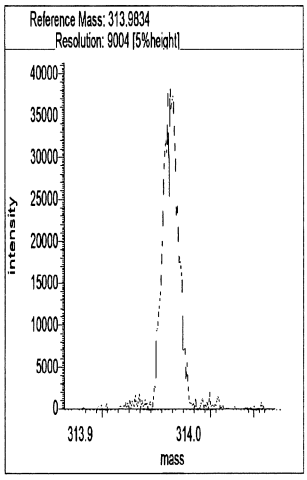
Lock mass 263.9866 [m/z] Resolution: 9480 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9183 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9004 [5%height]





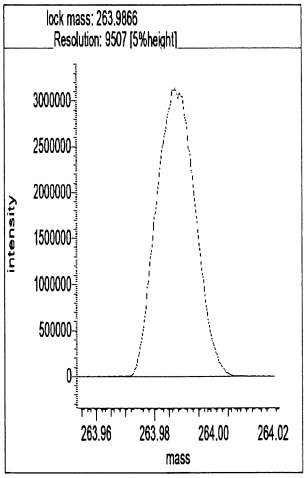


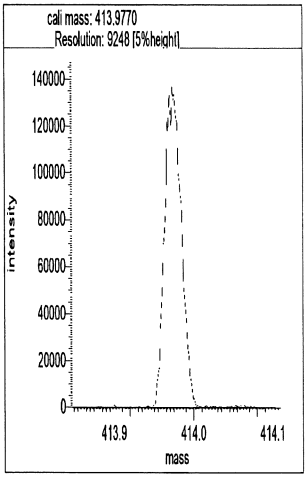
Segment 6

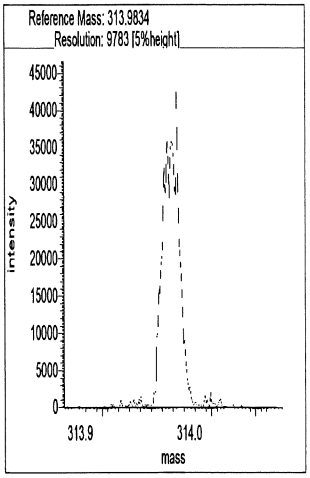
Lock mass 263.9866 [m/z] Resolution: 9507 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9248 [5%height]

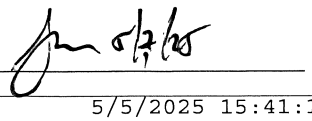
Ref. mass 313.9834 [m/z] Resolution: 9783 [5%height]


lock mass: 263.9866
Resolution: 9507 [5%height]
intensity
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 9248 [5%height]
intensity
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9783 [5%height]
intensity
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

```
Reports
15:40:31:  Peak matching procedure started
15:40:31:
15:40:32:  Reference mass: 263.98656
15:40:32:  Sample mass: 414.0
15:40:33:
15:40:33:  Finding reference mass
15:40:34:  Finding sample mass
15:40:35:
15:40:41:  [1]    413.9596 amu, mean: 413.9596
15:40:44:  [2]    413.9603 amu, mean: 413.9599     SD: 0.43 mmu or: 1.04 ppm
15:40:47:  [3]    413.9610 amu, mean: 413.9603     SD: 0.66 mmu or: 1.61 ppm
15:40:50:  [4]    413.9600 amu, mean: 413.9602     SD: 0.56 mmu or: 1.34 ppm
15:40:53:  [5]    413.9598 amu, mean: 413.9601     SD: 0.52 mmu or: 1.25 ppm
15:40:56:  [6]    413.9604 amu, mean: 413.9602     SD: 0.47 mmu or: 1.15 ppm
15:40:59:  [7]    413.9607 amu, mean: 413.9603     SD: 0.48 mmu or: 1.15 ppm
15:41:03:  [8]    413.9610 amu, mean: 413.9604     SD: 0.52 mmu or: 1.26 ppm
15:41:06:  [9]    413.9604 amu, mean: 413.9604     SD: 0.49 mmu or: 1.17 ppm
15:41:09:  [10]    413.9599 amu, mean: 413.9603     SD: 0.48 mmu or: 1.16 ppm
15:41:12:  [11]    413.9599 amu, mean: 413.9603     SD: 0.47 mmu or: 1.14 ppm
15:41:13:
15:41:13:  Stop requested. Please wait for procedure to finish.
15:41:13:
15:41:15:
15:41:16:  Peakmatching stopped
```

Signature 

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 04-May-2025 15:39:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 23:04:44 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1628

First Level Reviewer: F9EE Date: 05-May-2025 22:56:26

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:22	9444023	0.82	0.2427	108.8	108.8	0.6460	0.6460	109	
D 13C6-beta BHC	18:21	7713043	0.83	0.1892	114.0	114.0	0.8286	0.8286	114	
D 13C6-gamma BHC	18:38	7933460	0.83	0.2029	109.3	109.3	0.7725	0.7725	109	
D 13C6-delta BHC	19:35	6923998	0.80	0.1718	112.7	112.7	0.9124	0.9124	113	
D 13C10-Heptachlor	21:50	6091968	1.31	0.1629	104.6	104.6	0.0192	0.0192	105	
D 13C6-Hexachlorobenzene	17:41	9816670	1.30	0.2759	99.5	99.5	0.000144	0.000144	99.51	
D 13C12-Aldrin	23:41	5849678	1.63	0.1517	107.9	107.9	0.0521	0.0521	108	
D 13C10-oxy Chlordane	26:06	488229	1.16	0.0708	102.2	102.2	0.004619	0.004619	102	
D 13C10-cis Heptachlor Epoxide	26:04	1861155	1.26	0.2676	103.0	103.0	0.006596	0.006596	103	
D 13C12-2,4'-DDE	27:53	32376043	1.59	4.5202	106.1	106.1	0.0844	0.0844	106	
D 13C10-trans Chlordane	27:36	2445467	1.32	0.3223	112.4	112.4	0.0775	0.0775	112	
D 13C10-cis Chlordane	28:39	2261439	1.31	0.2976	112.5	112.5	0.0839	0.0839	113	
D 13C10-trans Nonachlor	28:58	2255184	1.30	0.2841	117.6	117.6	0.0879	0.0879	118	
D 13C9-Endosulfan I	28:29	644857	1.26	0.0899	106.3	106.3	0.2778	0.2778	106	
D 13C12-4,4'-DDE	30:08	22255799	1.62	3.1557	107.4	107.4	0.0837	0.0837	107	
D 13C12-4,4'-DDD	33:25	18787821	1.56	2.9265	97.7	97.7	0.0115	0.0115	97.72	
D 13C12-2,4'-DDT	33:41	13939936	1.59	2.0372	104.2	104.2	0.0165	0.0165	104	
D 13C12-4,4'-DDT	36:32	12374018	1.55	1.8061	104.3	104.3	0.0186	0.0186	104	
D 13C12-Dieldrin	30:20	1934595	1.65	0.2777	106.0	106.0	0.1483	0.1483	106	
D 13C12-Endrin	32:00	1247683	1.72	0.1949	97.4	97.4	0.2113	0.2113	97.44	
D 13C9-Endosulfan II	32:43	311044	1.23	0.0474	99.9	99.9	0.4803	0.4803	99.94	
D 13C12-Endrin Aldehyde	34:15	263490	1.69	0.0424	94.5	94.5	0.4078	0.4078	94.50	
D 13C12-Methoxychlor	41:54	12323212	23.31	1.8751	100.0	100.0	0.0347	0.0347	100	
D 13C11-Endrin Ketone	40:21	718274	1.59	0.1045	104.6	104.6	0.4391	0.4391	105	
D 13C10-Mirex	45:20	7713132	1.27	1.9829	127.6	127.6	0.0361	0.0361	128	
* PCB-15L	19:02	35761102	1.65		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:28	4499469	0.64		500.0	500.0				
Pentachlorophenol	18:28	8672487	0.63	1.0218	943.1	943.1	0.1698	0.1698	94.31	
* PCB-101L	28:04	6751946	1.60		100.0	100.0				
* PCB-118L	32:44	6569386	1.65		100.0	100.0				
* PCB-138L	36:56	3047547	1.30		100.0	100.0				
* PCB-60L	27:41	14489157	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:48	23194153	1.57	3.4396	102.6	102.6	0.0485	0.0485	103	
D 13C10-cis Nonachlor	33:44	1756421	1.23	0.2243	119.2	119.2	0.0166	0.0166	119	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:13	2452290	1.24	0.3464	107.8	107.8	0.0108	0.0108	108	
* PCB-167L	39:25	3190517	1.29		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

QC Flag Legend
Processing Flags

Reagents:
61L41699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 04-May-2025 15:39:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 23:04:44 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1628

First Level Reviewer: F9EE Date: 05-May-2025 22:56:26

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:22	17:22	0	0.912	4242205	1624491	6725	16812	242		
224.9317	17:22	17:22	0	0.912	5201818	1945818	1194	2985	1630	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:21	18:21	0	0.964	3504583	1265070	6725	16812	188		
224.9317	18:21	18:21	0	0.964	4208460	1518224	1194	2985	1272	0.83(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:38	18:38	0	0.979	3591181	1199949	6725	16812	178		
224.9317	18:38	18:38	0	0.979	4342279	1470003	1194	2985	1231	0.83(0.58-0.96)	
13C6-delta BHC											
222.9342	19:35	19:35	0	1.029	3069110	996473	6725	16812	148		
224.9317	19:35	19:35	-1	1.028	3854888	1247182	1194	2985	1045	0.80(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:50	21:50	0	1.147	3458713	996854	77	192	12946		
278.8240	21:50	21:50	0	1.147	2633255	759586	81	202	9378	1.31(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:41	17:41	0	0.929	5539328	1983555	1	2	1983555		
291.8273	17:41	17:41	0	0.929	4277342	1575846	1	2	1575846	1.30(0.93-1.55)	
13C12-Aldrin											
269.8805	23:41	23:41	0	1.244	3622301	944929	260	650	3634		
271.8775	23:41	23:41	0	1.244	2227377	586742	139	347	4221	1.63(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:06	26:06	0	0.930	261702	62139	1	2	62139		
398.8358	26:06	26:06	0	0.930	226527	61200	1	2	61200	1.16(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:04	26:04	0	0.928	1038150	245733	7	17	35105		
364.8748	26:04	26:04	0	0.928	823005	209291	4	10	52323	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:53	27:53	0	0.994	19856997	4646872	1318	3295	3526		
260.0376	27:53	27:53	0	0.994	12519046	2927965	1016	2540	2882	1.59(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:36	0	0.983	1393622	316000	106	265	2981		
278.8240	27:36	27:36	0	0.983	1051845	244629	47	117	5205	1.32(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:39	0	1.021	1280467	290447	106	265	2740		
278.8240	28:39	28:39	0	1.021	980972	220175	47	117	4685	1.31(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:58	28:58	0	1.032	1274935	283262	106	265	2672		
278.8240	28:57	28:58	-1	1.032	980249	207485	47	117	4415	1.30(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:29	28:29	0	1.015	359328	83897	106	265	791		
278.8240	28:29	28:29	0	1.015	285529	56817	47	117	1209	1.26(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:08	30:08	0	0.920	13753912	2918924	912	2280	3201		
260.0376	30:07	30:08	-1	0.920	8501887	1803152	504	1260	3578	1.62(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:25	0	1.021	11449598	2473879	101	252	24494		
249.0454	33:25	33:25	0	1.021	7338223	1578463	79	197	19981	1.56(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:41	33:41	0	1.029	8555752	1629917	101	252	16138		
249.0454	33:41	33:41	0	1.029	5384184	1038493	79	197	13145	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:32	36:32	0	1.116	7514240	1384114	101	252	13704		
249.0454	36:32	36:32	0	1.116	4859778	911474	79	197	11538	1.55(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:20	30:20	0	0.927	1203352	252150	184	460	1370		
271.8775	30:20	30:20	0	0.927	731243	162171	37	92	4383	1.65(1.16-1.94)	
13C12-Endrin											
269.8805	32:00	32:00	0	0.978	788789	158860	184	460	863		
271.8775	32:00	32:00	0	0.978	458894	93147	37	92	2517	1.72(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:43	32:43	0	1.000	171730	32120	71	177	452		
278.8240	32:44	32:43	1	1.000	139314	27348	51	127	536	1.23(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:15	34:15	0	1.046	165461	29858	35	87	853		
358.9361	34:17	34:15	2	1.047	98029	18579	58	145	320	1.69(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:54	0	1.280	11816197	1884123	312	780	6039		
240.1510	41:53	41:54	-1	1.280	507015	78160	37	92	2112	23.31(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:21	40:21	0	1.233	441021	79164	141	352	561		
329.9379	40:21	40:21	0	1.233	277253	49816	105	262	474	1.59(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:20	45:20	0	1.228	4322258	693515	92	230	7538		
278.8240	45:20	45:20	0	1.228	3390874	538410	70	175	7692	1.27(0.93-1.55)	
PCB-15L											
234.0406	19:02	19:02	0		22249947	7911791	71	177	111434		
236.0376	19:02	19:02	0		13511155	4717659	35	87	134790	1.65(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		1756645	537746	68	170	7908		
271.8636	18:28	18:28	0		2742824	807741	32	80	25242	0.64(0.00-0.00)	
Pentachlorophenol											
263.8464	18:28	18:28	0	1.000	3336149	903065	116	290	7785		
265.8435	18:28	18:28	0	1.000	5336338	1376650	71	177	19389	0.63(0.00-0.00)	
PCB-101L											
337.9207	28:04	28:04	0		4152429	938738	1	2	938738		
339.9178	28:04	28:04	0		2599517	591174	1	2	591174	1.60(1.16-1.94)	
PCB-118L											
337.9207	32:44	32:44	0		4090603	838447	32	80	26201		
339.9178	32:44	32:44	0		2478783	501850	32	80	15683	1.65(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:56	0		1720158	319824	36	90	8884		
373.8788	36:56	36:56	0		1327389	245733	37	92	6641	1.30(1.16-1.94)	
PCB-60L											
301.9626	27:41	27:41	0		6525755	1468290	80	200	18354		
303.9597	27:41	27:41	0		7963402	1787878	84	210	21284	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:48	30:48	0	0.941	14186350	2938345	518	1295	5672		
249.0454	30:48	30:48	0	0.941	9007803	1859782	376	940	4946	1.57(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:44	33:44	0	1.031	967660	193737	16	40	12109		
278.8240	33:44	33:44	0	1.031	788761	150132	4	10	37533	1.23(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:13	36:13	0	1.107	1357839	256317	16	40	16020		
278.8240	36:13	36:13	0	1.107	1094451	201179	4	10	50295	1.24(0.93-1.55)	
PCB-167L											
371.8817	39:25	39:25	0		1794602	321288	2	5	160644		
373.8788	39:25	39:25	0		1395915	251282	7	17	35897	1.29(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

QC Flag Legend

Processing Flags

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 04-May-2025 15:39:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 05-May-2025 23:04:44 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1628

First Level Reviewer: F9EE Date: 05-May-2025 22:56:26

Start Cal Date: 02-May-2025 14:50:00
End Cal Date: 02-May-2025 22:08:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:22	0	15	0.9120	0.9120	0.812 - 1.0115
13C6-beta BHC		18:22	18:21	-1	15	0.9641	0.9635	0.864 - 1.0640
13C6-gamma BHC		18:39	18:38	-1	15	0.9791	0.9785	0.878 - 1.0780
13C6-delta BHC		19:36	19:35	-1	15	1.0290	1.0290	0.930 - 1.1300
13C10-Heptachlor		21:51	21:50	0	15	1.1464	1.1469	1.046 - 1.2460
13C6-Hexachlorobenzene		17:42	17:41	-1	15	0.9287	0.9286	0.828 - 1.0280
13C12-Aldrin		23:43	23:41	-1	15	1.2447	1.2445	0.000 - 0.0000
13C10-oxy Chlordane		26:07	26:06	0	15	0.9296	0.9299	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:05	26:04	-1	15	0.9286	0.9285	0.000 - 0.0000
13C12-2,4'-DDE		27:54	27:53	0	15	0.9932	0.9937	0.000 - 0.0000
13C10-trans Chlordane		27:36	27:36	0	15	0.9826	0.9830	0.000 - 0.0000
13C10-cis Chlordane		28:40	28:39	0	15	1.0204	1.0209	0.000 - 0.0000
13C10-trans Nonachlor		28:59	28:58	0	15	1.0315	1.0320	0.000 - 0.0000
13C9-Endosulfan I		28:29	28:29	0	15	1.0141	1.0146	0.000 - 0.0000
13C12-4,4'-DDE		30:08	30:08	0	15	0.9200	0.9203	0.000 - 0.0000
13C12-4,4'-DDD		33:25	33:25	0	15	1.0203	1.0207	0.000 - 0.0000
13C12-2,4'-DDT		33:42	33:41	0	15	1.0287	1.0291	0.000 - 0.0000
13C12-4,4'-DDT		36:34	36:32	-1	15	1.1161	1.1161	0.000 - 0.0000
13C12-Dieldrin		30:21	30:20	0	15	0.9265	0.9269	0.000 - 0.0000
13C12-Endrin		32:01	32:00	-1	15	0.9776	0.9775	0.000 - 0.0000
13C9-Endosulfan II		32:45	32:43	-2	15	1.0000	0.9996	0.000 - 0.0000
13C12-Endrin Aldehyde		34:17	34:15	-1	15	1.0465	1.0464	0.000 - 0.0000
13C12-Methoxychlor		41:54	41:54	0	15	1.2791	1.2801	0.000 - 0.0000
13C11-Endrin Ketone		40:22	40:21	0	15	1.2325	1.2329	0.000 - 0.0000
13C10-Mirex		45:22	45:20	-2	15	1.2276	1.2275	0.000 - 0.0000

Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-15L		19:03	19:02	-1		1.0000	1.0000	0.000 - 0.0000
13C6-Pentachlorophenol (IS)		18:29	18:28	-1		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:29	18:28	-1		1.0000	1.0000	0.000 - 0.0000
PCB-101L		28:05	28:04	-1		1.0000	1.0000	0.000 - 0.0000
PCB-118L		32:45	32:44	-1		1.0000	1.0000	0.000 - 0.0000
PCB-138L		36:57	36:56	-1		1.0000	1.0000	0.000 - 0.0000
PCB-60L		27:43	27:41	-1		1.0000	1.0000	0.000 - 0.0000
13C12-2,4'-DDD		30:49	30:48	0	15	0.9408	0.9412	0.000 - 0.0000
13C10-cis Nonachlor		33:46	33:44	-1	15	1.0308	1.0307	0.000 - 0.0000
13C9-Endosulfan sulfate		36:15	36:13	-1	15	1.1067	1.1067	0.000 - 0.0000
PCB-167L		39:26	39:25	0		1.0000	1.0000	0.000 - 0.0000

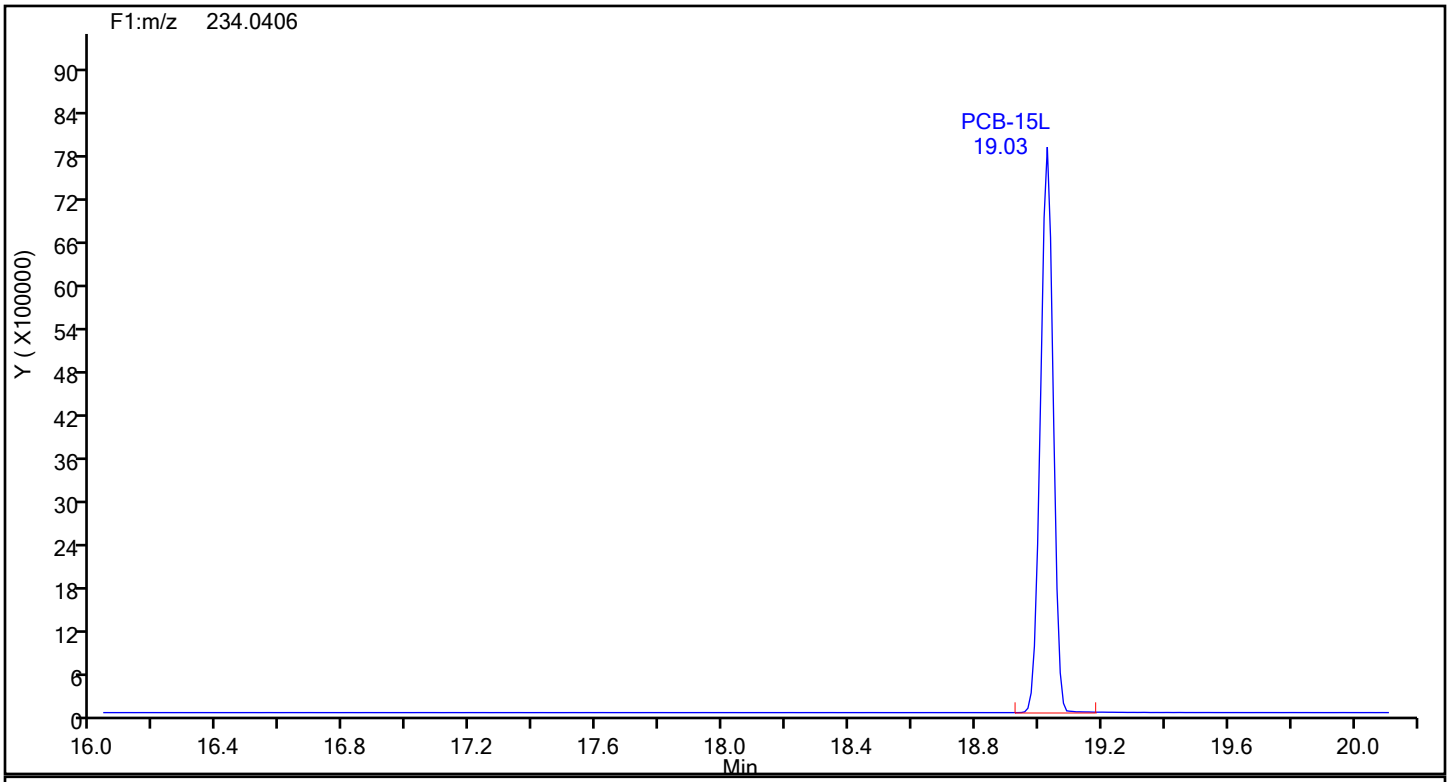
Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

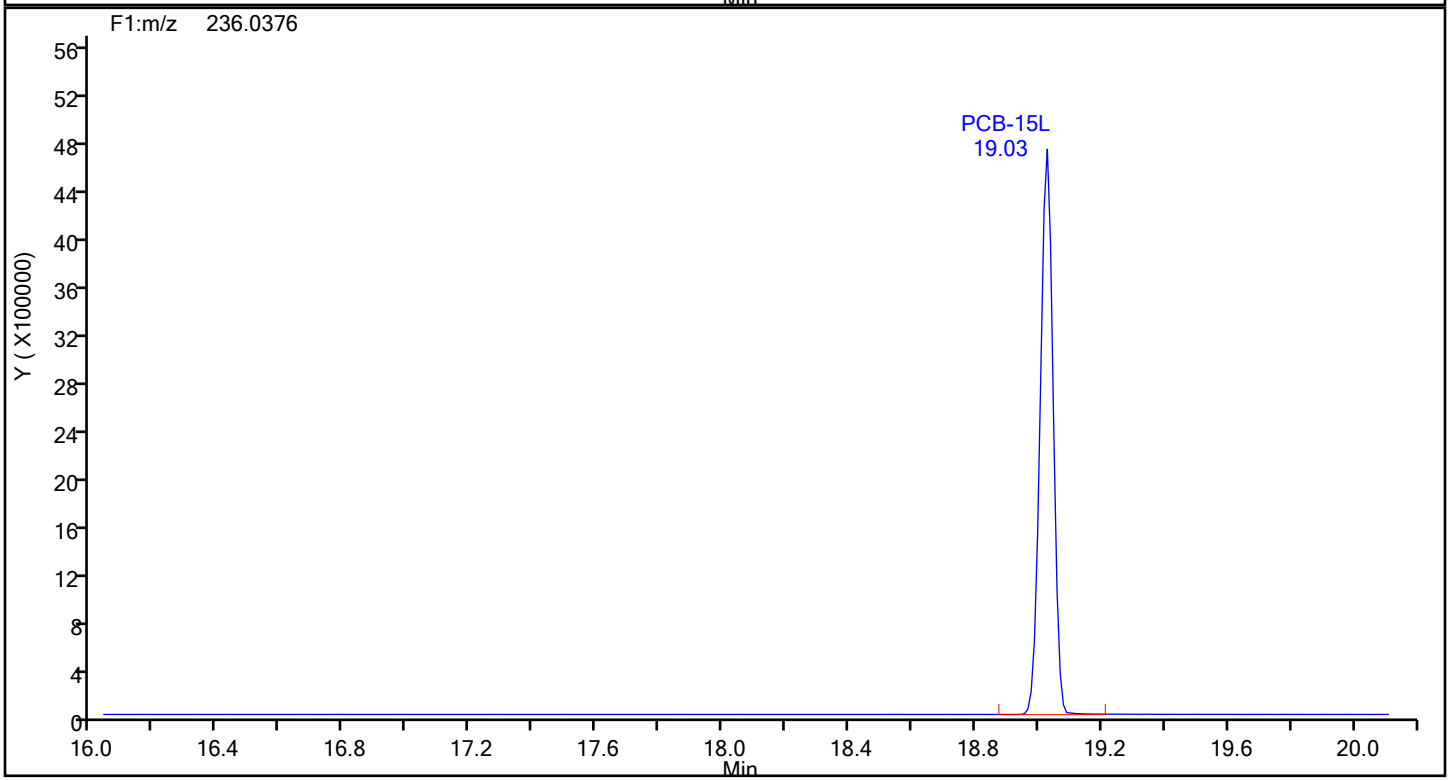
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





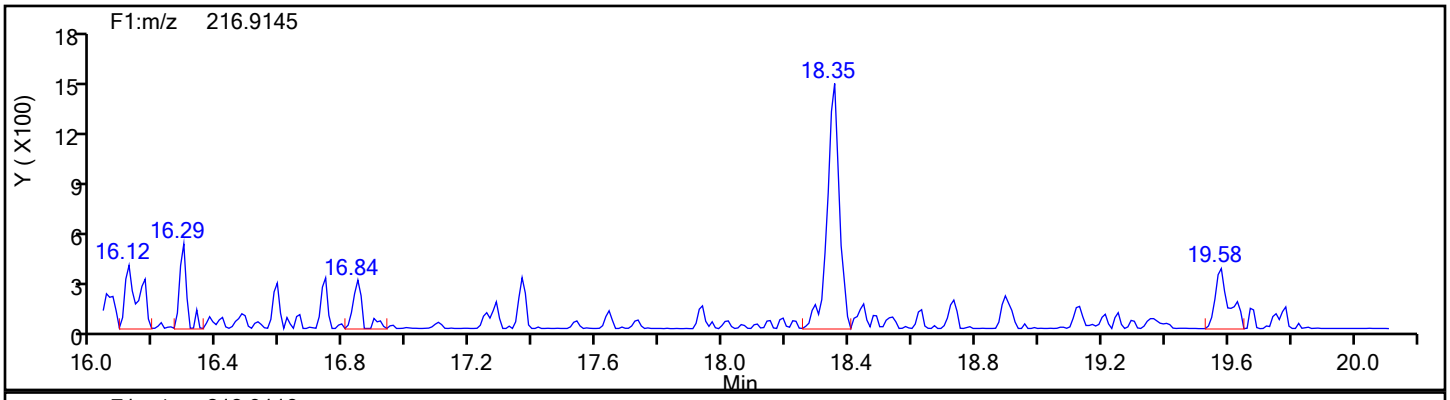
Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

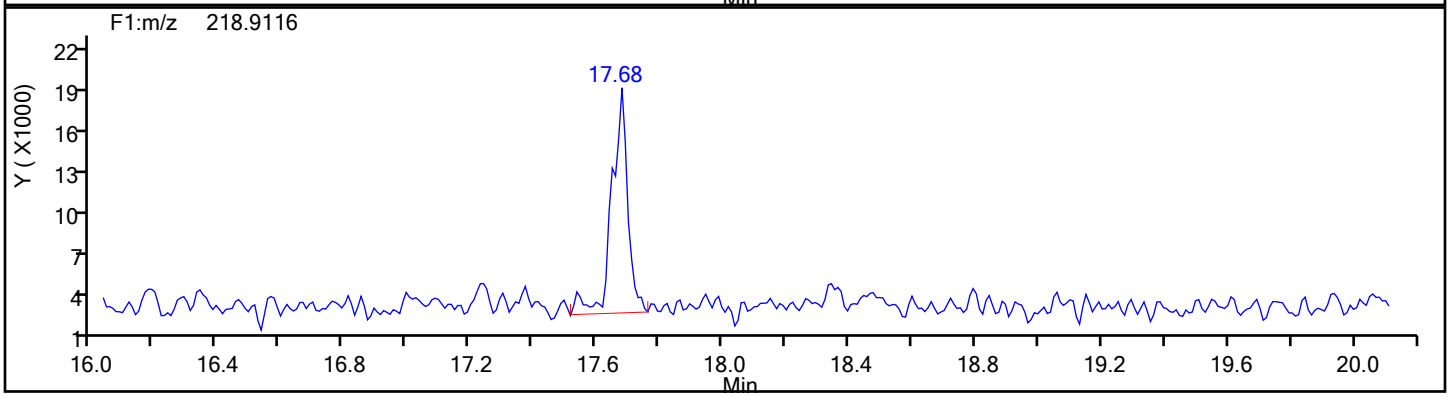
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

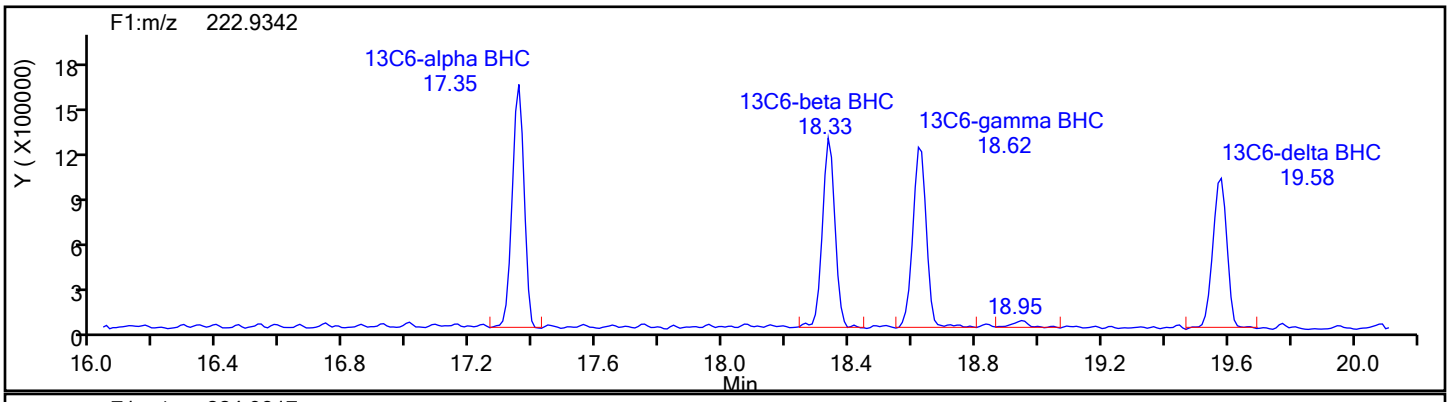
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

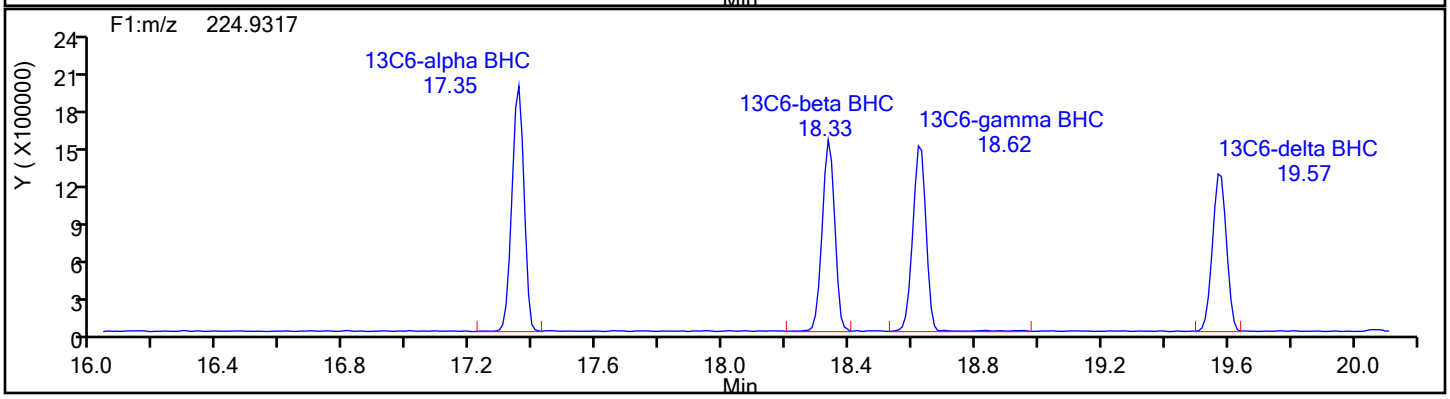
BHC





BHC Standards





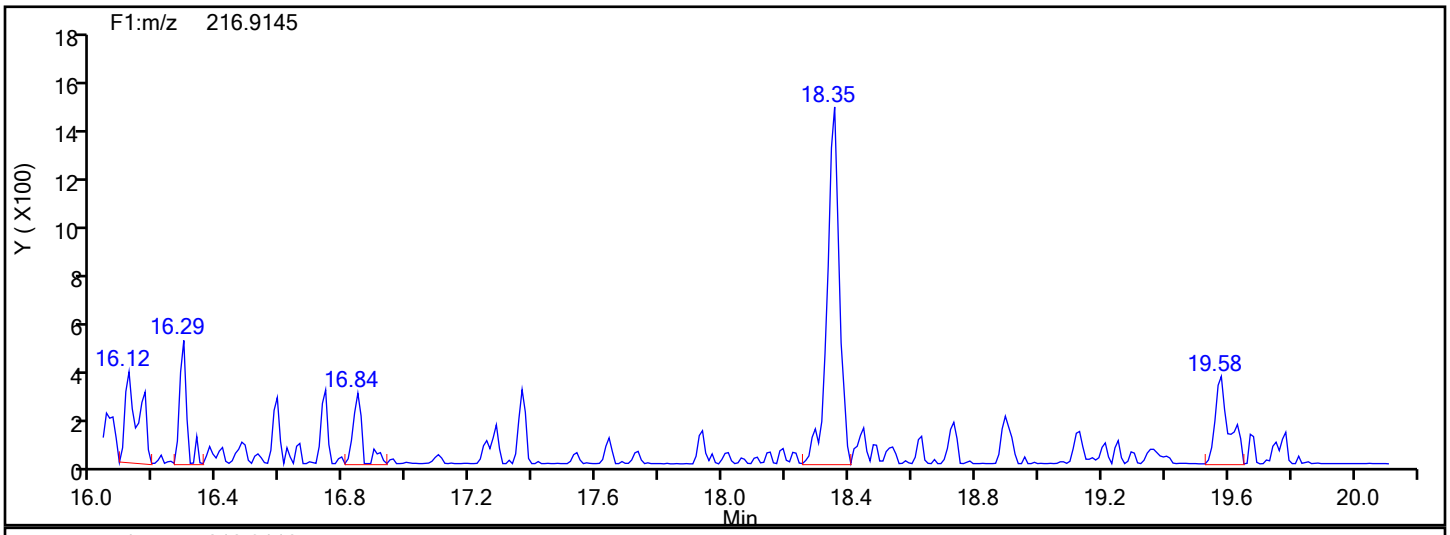
Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

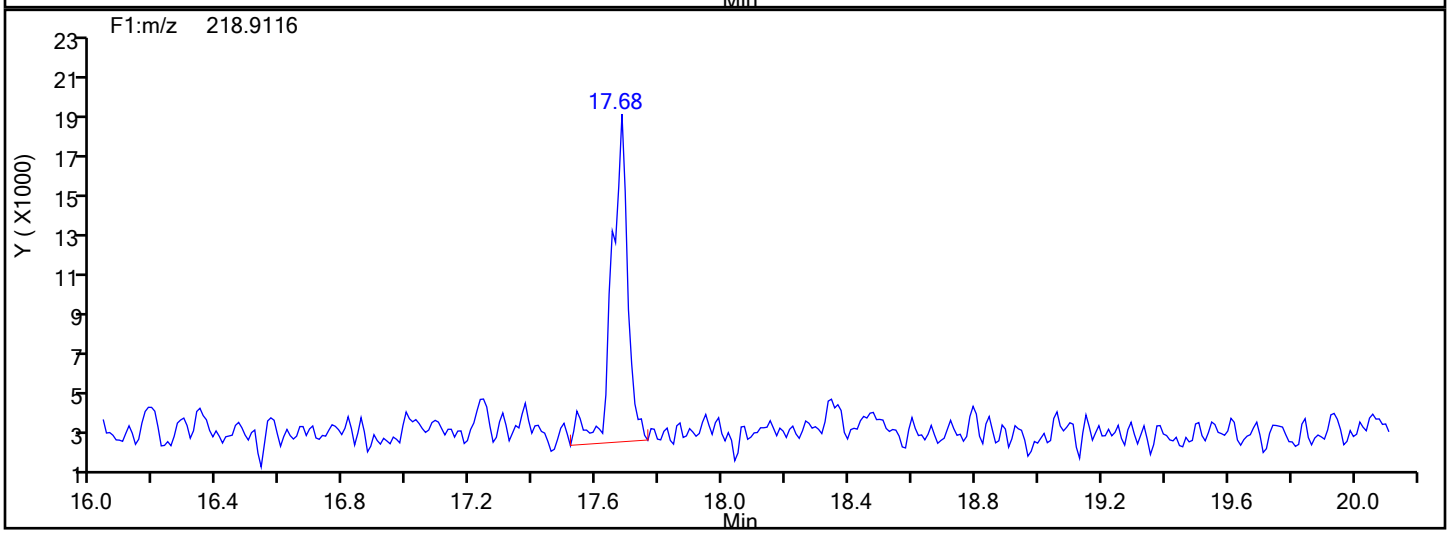
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

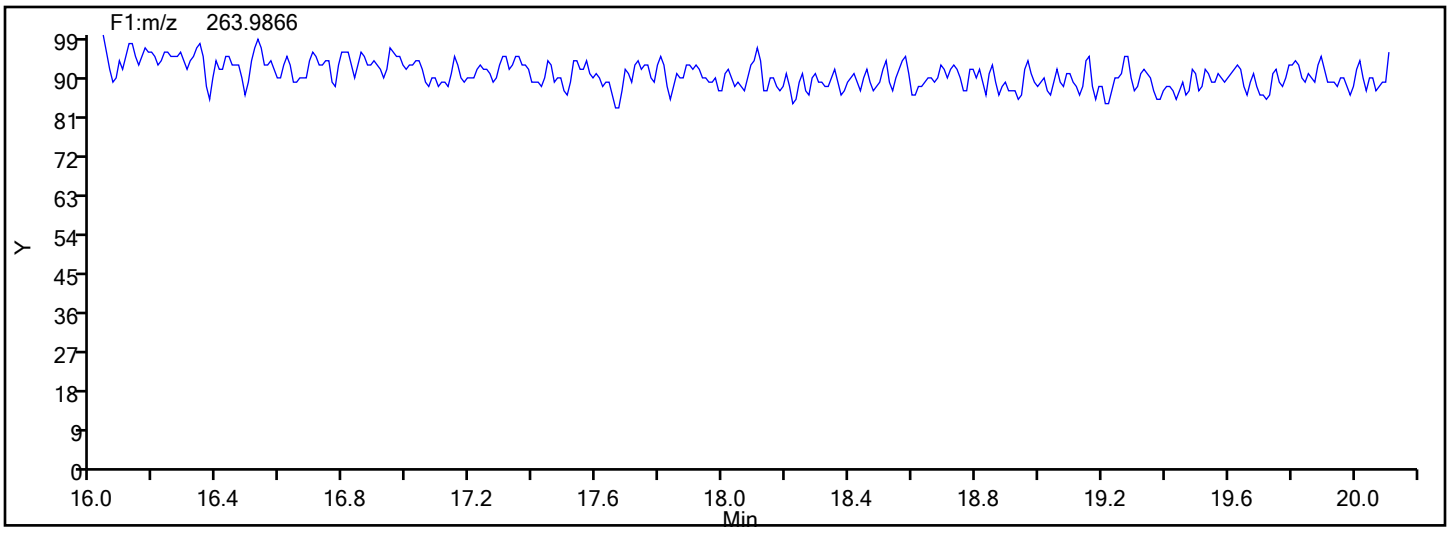
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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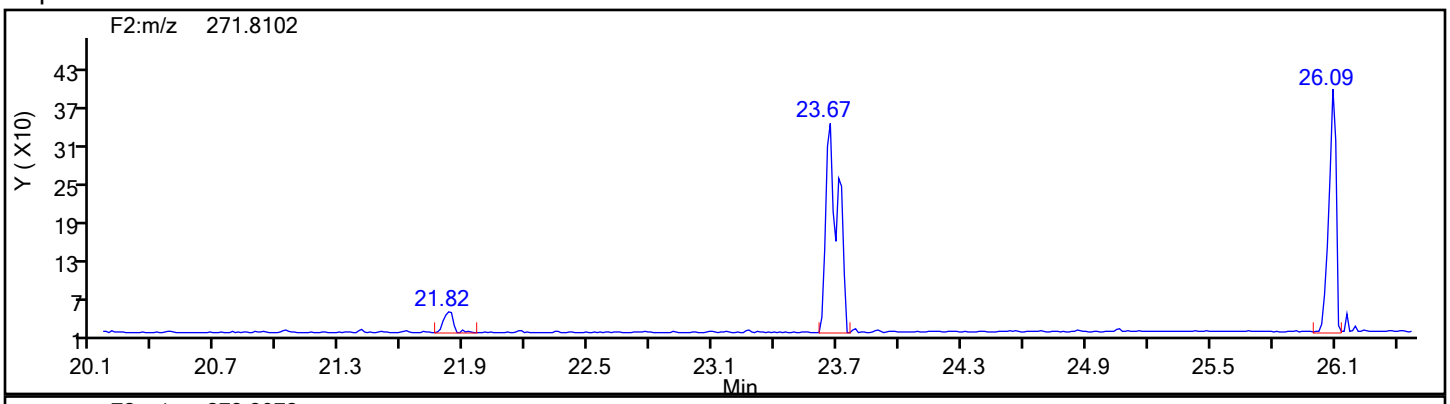
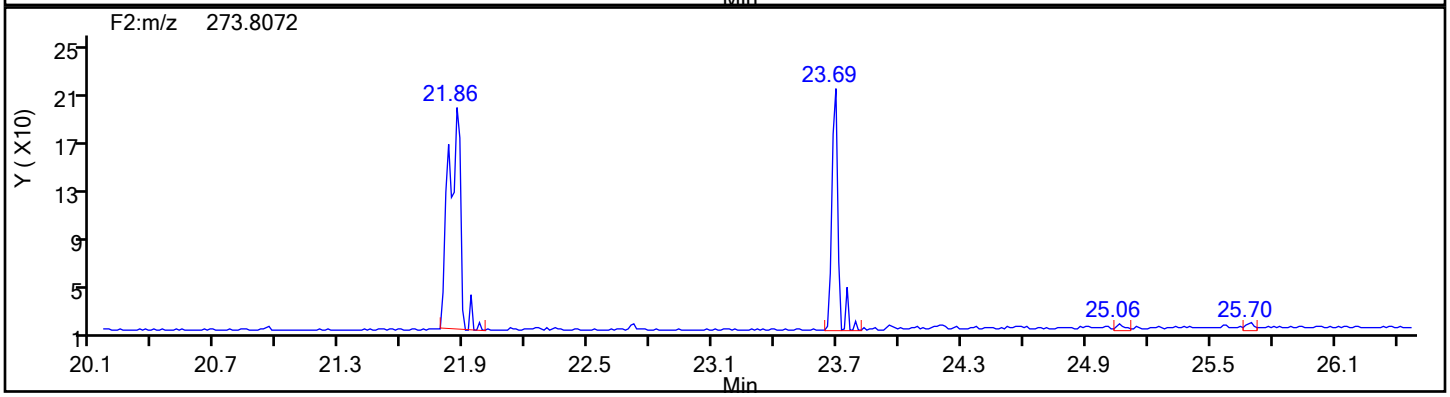
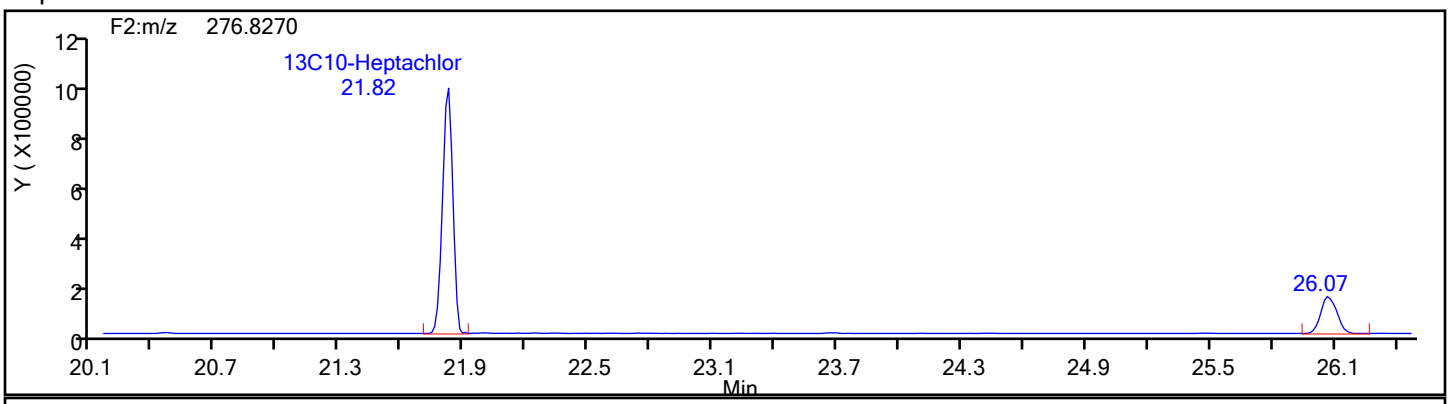
Column Type:	RTX-5	Column Dia:	0.32 mm

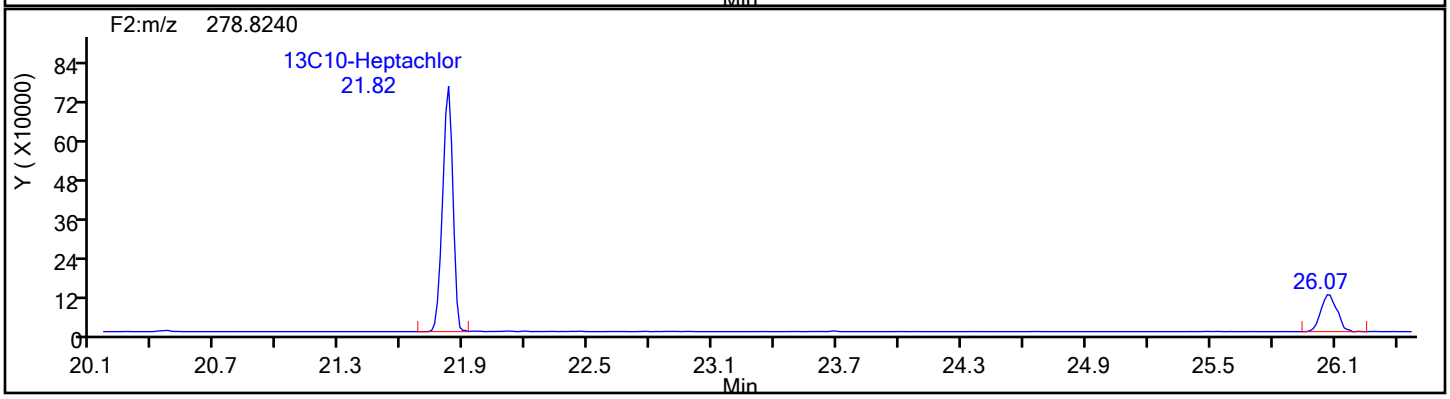
Heptachlor





Heptachlor Standards





Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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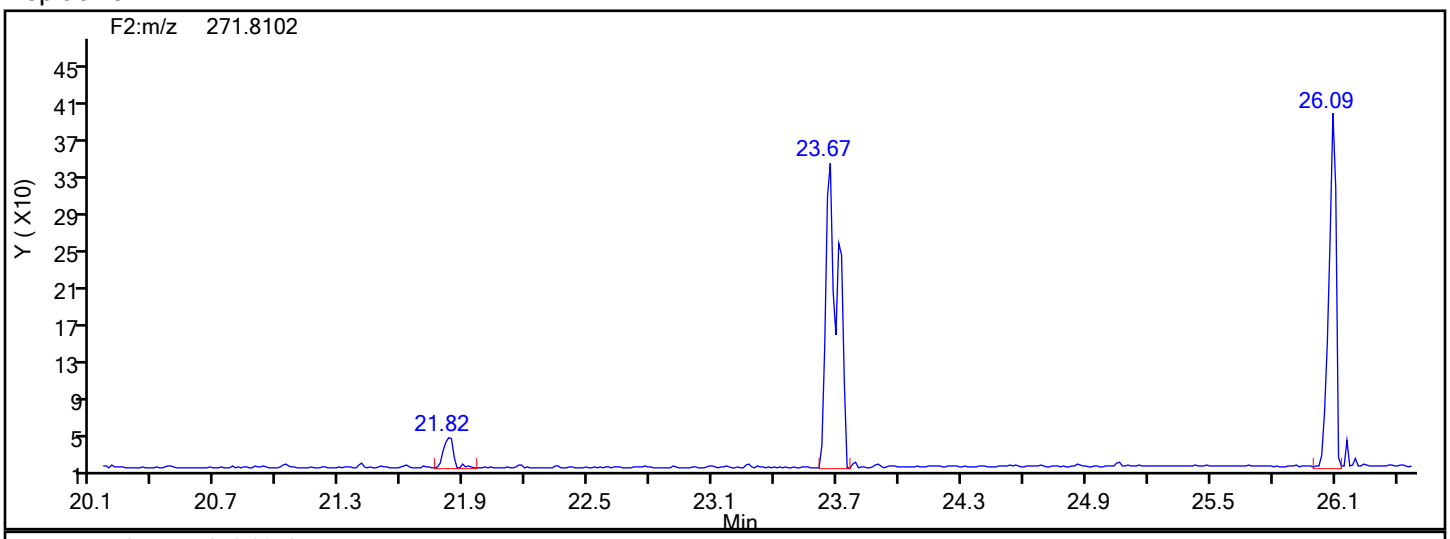
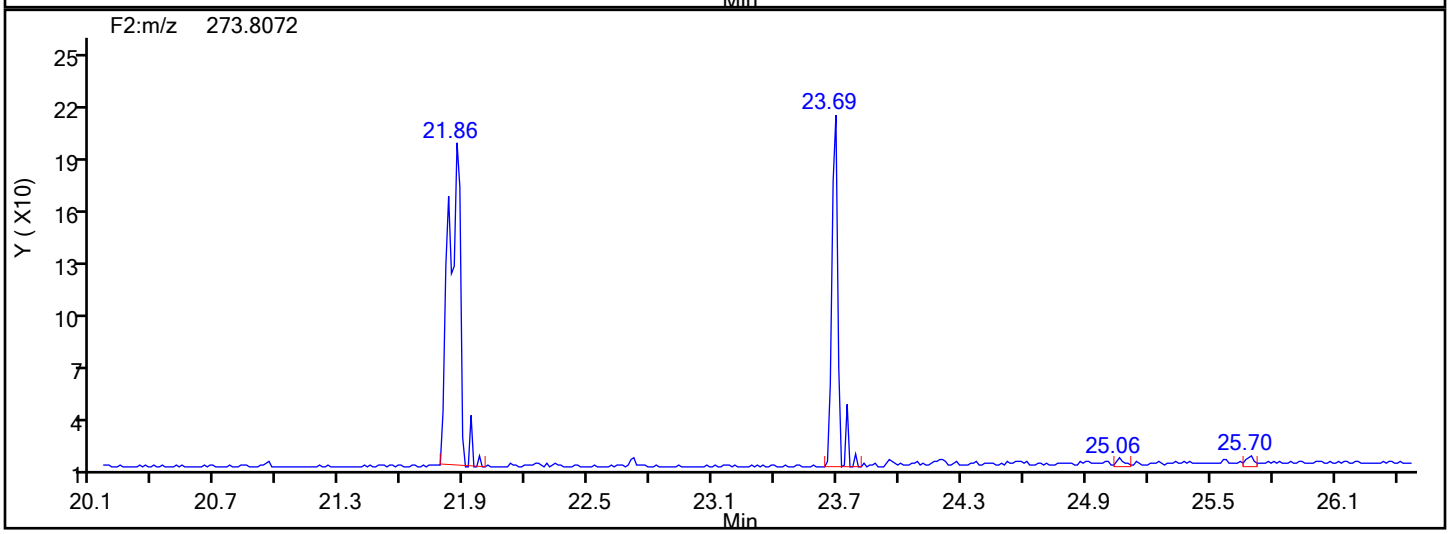
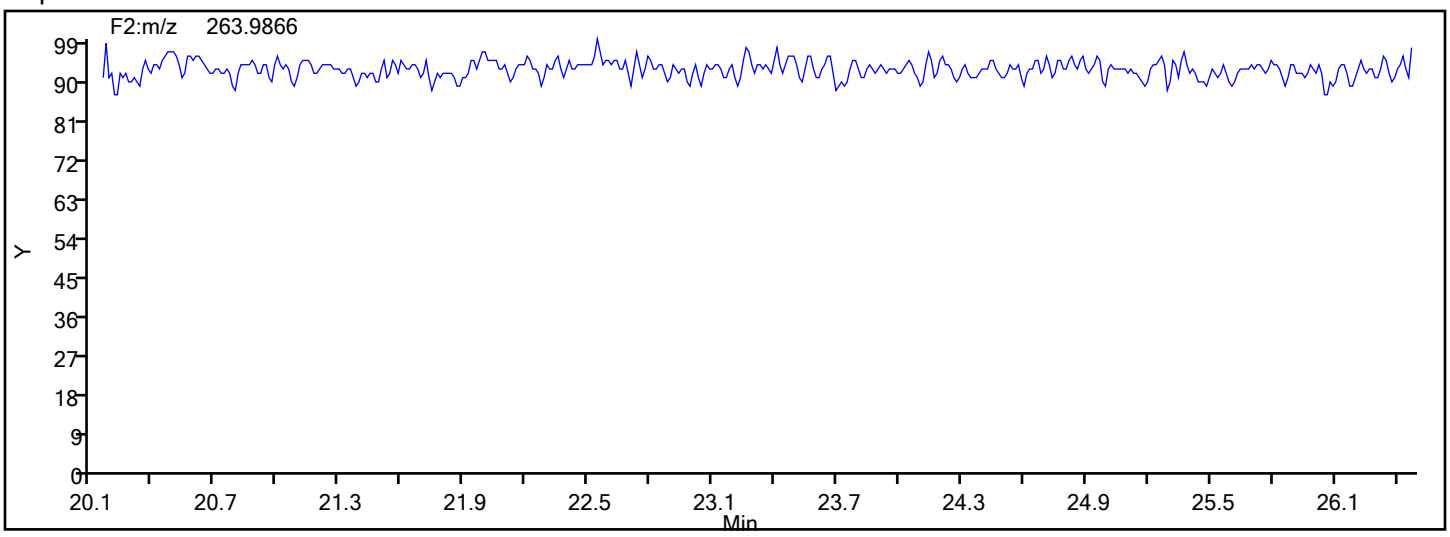
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



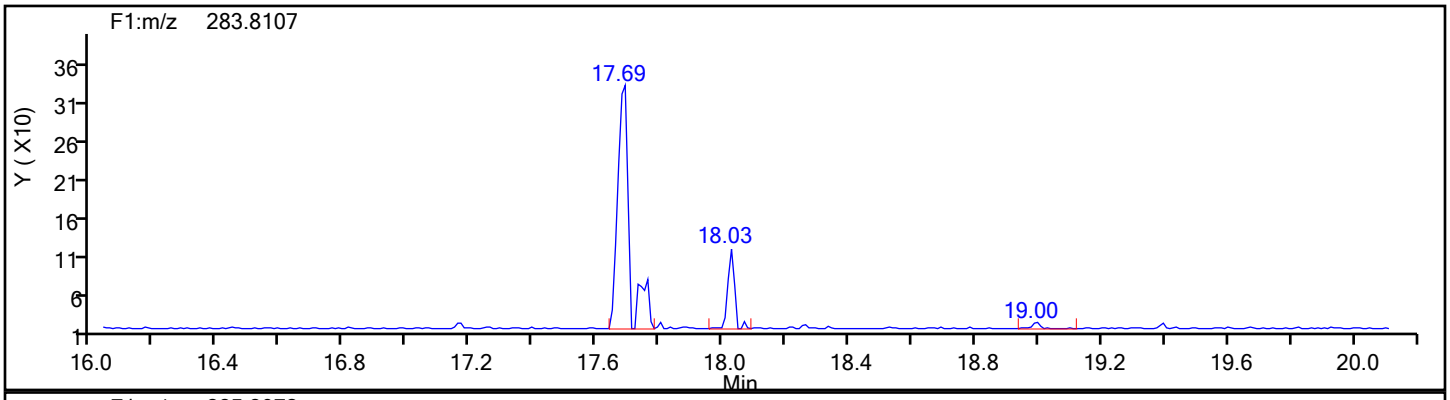
Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

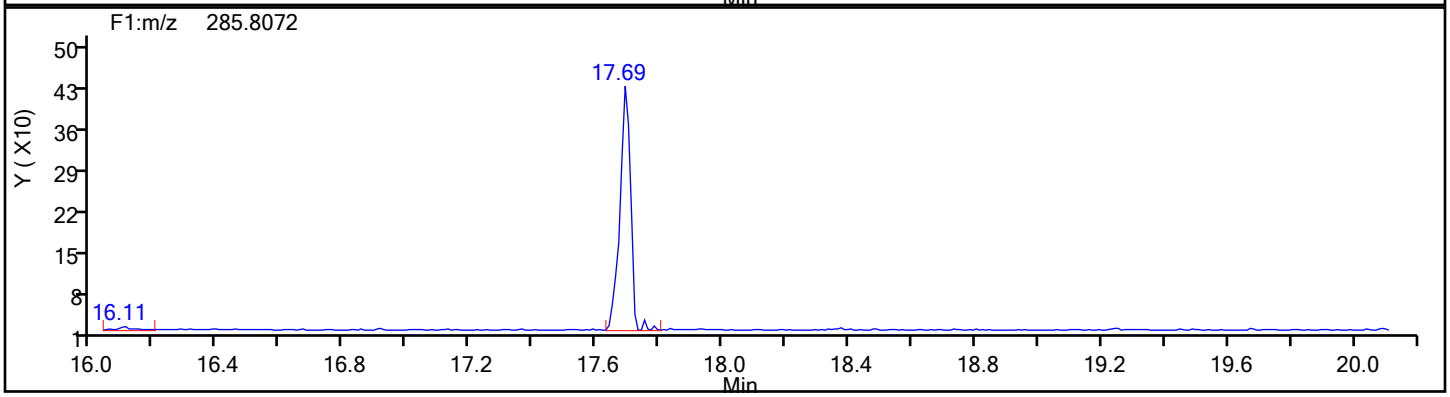
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

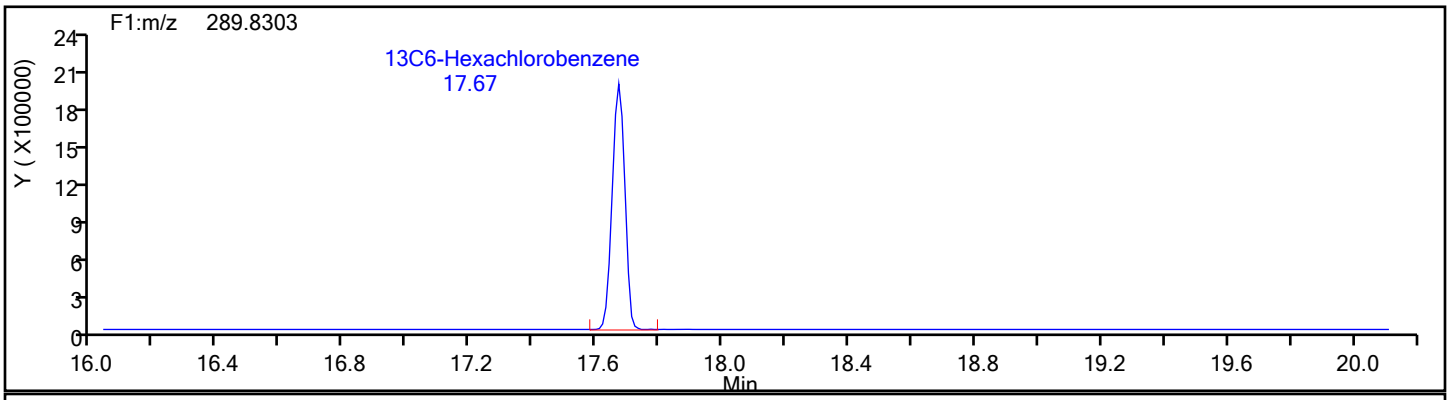
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

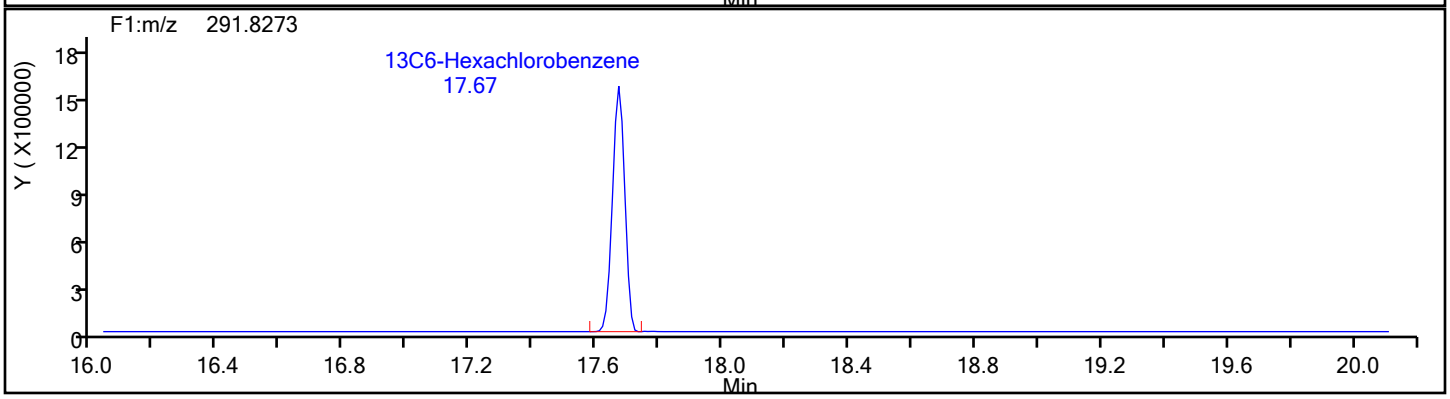
Hexachlorobenzene





Hexachlorobenzene Standards





Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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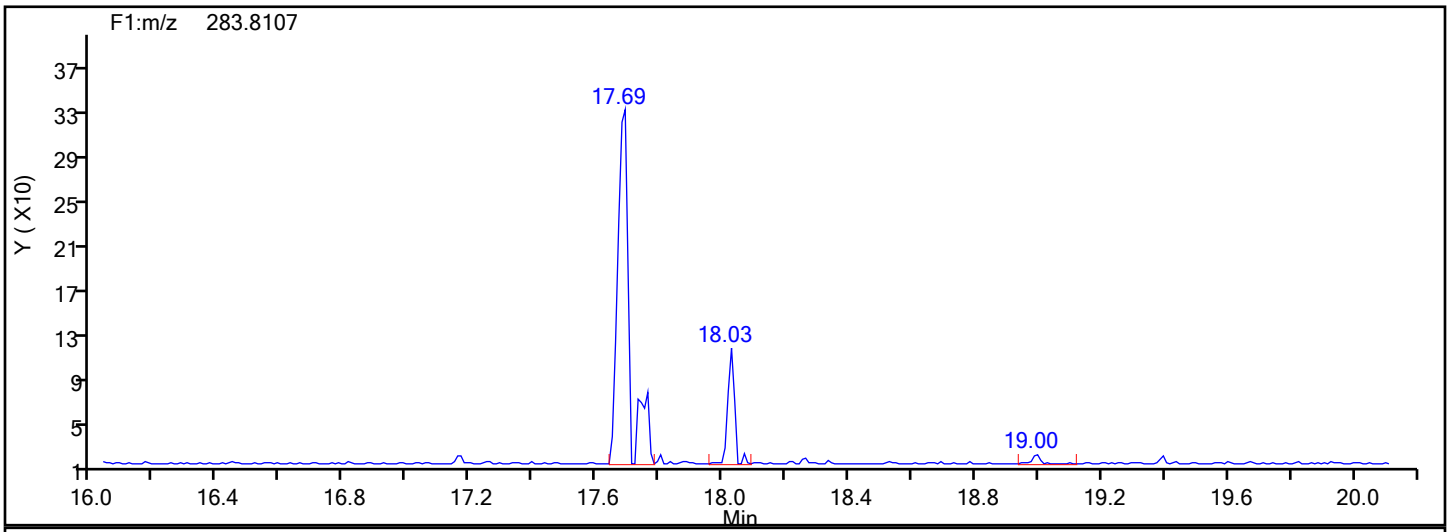
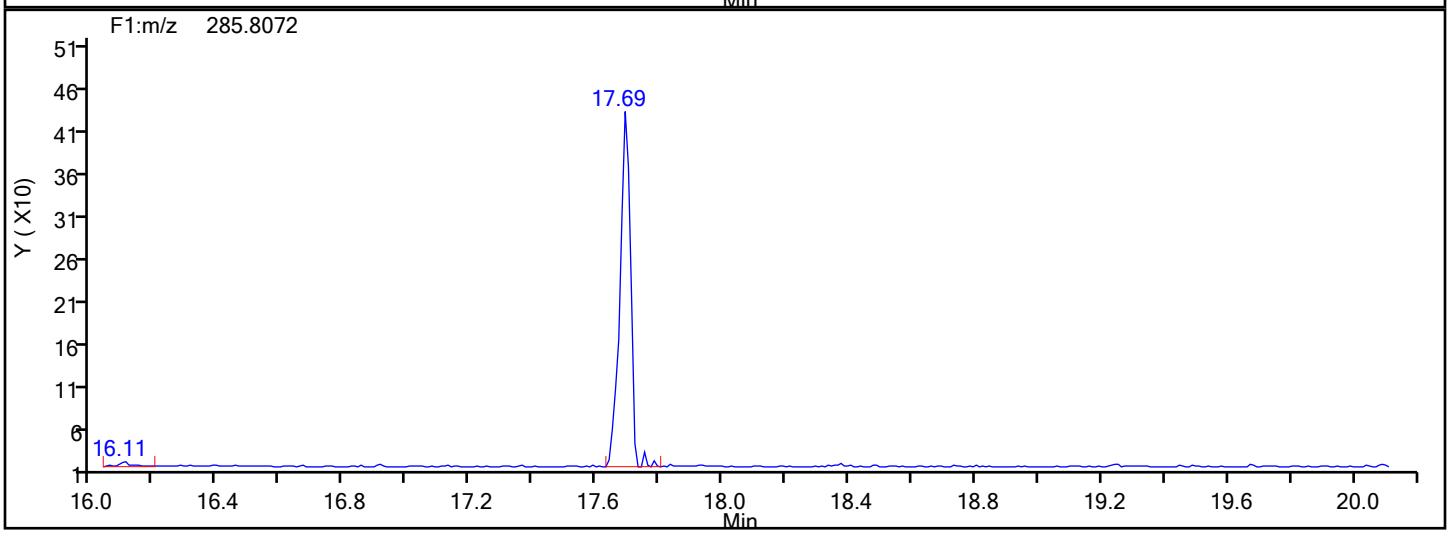
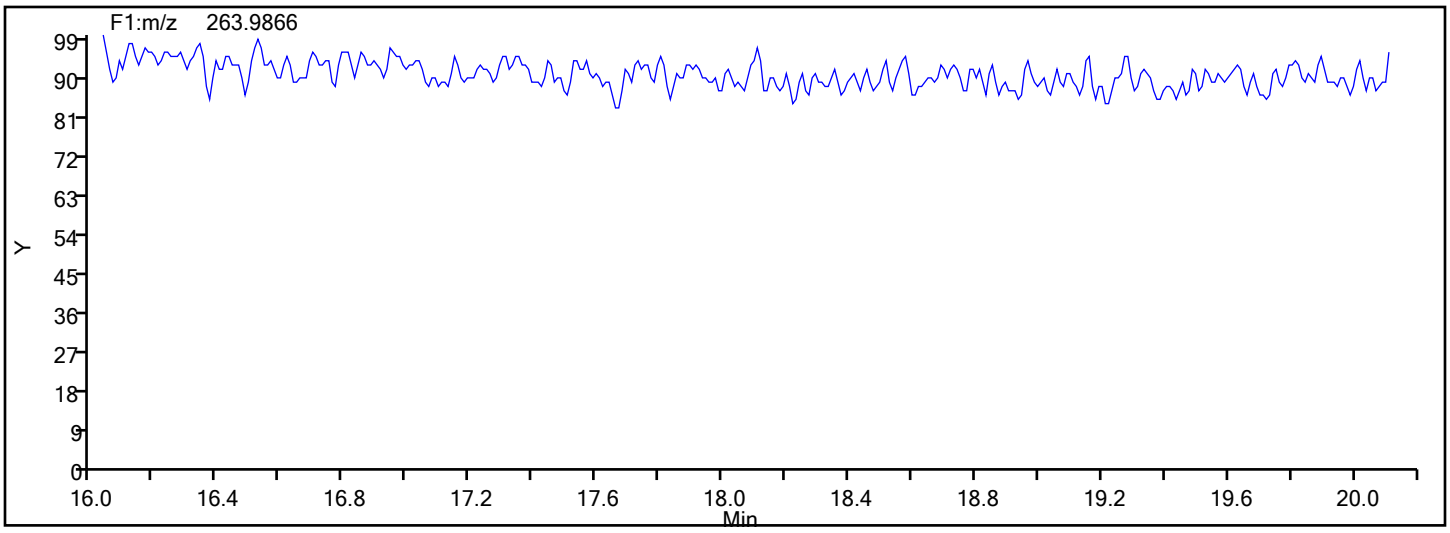
Column Type:	RTX-5	Column Dia:	0.32 mm

Hexachlorobenzene





Hexachlorobenzene Lock Mass



Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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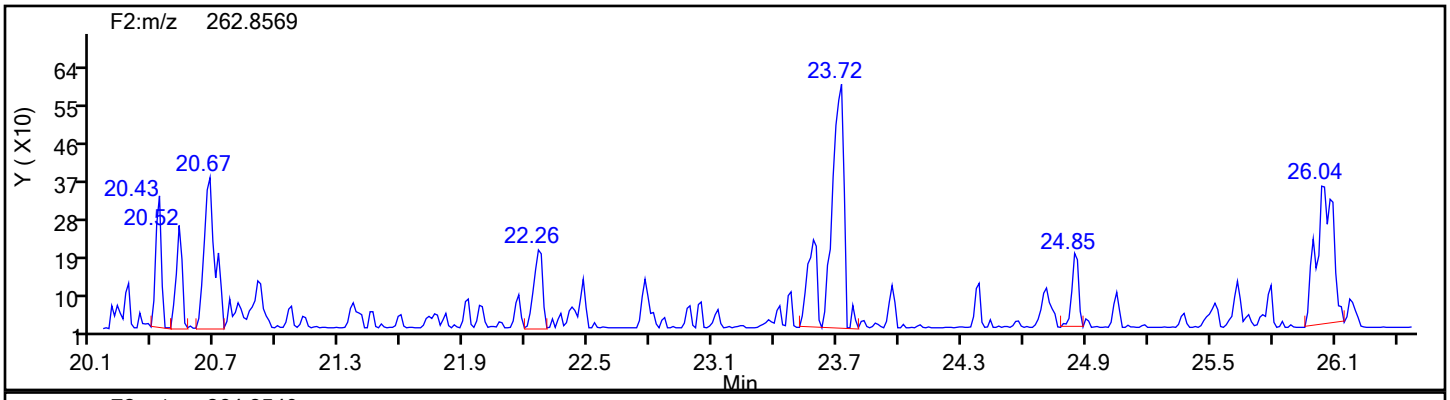
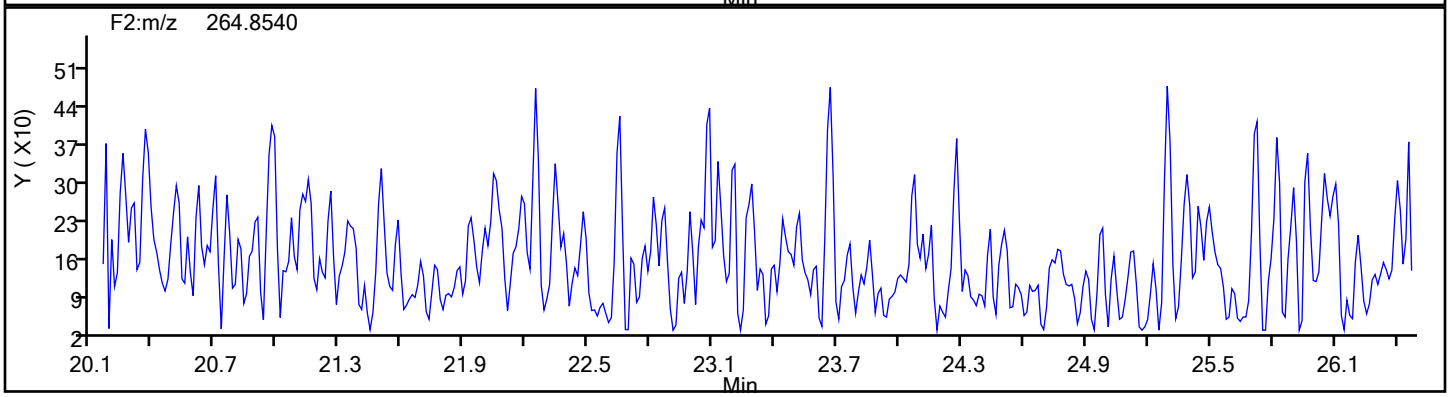
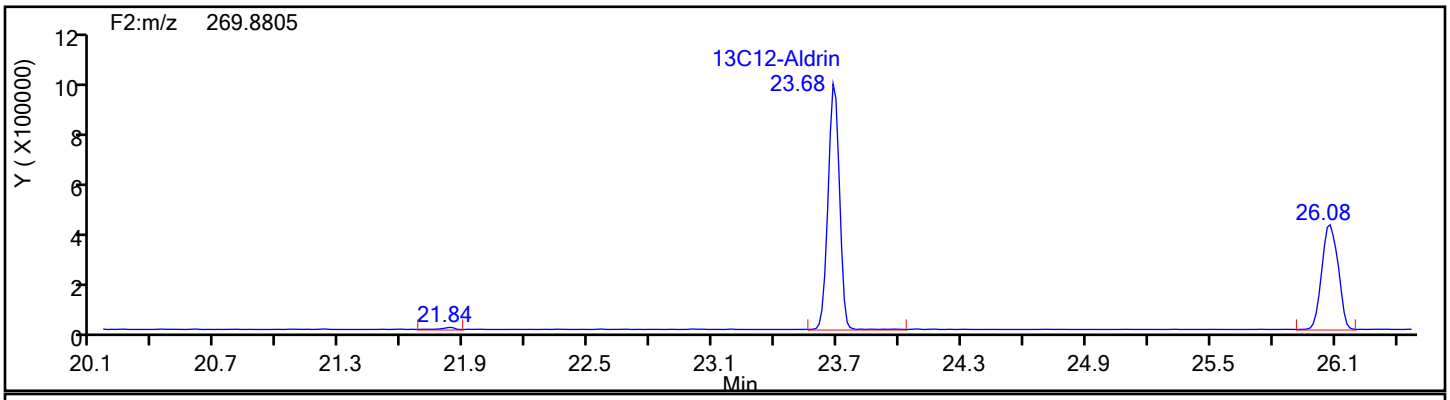
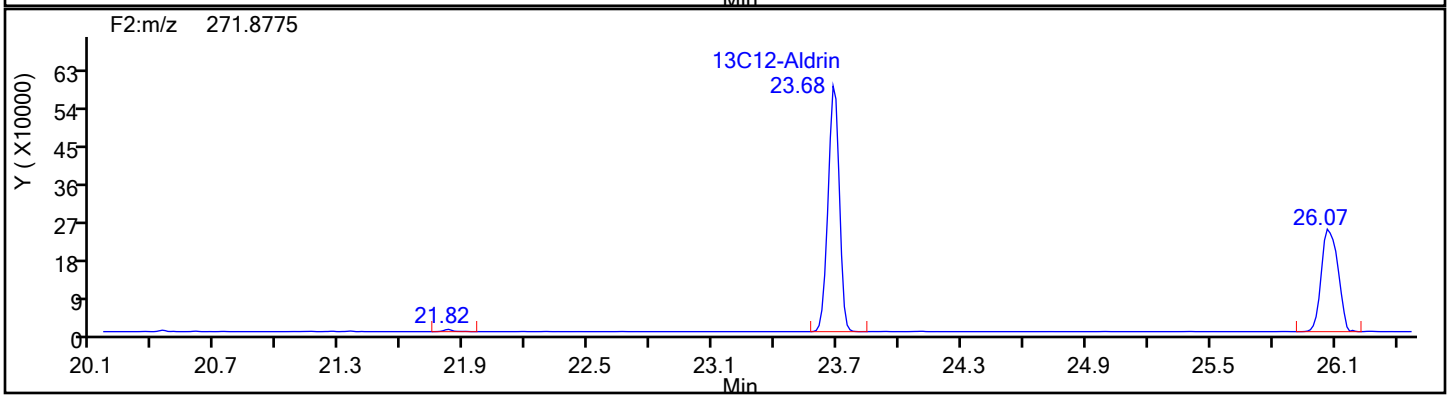
Aldrin





Aldrin Standards





Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
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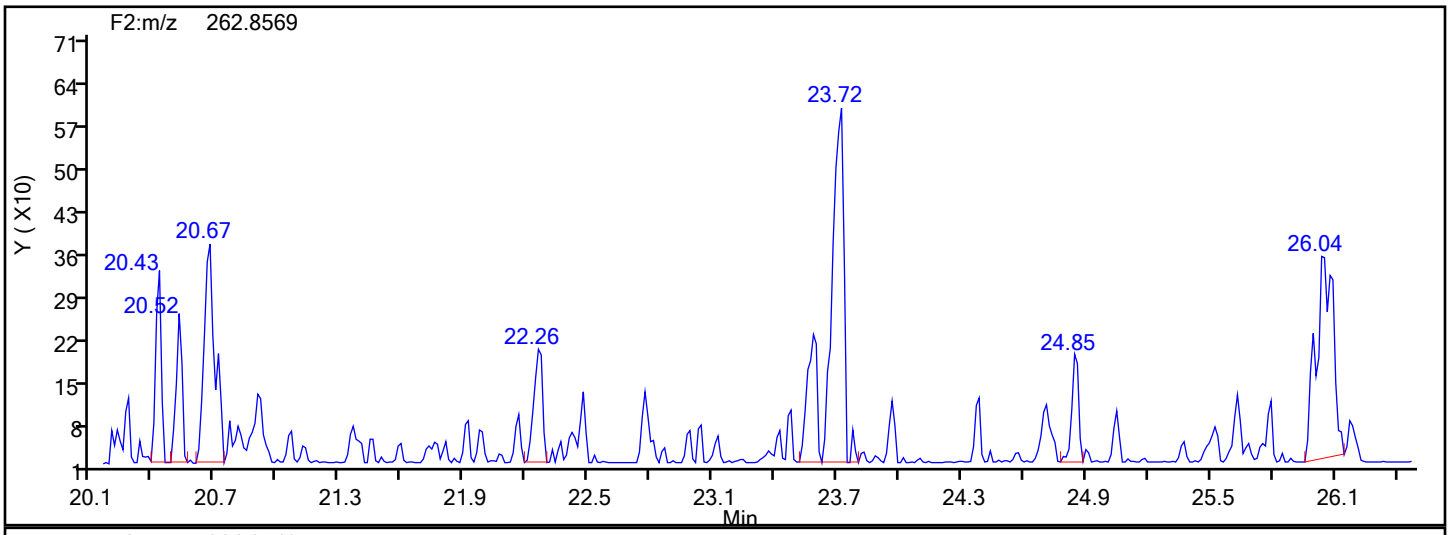
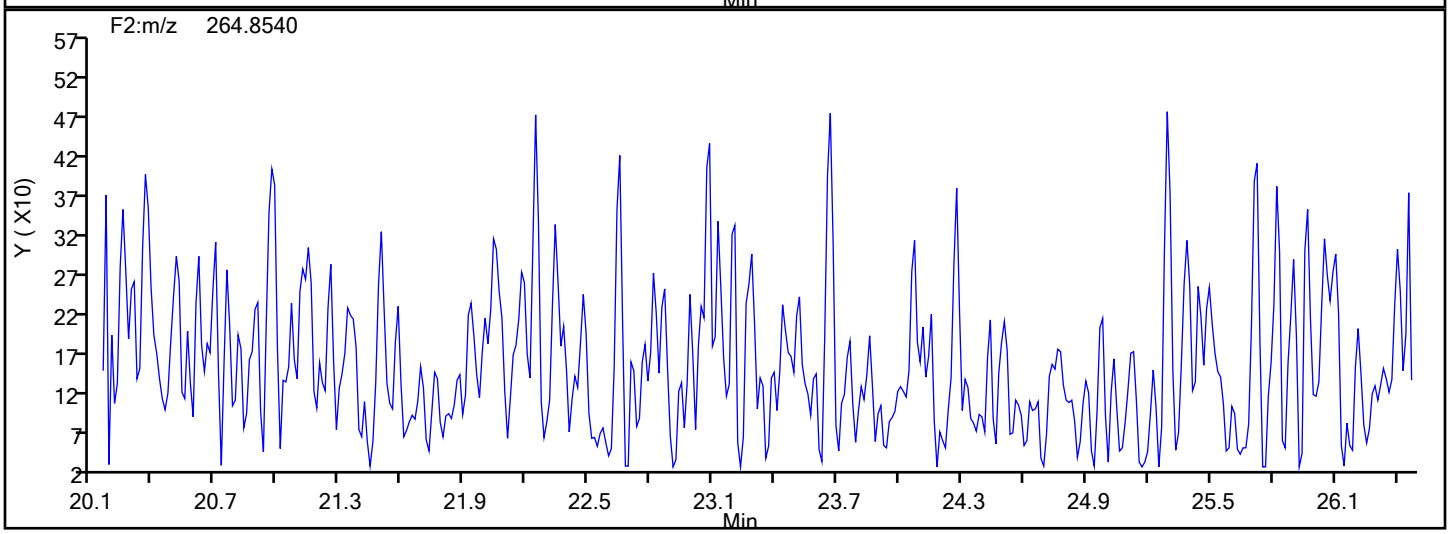
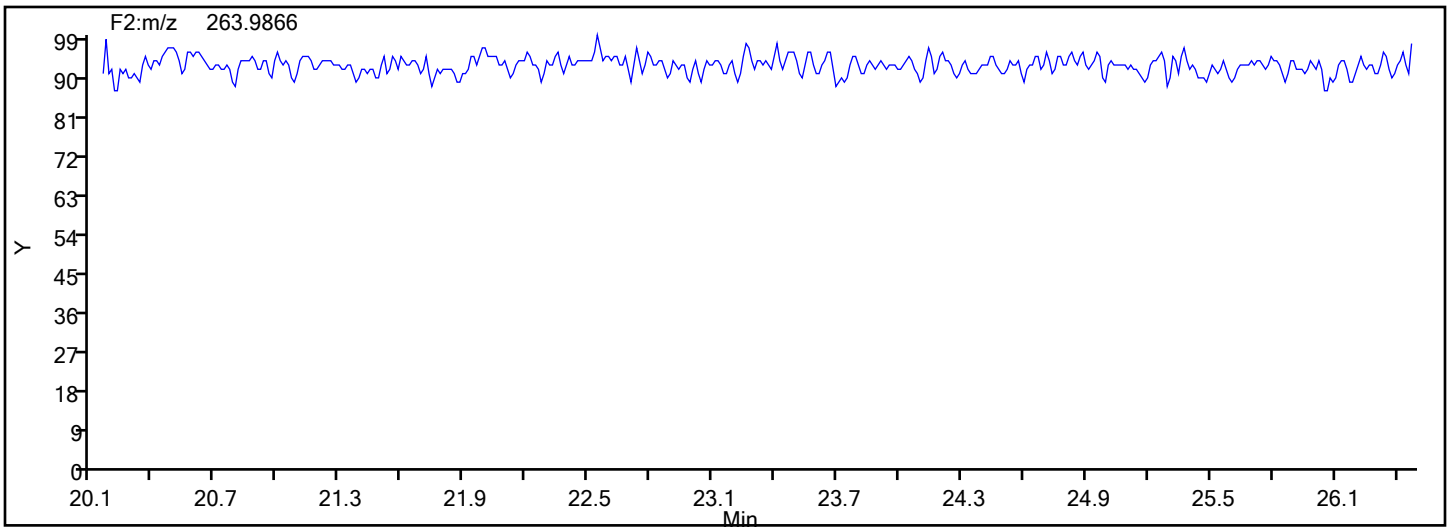
Aldrin





Aldrin Lock Mass



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Eurofins Knoxville

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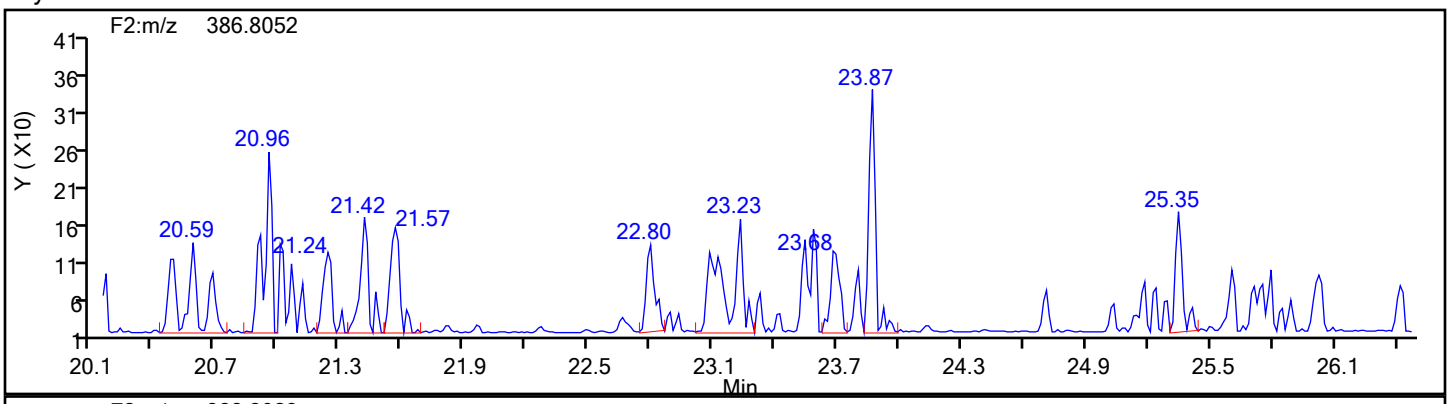
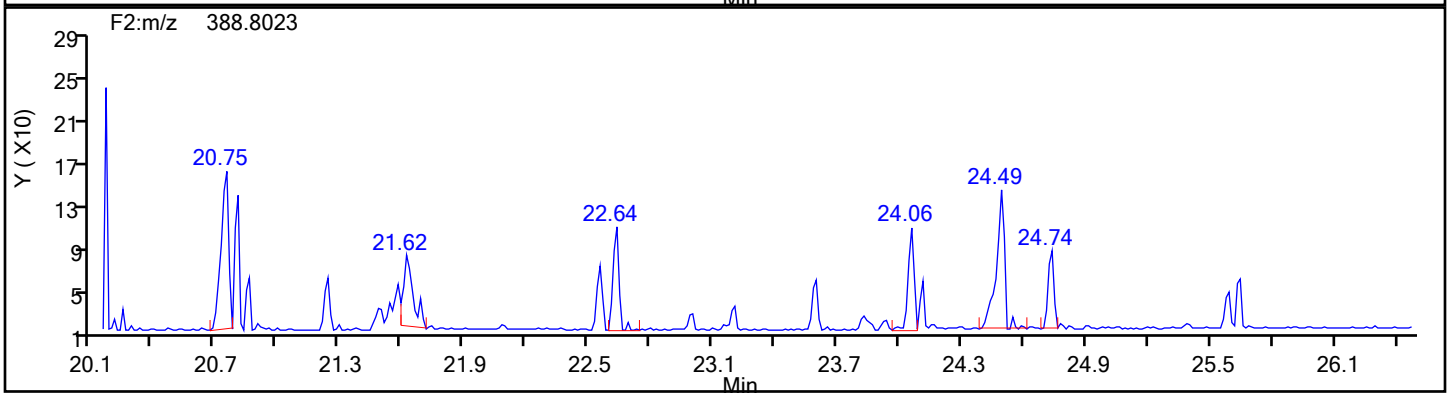
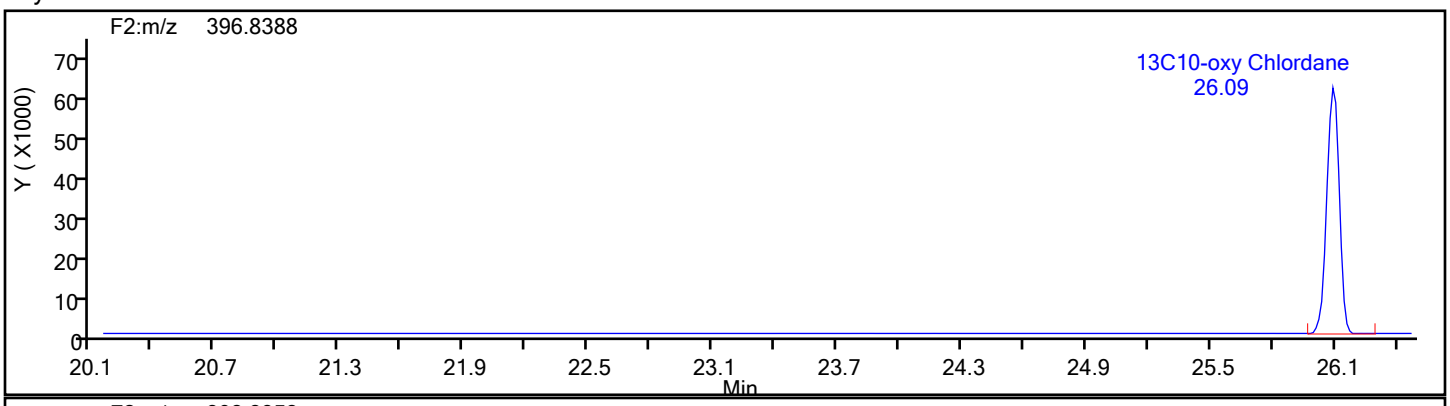
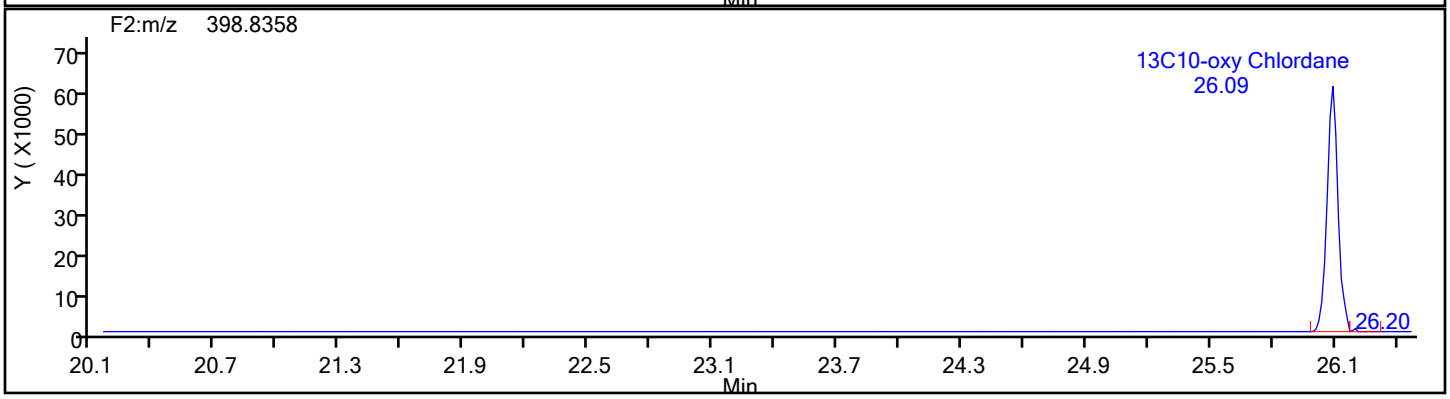
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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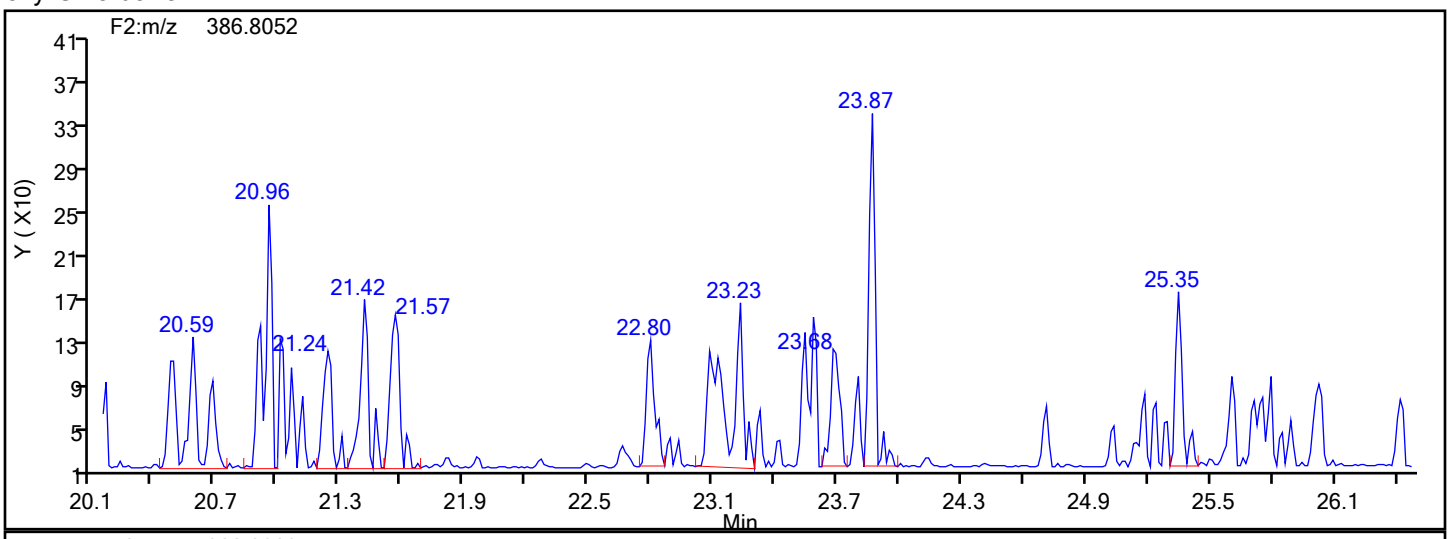
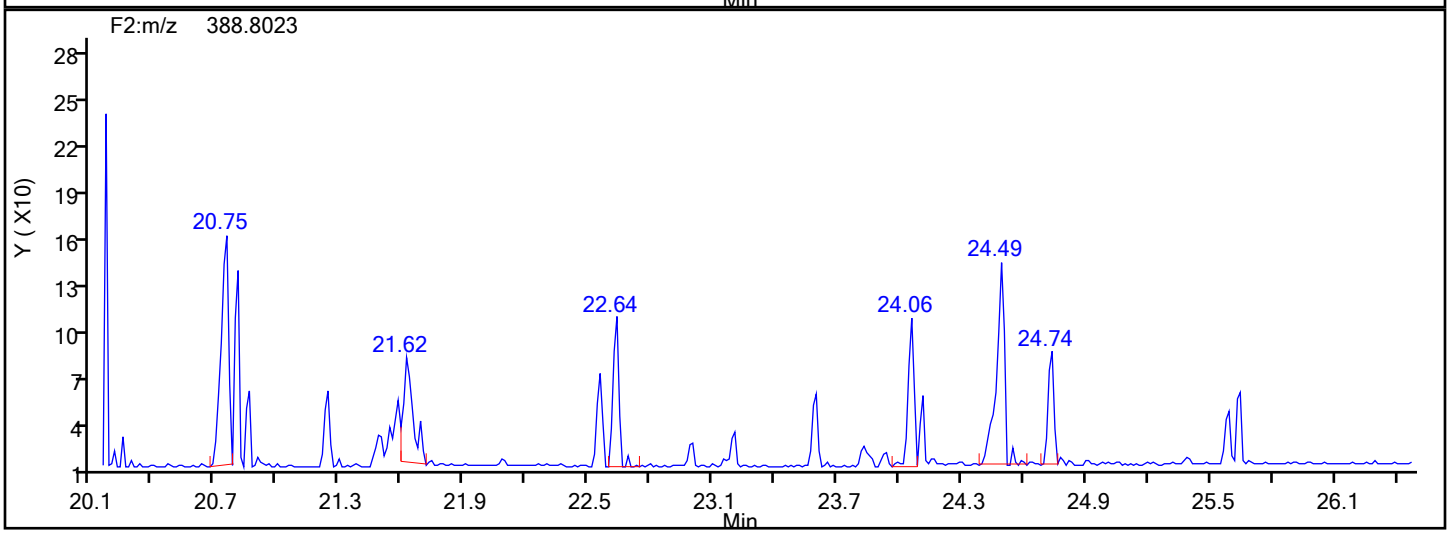
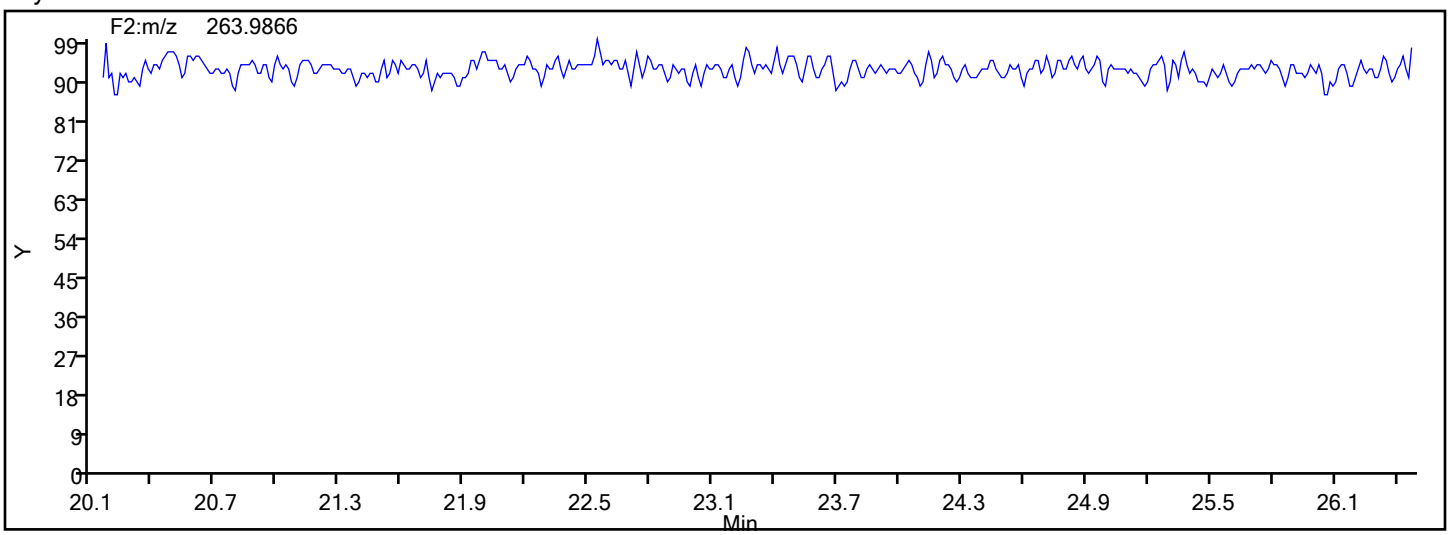
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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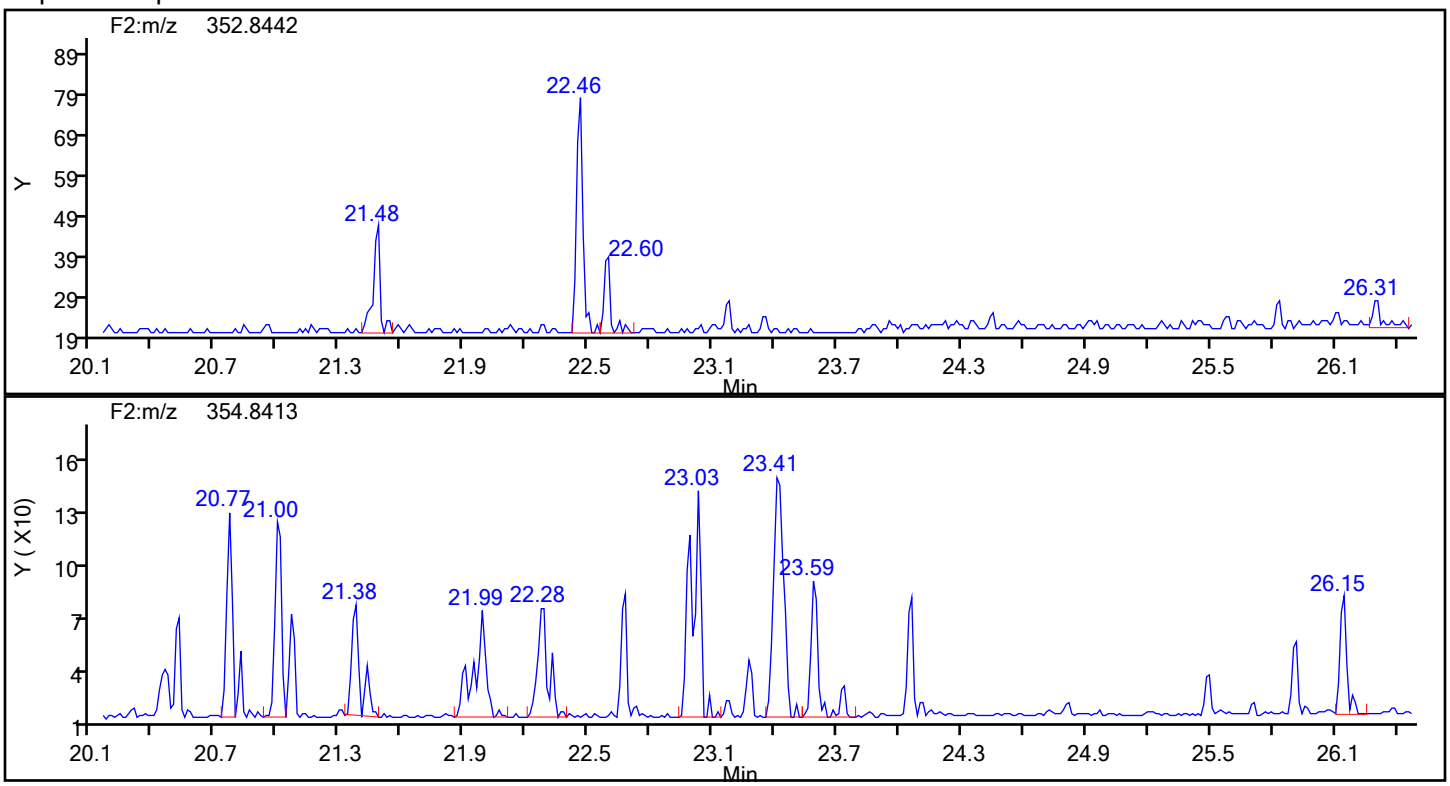
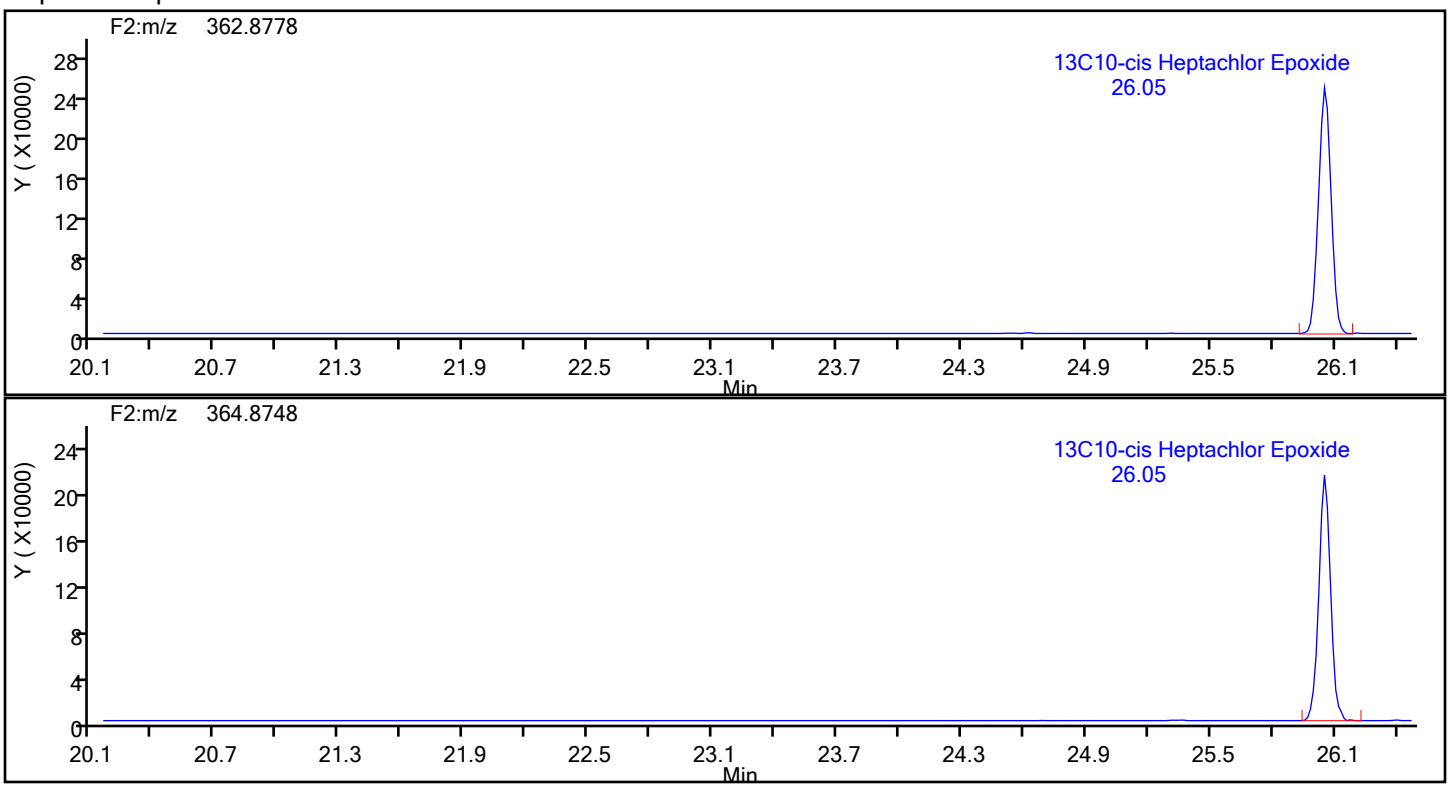
Heptachlor epoxide



Heptachlor epoxide Standards



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Eurofins Knoxville

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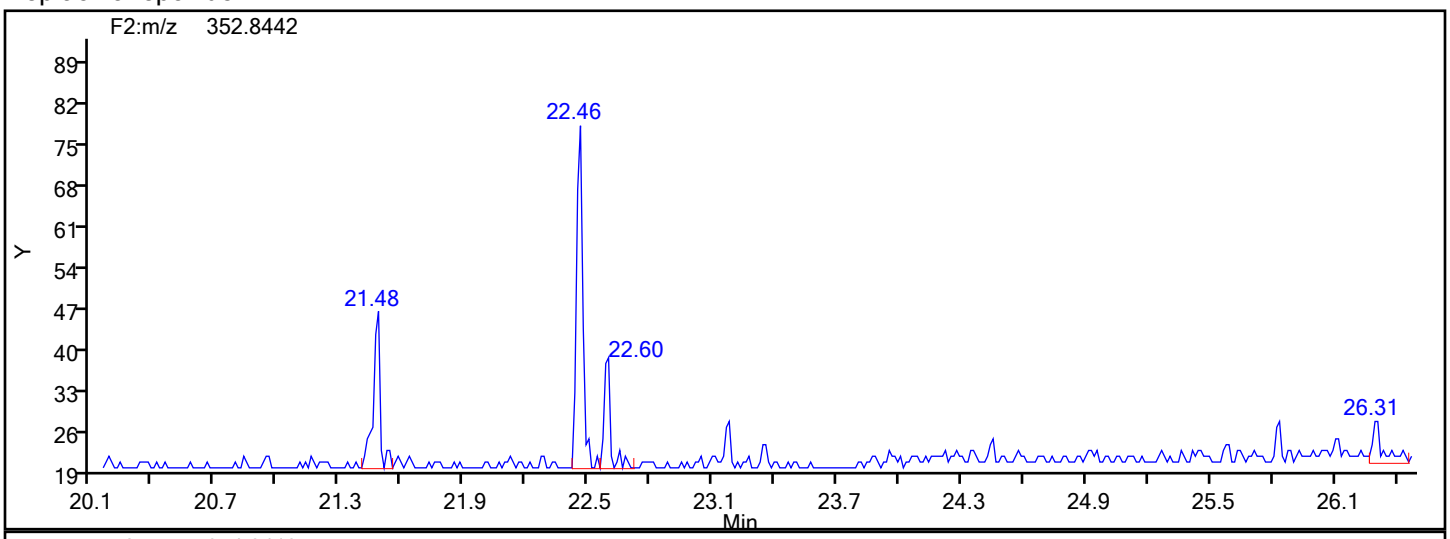
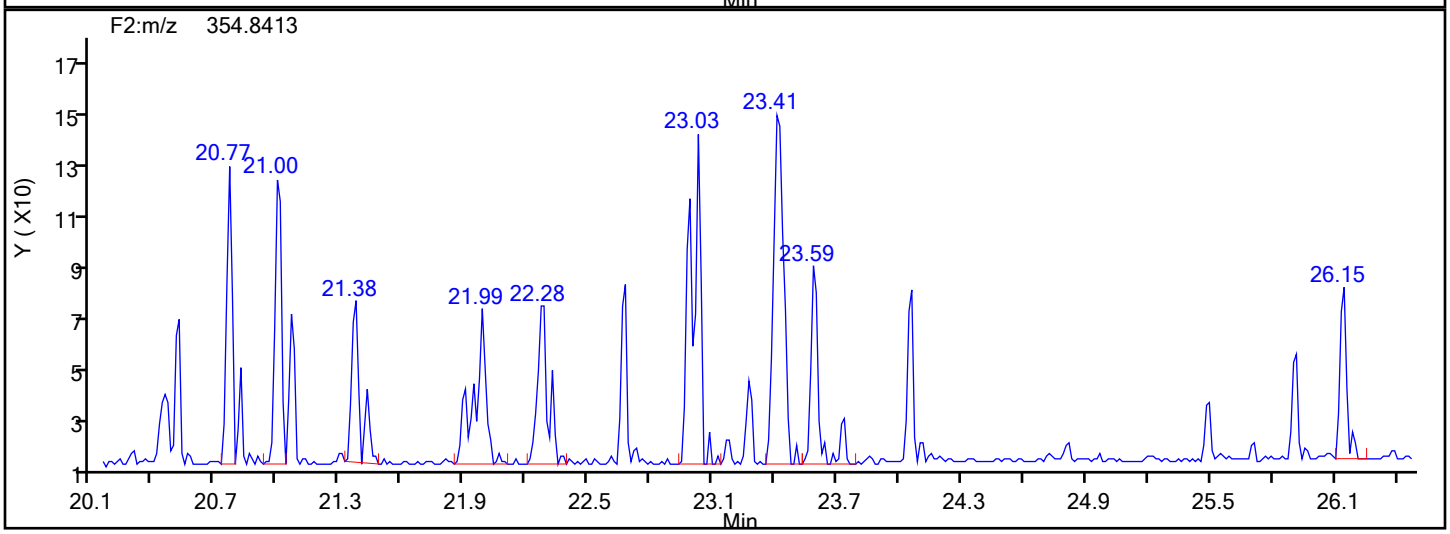
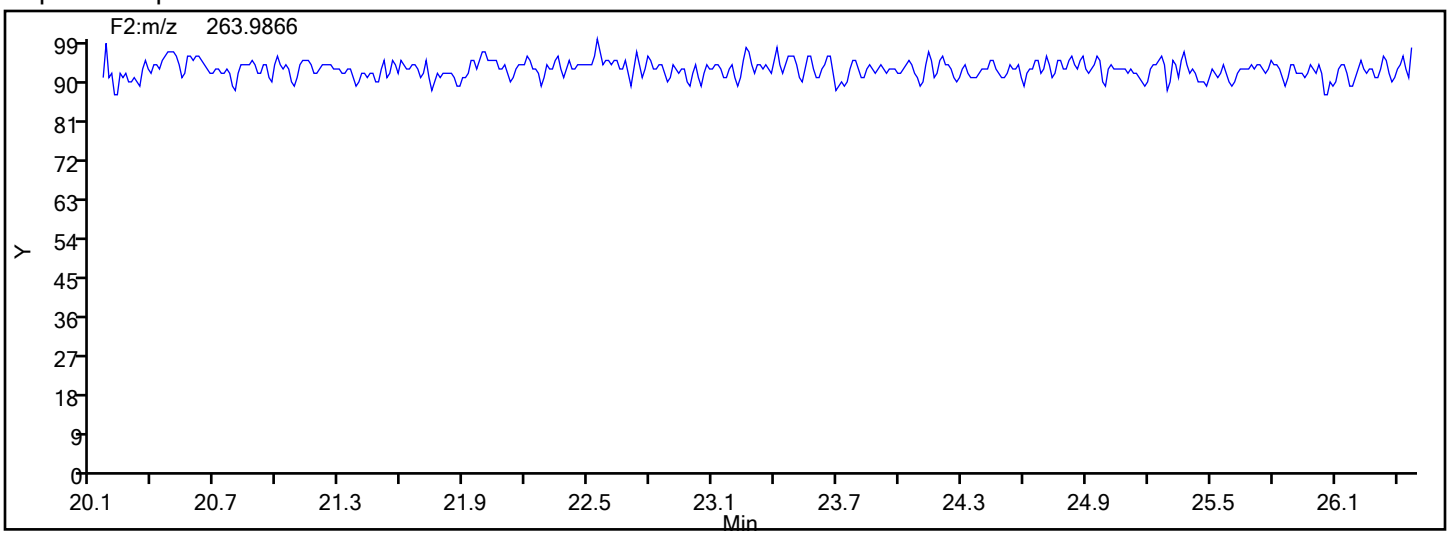
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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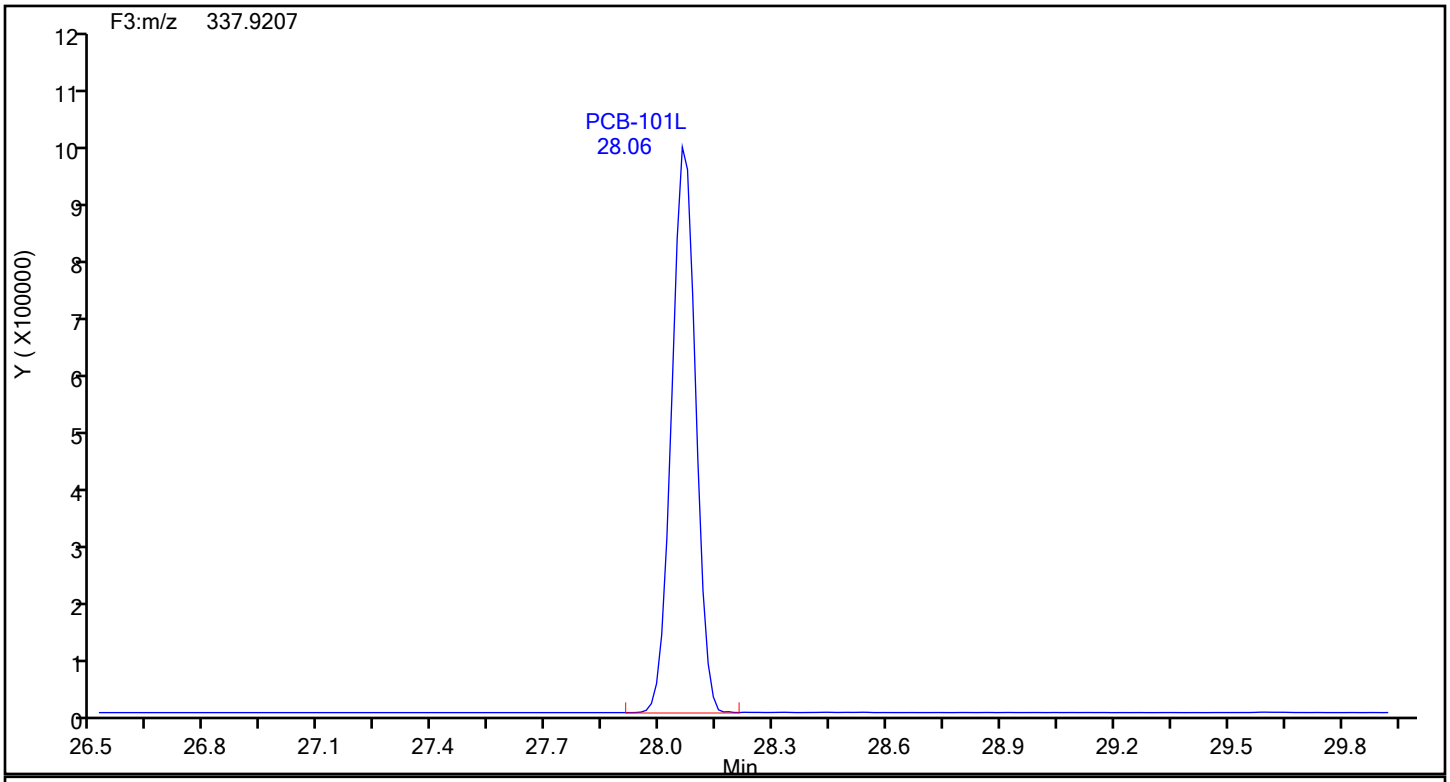
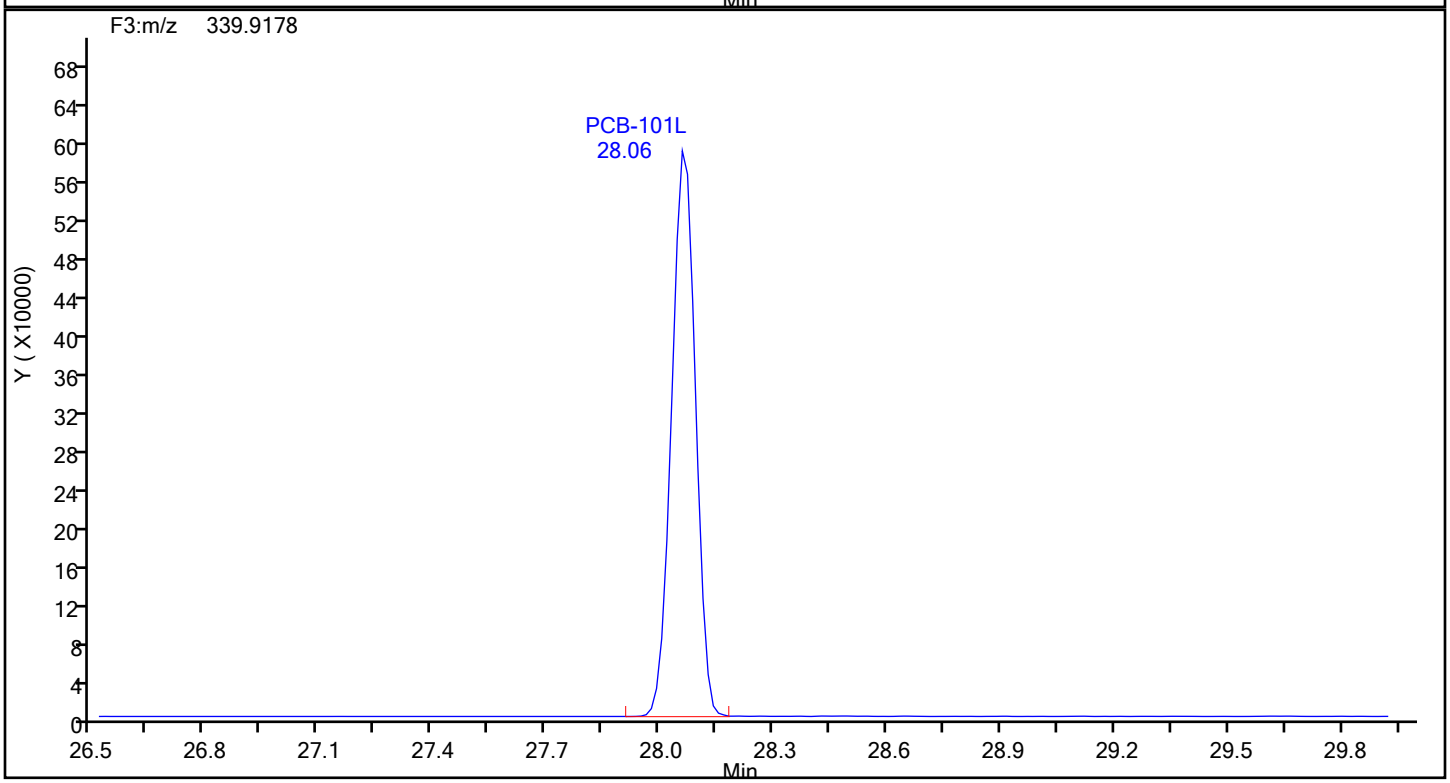
PCB-101L Standards





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Eurofins Knoxville

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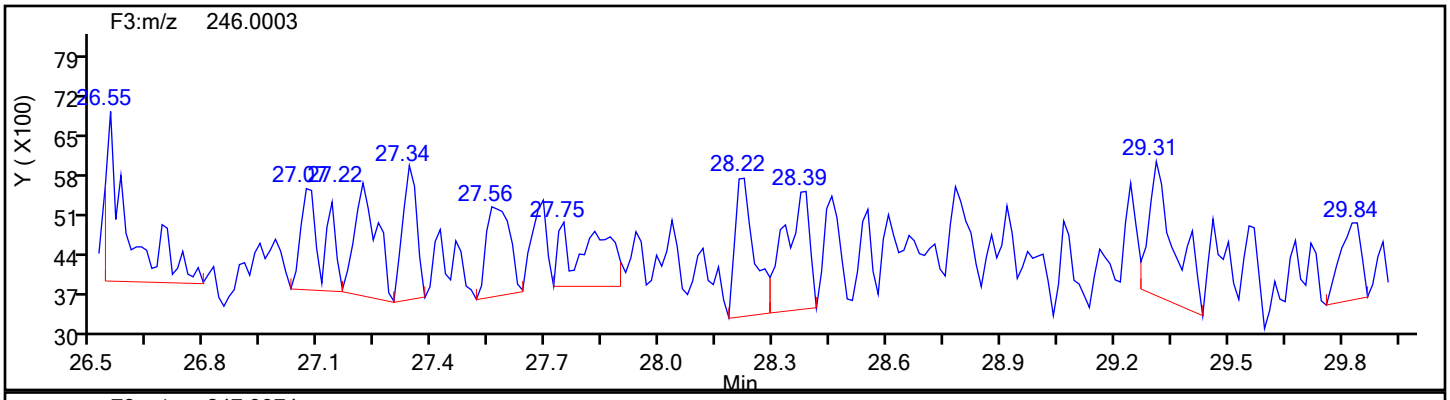
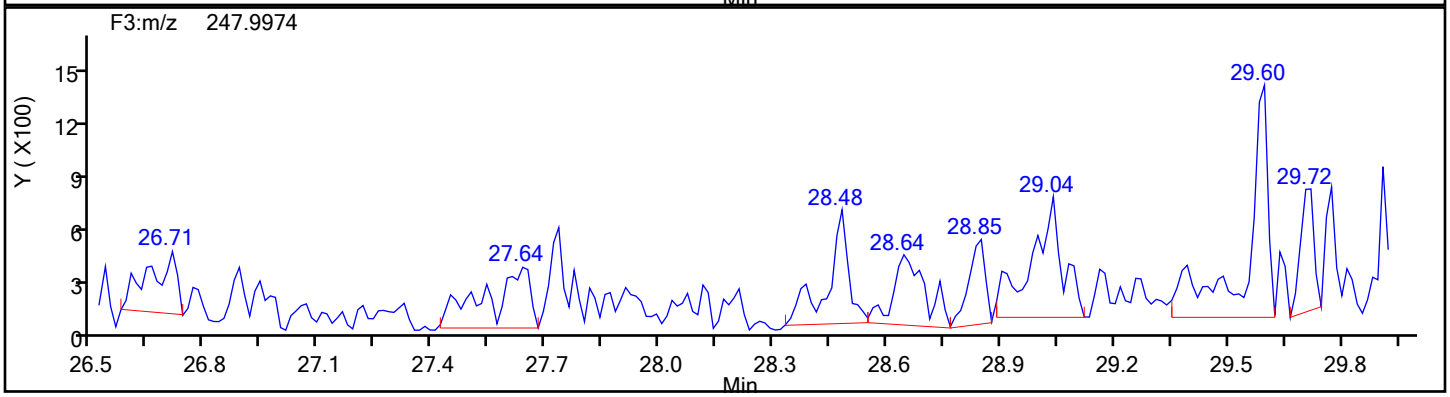
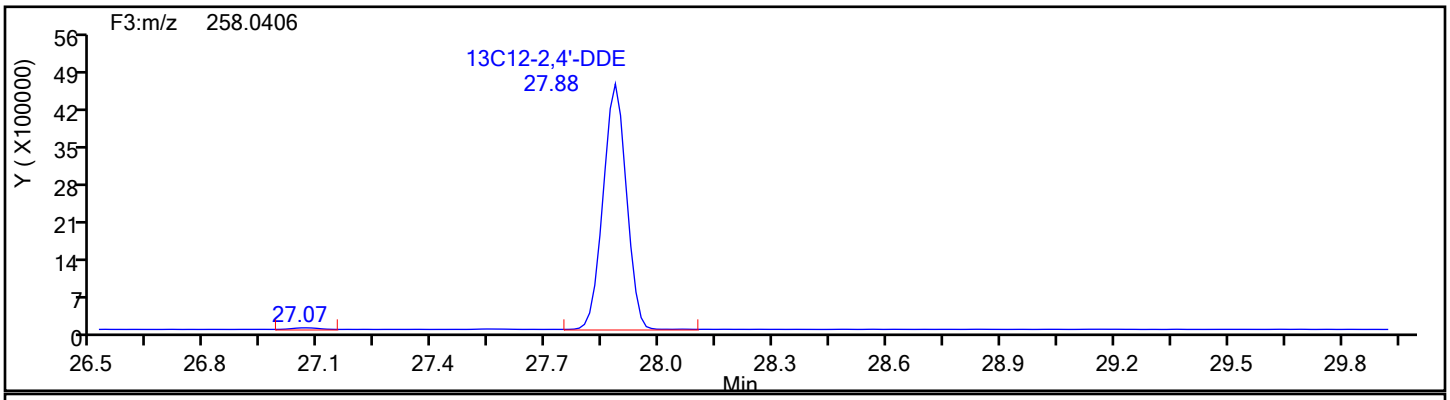
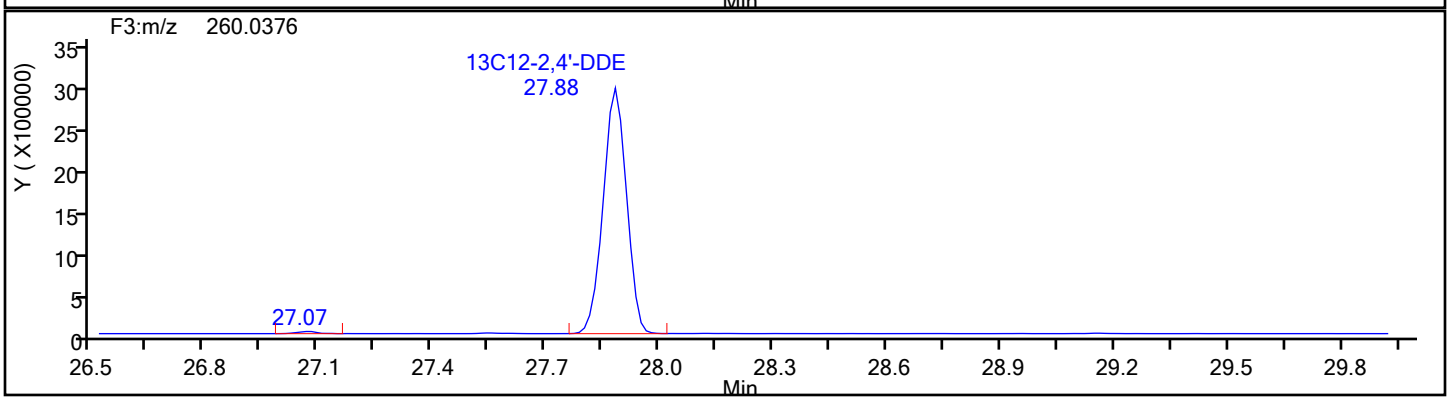
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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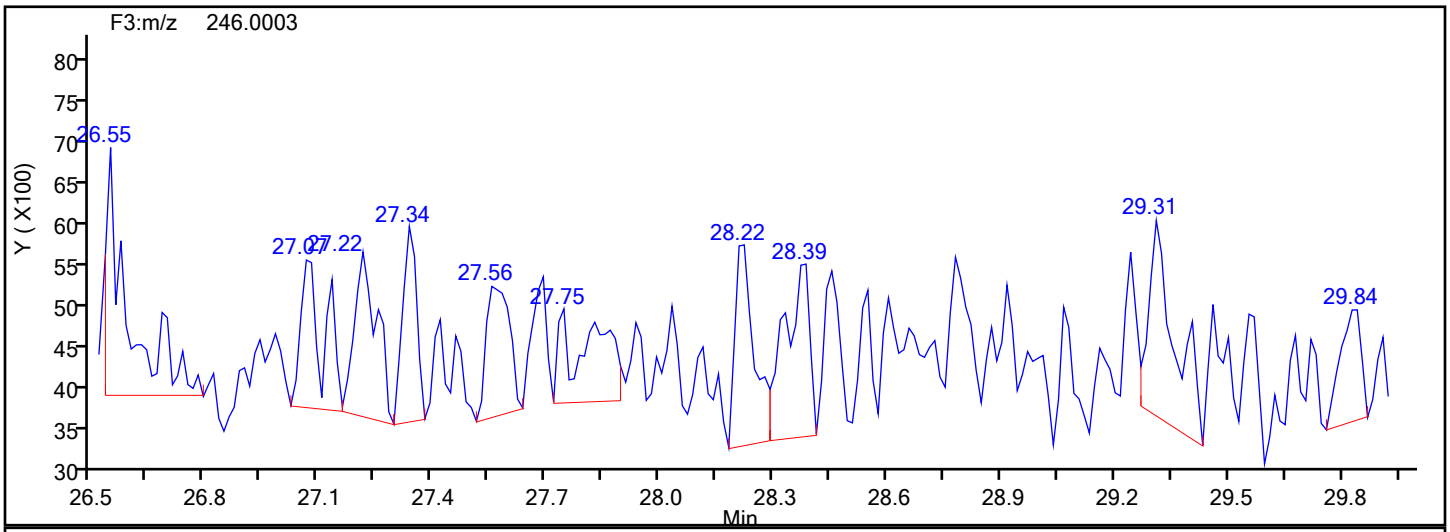
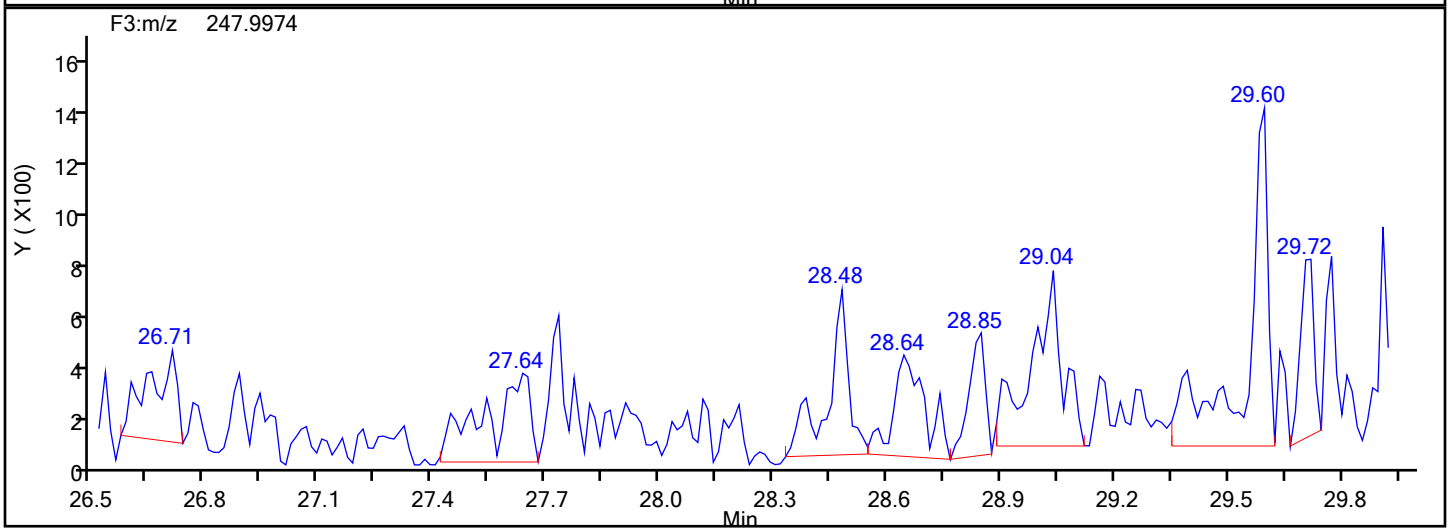
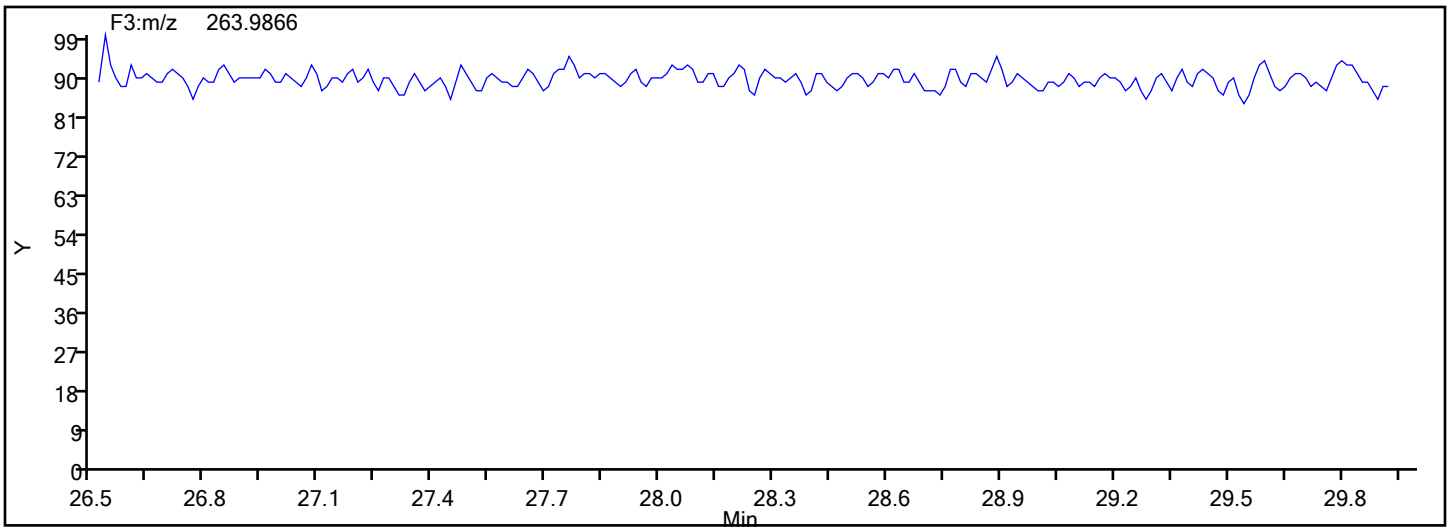
2,4'-DDE





2,4'-DDE Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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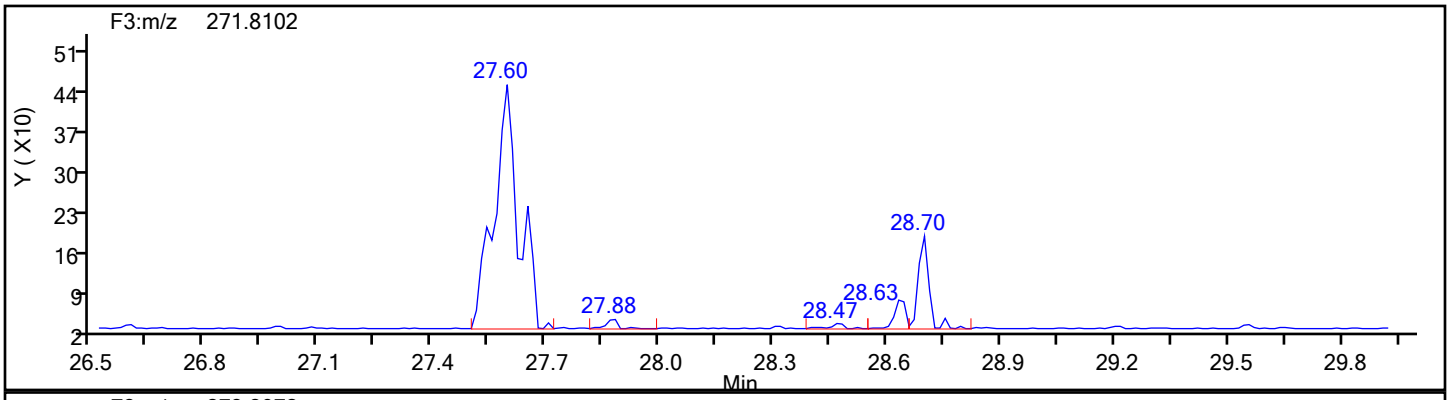
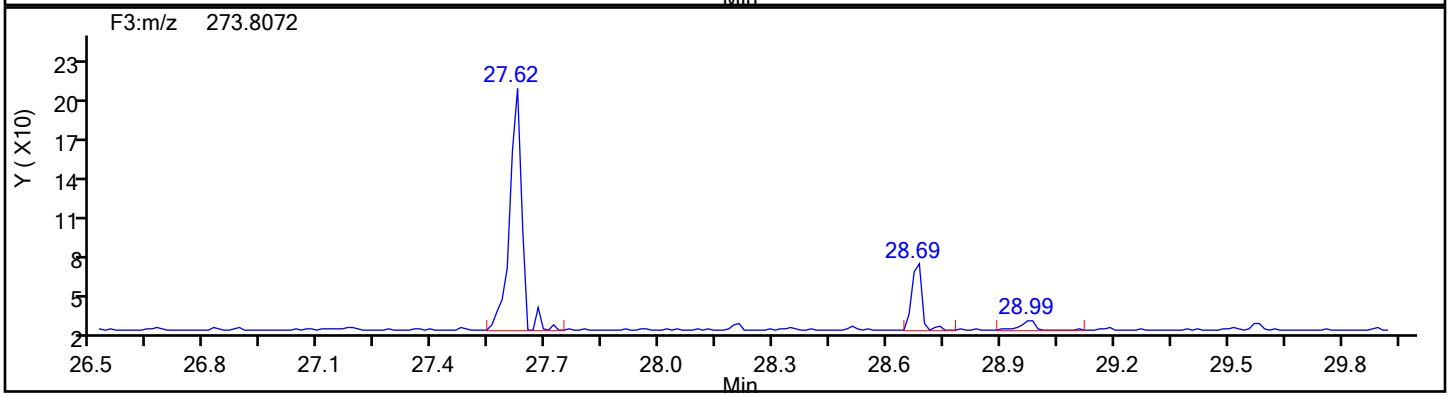
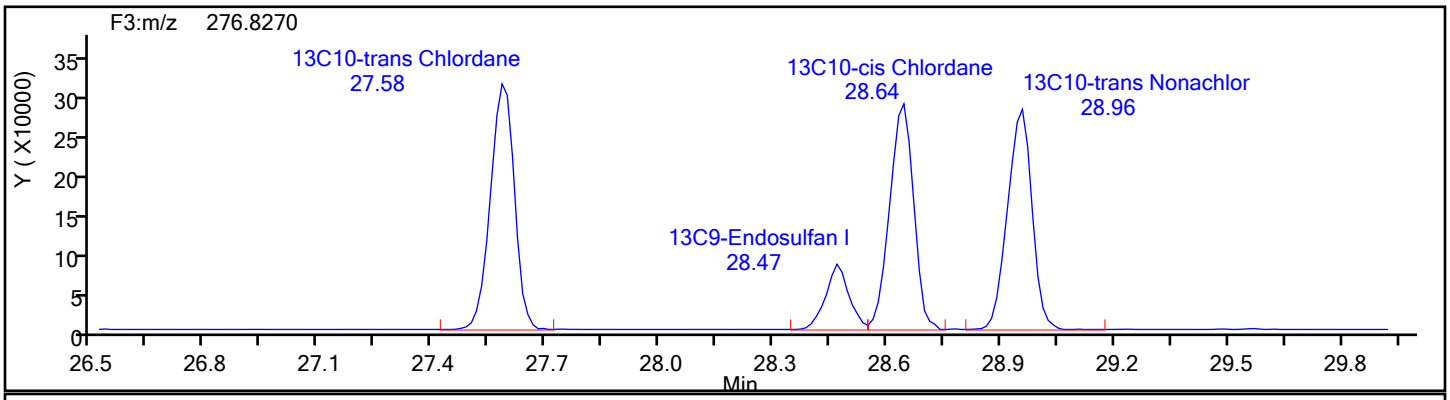
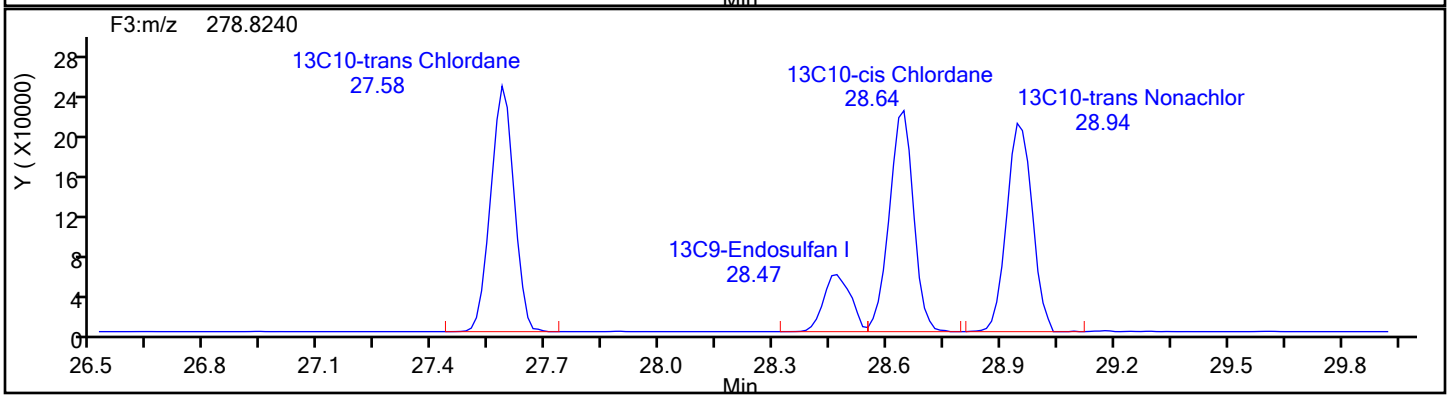
Chlordane





Chlordane Standards





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Eurofins Knoxville

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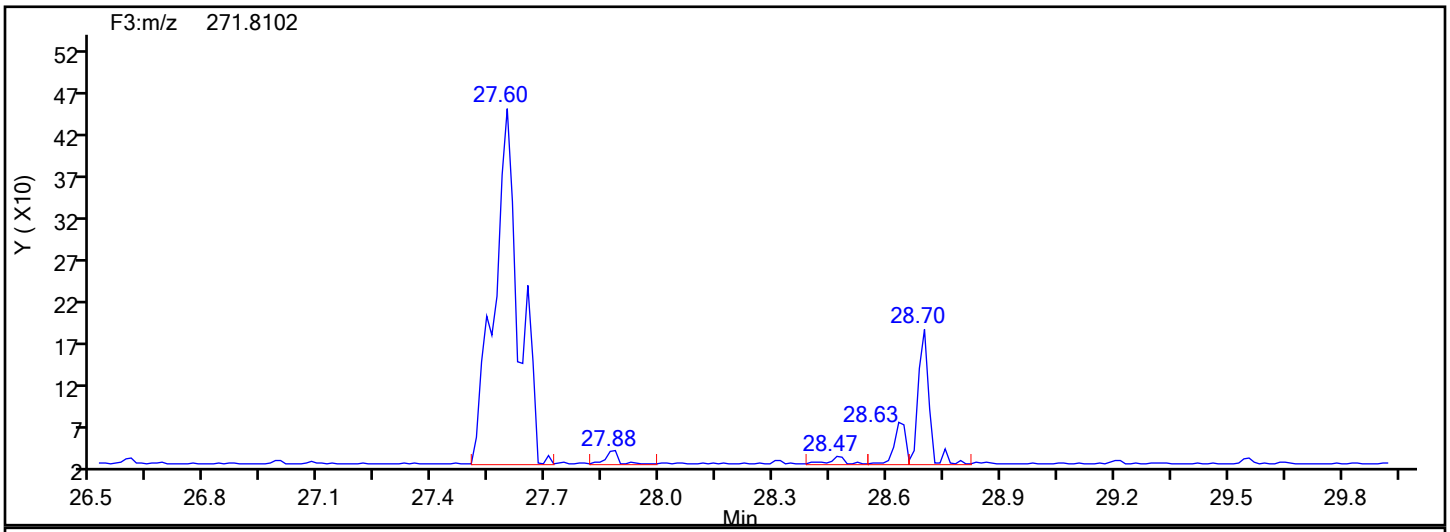
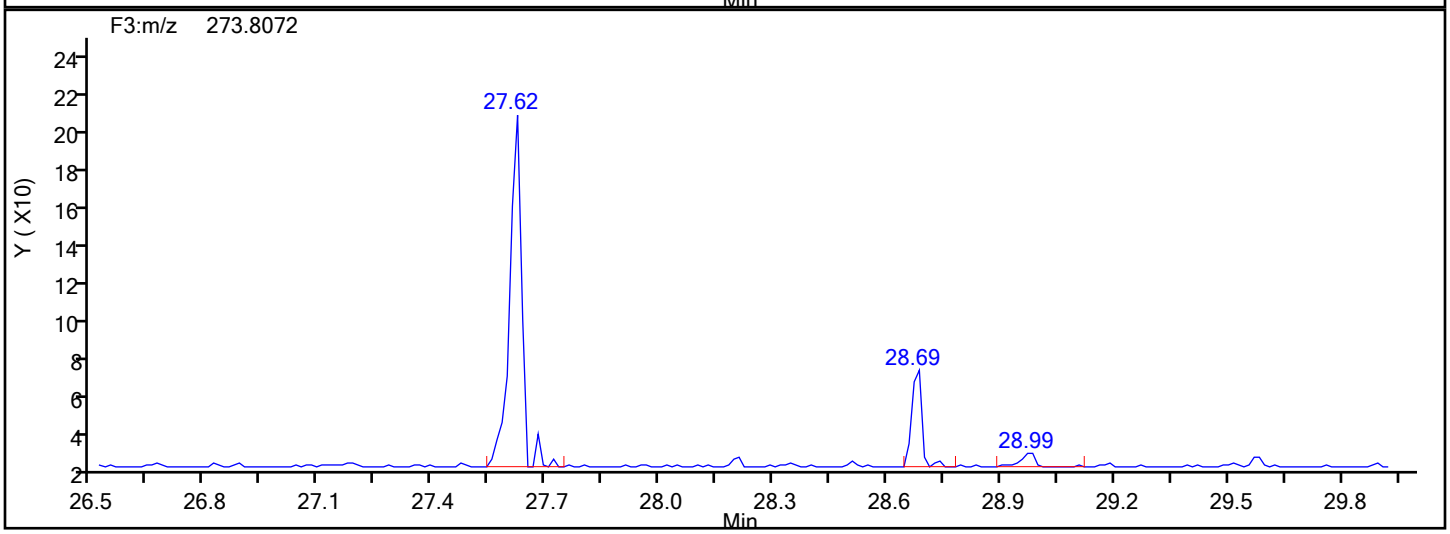
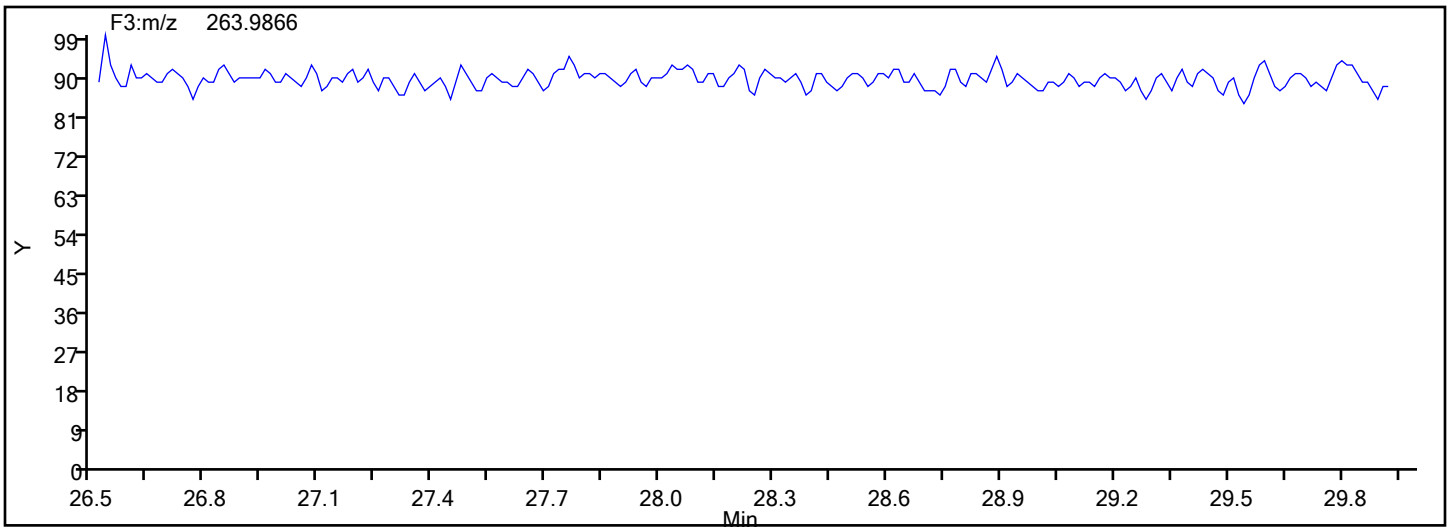
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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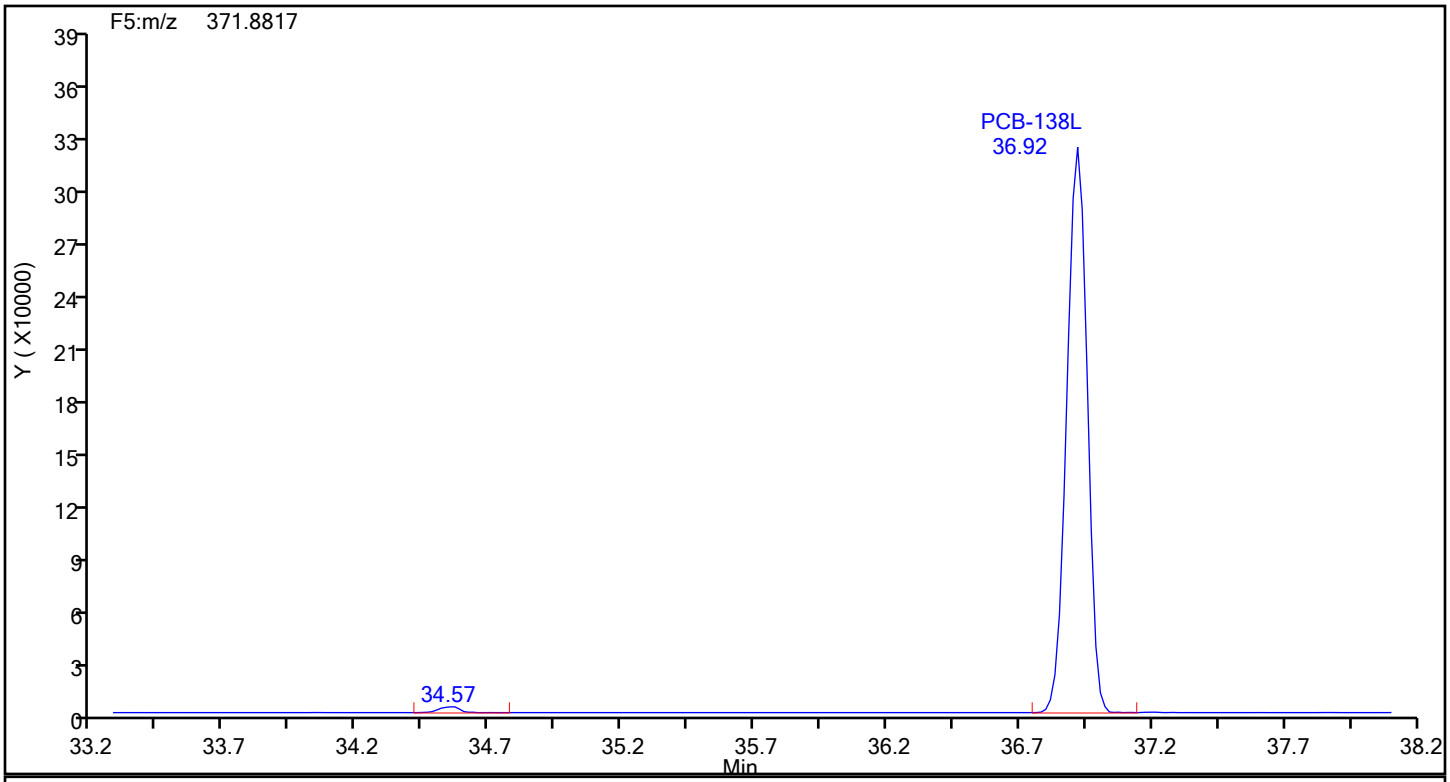
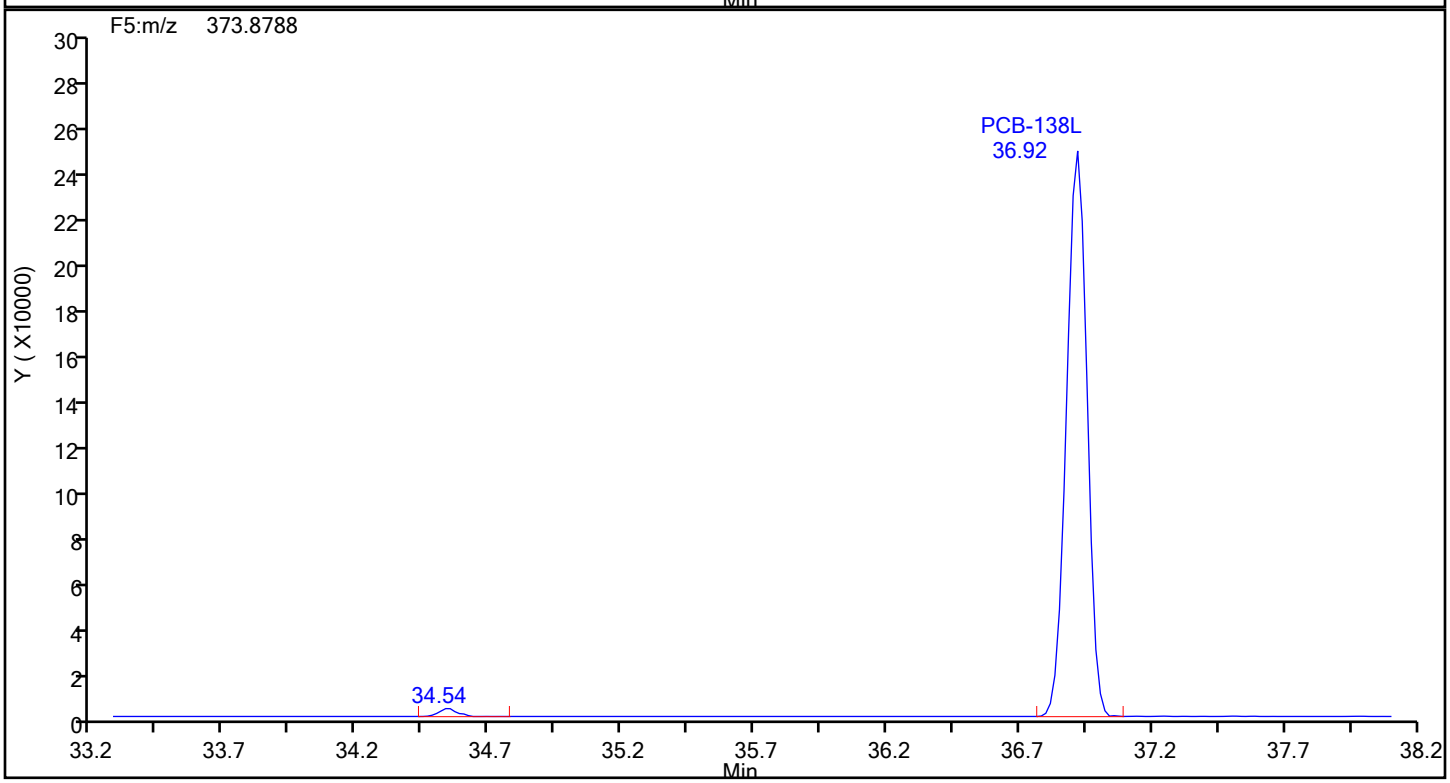
PCB-138L Standards





Report Date: 05-May-2025 23:04:44 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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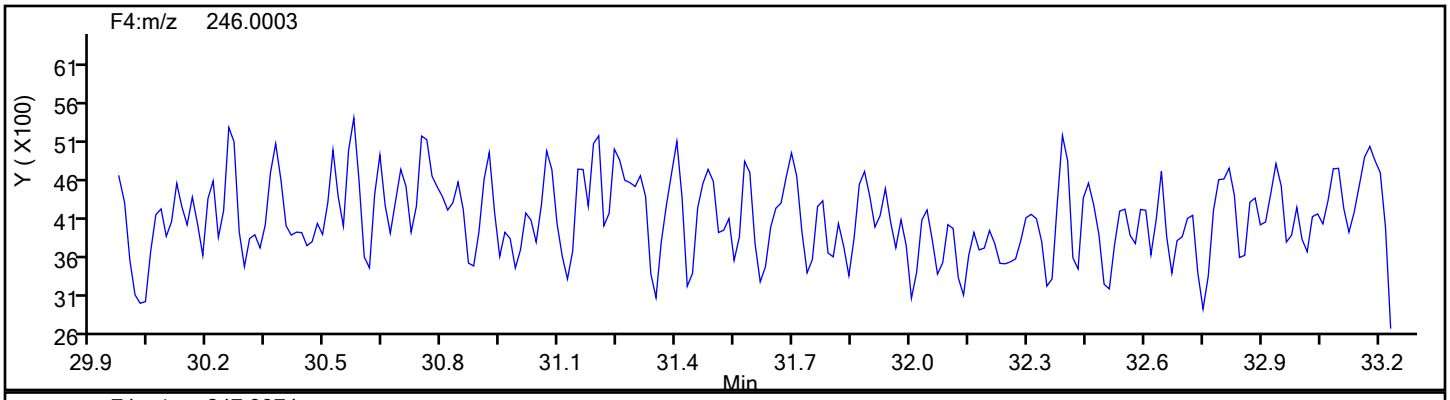
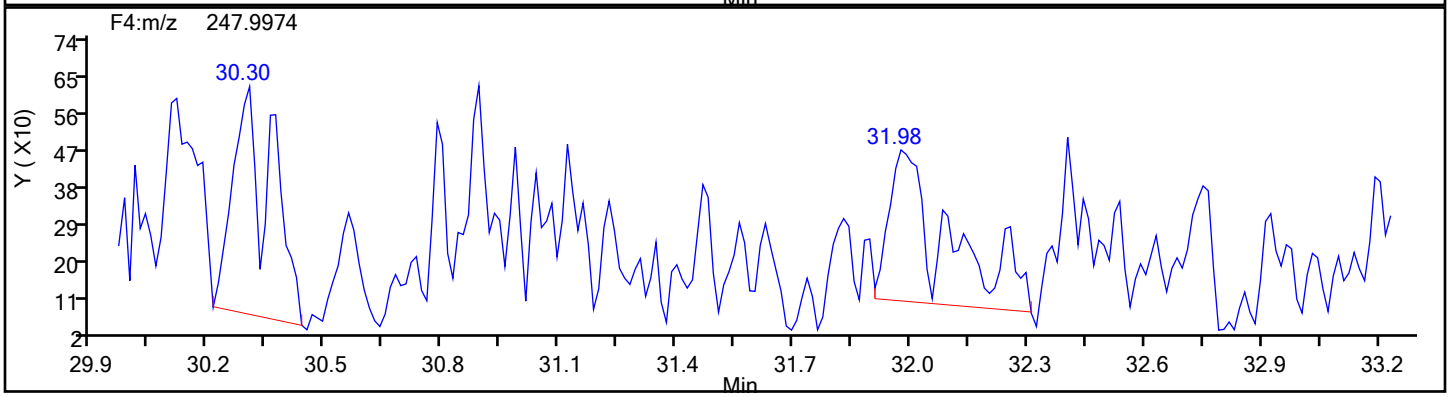
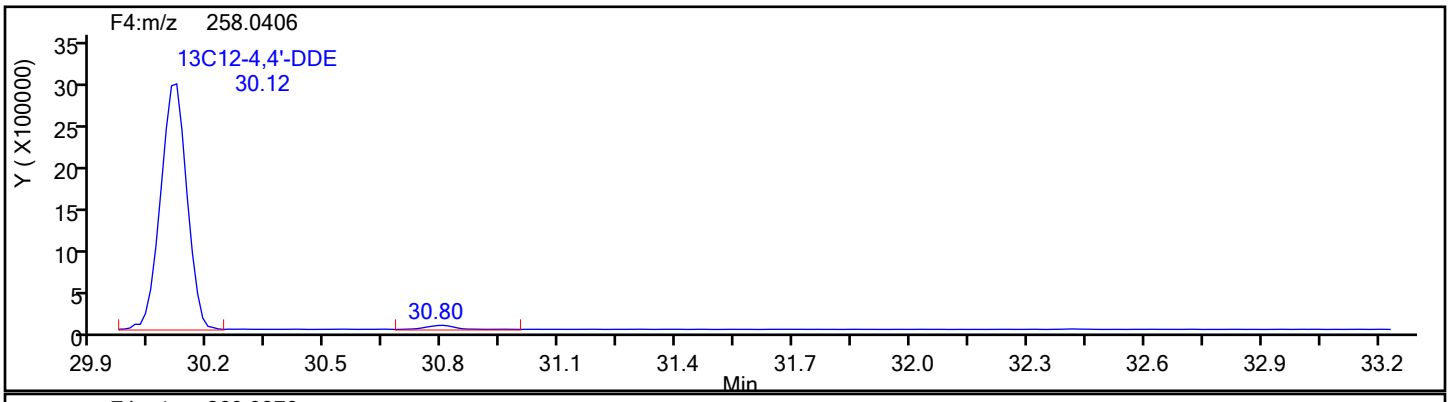
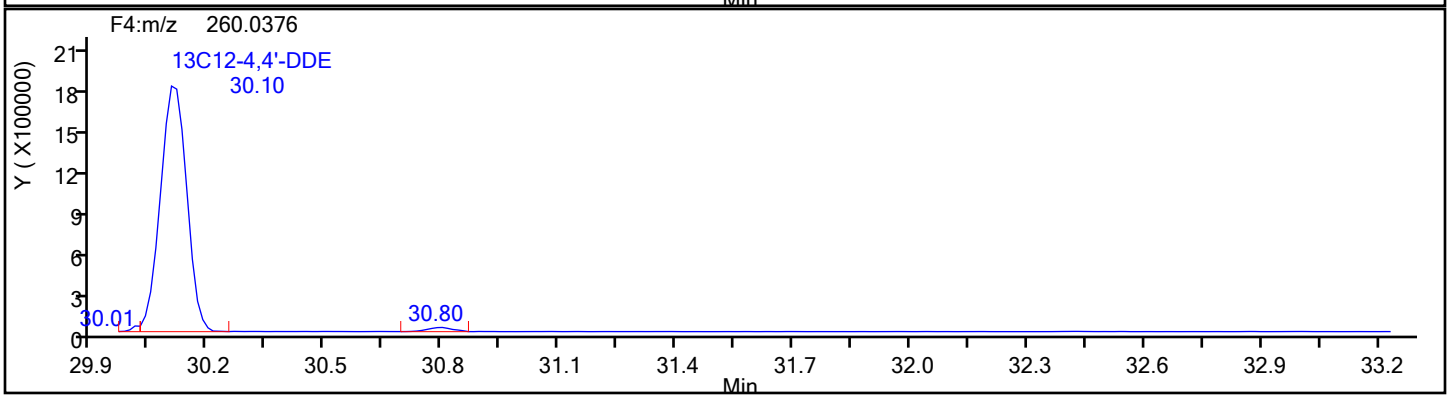
4,4'-DDE





4,4'-DDE Standards





Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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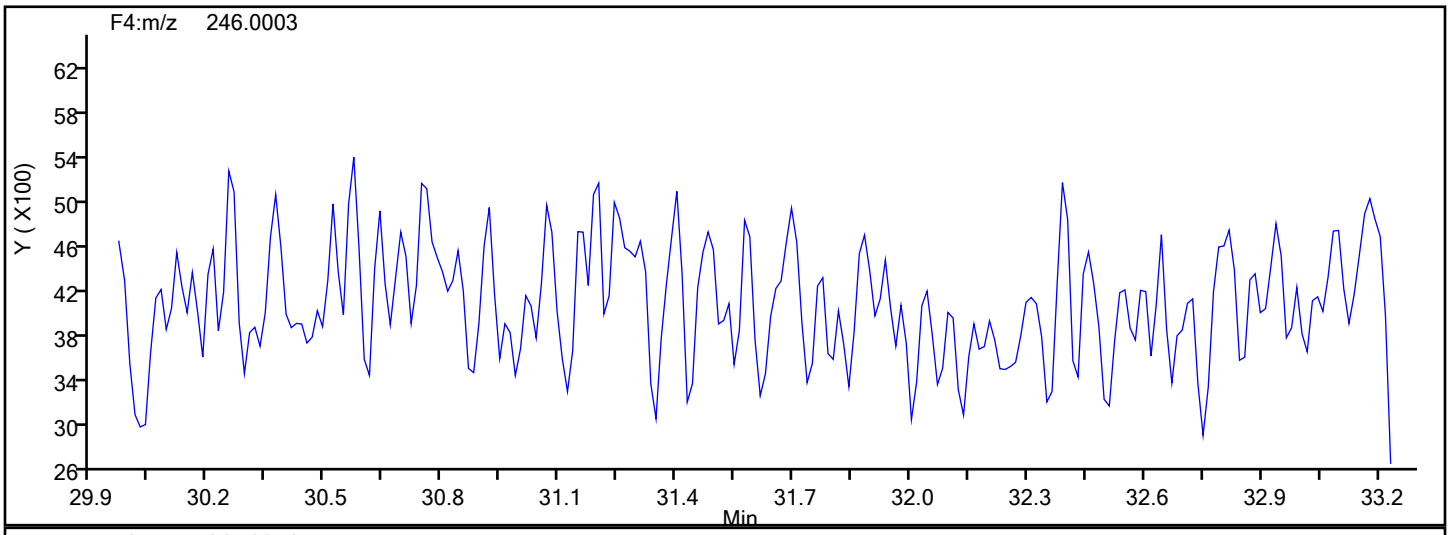

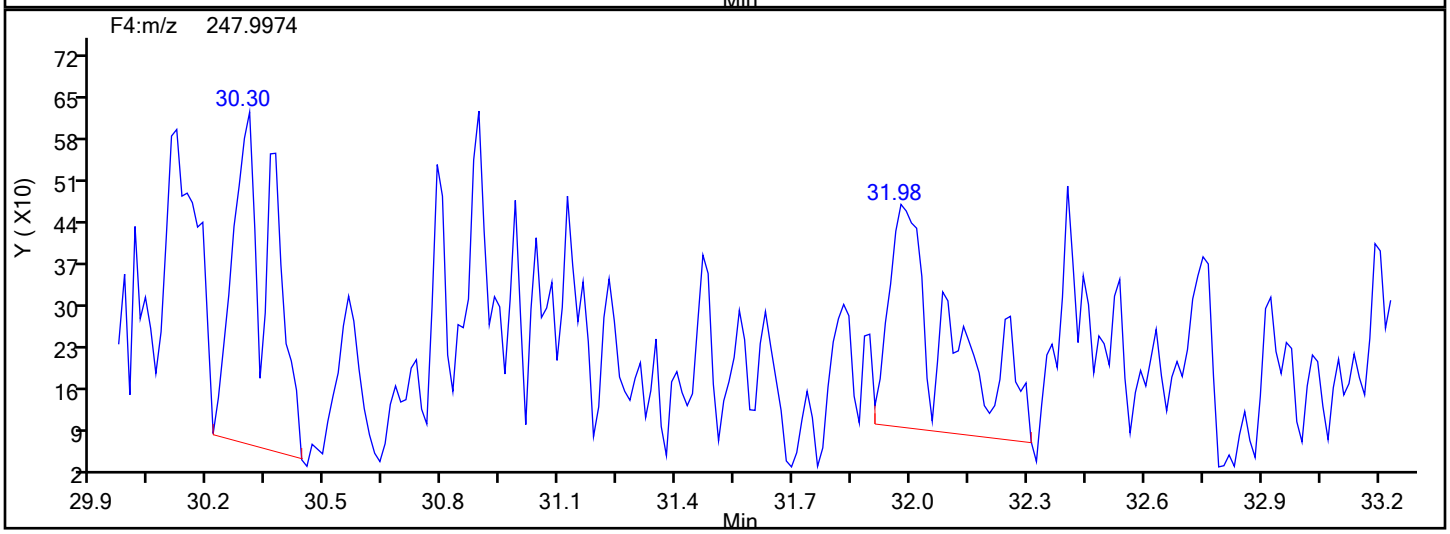

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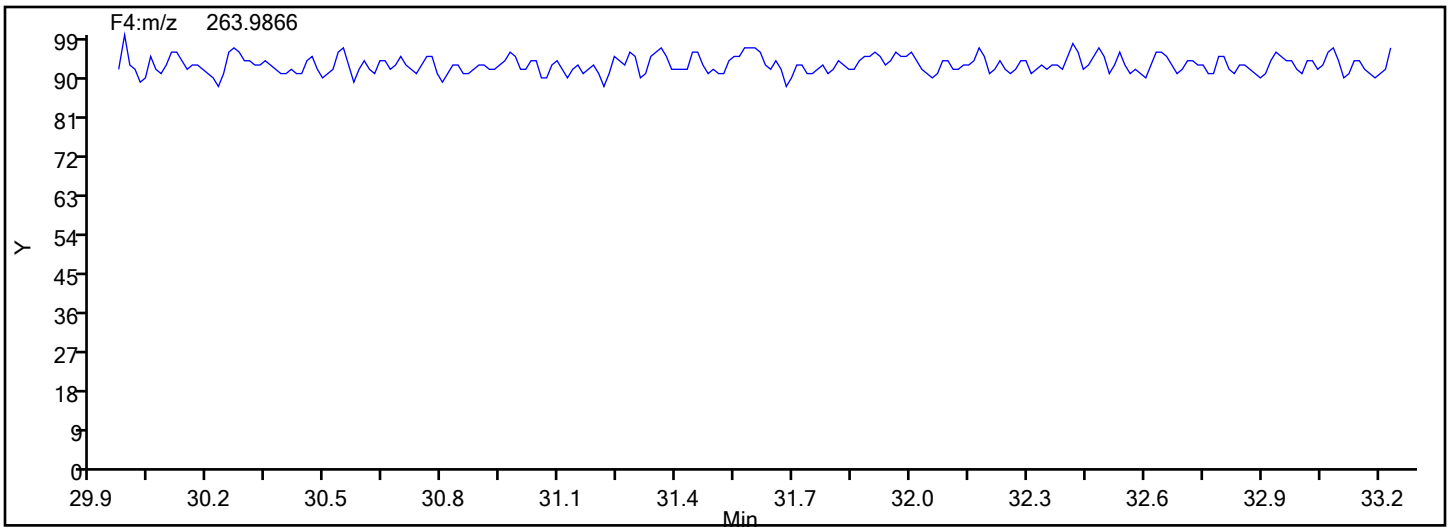

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Eurofins Knoxville

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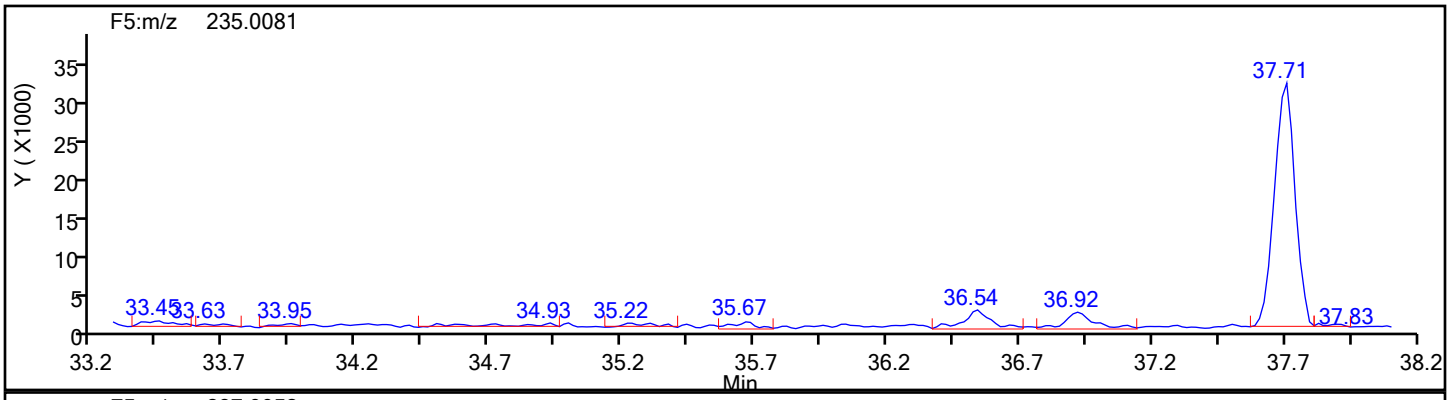
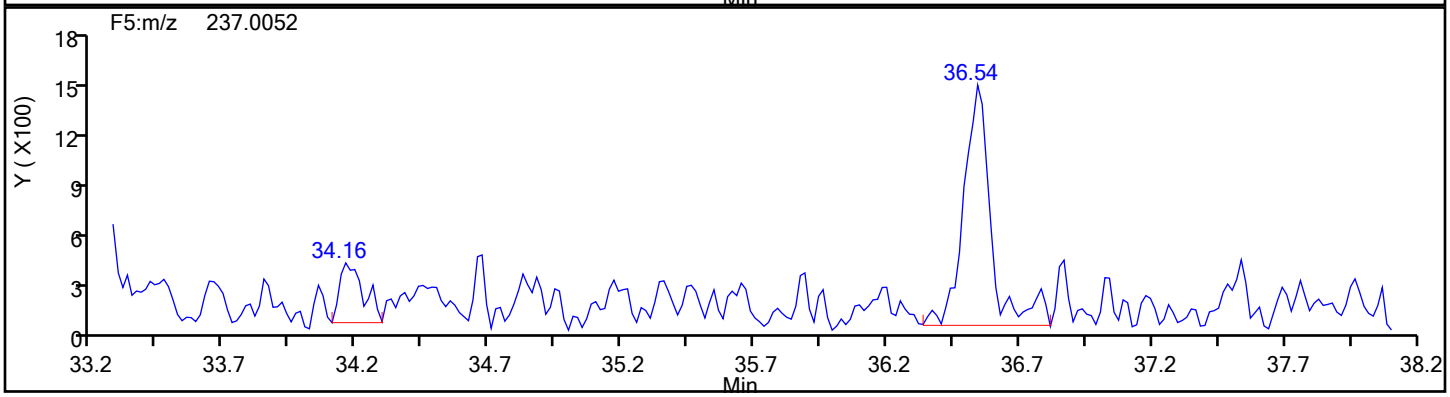
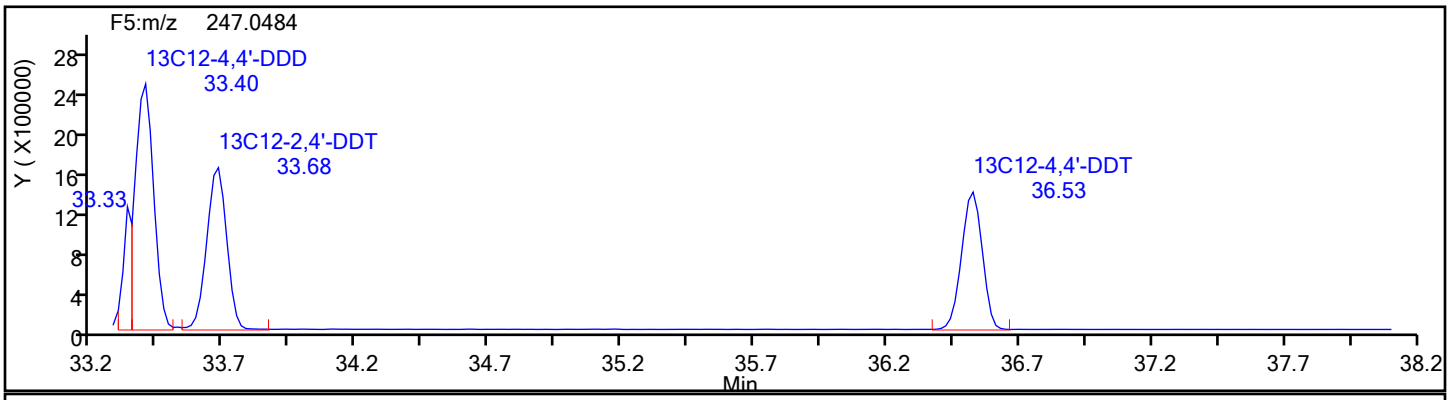
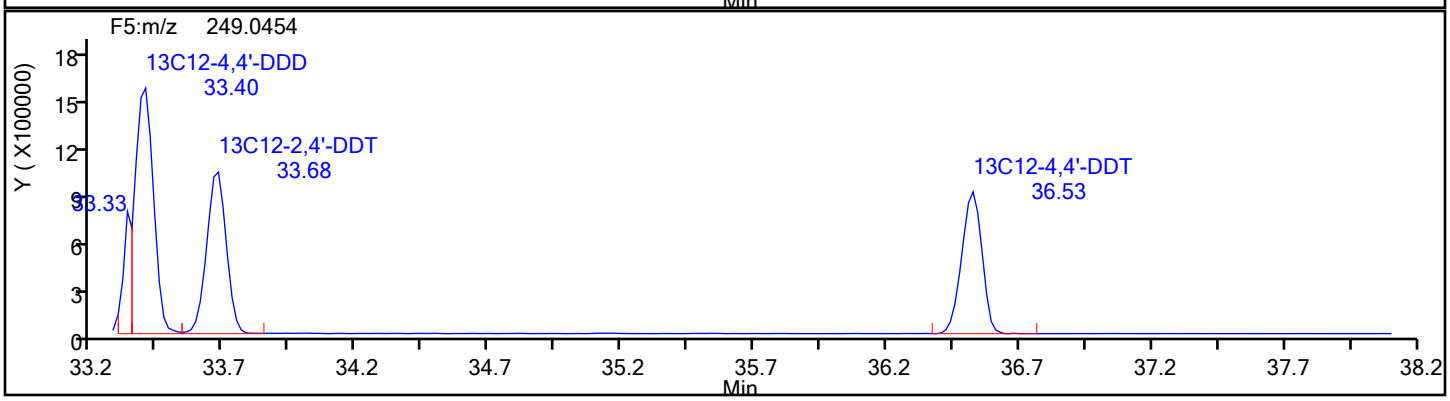




DDD Standards





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Eurofins Knoxville

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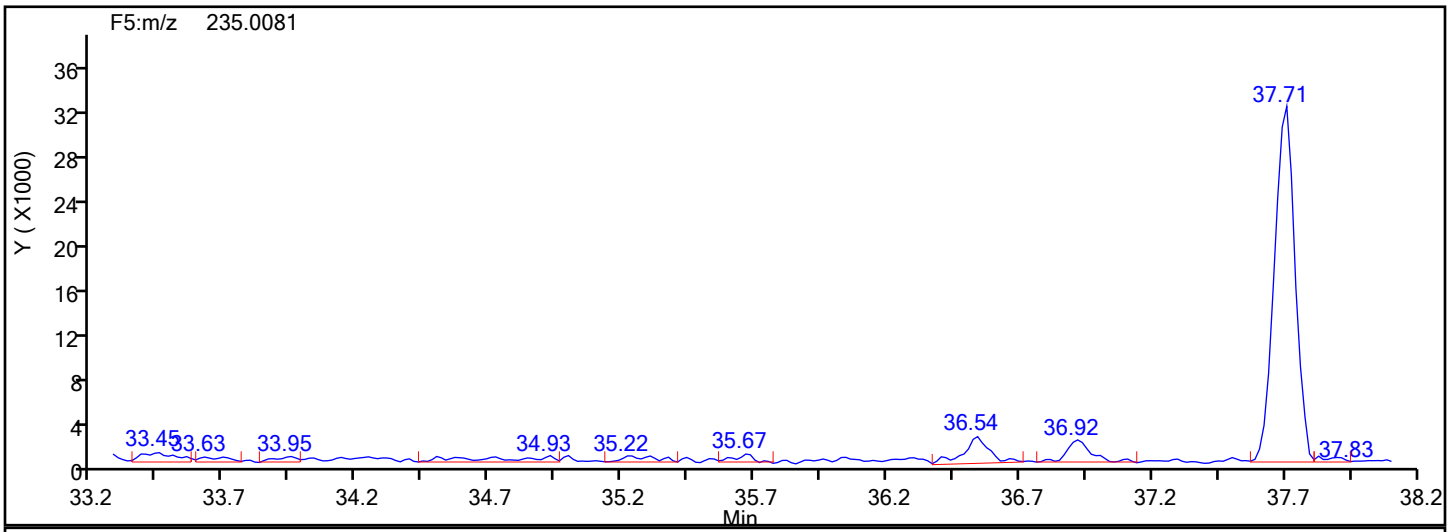
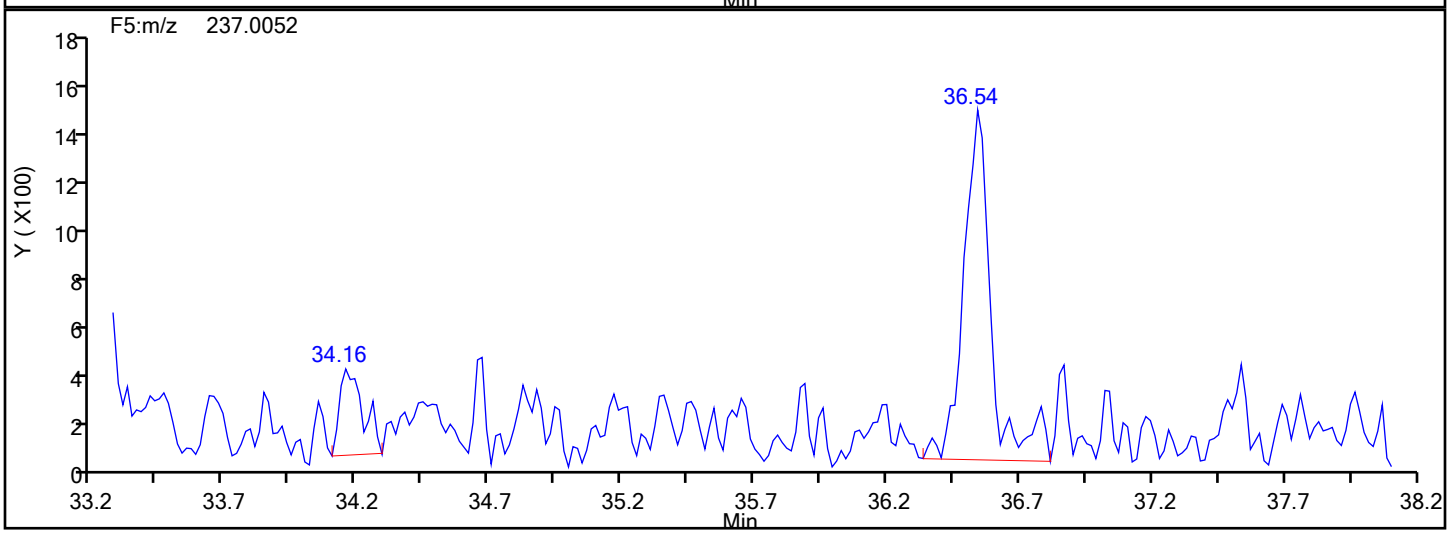
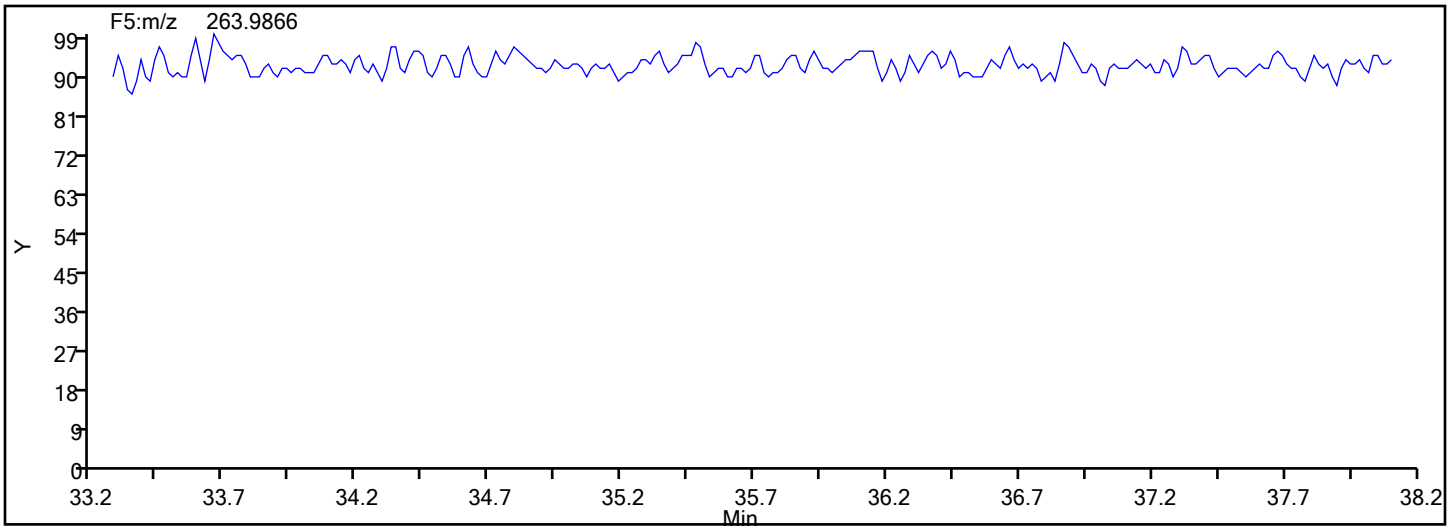




DDD Lock Mass



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Eurofins Knoxville

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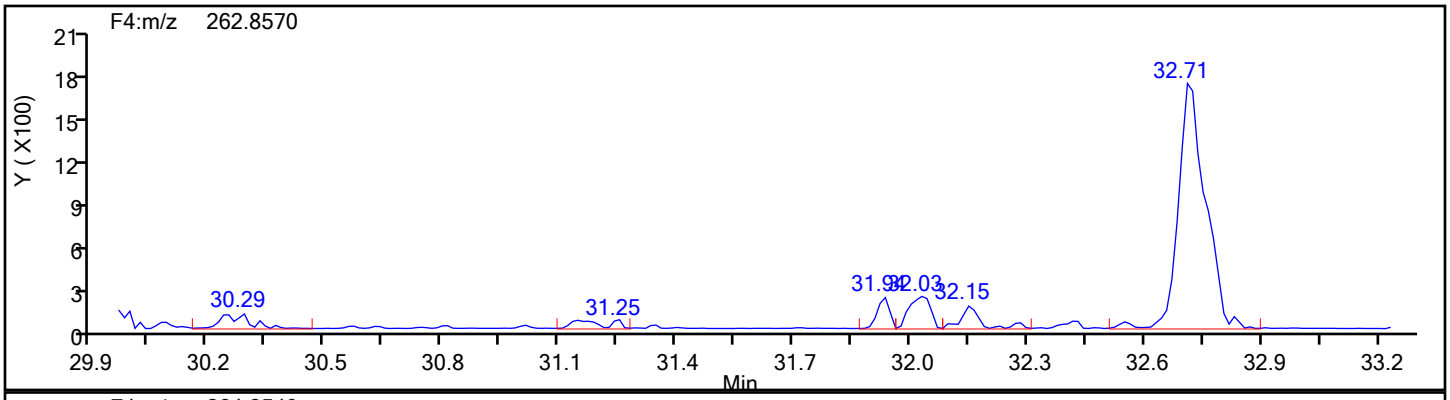

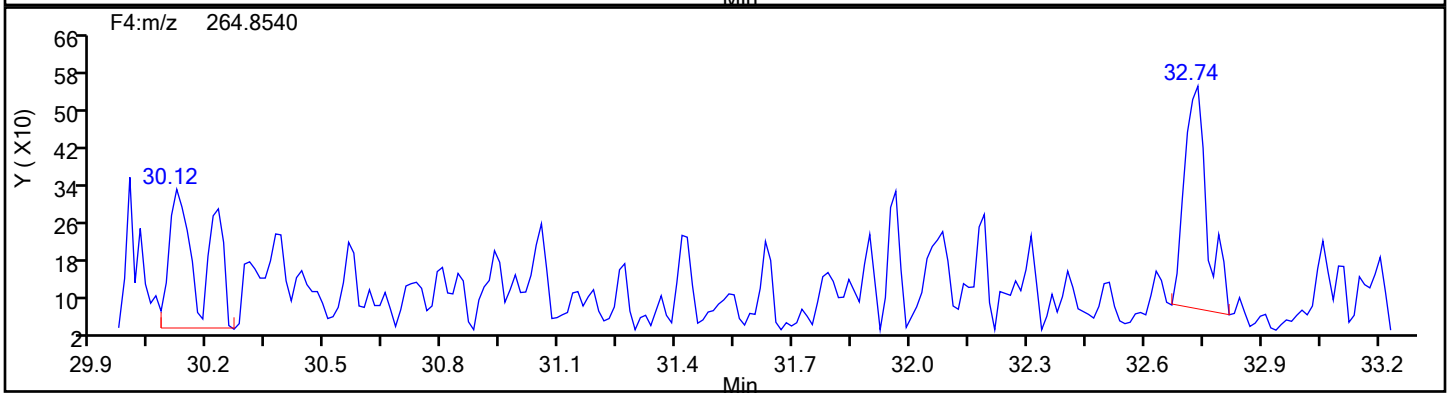

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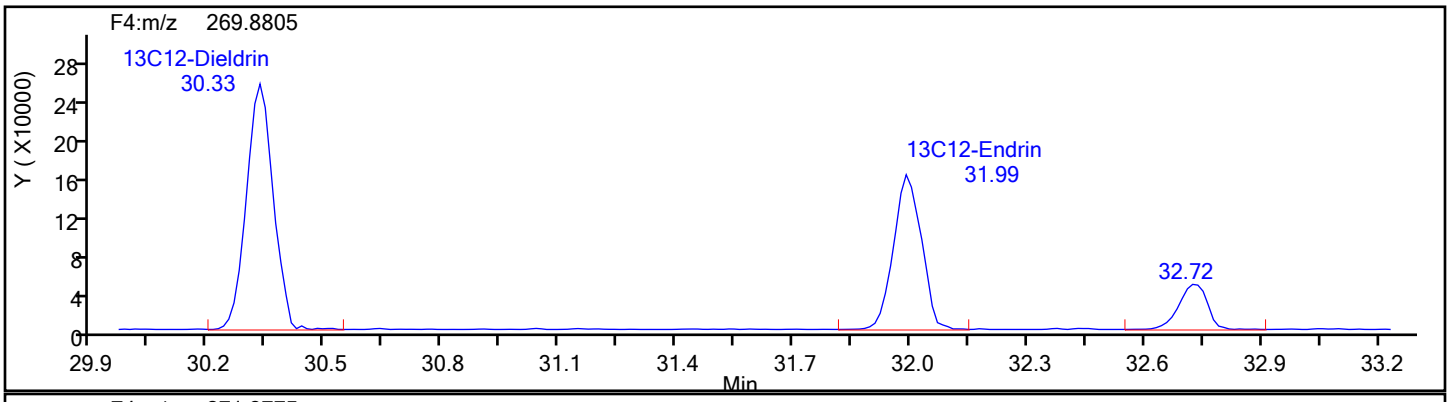

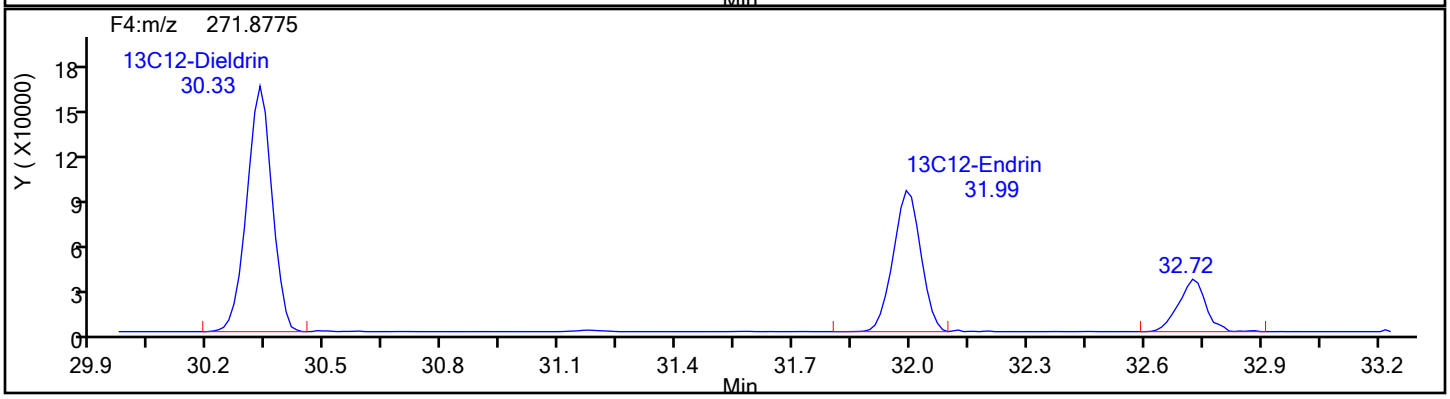

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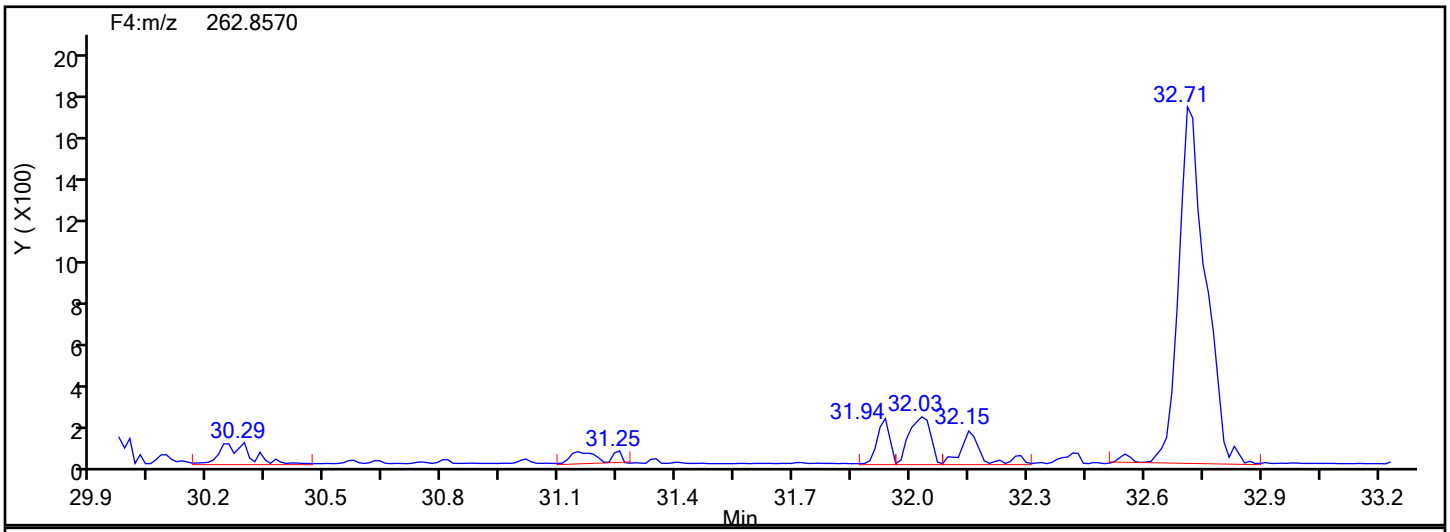

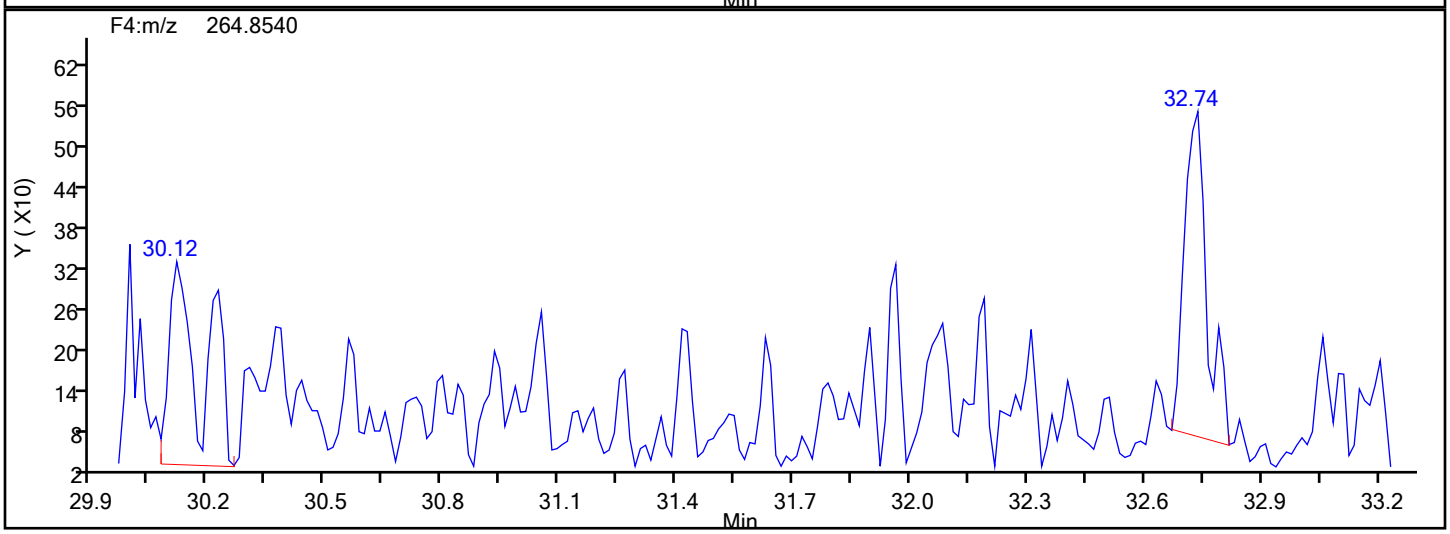

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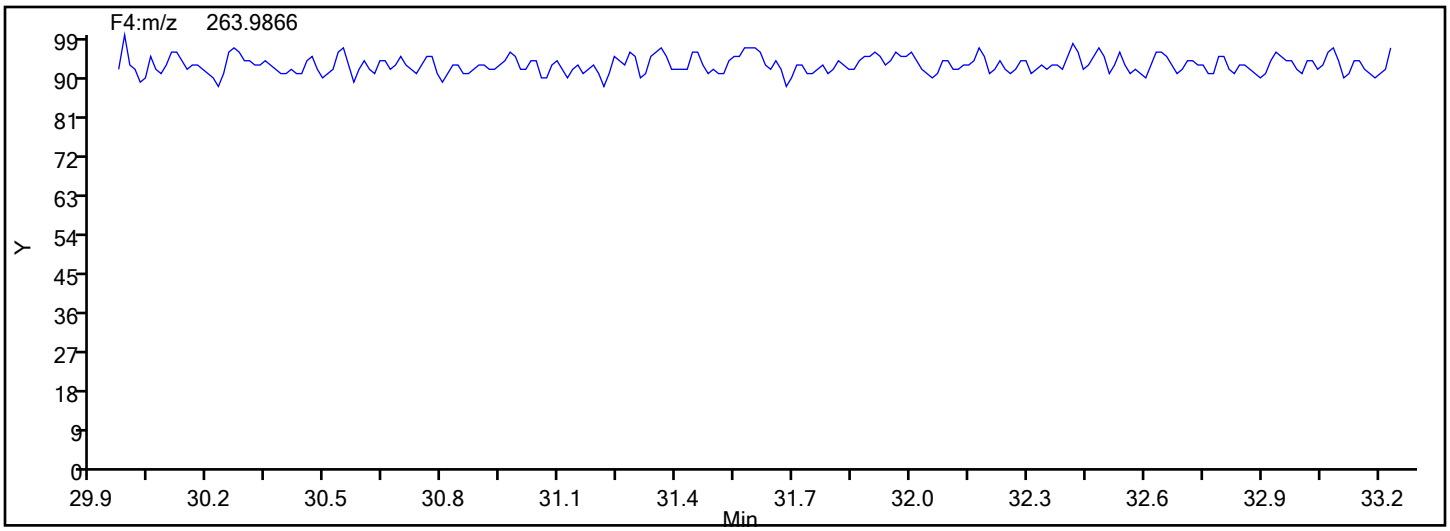

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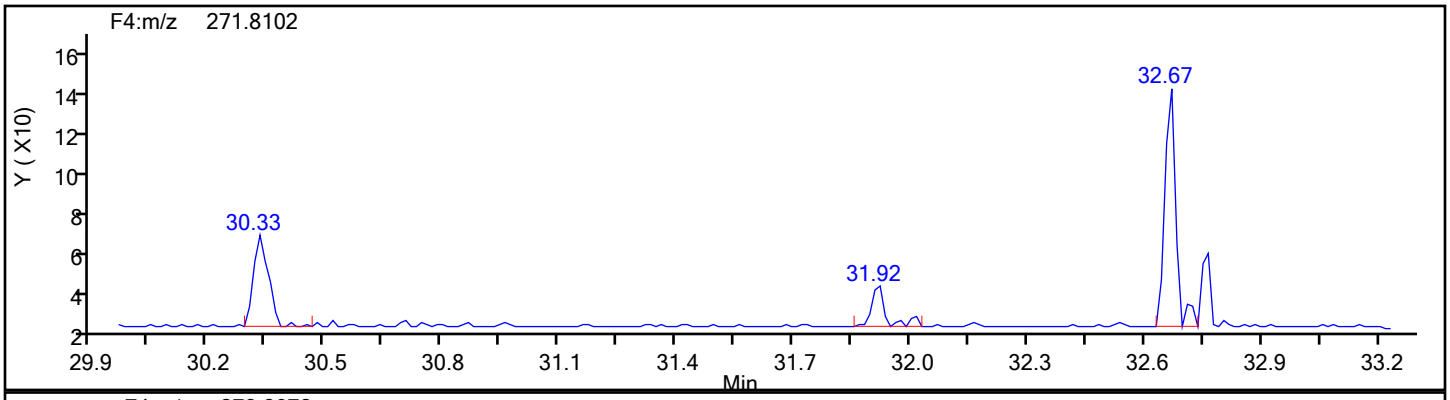
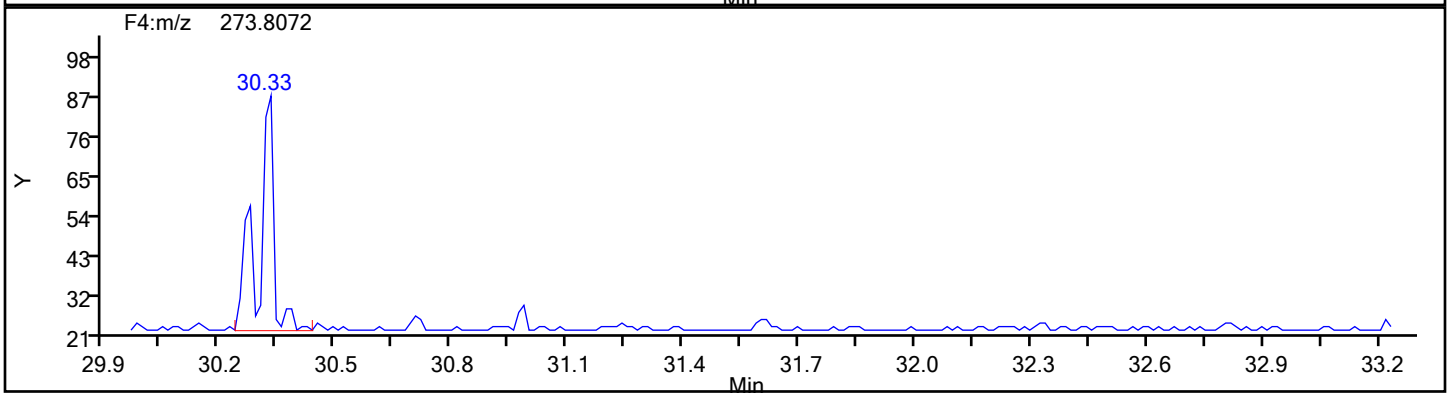
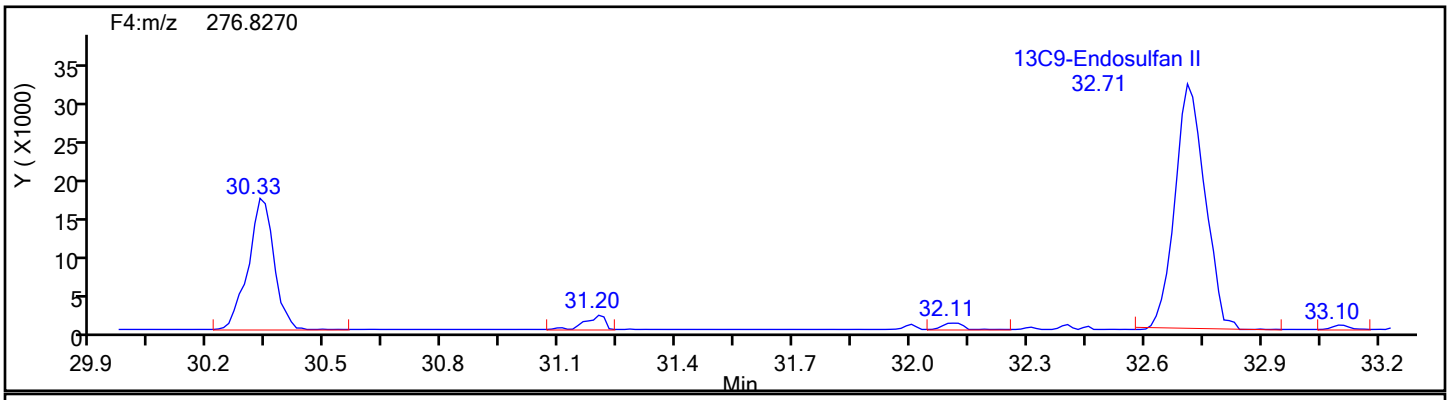
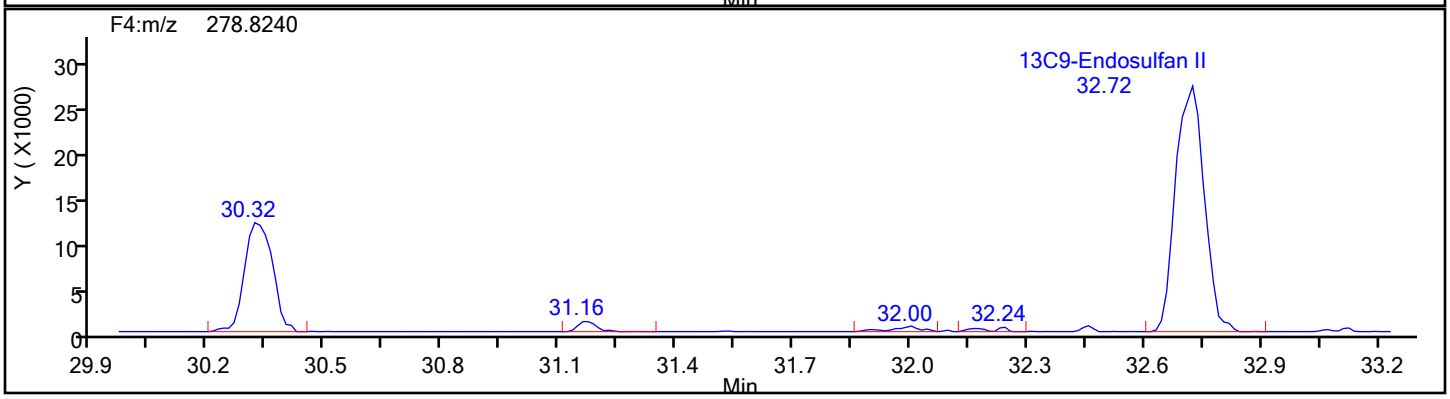
Endosulfan II





Endosulfan II Standards





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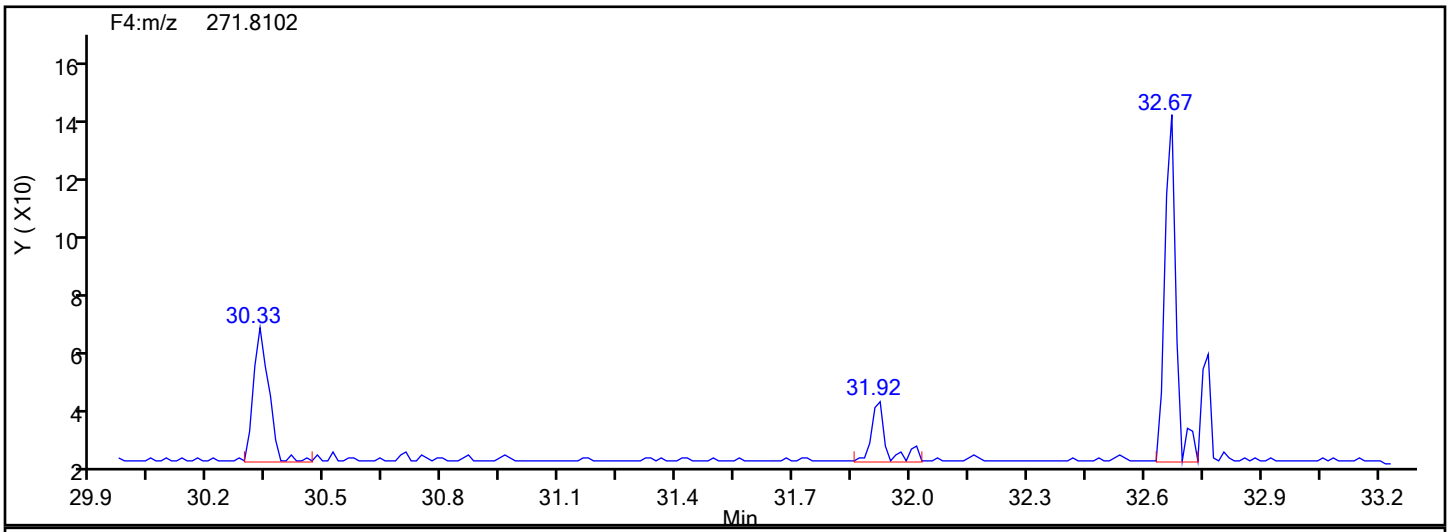
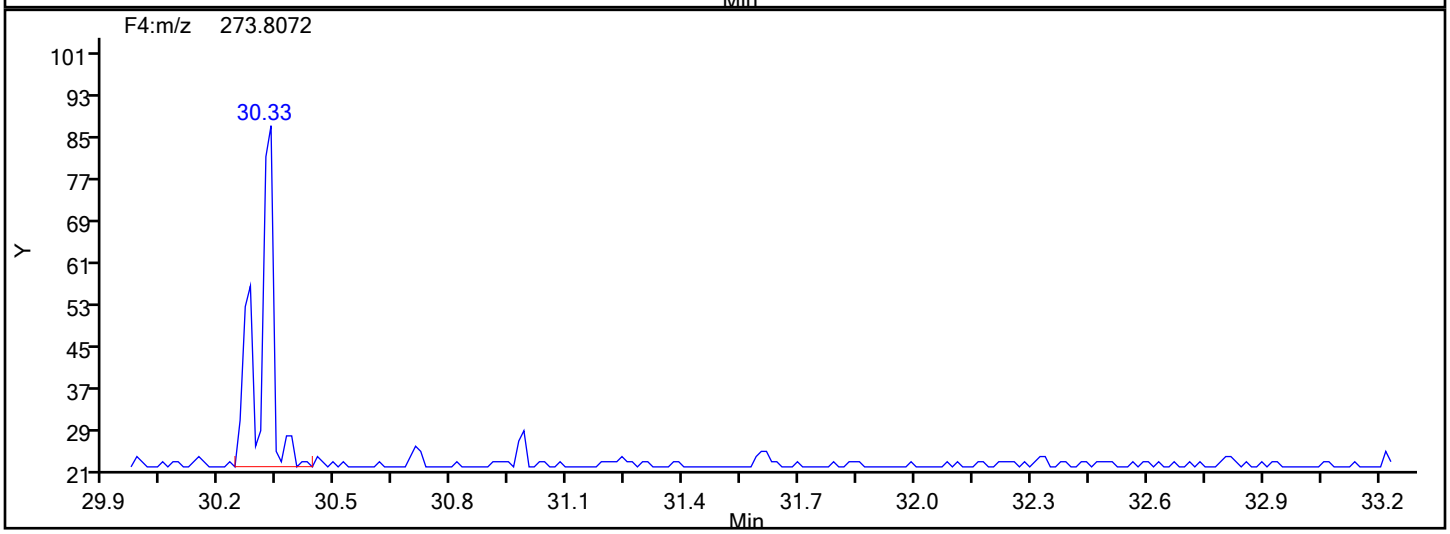
Endosulfan II





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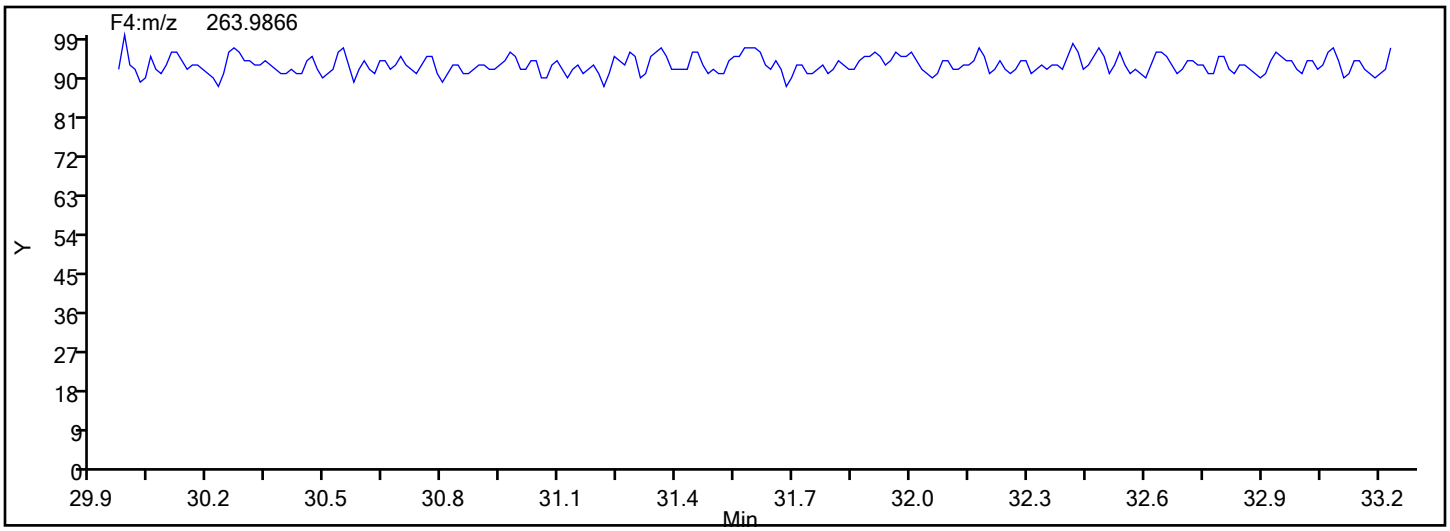

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Eurofins Knoxville

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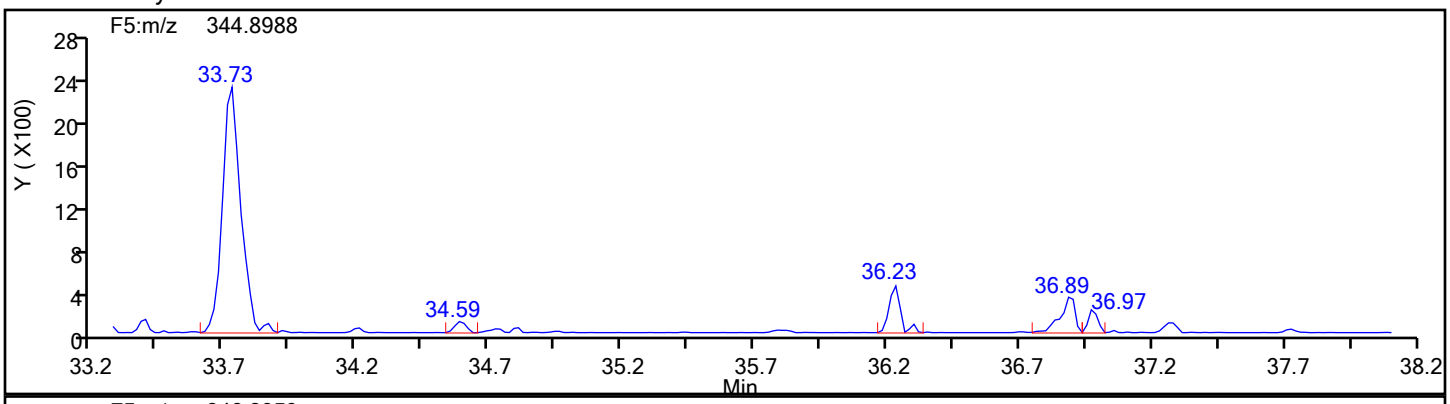
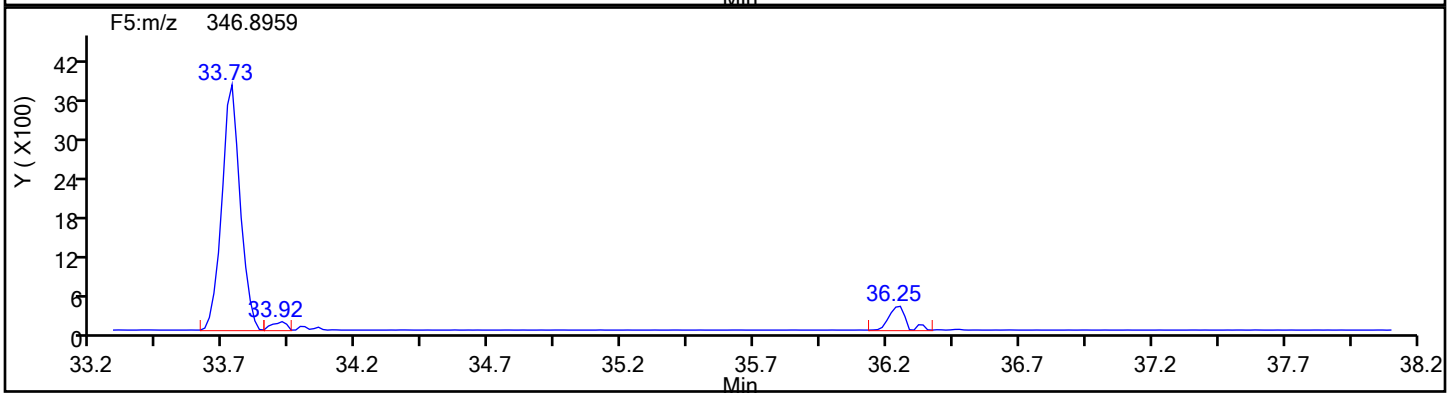
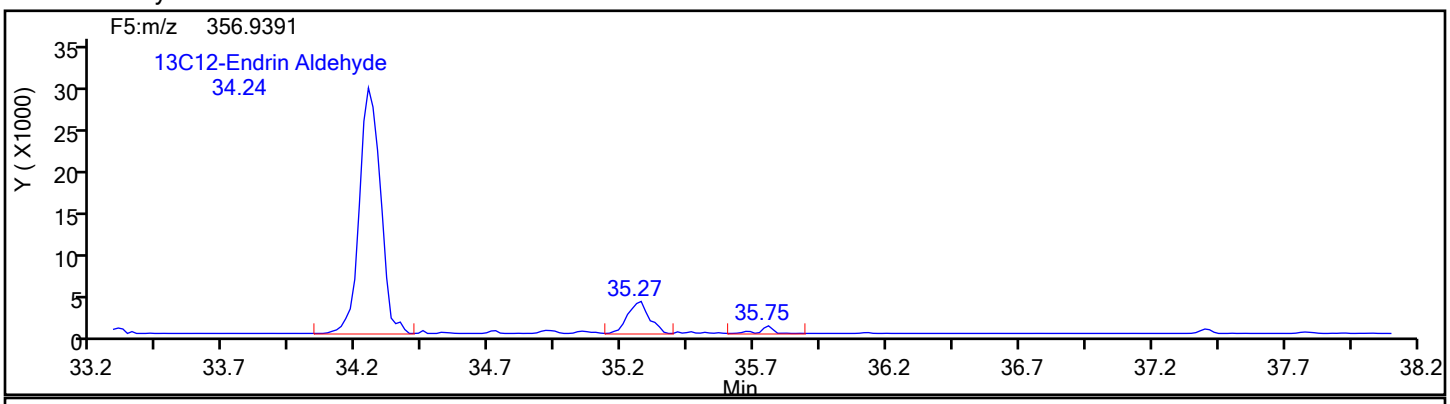
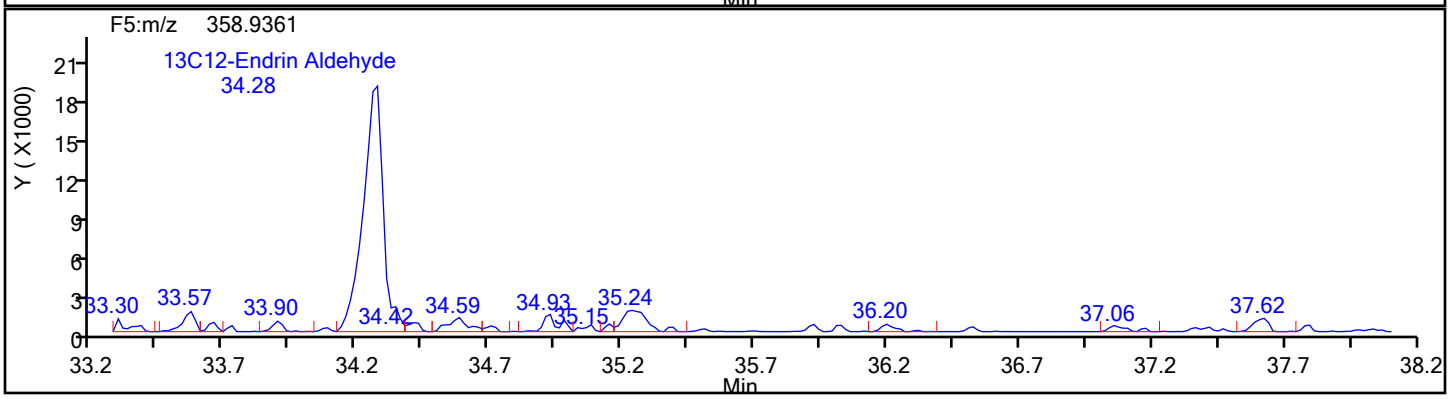
Endrin aldehyde





Endrin aldehyde Standards





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Eurofins Knoxville

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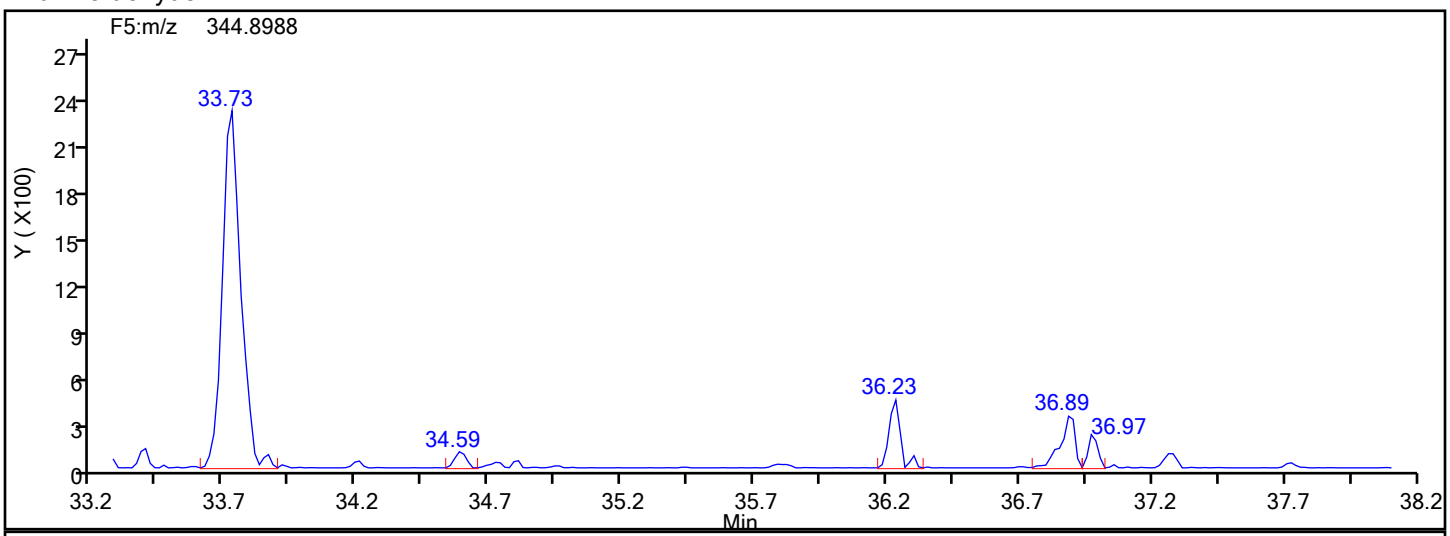
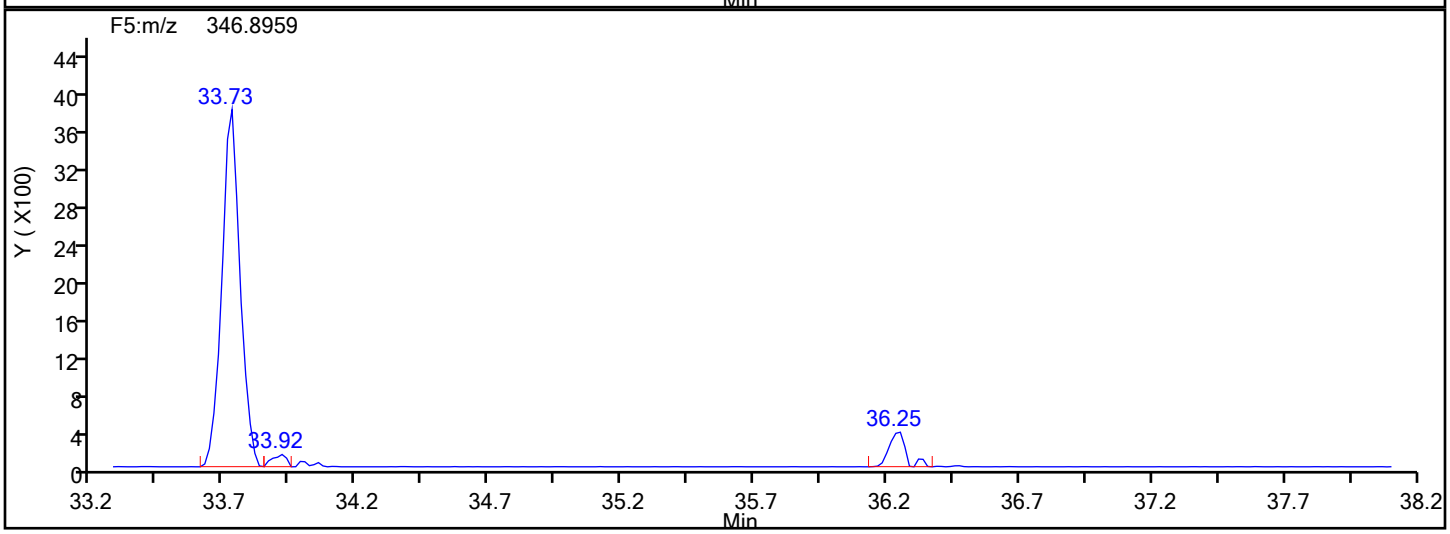
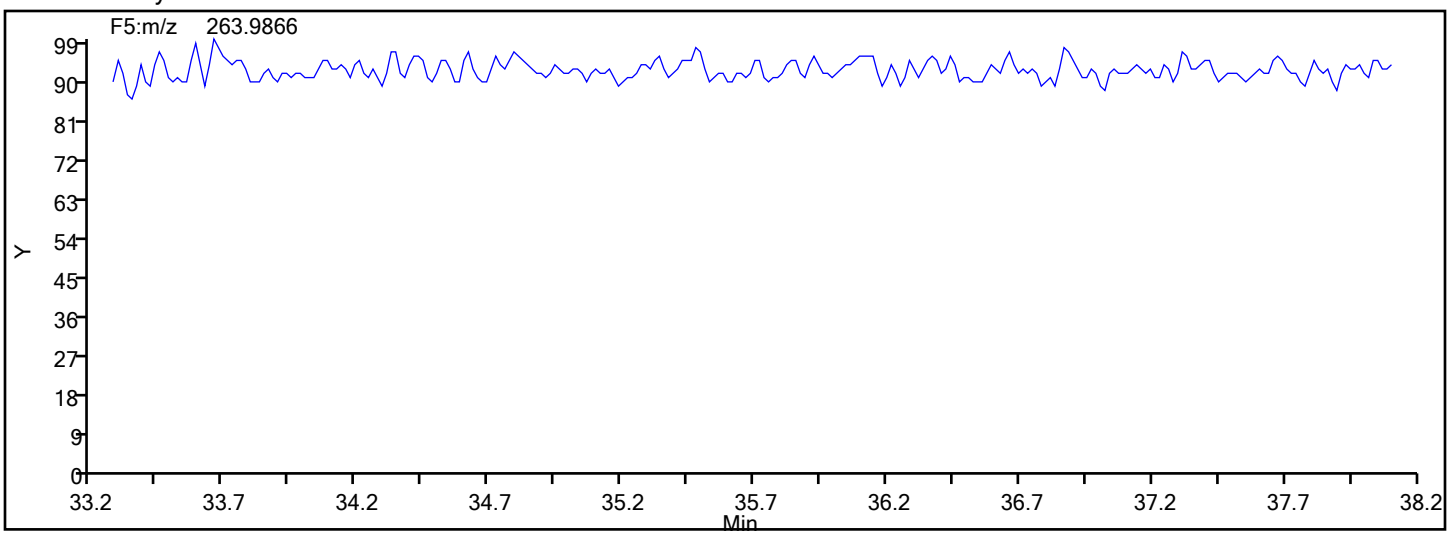
Endrin aldehyde





Endrin aldehyde Lock Mass



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Eurofins Knoxville

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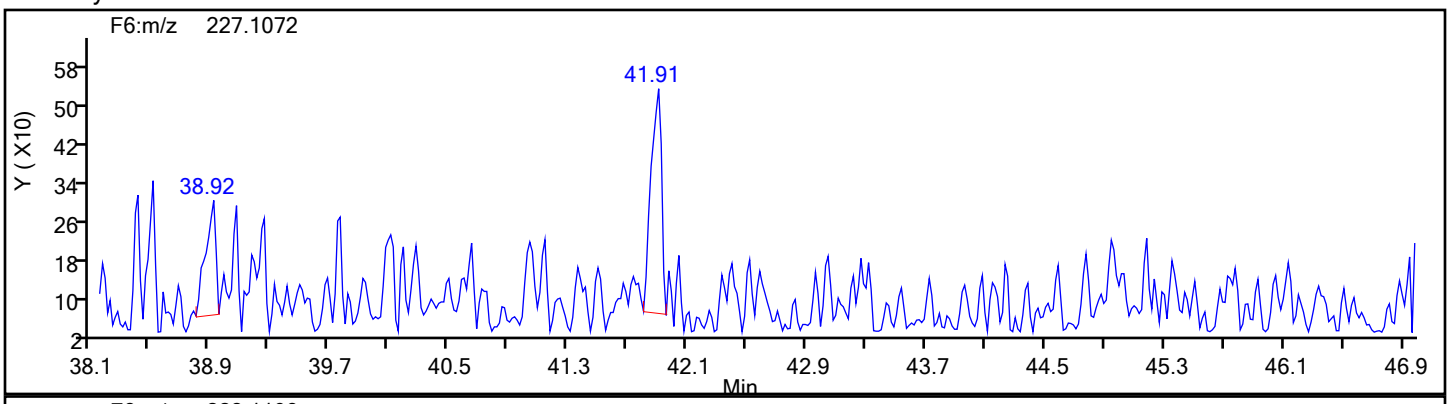
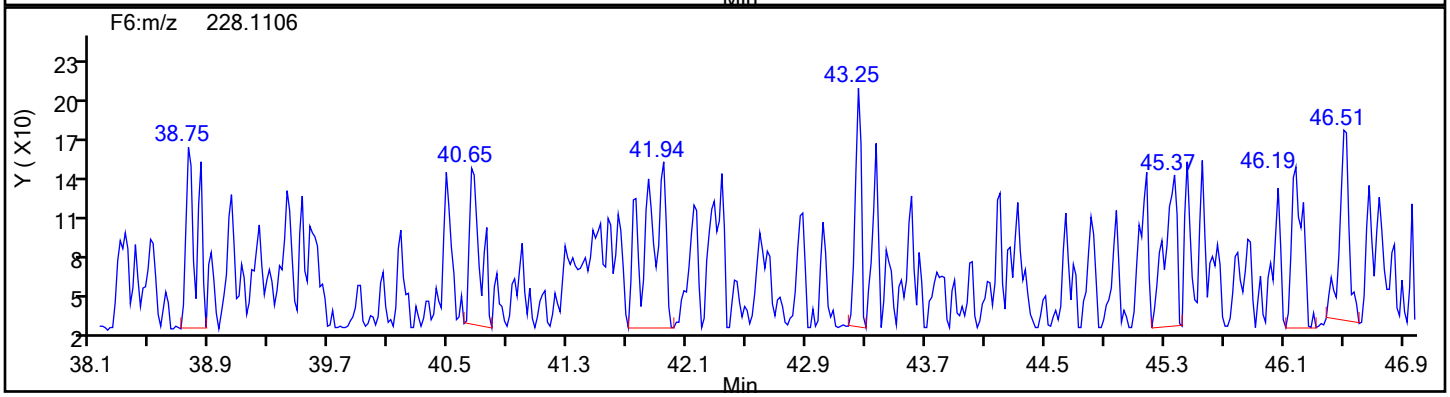
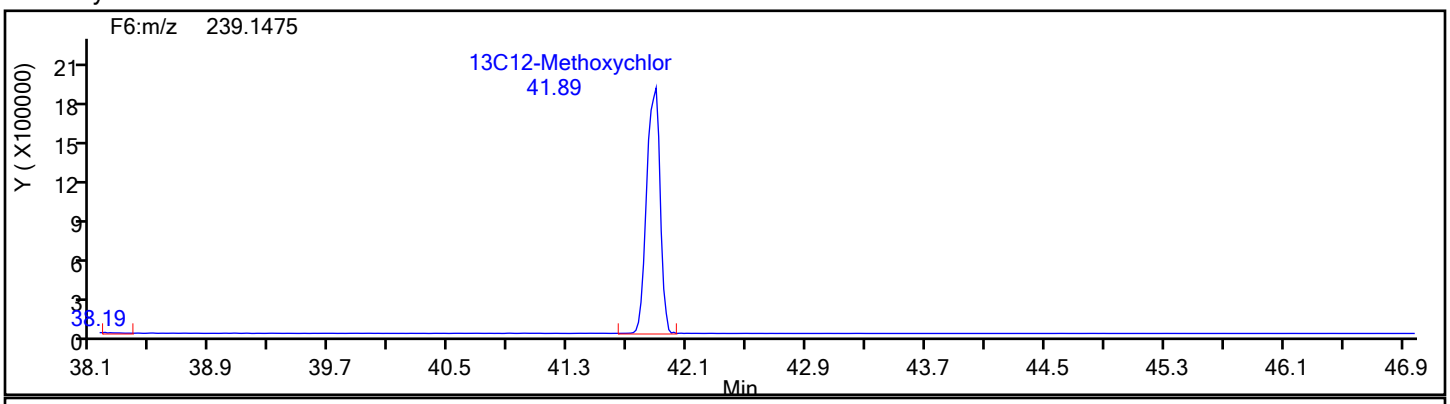
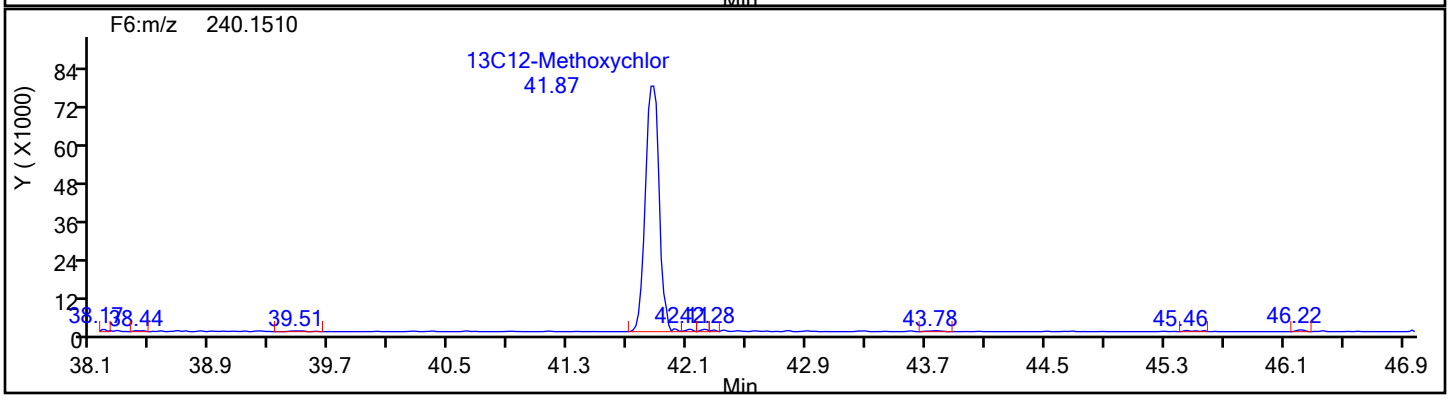
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

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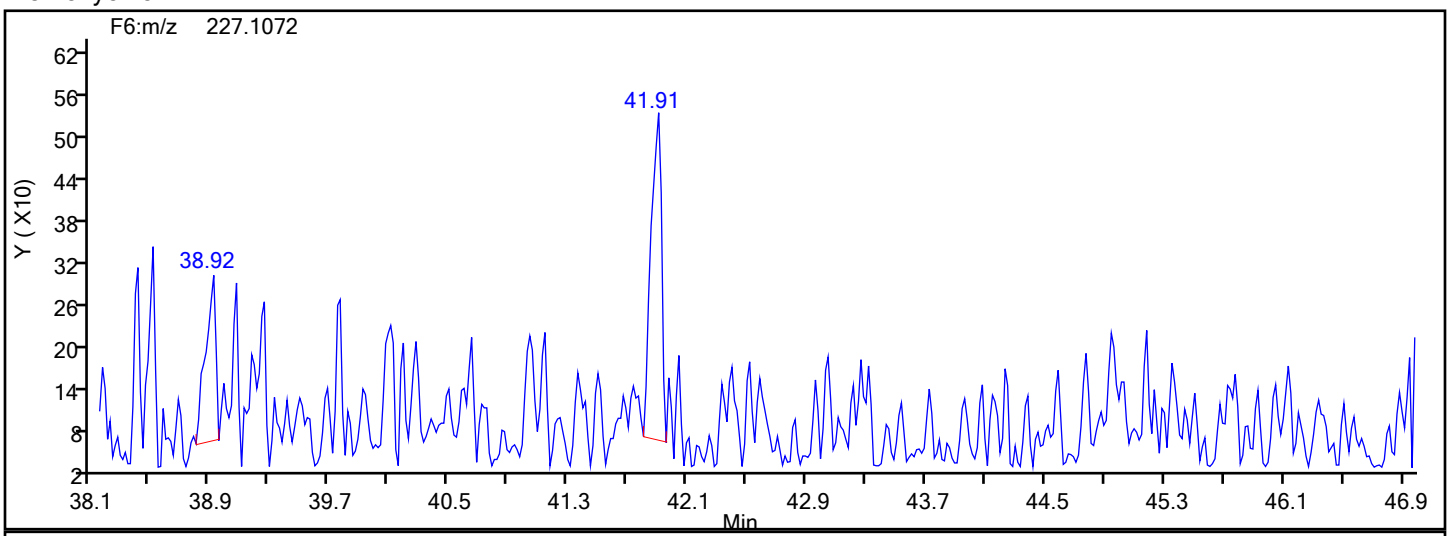
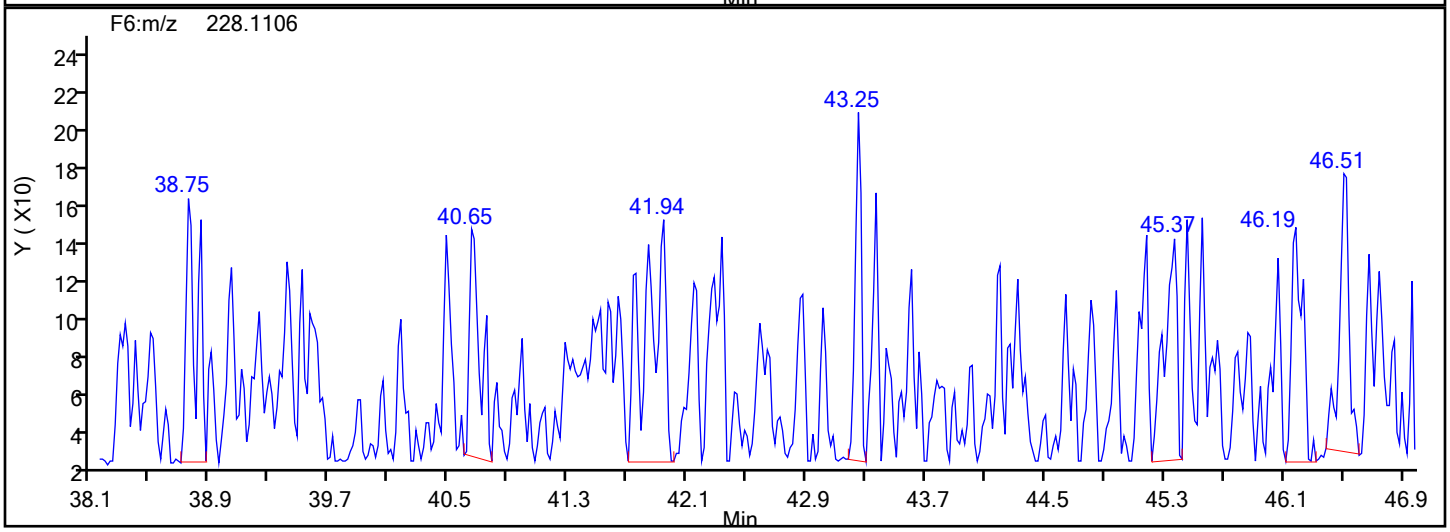
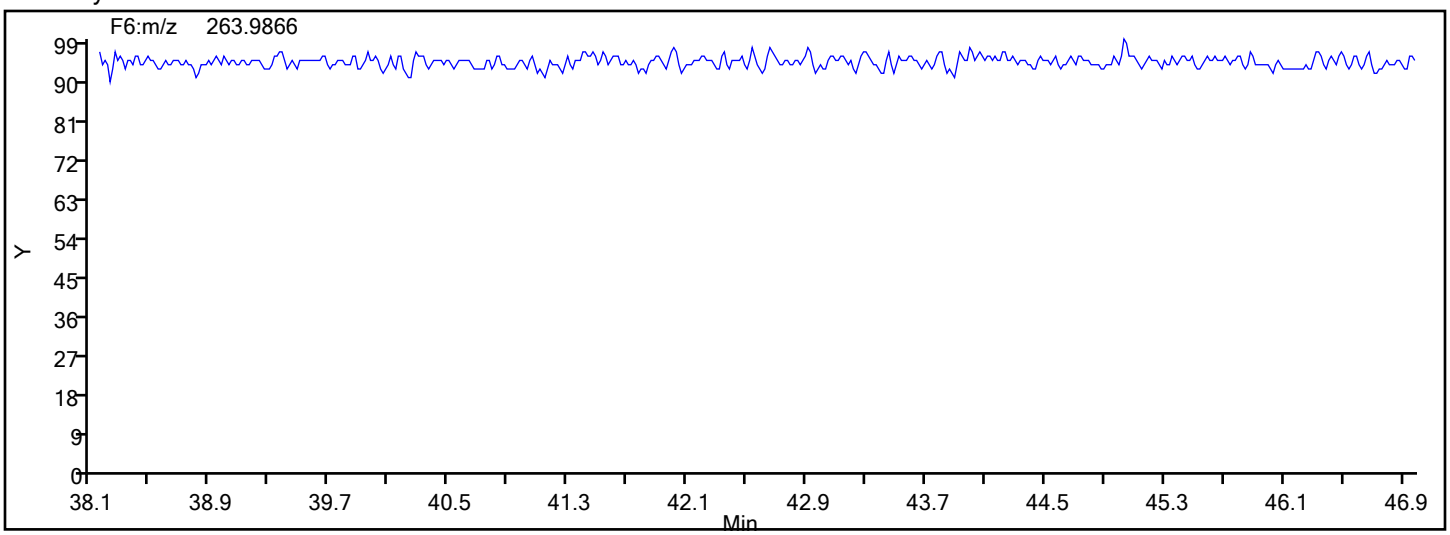
Methoxychlor





Methoxychlor Lock Mass



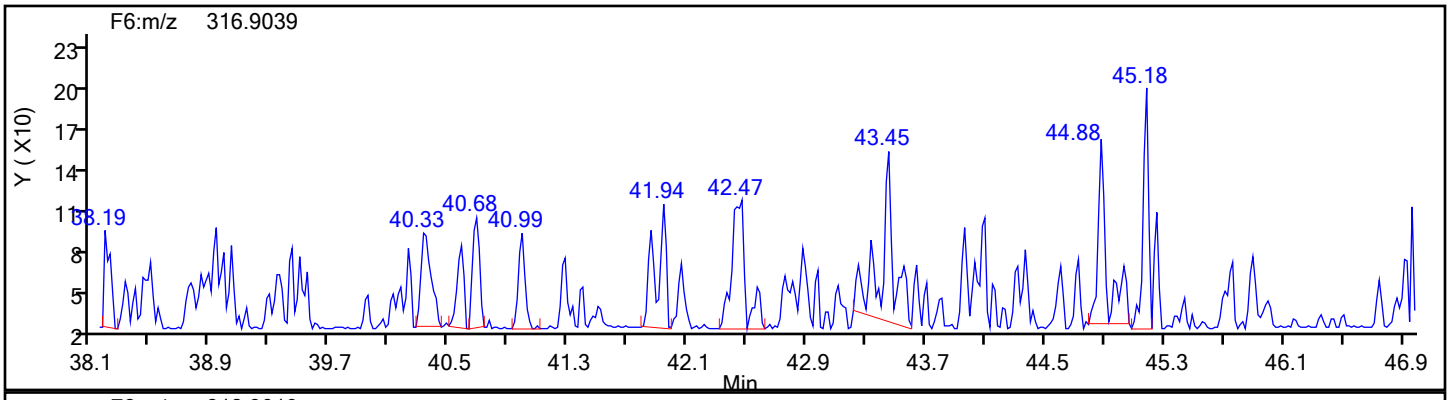
Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

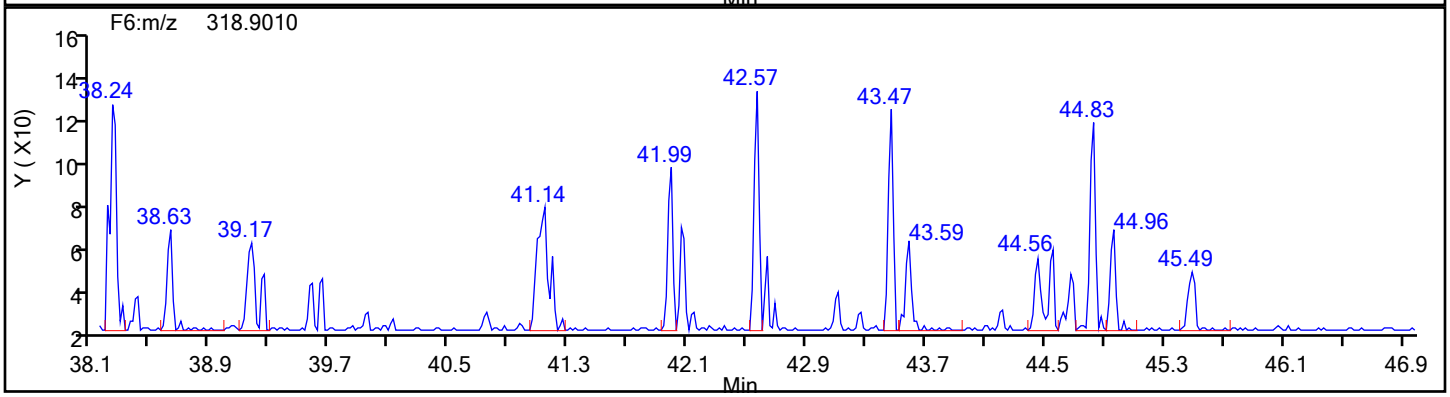
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin ketone





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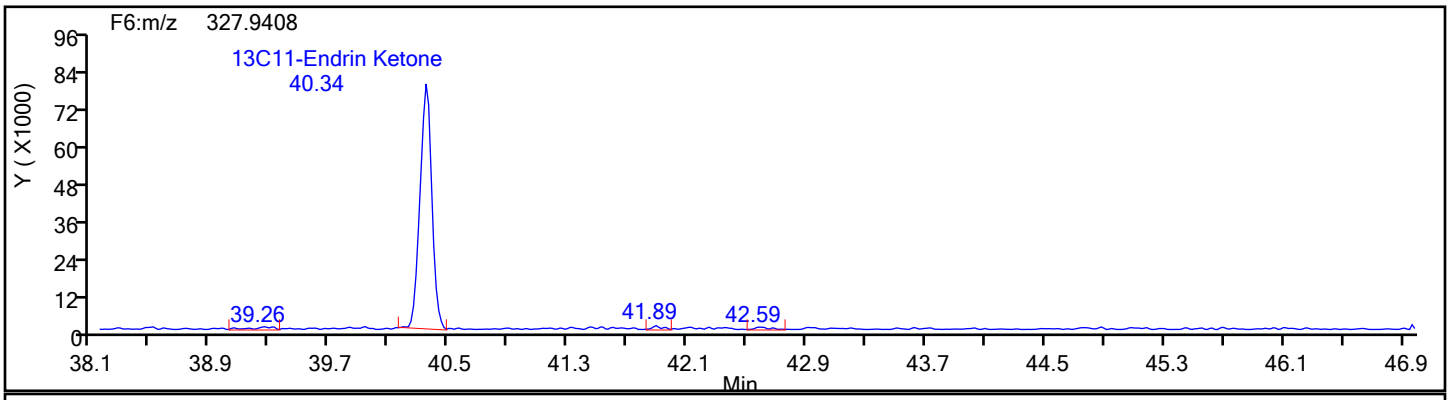

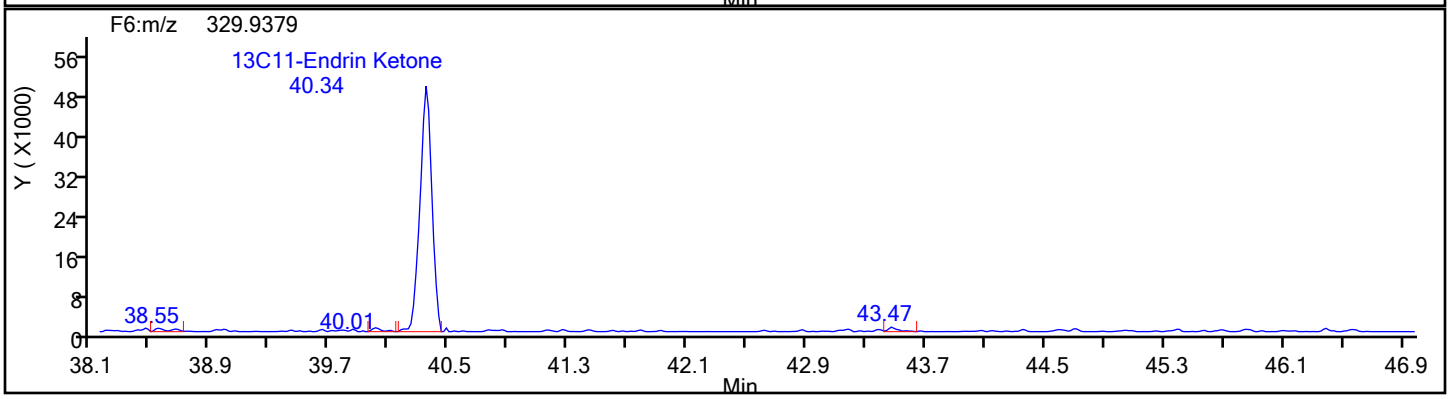

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Eurofins Knoxville

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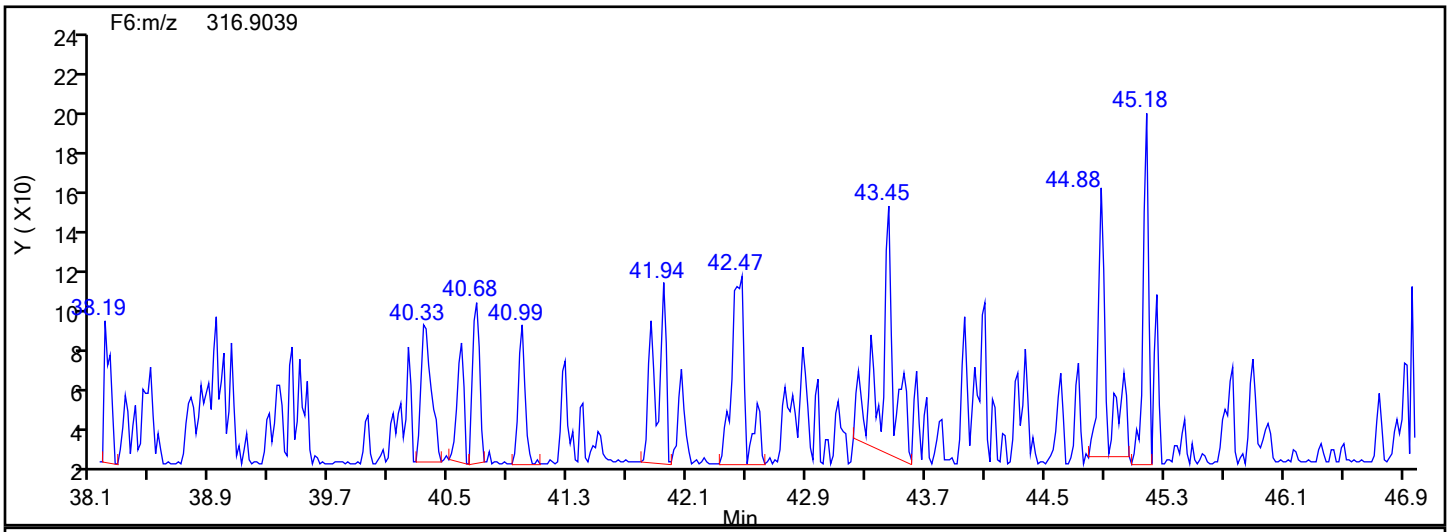
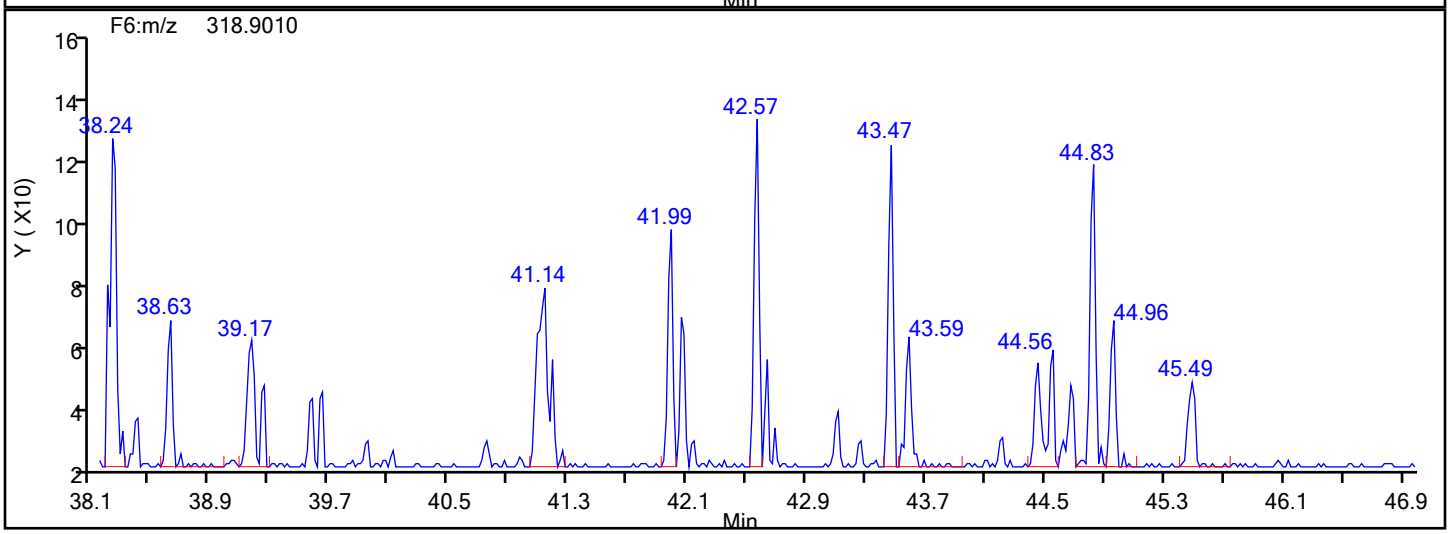
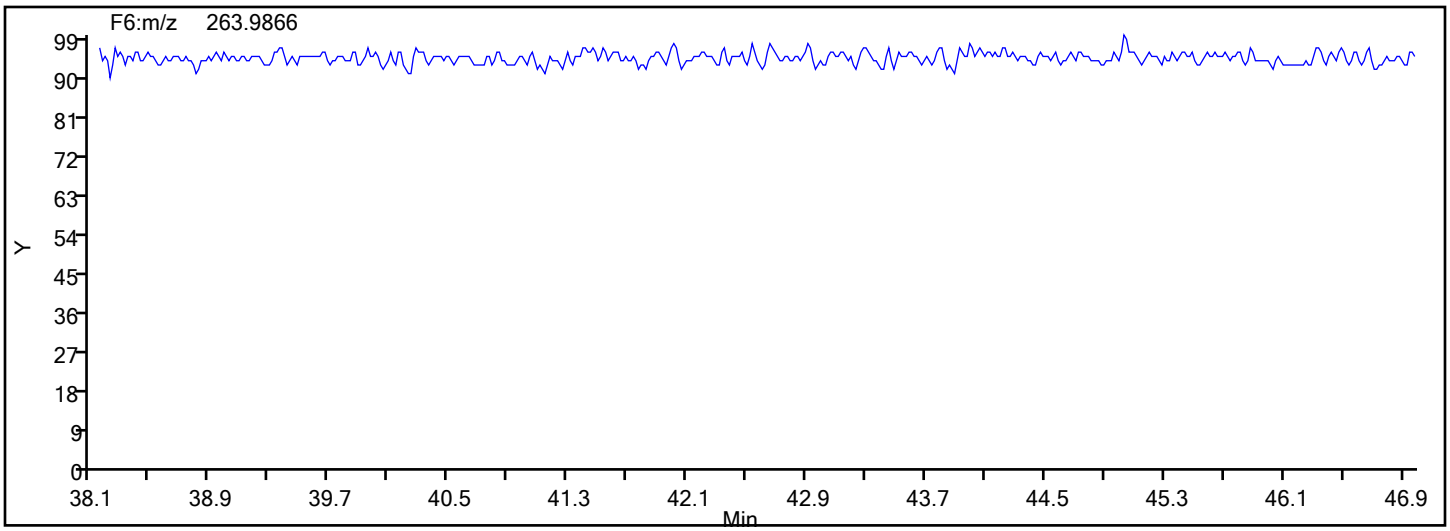




Endrin ketone Lock Mass



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Eurofins Knoxville

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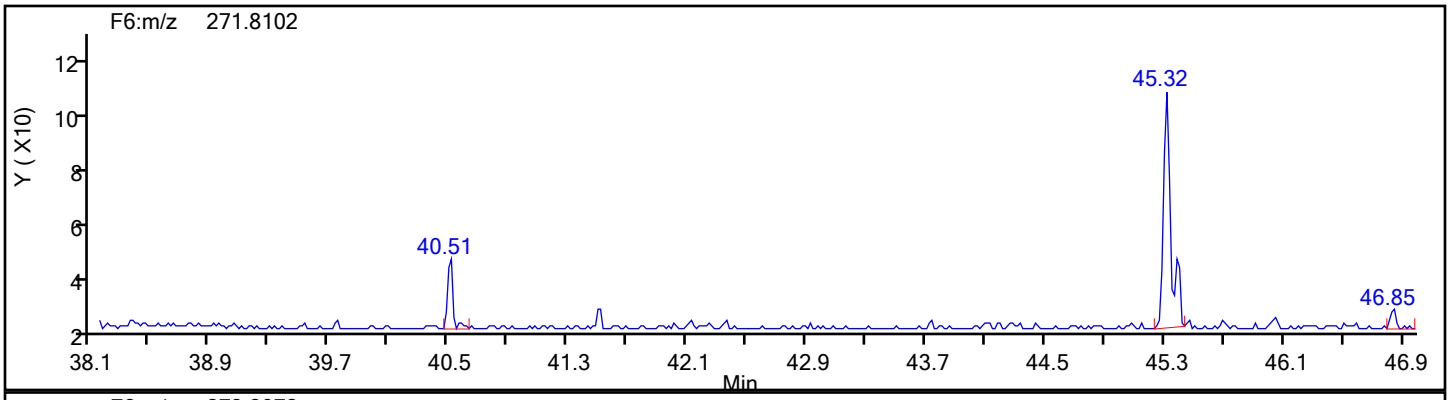
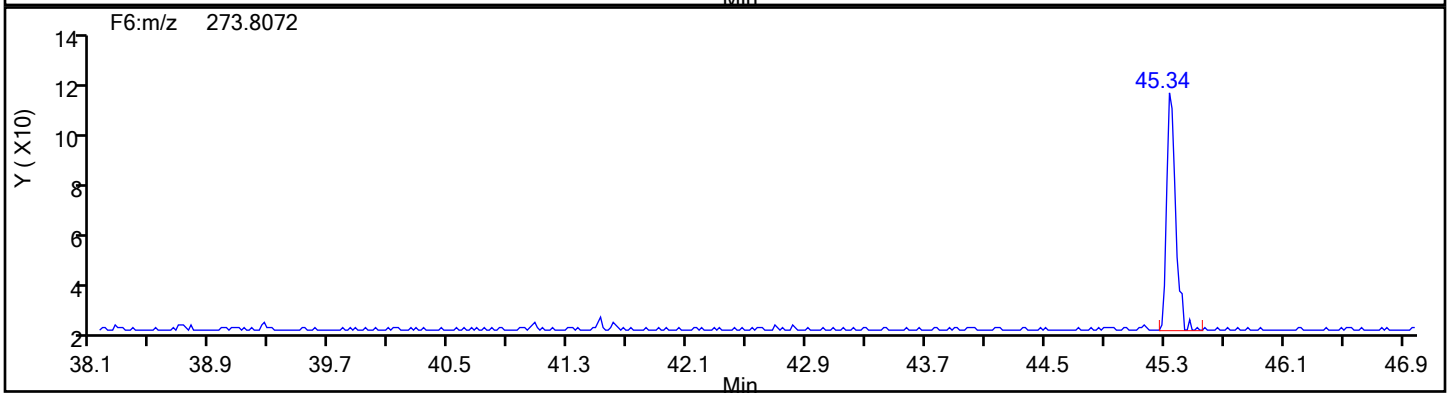
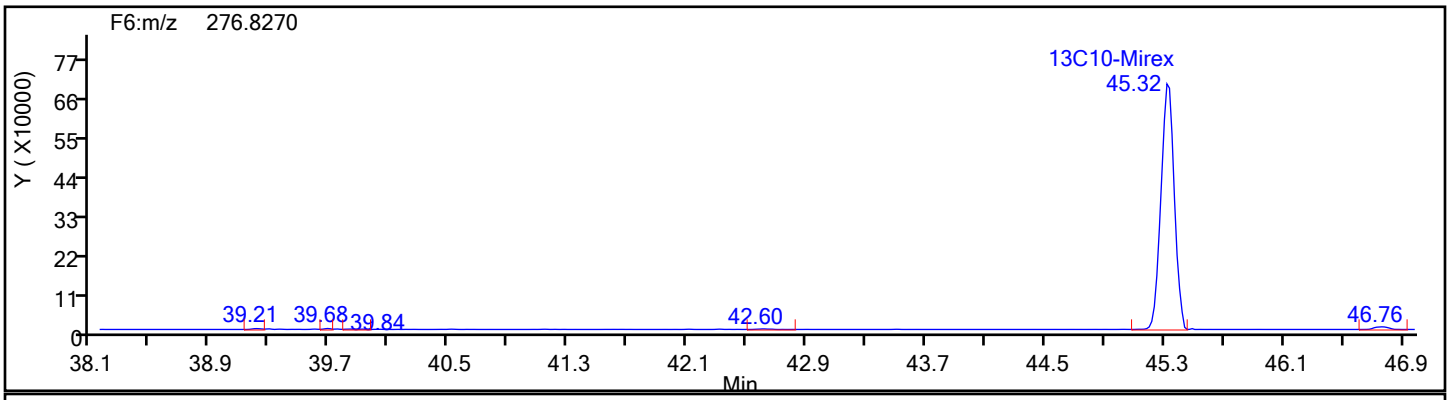
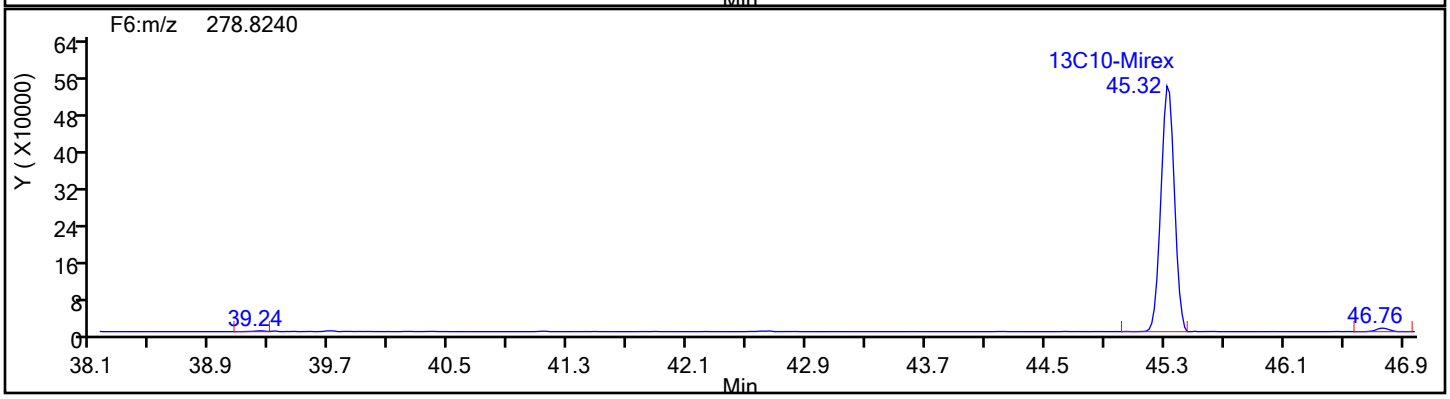
Mirex





Mirex Standards





Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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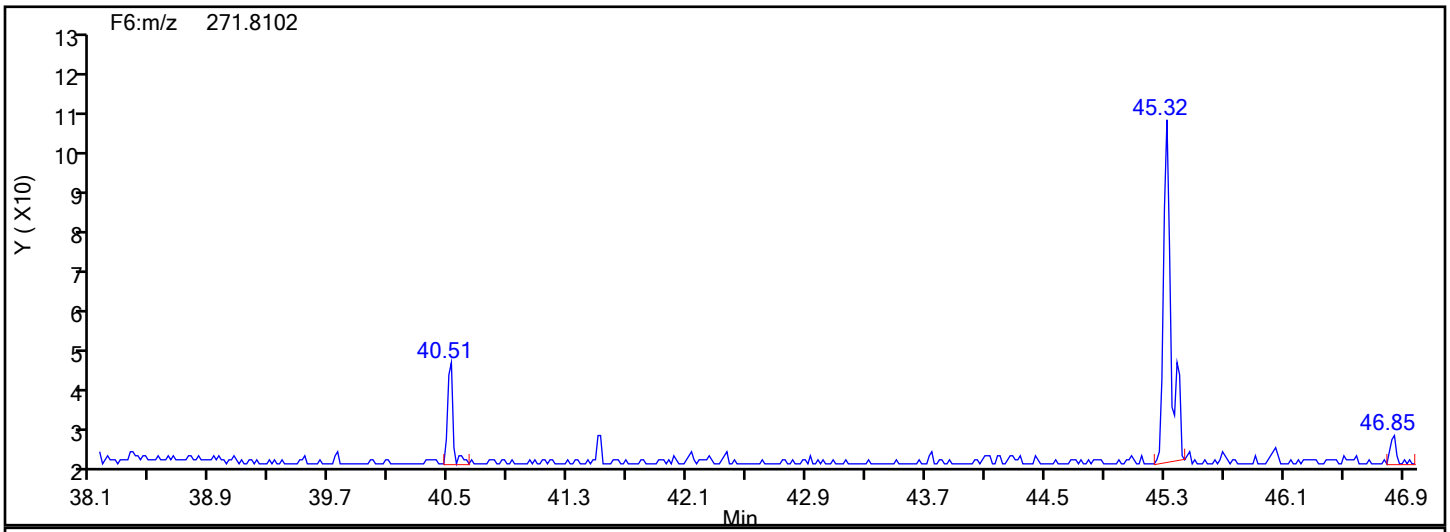
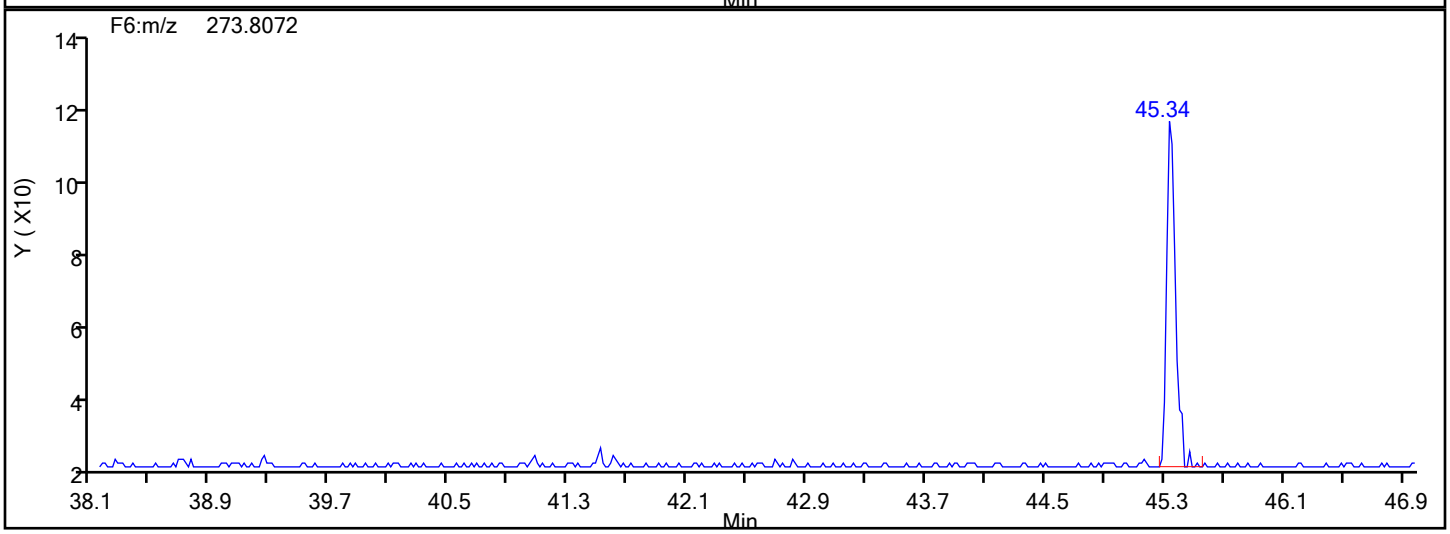
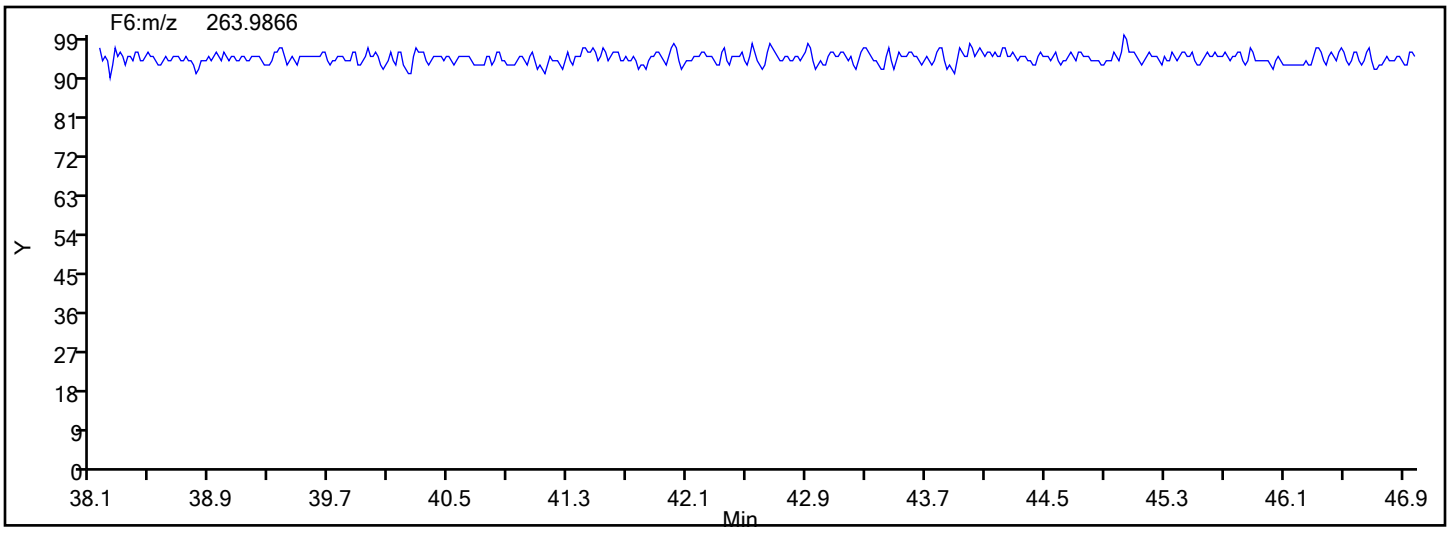




Mirex Lock Mass



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Eurofins Knoxville

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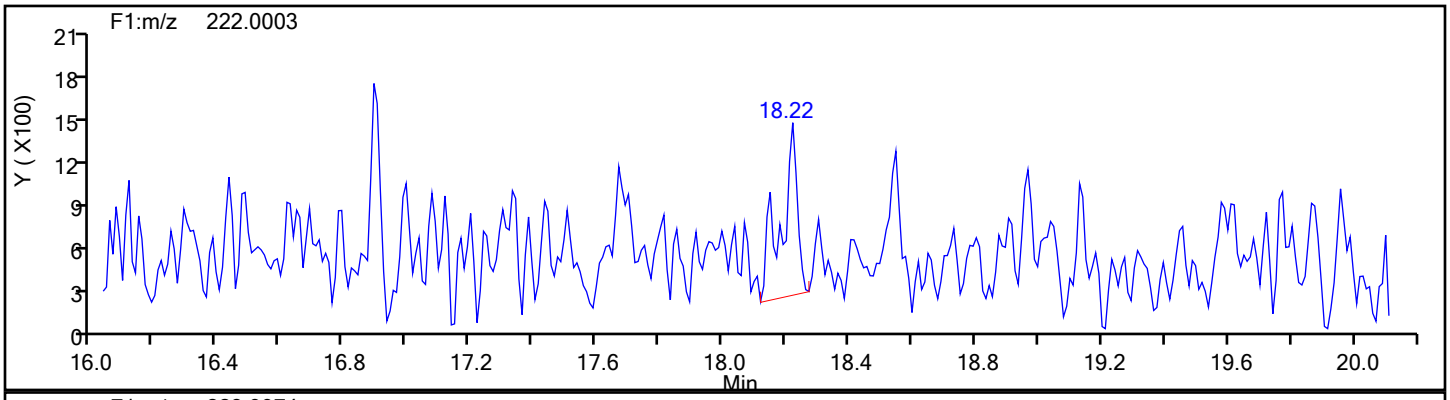
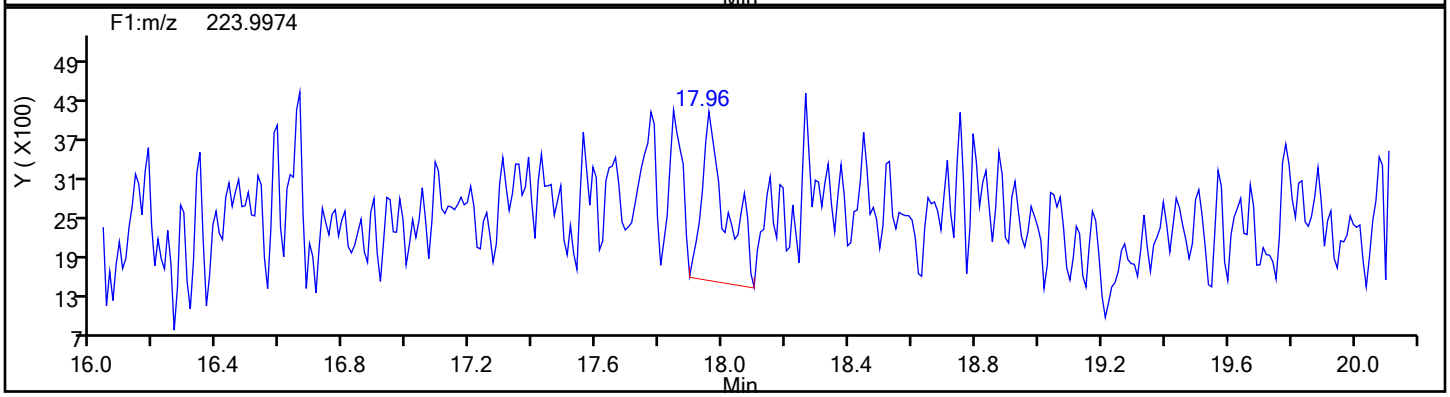
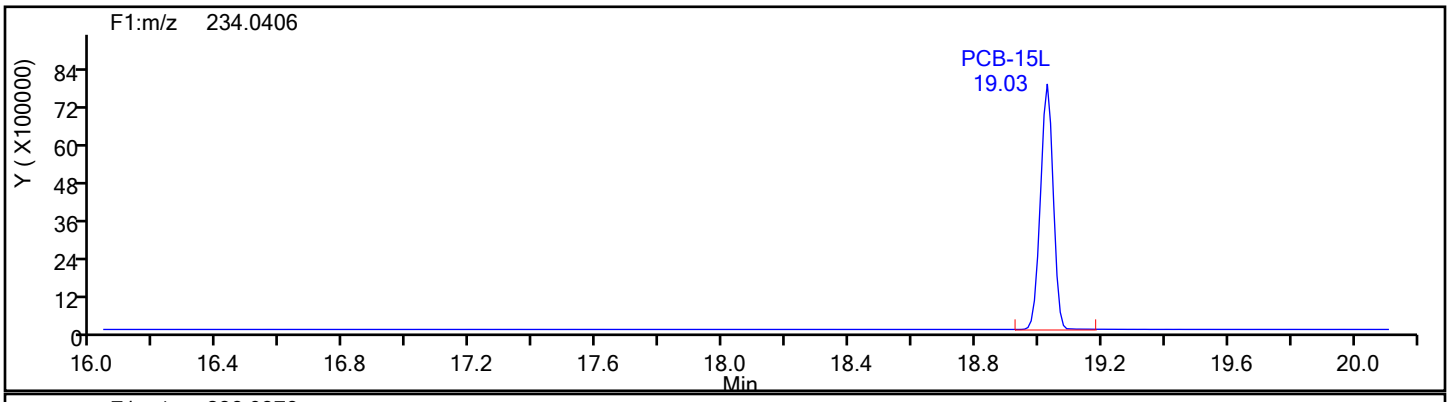
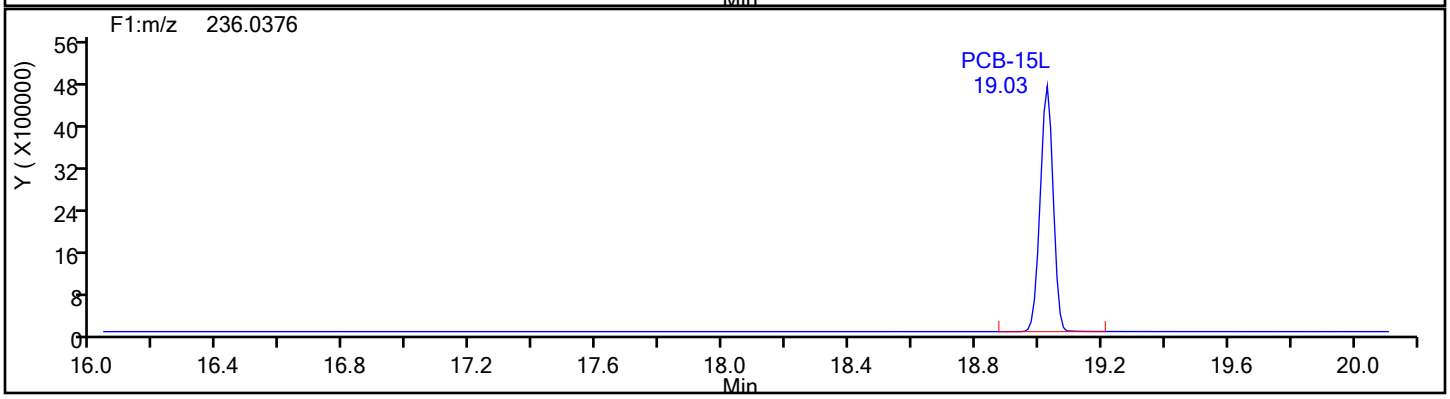
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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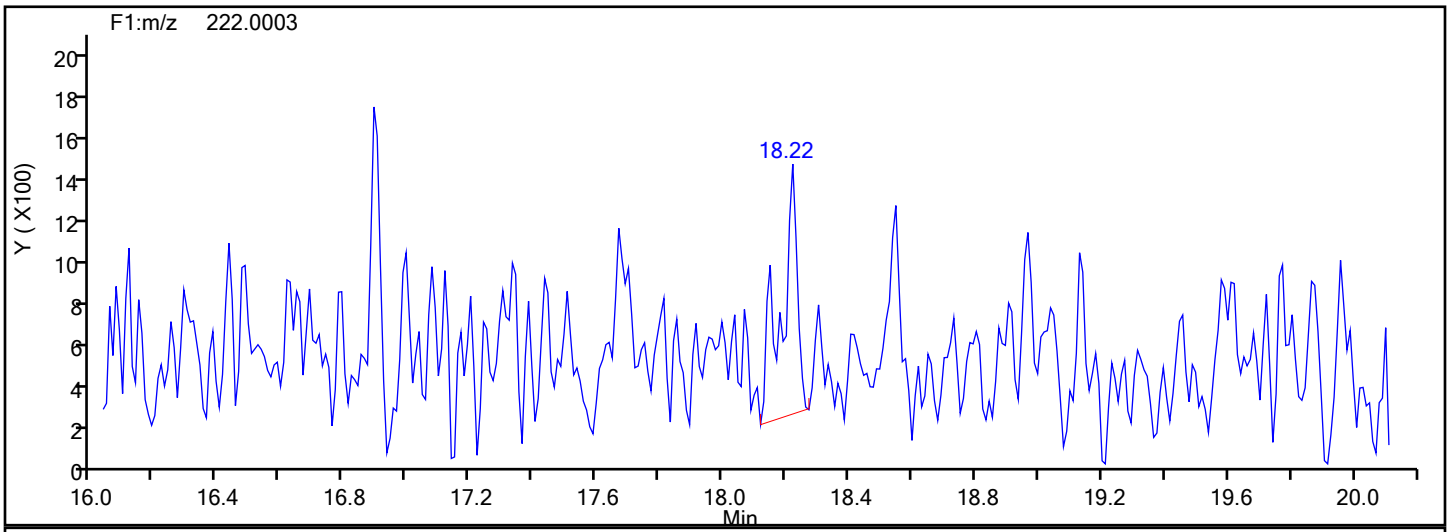
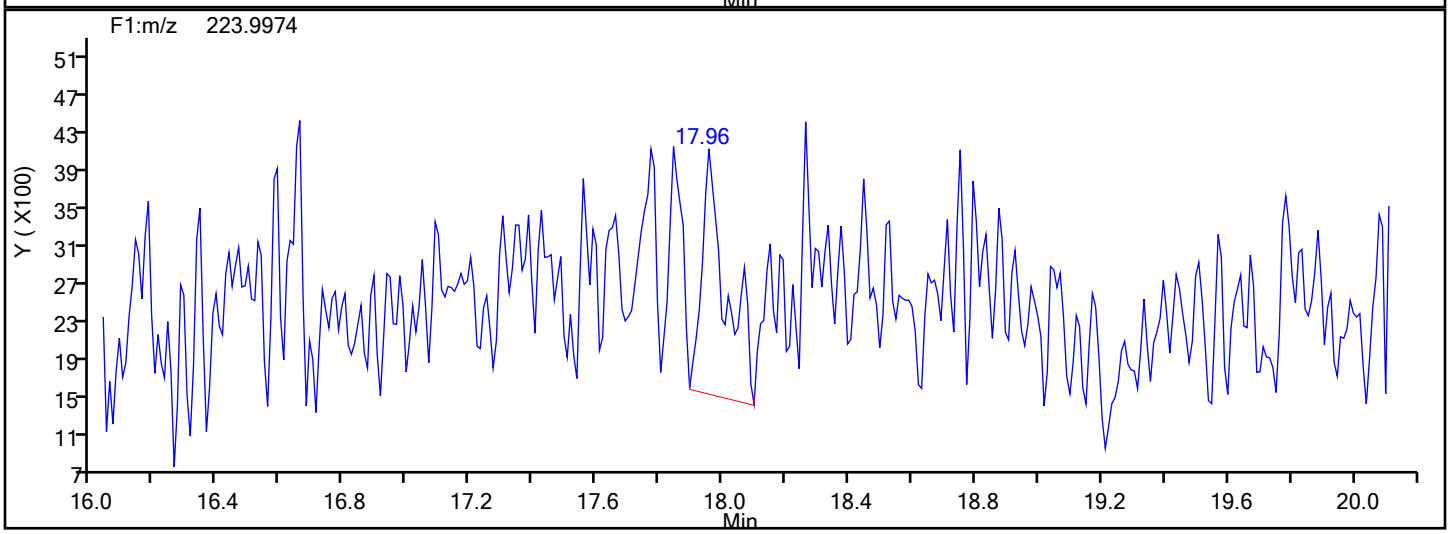
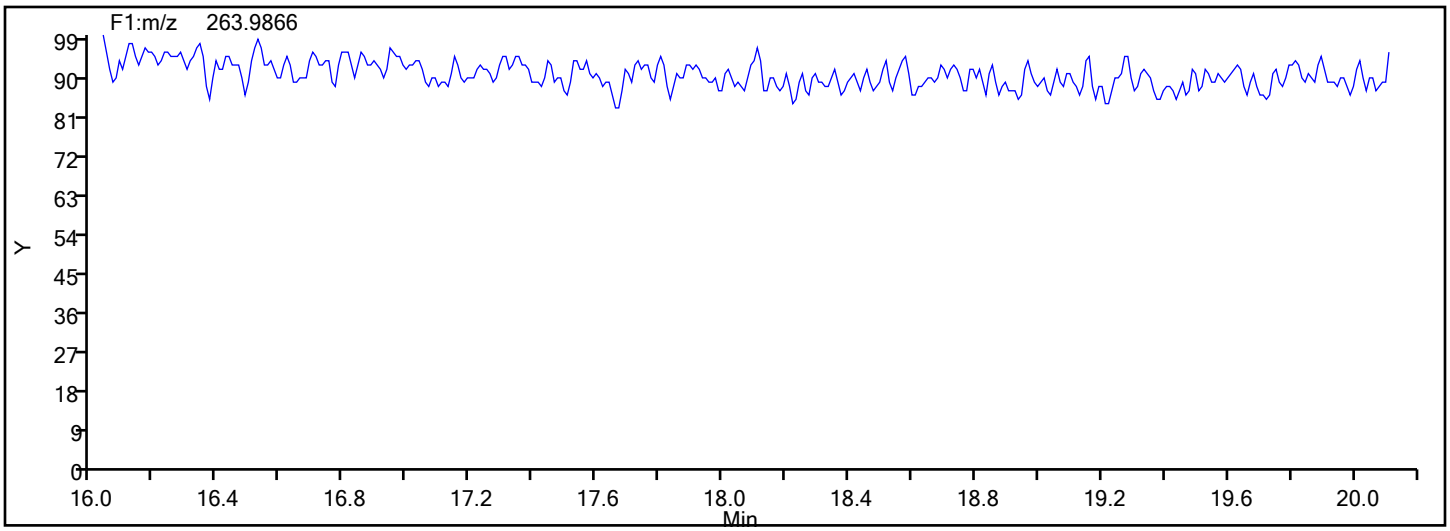
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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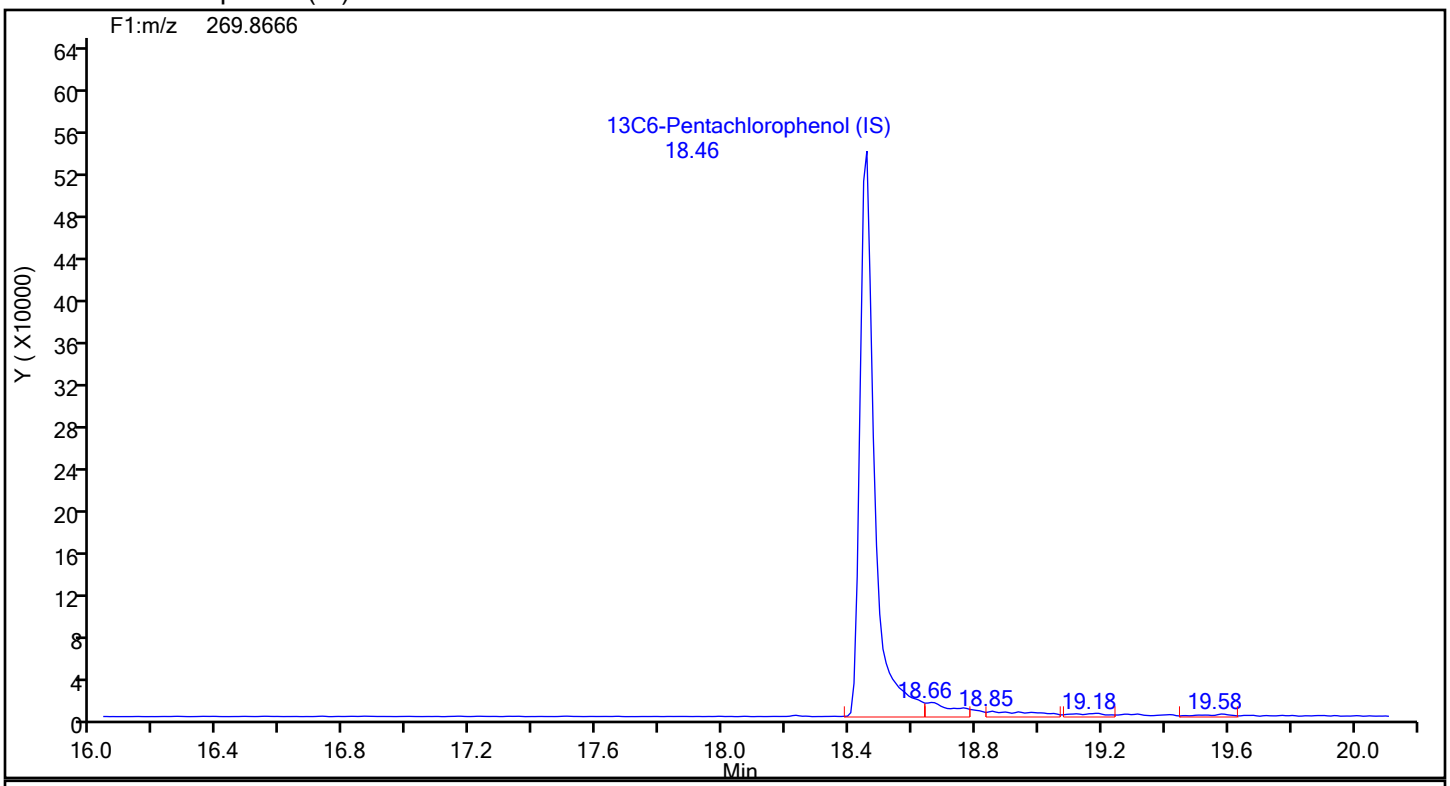
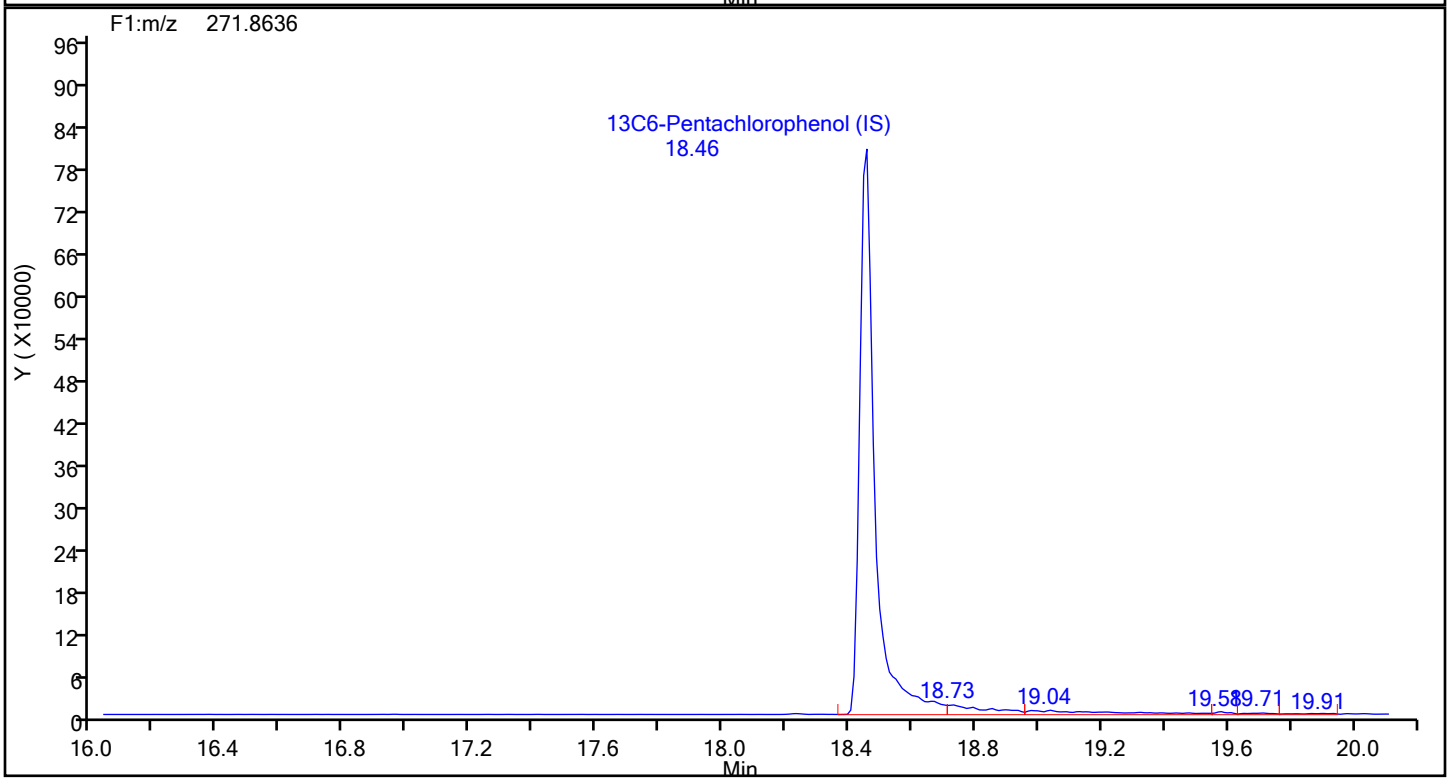
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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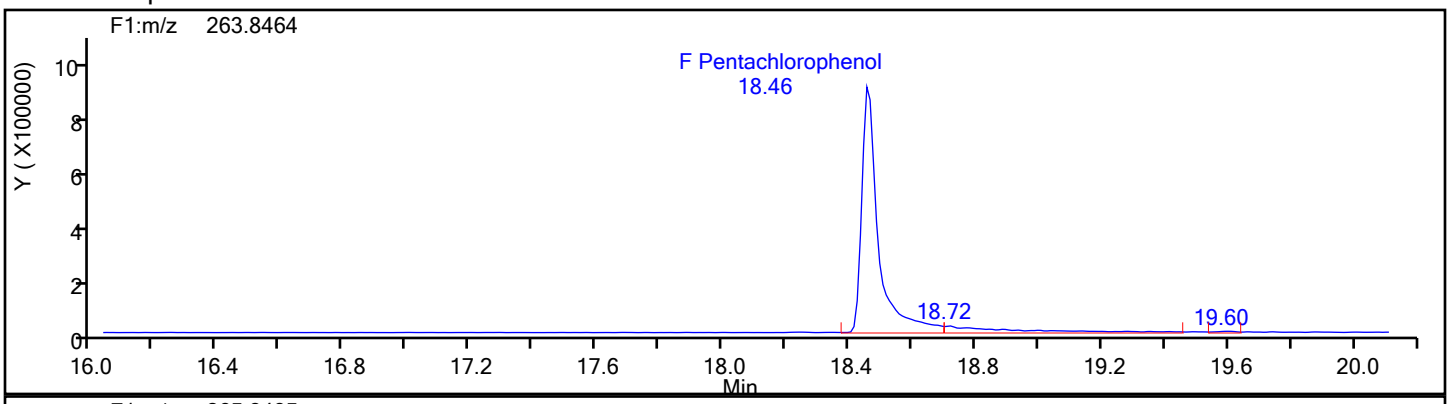
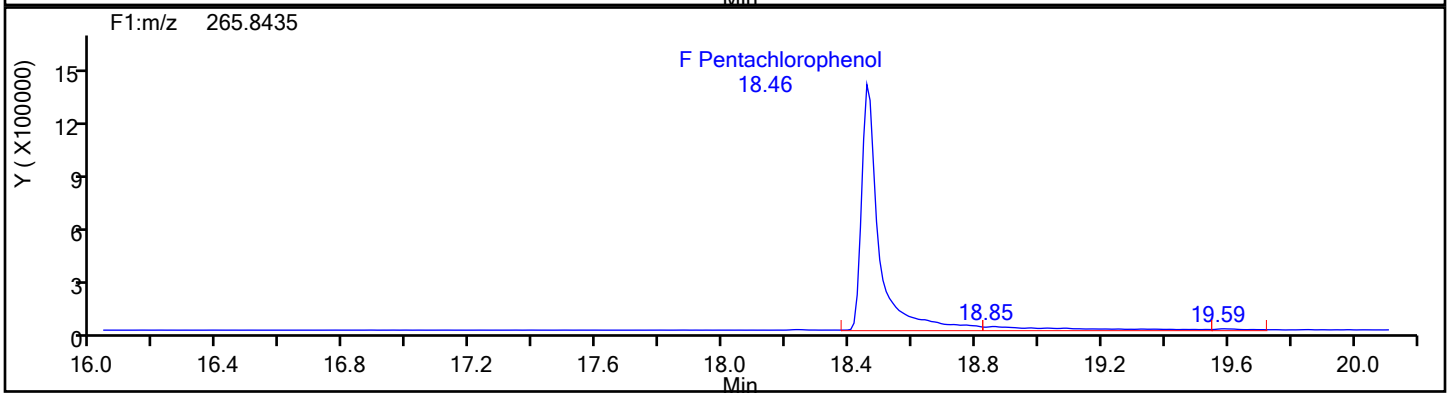
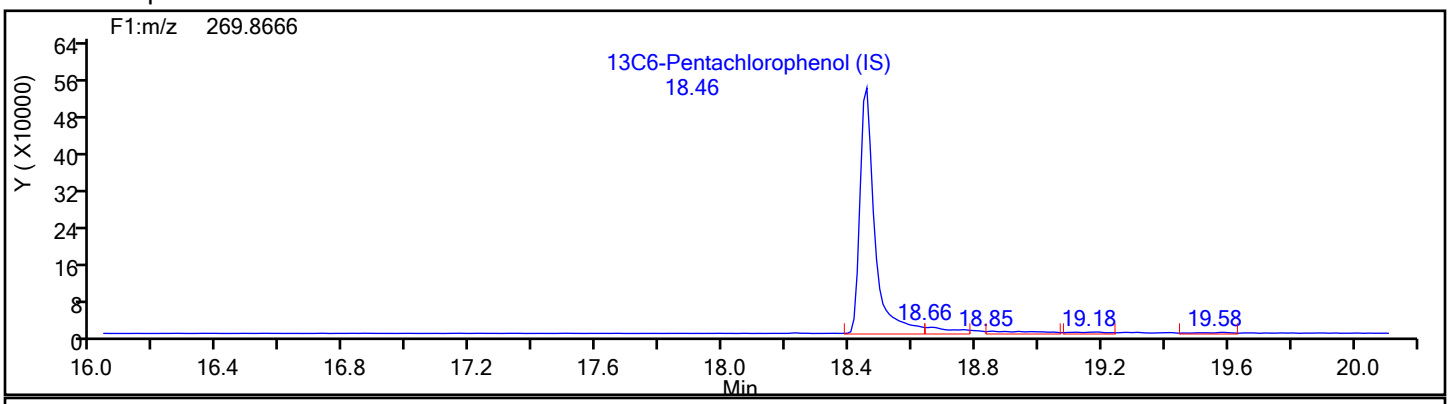
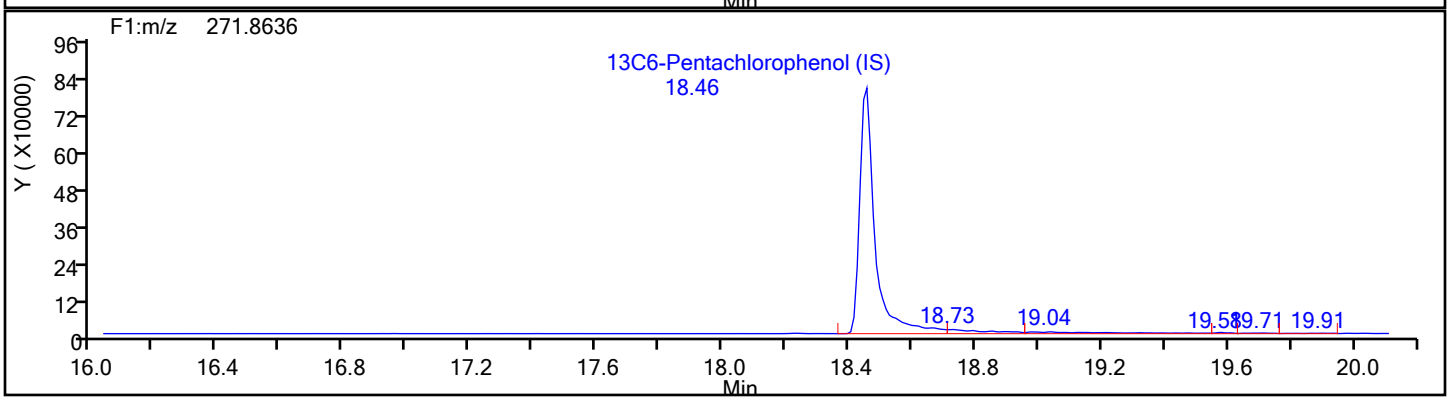
Pentachlorophenol





Pentachlorophenol Standards





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Eurofins Knoxville

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Injection Date: 04-May-2025 15:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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Client ID:
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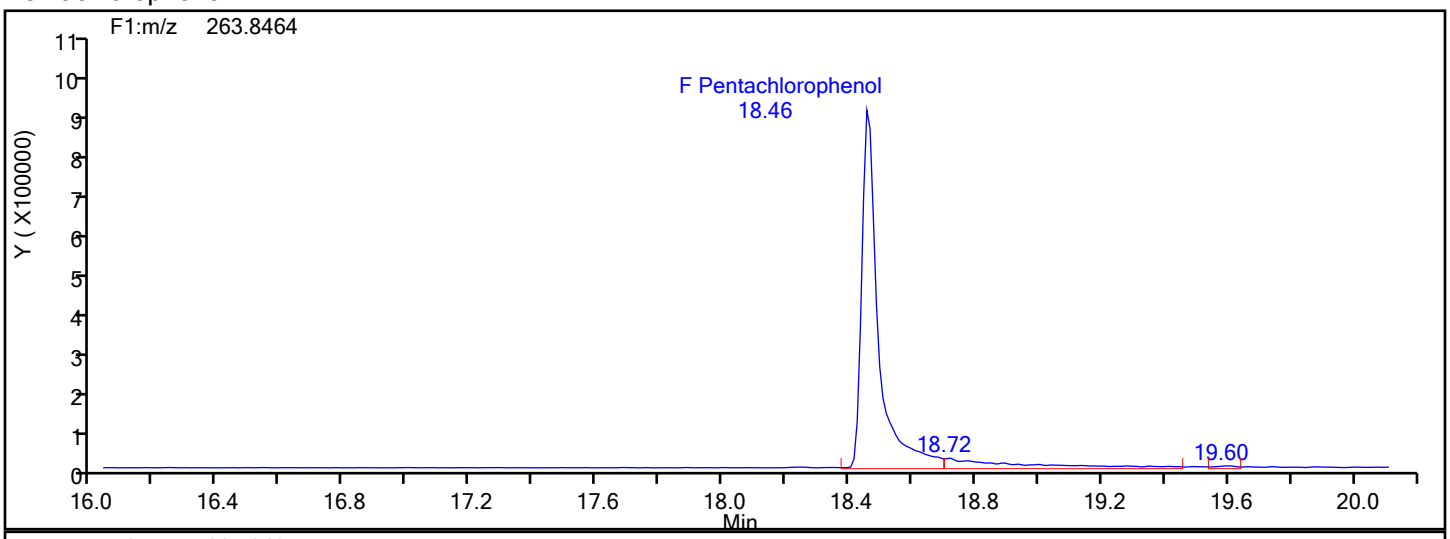
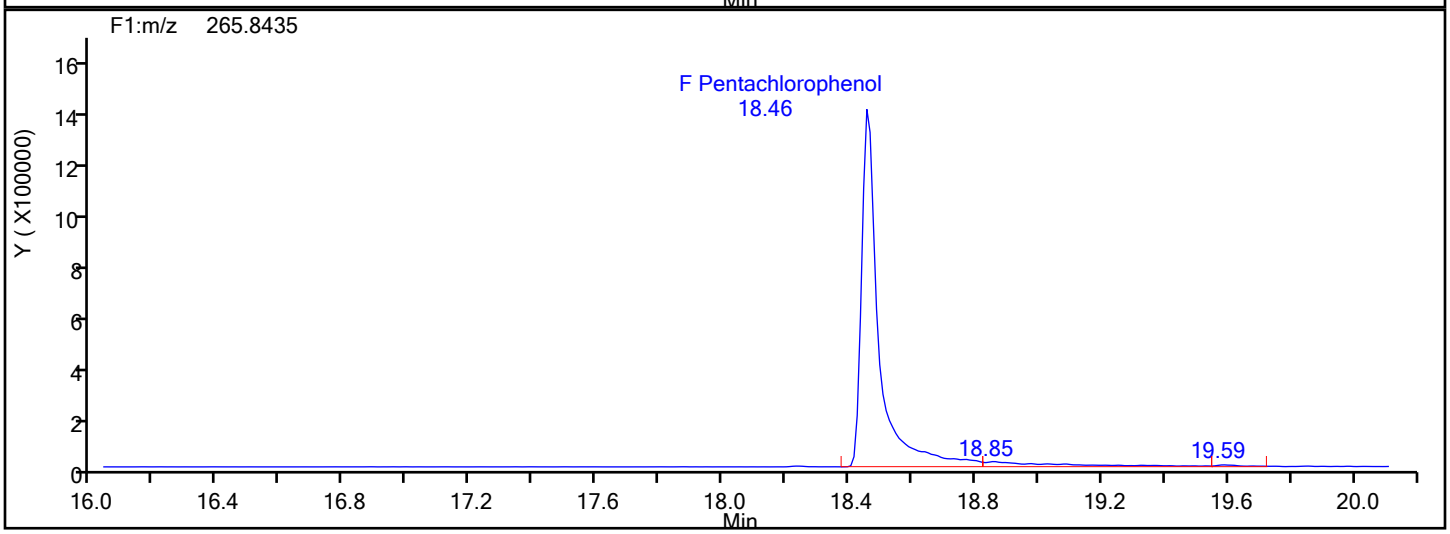
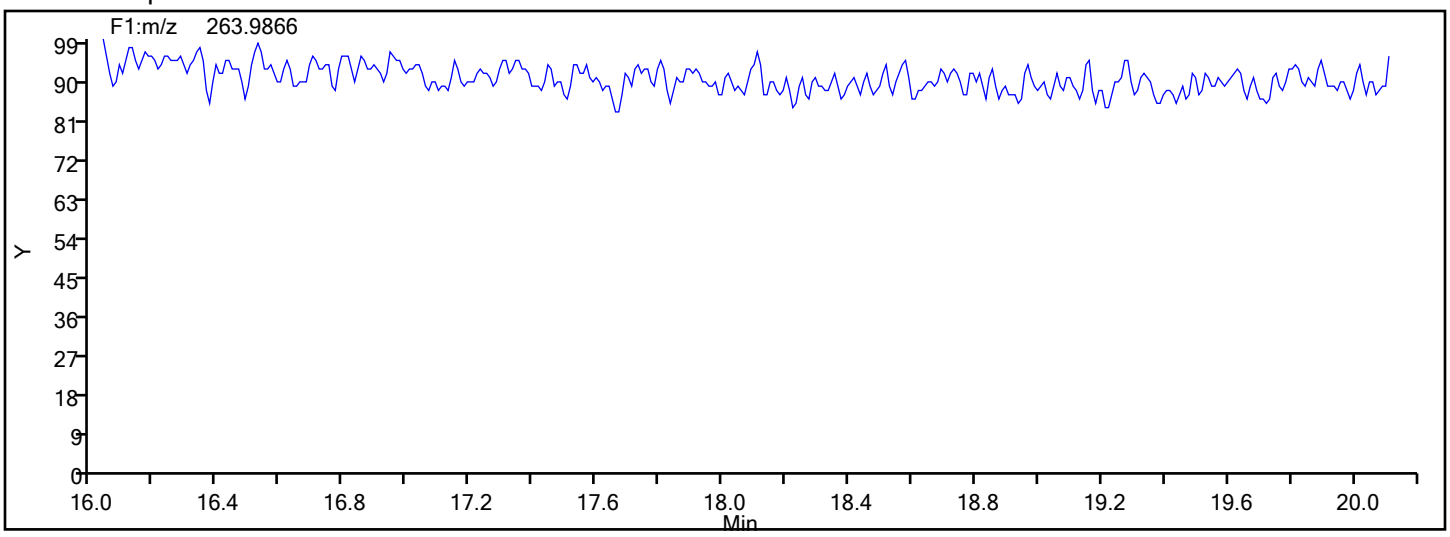
Pentachlorophenol





Pentachlorophenol Lock Mass



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Eurofins Knoxville

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Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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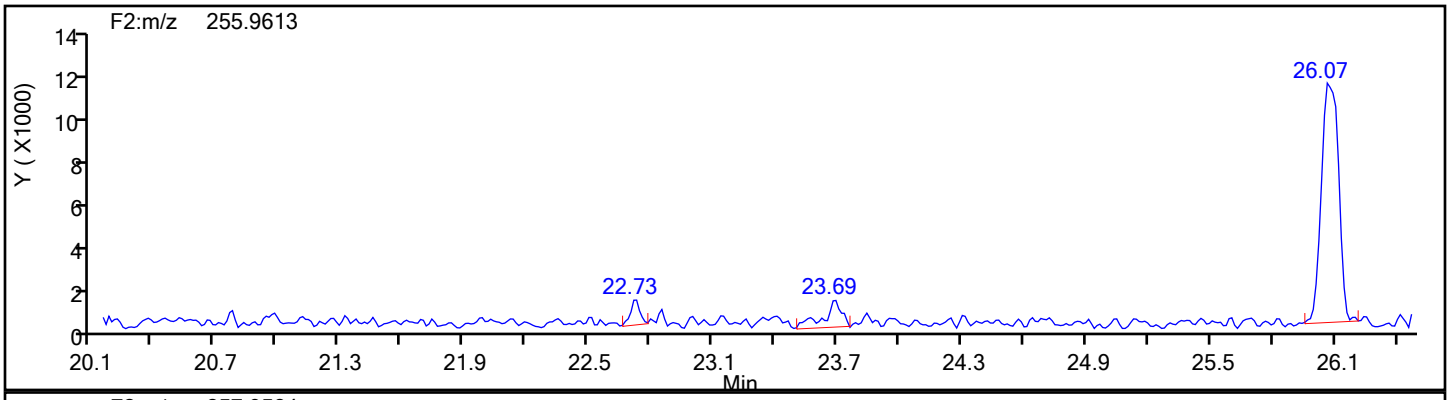
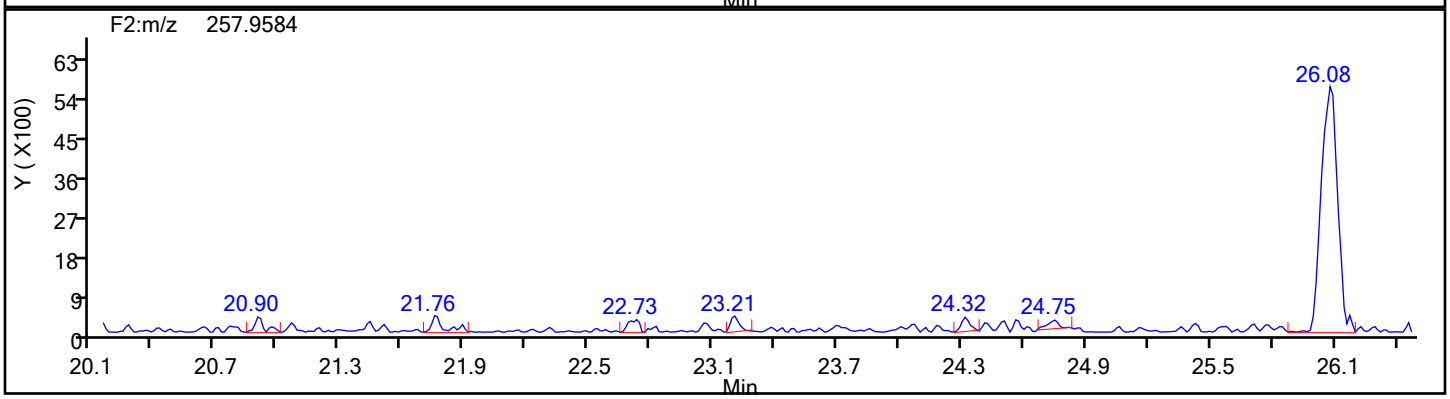
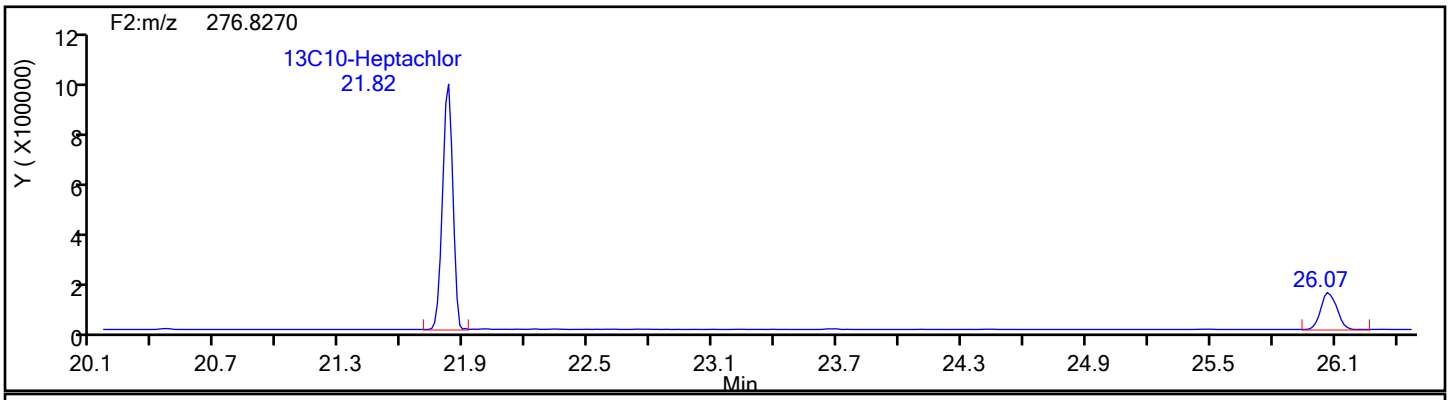
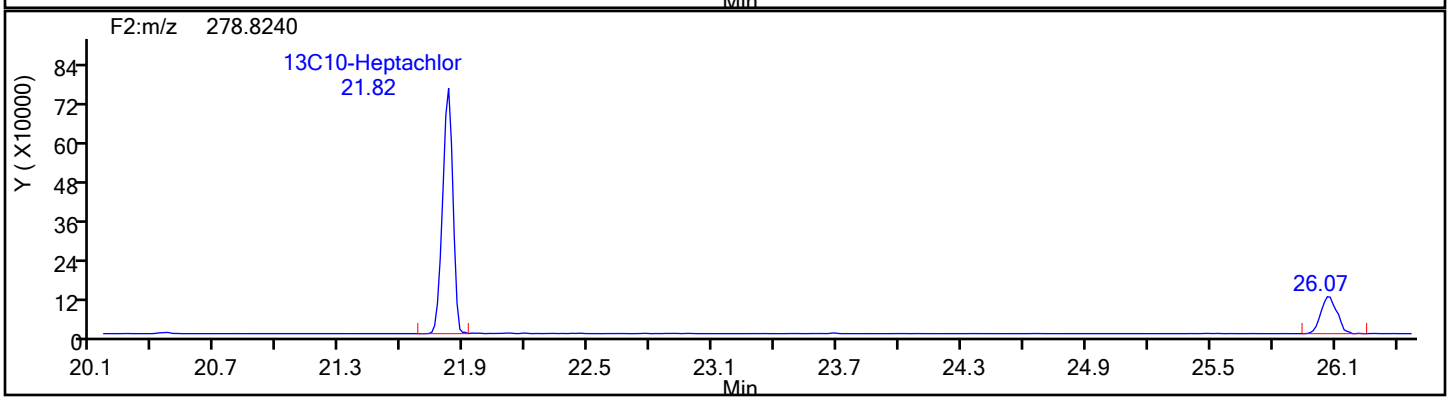
PCB-36





PCB-36 Standards





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Eurofins Knoxville

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Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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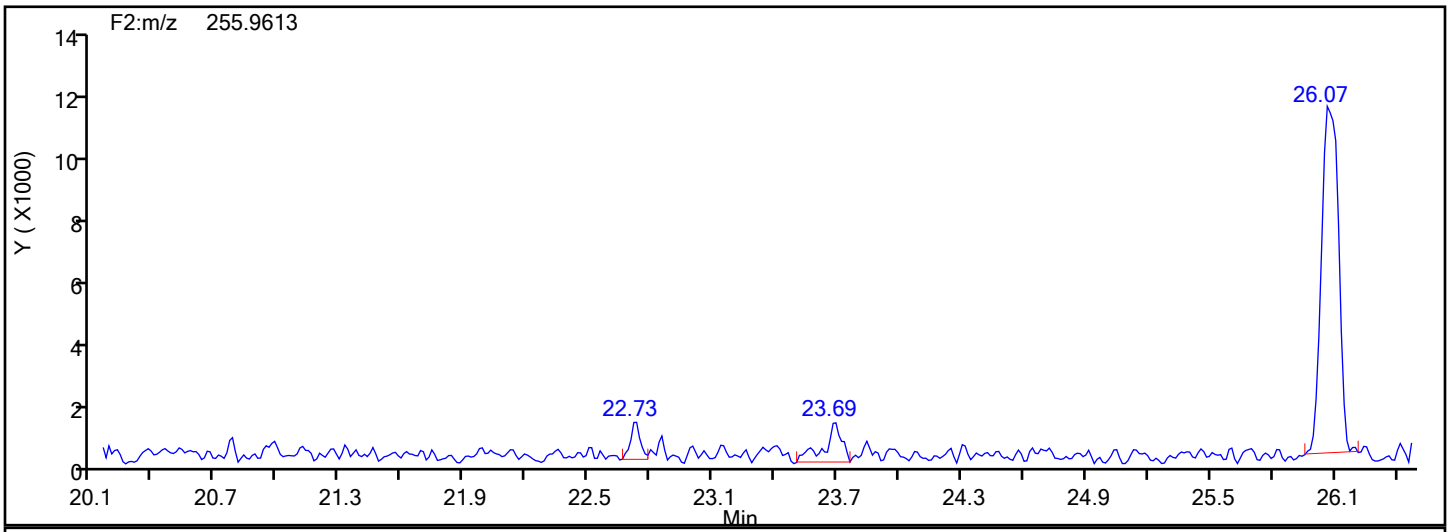
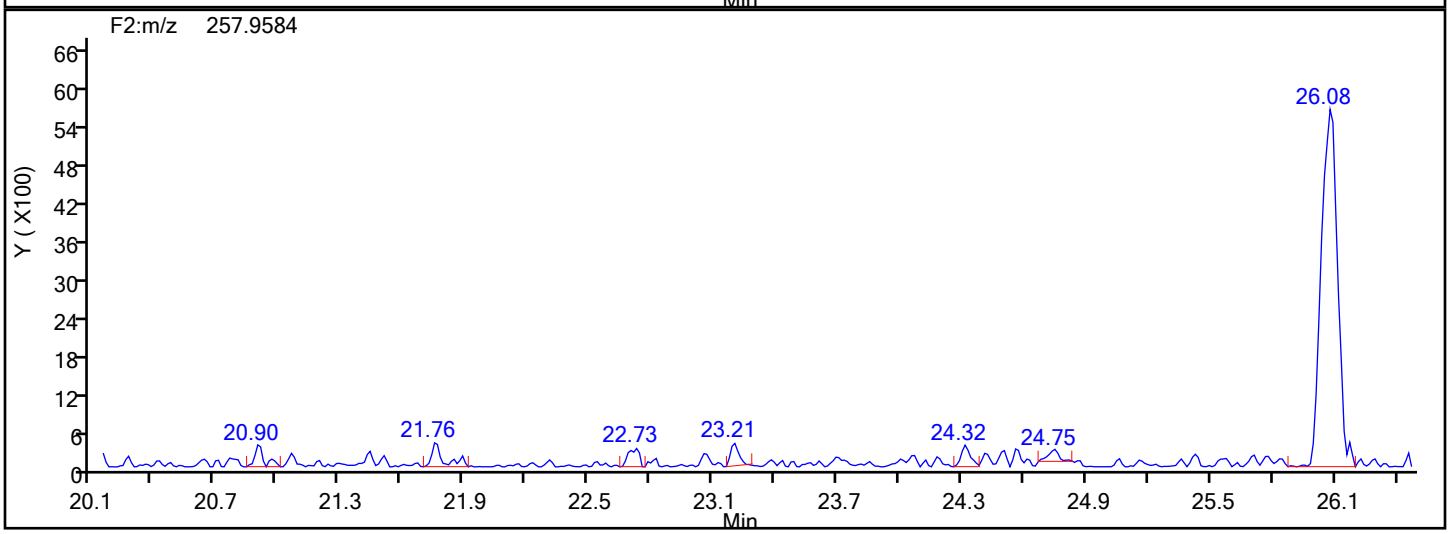
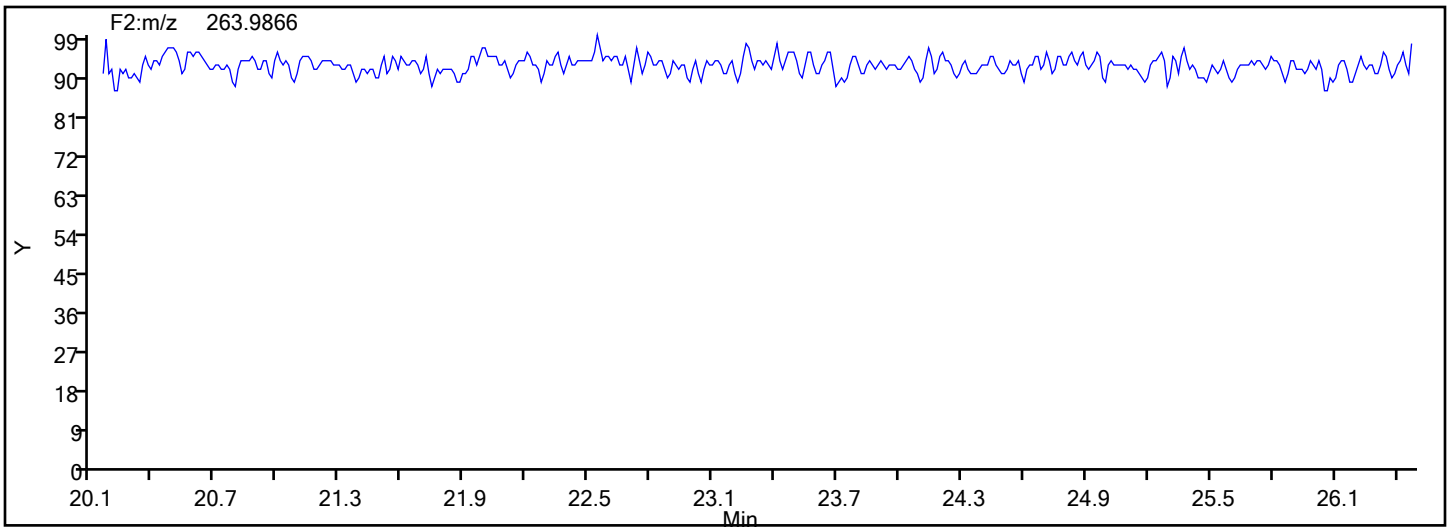
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



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Eurofins Knoxville

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Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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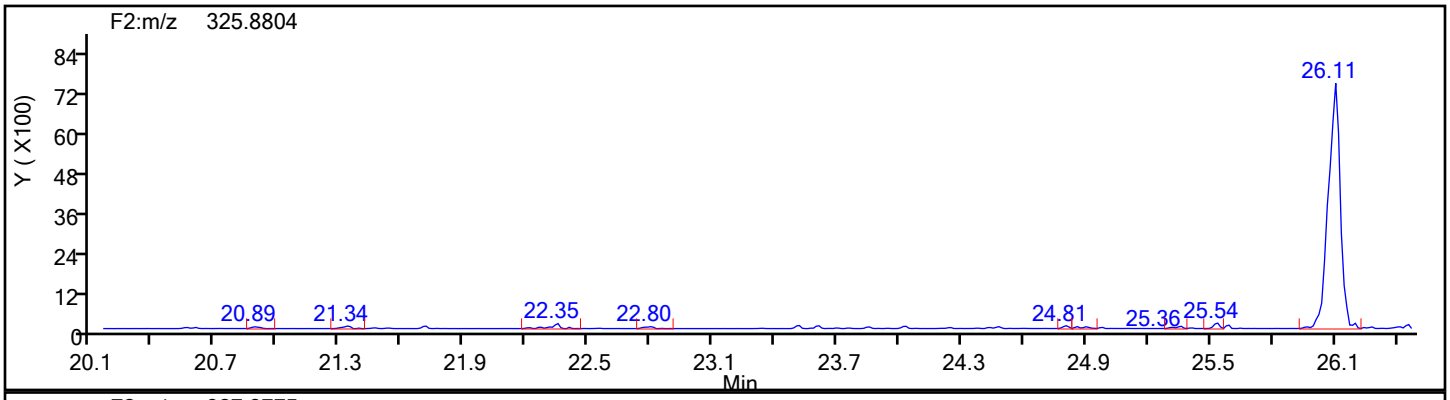
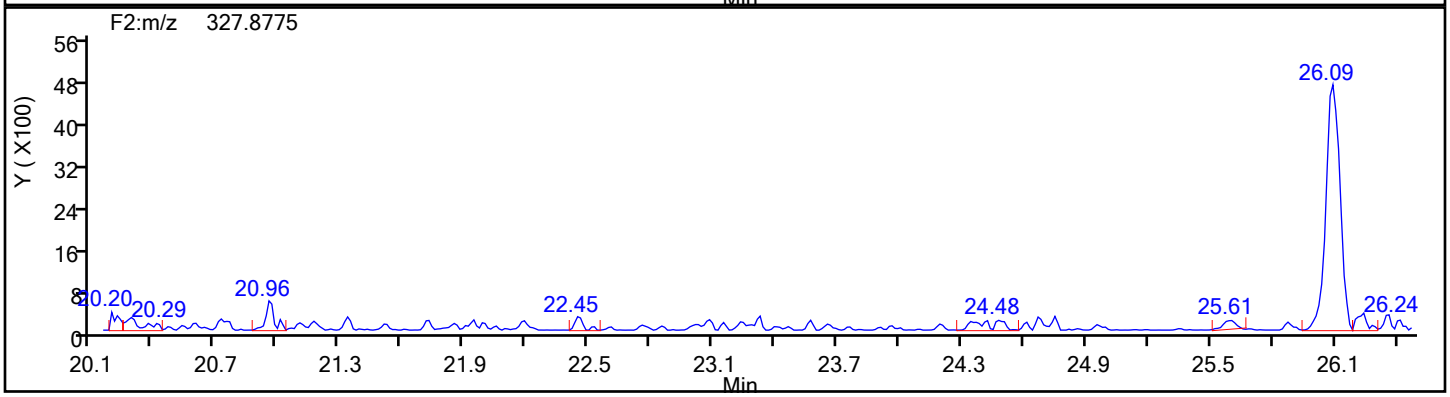
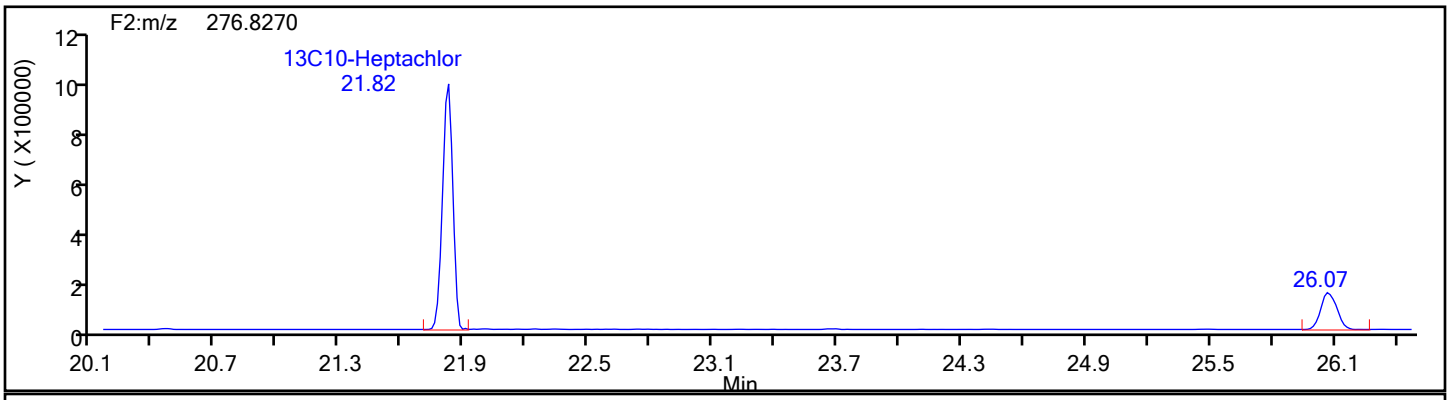
Column Type:	RTX-5	Column Dia:	0.32 mm

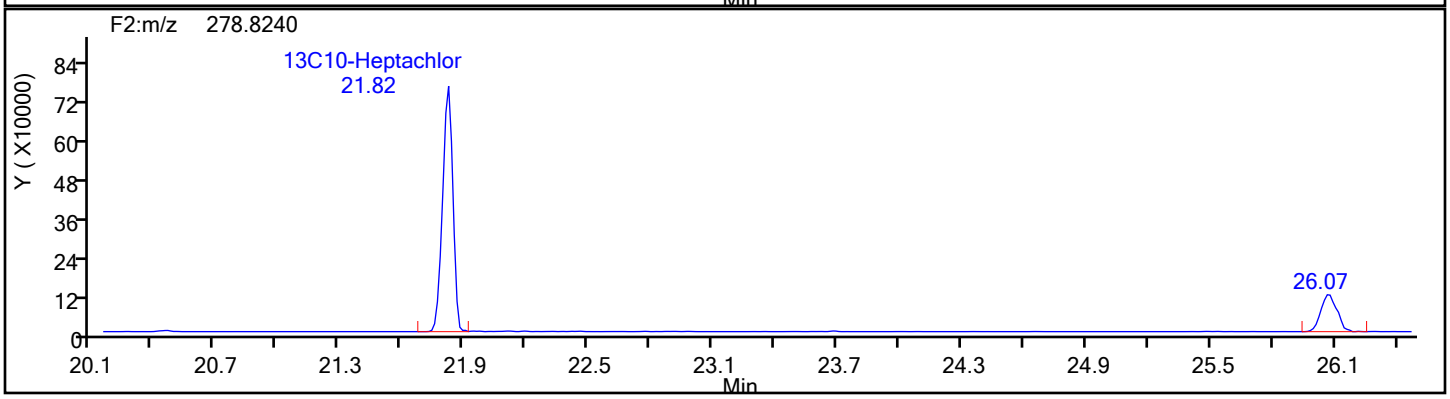
PCB-104





PCB-104 Standards



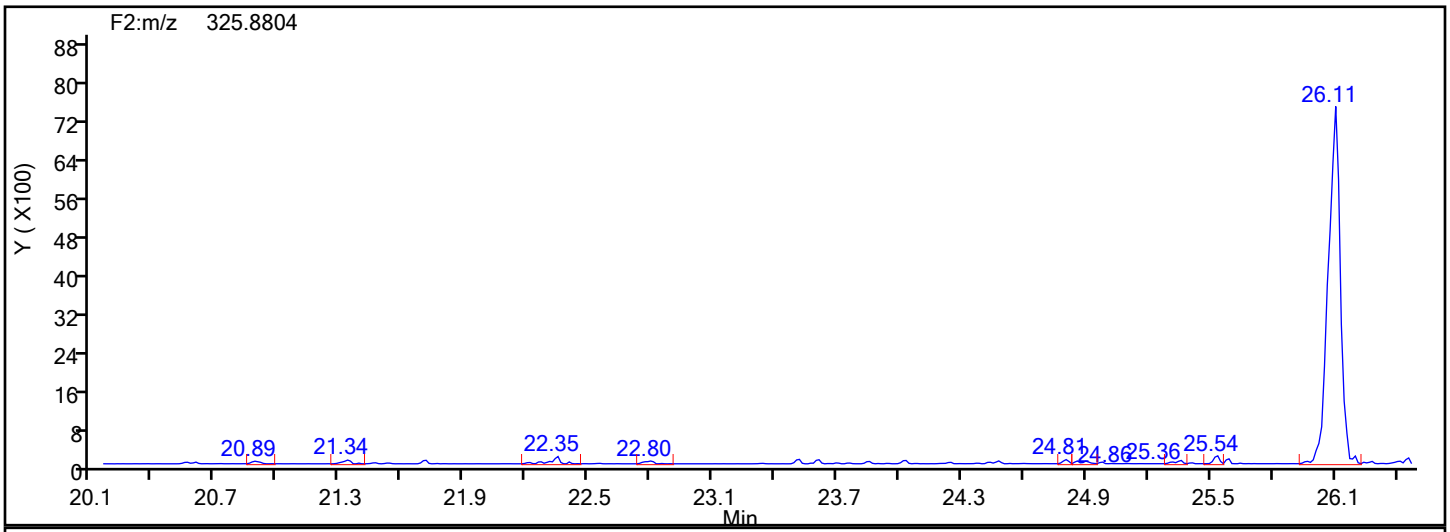


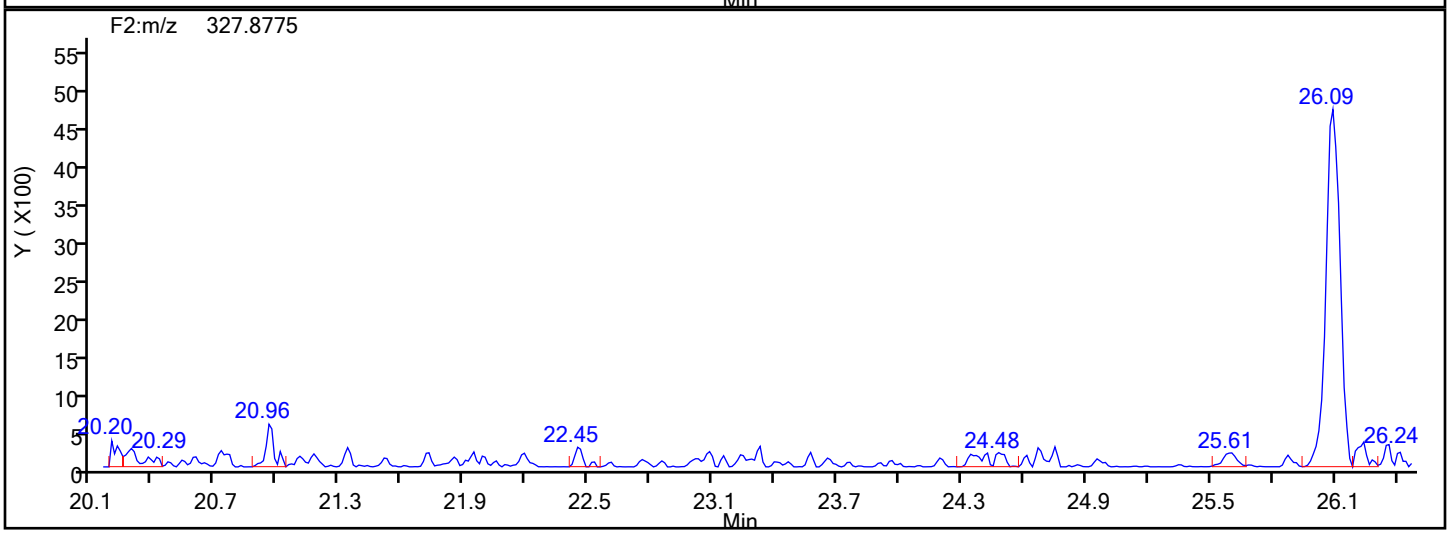
Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

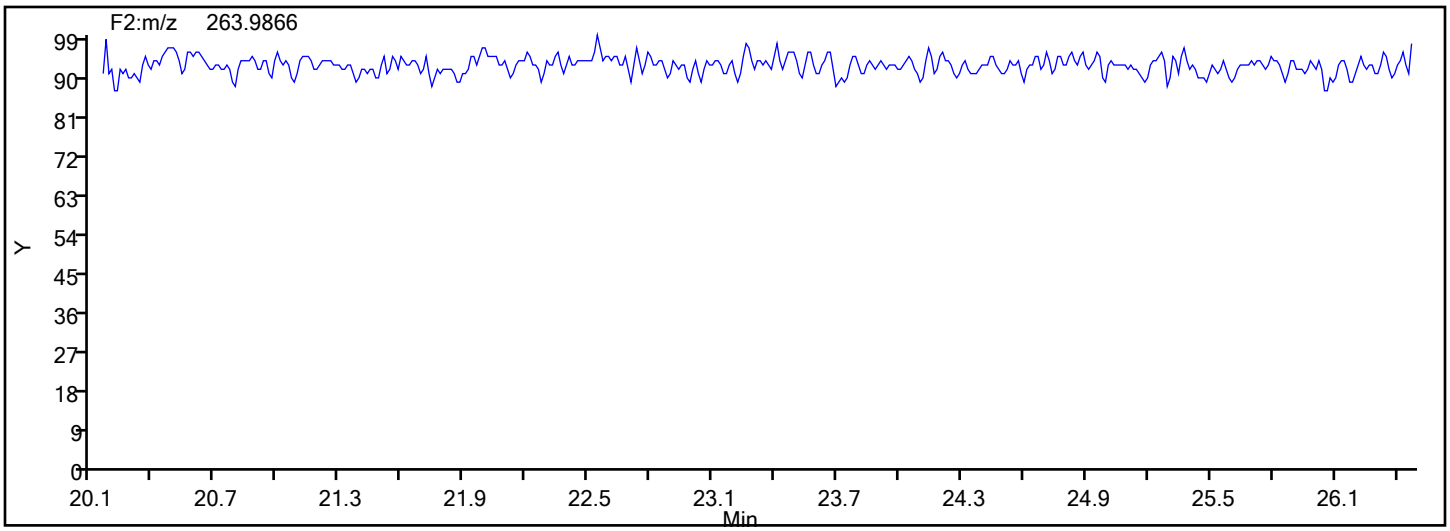
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d
Injection Date: 04-May-2025 15:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99272 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-104





PCB-104 Lock Mass



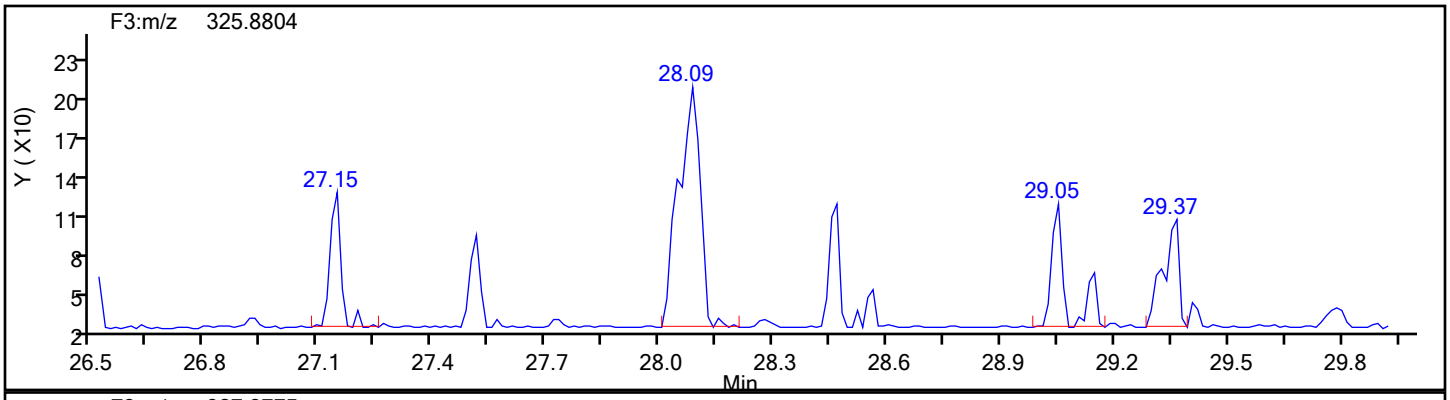
Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

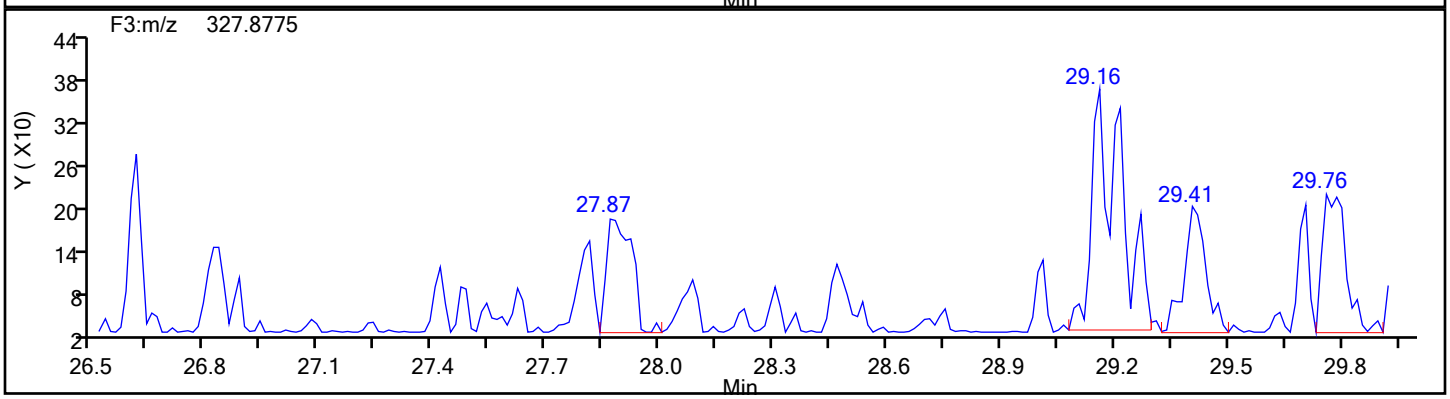
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

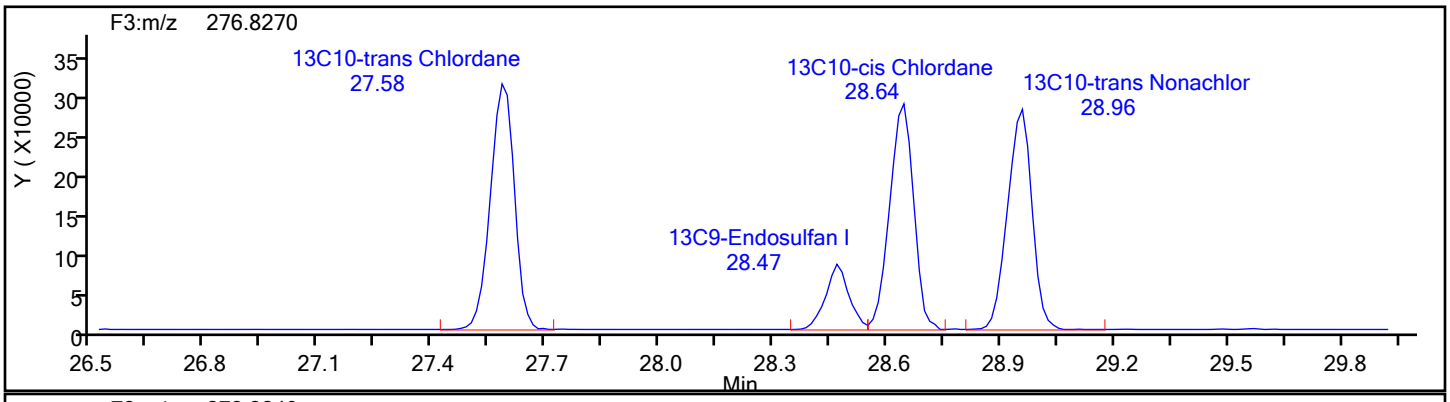
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

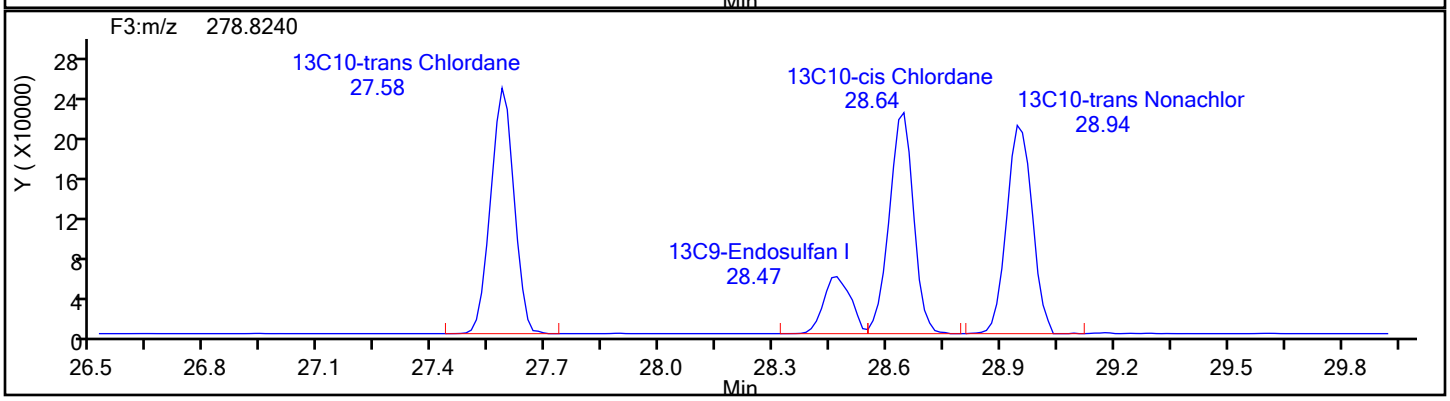
PCB-121





PCB-121 Standards





Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d		
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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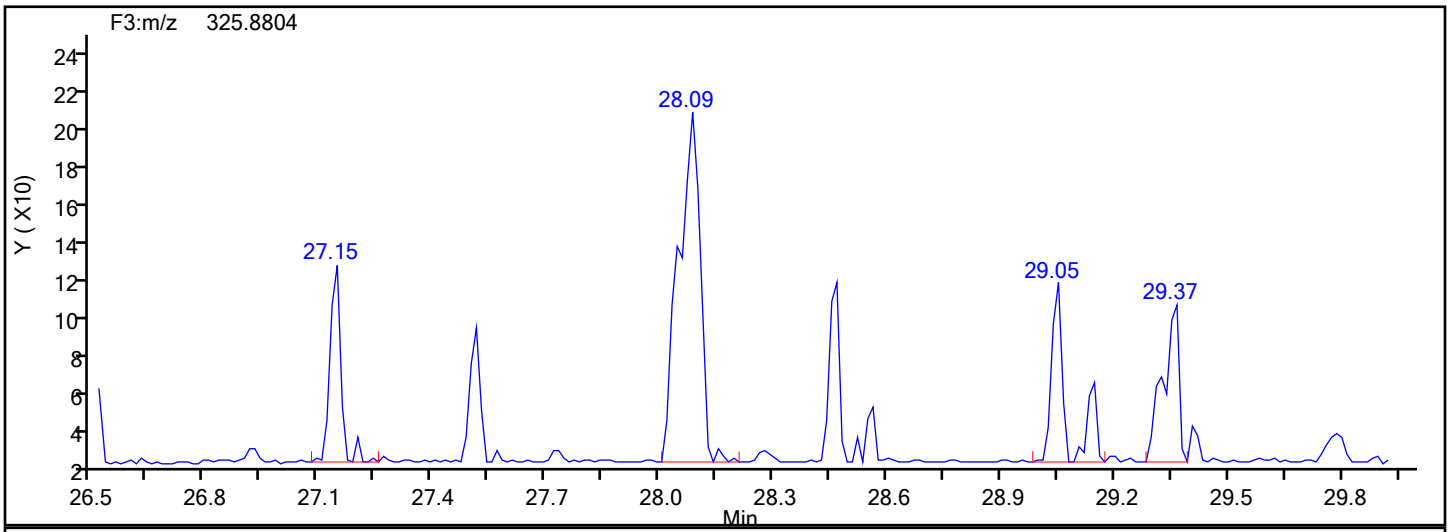
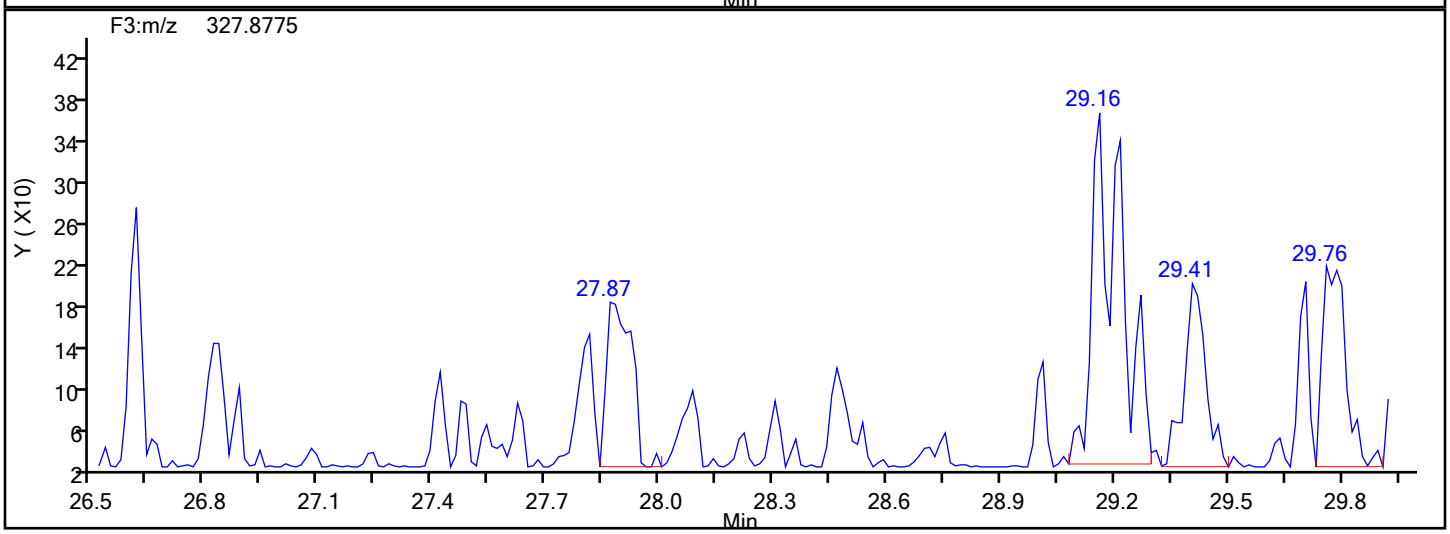
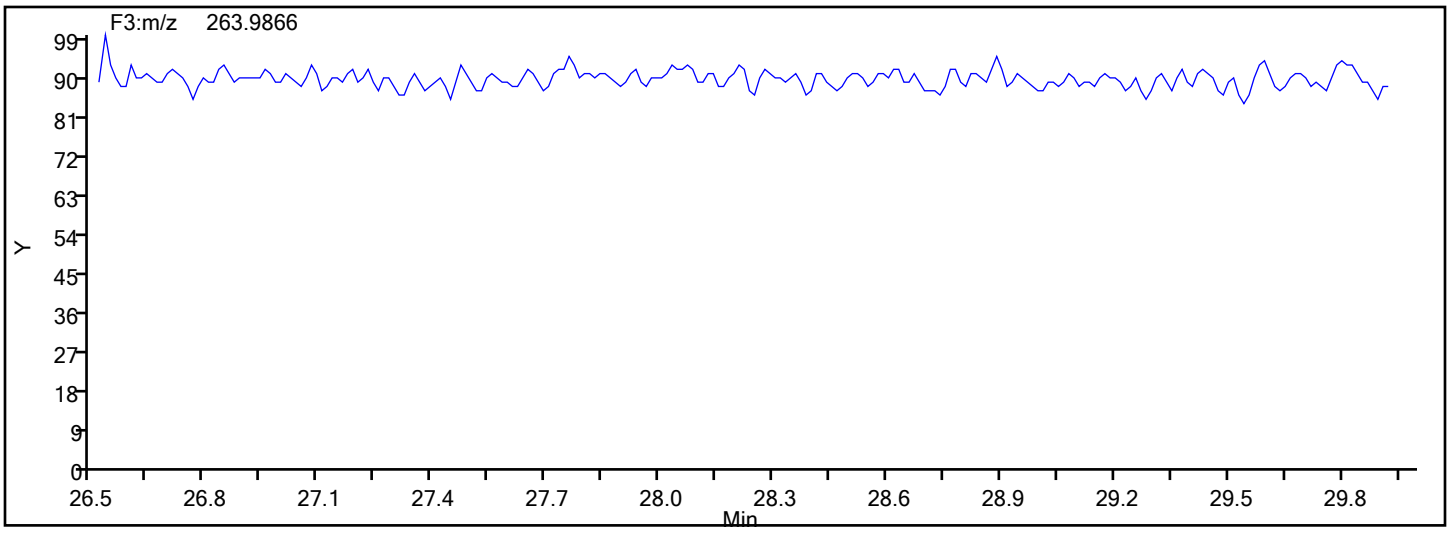
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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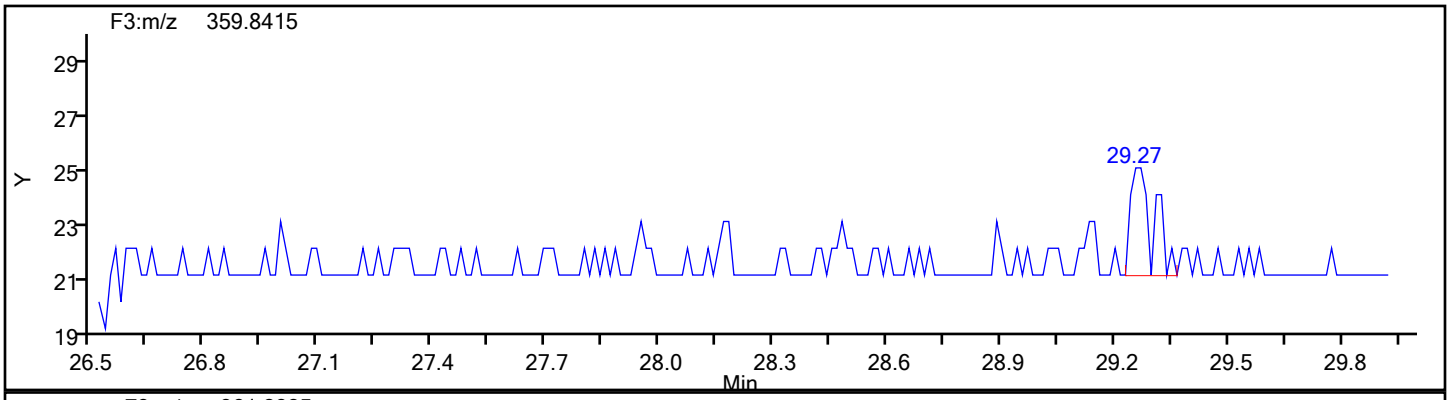
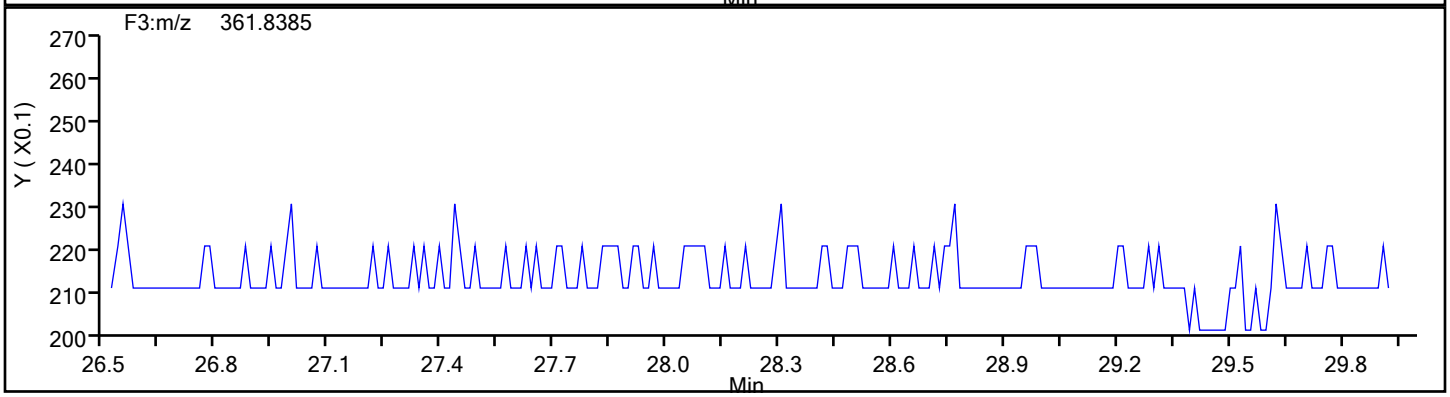
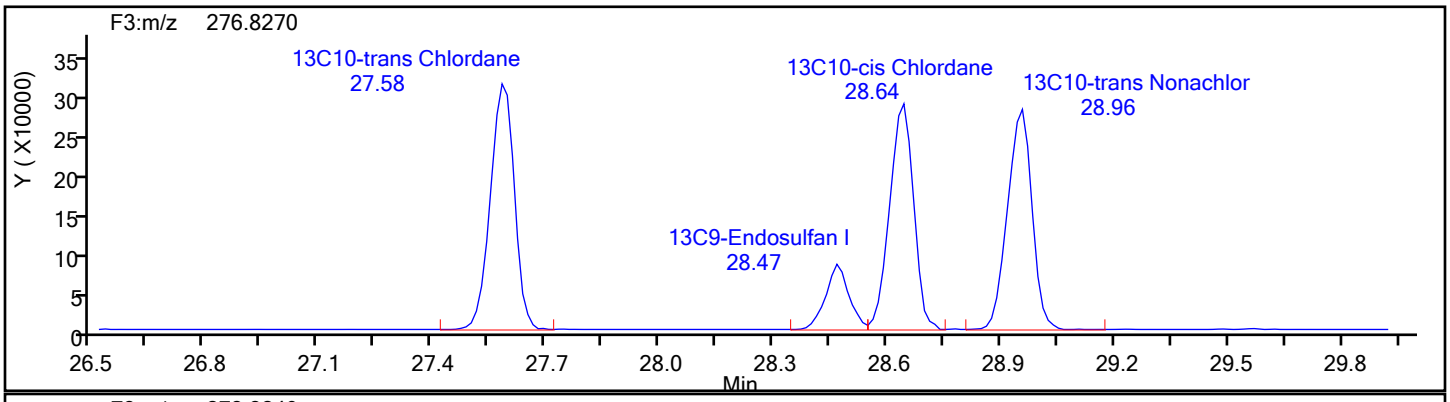
Column Type:	RTX-5	Column Dia:	0.32 mm

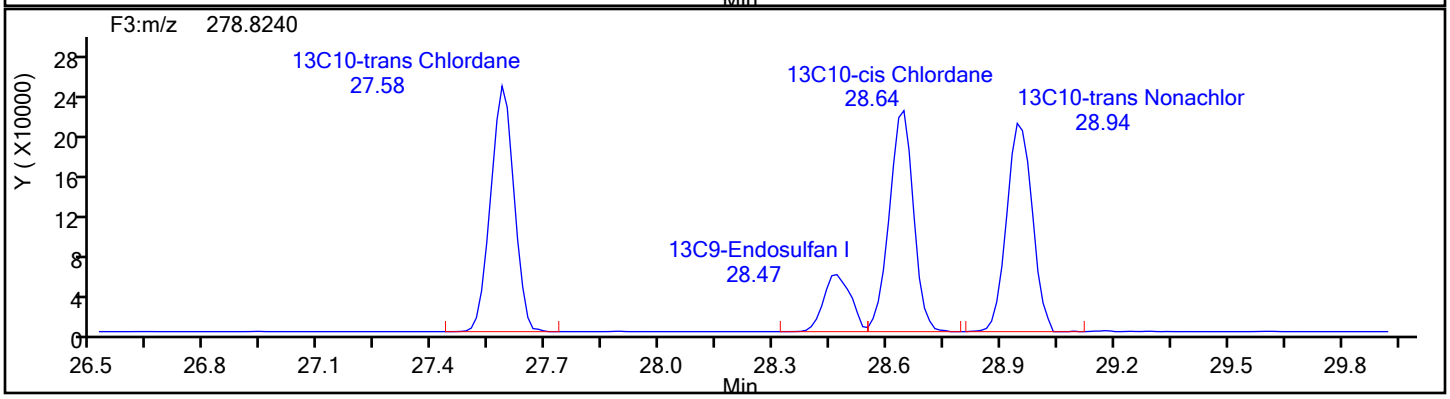
PCB-142





PCB-142 Standards





Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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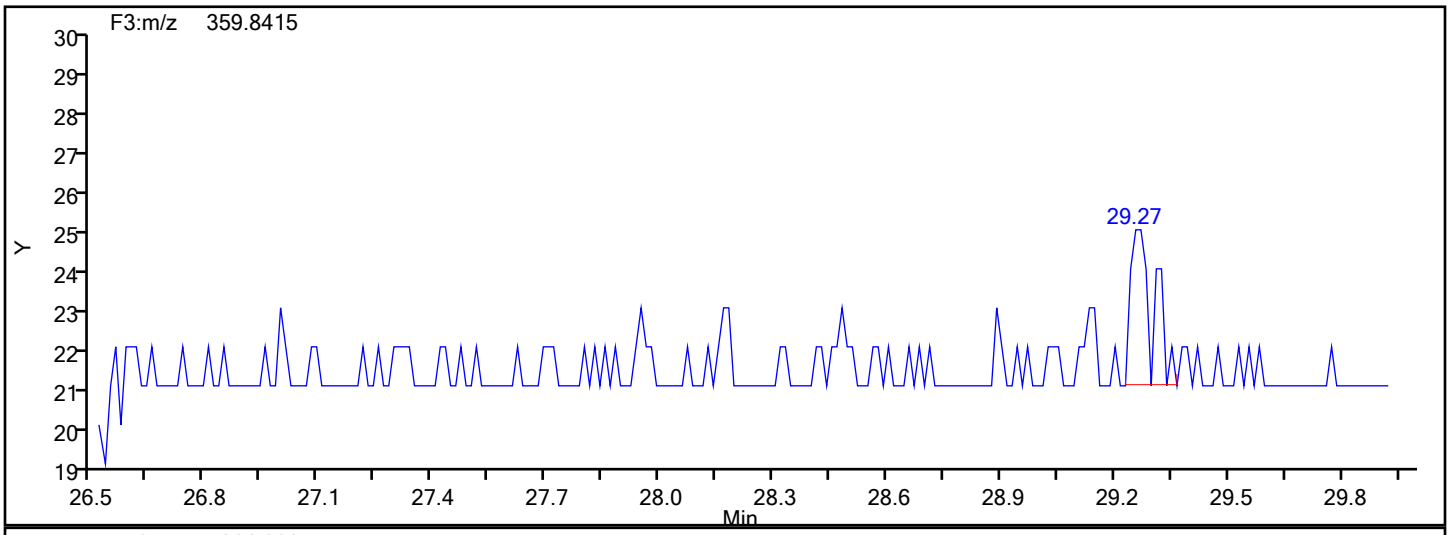
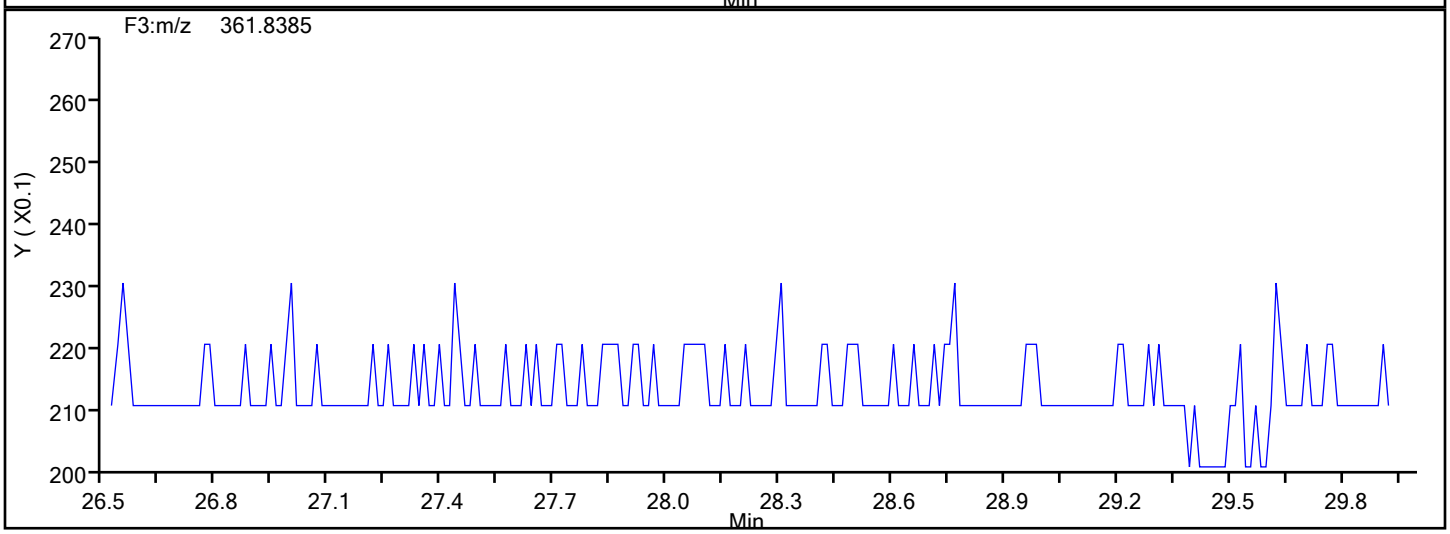
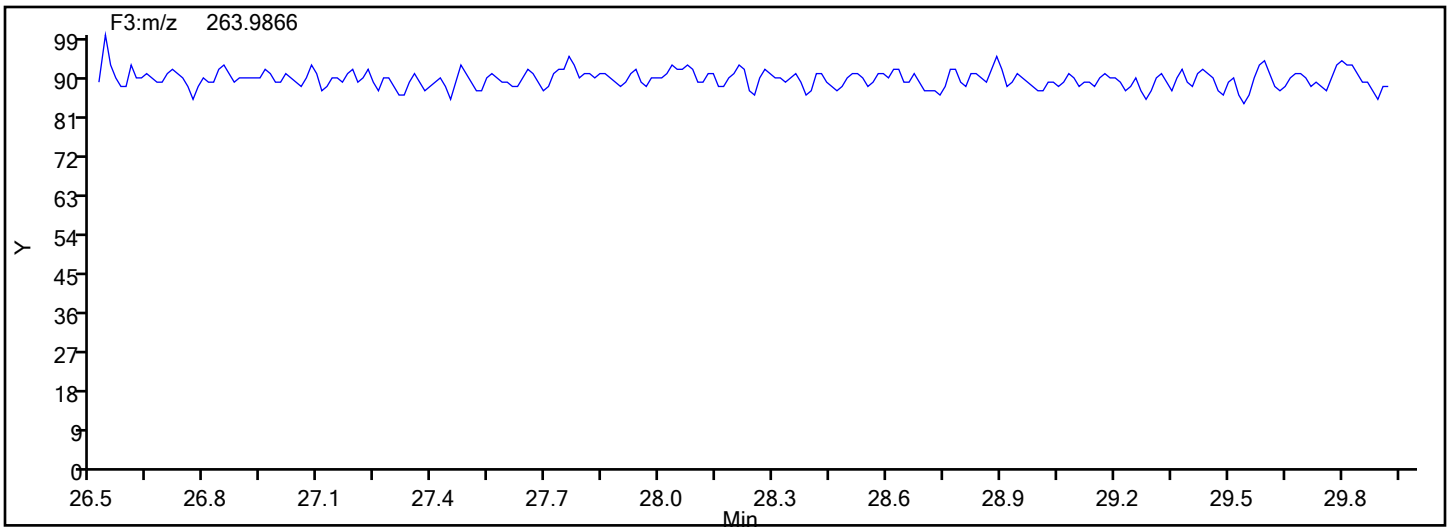
PCB-142





PCB-142 Lock Mass



Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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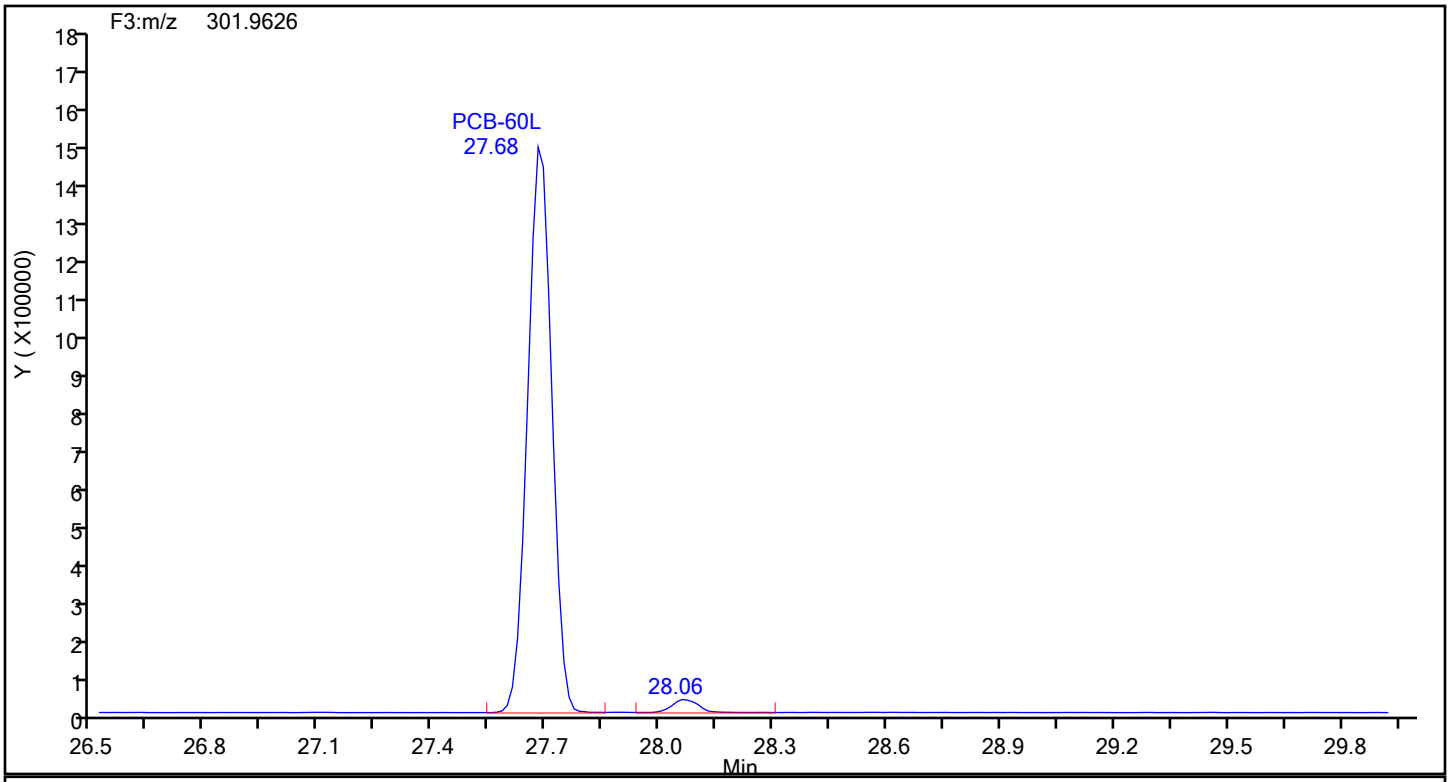
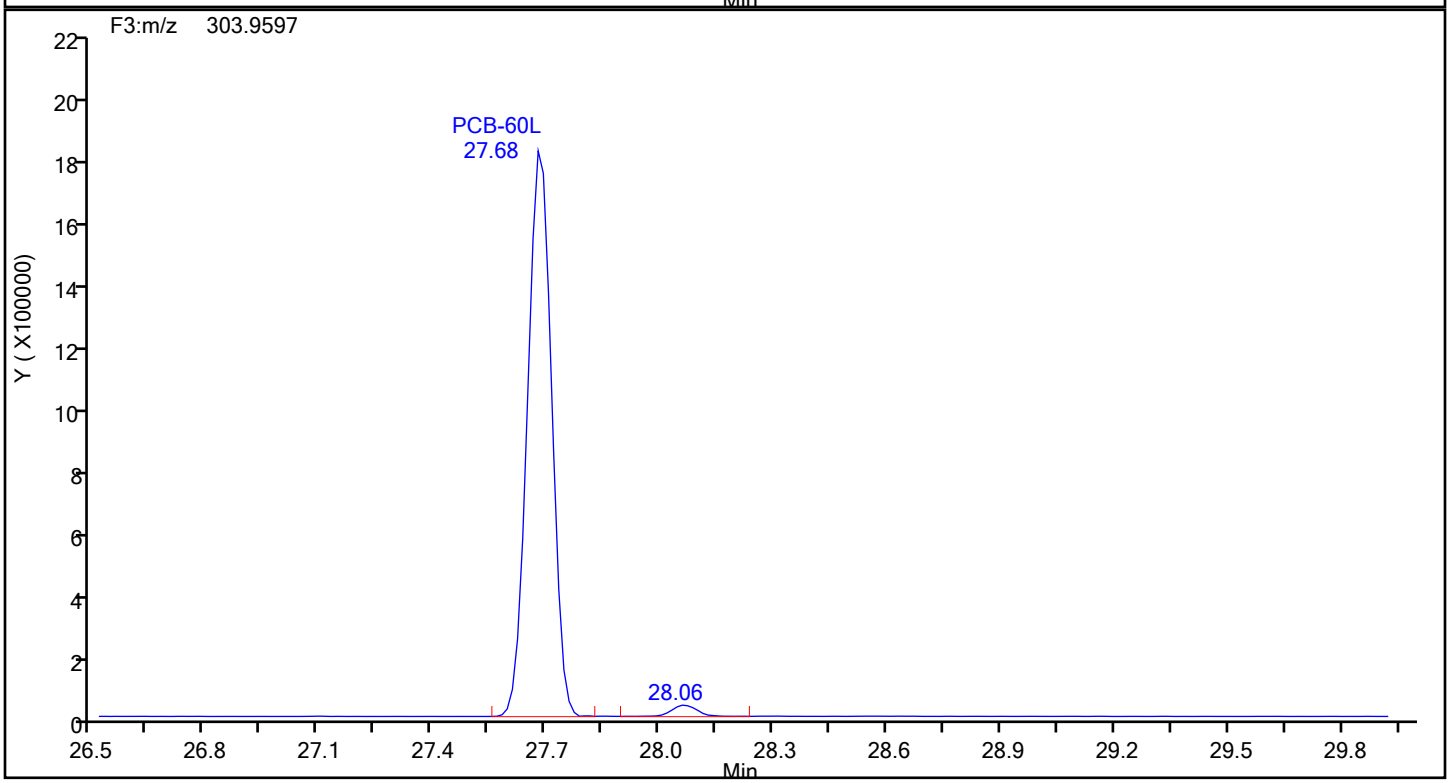
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-60L Standards





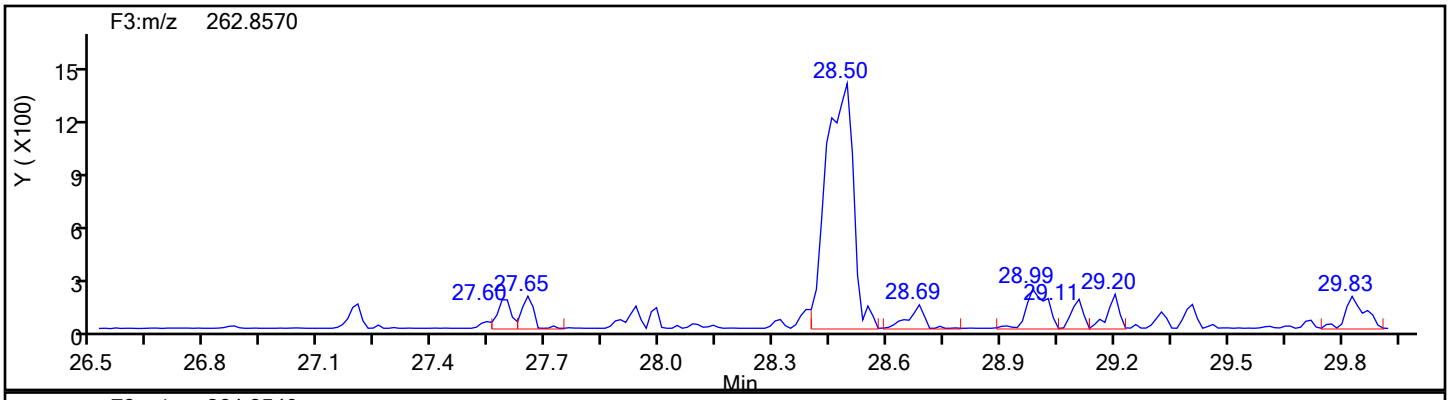
Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

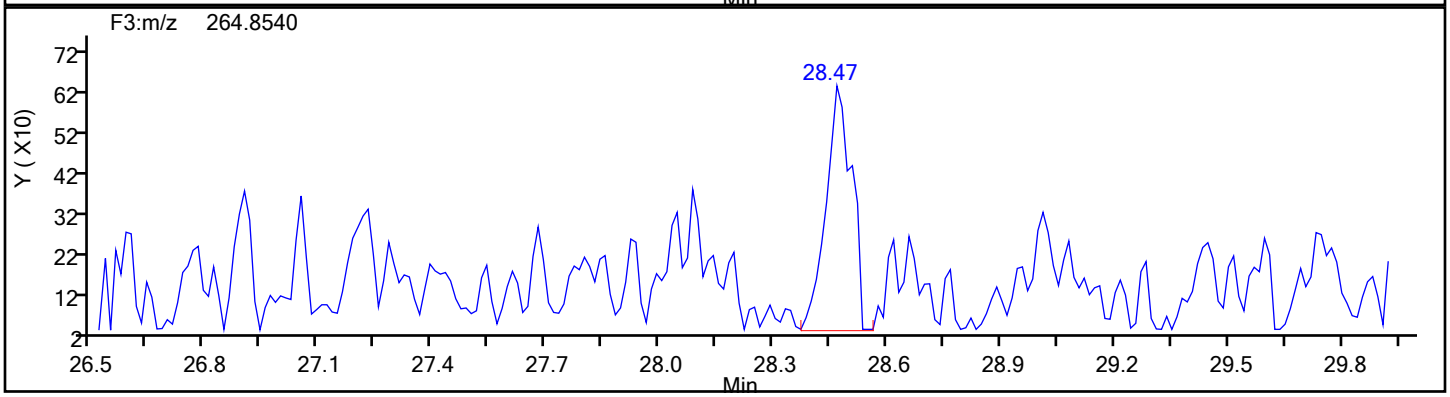
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

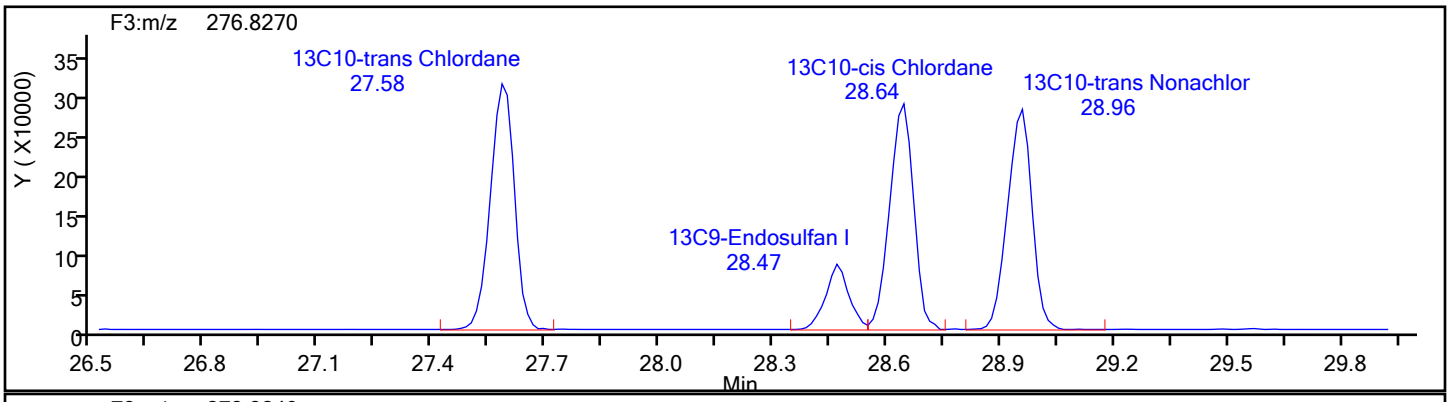
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

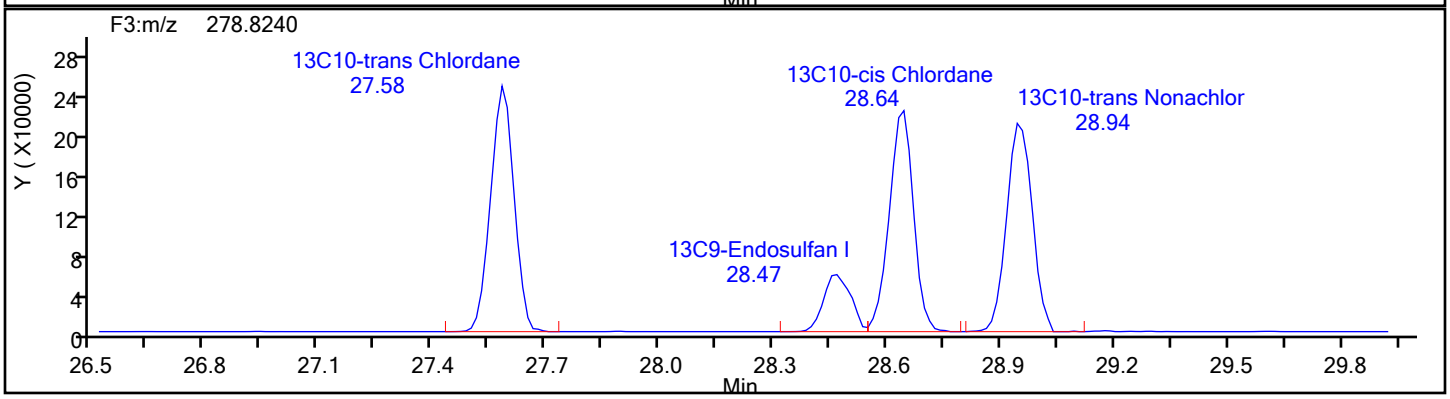
Endosulfan I





Endosulfan I Standards





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Eurofins Knoxville

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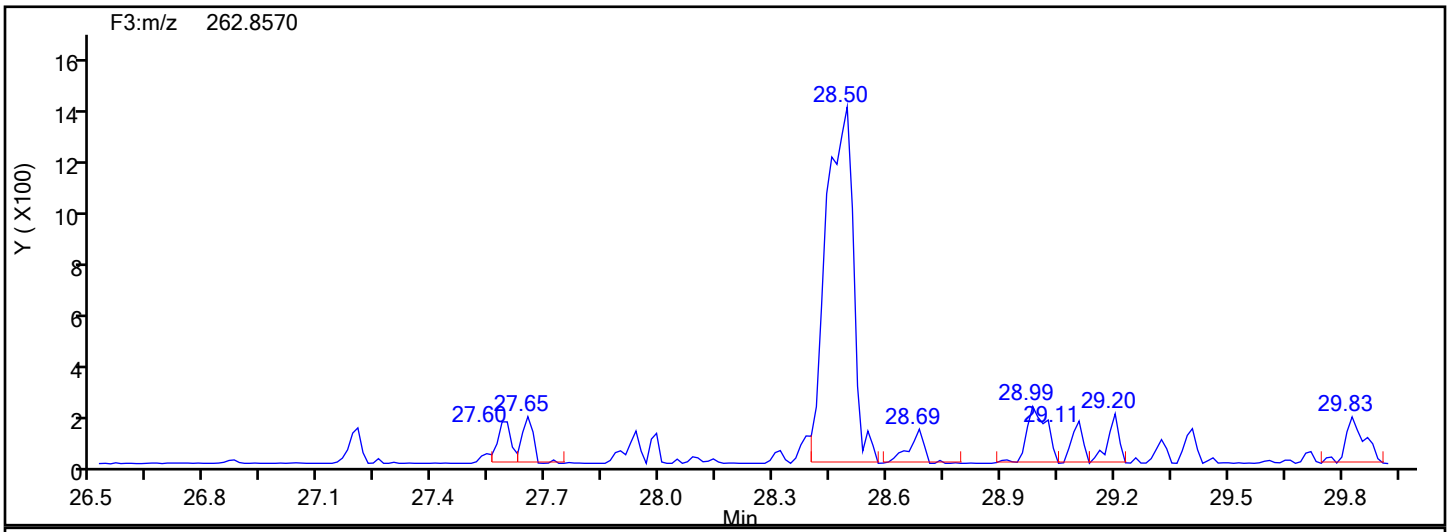
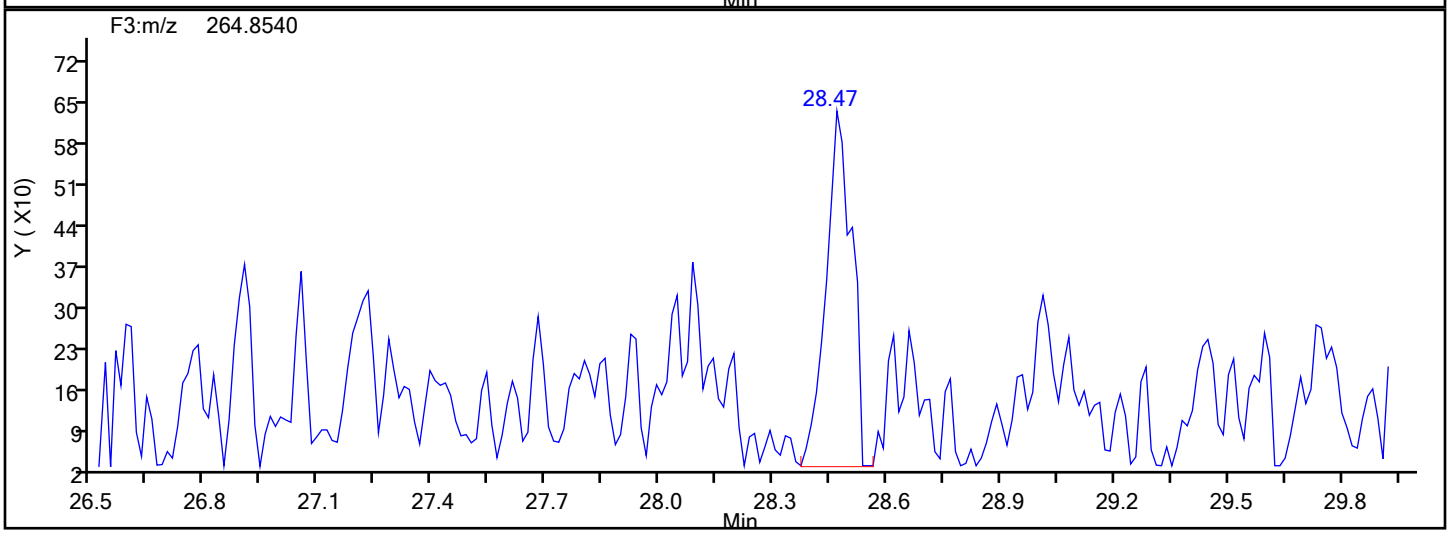
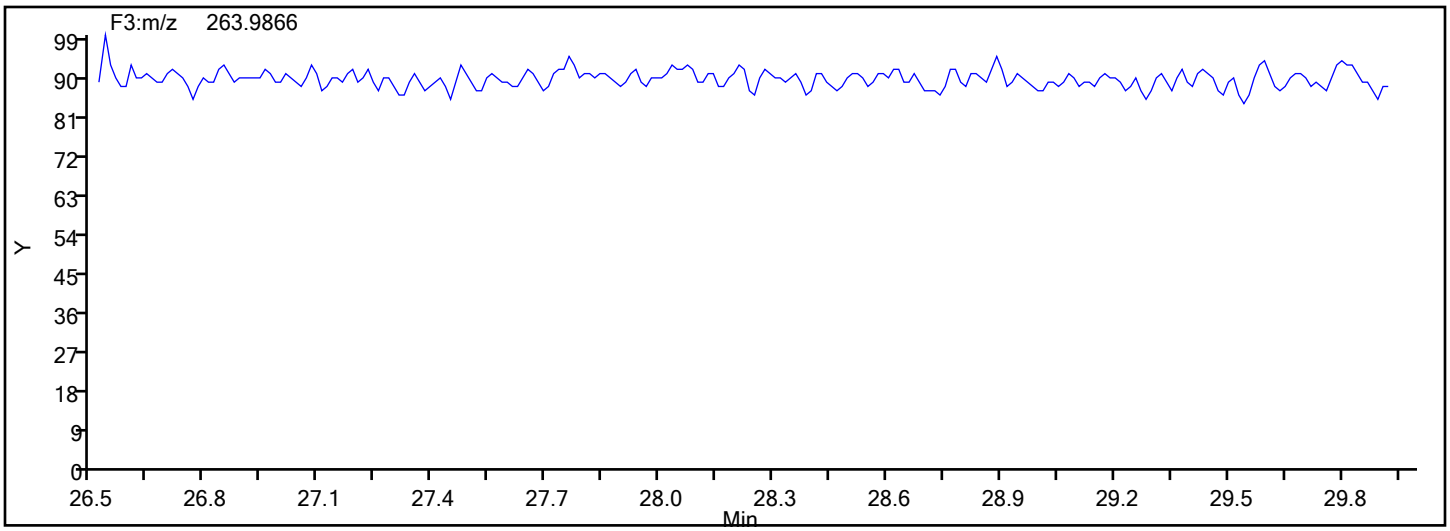
Column Type:	RTX-5	Column Dia:	0.32 mm

Endosulfan I





Endosulfan I Lock Mass



Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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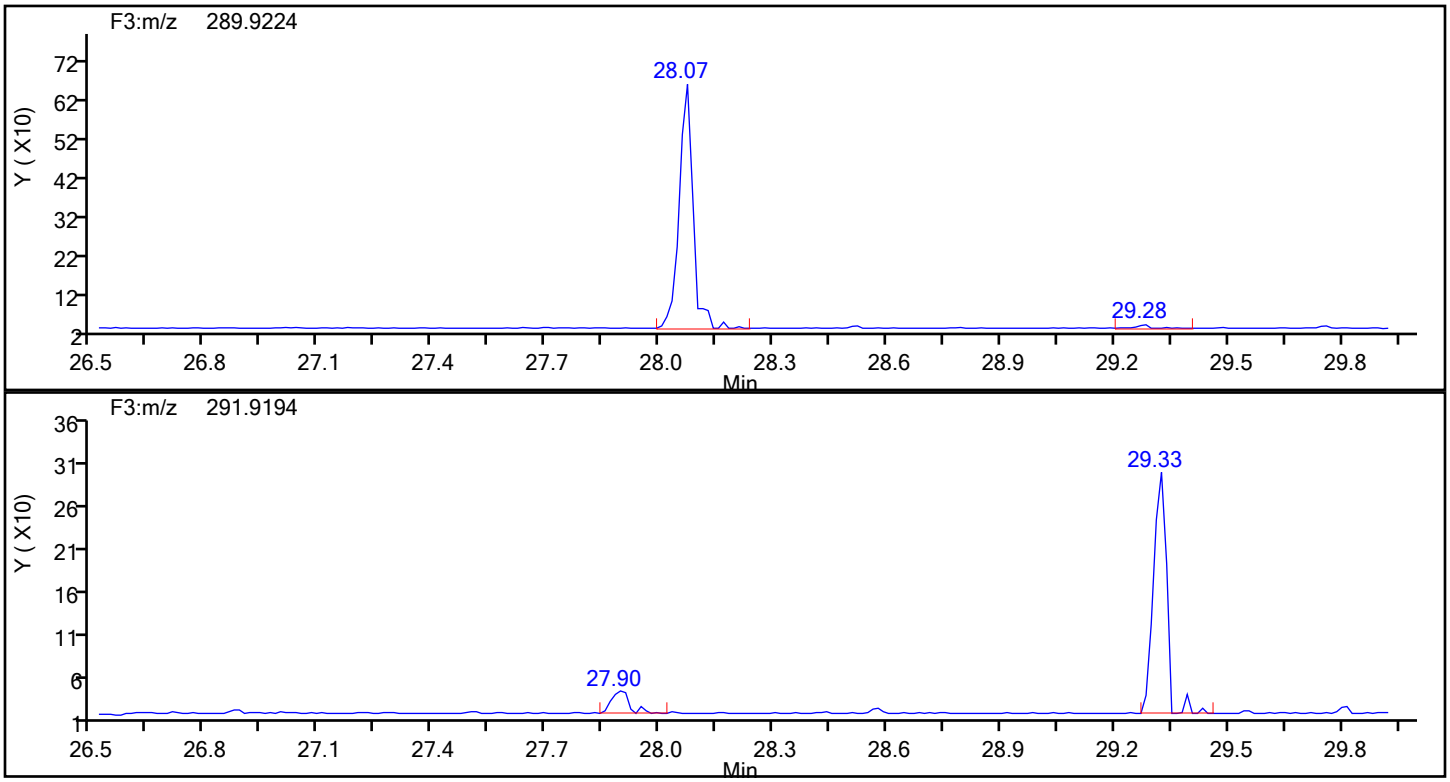
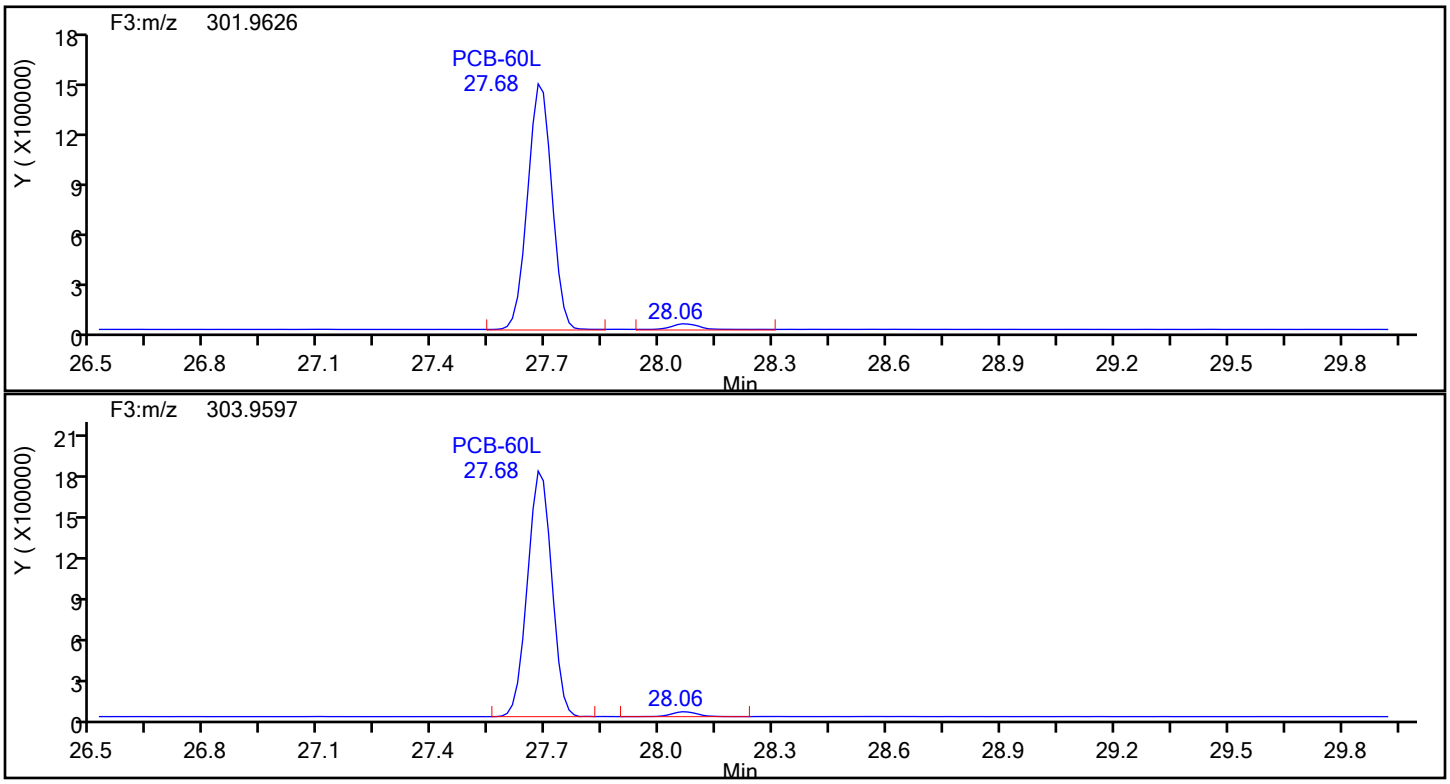
PCB-78



PCB-78 Standards



Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d		
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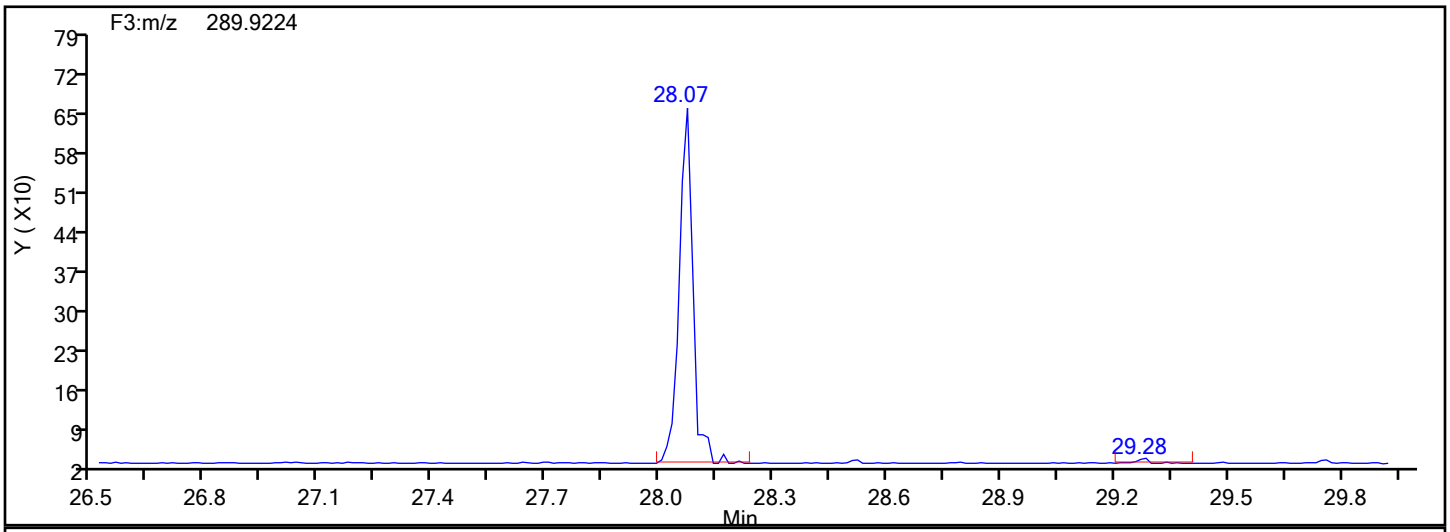
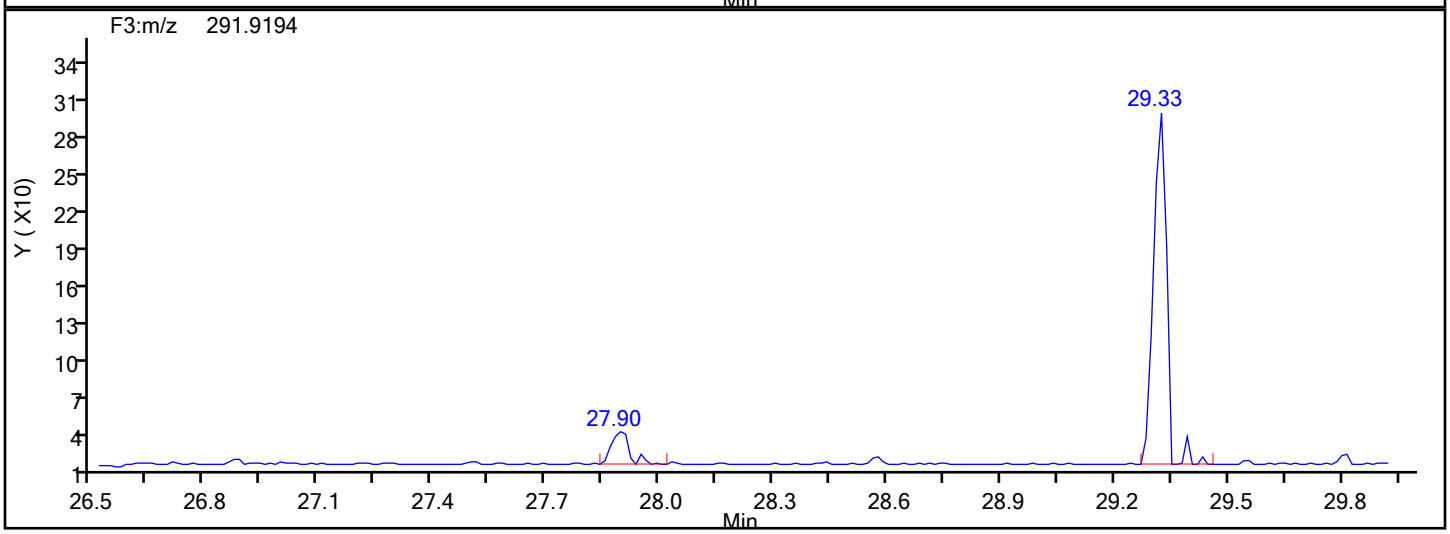
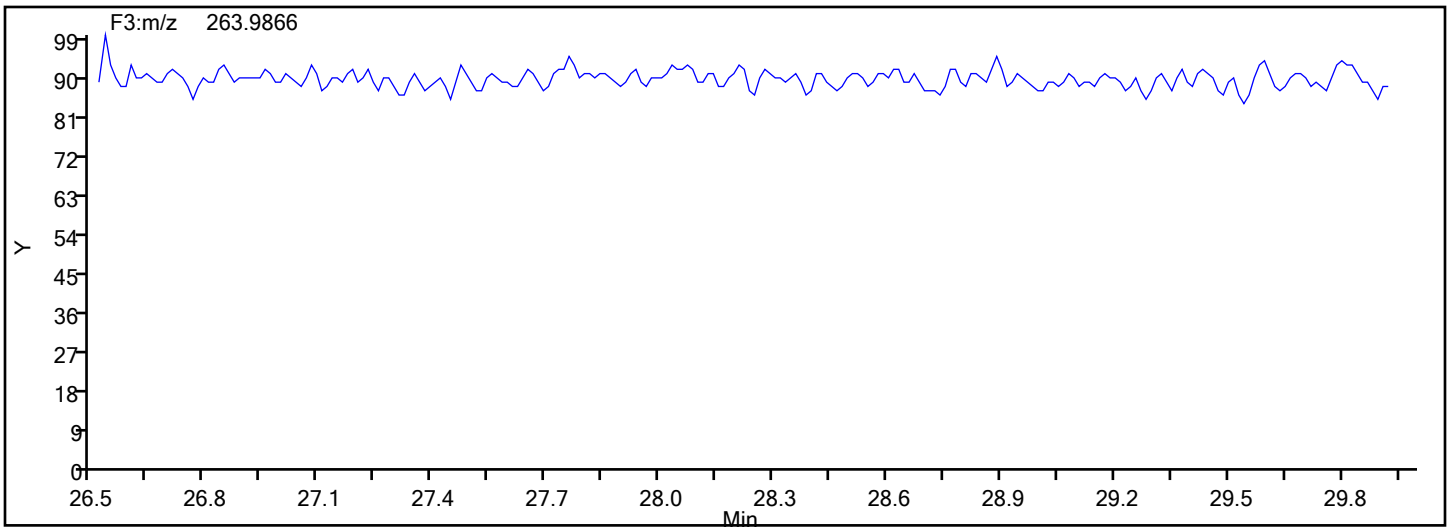
PCB-78





PCB-78 Lock Mass



Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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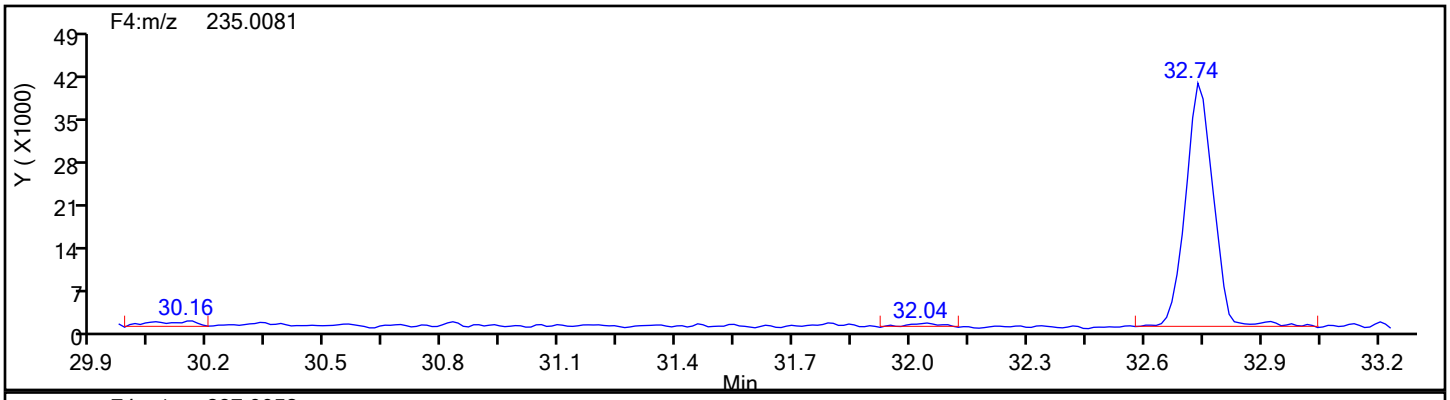
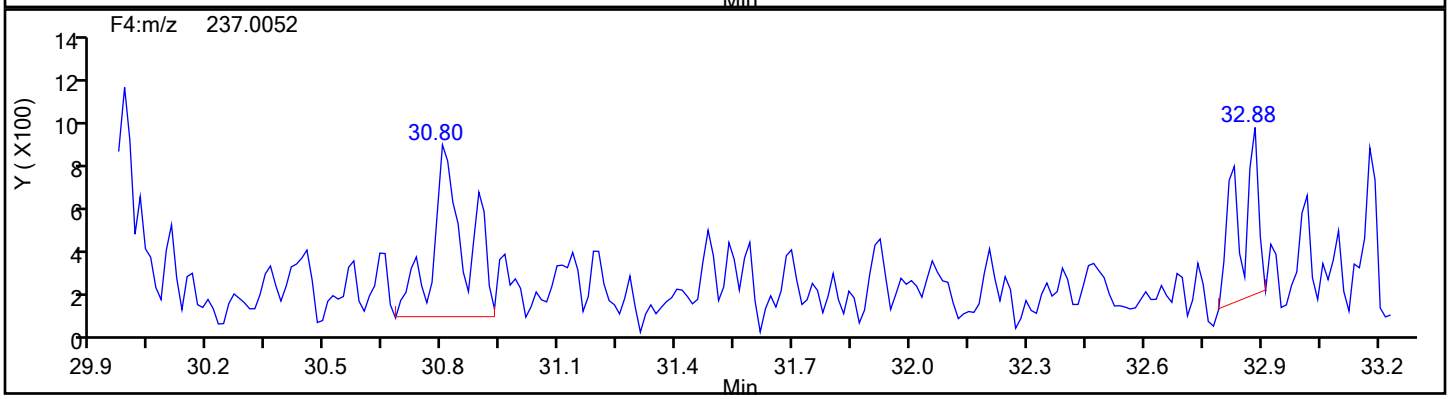
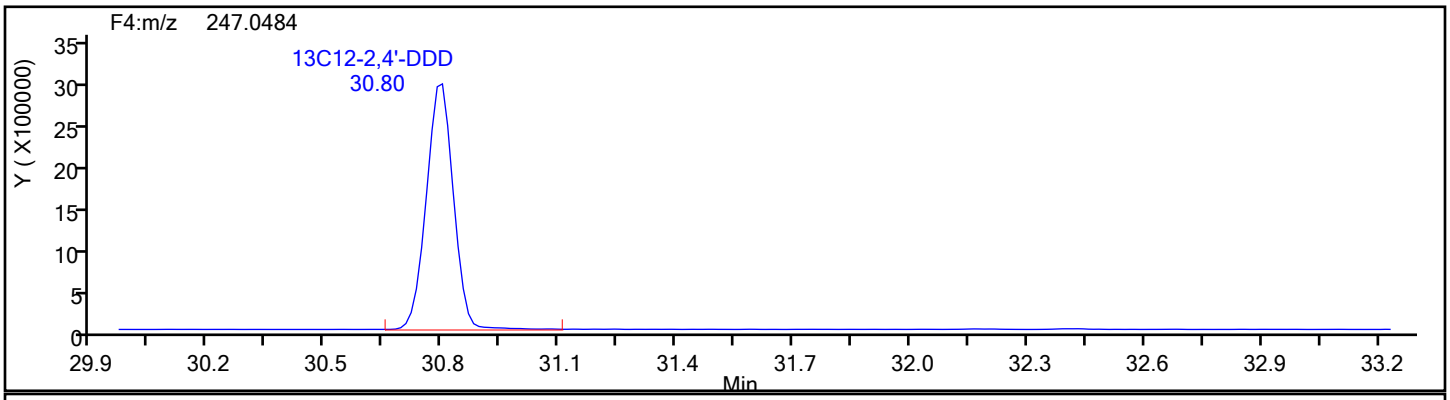
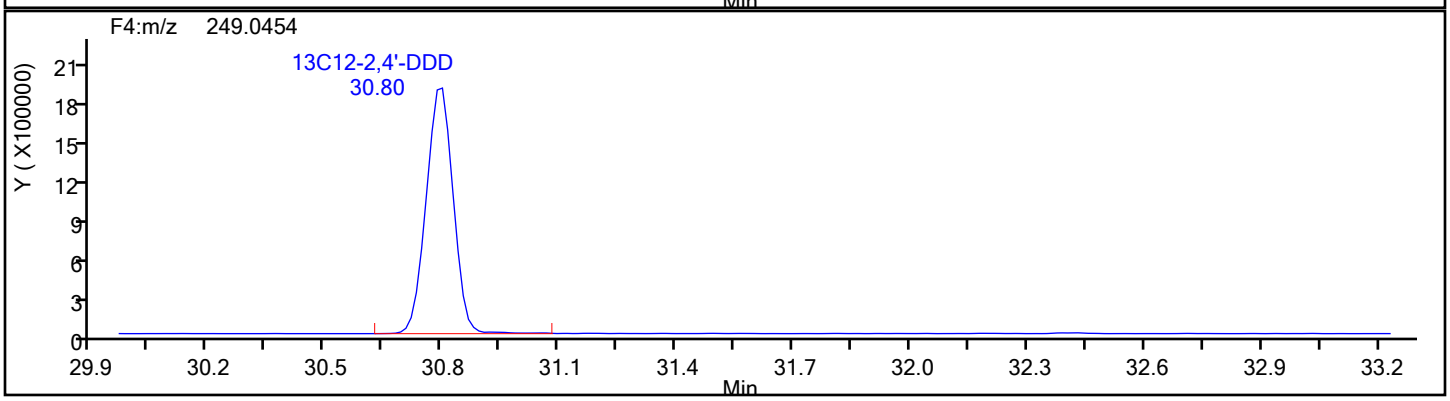
2,4'-DDD





2,4'-DDD Standards





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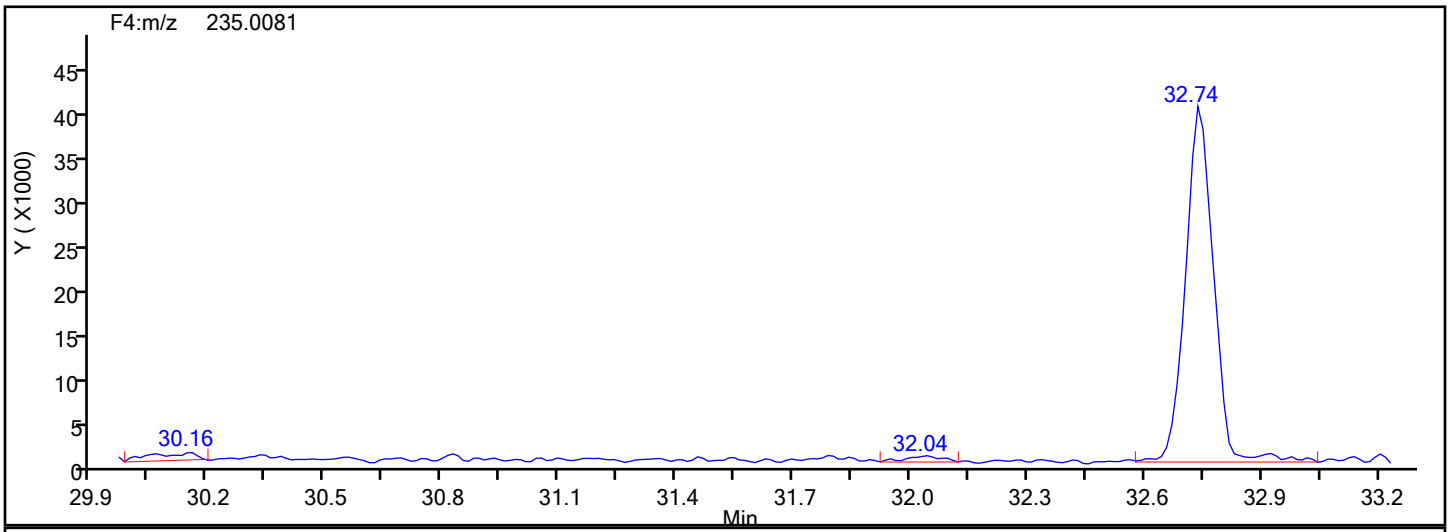
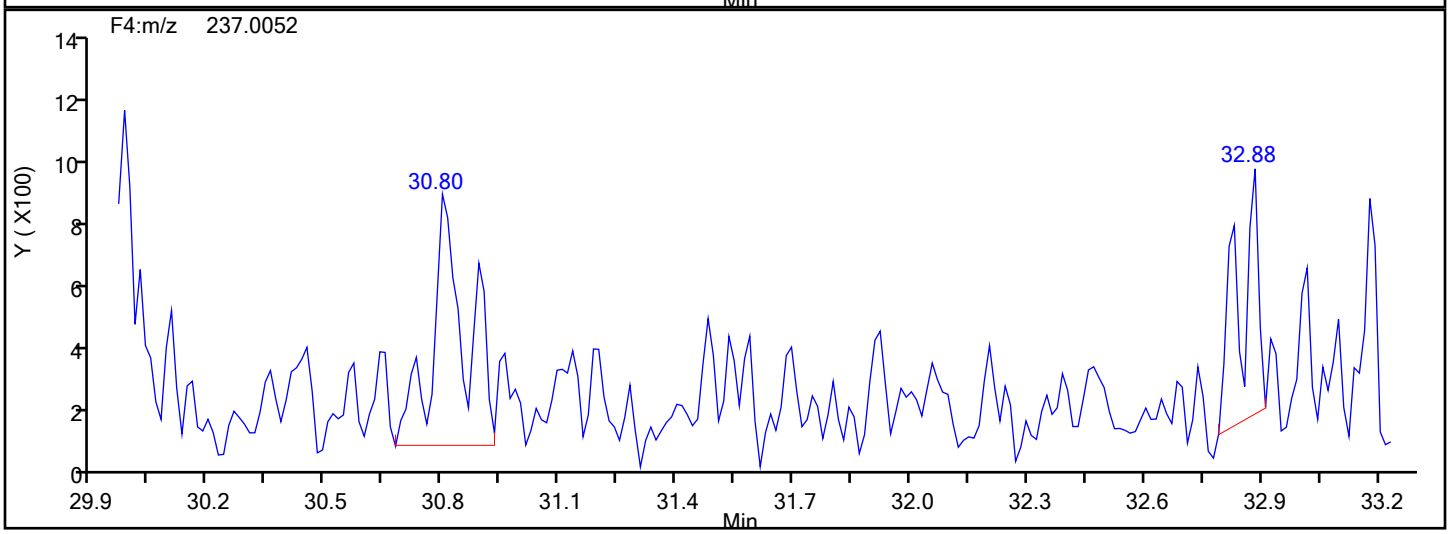
Eurofins Knoxville

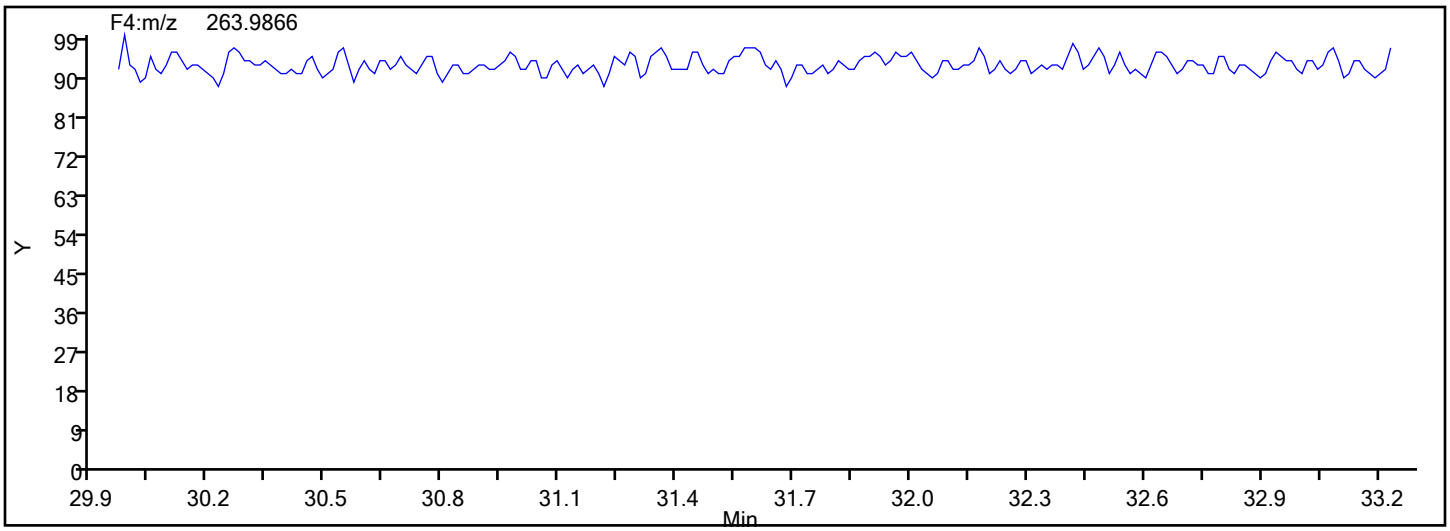
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d
Injection Date: 04-May-2025 15:39:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99272 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



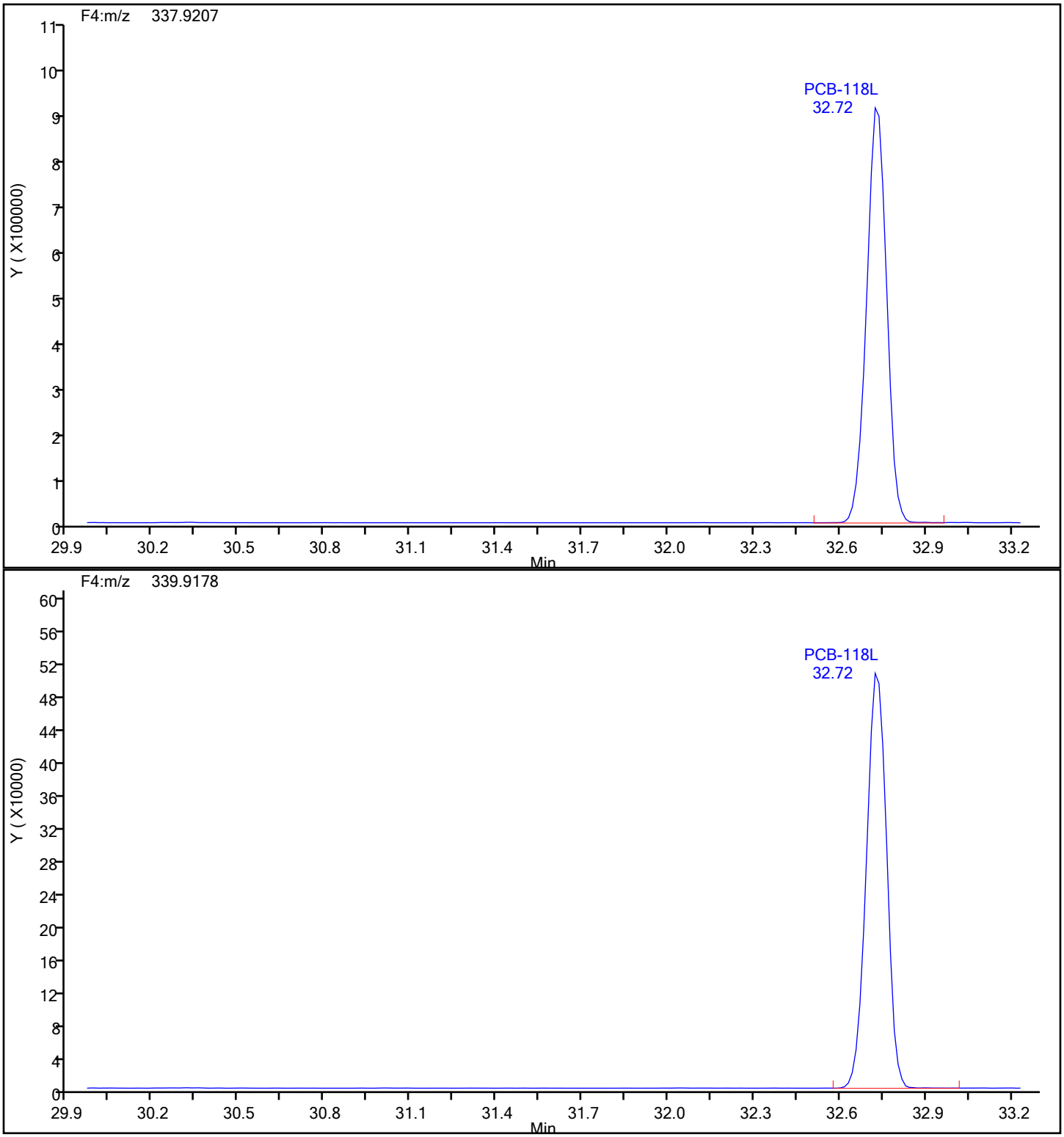
Report Date: 05-May-2025 23:04:45 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



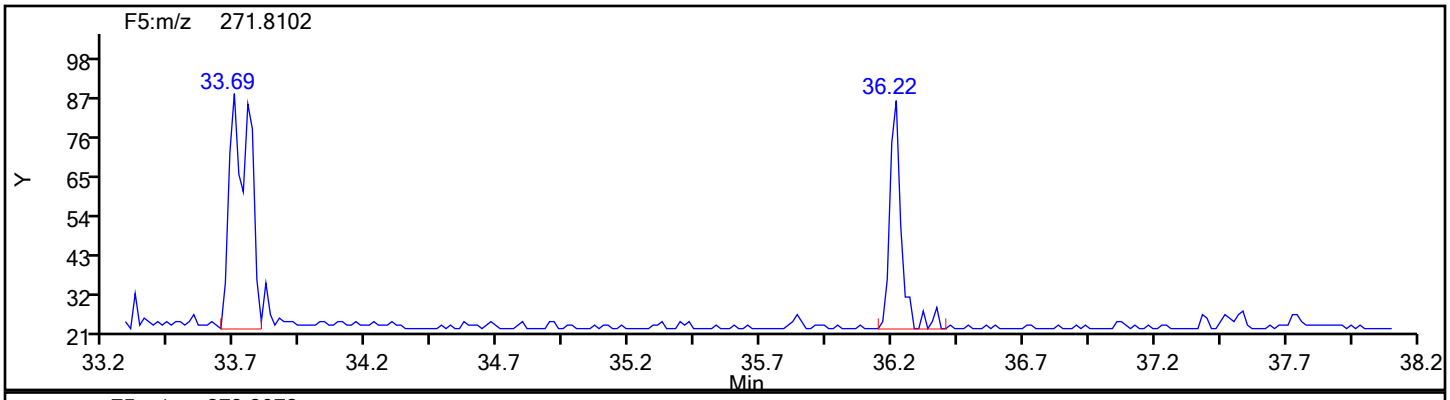
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

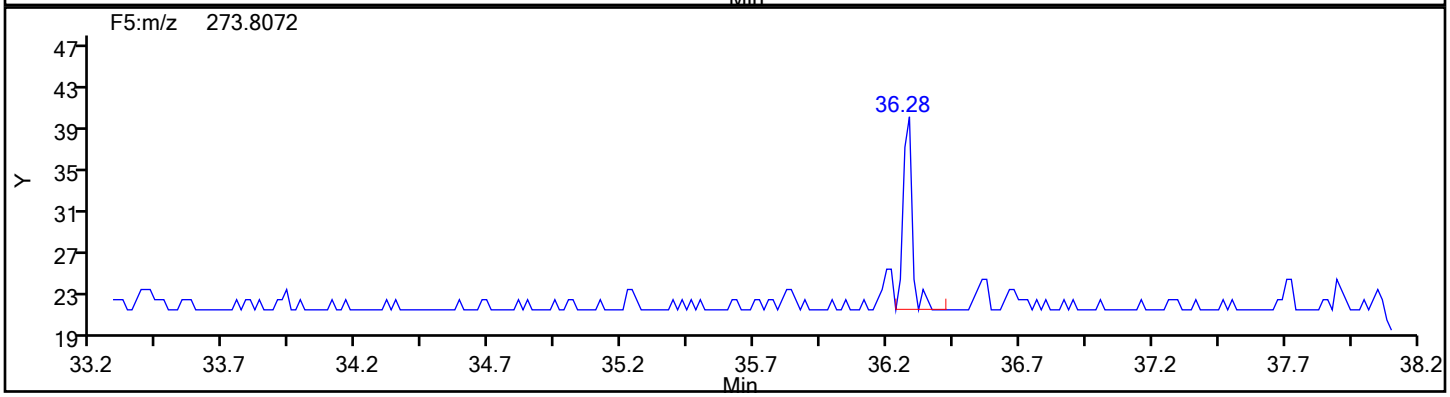
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

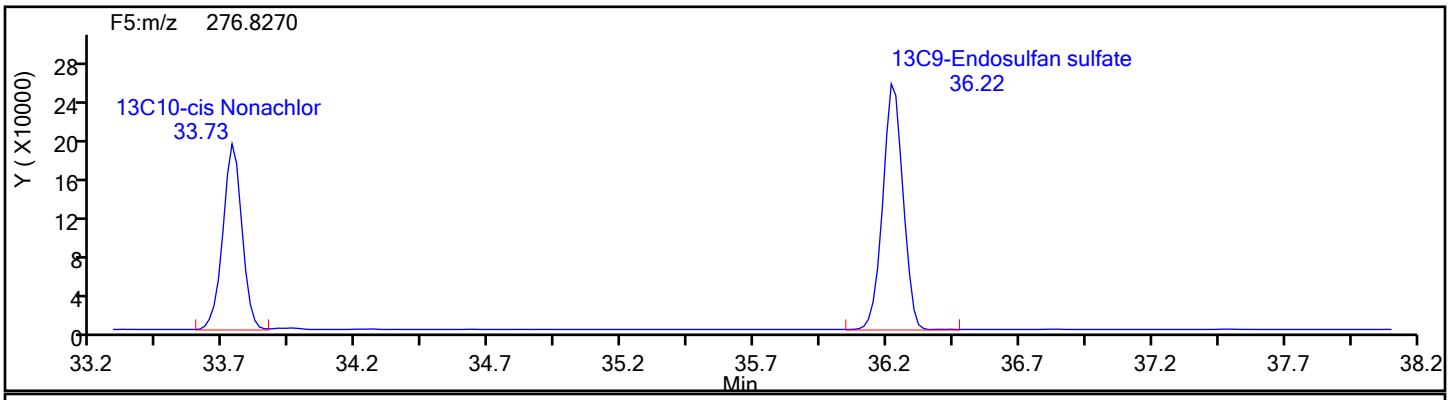
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

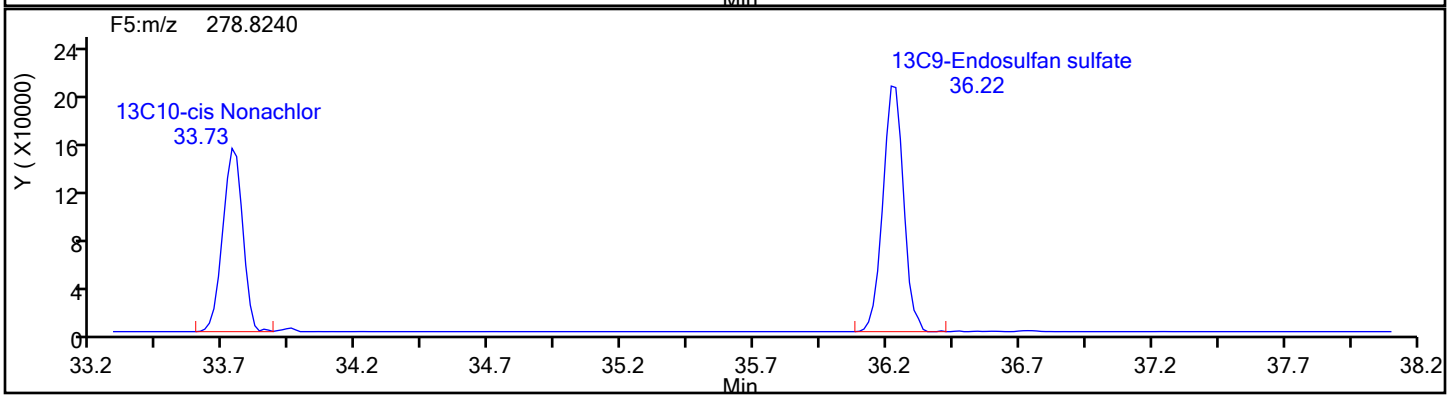
Nonachlor





Nonachlor Standards



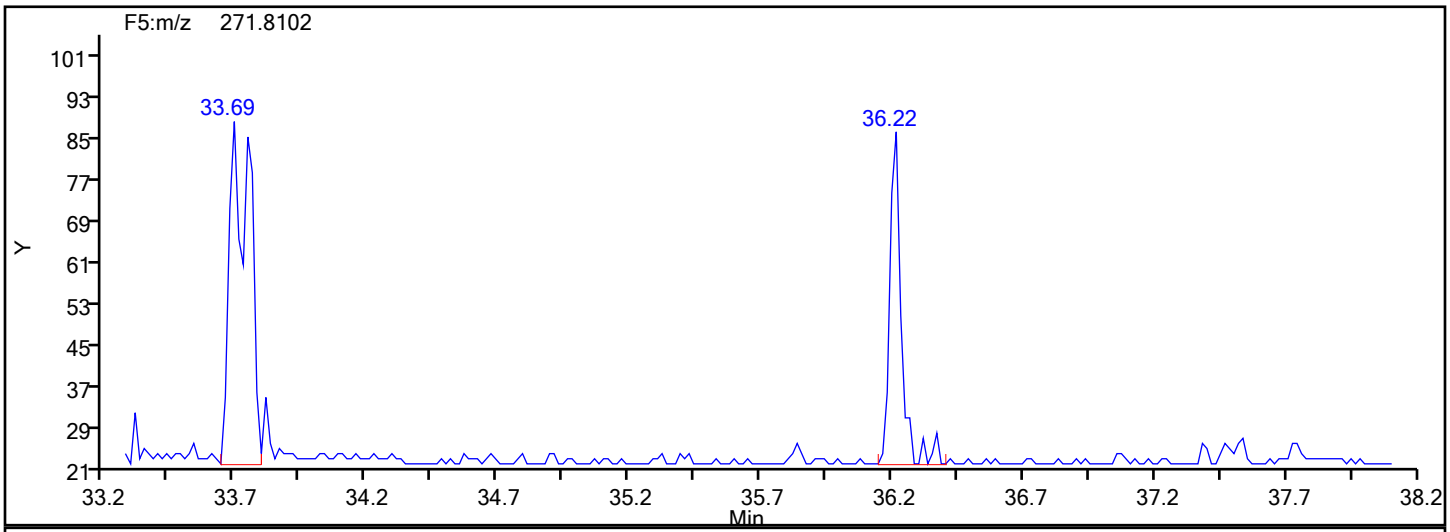


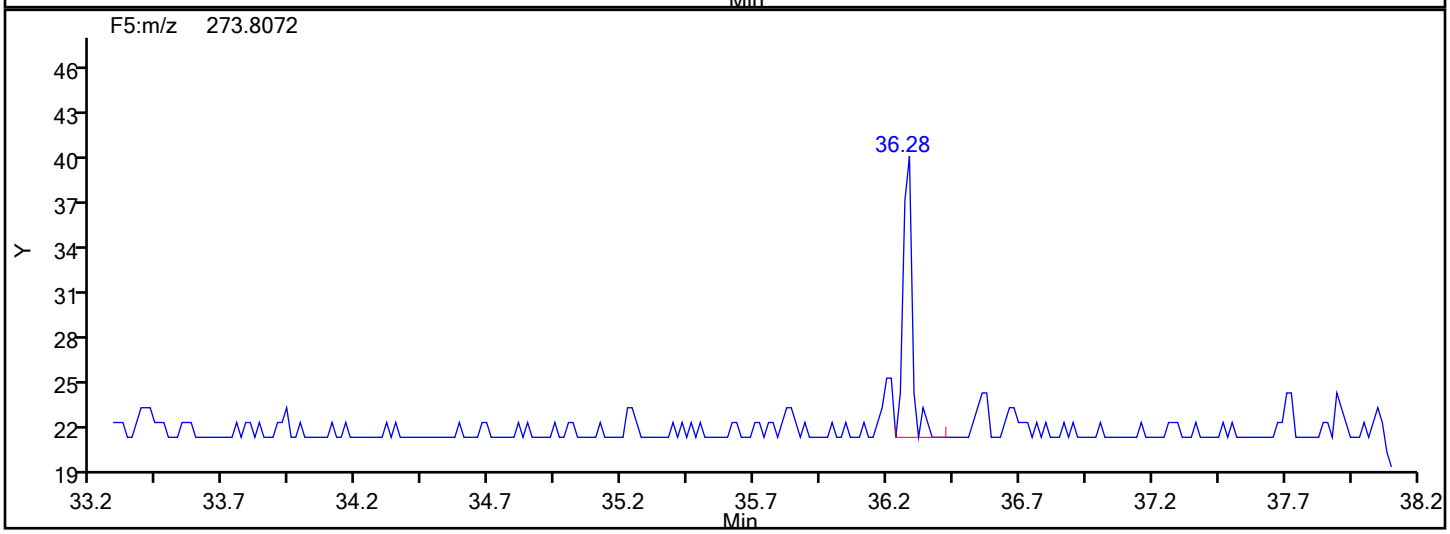
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

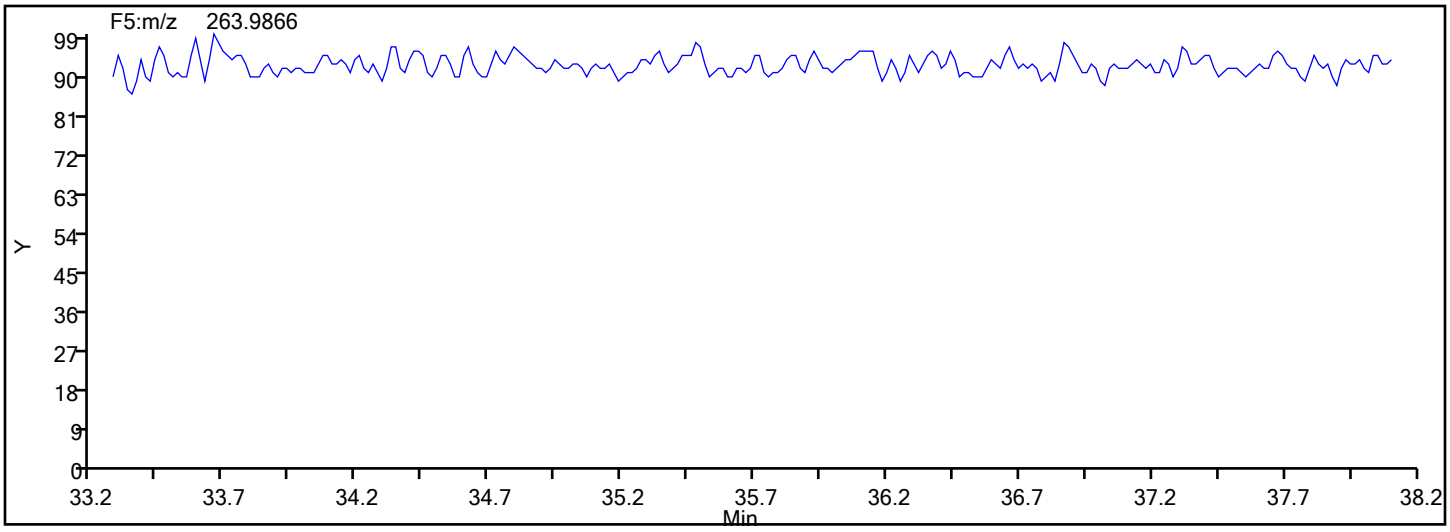
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d		
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



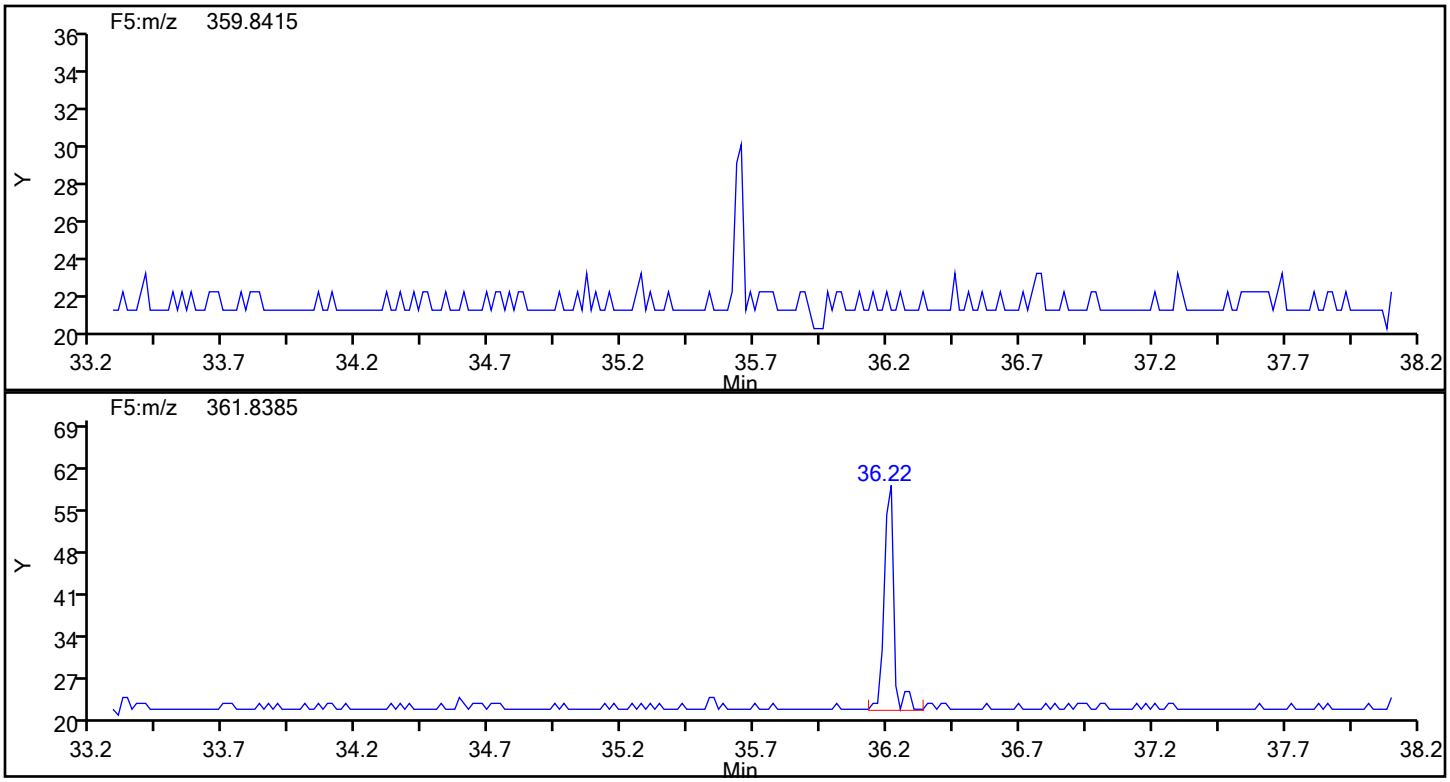
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

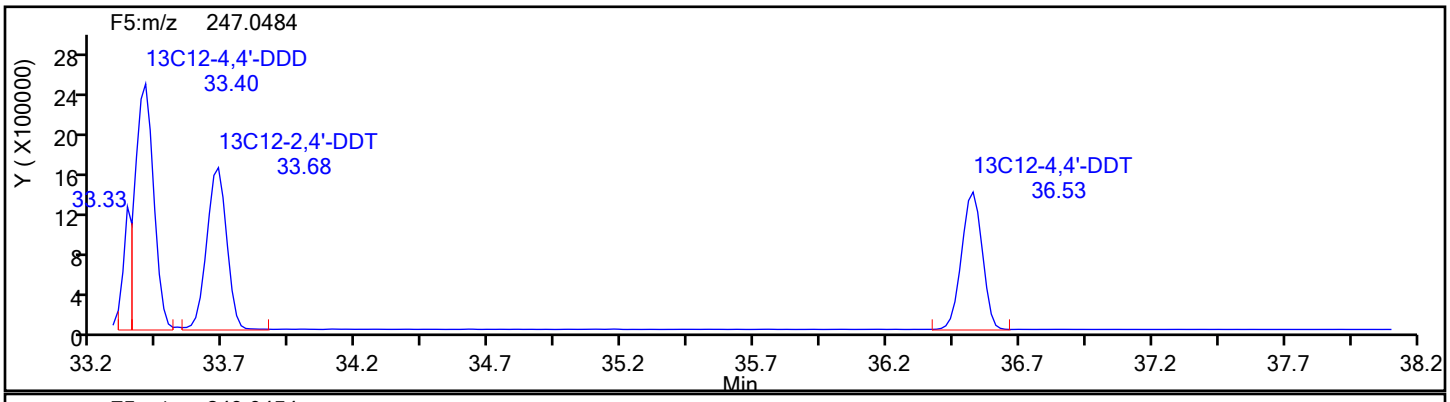
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

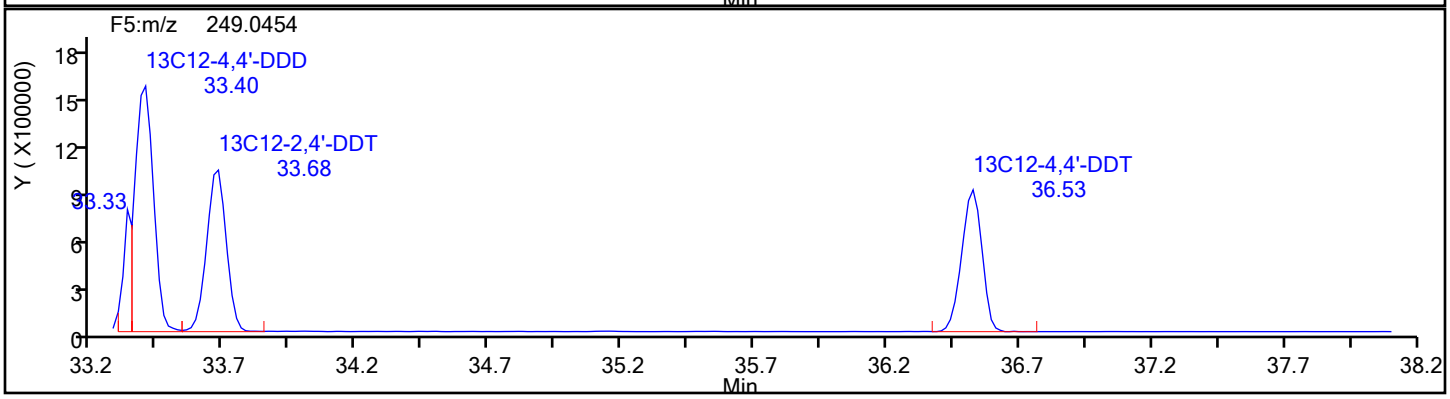
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards



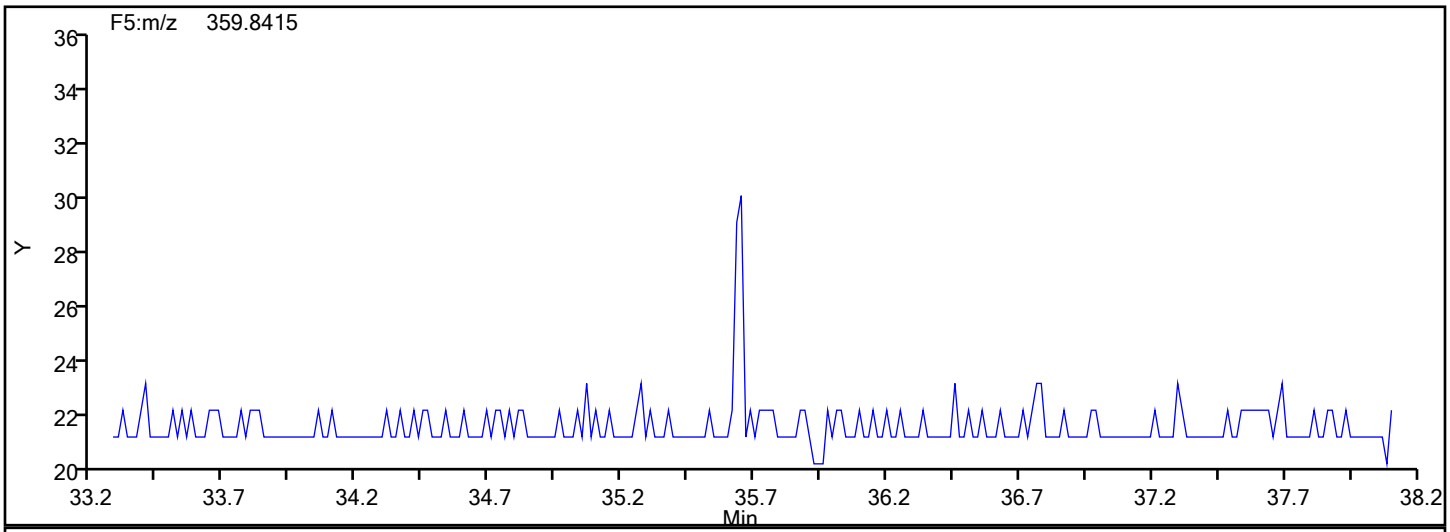


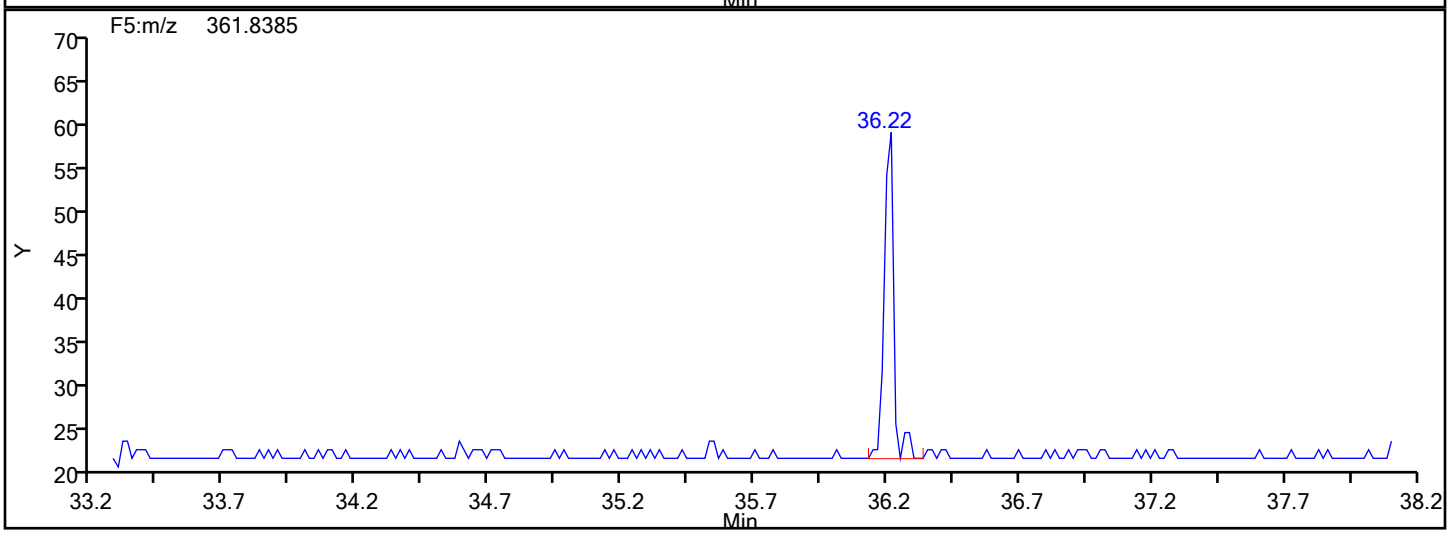
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

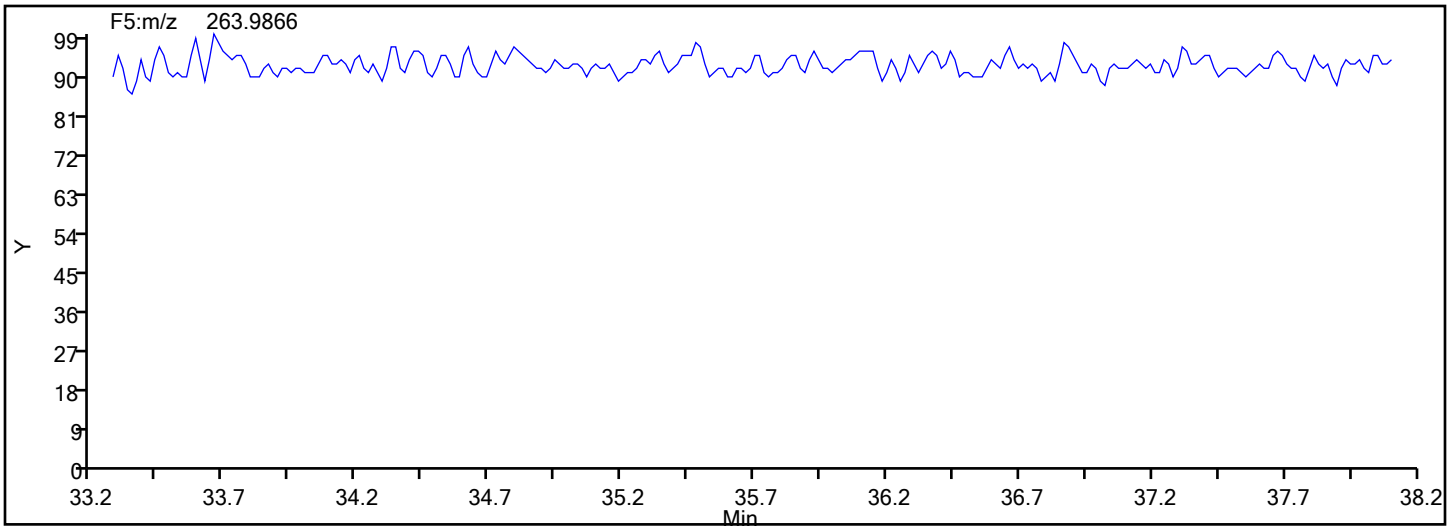
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d		
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



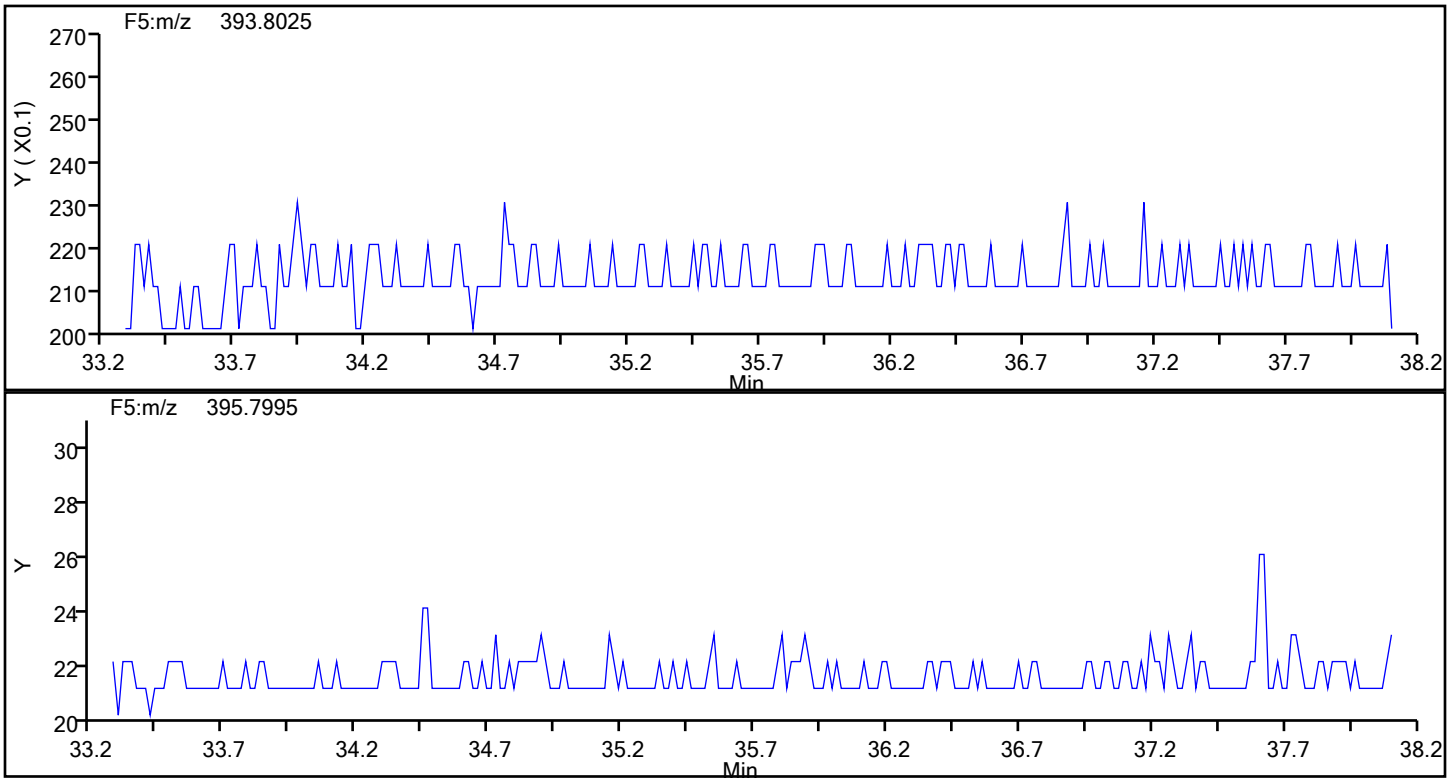
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

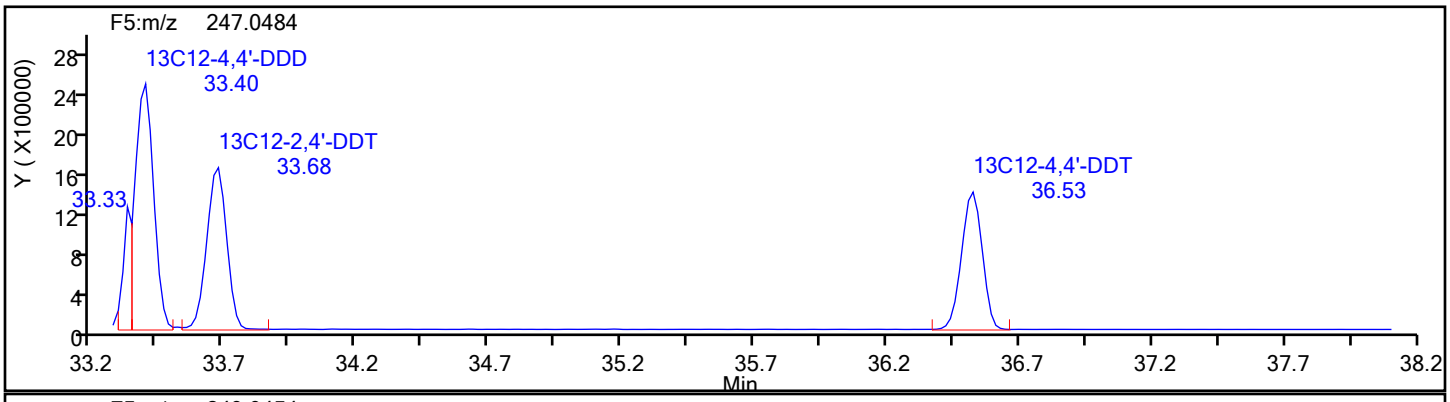
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

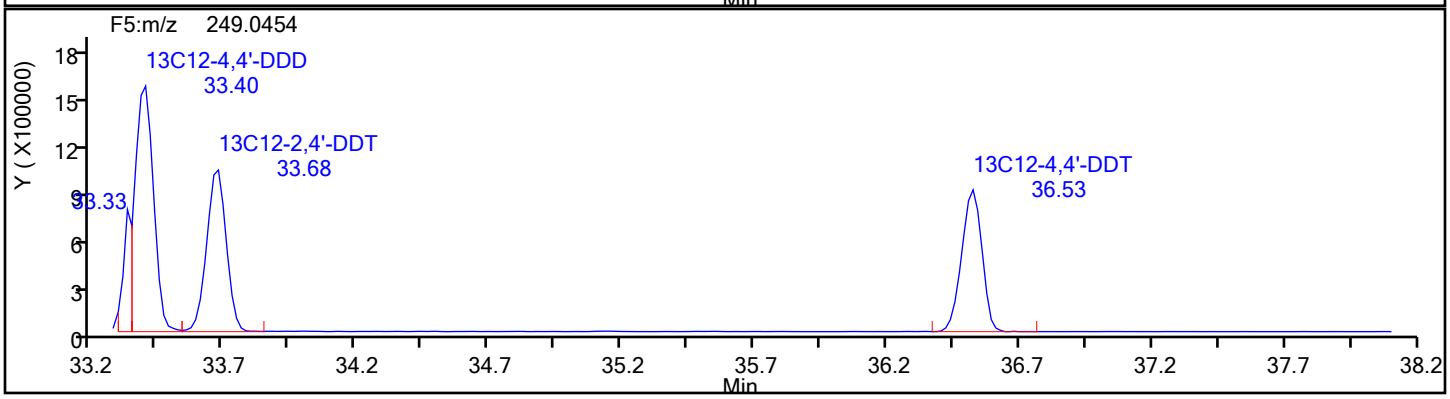
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards





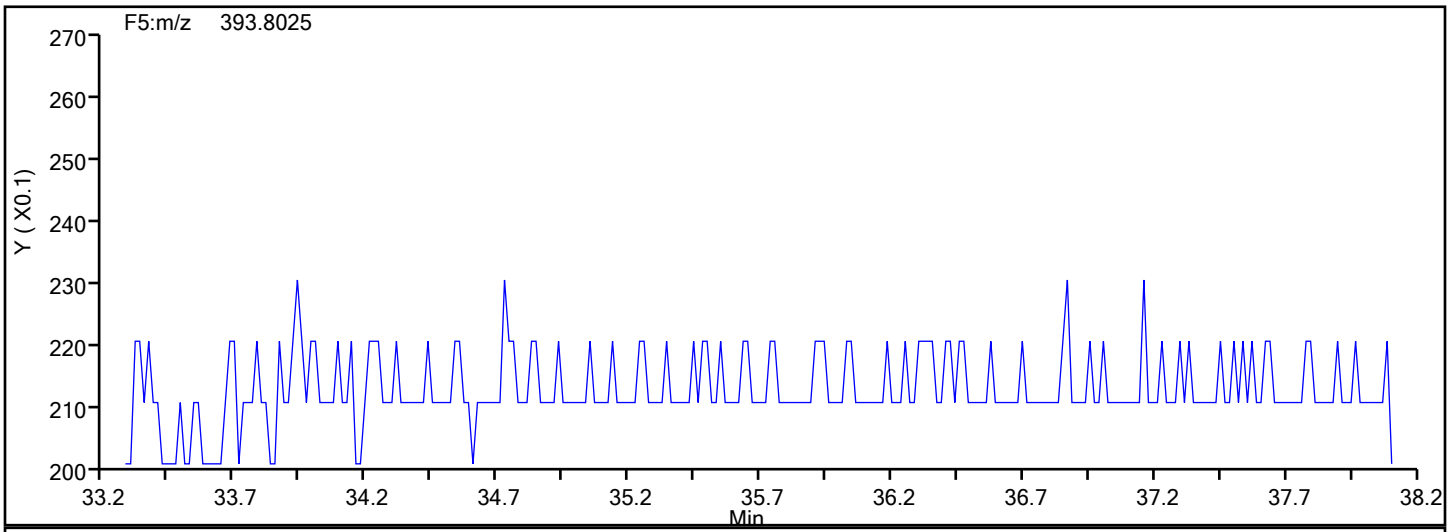
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

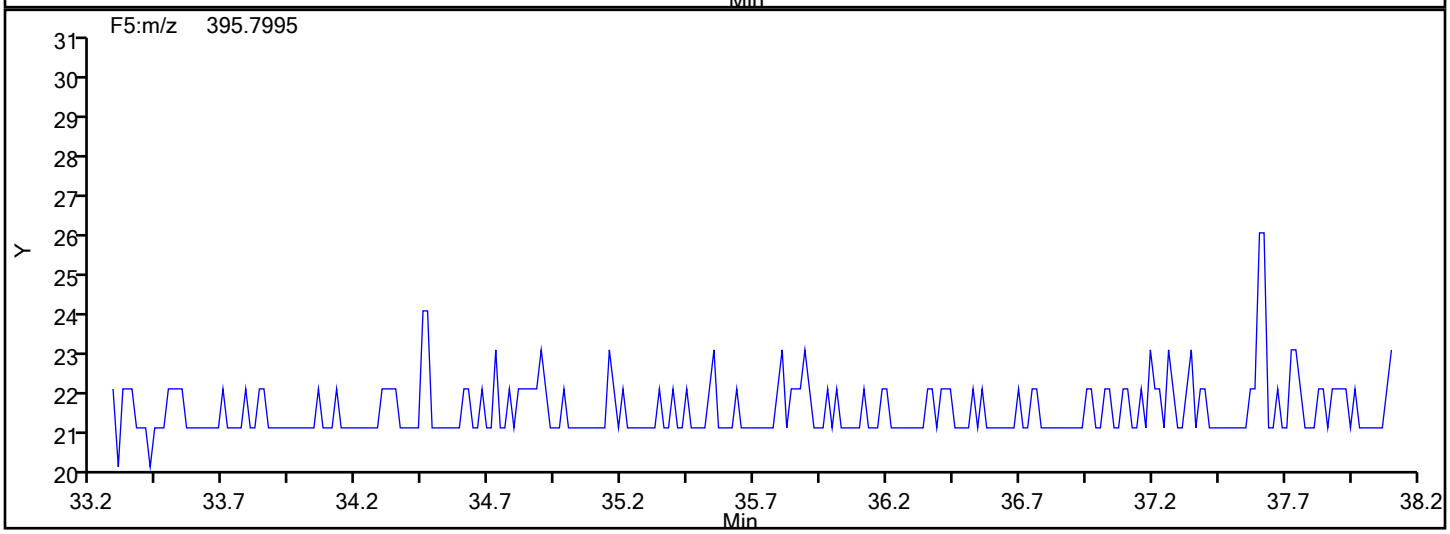
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

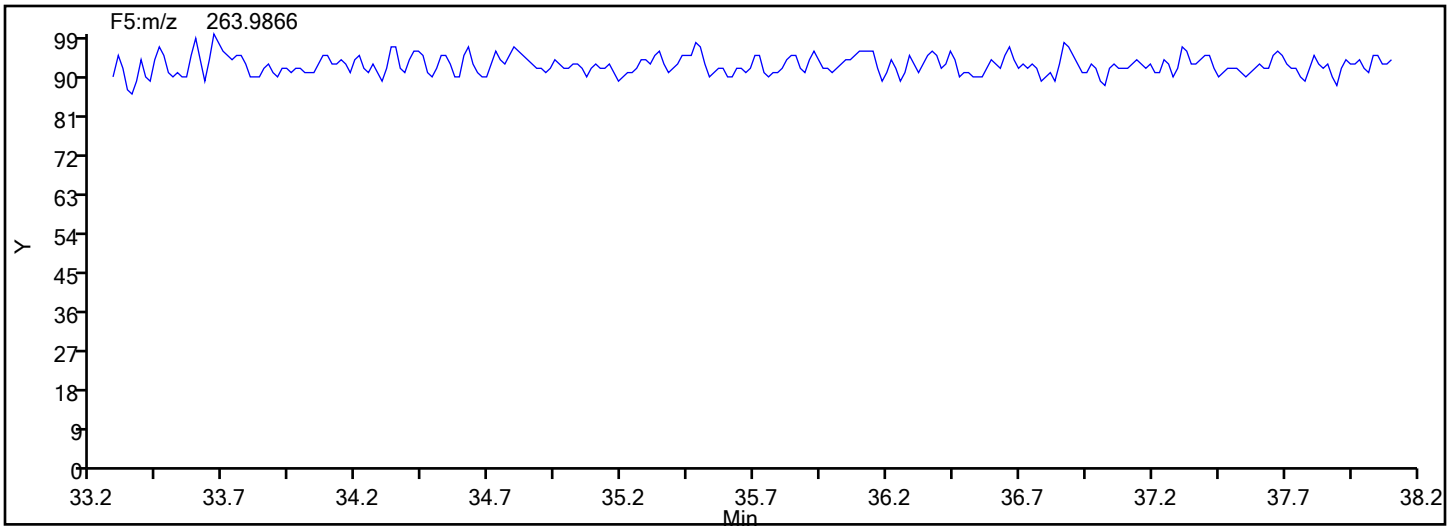
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184





PCB-184 Lock Mass



Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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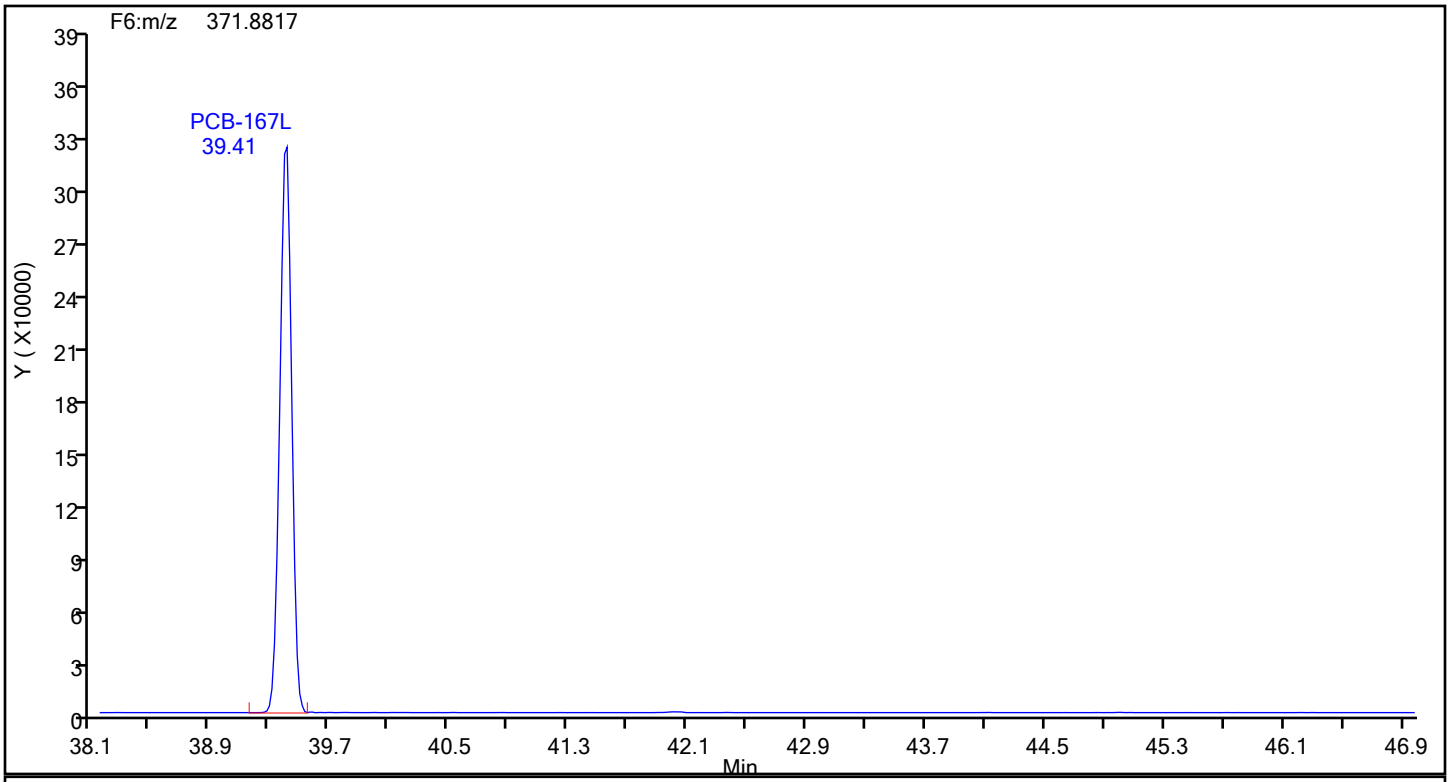
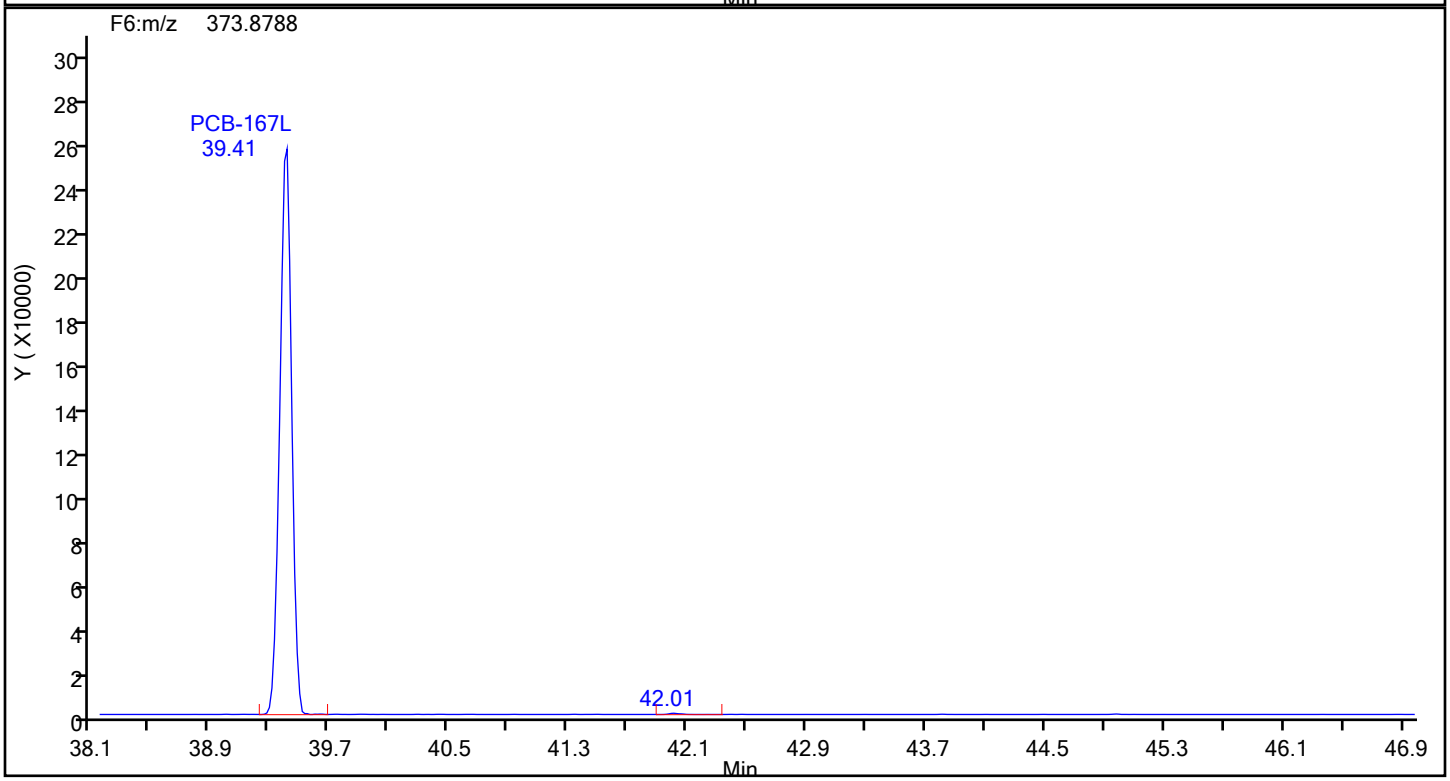
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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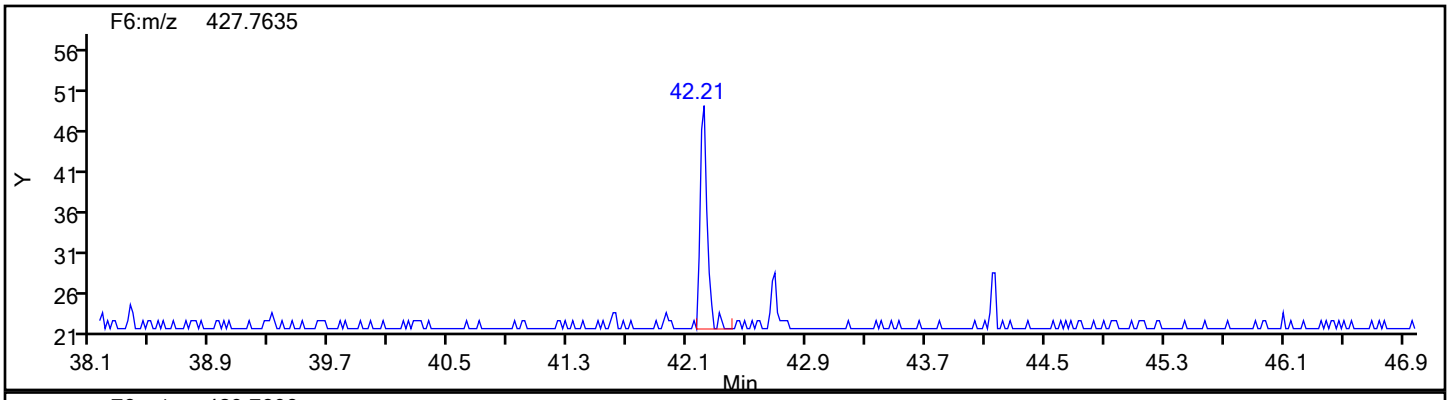
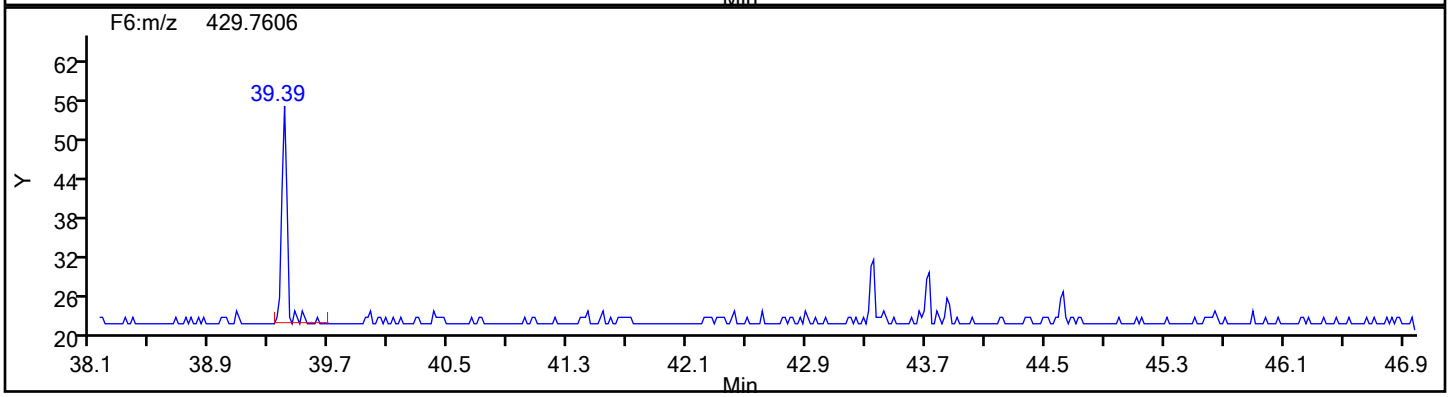
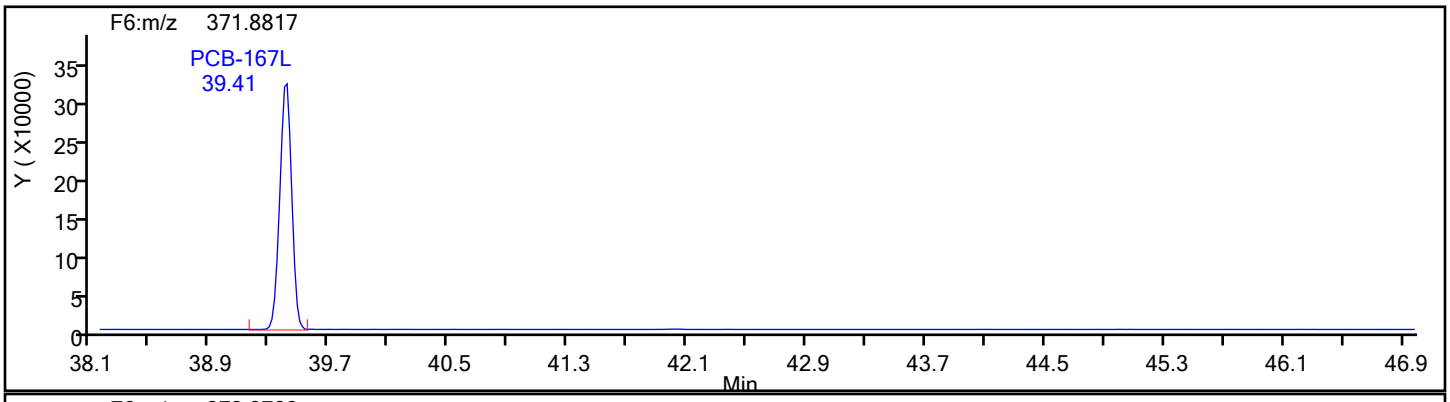
Column Type:	RTX-5	Column Dia:	0.32 mm

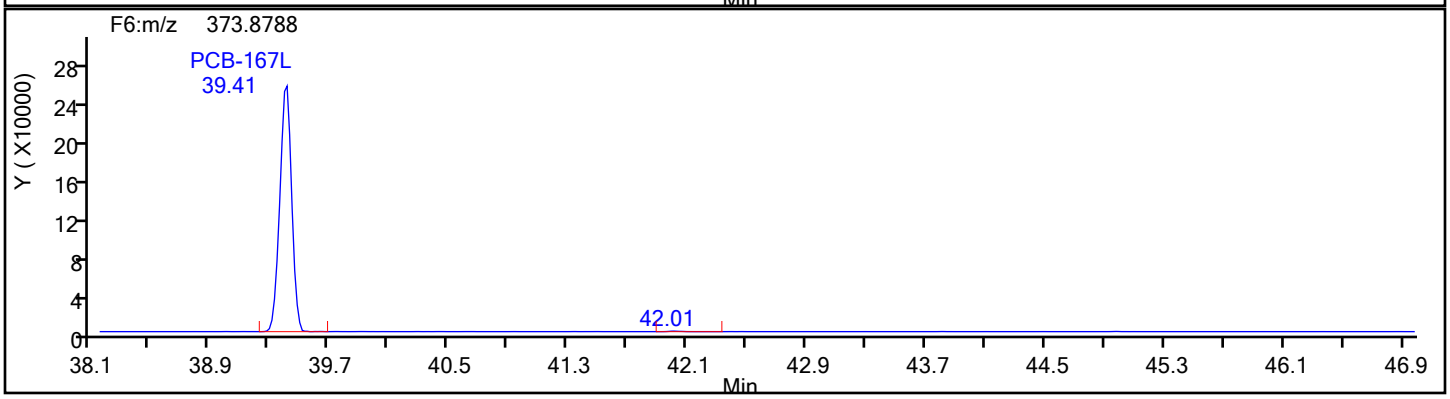
PCB-204





PCB-204 Standards





Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d		
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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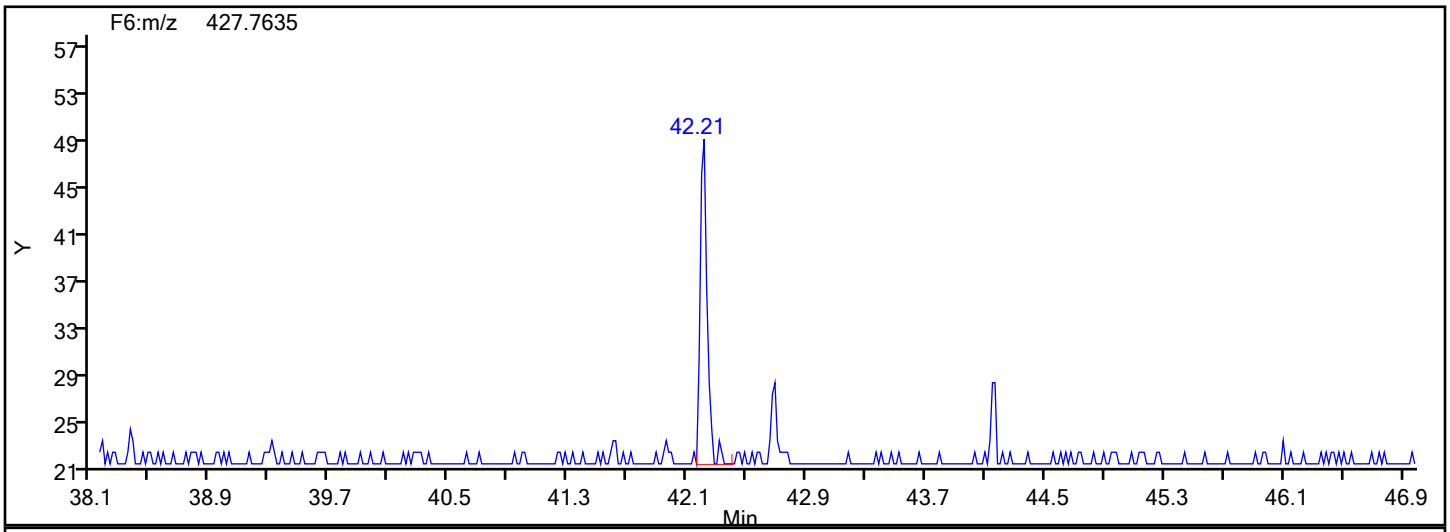
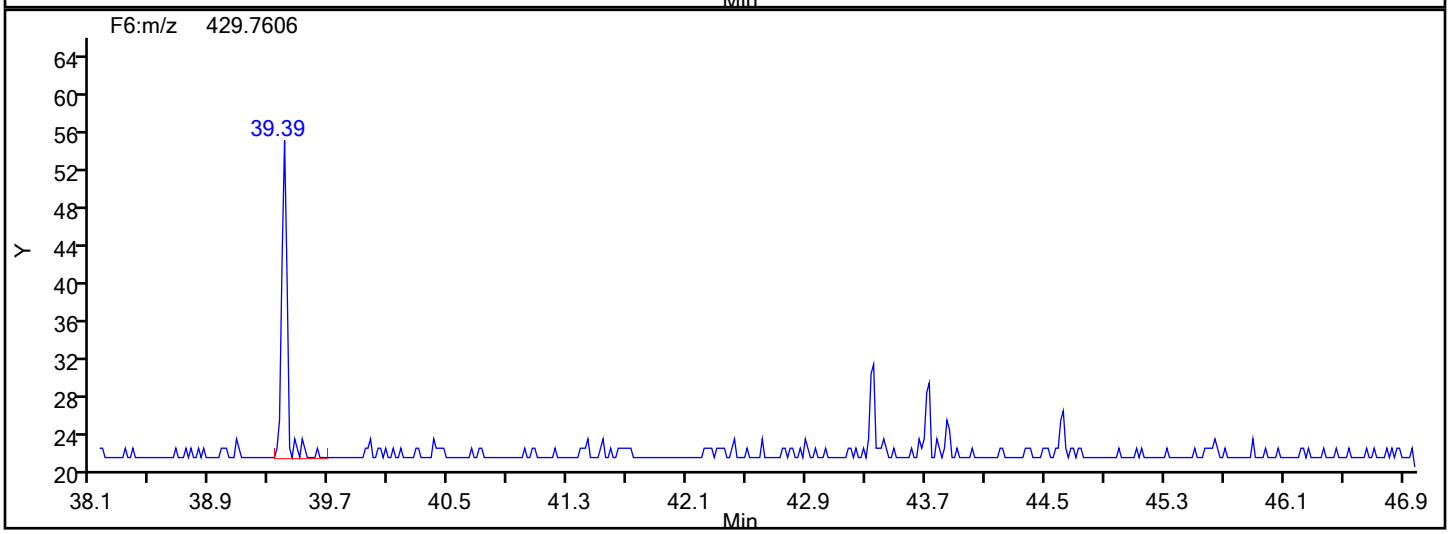
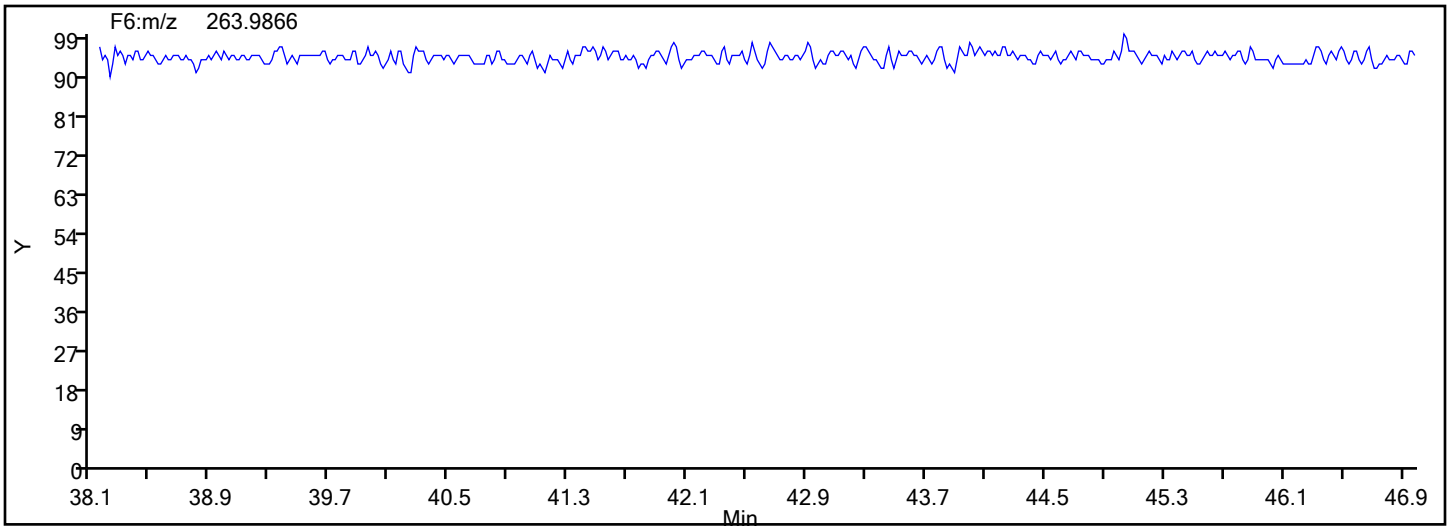
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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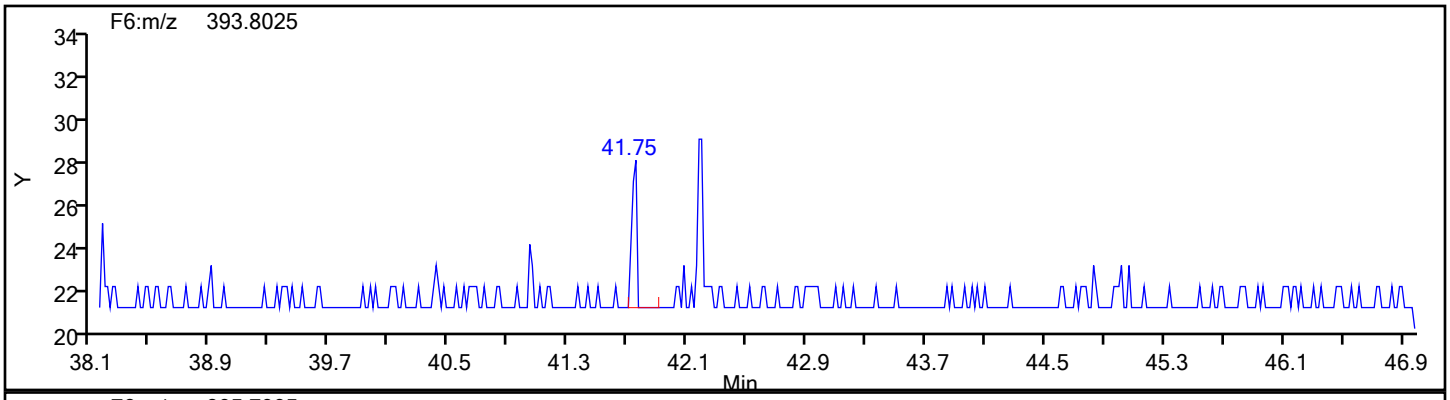
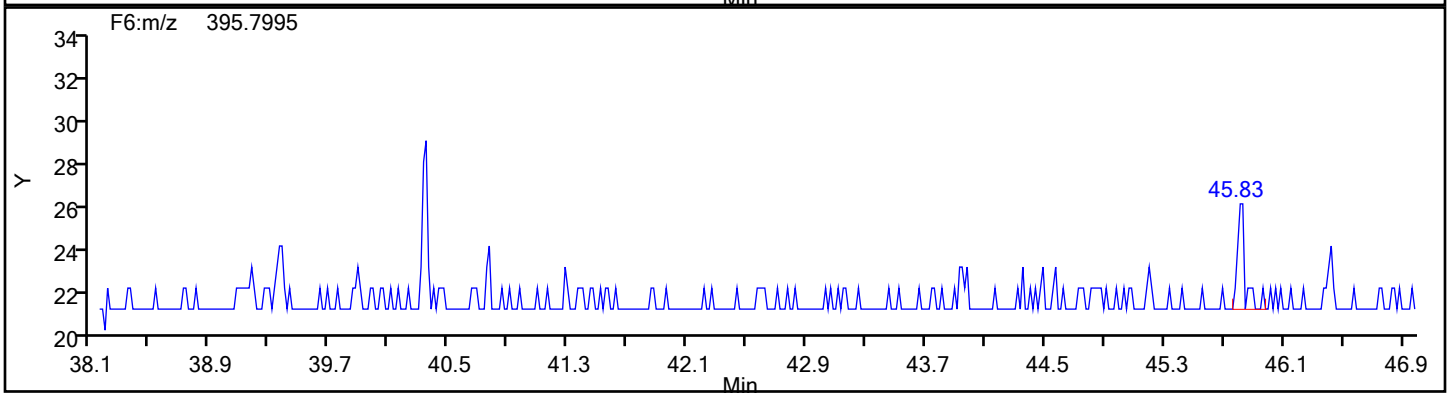
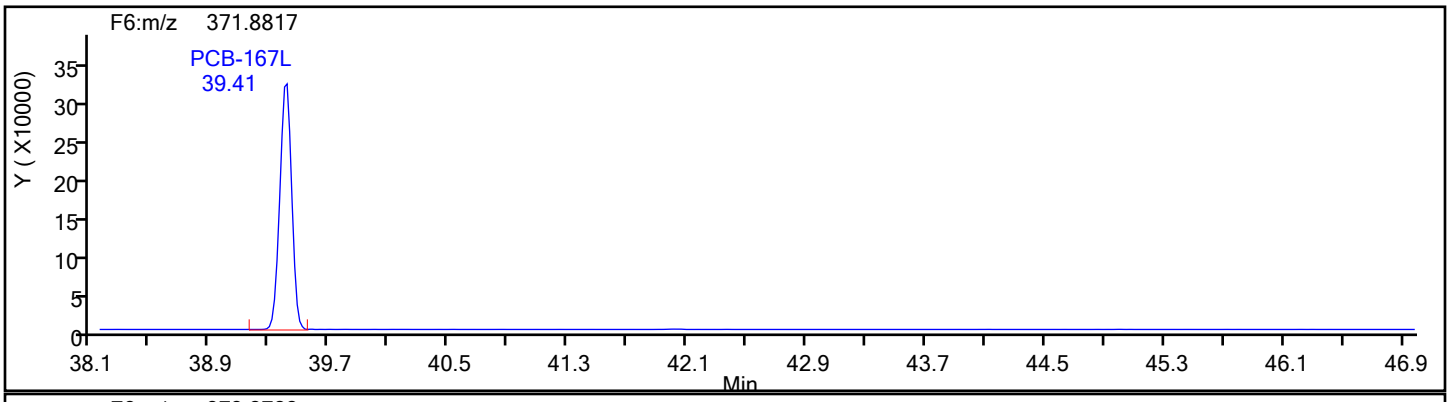
Column Type:	RTX-5	Column Dia:	0.32 mm

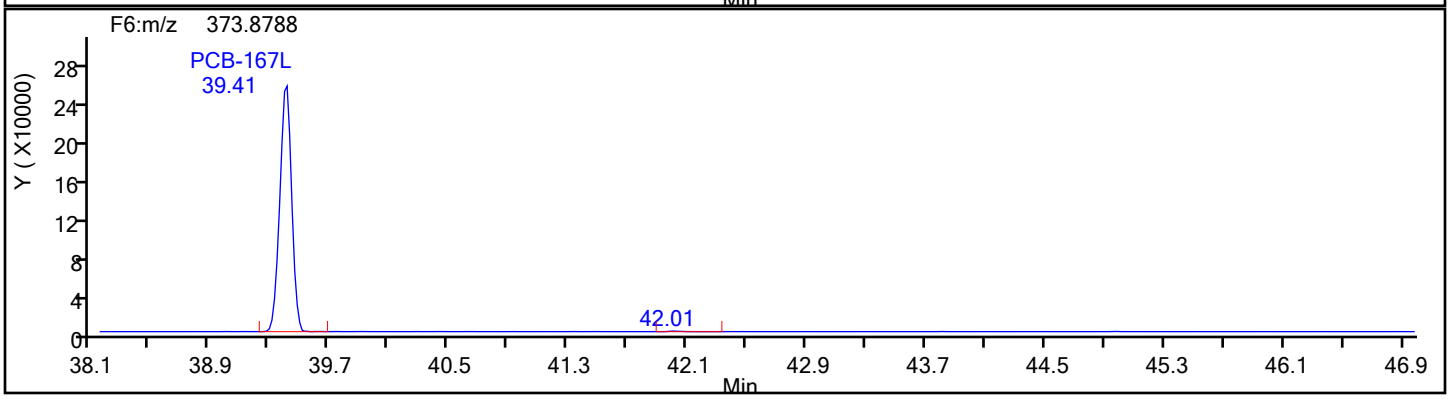
PCB-192





PCB-192 Standards





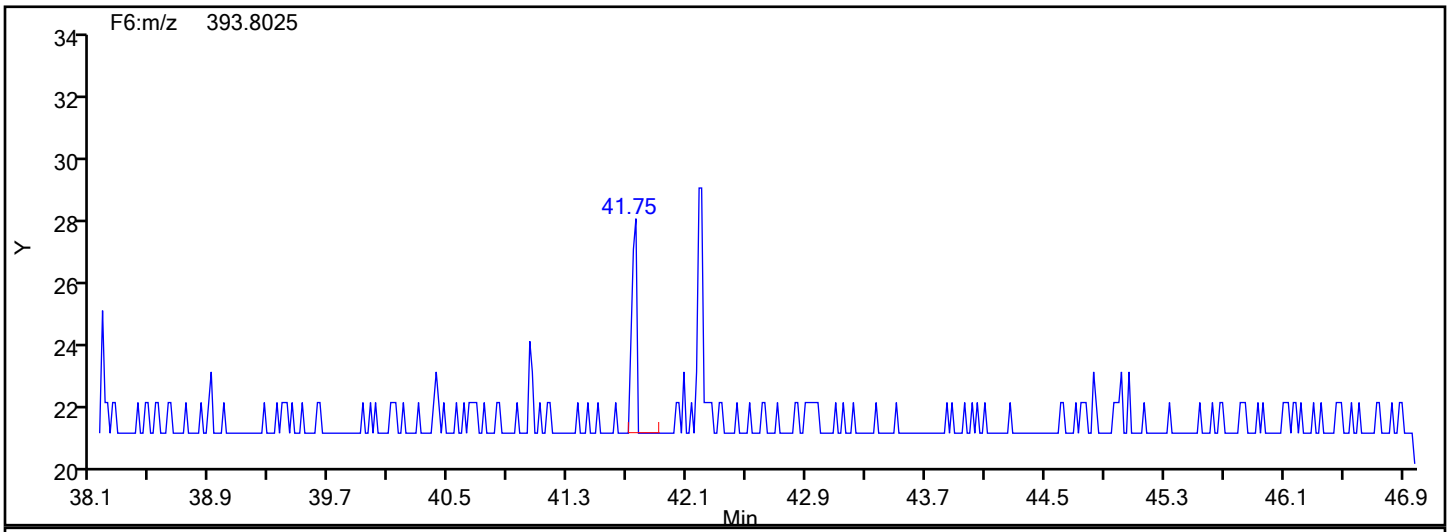
Report Date: 05-May-2025 23:04:46 Chrom Revision: 2.3 18-Apr-2025 15:35:42

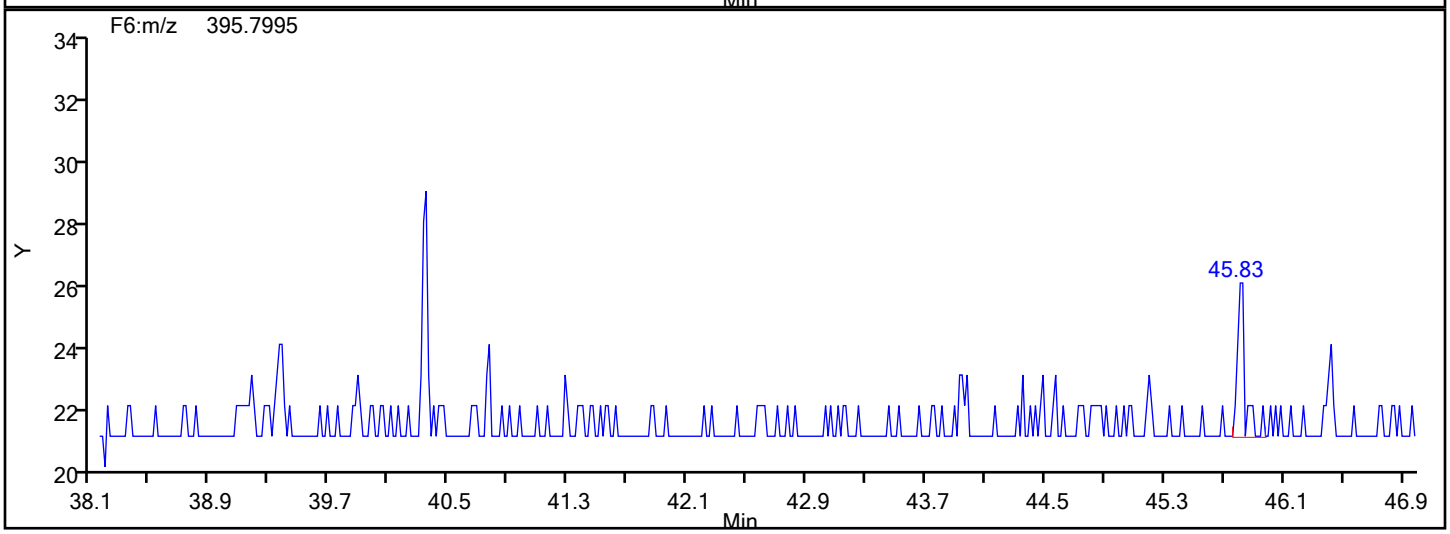
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37639.b\d3250504p1a.d

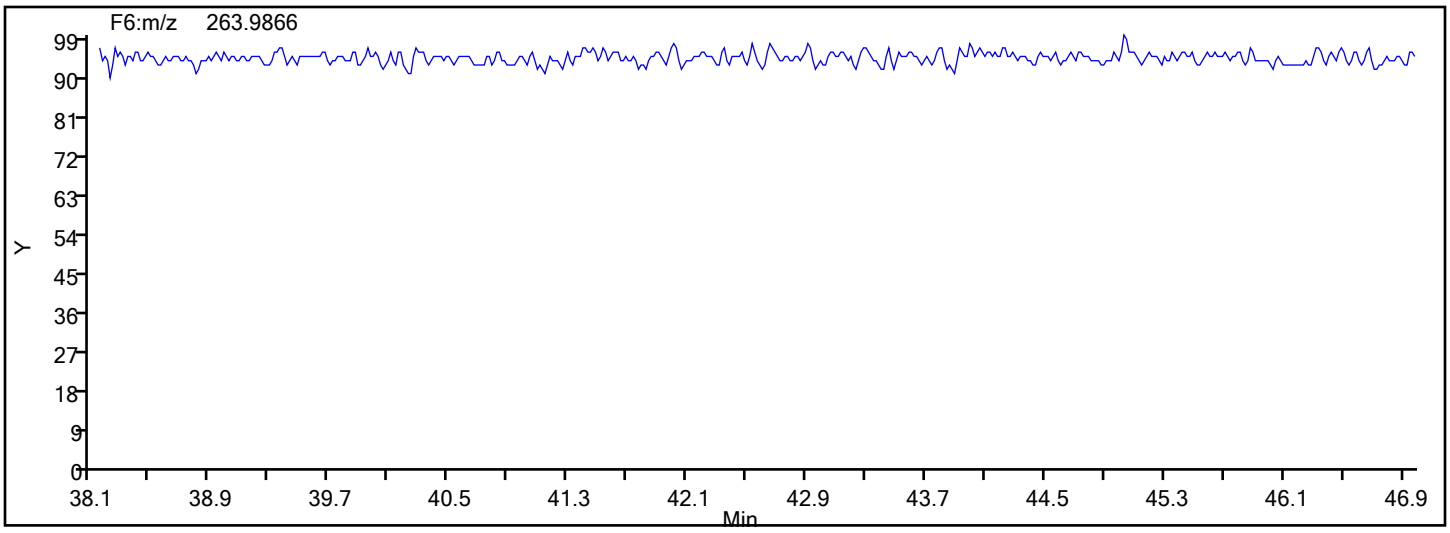
Injection Date:	04-May-2025 15:39:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99272	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-99273/1 Calibration Date: 05/05/2025 15:43

Instrument ID: D3PST Calib Start Date: 05/02/2025 14:50

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 05/02/2025 22:08

Lab File ID: d3250505p1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Pentachlorophenol	Ave	1.022	0.9872		966	1000	97	50-150
13C6-alpha BHC	Ave	0.2427	0.2664		110	100	110	50-150
13C6-Hexachlorobenzene	Ave	0.2759	0.2823		102	100	102	50-150
13C6-beta BHC	Ave	0.1892	0.2098		111	100	111	50-150
13C6-gamma BHC	Ave	0.2029	0.2279		112	100	112	50-150
13C6-delta BHC	Ave	0.1718	0.1844		107	100	107	50-150
13C10-Heptachlor	Ave	0.1629	0.1660		102	100	102	50-150
13C12-Aldrin	Ave	0.1517	0.1744		115	100	115	50-150
13C10-cis Heptachlor Epoxide	Ave	0.2676	0.2537		94.8	100	95	50-150
13C10-oxy Chlordane	Ave	0.0708	0.0670		94.7	100	95	50-150
13C10-trans Chlordane	Ave	0.3223	0.3907		121	100	121	50-150
13C12-2,4'-DDE	Ave	4.520	5.102		113	100	113	50-150
13C9-Endosulfan I	Ave	0.0899	0.1029		115	100	115	50-150
13C10-cis Chlordane	Ave	0.2976	0.3619		122	100	122	50-150
13C10-trans Nonachlor	Ave	0.2841	0.3351		118	100	118	50-150
13C12-4,4'-DDE	Ave	3.156	3.515		111	100	111	50-150
13C12-Dieldrin	Ave	0.2777	0.3711		134	100	134	50-150
13C12-2,4'-DDD	Ave	3.440	3.608		105	100	105	50-150
13C12-Endrin	Ave	0.1949	0.2290		117	100	117	50-150
13C9-Endosulfan II	Ave	0.0474	0.0521		110	100	110	50-150
13C12-4,4'-DDD	Ave	2.927	3.124		107	100	107	50-150
13C12-2,4'-DDT	Ave	2.037	2.333		115	100	115	50-150
13C10-cis Nonachlor	Ave	0.2243	0.2586		115	100	115	50-150
13C12-Endrin Aldehyde	Ave	0.0424	0.0418		98.5	100	99	50-150
13C9-Endosulfan sulfate	Ave	0.3464	0.3775		109	100	109	50-150
13C12-4,4'-DDT	Ave	1.806	1.983		110	100	110	50-150
13C11-Endrin Ketone	Ave	0.1045	0.1126		108	100	108	50-150
13C12-Methoxychlor	Ave	1.875	2.019		108	100	108	50-150
13C10-Mirex	Ave	1.983	2.700		136	100	136	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	05 May 2025 14:29
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

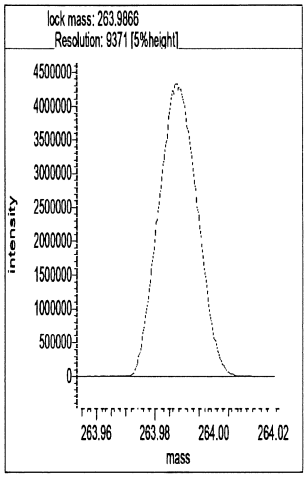
d3250505r5

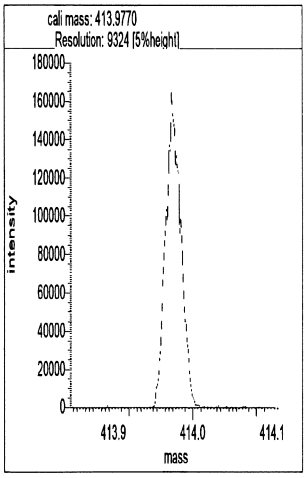
Segment 1

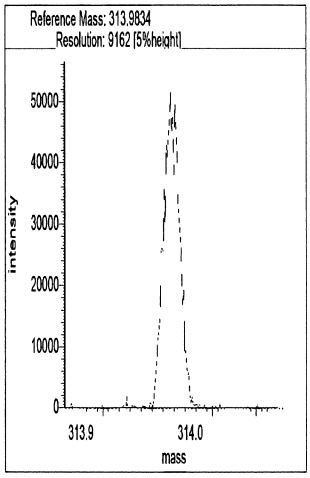
Lock mass 263.9866 [m/z] Resolution: 9371 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9324 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9162 [5%height]





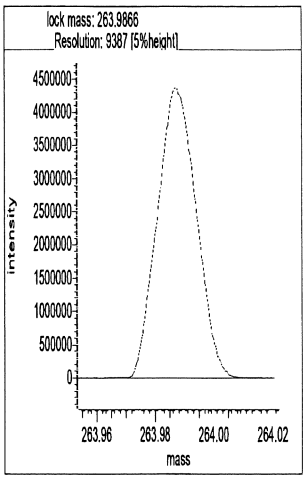


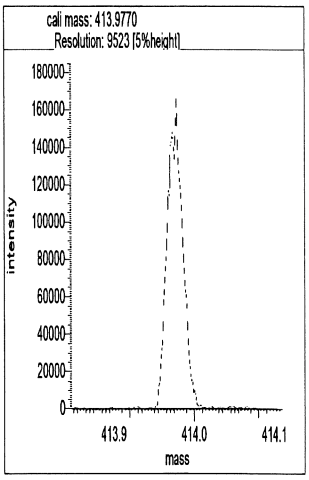
Segment 2

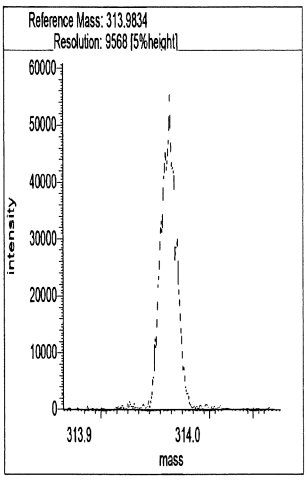
Lock mass 263.9866 [m/z] Resolution: 9387 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9523 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9568 [5%height]





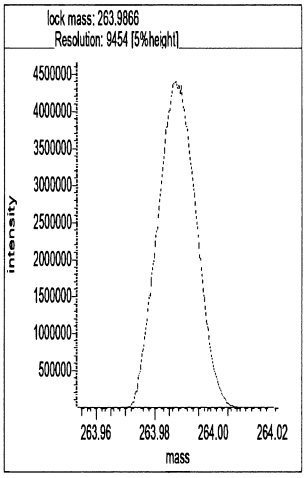


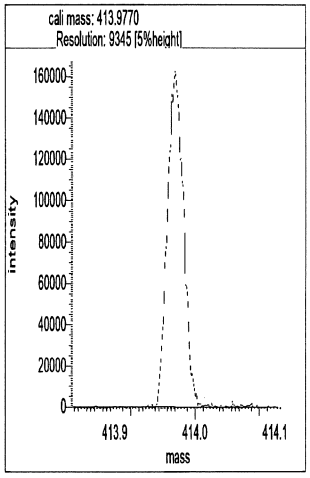
Segment 3

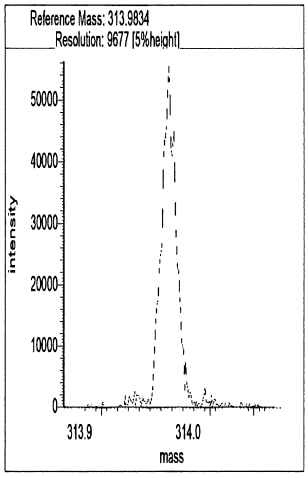
Lock mass 263.9866 [m/z] Resolution: 9454 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9345 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9677 [5%height]





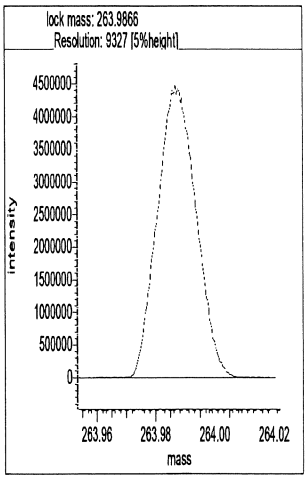


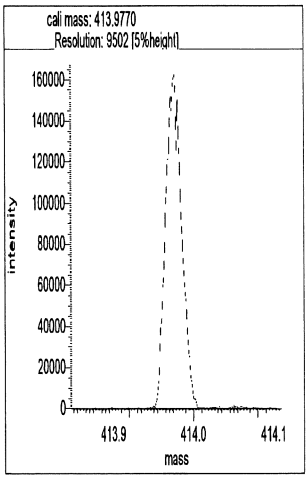
Segment 4

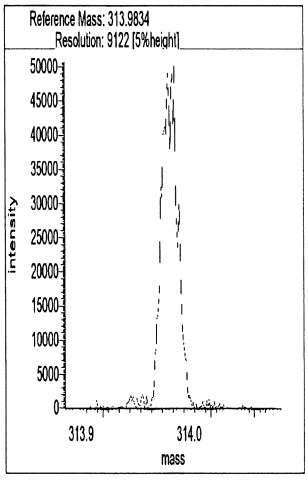
Lock mass 263.9866 [m/z] Resolution: 9327 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9502 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9122 [5%height]





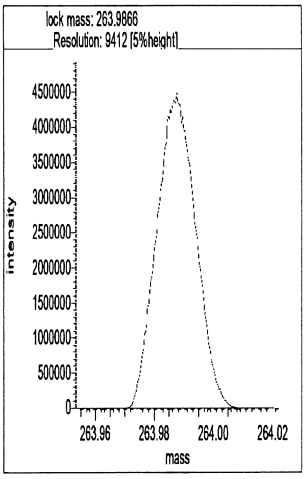


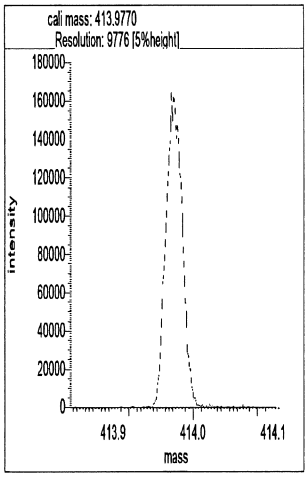
Segment 5

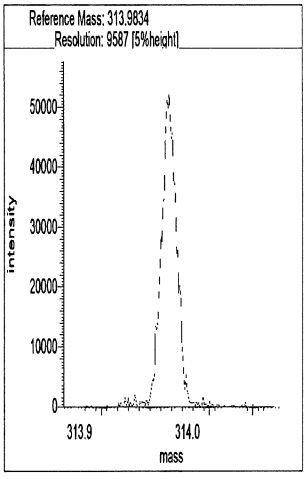
Lock mass 263.9866 [m/z] Resolution: 9412 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9776 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9587 [5%height]





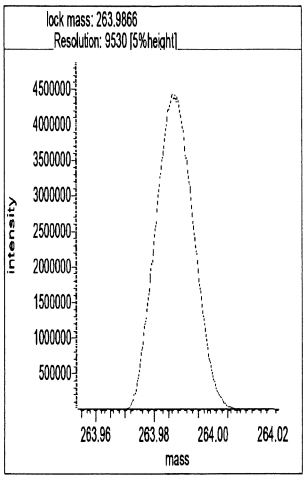


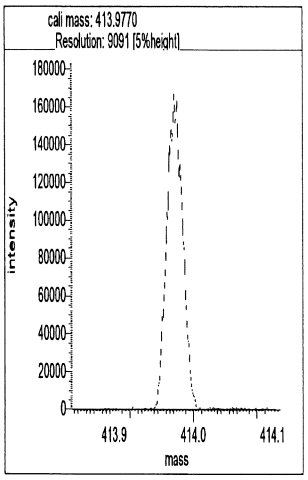
Segment 6

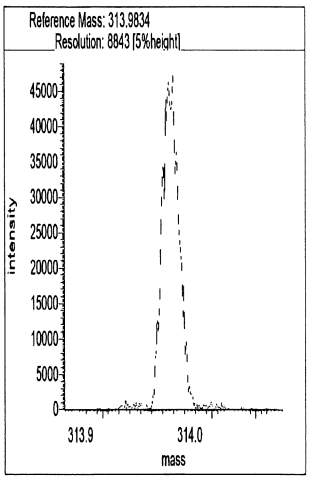
Lock mass 263.9866 [m/z] Resolution: 9530 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9091 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 8843 [5%height]

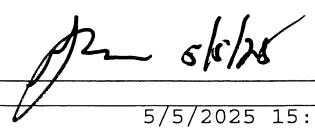

lock mass: 263.9866
Resolution: 9530 [5%height]
intensity
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 9091 [5%height]
intensity
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 8843 [5%height]
intensity
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

Reports

```
15:40:31:  Peak matching procedure started
15:40:31:
15:40:32:  Reference mass: 263.98656
15:40:32:  Sample mass: 414.0
15:40:33:
15:40:33:  Finding reference mass
15:40:34:  Finding sample mass
15:40:35:
15:40:41:  [1]    413.9596 amu, mean: 413.9596
15:40:44:  [2]    413.9603 amu, mean: 413.9599     SD: 0.43 mmu or: 1.04 ppm
15:40:47:  [3]    413.9610 amu, mean: 413.9603     SD: 0.66 mmu or: 1.61 ppm
15:40:50:  [4]    413.9600 amu, mean: 413.9602     SD: 0.56 mmu or: 1.34 ppm
15:40:53:  [5]    413.9598 amu, mean: 413.9601     SD: 0.52 mmu or: 1.25 ppm
15:40:56:  [6]    413.9604 amu, mean: 413.9602     SD: 0.47 mmu or: 1.15 ppm
15:40:59:  [7]    413.9607 amu, mean: 413.9603     SD: 0.48 mmu or: 1.15 ppm
15:41:03:  [8]    413.9610 amu, mean: 413.9604     SD: 0.52 mmu or: 1.26 ppm
15:41:06:  [9]    413.9604 amu, mean: 413.9604     SD: 0.49 mmu or: 1.17 ppm
15:41:09:  [10]    413.9599 amu, mean: 413.9603     SD: 0.48 mmu or: 1.16 ppm
15:41:12:  [11]    413.9599 amu, mean: 413.9603     SD: 0.47 mmu or: 1.14 ppm
15:41:13:
15:41:13:  Stop requested. Please wait for procedure to finish.
15:41:13:
15:41:15:
15:41:16:  Peakmatching stopped
```

Signature  5/6/25

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	05 May 2025 19:24
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

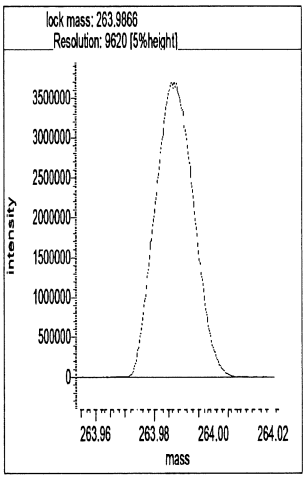
_d3250505r6

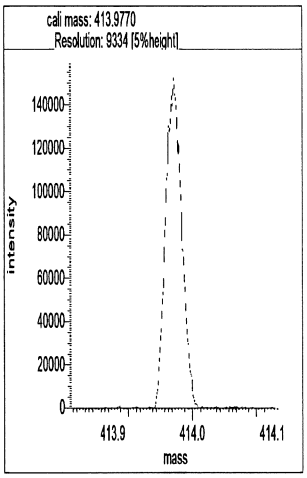
Segment 1

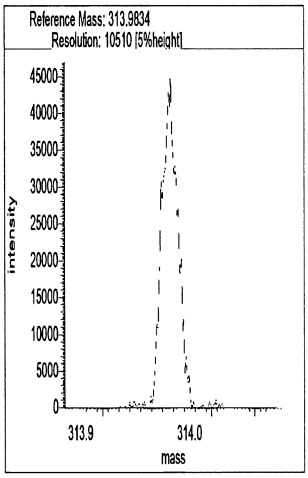
Lock mass 263.9866 [m/z] Resolution: 9620 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9334 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10510 [5%height]





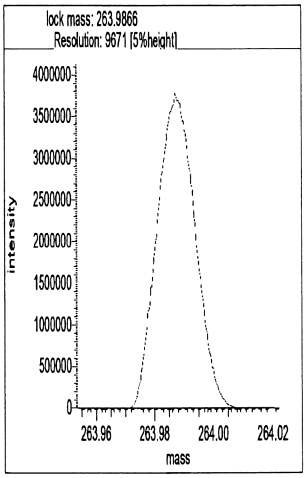


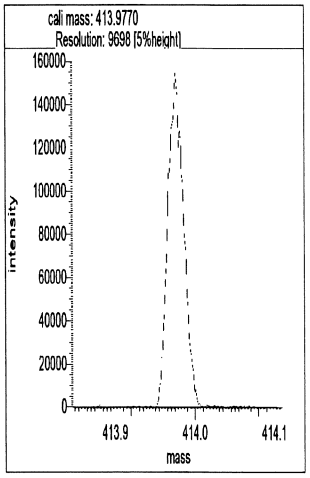
Segment 2

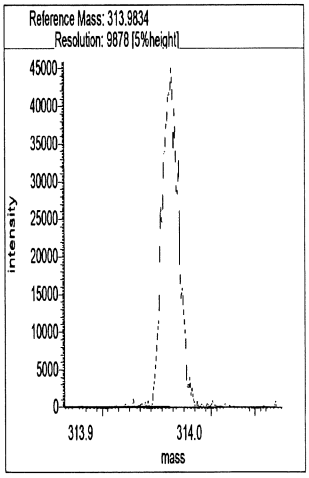
Lock mass 263.9866 [m/z] Resolution: 9671 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9698 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9878 [5%height]





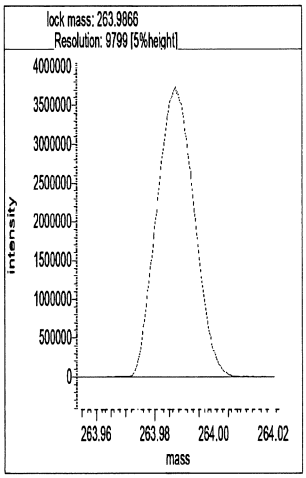


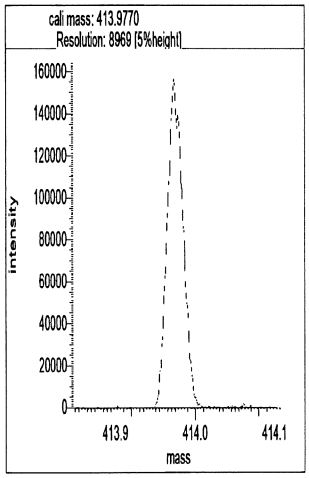
Segment 3

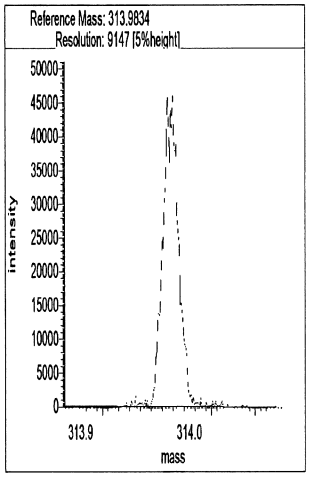
Lock mass 263.9866 [m/z] Resolution: 9799 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8969 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9147 [5%height]





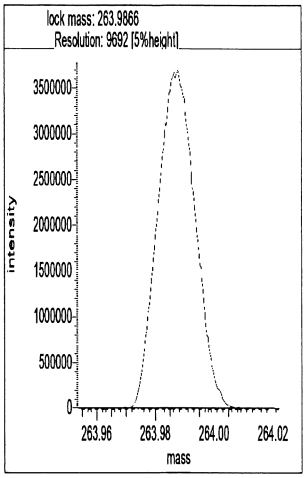


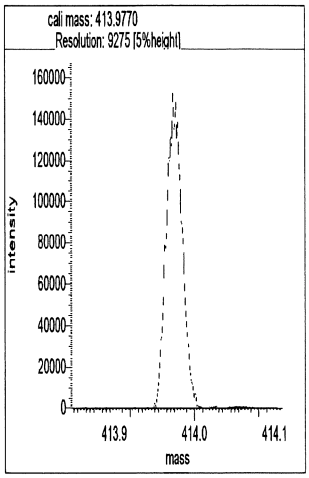
Segment 4

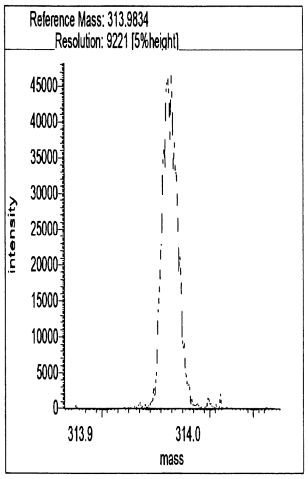
Lock mass 263.9866 [m/z] Resolution: 9692 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9275 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9221 [5%height]





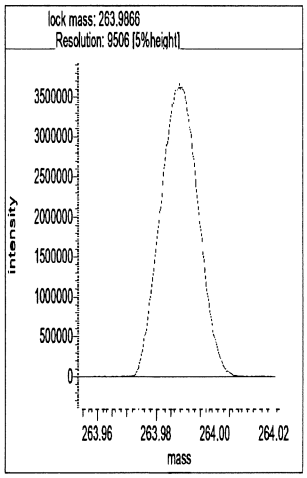


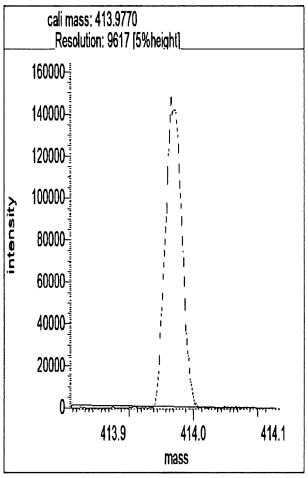
Segment 5

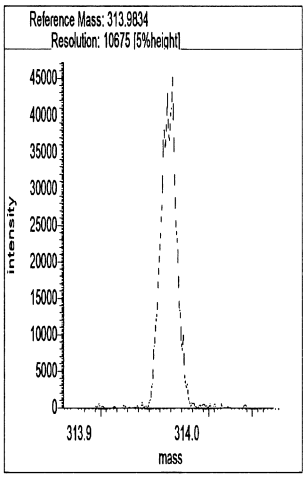
Lock mass 263.9866 [m/z] Resolution: 9506 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9617 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 10675 [5%height]





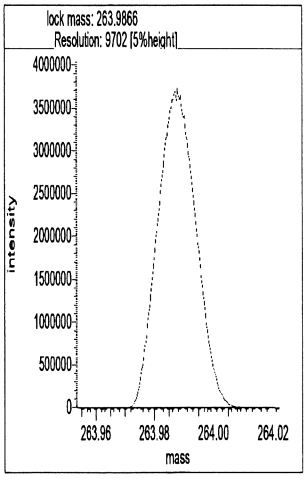


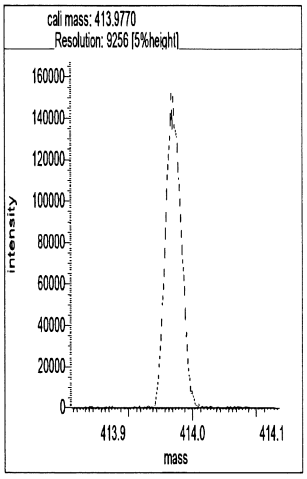
Segment 6

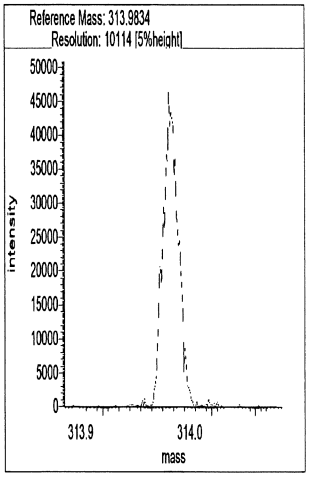
Lock mass 263.9866 [m/z] Resolution: 9702 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9256 [5%height]

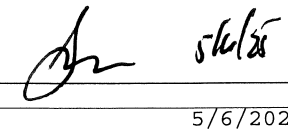
Ref. mass 313.9834 [m/z] Resolution: 10114 [5%height]


lock mass: 263.9866
Resolution: 9702 [5%height]
intensity
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 9256 [5%height]
intensity
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 10114 [5%height]
intensity
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

```
Reports
15:30:26:  Peak matching procedure started
15:30:26:
15:30:27:  Reference mass: 263.98656
15:30:27:  Sample mass: 414.0
15:30:28:
15:30:28:  Finding reference mass
15:30:29:  Finding sample mass
15:30:30:
15:30:36:  [1]    413.9714 amu, mean: 413.9714
15:30:39:  [2]    413.9703 amu, mean: 413.9708      SD: 0.76 mmu or: 1.85 ppm
15:30:42:  [3]    413.9714 amu, mean: 413.9710      SD: 0.62 mmu or: 1.49 ppm
15:30:45:  [4]    413.9718 amu, mean: 413.9712      SD: 0.63 mmu or: 1.52 ppm
15:30:48:  [5]    413.9713 amu, mean: 413.9712      SD: 0.55 mmu or: 1.32 ppm
15:30:51:  [6]    413.9712 amu, mean: 413.9712      SD: 0.49 mmu or: 1.18 ppm
15:30:54:  [7]    413.9717 amu, mean: 413.9713      SD: 0.48 mmu or: 1.17 ppm
15:30:57:  [8]    413.9724 amu, mean: 413.9714      SD: 0.58 mmu or: 1.41 ppm
15:31:01:  [9]    413.9721 amu, mean: 413.9715      SD: 0.60 mmu or: 1.44 ppm
15:31:04:  [10]    413.9731 amu, mean: 413.9717      SD: 0.76 mmu or: 1.83 ppm
15:31:07:  [11]    413.9721 amu, mean: 413.9717      SD: 0.73 mmu or: 1.76 ppm
15:31:07:
15:31:07:  Stop requested. Please wait for procedure to finish.
15:31:07:
15:31:10:
15:31:10:  Peakmatching stopped
```

Signature  5/6/25

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 05-May-2025 15:43:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 14:53:39 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	9489865	0.83	0.2427	109.8	109.8	0.1425	0.1425	110	
D 13C6-beta BHC	18:22	7475264	0.83	0.1892	110.9	110.9	0.1828	0.1828	111	
D 13C6-gamma BHC	18:39	8119900	0.82	0.2029	112.3	112.3	0.1704	0.1704	112	
D 13C6-delta BHC	19:36	6569033	0.84	0.1718	107.3	107.3	0.2013	0.2013	107	
D 13C10-Heptachlor	21:50	5912260	1.30	0.1629	101.9	101.9	0.0222	0.0222	102	
D 13C6-Hexachlorobenzene	17:42	10057009	1.28	0.2759	102.3	102.3	0.000148	0.000148	102	
D 13C12-Aldrin	23:42	6211413	1.59	0.1517	115.0	115.0	0.0344	0.0344	115	
D 13C10-oxy Chlordane	26:06	432279	0.96	0.0708	94.7	94.7	0.004789	0.004789	94.72	
D 13C10-cis Heptachlor Epoxide	26:05	1636406	1.28	0.2676	94.8	94.8	0.0114	0.0114	94.83	
D 13C12-2,4'-DDE	27:54	32905602	1.60	4.5202	112.9	112.9	0.0797	0.0797	113	
D 13C10-trans Chlordane	27:36	2520124	1.36	0.3223	121.2	121.2	0.0309	0.0309	121	
D 13C10-cis Chlordane	28:39	2334184	1.32	0.2976	121.6	121.6	0.0335	0.0335	122	
D 13C10-trans Nonachlor	28:58	2161559	1.27	0.2841	118.0	118.0	0.0351	0.0351	118	
D 13C9-Endosulfan I	28:30	663822	1.27	0.0899	114.5	114.5	0.1108	0.1108	115	
D 13C12-4,4'-DDE	30:08	21813334	1.60	3.1557	111.4	111.4	0.0816	0.0816	111	
D 13C12-4,4'-DDD	33:25	19381981	1.59	2.9265	106.7	106.7	0.008895	0.008895	107	
D 13C12-2,4'-DDT	33:42	14478204	1.59	2.0372	114.5	114.5	0.0128	0.0128	115	
D 13C12-4,4'-DDT	36:33	12303780	1.58	1.8061	109.8	109.8	0.0144	0.0144	110	
D 13C12-Dieldrin	30:21	2302850	1.67	0.2777	133.6	133.6	0.0641	0.0641	134	
D 13C12-Endrin	32:01	1421015	1.68	0.1949	117.5	117.5	0.0913	0.0913	117	
D 13C9-Endosulfan II	32:44	323246	1.29	0.0474	110.0	110.0	0.6405	0.6405	110	
D 13C12-Endrin Aldehyde	34:17	259530	1.69	0.0424	98.5	98.5	0.2438	0.2438	98.55	
D 13C12-Methoxychlor	41:53	12526800	23.28	1.8751	107.7	107.7	0.0300	0.0300	108	
D 13C11-Endrin Ketone	40:22	698532	1.66	0.1045	107.7	107.7	0.1178	0.1178	108	
D 13C10-Mirex	45:21	8064749	1.29	1.9829	136.2	136.2	0.0268	0.0268	136	
* PCB-15L	19:03	35622243	1.64		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:28	4138890	0.66		500.0	500.0				
Pentachlorophenol	18:29	8171643	0.69	1.0218	966.1	966.1	0.1264	0.1264	96.61	
* PCB-101L	28:05	6449574	1.60		100.0	100.0				
* PCB-118L	32:45	6204937	1.61		100.0	100.0				
* PCB-138L	36:56	2986596	1.30		100.0	100.0				
* PCB-60L	27:42	14677504	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:49	22384810	1.59	3.4396	104.9	104.9	0.0466	0.0466	105	
D 13C10-cis Nonachlor	33:45	1604585	1.31	0.2243	115.3	115.3	0.0234	0.0234	115	
D 13C9-Endosulfan sulfate	36:15	2342371	1.29	0.3464	109.0	109.0	0.0152	0.0152	109	
* PCB-167L	39:26	3063514	1.28		100.0	100.0				

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 05-May-2025 15:43:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 14:53:39 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	4307275	1599990	1235	3087	1296		
224.9317	17:23	17:23	0	0.912	5182590	1944300	456	1140	4264	0.83(0.58-0.96)	
13C6-beta BHC											
222.9342	18:22	18:22	0	0.964	3383107	1205063	1235	3087	976		
224.9317	18:22	18:22	0	0.964	4092157	1487756	456	1140	3263	0.83(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:39	0	0.979	3655363	1284652	1235	3087	1040		
224.9317	18:39	18:39	0	0.979	4464537	1548288	456	1140	3395	0.82(0.58-0.96)	
13C6-delta BHC											
222.9342	19:36	19:36	0	1.028	3003554	985350	1235	3087	798		
224.9317	19:36	19:36	0	1.028	3565479	1157895	456	1140	2539	0.84(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:50	21:50	0	1.146	3339891	976780	97	242	10070		
278.8240	21:50	21:50	0	1.146	2572369	728900	80	200	9111	1.30(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.929	5654792	2037189	1	2	2037189		
291.8273	17:42	17:42	0	0.929	4402217	1654768	1	2	1654768	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:42	23:42	0	1.244	3814460	1000826	153	382	6541		
271.8775	23:42	23:42	0	1.244	2396953	615190	102	255	6031	1.59(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:06	26:06	0	0.929	211631	45723	1	2	45723		
398.8358	26:07	26:06	1	0.930	220648	51397	1	2	51397	0.96(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:05	26:05	0	0.928	919945	207463	11	27	18860		
364.8748	26:05	26:05	0	0.928	716461	169530	7	17	24219	1.28(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:54	27:54	0	0.993	20266872	4703574	1378	3445	3413		
260.0376	27:54	27:54	0	0.993	12638730	2850364	749	1872	3806	1.60(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:36	27:36	0	0.983	1453169	317119	48	120	6607		
278.8240	27:37	27:36	1	0.983	1066955	245582	11	27	22326	1.36(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:39	28:39	0	1.020	1329337	294085	48	120	6127		
278.8240	28:39	28:39	0	1.020	1004847	227245	11	27	20659	1.32(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:58	28:58	0	1.031	1207874	272432	48	120	5676		
278.8240	28:58	28:58	0	1.031	953685	207956	11	27	18905	1.27(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:30	28:30	0	1.015	371180	82320	48	120	1715		
278.8240	28:29	28:30	-1	1.014	292642	60734	11	27	5521	1.27(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:08	30:08	0	0.920	13429670	2852520	851	2127	3352		
260.0376	30:08	30:08	0	0.920	8383664	1791861	463	1157	3870	1.60(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:25	33:25	0	1.020	11885765	2364781	79	197	29934		
249.0454	33:25	33:25	0	1.020	7496216	1489973	54	135	27592	1.59(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:42	0	1.029	8893918	1686070	79	197	21343		
249.0454	33:42	33:42	0	1.029	5584286	1089955	54	135	20184	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:33	36:33	0	1.116	7539333	1419335	79	197	17966		
249.0454	36:33	36:33	0	1.116	4764447	930501	54	135	17232	1.58(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:21	30:21	0	0.927	1441127	287000	69	172	4159		
271.8775	30:21	30:21	0	0.927	861723	176471	22	55	8021	1.67(1.16-1.94)	
13C12-Endrin											
269.8805	32:01	32:01	0	0.978	891520	173309	69	172	2512		
271.8775	32:01	32:01	0	0.978	529495	107589	22	55	4890	1.68(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:44	32:44	0	1.000	181840	36200	91	227	398		
278.8240	32:44	32:44	0	1.000	141406	29338	64	160	458	1.29(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:17	0	1.047	163018	34901	12	30	2908		
358.9361	34:16	34:17	-1	1.046	96512	19182	41	102	468	1.69(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:53	41:53	0	1.279	12010789	2114747	244	610	8667		
240.1510	41:53	41:53	0	1.279	516011	88344	43	107	2055	23.28(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.232	435859	76318	42	105	1817		
329.9379	40:22	40:22	0	1.232	262673	43243	21	52	2059	1.66(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:21	45:21	0	1.228	4547673	712204	72	180	9892		
278.8240	45:21	45:21	0	1.228	3517076	565884	48	120	11789	1.29(0.93-1.55)	
PCB-15L											
234.0406	19:03	19:03	0		22122165	7628099	38	95	200740		
236.0376	19:03	19:03	-1		13500078	4597037	9	22	510782	1.64(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:28	18:28	0		1641608	488322	15	37	32555		
271.8636	18:28	18:28	0		2497282	731408	14	35	52243	0.66(0.00-0.00)	
Pentachlorophenol											
263.8464	18:29	18:29	0	1.001	3335308	853785	97	242	8802		
265.8435	18:29	18:29	0	1.001	4836335	1307159	29	72	45074	0.69(0.00-0.00)	
PCB-101L											
337.9207	28:05	28:05	0		3972252	906592	1	2	906592		
339.9178	28:05	28:05	0		2477322	568946	2	5	284473	1.60(1.16-1.94)	
PCB-118L											
337.9207	32:45	32:45	0		3830866	784387	29	72	27048		
339.9178	32:45	32:45	0		2374071	491007	17	42	28883	1.61(1.16-1.94)	
PCB-138L											
371.8817	36:56	36:56	0		1689884	317824	32	80	9932		
373.8788	36:56	36:56	0		1296712	246423	23	57	10714	1.30(1.16-1.94)	
PCB-60L											
301.9626	27:42	27:42	0		6613617	1504282	64	160	23504		
303.9597	27:42	27:42	0		8063887	1842014	41	102	44927	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:49	30:49	0	0.941	13726374	2835361	487	1217	5822		
249.0454	30:49	30:49	0	0.941	8658436	1777762	331	827	5371	1.59(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:45	33:45	0	1.030	911412	177563	14	35	12683		
278.8240	33:45	33:45	0	1.030	693173	134278	13	32	10329	1.31(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:15	36:15	0	1.107	1321394	244299	14	35	17450		
278.8240	36:15	36:15	0	1.107	1020977	186625	13	32	14356	1.29(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:26	0		1721189	314398	2	5	157199		
373.8788	39:26	39:26	0		1342325	246743	2	5	123372	1.28(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 05-May-2025 15:43:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 14:53:39 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

Start Cal Date: 02-May-2025 14:50:00
End Cal Date: 02-May-2025 22:08:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:23	0	15	0.9120	0.9120	0.812 - 1.0115
13C6-beta BHC		18:22	18:22	0	15	0.9641	0.9635	0.864 - 1.0640
13C6-gamma BHC		18:39	18:39	0	15	0.9791	0.9785	0.878 - 1.0780
13C6-delta BHC		19:36	19:36	0	15	1.0290	1.0284	0.930 - 1.1300
13C10-Heptachlor		21:51	21:50	0	15	1.1464	1.1459	1.046 - 1.2460
13C6-Hexachlorobenzene		17:42	17:42	0	15	0.9287	0.9287	0.828 - 1.0280
13C12-Aldrin		23:43	23:42	0	15	1.2447	1.2442	0.000 - 0.0000
13C10-oxy Chlordane		26:07	26:06	0	15	0.9296	0.9294	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:05	26:05	0	15	0.9286	0.9285	0.000 - 0.0000
13C12-2,4'-DDE		27:54	27:54	0	15	0.9932	0.9932	0.000 - 0.0000
13C10-trans Chlordane		27:36	27:36	0	15	0.9826	0.9826	0.000 - 0.0000
13C10-cis Chlordane		28:40	28:39	0	15	1.0204	1.0203	0.000 - 0.0000
13C10-trans Nonachlor		28:59	28:58	0	15	1.0315	1.0315	0.000 - 0.0000
13C9-Endosulfan I		28:29	28:30	1	15	1.0141	1.0145	0.000 - 0.0000
13C12-4,4'-DDE		30:08	30:08	0	15	0.9200	0.9200	0.000 - 0.0000
13C12-4,4'-DDD		33:25	33:25	0	15	1.0203	1.0203	0.000 - 0.0000
13C12-2,4'-DDT		33:42	33:42	0	15	1.0287	1.0287	0.000 - 0.0000
13C12-4,4'-DDT		36:34	36:33	-1	15	1.1161	1.1156	0.000 - 0.0000
13C12-Dieldrin		30:21	30:21	0	15	0.9265	0.9265	0.000 - 0.0000
13C12-Endrin		32:01	32:01	0	15	0.9776	0.9775	0.000 - 0.0000
13C9-Endosulfan II		32:45	32:44	0	15	1.0000	0.9996	0.000 - 0.0000
13C12-Endrin Aldehyde		34:17	34:17	0	15	1.0465	1.0465	0.000 - 0.0000
13C12-Methoxychlor		41:54	41:53	0	15	1.2791	1.2790	0.000 - 0.0000
13C11-Endrin Ketone		40:22	40:22	0	15	1.2325	1.2323	0.000 - 0.0000
13C10-Mirex		45:22	45:21	0	15	1.2276	1.2280	0.000 - 0.0000
PCB-15L		19:03	19:03	0		1.0000	1.0000	0.000 - 0.0000

Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-Pentachlorophenol (IS)		18:29	18:28	0		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:29	18:29	0		1.0000	1.0006	0.000 - 0.0000
PCB-101L		28:05	28:05	0		1.0000	1.0000	0.000 - 0.0000
PCB-118L		32:45	32:45	0		1.0000	1.0000	0.000 - 0.0000
PCB-138L		36:57	36:56	-1		1.0000	1.0000	0.000 - 0.0000
PCB-60L		27:43	27:42	0		1.0000	1.0000	0.000 - 0.0000
13C12-2,4'-DDD		30:49	30:49	0	15	0.9408	0.9408	0.000 - 0.0000
13C10-cis Nonachlor		33:46	33:45	-1	15	1.0308	1.0303	0.000 - 0.0000
13C9-Endosulfan sulfate		36:15	36:15	0	15	1.1067	1.1067	0.000 - 0.0000
PCB-167L		39:26	39:26	0		1.0000	1.0000	0.000 - 0.0000

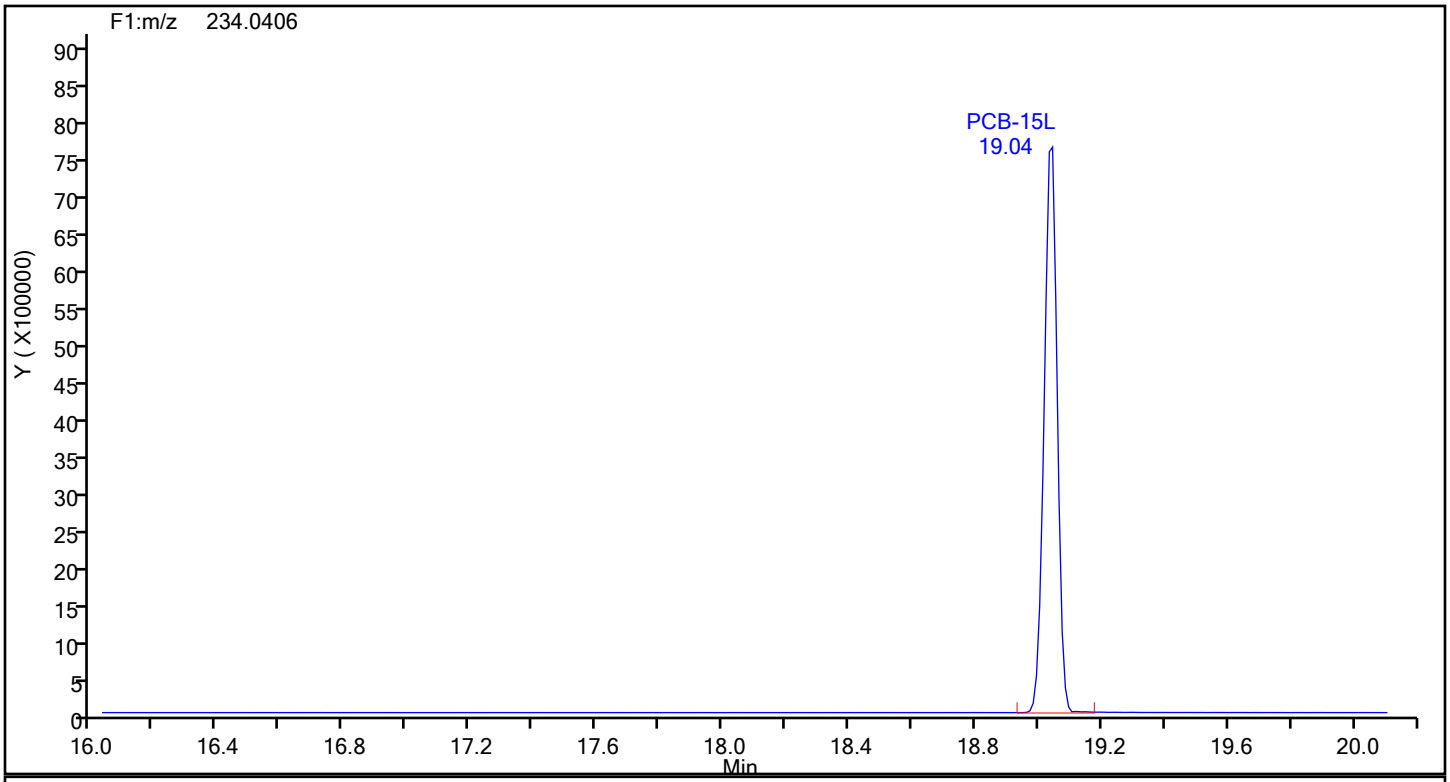
Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42

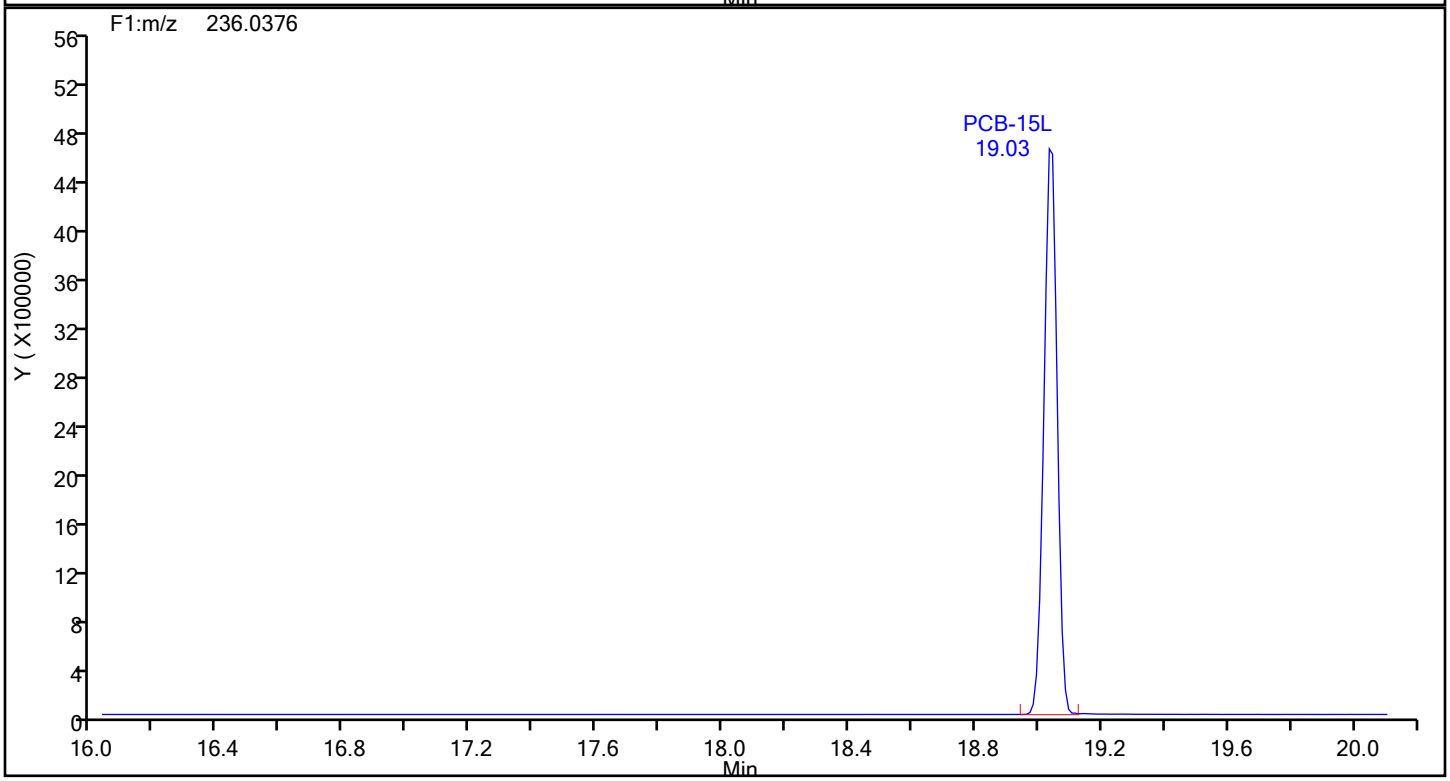
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





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Eurofins Knoxville

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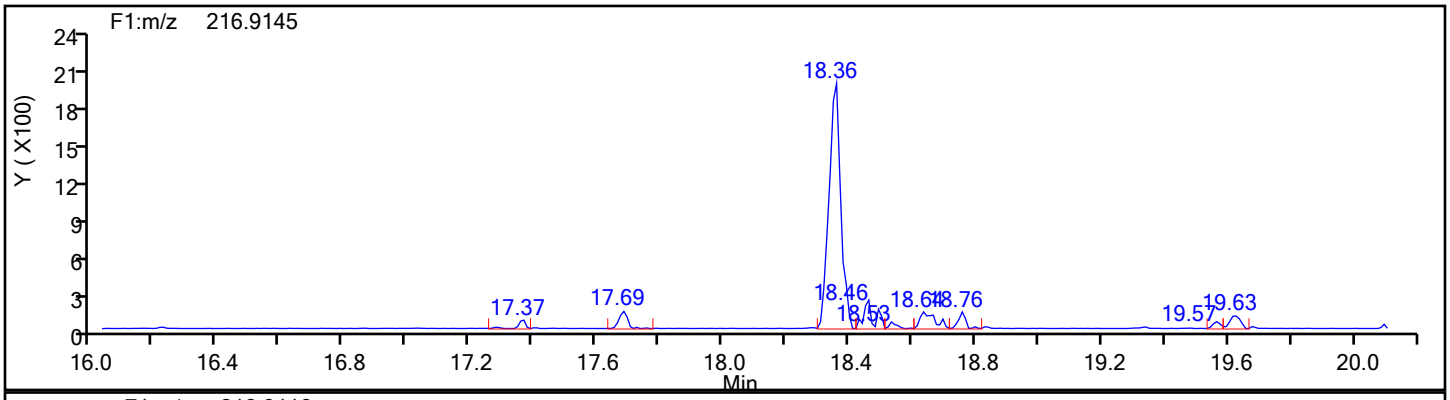
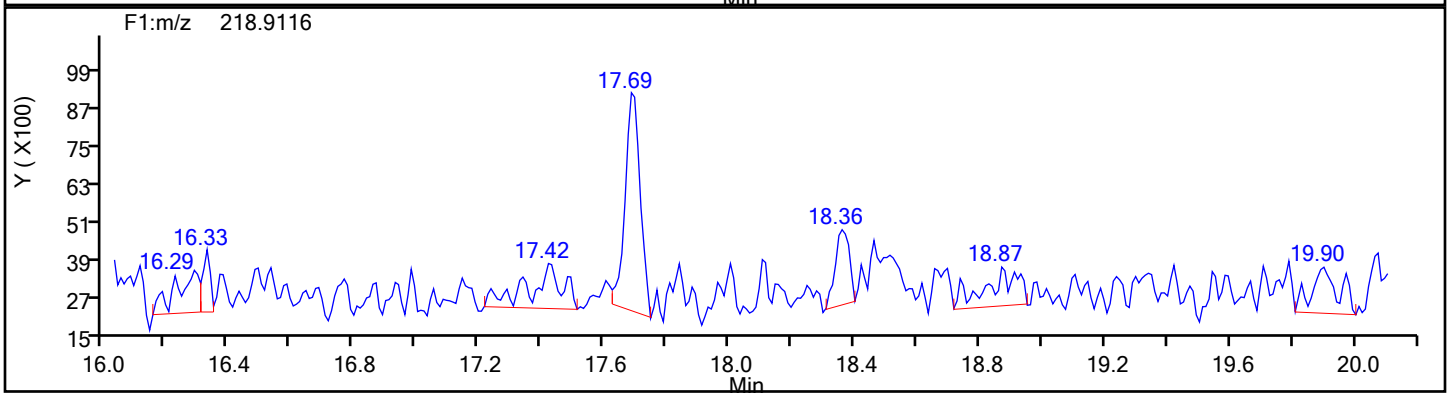
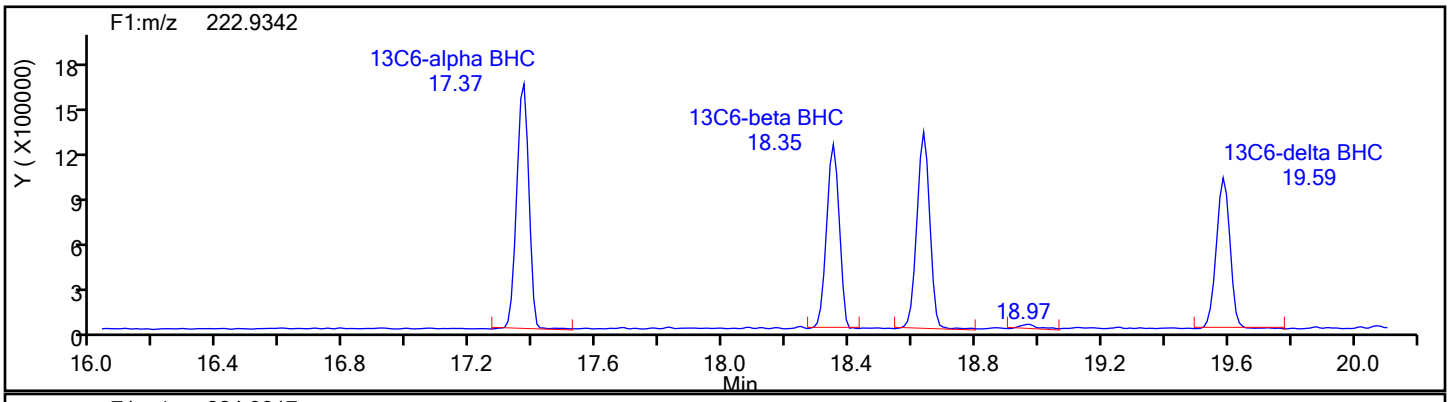
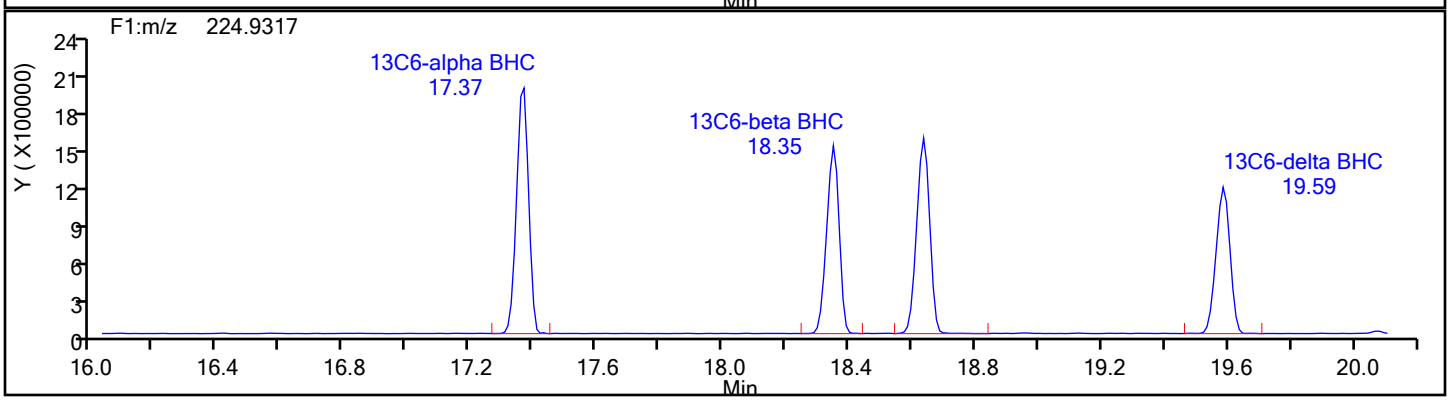
BHC





BHC Standards





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Eurofins Knoxville

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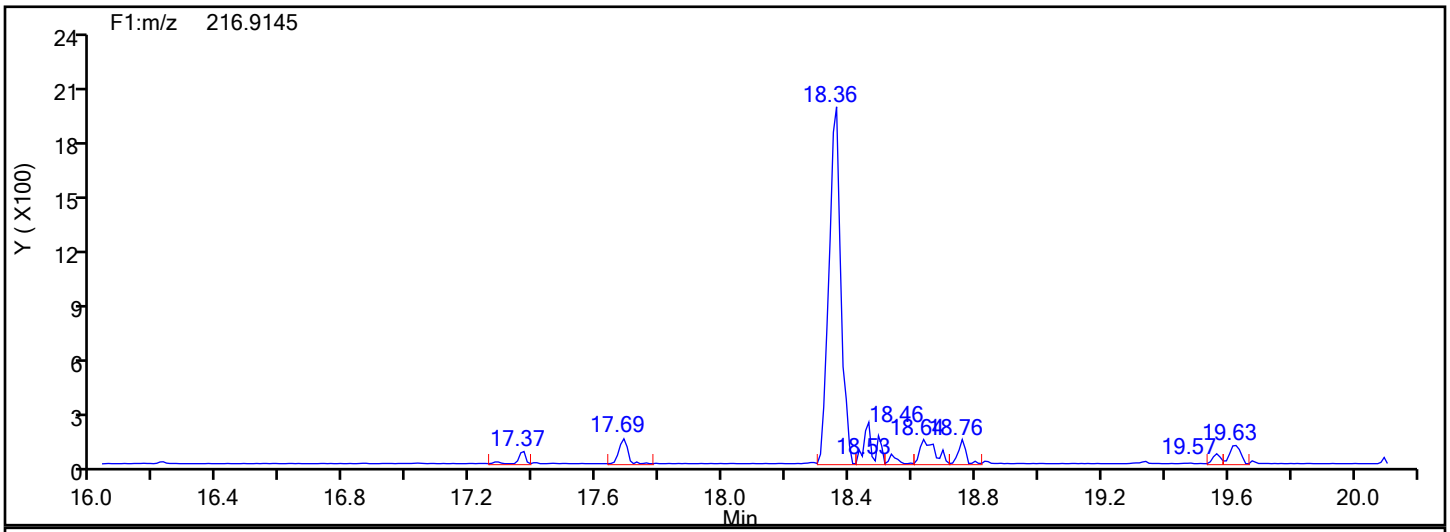
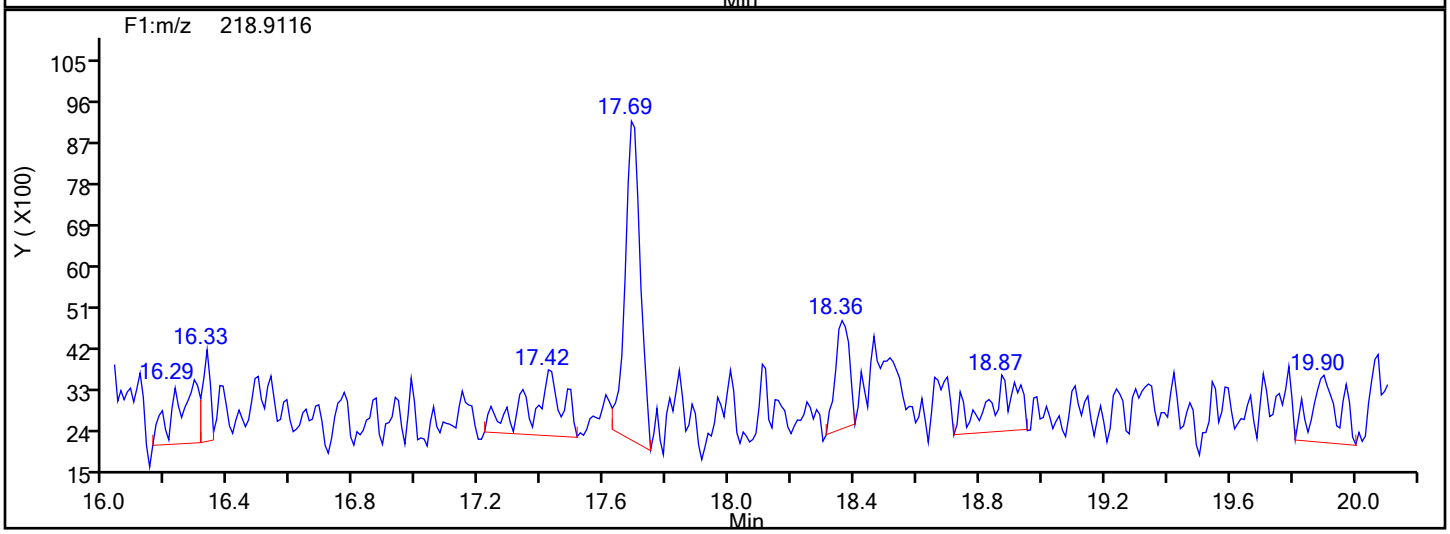
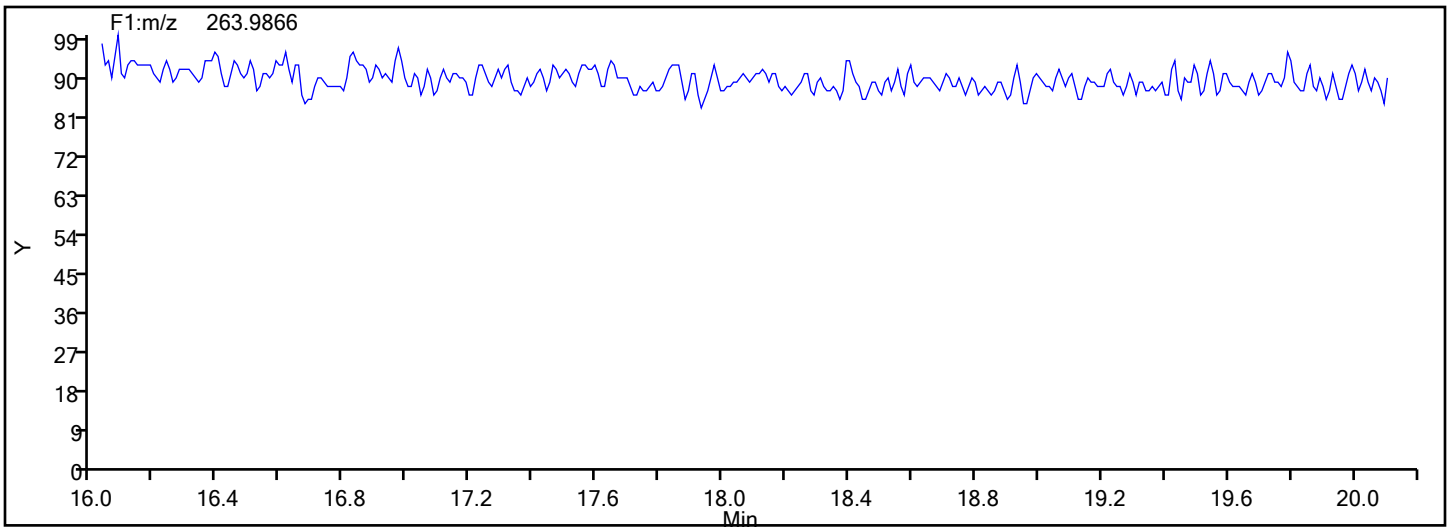
BHC





BHC Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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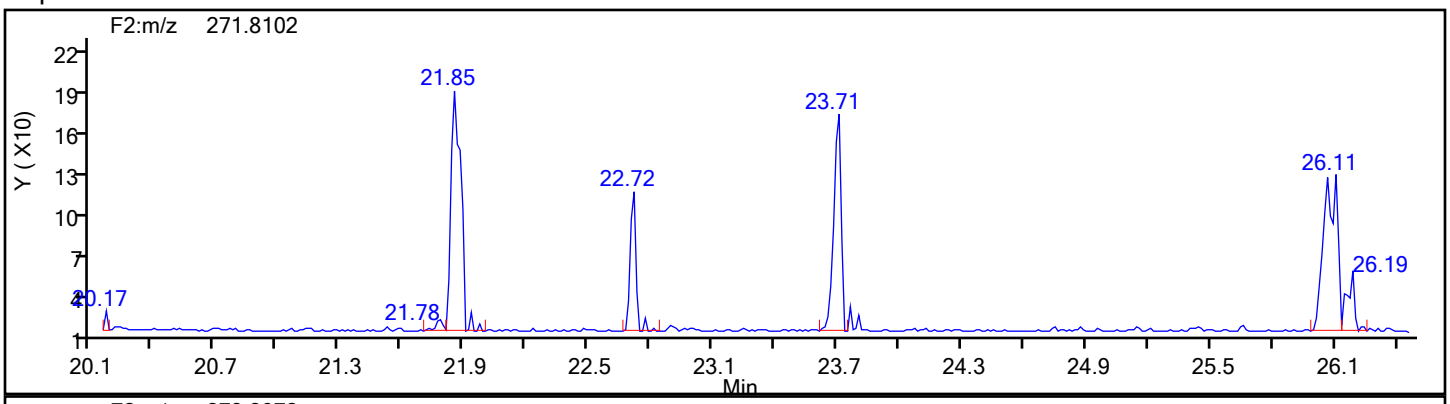
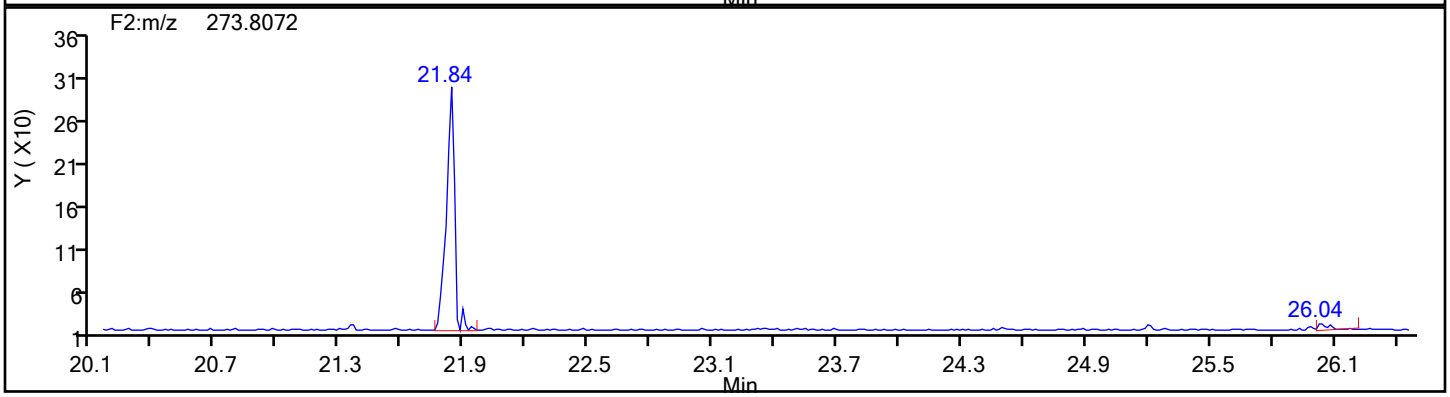
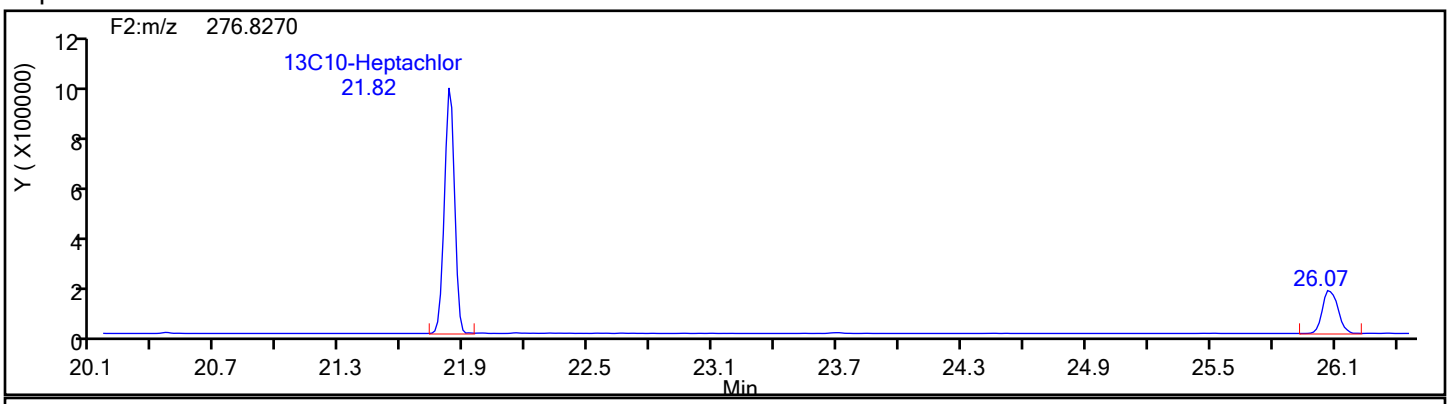
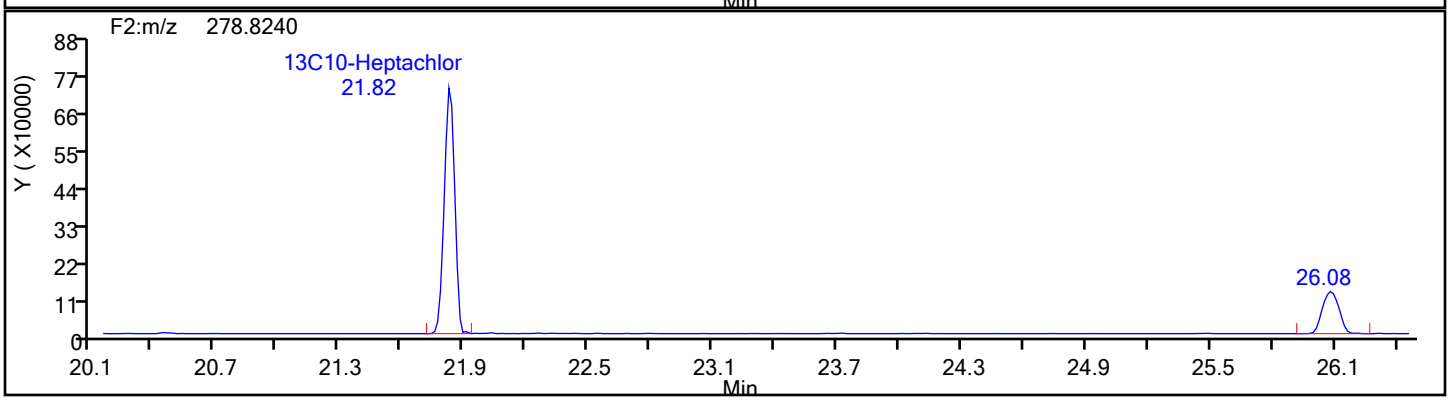
Heptachlor





Heptachlor Standards





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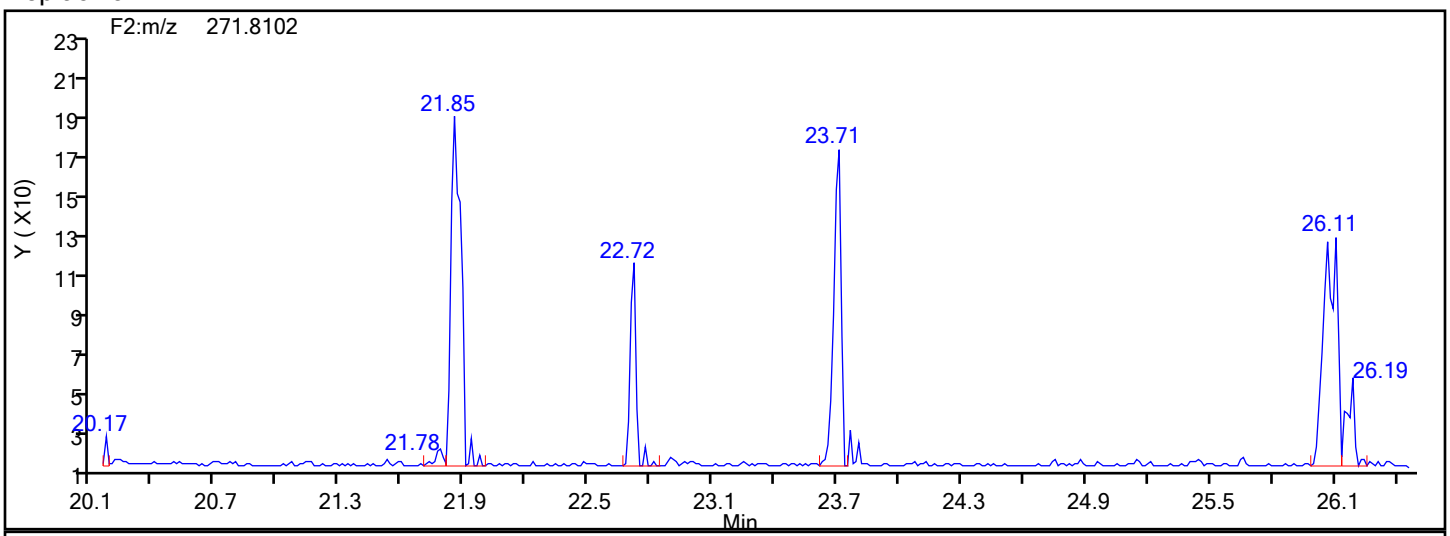
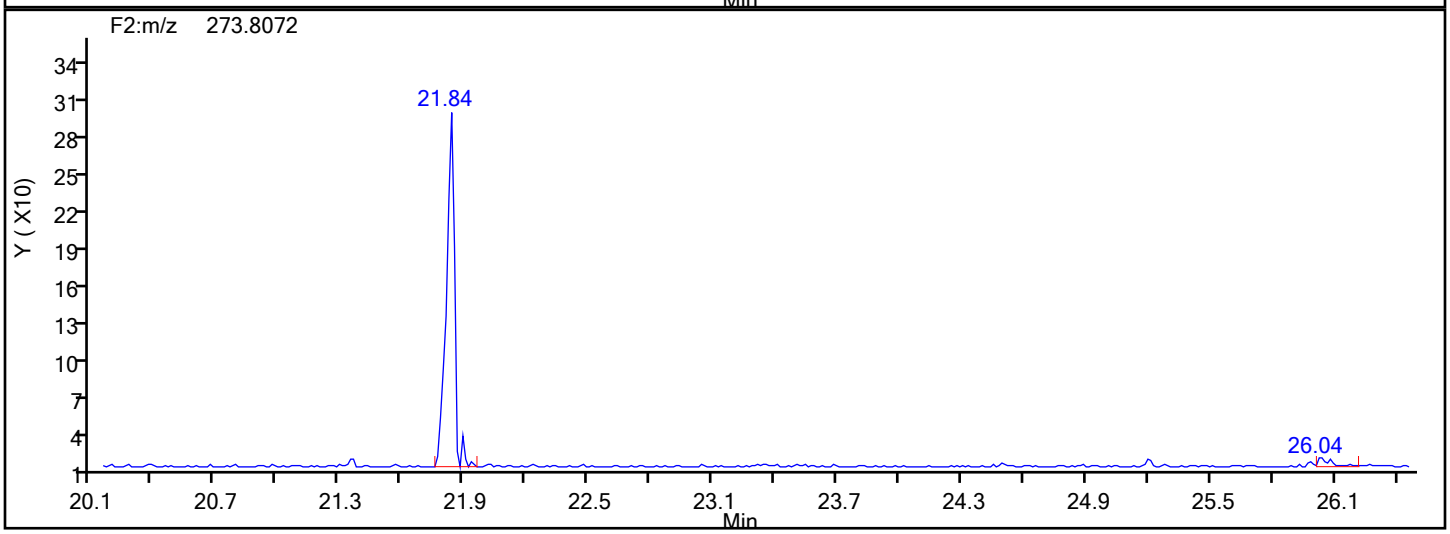
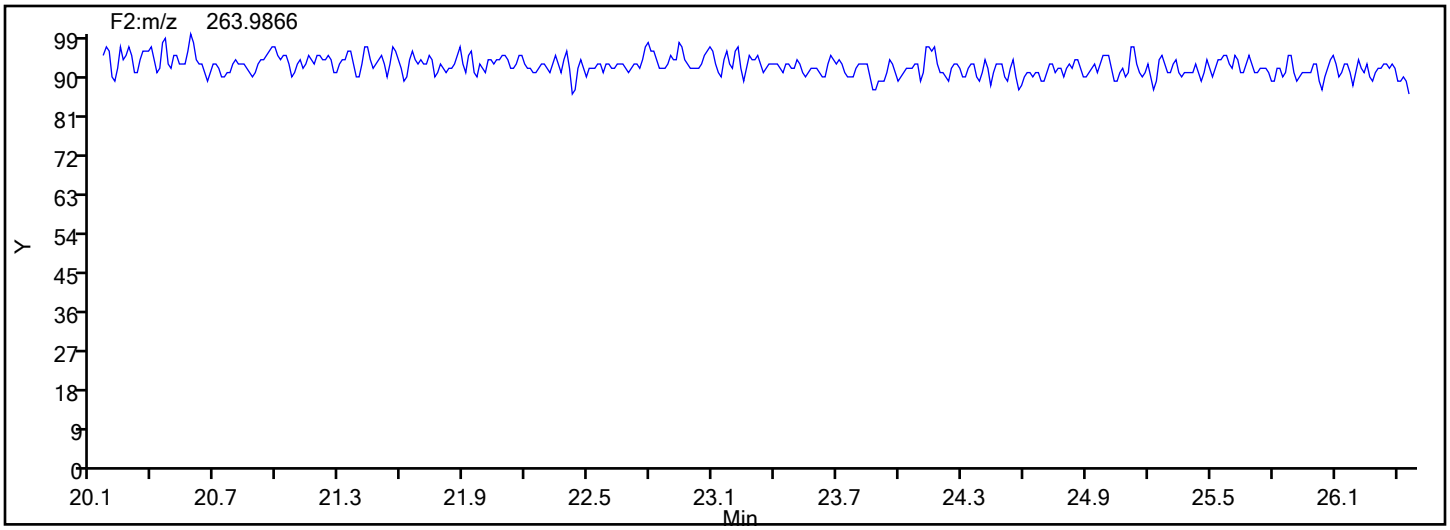
Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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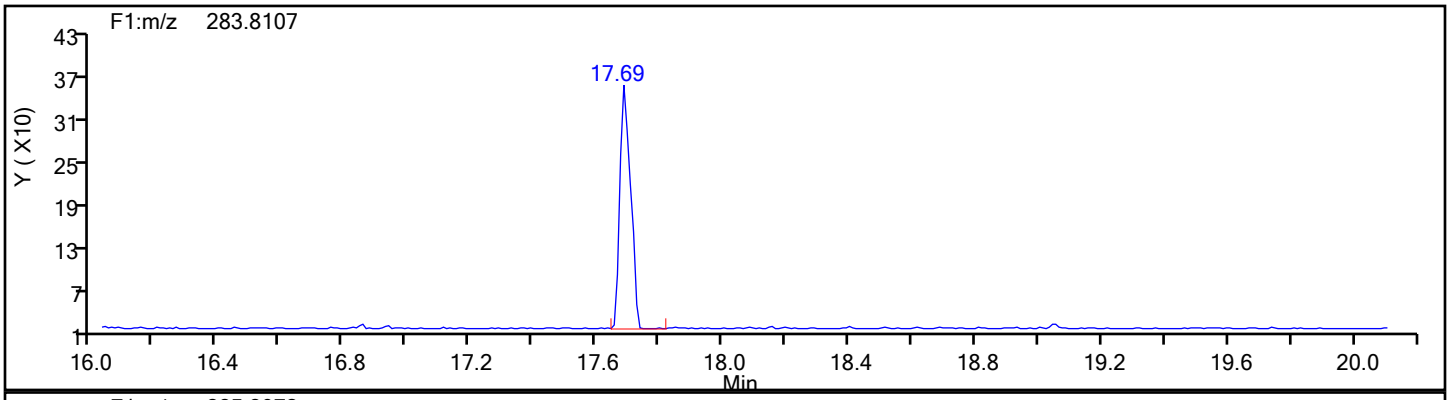
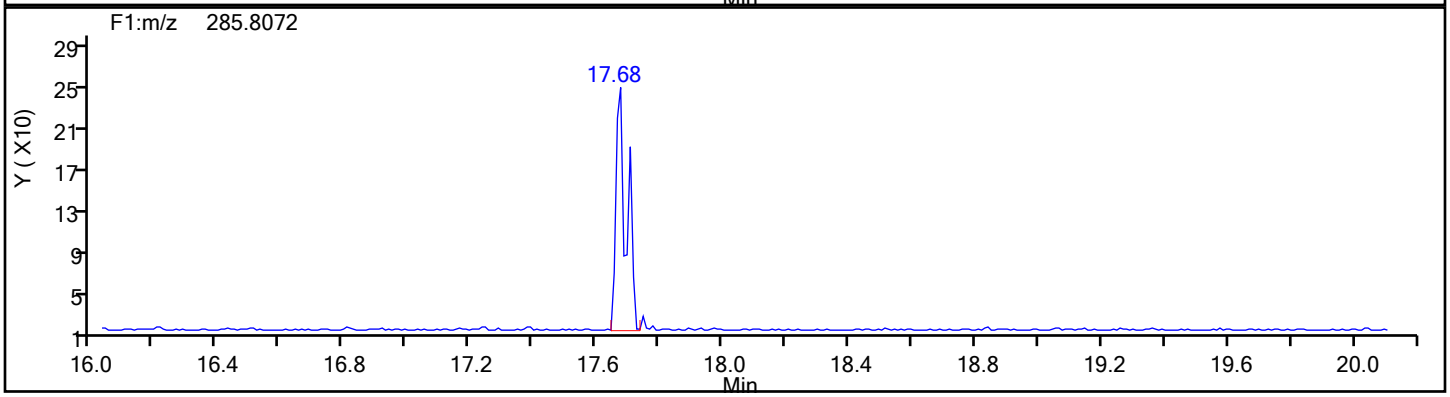
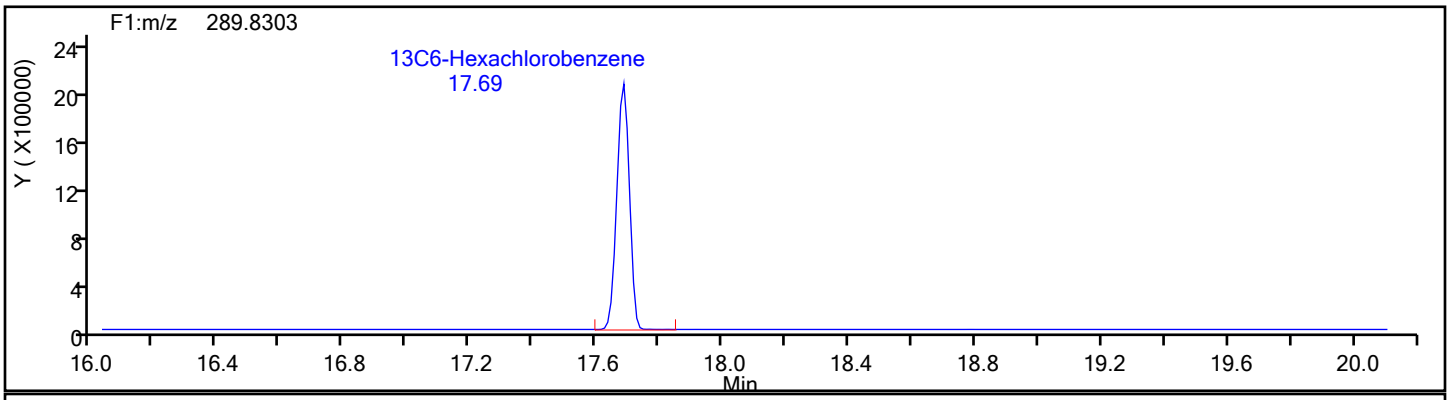
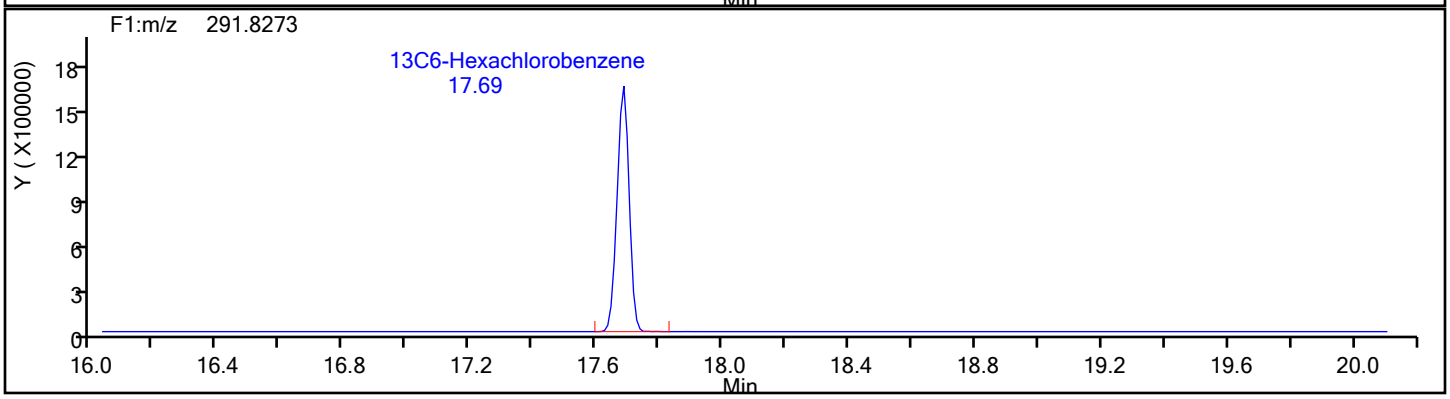
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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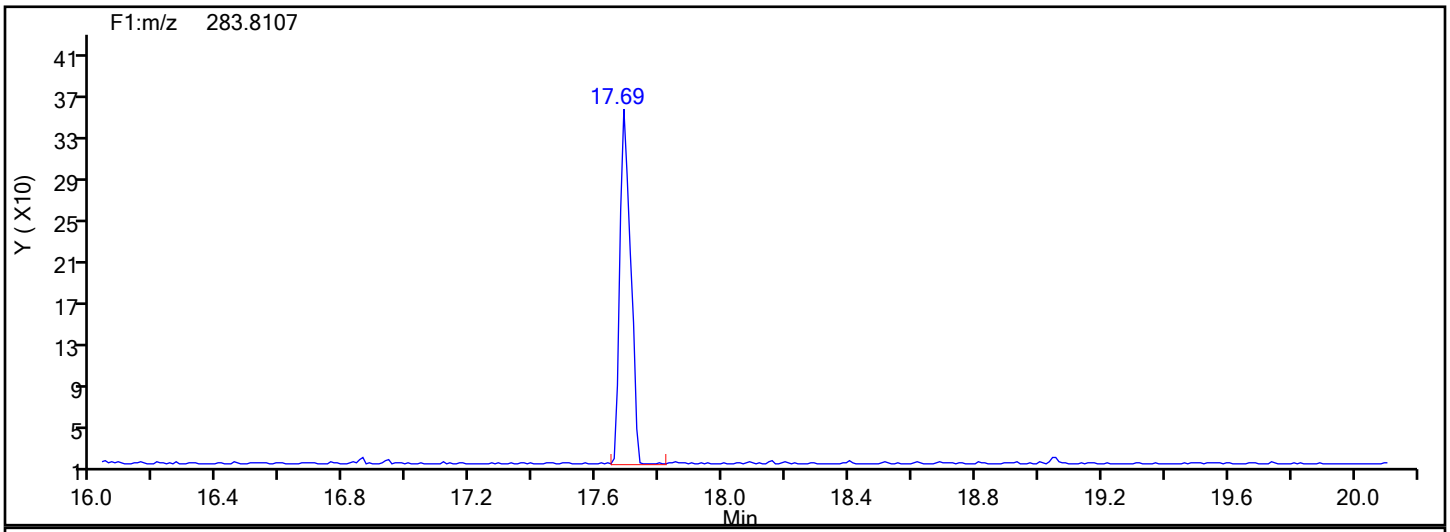
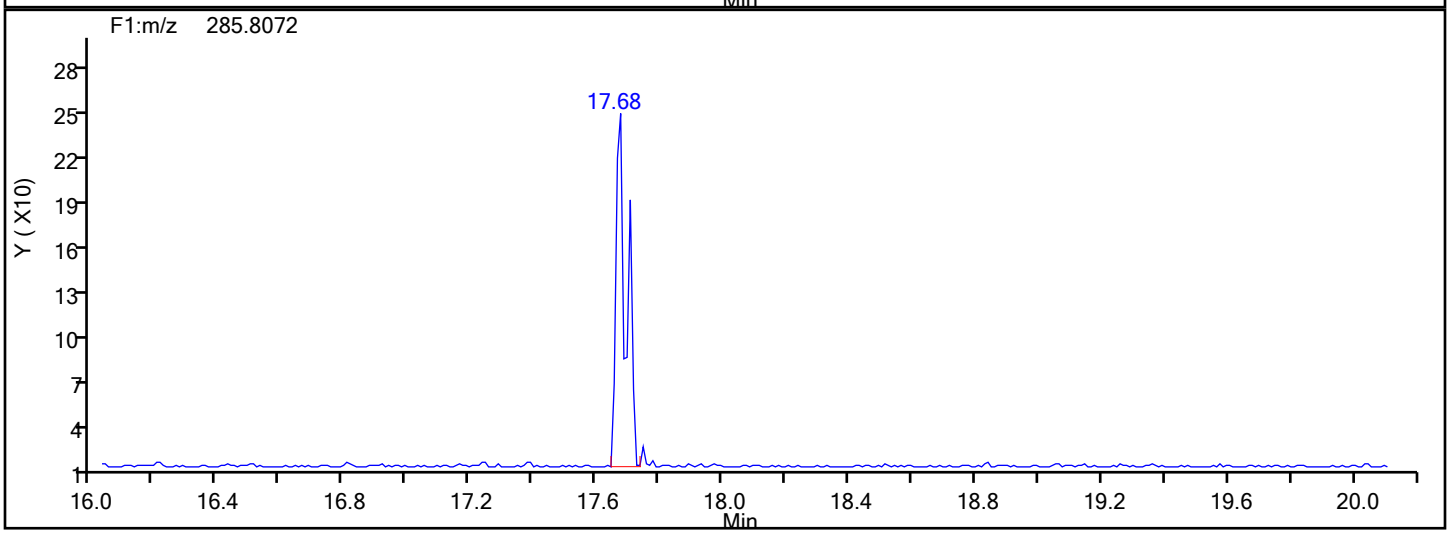
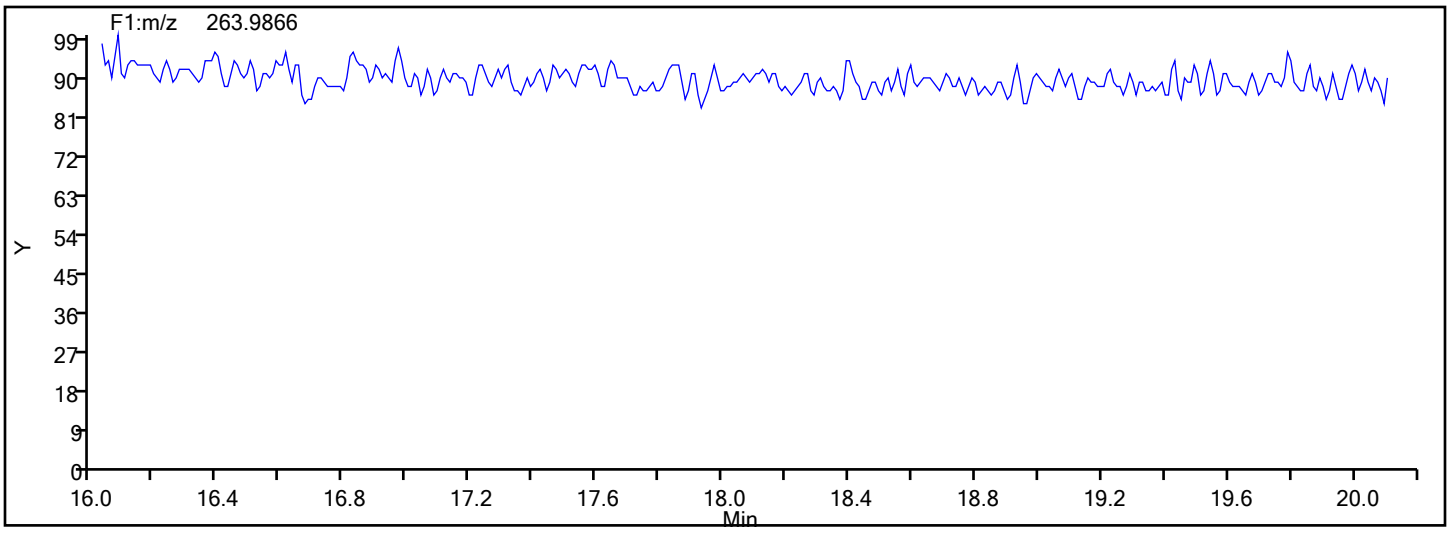
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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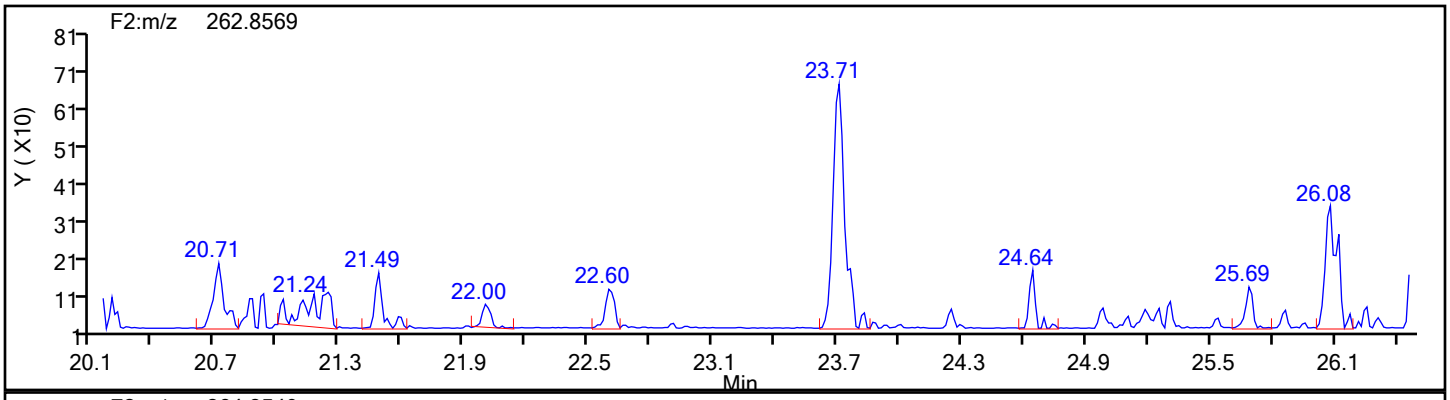
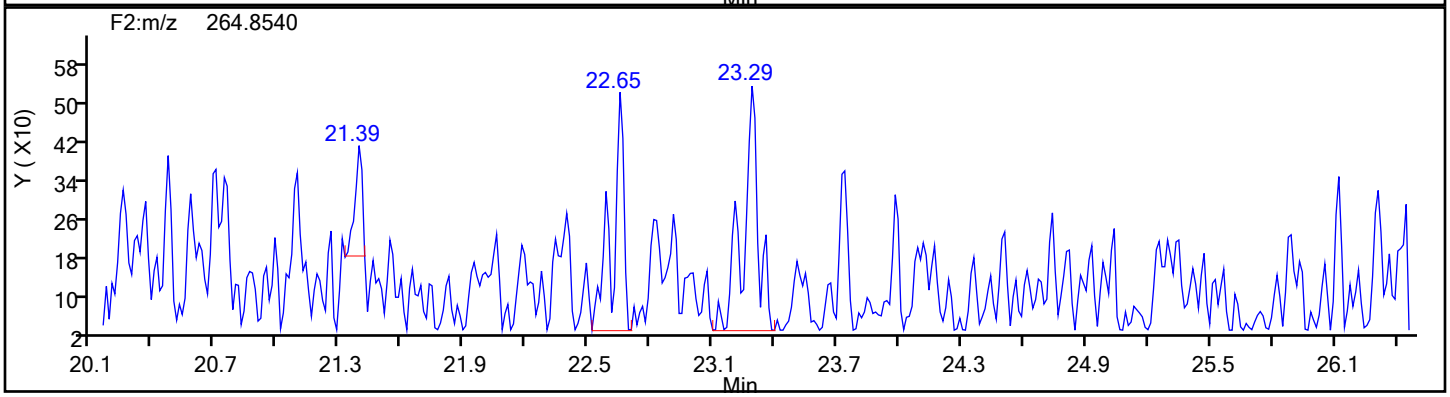
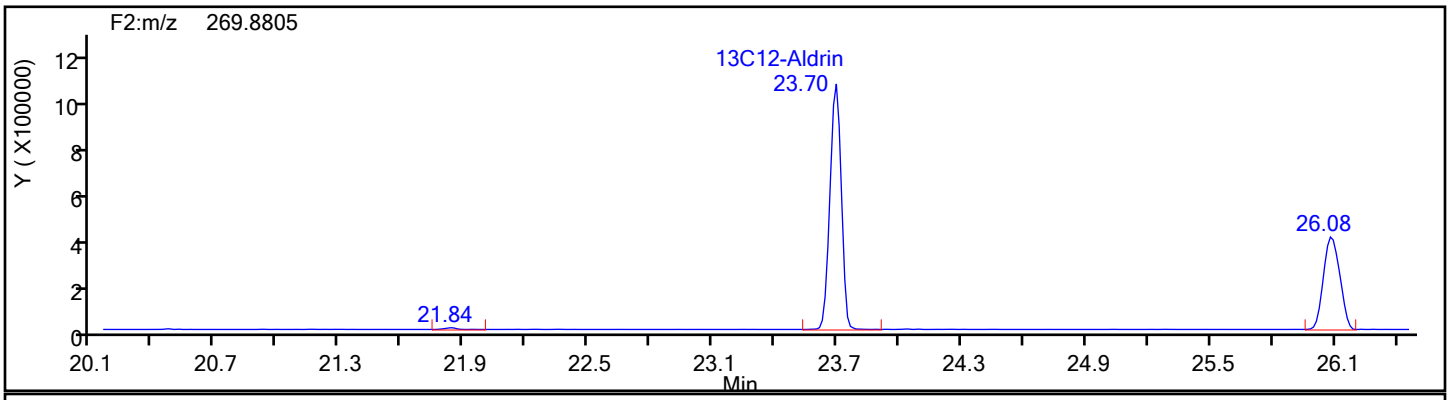
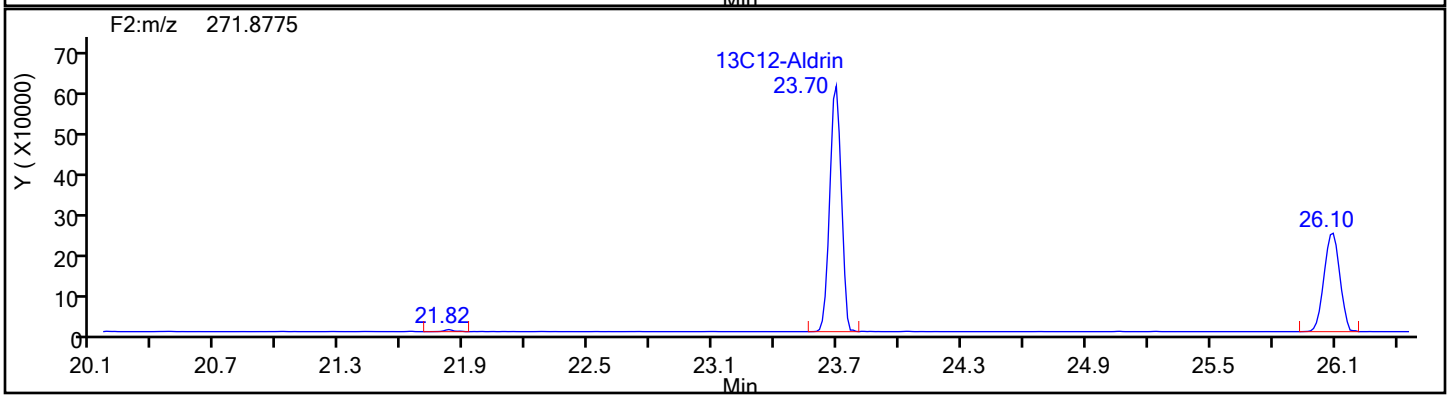
Aldrin





Aldrin Standards





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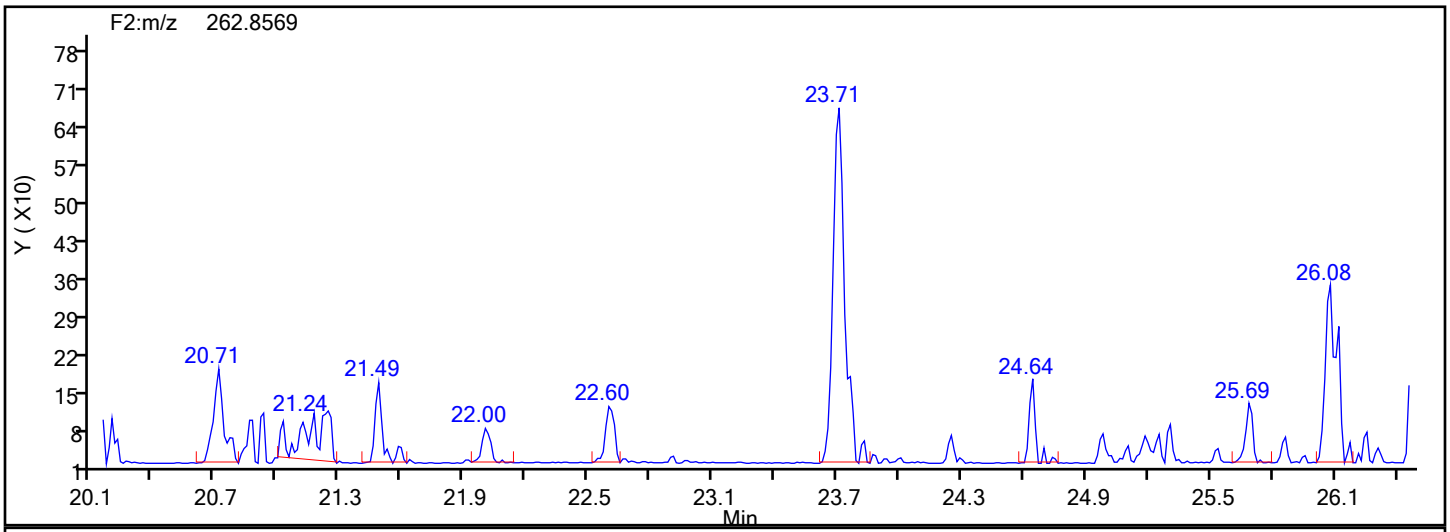
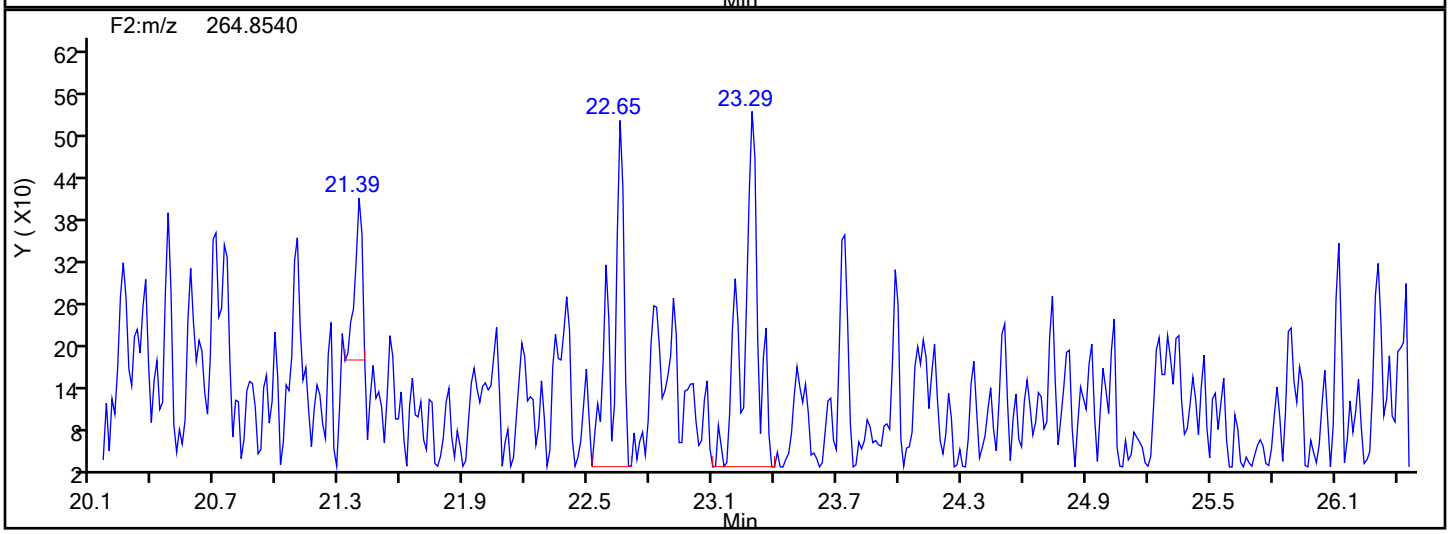
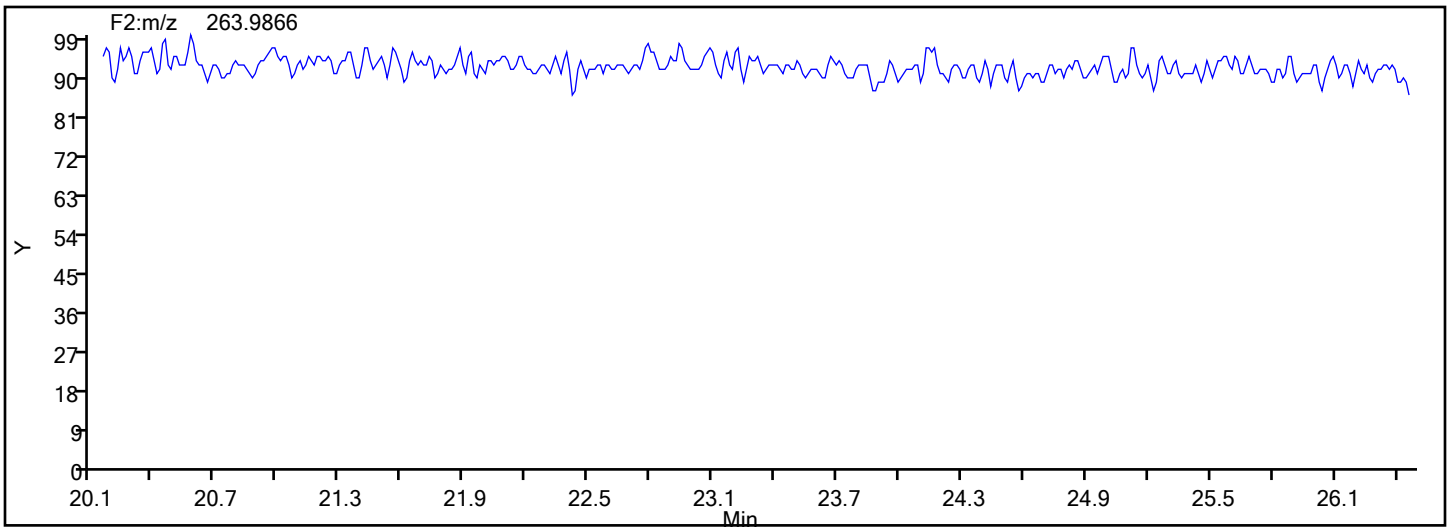




Aldrin Lock Mass



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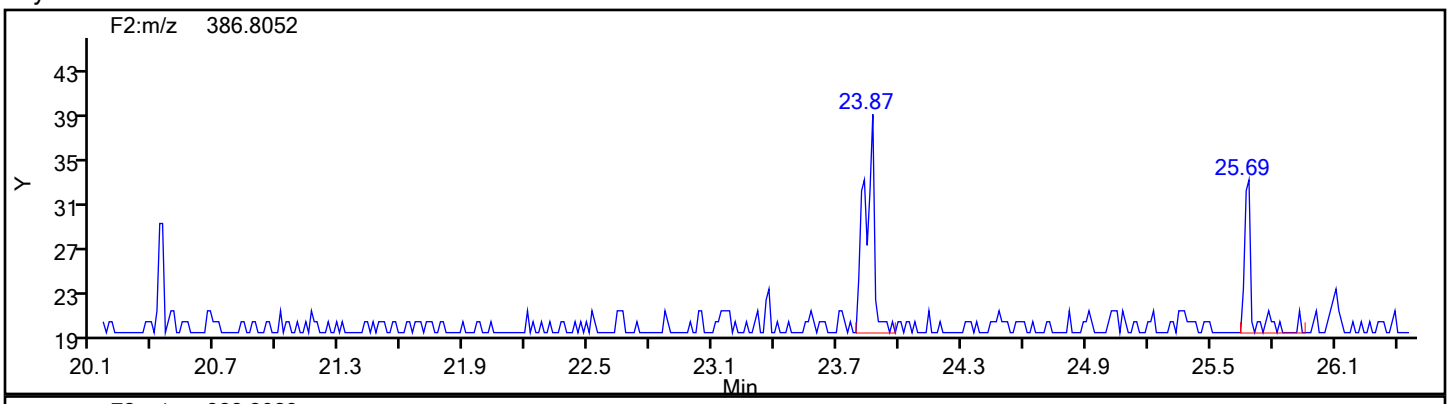
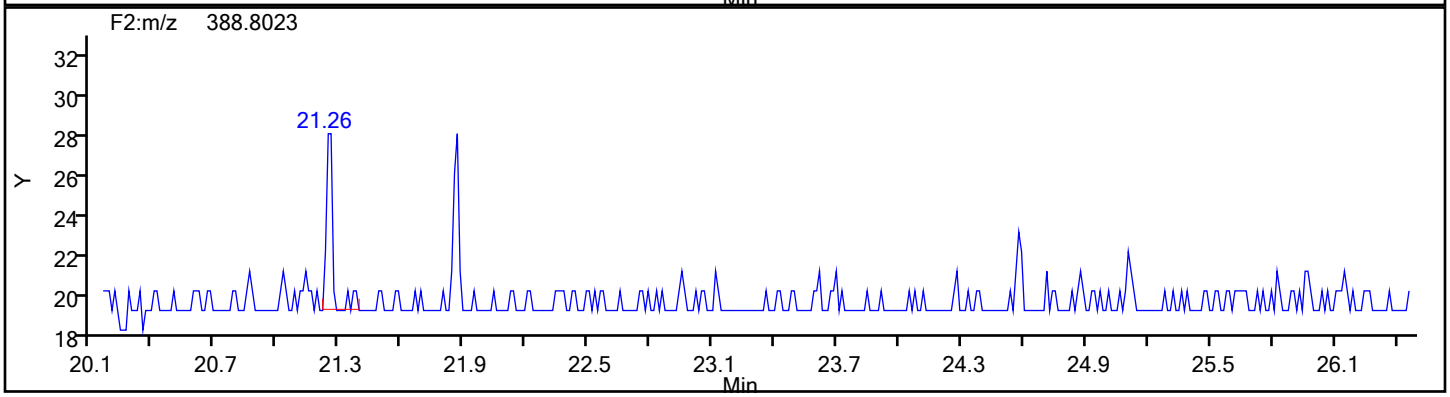
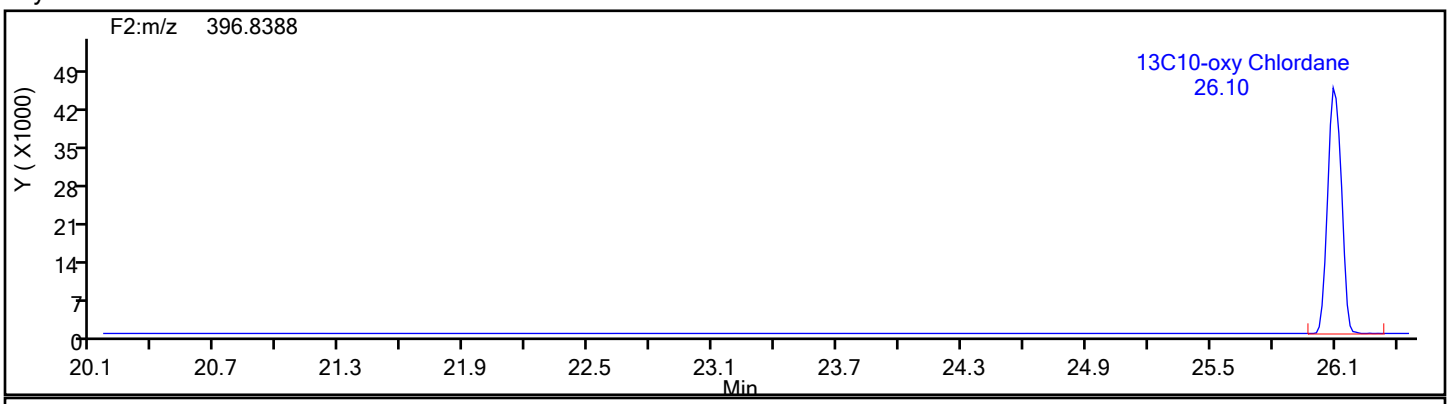
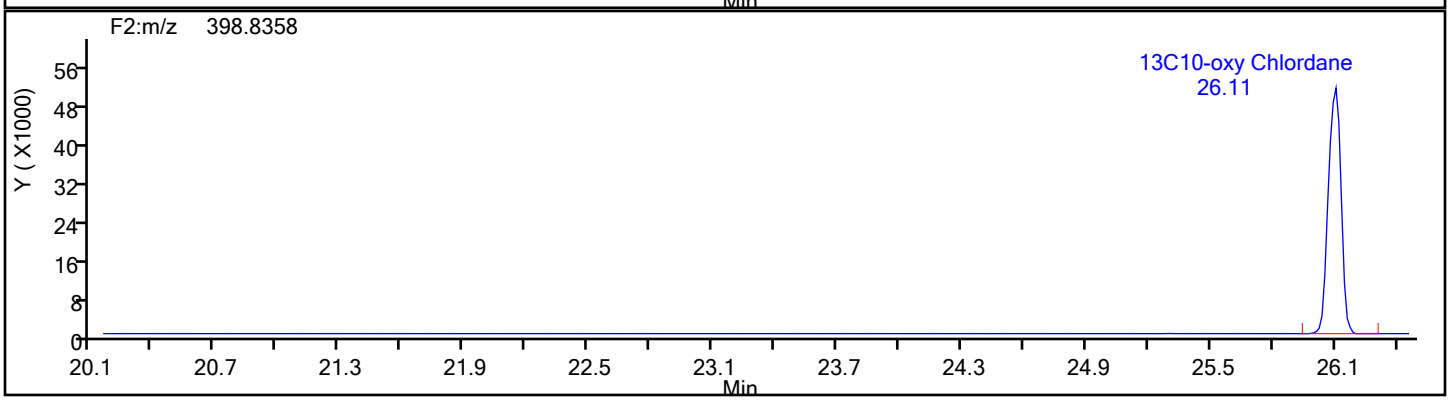
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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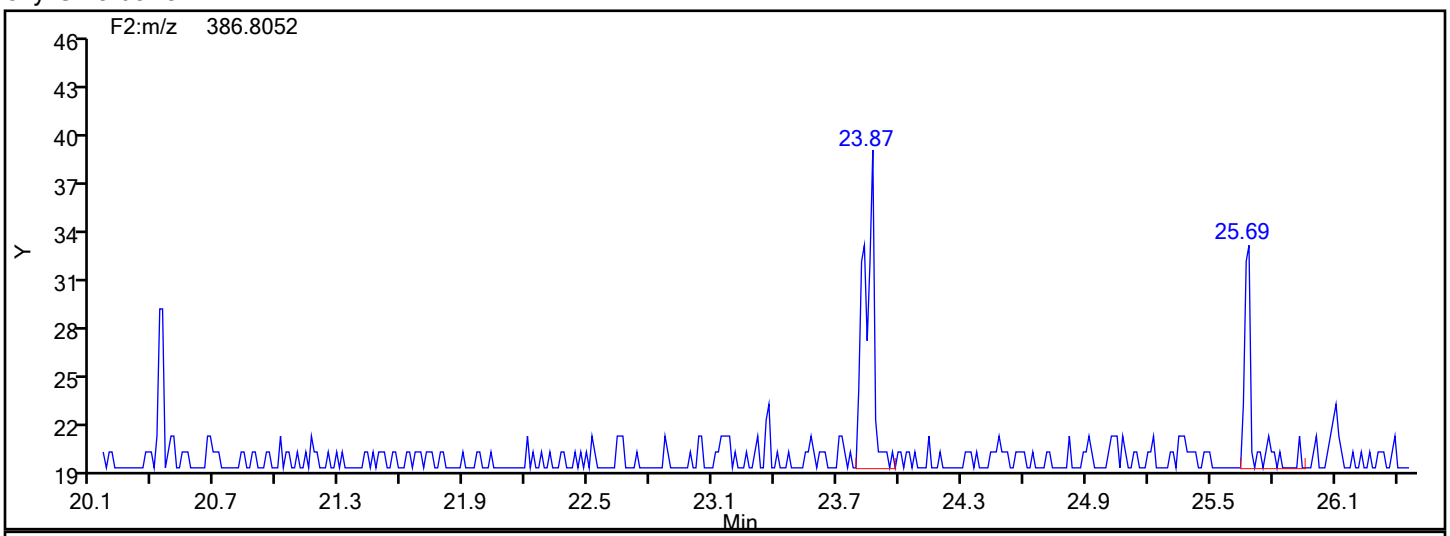
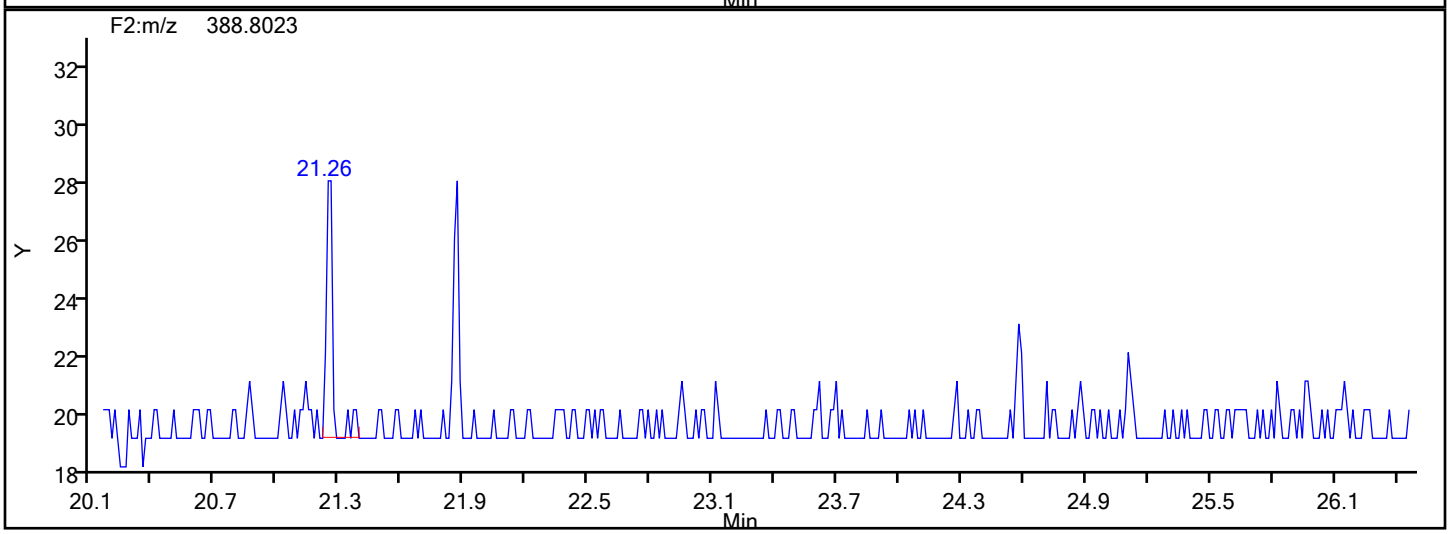
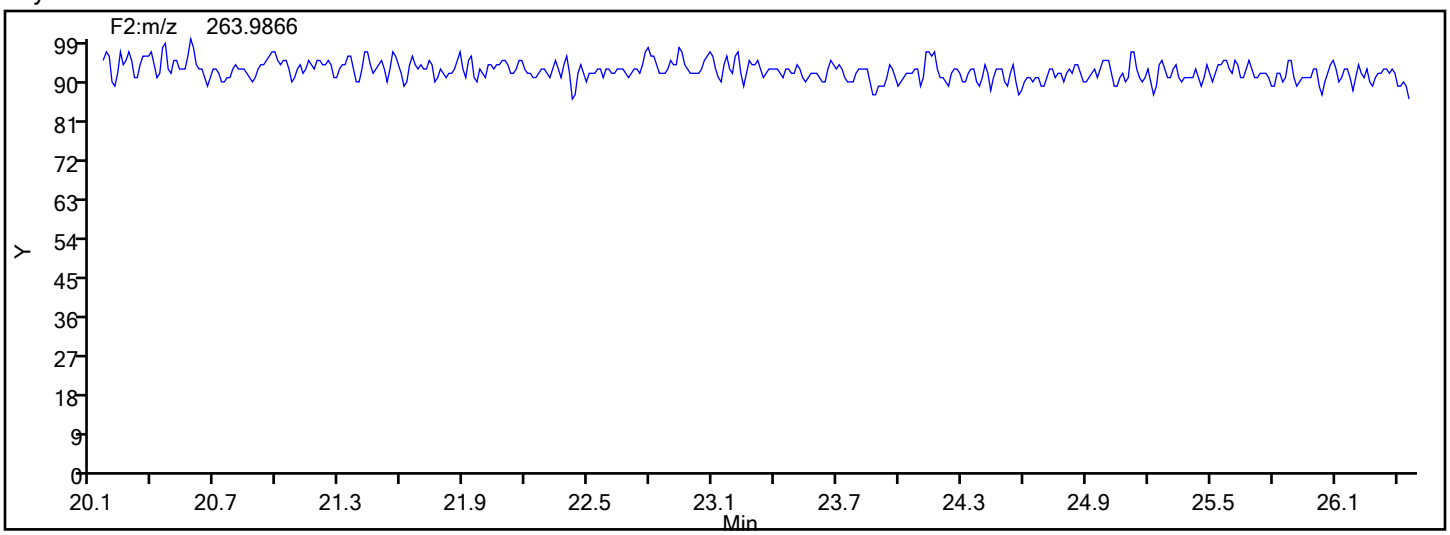
oxy-Chlordane





oxy-Chlordane Lock Mass



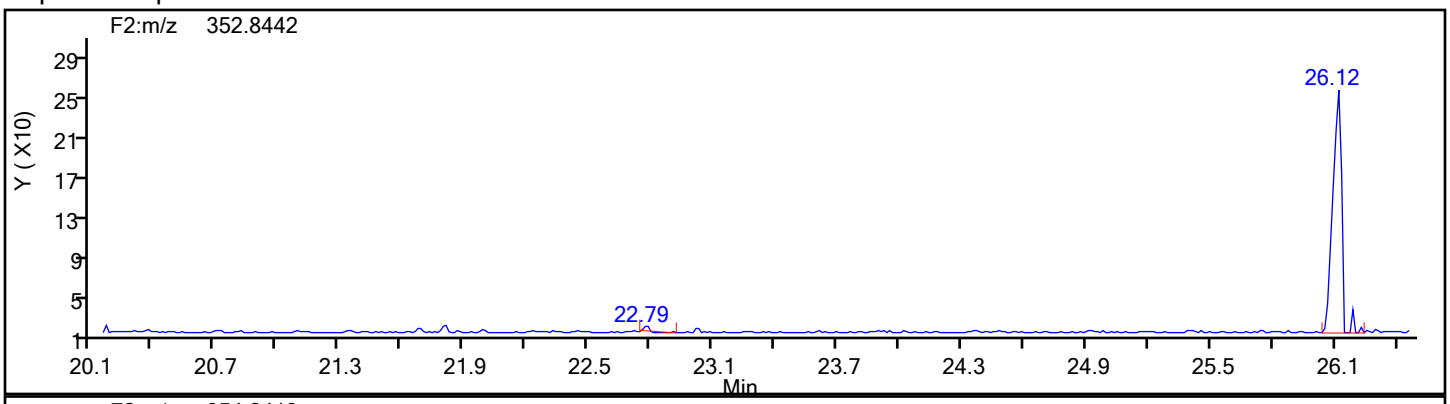
Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42

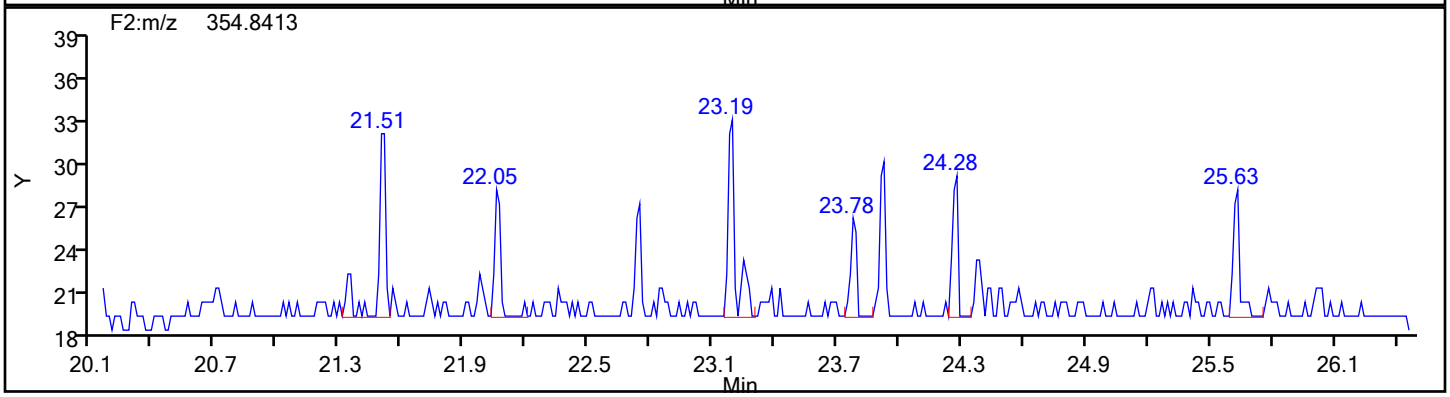
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

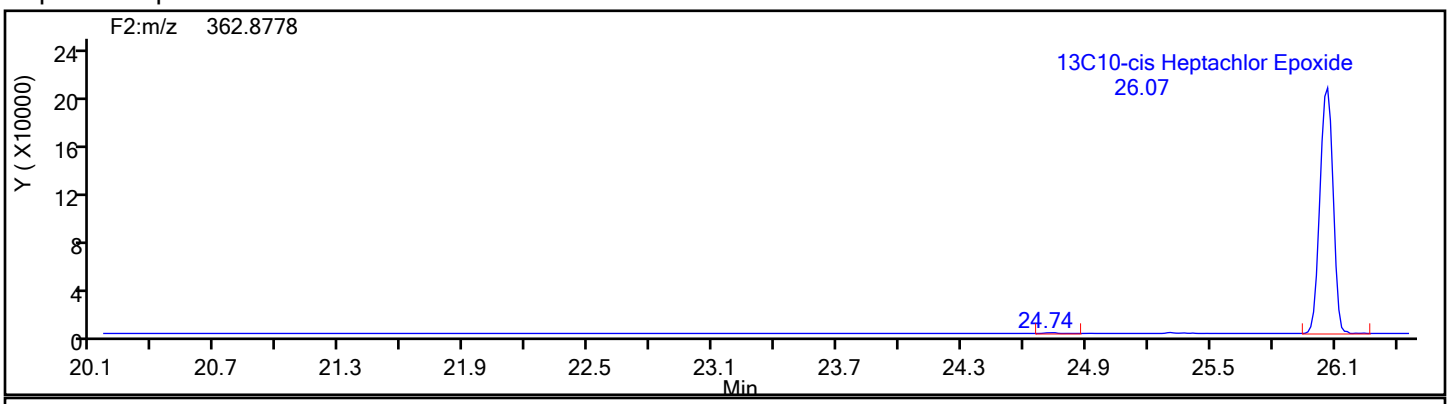
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

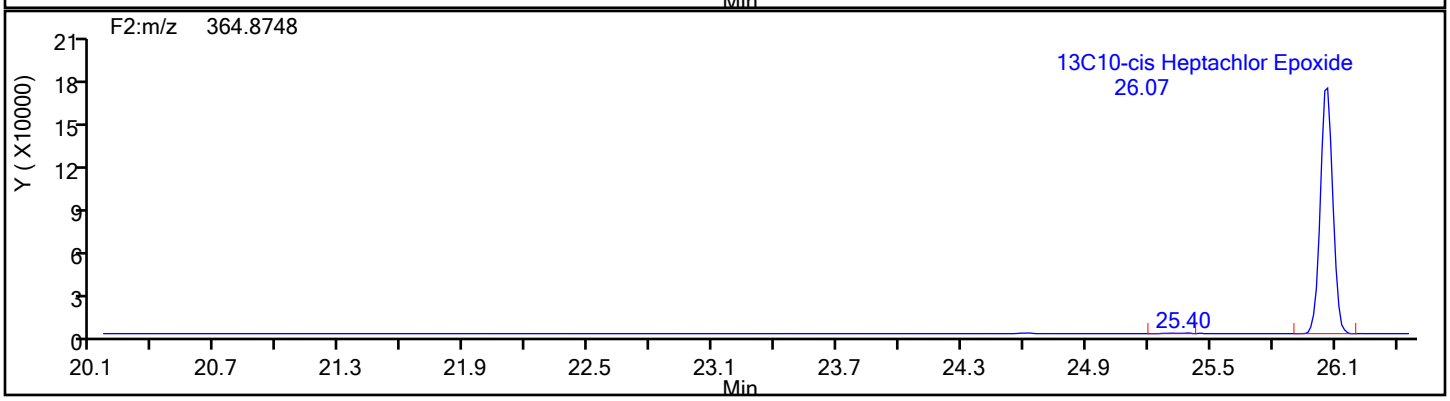
Heptachlor epoxide





Heptachlor epoxide Standards





Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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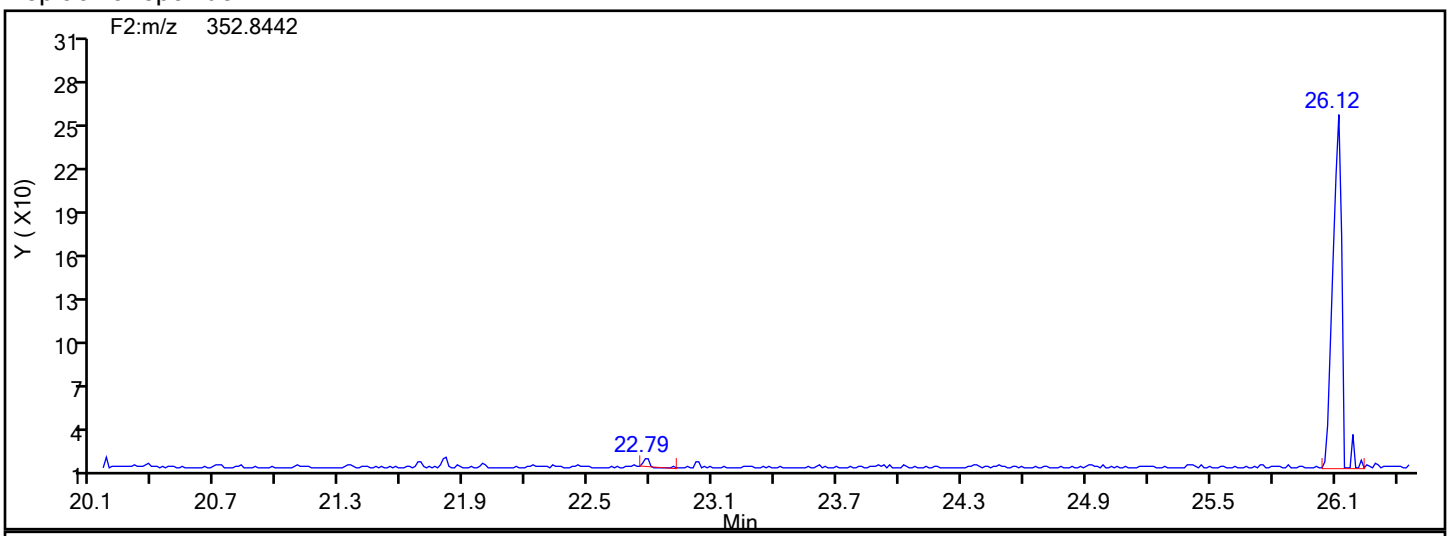
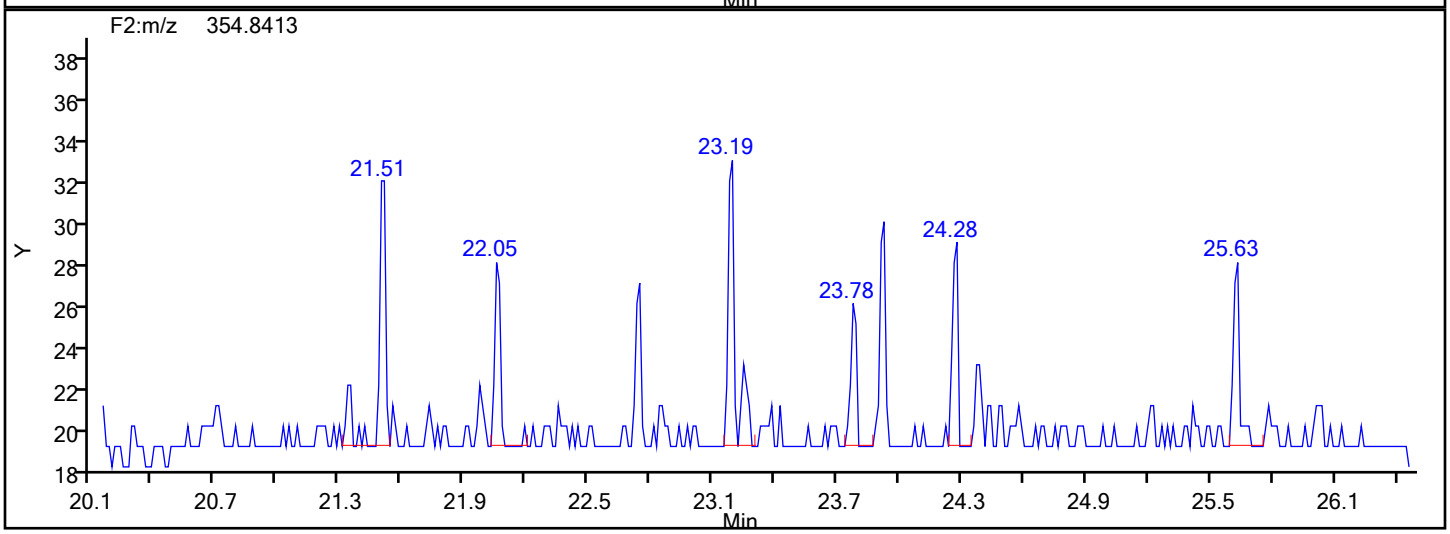
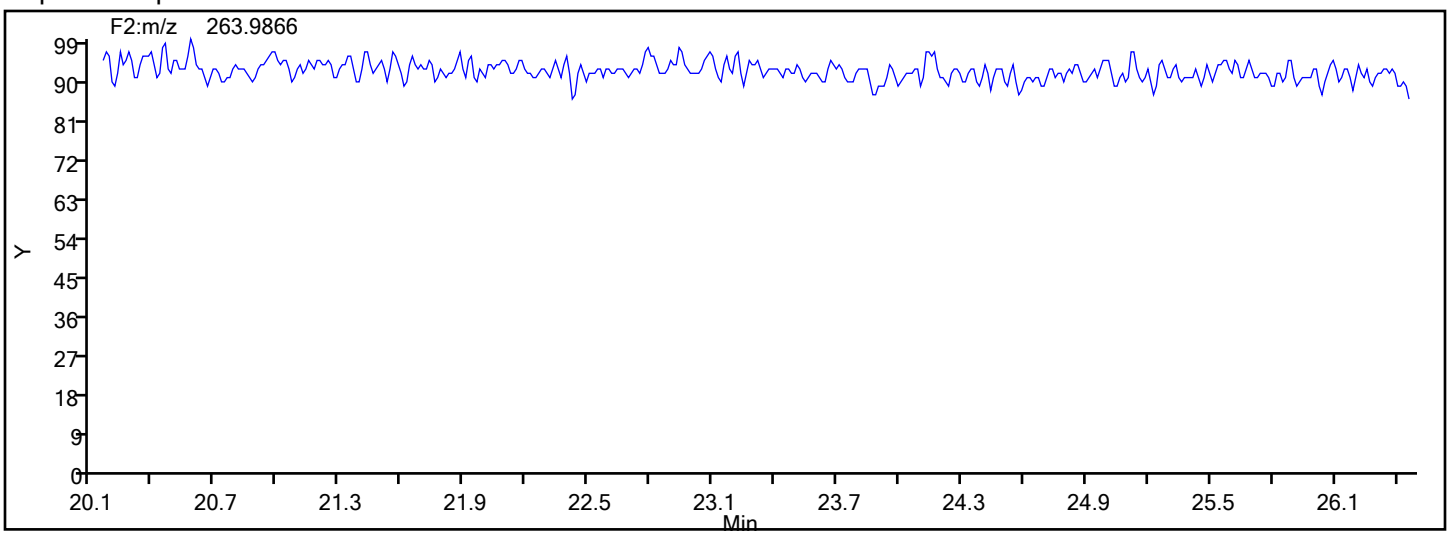
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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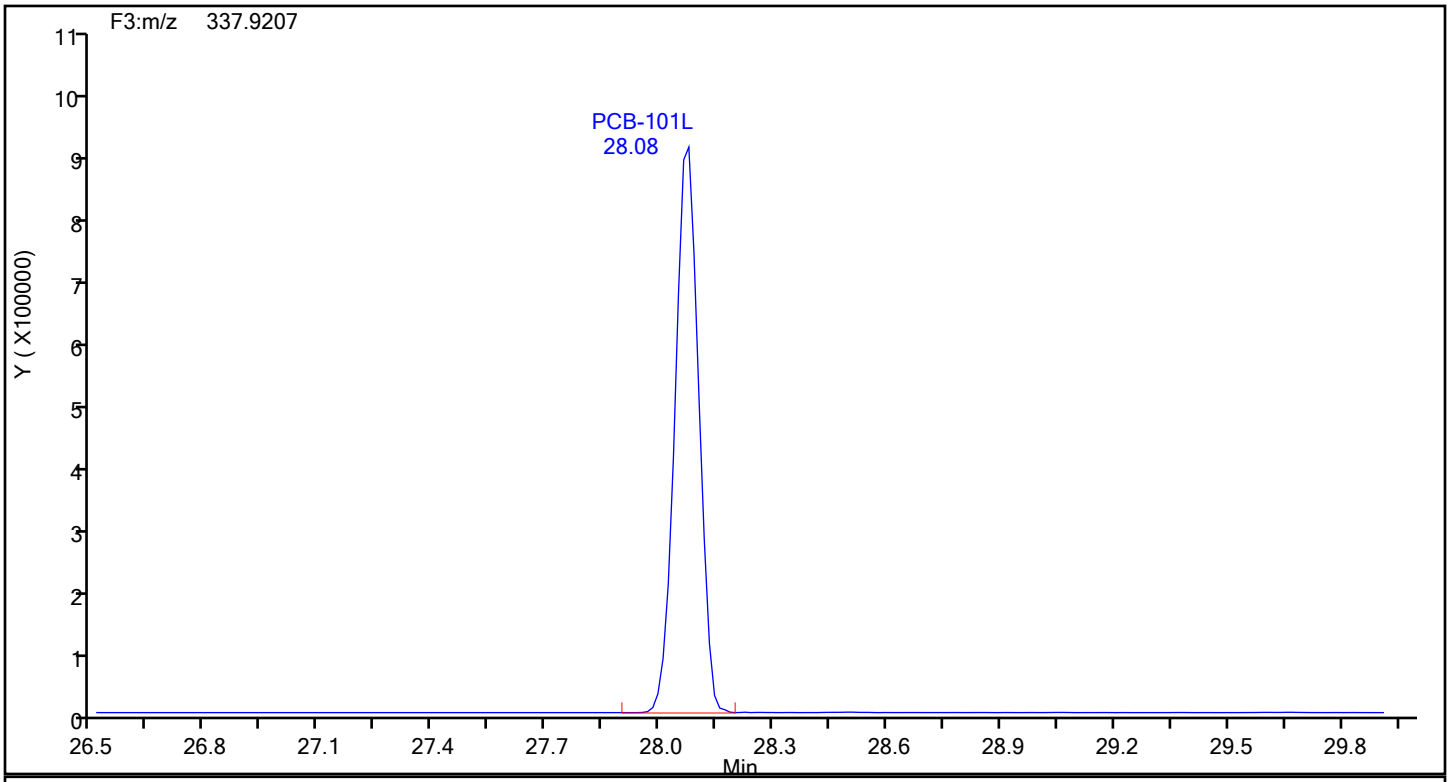
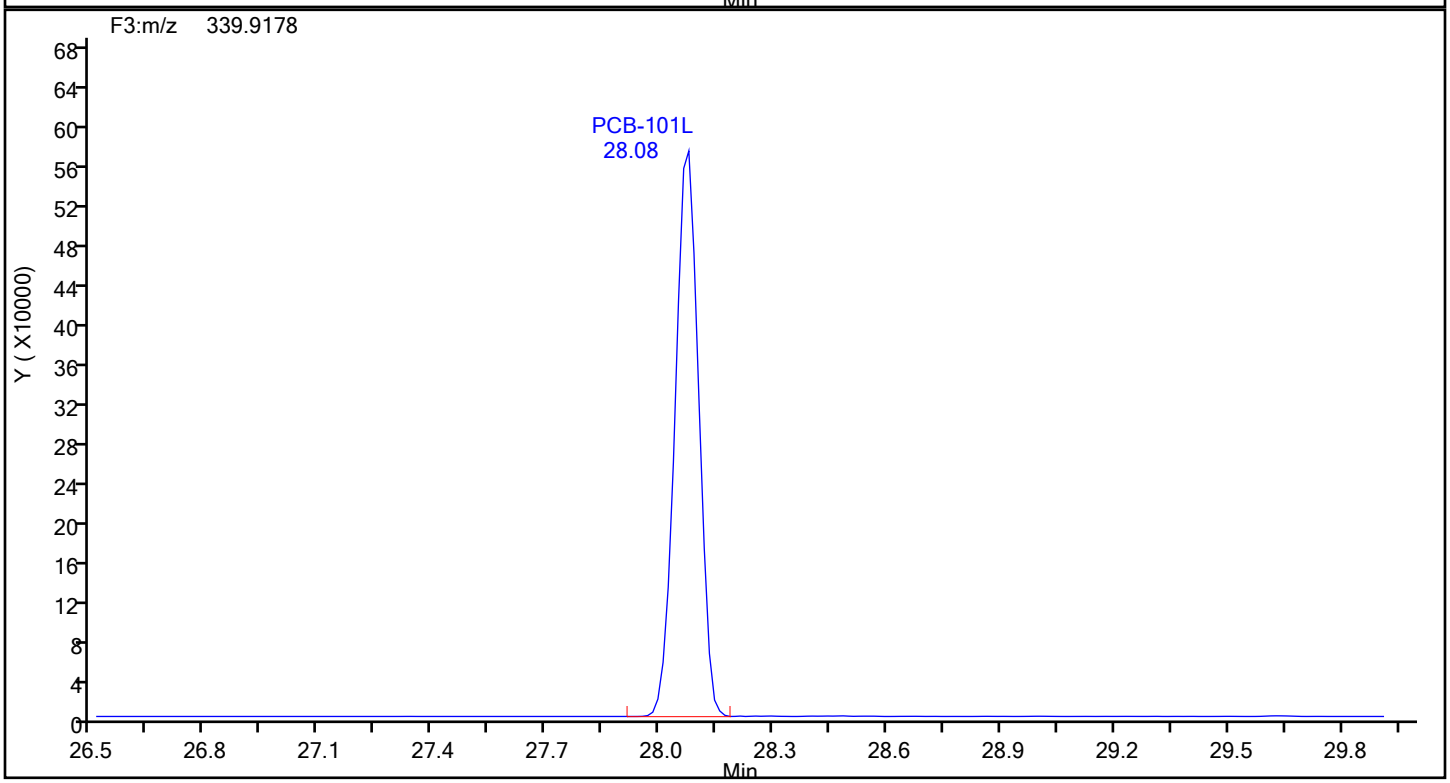
PCB-101L Standards





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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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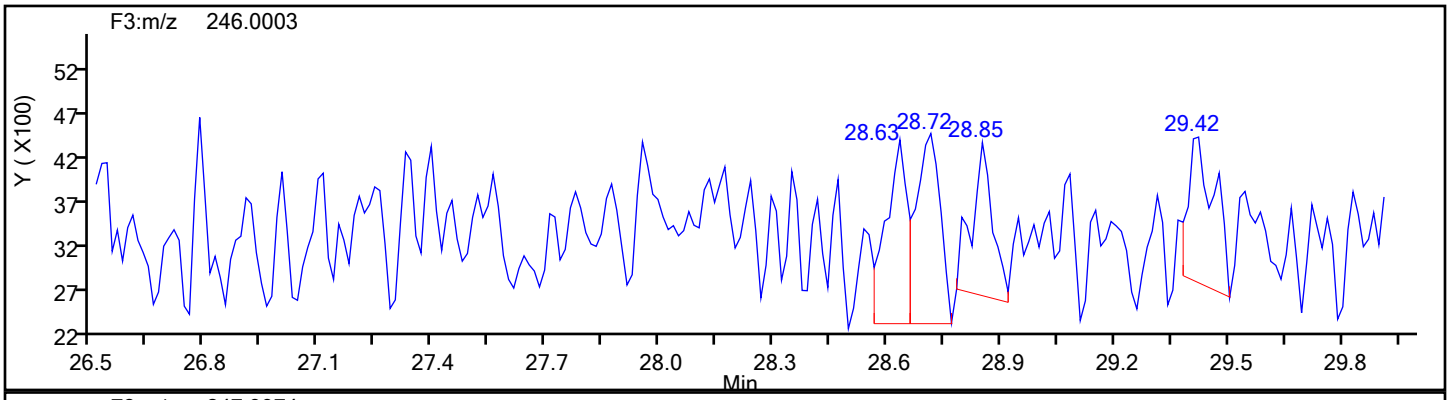
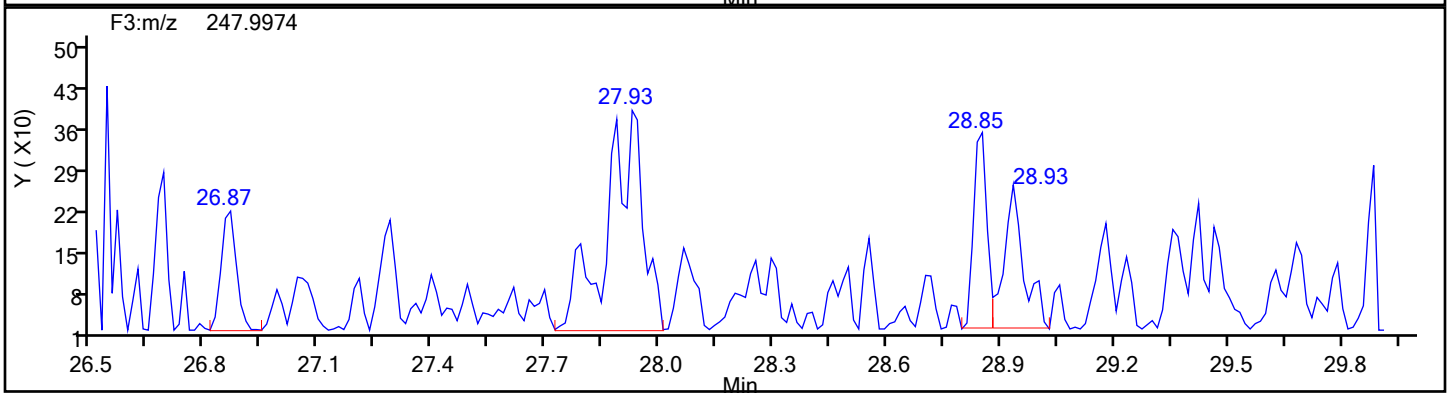
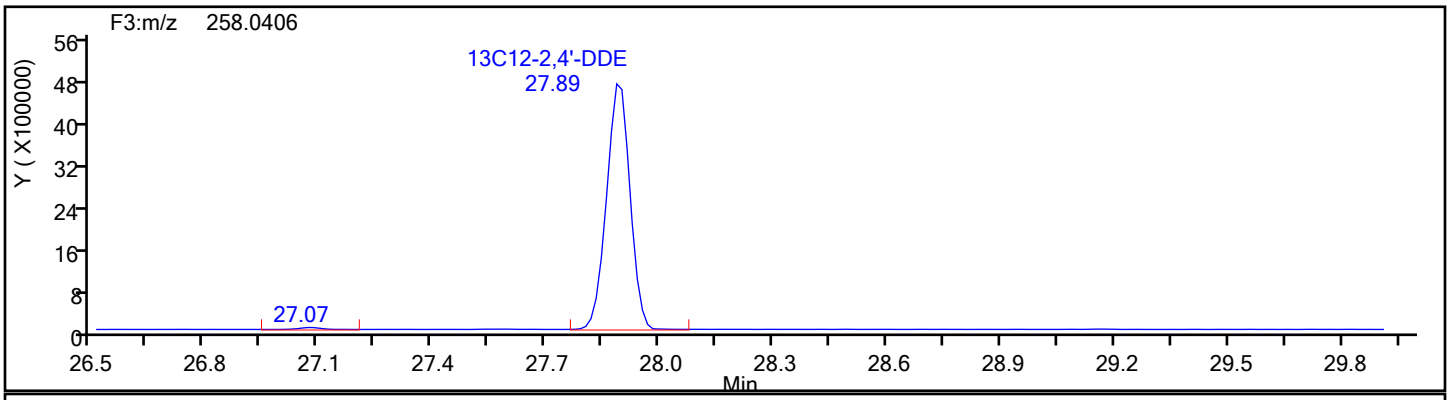
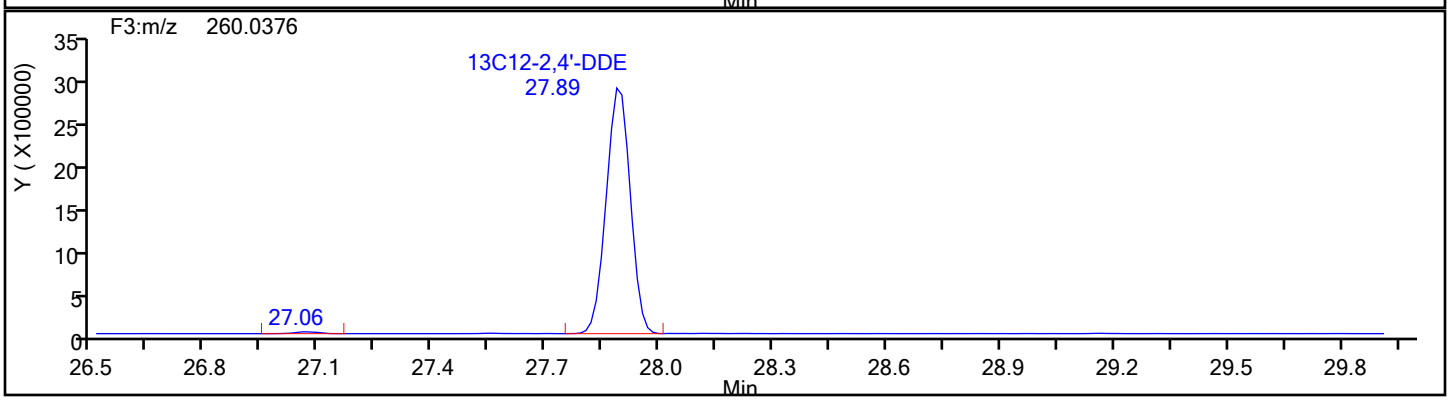
2,4'-DDE





2,4'-DDE Standards





Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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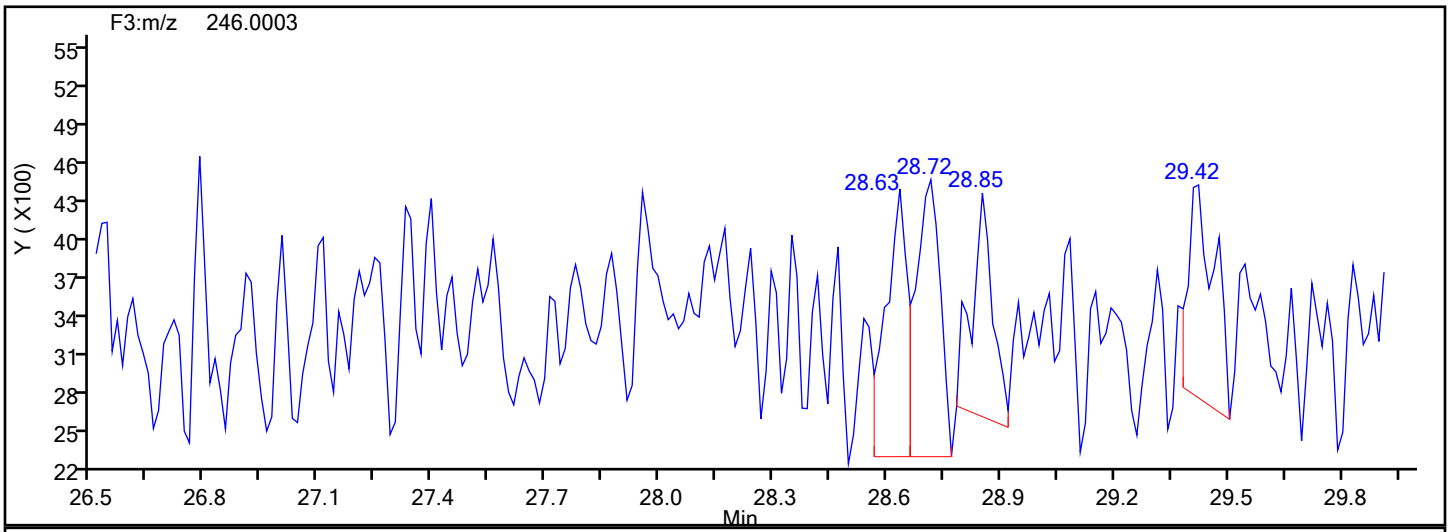
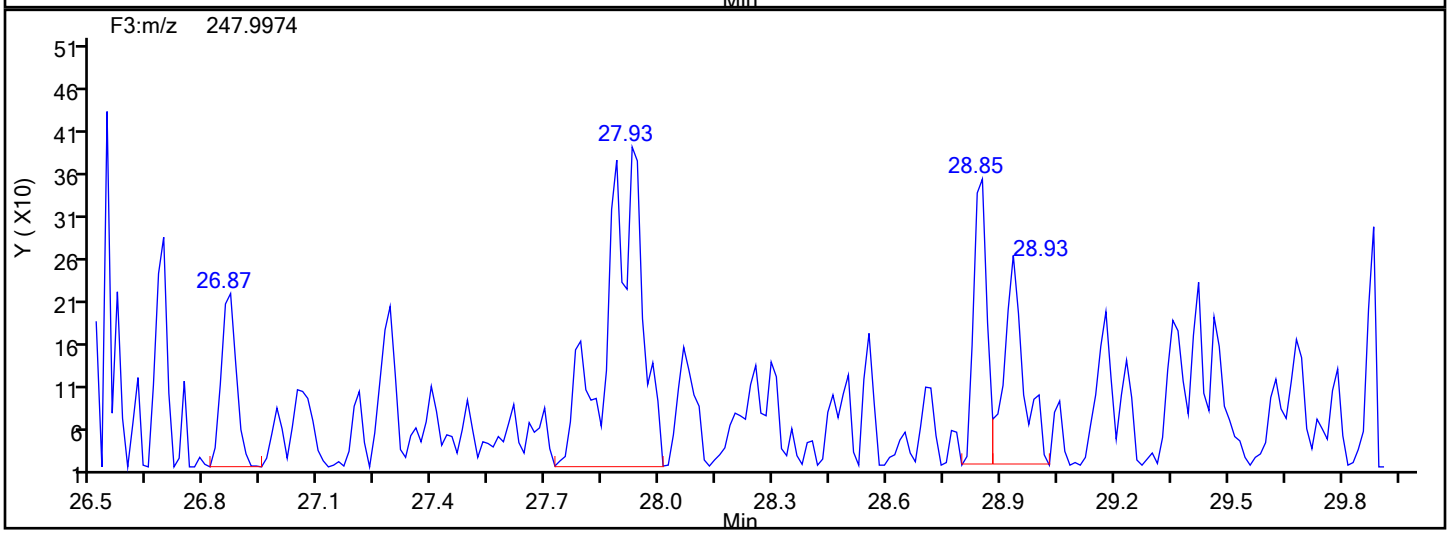
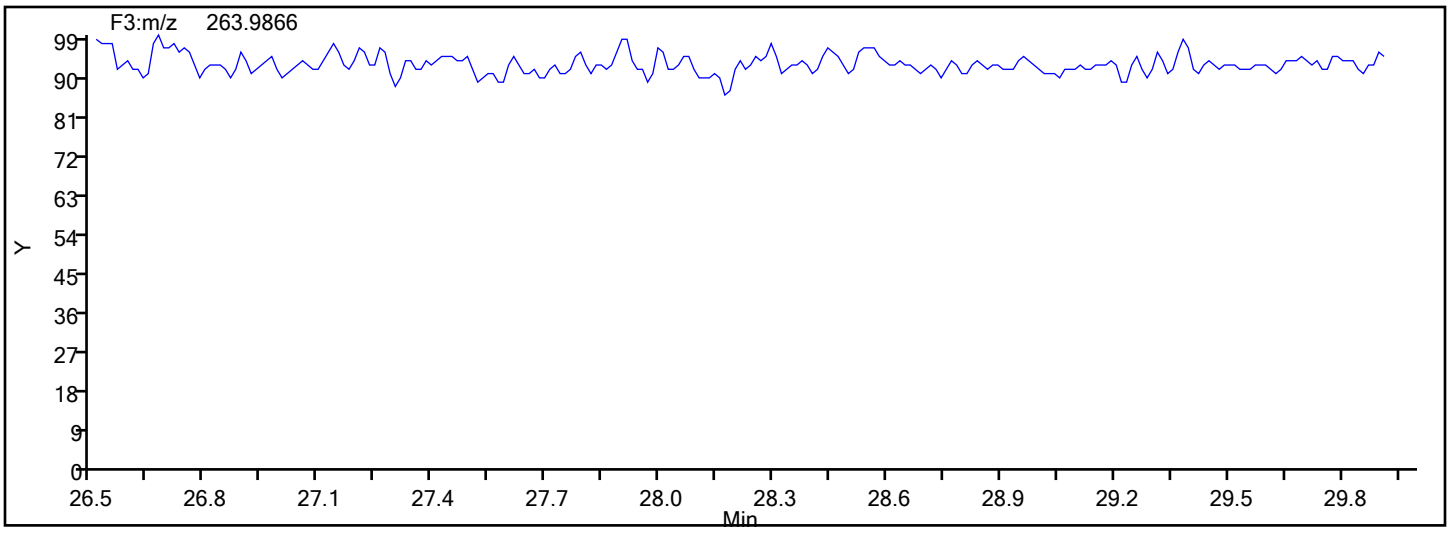
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 06-May-2025 14:53:40 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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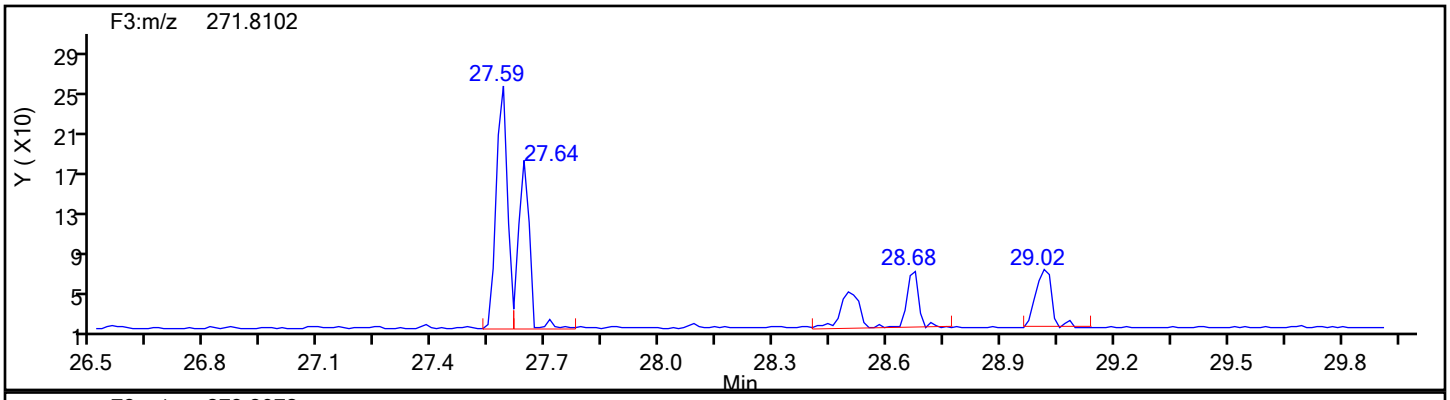
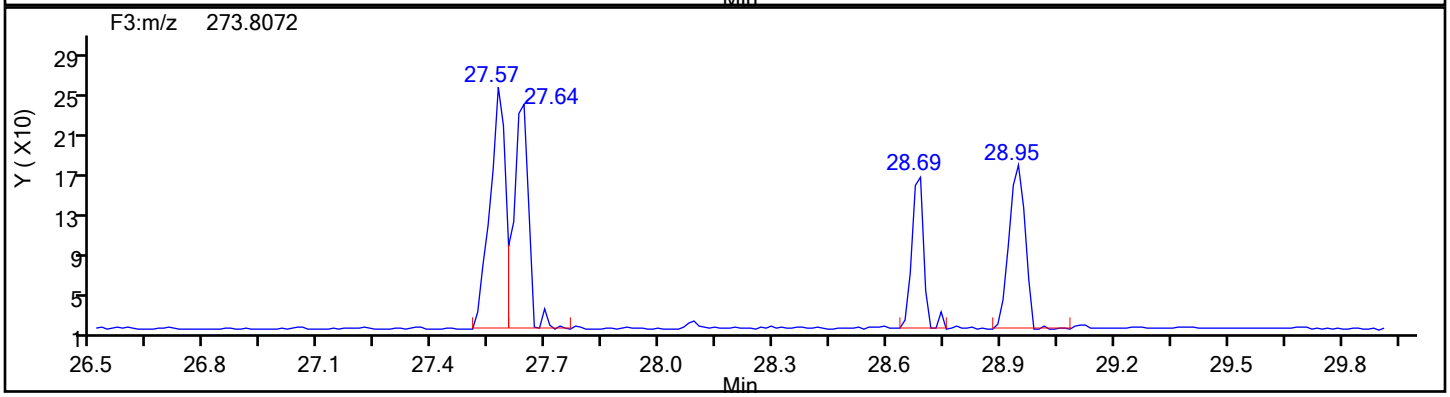
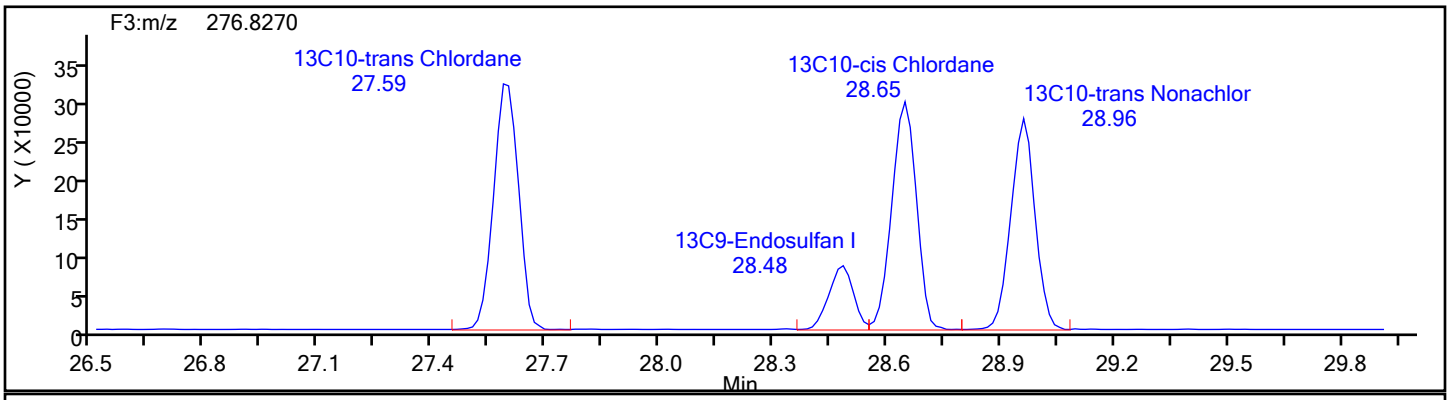
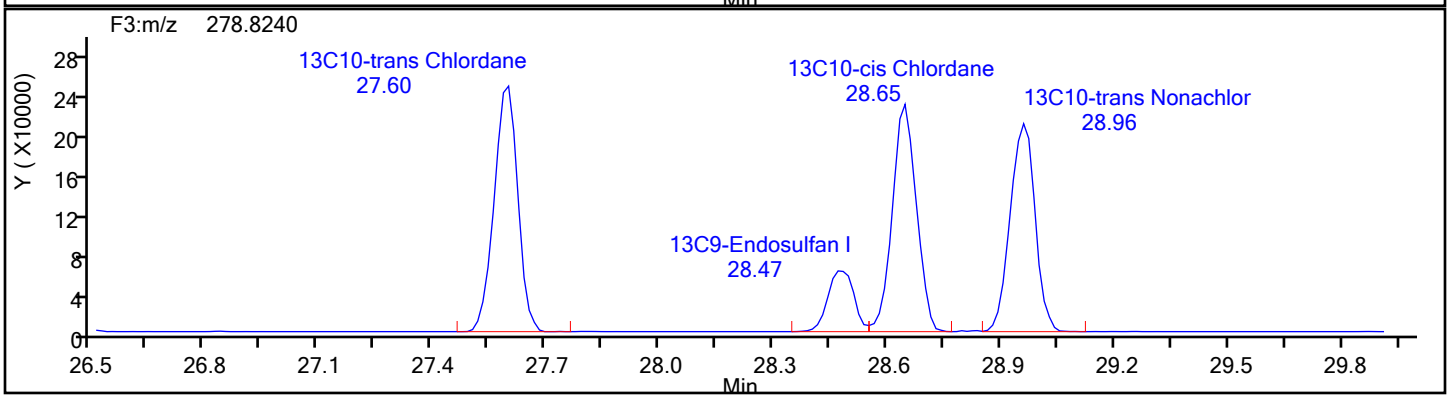
Chlordane





Chlordane Standards





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Eurofins Knoxville

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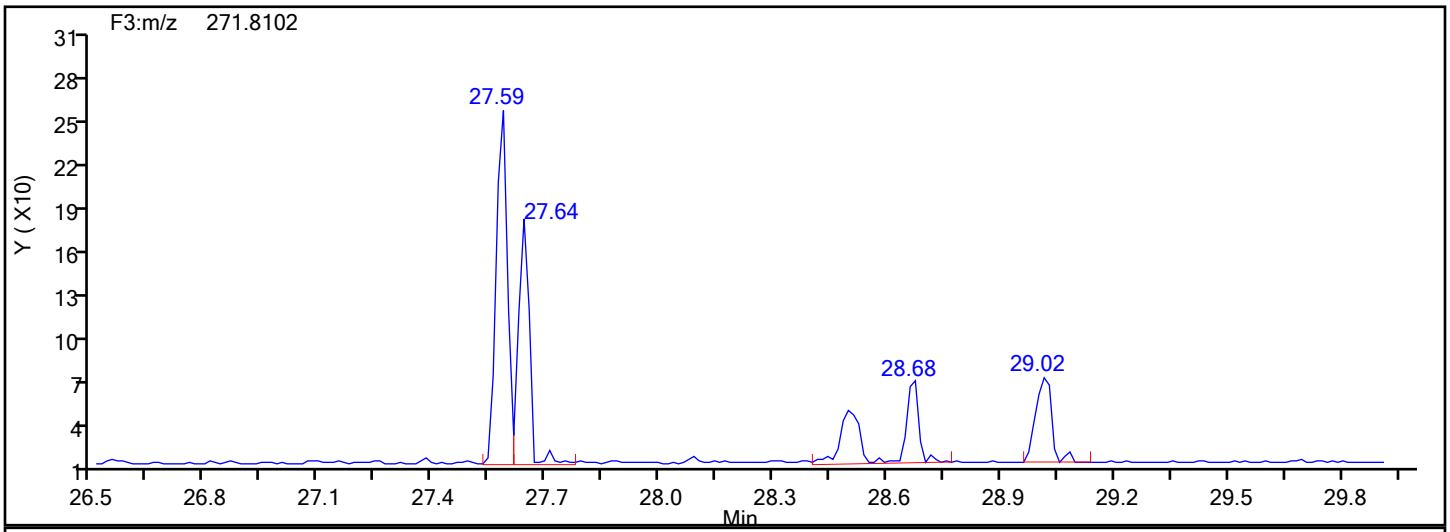
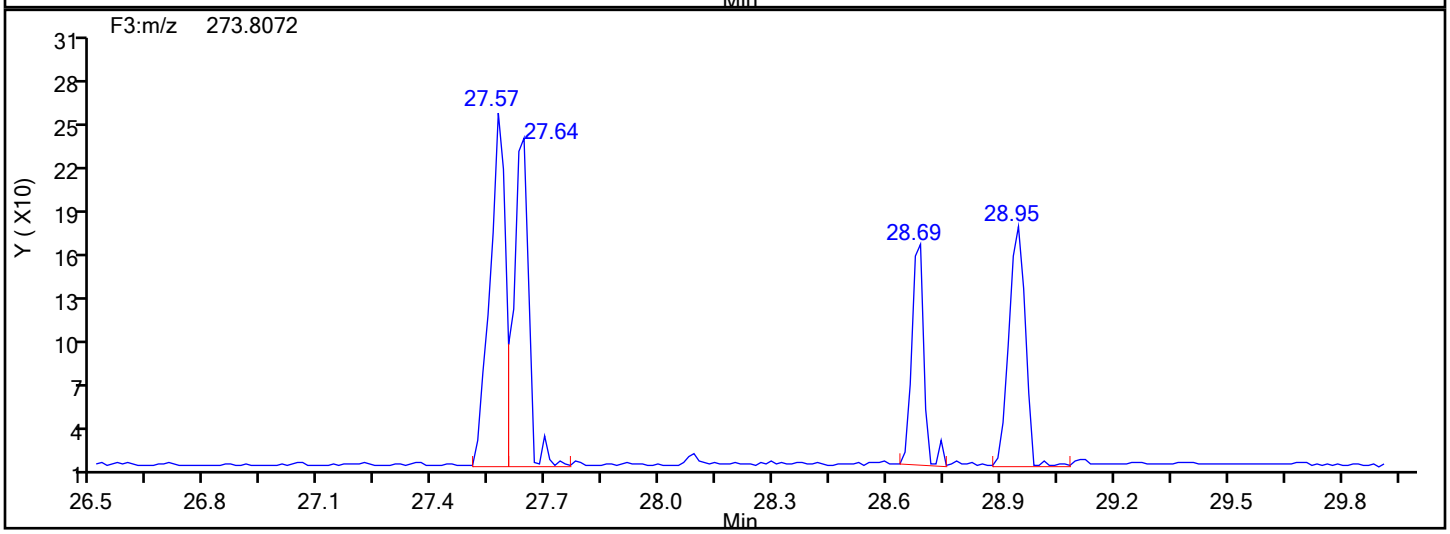
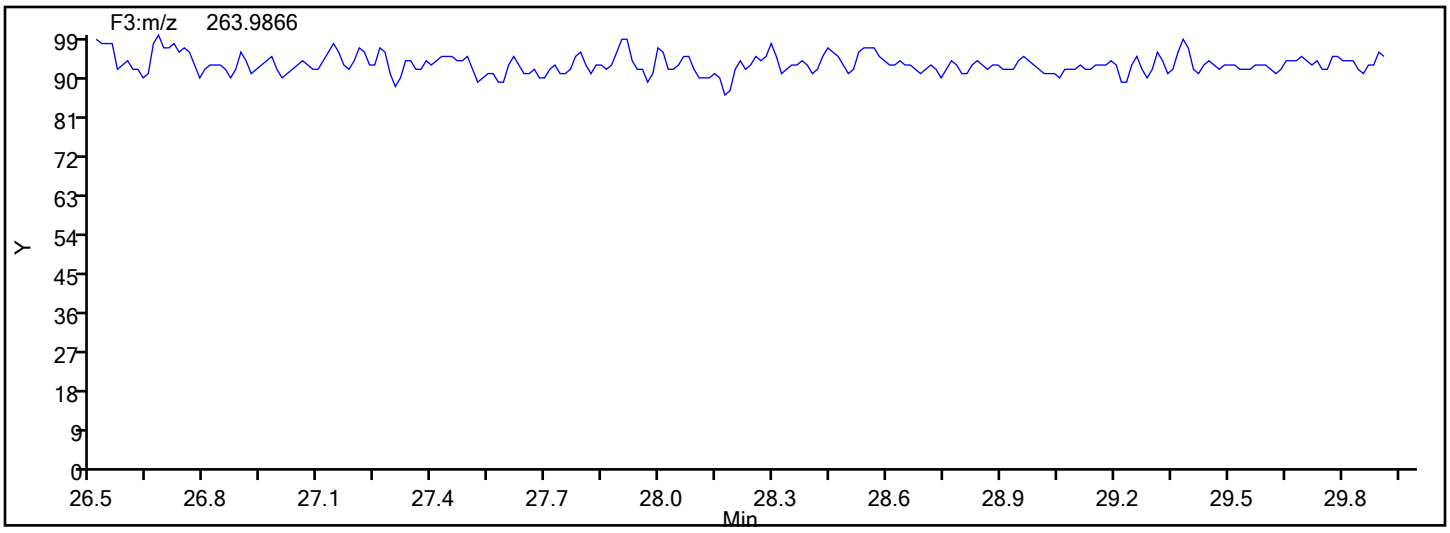
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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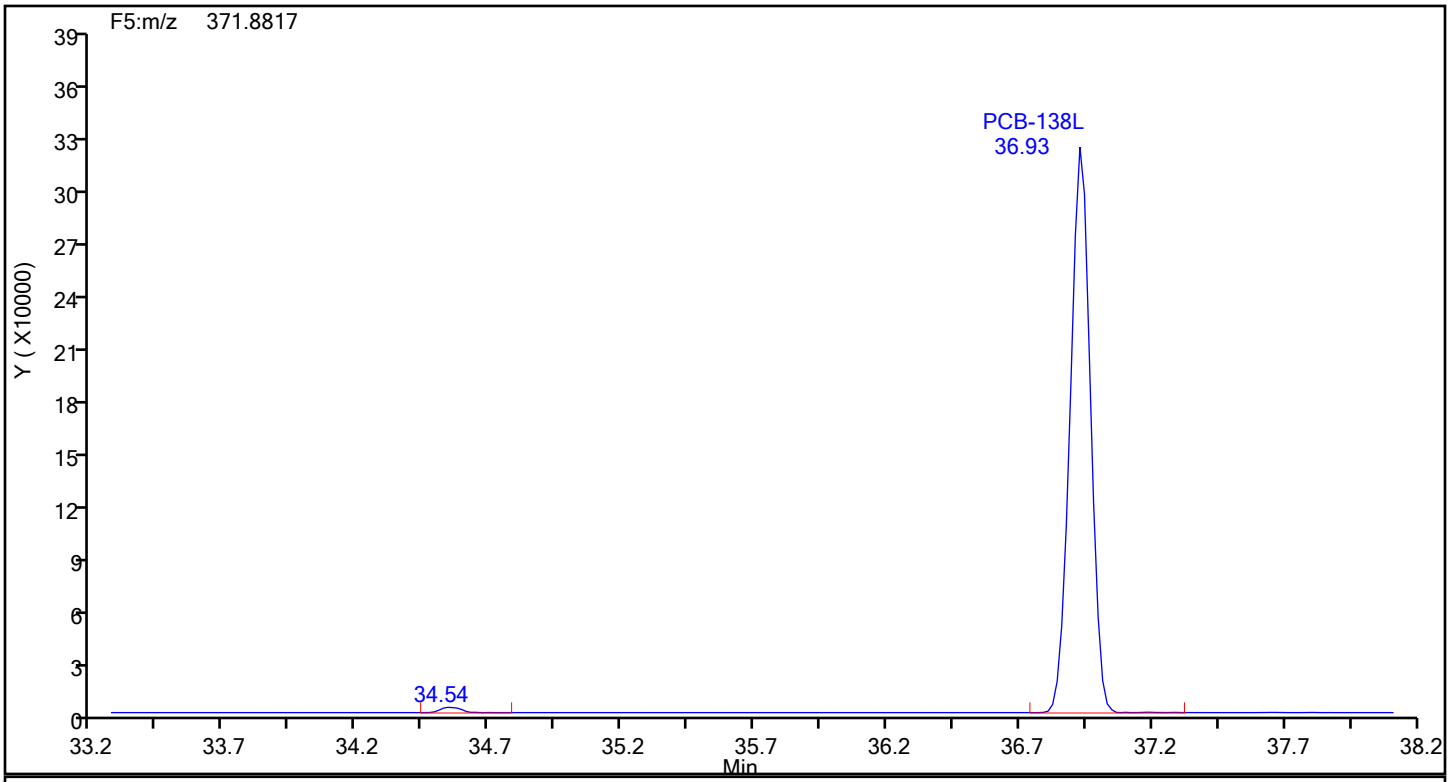
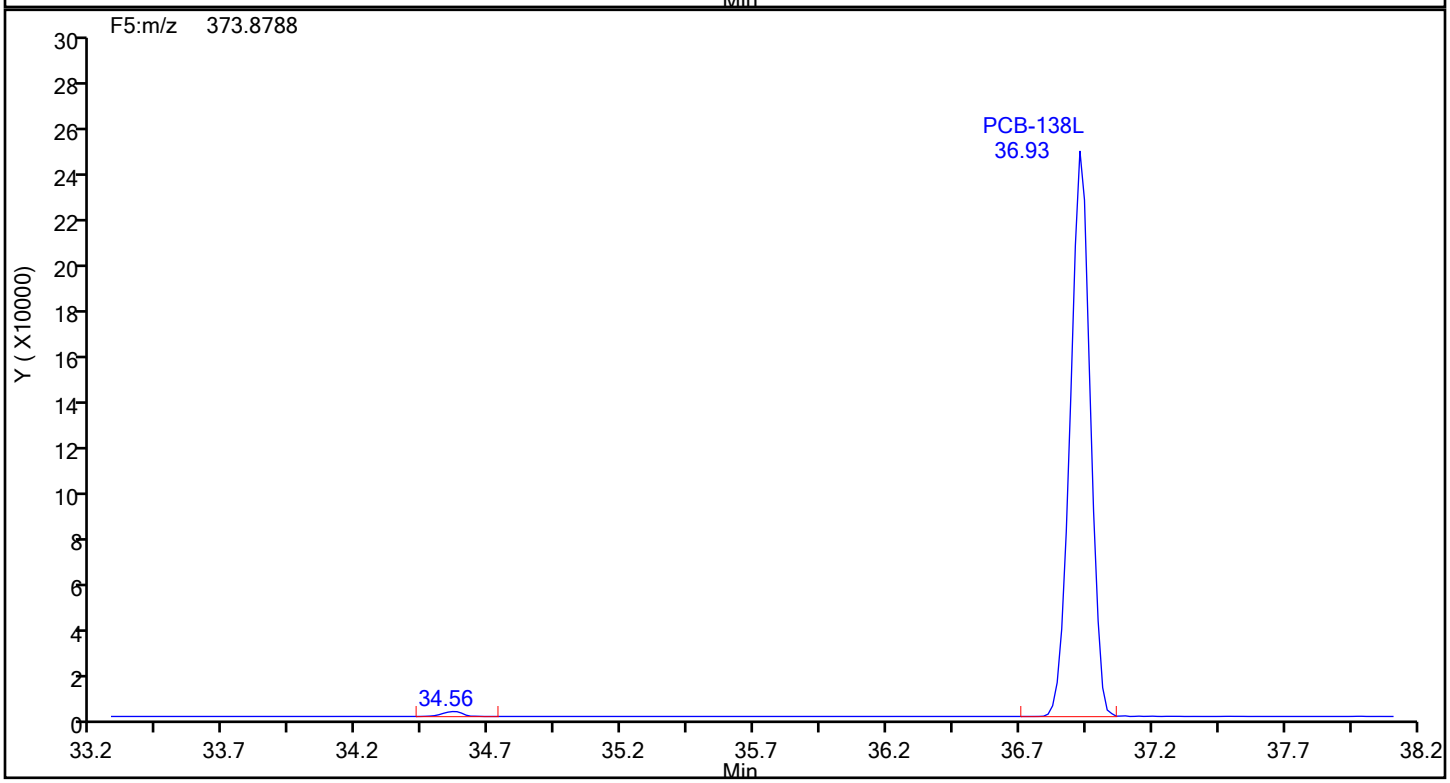
PCB-138L Standards





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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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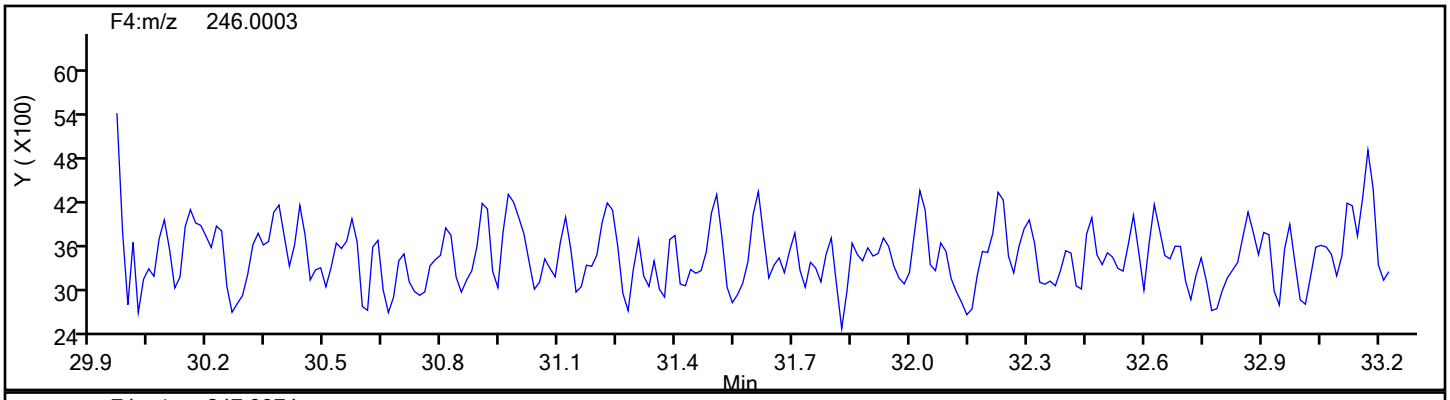
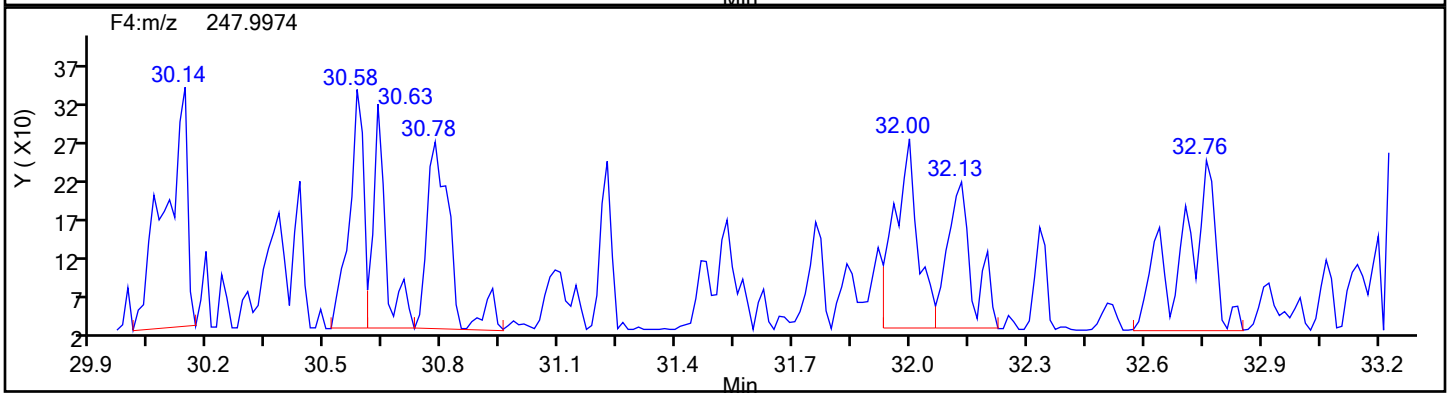
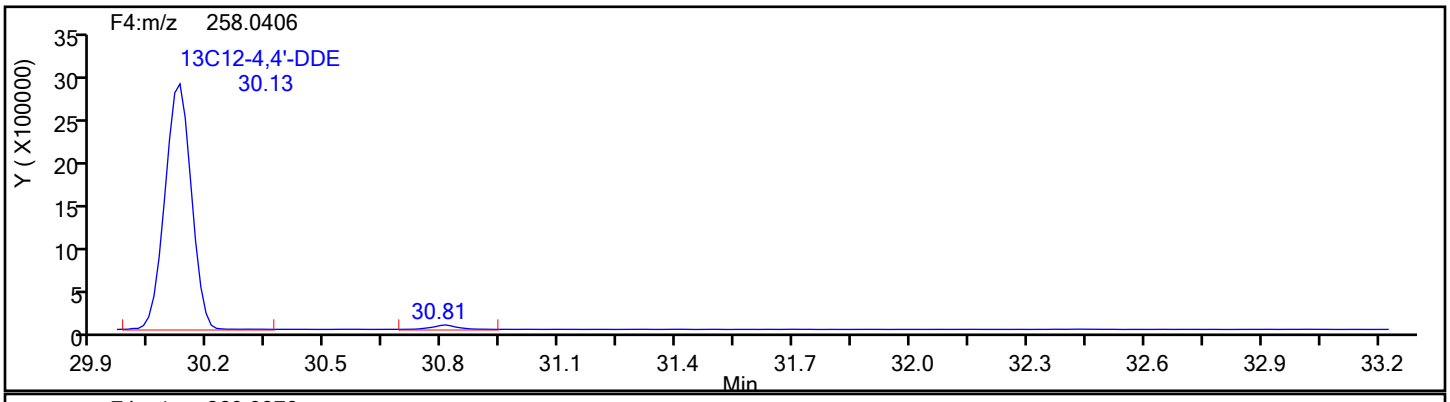
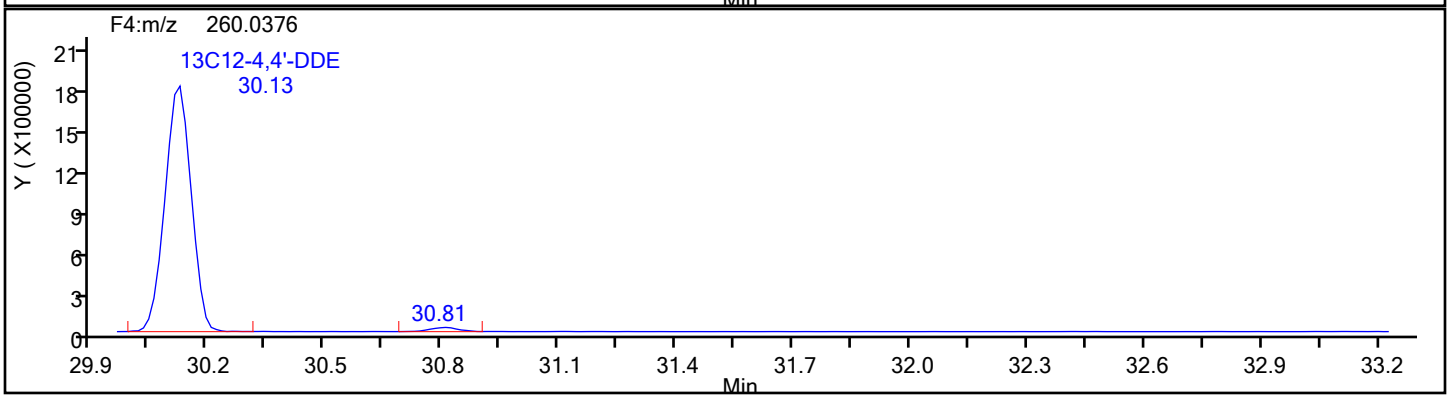
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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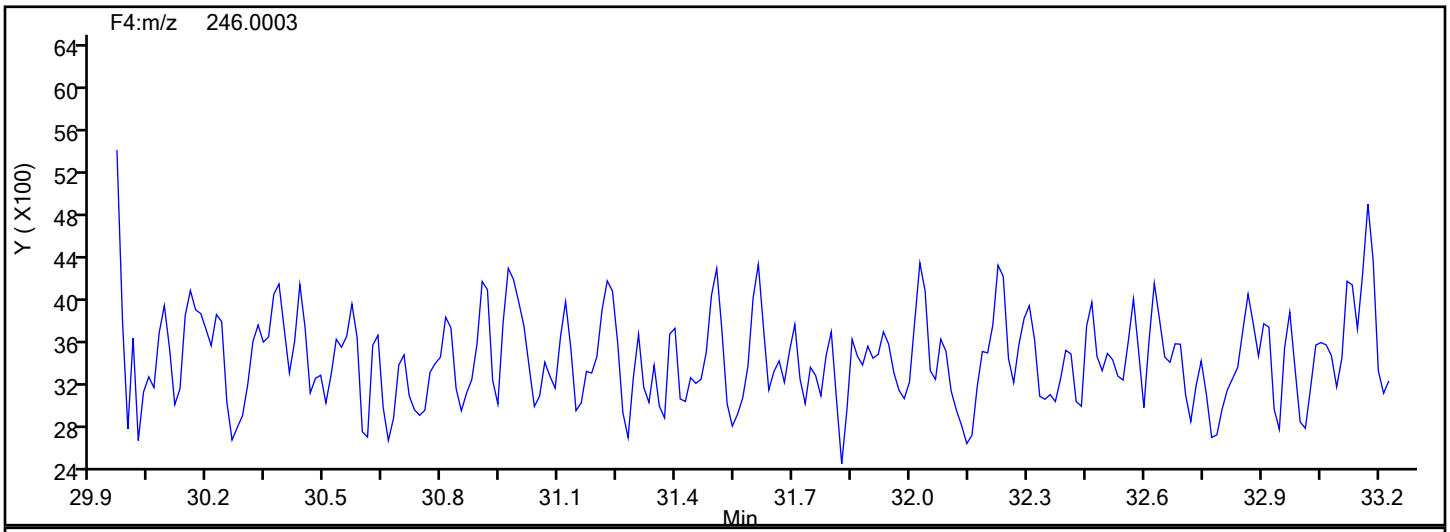
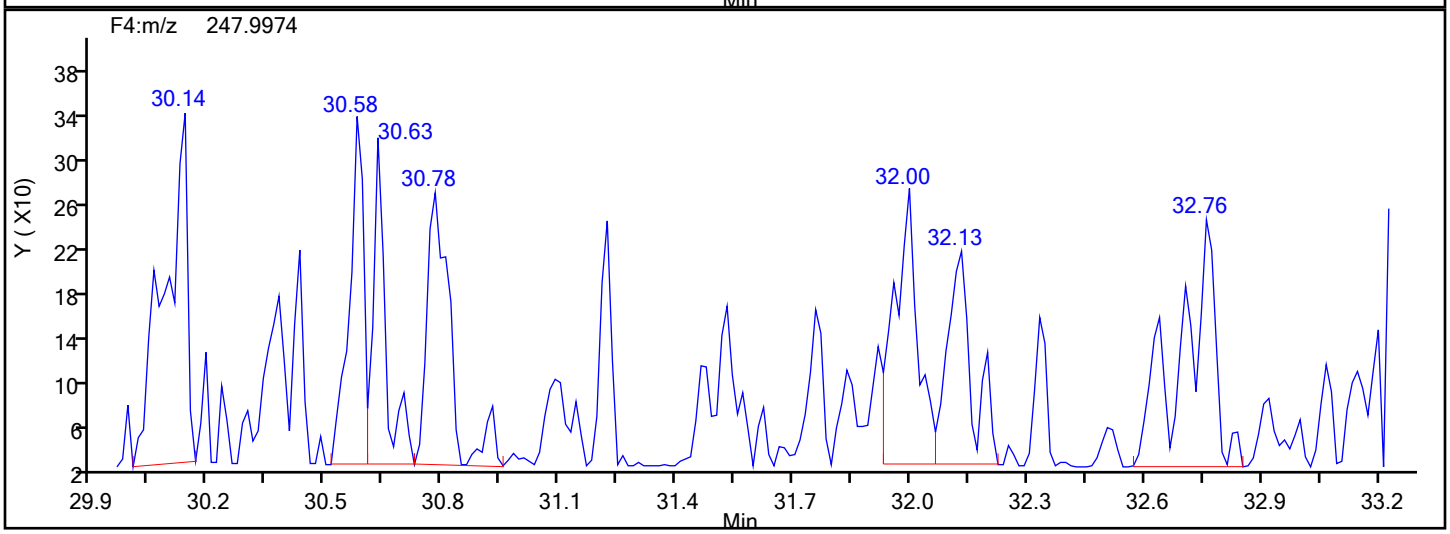
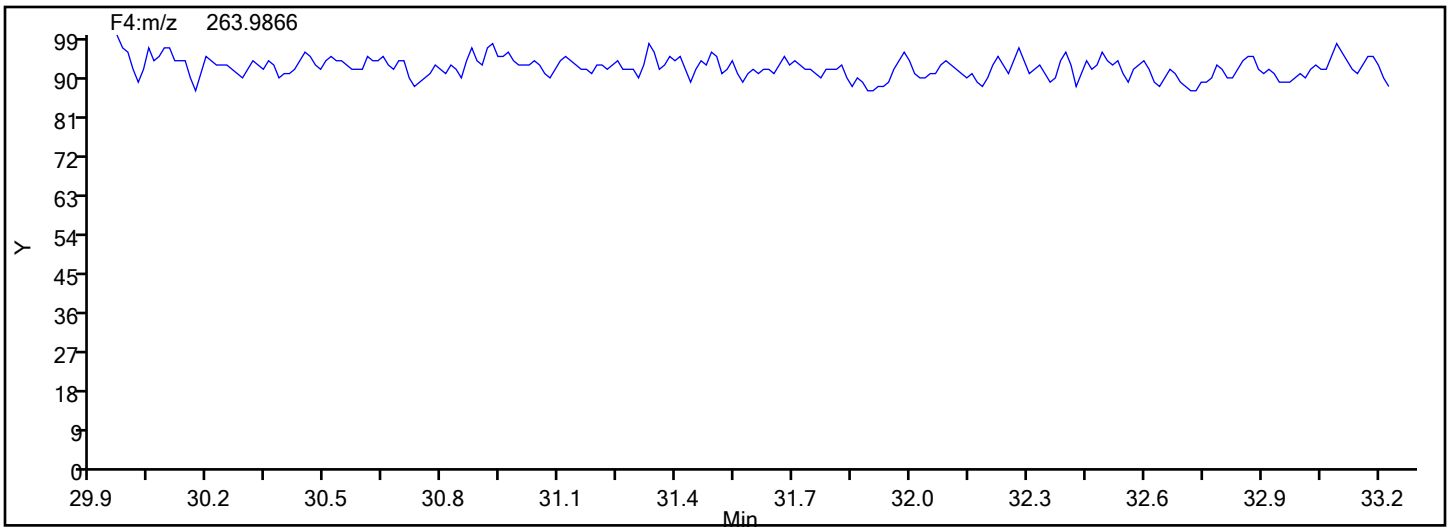
4,4'-DDE





4,4'-DDE Lock Mass



Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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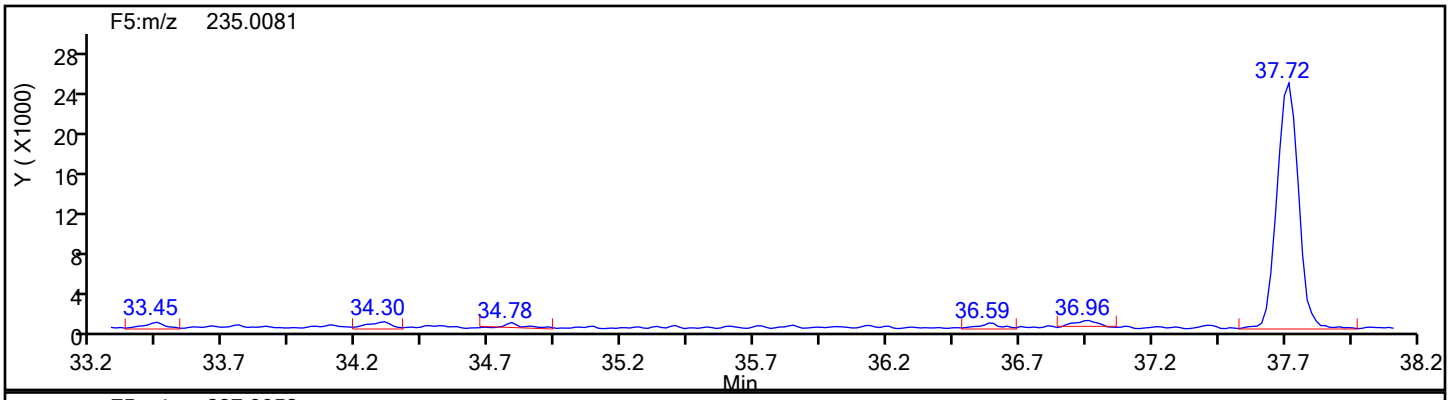
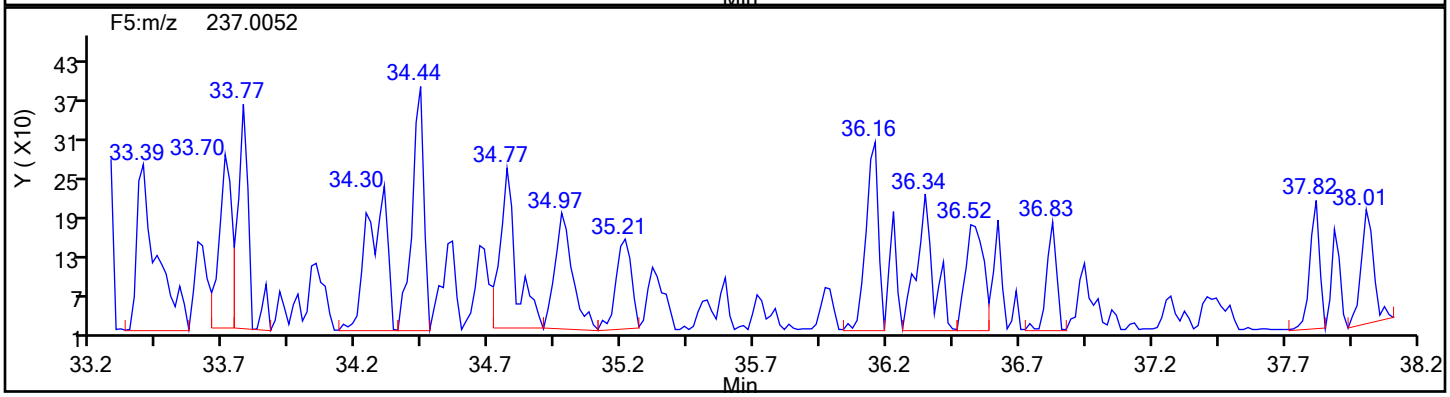
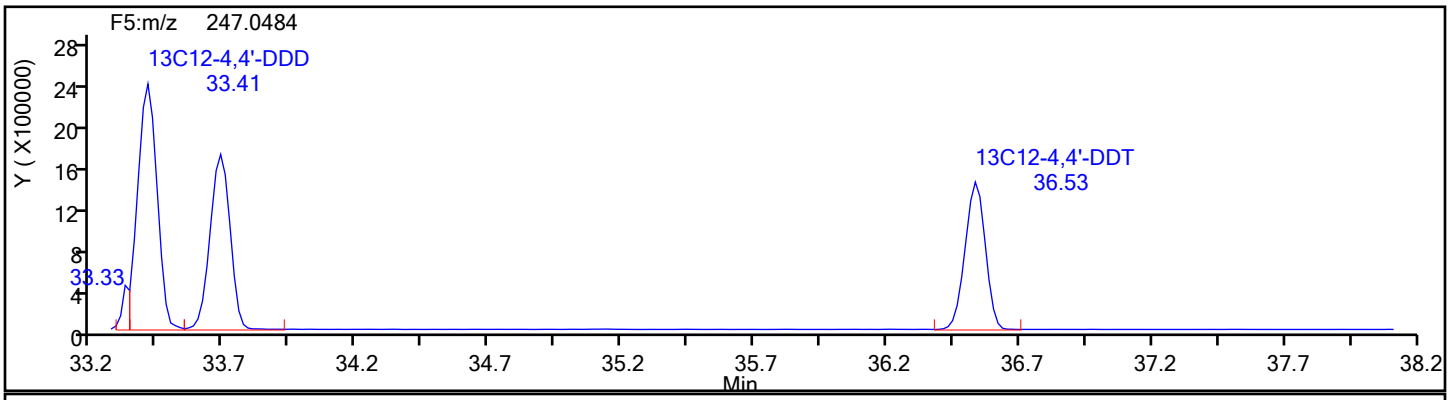
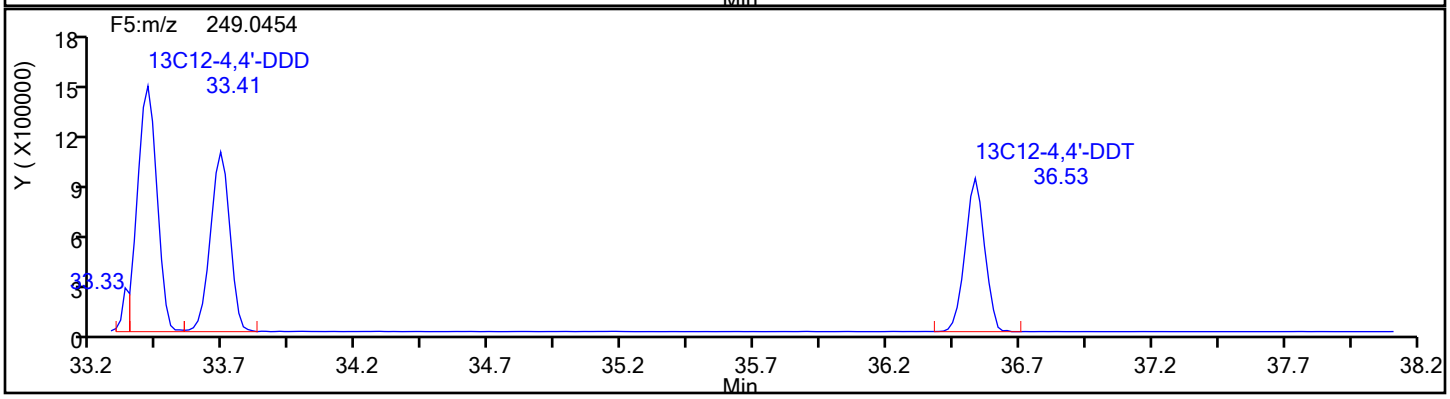
DDD





DDD Standards





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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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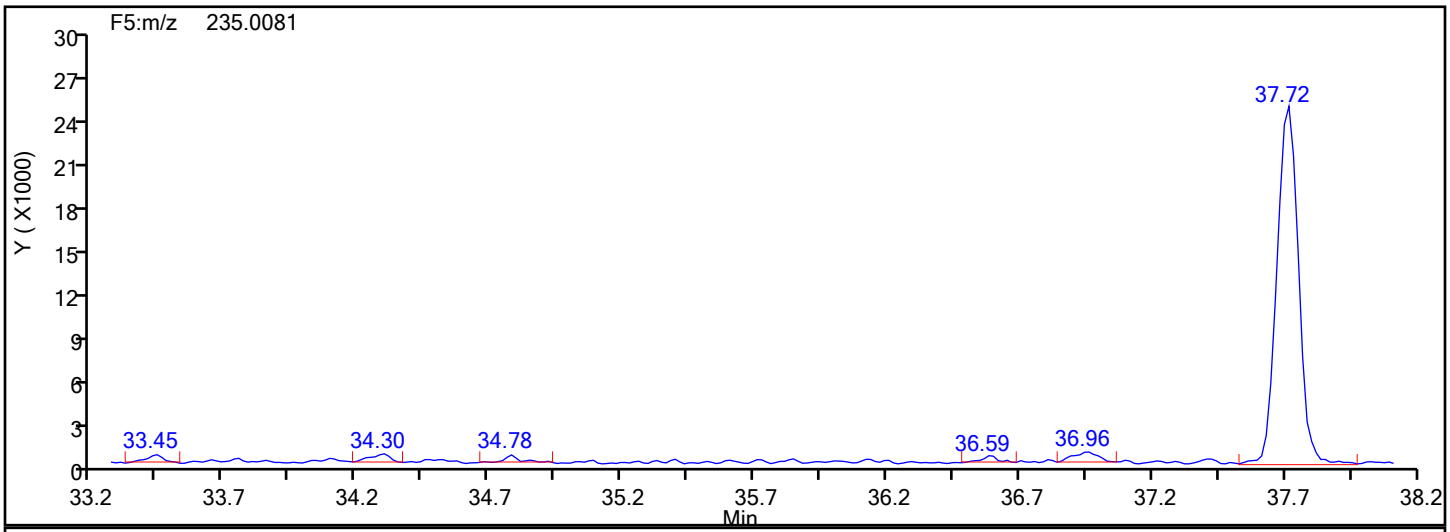
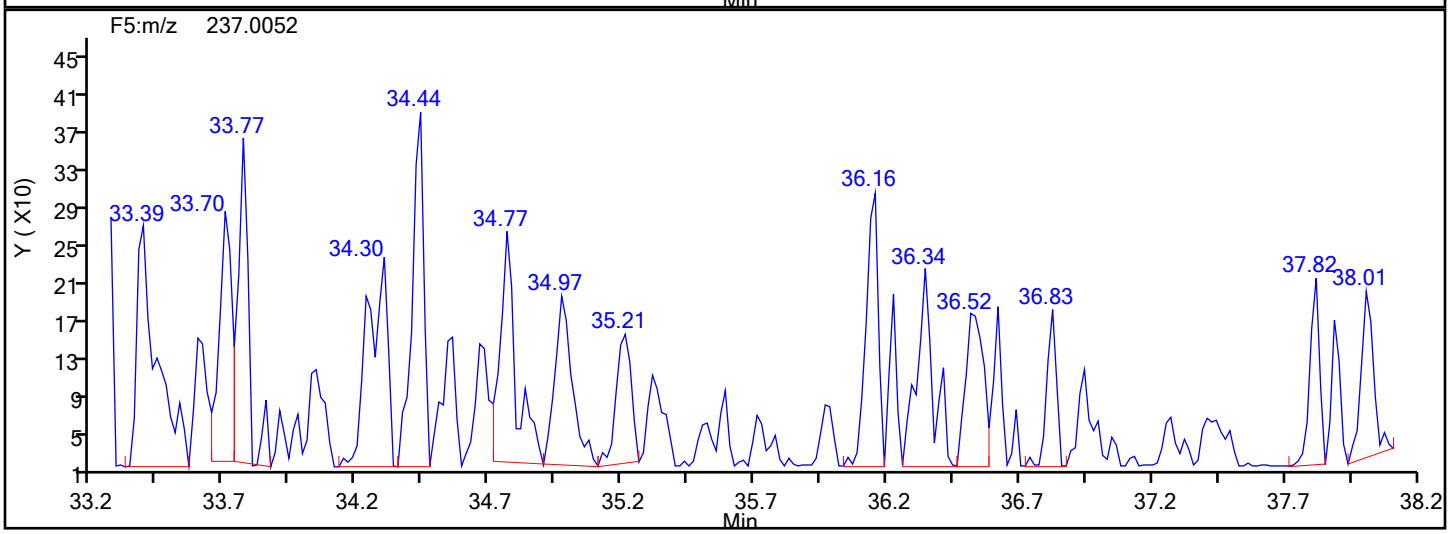
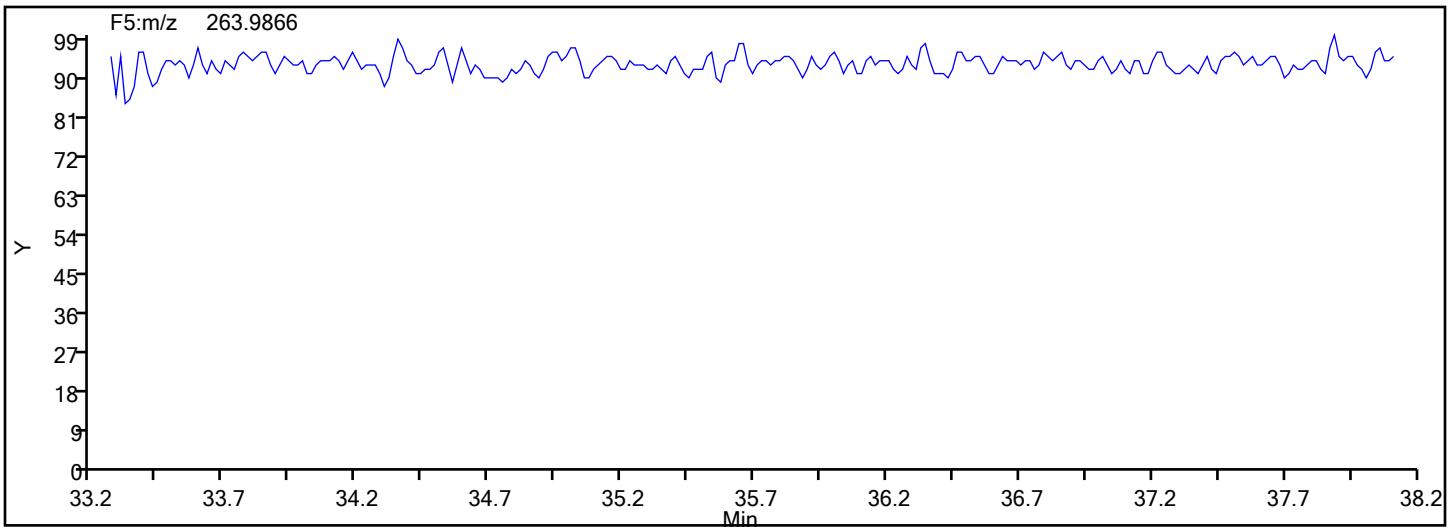
DDD





DDD Lock Mass



Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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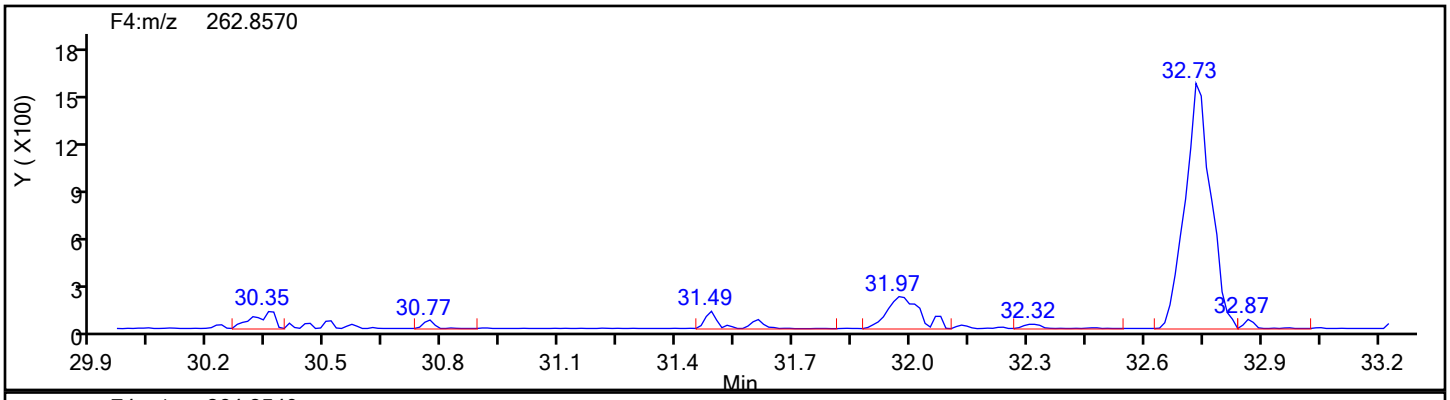

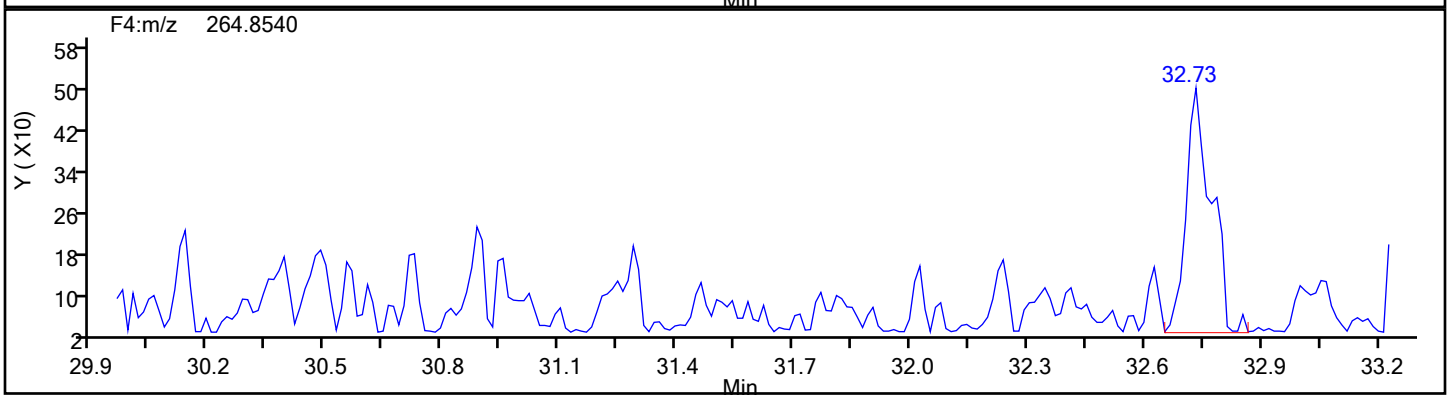

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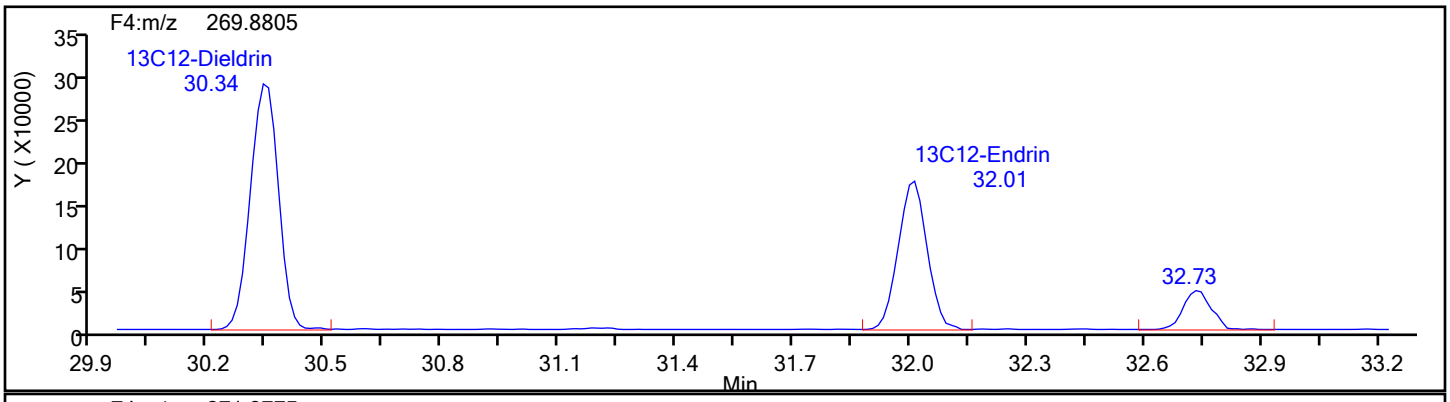

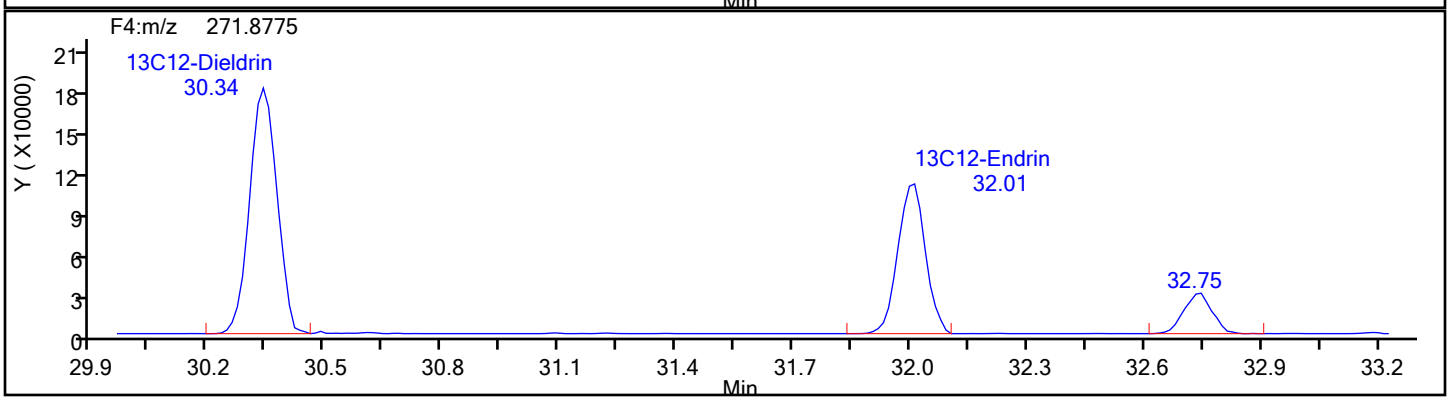

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Eurofins Knoxville

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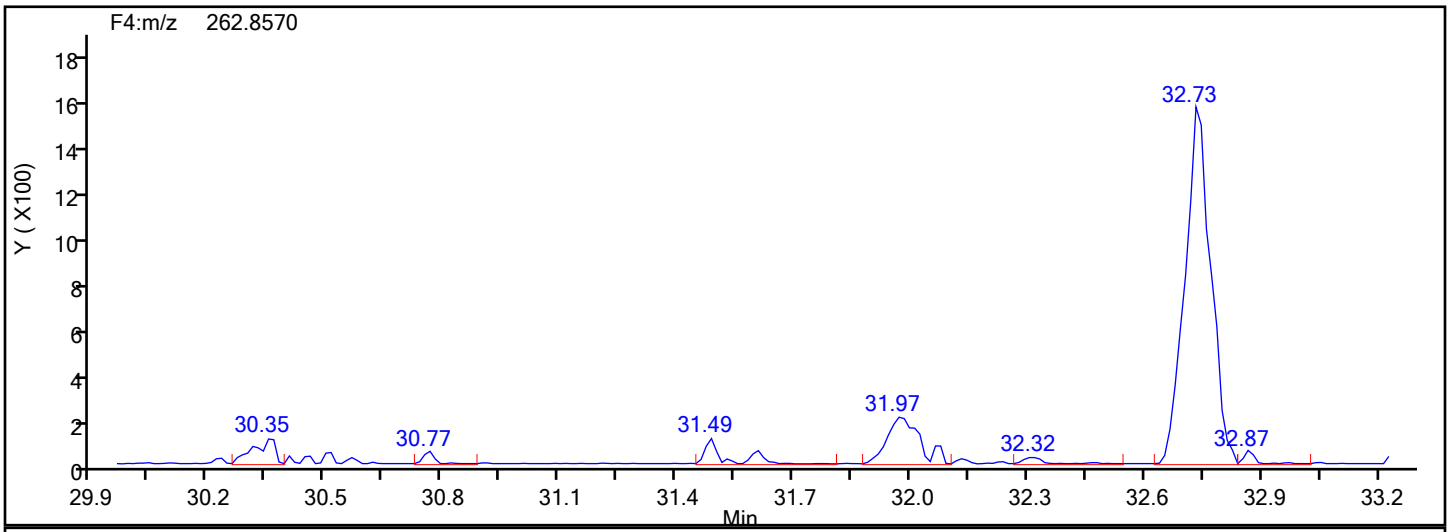

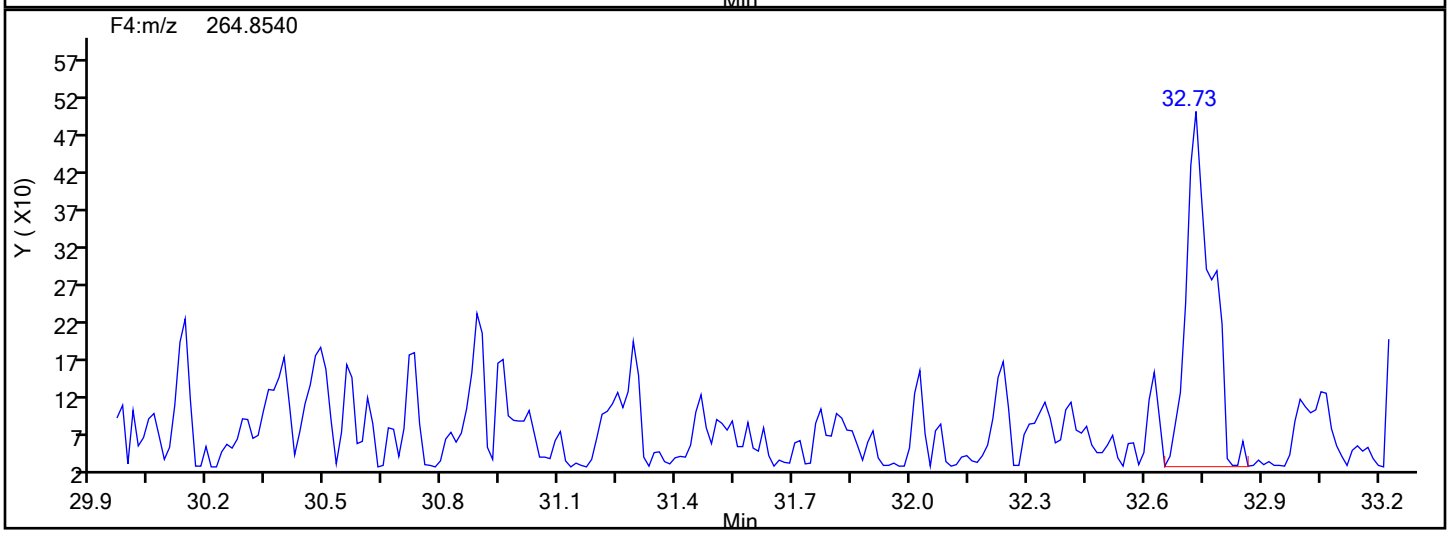

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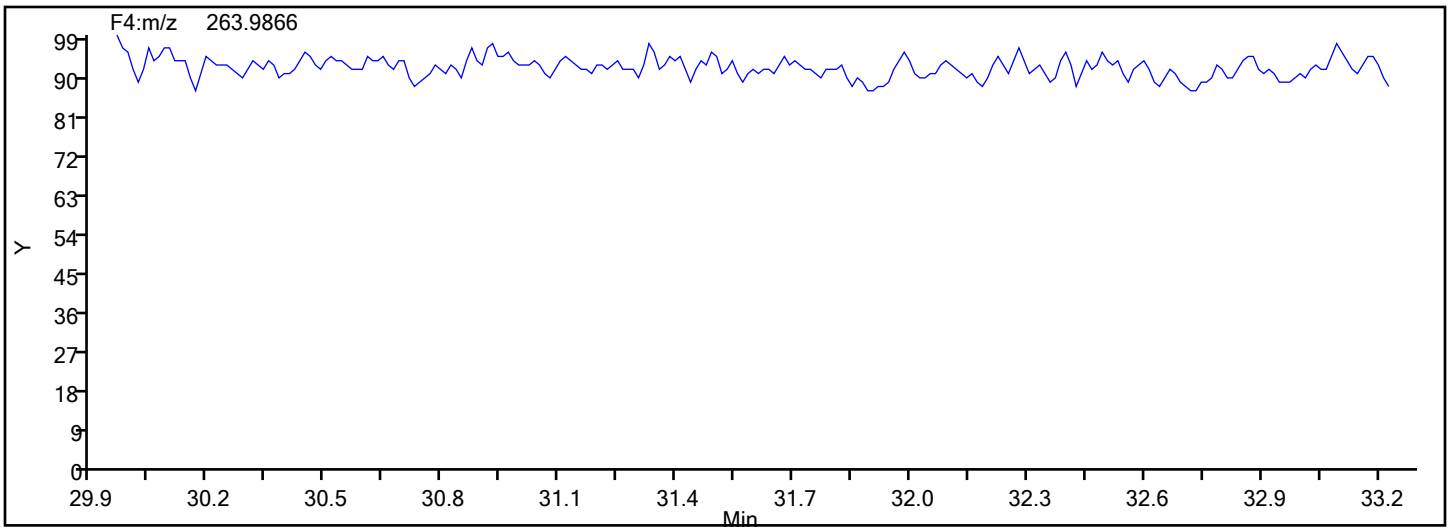

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Eurofins Knoxville

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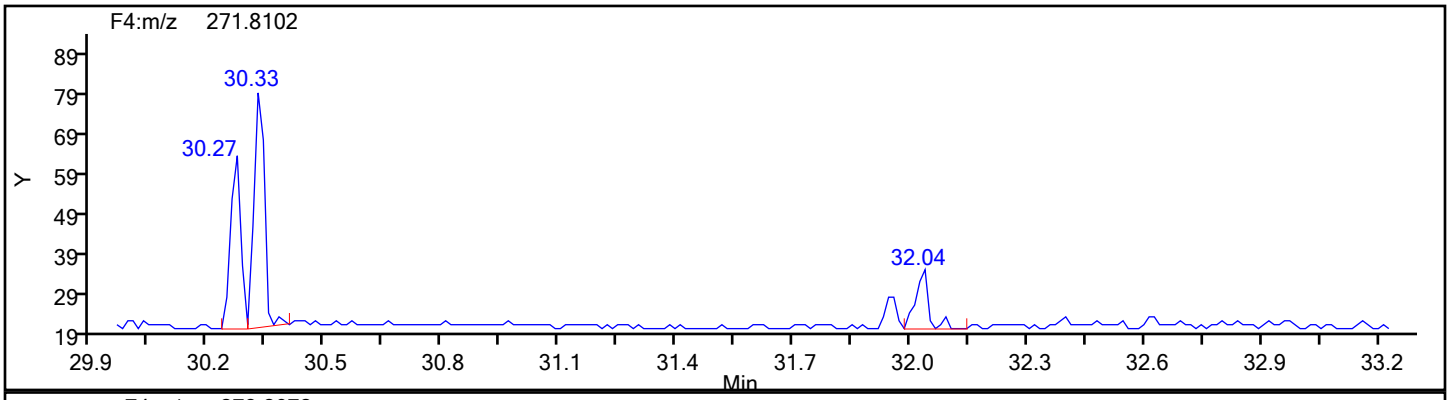

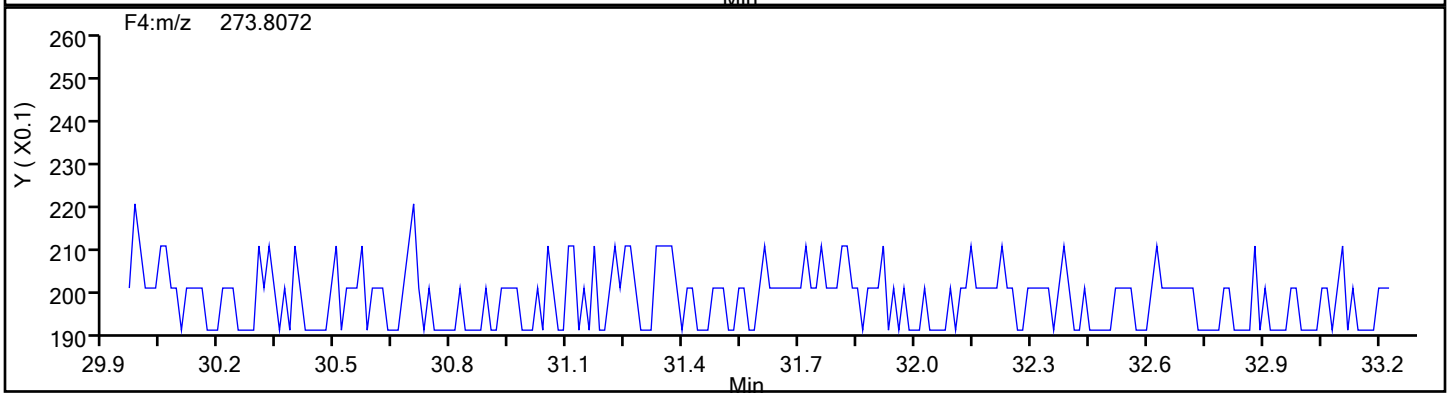

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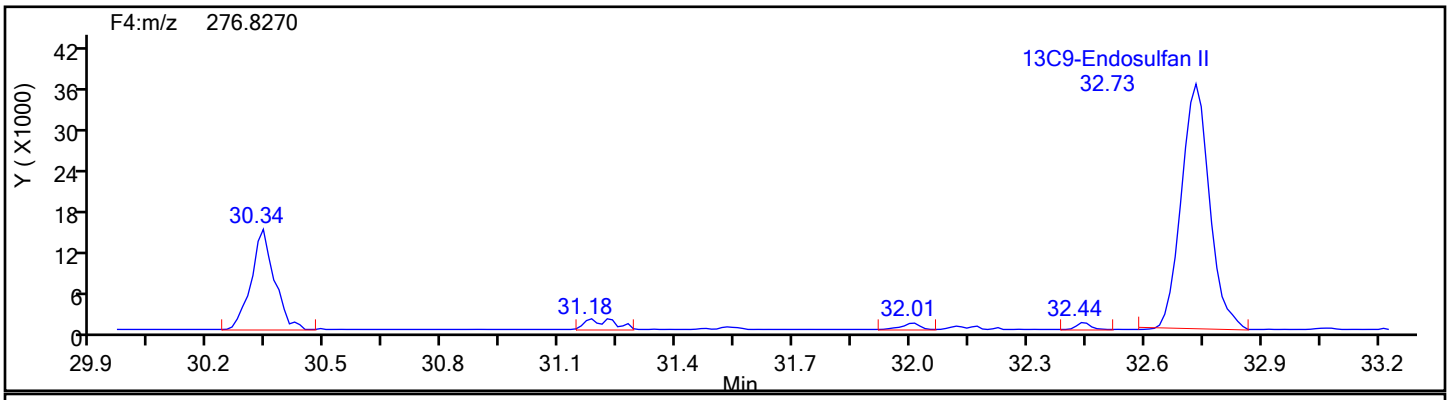

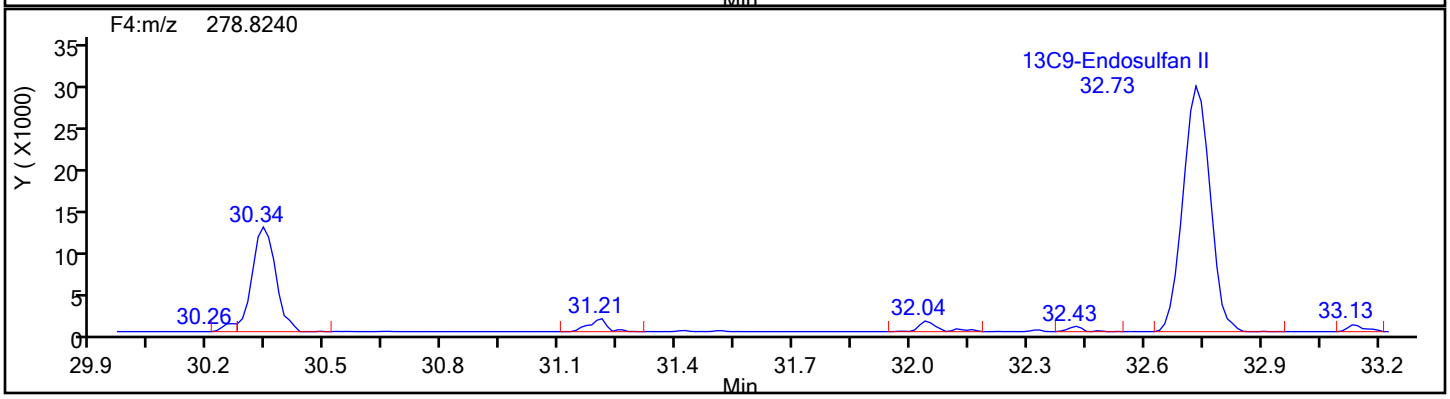

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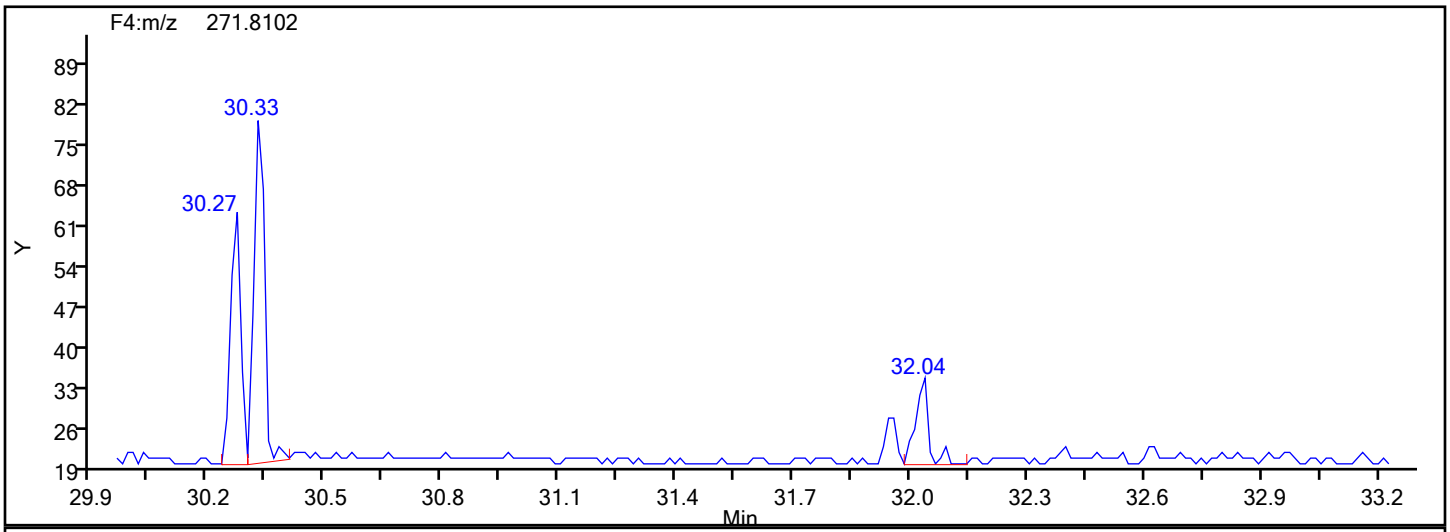

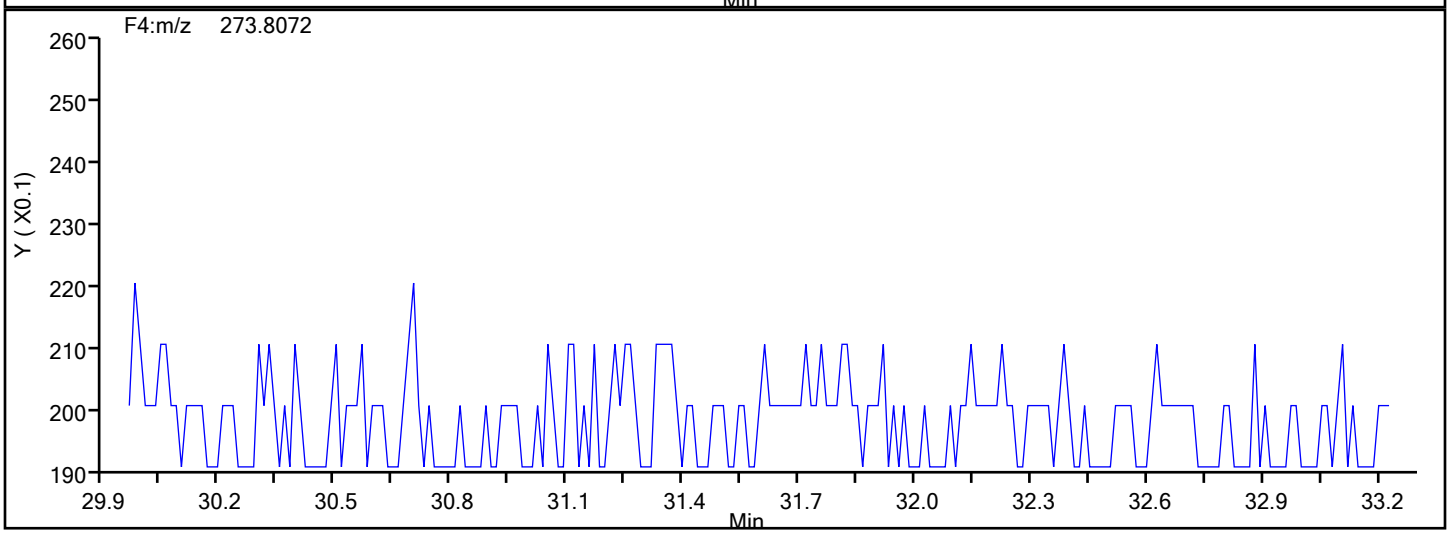

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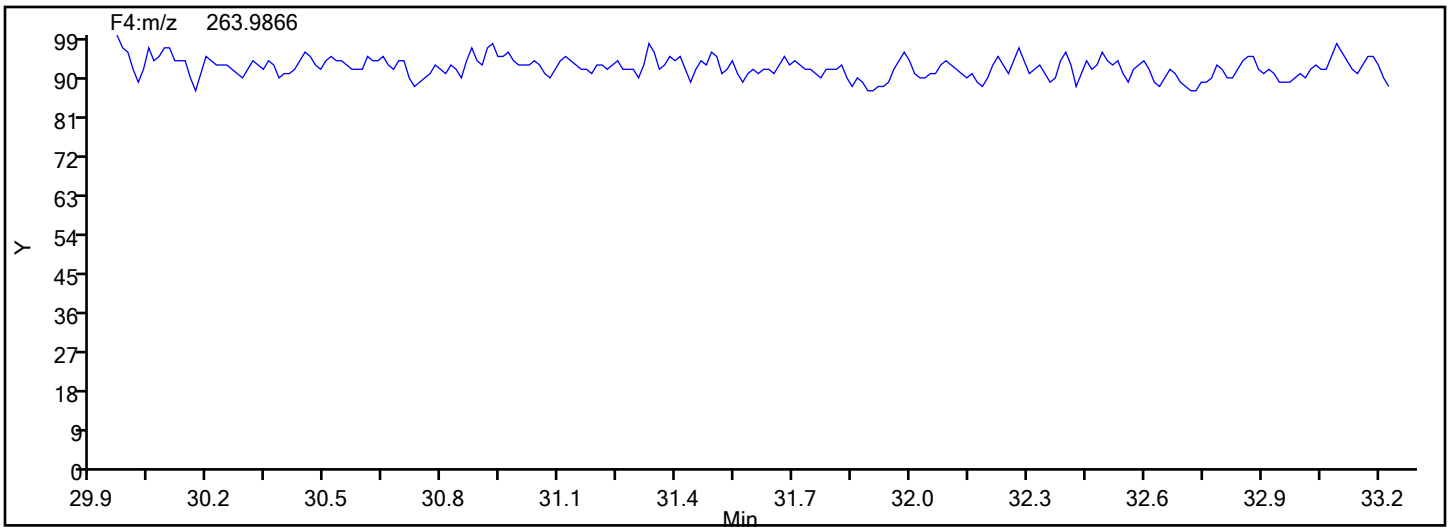

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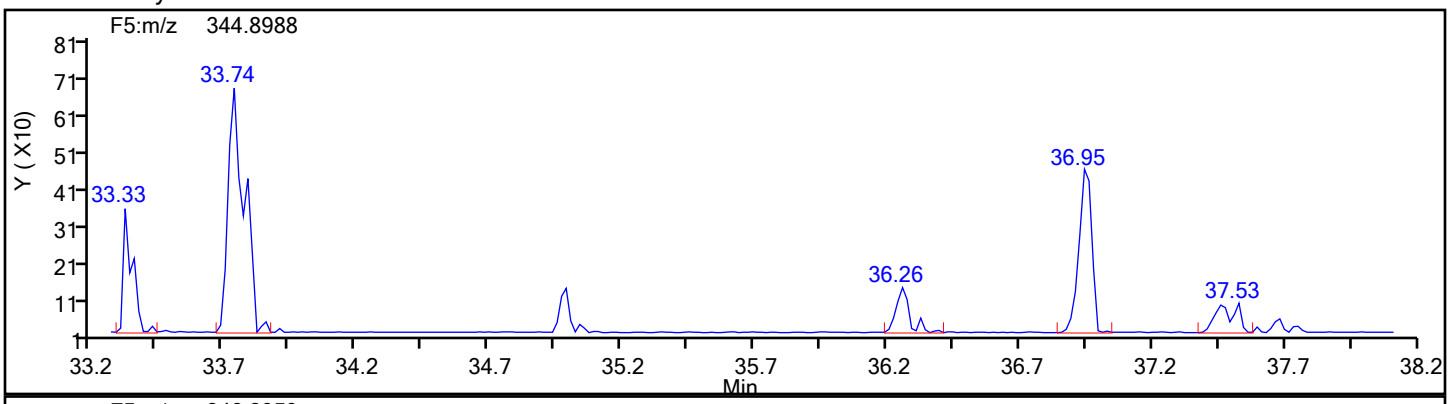

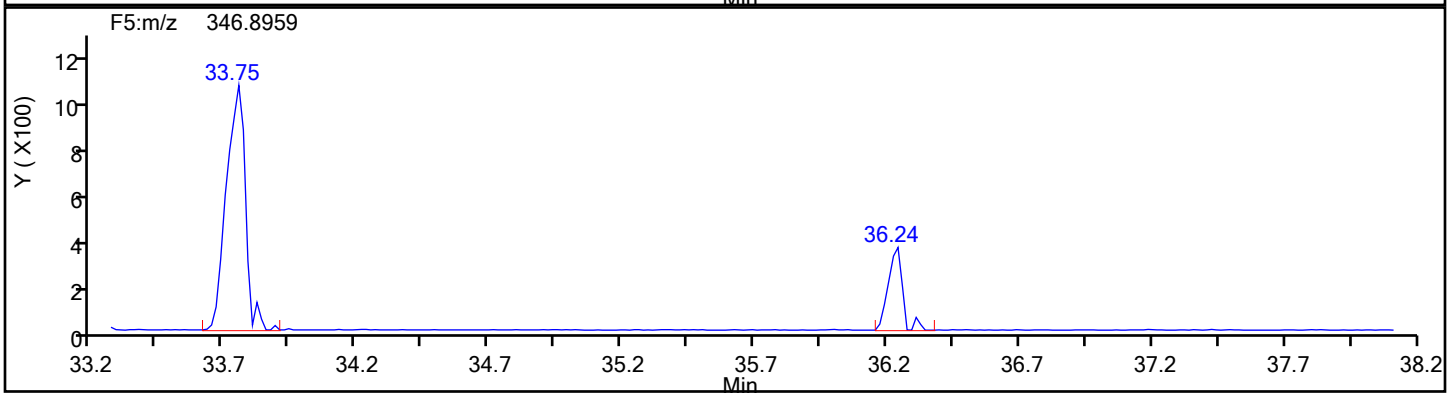

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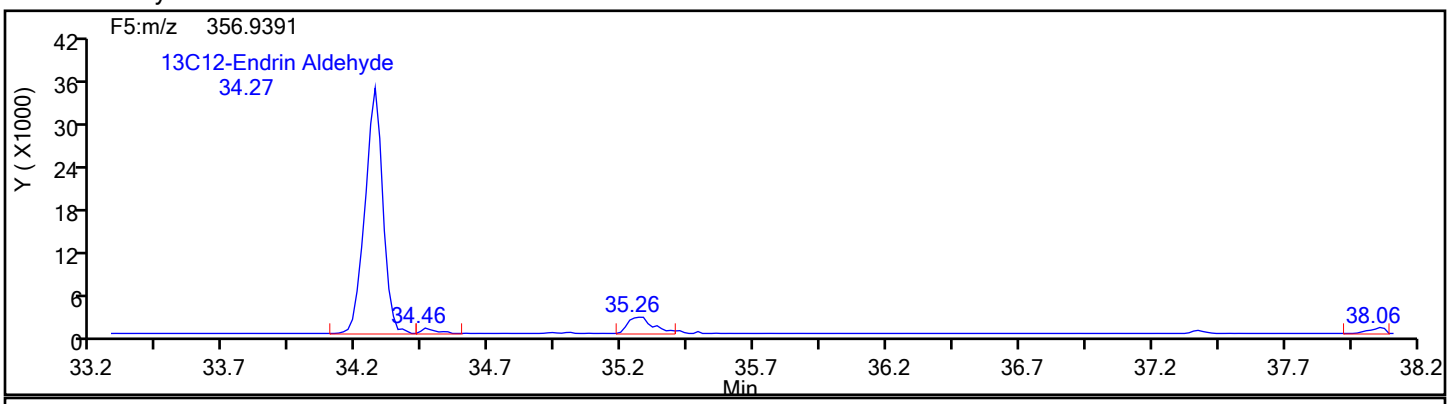

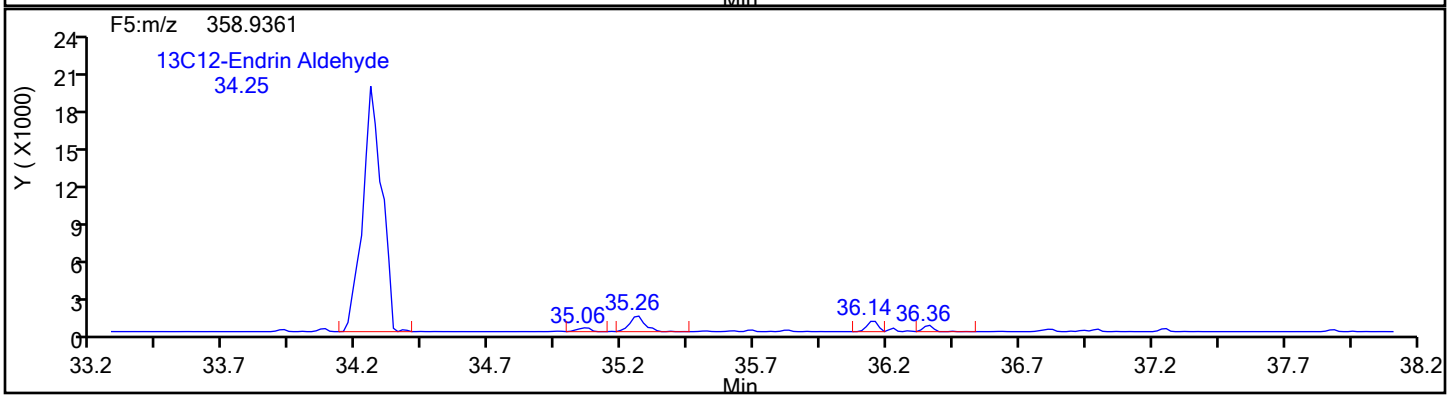

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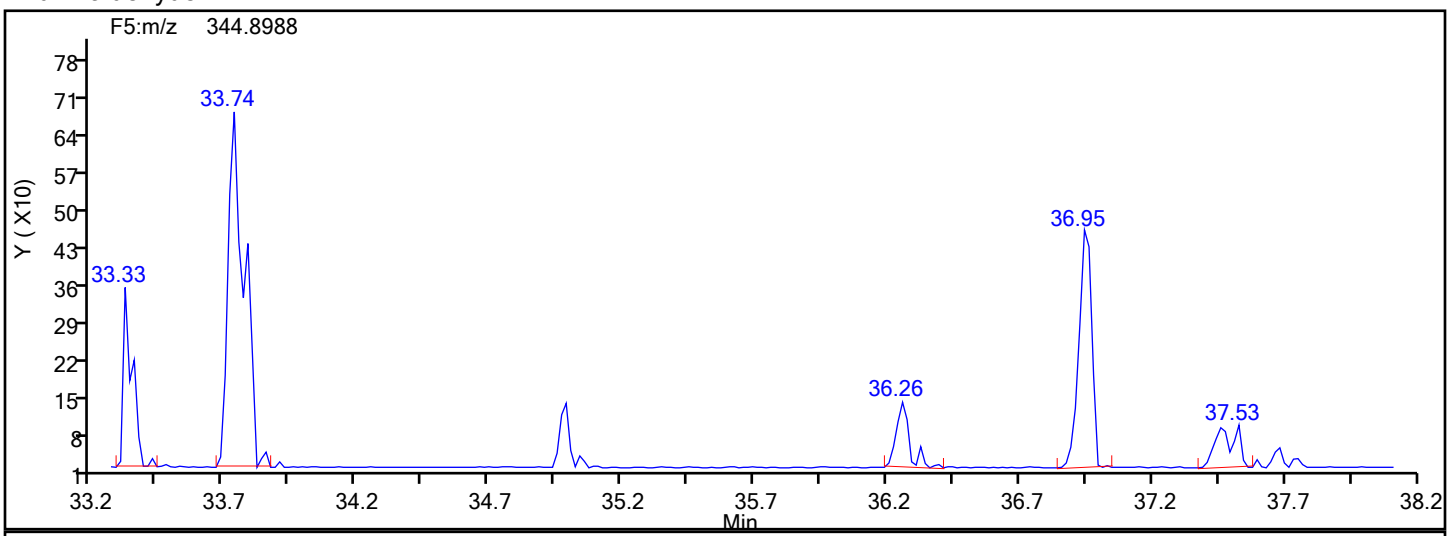

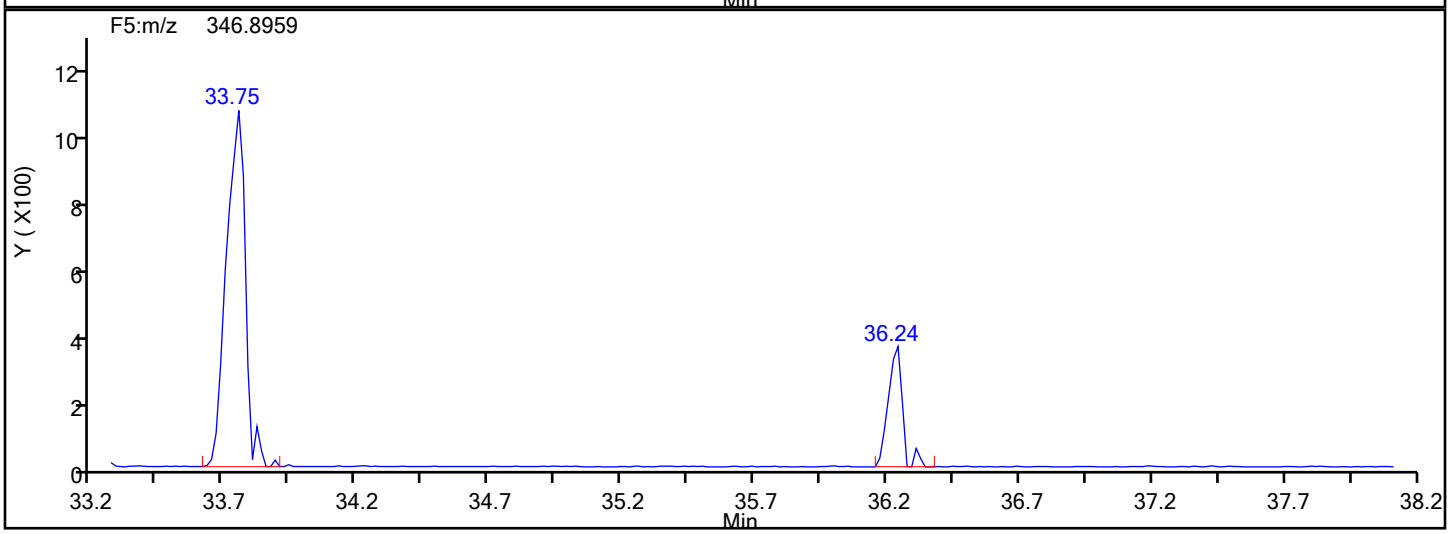

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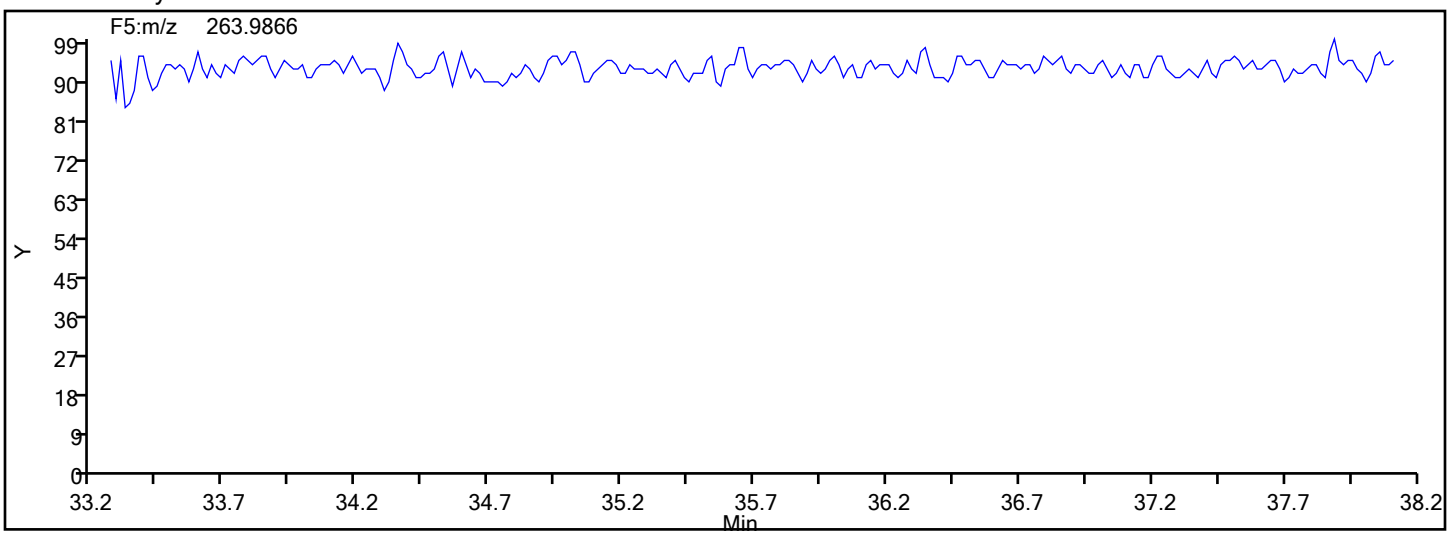

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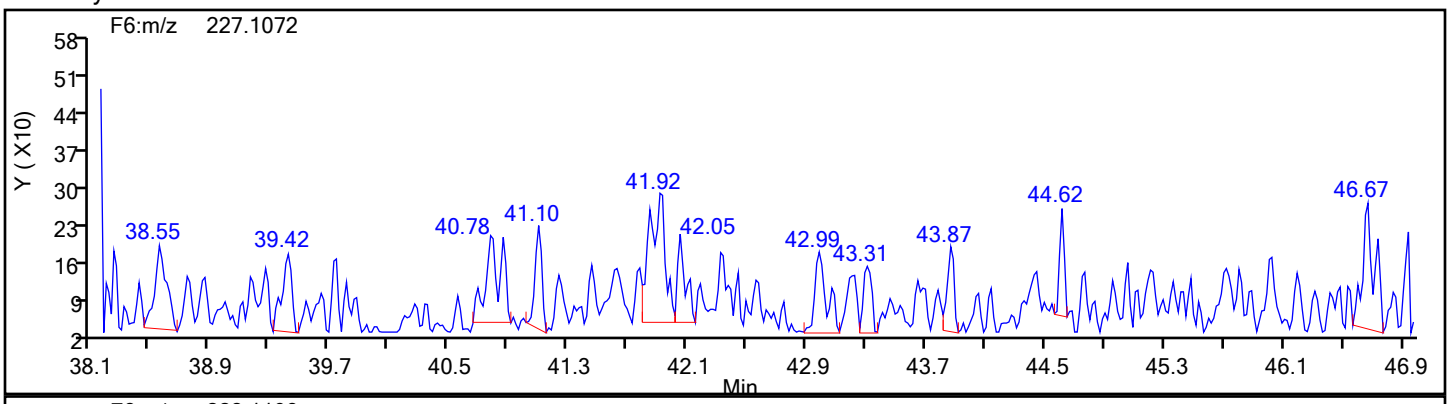

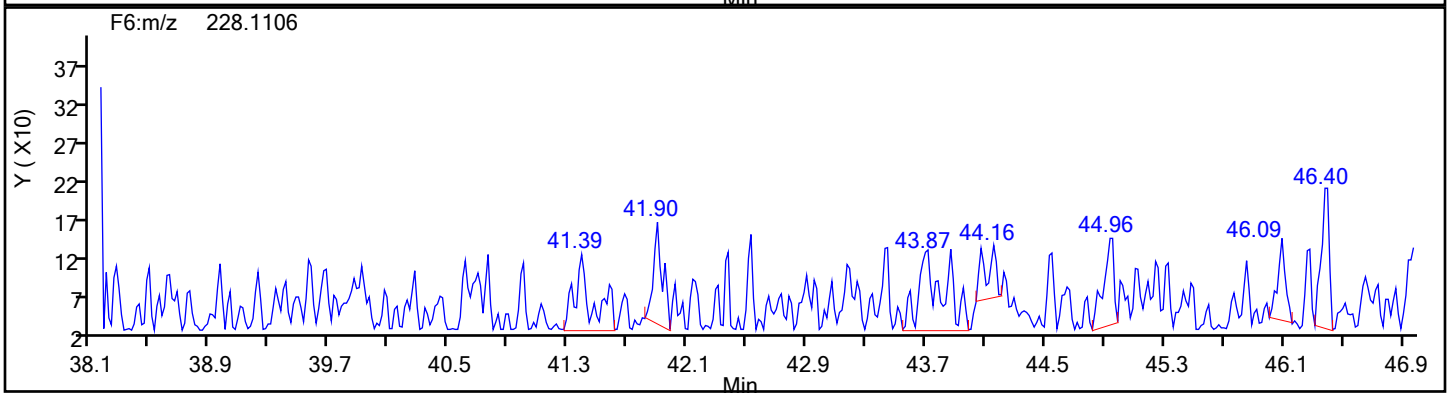

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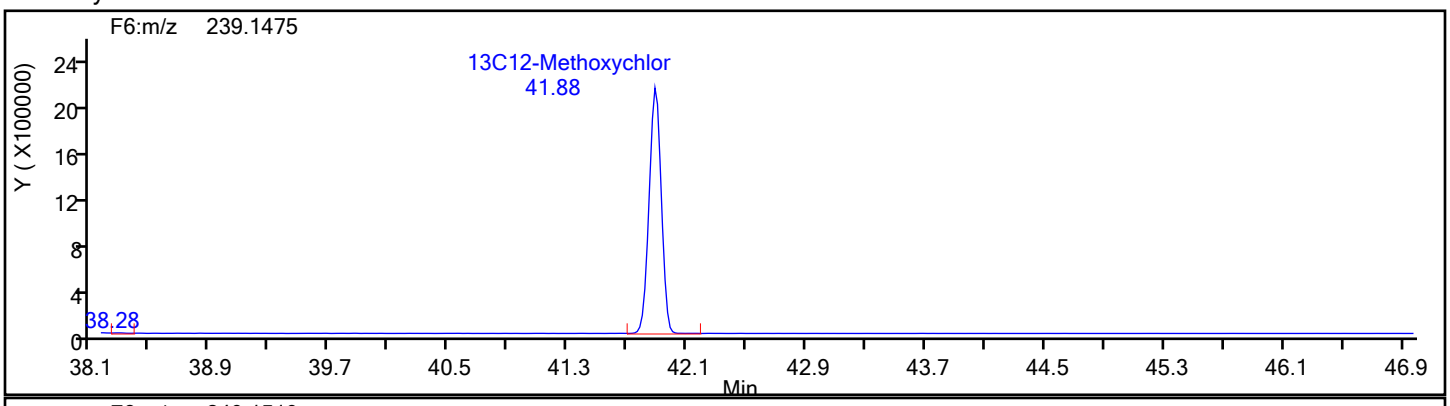

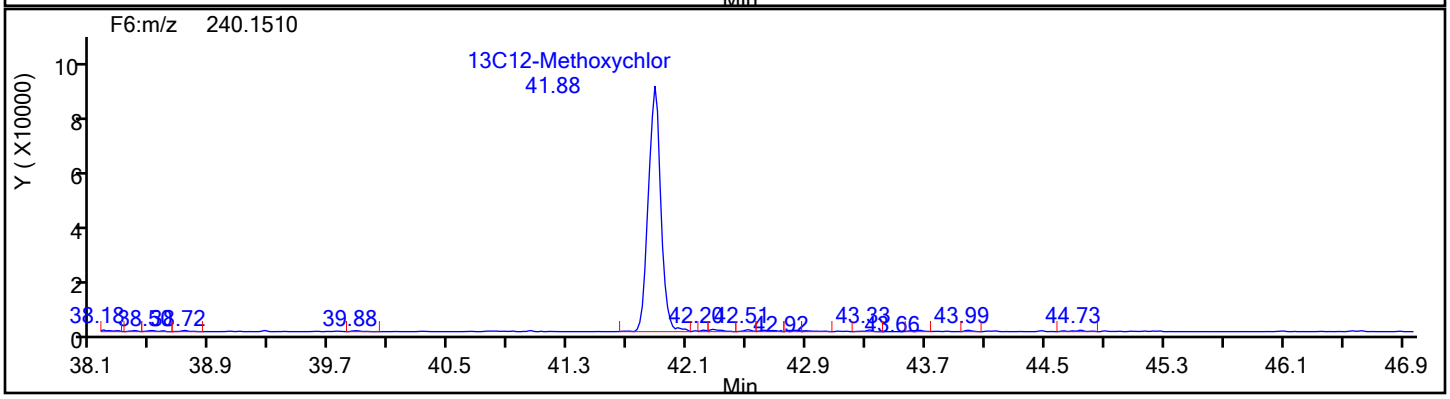

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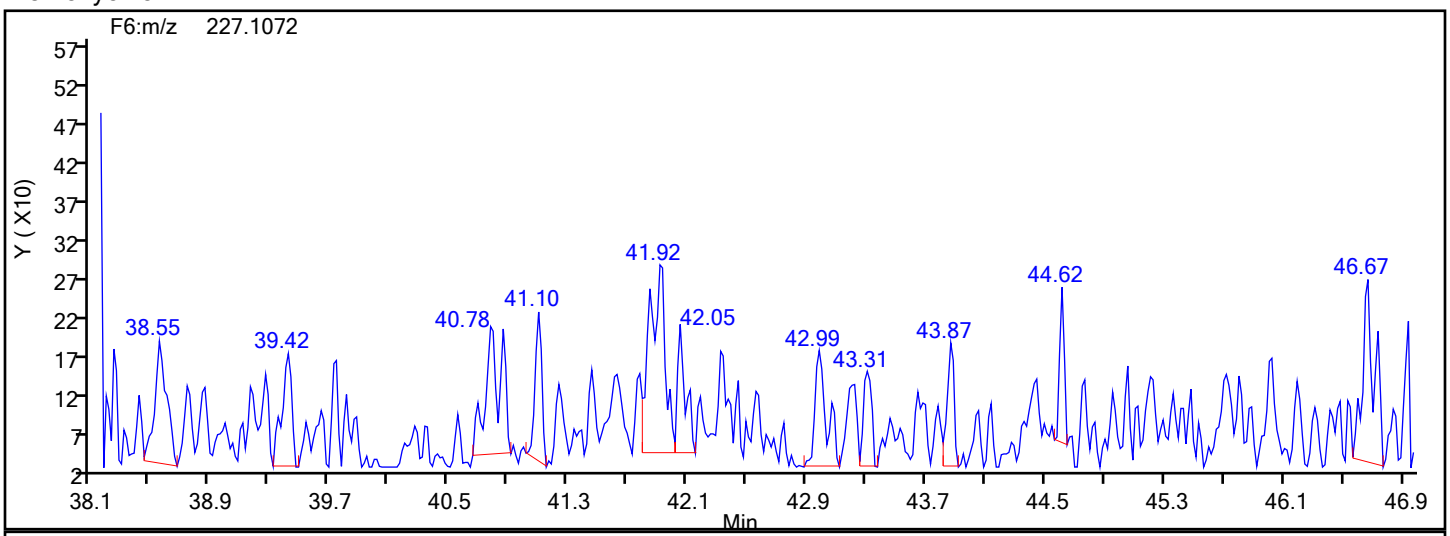

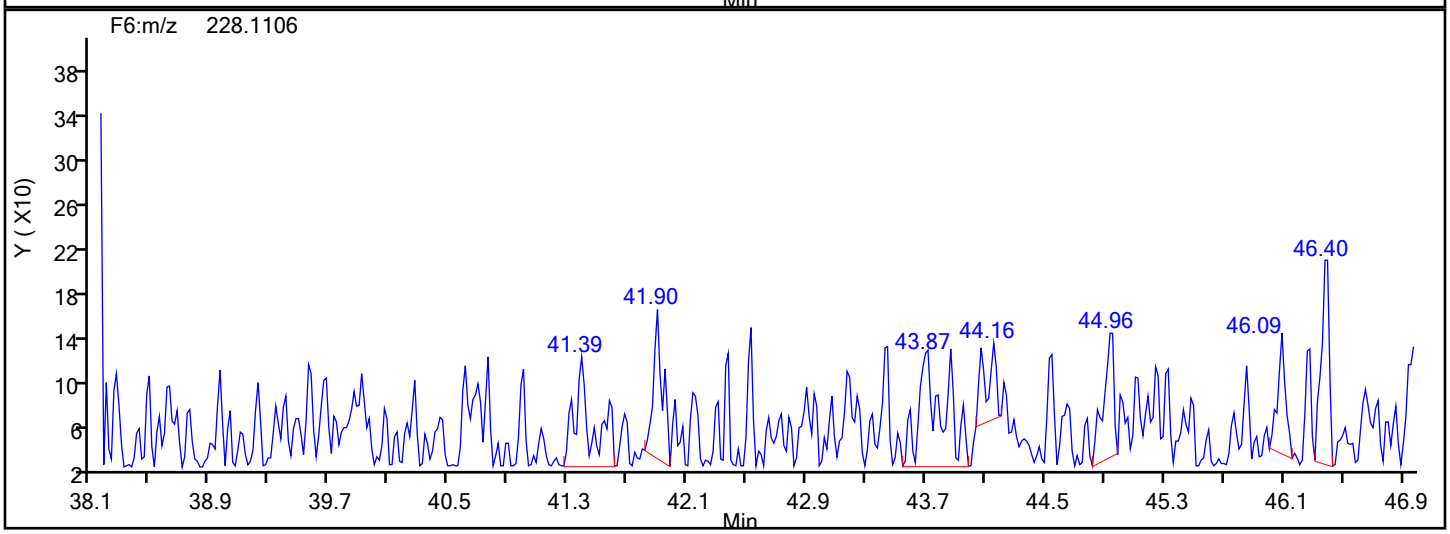

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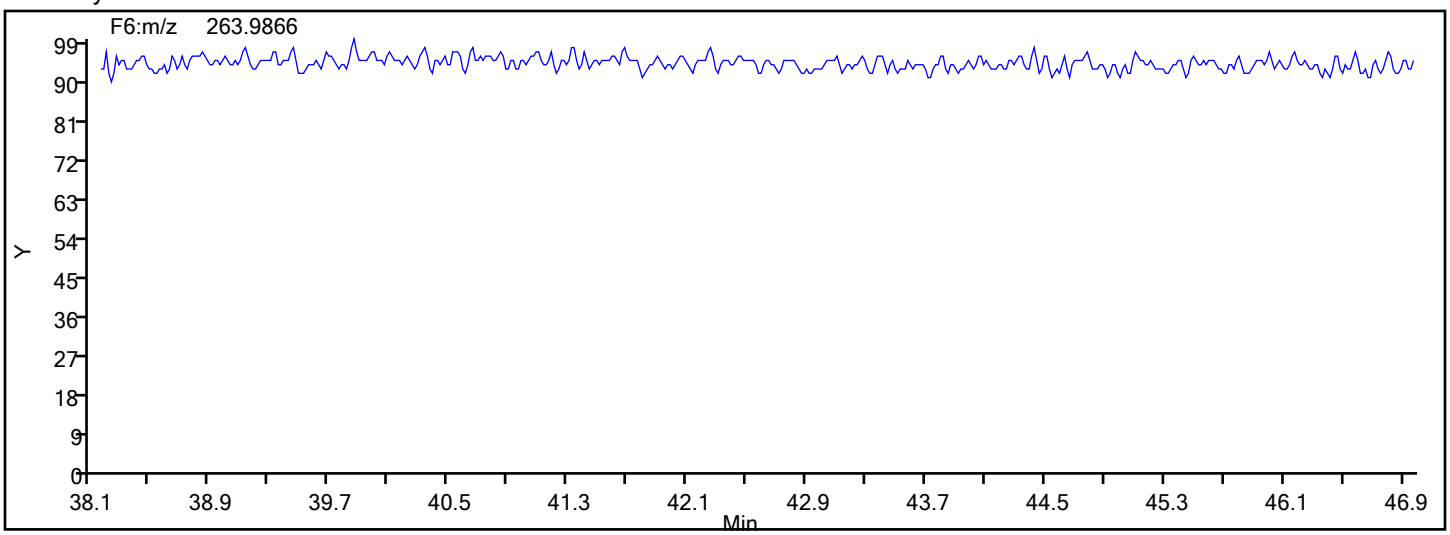

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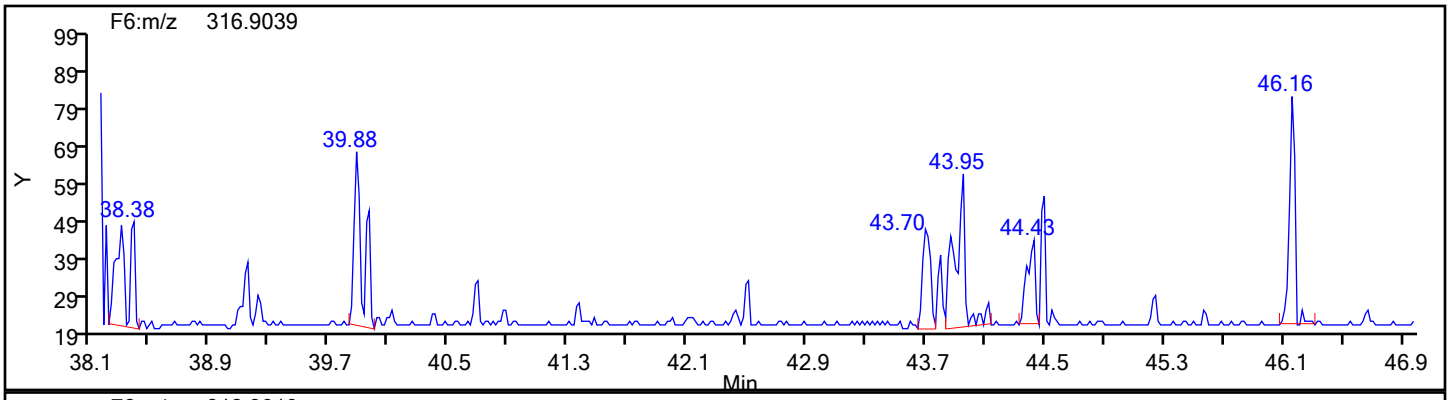

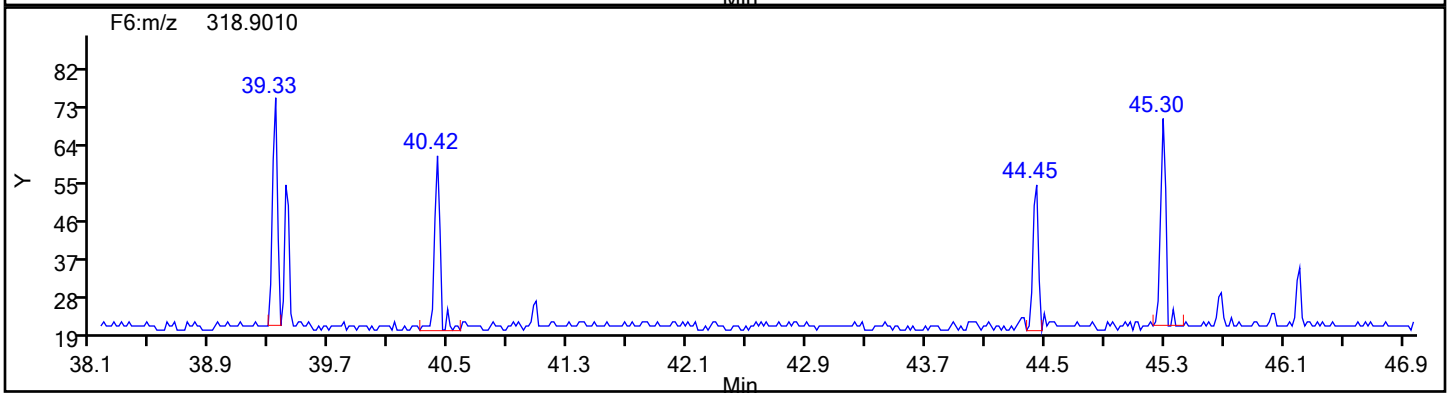

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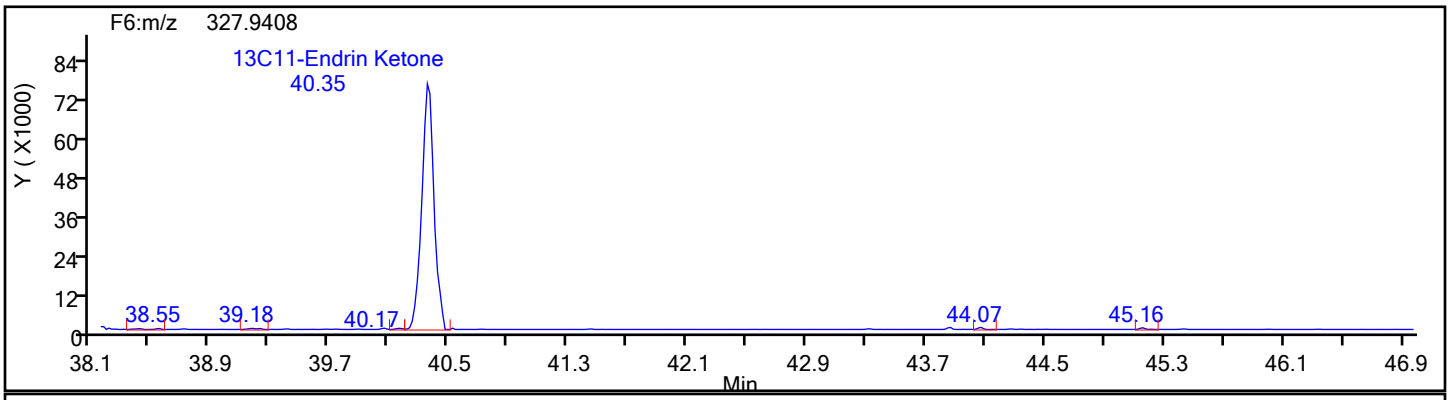

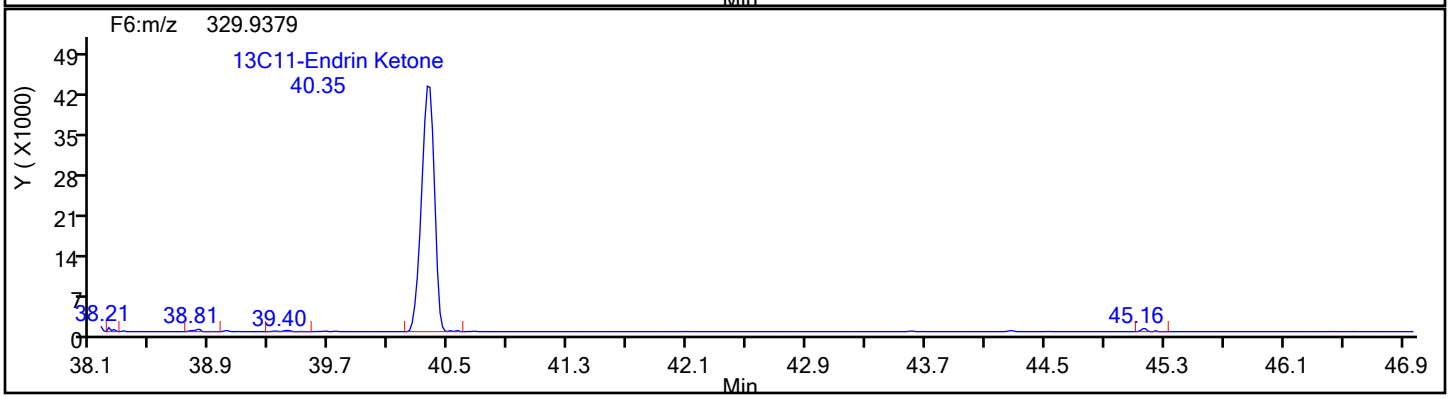

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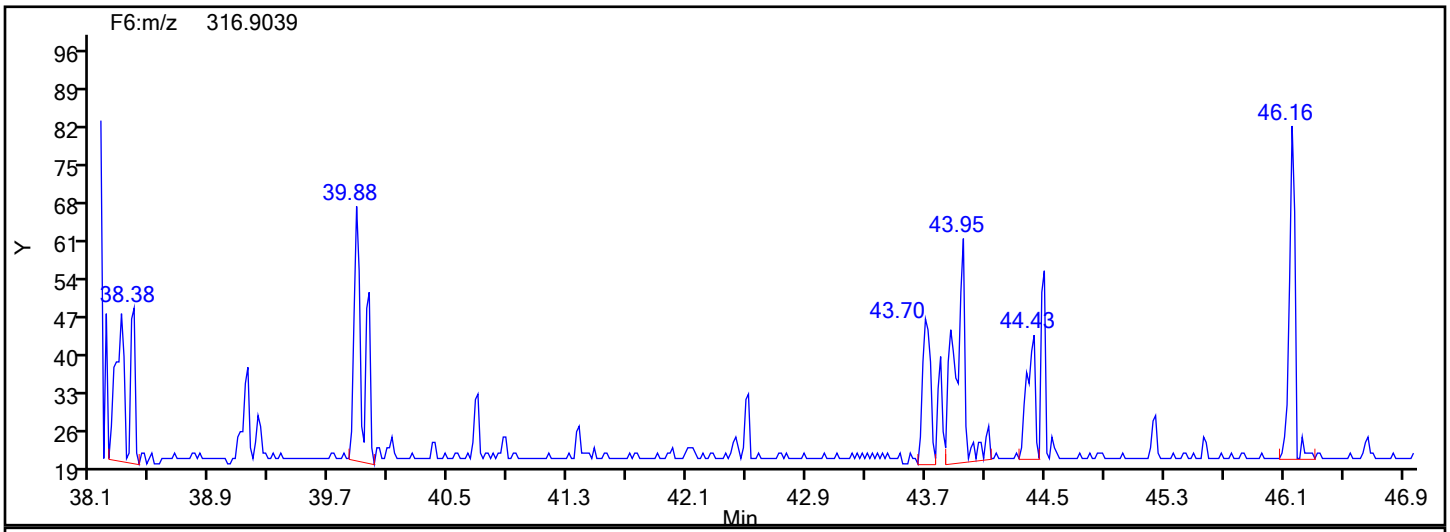

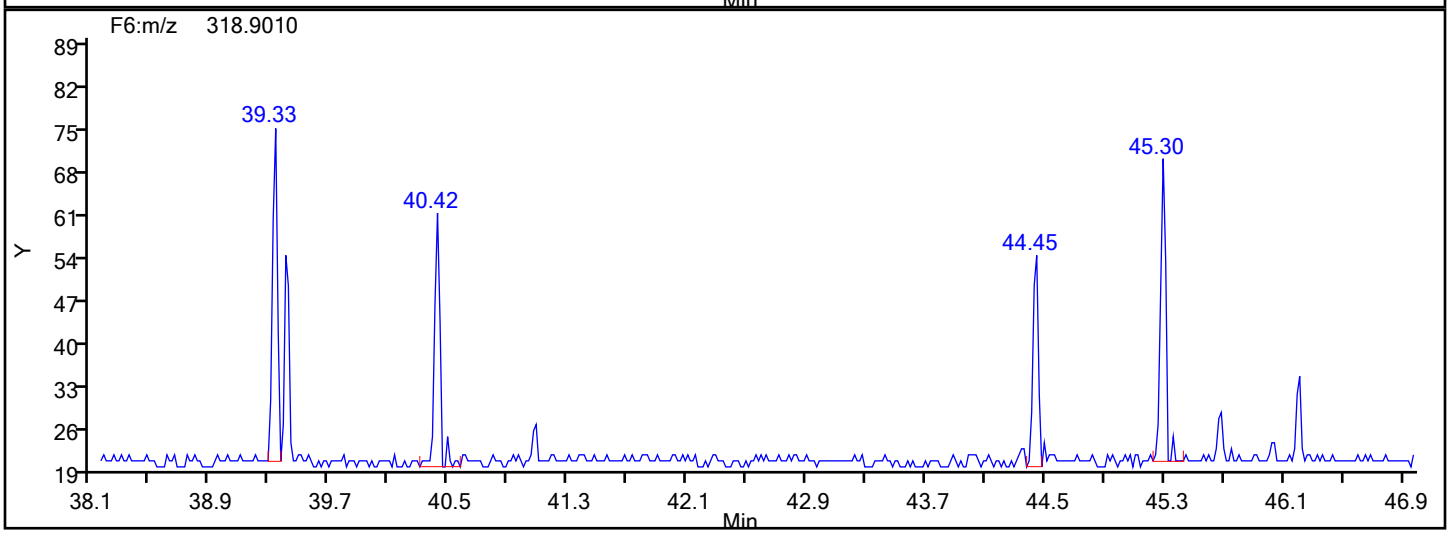

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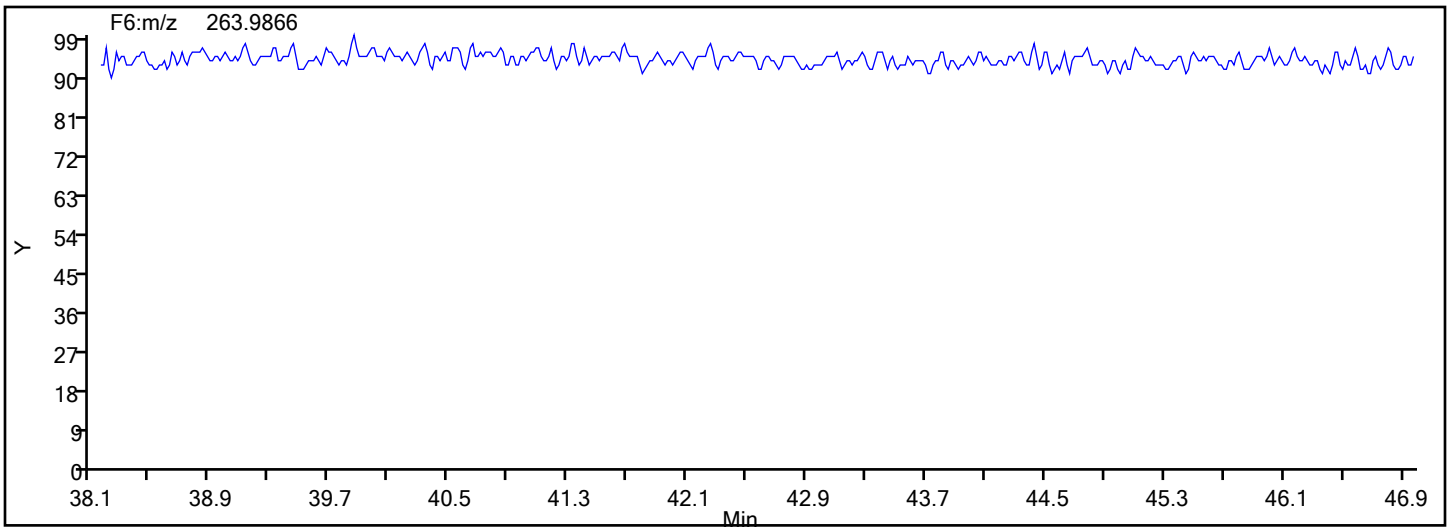

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Eurofins Knoxville

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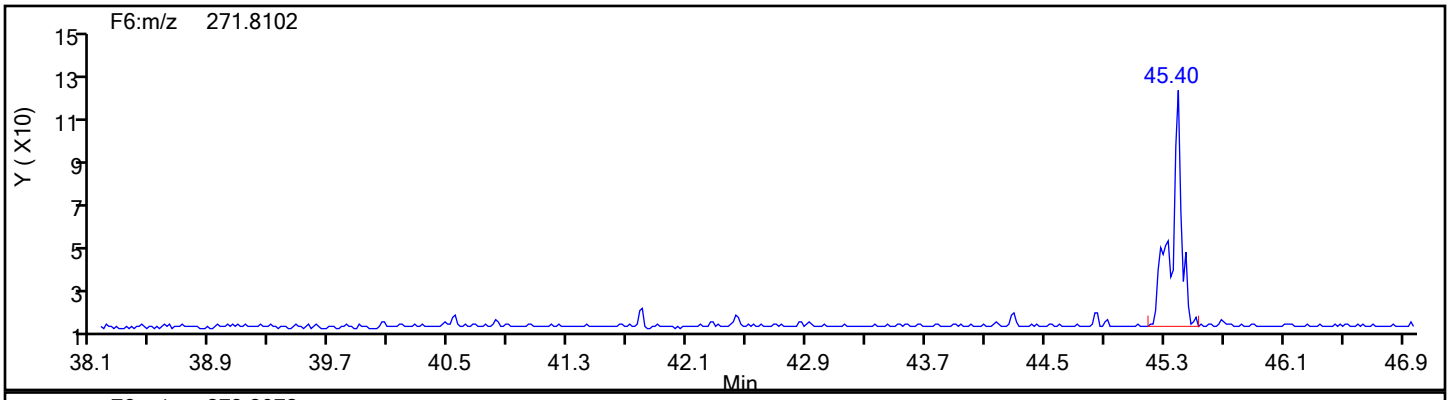
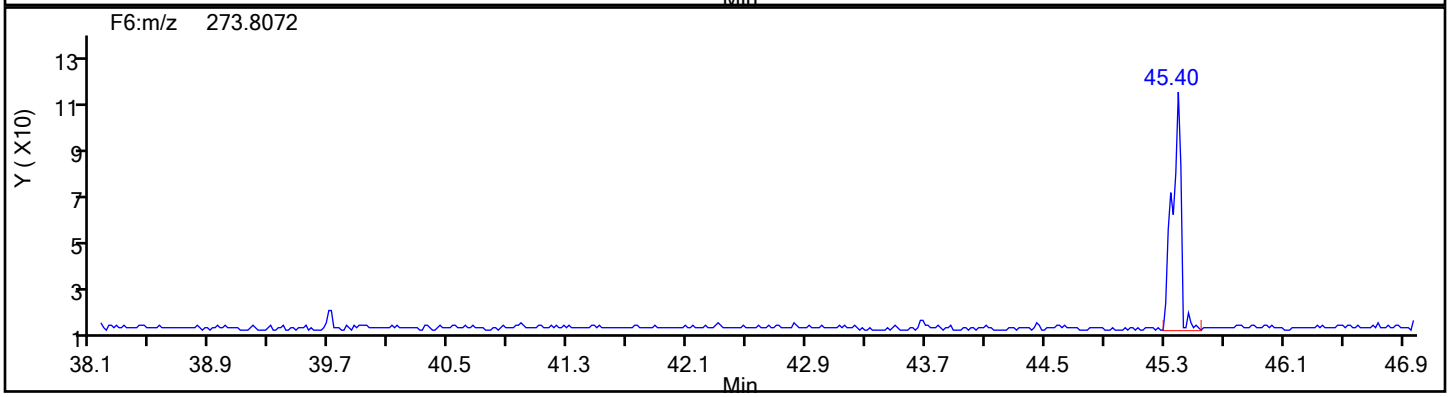
Mirex





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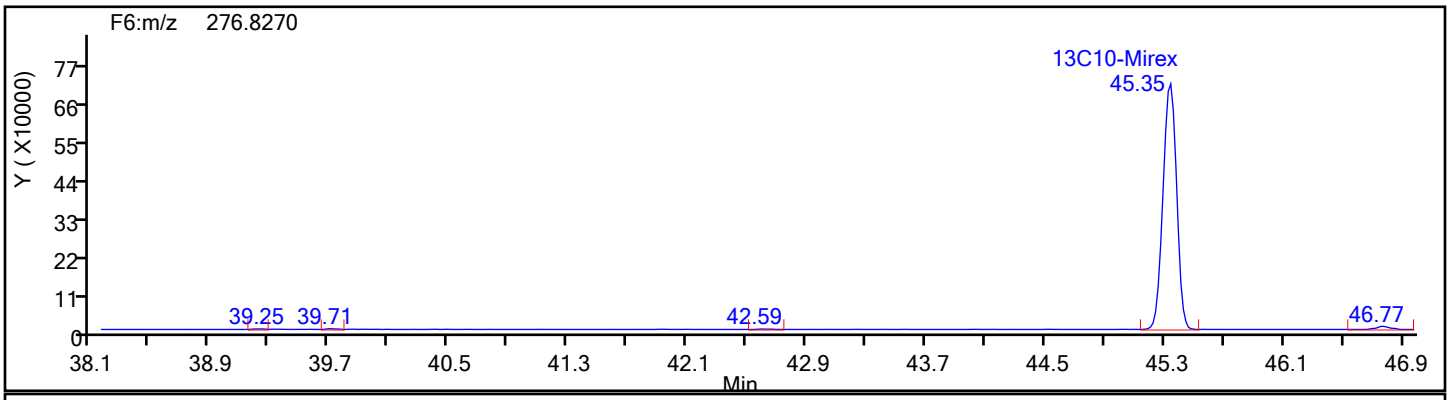

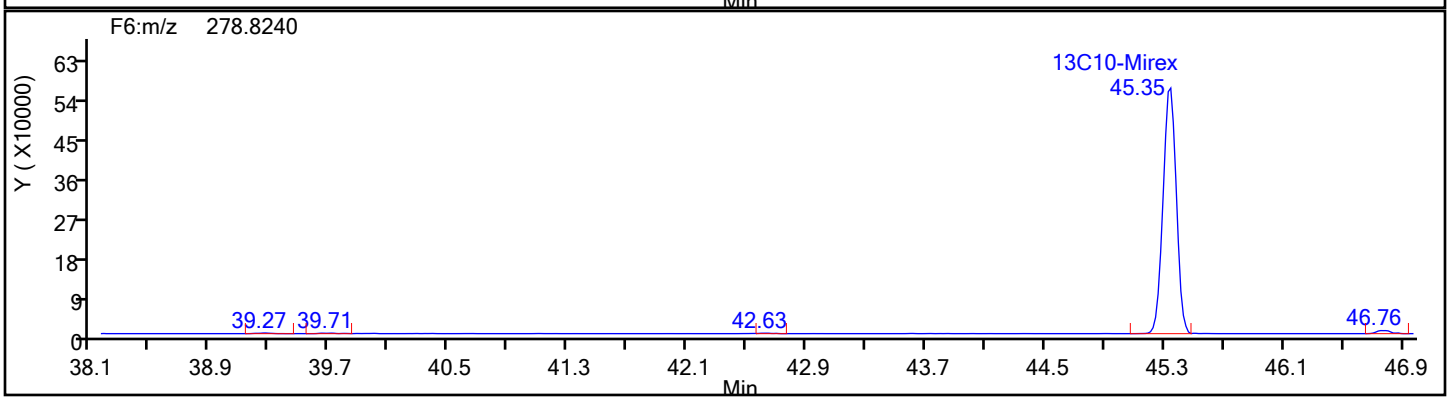

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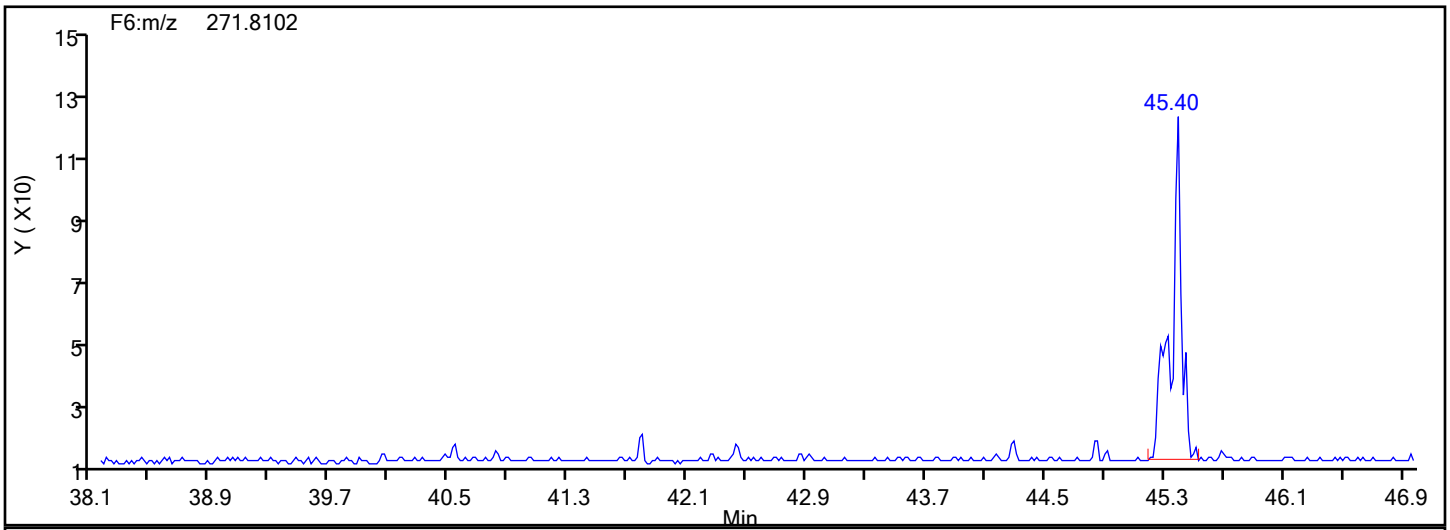
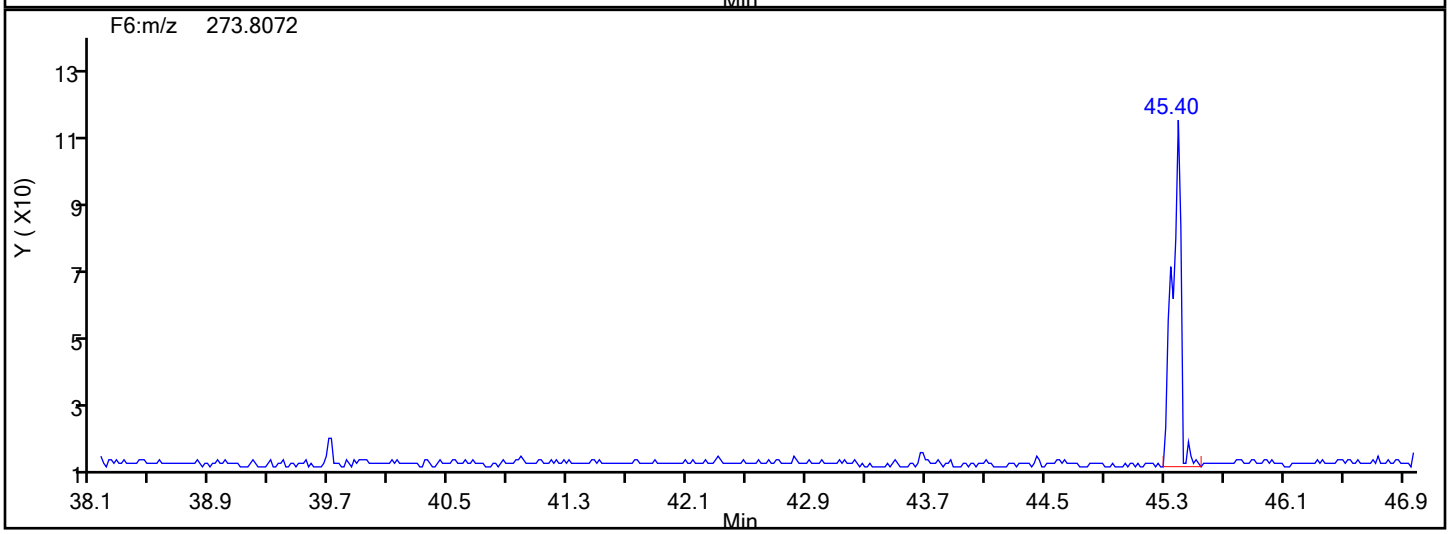
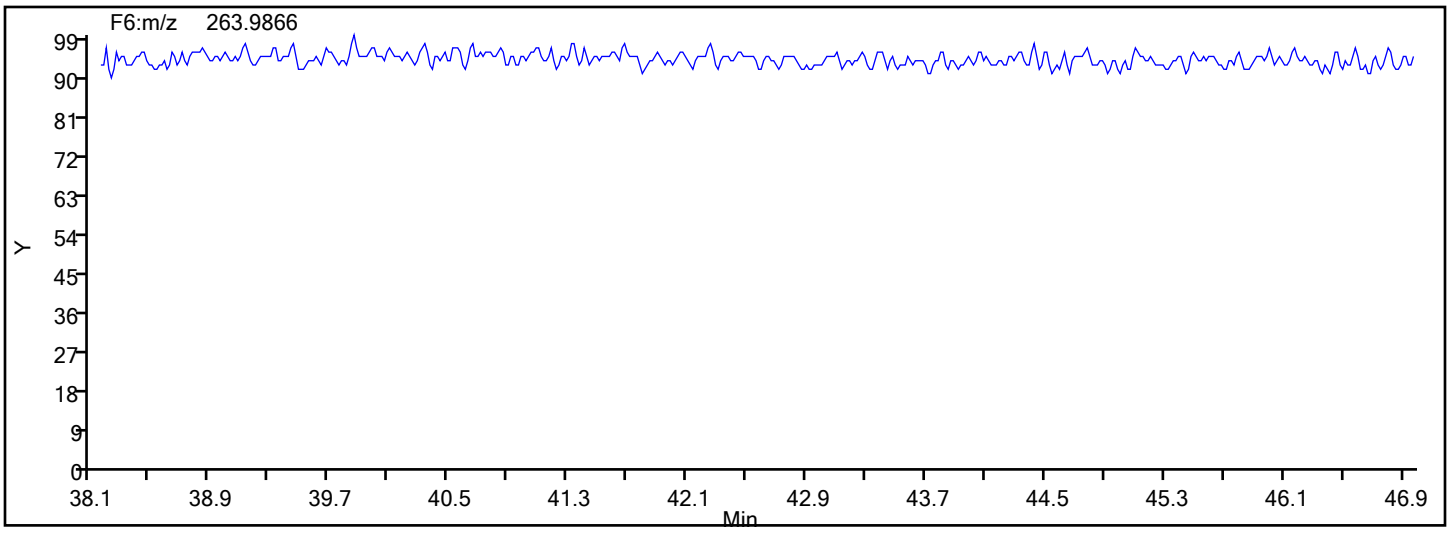
Column Type:	RTX-5	Column Dia:	0.32 mm

Mirex





Mirex Lock Mass



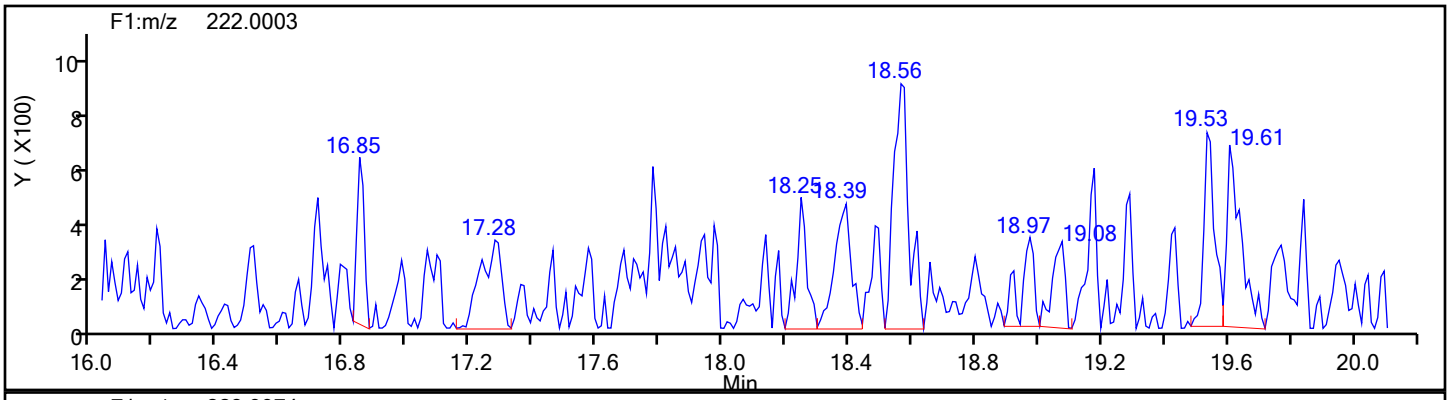
Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

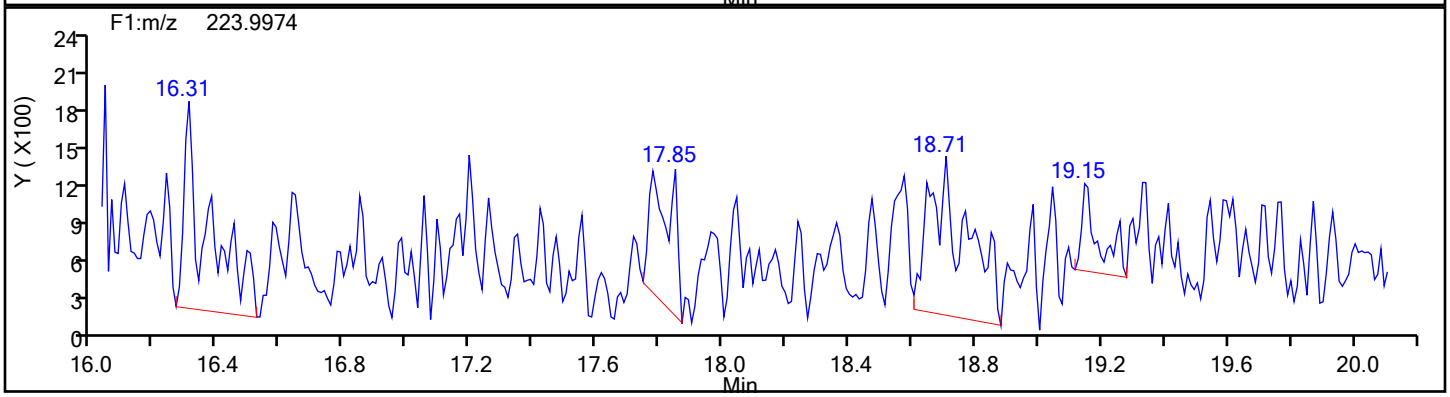
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

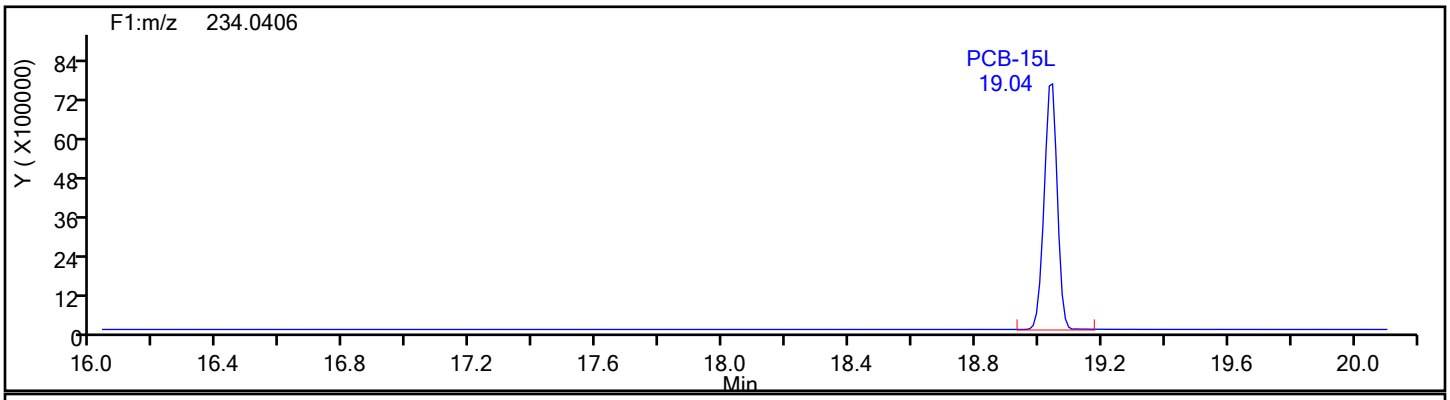
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

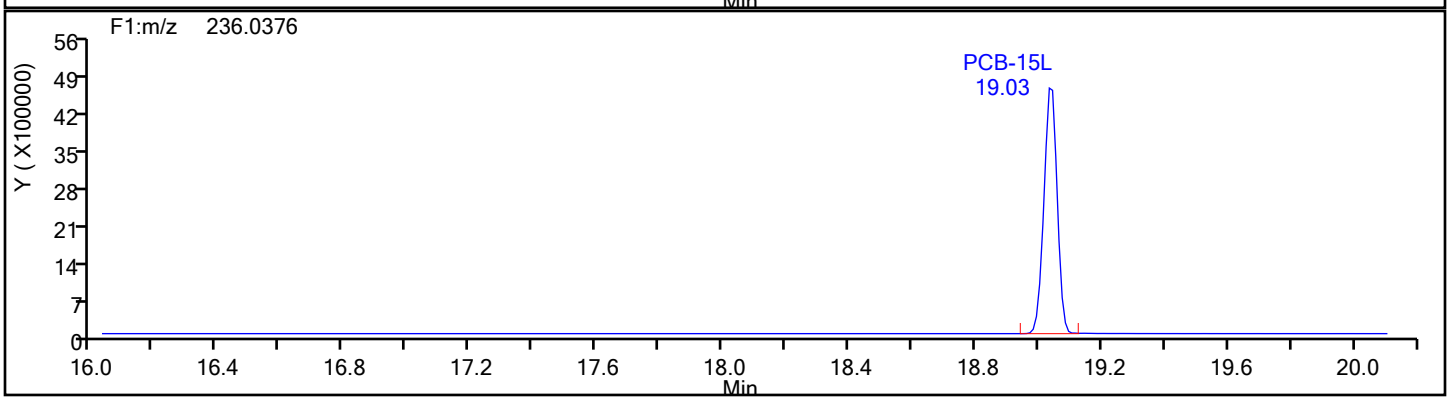
PCB-14





PCB-14 Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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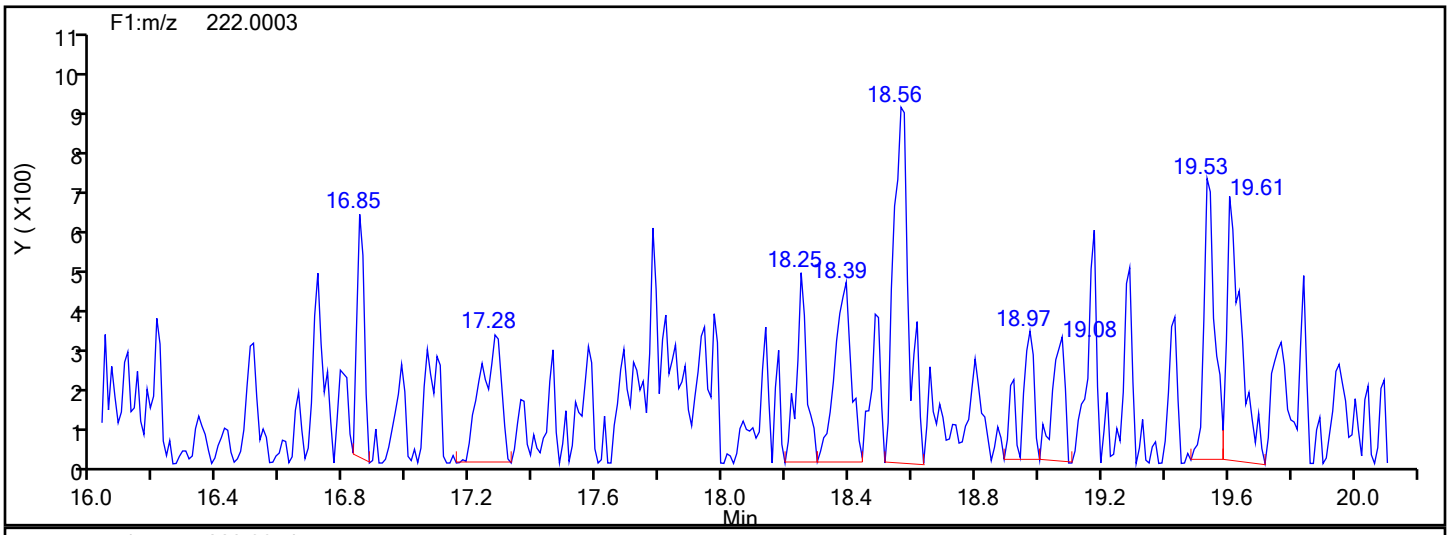
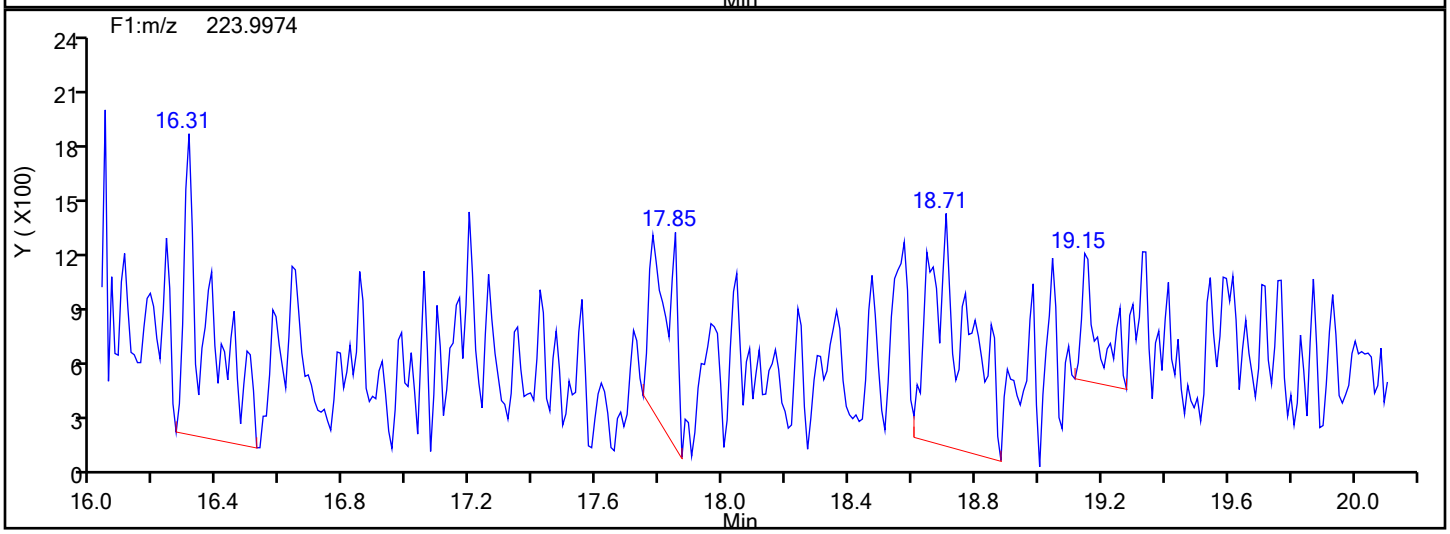
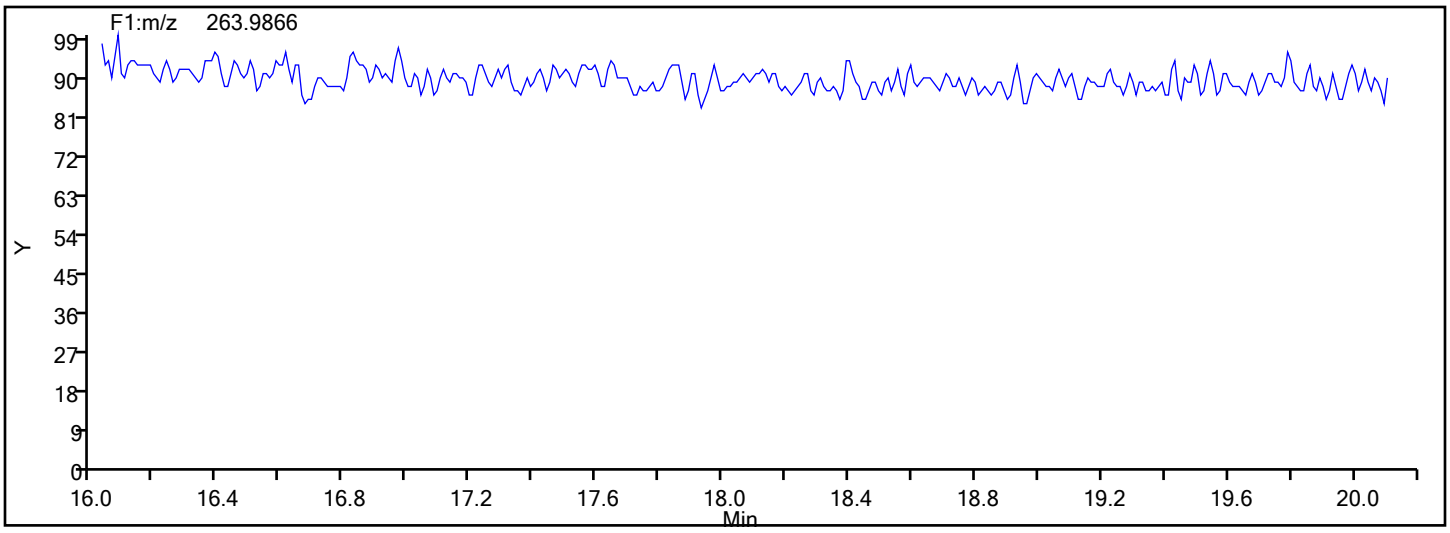
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-14





PCB-14 Lock Mass



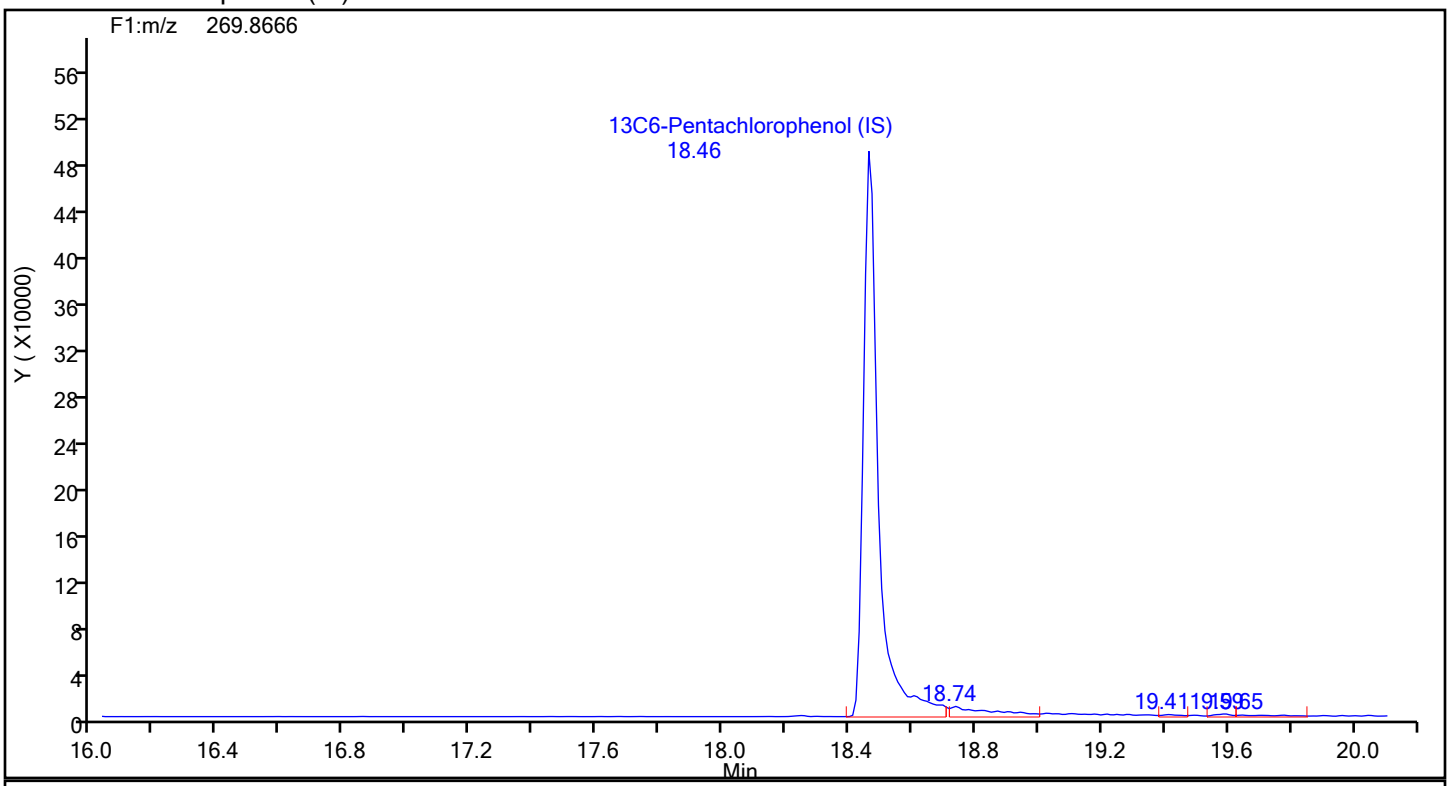
Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

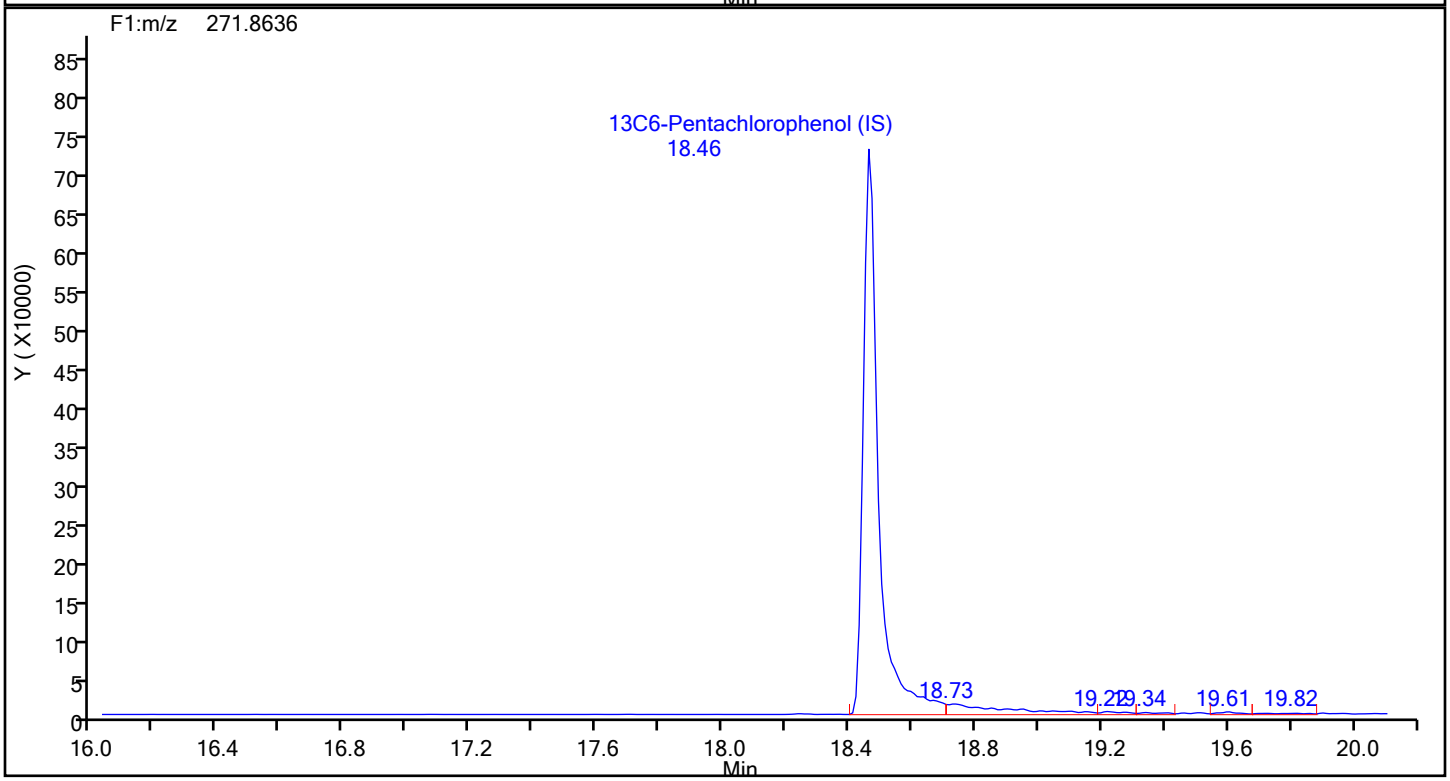
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

13C6-Pentachlorophenol (IS) Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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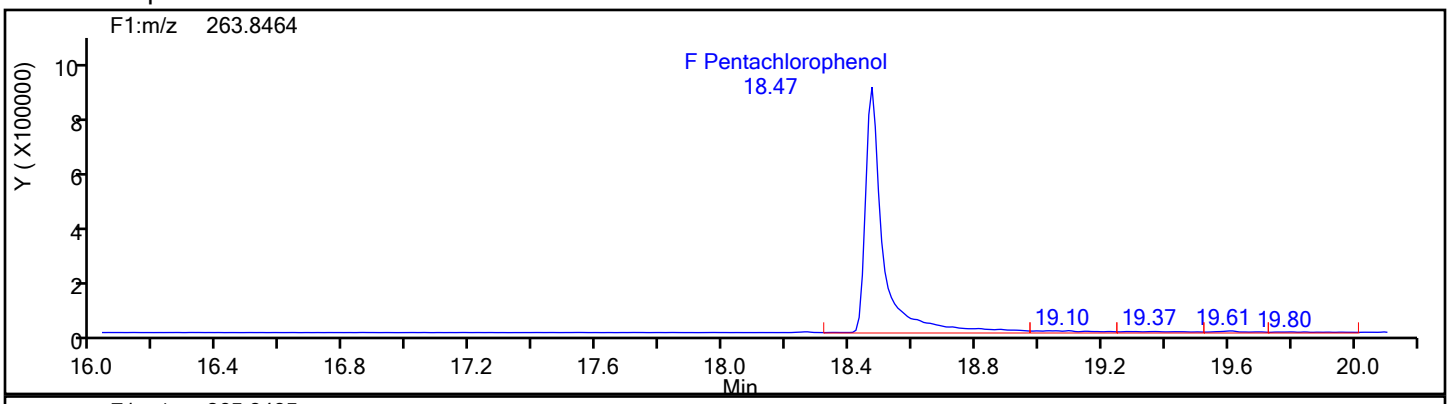
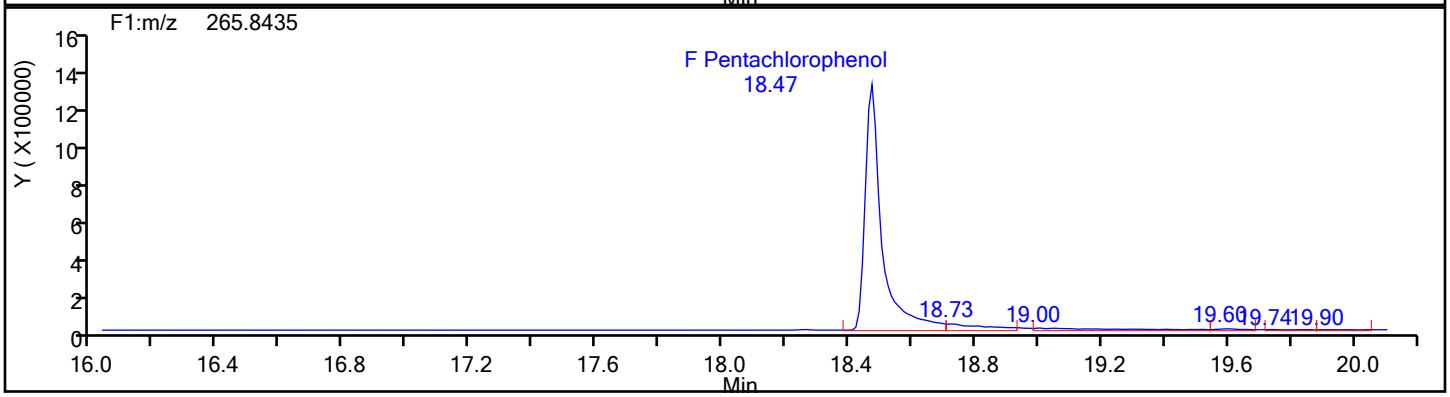
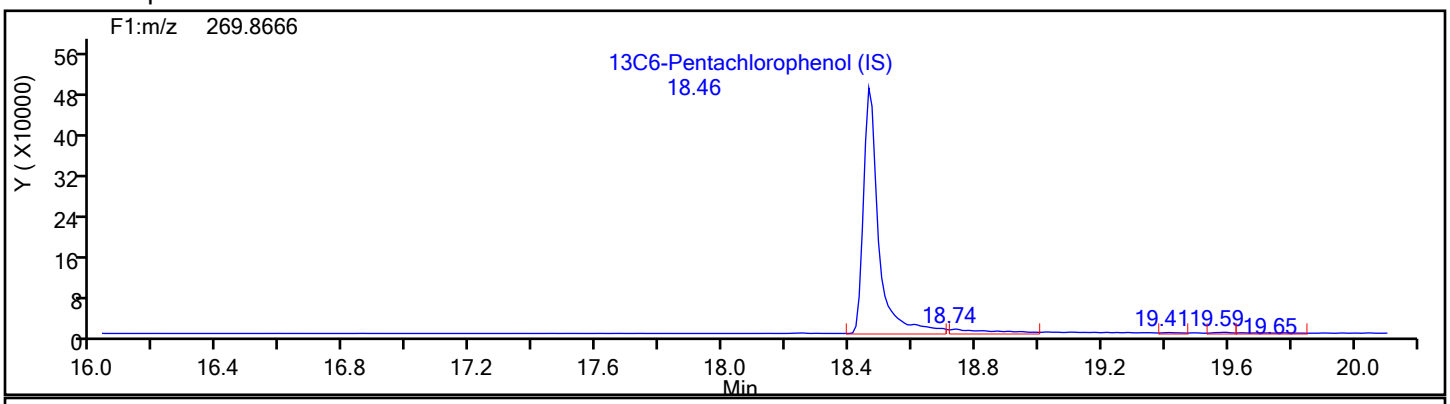
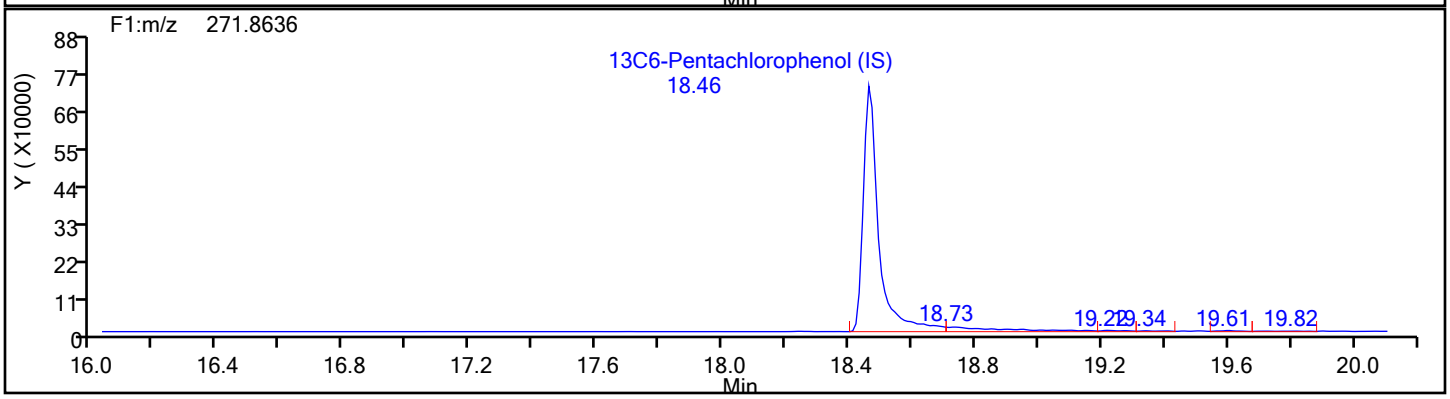
Pentachlorophenol





Pentachlorophenol Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d
Injection Date: 05-May-2025 15:43:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
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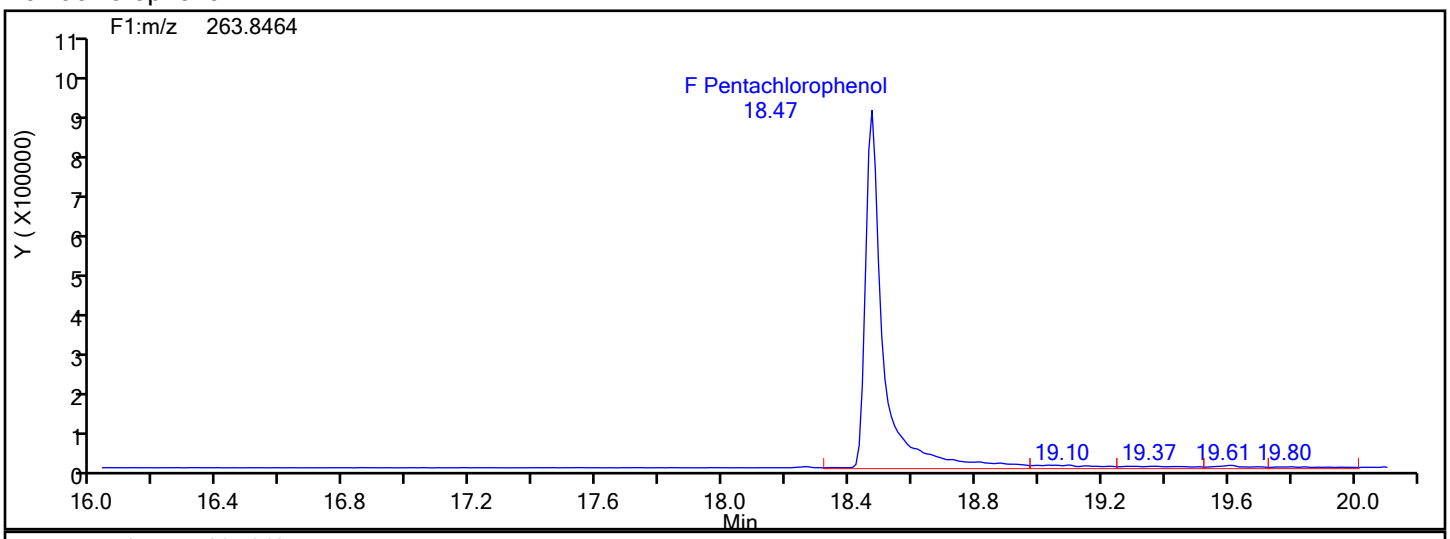
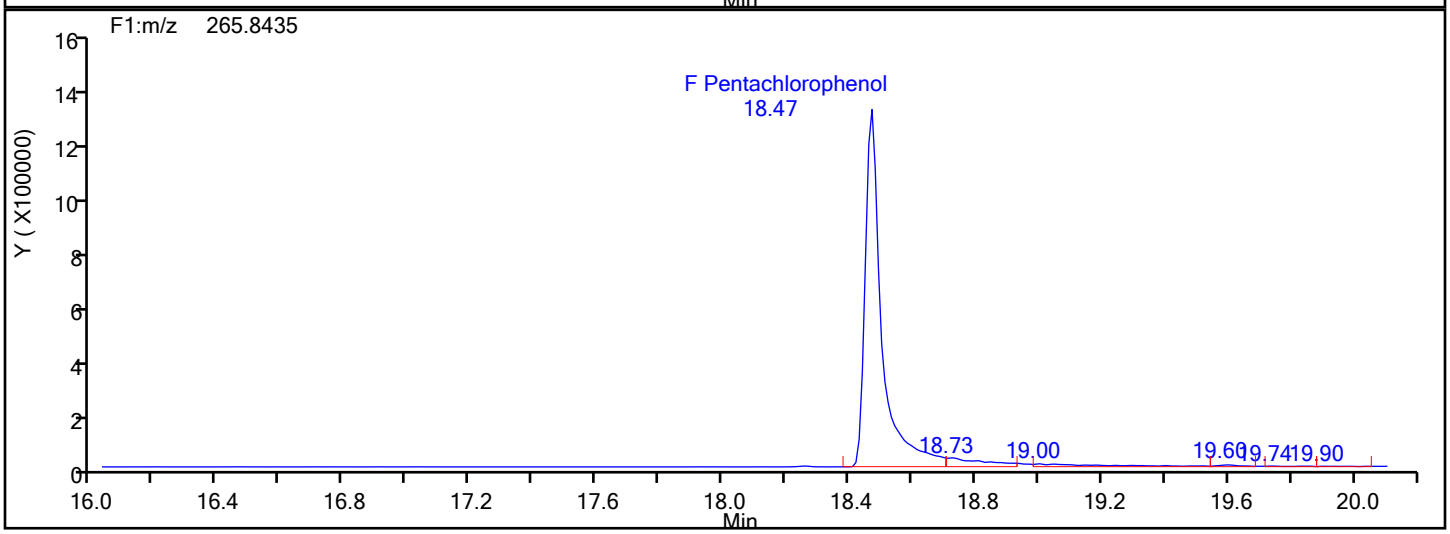
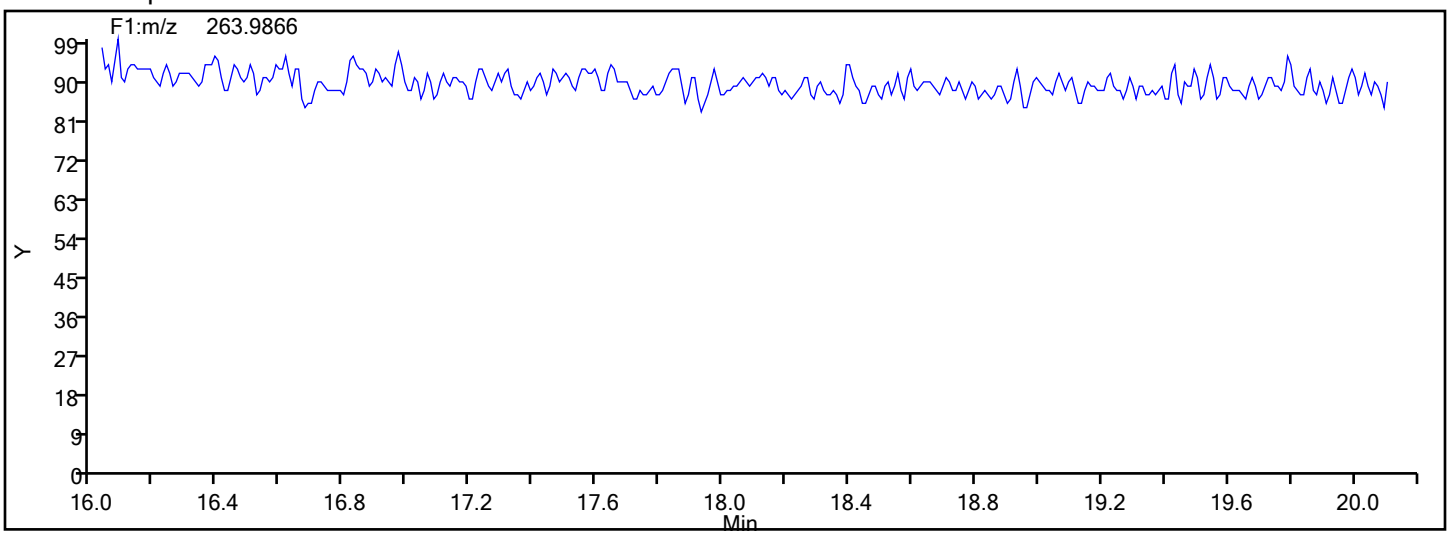
Client ID:
Worklist#: 99273 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



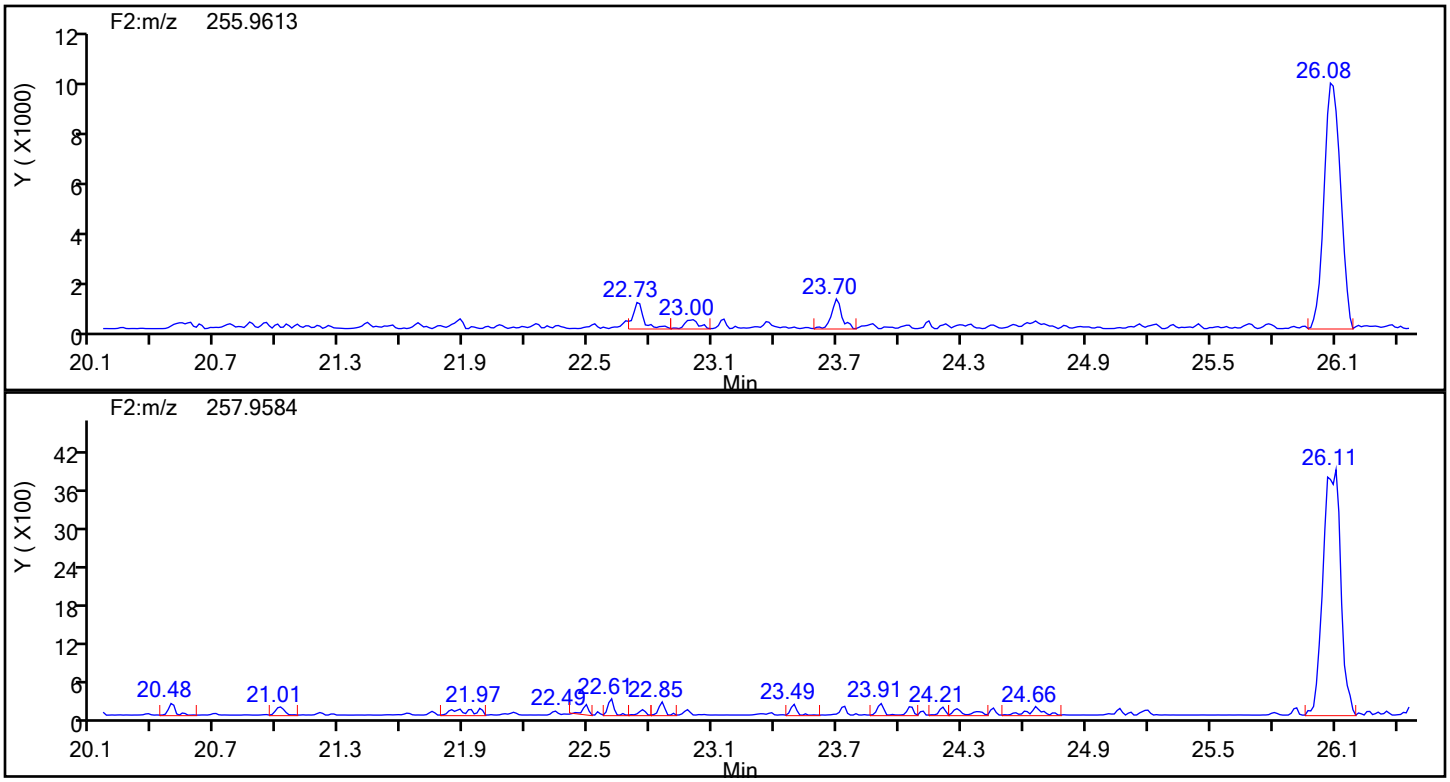
Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

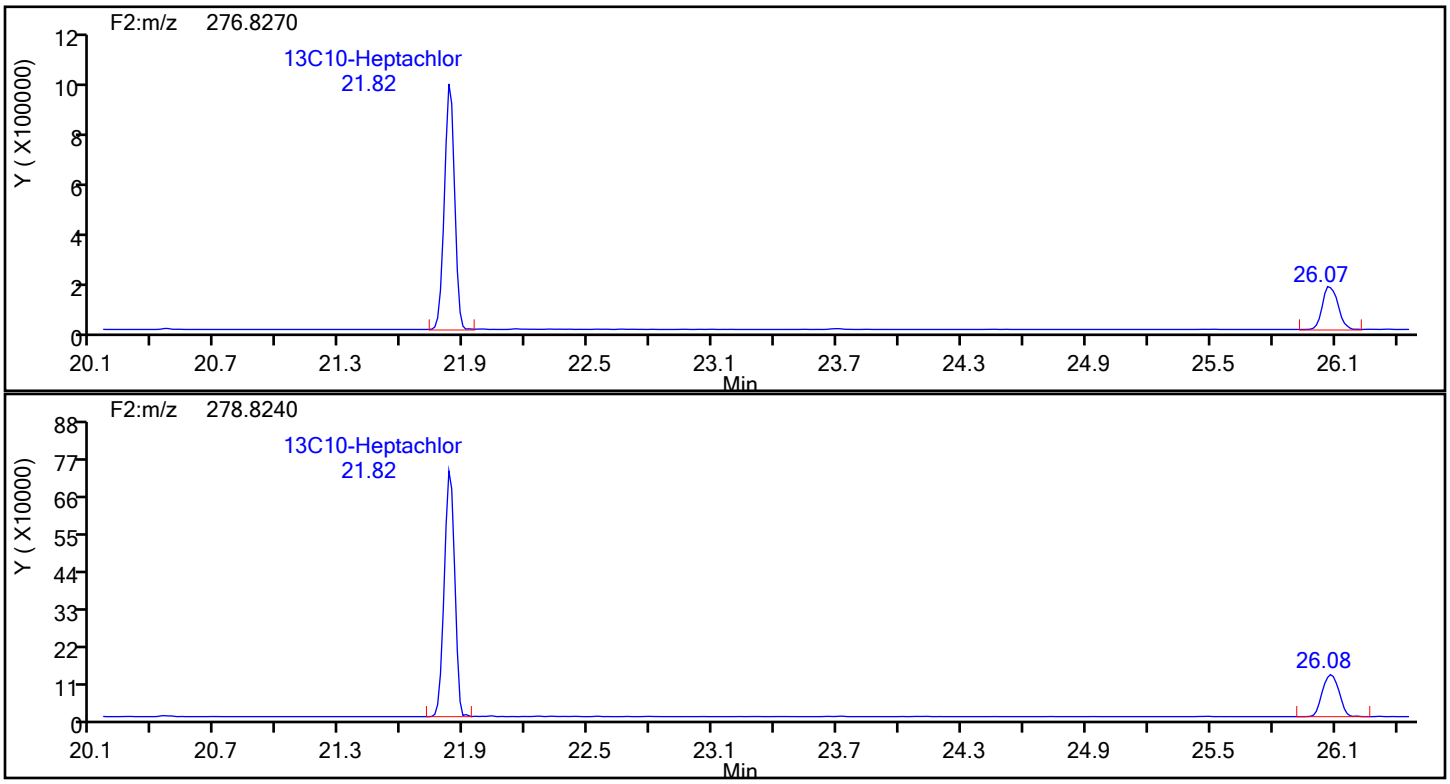
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36



PCB-36 Standards

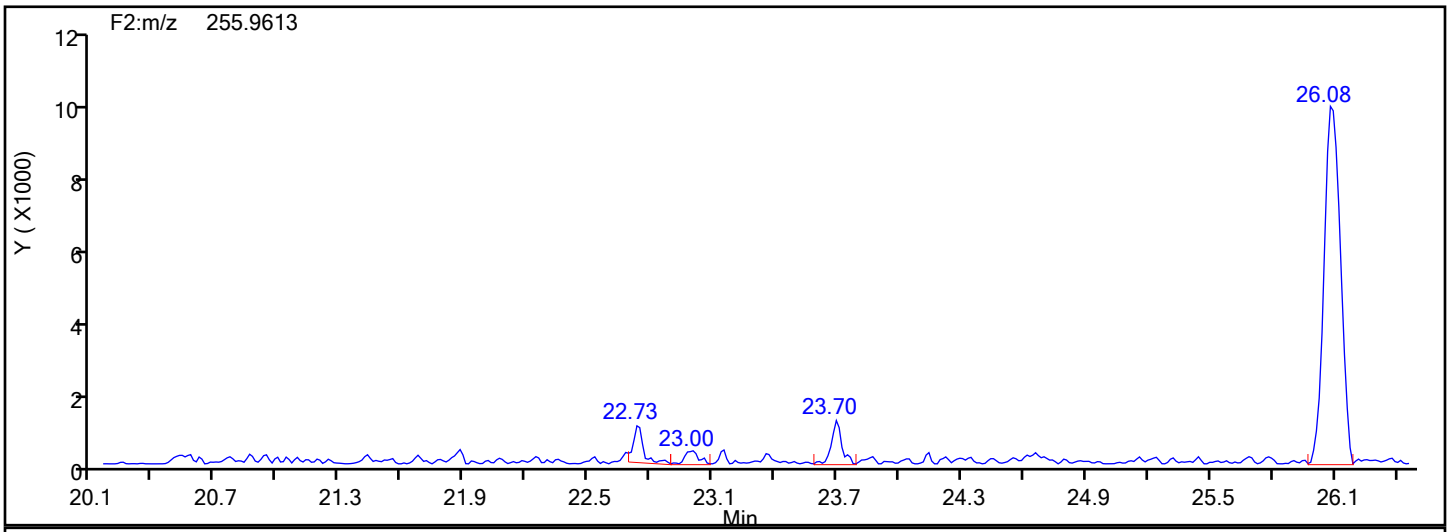


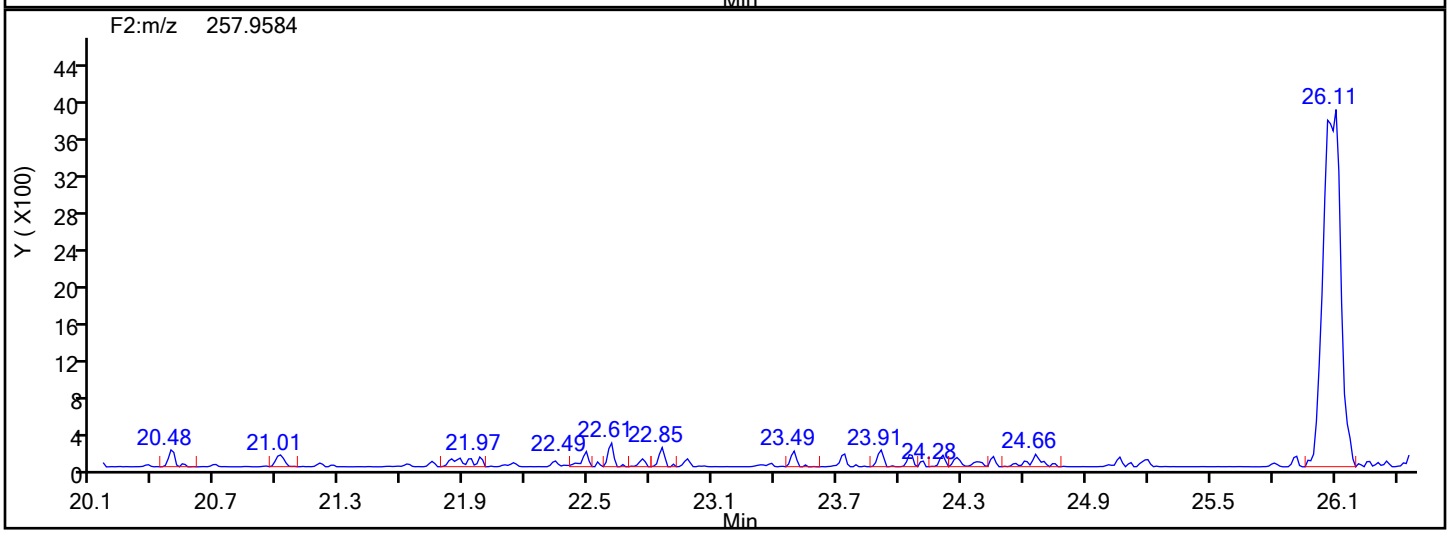
Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

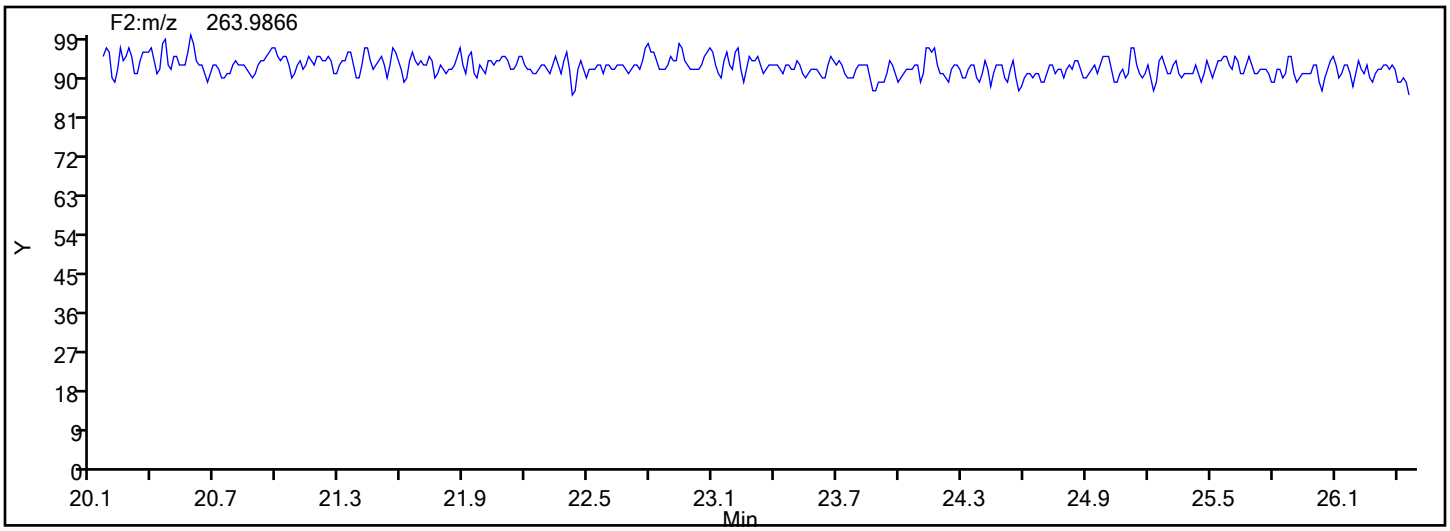
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d		
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
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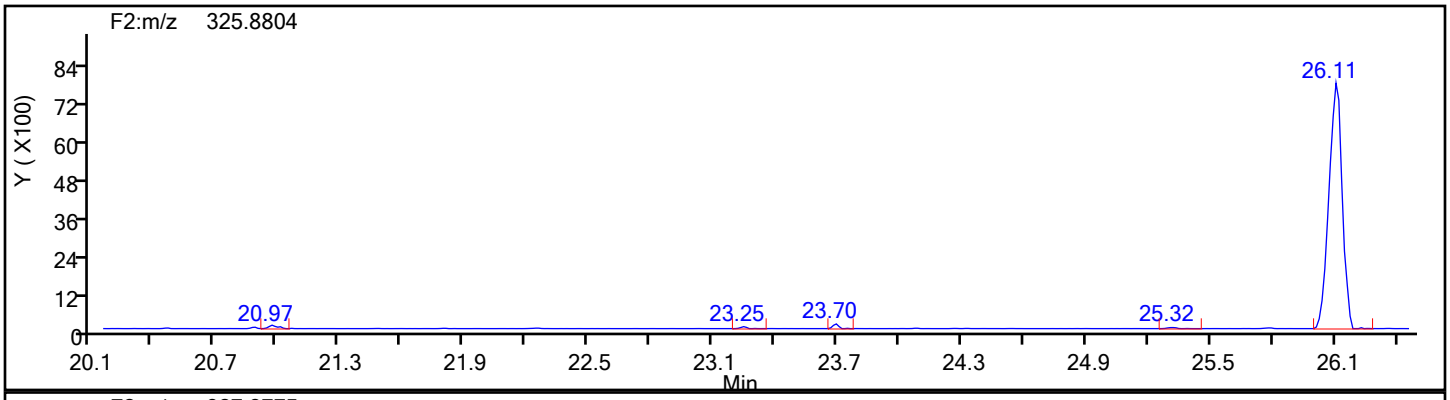
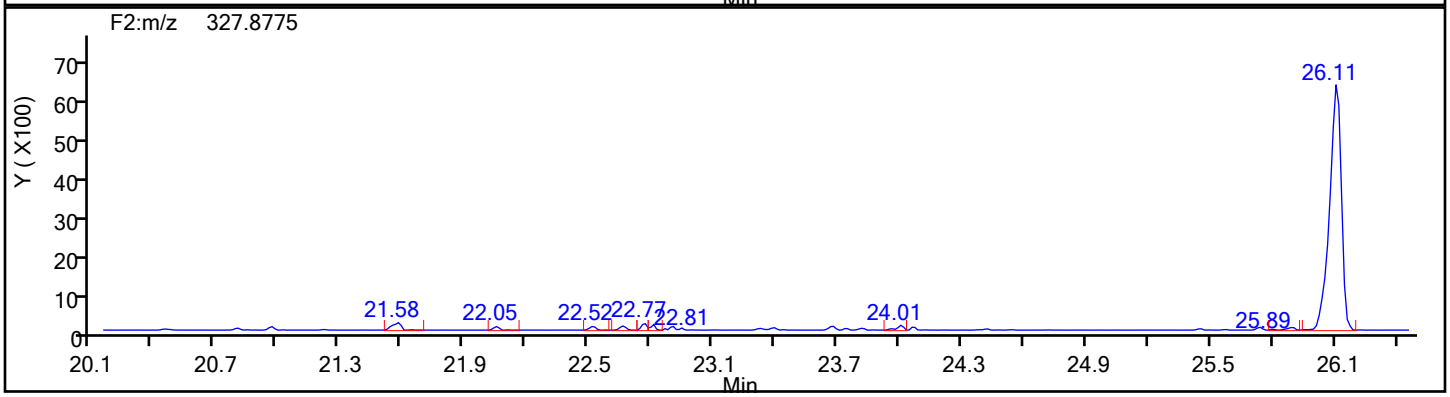
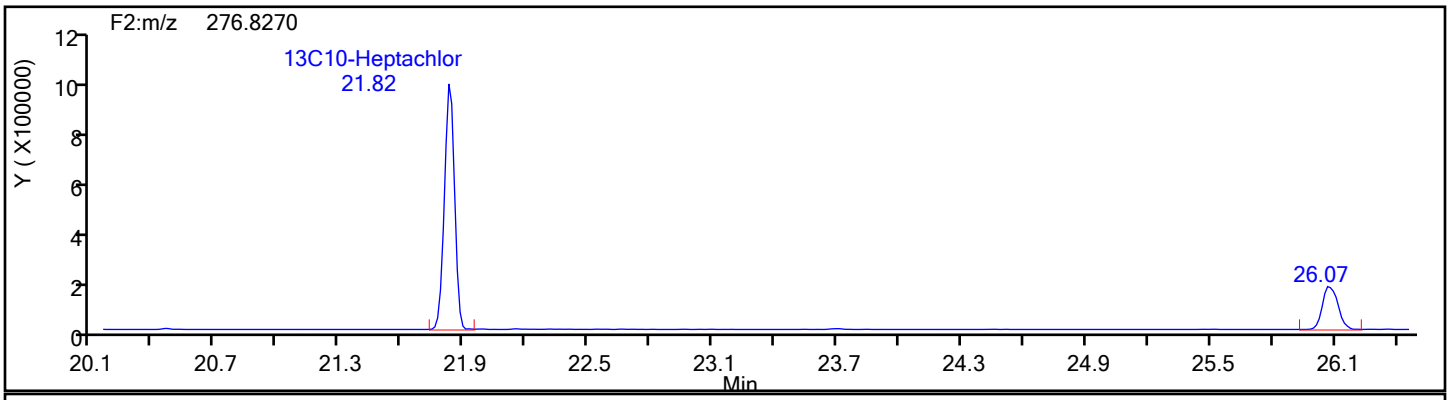
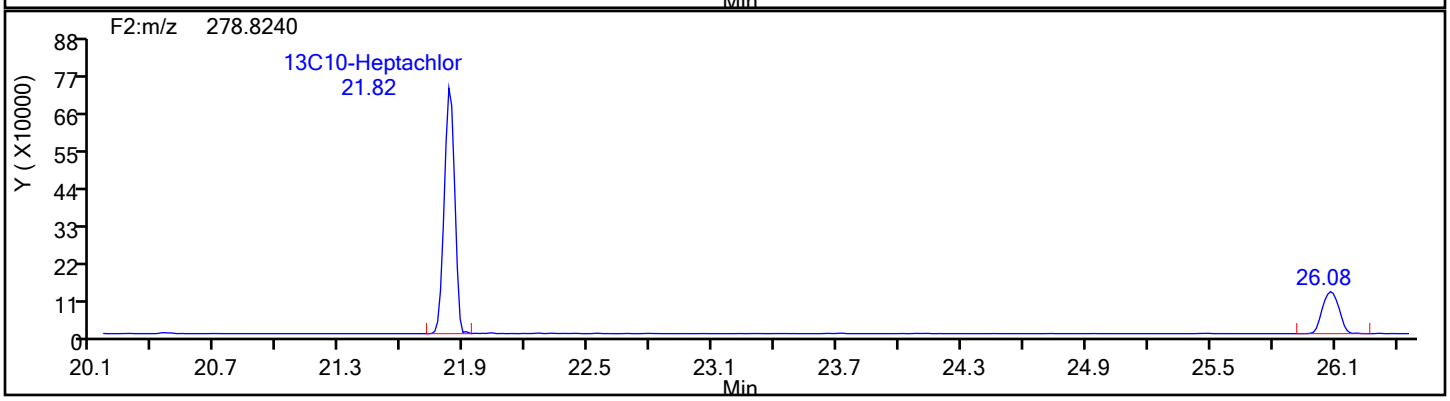
PCB-104





PCB-104 Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d		
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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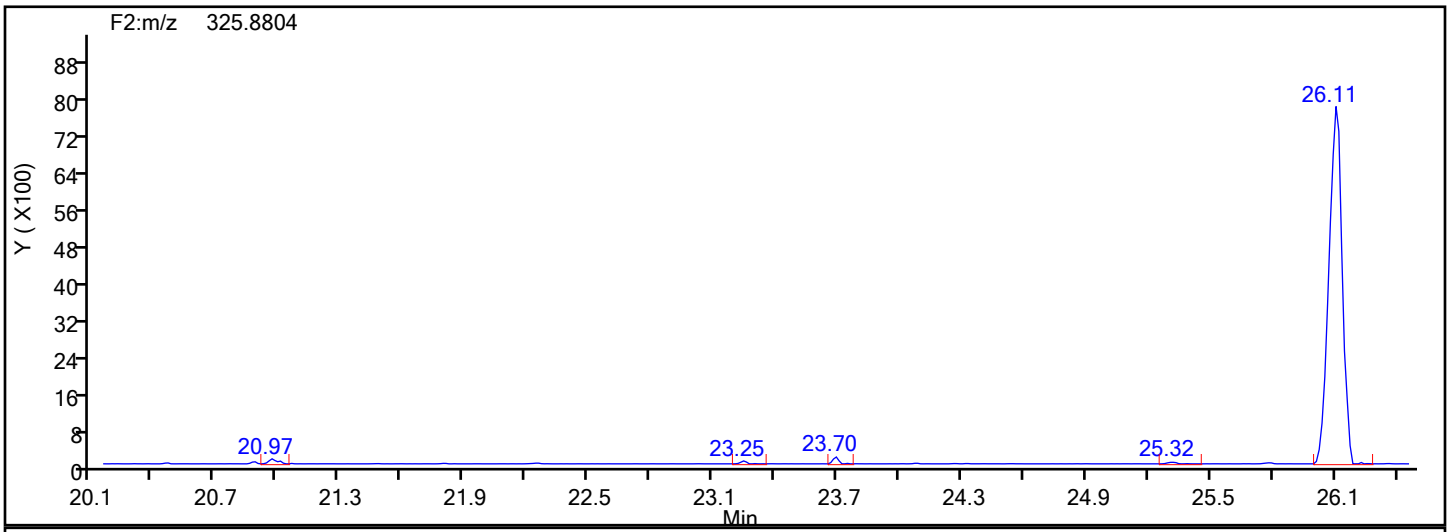
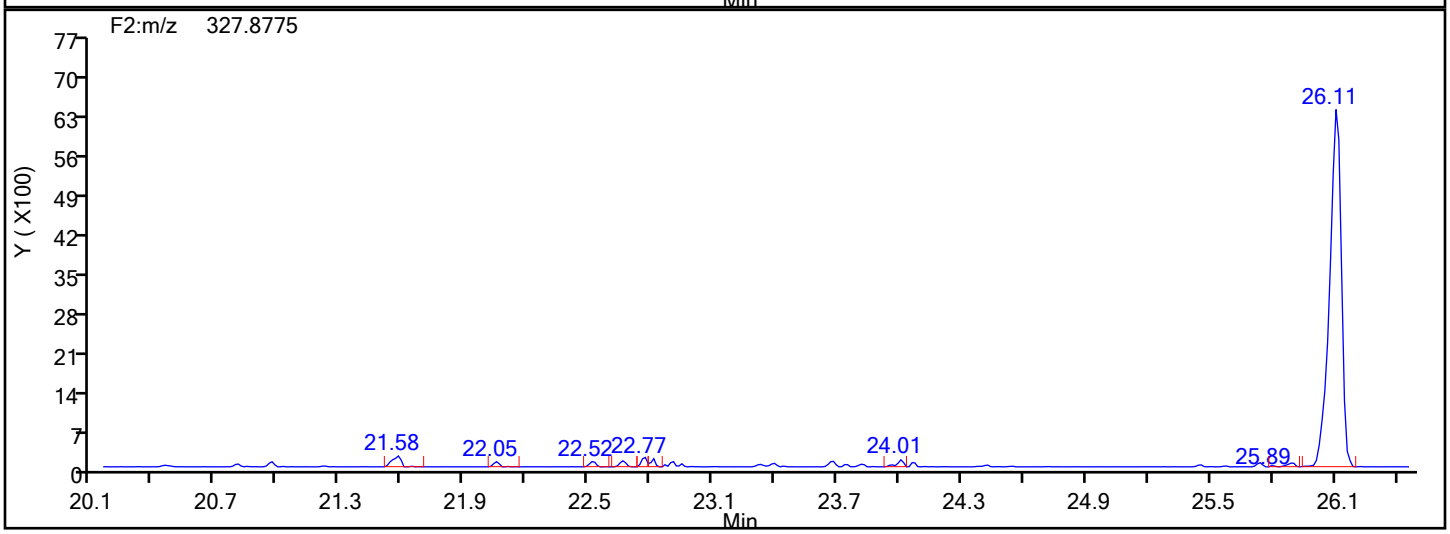
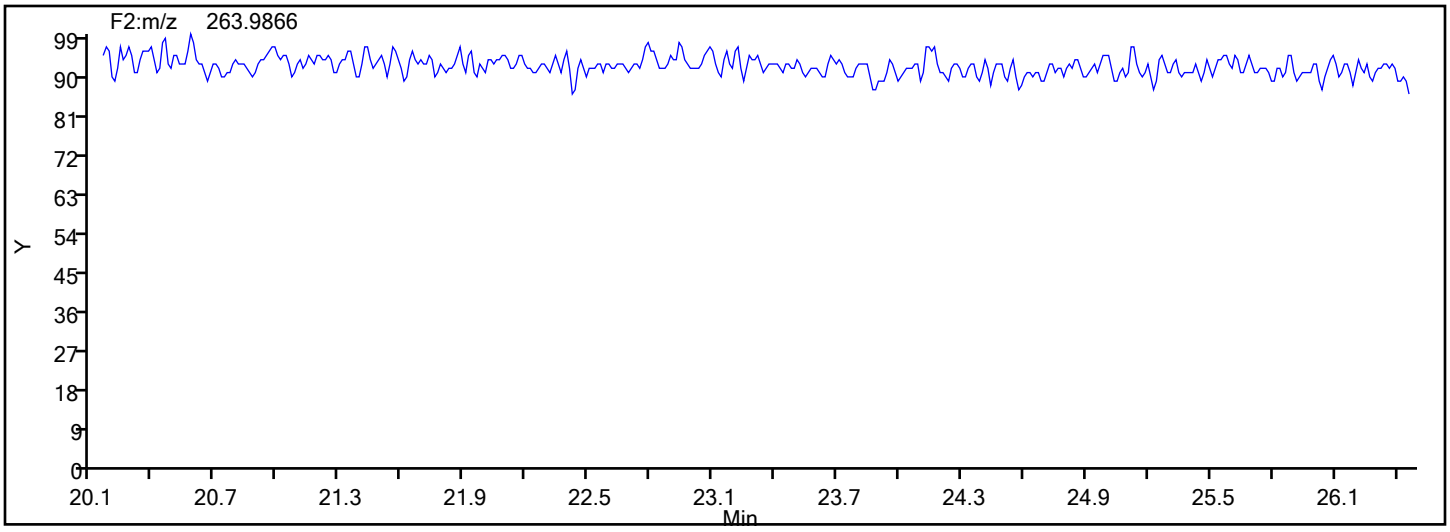
PCB-104





PCB-104 Lock Mass



Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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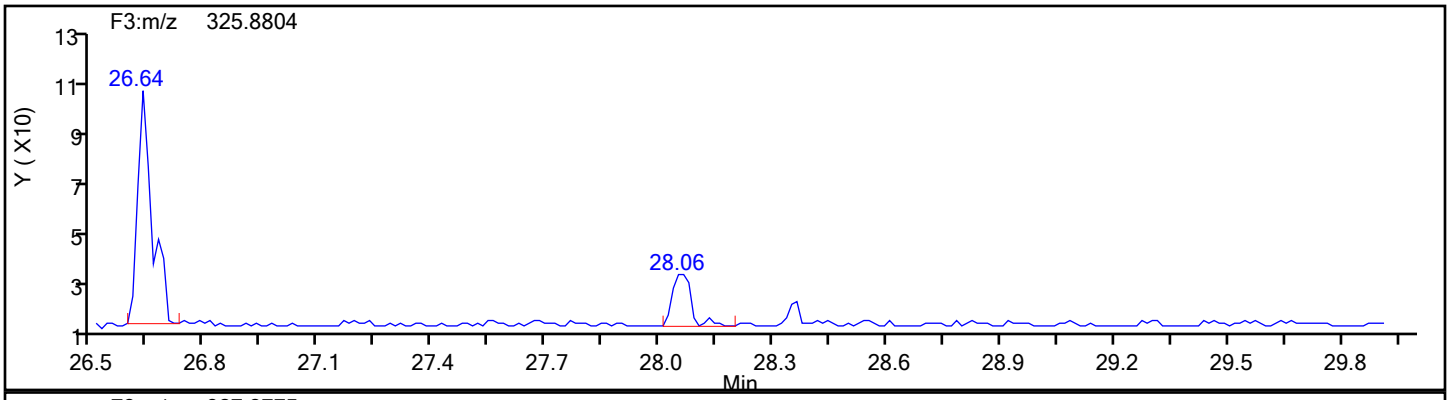
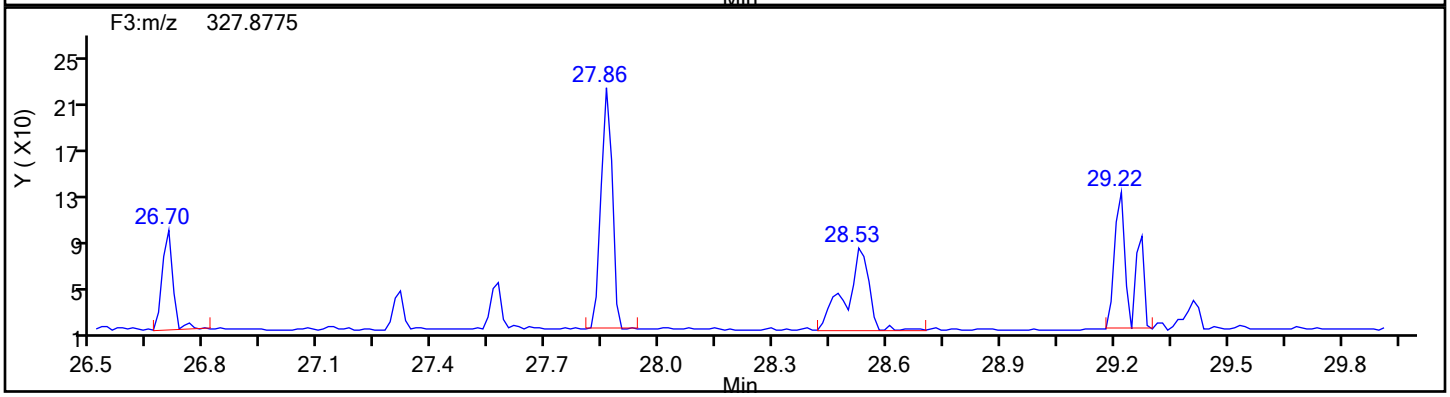
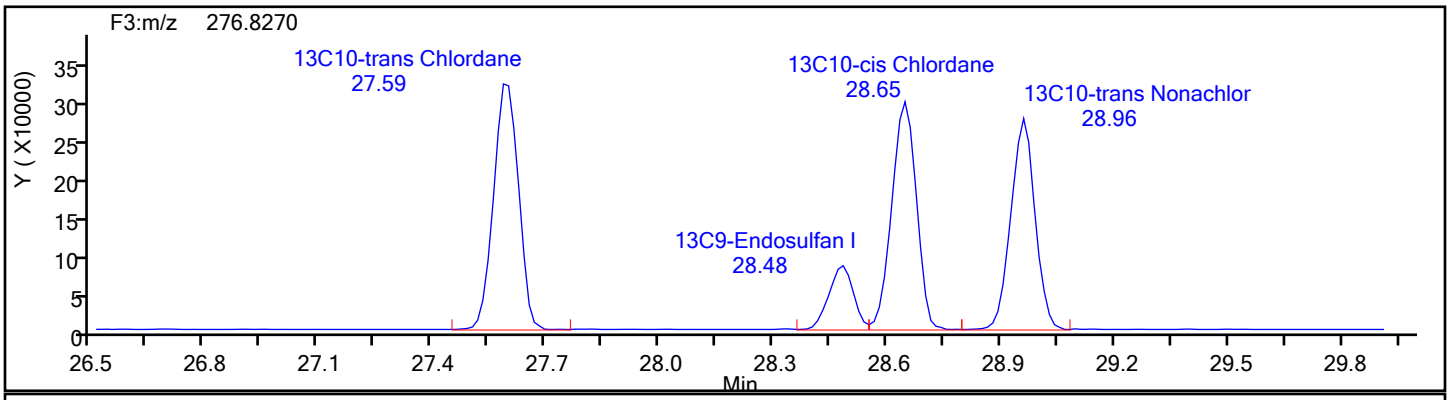
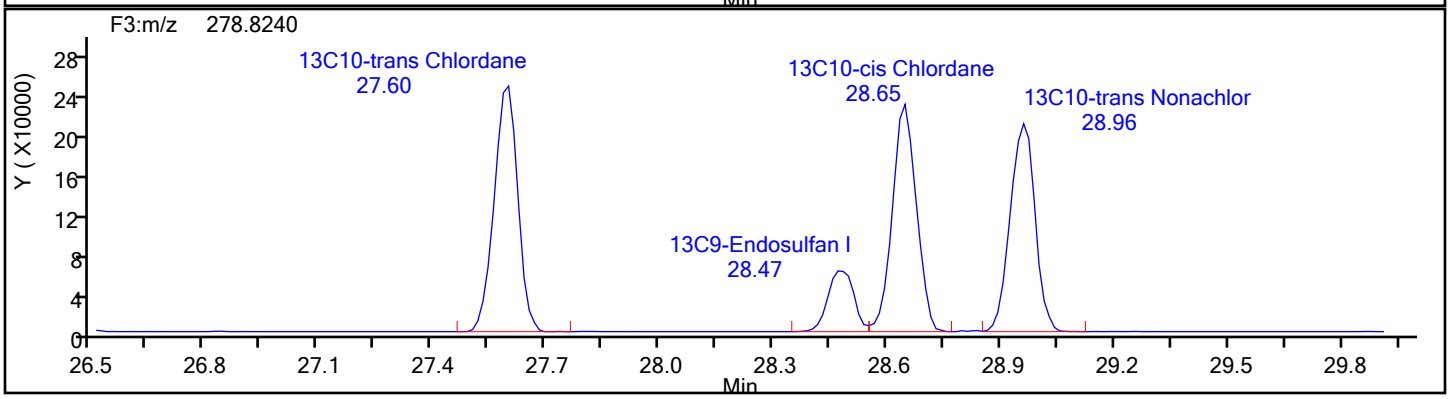
PCB-121





PCB-121 Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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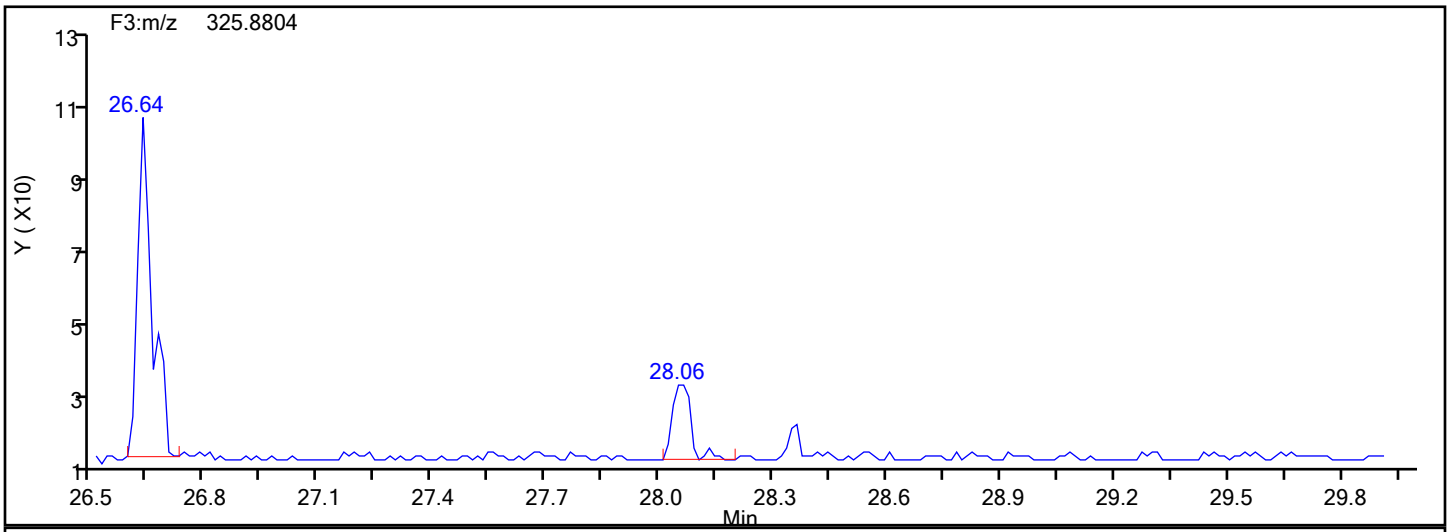
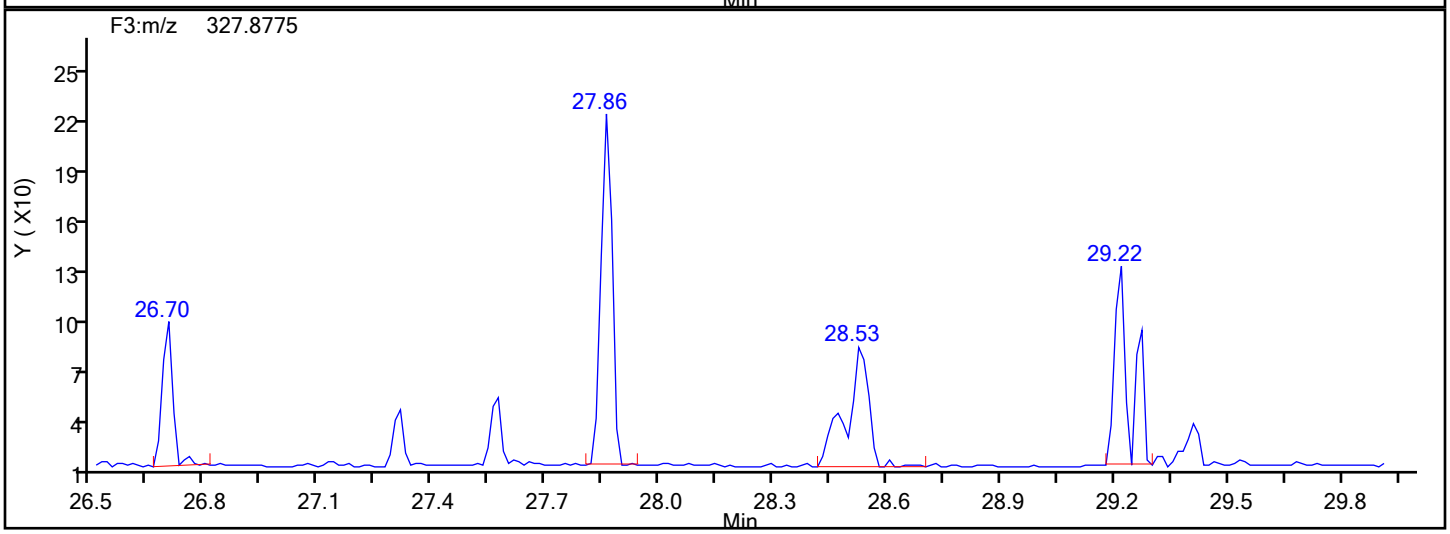
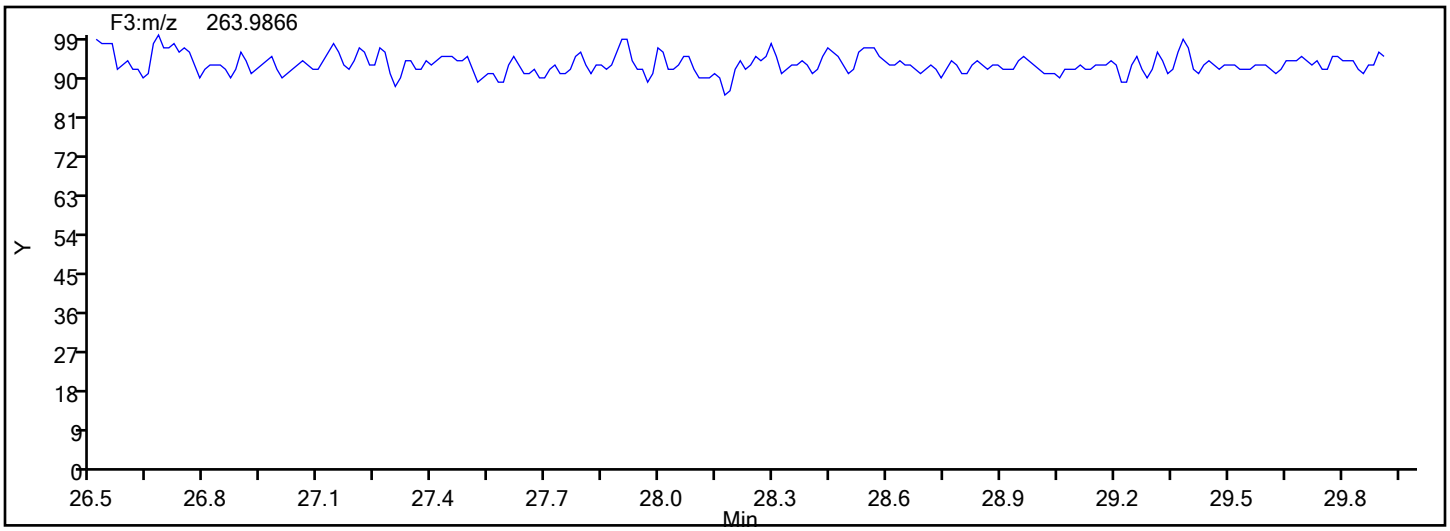
PCB-121





PCB-121 Lock Mass



Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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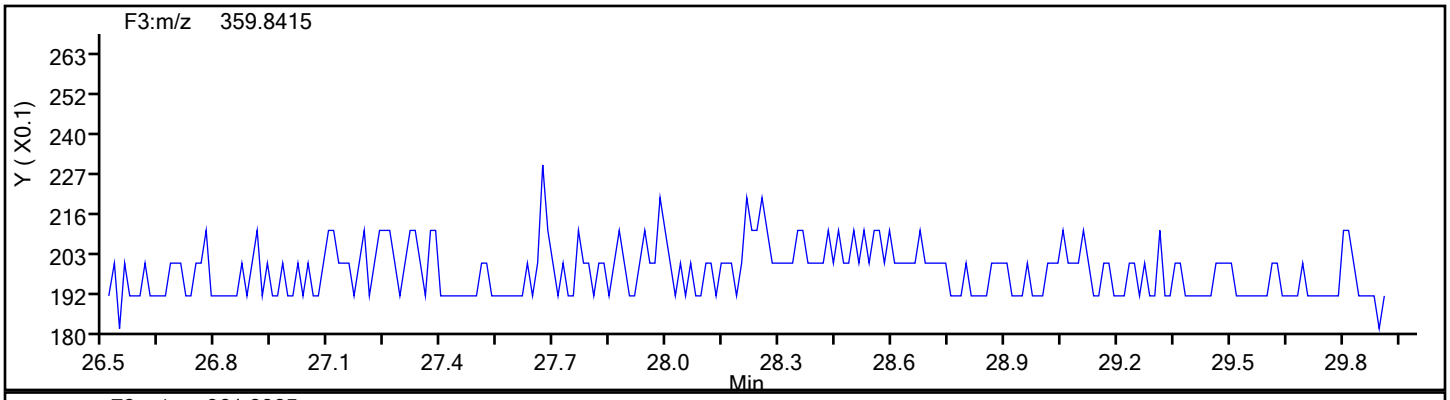
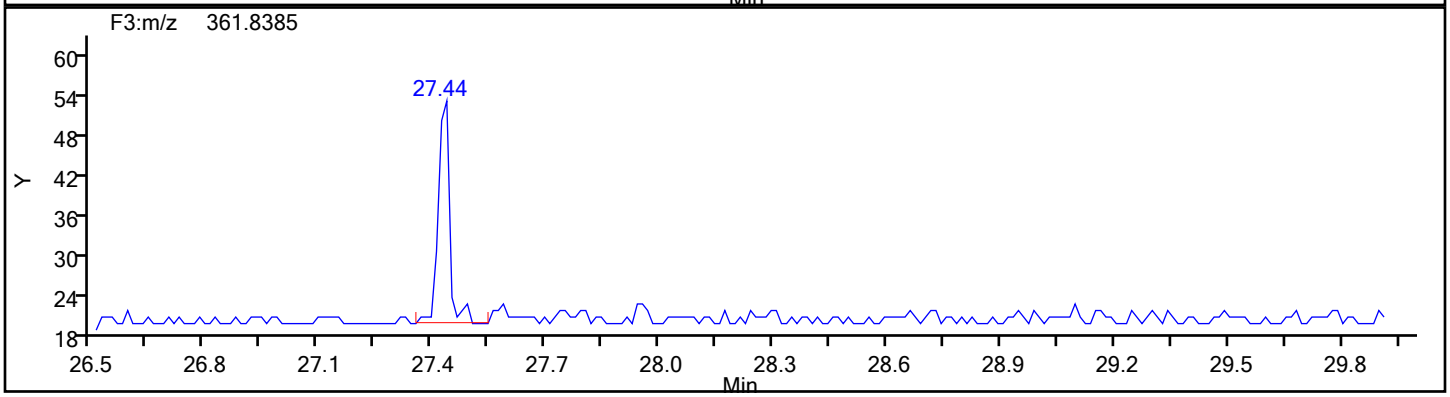
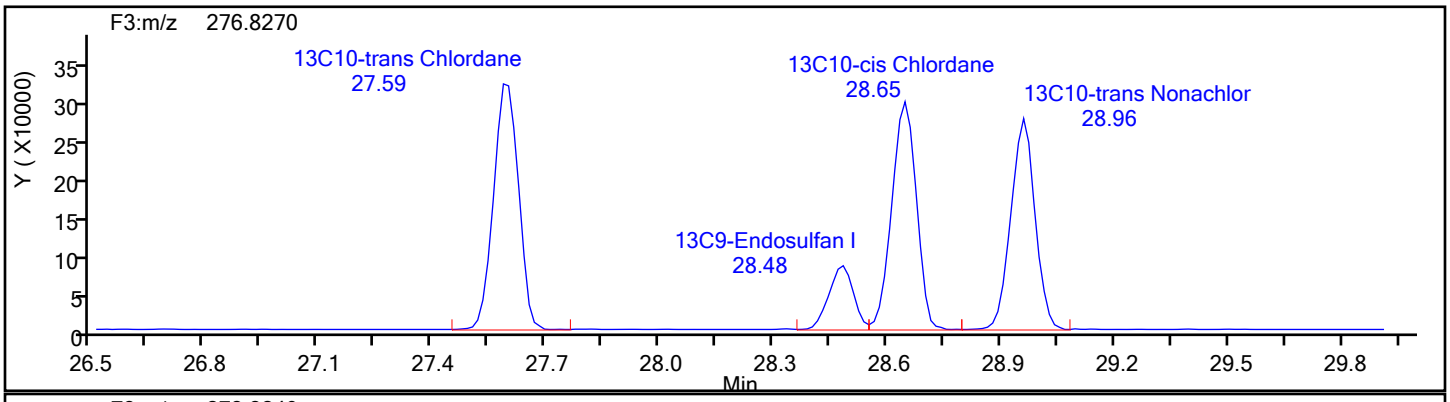
Column Type:	RTX-5	Column Dia:	0.32 mm

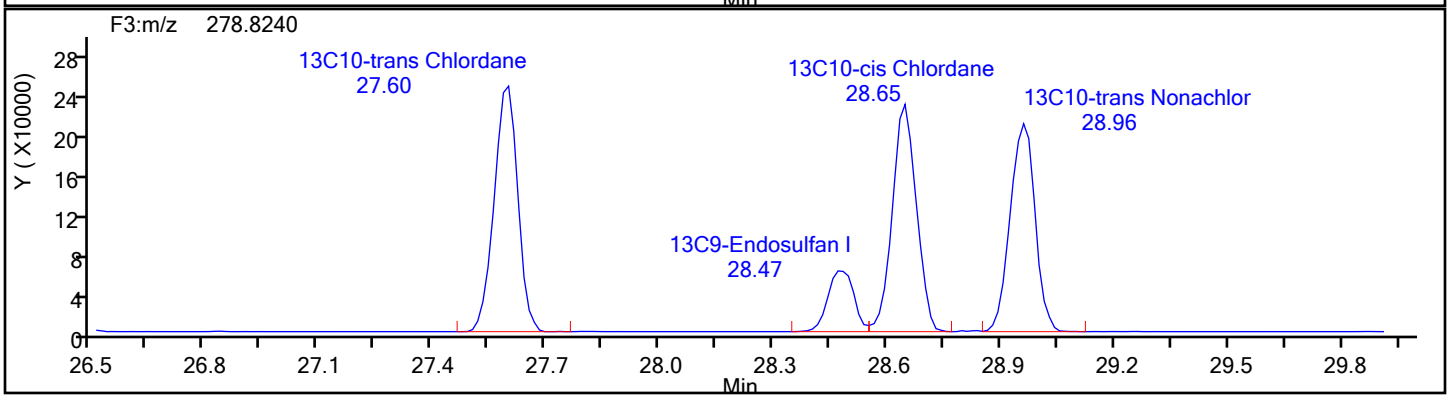
PCB-142





PCB-142 Standards





Report Date: 06-May-2025 14:53:41 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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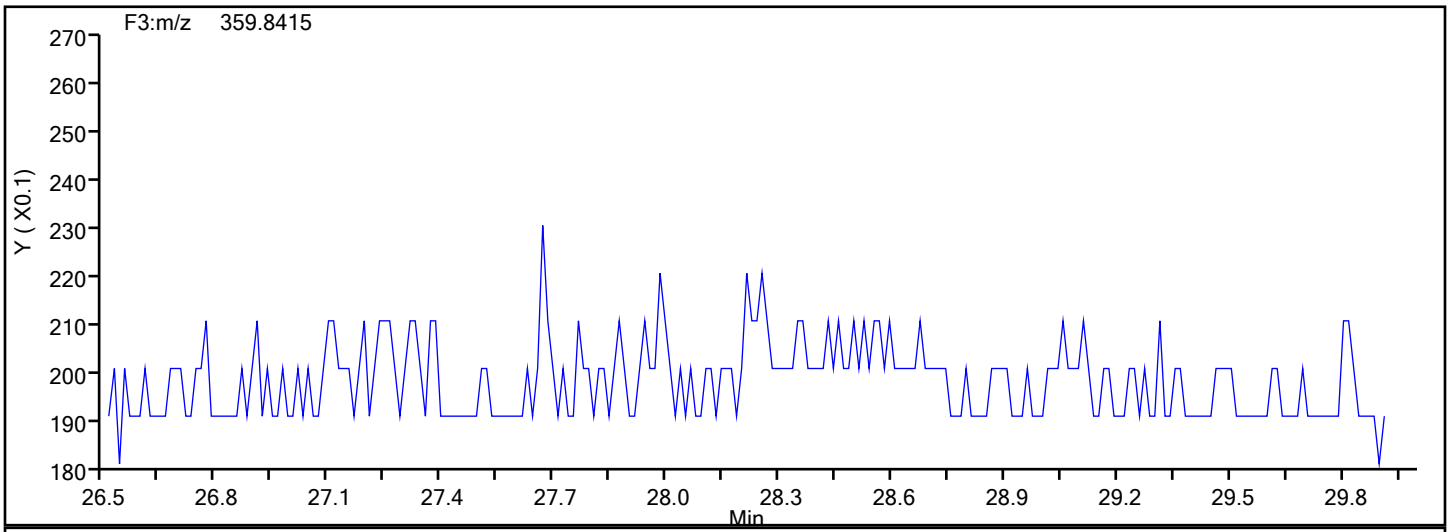
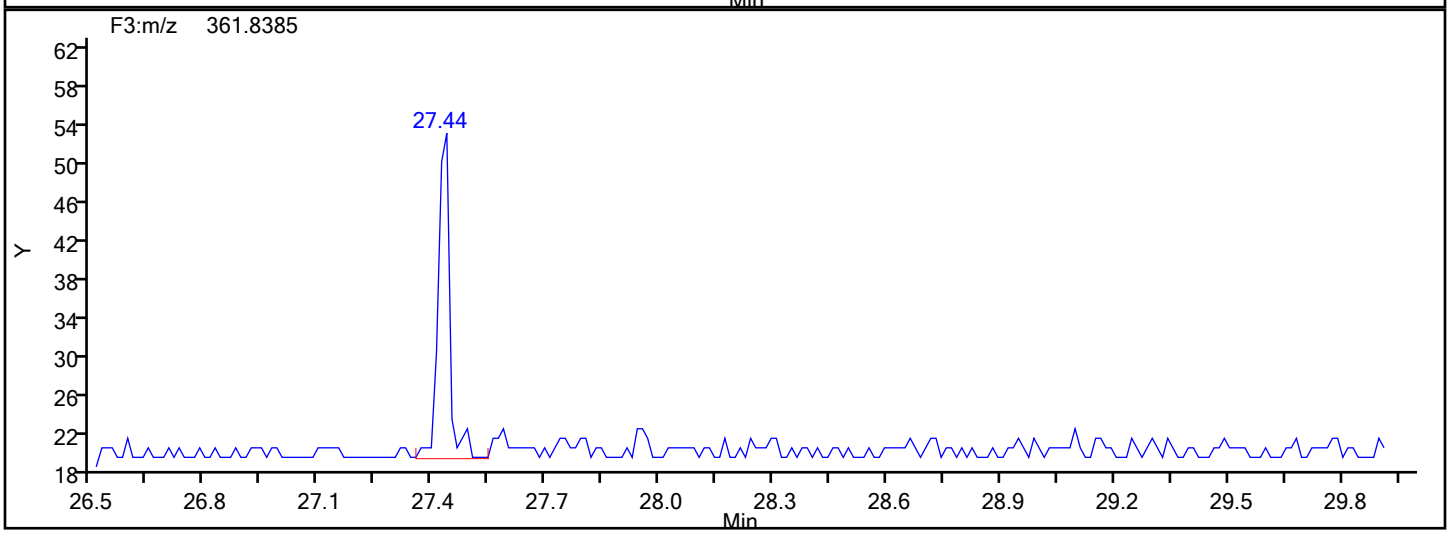
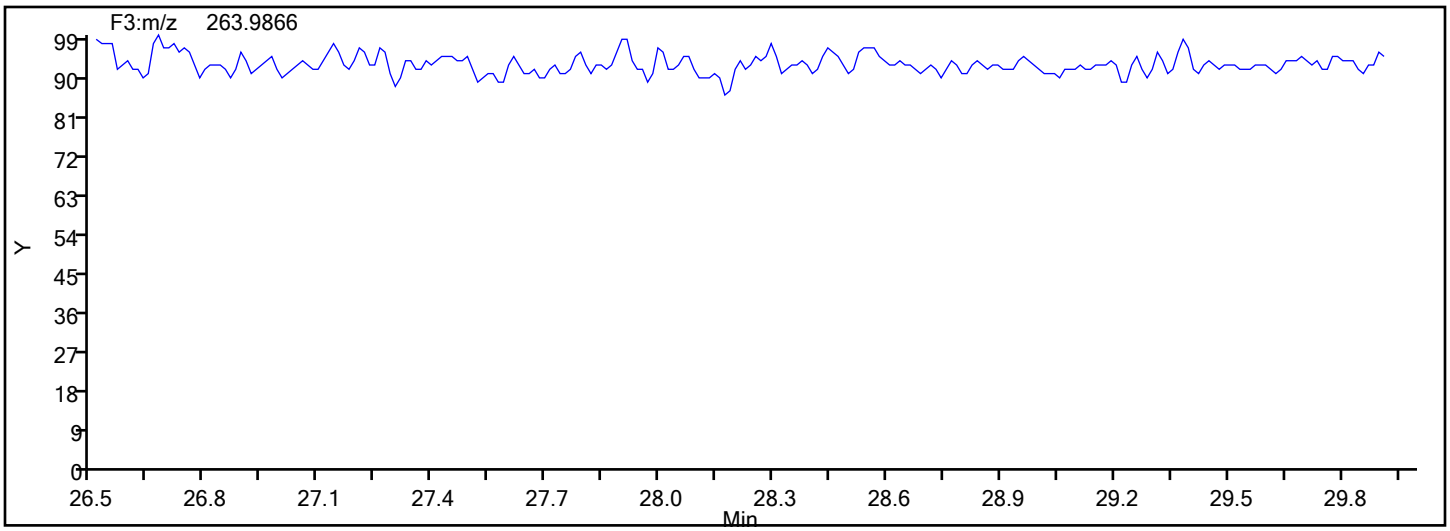
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142





PCB-142 Lock Mass



Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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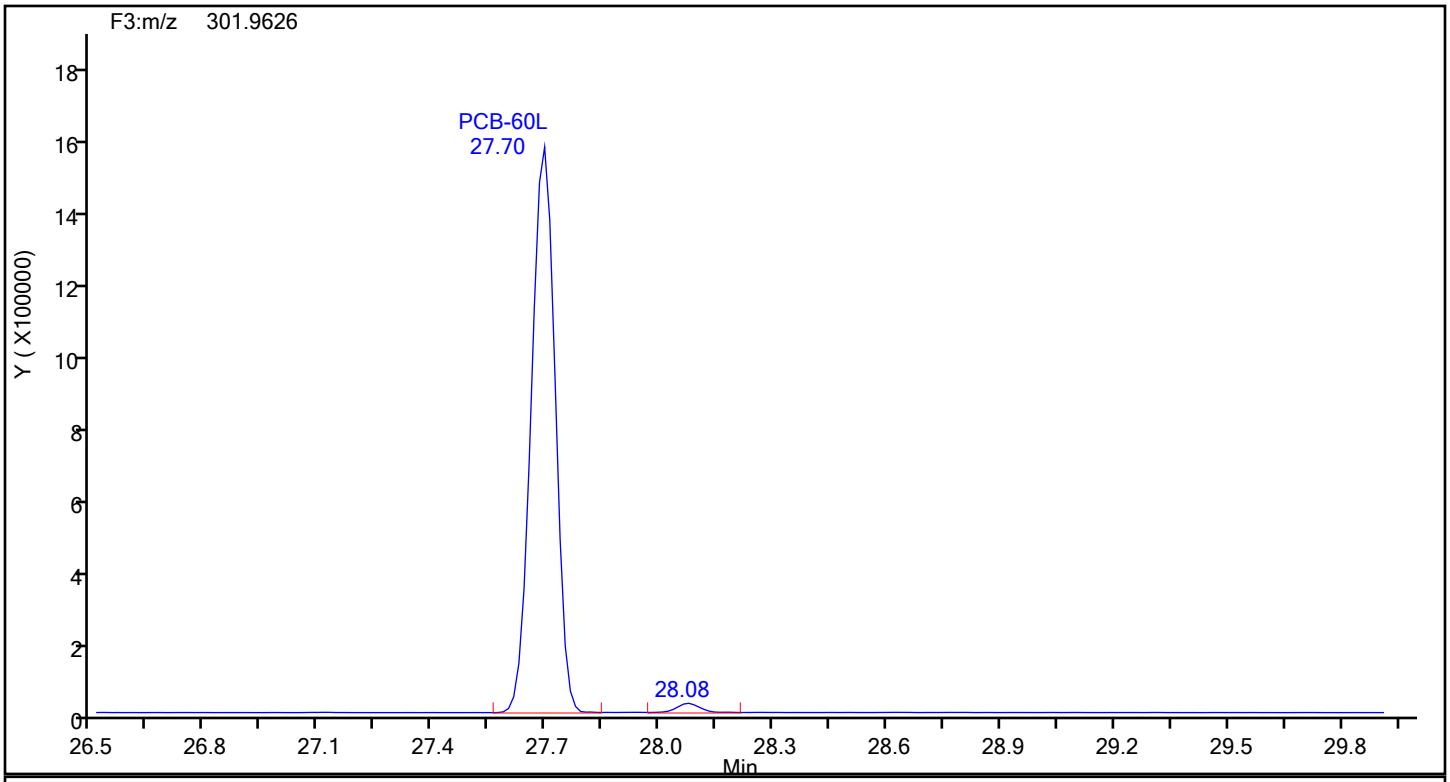
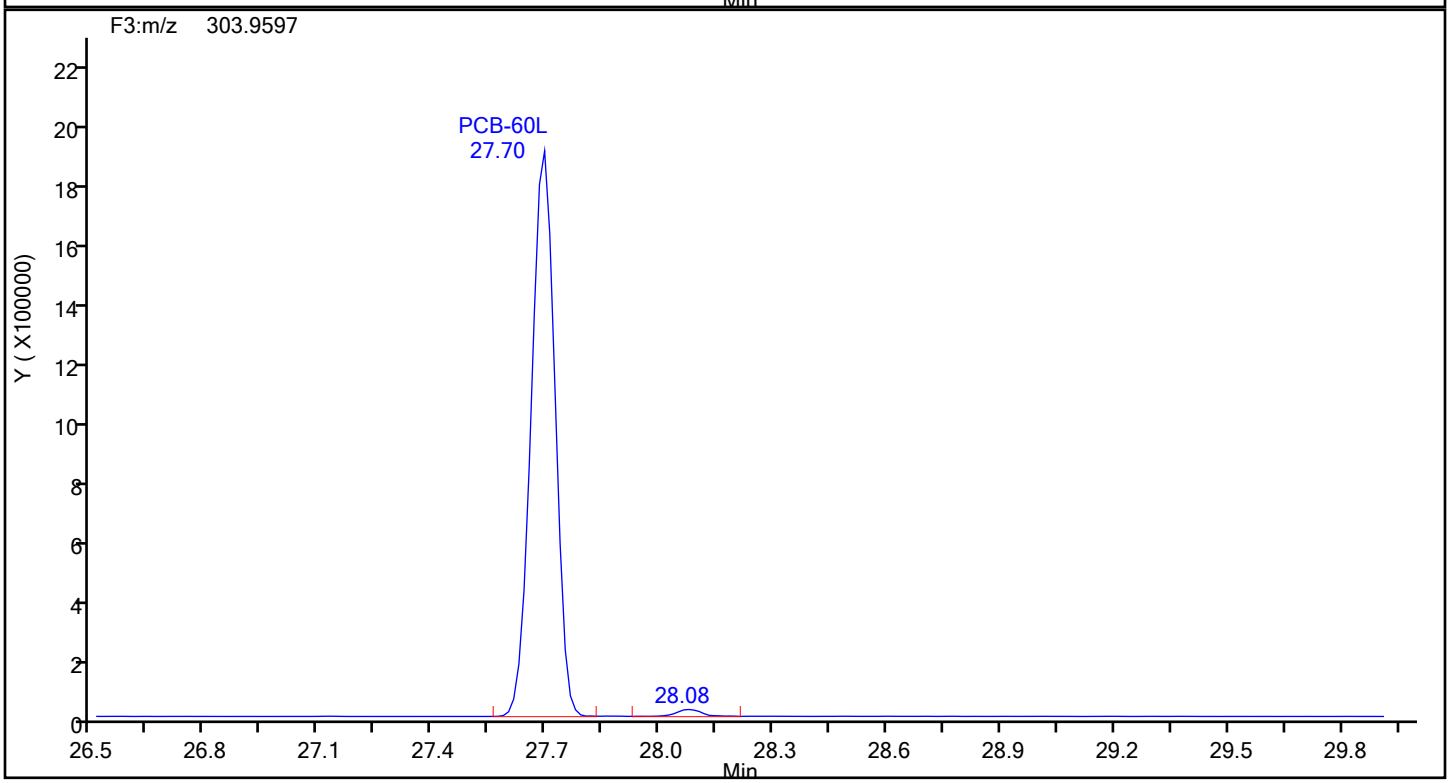
PCB-60L Standards





Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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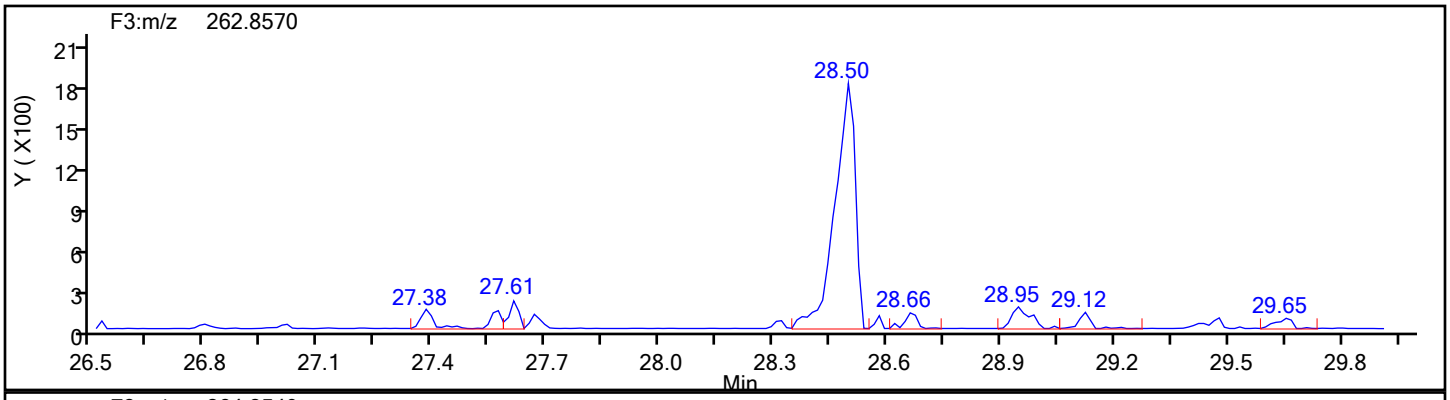
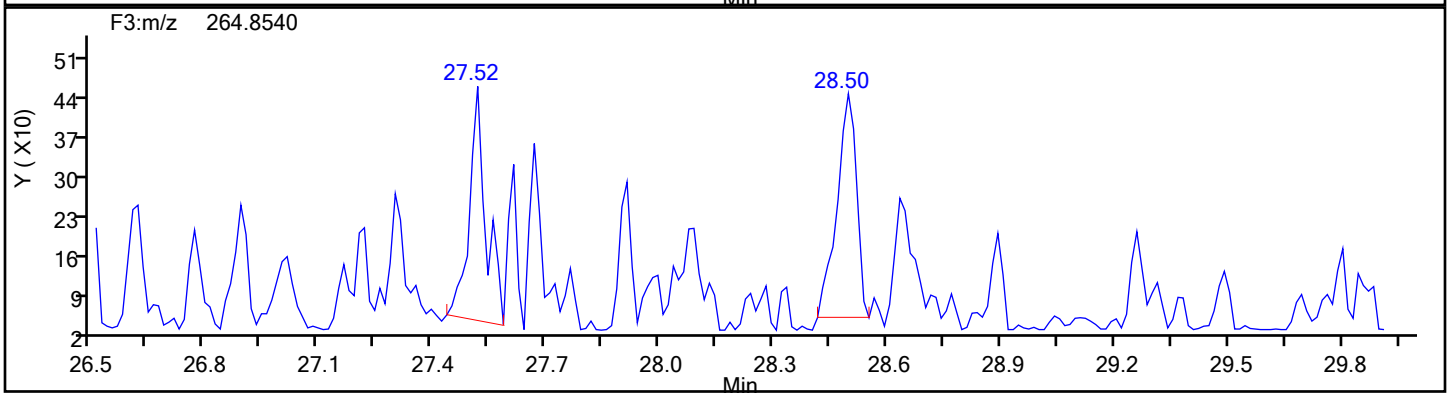
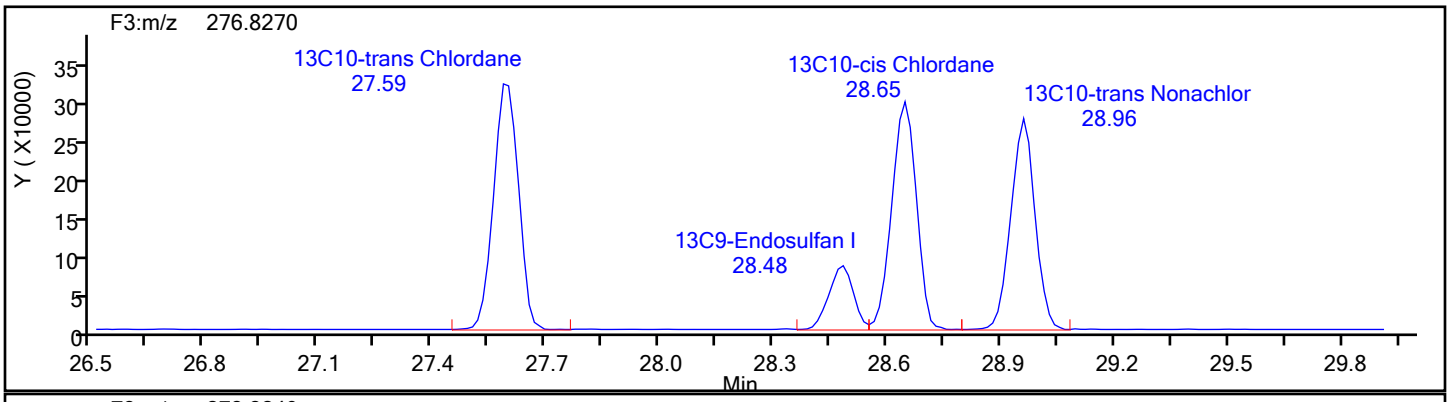
Column Type:	RTX-5	Column Dia:	0.32 mm

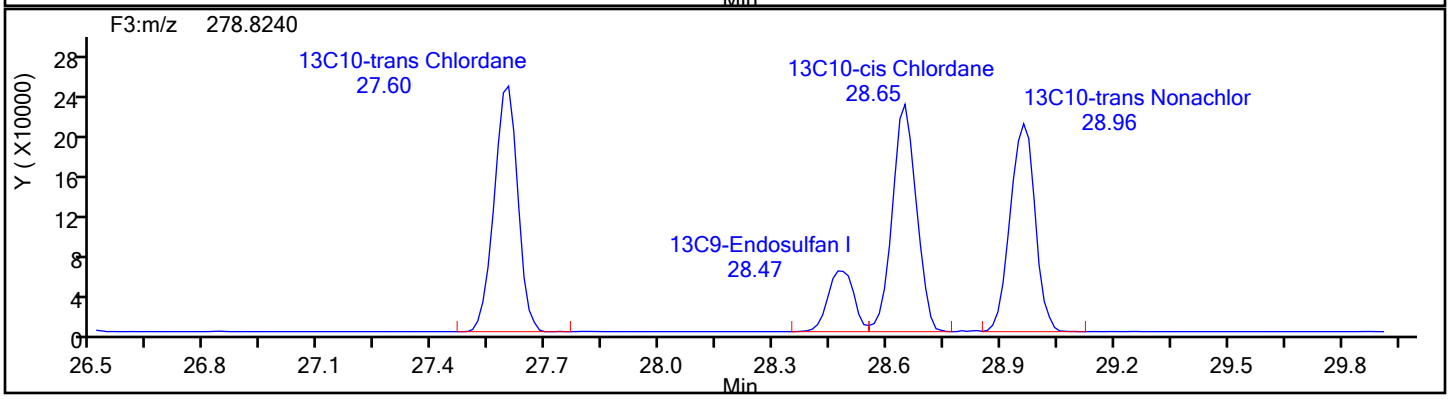
Endosulfan I





Endosulfan I Standards





Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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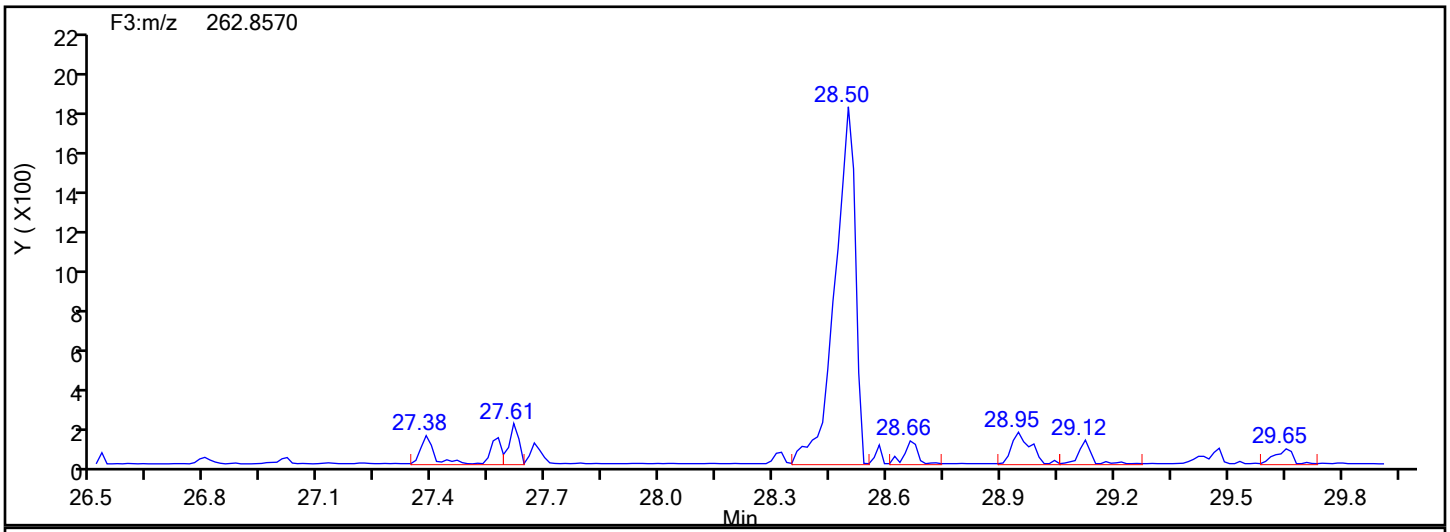
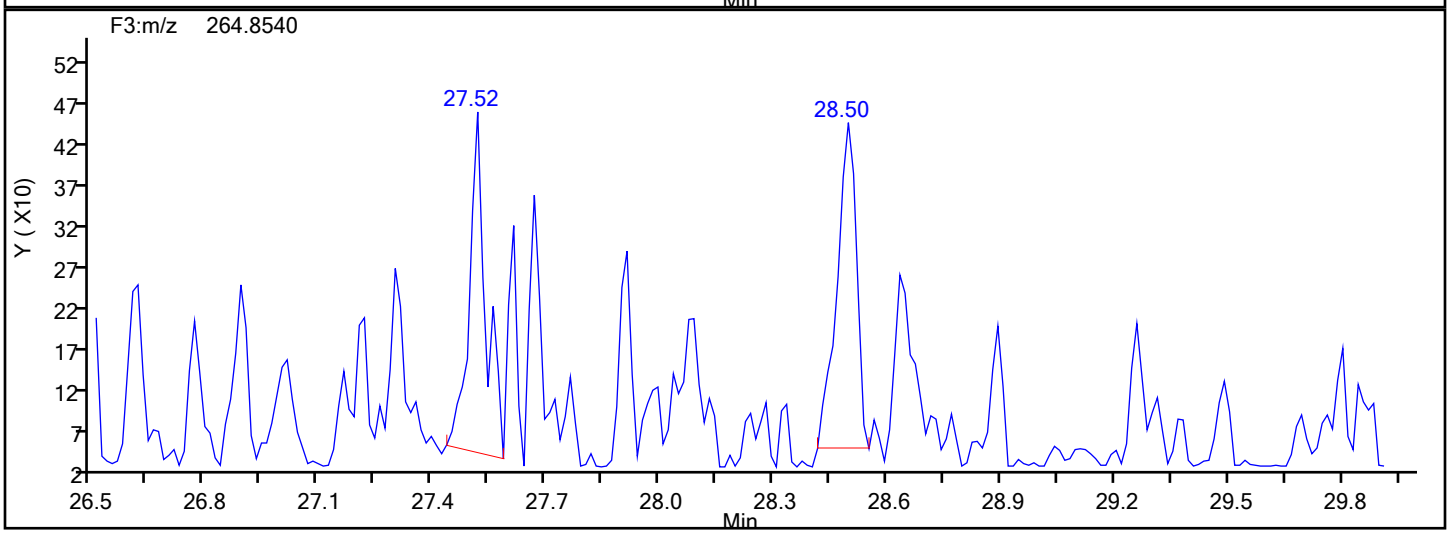
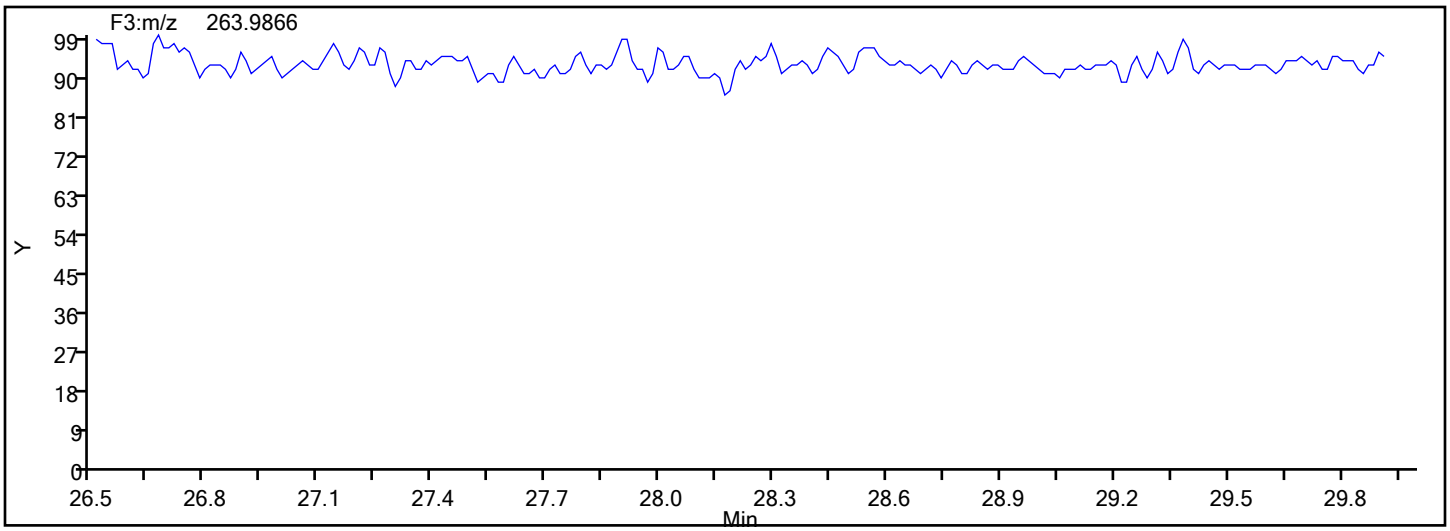
Endosulfan I





Endosulfan I Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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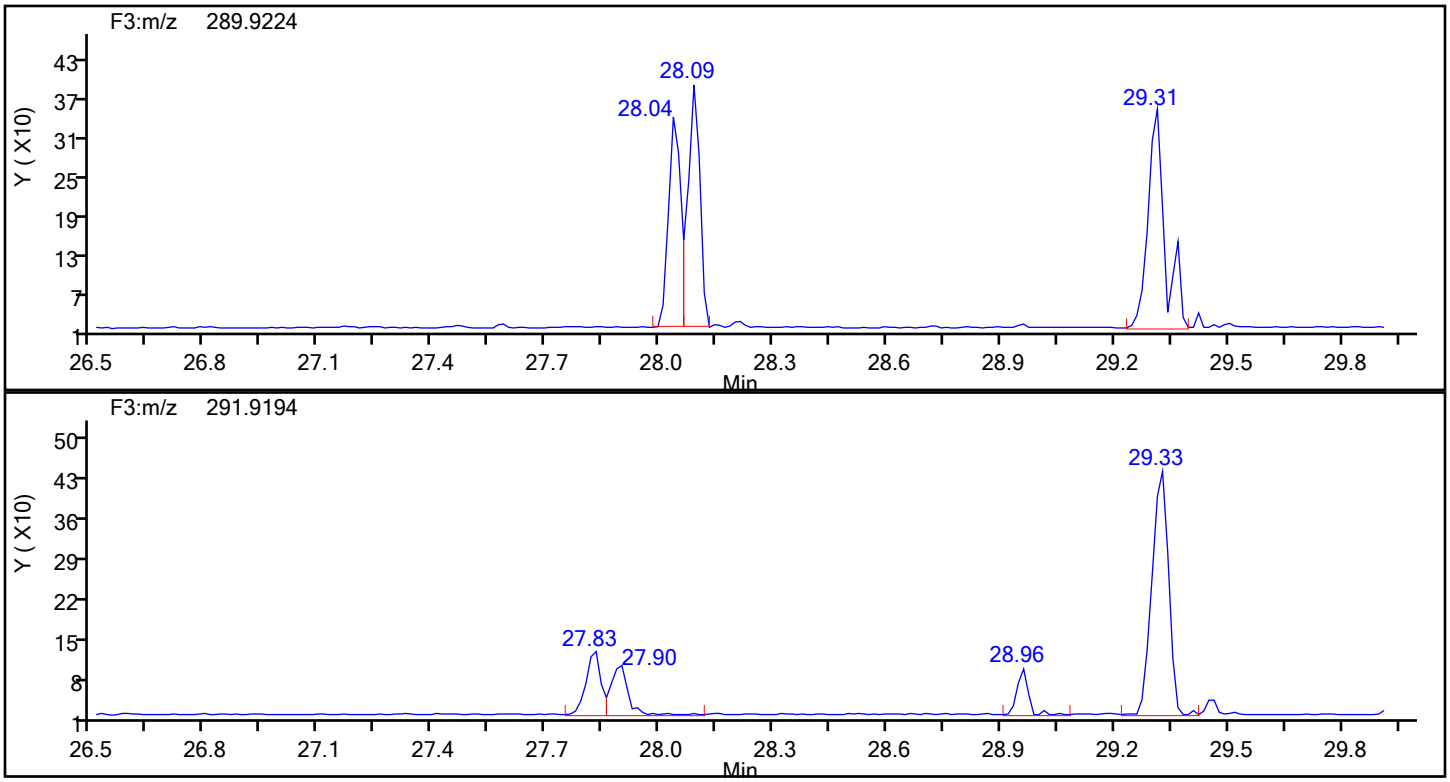
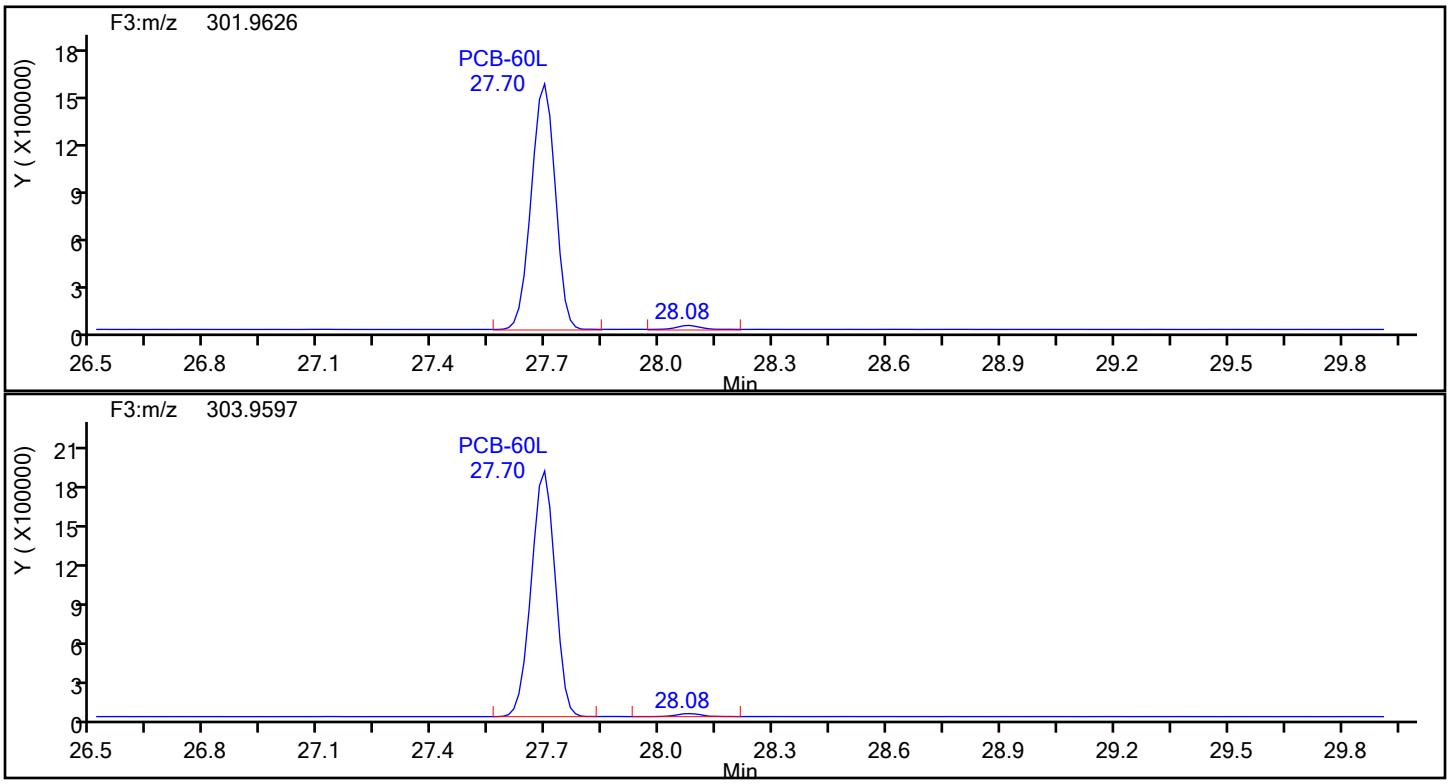
PCB-78



PCB-78 Standards



Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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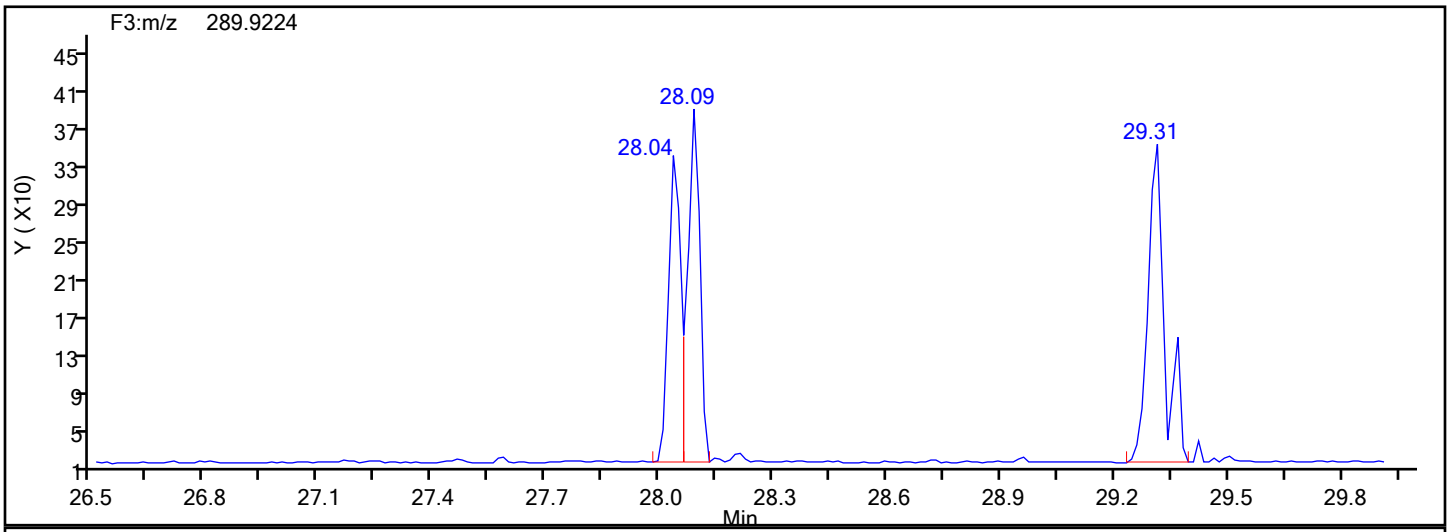
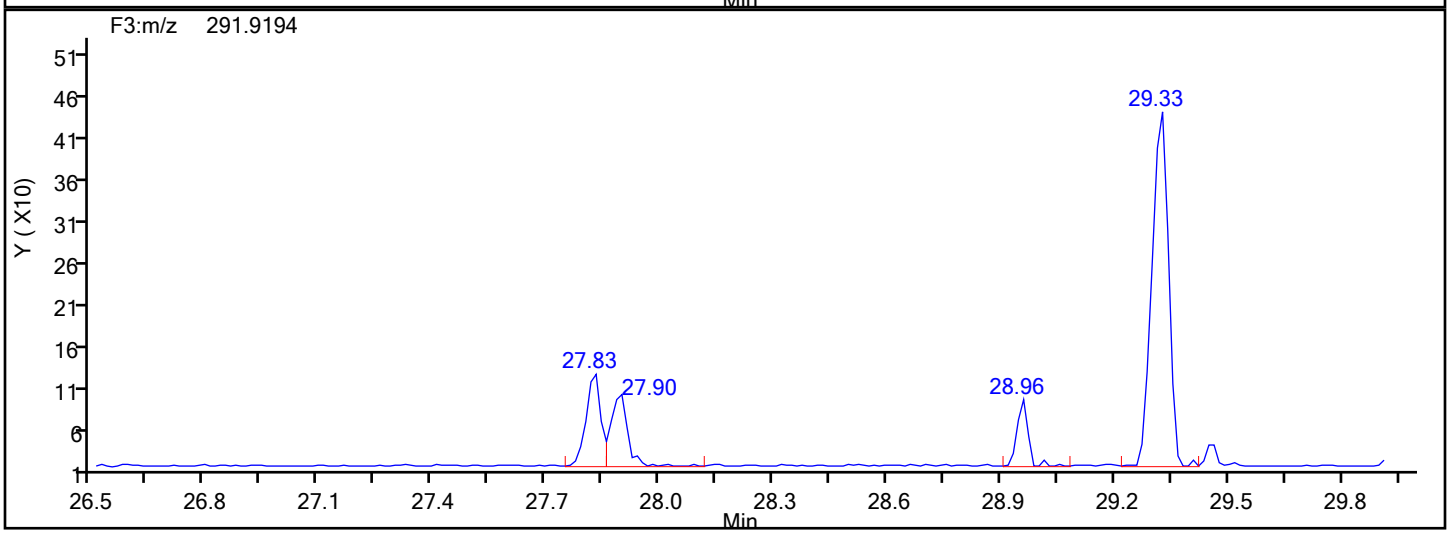
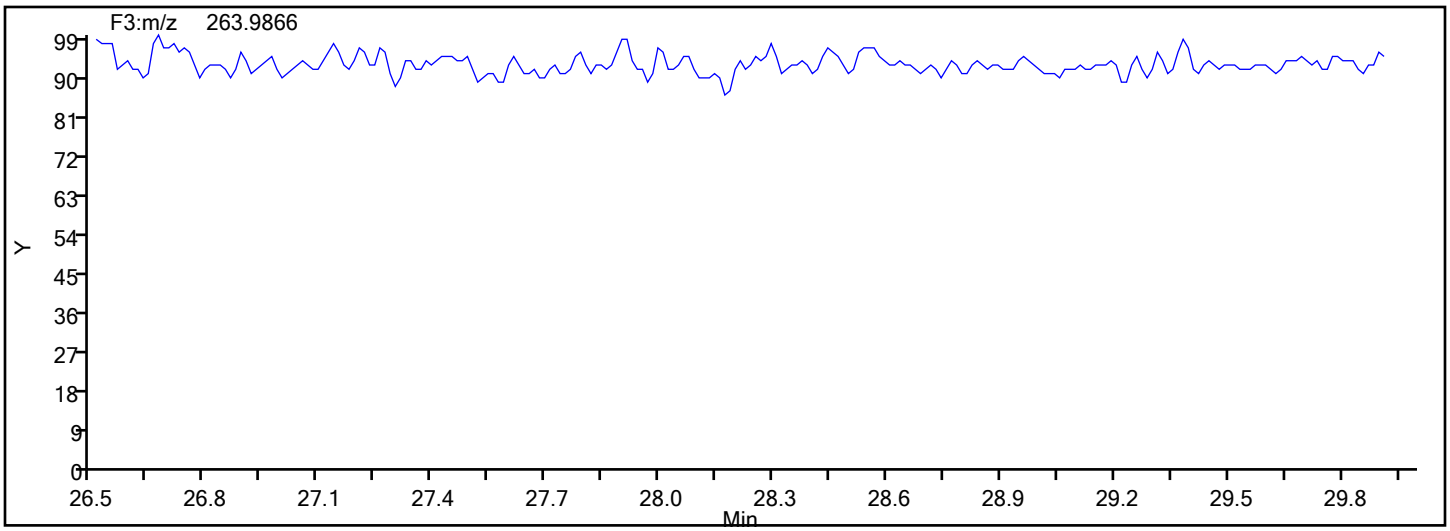
PCB-78





PCB-78 Lock Mass



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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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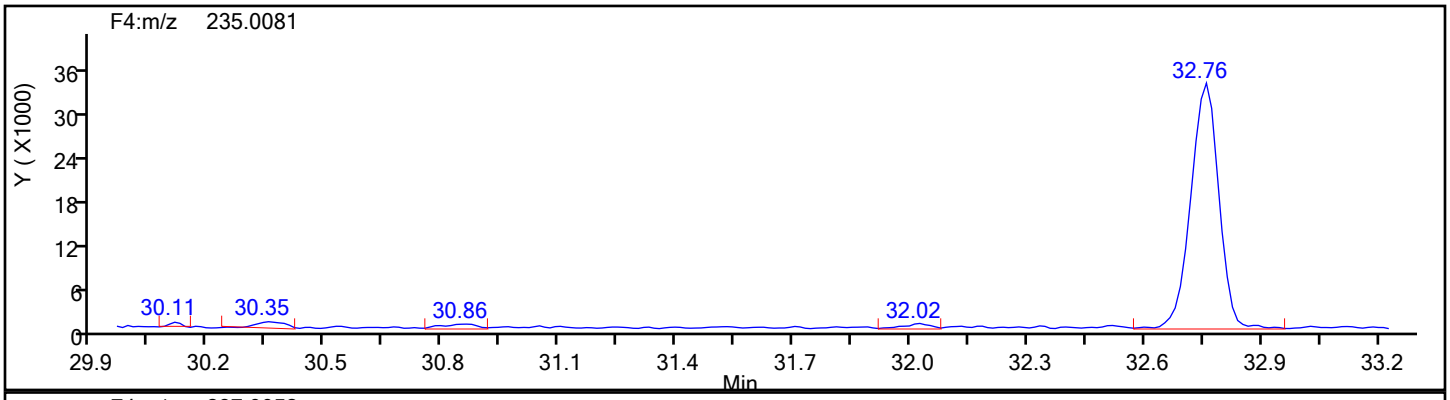
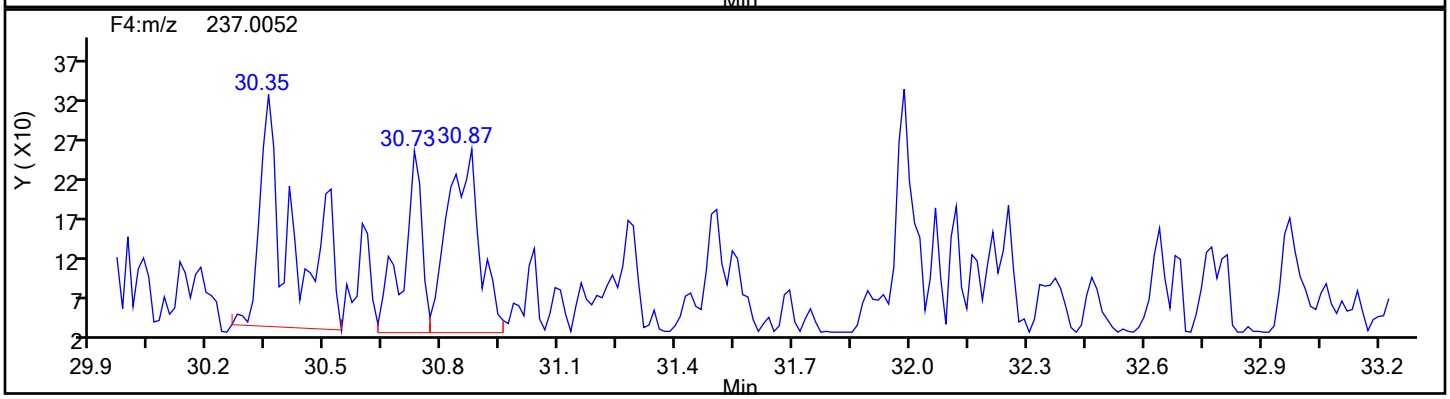
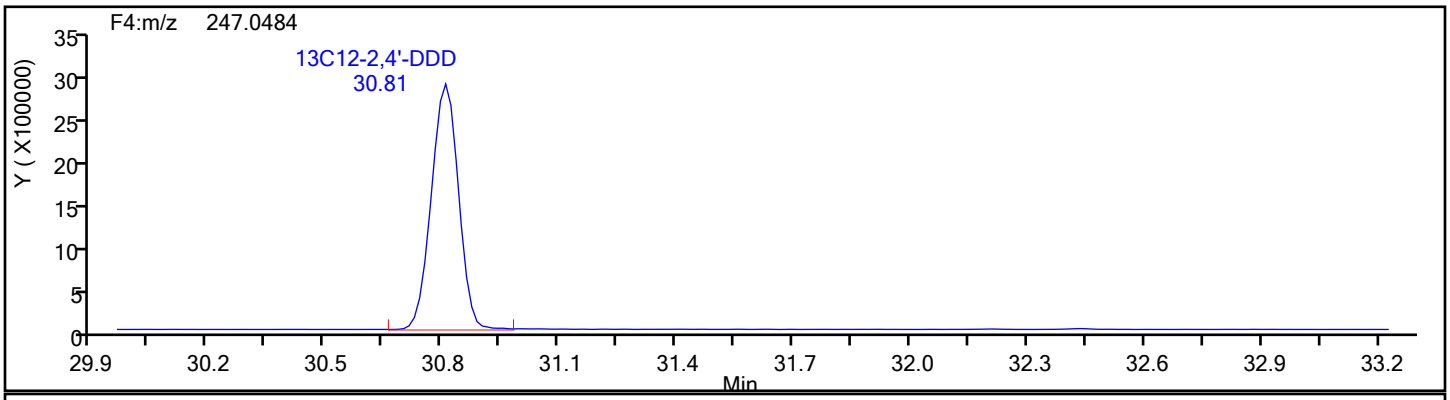
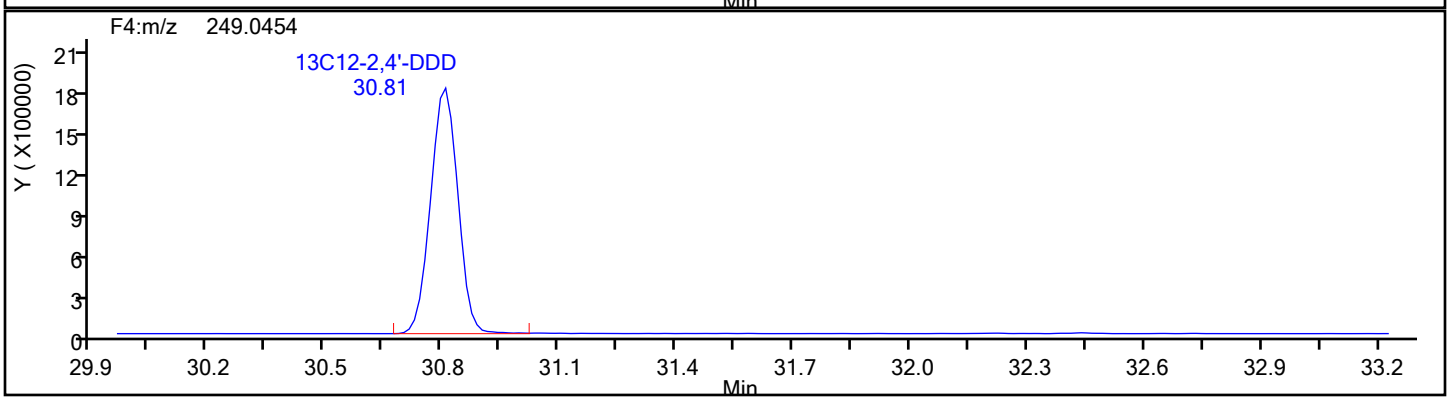
2,4'-DDD





2,4'-DDD Standards





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Eurofins Knoxville

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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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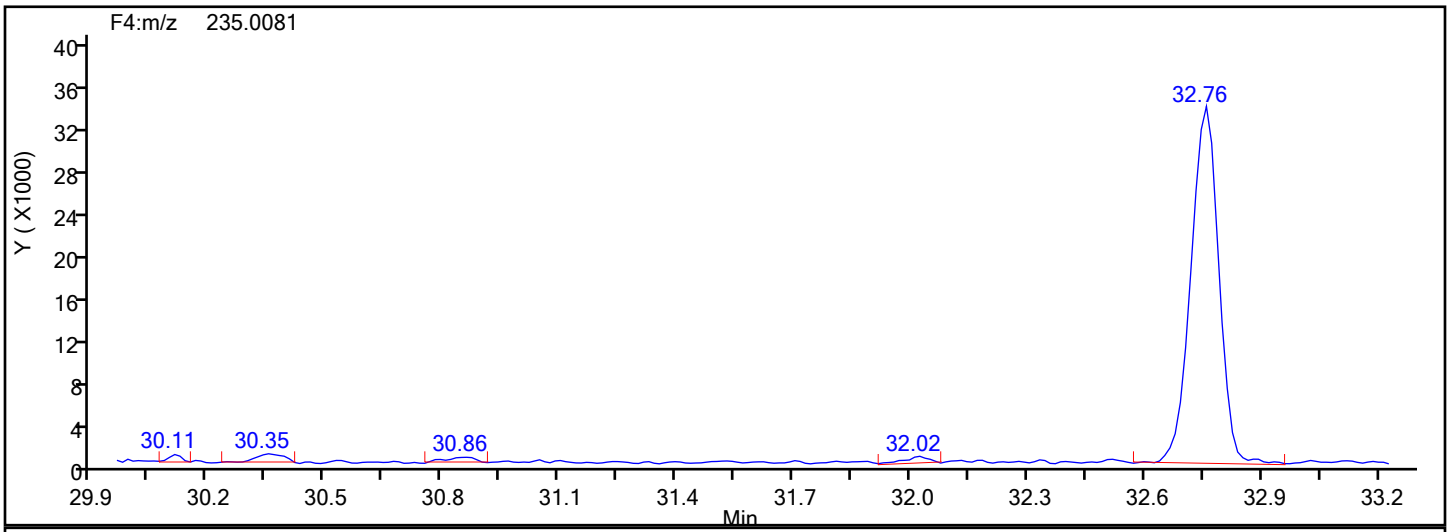
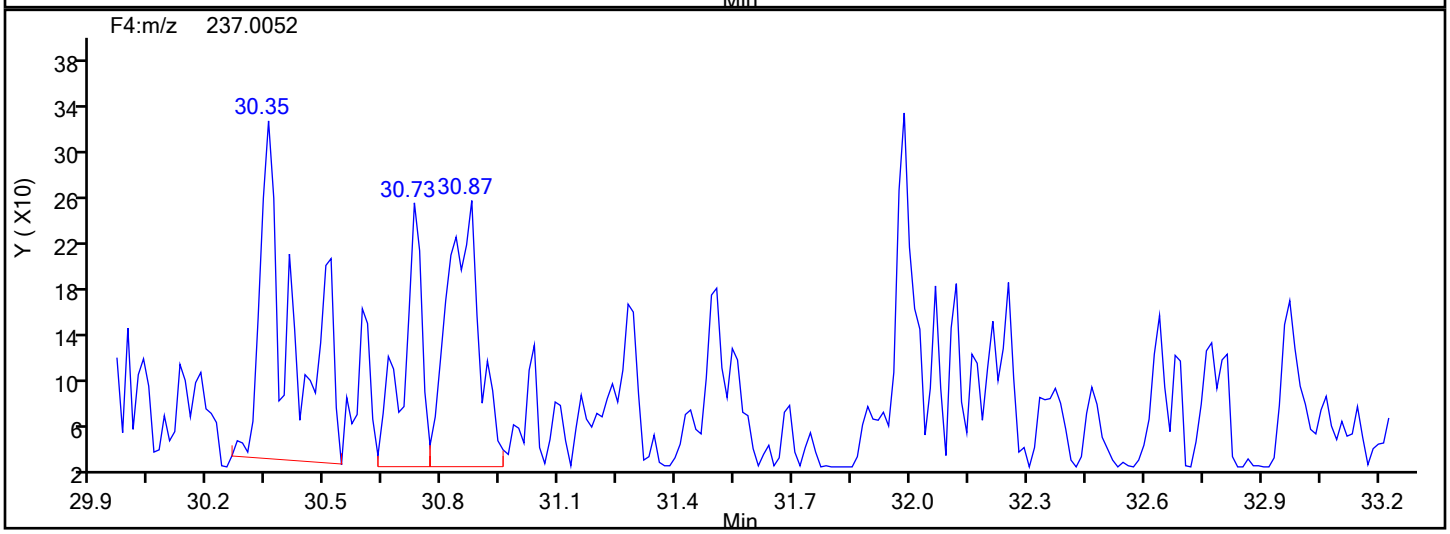
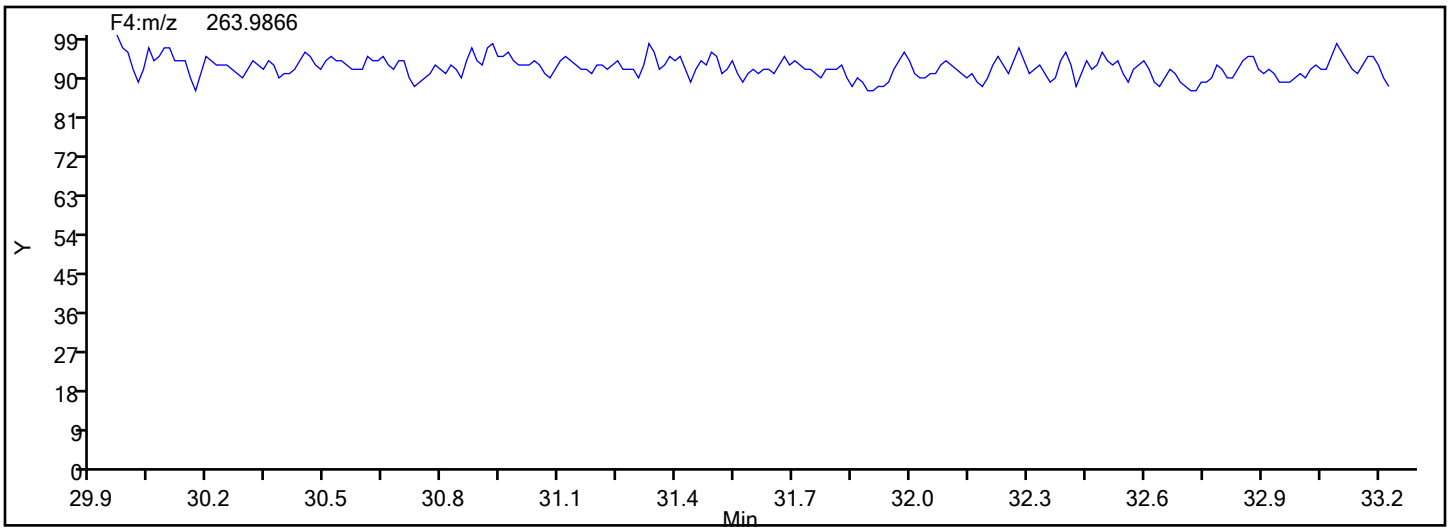
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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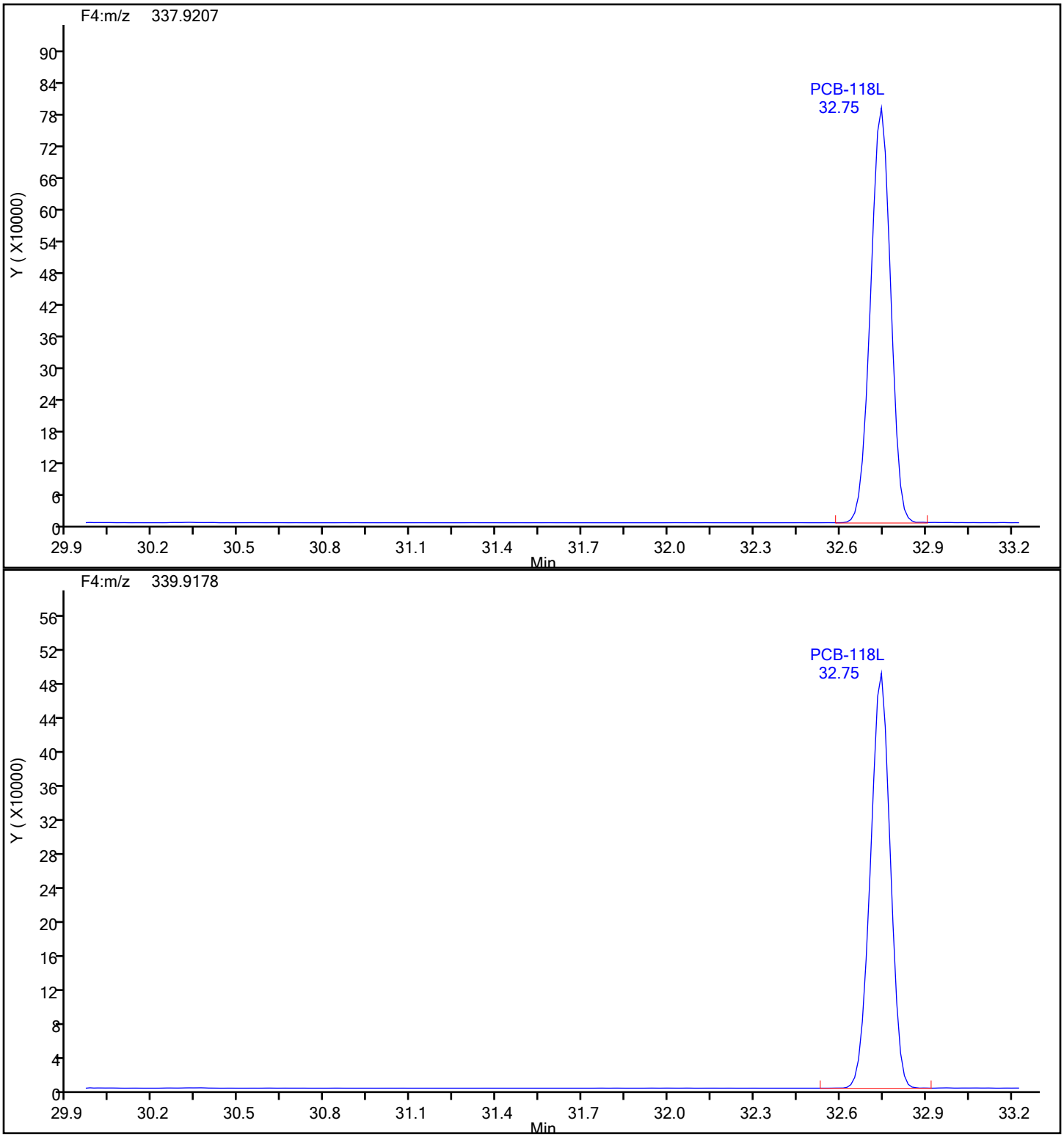
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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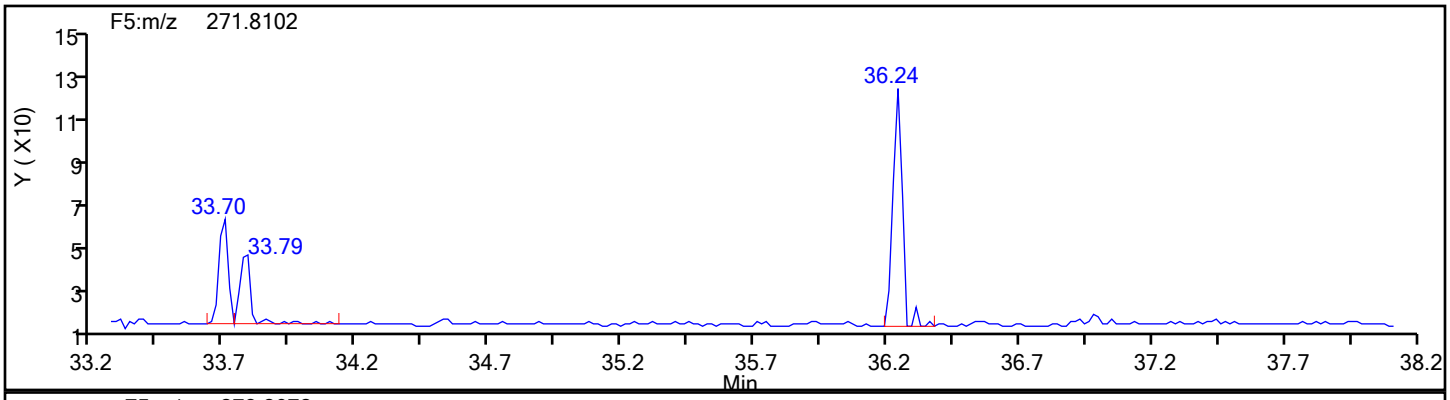
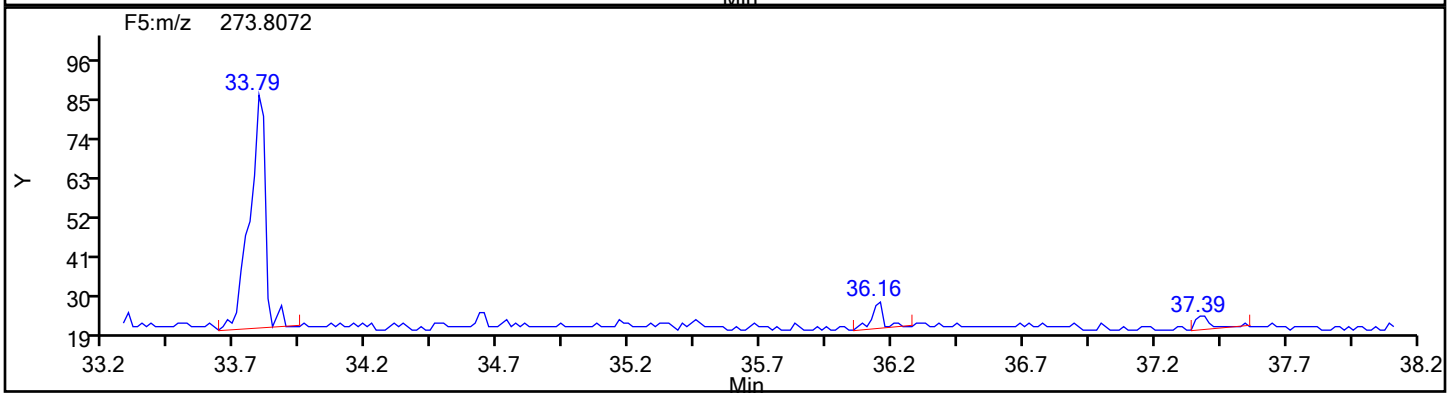
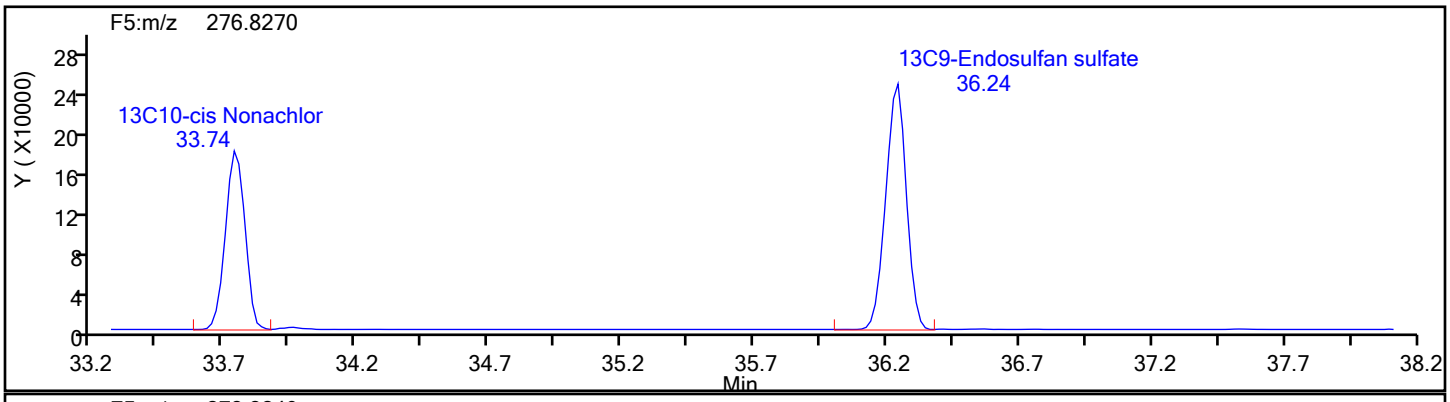
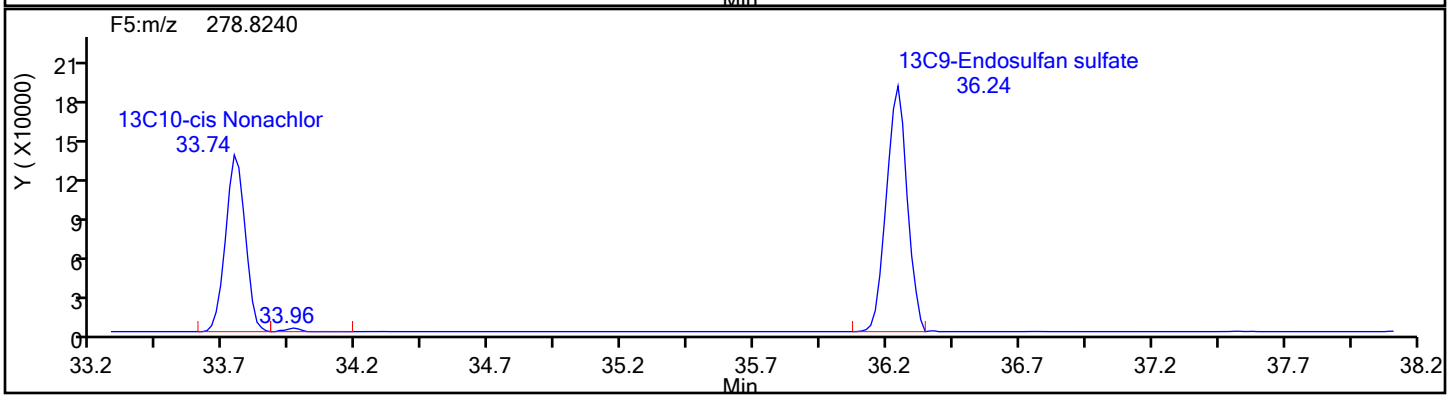
Nonachlor





Nonachlor Standards





Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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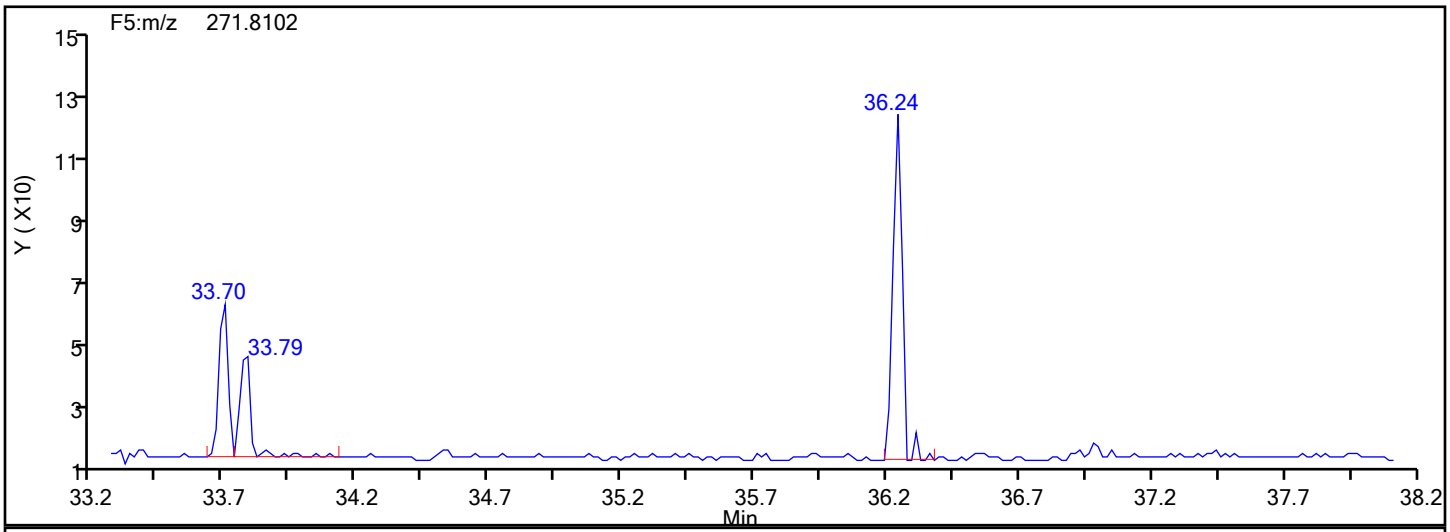
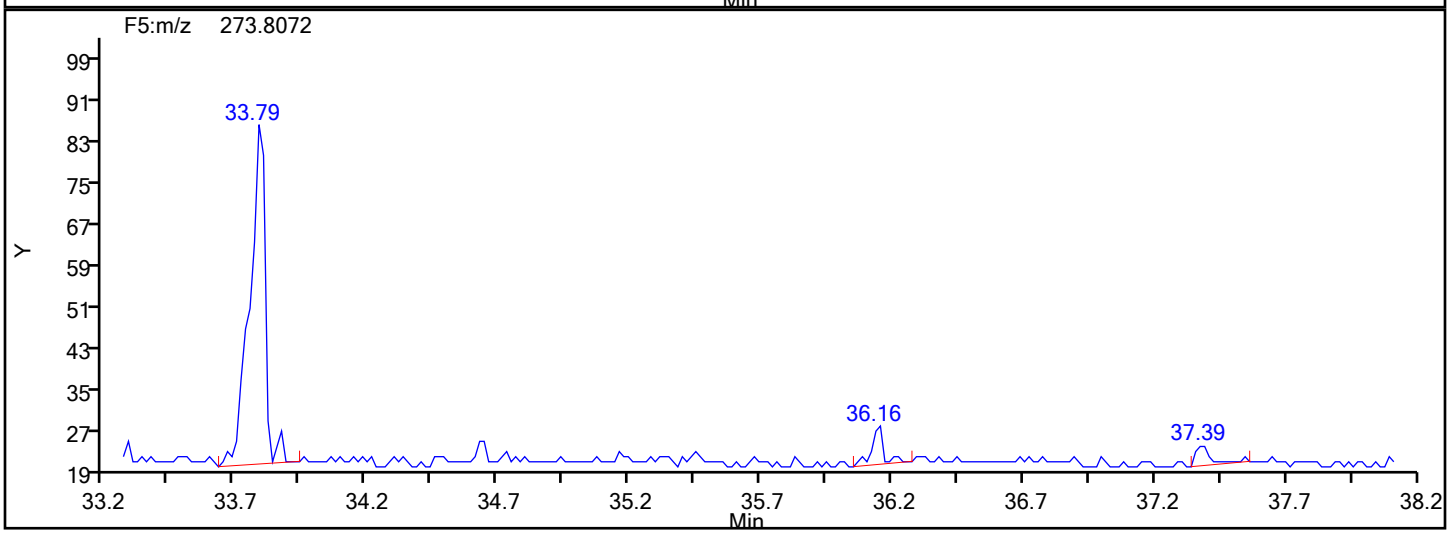
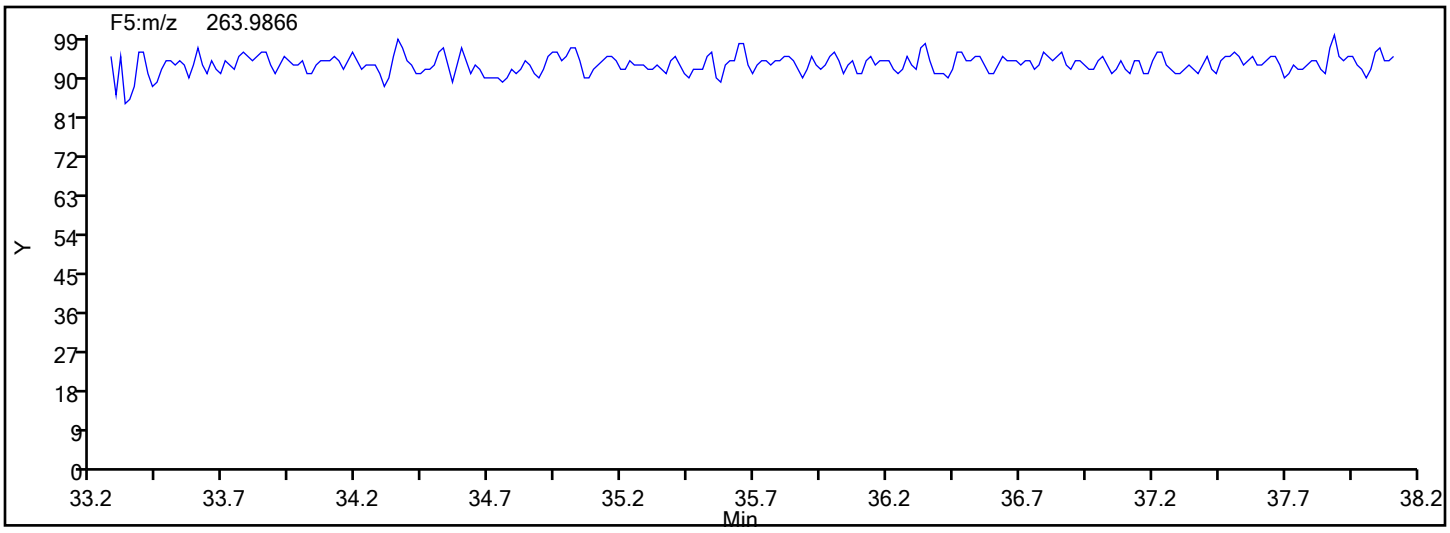
Nonachlor





Nonachlor Lock Mass



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Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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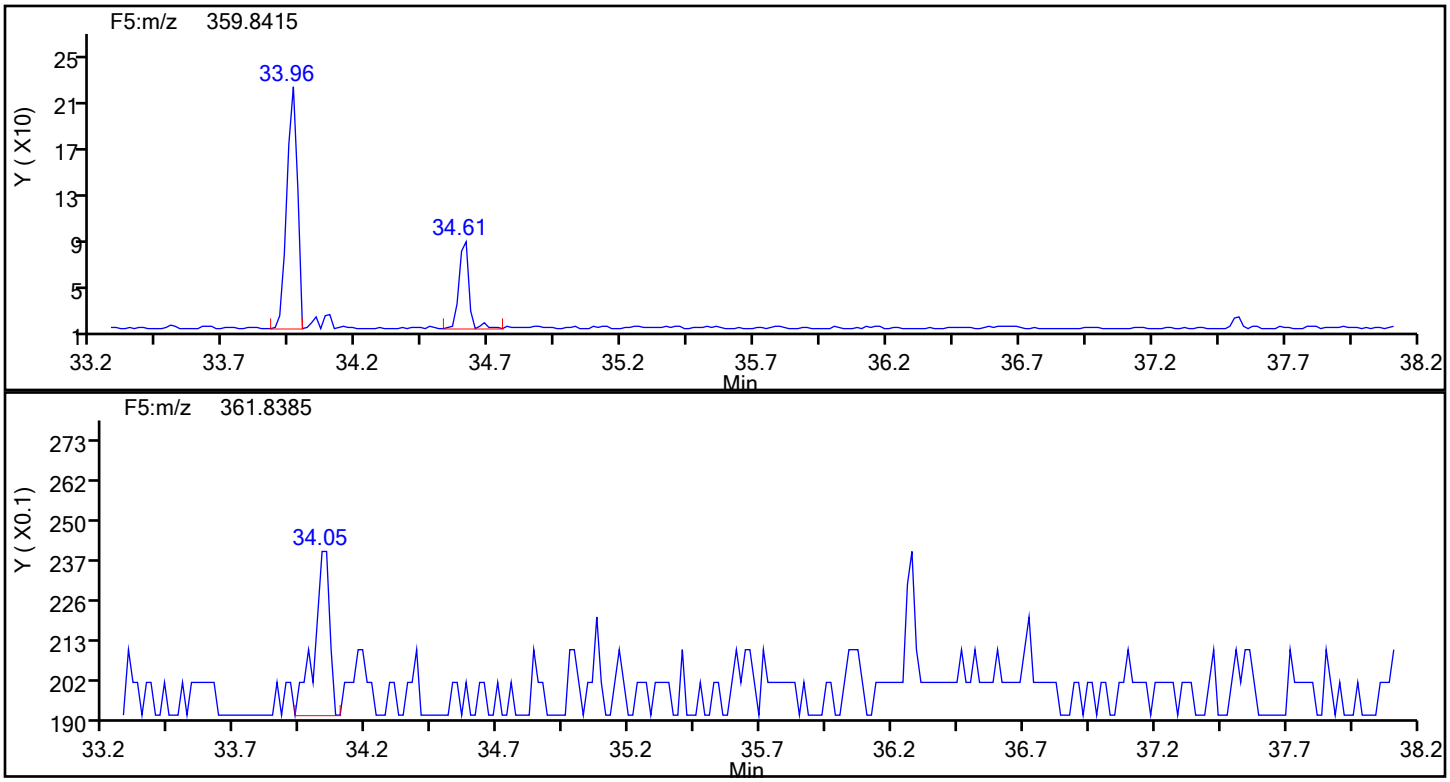
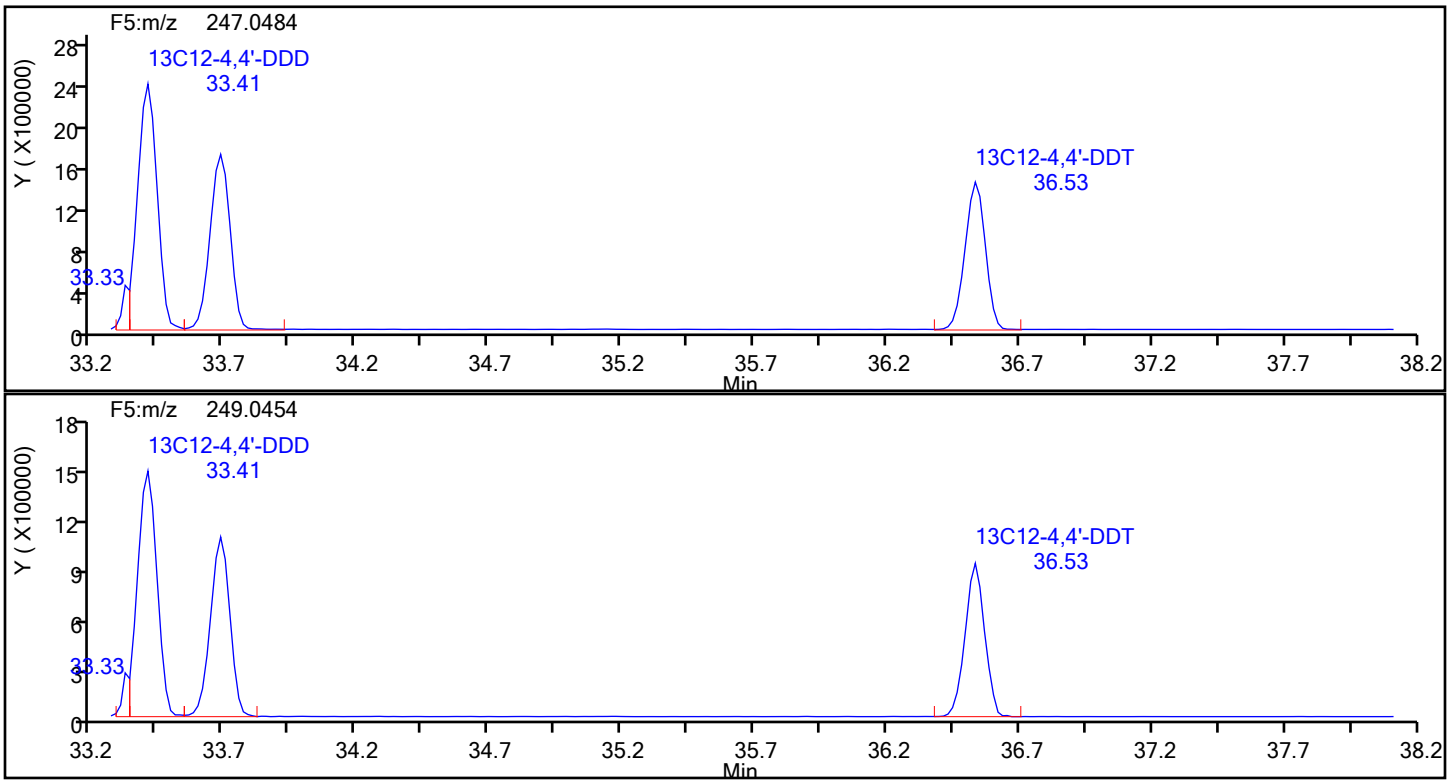
PCB-155



PCB-155 Standards



Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
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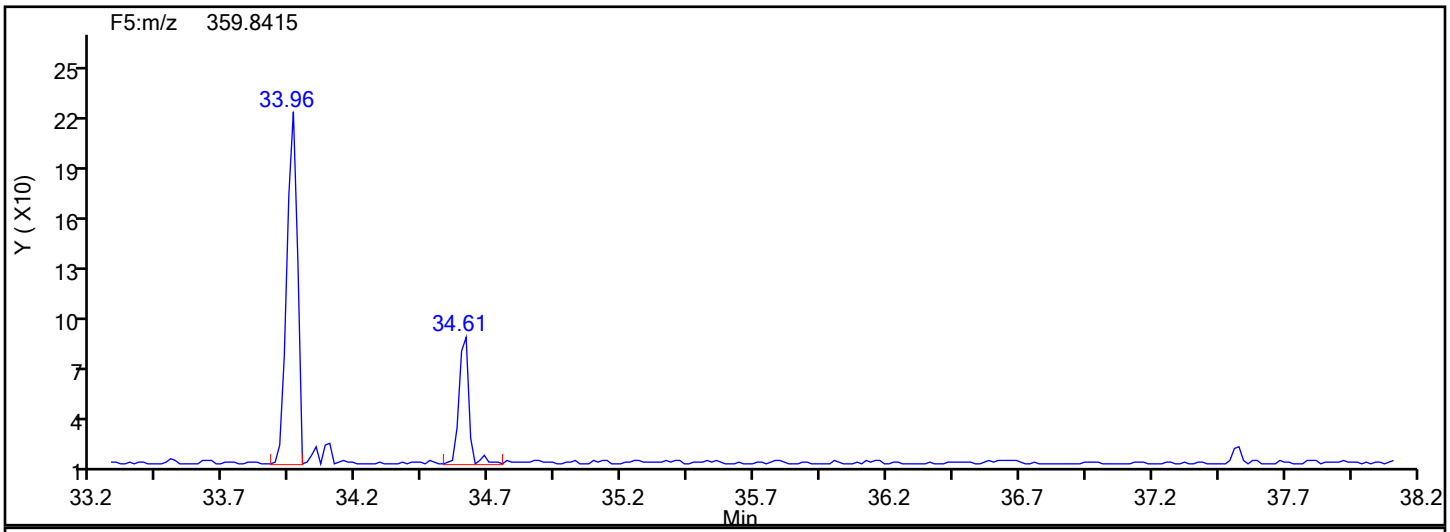
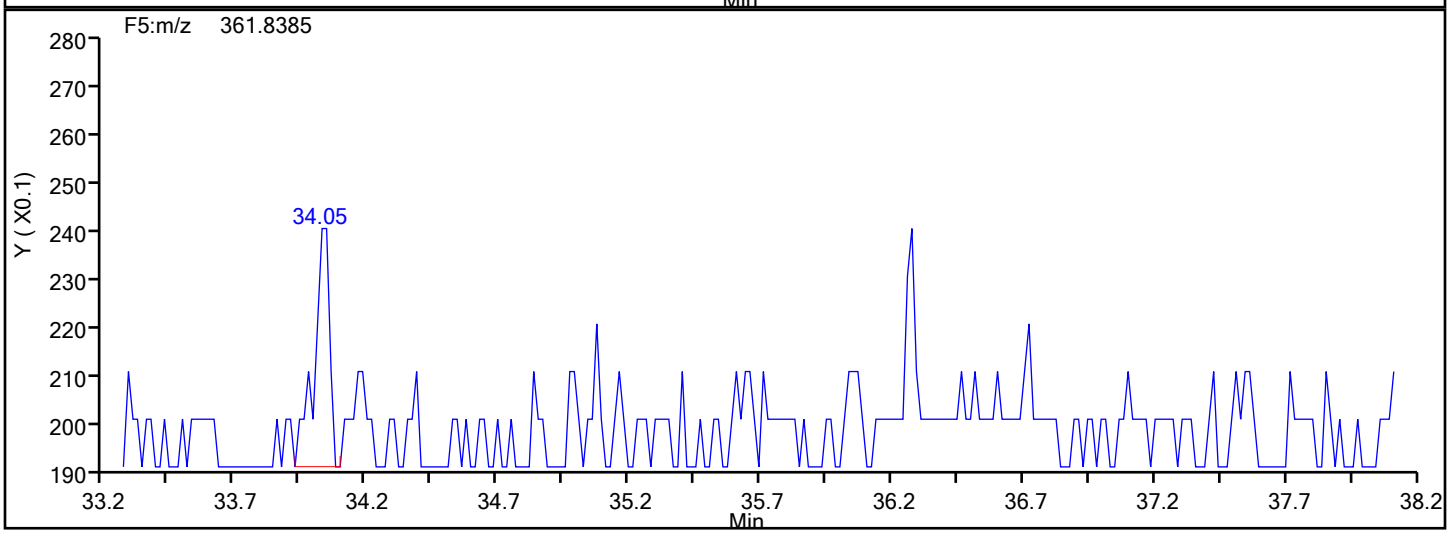
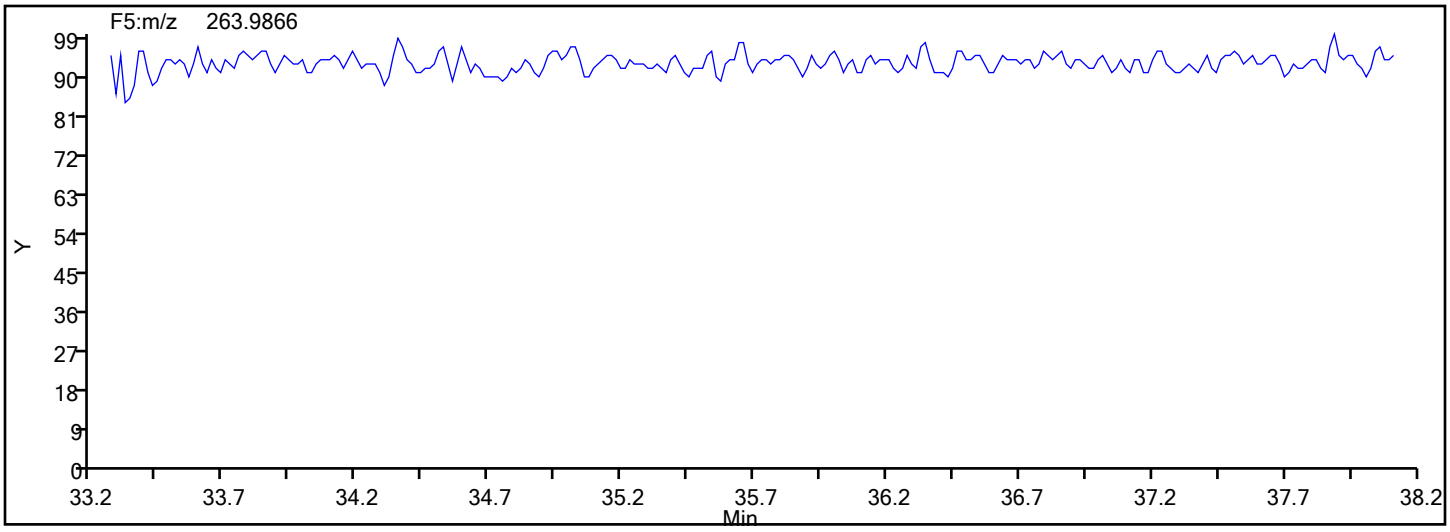
PCB-155





PCB-155 Lock Mass



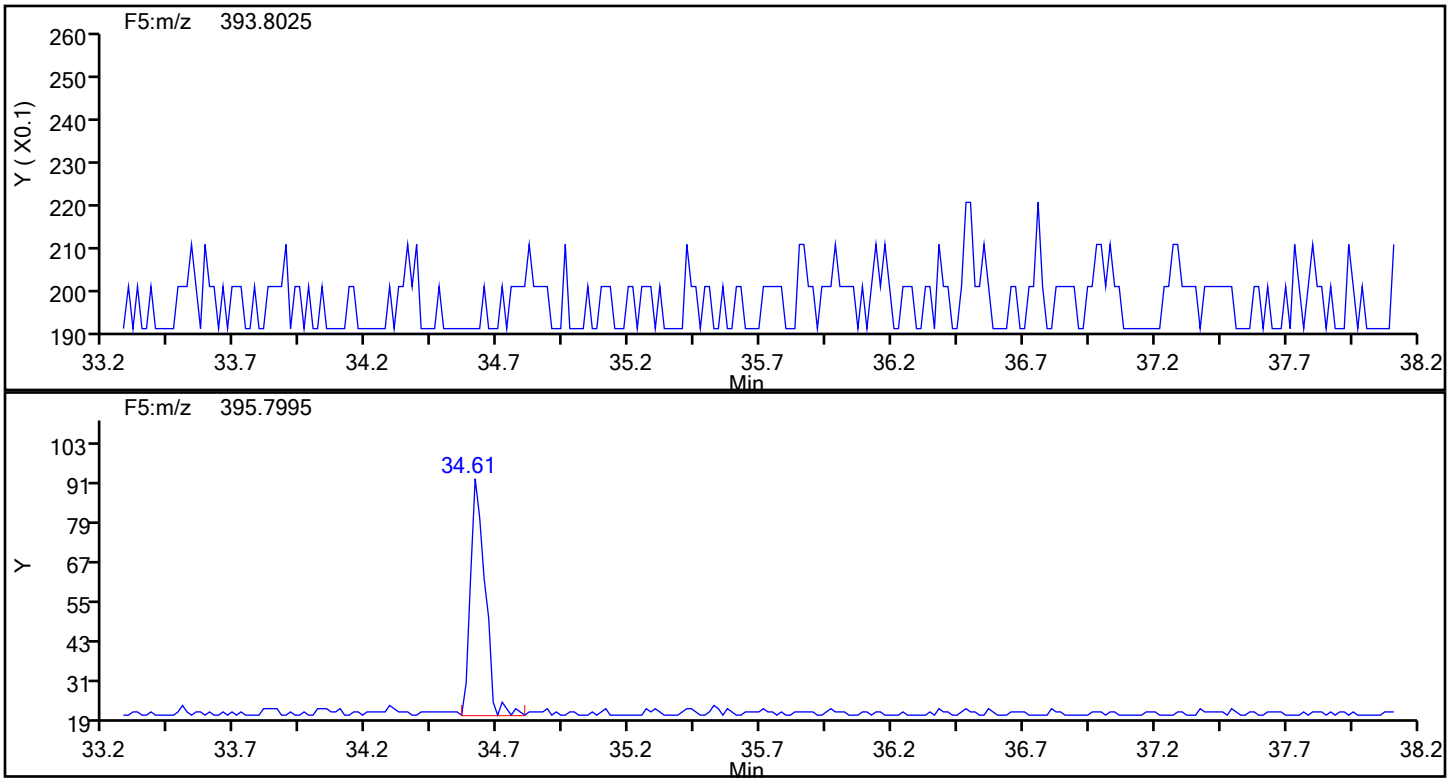
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

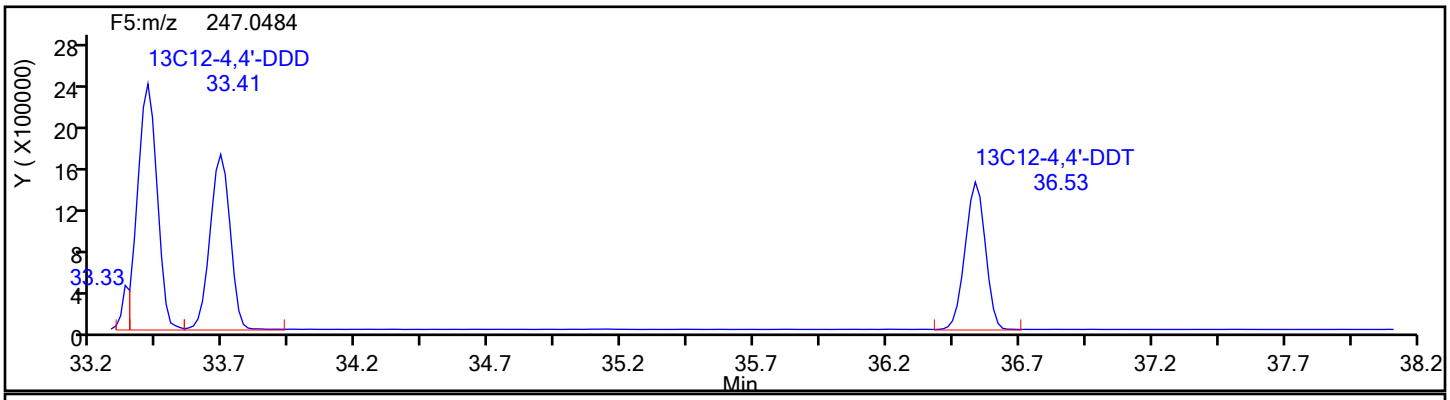
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

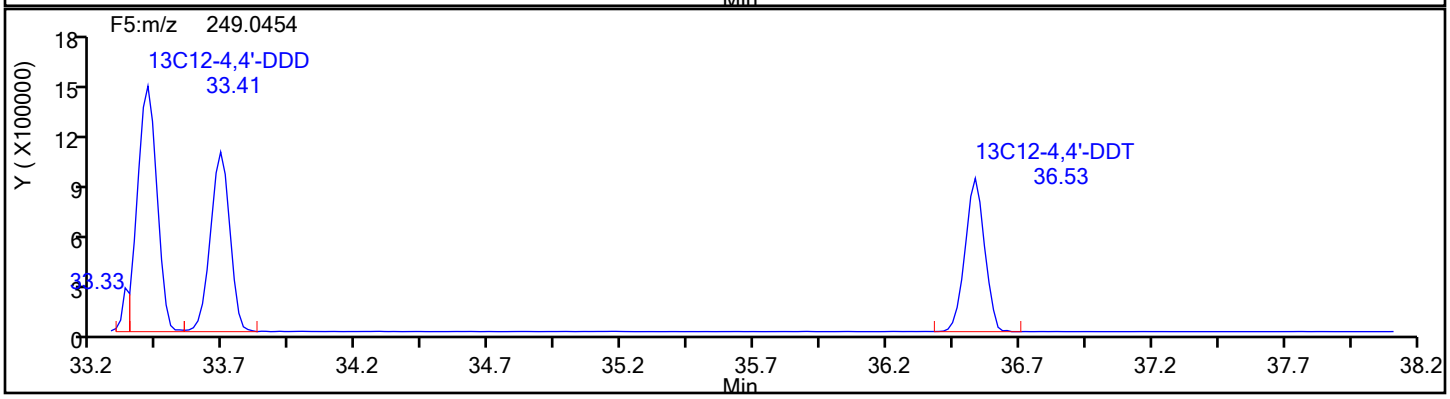
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards



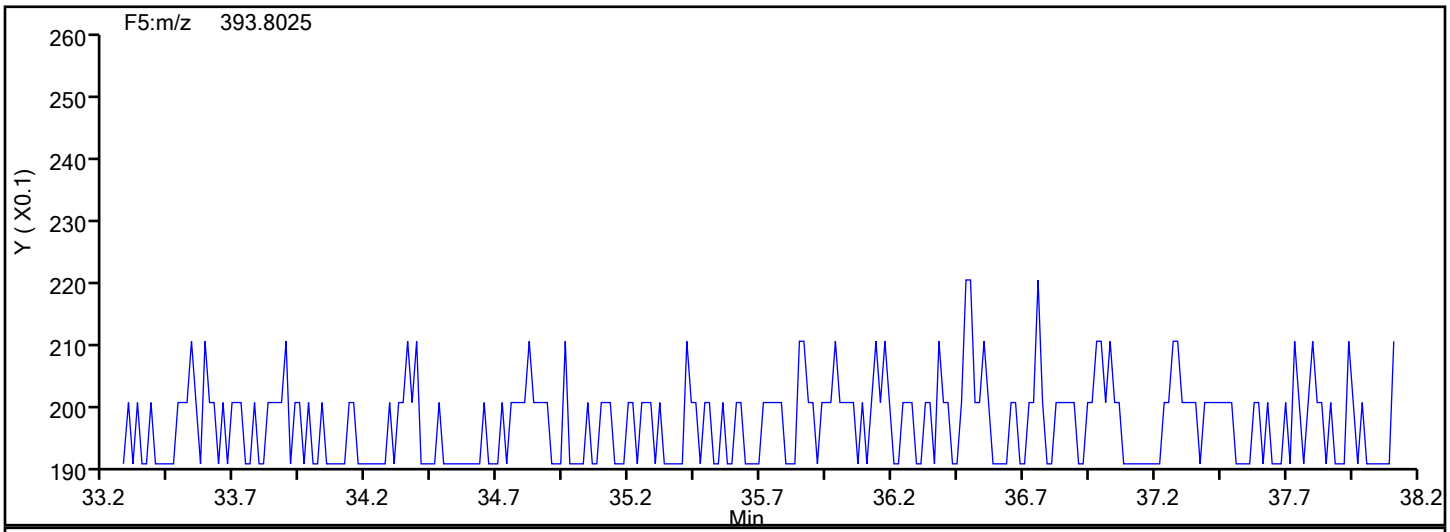


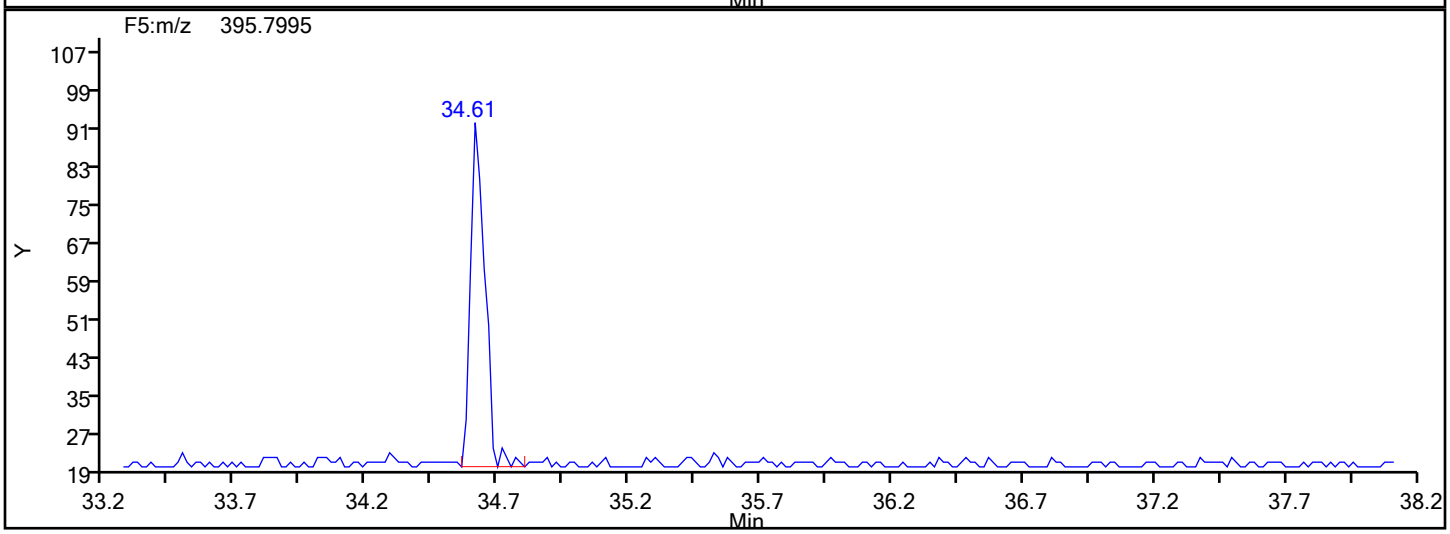
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

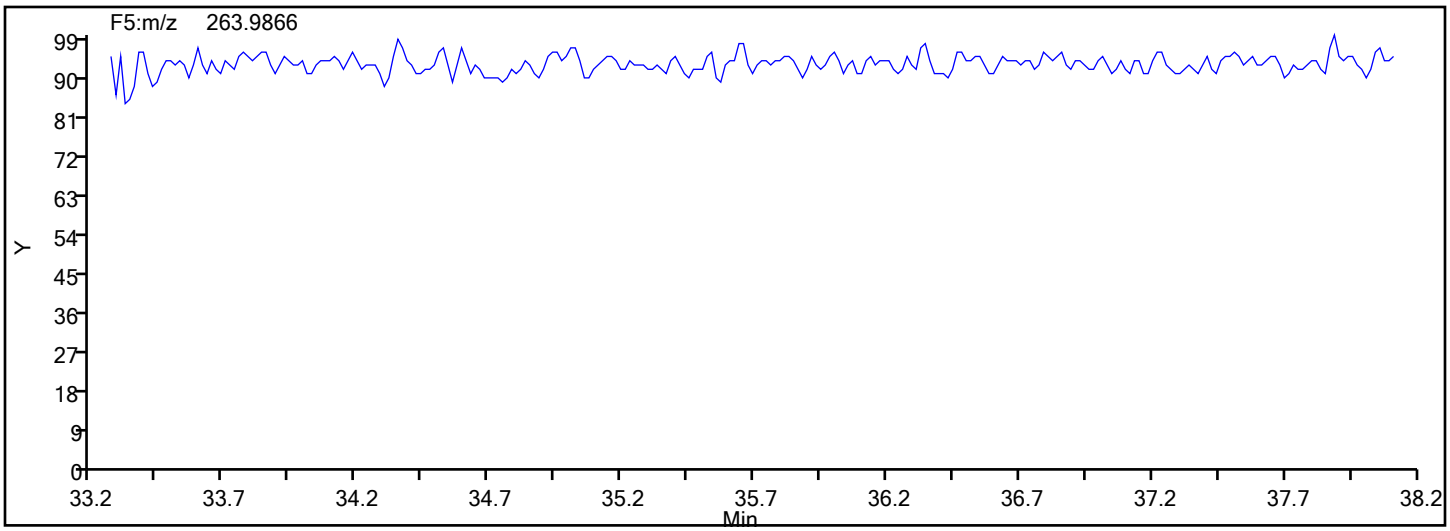
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d
Injection Date: 05-May-2025 15:43:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 99273 Sample Line#: 1
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



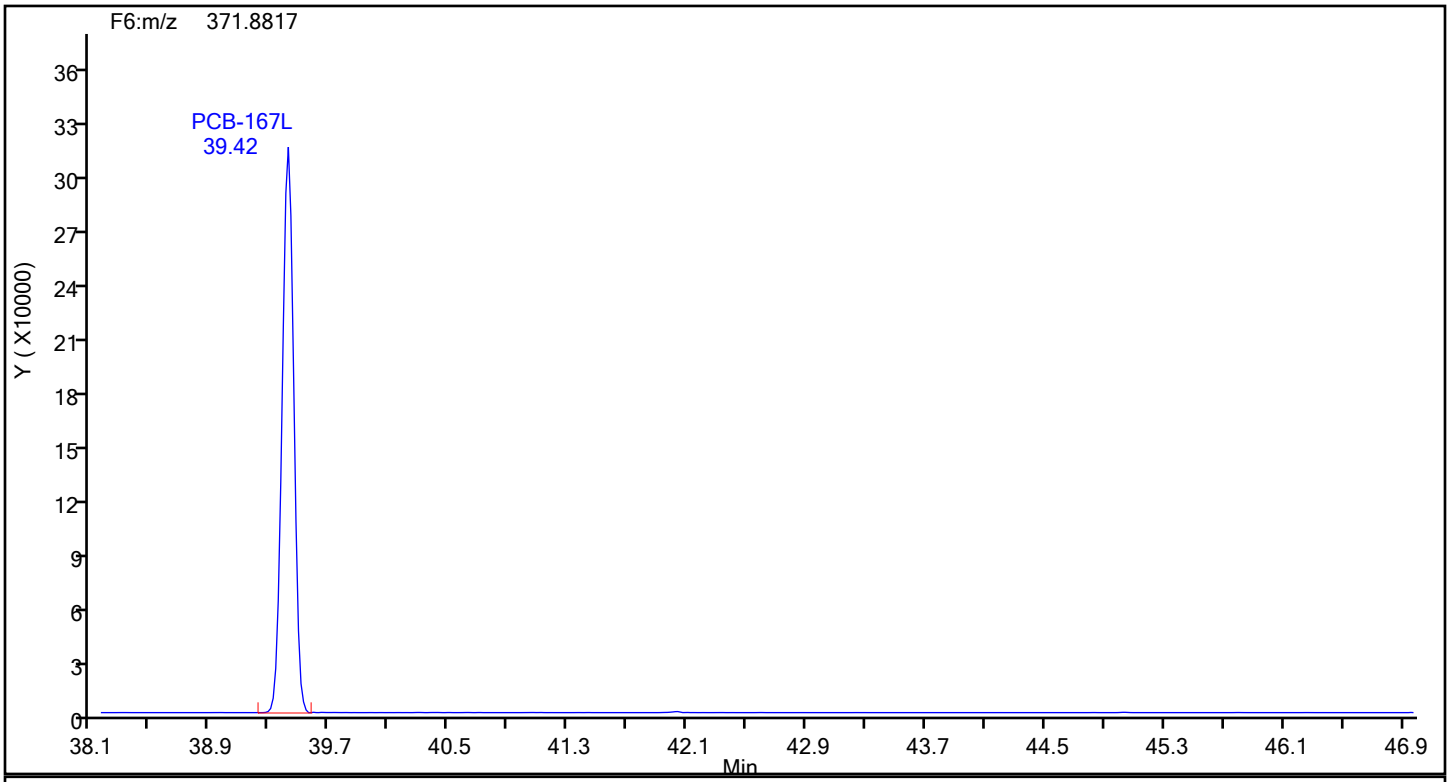
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

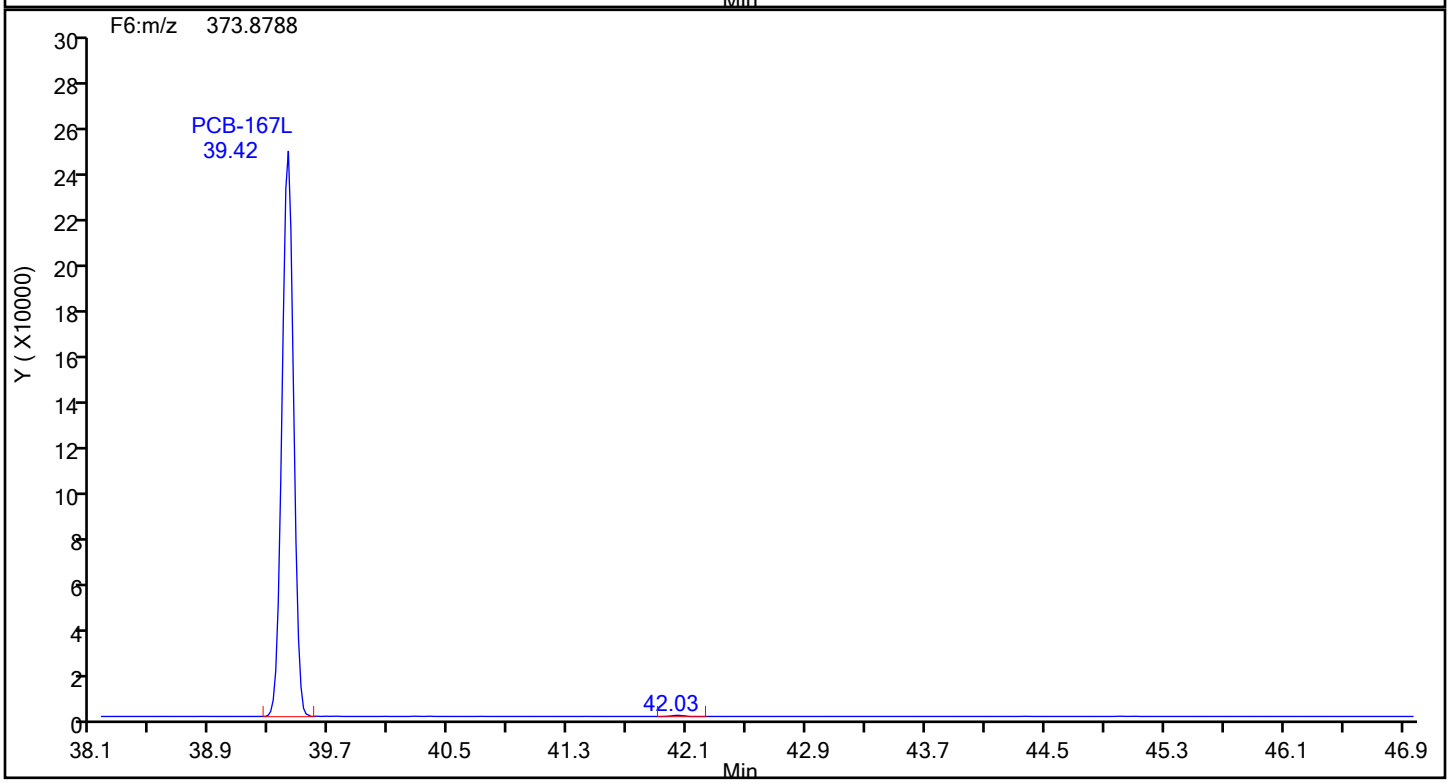
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





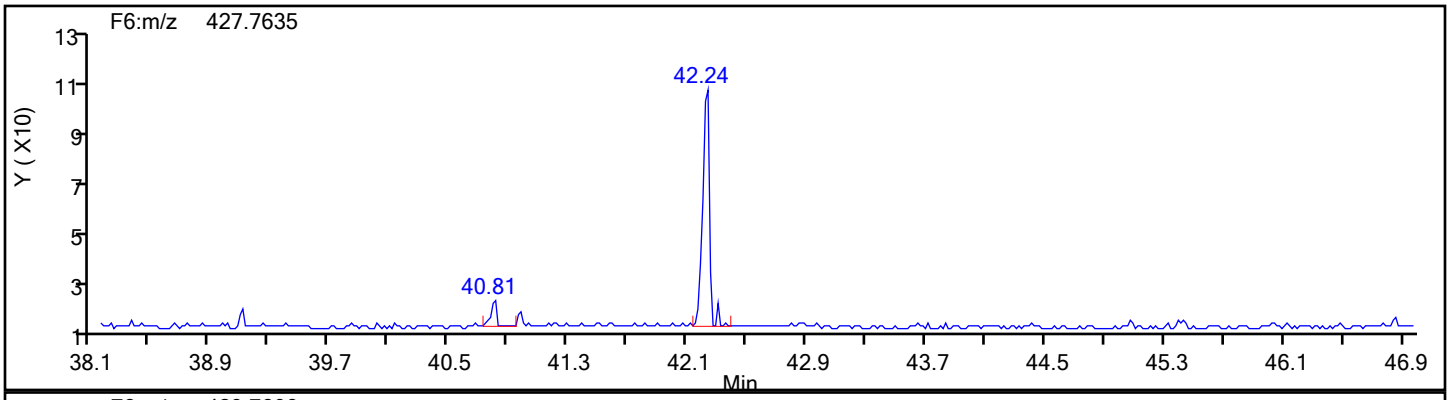
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

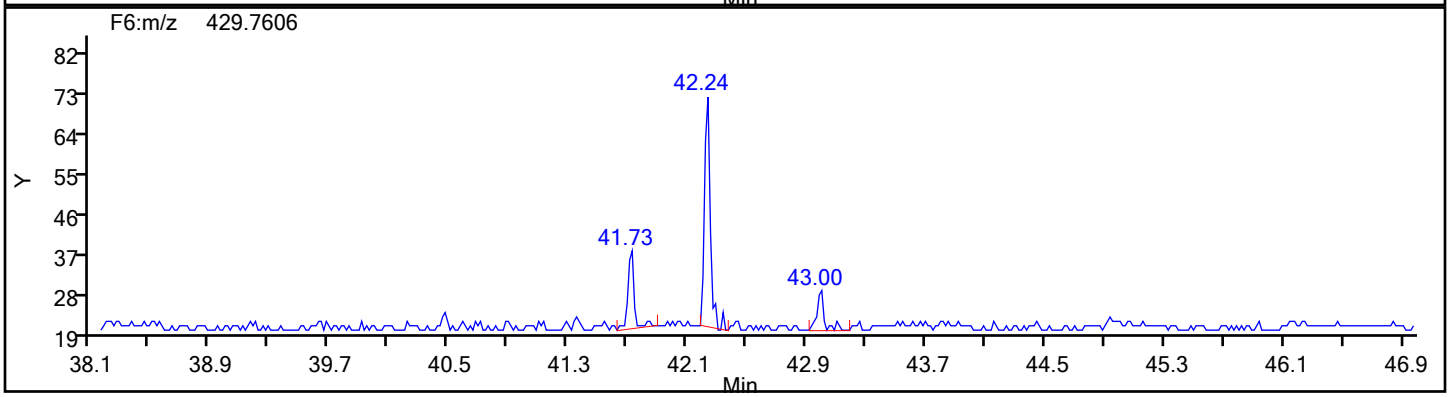
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

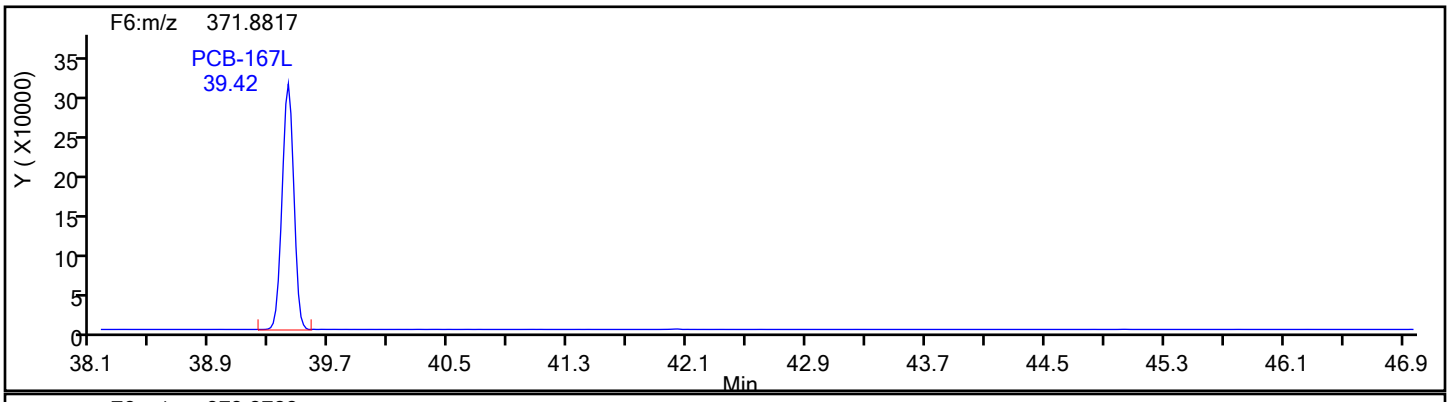
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

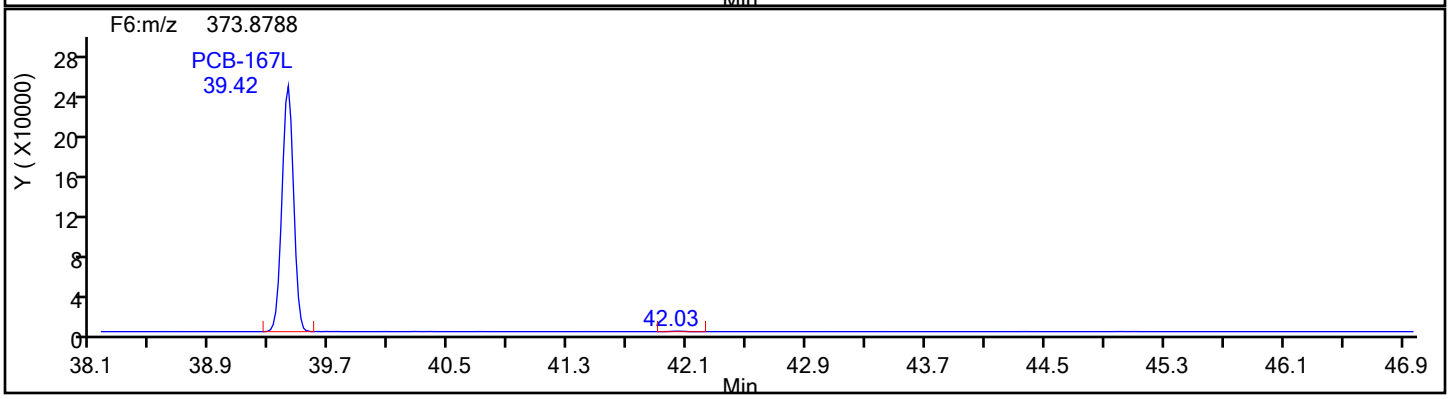
PCB-204





PCB-204 Standards



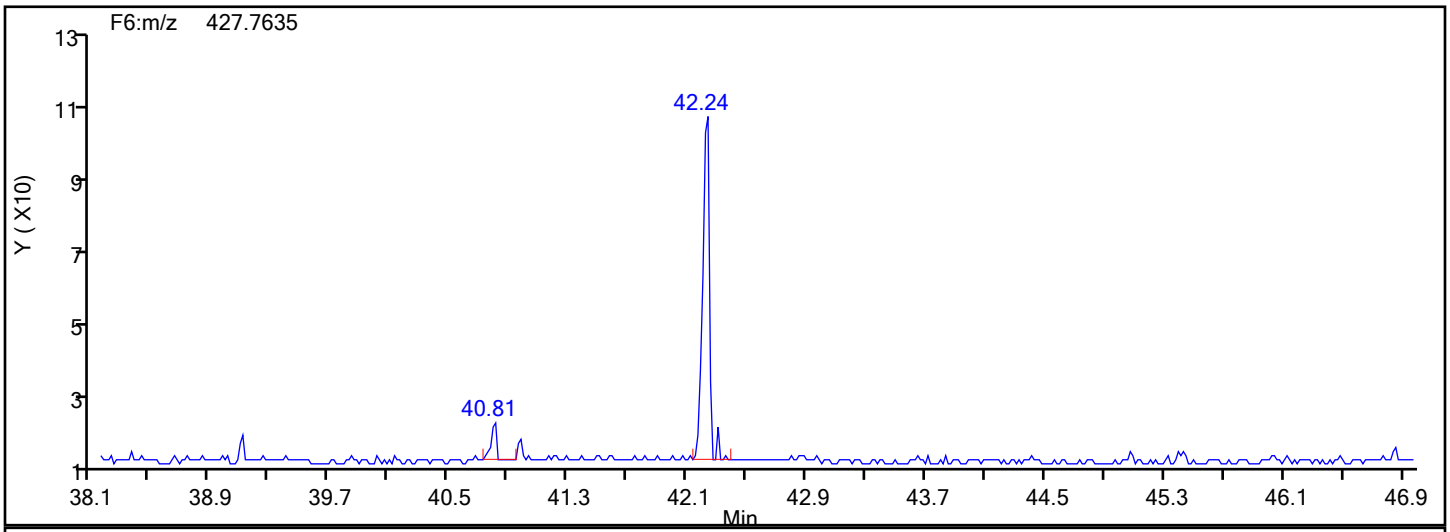


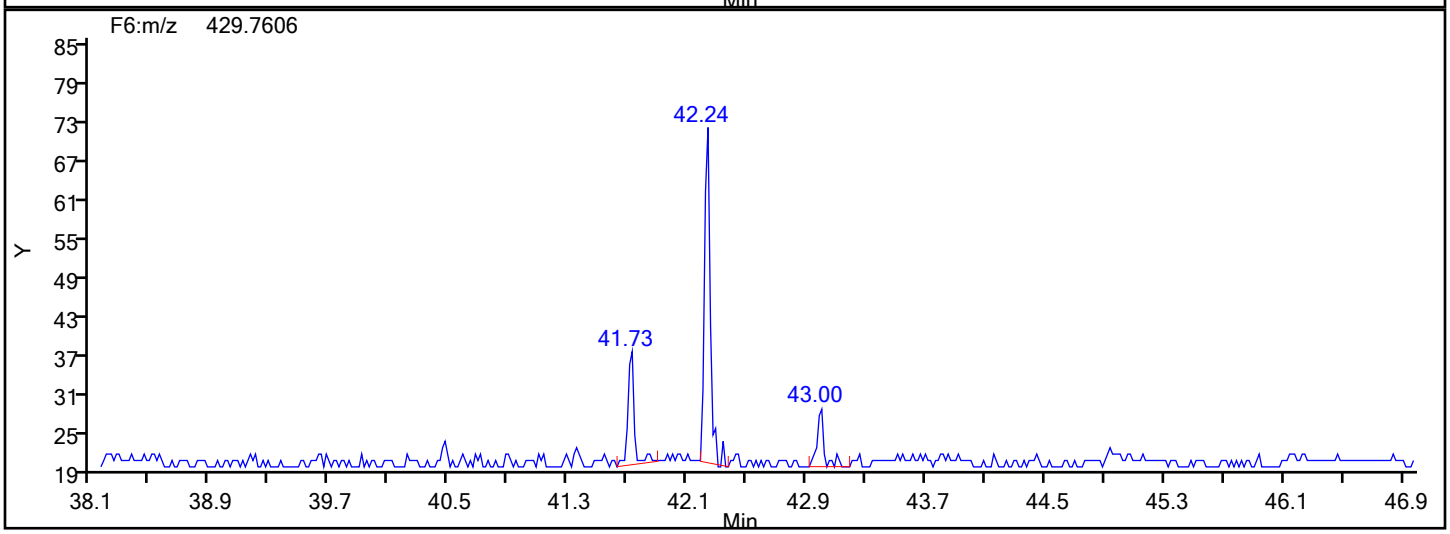
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

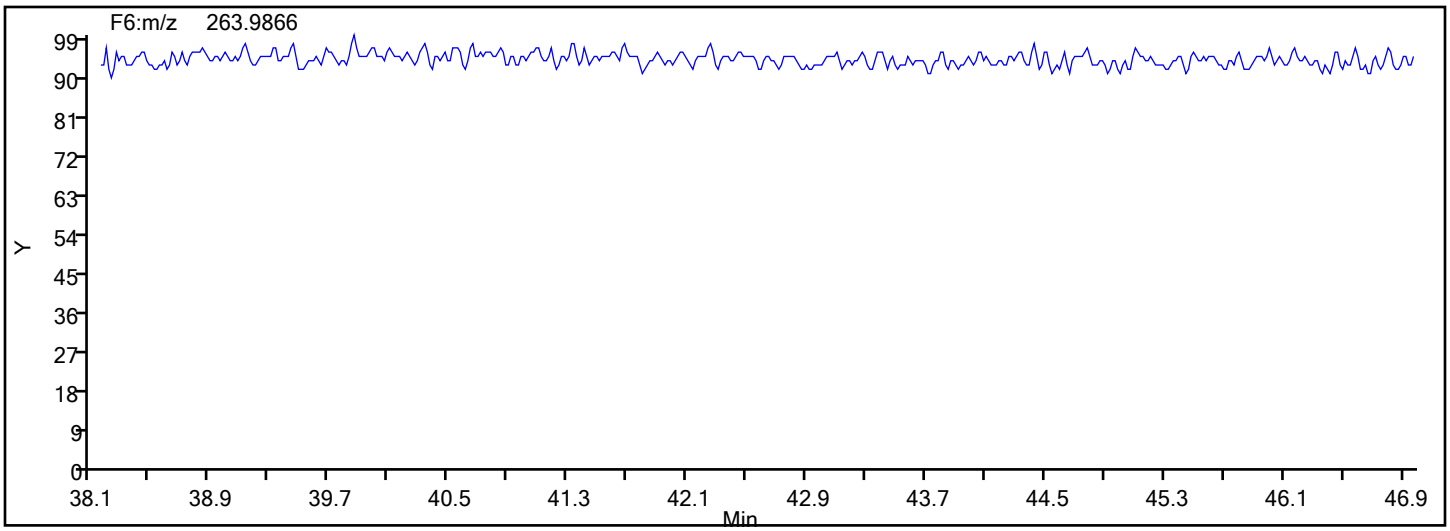
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d		
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



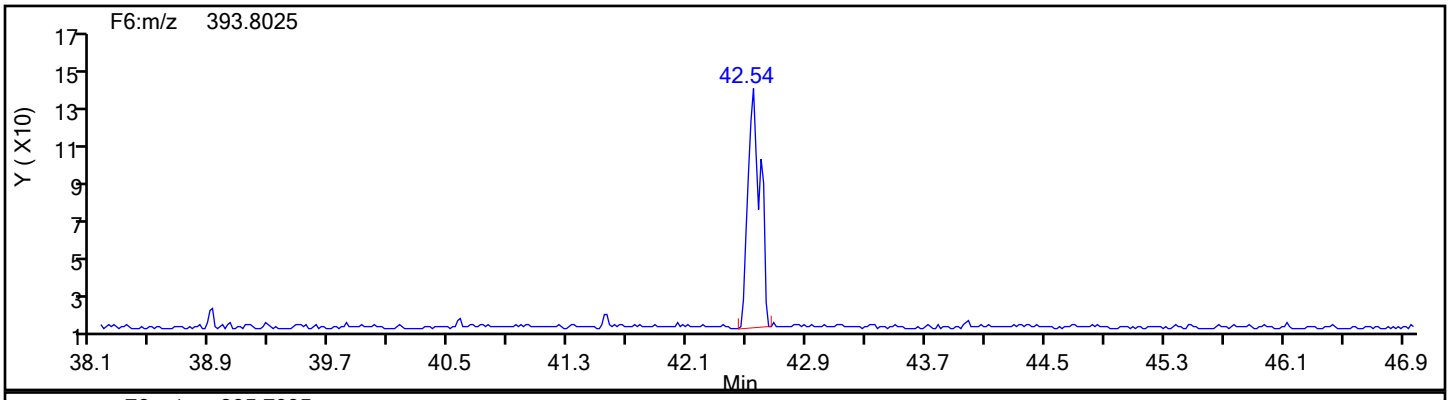
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

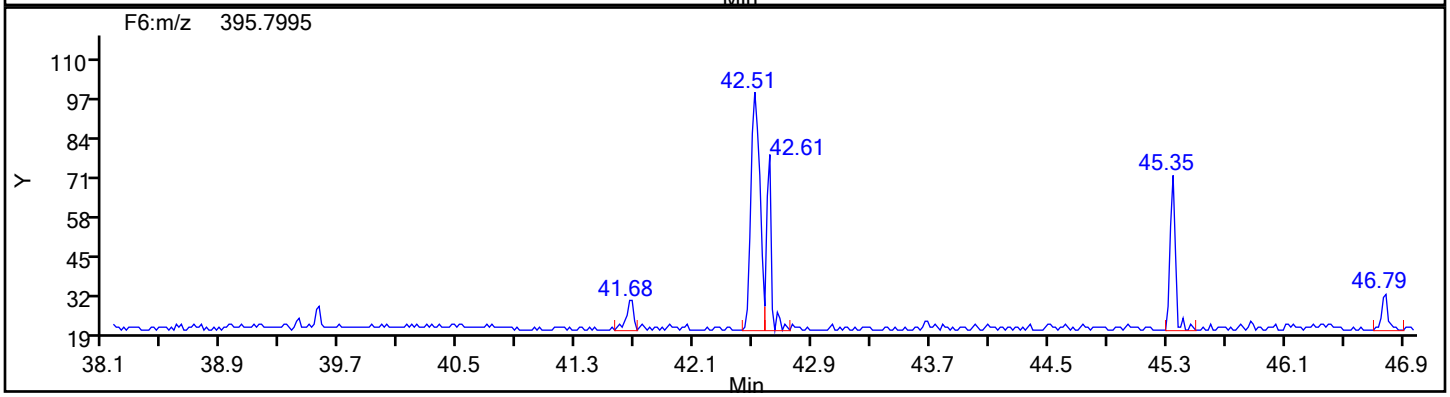
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

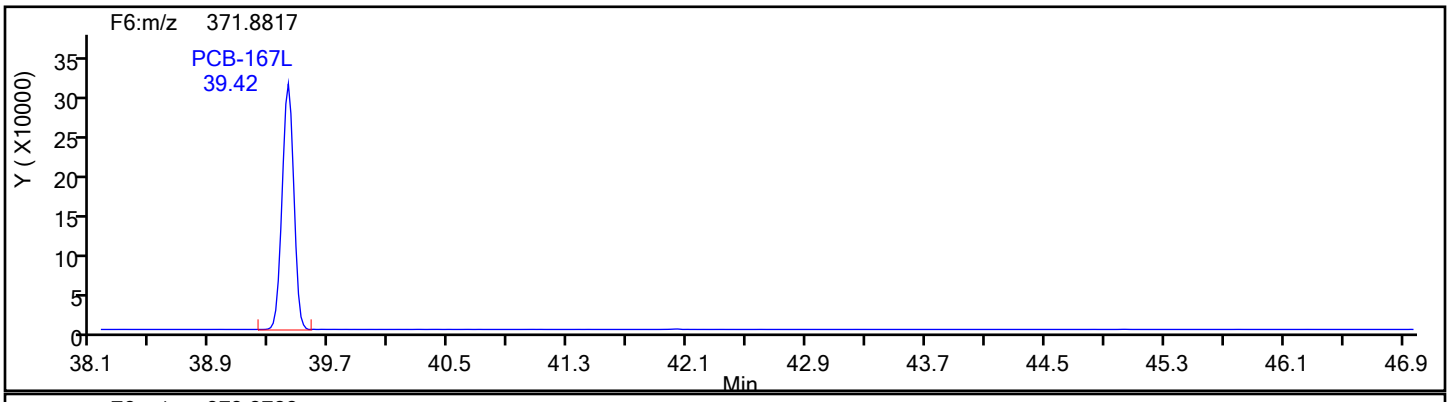
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

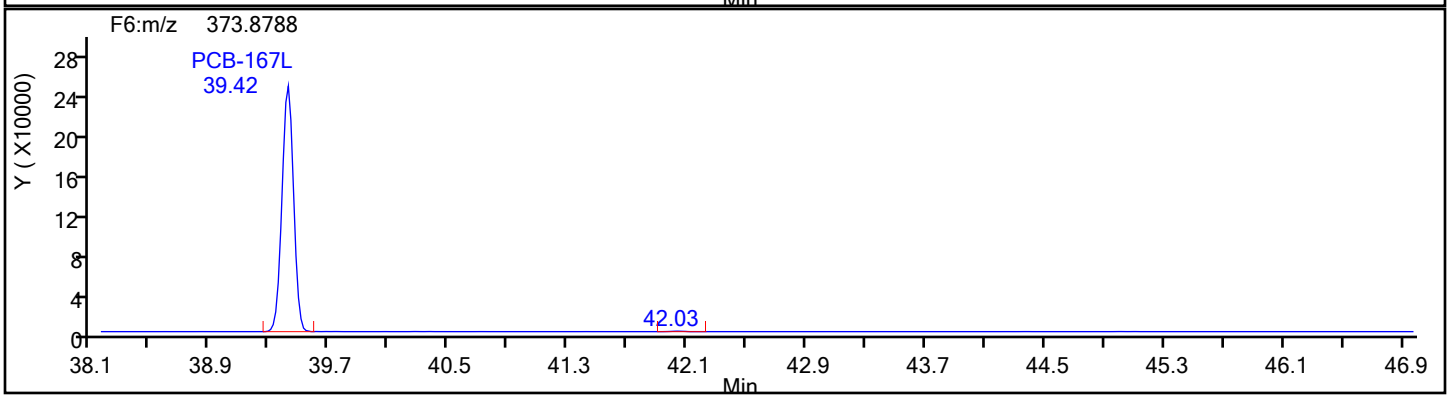
PCB-192





PCB-192 Standards





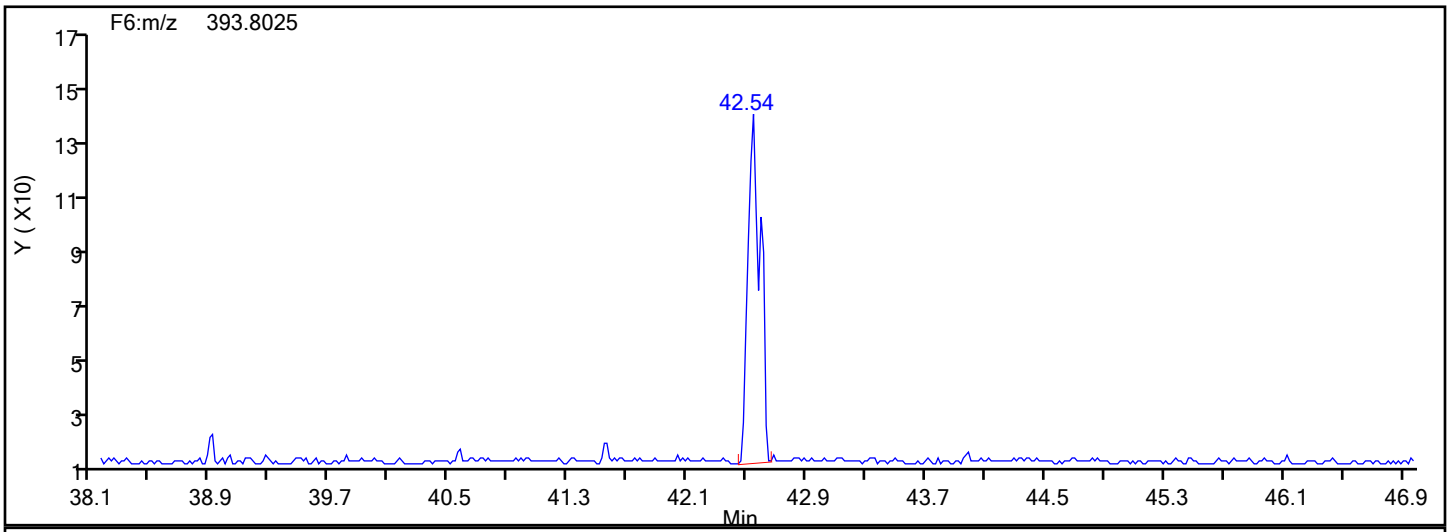
Report Date: 06-May-2025 14:53:42 Chrom Revision: 2.3 18-Apr-2025 15:35:42

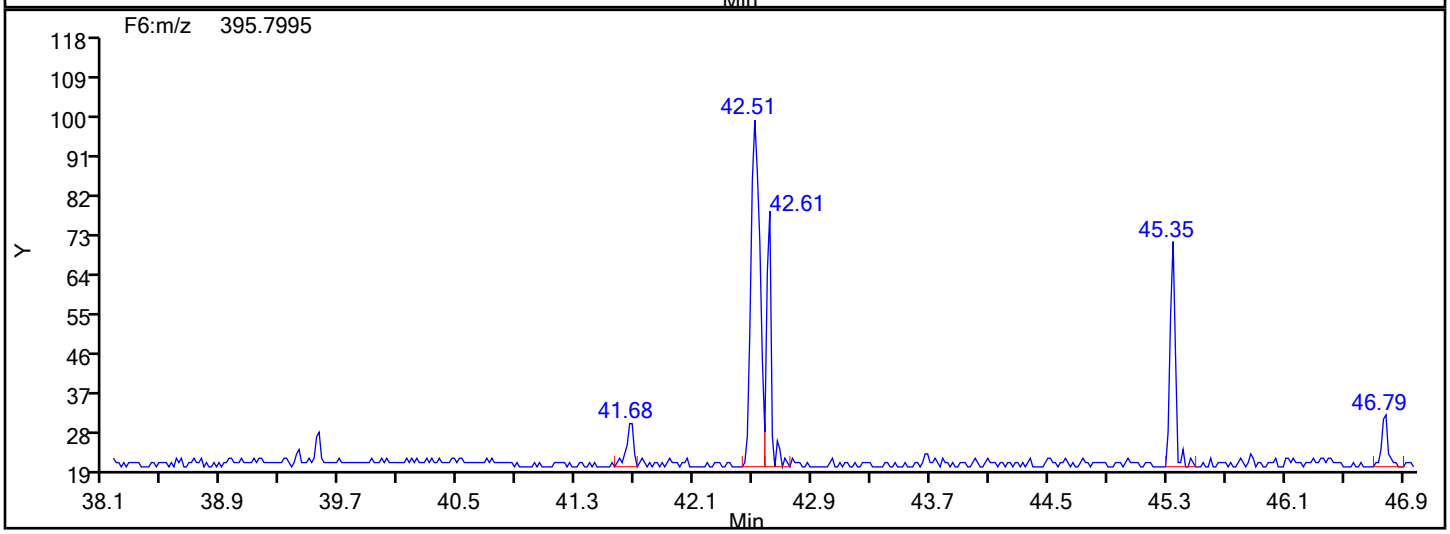
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250505-37640.b\d3250505p1a.d

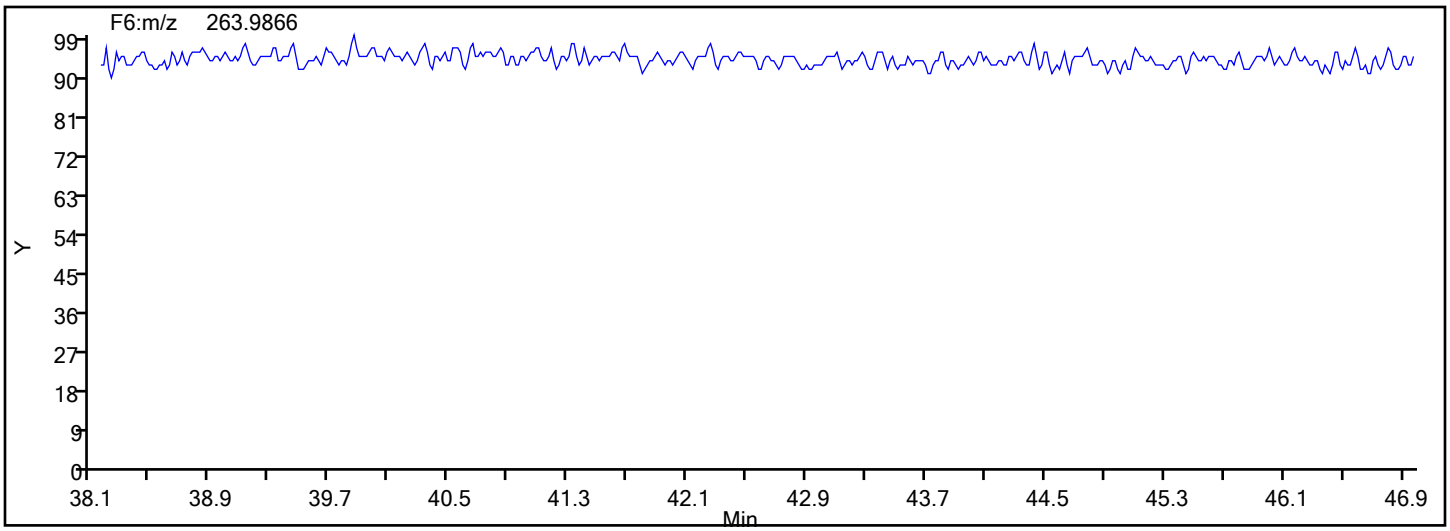
Injection Date:	05-May-2025 15:43:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99273	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM VII
PESTICIDES CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Lab Sample ID: CCV 140-99325/1 Calibration Date: 05/06/2025 15:50

Instrument ID: D3PST Calib Start Date: 05/02/2025 14:50

GC Column: RTX-5(60x.32x25 ID: 0.32(mm) Calib End Date: 05/02/2025 22:08

Lab File ID: d3250506p1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Pentachlorophenol	Ave	1.022	0.9941		973	1000	97	50-150
13C6-alpha BHC	Ave	0.2427	0.2658		110	100	110	50-150
13C6-Hexachlorobenzene	Ave	0.2759	0.2923		106	100	106	50-150
13C6-beta BHC	Ave	0.1892	0.2258		119	100	119	50-150
13C6-gamma BHC	Ave	0.2029	0.2393		118	100	118	50-150
13C6-delta BHC	Ave	0.1718	0.2054		120	100	120	50-150
13C10-Heptachlor	Ave	0.1629	0.1736		107	100	107	50-150
13C12-Aldrin	Ave	0.1517	0.1744		115	100	115	50-150
13C10-cis Heptachlor Epoxide	Ave	0.2676	0.2595		97.0	100	97	50-150
13C10-oxy Chlordane	Ave	0.0708	0.0731		103	100	103	50-150
13C10-trans Chlordane	Ave	0.3223	0.4053		126	100	126	50-150
13C12-2,4'-DDE	Ave	4.520	5.169		114	100	114	50-150
13C9-Endosulfan I	Ave	0.0899	0.1100		122	100	122	50-150
13C10-cis Chlordane	Ave	0.2976	0.3789		127	100	127	50-150
13C10-trans Nonachlor	Ave	0.2841	0.3733		131	100	131	50-150
13C12-4,4'-DDE	Ave	3.156	3.482		110	100	110	50-150
13C12-Dieldrin	Ave	0.2777	0.3386		122	100	122	50-150
13C12-2,4'-DDD	Ave	3.440	3.583		104	100	104	50-150
13C12-Endrin	Ave	0.1949	0.2143		110	100	110	50-150
13C9-Endosulfan II	Ave	0.0474	0.0563		119	100	119	50-150
13C12-4,4'-DDD	Ave	2.927	3.177		109	100	109	50-150
13C12-2,4'-DDT	Ave	2.037	2.326		114	100	114	50-150
13C10-cis Nonachlor	Ave	0.2243	0.2794		125	100	125	50-150
13C12-Endrin Aldehyde	Ave	0.0424	0.0420		99.1	100	99	50-150
13C9-Endosulfan sulfate	Ave	0.3464	0.4013		116	100	116	50-150
13C12-4,4'-DDT	Ave	1.806	2.020		112	100	112	50-150
13C11-Endrin Ketone	Ave	0.1045	0.1092		105	100	105	50-150
13C12-Methoxychlor	Ave	1.875	2.105		112	100	112	50-150
13C10-Mirex	Ave	1.983	2.772		140	100	140	50-150

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	06 May 2025 15:33
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

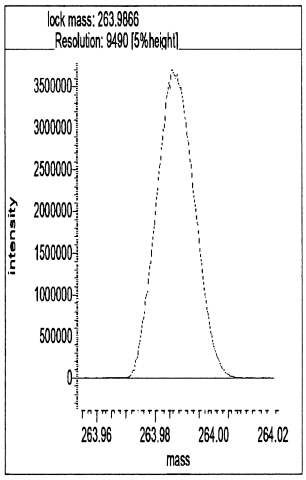
-d3250506r1

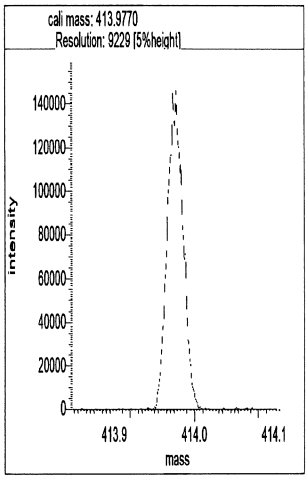
Segment 1

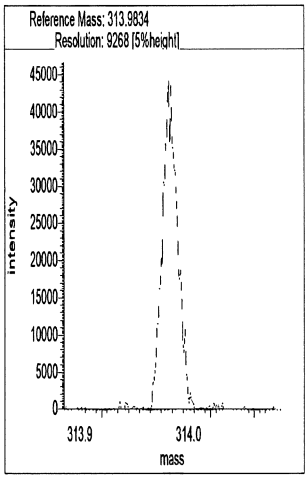
Lock mass 263.9866 [m/z] Resolution: 9490 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9229 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9268 [5%height]





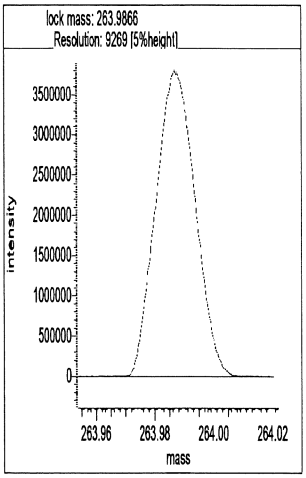


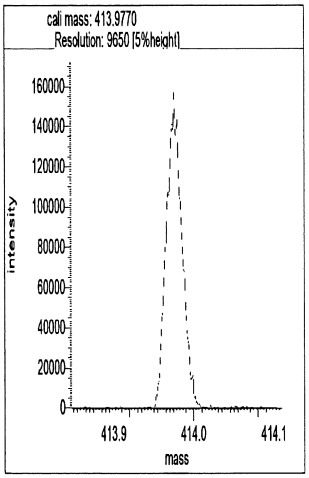
Segment 2

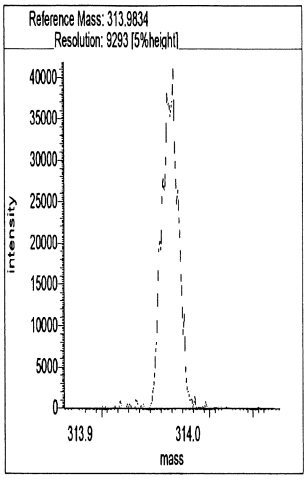
Lock mass 263.9866 [m/z] Resolution: 9269 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9650 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9293 [5%height]





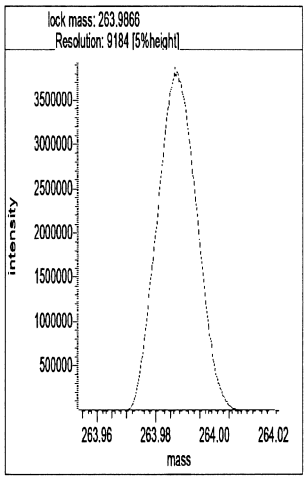


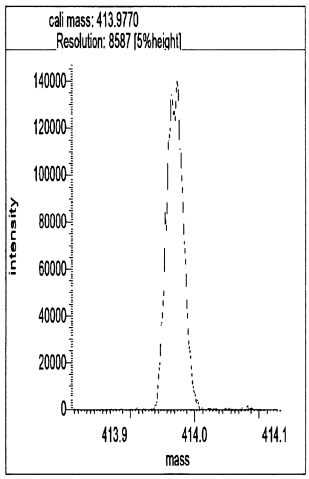
Segment 3

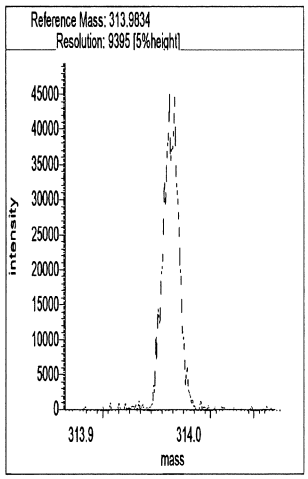
Lock mass 263.9866 [m/z] Resolution: 9184 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8587 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9395 [5%height]





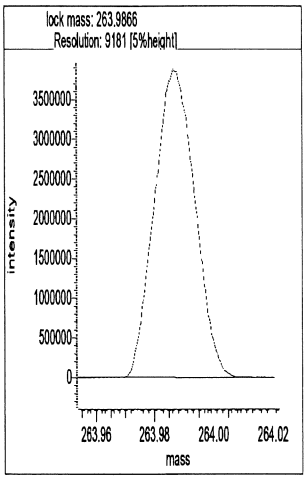


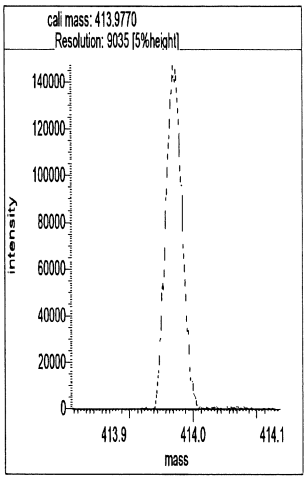
Segment 4

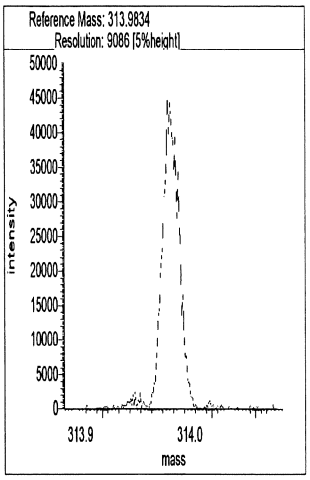
Lock mass 263.9866 [m/z] Resolution: 9181 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9035 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9086 [5%height]





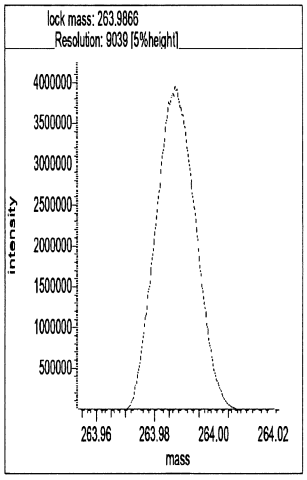


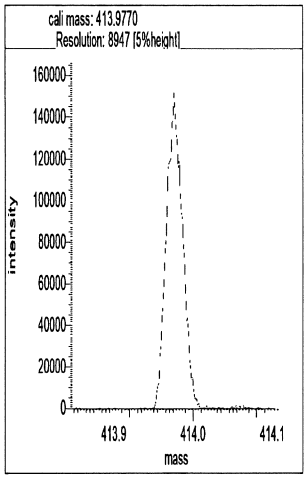
Segment 5

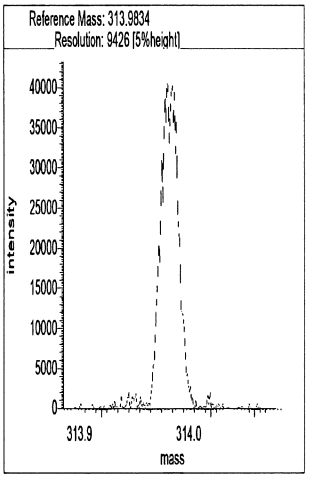
Lock mass 263.9866 [m/z] Resolution: 9039 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8947 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9426 [5%height]





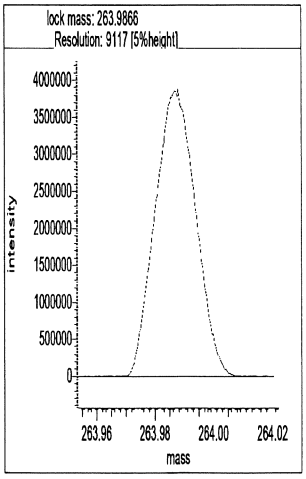


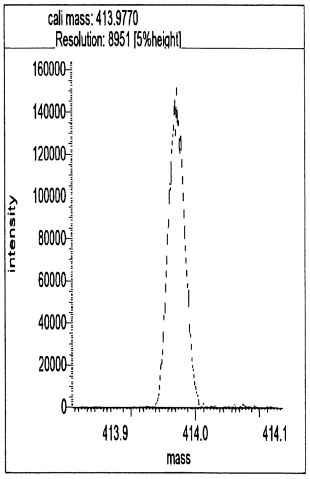
Segment 6

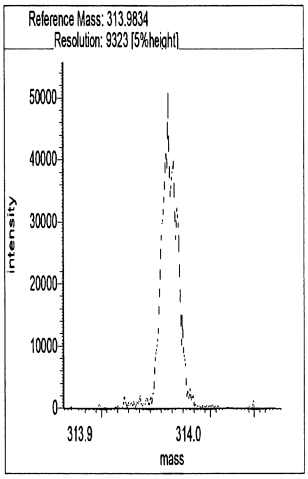
Lock mass 263.9866 [m/z] Resolution: 9117 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8951 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9323 [5%height]


lock mass: 263.9866
Resolution: 9117 [5%height]
intensity
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 8951 [5%height]
intensity
160000
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9323 [5%height]
intensity
50000
40000
30000
20000
10000
0
313.9
314.0
mass

```
Reports
15:46:53:  Peak matching procedure started
15:46:53:
15:46:54:  Reference mass: 263.98656
15:46:54:  Sample mass: 414.0
15:46:55:
15:46:55:  Finding reference mass
15:46:56:  Finding sample mass
15:46:57:
15:47:02:  [1]    413.9702 amu, mean: 413.9702
15:47:05:  [2]    413.9704 amu, mean: 413.9703      SD: 0.11 mmu or: 0.26 ppm
15:47:09:  [3]    413.9710 amu, mean: 413.9705      SD: 0.44 mmu or: 1.06 ppm
15:47:12:  [4]    413.9703 amu, mean: 413.9705      SD: 0.38 mmu or: 0.91 ppm
15:47:15:  [5]    413.9712 amu, mean: 413.9706      SD: 0.44 mmu or: 1.07 ppm
15:47:18:  [6]    413.9707 amu, mean: 413.9706      SD: 0.40 mmu or: 0.96 ppm
15:47:21:  [7]    413.9707 amu, mean: 413.9706      SD: 0.37 mmu or: 0.88 ppm
15:47:24:  [8]    413.9706 amu, mean: 413.9706      SD: 0.34 mmu or: 0.82 ppm
15:47:28:  [9]    413.9691 amu, mean: 413.9705      SD: 0.61 mmu or: 1.48 ppm
15:47:30:  [10]    413.9691 amu, mean: 413.9703      SD: 0.72 mmu or: 1.74 ppm
15:47:34:  [11]    413.9693 amu, mean: 413.9702      SD: 0.75 mmu or: 1.81 ppm
15:47:34:
15:47:34:  Stop requested. Please wait for procedure to finish.
15:47:34:
15:47:37:
15:47:38:  Peakmatching stopped
```

Signature 5/6/25

Resolution Check Report (DFS SN: 3439)

eurofins | Environment Testing TestAmerica

Date:	06 May 2025 19:13
MID Experiment:	ResCheck_1699
Target Resolution:	8000
Resolution Warning :	8000
Resolution Error :	8000
Reference:	FC43_1699.lua
Status:	RESOLUTION PASSED

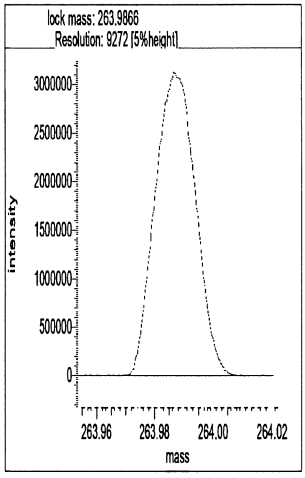
d3250506r2

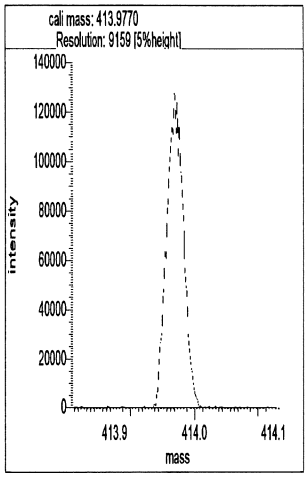
Segment 1

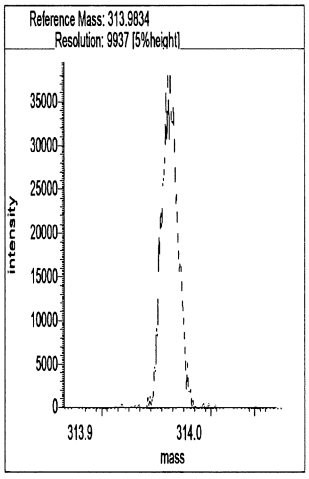
Lock mass 263.9866 [m/z] Resolution: 9272 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9159 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9937 [5%height]





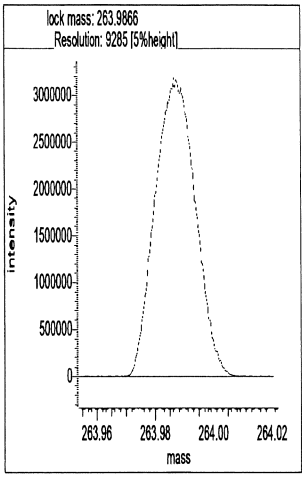


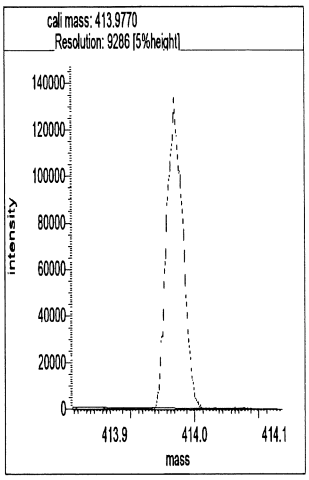
Segment 2

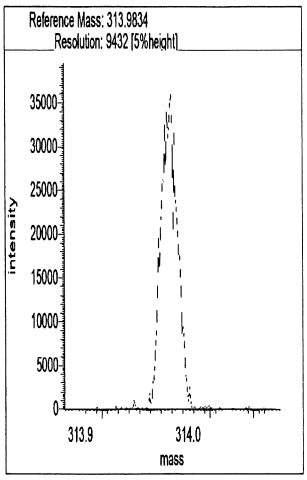
Lock mass 263.9866 [m/z] Resolution: 9285 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 9286 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9432 [5%height]





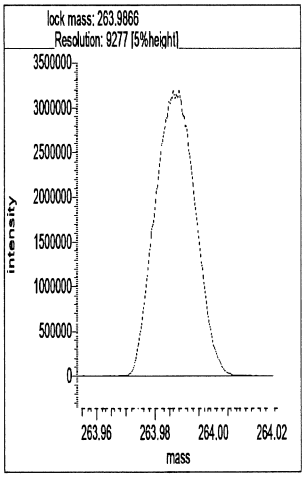


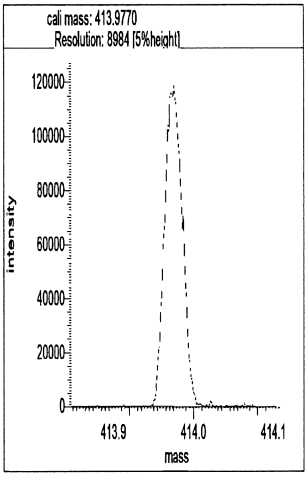
Segment 3

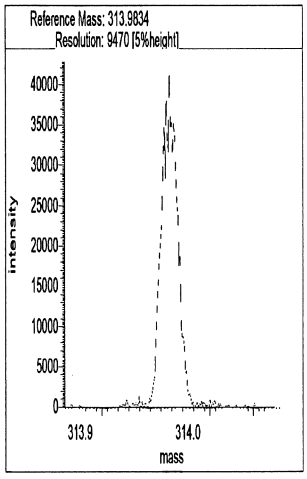
Lock mass 263.9866 [m/z] Resolution: 9277 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8984 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9470 [5%height]





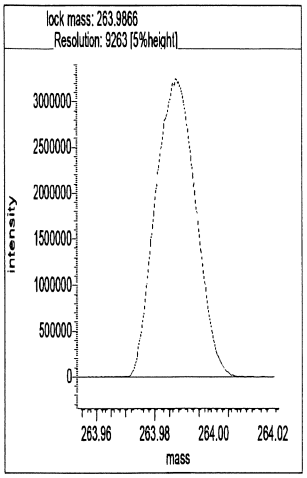


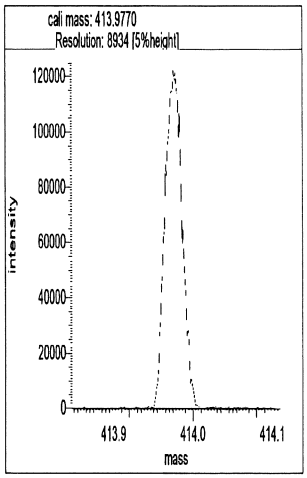
Segment 4

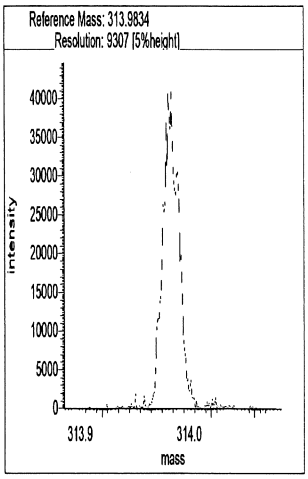
Lock mass 263.9866 [m/z] Resolution: 9263 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8934 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9307 [5%height]





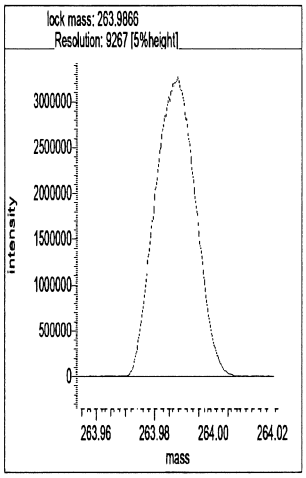


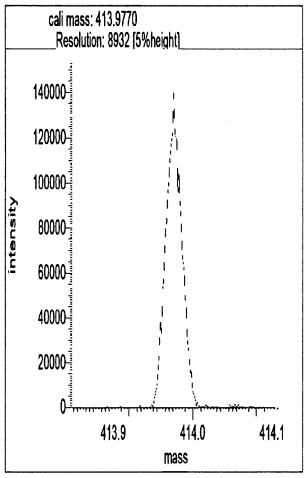
Segment 5

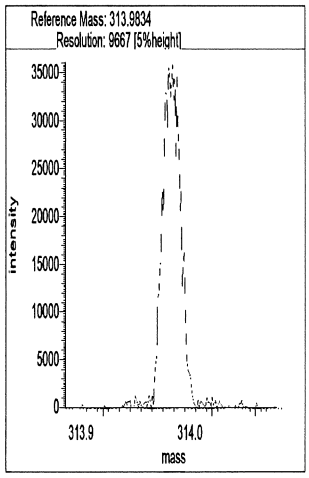
Lock mass 263.9866 [m/z] Resolution: 9267 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8932 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 9667 [5%height]





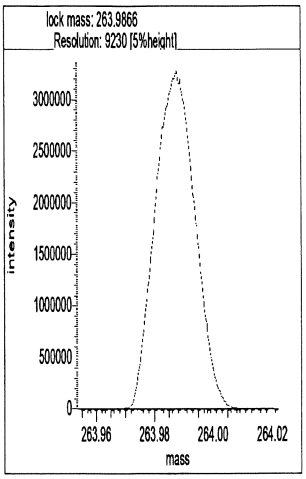


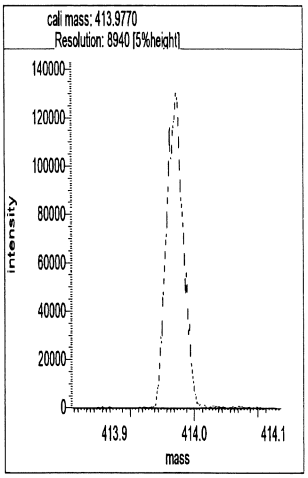
Segment 6

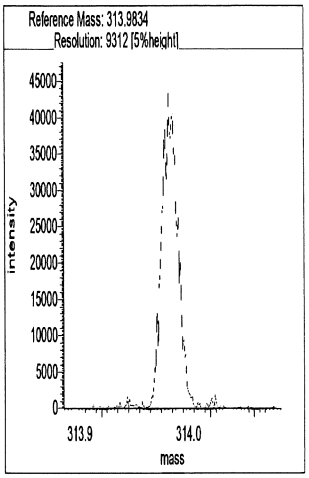
Lock mass 263.9866 [m/z] Resolution: 9230 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 8940 [5%height]

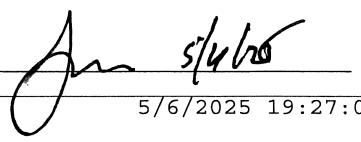
Ref. mass 313.9834 [m/z] Resolution: 9312 [5%height]


lock mass: 263.9866
Resolution: 9230 [5%height]
intensity
3000000
2500000
2000000
1500000
1000000
500000
0
263.96
263.98
264.00
264.02
mass


cali mass: 413.9770
Resolution: 8940 [5%height]
intensity
140000
120000
100000
80000
60000
40000
20000
0
413.9
414.0
414.1
mass


Reference Mass: 313.9834
Resolution: 9312 [5%height]
intensity
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
313.9
314.0
mass

```
Reports
19:26:21:  Peak matching procedure started
19:26:21:
19:26:22:  Reference mass: 263.98656
19:26:22:  Sample mass: 414.0
19:26:23:
19:26:23:  Finding reference mass
19:26:24:  Finding sample mass
19:26:25:
19:26:30:  [1]    413.9641 amu, mean: 413.9641
19:26:33:  [2]    413.9644 amu, mean: 413.9643      SD: 0.22 mmu or: 0.52 ppm
19:26:37:  [3]    413.9638 amu, mean: 413.9641      SD: 0.32 mmu or: 0.77 ppm
19:26:40:  [4]    413.9649 amu, mean: 413.9643      SD: 0.46 mmu or: 1.11 ppm
19:26:43:  [5]    413.9650 amu, mean: 413.9645      SD: 0.51 mmu or: 1.23 ppm
19:26:46:  [6]    413.9643 amu, mean: 413.9644      SD: 0.46 mmu or: 1.11 ppm
19:26:49:  [7]    413.9649 amu, mean: 413.9645      SD: 0.46 mmu or: 1.11 ppm
19:26:52:  [8]    413.9634 amu, mean: 413.9644      SD: 0.57 mmu or: 1.38 ppm
19:26:55:  [9]    413.9641 amu, mean: 413.9643      SD: 0.54 mmu or: 1.30 ppm
19:26:59:  [10]    413.9634 amu, mean: 413.9642      SD: 0.60 mmu or: 1.44 ppm
19:27:02:  [11]    413.9643 amu, mean: 413.9643      SD: 0.57 mmu or: 1.37 ppm
19:27:03:
19:27:03:  Stop requested. Please wait for procedure to finish.
19:27:03:
19:27:05:
19:27:05:  Peakmatching stopped
```

Signature 

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 06-May-2025 15:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 18:03:46 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 18:03:36

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:23	9549487	0.82	0.2427	109.5	109.5	0.2653	0.2653	110	
D 13C6-beta BHC	18:23	8113991	0.81	0.1892	119.4	119.4	0.3403	0.3403	119	
D 13C6-gamma BHC	18:39	8597128	0.81	0.2029	117.9	117.9	0.3173	0.3173	118	
D 13C6-delta BHC	19:37	7378749	0.81	0.1718	119.5	119.5	0.3747	0.3747	120	
D 13C10-Heptachlor	21:51	6238450	1.30	0.1629	106.6	106.6	0.0216	0.0216	107	
D 13C6-Hexachlorobenzene	17:42	10502626	1.28	0.2759	106.0	106.0	0.000141	0.000141	106	
D 13C12-Aldrin	23:43	6268187	1.60	0.1517	115.0	115.0	0.0402	0.0402	115	
D 13C10-oxy Chlordane	26:08	486928	1.07	0.0708	103.3	103.3	0.004587	0.004587	103	
D 13C10-cis Heptachlor Epoxide	26:05	1729410	1.26	0.2676	97.0	97.0	0.0138	0.0138	96.99	
D 13C12-2,4'-DDE	27:55	34444817	1.59	4.5202	114.3	114.3	0.0831	0.0831	114	
D 13C10-trans Chlordane	27:37	2700937	1.29	0.3223	125.7	125.7	0.0598	0.0598	126	
D 13C10-cis Chlordane	28:41	2525089	1.28	0.2976	127.3	127.3	0.0648	0.0648	127	
D 13C10-trans Nonachlor	28:59	2487808	1.30	0.2841	131.4	131.4	0.0679	0.0679	131	
D 13C9-Endosulfan I	28:30	733324	1.45	0.0899	122.4	122.4	0.2145	0.2145	122	
D 13C12-4,4'-DDE	30:09	23035887	1.58	3.1557	110.3	110.3	0.0861	0.0861	110	
D 13C12-4,4'-DDD	33:26	21022836	1.59	2.9265	108.6	108.6	0.009878	0.009878	109	
D 13C12-2,4'-DDT	33:42	15393163	1.59	2.0372	114.2	114.2	0.0142	0.0142	114	
D 13C12-4,4'-DDT	36:34	13362443	1.58	1.8061	111.8	111.8	0.0160	0.0160	112	
D 13C12-Dieldrin	30:22	2240232	1.71	0.2777	121.9	121.9	0.1323	0.1323	122	
D 13C12-Endrin	32:02	1417767	1.55	0.1949	109.9	109.9	0.1885	0.1885	110	
D 13C9-Endosulfan II	32:45	372494	1.34	0.0474	118.8	118.8	0.4712	0.4712	119	
D 13C12-Endrin Aldehyde	34:17	278199	1.50	0.0424	99.1	99.1	0.3742	0.3742	99.06	
D 13C12-Methoxychlor	41:54	13924686	24.38	1.8751	112.2	112.2	0.0260	0.0260	112	
D 13C11-Endrin Ketone	40:22	722494	1.60	0.1045	104.5	104.5	0.1681	0.1681	105	
D 13C10-Mirex	45:22	8831220	1.32	1.9829	139.8	139.8	0.0288	0.0288	140	
* PCB-15L	19:04	35932347	1.64		100.0	100.0				
* 13C6-Pentachlorophenol (IS)	18:29	4549436	0.68		500.0	500.0				
Pentachlorophenol	18:29	9044779	0.64	1.0218	972.8	972.8	0.1087	0.1087	97.28	
* PCB-101L	28:06	6664316	1.58		100.0	100.0				
* PCB-118L	32:46	6616558	1.63		100.0	100.0				
* PCB-138L	36:58	3185633	1.32		100.0	100.0				
* PCB-60L	27:43	14661393	0.82		100.0	100.0				
D 13C12-2,4'-DDD	30:50	23707474	1.56	3.4396	104.2	104.2	0.0455	0.0455	104	
D 13C10-cis Nonachlor	33:46	1848803	1.28	0.2243	124.6	124.6	0.0212	0.0212	125	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C9-Endosulfan sulfate	36:16	2655288	1.23	0.3464	115.8	115.8	0.0137	0.0137	116	
* PCB-167L	39:26	3092483	1.28		100.0	100.0				
S DDTR							0.000100	0.000100		
* PCB-52L	0.0									
S Total Chlordane							0.000100	0.000100		
* PCB-126L	0.0									

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 06-May-2025 15:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 18:03:46 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 18:03:36

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:23	17:23	0	0.912	4298061	1602377	2544	6360	630		
224.9317	17:23	17:23	0	0.912	5251426	1974493	756	1890	2612	0.82(0.58-0.96)	
13C6-beta BHC											
222.9342	18:23	18:23	0	0.964	3632965	1270150	2544	6360	499		
224.9317	18:22	18:23	-1	0.964	4481026	1586971	756	1890	2099	0.81(0.58-0.96)	
13C6-gamma BHC											
222.9342	18:39	18:39	0	0.979	3850394	1297375	2544	6360	510		
224.9317	18:39	18:39	0	0.979	4746734	1623579	756	1890	2148	0.81(0.58-0.96)	
13C6-delta BHC											
222.9342	19:37	19:37	0	1.029	3303016	1075947	2544	6360	423		
224.9317	19:36	19:37	-1	1.028	4075733	1333845	756	1890	1764	0.81(0.58-0.96)	
13C10-Heptachlor											
276.8270	21:51	21:51	0	1.147	3530403	1011052	112	280	9027		
278.8240	21:51	21:51	0	1.147	2708047	779565	68	170	11464	1.30(0.93-1.55)	
13C6-Hexachlorobenzene											
289.8303	17:42	17:42	0	0.929	5900995	2153225	1	2	2153225		
291.8273	17:42	17:42	0	0.929	4601631	1685606	1	2	1685606	1.28(0.93-1.55)	
13C12-Aldrin											
269.8805	23:43	23:43	0	1.244	3852988	993715	197	492	5044		
271.8775	23:43	23:43	0	1.244	2415199	638454	116	290	5504	1.60(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:08	26:08	0	0.930	251642	58594	1	2	58594		
398.8358	26:08	26:08	1	0.930	235286	61363	1	2	61363	1.07(0.78-1.30)	
13C10-cis Heptachlor Epoxide											
362.8778	26:05	26:05	0	0.928	965551	230989	12	30	19249		
364.8748	26:05	26:05	0	0.928	763859	187213	11	27	17019	1.26(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C12-2,4'-DDE											
258.0406	27:55	27:55	0	0.994	21145973	4837736	1540	3850	3141		
260.0376	27:55	27:55	0	0.994	13298844	3029583	774	1935	3914	1.59(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:37	27:37	0	0.983	1519941	355100	116	290	3061		
278.8240	27:37	27:37	0	0.983	1180996	271342	3	7	90447	1.29(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:41	28:41	0	1.021	1418291	313725	116	290	2705		
278.8240	28:40	28:41	-1	1.020	1106798	245904	3	7	81968	1.28(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	28:59	28:59	0	1.031	1404998	305909	116	290	2637		
278.8240	28:59	28:59	1	1.032	1082810	229875	3	7	76625	1.30(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:30	28:30	0	1.015	433774	103681	116	290	894		
278.8240	28:30	28:30	0	1.015	299550	61563	3	7	20521	1.45(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:09	30:09	0	0.920	14093555	3064075	954	2385	3212		
260.0376	30:09	30:09	0	0.920	8942332	1935516	531	1327	3645	1.58(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:26	33:26	0	1.020	12893258	2486696	109	272	22814		
249.0454	33:26	33:26	0	1.020	8129578	1577788	49	122	32200	1.59(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:42	33:42	0	1.028	9449917	1785746	109	272	16383		
249.0454	33:42	33:42	0	1.028	5943246	1128401	49	122	23029	1.59(1.17-1.95)	
13C12-4,4'-DDT											
247.0484	36:34	36:34	0	1.116	8183787	1483696	109	272	13612		
249.0454	36:34	36:34	0	1.116	5178656	957465	49	122	19540	1.58(1.16-1.94)	
13C12-Dieldrin											
269.8805	30:22	30:22	0	0.927	1412709	290866	163	407	1784		
271.8775	30:22	30:22	0	0.927	827523	175464	38	95	4617	1.71(1.16-1.94)	
13C12-Endrin											
269.8805	32:02	32:02	0	0.978	860731	166606	163	407	1022		
271.8775	32:01	32:02	-1	0.977	557036	119944	38	95	3156	1.55(1.16-1.94)	
13C9-Endosulfan II											
276.8270	32:45	32:45	0	1.000	213381	44967	75	187	600		
278.8240	32:45	32:45	0	1.000	159113	30127	47	117	641	1.34(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:17	34:17	0	1.046	166890	31289	25	62	1252		
358.9361	34:18	34:17	1	1.047	111309	18980	62	155	306	1.50(1.17-1.95)	
13C12-Methoxychlor											
239.1475	41:54	41:54	0	1.279	13376041	2303176	231	577	9970		
240.1510	41:54	41:54	0	1.279	548645	92789	35	87	2651	24.38(0.00-0.00)	
13C11-Endrin Ketone											
327.9408	40:22	40:22	0	1.232	444743	78341	72	180	1088		
329.9379	40:23	40:22	1	1.233	277751	45346	24	60	1889	1.60(1.19-1.98)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C10-Mirex											
276.8270	45:22	45:22	0	1.227	5025110	794181	69	172	11510		
278.8240	45:22	45:22	0	1.227	3806110	595928	67	167	8894	1.32(0.93-1.55)	
PCB-15L											
234.0406	19:04	19:04	0		22326834	8010002	48	120	166875		
236.0376	19:04	19:04	0		13605513	4804450	7	17	686350	1.64(1.16-1.93)	
13C6-Pentachlorophenol (IS)											
269.8666	18:29	18:29	0		1845213	536847	42	105	12782		
271.8636	18:29	18:29	0		2704223	822970	33	82	24938	0.68(0.00-0.00)	
Pentachlorophenol											
263.8464	18:29	18:29	0	1.000	3528142	962320	91	227	10575		
265.8435	18:29	18:29	0	1.000	5516637	1474119	30	75	49137	0.64(0.00-0.00)	
PCB-101L											
337.9207	28:06	28:06	0		4079132	943063	1	2	943063		
339.9178	28:06	28:06	0		2585184	597354	5	12	119471	1.58(1.16-1.94)	
PCB-118L											
337.9207	32:46	32:46	0		4102437	844320	32	80	26385		
339.9178	32:46	32:46	0		2514121	522058	34	85	15355	1.63(1.16-1.94)	
PCB-138L											
371.8817	36:58	36:58	0		1812245	336692	32	80	10522		
373.8788	36:58	36:58	0		1373388	257805	25	62	10312	1.32(1.16-1.94)	
PCB-60L											
301.9626	27:43	27:43	0		6609180	1482311	58	145	25557		
303.9597	27:43	27:43	0		8052213	1796361	111	277	16183	0.82(0.58-0.96)	
13C12-2,4'-DDD											
247.0484	30:50	30:50	0	0.941	14454947	3062931	475	1187	6448		
249.0454	30:50	30:50	0	0.941	9252527	1925213	380	950	5066	1.56(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:46	33:46	0	1.031	1038031	195679	19	47	10299		
278.8240	33:46	33:46	0	1.031	810772	158589	7	17	22656	1.28(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:16	36:16	0	1.107	1462368	255948	19	47	13471		
278.8240	36:17	36:16	1	1.107	1192920	209546	7	17	29935	1.23(0.93-1.55)	
PCB-167L											
371.8817	39:26	39:26	0		1737856	314726	5	12	62945		
373.8788	39:26	39:26	0		1354627	242856	7	17	34694	1.28(1.16-1.94)	
PCB-52L											
0.0											
PCB-126L											
0.0											

Reagents:

61L41699PCP_00001 Amount Added: 20.00 Units: uL

Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 06-May-2025 15:50:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Xcalibur_System Instrument ID: D3PST
Sublist: chrom-1699__D3PST*sub16

Method: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 06-May-2025 18:03:46 Calib Date: 02-May-2025 22:08:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250502-37612.b\d3250502ip9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1667

First Level Reviewer: F9EE Date: 06-May-2025 18:03:36

Start Cal Date: 02-May-2025 14:50:00
End Cal Date: 02-May-2025 22:08:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
13C6-alpha BHC		17:23	17:23	1	15	0.9120	0.9121	0.812 - 1.0115
13C6-beta BHC		18:22	18:23	1	15	0.9641	0.9641	0.864 - 1.0640
13C6-gamma BHC		18:39	18:39	0	15	0.9791	0.9786	0.878 - 1.0780
13C6-delta BHC		19:36	19:37	1	15	1.0290	1.0289	0.930 - 1.1300
13C10-Heptachlor		21:51	21:51	1	15	1.1464	1.1466	1.046 - 1.2460
13C6-Hexachlorobenzene		17:42	17:42	1	15	0.9287	0.9287	0.828 - 1.0280
13C12-Aldrin		23:43	23:43	0	15	1.2447	1.2440	0.000 - 0.0000
13C10-oxy Chlordane		26:07	26:08	1	15	0.9296	0.9299	0.000 - 0.0000
13C10-cis Heptachlor Epoxide		26:05	26:05	0	15	0.9286	0.9285	0.000 - 0.0000
13C12-2,4'-DDE		27:54	27:55	1	15	0.9932	0.9937	0.000 - 0.0000
13C10-trans Chlordane		27:36	27:37	1	15	0.9826	0.9831	0.000 - 0.0000
13C10-cis Chlordane		28:40	28:41	1	15	1.0204	1.0208	0.000 - 0.0000
13C10-trans Nonachlor		28:59	28:59	1	15	1.0315	1.0315	0.000 - 0.0000
13C9-Endosulfan I		28:29	28:30	1	15	1.0141	1.0145	0.000 - 0.0000
13C12-4,4'-DDE		30:08	30:09	1	15	0.9200	0.9200	0.000 - 0.0000
13C12-4,4'-DDD		33:25	33:26	1	15	1.0203	1.0201	0.000 - 0.0000
13C12-2,4'-DDT		33:42	33:42	1	15	1.0287	1.0285	0.000 - 0.0000
13C12-4,4'-DDT		36:34	36:34	1	15	1.1161	1.1159	0.000 - 0.0000
13C12-Dieldrin		30:21	30:22	1	15	0.9265	0.9266	0.000 - 0.0000
13C12-Endrin		32:01	32:02	1	15	0.9776	0.9776	0.000 - 0.0000
13C9-Endosulfan II		32:45	32:45	0	15	1.0000	0.9996	0.000 - 0.0000
13C12-Endrin Aldehyde		34:17	34:17	1	15	1.0465	1.0463	0.000 - 0.0000
13C12-Methoxychlor		41:54	41:54	1	15	1.2791	1.2787	0.000 - 0.0000
13C11-Endrin Ketone		40:22	40:22	1	15	1.2325	1.2321	0.000 - 0.0000
13C10-Mirex		45:22	45:22	1	15	1.2276	1.2274	0.000 - 0.0000

Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-15L		19:03	19:04	1		1.0000	1.0000	0.000 - 0.0000
13C6-Pentachlorophenol (IS)		18:29	18:29	1		1.0000	1.0000	0.000 - 0.0000
Pentachlorophenol		18:29	18:29	1		1.0000	1.0000	0.000 - 0.0000
PCB-101L		28:05	28:06	1		1.0000	1.0000	0.000 - 0.0000
PCB-118L		32:45	32:46	1		1.0000	1.0000	0.000 - 0.0000
PCB-138L		36:57	36:58	1		1.0000	1.0000	0.000 - 0.0000
PCB-60L		27:43	27:43	1		1.0000	1.0000	0.000 - 0.0000
13C12-2,4'-DDD		30:49	30:50	1	15	0.9408	0.9408	0.000 - 0.0000
13C10-cis Nonachlor		33:46	33:46	1	15	1.0308	1.0305	0.000 - 0.0000
13C9-Endosulfan sulfate		36:15	36:16	1	15	1.1067	1.1065	0.000 - 0.0000
PCB-167L		39:26	39:26	1		1.0000	1.0000	0.000 - 0.0000

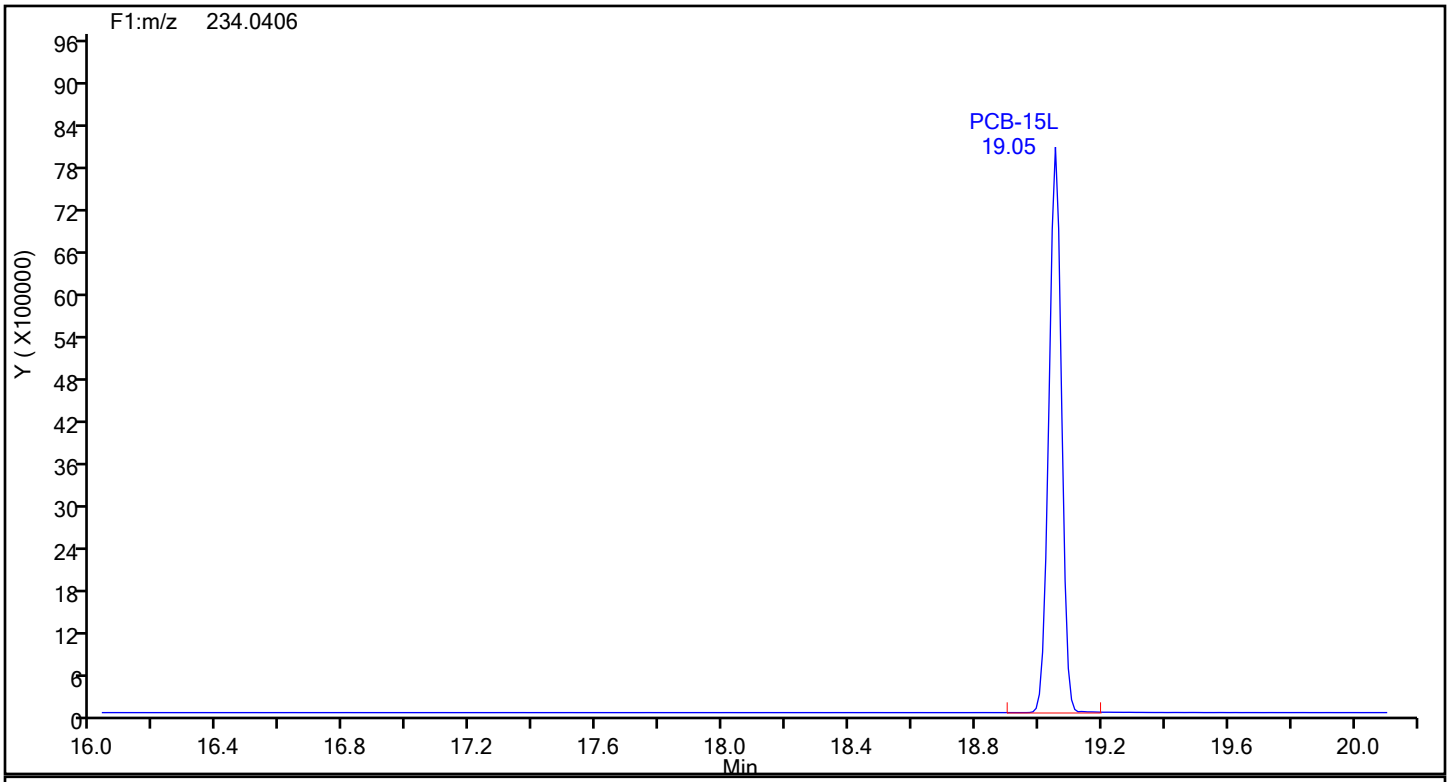
Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

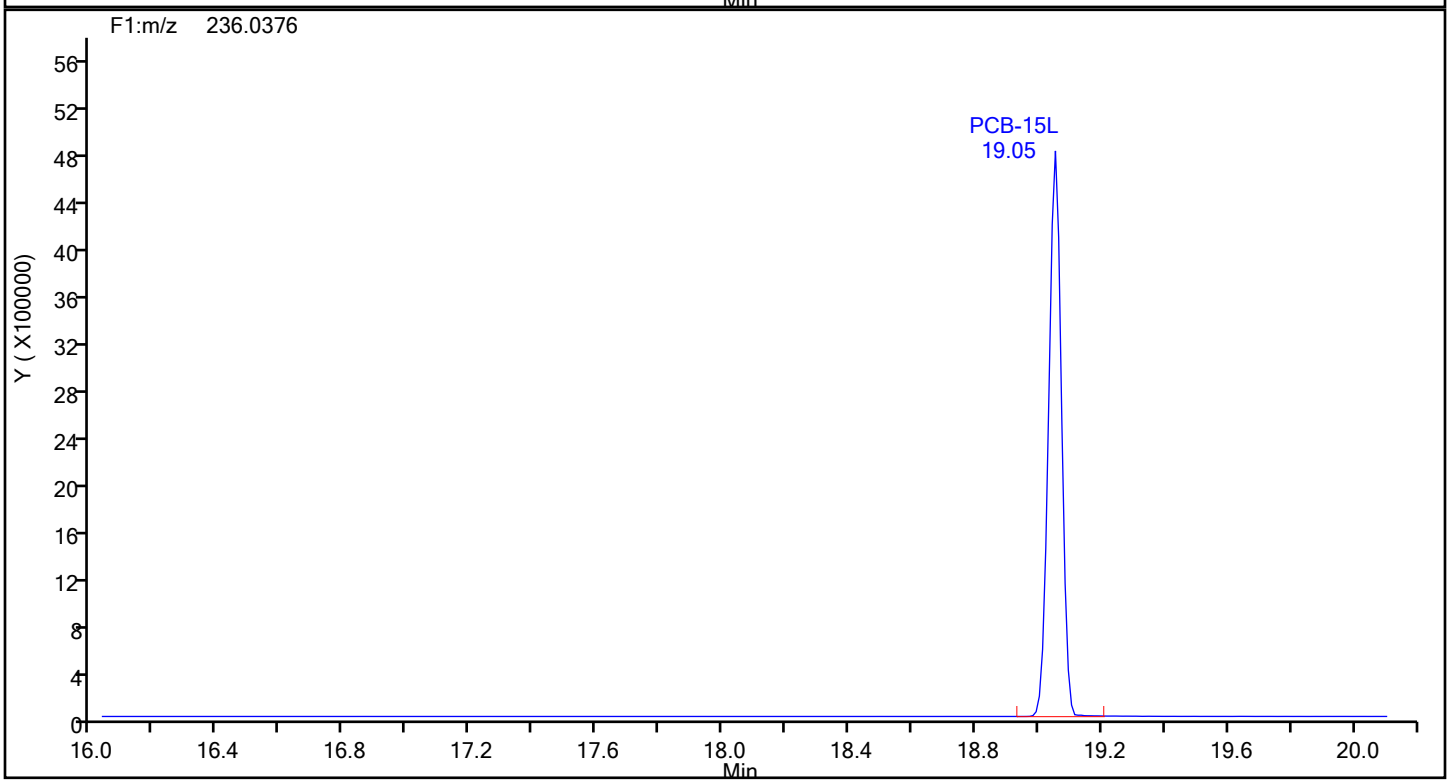
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-15L Standards





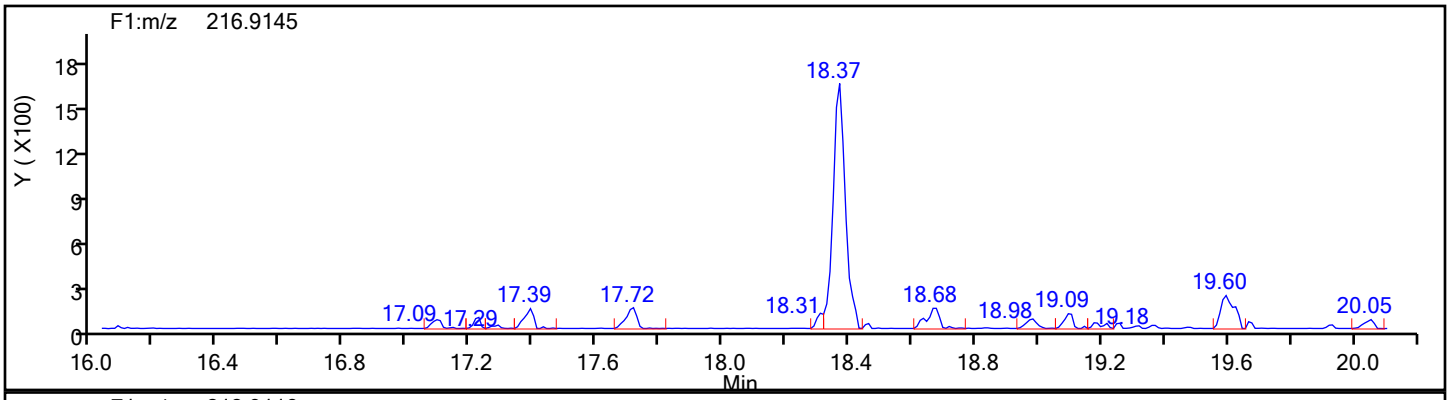
Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

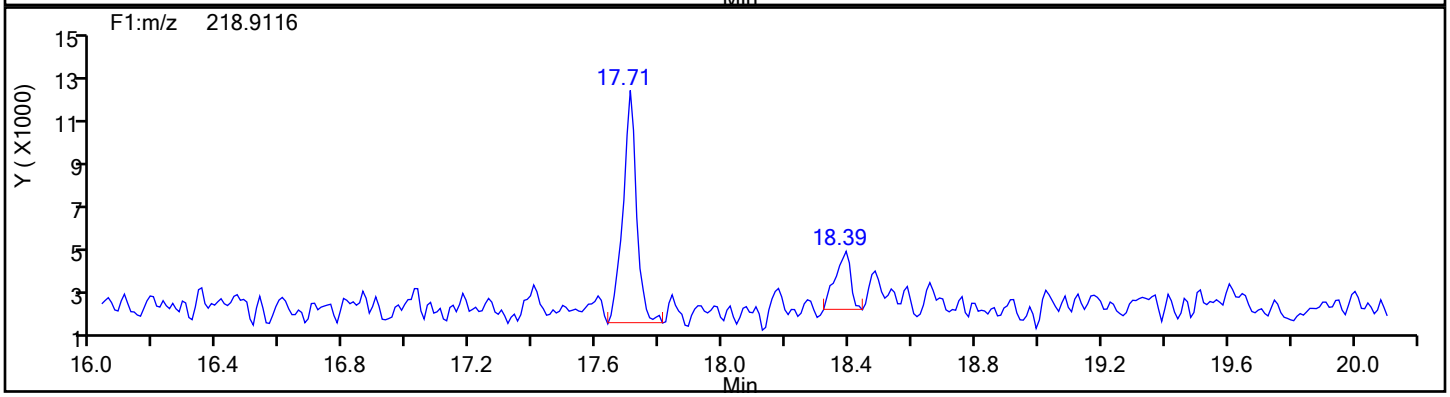
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

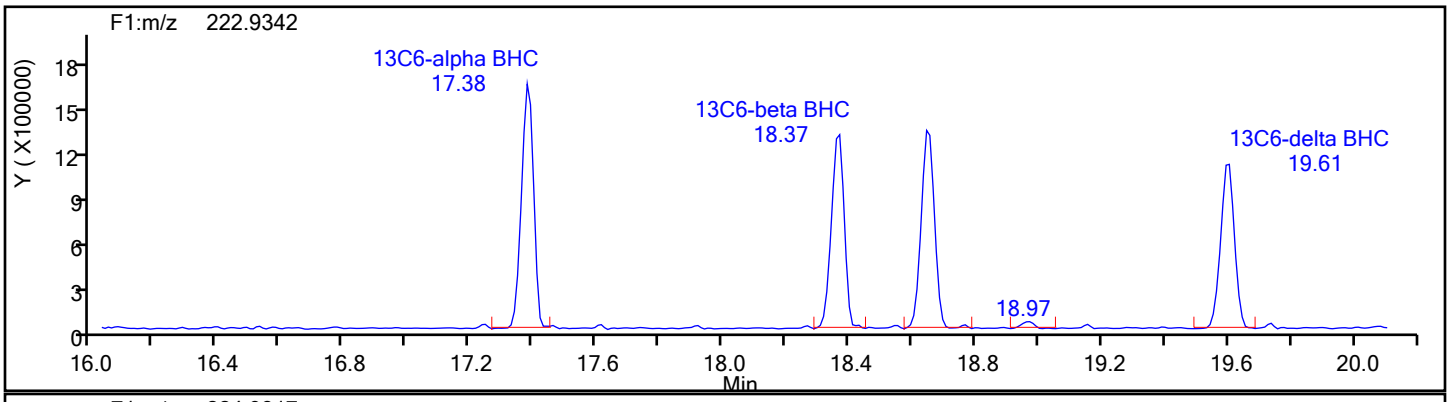
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

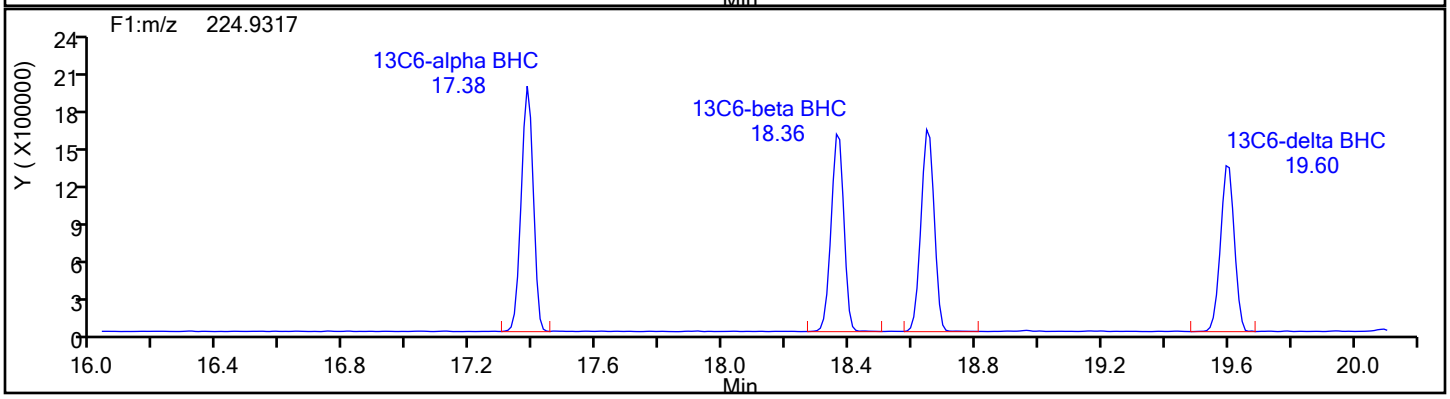
BHC





BHC Standards



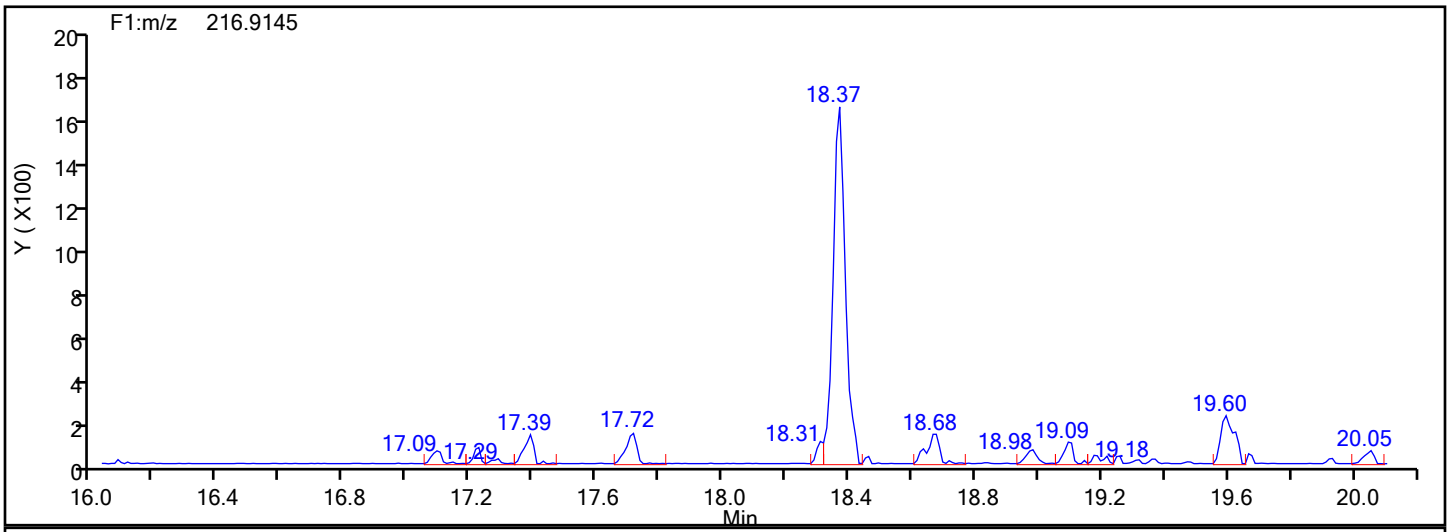


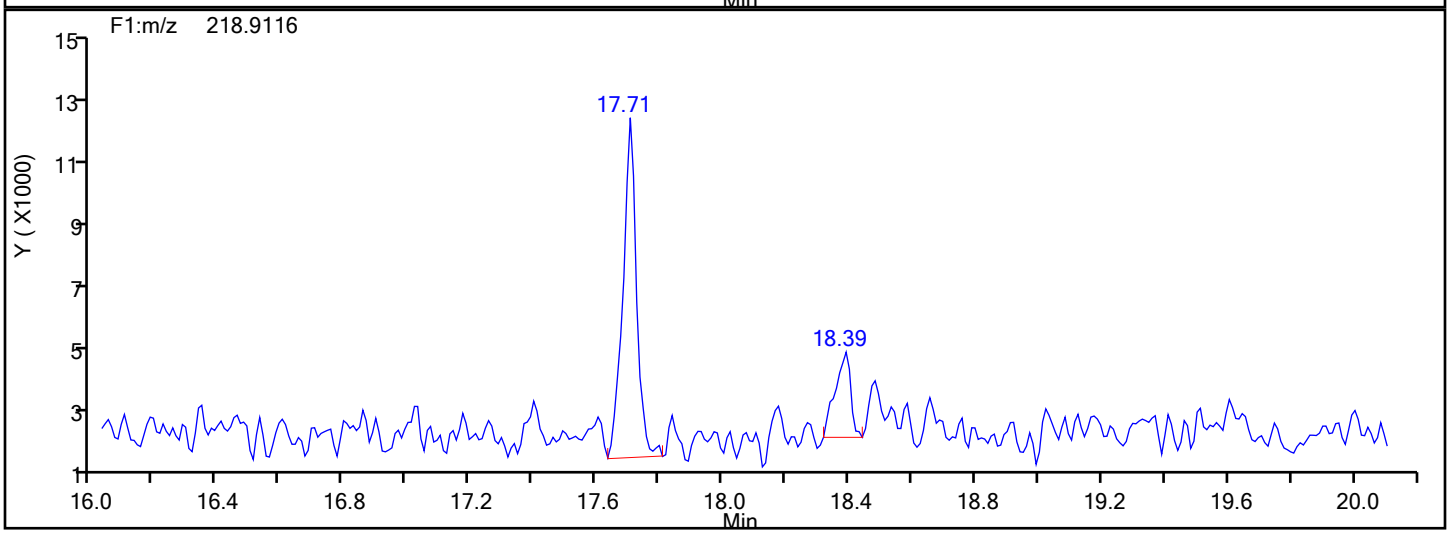
Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

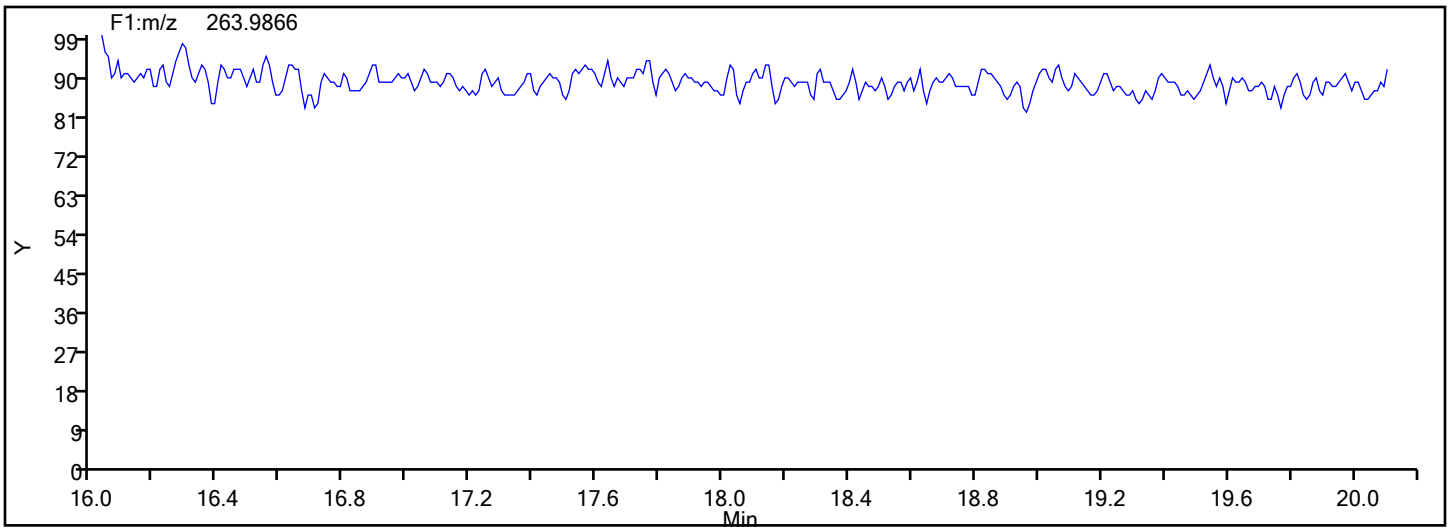
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

BHC





BHC Lock Mass



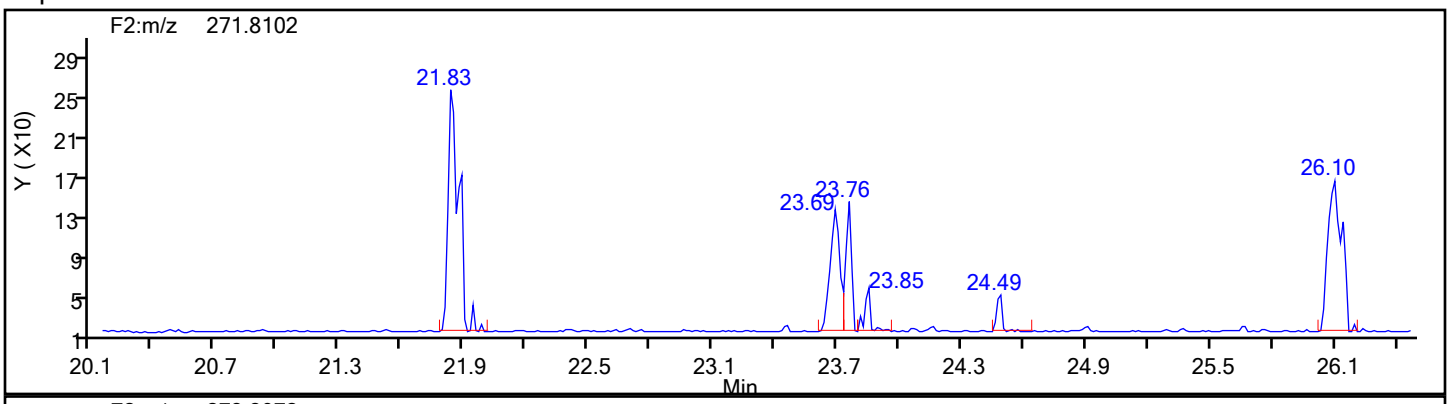
Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

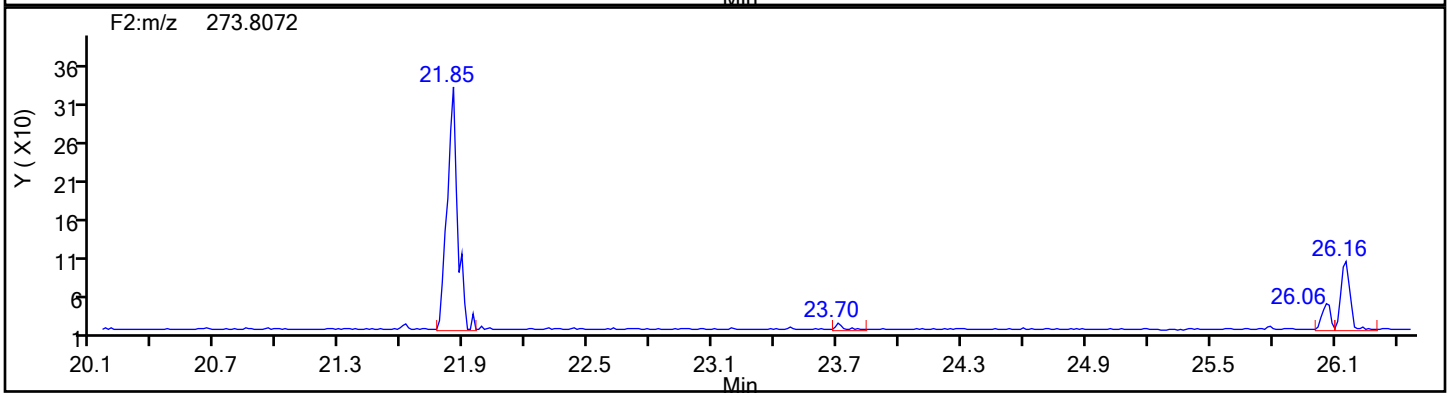
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

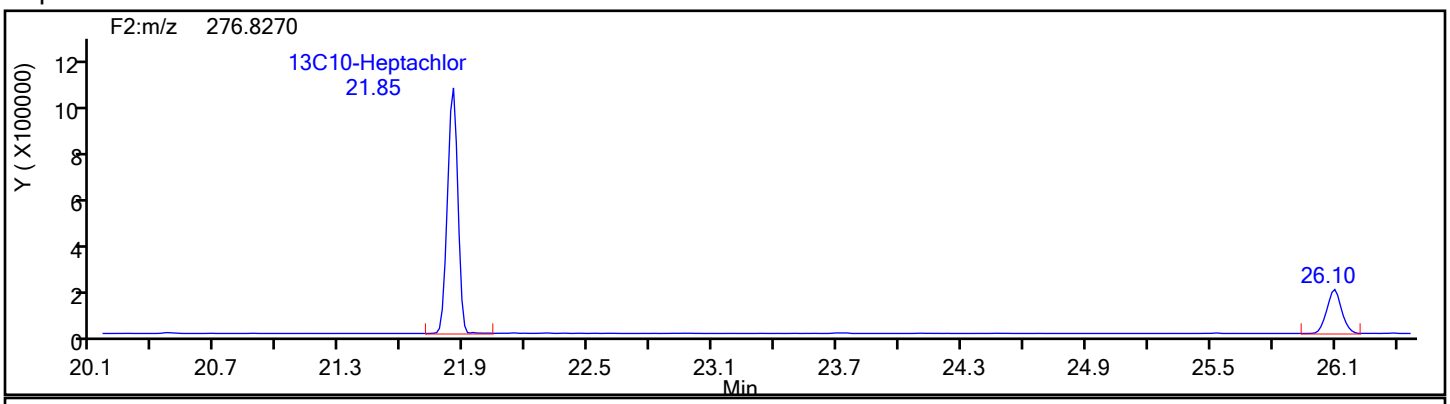
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

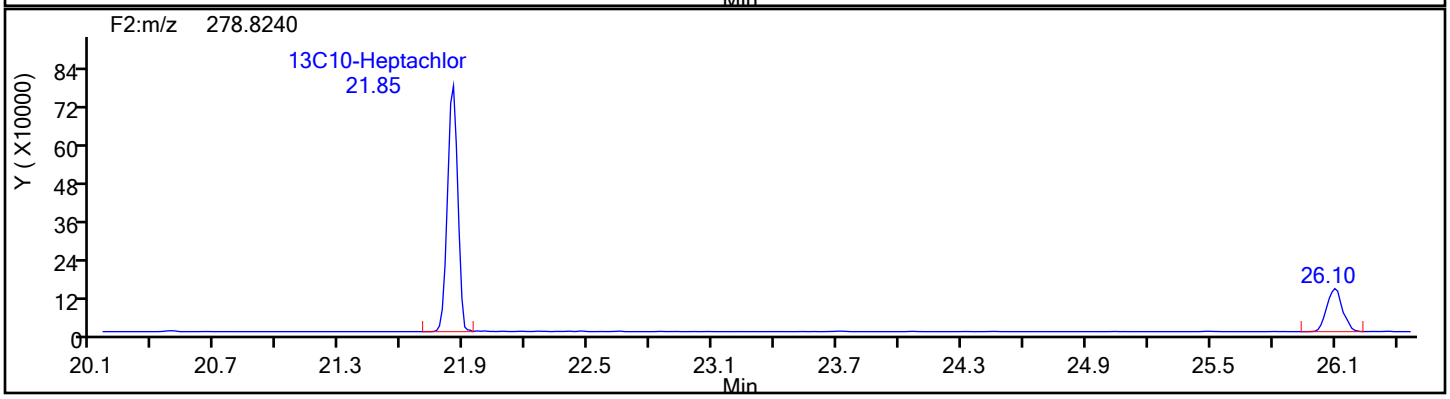
Heptachlor





Heptachlor Standards





Report Date: 06-May-2025 18:03:47 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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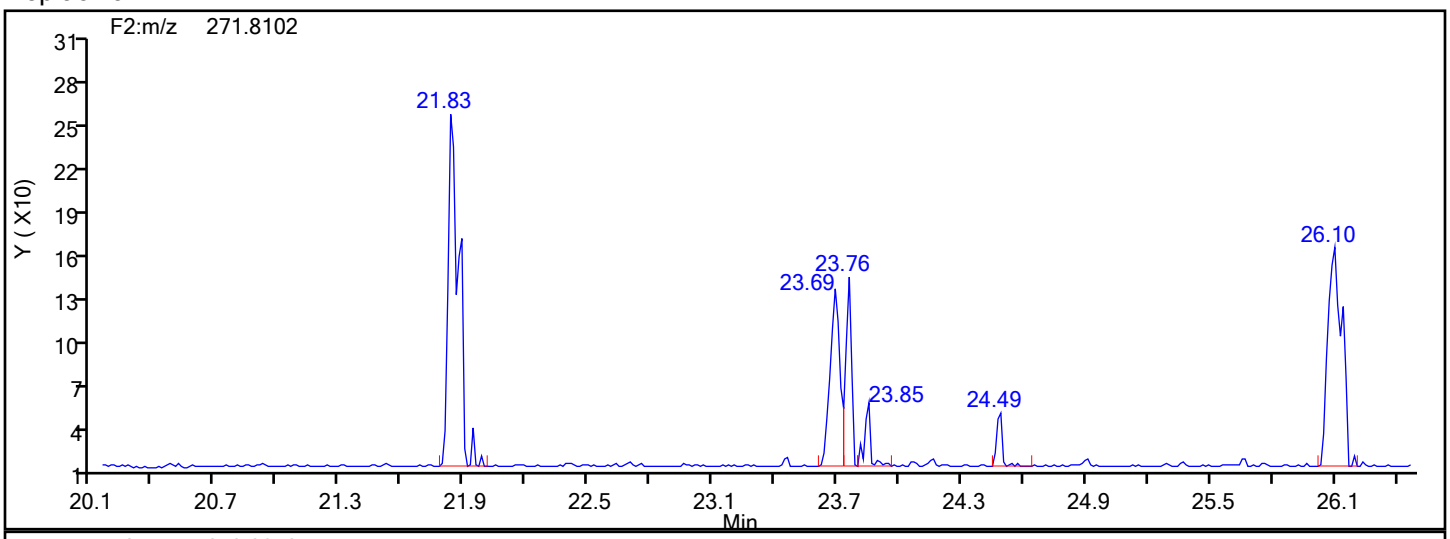
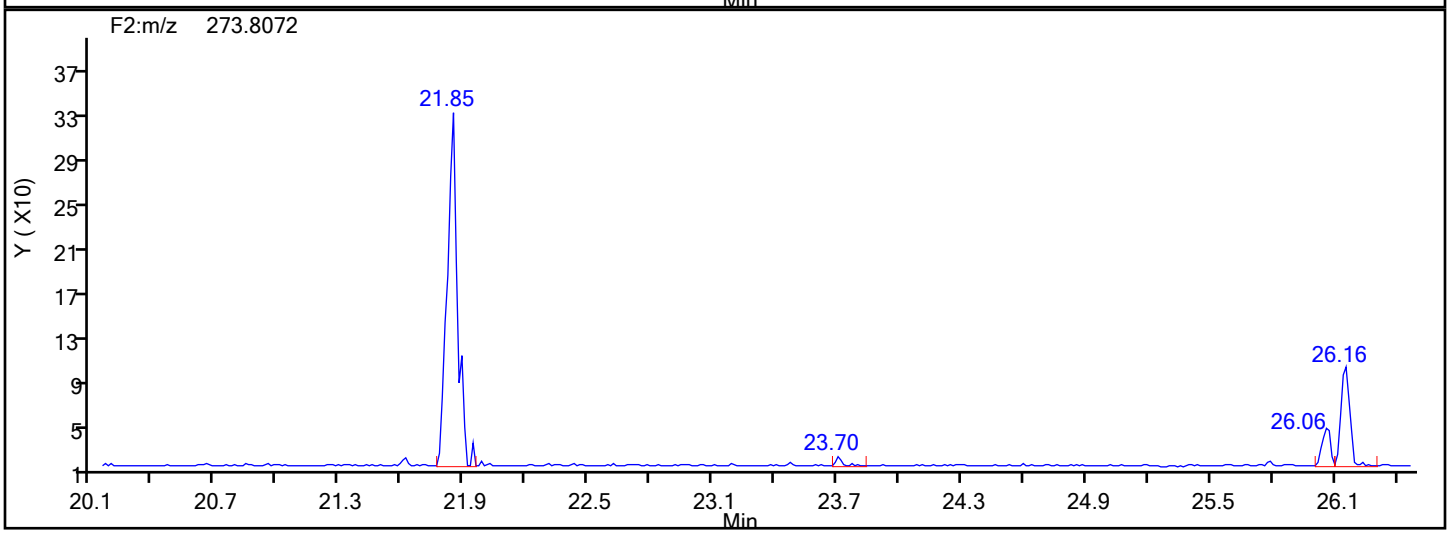
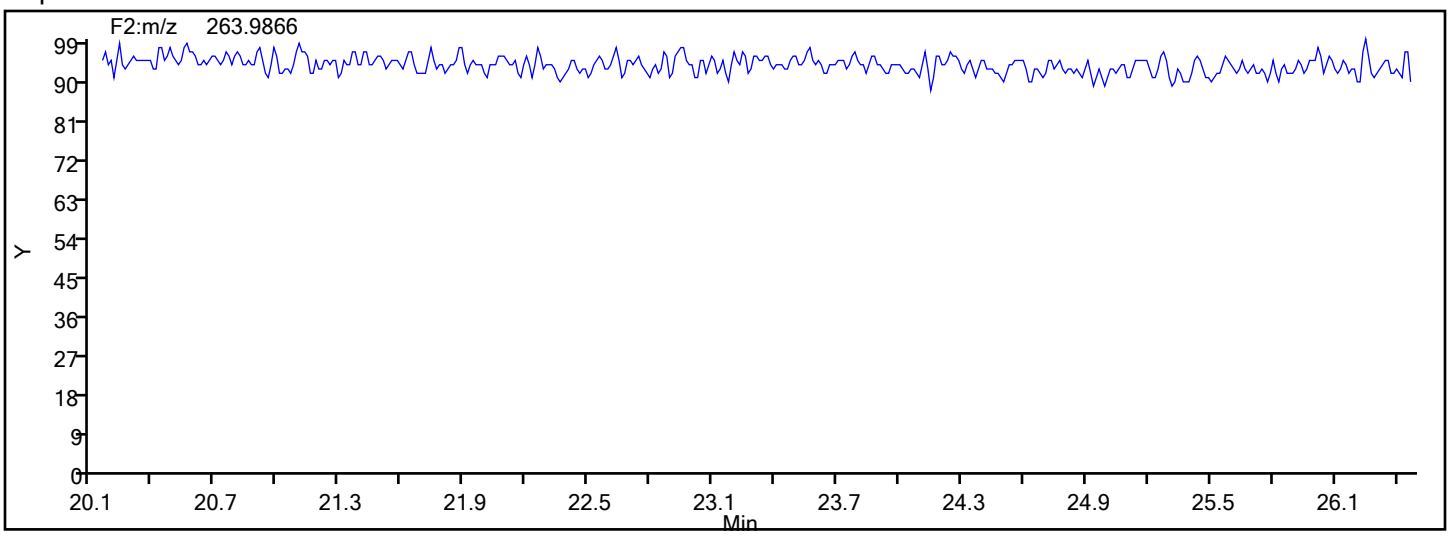
Column Type:	RTX-5	Column Dia:	0.32 mm

Heptachlor





Heptachlor Lock Mass



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Eurofins Knoxville

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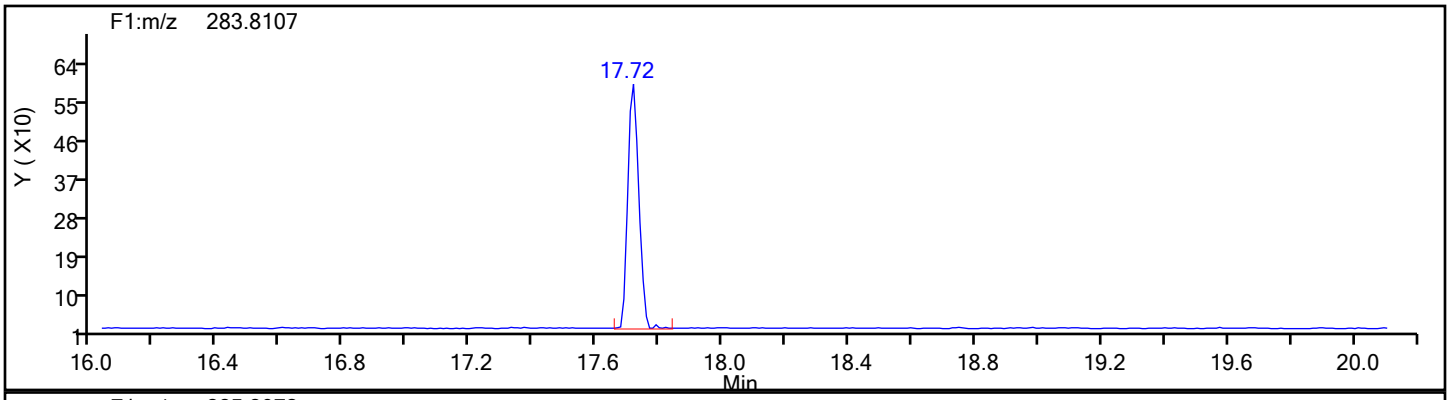
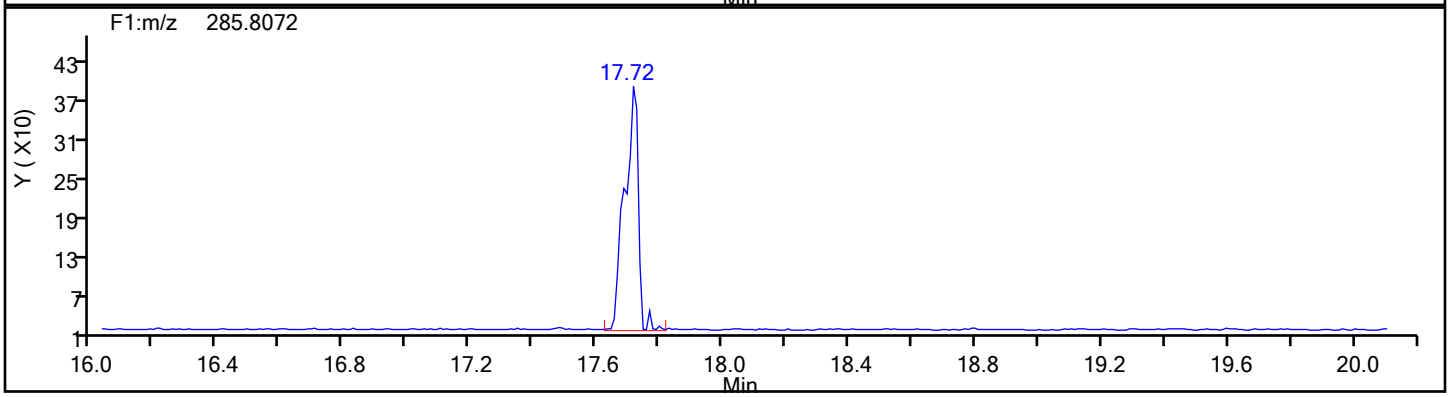
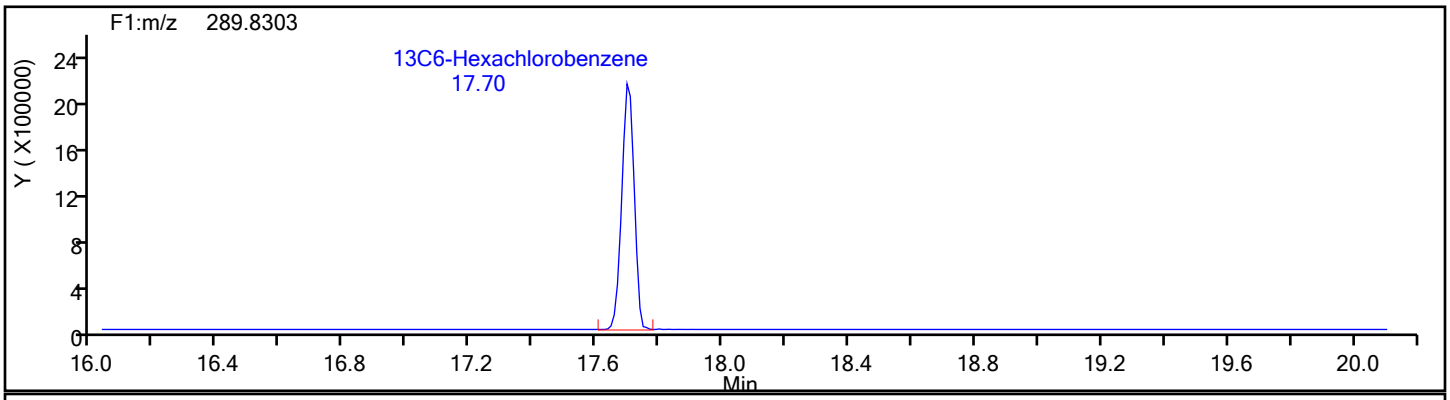
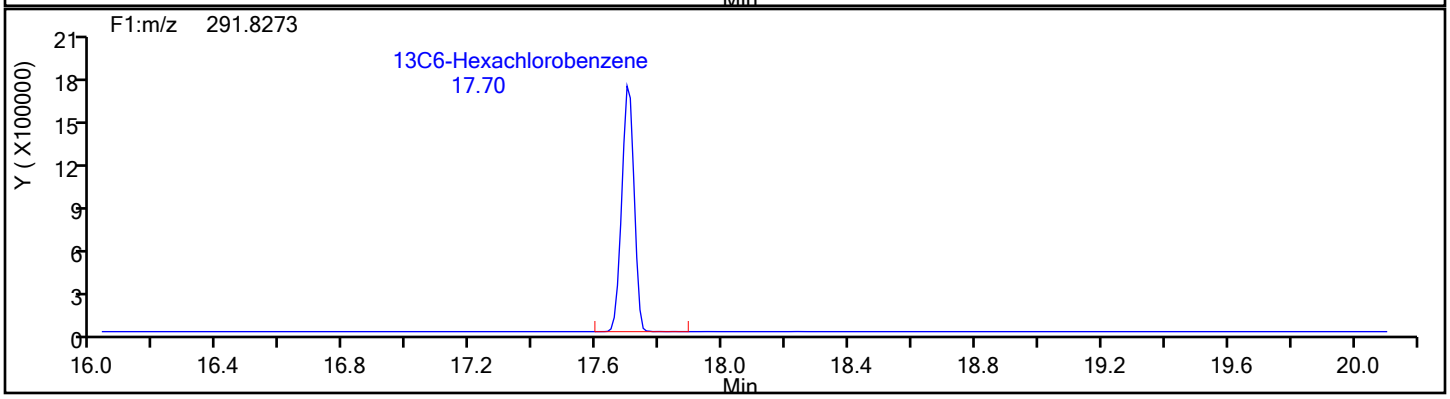
Hexachlorobenzene





Hexachlorobenzene Standards





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Eurofins Knoxville

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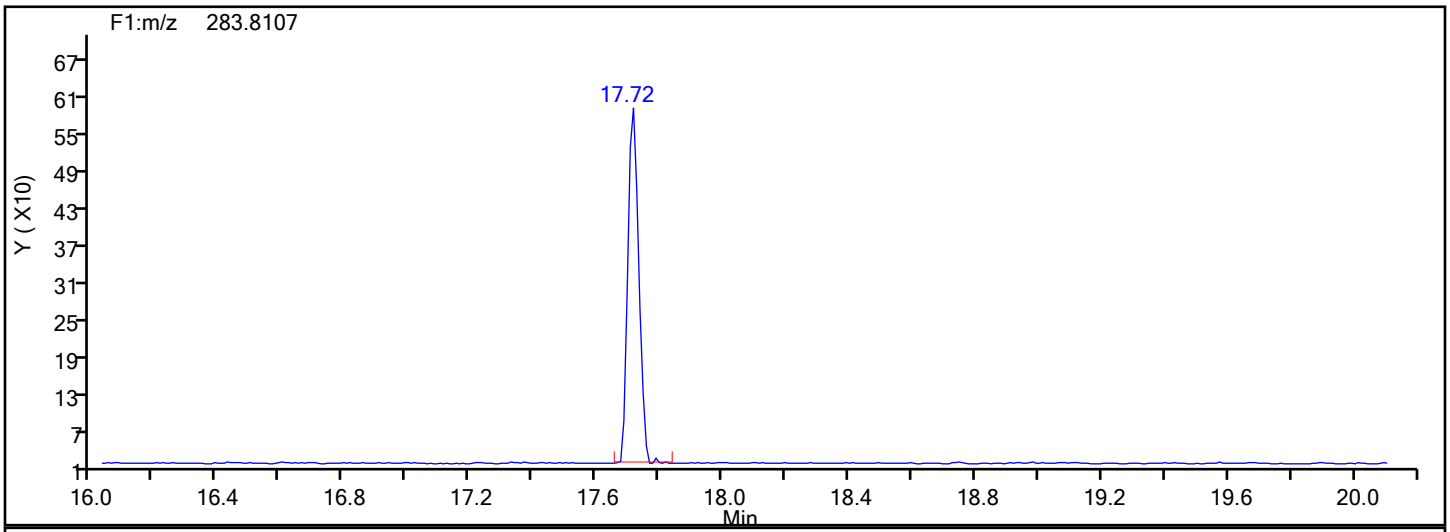
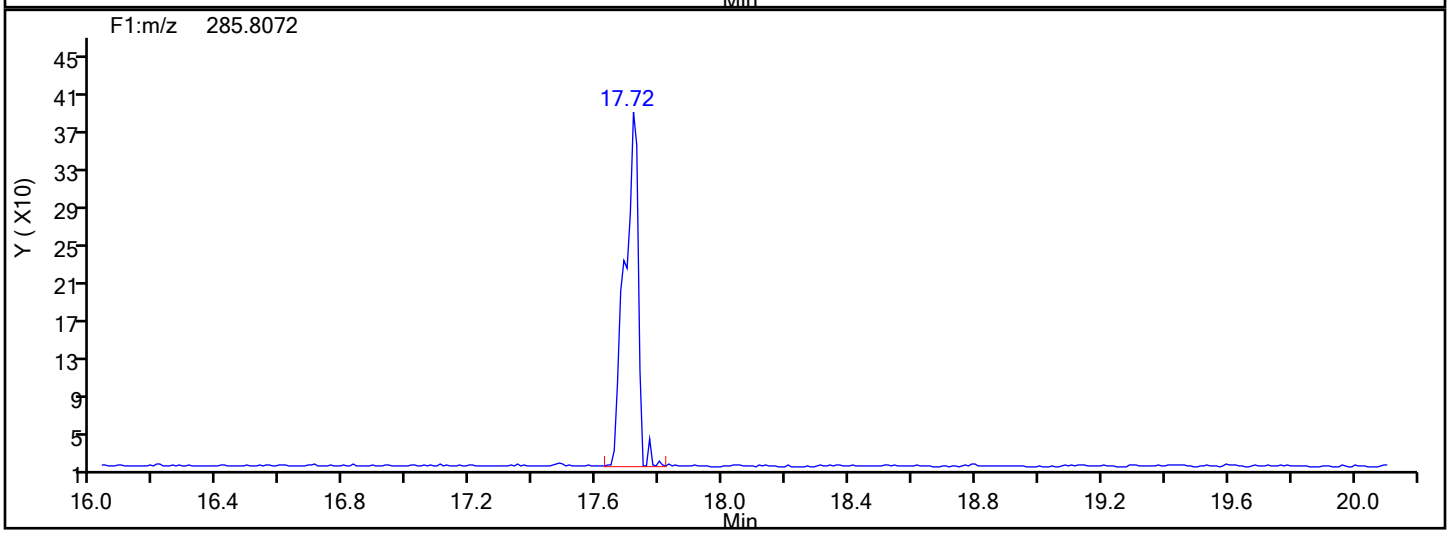
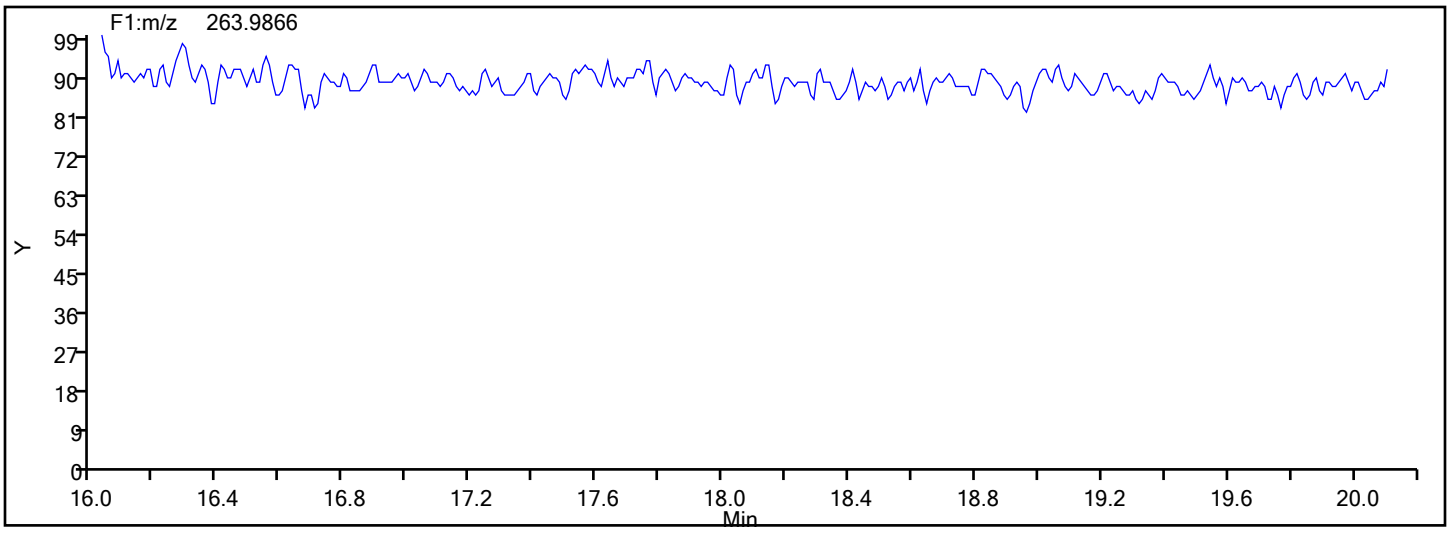
Hexachlorobenzene





Hexachlorobenzene Lock Mass



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Eurofins Knoxville

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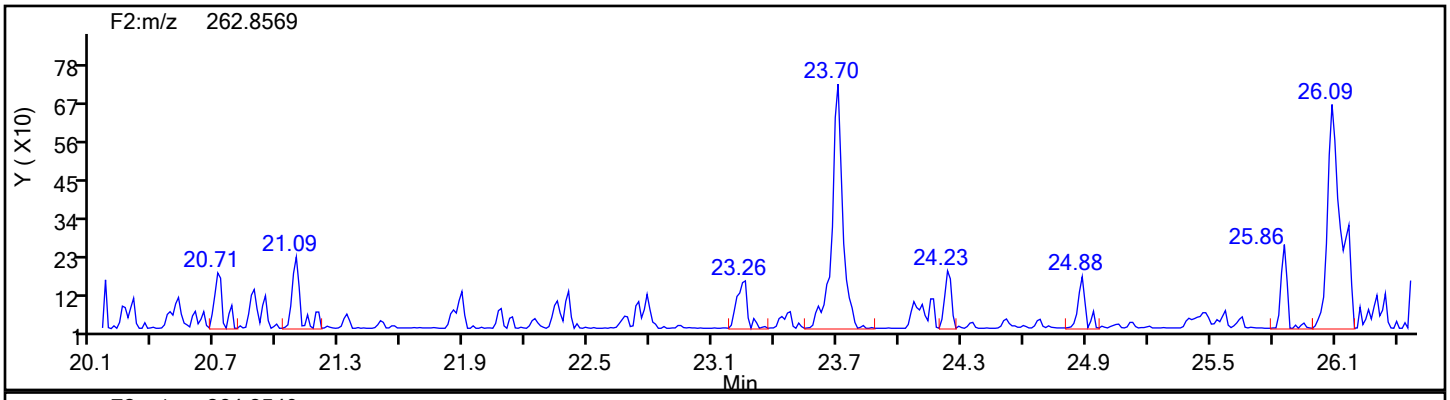
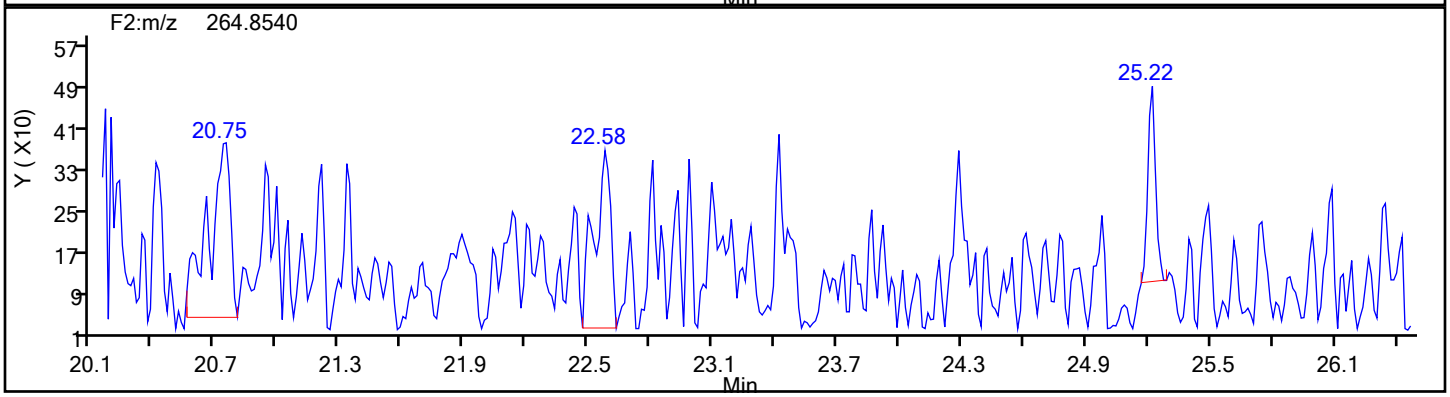
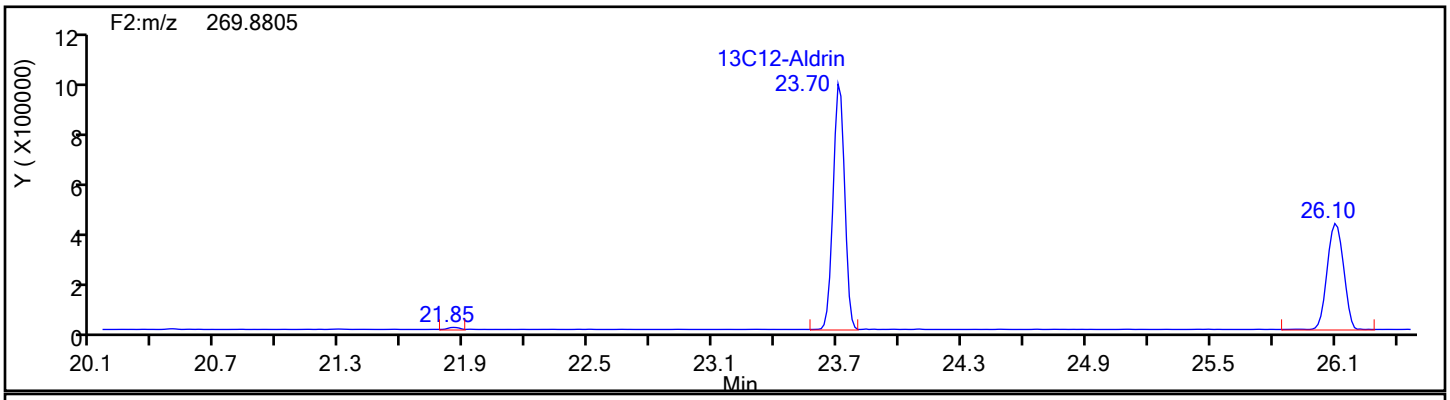
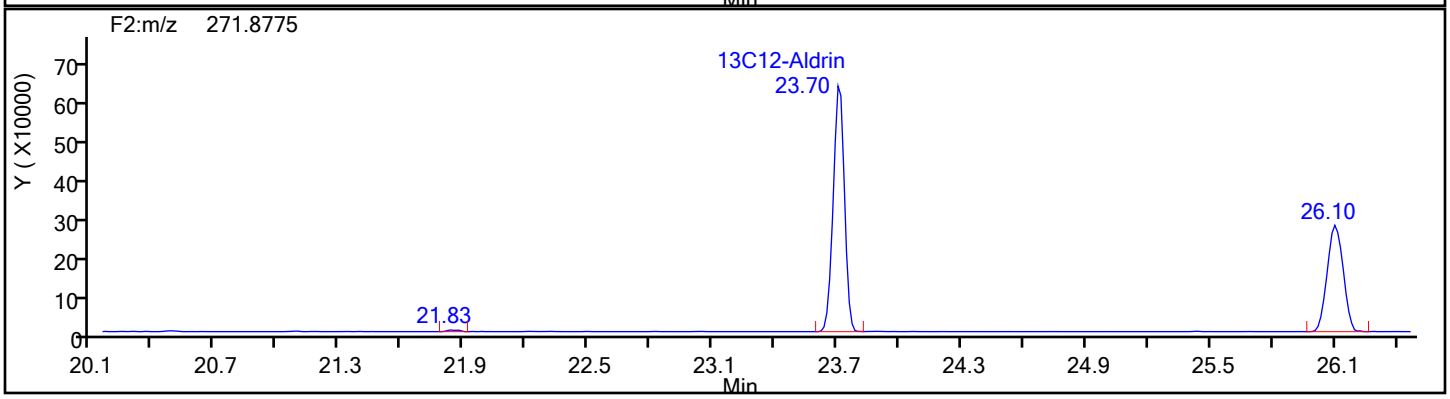
Aldrin





Aldrin Standards





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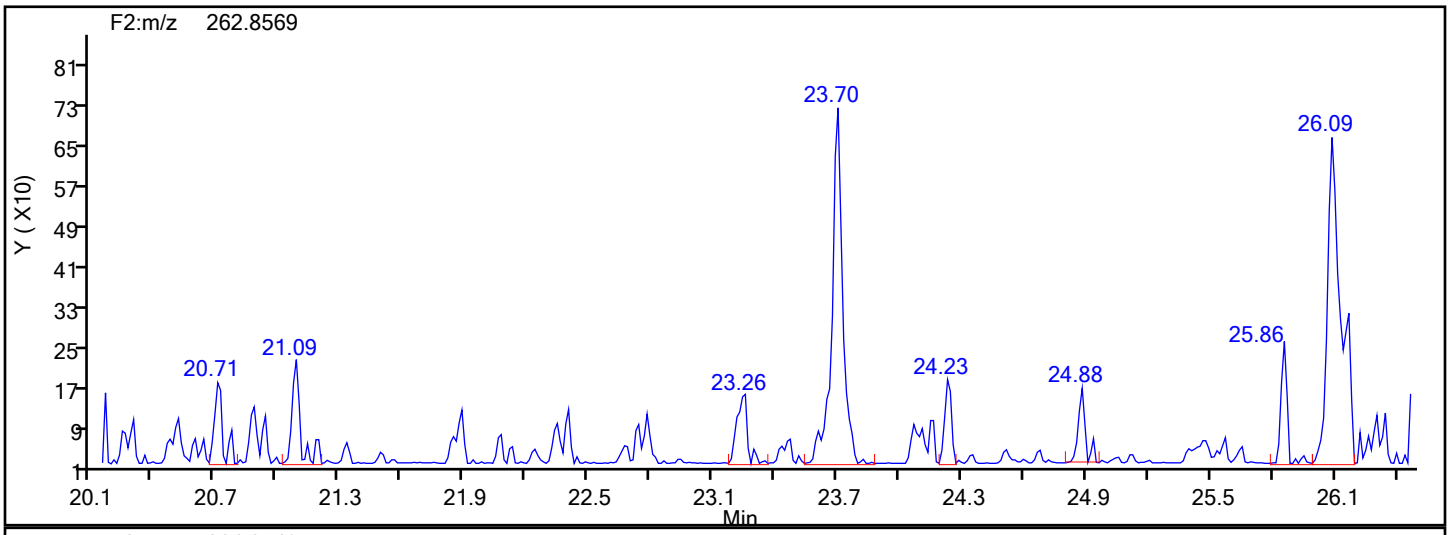
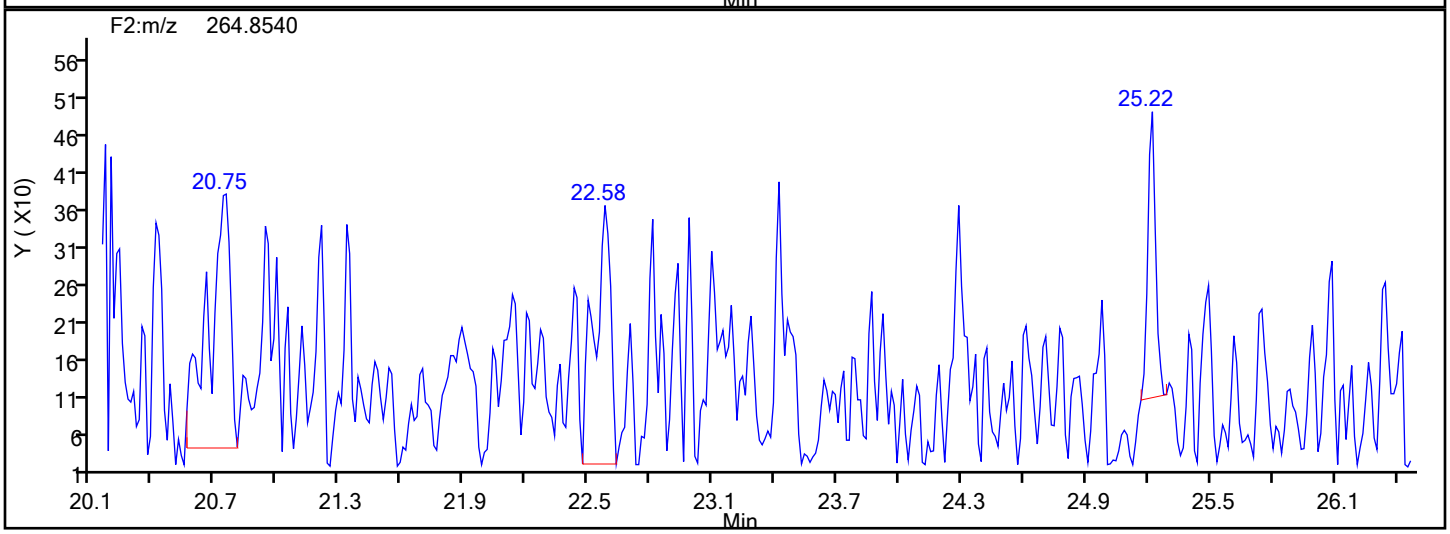
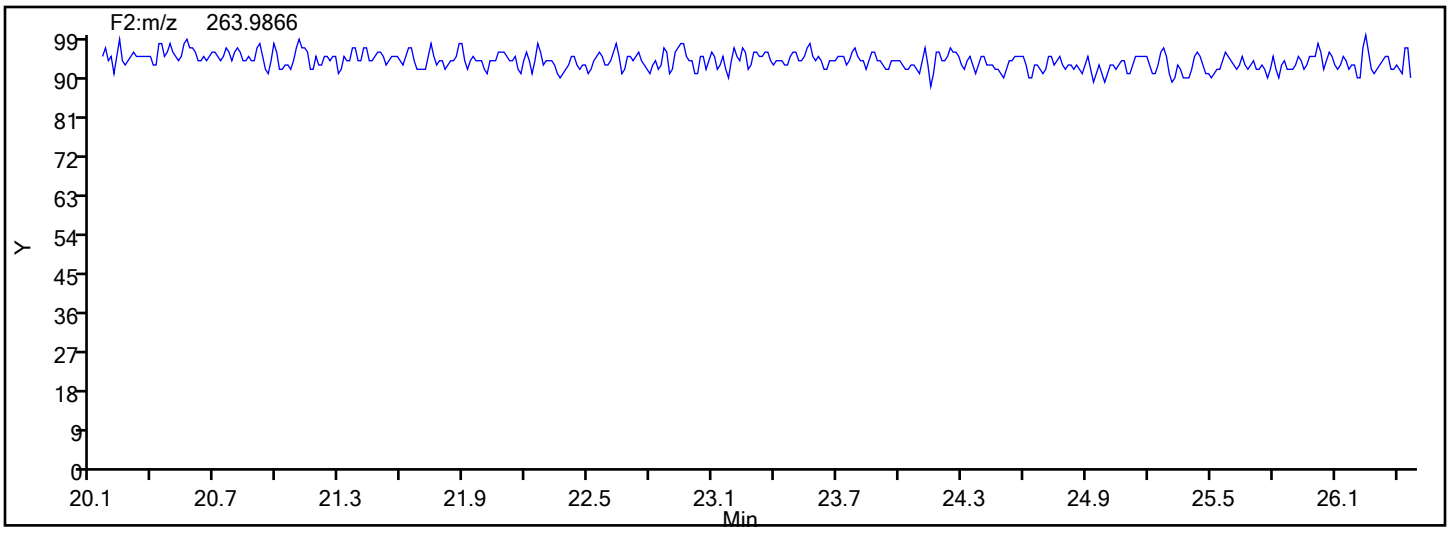




Aldrin Lock Mass



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Eurofins Knoxville

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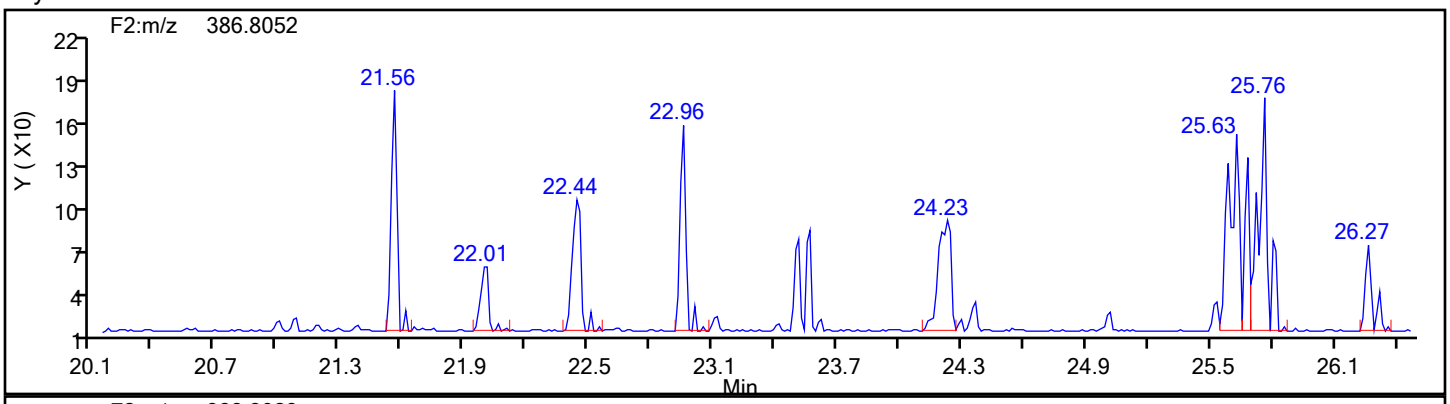
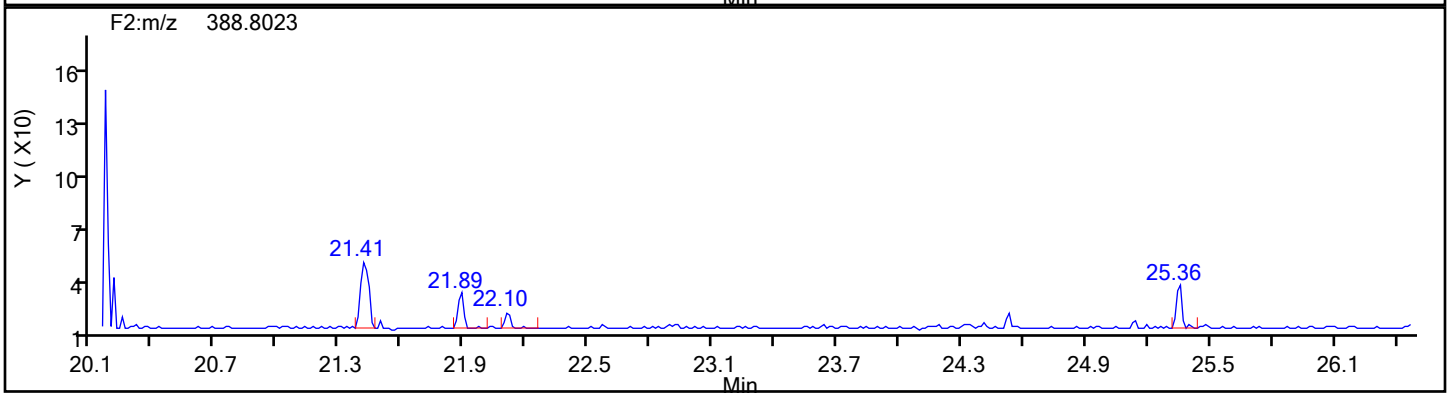
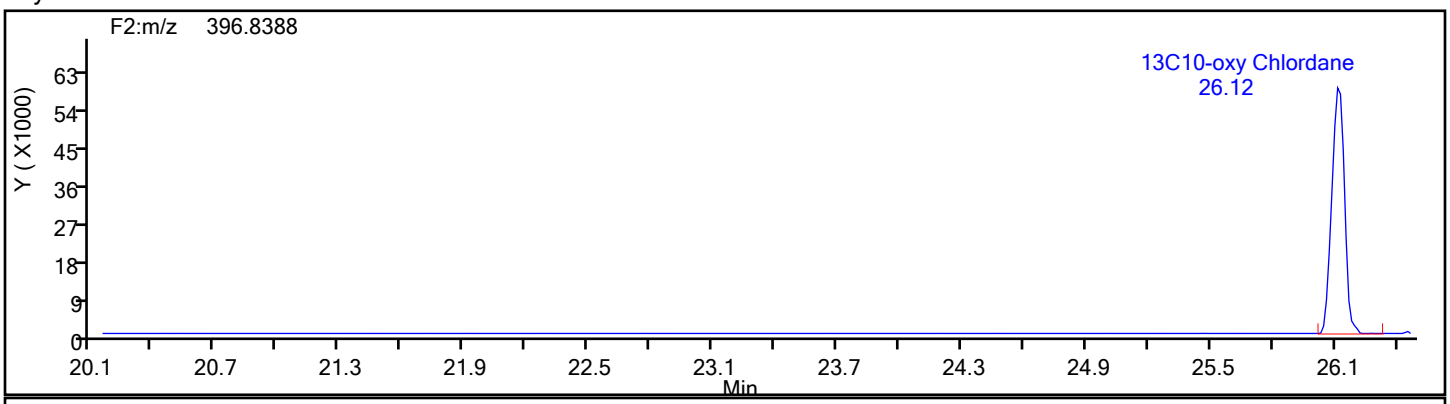
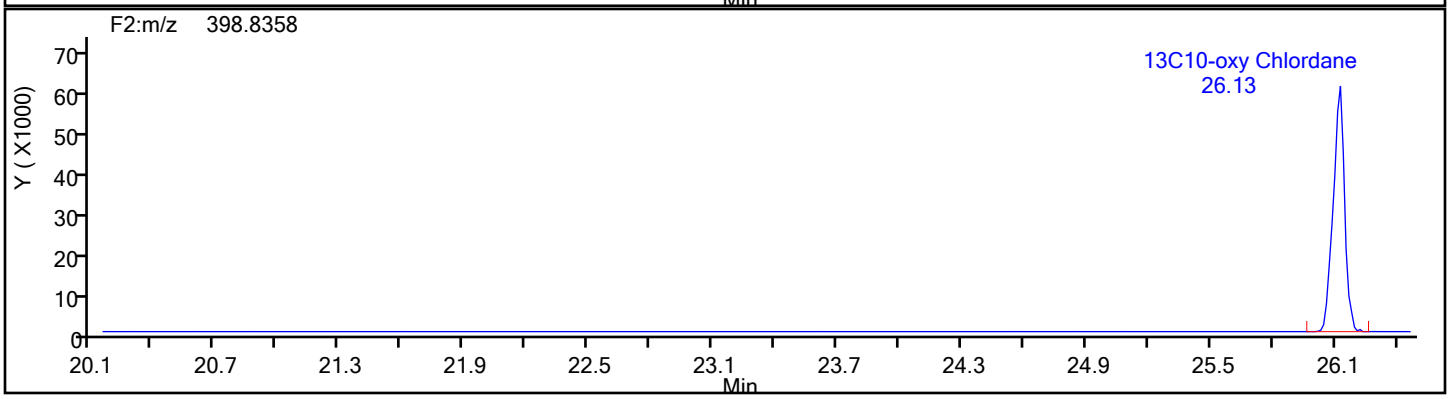
oxy-Chlordane





oxy-Chlordane Standards





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Eurofins Knoxville

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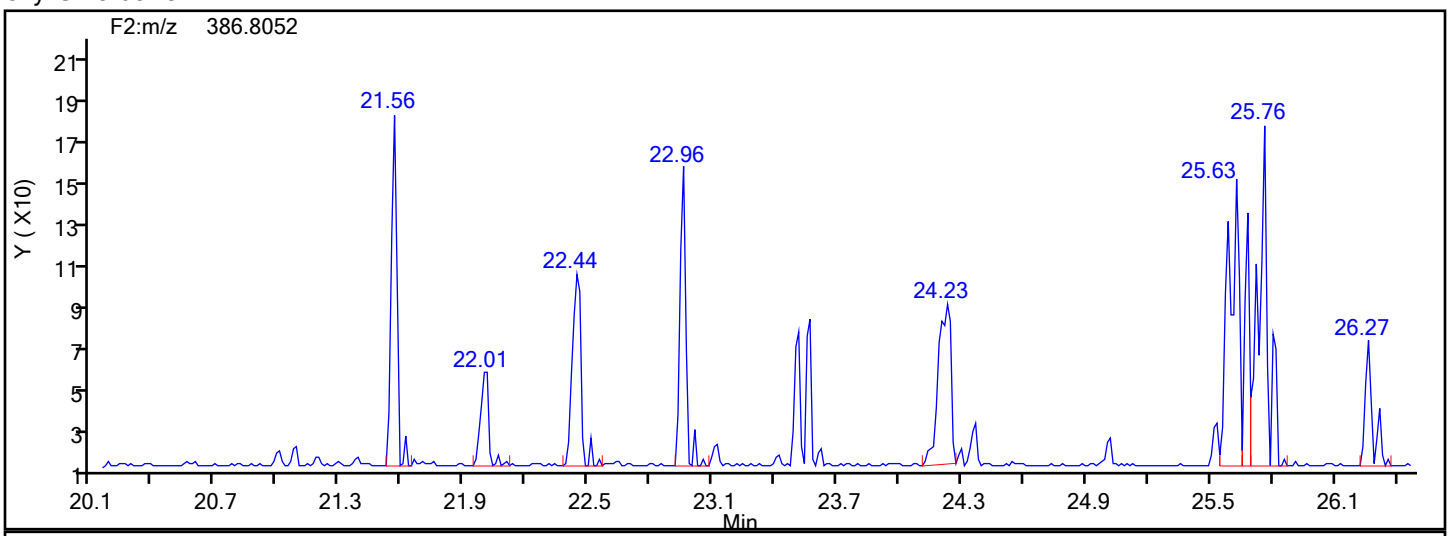
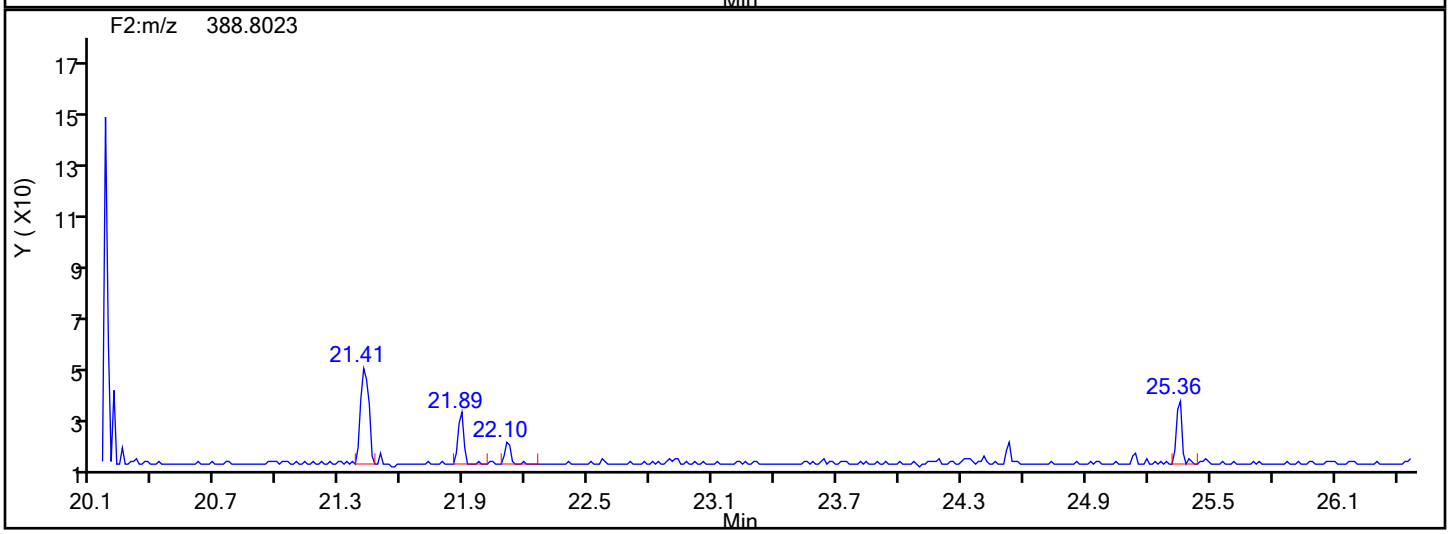
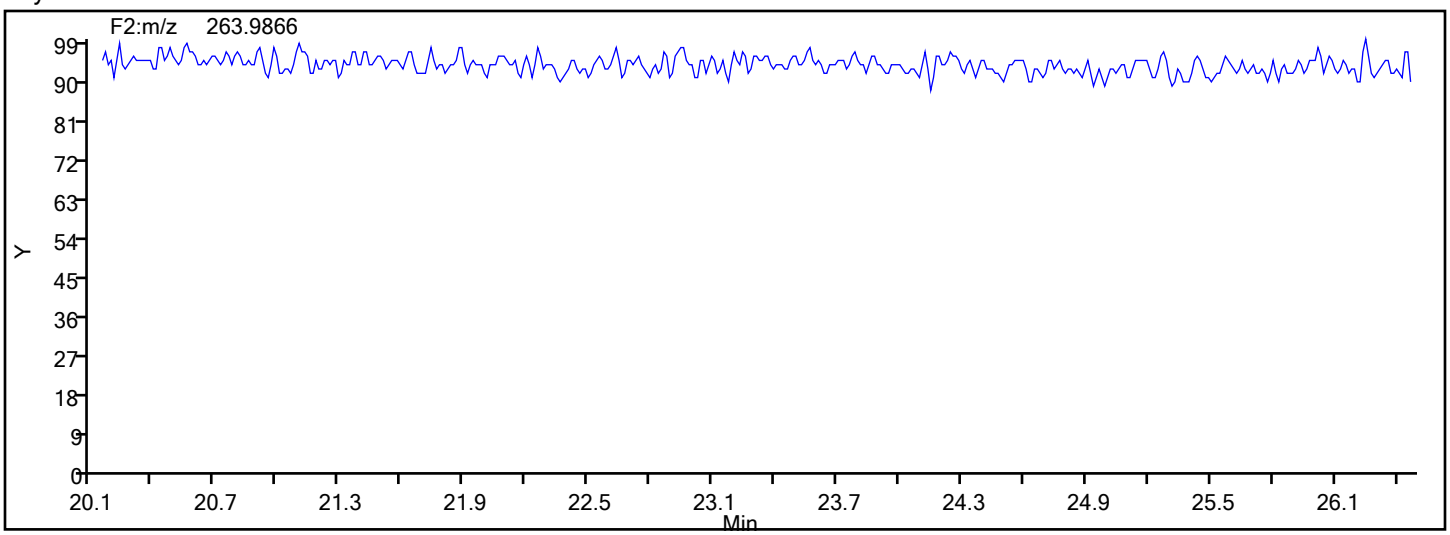
oxy-Chlordane





oxy-Chlordane Lock Mass



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Eurofins Knoxville

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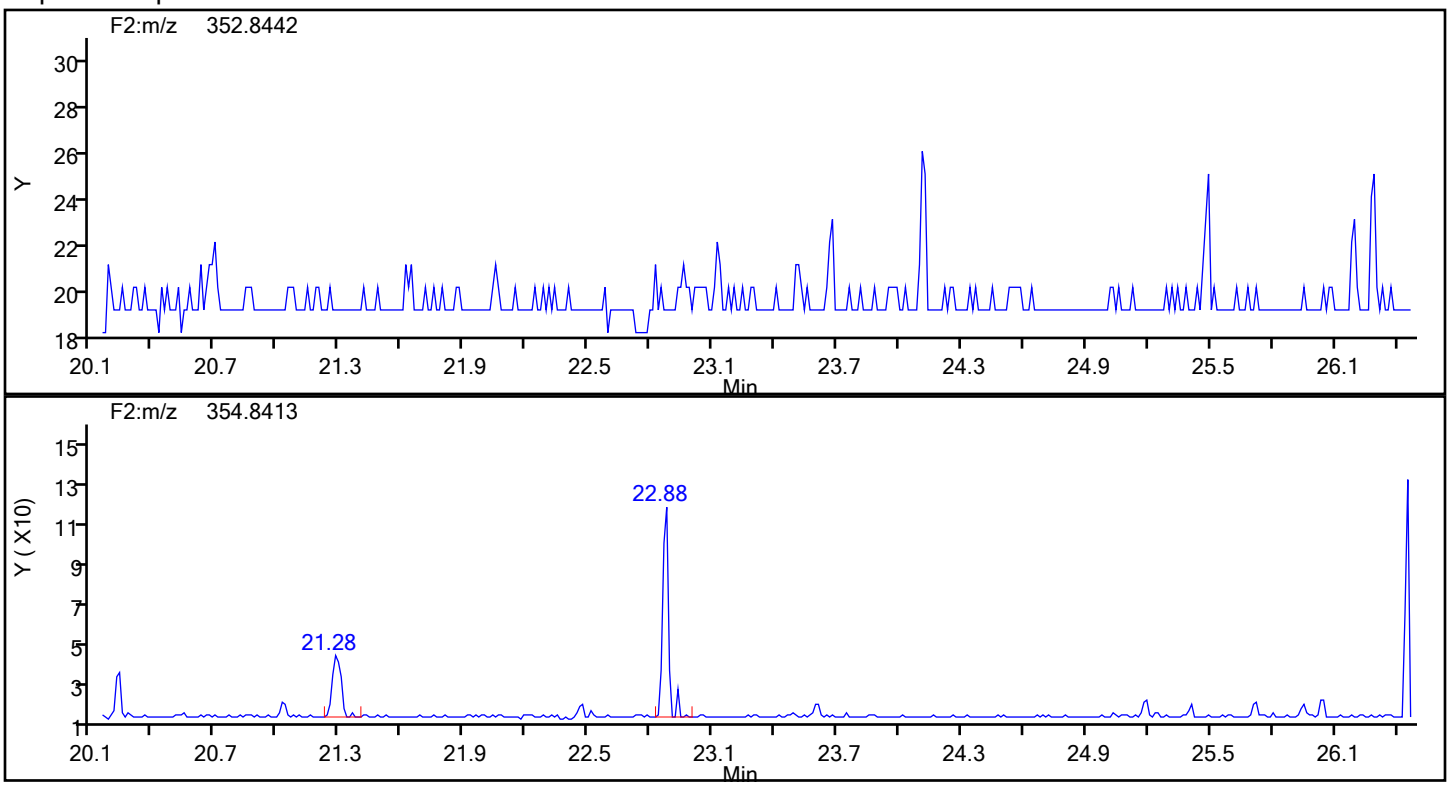
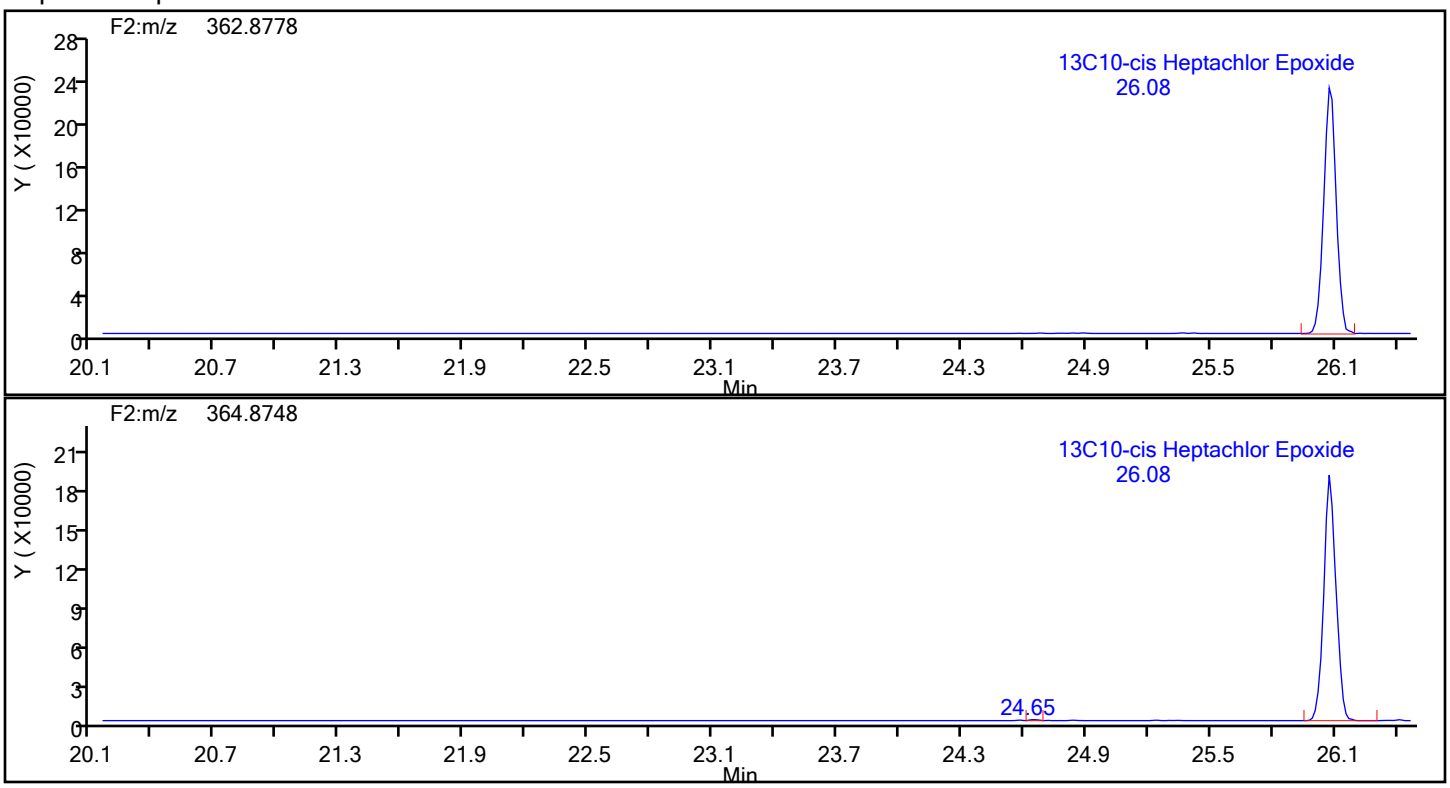
Heptachlor epoxide



Heptachlor epoxide Standards



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Eurofins Knoxville

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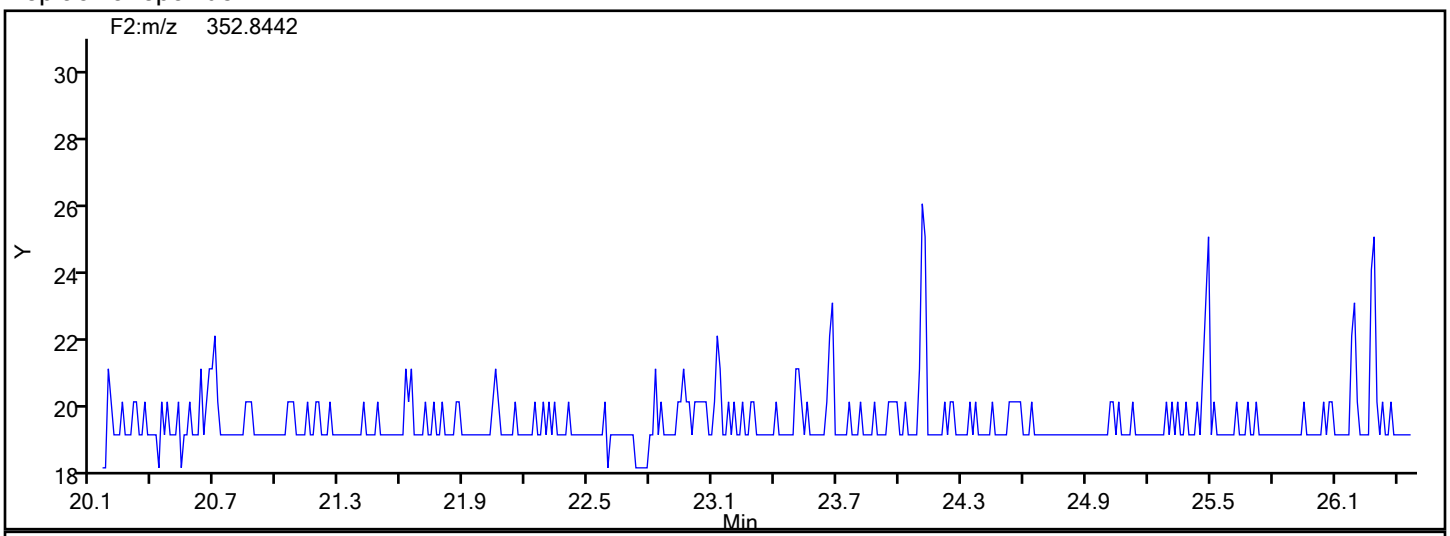
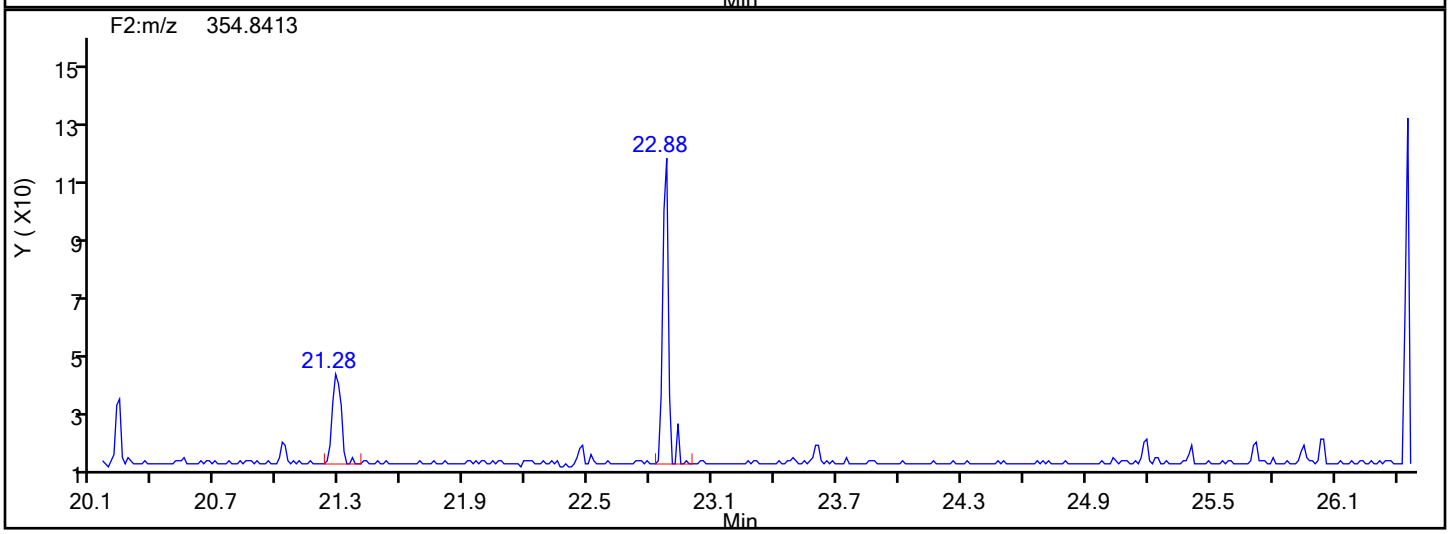
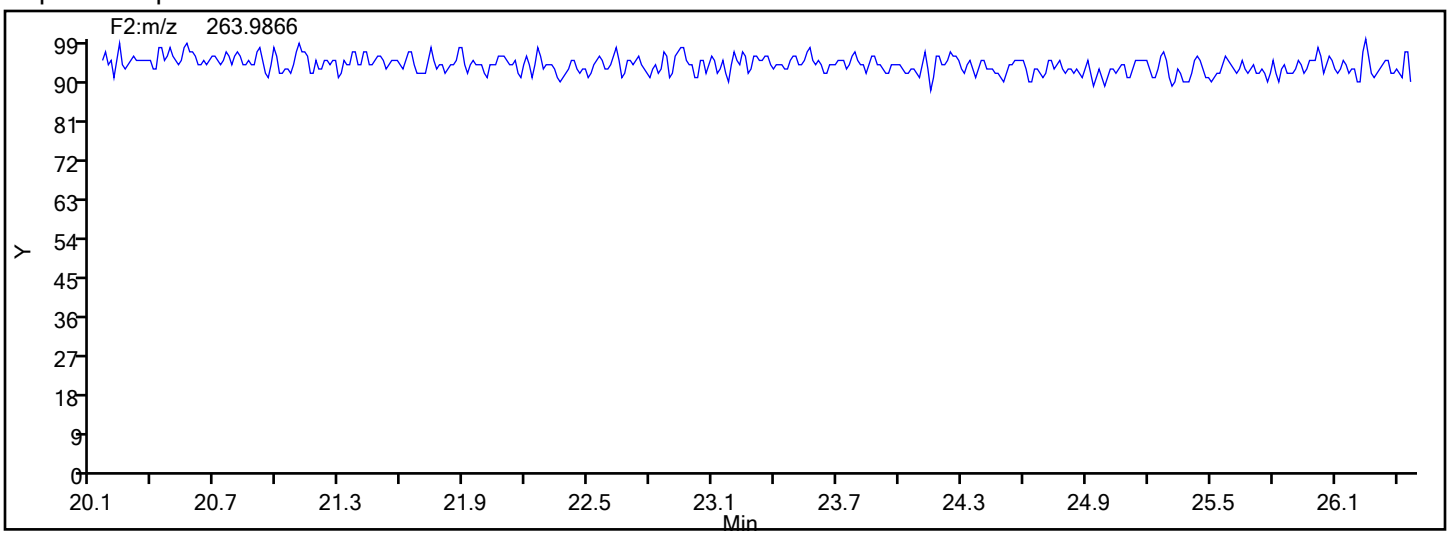
Heptachlor epoxide





Heptachlor epoxide Lock Mass



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Eurofins Knoxville

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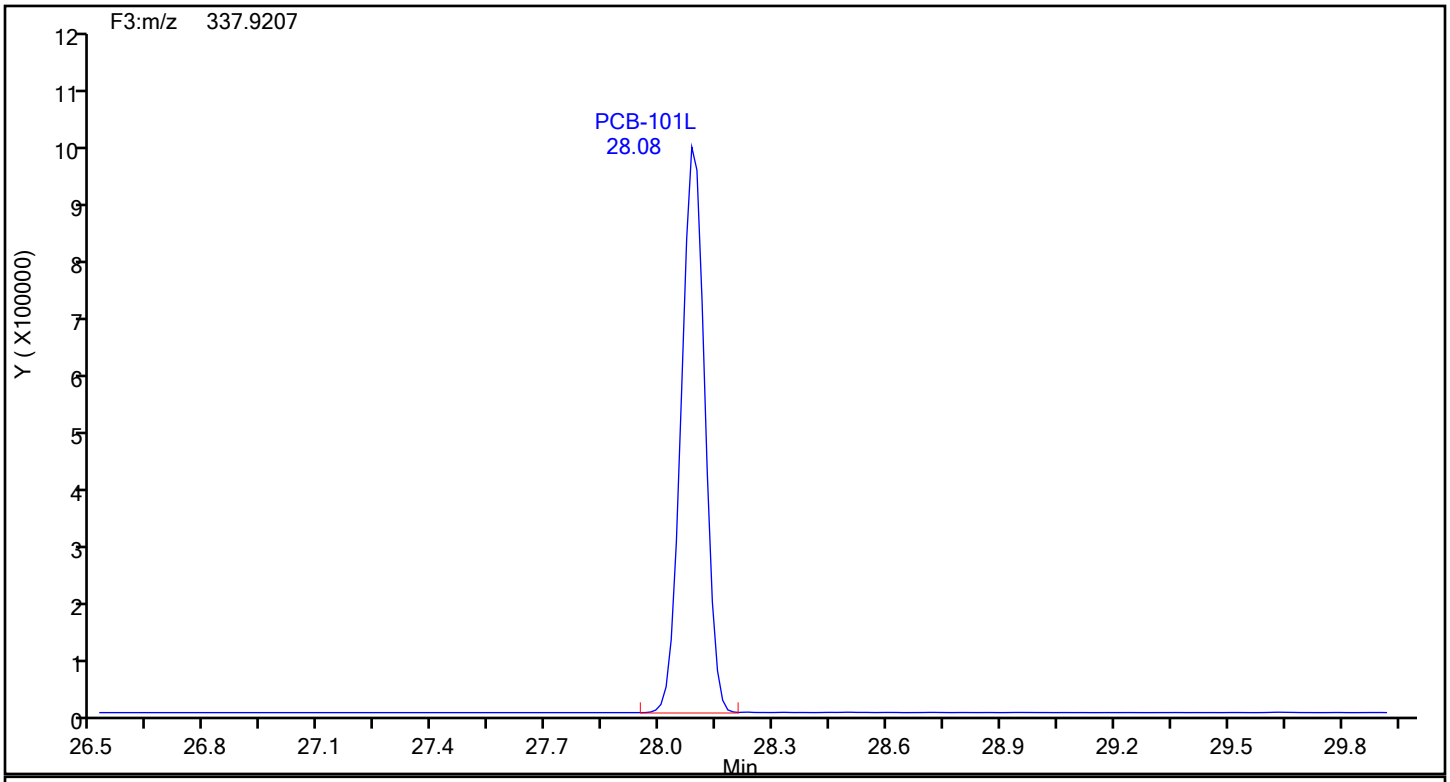
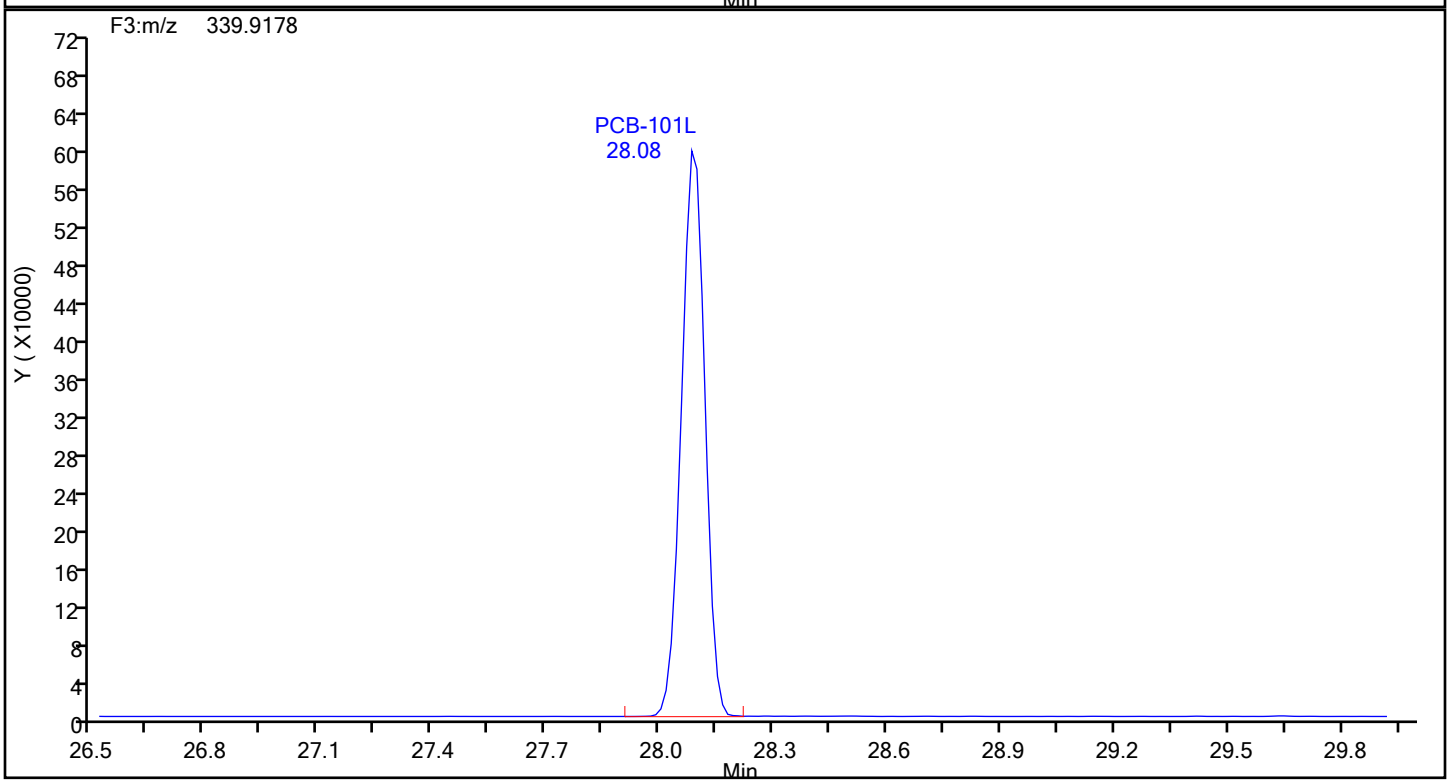
PCB-101L Standards





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Eurofins Knoxville

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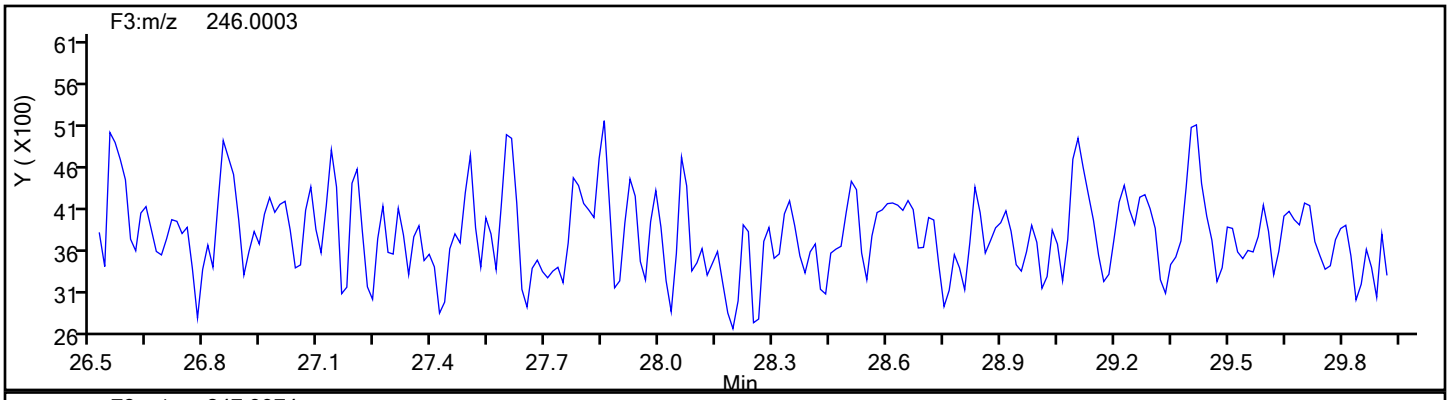
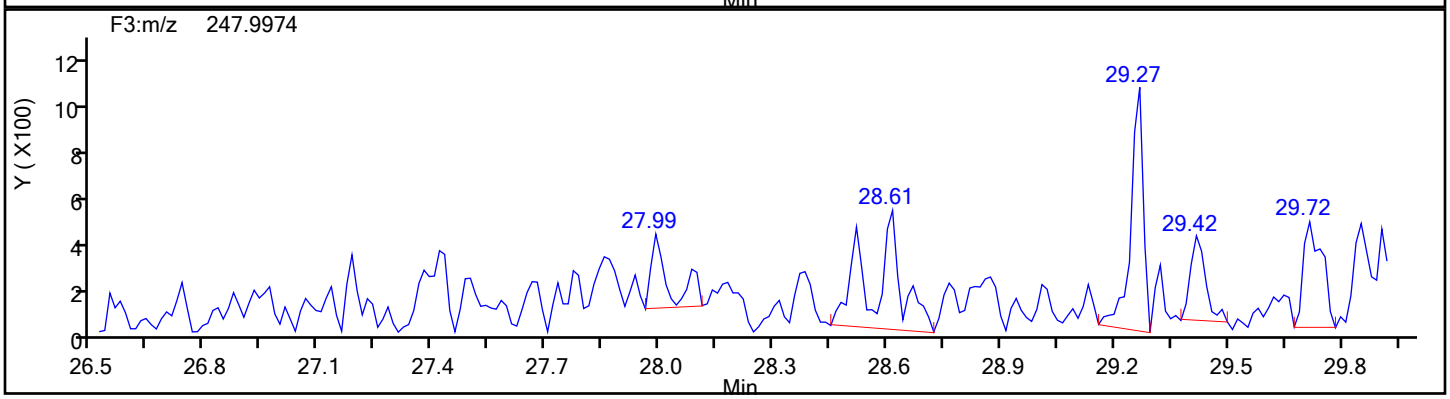
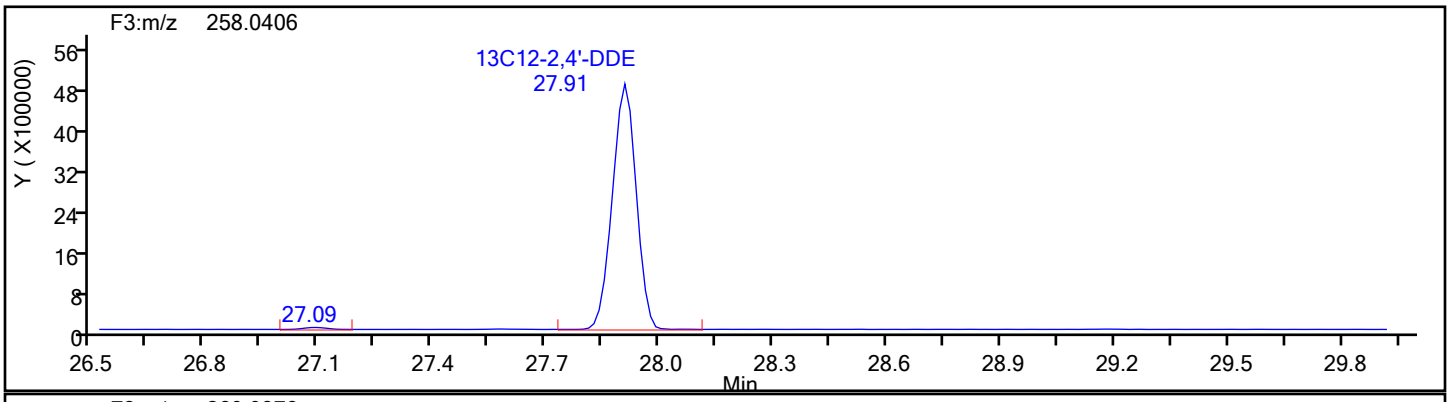
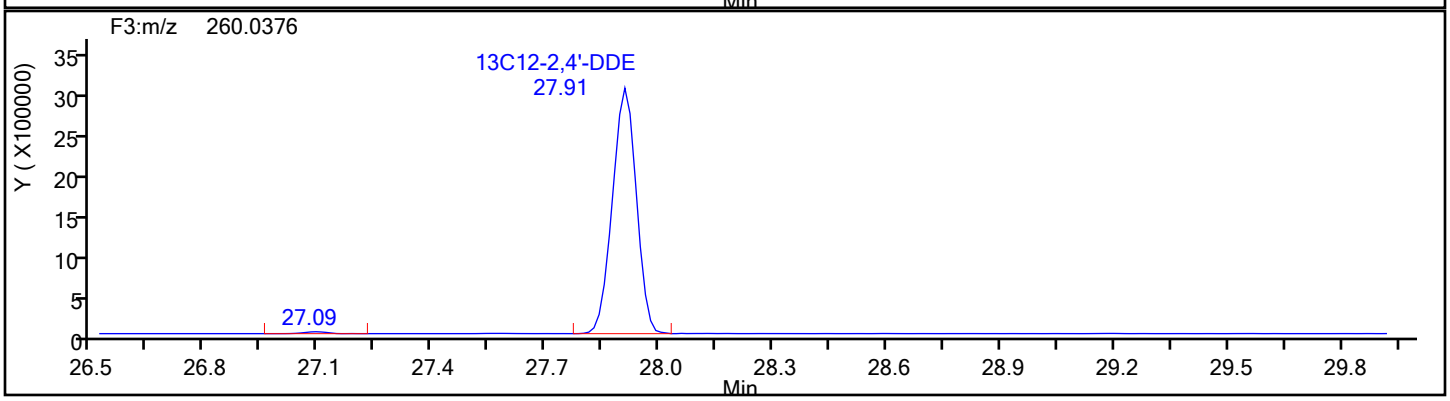
2,4'-DDE





2,4'-DDE Standards





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Eurofins Knoxville

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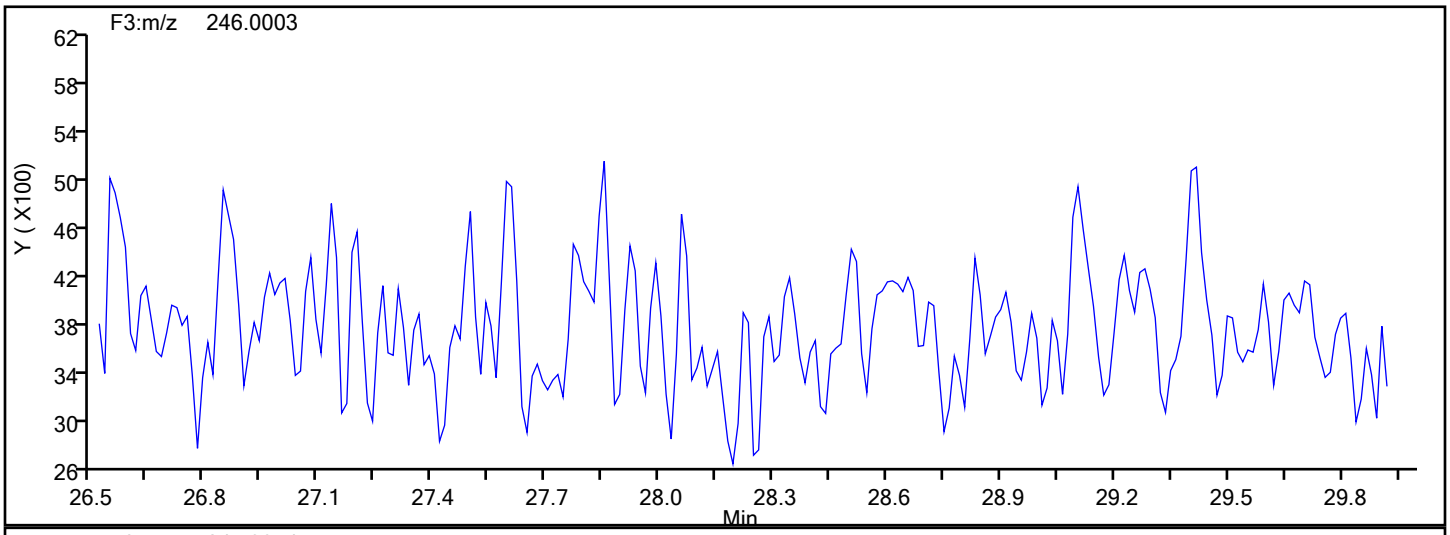
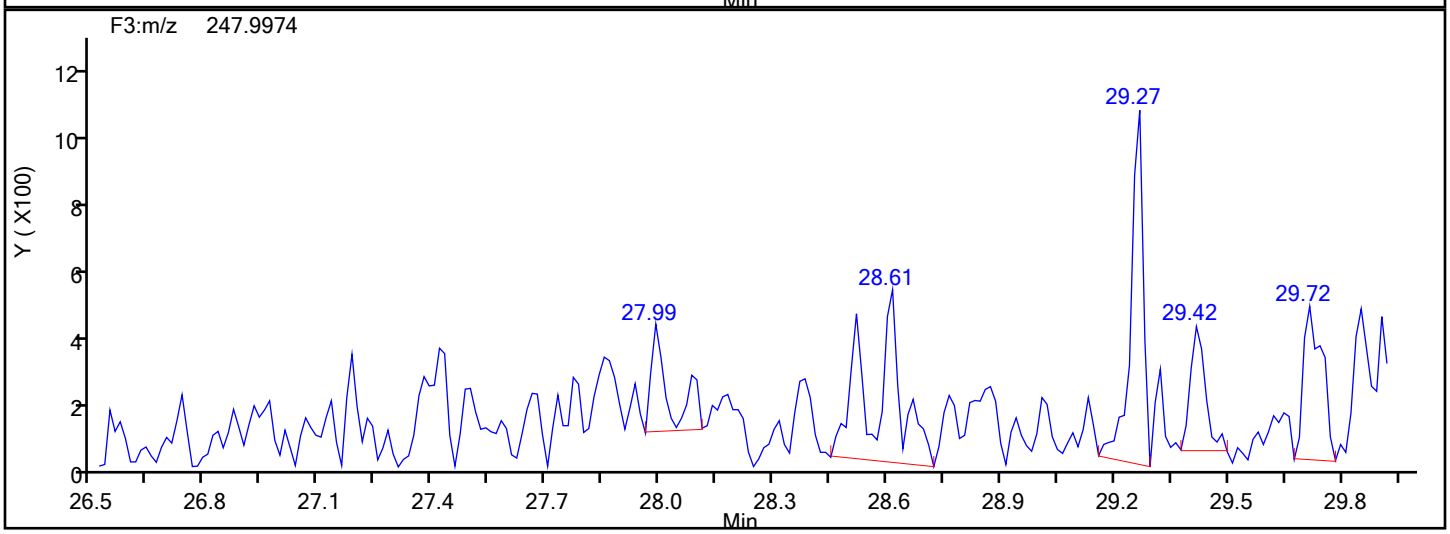
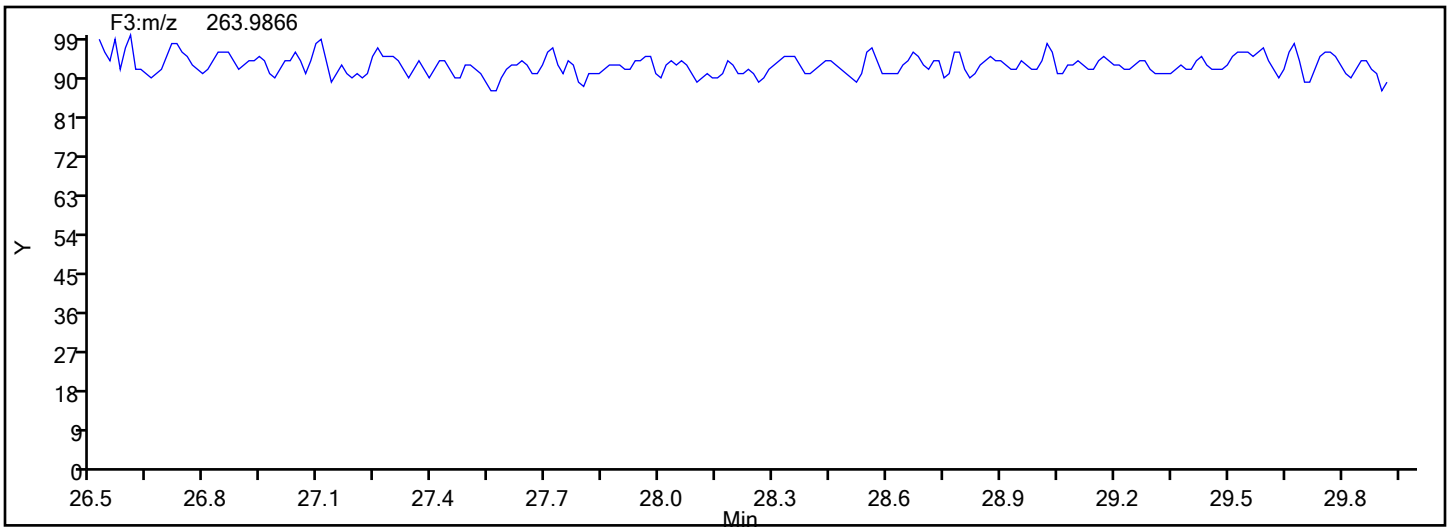
2,4'-DDE





2,4'-DDE Lock Mass



Report Date: 06-May-2025 18:03:48 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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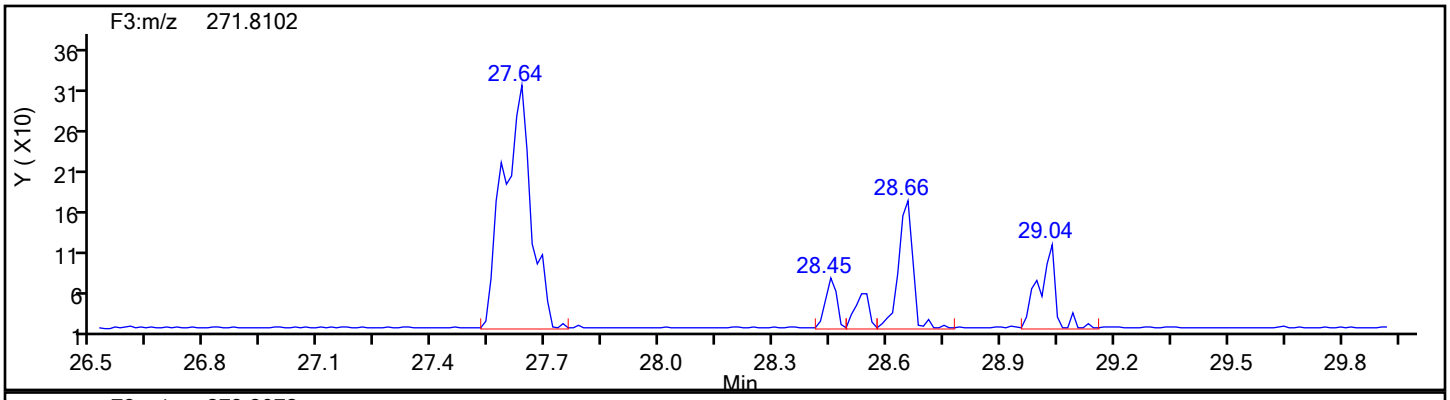
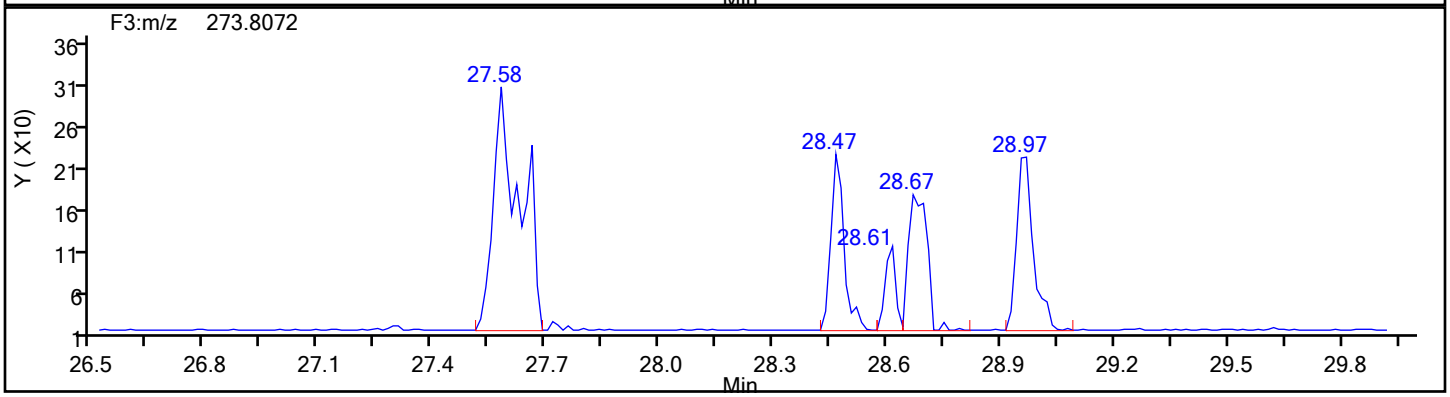
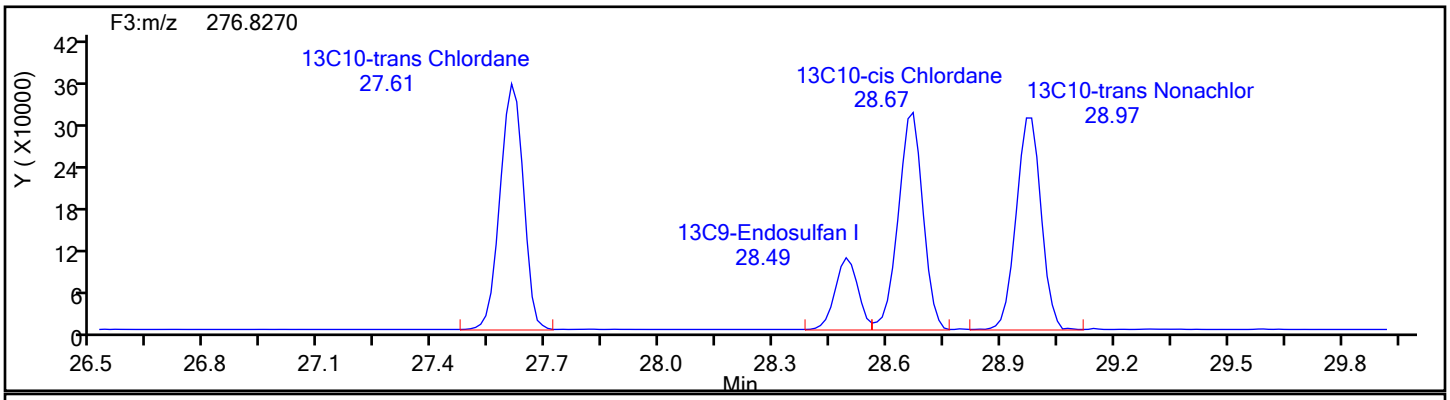
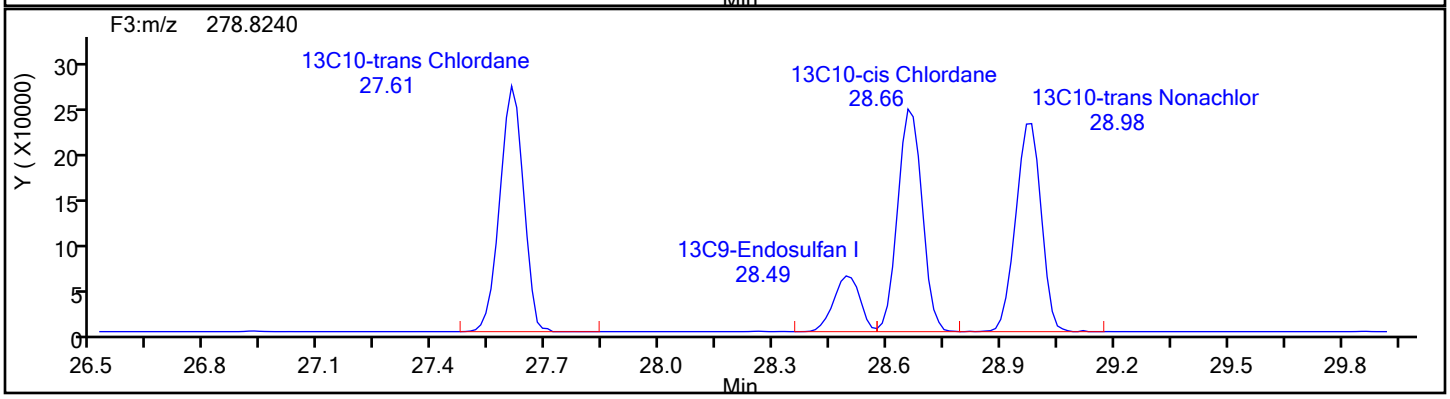
Chlordane





Chlordane Standards





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Eurofins Knoxville

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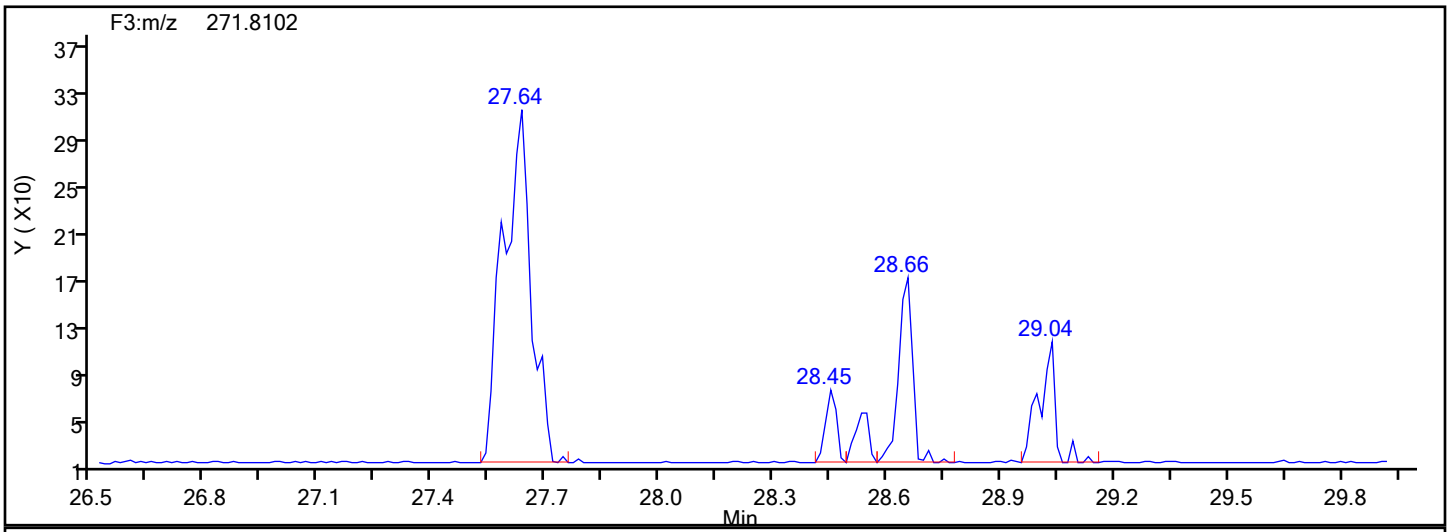
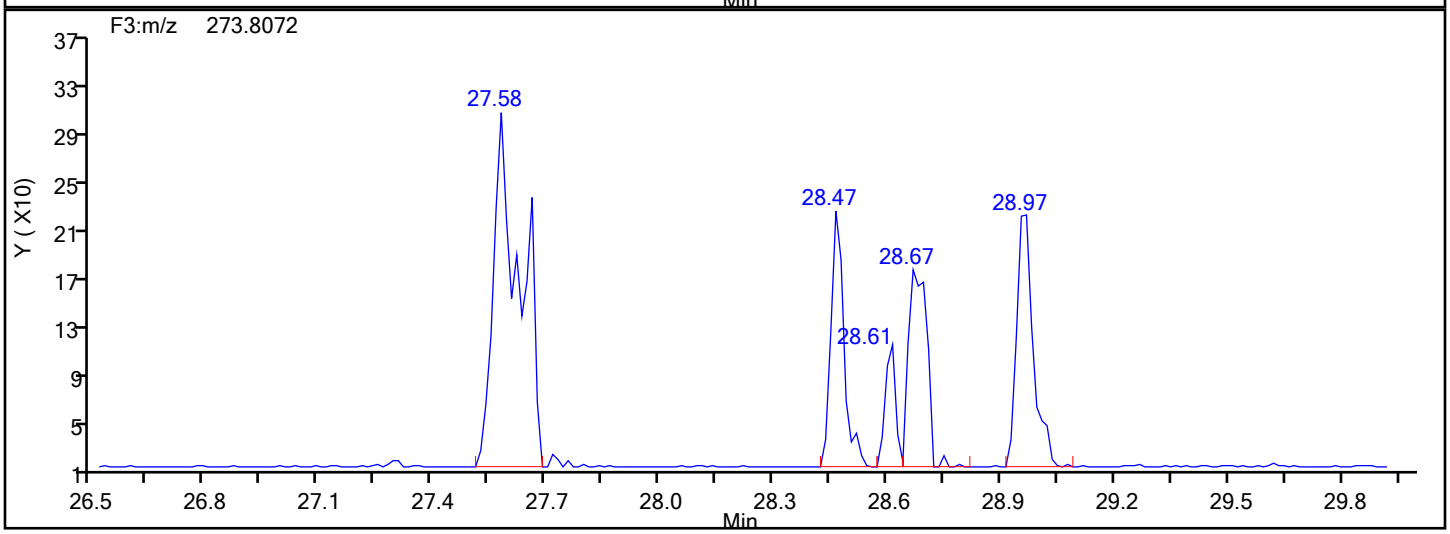
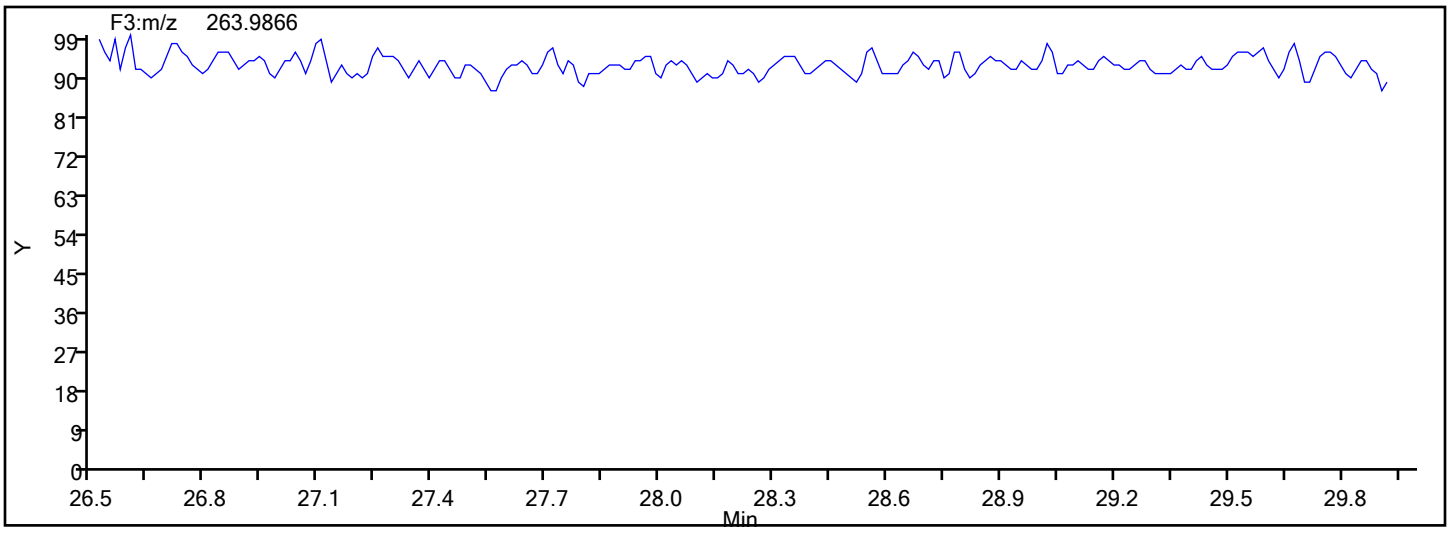
Chlordane





Chlordane Lock Mass



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Eurofins Knoxville

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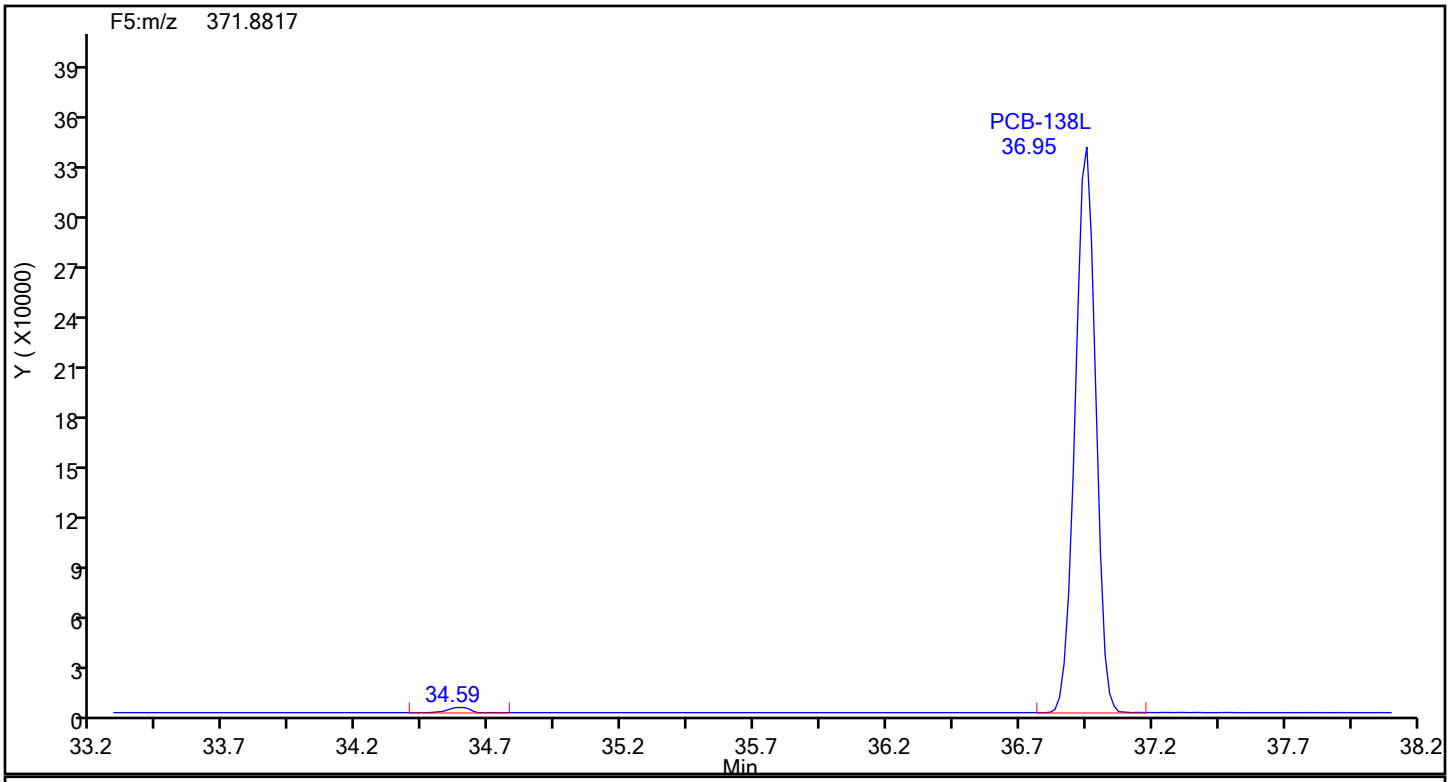
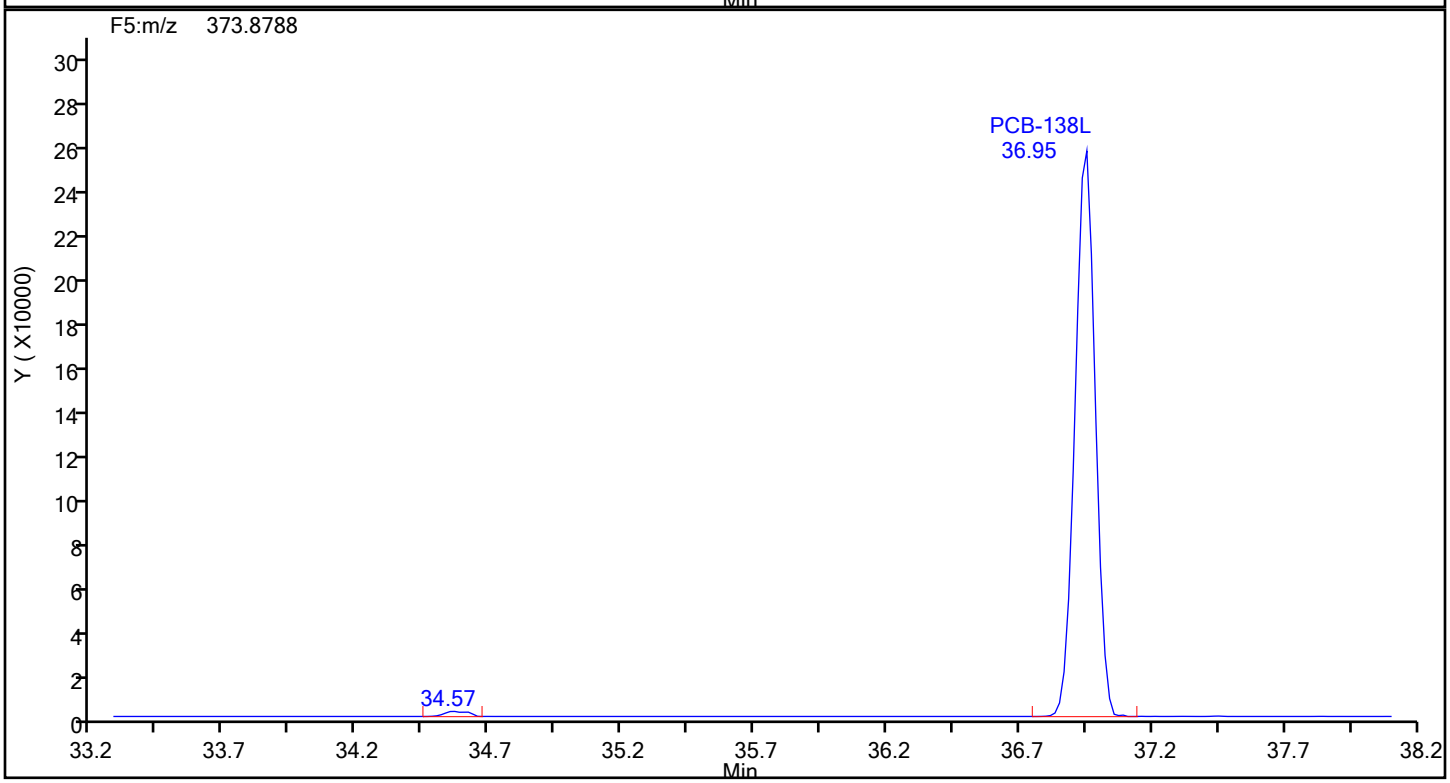
PCB-138L Standards





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Eurofins Knoxville

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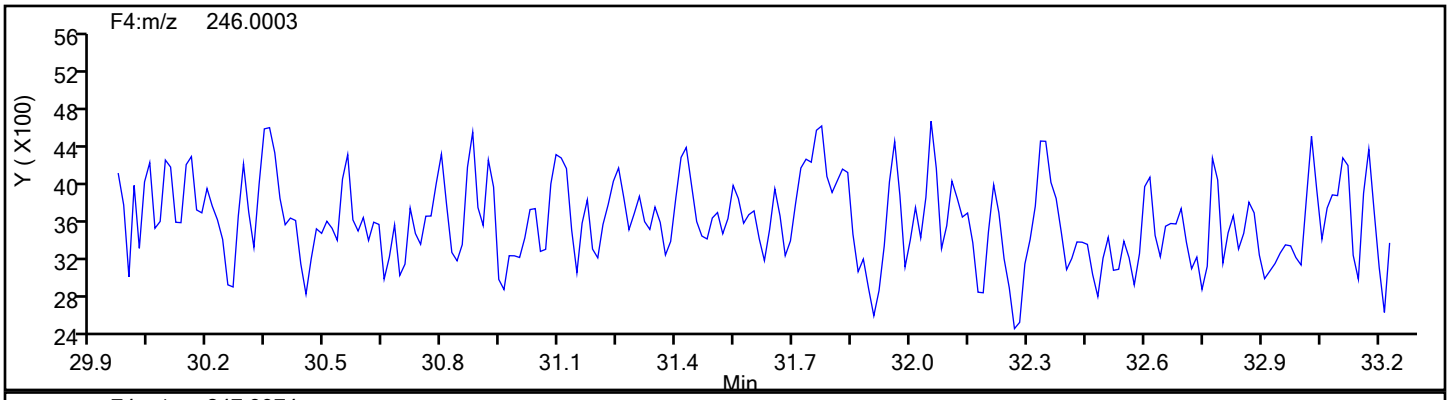
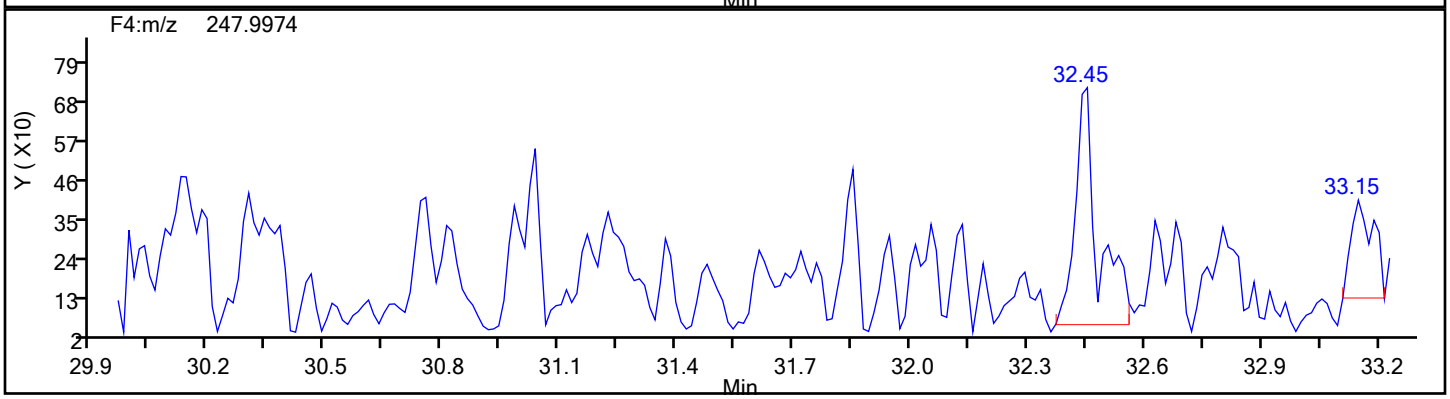
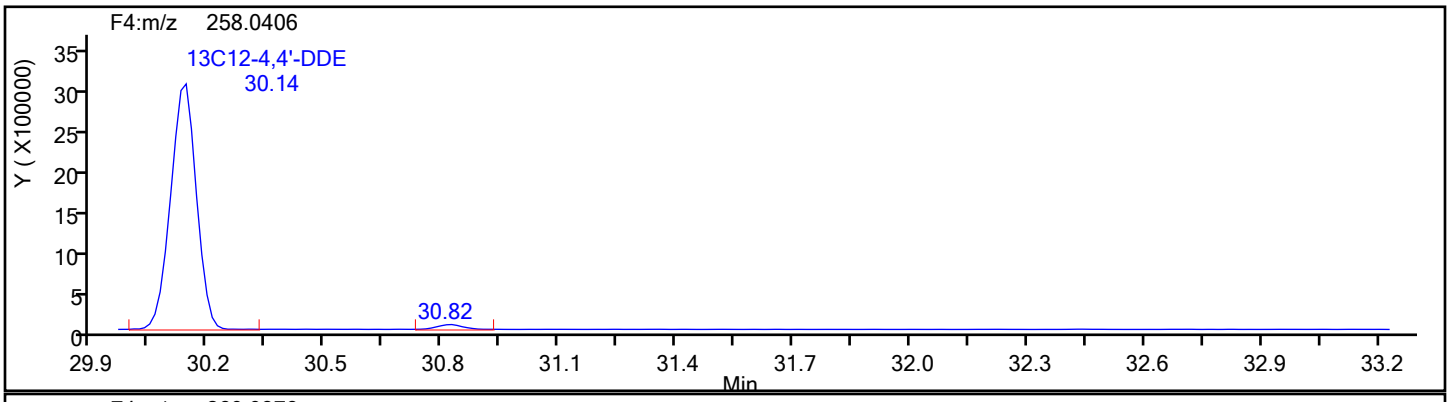
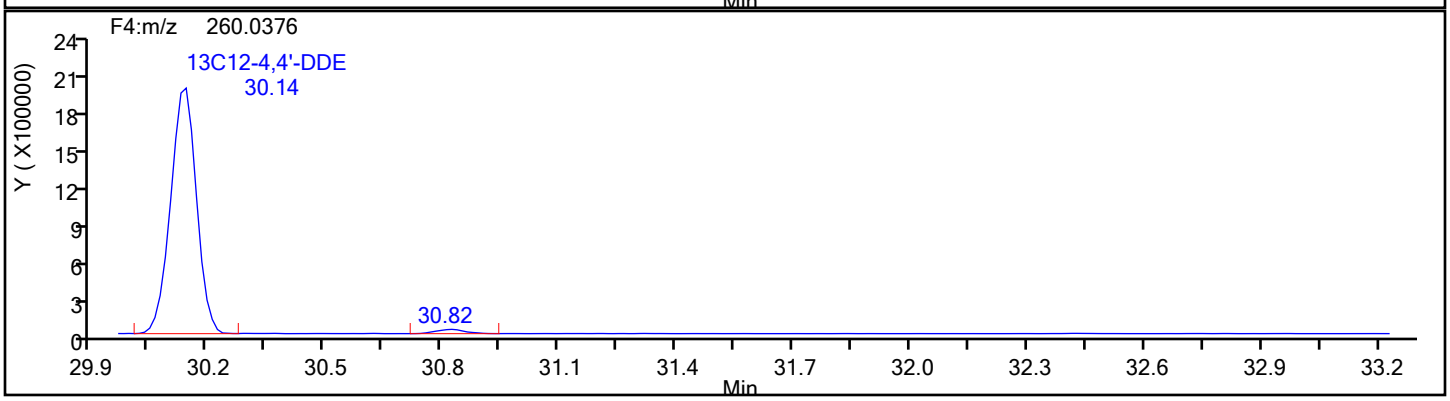
4,4'-DDE





4,4'-DDE Standards





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Eurofins Knoxville

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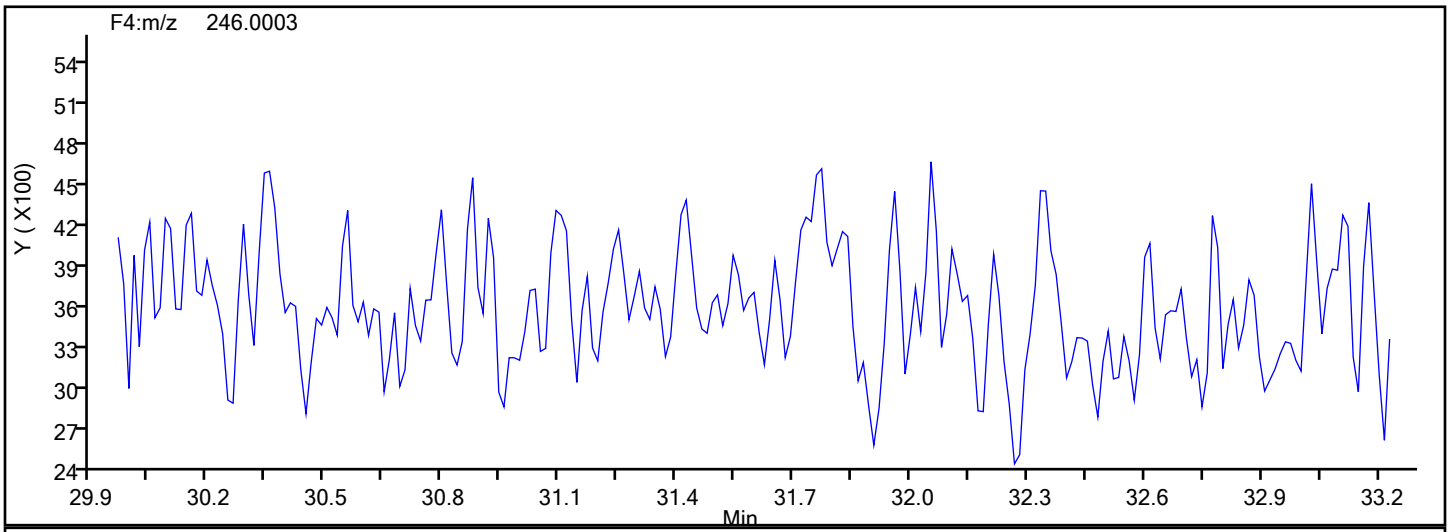
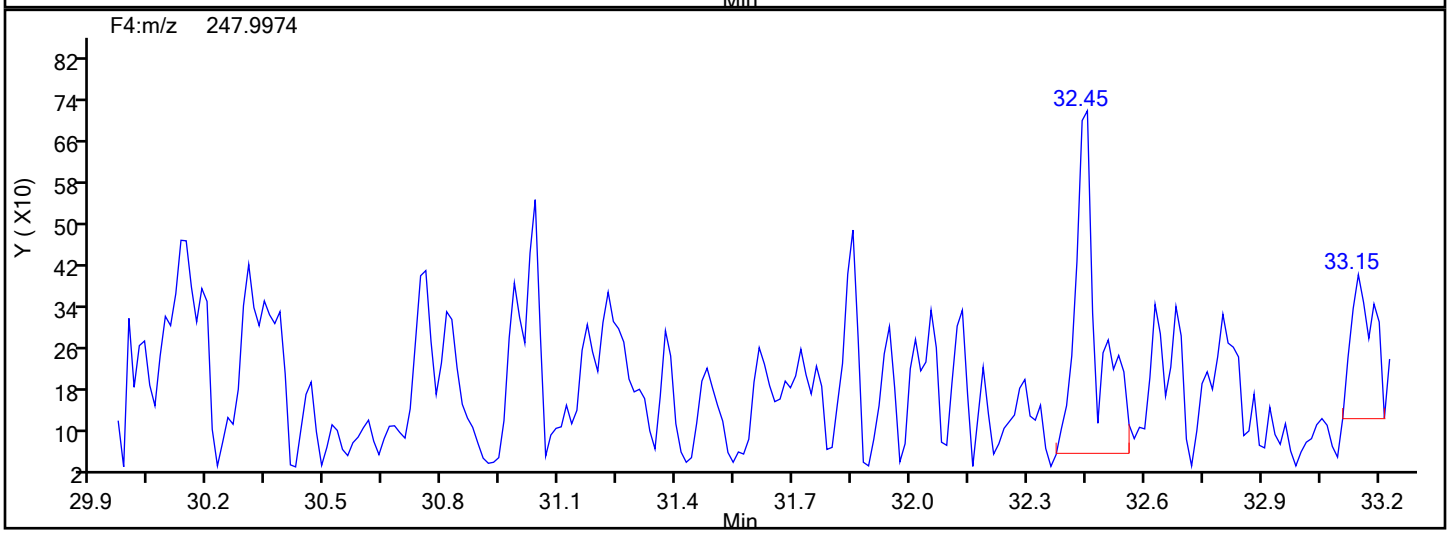
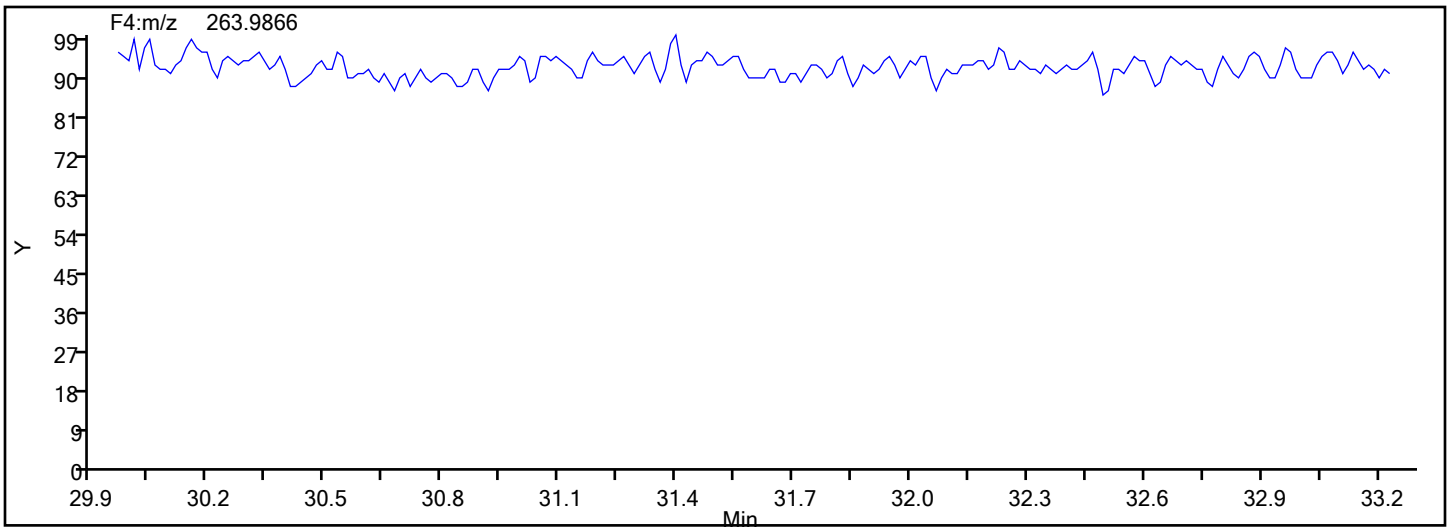
4,4'-DDE





4,4'-DDE Lock Mass



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Eurofins Knoxville

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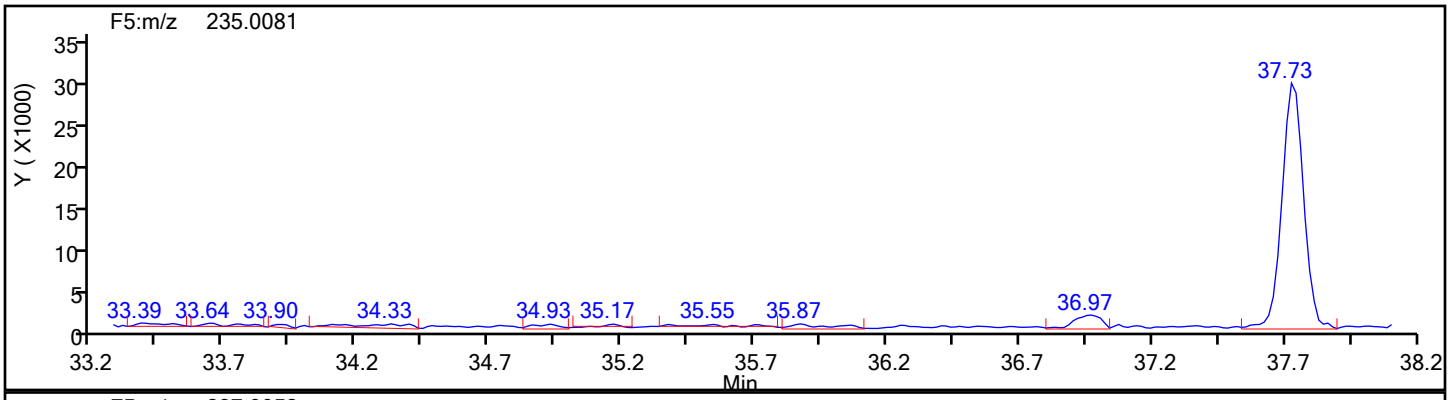
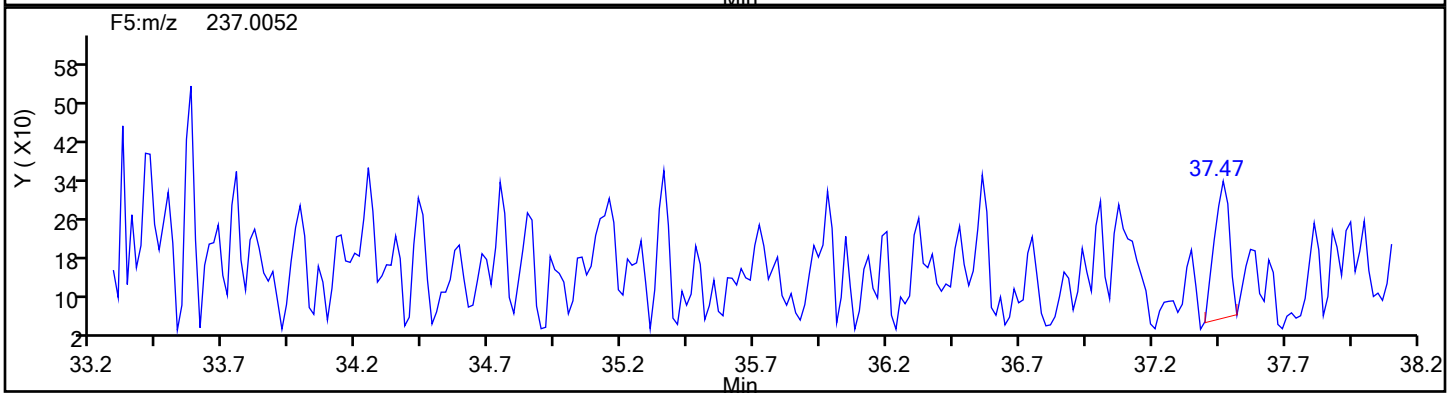
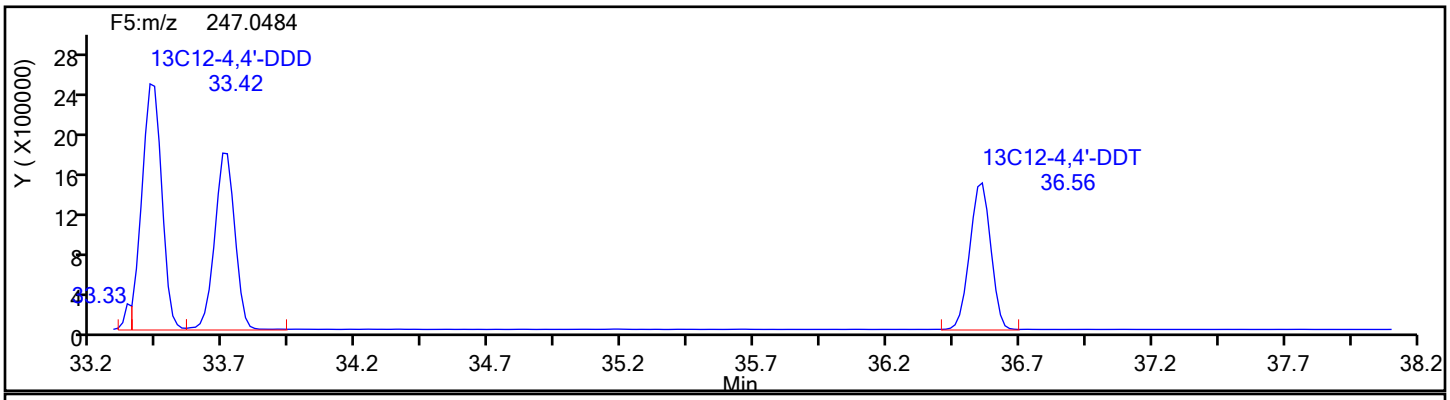
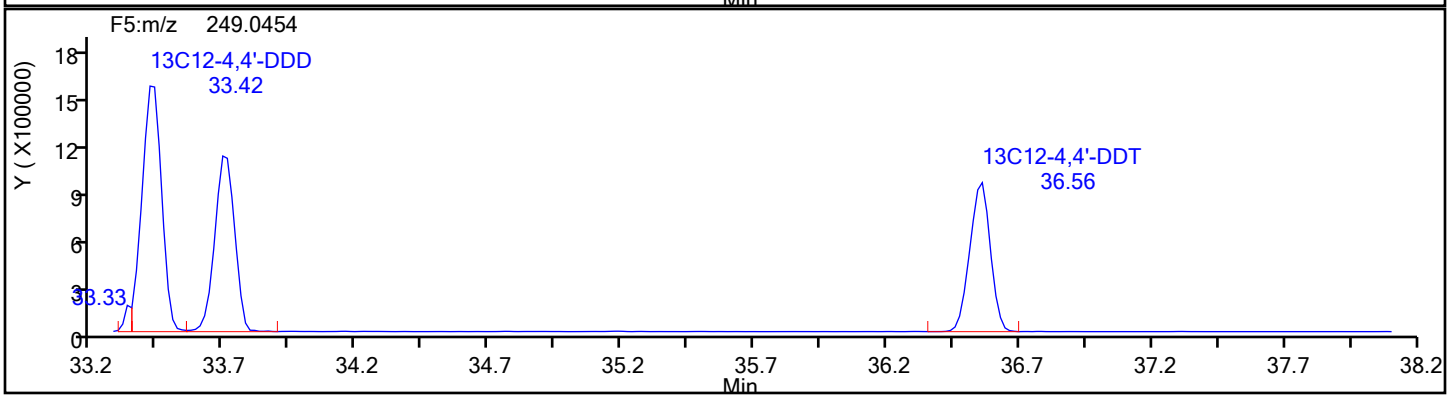
DDD





DDD Standards





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Eurofins Knoxville

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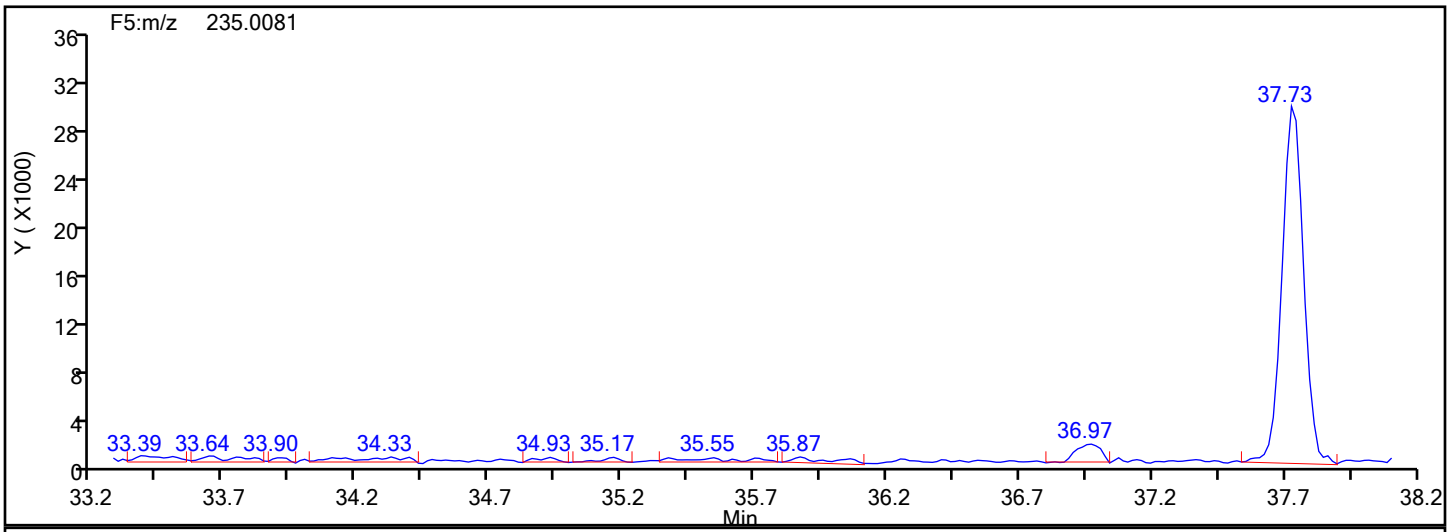
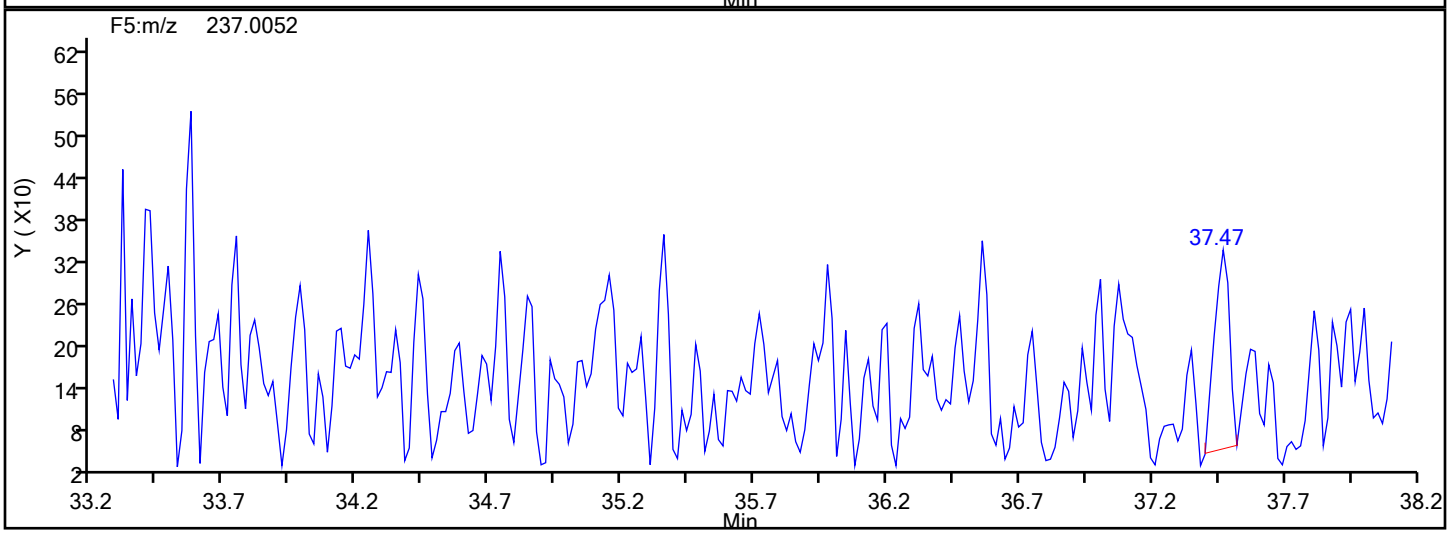
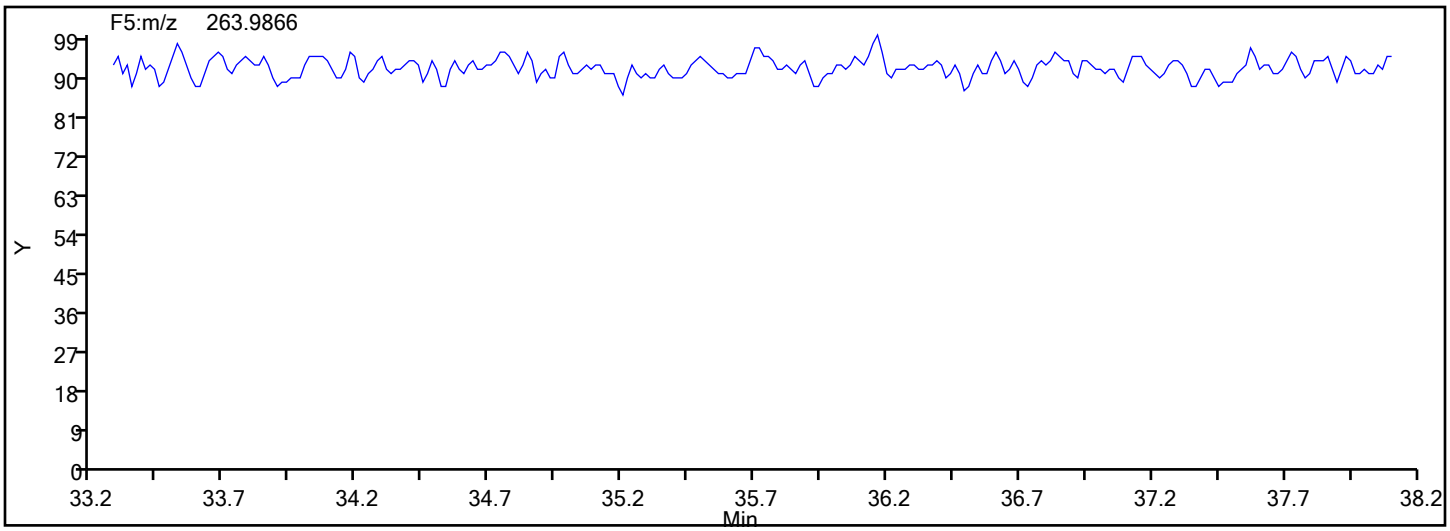




DDD Lock Mass



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Eurofins Knoxville

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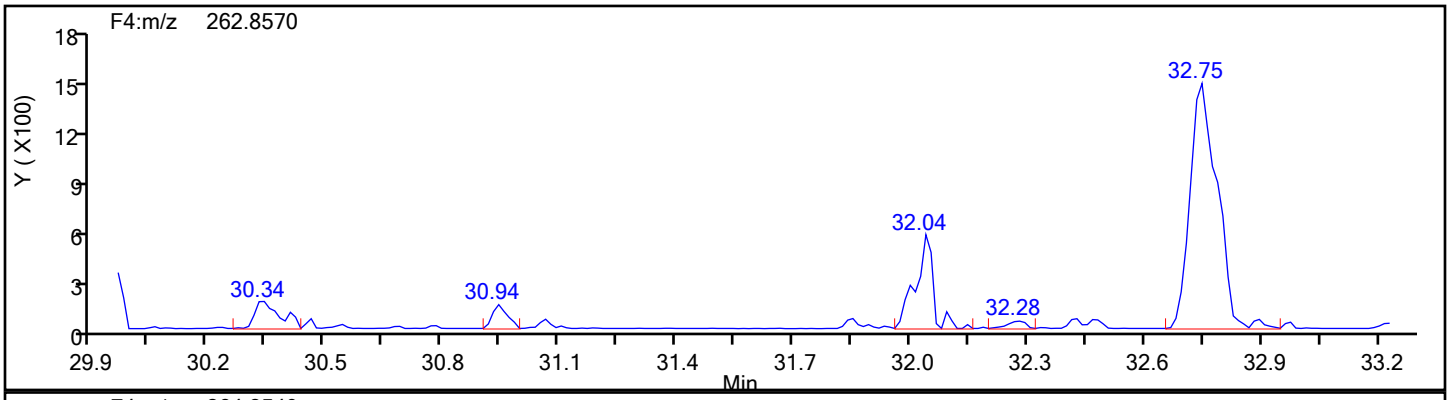
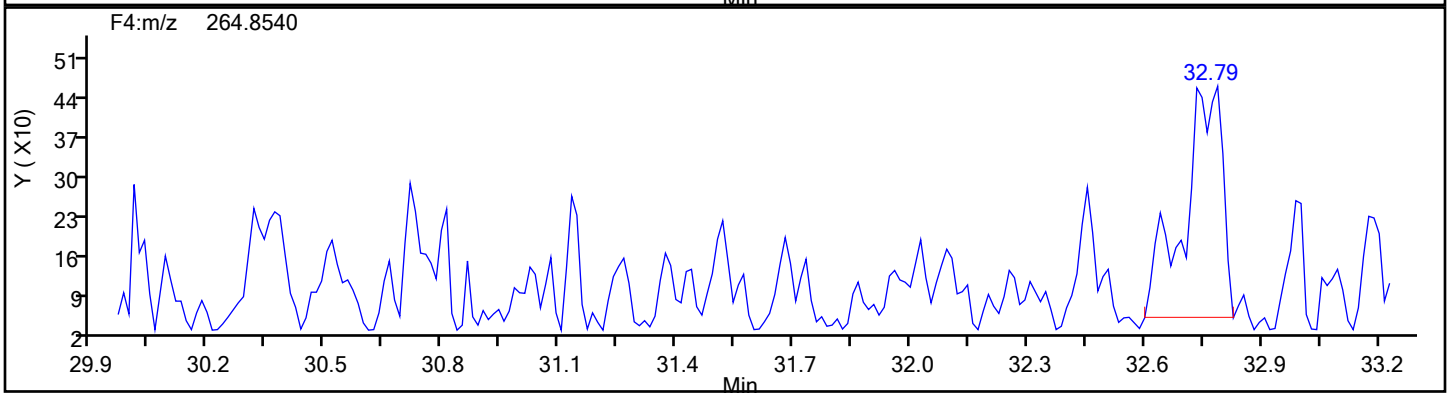
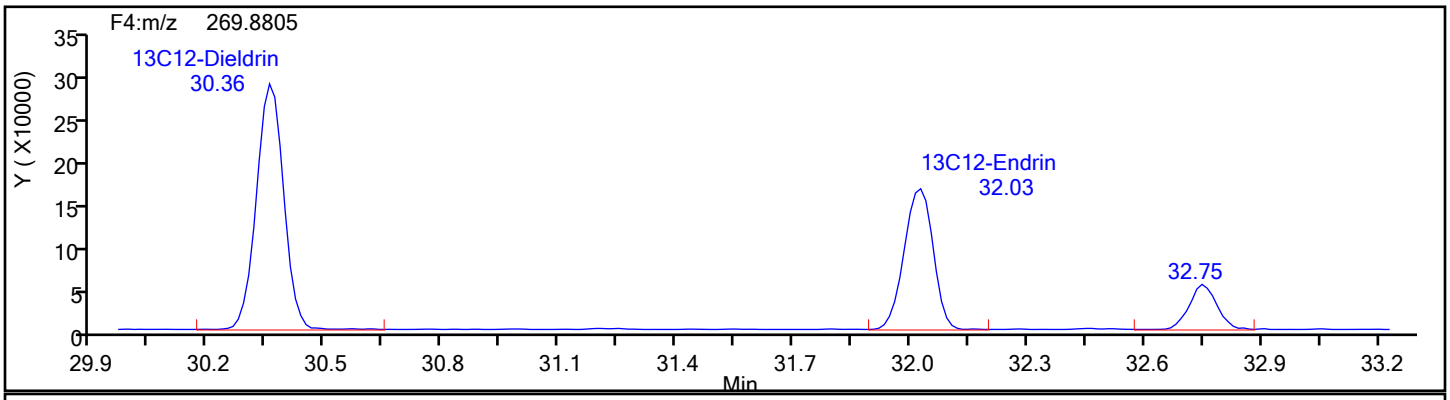
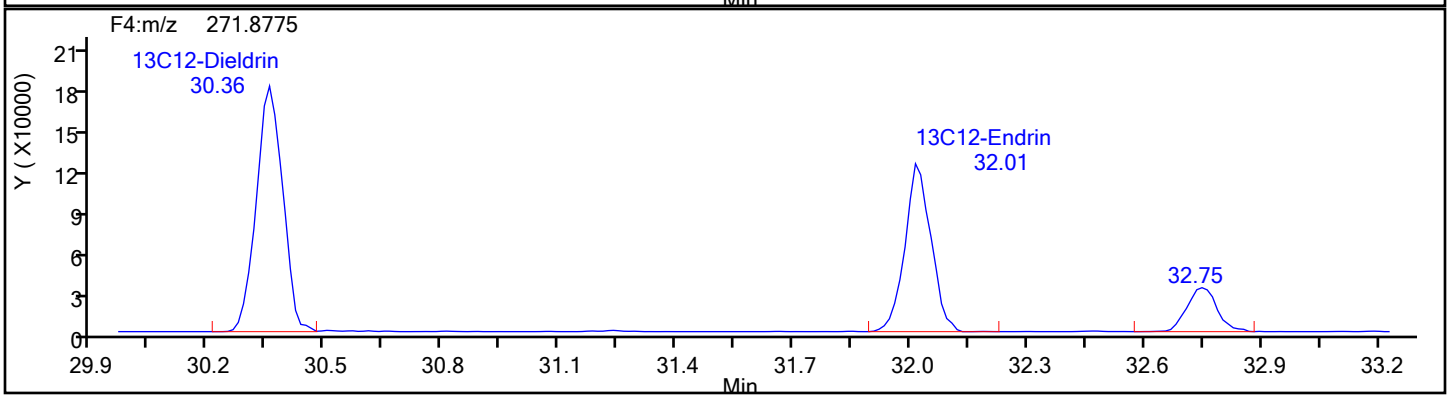




Dieldrin Standards





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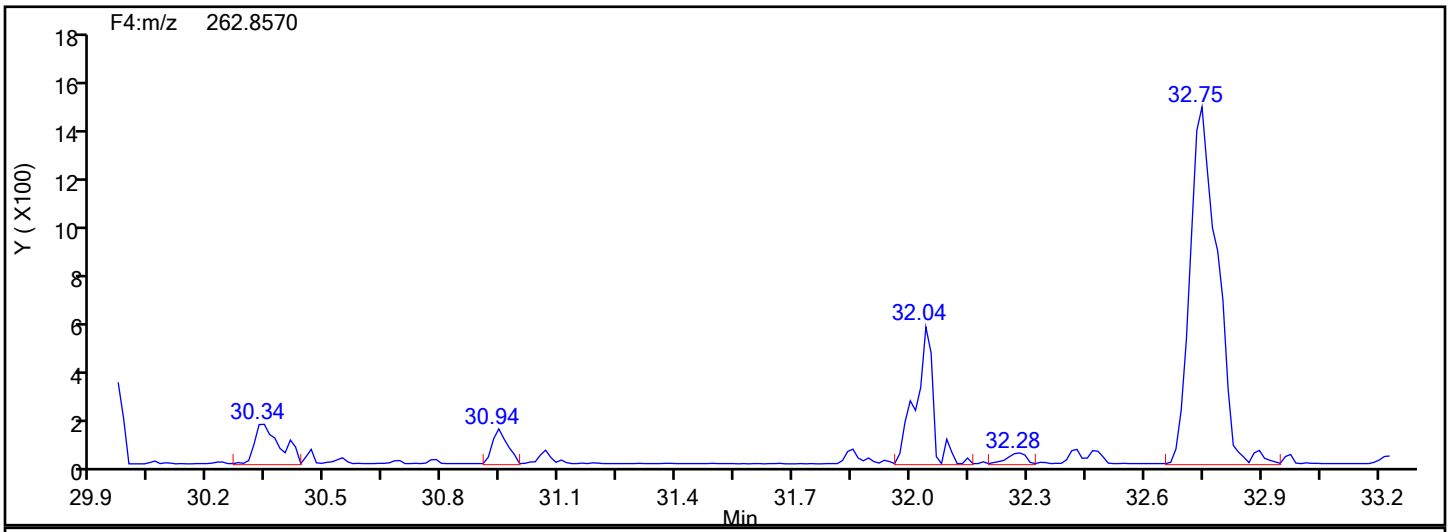

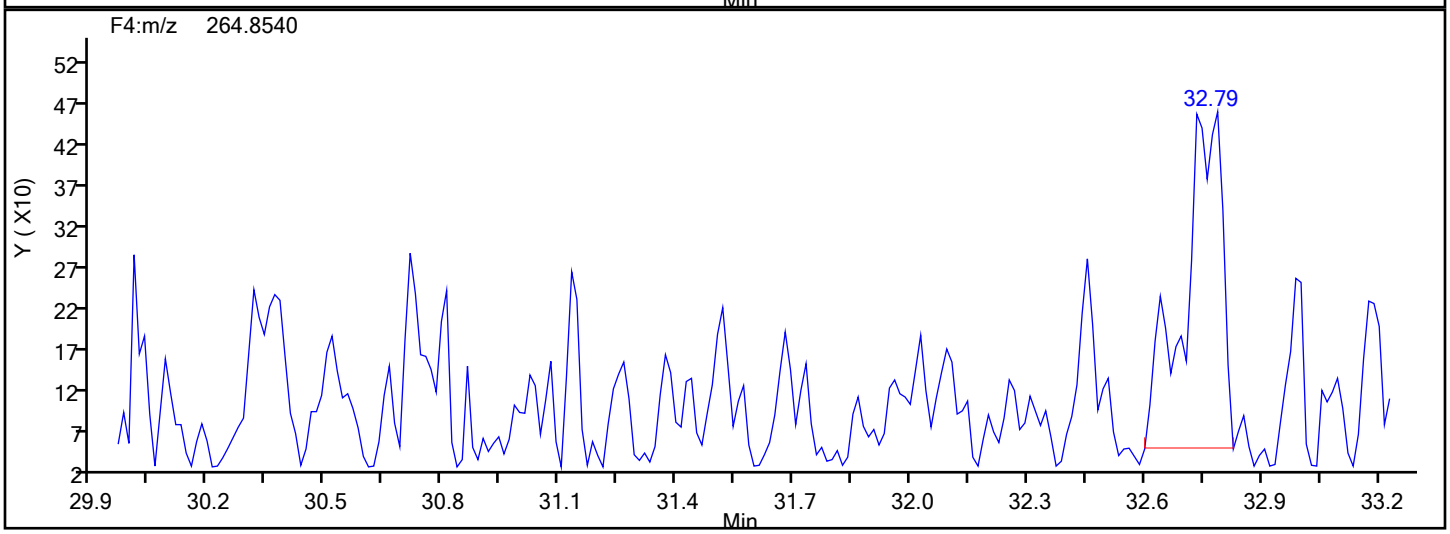

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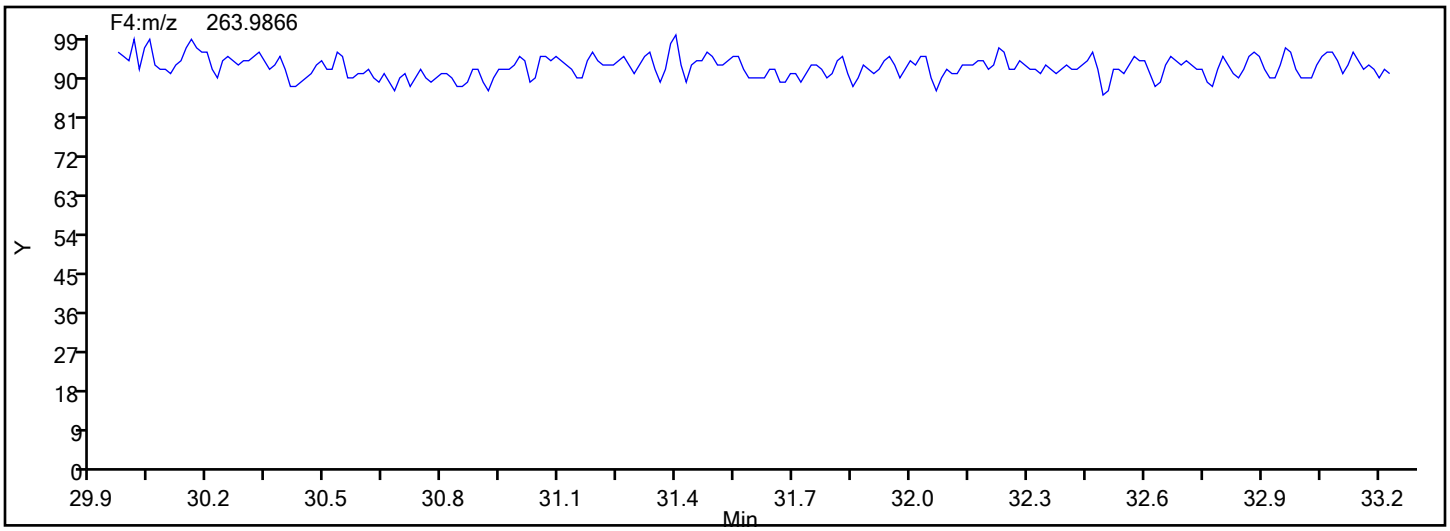

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Eurofins Knoxville

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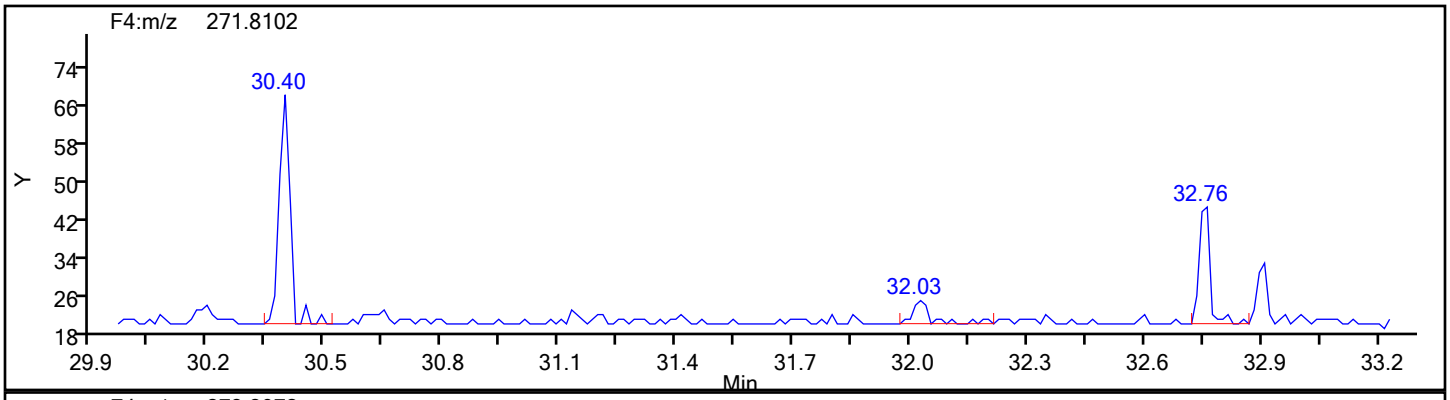
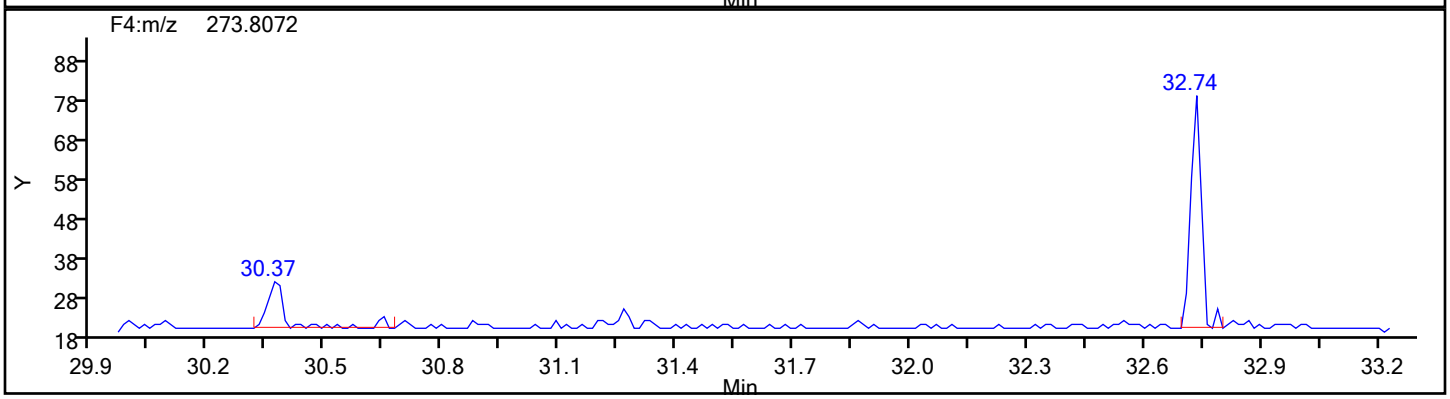
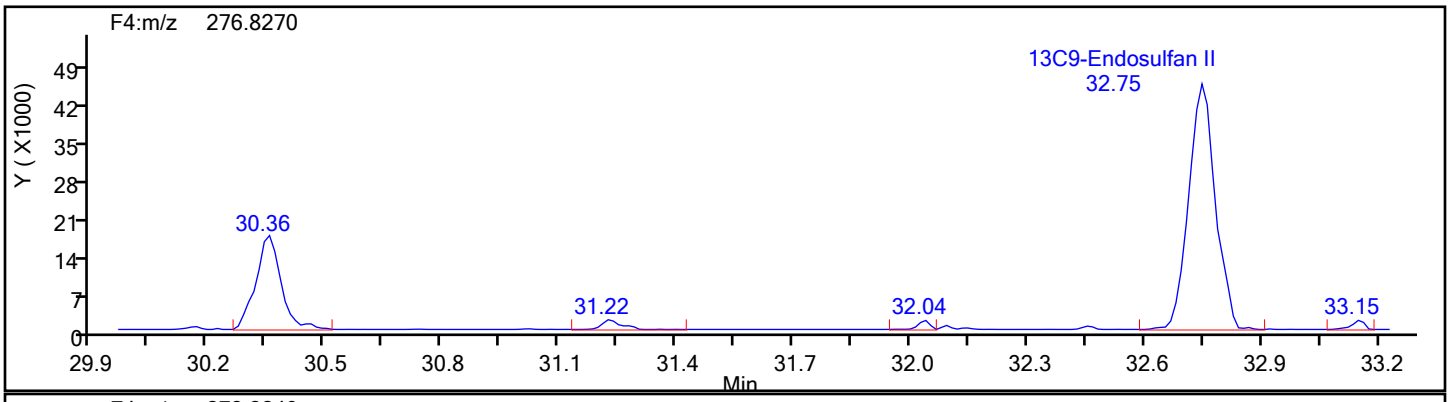
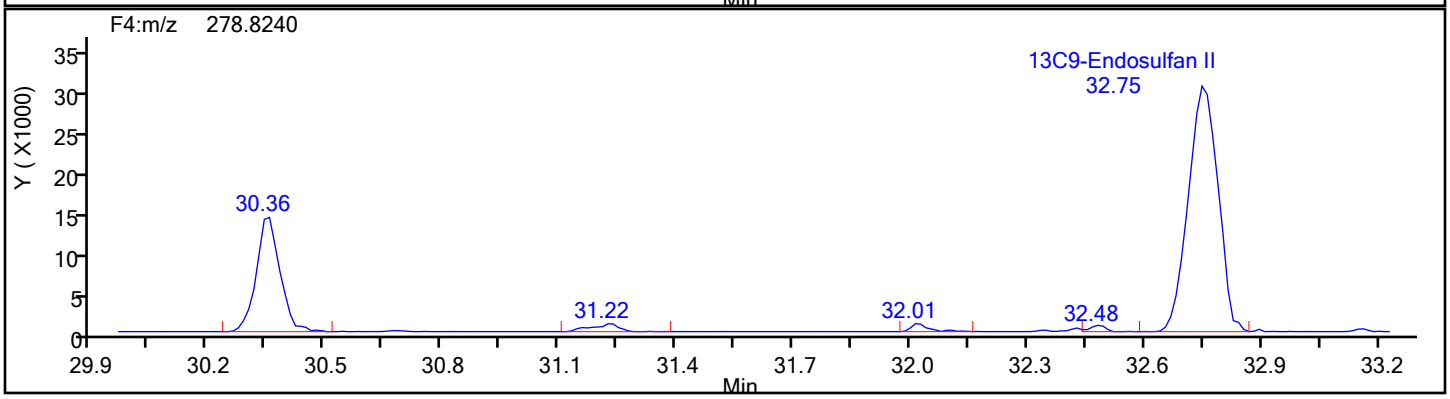
Endosulfan II





Endosulfan II Standards





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Eurofins Knoxville

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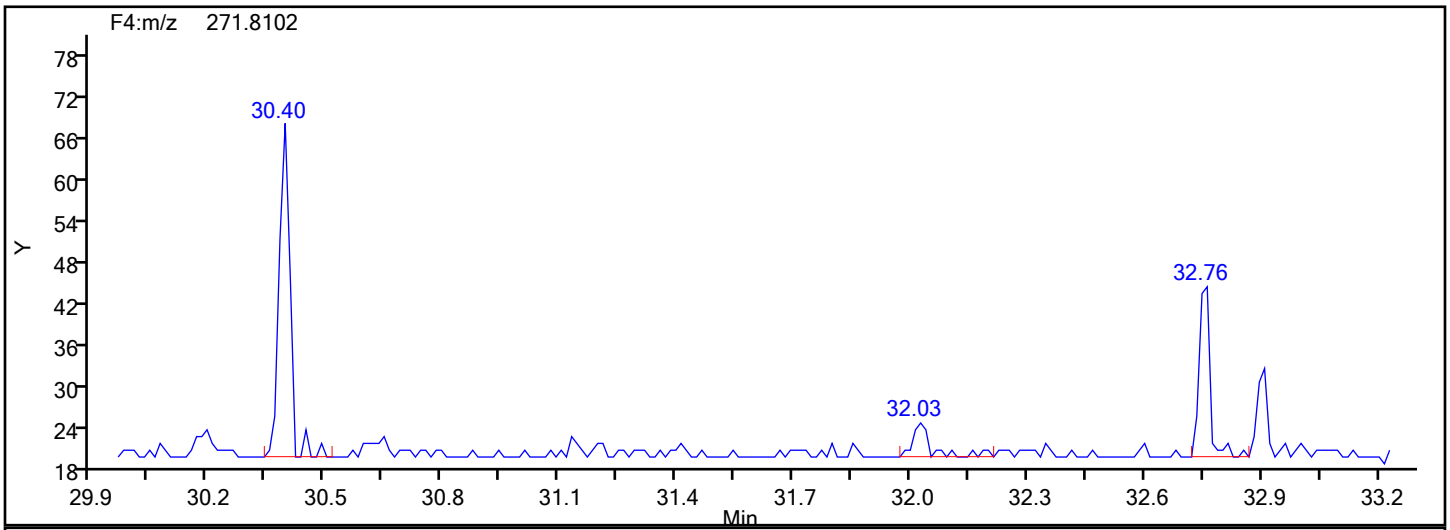
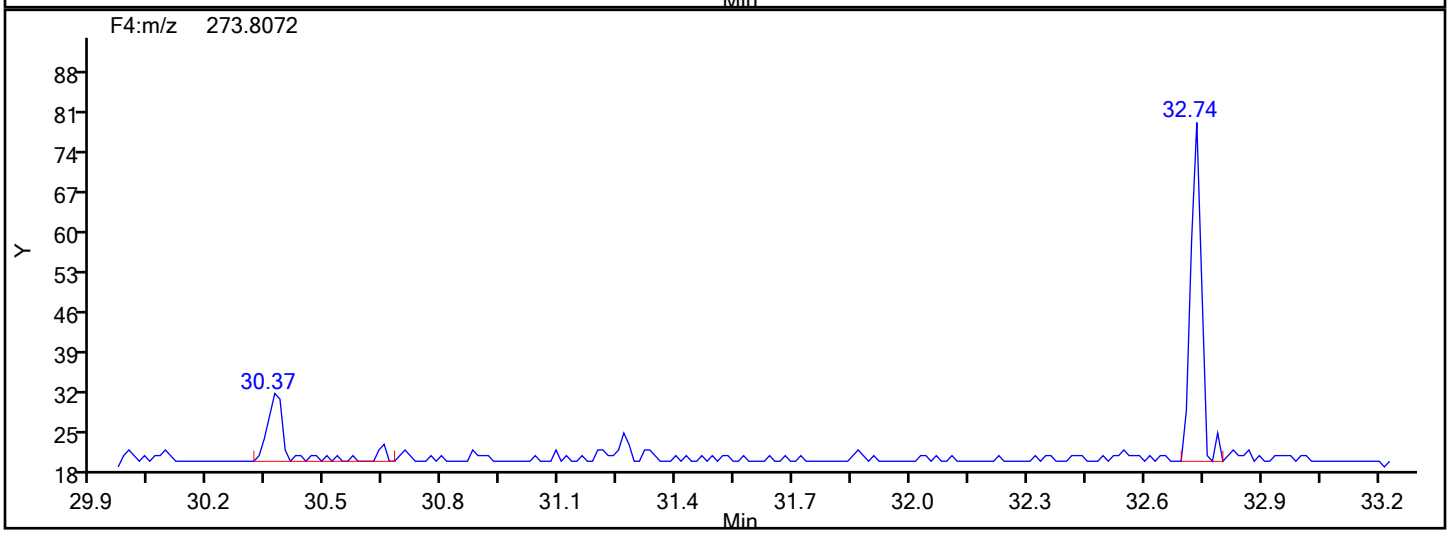
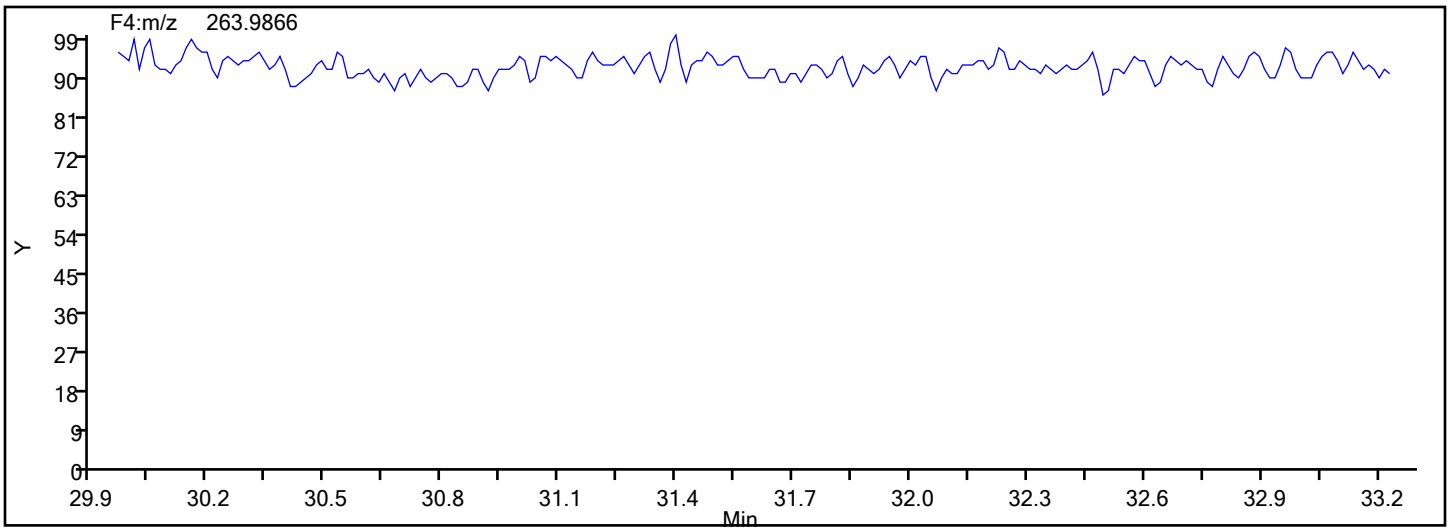
Endosulfan II





Endosulfan II Lock Mass



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Eurofins Knoxville

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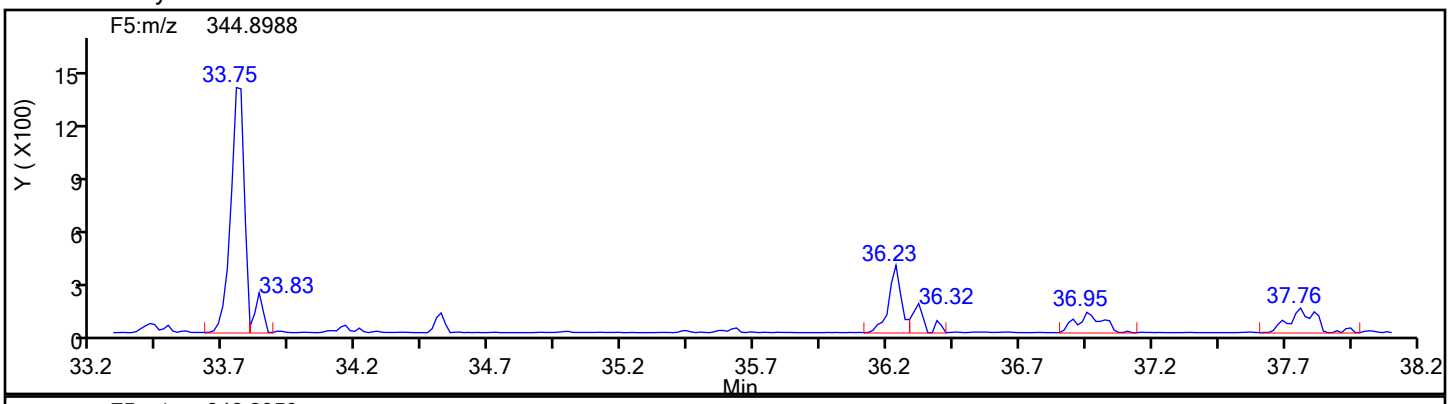
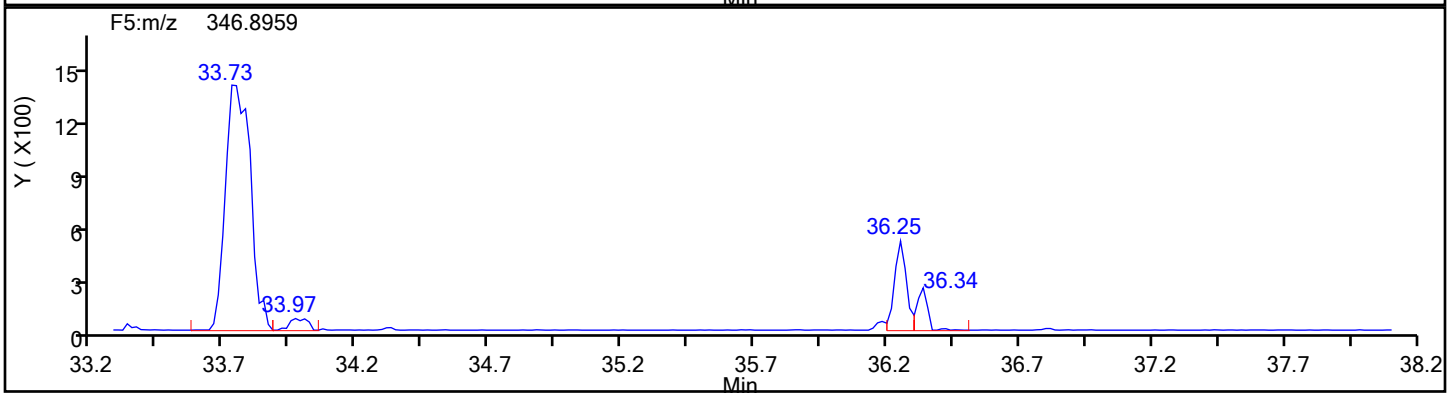
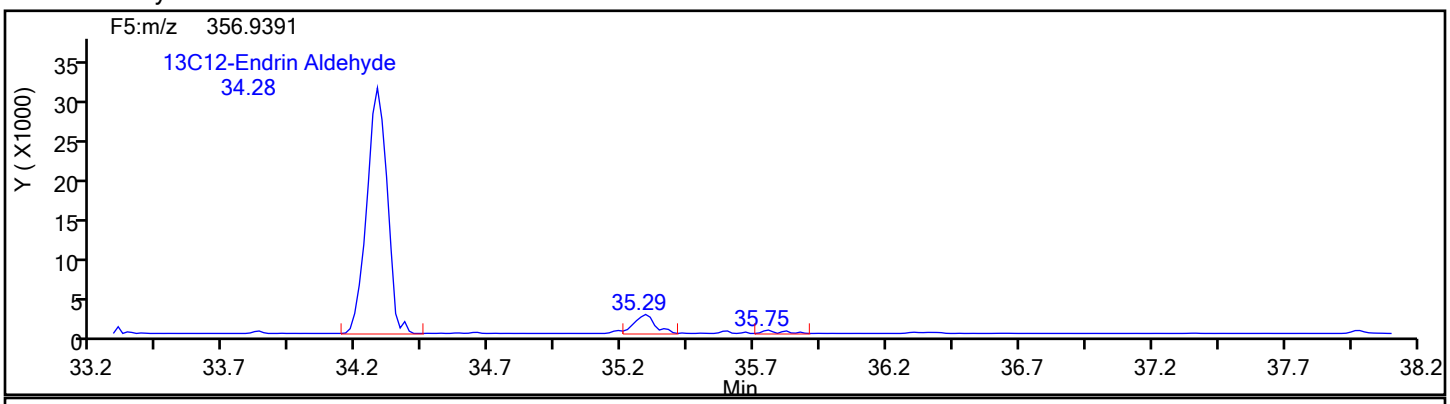
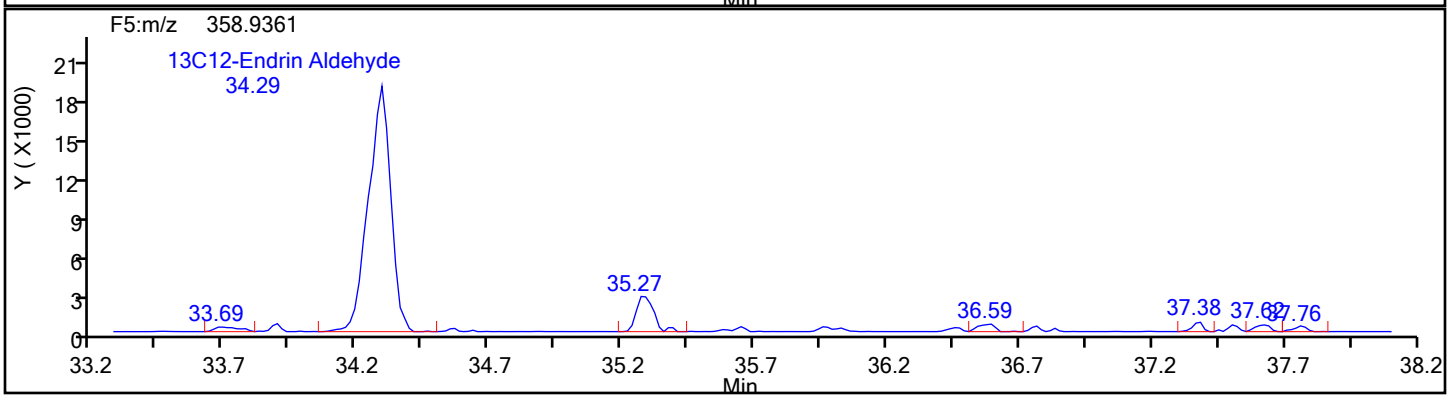
Endrin aldehyde





Endrin aldehyde Standards





Report Date: 06-May-2025 18:03:48 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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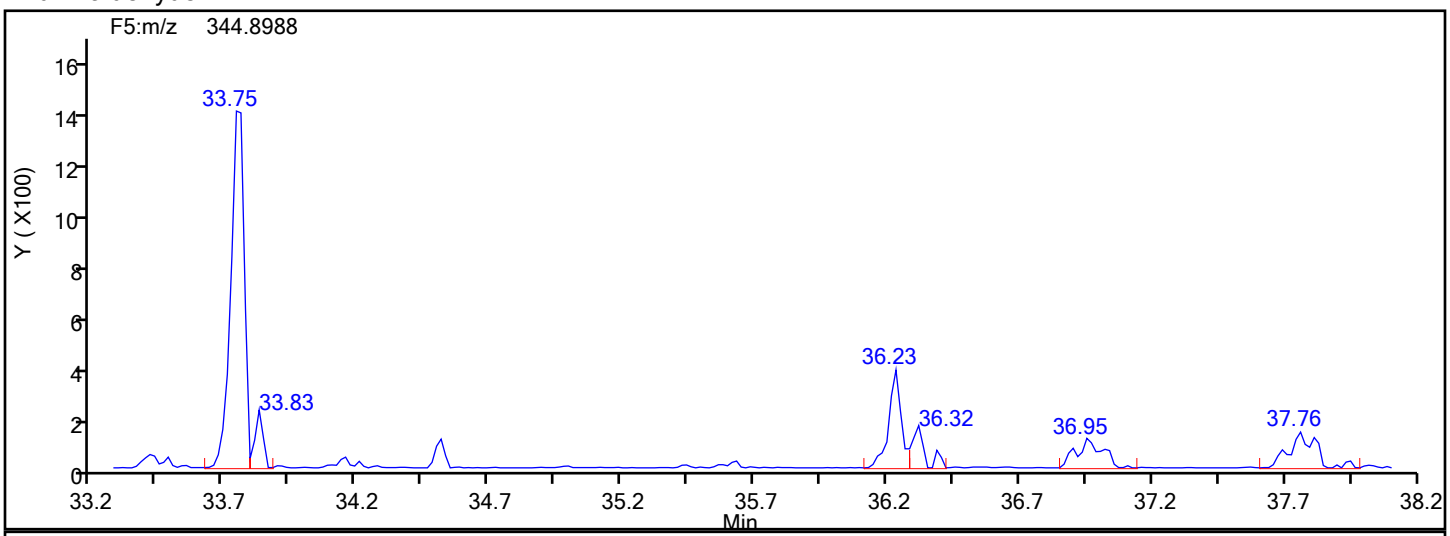
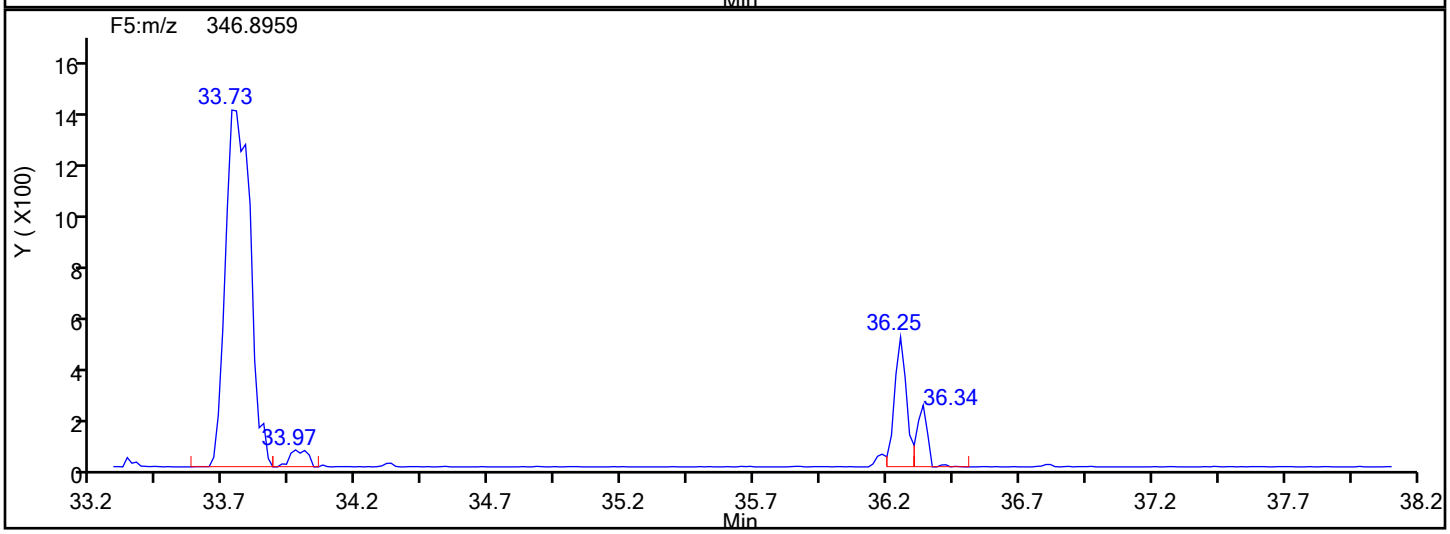
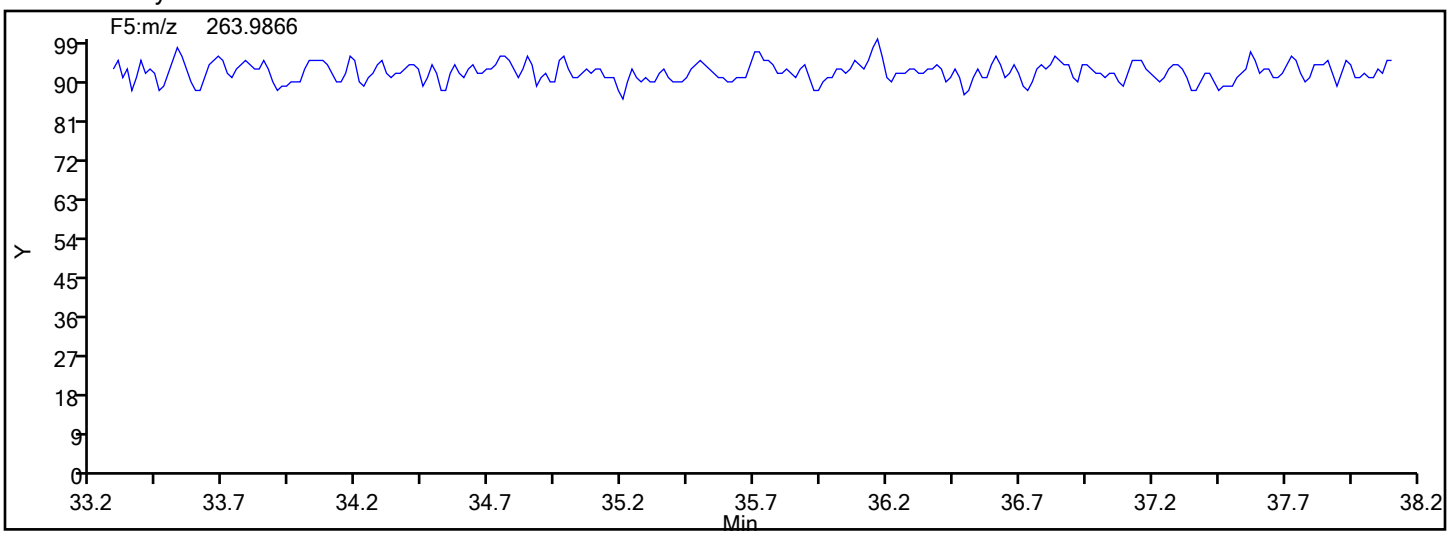
Column Type:	RTX-5	Column Dia:	0.32 mm

Endrin aldehyde





Endrin aldehyde Lock Mass



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Eurofins Knoxville

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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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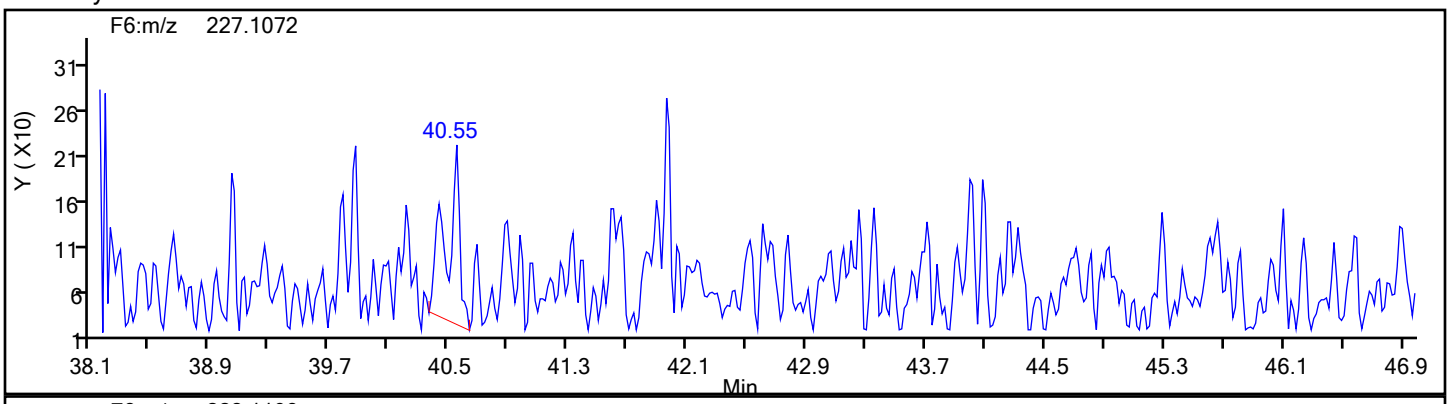
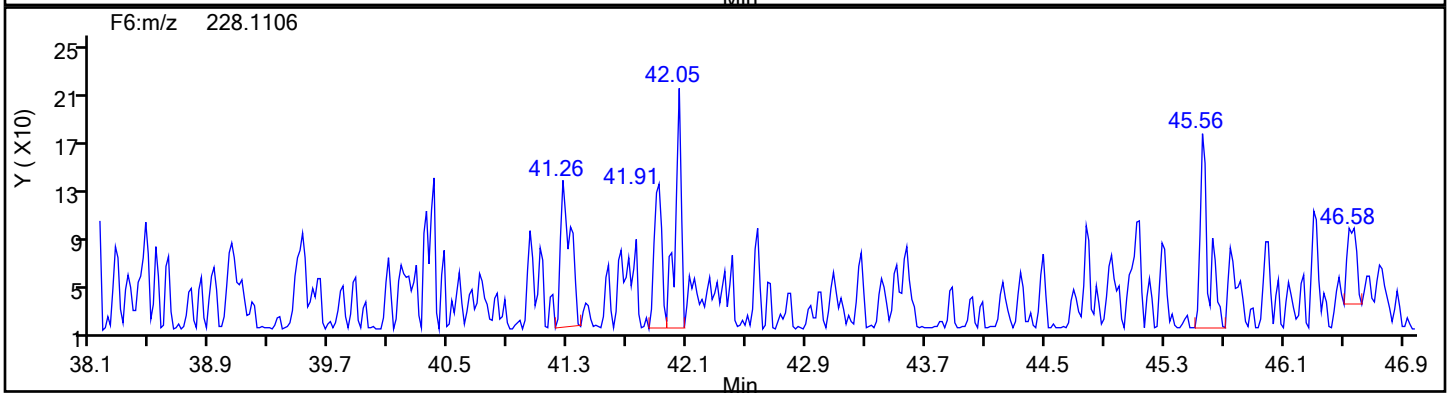
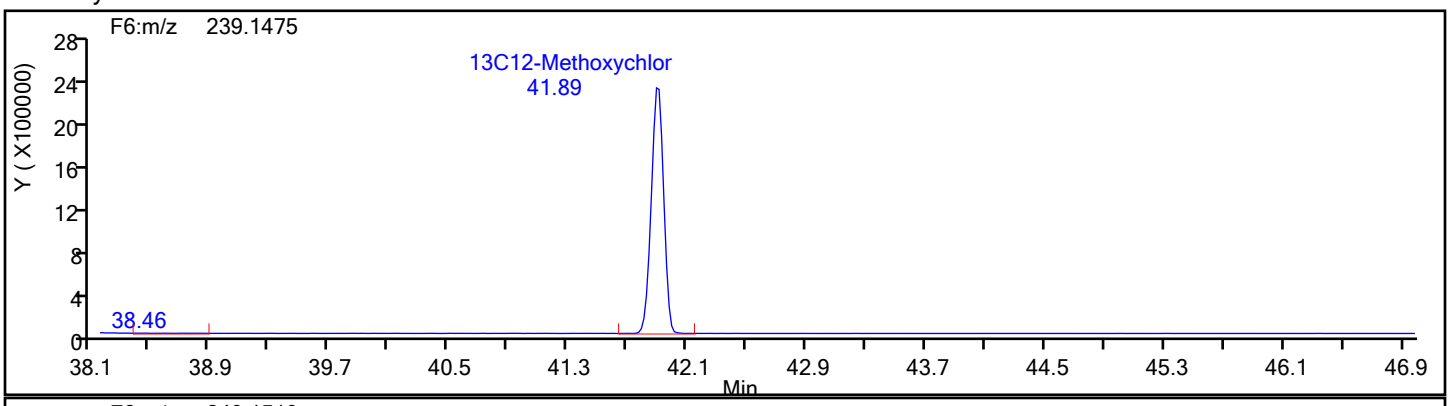
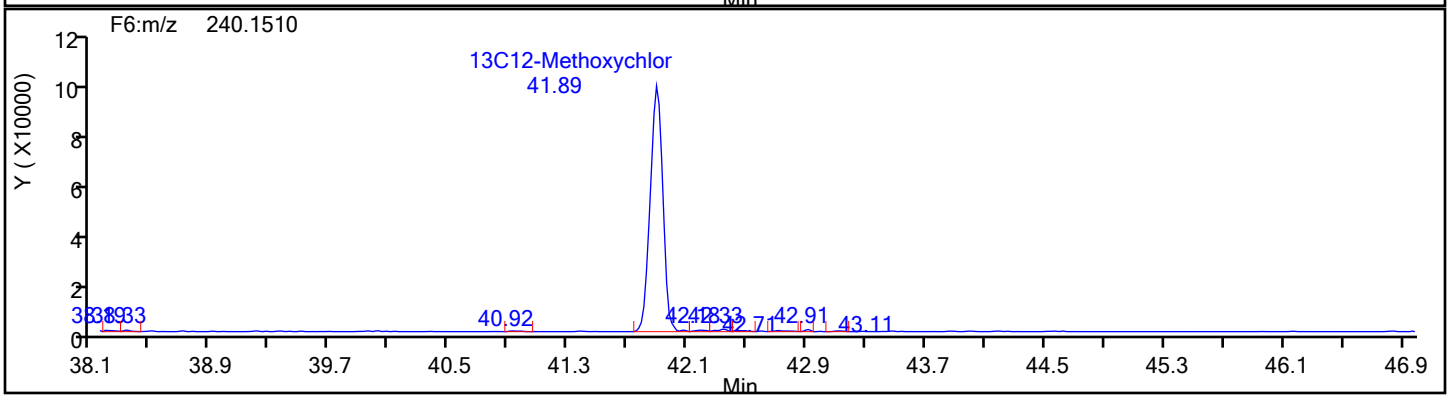
Methoxychlor





Methoxychlor Standards





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Eurofins Knoxville

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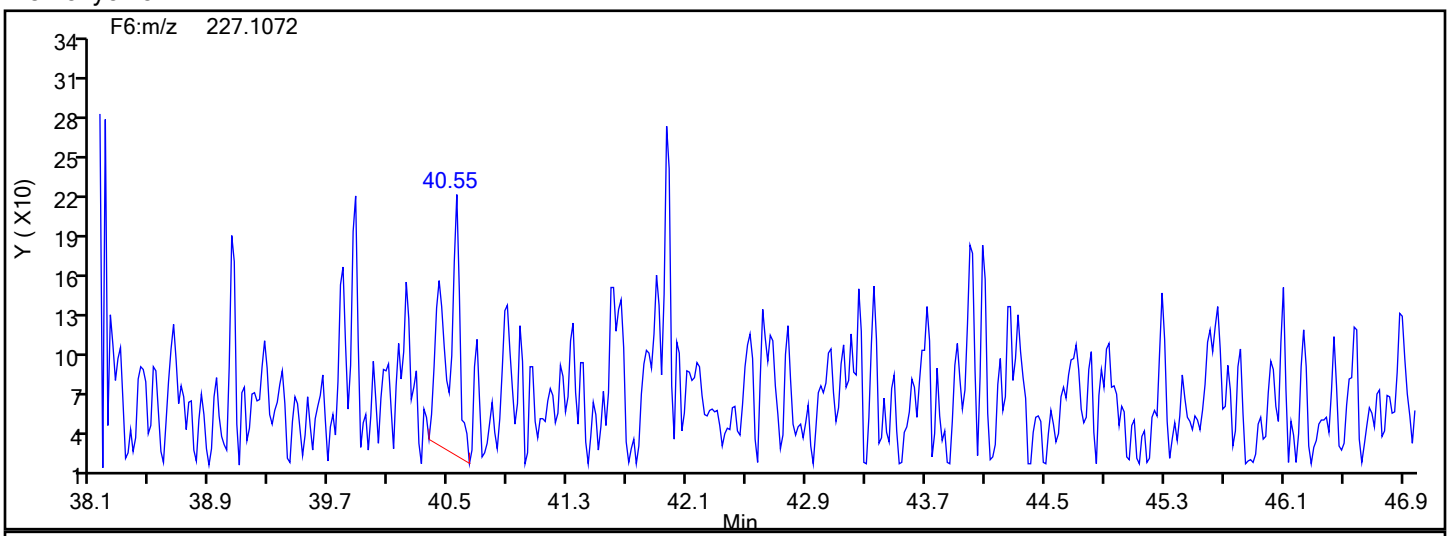
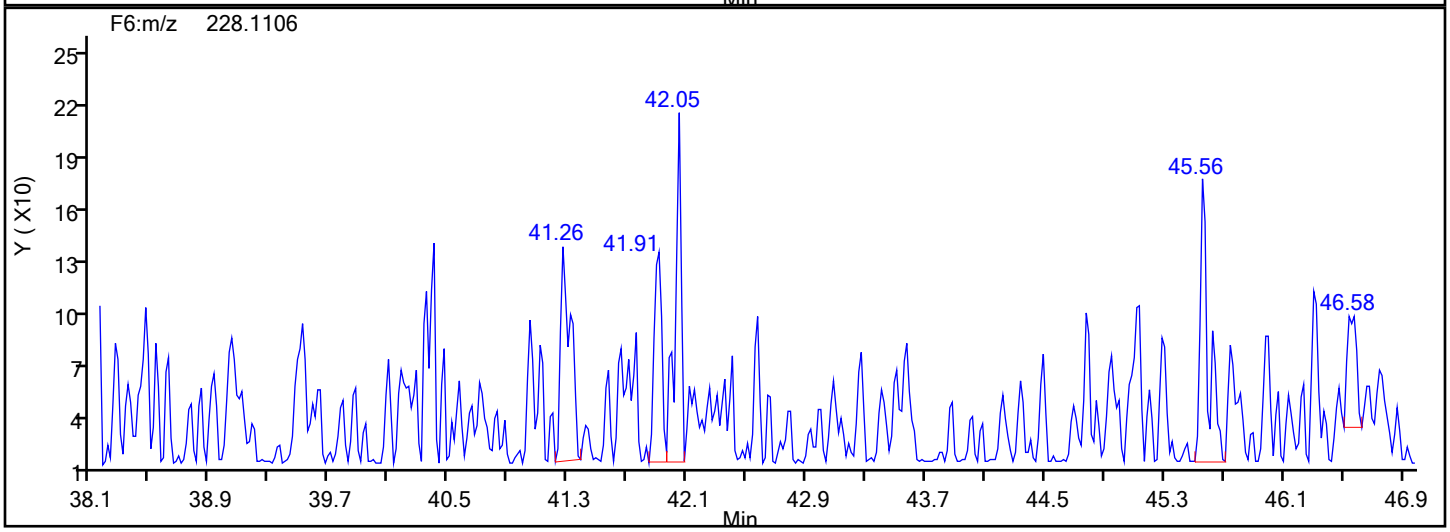
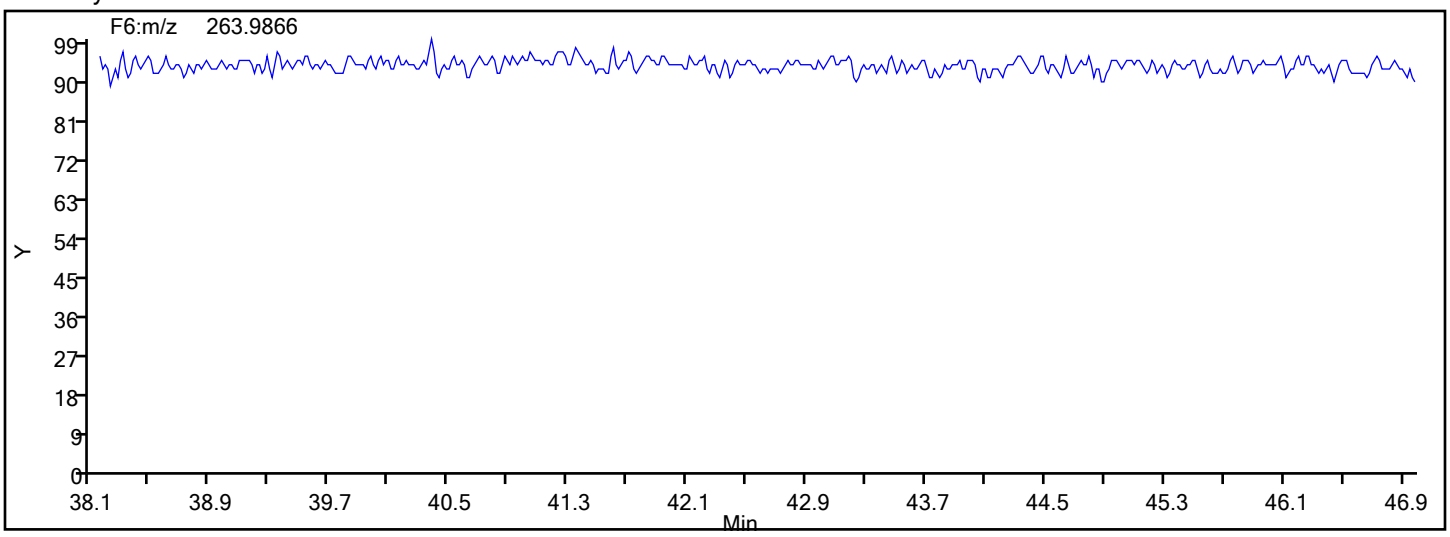
Methoxychlor





Methoxychlor Lock Mass



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Eurofins Knoxville

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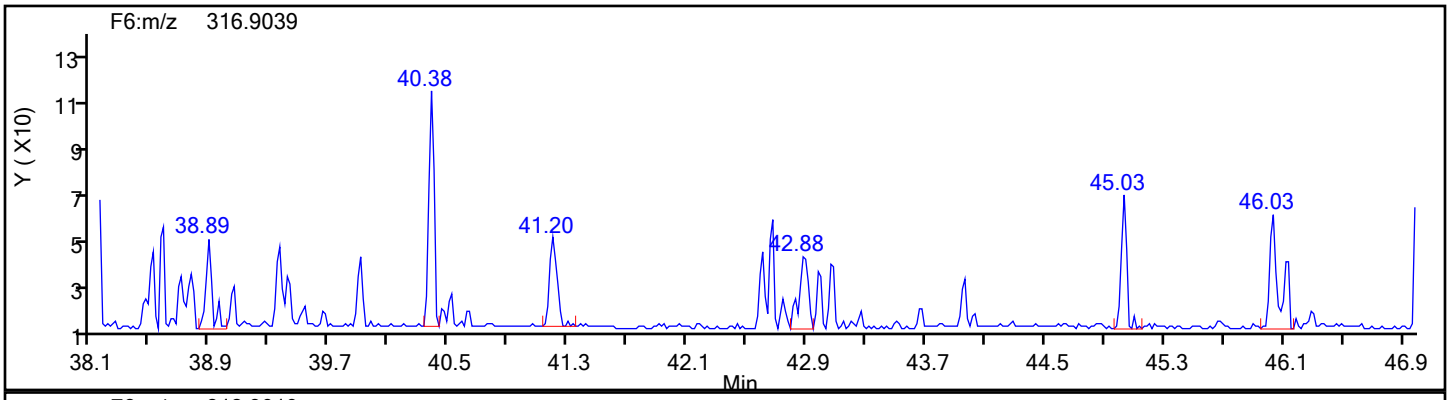
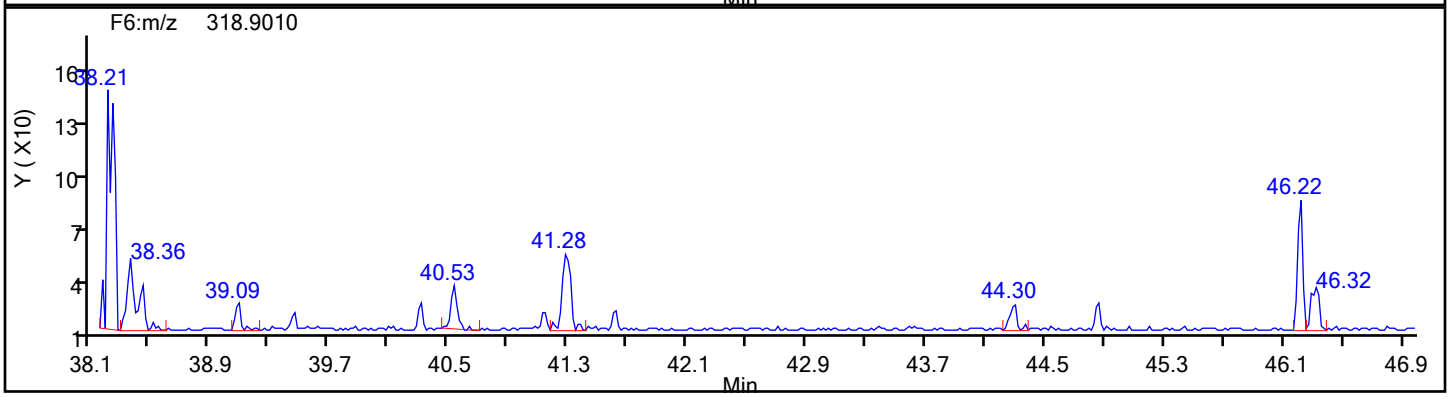
Endrin ketone





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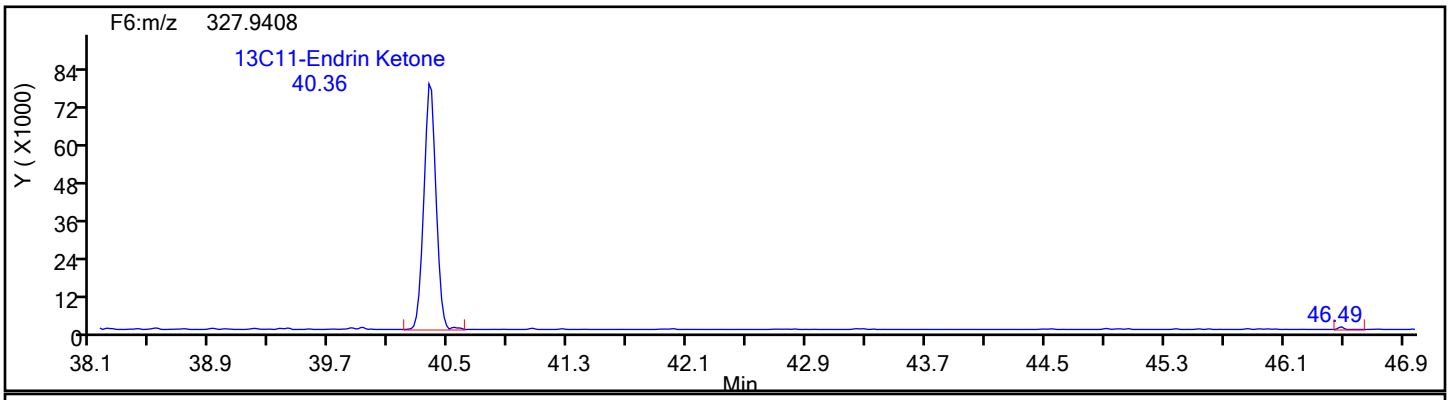

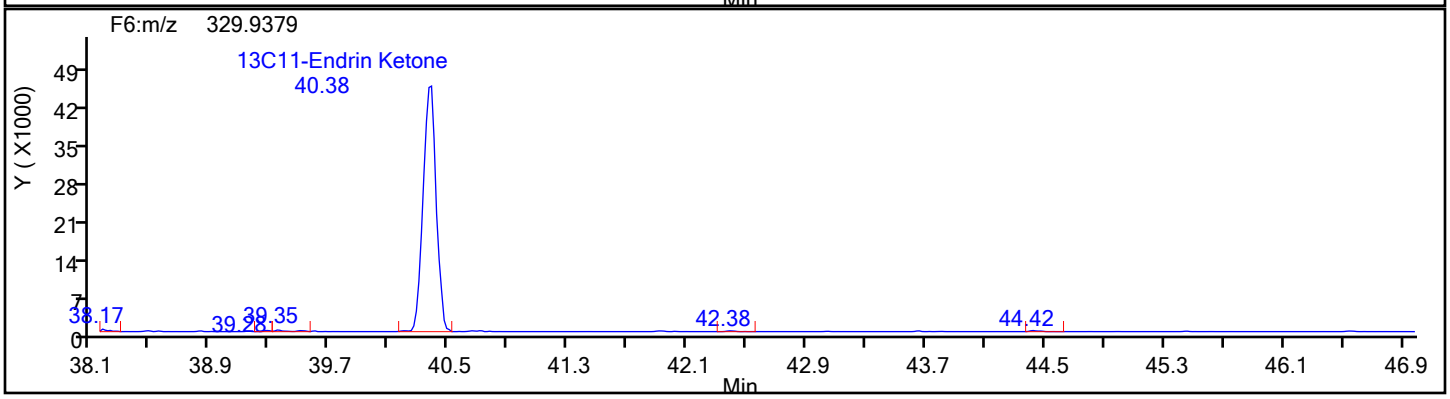

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Eurofins Knoxville

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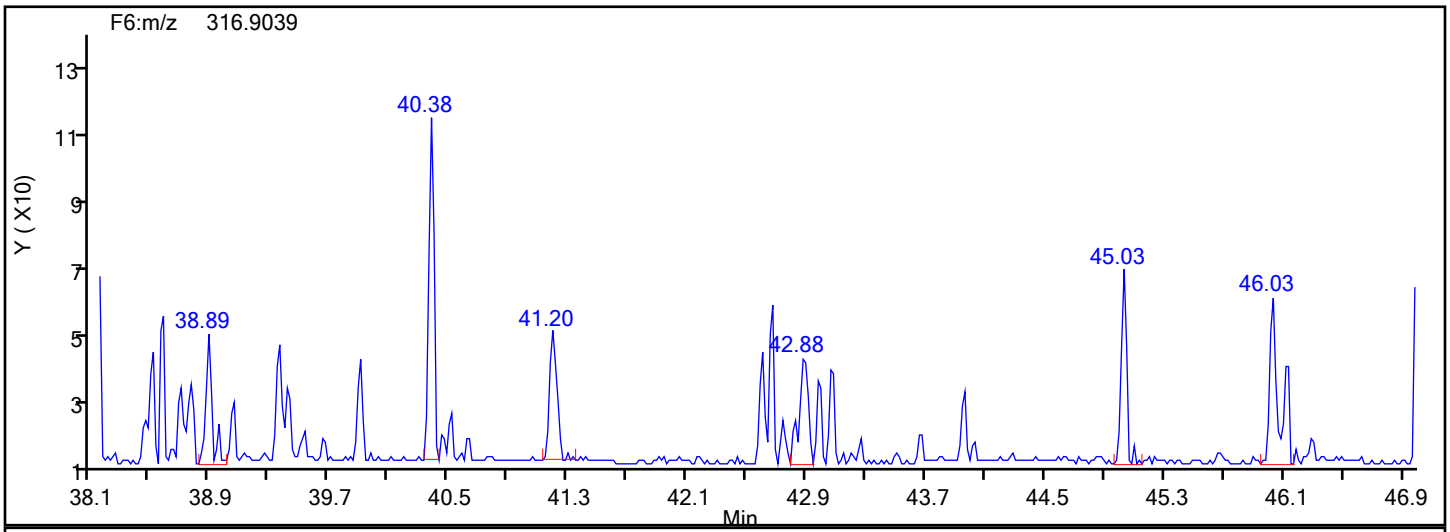
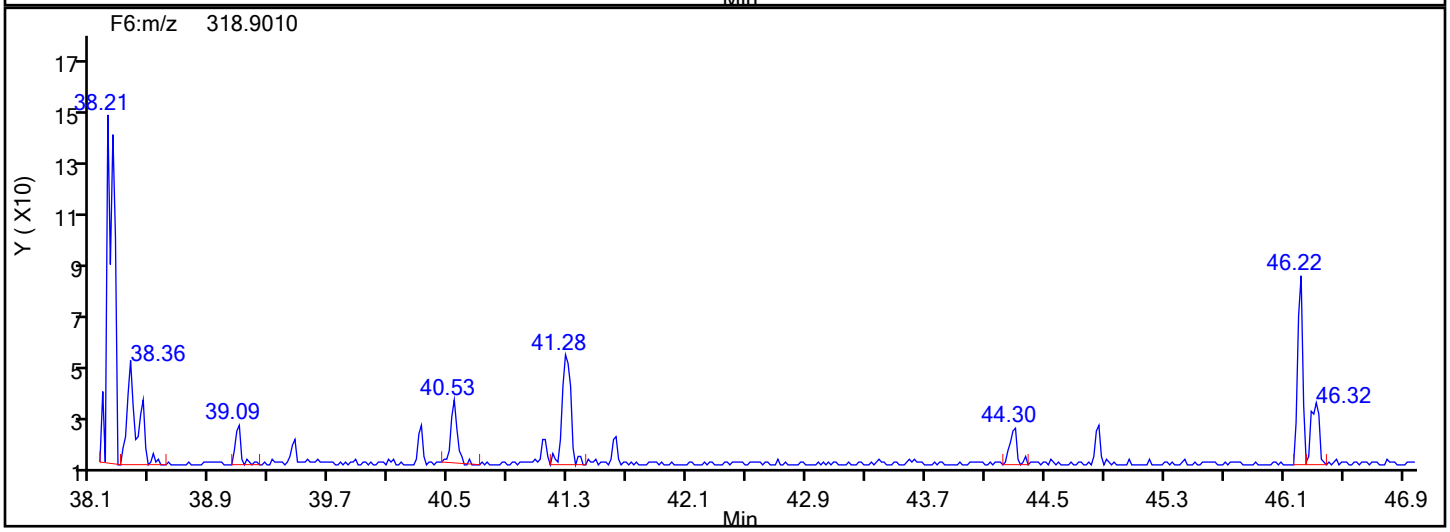
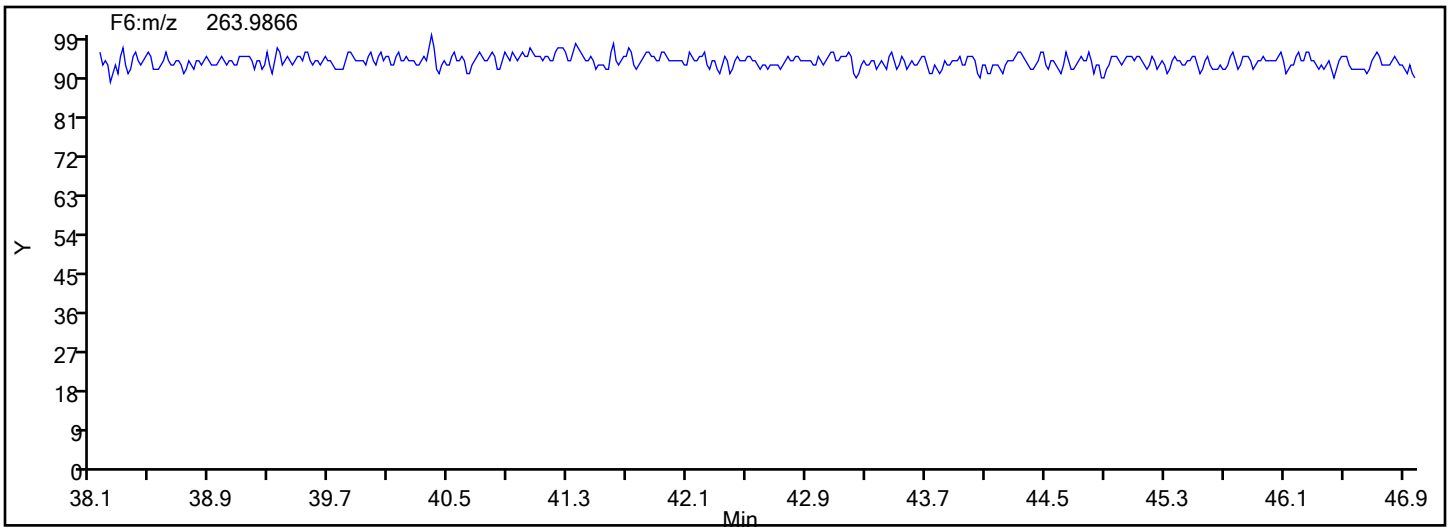




Endrin ketone Lock Mass



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Eurofins Knoxville

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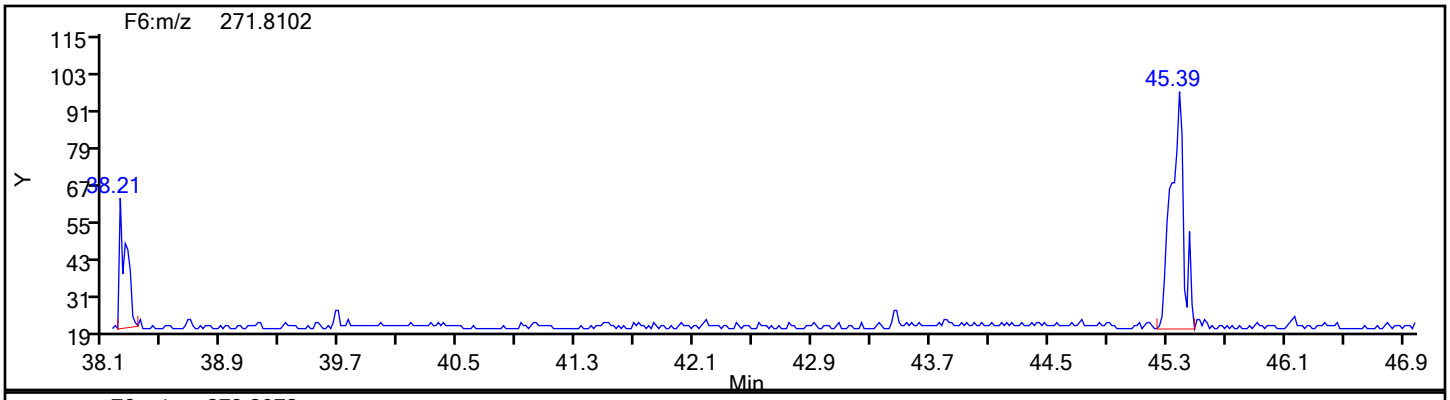
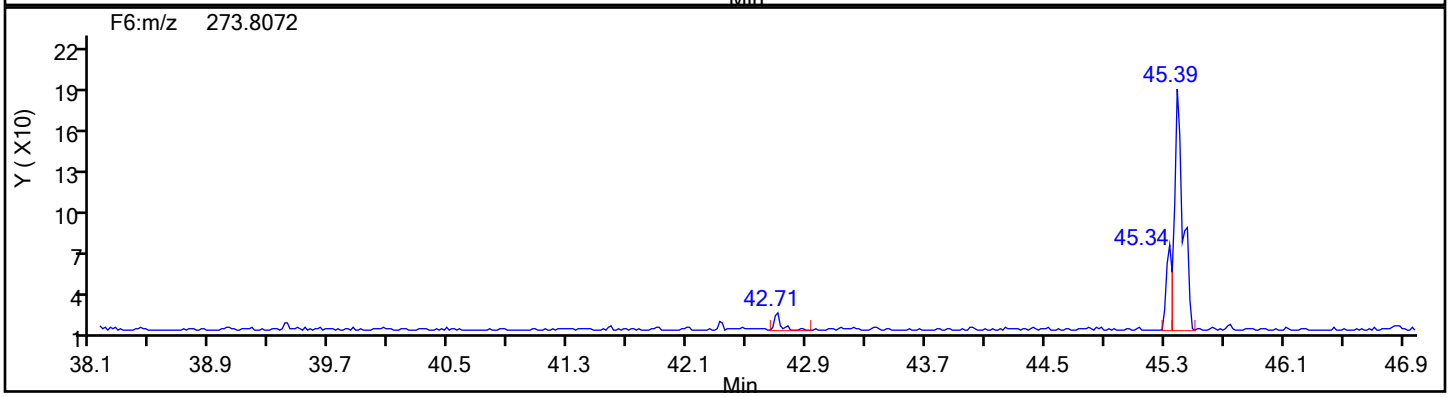
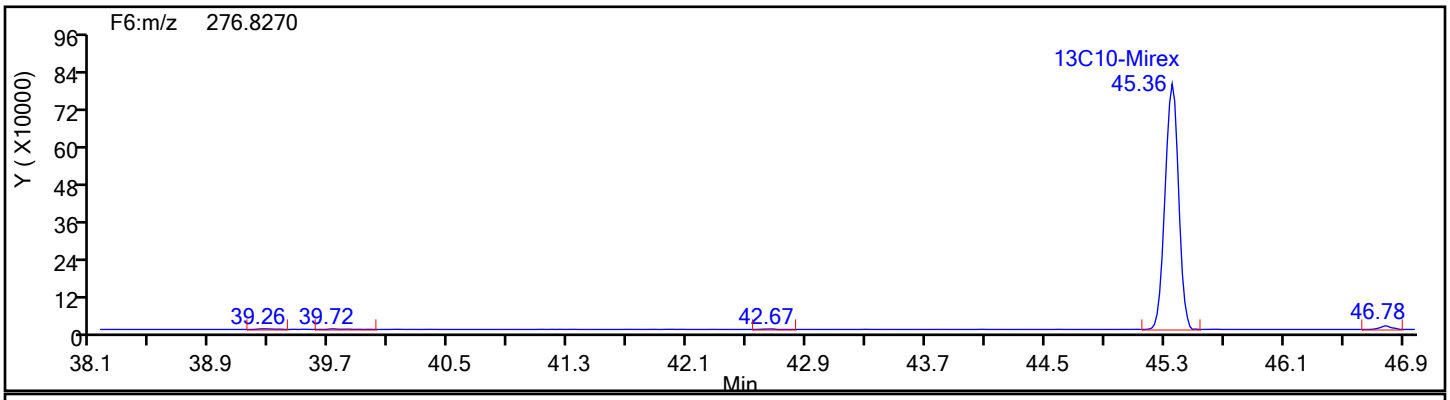
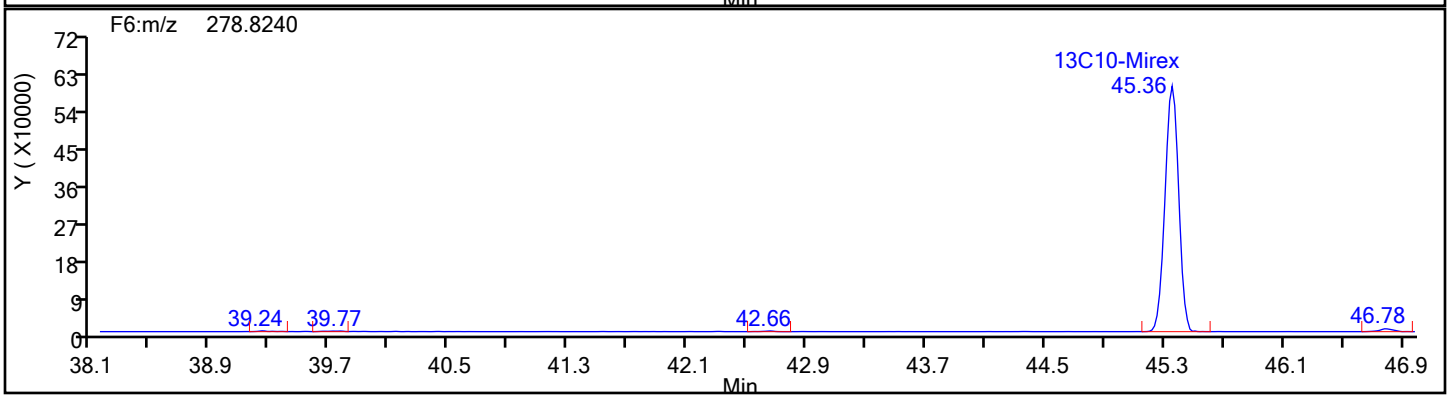
Mirex





Mirex Standards





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Eurofins Knoxville

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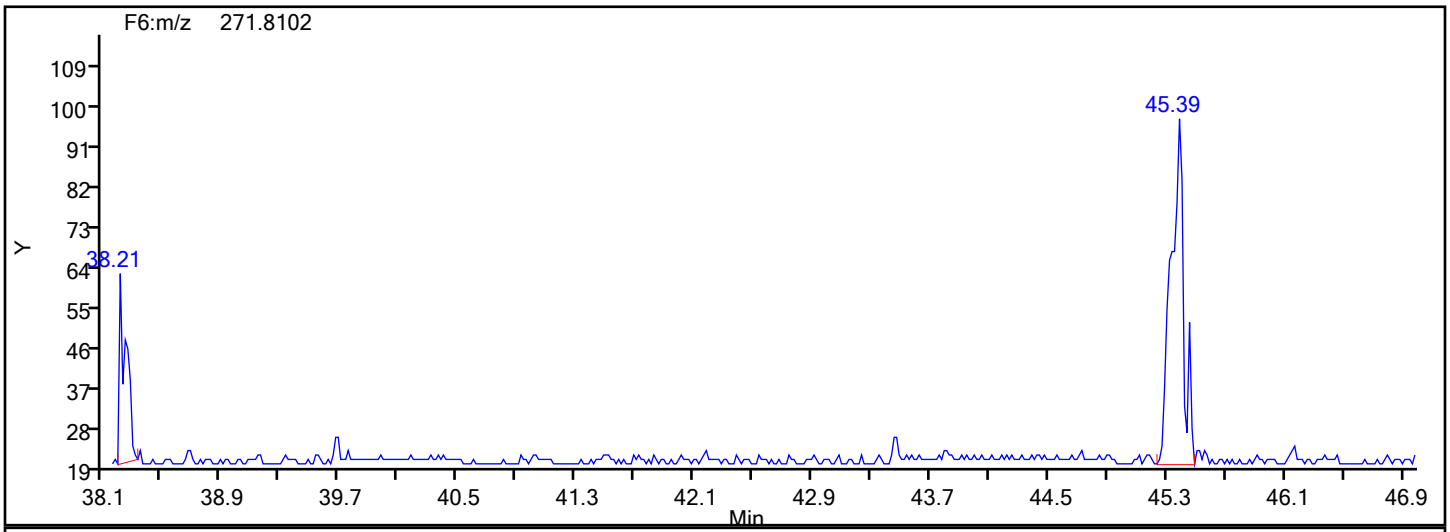
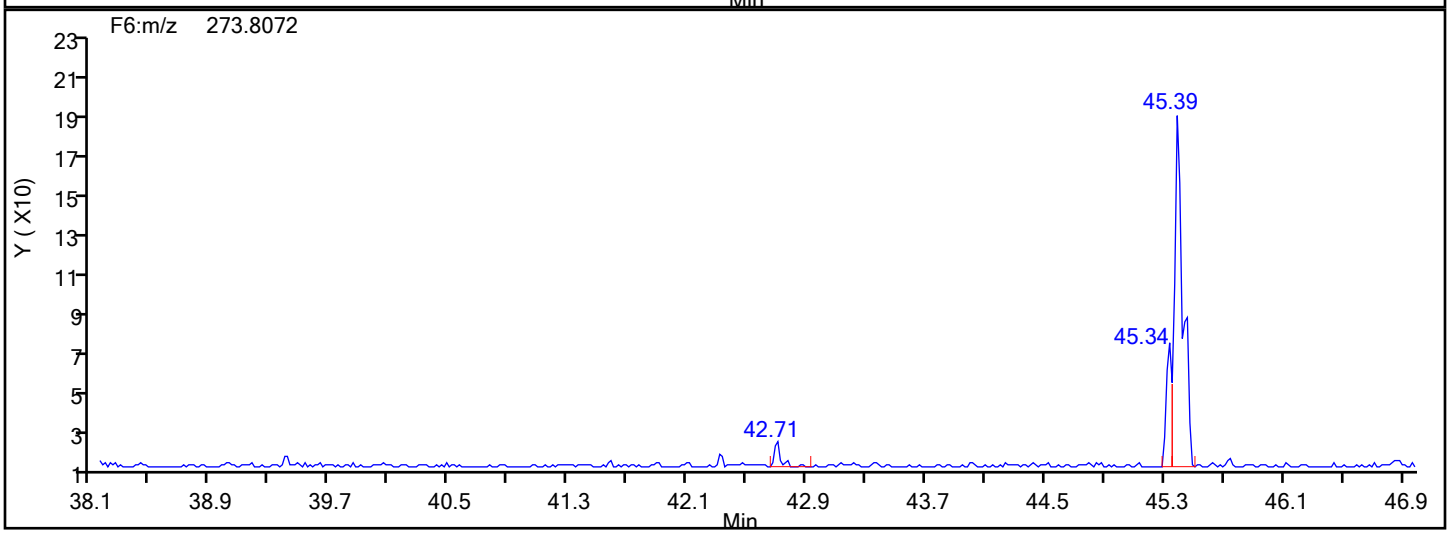
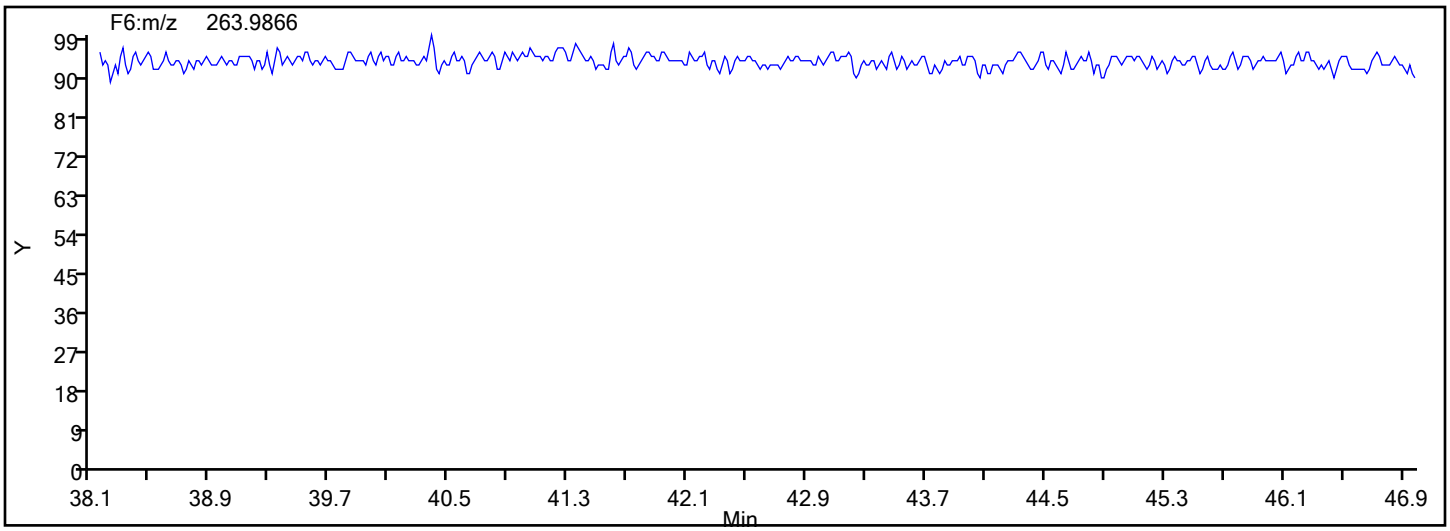




Mirex Lock Mass



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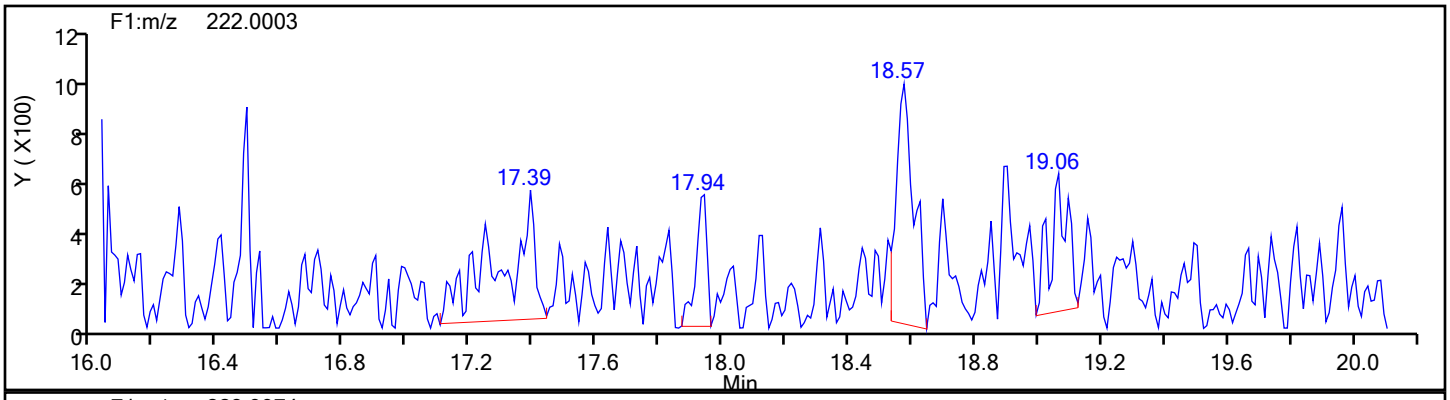
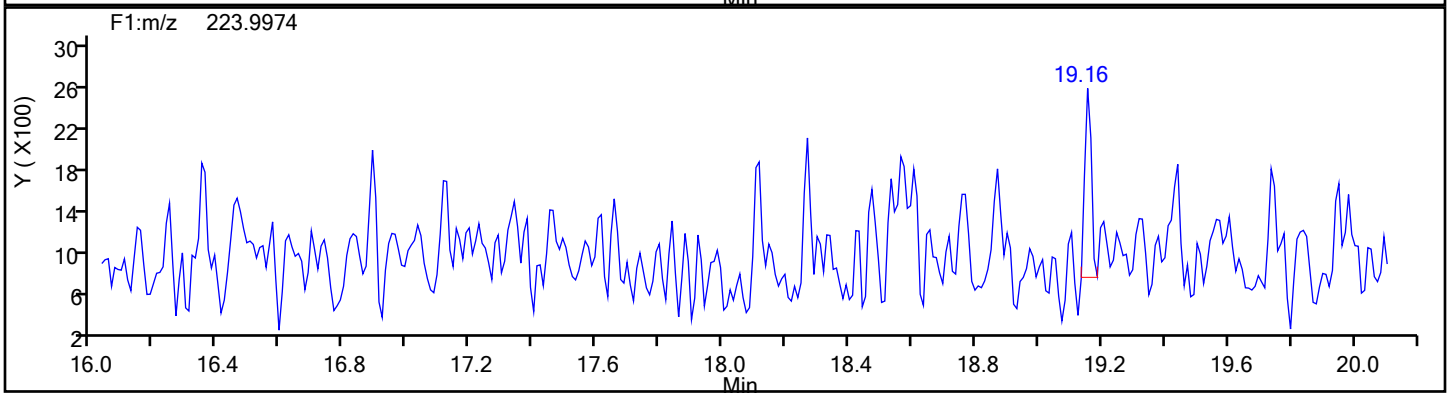
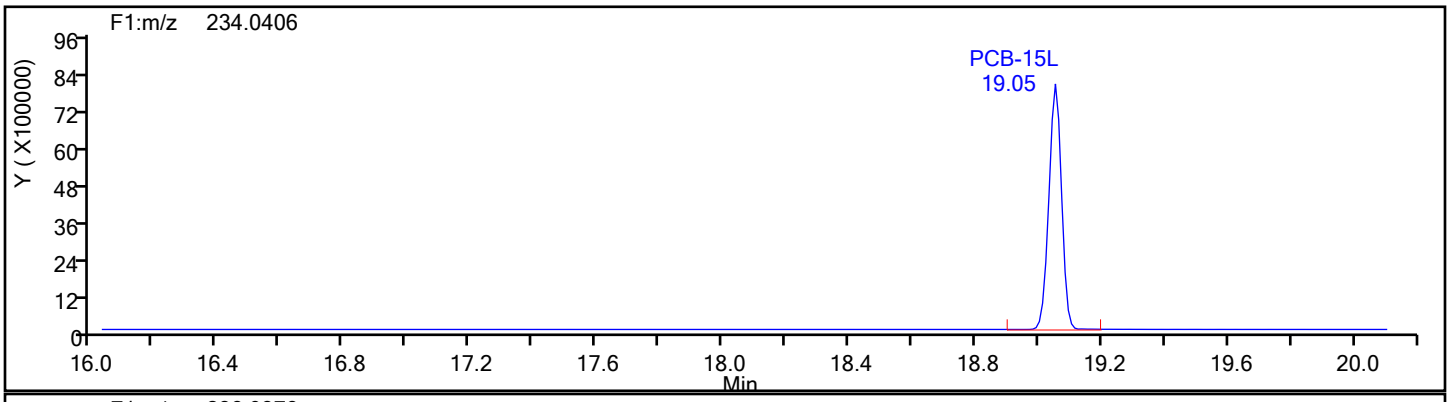
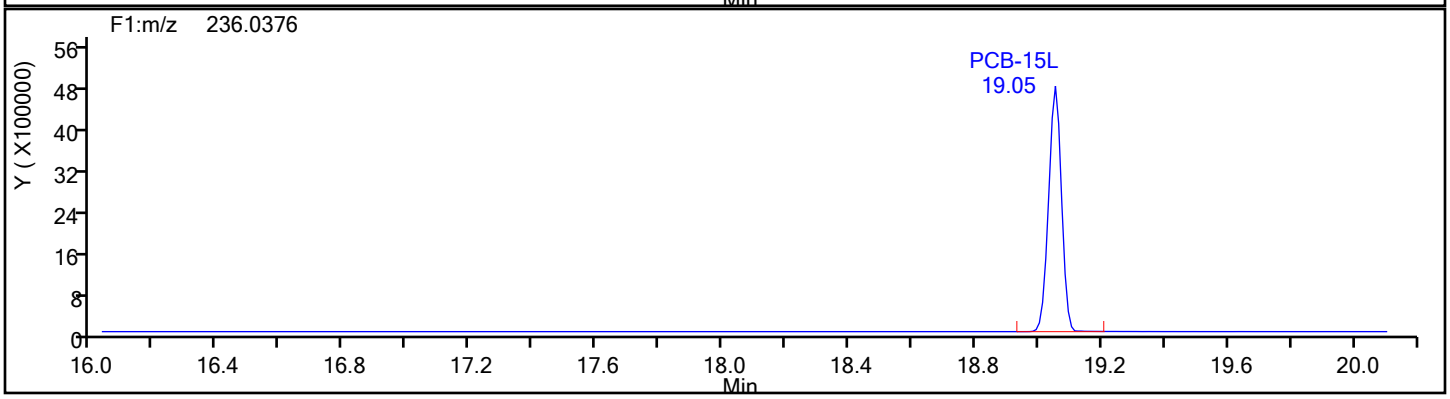
PCB-14





PCB-14 Standards





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Eurofins Knoxville

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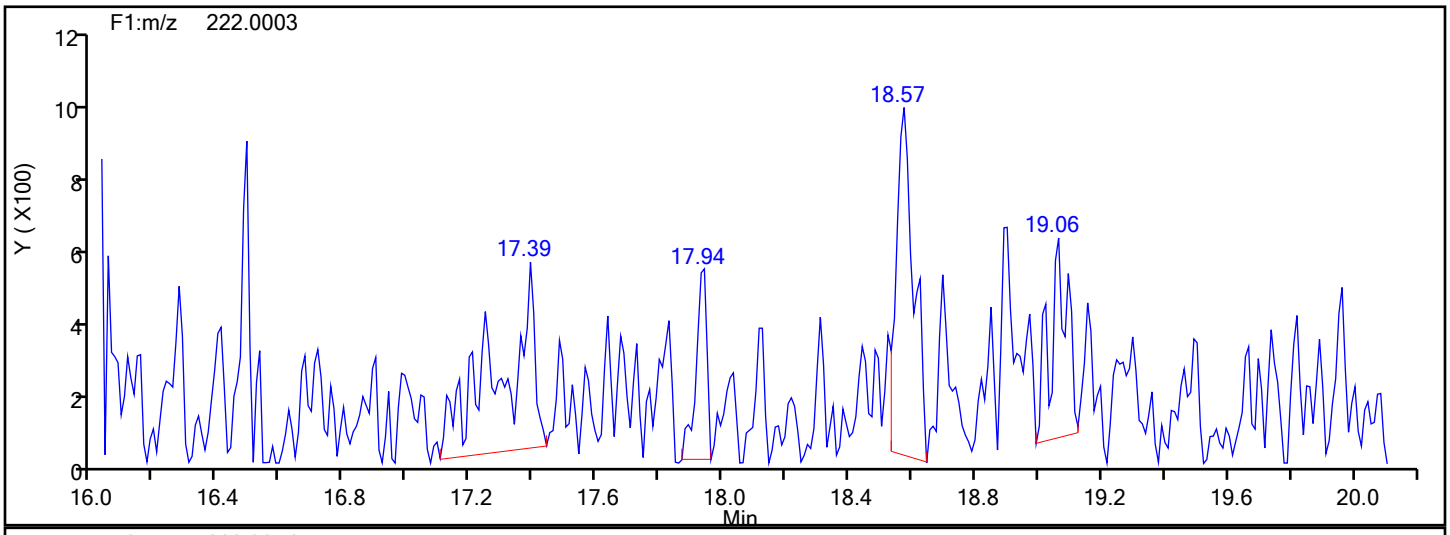
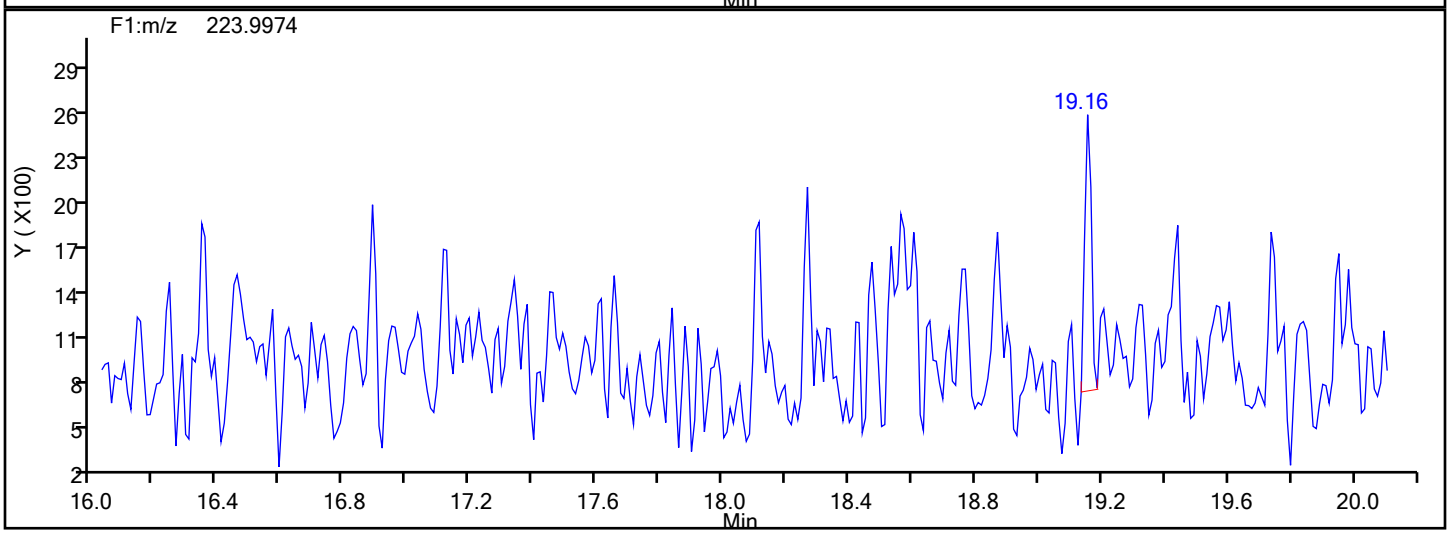
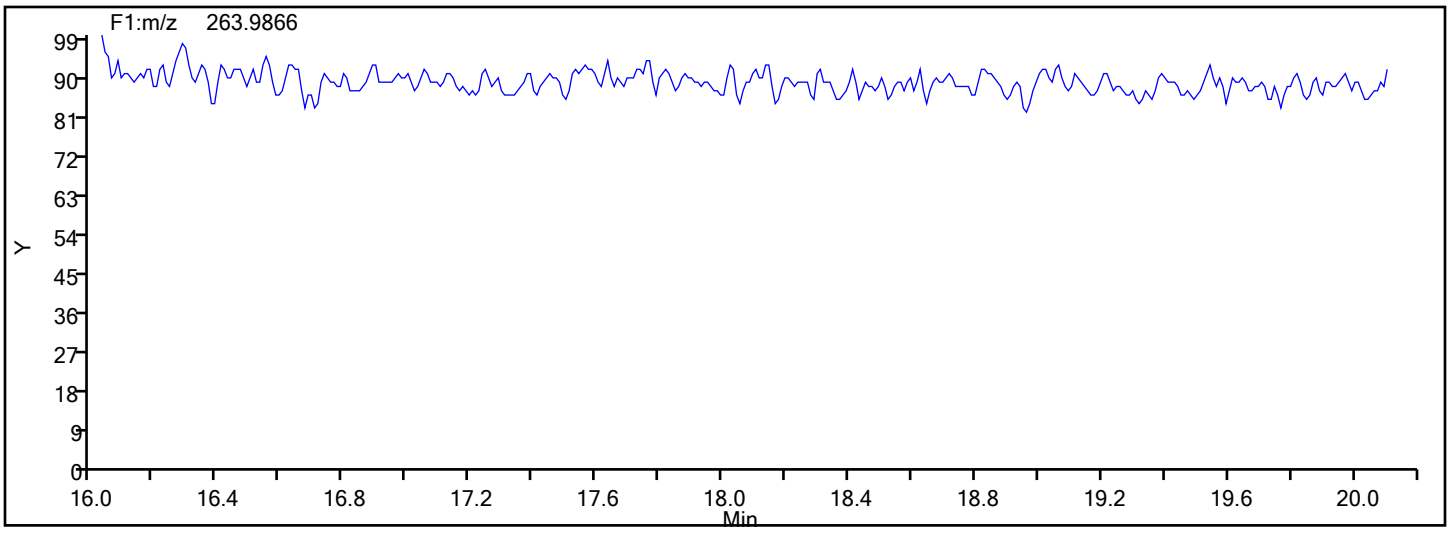
PCB-14





PCB-14 Lock Mass



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Eurofins Knoxville

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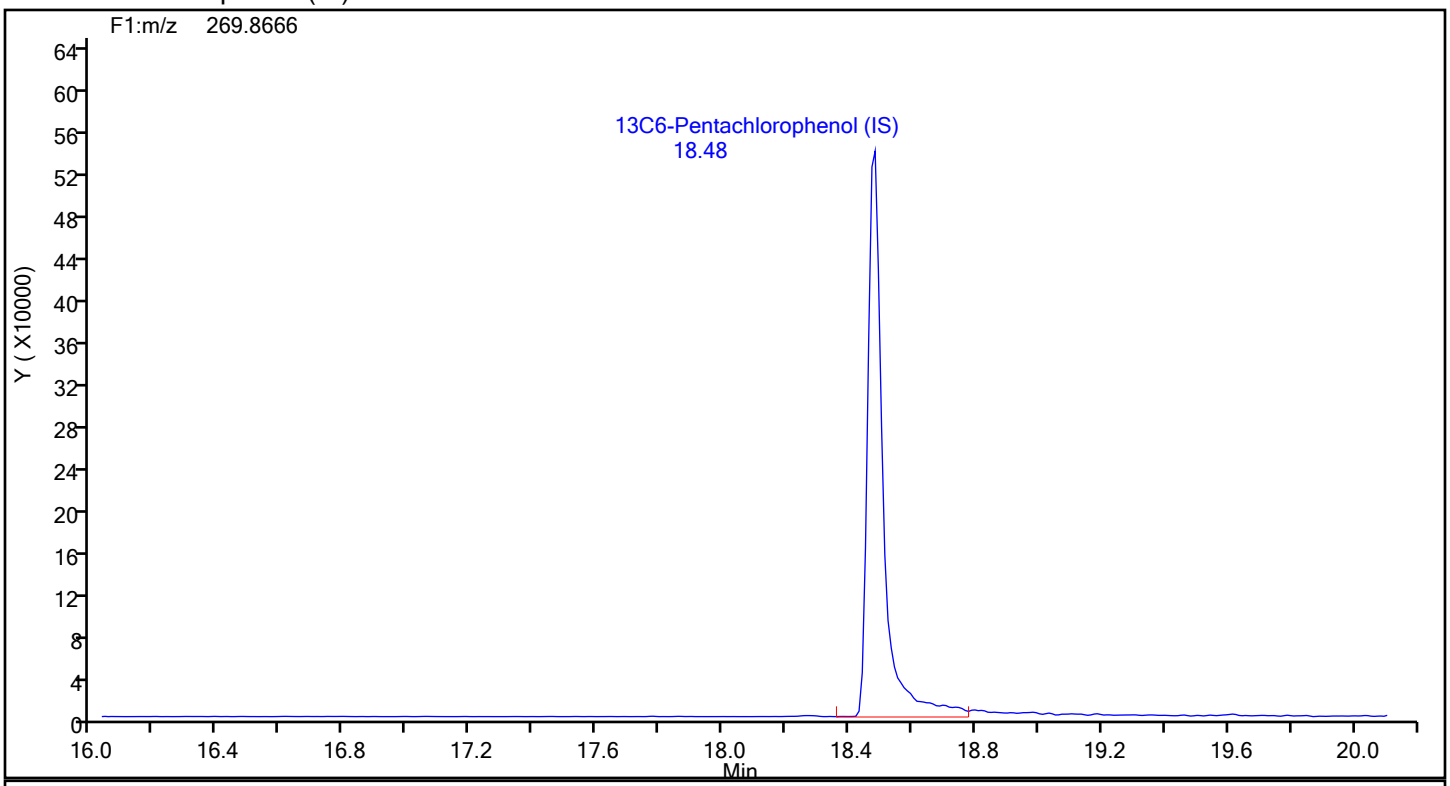
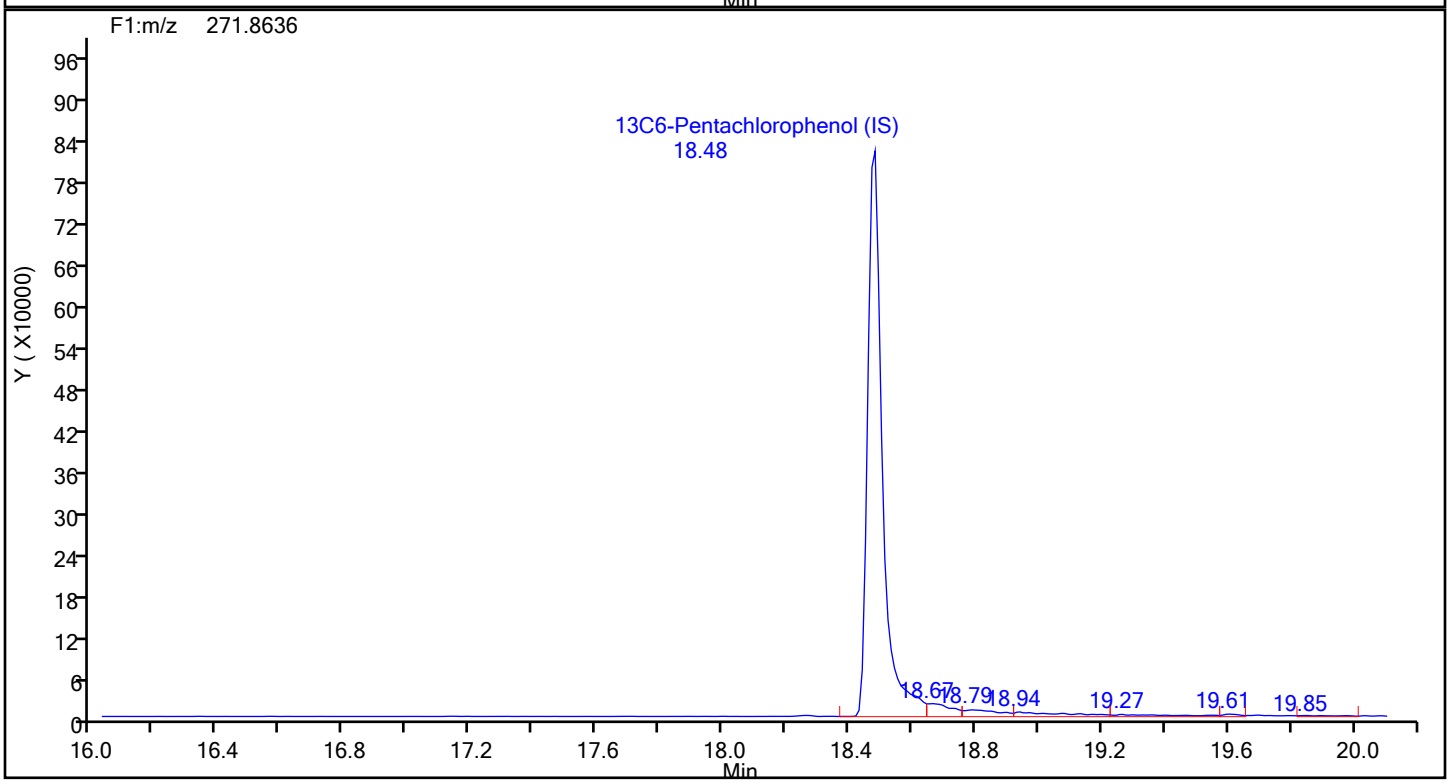
13C6-Pentachlorophenol (IS) Standards





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Eurofins Knoxville

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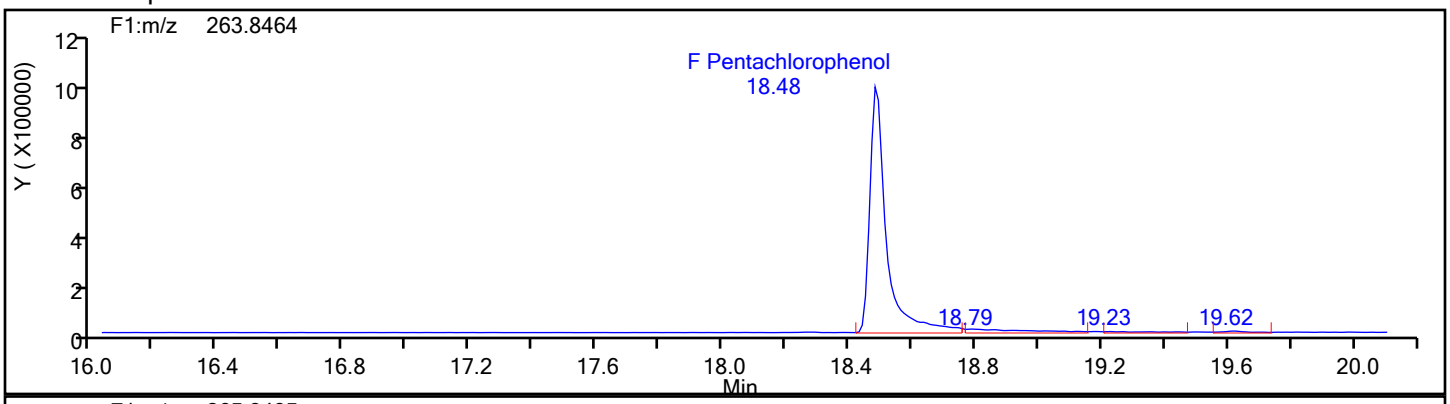
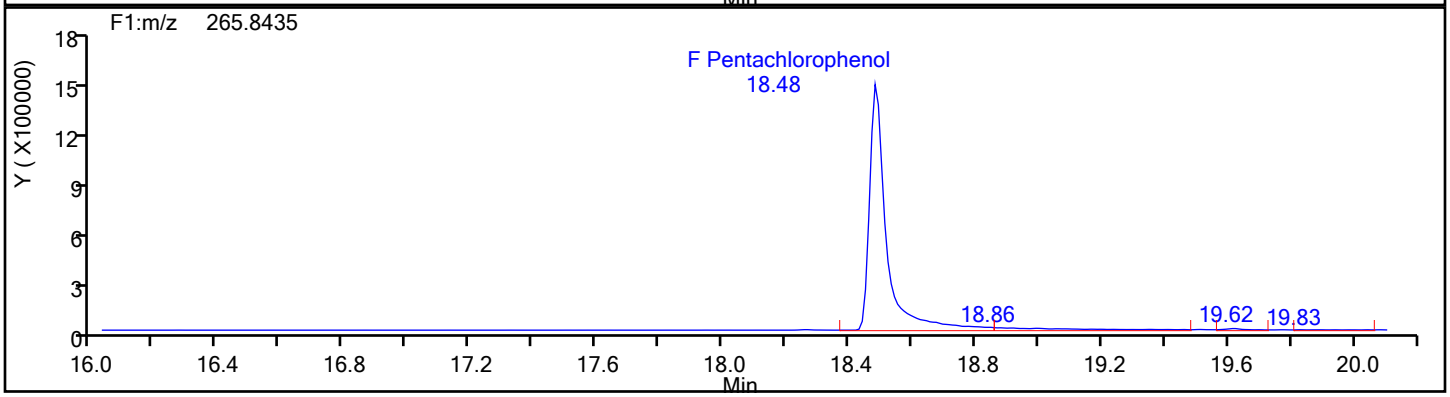
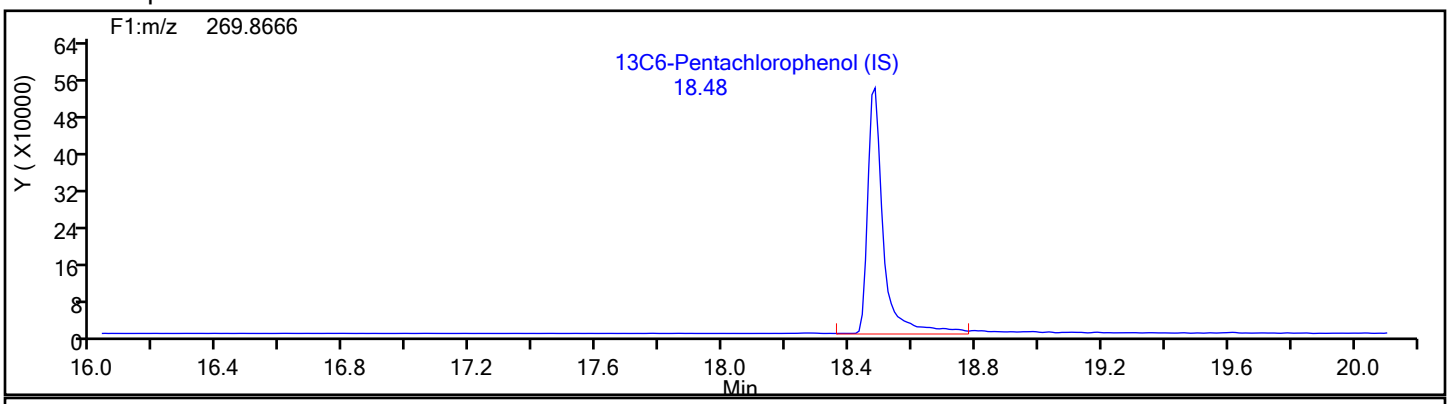
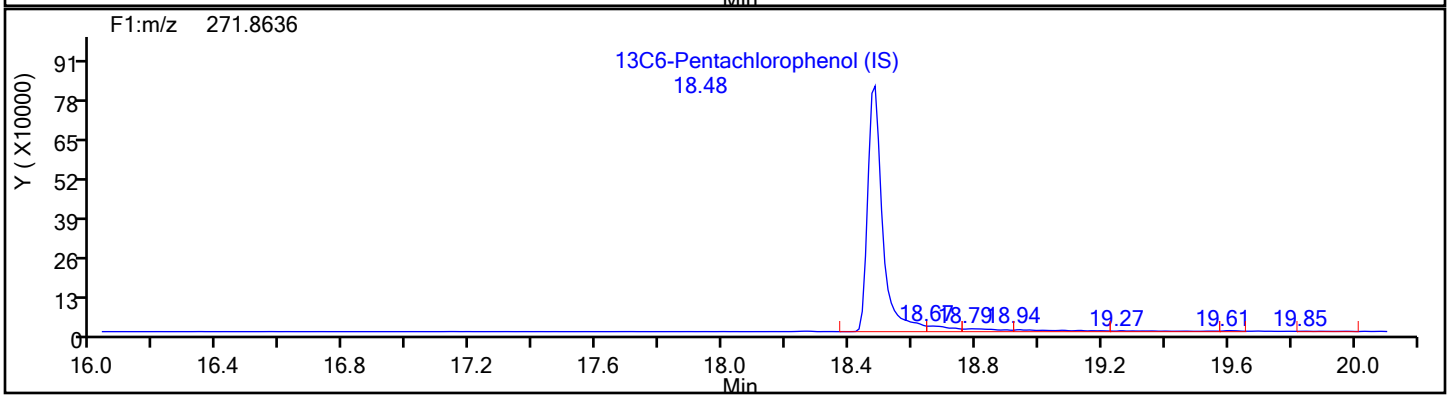
Pentachlorophenol





Pentachlorophenol Standards





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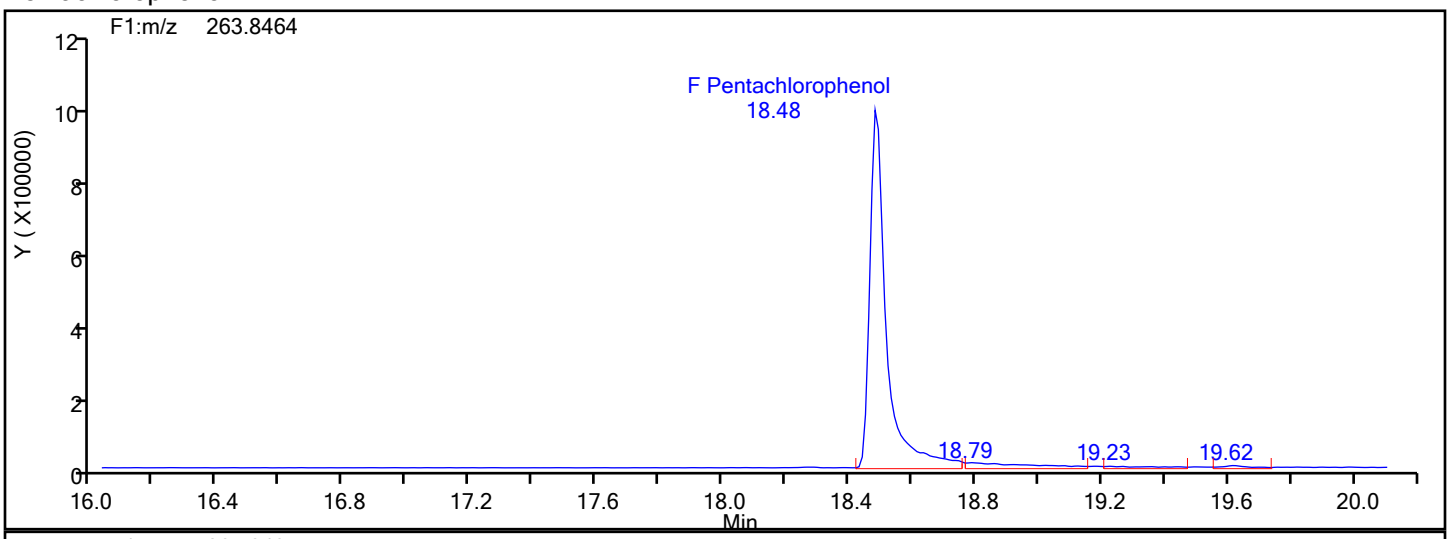
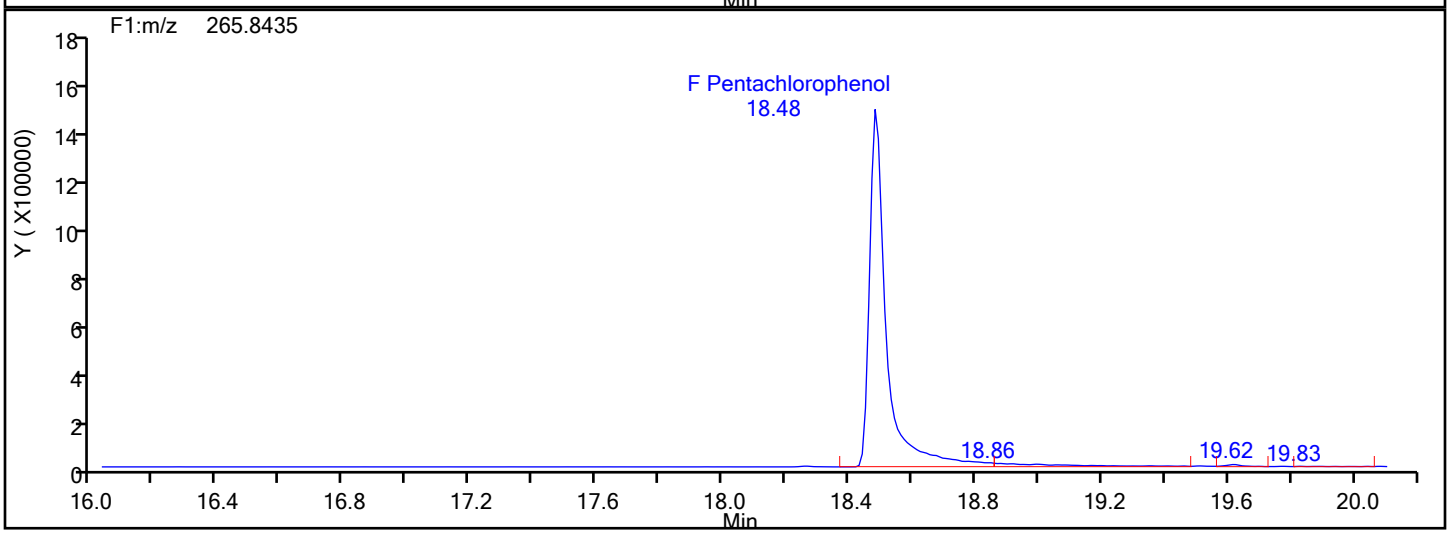
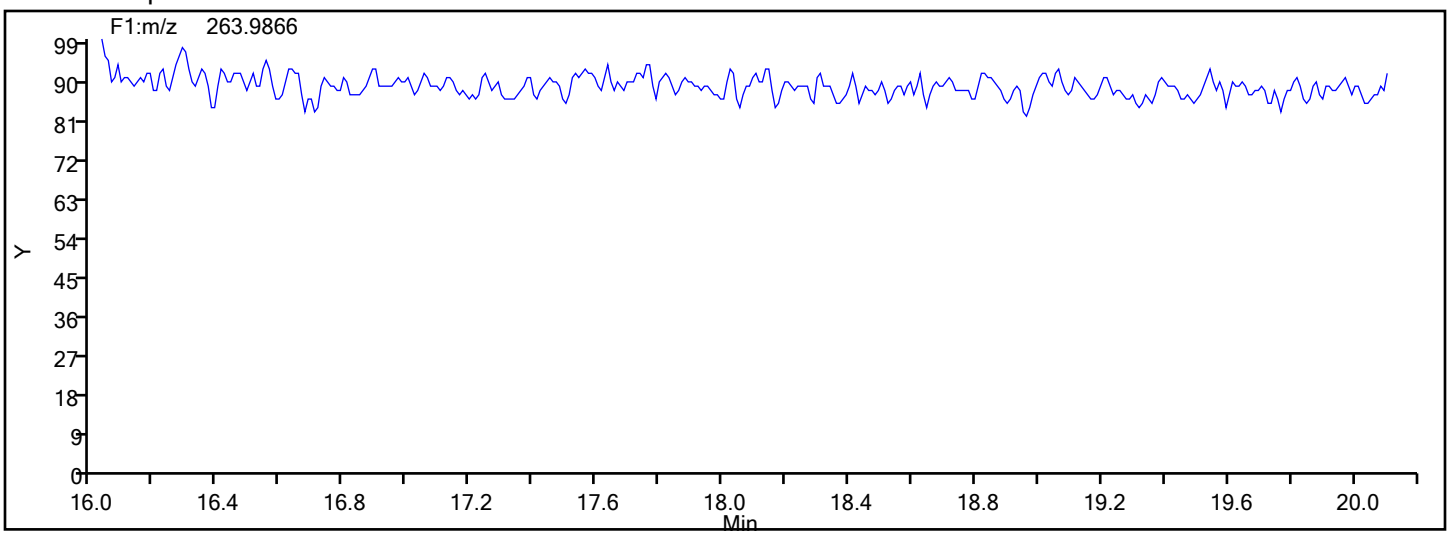
Column Type:	RTX-5	Column Dia:	0.32 mm

Pentachlorophenol





Pentachlorophenol Lock Mass



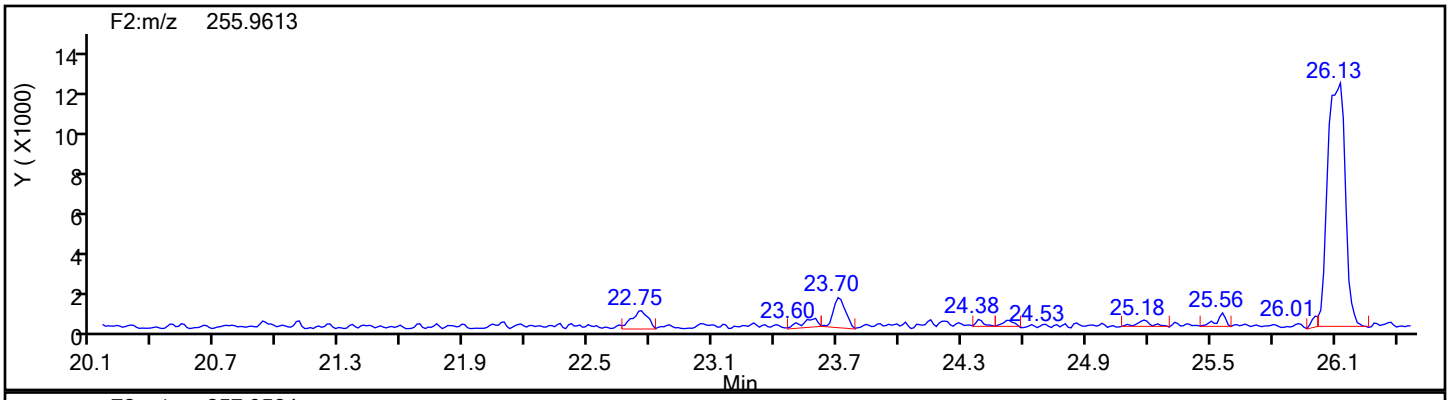
Report Date: 06-May-2025 18:03:48 Chrom Revision: 2.3 18-Apr-2025 15:35:42

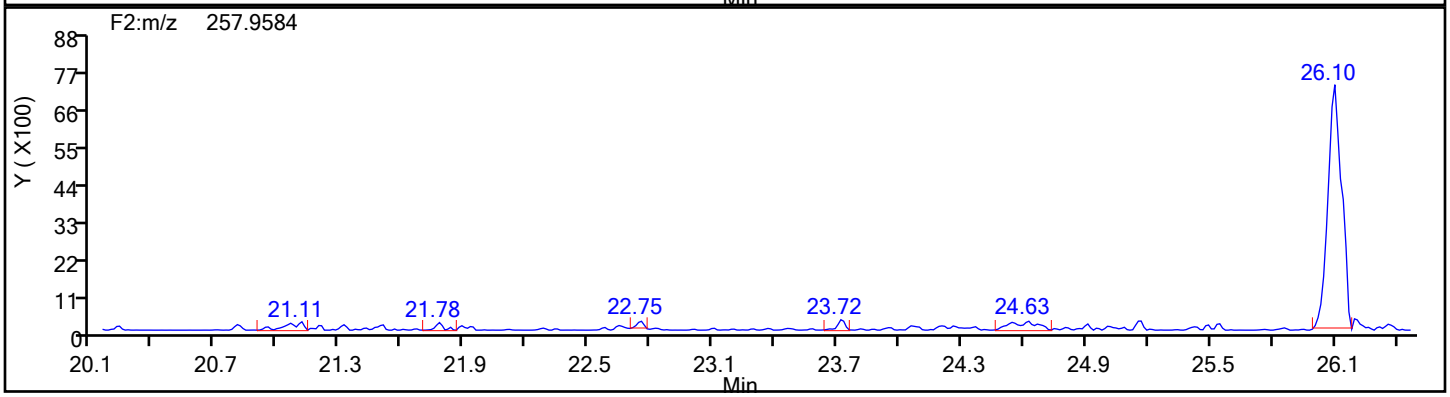
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

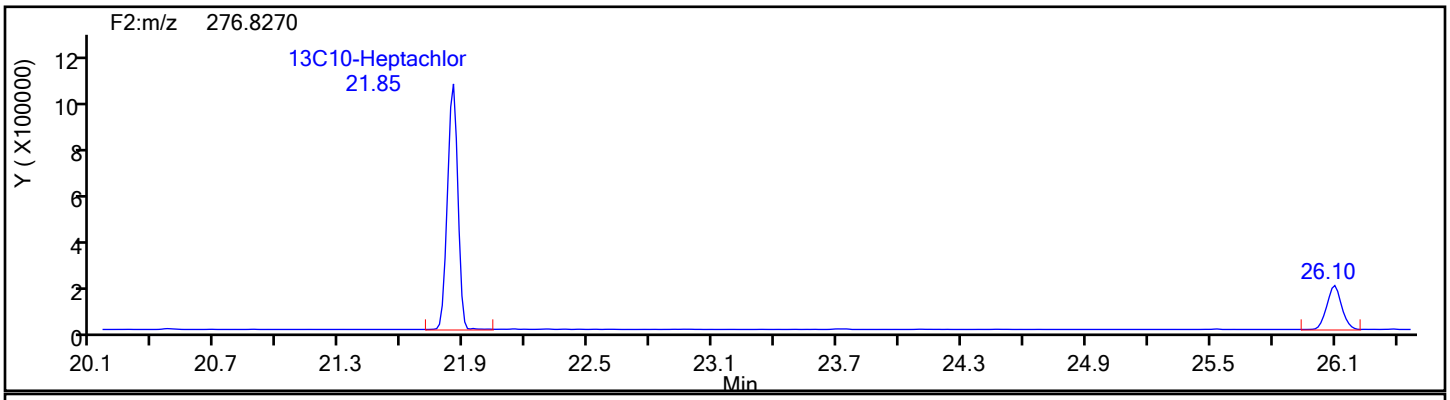
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

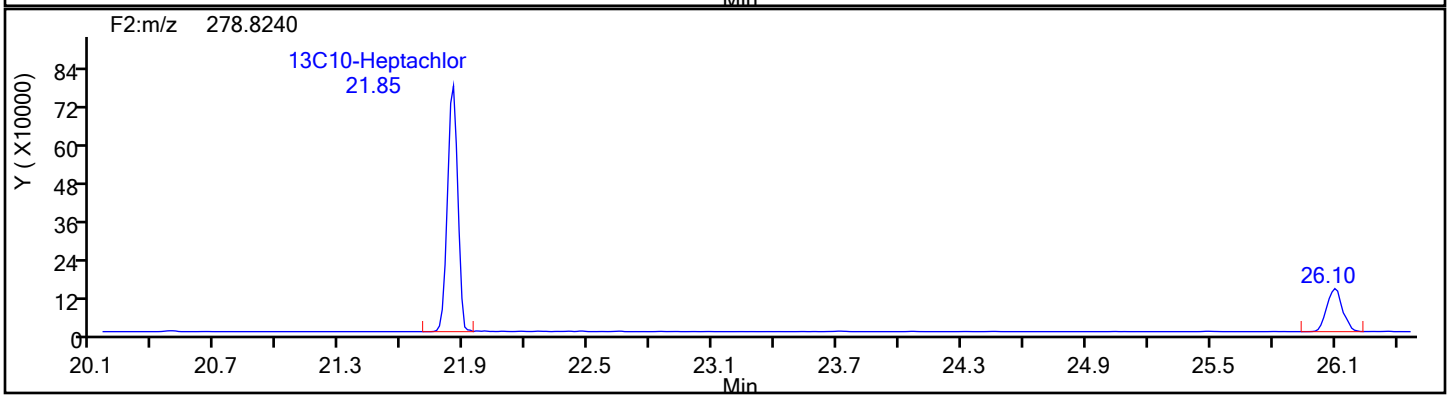
PCB-36





PCB-36 Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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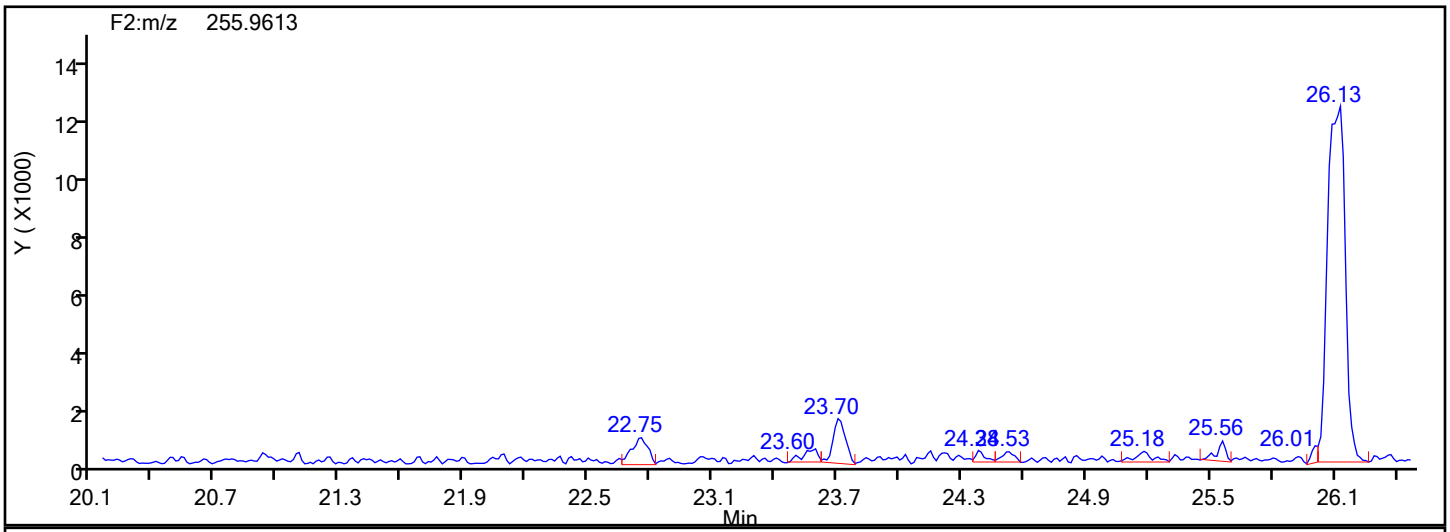
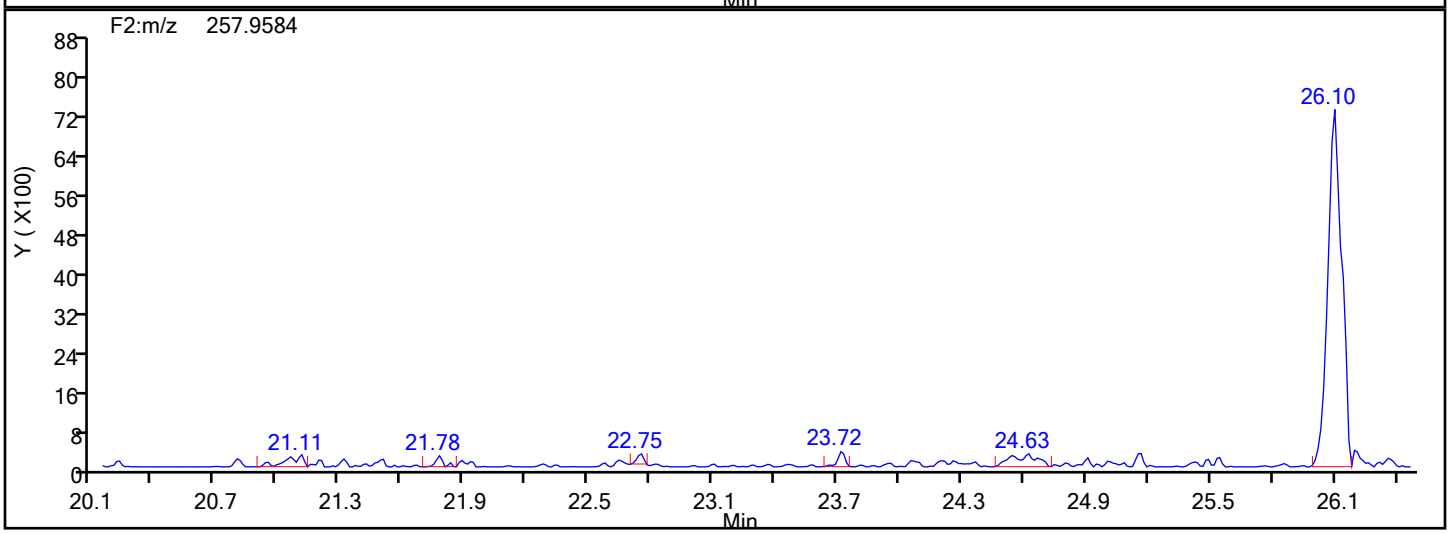
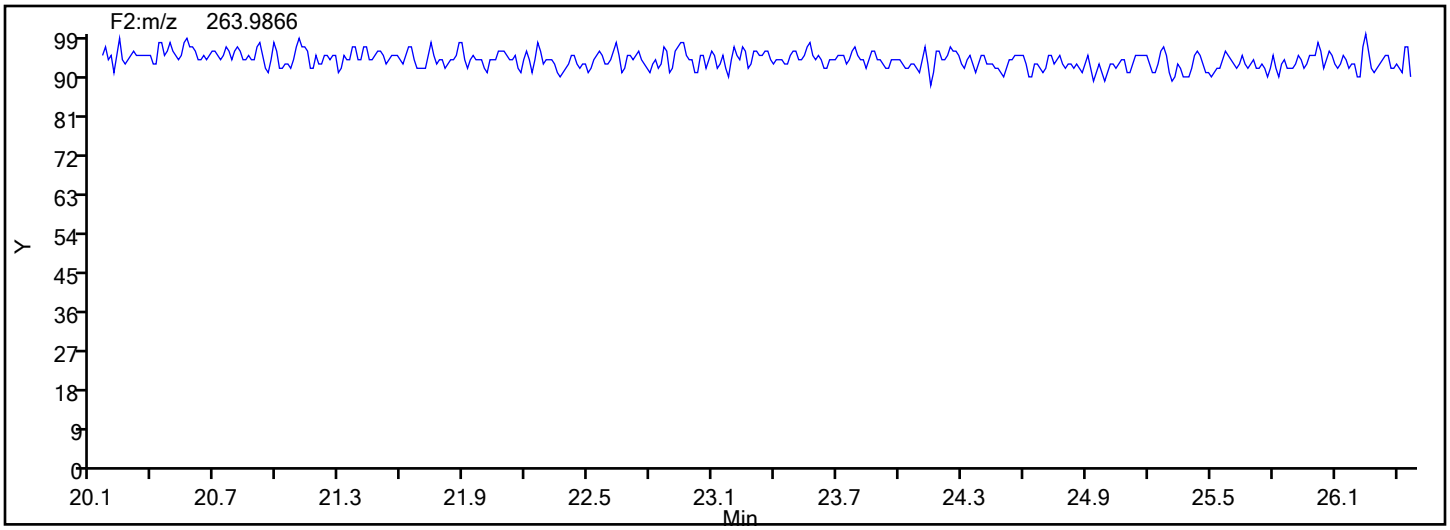
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36





PCB-36 Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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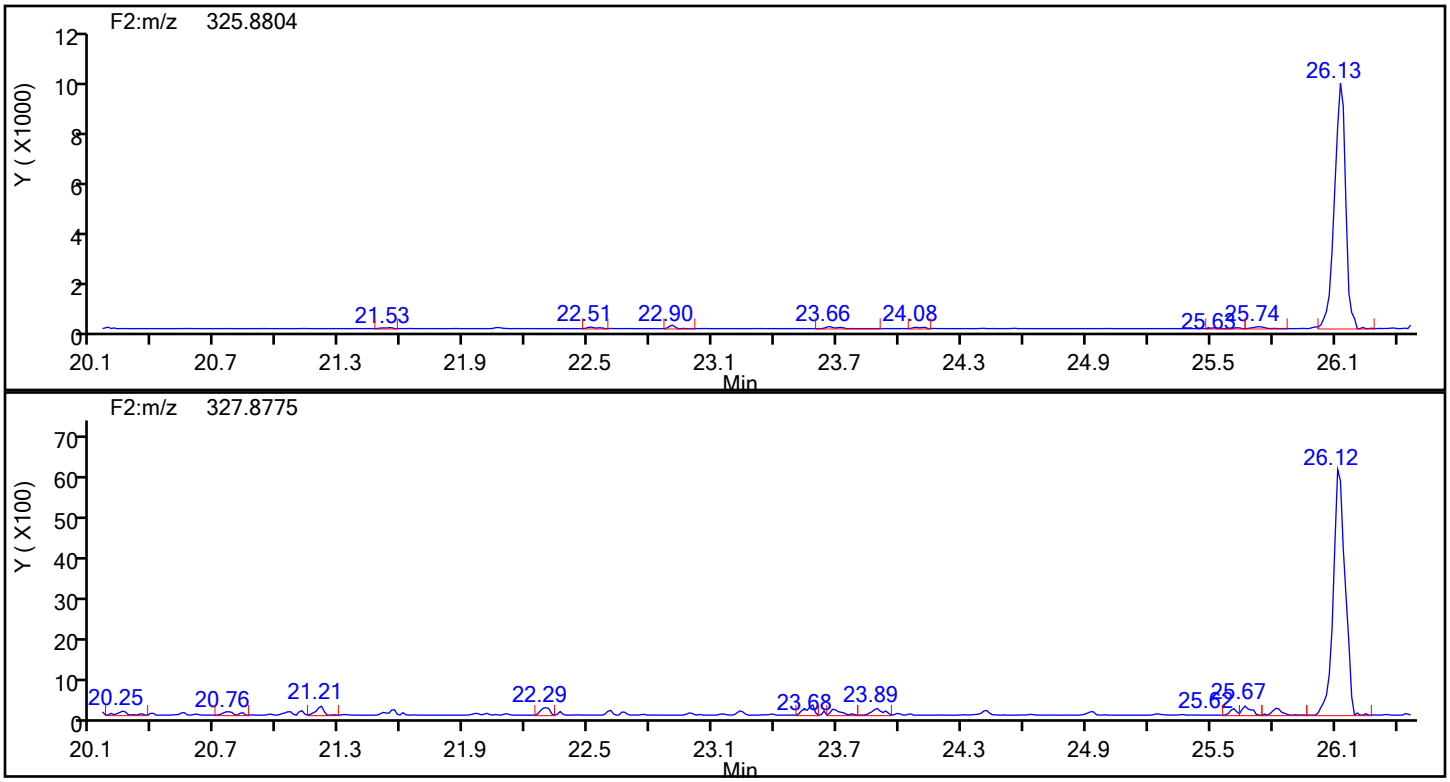
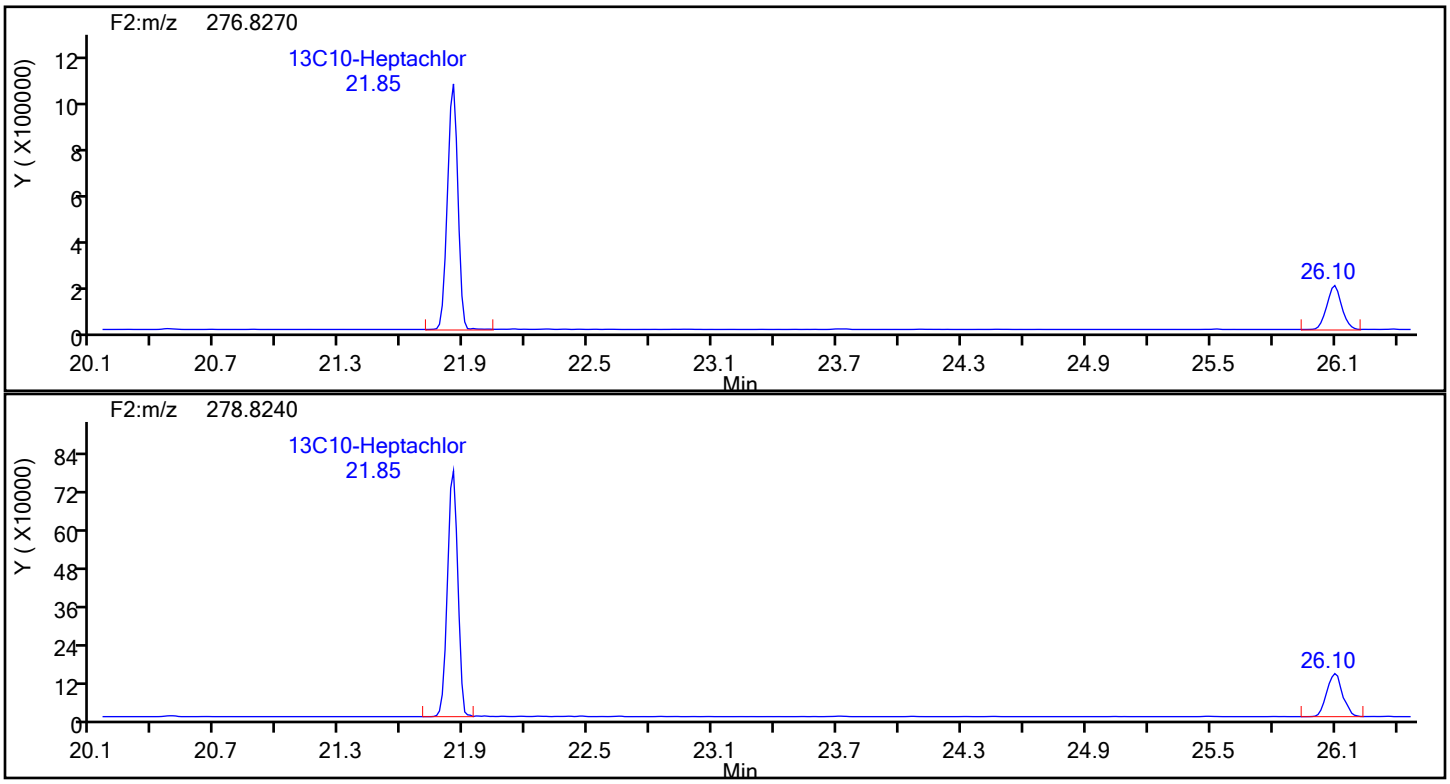
PCB-104



PCB-104 Standards



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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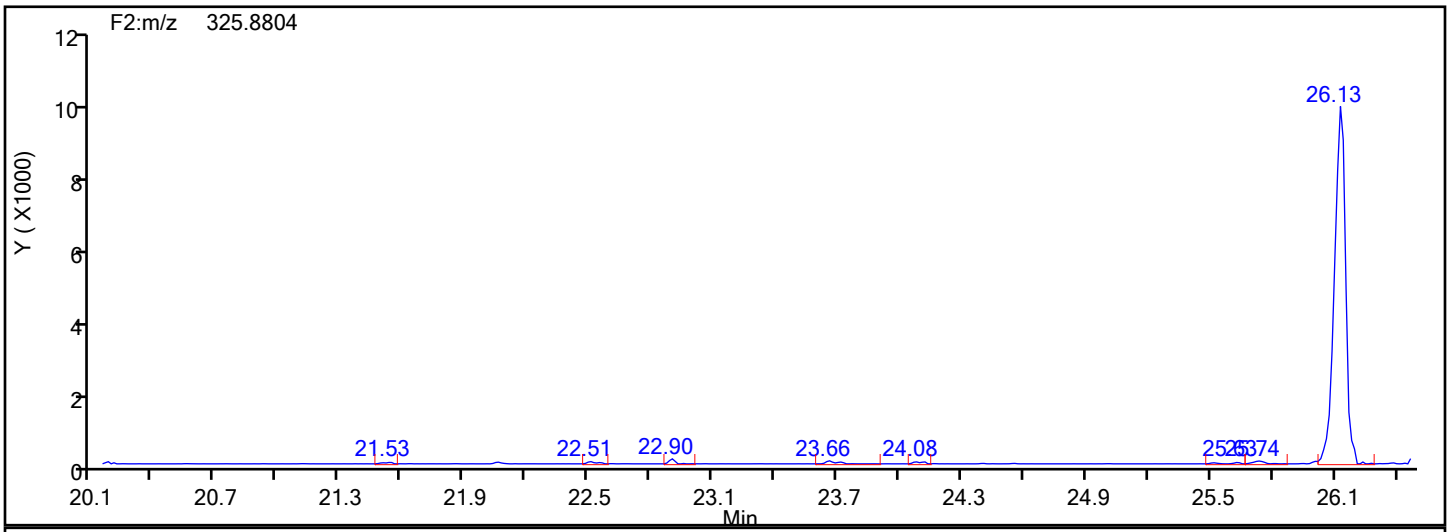
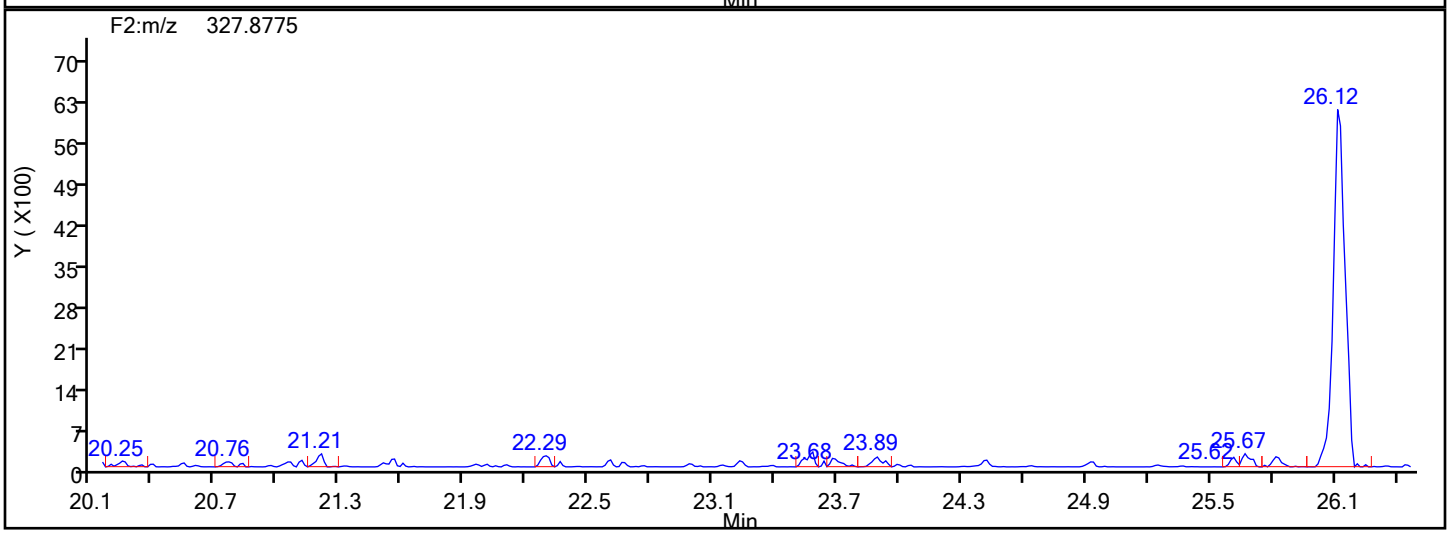
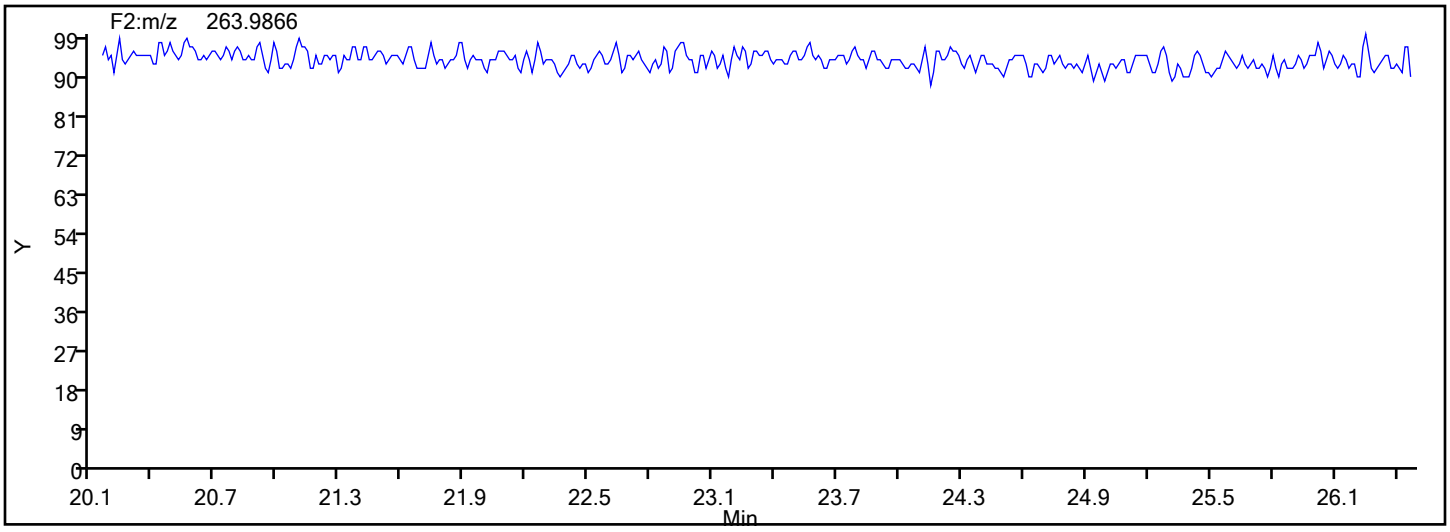
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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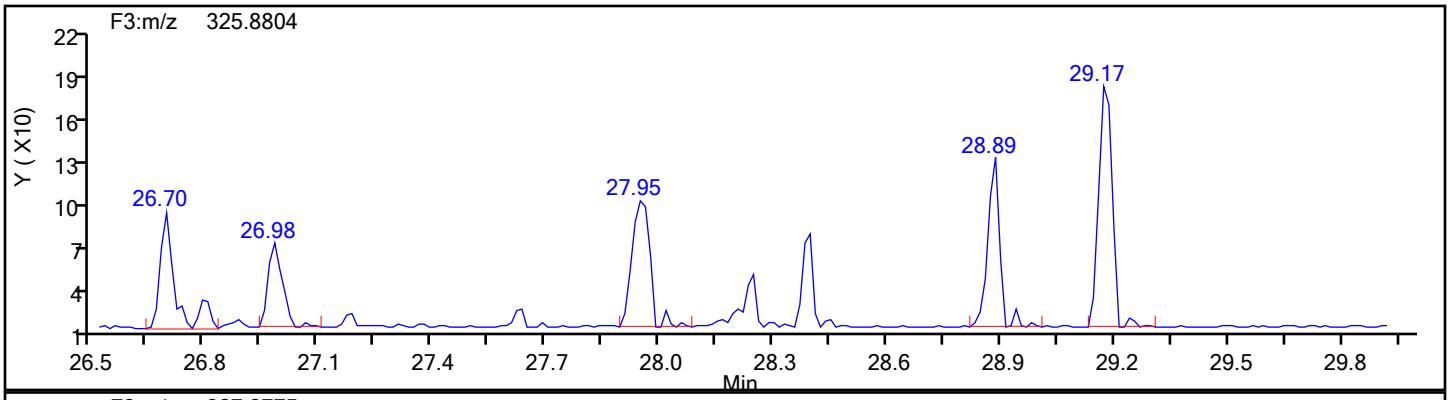
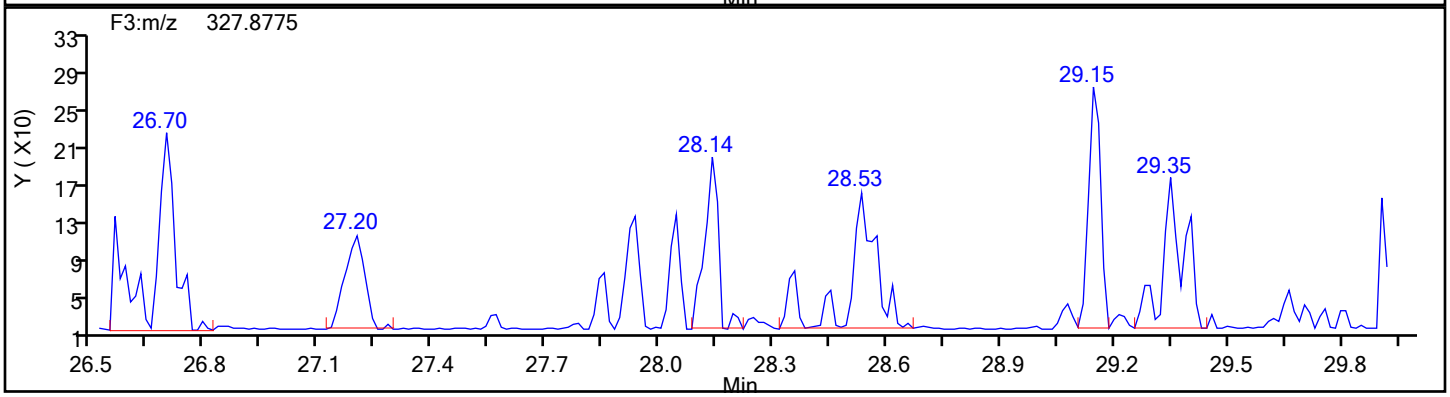
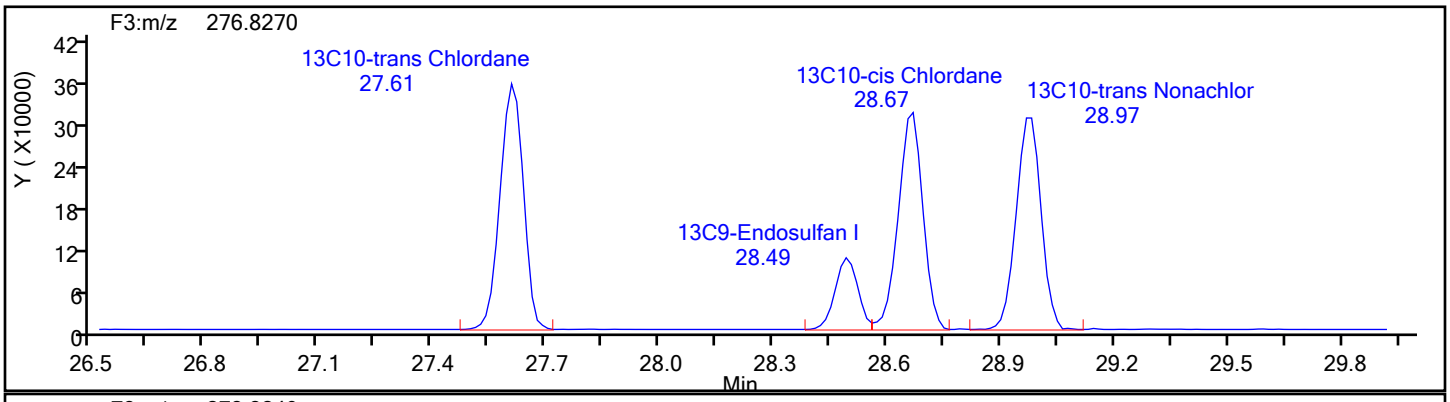
Column Type:	RTX-5	Column Dia:	0.32 mm

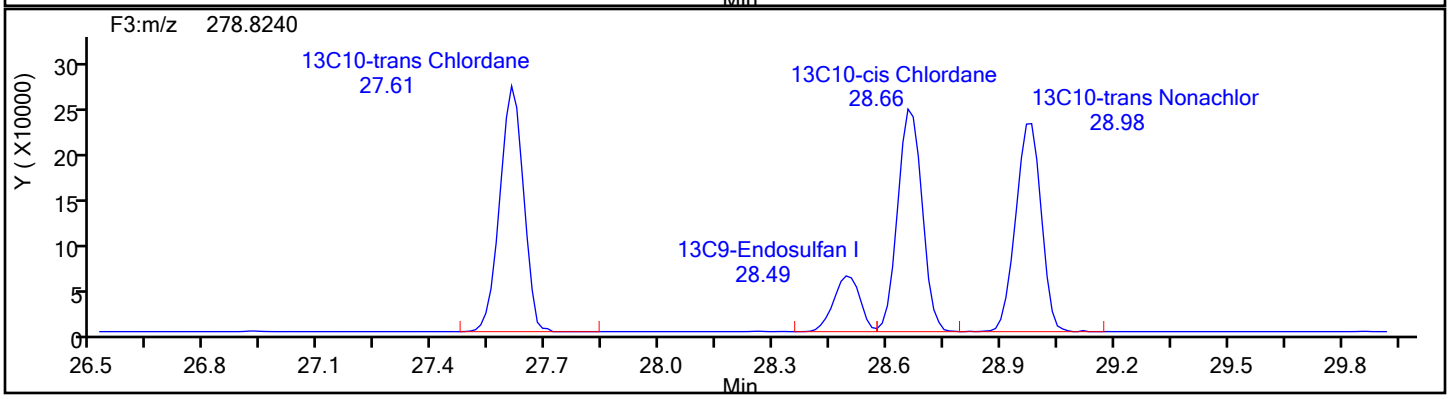
PCB-121





PCB-121 Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
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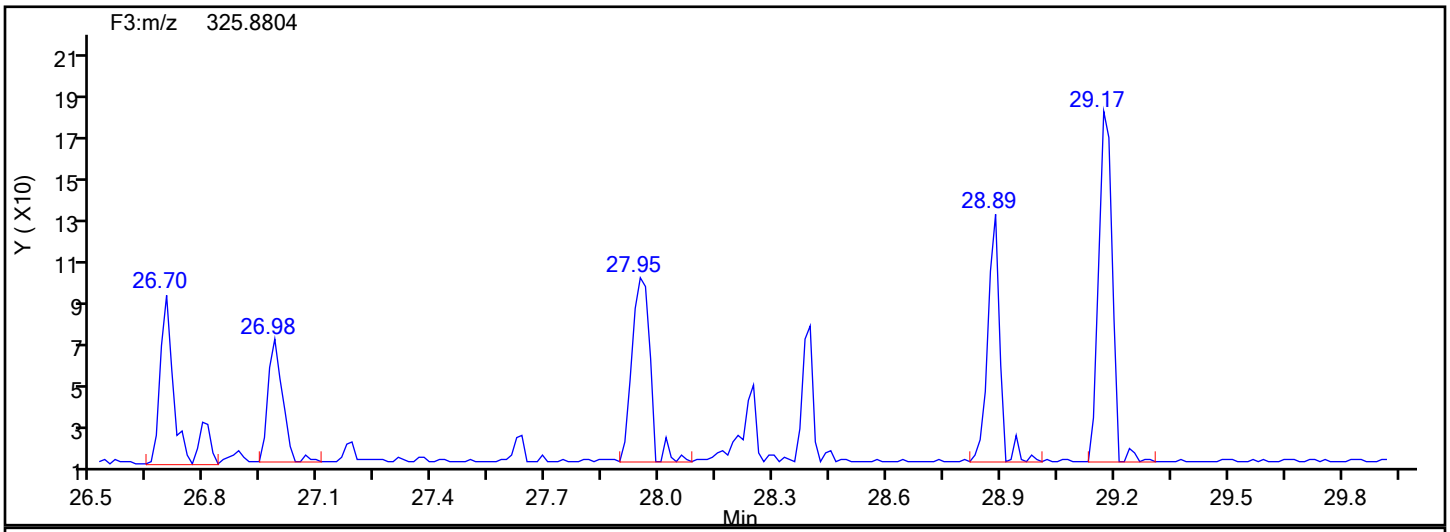
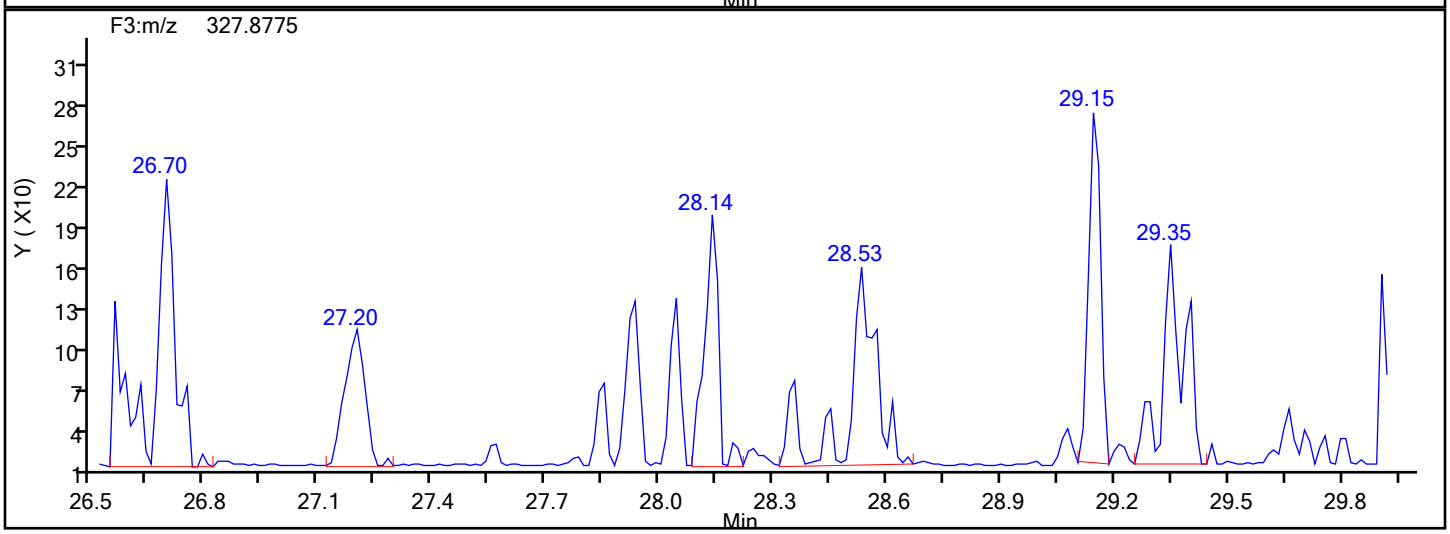
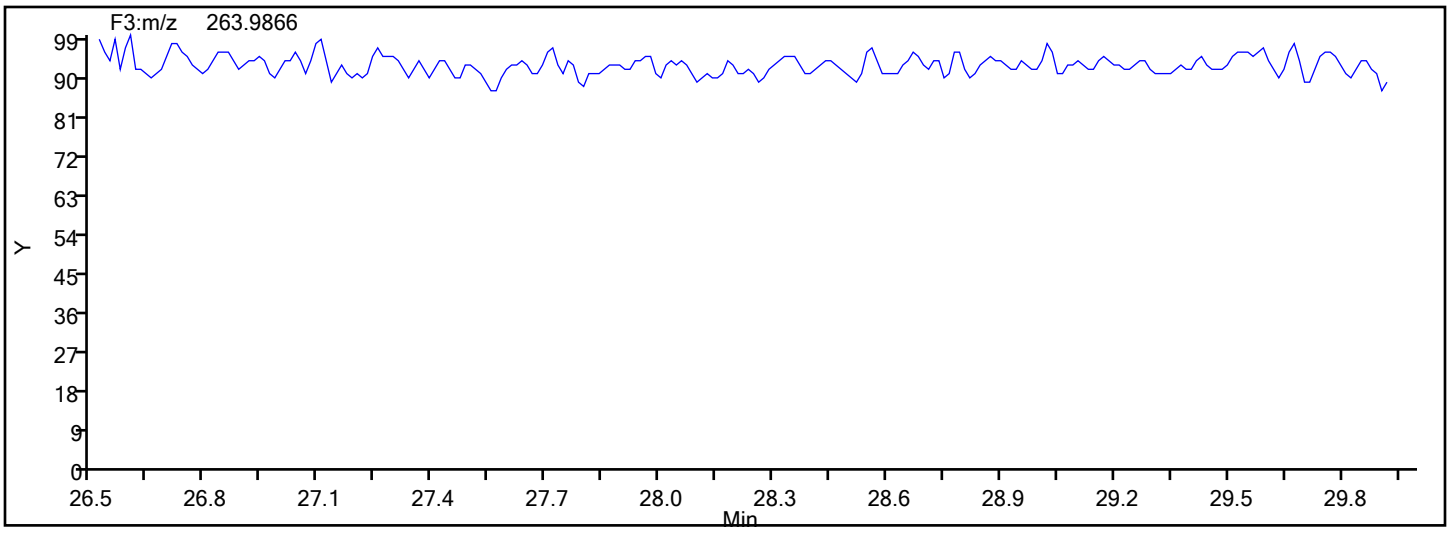
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121





PCB-121 Lock Mass



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Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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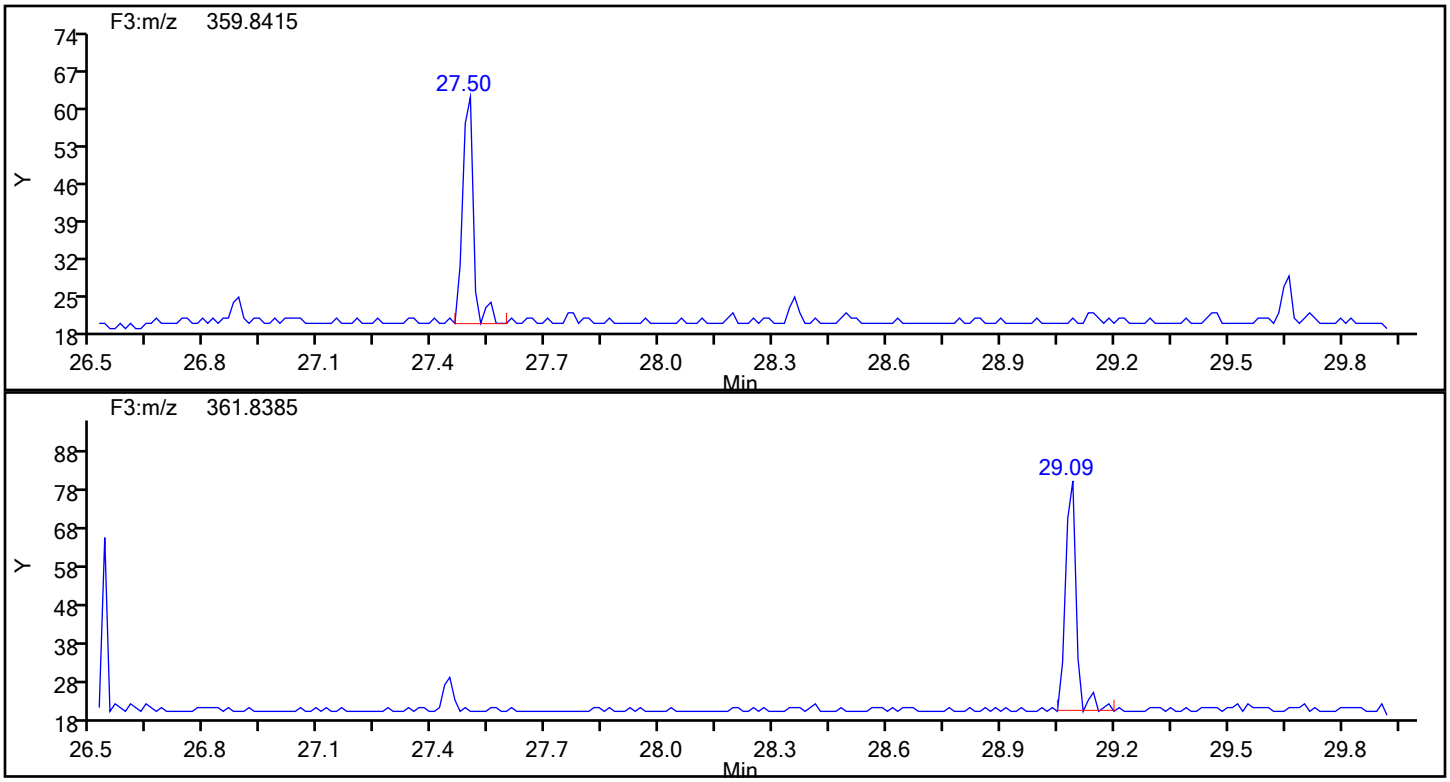
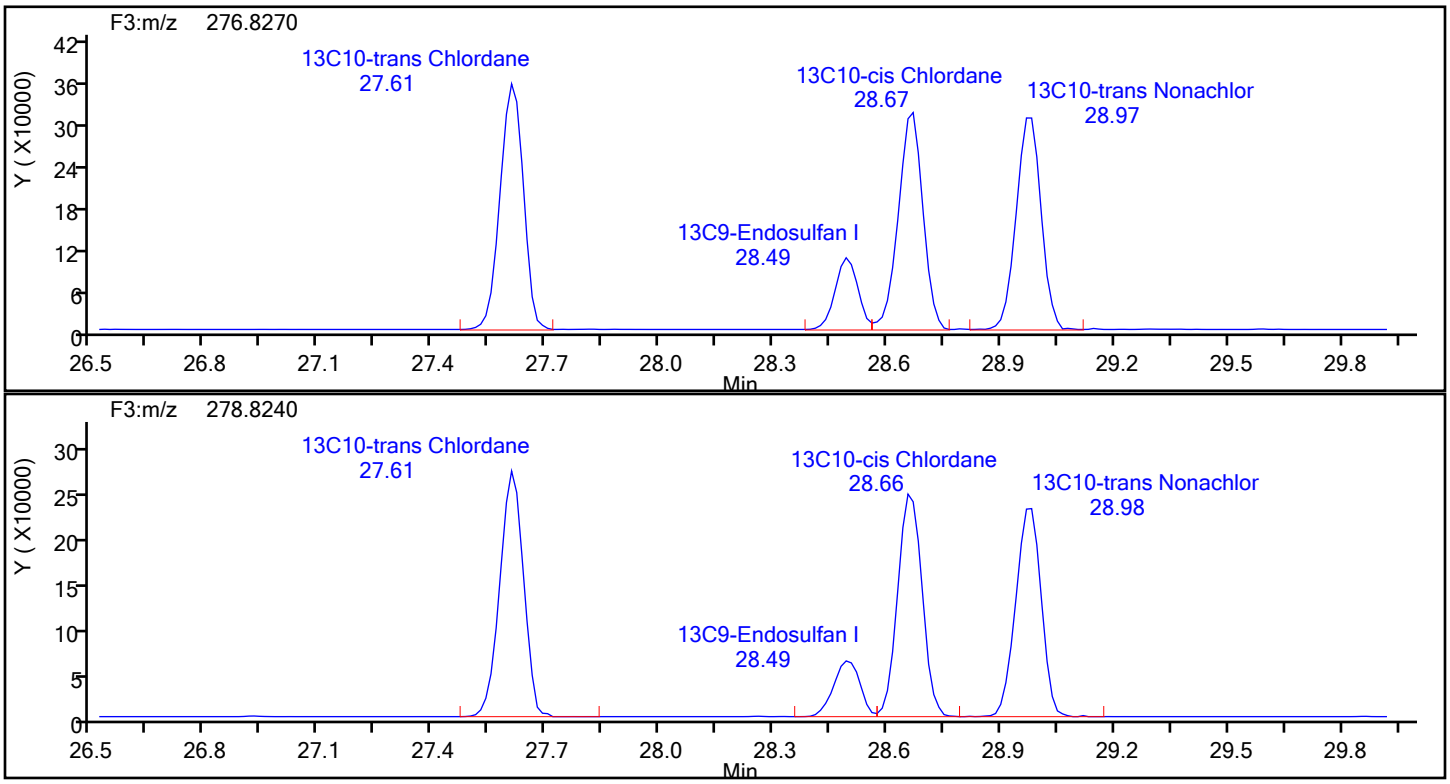
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-142



PCB-142 Standards



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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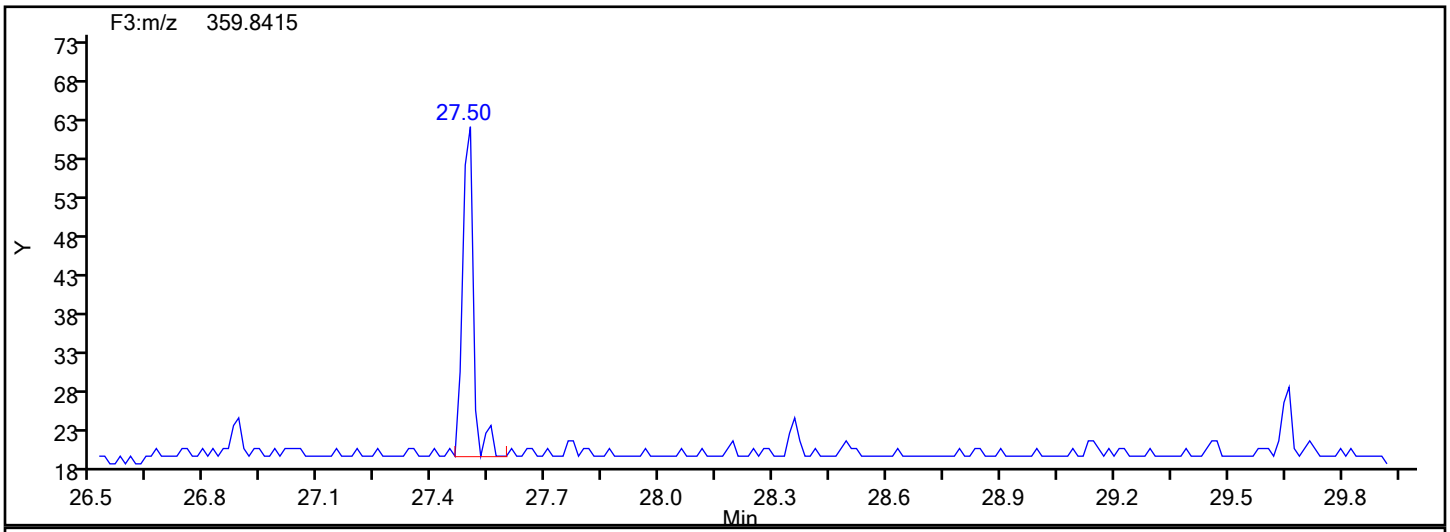
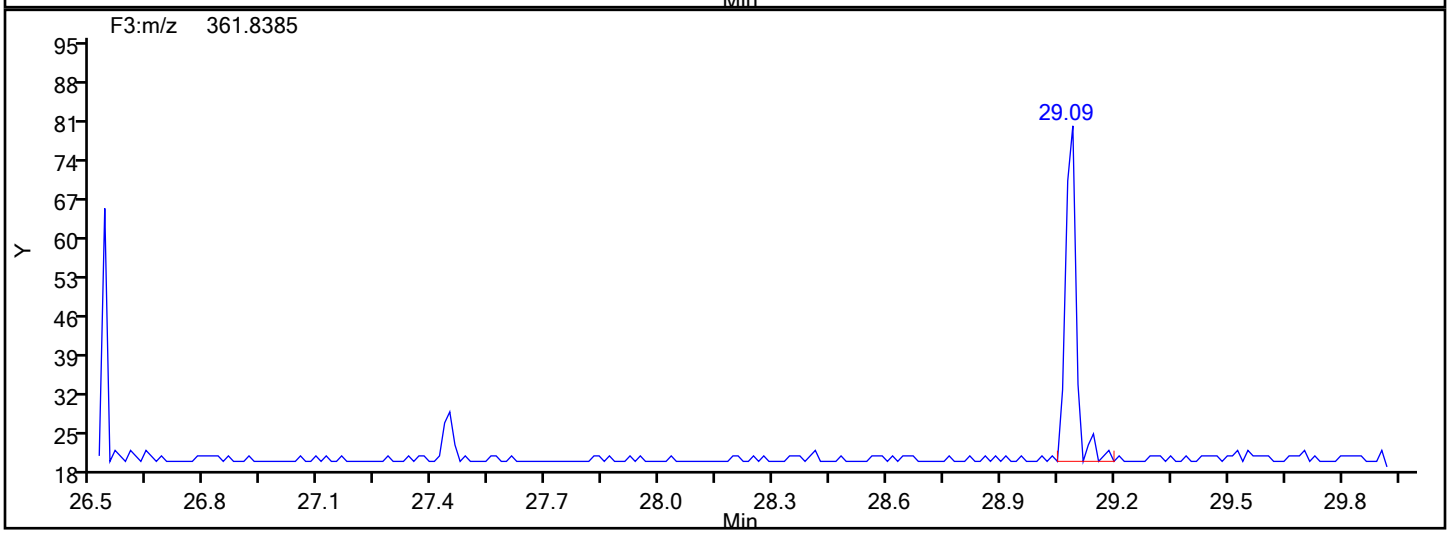
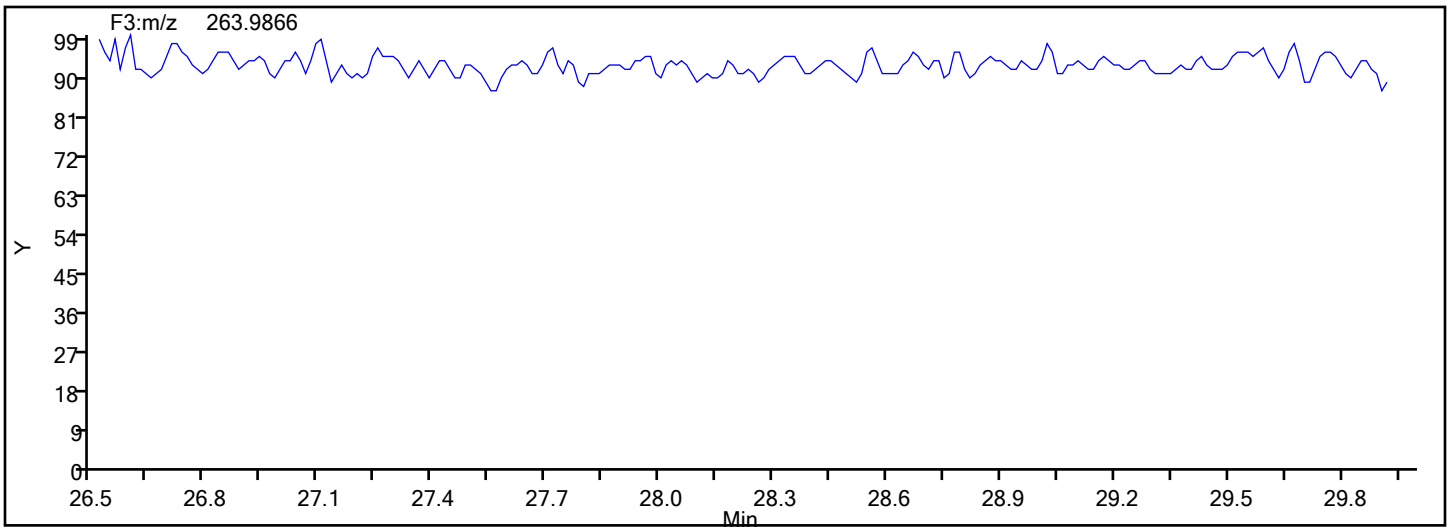
PCB-142





PCB-142 Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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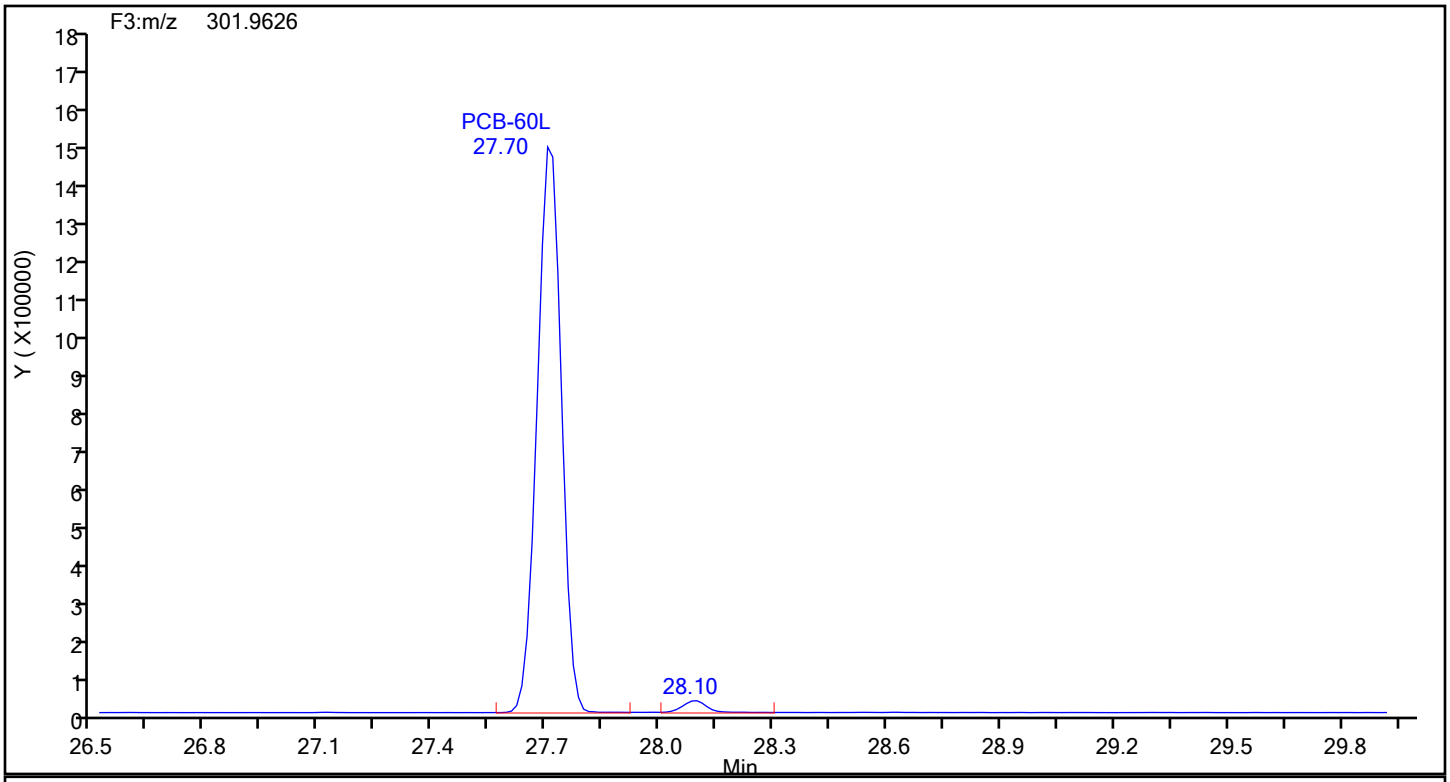
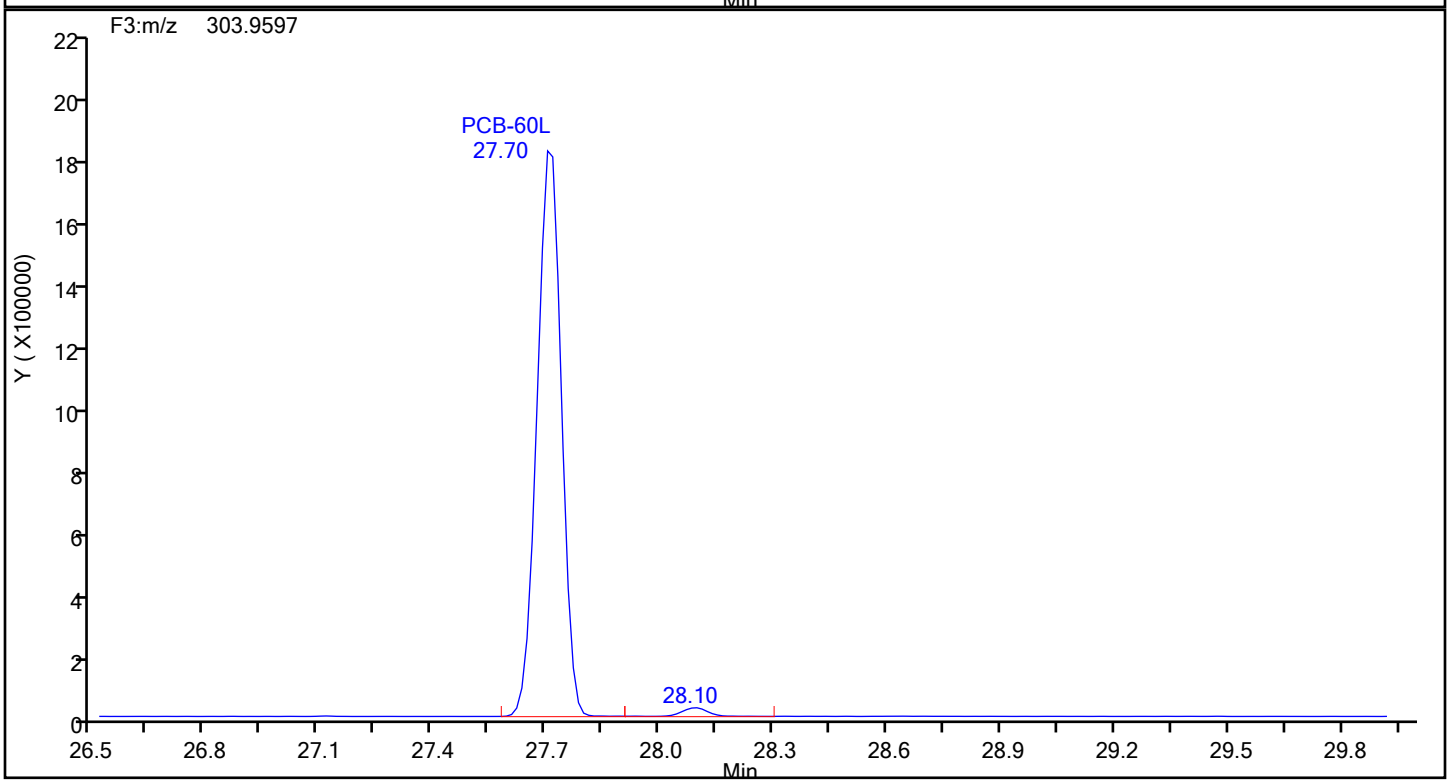
PCB-60L Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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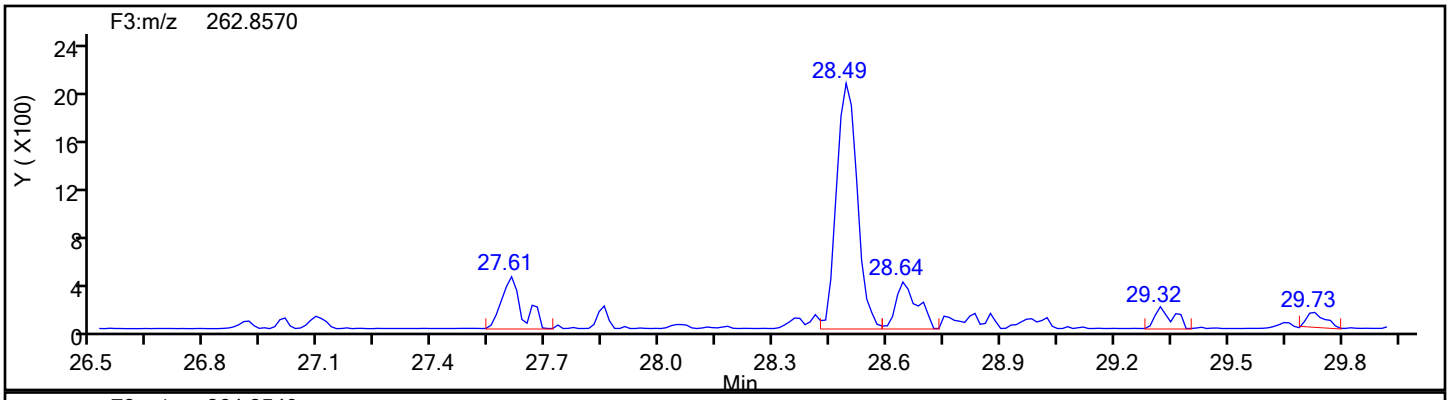
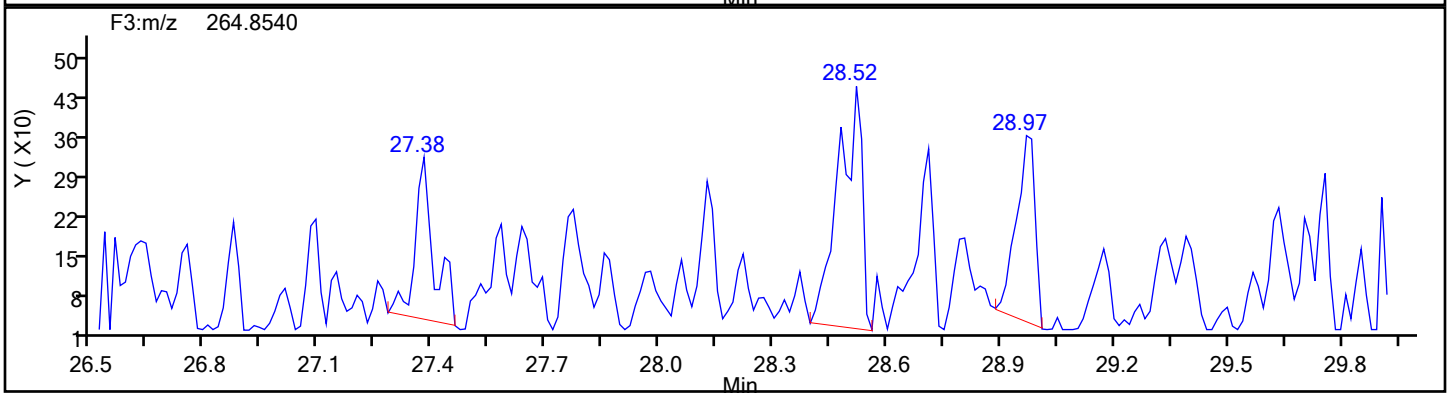
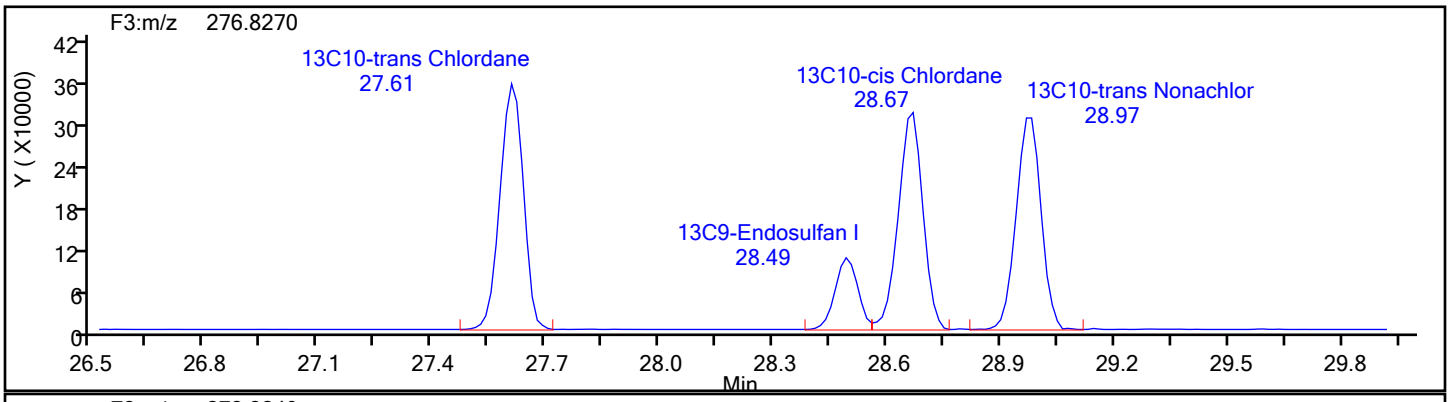
Column Type:	RTX-5	Column Dia:	0.32 mm

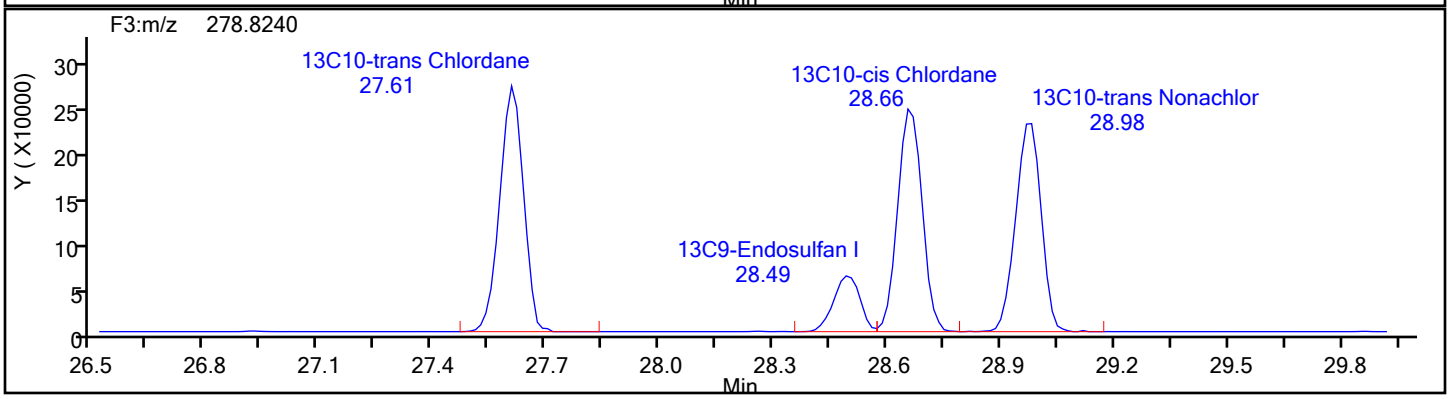
Endosulfan I





Endosulfan I Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
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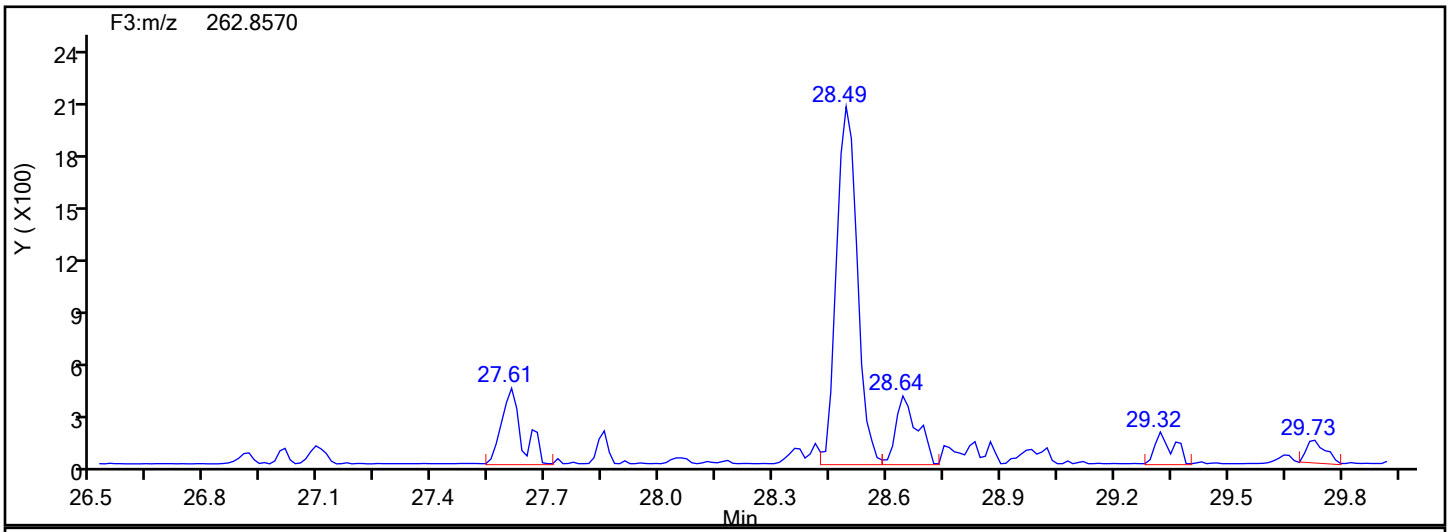
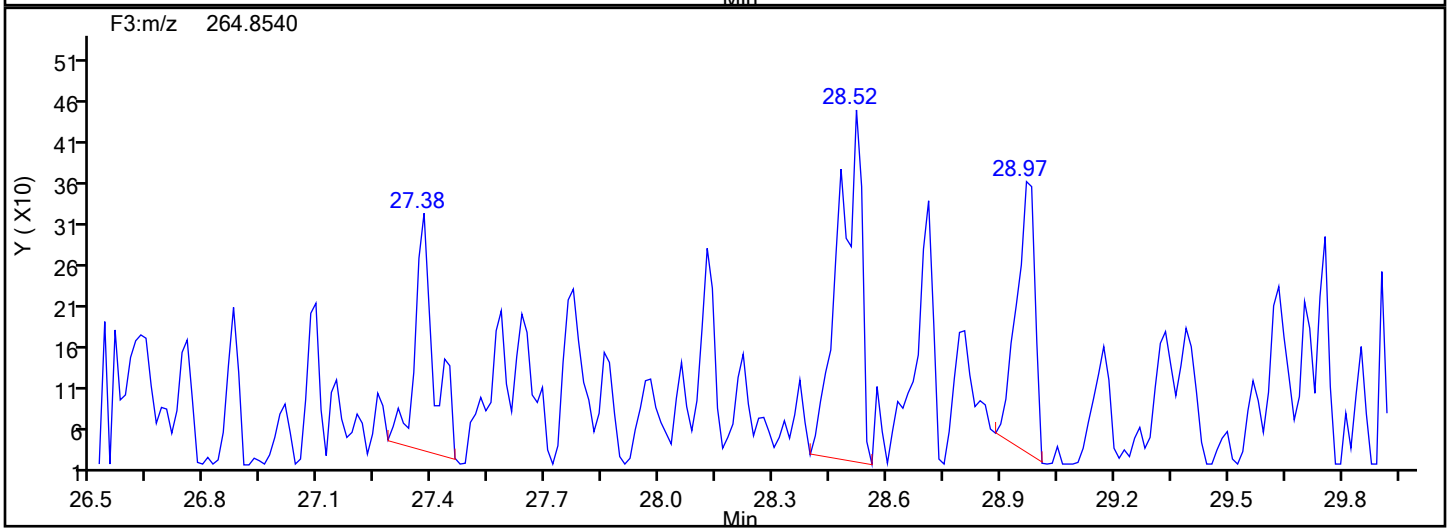
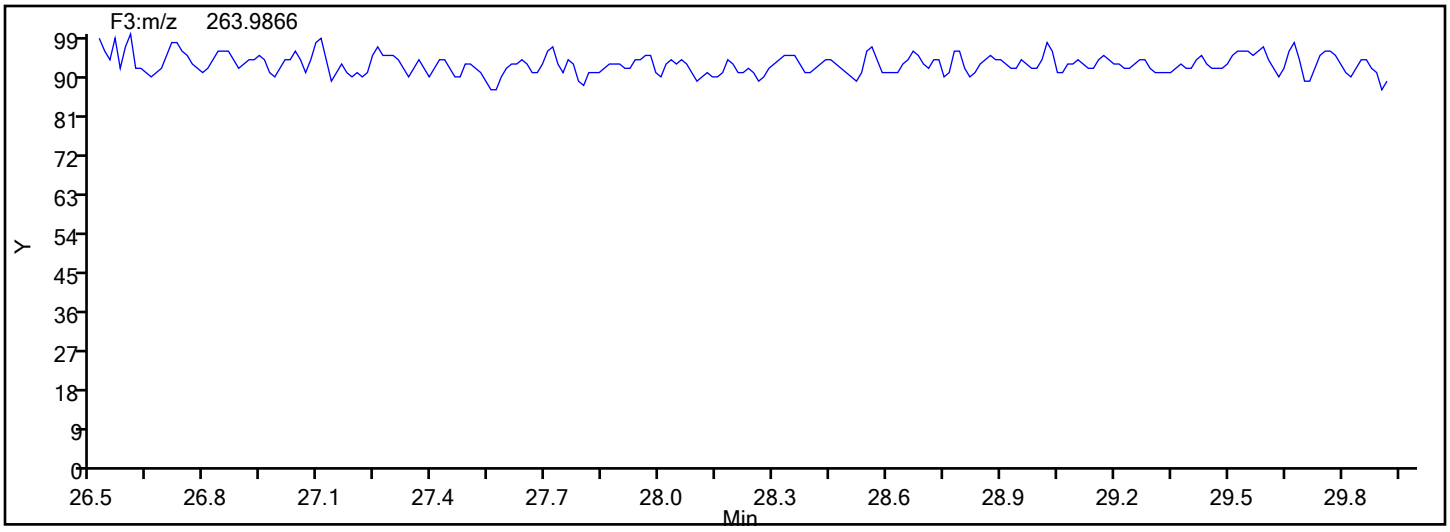
Endosulfan I





Endosulfan I Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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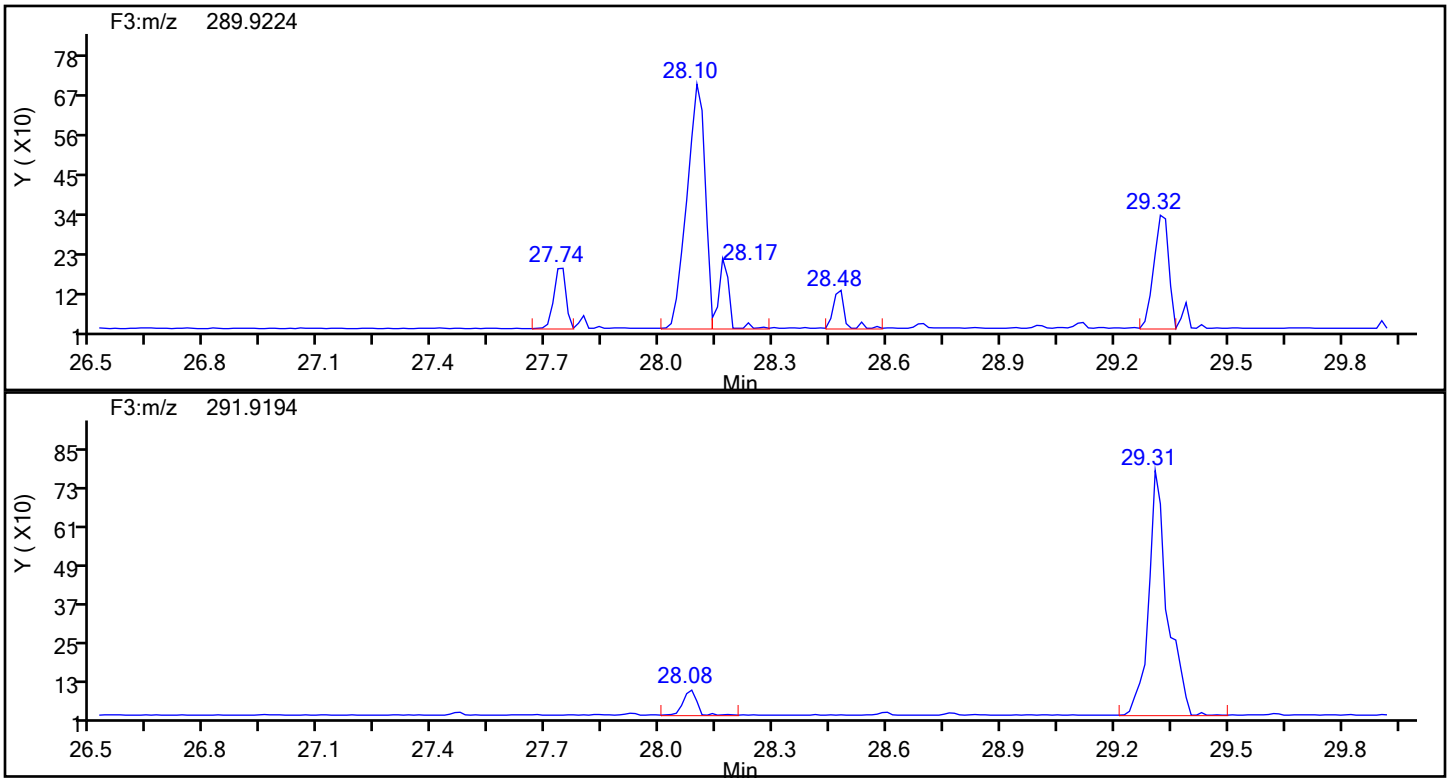
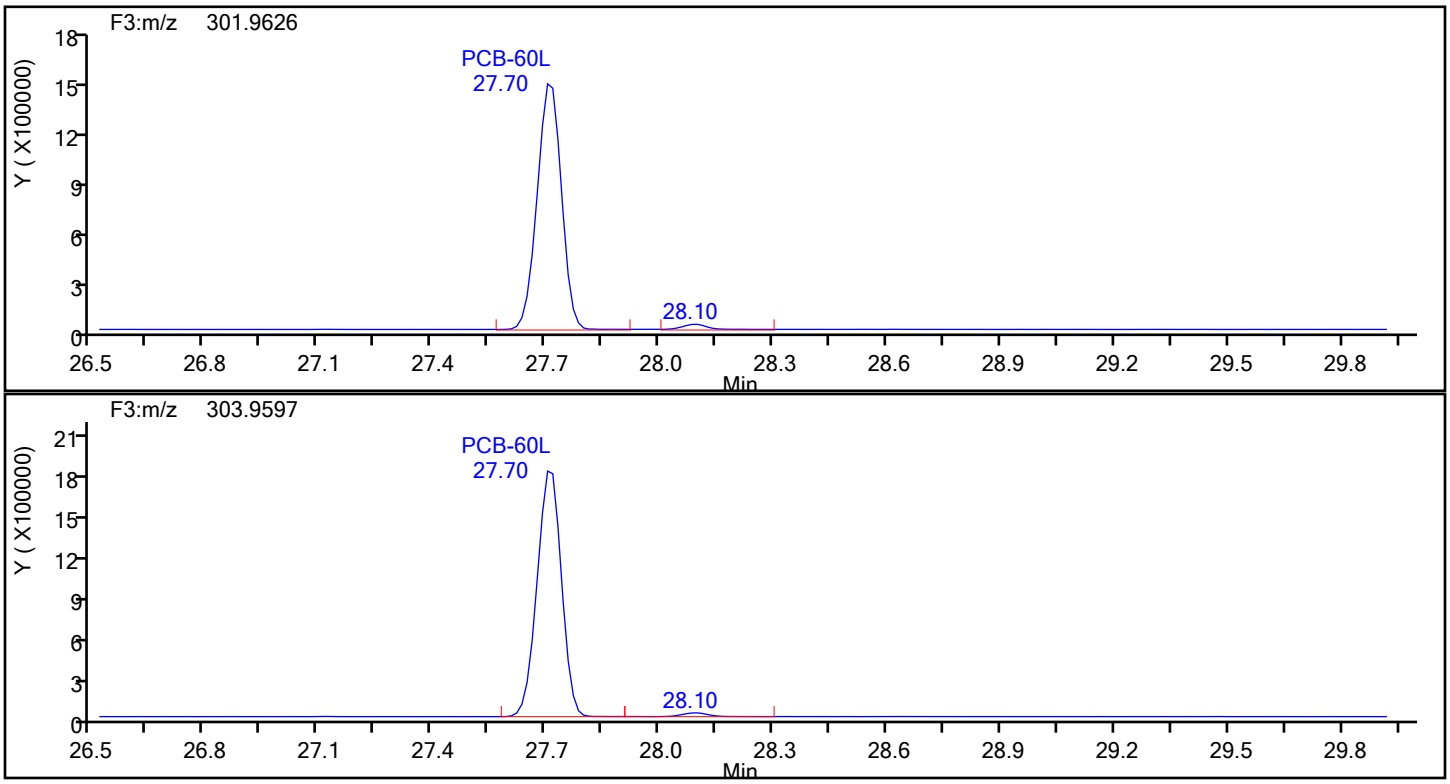
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-78



PCB-78 Standards



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
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Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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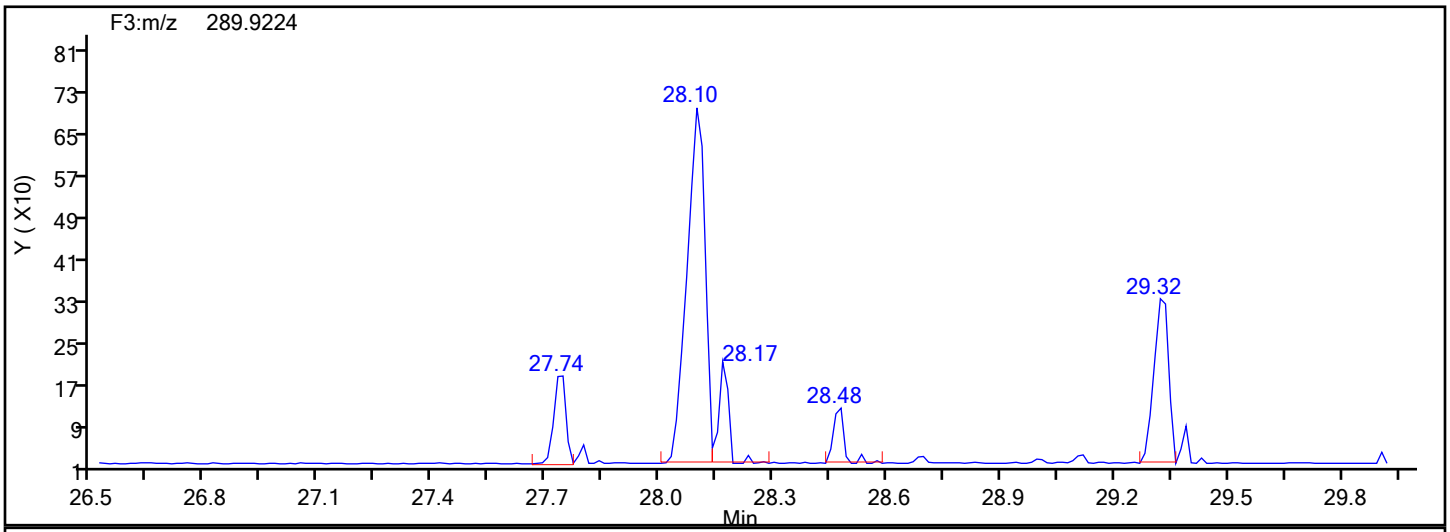
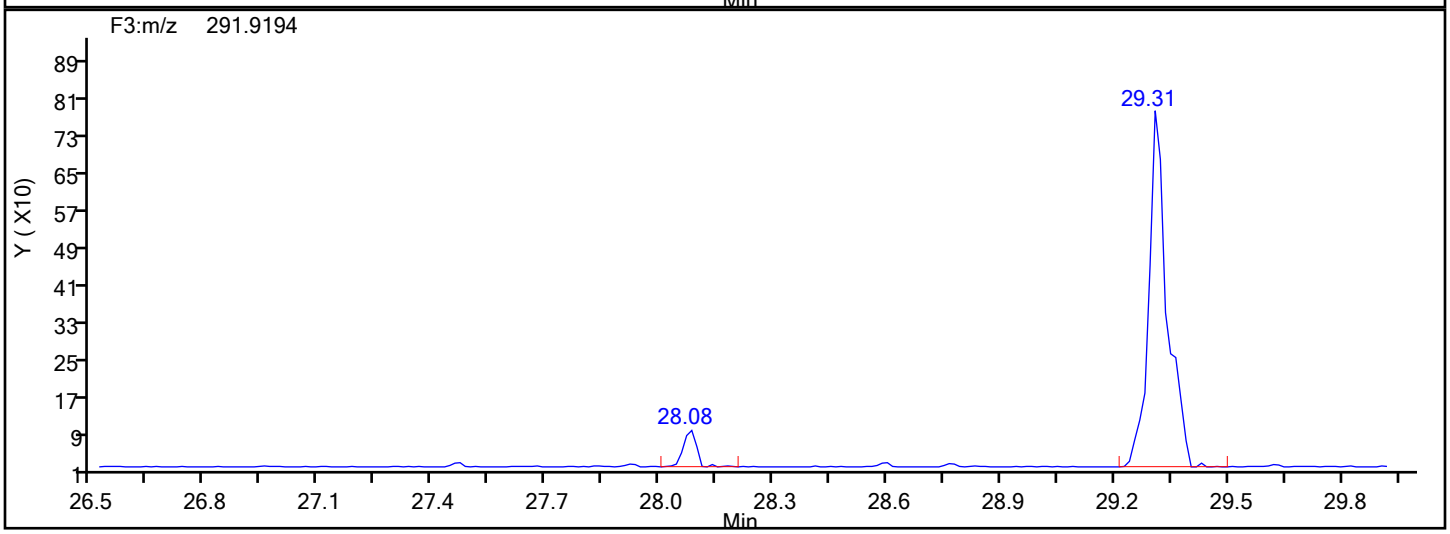
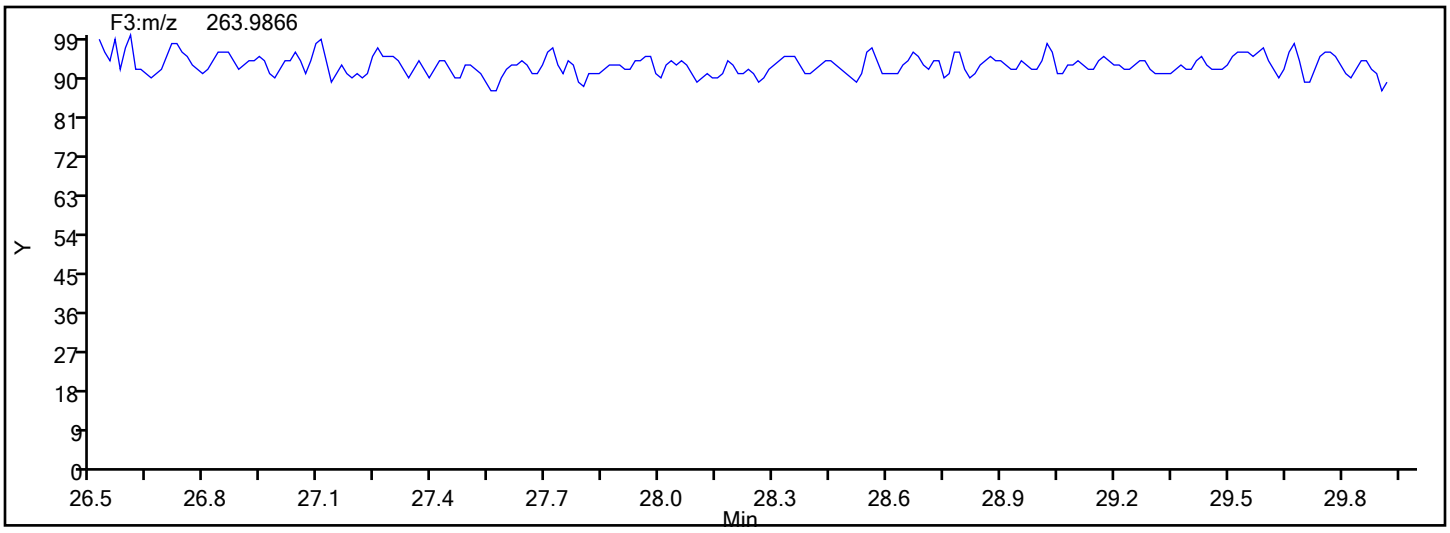
PCB-78





PCB-78 Lock Mass



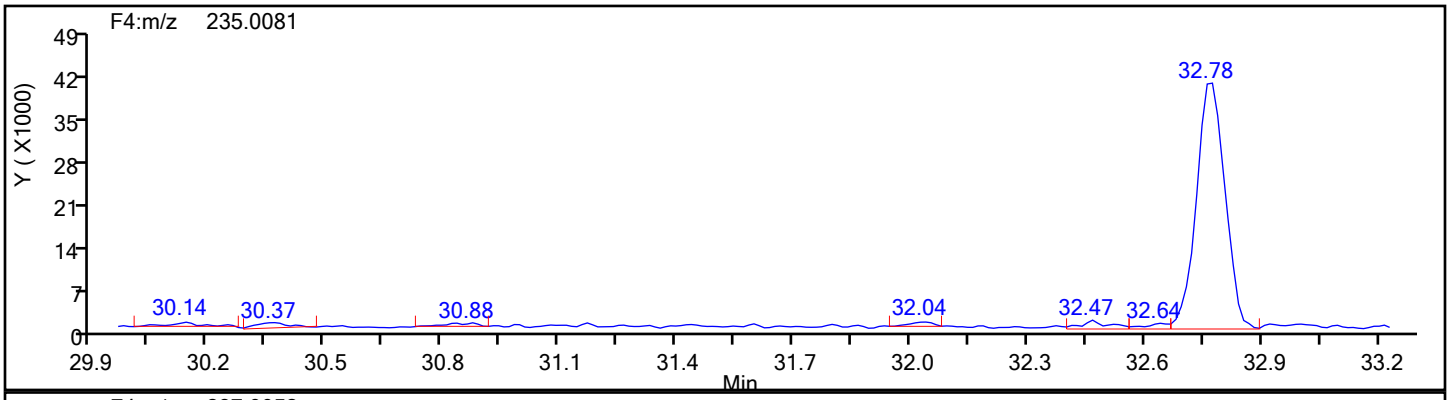
Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

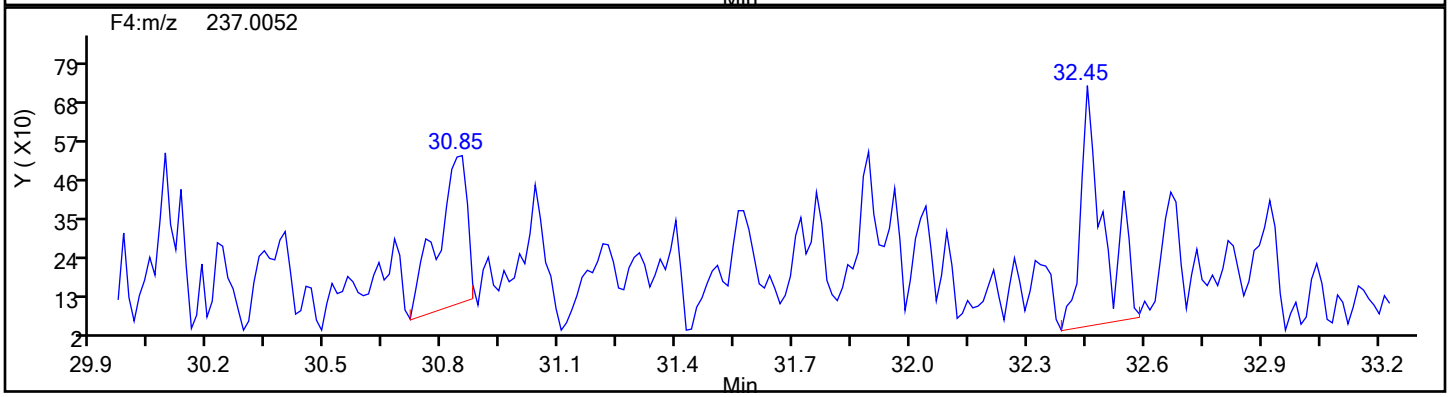
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

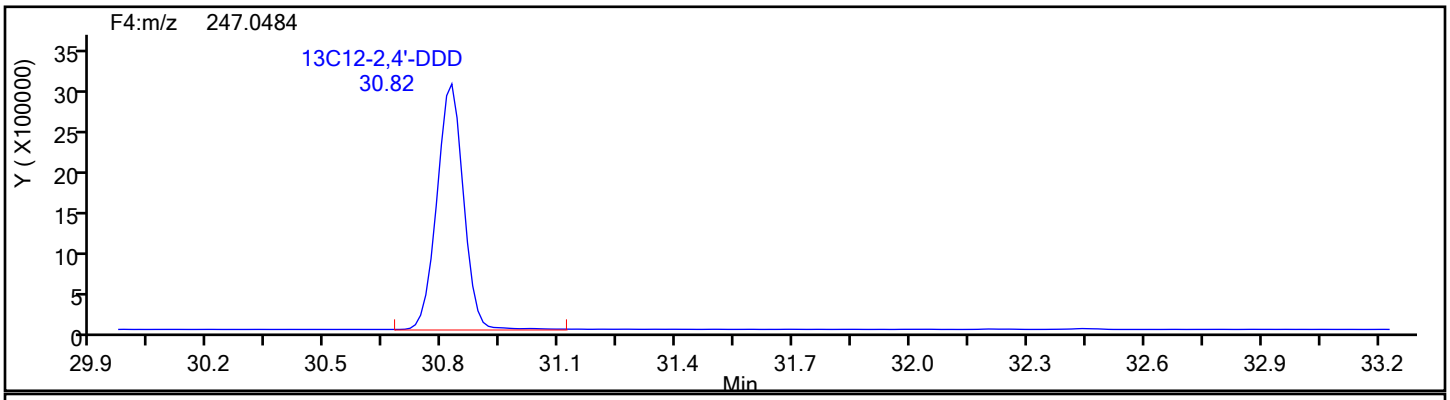
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

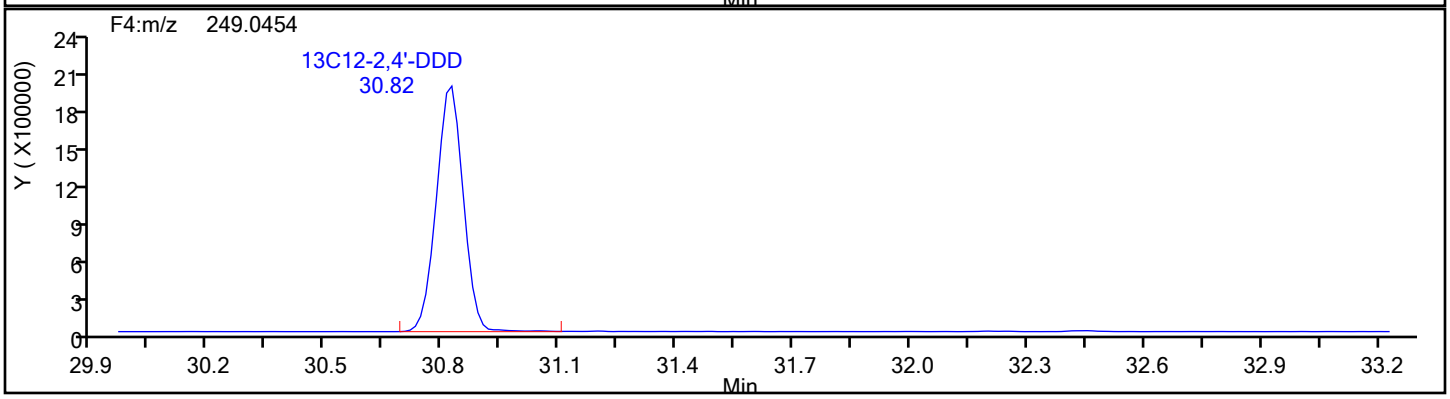
2,4'-DDD





2,4'-DDD Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
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Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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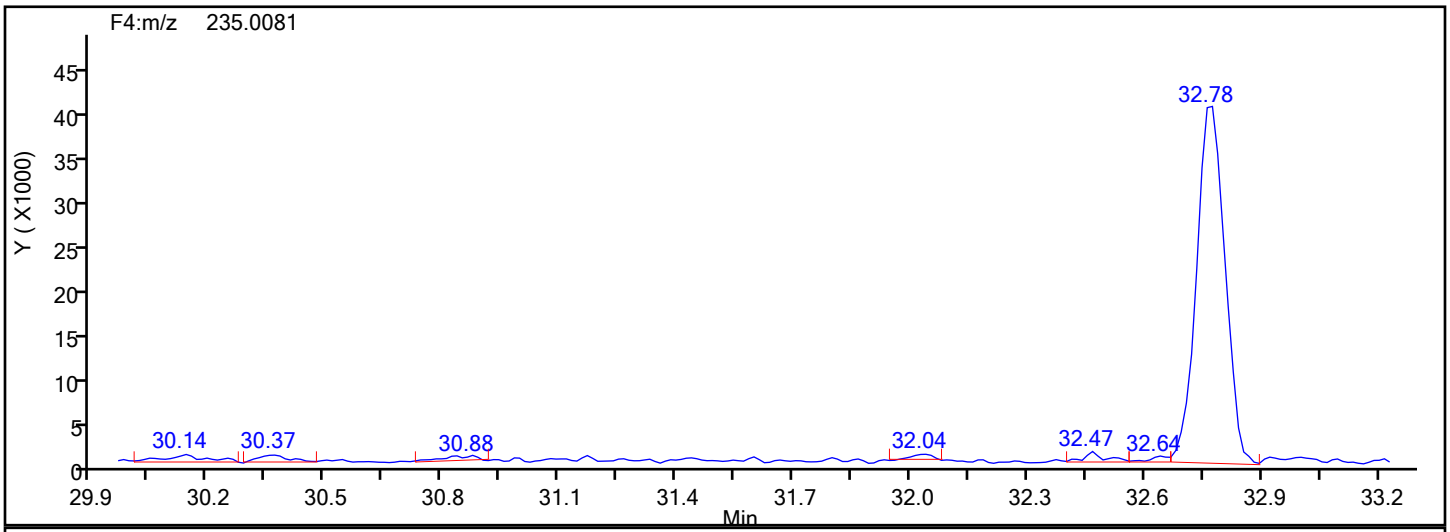
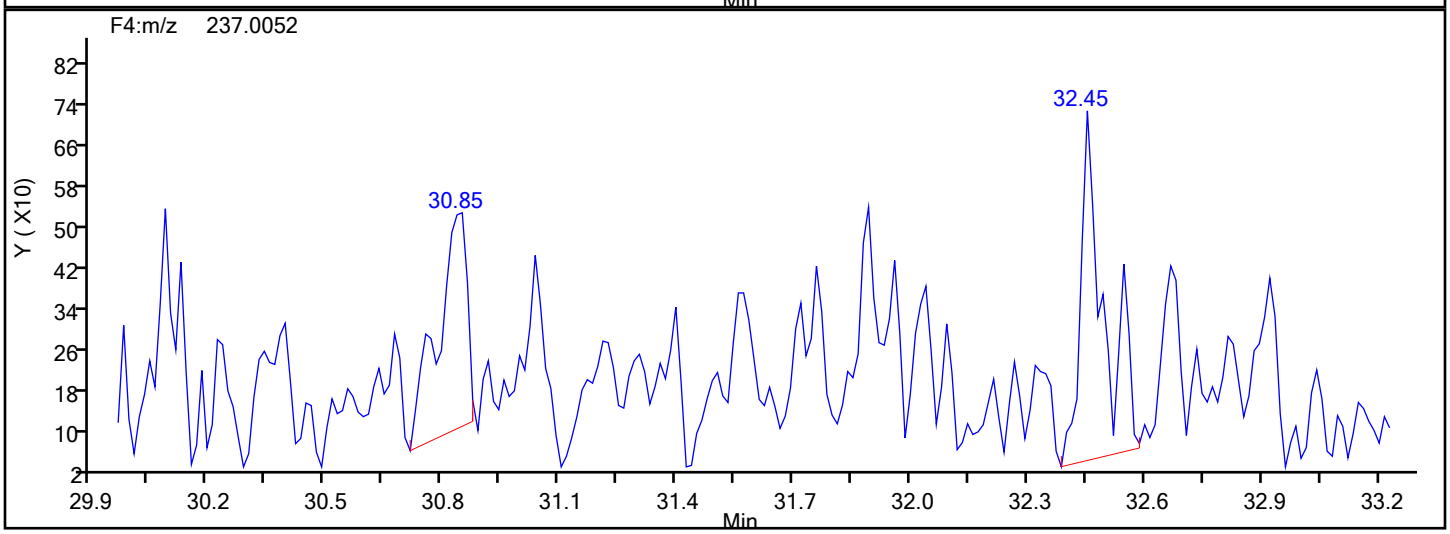
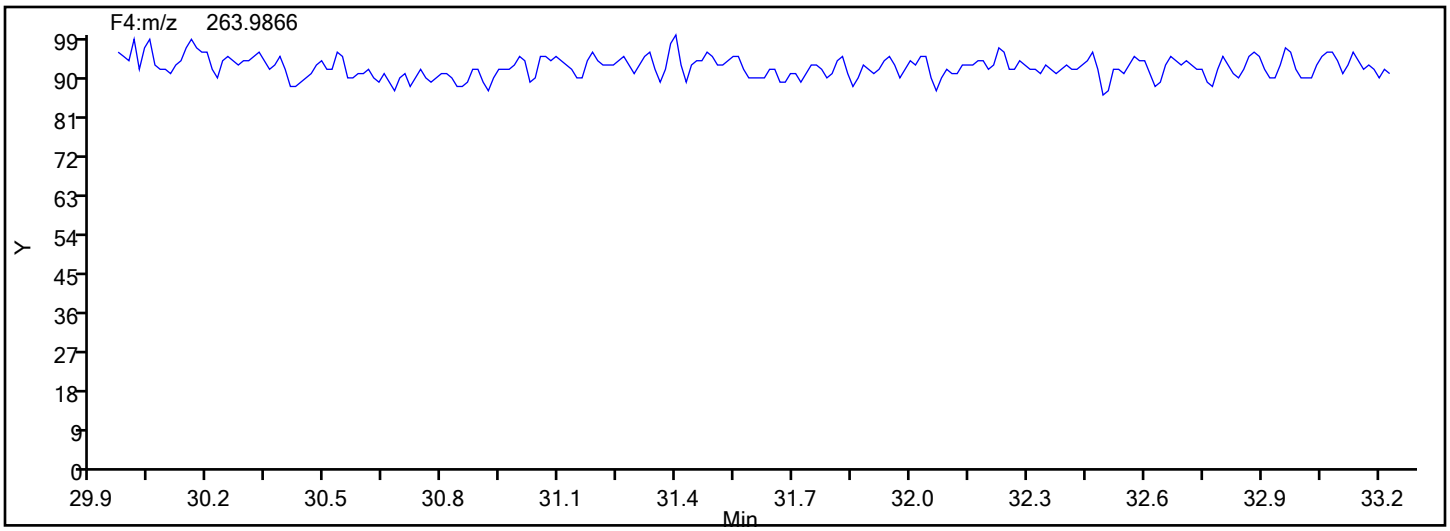
Column Type:	RTX-5	Column Dia:	0.32 mm

2,4'-DDD





2,4'-DDD Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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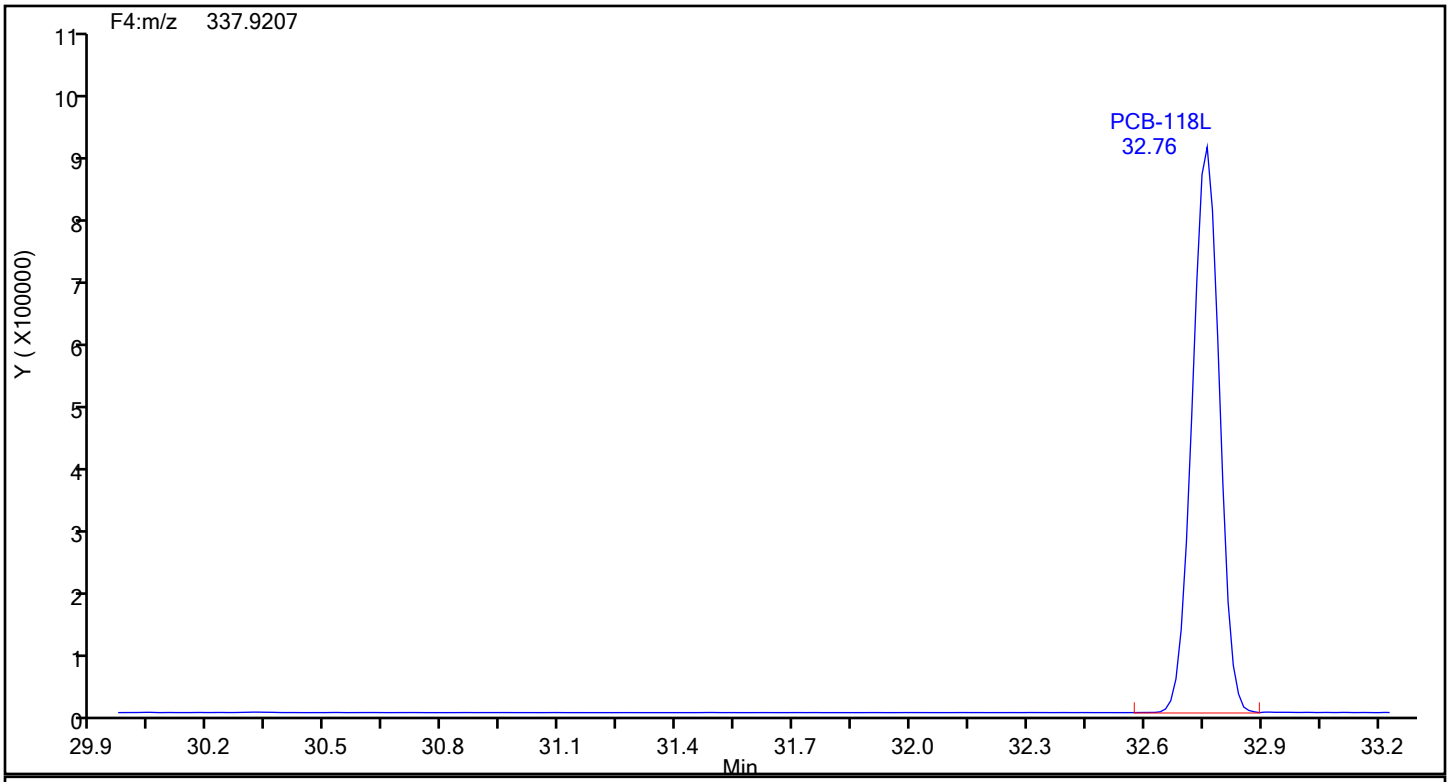
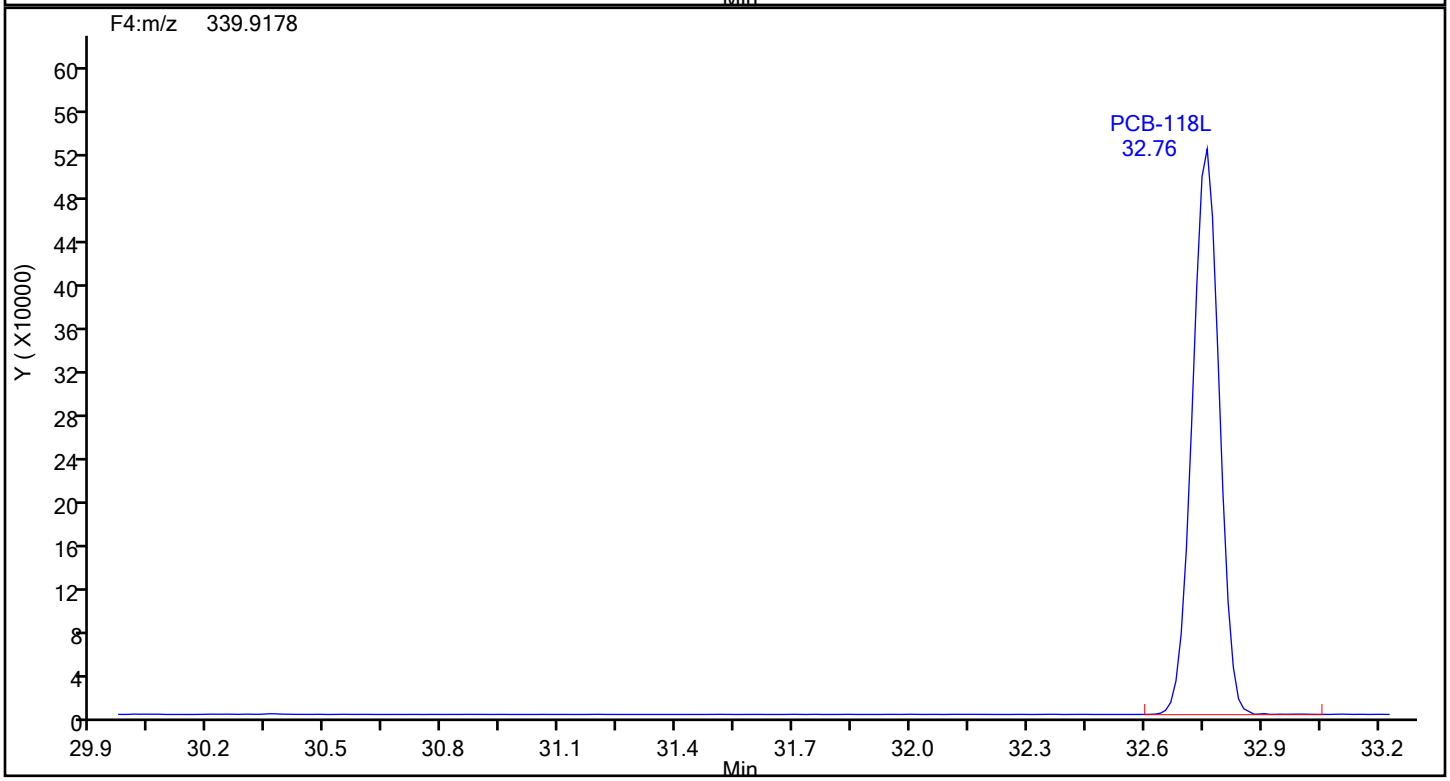
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-118L Standards



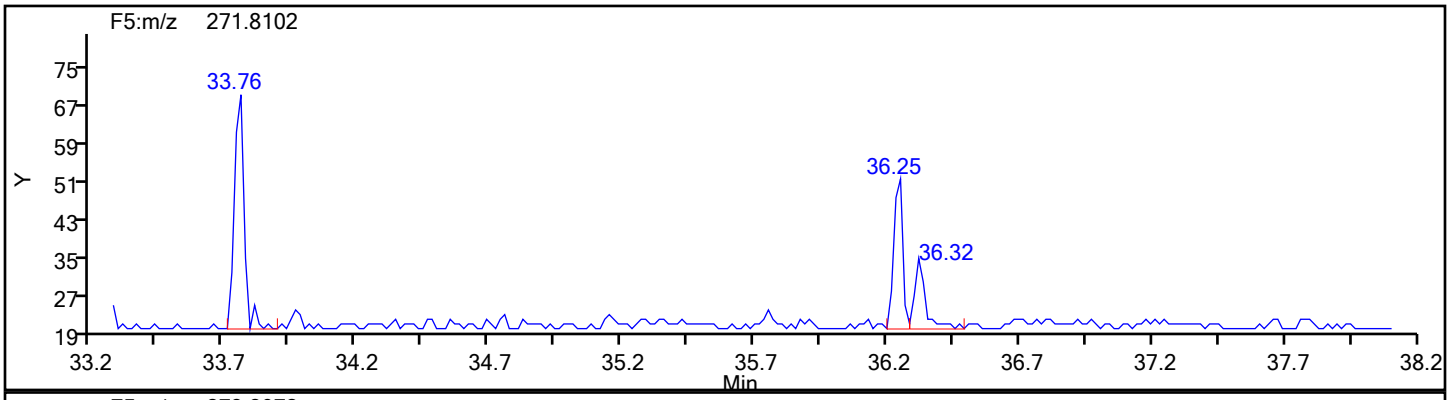


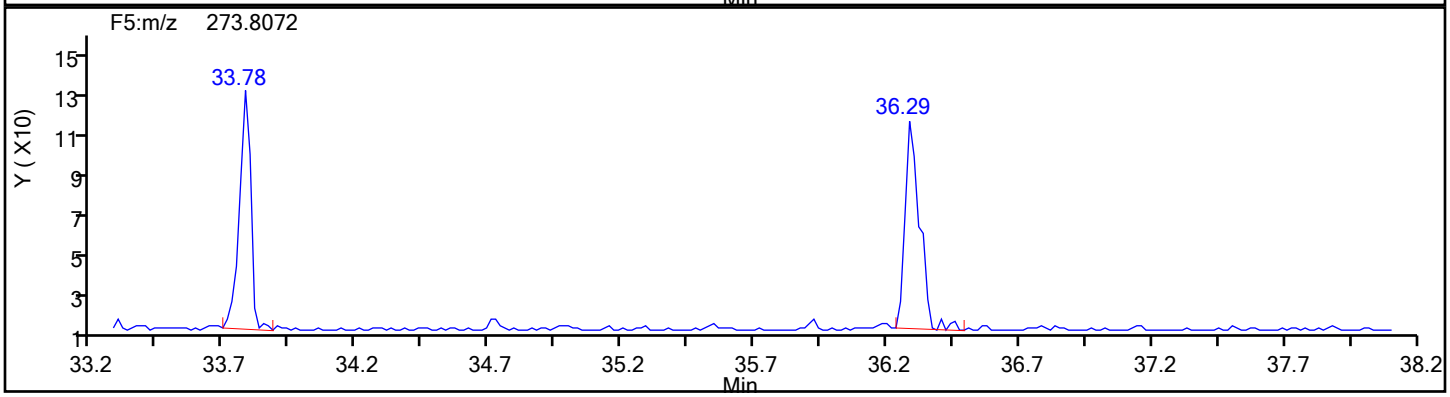
Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

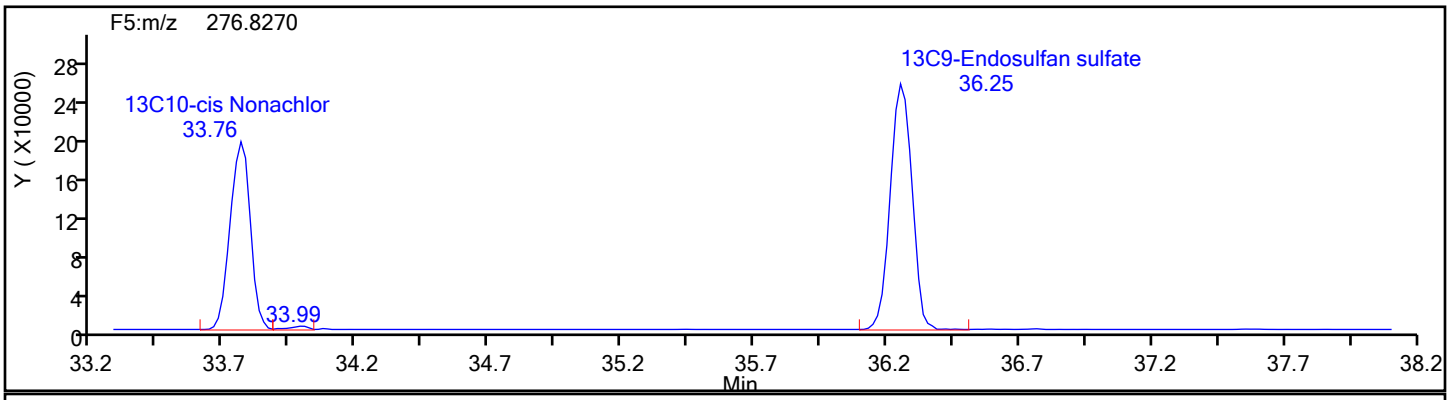
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

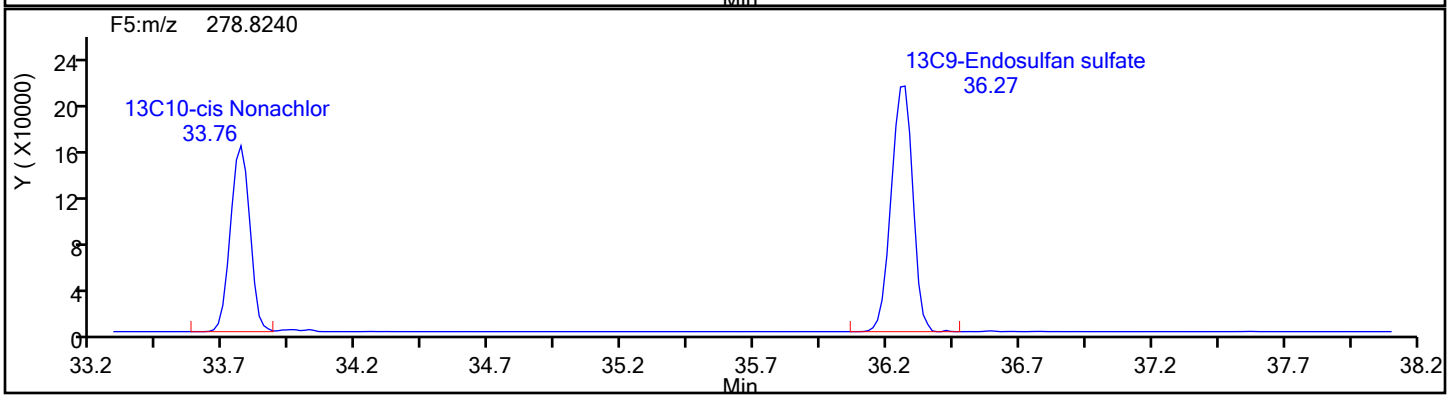
Nonachlor





Nonachlor Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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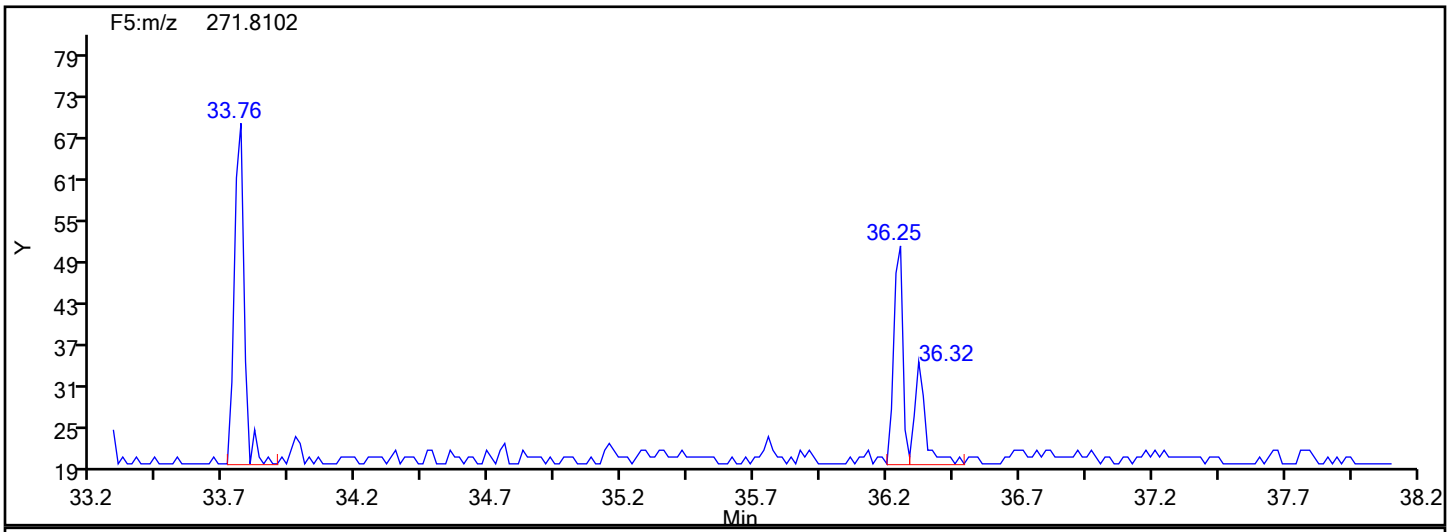
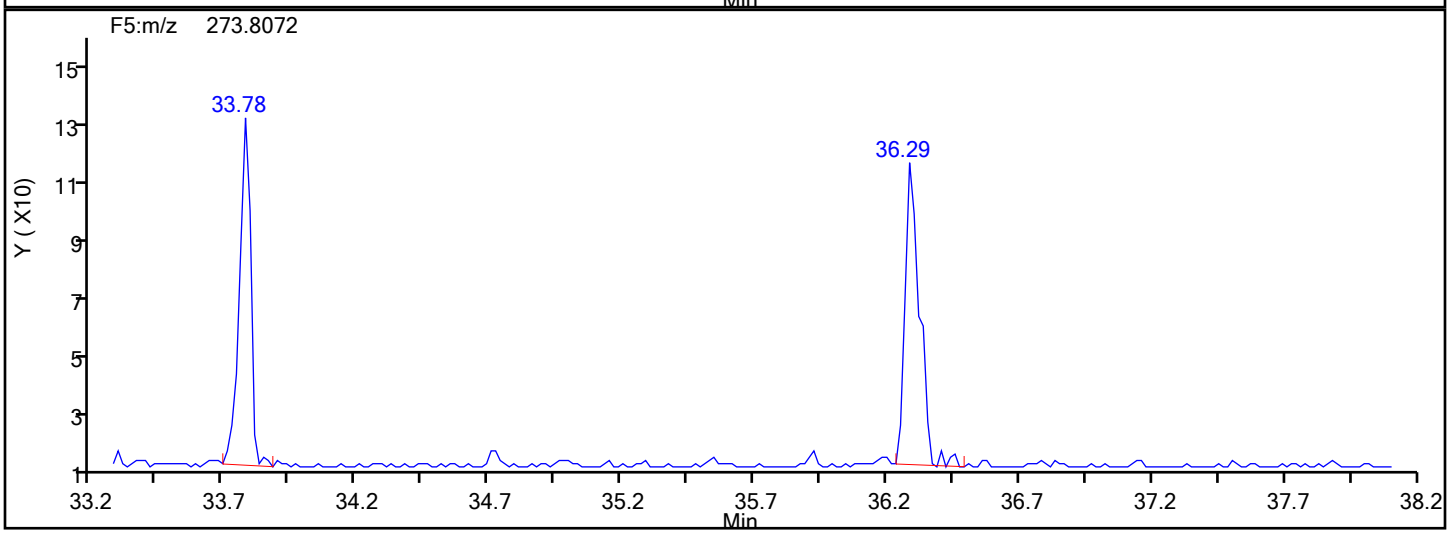
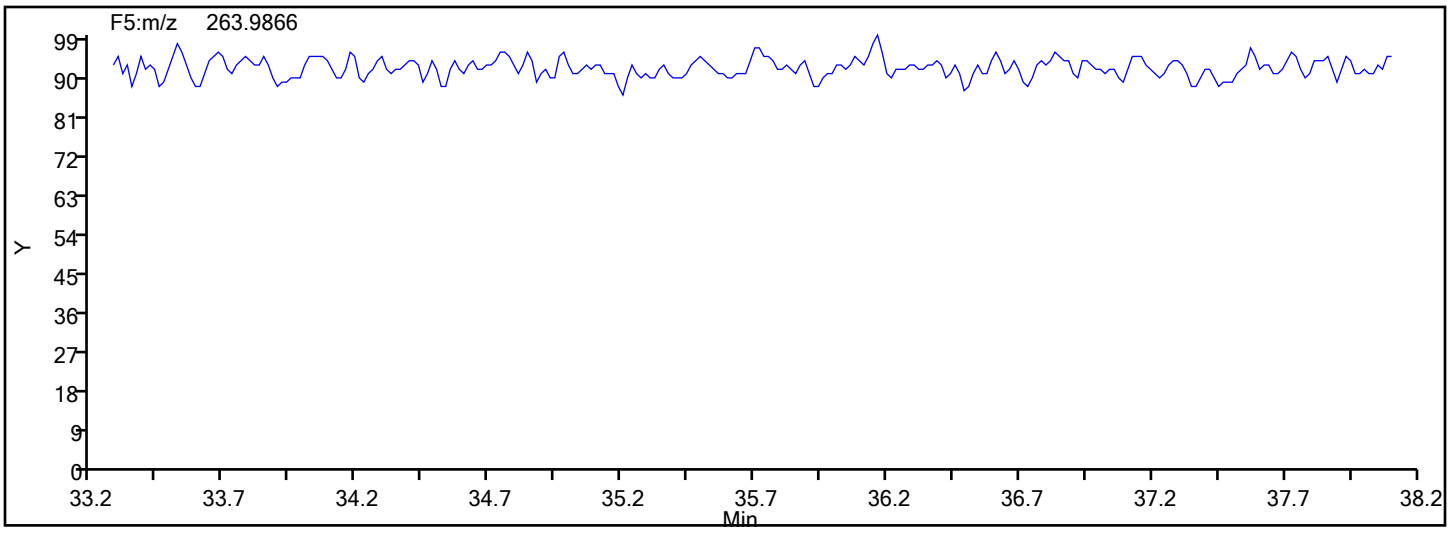
Column Type:	RTX-5	Column Dia:	0.32 mm

Nonachlor





Nonachlor Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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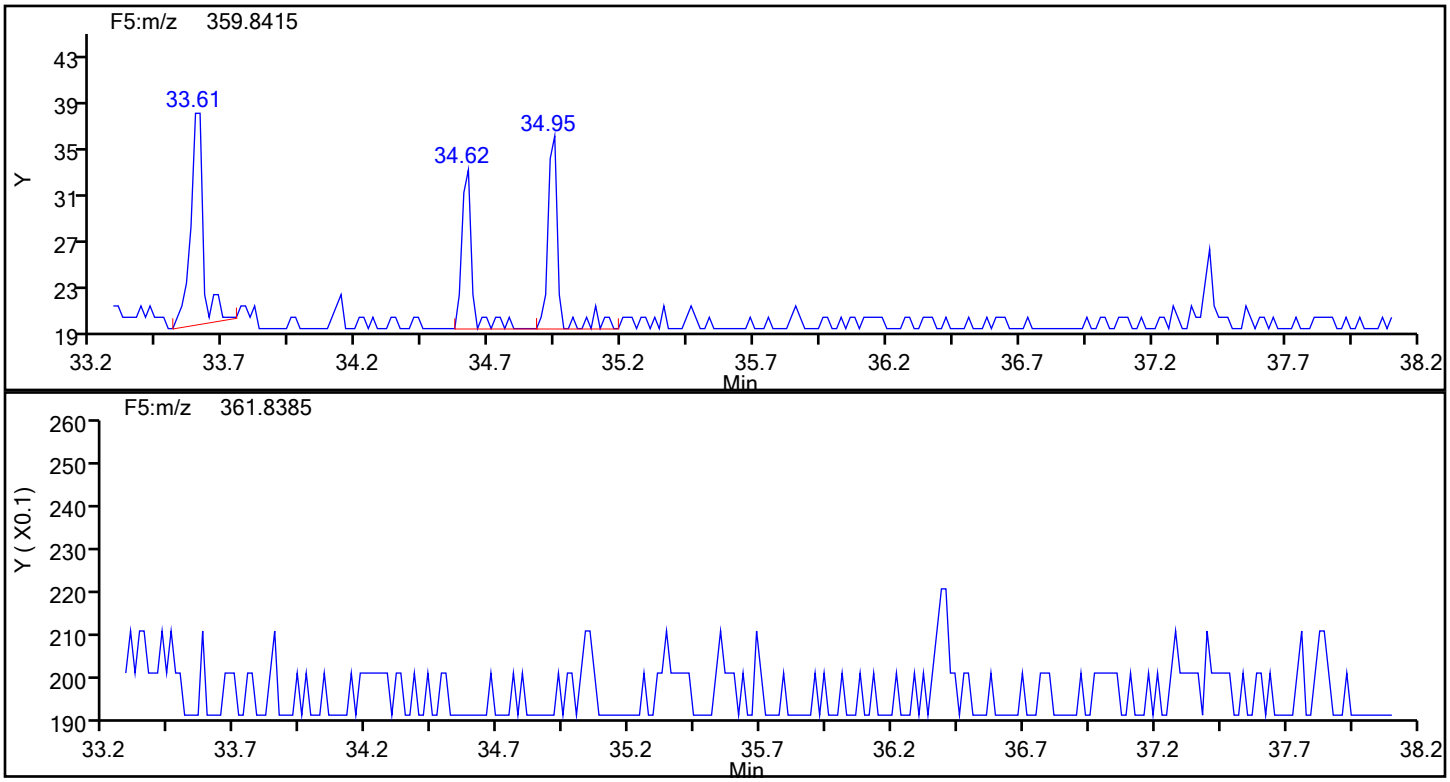
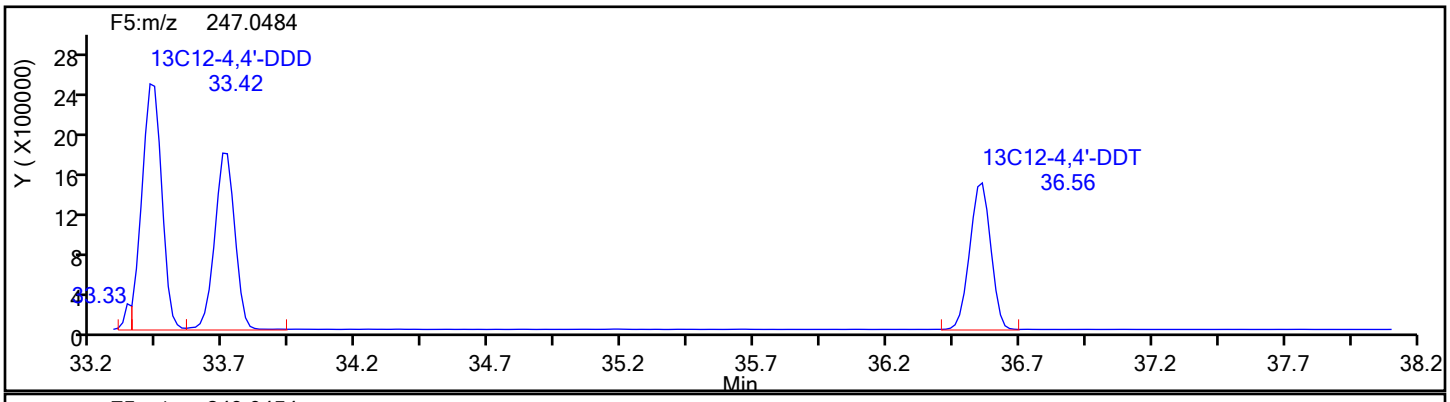
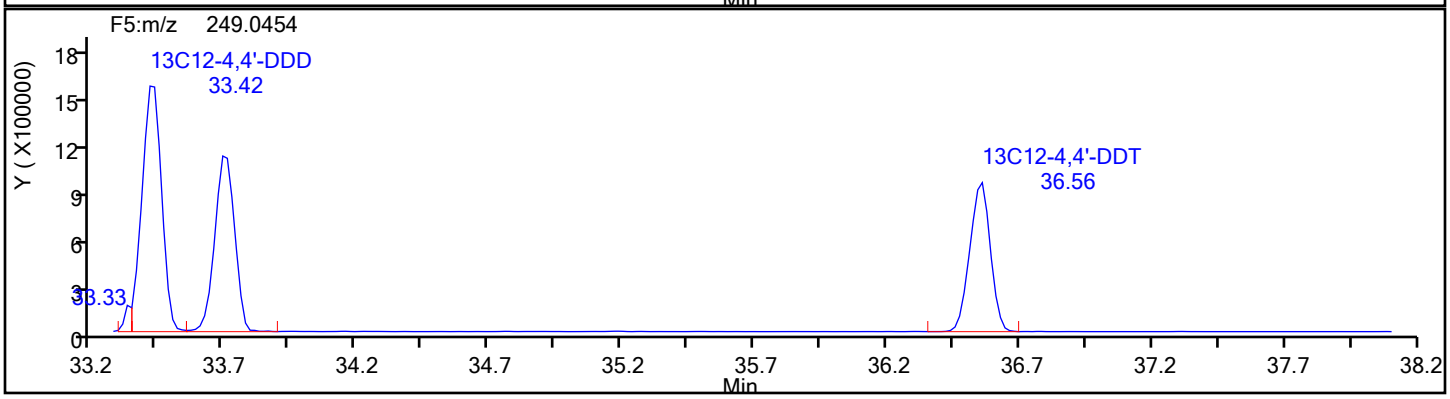
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155



PCB-155 Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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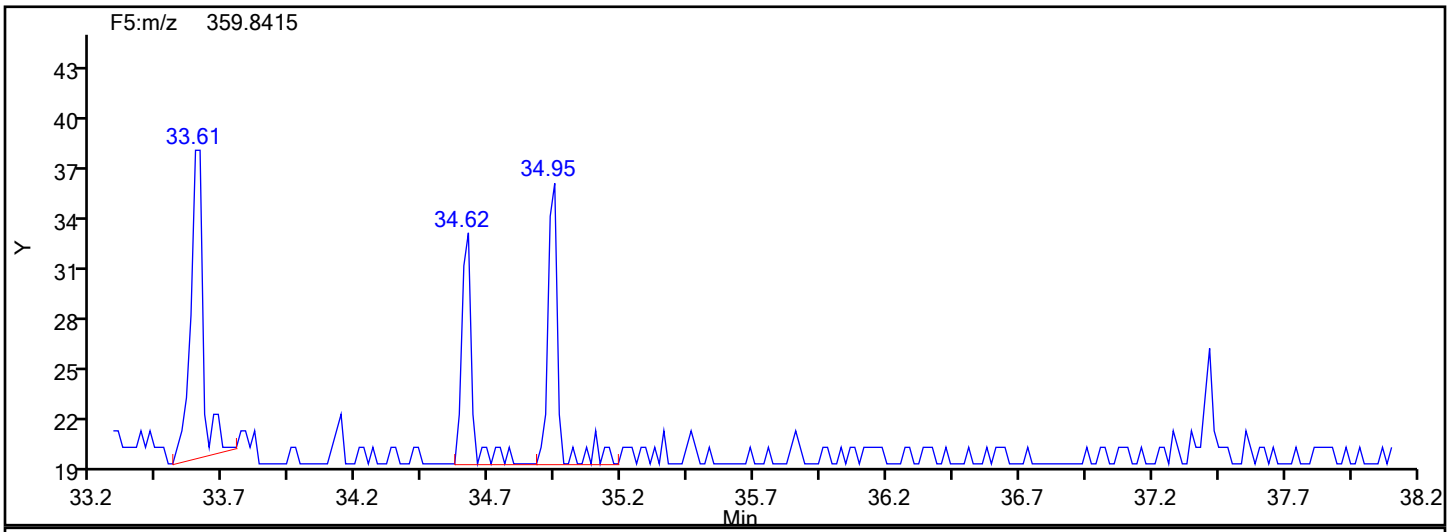
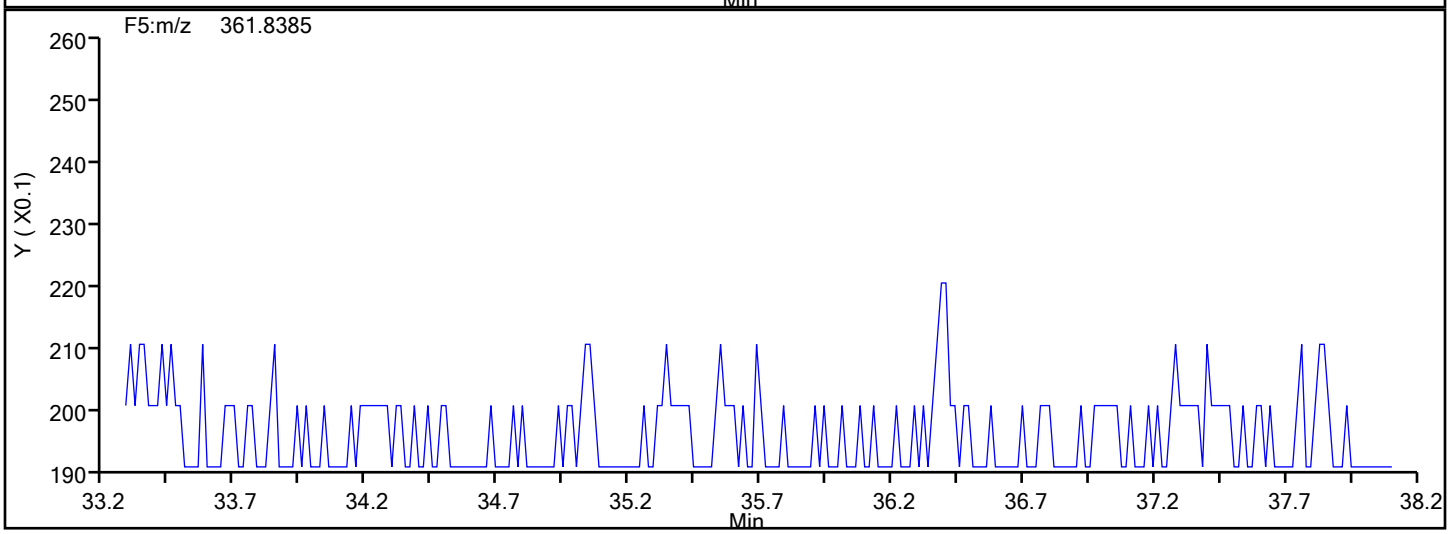
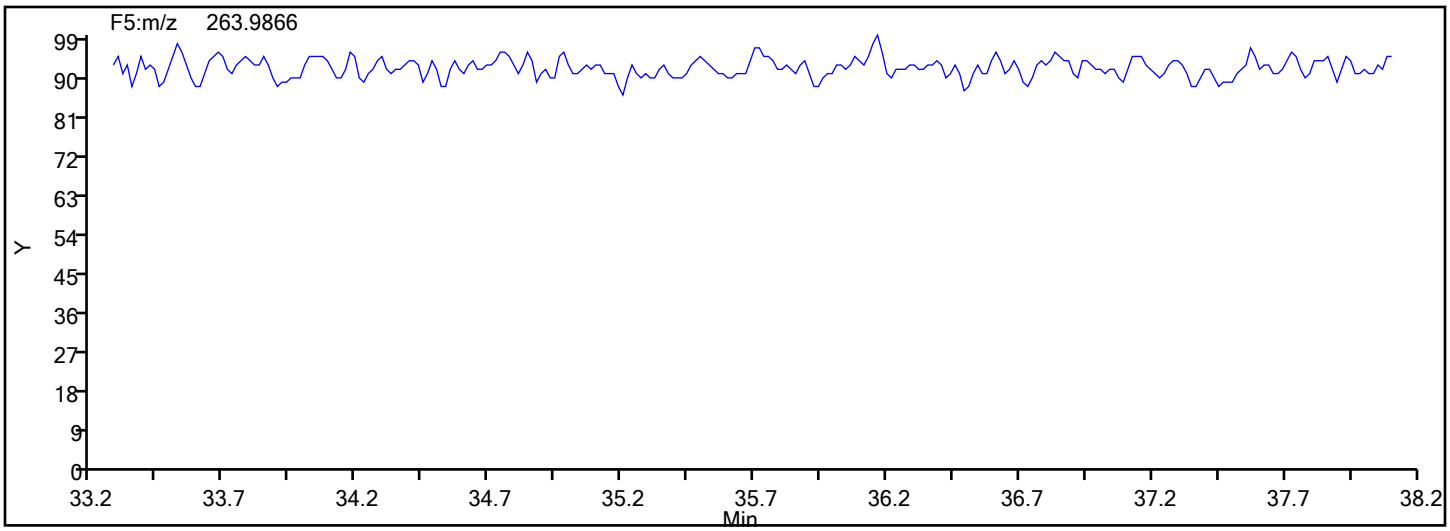
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-155





PCB-155 Lock Mass



Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
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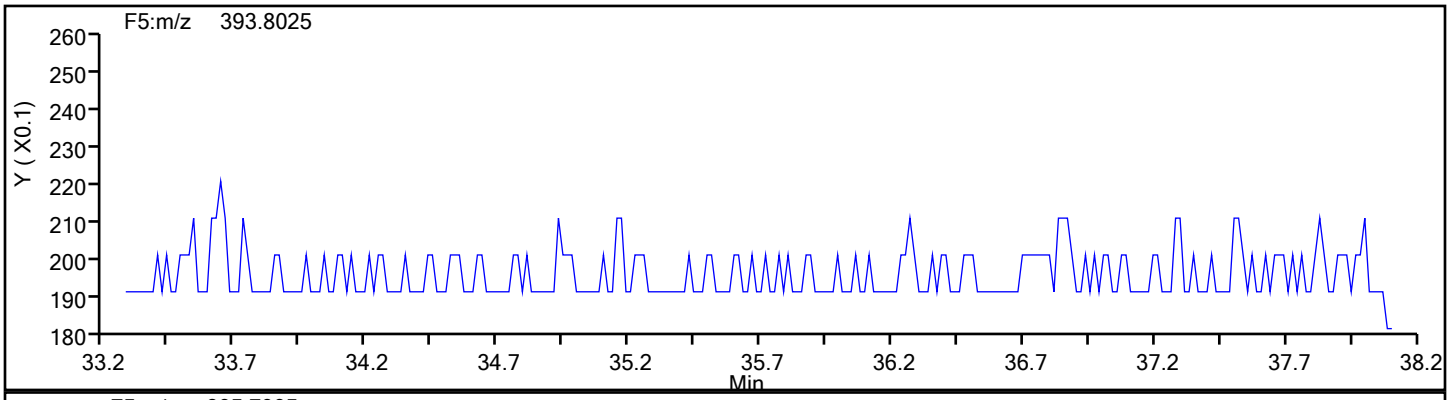
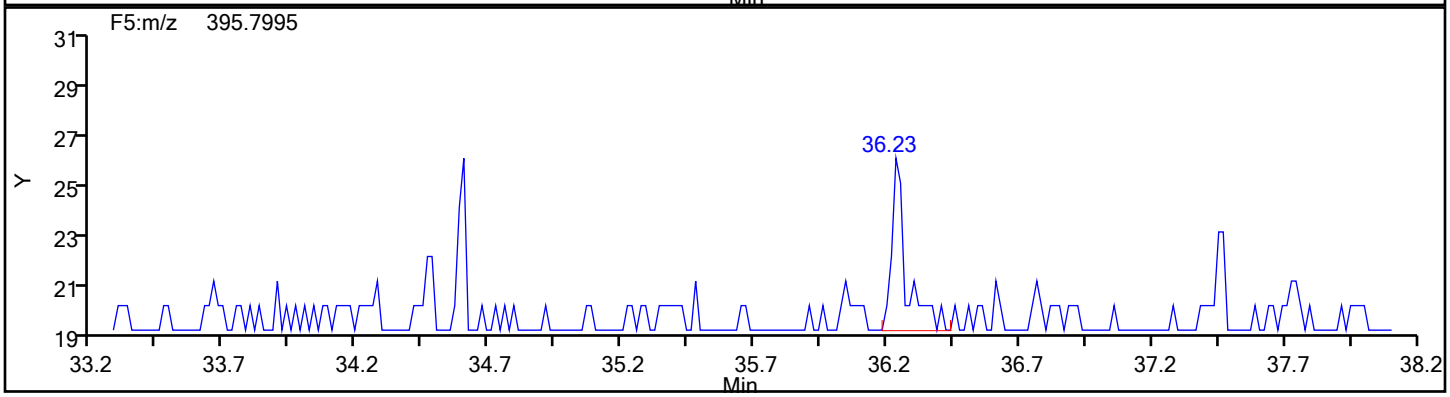
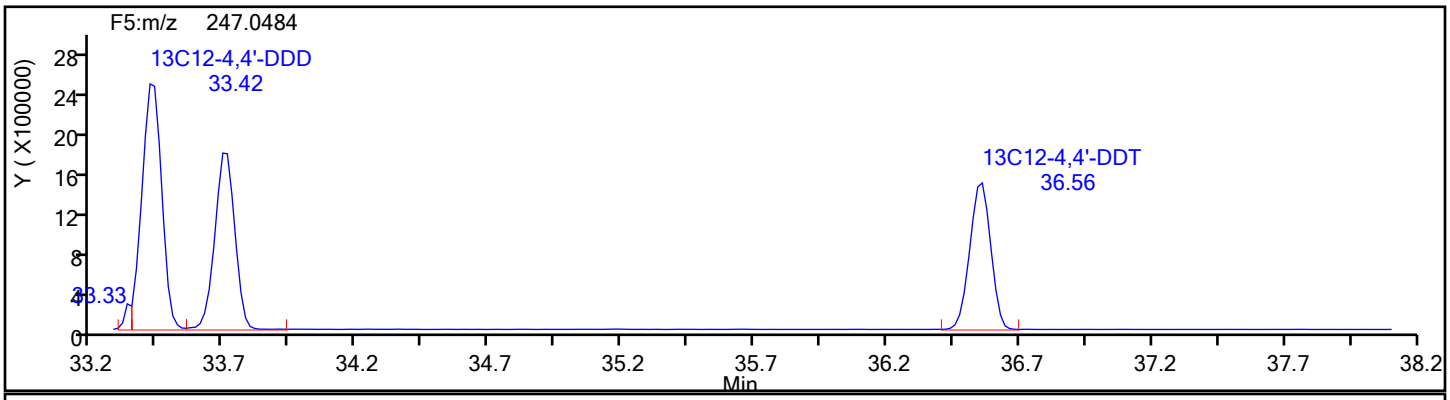
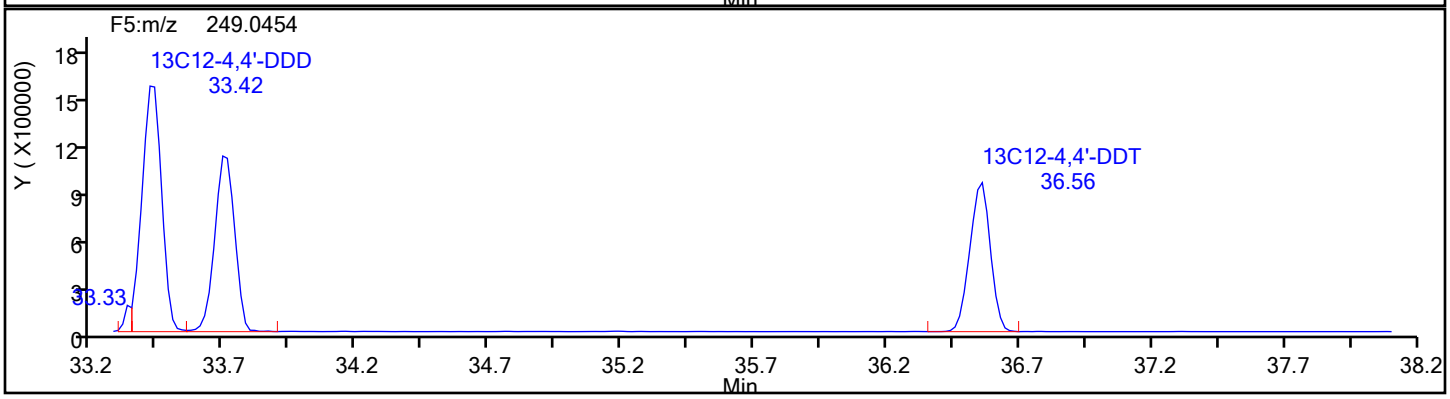
PCB-184





PCB-184 Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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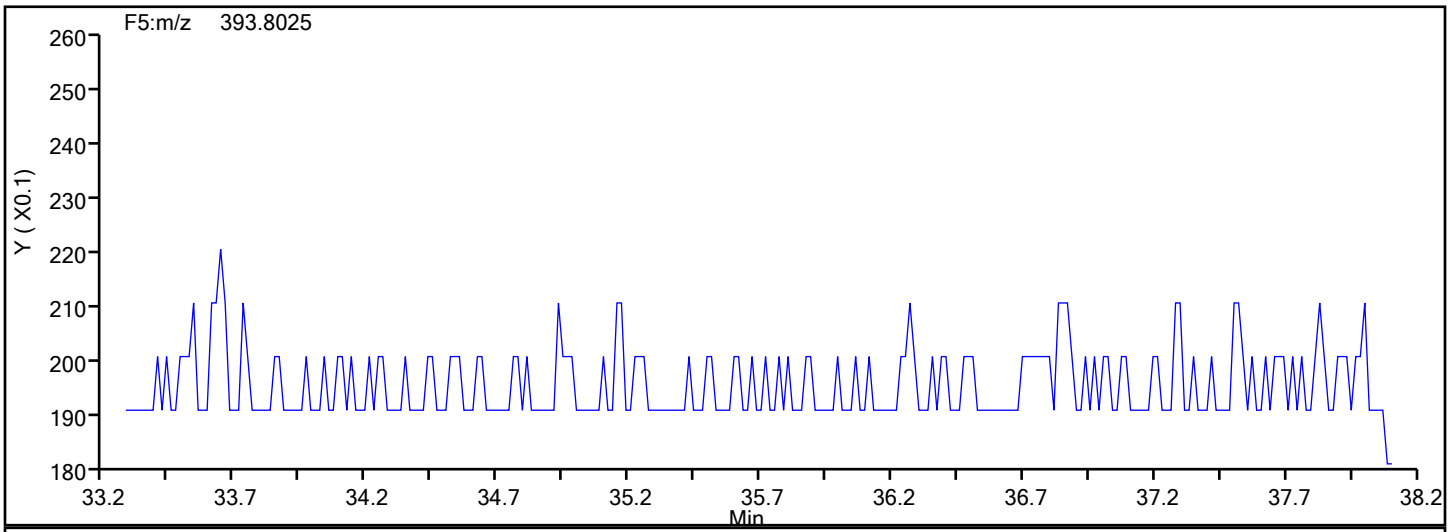
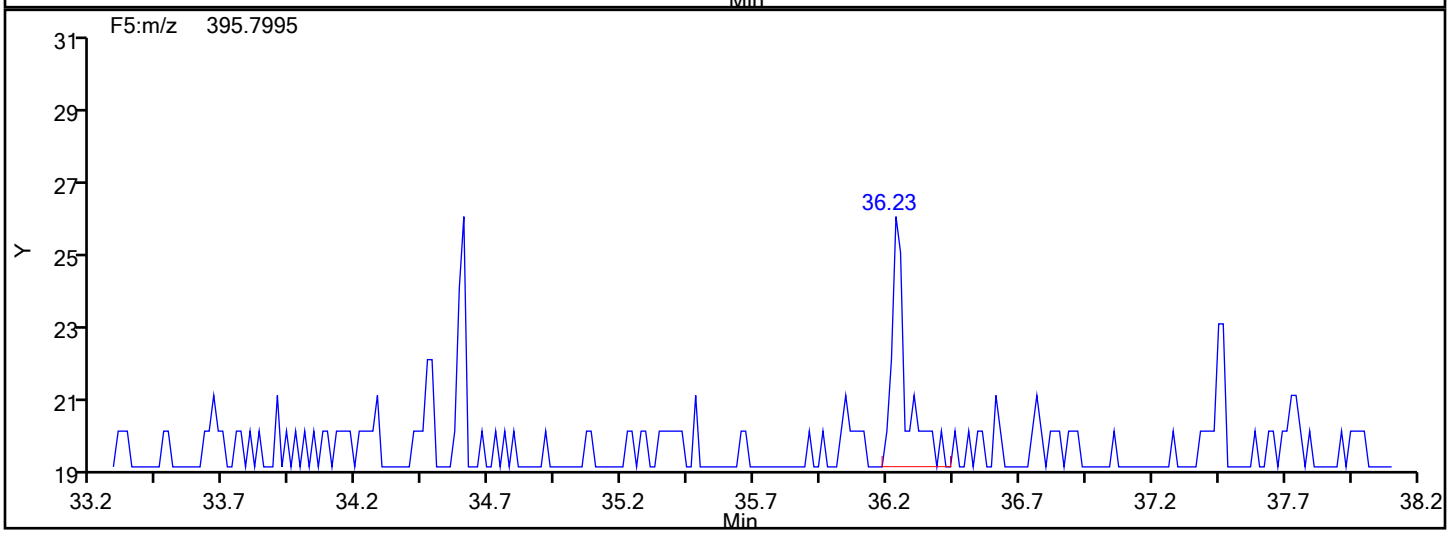
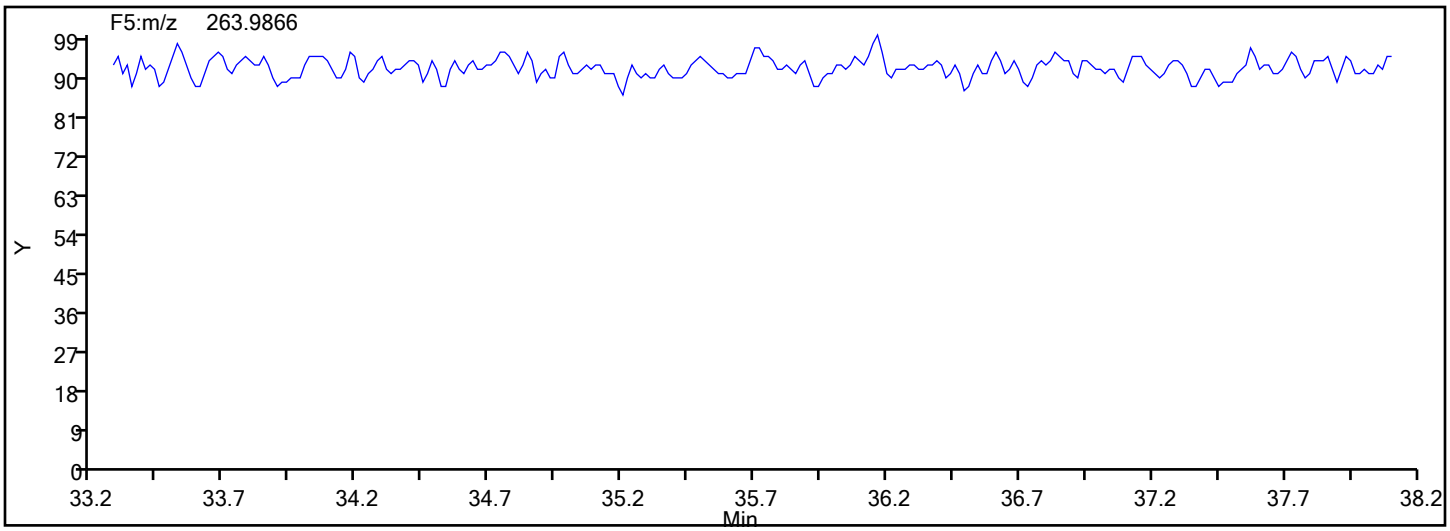
PCB-184





PCB-184 Lock Mass



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Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d		
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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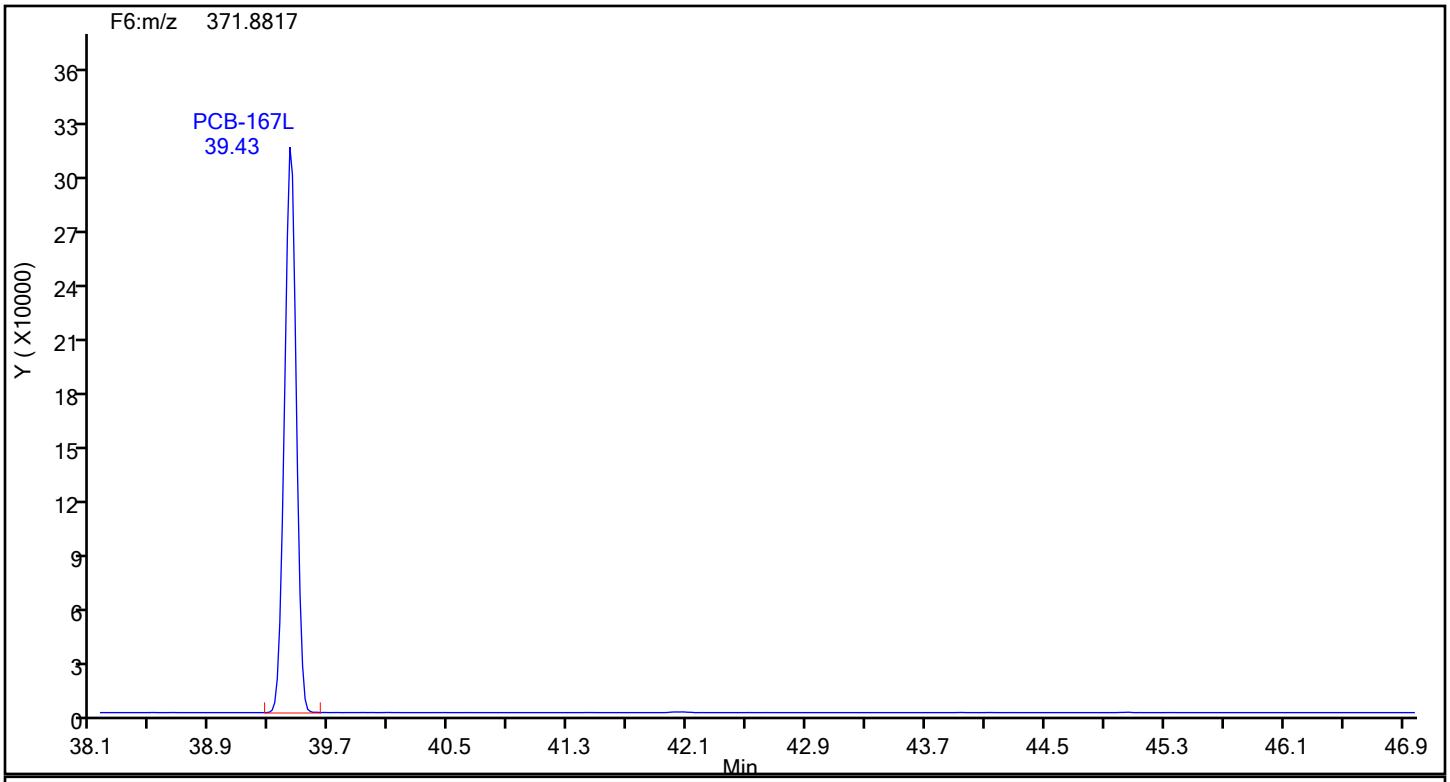
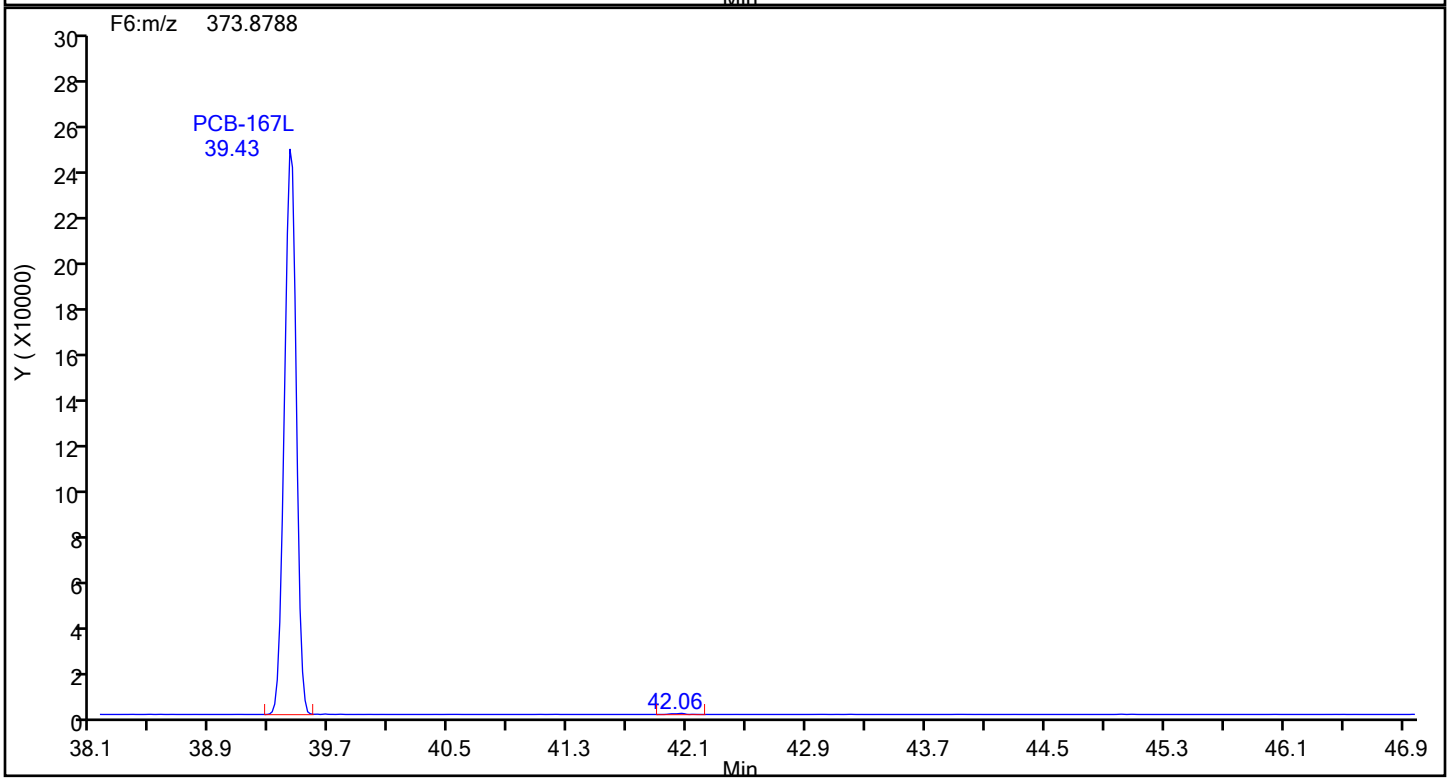
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-167L Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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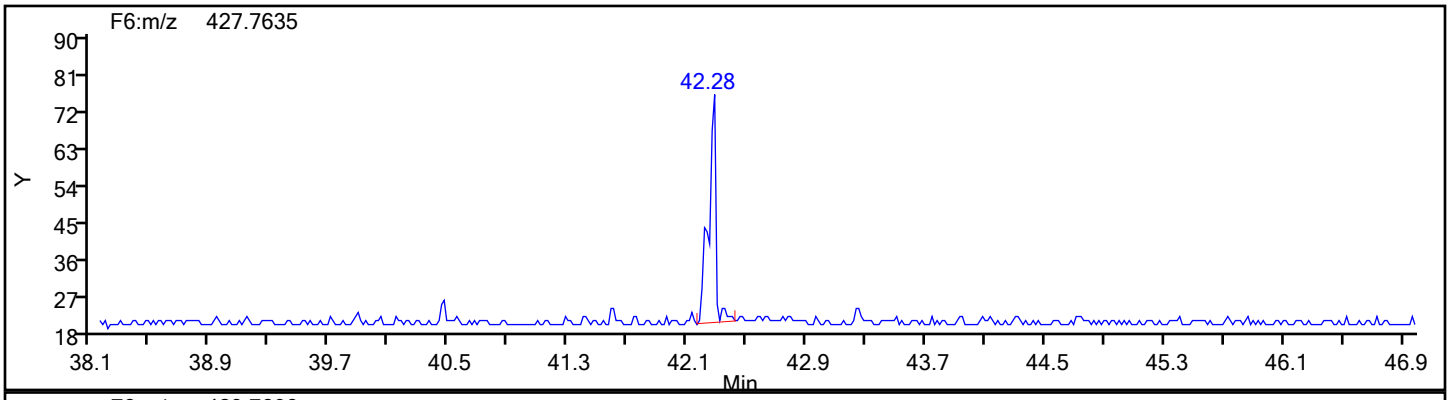
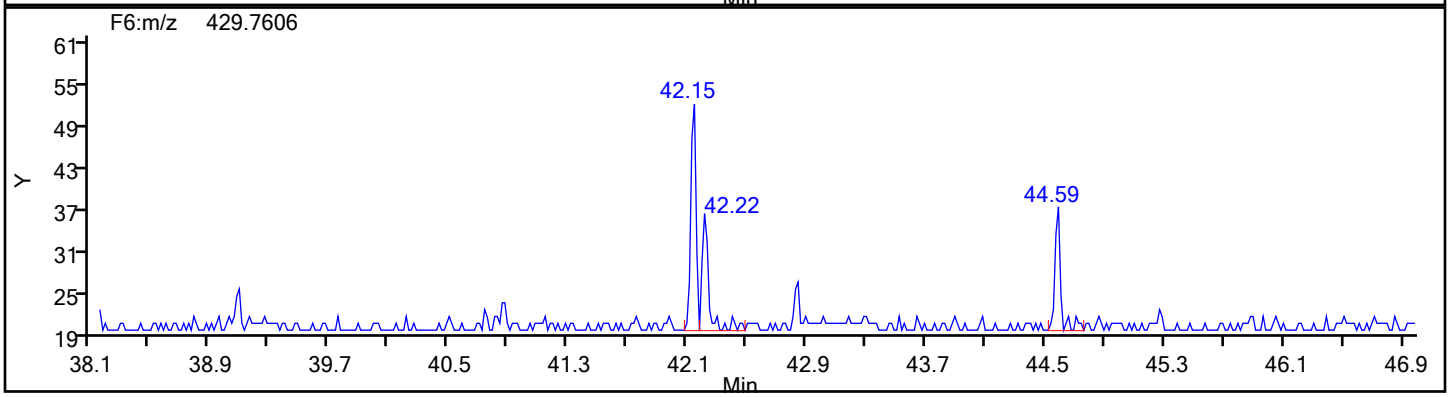
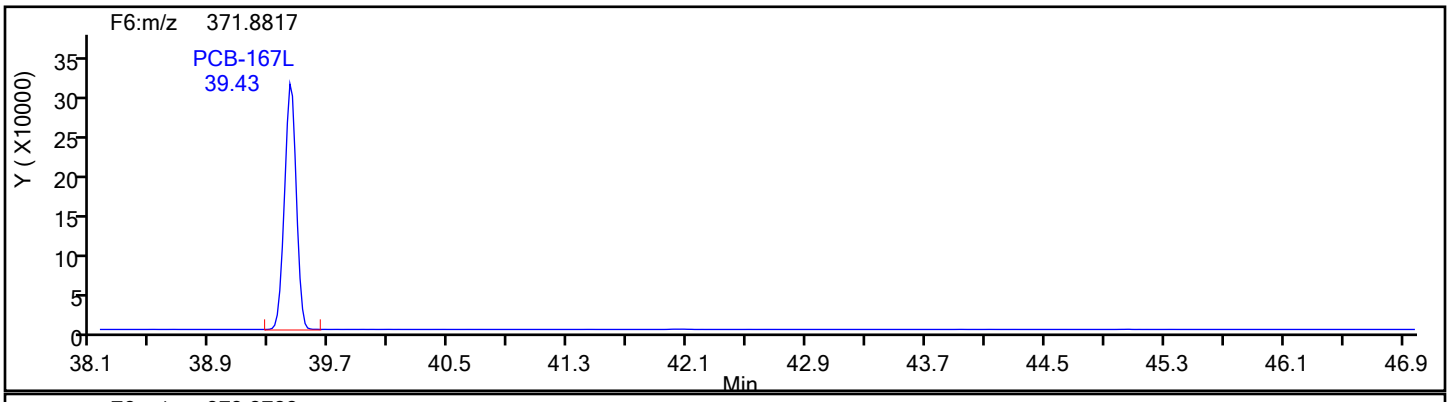
Column Type:	RTX-5	Column Dia:	0.32 mm

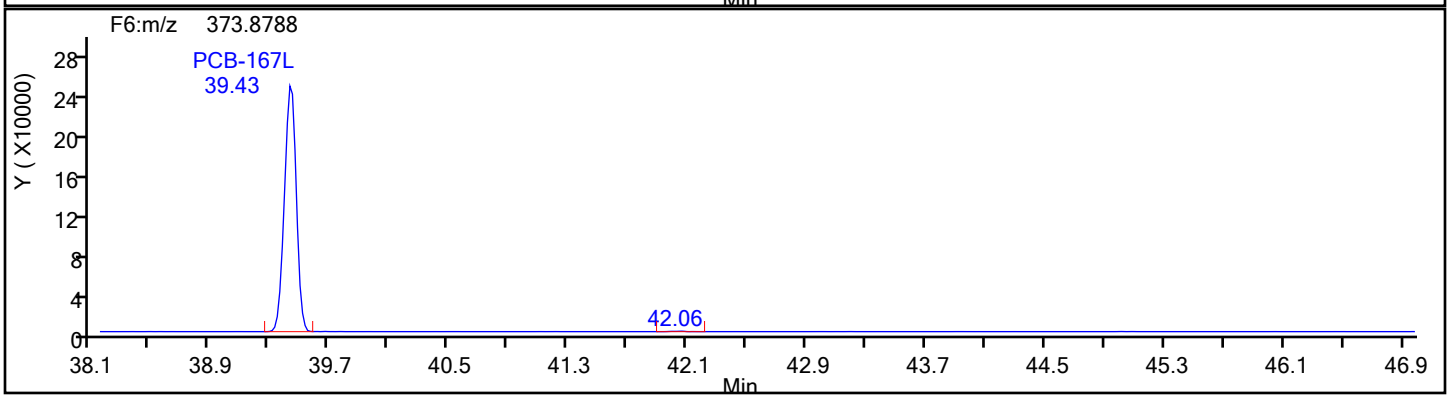
PCB-204





PCB-204 Standards





Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
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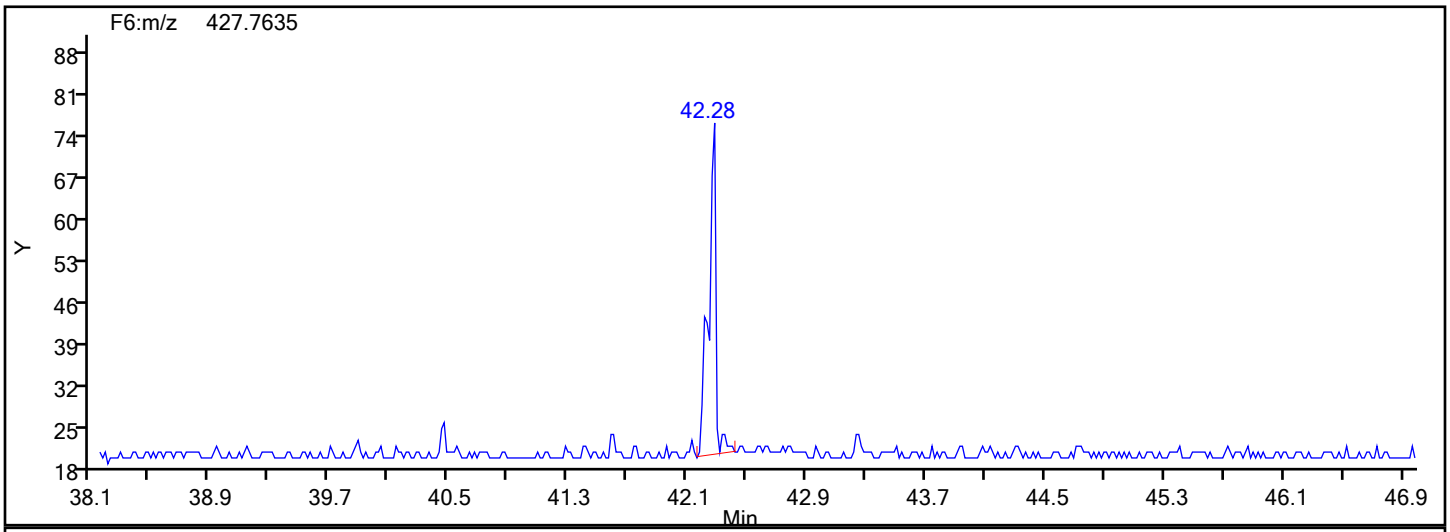
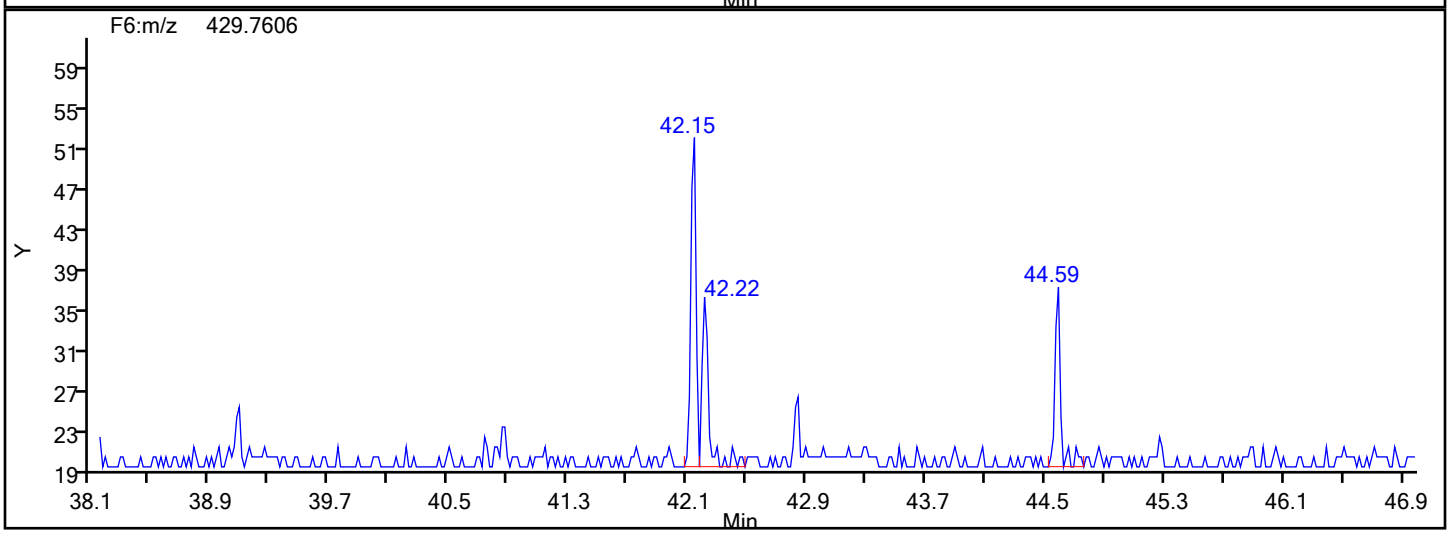
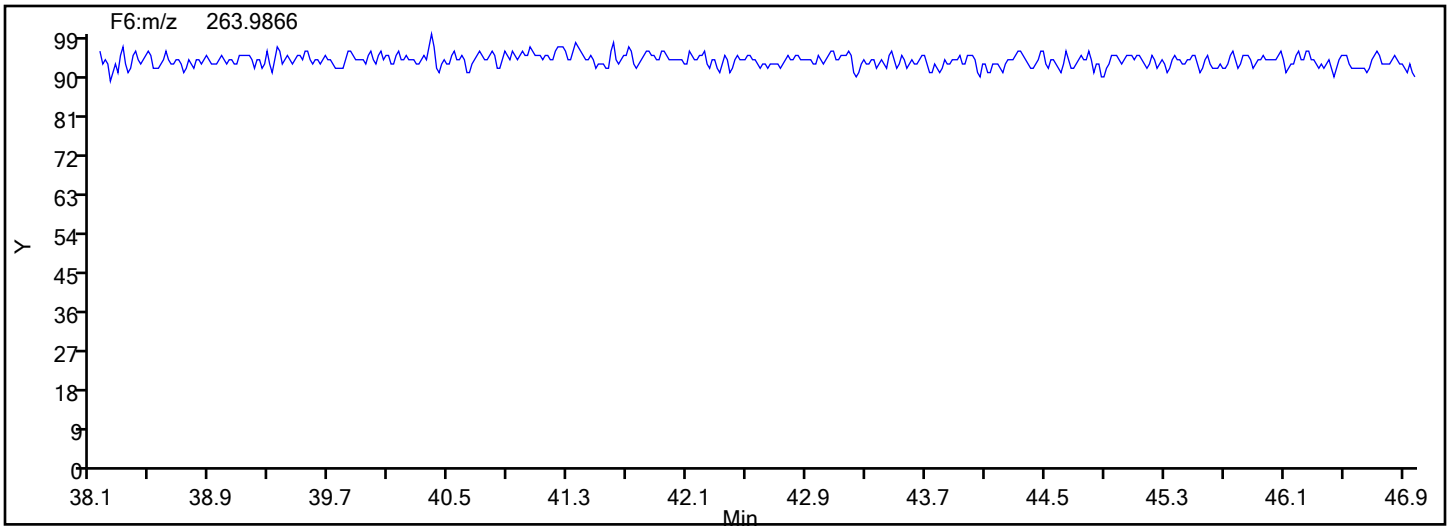
PCB-204





PCB-204 Lock Mass



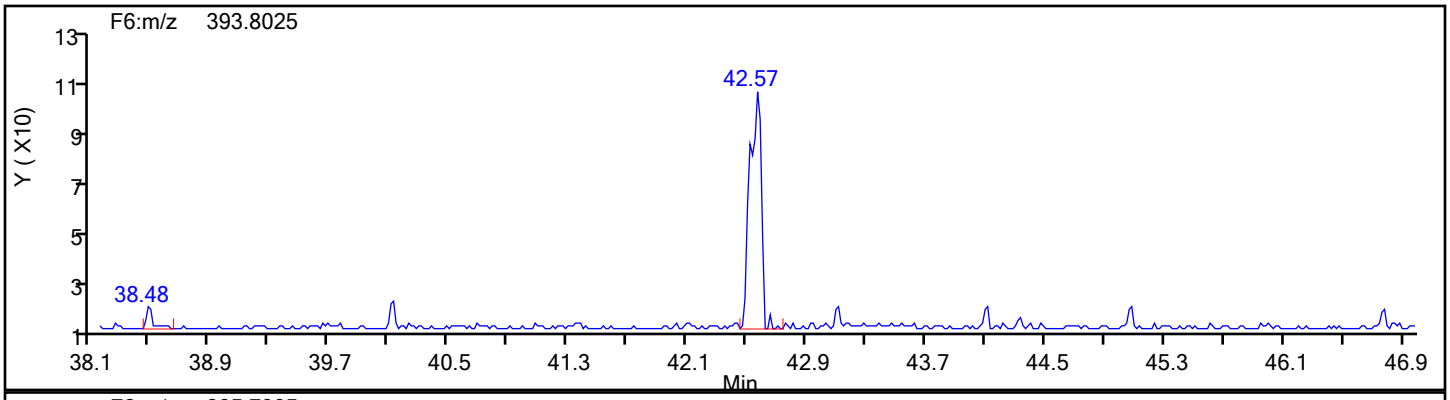
Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

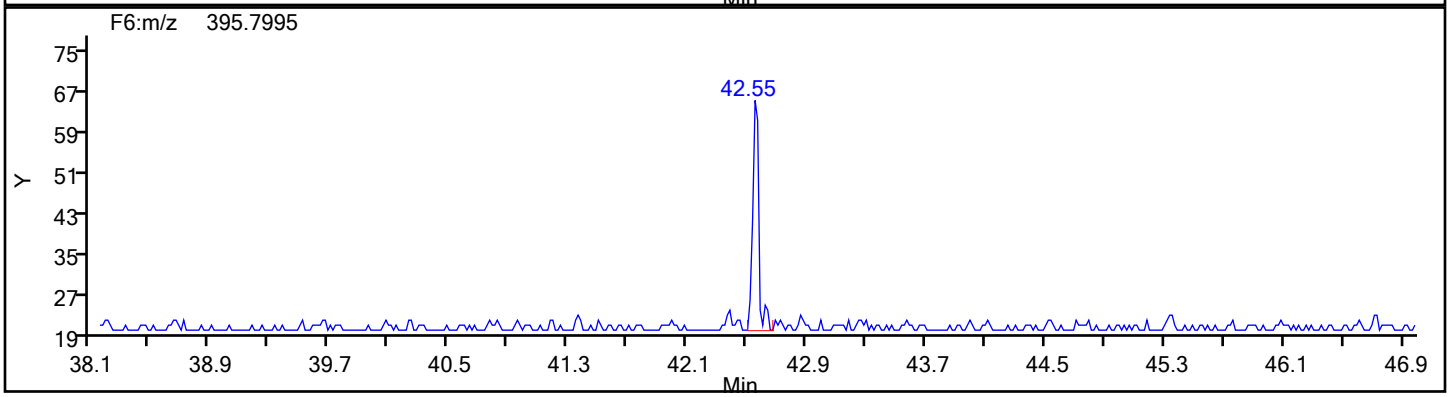
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

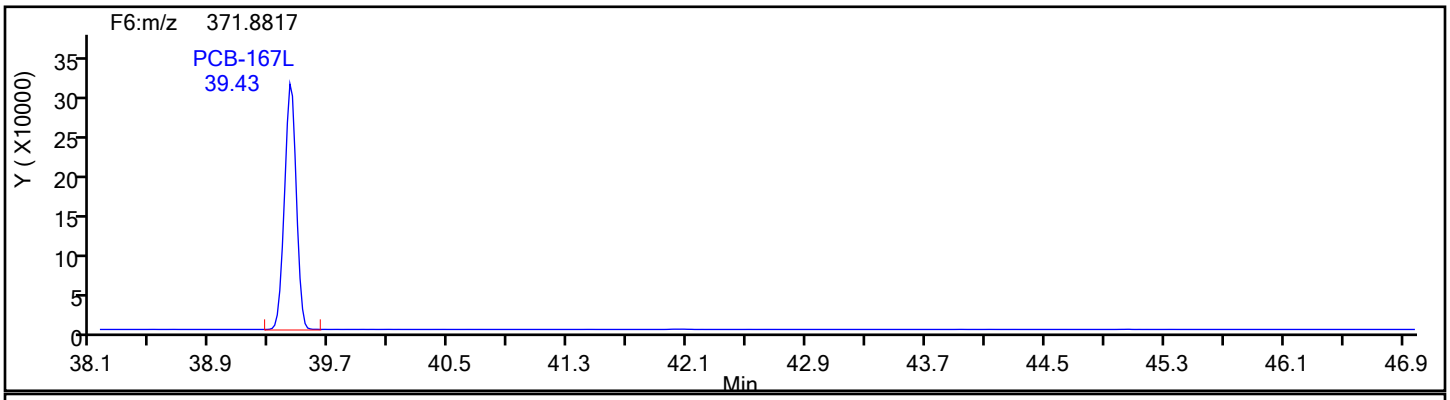
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

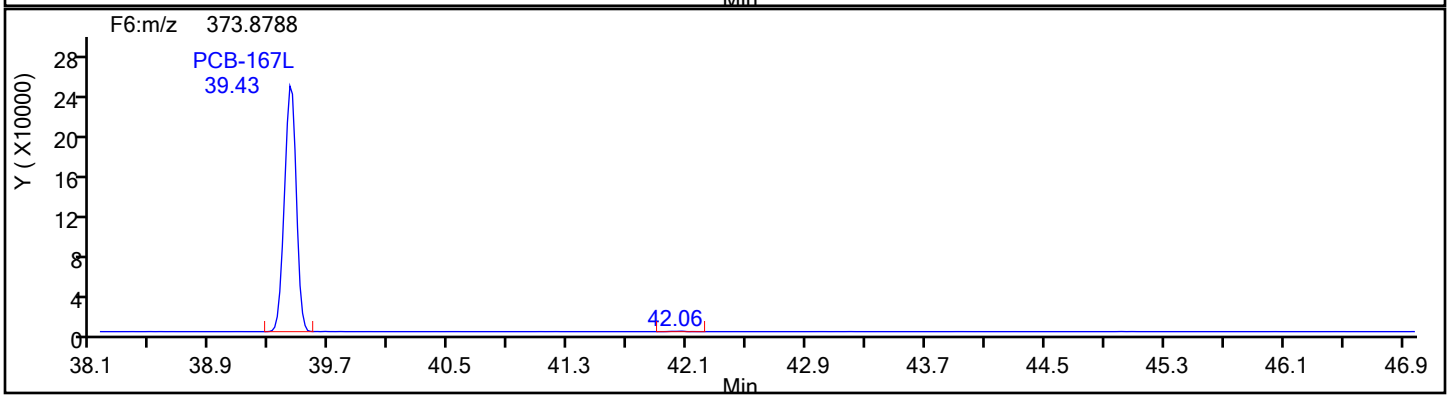
PCB-192





PCB-192 Standards





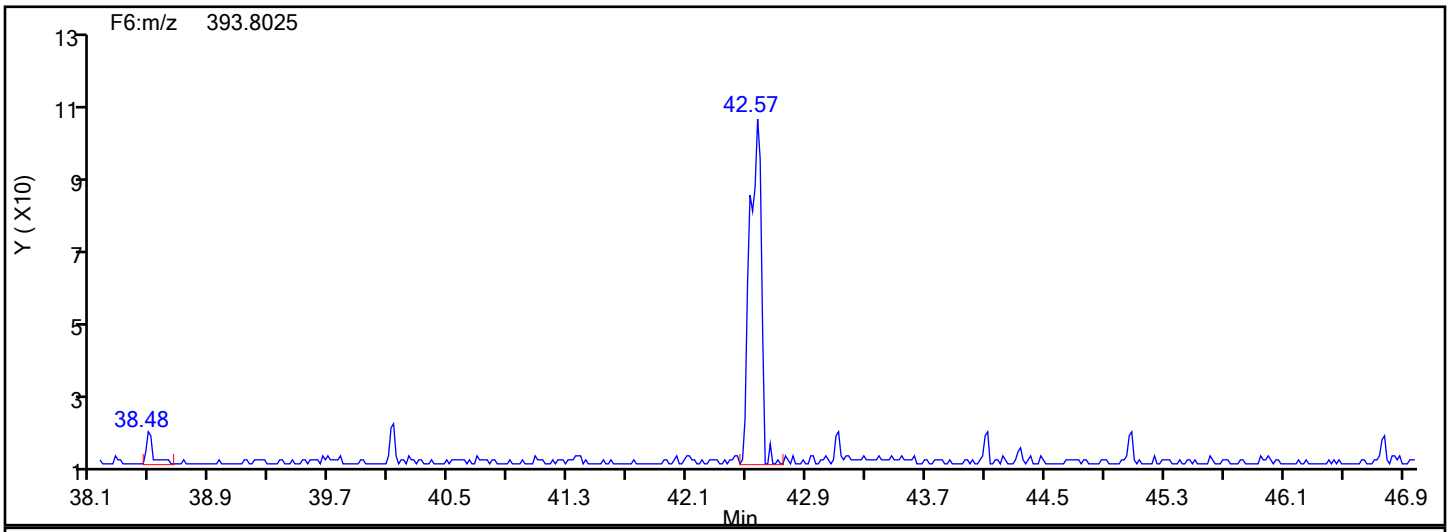
Report Date: 06-May-2025 18:03:49 Chrom Revision: 2.3 18-Apr-2025 15:35:42

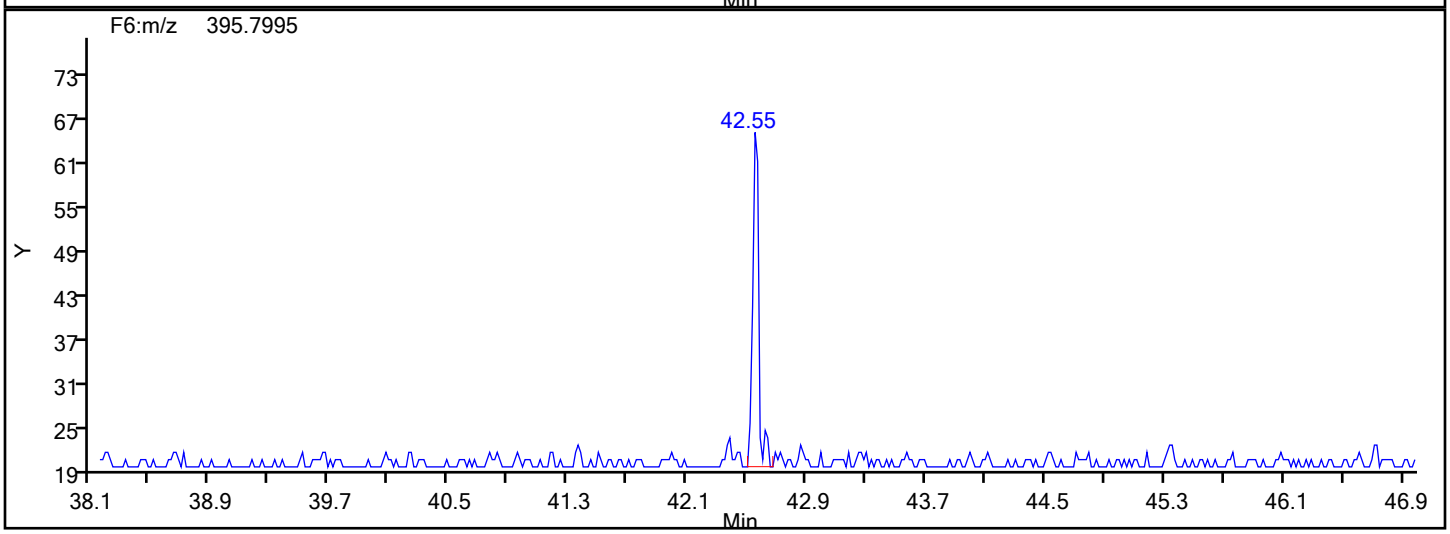
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250506-37657.b\d3250506p1a.d

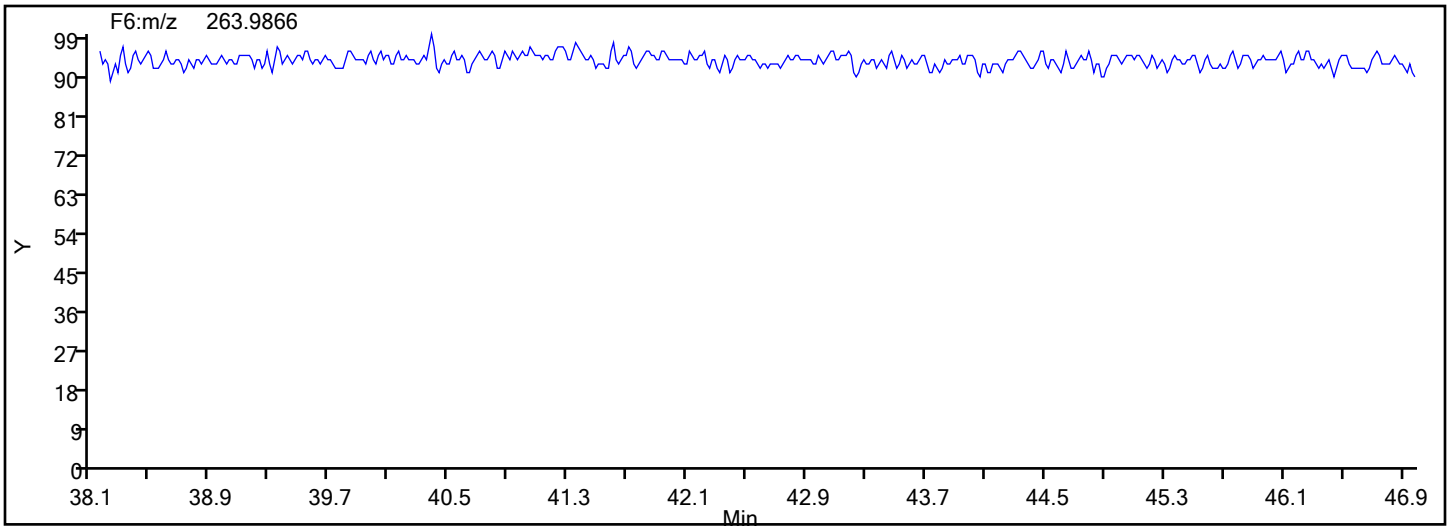
Injection Date:	06-May-2025 15:50:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	99325	Sample Line#:	1
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



FORM I
PESTICIDES ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville | Job No.: 140-40836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 140-97186/11-B

Matrix: Sediment | Lab File ID: mb140-9718611-b.d

Analysis Method: 1699 | Date Collected:

Extract. Method: Passive Sampler | Date Extracted: 03/12/2025 10:21

Sample wt/vol: 0.054(g) | Date Analyzed: 03/28/2025 14:57

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5(60x.32x25 ID: 0.32(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 97714 | Units: ng/g

Preparation Batch No.: 97186 | Instrument ID: D3PST

CAS NO.	COMPOUND NAME	RESULT	Q	RL	EDL
34883-41-5	PCB-14	ND		1.9	0.0019
74472-51-8	PCB-192	0.0158	J q	1.9	0.00066
74472-48-3	PCB-184	0.00167	J q	1.9	0.00043
33979-03-2	PCB-155	ND		1.9	0.0016
41411-61-4	PCB-142	0.00110	J q	1.9	0.00028
74472-52-9	PCB-204	0.00557	J	1.9	0.00068
56558-16-8	PCB-104	0.00270	J q	1.9	0.00017
56558-18-0	PCB-121	0.0140	J	1.9	0.0016
70362-49-1	PCB-78	0.00624	J	1.9	0.00097
38444-87-0	PCB-36	ND		1.9	0.0023

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Lims ID: MB 140-97186/11-B
Client ID:
Sample Type: MB
Inject. Date: 28-Mar-2025 14:57:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037030-008
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 13:39:24 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: TT6I Date: 31-Mar-2025 13:39:24

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-alpha BHC	17:26	6198061	0.80	0.1704	535.4	535.4	0.1808	0.1808	107	
alpha-BHC	17:25						0.0597	0.0597		
D 13C6-beta BHC	18:26	5601838	0.81	0.1244	662.8	662.8	0.2476	0.2476	133	
beta-BHC	18:24						0.0772	0.0772		
D 13C6-gamma BHC	18:42	6106225	0.81	0.1646	546.0	546.0	0.1872	0.1872	109	
gamma-BHC (Lindane)	18:44						0.0730	0.0730		U
D 13C6-delta BHC	19:41	4344387	0.83	0.0992	644.5	644.5	0.3105	0.3105	129	
delta-BHC	19:39						0.0995	0.0995		
D 13C10-Heptachlor	21:55	3270603	1.23	0.0715	673.2	673.2	0.004422	0.004422	135	
Heptachlor	21:55	1369	1.24	1.0864	0.2263	0.1926	0.002455	0.002455		RQ
D 13C6-Hexachlorobenzene	17:45	12993715	1.27	0.5041	379.4	379.4	0.000448	0.000448	75.87	
Hexachlorobenzene	17:45	392306	1.18	1.1568	13.0	13.0	0.000673	0.000673		
D 13C12-Aldrin	23:47	5234350	1.56	0.1384	556.5	556.5	0.1165	0.1165	111	
Aldrin	23:47	1781	1.55	1.0892	0.1562	0.1562	0.009060	0.009060		
D 13C10-oxy Chlordane	26:12	1148648	1.02	0.0481	904.4	904.4	0.0171	0.0171	181	
oxy-Chlordane	26:10						0.008163	0.008163		
D 13C10-cis Heptachlor Epoxide	26:09	3744603	1.27	0.1493	949.3	949.3	0.0220	0.0220	190	
Heptachlor epoxide	26:10	362	1.24	1.1461	0.1171	0.0422	0.002476	0.002476		RQ
D 13C12-2,4'-DDE	27:59	25272555	1.55	2.7345	349.7	349.7	0.0537	0.0537	69.94	
2,4'-DDE	27:59	3819	1.56	1.2831	0.1002	0.0589	0.0161	0.0161		RQM
D 13C10-trans Chlordane	27:41	2509066	1.30	0.1640	578.8	578.8	0.4171	0.4171	116	
trans-Chlordane	27:43	5284	0.97	1.1433	0.9210	0.9210	0.009365	0.009365		M
D 13C10-cis Chlordane	28:44	2457673	1.32	0.1741	534.0	534.0	0.3929	0.3929	107	
cis-Chlordane	28:47	3745	1.04	1.0551	0.7221	0.7221	0.0105	0.0105		
D 13C10-trans Nonachlor	29:04	1933778	1.29	0.1233	593.5	593.5	0.5549	0.5549	119	
trans-Nonachlor	29:04	1426	1.44	1.0780	0.3420	0.3420	0.0135	0.0135		M
D 13C9-Endosulfan I	28:34	940443	1.21	0.0555	640.9	640.9	1.232	1.232	128	
D 13C12-4,4'-DDE	30:13	19213931	1.57	1.8637	353.8	353.8	0.2421	0.2421	70.76	
4,4'-DDE	30:15	4961	1.56	1.2526	0.1252	0.1031	0.0207	0.0207		RQM
D 13C12-4,4'-DDD	33:31	19041096	1.52	1.1392	573.6	573.6	0.0983	0.0983	115	
4,4'-DDD	33:31	5031	1.66	1.2345	0.1070	0.1070	0.0252	0.0252		
D 13C12-2,4'-DDT	33:47	11805094	1.56	0.6754	599.8	599.8	0.1657	0.1657	120	
2,4'-DDT	33:46						0.0426	0.0426		
D 13C12-4,4'-DDT	36:39	9854828	1.53	0.5808	582.3	582.3	0.1927	0.1927	116	
4,4'-DDT	36:40	6483	1.62	1.2096	0.2719	0.2719	0.0510	0.0510		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C12-Dieldrin	30:26	2668243	1.55	0.1991	460.0	460.0	0.7296	0.7296	91.99	
Dieldrin	30:27	1083	1.55	1.0718	0.2545	0.1893	0.0169	0.0169		RQ
D 13C12-Endrin	32:06	103431	1.43	0.1181	30.1	30.1	1.230	1.230	6.01	
Endrin	32:09	236	1.55	1.0678	1.408	1.068	0.4020	0.4020		RQ
D 13C9-Endosulfan II	32:50	476247	1.25	0.0248	659.6	659.6	1.100	1.100	132	
Endosulfan II	32:52	223	1.51	1.0972	0.2134	0.2134	0.0254	0.0254		
D 13C12-Endrin Aldehyde	34:22	1174713	1.61	0.0237	1699.4	1699.4	1.697	1.697	340	
Endrin aldehyde	34:24	404	1.71	1.1278	0.1525	0.1525	0.0106	0.0106		
D 13C12-Methoxychlor	42:00	6597131	19.93	0.6709	337.4	337.4	0.3298	0.3298	67.49	
Methoxychlor	42:01	8855	4.96	1.3248	0.5066	0.5066	0.0372	0.0372		
D 13C11-Endrin Ketone	40:28	2430867	1.60	0.0648	1287.7	1287.7	0.4956	0.4956	258	
Endrin ketone	40:33	784	1.56	1.1546	0.1632	0.1397	0.005333	0.005333		RQ
D 13C10-Mirex	45:28	8693727	1.27	0.9459	515.8	515.8	0.1286	0.1286	103	
Mirex	45:31	1488	1.24	1.0234	0.1089	0.0836	0.001695	0.001695		RQ
* PCB-15L	19:07	6795158	1.58		100.0	100.0				
PCB-14	17:49						0.005155	0.005155		
* 13C6-Pentachlorophenol (IS)	19:00	418	3.22		500.0	500.0				
Pentachlorophenol	18:44	953	1.39	0.8359						
PCB-36	22:10						0.006181	0.006181		
* PCB-101L	28:10	2642759	1.59		100.0	100.0				
PCB-104	23:47	354	1.55	1.8372	0.0104	0.007291	0.000447	0.000447		RQ
* PCB-118L	32:51	2913954	1.63		100.0	100.0				
PCB-121	26:47	1610	1.36	1.4622	0.0378	0.0378	0.004391	0.004391		
* PCB-138L	37:03	1781981	1.28		100.0	100.0				
PCB-142	27:35	107	1.24	2.0271	0.0112	0.002962	0.000756	0.000756		RQM
Endosulfan I	28:34	4518	1.55	1.0931	5.358	2.197	0.0359	0.0359		RQ
* PCB-60L	27:47	4097387	0.79		100.0	100.0				
PCB-78	29:26	632	0.85	0.9153	0.0169	0.0169	0.002618	0.002618		
D 13C12-2,4'-DDD	30:54	21651811	1.53	1.3487	550.9	550.9	0.3387	0.3387	110	
2,4'-DDD	30:55	4678	1.48	1.1763	0.0918	0.0918	0.0148	0.0148		
D 13C10-cis Nonachlor	33:51	1382178	1.30	0.0944	502.4	502.4	0.2977	0.2977	100	
cis-Nonachlor	33:55	539	1.24	1.0758	0.2233	0.1812	0.008660	0.008660		RQ
D 13C9-Endosulfan sulfate	36:22	2552727	1.24	0.1517	577.6	577.6	0.1854	0.1854	116	
Endosulfan sulfate	36:25	581	1.24	1.0831	0.1383	0.1051	0.004920	0.004920		RQ
* PCB-167L	39:32	2120755	1.27		100.0	100.0				
PCB-155	34:00						0.004431	0.004431		
PCB-184	34:44	111	1.05	1.1610	0.0110	0.004508	0.001169	0.001169		RQ
PCB-204	42:21	235	0.99	0.7364	0.0150	0.0150	0.001843	0.001843		
PCB-192	42:40	690	1.05	0.7635	0.0708	0.0426	0.001778	0.001778		RQ
PCB-169	0.0						0.0	0.0		
DDMU	0.0						0.0	0.0		
S DDTR							0.000100	0.000100		
DDNU	0.0						0.0	0.0		
* PCB-52L	0.0									
Endrin aldehyde_T	0.0						0.0	0.0		
4,4'-DDT_T	0.0						0.0	0.0		
S Total Chlordane							0.000100	0.000100		
Endrin_T	0.0						0.0	0.0		
Endrin ketone_T	0.0						0.0	0.0		
4,4'-DDE_T	0.0						0.0	0.0		
* PCB-126L	0.0									
4,4'-DDD_T	0.0						0.0	0.0		
DDM	0.0						0.0	0.0		

QC Flag Legend

Processing Flags
- R - Failed Signal Ratio Test
- Q - EMPC-Estimated Max. Possible Conc.

Review Flags
- M - Manually Integrated
- U - Marked Undetected

Eurofins Knoxville
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Lims ID: MB 140-97186/11-B
Client ID:
Sample Type: MB
Inject. Date: 28-Mar-2025 14:57:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Misc. Info.: 140-0037030-008
Operator ID: Xcalibur_System Instrument ID: D3PST

Method: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\1699__D3PST.m
Limit Group: HR - 1699 - ICAL
Last Update: 31-Mar-2025 13:39:24 Calib Date: 20-Mar-2025 01:05:00
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\D3PST\20250318-36907.b\d3250319ic9.d

Column 1 : RTX-5 (0.32 mm) Det: F1(16.03 :20.12)
Process Host: CTX1653

First Level Reviewer: TT6I Date: 31-Mar-2025 13:39:24

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-alpha BHC											
222.9342	17:26	17:24	1	0.912	2763683	1023604	228	570	4489		
224.9317	17:26	17:24	1	0.912	3434378	1271787	45	112	28262	0.80(0.58-0.96)	
alpha-BHC											
216.9145	17:24						1	2			
218.9116	17:24						119	297			
13C6-beta BHC											
222.9342	18:26	18:24	2	0.964	2507295	860218	228	570	3773		
224.9317	18:26	18:24	2	0.964	3094543	1071739	45	112	23816	0.81(0.58-0.96)	
beta-BHC											
216.9145	18:24						1	2			
218.9116	18:24						119	297			
13C6-gamma BHC											
222.9342	18:42	18:40	2	0.979	2734206	950468	228	570	4169		
224.9317	18:42	18:40	2	0.979	3372019	1145644	45	112	25459	0.81(0.58-0.96)	
gamma-BHC (Lindane)											U
216.9145	18:41						1	2			
218.9116	18:41						119	297			
13C6-delta BHC											
222.9342	19:41	19:39	2	1.029	1970199	610278	228	570	2677		
224.9317	19:41	19:39	2	1.029	2374188	731110	45	112	16247	0.83(0.58-0.96)	
delta-BHC											
216.9145	19:39						1	2			
218.9116	19:39						119	297			
13C10-Heptachlor											
276.8270	21:55	21:53	2	1.146	1806068	521588	1	2	521588		
278.8240	21:55	21:53	2	1.146	1464535	415935	2	5	207968	1.23(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Heptachlor											RQ
271.8102	21:55	21:53	2	1.001	758	200	1	2	200		
273.8072	21:55	21:53	1	1.000	850	292	1	2	292	0.89(0.93-1.55)	
	Empc Correction				611	161	1	2	161		
13C6-Hexachlorobenzene											
289.8303	17:45	17:43	2	0.929	7272974	2499272	1	2	2499272		
291.8273	17:45	17:43	2	0.929	5720741	1999510	1	2	1999510	1.27(0.93-1.55)	
Hexachlorobenzene											
283.8107	17:45	17:44	2	1.000	212580	76103	1	2	76103		
285.8072	17:45	17:44	2	1.000	179726	65288	2	5	32644	1.18(0.93-1.55)	
13C12-Aldrin											
269.8805	23:47	23:45	2	1.244	3190968	829131	81	202	10236		
271.8775	23:47	23:45	2	1.244	2043382	538899	62	155	8692	1.56(1.16-1.94)	
Aldrin											
262.8569	23:47	23:45	1	1.000	1082	225	4	10	56		
264.8540	23:49	23:45	4	1.002	699	189	7	17	27	1.55(1.16-1.94)	
13C10-oxy Chlordane											
396.8388	26:12	26:10	2	0.930	580085	141014	1	2	141014		
398.8358	26:12	26:10	2	0.930	568563	136395	1	2	136395	1.02(0.78-1.30)	
oxy-Chlordane											
386.8052	26:10						1	2			
388.8023	26:10						1	2			
13C10-cis Heptachlor Epoxide											
362.8778	26:09	26:07	2	0.929	2093735	488251	5	12	97650		
364.8748	26:09	26:07	2	0.929	1650868	392891	3	7	130964	1.27(0.93-1.55)	
Heptachlor epoxide											RQ
352.8442	26:10	26:09	1	1.001	843	282	1	2	282		
	Empc Correction				200	100	1	2	100		
354.8413	26:12	26:09	3	1.002	162	81	1	2	81	5.20(0.93-1.55)	
13C12-2,4'-DDE											
258.0406	27:59	27:56	3	0.994	15353664	3360845	242	605	13888		
260.0376	27:59	27:56	3	0.994	9918891	2144638	116	290	18488	1.55(1.17-1.95)	
2,4'-DDE											RQM
246.0003	27:59	27:59	1	1.000	5007	918	87	217	11		M
	Empc Correction				2327	619	87	217	7		
247.9974	28:01	27:59	3	1.001	1492	397	4	10	99	3.36(1.17-1.95)	
13C10-trans Chlordane											
276.8270	27:41	27:39	2	0.983	1418520	317830	107	267	2970		
278.8240	27:41	27:39	2	0.983	1090546	242543	60	150	4042	1.30(0.93-1.55)	
trans-Chlordane											M
271.8102	27:43	27:43	2	1.001	2607	719	4	10	180		M
273.8072	27:42	27:43	1	1.000	2677	613	1	2	613	0.97(0.93-1.55)	
13C10-cis Chlordane											
276.8270	28:44	28:42	2	1.020	1396359	309157	107	267	2889		
278.8240	28:44	28:42	2	1.020	1061314	234436	60	150	3907	1.32(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Chlordane											
271.8102	28:47	28:44	4	1.002	1909	372	4	10	93		
273.8072	28:46	28:44	3	1.001	1836	563	1	2	563	1.04(0.93-1.55)	
13C10-trans Nonachlor											
276.8270	29:04	29:01	3	1.032	1088386	232684	107	267	2175		
278.8240	29:04	29:01	3	1.032	845392	179618	60	150	2994	1.29(0.93-1.55)	
trans-Nonachlor											M
271.8102	29:04	29:04	1	1.000	842	211	4	10	53		M
273.8072	29:06	29:04	4	1.001	584	168	1	2	168	1.44(0.93-1.55)	
13C9-Endosulfan I											
276.8270	28:34	28:32	2	1.014	514605	114798	107	267	1073		
278.8240	28:34	28:32	2	1.014	425838	101629	60	150	1694	1.21(0.93-1.55)	
13C12-4,4'-DDE											
258.0406	30:13	30:10	3	0.920	11734011	2485199	643	1607	3865		
260.0376	30:13	30:10	3	0.920	7479920	1602927	397	992	4038	1.57(1.17-1.95)	
4,4'-DDE											RQM
246.0003	30:15	30:15	3	1.001	4089	717	78	195	9		M
	Empc Correction				3023	833	78	195	11		
247.9974	30:14	30:15	2	1.000	1938	534	7	17	76	2.11(1.17-1.95)	
13C12-4,4'-DDD											
247.0484	33:31	33:28	2	1.020	11496989	2178452	170	425	12814		
249.0454	33:31	33:28	2	1.020	7544107	1437024	88	220	16330	1.52(1.17-1.95)	
4,4'-DDD											
235.0081	33:31	33:29	1	1.000	3143	449	65	162	7		
237.0052	33:34	33:29	4	1.002	1888	288	25	62	12	1.66(1.17-1.95)	
13C12-2,4'-DDT											
247.0484	33:47	33:45	2	1.028	7186671	1347247	170	425	7925		
249.0454	33:47	33:45	2	1.028	4618423	887728	88	220	10088	1.56(1.17-1.95)	
2,4'-DDT											
235.0081	33:48						65	162			
237.0052	33:48						25	62			
13C12-4,4'-DDT											
247.0484	36:39	36:37	2	1.116	5964744	1107653	170	425	6516		
249.0454	36:39	36:37	2	1.116	3890084	716427	88	220	8141	1.53(1.16-1.94)	
4,4'-DDT											
235.0081	36:40	36:38	2	1.000	4012	622	65	162	10		
237.0052	36:40	36:38	2	1.000	2471	557	25	62	22	1.62(1.17-1.95)	
13C12-Dieldrin											
269.8805	30:26	30:24	2	0.926	1623306	332093	289	722	1149		
271.8775	30:26	30:24	2	0.926	1044937	219853	46	115	4779	1.55(1.16-1.94)	
Dieldrin											RQ
262.8570	30:27	30:26	0	1.000	1031	186	4	10	47		
	Empc Correction				658	103	4	10	26		
264.8540	30:29	30:26	3	1.002	425	67	4	10	17	2.43(1.16-1.94)	
13C12-Endrin											
269.8805	32:06	32:04	2	0.977	60838	13173	289	722	46		
271.8775	32:06	32:04	2	0.977	42593	10122	46	115	220	1.43(1.16-1.94)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Endrin											RQ
262.8570	32:09	32:06	3	1.001	144	55	4	10	14		
264.8540	32:09	32:06	4	1.002	167	64	4	10	16	0.86(1.16-1.94)	
	Empc Correction				92	35	4	10	9		
13C9-Endosulfan II											
276.8270	32:50	32:48	3	1.000	264516	49762	43	107	1157		
278.8240	32:50	32:48	3	1.000	211731	40113	20	50	2006	1.25(0.93-1.55)	
Endosulfan II											
271.8102	32:52	32:49	3	1.001	134	62	1	2	62		
273.8072	32:50	32:49	1	1.000	89	31	1	2	31	1.51(0.93-1.55)	
13C12-Endrin Aldehyde											
356.9391	34:22	34:20	2	1.046	724479	130519	41	102	3183		
358.9361	34:22	34:20	2	1.046	450234	79002	52	130	1519	1.61(1.17-1.95)	
Endrin aldehyde											
344.8988	34:24	34:22	2	1.001	255	89	1	2	89		
346.8959	34:24	34:22	2	1.001	149	31	1	2	31	1.71(1.16-1.94)	
13C12-Methoxychlor											
239.1475	42:00	41:57	3	1.279	6281910	1113443	410	1025	2716		
240.1510	41:59	41:57	2	1.278	315221	52707	100	250	527	19.93(0.00-0.00)	
Methoxychlor											
227.1072	42:01	42:00	2	1.000	7370	1259	34	85	37		
228.1106	42:01	42:00	2	1.000	1485	192	12	30	16	4.96(4.69-7.81)	
13C11-Endrin Ketone											
327.9408	40:28	40:25	3	1.232	1495820	249670	51	127	4895		
329.9379	40:28	40:25	3	1.232	935047	156345	23	57	6798	1.60(1.19-1.98)	
Endrin ketone											RQ
316.9039	40:33	40:29	4	1.002	478	64	1	2	64		
318.9010	40:29	40:29	1	1.000	438	76	1	2	76	1.09(1.16-1.95)	
	Empc Correction				306	41	1	2	41		
13C10-Mirex											
276.8270	45:28	45:26	2	1.227	4866542	807886	90	225	8977		
278.8240	45:28	45:26	2	1.227	3827185	633242	69	172	9177	1.27(0.93-1.55)	
Mirex											RQ
271.8102	45:31	45:27	4	1.001	824	133	1	2	133		
273.8072	45:32	45:27	6	1.001	1113	143	1	2	143	0.74(0.93-1.55)	
	Empc Correction				664	107	1	2	107		
PCB-15L											
234.0406	19:07	19:05	2		4166454	1356462	18	45	75359		
236.0376	19:07	19:05	2		2628704	857586	9	22	95287	1.58(1.16-1.93)	
PCB-14											
222.0003	17:50						36	90			
223.9974	17:50						26	65			
13C6-Pentachlorophenol (IS)											
269.8666	19:00	18:49	11		319	167	1	2	167		
271.8636	19:06	18:49	16		99	66	1	2	66	3.22(0.00-0.00)	

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Pentachlorophenol											
263.8464	18:44	18:20	13	0.986	555	307	25	62	12		
265.8435	18:46	18:20	15	0.988	398	206	7	17	29	1.39(0.00-0.00)	
PCB-36											
255.9613	22:13						27	67			
257.9584	22:13						29	72			
PCB-101L											
337.9207	28:10	28:08	2		1622857	378824	4	10	94706		
339.9178	28:10	28:08	2		1019902	230695	1	2	230695	1.59(1.16-1.94)	
PCB-104											RQ
325.8804	23:47	23:44	3	0.844	367	158	1	2	158		
	Empc Correction				215	111	1	2	111		
327.8775	23:49	23:44	5	0.845	139	72	1	2	72	2.64(1.32-1.78)	
PCB-118L											
337.9207	32:51	32:48	3		1807477	361667	22	55	16439		
339.9178	32:51	32:48	3		1106477	214575	15	37	14305	1.63(1.16-1.94)	
PCB-121											
325.8804	26:47	26:44	4	0.815	927	271	7	17	39		
327.8775	26:42	26:44	-2	0.812	683	165	8	20	21	1.36(1.32-1.78)	
PCB-138L											
371.8817	37:03	37:00	2		999883	183552	6	15	30592		
373.8788	37:03	37:00	2		782098	142760	5	12	28552	1.28(1.16-1.94)	
PCB-142											RQM
359.8415	27:35	27:33	5	0.745	357	137	1	2	137		M
	Empc Correction				59	31	1	2	31		
361.8385	27:33	27:33	3	0.744	48	25	1	2	25	7.44(1.05-1.43)	M
Endosulfan I											RQ
262.8570	28:34	28:34	0	1.000	9243	2067	2	5	1034		
	Empc Correction				2746	626	2	5	313		
264.8540	28:33	28:34	0	1.000	1772	404	5	12	81	5.22(1.16-1.94)	
PCB-60L											
301.9626	27:47	27:45	2		1812259	404530	19	47	21291		
303.9597	27:47	27:45	2		2285128	513712	23	57	22335	0.79(0.58-0.96)	
PCB-78											
289.9224	29:26	29:23	4	1.060	291	90	5	12	18		
291.9194	29:26	29:23	3	1.059	341	143	4	10	36	0.85(0.65-0.89)	
13C12-2,4'-DDD											
247.0484	30:54	30:52	2	0.941	13085734	2727593	604	1510	4516		
249.0454	30:54	30:52	2	0.941	8566077	1770692	449	1122	3944	1.53(1.17-1.95)	
2,4'-DDD											
235.0081	30:55	30:53	2	1.000	2789	622	43	107	14		
237.0052	30:55	30:53	2	1.000	1889	427	20	50	21	1.48(1.17-1.95)	
13C10-cis Nonachlor											
276.8270	33:51	33:48	3	1.031	781883	150356	36	90	4177		
278.8240	33:51	33:48	3	1.031	600295	118004	29	72	4069	1.30(0.93-1.55)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
cis-Nonachlor											RQ
271.8102	33:55	33:51	5	1.002	423	142	1	2	142		
	Empc Correction				298	110	1	2	110		
273.8072	33:53	33:51	3	1.001	241	89	1	2	89	1.76(0.93-1.55)	
13C9-Endosulfan sulfate											
276.8270	36:22	36:18	3	1.107	1412419	260583	36	90	7238		
278.8240	36:22	36:18	3	1.107	1140308	208559	29	72	7192	1.24(0.93-1.55)	
Endosulfan sulfate											RQ
271.8102	36:25	36:20	5	1.001	322	46	1	2	46		
273.8072	36:21	36:20	0	1.000	443	80	1	2	80	0.73(0.93-1.55)	
	Empc Correction				259	37	1	2	37		
PCB-167L											
371.8817	39:32	39:29	3		1184718	205154	10	25	20515		
373.8788	39:32	39:29	3		936037	163184	6	15	27197	1.27(1.16-1.94)	
PCB-155											
359.8415	34:03						4	10			
361.8385	34:03						2	5			
PCB-184											RQ
393.8025	34:44	34:40	4	0.878	57	21	1	2	21		
395.7995	34:42	34:40	2	0.877	213	84	1	2	84	0.27(0.89-1.21)	
	Empc Correction				54	20	1	2	20		
PCB-204											
427.7635	42:21	42:18	3	1.071	117	36	1	2	36		
429.7606	42:20	42:18	2	1.070	118	30	1	2	30	0.99(0.76-1.02)	
PCB-192											RQ
393.8025	42:40	42:38	3	1.079	810	187	1	2	187		
	Empc Correction				353	79	1	2	79		
395.7995	42:43	42:38	7	1.080	337	76	1	2	76	2.40(0.89-1.21)	
PCB-169											
216.9145	0.0						1	2			
DDMU											
216.9145	0.0						1	2			
DDNU											
216.9145	0.0						1	2			
PCB-52L											
	0.0										
Endrin aldehyde_T											
	0.0										
4,4'-DDT_T											
	0.0										
Endrin_T											
	0.0										
Endrin ketone_T											
	0.0										
4,4'-DDE_T											
	0.0										

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags

PCB-126L
0.0

4,4'-DDD_T
0.0

DDM
0.0

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
Q - EMPC-Estimated Max. Possible Conc.
Review Flags
M - Manually Integrated
U - Marked Undetected

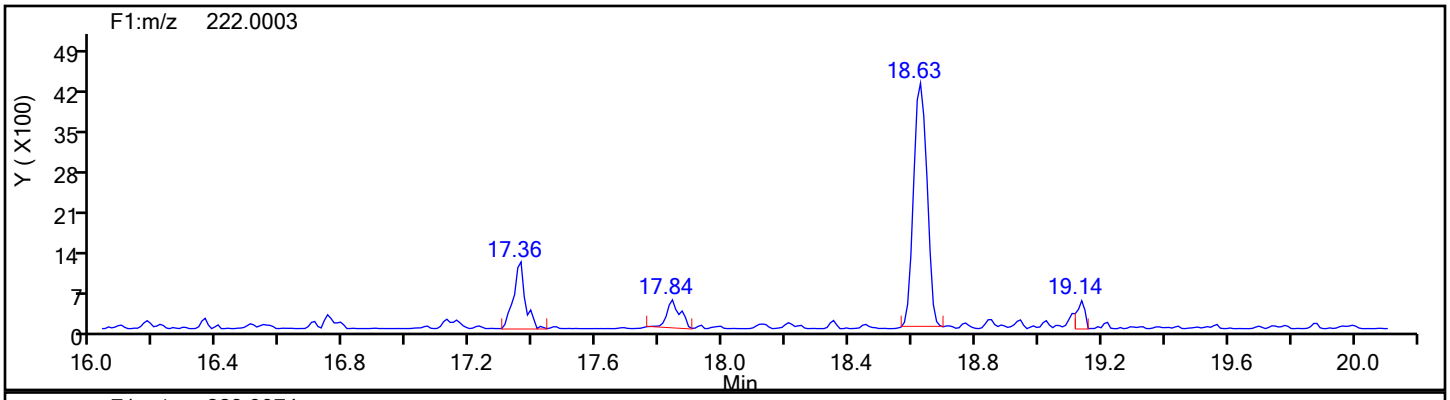
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

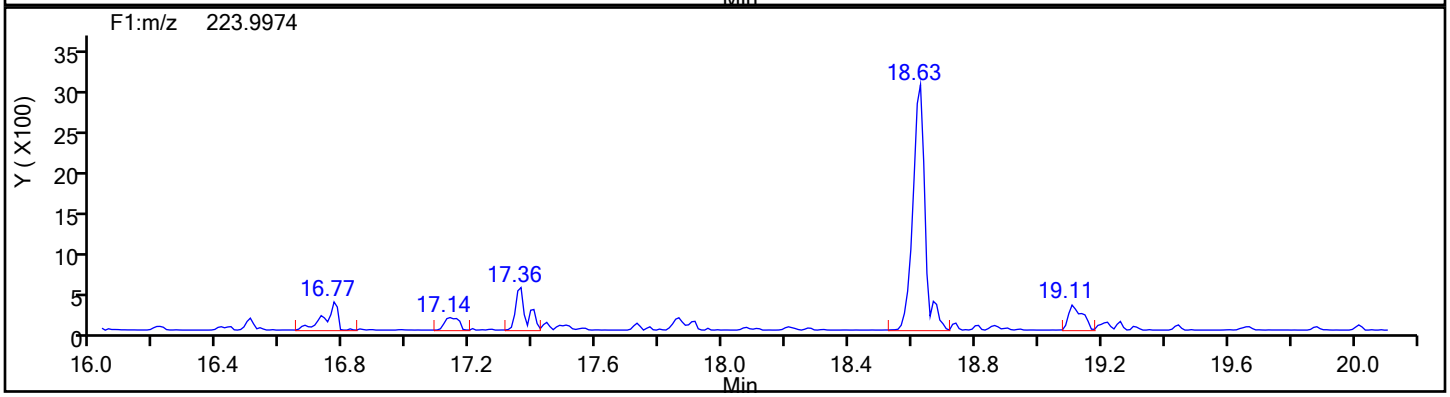
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

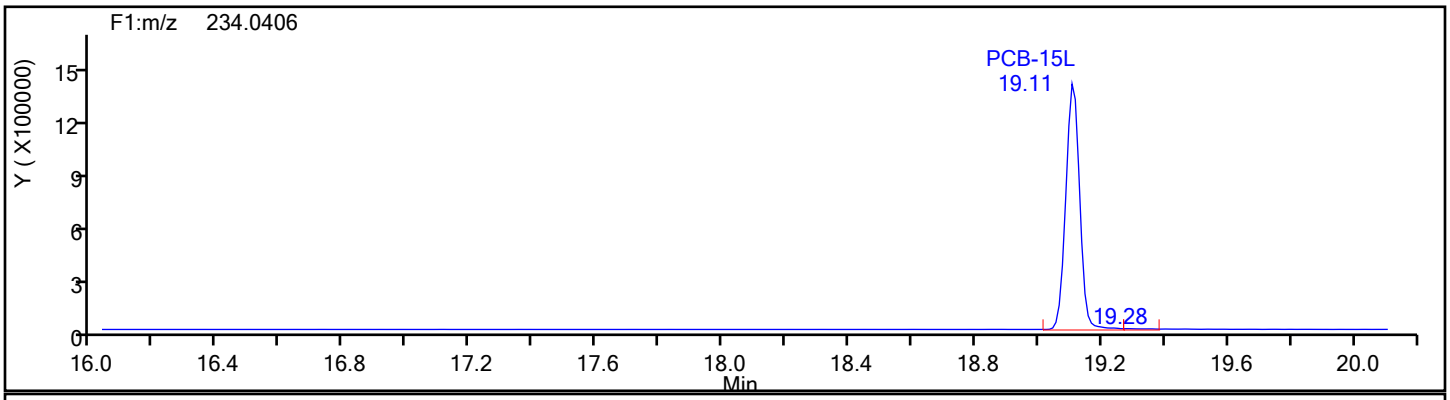
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

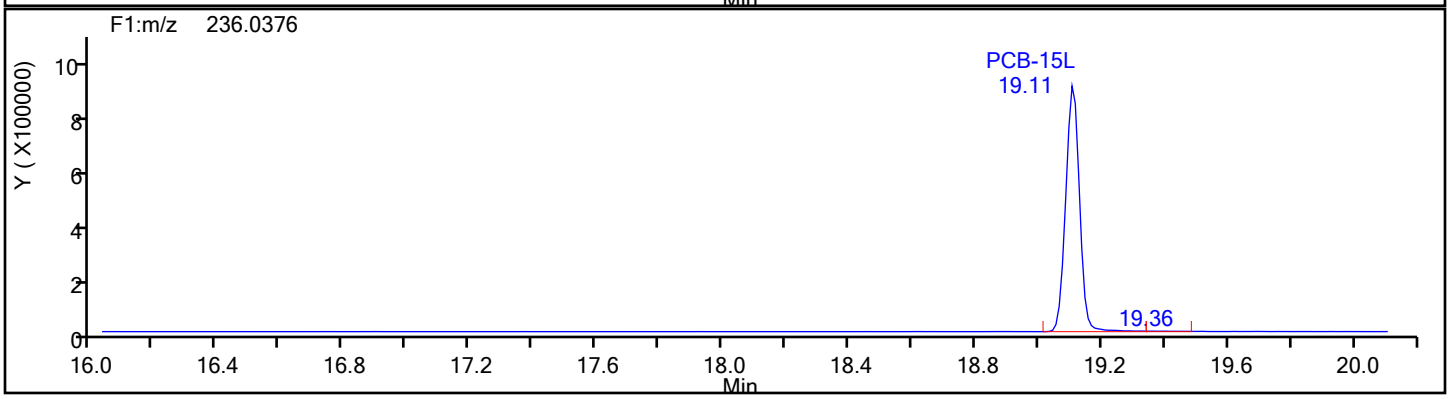
PCB-14





PCB-14 Standards



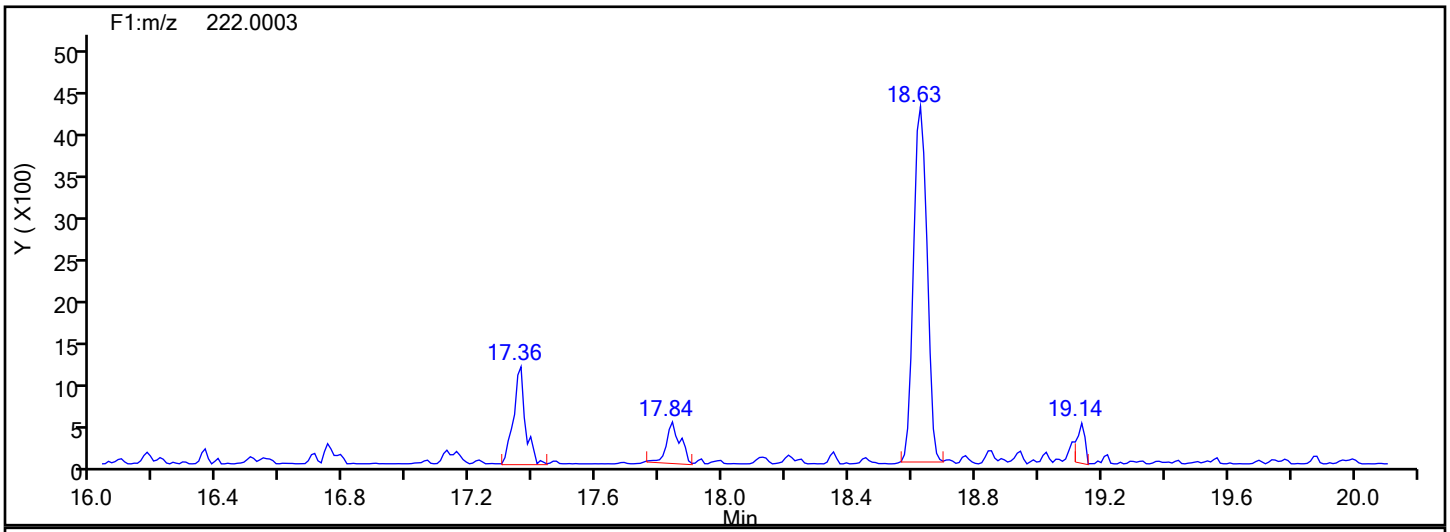


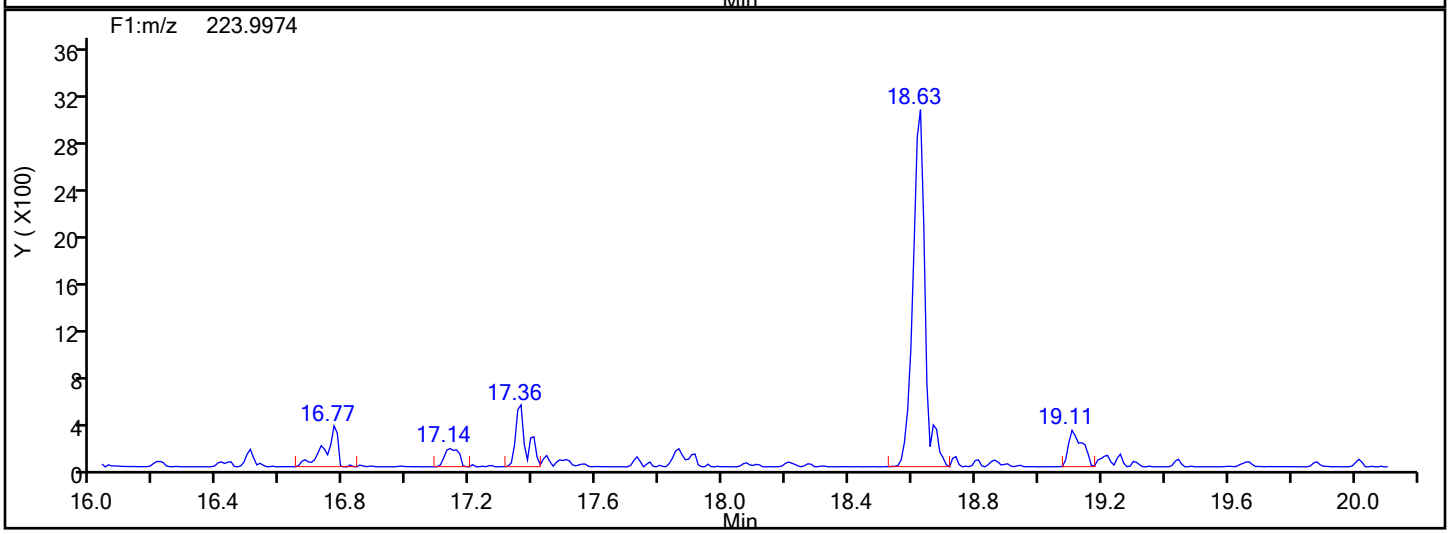
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

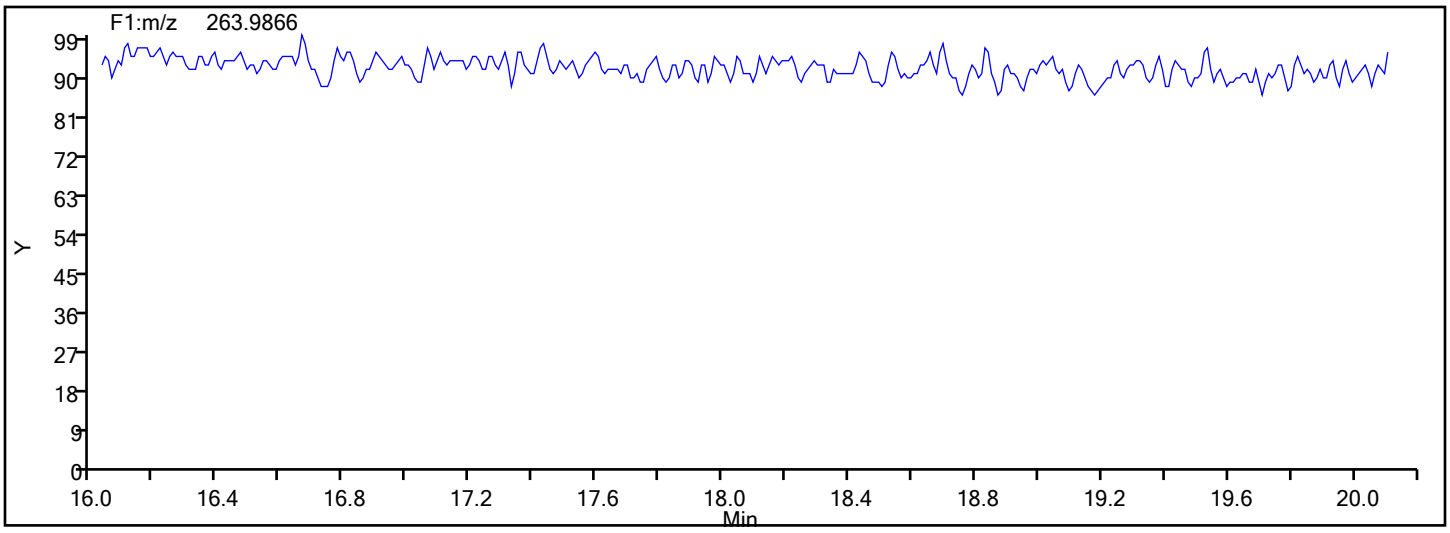
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-14





PCB-14 Lock Mass



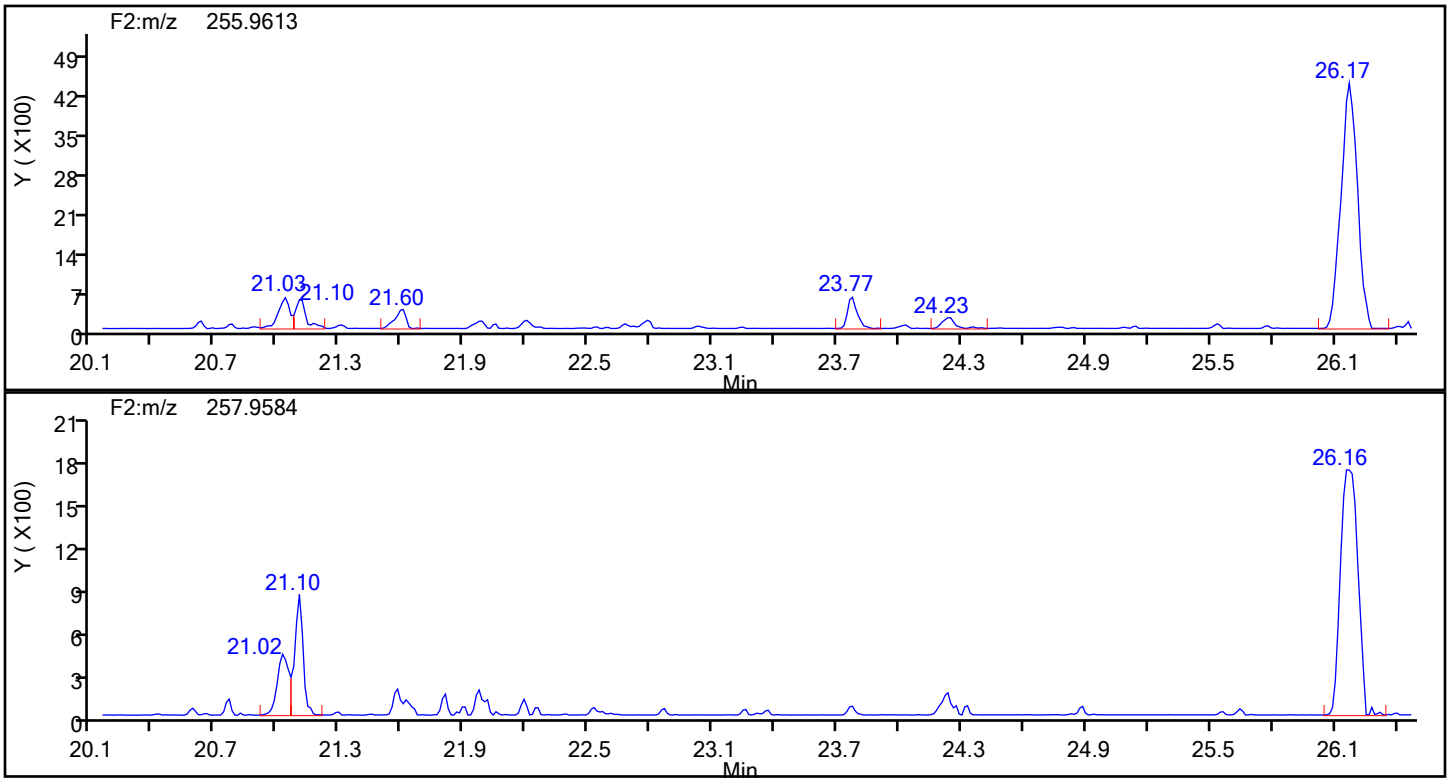
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

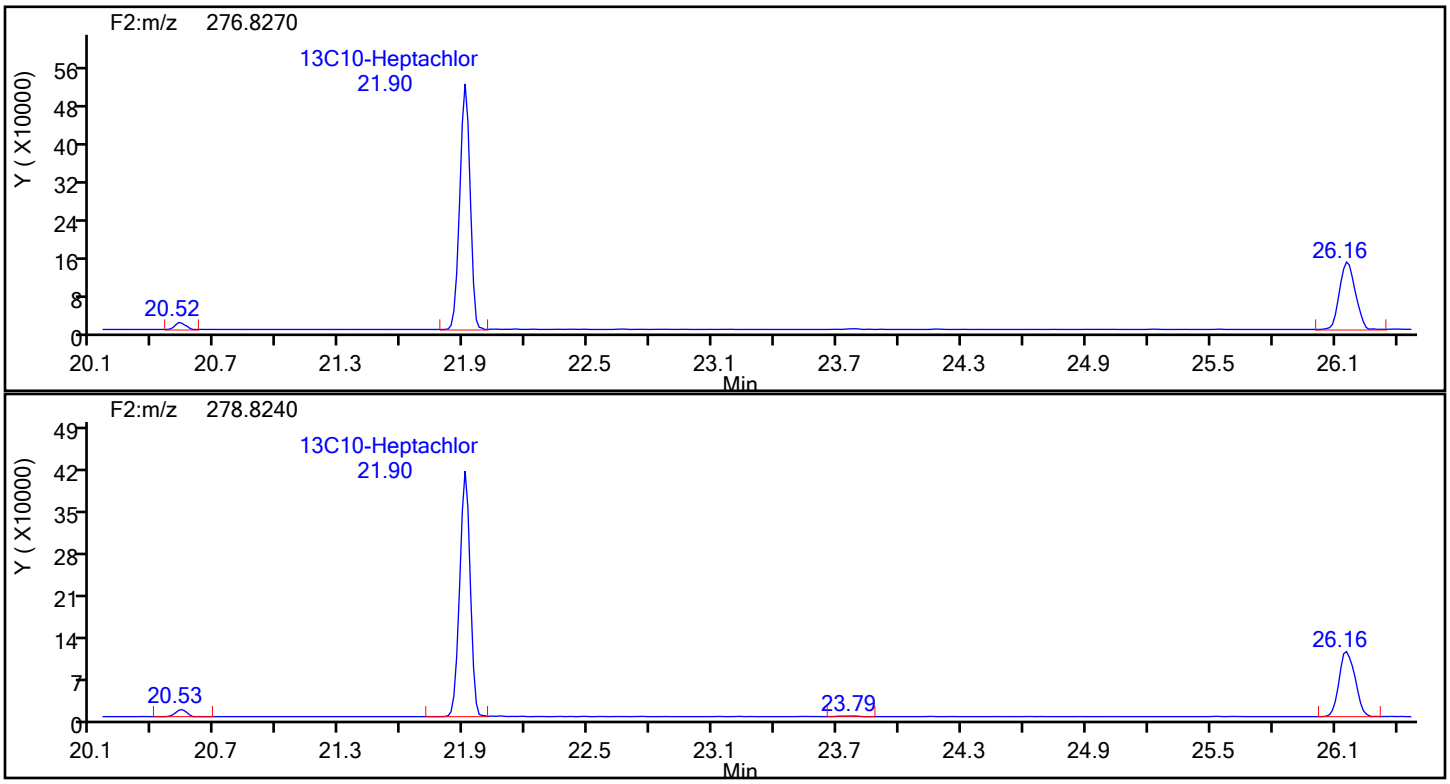
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-36



PCB-36 Standards

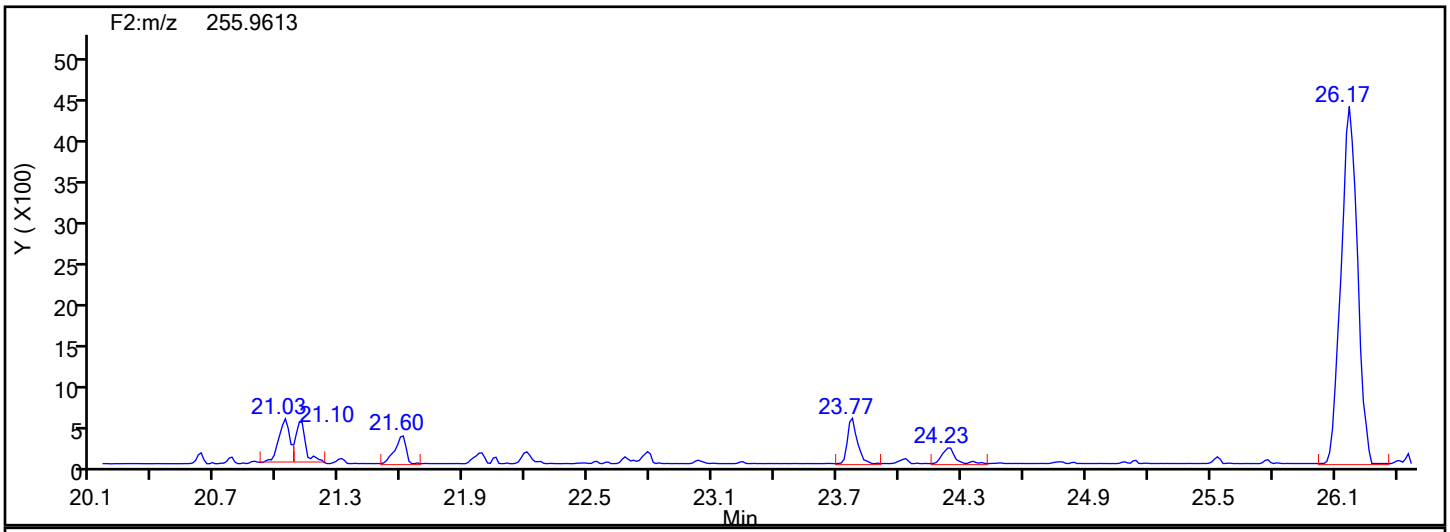


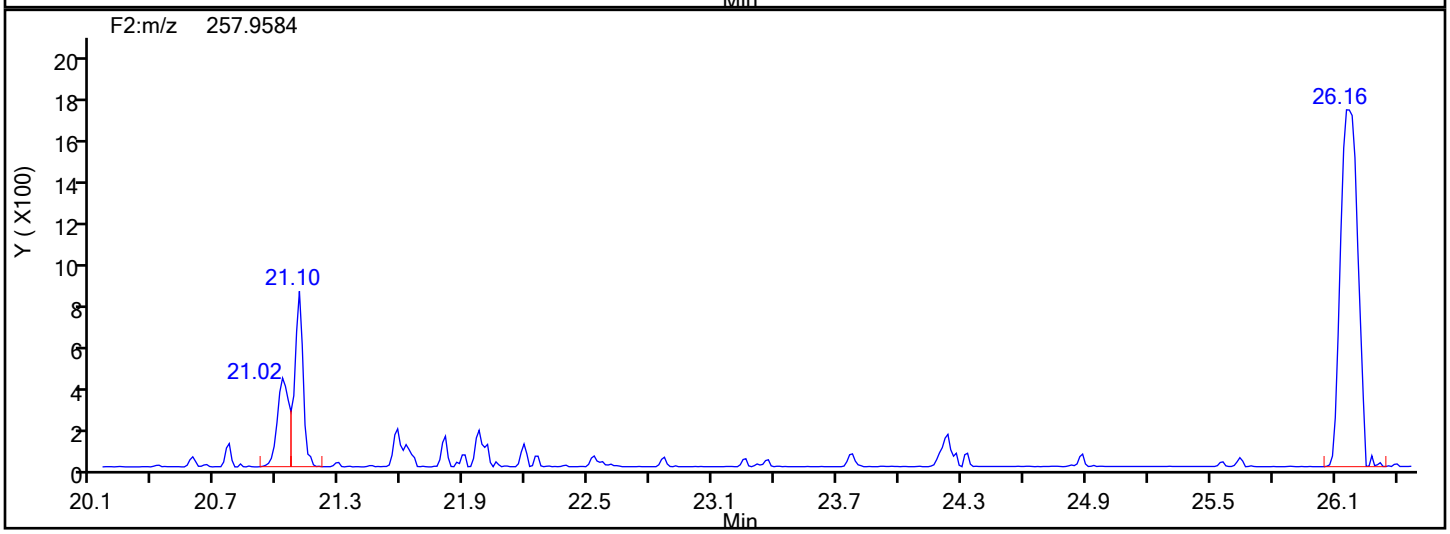
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

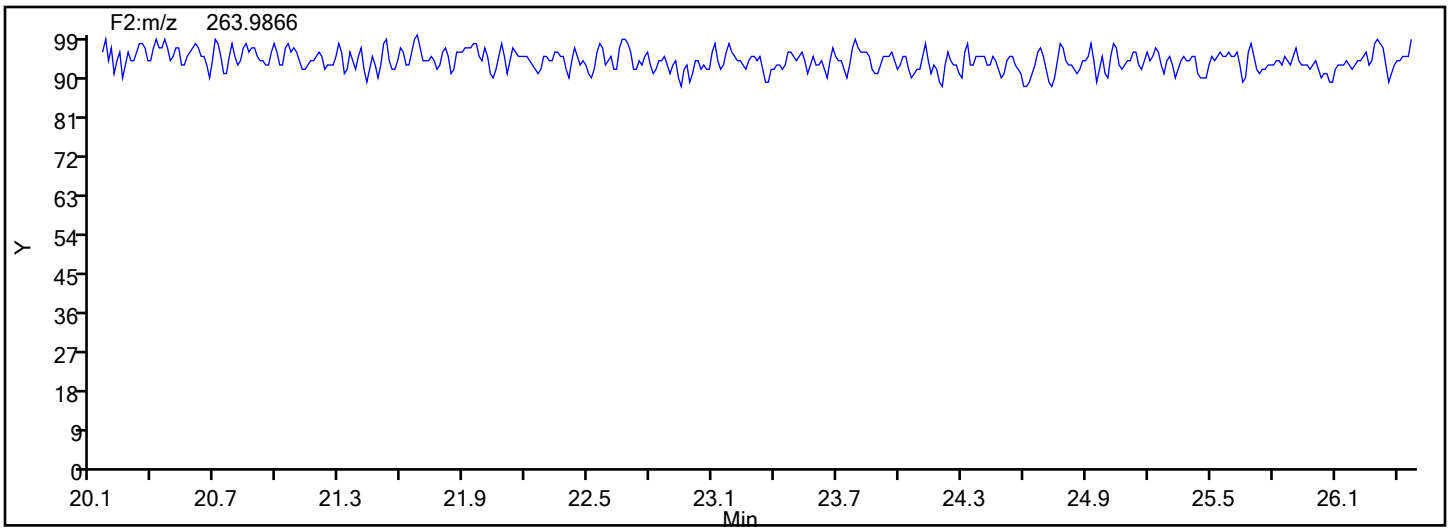
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-36





PCB-36 Lock Mass



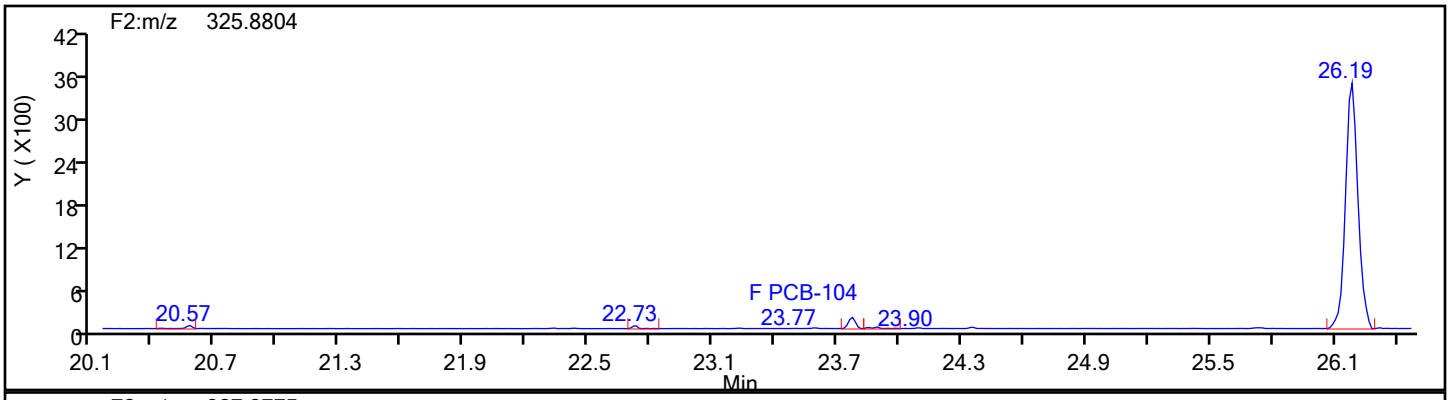
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

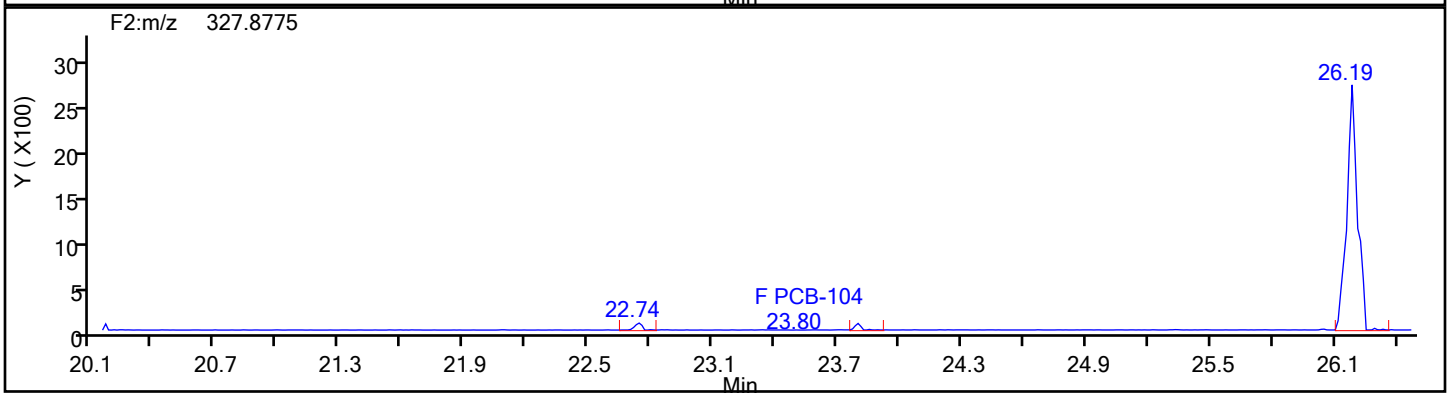
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

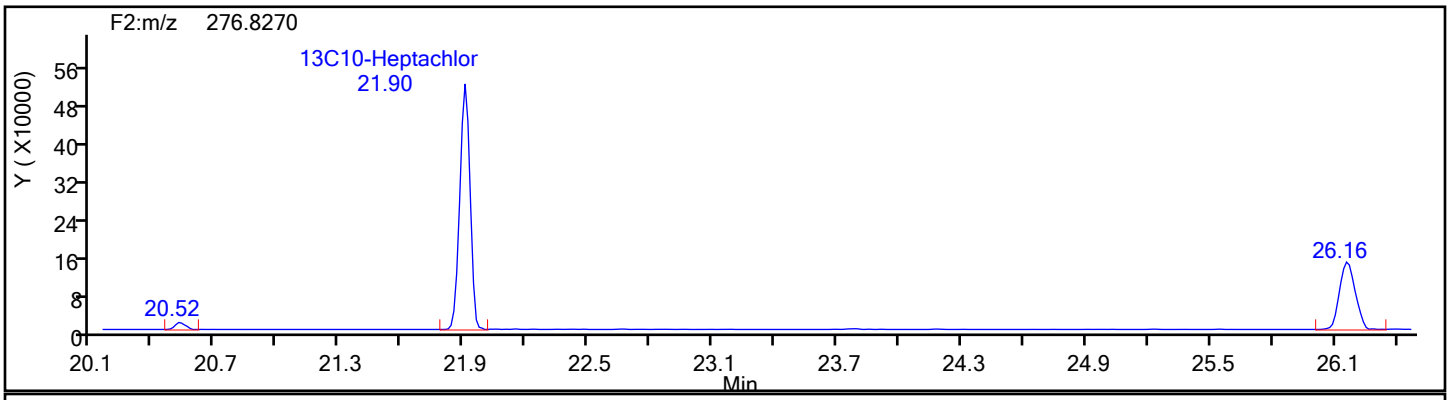
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

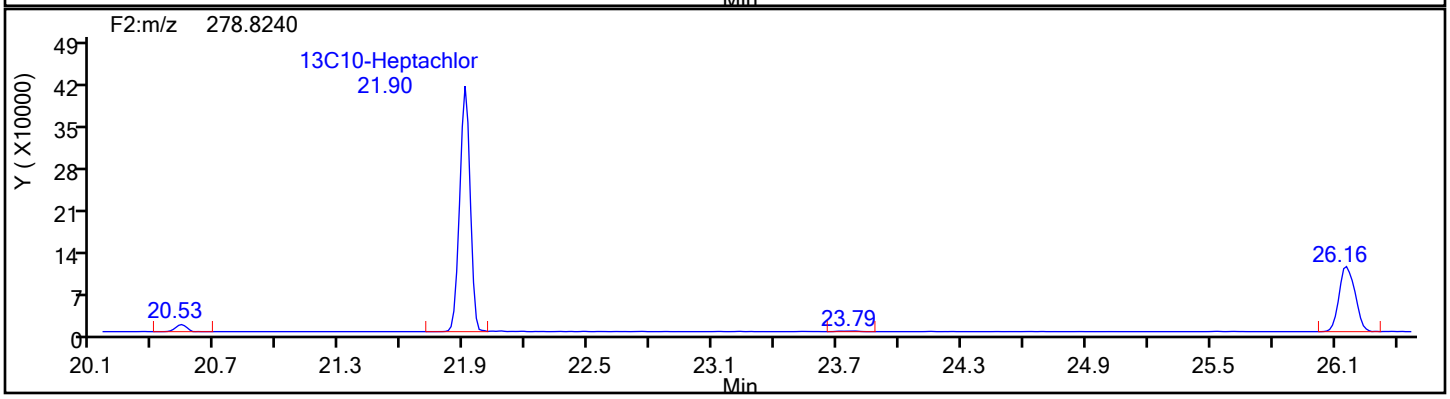
PCB-104





PCB-104 Standards



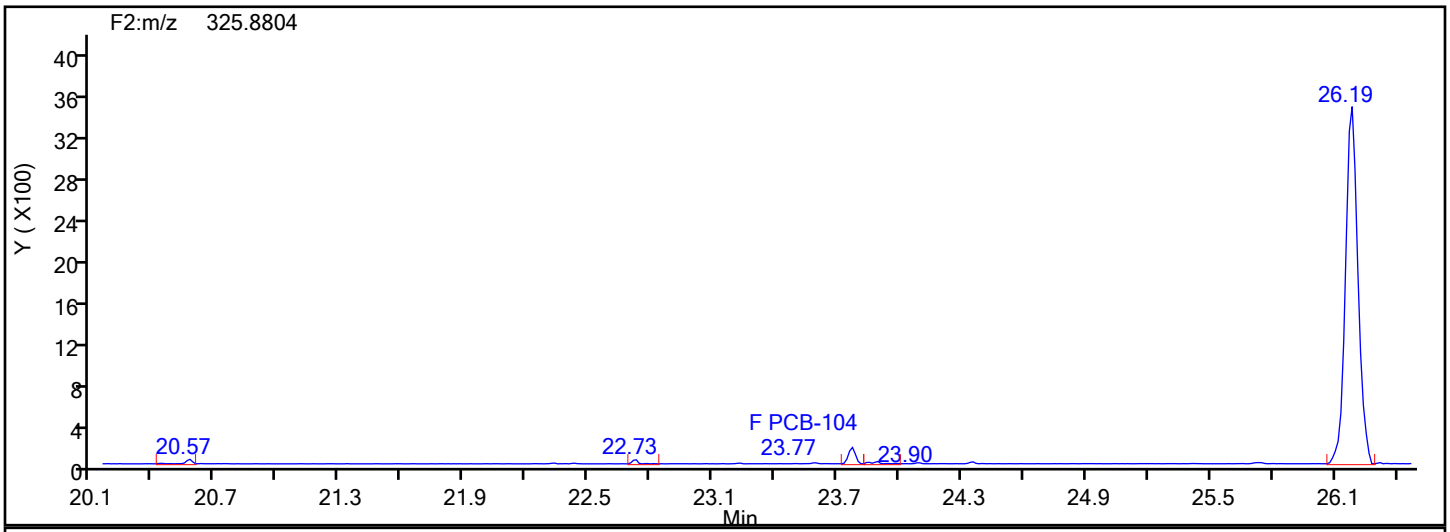


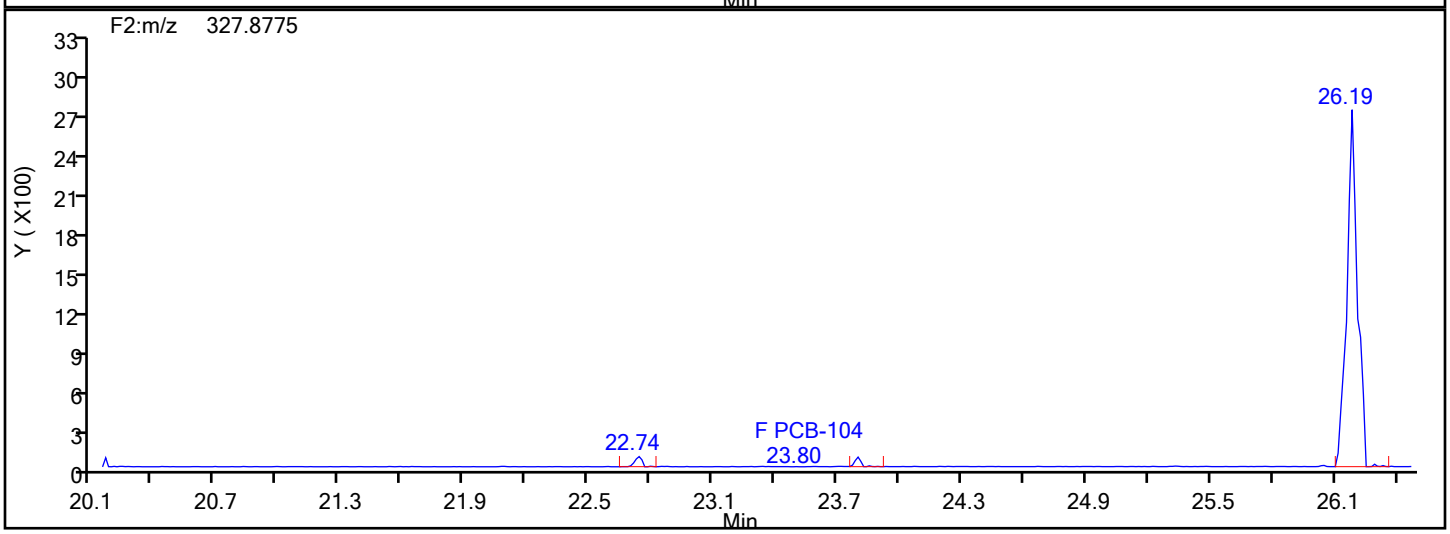
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

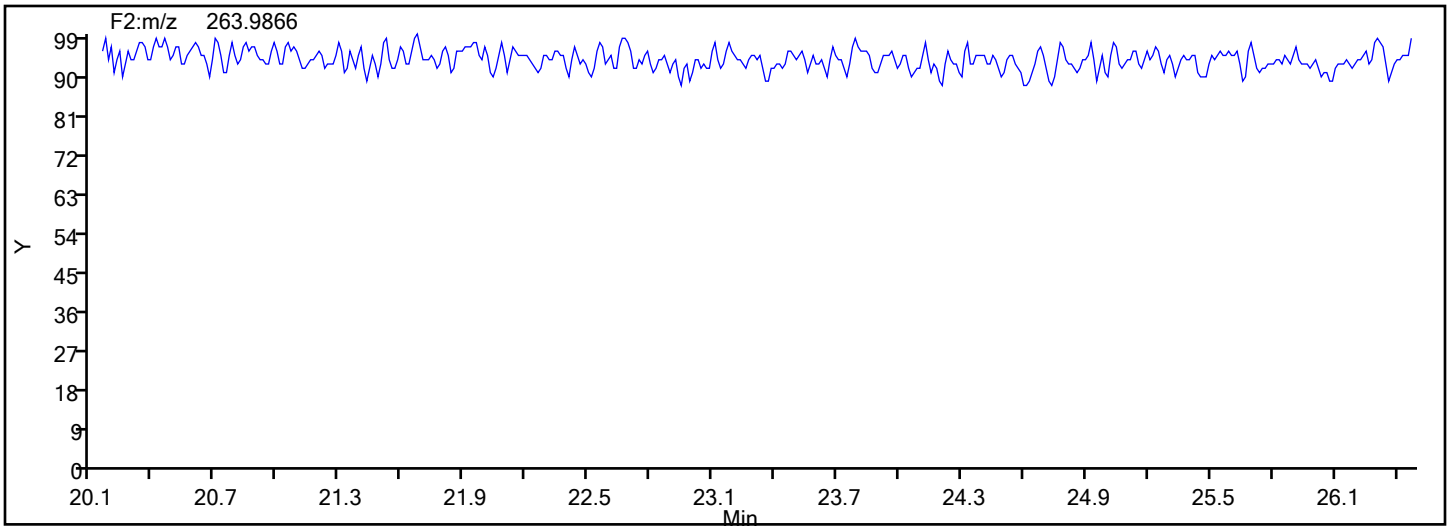
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d		
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-104





PCB-104 Lock Mass



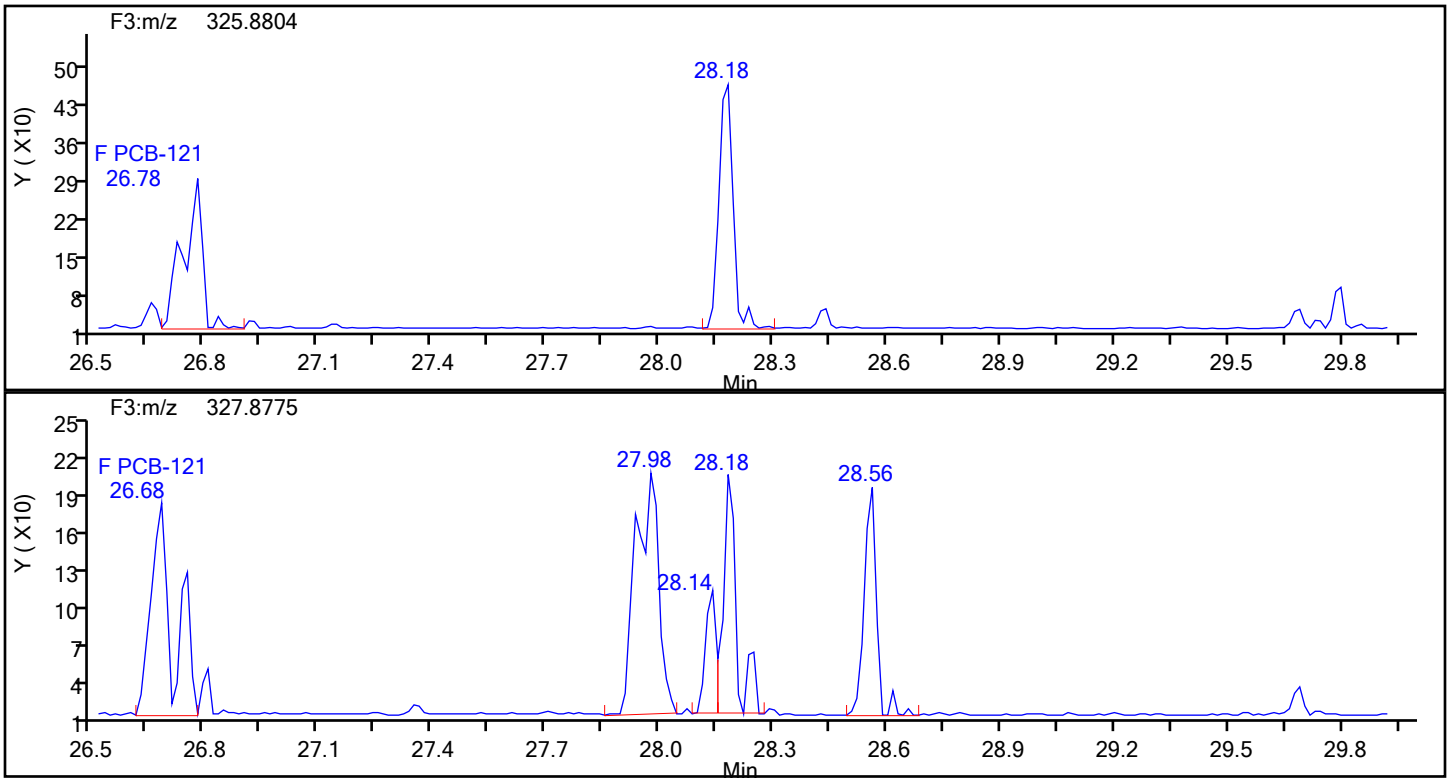
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

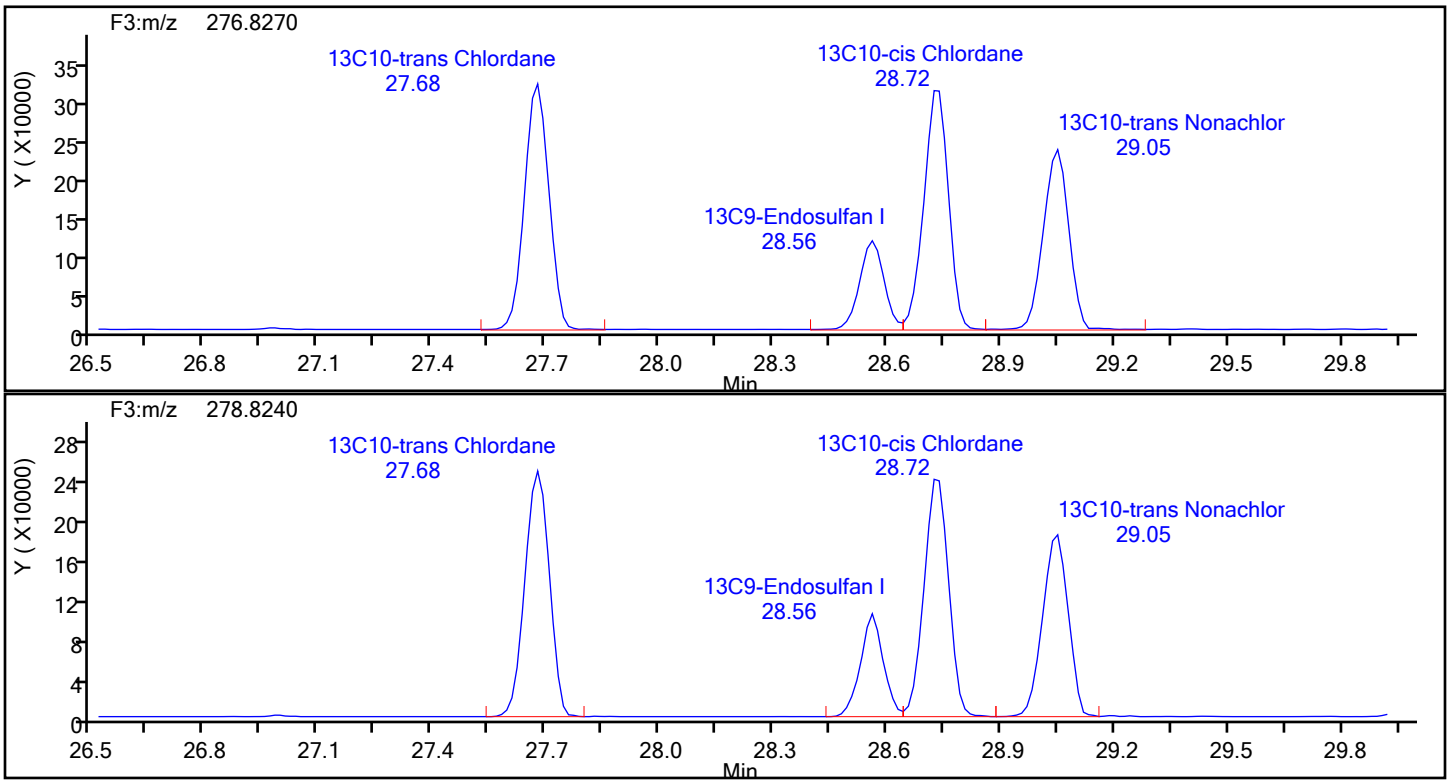
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-121



PCB-121 Standards

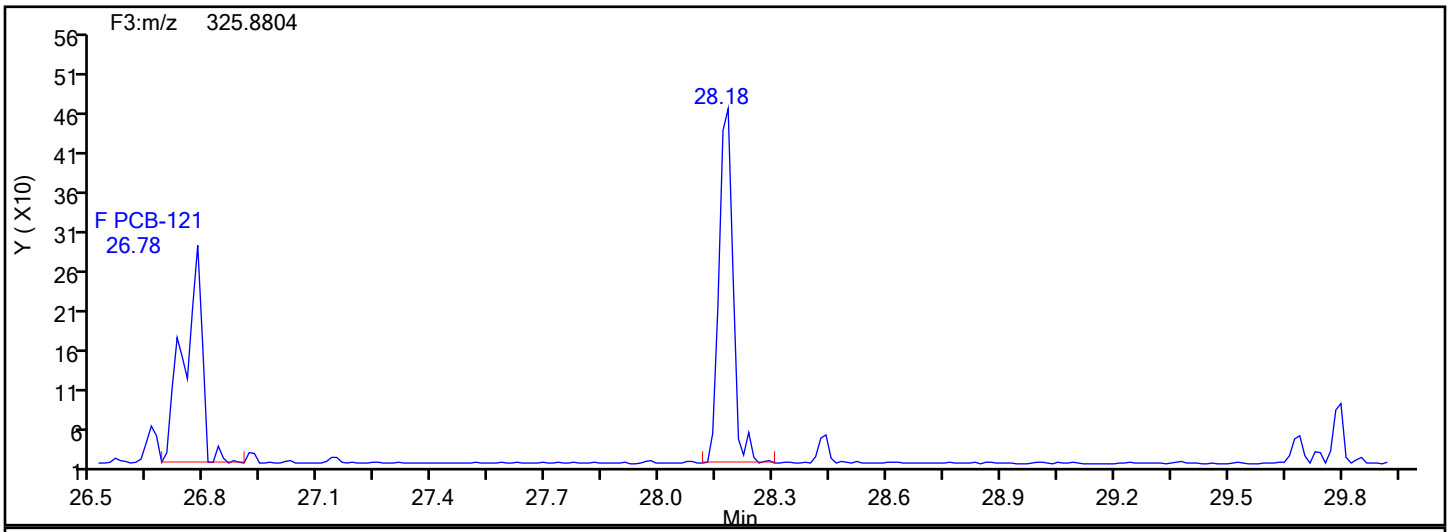


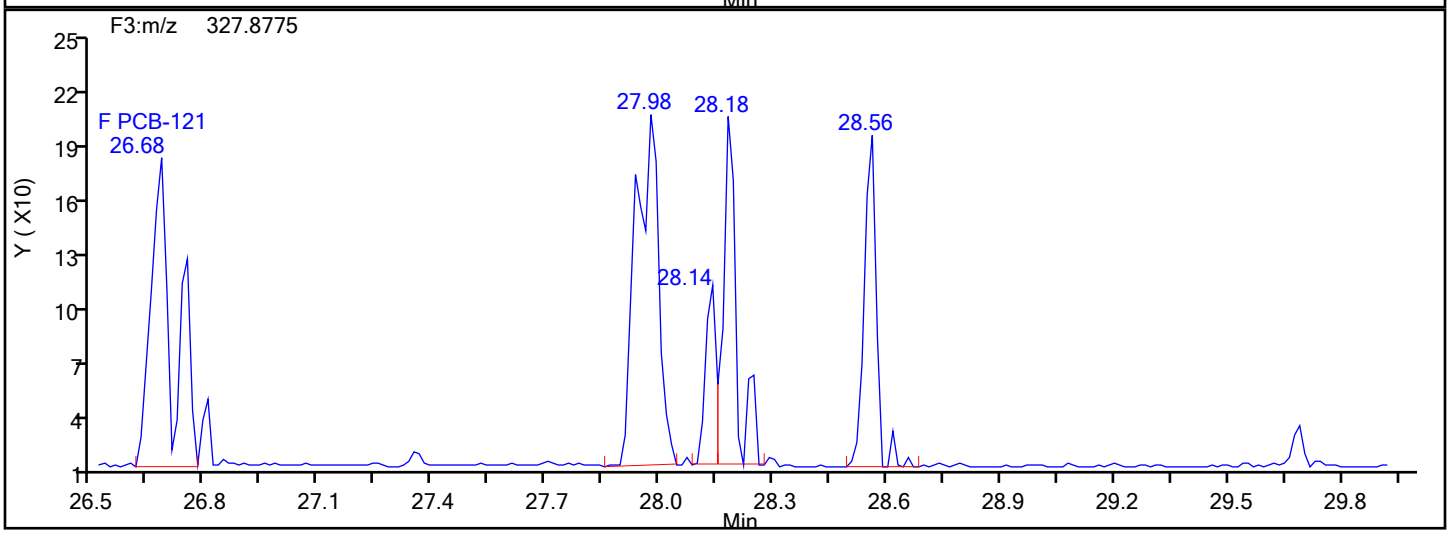
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

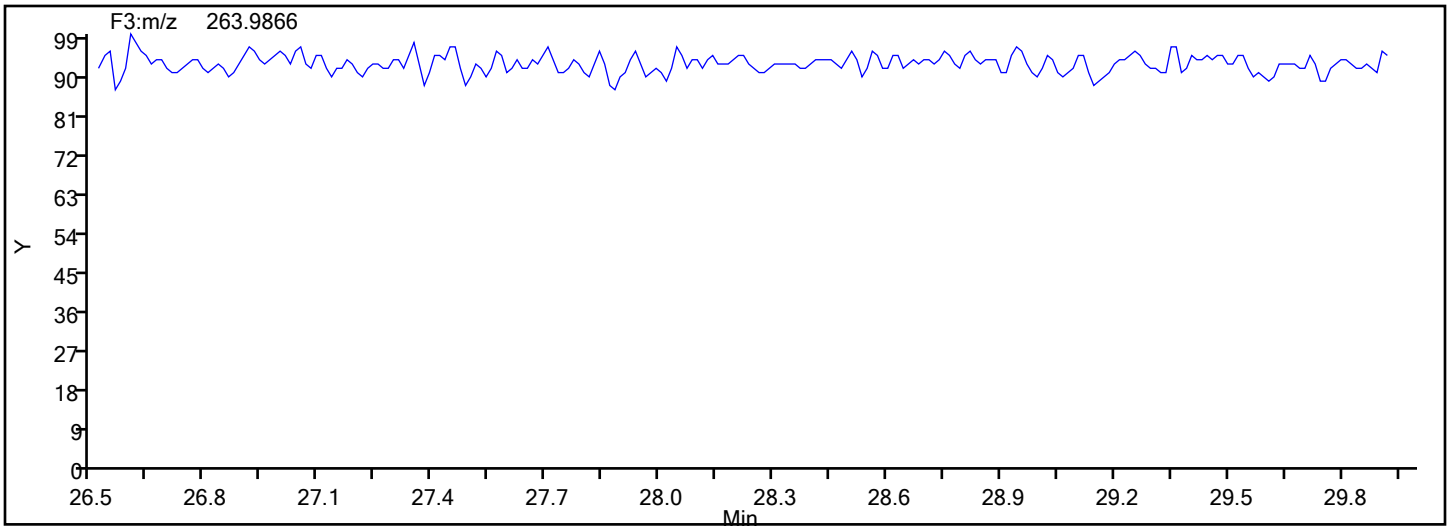
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-121





PCB-121 Lock Mass



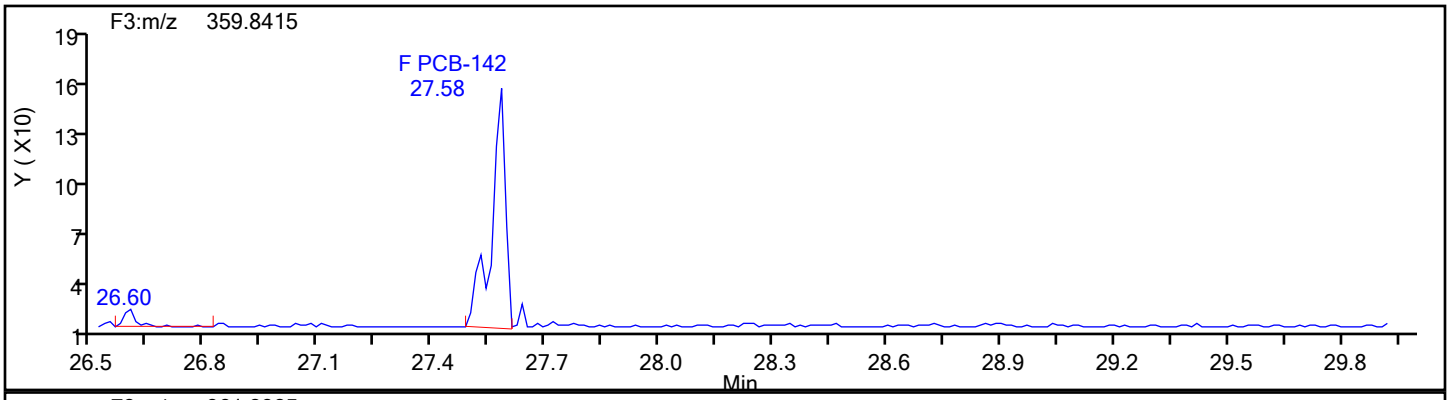
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

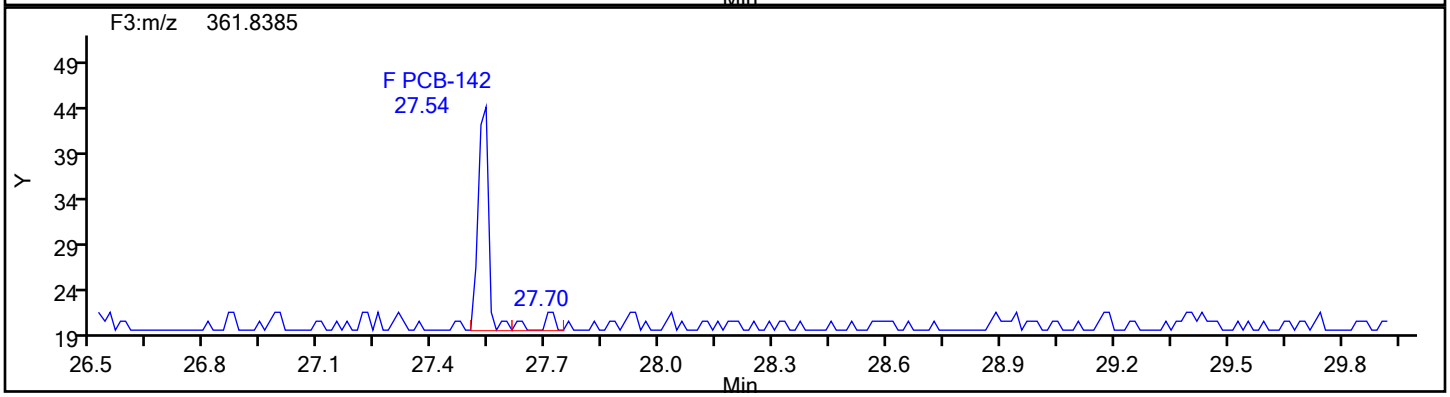
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

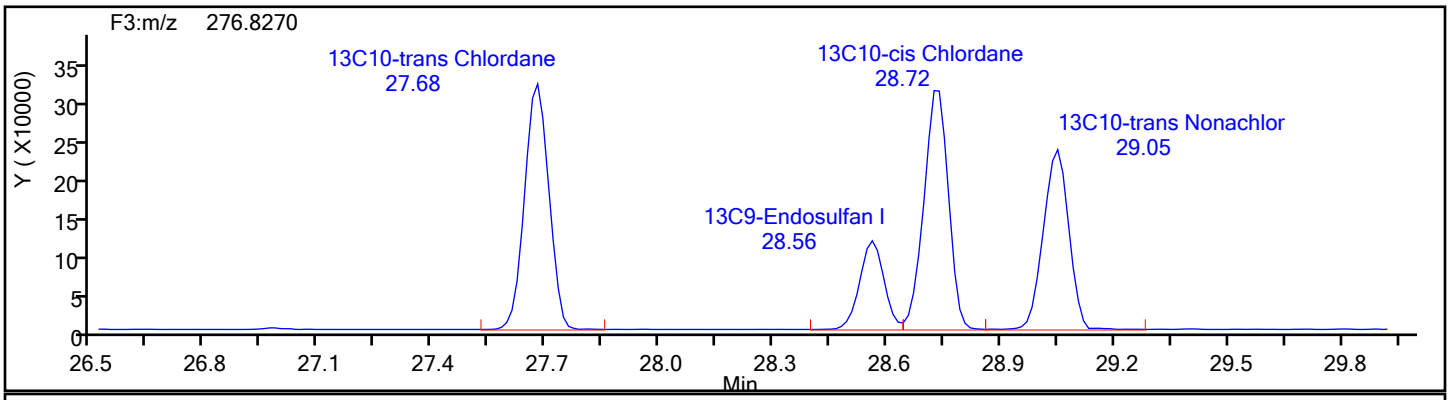
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

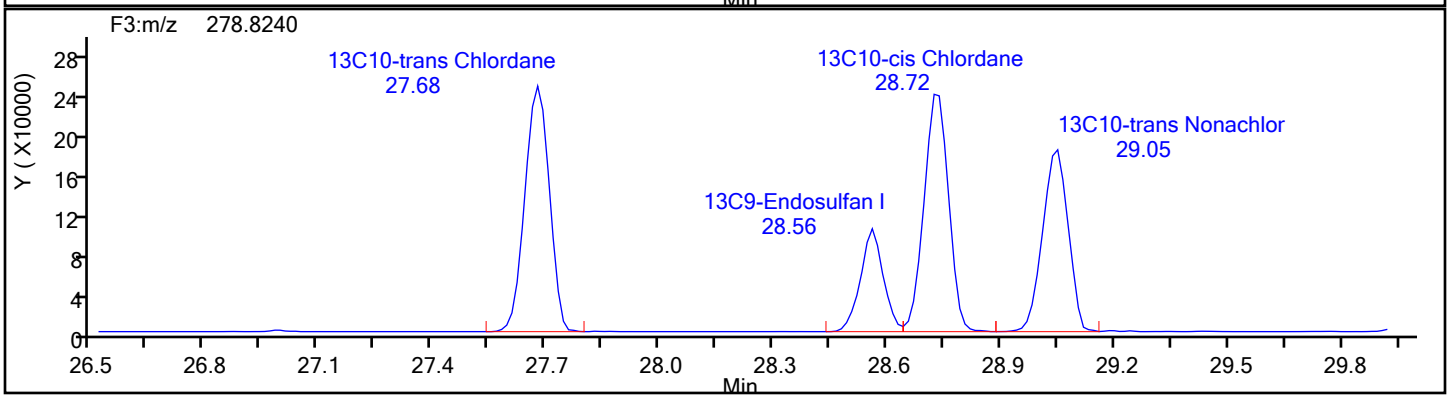
PCB-142





PCB-142 Standards



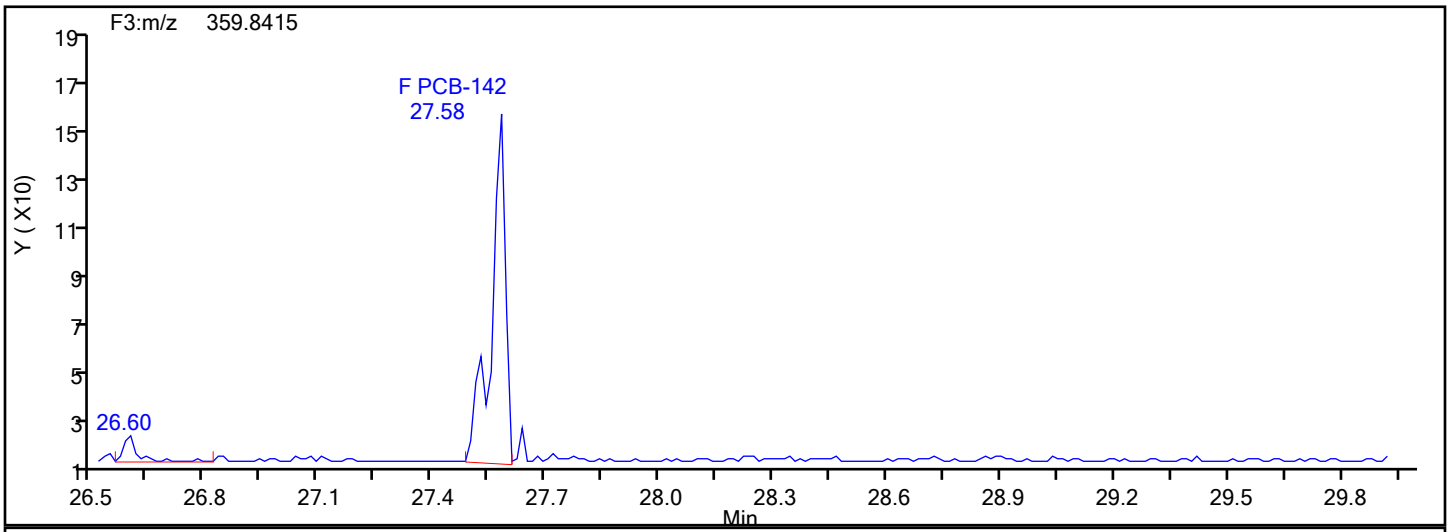


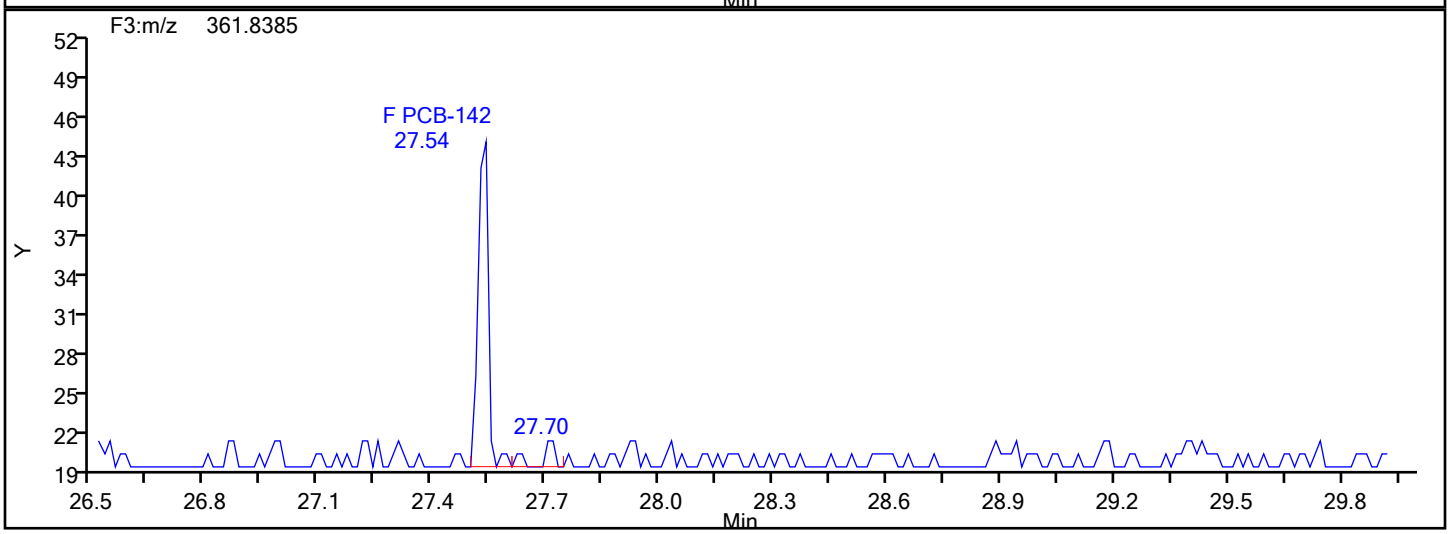
Report Date: 31-Mar-2025 13:39:26 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

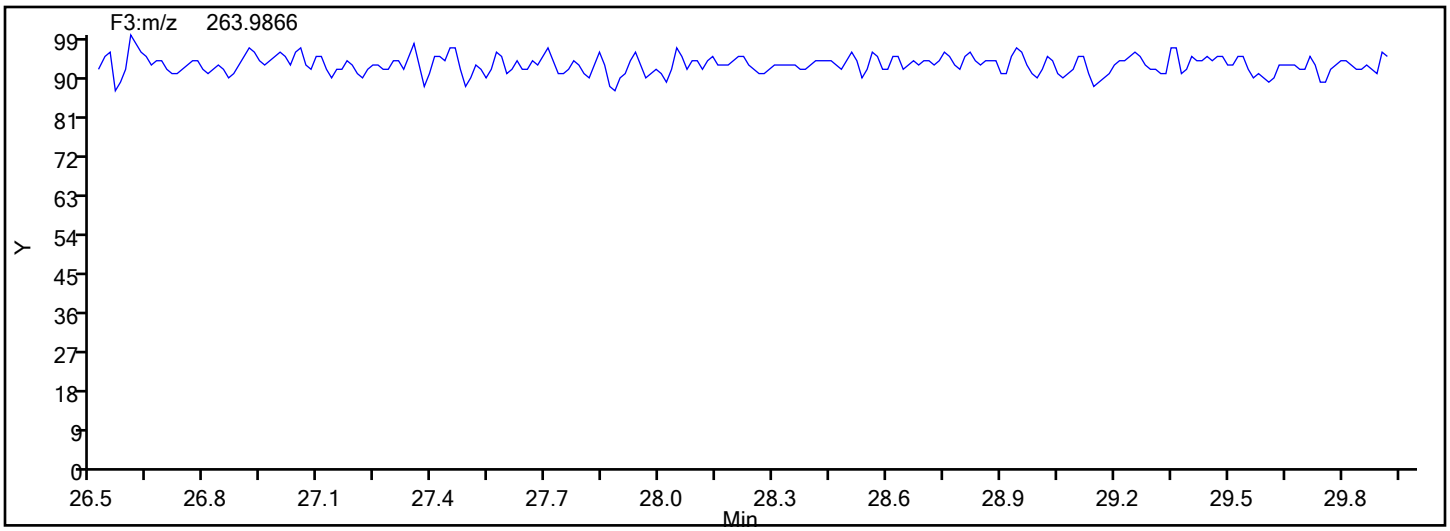
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-142





PCB-142 Lock Mass



Manual Integration/User Assign Peak Report

Eurofins Knoxville

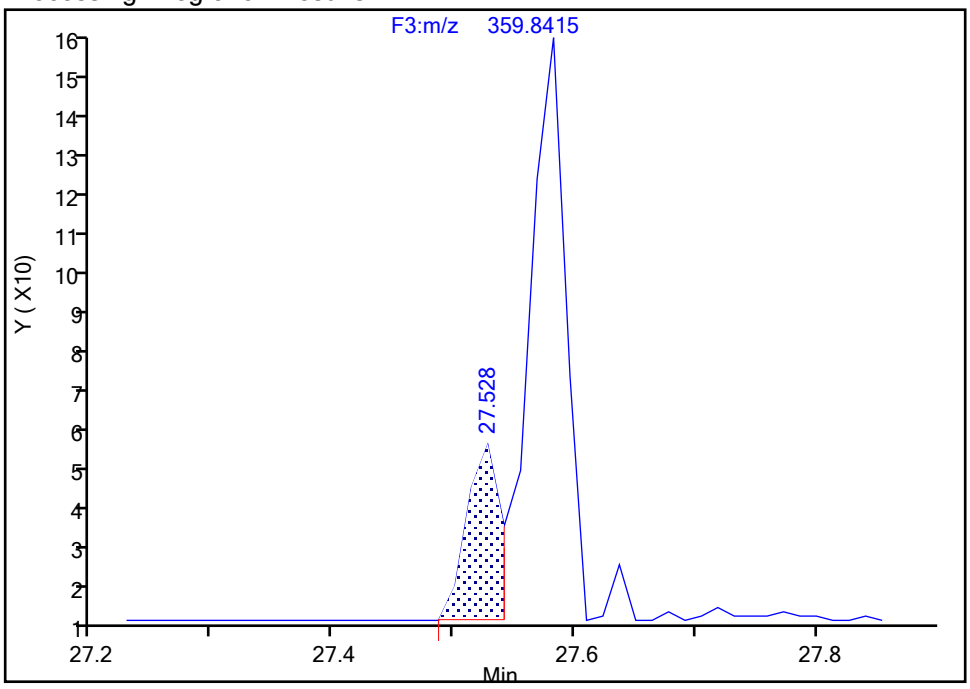
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Instrument ID: D3PST
Lims ID: MB 140-97186/11-B
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-142, CAS: 41411-61-4

Signal: 1

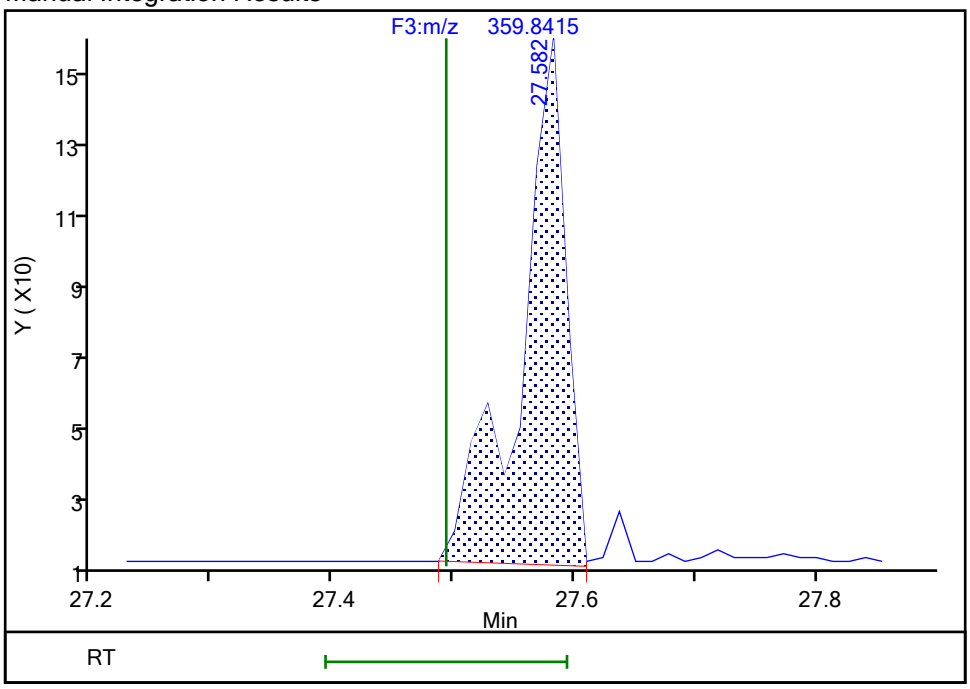
Processing Integration Results

RT: 27.53
Area: 74
Amount: 0.003516
Amount Units: pg/ul



Manual Integration Results

RT: 27.58
Area: 357
Amount: 0.011212
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 13:38:43 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Knoxville

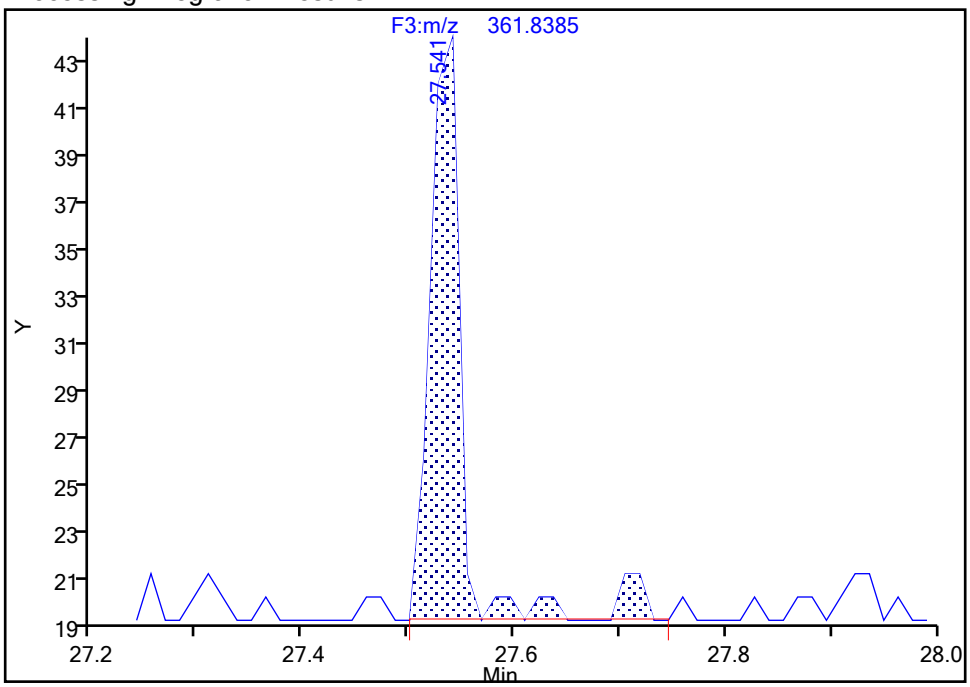
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Instrument ID: D3PST
Lims ID: MB 140-97186/11-B
Client ID:
Operator ID: Xcalibur_System ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Column: RTX-5 (0.32 mm) Detector F3(26.52 :29.92)

PCB-142, CAS: 41411-61-4

Signal: 2

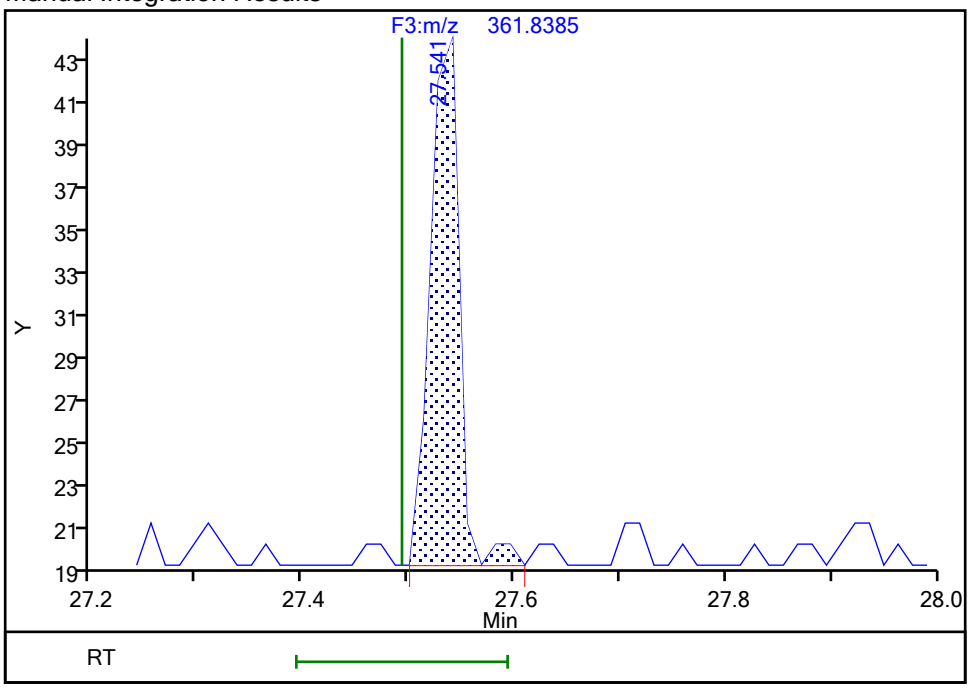
Processing Integration Results

RT: 27.54
Area: 53
Amount: 0.003516
Amount Units: pg/ul



Manual Integration Results

RT: 27.54
Area: 48
Amount: 0.011212
Amount Units: pg/ul



Reviewer: TT6I, 31-Mar-2025 13:38:52 -04:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

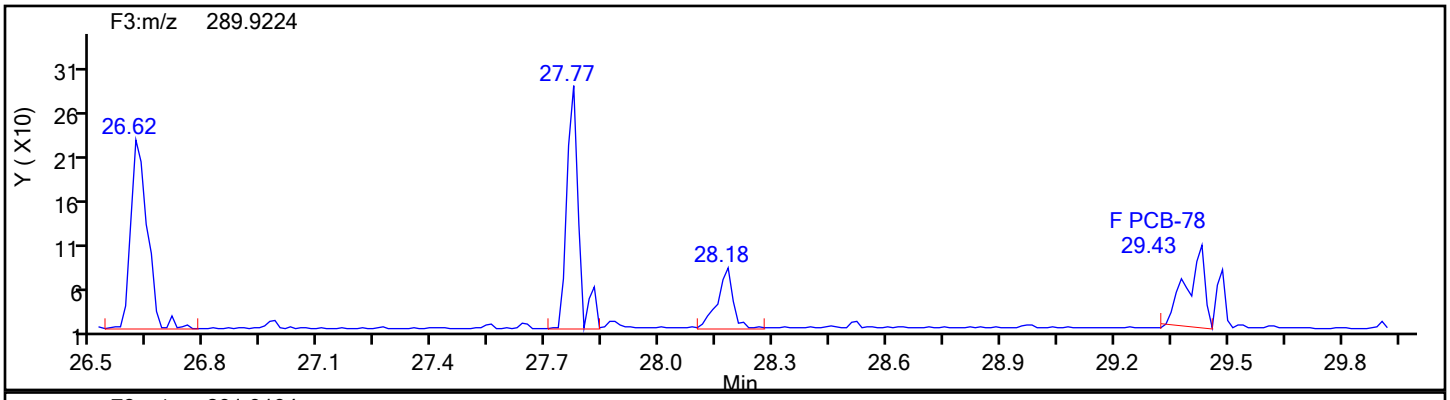
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

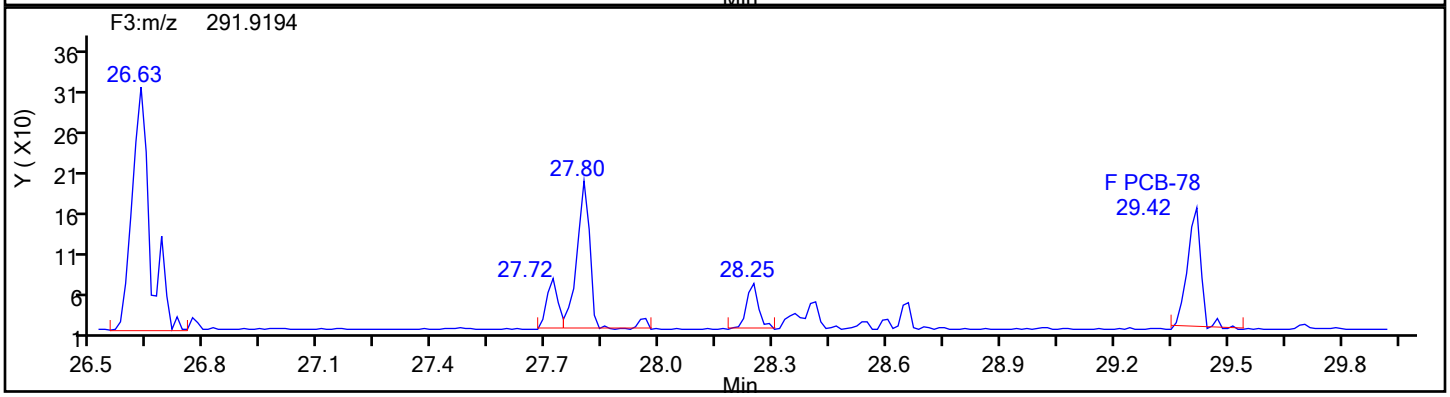
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

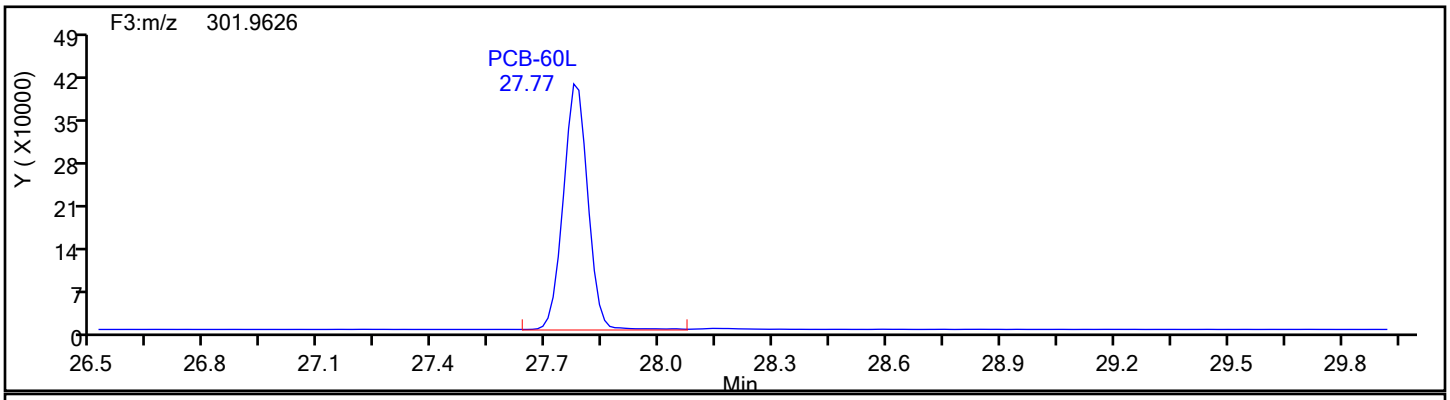
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

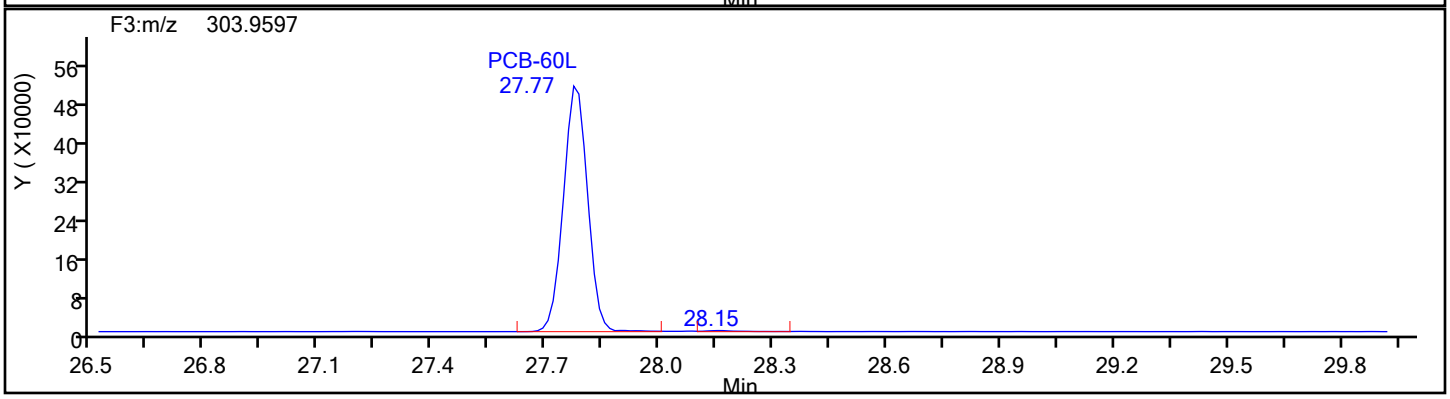
PCB-78





PCB-78 Standards



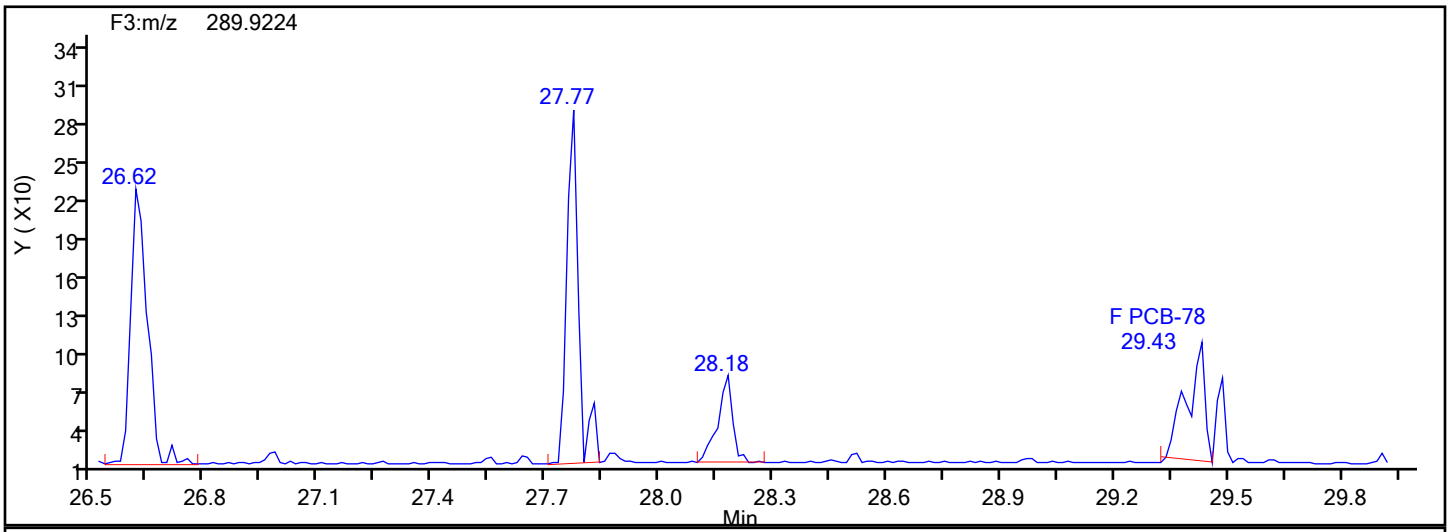


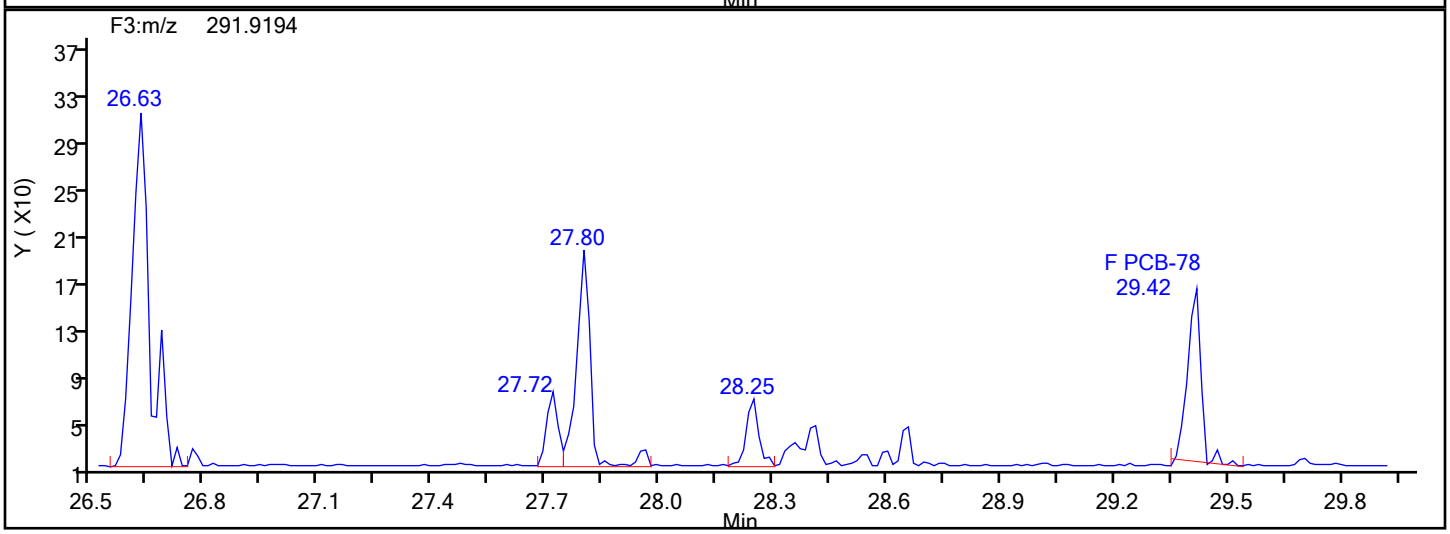
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

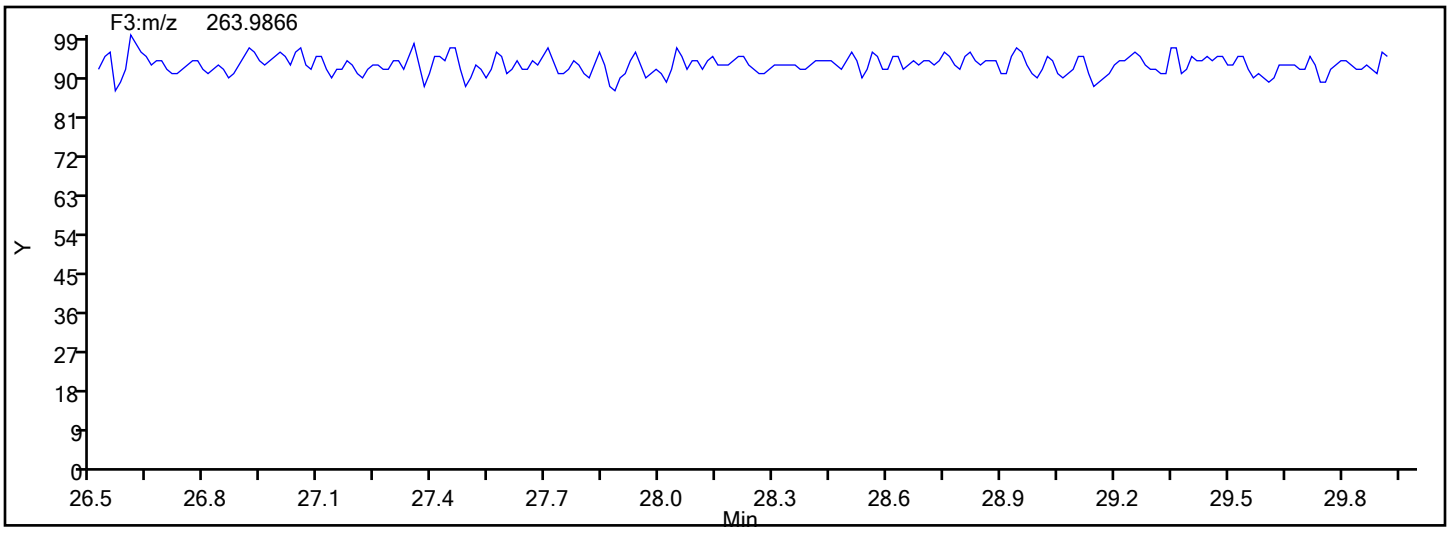
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-78





PCB-78 Lock Mass



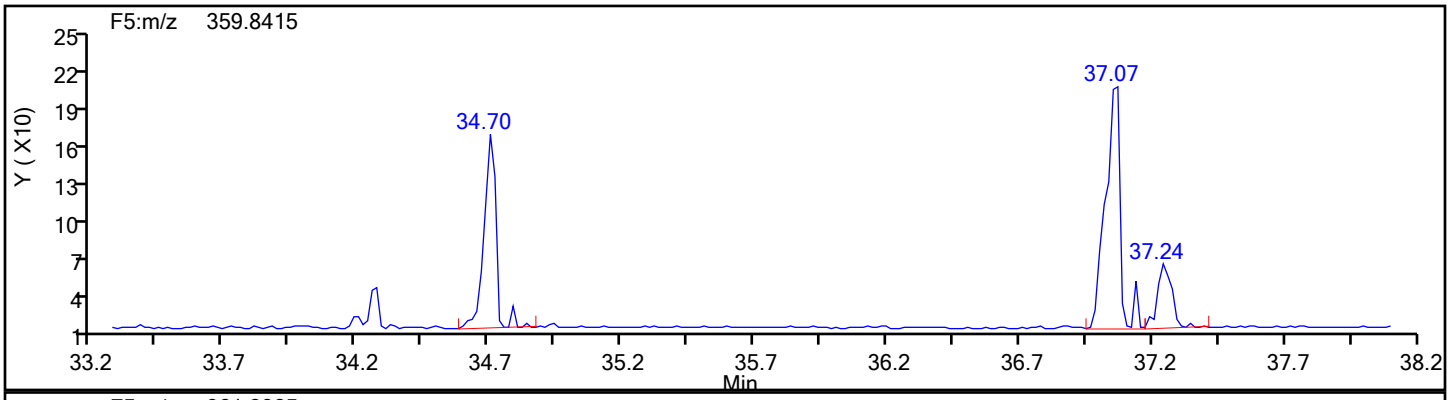
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

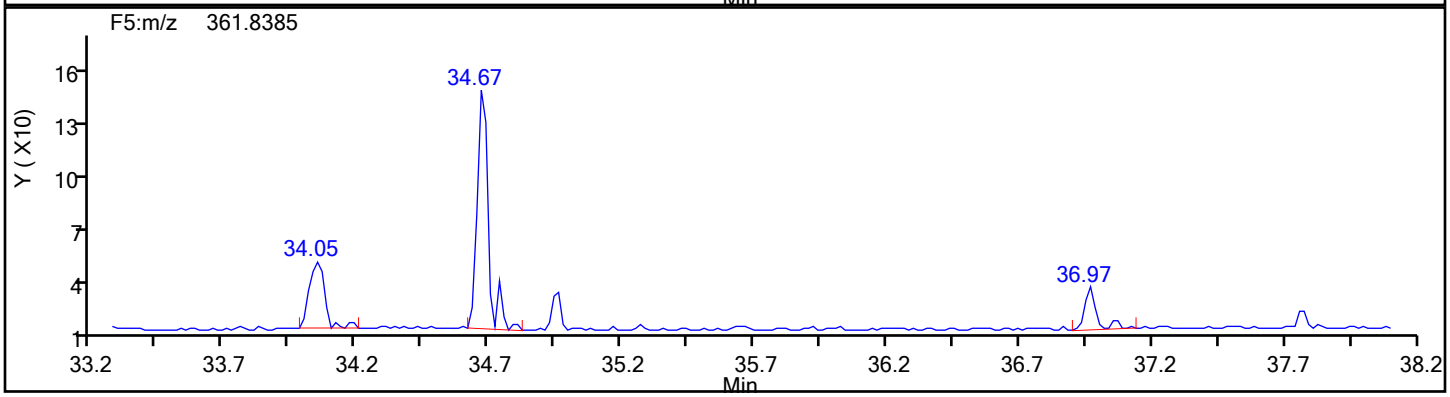
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

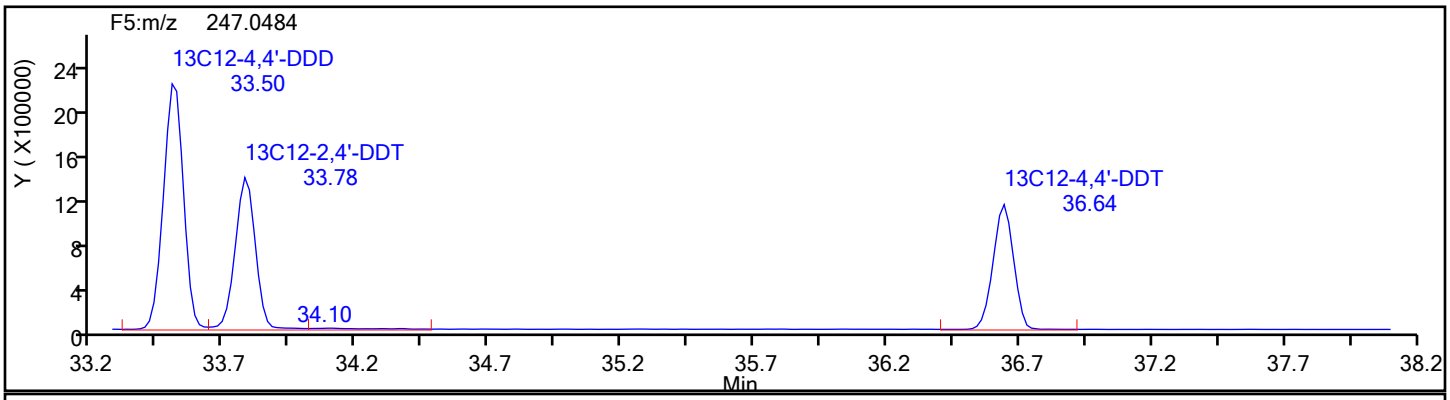
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

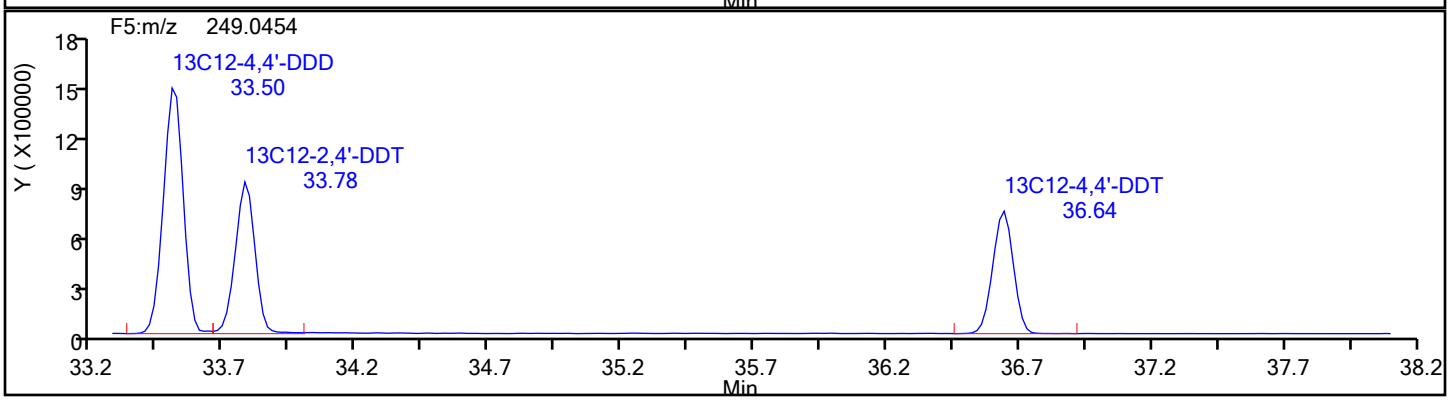
PCB-155





PCB-155 Standards



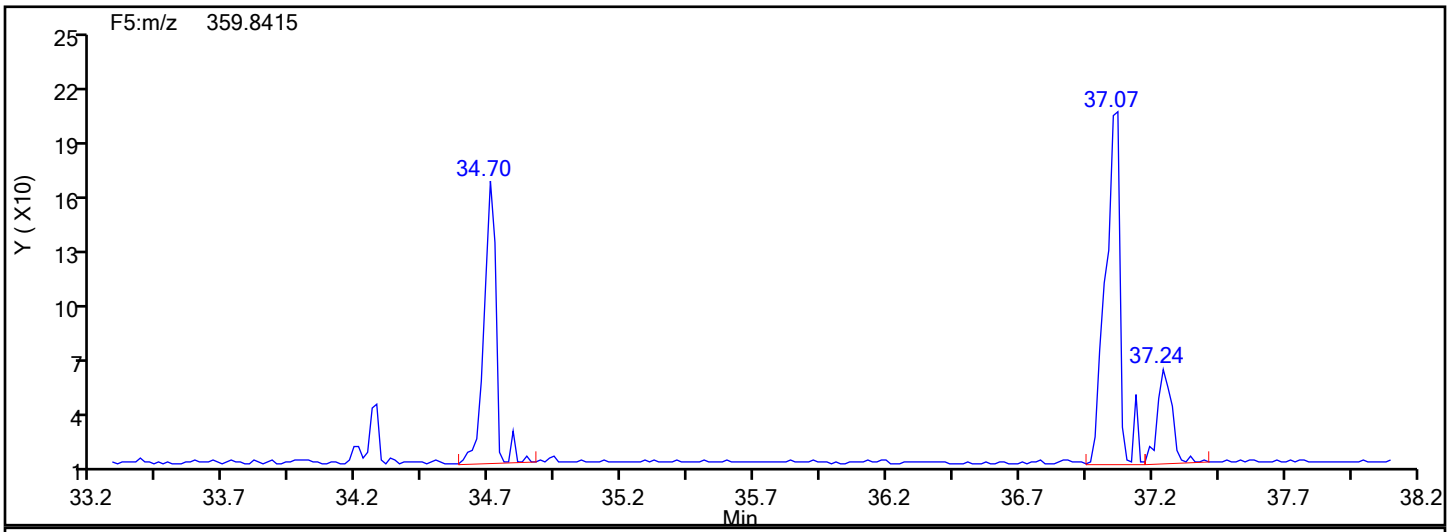


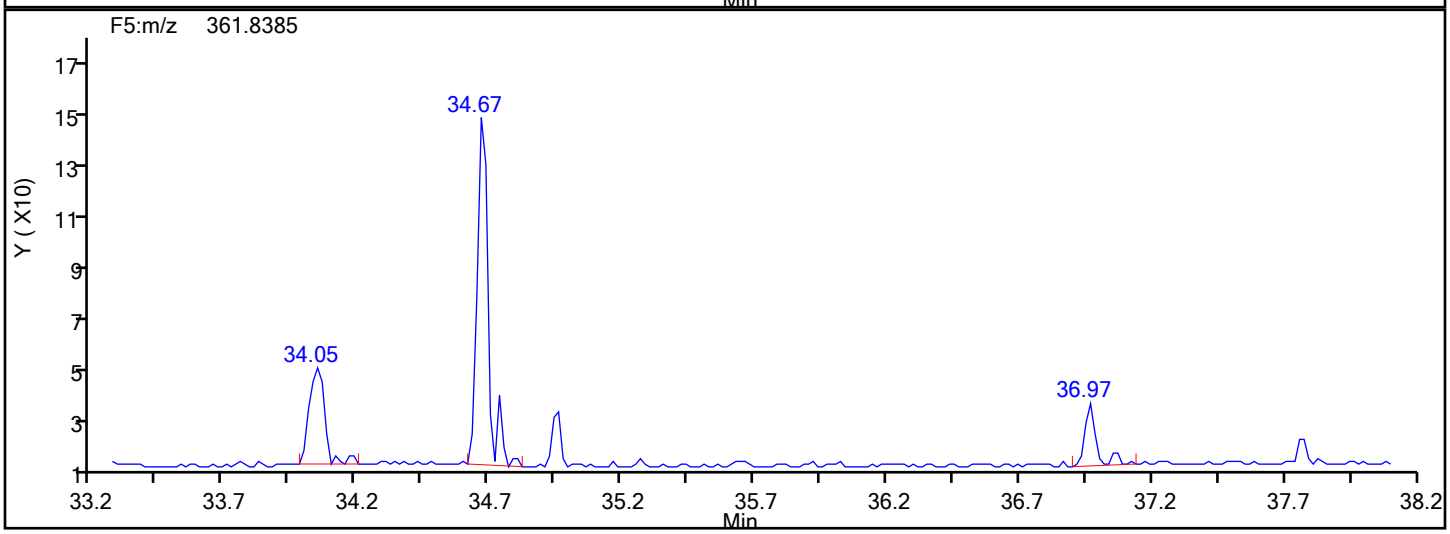
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

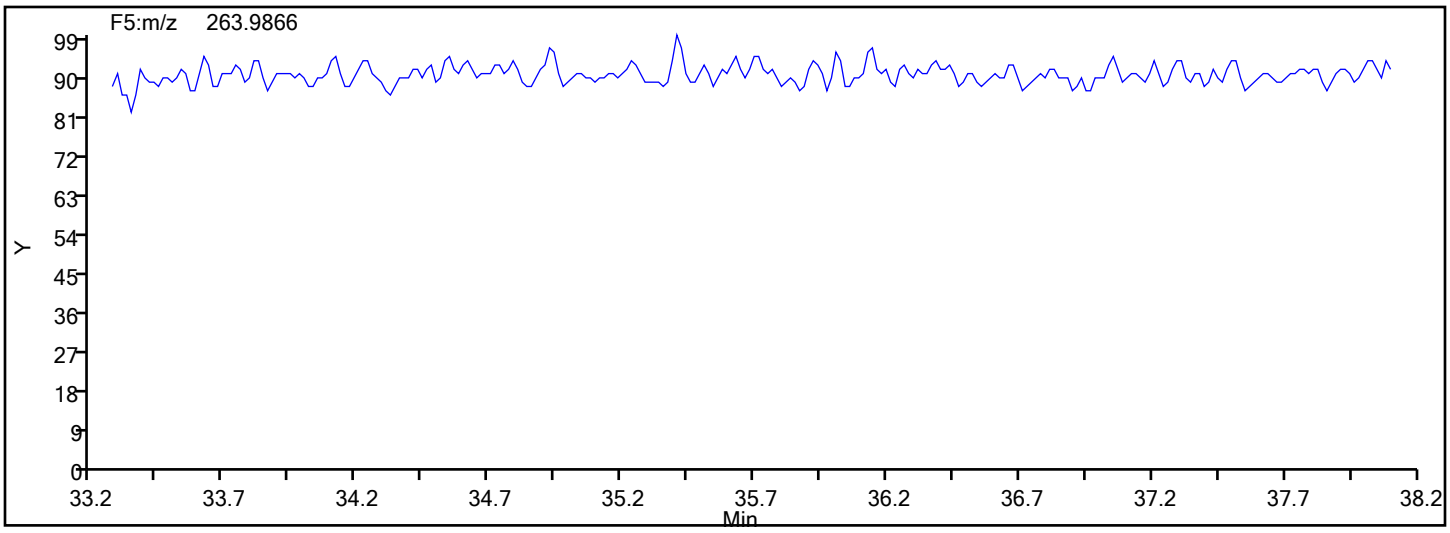
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-155





PCB-155 Lock Mass



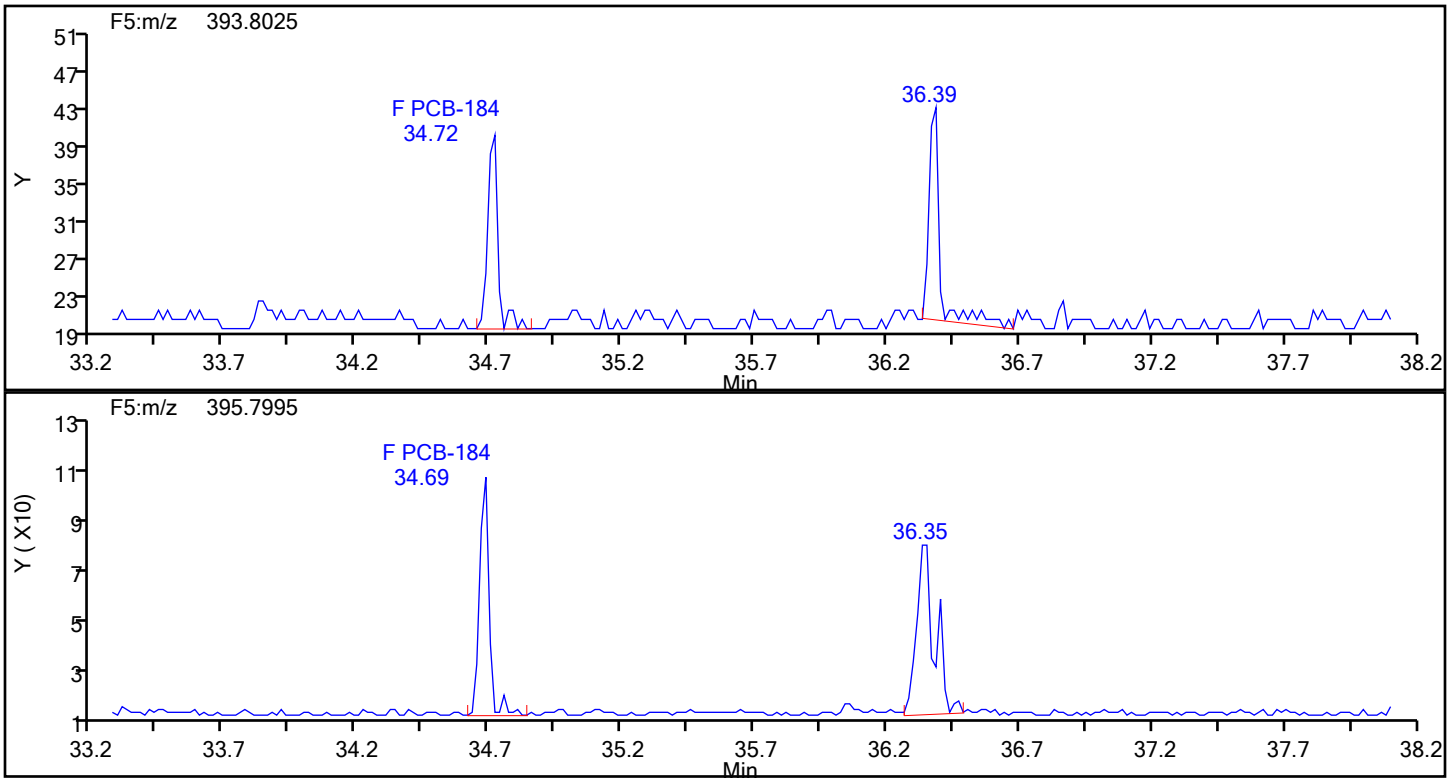
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

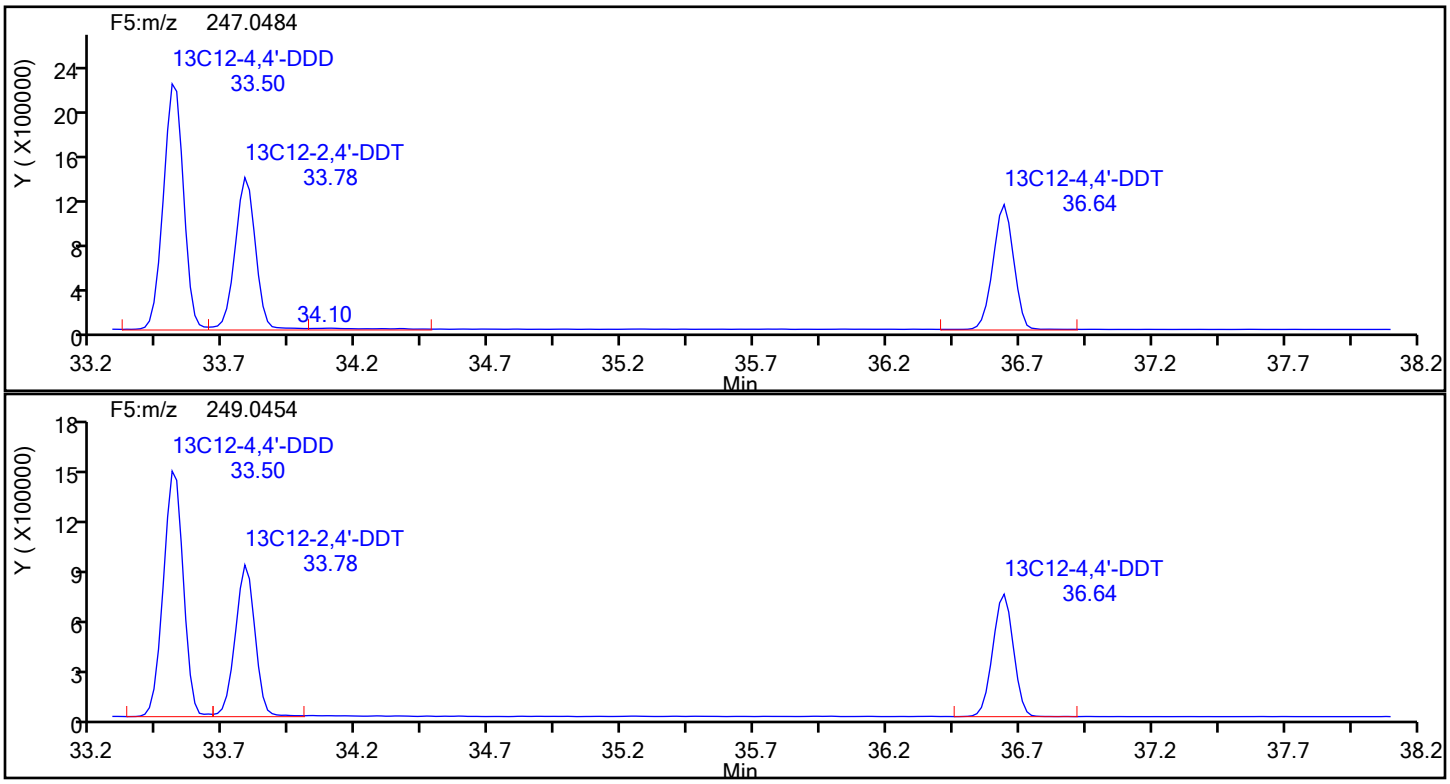
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-184



PCB-184 Standards

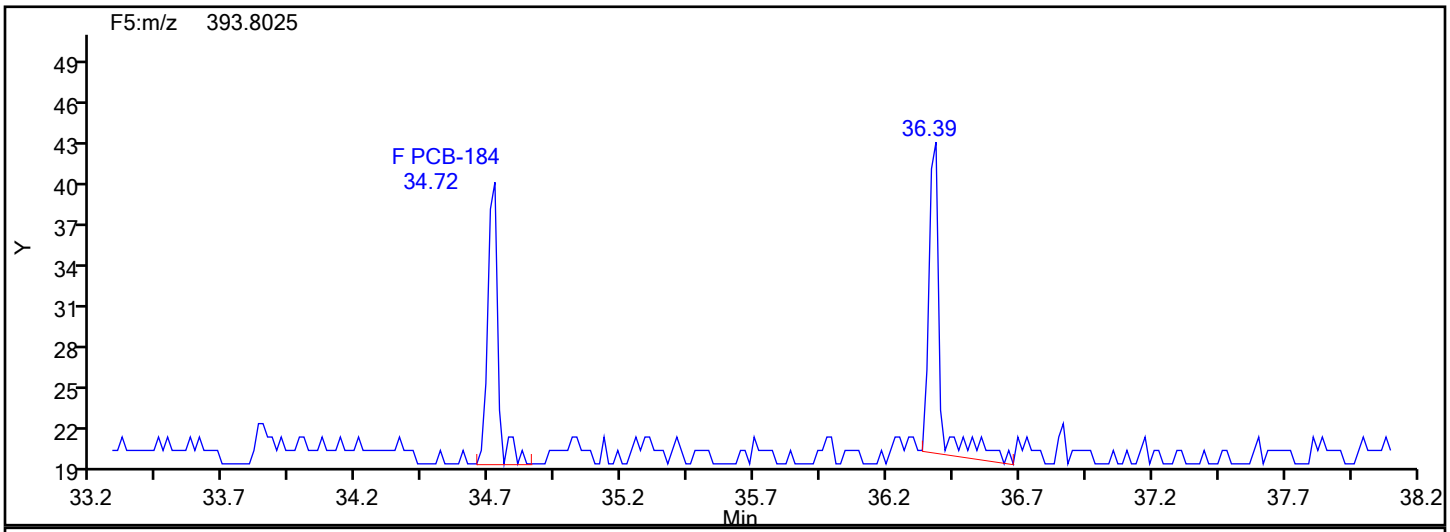


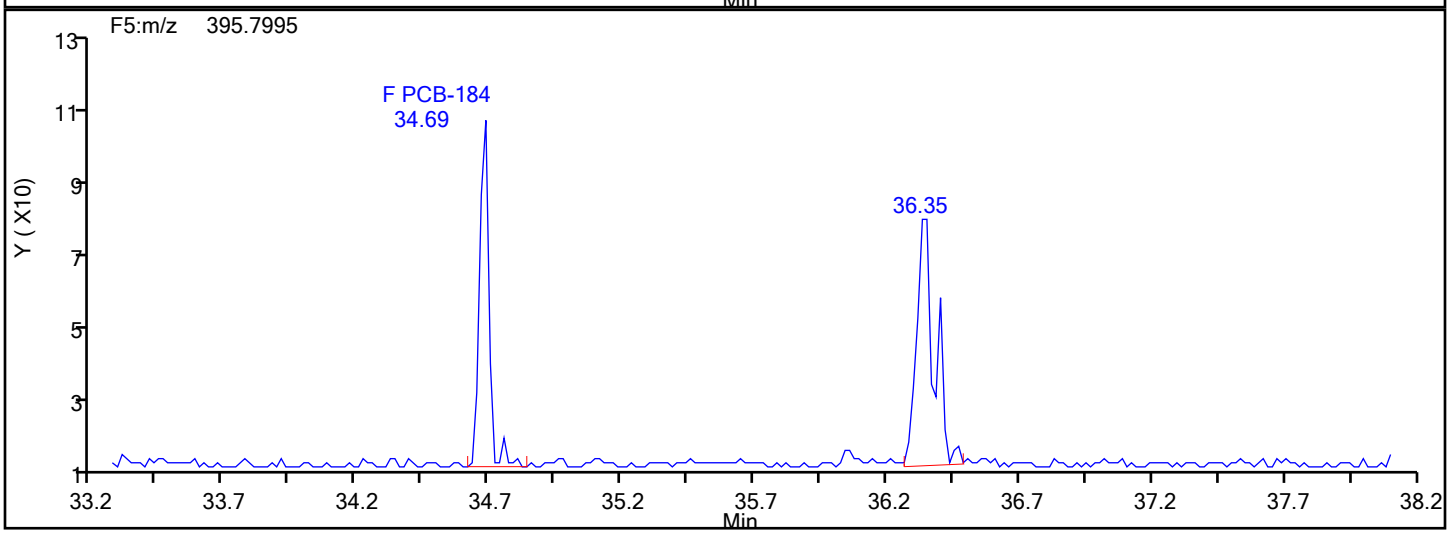
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

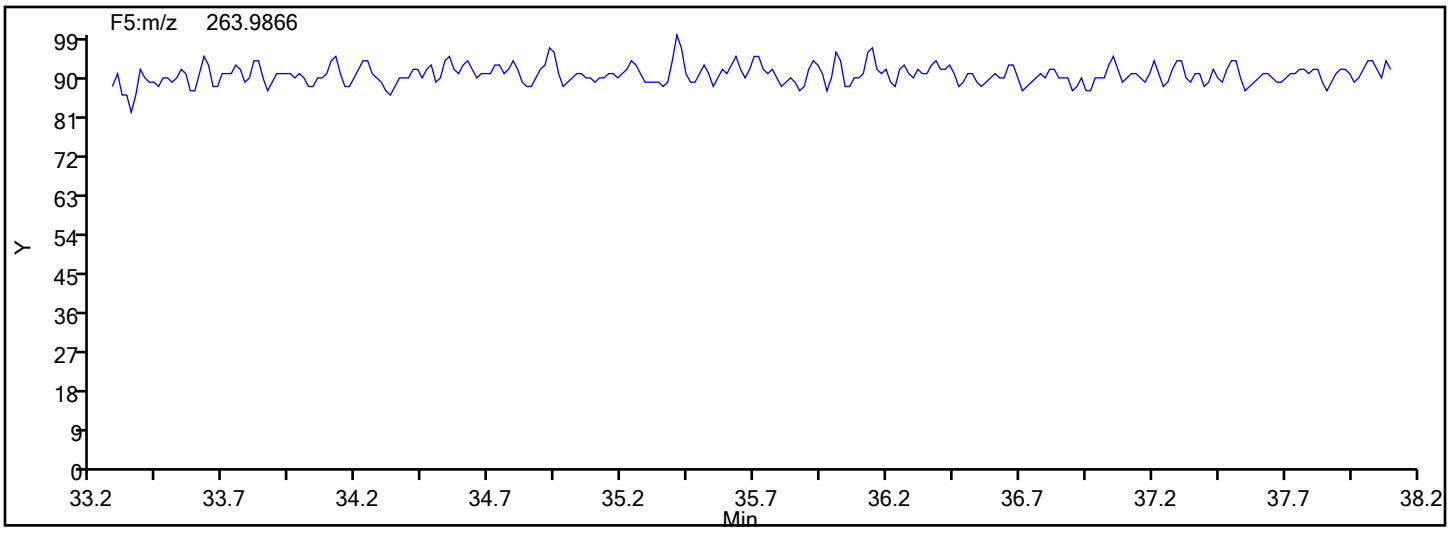
Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d
Injection Date: 28-Mar-2025 14:57:00 Injection Vol: 1.0 ul
Instrument ID: D3PST Operator ID: Xcalibur_System
Method: 1699__D3PST Limit Group: HR - 1699 - ICAL
Client ID:
Worklist#: 97714 Sample Line#: 8
Column Type: RTX-5 Column Dia: 0.32 mm

PCB-184





PCB-184 Lock Mass



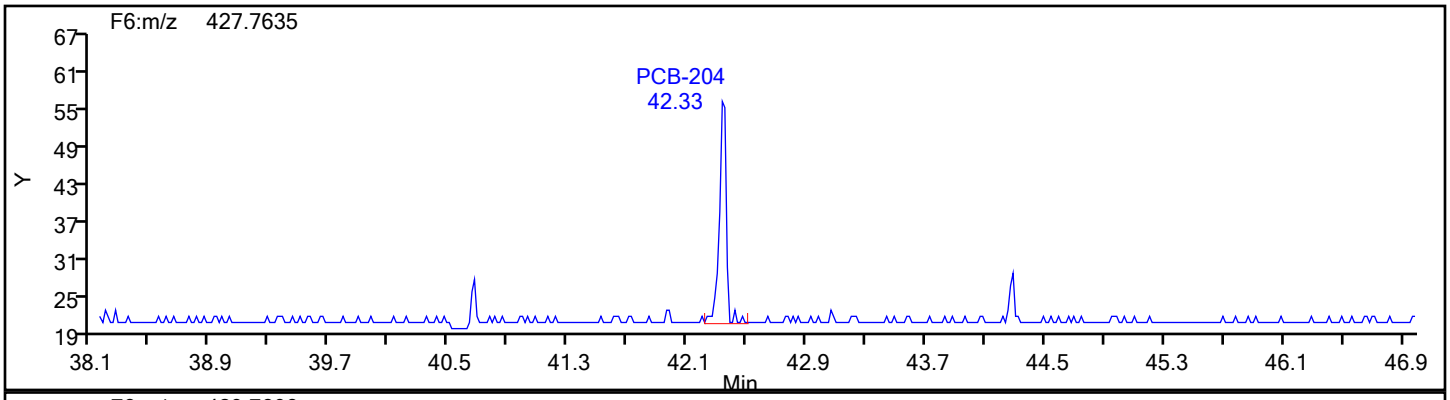
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

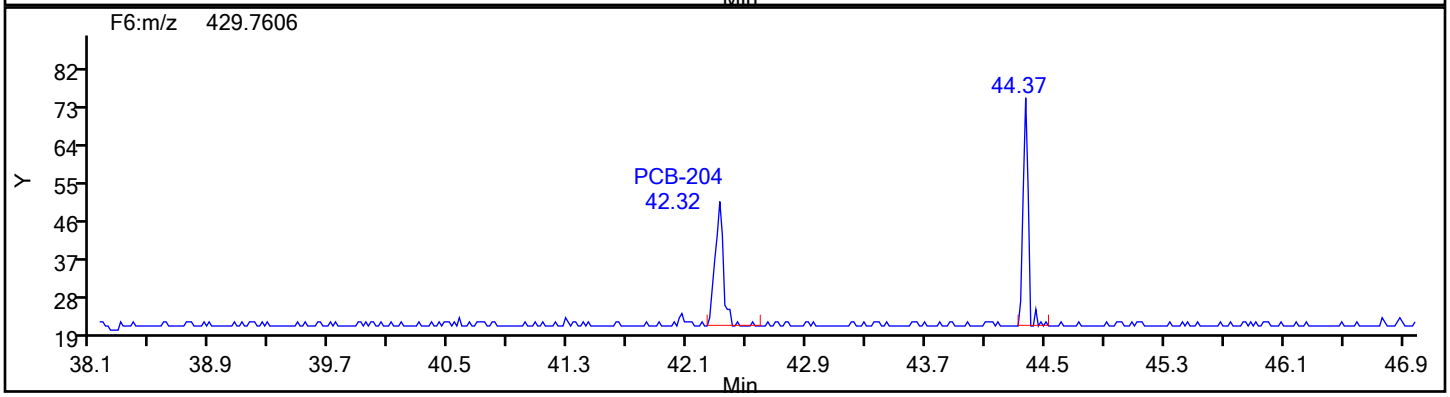
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

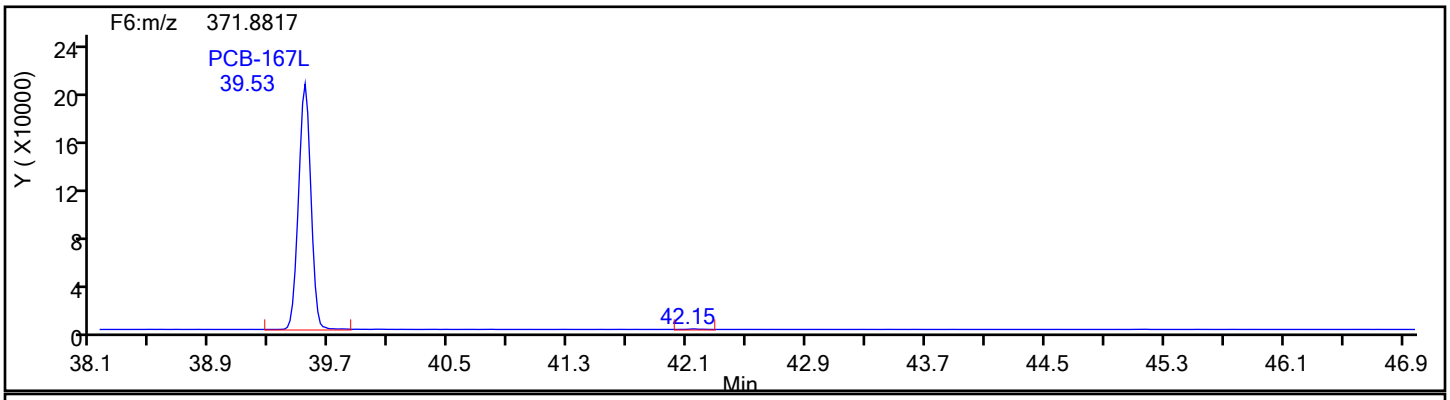
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

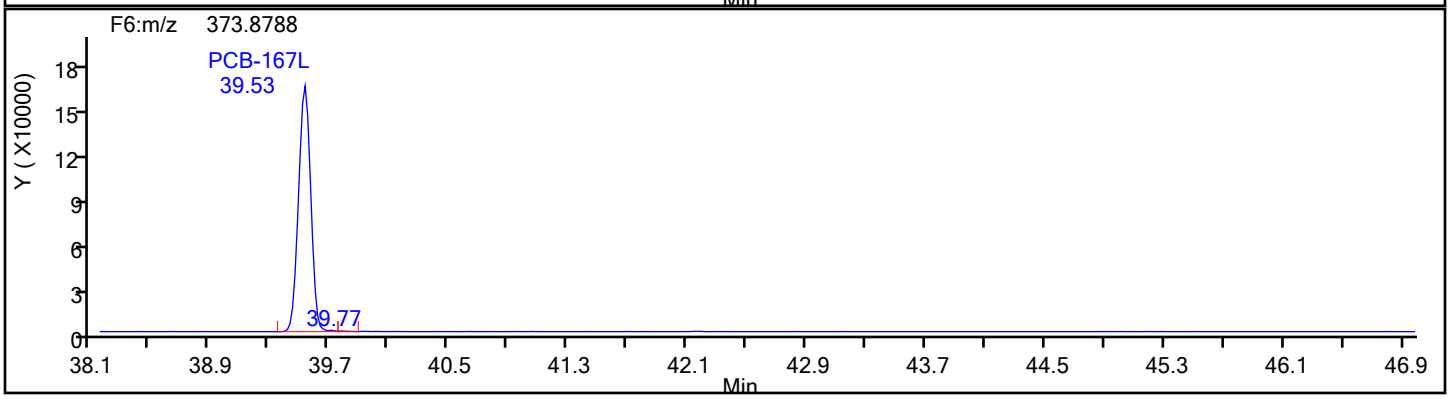
PCB-204





PCB-204 Standards



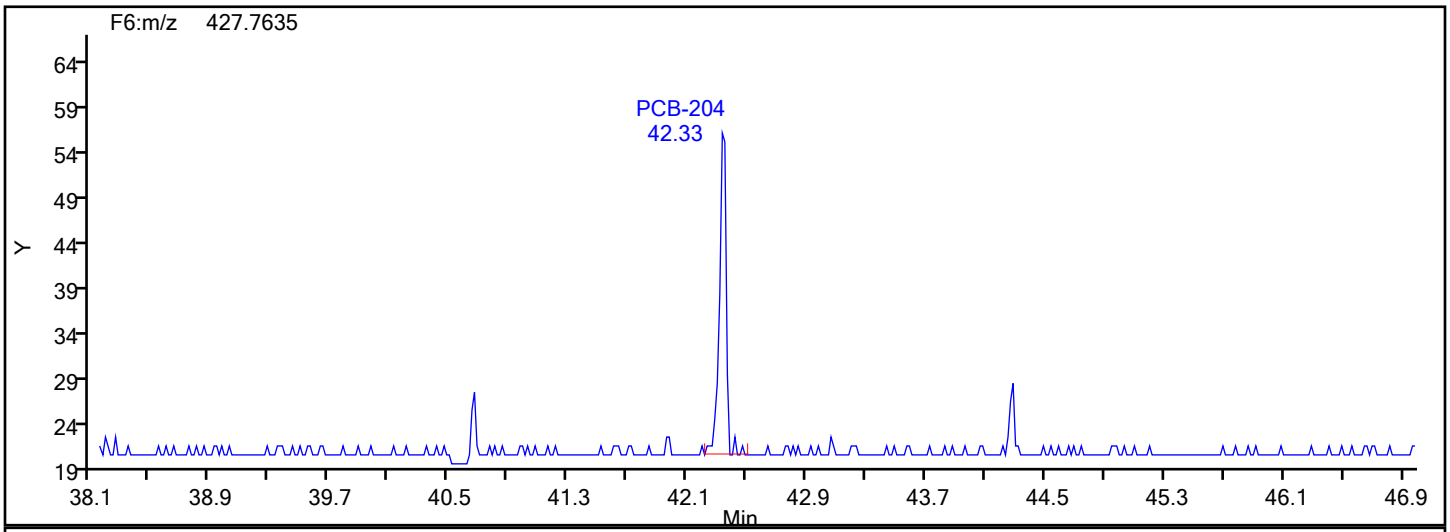


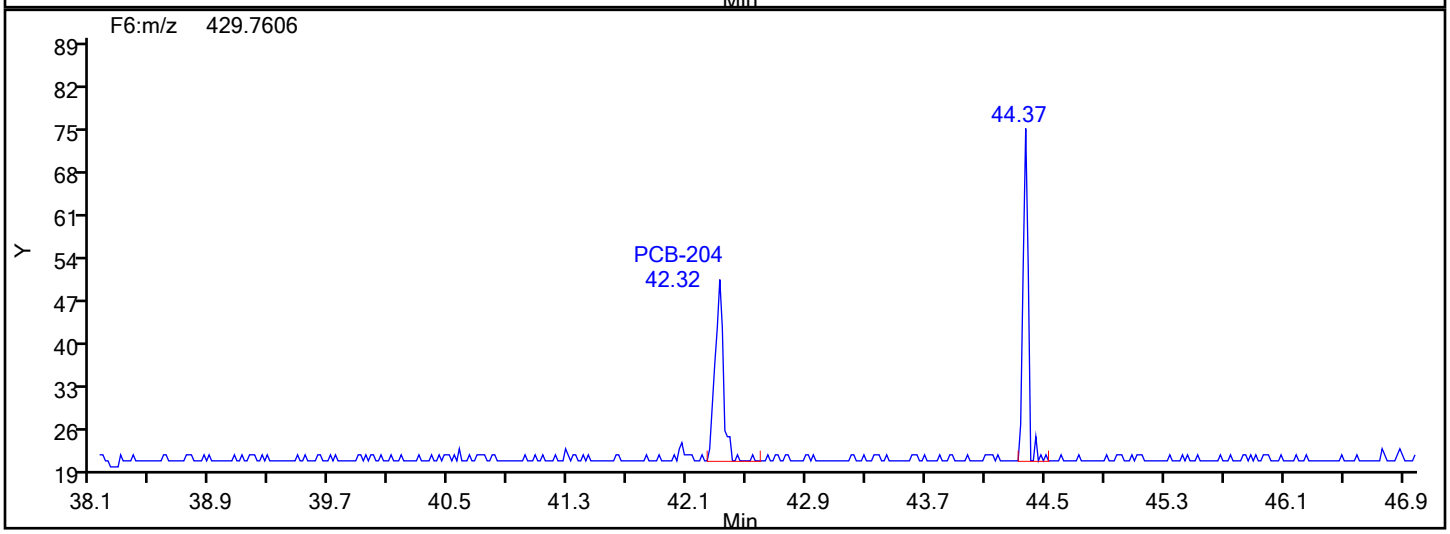
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

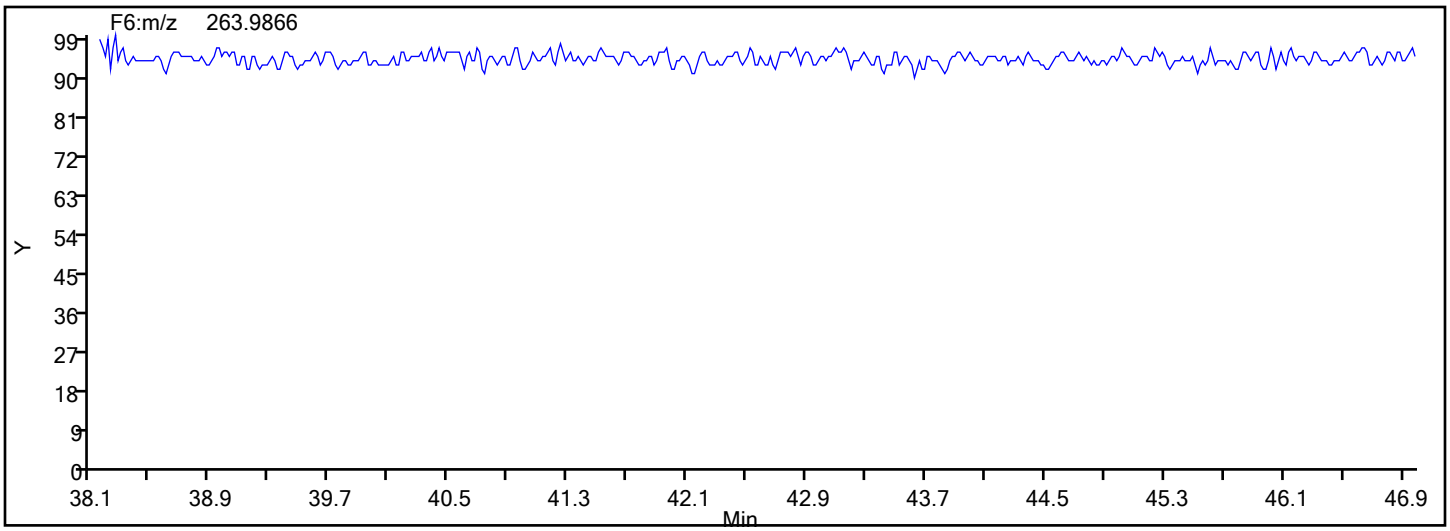
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d		
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-204





PCB-204 Lock Mass



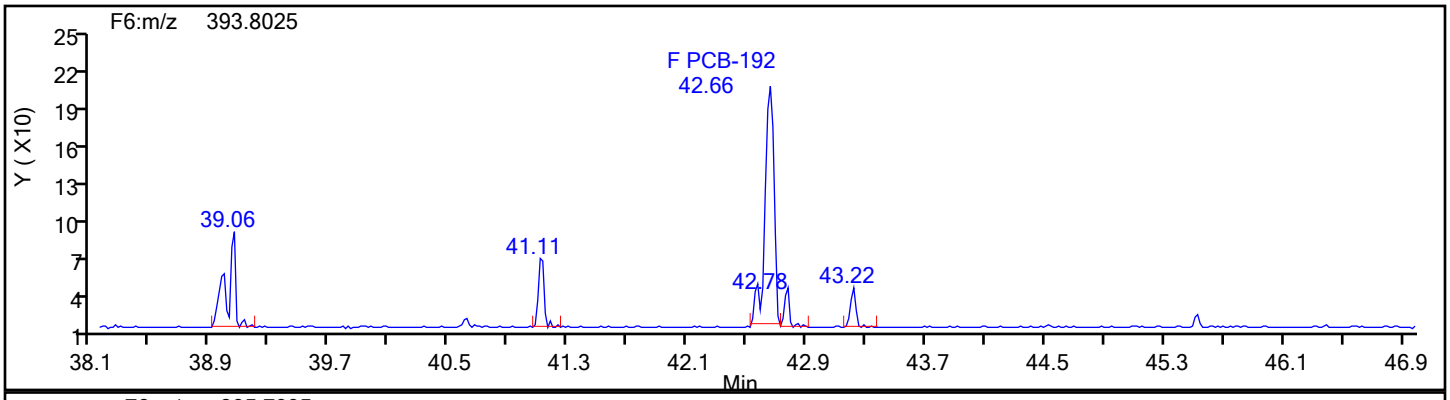
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

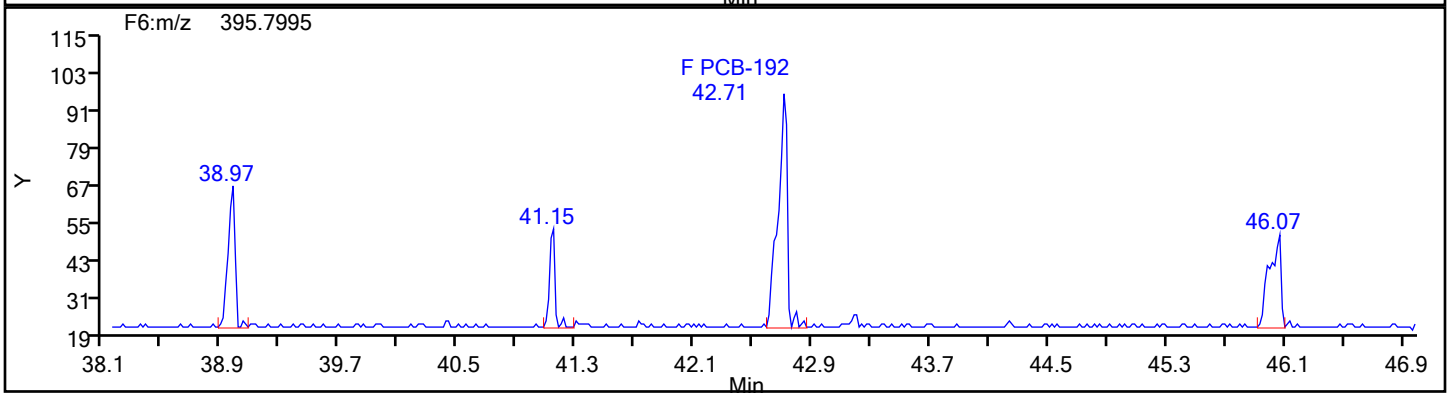
Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d

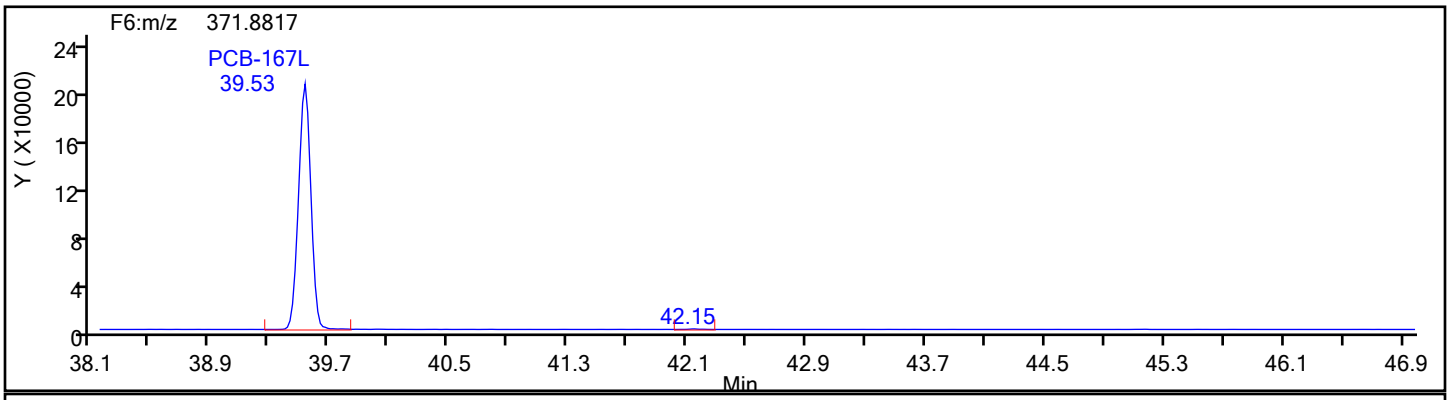
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

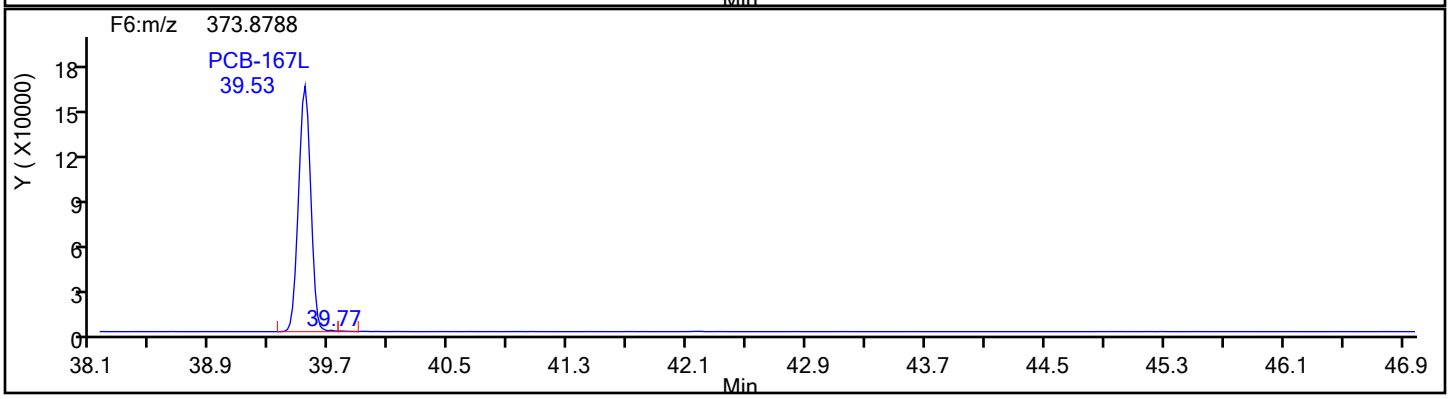
PCB-192





PCB-192 Standards



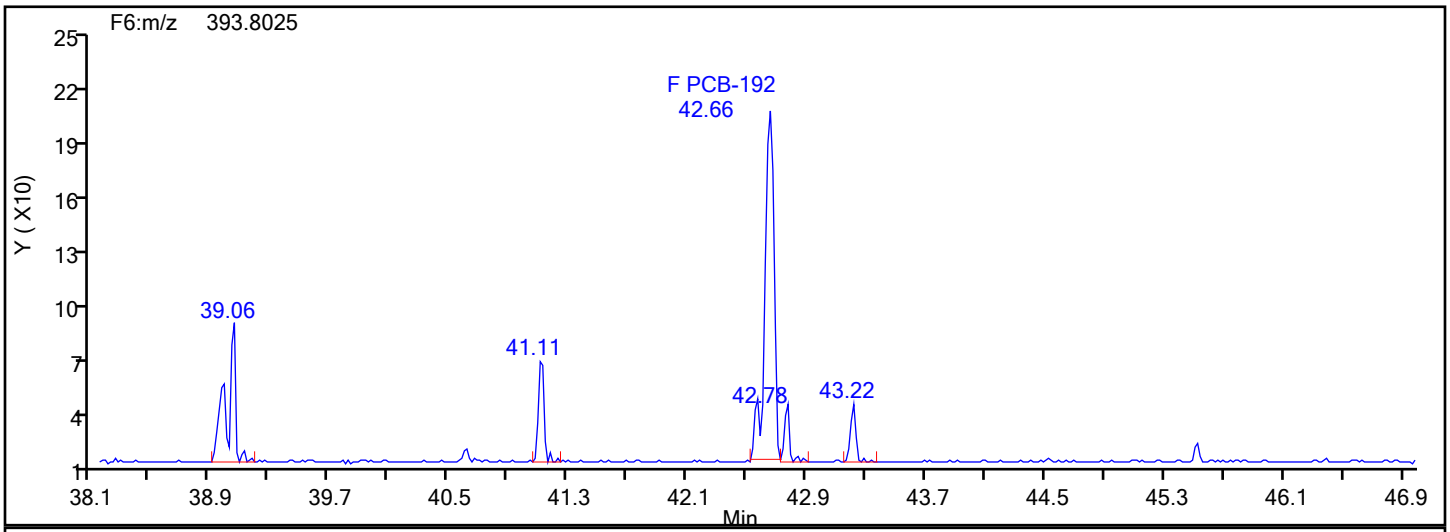


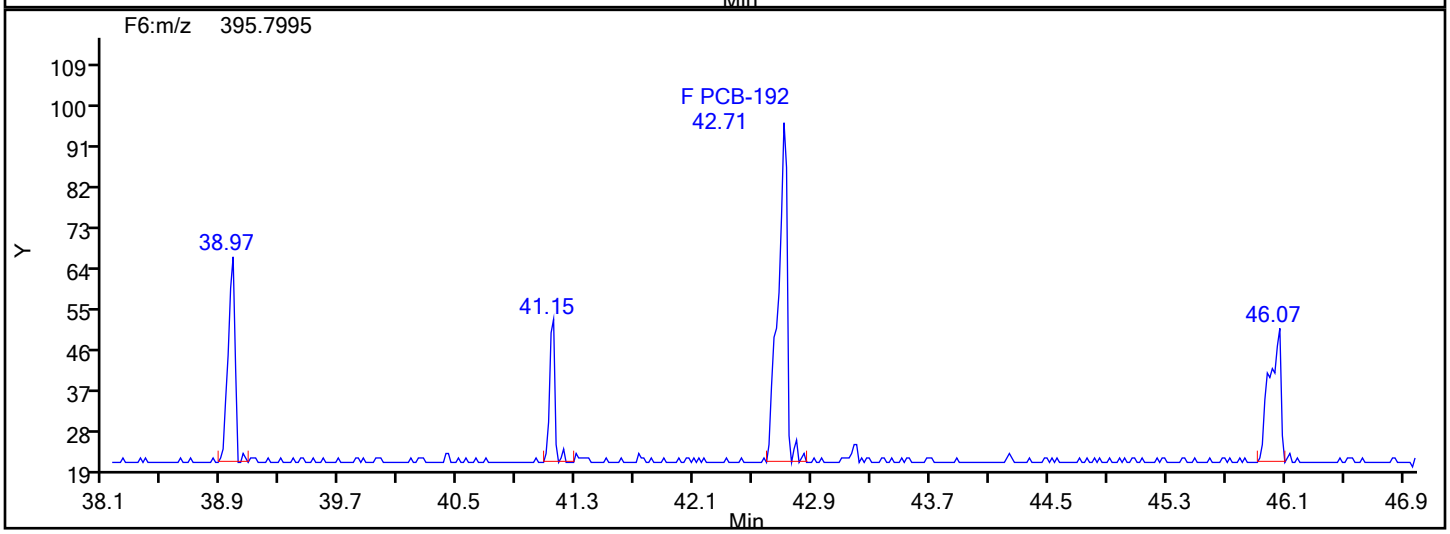
Report Date: 31-Mar-2025 13:39:27 Chrom Revision: 2.3 21-Mar-2025 14:03:38

Eurofins Knoxville

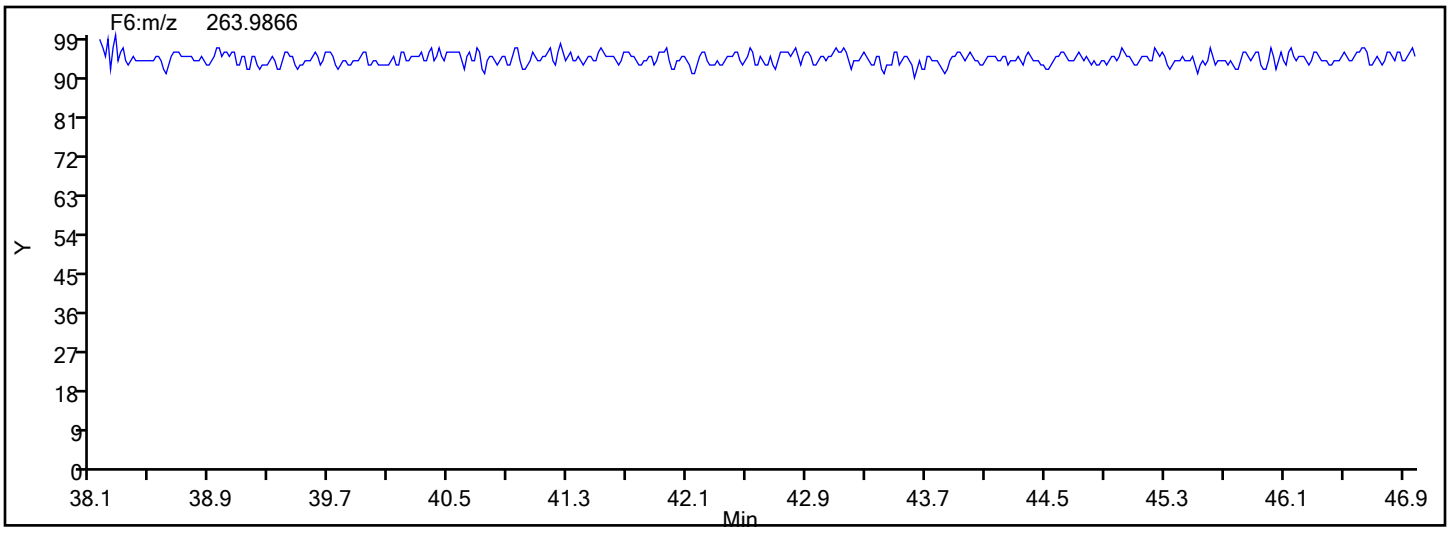
Data File:	\\chromfs\Knoxville\ChromData\D3PST\20250328-37030.b\mb140-9718611-b.d		
Injection Date:	28-Mar-2025 14:57:00	Injection Vol:	1.0 ul
Instrument ID:	D3PST	Operator ID:	Xcalibur_System
Method:	1699__D3PST	Limit Group:	HR - 1699 - ICAL
Client ID:			
Worklist#:	97714	Sample Line#:	8
Column Type:	RTX-5	Column Dia:	0.32 mm

PCB-192





PCB-192 Lock Mass



PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 03/19/2025 17:47

Analysis Batch Number: 97380 End Date: 03/20/2025 17:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 140-97380/1		03/19/2025 17:47	1	d3250319ic1_20250319174618.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/2		03/19/2025 18:42	1	d3250319ic2.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/3		03/19/2025 19:37	1	d3250319ic3.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/4		03/19/2025 20:32	1	d3250319ic4.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/5		03/19/2025 21:26	1	d3250319ic5.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/6		03/19/2025 22:21	1	d3250319ic6.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/7		03/19/2025 23:16	1	d3250319ic7.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/8		03/20/2025 00:10	1	d3250319ic8.d	RTX-5(60x.32x25 0.32(mm)
IC 140-97380/9		03/20/2025 01:05	1	d3250319ic9.d	RTX-5(60x.32x25 0.32(mm)
ICV 140-97380/11		03/20/2025 17:22	1	d3250320icav.d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Initial Calibration Review Checklist
Method: 1699 by KNOX-ID-0019,-Rev. 0

Instrument:	D355		1699 Pesticide
Analysis Date:	3/19,3/20 2025	TALS Batch / Event #	97380 / 66655
Mass Res Check Time:	16:30, 7:06		/
Chrom WL#:	36907		/

Chrom Worklist/Peak Review	1st	*Comments/NCM#*	2nd
1.Re-read each limit group in the Chrom method.	✓		✓
2.Are the reagents & init./final vol. correct?	✓		✓
3.First levels "unlock/clear" or "unlock/clear by sublist" as appropriate?	✓		✓
4.Are the Cal Levels & groups correct in WL?	✓		✓
5.Was the mass resolution documented at the beginning of the initial calibration?	✓		✓
6.Was the instrument resolution >8,000 throughout the FC43?	✓		✓
7.Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
8.Have the ICAL mixes 1-9 been analyzed using the installed column to assign method retention times and MID switch points?	✓		✓
9.Are the calibration standard solutions at the concentrations specified in the SOP?	✓		✓
10.At least 5 points used in the calibration (6 for quadratic)?	✓		✓
11.Does the lowest active point support the RL?	✓		✓
12.Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS5 standard?	✓		✓
13.Were all standards injected within 12 hours of the time of the mass resolution check?	✓		✓
14.Was the ICAL high point standard checked for saturation?	✓		✓
15.Is the S/N for all labeled analytes ≥ 10:1? Is the S/N for targets ≥ the RL ≥ 6:1? Is the S/N for targets < RL ≥ 3:1?	✓		✓
16.Are the ion abundance ratios for all native and labeled compounds within the limits?	✓		✓
17.If manual integrations were performed, are they appropriate with proper reason given?	✓		✓
18.Was the Endrin and 4,4'-DDT breakdown check analyzed after the ICAL and breakdown less than 20%?	✓		✓

Chrom MLG Review	1st	Comments/NCM#	2nd
19.Are ICAL start/end dates/times correct on summary?	✓		✓
20.Is the % RSD acceptable (within 35%) for all labeled standards?	✓		✓
21.Is the % RSD acceptable for all native analytes (within 20% calculated by IDAs, and within 35% when not calculated by IDAs)?	✓	do not use for endrin aldehyde & pentachloro. phenol	✓
22.Is the readback for each point within criteria? (≤ 30% for all points > RL, ≤ 50 % for points at RL and lower)	✓		✓
23.Was an ICV analyzed and meet the limits according the SOP?	✓		✓
24.Is low level standard at or below RL?	✓		✓
25.Lock the Chrom method and upload ICAL & ICV.	✓		✓

Continued on next page

Eurofins TestAmerica Knoxville Initial Calibration Review Checklist
Method: 1699 by KNOX-ID-0019,-Rev. 0

TALS MLG Review	1st	*Comments*	2nd
26.Graphics uploaded?	✓		✓
27.All points are in the most recent active calibration event #?	✓		✓
28.Verify the reagents have not expired.	✓		✓
29.Was the mass resolution check AND breakdown check scanned and attached?	✓		✓
30.If criteria not met, was a NCM generated?	NA		✓
31.After review in TALS, approve the calibration in TALS	✓		✓
32.Checklist scanned & attached properly?	-N/A-		✓
1st Level [signature] Date: 3/26/25		2nd Level MAC by [signature] Date: 3/26/25	
Comments:		Comments:	

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 03/28/2025 10:14

Analysis Batch Number: 97714 End Date: 03/28/2025 20:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-97714/1		03/28/2025 10:14	1	d3250328c1a.d	RTX-5(60x.32x25 0.32(mm)
BKDN PEM		03/28/2025 11:42	1		RTX-5(60x.32x25 0.32(mm)
LCS 140-97186/10-B		03/28/2025 12:36	1	lcs140-9718610-b.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		03/28/2025 14:02	1		RTX-5(60x.32x25 0.32(mm)
MB 140-97186/11-B		03/28/2025 14:57	1	mb140-9718611-b.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 15:52	10		RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 16:46	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 17:41	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 18:36	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 19:30	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		03/28/2025 20:25	1		RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	D3951	Start mass Res:	09:58
Analysis Date:	3/28/25	End Mass Res:	21:42
Chrom WL #:	370130	CS3 File name:	d3250328c1a
TALS Batch #:	97714	Breakdown Std:	d3250328bd1a
ICAL Chrom WL #:	369071		
ICAL TALS Batch / Event #:	97390 / 60165		

CCV Chrom/Worklist Review	1st	Comments/NCM #	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	✓		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	✓		✓
15. Are % D within ± 25% for all natives?	✓	See NCM 140-65970	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	✓		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	✓		✓

Batch Chrom/TALS review	1st	Comments/NCM #	2nd
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL See NCM 140-66145	ND	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NO	☑ IDA – High (1) no effect (NCM#_____) Samples Samples 140-40903-9, 10, 11, 12. ☐ IDA – (2) matrix, low bias (NCM#_____) Samples Samples	☐ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples ☐ IDA – Low - S/N < 10:1 *"cn"* (NCM#_____) Samples Samples	✓
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	✓	☐ Ion abundance ratio (s) outside limits (NCM#_____)		✓
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks AND the breakdown check attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	☐ Holding Time-Initial Analysis (NCM#_____) ☐ Holding Time-Reanalysis (NCM#_____) ☐ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) ☐ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	☐ (NCM#_____)	✓
17. Are all positive within the upper calibration range?	✓	☐ ICAL-Range Exceed;No Sat. (NCM#_____)	✓
18. Was a Post Dilution Spike technique used?	NA	☐ Dilution-Respike IDA (NCM#_____)	✓
19. Suffixes assigned properly when needed (DL/RE)?	NA		✓
20. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?			✓

1st level: MTC	Date 4/6/25	2nd level:	Date 4/4/25
Comments:			

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 03/28/2025 22:12

Analysis Batch Number: 97726 End Date: 03/29/2025 07:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-97726/1		03/28/2025 22:12	1	d3250329c1a.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		03/28/2025 23:07	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ		03/29/2025 00:32	1		RTX-5(60x.32x25 0.32(mm)
140-40836-9	ASPECT.PRC.BLK3	03/29/2025 07:49	1	140-40836-a-9-b .d	RTX-5(60x.32x25 0.32(mm)

1699

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	D3P5T	**Start mass Res:**	21:42
Analysis Date:	3/29/25	**End Mass Res:**	
Chrom WL #:	370335	**CS3 File name:**	d325032901a
TALS Batch #:	977216	**Breakdown Std:**	d325032901b.d1a
ICAL Chrom WL #:	369907		
ICAL TALS Batch / Event #:	97380 / 60605		

CCV Chrom/Worklist Review	1st	*Comments/NCM #*	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	✓		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	✓	PRCs only	✓
15. Are % D within ± 25% for all natives?	✓	PRCs only	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	✓		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	✓		✓

Batch Chrom/TALS review	*1st*	*Comments/NCM #*	*2nd*
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NA	□ IDA – High (1) no effect (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – (2) matrix, low bias (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____	□ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – Low - S/N < 10:1 *"cn"* (NCM# _____) Samples Samples _____ _____ _____ _____ _____ _____	NA
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	NA	□ Ion abundance ratio (s) outside limits (NCM#_____)		NA
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks AND the breakdown check attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	□ Holding Time-Initial Analysis (NCM#_____) □ Holding Time-Reanalysis (NCM#_____) □ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) □ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	□ (NCM#_____)	NA
17. Are all positive within the upper calibration range?	ND	☑ ICAL-Range Exceed;No Sat. (NCM# 67139)	No
18. Was a Post Dilution Spike technique used?	NA	□ Dilution-Respike IDA (NCM#_____)	NA
19. Suffixes assigned properly when needed (DL/RE)?	NA		NA
20. Samples not reported set to "Acceptable" or "Rejected"	NA		NA
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?			✓

1st level:	Date 5/7/25	2nd level:	Date 5/4/25
Comments:			

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 03/30/2025 12:22

Analysis Batch Number: 97758 End Date: 03/30/2025 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-97758/1		03/30/2025 12:22	1	d3250330c1a.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		03/30/2025 13:41	1		RTX-5(60x.32x25 0.32(mm)
ZZZZZ		03/30/2025 15:07	1		RTX-5(60x.32x25 0.32(mm)
140-40836-1	PW-01-241230	03/30/2025 16:02	10	140-40836-a-1-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-2	PW-02-241230	03/30/2025 16:56	10	140-40836-a-2-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-3	PW-03-241230	03/30/2025 17:51	10	140-40836-a-3-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-4	PW-04-241230	03/30/2025 18:46	10	140-40836-a-4-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-5	PW-FD-241230	03/30/2025 19:40	10	140-40836-a-5-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-6	PW-TB-241230	03/30/2025 20:35	10	140-40836-a-6-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-7	ASPECT.PRC.BLK1	03/30/2025 21:30	10	140-40836-a-7-b 10x.d	RTX-5(60x.32x25 0.32(mm)
140-40836-8	ASPECT.PRC.BLK2	03/30/2025 22:24	10	140-40836-a-8-b 10x.d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	03PST	**Start mass Res:**	12:06
Analysis Date:	3/30/25	**End Mass Res:**	23:16
Chrom WL #:	37053	**CS3 File name:**	d325033oc1a
TALS Batch #:	97758	**Breakdown Std:**	d325033obd1a
ICAL Chrom WL #:	36907		
ICAL TALS Batch / Event #:	97390 / 6065		

CCV Chrom/Worklist Review	1st	*Comments/NCM #*	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	✓		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	NA		✓
15. Are % D within ± 25% for all natives?	✓	PRCs only	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	NA		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	✓		✓

Batch Chrom/TALS review	*1st*	*Comments/NCM #*	*2nd*
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NA	□ IDA – High (1) no effect (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – (2) matrix, low bias (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____	□ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – Low - S/N < 10:1 *"cn"* (NCM# _____) Samples Samples _____ _____ _____ _____ _____ _____	✓
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	✓	□ Ion abundance ratio (s) outside limits (NCM#_____)		✓
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks AND the breakdown check attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	□ Holding Time-Initial Analysis (NCM#_____) □ Holding Time-Reanalysis (NCM#_____) □ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) □ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	□ (NCM#_____)	✓
17. Are all positive within the upper calibration range?	✓	□ ICAL-Range Exceed;No Sat. (NCM#_____)	✓
18. Was a Post Dilution Spike technique used?	NA	□ Dilution-Respike IDA (NCM#_____)	✓
19. Suffixes assigned properly when needed (DL/RE)?	NA		✓
20. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?			✓

1st level:	Date 5/6/25	2nd level:	Date 5/6/25
Comments:			

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 05/02/2025 14:50

Analysis Batch Number: 99200 End Date: 05/02/2025 22:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 140-99200/1		05/02/2025 14:50	1	d3250502ip1_20250502144728.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/2		05/02/2025 15:45	1	d3250502ip2.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/3		05/02/2025 16:39	1	d3250502ip3.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/4		05/02/2025 17:34	1	d3250502ip4.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/5		05/02/2025 18:29	1	d3250502ip5.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/6		05/02/2025 19:23	1	d3250502ip6.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/7		05/02/2025 20:18	1	d3250502ip7.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/8		05/02/2025 21:13	1	d3250502ip8.d	RTX-5(60x.32x25 0.32(mm)
IC 140-99200/9		05/02/2025 22:08	1	d3250502ip9.d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Initial Calibration Review Checklist
Method: 1699 by KNOX-ID-0019,-Rev. 0

Instrument:	D3P5T		1699 Pesticide
Analysis Date:	5/2/25	**TALS Batch / Event #**	99200 / 6170
Mass Res Check Time:	1403		/
Chrom WL#:	37612		/

Chrom Worklist/Peak Review	1st	*Comments/NCM#*	2nd
1.Re-read each limit group in the Chrom method.	✓		✓
2.Are the reagents & init./final vol. correct?	✓		✓
3.First levels "unlock/clear" or "unlock/clear by sublist" as appropriate?	✓		✓
4.Are the Cal Levels & groups correct in WL?	✓		✓
5.Was the mass resolution documented at the beginning of the initial calibration?	✓		✓
6.Was the instrument resolution >8,000 throughout the FC43?	✓		✓
7.Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
8.Have the ICAL mixes 1-9 been analyzed using the installed column to assign method retention times and MID switch points?	✓		✓
9.Are the calibration standard solutions at the concentrations specified in the SOP?	✓*	PCP only.	✓
10.At least 5 points used in the calibration (6 for quadratic)?	✓		✓
11.Does the lowest active point support the RL?	✓		✓
12.Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS5 standard?	NA	PCP only	✓
13.Were all standards injected within 12 hours of the time of the mass resolution check?	✓		✓
14.Was the ICAL high point standard checked for saturation?	✓		✓
15.Is the S/N for all labeled analytes ≥ 10:1? Is the S/N for targets ≥ the RL ≥ 6:1? Is the S/N for targets < RL ≥ 3:1?	✓		✓
16.Are the ion abundance ratios for all native and labeled compounds within the limits?	✓		✓
17.If manual integrations were performed, are they appropriate with proper reason given?	✓		✓
18.Was the Endrin and 4,4'-DDT breakdown check analyzed after the ICAL and breakdown less than 20%?	NA		✓

Chrom MLG Review	1st	Comments/NCM#	2nd
19.Are ICAL start/end dates/times correct on summary?	✓		✓
20.Is the % RSD acceptable (within 35%) for all labeled standards?	NA		✓
21.Is the % RSD acceptable for all native analytes (within 20% calculated by IDAs, and within 35% when not calculated by IDAs)?	✓*	PCP only	✓
22.Is the readback for each point within criteria? (≤ 30% for all points > RL, ≤ 50 % for points at RL and lower)	✓		✓
23.Was an ICV analyzed and meet the limits according the SOP?	N/A		✓
24.Is low level standard at or below RL?	✓		✓
25.Lock the Chrom method and upload ICAL & ICV.	✓		✓

Continued on next page

Eurofins TestAmerica Knoxville Initial Calibration Review Checklist
Method: 1699 by KNOX-ID-0019,-Rev. 0

TALS MLG Review	1st	*Comments*	2nd
26.Graphics uploaded?	✓		✓
27.All points are in the most recent active calibration event #?	✓		✓
28.Verify the reagents have not expired.	✓		✓
29.Was the mass resolution check ~~AND breakdown check~~ scanned and attached?	✓		✓
30.If criteria not met, was a NCM generated?	NA		✓
31.After review in TALS, approve the calibration in TALS	✓		✓
32.Checklist scanned & attached properly?	-N/A-		✓
1st Level [signature] Date: 5/2/25		2nd Level UHAC Date: 5/6/25	
Comments:		Comments:	
Not Isotope Dilution Technique Calculated vs. ISTD -			

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 05/04/2025 15:39

Analysis Batch Number: 99272 End Date: 05/05/2025 00:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-99272/1		05/04/2025 15:39	1	d3250504p1a.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		05/04/2025 16:34	1		RTX-5(60x.32x25 0.32(mm)
140-40836-1	PW-01-241230	05/04/2025 17:49	1	140-40836-a-1-a .d	RTX-5(60x.32x25 0.32(mm)
140-40836-2	PW-02-241230	05/04/2025 18:44	1	140-40836-a-2-a .d	RTX-5(60x.32x25 0.32(mm)
140-40836-3	PW-03-241230	05/04/2025 19:38	1	140-40836-a-3-a .d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ (Client)		05/04/2025 20:33	1		RTX-5(60x.32x25 0.32(mm)
140-40836-5	PW-FD-241230	05/04/2025 21:28	1	140-40836-a-5-a .d	RTX-5(60x.32x25 0.32(mm)
140-40836-6	PW-TB-241230	05/04/2025 22:22	1	140-40836-a-6-a .d	RTX-5(60x.32x25 0.32(mm)
140-40836-7	ASPECT.PRC.BLK1	05/04/2025 23:17	1	140-40836-a-7-a .d	RTX-5(60x.32x25 0.32(mm)
140-40836-8	ASPECT.PRC.BLK2	05/05/2025 00:12	1	140-40836-a-8-a .d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	03PST	Start mass Res:	15:22
Analysis Date:	5/4/23	End Mass Res:	01:03
Chrom WL #:	37639	CS3 File name:	d3250504pla
TALS Batch #:	99272	Breakdown Std:	NA
ICAL Chrom WL #:	37612		
ICAL TALS Batch / Event #:	99200 / 6170		

CCV Chrom/Worklist Review	1st	*Comments/NCM #*	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	✓		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	NA		✓
15. Are % D within ± 25% for all natives?	✓*	PCP only	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	NA		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	NA		✓

Batch Chrom/TALS review	*1st*	*Comments/NCM #*	*2nd*
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	NA	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NA	□ IDA – High (1) no effect (NCM#_____) Samples Samples □ IDA – (2) matrix, low bias (NCM#_____) Samples Samples	□ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples □ IDA – Low - S/N < 10:1 *"cn"* (NCM#_____) Samples Samples	✓
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	✓	□ Ion abundance ratio (s) outside limits (NCM#_____)		✓
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks ~~AND the breakdown check~~ attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	□ Holding Time-Initial Analysis (NCM#_____) □ Holding Time-Reanalysis (NCM#_____) □ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) □ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	□ (NCM#_____)	✓
17. Are all positive within the upper calibration range?	✓	□ ICAL-Range Exceed;No Sat. (NCM#_____)	✓
18. Was a Post Dilution Spike technique used?	NA	□ Dilution-Respike IDA (NCM#_____)	✓
19. Suffixes assigned properly when needed (DL/RE)?	NA		✓
20. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?			✓

1st level:	**Date** 5/6/25	**2nd level:**	**Date** 5/6/25
Comments:		PCP only	

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 05/05/2025 15:43

Analysis Batch Number: 99273 End Date: 05/05/2025 18:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-99273/1		05/05/2025 15:43	1	d3250505p1a.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		05/05/2025 17:38	1		RTX-5(60x.32x25 0.32(mm)
140-40836-9	ASPECT.PRC.BLK3	05/05/2025 18:32	1	140-40836-a-9-a .d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	D3P5T	Start mass Res:	14:29
Analysis Date:	5/5/25	End Mass Res:	19:24
Chrom WL #:	37640	CS3 File name:	d3250505pla
TALS Batch #:	99273	Breakdown Std:	NA
ICAL Chrom WL #:	37612		
ICAL TALS Batch / Event #:	99200 / 6170		

CCV Chrom/Worklist Review	1st	*Comments/NCM #*	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	NA	* PCP only	✓
15. Are % D within ± 25% for all natives?	✓	* PCP only	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	NA		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	NA		✓

Batch Chrom/TALS review	1st	*Comments/NCM #*	2nd
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NA	□ IDA – High (1) no effect (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – (2) matrix, low bias (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____	□ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – Low - S/N < 10:1 *"cn"* (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____	✓
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	✓	□ Ion abundance ratio (s) outside limits (NCM#_____)		✓
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks ~~AND the breakdown check~~ attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	□ Holding Time-Initial Analysis (NCM#_____) □ Holding Time-Reanalysis (NCM#_____) □ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) □ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	□ (NCM#_____)	✓
17. Are all positive within the upper calibration range?	✓	□ ICAL-Range Exceed;No Sat. (NCM#_____)	✓
18. Was a Post Dilution Spike technique used?	NA	□ Dilution-Respike IDA (NCM#_____)	✓
19. Suffixes assigned properly when needed (DL/RE)?	NA		✓
20. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?	✓		✓

1st level:	Date 5/6/25	2nd level:	Date 5/6/25
Comments:		PC Only	

PESTICIDES ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Instrument ID: D3PST Start Date: 05/06/2025 15:50

Analysis Batch Number: 99325 End Date: 05/06/2025 17:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-99325/1		05/06/2025 15:50	1	d3250506p1a.d	RTX-5(60x.32x25 0.32(mm)
ZZZZZ		05/06/2025 16:44	1		RTX-5(60x.32x25 0.32(mm)
140-40836-4	PW-04-241230	05/06/2025 17:39	1	140-40836-a-4-a a.d	RTX-5(60x.32x25 0.32(mm)

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

Instrument:	D3PST	**Start mass Res:**	15:33
Analysis Date:	5/16/25	**End Mass Res:**	19:13
Chrom WL #:	376657	**CS3 File name:**	d325050lep1a
TALS Batch #:	99326	**Breakdown Std:**	NA
ICAL Chrom WL #:	376612		
ICAL TALS Batch / Event #:	99200 / 60170		

CCV Chrom/Worklist Review	1st	*Comments/NCM #*	2nd
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >8,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Are the ion abundance ratios for all labeled and unlabeled analytes within the limits?	✓		✓
12. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA		✓
13. Are RRTs of all unlabled analytes within their respective RRT limits?	✓		✓
14. Are % D within ± 50% for all labeled IDA's?	NA		✓
15. Are % D within ± 25% for all natives?	✓	* PCP only	✓
16. Was the absolute retention time for Methoxychlor greater than 39 minutes in the CS6 standard?	NA		✓
17. Was the Endrin and 4,4'-DDT breakdown check analyzed after the CCAL and breakdown less than 20%?	NA		✓

Batch Chrom/TALS review	*1st*	*Comments/NCM #*	*2nd*
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	□ MB Rpt ND (NCM#_____) □ MB-Rpt.10x (NCM#_____) □ MB-insuff samp (NCM#_____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	□ IDA – High (NCM#_____) □ IDA – Low - S/N 10:1 (NCM#_____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	□ LCS/D-Insuff smp (NCM#_____) □ LCS/D-Insuff smp - CONSUMED (NCM#_____) □ LCS/D %R High < RL in smp (NCM#_____) □ LCS/D out-RX HT out (NCM#_____) □ LCS/D-%RPD (%R OK) (NCM#_____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

Eurofins TestAmerica Knoxville Data Review / Narrative Checklist
Method 1699 by KNOX-ID-0019, Rev. 0

8. Are sample IDA recoveries within QC limits as specified within limits? "*cn*" See case narrative	NA	□ IDA – High (1) no effect (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – (2) matrix, low bias (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____	□ IDA – Low - S/N > 10:1 – OK (NCM#_____) Samples Samples _____ _____ _____ _____ _____ _____ □ IDA – Low - S/N < 10:1 *"cn"* (NCM# _____) Samples Samples _____ _____ _____ _____ _____ _____	✓
9. All sample and QC IDA, IS and surrogate ion ratios within QC limits?	✓	□ Ion abundance ratio (s) outside limits (NCM#_____)		✓
10. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	*1st*	*Comments/NCM #*	*2nd*
11. Graphics uploaded?	✓		✓
12. Sample special instructions verified?	✓		✓
13. Was the mass resolution checks AND the breakdown check attached to the appropriate CCV?	✓		✓
14. Was the correct ICAL used for quantitation? (Check ICAL event number in batch).	✓		✓
15. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	□ Holding Time-Initial Analysis (NCM#_____) □ Holding Time-Reanalysis (NCM#_____) □ NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM#_____) □ Narrate reasons for multiple analyses of samples (NCM#_____)	✓
16. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	□ (NCM#_____)	✓
17. Are all positive within the upper calibration range?	✓	□ ICAL-Range Exceed;No Sat. (NCM#_____)	✓
18. Was a Post Dilution Spike technique used?	NA	□ Dilution-Respike IDA (NCM#_____)	✓
19. Suffixes assigned properly when needed (DL/RE)?	NA		✓
20. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
21. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
22. Verify reagents have not expired.	✓		✓
23. Is the correct ICV from the ICAL linked?	✓		✓
24. Checklist scanned & attached properly?			✓

1st level:	**Date** 5/4/23	**2nd level:**	**Date** 5/6/23
Comments:		PC only - samples frozen w/in HT's	

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Batch Number: 97186 Batch Start Date: 03/12/25 10:21 Batch Analyst: Stamper, Claire M

Batch Method: Passive Sampler Batch End Date: 03/19/25 15:45

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	61PSTIDAWRK 00020	61SP1699WRK 00006	AnalysisComment	
140-40836-A-1	PW-01-241230	Passive Sampler, Split, 1699	Sediment	T	0.043 g	20 mL	1 mL			
140-40836-A-2	PW-02-241230	Passive Sampler, Split, 1699	Sediment	T	0.049 g	20 mL	1 mL			
140-40836-A-3	PW-03-241230	Passive Sampler, Split, 1699	Sediment	T	0.042 g	20 mL	1 mL			
140-40836-A-4	PW-04-241230	Passive Sampler, Split, 1699	Sediment	T	0.050 g	20 mL	1 mL			
140-40836-A-5	PW-FD-241230	Passive Sampler, Split, 1699	Sediment	T	0.044 g	20 mL	1 mL			
140-40836-A-6	PW-TB-241230	Passive Sampler, Split, 1699	Sediment	T	0.040 g	20 mL	1 mL			
140-40836-A-7	ASPECT.PRC.BLK1	Passive Sampler, Split, 1699	Sediment	T	0.045 g	20 mL	1 mL			
140-40836-A-8	ASPECT.PRC.BLK2	Passive Sampler, Split, 1699	Sediment	T	0.045 g	20 mL	1 mL			
140-40836-A-9	ASPECT.PRC.BLK3	Passive Sampler, Split, 1699	Sediment	T	0.044 g	20 mL	1 mL			
LCS 140-97186/10		Passive Sampler, Split, 1699			0.048 g	20 mL	1 mL	1 mL		
MB 140-97186/11		Passive Sampler, Split, 1699			0.054 g	20 mL	1 mL		Concentrated to near dryness on heating mantle.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Batch Number: 97186 Batch Start Date: 03/12/25 10:21 Batch Analyst: Stamper, Claire M

Batch Method: Passive Sampler Batch End Date: 03/19/25 15:45

Batch Notes	
Analyst ID - TA Reagent Drop	cms
Analyst ID - IDA Reagent Drop	cms
Analyst ID - TA Reagent Drop Witness	dm
Analyst ID - IDA Reagent Drop Witness	dm
Balance ID	w1
Balance is Level? (Y/N)	yes
MeCL2 ID	50:50 MeCl2/Hex mix - 754099, 245685
Hexane ID	250046
Extraction Start time	15:20
Extraction End time	10:07
GPC Date	03/17/2025

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TestAmerica Knoxville Extraction Sheet
1699 Pesticide Polyethylene Extraction

5:48pm

Batch Number: 97186

Delivered: RKG 3/19/25
Initials/Date/Time

Split Batch Number:

TALS Prep Method: Pass_Samp_Prep→1699_Split

Received:
Initials/Date/Time

Lab Sample ID	Prepare polyethylene piece for extraction and place in 500 mL amber jar.	Add 10 ng/mL IS (IDA) to all samples & QC. Record in TALS.	Add 5.0 ng/mL native spike (TA) to LCS, LCSD, MS, MSD. Record in TALS.	Place on rotator and extract for 18-24 hr in 1:1 hexane/$MeCl_2$.	Record sample weight in g in TALS.	Concentrate/exchange to hexane to ≥20 mL on heating mantle.	Concentrate to appropriate vol on N-EVAP.	Perform ~~Basic Silica Gel~~ Column Cleanup (Y/N/NA). GPC SRG 3.13.25	Concentrate to ≥20 mL on ~~heating mantle~~. K-D & Hexane exchange CYL	Concentrate to ~0.5 to 1 mL on N-EVAP.	Add 100 ng/mL recovery std (IS) to mini-vial. Record in TALS. Transfer extract to vial.	Conc to final volume in nonane. Record final volume in TALS.
140-40836-A-1	Y	Y	N	Y	0.043	Y	Y	GPC 3	Y	Y	20uL	Y
140-40836-A-2					0.049							
140-40836-A-3					0.042							
140-40836-A-4					0.050							
140-40836-A-5					0.044							
140-40836-A-6					0.040							
140-40836-A-7					0.045							
140-40836-A-8					0.045							
140-40836-A-9			Y		0.044							
LCS 140-97186/10			Y		0.048							
MB 140-97186/11			N		0.054							
~~mgr 3/19/25~~	LSS	CMS	→	→	CMS	CMS	SRG	RGG	CYL	mgr	mgr	→
~~mgr 3/19/25~~	3/12	→	→	→	3/13	3/13	3·13	3·17	3·18	3/18	3/19	→

mgr 3/19/25

Eurofins Knoxville Prep Batch Review Checklist

Batch # 97186

Split Batch # NA

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?		✓			✓
3. Were all project specific requirements met?		✓			✓
4. Were the correct start and completion dates entered into TALS?		✓			✓
5. Are the spike IDs and volumes correct in TALS for the method?		✓			✓
6. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: • Extraction Benchsheet (Excel) • Batch Worksheets (ANLY) • ~~Verify Protocol #'s (compare excel sheet to TALS)~~ mgn 3/19/25 • Was the Excel Extraction Benchsheet and Prep Batch Review Checklist scanned and attached to batch in TALS?		✓			✓
7. Did extracts go through GPC cleanup? Has the following nonconformance been associated with all extracts?		✓		If Yes, □ Clean-up Required - GPC (NCM# 140-6552)	✓
8. Are all additional nonconformances documented appropriately?	✓			If Yes, NCM#: _____	✓

Analyst : mgn **Date:** 3/19/25

Comments:

2nd Level Reviewer: RKG **Date:** 3/19/25

Comments:

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Batch Number: 97380 Batch Start Date: 03/19/25 17:47 Batch Analyst: Nordquist, Jon M

Batch Method: 1699 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	611699ICV 00015	61L0.51699PST 00011	61L11699PST 00013	61L21699PST 00012	61L31699PST 00010	61L41699PST 00010
IC 140-97380/1		1699				20 uL				
IC 140-97380/2		1699					20 uL			
IC 140-97380/3		1699						20 uL		
IC 140-97380/4		1699							20 uL	
IC 140-97380/5		1699								20 uL
IC 140-97380/6		1699								
IC 140-97380/7		1699								
IC 140-97380/8		1699								
IC 140-97380/9		1699								
ICV 140-97380/11		1699			20 uL					

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61L51699PST 00018	61L61699PST 00010	61L71699PST 00011	61L81699PST 00010		
IC 140-97380/1		1699								
IC 140-97380/2		1699								
IC 140-97380/3		1699								
IC 140-97380/4		1699								
IC 140-97380/5		1699								
IC 140-97380/6		1699			20 uL					
IC 140-97380/7		1699				20 uL				
IC 140-97380/8		1699					20 uL			
IC 140-97380/9		1699						20 uL		
ICV 140-97380/11		1699								

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Batch Number: 97582 Batch Start Date: 03/25/25 09:06 Batch Analyst: Gentzel, Rebecca K

Batch Method: Split Batch End Date: 03/25/25 09:14

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	61PCPIDA10X 00001	61PSTRECWRK 00006		
140-40836-A-1-A	PW-01-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-2-A	PW-02-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-3-A	PW-03-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-4-A	PW-04-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-5-A	PW-FD-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-6-A	PW-TB-241230	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-7-A	ASPECT.PRC.BLK1	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-8-A	ASPECT.PRC.BLK2	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
140-40836-A-9-A	ASPECT.PRC.BLK3	Split, 1699	Sediment	T	20 mL	20 uL	1 uL	20 uL		
LCS 140-97186/10-A		Split, 1699			20 mL	20 uL	1 uL	20 uL		
MB 140-97186/11-A		Split, 1699			20 mL	20 uL	1 uL	20 uL		

Batch Notes	
Analyst ID - IS Reagent Drop	MJR
Analyst ID - IS Reagent Drop Witness	MJR
GPC ID	GPC3
GPC Analyst	RGB
GPC Date	3/17/25
Analyst ID - Concentration	CYL 3/18/25
Batch Comment	Lot # 865026 (J2 Scientific septa caps); CYL Conc 3/18; final conc. MJR 3/19/25

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PESTICIDES BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-40836-1

SDG No.:

Batch Number: 99200 Batch Start Date: 05/02/25 14:50 Batch Analyst: Nordquist, Jon M

Batch Method: 1699 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61L0.51699PCP 00001	61L11699PCP 00001	61L21699PCP 00001	61L31699PCP 00001	61L41699PCP 00001	61L51699PCP 00001
IC 140-99200/1		1699			20 uL					
IC 140-99200/2		1699				20 uL				
IC 140-99200/3		1699					20 uL			
IC 140-99200/4		1699						20 uL		
IC 140-99200/5		1699							20 uL	
IC 140-99200/6		1699								20 uL
IC 140-99200/7		1699								
IC 140-99200/8		1699								
IC 140-99200/9		1699								

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61L61699PCP 00001	61L71699PCP 00001	61L81699PCP 00001			
IC 140-99200/1		1699								
IC 140-99200/2		1699								
IC 140-99200/3		1699								
IC 140-99200/4		1699								
IC 140-99200/5		1699								
IC 140-99200/6		1699								
IC 140-99200/7		1699			20 uL					
IC 140-99200/8		1699				20 uL				
IC 140-99200/9		1699					20 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921-5947
phone 865.291.3000 fax 865.584.4315

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: WA MTCA

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Brent Pautler	Site Contact: Andrew Yonkofski	Date:	COC No:
Brent Pautler	Email: bpautler@siremlab.com	Lab Contact: Ryan Henry	Carrier:	1 of 1 COCs
SiREM	Tel/Fax:			TALS Project #:
130 Stone Rd West	Analysis Turnaround Time			Sampler: A. Yonkofski and D. Mackay
Guelph, ON N1G 3Z2 CANADA	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
(519) 515-0837 FAX	TAT if different from Below ____			Walk-in Client:
Project Name: Aspect Glacier Northwest	☐ 2 weeks			Lab Sampling:
Site: Glacier Northwest, Inc.	☐ 1 week			Job / SDG No.:
P O # SiREM Quote Pending	☐ 2 days ☐ 1 day			

140-40836 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCP + PRCs by EPA 1699	Sample Specific Notes:
PW-01-241230	12/30/24	2225	C	PE	1			x	10 rare PCB congeners
PW-02-241230	12/30/24	2235	C	PE	1			x	
PW-03-241230	12/30/24	2215	C	PE	1			x	
PW-04-241230	12/30/24	2200	C	PE	1			x	
PW-FD-241230	12/30/24	—	C	PE	1			x	
PW-TB-241230	--	--	--	PE	1			x	

Page 2426 of 2429

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for____ Months

Special Instructions/QC Requirements & Comments:
- Please put in the queue to analyze right away, do not wait for other samples to arrive.
- Sample dates and time reflect when the samplers were retrieved after being deployed for 29 days.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by: David Mackay	Company: Aspect Consulting	Date/Time: 12/31/24 1240	Received by:	Company: ETA KNX	Date/Time: 1-2-25 0915
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921-5947
phone 865.291.3000 fax 865.584.4315

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager: Brent Pautler**		COC No: 1
SiREM	Email: bpautler@siremlab.com	**Site Contact:**	**Date:** ___1___ of ___1___ COCs
130 Stone Rd. West	**Tel/Fax: 519-515-0837**	**Lab Contact:**	**Carrier:** TALS Project #:
Guelph, ON N	**Analysis Turnaround Time**		Sampler:
(519) 515-0837 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS		**For Lab Use Only:**
(xxx) xxx-xxxx FAX	TAT if different from Below _____		Walk-in Client:
Project Name: Aspect Consulting SP3 & Speepers	☐ 2 weeks		Lab Sampling:
Site: Glacier Northwest, WA	☐ 1 week		
Quote # N/A	☐ 2 days		Job / SDG No.:
	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCP by EPA 1699 + 10 rare PCB congeners	Sample Specific Notes:
Aspect.PRC.Blk1	11/11/2024	11:00 AM	C	PE	1	n	n	x	10x PCB PRCs
Aspect.PRC.Blk2	11/11/2024	11:00 AM	C	PE	1	n	n	x	10x PCB PRCs
Aspect.PRC.Blk3	11/11/2024	11:00 AM	C	PE	1	n	n	x	10x PCB PRCs
No Custody Seal									
Received @ BT: 4.6 / CT: 4.7 °C									
OK 11/13/24									
1 Box/Cooler UPS E									
1Z 522 7V R 66 9093 7372									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other (4 for 6020 and 7470A) — 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☑ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by: Brent Pautler	Company: SiREM Lab	Date/Time: 11/13/24 11am	Received by:	Company: ETA KNX	Date/Time: 11/13/24 12:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?			✓	☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SG16 Correction factor: +0.1°C	✓			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?		✓		☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: _____ Date: 11/13/24

QA026R33.doc, 11/10/23

Loc: 140
40836

EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ Containers, Broken
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : 5C 7G Correction factor: +0.1°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel
7. Do sample container labels match COC? (IDs, Dates, Times)		✓		☑ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted
10. Was the sampler identified on the COC?	✓	—		☑ Sampler Not Listed on COC
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Custody seal Intact
Received at RT 3.0/CT 3.1°C
CoC 1-2-25
Fedex Poly 771138010319

7) On COC PW-FD-241230
Container FD-PW-241230
On COC PW-FB-241230
On container FB-PW-241230
Logged Per COC

10) Aspect. PRC. Blk 1
2
3

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 1-2-25

QA026R33.doc, 11/10/23

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Brent Pautler
Sirem, div of Geosyntec Consultants
130 Stone Rd West
Guelph, Ontario N1G 3Z2

Generated 12/6/2024 10:39:46 AM

JOB DESCRIPTION

Glacier Northwest, WA

JOB NUMBER

180-182648-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

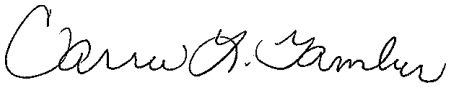
Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

PA Lab ID: 02-00416

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Pittsburgh Project Manager.

Authorization



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Authorized for release by
Carrie Gamber, Senior Project Manager
Carrie.Gamber@et.eurofinsus.com
(412)963-2428

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Definitions/Glossary 5
Certification Summary 6
Sample Summary 7
Method Summary 8
Lab Chronicle 9
Client Sample Results 10
QC Sample Results 11
QC Association Summary 12
Chain of Custody 13
Receipt Checklists 20

CASE NARRATIVE

Client: Sirem, div of Geosyntec Consultants

Project: Glacier Northwest, WA

Report Number: 180-182648-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 11/13/2024; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

9056A IC
All samples were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

METALS
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-28-25
California	State	2891	04-30-24 *
Connecticut	State	PH-0688	09-30-24 *
Florida	NELAP	E871008	06-30-25
Georgia	State	PA 02-00416	04-30-25
Illinois	NELAP	004375	07-31-25
Kansas	NELAP	E-10350	01-31-25
Kentucky (UST)	State	162013	04-30-25
Kentucky (WW)	State	KY98043	12-31-24
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-25
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-24
New Hampshire	NELAP	2030	04-04-25
New Jersey	NELAP	PA005	06-30-25
New York	NELAP	11182	04-01-25
North Carolina (WW/SW)	State	434	12-31-24
North Dakota	State	R-227	04-30-24 *
Oregon	NELAP	PA-2151	02-06-25
Pennsylvania	NELAP	02-00416	04-30-25
Rhode Island	State	LAO00362	01-01-25
South Carolina	State	89014	04-30-25
Texas	NELAP	T104704528	03-31-25
US Fish & Wildlife	US Federal Programs	058448	04-30-25
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462024-14	05-31-25
Virginia	NELAP	10043	07-14-24 *
West Virginia DEP	State	142	01-31-25
Wisconsin	State	998027800	08-31-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-11-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-182648-1	ASPECT.SPEEPER BLK 1	Water	11/11/24 11:00	11/13/24 10:00
180-182648-2	ASPECT.SPEEPER BLK 2	Water	11/11/24 11:00	11/13/24 10:00
180-182648-3	ASPECT.SPEEPER BLK 3	Water	11/11/24 11:00	11/13/24 10:00

Method Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	EET PIT
6020B	Metals (ICP/MS)	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: Glacier Northwest, WA

Job ID: 180-182648-1

Client Sample ID: ASPECT.SPEEPER BLK 1

Lab Sample ID: 180-182648-1
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	484540	11/16/24 15:18	M1D	EET PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:47	LHF4	ELLE
	Instrument ID: E07 - 27813									

Client Sample ID: ASPECT.SPEEPER BLK 2

Lab Sample ID: 180-182648-2
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	484597	11/18/24 14:16	ERP	EET PIT
	Instrument ID: INUVION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:49	LHF4	ELLE
	Instrument ID: E07 - 27813									

Client Sample ID: ASPECT.SPEEPER BLK 3

Lab Sample ID: 180-182648-3
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	484540	11/16/24 14:59	M1D	EET PIT
	Instrument ID: INTEGRION									
Dissolved	Prep	3005A			50 mL	50 mL	581562	12/04/24 06:38	UJL8	ELLE
Dissolved	Analysis	6020B		1			582262	12/04/24 20:51	LHF4	ELLE
	Instrument ID: E07 - 27813									

Laboratory References:

EET PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Analyst References:

Lab: EET PIT

Batch Type: Analysis

ERP = Evan Papak

M1D = Maureen Donlin

Lab: ELLE

Batch Type: Prep

UJL8 = James Mertz

Batch Type: Analysis

LHF4 = Diamond Boyer

Client Sample Results

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

Client Sample ID: ASPECT.SPEEPER BLK 1
Lab Sample ID: 180-182648-1
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**94**		1.0	0.53	mg/L			11/16/24 15:18	10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:47	1

Client Sample ID: ASPECT.SPEEPER BLK 2
Lab Sample ID: 180-182648-2
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**120**		0.50	0.27	mg/L			11/18/24 14:16	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:49	1

Client Sample ID: ASPECT.SPEEPER BLK 3
Lab Sample ID: 180-182648-3
Date Collected: 11/11/24 11:00
Matrix: Water
Date Received: 11/13/24 10:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**95**		0.50	0.27	mg/L			11/16/24 14:59	5

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:51	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: LB 180-484538/1-A
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/16/24 15:36	1

Lab Sample ID: MB 180-484540/6
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/16/24 10:39	1

Lab Sample ID: LCS 180-484540/7
Matrix: Water
Analysis Batch: 484540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.50		mg/L		95	80 - 120

Lab Sample ID: MB 180-484597/6
Matrix: Water
Analysis Batch: 484597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.10	0.053	mg/L			11/18/24 09:59	1

Lab Sample ID: LCS 180-484597/7
Matrix: Water
Analysis Batch: 484597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	10.0	9.81		mg/L		98	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-581562/1-A
Matrix: Water
Analysis Batch: 582262

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 581562

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.68	ug/L		12/04/24 06:38	12/04/24 20:22	1

Lab Sample ID: LCS 410-581562/2-A
Matrix: Water
Analysis Batch: 582262

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 581562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	500	492		ug/L		98	90 - 109

QC Association Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 180-182648-1
Project/Site: Glacier Northwest, WA

HPLC/IC

Filtration Batch: 484538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 180-484538/1-A	Method Blank	Total/NA	Water	FILTRATION	

Analysis Batch: 484540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Total/NA	Water	EPA 9056A	
180-182648-3	ASPECT.SPEEPER BLK 3	Total/NA	Water	EPA 9056A	
LB 180-484538/1-A	Method Blank	Total/NA	Water	EPA 9056A	484538
MB 180-484540/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-484540/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 484597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-2	ASPECT.SPEEPER BLK 2	Total/NA	Water	EPA 9056A	
MB 180-484597/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-484597/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 581562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Dissolved	Water	3005A	
180-182648-2	ASPECT.SPEEPER BLK 2	Dissolved	Water	3005A	
180-182648-3	ASPECT.SPEEPER BLK 3	Dissolved	Water	3005A	
MB 410-581562/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-581562/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 582262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-182648-1	ASPECT.SPEEPER BLK 1	Dissolved	Water	6020B	581562
180-182648-2	ASPECT.SPEEPER BLK 2	Dissolved	Water	6020B	581562
180-182648-3	ASPECT.SPEEPER BLK 3	Dissolved	Water	6020B	581562
MB 410-581562/1-A	Method Blank	Total Recoverable	Water	6020B	581562
LCS 410-581562/2-A	Lab Control Sample	Total Recoverable	Water	6020B	581562

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238-2907
phone 412.963.7058 fax 412.963.2468

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Brent Pautler	Site Contact:	Date:	COC No: 1
SiREM	Email: bpautler@siremlab.com, asweett@siremlab.c	Lab Contact:	Carrier:	1 of 1 COCs
130 Stone Rd. West	Tel/Fax: 519-515-0837			TALS Project #:
Guelph, ON N	Analysis Turnaround Time			Sampler:
(519) 515-0837 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below ____			Walk-in Client:
Project Name: Aspect Consulting SP3s and SPeepers	☐ 2 weeks			Lab Sampling:
Site: Glacier Northwest, WA	☐ 1 week			Job / SDG No.
P O # Quote 18029240	☐ 2 days ☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 9056A for Br	EPA 6020B for As	Sample Specific Notes.
Aspect.SPeeper Blk.1	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide
Aspect.SPeeper Blk.2	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide
Aspect.SPeeper Blk.3	11/11/2024	11 00 AM	C	water	2	n	n	x	x	Tracer: Bromide

180-182648 Chain of Custody

Preservation Used 1= Ice, 2= HCl; 3= H2SO4, 4=HNO3, 5=NaOH; 6= Other (4 for 6020 and 7470A) — 1

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for Months

Special Instructions/QC Requirements & Comments.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.		Cooler Temp. (°C): Obs'd.	Corr'd:	Therm ID No.
Relinquished by: Brooke Rapien	Company: SiREM Lab	Date/Time: 12/13/24 10am	Received by:	Company: BHTMB	Date/Time: 12/13/24 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev 4.35, dated 10/6/2020

View/Print Label

1 **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialogue box that appears. Note: If your browser does not support this function, select Print from the File menu to print the label.

2. **Customs Invoice** 3 copies of a completed customs invoice are required for shipments with a commercial value.

3 **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label

4. **GETTING YOUR SHIPMENT TO UPS**

Customers without a scheduled Pickup

- Ground, 3 Day Select, and Standard to Canada shipments must be dropped off at an authorized UPS location, or handed to a UPS driver Pickup service is not available for these services To find the nearest UPS location, visit ups.com.
- To Schedule a pickup or find a UPS location, visit ups com

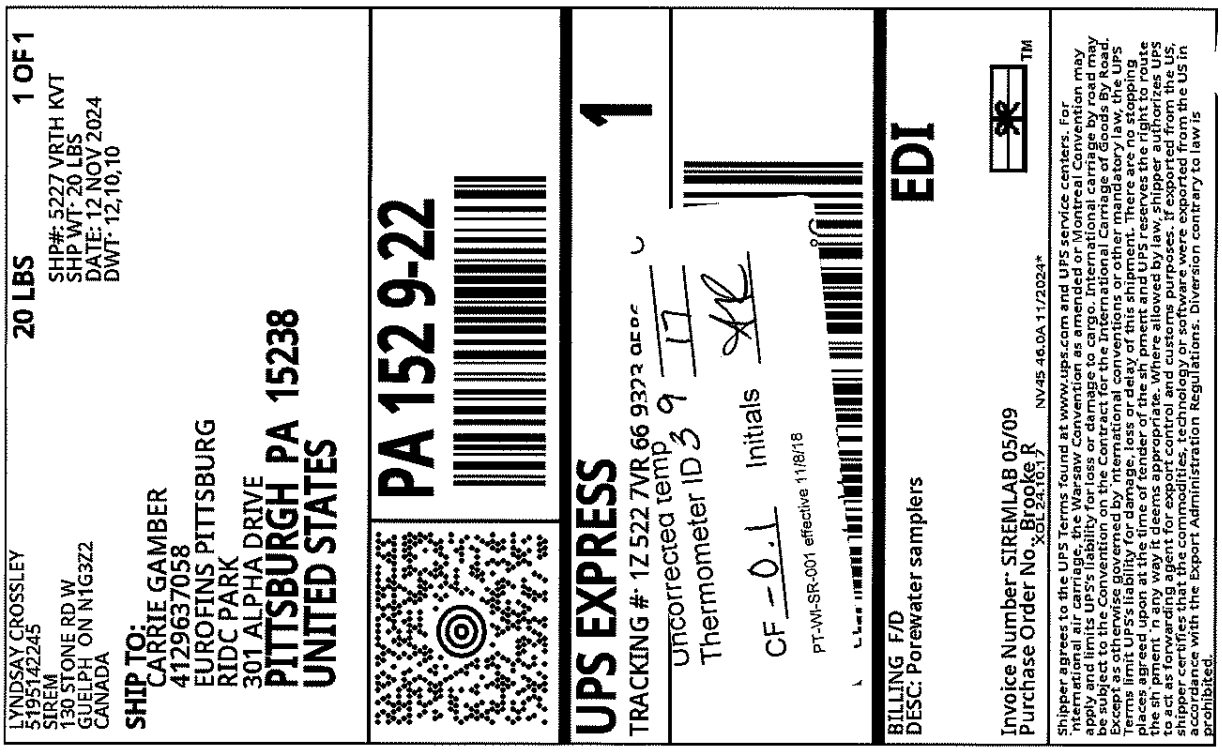
Customers with a scheduled Pickup

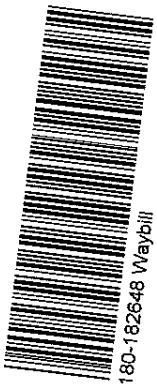
- Your driver will pickup your shipment(s) as usual.

5 To acknowledge your acceptance of the original language of the agreement with UPS as stated on the confirm payment page, and to authorize UPS to act as forwarding agent for export control and custom purposes, **sign and date here.**

Shipper's Signature	Date of Shipment
Brooke Rapien	12Nov24

FOLD HERE





Invoice

FROM

Tax ID/EIN/VAT No

Contact Name Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone 5195142245

Waybill Number 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date: 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm)
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201 90 00.00	CA	6 67	20 01	

Additional Comments:

Declaration Statement.
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brodie Kapus **Date** 12Nov24

Invoice Line Total.	20.01
Discount/Rebate:	0 00
Invoice Sub-Total	20.01
Freight:	0 00
Insurance:	0 00
Other	0 00
Total Invoice Amount.	20 01

Total Number of Packages. 1 **Currency** USD
Total Weight: 20 0 LBS

Invoice

FROM

Tax ID/EIN/VAT No.

Contact Name Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone 5195142245

Waybill Number 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm)
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201.90 00 00	CA	6 67	20 01	

Additional Comments

Declaration Statement.
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brooke Reyes **Date** 12Nov24

Invoice Line Total.	20 01
Discount/Rebate:	0 00
Invoice Sub-Total	20 01
Freight:	0 00
Insurance:	0 00
Other	0 00
Total Invoice Amount:	20 01

Total Number of Packages 1 **Currency** USD
Total Weight. 20 0 LBS

Invoice

FROM

Tax ID/EIN/VAT No.

Contact Name: Lyndsay Crossley
Sirem
130 Stone Rd W

Guelph ON N1G3Z2

Canada
Phone: 5195142245

Waybill Number: 5227VRTHKVT
Shipment ID 5227VRTHKVT

Date: 12/NOV/2024
Invoice No
PO No
Terms of Sale (Incoterm).
Reason for Export: OTHER

SHIP TO

Tax ID/VAT No.
EORI No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States
Phone 4129637058

SOLD TO INFORMATION

Tax ID/VAT No.
Contact Name: Carrie Gamber
Eurofins Pittsburg
301 Alpha Drive
RIDC Park

PITTSBURGH PA 15238

United States

Phone 4129637058

Units	U/M	Description of Goods/Part No.	Harm. Code	C/T/O	Unit Value	Total Value	Taxes Paid
3	EA	Porewater samplers for DestructiveAnalysis	2201 90 00 00	CA	6 67	20 01	

Additional Comments

Declaration Statement:
I hereby certify that the information on this invoice is true and correct and the contents and value of this shipment is as stated above

Shipper Brodie Rogers **Date** 12Nov24

Invoice Line Total.	20 01
Discount/Rebate:	0 00
Invoice Sub-Total.	20 01
Freight:	0 00
Insurance:	0 00
Other:	0 00
Total Invoice Amount:	20 01

Total Number of Packages. 1 **Currency:** USD
Total Weight: 20 0 LBS

SiREM
Leading Science Lasting Solutions

130 Stone Rd W
Guelph ON N1G 3Z2
(519) 822-2265

Toxic Substance Control Act (TSCA) Certification

Date. November 12 2024

Positive Certification

☐ I certify that all chemical substances in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order thereunder

Negative Certification

☒ I certify that all chemicals in this shipment are not subject to TSCA

Company Name	Geosyntec Consultants DBA SiREM
Company Address	130 Stone Rd W Guelph ON N1G 3Z2 Canada Tel 519-822-2230
Authorized Name	Brooke Rapien, Laboratory Technician I
UPS Waybill #:	1Z 522 7VR 66 9323 9586

Authorized Signature: Brooke Rapien

IF THE CERTIFIER IS UNSURE THAT THEIR CHEMICAL SUBSTANCE IS SUBJECT TO TSCA COMPLIANCE CONTACT THE ENVIRONMENTAL PROTECTION AGENCY TSCA ASSISTANCE OFFICE WASHINGTON DC
TEL 202-554-1404 BETWEEN 8 30 A M AND 5 00 P M EST

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Gamber, Carrie L	Carrier Tracking No(s): N/A	COC No: 180-527959.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Carrie.Gamber@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Washington		Job #: 180-182648-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 12/5/2024			
City: Lancaster	TAT Requested (days): N/A			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Glacier Northwest, WA	Project #: 18022677			
Site: N/A	SSOW#: N/A			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/FIELD_FLTRD Arsenic	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ASPECT.SPEEPER BLK 1 (180-182648-1)	11/11/24	11:00 Pacific	G	Water			X	1	
ASPECT.SPEEPER BLK 2 (180-182648-2)	11/11/24	11:00 Pacific	G	Water			X	1	
ASPECT.SPEEPER BLK 3 (180-182648-3)	11/11/24	11:00 Pacific	G	Water			X	1	

Preservation Codes: -

Other: N/A

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/14/24 1400	PPFT MT			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	11/15/24 0950	WWA

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
X Yes Δ No		2.30 C02.7

Login Sample Receipt Checklist

Client: Sirem, div of Geosyntec Consultants

Job Number: 180-182648-1

Login Number: 182648
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Sirem, div of Geosyntec Consultants

Job Number: 180-182648-1

Login Number: 182648
List Number: 2
Creator: Burkholder, Conrad

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 11/15/24 02:24 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 23, 2026

Andrew Yonkofski, Project Manager
Black River Environmental
26311 NE Valley St #141
Duvall, WA 98019

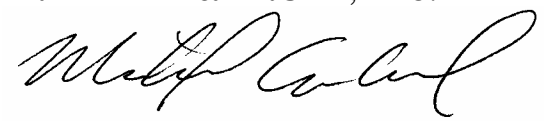
Dear Mr Yonkofski:

Included are the results from the testing of material submitted on January 12, 2026 from the Glacier Northwest, Inc.(GNW) 25006, F&BI 601120 project. There are 67 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
BRV0123R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 12, 2026 by Friedman & Bruya, Inc. from the Black River Environmental Glacier Northwest, Inc.(GNW) 25006, F&BI 601120 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Black River Environmental
601120 -01	MW-13D-260106
601120 -02	MW-47D-260106
601120 -03	MW-47S-260106
601120 -04	GW-FD-260106
601120 -05	MW-13S-260107
601120 -06	MW-33S-260107
601120 -07	MW-33D-260107
601120 -08	MW-48D-260107
601120 -09	MW-48S-260107
601120 -10	MW-3S-260107
601120 -11	MW-3D-260107
601120 -12	MW-46S-260108
601120 -13	MW-45S-260108
601120 -14	MW-46D-260108
601120 -15	MW-45D-260108

The pentachlorophenol concentration in sample MW-45D-260108 is due to carryover from a previous high concentration sample. The result was qualified. The sample was concentrated and reanalyzed, confirming that the detection was carryover.

2-nitroaniline in the 8270E laboratory control sample duplicate exceeded the acceptance criteria. The compound was not detected, therefore the results were acceptable.

All other quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-01 1/0.25
Date Analyzed:	01/14/26	Data File:	011410.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	22	11	65
Phenol-d6	24	11	65
Nitrobenzene-d5	56	11	173
2-Fluorobiphenyl	70	25	128
2,4,6-Tribromophenol	82	10	140
Terphenyl-d14	86	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-01 1/0.0625
Date Analyzed:	01/16/26	Data File:	011613.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	98	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.082

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-02 1/0.25
Date Analyzed:	01/14/26	Data File:	011411.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	27	11	65
Phenol-d6	24	11	65
Nitrobenzene-d5	73	11	173
2-Fluorobiphenyl	76	25	128
2,4,6-Tribromophenol	98	10	140
Terphenyl-d14	92	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-02 1/0.0625
Date Analyzed:	01/16/26	Data File:	011615.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	110	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-47S-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-03 1/0.25
Date Analyzed:	01/14/26	Data File:	011412.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	26	11	65
Phenol-d6	21	11	65
Nitrobenzene-d5	67	11	173
2-Fluorobiphenyl	70	25	128
2,4,6-Tribromophenol	97	10	140
Terphenyl-d14	87	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	0.34
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	GW-FD-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-04 1/0.25
Date Analyzed:	01/14/26	Data File:	011413.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	18	11	65
Phenol-d6	18	11	65
Nitrobenzene-d5	56	11	173
2-Fluorobiphenyl	61	25	128
2,4,6-Tribromophenol	77	10	140
Terphenyl-d14	82	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	0.32
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-05 1/0.25
Date Analyzed:	01/14/26	Data File:	011414.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	18	11	65
Phenol-d6	17	11	65
Nitrobenzene-d5	51	11	173
2-Fluorobiphenyl	64	25	128
2,4,6-Tribromophenol	75	10	140
Terphenyl-d14	74	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-13S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-05 1/0.0625
Date Analyzed:	01/16/26	Data File:	011616.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	99	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	0.088

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-06 1/0.25
Date Analyzed:	01/14/26	Data File:	011415.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	21	11	65
Phenol-d6	17	11	65
Nitrobenzene-d5	61	11	173
2-Fluorobiphenyl	79	25	128
2,4,6-Tribromophenol	96	10	140
Terphenyl-d14	80	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	9.6	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	0.031
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	0.52
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	0.076
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	0.014
Benzoic acid	<5	Anthracene	0.010
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	0.0059
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	0.50	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-07 1/0.25
Date Analyzed:	01/14/26	Data File:	011416.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	19	11	65
Phenol-d6	15	11	65
Nitrobenzene-d5	45	11	173
2-Fluorobiphenyl	49	25	128
2,4,6-Tribromophenol	60	10	140
Terphenyl-d14	56	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-07 1/0.0625
Date Analyzed:	01/16/26	Data File:	011617.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	76	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-08 1/0.25
Date Analyzed:	01/14/26	Data File:	011421.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	26	11	65
Phenol-d6	23	11	65
Nitrobenzene-d5	67	11	173
2-Fluorobiphenyl	74	25	128
2,4,6-Tribromophenol	89	10	140
Terphenyl-d14	78	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-08 1/0.0625
Date Analyzed:	01/16/26	Data File:	011618.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	104	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-09 1/0.25
Date Analyzed:	01/14/26	Data File:	011417.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	27	11	65
Phenol-d6	22	11	65
Nitrobenzene-d5	74	11	173
2-Fluorobiphenyl	88	25	128
2,4,6-Tribromophenol	97	10	140
Terphenyl-d14	88	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-48S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-09 1/0.0625
Date Analyzed:	01/16/26	Data File:	011619.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	121	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-46S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-12 1/0.25
Date Analyzed:	01/14/26	Data File:	011418.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	31	11	65
Phenol-d6	25	11	65
Nitrobenzene-d5	74	11	173
2-Fluorobiphenyl	84	25	128
2,4,6-Tribromophenol	91	10	140
Terphenyl-d14	86	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	0.17
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-13 1/0.25
Date Analyzed:	01/14/26	Data File:	011419.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	16	11	65
Phenol-d6	17	11	65
Nitrobenzene-d5	51	11	173
2-Fluorobiphenyl	66	25	128
2,4,6-Tribromophenol	109	10	140
Terphenyl-d14	95	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	0.0072
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	62 ve
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	7.4	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	0.050	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	1.1	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-13 1/5
Date Analyzed:	01/16/26	Data File:	011610.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	11 d	10	79
Phenol-d6	16 d	10	104
Nitrobenzene-d5	42 d	31	129
2-Fluorobiphenyl	62 d	32	130
2,4,6-Tribromophenol	144 d	22	158
Terphenyl-d14	84 d	48	155

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	180

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-46D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-14 1/0.25
Date Analyzed:	01/14/26	Data File:	011423.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	33	11	65
Phenol-d6	37	11	65
Nitrobenzene-d5	77	11	173
2-Fluorobiphenyl	76	25	128
2,4,6-Tribromophenol	96	10	140
Terphenyl-d14	85	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-46D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-14 1/0.0625
Date Analyzed:	01/16/26	Data File:	011620.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	107	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-15 1/0.25
Date Analyzed:	01/14/26	Data File:	011420.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	27	11	65
Phenol-d6	23	11	65
Nitrobenzene-d5	67	11	173
2-Fluorobiphenyl	70	25	128
2,4,6-Tribromophenol	93	10	140
Terphenyl-d14	83	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	0.10 c
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	0.0090
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-45D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-15 1/0.0625
Date Analyzed:	01/16/26	Data File:	011614.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	107	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Black River Environmental
Date Received:	Not Applicable	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	06-0124 mb2 1/0.25
Date Analyzed:	01/14/26	Data File:	011409.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	23	11	65
Phenol-d6	19	11	65
Nitrobenzene-d5	57	11	173
2-Fluorobiphenyl	60	25	128
2,4,6-Tribromophenol	69	10	140
Terphenyl-d14	85	47	142

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Pyridine	<0.5	Acenaphthylene	<0.005
Phenol	<0.5	2,6-Dinitrotoluene	<0.5
Bis(2-chloroethyl) ether	<0.1	3-Nitroaniline	<1
2-Chlorophenol	<0.5	Acenaphthene	<0.005
1,3-Dichlorobenzene	<0.1	2,4-Dinitrophenol	<4
1,4-Dichlorobenzene	<0.1	Dibenzofuran	<0.005
1,2-Dichlorobenzene	<0.1	2,4-Dinitrotoluene	<0.5
Benzyl alcohol	<0.5	4-Nitrophenol	<1
2,2'-Oxybis(1-chloropropane)	<0.1	Diethyl phthalate	<0.5
2-Methylphenol	<0.5	Fluorene	<0.005
Hexachloroethane	<0.1	4-Chlorophenyl phenyl ether	<0.1
N-Nitroso-di-n-propylamine	<0.1	N-Nitrosodiphenylamine	<0.1
3-Methylphenol + 4-Methylphenol	<0.5	4-Nitroaniline	<1
Nitrobenzene	<0.1	4,6-Dinitro-2-methylphenol	<1
Isophorone	<0.1	Hexachlorobenzene	<0.1
2-Nitrophenol	<0.5	Pentachlorophenol	<0.1
2,4-Dimethylphenol	<0.5	Phenanthrene	<0.012
Benzoic acid	<5	Anthracene	<0.005
Bis(2-chloroethoxy)methane	<0.1	Carbazole	<0.005
2,4-Dichlorophenol	<0.5	Di-n-butyl phthalate	<0.5
1,2,4-Trichlorobenzene	<0.1	Fluoranthene	<0.005
Naphthalene	<0.05	Pyrene	<0.005
Hexachlorobutadiene	<0.1	Benzyl butyl phthalate	<0.5
4-Chloroaniline	<1	Benz(a)anthracene	<0.005
4-Chloro-3-methylphenol	<0.5	Chrysene	<0.005
2-Methylnaphthalene	<0.025	Bis(2-ethylhexyl) phthalate	<0.5
1-Methylnaphthalene	<0.025	Di-n-octyl phthalate	<0.5
Hexachlorocyclopentadiene	<0.25	Benzo(a)pyrene	<0.005
2,4,6-Trichlorophenol	<0.5	Benzo(b)fluoranthene	<0.005
2,4,5-Trichlorophenol	<0.5	Benzo(k)fluoranthene	<0.005
2-Chloronaphthalene	<0.1	Indeno(1,2,3-cd)pyrene	<0.005
2-Nitroaniline	<0.5	Dibenz(a,h)anthracene	<0.005
Dimethyl phthalate	<0.5	Benzo(g,h,i)perylene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Black River Environmental
Date Received:	Not Applicable	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	06-0124 mb2 1/0.0625
Date Analyzed:	01/16/26	Data File:	011612.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2,4,6-Tribromophenol	81	22	158

Compounds:	Concentration ug/L (ppb)
Pentachlorophenol	<0.07

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-01 x2
Date Analyzed:	01/15/26	Data File:	601120-01 x2.103
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	3.6
Zinc	<10

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-01 x20
Date Analyzed:	01/14/26	Data File:	601120-01 x20.248
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	28

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-47D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-02 x2
Date Analyzed:	01/16/26	Data File:	601120-02 x2.071
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	530
Copper	2.1
Zinc	<10

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-47S-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-03 x5
Date Analyzed:	01/15/26	Data File:	601120-03 x5.107
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	180
Copper	25
Zinc	160

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	GW-FD-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-04 x5
Date Analyzed:	01/15/26	Data File:	601120-04 x5.110
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	170
Copper	24
Zinc	140

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-13S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-05 x2
Date Analyzed:	01/15/26	Data File:	601120-05 x2.111
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.4
Copper	13
Zinc	19

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-33S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-06
Date Analyzed:	01/15/26	Data File:	601120-06.112
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	40
Copper	3.3
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-33D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-07 x2
Date Analyzed:	01/16/26	Data File:	601120-07 x2.072
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5.2
Copper	4.6
Zinc	<10

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-48D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-08 x2
Date Analyzed:	01/16/26	Data File:	601120-08 x2.073
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	26
Copper	5.3
Zinc	<10

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-48S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-09
Date Analyzed:	01/15/26	Data File:	601120-09.115
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	19
Copper	<1
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-3S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-10 x2
Date Analyzed:	01/16/26	Data File:	601120-10 x2.075
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,600
Copper	<2
Zinc	<10

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-3D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-11
Date Analyzed:	01/15/26	Data File:	601120-11.118
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	49
Copper	<1
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-46S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-12
Date Analyzed:	01/15/26	Data File:	601120-12.119
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	43
Copper	5.9
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-13
Date Analyzed:	01/15/26	Data File:	601120-13.123
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	<1
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-13 x100
Date Analyzed:	01/19/26	Data File:	601120-13 x100.055
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4,400

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-46D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-14
Date Analyzed:	01/15/26	Data File:	601120-14.124
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	41
Copper	<1
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	MW-45D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	601120-15
Date Analyzed:	01/15/26	Data File:	601120-15.125
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	73
Copper	<1
Zinc	<5

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Black River Environmental
Date Received:	Not Applicable	Project:	Glacier Northwest, Inc.
Date Extracted:	01/14/26	Lab ID:	I6-42 mb
Date Analyzed:	01/14/26	Data File:	I6-42 mb.124
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-01
Date Analyzed:	01/14/26	Data File:	601120-01.196
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	4.6
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-13D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-01 x10
Date Analyzed:	01/13/26	Data File:	601120-01 x10.193
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	33

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-47D-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-02 x2
Date Analyzed:	01/14/26	Data File:	601120-02 x2.199
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	520
Copper	<2
Zinc	<10

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-47S-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-03
Date Analyzed:	01/13/26	Data File:	601120-03.216
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	6.0
Zinc	130

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-47S-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-03 x10
Date Analyzed:	01/13/26	Data File:	601120-03 x10.195
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	170

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	GW-FD-260106	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-04
Date Analyzed:	01/14/26	Data File:	601120-04.210
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	180
Copper	6.0
Zinc	130

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-13S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-05
Date Analyzed:	01/14/26	Data File:	601120-05.211
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.2
Copper	9.5
Zinc	19

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-33S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-06
Date Analyzed:	01/14/26	Data File:	601120-06.212
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	34
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-33D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-07 x2
Date Analyzed:	01/15/26	Data File:	601120-07 x2.098
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.9
Copper	1.6
Zinc	<10

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-48D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-08
Date Analyzed:	01/14/26	Data File:	601120-08.214
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	28
Copper	2.1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-48S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-09
Date Analyzed:	01/14/26	Data File:	601120-09.215
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	19
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-3S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-10 x2
Date Analyzed:	01/21/26	Data File:	601120-10 x2.086
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,700
Copper	<10

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-3S-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-10 x4
Date Analyzed:	01/21/26	Data File:	601120-10 x4.089
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Zinc	<20

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-3D-260107	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-11
Date Analyzed:	01/14/26	Data File:	601120-11.222
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	46
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-46S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-12
Date Analyzed:	01/14/26	Data File:	601120-12.223
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	38
Copper	1.1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-13
Date Analyzed:	01/14/26	Data File:	601120-13.224
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Copper	8.2
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-45S-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-13 x100
Date Analyzed:	01/19/26	Data File:	601120-13 x100.054
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4,300

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-46D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-14
Date Analyzed:	01/14/26	Data File:	601120-14.226
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	36
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	MW-45D-260108	Client:	Black River Environmental
Date Received:	01/12/26	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	601120-15
Date Analyzed:	01/14/26	Data File:	601120-15.227
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	70
Copper	<1
Zinc	<5

Analysis For Dissolved Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Black River Environmental
Date Received:	Not Applicable	Project:	Glacier Northwest, Inc.
Date Extracted:	01/13/26	Lab ID:	I6-40 mb
Date Analyzed:	01/13/26	Data File:	I6-40 mb.109
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1 k
Copper	<1
Zinc	<5

Date of Report: 01/23/26
Date Received: 01/12/26
Project: Glacier Northwest, Inc.(GNW) 25006, F&BI 601120

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Pyridine	ug/L (ppb)	10	36	25	10-54	36 vo
Phenol	ug/L (ppb)	10	15	14	10-43	7
Bis(2-chloroethyl) ether	ug/L (ppb)	10	94	79	40-114	17
2-Chlorophenol	ug/L (ppb)	10	85	70	48-103	19
1,3-Dichlorobenzene	ug/L (ppb)	10	58	51	39-102	13
1,4-Dichlorobenzene	ug/L (ppb)	10	61	52	41-103	16
1,2-Dichlorobenzene	ug/L (ppb)	10	65	55	43-105	17
Benzyl alcohol	ug/L (ppb)	50	76	66	45-90	14
2,2'-Oxybis(1-chloropropane)	ug/L (ppb)	10	92	75	51-110	20
2-Methylphenol	ug/L (ppb)	10	78	65	47-93	18
Hexachloroethane	ug/L (ppb)	10	53	48	39-104	10
N-Nitroso-di-n-propylamine	ug/L (ppb)	10	99	84	58-117	16
3-Methylphenol + 4-Methylphenol	ug/L (ppb)	10	71	61	11-88	15
Nitrobenzene	ug/L (ppb)	10	101	83	53-116	20
Isophorone	ug/L (ppb)	10	101	85	64-120	17
2-Nitrophenol	ug/L (ppb)	10	102	88	45-118	15
2,4-Dimethylphenol	ug/L (ppb)	10	85	72	10-117	17
Benzoic acid	ug/L (ppb)	80	22	21	10-39	5
Bis(2-chloroethoxy)methane	ug/L (ppb)	10	98	81	56-111	19
2,4-Dichlorophenol	ug/L (ppb)	10	99	87	34-113	13
1,2,4-Trichlorobenzene	ug/L (ppb)	10	70	65	48-106	7
Naphthalene	ug/L (ppb)	10	82	71	50-105	14
Hexachlorobutadiene	ug/L (ppb)	10	52	53	40-107	2
4-Chloroaniline	ug/L (ppb)	50	85	71	34-125	18
4-Chloro-3-methylphenol	ug/L (ppb)	10	99	87	62-116	13
2-Methylnaphthalene	ug/L (ppb)	10	81	75	52-113	8
1-Methylnaphthalene	ug/L (ppb)	10	82	75	51-115	9
Hexachlorocyclopentadiene	ug/L (ppb)	10	61	68	34-126	11
2,4,6-Trichlorophenol	ug/L (ppb)	10	100	89	28-125	12
2,4,5-Trichlorophenol	ug/L (ppb)	10	101	91	50-123	10
2-Chloronaphthalene	ug/L (ppb)	10	83	77	57-130	7
2-Nitroaniline	ug/L (ppb)	50	127	148 vo	51-146	15
Dimethyl phthalate	ug/L (ppb)	10	104	90	68-123	14
Acenaphthylene	ug/L (ppb)	10	95	86	60-114	10
2,6-Dinitrotoluene	ug/L (ppb)	10	105	97	66-134	8
3-Nitroaniline	ug/L (ppb)	50	109	92	42-134	17
Acenaphthene	ug/L (ppb)	10	91	81	57-110	12
2,4-Dinitrophenol	ug/L (ppb)	20	94	96	20-151	2
Dibenzofuran	ug/L (ppb)	10	94	85	52-116	10
2,4-Dinitrotoluene	ug/L (ppb)	10	111	106	64-137	5
4-Nitrophenol	ug/L (ppb)	20	36	35	10-58	3
Diethyl phthalate	ug/L (ppb)	10	103	95	64-124	8
Fluorene	ug/L (ppb)	10	96	87	61-115	10
4-Chlorophenyl phenyl ether	ug/L (ppb)	10	93	86	61-112	8
N-Nitrosodiphenylamine	ug/L (ppb)	10	101	92	60-123	9
4-Nitroaniline	ug/L (ppb)	50	84	85	42-150	1
4,6-Dinitro-2-methylphenol	ug/L (ppb)	10	108	101	20-163	7
Hexachlorobenzene	ug/L (ppb)	10	93	85	64-114	9
Pentachlorophenol	ug/L (ppb)	10	106	102	30-151	4
Phenanthrene	ug/L (ppb)	10	99	90	69-115	10
Anthracene	ug/L (ppb)	10	97	90	65-121	7
Carbazole	ug/L (ppb)	10	109	102	62-137	7
Di-n-butyl phthalate	ug/L (ppb)	10	103	96	36-137	7
Fluoranthene	ug/L (ppb)	10	105	98	71-127	7
Pyrene	ug/L (ppb)	10	105	97	62-133	8
Benzyl butyl phthalate	ug/L (ppb)	10	107	102	56-145	5
Benz(a)anthracene	ug/L (ppb)	10	103	97	66-131	6
Chrysene	ug/L (ppb)	10	103	96	66-129	7
Bis(2-ethylhexyl) phthalate	ug/L (ppb)	10	105	99	52-142	6
Di-n-octyl phthalate	ug/L (ppb)	10	109	101	36-151	8
Benzo(a)pyrene	ug/L (ppb)	10	102	96	66-129	6
Benzo(b)fluoranthene	ug/L (ppb)	10	105	96	55-144	9
Benzo(k)fluoranthene	ug/L (ppb)	10	106	98	58-139	8
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	99	99	62-136	0
Dibenz(a,h)anthracene	ug/L (ppb)	10	101	98	55-146	3
Benzo(g,h,i)perylene	ug/L (ppb)	10	99	97	58-137	2

Date of Report: 01/23/26
Date Received: 01/12/26
Project: Glacier Northwest, Inc.(GNW) 25006, F&BI 601120

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 601132-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	98	103	75-125	5
Copper	ug/L (ppb)	20	12.5	96 b	98 b	75-125	2 b
Zinc	ug/L (ppb)	50	13.7	98 b	100 b	75-125	2 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	98	80-120
Copper	ug/L (ppb)	20	98	80-120
Zinc	ug/L (ppb)	50	97	80-120

Date of Report: 01/23/26
Date Received: 01/12/26
Project: Glacier Northwest, Inc.(GNW) 25006, F&BI 601120

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 601120-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	175	77 b	56 b	75-125	32 b
Copper	ug/L (ppb)	20	6.02	83 b	84 b	75-125	1 b
Zinc	ug/L (ppb)	50	128	78 b	79 b	75-125	1 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	97	80-120
Copper	ug/L (ppb)	20	96	80-120
Zinc	ug/L (ppb)	50	100	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

601120

SAMPLE CHAIN OF CUSTODY

01/12/26 C4/J3

Report To Andrew Yonkofski

Company Black River Envrionmental, LLC

Address 26311 NE Valley St. #141

City, State, ZIP Duvall, WA 98109

Phone 404-272-3488 Email andrew@blackriverenv.com

SAMPLERS (*signature*)

PROJECT NAME: Glacier Northwest, Inc. (GNW)

PO #: 25006

REMARKS: Lowest level SVOCs

* Metals = As, Cu, Zn; Dissolved metals were field-filtered and are labeled field-filtered or "FF"

Project Specific RLs - Yes / No

INVOICE TO: A. Yonkofski

TURNAROUND TIME

Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	*Metals, total & dissolved by 6020	SVOCs, low level by 8270				Notes
MW-13D-260106	01 A-C	1/6/26	0942	GW	3							X	X				
MW-47D-260106	02	1/6/26	1212	GW	3							X	X				
MW-47S-260106	03	1/6/26	1220	GW	3							X	X				
GW-FD-260106	04	1/6/26	--	GW	3							X	X				
MW-13S-260107	05	1/7/26	0857	GW	3							X	X				
MW-33S-260107	06	1/7/26	1232	GW	3							X	X				
MW-33D-260107	07	1/7/26	1222	GW	3							X	X				
MW-48D-260107	08	1/7/26	1354	GW	3							X	X				
MW-48S-260107	09	1/7/26	1355	GW	3							X	X				
MW-3S-260107	10 A-B	1/7/26	1518	GW	2							X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Yonkofski	Black Rive	1/12/26	0916
Received by:	Anh Phan	FBT	01/12/26	09:16
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

601120

SAMPLE CHAIN OF CUSTODY

01/12/26 CH/TJB

Page # 2 of 2

Report To Andrew Yonkofski

Company Black River Envrionmental, LLC

Address 26311 NE Valley St., #141

City, State, ZIP Duvall, WA 98109

Phone 404-272-3488 Email andrew@blackriverenv.com

SAMPLERS (*signature*)

PROJECT NAME: Glacier Northwest, Inc. (GNW)

PO # 25006

REMARKS: *Metals = As, Cu, Zn; Dissolved metals were field-filtered and are labeled field-filtered or "FF"
Lowest level SVOCs
Project Specific RLs - Yes / No

INVOICE TO: A. Yonkofski

TURNAROUND TIME
Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals, total + dissolved by 601	SVOCs, low-level by 8270				Notes
						ANALYSES REQUESTED											
MW-3D-260107	11 A-B	1/7/26	1534	GW	2							X					
MW-46S-260108	12 A-C	1/8/26	1314	GW	3							X	X				Time on label 13:44 AP 01/12
MW-45S-260108	13	1/8/26	1335	GW	3							X	X				
MW-46D-260108	14	1/8/26	1429	GW	3							X	X				
MW-45D-260108	15	1/8/26	1430	GW	3							X	X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Yonkofski	Black Rive	1/12/26	0916
Received by:	Minh Phan	FBI	01/12/26	09:16
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 601120 CLIENT Black River Env. INITIALS/ DATE: 01/12/26

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: 01/12/26
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 4→6 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☑ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No		☐ Not on COC/label
Date Sampled	☑ Yes ☐ No		☐ Not on COC/label
Time Sampled	☐ Yes ☑ No	Time on label 13:44 (-12A→C)	☐ Not on COC/label
# of Containers	☑ Yes ☐ No		
Relinquished	☑ Yes ☐ No		
Requested analysis	☑ Yes ☐ On Hold		

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters** _____ **Number of unused TO17 tubes** _____
**Fill out Green manifolds billing sheet

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Andrew Yonkofski
Black River Environmental
26311 NE Valley St. #141
Duvall, Washington 98019

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JOB DESCRIPTION

Glacier Northwest, Inc.

JOB NUMBER

320-128835-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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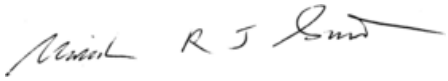
Authorization



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Authorized for release by
Micah Smith, Project Manager II
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 9
Isotope Dilution Summary 48
QC Sample Results 51
QC Association Summary 67
Lab Chronicle 69
Certification Summary 73
Method Summary 74
Sample Summary 75
Chain of Custody 76

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
320-128835-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 1/13/2026 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.5°C.

PFAS
Method 1633A: Due to elevated TSS, the following samples with elevated total suspended solids (TSS) in the sample containers were fortified with Extracted Internal Standards (EIS), equilibrated, and centrifuged: MW-32S-260107 (320-128835-6), MW-3S-260107 (320-128835-12), MW-29S-260108 (320-128835-15), MW-30S-260108 (320-128835-16) and MW-45S-260108 (320-128835-18). The aqueous phase was separated and then extracted using Solid Phase Extraction (SPE). A rinse of the solid residue was added to the aqueous sample prior to extraction. Potential outcomes of this approach include elevated reporting limits and poor EIS recoveries that may preferentially sorb to the particulates leading to qualified QC in the final results.

Method 1633A: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (MB 320-897642/1-A), MW-13S-260107 (320-128835-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 1633A: The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: MW-32S-260107 (320-128835-6). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 1633A: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. The associated analytes have been flagged: MW-46S-260108 (320-128835-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-36S-260106 — Lab Sample ID: 320-128835-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.6		2.9	2.9	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		1.4	1.4	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.7		1.4	1.4	ng/L	1		1633A	Total/NA

Client Sample ID: FB-1-260106 — Lab Sample ID: 320-128835-2

No Detections.

Client Sample ID: EB-1-260106 — Lab Sample ID: 320-128835-3

No Detections.

Client Sample ID: MW-47S-260106 — Lab Sample ID: 320-128835-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15		3.2	3.2	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.8		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.6		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		1.6	1.6	ng/L	1		1633A	Total/NA

Client Sample ID: GW-FD-260106 — Lab Sample ID: 320-128835-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15		3.2	3.2	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.6		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.7		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.7		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		1.6	1.6	ng/L	1		1633A	Total/NA

Client Sample ID: MW-32S-260107 — Lab Sample ID: 320-128835-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.7		3.6	3.6	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	4.7		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	5.1		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.2		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.77	J	1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.6		1.8	1.8	ng/L	1		1633A	Total/NA

Client Sample ID: MW-13S-260107 — Lab Sample ID: 320-128835-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.6		3.3	3.3	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.7	1.7	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-07S-260107 — Lab Sample ID: 320-128835-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.9		3.6	3.6	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.1		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	3.5		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.57	J	1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		1.8	1.8	ng/L	1		1633A	Total/NA

Client Sample ID: MW-28S-260107 — Lab Sample ID: 320-128835-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	13		3.3	3.3	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.3		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	3.5		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	5.2		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.79	J	1.7	0.41	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0		1.7	1.7	ng/L	1		1633A	Total/NA

Client Sample ID: MW-33S-260107 — Lab Sample ID: 320-128835-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.2		1.5	1.5	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.39	J	1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.5		1.5	1.5	ng/L	1		1633A	Total/NA

Client Sample ID: MW-48S-260107 — Lab Sample ID: 320-128835-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.6		3.4	3.4	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.9		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	1.8		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.44	J	1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8		1.7	1.7	ng/L	1		1633A	Total/NA

Client Sample ID: MW-3S-260107 — Lab Sample ID: 320-128835-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.3		3.5	3.5	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	3.0		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.54	J	1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.2		1.8	1.8	ng/L	1		1633A	Total/NA

Client Sample ID: MW-35S-260107 — Lab Sample ID: 320-128835-13

No Detections.

Client Sample ID: FB-2-260107 — Lab Sample ID: 320-128835-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Detection Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-29S-260108 — Lab Sample ID: 320-128835-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	14		3.4	3.4	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.7	1.7	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		1.7	1.7	ng/L	1		1633A	Total/NA

Client Sample ID: MW-30S-260108 — Lab Sample ID: 320-128835-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11		3.7	3.7	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.9	1.9	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		1.9	1.9	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.71	J	1.9	0.46	ng/L	1		1633A	Total/NA

Client Sample ID: MW-46S-260108 — Lab Sample ID: 320-128835-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.4		3.2	3.2	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	4.4		1.6	1.6	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.57	J	1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.6	I	1.6	1.6	ng/L	1		1633A	Total/NA

Client Sample ID: MW-45S-260108 — Lab Sample ID: 320-128835-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	11		3.7	3.7	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.3		1.8	1.8	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.54	J	1.8	0.46	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.7		1.8	1.8	ng/L	1		1633A	Total/NA

Client Sample ID: FB-3-260108 — Lab Sample ID: 320-128835-19

No Detections.

Client Sample ID: EB-3-260108 — Lab Sample ID: 320-128835-20

No Detections.

Client Sample ID: MW-31S-260108 — Lab Sample ID: 320-128835-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.5		3.3	3.3	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-36S-260106
Date Collected: 01/06/26 10:18
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.6**		2.9	2.9	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorooctanoic acid (PFOA)	**2.0**		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorononanoic acid (PFNA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorodecanoic acid (PFDA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.36	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorooctanesulfonic acid (PFOS)	**1.7**		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:22	01/21/26 01:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:22	01/21/26 01:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.2	7.2	ng/L		01/19/26 11:22	01/21/26 01:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.2	7.2	ng/L		01/19/26 11:22	01/21/26 01:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1	1.1	ng/L		01/19/26 11:22	01/21/26 01:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1

Client Sample ID: MW-36S-260106

Lab Sample ID: 320-128835-1

Date Collected: 01/06/26 10:18

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 01:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	2.9	ng/L		01/19/26 11:22	01/21/26 01:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.2	7.2	ng/L		01/19/26 11:22	01/21/26 01:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.2	7.2	ng/L		01/19/26 11:22	01/21/26 01:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.3*		*5 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C5 PFPeA	*103*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C5 PFHxA	*112*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C4 PFHpA	*97.0*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C8 PFOA	*107*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C9 PFNA	*107*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C6 PFDA	*103*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C7 PFUnA	*97.1*		*30 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C2 PFDoA	*89.7*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C2 PFTeDA	*80.2*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C3 PFBS	*116*		*40 - 135*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C3 PFHxS	*115*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C8 PFOS	*104*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C8 FOSA	*99.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d3-NMeFOSAA	*121*		*40 - 170*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d5-NEtFOSAA	*114*		*25 - 135*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C2 4:2 FTS	*133*		*40 - 200*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C2 6:2 FTS	*129*		*40 - 200*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C2 8:2 FTS	*128*		*40 - 300*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
13C3 HFPO-DA	*102*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d7-N-MeFOSE-M	*102*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d9-N-EtFOSE-M	*91.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d5-NEtPFOSA	*97.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*
d3-NMePFOSA	*92.4*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:12*	*1*

Client Sample ID: FB-1-260106

Lab Sample ID: 320-128835-2

Date Collected: 01/06/26 11:29

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorooctanoic acid (PFOA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorononanoic acid (PFNA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorodecanoic acid (PFDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: FB-1-260106
Date Collected: 01/06/26 11:29
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.38	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 01:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 01:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.5	7.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.5	7.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1	1.1	ng/L		01/19/26 11:22	01/21/26 01:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 01:28	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.5	7.5	ng/L		01/19/26 11:22	01/21/26 01:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.5	7.5	ng/L		01/19/26 11:22	01/21/26 01:28	1

Client Sample ID: FB-1-260106

Lab Sample ID: 320-128835-2

Date Collected: 01/06/26 11:29

Matrix: Water

Date Received: 01/13/26 08:45

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93.6		5 - 130	01/19/26 11:22	01/21/26 01:28	1
13C5 PFPeA	102		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C5 PFHxA	99.5		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C4 PFHpA	91.5		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C8 PFOA	107		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C9 PFNA	101		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C6 PFDA	102		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C7 PFUnA	95.5		30 - 130	01/19/26 11:22	01/21/26 01:28	1
13C2 PFDoA	88.5		10 - 130	01/19/26 11:22	01/21/26 01:28	1
13C2 PFTeDA	79.1		10 - 130	01/19/26 11:22	01/21/26 01:28	1
13C3 PFBS	114		40 - 135	01/19/26 11:22	01/21/26 01:28	1
13C3 PFHxS	107		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C8 PFOS	108		40 - 130	01/19/26 11:22	01/21/26 01:28	1
13C8 FOSA	95.1		40 - 130	01/19/26 11:22	01/21/26 01:28	1
d3-NMeFOSAA	118		40 - 170	01/19/26 11:22	01/21/26 01:28	1
d5-NEtFOSAA	111		25 - 135	01/19/26 11:22	01/21/26 01:28	1
13C2 4:2 FTS	134		40 - 200	01/19/26 11:22	01/21/26 01:28	1
13C2 6:2 FTS	120		40 - 200	01/19/26 11:22	01/21/26 01:28	1
13C2 8:2 FTS	114		40 - 300	01/19/26 11:22	01/21/26 01:28	1
13C3 HFPO-DA	92.6		40 - 130	01/19/26 11:22	01/21/26 01:28	1
d7-N-MeFOSE-M	95.9		10 - 130	01/19/26 11:22	01/21/26 01:28	1
d9-N-EtFOSE-M	86.8		10 - 130	01/19/26 11:22	01/21/26 01:28	1
d5-NEtPFOSA	93.4		10 - 130	01/19/26 11:22	01/21/26 01:28	1
d3-NMePFOSA	89.6		10 - 130	01/19/26 11:22	01/21/26 01:28	1

Client Sample ID: EB-1-260106

Lab Sample ID: 320-128835-3

Date Collected: 01/06/26 11:36

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	3.1	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorooctanoic acid (PFOA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.39	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: EB-1-260106
Date Collected: 01/06/26 11:36
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	3.1	ng/L		01/19/26 11:22	01/21/26 01:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	3.1	ng/L		01/19/26 11:22	01/21/26 01:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	3.1	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	7.8	ng/L		01/19/26 11:22	01/21/26 01:45	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	7.8	ng/L		01/19/26 11:22	01/21/26 01:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:22	01/21/26 01:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 01:45	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	3.1	ng/L		01/19/26 11:22	01/21/26 01:45	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	7.8	ng/L		01/19/26 11:22	01/21/26 01:45	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	7.8	ng/L		01/19/26 11:22	01/21/26 01:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.4*		*5 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C5 PFPeA	*98.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C5 PFHxA	*106*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C4 PFHpA	*94.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C8 PFOA	*102*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C9 PFNA	*103*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C6 PFDA	*98.2*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C7 PFUnA	*99.0*		*30 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C2 PFDoA	*94.7*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C2 PFTeDA	*68.8*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*

Client Sample ID: EB-1-260106

Lab Sample ID: 320-128835-3

Date Collected: 01/06/26 11:36

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*104*		*40 - 135*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C3 PFHxS	*103*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C8 PFOS	*95.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C8 FOSA	*84.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d3-NMeFOSAA	*119*		*40 - 170*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d5-NEtFOSAA	*105*		*25 - 135*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C2 4:2 FTS	*126*		*40 - 200*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C2 6:2 FTS	*116*		*40 - 200*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C2 8:2 FTS	*128*		*40 - 300*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
13C3 HFPO-DA	*98.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d7-N-MeFOSE-M	*89.7*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d9-N-EtFOSE-M	*79.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d5-NEtPFOSA	*87.3*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*
d3-NMePFOSA	*83.8*		*10 - 130*	*01/19/26 11:22*	*01/21/26 01:45*	*1*

Client Sample ID: MW-47S-260106

Lab Sample ID: 320-128835-4

Date Collected: 01/06/26 12:20

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**15**		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoropentanoic acid (PFPeA)	**1.8**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorooctanoic acid (PFOA)	**2.6**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorobutanesulfonic acid (PFBS)	**1.8**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorohexanesulfonic acid (PFHxS)	**1.6**		1.6	0.39	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:01	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:01	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:01	1

Client Sample ID: MW-47S-260106
Date Collected: 01/06/26 12:20
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:01	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:01	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:22	01/21/26 02:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:01	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:01	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:01	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.8*		*5 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C5 PFPeA	*95.2*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C5 PFHxA	*101*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C4 PFHpA	*97.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C8 PFOA	*105*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C9 PFNA	*100*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C6 PFDA	*94.5*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C7 PFUnA	*87.5*		*30 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C2 PFDoA	*74.7*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C2 PFTeDA	*65.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C3 PFBS	*110*		*40 - 135*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C3 PFHxS	*110*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C8 PFOS	*95.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C8 FOSA	*86.5*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
d3-NMeFOSAA	*107*		*40 - 170*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
d5-NEtFOSAA	*98.9*		*25 - 135*	*01/19/26 11:22*	*01/21/26 02:01*	*1*
13C2 4:2 FTS	*156*		*40 - 200*	*01/19/26 11:22*	*01/21/26 02:01*	*1*

Client Sample ID: MW-47S-260106

Lab Sample ID: 320-128835-4

Date Collected: 01/06/26 12:20

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 6:2 FTS	136		40 - 200	01/19/26 11:22	01/21/26 02:01	1
13C2 8:2 FTS	129		40 - 300	01/19/26 11:22	01/21/26 02:01	1
13C3 HFPO-DA	97.3		40 - 130	01/19/26 11:22	01/21/26 02:01	1
d7-N-MeFOSE-M	70.5		10 - 130	01/19/26 11:22	01/21/26 02:01	1
d9-N-EtFOSE-M	61.0		10 - 130	01/19/26 11:22	01/21/26 02:01	1
d5-NEtPFOSA	77.5		10 - 130	01/19/26 11:22	01/21/26 02:01	1
d3-NMePFOSA	76.4		10 - 130	01/19/26 11:22	01/21/26 02:01	1

Client Sample ID: GW-FD-260106

Lab Sample ID: 320-128835-5

Date Collected: 01/06/26 00:00

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**15**		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoropentanoic acid (PFPeA)	**1.9**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorohexanoic acid (PFHxA)	**1.6**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorooctanoic acid (PFOA)	**2.7**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorobutanesulfonic acid (PFBS)	**1.7**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorohexanesulfonic acid (PFHxS)	**1.7**		1.6	0.40	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorooctanesulfonic acid (PFOS)	**2.1**		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: GW-FD-260106
Date Collected: 01/06/26 00:00
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:22	01/21/26 02:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	3.2	ng/L		01/19/26 11:22	01/21/26 02:50	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	7.9	ng/L		01/19/26 11:22	01/21/26 02:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.5*		*5 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C5 PFPeA	*94.1*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C5 PFHxA	*96.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C4 PFHpA	*94.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C8 PFOA	*98.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C9 PFNA	*95.2*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C6 PFDA	*99.4*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C7 PFUnA	*90.6*		*30 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C2 PFDoA	*83.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C2 PFTeDA	*63.3*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C3 PFBS	*104*		*40 - 135*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C3 PFHxS	*101*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C8 PFOS	*91.5*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C8 FOSA	*82.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d3-NMeFOSAA	*100*		*40 - 170*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d5-NEtFOSAA	*95.9*		*25 - 135*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C2 4:2 FTS	*144*		*40 - 200*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C2 6:2 FTS	*111*		*40 - 200*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C2 8:2 FTS	*109*		*40 - 300*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
13C3 HFPO-DA	*95.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d7-N-MeFOSE-M	*68.1*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d9-N-EtFOSE-M	*55.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d5-NEtPFOSA	*72.2*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*01/19/26 11:22*	*01/21/26 02:50*	*1*

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-32S-260107
Date Collected: 01/07/26 08:52
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-6
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.7**		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoropentanoic acid (PFPeA)	**4.7**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorohexanoic acid (PFHxA)	**3.1**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorooctanoic acid (PFOA)	**3.8**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorononanoic acid (PFNA)	**5.1**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorobutanesulfonic acid (PFBS)	**3.2**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorohexanesulfonic acid (PFHxS)	**0.77**	**J**	1.8	0.45	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorooctanesulfonic acid (PFOS)	**3.6**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.1	9.1	ng/L		01/19/26 11:22	01/21/26 03:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.1	9.1	ng/L		01/19/26 11:22	01/21/26 03:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.4	ng/L		01/19/26 11:22	01/21/26 03:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1

Client Sample ID: MW-32S-260107

Lab Sample ID: 320-128835-6

Date Collected: 01/07/26 08:52

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.1	9.1	ng/L		01/19/26 11:22	01/21/26 03:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.1	9.1	ng/L		01/19/26 11:22	01/21/26 03:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.1*		*5 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C5 PFPeA	*89.2*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C5 PFHxA	*96.3*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C4 PFHpA	*86.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C8 PFOA	*98.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C9 PFNA	*94.0*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C6 PFDA	*89.1*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C7 PFUnA	*78.9*		*30 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C2 PFDoA	*63.5*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C2 PFTeDA	*47.5*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C3 PFBS	*101*		*40 - 135*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C3 PFHxS	*98.2*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C8 PFOS	*89.3*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C8 FOSA	*84.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d3-NMeFOSAA	*97.9*		*40 - 170*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d5-NEtFOSAA	*84.8*		*25 - 135*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C2 4:2 FTS	*138*		*40 - 200*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C2 6:2 FTS	*122*		*40 - 200*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C2 8:2 FTS	*102*		*40 - 300*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
13C3 HFPO-DA	*88.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d7-N-MeFOSE-M	*18.3*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d9-N-EtFOSE-M	*5.07*	*5-	*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d5-NEtPFOSA	*51.8*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*
d3-NMePFOSA	*54.6*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:07*	*1*

Client Sample ID: MW-13S-260107

Lab Sample ID: 320-128835-7

Date Collected: 01/07/26 08:57

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.6**		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorooctanoic acid (PFOA)	**1.9**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-13S-260107
Date Collected: 01/07/26 08:57
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-7
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.42	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:22	01/21/26 03:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:23	1

Client Sample ID: MW-13S-260107

Lab Sample ID: 320-128835-7

Date Collected: 01/07/26 08:57

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.9*		*5 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C5 PFPeA	*95.1*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C5 PFHxA	*109*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C4 PFHpA	*99.1*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C8 PFOA	*111*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C9 PFNA	*104*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C6 PFDA	*97.3*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C7 PFUnA	*85.5*		*30 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C2 PFDoA	*74.4*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C2 PFTeDA	*63.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C3 PFBS	*110*		*40 - 135*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C3 PFHxS	*110*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C8 PFOS	*96.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C8 FOSA	*87.5*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d3-NMeFOSAA	*98.8*		*40 - 170*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d5-NEtFOSAA	*98.5*		*25 - 135*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C2 4:2 FTS	*206*	**5+*	*40 - 200*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C2 6:2 FTS	*132*		*40 - 200*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C2 8:2 FTS	*114*		*40 - 300*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
13C3 HFPO-DA	*102*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d7-N-MeFOSE-M	*59.9*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d9-N-EtFOSE-M	*45.0*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d5-NEtPFOSA	*72.5*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*
d3-NMePFOSA	*71.8*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:23*	*1*

Client Sample ID: MW-07S-260107

Lab Sample ID: 320-128835-8

Date Collected: 01/07/26 10:36

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.9**		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoropentanoic acid (PFPeA)	**3.1**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorohexanoic acid (PFHxA)	**2.6**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorooctanoic acid (PFOA)	**3.5**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorobutanesulfonic acid (PFBS)	**1.8**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorohexanesulfonic acid (PFHxS)	**0.57**	**J**	1.8	0.45	ng/L		01/19/26 11:22	01/21/26 03:40	1

Client Sample ID: MW-07S-260107
Date Collected: 01/07/26 10:36
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-8
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorooctanesulfonic acid (PFOS)	**2.5**		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.9	8.9	ng/L		01/19/26 11:22	01/21/26 03:40	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.9	8.9	ng/L		01/19/26 11:22	01/21/26 03:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	1.3	ng/L		01/19/26 11:22	01/21/26 03:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	1.8	ng/L		01/19/26 11:22	01/21/26 03:40	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6	3.6	ng/L		01/19/26 11:22	01/21/26 03:40	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.9	8.9	ng/L		01/19/26 11:22	01/21/26 03:40	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.9	8.9	ng/L		01/19/26 11:22	01/21/26 03:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.4*		*5 - 130*	*01/19/26 11:22*	*01/21/26 03:40*	*1*
13C5 PFPeA	*85.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:40*	*1*
13C5 PFHxA	*105*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:40*	*1*
13C4 PFHpA	*95.3*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:40*	*1*
13C8 PFOA	*107*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:40*	*1*

Client Sample ID: MW-07S-260107

Lab Sample ID: 320-128835-8

Date Collected: 01/07/26 10:36

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	102		40 - 130	01/19/26 11:22	01/21/26 03:40	1
13C6 PFDA	97.9		40 - 130	01/19/26 11:22	01/21/26 03:40	1
13C7 PFUnA	85.6		30 - 130	01/19/26 11:22	01/21/26 03:40	1
13C2 PFDoA	80.0		10 - 130	01/19/26 11:22	01/21/26 03:40	1
13C2 PFTeDA	70.9		10 - 130	01/19/26 11:22	01/21/26 03:40	1
13C3 PFBS	111		40 - 135	01/19/26 11:22	01/21/26 03:40	1
13C3 PFHxS	103		40 - 130	01/19/26 11:22	01/21/26 03:40	1
13C8 PFOS	98.8		40 - 130	01/19/26 11:22	01/21/26 03:40	1
13C8 FOSA	82.5		40 - 130	01/19/26 11:22	01/21/26 03:40	1
d3-NMeFOSAA	106		40 - 170	01/19/26 11:22	01/21/26 03:40	1
d5-NEtFOSAA	95.3		25 - 135	01/19/26 11:22	01/21/26 03:40	1
13C2 4:2 FTS	197		40 - 200	01/19/26 11:22	01/21/26 03:40	1
13C2 6:2 FTS	128		40 - 200	01/19/26 11:22	01/21/26 03:40	1
13C2 8:2 FTS	119		40 - 300	01/19/26 11:22	01/21/26 03:40	1
13C3 HFPO-DA	95.7		40 - 130	01/19/26 11:22	01/21/26 03:40	1
d7-N-MeFOSE-M	72.3		10 - 130	01/19/26 11:22	01/21/26 03:40	1
d9-N-EtFOSE-M	60.9		10 - 130	01/19/26 11:22	01/21/26 03:40	1
d5-NEtPFOSA	77.5		10 - 130	01/19/26 11:22	01/21/26 03:40	1
d3-NMePFOSA	76.4		10 - 130	01/19/26 11:22	01/21/26 03:40	1

Client Sample ID: MW-28S-260107

Lab Sample ID: 320-128835-9

Date Collected: 01/07/26 10:49

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**13**		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoropentanoic acid (PFPeA)	**3.3**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorohexanoic acid (PFHxA)	**3.1**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorooctanoic acid (PFOA)	**3.5**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorononanoic acid (PFNA)	**5.2**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorobutanesulfonic acid (PFBS)	**2.0**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorohexanesulfonic acid (PFHxS)	**0.79**	**J**	1.7	0.41	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorooctanesulfonic acid (PFOS)	**3.0**		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-28S-260107
Date Collected: 01/07/26 10:49
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-9
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:22	01/21/26 03:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	1.7	ng/L		01/19/26 11:22	01/21/26 03:56	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	3.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:56	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:22	01/21/26 03:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.8*		*5 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C5 PFPeA	*97.1*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C5 PFHxA	*100*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C4 PFHpA	*92.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C8 PFOA	*99.9*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C9 PFNA	*93.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C6 PFDA	*92.4*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C7 PFUnA	*87.5*		*30 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C2 PFDoA	*79.6*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C2 PFTeDA	*70.1*		*10 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C3 PFBS	*104*		*40 - 135*	*01/19/26 11:22*	*01/21/26 03:56*	*1*
13C3 PFHxS	*104*		*40 - 130*	*01/19/26 11:22*	*01/21/26 03:56*	*1*

Client Sample ID: MW-28S-260107

Lab Sample ID: 320-128835-9

Date Collected: 01/07/26 10:49

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	95.9		40 - 130	01/19/26 11:22	01/21/26 03:56	1
13C8 FOSA	87.5		40 - 130	01/19/26 11:22	01/21/26 03:56	1
d3-NMeFOSAA	107		40 - 170	01/19/26 11:22	01/21/26 03:56	1
d5-NEtFOSAA	101		25 - 135	01/19/26 11:22	01/21/26 03:56	1
13C2 4:2 FTS	139		40 - 200	01/19/26 11:22	01/21/26 03:56	1
13C2 6:2 FTS	132		40 - 200	01/19/26 11:22	01/21/26 03:56	1
13C2 8:2 FTS	111		40 - 300	01/19/26 11:22	01/21/26 03:56	1
13C3 HFPO-DA	94.9		40 - 130	01/19/26 11:22	01/21/26 03:56	1
d7-N-MeFOSE-M	71.5		10 - 130	01/19/26 11:22	01/21/26 03:56	1
d9-N-EtFOSE-M	56.0		10 - 130	01/19/26 11:22	01/21/26 03:56	1
d5-NEtPFOSA	78.7		10 - 130	01/19/26 11:22	01/21/26 03:56	1
d3-NMePFOSA	77.1		10 - 130	01/19/26 11:22	01/21/26 03:56	1

Client Sample ID: MW-33S-260107

Lab Sample ID: 320-128835-10

Date Collected: 01/07/26 12:32

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoropentanoic acid (PFPeA)	**2.2**		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorooctanoic acid (PFOA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorononanoic acid (PFNA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorodecanoic acid (PFDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorohexanesulfonic acid (PFHxS)	**0.39**	**J**	1.5	0.38	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorooctanesulfonic acid (PFOS)	**3.5**		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 04:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 04:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1

Client Sample ID: MW-33S-260107
Date Collected: 01/07/26 12:32
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-10
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	7.6	ng/L		01/19/26 11:22	01/21/26 04:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	7.6	ng/L		01/19/26 11:22	01/21/26 04:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1	1.1	ng/L		01/19/26 11:22	01/21/26 04:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/21/26 04:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	3.0	ng/L		01/19/26 11:22	01/21/26 04:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6	7.6	ng/L		01/19/26 11:22	01/21/26 04:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	7.6	ng/L		01/19/26 11:22	01/21/26 04:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.4*		*5 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C5 PFPeA	*97.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C5 PFHxA	*104*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C4 PFHpA	*94.7*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C8 PFOA	*102*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C9 PFNA	*103*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C6 PFDA	*92.0*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C7 PFUnA	*75.0*		*30 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C2 PFDoA	*67.6*		*10 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C2 PFTeDA	*55.8*		*10 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C3 PFBS	*101*		*40 - 135*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C3 PFHxS	*99.0*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C8 PFOS	*93.6*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C8 FOSA	*81.8*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
d3-NMeFOSAA	*106*		*40 - 170*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
d5-NEtFOSAA	*91.9*		*25 - 135*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C2 4:2 FTS	*139*		*40 - 200*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C2 6:2 FTS	*125*		*40 - 200*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C2 8:2 FTS	*105*		*40 - 300*	*01/19/26 11:22*	*01/21/26 04:13*	*1*
13C3 HFPO-DA	*95.5*		*40 - 130*	*01/19/26 11:22*	*01/21/26 04:13*	*1*

Client Sample ID: MW-33S-260107

Lab Sample ID: 320-128835-10

Date Collected: 01/07/26 12:32

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d7-N-MeFOSE-M	64.1		10 - 130	01/19/26 11:22	01/21/26 04:13	1
d9-N-EtFOSE-M	53.5		10 - 130	01/19/26 11:22	01/21/26 04:13	1
d5-NEtPFOSA	65.9		10 - 130	01/19/26 11:22	01/21/26 04:13	1
d3-NMePFOSA	64.6		10 - 130	01/19/26 11:22	01/21/26 04:13	1

Client Sample ID: MW-48S-260107

Lab Sample ID: 320-128835-11

Date Collected: 01/07/26 13:55

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.6**		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorooctanoic acid (PFOA)	**2.9**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorononanoic acid (PFNA)	**1.8**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorohexanesulfonic acid (PFHxS)	**0.44**	**J**	1.7	0.42	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorooctanesulfonic acid (PFOS)	**3.8**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.4	8.4	ng/L		01/19/26 11:40	01/20/26 17:13	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-48S-260107
Date Collected: 01/07/26 13:55
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-11
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.4	8.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	1.3	ng/L		01/19/26 11:40	01/20/26 17:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 17:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	8.4	ng/L		01/19/26 11:40	01/20/26 17:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	8.4	ng/L		01/19/26 11:40	01/20/26 17:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82.3*		*5 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C5 PFPeA	*113*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C5 PFHxA	*105*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C4 PFHpA	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C8 PFOA	*98.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C9 PFNA	*95.6*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C6 PFDA	*94.8*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C7 PFUnA	*123*		*30 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C2 PFDoA	*116*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C2 PFTeDA	*90.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C3 PFBS	*107*		*40 - 135*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C3 PFHxS	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C8 PFOS	*99.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C8 FOSA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d3-NMeFOSAA	*107*		*40 - 170*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d5-NEtFOSAA	*103*		*25 - 135*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C2 4:2 FTS	*105*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C2 6:2 FTS	*124*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C2 8:2 FTS	*107*		*40 - 300*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
13C3 HFPO-DA	*107*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d7-N-MeFOSE-M	*87.6*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d9-N-EtFOSE-M	*54.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d5-NEtPFOSA	*84.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*
d3-NMePFOSA	*87.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:13*	*1*

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-3S-260107
Date Collected: 01/07/26 15:18
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-12
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.3**		3.5	3.5	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorooctanoic acid (PFOA)	**3.0**		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorohexanesulfonic acid (PFHxS)	**0.54**	**J**	1.8	0.44	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorooctanesulfonic acid (PFOS)	**6.2**		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	3.5	ng/L		01/19/26 11:40	01/20/26 17:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	3.5	ng/L		01/19/26 11:40	01/20/26 17:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	3.5	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.8	8.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.8	8.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	1.3	ng/L		01/19/26 11:40	01/20/26 17:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1

Client Sample ID: MW-3S-260107

Lab Sample ID: 320-128835-12

Date Collected: 01/07/26 15:18

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	3.5	ng/L		01/19/26 11:40	01/20/26 17:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.8	8.8	ng/L		01/19/26 11:40	01/20/26 17:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.8	8.8	ng/L		01/19/26 11:40	01/20/26 17:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.5*		*5 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C5 PFPeA	*106*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C5 PFHxA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C4 PFHpA	*98.9*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C8 PFOA	*92.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C9 PFNA	*106*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C6 PFDA	*91.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C7 PFUnA	*76.9*		*30 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C2 PFDoA	*61.1*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C2 PFTeDA	*41.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C3 PFBS	*108*		*40 - 135*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C3 PFHxS	*99.6*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C8 PFOS	*84.6*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C8 FOSA	*86.1*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d3-NMeFOSAA	*82.2*		*40 - 170*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d5-NEtFOSAA	*67.8*		*25 - 135*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C2 4:2 FTS	*114*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C2 6:2 FTS	*113*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C2 8:2 FTS	*98.9*		*40 - 300*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
13C3 HFPO-DA	*99.2*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d7-N-MeFOSE-M	*51.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d9-N-EtFOSE-M	*37.3*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d5-NEtPFOSA	*55.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*
d3-NMePFOSA	*56.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:29*	*1*

Client Sample ID: MW-35S-260107

Lab Sample ID: 320-128835-13

Date Collected: 01/07/26 16:13

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorooctanoic acid (PFOA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-35S-260107
Date Collected: 01/07/26 16:13
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-13
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.41	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 17:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 17:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 17:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 17:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:40	01/20/26 17:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 17:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 17:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 17:46	1

Client Sample ID: MW-35S-260107

Lab Sample ID: 320-128835-13

Date Collected: 01/07/26 16:13

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 17:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*79.4*		*5 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C5 PFPeA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C5 PFHxA	*106*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C4 PFHpA	*85.7*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C8 PFOA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C9 PFNA	*94.4*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C6 PFDA	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C7 PFUnA	*99.6*		*30 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C2 PFDoA	*91.3*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C2 PFTeDA	*61.3*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C3 PFBS	*107*		*40 - 135*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C3 PFHxS	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C8 PFOS	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C8 FOSA	*96.7*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d3-NMeFOSAA	*102*		*40 - 170*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d5-NEtFOSAA	*95.5*		*25 - 135*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C2 4:2 FTS	*106*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C2 6:2 FTS	*124*		*40 - 200*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C2 8:2 FTS	*98.0*		*40 - 300*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
13C3 HFPO-DA	*97.0*		*40 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d7-N-MeFOSE-M	*94.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d9-N-EtFOSE-M	*81.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d5-NEtPFOSA	*87.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*
d3-NMePFOSA	*90.1*		*10 - 130*	*01/19/26 11:40*	*01/20/26 17:46*	*1*

Client Sample ID: FB-2-260107

Lab Sample ID: 320-128835-14

Date Collected: 01/07/26 16:23

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.9	2.9	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorooctanoic acid (PFOA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorononanoic acid (PFNA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorodecanoic acid (PFDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.37	ng/L		01/19/26 11:40	01/20/26 18:02	1

Client Sample ID: FB-2-260107
Date Collected: 01/07/26 16:23
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-14
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:40	01/20/26 18:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:40	01/20/26 18:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	2.9	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.3	7.3	ng/L		01/19/26 11:40	01/20/26 18:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.3	7.3	ng/L		01/19/26 11:40	01/20/26 18:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1	1.1	ng/L		01/19/26 11:40	01/20/26 18:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 18:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	2.9	ng/L		01/19/26 11:40	01/20/26 18:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.3	7.3	ng/L		01/19/26 11:40	01/20/26 18:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.3	7.3	ng/L		01/19/26 11:40	01/20/26 18:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.7*		*5 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C5 PFPeA	*112*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C5 PFHxA	*108*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C4 PFHpA	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C8 PFOA	*112*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C9 PFNA	*99.1*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*

Client Sample ID: FB-2-260107

Lab Sample ID: 320-128835-14

Date Collected: 01/07/26 16:23

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6 PFDA	*113*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C7 PFUnA	*101*		*30 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C2 PFDoA	*108*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C2 PFTeDA	*78.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C3 PFBS	*106*		*40 - 135*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C3 PFHxS	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C8 PFOS	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C8 FOSA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d3-NMeFOSAA	*113*		*40 - 170*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d5-NEtFOSAA	*107*		*25 - 135*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C2 4:2 FTS	*99.7*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C2 6:2 FTS	*112*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C2 8:2 FTS	*116*		*40 - 300*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
13C3 HFPO-DA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d7-N-MeFOSE-M	*118*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d9-N-EtFOSE-M	*105*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d5-NEtPFOSA	*107*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*
d3-NMePFOSA	*101*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:02*	*1*

Client Sample ID: MW-29S-260108

Lab Sample ID: 320-128835-15

Date Collected: 01/08/26 10:42

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**14**		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorooctanoic acid (PFOA)	**2.4**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.43	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorooctanesulfonic acid (PFOS)	**2.4**		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 18:19	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-29S-260108
Date Collected: 01/08/26 10:42
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-15
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 18:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.5	8.5	ng/L		01/19/26 11:40	01/20/26 18:19	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.5	8.5	ng/L		01/19/26 11:40	01/20/26 18:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.3	1.3	ng/L		01/19/26 11:40	01/20/26 18:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 18:19	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	3.4	ng/L		01/19/26 11:40	01/20/26 18:19	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.5	8.5	ng/L		01/19/26 11:40	01/20/26 18:19	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.5	8.5	ng/L		01/19/26 11:40	01/20/26 18:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.7*		*5 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C5 PFPeA	*106*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C5 PFHxA	*115*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C4 PFHpA	*93.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C8 PFOA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C9 PFNA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C6 PFDA	*89.4*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C7 PFUnA	*83.4*		*30 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C2 PFDoA	*64.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C2 PFTeDA	*44.6*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C3 PFBS	*118*		*40 - 135*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C3 PFHxS	*109*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C8 PFOS	*97.8*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C8 FOSA	*94.9*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*

Client Sample ID: MW-29S-260108

Lab Sample ID: 320-128835-15

Date Collected: 01/08/26 10:42

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	*87.3*		*40 - 170*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
d5-NEtFOSAA	*72.0*		*25 - 135*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C2 4:2 FTS	*157*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C2 6:2 FTS	*127*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C2 8:2 FTS	*125*		*40 - 300*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
13C3 HFPO-DA	*107*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
d7-N-MeFOSE-M	*55.7*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
d9-N-EtFOSE-M	*40.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
d5-NEtPFOSA	*57.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*
d3-NMePFOSA	*60.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:19*	*1*

Client Sample ID: MW-30S-260108

Lab Sample ID: 320-128835-16

Date Collected: 01/08/26 11:51

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**11**		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorohexanoic acid (PFHxA)	**2.3**		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorooctanoic acid (PFOA)	**3.9**		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorononanoic acid (PFNA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorodecanoic acid (PFDA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorohexanesulfonic acid (PFHxS)	**0.71**	**J**	1.9	0.46	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorononanesulfonic acid (PFNS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 18:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 18:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1

Client Sample ID: MW-30S-260108
Date Collected: 01/08/26 11:51
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-16
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.3	9.3	ng/L		01/19/26 11:40	01/20/26 18:35	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.3	9.3	ng/L		01/19/26 11:40	01/20/26 18:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.4	ng/L		01/19/26 11:40	01/20/26 18:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.9	1.9	ng/L		01/19/26 11:40	01/20/26 18:35	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 18:35	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.3	9.3	ng/L		01/19/26 11:40	01/20/26 18:35	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.3	9.3	ng/L		01/19/26 11:40	01/20/26 18:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77.2*		*5 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C5 PFPeA	*106*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C5 PFHxA	*108*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C4 PFHpA	*90.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C8 PFOA	*90.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C9 PFNA	*94.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C6 PFDA	*76.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C7 PFUnA	*67.9*		*30 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C2 PFDoA	*42.1*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C2 PFTeDA	*22.7*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C3 PFBS	*109*		*40 - 135*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C3 PFHxS	*91.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C8 PFOS	*80.1*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C8 FOSA	*71.0*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
d3-NMeFOSAA	*66.0*		*40 - 170*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
d5-NEtFOSAA	*49.9*		*25 - 135*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C2 4:2 FTS	*105*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C2 6:2 FTS	*96.1*		*40 - 200*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C2 8:2 FTS	*80.8*		*40 - 300*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
13C3 HFPO-DA	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
d7-N-MeFOSE-M	*29.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
d9-N-EtFOSE-M	*11.6*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*

Client Sample ID: MW-30S-260108

Lab Sample ID: 320-128835-16

Date Collected: 01/08/26 11:51

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	*37.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*
d3-NMePFOSA	*39.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 18:35*	*1*

Client Sample ID: MW-46S-260108

Lab Sample ID: 320-128835-17

Date Collected: 01/08/26 13:14

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.4**		3.2	3.2	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoropentanoic acid (PFPeA)	**2.2**		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoroheptanoic acid (PFHpA)	**1.6**		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorooctanoic acid (PFOA)	**4.4**		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorohexanesulfonic acid (PFHxS)	**0.57**	**J**	1.6	0.40	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorooctanesulfonic acid (PFOS)	**3.6**	**I**	1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:40	01/20/26 19:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:40	01/20/26 19:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	3.2	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.0	8.0	ng/L		01/19/26 11:40	01/20/26 19:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.0	8.0	ng/L		01/19/26 11:40	01/20/26 19:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:40	01/20/26 19:24	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-46S-260108
Date Collected: 01/08/26 13:14
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-17
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 19:24	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	3.2	ng/L		01/19/26 11:40	01/20/26 19:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.0	8.0	ng/L		01/19/26 11:40	01/20/26 19:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.0	8.0	ng/L		01/19/26 11:40	01/20/26 19:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82.0*		*5 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C5 PFPeA	*100*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C5 PFHxA	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C4 PFHpA	*95.7*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C8 PFOA	*100*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C9 PFNA	*91.7*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C6 PFDA	*91.9*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C7 PFUnA	*100*		*30 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C2 PFDoA	*86.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C2 PFTeDA	*77.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C3 PFBS	*109*		*40 - 135*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C3 PFHxS	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C8 PFOS	*98.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C8 FOSA	*102*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d3-NMeFOSAA	*108*		*40 - 170*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d5-NEtFOSAA	*101*		*25 - 135*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C2 4:2 FTS	*109*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C2 6:2 FTS	*107*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C2 8:2 FTS	*95.3*		*40 - 300*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
13C3 HFPO-DA	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d7-N-MeFOSE-M	*78.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d9-N-EtFOSE-M	*41.6*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d5-NEtPFOSA	*94.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*
d3-NMePFOSA	*90.7*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:24*	*1*

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-45S-260108
Date Collected: 01/08/26 13:35
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-18
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**11**		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorooctanoic acid (PFOA)	**2.3**		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorononanoic acid (PFNA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorodecanoic acid (PFDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorohexanesulfonic acid (PFHxS)	**0.54**	**J**	1.8	0.46	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorooctanesulfonic acid (PFOS)	**3.7**		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 19:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 19:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.2	9.2	ng/L		01/19/26 11:40	01/20/26 19:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.2	9.2	ng/L		01/19/26 11:40	01/20/26 19:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.4	ng/L		01/19/26 11:40	01/20/26 19:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1

Client Sample ID: MW-45S-260108

Lab Sample ID: 320-128835-18

Date Collected: 01/08/26 13:35

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	1.8	ng/L		01/19/26 11:40	01/20/26 19:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.7	3.7	ng/L		01/19/26 11:40	01/20/26 19:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.2	9.2	ng/L		01/19/26 11:40	01/20/26 19:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.2	9.2	ng/L		01/19/26 11:40	01/20/26 19:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.8*		*5 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C5 PFPeA	*120*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C5 PFHxA	*114*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C4 PFHpA	*105*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C8 PFOA	*105*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C9 PFNA	*97.3*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C6 PFDA	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C7 PFUnA	*91.8*		*30 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C2 PFDoA	*61.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C2 PFTeDA	*28.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C3 PFBS	*101*		*40 - 135*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C3 PFHxS	*98.2*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C8 PFOS	*95.6*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C8 FOSA	*94.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d3-NMeFOSAA	*87.6*		*40 - 170*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d5-NEtFOSAA	*77.1*		*25 - 135*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C2 4:2 FTS	*142*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C2 6:2 FTS	*109*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C2 8:2 FTS	*97.7*		*40 - 300*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
13C3 HFPO-DA	*119*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d7-N-MeFOSE-M	*47.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d9-N-EtFOSE-M	*24.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d5-NEtPFOSA	*46.1*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*
d3-NMePFOSA	*53.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:41*	*1*

Client Sample ID: FB-3-260108

Lab Sample ID: 320-128835-19

Date Collected: 01/08/26 15:00

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	3.0	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorooctanoic acid (PFOA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorononanoic acid (PFNA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorodecanoic acid (PFDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: FB-3-260108
Date Collected: 01/08/26 15:00
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-19
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.37	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:40	01/20/26 19:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:40	01/20/26 19:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	3.0	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.4	7.4	ng/L		01/19/26 11:40	01/20/26 19:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.4	7.4	ng/L		01/19/26 11:40	01/20/26 19:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.1	1.1	ng/L		01/19/26 11:40	01/20/26 19:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 19:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	3.0	ng/L		01/19/26 11:40	01/20/26 19:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.4	7.4	ng/L		01/19/26 11:40	01/20/26 19:57	1

Client Sample ID: FB-3-260108

Lab Sample ID: 320-128835-19

Date Collected: 01/08/26 15:00

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.4	7.4	ng/L		01/19/26 11:40	01/20/26 19:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87.0*		*5 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C5 PFPeA	*98.8*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C5 PFHxA	*117*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C4 PFHpA	*87.8*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C8 PFOA	*108*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C9 PFNA	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C6 PFDA	*95.5*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C7 PFUnA	*105*		*30 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C2 PFDoA	*95.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C2 PFTeDA	*81.4*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C3 PFBS	*109*		*40 - 135*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C3 PFHxS	*108*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C8 PFOS	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C8 FOSA	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d3-NMeFOSAA	*112*		*40 - 170*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d5-NEtFOSAA	*98.0*		*25 - 135*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C2 4:2 FTS	*104*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C2 6:2 FTS	*127*		*40 - 200*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C2 8:2 FTS	*99.7*		*40 - 300*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
13C3 HFPO-DA	*100*		*40 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d7-N-MeFOSE-M	*107*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d9-N-EtFOSE-M	*98.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d5-NEtPFOSA	*108*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*
d3-NMePFOSA	*102*		*10 - 130*	*01/19/26 11:40*	*01/20/26 19:57*	*1*

Client Sample ID: EB-3-260108

Lab Sample ID: 320-128835-20

Date Collected: 01/08/26 15:10

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorooctanoic acid (PFOA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorononanoic acid (PFNA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorodecanoic acid (PFDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.41	ng/L		01/19/26 11:40	01/20/26 20:14	1

Client Sample ID: EB-3-260108
Date Collected: 01/08/26 15:10
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-20
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	8.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:40	01/20/26 20:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	1.7	ng/L		01/19/26 11:40	01/20/26 20:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:40	01/20/26 20:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	8.3	ng/L		01/19/26 11:40	01/20/26 20:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*81.2*		*5 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C5 PFPeA	*111*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C5 PFHxA	*115*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C4 PFHpA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C8 PFOA	*114*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C9 PFNA	*95.6*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*

Client Sample ID: EB-3-260108

Lab Sample ID: 320-128835-20

Date Collected: 01/08/26 15:10

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6 PFDA	*105*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C7 PFUnA	*108*		*30 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C2 PFDoA	*107*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C2 PFTeDA	*89.0*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C3 PFBS	*116*		*40 - 135*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C3 PFHxS	*107*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C8 PFOS	*110*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C8 FOSA	*109*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d3-NMeFOSAA	*109*		*40 - 170*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d5-NEtFOSAA	*105*		*25 - 135*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C2 4:2 FTS	*102*		*40 - 200*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C2 6:2 FTS	*110*		*40 - 200*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C2 8:2 FTS	*120*		*40 - 300*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
13C3 HFPO-DA	*113*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d7-N-MeFOSE-M	*121*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d9-N-EtFOSE-M	*106*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d5-NEtPFOSA	*106*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*
d3-NMePFOSA	*99.2*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:14*	*1*

Client Sample ID: MW-31S-260108

Lab Sample ID: 320-128835-21

Date Collected: 01/08/26 15:35

Matrix: Water

Date Received: 01/13/26 08:45

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.5**		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorooctanoic acid (PFOA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorononanoic acid (PFNA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.41	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:30	1

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-31S-260108
Date Collected: 01/08/26 15:35
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-21
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 20:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 20:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.2	1.2	ng/L		01/19/26 11:40	01/20/26 20:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	1.6	ng/L		01/19/26 11:40	01/20/26 20:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	3.3	ng/L		01/19/26 11:40	01/20/26 20:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 20:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.2	8.2	ng/L		01/19/26 11:40	01/20/26 20:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*85.2*		*5 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C5 PFPeA	*118*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C5 PFHxA	*115*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C4 PFHpA	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C8 PFOA	*105*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C9 PFNA	*108*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C6 PFDA	*94.9*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C7 PFUnA	*81.8*		*30 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C2 PFDoA	*81.9*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C2 PFTeDA	*61.5*		*10 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C3 PFBS	*110*		*40 - 135*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C3 PFHxS	*111*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C8 PFOS	*101*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
13C8 FOSA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
d3-NMeFOSAA	*91.0*		*40 - 170*	*01/19/26 11:40*	*01/20/26 20:30*	*1*
d5-NEtFOSAA	*80.2*		*25 - 135*	*01/19/26 11:40*	*01/20/26 20:30*	*1*

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-31S-260108
Date Collected: 01/08/26 15:35
Date Received: 01/13/26 08:45

Lab Sample ID: 320-128835-21
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 4:2 FTS	118		40 - 200	01/19/26 11:40	01/20/26 20:30	1
13C2 6:2 FTS	105		40 - 200	01/19/26 11:40	01/20/26 20:30	1
13C2 8:2 FTS	106		40 - 300	01/19/26 11:40	01/20/26 20:30	1
13C3 HFPO-DA	112		40 - 130	01/19/26 11:40	01/20/26 20:30	1
d7-N-MeFOSE-M	78.0		10 - 130	01/19/26 11:40	01/20/26 20:30	1
d9-N-EtFOSE-M	64.8		10 - 130	01/19/26 11:40	01/20/26 20:30	1
d5-NEtPFOSA	82.1		10 - 130	01/19/26 11:40	01/20/26 20:30	1
d3-NMePFOSA	85.5		10 - 130	01/19/26 11:40	01/20/26 20:30	1

Isotope Dilution Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
320-128835-1	MW-36S-260106	96.3	103	112	97.0	107	107	103	97.1
320-128835-2	FB-1-260106	93.6	102	99.5	91.5	107	101	102	95.5
320-128835-3	EB-1-260106	90.4	98.9	106	94.9	102	103	98.2	99.0
320-128835-4	MW-47S-260106	93.8	95.2	101	97.7	105	100	94.5	87.5
320-128835-5	GW-FD-260106	90.5	94.1	96.9	94.6	98.7	95.2	99.4	90.6
320-128835-6	MW-32S-260107	83.1	89.2	96.3	86.8	98.8	94.0	89.1	78.9
320-128835-7	MW-13S-260107	92.9	95.1	109	99.1	111	104	97.3	85.5
320-128835-8	MW-07S-260107	95.4	85.9	105	95.3	107	102	97.9	85.6
320-128835-9	MW-28S-260107	90.8	97.1	100	92.6	99.9	93.8	92.4	87.5
320-128835-10	MW-33S-260107	90.4	97.8	104	94.7	102	103	92.0	75.0
320-128835-11	MW-48S-260107	82.3	113	105	102	98.3	95.6	94.8	123
320-128835-12	MW-3S-260107	81.5	106	104	98.9	92.5	106	91.3	76.9
320-128835-13	MW-35S-260107	79.4	103	106	85.7	103	94.4	102	99.6
320-128835-14	FB-2-260107	83.7	112	108	102	112	99.1	113	101
320-128835-15	MW-29S-260108	81.7	106	115	93.3	103	104	89.4	83.4
320-128835-16	MW-30S-260108	77.2	106	108	90.5	90.3	94.3	76.5	67.9
320-128835-17	MW-46S-260108	82.0	100	101	95.7	100	91.7	91.9	100
320-128835-18	MW-45S-260108	81.8	120	114	105	105	97.3	101	91.8
320-128835-19	FB-3-260108	87.0	98.8	117	87.8	108	101	95.5	105
320-128835-20	EB-3-260108	81.2	111	115	104	114	95.6	105	108
320-128835-21	MW-31S-260108	85.2	118	115	101	105	108	94.9	81.8
LCS 320-897638/3-A	Lab Control Sample	94.0	99.0	106	93.4	109	103	101	97.8
LCS 320-897642/3-A	Lab Control Sample	84.2	113	119	96.3	112	113	104	96.0
LCSD 320-897638/4-A	Lab Control Sample Dup	94.8	103	110	100	109	110	102	103
LCSD 320-897642/4-A	Lab Control Sample Dup	83.8	106	120	98.7	97.5	98.0	102	107
LLCS 320-897638/2-A	Lab Control Sample	97.3	104	107	101	110	103	104	98.4
LLCS 320-897642/2-A	Lab Control Sample	86.9	109	106	99.5	107	105	102	107
MB 320-897638/1-A	Method Blank	96.2	106	115	109	112	108	105	100
MB 320-897642/1-A	Method Blank	86.3	113	113	94.0	125	107	114	136 *5+

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(10-130)	(10-130)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)	(25-135)
320-128835-1	MW-36S-260106	89.7	80.2	116	115	104	99.6	121	114
320-128835-2	FB-1-260106	88.5	79.1	114	107	108	95.1	118	111
320-128835-3	EB-1-260106	94.7	68.8	104	103	95.8	84.6	119	105
320-128835-4	MW-47S-260106	74.7	65.0	110	110	95.7	86.5	107	98.9
320-128835-5	GW-FD-260106	83.0	63.3	104	101	91.5	82.9	100	95.9
320-128835-6	MW-32S-260107	63.5	47.5	101	98.2	89.3	84.6	97.9	84.8
320-128835-7	MW-13S-260107	74.4	63.0	110	110	96.9	87.5	98.8	98.5
320-128835-8	MW-07S-260107	80.0	70.9	111	103	98.8	82.5	106	95.3
320-128835-9	MW-28S-260107	79.6	70.1	104	104	95.9	87.5	107	101
320-128835-10	MW-33S-260107	67.6	55.8	101	99.0	93.6	81.8	106	91.9
320-128835-11	MW-48S-260107	116	90.8	107	102	99.3	103	107	103
320-128835-12	MW-3S-260107	61.1	41.5	108	99.6	84.6	86.1	82.2	67.8
320-128835-13	MW-35S-260107	91.3	61.3	107	101	101	96.7	102	95.5
320-128835-14	FB-2-260107	108	78.0	106	102	103	104	113	107
320-128835-15	MW-29S-260108	64.4	44.6	118	109	97.8	94.9	87.3	72.0
320-128835-16	MW-30S-260108	42.1	22.7	109	91.5	80.1	71.0	66.0	49.9
320-128835-17	MW-46S-260108	86.9	77.4	109	104	98.5	102	108	101

Isotope Dilution Summary

Client: Black River Environmental
Job ID: 320-128835-1
Project/Site: Glacier Northwest, Inc.

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(10-130)	(10-130)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)	(25-135)
320-128835-18	MW-45S-260108	61.9	28.2	101	98.2	95.6	94.5	87.6	77.1
320-128835-19	FB-3-260108	95.8	81.4	109	108	104	101	112	98.0
320-128835-20	EB-3-260108	107	89.0	116	107	110	109	109	105
320-128835-21	MW-31S-260108	81.9	61.5	110	111	101	104	91.0	80.2
LCS 320-897638/3-A	Lab Control Sample	91.5	74.9	103	105	102	90.4	117	110
LCS 320-897642/3-A	Lab Control Sample	103	84.1	108	102	109	108	115	106
LCSD 320-897638/4-A	Lab Control Sample Dup	88.7	72.7	106	108	102	85.3	119	110
LCSD 320-897642/4-A	Lab Control Sample Dup	103	76.7	113	109	101	91.0	103	97.4
LLCS 320-897638/2-A	Lab Control Sample	93.9	71.8	114	107	104	88.3	119	111
LLCS 320-897642/2-A	Lab Control Sample	95.9	77.4	110	107	110	113	121	108
MB 320-897638/1-A	Method Blank	91.7	77.4	110	110	102	90.1	114	109
MB 320-897642/1-A	Method Blank	133 *5+	92.6	111	103	104	104	106	95.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID	(40-200)	(40-200)	(40-300)	(40-130)	(10-130)	(10-130)	(10-130)	(10-130)
320-128835-1	MW-36S-260106	133	129	128	102	102	91.0	97.0	92.4
320-128835-2	FB-1-260106	134	120	114	92.6	95.9	86.8	93.4	89.6
320-128835-3	EB-1-260106	126	116	128	98.8	89.7	79.0	87.3	83.8
320-128835-4	MW-47S-260106	156	136	129	97.3	70.5	61.0	77.5	76.4
320-128835-5	GW-FD-260106	144	111	109	95.7	68.1	55.0	72.2	72.5
320-128835-6	MW-32S-260107	138	122	102	88.7	18.3	5.07 *5-	51.8	54.6
320-128835-7	MW-13S-260107	206 *5+	132	114	102	59.9	45.0	72.5	71.8
320-128835-8	MW-07S-260107	197	128	119	95.7	72.3	60.9	77.5	76.4
320-128835-9	MW-28S-260107	139	132	111	94.9	71.5	56.0	78.7	77.1
320-128835-10	MW-33S-260107	139	125	105	95.5	64.1	53.5	65.9	64.6
320-128835-11	MW-48S-260107	105	124	107	107	87.6	54.2	84.0	87.0
320-128835-12	MW-3S-260107	114	113	98.9	99.2	51.5	37.3	55.8	56.9
320-128835-13	MW-35S-260107	106	124	98.0	97.0	94.2	81.4	87.8	90.1
320-128835-14	FB-2-260107	99.7	112	116	103	118	105	107	101
320-128835-15	MW-29S-260108	157	127	125	107	55.7	40.4	57.0	60.5
320-128835-16	MW-30S-260108	105	96.1	80.8	102	29.2	11.6	37.9	39.5
320-128835-17	MW-46S-260108	109	107	95.3	103	78.4	41.6	94.2	90.7
320-128835-18	MW-45S-260108	142	109	97.7	119	47.8	24.0	46.1	53.5
320-128835-19	FB-3-260108	104	127	99.7	100	107	98.9	108	102
320-128835-20	EB-3-260108	102	110	120	113	121	106	106	99.2
320-128835-21	MW-31S-260108	118	105	106	112	78.0	64.8	82.1	85.5
LCS 320-897638/3-A	Lab Control Sample	109	118	122	94.5	92.1	79.0	84.0	80.1
LCS 320-897642/3-A	Lab Control Sample	91.0	123	129	109	116	100	99.4	93.5
LCSD 320-897638/4-A	Lab Control Sample Dup	120	123	116	104	86.3	74.0	81.1	78.7
LCSD 320-897642/4-A	Lab Control Sample Dup	91.7	111	109	101	96.1	87.0	89.6	85.8
LLCS 320-897638/2-A	Lab Control Sample	120	134	132	101	94.5	81.6	85.5	81.3
LLCS 320-897642/2-A	Lab Control Sample	81.1	105	108	104	113	101	99.1	100
MB 320-897638/1-A	Method Blank	121	127	133	102	93.6	79.6	68.6	64.3
MB 320-897642/1-A	Method Blank	101	117	108	104	107	95.3	74.8	71.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA

Isotope Dilution Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 320-897638/1-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 897638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	4.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorooctanoic acid (PFOA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorononanoic acid (PFNA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorodecanoic acid (PFDA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.50	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	10	ng/L		01/19/26 11:22	01/20/26 23:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	10	ng/L		01/19/26 11:22	01/20/26 23:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.5	ng/L		01/19/26 11:22	01/20/26 23:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 320-897638/1-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 897638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	2.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	4.0	ng/L		01/19/26 11:22	01/20/26 23:33	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	10	ng/L		01/19/26 11:22	01/20/26 23:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	10	ng/L		01/19/26 11:22	01/20/26 23:33	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.2*		*5 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C5 PFPeA	*106*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C5 PFHxA	*115*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C4 PFHpA	*109*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C8 PFOA	*112*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C9 PFNA	*108*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C6 PFDA	*105*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C7 PFUnA	*100*		*30 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C2 PFDoA	*91.7*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C2 PFTeDA	*77.4*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C3 PFBS	*110*		*40 - 135*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C3 PFHxS	*110*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C8 PFOS	*102*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C8 FOSA	*90.1*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d3-NMeFOSAA	*114*		*40 - 170*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d5-NEtFOSAA	*109*		*25 - 135*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C2 4:2 FTS	*121*		*40 - 200*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C2 6:2 FTS	*127*		*40 - 200*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C2 8:2 FTS	*133*		*40 - 300*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
13C3 HFPO-DA	*102*		*40 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d7-N-MeFOSE-M	*93.6*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d9-N-EtFOSE-M	*79.6*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d5-NEtPFOSA	*68.6*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*
d3-NMePFOSA	*64.3*		*10 - 130*	*01/19/26 11:22*	*01/20/26 23:33*	*1*

Lab Sample ID: LCS 320-897638/3-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	82.5		ng/L		103	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	41.3		ng/L		103	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	38.5		ng/L		96	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	43.4		ng/L		108	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	40.8		ng/L		102	70 - 150
Perfluorononanoic acid (PFNA)	40.0	39.6		ng/L		99	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	41.4		ng/L		104	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 320-897638/3-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	43.1		ng/L		108	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	41.4		ng/L		104	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	44.9		ng/L		112	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	46.2		ng/L		116	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	36.6		ng/L		103	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.5		ng/L		100	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	34.7		ng/L		95	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.2		ng/L		100	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	35.5		ng/L		95	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	37.8		ng/L		98	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	36.5		ng/L		95	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	36.4		ng/L		94	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	80.1		ng/L		107	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	78.5		ng/L		103	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	74.0		ng/L		96	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	41.1		ng/L		103	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.0		ng/L		100	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	36.9		ng/L		92	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.2		ng/L		96	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.3		ng/L		96	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	183		ng/L		91	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	208		ng/L		104	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.5		ng/L		105	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.1		ng/L		111	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	41.9		ng/L		105	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	40.3		ng/L		101	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	31.6		ng/L		79	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 320-897638/3-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	37.4		ng/L		100	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	35.3		ng/L		93	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	34.5		ng/L		97	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	80.7		ng/L		101	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	189		ng/L		95	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	186		ng/L		93	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94.0*		*5 - 130*
13C5 PFPeA	*99.0*		*40 - 130*
13C5 PFHxA	*106*		*40 - 130*
13C4 PFHpA	*93.4*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
13C6 PFDA	*101*		*40 - 130*
13C7 PFUnA	*97.8*		*30 - 130*
13C2 PFDoA	*91.5*		*10 - 130*
13C2 PFTeDA	*74.9*		*10 - 130*
13C3 PFBS	*103*		*40 - 135*
13C3 PFHxS	*105*		*40 - 130*
13C8 PFOS	*102*		*40 - 130*
13C8 FOSA	*90.4*		*40 - 130*
d3-NMeFOSAA	*117*		*40 - 170*
d5-NEtFOSAA	*110*		*25 - 135*
13C2 4:2 FTS	*109*		*40 - 200*
13C2 6:2 FTS	*118*		*40 - 200*
13C2 8:2 FTS	*122*		*40 - 300*
13C3 HFPO-DA	*94.5*		*40 - 130*
d7-N-MeFOSE-M	*92.1*		*10 - 130*
d9-N-EtFOSE-M	*79.0*		*10 - 130*
d5-NEtPFOSA	*84.0*		*10 - 130*
d3-NMePFOSA	*80.1*		*10 - 130*

Lab Sample ID: LCSD 320-897638/4-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897638

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	82.8		ng/L		103	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	40.9		ng/L		102	65 - 135	1	30
Perfluorohexanoic acid (PFHxA)			40.0	38.5		ng/L		96	70 - 145	0	30
Perfluoroheptanoic acid (PFHpA)			40.0	41.7		ng/L		104	70 - 150	4	30
Perfluorooctanoic acid (PFOA)			40.0	39.8		ng/L		100	70 - 150	3	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 320-897638/4-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897638

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	38.2		ng/L		96	70 - 150	4	30
Perfluorodecanoic acid (PFDA)	40.0	41.2		ng/L		103	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	40.5		ng/L		101	70 - 145	6	30
Perfluorododecanoic acid (PFDoA)	40.0	44.4		ng/L		111	70 - 140	7	30
Perfluorotridecanoic acid (PFTrDA)	40.0	45.0		ng/L		113	65 - 140	0	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	46.2		ng/L		115	60 - 140	0	30
Perfluorobutanesulfonic acid (PFBS)	35.5	38.0		ng/L		107	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.0		ng/L		98	65 - 140	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.9		ng/L		93	65 - 145	2	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.6		ng/L		101	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	37.2	36.1		ng/L		97	55 - 150	2	30
Perfluorononanesulfonic acid (PFNS)	38.5	37.6		ng/L		98	65 - 145	1	30
Perfluorodecanesulfonic acid (PFDS)	38.6	35.4		ng/L		92	60 - 145	3	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	32.9		ng/L		85	50 - 145	10	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	73.7		ng/L		98	70 - 145	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	78.6		ng/L		103	65 - 155	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	78.3		ng/L		102	60 - 150	6	30
Perfluorooctanesulfonamide (PFOSA)	40.0	41.3		ng/L		103	70 - 145	0	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.2		ng/L		100	60 - 150	0	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.9		ng/L		95	65 - 145	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.0		ng/L		97	50 - 140	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.0		ng/L		100	70 - 145	4	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	184		ng/L		92	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	207		ng/L		104	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	30.8		ng/L		103	70 - 140	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.6		ng/L		113	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	43.2		ng/L		108	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	42.7		ng/L		107	60 - 150	6	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 320-897638/4-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897638

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	33.2		ng/L		83	50 - 150	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	36.8		ng/L		99	70 - 155	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	33.9		ng/L		90	55 - 160	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	34.1		ng/L		96	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	86.5		ng/L		108	65 - 130	7	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	202		ng/L		101	70 - 135	6	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	190		ng/L		95	50 - 145	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*94.8*		*5 - 130*
13C5 PFPeA	*103*		*40 - 130*
13C5 PFHxA	*110*		*40 - 130*
13C4 PFHpA	*100*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*110*		*40 - 130*
13C6 PFDA	*102*		*40 - 130*
13C7 PFUnA	*103*		*30 - 130*
13C2 PFDoA	*88.7*		*10 - 130*
13C2 PFTeDA	*72.7*		*10 - 130*
13C3 PFBS	*106*		*40 - 135*
13C3 PFHxS	*108*		*40 - 130*
13C8 PFOS	*102*		*40 - 130*
13C8 FOSA	*85.3*		*40 - 130*
d3-NMeFOSAA	*119*		*40 - 170*
d5-NEtFOSAA	*110*		*25 - 135*
13C2 4:2 FTS	*120*		*40 - 200*
13C2 6:2 FTS	*123*		*40 - 200*
13C2 8:2 FTS	*116*		*40 - 300*
13C3 HFPO-DA	*104*		*40 - 130*
d7-N-MeFOSE-M	*86.3*		*10 - 130*
d9-N-EtFOSE-M	*74.0*		*10 - 130*
d5-NEtPFOSA	*81.1*		*10 - 130*
d3-NMePFOSA	*78.7*		*10 - 130*

Lab Sample ID: LLCS 320-897638/2-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	8.27		ng/L		103	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.18		ng/L		104	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	4.17		ng/L		104	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 320-897638/2-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	4.33		ng/L		108	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.25		ng/L		106	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.24		ng/L		106	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.95		ng/L		99	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.24		ng/L		106	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.17		ng/L		104	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.58		ng/L		114	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.84		ng/L		121	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.58		ng/L		101	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.89		ng/L		103	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.67		ng/L		101	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.78		ng/L		99	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.60		ng/L		97	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.64		ng/L		95	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.38		ng/L		88	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.94		ng/L		76	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.76		ng/L		103	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.44		ng/L		98	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.82		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.02		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.76		ng/L		94	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.59		ng/L		90	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.01		ng/L		100	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.48		ng/L		87	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	17.5		ng/L		87	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	18.9		ng/L		94	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.11		ng/L		104	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.22		ng/L		111	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.19		ng/L		105	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 320-897638/2-A
Matrix: Water
Analysis Batch: 897856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897638

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.99		ng/L		100	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.50		ng/L		113	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.75		ng/L		100	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	3.39		ng/L		90	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.62		ng/L		101	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.06		ng/L		101	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	20.4		ng/L		102	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	18.6		ng/L		93	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*97.3*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*107*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*110*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*98.4*		*30 - 130*
13C2 PFDoA	*93.9*		*10 - 130*
13C2 PFTeDA	*71.8*		*10 - 130*
13C3 PFBS	*114*		*40 - 135*
13C3 PFHxS	*107*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C8 FOSA	*88.3*		*40 - 130*
d3-NMeFOSAA	*119*		*40 - 170*
d5-NEtFOSAA	*111*		*25 - 135*
13C2 4:2 FTS	*120*		*40 - 200*
13C2 6:2 FTS	*134*		*40 - 200*
13C2 8:2 FTS	*132*		*40 - 300*
13C3 HFPO-DA	*101*		*40 - 130*
d7-N-MeFOSE-M	*94.5*		*10 - 130*
d9-N-EtFOSE-M	*81.6*		*10 - 130*
d5-NEtPFOSA	*85.5*		*10 - 130*
d3-NMePFOSA	*81.3*		*10 - 130*

Lab Sample ID: MB 320-897642/1-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 897642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	4.0	ng/L		01/19/26 11:40	01/20/26 15:51	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 320-897642/1-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 897642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorooctanoic acid (PFOA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorononanoic acid (PFNA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorodecanoic acid (PFDA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.50	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	4.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	10	ng/L		01/19/26 11:40	01/20/26 15:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	10	ng/L		01/19/26 11:40	01/20/26 15:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.5	ng/L		01/19/26 11:40	01/20/26 15:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 320-897642/1-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 897642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	2.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	4.0	ng/L		01/19/26 11:40	01/20/26 15:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	10	ng/L		01/19/26 11:40	01/20/26 15:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	10	ng/L		01/19/26 11:40	01/20/26 15:51	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.3*		*5 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C5 PFPeA	*113*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C5 PFHxA	*113*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C4 PFHpA	*94.0*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C8 PFOA	*125*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C9 PFNA	*107*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C6 PFDA	*114*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C7 PFUnA	*136*	**5+*	*30 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C2 PFDoA	*133*	**5+*	*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C2 PFTeDA	*92.6*		*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C3 PFBS	*111*		*40 - 135*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C3 PFHxS	*103*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C8 PFOS	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C8 FOSA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d3-NMeFOSAA	*106*		*40 - 170*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d5-NEtFOSAA	*95.1*		*25 - 135*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C2 4:2 FTS	*101*		*40 - 200*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C2 6:2 FTS	*117*		*40 - 200*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C2 8:2 FTS	*108*		*40 - 300*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
13C3 HFPO-DA	*104*		*40 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d7-N-MeFOSE-M	*107*		*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d9-N-EtFOSE-M	*95.3*		*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d5-NEtPFOSA	*74.8*		*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*
d3-NMePFOSA	*71.3*		*10 - 130*	*01/19/26 11:40*	*01/20/26 15:51*	*1*

Lab Sample ID: LCS 320-897642/3-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	81.6		ng/L		102	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	41.2		ng/L		103	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	34.1		ng/L		85	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	39.8		ng/L		99	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	39.2		ng/L		98	70 - 150
Perfluorononanoic acid (PFNA)	40.0	45.7		ng/L		114	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.6		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 320-897642/3-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	46.5		ng/L		116	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	42.6		ng/L		106	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	42.5		ng/L		106	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	46.3		ng/L		116	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.7		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.0		ng/L		104	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	29.7		ng/L		81	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.8		ng/L		104	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	35.5		ng/L		95	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	38.5		ng/L		100	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	38.1		ng/L		99	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	31.5		ng/L		81	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	74.8		ng/L		100	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	68.4		ng/L		90	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	74.8		ng/L		97	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.4		ng/L		98	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	41.5		ng/L		104	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.4		ng/L		93	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.3		ng/L		96	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.6		ng/L		99	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	183		ng/L		92	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	202		ng/L		101	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.7		ng/L		106	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	38.3		ng/L		101	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	41.9		ng/L		105	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	50.2		ng/L		126	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	36.8		ng/L		92	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 320-897642/3-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	39.5		ng/L		106	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	33.1		ng/L		88	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	29.3		ng/L		82	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	92.1		ng/L		115	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	209		ng/L		104	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	192		ng/L		96	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*84.2*		*5 - 130*
13C5 PFPeA	*113*		*40 - 130*
13C5 PFHxA	*119*		*40 - 130*
13C4 PFHpA	*96.3*		*40 - 130*
13C8 PFOA	*112*		*40 - 130*
13C9 PFNA	*113*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*96.0*		*30 - 130*
13C2 PFDoA	*103*		*10 - 130*
13C2 PFTeDA	*84.1*		*10 - 130*
13C3 PFBS	*108*		*40 - 135*
13C3 PFHxS	*102*		*40 - 130*
13C8 PFOS	*109*		*40 - 130*
13C8 FOSA	*108*		*40 - 130*
d3-NMeFOSAA	*115*		*40 - 170*
d5-NEtFOSAA	*106*		*25 - 135*
13C2 4:2 FTS	*91.0*		*40 - 200*
13C2 6:2 FTS	*123*		*40 - 200*
13C2 8:2 FTS	*129*		*40 - 300*
13C3 HFPO-DA	*109*		*40 - 130*
d7-N-MeFOSE-M	*116*		*10 - 130*
d9-N-EtFOSE-M	*100*		*10 - 130*
d5-NEtPFOSA	*99.4*		*10 - 130*
d3-NMePFOSA	*93.5*		*10 - 130*

Lab Sample ID: LCSD 320-897642/4-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	81.9		ng/L		102	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	45.0		ng/L		112	65 - 135	9	30
Perfluorohexanoic acid (PFHxA)			40.0	33.4		ng/L		83	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	40.6		ng/L		102	70 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	43.4		ng/L		109	70 - 150	10	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 320-897642/4-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897642

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	45.4		ng/L		114	70 - 150	1	30
Perfluorodecanoic acid (PFDA)	40.0	43.5		ng/L		109	70 - 140	20	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.2		ng/L		106	70 - 145	10	30
Perfluorododecanoic acid (PFDoA)	40.0	42.2		ng/L		105	70 - 140	1	30
Perfluorotridecanoic acid (PFTrDA)	40.0	40.9		ng/L		102	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	46.7		ng/L		117	60 - 140	1	30
Perfluorobutanesulfonic acid (PFBS)	35.5	28.1		ng/L		79	60 - 145	9	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	41.0		ng/L		109	65 - 140	5	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	30.0		ng/L		82	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.4		ng/L		106	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	34.6		ng/L		93	55 - 150	2	30
Perfluorononanesulfonic acid (PFNS)	38.5	37.6		ng/L		98	65 - 145	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	33.8		ng/L		88	60 - 145	12	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.5		ng/L		74	50 - 145	10	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	71.2		ng/L		95	70 - 145	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	80.2		ng/L		105	65 - 155	16	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	78.2		ng/L		102	60 - 150	4	30
Perfluorooctanesulfonamide (PFOSA)	40.0	42.3		ng/L		106	70 - 145	7	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	41.0		ng/L		102	60 - 150	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.5		ng/L		94	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.7		ng/L		99	50 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.7		ng/L		102	70 - 145	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	186		ng/L		93	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	201		ng/L		100	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	30.7		ng/L		102	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	41.3		ng/L		109	65 - 145	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	45.7		ng/L		114	55 - 140	9	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	43.4		ng/L		109	60 - 150	15	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 320-897642/4-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 897642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	31.0		ng/L		78	50 - 150	17	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	43.2		ng/L		116	70 - 155	9	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	36.9		ng/L		98	55 - 160	11	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	28.5		ng/L		80	70 - 140	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	94.1		ng/L		118	65 - 130	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	189		ng/L		95	70 - 135	10	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	182		ng/L		91	50 - 145	6	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*83.8*		*5 - 130*
13C5 PFPeA	*106*		*40 - 130*
13C5 PFHxA	*120*		*40 - 130*
13C4 PFHpA	*98.7*		*40 - 130*
13C8 PFOA	*97.5*		*40 - 130*
13C9 PFNA	*98.0*		*40 - 130*
13C6 PFDA	*102*		*40 - 130*
13C7 PFUnA	*107*		*30 - 130*
13C2 PFDoA	*103*		*10 - 130*
13C2 PFTeDA	*76.7*		*10 - 130*
13C3 PFBS	*113*		*40 - 135*
13C3 PFHxS	*109*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*91.0*		*40 - 130*
d3-NMeFOSAA	*103*		*40 - 170*
d5-NEtFOSAA	*97.4*		*25 - 135*
13C2 4:2 FTS	*91.7*		*40 - 200*
13C2 6:2 FTS	*111*		*40 - 200*
13C2 8:2 FTS	*109*		*40 - 300*
13C3 HFPO-DA	*101*		*40 - 130*
d7-N-MeFOSE-M	*96.1*		*10 - 130*
d9-N-EtFOSE-M	*87.0*		*10 - 130*
d5-NEtPFOSA	*89.6*		*10 - 130*
d3-NMePFOSA	*85.8*		*10 - 130*

Lab Sample ID: LLCS 320-897642/2-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.29		ng/L		91	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.51		ng/L		113	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.67		ng/L		92	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 320-897642/2-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	4.32		ng/L		108	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.85		ng/L		96	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.72		ng/L		93	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.71		ng/L		93	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.08		ng/L		102	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.00		ng/L		100	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.05		ng/L		101	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.38		ng/L		109	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.24		ng/L		91	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.64		ng/L		97	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.93		ng/L		80	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.32		ng/L		113	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.69		ng/L		99	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.98		ng/L		103	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.62		ng/L		94	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	3.15		ng/L		81	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	8.66		ng/L		115	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.26		ng/L		108	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.24		ng/L		94	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.75		ng/L		94	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.20		ng/L		105	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.78		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.34		ng/L		84	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.68		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	17.8		ng/L		89	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.4		ng/L		97	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.99		ng/L		100	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.78		ng/L		100	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.43		ng/L		111	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 320-897642/2-A
Matrix: Water
Analysis Batch: 897871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 897642

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	4.49		ng/L		112	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	4.61		ng/L		115	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	3.92		ng/L		105	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	3.44		ng/L		91	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	3.28		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	8.81		ng/L		110	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	22.1		ng/L		111	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	19.5		ng/L		97	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*86.9*		*5 - 130*
13C5 PFPeA	*109*		*40 - 130*
13C5 PFHxA	*106*		*40 - 130*
13C4 PFHpA	*99.5*		*40 - 130*
13C8 PFOA	*107*		*40 - 130*
13C9 PFNA	*105*		*40 - 130*
13C6 PFDA	*102*		*40 - 130*
13C7 PFUnA	*107*		*30 - 130*
13C2 PFDoA	*95.9*		*10 - 130*
13C2 PFTeDA	*77.4*		*10 - 130*
13C3 PFBS	*110*		*40 - 135*
13C3 PFHxS	*107*		*40 - 130*
13C8 PFOS	*110*		*40 - 130*
13C8 FOSA	*113*		*40 - 130*
d3-NMeFOSAA	*121*		*40 - 170*
d5-NEtFOSAA	*108*		*25 - 135*
13C2 4:2 FTS	*81.1*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*108*		*40 - 300*
13C3 HFPO-DA	*104*		*40 - 130*
d7-N-MeFOSE-M	*113*		*10 - 130*
d9-N-EtFOSE-M	*101*		*10 - 130*
d5-NEtPFOSA	*99.1*		*10 - 130*
d3-NMePFOSA	*100*		*10 - 130*

LCMS

Prep Batch: 897638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-128835-1	MW-36S-260106	Total/NA	Water	1633A	
320-128835-2	FB-1-260106	Total/NA	Water	1633A	
320-128835-3	EB-1-260106	Total/NA	Water	1633A	
320-128835-4	MW-47S-260106	Total/NA	Water	1633A	
320-128835-5	GW-FD-260106	Total/NA	Water	1633A	
320-128835-6	MW-32S-260107	Total/NA	Water	1633A	
320-128835-7	MW-13S-260107	Total/NA	Water	1633A	
320-128835-8	MW-07S-260107	Total/NA	Water	1633A	
320-128835-9	MW-28S-260107	Total/NA	Water	1633A	
320-128835-10	MW-33S-260107	Total/NA	Water	1633A	
MB 320-897638/1-A	Method Blank	Total/NA	Water	1633A	
LCS 320-897638/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 320-897638/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 320-897638/2-A	Lab Control Sample	Total/NA	Water	1633A	

Prep Batch: 897642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-128835-11	MW-48S-260107	Total/NA	Water	1633A	
320-128835-12	MW-3S-260107	Total/NA	Water	1633A	
320-128835-13	MW-35S-260107	Total/NA	Water	1633A	
320-128835-14	FB-2-260107	Total/NA	Water	1633A	
320-128835-15	MW-29S-260108	Total/NA	Water	1633A	
320-128835-16	MW-30S-260108	Total/NA	Water	1633A	
320-128835-17	MW-46S-260108	Total/NA	Water	1633A	
320-128835-18	MW-45S-260108	Total/NA	Water	1633A	
320-128835-19	FB-3-260108	Total/NA	Water	1633A	
320-128835-20	EB-3-260108	Total/NA	Water	1633A	
320-128835-21	MW-31S-260108	Total/NA	Water	1633A	
MB 320-897642/1-A	Method Blank	Total/NA	Water	1633A	
LCS 320-897642/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 320-897642/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 320-897642/2-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 897856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-128835-1	MW-36S-260106	Total/NA	Water	1633A	897638
320-128835-2	FB-1-260106	Total/NA	Water	1633A	897638
320-128835-3	EB-1-260106	Total/NA	Water	1633A	897638
320-128835-4	MW-47S-260106	Total/NA	Water	1633A	897638
320-128835-5	GW-FD-260106	Total/NA	Water	1633A	897638
320-128835-6	MW-32S-260107	Total/NA	Water	1633A	897638
320-128835-7	MW-13S-260107	Total/NA	Water	1633A	897638
320-128835-8	MW-07S-260107	Total/NA	Water	1633A	897638
320-128835-9	MW-28S-260107	Total/NA	Water	1633A	897638
320-128835-10	MW-33S-260107	Total/NA	Water	1633A	897638
MB 320-897638/1-A	Method Blank	Total/NA	Water	1633A	897638
LCS 320-897638/3-A	Lab Control Sample	Total/NA	Water	1633A	897638
LCSD 320-897638/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	897638
LLCS 320-897638/2-A	Lab Control Sample	Total/NA	Water	1633A	897638

QC Association Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

LCMS

Analysis Batch: 897871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-128835-11	MW-48S-260107	Total/NA	Water	1633A	897642
320-128835-12	MW-3S-260107	Total/NA	Water	1633A	897642
320-128835-13	MW-35S-260107	Total/NA	Water	1633A	897642
320-128835-14	FB-2-260107	Total/NA	Water	1633A	897642
320-128835-15	MW-29S-260108	Total/NA	Water	1633A	897642
320-128835-16	MW-30S-260108	Total/NA	Water	1633A	897642
320-128835-17	MW-46S-260108	Total/NA	Water	1633A	897642
320-128835-18	MW-45S-260108	Total/NA	Water	1633A	897642
320-128835-19	FB-3-260108	Total/NA	Water	1633A	897642
320-128835-20	EB-3-260108	Total/NA	Water	1633A	897642
320-128835-21	MW-31S-260108	Total/NA	Water	1633A	897642
MB 320-897642/1-A	Method Blank	Total/NA	Water	1633A	897642
LCS 320-897642/3-A	Lab Control Sample	Total/NA	Water	1633A	897642
LCSD 320-897642/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	897642
LLCS 320-897642/2-A	Lab Control Sample	Total/NA	Water	1633A	897642

Lab Chronicle

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-36S-260106

Lab Sample ID: 320-128835-1

Date Collected: 01/06/26 10:18

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			172.6 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 01:12	C1P	EET SAC

Client Sample ID: FB-1-260106

Lab Sample ID: 320-128835-2

Date Collected: 01/06/26 11:29

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			166.3 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 01:28	C1P	EET SAC

Client Sample ID: EB-1-260106

Lab Sample ID: 320-128835-3

Date Collected: 01/06/26 11:36

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			161.2 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 01:45	C1P	EET SAC

Client Sample ID: MW-47S-260106

Lab Sample ID: 320-128835-4

Date Collected: 01/06/26 12:20

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			158.7 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 02:01	C1P	EET SAC

Client Sample ID: GW-FD-260106

Lab Sample ID: 320-128835-5

Date Collected: 01/06/26 00:00

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			157.8 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 02:50	C1P	EET SAC

Client Sample ID: MW-32S-260107

Lab Sample ID: 320-128835-6

Date Collected: 01/07/26 08:52

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			137.7 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 03:07	C1P	EET SAC

Lab Chronicle

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-13S-260107

Lab Sample ID: 320-128835-7

Date Collected: 01/07/26 08:57

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			150.1 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 03:23	C1P	EET SAC

Client Sample ID: MW-07S-260107

Lab Sample ID: 320-128835-8

Date Collected: 01/07/26 10:36

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			140.1 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 03:40	C1P	EET SAC

Client Sample ID: MW-28S-260107

Lab Sample ID: 320-128835-9

Date Collected: 01/07/26 10:49

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			151 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 03:56	C1P	EET SAC

Client Sample ID: MW-33S-260107

Lab Sample ID: 320-128835-10

Date Collected: 01/07/26 12:32

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			165 mL	5.0 mL	897638	01/19/26 11:22	MKC	EET SAC
Total/NA	Analysis	1633A		1			897856	01/21/26 04:13	C1P	EET SAC

Client Sample ID: MW-48S-260107

Lab Sample ID: 320-128835-11

Date Collected: 01/07/26 13:55

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			148.3 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 17:13	K1S	EET SAC

Client Sample ID: MW-3S-260107

Lab Sample ID: 320-128835-12

Date Collected: 01/07/26 15:18

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			142.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 17:29	K1S	EET SAC

Lab Chronicle

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: MW-35S-260107

Lab Sample ID: 320-128835-13

Date Collected: 01/07/26 16:13

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			152.5 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 17:46	K1S	EET SAC

Client Sample ID: FB-2-260107

Lab Sample ID: 320-128835-14

Date Collected: 01/07/26 16:23

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			170.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 18:02	K1S	EET SAC

Client Sample ID: MW-29S-260108

Lab Sample ID: 320-128835-15

Date Collected: 01/08/26 10:42

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			146.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 18:19	K1S	EET SAC

Client Sample ID: MW-30S-260108

Lab Sample ID: 320-128835-16

Date Collected: 01/08/26 11:51

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			134.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 18:35	K1S	EET SAC

Client Sample ID: MW-46S-260108

Lab Sample ID: 320-128835-17

Date Collected: 01/08/26 13:14

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			156.7 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 19:24	K1S	EET SAC

Client Sample ID: MW-45S-260108

Lab Sample ID: 320-128835-18

Date Collected: 01/08/26 13:35

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			135.5 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 19:41	K1S	EET SAC

Lab Chronicle

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Client Sample ID: FB-3-260108

Lab Sample ID: 320-128835-19

Date Collected: 01/08/26 15:00

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			168.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 19:57	K1S	EET SAC

Client Sample ID: EB-3-260108

Lab Sample ID: 320-128835-20

Date Collected: 01/08/26 15:10

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			150.7 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 20:14	K1S	EET SAC

Client Sample ID: MW-31S-260108

Lab Sample ID: 320-128835-21

Date Collected: 01/08/26 15:35

Matrix: Water

Date Received: 01/13/26 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633A			152.8 mL	5.0 mL	897642	01/19/26 11:40	MKC	EET SAC
Total/NA	Analysis	1633A		1			897871	01/20/26 20:30	K1S	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Black River Environmental
Job ID: 320-128835-1
Project/Site: Glacier Northwest, Inc.

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C581	05-05-26

Method Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	EET SAC
1633A	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Black River Environmental
Project/Site: Glacier Northwest, Inc.

Job ID: 320-128835-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
320-128835-1	MW-36S-260106	Water	01/06/26 10:18	01/13/26 08:45	Washington
320-128835-2	FB-1-260106	Water	01/06/26 11:29	01/13/26 08:45	Washington
320-128835-3	EB-1-260106	Water	01/06/26 11:36	01/13/26 08:45	Washington
320-128835-4	MW-47S-260106	Water	01/06/26 12:20	01/13/26 08:45	Washington
320-128835-5	GW-FD-260106	Water	01/06/26 00:00	01/13/26 08:45	Washington
320-128835-6	MW-32S-260107	Water	01/07/26 08:52	01/13/26 08:45	Washington
320-128835-7	MW-13S-260107	Water	01/07/26 08:57	01/13/26 08:45	Washington
320-128835-8	MW-07S-260107	Water	01/07/26 10:36	01/13/26 08:45	Washington
320-128835-9	MW-28S-260107	Water	01/07/26 10:49	01/13/26 08:45	Washington
320-128835-10	MW-33S-260107	Water	01/07/26 12:32	01/13/26 08:45	Washington
320-128835-11	MW-48S-260107	Water	01/07/26 13:55	01/13/26 08:45	Washington
320-128835-12	MW-3S-260107	Water	01/07/26 15:18	01/13/26 08:45	Washington
320-128835-13	MW-35S-260107	Water	01/07/26 16:13	01/13/26 08:45	Washington
320-128835-14	FB-2-260107	Water	01/07/26 16:23	01/13/26 08:45	Washington
320-128835-15	MW-29S-260108	Water	01/08/26 10:42	01/13/26 08:45	Washington
320-128835-16	MW-30S-260108	Water	01/08/26 11:51	01/13/26 08:45	Washington
320-128835-17	MW-46S-260108	Water	01/08/26 13:14	01/13/26 08:45	Washington
320-128835-18	MW-45S-260108	Water	01/08/26 13:35	01/13/26 08:45	Washington
320-128835-19	FB-3-260108	Water	01/08/26 15:00	01/13/26 08:45	Washington
320-128835-20	EB-3-260108	Water	01/08/26 15:10	01/13/26 08:45	Washington
320-128835-21	MW-31S-260108	Water	01/08/26 15:35	01/13/26 08:45	Washington

Eurofins Sacramento
880 Riverside Parkway

West Sacramento, CA 95605-1500
phone 916 373.5600 fax 303.467 7248

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other WA Dept. of Ecology

Eurofins Environment Testing America

Client Contact	Project Manager: A. Yonkofski	Site Contact: A. Yonkofski	Date: 01/12/2026	COC No: 1 of 2 COCs
Black River Environmental	Ema andrew@n ackr eren com	Lab Contact: Micah Smith	Carrier: FedEx	TALS Project #:
26311 NE Valley St, #141	Tel/Fax: 404-272-3488			Sampler:
Duvall, WA 98109	Analysis Turnaround Time			For Lab Use Only:
404-272-3488	☐ CALENDAR DAYS ☑ WORKING DAYS			Walk-in Client:
	TAT if different from Below ____			Lab Sampling
Project Name Glacier Northwest, Inc. (GNW)	☑ 2 weeks			
Site Glacier Northwest, Inc.	☐ 1 week			Job / SDG No
PO # 25006	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS by EPA 1633A	Sample Specific Notes
MW-36S-260106	1/6/2026	1018	G	GW	2	N	N	X	
FB-1-260106	1/6/2026	1129	G	GW	2	N	N	X	
EB-1-260106	1/6/2026	1136	G	GW	2	N	N	X	
MW-47S-260106	1/6/2026	1220	G	GW	2	N	N	X	
GW-FD-260106	1/6/2026	–	G	GW	2	N	N	X	
MW-32S-260107	1/7/26	0852	G	GW	2	N	N	X	
MW-13S-260107	1/7/26	0857	G	GW	2	N	N	X	
MW-07S-260107	1/7/26	1036	G	GW	2	N	N	X	
MW-28S-260107	1/7/26	1049	G	GW	2	N	N	X	
MW-33S-260107	1/7/26	1232							
MW-48S-260107	1/7/26	1355							
MW-3S-260107	1/7/26	1518							

320-128835 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
Please report all analytes to the standard method reporting limit, except report PFHxS to the method detection limit.

Custody Seals Intact. ☐ Yes ☐ No	Custody Seal No	Cooler Temp (°C) Obs'd ____ Corr'd ____	Therm ID No ____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Andrew Yonkofski	Black River Environmental	01/12/2026	FedEx		01/12/26
Relinquished by	Company	Date/Time	Received by	Company: FEDEX	Date/Time 1/13/26 845
Relinquished by	Company	Date/Time.	Received in Laboratory by	Company	Date/Time

1/22/2026

Eurofins Sacramento
880 Riverside Parkway

West Sacramento, CA 95605-1500
phone 916.373 5600 fax 303 467 7248

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other WA Dept. of Ecology

Eurofins Environment Testing America

Client Contact	Project Manager: A. Yonkofski	Site Contact: A. Yonkofski	Date: 01/12/2026	COC No
Black River Environmental	Email: andrew@blackriverenv.com	Lab Contact: Micah Smith	Carrier: FedEx	2 of 2 COCs
26311 NE Valley St, #141	Tel/Fax: 404-272-3488			TALS Project #
Duvall, WA 98109	Analysis Turnaround Time			Sampler
404-272-3488	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
	TAT if different from Below ____			Walk-in Client:
Project Name: Glacier Northwest, Inc. (GNW)	☑ 2 weeks			Lab Sampling
Site: Glacier Northwest, Inc	☐ 1 week			Job / SDG No
PO # 25006	☐ 2 days ☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS by EPA 1633A	Sample Specific Notes
MW-35S-260107	1/7/2026	1613	G	GW	2	N	N	X	
FB-2-260107	1/7/2026	1623	G	GW	2	N	N	X	
MW-29S-260108	1/8/2026	1042	G	GW	2	N	N	X	
MW-30S-260108	1/8/2026	1151	G	GW	2	N	N	X	
MW-46S-260108	1/8/2026	1314	G	GW	2	N	N	X	
MW-45S-260108	1/8/2026	1335	G	GW	2	N	N	X	
FB-3-260108	1/8/2026	1500	G	GW	2	N	N	X	
EB-2-260108	1/8/2026	1510	G	GW	2	N	N	X	
MW-31S-260108	1/8/2026	1535	G	GW	2	N	N	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
Please report all analytes to the standard method reporting limit, except report PFHxS to the method detection limit.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd ____ Corr'd ____		Therm ID No ____
Relinquished by: Andrew Yonkofski	Company: Black River Environmental	Date/Time: 01/12/2026	Received by: FedEx	Company:	Date/Time: 01/12/26
Relinquished by:	Company:	Date/Time	Received by:	Company: TestAe	Date/Time: 1/13/26 845
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company:	Date/Time

1/22/2026

eurofins Environment Testing	Document Title: Sample Receiving Notes		
	Eurofins Document Reference : S-SR-FRM72109	Revision: 3	Historical Reference: QA-812
	Effective date : 18 Jul 2025	Issued by: XE8X	

Loc 320
128835

Tracking # 8878 3340 0241

Job _____ _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSL / OnTrac / Goldstreak / USPS / Other_____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations
File in the job folder with the COC

Therm. ID 109 Corr. Factor (+ / -) _____ °C

Ice X Wet X Gel _____ Other _____

Cooler Custody Seal 2897717

Cooler ID ICFL

Temp Observed 3.5 °C Corrected 3.5 °C

From Temp Blank ☐ Sandwich ☑ Sidewall ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials JF Date 1/13/26

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
COC is complete w/o discrepancies	☑	☐	☐
Sample custody seal?	☐	☐	☑
Sample containers have legible labels?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Is the Field Sampler's name on COC?	☑	☐	☐
Samples w/o discrepancies?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4')

Initials JF Date 1/13/26

Notes _____

Trizma Lot #(s) _____

Ammonium
Acetate Lot #(s) _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
NCM Filed?	☐	☑	☐
Samples received within hold time?	☑	☐	☐
Log Release checked in TALS?	☐	☐	☐

Initials JF Date 1/13/26

eurofins Environment Testing	Document Title: *Sample Receiving Notes*		
	Eurofins Document Reference : S-SR-FRM72109	Revision: 3	Historical Reference: QA-812
	Effective date : 18 Jul 2025		Issued by: XE8X

Tracking # : 8878 3346 0252

Job _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSL / OnTrac / Goldstreak / USPS / Other_____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations
File in the job folder with the COC

Therm. ID 109 Corr. Factor (+ / -) _____ °C

Ice X Wet X Gel _____ Other _____

Cooler Custody Seal 2897715

Cooler ID 2 of 2

Temp Observed 2.5 °C Corrected 2.5 °C

From Temp Blank ☐ Sandwich ☑ Sidewall ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials JF Date 1/13/26

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
COC is complete w/o discrepancies	☑	☐	☐
Sample custody seal?	☐	☐	☑
Sample containers have legible labels?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Is the Field Sampler's name on COC?	☑	☐	☐
Samples w/o discrepancies?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace or bubble < 6 mm (1/4")

Initials JF Date 1/13/26

Notes._____

Trizma Lot #(s) _____

Ammonium
Acetate Lot #(s) _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
NCM Filed?	☐	☑	☐
Samples received within hold time?	☑	☐	☐
Log Release checked in TALS?	☑	☐	☐

Initials JF Date 1/13/26

F.2
DATA VALIDATION REPORTS

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting
319 SW Washington St, Suite 310
Portland, OR 97204
ATTN: Mr. Andrew Yonkofski
ayonkofski@aspectconsulting.com

May 5, 2025

SUBJECT: Glacier Northwest - Data Validation

Dear Mr. Yonkofski,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on January 8, 2025. Attachment 1 is a summary of the samples that were reviewed for each analysis.

Revision:
412428
Metals
Sample IDs MW-3S-241216 and MW-3D-241218 have been amended to INJ-1-241216 and PP-1-241218, respectively.

LDC Project #60460_RV1:

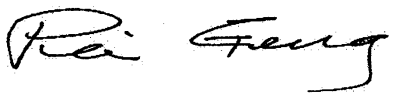
SDG #	Fraction
411367 411429 412428	Volatile Organic Compounds, Semivolatile Organic Compounds, Metals & TCLP Metals, Gasoline Range Organics, Diesel Range Organics, Pentachlorophenol, Total & Dissolved Metals

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,



Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

LDC #60460 (Aspect Consulting - Seattle , WA / Glacier Northwest, Inc. Site)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	VOCs 8260D	SVOCs 8270E		Pentachlorophenol 8270E SIM		GRO NWTPH-Gx
Matrix Type:					Soil	Soil	Water	Soil	Water	Soil
A	411367	1/8/25	1/29/25	Stage 2A	1	22	1	-	-	1
B	411429	1/8/25	1/29/25	Stage 2A	-	13	-	1	-	-
C	412428	1/8/25	1/29/25	Stage 2A	-	-	26	-	25	-
Total			PM: SC		**1**	**35**	**27**	**1**	**25**	**1**

LDC	SDG#	Received Date	(21) Due Date	Validation Level	DRO NWTPH-Dx	(4)Metals 6020B		(4)TCLP Metals 6020B	(4)Diss. Metals 6020B	(5) Diss. Metals 6020B
Matrix Type:					Soil	Soil	Water	Soil	Water	Water
A	411367	1/8/25	1/29/25	Stage 2A	1	30	1	6	-	-
B	411429	1/8/25	1/29/25	Stage 2A	-	18	-	1	-	-
C	412428	1/8/25	1/29/25	Stage 2A	-	-	27	-	18	7
Total			PM: SC		**1**	**48**	**28**	**1**	**18**	**7**

EDD: EDD

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Volatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411367

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-81-2	411367-10	Soil	11/18/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Volatile Organic Compounds - Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460A
SDG #: 411367
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MN
2nd Reviewer: AC

Method: Volatiles (EPA 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	N	
IV	Surrogate spikes	A	
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	N	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	GP-81-2	411367-10		Soil	11/18/2024	Stage 2A

Notes:

04-2869 mb 10.5		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Semivolatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411367

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-82-2-4	411367-01	Soil	11/18/24
GP-82-2-4DL	411367-01DL	Soil	11/18/24
GP-82-11-13	411367-03	Soil	11/18/24
GP-82-21-23	411367-05	Soil	11/18/24
GP-81-10-12	411367-12	Soil	11/18/24
GP-81-17-19	411367-14	Soil	11/18/24
GP-81-23-23	411367-15	Soil	11/18/24
GP-83-3-5	411367-20	Soil	11/19/24
GP-83-3-5DL	411367-20DL	Soil	11/19/24
GP-83-9.5-11.5	411367-22	Soil	11/19/24
GP-83-9.5-11.5DL	411367-22DL	Soil	11/19/24
GP-83-15-17	411367-25	Soil	11/19/24
GP-83-15-17DL	411367-25DL	Soil	11/19/24
GP-83-23-25	411367-26	Soil	11/19/24
MW-33D-3-5	411367-30	Soil	11/19/24
MW-33D-7-9	411367-31	Soil	11/19/24
MW-33D-10.5-12.5	411367-32	Soil	11/19/24
MW-33D-23-25	411367-34	Soil	11/19/24
EB-241120	411367-47	Water	11/20/24
MW-49D-8.5-10.5	411367-50	Soil	11/21/24
MW-48D-14.5-16	411367-51	Soil	11/21/24
MW-48D-16-18	411367-52	Soil	11/21/24
FD-Soil-241121	411367-57	Soil	11/21/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Semivolatile Organic Compounds (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270E

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Sample EB-241120 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Analyte	Concentration (ug/L)	Associated Samples
EB-241120	11/20/24	Phenanthrene	0.022	No associated samples in this SDG

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Affected Analyte	Flag	A or P
GP-82-2-4	2-Fluorophenol 2,4,6-Tribromophenol	11 (14-115) 1 (17-154)	All acid analytes	UJ (all non-detects)	A

Although surrogate %R for 2,4,6-Tribromophenol was severely low (<10%), the associated sample result was qualified as estimated (UJ) since the laboratory flagged the data as "ip" due to sample matrix effects.

Surrogate recoveries (%R) were not within QC limits for sample GP-82-2-4DL. No data were qualified for samples analyzed at greater than or equal to 5X dilution.

Surrogate recoveries (%R) were not within QC limits for sample MW-33D-10.5-12.5. Using professional judgment, no data were qualified when one base or one acid surrogate %R was outside the QC limits and the %R was greater than or equal to 10%.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
04-2901 LCS/LCSD (GP-82-2-4DL)	3-Methylphenol+4-Methylphenol	73 (10-66)	73 (10-66)	NA	-
04-2901 LCS/LCSD (GP-82-2-4DL)	Benzoic acid	9 (10-102)	6 (10-102)	R (all non-detects)	P
04-2901 LCS/LCSD (GP-82-2-4DL)	Hexachlorobutadiene	-	37 (42-102)	UJ (all non-detects)	P
04-2921 LCS/LCSD (GP-82-2-4 GP-82-11-13 GP-82-21-23 GP-81-10-12 GP-81-17-19 GP-83-3-5 GP-83-9.5-11.5 GP-83-15-17 GP-83-23-25 MW-33D-3-5 MW-33D-7-9 MW-33D-10.5-12.5 MW-33D-23-25 EB-241120 MW-49D-8.5-10.5 MW-48D-14.5-16 MW-48D-16-18 FD-Soil-241121)	2-Nitrophenol Hexachlorocyclopentadiene	- -	123 (60-121) 132 (46-127)	NA	-
04-2921 LCS/LCSD (GP-83-3-5 GP-83-9.5-11.5)	2,4,6-Trichlorophenol	-	119 (65-116)	J (all detects)	P

LCS ID (Associated Samples)	Analyte	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
04-2921 LCS/LCSD (GP-82-2-4 GP-82-11-13 GP-82-21-23 GP-81-10-12 GP-81-17-19 GP-83-15-17 GP-83-23-25 MW-33D-3-5 MW-33D-7-9 MW-33D-10.5-12.5 MW-33D-23-25 EB-241120 MW-49D-8.5-10.5 MW-48D-14.5-16 MW-48D-16-18 FD-Soil-241121)	2,4,6-Trichlorophenol	-	119 (65-116)	NA	-
04-2921 LCS/LCSD (GP-83-3-5)	2,4,5-Trichlorophenol	-	122 (67-117)	J (all detects)	P
04-2921 LCS/LCSD (GP-82-2-4 GP-82-11-13 GP-82-21-23 GP-81-10-12 GP-81-17-19 GP-83-9.5-11.5 GP-83-15-17 GP-83-23-25 MW-33D-3-5 MW-33D-7-9 MW-33D-10.5-12.5 MW-33D-23-25 EB-241120 MW-49D-8.5-10.5 MW-48D-14.5-16 MW-48D-16-18 FD-Soil-241121)	2,4,5-Trichlorophenol	-	122 (67-117)	NA	-

Relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	RPD (≤20)	Flag	A or P
04-2901 LCS/LCSD (GP-82-2-4DL)	1,3-Dichlorobenzene Hexachloroethane Benzoic acid Hexachlorobutadiene Hexachlorocyclopentadiene	21 30 40 36 28	NA	-

VII. Field Duplicate

Samples MW-48D-16-18 and FD-Soil-241121 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Difference (≤0.0010)
	MW-48D-16-18	FD-Soil-241121		
Phenanthrene	0.0005U	0.0021	-	0.0016

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
GP-82-2-4	Phenanthrene Fluoranthene Pyrene	Results exceeded calibration range.	DNR	-
GP-82-2-4DL	All analytes except Phenanthrene Fluoranthene Pyrene	Results from undiluted analyses were more usable.	DNR	-
GP-83-3-5	Pentachlorophenol	Results exceeded calibration range.	DNR	-
GP-83-3-5DL	All analytes except Pentachlorophenol	Results from undiluted analyses were more usable.	DNR	-
GP-83-9.5-11.5	Pentachlorophenol	Results exceeded calibration range.	DNR	-
GP-83-15-17DL	All analytes	Results from undiluted analyses were more usable.	DNR	-

Data qualified due to surrogate %R and LCS/LCSD %R are summarized and presented in the Data Qualification Summary.

Glacier Northwest
Semivolatile Organic Compounds - Data Qualification Summary - SDG 411367

Sample	Analyte	Flag	A or P	Reason
GP-82-2-4	Phenol 2-Chlorophenol 2-Methylphenol 3-Methylphenol+4-Methylphenol 2-Nitrophenol 2,4-Dimethylphenol Benzoic acid 2,4-Dichlorophenol 4-Chloro-3-methylphenol 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4-Dinitrophenol 4-Nitrophenol 4,6-Dinitro-2-methylphenol Pentachlorophenol	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	A	Surrogates (%R)
GP-83-3-5 GP-83-9.5-11.5	2,4,6-Trichlorophenol	J (all detects)	P	Laboratory control samples (%R)
GP-83-3-5	2,4,5-Trichlorophenol	J (all detects)	P	Laboratory control samples (%R)
GP-82-2-4	Phenanthrene Fluoranthene Pyrene	DNR	-	Overall assessment of data
GP-82-2-4DL	All analytes except Phenanthrene Fluoranthene Pyrene	DNR	-	Overall assessment of data
GP-83-3-5	Pentachlorophenol	DNR	-	Overall assessment of data
GP-83-3-5DL	All analytes except Pentachlorophenol	DNR	-	Overall assessment of data
GP-83-9.5-11.5	Pentachlorophenol	DNR	-	Overall assessment of data
GP-83-15-17DL	All analytes	DNR	-	Overall assessment of data

Glacier Northwest
Semivolatile Organic Compounds - Laboratory Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Semivolatile Organic Compounds - Field Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460A
SDG #: 411367
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MN
2nd Reviewer: AC

Method: Semivolatiles (EPA 8270E)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	SW	EB=15
IV	Surrogate spikes	SW	~~%R out for some samples, only 1 or 2, No Quals~~
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	SW	LCS/D
VII	Field duplicates	SW	Dup= 18 + 19
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	SW	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1 2	GP-82-2-4	411367-01		Soil	11/18/2024	Stage 2A
2 2	GP-82-11-13	411367-03		Soil	11/18/2024	Stage 2A
3 2	GP-82-21-23	411367-05		Soil	11/18/2024	Stage 2A
4 2	GP-81-10-12	411367-12		Soil	11/18/2024	Stage 2A
5 2	GP-81-17-19	411367-14		Soil	11/18/2024	Stage 2A
6 1	~~GP-81-23-23~~ GP-81-21-23	411367-15		Soil	11/18/2024	Stage 2A
7 2	GP-83-3-5	411367-20		Soil	11/19/2024	Stage 2A
8 2	GP-83-9.5-11.5	411367-22		Soil	11/19/2024	Stage 2A
9 2	GP-83-15-17	411367-25		Soil	11/19/2024	Stage 2A
10 2	GP-83-23-25	411367-26		Soil	11/19/2024	Stage 2A
11 2	MW-33D-3-5	411367-30		Soil	11/19/2024	Stage 2A
12 2	MW-33D-7-9	411367-31		Soil	11/19/2024	Stage 2A
13 2	MW-33D-10.5-12.5	411367-32		Soil	11/19/2024	Stage 2A
14 2	MW-33D-23-25	411367-34		Soil	11/19/2024	Stage 2A
15 2	EB-241120	411367-47	EB	Water	11/20/2024	Stage 2A
16 2	MW-49D-8.5-10.5	411367-50		Soil	11/21/2024	Stage 2A
17 2	MW-48D-14.5-16	411367-51		Soil	11/21/2024	Stage 2A
18 2	MW-48D-16-18	411367-52	FD1	Soil	11/21/2024	Stage 2A
19 2	FD-Soil-241121	411367-57	FD&1	Soil	11/21/2024	Stage 2A

20. 1-DL 23. 9-DL
21. 7-DL
22. 8-DL

Notes:

1 04-2901 mb		
2 04-2921 mb		

LDC #: _60460A

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: _____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)
Field blanks were identified in this SDG.
No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 11/20/24 **Blank units:** ug/L **Associated sample units:** ~~ug/L~~
Field blank type: EB **Associated Samples:** none

(FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID		Sample Identification							
	15									
Phenanthrene	0.022									

Sampling date: _____ **Blank units:** _____ **Associated sample units:** _____

Field blank type: **Associated Samples:**

Compound	Blank ID	Sample Identification							

LDC #: _60460A

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: _____MN____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)
Surrogates were added to all samples as required by the method.
All surrogate recoveries (%R) were within QC limits with the exceptions identified below.

#	Sample ID	Surrogate Compound	%R	Limits	Qualifications
	1 (ND)	2-Fluorophenol	11	14-115	J/UJ/P (Qual all acids)
	↓	2,4,6-Tribromophenol	1	17-154	↓ J/R/P (Qual all acids)
					* Lab indicated "ip"
					* out due to matrix
	20				%R out, diluted, no qual
	13, MB2				%R out, only one, No Qual

Acids: Phenol, 2-Chlorophenol, 2-Methylphenol, 3-Methylphenol + 4-Methylphenol, 2-Nitrophenol, 2,4-Dimethylphenol, Benzoic acid, 2,4-Dichlorophenol, 4-Chloro-3-methylphenol, 2,4,6-Trichlorophenol, 2,4,5-Trichlorophenol, 2,4-Dinitrophenol, 4-Nitrophenol, 4,6-Dinitro-2-methylphenol, Pentachlorophenol

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

METHOD: Semivolatiles (EPA SW-846 Method 8270E)

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method.
Percent recoveries (%R) and Relative percent differences (RPD) were within QC limits with the exceptions identified below.

LCS/LCSD	Analyte	LCS %R	LCSD %R	%R Limits	RPD	RPD Limits	Associated samples	Qualifications
04-2901 LCS/D	1,3-Dichlorobenzene				21	20	6, MB1 (ND)	JDET/P
	Hexachloroethane				30			
	Benzoic acid				40			
	Hexachlorobutadiene				36			
Hexachlorocyclopentadiene					28			
3-Methylphenol + 4-Methylphenol		73	73	10-66				
	Benzoic acid	9	6	10-102				J/R/P
	Hexachlorobutadiene	-	37	42-102				J/UJ/P
04-2921 LCS/D	2-Nitrophenol		123	60-121			1-5, 7-19 (ND)	JDET/P
Hexachlorocyclopentadiene			132	46-127				
	2,4,6-Trichlorophenol		119	65-116			1-5, 7-19 (7,8 DET)	
	2,4,5-Trichlorophenol		122	67-117			1-5, 7-19 (7 DET)	

LDC #: _60460A

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: _____MN____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)

Compound	Concentration (mg/kg)		RPD (≤35%)	Difference (mg/kg)	Limits (2xRL)
	18	19			
Phenanthrene	0.0005U	0.0021		0.0016	0.0010

LDC #: _60460A

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: _____MN____

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

All available information pertaining to the data were reviewed for data quality, uncertainty and bias using professional judment to compliment the overall assessment made below.

#	Sample ID	Analyte	Findings	Qualifications
	1	Phenanthrene, Fluoranthene, Pyrene	> CAL RANGE	DNR
	20	All except above	DILUTION	
	7	Pentachlorophenol	> CAL RANGE	
	21	All except above	DILUTION	
	8	Pentachlorophenol	> CAL RANGE	
	23	ALL	DILUTION	

Comments:_____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Metals & TCLP Metals

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411367

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-82-7-9	411367-02	Soil	11/18/24
GP-82-11-13	411367-03	Soil	11/18/24
GP-82-21-23	411367-05	Soil	11/18/24
GP-81-1-3	411367-09	Soil	11/18/24
GP-81-8-10	411367-11	Soil	11/18/24
GP-81-10-12	411367-12	Soil	11/18/24
GP-81-11-14	411367-13	Soil	11/18/24
GP-81-17-19	411367-14	Soil	11/18/24
GP-81-23-23	411367-15	Soil	11/18/24
GP-83-3-5	411367-20	Soil	11/19/24
GP-83-9.5-11.5	411367-22	Soil	11/19/24
GP-83-12-14	411367-23	Soil	11/19/24
FD-Soil-241119	411367-24	Soil	11/19/24
GP-83-23-25	411367-26	Soil	11/19/24
MW-33D-3-5	411367-30	Soil	11/19/24
MW-33D-10.5-12.5	411367-32	Soil	11/19/24
MW-33D-23-25	411367-34	Soil	11/19/24
MW-46D-3-5	411367-38	Soil	11/20/24
MW-46D-7-9	411367-39	Soil	11/20/24
MW-46D-11-12.5	411367-41	Soil	11/20/24
MW-46D-12.5-14.5	411367-42	Soil	11/20/24
MW-46D-20-22	411367-43	Soil	11/20/24
MW-46D-28-30	411367-44	Soil	11/20/24
MW-46D-36-38	411367-46	Soil	11/20/24
EB-241120	411367-47	Water	11/20/24
MW-46D-17.5-19.5	411367-48	Soil	11/20/24
MW-48D-1-3	411367-49	Soil	11/21/24

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-49D-8.5-10.5	411367-50	Soil	11/21/24
MW-48D-14.5-16	411367-51	Soil	11/21/24
MW-48D-16-18	411367-52	Soil	11/21/24
FD-Soil-241121	411367-57	Soil	11/21/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Metals and Toxicity Characteristic Leaching Procedure (TCLP) extraction Metals by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Sample EB-241120 was identified as an equipment blank. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Analyte	Concentration (ug/L)	Associated Samples
EB-241120	11/20/24	Chromium	1.8	MW-46D-3-5 MW-46D-7-9 MW-46D-11-12.5 MW-46D-12.5-14.5 MW-46D-20-22 MW-46D-28-30 MW-46D-36-38 MW-46D-17.5-19.5

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

IV. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

Samples GP-83-12-14 and FD-Soil-241119 and samples MW-48D-16-18 and FD-Soil-241121 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (≤35)	Difference (≤10)
	GP-83-12-14	FD-Soil-241119		
Arsenic	7.4	8.0	8	-
Chromium	8.7	9.1	4	-
Copper	22	22	-	0
Zinc	14	15	-	1

Analyte	Concentration (mg/Kg)		RPD (≤35)	Difference (Limits)
	MW-48D-16-18	FD-Soil-241121		
Arsenic	1.0	1.3	-	0.3 (≤2)
Chromium	7.0	8.4	18	-
Copper	5.0 U	7.6	-	2.6 (≤10)
Zinc	12	15	-	3 (≤10)

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Metals & TCLP Metals - Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Metals & TCLP Metals - Laboratory Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Metals & TCLP Metals - Field Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460A
SDG #: 411367
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1/2
Reviewer: NF
2nd Reviewer: A

Method: Metals, TCLP Metals (EPA 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicate	N	
V	Laboratory duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	SW	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	GP-82-7-9	411367-02		Soil	11/18/2024	Stage 2A
2	GP-82-11-13	411367-03		Soil	11/18/2024	Stage 2A
3	GP-82-21-23	411367-05		Soil	11/18/2024	Stage 2A
4	GP-81-1-3	411367-09		Soil	11/18/2024	Stage 2A
5	GP-81-8-10	411367-11 TCLP		Soil	11/18/2024	Stage 2A
6	GP-81-10-12	411367-12		Soil	11/18/2024	Stage 2A
7	GP-81-11-14	411367-13		Soil	11/18/2024	Stage 2A
8	GP-81-17-19	411367-14 TCLP		Soil	11/18/2024	Stage 2A
9	GP-81-23-23	411367-15 TCLP		Soil	11/18/2024	Stage 2A
10	GP-83-3-5	411367-20 TCLP		Soil	11/19/2024	Stage 2A
11	GP-83-9.5-11.5	411367-22		Soil	11/19/2024	Stage 2A
12	GP-83-12-14	411367-23	FD1	Soil	11/19/2024	Stage 2A
13	FD-Soil-241119	411367-24	FD1	Soil	11/19/2024	Stage 2A
14	GP-83-23-25	411367-26		Soil	11/19/2024	Stage 2A
15	MW-33D-3-5	411367-30 TCLP		Soil	11/19/2024	Stage 2A
16	MW-33D-10.5-12.5	411367-32		Soil	11/19/2024	Stage 2A
17	MW-33D-23-25	411367-34		Soil	11/19/2024	Stage 2A
18	MW-46D-3-5	411367-38		Soil	11/20/2024	Stage 2A
19	MW-46D-7-9	411367-39		Soil	11/20/2024	Stage 2A
20	MW-46D-11-12.5	411367-41 TCLP		Soil	11/20/2024	Stage 2A
21	MW-46D-12.5-14.5	411367-42 TCLP		Soil	11/20/2024	Stage 2A
22	MW-46D-20-22	411367-43		Soil	11/20/2024	Stage 2A
23	MW-46D-28-30	411367-44		Soil	11/20/2024	Stage 2A
24	MW-46D-36-38	411367-46		Soil	11/20/2024	Stage 2A
25	EB-241120	411367-47	EB	Water	11/20/2024	Stage 2A
26	MW-46D-17.5-19.5	411367-48		Soil	11/20/2024	Stage 2A

VALIDATION COMPLETENESS WORKSHEET

LDC#: 60460A
SDG#: 411367

Date: 1/31/2025

27	MW-48D-1-3	411367-49		Soil	11/21/2024	Stage 2A
28	MW-49D-8.5-10.5	411367-50		Soil	11/21/2024	Stage 2A
29	MW-48D-14.5-16	411367-51		Soil	11/21/2024	Stage 2A
30	MW-48D-16-18	411367-52	FD2	Soil	11/21/2024	Stage 2A
31	FD-Soil-241121	411367-57	FD2	Soil	11/21/2024	Stage 2A

Notes:

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: NF

METHOD: Trace Metals (EPA SW 846 Methods 6010/6020/7000)

Blank units: ug/L
Associated sample units: mg/kg
Sampling Date: 11/20/24
Associated Samples: 18-24, 26

			Sample Identification					
Analyte	Blank ID	Action Level (mg/kg)						
	25							
Cr	1.8	1						

Comments: The action level, when applicable, is establised at 5X the highest concentration.
V:\Nick\Validation Worksheets\Aspect Consulting\Glacier\LDC 60460A_metals

Method: Metals

Analyte	Concentration (mg/Kg)		RPD (≤ 35)	Diff.	Diff. Limits
	12	13			
Arsenic	7.4	8.0	8		
Chromium	8.7	9.1	4		
Copper	22	22		0	(≤) 10
Zinc	14	15		1	(≤) 10

Analyte	Concentration (mg/Kg)		RPD (≤ 35)	Diff.	Diff. Limits
	30	31			
Arsenic	1.0	1.3		0.3	(≤) 2
Chromium	7.0	8.4	18		
Copper	5.0 U	7.6		2.6	(≤) 10
Zinc	12	15		3	(≤) 10

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Gasoline Range Organics

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411367

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-81-2	411367-10	Soil	11/18/24
GP-81-2DUP	411367-10DUP	Soil	11/18/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Gasoline Range Organics by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Gasoline Range Organics - Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Gasoline Range Organics - Laboratory Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Gasoline Range Organics - Field Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460A
SDG #: 411367
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MM
2nd Reviewer: AC

Method: TPH (NWTPH-Gx), GRO

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	N	
IV	Surrogate spikes	A	
V	Matrix spike/Matrix spike duplicates /Lab Dup	N/A	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	N	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	GP-81-2	411367-10		Soil	11/18/2024	Stage 2A
2	GP-81-2DUP	411367-10DUP	DUP	Soil	11/18/2024	Stage 2A

Notes:

04-2730 MB		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Diesel Range Organics

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411367

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
GP-81-2	411367-10	Soil	11/18/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Diesel Range Organics by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Diesel Range Organics - Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Diesel Range Organics - Laboratory Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

Glacier Northwest
Diesel Range Organics - Field Blank Data Qualification Summary - SDG 411367

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460A
SDG #: 411367
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MNJ
2nd Reviewer: AC

Method: Semivolatile Petroleum Products (NWTPH-Dx), DRO

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	N	
IV	Surrogate spikes	A	
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	N	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = Not detected; NQ = Not qualified; FD = Field duplicate; FT = Field triplicate; TB = Trip blank; FB = Field blank; AB= Ambient blank; SB = Source blank; EB = Equipment blank; R = Rinsate

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	GP-81-2	411367-10		Soil	11/18/2024	Stage 2A

Notes:

1 04-2730MB		
04-2893 MB		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Semivolatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411429

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-13D-14.5-16.5	411429-01	Soil	11/25/24
MW-13D-19-21	411429-02	Soil	11/25/24
MW-13D-23-25	411429-03	Soil	11/25/24
MW-47D-2-4	411429-11	Soil	11/22/24
MW-47D-2-4DL	411429-11DL	Soil	11/22/24
MW-47D-11-13	411429-12	Soil	11/22/24
MW-47D-11-13DL	411429-12DL	Soil	11/22/24
MW-47D-22-24	411429-14	Soil	11/22/24
MW-47D-25-27	411429-15	Soil	11/22/24
MW-13D-2.5-4.5	411429-18	Soil	11/25/24
MW-13D-2.5-4.5DL	411429-18DL	Soil	11/25/24
MW-13D-9.5-11.5	411429-19	Soil	11/25/24
MW-13D-9.5-11.5DL	411429-19DL	Soil	11/25/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Semivolatile Organic Compounds (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270E

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. Surrogate recoveries (%R) were not within QC limits for several samples. No data were qualified for samples analyzed at greater than or equal to 5X dilution.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
MW-47D-2-4DL MW-47D-11-13DL MW-13D-2.5-4.5DL	All analytes	Results from undiluted analyses were more usable.	DNR	-
MW-13D-9.5-11.5	Pentachlorophenol	Results exceeded calibration range.	DNR	-

Glacier Northwest
Semivolatile Organic Compounds - Data Qualification Summary - SDG 411429

Sample	Analyte	Flag	A or P	Reason
MW-47D-2-4DL MW-47D-11-13DL MW-13D-2.5-4.5DL	All analytes	DNR	-	Overall assessment of data
MW-13D-9.5-11.5	Pentachlorophenol	DNR	-	Overall assessment of data

Glacier Northwest
Semivolatile Organic Compounds - Laboratory Blank Data Qualification Summary - SDG 411429

No Sample Data Qualified in this SDG

Glacier Northwest
Semivolatile Organic Compounds - Field Blank Data Qualification Summary - SDG 411429

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460B
SDG #: 411429
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MW
2nd Reviewer: [illegible]

Method: Semivolatiles (EPA 8270E)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	N	
IV	Surrogate spikes	SW	%R out for some samples, diluted, No Qual
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	A	LCS/D
VII	Field duplicates	N	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	SW	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-13D-14.5-16.5	411429-01		Soil	11/25/2024	Stage 2A
2	MW-13D-19-21	411429-02		Soil	11/25/2024	Stage 2A
3	MW-13D-23-25	411429-03		Soil	11/25/2024	Stage 2A
4	MW-47D-2-4	411429-11		Soil	11/22/2024	Stage 2A
5	MW-47D-11-13	411429-12		Soil	11/22/2024	Stage 2A
6	MW-47D-22-24	411429-14		Soil	11/22/2024	Stage 2A
7	MW-47D-25-27	411429-15		Soil	11/22/2024	Stage 2A
8	MW-13D-2.5-4.5	411429-18		Soil	11/25/2024	Stage 2A
9	MW-13D-9.5-11.5	411429-19		Soil	11/25/2024	Stage 2A
10	47-DL					
11	5-DL					
12	8-DL					
13	19-DL					

Notes:

04-2923 mb		

LDC #: _60460B

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: ____MN_____

METHOD: GC/MS BNA (EPA SW 846 Method 8270E)

All available information pertaining to the data were reviewed for data quality, uncertainty and bias using professional judment to compliment the overall assessment made below.

#	Sample ID	Analyte	Findings	Qualifications
	10,11,12	ALL	DILUTION	DNR
				↓
	9	Pentachlorophenol	> CAL RANGE	↓

Comments:_____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Metals & TCLP Metals

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 411429

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-13D-14.5-16.5	411429-01	Soil	11/25/24
MW-13D-19-21	411429-02	Soil	11/25/24
MW-13D-23-25	411429-03	Soil	11/25/24
MW-13D-38-40	411429-06	Soil	11/25/24
MW-19D-2.58-5	411429-07	Soil	11/25/24
MW-19D-10-12	411429-08	Soil	11/25/24
MW-19D-12-14	411429-09	Soil	11/25/24
MW-19D-14.5-16	411429-10	Soil	11/25/24
MW-47D-2-4	411429-11	Soil	11/22/24
MW-47D-11-13	411429-12	Soil	11/22/24
MW-47D-16-18	411429-13	Soil	11/22/24
MW-47D-22-24	411429-14	Soil	11/22/24
MW-47D-25-27	411429-15	Soil	11/22/24
MW-47D-32-34	411429-16	Soil	11/22/24
MW-13D-2.5-4.5	411429-18	Soil	11/25/24
MW-13D-9.5-11.5	411429-19	Soil	11/25/24
MW-19D-20-22	411429-21	Soil	11/25/24
MW-19D-38-40	411429-24	Soil	11/25/24
MW-13D-23-25MS	411429-03MS	Soil	11/25/24
MW-13D-23-25MSD	411429-03MSD	Soil	11/25/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Metals and Toxicity Characteristic Leaching Procedure (TCLP) extraction Metals by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS %R (75-125)	MSD %R (75-125)	Flag	A or P
MW-13D-23-25MS/MSD (MW-13D-23-25)	Zinc	70	57	J (all detects)	A

Relative percent differences (RPD) were within QC limits.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Data qualified due to MS/MSD %R are summarized and presented in the Data Qualification Summary.

Glacier Northwest
Metals & TCLP Metals - Data Qualification Summary - SDG 411429

Sample	Analyte	Flag	A or P	Reason
MW-13D-23-25	Zinc	J (all detects)	A	Matrix spike/Matrix spike duplicates (%R)

Glacier Northwest
Metals & TCLP Metals - Laboratory Blank Data Qualification Summary - SDG 411429

No Sample Data Qualified in this SDG

Glacier Northwest
Metals & TCLP Metals - Field Blank Data Qualification Summary - SDG 411429

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460B
SDG #: 411429
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1/1
Reviewer: NF
2nd Reviewer: AT

Method: Metals, TCLP Metals (EPA 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	N	
IV	Matrix Spike/Matrix Spike Duplicate	SW	
V	Laboratory duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	N	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = Not detected; NQ = Not qualified; FD = Field duplicate; FT = Field triplicate; TB = Trip blank; FB = Field blank; AB= Ambient blank; SB = Source blank; EB = Equipment blank; R = Rinsate

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-13D-14.5-16.5	411429-01		Soil	11/25/2024	Stage 2A
2	MW-13D-19-21	411429-02		Soil	11/25/2024	Stage 2A
3	MW-13D-23-25	411429-03		Soil	11/25/2024	Stage 2A
4	MW-13D-38-40	411429-06		Soil	11/25/2024	Stage 2A
5	MW-19D-2.58-5	411429-07 TCLP		Soil	11/25/2024	Stage 2A
6	MW-19D-10-12	411429-08		Soil	11/25/2024	Stage 2A
7	MW-19D-12-14	411429-09		Soil	11/25/2024	Stage 2A
8	MW-19D-14.5-16	411429-10		Soil	11/25/2024	Stage 2A
9	MW-47D-2-4	411429-11		Soil	11/22/2024	Stage 2A
10	MW-47D-11-13	411429-12		Soil	11/22/2024	Stage 2A
11	MW-47D-16-18	411429-13		Soil	11/22/2024	Stage 2A
12	MW-47D-22-24	411429-14		Soil	11/22/2024	Stage 2A
13	MW-47D-25-27	411429-15		Soil	11/22/2024	Stage 2A
14	MW-47D-32-34	411429-16		Soil	11/22/2024	Stage 2A
15	MW-13D-2.5-4.5	411429-18		Soil	11/25/2024	Stage 2A
16	MW-13D-9.5-11.5	411429-19		Soil	11/25/2024	Stage 2A
17	MW-19D-20-22	411429-21		Soil	11/25/2024	Stage 2A
18	MW-19D-38-40	411429-24		Soil	11/25/2024	Stage 2A
19	MW-13D-23-25MS	411429-03MS	MS	Soil	11/25/2024	Stage 2A
20	MW-13D-23-25MSD	411429-03MSD	MSD	Soil	11/25/2024	Stage 2A

Notes:

VALIDATION FINDINGS WORKSHEETS
Matrix Spike/Matrix Spike Duplicates

METHOD: Trace Metals (EPA SW 846 Methods 6010/6020/7000)

MS/MSD analysis was performed by the laboratory. All MS/MSD percent recoveries (%R) and relative percent differences (RPDs) were within the acceptable limits with the following exceptions:

MS/MSD ID	Matrix	Analyte	MS %R	MSD %R	%R Limit	RPD	RPD Limit	Associated Samples	Qualification	Det/ND
19-20	soil	Zn	70	57	75-125			3	J/UJ/A	Det

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Semivolatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 412428

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16S-2411216	412428-05	Water	12/16/24
MW-17S-2411216	412428-06	Water	12/16/24
MW-13S-2411216	412428-09	Water	12/16/24
MW-46S-241218	412428-10	Water	12/18/24
MW-46D-241218	412428-11	Water	12/18/24
MW-45D-241218	412428-12	Water	12/18/24
MW-45S-241218	412428-13	Water	12/18/24
MW-14D-241218	412428-15	Water	12/18/24
FD-GW-241218	412428-16	Water	12/18/24
EB-241218	412428-17	Water	12/18/24
MW-13D-241219	412428-18	Water	12/19/24
MW-47D-241219	412428-19	Water	12/19/24
MW-47S-241219	412428-20	Water	12/19/24
MW-33D-241219	412428-21	Water	12/19/24
MW-33S-241219	412428-22	Water	12/19/24
MW-33S-241219DL	412428-22DL	Water	12/19/24
FD-GW-241219	412428-23	Water	12/19/24
EB-241219	412428-24	Water	12/19/24
MW-10S-241220	412428-25	Water	12/20/24
MW-2S-241220	412428-26	Water	12/20/24
MW-2D-241220	412428-27	Water	12/20/24
MW-48D-241220	412428-28	Water	12/20/24
MW-48S-241220	412428-29	Water	12/20/24
MW-1D-241220	412428-30	Water	12/20/24
MW-1S-241220	412428-31	Water	12/20/24
MW-6S-241220	412428-32	Water	12/20/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Semivolatile Organic Compounds (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270E

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Extraction Date	Analyte	Concentration (ug/L)	Associated Samples
04-3181 mb2 1/0.125	01/23/24	Phenanthrene	0.0097	MW-16S-2411216 MW-17S-2411216 MW-13S-2411216

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration (ug/L)	Modified Final Concentration (ug/L)
MW-16S-2411216	Phenanthrene	0.0079	0.0079U
MW-13S-2411216	Phenanthrene	0.010	0.010U

III. Field Blank

Samples EB-241218 and EB-241219 were identified as equipment blanks. No contaminants were found.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (11-65)	Affected Analyte	Flag	A or P
MW-14D-241218	2-Fluorophenol Phenol-d6	9 7	All acid analytes	J (all detects) UJ (all non-detects)	P

Although surrogate %Rs were severely low (<10%), the associated sample results were qualified as estimated (J/UJ) since the laboratory flagged the data as "ip" due to sample matrix effects.

Additional surrogate recoveries (%R) were not within QC limits for several samples. Using professional judgment, no data were qualified when one base or one acid surrogate %R was outside the QC limits and the %R was greater than or equal to 10%.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
04-3181 LCS/LCSD (MW-33S-241219)	Benzoic acid	6 (10-102)	5 (10-102)	J (all detects)	P
04-3181 LCS/LCSD (MW-16S-2411216 MW-17S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 FD-GW-241219 EB-241219)	Benzoic acid	6 (10-102)	5 (10-102)	R (all non-detects)	P

LCS ID (Associated Samples)	Analyte	LCS %R (Limits)	LCSD %R (Limits)	Flag	A or P
04-3181 LCS/LCSD (MW-16S-2411216 MW-17S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 MW-33S-241219 FD-GW-241219 EB-241219)	3-Methylphenol+4-Methylphenol	73 (10-66)	67 (10-66)	NA	-
04-3183 LCS/LCSD (MW-10S-241220 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1D-241220 MW-1S-241220 MW-6S-241220)	Hexachloroethane Hexachlorobutadiene	- -	39 (42-94) 38 (42-102)	UJ (all non-detects) UJ (all non-detects)	P
04-3183 LCS/LCSD (MW-10S-241220 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1D-241220 MW-1S-241220 MW-6S-241220)	3-Methylphenol+4-Methylphenol	76 (10-66)	70 (10-66)	NA	-

Relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	RPD (≤20)	Flag	A or P
04-3181 LCS/LCSD (MW-16S-2411216 MW-17S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 MW-33S-241219 FD-GW-241219 EB-241219)	2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol	42 33	NA	-
04-3183 LCS/LCSD (MW-10S-241220 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1D-241220 MW-1S-241220 MW-6S-241220)	1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachloroethane Benzoic acid 1,2,4-Trichlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene	37 34 27 53 57 32 61 46	NA	-

VII. Field Duplicate

Samples MW-14D-241218 and FD-GW-241218 and samples MW-13D-241219 and FD-GW-241219 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (≤0.010)
	MW-14D-241218	FD-GW-241218		
Phenanthrene	0.005	0.0059	-	0.0009

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (Limits)
	MW-13D-241219	FD-GW-241219		
Diethyl phthalate	0.57	0.5	-	0.0700 (≤1.0)
Phenanthrene	0.005	0.0076	-	0.0026 (≤0.010)

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
MW-33S-241219	Phenol	Results exceeded calibration range.	DNR	-

Data rejected due to LCS/LCSD %R are summarized and presented in the Data Qualification Summary.

Data qualified due to laboratory blank contamination, surrogate %R, and LCS/LCSD %R are summarized and presented in the Data Qualification Summary.

Glacier Northwest
Semivolatile Organic Compounds - Data Qualification Summary - SDG 412428

Sample	Analyte	Flag	A or P	Reason
MW-14D-241218	Phenol, 2-Chlorophenol 2-Methylphenol 3-Methylphenol+4-Methylphenol 2-Nitrophenol 2,4-Dimethylphenol Benzoic acid 2,4-Dichlorophenol 4-Chloro-3-methylphenol	J (all detects) UJ (all non-detects)	P	Surrogates (%R)
MW-33S-241219	Benzoic acid	J (all detects)	P	Laboratory control samples (%R)
MW-16S-2411216 MW-17S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 FD-GW-241219 EB-241219	Benzoic acid	R (all non-detects)	P	Laboratory control samples (%R)
MW-10S-241220 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1D-241220 MW-1S-241220 MW-6S-241220	Hexachloroethane Hexachlorobutadiene	UJ (all non-detects) UJ (all non-detects)	P	Laboratory control samples (%R)
MW-33S-241219	Phenol	DNR	-	Overall assessment of data

Glacier Northwest
Semivolatile Organic Compounds - Laboratory Blank Data Qualification Summary - SDG 412428

Sample	Analyte	Modified Final Concentration (ug/L)
MW-16S-2411216	Phenanthrene	0.0079U
MW-13S-2411216	Phenanthrene	0.010U

Glacier Northwest
Semivolatile Organic Compounds - Field Blank Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460C
SDG #: 412428
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MN
2nd Reviewer: A

Method: Semivolatiles (EPA 8270E)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	SW	
III	Field blanks	ND	EB= 10, 17
IV	Surrogate spikes	SW	
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	SW	LCS/D
VII	Field duplicates	SW	Dup= 8+9, 11+16
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	SW	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1 1	MW-16S-2411216	412428-05		Water	12/16/2024	Stage 2A
2 1	MW-17S-2411216	412428-06		Water	12/16/2024	Stage 2A
3 1	MW-13S-2411216	412428-09		Water	12/16/2024	Stage 2A
4 2	MW-46S-241218	412428-10		Water	12/18/2024	Stage 2A
5 2	MW-46D-241218	412428-11		Water	12/18/2024	Stage 2A
6 2	MW-45D-241218	412428-12		Water	12/18/2024	Stage 2A
7 2	MW-45S-241218	412428-13		Water	12/18/2024	Stage 2A
8 2	MW-14D-241218	412428-15	D1	Water	12/18/2024	Stage 2A
9 2	FD-GW-241218	412428-16	D1	Water	12/18/2024	Stage 2A
10 2	EB-241218	412428-17	EB	Water	12/18/2024	Stage 2A
11 2	MW-13D-241219	412428-18	D2	Water	12/19/2024	Stage 2A
12 2	MW-47D-241219	412428-19		Water	12/19/2024	Stage 2A
13 2	MW-47S-241219	412428-20		Water	12/19/2024	Stage 2A
14 2	MW-33D-241219	412428-21		Water	12/19/2024	Stage 2A
15 2	MW-33S-241219	412428-22		Water	12/19/2024	Stage 2A
16 2	FD-GW-241219	412428-23	D2	Water	12/19/2024	Stage 2A
17 2	EB-241219	412428-24	EB	Water	12/19/2024	Stage 2A
18 3	MW-10S-241220	412428-25		Water	12/20/2024	Stage 2A
19 3	MW-2S-241220	412428-26		Water	12/20/2024	Stage 2A
20 3	MW-2D-241220	412428-27		Water	12/20/2024	Stage 2A
21 3	MW-48D-241220	412428-28		Water	12/20/2024	Stage 2A
22 3	MW-48S-241220	412428-29		Water	12/20/2024	Stage 2A
23 3	MW-1D-241220	412428-30		Water	12/20/2024	Stage 2A
24 3	~~MW-1S-241220~~ MW-1D MW-15-241220	412428-31		Water	12/20/2024	Stage 2A
25 3	MW-6S-241220	412428-32		Water	12/20/2024	Stage 2A
26	15-DL					

VALIDATION COMPLETENESS WORKSHEET

Notes:

1 04-3181 mb2 1/0.125	(29)	
2 04-3181 mb3 1/0.125		
3 04-3183 mb2 1/0.125		

LDC #: _60460C

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: _____MN____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)
Method blanks were performed at the required frequency and sequence.
No contaminants were found in the method blanks with the exceptions identified below.
Blank extraction date: __1/23/24_____ **Blank analysis date:** ___1/24/24___ **Associated samples:** ____1-3_____
Conc. units: ___ug/L_____

Compound	Blank ID	Sample Identification							
	04-3181 mb2 1/0.125	1	3						
Phenanthrene	0.0097	0.0079U	0.010U						

Blank extraction date:_____ **Blank analysis date:** _____ **Associated samples:**_____
Conc. units: _____

Compound	Blank ID	Sample Identification							

LDC #: _60460C

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: _____MN____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)
Surrogates were added to all samples as required by the method.
All surrogate recoveries (%R) were within QC limits with the exceptions identified below.

#	Sample ID	Surrogate Compound	%R	Limits	Qualifications
	5				%R out, only one acid, one base, no qual
					UJ*
	8	2-Fluorophenol	9	11-65	J/~~R~~P (Qual all acids)
		Phenol-d6	7	11-65	↓
	22, 24				%R out, only one, no qual
				*	Lab flagged "J" due to matrix

Acids: Phenol, 2-Chlorophenol, 2-Methylphenol, 3-Methylphenol + 4-Methylphenol, 2-Nitrophenol, 2,4-Dimethylphenol, Benzoic acid, 2,4-Dichlorophenol, 4-Chloro-3-methylphenol,

LDC #: 60460C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: ___MN_____

METHOD: Semivolatiles (EPA SW-846 Method 8270E)

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method.
Percent recoveries (%R) and Relative percent differences (RPD) were within QC limits with the exceptions identified below.

LCS/LCSD	Analyte	LCS %R	LCSD %R	%R Limits	RPD	RPD Limits	Associated samples	Qualifications
04-3181 LCS/D	Benzoic acid	6	5	10-102			1-17, MB1, MB1, MB2 (15 DET)	J/R/P
3-Methylphenol + 4-Methylphenol		73	67	10-66			1-17, MB1, MB1, MB2 (ND)	JDET/P
	2,4-Dinitrophenol				42	20		JDET/P
4,6-Dinitro-2-methylphenol					33	20		
04-3183 LCS/D	Hexachloroethane		39	42-94			18-25, MB3 (ND)	J/UJ/P
3-Methylphenol + 4-Methylphenol		76	70	10-66				JDET/P
	Hexachlorobutadiene		38	42-102				J/UJ/P
	1,3-Dichlorobenzene				37	20		JDET/P
	1,4-Dichlorobenzene				34			
	1,2-Dichlorobenzene				27			
	Hexachloroethane				53			
	Benzoic acid				57			
1,2,4-Trichlorobenzene					32			
	Hexachlorobutadiene				61			
Hexachlorocyclopentadiene					46			

LDC #: 60460C

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: _____MN___

METHOD: Semivolatiles (EPA SW-846 Method 8270E)

Compound	Concentration (ug/L)		RPD (≤35%)	Difference (ug/L)	Limits (2xRL)
	8	9			
Phenanthrene	0.005	0.0059		0.0009	0.010

Compound	Concentration (ug/L)		RPD (≤35%)	Difference (ug/L)	Limits (2xRL)
	11	16			
Diethyl phthalate	0.57	0.5		0.0700	1.0
Phenanthrene	0.005	0.0076		0.0026	0.010

LDC #: _60460C

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: _____MN____

METHOD: GC/MS BNA (EPA SW 846 Method 8270 E)

All available information pertaining to the data were reviewed for data quality, uncertainty and bias using professional judment to compliment the overall assessment made below.

#	Sample ID	Analyte	Findings	Qualifications
	15	Phenol	> CAL RANGE	DNR

Comments:_____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: February 7, 2025

Parameters: Pentachlorophenol

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 412428

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-16S-2411216	412428-05	Water	12/16/24
MW-17S-2411216	412428-06	Water	12/16/24
MW-13S-2411216	412428-09	Water	12/16/24
MW-46S-241218	412428-10	Water	12/18/24
MW-46D-241218	412428-11	Water	12/18/24
MW-45D-241218	412428-12	Water	12/18/24
MW-45S-241218	412428-13	Water	12/18/24
MW-14D-241218	412428-15	Water	12/18/24
FD-GW-241218	412428-16	Water	12/18/24
EB-241218	412428-17	Water	12/18/24
MW-13D-241219	412428-18	Water	12/19/24
MW-47D-241219	412428-19	Water	12/19/24
MW-47S-241219	412428-20	Water	12/19/24
MW-33D-241219	412428-21	Water	12/19/24
MW-33S-241219	412428-22	Water	12/19/24
FD-GW-241219	412428-23	Water	12/19/24
EB-241219	412428-24	Water	12/19/24
MW-10S-241220	412428-25	Water	12/20/24
MW-2S-241220	412428-26	Water	12/20/24
MW-2D-241220	412428-27	Water	12/20/24
MW-48D-241220	412428-28	Water	12/20/24
MW-48S-241220	412428-29	Water	12/20/24
MW-1D-241220	412428-30	Water	12/20/24
MW-1S-241220	412428-31	Water	12/20/24
MW-6S-241220	412428-32	Water	12/20/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Pentachlorophenol by Environmental Protection Agency (EPA) SW 846 Method 8270E in Selected Ion Monitoring (SIM) mode

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples EB-241218 and EB-241219 were identified as equipment blanks. No contaminants were found.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

Samples MW-14D-241218 and FD-GW-241218 and samples MW-13D-241219 and FD-GW-241219 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (≤0.042)
	MW-14D-241218	FD-GW-241218		
Pentachlorophenol	0.024	4.5	-	4.5

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (≤0.042)
	MW-13D-241219	FD-GW-241219		
Pentachlorophenol	1.5	0.038	-	1.5

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Pentachlorophenol - Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

Glacier Northwest
Pentachlorophenol - Laboratory Blank Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

Glacier Northwest
Pentachlorophenol - Field Blank Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460C
SDG #: 412428
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1
Reviewer: MW
2nd Reviewer: DT

Method: Semivolatiles (EPA 8270E SIM), Pentachlorophenol

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	ND	EB= 10, 17
IV	Surrogate spikes	A	
V	Matrix spike/Matrix spike duplicates	N	
VI	Laboratory control samples	A	LCS/D
VII	Field duplicates	SW	Dup= 8+9, 11+16
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1 1	MW-16S-2411216	412428-05		Water	12/16/2024	Stage 2A
2 1	MW-17S-2411216	412428-06		Water	12/16/2024	Stage 2A
3 1	MW-13S-2411216	412428-09		Water	12/16/2024	Stage 2A
4 2	MW-46S-241218	412428-10		Water	12/18/2024	Stage 2A
5 2	MW-46D-241218	412428-11		Water	12/18/2024	Stage 2A
6 2	MW-45D-241218	412428-12		Water	12/18/2024	Stage 2A
7 2	MW-45S-241218	412428-13		Water	12/18/2024	Stage 2A
8 2	MW-14D-241218	412428-15	D1	Water	12/18/2024	Stage 2A
9 2	FD-GW-241218	412428-16	D1	Water	12/18/2024	Stage 2A
10 2	EB-241218	412428-17	EB	Water	12/18/2024	Stage 2A
11 2	MW-13D-241219	412428-18	D2	Water	12/19/2024	Stage 2A
12 2	MW-47D-241219	412428-19		Water	12/19/2024	Stage 2A
13 2	MW-47S-241219	412428-20		Water	12/19/2024	Stage 2A
14 2	MW-33D-241219	412428-21		Water	12/19/2024	Stage 2A
15 2	MW-33S-241219	412428-22		Water	12/19/2024	Stage 2A
16 2	FD-GW-241219	412428-23	D2	Water	12/19/2024	Stage 2A
17 2	EB-241219	412428-24	EB	Water	12/19/2024	Stage 2A
18 3	MW-10S-241220	412428-25		Water	12/20/2024	Stage 2A
19 3	MW-2S-241220	412428-26		Water	12/20/2024	Stage 2A
20 3	MW-2D-241220	412428-27		Water	12/20/2024	Stage 2A
21 3	MW-48D-241220	412428-28		Water	12/20/2024	Stage 2A
22 3	MW-48S-241220	412428-29		Water	12/20/2024	Stage 2A
23 3	MW-1D-241220	412428-30		Water	12/20/2024	Stage 2A
24 3	MW-1S-241220	412428-31		Water	12/20/2024	Stage 2A
25 3	MW-6S-241220	412428-32		Water	12/20/2024	Stage 2A

1 04-3182 mb2 1/0.25 3. 04-3184 mb2 1/0.25
2 04-3182 mb3

VALIDATION FINDINGS WORKSHEET
Field Duplicates

METHOD: Pentachlorophenol (EPA SW-846 Method 8270E-SIM)

Compound	Concentration (ug/L)		RPD (≤_35%)	Difference (ug/L)	Limits (2xRL)
	8	9			
Pentachlorophenol	0.024	4.5		4.5	0.042

Compound	Concentration (ug/L)		RPD (≤_35%)	Difference (ug/L)	Limits (2xRL)
	11	16			
Pentachlorophenol	1.5	0.038		1.5	0.042

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: May 5, 2025

Parameters: Total & Dissolved Metals

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 412428

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-19S-2411216	412428-01	Water	12/16/24
MW-19D-2411216	412428-02	Water	12/16/24
MW-43D-2411216	412428-03	Water	12/16/24
MW-14S-2411216	412428-04	Water	12/16/24
MW-17S-2411216	412428-06	Water	12/16/24
INJ-1-2411216	412428-07	Water	12/16/24
MW-21S-2411216	412428-08	Water	12/16/24
MW-13S-2411216	412428-09	Water	12/16/24
MW-46S-241218	412428-10	Water	12/18/24
MW-46D-241218	412428-11	Water	12/18/24
MW-45D-241218	412428-12	Water	12/18/24
MW-45S-241218	412428-13	Water	12/18/24
PP-1-241218	412428-14	Water	12/18/24
MW-14D-241218	412428-15	Water	12/18/24
FD-GW-241218	412428-16	Water	12/18/24
EB-241218	412428-17	Water	12/18/24
MW-13D-241219	412428-18	Water	12/19/24
MW-47D-241219	412428-19	Water	12/19/24
MW-47S-241219	412428-20	Water	12/19/24
MW-33D-241219	412428-21	Water	12/19/24
FD-GW-241219	412428-23	Water	12/19/24
EB-241219	412428-24	Water	12/19/24
MW-2S-241220	412428-26	Water	12/20/24
MW-2D-241220	412428-27	Water	12/20/24
MW-48D-241220	412428-28	Water	12/20/24
MW-48S-241220	412428-29	Water	12/20/24
MW-1S-241220	412428-31	Water	12/20/24

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-17S-2411216MS	412428-06MS	Water	12/16/24
MW-17S-2411216MSD	412428-06MSD	Water	12/16/24
INJ-1-2411216MS	412428-07MS	Water	12/16/24
INJ-1-2411216MSD	412428-07MSD	Water	12/16/24
FD-GW-241219MS	412428-23MS	Water	12/19/24
FD-GW-241219MSD	412428-23MSD	Water	12/19/24
MW-1S-241220MS	412428-31MS	Water	12/20/24
MW-1S-241220MSD	412428-31MSD	Water	12/20/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total and Dissolved Metals by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples EB-241218 and EB-241219 were identified as equipment blanks. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Analyte	Concentration (ug/L)	Associated Samples
EB-241218	12/18/24	Arsenic	1.6	MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 PP-1-241218 MW-14D-241218 FD-GW-241218

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks.

IV. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS %R (75-125)	MSD %R (75-125)	Flag	A or P
INJ-1-2411216MS/MSD (MW-19D-2411216 MW-43D-2411216 INJ-1-2411216 MW-13S-2411216 MW-46D-241218 MW-45D-241218 MW-14D-241218 MW-13D-241219 MW-47D-241219 MW-33D-241219 FD-GW-241219 MW-2D-241220 MW-48D-241220)	Chromium	-	231	J (all detects)	A

Spike ID (Associated Samples)	Analyte	MS %R (75-125)	MSD %R (75-125)	Flag	A or P
INJ-1-2411216MS/MSD (MW-19S-2411216 MW-14S-2411216 MW-17S-2411216 MW-21S-2411216 MW-46S-241218 MW-45S-241218 PP-1-241218 FD-GW-241218 EB-241218 MW-47S-241219 EB-241219 MW-2S-241220 MW-48S-241220 MW-1S-241220)	Chromium	-	231	NA	-
FD-GW-241219MS/MSD (All samples in SDG 412428)	Chromium Copper Zinc	65 60 61	64 59 61	J (all detects) UJ (all non-detects)	A

For FD-GW-241219MS/MSD, no data were qualified for arsenic percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	RPD (≤20)	Flag	A or P
INJ-1-2411216MS/MSD (All samples in SDG 412428)	Chromium	78	J (all detects) UJ (all non-detects)	A

For MW-17S-2411216MS/MSD, no data were qualified for dissolved arsenic percent recoveries (%R) and relative percent differences (RPD) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

Samples MW-14D-241218 and FD-GW-241218 and samples MW-13D-241219 and FD-GW-241219 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (≤2)
	MW-14D-241218	FD-GW-241218		
Arsenic	300	36	157	-
Dissolved arsenic	240	37	147	-
Chromium	4.1	1.0 U	-	3.1
Dissolved chromium	2.9	1.0 U	-	1.9

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (≤2)
	MW-13D-241219	FD-GW-241219		
Arsenic	25	340	173	-
Dissolved arsenic	33	340	165	-
Chromium	9.8	2.1	-	7.7
Dissolved chromium	7.2	5.0 U	-	2.2

VIII. Target Analyte Quantitation

The results for the dissolved metals sample analysis were greater than the total metals sample analysis as follows:

Sample	Analyte	Concentration (ug/L)	
		Total	Dissolved
MW-19D-2411216	Arsenic	3.6	4.5
MW-45D-241218	Arsenic	65	68
FD-GW-241218	Arsenic	36	37
MW-13D-241219	Arsenic	25	33

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Data qualified due to MS/MSD %R and RPD are summarized and presented in the Data Qualification Summary.

Glacier Northwest
Total & Dissolved Metals - Data Qualification Summary - SDG 412428

Sample	Analyte	Flag	A or P	Reason
MW-19D-2411216 MW-43D-2411216 INJ-1-2411216 MW-13S-2411216 MW-46D-241218 MW-45D-241218 MW-14D-241218 MW-13D-241219 MW-47D-241219 MW-33D-241219 FD-GW-241219 MW-2D-241220 MW-48D-241220	Chromium	J (all detects)	A	Matrix spike/Matrix spike duplicates (%R)
MW-19S-2411216 MW-19D-2411216 MW-43D-2411216 MW-14S-2411216 MW-17S-2411216 INJ-1-2411216 MW-21S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 PP-1-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 FD-GW-241219 EB-241219 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1S-241220	Chromium Copper Zinc	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R)

Sample	Analyte	Flag	A or P	Reason
MW-19S-2411216 MW-19D-2411216 MW-43D-2411216 MW-14S-2411216 MW-17S-2411216 INJ-1-2411216 MW-21S-2411216 MW-13S-2411216 MW-46S-241218 MW-46D-241218 MW-45D-241218 MW-45S-241218 PP-1-241218 MW-14D-241218 FD-GW-241218 EB-241218 MW-13D-241219 MW-47D-241219 MW-47S-241219 MW-33D-241219 FD-GW-241219 EB-241219 MW-2S-241220 MW-2D-241220 MW-48D-241220 MW-48S-241220 MW-1S-241220	Chromium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (RPD)

Glacier Northwest
Total & Dissolved Metals - Laboratory Blank Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

Glacier Northwest
Total & Dissolved Metals - Field Blank Data Qualification Summary - SDG 412428

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60460C
SDG #: 412428
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/31/2025
Page: 1/2
Reviewer: NF
2nd Reviewer: AC

Method: Metals, Dissolved Metals (EPA 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicate	SW	
V	Laboratory duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	SW	
VIII	Target analyte quantitation	SW	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-19S-2411216	412428-01		Water	12/16/2024	Stage 2A
2	MW-19D-2411216	412428-02		Water	12/16/2024	Stage 2A
3	MW-43D-2411216	412428-03		Water	12/16/2024	Stage 2A
4	MW-14S-2411216	412428-04		Water	12/16/2024	Stage 2A
5	MW-17S-2411216	412428-06		Water	12/16/2024	Stage 2A
6	~~MW-3S~~-2411216	412428-07		Water	12/16/2024	Stage 2A
7	MW-21S-2411216	412428-08		Water	12/16/2024	Stage 2A
8	MW-13S-2411216	412428-09		Water	12/16/2024	Stage 2A
9	MW-46S-241218	412428-10		Water	12/18/2024	Stage 2A
10	MW-46D-241218	412428-11		Water	12/18/2024	Stage 2A
11	MW-45D-241218	412428-12		Water	12/18/2024	Stage 2A
12	MW-45S-241218	412428-13		Water	12/18/2024	Stage 2A
13	~~MW-3D~~-241218	412428-14		Water	12/18/2024	Stage 2A
14	MW-14D-241218	412428-15	FD1	Water	12/18/2024	Stage 2A
15	FD-GW-241218	412428-16	FD1	Water	12/18/2024	Stage 2A
16	EB-241218	412428-17	EB	Water	12/18/2024	Stage 2A
17	MW-13D-241219	412428-18	FD2	Water	12/19/2024	Stage 2A
18	MW-47D-241219	412428-19		Water	12/19/2024	Stage 2A
19	MW-47S-241219	412428-20		Water	12/19/2024	Stage 2A
20	MW-33D-241219	412428-21		Water	12/19/2024	Stage 2A
21	FD-GW-241219	412428-23	FD2	Water	12/19/2024	Stage 2A
22	EB-241219	412428-24	EB	Water	12/19/2024	Stage 2A
23	MW-2S-241220	412428-26		Water	12/20/2024	Stage 2A
24	MW-2D-241220	412428-27		Water	12/20/2024	Stage 2A
25	MW-48D-241220	412428-28		Water	12/20/2024	Stage 2A
26	MW-48S-241220	412428-29		Water	12/20/2024	Stage 2A

VALIDATION COMPLETENESS WORKSHEET

LDC#: 60460C
SDG#: 412428

Date: 1/31/2025

27	MW-1S-241220	412428-31		Water	12/20/2024	Stage 2A
28	MW-17S-2411216MS	412428-06MS	MS	Water	12/16/2024	Stage 2A
29	MW-17S-2411216MSD	412428-06MSD	MSD	Water	12/16/2024	Stage 2A
30	MW-3S-2411216MS	412428-07MS	MS	Water	12/16/2024	Stage 2A
31	MW-3S-2411216MSD	412428-07MSD	MSD	Water	12/16/2024	Stage 2A
32	FD-GW-241219MS	412428-23MS	MS	Water	12/19/2024	Stage 2A
33	FD-GW-241219MSD	412428-23MSD	MSD	Water	12/19/2024	Stage 2A
34	MW-1S-241220MS	412428-31MS	MS	Water	12/20/2024	Stage 2A
35	MW-1S-241220MSD	412428-31MSD	MSD	Water	12/20/2024	Stage 2A

Notes:

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: Trace Metals (EPA SW 846 Methods 6010/6020/7000)

Blank units: ug/L
Sampling Date: 12/18/24

Associated sample units: ug/L
Associated Samples: 9-15

			Sample Identification					
Analyte	Blank ID	Action Level						
	16							
As	1.6							

Comments: The action level, when applicable, is establised at 5X the highest concentration.
V:\Nick\Validation Worksheets\Aspect Consulting\Glacier\LDC 60460C_metals

VALIDATION FINDINGS WORKSHEETS
Matrix Spike/Matrix Spike Duplicates

METHOD: Trace Metals (EPA SW 846 Methods 6010/6020/7000)

MS/MSD analysis was performed by the laboratory. All MS/MSD percent recoveries (%R) and relative percent differences (RPDs) were within the acceptable limits with the following exceptions:

MS/MSD ID	Matrix	Analyte	MS %R	MSD %R	%R Limit	RPD	RPD Limit	Associated Samples	Qualification	Det/ND
30-31	w	Cr		231	75-125			All	Jdet/A	Det= 2-3, 6, 8, 10-11, 14, 17-18, 20-21, 24-25
32-33	w	Cr	65	64	75-125			All	J/UJ/A	Det + ND
		Cu	60	59	75-125			All	J/UJ/A	Det + ND
		Zn	61	61	75-125			All	J/UJ/A	Det + ND
30-31	w	Cr				78	20	All	J/UJ/A	Det + ND

Comments: **32-33: As >4x, %R** **28-29: Diss. As >4x, %R, RPD**

Method: Metals

Analyte	Concentration (ug/L)		RPD (≤ 35)	Diff.	Diff. Limits
	14	15			
Arsenic	300	36	157		
Diss. Arsenic	240	37	147		
Chromium	4.1	1.0 U		3.1	(≤) 2
Diss. Chromium	2.9	1.0 U		1.9	(≤) 2

Analyte	Concentration (ug/L)		RPD (≤ 35)	Diff.	Diff. Limits
	17	21			
Arsenic	25	340	173		
Diss. Arsenic	33	340	165		
Chromium	9.8	2.1		7.7	(≤) 2
Diss. Chromium	7.2	5.0 U		2.2	(≤) 2

METHOD: Trace Metals (EPA SW 846 Methods 6010/6020/7000)

Sample ID	Analyte	Total Result	Dissolved Result	Qualification	Det/ND
2	As	3.6	4.5	Text	Det
11	As	65	68	Text	Det
15	As	36	37	Text	Det
17	As	25	33	Text	Det

Comments:

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting
319 SW Washington St, Suite 310
Portland, OR 97204
ATTN: Mr. Andrew Yonkofski
ayonkofski@aspectconsulting.com

May 14, 2025

SUBJECT: Glacier Northwest - Data Validation

Dear Mr. Yonkofski,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on March 13, 2025. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #60719:

SDG #	Fraction
412509	Dissolved Arsenic
2502044	

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024)
- USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

LDC #60719 (Aspect Consulting, LLC - Seattle, WA / Glacier Northwest Inc. Site)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	Diss. Arsenic (6020B)
Matrix Type:					Water
A	412509	3/13/25	4/3/25	Stage 2A	6
B	2502044	3/13/25	4/3/25	Stage 2A	9
Total			PM: SC		**15**

EDD: EDD

WO 4046

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: April 25, 2025

Parameters: Dissolved Arsenic

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 412509

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PW-01-241230	412509-01	Water	12/30/24
PW-02-241230	412509-02	Water	12/30/24
PW-03-241230	412509-03	Water	12/30/24
PW-04-241230	412509-04	Water	12/30/24
FD-PW-241230	412509-05	Water	12/30/24
TB-PW-241230	412509-06	Water	12/30/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Dissolved Arsenic by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Sample TB-PW-241230 was identified as a trip blank. No contaminants were found.

IV. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

Samples PW-02-241230 and FD-PW-241230 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (Limits)
	PW-02-241230	FD-PW-241230		
Arsenic	24	27	12	-

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Dissolved Arsenic - Data Qualification Summary - SDG 412509

No Sample Data Qualified in this SDG

Glacier Northwest
Dissolved Arsenic - Laboratory Blank Data Qualification Summary - SDG 412509

No Sample Data Qualified in this SDG

Glacier Northwest
Dissolved Arsenic - Field Blank Data Qualification Summary - SDG 412509

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60719A
SDG #: 412509
Laboratory: Friedman & Bruya Inc., Seattle, WA
Method: Dissolved Arsenic (EPA 6020B)

Date: 3/21/2025
Page: 1
Reviewer: JC
2nd Reviewer: JC

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	ND	
IV	Matrix Spike/Matrix Spike Duplicate	N	
V	Laboratory duplicates	N	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	SW	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	PW-01-241230	412509-01		Water	12/31/2024	Stage 2A
2	PW-02-241230	412509-02	FD	Water	12/31/2024	Stage 2A
3	PW-03-241230	412509-03		Water	12/31/2024	Stage 2A
4	PW-04-241230	412509-04		Water	12/31/2024	Stage 2A
5	FD-PW-241230	412509-05	FD	Water	12/31/2024	Stage 2A
6	TB-PW-241230	412509-06	TB	Water	12/31/2024	Stage 2A

Notes: Sampling Date 12/30/2024

LDC #: 60719A

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JC
Reviewer: SC

Analyte	Concentration (ug/L)		RPD (≤ 35)	Diff.	Diff. Limits	Qualifiers (Parents Only)
	2	5				
Dissolved arsenic	24	27	12		(≤)	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: April 25, 2025

Parameters: Dissolved Arsenic

Validation Level: Stage 2A

Laboratory: Alliance Technical Group, LLC, Seattle, WA

Sample Delivery Group (SDG): 2502044

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PW-01-241230	2502044-001	Water	12/30/24
PW-02-241230	2502044-002	Water	12/30/24
PW-03-241230	2502044-003	Water	12/30/24
PW-04-241230	2502044-004	Water	12/30/24
FD-PW-241230	2502044-005	Water	12/30/24
TB-PW-241230	2502044-006	Water	12/30/24
PW-01-241230DUP	2502044-001DUP	Water	12/30/24
PW-01-241230MS	2502044-001MS	Water	12/30/24
PW-01-241230MSD	2502044-001MSD	Water	12/30/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Dissolved Arsenic by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Sample TB-PW-241230 was identified as a trip blank. No contaminants were found.

IV. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

V. Laboratory Duplicate

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

Samples PW-02-241230 and FD-PW-241230 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (Limits)
	PW-02-241230	FD-PW-241230		
Arsenic	23.6	26.0	10	-

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest
Dissolved Arsenic - Data Qualification Summary - SDG 2502044

No Sample Data Qualified in this SDG

Glacier Northwest
Dissolved Arsenic - Laboratory Blank Data Qualification Summary - SDG 2502044

No Sample Data Qualified in this SDG

Glacier Northwest
Dissolved Arsenic - Field Blank Data Qualification Summary - SDG 2502044

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60719B
SDG #: 2502044
Laboratory: ~~Friedman & Bruya Inc., Seattle, WA~~ Alliance Technical Group, LLC Seattle, WA
Dissolved
Method: Arsenic (EPA 6020B)

Date: 3/21/2025
Page: 1
Reviewer: JC
2nd Reviewer: AC

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample receipt/Technical holding times	A/A	
II	Laboratory Blanks	A	
III	Field blanks	ND	
IV	Matrix Spike/Matrix Spike Duplicate	A	
V	Laboratory duplicates	A	
VI	Laboratory control samples	A	LCS
VII	Field duplicates	SW	
VIII	Target analyte quantitation	N	
IX	Overall assessment of data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	PW-01-241230	2502044-001		Water	12/30/2024	Stage 2A
2	PW-02-241230	2502044-002	FD	Water	12/30/2024	Stage 2A
3	PW-03-241230	2502044-003		Water	12/30/2024	Stage 2A
4	PW-04-241230	2502044-004		Water	12/30/2024	Stage 2A
5	FD-PW-241230	2502044-005	FD	Water	12/30/2024	Stage 2A
6	TB-PW-241230	2502044-006	TB	Water	12/30/2024	Stage 2A
7	PW-01-241230DUP	2502044-001DUP	DUP	Water	12/30/2024	Stage 2A
8	PW-01-241230MS	2502044-001MS	MS	Water	12/30/2024	Stage 2A
9	PW-01-241230MSD	2502044-001MSD	MSD	Water	12/30/2024	Stage 2A

Notes:

LDC #: 60719B

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JC
Reviewer: SC

Analyte	Concentration (ug/L)		RPD (≤ 35)	Diff.	Diff. Limits	Qualifiers (Parents Only)
	2	5				
Dissolved arsenic	23.6	26.0	10		(≤)	

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting
319 SW Washington St, Suite 310
Portland, OR 97204
ATTN: Mr. Andrew Yonkofski
ayonkofski@aspectconsulting.com

June 12, 2025

SUBJECT: Glacier Northwest - Data Validation

Dear Mr. Yonkofski,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on May 12, 2025. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #61024:

SDG #	**Fraction**
140-40836-1	Pentachlorophenol

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

LDC #61024 (Aspect Consulting, LLC - Seattle , WA / Glacier Northwest, Inc. Site)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	PCP (1699)
Matrix Type:					PE
A	140-40836-1	5/12/25	6/3/25	Stage 2A	9
Total			PM: SC		**9**

EDD: EDD

WO 4046

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest

LDC Report Date: June 12, 2025

Parameters: Pentachlorophenol

Validation Level: Stage 2A

Laboratory: Eurofins, Knoxville, TN

Sample Delivery Group (SDG): 140-40836-1

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
PW-01-241230	140-40836-1	PE	12/30/24
PW-02-241230	140-40836-2	PE	12/30/24
PW-03-241230	140-40836-3	PE	12/30/24
PW-04-241230	140-40836-4	PE	12/30/24
PW-FD-241230	140-40836-5	PE	12/30/24
PW-TB-241230	140-40836-6	PE	12/30/24
ASPECT.PRC-BLK1	140-40836-7	PE	11/11/24
ASPECT.PRC-BLK2	140-40836-8	PE	11/11/24
ASPECT.PRC-BLK3	140-40836-9	PE	11/11/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for the Glacier Northwest, Inc. Site (September 2024) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Pentachlorophenol by Environmental Protection Agency (EPA) Method 1699

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method with the following exceptions:

Sample	Analyte	Finding	Flag	A or P
All samples in SDG 140-40836-1	Pentachlorophenol	The laboratory indicated that Pentachlorophenol was not reported in the method blank because the associated internal standard, 13C6-Pentachlorophenol (IS), was not added to the blank.	J (all detects)	P

III. Field Blank

Sample PW-TB-241230 was identified as a trip blank. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Analyte	Concentration (ng/g)	Associated Samples
PW-TB-241230	12/30/24	Pentachlorophenol	0.17	PW-01-241230 PW-02-241230 PW-03-241230 PW-04-241230 PW-FD-241230

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater than the concentrations found in the associated field blanks with the following exceptions:

Sample	Analyte	Reported Concentration (ng/g)	Modified Final Concentration (ng/g)
PW-02-241230	Pentachlorophenol	0.84	0.84U
PW-FD-241230	Pentachlorophenol	0.71	0.71U

IV. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG 140-40836-1	Pentachlorophenol	The laboratory indicated that LCS was not performed.	LCS analysis is required.	J (all detects)	P

VI. Field Duplicate

Samples PW-02-241230 and PW-FD-241230 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ng/g)		RPD (Limits)	Difference (≤46)	Flag	A or P
	PW-02-241230	PW-FD-241230				
Pentachlorophenol	0.84	0.71	-	0.13	-	-

VII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Data qualified due to no internal standard in method blank, trip blank contamination and no LCS are summarized and presented in the Data Qualification Summary.

Glacier Northwest
Pentachlorophenol - Data Qualification Summary - SDG 140-40836-1

Sample	Analyte	Flag	A or P	Reason
PW-01-241230 PW-02-241230 PW-03-241230 PW-04-241230 PW-FD-241230 PW-TB-241230 ASPECT.PRC-BLK1 ASPECT.PRC-BLK2 ASPECT.PRC-BLK3	Pentachlorophenol	J (all detects)	P	Method blank (no internal standard)
PW-01-241230 PW-02-241230 PW-03-241230 PW-04-241230 PW-FD-241230 PW-TB-241230 ASPECT.PRC-BLK1 ASPECT.PRC-BLK2 ASPECT.PRC-BLK3	Pentachlorophenol	J (all detects)	P	Laboratory control sample (no LCS)

Glacier Northwest
Pentachlorophenol - Laboratory Blank Data Qualification Summary - SDG 140-40836-1

No Sample Data Qualified in this SDG

Glacier Northwest
Pentachlorophenol - Field Blank Data Qualification Summary - SDG 140-40836-1

Sample	Analyte	Modified Final Concentration (ng/g)
PW-02-241230	Pentachlorophenol	0.84U
PW-FD-241230	Pentachlorophenol	0.71U

VALIDATION COMPLETENESS WORKSHEET

LDC #: 61024A
SDG #: ~~SI-07946-082024~~/140-40836-1
Laboratory: ~~SiREM, Guelph, ON~~/ Eurofins, Knoxville, TN

Date: 5/12/2025
Page: 1
Reviewer: NC
2nd Reviewer: NC

Method: Pentachlorophenol (EPA 1699)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	SW	
III	Field Blank	SW	TB = 6
IV	~~Surrogate Spikes~~	~~N~~	~~Not spiked.~~ NC
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	SW	
VII	Field Duplicate	SW	(2, 5)
VIII	Target Analyte Quantitation	A	
IX	Overall Assessment of Data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	PW-01-241230	140-40836-1		PE	12/30/2024	Stage 2A
2	PW-02-241230	140-40836-2		PE	12/30/2024	Stage 2A
3	PW-03-241230	140-40836-3		PE	12/30/2024	Stage 2A
4	PW-04-241230	140-40836-4		PE	12/30/2024	Stage 2A
5	PW-FD-241230	140-40836-5	FD	PE	12/30/2024	Stage 2A
6	PW-TB-241230	140-40836-6	TB	PE	12/30/2024	Stage 2A
7	ASPECT.PRC-BLK1	140-40836-7	PRC Blank	PE	11/11/2024	Stage 2A
8	ASPECT.PRC-BLK2	140-40836-8	PRC Blank	PE	11/11/2024	Stage 2A
9	ASPECT.PRC-BLK3	140-40836-9	PRC Blank	PE	11/11/2024	Stage 2A

Notes: PE = polyethylene sheet

VALIDATION FINDINGS WORKSHEET
Blanks

METHOD: Pentachlorophenol (EPA 1699)

Blank extraction date: 03/12/25 **Blank analysis date:** 03/28/25 **Associated samples:** All **Qualify as Jdets/P**

Conc. units: ng/g

Analyte	Blank ID	Sample Identification							
	MB 140-97186/11-B								
Pentachlorophenol	Text*								

***Comment:** The laboratory indicated that Pentachlorophenol in method blank MB 140-97186/11-B was not reportable. The 13C6-Pentachlorophenol (IS) was not added to the blank.

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: Pentachlorophenol (EPA 1699)

Please see qualifications below for all questions answered "N". (Y=Yes, N=No, NA=not applicable)

Y Were field blanks identified in this SDG?

Y Were target compounds detected in the field blanks?

Sampling date: 12/30/24 **Blank units:** ng/g **Associated sample units:** ng/g

Field blank type: TB **Associated Samples:** 1 to 5

Compound	Blank ID	Sample Identification							
	6	2	5						
Pentachlorophenol	0.17	0.84U	0.71U						

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

METHOD: Pentachlorophenol (EPA 1699)

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) and Relative percent differences (RPD) were within QC limits with the exceptions identified below.

LCS/LCSD	Analyte	LCS %R	LCSD %R	%R Limits	RPD	RPD Limits	Associated samples	Qualifications
	Pentachlorophenol						All (Det)	J/UJ/P (Text)*

***Comment:** The laboratory indicated that an LCS was not performed.

VALIDATION FINDINGS WORKSHEET
Field Duplicates

METHOD: Pentachlorophenol (EPA 1699)

Compound	Concentration (ng/g)		RPD (≤___%)	Difference ng/g	Limits (2xRL)
	2	5			
Pentachlorophenol	0.84	0.71		0.13	46

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Black River Environmental
26311 NE Valley St. #141
Duvall, WA 98019
ATTN: Mr. Andrew Yonkofski
andrew@blackriverenv.com

February 20, 2026

SUBJECT: Glacier Northwest, Inc.Site - Data Validation

Dear Mr. Yonkofski

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on January 27, 2026. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #62208:

SDG #	Fraction
601120 320-128835-1	Semivolatile Organic Compounds, Total & Dissolved Metals, Perfluoroalkyl & Polyfluoroalkyl Substances

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix A, Final Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP), Glacier Northwest, Inc. Site (GNW) - PFAS Sampling (April 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020)
- U.S. Department of Defense (DoD) Data Validation Guidelines Module 6: Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by Quality Systems Manual for Environmental Laboratories (QSM) Table B-24 Environmental Data Quality Workgroup (October 2022)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

LDC #62208 (Black River Environmental, Duvall, WA / Glacier Northwest, Inc.Site)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	SVOCs (8270E)	PCP (8270E)	PFAS (1633A)	(3) Metals (6020B)	(3) Diss. Metals (6020B)
Matrix Type:					Water	Water	Water	Water	Water
A	601120	1/27/26	2/18/26	Stage 2A	13	9		17	17
B	320-128835-1	1/27/26	2/18/26	Stage 2A			21		
Total			PM: PG		**13**	**9**	**21**	**17**	**17**

Count ALL Samples
EDD: EDD
Project # 25006

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest, Inc. Site

LDC Report Date: February 18, 2026

Parameters: Semivolatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 601120

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-13D-260106	601120-01	Water	01/06/26
MW-13D-260106 (PCP only)	601120-01LL	Water	01/06/26
MW-47D-260106	601120-02	Water	01/06/26
MW-47D-260106 (PCP only)	601120-02LL	Water	01/06/26
MW-47S-260106	601120-03	Water	01/06/26
GW-FD-260106	601120-04	Water	01/06/26
MW-13S-260107	601120-05	Water	01/07/26
MW-13S-260107 (PCP only)	601120-05LL	Water	01/07/26
MW-33S-260107	601120-06	Water	01/07/26
MW-33D-260107	601120-07	Water	01/07/26
MW-33D-260107 (PCP only)	601120-07LL	Water	01/07/26
MW-48D-260107	601120-08	Water	01/07/26
MW-48D-260107 (PCP only)	601120-08LL	Water	01/07/26
MW-48S-260107	601120-09	Water	01/07/26
MW-48S-260107 (PCP only)	601120-09LL	Water	01/07/26
MW-46S-260108	601120-12	Water	01/08/26
MW-45S-260108	601120-13	Water	01/08/26
MW-45S-260108 (PCP only)	601120-13LL	Water	01/08/26
MW-46D-260108	601120-14	Water	01/08/26
MW-46D-260108 (PCP only)	601120-14LL	Water	01/08/26
MW-45D-260108	601120-15	Water	01/08/26
MW-45D-260108 (PCP only)	601120-15LL	Water	01/08/26

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix A, Final Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP), Glacier Northwest, Inc. Site (GNW) - PFAS Sampling (April 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Semivolatile Organic Compounds (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270E

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blanks

No field blanks were identified in this SDG.

IV. Surrogate

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample/Laboratory Control Sample Duplicate

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	LCS %R	LCSD %R	Limits	Flag	A or P
LCS/LCSD (MW-13D-260106 MW-47D-260106 MW-47S-260106 GW-FD-260106 MW-13S-260107 MW-33S-260107 MW-33D-260107 MW-48D-260107 MW-48S-260107 MW-46S-260108 MW-45S-260108 MW-46D-260108 MW-45D-260108)	2-Nitroaniline	-	148	51-146	NA	-

Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

Samples MW-47S-260106 and GW-FD-260106 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (Limits)	Difference (≤1)
	MW-47S-260106	GW-FD-260106		
Pentachlorophenol	0.34	0.32	-	0.02

VIII. Internal Standard

All internal standard areas and retention times were within QC limits.

IX. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

X. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed not reportable as follows:

Sample	Analyte	Reason	Flag	A or P
MW-45S-260108	Pentachlorophenol	Results exceeded calibration range.	DNR	-
MW-45D-260108	Pentachlorophenol	Results from the affected analysis were deemed not reportable due to carryover from a previous high concentration sample.	DNR	-
MW-13D-260106 MW-47D-260106 MW-13S-260107 MW-33D-260107 MW-48D-260107 MW-48S-260107 MW-46D-260108	Pentachlorophenol	Results from the affected analyses were deemed not reportable due to elevated reporting limits.	DNR	-

Glacier Northwest, Inc. Site
Semivolatile Organic Compounds - Data Qualification Summary - SDG 601120

Sample	Analyte	Flag	A or P	Reason
MW-13D-260106 MW-47D-260106 MW-13S-260107 MW-33D-260107 MW-48D-260107 MW-48S-260107 MW-45S-260108 MW-46D-260108 MW-45D-260108	Pentachlorophenol	DNR	-	Overall assessment of data

Glacier Northwest, Inc. Site
Semivolatile Organic Compounds - Laboratory Blank Data Qualification Summary - SDG 601120

No Sample Data Qualified in this SDG

Glacier Northwest, Inc. Site
Semivolatile Organic Compounds - Field Blank Data Qualification Summary - SDG 601120

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 62208A
SDG #: 601120
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/29/2026
Page: 1
Reviewer:
2nd Reviewer:

Method: Semivolatiles (EPA 8270E)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Times	A	
II	Laboratory Blanks	A	
III	Field Blanks	N	
IV	Surrogate	A	
V	Matrix Spike/Matrix Spike Duplicate	N	CS
VI	Laboratory Control Sample	SW	LCS/D
VII	Field Duplicate	SW	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	SW	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = Not detected; NQ = Not qualified; FD = Field duplicate; FT = Field triplicate; TB = Trip blank; FB = Field blank; AB= Ambient blank; SB = Source blank; EB = Equipment blank; R = Rinsate

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-13D-260106	601120-01		Water	01/06/2026	Stage 2A
2	MW-13D-260106 (PCP only)	601120-01LL		Water	01/06/2026	Stage 2A
3	MW-47D-260106	601120-02		Water	01/06/2026	Stage 2A
4	MW-47D-260106 (PCP only)	601120-02LL		Water	01/06/2026	Stage 2A
5	MW-47S-260106	601120-03	FD	Water	01/06/2026	Stage 2A
6	GW-FD-260106	601120-04	FD	Water	01/06/2026	Stage 2A
7	MW-13S-260107	601120-05		Water	01/07/2026	Stage 2A
8	MW-13S-260107 (PCP only)	601120-05LL		Water	01/07/2026	Stage 2A
9	MW-33S-260107	601120-06		Water	01/07/2026	Stage 2A
10	MW-33D-260107	601120-07		Water	01/07/2026	Stage 2A
11	MW-33D-260107 (PCP only)	601120-07LL		Water	01/07/2026	Stage 2A
12	MW-48D-260107	601120-08		Water	01/07/2026	Stage 2A
13	MW-48D-260107 (PCP only)	601120-08LL		Water	01/07/2026	Stage 2A
14	MW-48S-260107	601120-09		Water	01/07/2026	Stage 2A
15	MW-48S-260107 (PCP only)	601120-09LL		Water	01/07/2026	Stage 2A

VALIDATION COMPLETENESS WORKSHEET

16	MW-46S-260108	601120-12		Water	01/08/2026	Stage 2A
17	MW-45S-260108	601120-13		Water	01/08/2026	Stage 2A
18	MW-45S-260108 (PCP only)	601120-13LL		Water	01/08/2026	Stage 2A
19	MW-46D-260108	601120-14		Water	01/08/2026	Stage 2A
20	MW-46D-260108 (PCP only)	601120-14LL		Water	01/08/2026	Stage 2A
21	MW-45D-260108	601120-15		Water	01/08/2026	Stage 2A
22	MW-45D-260108 (PCP only)	601120-15LL		Water	01/08/2026	Stage 2A

Notes:

LDC #: 62208A

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: PG

METHOD: GC/MS BNA (EPA SW 846 Method 8270E)

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method.
Percent recoveries (%R) and Relative percent differences (RPD) were within QC limits with the exceptions identified below.

LCS/LCSD	Analyte	LCS %R	LCSD %R	%R Limits	RPD	RPD Limits	Associated samples	Qualifications
LCS/LCSD	2-Nitroaniline		148	51-146			All except PCP only (ND)	Jdets/P

LDC #: 62208A

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: PG

METHOD: GC/MS BNA (EPA SW 846 Method 8270E)

Compound	Concentration (ug/L)		RPD (≤ 35 %)	Difference (ug/L)	Limits (2xRL)	Qualifications (Parent only)
	5	6				
Pentachlorophenol	0.34	0.32		0.02	1	

LDC #: 62208A

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: PG

METHOD: GC/MS BNA (EPA SW 846 Method 8270E)
All available information pertaining to the data were reviewed for data quality, uncertainty and bias using professional judment to compliment the overall assessment made below.

#	Sample ID	Analyte	Findings	Qualifications
	17	Pentachlorophenol	excced calib range	DNR
	21	Pentachlorophenol	carry over from a previous high concentration sample	DNR
	1,3,7,10, 12,14, 19	Pentachlorophenol	high RL	DNR

Comments:_____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest, Inc. Site

LDC Report Date: February 18, 2026

Parameters: Total & Dissolved Metals

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 601120

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-13D-260106	601120-01	Water	01/06/26
MW-47D-260106	601120-02	Water	01/06/26
MW-47S-260106	601120-03	Water	01/06/26
GW-FD-260106	601120-04	Water	01/06/26
MW-13S-260107	601120-05	Water	01/07/26
MW-33S-260107	601120-06	Water	01/07/26
MW-33D-260107	601120-07	Water	01/07/26
MW-48D-260107	601120-08	Water	01/07/26
MW-48S-260107	601120-09	Water	01/07/26
MW-3S-260107	601120-10	Water	01/07/26
MW-3D-260107	601120-11	Water	01/07/26
MW-46S-260108	601120-12	Water	01/08/26
MW-45S-260108	601120-13	Water	01/08/26
MW-46D-260108	601120-14	Water	01/08/26
MW-45D-260108	601120-15	Water	01/08/26
MW-47S-260106MS	601120-03MS	Water	01/06/26
MW-47S-260106MSD	601120-03MSD	Water	01/06/26

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix A, Final Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP), Glacier Northwest, Inc. Site (GNW) - PFAS Sampling (April 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total and Dissolved Metals by Environmental Protection Agency (EPA) SW 846 Method 6020B

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blanks

No field blanks were identified in this SDG.

IV. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. For MW-47S-260106MS/MSD, no data were qualified for dissolved arsenic percent recoveries (%R) and relative percent differences (RPD) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample/Laboratory Control Sample Duplicate

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

Samples MW-47S-260106 and GW-FD-260106 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (Limits)	Flag	A or P
	MW-47S-260106	GW-FD-260106				
Dissolved Arsenic	170	180	6	-	-	-
Dissolve Copper	6	6	0	-	-	-

Analyte	Concentration (ug/L)		RPD (≤35)	Difference (Limits)	Flag	A or P
	MW-47S-260106	GW-FD-260106				
Dissolved Zinc	130	130	0	-	-	-
Arsenic	180	170	6	-	-	-
Copper	25	24	4	-	-	-
Zinc	160	140	13	-	-	-

VIII. Internal Standard (ICP-MS)

Internal standard data were not reviewed for Stage 2A validation.

IX. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

X. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Glacier Northwest, Inc. Site
Total & Dissolved Metals - Data Qualification Summary - SDG 601120

No Sample Data Qualified in this SDG

Glacier Northwest, Inc. Site
Total & Dissolved Metals - Laboratory Blank Data Qualification Summary - SDG 601120

No Sample Data Qualified in this SDG

Glacier Northwest, Inc. Site
Total & Dissolved Metals - Field Blank Data Qualification Summary - SDG 601120

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 62208A
SDG #: 601120
Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 1/29/2026

Reviewer: DS
2nd Reviewer: JC

Method: Metals, Dissolved Metals (EPA 6020B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Times	A/A	
II	Laboratory Blanks	A	
III	Field Blanks	N	
IV	Matrix Spike/Matrix Spike Duplicate	SW	Dis. As > 4x, %Rec, RPD
V	Laboratory Duplicate	N	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	SW	FD: (3, 4)
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = Not detected; NQ = Not qualified; FD = Field duplicate; FT = Field triplicate; TB = Trip blank; FB = Field blank; AB= Ambient blank; SB = Source blank; EB = Equipment blank; R = Rinsate

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-13D-260106	601120-01		Water	01/06/2026	Stage 2A
2	MW-47D-260106	601120-02		Water	01/06/2026	Stage 2A
3	MW-47S-260106	601120-03	FD	Water	01/06/2026	Stage 2A
4	GW-FD-260106	601120-04	FD	Water	01/06/2026	Stage 2A
5	MW-13S-260107	601120-05		Water	01/07/2026	Stage 2A
6	MW-33S-260107	601120-06		Water	01/07/2026	Stage 2A
7	MW-33D-260107	601120-07		Water	01/07/2026	Stage 2A
8	MW-48D-260107	601120-08		Water	01/07/2026	Stage 2A
9	MW-48S-260107	601120-09		Water	01/07/2026	Stage 2A
10	MW-3S-260107	601120-10		Water	01/07/2026	Stage 2A
11	MW-3D-260107	601120-11		Water	01/07/2026	Stage 2A
12	MW-46S-260108	601120-12		Water	01/08/2026	Stage 2A
13	MW-45S-260108	601120-13		Water	01/08/2026	Stage 2A

VALIDATION COMPLETENESS WORKSHEET

LDC#: 62208A
SDG#: 601120

Date: 1/29/2026

14	MW-46D-260108	601120-14		Water	01/08/2026	Stage 2A
15	MW-45D-260108	601120-15		Water	01/08/2026	Stage 2A
16	MW-47S-260106MS	601120-03MS	MS	Water	01/06/2026	Stage 2A
17	MW-47S-260106MSD	601120-03MSD	MSD	Water	01/06/2026	Stage 2A

Notes:

LDC #: 62208A

All elements are applicable to each sample as noted below.

Sample ID	Matrix	Method	Target Analyte List
1-15	Water	EPA 6020B	As, Cu, Zn
1-15	Water	EPA 6020B	Dissolved: As, Cu, Zn
QC			
16, 17	Water	EPA 6020B	As, Cu, Zn
16, 17	Water	EPA 6020B	Dissolved: As, Cu, Zn

Comments:

VALIDATION FINDINGS WORKSHEET

Field Duplicates

LDC #: 62208A

Analyte	Concentration (ug/L)		RPD (≤ 35)	Diff.	Diff. Limits	Qualifiers (Parents Only)
	3	4				
Dis. Arsenic	170	180	6			
Dis. Copper	6	6	0			
Dis. Zinc	130	130	0			
Arsenic	180	170	6			
Copper	25	24	4			
Zinc	160	140	13			

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Glacier Northwest, Inc. Site

LDC Report Date: February 20, 2026

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 2A

Laboratory: Eurofins, West Sacramento, CA

Sample Delivery Group (SDG): 320-128835-1

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-36S-260106	3210-128835-1	Water	01/06/26
FB-1-260106	3210-128835-2	Water	01/06/26
EB-1-260106	3210-128835-3	Water	01/06/26
MW-47S-260106	3210-128835-4	Water	01/06/26
GW-FD-260106	3210-128835-5	Water	01/06/26
MW-32S-260107	3210-128835-6	Water	01/07/26
MW-13S-260107	3210-128835-7	Water	01/07/26
MW-07S-260107	3210-128835-8	Water	01/07/26
MW-28S-260107	3210-128835-9	Water	01/07/26
MW-33S-260107	3210-128835-10	Water	01/07/26
MW-48S-260107	3210-128835-11	Water	01/07/26
MW-3S-260107	3210-128835-12	Water	01/07/26
MW-35S-260107	3210-128835-13	Water	01/07/26
FB-2-260107	3210-128835-14	Water	01/07/26
MW-29S-260108	3210-128835-15	Water	01/08/26
MW-30S-260108	3210-128835-16	Water	01/08/26
MW-46S-260108	3210-128835-17	Water	01/08/26
MW-45S-260108	3210-128835-18	Water	01/08/26
FB-3-260108	3210-128835-19	Water	01/08/26
EB-3-260108	3210-128835-20	Water	01/08/26
MW-31S-260108	3210-128835-21	Water	01/08/26

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix A, Final Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP), Glacier Northwest, Inc. Site (GNW) - PFAS Sampling (April 2019) and the U.S. Department of Defense (DoD) Data Validation Guidelines Module 6: Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by Quality Systems Manual for Environmental Laboratories (QSM) Table B-24 Environmental Data Quality Workgroup (October 2022). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 1633A

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The reported result was an estimated quantity value.

U (Non-detected): The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ (Non-detected): The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ (Tentatively identified): The analyte has been "tentatively identified" or "presumptively identified" as present, and the associated numerical value was the estimated concentration in the sample.

H (Holding time): The sample was analyzed outside the method-specified holding time requirement.

R (Rejected): The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

DNR (Do Not Report): A more appropriate result is reported from another analysis or dilution.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

ACRONYM	ANALYTE/EXTRACTED INTERNAL STANDARD
PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTrDA	Perfluorotridecanoic acid
PFTeDA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
PFDoS	Perfluorododecanesulfonic acid
4:2FTS	1*H*,1*H*,2*H*,2*H*-Perfluorohexane sulfonic acid
6:2FTS	1*H*,1*H*,2*H*,2*H*-Perfluorooctane sulfonic acid
8:2FTS	1*H*,1*H*,2*H*,2*H*-Perfluorodecane sulfonic acid
PFOSA	Perfluorooctanesulfonamide
NMeFOSA	N-Methyl perfluorooctanesulfonamide
NEtFOSA	N-Ethyl perfluorooctanesulfonamide
NMeFOSAA	N-Methyl perfluorooctanesulfonamidoacetic acid
NEtFOSAA	N-Ethyl perfluorooctanesulfonamidoacetic acid
NMeFOSE	N-Methyl perfluorooctanesulfonamidoethanol
NEtFOSE	N-Ethyl perfluorooctanesulfonamidoethanol
HFPO-DA	Hexafluoropropylene oxide dimer acid
ADONA	4,8-Dioxa-3*H*-perfluorononanoic acid
PFMPA	Perfluoro-3-methoxypropanoic acid
PFMBA	Perfluoro-4-methoxybutanoic acid
NFDHA	Nonafluoro-3,6-dioxaheptanoic acid
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
11Cl-PF3OUdS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid
3:3FTCA	3-Perfluoropropyl propanoic acid
5:3FTCA	2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid
7:3FTCA	3-Perfluoroheptyl propanoic acid
^{13}C4-PFBA	^{13}C4-Perfluorobutanoic acid
^{13}C5-PFPeA	^{13}C5-Perfluoropentanoic acid
^{13}C5-PFHxA	^{13}C5-Perfluorohexanoic acid
^{13}C4-PFHpA	^{13}C4-Perfluoroheptanoic acid
^{13}C8-PFOA	^{13}C8-Perfluorooctanoic acid
^{13}C9-PFNA	^{13}C9-Perfluorononanoic acid
^{13}C6-PFDA	^{13}C6-Perfluorodecanoic acid
^{13}C7-PFUnA	^{13}C7-Perfluoroundecanoic acid
^{13}C2-PFDoA	^{13}C2-Perfluorododecanoic acid
^{13}C2-PFTeDA	^{13}C2-Perfluorotetradecanoic acid
^{13}C3-PFBS	^{13}C3-Perfluorobutanesulfonic acid
^{13}C3-PFHxS	^{13}C3-Perfluorohexanesulfonic acid
^{13}C8-PFOS	^{13}C8-Perfluorooctanesulfonic acid
^{13}C8-PFOSA	^{13}C8-Perfluorooctanesulfonamide
D3-NMeFOSAA	D3-N-Methyl perfluorooctanesulfonamidoacetic acid
D5-NEtFOSAA	D5-N-Ethyl perfluorooctanesulfonamidoacetic acid
^{13}C2-4:2FTS	^{13}C2-1*H*,1*H*,2*H*,2*H*-Perfluorohexane sulfonic acid
^{13}C2-6:2FTS	^{13}C2-1*H*,1*H*,2*H*,2*H*-Perfluorooctane sulfonic acid
^{13}C2-8:2FTS	^{13}C2-1*H*,1*H*,2*H*,2*H*-Perfluorodecane sulfonic acid
^{13}C3-HFPO-DA	^{13}C3-Hexafluoropropylene oxide dimer acid
D7-NMeFOSE	D7-N-Methyl perfluorooctanesulfonamidoethanol
D9-NEtFOSE	D9-N-Ethyl perfluorooctanesulfonamidoethanol
D5-NEtFOSA	D5-N-Ethyl perfluorooctanesulfonamide
D3-NMeFOSA	D3-N-Methyl perfluorooctanesulfonamide

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Bile Salts Interference Check

Bile salt interference check standards were performed at required frequencies.

The retention time (RT) of the bile salts falls outside of the RT window of perfluorooctanesulfonic acid by at least one minute.

III. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the method, initial calibration and continuing calibration blanks.

IV. Field Blanks

Samples EB-1-260106 and EB-3-260108 were identified as equipment blanks. No contaminants were found.

Samples FB-1-260106, FB-2-260107, and FB-3-260108 were identified as field blanks. No contaminants were found.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample/Laboratory Control Sample Duplicate/Low-Level Laboratory Control Sample

Laboratory control samples (LCS), laboratory control sample duplicates (LCSD), and low-level laboratory control samples (LLLCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

Samples MW-47S-260106 and GW-FD-260106 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ng/L)		RPD (≤35)	Difference (≤3.2)
	MW-47S-260106	GW-FD-260106		
PFBA	15	15	0	-
PFPeA	1.8	1.9	-	0.1
PFOA	2.6	2.7	-	0.1
PFBS	1.8	1.7	-	0.1
PFHxS	1.6	1.7	-	0.1
PFOS	2.1	2.1	-	0.0
PFHxA	1.6U	1.6	-	0.0

VIII. Internal Standard

All extracted internal standard (EIS) percent recoveries (%R) were within QC limits with the following exceptions:

Sample	Internal Standard	%R (Limits)	Affected Analyte	Flag	A or P
MW-32S-260107	D9-NEtFOSE-M	5.07 (10-130)	NEtFOSE	R (all non-detects)	P
MW-13S-260107	^{13}C2-4:2FTS	206 (40-200)	4:2FTS	NA	-

All non-extracted internal standard (NIS) areas and retention times were within QC limits.

IX. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

X. Target Analyte Identification

All target analyte ion ratios met validation criteria with the following exceptions:

Sample	Finding	Flag	A or P
MW-46S-260108	All analytes flagged "i" by the laboratory due to ion ratio outside QC limits.	J (all detects)	P

Raw data were not reviewed for Stage 2A validation.

XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

Data was rejected due to EIS %R and presented in the Data Qualification Summary.

Data qualified due to ion ratio are summarized and presented in the Data Qualification Summary.

Glacier Northwest, Inc. Site
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 320-128835-1

Sample	Analyte	Flag	A or P	Reason
MW-32S-260107	NEtFOSE	R (all non-detects)	P	Internal standards (%R)
MW-46S-260108	All analytes flagged "I" by the laboratory due to ion ratio outside QC limits.	J (all detects)	P	Target analyte identification (ion ratio)

Glacier Northwest, Inc. Site
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 320-128835-1

No Sample Data Qualified in this SDG

Glacier Northwest, Inc. Site
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 320-128835-1

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 62208B
SDG #: 320-128835-1
Laboratory: Eurofins, West Sacramento, CA

Date: 1/29/2026
Page: 1
Reviewer: [signature]
2nd Reviewer: [signature]

Method: PFAS (EPA 1633A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Times	A	
II	Bile Salt Interference Check	A	
III	Laboratory Blanks	A	
IV	Field Blanks	ND	
V	Matrix Spike/Matrix Spike Duplicate	N	ES
VI	Laboratory Control Sample/Low Level LCS	A/A	LCS/D, LLCS
VII	Field Duplicate	SW	
VIII	Internal standard	SW	
IX	Target Analyte Quantitation	SW	
X	Overall Assessment of Data	A	

Note: A = Acceptable; ND = Not detected; FT = Field triplicate; AB= Ambient blank; R = Rinsate
N = Not provided/applicable; NQ = Not qualified; TB = Trip blank; SB = Source blank
SW = See worksheet; FD = Field duplicate; FB = Field blank; EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-36S-260106	3210-128835-1		Water	01/06/2026	Stage 2A
2	FB-1-260106	3210-128835-2	FB	Water	01/06/2026	Stage 2A
3	EB-1-260106	3210-128835-3	EB	Water	01/06/2026	Stage 2A
4	MW-47S-260106	3210-128835-4	FD	Water	01/06/2026	Stage 2A
5	GW-FD-260106	3210-128835-5	FD	Water	01/06/2026	Stage 2A
6	MW-32S-260107	3210-128835-6		Water	01/07/2026	Stage 2A
7	MW-13S-260107	3210-128835-7		Water	01/07/2026	Stage 2A
8	MW-07S-260107	3210-128835-8		Water	01/07/2026	Stage 2A
9	MW-28S-260107	3210-128835-9		Water	01/07/2026	Stage 2A
10	MW-33S-260107	3210-128835-10		Water	01/07/2026	Stage 2A
11	MW-48S-260107	3210-128835-11		Water	01/07/2026	Stage 2A
12	MW-3S-260107	3210-128835-12		Water	01/07/2026	Stage 2A
13	MW-35S-260107	3210-128835-13		Water	01/07/2026	Stage 2A

VALIDATION COMPLETENESS WORKSHEET

LDC#: 62208B
SDG#: 320-128835-1

14	FB-2-260107	3210-128835-14	FB	Water	01/07/2026	Stage 2A
15	MW-29S-260108	3210-128835-15		Water	01/08/2026	Stage 2A
16	MW-30S-260108	3210-128835-16		Water	01/08/2026	Stage 2A
17	MW-46S-260108	3210-128835-17		Water	01/08/2026	Stage 2A
18	MW-45S-260108	3210-128835-18		Water	01/08/2026	Stage 2A
19	FB-3-260108	3210-128835-19	FB	Water	01/08/2026	Stage 2A
20	EB-3-260108	3210-128835-20	EB	Water	01/08/2026	Stage 2A
21	MW-31S-260108	3210-128835-21		Water	01/08/2026	Stage 2A

Notes:

LDC#: 62208B

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: PG

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 1633)

Analyte	Concentration (ng/L)		RPD (≤ 35 %)	Difference ng/L	Limits (2xRL)	Qualifications (Parent only)
	4	5				
Perfluorobutanoic acid (PFBA)	15	15	0			
Perfluoropentanoic acid (PFPeA)	1.8	1.9		0.1	3.2	
Perfluorooctanoic acid (PFOA)	2.6	2.7		0.1	3.2	
Perfluorobutanesulfonic acid (PFBS)	1.8	1.7		0.1	3.2	
Perfluorohexanesulfonic acid (PFHxS)	1.6	1.7		0.1	3.2	
Perfluorooctanesulfonic acid (PFOS)	2.1	2.1		0.0	3.2	
Perfluorohexanoic acid (PFHxA)	1.6U	1.6		0.0	3.2	

LDC#: 62208B

VALIDATION FINDINGS WORKSHEET
Extracted Internal Standards

Reviewer: PG

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 1633)

#	Sample ID	Internal Standard	%R	%R Limits	Associated Analytes	Qualifications
	6 (ND)	d9-N-EtFOSE-M	5.07	10-130	N-Ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	R/P
	7 (ND)	13C2 4:2 FTS	206	40-200	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS)	Jdets/P
	MB 320-897642/1-A	13C7 PFUnA	136	30-130		Jdets/P
		13C2 PFDoA	133	10-130		✓

VALIDATION FINDINGS WORKSHEET
Target Analyte Identification

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 1633)

Sample ID	Analyte	Finding	Qualification
17		Analytes flagged "I" by the lab due to ion ratio outside QC limits.	Jdet/P